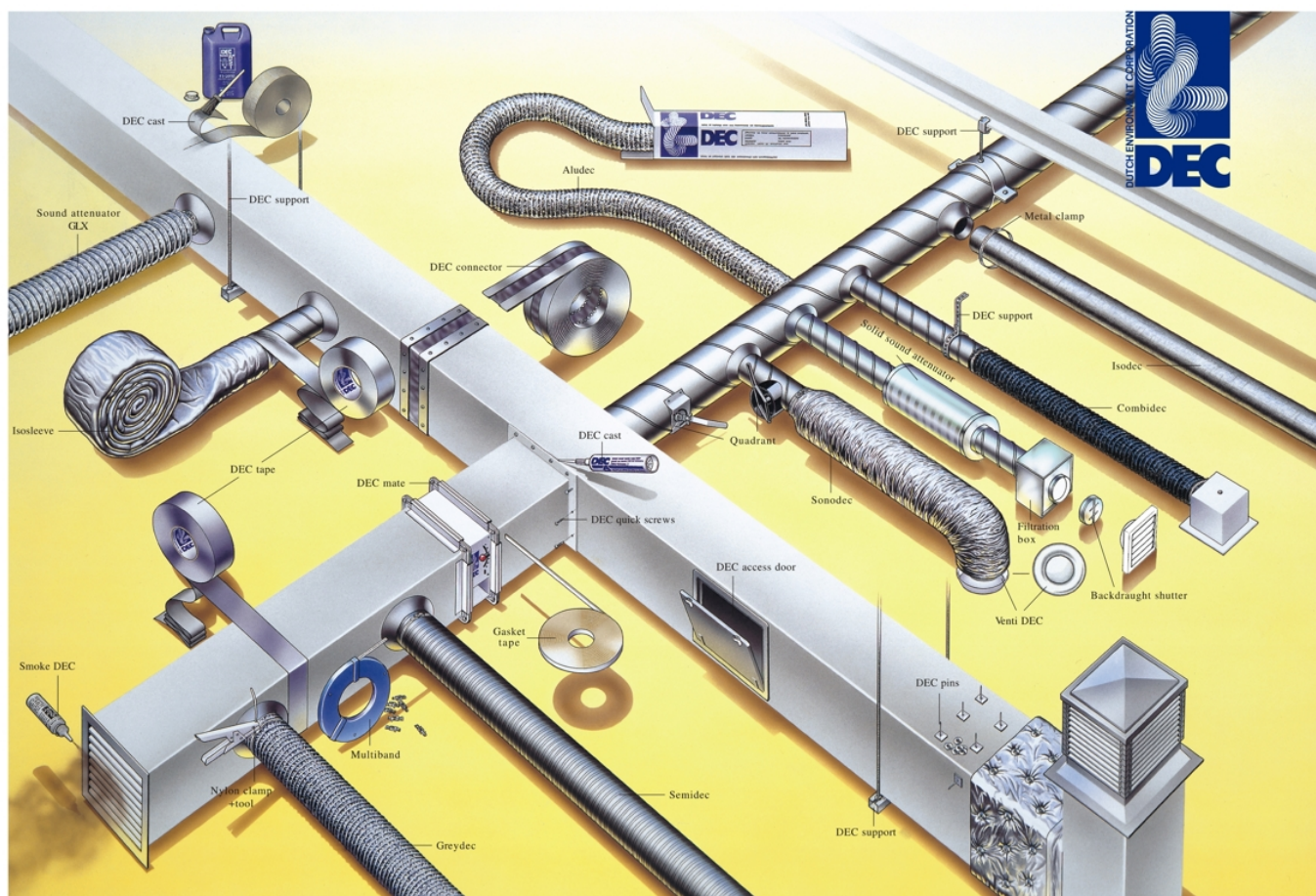




ТЕХНИЧЕСКИЙ КАТАЛОГ DEC INTERNATIONAL



ООО «ВЕНТФАН» официальный дистрибьютор
компании «DEC» на российском рынке.
www.ventfan.ru



STABU

Warrington
FIRE
research

MPA NRW



check it's DEC the high tech

Certification of distributorship

Appointment of
VENTFAN



Address: Borisovka str. 24A, room 19/2 Mytishi, Moscow region Russia

Wherein
DEC INTERNATIONAL® has appointed **VENTFAN**
as an official distributor
with the right to advertise, promote, distribute, install, service and sell
DEC INTERNATIONAL® products.

DEC INTERNATIONAL®
WORLD MARKETING HEADQUARTERS

Ir.Hanlostr 18-22
P.O.Box 35 NL-7500AA
Enschede The Netherlands
Tel.: +31(0)53 4302675
Fax: +31(0)53 4302685
www.decinternational.com
sales@decinternational.com



To check the validity of this certificate please call +31(0)53 4302675
Certificate Number: NLDGN001617 Date: 3 Dec 2020

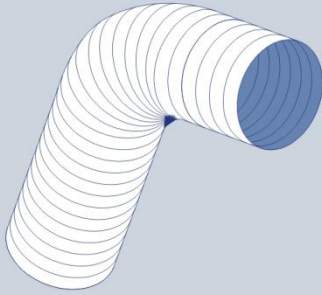


STABU

Warrington
FIRE
research

MPA NRW





GENERAL INFORMATION

LAMINATED DUCTING

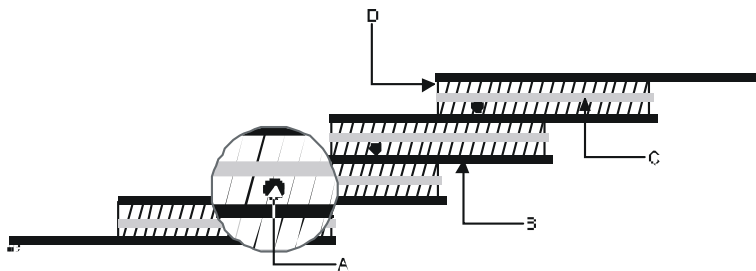
DEC INTERNATIONAL, producer of flexible ducting for air management systems and heating systems (HVAC)

The abbreviation '**DEC**' stands for **Dutch Environment Corporation bv**, trading its products under the name **DEC International**, is established in Enschede (The Netherlands) with a facility for the production and distribution of flexible ducting. Over the years **DEC** has become one of the world's largest manufacturers of flexible ducting systems and is recognized globally for its superior quality, its machine engineering and services.

The production process is certified according to **ISO9001:2008**.

DEC INTERNATIONAL'S SPECIAL DUCT CONSTRUCTIONS

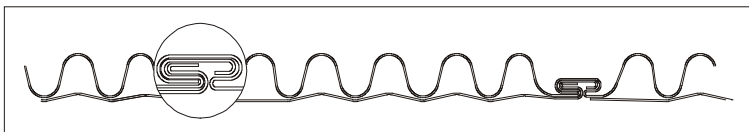
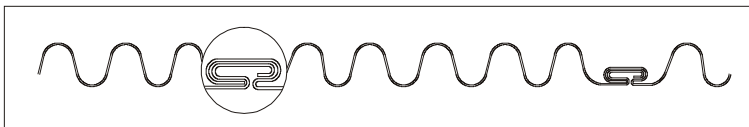
The DEC-laminate has been constructed out of a "sandwich construction".
The polyester layer and the aluminium foil are shifted with respect to each other.



- A. wire
- B. polyester layer
- C. aluminium foil
- D. adhesion

PURE METAL DUCTS

The normal pure metal ducts have been produced with a folded seam.



DEC International, however, has produced a few products more solid. This means that these connections have a double folded seam. This connection is used in products like the Flueliners.

LIABILITY:

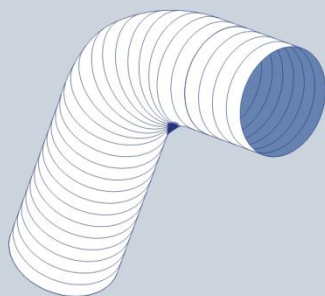
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



GENERAL INFORMATION

LAMINATED DUCTING

OPTIONS IN RESPECT TO HOUSE CONSTRUCTION

Application	Product	Properties
Mechanical exhausting	<ul style="list-style-type: none"> Aludec Combidec Greydec 	<ul style="list-style-type: none"> up to 250 °C up to 140 °C up to 70 °C different chemical resistance
Air heating	<ul style="list-style-type: none"> Isodec Sonodec 	<ul style="list-style-type: none"> T insulated T + A insulated
Toilet exhausting	<ul style="list-style-type: none"> Aludec Greydec 	<ul style="list-style-type: none"> up to 250 °C up to 70 °C
Mechanical ventilation	<ul style="list-style-type: none"> Aludec Combidec 	<ul style="list-style-type: none"> very flexible very flexible
Removing noise machines	<ul style="list-style-type: none"> Sonodec 	<ul style="list-style-type: none"> fire resistance tested
Combustion tube	<ul style="list-style-type: none"> Decflex Flueliner 	<ul style="list-style-type: none"> smooth inside
Chimney lining	<ul style="list-style-type: none"> Decflex Flueliner 	<ul style="list-style-type: none"> combustion gas resistant air supply
Insertion loss	<ul style="list-style-type: none"> Sonodec TRD 	<ul style="list-style-type: none"> attenuation in flow direction
Sound attenuation duct wall	<ul style="list-style-type: none"> Sonodec GLX 	<ul style="list-style-type: none"> increased attenuation duct wall
Insulation of existing channels	<ul style="list-style-type: none"> Isosleeve 	<ul style="list-style-type: none"> insulation jacket to attach easily

OPTIONS IN RESPECT TO BUILDING OF PUBLIC UTILITIES

Application	Product	Properties
Cooled air	<ul style="list-style-type: none"> Isodec Sonodec 	<ul style="list-style-type: none"> T insulated T+A insulated
Mechanical exhausting	<ul style="list-style-type: none"> Aludec Combidec Greydec 	<ul style="list-style-type: none"> up to 250 °C up to 140 °C up to 70 °C diff.chem.res.
Air heating	<ul style="list-style-type: none"> Isodec Sonodec 	<ul style="list-style-type: none"> T insulated T+A insulated
Toilet exhausting	<ul style="list-style-type: none"> Aludec Combidec Greydec Stretchdec Compacdec 	<ul style="list-style-type: none"> up to 250 °C, flexible up to 140 °C, flexible up to 70 °C, flexible up to 250 °C, rigid up to 250 °C, rigid
Mechanical ventilation	<ul style="list-style-type: none"> Aludec Combidec Stretchdec Compacdec 	<ul style="list-style-type: none"> aluminium laminate mechanical strengthened pure aluminium pure aluminium
Removing noise machines	<ul style="list-style-type: none"> Sonodec 	<ul style="list-style-type: none"> fire resistance tested
Exhaust- and ventilation duct	<ul style="list-style-type: none"> Combidec Greydec HP 	<ul style="list-style-type: none"> up to 140 °C up to 70 °C different chemical resistance
Chimney lining	<ul style="list-style-type: none"> Decflex Flueliner 	<ul style="list-style-type: none"> combustion gas resistant air supply purposes
Decreasing of sound level	<ul style="list-style-type: none"> Sonodec TRD 	<ul style="list-style-type: none"> increased attenuation in flow direction
Decreasing of noise	<ul style="list-style-type: none"> Sonodec GLX 	<ul style="list-style-type: none"> increased wall attenuation
Insulation of existing channels	<ul style="list-style-type: none"> Isosleeve 	<ul style="list-style-type: none"> insulation jacket to attach easily

EXPLANATION

T insulated = Thermically insulated

T+A insulated = Thermically and Acoustically insulated

LIABILITY:

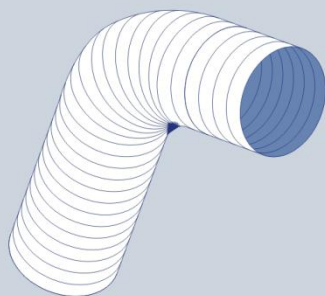
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



GENERAL INFORMATION

LAMINATED DUCTING

OPTIONS IN RESPECT TO INDUSTRY AND GENERAL

Application	Product	Properties
Exhaust hose	<ul style="list-style-type: none"> Decflex Flueliner 	<ul style="list-style-type: none"> smooth inside
Exhausting welding vapours	<ul style="list-style-type: none"> Combidec 	<ul style="list-style-type: none"> static set up
Insulation (rain) water discharging	<ul style="list-style-type: none"> Isosleeve 	<ul style="list-style-type: none"> to attach easily
Air supply general	<ul style="list-style-type: none"> Aludec Compacdec Stretchdec 	<ul style="list-style-type: none"> aluminium laminate pure aluminium pure aluminium
Air supply higher temperatures	<ul style="list-style-type: none"> Aludec 112 	<ul style="list-style-type: none"> up to 250 °C
Higher temperature resistance	<ul style="list-style-type: none"> Decflex Flueliner 	<ul style="list-style-type: none"> smooth inside surface
Chimney lining	<ul style="list-style-type: none"> Decflex Flueliner 	<ul style="list-style-type: none"> combustion gas resistant ventilation
Decreasing of sound	<ul style="list-style-type: none"> Sonodec TRD 	<ul style="list-style-type: none"> increased attenuation in flow direction
Decreasing of sound	<ul style="list-style-type: none"> Sonodec GLX 	<ul style="list-style-type: none"> increased attenuation in duct wall
Insulation of existing channels	<ul style="list-style-type: none"> Isosleeve 	<ul style="list-style-type: none"> insulation jacket to attach easily

OPTIONS IN RESPECT TO SPECIAL APPLICATIONS

Application	Product	Properties
Clothes drier	<ul style="list-style-type: none"> PVC 	<ul style="list-style-type: none"> up to 70 °C
General air supply purposes	<ul style="list-style-type: none"> Aludec 	<ul style="list-style-type: none"> very flexible
Chimney lining	<ul style="list-style-type: none"> Decflex Flueliner 	<ul style="list-style-type: none"> combustion gas resistant ventilation
Decreasing of sound	<ul style="list-style-type: none"> Sonodec TRD 	<ul style="list-style-type: none"> increased attenuation in flow direction
Decreasing of sound	<ul style="list-style-type: none"> Sonodec GLX 	<ul style="list-style-type: none"> increased attenuation of the duct wall

EXPLANATION

T insulated = Thermically insulated
T+A insulated = Thermically and acoustically insulated

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



ALUDEC AA3

LAMINATED DUCTING

ALUDEC AA3 ducts are flexible, strong laminate ducts for various purposes. The ducts consist of several layers of aluminium and polyester, with a high tensile steel spiral helix enclosed between the layers. The duct can be attached to round and oval connection parts without any problems. The fire resistance of the **ALUDEC AA3** ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester and aluminium are overlapping each other completely. In case of fire, the system is able to function longer.

APPLICATION

- General air supply systems, without special demands
- Air conditioning systems, without special demands

SPECIFICATIONS

Article code:	DA3{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.54 x Ø
Standard diameter range:	102 – 508 mm
Standard length:	10 mtr

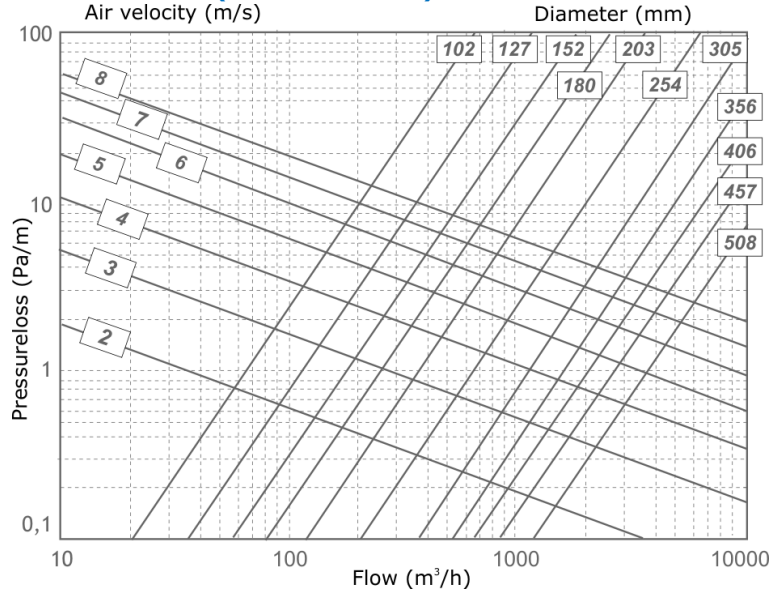
CONSTRUCTION

Total layers:	5
of aluminium:	3 à 7 microns
of polyester:	2 à 12 microns
Total thickness:	45 microns (excl. adhesive)
Wire spacing:	36mm
Appearance:	Aluminium

CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
UK (BS476):	Part 6, 7 and 20
FR (NF):	M1

PRESSURE LOSS (STRAIGHT DUCT)



The **ALUDEC AA3** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

Determination of the acute toxicity:

Stated by the "Institut für Arbeitsmedizin" of the medical faculty of the technical university of Aken.
Under the supervision of prof. dr. med. H.J. Einbrodt (specialist) classified as "non toxic".

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ALUDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ALUDEC ducts suitable for transporting air with a high concentration of acid and base.



ALUDEC A23

LAMINATED DUCTING

ALUDEC A23 ducts are flexible, strong laminate ducts for various purposes. The ducts consist of multiple layers of aluminium and polyester, with a high tensile carbon steel spiral helix enclosed between the layers. The duct can be attached to round and oval connection parts without any problems. The fire resistance of the **ALUDEC A23** duct is according to current international standards. Due to its unique construction, the different layers of polyester and aluminium are overlapping each other completely. In case of fire, the system is able to function longer.

APPLICATION

- General air supply systems, without special demands
- Air conditioning systems, without special demands

SPECIFICATIONS

Article code:	A23{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.54 x Ø
Standard diameter range:	102 – 508 mm
Standard length:	10 mtr

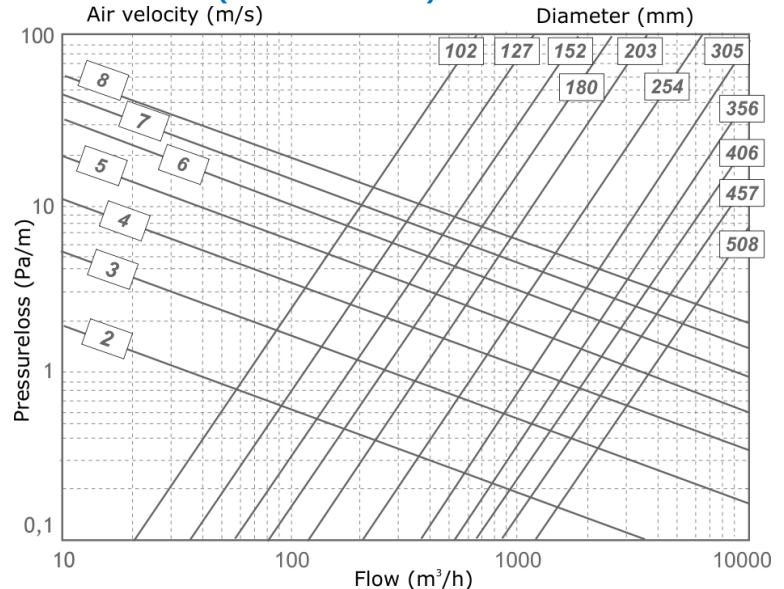
CONSTRUCTION

Total layers:	5
of aluminium:	3 à 7 microns
of polyester:	2 à 12 microns
Total thickness:	45 µm (excl. adhesive)
Wire spacing:	25-36mm
Appearance:	Aluminium

CLASSIFICATIONS

According to:	
EU (EN 13501-1):	B-s1,d0
UK (BS476):	Part 6, 7 and 20
FR (NF):	M1

PRESSURE LOSS (STRAIGHT DUCT)



The **ALUDEC A23** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

Reach/RoHs Compliant

Directive 2011/65/EU RoHS
Phthalates according to 1907/2006/EC REACH
Test result: Pass - The test items meets the requirements of the test specification



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ALUDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ALUDEC ducts suitable for transporting air with a high concentration of acid and base.



ALUDEC 245

LAMINATED DUCTING

ALUDEC 245 ducts are flexible, strong laminate ducts for various purposes. The ducts consist of several layers of aluminium and polyester, with a high tensile steel spiral helix enclosed between the layers. The duct can be attached to round and oval connection parts without any problems. The fire resistance of the **ALUDEC 245** ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester and aluminium are overlapping each other completely. In case of fire, the system is able to function longer.

APPLICATION

- General air supply systems, without special demands
- Air conditioning systems, without special demands

SPECIFICATIONS

Article code:	DA245{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.58 x Ø
Standard diameter range:	082 – 508 mm
Standard length:	10 mtr

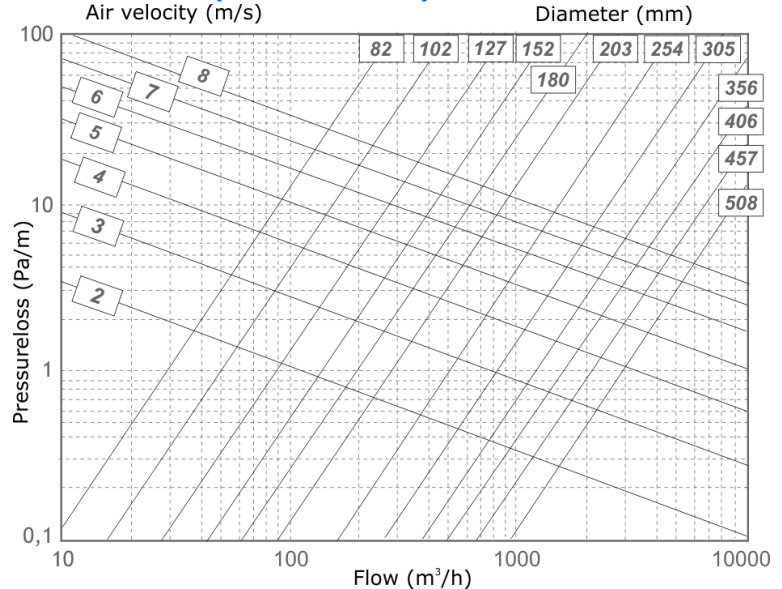
CONSTRUCTION

Total layers:	5
of aluminium:	3 à 7 microns
of polyester:	2 à 12 microns
Total thickness:	45 microns (excl. adhesive)
Wire spacing:	18mm
Appearance:	Aluminium

CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
UK (BS476):	Part 6, 7 and 20
FR (NF):	M1

PRESSURE LOSS (STRAIGHT DUCT)



The **ALUDEC 245** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

Determination of the acute toxicity:

Stated by the "Institut für Arbeitsmedizin" of the medical faculty of the technical university of Aken.
Under the supervision of prof. dr. med. H.J. Einbrodt (specialist) classified as "non toxic".

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ALUDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ALUDEC ducts suitable for transporting air with a high concentration of acid and base.



ALUDEC 112

LAMINATED DUCTING

ALUDEC 112 ducts are flexible, strong laminate ducts for various purposes. The ducts consist of several layers of aluminium and polyester, with a high tensile steel spiral helix enclosed between the layers. The duct can be attached to round and oval connection parts without any problems. The fire resistance of the **ALUDEC 112** ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester and aluminium are overlapping each other completely. In case of fire, the system is able to function longer.

APPLICATION

- Air supply systems, where a higher temperature resistance is required
- Air conditioning systems, where a higher temperature resistance is required

SPECIFICATIONS

Article code:	DA112{Ø}
Temperature range:	-30 °C to 250 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.58 x Ø
Standard diameter range:	082 – 710 mm
Standard length:	10 mtr

CONSTRUCTION

Total layers:	4
of aluminium:	3 à 25 microns
of polyester:	1 à 12 microns
Total thickness:	87 microns (excl. adhesive)
Wire spacing:	
Upto Ø102mm	25mm
Ø102mm and larger	18mm
Appearance:	Aluminium

CLASSIFICATIONS

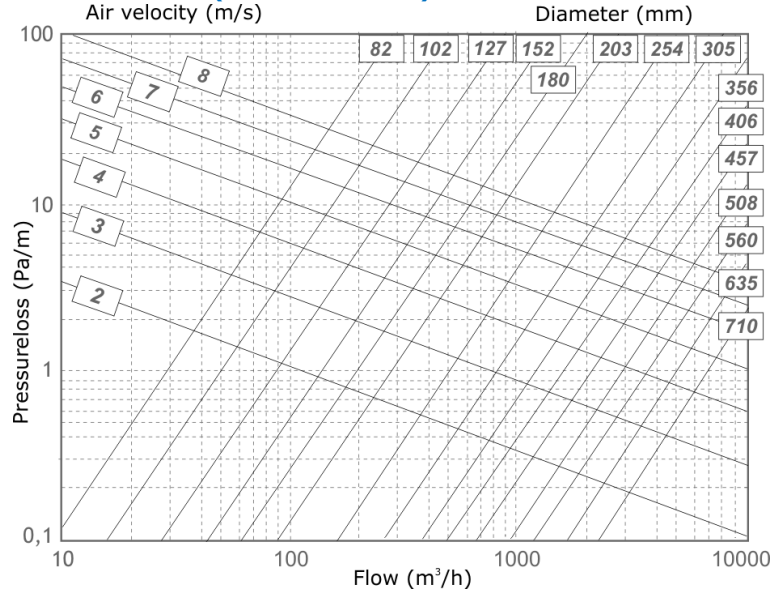
EU (EN 13501-1):	A2-s1,d0
UK (BS476):	Part 6, 7 and 20
FR (NF):	M0
CH (BKZ):	6Q3

The **ALUDEC 112** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

Determination of the acute toxicity:

Stated by the "Institut für Arbeitsmedizin" of the medical faculty of the technical university of Aken.
Under the supervision of prof. dr. med. H.J. Einbrodt (specialist) classified as "non toxic".

PRESSURE LOSS (STRAIGHT DUCT)



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ALUDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ALUDEC ducts suitable for transporting air with a high concentration of acid and base.



CE-FLEX LAMINATED DUCTING

CE-FLEX ducts are flexible, strong laminate ducts for various purposes. The ducts consist of several layers of aluminium and polyester, with a high tensile steel spiral helix enclosed between the layers. The duct can be attached to round and oval connection parts without any problems. The fire resistance of the **CE-FLEX** ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester and aluminium are overlapping each other completely. In case of fire, the system is able to function longer.

APPLICATION

- Air supply systems, where a higher temperature resistance is required
- Air conditioning systems, where a higher temperature resistance is required

SPECIFICATIONS

Article code:	DACEM0{Ø}
Temperature range:	-30 °C to 250 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.54 x Ø
Standard diameter range:	082 – 508 mm
Standard length:	10 mtr

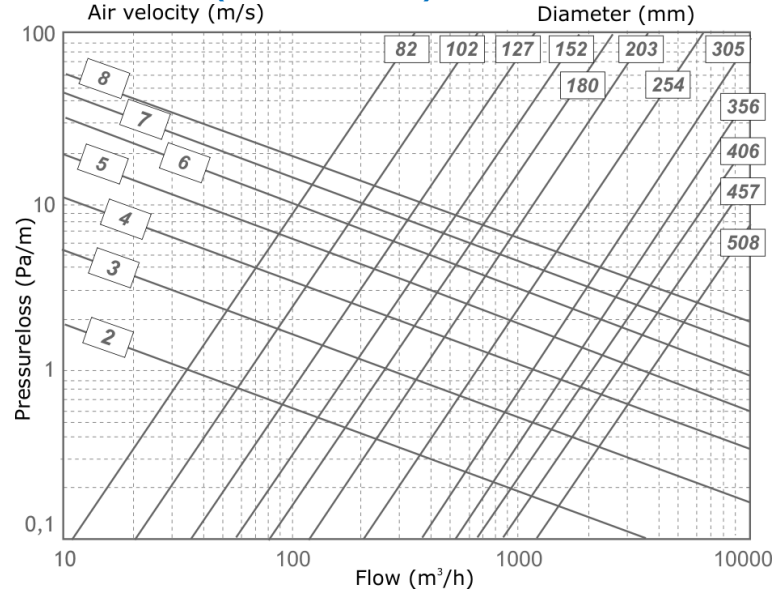
CONSTRUCTION

Total layers:	4
of aluminium:	3 à 15 microns
of polyester:	1 à 6 microns
Total thickness:	51 microns (excl. adhesive)
Wire spacing:	36mm
Appearance:	Aluminium

CLASSIFICATIONS

EU (EN 13501-1):	A2-s1,d0
FR (NF):	M0
CH (BKZ):	6Q3

PRESSURE LOSS (STRAIGHT DUCT)



The **CE-FLEX** fulfills all the requirements and are classified as specified within EN 13180:

Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

Determination of the acute toxicity:

Stated by the "Institut für Arbeitsmedizin" of the medical faculty of the technical university of Aken. Under the supervision of prof. dr. med. H.J. Einbrodt (specialist) classified as "non toxic".

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CEFLEX, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CEFLEX ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ALUDEC 270

LAMINATED DUCTING

ALUDEC 270 ducts are flexible, strong laminate ducts for various purposes. The ducts consist of several layers of aluminium and polyester, with a high tensile steel spiral helix enclosed between the layers. The duct can be attached to round and oval connection parts without any problems. The fire resistance of the **ALUDEC 270** ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester and aluminium are overlapping each other completely. In case of fire, the system is able to function longer.

APPLICATION

- General air supply systems, without special demands
- Air conditioning systems, without special demands

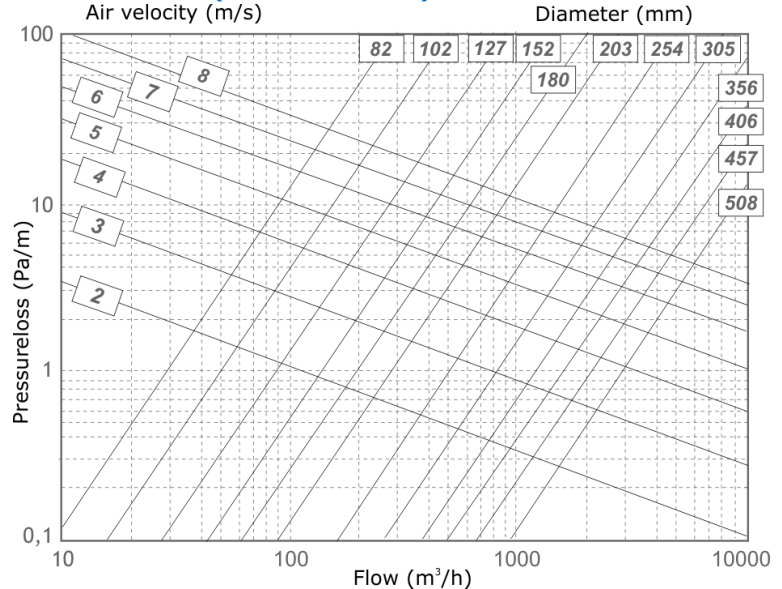
SPECIFICATIONS

Article code: DA270{Ø}
 Temperature range: -30 °C to 200 °C
 Operating pressure: up to +2500 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 0.58 x Ø
 Standard diameter range: 082 – 508 mm
 Standard length: 10 mtr

CONSTRUCTION

Total layers: 5
 of aluminium: 3 à 15 microns
 of polyester: 2 à 12 microns
 Total thickness: 70 microns
 (excl. adhesive)
 Wire spacing: 18mm
 Appearance: Aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **ALUDEC 270** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

Determination of the acute toxicity:

Stated by the "Institut für Arbeitsmedizin" of the medical faculty of the technical university of Aken.
 Under the supervision of prof. dr. med. H.J. Einbrodt (specialist) classified as "non toxic".

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ALUDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ALUDEC ducts suitable for transporting air with a high concentration of acid and base.



ALUDEC CLASSIC

LAMINATED DUCTING

ALUDEC CLASSIC ducts are flexible, strong laminate ducts for various purposes. The ducts consist of several layers of aluminium and polyester, with a high tensile steel spiral helix enclosed between the layers. The duct can be attached to round and oval connection parts without any problems. The fire resistance of the **ALUDEC CLASSIC** ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester and aluminium are overlapping each other completely. In case of fire, the system is able to function longer.

APPLICATION

- General air supply systems, without special demands
- Air conditioning systems, without special demands

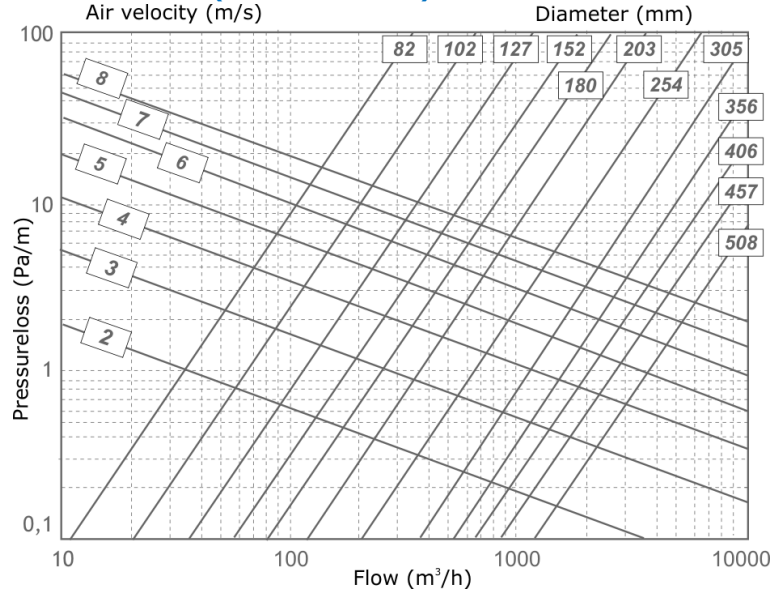
SPECIFICATIONS

Article code: CLDA{Ø}
 Temperature range: -30 °C to 140 °C
 Operating pressure: up to +2500 Pa
 Operating air velocity: max. 20 m/s
 Bending radius: min. 1 x Ø
 Standard diameter range: 082 – 508 mm
 Standard length: 10 mtr

CONSTRUCTION

Total layers: 3
 of aluminium: 1 à 7 microns
 of polyester: 2 à 12 microns
 Total thickness: 31 microns
 (excl. adhesive)
 Wire spacing: 36mm
 Appearance: Aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **ALUDEC CLASSIC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ALUDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ALUDEC ducts suitable for transporting air with a high concentration of acid and base.



ALUDEC 26

LAMINATED DUCTING

ALUDEC 26 ducts are flexible, strong laminate ducts for various purposes. The ducts consist of several layers of aluminium and polyester, with a high tensile steel spiral helix enclosed between the layers. The duct can be attached to round and oval connection parts without any problems. The fire resistance of the **ALUDEC 26** ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester and aluminium are overlapping each other completely. In case of fire, the system is able to function longer.

APPLICATION

- General air supply systems, without special demands
- Air conditioning systems, without special demands

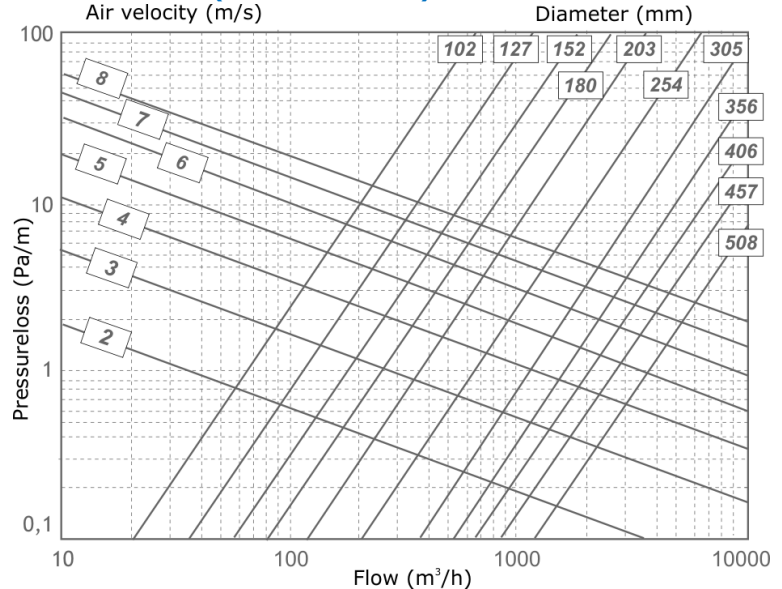
SPECIFICATIONS

Article code:	DA26{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 20 m/s
Bending radius:	min. 1 x Ø
Standard diameter range:	102 – 508 mm
Standard length:	10 mtr

CONSTRUCTION

Total layers:	3
of aluminium:	2 à 7 microns
of polyester:	1 à 12 microns
Total thickness:	26 microns (excl. adhesive)
Wire spacing:	36mm
Appearance:	Aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **ALUDEC 26** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ALUDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ALUDEC ducts suitable for transporting air with a high concentration of acid and base.



ECONOFLEX A1

LAMINATED DUCTING

Fully flexible, economic, ducting constructed from multiple layers of aluminum and polyester laminated to encapsulate a high tensile steel spiral helix. **ECONOFLEX A1** installs easily on circular or oval fittings. **ECONOFLEX A1** flexible ducting is used in ventilation, air conditioning, and air handling systems where a low-cost, non-rated flexible duct is suitable.

APPLICATION

- General air supply systems, without special demands
- Air conditioning systems, without special demands

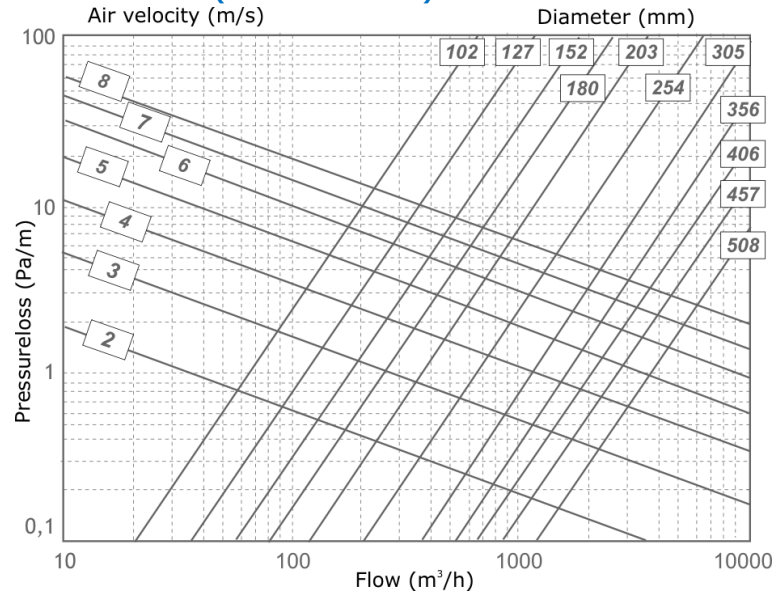
SPECIFICATIONS

Article code:	A1{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 20 m/s
Bending radius:	min. 1 x Ø
Standard diameter range:	102 – 508 mm
Standard length:	10 mtr

CONSTRUCTION

Total layers:	2
of aluminium:	1 à 7 microns
of polyester:	1 à 12 microns
Total thickness:	19 microns (excl. adhesive)
Wire spacing:	36mm
Appearance:	Aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **ECONOFLEX A1** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ECONOFLEX A1 ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ALPHAFLEX

LAMINATED DUCTING

Fully flexible, economic, ducting constructed from multiple layers of aluminum and polyester laminated to encapsulate a high tensile steel spiral helix. **ALPHAFLEX** installs easily on circular or oval fittings. **ALPHAFLEX** flexible ducting is used in ventilation, air conditioning, and air handling systems where a low-cost, non-rated flexible duct is suitable.

APPLICATION

- General air supply systems, without special demands
- Air conditioning systems, without special demands

SPECIFICATIONS

Article code:	DALPH{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 20 m/s
Bending radius:	min. 1 x Ø
Standard diameter range:	102 – 508 mm
Standard length:	10 mtr

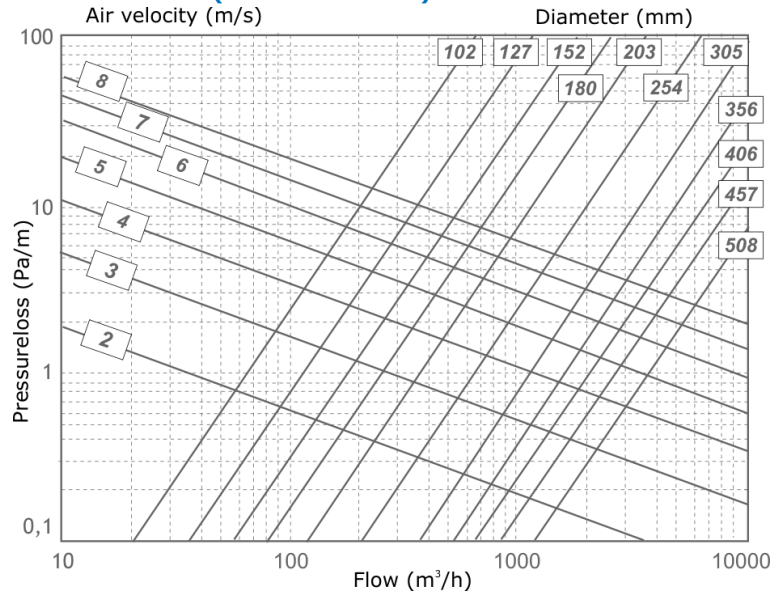
CONSTRUCTION

Total layers:	3
of aluminium:	1 à 7 microns
of aluminium:	1 à 9 microns
of polyester:	1 à 12 microns
Total thickness:	28 microns (excl. adhesive)
Wire spacing:	36mm
Appearance:	Aluminium

CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
------------------	---------

PRESSURE LOSS (STRAIGHT DUCT)



The **ALPHAFLEX** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ALPHAFLEX ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ALUDEC FAAF

LAMINATED DUCTING

ALUDEC FAAF ducts are flexible, strong laminate ducts for various purposes. The ducts consist of several layers of aluminium and polyester, with a high tensile steel spiral helix enclosed between the layers. The duct can be attached to round and oval connection parts without any problems.

APPLICATION

- General air supply systems, without special demands
- Air conditioning systems, without special demands

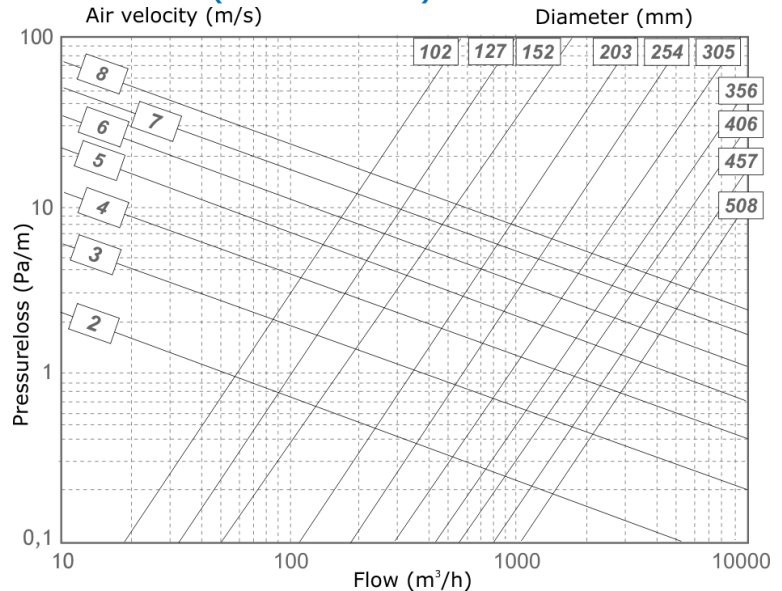
SPECIFICATIONS

Article code: CLDA{Ø}
 Temperature range: -30 °C to 140 °C
 Operating pressure: up to +2500 Pa
 Operating air velocity: max. 20 m/s
 Bending radius: min. 1 x Ø
 Standard diameter range: 102 – 508 mm
 Standard length: 10 mtr

CONSTRUCTION

Total layers: 3
 of aluminium: 2 à 7 microns
 of polyester: 2 à 12 microns
 Total thickness: 38 microns
 (excl. adhesive)
 Wire spacing: 25mm
 Appearance: Aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **ALUDEC FAAF** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ALUDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



COMBIDEC 2000

LAMINATED DUCTING

COMBIDEC 2000 ducts are solid, very flexible, extremely strong laminate ducts for different ranges of application. The base of the COMBIDEC series is an aluminum laminate duct with an outer jacket of copolymer. The ducts can be attached easily to round and oval connection parts without any problems. The fire resistance of the COMBIDEC ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester, aluminium and copolymer are overlapping each other completely. In case of fire, the system is able to function longer. The outer jacket is wear resistant and steam tight.

The advantages of a **COMBIDEC** duct towards PVC ducting:

- Higher temperature resistance
- Less smoke development in the case of fire

The advantages of a **COMBIDEC** duct towards aluminium laminated ducting:

- Higher tear resistance.
- Better mechanical protection against external influences.
- Better resistance under local pressure.
- Higher resistance against puncture.

APPLICATION

- Steam return lines
- Appl. where good mechanical strength is required
- to use in devices for mechanical aeration

SPECIFICATIONS

Article code:	DC20G/B/W{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.54 x Ø
Standard diameter range:	102 – 508 mm
Standard length:	10 mtr

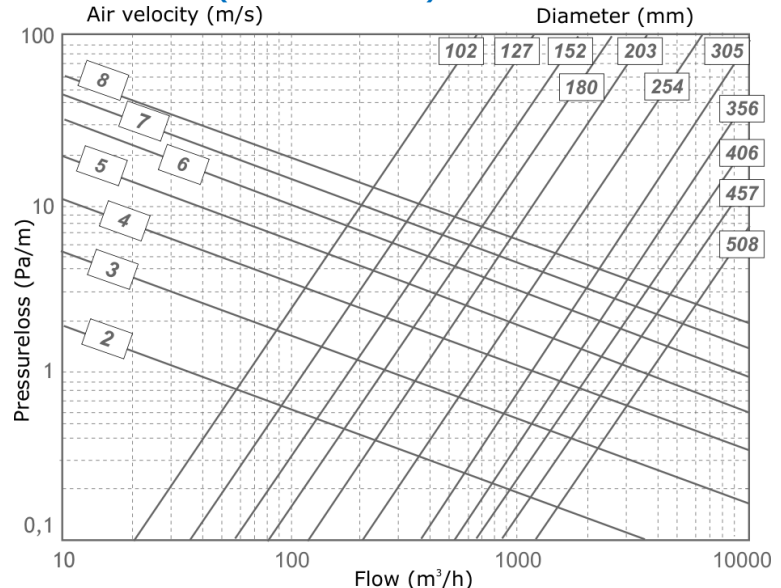
CONSTRUCTION

Total layers:	6
of aluminium:	3 à 7 microns
of polyester:	2 à 12 microns
of embossing	1 à 90 microns
Total thickness:	135 microns (excl. adhesive)
Wire spacing:	36mm
Appearance:	Grey/Black/White

CLASSIFICATIONS

UK (BS476):	Part 6, 7 and 20
NL (NEN6065/6066):	Class 1 and 3

PRESSURE LOSS (STRAIGHT DUCT)



The **COMBIDEC** fulfills all the requirements and are classified as specified within EN 13180:

Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

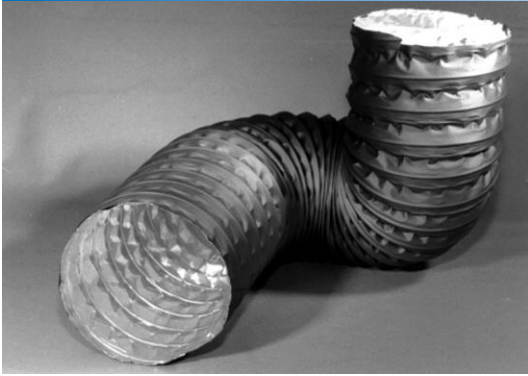
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

COMBIDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The COMBIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



COMBIDEC 2100

LAMINATED DUCTING

COMBIDEC 2100 ducts are solid, very flexible, extremely strong laminate ducts for different ranges of application. The base of the COMBIDEC series is an aluminum laminate duct with an outer jacket of copolymer. The ducts can be attached easily to round and oval connection parts without any problems. The fire resistance of the COMBIDEC ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester, aluminium and copolymer are overlapping each other completely. In case of fire, the system is able to function longer. The outer jacket is wear resistant and steam tight.

The advantages of a **COMBIDEC** duct towards PVC ducting:

- Higher temperature resistance
- Less smoke development in the case of fire

The advantages of a **COMBIDEC** duct towards aluminium laminated ducting:

- Higher tear resistance.
- Better mechanical protection against external influences.
- Better resistance under local pressure.
- Higher resistance against puncture.

APPLICATION

- Steam return lines
- Appl. where good mechanical strength is required
- to use in devices for mechanical aeration

SPECIFICATIONS

Article code: DC21G/B/W{Ø}
 Temperature range: -30 °C to 140 °C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 0.58 x Ø
 Standard diameter range: 082 – 508 mm
 Standard length: 10 mtr

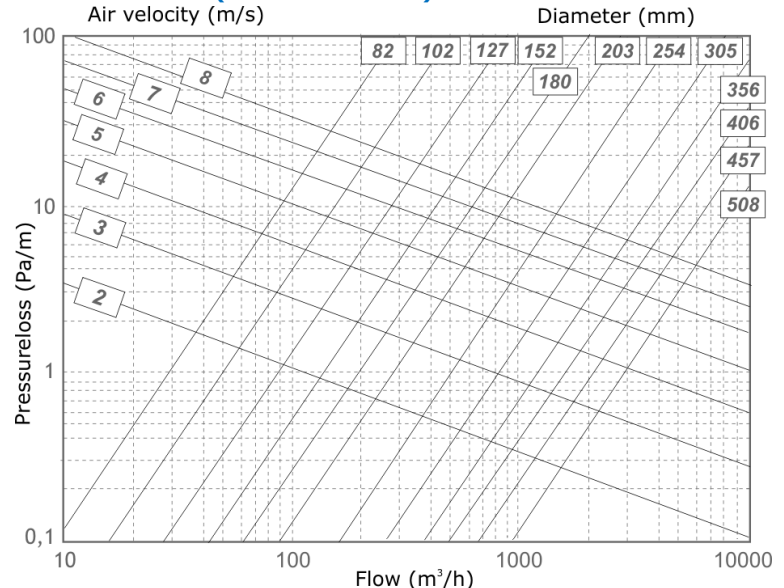
CONSTRUCTION

Total layers: 6
 of aluminium: 3 à 7 microns
 of polyester: 2 à 12 microns
 of embossing: 1 à 90 microns
 Total thickness: 135 microns
 (excl. adhesive)
 Wire spacing: 18mm
 Appearance: Grey/Black/White

CLASSIFICATIONS

UK (BS476): Part 6, 7 and 20
 NL (NEN6065/6066): Class 1 and 3

PRESSURE LOSS (STRAIGHT DUCT)



The **COMBIDEC** fulfills all the requirements and are classified as specified within EN 13180:

Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

COMBIDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The COMBIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



COMBIDEC 2300

LAMINATED DUCTING

COMBIDEC 2300 ducts are solid, very flexible, extremely strong laminate ducts for different ranges of application. The base of the COMBIDEC series is an aluminum laminate duct with an outer jacket of copolymer. The ducts can be attached easily to round and oval connection parts without any problems. The fire resistance of the COMBIDEC ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester, aluminium and copolymer are overlapping each other completely. In case of fire, the system is able to function longer. The outer jacket is wear resistant and steam tight.

The advantages of a **COMBIDEC** duct towards PVC ducting:

- Higher temperature resistance
- Less smoke development in the case of fire

The advantages of a **COMBIDEC** duct towards aluminium laminated ducting:

- Higher tear resistance.
- Better mechanical protection against external influences.
- Better resistance under local pressure.
- Higher resistance against puncture.

APPLICATION

- Steam return lines
- Appl. where good mechanical strength is required
- to use in devices for mechanical aeration

SPECIFICATIONS

Article code:	DC23G/B/W{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.58 x Ø
Standard diameter range:	082 – 710 mm
Standard length:	10 mtr

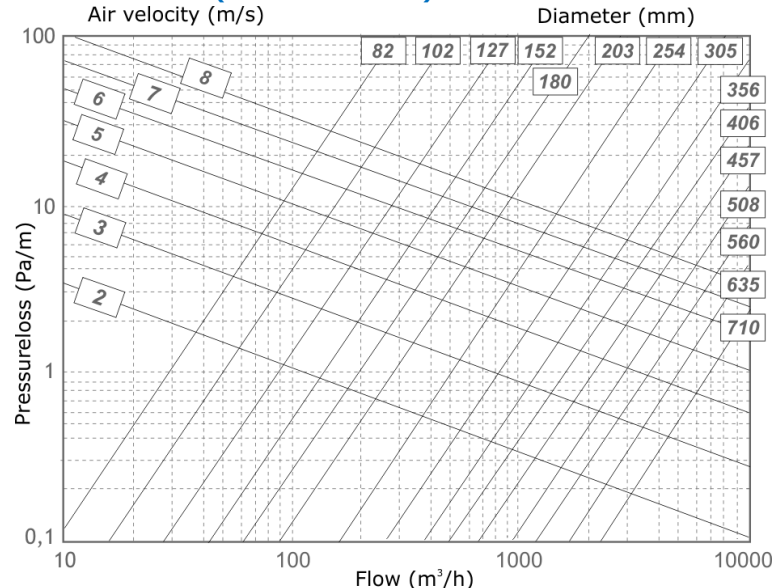
CONSTRUCTION

Total layers:	5
of aluminium:	3 à 25 microns
of polyester:	1 à 12 microns
of embossing	1 à 90 microns
Total thickness:	177 microns (excl. adhesive)
Wire spacing:	
Upto Ø102mm	25mm
Ø102mm and larger	18mm
Appearance:	Aluminium

CLASSIFICATIONS

UK (BS476):	Part 6, 7 and 20
NL (NEN6065/6066):	Class 1 and 3
SE (BBR):	TG0025 & TG0051

PRESSURE LOSS (STRAIGHT DUCT)



The **COMBIDEC** fulfills all the requirements and are classified as specified within EN 13180:

Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

COMBIDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The COMBIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



COMBIDEC CLASSIC

LAMINATED DUCTING

COMBIDEC CLASSIC ducts are solid, very flexible, extremely strong laminate ducts for different ranges of application. The base of the COMBIDEC series is an aluminum laminate duct with an outer jacket of copolymer. The ducts can be attached easily to round and oval connection parts without any problems. The fire resistance of the COMBIDEC ducts has been tested in several countries, according to current international standards. Because of the "sandwich construction", the different layers of polyester, aluminium and copolymer are overlapping each other completely. In case of fire, the system is able to function longer. The outer jacket is wear resistant and steam tight.

The advantages of a **COMBIDEC** duct towards PVC ducting:

- Higher temperature resistance
- Less smoke development in the case of fire

The advantages of a **COMBIDEC** duct towards aluminium laminated ducting:

- Higher tear resistance.
- Better mechanical protection against external influences.
- Better resistance under local pressure.
- Higher resistance against puncture.

APPLICATION

- Steam return lines
- Appl. where good mechanical strength is required
- to use in devices for mechanical aeration

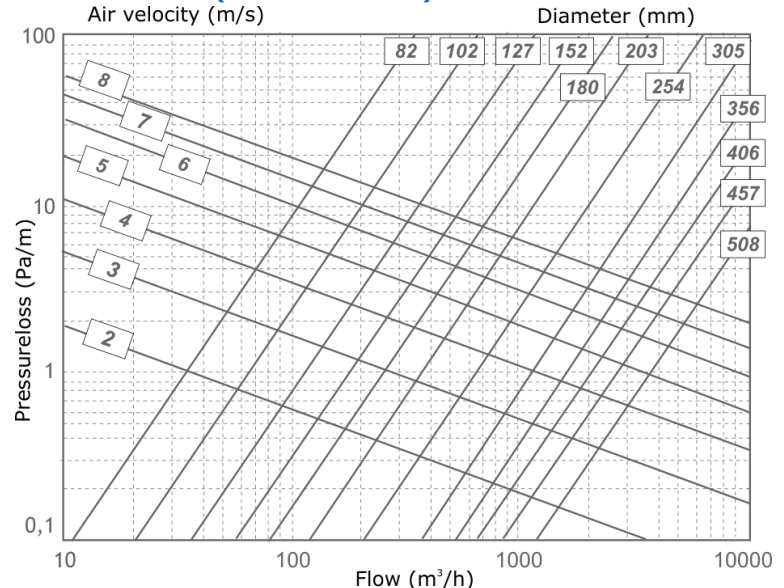
SPECIFICATIONS

Article code:	CLDCG/B/W{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 20 m/s
Bending radius:	min. 1 x Ø
Standard diameter range:	082 - 508 mm
Standard length:	10 mtr

CONSTRUCTION

Total layers:	4
of aluminium:	1 à 7 microns
of polyester:	2 à 12 microns
of embossing	1 à 100 microns
Total thickness:	131 microns (excl. adhesive)
Wire spacing:	36mm
Appearance:	Grey/Black/White

PRESSURE LOSS (STRAIGHT DUCT)



The **COMBIDEC** fulfills all the requirements and are classified as specified within EN 13180:

Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

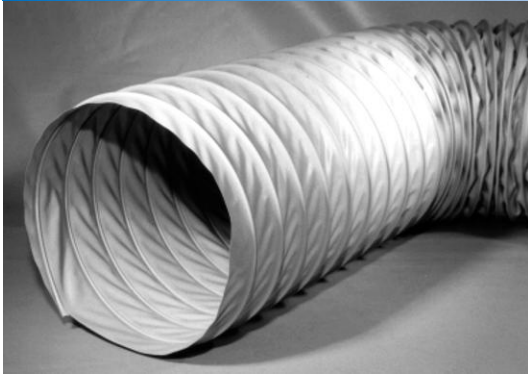
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

COMBIDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The COMBIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



GREYDEC 100

SYNTHETIC DUCTING

The **GREYDEC 100** ducts are completely flexible, ducts for several applications. The ducts are suitable for flexible mounting and can be mounted to round and oval connection pieces. The **GREYDEC** ducts are also capable of absorbing prolonged vibrations because of its mechanical strength.

The **GREYDEC 100** consisting of a polyester fabric, coated on both sides with a copolymer. The spiral wire has been inserted into the fabric.

APPLICATIONS

- Mechanical air supply systems
- Machine exhausting
- Air supply and ventilation systems
- Air supply cabinet in air conditioning systems
- Suction of welding fumes
- Vehicle exhaust extraction for repair shops

SPECIFICATIONS

Article code:	DG1{Ø}
Temperature range:	-30 °C to 70 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.56 x Ø
Standard diameter range:	76 – 710 mm
Standard length:	10 mtr

CONSTRUCTION

Total layers:	1
Pvc coated poly-fabric:	280 gr/m ²

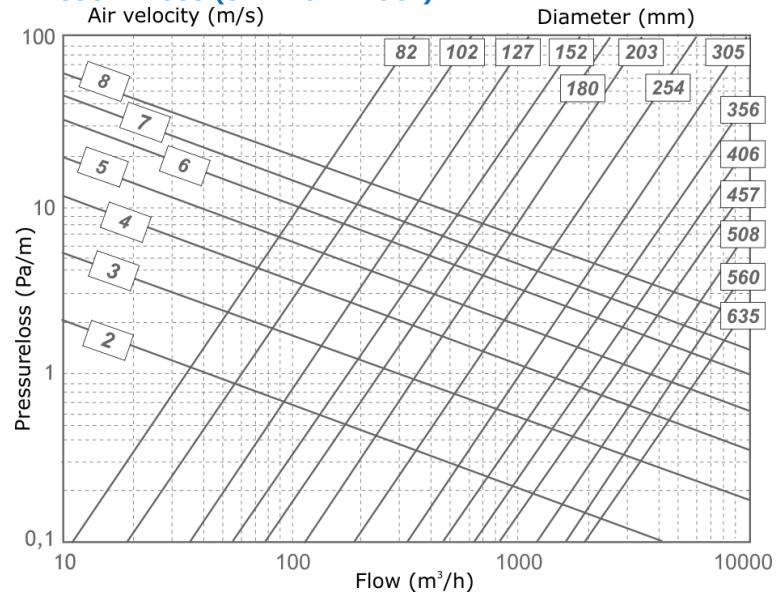
Wire spacing:

Ø 76 - 90 mm	33mm
Ø 102 - 120 mm	39mm
Ø 125 - 406 mm	47mm
Ø 457 and larger	39mm

Appearance: Grey*

* Also available in: White/Black

PRESSURE LOSS (STRAIGHT DUCT)



The **GREYDEC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

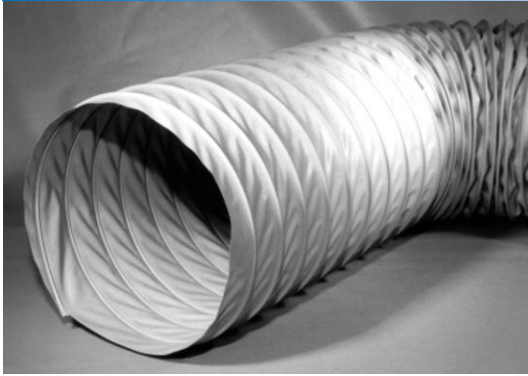
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

GREYDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GREYDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



GREYDEC 200

SYNTHETIC DUCTING

The **GREYDEC 200** ducts are completely flexible, ducts for several applications. The ducts are suitable for flexible mounting and can be mounted to round and oval connection pieces. The **GREYDEC** ducts are also capable of absorbing prolonged vibrations because of its mechanical strength

The **GREYDEC 200** consisting of a glass fiber fabric, coated on both sides with a copolymer. The spiral wire has been inserted into the fabric.

APPLICATIONS

- Mechanical air supply systems
- Machine exhausting
- Air supply and ventilation systems
- Air supply cabinet in air conditioning systems
- Suction of welding fumes
- Vehicle exhaust extraction for repair shops

SPECIFICATIONS

Article code: DG2{Ø}
 Temperature range: -30 °C to 70 °C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 0.56 x Ø
 Standard diameter range: 76 – 710 mm
 Standard length: 10 mtr

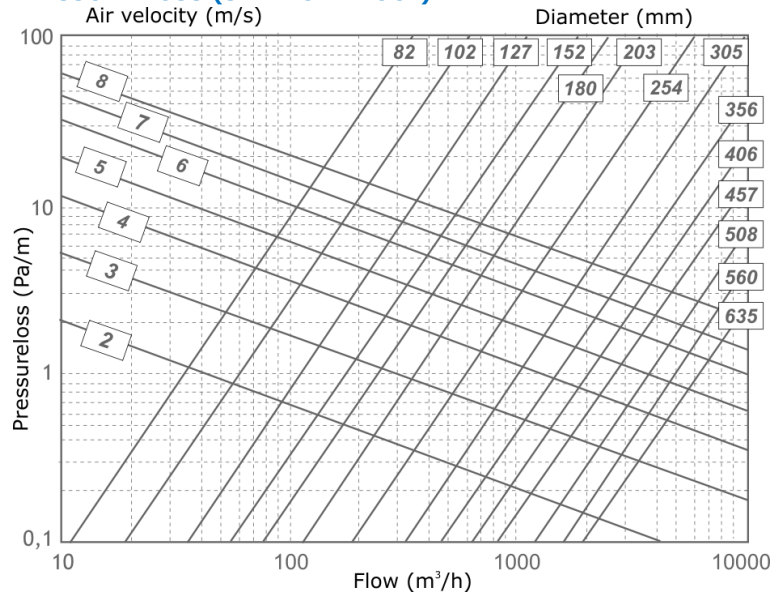
CONSTRUCTION

Total layers: 1
 Pvc coated glass-fabric: 290 gr/m²

Wire spacing:
 Ø 76 - 90 mm 38mm
 Ø 102 - 120 mm 44mm
 Ø 254 and larger 47mm

Appearance: Grey*
 * Also available in: Black

PRESSURE LOSS (STRAIGHT DUCT)



The **GREYDEC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

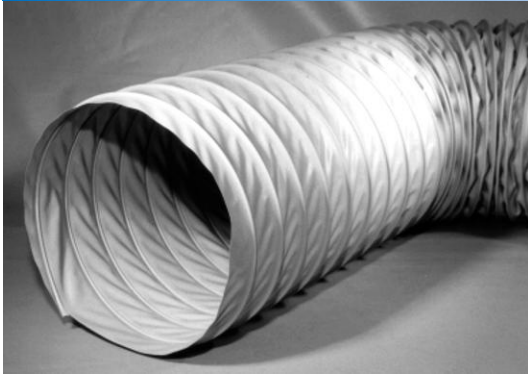
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

GREYDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GREYDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



GREYDEC CLASSIC

SYNTHETIC DUCTING

The **GREYDEC CLASSIC** ducts are completely flexible, ducts for several applications. The ducts are suitable for flexible mounting and can be mounted to round and oval connection pieces. The **GREYDEC** ducts are also capable of absorbing prolonged vibrations because of its mechanical strength

The **GREYDEC CLASSIC** consisting of a polyester fabric, coated on both sides with a copolymer. The spiral wire has been inserted into the fabric.

APPLICATIONS

- Mechanical air supply systems
- Machine exhausting
- Air supply and ventilation systems
- Air supply cabinet in air conditioning systems
- Suction of welding fumes

SPECIFICATIONS

Article code:	CLDG{Ø}
Temperature range:	-30 °C to 70 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 1 x Ø
Standard diameter range:	082 – 635 mm
Standard length:	10 mtr

CONSTRUCTION

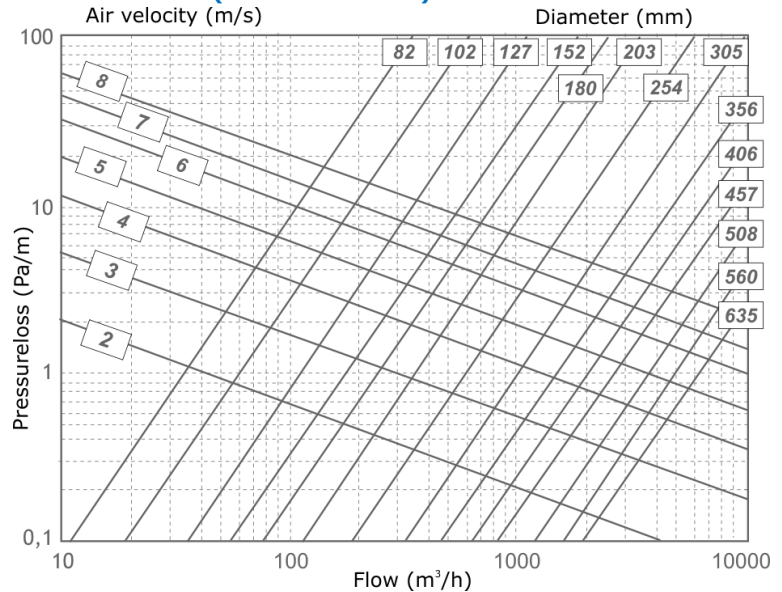
Total layers:	1
Pvc coated polyester-fabric:	280 gr/m ²

Wire spacing:	
Ø 76 - 90 mm	33mm
Ø 102 - 120 mm	38mm
Ø 125 - 406 mm	47mm
Ø 457 and larger	38mm
Appearance:	Grey

CLASSIFICATIONS

EU (EN 13501-1):	B-s2,d0
------------------	---------

PRESSURE LOSS (STRAIGHT DUCT)



The **GREYDEC** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

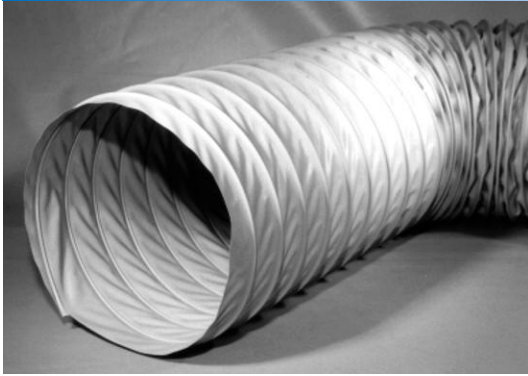
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

GREYDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GREYDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



GREYDEC 122 WELDEC - SYNTHETIC DUCTING

The **GREYDEC 122** ducts are light weight and very flexible ducting of PVC-coated fabric, for several applications. The ducts are suitable for flexible mounting and can be mounted to round and oval connection pieces. The **GREYDEC** ducts are also capable of absorbing prolonged vibrations because of its mechanical strength.

The **GREYDEC 122** consisting of a polyester fabric, coated on both sides with a copolymer. The spiral wire has been inserted into the fabric.

APPLICATIONS

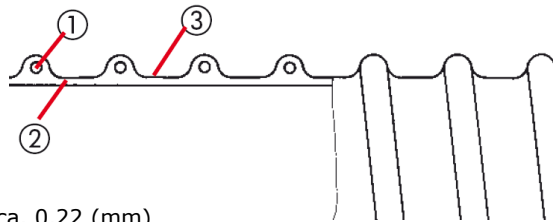
- Air-conditioning
- Suction of air and welding fumes
- domestic appliances
- vehicle exhaust extraction for repair shops

PROPERTIES

- Excellent flexibility
- Good compression
- Self-extinguishing

CONSTRUCTION

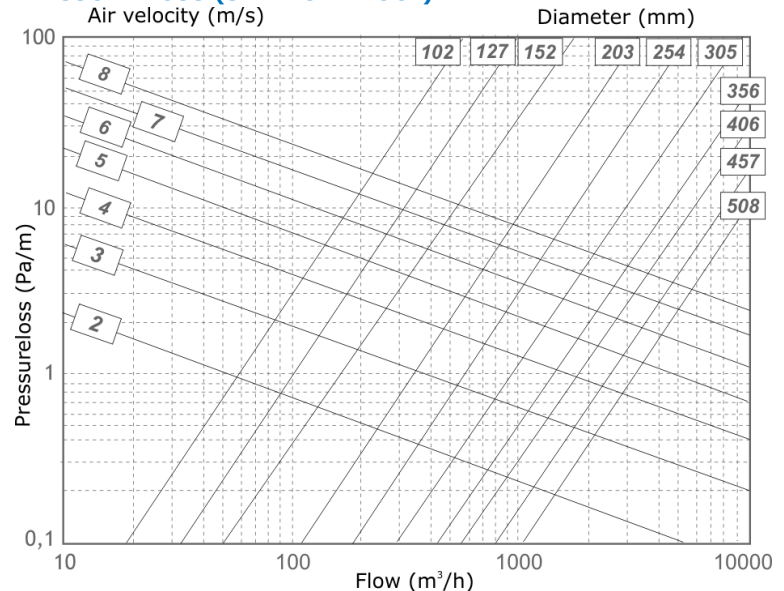
- 1/ Spring steel Helix
- 2/ Wall: PVC coated polyester fabric
- 3/ Wall thickness between the windings ca. 0.22 (mm)



SPECIFICATIONS

Article code:	DG122{Ø}
Temperature range:	-30 °C to 70 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 1 x Ø
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr
Wire spacing:	22 mm
Appearance:	Grey*
* Also available in:	White/Black

PRESSURE LOSS (STRAIGHT DUCT)



Technical data

Interior Ø = D mm	Max Vacuum mbar
82	163
102	163
127	114
152	85
160	78
165	75
203	53
254	33
508	10

The **GREYDEC** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

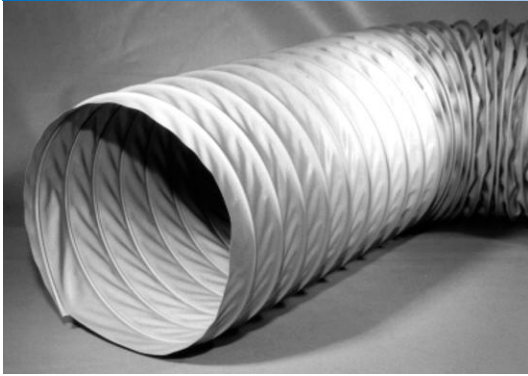
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

GREYDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GREYDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



GREYDEC 222 WELDEC - SYNTHETIC DUCTING

The **GREYDEC 222** ducts are light weight and very flexible ducting of PVC-coated fabric, for several applications. The ducts are suitable for flexible mounting and can be mounted to round and oval connection pieces. The **GREYDEC** ducts are also capable of absorbing prolonged vibrations because of its mechanical strength.

The **GREYDEC 222** consisting of a glass fabric, coated on both sides with a copolymer. The spiral wire has been inserted into the fabric.

APPLICATIONS

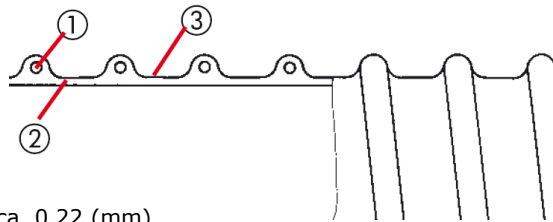
- Air-conditioning
- Suction of air and welding fumes
- domestic appliances
- vehicle exhaust extraction for repair shops

PROPERTIES

- Excellent flexibility
- Good compression
- Self-extinguishing

CONSTRUCTION

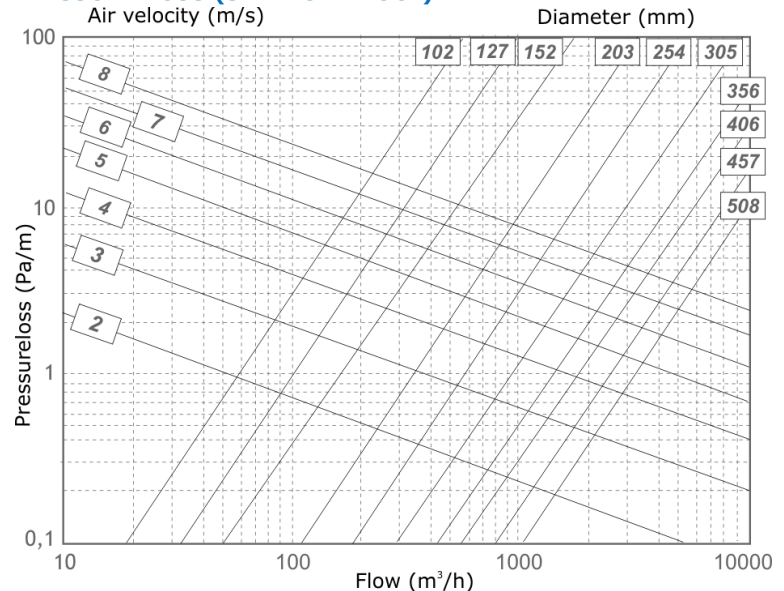
- 1/ Spring steel Helix
- 2/ Wall: PVC coated glass fabric
- 3/ Wall thickness between the windings ca. 0.22 (mm)



SPECIFICATIONS

Article code:	DG222{Ø}
Temperature range:	-30 °C to 70 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 1 x Ø
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr
Wire spacing:	22 mm
Appearance:	Grey*
* Also available in:	White/Black

PRESSURE LOSS (STRAIGHT DUCT)



Technical data	
Interior Ø = D mm	Max Vacuum mbar
82	163
102	163
127	114
152	85
160	78
165	75
203	53
254	33
508	10

The **GREYDEC** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

GREYDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GREYDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



GREYDEC HP SYNTHETIC DUCTING

The **GREYDEC HP** ducts are completely flexible, ducts for several applications. The ducts are suitable for flexible mounting and can be mounted to round and oval connection pieces. The **GREYDEC** ducts are also capable of absorbing prolonged vibrations because of its mechanical strength. The black strip protects the duct and wire against abrasion/wear and tear.

The **GREYDEC HP** consisting of a polyester fabric, coated on both sides with a copolymer. The spiral wire has been inserted into the fabric.

APPLICATIONS

- Mechanical air supply systems
- Machine exhausting
- Air supply and ventilation systems
- Air supply cabinet in air conditioning systems
- Suction of welding fumes
- Vehicle exhaust extraction for repair shops

SPECIFICATIONS

Article code:	DGHP{Ø}/6
Temperature range:	-30 °C to 70 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.56 x Ø
Standard diameter range:	76 – 610 mm
Standard length:	6 mtr

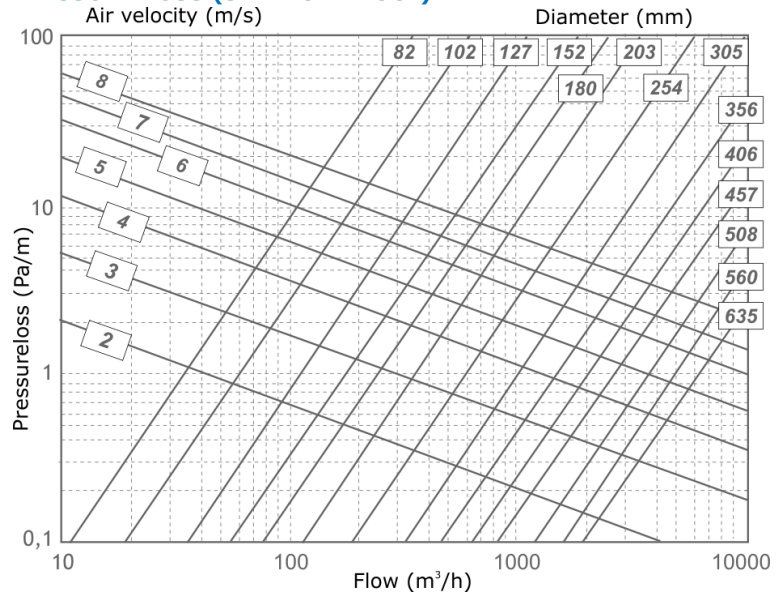
CONSTRUCTION

Total layers:	1
Pvc coated poly-fabric:	280 gr/m ²
Protective strip:	black

Wire spacing:	
Ø 76 - 90 mm	33mm
Ø 102 - 120 mm	39mm
Ø 125 - 406 mm	47mm
Ø 457 and larger	39mm

Appearance:	Grey*
* Also available in:	White/Black

PRESSURE LOSS (STRAIGHT DUCT)



The **GREYDEC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

GREYDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GREYDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



PVC WHITE SYNTHETIC DUCTING

The **PVC White** ducts are completely flexible, ducts for several applications. The ducts are suitable for flexible mounting and can be mounted to round and oval connection pieces. The **PVC White** ducts are also capable of absorbing prolonged vibrations because of its mechanical strength.

Construction:

Single layer of a strong 'White PolyVinylChlorid co-polymer' encapsulating a high tensile steel wire helix.

APPLICATIONS

- Mechanical air supply systems
- Air conditioning systems
- Exhausting/discharging at domestic equipment like clothes driers
- Ventilation cabinets

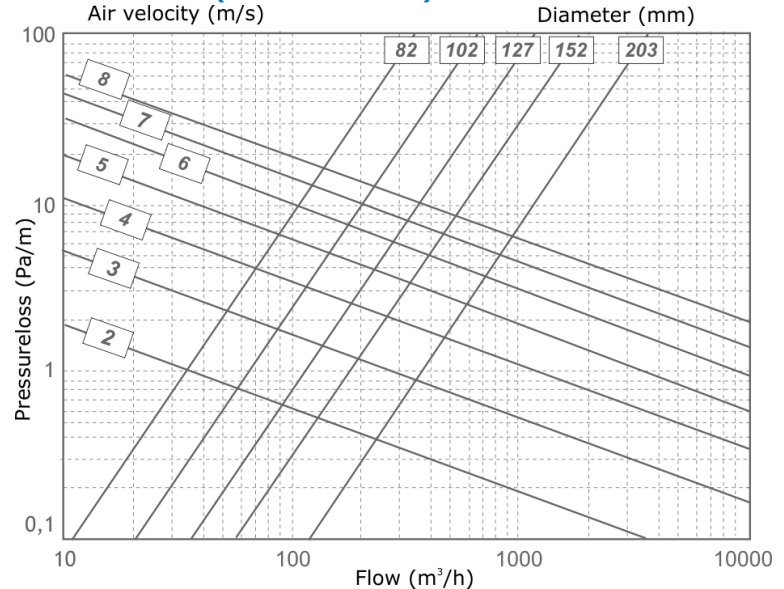
SPECIFICATIONS

Article code: P{Ø}
 Temperature range: -30 °C to 70 °C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 0.56 x Ø
 Standard diameter range: 82 – 203 mm
 Standard length: 15 mtr

Wire spacing:
 Ø 082 mm 25mm
 Ø 102 - 203mm 36mm

Appearance: White

PRESSURE LOSS (STRAIGHT DUCT)



The **PVC White** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The PVC White ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



PVC GREY G1SR

SYNTHETIC REINFORCED DUCTING

G1SR (M1): Fully flexible, tough, "Grey" un-insulated noise reducing co-polymer flexible duct for use in commercial HVAC systems. **Also available with M1 foil.**

- Easy and fast installation over round or oval connections.
- Tough and air tight with smooth core for low friction loss and lower operation costs.

Construction:

Single layer of a strong reinforced 'Grey PolyVinylChlorid co-polymer' encapsulating a high tensile steel wire helix.

APPLICATIONS

- Mechanical air supply systems
- Air conditioning systems
- Exhausting/discharging at domestic equipment like clothes driers
- Ventilation cabinets

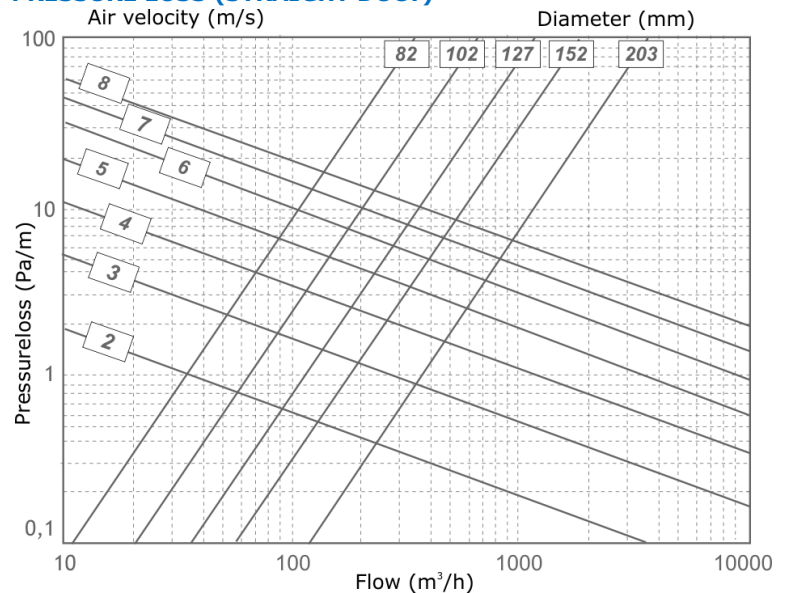
SPECIFICATIONS

Article code: G1SR{Ø}
 Temperature range: -30 °C to 70 °C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 0.56 x Ø
 Standard diameter range: 082 – 203 mm
 Standard length: 6 and 10 mtr

Wire spacing:
 Ø 082 mm 25mm
 Ø 102 - 203mm 36mm

Appearance: Grey

PRESSURE LOSS (STRAIGHT DUCT)



The **PVC GREY** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The PVC Grey ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



PVC GREY G1

SYNTHETIC DUCTING

G1 (M1): Fully flexible, tough, "Grey" un-insulated noise reducing co-polymer flexible duct for use in commercial HVAC systems.
Also available with M1 foil.

- Easy and fast installation over round or oval connections.
- Tough and air tight with smooth core for low friction loss and lower operation costs.

Construction:

Single layer of a strong 'Grey PolyVinylChlorid co-polymer' encapsulating a high tensile steel wire helix.

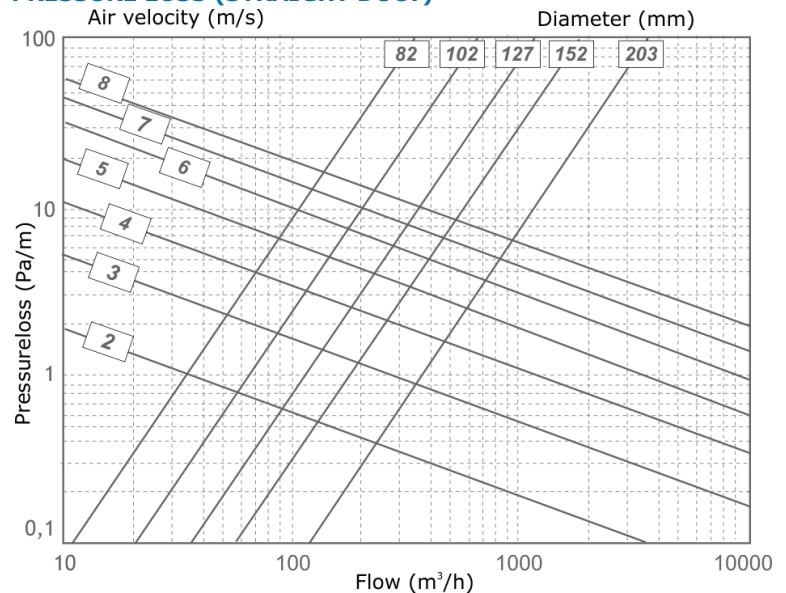
APPLICATIONS

- Mechanical air supply systems
- Air conditioning systems
- Exhausting/discharging at domestic equipment like clothes driers
- Ventilation cabinets

SPECIFICATIONS

Article code:	G1{Ø}
Temperature range:	-30 °C to 70 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.56 x Ø
Standard diameter range:	82 – 203 mm
Standard length:	6 and 10 mtr
Wire spacing:	
Ø 082 mm	25mm
Ø 102 - 203mm	36mm
Appearance:	Grey

PRESSURE LOSS (STRAIGHT DUCT)



The **PVC GREY** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The PVC Grey ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



PVC GREY G2

SYNTHETIC DUCTING

G2 (M1): Fully flexible, tough, "Grey" un-insulated noise reducing co-polymer flexible duct for use in commercial HVAC systems.
Also available with M1 foil.

- Easy and fast installation over round or oval connections.
- Tough and air tight with smooth core for low friction loss and lower operation costs.

Construction:

Double layer of a strong 'Grey PolyVinylChlorid co-polymer' encapsulating a high tensile steel wire helix.

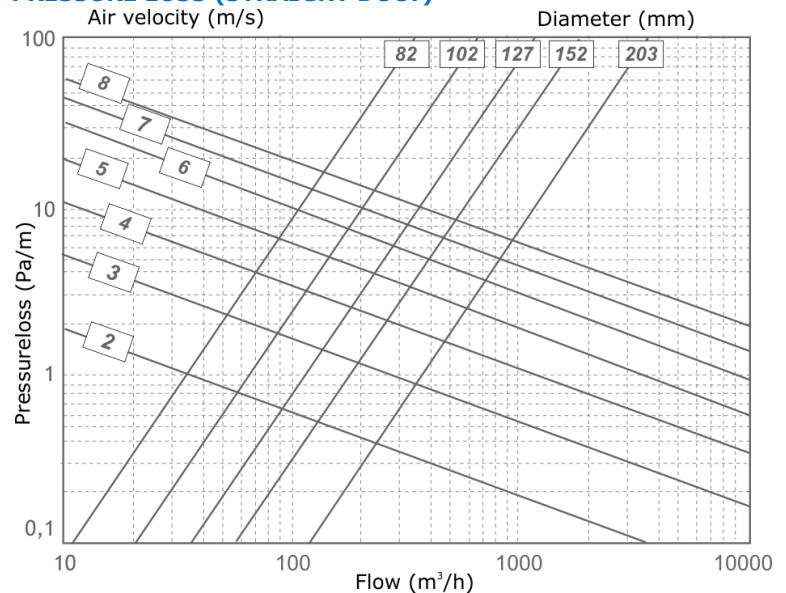
APPLICATIONS

- Mechanical air supply systems
- Air conditioning systems
- Exhausting/discharging at domestic equipment like clothes driers
- Ventilation cabinets

SPECIFICATIONS

Article code:	G2{Ø}
Temperature range:	-30 °C to 70 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 0.56 x Ø
Standard diameter range:	82 – 203 mm
Standard length:	6 mtr
Wire spacing:	
Ø 082 mm	25mm
Ø 102 - 203mm	25mm
Appearance:	Grey

PRESSURE LOSS (STRAIGHT DUCT)



The **PVC GREY** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

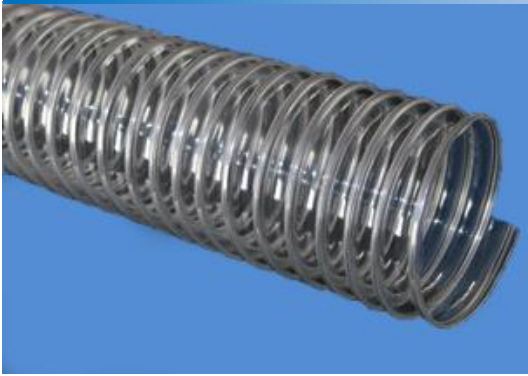
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The PVC Grey ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



PU-W

Air extraction hose

SYNTHETIC DUCTING

PU-W: Air extraction hose, light weight.

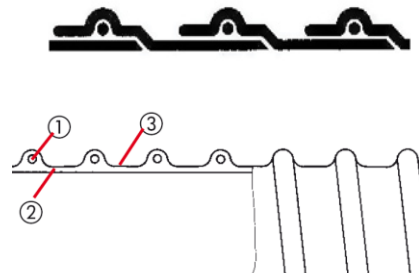
Pure polyester polyurethane (according to DIN 53 516 more resistant to wear than comparable polyether polyurethane)
Spiral coil: spring steel helix wire

APPLICATIONS

- extraction and transport hose for solids causing wear.
- gaseous and liquid mediums
- extraction of paper and textile fibres
- transport of fine grained particles such as dust and powder
- extraction of oil mists
- protection hose against mechanical loads

CONSTRUCTION

- 1/ Spring steel Helix
- 2/ Wall: Polyester polyurethane
- 3/ Wall thickness between the windings ca. 0.5 (mm)



SPECIFICATIONS

Article code:	PUW{Ø}/{L}
Temperature range:	-40 °C to 90 °C
Bending radius:	min. 1 x Ø
Standard diameter range:	76 – 635 mm
Wire distance:	25 mm
Standard length:	6 and 10 mtr
Appearance:	Blanc

Int. Ø = D	Tol.	Ext. Ø = D	Tol.	Weight	Max. neg. pressure
mm	mm	mm	mm	gr/m	mbar
76	+3/0	80	+4/0	410	320
82	+3/0	86	+4/0	441	316
90	+3/0	94	+4/0	483	312
102	+3/0	107	+4/0	559	306
112	+3/0	117	+4/0	611	301
120	+3/0	125	+4/0	653	298
127	+3/0	132	+4/0	690	296
133	+3/0	138	+4/0	721	293
140	+3/0	145	+4/0	758	291
152	+3/0	157	+4/0	821	288
165	+3/0	170	+4/0	889	284
185	+4/0	190	+6/0	994	279
203	+4/0	209	+6/0	1089	275
229	+4/0	233	+6/0	1225	270
254	+4/0	258	+6/0	1357	266
280	+4/0	284	+6/0	1493	250
305	+6/0	309	+9/0	2020	250
315	+6/0	319	+9/0	2085	240
356	+6/0	360	+9/0	2352	230
406	+6/0	413	+9/0	2683	220
457	+6/0	464	+9/0	3020	200
508	+9/0	515	+11/0	3357	190
560	+9/0	567	+11/0	3700	180
610	+9/0	617	+11/0	4031	160
635	+9/0	642	+11/0	4196	150

PROPERTIES

- extremely wear resistant
- oil and petrol resistant
- gas proof
- good resistance against chemicals
- halogen free
- does not contain plasticizers/softeners
- in general, good UV and ozone resistance
- light weight
- extremely flexible
- smallest bending radius
- high tensile strength and resistance to cracking
- inside largely smooth
- technically optimal flow
- in accordance with RoHS

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

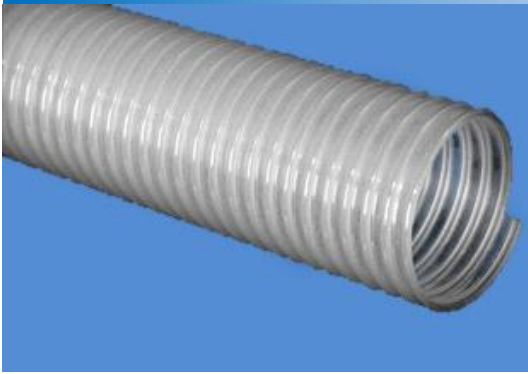
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The PU ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



PU

Air extraction hose

SYNTHETIC DUCTING

PU: Air extraction hose, light weight.

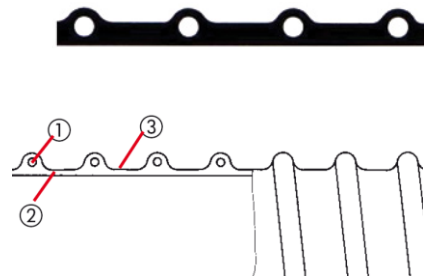
Pure polyester polyurethane (according to DIN 53 516 more resistant to wear than comparable polyether polyurethane)
Spiral coil: Hard PVC spiral coil

APPLICATIONS

- extraction and transport hose for solids causing wear.
- gaseous and liquid mediums
- extraction of paper and textile fibres
- transport of fine grained particles such as dust and powder
- extraction of oil mists
- protection hose against mechanical loads

CONSTRUCTION

- 1/ Hard PVC spiral coil
- 2/ Wall: Polyester polyurethane
- 3/ Wall thickness: between the windings ca. 0.6 (mm)



SPECIFICATIONS

Article code: PU06{Ø}/{L}
Temperature range: -40 °C to 90 °C
short time to +125 °C

Standard diameter range: 20 – 250 mm
Standard length: 6, 10 and 20 mtr
Appearance: Blanc

PROPERTIES

- extremely wear resistant
- oil and petrol resistant
- gas proof
- good resistance against chemicals
- halogen free
- does not contain plasticizers/softeners
- in general, good UV and ozone resistance
- light weight
- extremely flexible
- smallest bending radius
- high tensile strength and resistance to cracking
- inside largely smooth
- technically optimal flow
- in accordance with RoHS

Int. Ø = D	Tol.	Bending radius	Weight	Max. neg. pressure	Pitch
mm		ca. mm	gr/m	mbar	mm
20	+0,7	27	81	352	7.4
22	+0,7	29	104	352	7.8
25	+0,7	33	128	352	8
28	+0,7	36	152	352	8
30	+0,7	39	166	352	8.5
32	+1,0	41	198	352	8.5
35	+1,0	44	230	352	8.5
38	+1,0	48	254	352	8.5
40	+1,0	50	278	352	8.5
45	+1,0	55	358	350	8.5
50	+1,0	60	319	350	9.5
52	+1,0	63	372	349	9.5
60	+1,2	72	426	348	10
63	+1,2	75	478	348	10
70	+1,2	85	576	347	10.5
75	+1,2	90	694	346	12
80	+1,2	96	731	346	12
90	+1,2	110	772	345	12
100	+1,5	120	1094	344	12
110	+1,5	132	1232	343	12
120	+1,5	144	1544	342	13.5
125	+1,5	150	1644	342	13.5
130	+1,5	156	1680	342	15
140	+1,5	168	1756	341	15
150	+2,0	180	1912	340	16.5
160	+2,0	190	2044	340	16.5
170	+2,0	200	2156	340	16.5
180	+2,0	210	2248	339	18.5
190	+2,0	222	2420	339	18.5
200	+2,0	235	2640	338	19
250	+2,0	290	2784	336	19

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The PU ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

Chemische Beständigkeit

Die Beständigkeit gegenüber Chemikalien ist typabhängig. Einfluss haben sowohl die Rohstoffbasis (Polyester oder Polyether) als auch die Härte. Die nachfolgende Tabelle soll der Orientierung dienen. Sie enthält Angaben für vier charakteristische Typen:

- 385 als weicher Esthertyp.
- 359 als harter Estertyp
- 786 als Ethercarbonat-TPU und
- 955 U als hartes Etherprodukt

Die Produkte der Reihen 100, 400 und 500 (außer 588) zeigen ähnliches Verhalten wie die Estertypen 385 und 359, 588 ist eher mit 786 vergleichbar.

Beständigkeit gegen Lösemittel

Der Kontakt mit Lösemitteln bewirkt häufig eine Quellung des Materials. Diese ist normalerweise reversibel, kann aber bei höheren Temperaturen und längerer Dauer bis zum Abbau führen. Weichere Produkte sind generell anfälliger.

Im Einzelnen bewirken Aromaten und polare aliphatische Lösemittel wie z. B. Ketone, (kurzkettige) Ester und halogenierte Kohlenwasserstoffe ein starkes Aufquellen des Materials und einen mit steigender Quellung zunehmenden Abfall der Festigkeit. Der Vorgang der Quellung und der damit verbundene Einfluss auf die Festigkeit sind reversibel.

In polaren Lösemitteln wie Dimethylformamid, Tetrahydrofuran oder N-Methylpyrrolidon wird es ganz oder teilweise gelöst.

Beständigkeit gegen Alkohol

Alkohole können das Material durch Alkoholyse abbauen, besonders bei höheren Temperaturen.

Chemical Resistance

The chemical resistance varies as a function of the particular grade involved. Both the raw materials base (polyester or polyether) and the hardness of the grade affect its chemical resistance. The Table included in this ATI provides guidance for the four characteristic grades of

- 385, as a flexible ester grade
- 359, as a hard ester grade
- 786, as an ether carbonate TPU
- 955 U, as a hard ether product

Products from the 100, 400 and 500 series of grades (with the exception of 588) display similar behaviour to ester grades 385 and 359. 588 is more similar to 786 in terms of its behaviour.

Resistance to solvents

Contact with solvents frequently causes the material to swell. This is normally reversible but, in the case of high temperatures and prolonged contact, degradation can result. More flexible products are generally more susceptible to swelling.

Aromatics and polar aliphatic solvents, such as ketones, (short-chain) esters and halogenated hydrocarbons cause pronounced swelling in the material. Increased swelling goes hand in hand with a progressive reduction in strength. The swelling process and associated effect on strength are reversible.

Polar solvents, such as dimethyl formamide, tetrahydrofuran or N-methyl pyrrolidone, cause partial or complete dissolution.

Resistance to alcohol

Alcohols can break down this material through alcoholysis, particularly at high temperatures.

Beständigkeit gegen Wasser und neutrale wässrige Salzlösungen

Bei Normaltemperatur ist jahrelanger Kontakt (auch mit Seewasser) ohne wesentliche Änderungen der mechanischen Eigenschaften möglich. Höhere Wassertemperaturen bewirken ein Abfallen der Festigkeit und ab 60 °C bei den Estertypen einen zunehmenden hydrolytischen Abbau.

Ethertypen quellen in heißem Wasser. Die sich dabei einstellen den Eigenschaften bleiben dann über längere Zeit konstant.

Beständigkeit gegen Treibstoffe

Die Beständigkeit gegen Treibstoffe ist von deren Zusammensetzung abhängig. Im Kontakt mit Treibstoffen, die überwiegend aliphatischen Charakter haben – wie Normalbenzin, Dieselöl oder Kerosin –, ist es gut beständig.

Bei Treibstoffen, die Alkohol enthalten, kann nach längerer Einwirkzeit eine Schädigung auftreten.

Aromatische Treibstoffe, z.B. Superbenzin, quellen entsprechend ihrem Gehalt und der Art von aromatischen Bestandteilen es reversibel an.

Beständigkeit gegen Öle und Fette

Es ist sehr gut beständig gegen reine mineralische Öle (Schmieröle) und wasserfreie Fette. Speziell modifizierte Hochleistungsschmiermittel können selbst oder durch ihre Additive – vor allem bei höheren Temperaturen – mit diesem Material unverträglich sein. Hier empfiehlt es sich, vor der Anwendung Einfluss auf die mechanischen Eigenschaften und das Quellverhalten zu überprüfen.

Beständigkeit gegen Säuren und Laugen

Kurzzeitiger Kontakt mit konzentrierten Mineralsäuren ist bei Raumtemperatur möglich, wenn die Kontaktstelle anschließend schnell mit Wasser gereinigt wird. Gegen verdünnte Mineralsäuren ist es bei Raumtemperatur bedingt beständig. Organische Säuren und deren wässrige Lösungen schädigen das Material schneller als anorganische Säuren.

Für Laugen gilt, wie bei den Säuren, dass bei starker Verdünnung auch ein längerer Kontakt möglich ist.

Resistance to water and neutral aqueous saline solutions

At normal temperatures, the material can remain in contact with water (including sea-water) for many years without experiencing any essential changes in its mechanical properties. Higher water temperatures cause a reduction in strength, and temperatures in excess of 60 °C lead to progressive hydrolytic degradation in ester grades.

Ether types swell in hot water. The resultant properties then remain constant for a long period of time.

Resistance to fuels

The resistance to fuels is determined by the composition of the fuel involved. It displays good resistance when in contact with fuels of a primarily aliphatic nature – such as standard petrol, diesel oil and kerosine.

In the case of fuels that contain alcohol, damage can occur after a prolonged period of contact.

Aromatic fuels, such as premium-grade petrol, cause reversible swelling in the material. The extent of the swelling correlates with the content and nature of the aromatic ingredients that they contain.

Resistance to oils and greases

It is particularly resistant to pure mineral oils (lubricating oils) and water-free greases. Specially modified high performance lubricants may be incompatible with this material (either the lubricants themselves or their additives), particularly at high temperatures. It is recommended that the effect on mechanical properties and the swelling behaviour be checked before lubricants of this type are applied.

Resistance to acids and alkaline solutions

Brief contact with concentrated mineral acids is possible at room temperature, providing that the point of contact is rapidly cleaned with water afterwards. It displays limited resistance to dilute mineral acids at room temperature. Organic acids and aqueous solutions of these damage the material more rapidly than inorganic acids.

The same applies for alkaline solutions as for acids: longer contact is possible with highly diluted solutions.

Medium	Temperatur / Temperature °C		385	359	786	955 U
			85 A	59 D	87 A	55 D
Aceton / Acetone	RT	Q	0	0	0	0
Al-Chlorid wässrig, 5-prozentig / Al-chloride, aqueous, 5 %	RT		+	+	+	+
Ammoniak, 10-prozentig / Ammonia, 10 %	RT		+	+	+	+
Anilin / Aniline	RT	Q	-	-	-	-
IRM-Öl 901 / IRM oil 901	80		+	+	+	+
IRM-Öl 902 / IRM oil 902	80		+	+	+	+
IRM-Öl 903 / IRM oil 903	80		0/+	0/+	+	+
Benzin, „normal“ Petrol, standard grade	RT	Q	+	+	+	+
Benzin, „super“ / Petrol, premium grade	RT	Q	0/+	+0	+0	+0
Benzol / Benzene	RT	Q	0	0	0	0
Butanol / Butanol	RT		0	+0	0	+0
Butylacetat / Butyl acetate	RT	Q	-	0	-	0
Cyclohexanol / Cyclohexanol	RT	Q	0	+0	0	+0
Dieselöl / Diesel oil	RT	Q	+	+	+	+
Dimethylformamid / Dimethyl formamide	RT	Q	-	-	-	-
Fe-Chlorid wässrig, 5-prozentig Fe chloride, aqueous, 5 %	40		0	0	0	0
Ethylacetat / Ethyl acetate	RT	Q	-	0	-	0
Ethylalkohol / Ethyl alcohol	RT	Q	0	+0	0	+0
Ethylether / Ethyl ether	RT	Q	+	+	+	+
Essigsäure, 20-prozentig / Acetic acid, 20 %	RT		0	0	0	0
Kalilauge 1N / Potassium hydroxide solution 1 N	RT		+0	+0	+0	+0
Kochsalzlösung, konzentriert / Sodium chloride solution, conc.	RT		+	+	+	+
Isopropanol / Isopropanol	RT	Q	0	+0	0	+0
Methanol / Methanol	RT	Q	0	+0	0	+0
Methanol/Benzin, 15/85 / Methanol/benzene, 15/85	RT	Q	+0	+0	+0	+0
Methylenchlorid / Methylene chloride	RT	Q	0/-	0	0/-	0
Methylethylketon / Methyl ethyl ketone	RT	Q	0	0	0	0
Mineralöl / Mineral oil	80		+	+	+	+
Natriumseifenfett / Soda soap fat	RT		+	+	+	+
Natriumseifenfett + 20 % Wasser Soda soap fat + 20 % water	80		+0	+0	+0	+0
Natronlauge N / Sodium hydroxide solution N	RT		+0	+0	+0	+0
N-Methylpyrrolidon / N-methyl pyrrolidone	RT	Q	-	-	-	-
Salpetersäure, 20-prozentig / Nitric acid, 20 %	RT		-	-	-	-
Salzsäure, 20-prozentig / Hydrochloric acid, 20 %	RT		0	0	0	0
Schwefelsäure, 20-prozentig / Sulphuric acid, 20 %	RT		0	0	0	0
Seewasser / Sea water	RT		+ ¹⁾	+	+	+
Tetrachlorkohlenstoff Carbon tetrachloride	RT	Q	0/-	0	0	0
Trichlorethylen / Trichloro-ethylene	RT	Q	0/-	0	0	0
Tetrahydrofuran / Tetrahydrofurane	RT	Q	-	-	-	-
Toluol / Toluene	RT	Q	-	0/-	-	0/-
Wasser / Water	RT		+	+	+	+
	80		0/+	0/+	+0	+0
	100		0	0	0/+	0/+

+ = über längere Zeit beständig
0 = kurzzeitiger Kontakt unter bestimmten Voraussetzungen möglich
- = unbeständig, starker Angriff oder löslich
¹⁾ = Mikробenangriff möglich
Q = Quellung / reversibel; die mechanischen Eigenschaften werden im gequollenen Zustand vermindert (gilt für alle Typen).
RT= Raumtemperatur 23 °C

+ = resistant over a prolonged period
0 = short-term contact possible under certain conditions
- = not resistant, pronounced attack or dissolution
1) = microbial attack possible
Q = swelling / reversible; mechanical properties are somewhat impaired in the swollen state (applies to all grades).
RT= room temperature 23 °C

Bayer-Kunststoffe im Internet / Bayer plastics on the Internet: <http://www.plastics.bayer.com>

Die vorstehenden Informationen und unsere anwendungstechnische Beratung in Wort, Schrift und durch Versuche erfolgen nach bestem Wissen, gelten jedoch nur als unverbindliche Hinweise, auch in Bezug auf etwaige Schutzrechte Dritter. Die Beratung befreit Sie nicht von einer eigenen Prüfung unserer aktuellen Beratungshinweise – insbesondere unserer Sicherheitsdatenblätter und technischen Informationen – und unserer Produkte im Hinblick auf ihre Eignung für die beabsichtigten Verfahren und Zwecke. Anwendung, Verwendung und Verarbeitung unserer Produkte und der aufgrund unserer anwendungstechnischen Beratung von Ihnen hergestellten Produkte erfolgen außerhalb unserer Kontrollmöglichkeiten und liegen daher ausschließlich in Ihrem Verantwortungsbereich. Der Verkauf unserer Produkte erfolgt nach Maßgabe unserer jeweils aktuellen Allgemeinen Verkaufs- und Lieferbedingungen.

Die angegebenen Werte wurden, wenn nicht ausdrücklich anders angegeben, an genormten Prüfkörpern bei Raumtemperatur ermittelt. Die Angaben sind als Richtwerte anzusehen, nicht aber als verbindliche Mindestwerte. Bitte beachten Sie, dass die Eigenschaften durch die Werkzeuggestaltung, die Verarbeitungsbedingungen und durch die Einfärbung unter Umständen erheblich beeinflusst werden können.

This information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to verify the information currently provided – especially that contained in our safety data and technical information sheets – and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.

Unless specified to the contrary, the values given have been established on standardised test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mold/die, the processing conditions and the coloring.

2000-04-19
KU 24011-0004 d, e / 5566637

Bayer AG
Geschäftsbereich Kunststoffe
KU-Europa, Informationssysteme
D-51368 Leverkusen
Fax +49 (0)214/30-6 12 77





COMPACDEC

SEMI FLEXIBLE CORRUGATED DUCTING

COMPACDEC is a superb flexible duct constructed of two layers of corrugated aluminium. By the inter lockseam a high airtightness and flexibility is reached.

APPLICATION

- Suitable for mechanical air supply systems and air conditioning systems.
- Systems, where vapors should be exhausted
- Above mentioned systems, where a special mechanical strength is required

SPECIFICATIONS

Article code: DCD2{Ø}
 Temperature range: -30°C to 250°C
 Peak 400°C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 1 x Ø
 Standard diameter range: 50 – 500 mm
 Standard length: 5 mtr

CONSTRUCTION

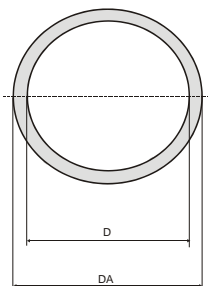
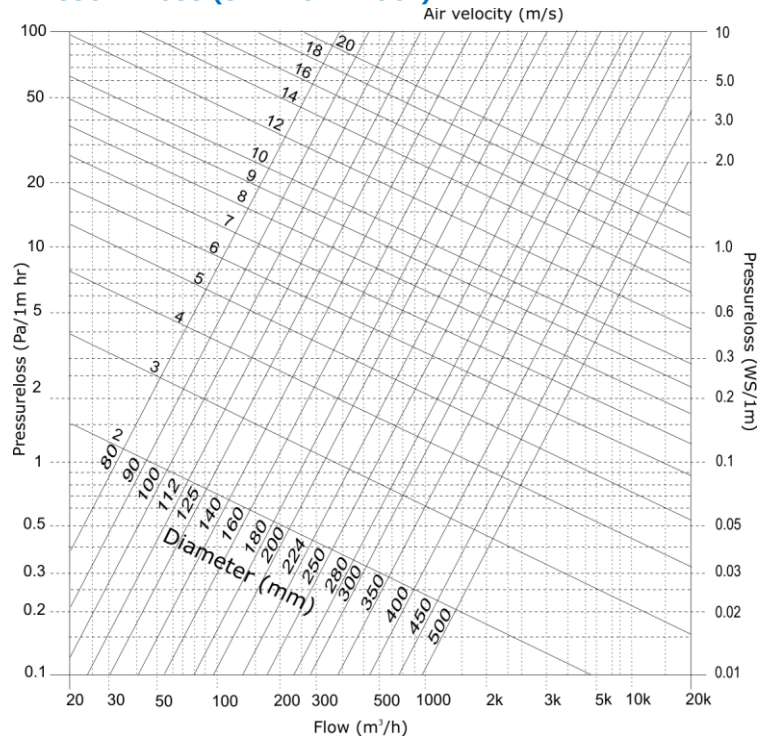
Total layers: 2

CLASSIFICATIONS

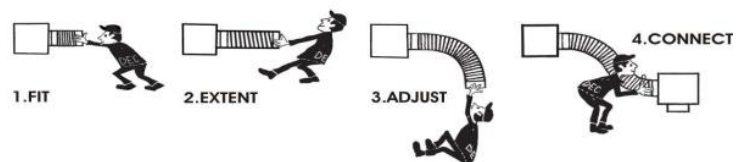
EU (EN 13501-1): A1
 UK (BS476): Part 4, 6, 7 and 20
 FR (NF): M0
 DE (DIN4102): A1

D(mm)	Tolerance	DA (mm)
050	+1,0 / -0	057
060	+1,0 / -0	067
075	+1,0 / -0	082
080	+1,0 / -0	087
090	+1,0 / -0	097
100	+1,0 / -0	107
125	+1,0 / -0	132
140	+1,0 / -0	147
150	+1,5 / -0	157
160	+1,5 / -0	167
180	+1,5 / -0	187
200	+1,5 / -0	207
224	+1,5 / -0	231
250	+2,0 / -0	257
280	+2,0 / -0	287
300	+2,0 / -0	307
315	+2,0 / -0	322
355	+2,0 / -0	362
400	+2,0 / -0	407
450	+2,5 / -0	457
500	+2,5 / -0	507

PRESSURE LOSS (STRAIGHT DUCT)



HOW TO INSTALL



The **COMPACDEC** fulfills all the requirements and are classified as specified within EN 13180: Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

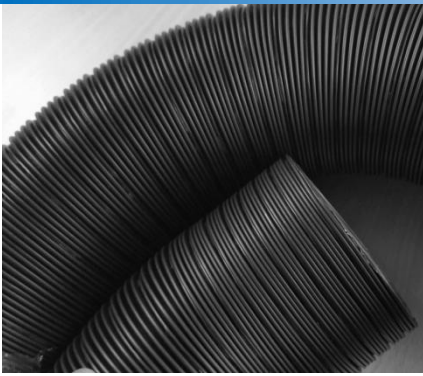
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

COMPACDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The COMPACDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



COMPACDEC Black

SEMI FLEXIBLE CORRUGATED DUCTING

COMPACDEC is a superb flexible duct constructed of two layers of corrugated aluminium. By the inter lockseam a high airtightness and flexibility is reached.

APPLICATION

- Suitable for mechanical air supply systems and air conditioning systems.
- Systems, where vapors should be exhausted
- Above mentioned systems, where a special mechanical strength is required

SPECIFICATIONS

Article code: DCD2B{Ø}/L
 Temperature range: -30°C to 250°C
 Peak 400°C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 1 x Ø
 Standard diameter range: 50 – 500 mm
 Standard length: 5 mtr

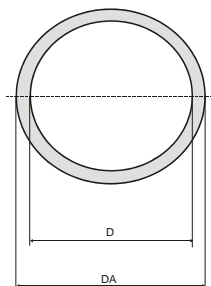
CONSTRUCTION

Total layers: 2

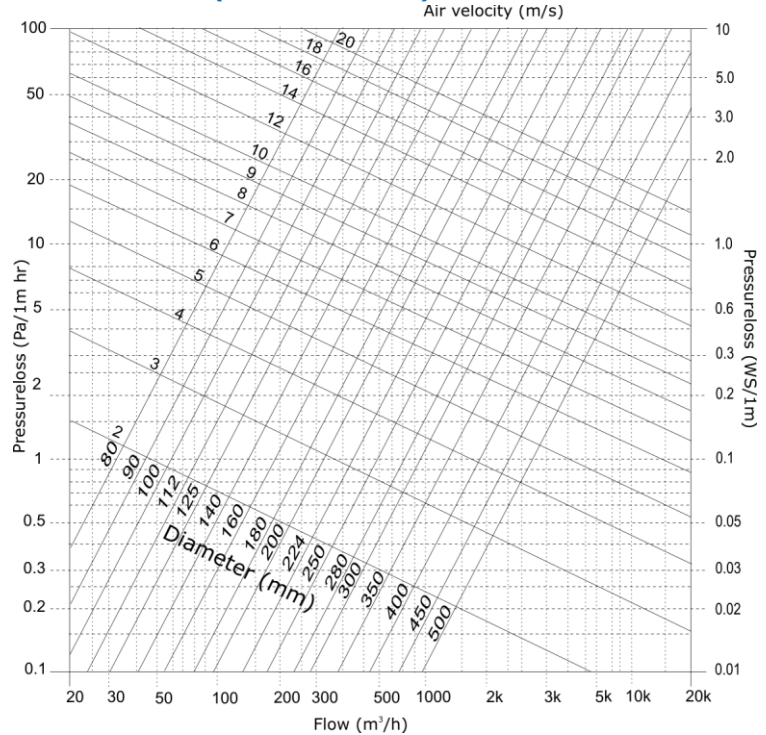
CLASSIFICATIONS

EU (EN 13501-1): A1
 UK (BS476): Part 4, 6, 7 and 20
 FR (NF): M0
 DE (DIN4102): A1

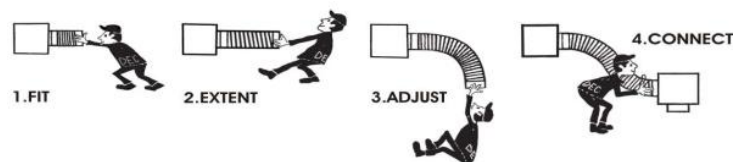
D(mm)	Tolerance	DA (mm)
050	+1,0 / -0	057
060	+1,0 / -0	067
075	+1,0 / -0	082
080	+1,0 / -0	087
090	+1,0 / -0	097
100	+1,0 / -0	107
125	+1,0 / -0	132
140	+1,0 / -0	147
150	+1,5 / -0	157
160	+1,5 / -0	167
180	+1,5 / -0	187
200	+1,5 / -0	207
224	+1,5 / -0	231
250	+2,0 / -0	257
280	+2,0 / -0	287
300	+2,0 / -0	307
315	+2,0 / -0	322
355	+2,0 / -0	362
400	+2,0 / -0	407
450	+2,5 / -0	457
500	+2,5 / -0	507



PRESSURE LOSS (STRAIGHT DUCT)



HOW TO INSTALL



The **COMPACDEC** fulfills all the requirements and are classified as specified within EN 13180: Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

COMPACDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The COMPACDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



STRETCHDEC

SEMI FLEXIBLE CORRUGATED DUCTING

STRETCHDEC is a superb flexible duct constructed of one layer of corrugated aluminium. By the inter lockseam a high airtightness and flexibility is reached.

APPLICATION

- Suitable for mechanical air supply systems and air conditioning systems.
- Systems, where vapors should be exhausted
- Above mentioned systems, where a special mechanical strength is required

SPECIFICATIONS

Article code: DXG{Ø}
 Temperature range: -30°C to 250°C
 Peak 400°C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 1 x Ø
 Standard diameter range: 80 – 315 mm
 Standard length: 3 mtr

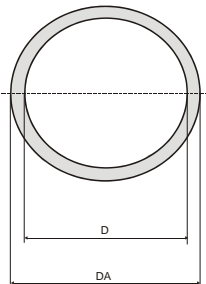
CONSTRUCTION

Total layers: 1

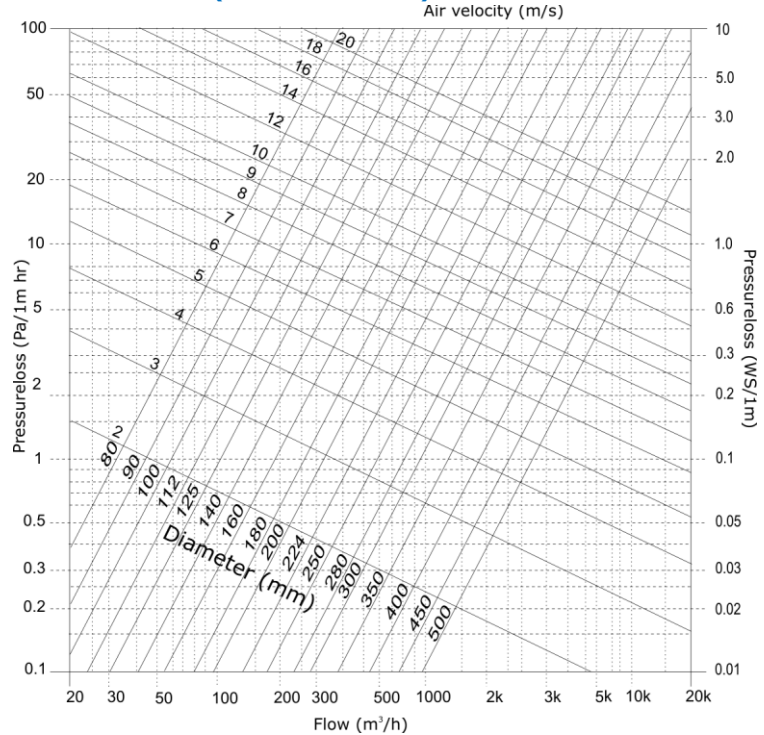
CLASSIFICATIONS

EU (EN 13501-1): A1
 UK (BS476): Part 4, 6, 7 and 20
 FR (NF): M0
 DE (DIN4102): A1

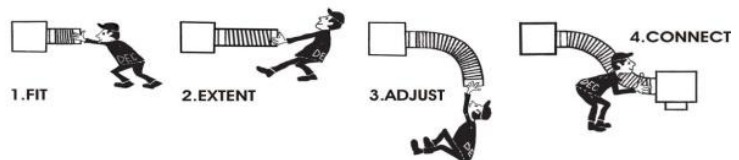
D(mm)	Tolerance	DA (mm)
080	+1,0 / -0	087
100	+1,0 / -0	107
125	+1,0 / -0	132
150	+1,5 / -0	157
160	+1,5 / -0	167
180	+1,5 / -0	187
200	+1,5 / -0	207
224	+1,5 / -0	231
250	+2,0 / -0	257
300	+2,0 / -0	307
315	+2,0 / -0	322



PRESSURE LOSS (STRAIGHT DUCT)



HOW TO INSTALL



The **STRETCHDEC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

STRETCHDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The STRETCHDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



SEMIDEC

SEMI FLEXIBLE CORRUGATED DUCTING

SEMIDEC is a superb flexible duct constructed of one layer of corrugated aluminium. By the inter lockseam a high airtightness and flexibility is reached.

APPLICATION

- Suitable for mechanical air supply systems and air conditioning systems.
- Systems, where vapors should be exhausted
- Above mentioned systems, where a special mechanical strength is required

SPECIFICATIONS

Article code: DXD{Ø}
 Temperature range: -30°C to 250°C
 Peak 400°C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 1 x Ø
 Standard diameter range: 80 – 400 mm
 Standard length: 3 mtr

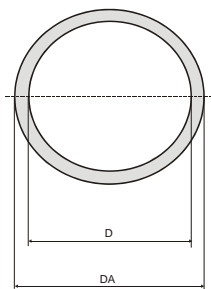
CONSTRUCTION

Total layers: 1

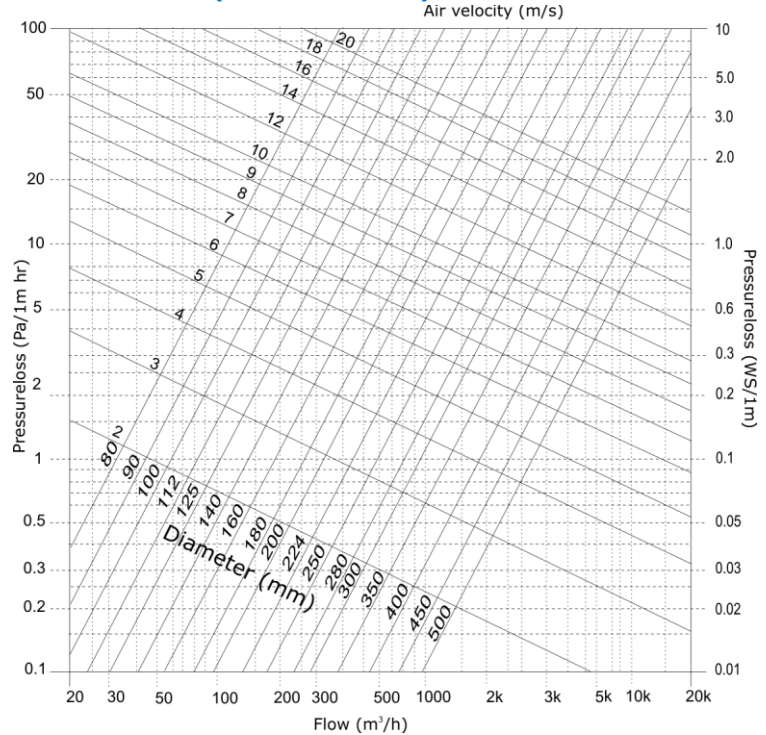
CLASSIFICATIONS

EU (EN 13501-1): A1
 UK (BS476): Part 4, 6, 7 and 20
 FR (NF): M0
 DE (DIN4102): A1

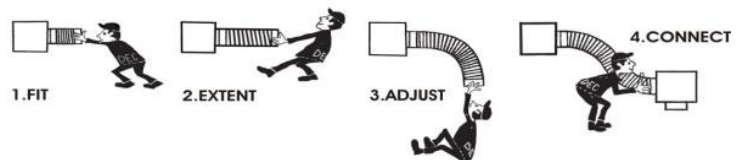
D(mm)	Tolerance	DA (mm)
080	+1,0 / -0	087
100	+1,0 / -0	107
125	+1,0 / -0	132
140	+1,0 / -0	147
150	+1,5 / -0	157
160	+1,5 / -0	167
180	+1,5 / -0	187
200	+1,5 / -0	207
224	+1,5 / -0	231
250	+2,0 / -0	257
280	+2,0 / -0	287
300	+2,0 / -0	307
315	+2,0 / -0	322
355	+2,0 / -0	402
400	+2,0 / -0	407



PRESSURE LOSS (STRAIGHT DUCT)



HOW TO INSTALL



The **SEMIDEC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



COMPACDEC CLASSIC

SEMI FLEXIBLE CORRUGATED DUCTING

COMPACDEC is a superb flexible duct constructed of one layer of corrugated aluminium. By the inter lockseam a high airtightness and flexibility is reached.

APPLICATION

- Suitable for mechanical air supply systems and air conditioning systems.
- Systems, where vapors should be exhausted
- Above mentioned systems, where a special mechanical strength is required

SPECIFICATIONS

Article code: CLDCD{Ø}
 Temperature range: -30°C to 250°C
 Operating pressure: up to +2500 Pa
 Operating air velocity: max. 20 m/s
 Bending radius: min. 1 x Ø
 Standard diameter range: 100 – 315 mm
 Standard length: 5 mtr

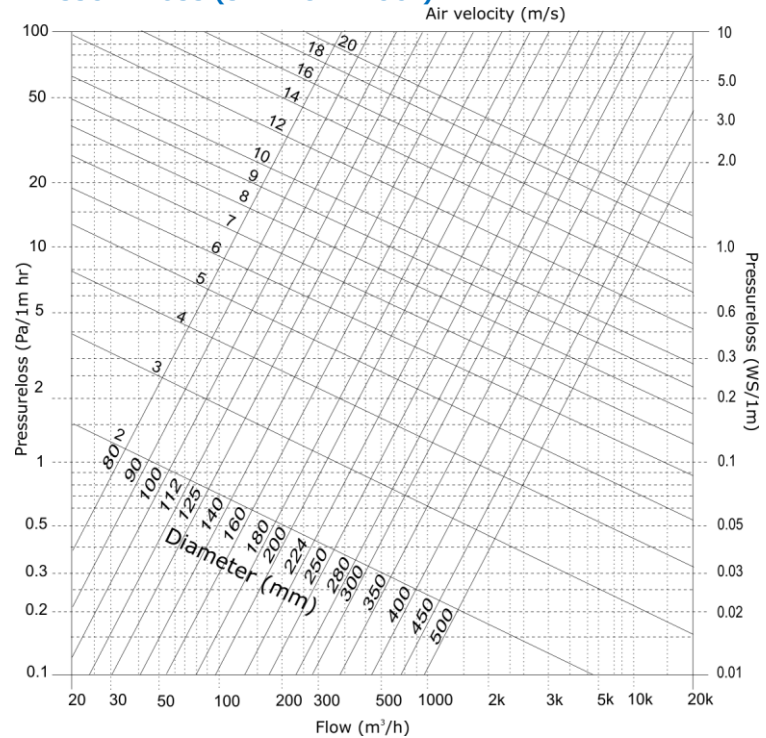
CONSTRUCTION

Total layers: 1

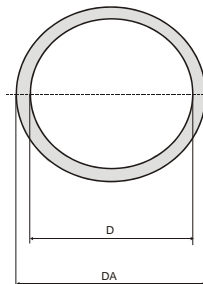
CLASSIFICATIONS

EU (EN 13501-1): A1

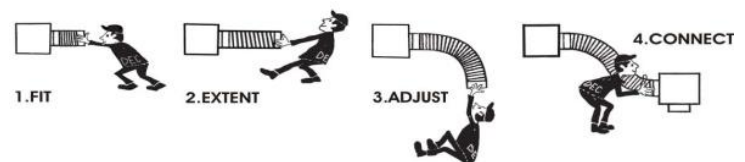
PRESSURE LOSS (STRAIGHT DUCT)



D(mm)	Tolerance	DA (mm)
080	+1,0 / -0	087
090	+1,0 / -0	097
100	+1,0 / -0	107
125	+1,0 / -0	132
140	+1,0 / -0	147
150	+1,5 / -0	157
160	+1,5 / -0	167
180	+1,5 / -0	187
200	+1,5 / -0	207
224	+1,5 / -0	231
250	+2,0 / -0	257
280	+2,0 / -0	287
300	+2,0 / -0	307
315	+2,0 / -0	322



HOW TO INSTALL



The **COMPACDEC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

COMPACDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The COMPACDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



SEMIDEC GALVANIZED

SEMI FLEXIBLE CORRUGATED DUCTING

SEMIDEC GALVANIZED is a superb flexible duct constructed of one layer of corrugated galvanized steel 80 Microns. By the inter lockseam a high airtightness and flexibility is reached. 100% recyclable.

APPLICATION

- Suitable for mechanical air supply systems and air conditioning systems.
- Systems, where vapors should be exhausted
- Above mentioned systems, where a special mechanical strength is required

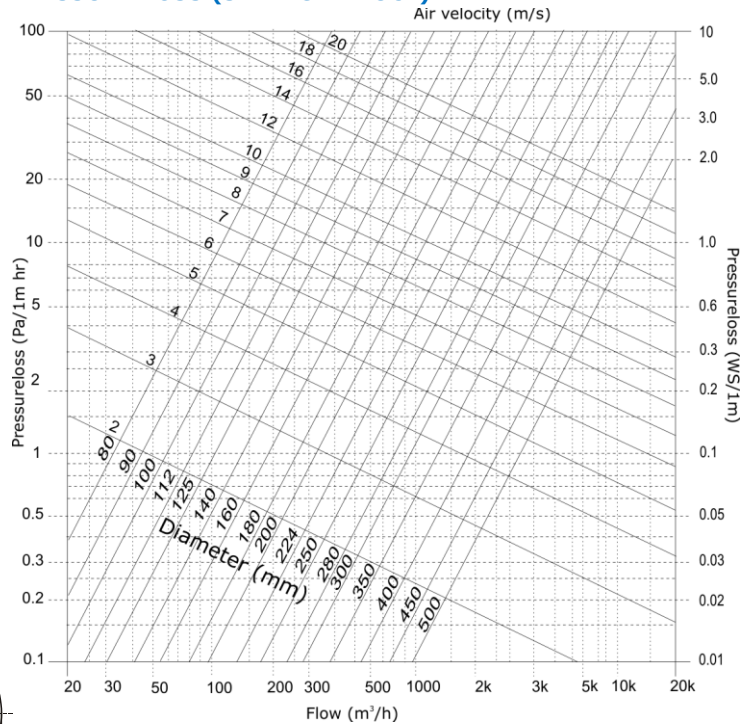
SPECIFICATIONS

Article code: DSDX(80){Ø}/L
 Temperature range: -30°C to 375°C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 1 x Ø
 Standard diameter range: 80 – 500 mm
 Standard length: 3 mtr

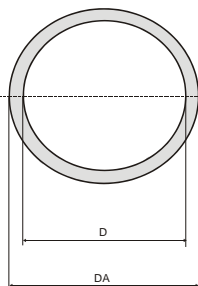
CLASSIFICATIONS

EU (EN 13501-1): A1

PRESSURE LOSS (STRAIGHT DUCT)



D(mm)	Tolerance	DA (mm)
080	+1,0 / -0	087
100	+1,0 / -0	107
125	+1,0 / -0	132
140	+1,0 / -0	147
150	+1,5 / -0	157
160	+1,5 / -0	167
180	+1,5 / -0	187
200	+1,5 / -0	207
224	+1,5 / -0	231
250	+2,0 / -0	257
280	+2,0 / -0	287
300	+2,0 / -0	307
315	+2,0 / -0	322
355	+2,0 / -0	362
400	+2,0 / -0	407
450	+2,5 / -0	457
500	+2,5 / -0	507



HOW TO INSTALL

The SEMIDEC Galvanized ducts can easily be cut with a metal saw or a sharp blade. The bending is done by hand. Connecting a SEMIDEC Galvanized duct can be done by simple fitting to an apparatus. Sealing is achieved with a tape sealing or sealant. The fixing is conducted by a clamp placed on the tape adhesive, by rivets or by self-drilling screws. The assembly of two lengths requires the use of a male fitting of Galvanized steel or aluminium.

Compressed ducts to be extended with:

≤ Ø 200mm – 2 Persons ;

> Ø 200mm – 4 persons.

By stretching always use gloves en safety goggles!!

The **SEMIDEC GALVA** fulfills all the requirements and are classified as specified within EN 13180:

Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

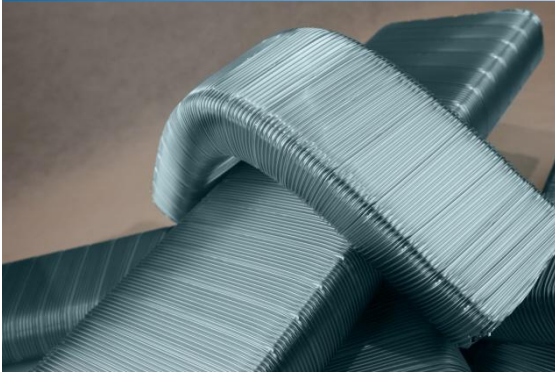
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



QUADRODEC GALVANIZED

SEMI FLEXIBLE CORRUGATED DUCTING

QUADRODEC GALVANIZED is a superb flexible duct constructed of one layer of corrugated galvanized steel 80 Microns. By the inter lockseam a high airtightness and flexibility is reached. 100% recyclable.

APPLICATION

- Suitable for mechanical air supply systems and air conditioning systems.
- Systems, where vapors should be exhausted
- Above mentioned systems, where a special mechanical strength is required

SPECIFICATIONS

Article code: DSDXR(80){*X*}
 Temperature range: -30°C to 375°C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Bending radius: min. 1 x Ø

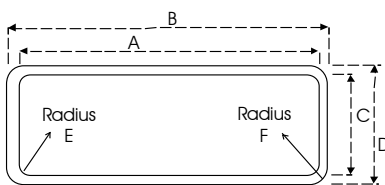
Standard length: 3 mtr

CLASSIFICATIONS

EU (EN 13501-1): A1

Dimensions in mm

Nominal	A	B	C	D	E	F
110x54	118	124	54	60	9	12
140x54	148	154	54	60	9	12
180x54	188	194	54	60	9	12
195x54	203	209	54	60	9	12
200x80	200	206	80	86	9	12
235x80	235	241	80	86	9	12



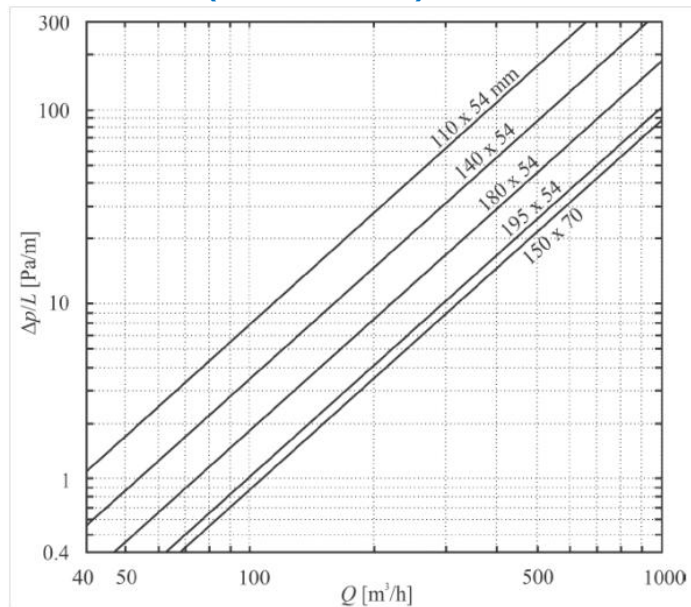
Compressed ducts to be extended with:

≤ Ø 200mm – 2 Persons ;

> Ø 200mm – 4 persons.

By stretching always use gloves en safety goggles!!

PRESSURE LOSS (STRAIGHT DUCT)



The pressure drop in the straight sections of semi-flexible ducts made of galvanized steel

Based on the conditions during testing the density of air is calculated and determined as standard condition ($\rho = 1,2 \text{ kg/m}^3$). If conditions differ from these standard conditions, it is necessary to make corrections in that way that the value of unit pressure drop obtained from graph is multiplied by a factor $\rho/1.2$. Unit pressure drop for the straight section of semi-flexible ducts with a rectangular cross-section made of galvanized steel for the conditions of gauge pressure

HOW TO INSTALL

The **QUADRODEC Galvanized** ducts can easily be cut with a metal saw, a sharp blade or scissors. The bending is done by hand. Connecting a SEMIDEC Galvanized duct can be done by simple fitting to an apparatus. Sealing is achieved with a PSB tape sealing and QIP Clamp. The fixing is conducted by a clamp placed on the tape adhesive. The assembly of two lengths requires the use of a male fitting of Galvanized steel or aluminium.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



QUADRODEC GALVANIZED ACCESSORIES

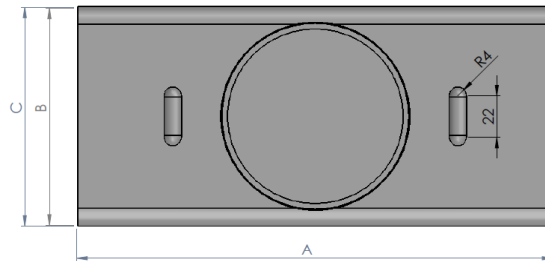
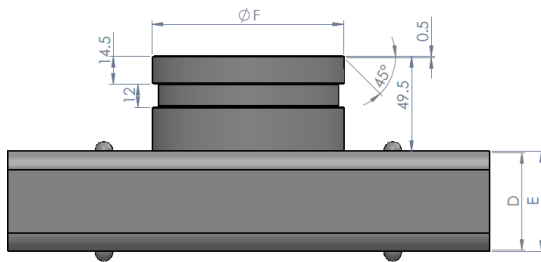
SEMI FLEXIBLE CORRUGATED DUCTING

Accessories

Material is zinc coated (hot-dip) - Zinc amount 275 gr/m²
Chrome free - Not oiled - Material thickness 0.5mm (tolerance ± 0.05mm)

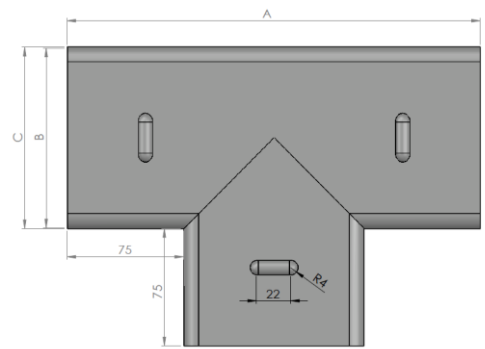
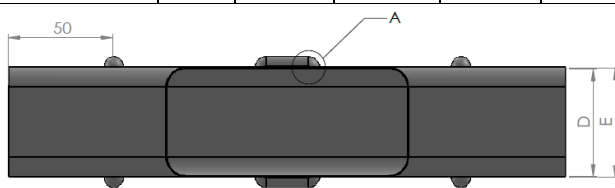
T-Piece to Round Male

Article code	A	B (ID)	C (OD)	D (ID)	E (OD)	F
	mm	mm	mm	mm	mm	mm
DRP-MT110x54-RM100	250	115	116	51	52	99.3
DRP-MT140x54-RM125	275	145	146	51	52	124.3
DRP-MT180x54-RM150	300	185	186	51	52	149.3
DRP-MT195x54-RM160	310	200	201	51	52	159.3
DRP-MT200x80-RM180	330	197	198	77	78	179.3
DRP-MT235x80-RM200	350	232	233	77	78	199.3



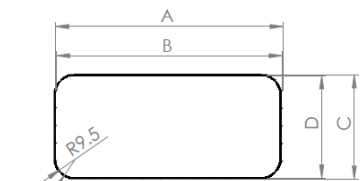
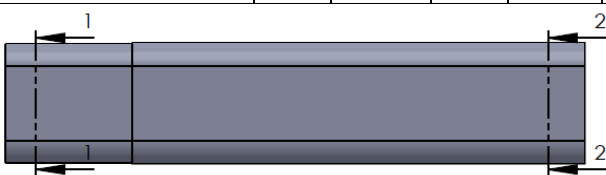
T-Piece Male

Article code	A	B (ID)	C (OD)	D (ID)	E (OD)
	mm	mm	mm	mm	mm
DRP-MT110x54	266	115	116	51	52
DRP-MT140x54	296	145	146	51	52
DRP-MT180x54	336	185	186	51	52
DRP-MT195x54	351	200	201	51	52
DRP-MT200x80	348	197	198	77	78
DRP-MT235x80	383	232	233	77	78

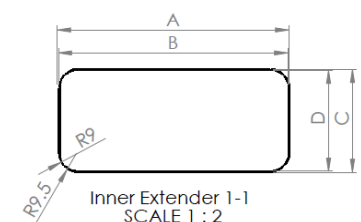


Wall Extender

Article code	Inner Part Extender				Outer Part Extender			
	A	B (ID)	C	D (ID)	A	B (ID)	C	D (ID)
	mm	mm	mm	mm	mm	mm	mm	mm
DRP-MWE110x54	116	115	52	51	117	116	53	52
DRP-MWE140x54	146	145	52	51	147	146	53	52
DRP-MWE180x54	186	185	52	51	187	186	53	52
DRP-MWE195x54	201	200	52	51	202	201	53	52
DRP-MWE200x80	198	197	78	77	199	198	79	78
DRP-MWE235x80	233	232	78	77	234	233	79	78



Outer Extender 2-2
SCALE 1 : 2



Inner Extender 1-1
SCALE 1 : 2

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



QUADRODEC GALVANIZED ACCESSORIES

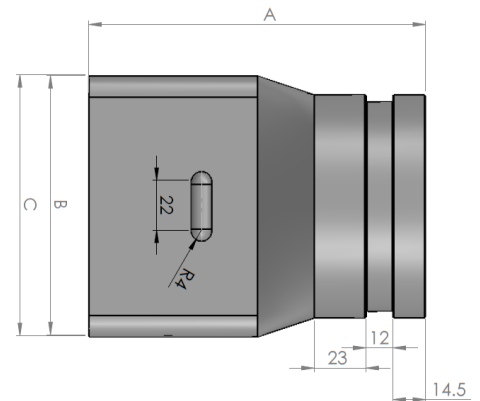
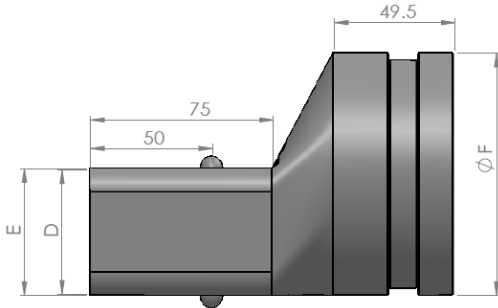
SEMI FLEXIBLE CORRUGATED DUCTING

Accessories

Material is zinc coated (hot-dip) - Zinc amount 275 gr/m²
Chrome free - Not oiled - Material thickness 0.5mm (tolerance ± 0.05mm)

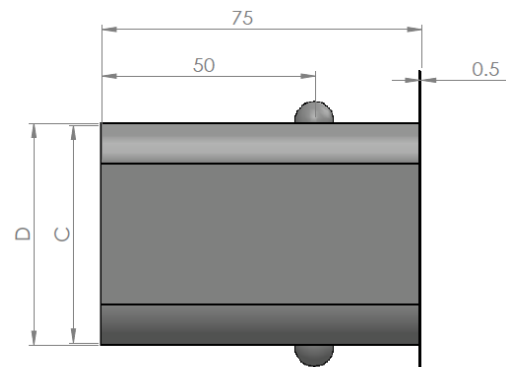
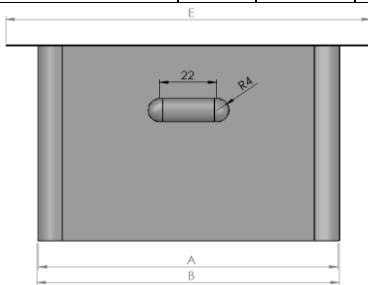
Rectangular to Round Male

Article code	A	B (ID)	C(OD)	D(ID)	E(OD)	F
	mm	mm	mm	mm	mm	mm
DRP-M110x54-RM100	149.5	115	116	51	52	99.3
DRP-M140x54-RM125	164.5	145	146	51	52	124.3
DRP-M180x54-RM150	184.5	185	186	51	52	149.3
DRP-M195x54-RM160	194.5	200	201	51	52	159.3
DRP-M200x80-RM180	214.5	197	198	77	78	179.3
DRP-M235x80-RM200	224.5	232	233	77	78	199.3



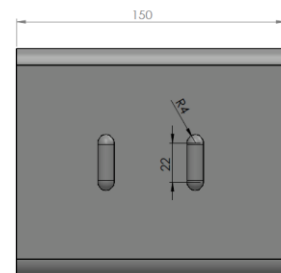
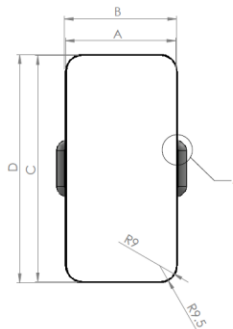
Rectangular Joint Male

Article code	A	B (OD)	C(ID)	D(ID)	E
	mm	mm	mm	mm	mm
DRP-MJ110x54	115	116	51	52	140
DRP-MJ140x54	145	146	51	52	170
DRP-MJ180x54	185	186	51	52	210
DRP-MJ195x54	200	201	51	52	225
DRP-MJ200x80	197	198	77	78	222
DRP-MJ235x80	232	233	77	78	257



Straight Male

Article code	A (ID)	B (OD)	C(ID)	D(OD)
	mm	mm	mm	mm
DRP-MS110x54	51	52	115	116
DRP-MS140x54	51	52	145	146
DRP-MS180x54	51	52	185	186
DRP-MS195x54	51	52	200	201
DRP-MS200x80	77	78	197	198
DRP-MS235x80	77	78	232	233



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



QUADRODEC GALVANIZED ACCESSORIES

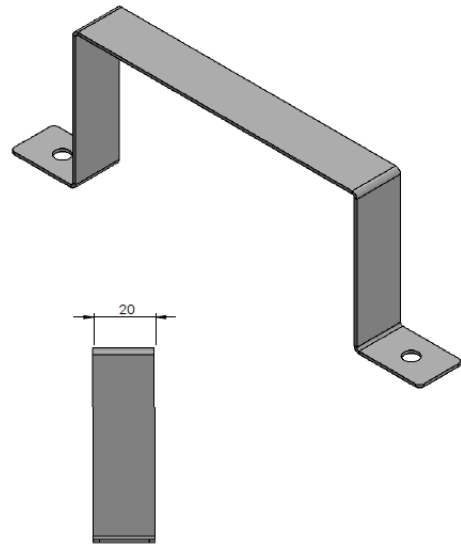
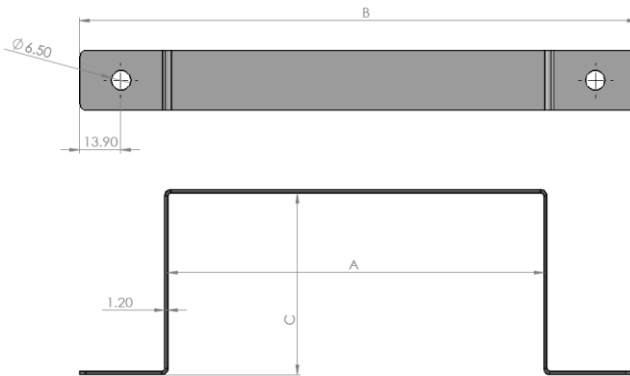
SEMI FLEXIBLE CORRUGATED DUCTING

Accessories

Material is zinc coated (hot-dip) - Zinc amount 275 gr/m²
Chrome free - Not oiled - Material thickness 0.5mm (tolerance ± 0.05mm)

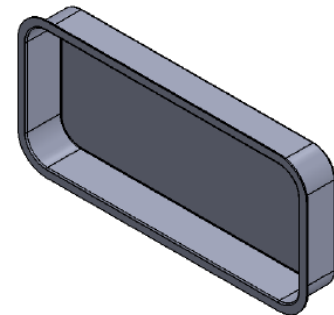
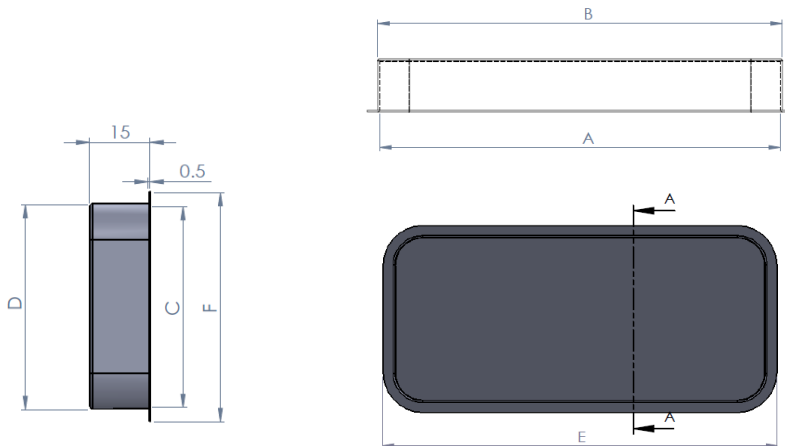
Single bracket

Article code	A mm	B mm	C mm
DRP-B110x54	128	188	62
DRP-B140x54	158	218	62
DRP-B180x54	198	258	62
DRP-B195x54	213	273	62
DRP-B200x80	210	270	88
DRP-B235x80	145	305	88



Lid male

Article code	A	B (ID)	C (OD)	D (ID)	E (OD)	F
	mm	mm	mm	mm	mm	mm
DRP-M110x54-RM100	114	115	50	51	121	57
DRP-M140x54-RM125	144	145	50	51	151	57
DRP-M180x54-RM150	184	185	50	51	191	57
DRP-M195x54-RM160	199	200	50	51	206	57
DRP-M200x80-RM180	196	197	76	77	203	83
DRP-M235x80-RM200	231	232	76	77	238	83



SECTION A-A

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



STRETCHDEC RECTANGULAR

SEMI FLEXIBLE CORRUGATED DUCTING

STRETCHDEC RECTANGULAR is a superb flexible duct constructed of one layer of corrugated Aluminium. By the inter lockseam a high airtightness and flexibility is reached. 100% recyclable.

APPLICATION

- Suitable for mechanical air supply systems and air conditioning systems.
- Systems, where vapors should be exhausted
- Above mentioned systems, where a special mechanical strength is required

SPECIFICATIONS

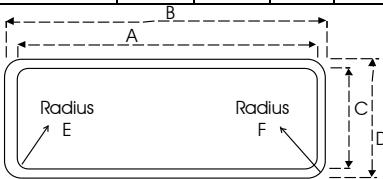
Article code:	DXGR{*X*}/L
Temperature range:	-30°C to 250°C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Bending radius:	min. 1 x Ø
Standard length:	3 mtr

CLASSIFICATIONS

EU (EN 13501-1):	A1
UK (BS476):	Part 4, 6, 7 and 20
FR (NF):	M0
DE (DIN4102)	A1

Dimensions in mm

type	A	B	C	D	E	F
110x54	118	124	54	60	9	12
140x54	148	154	54	60	9	12
180x54	188	194	54	60	9	12
195x54	203	209	54	60	9	12
150x70	158	164	70	76	9	12

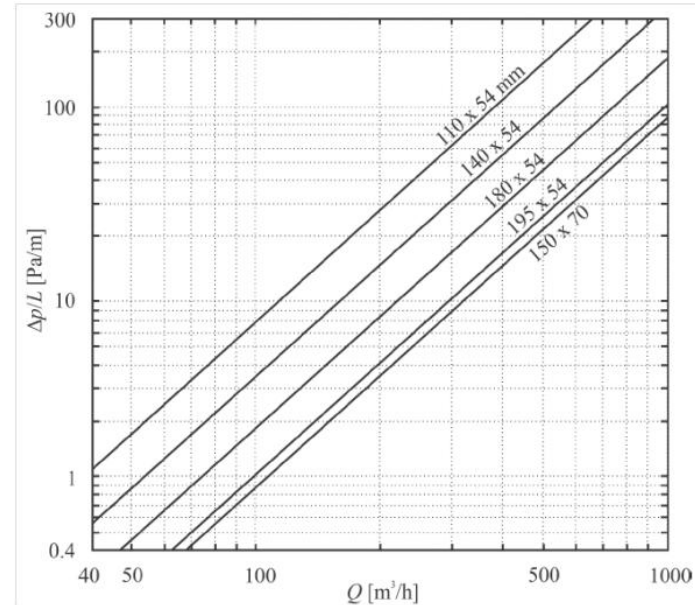


Compressed ducts to be extended with:

- ≤ Ø 200mm – 2 Persons ;
- > Ø 200mm – 4 persons.

By stretching always use gloves en safety goggles!!

PRESSURE LOSS (STRAIGHT DUCT)



The pressure drop in the straight sections of semi-flexible pipes made of galvanized steel and aluminium

Based on the conditions during testing the density of air is calculated and determined as standard condition ($\rho = 1,2 \text{ kg/m}^3$). If conditions differ from these standard conditions, it is necessary to make corrections in that way that the value of unit pressure drop obtained from graph is multiplied by a factor $\rho/1.2$. Unit pressure drop for the straight section of semi-flexible pipes with a rectangular cross-section made of galvanized steel for the conditions of gauge pressure

HOW TO INSTALL

The STRETCHDEC ducts can easily be cut with a metal saw or a sharp blade. The bending is done by hand. Connecting a STRETCHDEC duct can be done by simple fitting to an apparatus. Sealing is achieved with a tape sealing or sealant. The fixing is conducted by a clamp placed on the tape adhesive, by rivets or by self-drilling screws. The assembly of two lengths requires the use of a male fitting of Galvanized steel or aluminium.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

STRETCHDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The STRETCHDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



QUADRODEC®
RECTANGULAR DUCTING SYSTEMS

Ductwork

Space saving semi flexible and rigid ventilation channels and ductwork for residential ventilation
A flexible solution where quality is needed and mounting space is critical
A tapeless system, save connection

By a small assortment of pre shaped semi rigid, rigid ductwork and it's accessories, a ventilation system for energy saving houses can be created, with a minimum at efforts and with the **DEC Safefix**® connector the leakage will for fill **Class D according EN12237**.

Dimensions available:

220x55 mm equivalent to Ø125mm: surface 0.0121m²

250x80 mm equivalent to Ø160mm: surface 0.0176m²

Product features and advantages:

- Class A1 according to EN 13501
- Leakage class D EN12237
- Working temperature up to 375°C for galvanized and 250°C for aluminum
- With reinforcement to be used in concrete floors loading weight
- 100% recyclable
- Can be insulated with **DECWRAP**® for the best insulation properties

Rectangular ducting is ideal for fitting in places like kitchens, lavatories or bathrooms concealed above wall units or in wall or ceiling voids due to its low profile. **DEC INTERNATIONAL**® has with the **QUADRODEC**® rectangular ducting systems a complete solution. These systems will cater for most domestic requirements.

An important part of the **QUADRODEC**® rectangular ducting system is the semi-flexible duct.

These ducts are produced in high quality aluminium or galvanized steel and its semi-flexibility gives the opportunity to create horizontal and vertical 90° bends with ease. As well as the flexible Quadrodec ducts can be extended to 1.5 X the length to overbridge length.

The aluminum version has been approved for fire resistance according to the German norm DIN4102 and to the European norm EN13501-1 and classified as A1.

The galvanized steel version its classification as raw material is according to the German norm DIN4102 and to the European norm EN13501-1 as A1 and M0 in France.

"THE QUADRODEC® RANGE OF SEMI-FLEXIBLE DUCTING ARE STURDY BUT EASY TO MANIPULATE INTO DIFFERENT SHAPES WHILST MAINTAINING A FULL AIRFLOW"

Ducting joints

Although it is perfectly possible to make both horizontal and vertical bends with the **QUADRODEC**® rectangular duct, sometimes it is necessary to use pre-formed joints instead. Also, when 2 ducts need to be joined or splitted, joints come in use.

For all these situations **DEC INTERNATIONAL**® has developed several types of quality joints. All our joints are made of galvanized steel.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

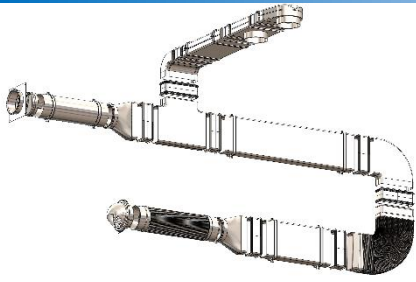
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

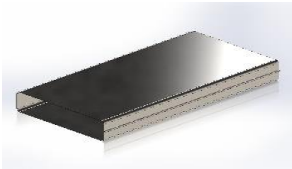


QUADRODEC®

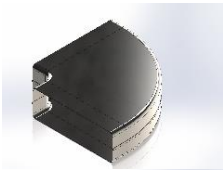
RECTANGULAR DUCTING SYSTEMS

Accessories

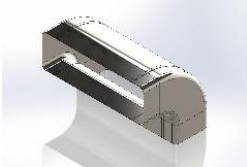
Material is zinc coated (hot-dip) - Zinc amount 275 gr/m²
Chrome free - Not oiled - Material thickness 0.5mm (tolerance ± 0.05mm)



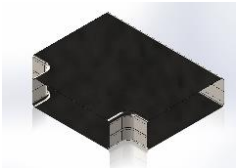
QDP220X55/0,5 - QuadroDEC Pipe 220x55mm 0,5Mtr F/F
QDP250X80/0,5 - QuadroDEC Pipe 250x80mm 0,5Mtr F/F
QDP220X55/1,0 - QuadroDEC Pipe 220x55mm 1Mtr F/F
QDP250X80/1,0 - QuadroDEC Pipe 250x80mm 1,0Mtr F/F



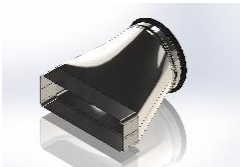
QDH90FF220x55 - QuadroDEC 220X55 Horizontal 90° F/F
QDH90FF250x80 - QuadroDEC 250X80 Horizontal 90° F/F



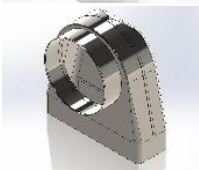
QDV90FF220x55 - QuadroDEC 220X55mm Vertical 90° F/F
QDV90FF250x80 - QuadroDEC 250X80mm Vertical 90° F/F



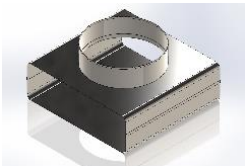
QDTFF220x55 - QuadroDEC T-piece 220x55mm F/F
QDTFF250x80 - QuadroDEC T-piece 250x80mm F/F



QDEFM220x55-125 - QuadroDEC Excentric 220x55 to Round 125mm F/M
QDEFM250x80-160 - QuadroDEC Excentric 250x80 to Round 160mm F/M



QD90FF220x55-125 - QuadroDEC 220X55mm to 125mm 90° F/F
QD90FF250x80-160 - QuadroDEC 250X80mm to 160mm 90° F/F



QDTRFF220x55-125 - QuadroDEC T-piece 220x55mm to 125mm F/F
QDTRFF250x80-160 - QuadroDEC T-piece 250x80mm to 160mm F/F



QDCMM220X55 - QuadroDECsafe Connector 219x54mm M/M
QDCMM250X80 - QuadroDECsafe Connector 249x79mm M/M



QDRB220x55 - QuadroDEC Bracket 220x55mm
QDRB250x80 - QuadroDEC Bracket 250x80mm

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

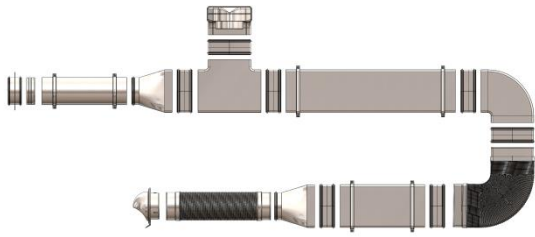
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

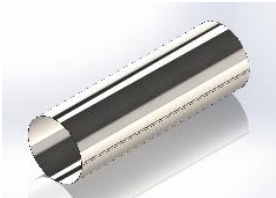


QUADRODEC®

RECTANGULAR DUCTING SYSTEMS

Material is zinc coated (hot-dip) - Zinc amount 275 gr/m²
Chrome free - Not oiled - Material thickness 0.5mm (tolerance ± 0.05mm)

Accessories



RPFF125/0,5 - Round Pipe 125mm 0,5Mtr F/F
RPFF160/0,5 - Round Pipe 160mm 0,5Mtr F/F
RPFF125/1,0 - Round Pipe 125mm 1Mtr F/F
RPFF160/1,0 - Round Pipe 160mm 1Mtr F/F



RCMM125 - Round Connector 125mm M/M
RCMM160 - Round Connector 160mm M/M



RC45MM125 - Round Connector 125mm 45° M/M
RC45MM160 - Round Connector 160mm 45° M/M



RC90MM125 - Round Connector 125mm 90° M/M
RC90MM160 - Round Connector 160mm 90° M/M



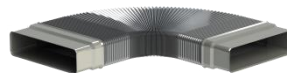
WCMM125 - Wall connector 125mm M/M
WCMM160 - Wall connector 160mm M/M



SBR0125 - RUBBER SPIRAL BENDS 125mm
SBR0160 - RUBBER SPIRAL BENDS 160mm



Quadrodec flexible duct (Aluminium)



Connectdec flex duct, Aluminium



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



DEC FLEX

FLEXIBLE CHIMNEY TUBE LINING

PRODUCT INFORMATION

If you decide using a flexible system, please be sure you select the correct type of chimney lining. The diameter is stipulated by the total length, including the connections and course of the tube lining, the capacity, the type of appliance and the fuel. The choice of system is depending of the used appliance and the national standards and building regulations.

The **DEC FLEX** tube lining material is an universal system with EC, KOMO and Gastec QA standards and suitable for over- and under pressure applications within wet or dry circumstances.

The **DEC FLEX** range can be divided into three main groups:

- Single-walled products.
- Double-walled products. (inside smooth)
- Accessories

SPECIFICATIONS	DEC FLEX SWE	DEC FLEX SW	DEC FLEX TW
Article code:	D1BYE{Ø}L	D2BY{Ø}L	D22BY{Ø}L
Material ¹ :	Austenitic stainless steel (AISI 316L / DIN 1.4435)	Austenitic stainless steel (AISI 316Ti / DIN 1.4571)	Austenitic stainless steel (AISI 316Ti / DIN 1.4571)
Application:	In situations where no special provisions for condensation are required		
Wall properties outside:	Corrugated	Corrugated	Corrugated
Wall properties inside:	Corrugated	Corrugated	Smooth

¹Material is in all the above Cold Rolled Bright Annealed and tested according to EN 10204 3.1B

PRODUCTION PROCESS

The production process is certified according to:

- EN-ISO9001: 2008
- EN 1856-2 with Factory Production Control (FPC)

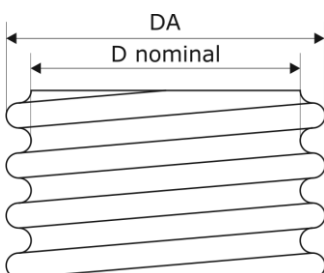
All flexible tubes have been marked at least every three meters with:

- product name
- production date with order number
- nominal measurements
- batch numbers and
- hallmark(s)
- a line mark every meter

PACKAGING

The flexible tubing comes standard in easy rolls covered with polyethylene elastic foil to minimize packaging waste. As extra protection a box or protection foil can be used.

INNER/OUTER DIMENSIONS



$$DA = D \text{ nominal} + 7 \text{ mm}$$

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC FLEX

FLEXIBLE CHIMNEY TUBE LINING

DIAMETER		LOAD	D2BY			
ø nom [mm]	nett [kw]	wood min. max. l in mtr	oil min. max. l in mtr	zeta	bending radius min (mm)	kg/m
80	5	5 - 5	3 - 5	0.72	240	0.50
	10	X	X	0.72	240	0.50
90	5	3 - 6	2 - 5	0.61	270	0.56
	10	X	5	0.61	270	0.56
100	5	3 - 5	2 - 4	0.53	300	0.62
	10	6 - 9	3 - 7	0.53	300	0.62
110	7.5	3 - 7	2 - 6	0.47	330	0.68
	15	11 - 12	4 - 10	0.47	330	0.68
120	7.5	2 - 7	2 - 6	0.41	360	0.74
	15	6 - 11	3 - 9	0.41	360	0.74
125	7.5	2 - 6	2 - 5	0.39	375	0.77
	15	5 - 11	3 - 9	0.39	375	0.77
130	10	3 - 8	2 - 7	0.37	390	0.81
	20	7 - 13	4 - 11	0.37	390	0.81
140	15	3 - 11	2 - 9	0.34	420	0.87
	30	16 - 18	5 - 15	0.34	420	0.87
150	15	2 - 10	2 - 9	0.31	450	0.93
	30	7 - 17	3 - 14	0.31	450	0.93
160	15	2 - 10	2 - 10	0.28	480	0.99
	30	5 - 17	3 - 14	0.28	480	0.99
180	20	2 - 12	2 - 10	0.24	540	1.11
	40	6 - 20	3 - 16	0.24	540	1.11
200	25	2 - 13	2 - 11	0.21	600	1.24
	50	5 - 22	3 - 18	0.21	600	1.24
225	35	2 - 16	2 - 14	0.17	675	1.39
	70	6 - 27	3 - 23	0.17	675	1.39
250	40	2 - 17	2 - 14	0.16	750	1.55
	80	5 - 29	3 - 24	0.16	750	1.55
300	55	2 - 20	2 - 17	0.12	900	1.86
	110	4 - 34	3 - 28	0.12	900	1.86
350	80	2 - 25	2 - 21	0.10	1050	2.17
	160	5 - 42	3 - 35	0.10	1050	2.17

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC FLEX

FLEXIBLE CHIMNEY TUBE LINING

DIAMETER		LOAD		D22BY		
ø nom [mm]	nett [kw]	wood min. max. l in mtr	oil min. max. l in mtr	zeta	bending radius min (mm)	kg/m
100	5	2 - 6	2 - 5	0.38	300	0.93
	10	5 - 10	3 - 8	0.38	300	0.93
110	7.5	3 - 8	2 - 7	0.34	330	1.02
	15	7 - 13	4 - 11	0.34	330	1.02
120	7.5	2 - 8	2 - 6	0.30	360	1.11
	15	5 - 13	3 - 11	0.30	360	1.11
125	7.5	2 - 7	2 - 6	0.29	375	1.16
	15	4 - 12	3 - 11	0.29	375	1.16
130	10	2 - 9	2 - 8	0.27	390	1.21
	20	5 - 15	3 - 13	0.27	390	1.21
140	15	3 - 12	2 - 10	0.25	420	1.30
	30	9 - 20	4 - 17	0.25	420	1.30
150	15	2 - 12	2 - 10	0.23	450	1.39
	30	6 - 19	3 - 16	0.23	450	1.39
160	15	2 - 13	2 - 11	0.21	480	1.48
	30	4 - 19	3 - 16	0.21	480	1.48
180	20	2 - 13	2 - 11	0.18	540	1.67
	40	5 - 22	3 - 19	0.18	540	1.67
200	25	2 - 15	2 - 13	0.16	600	1.85
	50	5 - 25	3 - 21	0.16	600	1.85
225	35	2 - 18	2 - 15	0.14	675	2.00
	70	5 - 30	3 - 26	0.14	675	2.00
250	40	2 - 19	2 - 17	0.12	750	2.32
	80	5 - 32	3 - 28	0.12	750	2.32
300	55	2 - 23	2 - 20	0.09	900	2.78
	110	4 - 38	3 - 33	0.09	900	2.78
350	80	2 - 29	2 - 24	0.08	1050	3.29
	160	4 - 47	3 - 40	0.08	1050	3.29

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

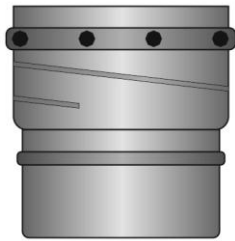
TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



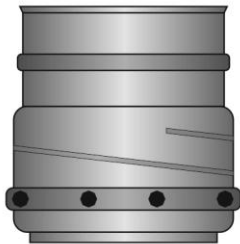
DEC FLEX

FLEXIBLE CHIMNEY TUBE LINING



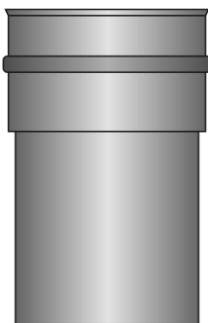
ADAP1-PW{Ø} CONNECTING PIECE/FLEX

Material	Stainless steel 316L/DIN 1.4404
Material thickness	0.5 mm
Available diameters	80, 90, 100, 113, 125, 130, 150, 180 and 200 mm



ADAP2-PW{Ø} FLEX/CONNECTING PIECE

Material	Stainless steel 316L/DIN 1.4404
Material thickness	0.5 mm
Available diameters	80, 90, 100, 113, 125, 130, 150, 180 and 200 mm



ADAP2{Ø} FLEX/CONNECTING PIECE

Material	Stainless steel 316L/DIN 1.4404
Material thickness	0.5 mm
Available diameters	80, 90, 100, 113, 125, 130, 150, 180, 200, 225, 250 and 300 mm

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DECFLEX

FLEXIBLE CHIMNEY TUBE LINING

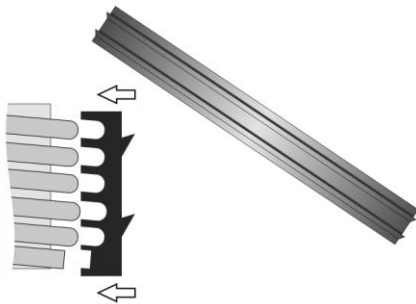


HT KIT

SEALANT FOR ADAP-PW

Material
Material temperature
Packaging

Silicone rubber
combustion gases 200°C
310 ml tube

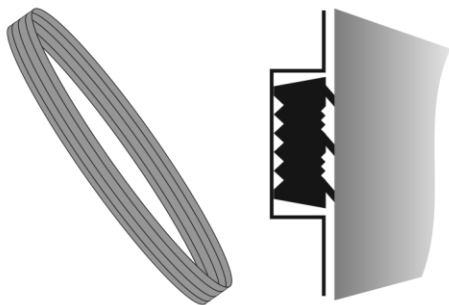


ADAS1{Ø}

SEALING RING FOR ADAP1R(G)

Material
Material temperature
Available diameters

Silicone rubber
combustion gases 200°C
80, 90, 100, 110, 130 and 150 mm



ADAS3{Ø}

SEALING RING FOR ADAP2PW FEMALE SIDE

Material
Material temperature
Available diameters

Silicone rubber
combustion gases 200°C
80, 100, 113, 130, 150, 180 and 200 mm

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

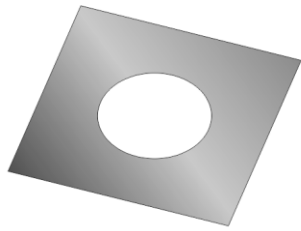
TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC FLEX

FLEXIBLE CHIMNEY TUBE LINING



ADAP3{Ø}

COVER PLATE FOR ADAP2

Material

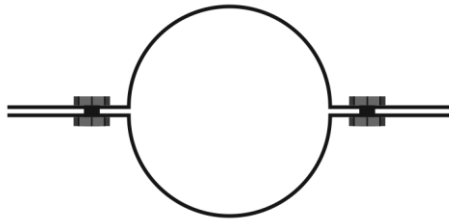
Stainless steel 316L/DIN 1.4404

Material thickness

0.5 mm

Available diameters

80, 90, 100, 125, 130, 150, 180, 200, 225, 250 and 300 mm



FLS316Ti{Ø}

MOUNTING BRACKET

Material

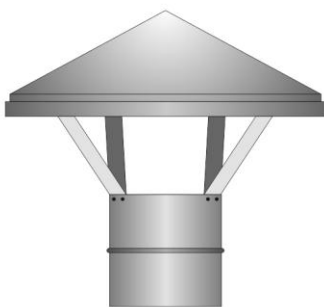
Stainless steel 316L/DIN 1.4571

Material thickness

2.0 mm

Available diameters

80, 90, 100, 125, 130, 150, 180, 200, 250 and 300 mm



FLRC{Ø}

RAIN CAP

Material

Stainless steel 316L/DIN 1.4404

Material thickness

0.6 mm

Available diameters

80, 100, 110, 130, 150, 180 and 200 mm

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DECFLEX

FLEXIBLE CHIMNEY TUBE LINING



FLRC1{Ø}

RAIN CAP WITH CLAMP

Material

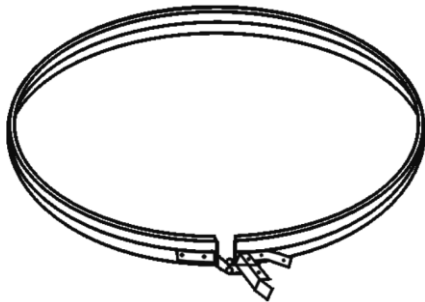
Stainless steel 316L/DIN 1.4404

Material thickness

0.6 mm

Available diameters

80, 100, 110, 130, 150, 180 and 200 mm



FLCR1{Ø}

CLAMPING BRACKET

Material

Stainless steel 316L/DIN 1.4401

Material thickness

0.6 mm

Available diameters

80, 100, 110, 130, 150, 180 and 200 mm

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

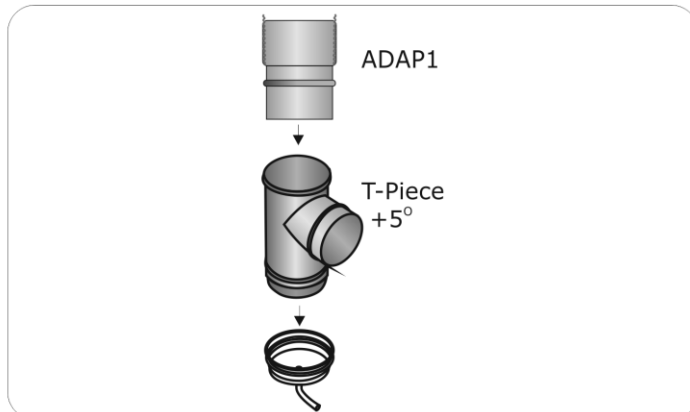
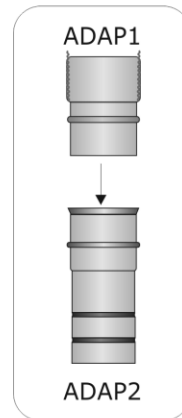
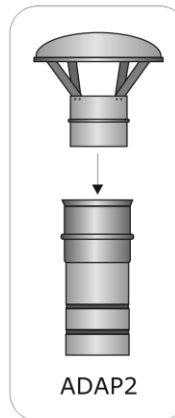
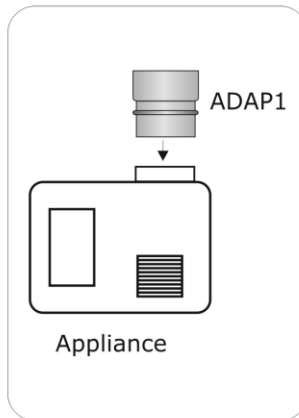
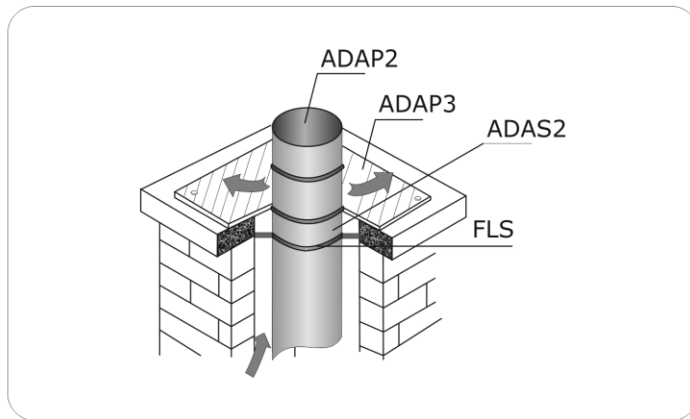
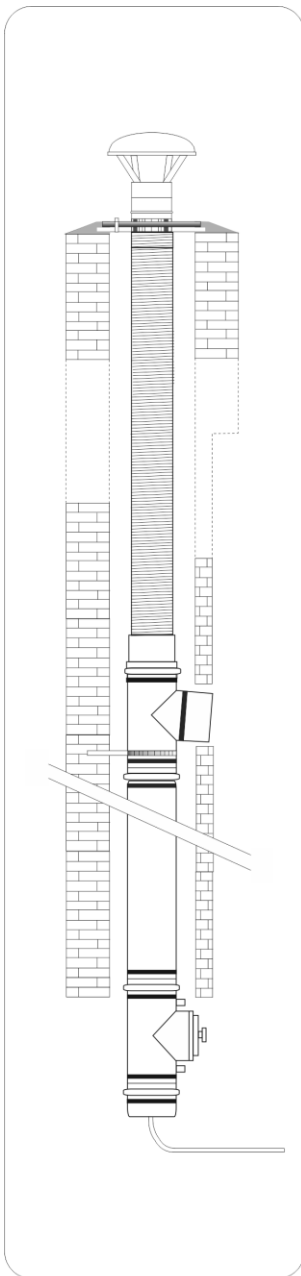


DEC FLEX

FLEXIBLE CHIMNEY TUBE LINING

SAMPLE CONSTRUCTIONS

This sample document is an example for purposes of illustration only and is intended to serve only as a general resource, not as a form or recommendation. The manufacturer accepts no liability for the ultimate construction.



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DECFLEX

INSTALLATION MANUAL FOR
DECFLEX FLEXIBLE CHIMNEY TUBE LINING

CONTENTS

- Manufacturer
- General
- Products
- Applications
- Preparation
- Length and diameter

MANUFACTURER

Dutch Environment Corporation® B.V.

- **BVQI** certified in accordance with **NEN-ISO 9001:2000**
- **CSTB** certified in accordance with **EN 1856-2:2004 (CE)**

PRODUCTS

The **DECFLEX** range can be divided into three main groups:

- Single-walled products
- Twin-walled products with a smooth inside
- Accessories

Both the single-walled and the twin-walled flexible chimney linings are available in two stainless steel qualities: AISI 316L / 1.4435 and AISI 316Ti / 1.4571. A range of accessories is available for a correct assembly in the flue, the exhaust hood assembly and for connecting the device. Please refer to the technical specifications for further details on these products.

APPLICATION

Flexible tube lining is applied in an existing chimney for discharging combustion gases. The flexible lining may not be seen as repairs to a chimney that is in a poor condition. The existing chimney must be in good condition and built in accordance with current standards and regulations.

Application of the lining will result into:

- A smaller diameter than the original channel;
- Protecting the original flue against the risks of condensation and affecting of the inside of the chimney;
- Improved gas tightness.

PLEASE NOTE:

DEC International accepts absolutely no liability for an injudicious or wrong assembly, nor for a wrongly chosen application of here defined products. Single-walled products may generally be used for exhausting flue gas from gas-fired appliances. The twin-walled products have a far smoother inside and therefore a lower resistance. These twin-walled products are suitable as chimney linings. Twin walls also have a longer lifespan. Arrows on the outside of the twin-walled tubing show the flow direction of combustion gases.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC FLEX

INSTALLATION MANUAL FOR
DEC FLEX FLEXIBLE CHIMNEY TUBE LINING

KOMO AND GASTEC QA

Above mentioned marks only affect the below mentioned products:

KOMO : D22BY, D2BY
GASTEC QA : D2BY

1. The **KOMO** label has been granted for a number of different applications. This version is suitable for dry exhaust systems, operating with negative pressure and a maximum flue gas temperature of 600°C.

Charac
and oi
the do
diameter

CANCELLED UNTIL: FURTHER NOTICE

burning heaters
single-wall and
es to the entire

2. The use of this version has a characterisation of **T200-P-W WITH SEALING RING** and comes under certificate number G16/01 **KOMO** label (non-gas appliances). The tube lining is available in single-wall as well as double-wall versions and for diameters of up to 200 mm.

to be used with
the overpressure

3. The overpressure version is also suitable for gas-fired appliances. **KOMO** certificate number G19/02 applies to this version and has the same characterisation: **T200-P-W WITH SEALING RING**. The tube lining is available in single-wall as well as double-wall versions and for diameters of up to 200 mm. Certificate number 01/002 applies to the **GASTEC QA** label for overpressure with the following characterisation: **T250-P-W**. **GASTEC QA** applies to single-wall flexible tube lining for diameters: 80, 90, 100, 110, 120, 130, 140 and 150 mm. In the case of condensation we recommend the use of 904L quality stainless steel.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DECFLEX

INSTALLATION MANUAL FOR
DECFLEX FLEXIBLE CHIMNEY TUBE LINING

CE Marking EN 1856-2

REQUIREMENTS FOR METAL CHIMNEYS- PART2: METAL LINERS AND CONNECTING FLUE PIPES

Above mentioned European Standard affects the complete **DECFLEX** range.

As from April 1, 2006 all flexible metal flue liners must comply with the European standard 1856-2 and bear the corresponding **CE-marking**. This standard is in force in all European countries, and replaces identical national standards. The advantage is more transparency for all parties: the chimney systems now are clearly marked with a classification that indicates for what purpose the product can be applied.

Regarding the installation the national building regulations remain in force.

All **DECFLEX** products comply with the European norm, and starting **August 1. 2005** the **DECFLEX** range will be marked **CE** with the corresponding designation.

From the **DECFLEX**-range, the complete **Declaration of Performance** and **FPC-certificates** are available upon request. For all additional information, please contact our sales department.

The declared maximum designations are:

DecflexTW - 316Ti EN1856-2 T200 - P1 - W -Vm - L50012 - O
 EN1856-2 T450 - N1 - D -Vm - L50012 - G

DecflexSW - 316Ti EN1856-2 T200 - P1 - W-Vm - L50012 - O
 EN1856-2 T450 - N1 - D -Vm - L50012 - G

DecflexSWE - 316L EN1856-2 T200 - P1 - W -Vm - L50012 - O
 EN1856-2 T450 - N1 - D -Vm - L50012 - G

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC FLEX

INSTALLATION MANUAL FOR
DEC FLEX FLEXIBLE CHIMNEY TUBE LINING

PREPARATION

Please read the following information before installation:

Do NOT use these products for halogen-contaminated exhaust gases!

Use the flexible tubing only as lining in an existing chimney flue for discharging combustion gases. Check that the chimney is not damaged or cracked as the structural strength could be reduced.

Establish that the required system is a negative or positive pressure system. Find out whether or not condensation may occur. Choose the quality of the materials and necessary components accordingly.

The flexible duct cannot be used horizontally. The maximum angle relative to the plumb line is 30° for heavy condensing appliances and 45° for moderately condensing appliances and dry systems.

Ensure the chimney has been carefully swept before installation. Residual deposits may affect the lining.

Check that the existing chimney complies with building regulations. Generally the existing chimney will discharge in a free-flow area with no need for a chimney aspirator. The installation of a rain cap is recommended. If necessary, please check **NEN 2757** or **NPR 2758** or the applicable norms of your country.

In dwellings with combustible roofing (e.g. thatched houses) the exhaust hood must be fitted with a spark catcher. Check the small print of your insurance policy.

Flexible linings with a diameter smaller than 120 mm may not be used for gas-fired appliances exceeding a nominal output of 60kW. Check with the appliance manufacturer that the use of a stainless steel flexible flue gas exhaust system is allowed.

LENGTH AND DIAMETER

When checking that the required length and diameter are in order, we make a distinction between:

- Overpressure systems for appliances fitted with a fan, and
- Underpressure systems for appliances running on natural discharge.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC FLEX

INSTALLATION MANUAL FOR
DEC FLEX FLEXIBLE CHIMNEY TUBE LINING

OVERPRESSURE SYSTEM

$$\Delta p = (L \cdot \zeta_p + \zeta_v) \cdot \frac{1}{2} \cdot \rho \cdot v_{\text{nom}}^2$$

The loss of pressure is calculated with the above formula in which

L = Total length of the flexible lining [m]

ζ_p = Resistance factor (zeta). This is mentioned for the flexible tubes in the technical specifications

ζ_v = Resistance factor (zeta), if the exhaust system has a slope angle the zeta value must be increased as follows:

SLOPE ANGLE (2 CURVES)	ZETA INCREASE
30°	0.24
45°	0.36

ρ = Density of the combustion gases in [kg/m³];

v_{nom} = Velocity of the combustion gases in de nominal tube diameter [m/s].

To be calculated from the quantity of combustion gases to be discharged. For mounting the installation instruction of the appliance manufacturer should be consulted.

The calculated pressure loss of the diameter to be applied must be lower than the allowed pressure loss according to the installation instructions of the appliance.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC FLEX

INSTALLATION MANUAL FOR
DEC FLEX FLEXIBLE CHIMNEY TUBE LINING

UNDERPRESSURE SYSTEM

Follow the directions by the appliance manufacturer for the lining diameter. In general the lining will need the same diameter as used for the appliance-connecting sleeve.

The proper operation of the appliance not only depends on the diameter but also on the length, both the minimum and the maximum length.

The following table shows the minimum and maximum exhaust lengths. These details are based on the following assumptions:

- An exhaust system with two 30° curves
- Necessary draw for proper operation is 5 Pa (including the exhaust entry resistance)
- CO₂ content of the flue gases is 8%
- Temperature of the flue gases is 200 °C

The allowed length depends on the exhaust system diameter and the load of the appliance. When knowing the length and the diameter one can also see which load can be applied. Of course one could also work out the right diameter once the length and the load are known.

The minimum length is needed for transporting the combustion gases. The draw must exceed the resistance of the exhaust system.

Condensation may occur when the tubing is too long. The lining itself may be condense water resistant, certainly if stainless steel 904L has been applied, but the proper operation of the appliance at the start may be adversely affected if combustion gases are cooling off too much. Using twin-walled lining can eliminate condensation problems; by insulating the cavity.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC FLEX

INSTALLATION MANUAL FOR
DEC FLEX FLEXIBLE CHIMNEY TUBE LINING

MINIMUM AND MAXIMUM LENGTH IN METRES

DIAMETER [mm]	LOAD O.W. [Kw]	MINIMUM AND MAXIMUM LENGTH IN METRES			
		D2BY s.w./wood	D22BY t.w./wood	D2BY s.w./oil	D22BY t.w./oil
80	5	5 - 5	5 - 5	3 - 5	3 - 5
	10	X	X	X	8 - 9
90	5	3 - 6	3 - 7	2 - 5	2 - 5
	10	X	X	5	8
100	5	3 - 5	2 - 6	2 - 4	2 - 5
	10	6 - 9	5 - 10	3 - 7	3 - 8
110	7.5	3 - 7	3 - 8	2 - 6	2 - 7
	15	11 - 12	7 - 13	4 - 10	4 - 11
120	7.5	2 - 7	2 - 8	2 - 6	2 - 6
	15	6 - 11	5 - 13	3 - 9	3 - 11
125	7.5	2 - 6	2 - 7	2 - 5	2 - 6
	15	5 - 11	4 - 12	3 - 9	3 - 11
130	10	3 - 8	2 - 9	2 - 7	2 - 8
	20	7 - 13	5 - 15	4 - 11	3 - 13
140	15	3 - 11	3 - 12	2 - 9	2 - 10
	30	16 - 18	9 - 20	5 - 15	4 - 17
150	15	2 - 10	2 - 12	2 - 9	2 - 10
	30	7 - 17	6 - 19	3 - 14	3 - 16
160	15	2 - 10	2 - 13	2 - 10	2 - 11
	30	5 - 17	4 - 19	3 - 14	3 - 16
180	20	2 - 12	2 - 13	2 - 10	2 - 11
	40	6 - 20	5 - 22	3 - 16	3 - 19
200	25	2 - 13	2 - 15	2 - 11	2 - 13
	50	5 - 22	5 - 25	3 - 18	3 - 21
230	35	2 - 16	2 - 18	2 - 14	2 - 15
	70	6 - 27	5 - 30	3 - 23	3 - 26
250	40	2 - 17	2 - 19	2 - 14	2 - 17
	80	5 - 29	5 - 32	3 - 24	3 - 28
300	55	2 - 20	2 - 23	2 - 17	2 - 20
	110	4 - 34	4 - 38	3 - 28	3 - 33
350	80	2 - 25	2 - 29	2 - 21	2 - 24
	160	5 - 42	4 - 47	3 - 35	3 - 40

s.w = Single-walled

t.w. = Twin-walled

"x" in the tables stands for no dry chimney with sufficient capacity

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

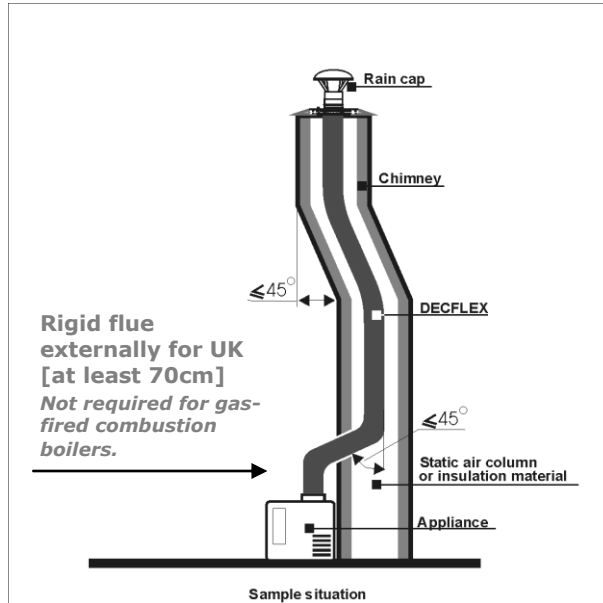
TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC FLEX

ASSEMBLY INSTRUCTIONS FOR
DEC FLEX FLEXIBLE CHIMNEY TUBE LINING



TECHNICAL DATA

Nom. diameter inside (mm)	Ø 80	Ø 90	Ø 100	Ø 110	Ø 120	Ø 130	Ø 140	Ø 150
Diameter outside (mm)	Ø 87	Ø 97	Ø 107	Ø 117	Ø 127	Ø 137	Ø 147	Ø 157
Tolerance	-0, +1 % x Ø							
Wall thickness	0.12 mm							
Quality	AISI 316Ti/DIN 1.4435, AISI 316Ti/DIN 1.4571 & AISI 904L /DIN 1.4539							
Life expectancy	5 - 10 years							
Minimum bending radius	3 x diameter							
Maximum slope angle in relation to the plumb line	45° for moderately condensing appliances							
	30° for strongly condensing appliances							
Weight per metre (kg)	0.57	0.64	0.71	0.79	0.86	0.93	1.00	1.07
Design load N	250	250	300	300	300	300	300	300
Temperature resistance °C	200, 450							
Application	Negative- and Positive pressure							

Extra information: flexible stainless steel tubing system

- Apply only in existing flues.
- Product has a limited life span.
- Not suitable for discharging combustion gases containing halogen.

It is recommended to use the tubing in an existing channel with a minimum diameter of: outside diameter + 10 cm.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



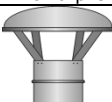
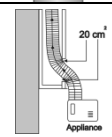
DEC FLEX

ASSEMBLY INSTRUCTIONS FOR
DEC FLEX FLEXIBLE CHIMNEY TUBE LINING

Read these assembly instructions carefully before installation.

Follow the steps below in the right order for the correct installation of the flexible chimney tube lining. Personal protective gear, such as gloves and safety goggles for eye protection, must be worn at all times. **Watch out** for the far ends of the lining. These may be sharp and can spring back while unrolling, installing and finishing. Always keep your face at a safe distance.

EXAMPLE: Assembly instructions specific for ADAP(1&2)-PW

1.	Make sure the chimney flue has been thoroughly swept before installation, as remaining deposits may affect the lining.
2.	Remove the chimney neck (the brick-on-edge coping), making the flue freely accessible.
3.	Select the diameter for the flexible lining. Lower a wooden sweep cone ADAC through the entire channel to check for any objects that may obstruct the passage. The cone must easily pass through the channel. Apply a smaller diameter when any obstacles are encountered, provided that the resistance for the appliance to be connected does not become too high. The cavity between the chimney wall and the flexible lining must be at least 5 cm.
4.	The required amount of lining can be determined using the rope connecting to the cone. Cut the lining at the required length after installation is completed. The chimney flue must have a flexible lining out of one piece. The maximum slope angle is 45°.
5.	Wear working gloves and safety goggles once you start using the chimney tube lining; the edges of the lining can be sharp.
6.	Install the sweep cone using self-tappers to the flexible tube. Note: on double-walled linings the flow direction of flue gases is shown by arrows.
7.	Pull the lining through the channel from the top. One person pulls, while a second person guides the lining through the chimney opening. This is to avoid any damage to the lining while pulling. Pull the lining far enough to allow room for connecting to the appliance.
8.	The lining should somewhat stick out from the top of the channel, making the far end of the lining level with the top of the brick-on-edge coping after installation.
9.	Cut the lining to the correct length if necessary, using a right-angle grinder or a metal saw (figure A). Level any sharp edges and protrusions to avoid damage to the ring. The lining must not be butted or damaged. Ensure the far ends of the lining have been carefully finished at right angles.
10.	Screw the adapters on the ends (fig B + D) NOTE: ADAP1-PW is for the bottom side and ADAP2-PW is for the top side. Only for overpressure systems: Carefully inject the HT-Kit into the holes around the adapter, pay good attention that the chambers are well filled (between liner and adapter) by means of filling all holes one by one until you have been round (fig E). Before mounting the ADAP2-PW confirm you have slid the roof plate ADAP4 over the liner.
11.	Fit and fix the assembly bracket FLS around the lining. Clamp the FLS securely around the lining but ensure the lining remains round. Note the correct diameter of the bracket! (See figure C).
12.	Centre the far end of the lining with the FLS in the channel and secure the same in a layer of concrete (figure C). Re-build the brick-on-edge coping.
13.	Secure the roofing sheet onto the brick-on-edge coping after the concrete has set.
14.	If the cavity is not filled with an insulation material, such as vermiculite, it should be ventilated. This is possible by mounting a cover plate with a pre-fabricated opening of 5 cm ² in such a way that watering will be prevented.
15.	 Place the rain cap FLRC in the adaptor ADAP2-PW and fix the unit with a clamping bracket FLCR . See the technical specifications for available diameters. In the case of a thatched house it is recommended you first check your insurance policy conditions for a hood fitted with a spark catcher.
16.	 Check that the lining at the bottom of the chimney at the feed-through aperture cannot be damaged by the sharp edges of the chimney flue. If an air cavity is being used: make a (ring-shaped) opening at the passage through the chimney wall of at least 20 cm ² for ventilation in the cavity, provided that the slope angle is ≤ 45°. A rigid flue has to be used externally in the United Kingdom!
17.	In the installation space of the gas appliance the unprotected tubing may not exceed 20 x D _{nom} . Put the tubing in a vertical position when possible. The angle in relation to the plumb line may not exceed 45°. Always retain a distance of at least 50 mm to the wall. If necessary, use a wall bracket to prevent sagging of the lining (see technical specifications for the available sizes).
18.	Determine the required length of the lining, taking into account the height of the adapter (ADAP1-PW). If there is talk of overlength: work the sheathing finished defined as in point 9.
19.	For positive pressure systems one uses the Ht-Kit with the ADAP1-PW and for under pressure systems not.
20.	Put the adaptor in the connection point of the appliance.
21.	Attach an identification plate on the chimney in the installation area near the entry point of the lining, for the chimneysweeper and/or maintenance engineer to see that flexible lining has been used.

See the installation manual for detailed information on applying linings in chimney flues. This manual is available from **DEC International**® on request. **General: in practice, depending on the situation, other installation methods are also used. The lining manufacturer has no control over these methods.** However, various accessories are available to make the work easier, such as a T-piece and a condense drain. See the technical specification for available diameters and assembly options. **The Fluegas evacuation (and the air supply) always must satisfy to the installation regulations of the appliance manufacturer and to the National building regulations.**

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

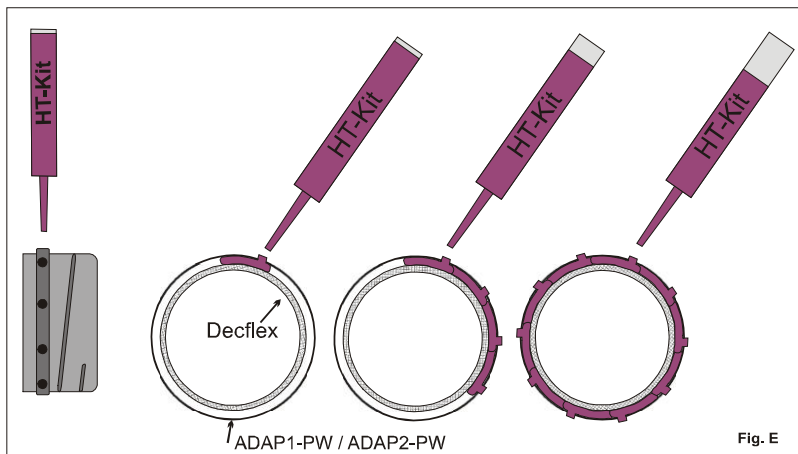
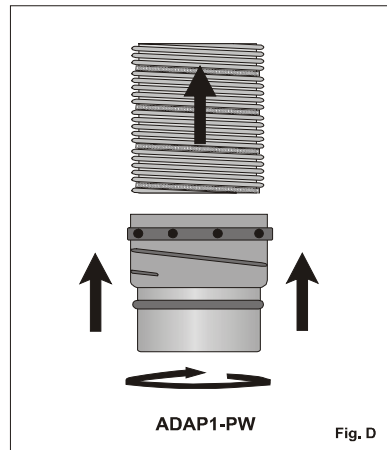
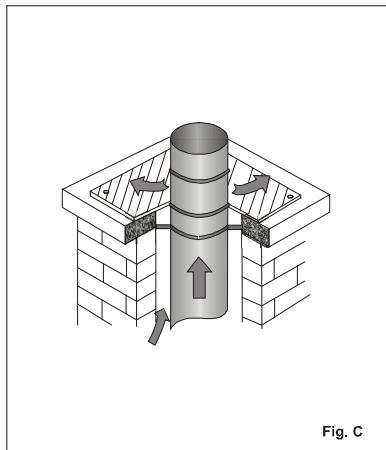
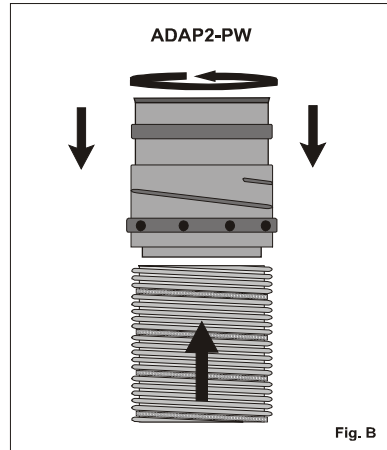
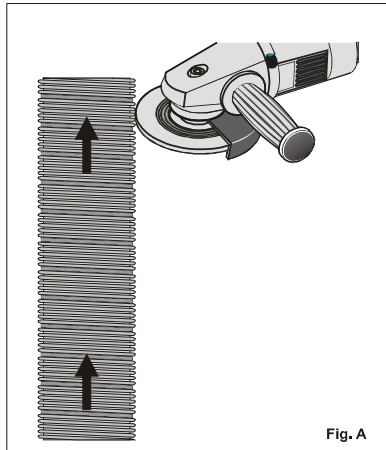
TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC FLEX

ASSEMBLY INSTRUCTIONS FOR
DEC FLEX FLEXIBLE CHIMNEY TUBE LINING



The illustrations serve as an example, the manufacturer takes absolutely no responsibility concerning the eventual implementation.

LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



ISODEC A23

THERMAL INSULATED DUCTING

The **ISODEC A23** series consists of a multiple aluminium laminated layer inner duct, thermally insulated with a bionic classified mineral wool layer and is provided with a strong aluminium laminated vapor barrier outer jacket. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

SPECIFICATIONS

Article code:	A23I{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

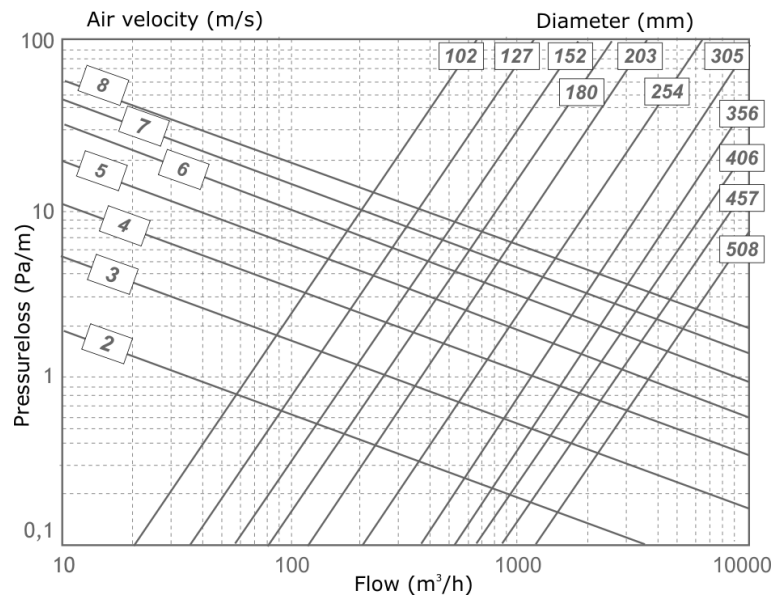
CONSTRUCTION

Inner duct 5 layers:	alu/poly laminate
of aluminium:	3 à 7 microns
of polyester:	2 à 12 microns
Total thickness:	45 µ(excl. adhesive)
Mineral wool blanket:	32mm, 12.5kg/m ³
Color wool:	Terra Green
Vapor barrier 3 layer:	Alu/poly laminate
of aluminium:	1 à 7 microns
of polyester:	2 à 12 microns
Total thickness:	32 µ (excl. adhesive)
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

CLASSIFICATIONS

	According to:
UK (BS476):	Part 6, 7 and 20
EU (EN 13501-1):	B-s1,d0
NL(NEN 6065/6066):	1
FR (NF):	M1

PRESSURE LOSS (STRAIGHT DUCT)



www.bauer-engel.de/uz132

The **ISODEC A23** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **ISODEC A23** is also available, on request, with a 50 mm glass wool layer, the article number is: A23I50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

Reach/RoHs Compliant

Directive 2011/65/EU RoHS

Phthalates according to 1907/2006/EC REACH

Test result: Pass - The test items meets the requirements of the test specification



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

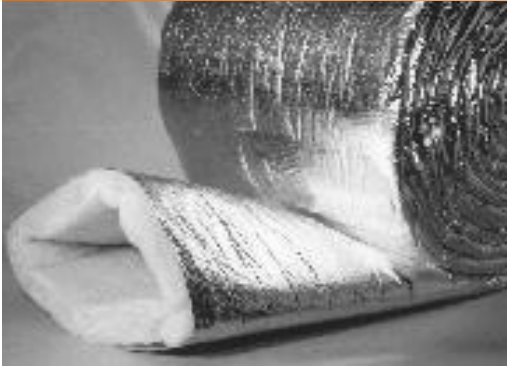
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ISODEC ducts suitable for transporting air with a high concentration of acid and base.



ISOSLEEVE 25

THERMAL INSULATED DUCTING

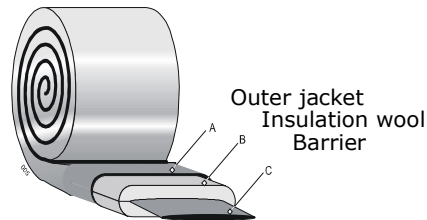
The **ISOSLEEVE 25** consists of an aluminium laminate outer jacket and provided with a glass wool insulation layer. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Insulation in air supply systems
- Air conditioning systems
- Insulation of rainwater discharge
- Reducing of heat loss
- Preventing/discharging of condensation

SPECIFICATIONS

Article code:	DHB{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2000 Pa
Operating air velocity:	irrelevant
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	52 – 635 mm
Standard length:	10 mtr



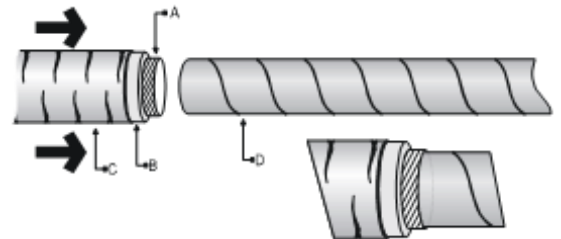
CONSTRUCTION

Barrier:	polyester film
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium


Barrier:

The ISOSLEEVE 25 has standard a barrier. The barrier simplifies the mounting, so that the installer will not have unnecessary contact with the glass wool. Fix the Barrier with tape to the spiral duct and pull-out the barrier at the other side, while second installer guides and holds the outer jacket and insulation wool. (Installation video available)

- A. Barrier
- B. Insulation wool
- C. Outer Jacket
- D. Spiral channel



CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
FR (NF):	M1
Marine certified MED	

The **ISOSLEEVE 25** is also available, on request, with a 50 mm glass wool layer, the article number is: DHB50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

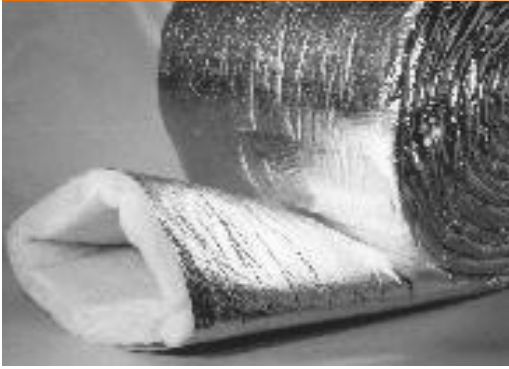
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ISOSLEEVE 50

THERMAL INSULATED DUCTING

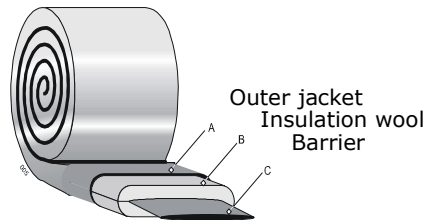
The **ISOSLEEVE 50** consists of an aluminium laminate outer jacket and provided with a glass wool insulation layer. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Insulation in air supply systems
- Air conditioning systems
- Insulation of rainwater discharge
- Reducing of heat loss
- Preventing/discharging of condensation

SPECIFICATIONS

Article code:	DHB50{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2000 Pa
Operating air velocity:	irrelevant
Min. bending radius:	-
Standard diameter range:	52 – 635 mm
Standard length:	7.5 mtr



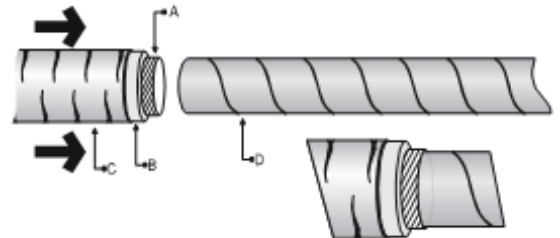
CONSTRUCTION

Barrier	polyester film
Glass wool blanket:	50mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	1.3 m ² K/W (ASTM C177-76)
Appearance:	Aluminium


Barrier

The ISOSLEEVE 50 has standard a barrier. The barrier simplifies the mounting, and the installer will not have unnecessary contact with the glass wool.

- A. Barrier
- B. Insulation wool
- C. Outer duct
- D. Rigid channel



CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
FR (NF):	M1
Marine certified MED	

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ISOSLEEVE 112 [24]

THERMAL INSULATED DUCTING

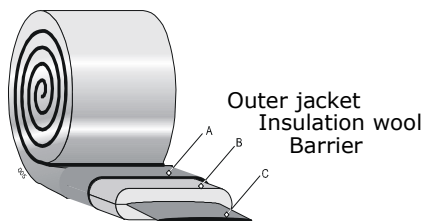
The **ISOSLEEVE 112 [24]** consists of an aluminium laminate outer jacket and provided with a fire approved insulation layer. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Insulation in air supply systems
- Air conditioning systems
- Insulation of rainwater discharge
- Reducing of heat loss
- Preventing/discharging of condensation

SPECIFICATIONS

Article code:	DHB50[24]112{Ø}/L
Temperature range:	-30 °C to 250 °C
Operating pressure:	up to +2000 Pa
Operating air velocity:	irrelevant
Min. bending radius:	-
Standard diameter range:	102 upto 254 mm
Standard length:	3 mtr



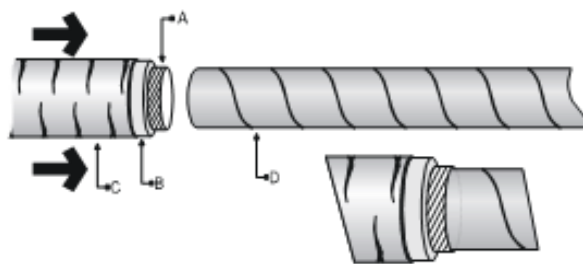
CONSTRUCTION

Barrier	PE
Fire approved insulation:	50mm, 24kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	1.3 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

Barrier

The ISOSLEEVE 50 112[24] has standard a barrier. The barrier simplifies the mounting, so the installer will not have unnecessary contact with the glass wool. Fix the Barrier with tape to the spiral duct and pull-out the barrier at the other side, while second installer guides and holds the outer jacket and insulation wool. (Installation video available)

- A. Barrier
- B. Insulation wool
- C. Outer duct
- D. Rigid channel



Approval

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ISOSLEEVE-50-112-[24] SUPERSLEEVE EI15

THERMAL INSULATED DUCTING

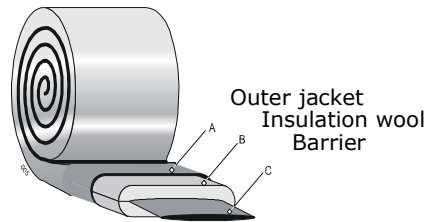
The **ISOSLEEVE 50 112 [24]** consists of an aluminium laminate outer jacket and provided with a fire approved insulation layer. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Insulation in air supply systems
- Air conditioning systems
- Insulation of rainwater discharge
- Reducing of heat loss
- Preventing/discharging of condensation

SPECIFICATIONS

Article code:	DHB50[24]112{Ø}/L
Temperature range:	-30 °C to 250 °C
Operating pressure:	up to +2000 Pa
Operating air velocity:	irrelevant
Min. bending radius:	-
Standard diameter range:	102 upto 254 mm
Standard length:	3 mtr



CONSTRUCTION

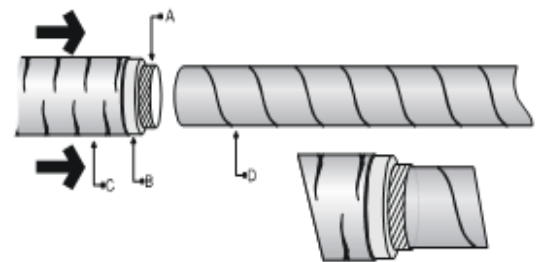
Barrier:	PE Sleeve
Fire approved insulation:	50mm, 24kg/m³
Outer jacket:	Alu/poly laminate
R-value glass wool:	1.3 m² K/W (ASTM C177-76)

Appearance: Aluminium

Barrier

The ISOSLEEVE 50 112[24] has standard a barrier. The barrier simplifies the mounting, so the installer will not have unnecessary contact with the glass wool. Fix the Barrier with tape to the spiral duct and pull-out the barrier at the other side, while second installer guides and holds the outer jacket and insulation wool.
(Installation video available)

- A. Barrier
B. Insulation wool
C. Outer Jacket
D. Rigid channel



Approval

Swedish Technical Approval SC1071-14:

The product satisfy the requirements set forth in chapter 8, 4 § 2 and 3 PBL, in respect to and under conditions stated in this certificate, and are therefore approved in accordance with the provisions of the following sections of Boverket Building Regulations (BBR):

- | | |
|-------------------------|--------|
| 1) Fire class EI 15 | 5:231 |
| 2) Fire class A2-s1, d0 | 5:231 |
| 3) Tightness Class C | 6: 255 |

- 1) Feature in BBR according to test method EN 1366-1.
- 2) Feature in BBR verified by the CE mark according to EN 13501-1.
- 3) Feature in BBR verified by the CE mark according to EN 13180.



SC1071-14

EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ISOSLEEVE 50 PE2

THERMAL INSULATED DUCTING

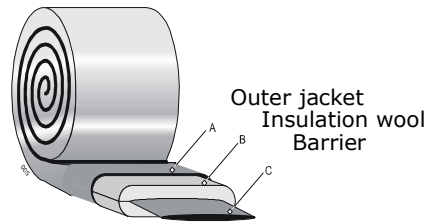
The **ISOSLEEVE 50 PE2** consists of a Polyethylene outer jacket and provided with a glass wool insulation layer. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Insulation in air supply systems
- Air conditioning systems
- Insulation of rainwater discharge
- Reducing of heat loss
- Preventing/discharging of condensation

SPECIFICATIONS

Article code:	DHBPE250{Ø}/L
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2000 Pa
Operating air velocity:	irrelevant
Min. bending radius:	-
Standard diameter range:	102 – 254 mm
Standard length:	3 mtr



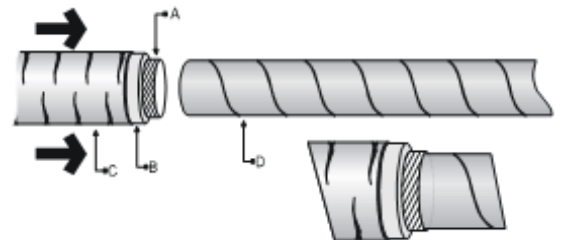
CONSTRUCTION

Barrier	polyester film
Glass wool blanket:	50mm, 16kg/m³
Outer jacket:	Polyethylene
R-value glass wool:	1.3 m² K/W (ASTM C177-76)
Appearance:	Grey

Barrier

The ISOSLEEVE 50 PE2 has standard a barrier. The barrier simplifies the mounting, and the installer will not have unnecessary contact with the glass wool.

- A. Barrier
- B. Insulation wool
- C. Outer duct
- D. Rigid channel



CLASSIFICATIONS

/

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

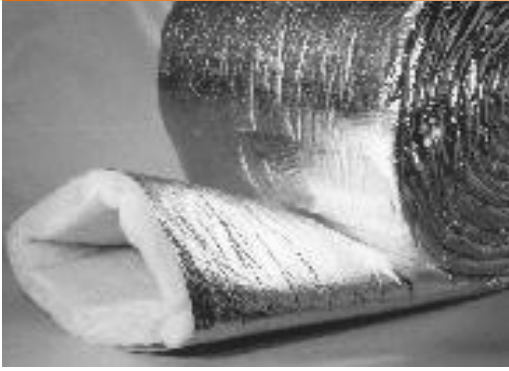
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ISOSLEEVE 100

THERMAL INSULATED DUCTING

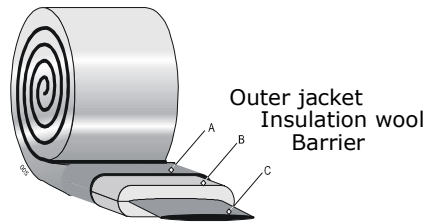
The **ISOSLEEVE 100** consists of an aluminium laminate outer jacket and provided with a glass wool insulation layer. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Insulation in air supply systems
- Air conditioning systems
- Insulation of rainwater discharge
- Reducing of heat loss
- Preventing/discharging of condensation

SPECIFICATIONS

Article code:	DHB100{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2000 Pa
Operating air velocity:	irrelevant
Min. bending radius:	-
Standard diameter range:	52 – 508mm
Standard length:	7.5 mtr



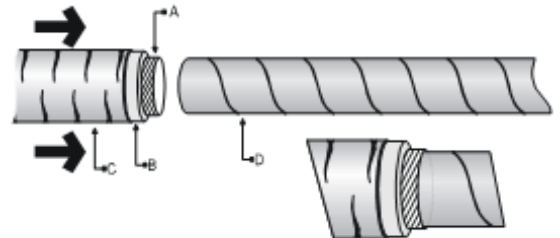
CONSTRUCTION

Barrier	polyester film
Glass wool blanket:	50mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	2.6 m ² K/W (ASTM C177-76)
Appearance:	Aluminium


Barrier

The ISOSLEEVE 100 has standard a barrier. The barrier simplifies the mounting, and the installer will not have unnecessary contact with the glass wool.

- A. Barrier
- B. Insulation wool
- C. Outer duct
- D. Rigid channel



CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
FR (NF):	M1
Marine certified MED	

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

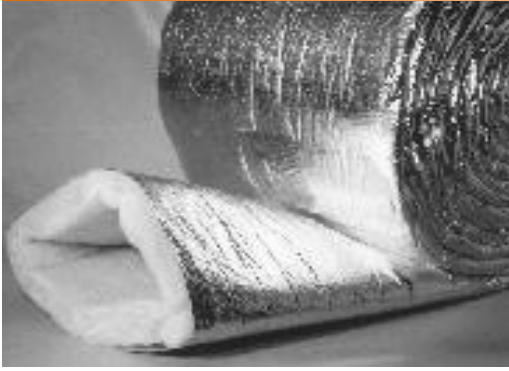
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ISOSLEEVE 100 PE2

THERMAL INSULATED DUCTING

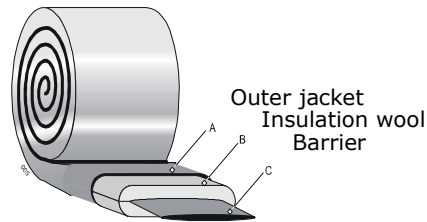
The **ISOSLEEVE 100 PE2** consists of a Polyethylene outer jacket and provided with a glass wool insulation layer. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Insulation in air supply systems
- Air conditioning systems
- Insulation of rainwater discharge
- Reducing of heat loss
- Preventing/discharging of condensation

SPECIFICATIONS

Article code:	DHBPE2100{Ø}/L
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2000 Pa
Operating air velocity:	irrelevant
Min. bending radius:	-
Standard diameter range:	102 – 254mm
Standard length:	3 mtr



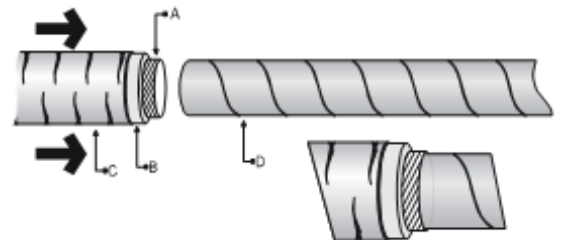
CONSTRUCTION

Barrier	polyester film
Glass wool blanket:	100mm, 16kg/m ³
Outer jacket:	Polyethylene
R-value glass wool:	2.6 m ² K/W (ASTM C177-76)
Appearance:	Grey

Barrier

The ISOSLEEVE 100 PE2 has standard a barrier. The barrier simplifies the mounting, and the installer will not have unnecessary contact with the glass wool.

- A. Barrier
- B. Insulation wool
- C. Outer duct
- D. Rigid channel



CLASSIFICATIONS

/

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ISODEC 25

THERMAL INSULATED DUCTING

The **ISODEC 25** series consists of an aluminium laminate inner duct, thermally insulated with a glass wool layer and provided with an aluminium laminated outer jacket. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

SPECIFICATIONS

Article code:	DI{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

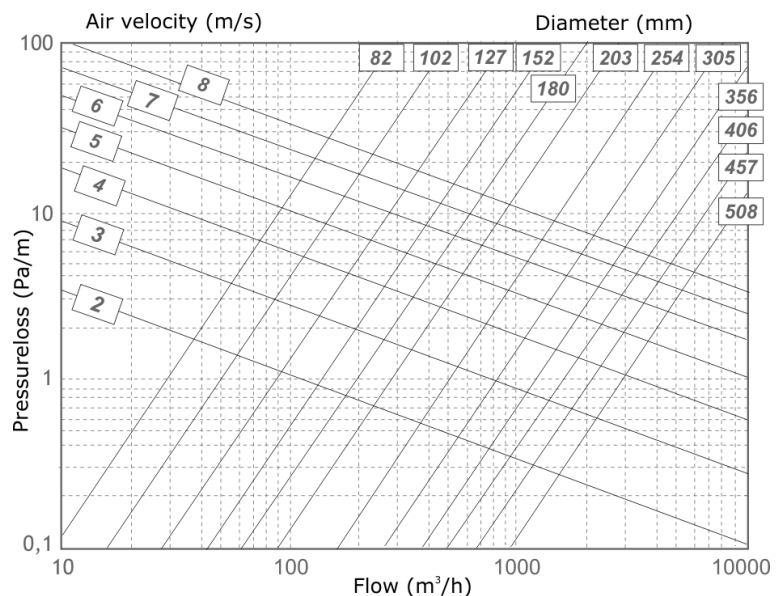
CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

CLASSIFICATIONS

UK (BS476):	Part 6, 7 and 20
EU (EN 13501-1):	B-s1,d0
NL(NEN 6065/6066)	1
FR (NF):	M1

PRESSURE LOSS (STRAIGHT DUCT)



The **ISODEC 25** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **ISODEC 25** is also available, on request, with a 50 mm glass wool layer, the article number is: DI50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ISODEC ducts suitable for transporting air with a high concentration of acid and base.



ISODEC 250

THERMAL INSULATED DUCTING

The **ISODEC 250** series consists of an aluminium laminate inner duct, thermally insulated with a glass wool layer and provided with an aluminium laminated outer jacket. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

SPECIFICATIONS

Article code:	DIX{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer Jacket:	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.58 x Ø + 25mm
Standard diameter range:	65 – 635 mm
Standard length:	10 mtr

CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

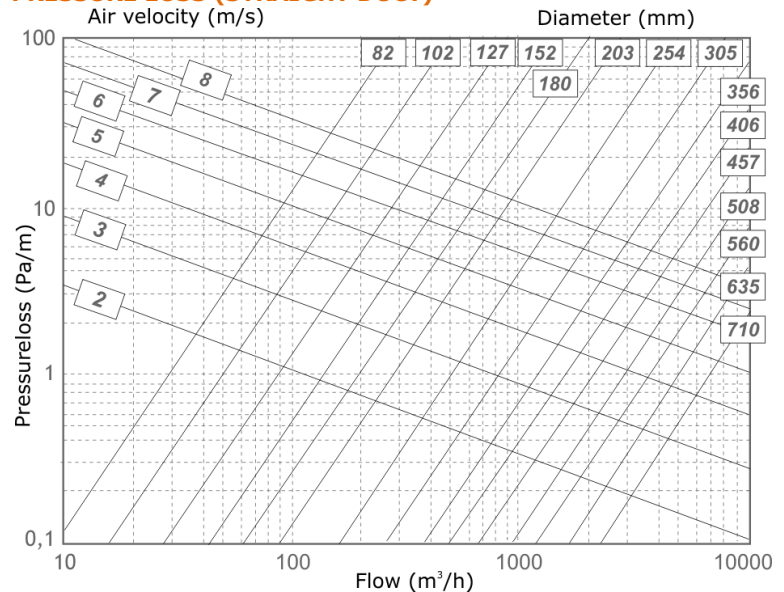
CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
UK (BS476):	Part 6, 7 and 20
NL(NEN 6065/6066)	1
FR (NF):	M0/M1

The **ISODEC 250** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **ISODEC 250** is also available, on request, with a 50 mm glass wool layer, the article number is: DIX50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

PRESSURE LOSS (STRAIGHT DUCT)



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ISODEC ducts suitable for transporting air with a high concentration of acid and base.



ISODEC CE

THERMAL INSULATED DUCTING

The **ISODEC CE** series consists of an aluminium laminate inner duct, thermally insulated with a glass wool layer and provided with an aluminium laminated outer jacket. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

SPECIFICATIONS

Article code:	DIXCE{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer jacket:	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

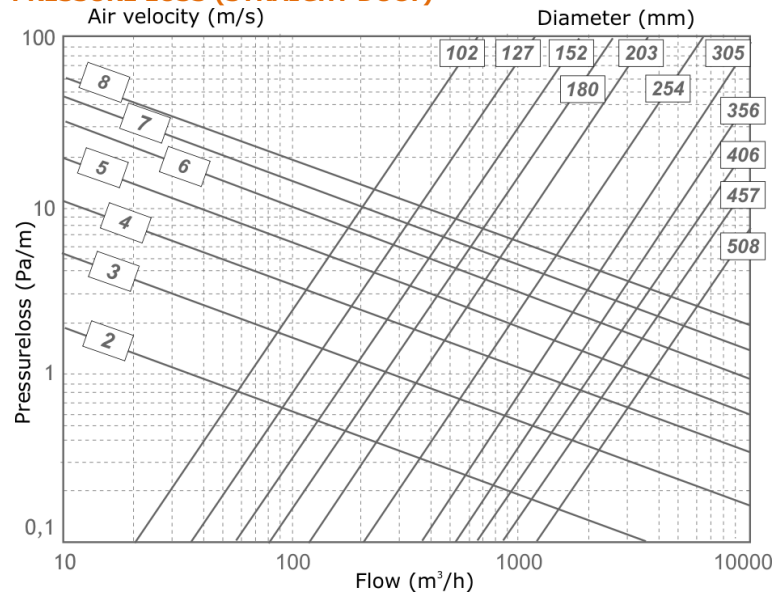
CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
FR (NF):	M0/M1

PRESSURE LOSS (STRAIGHT DUCT)



The **ISODEC CE** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **ISODEC CE** is also available, on request, with a 50 mm glass wool layer, the article number is: DIXCE50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ISODEC ducts suitable for transporting air with a high concentration of acid and base.



ISO DEC 270

THERMAL INSULATED DUCTING

The **ISO DEC 270** series consists of an aluminium laminate inner duct, thermally insulated with a glass wool layer and provided with an aluminium laminated outer jacket. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

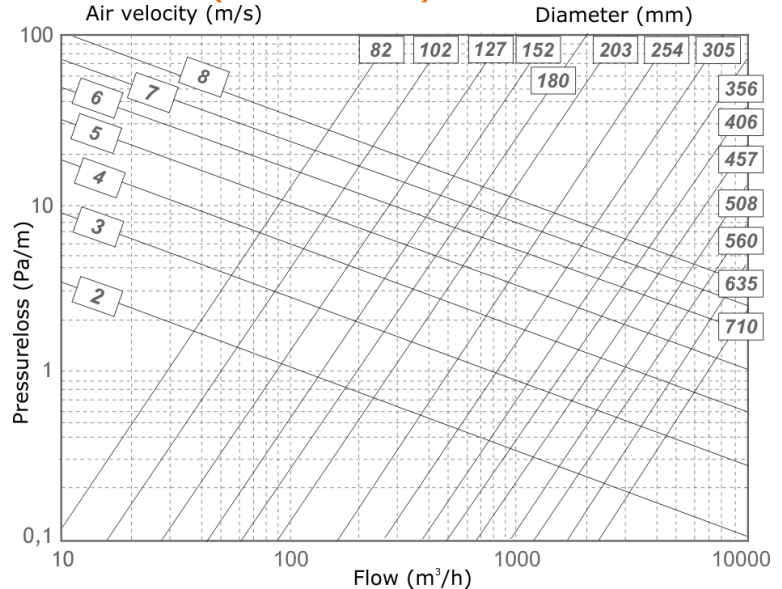
SPECIFICATIONS

Article code:	DI270{Ø}
Temperature range:	
Inner duct:	-30 °C to 200 °C
Outer jacket:	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	65 – 635 mm
Standard length:	10 mtr

CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **ISO DEC 270** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **ISO DEC 270** is also available, on request, with a 50 mm glass wool layer, the article number is: DI27050{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISO DEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISO DEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ISO DEC ducts suitable for transporting air with a high concentration of acid and base.



ISO DEC CLASSIC

THERMAL INSULATED DUCTING

The **ISO DEC CLASSIC** series consists of an aluminium laminate inner duct, thermally insulated with a glass wool layer and provided with a polyester/metalized polyester laminated outer jacket. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

SPECIFICATIONS

Article code:	CLDI{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 20 m/s
Min. bending radius:	1 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

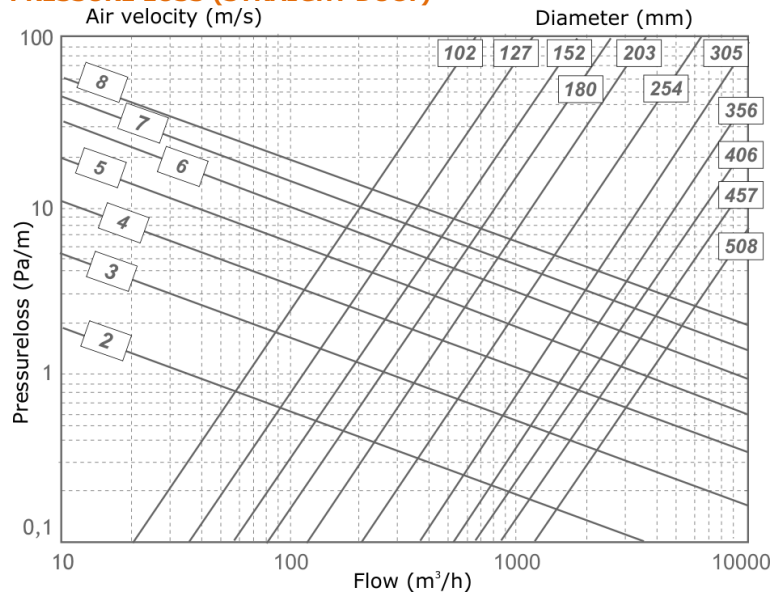
CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Poly/metalized poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
------------------	---------

PRESSURE LOSS (STRAIGHT DUCT)



The **ISO DEC CLASSIC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **ISO DEC CLASSIC** is also available, on request, with a 50 mm glass wool layer, the article number is: CLDI50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

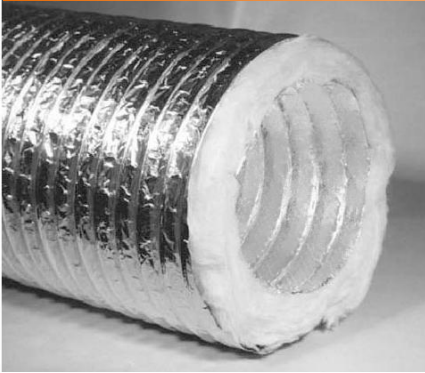
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISO DEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISO DEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ISO DEC ducts suitable for transporting air with a high concentration of acid and base.



ISO DEC 2500

THERMAL INSULATED DUCTING

The **ISO DEC 2500** series consists of an aluminium laminate inner duct, thermally insulated with a glass wool layer and provided with an aluminium laminated outer duct. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems


SPECIFICATIONS

Article code:	DIY{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer duct:	-30 °C to 250 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.58 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	6 mtr

CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer duct:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

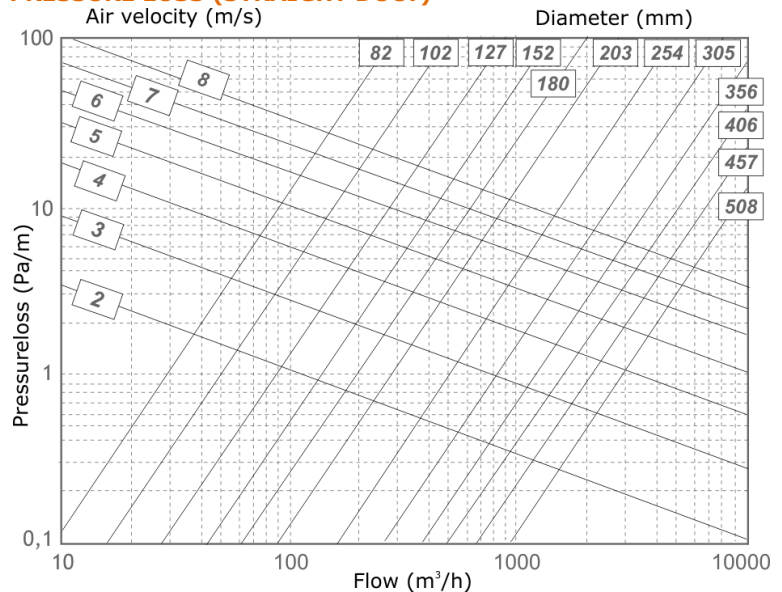
CLASSIFICATIONS

EU (EN 13501-1):	A2-s1,d0
UK (BS476):	Part 6, 7 and 20
FR (NF):	M0/M0
Marine certified MED	

The **ISO DEC 2500** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork – Dimensions and mechanical requirements for flexible ducts.

The **ISO DEC 2500** is also available, on request, with a 50 mm glass wool layer, the article number is: DIY50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

PRESSURE LOSS (STRAIGHT DUCT)



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISO DEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISO DEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ISO DEC ducts suitable for transporting air with a high concentration of acid and base.



ISODEC 18

THERMAL INSULATED DUCTING

The **ISODEC 18** series consists of a black polyester inner duct, thermally insulated with a glass wool layer and provided with an metalized polyester outer jacket. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

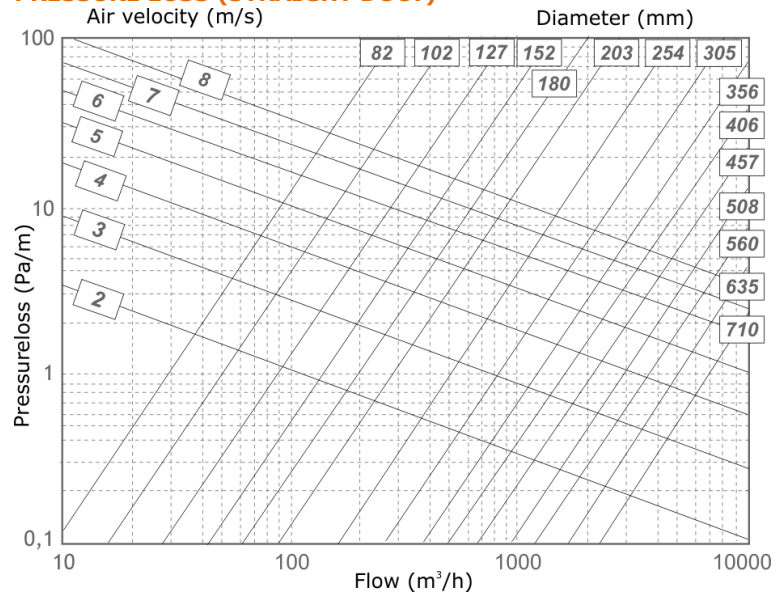
SPECIFICATIONS

Article code: DEC18{Ø}
 Temperature range: -30 °C to 140 °C
 Operating pressure: up to +2500 Pa
 Operating air velocity: max. 25 m/s
 Min. bending radius: 1 x Ø + 25mm
 Standard diameter range: 82 – 508 mm
 Standard length: 10 mtr

CONSTRUCTION

Inner duct: Alu/poly laminate
 Glass wool blanket: 25mm, 16kg/m³
 Outer jacket: Alu/poly laminate
 R-value glass wool: 0.726 m² K/W
 (ASTM C177-76)
 Appearance: Aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **ISODEC 18** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **ISODEC 18** is also available, on request, with a 50 mm glass wool layer, the article number is: DEC1850{Ø}
 R-value glass wool: 1.452 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ISODEC ducts suitable for transporting air with a high concentration of acid and base.



GREYDEC 250

THERMAL INSULATED DUCTING

The **GREYDEC 250** series consists of a polyester fabric, coated on both sides with a copolymer, inner duct, thermally insulated with a glass wool layer and provided with an aluminium laminated outer jacket. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

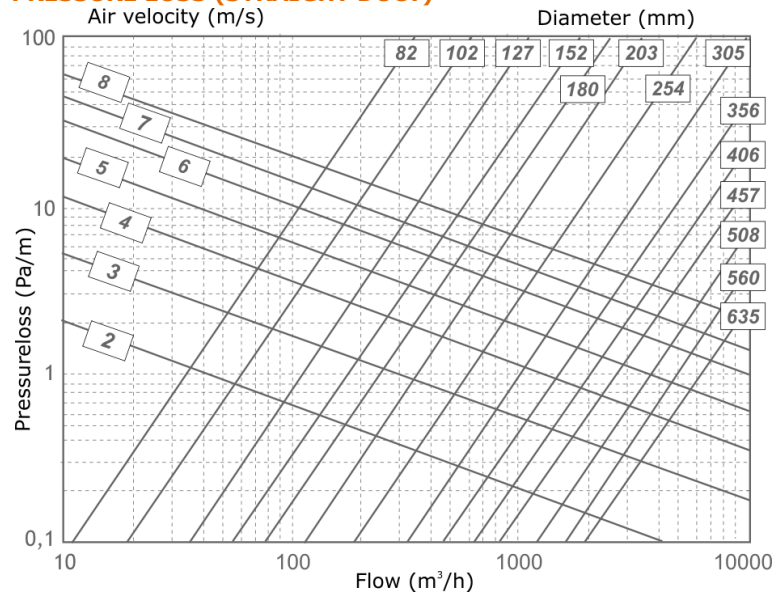
SPECIFICATIONS

Article code:	DGI{Ø}
Temperature range:	-30 °C to 80 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.58 x Ø + 25mm
Standard diameter range:	102 – 508 mm
Standard length:	10 mtr

CONSTRUCTION

Inner duct:	Pvc coated poly fabric
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **GREYDEC 250** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **GREYDEC 250** is also available, on request, with a 50 mm glass wool layer, the article number is: DGI50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

GREYDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GREYDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

GREYDEC 2500

THERMAL INSULATED DUCTING

The **GREYDEC 2500** series consists of a polyester fabric, coated on both sides with a copolymer, inner duct, thermally insulated with a glass wool layer and provided with a polyester fabric, coated on both sides with a copolymer, outer duct. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

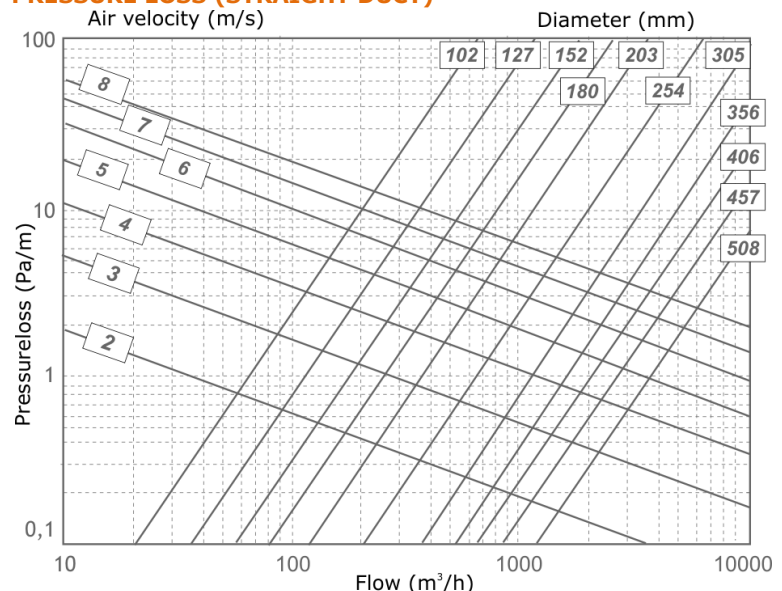
SPECIFICATIONS

Article code:	DGY{Ø}
Temperature range:	-30 °C to 80 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.58 x Ø + 25mm
Standard diameter range:	102 – 508 mm
Standard length:	6 mtr

CONSTRUCTION

Inner duct:	Pvc coated poly fabric
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Pvc coated poly fabric
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Grey

PRESSURE LOSS (STRAIGHT DUCT)



The **GREYDEC 2500** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **GREYDEC 2500** is also available, on request, with a 50 mm glass wool layer, the article number is: DGY50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

GREYDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GREYDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



SEMIDEC 250 I

THERMAL INSULATED DUCTING

The **SEMIDEC 250 I** is a thermal insulated flexible duct constructed of one layer of corrugated aluminum, insulated with 25mm insulation wool and an aluminium laminated outer jacket. By the lock seam of the inner duct a high air tightness and flexibility is reached. The duct is fitted with 2 plastic clamps on the ends before compressing to packaging length (± 80 cm).

APPLICATION

- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

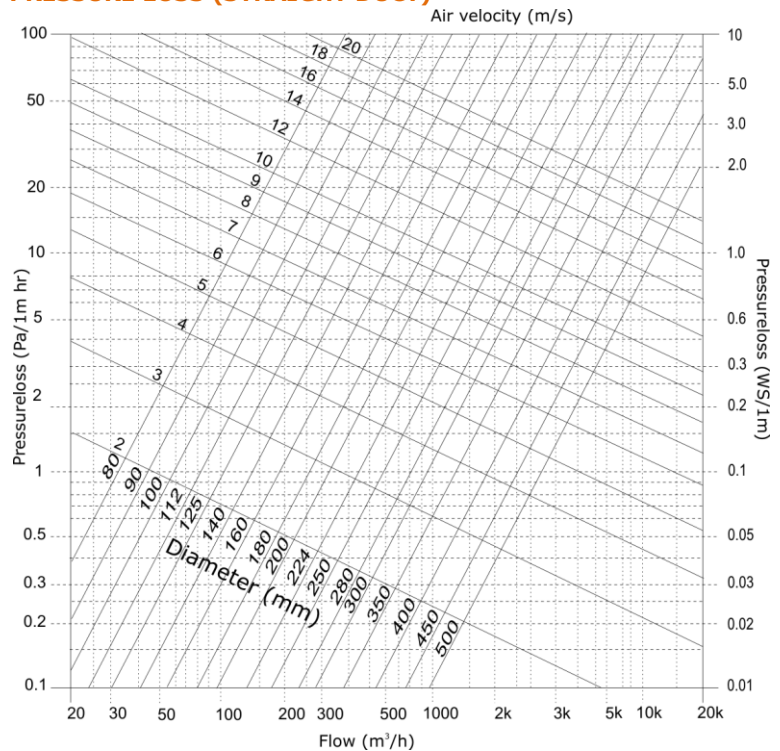
SPECIFICATIONS

Article code:	DXDIM{Ø}
Temperature range:	
Inner duct	-30 °C to 250 °C
Outer Jacket	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	1 x Ø + 25mm
Standard diameter range:	100 – 315 mm
Standard length:	3 mtr

CONSTRUCTION

Inner duct:	Aluminium
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **SEMIDEC 250 I** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **SEMIDEC 250 I** is also available, on request, with a 50 mm glass wool layer, the article number is: DXDIM50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ECONOFLEX A1 ISO

THERMAL INSULATED DUCTING

The **ECONOFLEX A1 ISO** series consists of an aluminium laminate inner duct, thermally insulated with a glass wool layer and provided with an aluminium laminated outer jacket. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

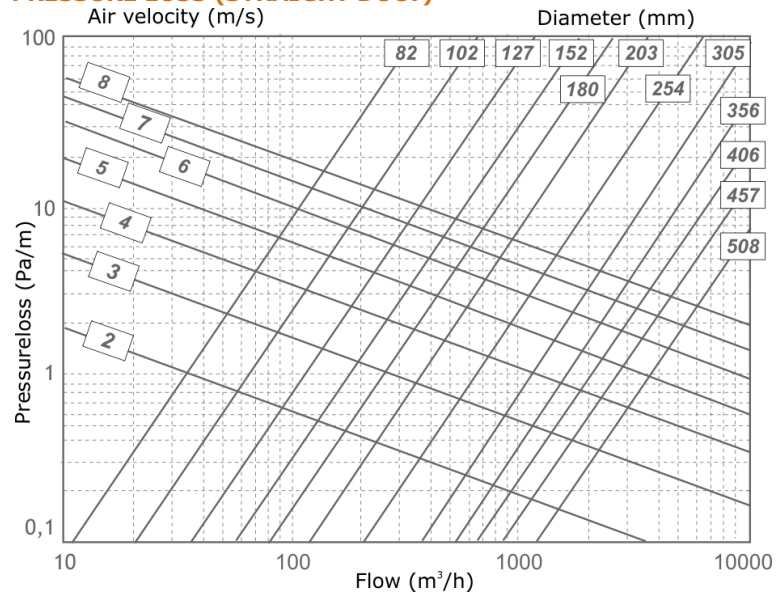
SPECIFICATIONS

Article code:	A1I25AL{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +1500 Pa
Operating air velocity:	max. 20 m/s
Min. bending radius:	1 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **ECONOFLEX A1 ISO** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **ECONOFLEX A1 ISO** is also available, on request, with a 50 mm glass wool layer, the article number is: A1I50AL {Ø} R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The A1 ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ALPHAFLEX ISO

THERMAL INSULATED DUCTING

The **ALPHAFLEX ISO** series consists of an aluminium laminate inner duct, thermally insulated with a glass wool layer and provided with an aluminium laminated outer jacket. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

SPECIFICATIONS

Article code:	DALPHI{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 20 m/s
Min. bending radius:	1 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

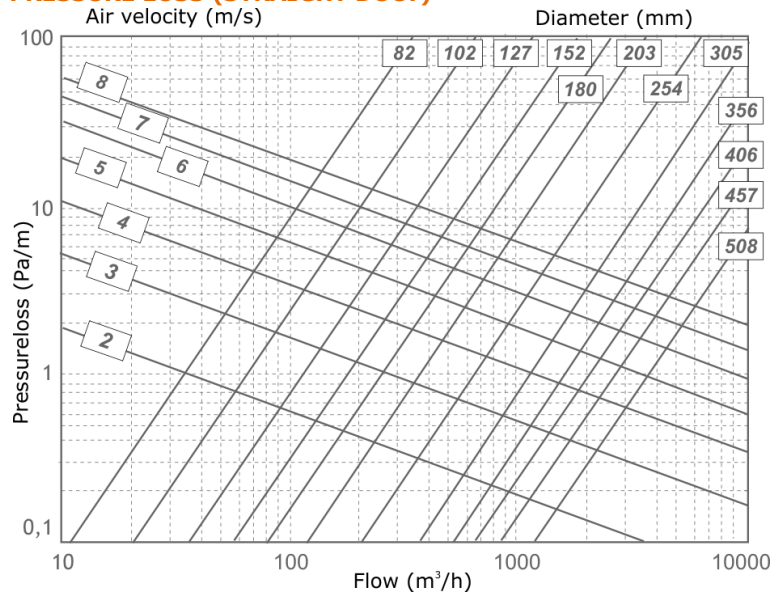
CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
------------------	---------

PRESSURE LOSS (STRAIGHT DUCT)



The **ALPHAFLEX ISO** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ALPHAFLEX ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



PVC GREY ISO G1SRPE THERMAL INSULATED DUCTING

The **PVC GREY ISO**: Fully flexible high quality factory insulated duct for all low/medium pressure air-conditioning and ventilation systems requiring thermal insulation. **Also available with M1 foil.**

- Fast and easy to install over either round or oval connections.
- Tough and air tight with smooth core giving low friction loss and lower operation costs.

Construction:

G1SRPE: Single layer of a strong **reinforced** 'Grey PolyVinylChlorid co-polymer' encapsulating a high tensile steel wire helix. Outer vapour barrier of tough 'Grey PE co-polymer construction'.

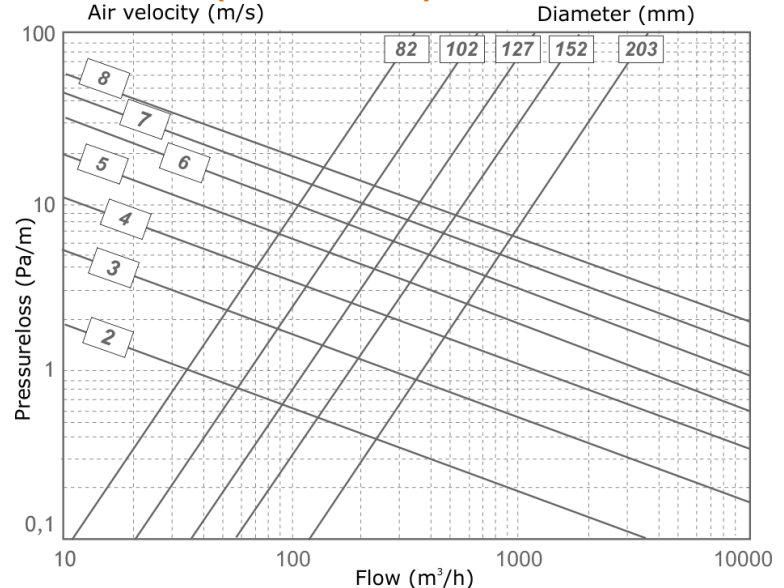
SPECIFICATIONS

Article code:	G1SRPE{Ø}
Temperature range:	-30 °C to 70 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.56 x Ø + 25mm
Standard diameter range:	82 – 203mm
Standard length:	6 mtr

CONSTRUCTION

Inner duct:	1 Layer PVC
Glass wool blanket:	25mm, 16kg/m³
Outer jacket:	1 Layer PE
R-value glass wool:	0.65 m² K/W (ASTM C177-76)
Appearance:	Grey

PRESSURE LOSS (STRAIGHT DUCT)



The **PVC GREY** fulfills all the requirements and are classified as specified within EN 13180:

Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **PVC GREY** is also available, on request, with a 50 mm glass wool layer, the article number is: G1SRPE50{Ø}

R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The PVC GREY ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ISODEC ducts suitable for transporting air with a high concentration of acid and base.



PVC GREY ISO G1PV THERMAL INSULATED DUCTING

The **PVC GREY ISO**: Fully flexible high quality factory insulated duct for all low/medium pressure air-conditioning and ventilation systems requiring thermal insulation. **Also available with M1 foil.**

- Fast and easy to install over either round or oval connections.
- Tough and air tight with smooth core giving low friction loss and lower operation costs.

Construction:

G1PV: Single layer of a strong 'Grey PolyVinylChlorid co-polymer' encapsulating a high tensile steel wire helix. Outer vapour barrier of tough 'Grey PolyVinylChlorid co-polymer' construction.

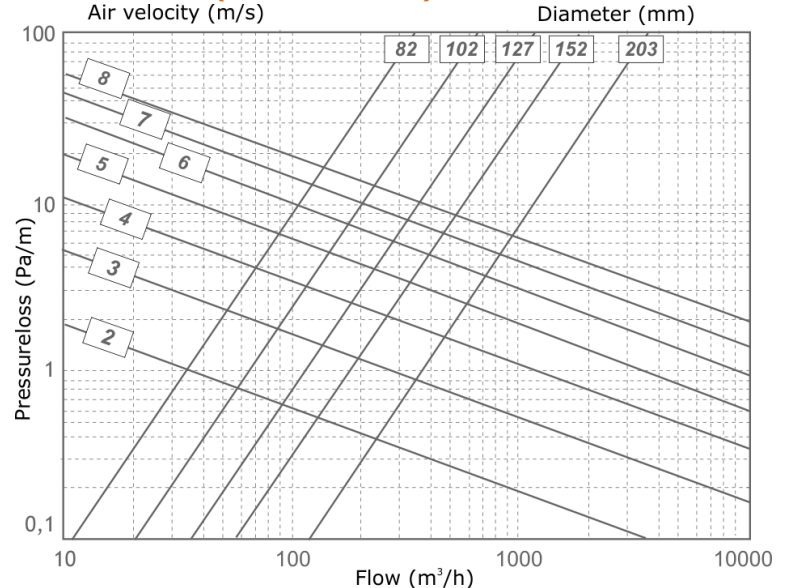
SPECIFICATIONS

Article code:	G1PV{Ø}
Temperature range:	-30 °C to 70 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.56 x Ø + 25mm
Standard diameter range:	82 – 203mm
Standard length:	6 mtr

CONSTRUCTION

Inner duct:	1 Layer PVC
Glass wool blanket:	25mm, 16kg/m³
Outer jacket:	1 Layer PVC
R-value glass wool:	0.65 m² K/W (ASTM C177-76)
Appearance:	Grey

PRESSURE LOSS (STRAIGHT DUCT)



The **PVC GREY** fulfills all the requirements and are classified as specified within EN 13180:

Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **PVC GREY** is also available, on request, with a 50 mm glass wool layer, the article number is: G1PV50{Ø}

R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The PVC GREY ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



PVC GREY ISO G2PV THERMAL INSULATED DUCTING

The **PVC GREY ISO**: Fully flexible high quality factory insulated duct for all low/medium pressure air-conditioning and ventilation systems requiring thermal insulation. **Also available with M1 foil.**

- Fast and easy to install over either round or oval connections.
- Tough and air tight with smooth core giving low friction loss and lower operation costs.

Construction:

G2PV: Double layer of a strong 'Grey PolyVinylChlorid co-polymer' encapsulating a high tensile steel wire helix. Outer vapour barrier of tough 'Grey PolyVinylChlorid co-polymer' construction.

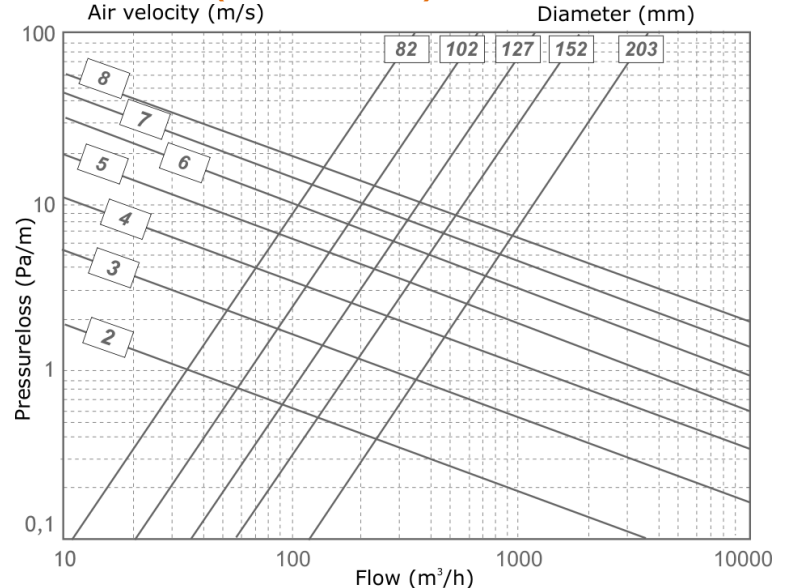
SPECIFICATIONS

Article code:	G2PV{Ø}
Temperature range:	-30 °C to 70 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.56 x Ø + 25mm
Standard diameter range:	82 – 203mm
Standard length:	6 mtr

CONSTRUCTION

Inner duct:	2 Layers PVC
Glass wool blanket:	25mm, 16kg/m³
Outer jacket:	1 Layer PVC
R-value glass wool:	0.65 m² K/W (ASTM C177-76)
Appearance:	Grey

PRESSURE LOSS (STRAIGHT DUCT)



The **PVC GREY** fulfills all the requirements and are classified as specified within EN 13180:

Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **PVC GREY** is also available, on request, with a 50 mm glass wool layer, the article number is: G1PV50{Ø}

R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

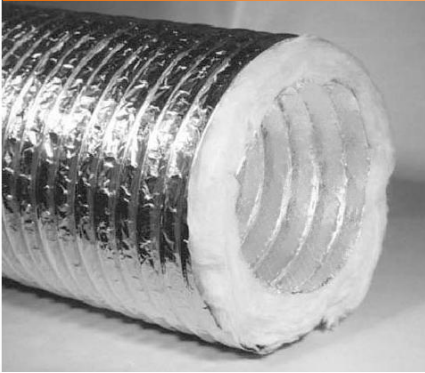
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The PVC GREY ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ISO DEC 2500 CE

THERMAL INSULATED DUCTING

The **ISO DEC 2500 CE** series consists of an aluminium laminate inner duct, thermally insulated with a glass wool layer and provided with an aluminium laminated outer duct. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Steam return lines
- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

SPECIFICATIONS

Article code:	DIYCE{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer duct:	-30 °C to 250 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 356 mm
Standard length:	6 mtr

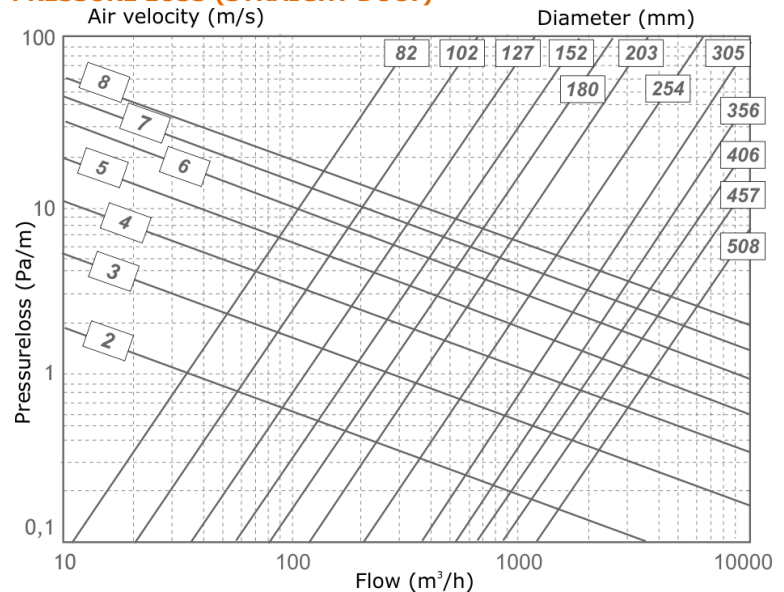
CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer duct:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Aluminium

CLASSIFICATIONS

EU (EN 13501-1):	A2-s1,d0
FR (NF):	M0/M0

PRESSURE LOSS (STRAIGHT DUCT)



The **ISO DEC 2500 CE** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISO DEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISO DEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ISO DEC ducts suitable for transporting air with a high concentration of acid and base.



ISODEC 250+ COMBIDEC 2100

THERMAL INSULATED DUCTING

The **ISODEC 250/COMBIDEC 2100** consists of an aluminium laminate inner duct, thermally insulated with a glass wool layer and provided with an aluminium laminated outer jacket and covered with a Combidec 2100 outer duct. The thermal insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

APPLICATION

- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems
- Ventilation systems
- Machine building exhaust
- Blower distribution

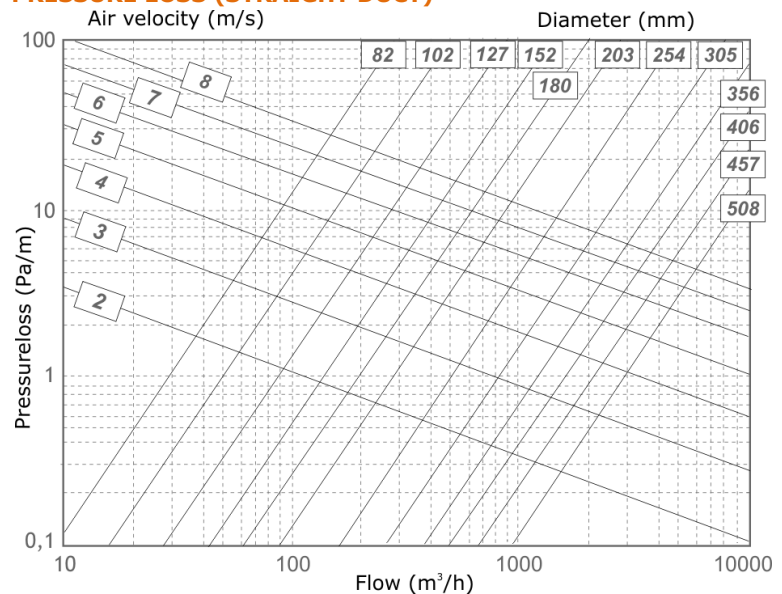
SPECIFICATIONS

Article code:	DIXC1G{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer duct:	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.58 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	6 mtr

CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer duct:	Alu/poly/pvc laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Grey

PRESSURE LOSS (STRAIGHT DUCT)



The **ISODEC 250/COMBIDEC 2100** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **ISODEC 250/COMBIDEC 2100** is also available, on request, with a 50 mm glass wool layer, the article number is: DIX50C1G{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ISODEC, COMBIDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The ISODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 25

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC 25** consists of a perforated aluminum laminate inner duct thermally and acoustically insulated with glass wool and is provided with an aluminium laminated outer jacket. A barrier between the duct and the glass wool prevents the diffusion of glass wool particles.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

SPECIFICATIONS

Article code:	DS{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

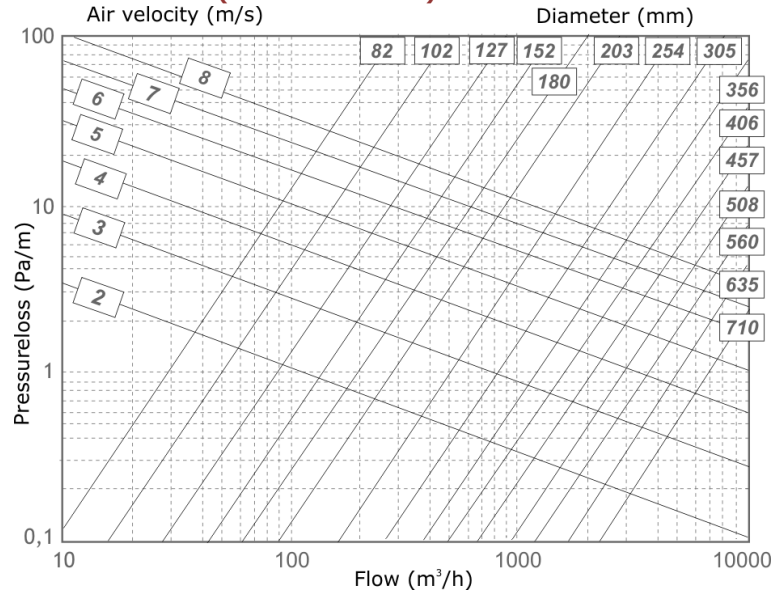
CONSTRUCTION

Inner duct:	alu/poly laminate
Barrier	closed film
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

CLASSIFICATIONS

UK (BS476):	Part 6, 7 and 20
NL(NEN 6065/6066)	1
FR (NF):	M1

PRESSURE LOSS (STRAIGHT DUCT)



The **SONODEC 25** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **SONODEC 25** is also available, on request, as **SONODEC 50** with a 50 mm glass wool layer, the article number is: DS50{Ø}
Specifications are the same as Sonodec 25 except for:

- R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).
- Min. bending radius: 0.54 x Ø + 50mm

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 25

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

SONODEC 25		(Test report nr. AB323-1 Peutz bv - The Netherlands)					
D _i (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	16	26	33	38	28	17
	2	21	37	48	53	46	29
	3	29	45	49	54	57	38
102	1	9	19	32	37	31	21
	2	19	33	52	53	49	36
	3	25	39	50	52	54	40
127	1	12	20	21	25	29	17
	2	17	31	44	45	46	26
	3	23	46	44	47	51	34
160	1	17	22	22	27	19	14
	2	31	39	34	38	31	20
	3	29	43	41	46	39	27
203	1	7	15	17	20	16	13
	2	20	34	32	35	30	22
	3	18	40	38	41	39	30
254	1	16	16	16	16	13	10
	2	26	31	28	33	25	18
	3	32	36	32	37	34	27
315	1	11	12	12	14	11	7
	2	28	25	22	27	22	15
	3	27	32	28	34	28	19
457	1	12	10	8	8	6	8
	2	20	17	15	16	13	12
	3	25	22	21	25	19	16
508	1	8	8	8	9	6	7
	2	20	17	16	17	11	11
	3	24	22	20	25	15	14

SONODEC 50		(Test report nr. AB323-4 Peutz bv - The Netherlands)					
D _i (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	14	19	34	40	27	18
	2	19	31	42	59	45	30
	3	23	39	50	61	63	41
102	1	7	18	31	43	28	20
	2	11	32	49	61	45	27
	3	13	35	55	62	51	33
127	1	7	15	22	32	26	18
	2	14	27	47	56	40	28
	3	17	32	54	59	54	34
160	1	12	20	23	28	18	11
	2	22	36	43	50	29	20
	3	32	45	47	55	43	28
203	1	4	9	14	20	14	13
	2	13	22	35	43	30	24
	3	15	34	47	50	41	34
254	1	14	14	16	15	11	10
	2	26	28	30	31	18	14
	3	36	36	35	44	25	23
315	1	15	13	15	16	9	7
	2	27	26	28	32	15	13
	3	31	32	30	37	20	17
457	1	9	9	10	9	5	7
	2	20	19	21	17	11	13
	3	24	23	27	24	16	17
508	1	7	8	9	8	5	7
	2	19	17	20	15	9	10
	3	23	24	28	21	14	14

LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:
The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC A23

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC A23** consists of a perforated multiple aluminium laminated layer inner duct, thermally and acoustically insulated with a bionic classified mineral wool layer and is provided with a strong aluminium laminated vapor barrier outer jacket. An anti-migration barrier between the duct and the mineral wool adds strength and prevents the diffusion of mineral wool particles, as well as the following functions: improves acoustical performance, avoids cold bridges, leakage and pressure loss.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

SPECIFICATIONS

Article code:	A23S{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

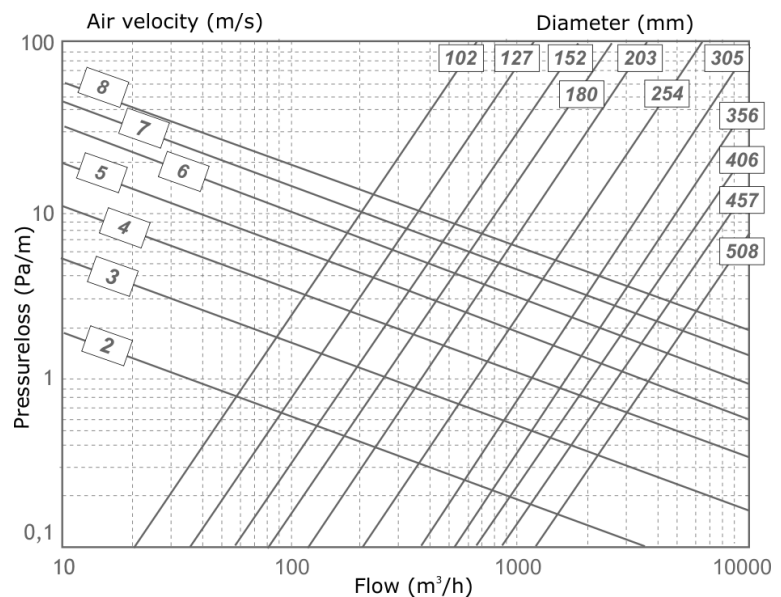
CONSTRUCTION

Inner duct 5 layers:	alu/poly laminate
of aluminium:	3 à 7 microns
of polyester:	2 à 12 microns
Total thickness:	45 µ (excl. adhesive)
Barrier:	Akutek
Mineral wool blanket:	32mm, 12.5kg/m³
Color wool:	Terra Green
Vapor barrier 3 layer:	alu/poly laminate
of aluminium:	1 à 7 microns
of polyester:	2 à 12 microns
Total thickness:	32 µ (excl. adhesive)
R-value glass wool:	0.65 m² K/W (ASTM C177-76)
Appearance:	aluminium

CLASSIFICATIONS

According to:	UK (BS476): Part 6, 7 and 20
NL(NEN 6065/6066):	1
FR (NF):	M1

PRESSURE LOSS (STRAIGHT DUCT)



www.blauer-engel.de/uz132

The **SONODEC A23** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **SONODEC A23** is also available, on request, a with a 50 mm glass wool layer, the article number is: A23S50{Ø} R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

Reach/RoHS Compliant

Directive 2011/65/EU RoHS

Phthalates according to 1907/2006/EC REACH

Test result: Pass - The test items meets the requirements of the test specification



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC A23

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

According to: **ISO 7235**
± 2 dB

SONODEC A23		(According to Test report nr. AB323-1 Peutz bv - The Netherlands)					
D _i (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	16	26	33	38	28	17
	2	21	37	48	53	46	29
	3	29	45	49	54	57	38
102	1	9	19	32	37	31	21
	2	19	33	52	53	49	36
	3	25	39	50	52	54	40
127	1	12	20	21	25	29	17
	2	17	31	44	45	46	26
	3	23	46	44	47	51	34
160	1	17	22	22	27	19	14
	2	31	39	34	38	31	20
	3	29	43	41	46	39	27
203	1	7	15	17	20	16	13
	2	20	34	32	35	30	22
	3	18	40	38	41	39	30
254	1	16	16	16	16	13	10
	2	26	31	28	33	25	18
	3	32	36	32	37	34	27
315	1	11	12	12	14	11	7
	2	28	25	22	27	22	15
	3	27	32	28	34	28	19
457	1	12	10	8	8	6	8
	2	20	17	15	16	13	12
	3	25	22	21	25	19	16
508	1	8	8	8	9	6	7
	2	20	17	16	17	11	11
	3	24	22	20	25	15	14

SONODEC A23 50		(According to Test report nr. AB323-4 Peutz bv - The Netherlands)					
D _i (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	14	19	34	40	27	18
	2	19	31	42	59	45	30
	3	23	39	50	61	63	41
102	1	7	18	31	43	28	20
	2	11	32	49	61	45	27
	3	13	35	55	62	51	33
127	1	7	15	22	32	26	18
	2	14	27	47	56	40	28
	3	17	32	54	59	54	34
160	1	12	20	23	28	18	11
	2	22	36	43	50	29	20
	3	32	45	47	55	43	28
203	1	4	9	14	20	14	13
	2	13	22	35	43	30	24
	3	15	34	47	50	41	34
254	1	14	14	16	15	11	10
	2	26	28	30	31	18	14
	3	36	36	35	44	25	23
315	1	15	13	15	16	9	7
	2	27	26	28	32	15	13
	3	31	32	30	37	20	17
457	1	9	9	10	9	5	7
	2	20	19	21	17	11	13
	3	24	23	27	24	16	17
508	1	7	8	9	8	5	7
	2	19	17	20	15	9	10
	3	23	24	28	21	14	14

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 250

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC 250** series consists of a perforated aluminum laminate inner duct thermally and acoustically insulated with glass wool and is provided with an aluminium laminated outer jacket. A barrier between the duct and the glass wool prevents the diffusion of glass wool particles.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

SPECIFICATIONS

Article code:	DSX{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer jacket:	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	65 – 635 mm
Standard length:	10 mtr

CONSTRUCTION

Inner duct:	alu/poly laminate
Barrier:	closed film
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

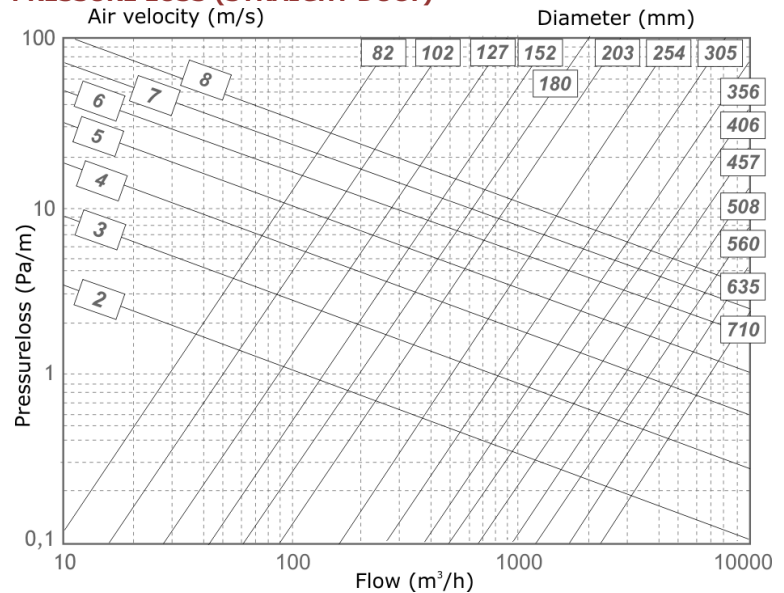
CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
UK (BS476):	Part 6, 7 and 20
NL(NEN 6065/6066)	1
FR (NF):	M0/M1

The **SONODEC 250** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **SONODEC 250** is also available, on request, with a 50 mm glass wool layer, the article number is: DSX50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

PRESSURE LOSS (STRAIGHT DUCT)



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 250

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

SONODEC 250		(Test report nr. AB323-2 Peutz bv - The Netherlands)					
D _i (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	16	25	34	38	30	20
	2	22	37	48	54	46	30
	3	30	43	41	43	55	43
102	1	11	25	31	36	23	15
	2	17	31	51	50	38	26
	3	20	44	51	52	51	33
127	1	11	19	23	27	25	19
	2	17	31	43	43	35	22
	3	21	40	45	48	47	27
160	1	15	26	22	27	18	13
	2	22	38	35	39	29	20
	3	33	43	39	43	39	27
203	1	6	13	15	18	11	10
	2	15	31	32	38	21	18
	3	16	36	40	42	28	24
254	1	9	11	12	10	7	11
	2	21	24	24	22	13	15
	3	29	33	31	30	19	24
315	1	8	8	8	7	6	8
	2	16	15	14	13	9	13
	3	23	23	21	19	12	17
457	1	8	8	6	6	5	7
	2	18	15	14	12	8	10
	3	24	21	20	18	11	15
508	1	7	8	7	7	6	7
	2	-	-	-	-	-	-
	3	-	-	-	-	-	-

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC CE

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC CE** series consists of a perforated aluminum laminate inner duct thermally and acoustically insulated with glass wool and is provided with an aluminium laminated outer jacket.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

SPECIFICATIONS

Article code:	DSXCE{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer jacket:	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

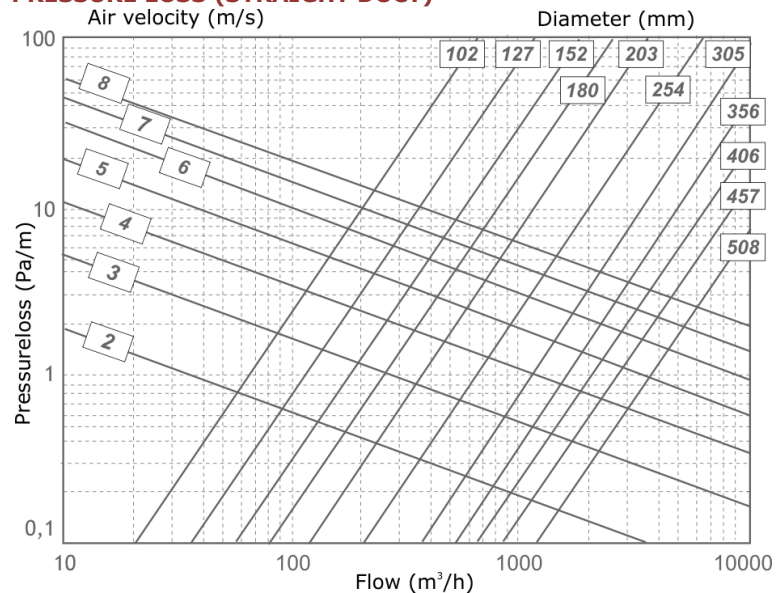
CONSTRUCTION

Inner duct:	alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
FR (NF):	M0/M1

PRESSURE LOSS (STRAIGHT DUCT)



The **SONODEC CE** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **SONODEC CE** is also available, on request, with a 50 mm glass wool layer, the article number is: DSXCE50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC CE

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

SONODEC CE		(Test report nr. AB323-1 Peutz bv - The Netherlands)					
D _i (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	16	26	33	38	28	17
	2	21	37	48	53	46	29
	3	29	45	49	54	57	38
102	1	9	19	32	37	31	21
	2	19	33	52	53	49	36
	3	25	39	50	52	54	40
127	1	12	20	21	25	29	17
	2	17	31	44	45	46	26
	3	23	46	44	47	51	34
160	1	17	22	22	27	19	14
	2	31	39	34	38	31	20
	3	29	43	41	46	39	27
203	1	7	15	17	20	16	13
	2	20	34	32	35	30	22
	3	18	40	38	41	39	30
254	1	16	16	16	16	13	10
	2	26	31	28	33	25	18
	3	32	36	32	37	34	27
315	1	11	12	12	14	11	7
	2	28	25	22	27	22	15
	3	27	32	28	34	28	19
457	1	12	10	8	8	6	8
	2	20	17	15	16	13	12
	3	25	22	21	25	19	16
508	1	8	8	8	9	6	7
	2	20	17	16	17	11	11
	3	24	22	20	25	15	14

SONODEC CE 50		(Test report nr. AB323-4 Peutz bv - The Netherlands)					
D _i (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	14	19	34	40	27	18
	2	19	31	42	59	45	30
	3	23	39	50	61	63	41
102	1	7	18	31	43	28	20
	2	11	32	49	61	45	27
	3	13	35	55	62	51	33
127	1	7	15	22	32	26	18
	2	14	27	47	56	40	28
	3	17	32	54	59	54	34
160	1	12	20	23	28	18	11
	2	22	36	43	50	29	20
	3	32	45	47	55	43	28
203	1	4	9	14	20	14	13
	2	13	22	35	43	30	24
	3	15	34	47	50	41	34
254	1	14	14	16	15	11	10
	2	26	28	30	31	18	14
	3	36	36	35	44	25	23
315	1	15	13	15	16	9	7
	2	27	26	28	32	15	13
	3	31	32	30	37	20	17
457	1	9	9	10	9	5	7
	2	20	19	21	17	11	13
	3	24	23	27	24	16	17
508	1	7	8	9	8	5	7
	2	19	17	20	15	9	10
	3	23	24	28	21	14	14

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 270

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC 270** series consists of a perforated aluminum laminate inner duct thermally and acoustically insulated with glass wool and is provided with an aluminium laminated outer jacket. A barrier between the duct and the glass wool prevents the diffusion of glass wool particles.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

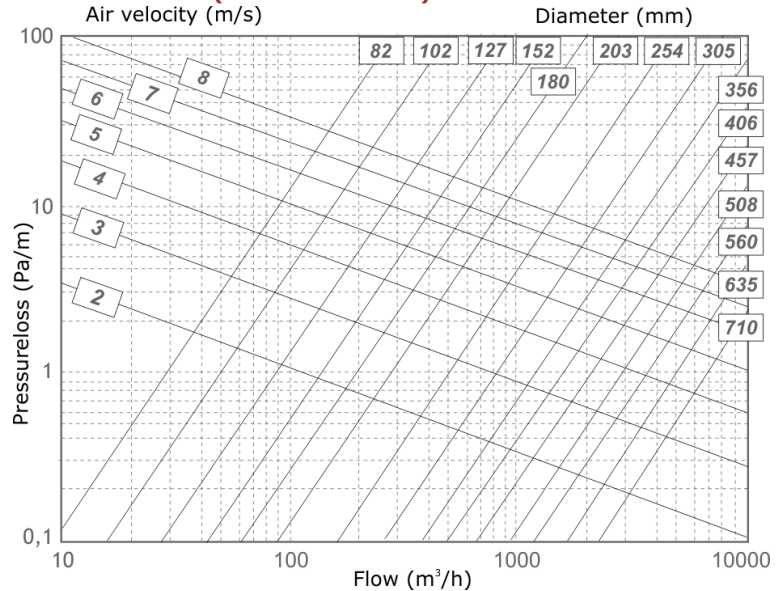
SPECIFICATIONS

Article code:	DS270{Ø}
Temperature range:	
Inner duct:	-30 °C to 200 °C
Outer jacket:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	65 – 635 mm
Standard length:	10 mtr

CONSTRUCTION

Inner duct:	alu/poly laminate
Barrier:	closed film
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **SONODEC 270** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **SONODEC 270** is also available, on request, with a 50 mm glass wool layer, the article number is: DS27050{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 270

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

SONODEC 270		(Test report nr. AB323-2 Peutz bv - The Netherlands)					
D _i (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	16	25	34	38	30	20
	2	22	37	48	54	46	30
	3	30	43	41	43	55	43
102	1	11	25	31	36	23	15
	2	17	31	51	50	38	26
	3	20	44	51	52	51	33
127	1	11	19	23	27	25	19
	2	17	31	43	43	35	22
	3	21	40	45	48	47	27
160	1	15	26	22	27	18	13
	2	22	38	35	39	29	20
	3	33	43	39	43	39	27
203	1	6	13	15	18	11	10
	2	15	31	32	38	21	18
	3	16	36	40	42	28	24
254	1	9	11	12	10	7	11
	2	21	24	24	22	13	15
	3	29	33	31	30	19	24
315	1	8	8	8	7	6	8
	2	16	15	14	13	9	13
	3	23	23	21	19	12	17
457	1	8	8	6	6	5	7
	2	18	15	14	12	8	10
	3	24	21	20	18	11	15
508	1	7	8	7	7	6	7
	2	-	-	-	-	-	-
	3	-	-	-	-	-	-

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC CLASSIC

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC CLASSIC** consists of a perforated aluminum laminate inner duct thermally and acoustically insulated with glass wool and is provided with a polyester/metalized polyester laminated outer jacket. A barrier between the duct and the glass wool prevents the diffusion of glass wool particles.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

SPECIFICATIONS

Article code:	CLDS{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 20 m/s
Min. bending radius:	1 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

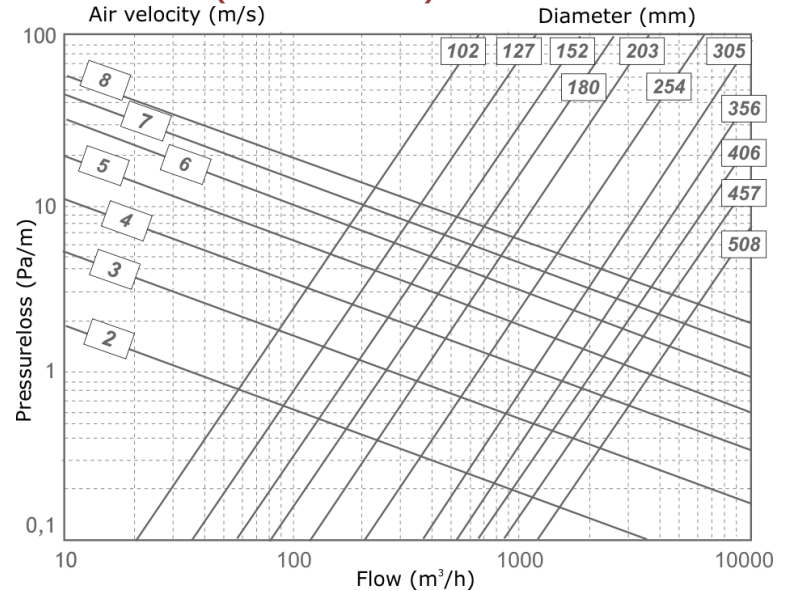
CONSTRUCTION

Inner duct:	alu/poly laminate
Barrier:	closed film
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Poly/metalized poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

CLASSIFICATIONS

EU (EN 13501-1):	B-s1,d0
------------------	---------

PRESSURE LOSS (STRAIGHT DUCT)



The **SONODEC CLASSIC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **SONODEC CLASSIC** is also available, on request, with a 50 mm glass wool layer, the article number is: CLDS50{Ø} R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC CLASSIC

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

SONODEC CLASSIC		(Test report nr. AB323-1 Peutz bv - The Netherlands)					
D _i (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	16	26	33	38	28	17
	2	21	37	48	53	46	29
	3	29	45	49	54	57	38
102	1	9	19	32	37	31	21
	2	19	33	52	53	49	36
	3	25	39	50	52	54	40
127	1	12	20	21	25	29	17
	2	17	31	44	45	46	26
	3	23	46	44	47	51	34
160	1	17	22	22	27	19	14
	2	31	39	34	38	31	20
	3	29	43	41	46	39	27
203	1	7	15	17	20	16	13
	2	20	34	32	35	30	22
	3	18	40	38	41	39	30
254	1	16	16	16	16	13	10
	2	26	31	28	33	25	18
	3	32	36	32	37	34	27
315	1	11	12	12	14	11	7
	2	28	25	22	27	22	15
	3	27	32	28	34	28	19
457	1	12	10	8	8	6	8
	2	20	17	15	16	13	12
	3	25	22	21	25	19	16
508	1	8	8	8	9	6	7
	2	20	17	16	17	11	11
	3	24	22	20	25	15	14

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

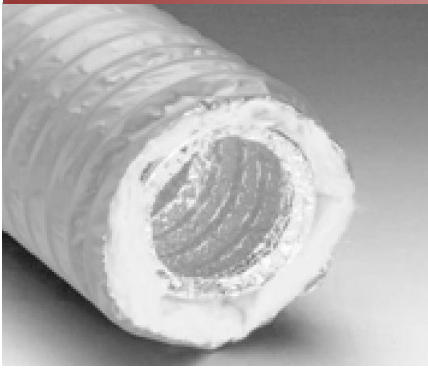
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 250 + COMBIDEC 2100

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC 250/COMBIDEC 2100** series consists of a perforated aluminum laminate inner duct thermally and acoustically insulated with glass wool and provided with an aluminium laminated outer jacket and covered with a Combidec 2100 outer duct.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

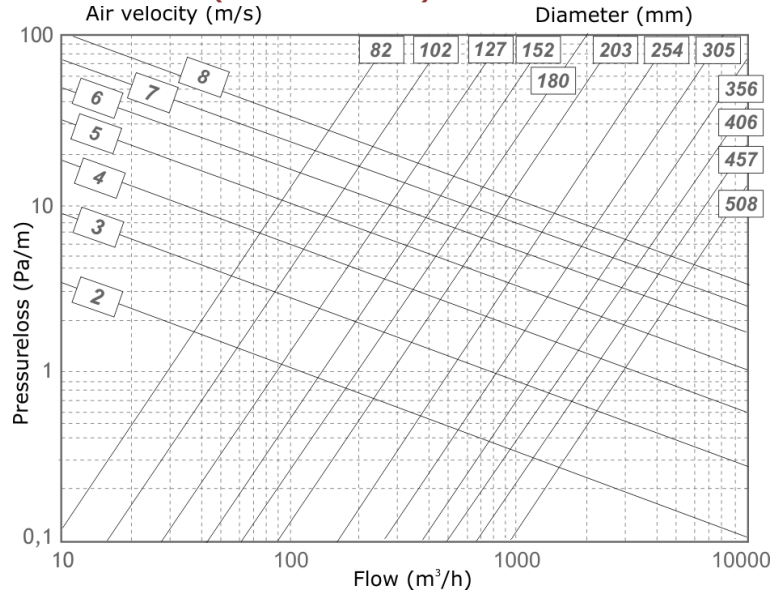
SPECIFICATIONS

Article code:	DSXC1G{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer duct:	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	6 mtr

CONSTRUCTION

Inner duct:	Alu/poly laminate
Barrier	closed film
Glass wool blanket:	25mm, 16kg/m ³
Outer duct:	Alu/poly/pvc laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	Grey

PRESSURE LOSS (STRAIGHT DUCT)



The **SONODEC 250/COMBIDEC 2100** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **SONODEC 250/COMBIDEC 2100** is also available, on request, with a 50 mm glass wool layer, the article number is: DSXC1G50{Ø}. R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 250 + COMBIDEC 2100

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

SONODEC 250/ COMBIDEC 2100		(Test report nr. AB323-3 Peutz bv - The Netherlands)					
Dn (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	11	12	22	33	37	20
	2	15	19	32	65	60	33
102	1	3	8	20	35	26	15
	2	5	13	32	67	42	23
127	1	4	8	17	29	23	17
	2	6	14	30	58	39	25
160	1	6	11	18	34	20	11
	2	10	18	34	59	27	18
203	1	1	4	10	20	8	8
	2	4	10	23	44	19	16
254	1	3	7	13	17	8	10
	2	5	11	23	35	14	14
315	1	4	6	12	16	7	8
	2	5	11	21	27	12	13
457	1	3	4	6	5	4	7
	2	9	11	14	10	9	10
508	1	2	5	10	7	5	6
	2	6	9	18	12	9	10

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



ECODEC[®] SONODEC[®] 25AB

ACOUSTICALLY AND THERMAL INSULATED DUCTING

Fully flexible, thermally and acoustically pre-insulated ducting with a perforated inner core constructed from multiple layers of aluminum and polyester laminated to encapsulate a high carbon, spring steel wire helix. The inner core is covered with an integral barrier and wrapped with a thick blanket of high-density insulation and covered with an outer vapor barrier constructed from multiple layers of aluminum and polyester.

ECODEC[®] SONODEC[®] 25AB installs easily on circular or oval fittings.

ECODEC[®] SONODEC[®] 25AB insulated flexible ducting is used in ventilation, air conditioning, and air handling systems where high mechanical strength, temperature, and fire resistance is required.

SPECIFICATIONS

Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 20 m/s
Min. bending radius:	1 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

CONSTRUCTION

Inner core: Multiple layers

Nano Silver ION coated inner layer of Aluminium polyester laminated construction

Aluminium ^{NanoSilver}	1 layer x 7 micron plus Nano Silver Coating
Polyester (PET)	1 layer x 12 micron
Aluminized Polyester (PET)	1 layer x 12 micron
Barrier (Polyester)	1 layer x 12 micron
Insulation Thermosoft Non-itchy	32mm x 12.5 kg/m³ R = 0.865 [m²K/W]
Outer Vapor Barrier	3 total layers
Aluminium	1 layer x 7 micron
Polyester (PET)	2 layers x 12 micron
Total thickness	31 micron exc. adhesive

Classifications: Europe EN 13180



www.blaue-engel.de/uz132

The **ECODEC[®] SONODEC[®] 25AB** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.

Ecoduct

A flexible duct with a Unique antibacterial coating ^{NANOSILVER[®]}.

The efficiency of the anti-microbial inner layer of this flexible Ecoduct has been established through extensive testing by an independent laboratory. The full report is available on request.

Tested at faculty of Technical Sciences, University of Novi Sad (certified by TÜV NORD) Report no 01-192/135-2 issued 24.06.2013

Basic material is as well as tested according Report no. 1162599 issued 30.12.2011 on the: **Antibacterial activity: ISO 22196:2007**

Micro organism tested: % Reduction

- Staphylococcus Aureus ATCCC 6539P Gram (+)
LogR: Log (Ut)- Log(At) Result R>5.46 - **99.9% effective**
- Salmonella Typhimurium ATCC 14028 Gram (-)
LogR: Log (Ut)-Log(At) - Result R=3.46 - **99.9% effective**

According the following formula, calculate the growth value of microorganism on the test material.

$$R = (Ut - Uo) - (At - Uo) = Ut - At$$

$$\text{Log (R)} = \text{Log}(Ut - At)$$

- R: Is the Antibacterial activity.
Uo: Is the average of the common Logarithm of the number of viable bacteria, in cell/cm², recovered from the untreated test specimen immediately after inoculation.
Ut: Is the average of the common Logarithm of the number of viable bacteria, in cell/cm², recovered from the untreated test specimen 24h.
At: Is the average of the common Logarithm of the number of viable bacteria, in cell/cm², recovered from the treated test specimen after 24h.



ECODEC[®] SONODEC[®] 25AB

ACOUSTICALLY AND THERMAL INSULATED DUCTING

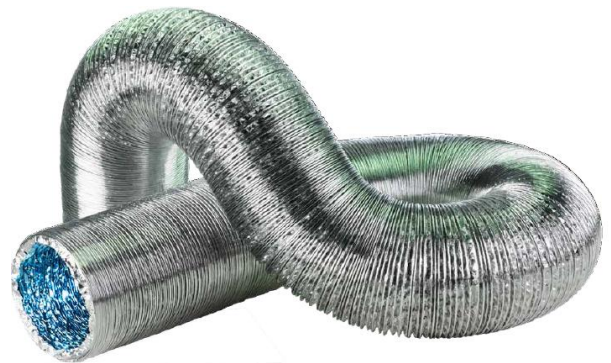
INNERCORE:

Silver-ion based anti-bacterial coated aluminum foil. Specially designed to prevent a wide range of growth of Microbes, bacterial and fungal. The silver-ions are encapsulated in a Nano sized polymer capsule. It is non-toxic, ecological and totally not harmful for environment.

FEATURES AND BENEFITS

Antibacterial coating inside hose (Nano silver). Anti-bacterial and anti-fungal effect.

Fully flexible ducting:	Quick installation Reduced labour cost
Air tight construction	Energy efficient Low air leakage
Smooth interior	Low friction loss Low operating cost
Multi-layer constr.	Tear & Puncture Resistant Low maintenance
Light compact pack.	Reduced warehouse and handling cost



Use Limitations

ECODUCT[®] SONODEC[®] 25AB is not suitable for transporting air with high concentration of acids and base.

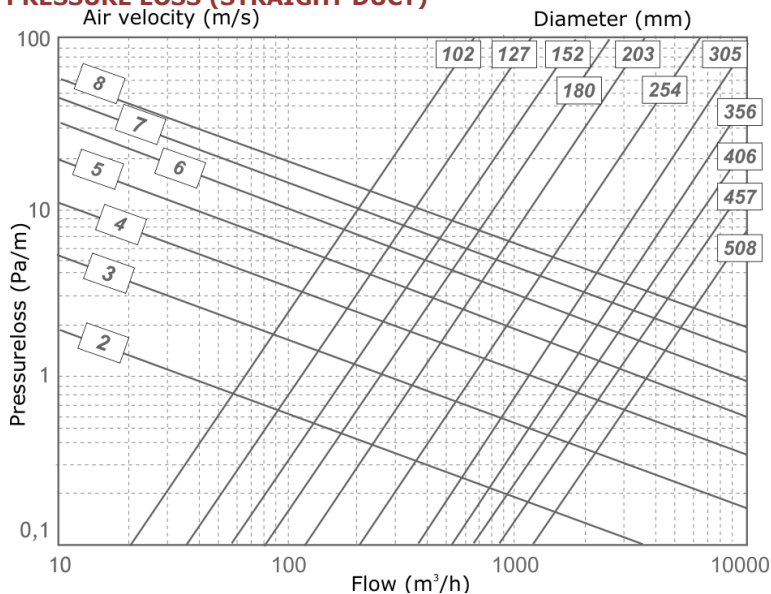
ECODUCT[®] SONODEC[®] 25AB should not be used to discharge combustion gases from open fireplaces or oil-fired boilers.

Important Notice: Shell life < 1 year

Decrease of Anti-bacterial working : After year > 30% per year

Packaging: Each 10 meter length flexible duct is individually compressed in cartons of 1.0 meter and delivered on 1.0 x 1.2 pallets .

PRESSURE LOSS (STRAIGHT DUCT)



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



ECODEC[®]
SONODEC[®] 25AB
ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION According: **ISO 7235**

D ₁ (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz							
		63	125	250	500	1000	2000	4000	8000
82	1	0.3	2.9	9.2	18.3	33.1	42.2	39.2	34.9
	2	6.0	5.4	12.5	24.8	35.8	47.9	48.6	49.7
	3	2.6	7.5	16.5	27.4	39.6	51.5	50.9	52.7
102	1	7.9	11.1	17.0	26.9	29.3	36.9	24.6	20.7
	2	11.1	19.0	31.6	34.4	38.5	46.4	41.2	30.1
	3	14.9	25.0	37.5	34.8	42.4	51.2	52.1	47.9
127	1	6.1	6.6	17.3	27.0	28.4	34.7	21.6	17.9
	2	11.1	17.1	33.1	31.9	36.7	43.4	34.8	24.6
	3	11.4	17.7	39.2	33.7	39.2	46.9	46.3	37.3
152	1	3.3	4.2	12.0	17.2	19.0	23.6	13.1	8.3
	2	3.3	7.1	18.3	29.6	32.7	38.9	24.3	17.6
	3	5.8	12.5	29.3	33.5	36.1	43.1	31.8	21.5
160	1	5.5	3.8	10.3	20.1	20.5	24.7	15.6	11.8
	2	10.5	10.7	21.2	30.4	31.2	38.4	23.8	15.9
	3	12.3	13.4	31.0	35.0	38.2	44.1	34.1	22.1
180	1	9.7	1.7	11.6	18.6	19.0	24.1	13.7	10.6
	2	11.9	10.2	25.8	27.5	30.2	37.8	26.0	19.4
	3	14.4	15.5	34.8	30.2	34.8	42.4	37.8	28.8
203	1	2.7	5.8	13.6	19.8	19.4	20.3	13.2	11.6
	2	9.1	10.3	27.5	28.5	30.6	35.6	26.6	22.8
	3	9.8	10.1	25.4	34.6	40.4	44.0	45.1	43.2
229	1	3.7	6.2	16.2	14.6	16.6	16.1	9.5	7.1
	2	9.3	17.6	30.7	23.3	26.7	28.5	18.0	13.8
	3	7.6	14.1	33.0	28.5	32.9	39.1	29.3	25.4
254	1	7.7	2.6	12.9	16.4	16.6	15.6	8.5	7.8
	2	8.2	7.6	25.2	24.6	27.6	29.1	19.3	15.6
	3	10.4	12.8	33.2	29.2	31.0	34.6	24.0	18.8
305	1	3.9	4.6	12.9	14.8	14.4	12.3	6.7	5.9
	2	9.7	12.8	27.6	22.1	24.3	21.8	11.7	10.1
	3	11.2	17.4	31.0	25.6	27.1	27.3	15.9	15.0
315	1	5.1	5.9	14.3	13.7	12.9	11.3	6.3	5.0
	2	9.2	12.1	26.9	22.0	23.2	20.8	11.8	8.5
	3	12.1	17.1	30.4	25.0	26.7	28.3	17.7	15.5
356	1	4.2	3.7	10.4	11.4	11.8	8.4	4.6	4.3
	2	5.3	5.9	21.3	18.8	21.7	18.4	12.2	12.1
	3	5.8	8.6	25.3	25.3	29.8	32.7	24.4	18.6
406	1	7.1	6.8	12.7	11.0	10.9	6.9	4.0	3.2
	2	9.7	15.8	22.3	18.3	22.5	13.1	8.1	7.0
	3	11.7	18.2	26.0	22.5	26.3	27.3	18.0	15.6

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 2500

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC 2500** series consists of a perforated aluminum laminate inner duct thermally and acoustically insulated with glass wool and provided with an aluminium laminated outer duct.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

SPECIFICATIONS

Article code:	DSY{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer duct:	-30 °C to 250 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	6 mtr

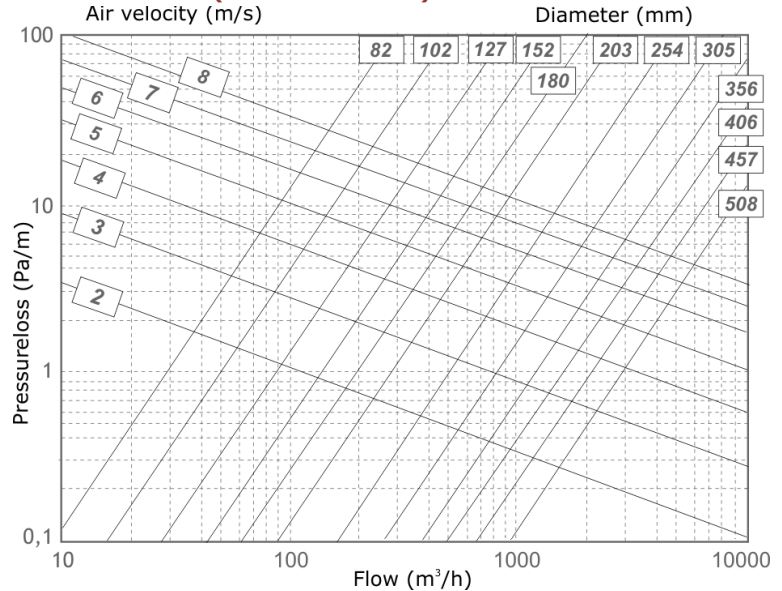
CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer duct:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

CLASSIFICATIONS

EU (EN 13501-1):	A2-s1,d0
UK (BS476):	Part 6, 7 and 20
FR (NF):	M0/M0

PRESSURE LOSS (STRAIGHT DUCT)



The **SONODEC 2500** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **SONODEC 2500** is also available, on request, with a 50 mm glass wool layer, the article number is: DSY50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

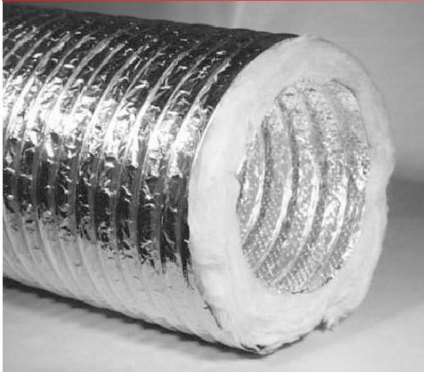
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 2500

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

SONODEC 2500		(Test report nr. AB323-3 Peutz bv - The Netherlands)					
Dn (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	11	12	22	33	37	20
	2	15	19	32	65	60	33
102	1	3	8	20	35	26	15
	2	5	13	32	67	42	23
127	1	4	8	17	29	23	17
	2	6	14	30	58	39	25
160	1	6	11	18	34	20	11
	2	10	18	34	59	27	18
203	1	1	4	10	20	8	8
	2	4	10	23	44	19	16
254	1	3	7	13	17	8	10
	2	5	11	23	35	14	14
315	1	4	6	12	16	7	8
	2	5	11	21	27	12	13
457	1	3	4	6	5	4	7
	2	9	11	14	10	9	10
508	1	2	5	10	7	5	6
	2	6	9	18	12	9	10

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



ECONOFLEX A1 SONO

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **ECONOFLEX A1 SONO** series consists of a perforated aluminum laminate inner duct thermally and acoustically insulated with glass wool and is provided with an aluminium laminated outer jacket.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

SPECIFICATIONS

Article code:	A1F25AL{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +1500 Pa
Operating air velocity:	max. 20 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	10 mtr

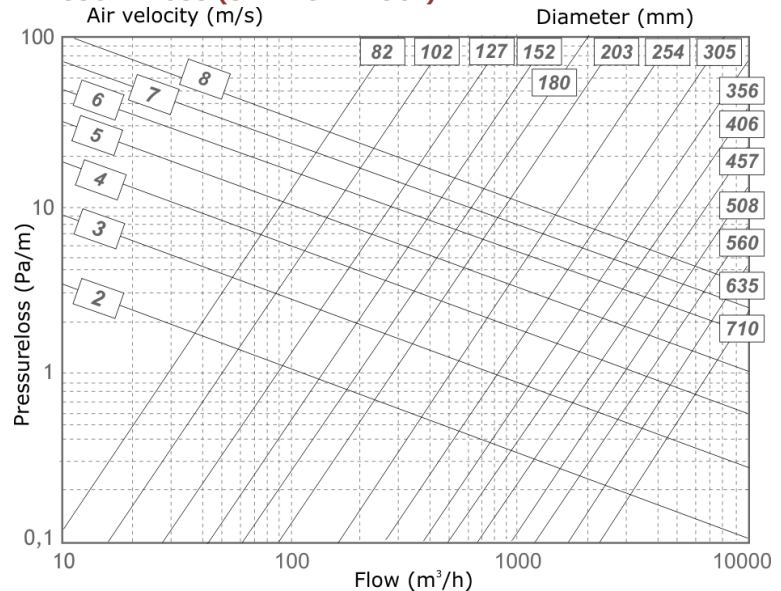
CONSTRUCTION

Inner duct:	alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

CLASSIFICATIONS

UK (BS476):	Part 6, 7 and 20
NL(NEN 6065/6066)	1
FR (NF):	M1

PRESSURE LOSS (STRAIGHT DUCT)



The **ECONOFLEX A1 SONO** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **ECONOFLEX A1 SONO** is also available, on request, with a 50 mm glass wool layer, the article number is: A1F50AL{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The A1 ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



ECONOFLEX A1 SONO

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

A1F25AL		(Test report nr. AB323-1 Peutz bv - The Netherlands)					
D _i (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	16	26	33	38	28	17
	2	21	37	48	53	46	29
	3	29	45	49	54	57	38
102	1	9	19	32	37	31	21
	2	19	33	52	53	49	36
	3	25	39	50	52	54	40
127	1	12	20	21	25	29	17
	2	17	31	44	45	46	26
	3	23	46	44	47	51	34
160	1	17	22	22	27	19	14
	2	31	39	34	38	31	20
	3	29	43	41	46	39	27
203	1	7	15	17	20	16	13
	2	20	34	32	35	30	22
	3	18	40	38	41	39	30
254	1	16	16	16	16	13	10
	2	26	31	28	33	25	18
	3	32	36	32	37	34	27
315	1	11	12	12	14	11	7
	2	28	25	22	27	22	15
	3	27	32	28	34	28	19
457	1	12	10	8	8	6	8
	2	20	17	15	16	13	12
	3	25	22	21	25	19	16
508	1	8	8	8	9	6	7
	2	20	17	16	17	11	11
	3	24	22	20	25	15	14

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The A1 ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



SEMIDEC 250 S

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SEMIDEC 250 S** is a thermal and acoustic insulated flexible duct constructed of one layer of perforated corrugated aluminium, insulated with 25mm insulation wool and an aluminium laminated outer jacket. By the lock seam of the inner duct a high air tightness and flexibility is reached. The duct is fitted with 2 plastic clamps on the ends before compressing to packaging length (± 80 cm).

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

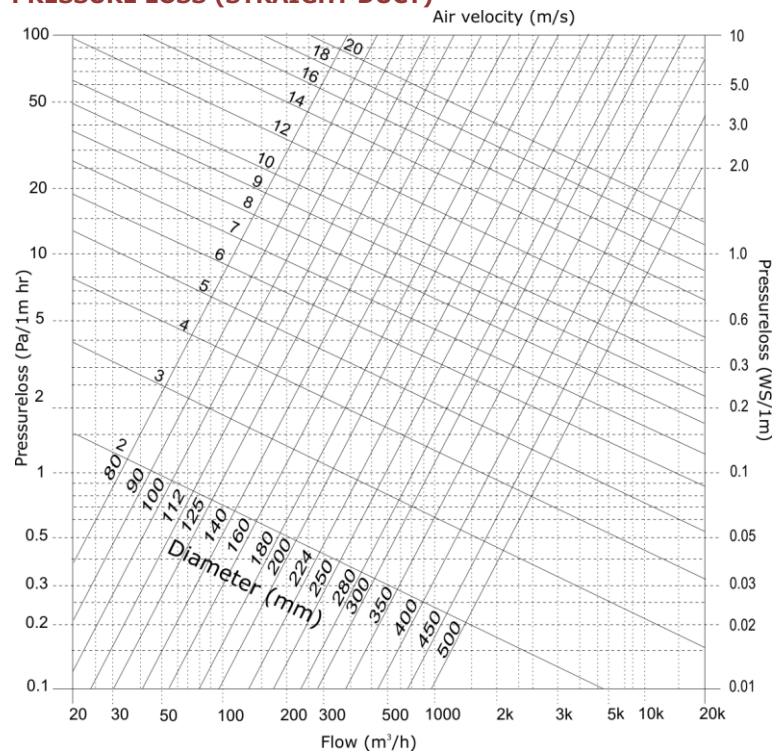
SPECIFICATIONS

Article code:	DXDSM{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer jacket:	-30 °C to 140 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	1 x Ø + 25mm
Standard diameter range:	100 – 315 mm
Standard length:	3 mtr

CONSTRUCTION

Inner duct:	Aluminium
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **SEMIDEC 250 S** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **SEMIDEC 250 S** is also available, on request, with a 50 mm glass wool layer, the article number is: DXDSM50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SEMIDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SEMIDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 2500 CE

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC 2500 CE** series consists of a perforated aluminum laminate inner duct thermally and acoustically insulated with glass wool and provided with an aluminium laminated outer duct.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

SPECIFICATIONS

Article code:	DSYCE{Ø}
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer duct:	-30 °C to 250 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 30 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 356 mm
Standard length:	6 mtr

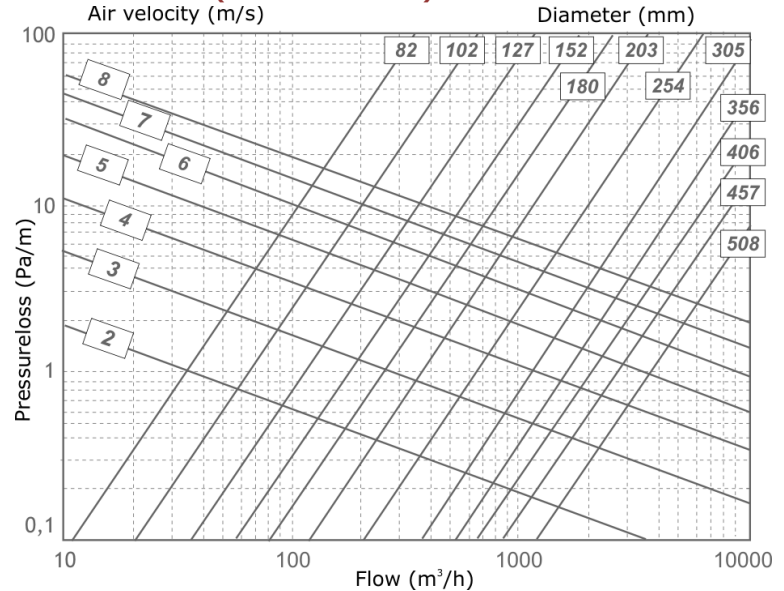
CONSTRUCTION

Inner duct:	Alu/poly laminate
Glass wool blanket:	25mm, 16kg/m ³
Outer duct:	Alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

CLASSIFICATIONS

EU (EN 13501-1):	A2-s1,d0
FR (NF):	M0/M0

PRESSURE LOSS (STRAIGHT DUCT)



The **SONODEC 2500 CE** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 2500 CE

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

SONODEC 2500 CE		(Test report nr. AB323-3 Peutz bv - The Netherlands)					
Dn (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	11	12	22	33	37	20
	2	15	19	32	65	60	33
102	1	3	8	20	35	26	15
	2	5	13	32	67	42	23
127	1	4	8	17	29	23	17
	2	6	14	30	58	39	25
160	1	6	11	18	34	20	11
	2	10	18	34	59	27	18
203	1	1	4	10	20	8	8
	2	4	10	23	44	19	16
254	1	3	7	13	17	8	10
	2	5	11	23	35	14	14
315	1	4	6	12	16	7	8
	2	5	11	21	27	12	13
457	1	3	4	6	5	4	7
	2	9	11	14	10	9	10
508	1	2	5	10	7	5	6
	2	6	9	18	12	9	10

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC NON WOVEN BAC

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC NON-WOVEN BAC** consists of a Polypropylene fabric cloth inner duct, thermally and acoustically insulated with a PINK glasswool layer and provided with an aluminium laminated outer jacket. The inner duct is hydrophobic and Anti-Bacterial. A barrier between the duct and the glass wool prevents the diffusion of glass wool particles.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

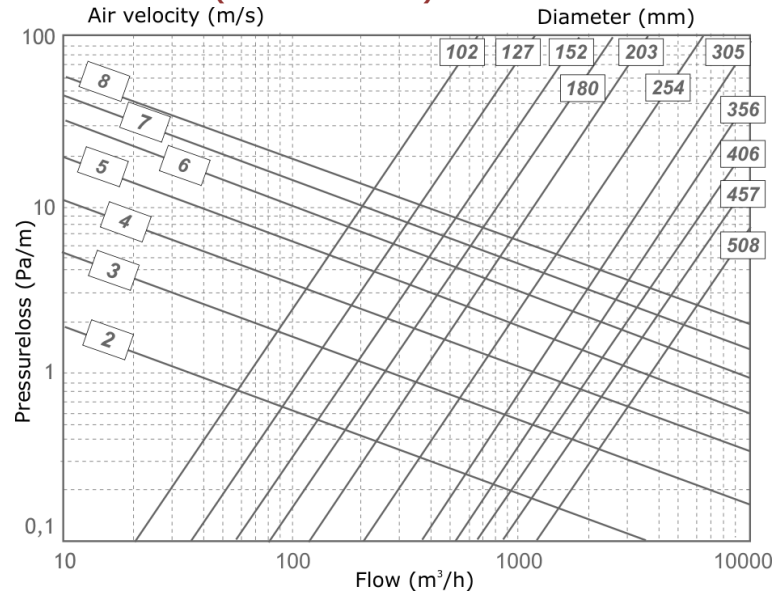
SPECIFICATIONS

Article code:	BAC{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 406 mm
Standard length:	10 mtr

CONSTRUCTION

Inner duct:	non-woven Polypropylene fabric cloth
Barrier:	closed film
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.765 m ² K/W (ASTM C177-76)
Appearance:	aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **SONODEC NON-WOVEN** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **SONODEC NON-WOVEN** is also available, on request, with a 50 mm glass wool layer, the article number is: BAC50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC NON WOVEN BAC

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

Non-woven ins. 25mm (Test report nr. A1672-1 Peutz bv - The Netherlands)										
D_n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D_i (dB)
		63	125	250	500	1000	2000	4000	8000	
080	1.0	13.6	22.4	40.2	38.7	36.5	41.3	51.6	45.8	39
100	1.0	15.9	22.9	31.1	38.6	36.4	40.6	50.1	35.9	39
125	1.0	11.7	18.9	32.4	29.9	28.8	34.5	40.9	24.5	32
150	1.0	12.2	10.9	29.7	30.1	29	38.3	34.6	20.4	32
160	1.0	19.3	25.4	30.5	27.1	23.8	32.2	27.8	17.3	28
200	1.0	10.7	12.1	28.7	22.8	22.8	30.6	19.4	11.9	26
250	1.0	12.9	18.7	24.3	19.5	19.9	27.7	12.9	10.2	22
315	1.0	16.6	23.2	18	15.2	16.5	19.6	10.1	8.5	17
Non-woven ins. 50mm										
100	1.0	4.3	8.5	15.5	28.2	50.8	51	57.8	38.5	30
125	1.0	17.7	26.3	35.4	29.2	33.3	45.4	40.5	26.5	35
160	1.0	16.5	24.1	30.6	27.5	29.6	41.7	28.7	18.1	32
200	1.0	6.5	6.3	21.1	27.1	30.5	35.8	19.4	12.3	29
Non-woven ins. 25mm 3Mtr										
200	3.0	17.3	30.7	36.8	32.7	34.5	40.3	40.8	22.8	37
250	3.0	22.4	30.7	33.5	31.0	32.0	38.9	26	16.2	35
315	3.0	31.7	32.5	29.1	25.2	28.2	37.3	16.6	14.6	30

D_i = Average attenuation

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC NON-WOVEN

ACOUSTICALLY AND THERMAL INSULATED DUCTING

The **SONODEC NON-WOVEN** consists of a Polypropylene fabric cloth inner duct, thermally and acoustically insulated with a glasswool layer and provided with an aluminium laminated outer jacket. The inner duct is hydrophobic and Anti-Bacterial.

APPLICATION

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

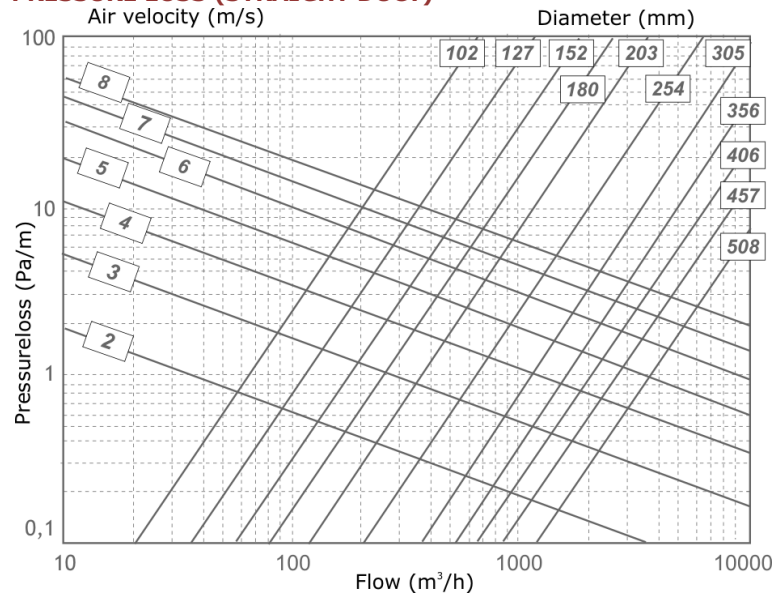
SPECIFICATIONS

Article code:	SBI{Ø}
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 406 mm
Standard length:	10 mtr

CONSTRUCTION

Inner duct:	Non-woven Polypropylene fabric cloth
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

PRESSURE LOSS (STRAIGHT DUCT)



The **SONODEC NON-WOVEN** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **SONODEC NON-WOVEN** is also available, on request, with a 50 mm glass wool layer, the article number is: SBI50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC NON-WOVEN

ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION

Non-woven ins. 25mm (Test report nr. A1672-1 Peutz bv - The Netherlands)										
D_n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D_i (dB)
		63	125	250	500	1000	2000	4000	8000	
080	1.0	13.6	22.4	40.2	38.7	36.5	41.3	51.6	45.8	39
100	1.0	15.9	22.9	31.1	38.6	36.4	40.6	50.1	35.9	39
125	1.0	11.7	18.9	32.4	29.9	28.8	34.5	40.9	24.5	32
150	1.0	12.2	10.9	29.7	30.1	29	38.3	34.6	20.4	32
160	1.0	19.3	25.4	30.5	27.1	23.8	32.2	27.8	17.3	28
180	1.0	17.3	13.6	27.6	26.5	26	35.1	22.7	13.2	
200	1.0	10.7	12.1	28.7	22.8	22.8	30.6	19.4	11.9	26
250	1.0	12.9	18.7	24.3	19.5	19.9	27.7	12.9	10.2	22
315	1.0	16.6	23.2	18	15.2	16.5	19.6	10.1	8.5	17
Non-woven ins. 50mm										
100	1.0	4.3	8.5	15.5	28.2	50.8	51	57.8	38.5	30
125	1.0	17.7	26.3	35.4	29.2	33.3	45.4	40.5	26.5	35
160	1.0	16.5	24.1	30.6	27.5	29.6	41.7	28.7	18.1	32
200	1.0	6.5	6.3	21.1	27.1	30.5	35.8	19.4	12.3	29
Non-woven ins. 25mm 3Mtr										
200	3.0	17.3	30.7	36.8	32.7	34.5	40.3	40.8	22.8	37
250	3.0	22.4	30.7	33.5	31.0	32.0	38.9	26	16.2	35
315	3.0	31.7	32.5	29.1	25.2	28.2	37.3	16.6	14.6	30

D_i = Average attenuation

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 25 TRD NON-WOVEN

FLEXIBLE SOUND ATTENUATORS

The **SONODEC 25 TRD NON-WOVEN** consist of a Polypropylene fabric cloth inner duct, thermal insulated with a glass wool layer and provided with an aluminium laminated outer jacket. The inner duct is hydrophobic and Anti-Bacterial. Both ends are taped to make ready-made connections.

APPLICATION

- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

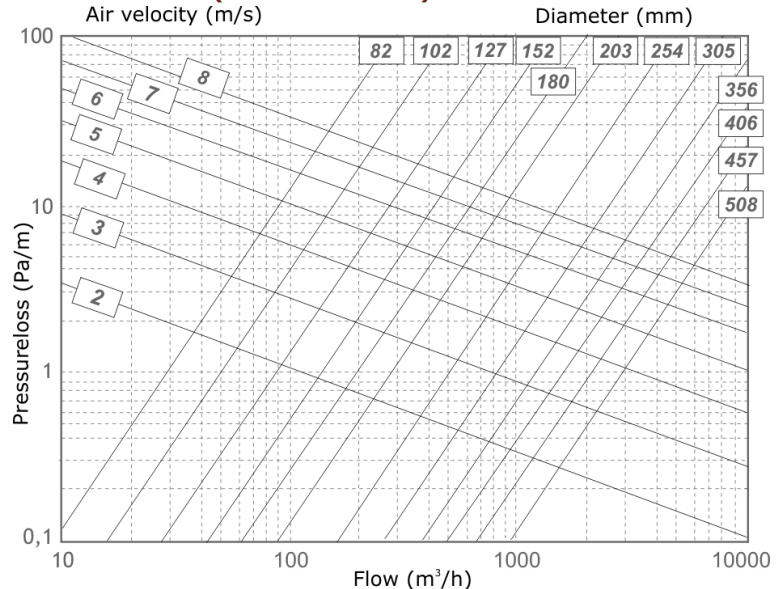
SPECIFICATIONS

Article code:	SBIT{Ø}/L
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 315 mm
Standard length:	0,5+1+1,5+2 mtr

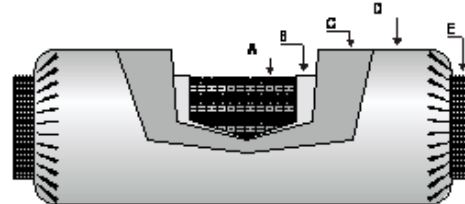
CONSTRUCTION

Inner duct:	Non-woven Polypropylene fabric cloth
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

PRESSURE LOSS (STRAIGHT DUCT)



- A. inner duct
- B. barrier
- C. glass wool
- D. outer jacket
- E. gasket



The **SONODEC 25 TRD NON-WOVEN** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **SONODEC 25 TRD NON-WOVEN** is also available, on request, with a 50 mm glass wool layer, the article number is: SBIT50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

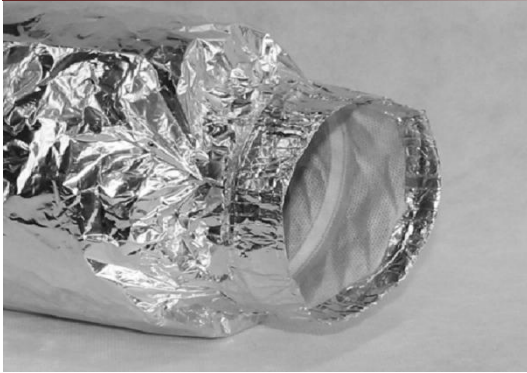
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 25 TRD NON-WOVEN

FLEXIBLE SOUND ATTENUATORS

SOUND ATTENUATION

Non-woven ins. 25mm (Test report nr. A1672-1 Peutz bv - The Netherlands)										
D_n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D_i (dB)
		63	125	250	500	1000	2000	4000	8000	
080	1.0	13.6	22.4	40.2	38.7	36.5	41.3	51.6	45.8	39
100	1.0	15.9	22.9	31.1	38.6	36.4	40.6	50.1	35.9	39
125	1.0	11.7	18.9	32.4	29.9	28.8	34.5	40.9	24.5	32
150	1.0	12.2	10.9	29.7	30.1	29.0	38.3	34.6	20.4	32
160	1.0	19.3	25.4	30.5	27.1	23.8	32.2	27.8	17.3	28
180	1.0	17.3	13.6	27.6	26.5	26.0	35.1	22.7	13.2	
200	1.0	10.7	12.1	28.7	22.8	22.8	30.6	19.4	11.9	26
250	1.0	12.9	18.7	24.3	19.5	19.9	27.7	12.9	10.2	22
315	1.0	16.6	23.2	18	15.2	16.5	19.6	10.1	8.5	17

Non-woven ins. 50mm										
100	1.0	4.3	8.5	15.5	28.2	50.8	51	57.8	38.5	30
125	1.0	17.7	26.3	35.4	29.2	33.3	45.4	40.5	26.5	35
160	1.0	16.5	24.1	30.6	27.5	29.6	41.7	28.7	18.1	32
200	1.0	6.5	6.3	21.1	27.1	30.5	35.8	19.4	12.3	29

D_i = Average attenuation

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 50 TRD NON-WOVEN

FLEXIBLE SOUND ATTENUATORS

The **SONODEC 50 TRD NON-WOVEN** consist of a Polypropylene fabric cloth inner duct, thermal insulated with a glass wool layer and provided with an aluminium laminated outer jacket. The inner duct is hydrophobic and Anti-Bacterial. Both ends are taped to make ready-made connections.

APPLICATION

- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

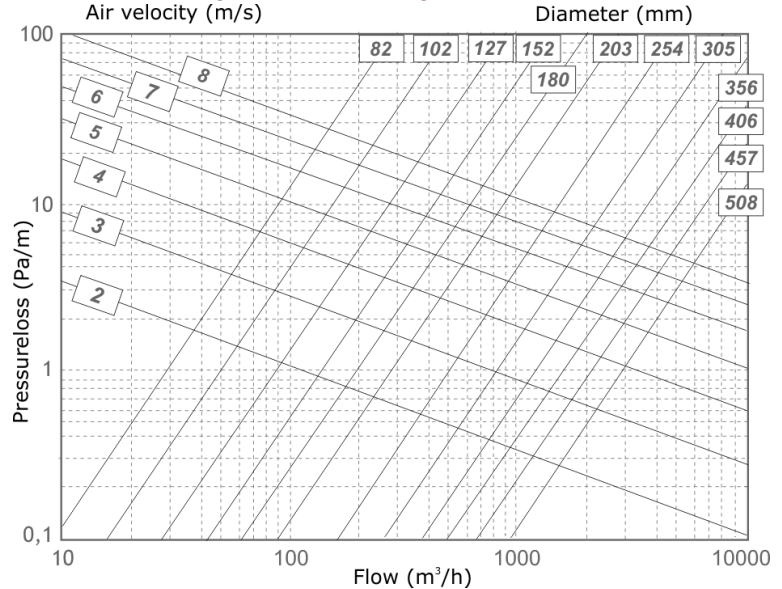
SPECIFICATIONS

Article code: SBIT50{Ø}/L
 Temperature range: -30 °C to 140 °C
 Operating pressure: up to +2500 Pa
 Operating air velocity: max. 25 m/s
 Min. bending radius: 0.54 x Ø + 25mm
 Standard diameter range: 82 – 315 mm
 Standard length: 0,5+1+1,5+2 mtr

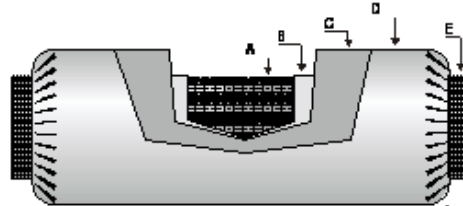
CONSTRUCTION

Inner duct: Non-woven Polypropylene fabric cloth
 Glass wool blanket: 50mm, 16kg/m³
 Outer jacket: alu/poly laminate
 R-value glass wool: 1.3 m² K/W (ASTM C177-76)
 Appearance: aluminium

PRESSURE LOSS (STRAIGHT DUCT)



- A. inner duct
- B. barrier
- C. glass wool
- D. outer jacket
- E. gasket



The **SONODEC 50 TRD NON-WOVEN** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 50 TRD NON-WOVEN

FLEXIBLE SOUND ATTENUATORS

SOUND ATTENUATION

Non-woven ins. 50mm (Test report nr. A1672-1 Peutz bv - The Netherlands)										
100	1.0	4.3	8.5	15.5	28.2	50.8	51	57.8	38.5	30
125	1.0	17.7	26.3	35.4	29.2	33.3	45.4	40.5	26.5	35
160	1.0	16.5	24.1	30.6	27.5	29.6	41.7	28.7	18.1	32
200	1.0	6.5	6.3	21.1	27.1	30.5	35.8	19.4	12.3	29

D_i = Average attenuation

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 25 TRD

FLEXIBLE SOUND ATTENUATORS

The **SONODEC 25 TRD** consist of a perforated aluminum inner duct, thermal insulated with a glass wool layer and provided with an aluminium laminated outer jacket. A barrier between the duct and the glass wool prevents the diffusion of glass wool particles. Both ends are taped to make ready-made connections.

The SONODEC TRD has an increased insertion loss, the SONODEC GLX, however, has an increased sound attenuation.

APPLICATION

- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

SPECIFICATIONS

Article code:	DST{Ø}/L
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.54 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	0,5+1+1,5+2 mtr

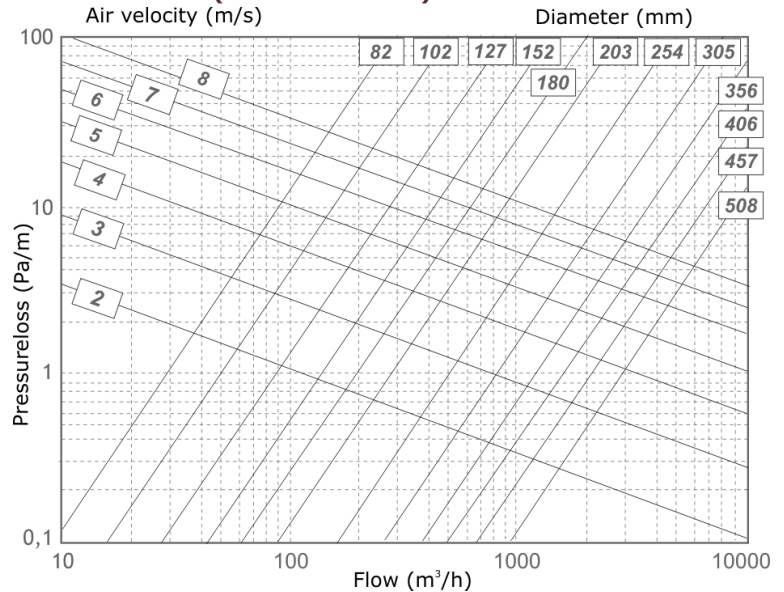
CONSTRUCTION

Inner duct:	alu/poly laminate
Barrier:	closed film
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

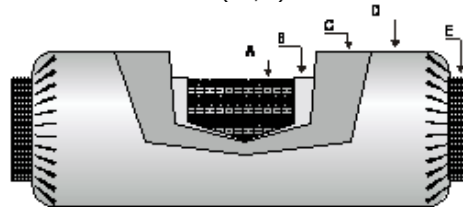
CLASSIFICATIONS

UK (BS476):	Part 6, 7 and 20
NL(NEN 6065/6066)	1
FR (NF):	M1

PRESSURE LOSS (STRAIGHT DUCT)



- A. inner duct
- B. barrier
- C. glass wool
- D. outer jacket
- E. gasket



The **SONODEC 25 TRD** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **SONODEC 25 TRD** is also available, on request, with a 50 mm glass wool layer, the article number is: DST50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

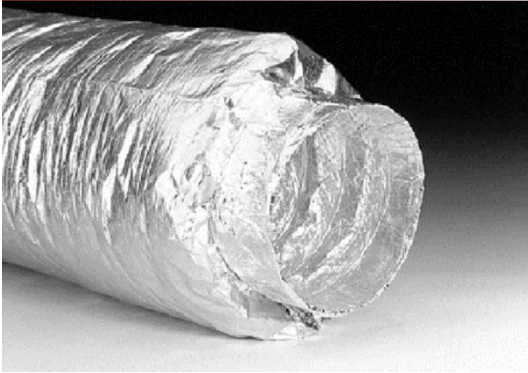
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 25 TRD

FLEXIBLE SOUND ATTENUATORS

SOUND ATTENUATION

SONODEC 25 TRD		(Test report nr. AB323-1 Peutz bv - The Netherlands)					
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	16	26	33	38	28	17
	2	21	37	48	53	46	29
102	1	9	19	32	37	31	21
	2	19	33	52	53	49	36
127	1	12	20	21	25	29	17
	2	17	31	44	45	46	26
160	1	17	22	22	27	19	14
	2	31	39	34	38	31	20
203	1	7	15	17	20	16	13
	2	20	34	32	35	30	22
254	1	16	16	16	16	13	10
	2	26	31	28	33	25	18
315	1	11	12	12	14	11	7
	2	28	25	22	27	22	15
457	1	12	10	8	8	6	8
	2	20	17	15	16	13	12
508	1	8	8	8	9	6	7
	2	20	17	16	17	11	11

SONODEC 50 TRD		(Test report nr. AB323-4 Peutz bv - The Netherlands)					
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	14	19	34	40	27	18
	2	19	31	42	59	45	30
102	1	7	18	31	43	28	20
	2	11	32	49	61	45	27
127	1	7	15	22	32	26	18
	2	14	27	47	56	40	28
160	1	12	20	23	28	18	11
	2	22	36	43	50	29	20
203	1	4	9	14	20	14	13
	2	13	22	35	43	30	24
254	1	14	14	16	15	11	10
	2	26	28	30	31	18	14
315	1	15	13	15	16	9	7
	2	27	26	28	32	15	13
457	1	9	9	10	9	5	7
	2	20	19	21	17	11	13
508	1	7	8	9	8	5	7
	2	19	17	20	15	9	10

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 25 GLX

FLEXIBLE SOUND ATTENUATORS

The **SONODEC 25 GLX** consist of a perforated aluminum inner duct, thermal insulated with a glass wool layer and provided with an aluminium laminated outer duct. A barrier between the duct and the glass wool prevents the diffusion of glass wool particles. Both ends are taped to make ready-made connections.

The SONODEC TRD has an increased insertion loss, the SONODEC GLX, however, has an increased sound attenuation.

APPLICATION

- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

SPECIFICATIONS

Article code:	GX{Ø}/L
Temperature range:	-30 °C to 140 °C
Operating pressure:	up to +2500 Pa
Operating air velocity:	max. 25 m/s
Min. bending radius:	0.58 x Ø + 25mm
Standard diameter range:	82 – 508 mm
Standard length:	0,5+1+1,5+2 mtr

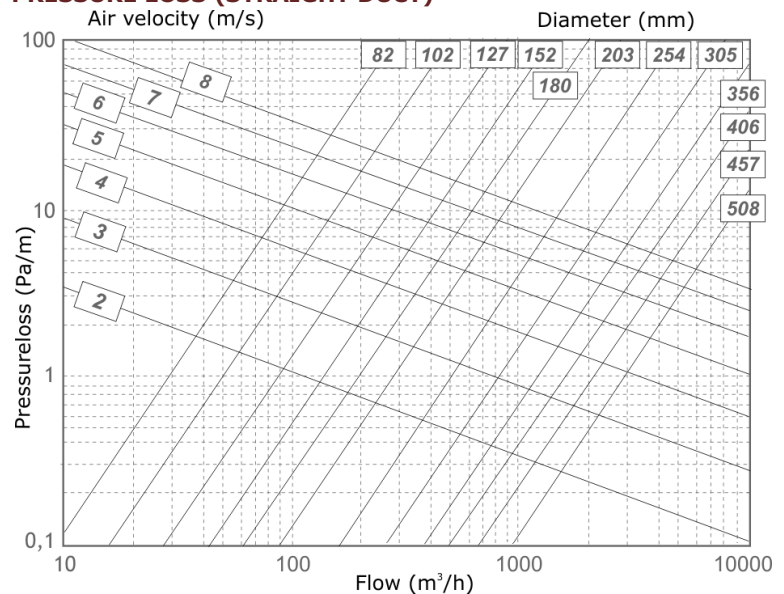
CONSTRUCTION

Inner duct:	alu/poly laminate
Barrier	closed film
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	alu/poly laminate
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

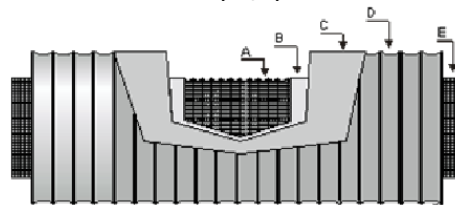
CLASSIFICATIONS

UK (BS476):	Part 6, 7 and 20
NL(NEN 6065/6066)	1
FR (NF):	M0/M1

PRESSURE LOSS (STRAIGHT DUCT)



- inner duct
- barrier
- glass wool
- outer jacket
- gasket



The **SONODEC 25 GLX** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **SONODEC 25 GLX** is also available, on request, with a 50 mm glass wool layer, the article number is: GX50{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 25 GLX

FLEXIBLE SOUND ATTENUATORS

SOUND ATTENUATION

SONODEC 25 GLX		(Test report nr. AB323-6 Peutz bv - The Netherlands)					
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	11	10	16	24	38	27
	2	11	13	25	48	57	40
102	1	3	8	19	35	30	19
	2	5	11	24	46	49	32
127	1	2	5	9	17	24	19
	2	4	8	19	36	40	25
160	1	4	6	12	21	10	8
	2	6	9	18	38	47	26
203	1	2	6	12	21	10	8
	2	5	10	22	42	22	17
254	1	3	6	11	12	8	11
	2	5	10	19	29	15	13
315	1	3	6	11	15	9	9
	2	5	8	15	26	14	16
457	1	1	3	6	9	6	8
	2	5	6	11	17	11	11
508	1	1	4	9	8	6	7
	2	4	7	15	14	10	9

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

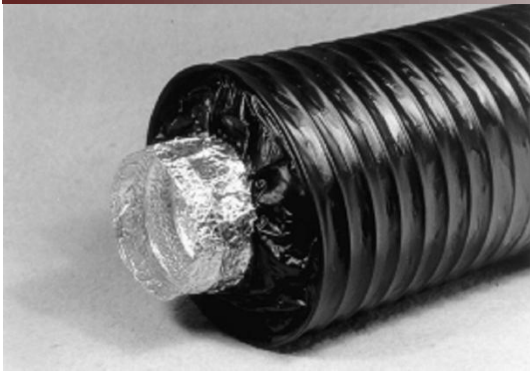
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 25 GLX COMBI

FLEXIBLE SOUND ATTENUATORS

The **SONODEC 25 GLX COMBI** consist of a perforated aluminum inner duct, thermal insulated with a glass wool layer and provided with an aluminium-copolymer laminated outer duct. A barrier between the duct and the glass wool prevents the diffusion of glass wool particles. Both ends are taped to make ready-made connections.

The SONODEC TRD has an increased insertion loss, the SONODEC GLX, however, has an increased sound attenuation.

APPLICATION

- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

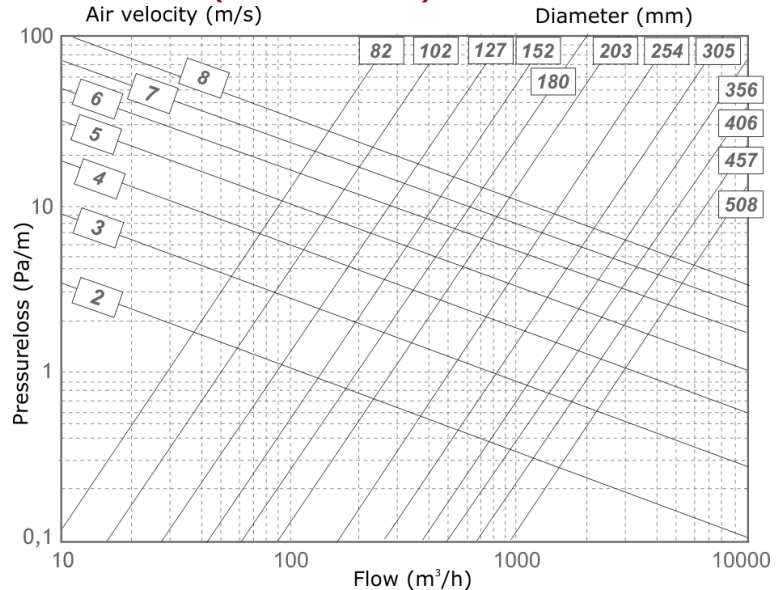
SPECIFICATIONS

Article code: GXC21B{Ø}/L
 Temperature range: -30 °C to 140 °C
 Operating pressure: up to +2500 Pa
 Operating air velocity: max. 25 m/s
 Min. bending radius: $0.58 \times \text{Ø} + 25\text{mm}$
 Standard diameter range: 82 – 508 mm
 Standard length: 0,5+1+1,5+2 mtr

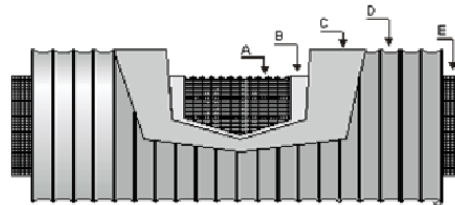
CONSTRUCTION

Inner duct: alu/poly laminate
 Barrier: closed film
 Glass wool blanket: 25mm, 16kg/m³
 Outer duct: alu/poly laminate
 R-value glass wool: 0.65 m² K/W
 (ASTM C177-76)
 Appearance: Black

PRESSURE LOSS (STRAIGHT DUCT)



- A. inner duct
- B. barrier
- C. glass wool
- D. outer jacket
- E. gasket



The **SONODEC 25 GLX COMBI** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **SONODEC 25 GLX COMBI** is also available, on request, with a 50 mm glass wool layer, the article number is: GXC21B50{Ø} R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

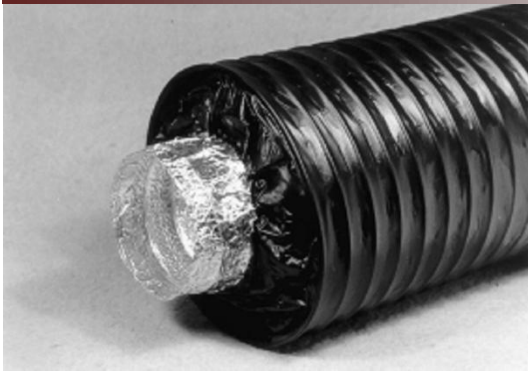
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



SONODEC 25 GLX COMBI

FLEXIBLE SOUND ATTENUATORS

SOUND ATTENUATION

SONODEC 25 GLX COMBI		(Test report nr. AB323-6 Peutz bv - The Netherlands)					
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
82	1	11	10	16	24	38	27
	2	11	13	25	48	57	40
102	1	3	8	19	35	30	19
	2	5	11	24	46	49	32
127	1	2	5	9	17	24	19
	2	4	8	19	36	40	25
160	1	4	6	12	21	10	8
	2	6	9	18	38	47	26
203	1	2	6	12	21	10	8
	2	5	10	22	42	22	17
254	1	3	6	11	12	8	11
	2	5	10	19	29	15	13
315	1	3	6	11	15	9	9
	2	5	8	15	26	14	16
457	1	1	3	6	9	6	8
	2	5	6	11	17	11	11
508	1	1	4	9	8	6	7
	2	4	7	15	14	10	9

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the SONODEC ducts suitable for transporting air with a high concentration of acid and base.



TSD

SEMI FLEXIBLE SOUND ATTENUATORS

The **TSD** consists of a corrugated perforated aluminium inner duct and a 2 layer corrugated outer duct with end spigots made of aluminium. The space between the inner and outer duct is filled with 25mm sound absorbing material. At request a barrier to prevent particle migration can be added.

Fire Rating: Ducting is tested according DIN4102 and is classified as A1

APPLICATION

- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

SPECIFICATIONS

Article code: TSD{Ø}/L
 Temperature range: -30 °C to 250 °C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 10 m/s
 Min. bending radius: 2 to 3 x D2
 Standard diameter range: 80 – 450 mm
 Standard length: 0,5+0,75+1 mtr

CONSTRUCTION

Inner duct: Perforated corrugated aluminium
 Glass wool blanket: 25mm, 16kg/m³
 Outer duct: Corrugated aluminium
 R-value glass wool: 0.65m² K/W (ASTM C177-76)
 Appearance: aluminium

Sound attenuation, Dimensions and Weights

TSD (Test report nr. A1453-1 Peutz bv - The Netherlands)									
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz						D _i (dB)	W (kg)
		125	250	500	1k	2k	4k		
080	1	6	8	19	40	64	40	22	0.8
100	1	3	7	15	37	68	33	20	1.0
125	1	5	8	16	31	51	22	20	1.2
160	1	1	4	9	24	50	18	15	1.5
200	1	2	5	9	22	29	12	15	1.9
250	1	1	3	8	21	18	8	13	2.3

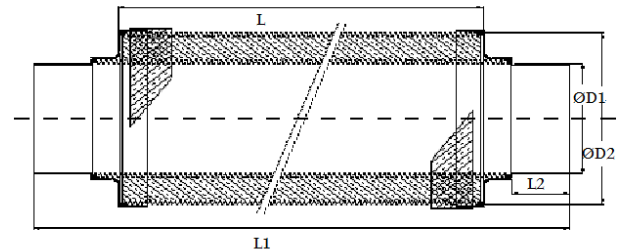
D_i = Average attenuation

Diameter (Dn) range ØD1 – ØD2 (mm)	
080 - 130	224 - 280
100 - 150	250 - 300
125 - 180	280 - 355
140 - 200	300 - 355
150 - 200	315 - 355
160 - 200	355 - 400
180 - 224	400 - 450
200 - 250	450 - 500

L = Effective length

D < Ø250
 L1 = L + 120 mm
 L2 = 40 mm

D ≥ Ø250
 L1 = L + 160 mm
 L2 = 60 mm



The **TSD25** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The TSD ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



TSDR

SEMI FLEXIBLE SOUND ATTENUATORS

The **TSDR** consists of a corrugated perforated aluminium inner duct and a corrugated outer duct with end spigots made of aluminium with rubber sealing. The space between the inner and outer duct is filled with 25mm sound absorbing material. At request a barrier to prevent particle migration can be added.

APPLICATION

- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

SPECIFICATIONS

Article code: TSDR{Ø}/L
 Temperature range: -30 °C to 250 °C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 10 m/s
 Min. bending radius: 2 to 3 x D2
 Standard diameter range: 80 – 450 mm
 Standard length: 0,5+1,0+1,5 mtr

CONSTRUCTION

Inner duct: Perforated corrugated aluminium
 Glass wool blanket: 25mm, 16kg/m³
 Outer duct: Corrugated aluminium
 R-value glass wool: 0.65m² K/W (ASTM C177-76)
 Appearance: aluminium

Sound attenuation, Dimensions and Weights

TSDR (Test report nr. A1453-1 Peutz bv - The Netherlands)									
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz						D _i (dB)	W (kg)
		125	250	500	1k	2k	4k		
080	1	6	8	19	40	64	40	22	0.8
100	1	3	7	15	37	68	33	20	1.0
125	1	5	8	16	31	51	22	20	1.2
160	1	1	4	9	24	50	18	15	1.5
180	1	2	11	22	41	28	18	-	1.8
200	1	2	5	9	22	29	12	15	1.9
250	1	1	3	8	21	18	8	13	2.3

D_i = Average attenuation

Diameter (Dn) range ØD1 - ØD2 (mm)	
080 - 130	224 - 280
100 - 150	250 - 300
125 - 180	280 - 355
140 - 200	300 - 355
150 - 200	315 - 355
160 - 200	355 - 400
180 - 224	400 - 450
200 - 250	450 - 500

L = Effective length

D < Ø250

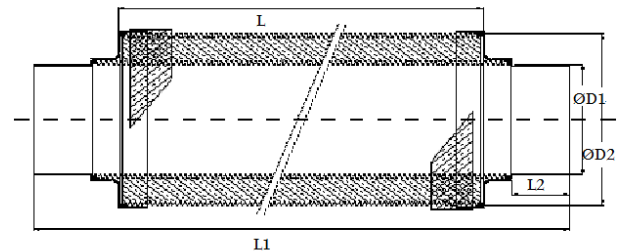
L1 = L + 120 mm

L2 = 40 mm

D ≥ Ø250

L1 = L + 160 mm

L2 = 60 mm



The **TSDR** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The TSD ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



TSD50

SEMI FLEXIBLE SOUND ATTENUATORS

The **TSD 50** consists of a corrugated perforated aluminium inner duct and a 2 layer corrugated outer duct with end spigots made of aluminium. The space between the inner and outer duct is filled with 50mm sound absorbing material. At request a barrier to prevent particle migration can be added.

Fire Rating: Ducting is tested according DIN4102 and is classified as A1

APPLICATION

- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

SPECIFICATIONS

Article code: TSD50{Ø}/L
 Temperature range: -30 °C to 250 °C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 10 m/s
 Min. bending radius: 1 to 2 x D2
 Standard diameter range: 80 - 400 mm
 Standard length: 0,5+0,75+1 mtr

CONSTRUCTION

Inner duct: Perforated corrugated aluminium
 Glass wool blanket: 50mm, 16kg/m³
 Outer duct: Corrugated aluminium
 R-value glass wool: 1.3 m² K/W (ASTM C177-76)
 Appearance: aluminium

Sound attenuation, Dimensions and Weights

TSD50 (Test report nr. A1453-1 Peutz bv - The Netherlands)									
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz						D _i (dB)	W (kg)
		125	250	500	1k	2k	4k		
080	1	11	16	40	55	65	52	32	1.3
100	1	6	13	23	44	62	41	26	1.5
125	1	7	13	26	44	51	28	27	1.7
150	1	5	11	25	44	40	25	24	1.9
160	1	3	11	25	43	40	20	22	2.0
200	1	4	10	21	43	25	14	21	2.5
250	1	3	9	20	39	15	9	17	3.1
315	1	1	5	14	30	11	6	13	3.6

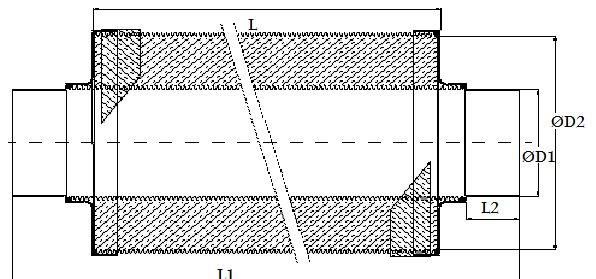
D_i = Average attenuation

Diameter (Dn) range ØD1 - ØD2 (mm)	
080 - 180	224 - 315
100 - 200	250 - 355
125 - 224	280 - 400
140 - 250	300 - 400
150 - 250	315 - 400
160 - 250	355 - 450
180 - 280	400 - 500
200 - 300	

L = Effective length

D < Ø250
 L1 = L + 120 mm
 L2 = 40 mm

D ≥ Ø250
 L1 = L + 160 mm
 L2 = 60 mm



The **TSD50** fulfills all the requirements and are classified as specified within EN 13180:
Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The TSD ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



TSDR50

SEMI FLEXIBLE SOUND ATTENUATORS

The **TSDR50** consists of a corrugated perforated aluminium inner duct and a corrugated outer duct with end spigots made of aluminium with rubber sealing. The space between the inner and outer duct is filled with 50mm sound absorbing material. At request a barrier to prevent particle migration can be added.

APPLICATION

- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

SPECIFICATIONS

Article code:	TSDR50{Ø}/L
Temperature range:	-30 °C to 250 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 10 m/s
Min. bending radius:	1 to 2 x D2
Standard diameter range:	80 - 400 mm
Standard length:	0,5+1,0+1,5 mtr

CONSTRUCTION

Inner duct:	Perforated corrugated aluminium
Glass wool blanket:	50mm, 16kg/m ³
Outer duct:	Corrugated aluminium
R-value glass wool:	1.3 m ² K/W (ASTM C177-76)
Appearance:	aluminium

Sound attenuation, Dimensions and Weights

TSDR50 (Test report nr. A1453-1 Peutz bv - The Netherlands)									
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz						D _i (dB)	W (kg)
		125	250	500	1k	2k	4k		
080	1	11	16	40	55	65	52	32	1.3
100	1	6	13	23	44	62	41	26	1.5
125	1	7	13	26	44	51	28	27	1.7
150	1	5	11	25	44	40	25	24	1.9
160	1	3	11	25	43	40	20	22	2.0
180	1	2	11	22	41	28	18	18	2.3
200	1	4	10	21	43	25	14	21	2.5
250	1	3	9	20	39	15	9	17	3.1
315	1	1	5	14	30	11	6	13	3.6

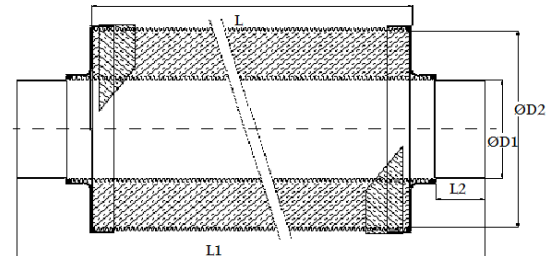
D_i = Average attenuation
According to: **ISO 7235**

Diameter (D _n) range ØD1 - ØD2 (mm)	
080 - 180	224 - 315
100 - 200	250 - 355
125 - 224	280 - 400
140 - 250	300 - 400
150 - 250	315 - 400
160 - 250	355 - 450
180 - 280	400 - 500
200 - 300	

L = Effective length

D < Ø250
L1 = L + 120 mm
L2 = 40 mm

D ≥ Ø250
L1 = L + 160 mm
L2 = 60 mm



The **TSDR50** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The TSD ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



GGLX50

SOLID SOUND ATTENUATORS

GGLX50: Straight, sound attenuator with 50mm thick mineral wool filling. The sound absorber consists of a perforated sheet steel tube enclosed by end pieces and a sheet steel casing. The space between the tube and casing is filled with attenuating material covered with non-woven fabric as protection against fibre migration. Silicone free.

Operation and maintenance

The product can be used without any maintenance other than cleaning, which should be done with a nylon brush as part of normal duct cleaning. The frequency of cleaning should be the same as that specified for the entire ventilation system.

SPECIFICATIONS

Article code: GGLX50{Ø}/L
 Temperature range: -30 °C to 100 °C
 Operating pressure: up to +2000 Pa
 Operating air velocity: max. 20 m/s

Standard diameter range: 080 – 450 mm
 Standard length: 0,6+0,9 mtr

ALSO AVAILABLE AS: GGLX50S{Ø}/L



Diameter mm	Length Mtr	Attenuation, dB - Mid-frequency, Hz								Diam.Ext. mm
		63	125	250	500	1000	2000	4000	8000	
080	0.6	3	7	14	28	45	46	45	23	200
	0.9	3	10	22	39	45	50	47	33	200
100	0.6	3	7	12	23	37	45	35	21	200
	0.9	3	10	17	31	43	49	45	28	200
125	0.6	2	4	9	19	33	38	29	13	225
	0.9	3	7	14	28	40	47	42	20	225
140	0.6	2	4	8	18	32	34	22	10	260
	0.9	3	6	13	26	40	45	37	16	260
150	0.6	2	4	8	18	32	33	19	10	260
	0.9	2	6	12	26	39	44	34	15	260
160	0.6	2	4	7	17	30	32	17	9	260
	0.9	2	5	11	25	37	40	26	12	260
180	0.6	1	3	7	15	27	26	15	8	300
	0.9	2	5	10	24	35	36	23	11	300
200	0.6	1	3	7	14	25	23	14	8	300
	0.9	2	5	9	22	33	31	19	10	300
224	0.6	1	2	6	14	23	18	12	6	325
	0.9	1	3	8	20	31	27	15	9	325
250	0.6	1	2	6	14	22	15	9	5	355
	0.9	1	3	7	18	29	23	12	7	355
280	0.6	1	2	6	13	18	13	7	5	380
	0.9	1	3	7	17	25	19	10	6	380
300	0.6	1	2	5	13	15	11	6	4	415
	0.9	1	3	7	17	23	17	9	6	415
315	0.6	1	2	5	13	14	10	6	4	415
	0.9	2	5	7	17	20	15	8	6	415
355	0.6	1	2	4	12	12	8	5	3	455
	0.9	2	4	7	16	18	13	8	5	455
400	0.6	1	3	5	10	10	5	4	2	500
	0.9	2	4	7	14	17	10	7	5	500
450	0.6	-	-	-	-	-	-	-	-	550
	0.9	2	3	7	13	15	10	7	5	550

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GGLX ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



GGLX-R

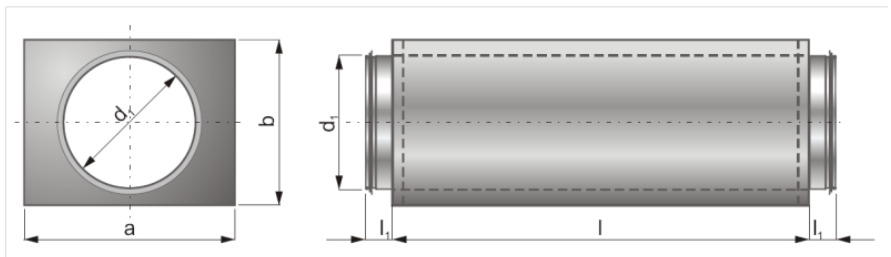
RECTANGULAR SOLID SOUND ATTENUATORS

GGLX-R: RECTANGULAR SILENCER WITH CIRCULAR CONNECTION

Usage: Rectangular silencers are designed to absorb the noise in an air conditioning or ventilation ductwork system. The silencers can be used and are suitable for usage in low- and mid pressure air-conditioning or ventilation systems. Silencers GGLX-R are created for an installation in places with lowered height.

CONSTRUCTION

- With double edged gasket
- the outercover: galvanized sheet
- Inner cover: perforated sheet
- isolating layer: mineral wool



SPECIFICATIONS

Article code:	GGLX-R{Ø}/L	Standard diameter range:	100 – 400 mm
Temperature range:	-30 °C to 100 °C	Standard length:	0,5+1,0 mtr
Operating pressure:	-1500Pa up to +2000 Pa		
Operating air velocity:	max. 20 m/s		

PRESSURELOSS/DIMENSIONS

Type	Dimensions				Pressureloss DPt (Pa)					W (kg)
	a mm	b mm	c mm	d mm	2 m/s	4 m/s	6 m/s	8 m/s	10 m/s	
GGLX-R100/0,5	210	160	500	35	0	2	4	7	12	3,2
GGLX-R125/0,5	240	180	500	35	1	3	6	11	17	3,9
GGLX-R160/0,5	280	220	500	35	1	4	8	15	23	4,4
GGLX-R200/0,5	330	250	500	35	0	1	3	6	9	5,7
GGLX-R250/0,5	390	310	500	35	1	2	5	8	13	7,2
GGLX-R315/0,5	450	370	500	35	1	3	6	11	18	9,2
GGLX-R400/0,5	550	460	500	55	0	1	2	4	6	12,7
GGLX-R100/1,0	210	160	1000	35	0	1	3	5	7	5,6
GGLX-R125/1,0	240	180	1000	35	0	0	1	2	3	6,9
GGLX-R160/1,0	280	220	1000	35	0	1	1	3	4	7,9
GGLX-R200/1,0	330	250	1000	35	0	1	2	4	6	10,1
GGLX-R250/1,0	390	310	1000	35	0	0	1	1	2	13,0
GGLX-R315/1,0	450	370	1000	35	0	0	1	2	3	16,4
GGLX-R400/1,0	550	460	1000	55	0	1	1	3	4	21,6

Type	Sound attenuation (dB)							
	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz
GGLX-R100/0,5	9	12	12	22	43	44	30	19
GGLX-R125/0,5	7	9	12	22	34	35	24	13
GGLX-R160/0,5	6	7	11	19	27	26	15	11
GGLX-R200/0,5	4	6	9	15	24	18	8	8
GGLX-R250/0,5	4	5	7	16	20	16	7	6
GGLX-R315/0,5	2	4	7	15	16	10	5	5
GGLX-R400/0,5	-	-	-	-	-	-	-	-
GGLX-R100/1,0	16	18	24	41	49	50	49	31
GGLX-R125/1,0	18	15	22	38	50	49	46	22
GGLX-R160/1,0	10	11	20	35	49	50	23	18
GGLX-R200/1,0	10	12	16	30	45	37	15	13
GGLX-R250/1,0	11	8	15	31	40	27	13	9
GGLX-R315/1,0	9	9	14	27	34	19	9	9
GGLX-R400/1,0	-	-	-	-	-	-	-	-

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GGLX ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



GGLX100

SOLID SOUND ATTENUATORS

GGLX100: Straight, sound attenuator with 100mm thick mineral wool filling. The sound absorber consists of a perforated sheet steel tube enclosed by end pieces and a sheet steel casing. The space between the tube and casing is filled with attenuating material covered with non-woven fabric as protection against fibre migration. Silicone free.

Operation and maintenance

The product can be used without any maintenance other than cleaning, which should be done with a nylon brush as part of normal duct cleaning. The frequency of cleaning should be the same as that specified for the entire ventilation system.

SPECIFICATIONS

Article code: GGLX100{Ø}/L
 Temperature range: -30 °C to 250 °C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 10 m/s

Standard diameter range: 100 – 455 mm
 Standard length: 0,6+0,9 mtr

Diameter mm	Length Mtr	Attenuation, dB - Mid-frequency, Hz								Diam.Ext. mm
		63	125	250	500	1000	2000	4000	8000	
100	0.6	4	12	12	29	41	48	38	19	300
	0.9	8	19	19	40	49	50	49	26	300
125	0.6	4	10	10	27	38	39	26	15	325
	0.9	6	15	15	36	48	48	40	19	325
140	0.6	4	10	10	26	35	36	23	13	355
	0.9	6	13	13	34	46	15	33	16	355
150	0.6	4	9	17	26	34	35	22	13	355
	0.9	6	13	24	34	45	45	32	15	355
160	0.6	4	9	16	25	30	31	18	12	355
	0.9	5	10	22	33	44	44	26	14	355
180	0.6	4	8	15	23	26	26	17	11	380
	0.9	5	10	20	32	42	37	23	13	380
200	0.6	4	8	13	20	23	24	16	10	415
	0.9	5	9	19	31	40	33	20	12	415
224	0.6	4	7	12	19	22	21	15	9	415
	0.9	5	9	18	29	34	30	17	11	415
250	0.6	4	6	11	18	20	18	13	8	455
	0.9	5	9	17	26	31	26	14	10	455
280	0.6	3	6	10	17	29	17	12	8	500
	0.9	4	8	15	24	28	22	13	10	500
300	0.6	3	5	10	17	18	16	11	7	500
	0.9	4	8	14	23	26	20	13	9	500
315	0.6	2	5	9	16	17	13	11	7	500
	0.9	4	7	13	22	25	16	12	9	500
355	0.6	4	6	12	16	21	15	11	8	550
	0.9	5	8	16	24	29	18	13	10	550
400	1.2	5	7	15	20	25	17	12	10	600
455	1.2	4	7	14	18	22	17	12	9	650
500	1.2	3	6	13	17	19	17	12	9	700
560	1.2	3	6	12	15	17	15	12	8	760
630	1.2	3	6	10	13	15	14	12	8	830

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The GGLX ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



CONNECTDEC Type AKUDEC PE2

SEMI FLEXIBLE SOUND ATTENUATORS

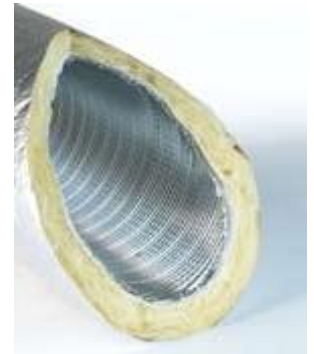
The **CONNECTDEC TYPE AKUDEC PE2** semi flexible sound attenuator consists of a heavy corrugated perforated aluminium innerduct and provided with an aluminium/polyester laminated outer jacket. The space between the inner and outer duct is filled with 25mm sound absorbing material. The duct is standard fitted with metal sleeves at both ends to fit to any rigid ductwork or appliance instantly. Choice between: (Fit according to EN1506)

Type 1) Male - Male Type 2) Male - Female Type 3) Female - Female
Article code: AKU(1,2,or3)PE2{Ø}/Length e.g. AKU2PE2100/1,0 (type 2 Ø100mm)

**THE SOLUTION to over bridge inaccuracy in measurements.
Saves installation time and material**

APPLICATIONS

- Can be combined immediately with our air valves (e.g. DAV or DVSC)
- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines



SPECIFICATIONS

Article code: AKU(1,2,3)PE2{Ø}/L
Temperature range:
Inner duct: -30 °C to 250 °C
Outer jacket: -30 °C to 140 °C
Operating pressure: up to +2000 Pa
Operating air velocity: max. 10 m/s
Min. bending radius: 1 x Ø + 25mm
Standard diameter range: 80 – 315 mm
Standard length: 0,5+1,0 mtr

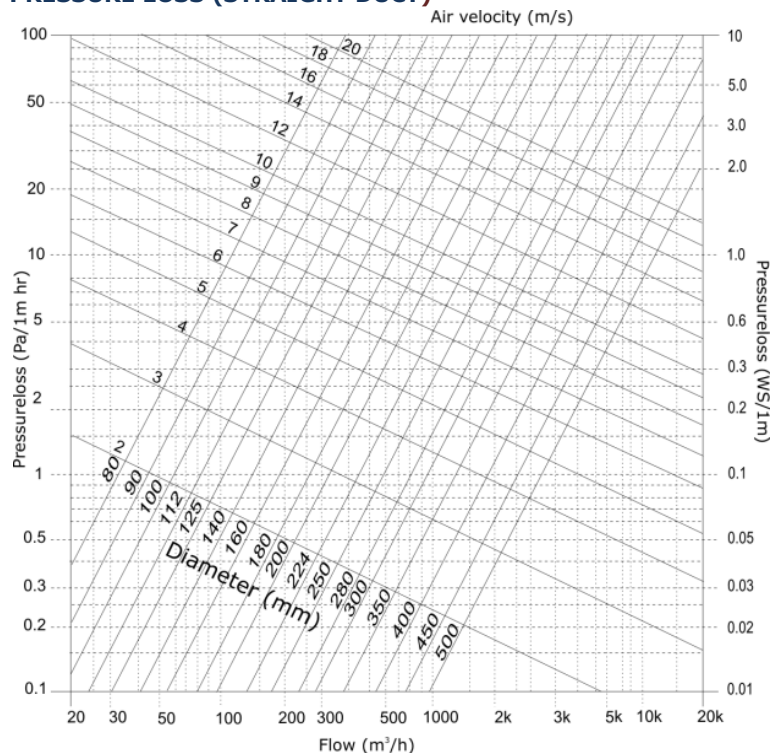
CONSTRUCTION

Inner duct: Aluminium
Barrier: PE40
Glass wool blanket: 25mm, 16kg/m³
Outer jacket: Alu/poly laminate
R-value glass wool: 0.65 m² K/W (ASTM C177-76)
Appearance: aluminium

CLASSIFICATIONS

EU (EN 13501-1):
Innerduct: A1
OuterJacket: B-s1,d0

PRESSURE LOSS (STRAIGHT DUCT)



The **CONNECTDEC TYPE AKUDEC PE2** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, AKUDEC, the DEC logo and DEC International are trademarks or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

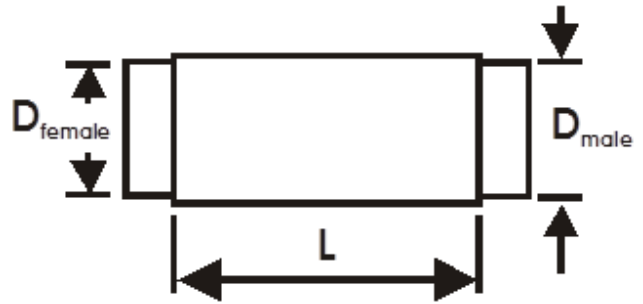


CONNECTDEC Type AKUDEK PE2

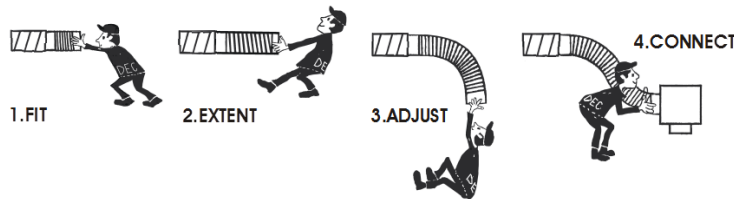
SEMI FLEXIBLE SOUND ATTENUATORS

DIMENSIONS Metal sleeves

According to EN-1506			
D _{nom} (mm)	D _{female} (mm)	D _{male} (mm)	Tol.
080	80.5	79.3	+0 ; -0.5
100	100.5	99.3	+0 ; -0.5
125	125.5	124.3	+0 ; -0.5
150	150.6	149.3	+0 ; -0.6
160	160.6	159.3	+0 ; -0.6
180	180.6	179.3	+0 ; -0.6
200	200.7	199.3	+0 ; -0.7
250	250.8	249.3	+0 ; -0.8
315	315.9	314.3	+0 ; -0.9



HOW TO INSTALL:



SOUND ATTENUATION

AKUDEK 25mm (Test report nr. A1672-1 Peutz bv - The Netherlands)										
D _n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D _i (dB)
		63	125	250	500	1000	2000	4000	8000	
080	0.5	11.2	13.3	24.1	29.7	27.2	33.4	32.9	23.5	30
100	0.5	11.9	11.4	22.6	26.8	22.1	29.2	25.8	16.7	26
125	0.5	6.3	7.1	15.2	19.9	20.3	26.1	17.1	12.9	22
150	0.5	8.3	9.3	17.8	19.4	16.7	25	19.8	13.8	21
160	0.5	10.2	11.3	21.5	17.9	15.5	22.6	15.7	12.1	19
200	0.5	9.2	10	17.3	14.3	12.9	15.8	12	8.2	14
250	0.5	10.2	9.8	14.6	11.7	10.8	14.3	8	7.1	12
315	0.5	9.2	11.4	12	9.4	8.3	8	4.7	5.3	8
D _n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D _i (dB)
080	1.0	13.8	20.2	39.3	38.6	36	41.8	52.4	40.2	39
100	1.0	9.5	14.5	28.6	37.4	35.6	39.8	44.3	29.5	36
125	1.0	12.4	20.1	33.6	29.8	29.5	33.6	32.1	23.6	32
150	1.0	11.1	11.8	34.2	28.5	26.3	34.9	27.2	21.8	30
160	1.0	14.6	19.1	31.1	27	24.7	32.5	24	18.7	29
200	1.0	11.1	14.6	29.5	20.7	21	30	17.7	13.2	23
250	1.0	14.2	21.7	23.1	18.9	18.4	25.7	11.4	10.1	20
315	1.0	10.8	21.9	17.9	15.5	17.7	16.7	9.2	9.3	17

D_i = Average attenuation

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, AKUDEK, the DEC logo and DEC International are trademarks or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



CONNECTDEC modell Stretchdec THERMO

SEMI FLEXIBLA THERMISK/KONDENS ISOLERADE RÖR

CONNECTDEC modell Stretchdec THERMO semi-flexibel kanal består av en tung flerskiktad innerrör av veckad aluminium och försedd med en PE ytterjacka. Utrymmet mellan inre och yttre delen är fylld med 25 eller 50 mm isolering. Kanalen är standard utrustad med metallstoser i båda ändar för att passa till ett spiralkanalsystem eller annan rund anslutning, direkt. (Passar enligt EN1506)

Modell 1) Nippel - Nippel Modell 2) Nippel - Muff Modell 3) Muff - Muff

Art. nummer: AKU(1,2, eller3){Ø}/Längd t.ex. AKU3100/1,0 (modell 3 Ø100mm)

**Perfekt för att anpassa/justera efter felmätningar.
Sparar installationstid och material.**

ANVÄNDNINGSSOMRÅDE

- Kan kombineras med alla våra luftdon (t.ex. DAV or DVSC)
- Passar utmärkt till FTX system och AC system
- Passar bra till olika frånluftsanläggningar och avgassystem.
- Ovan nämnda system, där en särskild mekanisk styrka krävs

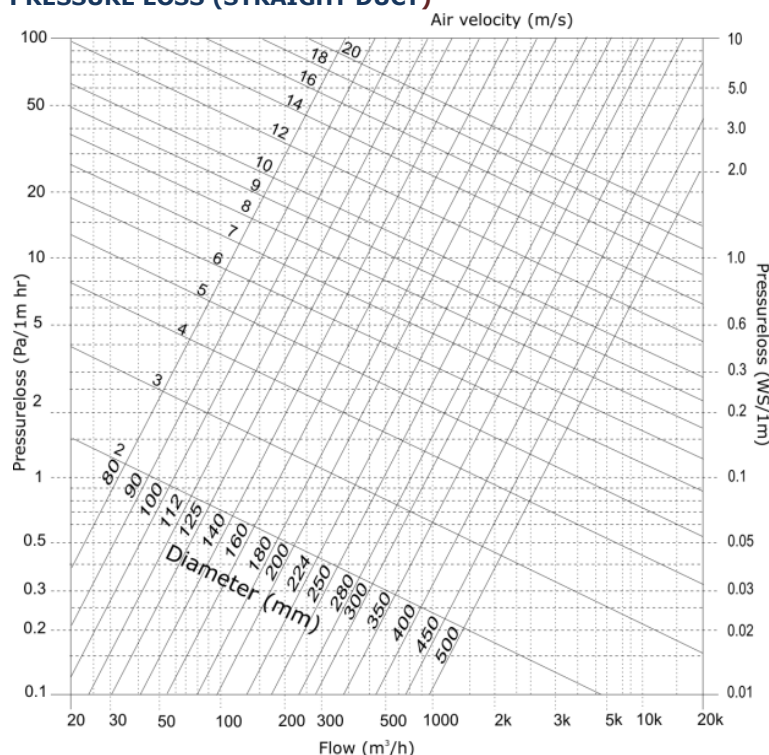
SPECIFIKATIONER

Artikelnummer:	CO3(5)NXGTPE2
Temperatur område:	
Innerrör:	-30 °C till 250 °C
ytterhölje	-30 °C till 90 °C
Arbetsstryck:	Upp till +2000 Pa
Maximal luft hastighet:	max. 10 m/s
Min. böjradie:	1 x Ø + 25(50)mm
Standard dimensioner:	100 - 200 mm
Standard längd:	3,0 mtr

KONSTRUKTION

Innerrör:	Aluminium
Membran	/
Glasull:	25(50)mm, 16kg/m ³
ytterhölje:	Alu/poly laminate
R-värde glasull:	0.65(1,3) m ² K/W (ASTM C177-76)
Färg:	Grå

PRESSURE LOSS (STRAIGHT DUCT)



CONNECTDEC modell Stretchdec THERMO uppfyller alla krav och klassificeras enligt specifikationen i EN 13180: Ventilation för byggnader - Kanalkonstruktioner - Mått och mekaniska krav på flexibla kanaler.

ANSVAR:
Informationen i denna broschyr var aktuell vid publiceringsdatumet. DEC INTERNATIONAL förbehåller sig rätten att när som helst göra ändringar i detaljer utan föregående meddelande. För att undvika missförstånd rekommenderas alla intresserade att kontakta DEC INTERNATIONAL för eventuella ändringar i material och / eller information efter det att denna broschyr har publicerats.

LÄGG MÄRKE TILL:
Konsulten ansvarar för själva installationen och monteringen av produkten. De nämnda värdena med avseende på temperaturer är inte lämpliga att användas för att bestämma de fysikaliska egenskaperna. Dessa egenskaper är också beroende av luftfuktighet och luftens temperatur inom och utanför ventilationssystemet.

VARUMÄRKEN:
CONNECTDEC, COMPACDEC, DEC-logotypen och DEC International är varumärken eller registrerade varumärken som tillhör Dutch Environment Corporation BV i Nederländerna och / eller andra länder.

BEGRÄNSNINGAR:
CONNECTDEC-kanalerna är inte lämpliga för avgaser från förbränningsprodukter från öppna eldstäder och oljeeldade pannor. Inte heller är kanalerna lämpliga för transport av luft med en hög koncentration av syra och bas.

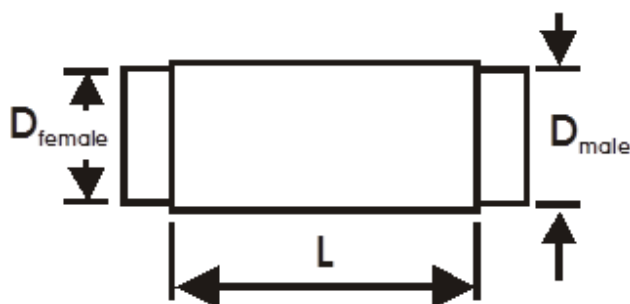


CONNECTDEC modell Stretchdec THERMO

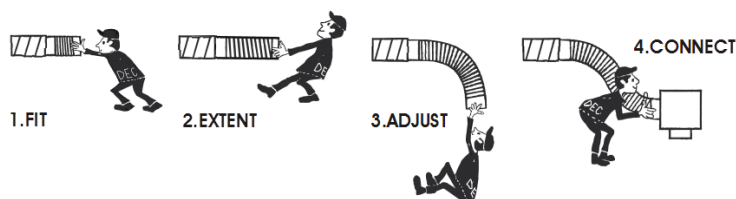
SEMI FLEXIBLA THERMISK/KONDENS ISOLERADE RÖR

DIMENSIONER Metall stosar

According to EN-1506			
D _{nom} (mm)	D _{female} (mm)	D _{male} (mm)	Tol.
080	80.5	79.3	+0 ; -0.5
100	100.5	99.3	+0 ; -0.5
125	125.5	124.3	+0 ; -0.5
150	150.6	149.3	+0 ; -0.6
160	160.6	159.3	+0 ; -0.6
180	180.6	179.3	+0 ; -0.6
200	200.7	199.3	+0 ; -0.7
250	250.8	249.3	+0 ; -0.8
315	315.9	314.3	+0 ; -0.9



INSTALLATIONSSKISS:



ANSVAR:
Informationen i denna broschyr var aktuell vid publiceringsdatumet. DEC INTERNATIONAL förbehåller sig rätten att när som helst göra ändringar i detaljer utan föregående meddelande. För att undvika missförstånd rekommenderas alla intresserade att kontakta DEC INTERNATIONAL för eventuella ändringar i material och / eller information efter det att denna broschyr har publicerats.

LÄGG MÄRKE TILL:
Konsulten ansvarar för själva installationen och monteringen av produkten. De nämnda värdena med avseende på temperaturer är inte lämpliga att användas för att bestämma de fysikaliska egenskaperna. Dessa egenskaper är också beroende av luftfuktighet och luftens temperatur inom och utanför ventilationssystemet.

VARUMÄRKEN:
CONNECTDEC, COMPACDEC, DEC-logotypen och DEC International är varumärken eller registrerade varumärken som tillhör Dutch Environment Corporation BV i Nederländerna och / eller andra länder.

BEGRENSNINGAR:
CONNECTDEC-kanalerna är inte lämpliga för avgaser från förbränningsprodukter från öppna eldstäder och oljeeldade pannor. Inte heller är kanalerna lämpliga för transport av luft med en hög koncentration av syra och bas.



CONNECTDEC Type AKUDEK PE Special

SEMI FLEXIBLE SOUND ATTENUATORS

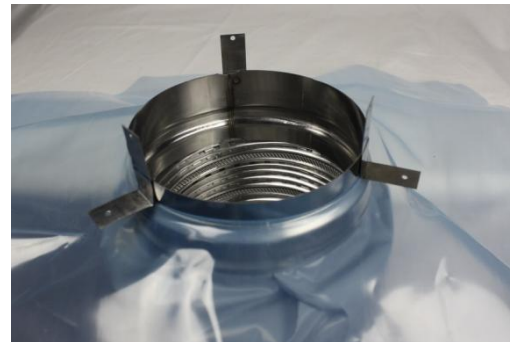
The **CONNECTDEC TYPE AKUDEK PE Special** semi flexible sound attenuator consists of a heavy multiple layered corrugated perforated aluminium innerduct and provided with a Polyethylene outer jacket. The space between the inner and outer duct is filled with 25mm sound absorbing material. The duct is standard fitted with metal sleeves at both ends to fit to any rigid ductwork or appliance instantly. One side is equipped with 3 flanges for quick connection/attaching to e.g. dry-wall. Also there is a 50x50cm moist-protection sheet.

Type 3) Female – Female Special connection

**THE SOLUTION to over bridge inaccuracy in measurements.
Saves installation time and material**

APPLICATIONS

- Can be combined immediately with our air valves (e.g. DAV or DVSC)
- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines



SPECIFICATIONS

Article code:	AKU3SPE2{Ø}/L
Temperature range:	
Inner duct:	-30 °C to 250 °C
Outer jacket:	-30 °C to 60 °C
Operating pressure:	up to +2000 Pa
Operating air velocity:	max. 10 m/s
Min. bending radius:	1 x Ø + 25mm
Standard diameter range:	100 + 125 mm
Standard length:	0,80 mtr

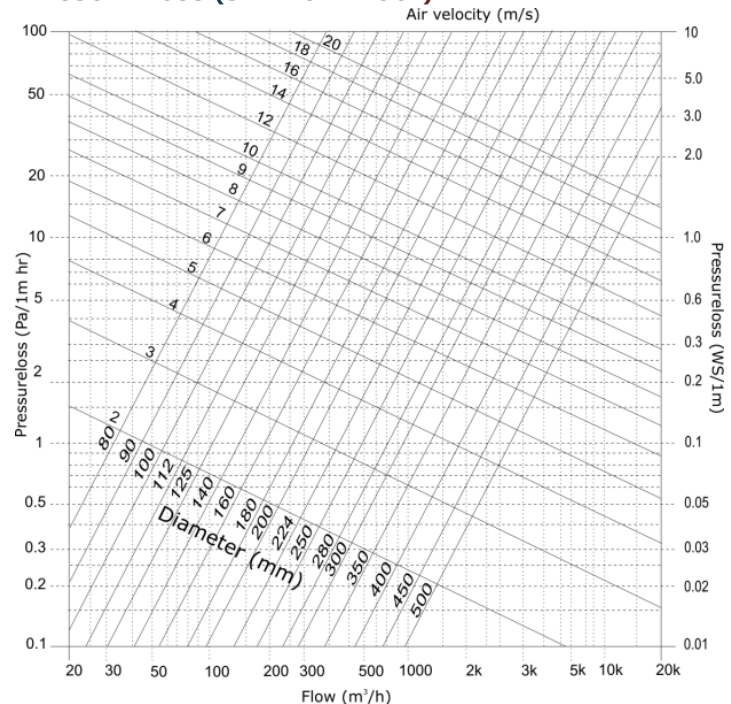
CONSTRUCTION

Inner duct:	Aluminium
Barrier:	Nonwoven cloth
Glass wool blanket:	25mm, 16kg/m ³
Outer jacket:	Polyethylene
R-value glass wool:	0.65 m ² K/W (ASTM C177-76)
Appearance:	aluminium

CLASSIFICATIONS

EU (EN 13501-1):	
Innerduct:	A1

PRESSURE LOSS (STRAIGHT DUCT)



The **CONNECTDEC TYPE AKUDEK PE SPECIAL** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **CONNECTDEC TYPE AKUDEK PE SPECIAL** is also available, on request, with a 50 mm glass wool layer, the article number is: **AKU35SPE2{Ø}** R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, AKUDEK, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

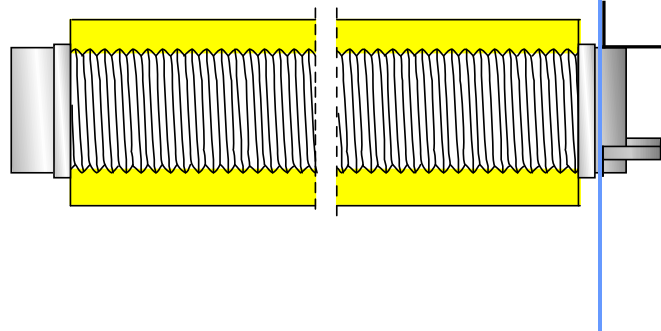


CONNECTDEC Type AKUDEC PE Special

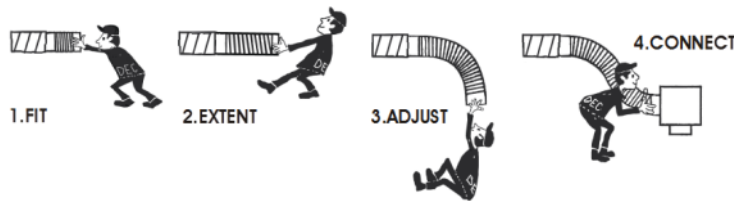
SEMI FLEXIBLE SOUND ATTENUATORS

DIMENSIONS
Metal sleeves

According to EN-1506		
D _{nom} (mm)	D _{female} (mm)	Tol.
100	100.5	+0 ; -0.5
125	125.5	+0 ; -0.5



HOW TO INSTALL:



SOUND ATTENUATION

AKUDEC PE 25mm (Test report nr. A1672-1 Peutz bv - The Netherlands)										
D _n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D _i (dB)
		63	125	250	500	1000	2000	4000	8000	
100	0.5	11.9	11.4	22.6	26.8	22.1	29.2	25.8	16.7	26
125	0.5	6.3	7.1	15.2	19.9	20.3	26.1	17.1	12.9	22
D _n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D _i (dB)
		63	125	250	500	1000	2000	4000	8000	
100	1.0	9.5	14.5	28.6	37.4	35.6	39.8	44.3	29.5	36
125	1.0	12.4	20.1	33.6	29.8	29.5	33.6	32.1	23.6	32

D_i = Average attenuation

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, AKUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



CONNECTDEC Type AKUDEC

SEMI FLEXIBLE SOUND ATTENUATORS

The **CONNECTDEC TYPE AKUDEC** semi flexible sound attenuator consists of a heavy multiple layered corrugated perforated aluminium innerduct and provided with an aluminium/polyester laminated outer jacket. The space between the inner and outer duct is filled with 25mm sound absorbing material. The duct is standard fitted with galvanized metal sleeves at both ends to fit to any rigid ductwork or appliance instantly. Choice between: (Fit according to EN1506)

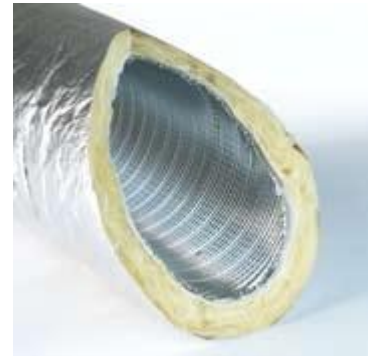
Type 1) Male - Male Type 2) Male - Female Type 3) Female - Female

Article code: AKU(1,2,or3){Ø}/Length e.g. AKU3100/1,0 (type 3 Ø100mm)

**THE SOLUTION to over bridge inaccuracy in measurements.
Saves installation time and material**

APPLICATIONS

- Can be combined immediately with our air valves (e.g. DAV or DVSC)
- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines



SPECIFICATIONS

Article code: AKU(1,2,3){Ø}/L
 Temperature range:
 Inner duct: -30 °C to 250 °C
 Outer jacket: -30 °C to 140 °C
 Operating pressure: up to +2000 Pa
 Operating air velocity: max. 10 m/s
 Min. bending radius: 1 x Ø + 25mm
 Standard diameter range: 80 - 315 mm
 Standard length: 0,5+1,0 mtr

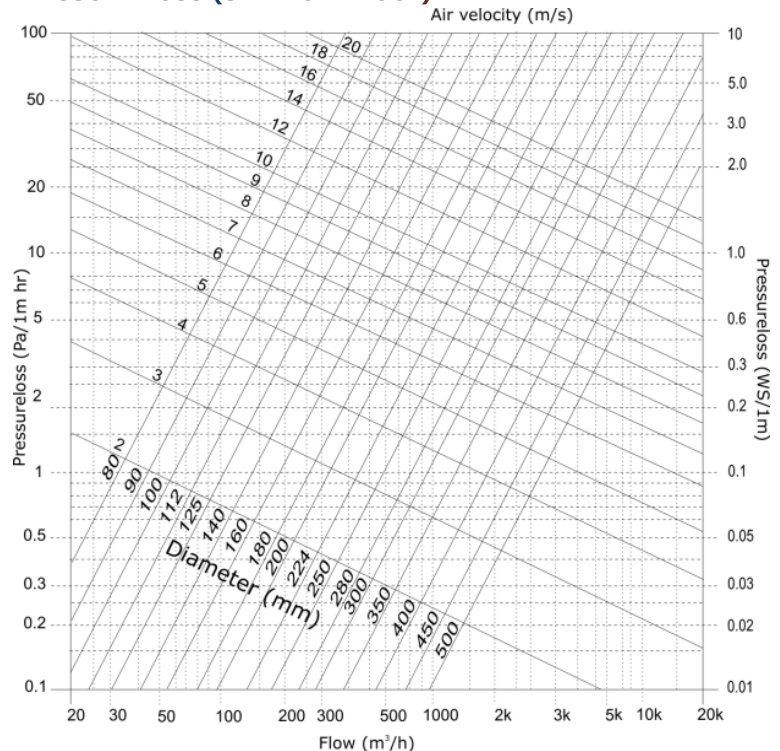
CONSTRUCTION

Inner duct: Aluminium
 Barrier: Nonwoven cloth
 Glass wool blanket: 25mm, 16kg/m³
 Outer jacket: Alu/poly laminate
 R-value glass wool: 0.65 m² K/W
 (ASTM C177-76)
 Appearance: aluminium

CLASSIFICATIONS

EU (EN 13501-1):
 Innerduct: A1
 OuterJacket: B-s1,d0

PRESSURE LOSS (STRAIGHT DUCT)



The **CONNECTDEC TYPE AKUDEC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **CONNECTDEC TYPE AKUDEC** is also available, on request, with a 50 mm glass wool layer, the article number is: AKU(1,2,3)5{Ø}
 R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, AKUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

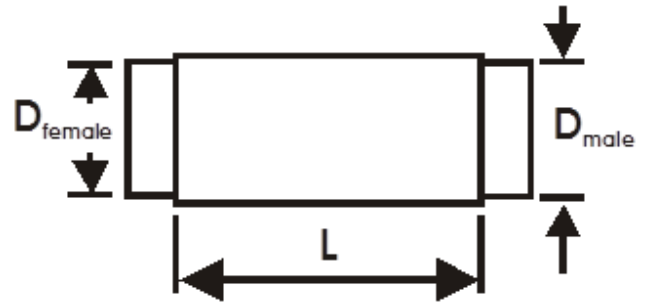


CONNECTDEC Type AKUDEC

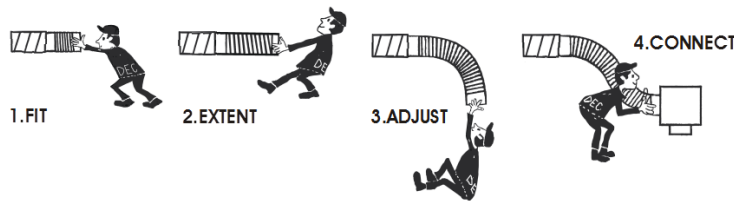
SEMI FLEXIBLE SOUND ATTENUATORS

DIMENSIONS Metal sleeves

According to EN-1506			
D _{nom} (mm)	D _{female} (mm)	D _{male} (mm)	Tol.
080	80.5	79.3	+0 ; -0.5
100	100.5	99.3	+0 ; -0.5
125	125.5	124.3	+0 ; -0.5
150	150.6	149.3	+0 ; -0.6
160	160.6	159.3	+0 ; -0.6
200	200.7	199.3	+0 ; -0.7
250	250.8	249.3	+0 ; -0.8
315	315.9	314.3	+0 ; -0.9



HOW TO INSTALL:



SOUND ATTENUATION

AKUDEC 25mm (Test report nr. A1672-1 Peutz bv - The Netherlands)										
D _n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D _i (dB)
		63	125	250	500	1000	2000	4000	8000	
080	0.5	11.2	13.3	24.1	29.7	27.2	33.4	32.9	23.5	30
100	0.5	11.9	11.4	22.6	26.8	22.1	29.2	25.8	16.7	26
125	0.5	6.3	7.1	15.2	19.9	20.3	26.1	17.1	12.9	22
150	0.5	8.3	9.3	17.8	19.4	16.7	25	19.8	13.8	21
160	0.5	10.2	11.3	21.5	17.9	15.5	22.6	15.7	12.1	19
200	0.5	9.2	10	17.3	14.3	12.9	15.8	12	8.2	14
250	0.5	10.2	9.8	14.6	11.7	10.8	14.3	8	7.1	12
315	0.5	9.2	11.4	12	9.4	8.3	8	4.7	5.3	8
D _n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D _i (dB)
		63	125	250	500	1000	2000	4000	8000	
080	1.0	13.8	20.2	39.3	38.6	36	41.8	52.4	40.2	39
100	1.0	9.5	14.5	28.6	37.4	35.6	39.8	44.3	29.5	36
125	1.0	12.4	20.1	33.6	29.8	29.5	33.6	32.1	23.6	32
150	1.0	11.1	11.8	34.2	28.5	26.3	34.9	27.2	21.8	30
160	1.0	14.6	19.1	31.1	27	24.7	32.5	24	18.7	29
200	1.0	11.1	14.6	29.5	20.7	21	30	17.7	13.2	23
250	1.0	14.2	21.7	23.1	18.9	18.4	25.7	11.4	10.1	20
315	1.0	10.8	21.9	17.9	15.5	17.7	16.7	9.2	9.3	17

D_i = Average attenuation

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, AKUDEC, the DEC logo and DEC International are trademarks or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



CONNECTDEC Type COMBIDEC GLX

FLEXIBLE SOUND ATTENUATORS

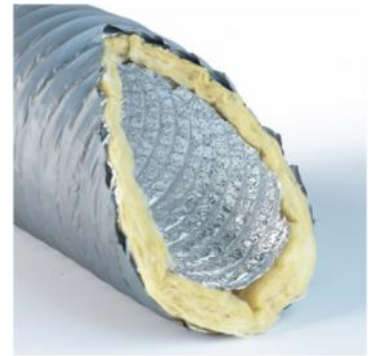
The **CONNECTDEC TYPE COMBIDEC GLX** flexible sound attenuator consists of a perforated aluminium laminated inner duct and provided with an Combidec outer jacket. The space between the inner and outer duct is filled with 25mm sound absorbing material. The duct is standard fitted with galvanized metal sleeves at both ends to fit to any rigid ductwork or appliance instantly. Choice between: (Fit according to EN1506)

Type 1) Male - Male Type 2) Male - Female Type 3) Female - Female

Article code: CO(1,2,or3)GXC21G{Ø}/Length e.g. CO3GXC21G100/1,0 (type 3 Ø100mm)

APPLICATIONS

- **THE Solution to over bridge inaccuracy in measurements.**
- **Saves installation time and material.**
- Can be combined immediately with our air valves (e.g. DAV or DVSC)
- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines



SPECIFICATIONS

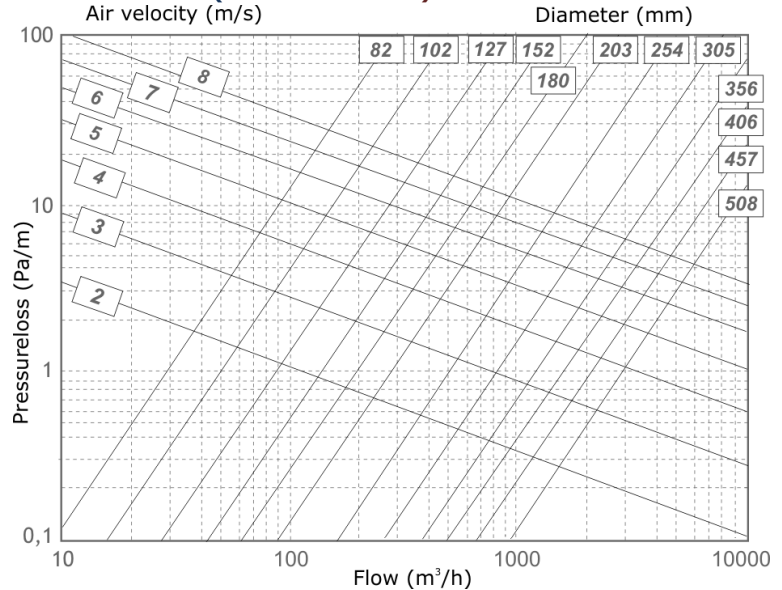
Article code: CO(1,2,3)GXC21G{Ø}/L
 Temperature range: -30 °C to 140 °C
 Operating pressure: up to +2000 Pa
 Operating air velocity: max. 10 m/s
 Min. bending radius: 1 x Ø + 25mm
 Standard diameter range: 80 – 315 mm
 Standard length: 0,5+1,0 mtr

CONSTRUCTION

Inner duct: Aluminium
 Barrier: Closed film
 Glass wool blanket: 25mm, 16kg/m³
 Outer duct: Combidec
 R-value glass wool: 0.65 m² K/W
 (ASTM C177-76)
 Appearance: Grey*

*Also available in Black

PRESSURE LOSS (STRAIGHT DUCT)



The **CONNECTDEC TYPE COMBIDEC GLX** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **CONNECTDEC TYPE COMBIDEC GLX** is also available, on request, with a 50 mm glass wool layer, the article number is: CO(1,2,3)5GXC21G{Ø}/L
 R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, COMBIDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

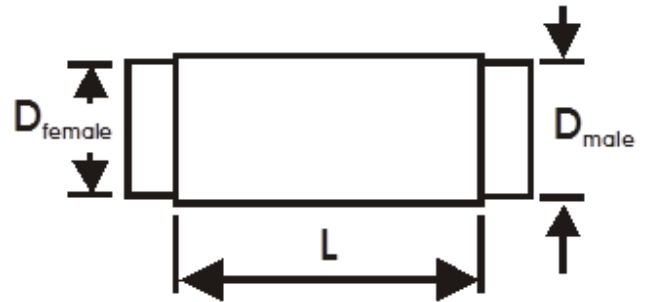


CONNECTDEC Type COMBIDEC GLX

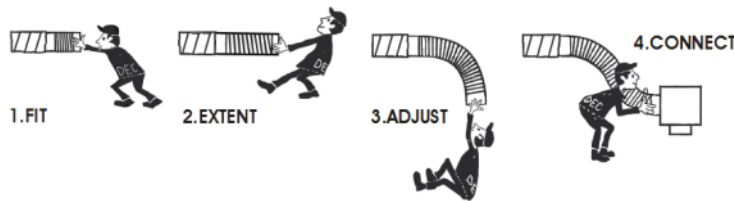
FLEXIBLE SOUND ATTENUATORS

DIMENSIONS Metal sleeves

According to EN-1506			
D _{nom} (mm)	D _{female} (mm)	D _{male} (mm)	Tol.
080	80.5	79.3	+0 ; -0.5
100	100.5	99.3	+0 ; -0.5
125	125.5	124.3	+0 ; -0.5
150	150.6	149.3	+0 ; -0.6
160	160.6	159.3	+0 ; -0.6
200	200.7	199.3	+0 ; -0.7
250	250.8	249.3	+0 ; -0.8
315	315.9	314.3	+0 ; -0.9



HOW TO INSTALL:



SOUND ATTENUATION

Combidec GLX		(Test report nr. AB323-3 Peutz bv - The Netherlands)					
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
82	1	11	12	22	33	37	20
	2	15	19	32	65	60	33
102	1	3	8	20	35	26	15
	2	5	13	32	67	42	23
127	1	4	8	17	29	23	17
	2	6	14	30	58	39	25
160	1	6	11	18	34	20	11
	2	10	18	34	59	27	18
203	1	1	4	10	20	8	8
	2	4	10	23	44	19	16
254	1	3	7	13	17	8	10
	2	5	11	23	35	14	14
315	1	4	6	12	16	7	8
	2	5	11	21	27	12	13
457	1	3	4	6	5	4	7
	2	9	11	14	10	9	10
508	1	2	5	10	7	5	6
	2	6	9	18	12	9	10

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, COMBIDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



CONNECTDEC Type COMPACDEC

SEMI FLEXIBLE CORRUGATED DUCTING

The **CONNECTDEC TYPE COMPACDEC** consists of a **heavy multiple layered corrugated aluminium** innerduct. The duct is standard fitted with metal sleeves at both ends to fit to any rigid ductwork or appliance instantly.

Choice between: (Fit according to EN1506)

Type 1) Male - Male **Type 2) Male - Female** **Type 3) Female - Female**

Article code: CO(1,2,or3)CD{Ø}/Length e.g. CO3CD100/1,0 (type 3 Ø100mmx1Mtr)

APPLICATIONS

- **THE Solution to over bridge inaccuracy in measurements.**
- **Saves installation time and material.**
- Can be combined immediately with our air valves (e.g. DAV or DVSC)
- Suitable for mechanical air supply systems and air conditioning systems
- Systems, where vapors should be exhausted
- Above mentioned systems, where a special mechanical strength is required



SPECIFICATIONS

Article code: CO(1,2,3)CD{Ø}/L
 Temperature range: -30 °C to 250 °C
 Peak +400°C
 Operating pressure: up to +3000 Pa
 Operating air velocity: max. 30 m/s
 Min. bending radius: 1 x Ø
 Standard diameter range: 80 – 315 mm
 Standard length: 0,5+1,0+1,5 mtr

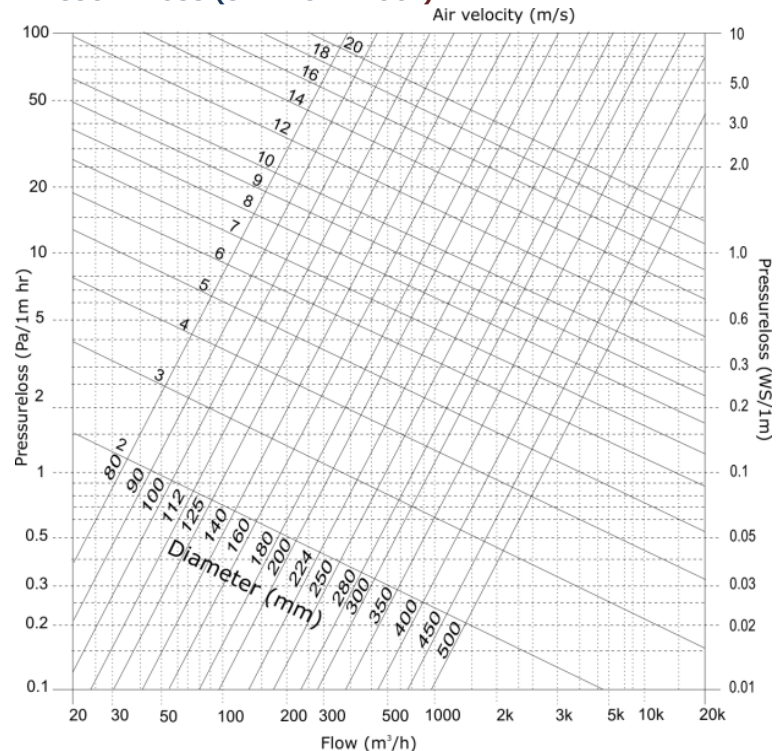
CONSTRUCTION

Total layers: 2

CLASSIFICATIONS

EU (EN 13501-1): A1
 UK (BS476): Part 4, 6, 7 and 20
 FR (NF): M0
 DE (DIN4102): A1

PRESSURE LOSS (STRAIGHT DUCT)



The **CONNECTDEC TYPE COMPACDEC** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, COMPACDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

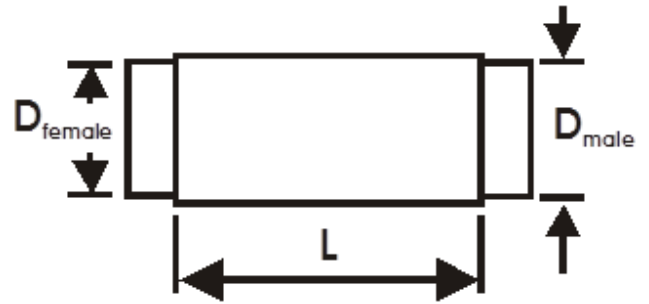


CONNECTDEC Type COMPACDEC

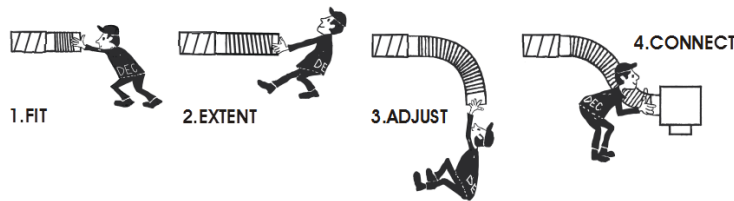
SEMI FLEXIBLE CORRUGATED DUCTING

DIMENSIONS Metal sleeves

According to EN-1506			
D _{nom} (mm)	D _{female} (mm)	D _{male} (mm)	Tol.
080	80.5	79.3	+0 ; -0.5
100	100.5	99.3	+0 ; -0.5
125	125.5	124.3	+0 ; -0.5
150	150.6	149.3	+0 ; -0.6
160	160.6	159.3	+0 ; -0.6
200	200.7	199.3	+0 ; -0.7
250	250.8	249.3	+0 ; -0.8
315	315.9	314.3	+0 ; -0.9



HOW TO INSTALL:



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, COMPACDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



CONNECTDEC Type NON-WOVEN insulated

FLEXIBLE SOUND ATTENUATORS

The **CONNECTDEC TYPE NON-WOVEN INSULATED** flexible sound attenuator consists of a Polypropylene fabric cloth inner duct and provided with an aluminium/polyester laminated outer jacket. (Also available with PE outerjacket (White/Grey)) The space between the inner and outer duct is filled with 25mm sound absorbing material. The inner duct is hydrophobic and Anti-Bacterial. The duct is standard fitted with galvanized metal sleeves at both ends to fit to any rigid ductwork or appliance instantly. Choice between: (Fit according to EN1506)

Type 1) Male - Male Type 2) Male - Female Type 3) Female - Female
Article code: CO(1,2,or3)SB{Ø}/Length e.g. CO3SB100/1,0 (type 3 Ø100mm x 1Mtr)

APPLICATIONS

- **THE Solution to over bridge inaccuracy in measurements.**
- **Saves installation time and material.**
- In combination with heat exchanges, heat pumps
- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Decreasing sound of machines



SPECIFICATIONS

Article code: CO(1,2,3)SB{Ø}/L
Temperature range: -30 °C to 140 °C
Operating pressure: up to +2000 Pa
Operating air velocity: max. 10 m/s
Min. bending radius: 1 x Ø + 25mm
Standard diameter range: 80 – 315 mm
Standard length: 0,5+1,0 mtr

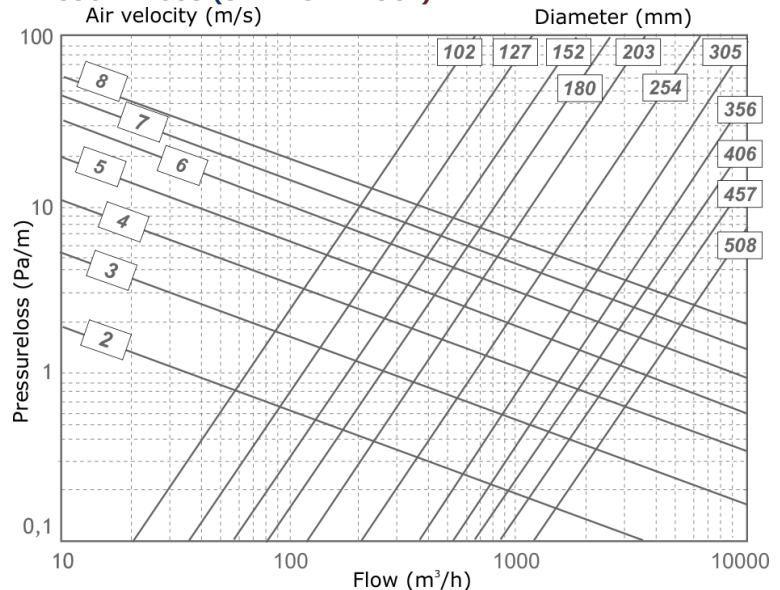
CONSTRUCTION

Inner duct: Non-woven Polypropylene fabric cloth
Glass wool blanket: 25mm, 16kg/m³
Outer jacket: Alu/poly laminate
R-value glass wool: 0.65 m² K/W (ASTM C177-76)
Appearance: aluminium

CLASSIFICATIONS

EU (EN 13501-1):
OuterJacket: B-s1,d0

PRESSURE LOSS (STRAIGHT DUCT)



The **CONNECTDEC TYPE NON-WOVEN INSULATED** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **CONNECTDEC TYPE NON-WOVEN INSULATED** is also available, on request, with a 50 mm glass wool layer, the article number is: CO(1,2,3)5SB{Ø}
R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

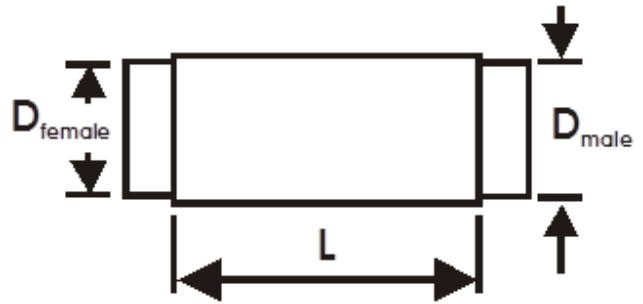


CONNECTDEC Type NON-WOVEN insulated FLEXIBLE SOUND ATTENUATORS

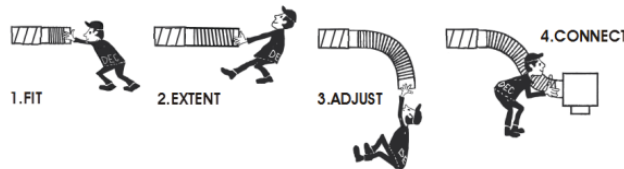
DIMENSIONS Metal sleeves

According to EN-1506

D _{nom} (mm)	D _{female} (mm)	D _{male} (mm)	Tol.
080	80.5	79.3	+0 ; -0.5
100	100.5	99.3	+0 ; -0.5
125	125.5	124.3	+0 ; -0.5
150	150.6	149.3	+0 ; -0.6
160	160.6	159.3	+0 ; -0.6
180	180.6	179.3	+0 ; -0.6
200	200.7	199.3	+0 ; -0.7
250	250.8	249.3	+0 ; -0.8
315	315.9	314.3	+0 ; -0.9



HOW TO INSTALL:



SOUND ATTENUATION

Non-woven ins. 25mm (Test report nr. A1672-1/A2354-1/A3198-1 Peutz bv - The Netherlands)

D _n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D _i (dB)
		63	125	250	500	1000	2000	4000	8000	
080	1.0	13.6	22.4	40.2	38.7	36.5	41.3	51.6	45.8	39
100	1.0	15.9	22.9	31.1	38.6	36.4	40.6	50.1	35.9	39
125	1.0	11.7	18.9	32.4	29.9	28.8	34.5	40.9	24.5	32
150	1.0	12.2	10.9	29.7	30.1	29.0	38.3	34.6	20.4	32
160	1.0	19.3	25.4	30.5	27.1	23.8	32.2	27.8	17.3	28
180	1.0	17.3	13.6	27.6	26.5	26.0	35.1	22.7	13.2	-
200	1.0	10.7	12.1	28.7	22.8	22.8	30.6	19.4	11.9	26
250	1.0	12.9	18.7	24.3	19.5	19.9	27.7	12.9	10.2	22
315	1.0	16.6	23.2	18	15.2	16.5	19.6	10.1	8.5	17
80	0.5	15.8	11.0	24.5	27.8	26.6	32.5	46.7	29.0	-
100	0.5	22.5	11.2	31.1	24.8	21.4	26.3	34.5	19.9	30
125	0.5	12.7	10.7	17.5	20.6	19.9	25.8	23	12.8	35
150	0.5	11.1	3.4	12.6	16.0	19.5	27.8	19.2	12.6	-
160	0.5	5.1	7.1	11.8	17.0	18.8	24.7	18.2	10.9	32
180	0.5	13.6	4.2	13.1	15.3	14.9	22.4	13.5	9.1	-
200	0.5	9.1	7.1	16.8	14.5	13.8	19.7	10.1	8.0	29
250	0.5	3	10.9	14.6	12.6	12.3	16.4	5.3	5.2	-
315	0.5	3.3	10.5	13.3	9.9	9.4	8.9	3.7	4.1	-
Non-woven ins. 50mm										
100	1.0	4.3	8.5	15.5	28.2	50.8	51	57.8	38.5	30
125	1.0	17.7	26.3	35.4	29.2	33.3	45.4	40.5	26.5	35
160	1.0	16.5	24.1	30.6	27.5	29.6	41.7	28.7	18.1	32
180	1.0	17.3	28.5	28.9	25.1	30.7	38.3	22.7	18.3	-
200	1.0	6.5	6.3	21.1	27.1	30.5	35.8	19.4	12.3	29

D_i = Average attenuation

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



CONNECTDEC Type NON-WOVEN insulated

FLEXIBLE SOUND ATTENUATORS

The **CONNECTDEC TYPE NON-WOVEN INSULATED** flexible sound attenuator consists of a Polypropylene fabric cloth inner duct and provided with an aluminium/polyester laminated outer jacket. The space between the inner and outer duct is filled with 25mm sound absorbing material. The inner duct is hydrophobic and Anti-Bacterial.

The duct is standard fitted with galvanized metal sleeves at both ends to fit to any rigid ductwork or appliance instantly. Choice between: (Fit according to EN1506)

Type 1) Male - Male Type 2) Male - Female Type 3) Female - Female

Article code: CO(1,2,or3)SB{Ø}/Length e.g. CO3SB100/1,0 (type 3 Ø100mm x 1Mtr)

APPLICATIONS

- **THE Solution to over bridge inaccuracy in measurements.**
- **Saves installation time and material.**
- In combination with heat exchanges, heat pumps
- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Decreasing sound of machines



SPECIFICATIONS

Article code: CO(1,2,3)SB{Ø}/L
 Temperature range: -30 °C to 140 °C
 Operating pressure: up to +2000 Pa
 Operating air velocity: max. 10 m/s
 Min. bending radius: 1 x Ø + 25mm
 Standard diameter range: 80 – 315 mm
 Standard length: 0,5+1,0 mtr

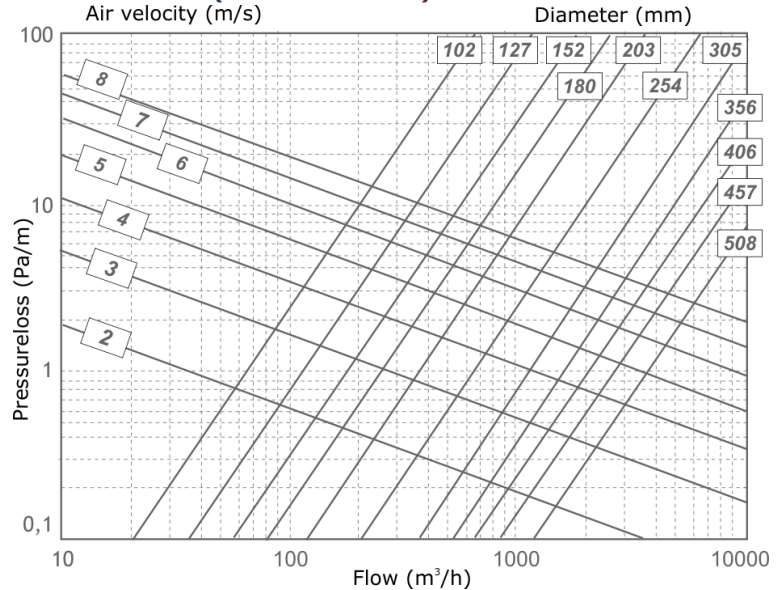
CONSTRUCTION

Inner duct: Non-woven Polypropylene fabric cloth
 Glass wool blanket: 25mm, 16kg/m³
 Outer jacket: Alu/poly laminate
 R-value glass wool: 0.65 m² K/W (ASTM C177-76)
 Appearance: aluminium

CLASSIFICATIONS

EU (EN 13501-1):
 OuterJacket: B-s1,d0

PRESSURE LOSS (STRAIGHT DUCT)



The **CONNECTDEC TYPE NON-WOVEN INSULATED** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **CONNECTDEC TYPE NON-WOVEN INSULATED** is also available, on request, with a 50 mm glass wool layer, the article number is: CO(1,2,3)5SB{Ø}
 R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

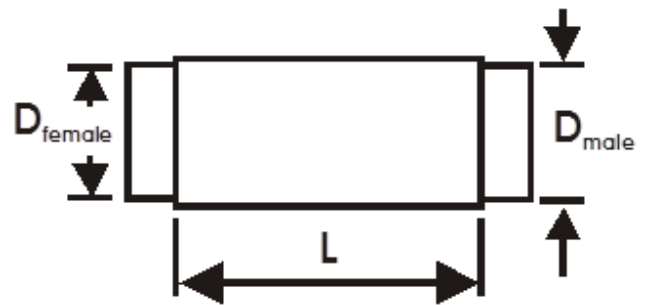


CONNECTDEC Type NON-WOVEN insulated

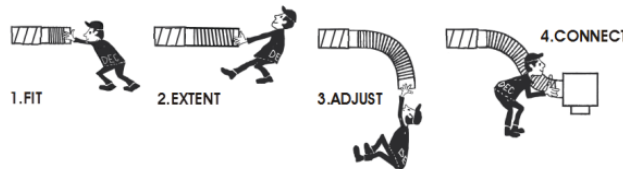
FLEXIBLE SOUND ATTENUATORS

DIMENSIONS Metal sleeves

According to EN-1506			
D _{nom} (mm)	D _{female} (mm)	D _{male} (mm)	Tol.
080	80.5	79.3	+0 ; -0.5
100	100.5	99.3	+0 ; -0.5
125	125.5	124.3	+0 ; -0.5
150	150.6	149.3	+0 ; -0.6
160	160.6	159.3	+0 ; -0.6
180	180.6	179.3	+0 ; -0.6
200	200.7	199.3	+0 ; -0.7
250	250.8	249.3	+0 ; -0.8
315	315.9	314.3	+0 ; -0.9



HOW TO INSTALL:



SOUND ATTENUATION

Non-woven ins. 25mm (Test report nr. A1672-1/A2354-1 Peutz bv - The Netherlands)										
D _n (mm)	L (m)	Attenuation, dB - Mid-frequency, Hz								D _i (dB)
		63	125	250	500	1000	2000	4000	8000	
080	1.0	13.6	22.4	40.2	38.7	36.5	41.3	51.6	45.8	39
100	1.0	15.9	22.9	31.1	38.6	36.4	40.6	50.1	35.9	39
125	1.0	11.7	18.9	32.4	29.9	28.8	34.5	40.9	24.5	32
150	1.0	12.2	10.9	29.7	30.1	29	38.3	34.6	20.4	32
160	1.0	19.3	25.4	30.5	27.1	23.8	32.2	27.8	17.3	28
180	1.0	17.3	13.6	27.6	26.5	26	35.1	22.7	13.2	
200	1.0	10.7	12.1	28.7	22.8	22.8	30.6	19.4	11.9	26
250	1.0	12.9	18.7	24.3	19.5	19.9	27.7	12.9	10.2	22
315	1.0	16.6	23.2	18	15.2	16.5	19.6	10.1	8.5	17
80	0.5	15.8	11	24.5	27.8	26.6	32.5	46.7	29	
100	0.5	22.5	11.2	31.1	24.8	21.4	26.3	34.5	19.9	30
125	0.5	12.7	10.7	17.5	20.6	19.9	25.8	23	12.8	35
150	0.5	11.1	3.4	12.6	16	19.5	27.8	19.2	12.6	
160	0.5	5.1	7.1	11.8	17	18.8	24.7	18.2	10.9	32
180	0.5	13.6	4.2	13.1	15.3	14.9	22.4	13.5	9.1	
200	0.5	9.1	7.1	16.8	14.5	13.8	19.7	10.1	8	29
250	0.5	3	10.9	14.6	12.6	12.3	16.4	5.3	5.2	
315	0.5	3.3	10.5	13.3	9.9	9.4	8.9	3.7	4.1	
Non-woven ins. 50mm										
100	1.0	4.3	8.5	15.5	28.2	50.8	51	57.8	38.5	30
125	1.0	17.7	26.3	35.4	29.2	33.3	45.4	40.5	26.5	35
160	1.0	16.5	24.1	30.6	27.5	29.6	41.7	28.7	18.1	32
200	1.0	6.5	6.3	21.1	27.1	30.5	35.8	19.4	12.3	29

D_i = Average attenuation

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



CONNECTDEC Type SONODEC TRD

FLEXIBLE SOUND ATTENUATORS

The **CONNECTDEC TYPE SONODEC TRD** consist of a perforated aluminum inner duct, thermal insulated with a glass wool layer and provided with an aluminium laminated outer jacket. A barrier between the duct and the glass wool prevents the diffusion of glass wool particles. The duct is standard fitted with galvanized metal sleeves at both ends to fit to any rigid ductwork or appliance instantly. Choice between: (Fit according to EN1506)

Type 1) Male - Male Type 2) Male - Female Type 3) Female - Female

Article code: CO(1,2,or3)DST{Ø}/Length e.g. CO3DST100/1,0 (type 3 Ø100mm x 1Mtr)

APPLICATIONS

- **THE Solution to over bridge inaccuracy in measurements.**
- **Saves installation time and material.**
- In combination with heat exchanges, heat pumps
- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Decreasing sound of machines

SPECIFICATIONS

Article code: CO(1,2,3)DST{Ø}/L
 Temperature range: -30 °C to 140 °C
 Operating pressure: up to +2000 Pa
 Operating air velocity: max. 10 m/s
 Min. bending radius: 1 x Ø + 25mm
 Standard diameter range: 80 - 315 mm
 Standard length: 0,5+1,0 mtr

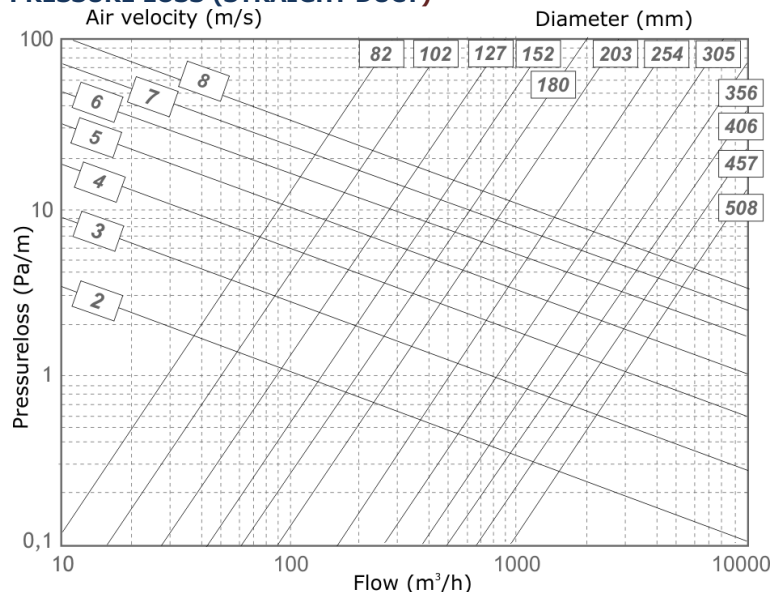
CONSTRUCTION

Inner duct: Alu/poly laminate
 Barrier: Closed film
 Glass wool blanket: 25mm, 16kg/m³
 Outer jacket: Alu/poly laminate
 R-value glass wool: 0.65 m² K/W
 (ASTM C177-76)
 Appearance: aluminium

CLASSIFICATIONS

EU (EN 13501-1):
 OuterJacket: B-s1,d0

PRESSURE LOSS (STRAIGHT DUCT)



The **CONNECTDEC TYPE SONODEC TRD** fulfills all the requirements and are classified as specified within EN 13180: *Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

The **CONNECTDEC TYPE SONODEC TRD** is also available, on request, with a 50 mm glass wool layer, the article number is: CO(1,2,3)5DST{Ø}
 R-value glass wool: 1.3 (50 mm) m² K/W (ASTM C177-76).

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, SONODEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

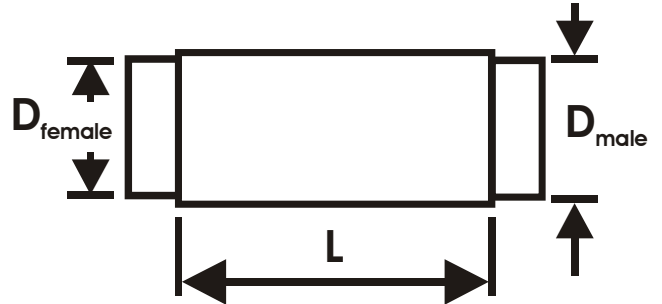


CONNECTDEC Type SONODEC TRD

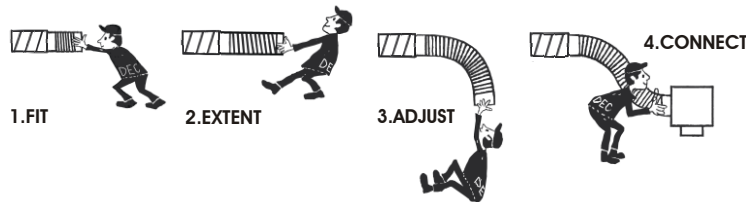
FLEXIBLE SOUND ATTENUATORS

DIMENSIONS Metal sleeves

According to EN-1506			
D _{nom} (mm)	D _{female} (mm)	D _{male} (mm)	Tol.
080	80.5	79.3	+0 ; -0.5
100	100.5	99.3	+0 ; -0.5
125	125.5	124.3	+0 ; -0.5
150	150.6	149.3	+0 ; -0.6
160	160.6	159.3	+0 ; -0.6
200	200.7	199.3	+0 ; -0.7
250	250.8	249.3	+0 ; -0.8
315	315.9	314.3	+0 ; -0.9



HOW TO INSTALL:



SOUND ATTENUATION

SONODEC 25 TRD		(Test report nr. AB323-1 Peutz bv - The Netherlands)					
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
080	1	16	26	33	38	28	17
	2	21	37	48	53	46	29
100	1	9	19	32	37	31	21
	2	19	33	52	53	49	36
125	1	12	20	21	25	29	17
	2	17	31	44	45	46	26
160	1	17	22	22	27	19	14
	2	31	39	34	38	31	20
200	1	7	15	17	20	16	13
	2	20	34	32	35	30	22
250	1	16	16	16	16	13	10
	2	26	31	28	33	25	18
315	1	11	12	12	14	11	7
	2	28	25	22	27	22	15

SONODEC 50 TRD		(Test report nr. AB323-4 Peutz bv - The Netherlands)					
D _n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
082	1	14	19	34	40	27	18
	2	19	31	42	59	45	30
102	1	7	18	31	43	28	20
	2	11	32	49	61	45	27
127	1	7	15	22	32	26	18
	2	14	27	47	56	40	28
160	1	12	20	23	28	18	11
	2	22	36	43	50	29	20
203	1	4	9	14	20	14	13
	2	13	22	35	43	30	24
254	1	14	14	16	15	11	10
	2	26	28	30	31	18	14
315	1	15	13	15	16	9	7
	2	27	26	28	32	15	13

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

CONNECTDEC, SONODEC, the DEC logo and DEC International are trademarks or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

RESTRICTIONS:

The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.



CONNECTDEC modell COMPACDEC

SEMI FLEXIBLA VECKADE KANALER

CONNECTDEC, modell COMPACDEC består av en tung flerskiktad veckad aluminium innerrör.

Kanalen är standard utrustad med metallstoser i båda ändar för att passa till ett spiral kanalsystem eller annan rund anslutning direkt. (passar enligt EN1506)

Modell 1) Nippel - Nippel Modell 2) Nippel - Muff Modell 3) Muff - Muff

Art. nummer: CO(1,2,eller 3)CD{Ø}/Längd t.ex. CO3CD100/1,0 (modell 3 Ø100mmx1Mtr)

ANVÄNDNINGSSOMRÅDE

- **Perfekt för att anpassa efter felmätningar i trånga ytor.**
- **Sparar installationstid och material.**
- Kan kombineras med alla våra luftdon (t.ex. DAV or DVSC)
- Passar utmärkt till FTX system och AC system
- Passar bra till olika frånluftsanläggningar och avgassystem.
- Ovan nämnda system, där en särskild mekanisk styrka krävs



SPECIFIKATIONER

Artikelnummer:	CO(1,2,3)CD{Ø}/L
Temperatur område:	-30 °C to 250 °C Högst +400°C
Arbetstryck:	Upp till +3000 Pa
Maximal lufthastighet:	max. 30 m/s
Min. böjradie:	1 x Ø
Standard dimensioner:	80 – 315 mm
Standard längd:	0,5+1,0+1,5 mtr

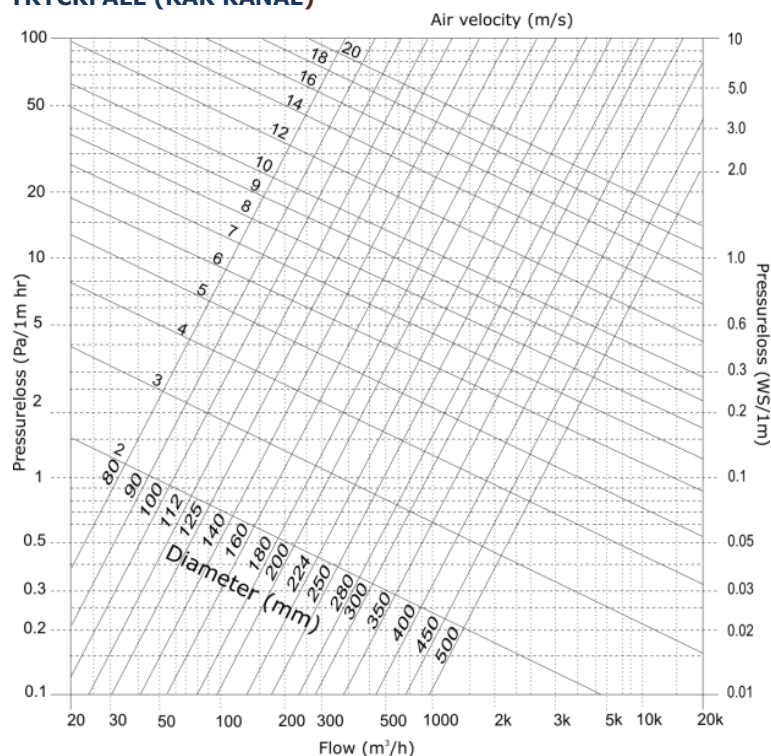
KONSTRUKTION

Totalt antal lager:	2
---------------------	---

Brandklassifikationer

EU (EN 13501-1):	A1
UK (BS476):	Part 4, 6, 7 and 20
FR (NF):	M0
DE (DIN4102)	A1

TRYCKFALL (RAK KANAL)



CONNECTDEC MODELL COMPACDEC uppfyller alla krav och klassificeras enligt specifikationen i EN 13180: Ventilation för byggnader - Kanalkonstruktioner - Mått och mekaniska krav på flexibla kanaler.

ANSVAR:
Informationen i denna broschyr var aktuell vid publiceringsdatumet. DEC INTERNATIONAL förbehåller sig rätten att när som helst göra ändringar i detaljer utan föregående meddelande. För att undvika missförstånd rekommenderas alla intresserade att kontakta DEC INTERNATIONAL för eventuella ändringar i material och / eller information efter det att denna broschyr har publicerats.

LÄGG MÄRKE TILL:
Konsulten ansvarar för själva installationen och monteringen av produkten. De nämnda värdena med avseende på temperaturer är inte lämpliga att användas för att bestämma de fysikaliska egenskaperna. Dessa egenskaper är också beroende av luftfuktighet och luftens temperatur inom och utanför ventilationssystemet.

VARUMÄRKEN:
CONNECTDEC, COMPACDEC, DEC-logotypen och DEC International är varumärken eller registrerade varumärken som tillhör Dutch Environment Corporation BV i Nederländerna och / eller andra länder.

BEGRÄNSNINGAR:
CONNECTDEC-kanalerna är inte lämpliga för avgaser från förbränningsprodukter från öppna eldstäder och oljeeldade pannor. Inte heller är kanalerna lämpliga för transport av luft med en hög koncentration av syra och bas.

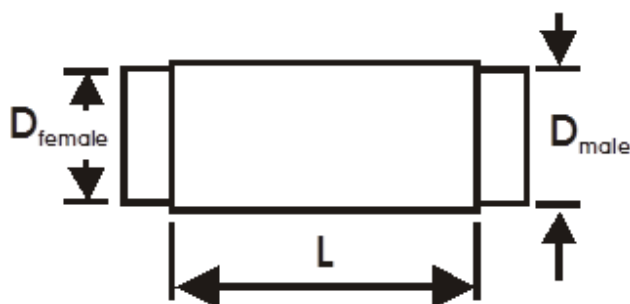


CONNECTDEC modell COMPACDEC

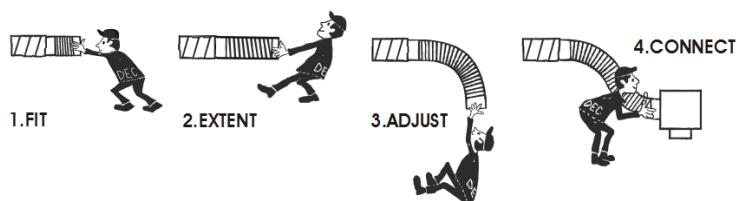
SEMI FLEXIBLA VECKADE KANALER

DIMENSIONER Metall stosar

According to EN-1506			
D _{nom} (mm)	D _{female} (mm)	D _{male} (mm)	Tol.
080	80.5	79.3	+0 ; -0.5
100	100.5	99.3	+0 ; -0.5
125	125.5	124.3	+0 ; -0.5
150	150.6	149.3	+0 ; -0.6
160	160.6	159.3	+0 ; -0.6
200	200.7	199.3	+0 ; -0.7
250	250.8	249.3	+0 ; -0.8
315	315.9	314.3	+0 ; -0.9



INSTALLATIONSSKISS:

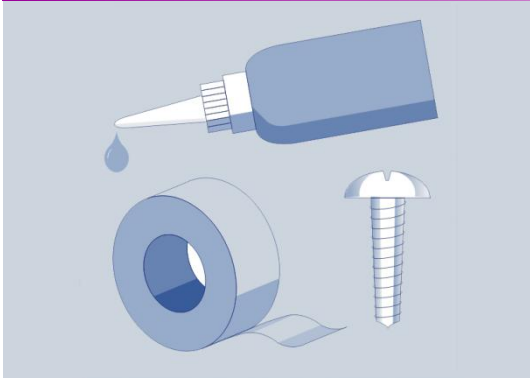


ANSVAR:
Informationen i denna broschyr var aktuell vid publiceringsdatumet. DEC INTERNATIONAL förbehåller sig rätten att när som helst göra ändringar i detaljer utan föregående meddelande. För att undvika missförstånd rekommenderas alla intresserade att kontakta DEC INTERNATIONAL för eventuella ändringar i material och / eller information efter det att denna broschyr har publicerats.

LÄGG MÄRKE TILL:
Konsulten ansvarar för själva installationen och monteringen av produkten. De nämnda värdena med avseende på temperaturer är inte lämpliga att användas för att bestämma de fysikaliska egenskaperna. Dessa egenskaper är också beroende av luftfuktighet och luftens temperatur inom och utanför ventilationssystemet.

VARUMÄRKEN:
CONNECTDEC, COMPACDEC, DEC-logotypen och DEC International är varumärken eller registrerade varumärken som tillhör Dutch Environment Corporation BV i Nederländerna och / eller andra länder.

BEGRENSNINGAR:
CONNECTDEC-kanalerna är inte lämpliga för avgaser från förbränningsprodukter från öppna eldstäder och oljeeldade pannor. Inte heller är kanalerna lämpliga för transport av luft med en hög koncentration av syra och bas.



GENERAL INFORMATION

FIXING & SEALING

SEALING AND FASTENING SYSTEMS.

DEC International delivers various tapes to support the product assortment of flexible ducts. The tapes have been composed from different raw materials to ensure that the tape you need can be delivered by DEC International. The tapes should be applied to dust-free and fat-free surfaces to get a good adhesion. DEC also offers a wide choice of products for sealing various components of air conditioning- and air supply systems. The operating pressure has been measured under laboratory circumstances at a 20°C temperature. The information below is only informative. DEC International disclaims all responsibility of misinterpreting the data. To select the appropriate product within the **SEALING AND FASTENING** group consult the table below

TAPES

Type	Temp. range (°C)	Max. Operating pressure (Pa) at + 20°C	Adhesion ¹⁾	Max. adhesion after/per	Application ²⁾	Fire resistance according to
ASB	-20 - +70	+2000	2.0 kg/cm	24 hours	▲▼	DIN 4102, B2
PSB	-20 - +60	+4000	3.6 kg/cm	24 hours	▲	DIN 4102, B2
ALU	-10 - +90	+1000	38 N/2.5 cm	immediately	▲▼	BS476 Part 7, klasse 1
ALU-R	-10 - +90	+1000	38 N/2.5 cm	immediately	▲▼	BS476 Part 7, klasse 1
PVC	-18 - +90	+1000	0.4 kg/2.5 cm	immediately	▲	-
Duct tape	-20 - +75	+1500	0.55 kg/ cm	immediately	▲▼	-

SEALING MATERIALS

Type	Temp. range (°C)	Max. Operating pressure (Pa)	Adhesion ¹⁾	Drying time	Application ²⁾	Fire resistance according to
GT	-30- +80	irrelevant	1.0 kg/2.5 cm	immediately	▲▼	DIN 4102, B3
SDS	-25- +75	+2500	-	immediately	▲	CSTB, class M1
WDS	-30- +80	+2500	-	48 hours	▲	-

- 1) the surface has been specified on the information page:
2) application - ▲ = inside use - ▼ = outside use

DEC International offers you a large number of fastening articles for a wide range of purposes. All products within the **FASTENING** product group are intended for mounting ducts and flexible ducts. This product group also contains a number of products on behalf of the fastening of flexible ducts to round, rectangular and oval connections. The support clamps are particularly suitable for suspending heavier weights, e.g. air conditioning units.

FASTENING PRODUCTS

Type	diameter / size	material
Flexible connection "DEC Connector" Sendzimir galv. steel or stainless steel with: • Silicone • Polyurethane • Neoprene • Vinyl	variable	Sendzimir galv. steel or stainless steel (316 Ti) with: • silicone • polyurethane • neoprene • vinyl
Metal clamp	variable, 50 - 660 mm	• strip: stainless steel • clamp: galvanized steel
Multiband/clamps	variable, until 30 metres	• strip: stainless steel • clamp: galvanized steel
Nylon Quick Clamps	variable, 0 - mm	• Nylon
Spiral clamps	fixed, 80 - 400 mm	• Sendzimir galv. steel
Self drilling screws	13 - 50 mm	• Galvanized steel
Self-adhesive pins	19 - 140 mm	• Galvanized steel
Welding pins	25 - 105 mm	• Galvanized steel
Support clamps	M6 up to and incl. M12	• Galvanized steel
Threaded rods	M6 up to and incl. M12	• Galvanized steel
Suspension strap • Type PP • Type PZ	width 19 mm width 17 mm	• copolymer coated galv. Steel • galvanized steel

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



ASB COLD SHRINK TAPE

FIXING & SEALING

ASB COLD SHRINK TAPE is a heavy duty, self-vulcanizing duct sealing tape. It has an aluminium backing and a strong self-bonding layer (adhesive). **ASB** provides a sure and lasting moisture proof and sealing proof barrier against weather influences. It is impervious to wind, rain and snow when properly applied.

ASB TAPE is waterproof tape but is not recommended to be all the time submerged in the water, because the aluminum foil (outer layer of the tape) will oxidize in the water, in that case leakage could occur. **ASB TAPE** could be applied over **PSB TAPE**. The top layer of the **ASB TAPE** is UV-prove.

CONSTRUCTION:

ASB consists of an elastomeric, modified butyl rubber adhesive, laminated with an 0.04 mm thick aluminum foil and covered by a 0.07 mm thick silicone treated foil liner. It is available in a thickness of 1.0 (standard) and 0.8 mm.

APPLICATION:

- **Indoor and outdoor air duct sealing;**
- It's all weather resistance is excellent,
- It can also be used for roof flashing and repair jobs;
- Upon hand application,
- It instantly provides a sure, watertight and airtight bond which grows stronger with time;
- No special skill is required;
- Drying or heating is not needed;
- The tape should be pressed down firmly;
- The work period can be substantially reduced;
- Can be over painted and adheres to metal, concrete, stone, plastic, wood ect.

SPECIFICATIONS

Article code:	ASB7{width}
Standard length:	15 mtr
Standard width:	50, 75 and 100 mm
Operating temperature:	-20 °C to 70 °C
Processing temp.:	+5°C / +35°C
Operating pressure:	up to +2000 Pa
Initial tack:	immediately / direct
Adhesion:	max. > 24h
Bond strength:	≤ 30,9 N/25mm ²
Peel strength 180°:	≤ 16,2 N/10mm
Solids:	100%
Density:	≥ 0.9 g/cm ³
Tensile:	50 N/mm ²
Elongation at break:	3%
Water Penetration:	None

CLASSIFICATIONS

DE (DIN 4102): B2

STORAGE

ASB has a lifespan of two years if stored between 5 C° and 35 °C and the packaging is kept dry and sealed.

USERS GUIDE

The product adheres completely within 24 hours. The adhesion to galvanized steel is 2.0 kg/cm if the surface is dry and fat- and dust-free. The adhesion will be most effective if the tape is pressed firmly.

Surfaces must be clean and free of moisture and foreign contamination; a remote trace of moisture will seriously affect adhesion.

The application temperature must be higher than 5°C. Particularly when the tape is going to be attached at a lower temperature it should be pressed firmly.

Apply on round and square ducts. If the duct has a diameter greater than 250 mm, some clearance between the ducts can be expected due to the tolerance. We advise to use only width 75 mm or wider. Use an overlap of 5 cm or larger.

LIABILITY:

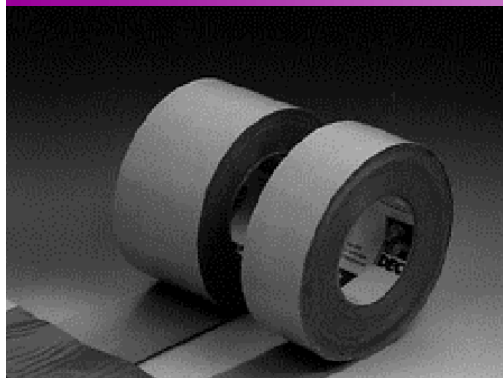
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PSB COLD SHRINK TAPE

FIXING & SEALING

PSB COLD SHRINK TAPE is a heavy duty self vulcanising duct sealing tape; it is developed to meet industry's increasing demand for airtight ducts. The method of application will save up 80% on labour costs over other methods and provides an excellent airtight seal. **Only for indoor use !**

CONSTRUCTION:

PSB consists of a compound of an elastomeric, pressure sensitive adhesive. It is laminated with an extendable 0.03mm thick polyethylene foil and further covered by a paper release liner.

Thickness: 0.95mm ($\pm 3\%$) (also available 0.8MM)

Backing: PE dark grey color.

APPLICATION:

- The airduct sealing; special recommended for round or oval ducts;
- The tape has an immediate high "tack" and bonds within 24 hours;
- Once applied the tape provides a superb adhesion on galvanized or aluminum;
- For maximum adhesion the surface must be clean and free of moisture and foreign contamination (commercial clean);
- A remote trace of moisture will seriously affect adhesion;
- Do not stretch over 8%;
- The tape should be pressed down firmly.
- Please read our application instructions as enclosed in the packing carefully.

SPECIFICATIONS

Article code:	PSB3{width}
Standard length:	15 mtr
Standard width:	50, 75 and 100 mm
Operating temperature:	-20 °C to 60 °C
Operating pressure:	up to +4000 Pa (at 20°C)

CLASSIFICATIONS

DIN 4102:	B2
-----------	----

STORAGE

PSB has a lifespan of two years if stored between 5 C° and 35 °C and the packaging is kept dry and sealed.

USERS GUIDE

The product adheres completely within 24 hours. The adhesion to galvanized steel is 3.6 kg/cm if the surface is dry and fat- and dust-free. The adhesion will be most effective if the tape is pressed firmly.

Surfaces must be clean and free of moisture and foreign contamination; a remote trace of moisture will seriously affect adhesion.

The application temperature must be higher than 5°C. Particularly when the tape is going to be attached at a lower temperature it should be pressed firmly.

Applicate mainly on round ducts. A max stretch of 3% is allowed and will help the tape to set itself on the duct. If the duct has a diameter >250mm, some clearance between the ducts can be expected due to the tolerance; we advice to use only **ASB** width 75mm or wider. Use an overlap of 5cm or larger.

Do not use PSB for outdoor applications !

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



ALU TAPE

FIXING & SEALING

ALU TAPE is a strong aluminium foil-tape suitable for sealing in air conditioning systems and for insulation operations.

CONSTRUCTION:

The tape has been built up out of an aluminium foil layer, inside provided with a rubber sealing coat. The elongation is 5-7%, depending on the thickness.

SPECIFICATIONS

Article code:	ALU{width}
Standard length:	45 mtr
Standard thickness:	30 microns
Standard width:	050 and 075mm (100mm on request)
Operating temperature:	-10 °C to 90 °C
Processing temperature:	-5 °C to 40 °C
Operating pressure:	up to +1000 Pa

CLASSIFICATIONS

UK (BS476): Part 6 & 7 Class1

A thickness of 40 microns is available as well.

The 75mm ALU-TAPE with a thickness of 40 microns can be ordered in the following way: ALU075/40

CLASSIFICATIONS

FR (NF): M1
UK (BS476): Part 6 & 7 Class1

STORAGE

ALU TAPE has a lifespan of one year if stored between 10 C° and 30 °C and the packaging is kept dry and sealed.

ADHESION

The adhesion is 38N/2.5cm after 24 hours if the surface is fat-free and dust-free. The ultimate tensile strength is 65-70N/2.5cm.

Surfaces must be clean and free of moisture and foreign contamination; a remote trace of moisture will seriously affect adhesion.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



ALU-R TAPE

FIXING & SEALING

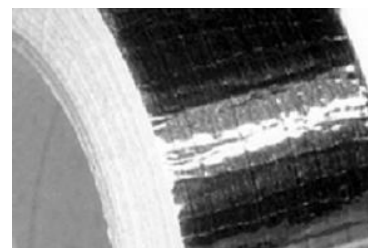
ALU-R TAPE is a glass-fibre reinforced aluminium-tape appropriate to sealing in air conditioning systems and insulation operations.

CONSTRUCTION:

The tape has been built up out of a layer of aluminium foil which has been provided with a rubber sealing coat. The aluminium outside layer has been strengthened with 5mm² glass scrim. The elongation is 3-5%.

SPECIFICATIONS

Article code:	ALU{width}R
Standard length:	45 mtr
Standard thickness:	30 microns
Standard width:	050 and 075mm (100mm on request)
Operating temperature:	-10 °C to 90 °C
Processing temperature:	-5 °C to 40 °C
Operating pressure:	up to +1000 Pa



CLASSIFICATIONS

UK (BS476): Part 6 & 7 Class1

STORAGE

ALU-R TAPE has a lifespan of one year if stored between 10 °C and 30 °C and the packaging is kept dry and sealed.

ADHESION

The adhesion is 38N/2.5cm after 24 hours if the surface is fat-free and dust-free. The ultimate tensile strength is 60-65N/2.5cm (aluminium only).

Surfaces must be clean and free of moisture and foreign contamination; a remote trace of moisture will seriously affect adhesion.

LIABILITY:

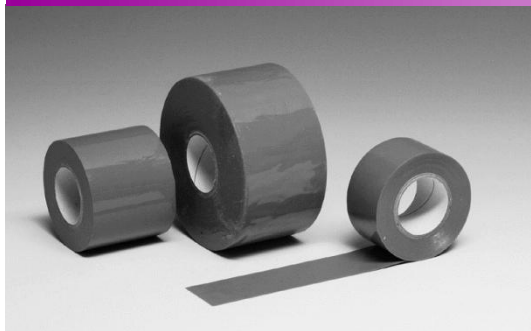
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PVC TAPE

FIXING & SEALING

PVC TAPE is appropriate to many mechanical ventilation systems because of its combination of great adhesive power and great elasticity.

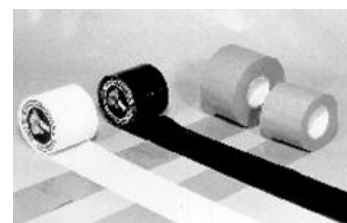
CONSTRUCTION:

The tape has been built up out of a layer of pure plasticized PVC, the inside is provided with a sealing coat of synthetic rubber based adhesive.

Free from lead compounds.

SPECIFICATIONS

Article code:	PVC050/L
Standard length:	10, 20 and 33 mtr
Standard thickness:	190 microns
Standard width:	050 mm
Operating temperature:	-18 °C to 90 °C
Processing temperature:	-5 °C to 40 °C
(We advise you to keep the tape at room temperature before applying at temperatures below 0°C.)	
Operating pressure:	up to +1000 Pa
Standard Colour:	Grey (Other colours are available on request)



STORAGE

PVC TAPE has a lifespan of one year if stored between 10 C° and 30 °C and the packaging is kept dry and sealed.

ADHESION

The adhesion is 0.4 kg / 2.5 cm if the surface is fat-free and dust-free.

The ultimate tensile strength with an elongation of 240% is 10.5 kg / 2.5 cm.

Tensile strength at break: 193 N / 10 mm²

Adhesion to 2B steel: 1.85 N / 10 mm

Adhesion to backing: 1.75 N / 10 mm

Surfaces must be clean and free of moisture and foreign contamination; a remote trace of moisture will seriously affect adhesion.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DUCT TAPE

FIXING & SEALING

DUCT TAPE is appropriate to sealing round ducts. It is particularly suitable for applications in mechanical ventilation systems.

CONSTRUCTION:

DUCT TAPE is a linnen-tape, a composition of polyethylene and plastic, provided with a natural rubber sealing coat layer. The maximal elongation is 8%.

SPECIFICATIONS

Article code:	DUCT{width}
Standard length:	50 mtr
Standard thickness:	310 micons
Standard width:	050 and 075 mm (100mm on request)
Operating temperature:	-20 °C to 75 °C
Processing temperature:	+5 °C to 30 °C
Operating pressure:	up to +1500 Pa
Standard Colour:	Grey (Other colours are available on request)



STORAGE

DUCT TAPE has a lifespan of one year if stored between 10 C° and 30 °C and the packaging is kept dry and sealed.

ADHESION

The adhesion is 0.55kg/cm if the surface is fat-free and dust-free. The ultimate tensile failure is 5.9 kg / cm.

Surfaces must be clean and free of moisture and foreign contamination; a remote trace of moisture will seriously affect adhesion.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



GT TAPE

FIXING & SEALING

GT TAPE is particularly appropriate to circumstances where a long life in combination with a high air humidity resistance and chemical inertness is required. The tape is hardly subject to decay. The tape has also a thermic insulating character.

GT TAPE is often used as a sealing material in ventilation systems and machine building.

CONSTRUCTION:

GT TAPE (Gasket) has been manufactured out of polyethylene foam. The elongation is about 40% (DIN 53577).

The tape is maintenance-free and chemically neutral and highly resistant to aging.

SPECIFICATIONS

GT TAPE is standard available in 4 different thicknesses: 3, 4, 5, and 6mm.

The width varies between 9 and 50mm. The standard length, per roll is 10m or 20m.

Packed per 10 pieces.

The width has been linked up to the thickness as below:

Article code: GT{thickness}/{width}NB{ L} (NB=No Backing)

e.g. GT4/25NB20 – 10 x 20MTR GASGET TAPE 4X25MM NO BACKING

Thickness (mm)	Width (mm)	Length (mtr)
3	15, 50	20
4	9, 12, 15, 25 and 50	20
5	9, 15 and 20	10
6	12, 14 and 19	10

Operating temperature: -30 °C to 80 °C

Processing temperature: +5 °C to 40 °C

Standard Colour: Grey

CLASSIFICATIONS

DE (DIN 4102): B3

STORAGE

GT TAPE has a lifespan of one year if stored between 10 C° and 30 °C and the packaging is kept dry and sealed.

ADHESION

The adhesion is 1,0kg/2.5cm if the surface is fat-free and dust-free.

Surfaces must be clean and free of moisture and foreign contamination; a remote trace of moisture will seriously affect adhesion.

LIABILITY:

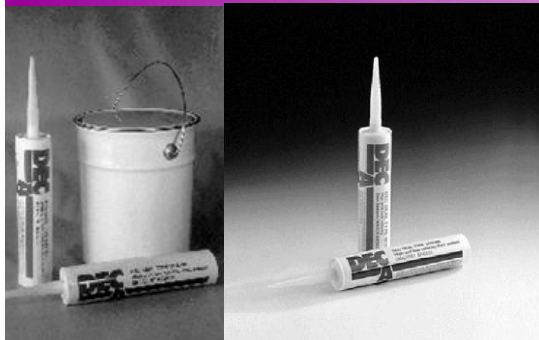
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



SDS SEALANT

FIXING & SEALING

SDS SEALANT is suitable for using where a large pressure resistance and a short drying time is required. It has an excellent adhesion to aluminium and galvanized steel. Because of the thixotrope¹⁾ properties the sealant can be used for horizontally and vertically applications.

¹⁾ *The sealant is going to get thinner under the influence of short-time/long prolonging vibrations or mechanical loads. If the vibrations or the loads leaves off, the sealant is going to get thicker again. This phenomenon is called rheological: transformation without cracking.*

SDS SEALANT is often used as a sealing compound for air conditioning systems.

For indoor use only!!

CONSTRUCTION

SDS SEALANT is a combination of several kinds of rubber. Several resins have been added as an additive. To achieve a good adhesion to slightly oily surfaces a degreasant has been added as well. SDS SEALANT contains no PVC or silicon.

SPECIFICATIONS

Available in two different packaging, a tube or a can.

The tube contains 400gr and the can 5kg.

The standard packaging contains 25 tubes or 4 cans.

Article code tube(s): **SDS400**
Article code can(s): **SDS400/5**

Operating temperature: -25 °C to 70 °C
Processing temperature: +5 °C to 40 °C
Operating pressure: + 2500Pa

(if applied to a dry and dust-free surface. The surface does not have to be completely oil-free, however the best adhesion results will be on clean surfaces.)

CLASSIFICATIONS

FR (NF): M1 (in hardened version)

Unprocessed, lightly inflammable because of the presence of solvents.

STORAGE

SDS SEALANT has a lifespan of 18 months if stored between 10 C° and 30 °C and the packaging is kept dry and sealed.

SAFETY

Proper ventilation is needed during processing. Avoid contact with eyes, skin and clothes.

LIABILITY:

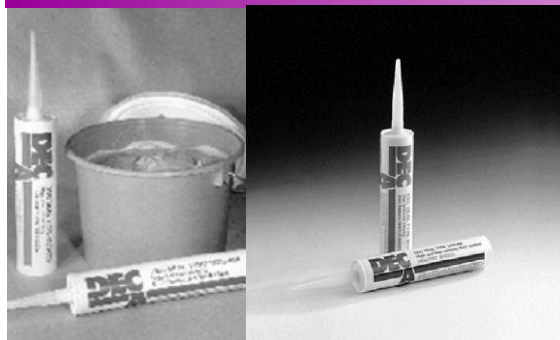
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



WDS SEALANT

FIXING & SEALING

WDS SEALANT suitable for sealing cracks and seams in ducts and other metal constructions.

WDS SEALANT is often used as a sealing compound for air conditioning systems.

For indoor use only!!

CONSTRUCTION

WDS SEALANT is a combination of various synthetic polymers on a water base. Titanium has been added as an additive. WDS SEALANT contains no PVC or silicon.

SPECIFICATIONS

Available in two different packaging, a tube or a can.

The tube contains 400gr and the can 6kg.

The standard packaging contains 25 tubes or 4 cans.

Article code tube(s): **WDS606**
Article code can(s): **WDS606/6**

Operating temperature: -30 °C to 80 °C
Processing temperature: +5 °C to 30 °C
Operating pressure: + 2500Pa

DRYING TIME

After 24 - 48 hrs the WDS SEALANT will be completely hard. Time depending on the used thickness and air humidity. The drying time will be 1 - 12 hrs if the thickness of the sealing is 1 mm.

CLASSIFICATIONS

WDS SEALANT will hardly be inflammable because of the solvents.

UL tested Nr.723 (Flamespread 5 – Smokedev. 0)

SAFETY

Proper ventilation is needed during processing. Avoid contact with eyes, skin and clothes.

The WDS SEALANT is non-toxic.

STORAGE

WDS SEALANT has a lifespan of one year if stored between 10 C° and 30 °C and the packaging is kept dry and sealed.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC CONNECTOR

FIXING & SEALING

The flexible connection **DEC CONNECTOR** has been manufactured out of an already existing steel-to-fabric-to-steel connection, which enables a fast and simple connection between two (rigid) ducts. Once the galvanized steel overlap has been bent into the correct shape it can be fastened with DEC International *self-drilling screws* or pop rivets. Another possibility is spot welding. The result is a solid flexible connection which can be mounted simply and quickly. It meets the constructional demands.

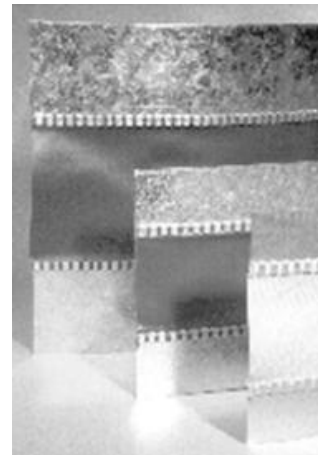
The standard fabric in the DEC CONNECTOR is **VINYL, NEOPRENE, POLYURETHANE** and **SILICONE** are available on request. Each type of fabric has its own quality and specific application. (See product specific information). All fabrics are airtight and waterproof.

All DEC CONNECTOR's meet the British specifications for sheet metal ductwork DW/142 and DW/144. A great advantage of the DEC CONNECTOR is e.g. the large range of widths of material. Standard sizes are:

Steel	Fabric	Steel
35 mm	60 mm	35 mm
45 mm	60 mm	45 mm
45 mm	75 mm	45 mm
70 mm	100 mm	70 mm

Beside the standard widths it is possible to produce, on request, the DEC CONNECTOR in various other widths.

For further information contact our sales department, because there are restrictions.



STANDARD PRODUCTION LENGTH

The standard production length of the DEC CONNECTOR is 25 m (82 feet). Other lengths on request. If you are interested please contact our sales team.

SPECIFICATIONS

DEC CONNECTOR type VINYL

Fabric: copolymer coated polyester (PES)

The fabric with a copolymer coating, used in this type of DEC CONNECTOR, is suitable for applications with high requirements to the moisture resistance and less or no mechanical requirements. This connector is appropriate for round, oval and rectangular air ducts. It can be shaped easily with a minimal percentage of waste.

Excellent mechanical resistance. High abrasion resistance. All purpose fabric.

DEC CONNECTOR type SILICONE

Fabric: silicone coated glass fibre

The fabric with a silicone coating, used in this type of DEC CONNECTOR, is suitable for applications with high mechanical demands to the material. This connector is appropriate for round, oval and rectangular air ducts. It can be shaped easily with a minimal percentage of waste. **Excellent temp. resistance. Low smoke emission. Very good chemical resistance.**

DEC CONNECTOR type POLYURETHANE

Fabric: polyurethane coating glass fibre

The fabric with a polyurethane coating, used in this type of DEC CONNECTOR, is suitable for applications where a high chemical resistance is required. This connector is appropriate for round, oval and rectangular air ducts. It can be shaped easily with a minimal percentage of waste. **Very good temp. resistance. M0-400°C/2h classified**

DEC CONNECTOR type NEOPRENE

Fabric: neoprene coated glass fibre

The fabric with a neoprene coating, used in this type of DEC CONNECTOR, is suitable for applications where a high chemical resistance is required. This connector is appropriate for round, oval and rectangular air ducts. It can be shaped easily with a minimal percentage of waste. **Excellent mechanical resistance. General purpose fabric. Very good chemical resistance.**

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC CONNECTOR

FIXING & SEALING

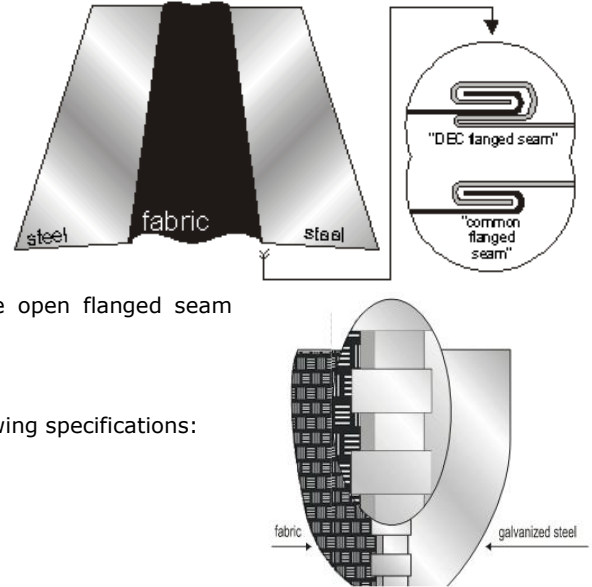
FLANGED SEAM

In the DEC CONNECTOR, particularly developed, various unique properties have been used, e.g. the modern flanged seam technology. Mostly a simple flanged seam has been used in similar products.

The DEC CONNECTOR has been produced with a flanged seam with 4 layers. The double flanged seam gives an exceptional power to the connection between steel and fabric.

The double flanged seam is used in each type of DEC CONNECTOR.

Another advantage is the extraordinary protection the double flanged seam is giving to the fabric. It can be shaped easily by bending and the open flanged seam prevents the damaging of the fabric.



GALVANIZED STEEL

The galvanized steel in the DEC CONNECTOR meets the demands of the following specifications:

- ▶ Thickness of plate : 400 microns
- ▶ Thickness tolerance : -50/+50 microns
- ▶ Sinking weight : 275 gr/m²
- ▶ Quality : STO22275
- ▶ Chromatic Reagenz : NA Quality IIA (fewer lead, so fewer pollution)

CHEMICAL RESISTANCE (GALVANIZED STEEL)

This table indicates the chemical resistance of galvanized steel in relation to different chemicals. It is just a restricted summary. For more information about the resistance to, not mentioned chemicals, please contact our sales team.

Explanation:

- 1 = excellent
- 2 = good
- 3 = moderated
- x = poor/not recommended

Chemicals	x	3	2	1
Acetone				✓
Acetylene				✓
Ammonia	✓			
Benzene				✓
Bromide	✓			
Butane				✓
Chlorine	✓			
Ethane				✓
Phenol	✓			
Phosphoric acid	✓			
Helium				✓
Carbon dioxide			✓	
Carbon dioxide (liquid)	✓			
Methane	✓			
Methanol				✓
Toluene				✓
Neon				✓
Ozone	✓			
Nitric acid (diluted)	✓			
Nitrogen				✓
Water			✓	
Water vapour				✓
Hydrogen				✓
Hydrochloric 37% cold	✓			
Hydrochloric 37% warm	✓			
Sulphur				✓
Sulphuric acid, diluted				✓
Sulphurous acid				✓

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DEC CONNECTOR

FIXING & SEALING

To select the appropriate **DEC CONNECTOR** products consult the table below

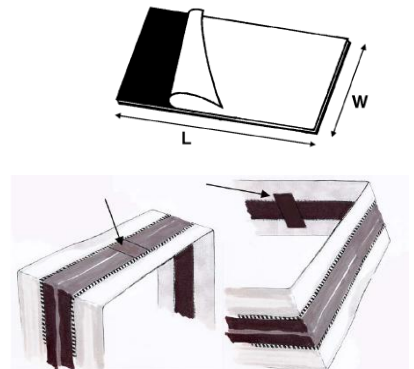
	Vinyl	Polyurethane	Silicone	Neoprene
Mechanical data				
Weight (gr/m ²) (backing+coating)	600 (160+440)	450 (410+2x20)	510 (410+2x50)	660 (410+2x125)
Temperature range (°C)	-30 - +70	-50 - +200	-40 - +280	-20 - +100
Max. temperature (°C)	-	400 - 2h*	-	-
Fire class				
France (CSTB)	x	*M0	M1-M0	M1
Great Britain (BS 476)	x	x	Part 7 Class1	Part 7 Class1
Colour	dark grey	Aluminium grey	Aluminium grey	black
Chemical Resistance				
Acetone	••	▪	••	••
Acetylene	••	x	••	••
Ammonia	•	x	•	x
Benzene	••	••	▪	•
Butane	•	•	▪	•
Chlorine	•••	▪	▪	•••
Chlorine gas	▪	▪	x	▪
Ethane	••	•••	▪	••
Phenol	▪	▪	▪	▪
Phosphoric acid	••	•	▪	••
Helium	•	•	••	••
Carbon dioxide	•	x	••	••
Carbon dioxide (liquid)	▪	▪	▪	▪
Methane	••	•	▪	••
Methanol	•	▪	•	•
Toluene	▪	▪	▪	x
Neon	•	•	•	•
Ozone	•••	•	•	•••
Nitric acid (diluted)	•	•••	••	•
Nitrogen	•	•	•	•
Water	•	•	•	•
Water vapour	▪	▪	▪	▪
Hydrogen	••	x	▪	••
Hydrochloric 37% (cold)	••	▪	••	••
Hydrochloric 37% (warm)	▪	▪	▪	▪
Sulphur	•	x	•	•
Sulphuric acid (diluted)	••	•••	▪	••
Sulphurous acid	••	▪	▪	••

x = not been tested • = excellent •• = good ••• = moderate ▪ = poor/not recommended

Self-Adhesive Fabric Pads

The easy patch for our DEC Connector. Seals the place of connection tight.

Code	Fabric Type	Dimensions W x L	Packaging
HCPA106	RO-Robust (PVC-Vinyl)	50x60mm	100 pcs / box
HCPA 110		50x100mm	100 pcs / box
HCPA 114		50x140mm	100 pcs / box
HCPA 206	EO-Neoprene	50x60mm	100 pcs / box
HCPA 210		50x100mm	100 pcs / box
HCPA 214		50x140mm	100 pcs / box
HCPA 001	Double sided adhesive only	Rolls 50mm x 50m	



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



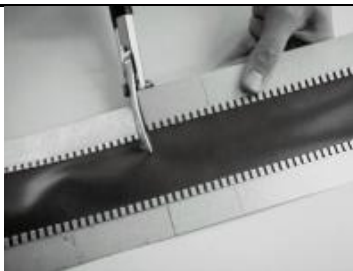
DEC CONNECTOR

FIXING & SEALING

Mounting instructions



Make sure that the notched side faces outward and provide the positioning of the joint in the middle of a side rather than in a corner.



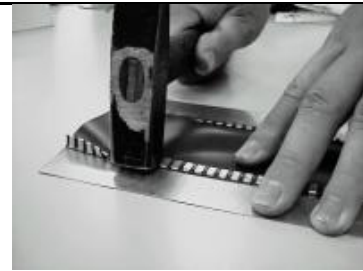
At a notch, cut a length equivalent to the perimeter increased by 5 to 6 cm.



Lift the seam outwards to a right angle.



Make a cut at the edge of the lifted seam section.



Bend down the seam whilst ensuring that the cloth remains fastened.



Coat the cloth with its appropriate adhesive.



Join both sides.



Press together firmly.



Spotweld the steel.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PRE-CLAMPED CIRCULAR SLEEVE

FIXING & SEALING

General description

In order to neutralize vibrations caused by air handling units, fans or other equipment connected to air ducts, it is highly recommended to install a flexible connector joint between the outlet of these devices and the airduct. The circular straight sleeves are specially recommended for this use and can be produced for any diameter. Thanks to the clamps fitted in the fabric the installation is very quick.

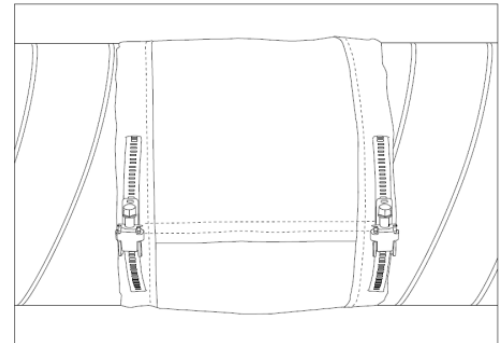
Technical description

- Standard cloth width : 160 mm (other sizes on request).
- Supplied with two suitable clamps in stainless steel, fitted in the fabric.
- Sleeve is sewn with strong, high-temperature Kevlar thread.

Technical specifications

Article codes:

HCMANPUØ or **HCMANSIØ**



Fabric

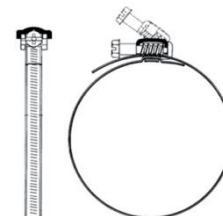
SPECIFICATIONS	PU	SI
MATERIAL BACKING	Fiberglass cloth	Fiberglass cloth
COATING	Polyurethane	Silicone on both sides
WEIGHT	460 gr/m ² (18 Oz/sq Yd)	520 gr/sq m (15 oz/sq yd)
COLOUR	Grey	Grey
TEMPERATURE RANGE	-20°C / +120°C (-4°F to 250°F)	-40°C to +260°C (-40°F to 500°F)
PROPERTIES	Very good temperature resistance	
FIRE RESISTANCE	RANKED 400/2H FOLLOWING STANDARD 12101-3 Flame retardant	Excellent temp. resistance - UL classified - NFPA 701

CHEMICAL RESISTANCE	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
ACIDS	PU	SI			
OILS		PU		SI	
SOLVENTS		SI	PU		
GREASES		PU		SI	

Fastening band

MATERIAL	stainless steel 430
WIDTH	9 mm
THICKNESS	0,6 mm

LOCKING DEVICE	coated steel
SCREW	hexagonal, cruciform and slotted head



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



Silicone Fibreglass cloth

FIXING & SEALING

SI200 : Fiberglass cloth coated on both sides with Silicone

- Colour: Silver grey
- Weight: 510 gr/sq.m.
- Excellent ozone and weathering resistance
- Temperature: -40°C / + 260 °C

LIABILITY:

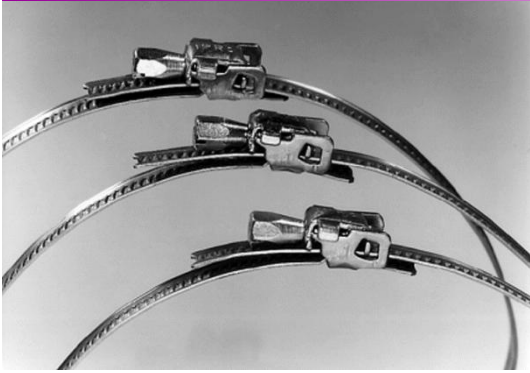
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



QIP METAL CLAMPS

FIXING & SEALING

The **METAL CLAMP QIP** is appropriate for mounting all kinds of flexible ducts.

METAL CLAMPS are available in a box containing 100pcs.

CONSTRUCTION:

Band: width 9 mm, thickness 0,6 mm, ferritic stainless steel AISI 430 – EN 1.4016, continuous threaded band pressed and raised, rounded edges to prevent damages to the pipe.

Upper and lower housing: low carbon steel galvanized.

Screw: size 7 mm, cross slotted-hexagon head, galvanized steel passivation free of Exavalent Chromium (Cr6+)

Safe working torque: 4 Nm

Running test: > 4 Nm

Free torque: 0,2 Nm

Also available as full stainlesssteel **QIPS**

Band: width 9 mm, thickness 0,6 mm, austenitic stainless steel AISI 304 - EN 1.4301, threaded band pressed and raised.

Upper and lower housing: austenitic stainless steel AISI 304 - EN 1.4301.

Screw: size 7 mm, cross slotted-hexagon head, austenitic stainless steel AISI 304 - EN1.4301.

Safe working torque: 3 Nm

Running test: > 3 Nm

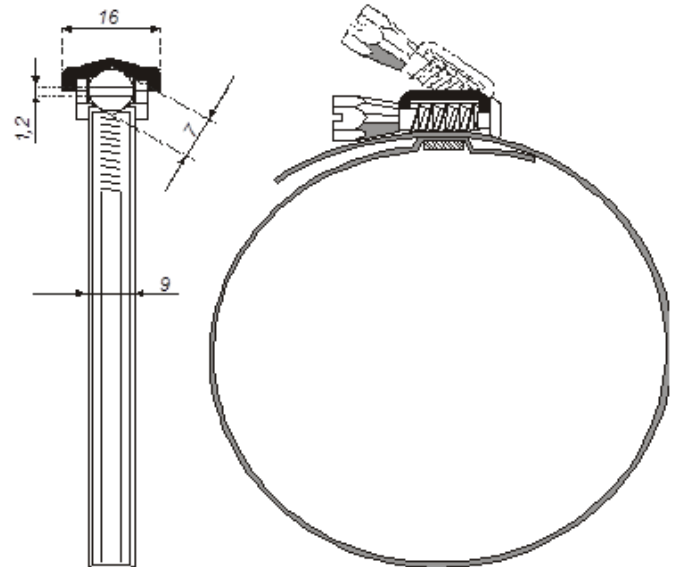
Free torque: 0,2 Nm

SPECIFICATIONS

Article code: **QIP{max.Ø}**

Summary

Art. code	Min. Ø (mm)	Max. Ø (mm)
QIP090	50	90
QIP110	60	110
QIP135	60	135
QIP165	60	165
QIP180	60	180
QIP215	60	215
QIP270	60	270
QIP325	60	325
QIP380	60	380
QIP525	60	525
QIP560	60	560
QIP660	60	660



LIABILITY:

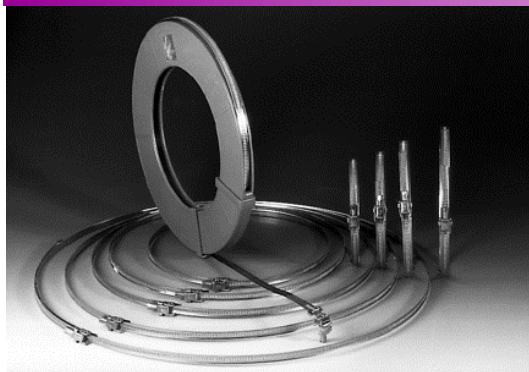
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



MULTIBAND MULTICLAMPS

FIXING & SEALING

The **MULTIBAND/MULTICLAMPS** are suitable for mounting all types of flexible connections. The combination enables you to making a clamp with the diameters required at the work station. The MULTIBAND/MULTICLAMP is particularly suitable for maintenance purposes.

CONSTRUCTION

MULTIBAND:

Continuous threaded 30 mtr band pressed and raised in ferritic stainless steel AISI 430 - EN1.4016, width 9 mm, thickness 0,6 mm.

MULTICLAMP:

Screw: size 7 mm, cross slotted-hexagon head, galvanized steel passivation free of Exavalent Chromium (Cr6+).

Upper and lower housing: low carbon steel galvanized.

Locking mechanism: ferritic stainless steel AISI 430 - EN 1.4016.

INSTRUCTIONS FOR USE

To obtain the MULTIBAND in the diameter required:

1. Extract the strip from the box and count the intervals between the arrow indicators (see diameter extension table)
2. Cut the strip and bend 2 cm (3/4") in the direction of the arrow
3. Fasten the strip to the traction device and press the bend

The MULTIBAND is ready for installation

Safe working torque : 4 Nm

Running Test : > 4 Nm

Free torque : 0,2 Nm

Also available in full stainless steel **QIPSBAND** and **QIPSLAMP** Austenitic stainless steel AISI 304 - EN 1.4301

SPECIFICATIONS

Article code:

MULTIBAND **QIPBAND**

cartons containing 10 rolls

Diameter range: variable

Length: 30m

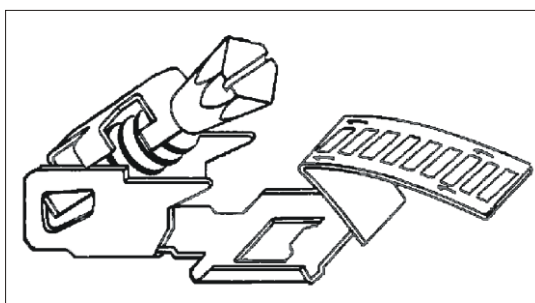
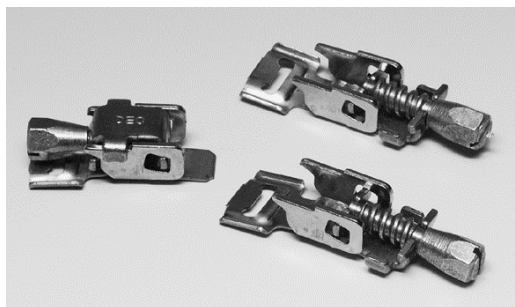
Width 9mm

The MULTICLAMPS are suitable for fastening on the MULTIBAND.

Article code:

MULTICLAMPS **QIPLAMP**

delivered in boxes, containing 10 cartons with 50 pieces each



LIABILITY:

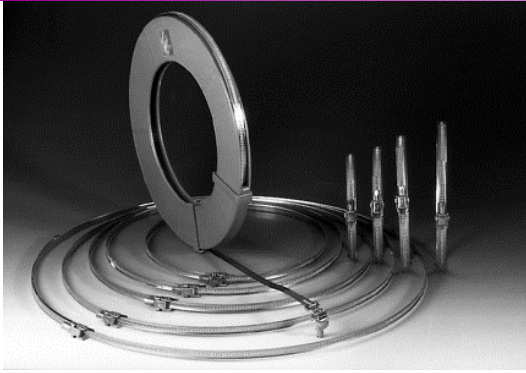
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



MULTIBAND MULTICLAMPS

FIXING & SEALING

Mounting instructions

For fixing the Multiclamp to the Multiband follow the underneath Figures

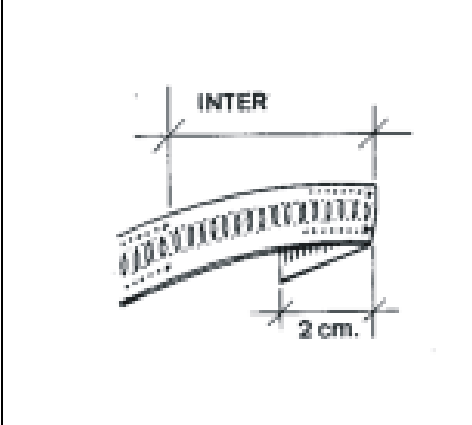
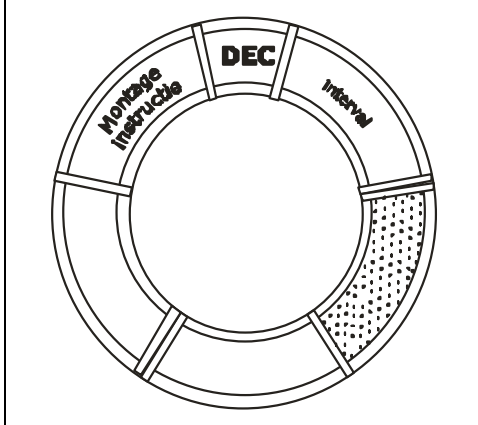


FIG 1

FIG 2

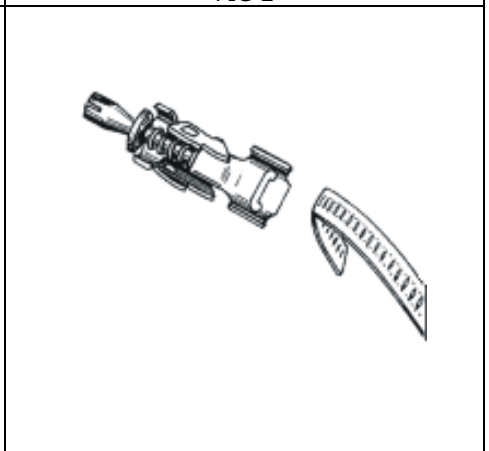


FIG 3

FIG 4

FIG 5

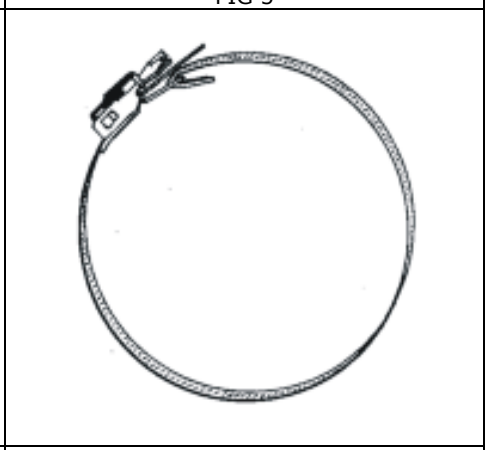
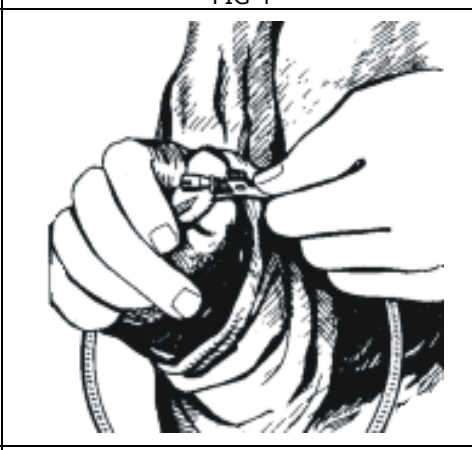
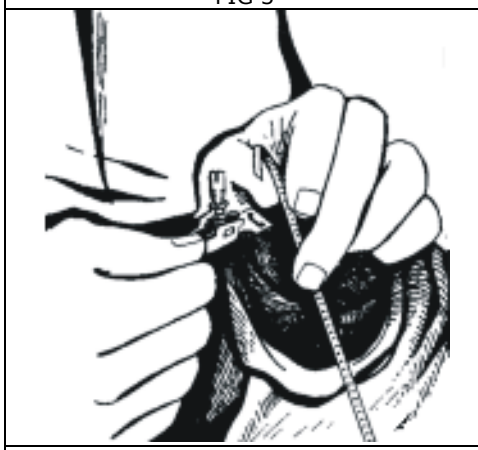


FIG 6

FIG 7

FIG 8

LIABILITY:

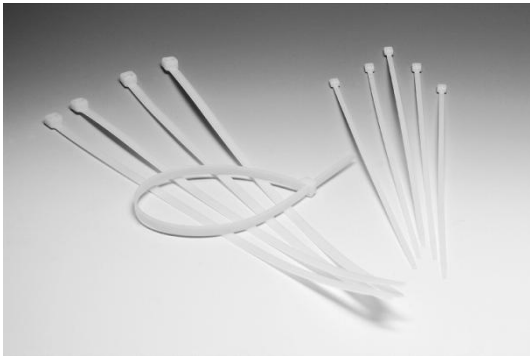
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



QCLX NYLON QUICK CLAMPS

FIXING & SEALING

The **NYLON QUICK CLAMPS** are suitable for all kinds of flexible connections.

CONSTRUCTION:

The NYLON QUICK CLAMPS are manufactured out of nylon 66. Production according to the Military Specification: MIL-S 23190E.

NYLON QUICK CLAMPS are available in different standard sizes; the range is 2.5 up to and including 9.0mm.

OPERATING TEMPERATURE

NYLON QUICK CLAMPS are suitable for applications within the following temperature range: -40 up to +85°C

SPECIFICATIONS

Article code:

NYLON QUICK CLAMP: **QCLX (length in mm) / {width}**

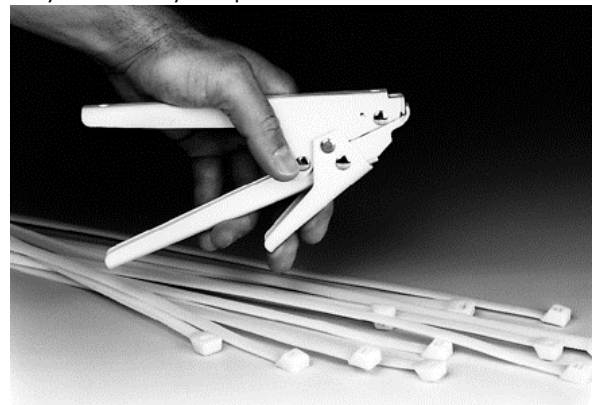
QUICK CLAMP TOOL: **QCLOOTA**

DEC delivers assembly pliers QCLOOTA particularly for the NYLON QUICK CLAMPS. The assembly pliers have a long lifespan and simplify the application of the NYLON QUICK CLAMPS. They are sold by the piece

Summary

Ordering code	Diameter range (mm) min-gross ¹⁾	Width (mm)
QCLX100/2.5	0 - 30	2.5
QCLX160/2.5	0 - 50	2.5
QCLX200/2.5	0 - 60	2.5
QCLX200	0 - 60	4.8
QCLX300	0 - 75	4.8
QCLX370	0 - 110	4.8
QCLX450	0 - 127	9.0
QCLX530	0 - 140	9.0
QCLX780	0 - 229	9.0
QCLX930/8.8	0 - 273	8.8

¹⁾ The diameter range has been stated as a minimum diameter, which is 0 millimeters everywhere. The gross diameter has also been given.



Note: Nylon (polyamide) is inherently sensitive to environmental factors. The ties are wetted after manufacture for optimum performance and must be stored in a cool dry area where they are not directly exposed to sunlight. The ties are packed in plastic bags to keep them moist and the bags must remain closed until the ties are ready for use.

The manufacturer is not liable for consequences caused by not following these rules.

LIABILITY:

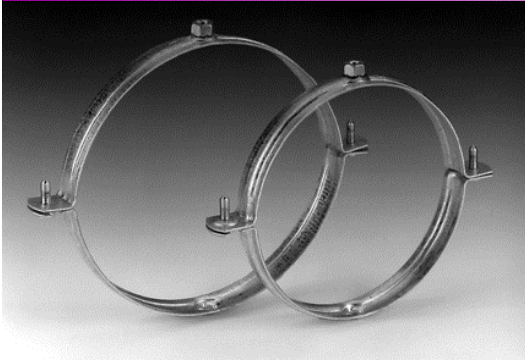
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



SB(R) SPIRAL BENDS

FIXING & SEALING

SPIRAL BENDS are appropriate to suspending round duct systems etc.

CONSTRUCTION

The SPIRAL BENDS have been manufactured out of galvanized steel (non-burnable) and have a fixed diameter. The threaded rod (M8 or M10) can be attached to the nut (able to hold M8 + M10) welded on the top of the clamp (until Ø400). The nut is able to processing forces up to 1000 kg.

Or connect two threaded rods to the sides (Ø450 and larger).

The SPIRAL BENDS are also available with a rubber inner jacket **SBR**.

The rubber inner lining prevents relaying of vibrations.

The product is maintenance-free.

Short installation manual.

Put the clamps around the spiral pipe and connect the bolts to both ends. Connect a threaded rod with the welded nut to hang it at e.g. a Support Clamp (BLK) or our support channel systems (DSC)

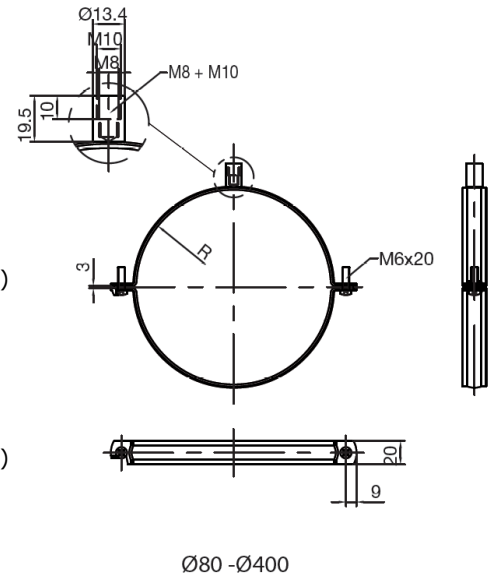
SPECIFICATIONS

The order code of the spiral clamps, without a rubber inner jacket: **SB{Ø}**

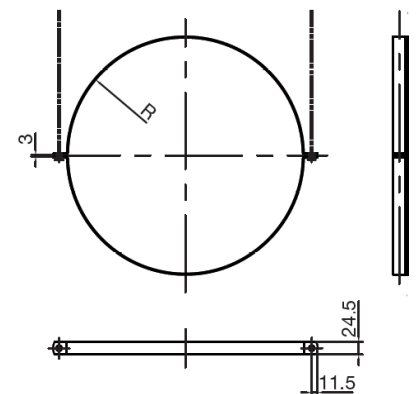
Diameter range:	0080mm up to and including 1000mm
Ø0080 - Ø0400:	Locking screw M6x20 (quick locking system on one side)
Ø0450 and larger:	Locking screw M10x25

The order code of the spiral clamps with a rubber inner lining: **SBR{Ø}**

Diameter range:	0080mm up to and including 1000mm
Ø0080 - Ø0400:	Locking screw M6x20 (quick locking system on one side)
Ø0450 and larger:	Locking screw M10x25



Ø80 - Ø400



Ø450 - Ø1000

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



SB(R) SPIRAL BANDS

FIXING & SEALING

SPIRAL BANDS SB are appropriate to suspending round duct systems etc.

CONSTRUCTION

The SPIRAL BANDS have been manufactured out of Sendzimir galvanized steel (non-burnable) and have a fixed diameter. The threaded rod can be attached to the nut welded on the top of the clamp (until Ø400).

The nut is able to processing forces up to 1000 kg.

The SPIRAL BANDS are also available with an EPDM rubber inner jacket **SBR**.

The rubber inner jacket prevents relaying of vibrations.

Service temperature for EPDM:

- Maximum 150°C
- Minimum -50°C

Properties EPDM

EPDM exhibits satisfactory compatibility with fireproof hydraulic fluids, ketones, hot and cold water, and alkalis, and unsatisfactory compatibility with oil, gasoline, kerosene, aromatic and aliphatic hydrocarbons, halogenated solvents and concentrated acids.

The main properties of EPDM are its outstanding heat, ozone and weather resistance. The resistance to polar substances and steam are also good. It has excellent electrical insulating properties. It has good resistance to ketones, ordinary diluted acids and alkalines.

The product is maintenance-free

Short installation manual.

Put the clamps around the spiral pipe and connect the bolts to both ends.

Connect a threaded rod with the welded nut to hang it at e.g. a Support Clamp (BLK)

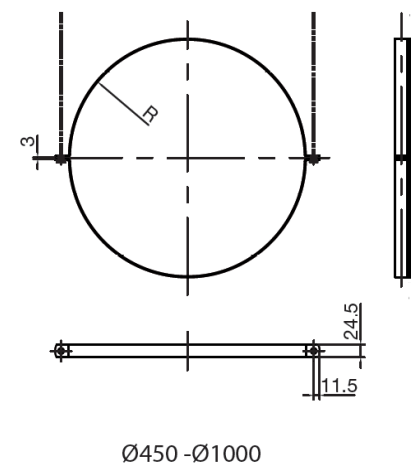
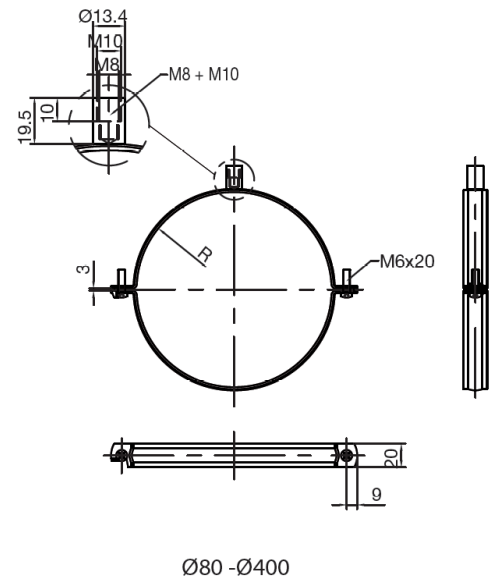
SPECIFICATIONS

The order code of the spiral clamps, without a rubber inner jacket: **SB{Ø}**

Diameter range:	80mm up to and including 2000mm
Ø0080 - Ø0400:	Sold per 25 pieces
Ø0450 and larger:	Sold per 1 piece

The order code of the spiral clamps with an EPDM rubber inner jacket: **SBR{Ø}**

Diameter range:	80mm up to and including 1000mm
Ø0080 - Ø0400:	Sold per 25 pieces
Ø0450 and larger:	Sold per 5 pieces



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



SCR SELF DRILLING SCREWS

FIXING & SEALING

DEC also introduces an assortment of **SELF-DRILLING SCREWS** in order to process DEC products.

CONSTRUCTION

The screws have been produced out of galvanized steel. The screw thread continues up to the head. The tail of the screw has been provided with a drill head. So pre-drilling is not necessary.

- Carbon steel
- Hardened
- Drill point
- Cr+3 Zinc plating (free of hexavalent chromium)

Guidelines for installation:

- Self-drilling screws are designed to perform best when driven at 1800 to 2500 R.P.M.
- Overdriving may result in torsion failure of screws or strip out of the fastening grip.
- The screw must penetrate beyond the metal structure a minimum of 3 threads.

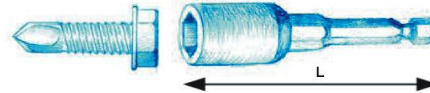
SPECIFICATIONS

Article code: **SCR{size}** (1000 screws incl. 1 bit)

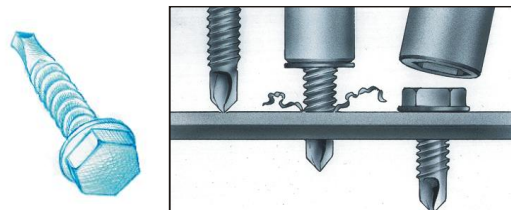
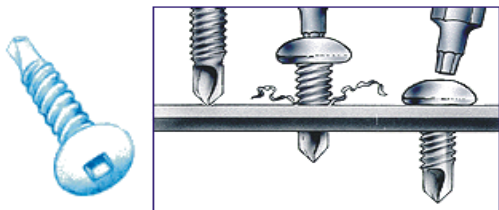


Square washer head		
Ordering code	Sizes (mmxmm)	Max. thickness of plate
SCR3.5/13	3.5 x 13	2.5 mm
SCR3.5/9.5	3.5 x 9.5	2.5 mm
SCR4.2/16	4.2 x 16	2.5 mm
SCR4.2/19	4.2 x 19	2.5 mm
SCR4.2/25	4.2 x 16	2.5 mm
SCR4.2/32	4.2 x 19	2.5 mm
SCR4.2/40	4.2 x 40	2.5 mm
SCR4.2/50	4.2 x 50	2.5 mm
SCR4.8/16	4.8 x 16	4.5 mm
SCR4.8/19	4.8 x 19	4.5 mm
SCR4.8/25	4.8 x 25	4.5 mm
SCR.BIT1 (no.1)	3.5mm	Irrelevant
SCR.BIT (no.2)	4.2/4.8mm	Irrelevant

Article code: **SCRDPM{size}** (1000 screws incl. 1 bit)



Hexagonal washer head DIN 7504 K		
Ordering code	Sizes (mmxmm)	Max. thickness of plate
SCRDPM4.2/13	4.2 x 13	2.3 mm
SCRDPM4.2/16	4.2 x 16	3.4 mm
SCRDPM4.2/19	4.2 x 19	3.4 mm
SCRDPM4.8/16	4.8 x 16	3.4 mm
SCRDPM4.8/19	4.8 x 19	3.4 mm
		Length (L)
SCR.DPM.BIT7	7 mm (4.2)	42/45mm
SCR.DPM.BIT8	8 mm (4.2)	42/45mm
SCR.DPM.BITLONG7	7 mm (4.8)	65mm
SCR.DPM.BITLONG8	8 mm (4.8)	65mm



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

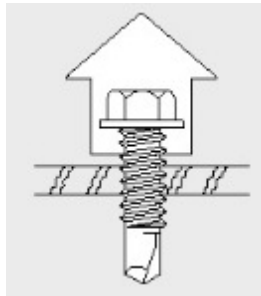
TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

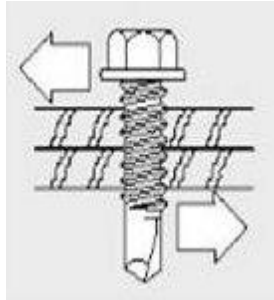


SCR SELF DRILLING SCREWS

FIXING & SEALING



Pull-out



Shear

Screw Dia.	Steel Sheet Thickness	Tension Pull-out	Shear (two sheets overlap)	Drill & Tapping capacity	Screw values		
					Tensile	Shear	Torqu
3.5mm	0.9mm	110 kg	320 kg	0.80-2.50mm	5 kN	3.3 kN	2.8 kN
	1.2mm	170 kg	370 kg	0.80-2.50mm			
	1.5mm	210 kg	380 kg	0.80-2.50mm			
	1.9mm	380 kg	400 kg	0.80-2.50mm			
4.2mm	0.9mm	120 kg	330 kg	0.80-2.50mm	7 kN	4.4 kN	4.7 kN
	1.2mm	180 kg	390 kg	0.80-2.50mm			
	1.5mm	210 kg	450 kg	0.80-2.50mm			
	1.9mm	400 kg	460 kg	0.80-2.50mm			
4.8mm	0.9mm	150 kg	370 kg	0.80-4.50mm	10 kN	6.6 kN	7.3 kN
	1.2mm	240 kg	540 kg	0.80-4.50mm			
	1.5mm	310 kg	600 kg	0.80-4.50mm			
	1.9mm	430 kg	640 kg	0.80-4.50mm			

The values listed are ultimate averages achieved under standard laboratory conditions. These results are given only as a guide and not as a warranty. An appropriate safety factor must be determined for the designed purpose.

Information contained herein is based on careful tests and experience. It reflects our knowledge and is for guidance purpose only. Manufacturer and distributor are not responsible for any non-recommended use or consequential damage. Before any application, ensure that the product is fit for purpose.

LIABILITY:

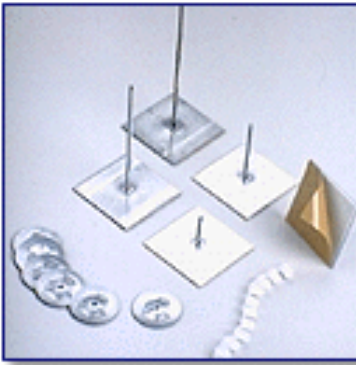
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PINSA SELF ADHESIVE PINS

FIXING & SEALING

The **PINSA SELF-ADHESIVE PINS** are suitable for fastening insulation blankets to square or rectangular air ducts.

CONSTRUCTION

The PINSA has been manufactured out of galvanized steel. The PINSA consists of a pin and a foot. The foot has been provided with a synthetic rubber tack coat. Clamps can be delivered with the pins. The clamp is going to be fastened to the PINSA after attaching the installation blanket. In consequence of this the blanket will stay in the correct position.

Each square meter of insulation blanket needs 10 to 12 pins.

SAFETY

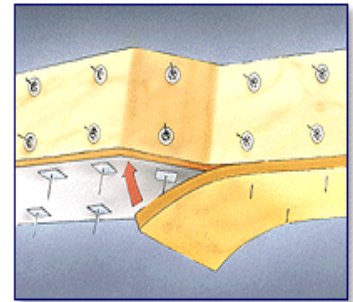
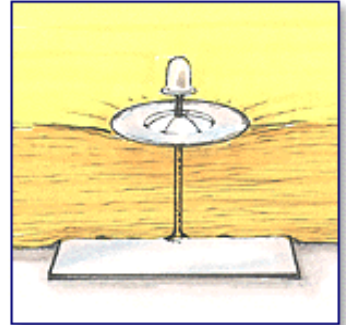
Protective caps (**PINSACAP**) for attaching round the pin are available to the pins.

The use of PINSACAP is always recommended where people can be injured by projecting pins.

FASTENING

The best result will be achieved on a dry, fat-free and dust-free surface.

The caps will automatically be delivered to the pins, but it is also possible to order the protective caps separately (**PINSACAP**). Extra clamps (**PINSACLIP**) are available as well.



SPECIFICATIONS

Article code Pins:

PINSA{Length}

Sold per 500Pcs

Available Lengths:

019 mm upto 140mm

The foot has the following size:

50x50 mm

Operating temperature:

-40 °C to 80 °C

100°C for short period of time

The processing, however, has to take place above +10°C.

Article code Clips:

PINSACLIP

Sold per 1000Pcs

Article code Cap:

PINSACAP

Sold per 1000Pcs

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

PW-33



Operating Manual

Table of contents

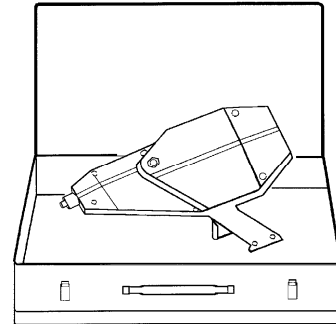
1	Device description _____	3
	1.1 Welding pins _____	3
	1.2 Control panel _____	4
	1.3 Included accessories _____	4
2	Precautions _____	4
3	Direction of use _____	5
4	Technical specifications _____	6
5	Maintenace _____	7
6	Guarantee _____	7
17	Exploded view _____	8



Complies with European directives on electromagnetic compatibility. Our PW-33 welding machine is manufactured in compliance with all the standard norms of production and safety. However, since the welding produce electromagnetic emissions, it can not be used near sensitive electronic equipment.

PW-33 PIN WELDER:

The DEC portable Pin welder PW-33 is a first class, pin spot welding gun which has proved its reliability in workshkshops and on job sites all over the world. The PW-33 is supplied in a strong steel carrying case.



The DEC PW-33 is equipped with a built-in timer which allows time adjustment for best welding on thin or thick steel sheet, galvanised or not.

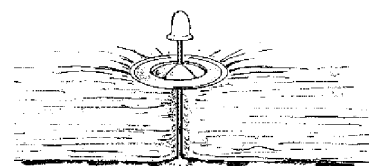
1. Device description:

1.1. Welding pins:

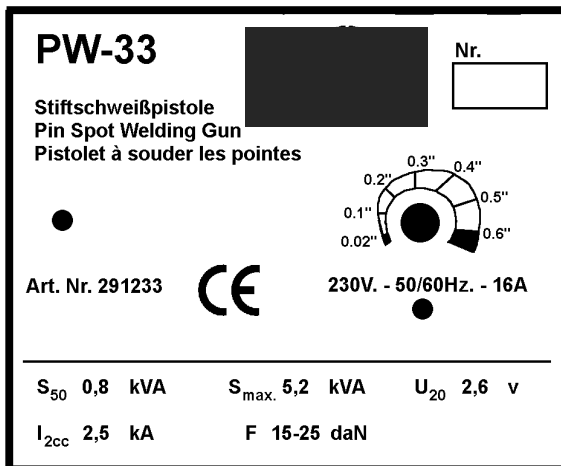
The DEC PW-33 is desgigned to weld perfectly well the DEC SP welding pins.



Type:	SP2 or SP2,2
ø pins:	2 mm or 2,2 mm
Lengths:	19 to 140 mm (> 140 mm with adapter)
Made of:	special treated steel



1.2. Control panel



1.3. Included accessories

- Operating manual
- Steel carrying case
- File
- Brush
- Spare electrode

2. Precautions:

Congratulation for your purchase of this sophisticated tool which will give you full satisfaction provided you take care of the following:

- Use only **DEC** SP pinns and lengths ranging from **19 to 140mm** (>140mm with adapter)
- To avoid overheating, the welding rate should not exceed **6 to 8 pins per minute**
- You will obtain true welding on black or galvanized steel up to **1.2mm thick** through the correct setting of the timer. The PW-33 will weld on thicker steel but welding rate should be reduced and welding strength will not be assured
- **Avoid fierce shocks!** The internal circuit may be damaged. A metal case is provided for storage and transportation.

- **Protect the air vents** against dust and metal-scrap that could enter the gun and cause a short circuit
- The magnetic tip is interchangeable but should only be unscrewed after **complete cooling down** of the unit. Unscrewing hot tips will damage unit and void warranty.
- Connect your PW-33 as close as possible to the main fuse of **minimum 16 A** and use, if necessary, an **extension cable of section 3 x 2.5 mm² minimum.**

In case of overheating, please let the unit cool down as soon as possible and check:

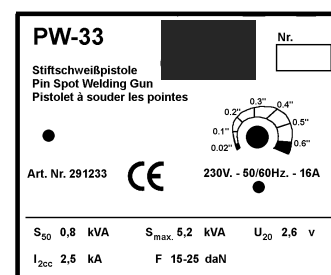
- Are you using DEC pins?
- Is the timer properly set?
- Are you welding at higher rate than 6 to 8 pins per minute?

Our dealer who serves you with the pins and clips is at your entire disposal for any help, advice or maintenance service.

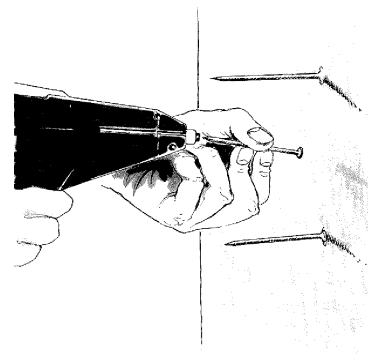
3. Direction for use

1. Plug the PW-33 as close as possible to the main fuse box (min. 16 A) and if necessary use heavy wire extension cord (min. 3 x 2,5 mm²). Be careful, too thin wire extension cord will drastically reduce the weld strength.

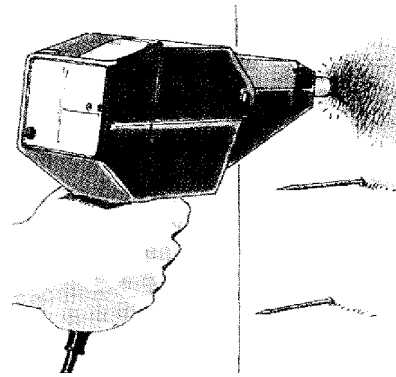
2. Adjust the timer according to the thickness of the steel. The timer should be adjusted in order to obtain the required welding strength in the shortest possible time. Before starting work, it would be wise to make some tests on a piece of the same sheet metal in order to adjust the timer.



3. Insert a DEC SP welding pin in the magnetized tip.



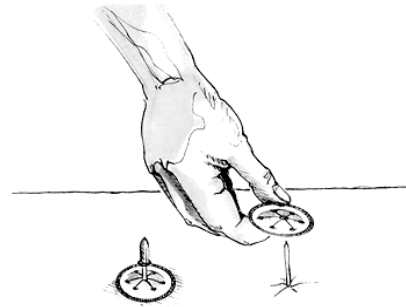
4. Press the gun perpendicularly on the metal plate. Hold electrodes at this 90° angle. It will ensure you a good electrical contact.



5. Press the trigger and hold it until welding is complete.

6. Lift off the gun and repeat. It is recommended to follow the SMACNA standards for the spacing of the pins (see F.2 of our catalog)

7. Impale the insulation material on the pins welded. Ideally, the pins should be 6 mm longer than the insulation material.



8. Lock insulation by placing the DEC self locking washers CL-1 for SP2,2 and CL-0 for SP2 onto the pins.

9. For more security, cover the pins with the protective caps.

4. Technical specifications:

- | | |
|---|-------------------------|
| • Power supply: | 220 V / 1 Ph / 50-60 Hz |
| • Fuse: | 16 A |
| • Length of the cable: | 3,7 m |
| • Weight of the machine: | 4 Kg |
| • Mini. section of the wire extension cord: | 3 x 2,5 mm ² |

5. Maintenance:

- A preventive maintenance can be summarized in the following steps:
 - Keep clean the head of the magnetic tip (a small **brush** is provided for this purpose). **Daily cleaning** is recommended.
 - Keep the head of the magnetic tip flat enough (a file is provided for this purpose). **File up occasionally**. An action repeated too often may damage the tip.
 - Too much iron dust inside the cylinder ground electrode creates electrical losses which results in a weak weld.
 - **Protect the air vents** against dust and metal-scrap that could enter the gun and cause a short circuit
 - Tighten, if not hot, the tip of the electrode. Poor contact gives poor welding results (Warning: too much tightening may also damage the tip). The magnetic tip is interchangeable but should only be unscrewed after **complete cooling down** of the unit. Unscrewing hot tips will damage unit and void warranty.

6. Guarantee:

DEC appliances are built to very severe quality standards. Still, failure is always possible and a warranty covers manufacturing defects.

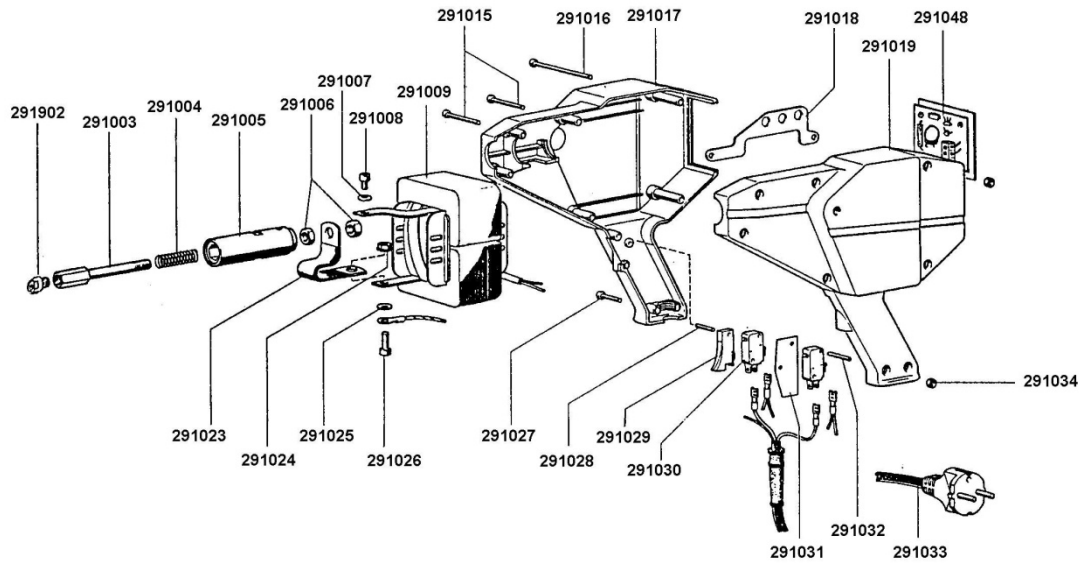
The conditions DEC guarantees are made on the basis of Directive 99/44/EC of the European Union and national legislation in force.

The warranty starts on the date of delivery of the machine by the seller to the installer. The duration of the warranty is 12 months.

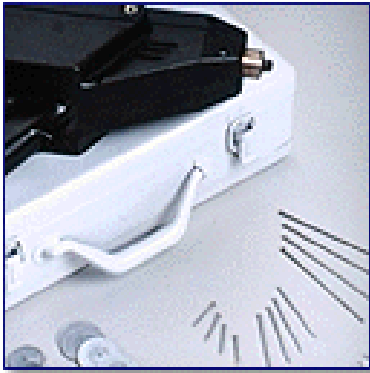
The warranty does not apply in the following cases:

- For parts subject to normal wear (eg.: Magnetic tip) and can not be invoked in cases of misuse of the device.
- No use of DEC SP pins
- Terms of inappropriate use
- Use of accessories or parts that are not original
- Insufficient maintenance

7. Exploded view



291902	Interchangeable electrode	291023	Connection braid
291003	Electrode holder	291024	Nut
291004	Spring	291025	Washer
291005	Cylinder-secondary electrode	291026	Screw
291006	Brass nut	291027	Casing screws, short (x2)
291007	Washer	291028	Pin, short
291008	Screw	291029	Trigger
291009	Transformer 220 Volts	291030	Micro-switches (x2)
291015	Casing screws, medium (x4)	291031	Isolator
291016	Casing screws, long (x2)	291032	Pin, long
291017	Right casing	291033	Connection cable
291018	Spare electrode holder	291034	Nuts (x8)
291019	Left casing	291035	Complete set of nuts and screws for casing
291020	Complete casing with nuts and screws	291040	Carrying case
291048	Printed circuit		



SP WELDING PINS

FIXING & SEALING

WELDING PINS (SP) are, like the self adhesive pins (**PINSA**), suitable for fastening insulation blankets to square or rectangular air ducts. The pins can also be used for round and oval ducts.


CONSTRUCTION

The pins have been manufactured out of copper plated steel and provided with a soldering side at the end. After attaching the insulation blanket the washers (**CL-0**) (not included!) can be fastened to the pins. This will keep the blanket in the correct position.

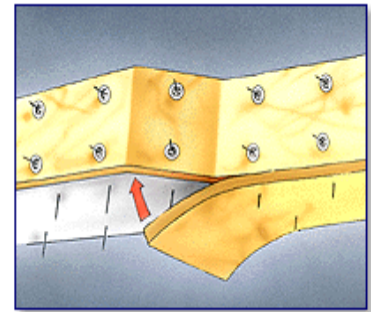
Protective nylon caps (**SP-CAP**) are recommended where projecting pins can injure people. For each square meter of insulation blanket 10 - 12 pins will be needed.

The soldering side will be activated with a pin welder (**PW-33**).

This pin welder enables to attach 6 - 8 pins per minute. Because the pin welder is provided with a timer it is no need to control the soldering time. The timer can be adjusted to the material of the duct system.

( Welding machine in accordance with European Union norms and directives.)

It is possible to order protecting caps (**SP-CAP**) to the WELDING PINS and the clamps. Other special washers (**CL-0**) can be ordered.



SPECIFICATIONS

Article code Pins:	SP{Length} Sold per 1000Pcs
Available Lengths:	25, 32, 42, 51, 63, 76 & 105 mm
Article code Clips:	CL-0 Sold per 1000Pcs
Article code Cap:	SP-CAP Sold per 1000Pcs

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



SP-PAP WELDING PINS

FIXING & SEALING

The weldfasteners **SP-PAP** consist of a steel pin firmly mounted on a galvanized steel washer. Stainless steel weld fasteners also available.

The weldfasteners **SP-PAP** allow the fixing of insulation material on sheet metal such as airducts, metal beam, metallic industrial equipment, etc. in a single operation.

- **SP-PAP**: Copper coated pin firmly mounted on a galvanized steel washer head diam. 30 mm (CDF3) or 38 mm (CDF4).

The weldfasteners **SP-PAP** / **SP-ISOL** / **SP-PAP-ISOL** allow the fixing of aluminium foiled insulation material in a single operation.

- **SP-PAP**: Back side of cupped head electrically insulated. To be used with our **PW-33**.
- **SP-ISOL**: Shank electrically insulated. Need to be used with a special pistol.
- **SP-PAP-ISOL**: Shank and back side of cupped head electrically insulated. Can be used on any machine

It is recommended to use our welding equipment (**PW-33**)



SP-PAP




SP-PAP



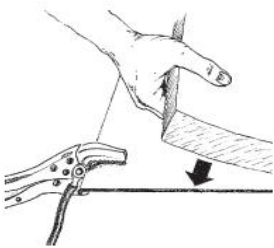
SP-ISOL



SP-PAP ISOL

The soldering side will be activated with a pin welder (**PW-33**). This pin welder enables to attach 6 - 8 pins per minute. Because the pin welder is provided with a timer it is no need to control the soldering time. The timer can be adjusted to the material of the duct system. ( Welding machine in accordance with European Union norms and directives.)

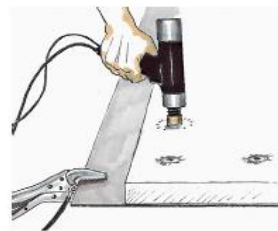
APPLICATION



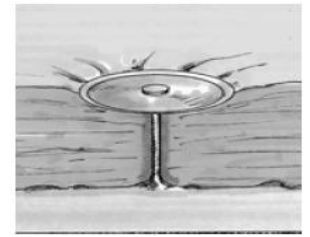
Fix earth clamp of the welder to the sheet metal.
Lay insulation on sheet metal



Place the weldfastener CDF on the magnetic head of the gun.
Adjust the voltage according to the type and thickness of sheet metal



Press the pin through the insulation until the point meets the sheet metal and press the trigger



SPECIFICATIONS

PINS Diameter 2,7 mm
Standard lengths 14 to 203mm
Material: Copper coated steel or stainless steel

WASHERHEAD External diameter 30 or 38 mm
Thickness 0,4 mm
Material : Galvanized steel or stainless steel

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



BLK SUPPORT CLAMPS

FIXING & SEALING

SUPPORT CLAMPS are suitable for mounting various parts of air conditioning systems and exhaust systems on structural beams in combination with threaded ends. It is used where drilling is not allowed or too time-consuming.

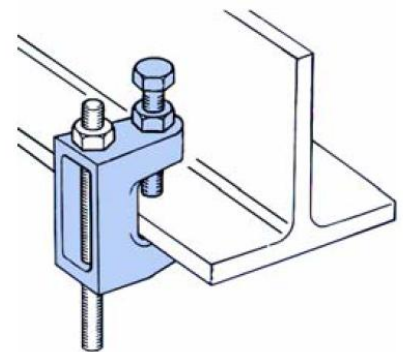
CONSTRUCTION

The SUPPORT CLAMPS are manufactured out of galvanized steel. The clamps can be fastened on beams with a maximum thickness of 19mm.

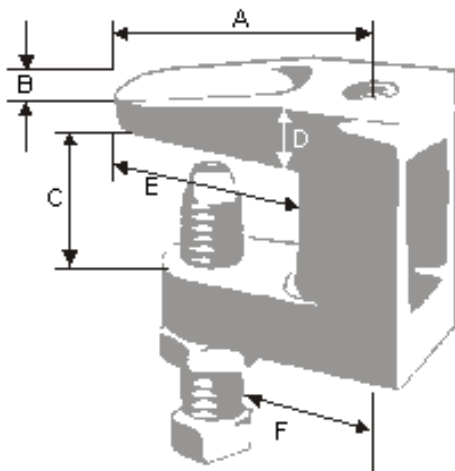
The SUPPORT CLAMPS are appropriate to M06, M08, M10 and M12 threaded ends.

SPECIFICATIONS

Article code: **BLK0{Wire spacing}**



Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Tested loading	Recomm. loading
BLK006	26	13	22	10	20	18	620 kg	90
BLK008	26	13	22	10	20	18	680 kg	110
BLK010	41	13	19	10	28	25.5	680 kg	110
BLK012	41	18	19	13	26	25.5	1725 kg	340



LIABILITY:

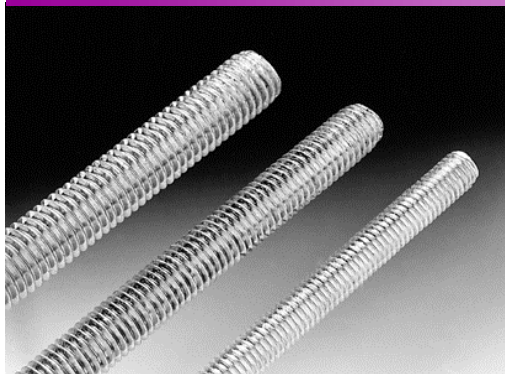
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



MØ THREADED RODS

FIXING & SEALING

THREADED RODS are suitable for mounting several fasteners for air ducts and flexible ducts. The threaded ends can be applied in combination with **SPIRAL CLAMPS** or **SUPPORT CLAMPS**.

CONSTRUCTION

The **THREADED RODS** have been manufactured out of electrolytically galvanized steel, class 4.6.

The **THREADED RODS** are deliverable in a one meter standard length, other lengths on request.

SPECIFICATIONS

Article code: **M{ Wire gauge }/{Length}**

Summary

Article code	Wire gauge x length
M6/1	M6 x 1 meter
M8/1	M8 x 1 meter
M10/1	M10 x 1 meter
M12/1	M12 x 1 meter
M16/1	M16 x 1 meter

Hexagon nuts

M08HN
M10HN



Washers

M08W
M10W



LIABILITY:

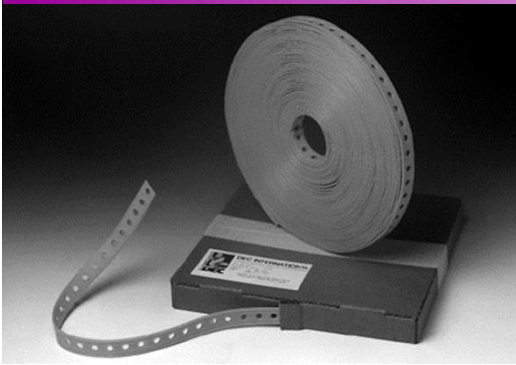
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



SUSPENSION STRAP

FIXING & SEALING

SUSPENSION STRAP is a flexible multifunctional perforated strap for mounting various parts in air conditioning and ventilation systems.

CONSTRUCTION

SUSPENSION STRAP is available in 2 different versions, galvanized and copolymer coated. The SUSPENSION STRAP with the copolymer coating is preferable for systems, which can be damaged by sliding or swinging. The SUSPENSION STRAP is provided with holes for mounting, the holes enable to processing various diameters.

SUSPENSION STRAP is available in two linear measures: 10 and 20 meters. The width is 17 or 19 mm. SUSPENSION STRAP is available in boxes or on rolls.

The ordering code is:

Copolymer coated suspension strap, 10 meters: **PP019S**
Copolymer coated suspension strap, 20 meters: **PP019/BOX**
Galvanized suspension strap, 10 meters: **PZ017S**
Galvanized suspension strap, 20 meters: **PZ017/BOX**

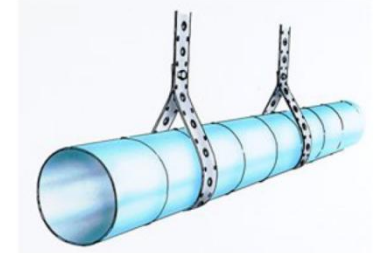
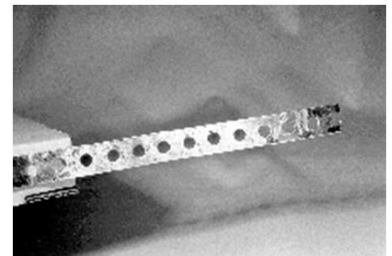
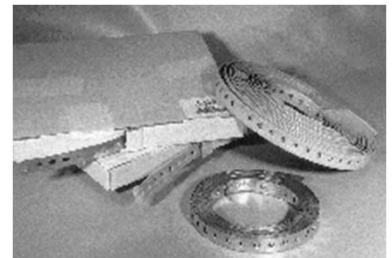
Ordering code	Version	Width x length	Thickness	Packaging	Size holes
PP019S	Copolymer coated	19 mm x 10 m	1 mm	Rolls	M6
PP019/BOX	Copolymer coated	19 mm x 20 m	1 mm	Box	M6
PZ017S	Galvanized	17 mm x 10 m	0.7 mm	Rolls	6.8mm + 3.5mm
PZ017/BOX	Galvanized	17 mm x 20 m	0.7 mm	Box	6.8mm + 3.5mm

The New **SUSPENSION STRAP** is a flexible multifunctional perforated strap for mounting various parts in air conditioning and ventilation systems.

- Galvanised steel
- 25 m per roll (others on request) (30m PZK**versions)
- Supplied in bundles of 5 rolls

Perforated suspension band – bundles of 5 rolls

Code	Width	Thickness	Holes details	
			Large	Small
PZ176OV	17 mm	0,6 mm	Oval 6,5x12mm	Dia. 3,3mm
PZ176RD	17 mm	0,6 mm	Round 8,5mm	Dia. 4,2mm
PZ206RD	20 mm	0,6 mm	Round 8,5mm	Dia. 4,2mm
PZ208RD	20 mm	0,75 mm	Round 8,5mm	Dia. 4,2mm
PZ258RD	25 mm	0,75 mm	Round 8,5mm	Dia. 4,2mm
PZK258OV	25 mm	0,75 mm	Oval 10,5x20mm	
PZK259OV	25 mm	0,90 mm	Oval 10,5x20mm	



LIABILITY:

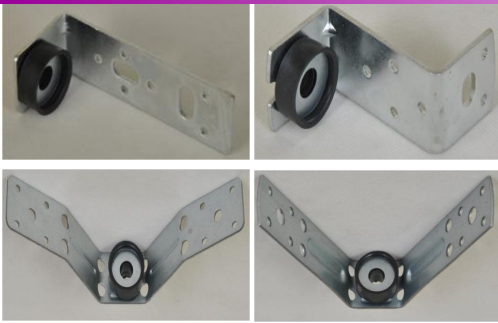
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

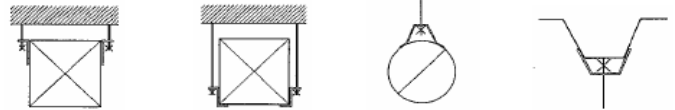
TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DUCT HOLDERS

FIXING & SEALING



Duct holder with rubber vibration isolator

Application

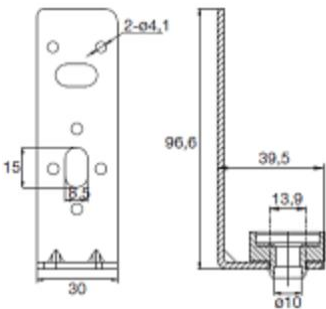
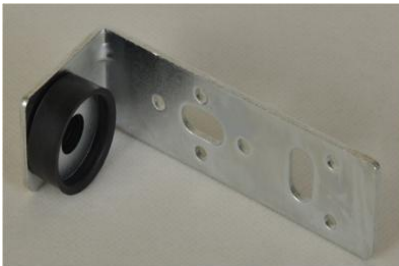
- Mounting of components of air conditioning or ventilation systems.

Specifications

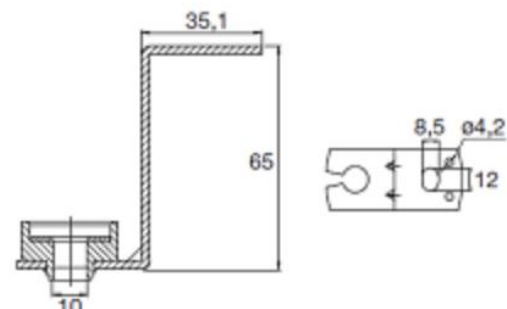
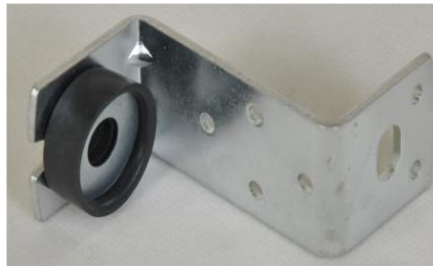
- Vibration isolator with holes of 8 mm for mounting of threaded rods.
- Maximum weight 80 kg.

SPECIFICATIONS

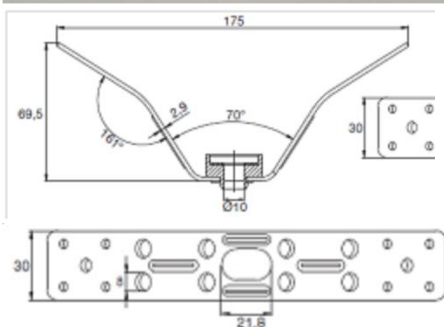
L-Holder - DDHL



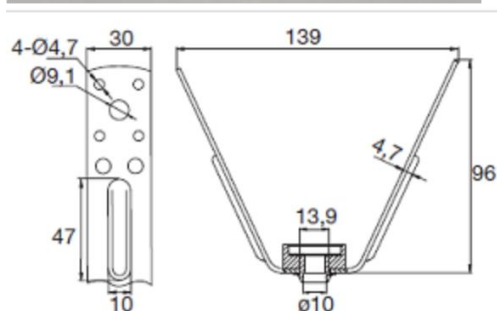
Z-Holder - DDHZ



U-Holder - DDHU



V-Holder - DDHV



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DSC SUPPORT CHANNELS

FIXING & SEALING

Product information

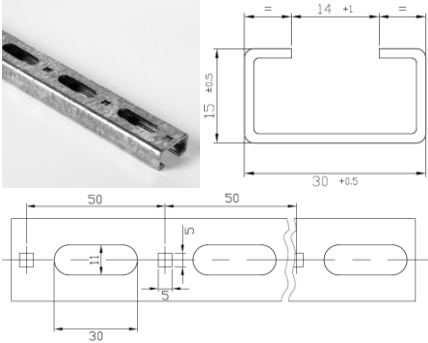
Support channel used for installing pipe sections and air ducts.

Material : Galvanised steel

Standard length : 2 and 5 meters

Support channel W1

Material thickness 2.0mm



DSCW1/2M

Support channel W1,5

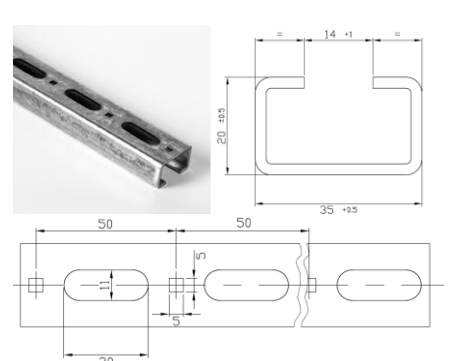
Material thickness 1.5mm



DSCW1,5/2M

Support channel W2

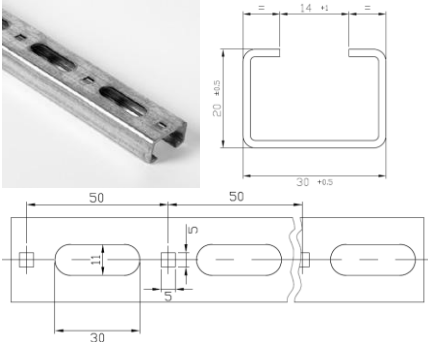
Material thickness 2.0mm



DSCW2/2M + DSCW2/5M

Support channel W105

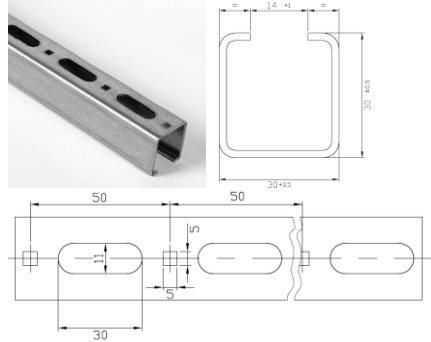
Material thickness 1.5mm



DSCW105/2M + DSCW105/5M

Support channel W106

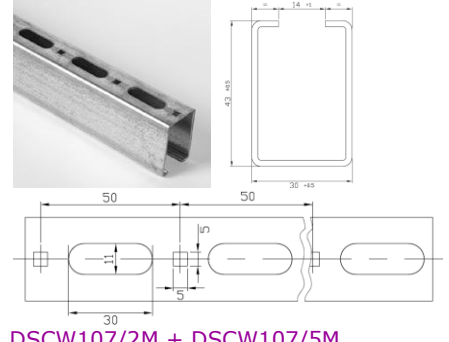
Material thickness 1.7mm



DSCW106/2M + DSCW106/5M

Support channel W107

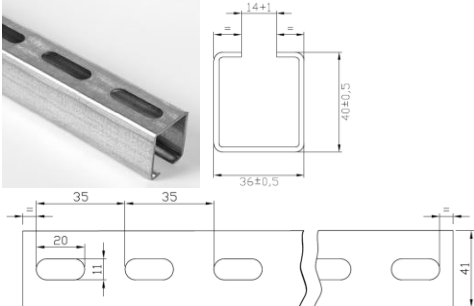
Material thickness 1.7mm



DSCW107/2M + DSCW107/5M

Support channel W36/40

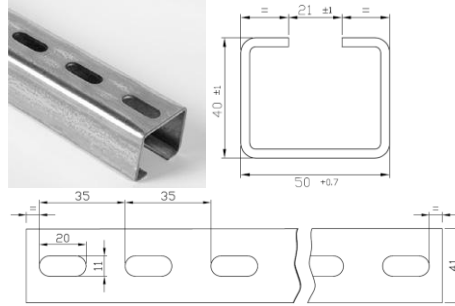
Material thickness 2.0mm



DSCW36/40/2M + DSCW36/40/3M +
DSCW36/40/6M

Support channel W4

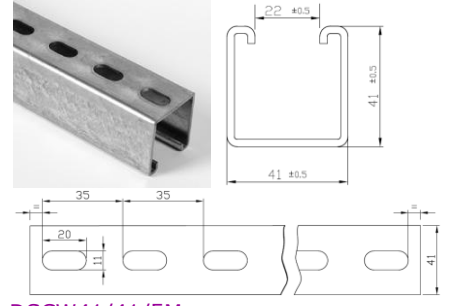
Material thickness 3.0mm



DSCW4/5M

Support channel W41/41

Material thickness 2.5mm



DSCW41/41/5M

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DSC SUPPORT CHANNELS

FIXING & SEALING

Product information

Channel nut used for support channels
Material : Galvanised steel

Channel nut used for support channel W1,5 t/m W107 to mount threaded rods

DSCN1M08
DSCN1M10



Channel nut used for support channel W2 and W36/40 to mount threaded rods

DSCN2M08
DSCN2M10



Channel nut used for support channel W41/41 to mount threaded rods. With teeth for strong fixation.

DSCN3M08
DSCN3M10



Channel nut used for support channel W4 to mount threaded rods

DSCN2M08
DSCN2M10



Connection nuts round:

M08RCN
M10RCN

Round nut for connecting two threaded rods



Connection nuts hexagon:

M08HCN
M10HCN

Hexagon nut for connecting two threaded rods



Rawl plugs for the connection of threaded rods into concrete or stone surfaces. Can be used inside and outside.

Material: brass
M08RP
M10RP



LIABILITY:

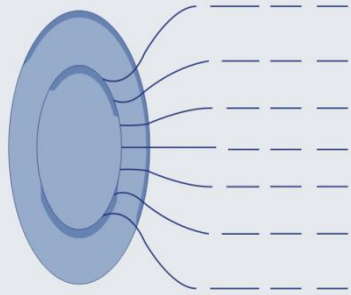
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



GENERAL INFORMATION

AIR MANAGEMENT SYSTEMS

	Plastic	Steel	Supply valve	Exhaust valve	Continuously adjustable	Stepwise adjustable	Spring connection	Screw connection
Valves:								
DV KR	✓		✓	✓	✓			✓
DAV	✓		✓	✓	✓		✓	✓
DDAVBR	✓		✓	✓	✓		✓	
DVLF	✓			✓	✓		✓	
DVLI	✓		✓		✓		✓	
DAB	✓		✓	✓		✓	✓	
DVS(Y)		✓		✓	✓			✓
DVSC		✓		✓	✓		✓	
DVS-P(Y)		✓	✓		✓			✓
DVSC-P		✓	✓		✓		✓	
DIRC		✓	✓	✓	✓		✓	
DSO/DSO-S		✓		✓	✓			✓
DSO-P		✓		✓	✓			✓
KSO-F		✓		✓	✓			✓
DTI		✓	✓		✓			✓
DTVK		✓	✓		✓			✓
DVSQ		✓		✓	✓		✓	
DVSQ-P		✓	✓		✓		✓	
MV		✓		✓	✓			✓
MV-P		✓	✓		✓			✓
DVSR		✓	✓		✓		✓	
DVSR		✓	✓	✓	✓		✓	
DVIR		✓	✓		✓		✓	
DVIER		✓		✓	✓		✓	
DTVB		✓	✓		✓		✓	
DTS		✓	✓		✓			✓
Diffusers								
DLD-P		✓	✓	✓	✓			✓
DTQA		✓	✓	✓	✓			✓
DQD-P		✓	✓	✓	✓			✓
DWRA		✓	✓	✓			✓	
DSAV		✓	✓	✓	■			✓
DTL98	✓		✓	✓	■			✓
D579*		✓	✓	✓	■			✓
DVR(V)	✓		✓	✓	■	✓		✓
D5(G)		✓		✓	■			✓

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVKR EXHAUST AIR VALVE

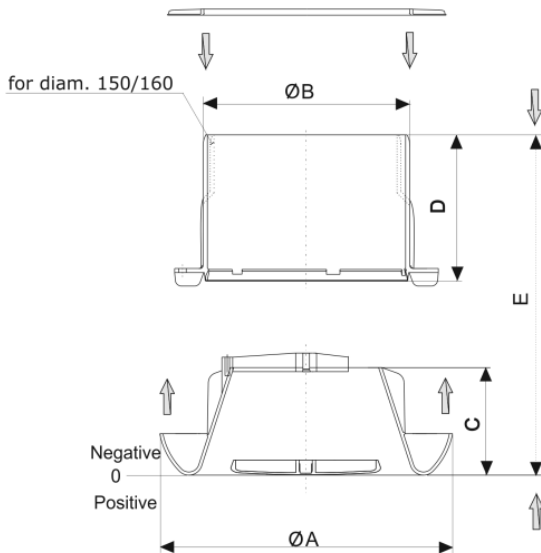
AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

DVKR with integrated connection bush and retaining ring

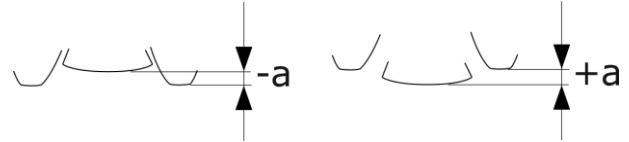
- Available in diameter 100, 125, 150/160 and 200mm.
- Manufactured from white polypropylene (RAL 9010).
- The valve is difficult to ignite (Will not burn with open flame)
- The valve material has a melting point between 150-180 °C
- The valve resists temperatures up to 110 °C without deformation
- High valve body improving air flow/less noise
- Closed disc
- No leakage between valve body and connection bush
- Connection bush also adapted for false ceiling panels
- Variable volume flow control
- Unique locking system between connection bush and valve body
- Suitable for rooms with high air humidity (e.g. kitchen, bathroom)
- Simple removal for cleaning

SPECIFICATIONS

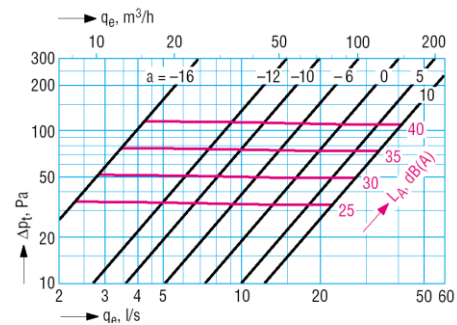


DVKR	A	B	C	D	E
100	141	99.5	52	70.5	84.5
125	167	124.5	52.5	70.5	84.5
150	202	149.5	52.5	70.5	84.5
160	202	159.5	52.5	70.5	84.5
200	240.3	199.5	52.0	70.5	84.5

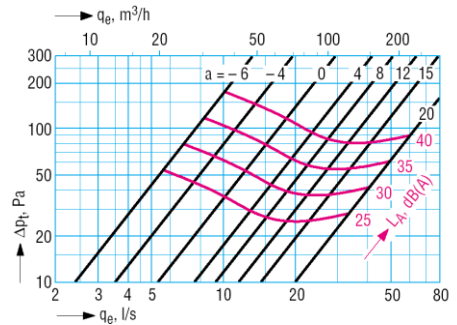
PRESSURE LOSS



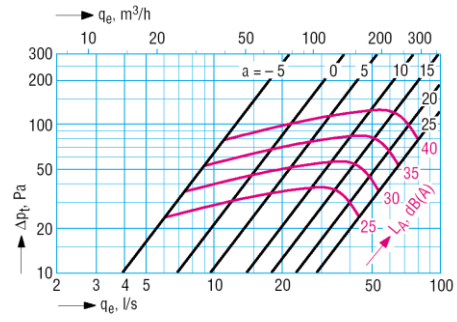
DVKR 100 mm



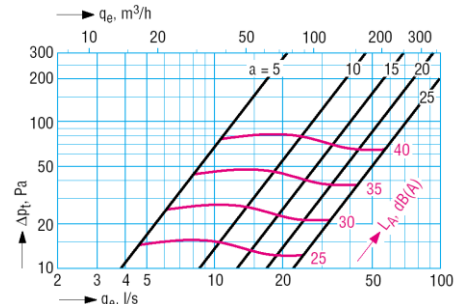
DVKR 125 mm



DVKR 150/160 mm



DVKR 200 mm



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

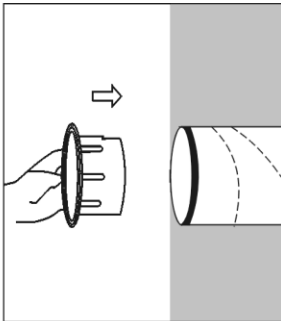
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



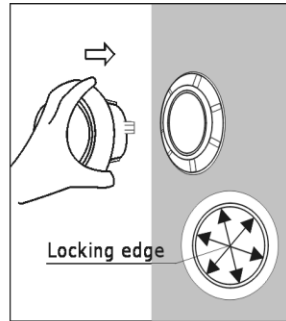
DVKR EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

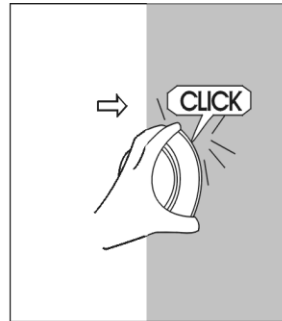
Mounting instructions



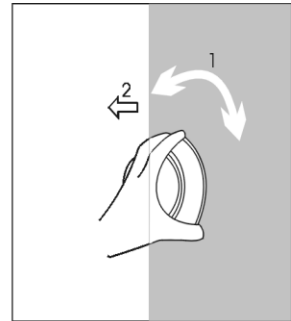
Installation of connection bush in wall



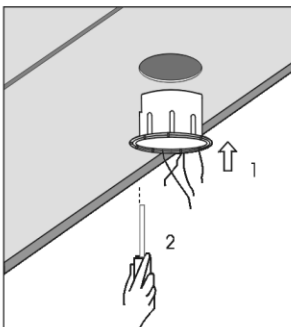
Installation valve in connection bush in wall. Ensure that one of the "valve wings" points towards the centre of a locking edge



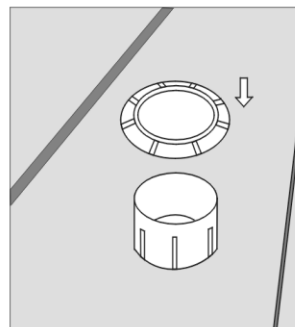
Press the valve until it clicks into position



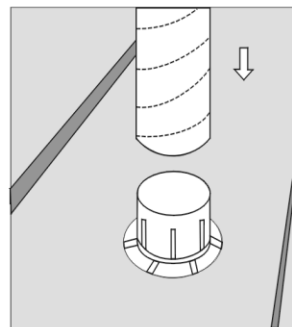
Removing the valve: rotate in either direction until valve disengages from connection bush. Pull straight out



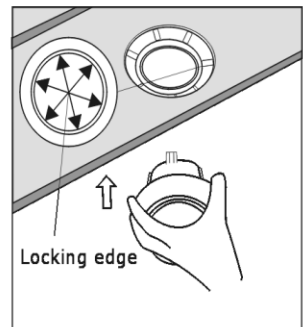
Installation of connection bush in false ceiling. Fixate with screws



Installation of retaining ring for false ceiling panel



After mounting flexible duct on connection bush:
1. Tape off with alu tape
2. Fixate with clamps



Installation of valve in connection bush. Ensure that one of the "valve wings" points towards the centre of a locking edge

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVKR SUPPLY AIR VALVE

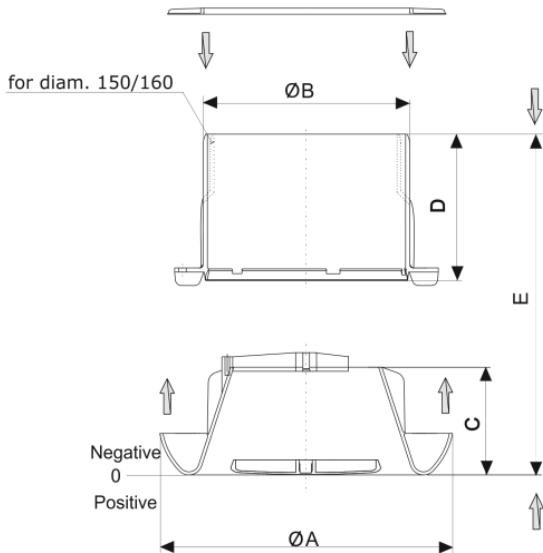
AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

DVKR with integrated connection bush and retaining ring

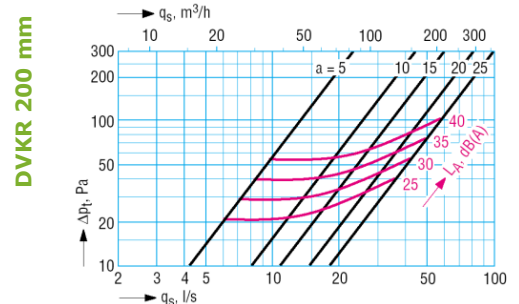
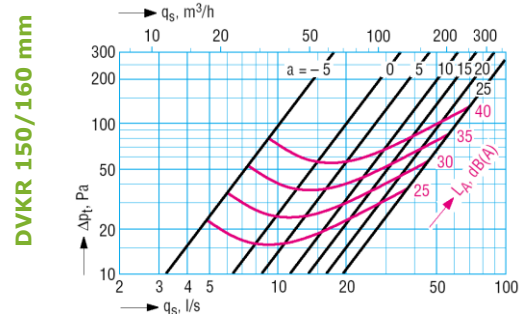
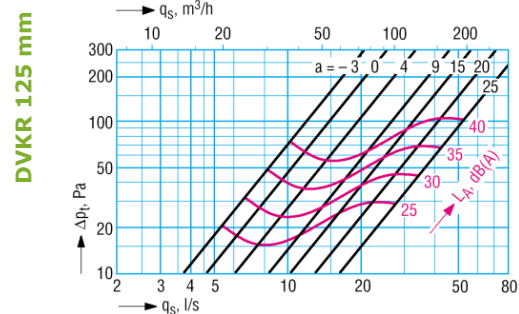
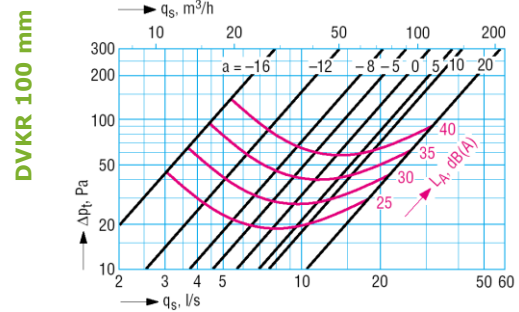
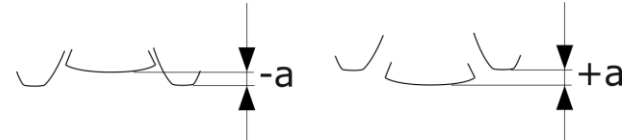
- Available in diameter 100, 125, 150/160 and 200mm.
- Manufactured from white polypropylene (RAL 9010).
- The valve is difficult to ignite (Will not burn with open flame)
- The valve material has a melting point between 150-180 °C
- The valve resists temperatures up to 110 °C without deformation
- High valve body improving air flow/less noise
- Closed disc
- No leakage between valve body and connection bush
- Connection bush also adapted for false ceiling panels
- Variable volume flow control
- Unique locking system between connection bush and valve body
- Suitable for rooms with high air humidity (e.g. kitchen, bathroom)
- Simple removal for cleaning

SPECIFICATIONS



DVKR	A	B	C	D	E
100	141	99.5	52	70.5	84.5
125	167	124.5	52.5	70.5	84.5
150	202	149.5	52.5	70.5	84.5
160	202	159.5	52.5	70.5	84.5
200	240.3	199.5	52.0	70.5	84.5

PRESSURE LOSS



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

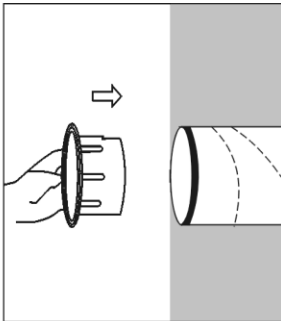
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



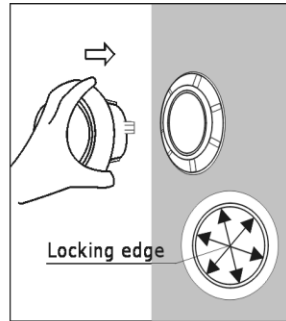
DVKR EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

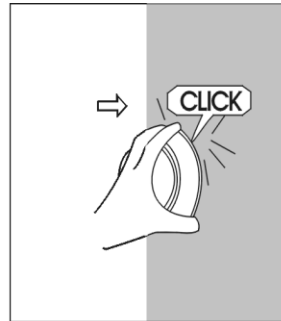
Mounting instructions



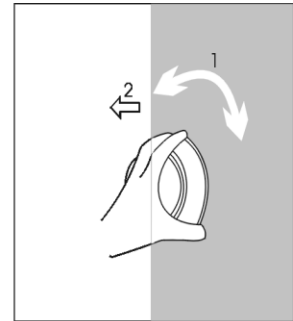
Installation of connection bush in wall



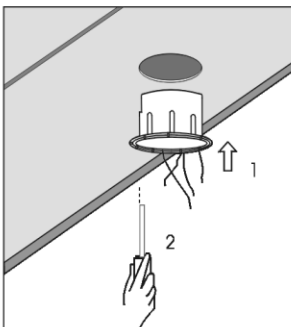
Installation valve in connection bush in wall. Ensure that one of the "valve wings" points towards the centre of a locking edge



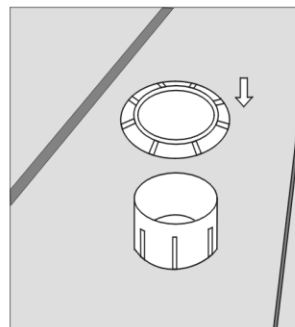
Press the valve until it clicks into position



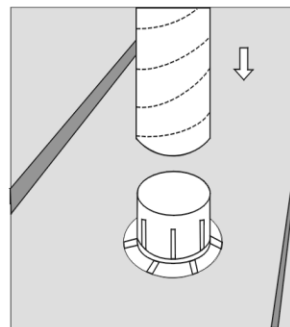
Removing the valve: rotate in either direction until valve disengages from connection bush. Pull straight out



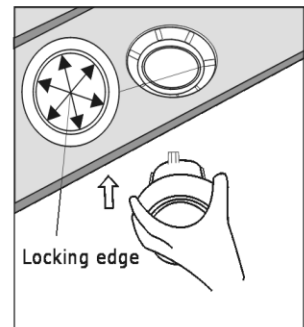
Installation of connection bush in false ceiling. Fixate with screws



Installation of retaining ring for false ceiling panel



After mounting flexible duct on connection bush:
1. Tape off with alu tape
2. Fixate with clamps



Installation of valve in connection bush. Ensure that one of the "valve wings" points towards the centre of a locking edge

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



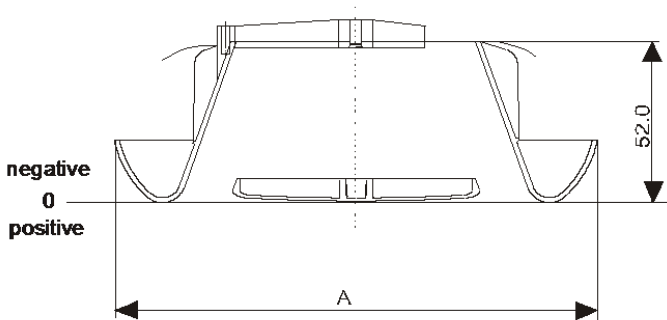
DAV EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

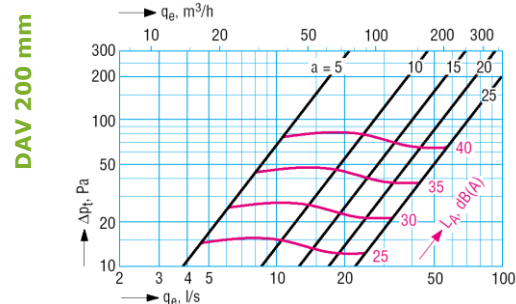
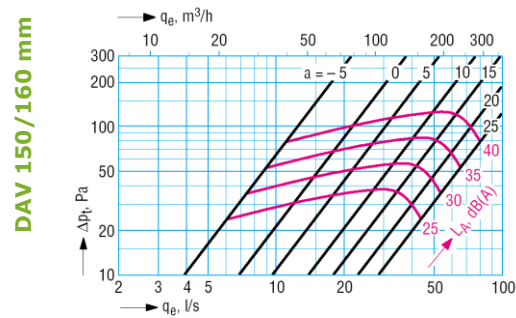
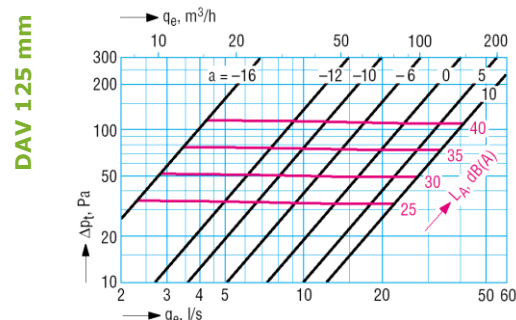
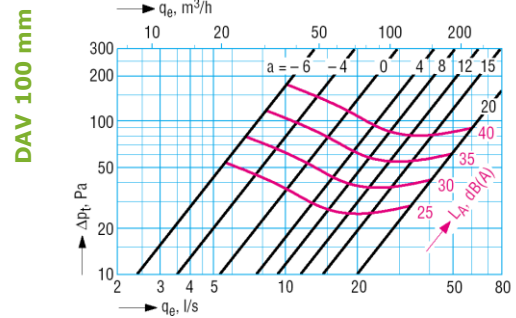
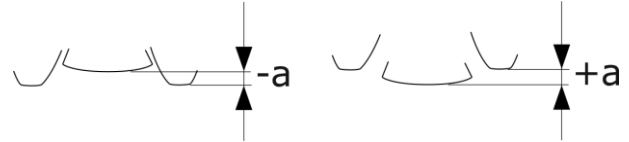
- Available in diameter 100, 125, 150/160 and 200mm.
- Manufactured from white polypropylene (RAL 9010).
- The valve is difficult to ignite (Will not burn with open flame)
- The valve material has a melting point between 150-180 °C
- The valve resists temperatures up to 110 °C without deformation
- High valve body improving air flow/less noise
- Closed disc
- Springconnection
- Variable volume flow control
- Suitable for rooms with high air humidity (e.g. kitchen, bathroom)
- Simple removal for cleaning

SPECIFICATIONS



DAV	A
100	141
125	167
150	202
160	202
200	240.3

PRESSURE LOSS



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



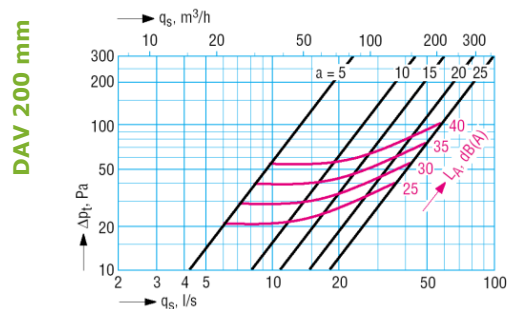
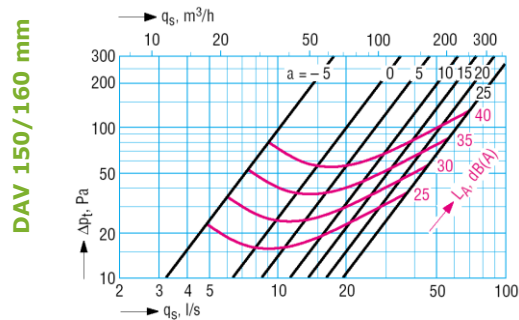
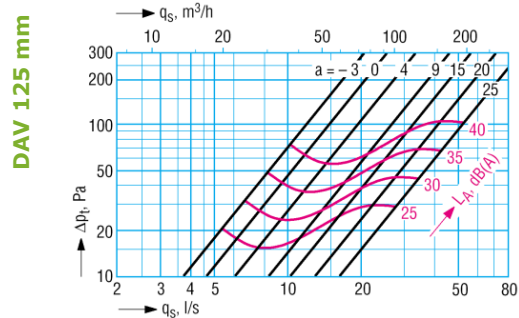
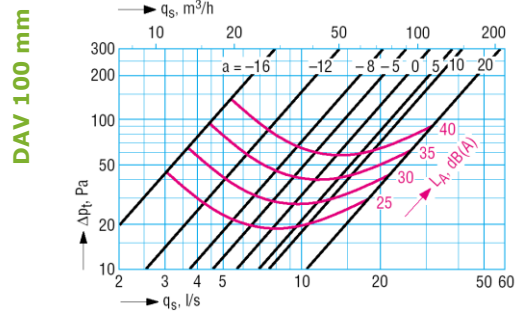
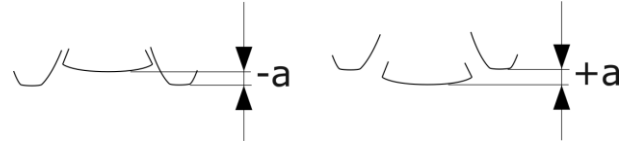
DAV SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

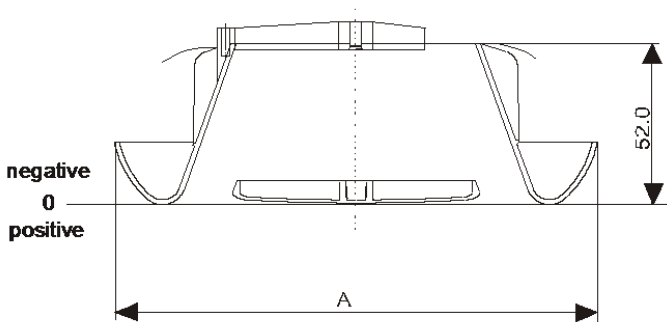
PRODUCT PROPERTIES

- Available in diameter 100, 125, 150/160 and 200mm.
- Manufactured from white polypropylene (RAL 9010).
- The valve is difficult to ignite (Will not burn with open flame)
- The valve material has a melting point between 150-180 °C
- The valve resists temperatures up to 110 °C without deformation
- High valve body improving air flow/less noise
- Closed disc
- Springconnection
- Variable volume flow control
- Suitable for rooms with high air humidity (e.g. kitchen, bathroom)
- Simple removal for cleaning

PRESSURE LOSS



SPECIFICATIONS



DAV	A
100	141
125	167
150	202
160	202
200	240.3

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



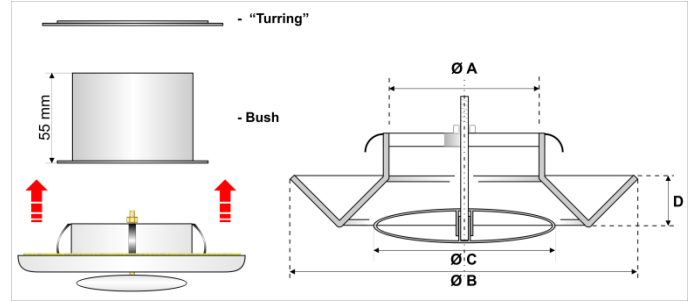
DDAVBR EXHAUST/SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

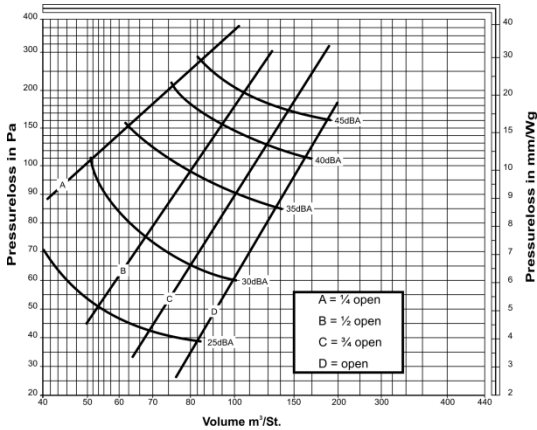
- DDAVBR** with integrated connection bush and retaining ring
- Available in diameter 100, 125, 150/160 and 200mm.
 - Manufactured from white polypropylene (RAL 9010).
 - The valve is difficult to ignite (Will not burn with open flame)
 - The valve material has a melting point between 150-180 °C
 - The valve resists temperatures up to 110 °C without deformation
 - High valve body improving air flow/less noise
 - Closed disc
 - No leakage between valve body and connection bush
 - Connection bush also adapted for false ceiling panels
 - Variable volume flow control
 - Suitable for rooms with high air humidity (e.g. kitchen, bathroom)
 - Simple removal for cleaning

SPECIFICATIONS

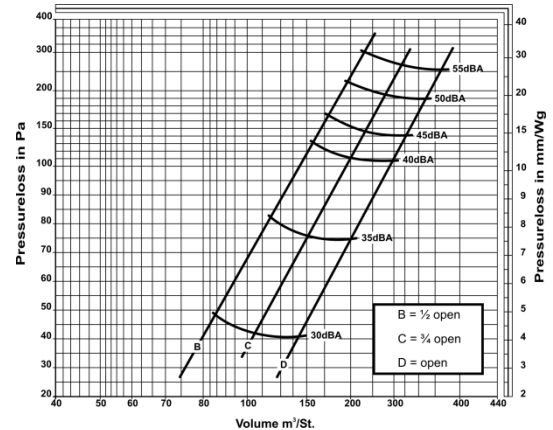


DDAVBR	Ø100	Ø125	Ø150	Ø200
A	80	100	118	171
B	148	168	186	240
C	87	106	130	178
D	20	20	20	20

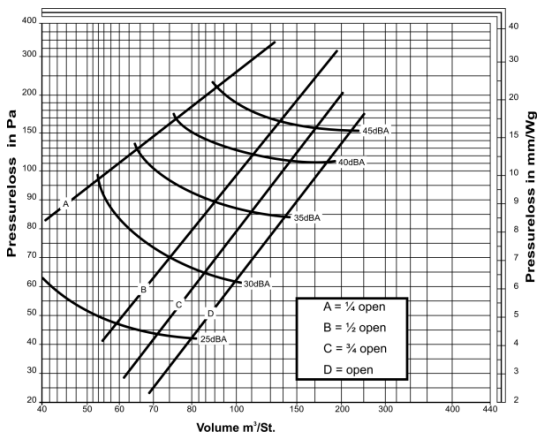
DDAVBR 100 mm



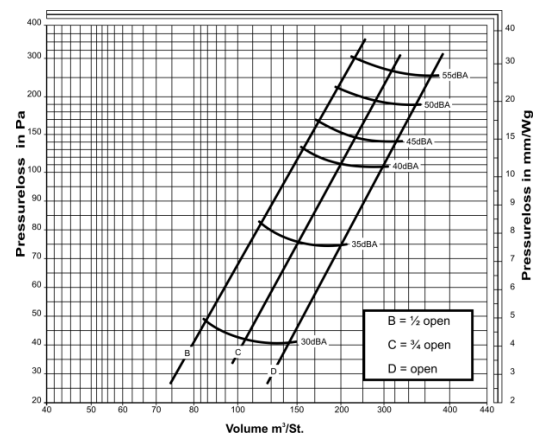
DDAVBR 150 mm



DDAVBR 125 mm



DDAVBR 200 mm



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



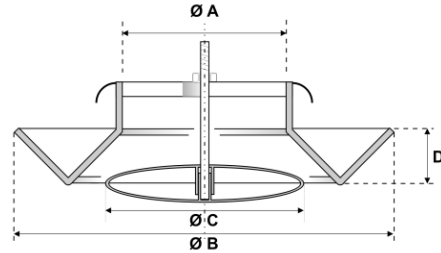
DDAV EXHAUST/SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

- Available in diameter 100, 125, 150/160 and 200mm.
- Manufactured from white polypropylene (RAL 9010).
- The valve is difficult to ignite (Will not burn with open flame)
- The valve material has a melting point between 150-180 °C
- The valve resists temperatures up to 110 °C without deformation
- High valve body improving air flow/less noise
- Closed disc
- No leakage between valve body and connection bush
- Variable volume flow control
- Suitable for rooms with high air humidity (e.g. kitchen, bathroom)
- Simple removal for cleaning

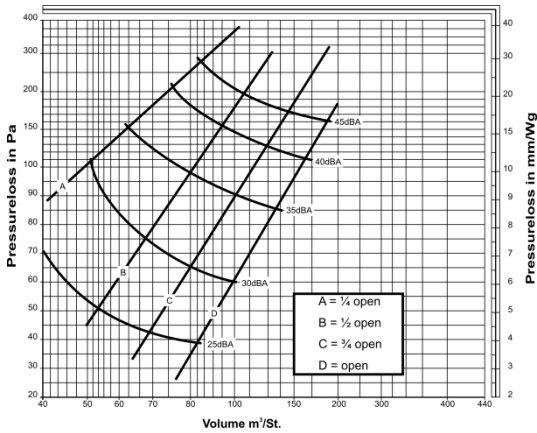
PRESSURE LOSS



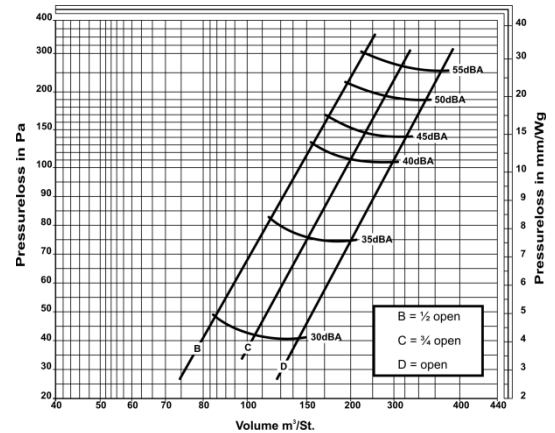
SPECIFICATIONS

DDAV	Ø100	Ø125	Ø150	Ø200
A	80	100	118	171
B	148	168	186	240
C	87	106	130	178
D	20	20	20	20

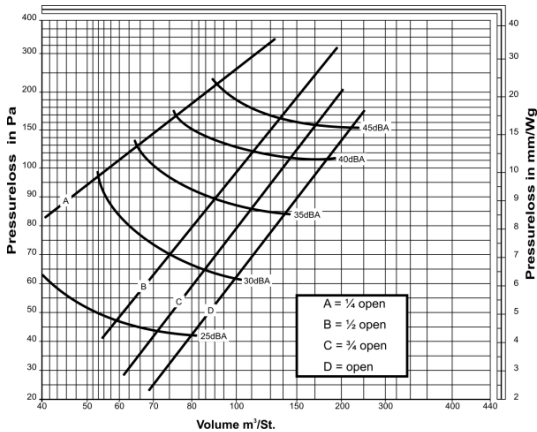
DDAVBR 100 mm



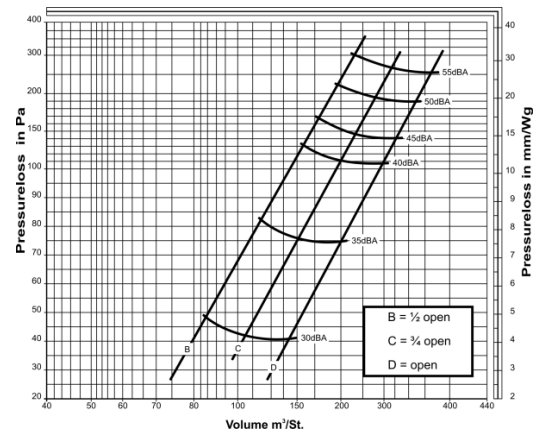
DDAVBR 150 mm



DDAVBR 125 mm



DDAVBR 200 mm



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DAV-M EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

- Available in diameter 100, 125, 160 and 200 mm.
- Manufactured from white polypropylene (RAL 9010).
- The valve is difficult to ignite (Will not burn with open flame). The valve material has a melting point between 150-180 °C. The valve resists temperatures up to 110 °C without deformation.
- Springconnection + Variable volume flow control

This device, which is intended for bathrooms and shower rooms in systems with central exhaust air fan, is equipped with a **24VAC electric motor** connected via a transformer (not included in the supply). Switching to a forced flow is by means of a switch, for example a light-activated switch. Resetting to the basic flow is normally automatic when the power supply is interrupted. The basic flow is easily set by screwing the valve cone in or out to the position corresponding to the desired pressure drop and air flow.

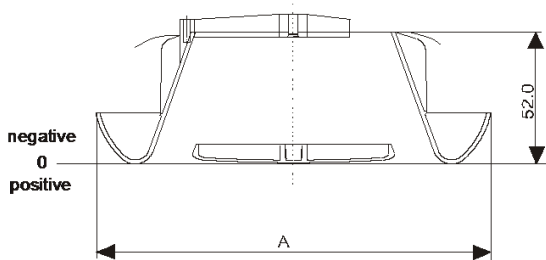
Motor: Impedence limited, designed to withstand continuous energizing, CSA approved.

Voltage: 24VAC, class 2 circuit, 50/60Hz.

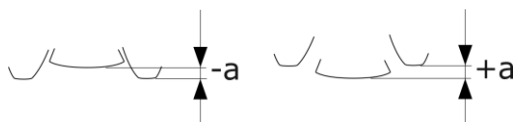
Power: 4 Watts, operating and holding.

Leads: Two 7" leads, 22GA stranded insulated, TEW 105°C FT-1.

SPECIFICATIONS

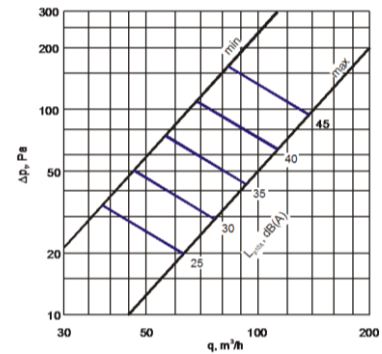


DAV-M	A
100	141
125	167
150	202
160	202
200	240.3

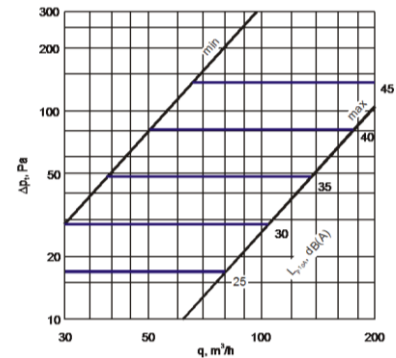


PRESSURE LOSS

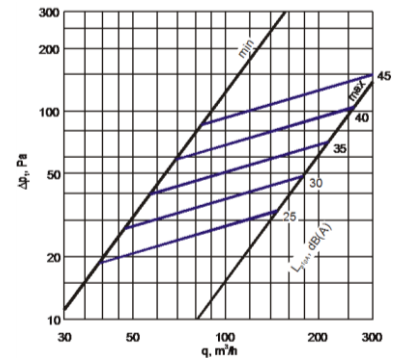
DAV-M 100 mm



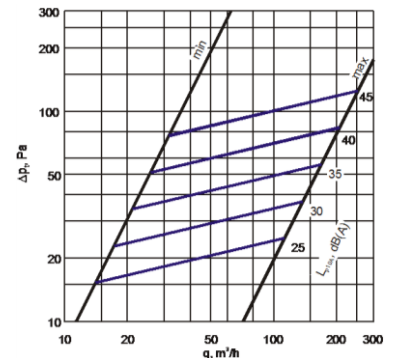
DAV-M 125 mm



DAV 160-M mm



DAV 200-M mm



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVLF EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Exhaust air terminal device **DVLF** is a circular disc valve with a valve cone of aerodynamic design. This valve possesses excellent characteristics with regard to noise level, pressure drop and air flow capacity. The design of the sound absorbent reduces the risk of cross-talk noise. The device, which is designed for wall-mounting or, alternatively, for ceiling-mounting, is available in five sizes to suit duct connections with a diameter between 80 mm and 200 mm

The design of the valve in conjunction with a Moltopren packing prevents dirtying of the ceiling and walls.

Material and surface finish

The device is made of polypropylene plastic which is recycleable and withstands temperatures up to 100°C. The materials used in the device are also resistant to most chemicals in small concentrations.

The device is supplied in white RAL9002 as standard.

Care

The device can be cleaned with a cloth moistened with a mild synthetic cleaning or washing agent.

Adjustment

The cone is screwed out by the number of revolutions necessary to provide the orifice opening in mm corresponding to the pressure drop and the desired air flow according to the graph. The pressure drop is checked by introducing a suitable measurement probe into the front behind the valve cone.

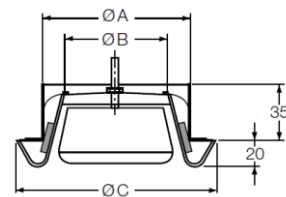
$$q = k \sqrt{\Delta p_m}$$

(l/s) (Pa)

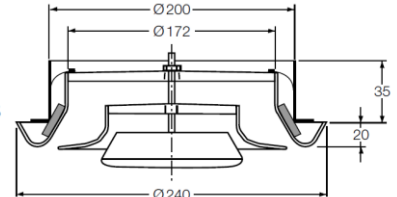
SIZE	a, mm	-7.5	-5	0	+5	+10	+15
080	k-factor	0.53	0.73	0.95	1.10	1.25	1.43
100		0.83	1.09	1.46	2.00	2.28	2.69
125		0.85	1.11	1.63	2.15	2.41	3.45
SIZE	a, mm	-2.5	0	+5	+10	+15	+20
150	k-factor	2.02	2.63	3.93	4.53	6.08	7.56
160		2.02	2.63	3.93	4.53	6.08	7.56
200		-	3.47	4.61	5.97	6.60	7.66

DIMENSIONS in mm

DVLF 080-160

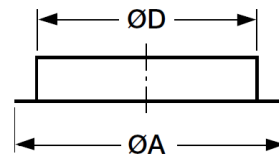


DVLF 200

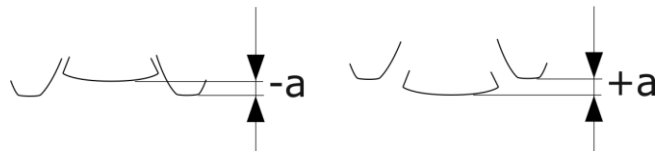


SIZE	A	B	C	W (kg)
DVLF080	80	45	120	0.09
DVLF100	100	70	145	0.12
DVLF125	125	95	160	0.15
DVLF150	150	115	190	0.20
DVLF160	160	115	195	0.20
DVLF200	200	172	240	0.34

DVLZ Galvanized steel sheet mounting frames, are available as an accessory.



SIZE	A	D	W (kg)	Hole size
DVLZ080	107	80	0.07	Ø 90
DVLZ100	127	100	0.09	Ø 110
DVLZ125	152	125	0.11	Ø 135
DVLZ150	177	150	0.13	Ø 160
DVLZ160	187	160	0.15	Ø 170
DVLZ200	227	200	0.18	Ø 210



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

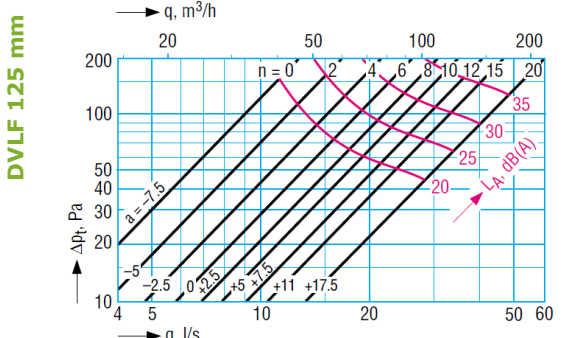
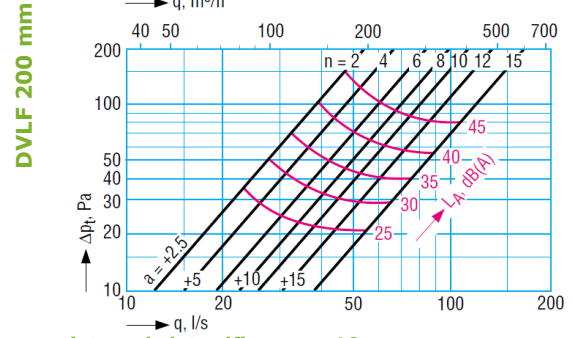
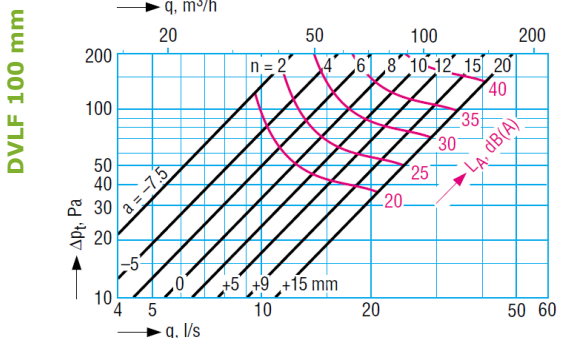
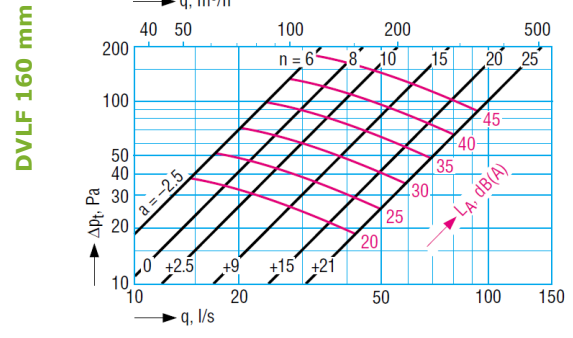
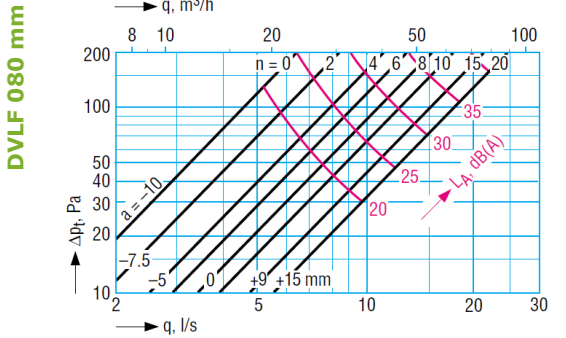
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



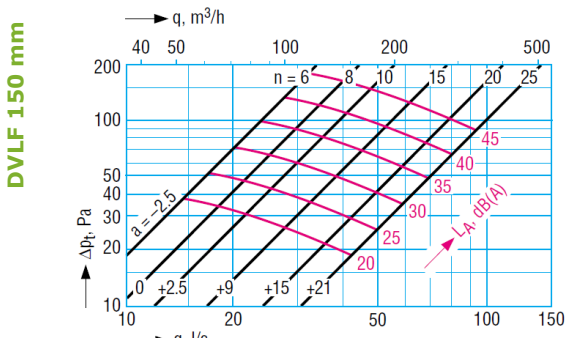
DVLF EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

Description, air flow, pressure drop, sound data

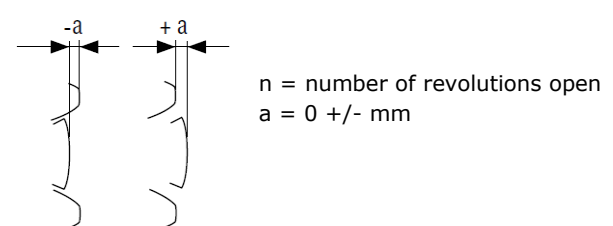


internal slot orifice open 10 mm



Size	SOUND POWER LEVEL Correction of sound level in dB at (Hz)							
	63	125	250	500	1000	2000	4000	8000
080	-8	-7	-5	-4	-1	-2	-5	-12
100	-7	-6	-6	-4	-2	-1	-4	-11
125	-6	-5	-3	-4	-2	-1	-4	-13
160	1	2	1	-1	1	-4	-9	-18
200	1	2	4	0	-1	-4	-10	-18

Size	SOUND ATTENUATION Correction of sound level in dB at (Hz)							
	63	125	250	500	1000	2000	4000	8000
080	23	23	16	15	13	10	6	9
100	22	21	15	13	11	10	6	9
125	21	19	13	11	10	10	7	9
160	20	16	12	10	9	10	8	8
200	17	12	7	5	4	4	7	5



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVLI SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Supply air device **DVLI** is a circular disc valve with an aerodynamic shaped throttling device. It can be wall mounted or alternatively ceiling-mounted and has good qualities regarding sound level, air resistance (pressure drop), air flow and self damping.

The design of the valve together with a seal of moltopren prevents the ceiling and walls to get dirty.

Material and surface finish

The device is made of impact-resistant white karbamid and propen with a dirt-resistant surface. The material withstands temperatures up to 100° C and also most chemical substances in small concentrations

The device is supplied in white RAL9002 as standard.

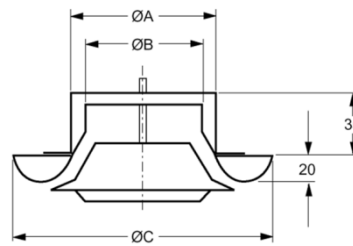
Adjustment

The cone is adjusted out or in by the number of revolutions necessary to provide the orifice opening in mm corresponding to the pressure drop and the desired air flow according to the graph. The pressure drop is controlled by conducting a suitable test probe into the front.

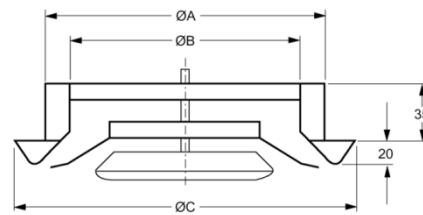
Care

The device can be cleaned with a cloth moistened with a mild synthetic cleaning or washing agent.

DIMENSIONS in mm



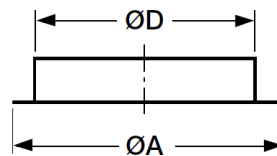
DVLI 80 - 125



DVLI 160 - 200

SIZE	A	B	C	Weight Kg
DVLI080	80	46	118	0.09
DVLI100	100	80	150	0.15
DVLI125	125	96	158	0.16
DVLI160	160	115	195	0.23
DVLI200	200	163	240	0.34

DVLZ Galvanized steel sheet mounting frames, are available as an accessory.



SIZE	A	D	Weight kg	Hole size
DVLZ080	107	80	0.07	Ø 90
DVLZ100	127	100	0.09	Ø 110
DVLZ125	152	125	0.11	Ø 135
DVLZ160	187	160	0.15	Ø 170
DVLZ200	227	200	0.18	Ø 210

SIZE	Airflow l/s (m ³ /h) at soundlevel		
	25 dB(A)	30 dB(A)	35 dB(A)
080	8	11 (40)	13
100	16	19 (68)	23
125	20	24 (86)	28
160	32	38 (137)	46
200	57	70 (252)	85

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

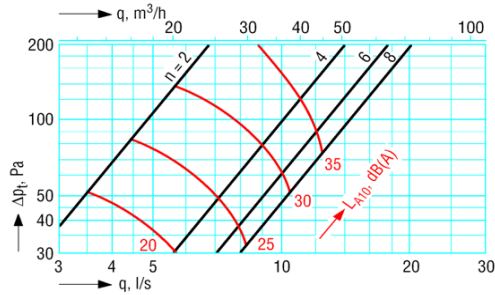
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

DVLI SUPPLY AIR VALVE

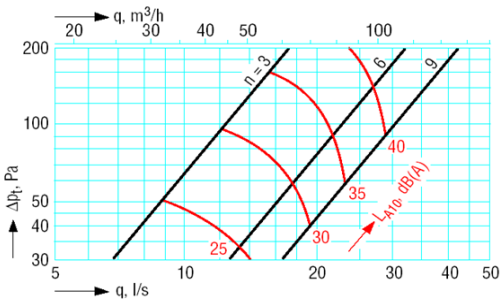
AIR MANAGEMENT SYSTEMS



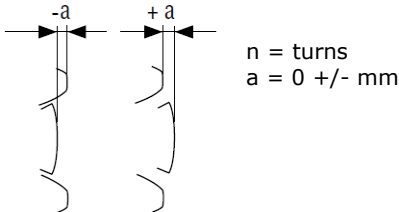
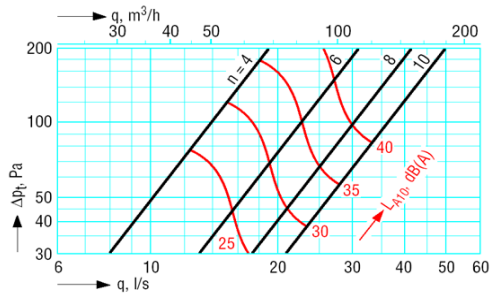
DVLI 080 mm



DVLI 100 mm

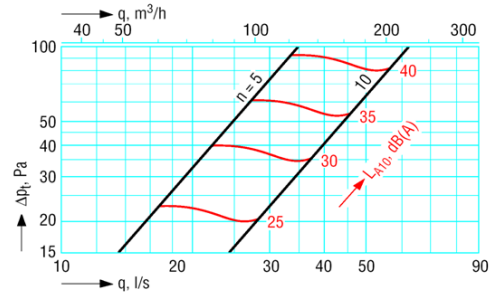


DVLI 125 mm



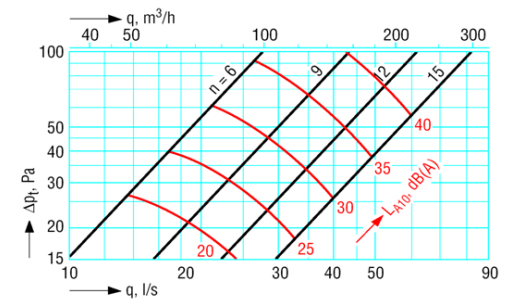
DVLI 160 inner slot open 5 rev. (6.25mm)

DVLF 160 mm



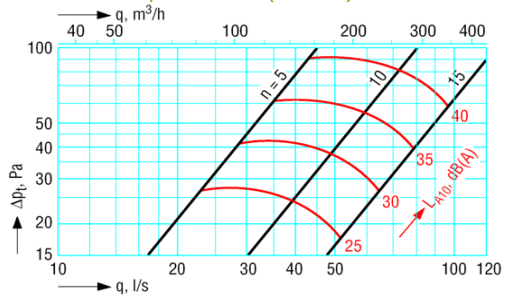
DVLI 160 inner slot closed

DVLF 200 mm



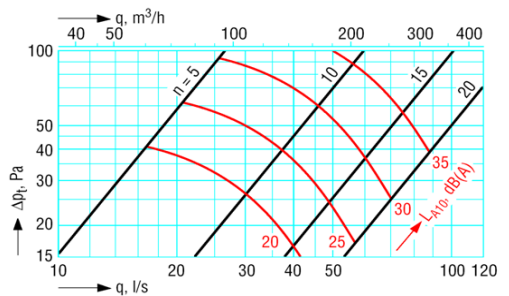
DVLI 200 inner slot open 8 rev. (10mm)

DVLF 200 mm



DVLI 200 inner slot closed

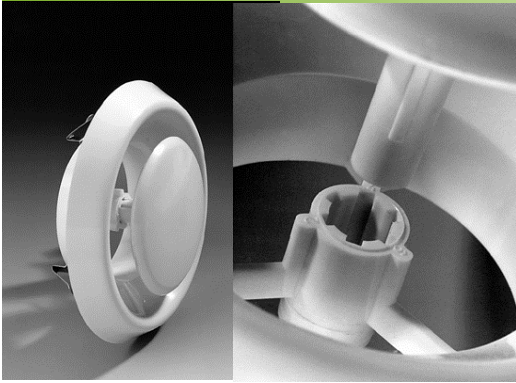
DVLF 200 mm



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DAB SUPPLY/EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

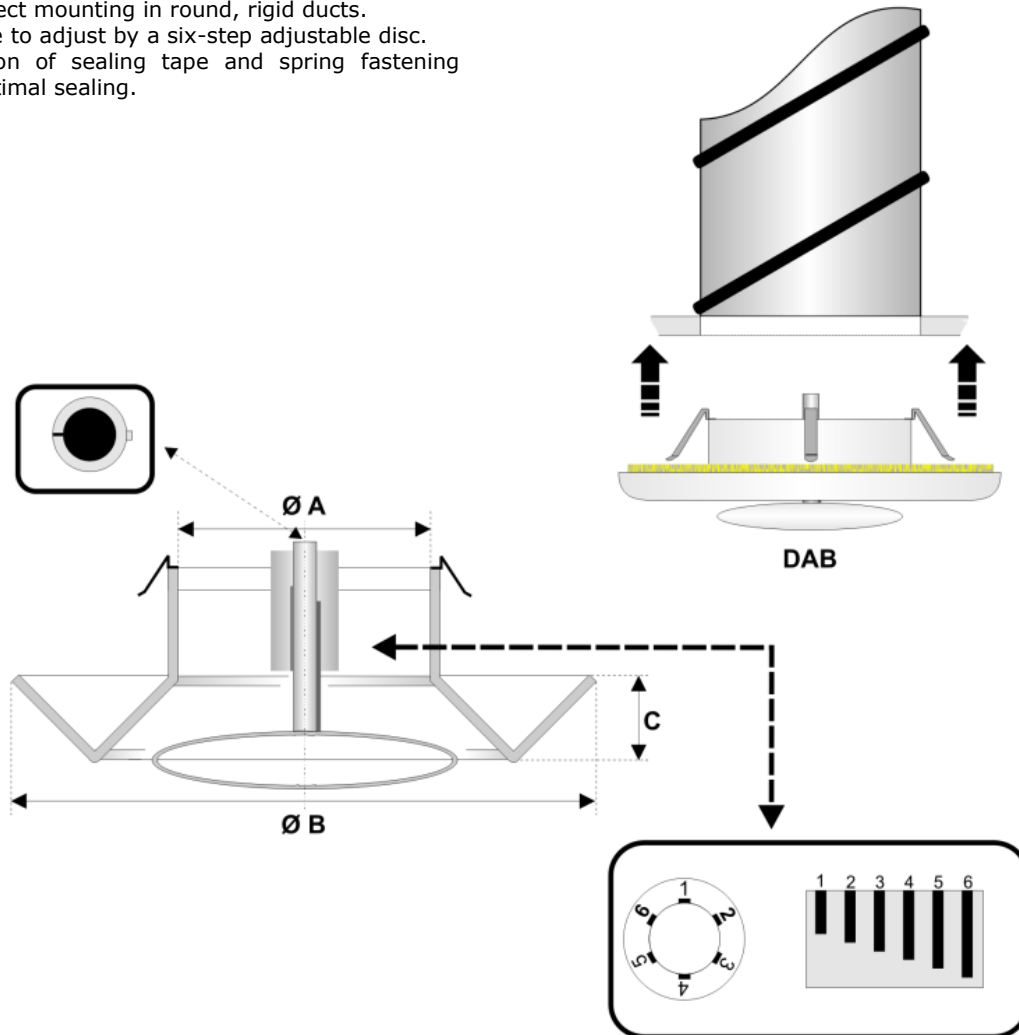
PRODUCT PROPERTIES

Plastic air **DAB** valve with six-step adjustable disc and spring fastening.

- Diameter range 80, 100, 125, 150 and 160 mm
- Manufactured out of white polypropylene (RAL 9003) with a heat resistance up to 100°C.
- Suitable for rooms with a higher air humidity (e.g. kitchen and bathroom).
- Easy to remove for cleaning purposes.
- Suitable for direct mounting in round, rigid ducts.
- Fast and simple to adjust by a six-step adjustable disc.
- The combination of sealing tape and spring fastening provides an optimal sealing.

DIMENSIONS in mm

SIZE	A	B	C
DAB080	60	130	20
DAB100	80	150	20
DAB125	101	171	20
DAB150	118	186	20
DAB160	118	186	20



LIABILITY:

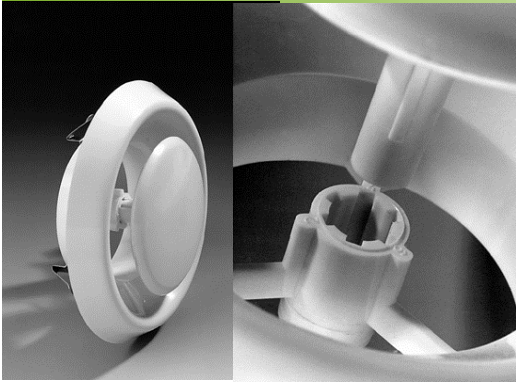
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

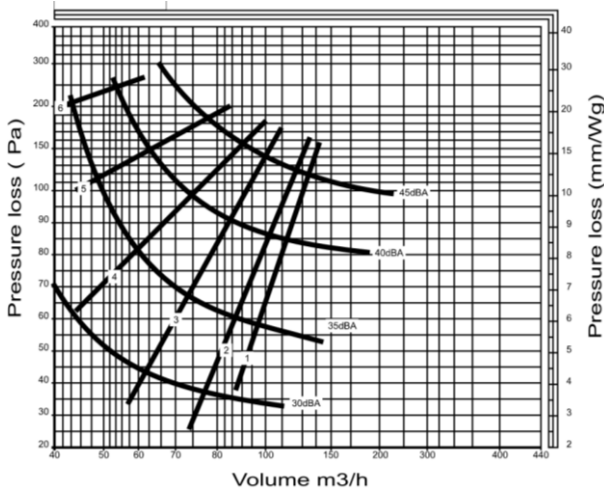
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



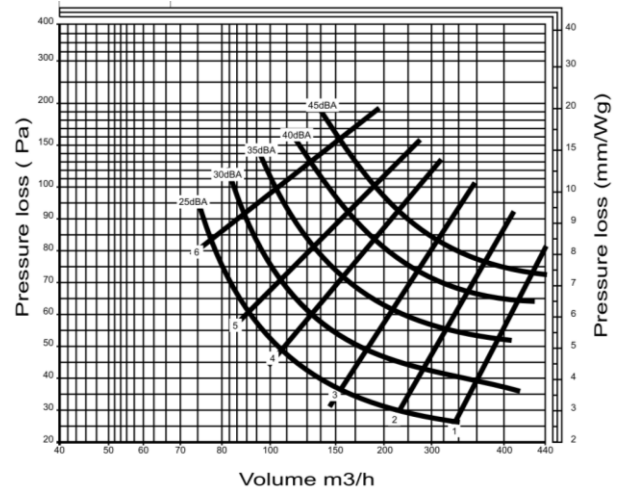
DAB SUPPLY/EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

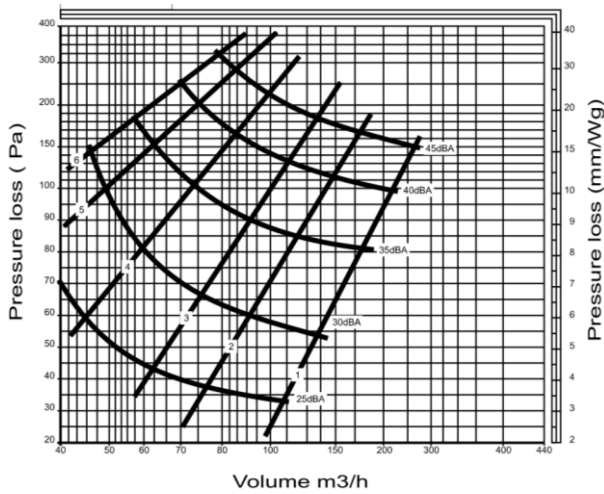
DAB 080 mm



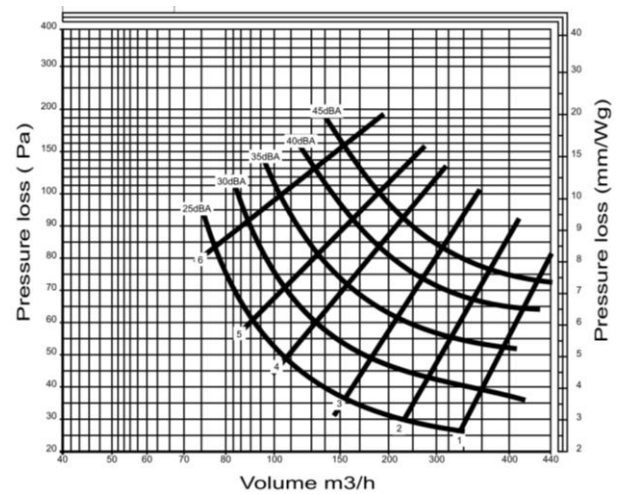
DAB 150 mm



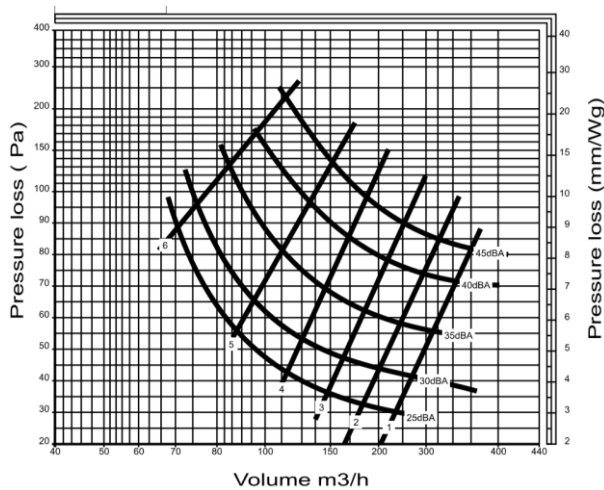
DAB 100 mm



DAB 160 mm



DAB 125 mm



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVI EXHAUST/SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

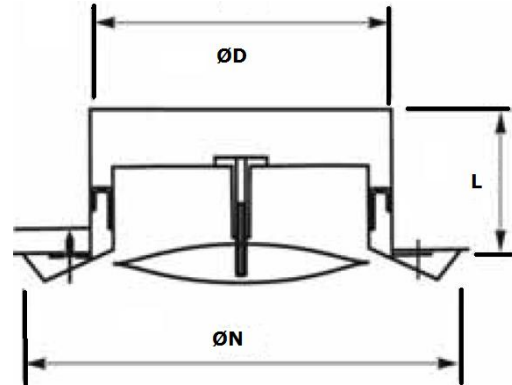
Stainless steel air valve with adjustable core

DVI is a supply valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure
- Suitable for rooms with a high air humidity (e.g. Kitchen, bathroom)
- Manufactured from Brushed Stainless Steel 304
- Air flow control
- High valve body improving air flow/less noise with spring fastening
- Simple removal for cleaning
- Including Fixingcollar with spring fastening

CONSTRUCTION

The **DVI** is manufactured from brushed stainless steel. The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation.



SPECIFICATIONS

SIZE	ØD (mm)	ØN (mm)	L (mm)	Qv (3m/s) [m³/h]
DVI100	100	140	50	80
DVI125	125	170	50	130
DVI150	150	208	63	170
DVI160	160	218	63	180
DVI200	200	298	80	220

Qv	Type	100	125	150	160	200
30	Ps	15				
	L'	0.2				
40	Ps	25	11			
	L'	0.4	0.3			
60	Ps	53	23	3	2	
	L'	0.7	0.4	0.3	0.2	
80	Ps	100	51	10	8	
	L'	1.2	0.7	0.5	0.4	
130	Ps		139	25	22	43
	L'		1.5	1	0.9	1.1
190	Ps			56	48	56
	L'			1.8	1.6	1.6
220	Ps					114
	L'					2

Remarks

Qv = Air flow in m³/h

L' = Horizontal throw in m at end velocity

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVS

EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated valve including fixing collar

DVS is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The DVS is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). Other color finishes are available to special order quantities. The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking. Fixing collar DVS-F is manufactured from galvanized steel sheet.

SOUND POWER LEVEL L_w

DVS	CORRECTION K_{oct} (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
080	1	-2	1	0	-3	-10	-22
100	5	-2	-3	-3	0	-8	-20
125	-6	0	0	-3	0	-13	-25
150	-6	-5	-4	0	-1	-13	-28
160	1	-1	-3	1	-2	-15	-32
200	3	1	-1	1	-4	-12	-25
Tol. +/-	3	2	2	2	2	2	3

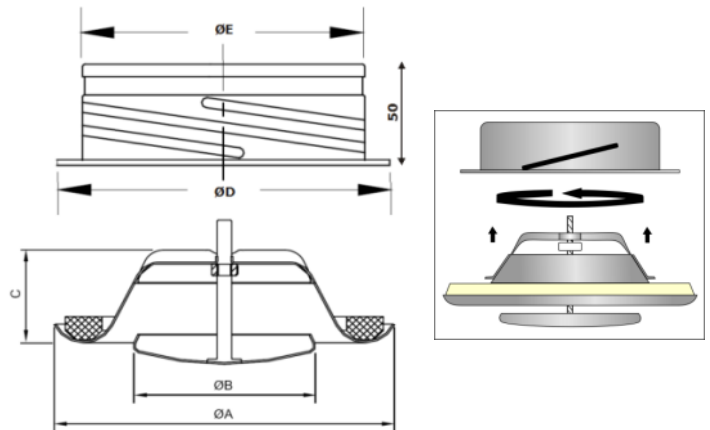
Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula:

$$L_{woct} = L_{p10A} + K_{oct}$$

Correction K_{oct} is average value in range of use of DVS unit.

DIMENSIONS in mm

DVS	Ø 080	Ø 100	Ø 125	Ø150	Ø 160	Ø200
A	116	140	170	202	202	254
B	60	75	99	119	119	157
C	40	40	46	54	54	64
W (gr)	150	160	230	340	340	510
D	105	125	150	175	185	225
E	79	99	124	149	159	199
W (gr)	80	100	120	180	190	240

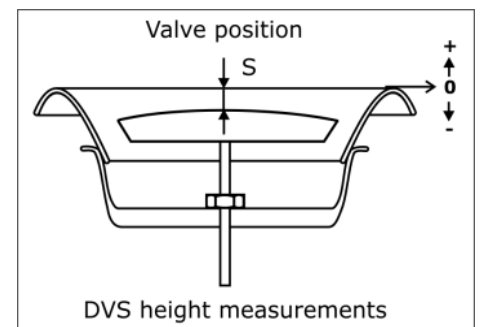


REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.

DVS	Adjustment s (mm)	SOUND ATTENUATION ΔL							
		Middle frequency by octave band (Hz)							
		63	125	250	500	1k	2k	4k	8k
080	-9	24	20	14	10	8	5	5	6
	0	24	19	13	9	6	3	4	5
	12	24	19	13	9	5	2	3	4
100	-10	23	19	14	12	11	10	13	14
	0	23	16	11	8	7	6	9	8
	10	23	16	11	7	5	4	7	8
125	-17	20	19	13	10	7	7	11	14
	0	18	16	10	6	4	4	5	8
	9	19	16	9	6	3	3	5	7
150	-15	21	14	11	8	6	6	8	8
	0	20	13	9	6	4	4	7	6
	10	16	14	9	4	3	2	7	7
160	-15	18	13	11	7	6	6	8	8
	-10	18	13	10	6	5	5	7	7
	0	17	13	9	5	4	3	6	6
200	-15	17	12	8	7	6	7	8	9
	-5	17	11	7	6	5	6	6	8
	0	17	11	7	5	5	6	6	7
Tol. \pm	6	3	2	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in ceiling installation is obtained in the table above.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

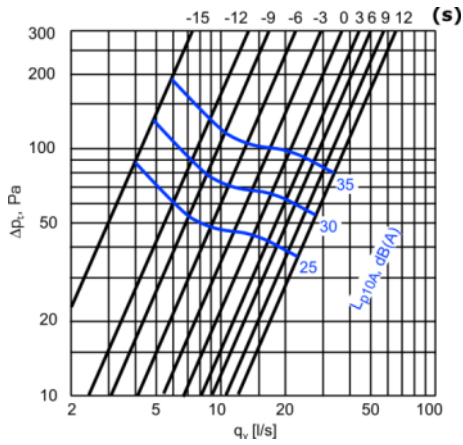
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

DVS EXHAUST AIR VALVE

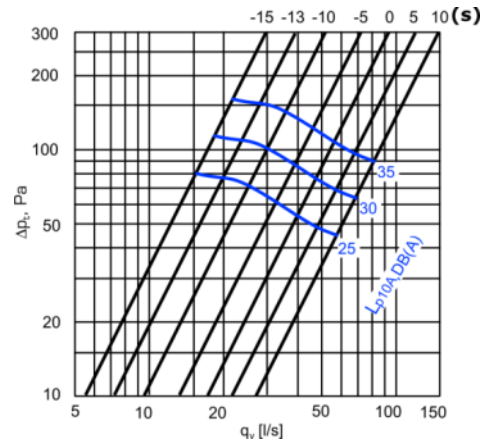
AIR MANAGEMENT SYSTEMS



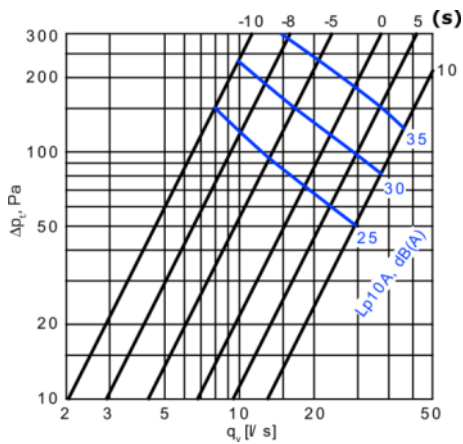
DVS 080 mm



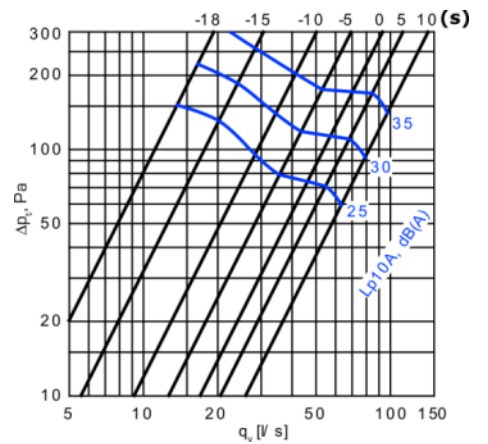
DVS 150 mm



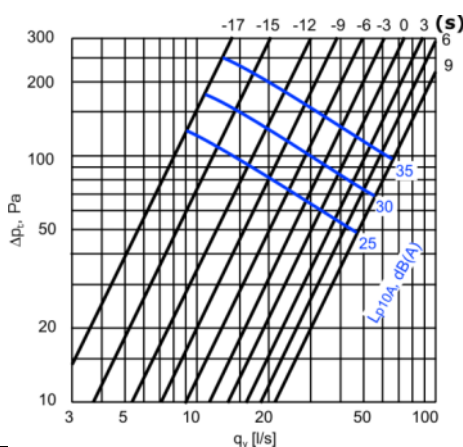
DVS 100 mm



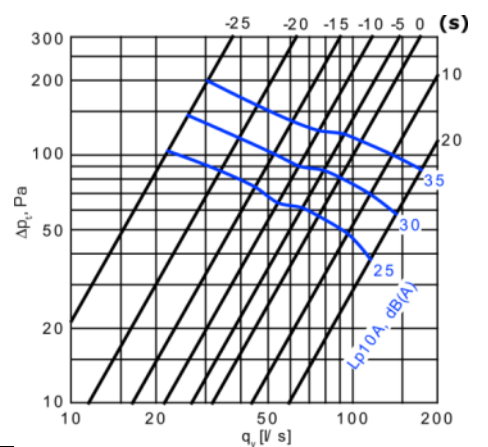
DVS 160 mm



DVS 125 mm



DVS 200 mm



DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation ($10 m^2sab$)	[dB(A)]
L_{woct}	sound power level by octave bands	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVS FRÅNLUFTSVENTIL LUFTDON

PRODUKT EGENSKAPER

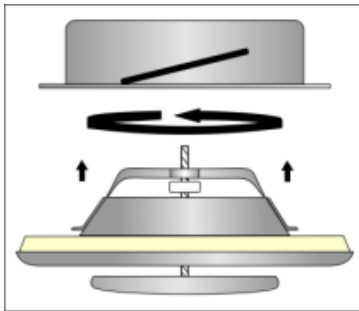
Pulverlackerad inclusive fästram.

DVS är en frånluftsventil lämplig för hem, kontor osv.

- Enkelt att justera
- Låg ljudnivå
- Snabb och enkel att installera
- Lufttryck lätt att mäta

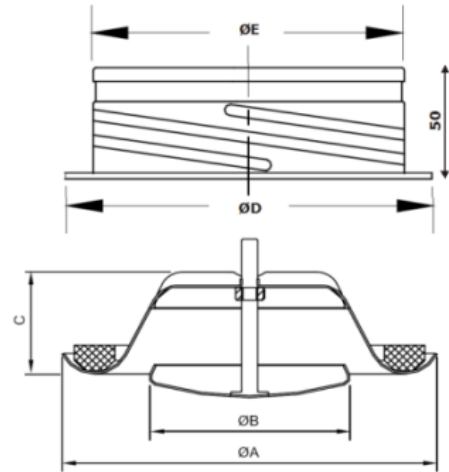
KONSTRUKTION

DVS är tillverkad av stålplåt som är pulverlackerat. Standardfärg är vit (RAL 9010) Ventil kroppen har en packning tillverkad av cellplast och kontrollskiva med skruvning, vilket möjliggör enkel reglering och positionslåsning. Fästramen DVS-F är tillverkad av galvaniserad stålplåt.



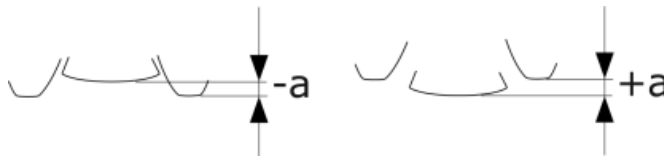
DIMENSIONER i mm

DVS	Ø 080	Ø 100	Ø 125	Ø150	Ø 160	Ø200
A	116	140	166	204	209	248
B	60	75	98	119	129	157
C	40	40	46	54	54	59
W (gr)	103	170	210	320	355	520
D	105	125	150	175	185	225
E	79	99	124	149	159	199
W (gr)	74	89	112	152	165	212



FÖRORDNING OCH MÄTNINGAR

Reglering av luftflödet uppnås genom att vrida kontrollskivan för att ändra justeringsmått a (mm). Mätningen av luftflödet är gjord med en tryckskillnadsmätning med ett separat mätrör. Se flödesdiagram för information.



LANSVAR:

Informationen i denna broschyr var aktuell vid publiceringsdatumet. DEC INTERNATIONAL förbehåller sig rätten att när som helst göra ändringar i detaljer utan föregående meddelande. För att undvika missförstånd rekommenderas alla intresserade att kontakta DEC INTERNATIONAL för eventuella förändringar i material och / eller information efter det att denna broschyr publicerades

OBS:

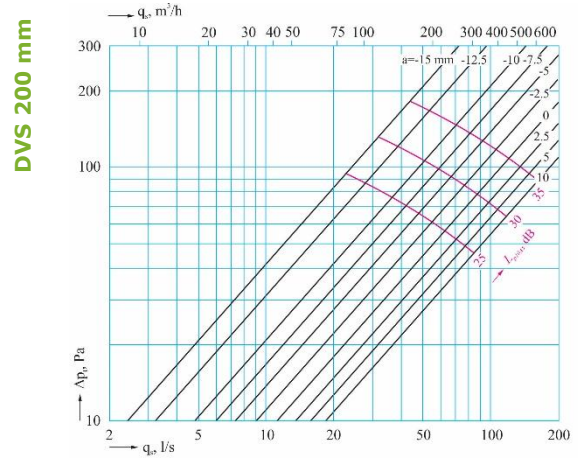
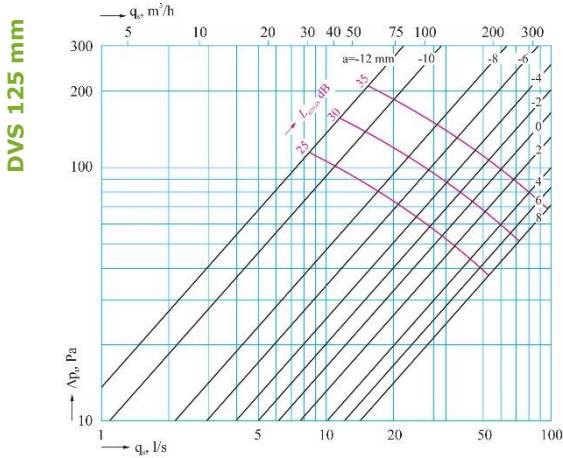
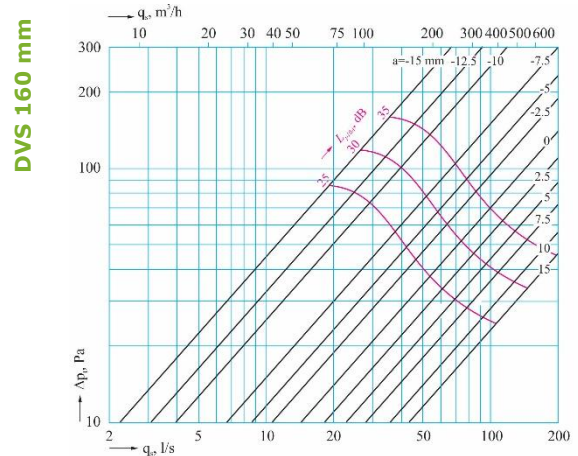
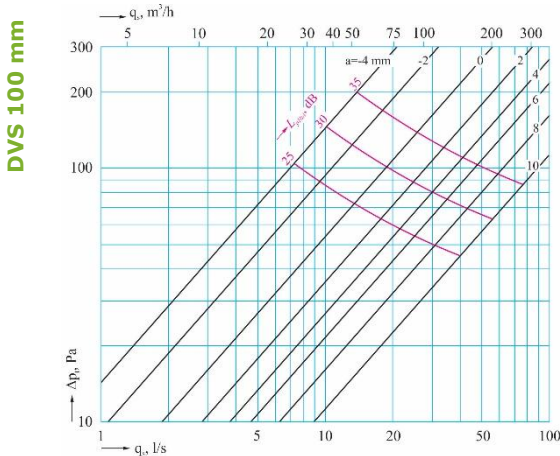
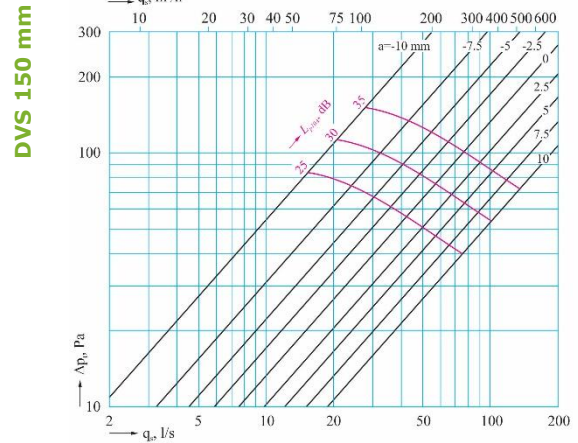
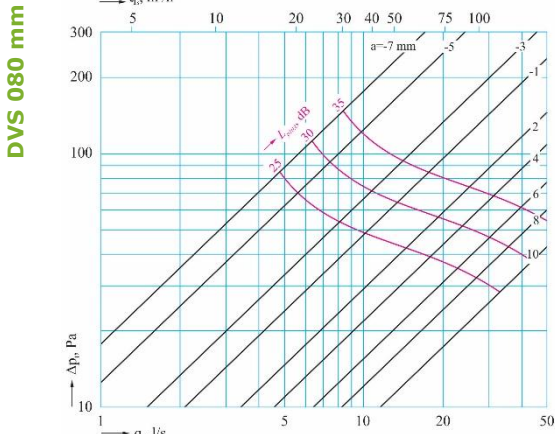
Konsulten ansvarar för själva installationen och monteringen av produkten. De nämnda värdena med avseende på temperaturer är inte lämpliga att användas för att bestämma de fysikaliska egenskaperna. Dessa egenskaper är också beroende av luftfuktighet och luftens temperatur inom och utanför ventilationssystemet.

VARUMÄRKEN:

DEC International och DEC-logotypen är varumärken eller registrerade varumärken som tillhör Dutch Environment Corporation BV i Nederländerna och / eller andra länder



DVS FRÅNLUFTSVENTIL LUFTDON



DEFINITIONS

q_v	luftvolym	(m ³ /h)
Δp_t	total tryckfall	(Pa)
L_{p10A}	ljudtrycksnivå med 4 dB rumsdämpning (10 m ² sab)	[dB(A)]

LANSVAR:
Informationen i denna broschyr var aktuell vid publiceringsdatumet. DEC INTERNATIONAL förbehåller sig rätten att när som helst göra ändringar i detaljer utan föregående meddelande. För att undvika missförstånd rekommenderas alla intresserade att kontakta DEC INTERNATIONAL för eventuella förändringar i material och / eller information efter det att denna broschyr publicerades

OBS:
Konsulten ansvarar för själva installationen och monteringen av produkten. De nämnda värdena med avseende på temperaturer är inte lämpliga att användas för att bestämma de fysikaliska egenskaperna. Dessa egenskaper är också beroende av luftfuktighet och luftens temperatur inom och utanför ventilationssystemet.

VARUMÄRKEN:
DEC International och DEC-logotypen är varumärken eller registrerade varumärken som tillhör Dutch Environment Corporation BV i Nederländerna och / eller andra länder



DVS EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

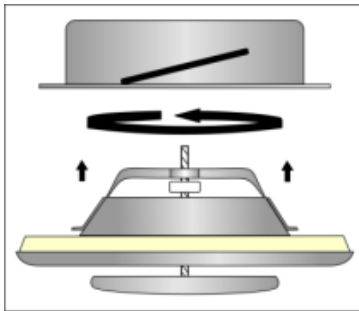
Powder coated valve *including* fixing collar

DVS is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

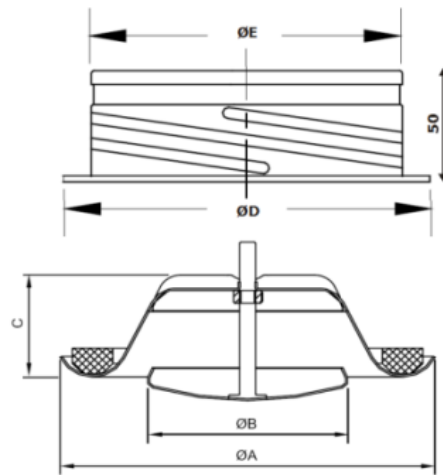
CONSTRUCTION

The **DVS** is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking. Fixing collar **DVS-F** is manufactured from galvanized steel sheet.



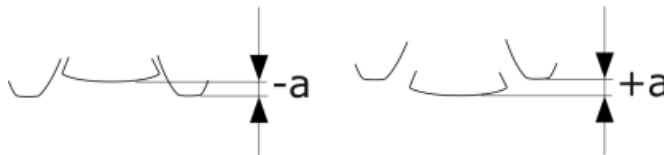
DIMENSIONS in mm

DVS	Ø 080	Ø 100	Ø 125	Ø150	Ø 160	Ø200
A	116	140	166	204	209	248
B	60	75	98	119	129	157
C	40	40	46	54	54	59
W (gr)	103	170	210	320	355	520
D	105	125	150	175	185	225
E	79	99	124	149	159	199
W (gr)	74	89	112	152	165	212



REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension a (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

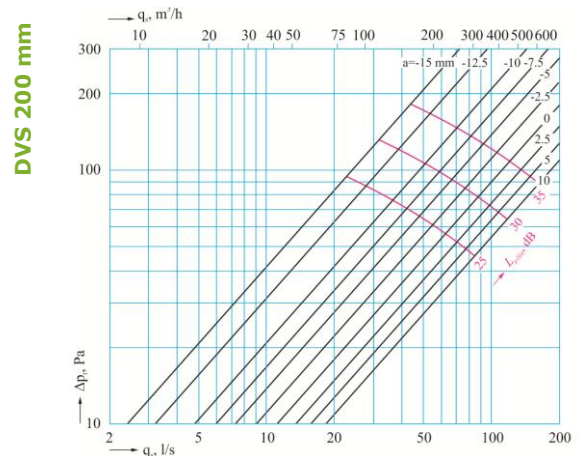
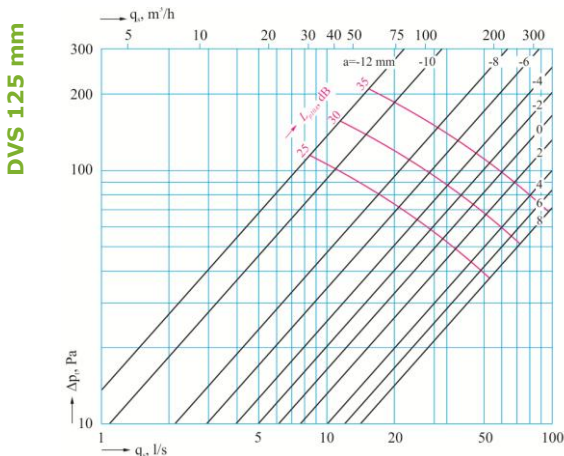
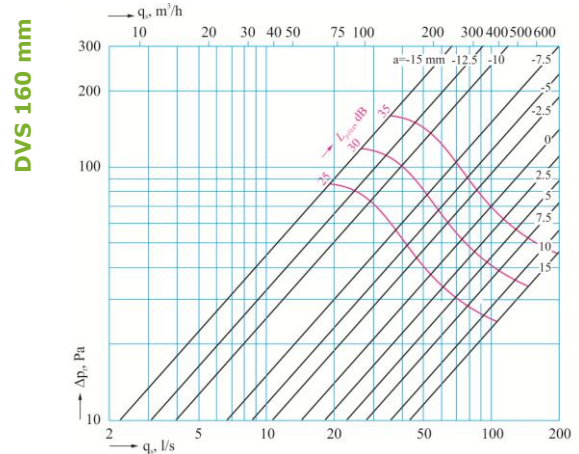
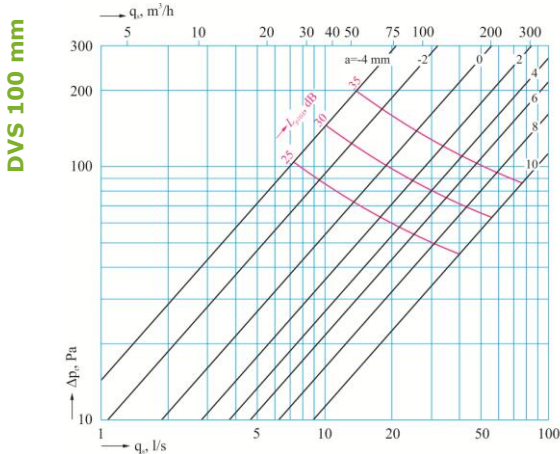
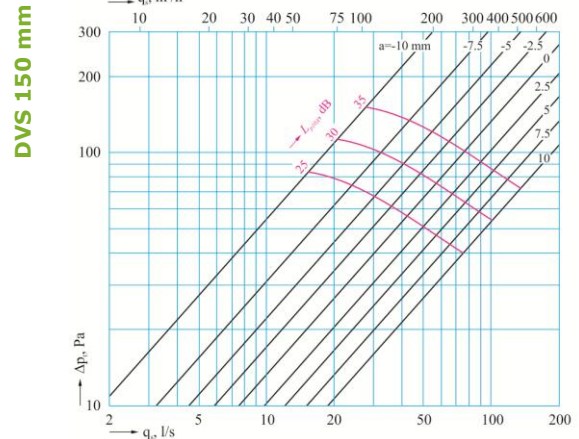
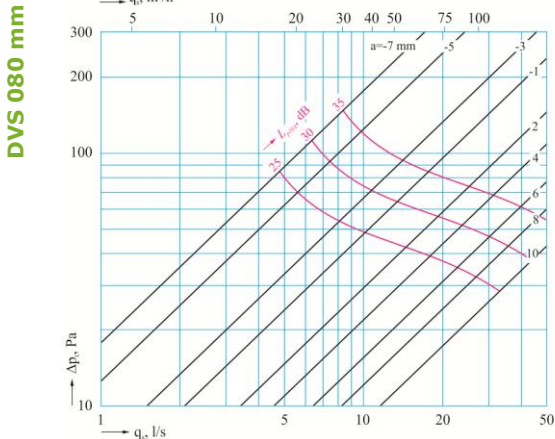
TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVS EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS



DEFINITIONS

q_v	air volume	(m ³ /h)
Δp_e	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m ² sab)	[dB(A)]

LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVSY EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Stainless steel valve including fixing collar

DVSY is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The DVSY is manufactured from stainless steel alloy AISI304/2B. The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking.

Fixing collar DVS-FY is manufactured from stainless steel alloy AISI304/2B.

SOUND POWER LEVEL L_w

DVSY	CORRECTION K_{oct} (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
080	1	-2	1	0	-3	-10	-22
100	5	-2	-3	-3	0	-8	-20
125	-6	0	0	-3	0	-13	-25
150	-6	-5	-4	0	-1	-13	-28
160	1	-1	-3	1	-2	-15	-32
200	3	1	-1	1	-4	-12	-25
Tol. +/-	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula:

$$L_{w_{oct}} = L_{p10A} + K_{oct}$$

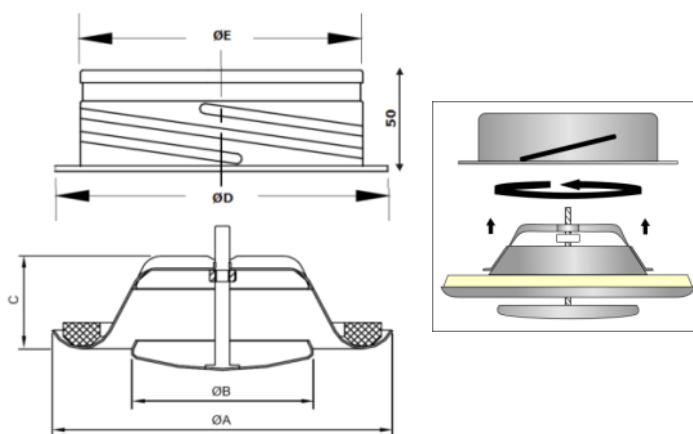
Correction K_{oct} is average value in range of use of DVSY unit.

DVSY	Adjustment s (mm)	SOUND ATTENUATION ΔL							
		Middle frequency by octave band (Hz)							
		63	125	250	500	1k	2k	4k	8k
080	-9	24	20	14	10	8	5	5	6
	0	24	19	13	9	6	3	4	5
	12	24	19	13	9	5	2	3	4
100	-10	23	19	14	12	11	10	13	14
	0	23	16	11	8	7	6	9	8
	10	23	16	11	7	5	4	7	8
125	-17	20	19	13	10	7	7	11	14
	0	18	16	10	6	4	4	5	8
	9	19	16	9	6	3	3	5	7
150	-15	21	14	11	8	6	6	8	8
	0	20	13	9	6	4	4	7	6
	10	16	14	9	4	3	2	7	7
160	-15	18	13	11	7	6	6	8	8
	-10	18	13	10	6	5	5	7	7
	0	17	13	9	5	4	3	6	6
200	-15	17	12	8	7	6	7	8	9
	-5	17	11	7	6	5	6	6	8
	0	17	11	7	5	5	6	6	7
Tol. \pm	6	3	2	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in ceiling installation is obtained in the table above.

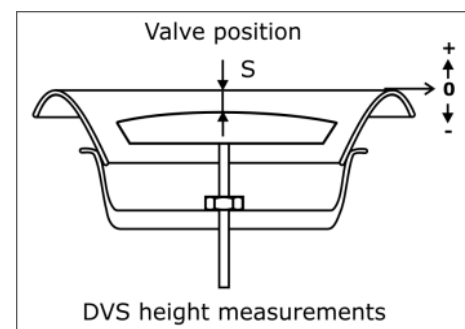
DIMENSIONS in mm

DVSY	$\varnothing 080$	$\varnothing 100$	$\varnothing 125$	$\varnothing 150$	$\varnothing 160$	$\varnothing 200$
A	116	140	170	202	202	254
B	60	75	99	119	119	157
C	40	40	46	54	54	64
W (gr)	150	160	230	340	340	510
D	105	125	150	175	185	225
E	79	99	124	149	159	199
W (gr)	80	100	120	180	190	240



REGULATION AND MEASUREMENTS

REGULATION of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

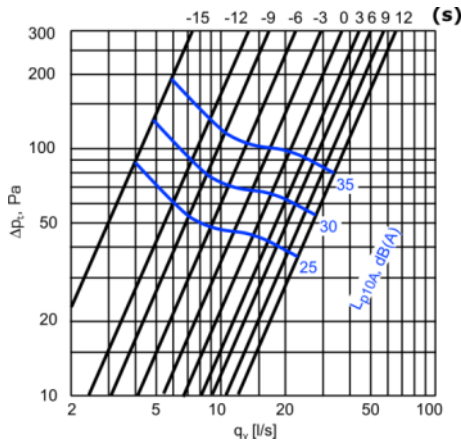
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



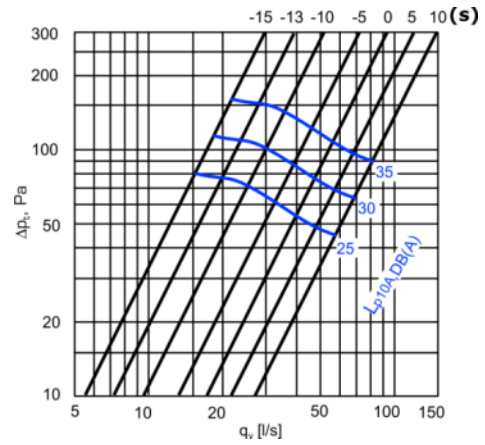
DVSy EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

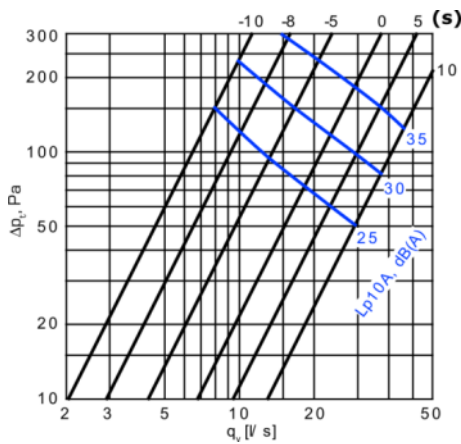
DVSy 080 mm



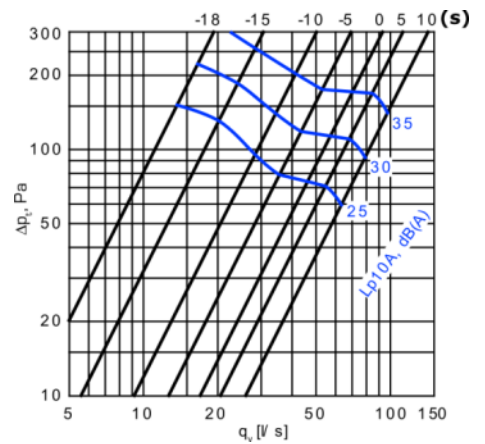
DVSy 150 mm



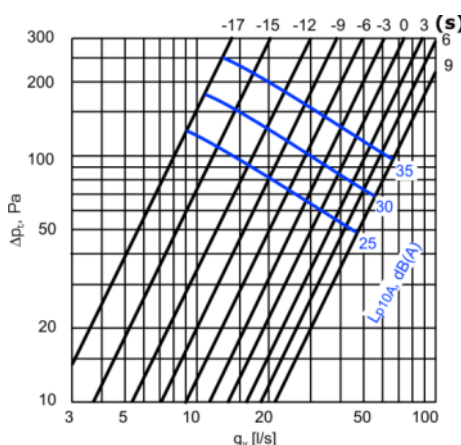
DVSy 100 mm



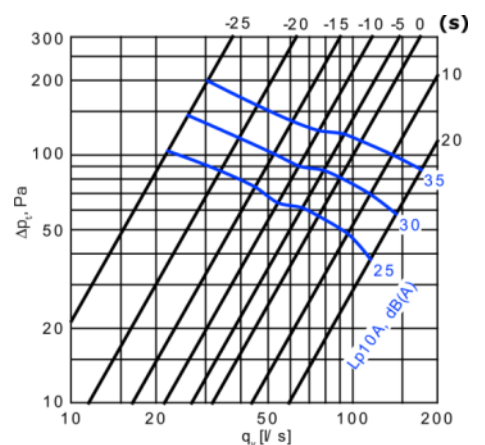
DVSy 160 mm



DVSy 125 mm



DVSy 200 mm



DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation ($10 m^2sab$)	[dB(A)]
L_{woct}	sound power level by octave bands	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVSC EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

DVSC is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The DVSC is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). Other color finishes are available to special order quantities. The valve body has a gasket, made of cellular plastic and the control disc, with spring fasteners enables easy regulation and positional locking.

SOUND POWER LEVEL L_w

DVSC	CORRECTION K_{oct} (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
080	1	-2	1	0	-3	-10	-22
100	5	-2	-3	-3	0	-8	-20
125	-6	0	0	-3	0	-13	-25
150	-6	-5	-4	0	-1	-13	-28
160	1	-1	-3	1	-2	-15	-32
200	3	1	-1	1	-4	-12	-25
Tol. +/-	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula:

$$L_{w_{oct}} = L_{p10A} + K_{oct}$$

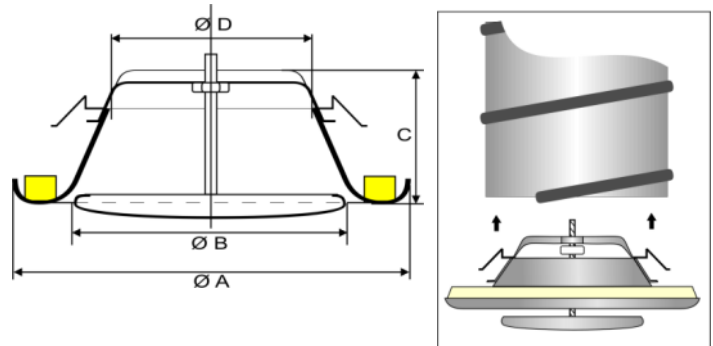
Correction K_{oct} is average value in range of use of DVSC unit.

DVSC	Adjustment s (mm)	SOUND ATTENUATION ΔL							
		Middle frequency by octave band (Hz)							
		63	125	250	500	1k	2k	4k	8k
080	-9	24	20	14	10	8	5	5	6
	0	24	19	13	9	6	3	4	5
	12	24	19	13	9	5	2	3	4
100	-10	23	19	14	12	11	10	13	14
	0	23	16	11	8	7	6	9	8
	10	23	16	11	7	5	4	7	8
125	-17	20	19	13	10	7	7	11	14
	0	18	16	10	6	4	4	5	8
	9	19	16	9	6	3	3	5	7
150	-15	21	14	11	8	6	6	8	8
	0	20	13	9	6	4	4	7	6
	10	16	14	9	4	3	2	7	7
160	-15	18	13	11	7	6	6	8	8
	-10	18	13	10	6	5	5	7	7
	0	17	13	9	5	4	3	6	6
200	-15	17	12	8	7	6	7	8	9
	-5	17	11	7	6	5	6	6	8
	0	17	11	7	5	5	6	6	7
Tol. \pm	6	3	2	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in ceiling installation is obtained in the table above.

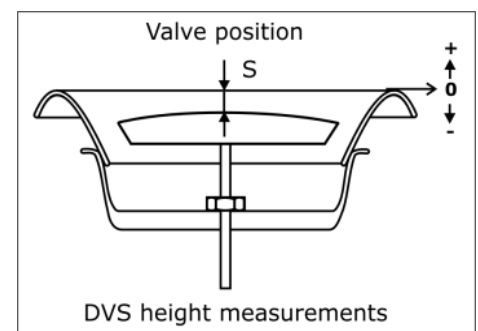
DIMENSIONS in mm

DVSC	Ø 080	Ø 100	Ø 125	Ø 150	Ø 160	Ø 200
A	116	140	170	202	202	254
B	60	75	99	119	119	157
C	40	40	46	54	54	64
D	105	125	150	175	185	225



REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

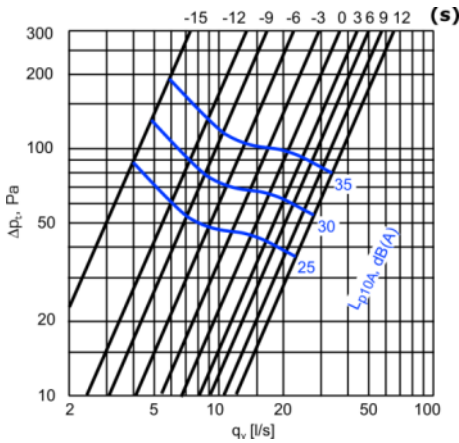
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



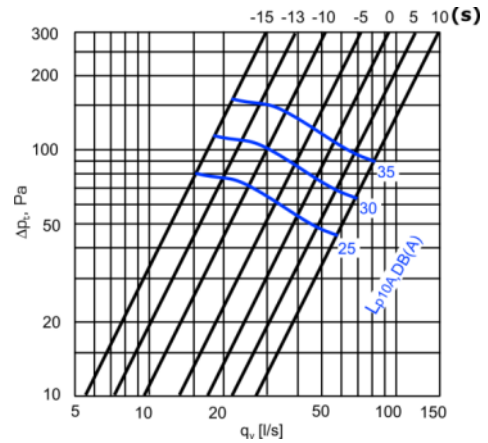
DVSC EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

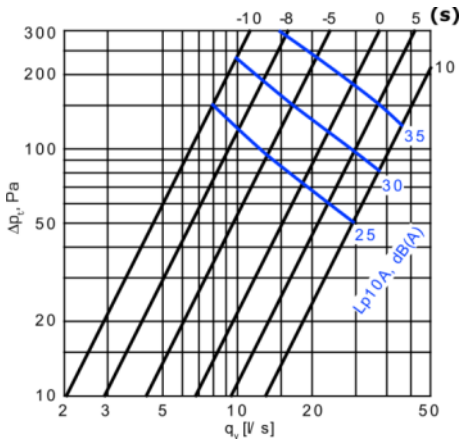
DVSC 080 mm



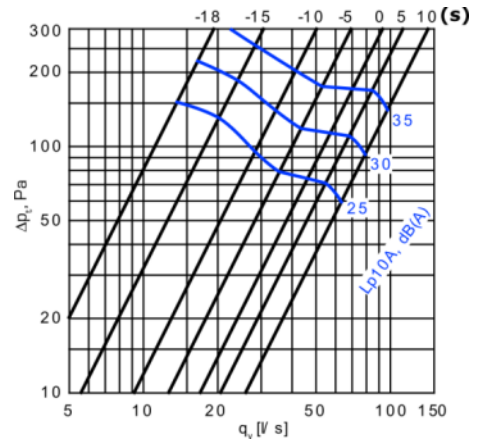
DVSC 150 mm



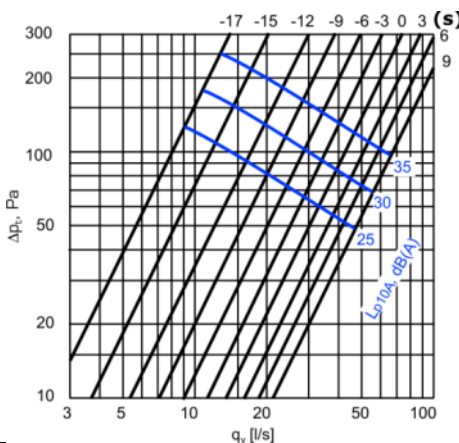
DVSC 100 mm



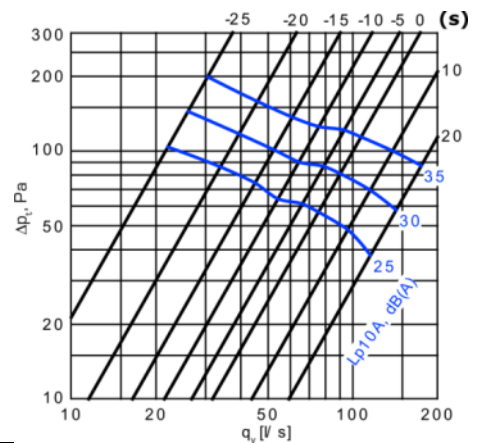
DVSC 160 mm



DVSC 125 mm



DVSC 200 mm



DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation ($10 m^2sab$)	[dB(A)]
L_{Woct}	sound power level by octave bands	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVSQ EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated square valve

DVSQ is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The **DVSQ** is manufactured from steel sheet, powder coated.

Standard color white (RAL 9010).

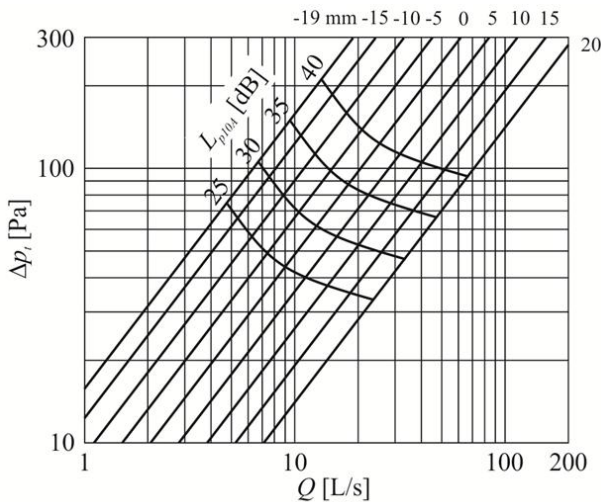
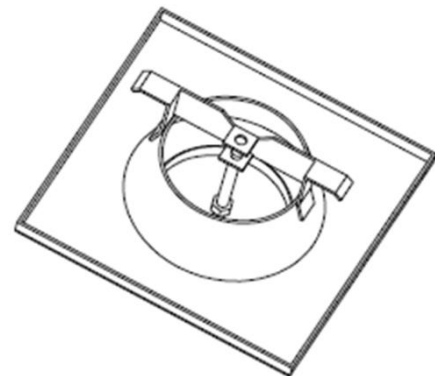
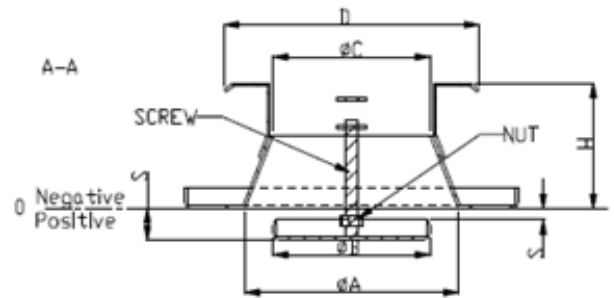
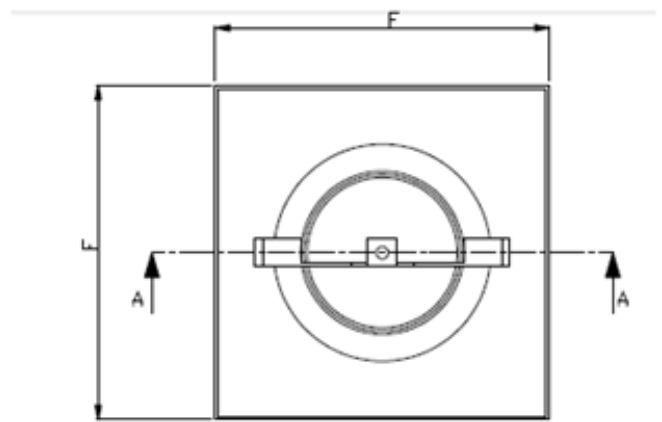
Other color finishes are available to special order quantities.

The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking.

The valve is closed when the valve actuating element is placed on -22 mm from the zero-plane, while it is totally opened when the valve actuating element is placed on 20 mm from the zero-plane. The graphic shows the dependence of flow rate, noise intensity and total pressure drop across the valve type **DVSQ125**

REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube.



	DVSQ100	DVSQ125
ØA	100	125
ØB	77	103
ØC	72	99
D	120	154
E	160	190
F	160	190
H	60	65
S	+ / -	+ / -

Body height 1cm

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



MV EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated valve including fixing collar

MV is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The **MV** is manufactured from steel sheet, powder coated. Standard color white (RAL 9016). The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking.

Fixing collar is manufactured from galvanized steel sheet.

SOUND POWER LEVEL L_w

MV	CORRECTION K_{oct} (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
080	1	-2	1	0	-3	-10	-22
100	5	-2	-3	-3	0	-8	-20
125	-6	0	0	-3	0	-13	-25
150	-6	-5	-4	0	-1	-13	-28
160	1	-1	-3	1	-2	-15	-32
200	3	1	-1	1	-4	-12	-25
Tol. +/-	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula:

$$L_{woct} = L_{p10A} + K_{oct}$$

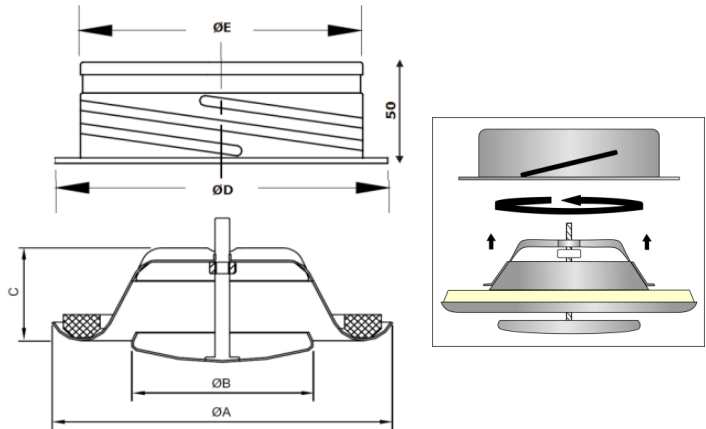
Correction K_{oct} is average value in range of use of MV unit.

MV	Adjustment s (mm)	SOUND ATTENUATION ΔL							
		Middle frequency by octave band (Hz)							
		63	125	250	500	1k	2k	4k	8k
080	-9	24	20	14	10	8	5	5	6
	0	24	19	13	9	6	3	4	5
	12	24	19	13	9	5	2	3	4
100	-10	23	19	14	12	11	10	13	14
	0	23	16	11	8	7	6	9	8
	10	23	16	11	7	5	4	7	8
125	-17	20	19	13	10	7	7	11	14
	0	18	16	10	6	4	4	5	8
	9	19	16	9	6	3	3	5	7
150	-15	21	14	11	8	6	6	8	8
	0	20	13	9	6	4	4	7	6
	10	16	14	9	4	3	2	7	7
160	-15	18	13	11	7	6	6	8	8
	-10	18	13	10	6	5	5	7	7
	0	17	13	9	5	4	3	6	6
200	-15	17	12	8	7	6	7	8	9
	-5	17	11	7	6	5	6	6	8
	0	17	11	7	5	5	6	6	7
Tol. ±	6	3	2	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in ceiling installation is obtained in the table above.

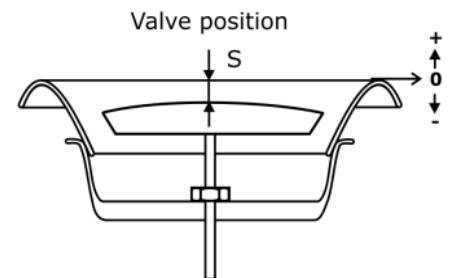
DIMENSIONS in mm

MV	Ø 080	Ø 100	Ø 125	Ø 150	Ø 160	Ø 200
A	116	140	170	202	202	254
B	60	75	99	119	119	157
C	40	40	46	54	54	64
D	105	125	150	175	185	225
E	79	99	124	149	159	199



REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

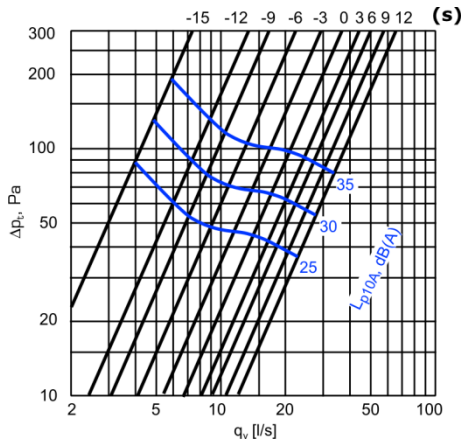
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



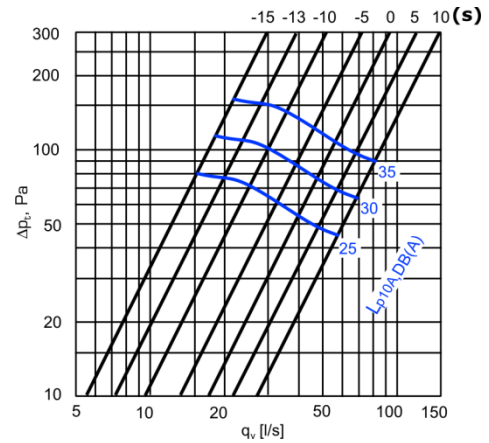
MV EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

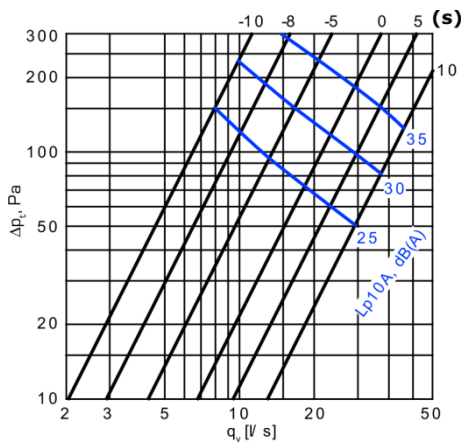
MV 080 mm



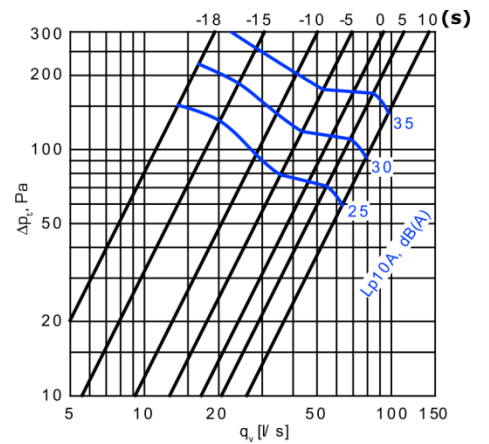
MV 150 mm



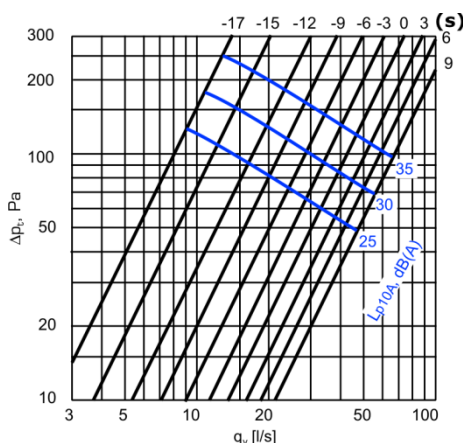
MV 100 mm



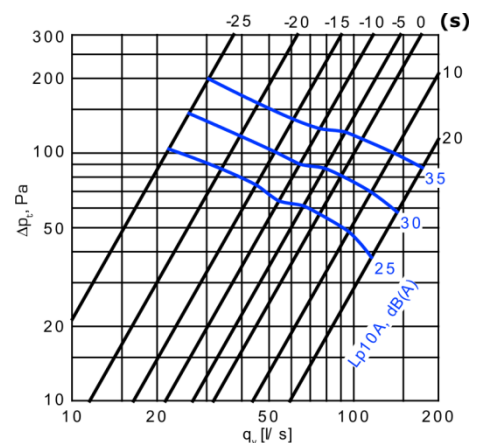
MV 160 mm



MV 125 mm



MV 200 mm



DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation ($10 m^2sab$)	[dB(A)]
L_{woct}	sound power level by octave bands	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVSER EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated air exhaust valve with adjustable core

DVSER is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

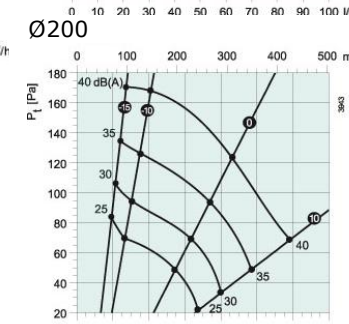
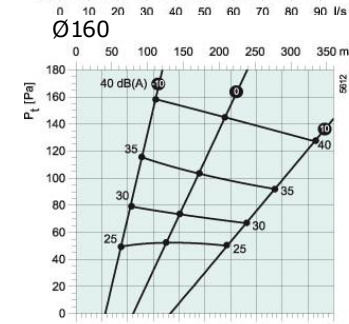
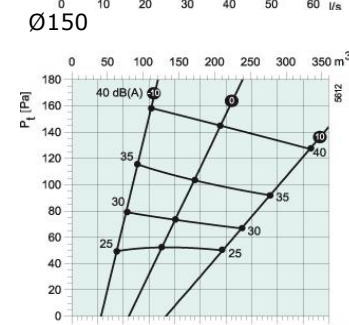
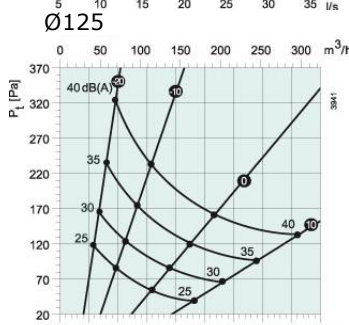
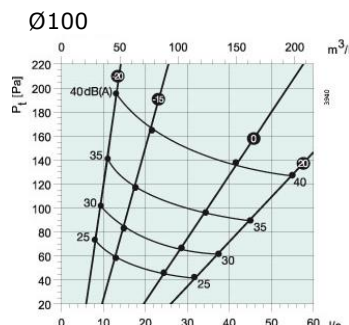
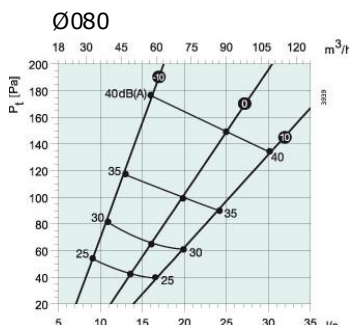
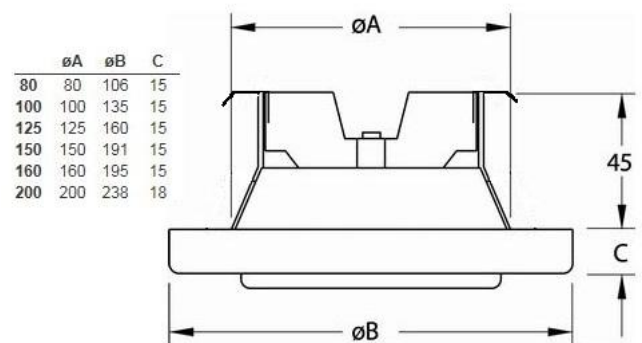
The **DVSER** is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). Other color finishes are available to special order quantities. The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation.

MOUNTING

Fixing by clips in the mounting frame. Can also be used for direct mounting into round ducts (with or without mounting frame).

REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube.



	125	250	500	1k	2k	4k	8k
63	15	15	12	10	3	7	13
80	14	13	10	9	2	7	12
100	14	12	10	6	2	6	6
125	12	11	8	5	3	3	5
150	-	-	-	-	-	-	-
160	10	9	7	5	5	5	9
200	7	6	4	3	3	4	7

Sound power level, L_w

$L_w(\text{dB}) = L_{pA} + K_{ok}$ (L_{pA} = diagram K_{ok} = table)
correction factor K_{ok}

	63	125	250	500	1k	2k	4k	8k
63	9	-1	-2	-1	-2	-2	-7	-14
80	9	1	-2	1	0	-4	-8	-18
100	8	2	-3	-2	-2	-1	-8	-15
125	9	-2	-1	-1	-3	-1	-11	-20
150	-	-	-	-	-	-	-	-
160	13	1	-1	-2	-1	-4	-8	-12
200	7	1	-3	-1	2	-9	-17	-21
Tol	6	3	2	2	2	2	3	4

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVIER EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Stainless steel air exhaust valve with adjustable core

DVIER is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

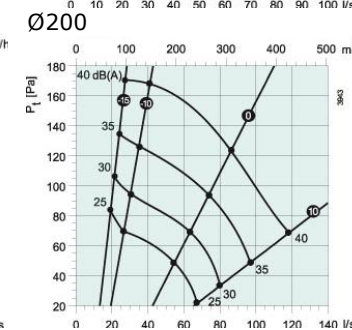
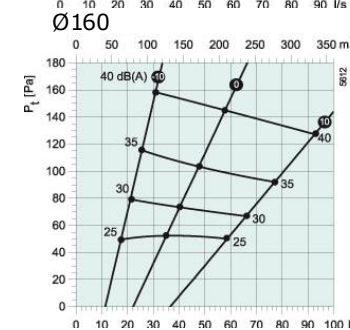
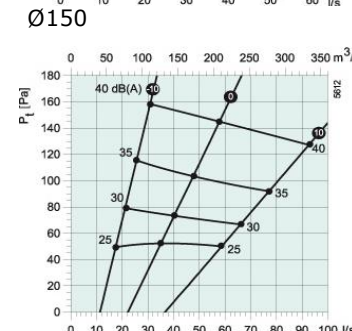
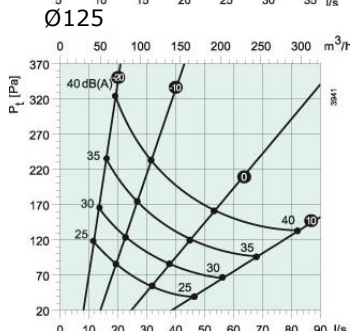
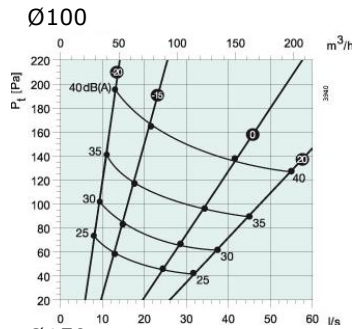
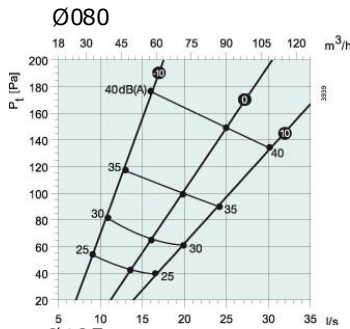
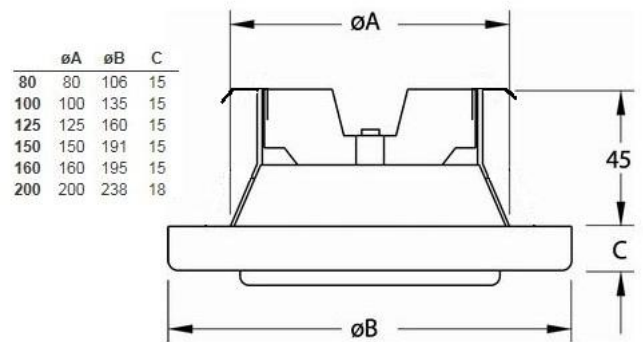
The **DVIER** is manufactured from stainless steel 304. The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation.

MOUNTING

Fixing by clips in the mounting frame. Can also be used for direct mounting into round ducts (with or without mounting frame).

REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube.



	125	250	500	1k	2k	4k	8k
63	15	15	12	10	3	7	13
80	14	13	10	9	2	7	12
100	14	12	10	6	2	6	6
125	12	11	8	5	3	3	5
150	-	-	-	-	-	-	-
160	10	9	7	5	5	5	9
200	7	6	4	3	3	4	7

Sound power level, L_w

$L_w(\text{dB}) = L_{pA} + K_{ok}$ (L_{pA} = diagram Kok = table)
correction factor Kok

	63	125	250	500	1k	2k	4k	8k
63	9	-1	-2	-1	-2	-2	-7	-14
80	9	1	-2	1	0	-4	-8	-18
100	8	2	-3	-2	-2	-1	-8	-15
125	9	-2	-1	-1	-3	-1	-11	-20
150	-	-	-	-	-	-	-	-
160	13	1	-1	-2	-1	-4	-8	-12
200	7	1	-3	-1	2	-9	-17	-21
Tol	6	3	2	2	2	2	3	4

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DGEB EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The **DGEB** exhaust valve is suitable for use in mechanical ventilation systems. The valve can be wall mounted or ceiling mounted and its air flow is simple to adjust. The **DGEB** has a low noise level, even if the pressure drop is high, and it has good natural sound attenuation.

- Good adjusting features
- Good natural sound attenuation
- Low noise level, even if the pressure drop is high
- Quick and easy to install
- Airflow easy to measure

Construction

The valve is manufactured from hot galvanized steel sheet. The grille is powder coated for a high surface finish and good impact and scratch resistance. Standard colour White RAL-9010.

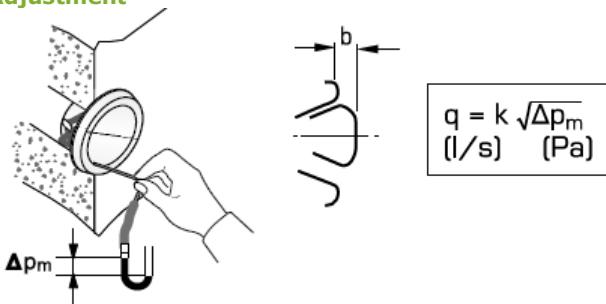
Application

The **DGEB** exhaust valve is suitable for use in all type of air treatment installation. The valve can be wall or ceiling mounted and the air flow is easy to adjust. **DGEB** has a low noise level, even if the pressure drop is high, and it has good natural sound attenuation. The valve has accessories adapted to different kinds of installations

Quick Selection

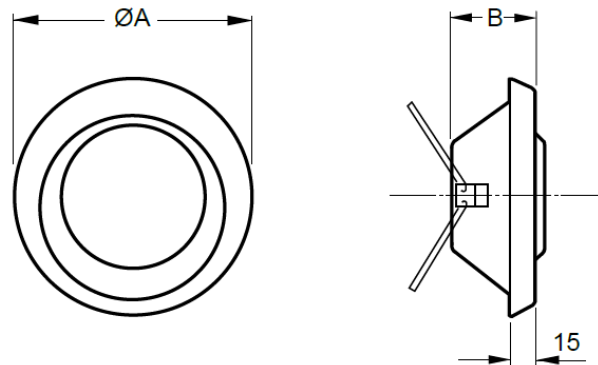
Size	Connection alternative	Air flow range l/s(m3/h) at sound level		
		25 dB	20 dB	35 dB
DGEB100	T-piece	16	19 (68)	23
	Mounting ring	20	24 (86)	27
	Angle duct	14	16 (58)	19
DGEB125	T-piece	22	25 (90)	28
	Mounting ring	29	34 (122)	38
	Angle duct	16	20 (72)	23
DGEB160	T-piece	42	50 (180)	58
	Mounting ring	47	55 (198)	64

Adjustment



100	B	-11	-9	-6	0	+6	+9
	K-factor	0.39	0.56	0.82	1.36	1.9	2.2
125	B	-22	-18	-12	-6	0	+6
	K-factor	0.88	1.3	1.8	2.4	2.9	3.4
160	B	-24	-18	-12	-6	0	+6
	K-factor	1.8	2.5	3.1	3.9	4.6	5.4

DIMENSIONS in mm



DGEB	Ø 100	Ø 125	Ø 160
A mm	130	155	190
B mm	45	56	65
Weight kg	0.3	0.4	0.6

Sound power level

Size	Correction of sound level (dB) at (Hz)							
	63	125	250	500	1k	2k	4k	8k
DGEB100	10	6	5	1	-2	-4	-7	-12
DGEB125	17	2	3	-1	-1	-4	-8	-12
DGEB160	18	4	3	0	1	-4	-12	-14

Sound attenuation

DGEB100

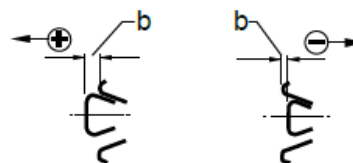
Connection Fitt. DGEZ	Sound attenuation in dB at (Hz)							
	63	125	250	500	1k	2k	4k	8k
01-100	25	22	21	20	14	18	9	10
05-100	25	22	21	20	14	18	9	10
43-100	30	27	23	17	16	19	12	13

DGEB125

Connection Fitt. DGEZ	Sound attenuation in dB at (Hz)							
	63	125	250	500	1k	2k	4k	8k
01-125	24	20	17	15	11	12	7	7
05-125	24	20	17	15	11	12	7	7
43-125	29	25	19	12	13	13	10	10

DGEB160

Connection Fitt. DGEZ	Sound attenuation in dB at (Hz)							
	63	125	250	500	1k	2k	4k	8k
01-160	22	18	16	12	14	10	9	8
05-160	22	18	16	12	14	10	9	8



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



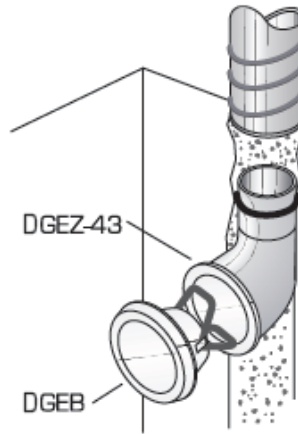
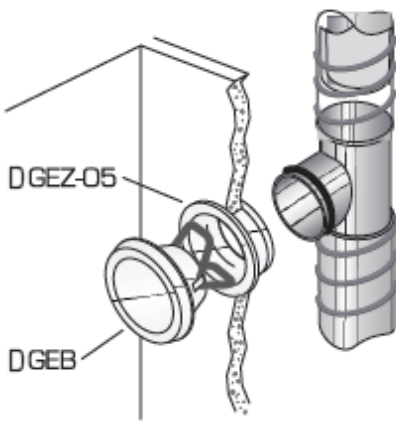
DGEB EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

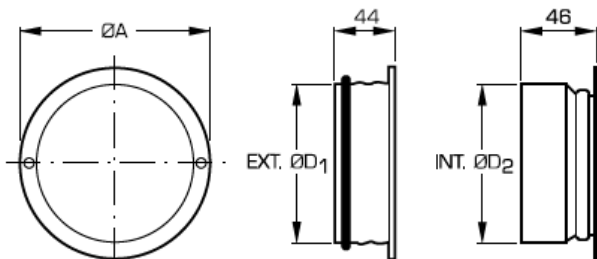
INSTALLATION

Valve **DGEB** connected to a mounting ring

Valve **DGEB** connected to an angle duct

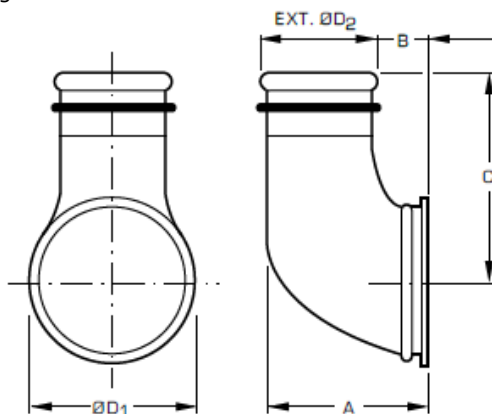


Mounting ring DGEZ-01, insertion connection / Mounting ring DGEZ-05, fit-on connection



Size	A (mm)	D1 (mm)	D2 (mm)	Hole Ø (mm)	W (kg)
100	125	99.3	100	110	0.1
125	150	124.3	125	135	0.1
160	185	159.3	160	170	0.16

Angle duct DGEZ-43



Size	A (mm)	B (mm)	C (mm)	D1 (mm)	D2 (mm)	W (kg)
100-080	120	39	148	125	79.3	0.4
100-100	140	39	98	125	99.3	0.4
120-100	146	45	120	140	99.3	0.5

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

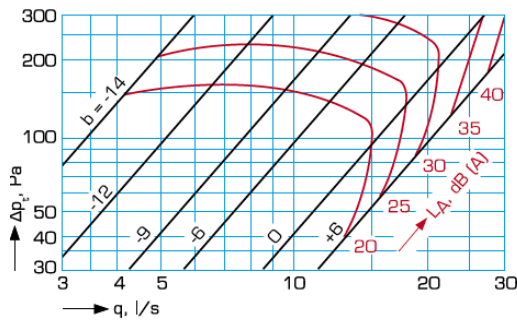


DGEB EXHAUST AIR VALVE

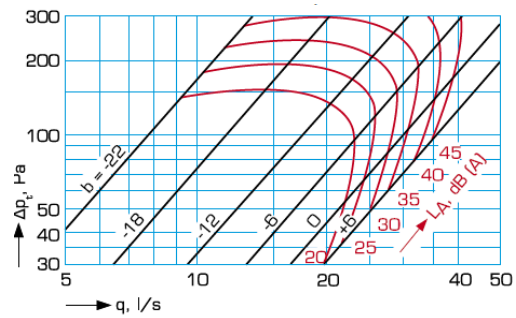
AIR MANAGEMENT SYSTEMS

Air flow, pressure drop, sound level

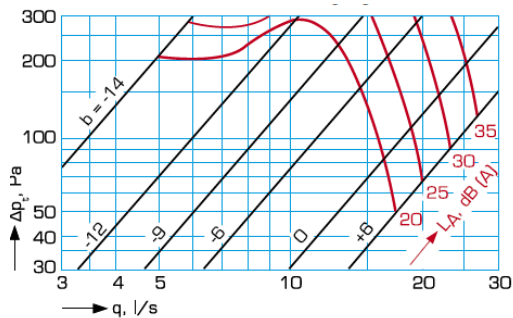
Size 100 with T-Piece



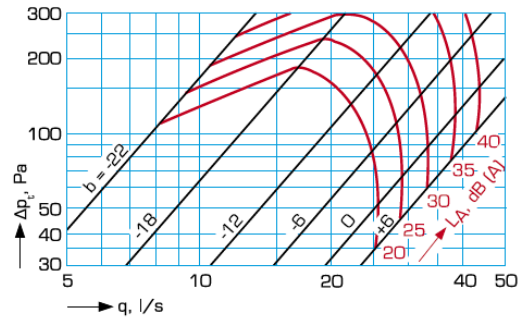
Size 125 with T-Piece



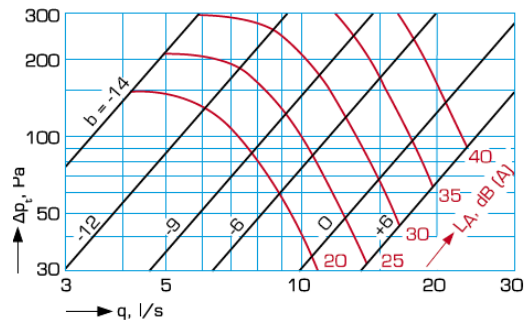
Size 100 with mounting ring



Size 125 with mounting ring



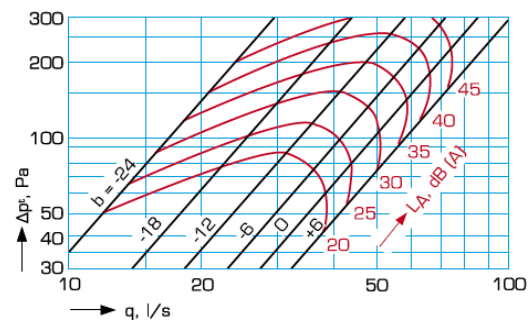
Size 100 with angle duct



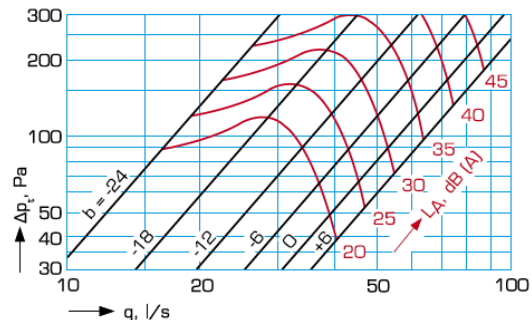
Size 125 with angle duct



Size 160 with T-Piece



Size 160 with mounting ring



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DNK EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated valve *including* fixing collar

DNK is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

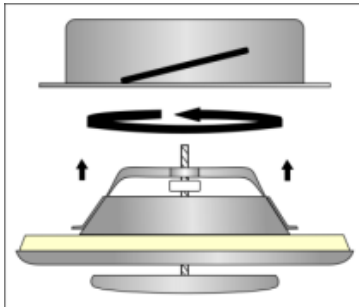
CONSTRUCTION

The **DNK** is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking.

Fixing collar **DKT** is manufactured from galvanized steel sheet and equipped with rubber sealing gasket.

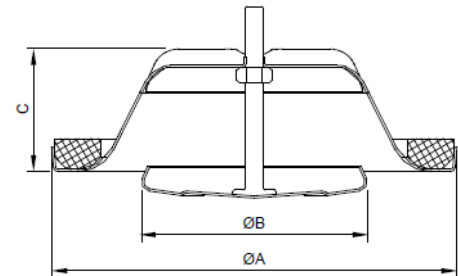
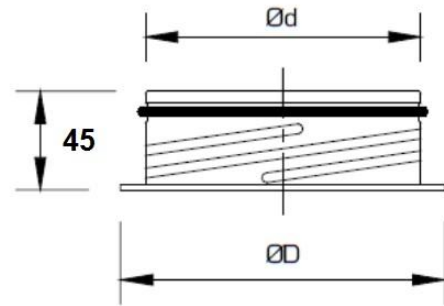
Installation

Mounting ring **DKT** is fitted into the duct with screws or rivets. The valve is fixed by "a screwing action" to locate the valve lugs into indents in the mounting ring.



DIMENSIONS in mm

DNK	Ø 080	Ø 100	Ø 125	Ø 160	Ø 200
A	112	132	163	193	245
B	60	75	99	119	157
C	37	40	46	54	54
W (gr)	120	160	230	340	510
ØD	102	123	148	184	227
Ød	079	099	124	159	199
W (gr)	66	75	102	131	165

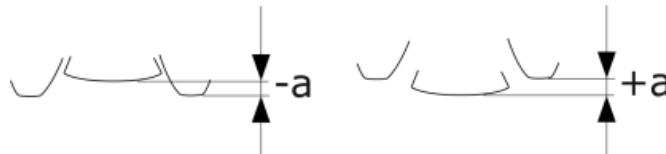


REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension a (mm).

The measurement of airflow is made by a pressure difference measurement with a separate measuring tube.

Refer to airflow measurement diagrams for information.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

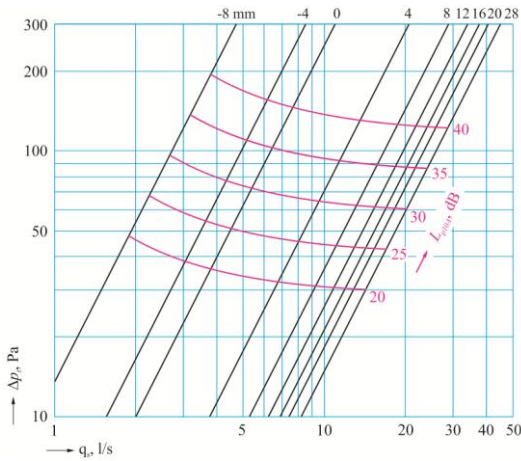
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



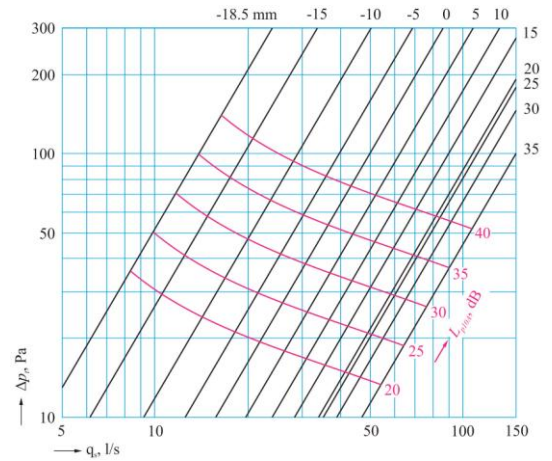
DNK EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

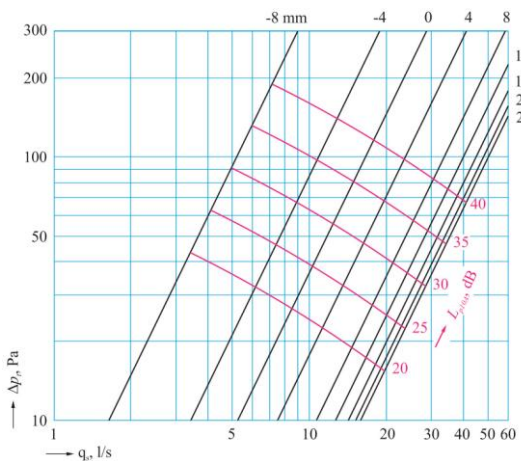
DNK 080 mm



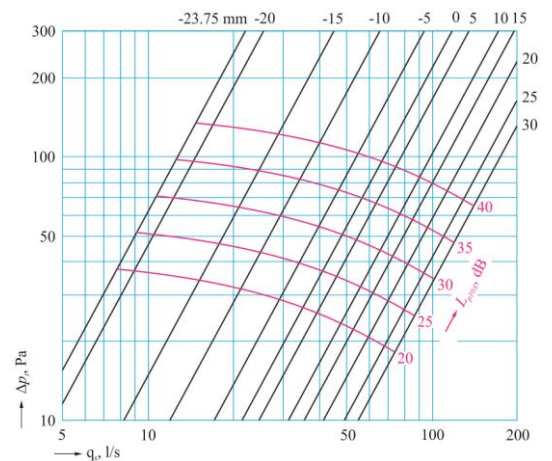
DNK 160 mm



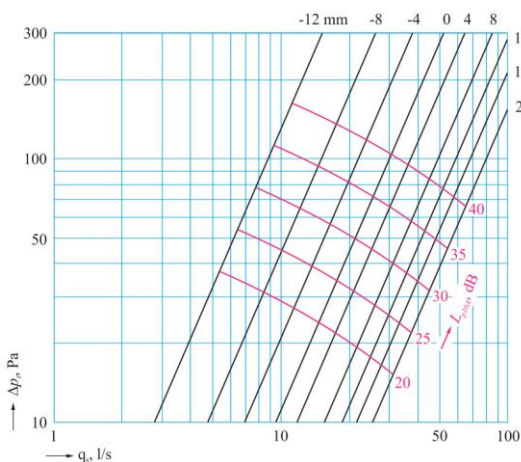
DNK 100 mm



DNK 200 mm



DNK 125 mm



DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m^2sab)	[dB(A)]

LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVS-P SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated valve including fixing collar

DVS-P is a supply valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The **DVS-P** is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). Other color finishes are available to special order quantities. The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking. Fixing collar **DVS-F** is manufactured from galvanized steel sheet.

SOUND POWER LEVEL L_w

DVS-P	CORRECTION K_{oct} (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
080	2	2	1	0	-3	-9	-17
100	7	3	2	-2	-6	-14	-30
125	3	6	4	-3	-11	-21	-37
150	7	5	3	-2	-10	-20	-34
160	6	7	3	-3	-11	-27	-34
200	7	6	3	-2	-10	-25	-34
Tol. +/-	3	2	2	2	2	2	3

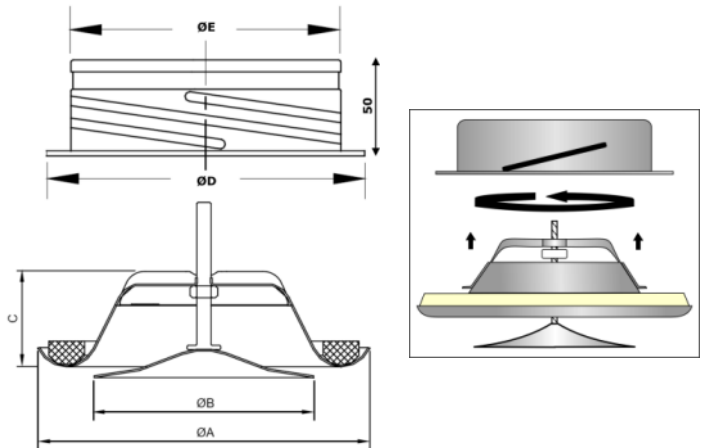
Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula:

$$L_{woct} = L_{p10A} + K_{oct}$$

Correction K_{oct} is average value in range of use of DVS-P unit.

DIMENSIONS in mm

DVS-P	Ø 080	Ø 100	Ø 125	Ø150	Ø 160	Ø200
A	116	140	170	202	202	254
B	76	92	111	135	135	194
C	40	40	46	54	54	64
W (gr)	150	170	230	340	340	550
D	105	125	150	175	185	225
E	79	99	124	149	159	199
W (gr)	80	100	120	180	190	240

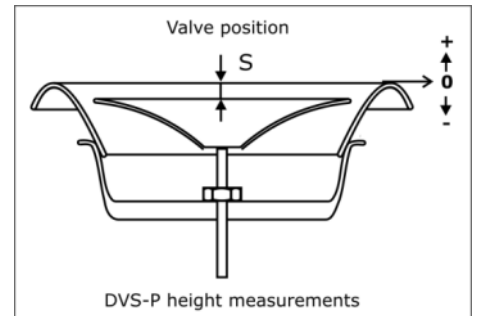


REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.

DVS-P	Adjustment s (mm)	SOUND ATTENUATION ΔL							
		Middle frequency by octave band (Hz)							
		63	125	250	500	1k	2k	4k	8k
080	-3	24	21	16	12	9	7	5	5
	3	24	19	13	10	7	4	4	4
	9	24	19	13	9	6	3	3	4
100	-3	24	19	13	10	9	9	11	9
	6	23	16	11	7	6	5	6	6
	10	23	17	11	7	5	5	5	6
125	-7	19	16	11	7	4	4	5	6
	0	18	16	10	6	4	3	4	6
	15	19	15	9	5	3	2	3	4
150	-5	20	13	10	7	5	4	5	5
	3	19	12	9	5	4	3	4	4
	15	19	12	8	4	3	2	4	3
160	-5	18	13	10	6	5	5	5	6
	5	17	12	9	5	4	3	4	4
	10	17	12	8	5	4	3	4	3
200	3	17	12	8	7	7	5	7	6
	6	17	12	7	6	6	5	7	5
	12	17	11	6	5	5	4	6	5
Tol. ±	6	3	2	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in ceiling installation is obtained in the table above.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

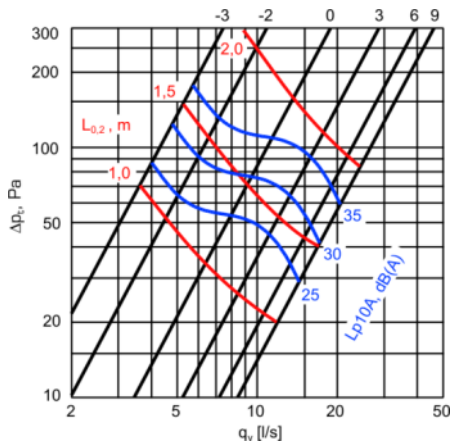
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

DVS-P SUPPLY AIR VALVE

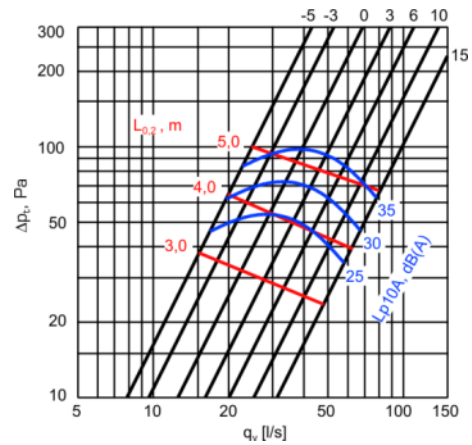
AIR MANAGEMENT SYSTEMS



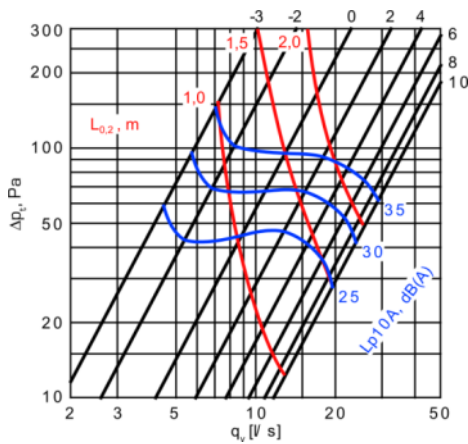
DVS-P 080 mm



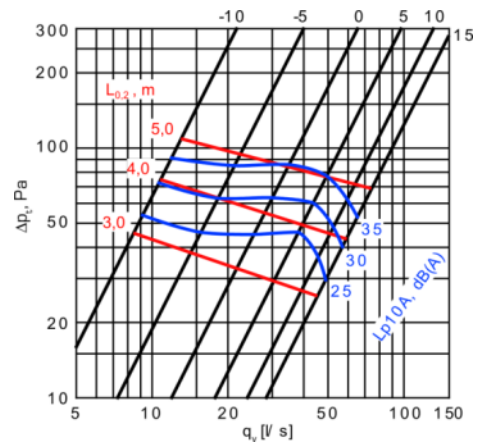
DVS-P 150 mm



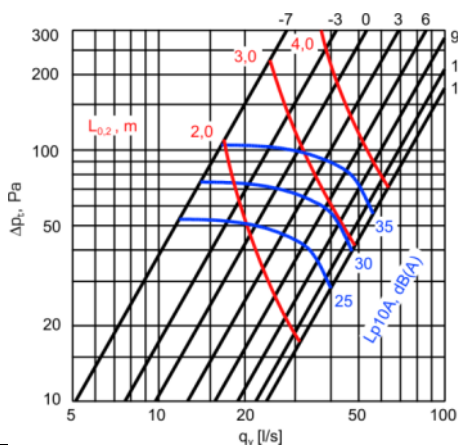
DVS-P 100 mm



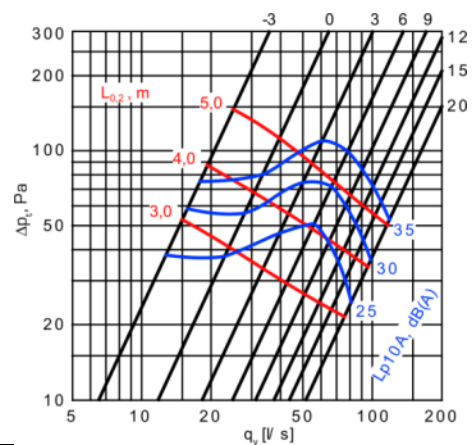
DVS-P 160 mm



DVS-P 125 mm



DVS-P 200 mm



DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation ($10 m^2sab$)	[dB(A)]
L_{woct}	sound power level by octave bands	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVS-P TILLUFTSVENTIL

LUFTDON

PRODUKT EGENSKAPER

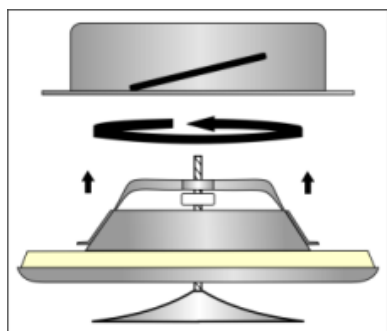
Pulverlackerad inclusive fästram.

DVS-P är ren tilluftsventil lämplig för hem, kontor osv.

- Enkelt att justera
- Låg ljudnivå
- Snabb och enkel att installera
- Lufttryck lätt att mäta

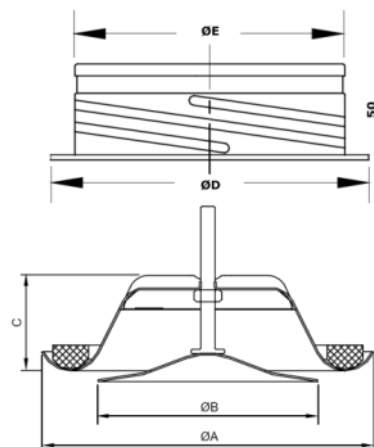
KONSTRUKTION

DVS-P är tillverkad av stålplåt som är pulverlackerat. Standardfärg är vit (RAL 9010) Ventil kroppen har en packning tillverkad av cellplast och kontrollskiva med skruvning, vilket möjliggör enkel reglering och positionslåsning. Fästramen **DVS-F** är tillverkad av galvaniserad stålplåt.



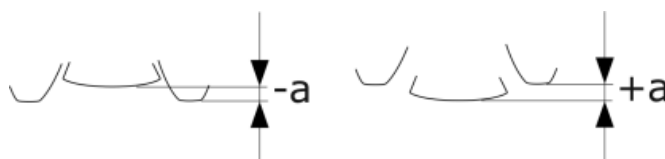
DIMENSIONER i mm

DVS-P	Ø 080	Ø 100	Ø 125	Ø150	Ø 160	Ø200
A	116	140	166	204	209	248
B	80	91	112	137	148	196
C	40	40	46	54	54	59
W (gr)	122	165	226	297	334	520
D	105	125	150	175	185	225
E	79	99	124	149	159	199
W (gr)	74	89	112	152	165	212



FÖRORDNING OCH MÄTNINGAR

Reglering av luftflödet uppnås genom att vrida kontrollskivan för att ändra justeringsmått **a** (mm). Mätningen av luftflödet är gjord med en tryckskillnadsmätning med ett separat mätrör. Se flödesdiagram för information.



LANSVAR:

Informationen i denna broschyr var aktuell vid publiceringsdatumet. DEC INTERNATIONAL förbehåller sig rätten att när som helst göra ändringar i detaljer utan föregående meddelande. För att undvika missförstånd rekommenderas alla intresserade att kontakta DEC INTERNATIONAL för eventuella förändringar i material och / eller information efter det att denna broschyr publicerades

OBS:

Konsulten ansvarar för själva installationen och monteringen av produkten. De nämnda värdena med avseende på temperaturer är inte lämpliga att användas för att bestämma de fysikaliska egenskaperna. Dessa egenskaper är också beroende av luftfuktighet och luftens temperatur inom och utanför ventilationssystemet.

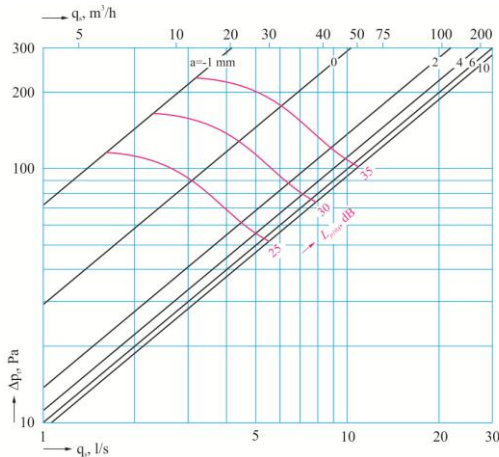
VARUMÄRKEN:

DEC International och DEC-logotypen är varumärken eller registrerade varumärken som tillhör Dutch Environment Corporation BV i Nederländerna och / eller andra länder.

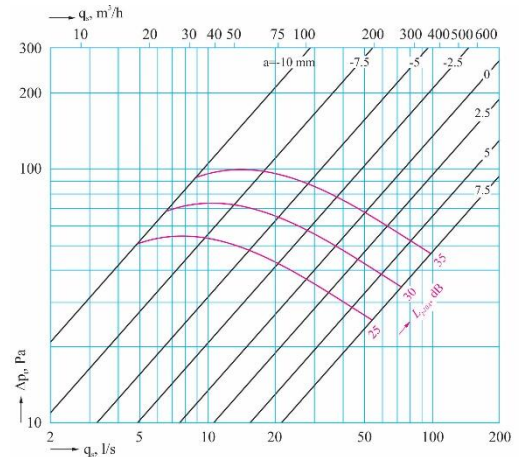


DVS-P TILLUFTSVENTIL LUFTDON

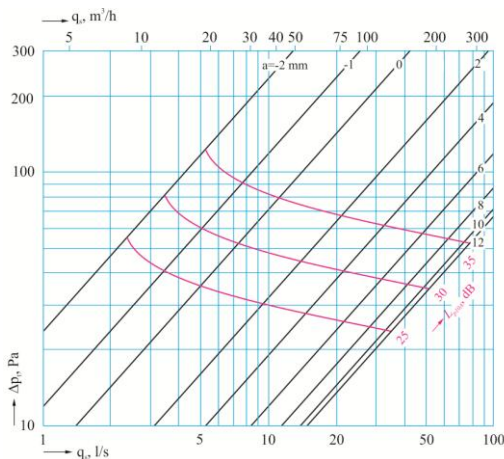
DVS-P 080 mm



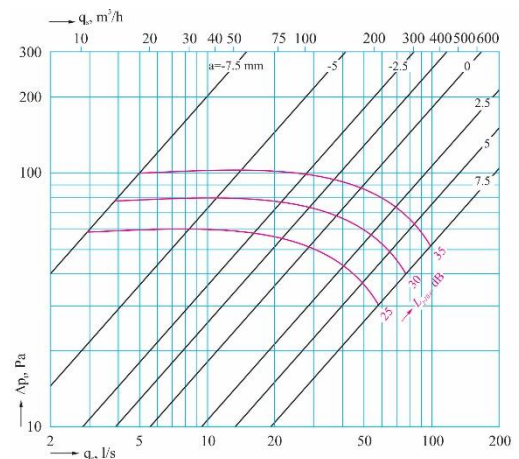
DVS-P 150 mm



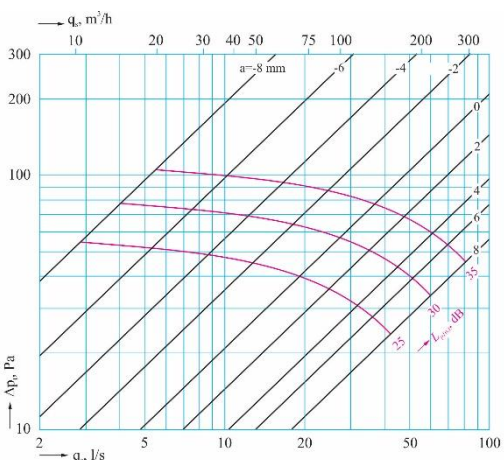
DVS-P 100 mm



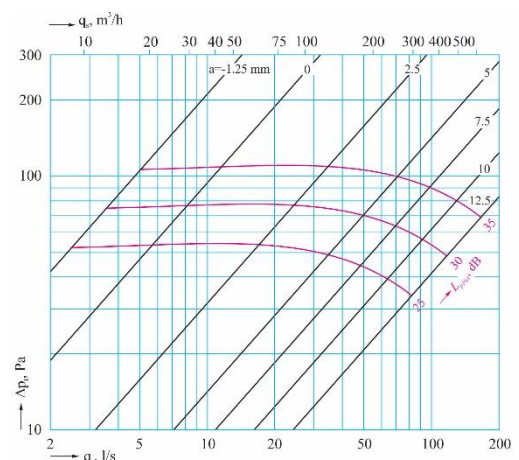
DVS-P 160 mm



DVS-P 125 mm



DVS-P 200 mm



DEFINITIONS

q_v	luftvolym	(m ³ /h)
Δp_v	total tryckfall	(Pa)
L_{p10A}	ljudtrycksnivå med 4 dB rumsdämpning (10 m ² sab)	[dB(A)]

LANSVAR:
Informationen i denna broschyr var aktuell vid publiceringsdatumet. DEC INTERNATIONAL förbehåller sig rätten att när som helst göra ändringar i detaljer utan föregående meddelande. För att undvika missförstånd rekommenderas alla intresserade att kontakta DEC INTERNATIONAL för eventuella förändringar i material och / eller information efter det att denna broschyr publicerades

OBS:
Konsulten ansvarar för själva installationen och monteringen av produkten. De nämnda värdena med avseende på temperaturer är inte lämpliga att användas för att bestämma de fysikaliska egenskaperna. Dessa egenskaper är också beroende av luftfuktighet och luftens temperatur inom och utanför ventilationssystemet.

VARUMÄRKEN:
DEC International och DEC-logotypen är varumärken eller registrerade varumärken som tillhör Dutch Environment Corporation BV i Nederländerna och / eller andra länder.



DVS-P SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

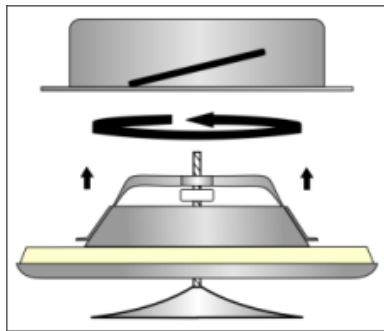
Powder coated valve *including* fixing collar

DVS-P is a supply valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

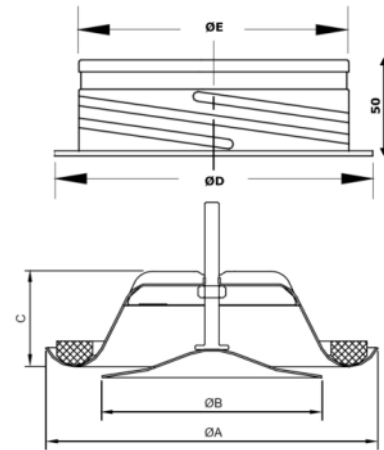
CONSTRUCTION

The **DVS-P** is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking. Fixing collar **DVS-F** is manufactured from galvanized steel sheet.



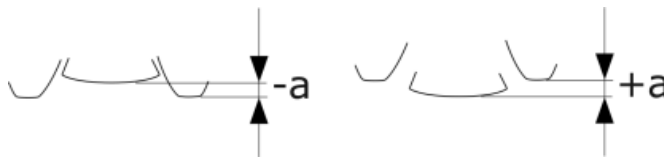
DIMENSIONS in mm

DVS-P	Ø 080	Ø 100	Ø 125	Ø150	Ø 160	Ø200
A	116	140	166	204	209	248
B	80	91	112	137	148	196
C	40	40	46	54	54	59
W (gr)	122	165	226	297	334	520
D	105	125	150	175	185	225
E	79	99	124	149	159	199
W (gr)	74	89	112	152	165	212



REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension a (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

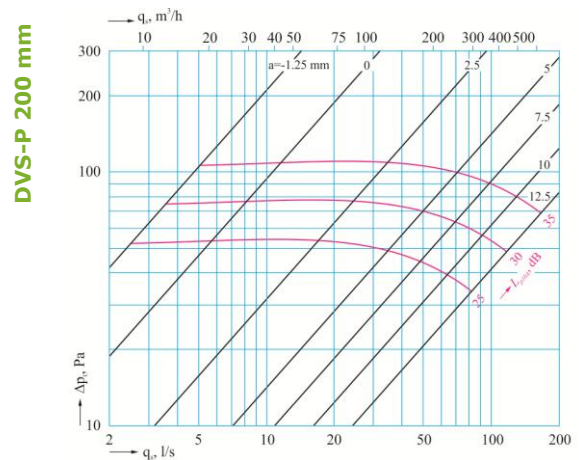
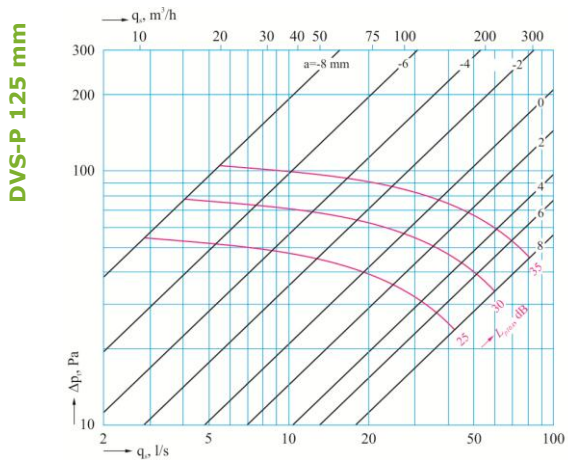
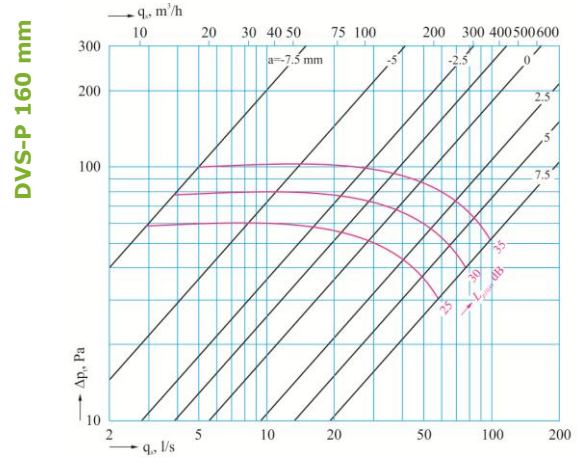
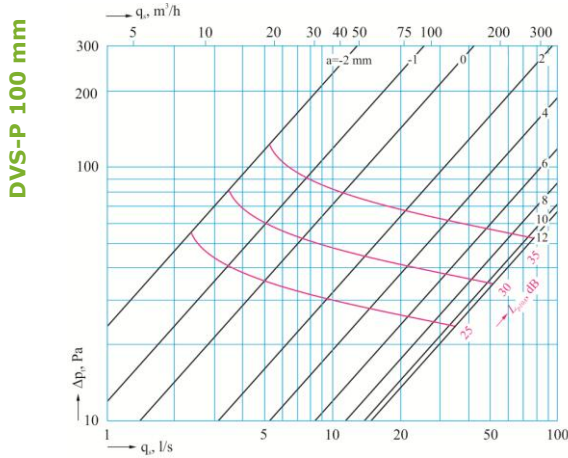
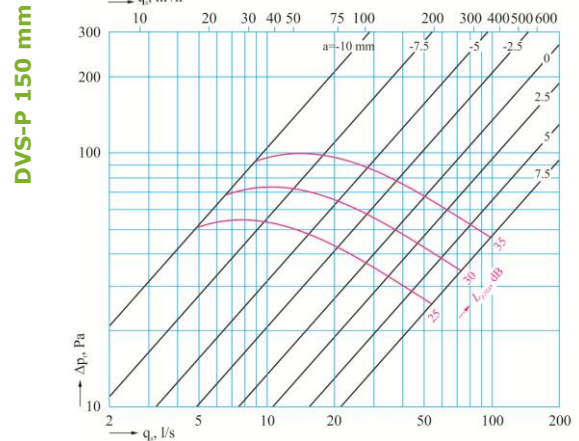
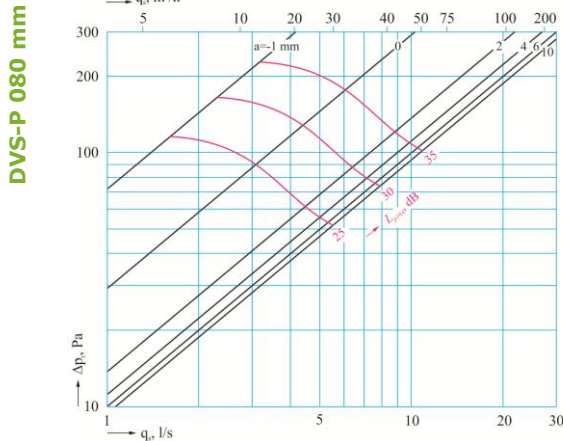
TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVS-P SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS



DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m ² sab)	[dB(A)]

LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVS-PY SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Stainless steel valve including fixing collar

DVS-PY is a supply valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The DVS-PY is manufactured from Stainless steel alloy AISI304/2B. The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking. Fixing collar DVS-FY is manufactured from Stainless steel alloy AISI304/2B.

SOUND POWER LEVEL L_w

DVS-PY	CORRECTION K_{oct} (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
080	2	2	1	0	-3	-9	-17
100	7	3	2	-2	-6	-14	-30
125	3	6	4	-3	-11	-21	-37
150	7	5	3	-2	-10	-20	-34
160	6	7	3	-3	-11	-27	-34
200	7	6	3	-2	-10	-25	-34
Tol. +/-	3	2	2	2	2	2	3

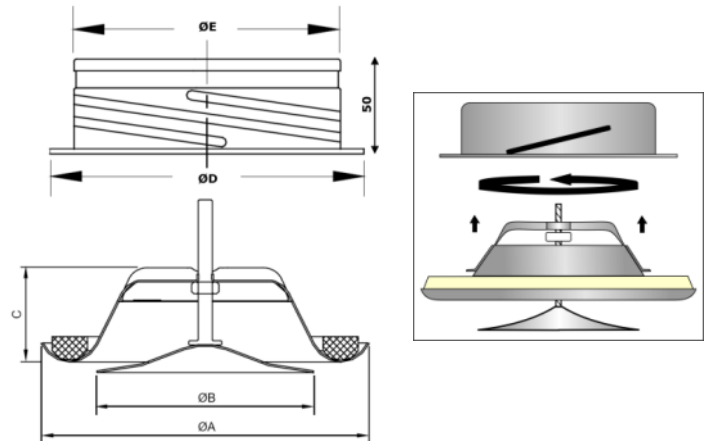
Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula:

$$L_{woct} = L_{p10A} + K_{oct}$$

Correction K_{oct} is average value in range of use of DVS-PY unit.

DIMENSIONS in mm

DVS-PY	Ø 080	Ø 100	Ø 125	Ø 150	Ø 160	Ø 200
A	116	140	170	202	202	254
B	76	92	111	135	135	194
C	40	40	46	54	54	64
W (gr)	150	170	230	340	340	550
D	105	125	150	175	185	225
E	79	99	124	149	159	199
W (gr)	80	100	120	180	190	240

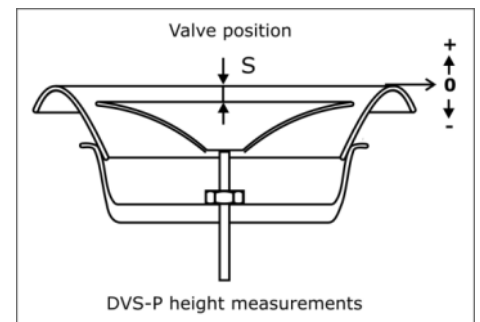


REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.

DVS-PY	Adjustment s (mm)	SOUND ATTENUATION ΔL							
		Middle frequency by octave band (Hz)							
		63	125	250	500	1k	2k	4k	8k
080	-3	24	21	16	12	9	7	5	5
	3	24	19	13	10	7	4	4	4
	9	24	19	13	9	6	3	3	4
100	-3	24	19	13	10	9	9	11	9
	6	23	16	11	7	6	5	6	6
	10	23	17	11	7	5	5	5	6
125	-7	19	16	11	7	4	4	5	6
	0	18	16	10	6	4	3	4	6
	15	19	15	9	5	3	2	3	4
150	-5	20	13	10	7	5	4	5	5
	3	19	12	9	5	4	3	4	4
	15	19	12	8	4	3	2	4	3
160	-5	18	13	10	6	5	5	5	6
	5	17	12	9	5	4	3	4	4
	10	17	12	8	5	4	3	4	3
200	3	17	12	8	7	7	5	7	6
	6	17	12	7	6	6	5	7	5
	12	17	11	6	5	5	4	6	5
Tol. \pm	6	3	2	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in ceiling installation is obtained in the table above.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

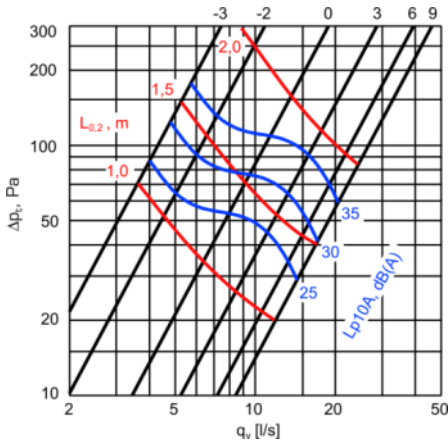
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



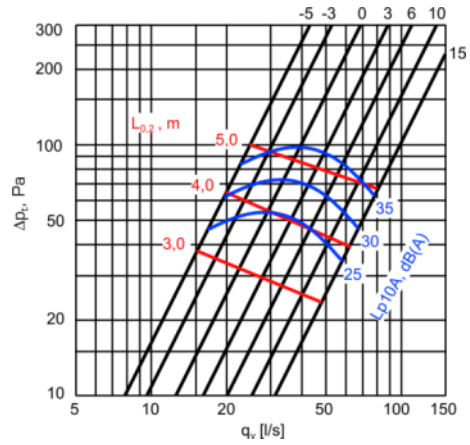
DVS-PY SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

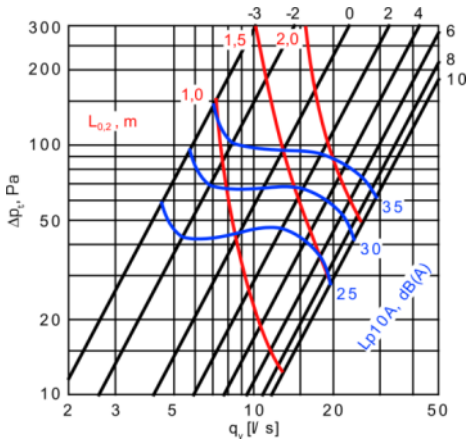
DVS-PY 080 mm



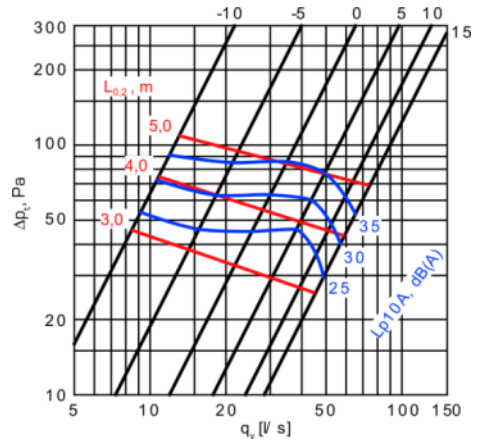
DVS-PY 150 mm



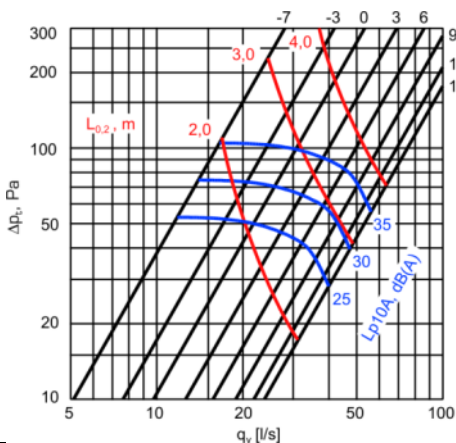
DVS-PY 100 mm



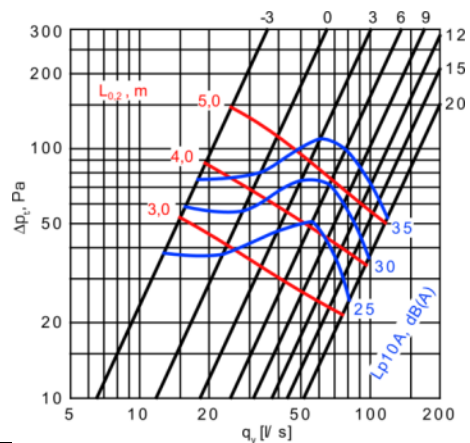
DVS-PY 160 mm



DVS-PY 125 mm



DVS-PY 200 mm



DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation ($10 m^2sab$)	[dB(A)]
L_{Woct}	sound power level by octave bands	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVSC-P SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated valve

DVSC-P is a supply valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The DVSC-P is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). Other color finishes are available to special order quantities. The valve body has a gasket, made of cellular plastic and the control disc, with spring connection, enables easy regulation and positional locking.

SOUND POWER LEVEL L_w

DVSC-P	CORRECTION K_{oct} (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
080	2	2	1	0	-3	-9	-17
100	7	3	2	-2	-6	-14	-30
125	3	6	4	-3	-11	-21	-37
150	7	5	3	-2	-10	-20	-34
160	6	7	3	-3	-11	-27	-34
200	7	6	3	-2	-10	-25	-34
Tol. +/-	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula:

$$L_{woct} = L_{p10A} + K_{oct}$$

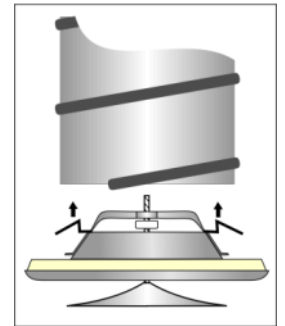
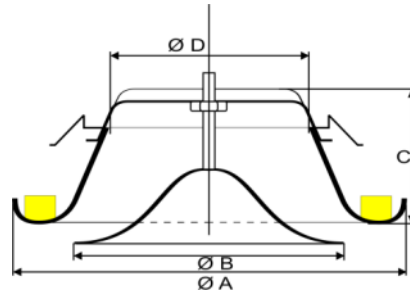
Correction K_{oct} is average value in range of use of DVSC-P unit.

DVSC-P	Adjustment s (mm)	SOUND ATTENUATION ΔL							
		Middle frequency by octave band (Hz)							
		63	125	250	500	1k	2k	4k	8k
080	-3	24	21	16	12	9	7	5	5
	3	24	19	13	10	7	4	4	4
	9	24	19	13	9	6	3	3	4
100	-3	24	19	13	10	9	9	11	9
	6	23	16	11	7	6	5	6	6
	10	23	17	11	7	5	5	5	6
125	-7	19	16	11	7	4	4	5	6
	0	18	16	10	6	4	3	4	6
	15	19	15	9	5	3	2	3	4
150	-5	20	13	10	7	5	4	5	5
	3	19	12	9	5	4	3	4	4
	15	19	12	8	4	3	2	4	3
160	-5	18	13	10	6	5	5	5	6
	5	17	12	9	5	4	3	4	4
	10	17	12	8	5	4	3	4	3
200	3	17	12	8	7	7	5	7	6
	6	17	12	7	6	6	5	7	5
	12	17	11	6	5	5	4	6	5
Tol. \pm	6	3	2	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in ceiling installation is obtained in the table above.

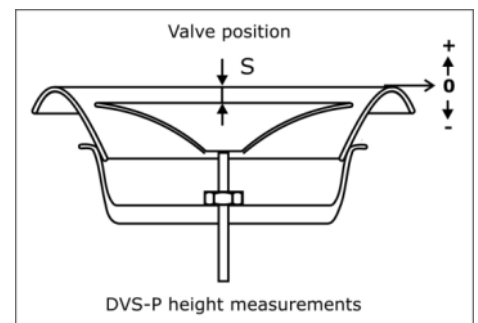
DIMENSIONS in mm

DVSC-P	$\varnothing 080$	$\varnothing 100$	$\varnothing 125$	$\varnothing 150$	$\varnothing 160$	$\varnothing 200$
A	116	140	170	202	202	254
B	76	92	111	135	135	194
C	40	40	46	54	54	64
D	105	125	150	175	185	225



REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

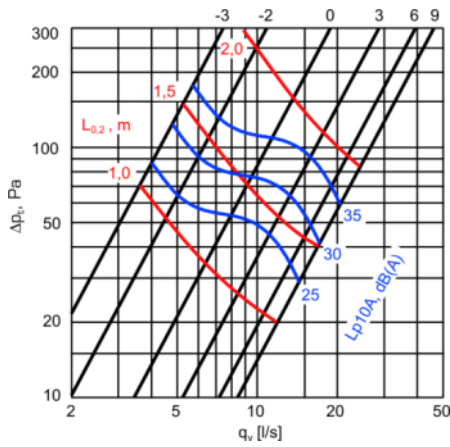
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



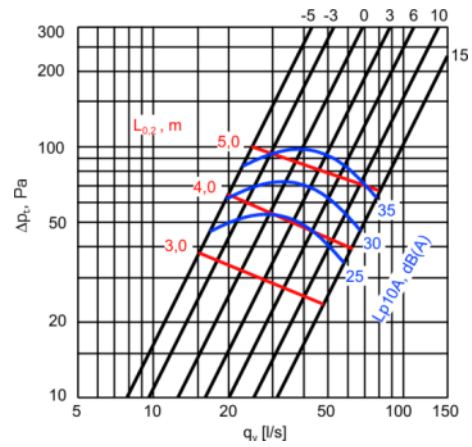
DVSC-P SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

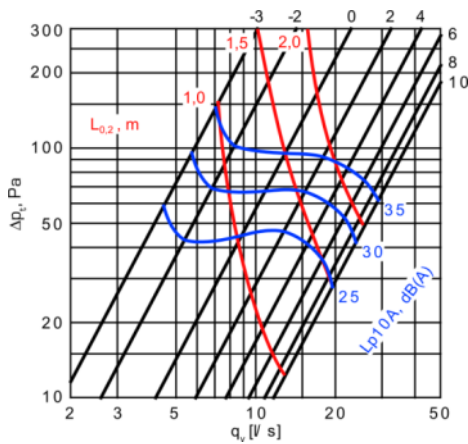
DVSC-P 080 mm



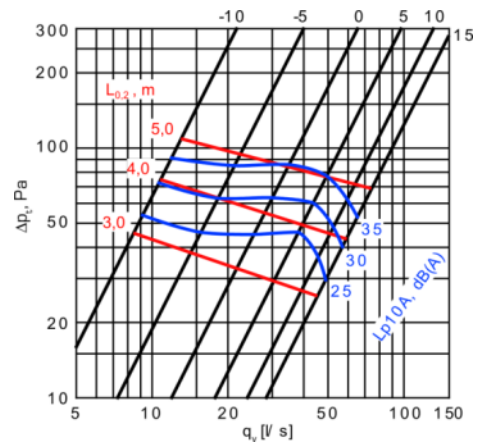
DVSC-P 150 mm



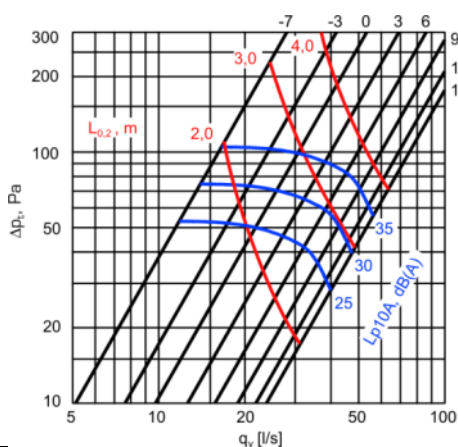
DVSC-P 100 mm



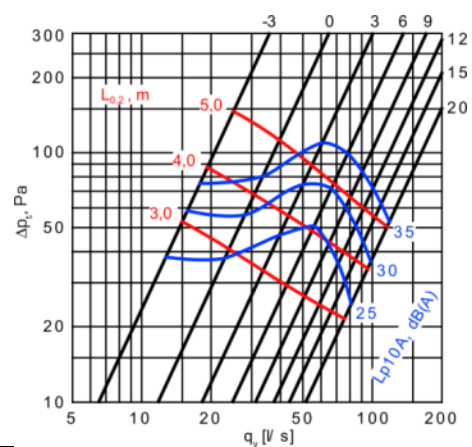
DVSC-P 160 mm



DVSC-P 125 mm



DVSC-P 200 mm



DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m^2 sab)	[dB(A)]
L_{woct}	sound power level by octave bands	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVSQ-P SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated square valve

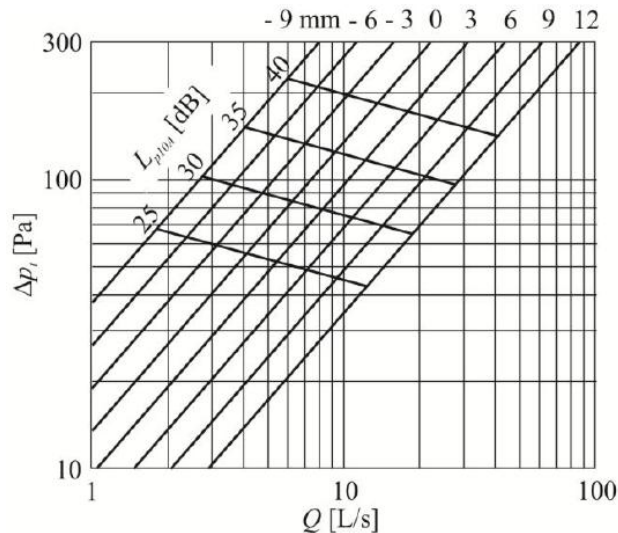
DVSQ-P is a supply valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The **DVSQ-P** is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). Other color finishes are available to special order quantities. The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking.

The valve is closed when the valve actuating element is placed on -10 mm from the zero-plane, while it is totally opened when the valve actuating element is placed on 7 mm from the zero-plane Fig. For one turn of the valve actuating element it is longitudinally displaced for 1 mm. The graphic shows the dependence of flow rate, noise intensity and total pressure drop across the valve type **DVSQ-P125**

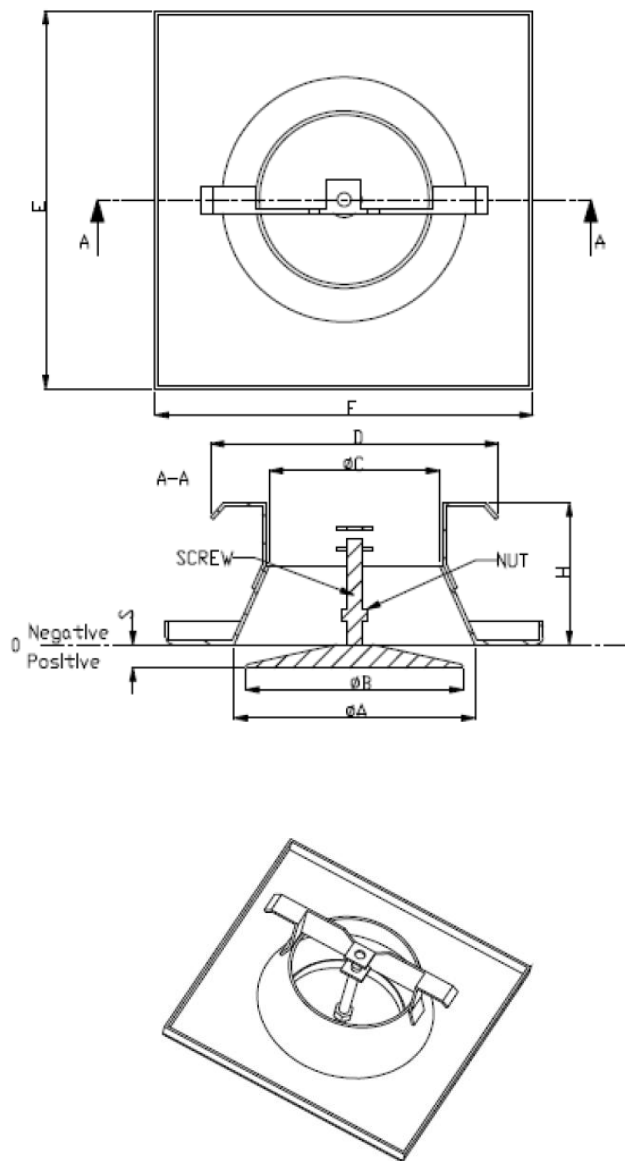


	DVSQ-P100	DVSQ-P125
ØA	103	126
ØB	92	116
ØC	72	100
D	123	152
E	160	190
F	160	190
H	60	65
S	+ / -	+ / -

Body height 1cm

REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



MV-P SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated valve including fixing collar

MV-P is a supply valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The MV-P is manufactured from steel sheet, powder coated. Standard color white (RAL 9016). Other color finishes are available to special order quantities. The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking. Fixing collar is manufactured from galvanized steel sheet.

SOUND POWER LEVEL L_w

MV-P	CORRECTION K_{oct} (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
080	2	2	1	0	-3	-9	-17
100	7	3	2	-2	-6	-14	-30
125	3	6	4	-3	-11	-21	-37
150	7	5	3	-2	-10	-20	-34
160	6	7	3	-3	-11	-27	-34
200	7	6	3	-2	-10	-25	-34
Tol. +/-	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula:

$$L_{woct} = L_{p10A} + K_{oct}$$

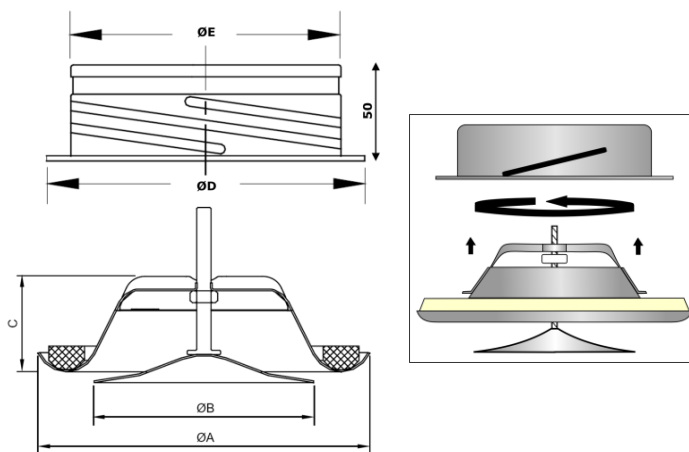
Correction K_{oct} is average value in range of use of MV-P unit.

MV-P	Adjustment s (mm)	SOUND ATTENUATION ΔL							
		Middle frequency by octave band (Hz)							
		63	125	250	500	1k	2k	4k	8k
080	-3	24	21	16	12	9	7	5	5
	3	24	19	13	10	7	4	4	4
	9	24	19	13	9	6	3	3	4
100	-3	24	19	13	10	9	9	11	9
	6	23	16	11	7	6	5	6	6
	10	23	17	11	7	5	5	5	6
125	-7	19	16	11	7	4	4	5	6
	0	18	16	10	6	4	3	4	6
	15	19	15	9	5	3	2	3	4
150	-5	20	13	10	7	5	4	5	5
	3	19	12	9	5	4	3	4	4
	15	19	12	8	4	3	2	4	3
160	-5	18	13	10	6	5	5	5	6
	5	17	12	9	5	4	3	4	4
	10	17	12	8	5	4	3	4	3
200	3	17	12	8	7	7	5	7	6
	6	17	12	7	6	6	5	7	5
	12	17	11	6	5	5	4	6	5
Tol. ±	6	3	2	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in ceiling installation is obtained in the table above.

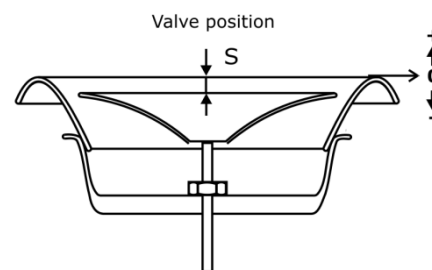
DIMENSIONS in mm

MV-P	Ø 080	Ø 100	Ø 125	Ø 150	Ø 160	Ø 200
A	116	140	170	202	202	254
B	76	92	111	135	135	194
C	40	40	46	54	54	64
D	105	125	150	175	185	225
E	79	99	124	149	159	199



REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

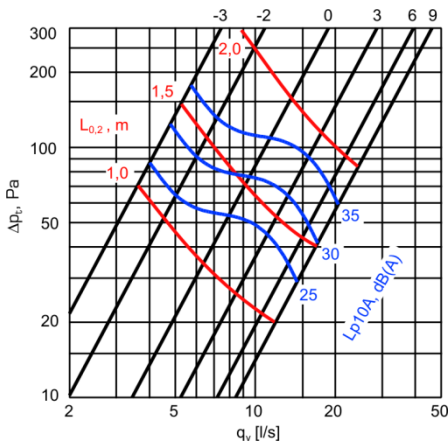
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



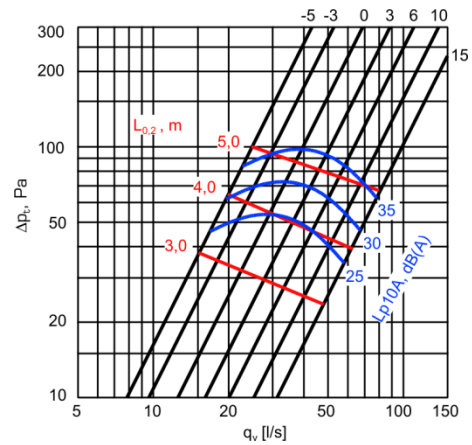
MV-P SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

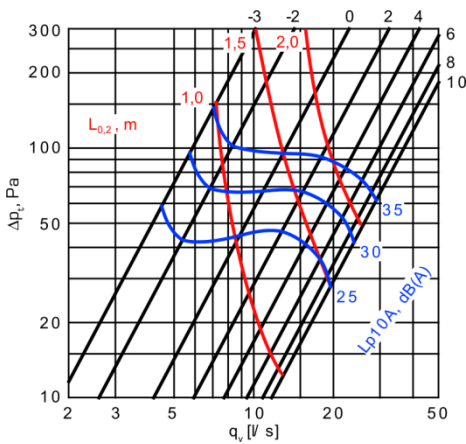
MV-P 080 mm



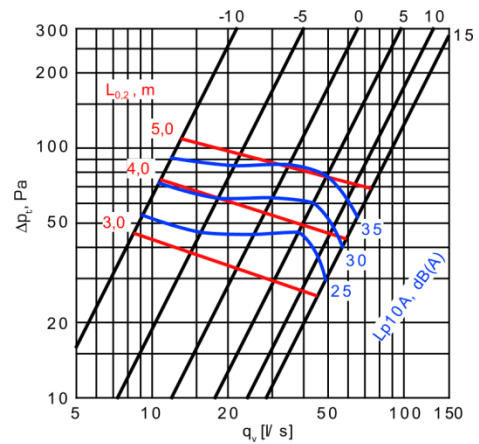
MV-P 150 mm



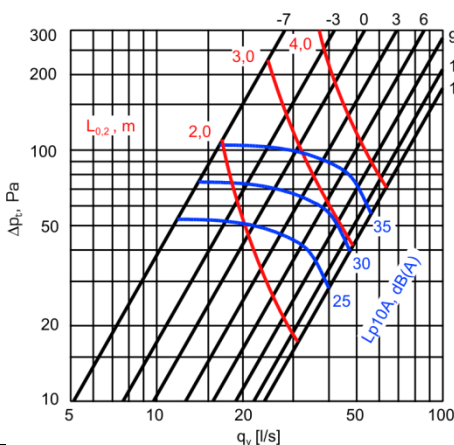
MV-P 100 mm



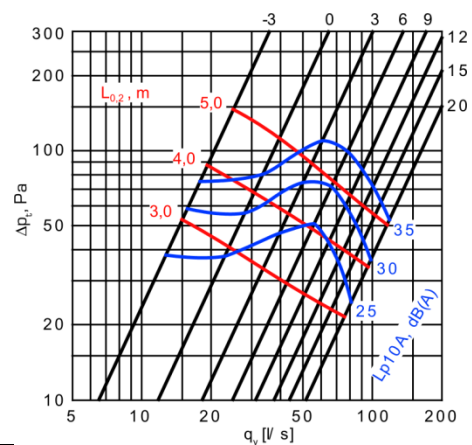
MV-P 160 mm



MV-P 125 mm



MV-P 200 mm



DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation ($10 m^2sab$)	[dB(A)]
L_{woct}	sound power level by octave bands	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVSR SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated air supply valve with adjustable core

DVSR is a supply valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The **DVSR** is manufactured from steel sheet, powder coated. Standard color white (RAL 9010).

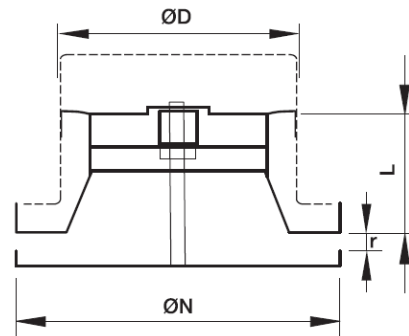
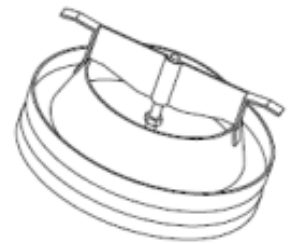
The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation.

MOUNTING

Fixing by clips in the mounting frame. Can also be used for direct mounting into round ducts (with or without mounting frame).

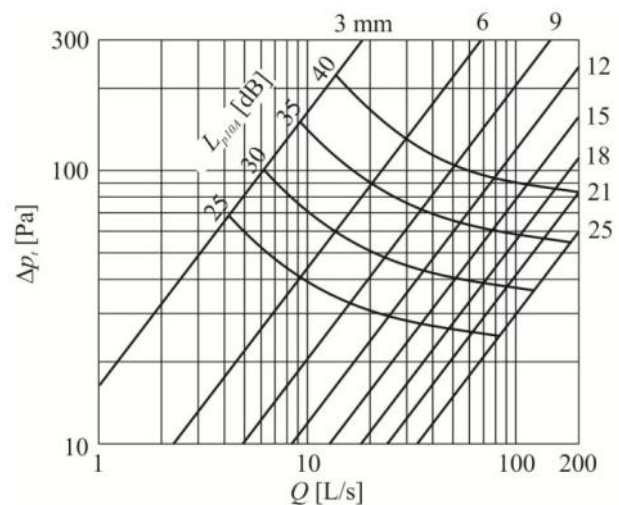
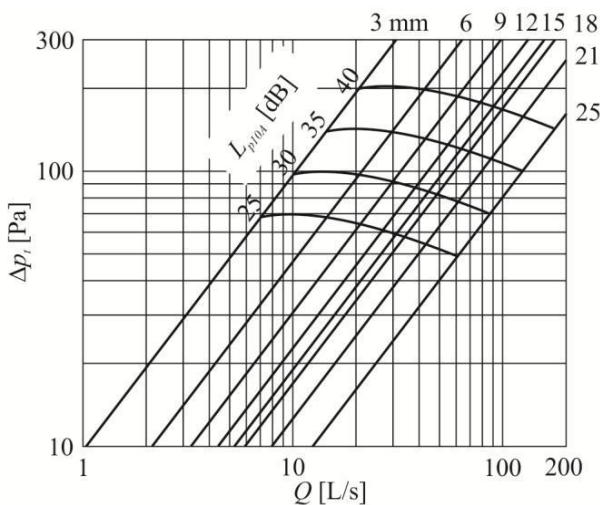
REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube.



ØD (mm)	ØN (mm)	L (mm)
080	106	60
100	135	60
125	160	60
160	195	60
200	238	63

The valve is closed when the inner disc of the valve actuating element coincides with the zero-plane, Fig. Actuating valve element has only positive travel; it is totally opened when actuating valve element is moved 25 mm from the zero plane. For one turn of the valve actuating element it is longitudinally displaced for 1 mm. The graphic shows the dependence of flow rate, noise intensity and total pressure drop across the valve type **DVSR100 and DVSR125**.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVIR SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Stainless steel air supply valve with adjustable core

DVIR is a supply valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The **DVIR** is manufactured from brushed stainless steel. The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation.

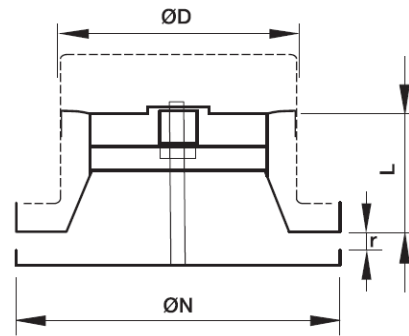
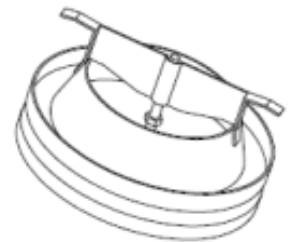
MOUNTING

Fixing by clips in the mounting frame. Can also be used for direct mounting into round ducts (with or without mounting frame) .

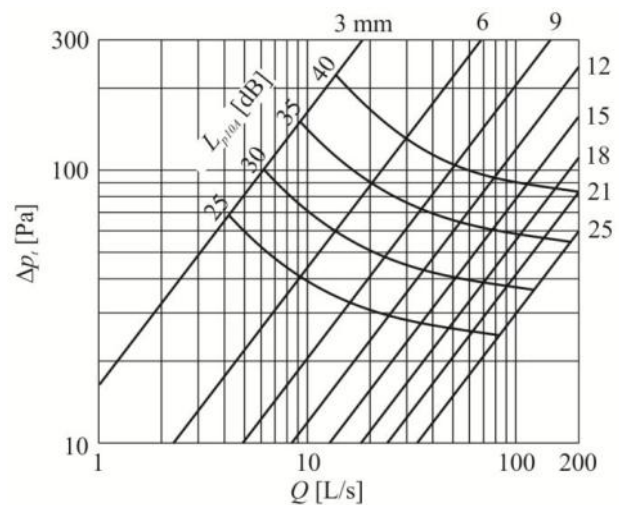
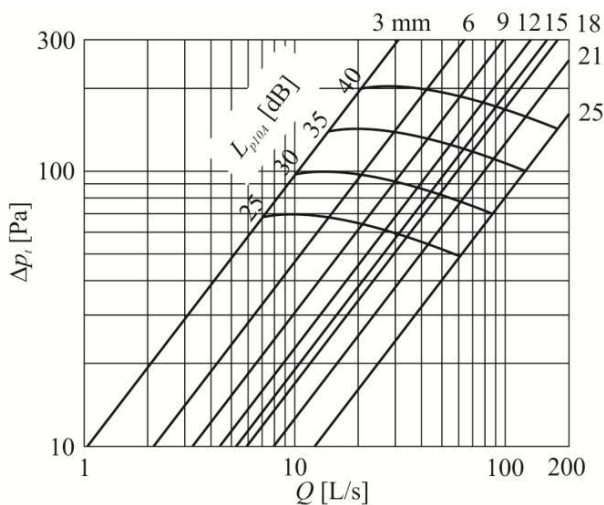
ØD (mm)	ØN (mm)	L (mm)
080	106	60
100	135	60
125	160	60
160	195	60
200	238	63

REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension s (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube.



The valve is closed when the inner disc of the valve actuating element coincides with the zero-plane, Fig. Actuating valve element has only positive travel; it is totally opened when actuating valve element is moved 25 mm from the zero plane. For one turn of the valve actuating element it is longitudinally displaced for 1 mm. The graphic shows the dependence of flow rate, noise intensity and total pressure drop across the valve type **DVIR100** and **DVIR125**.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DIRC SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

POWDER COATED METAL SUPPLY VALVE WITH VERTICAL DISCHARGE AND SPRING CONNECTION

DIRC is a supply valve suitable for houses, offices etc.

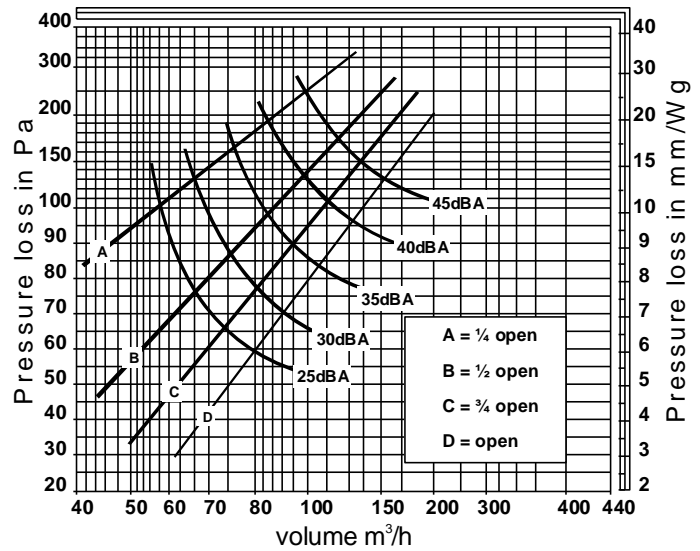
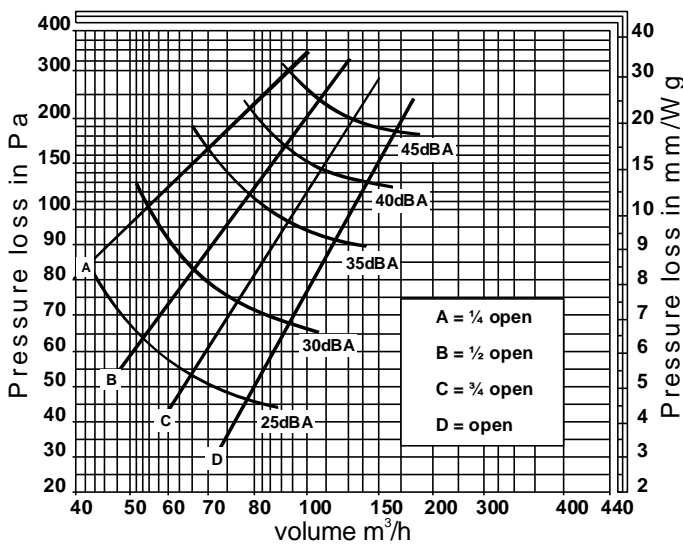
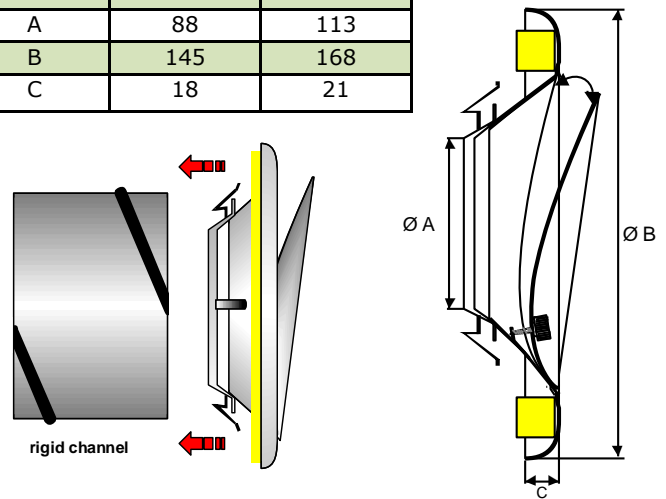
- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

- diameter range 100 and 125 mm.
- manufactured out of powder coated steel.
- standard colour white (RAL 9010), other colors on request.
- adjustable and lockable disc.
- suitable for direct mounting in round, rigid ducts.
- a longsleeve for mounting in declining ceilings and in walls is optional.

DIMENSIONS (IN MILLIMETRES)

DIR-C	Ø 100	Ø 125
A	88	113
B	145	168
C	18	21



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DNE SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated valve including fixing collar

DNE is a supply valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Quick and easy to install
- Airflow easy to measure

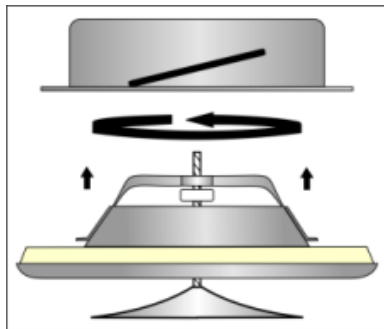
CONSTRUCTION

The **DNE** is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). The valve body has a gasket, made of cellular plastic and the control disc, with screw spindle, enables easy regulation and positional locking.

Fixing collar **DKT** is manufactured from galvanized steel sheet and equipped with rubber sealing gasket.

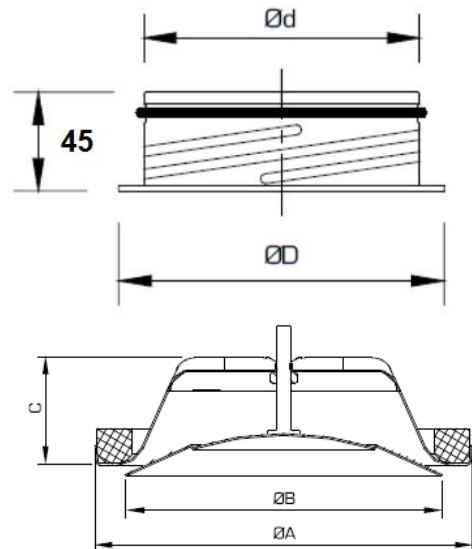
Installation

Mounting ring **DKT** is fitted into the duct with screws or rivets. The valve is fixed by "a screwing action" to locate the valve lugs into indents in the mounting ring.



DIMENSIONS in mm

DNE	Ø 080	Ø 100	Ø 125	Ø 160	Ø 200
A	112	132	160	193	245
B	93	110	135	158	205
C	37	40	46	54	64
W (gr)	140	190	260	370	550
ØD	102	123	148	184	227
Ød	079	099	124	159	199
W (gr)	66	75	102	131	165

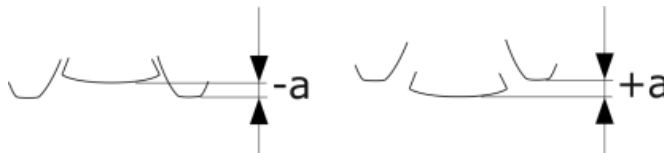


REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension a (mm).

The measurement of airflow is made by a pressure difference measurement with a separate measuring tube.

Refer to airflow measurement diagrams for information.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

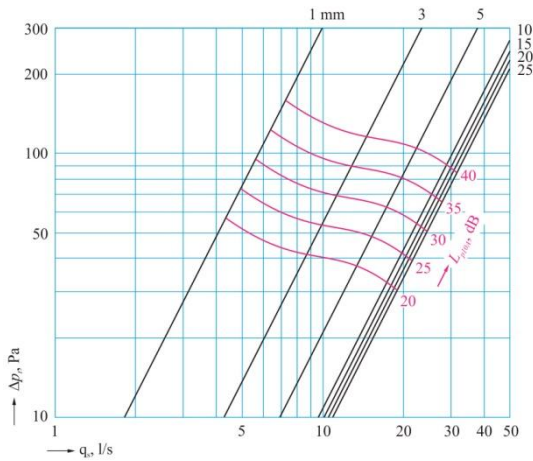
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



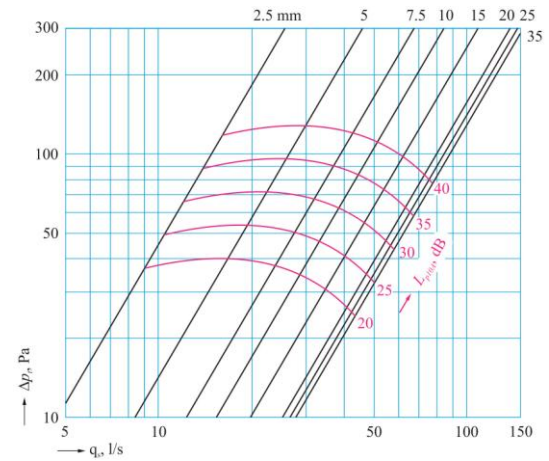
DNE SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

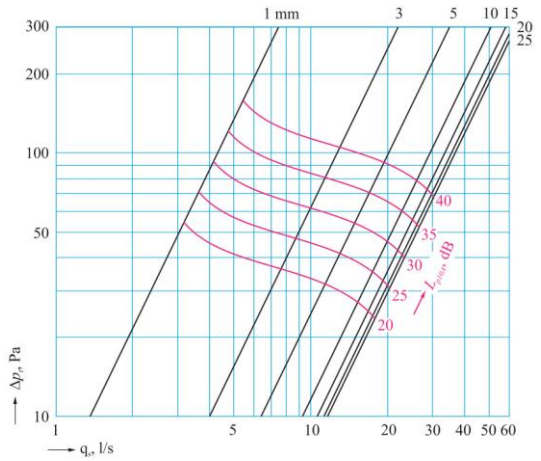
DNE 080 mm



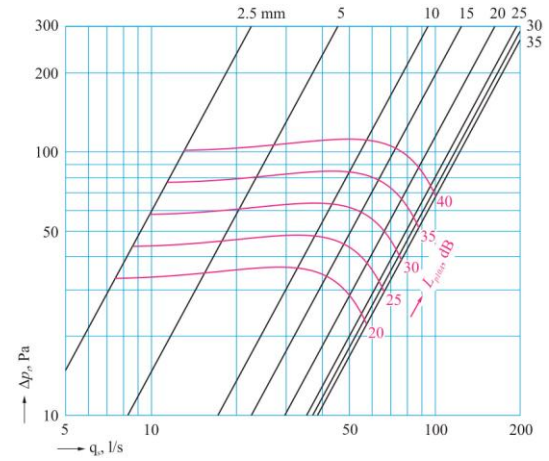
DNE 160 mm



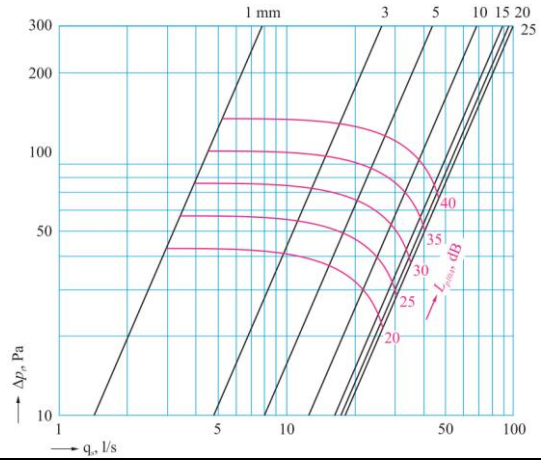
DNE 100 mm



DNE 200 mm



DNE 125 mm



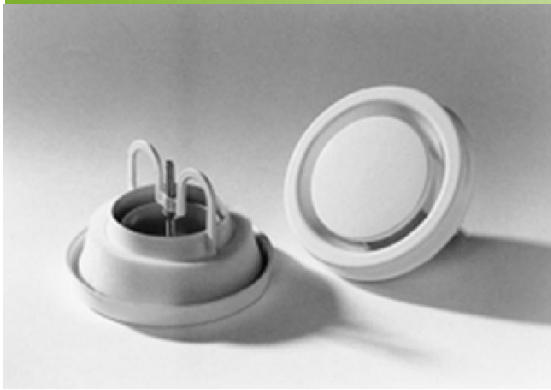
DEFINITIONS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m^2sab)	[dB(A)]

LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DSO(S) EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

DSO is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Good sound attenuation features
- Quick and easy to install
- Airflow easy to measure

CONSTRUCTION

The **DSO** is manufactured from steel sheet, powder coated. Standard color white (RAL 9010).

The body is equipped with cellular plastic gasket to form an airtight seal. Adjustment of the airflow is simple, the inner cone being rotated to the required setting and locked in the position with a single nut.

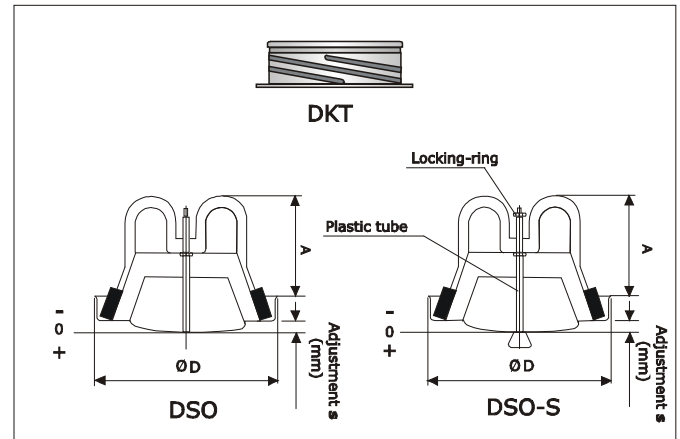
For mounting a mounting-ring **DKT** can be ordered.

Sauna valve **DSO-S** can be opened and closed simply by pushing or pulling the wooden knob. Max. opening is adjusted by moving the retaining ring. Min. opening, which is pre-adjusted into pos. 0 mm, can be adjusted by shortening the plastic tube. Max. working temperature +120°C.



DIMENSIONS in mm

DSO	Ø D	A	W (gr)
100	134	71	300
125	160	88	390
150/160	191	88	570
200	241	106	760
DSO-S	Ø D	A	W (gr)
100	134	71	310



REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension *s* (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.

LIABILITY:

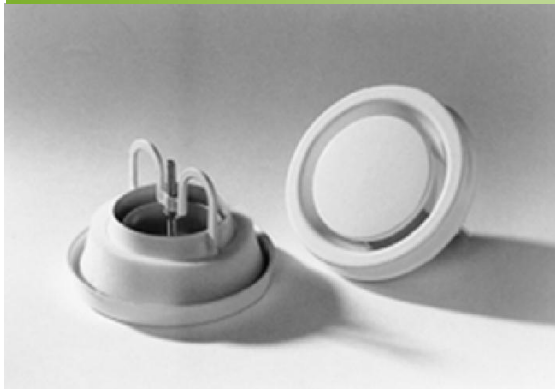
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

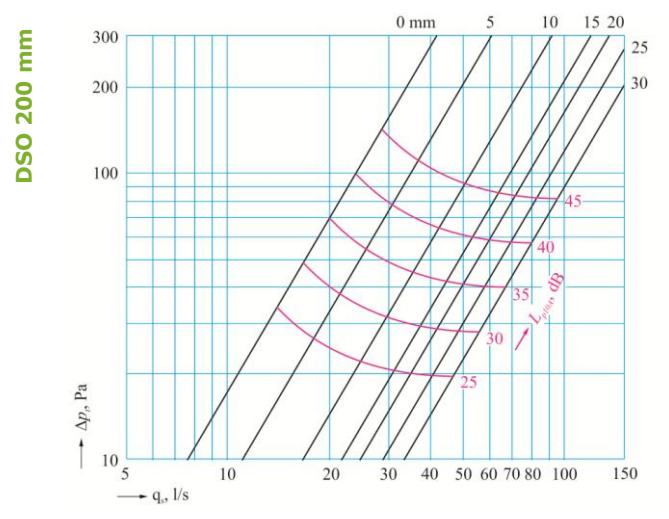
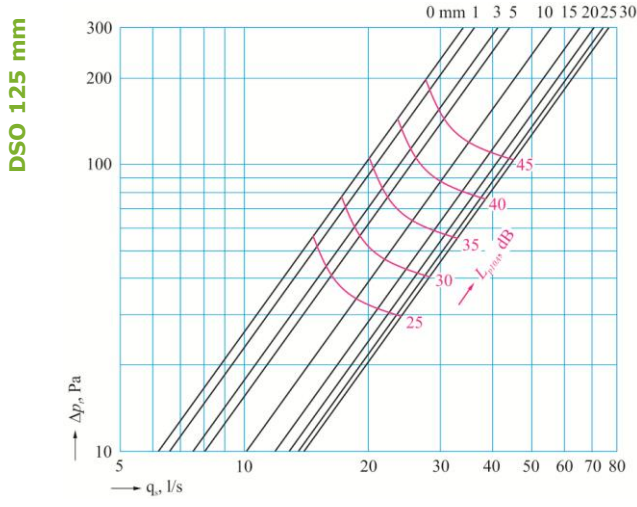
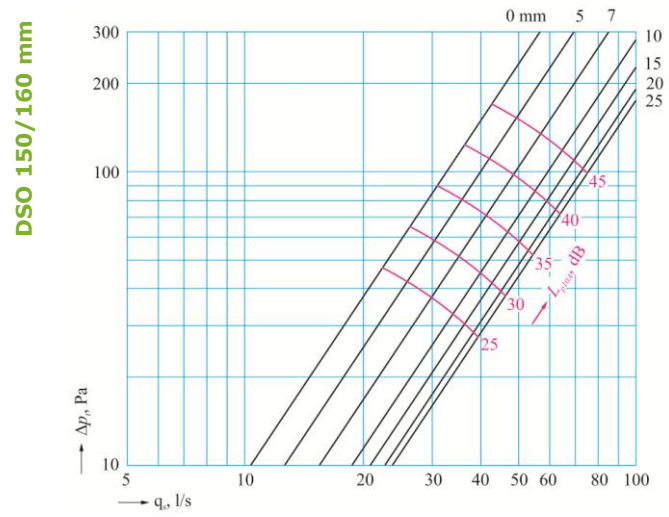
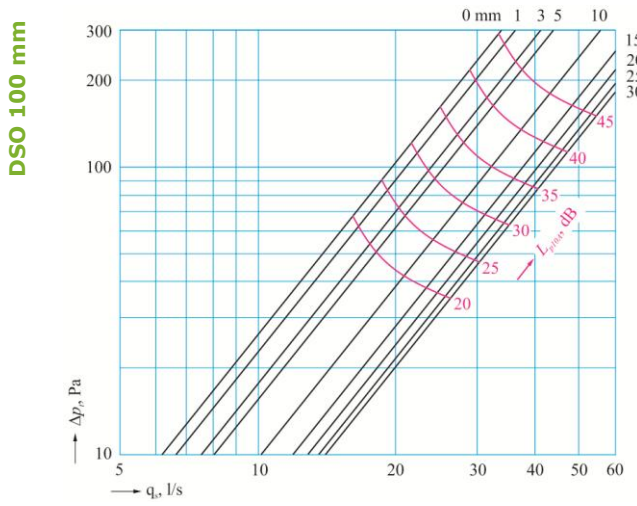
TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DSO(S) EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS



DEFINITIONS		
q_v	air volume	(l/s)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m ² sab)	[dB(A)]

LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



KSO-F EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated fire damper valve

KSO-F is developed for use as a fire damper in exhaust ventilation systems. KSO-F has a low sound level and good natural sound attenuation.

Product Facts

- Manufactured of sheet steel
- Standard CleanVent® coating
- Horizontal ducting
- **CE marked according to EN 15650:2010**
- **Fire class according to EN 13501-3**
 - installation into gypsum board wall:
 - E60(v_e i <->o)
 - installation into rock wall:
 - E60(v_e i <->o)S / E120(v_e i <->o)S

APPLICATION

CE marked fire damper valve KSO-F is an exhaust valve, used to prevent spreading of fire and smoke to duct systems. The valve is approved in fire class E60/E120. A springloaded fuse will close the valve when temperature (in the immediate vicinity) reaches the fusible link rating, 70 °C.

SOUND POWER LEVEL L_w

KSO-F	CORRECTION K _{oct} (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
100	2	-1	-1	1	-4	-8	-22
125	-3	-3	-3	-2	0	-7	-24
150/160	0	-3	-1	-2	-7	-11	-25
200	1	-3	-4	3	-8	-12	-29
Tol.±	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A}, dB(A) the corrections K_{oct} presented in the table according to the following formula:

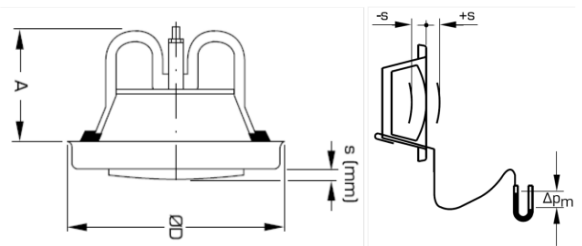
$$L_{Woct} = L_{p10A} + K_{oct}$$

Correction K_{oct} is average value in range of use of KSO-F unit.

KSO-F	SOUND ATTENUATION ΔL							
	Middle frequency by octave band (Hz)							
	63	125	250	500	1k	2k	4k	8k
100	-10	22	19	16	16	16	18	9
	0	22	18	13	12	12	13	6
	+10	22	17	12	9	8	11	4
125	-10	21	18	15	14	15	14	10
	0	19	17	12	11	11	10	6
	+10	20	16	10	9	9	8	5
150/160	-10	19	16	14	14	14	16	8
	0	18	14	11	11	11	13	5
	+10	18	14	10	9	9	11	4
200	-10	15	15	14	14	16	15	10
	0	14	12	11	10	12	12	7
	+10	13	11	8	8	9	10	6
Tol.±	±6	±3	±2	±2	±2	±2	±2	±3

DIMENSIONS in mm

KSO-F	ØD	A	W (kg)
Ø 100	134	74	0.30
Ø 125	160	85	0.39
Ø 150/160	191	89	0.57
Ø200	241	107	0.76



REGULATION AND MEASUREMENTS

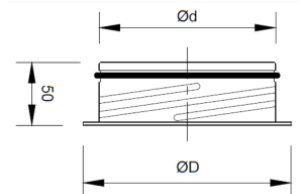
Measurement of air flow is achieved by measuring the pressure difference with a separate test probe. Regulation of air flow is achieved by turning the control disc to change adjustment dimension s (mm). Measuring data sheets are supplied in the folder "Measurement and regulation of air flow".

Material and surface finish

The valve is manufactured from hot galvanized steel sheet. KSO-F is powder coated for a high surface finish and good impact and scratch resistance. Standard colour White RAL-9003. Other colors on demand. KSO-F can be delivered with CleanVent coating on demand. The valve body is supplied with a cellular plastic gasket to form an airtight seal against the mounting frame. The separate mounting ring is manufactured from galvanized steel sheet. Each valve is delivered with mounting ring **DKT**.

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in ceiling installation is obtained in the table above.

DKT	Ød	ØD	W (gr)
100	99	122	75
125	124	148	102
150/160	159	184	131
200	199	225	165



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

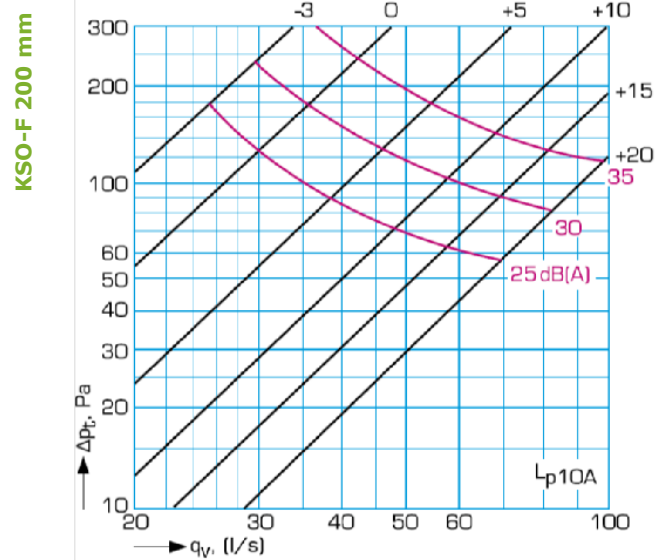
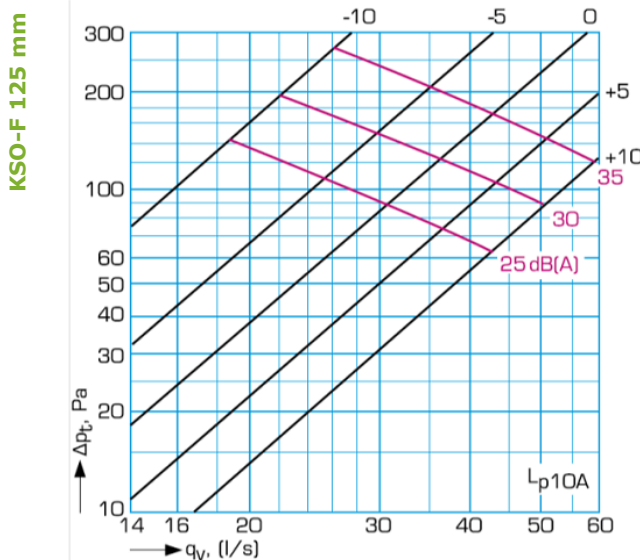
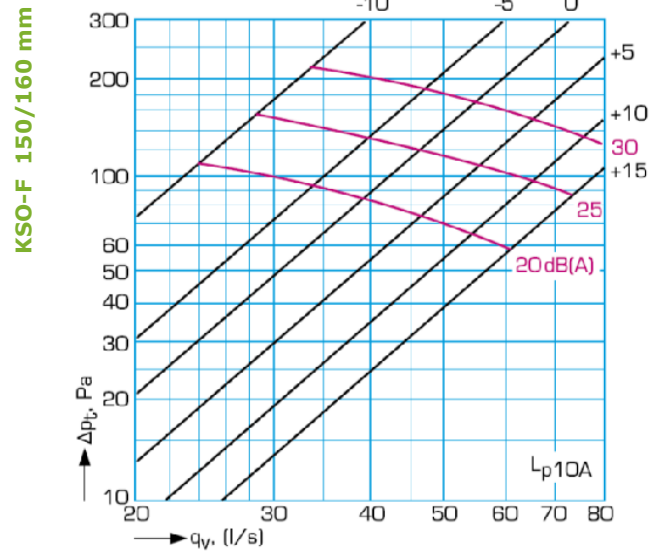
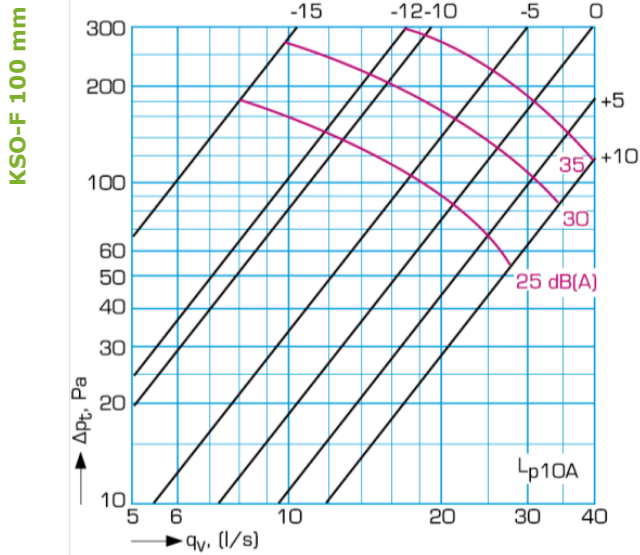
TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



KSO-F EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS



DEFINITIONS

q_v	air volume	(m ³ /h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m ² sab)	[dB(A)]
L_{Woct}	sound power level by octave bands	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)

The fuse in the KSO-F valve is produced with a soldering with two different materials. Due to this soldering, the fuse will break during the high temperature environment eg during fire situation. The fuse will break at 72 degrees. This soldering is between two blade parts and it is not visual if the soldering is made perfectly. There is three phases where the soldering in the fuse is tested mechanically: at fuse blade manufacturer, at fuse manufacturer and at our plant during assembly of the valve. During these production phases and if there occurs less mechanical tolerance in the soldering, the fuse is rejected.

Unfortunately some cases have occurred where the fuse has passed all the production phases without failing and it has broken only during the transport or in the summertime if the fuse has been in the direct sunlight. We apologize for the non-conform valve and replace with new valve naturally

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTI SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated metal Supply air valve with stepless flow direction adjustment

Product Facts

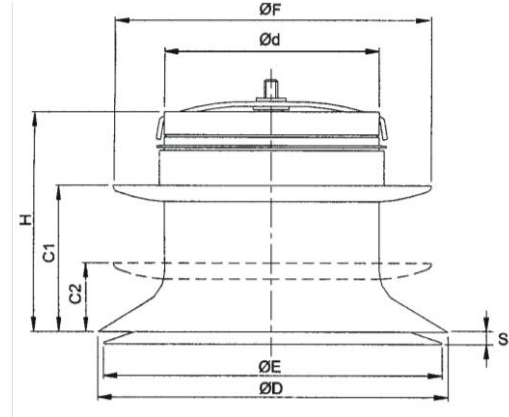
- Manufactured from reliable and robust white steel sheet (RAL 9010).
- High valve body improving air flow/less noise.
- Can be quickly installed directly into the duct without a mounting frame.
- No leakage between valve body and connection bush.
- Variable volume flow control with locking button.
- Flow direction can be set stepless.
- Adjustable diffusion pattern with sector plates.
- Suitable for houses, offices etc.

Diffusion Pattern

Adjustment	ΔT (°C)	b (m)	$L_{0,2}(\Delta t)$ (m)	h (mm)	
	0 -8	- -	1 $0.7 \times L_{0,2}$	$9 \times s + 75$ $11 \times s + 80$	S = adjustment position (mm)
	0 -8	$2 \times L_{0,2}$ $2 \times L_{0,2}$	1 $0.9 \times L_{0,2}$	$9 \times s + 75$ $11 \times s + 80$	
	0 -8	$0.5 \times L_{0,2}$ $0.5 \times L_{0,2}$	1 $0.9 \times L_{0,2}$	$9 \times s + 75$ $11 \times s + 80$	

DIMENSIONS in mm

DTI	d	D	H	C1	C2	E	F
100	95	155	95	60	25	150	141
125	120	185	95	60	25	180	166
160	155	226	100	63	28	220	201
200	195	274	100	63	28	268	241

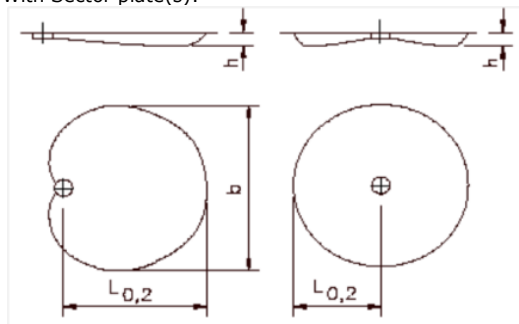


REGULATION AND MEASUREMENTS

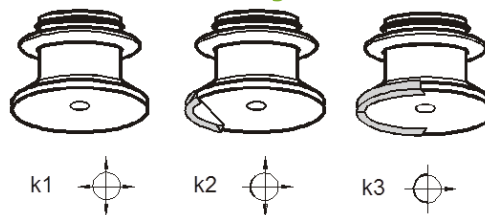
Measurement of air flow is achieved by measuring the pressure difference with a separate test probe. Regulation of air flow is achieved by turning the control disc to change adjustment dimension s (mm).

Measuring data sheets are supplied in the folder "Measurement and regulation of air flow".

DTI With Sector plate(s):



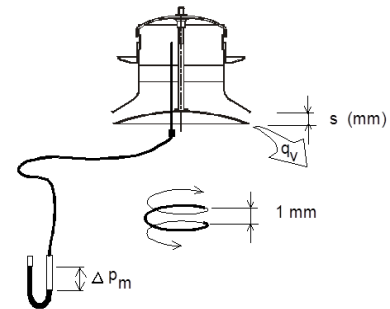
DTI



Air Management

$$q_v = k_v \sqrt{\Delta p_m}$$

(l/s) (Pa)



DTI - 100				DTI - 125				DTI - 160				DTI - 200			
S	k1	k2	k3	S	k1	k2	k3	S	k1	k2	k3	S	k1	k2	k3
2	1.0	1.1	0.8	2	0.7	1.0	0.8	2	1.6	-	-	2	2.9	2.5	1.8
3	1.6	1.5	1.1	3	1.1	1.6	1.1	3	2.4	2.3	1.6	3	3.8	3.0	2.7
4	2.0	1.8	1.4	4	2.0	1.9	1.5	4	3.2	2.7	2.1	4	5.7	4.4	3.6
6	3.0	2.5	1.7	6	3.4	2.8	2.1	6	4.7	3.8	2.9	6	7.4	5.7	4.5
8	3.8	3.2	2.2	8	4.8	3.8	2.7	8	6.3	5.0	3.6	8	9.3	7.1	5.4
10	4.8	3.9	2.6	10	6.0	4.7	3.3	10	7.7	6.1	4.4	10	11.0	8.3	6.4
12	5.6	4.2	3.0	12	7.1	5.5	3.8	12	9.1	7.1	4.9	12	14.6	11.0	8.0
16	-	-	3.6	16	9.0	7.0	5.0	16	11.8	9.2	6.5	16	17.9	13.5	9.8
								20	14.3	11.2	7.8	20	21.9	16.2	11.7

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

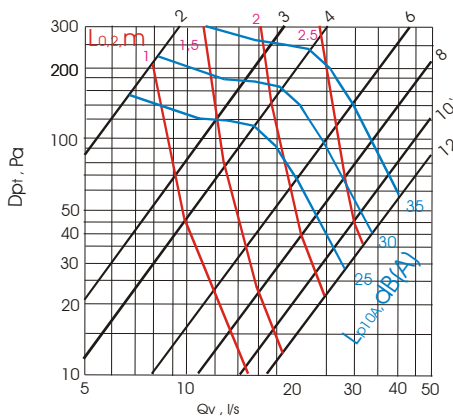
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



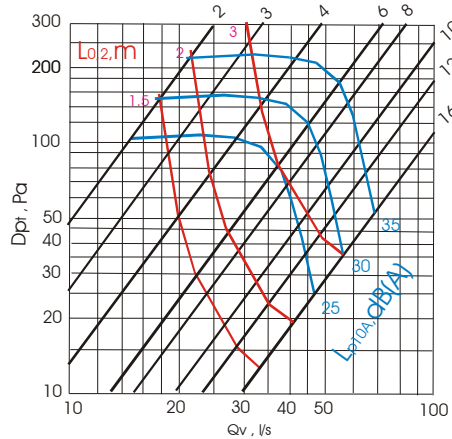
DTI SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

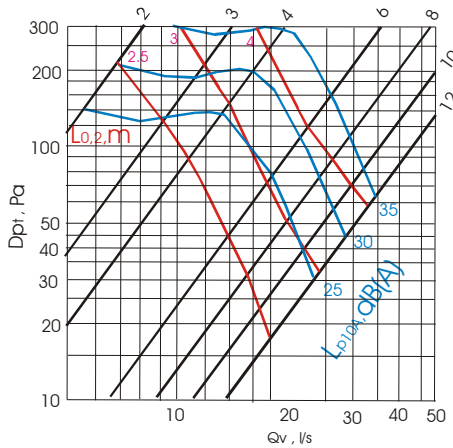
K1 DTI100 360°



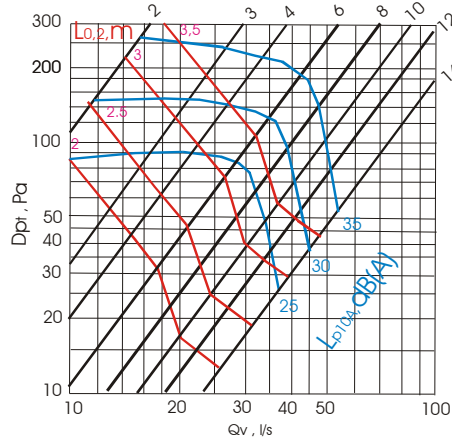
DTI125 360°



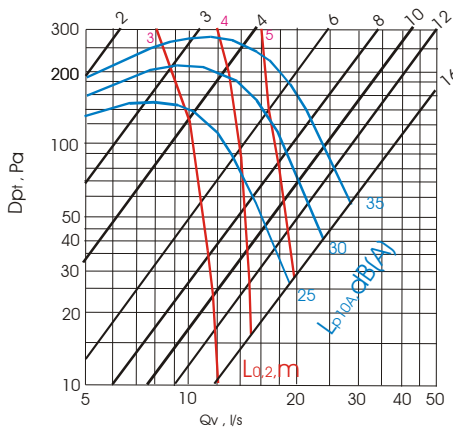
K2 DTI100 270°



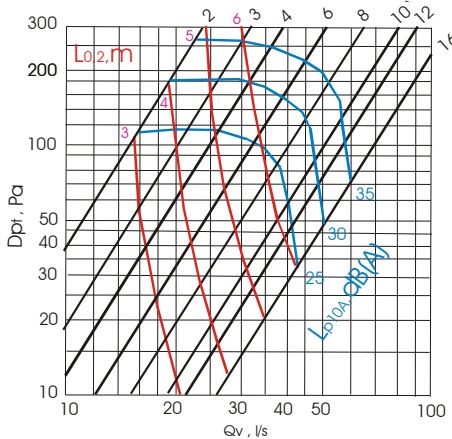
DTI125 270°



K3 DTI100 180°



DTI125 180°



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

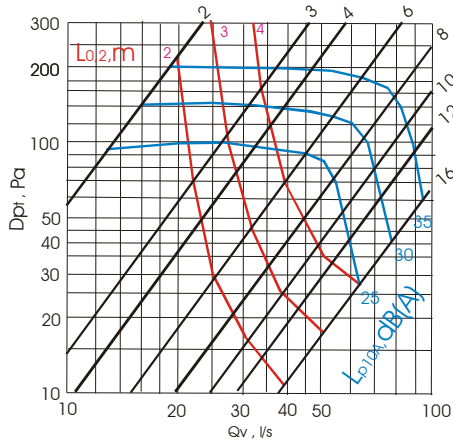
TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



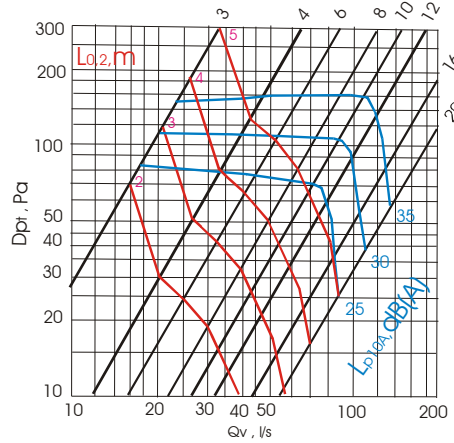
DTI SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

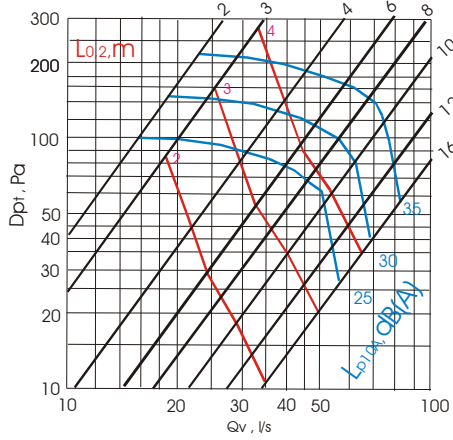
K1 DTI160 360°



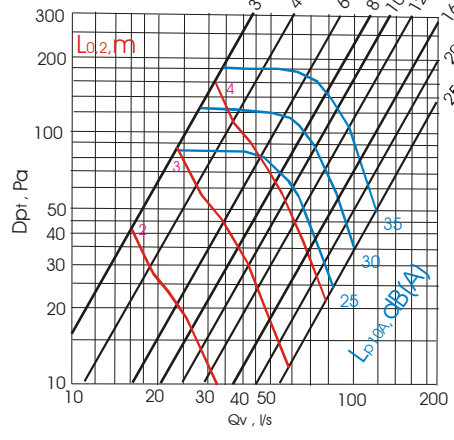
DTI200 360°



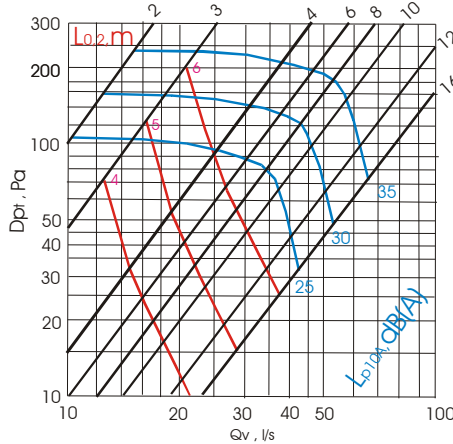
K2 DTI160 270°



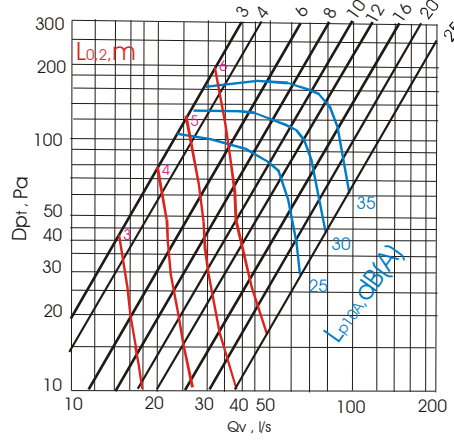
DTI200 270°



K3 DTI160 180°



DTI200 180°



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

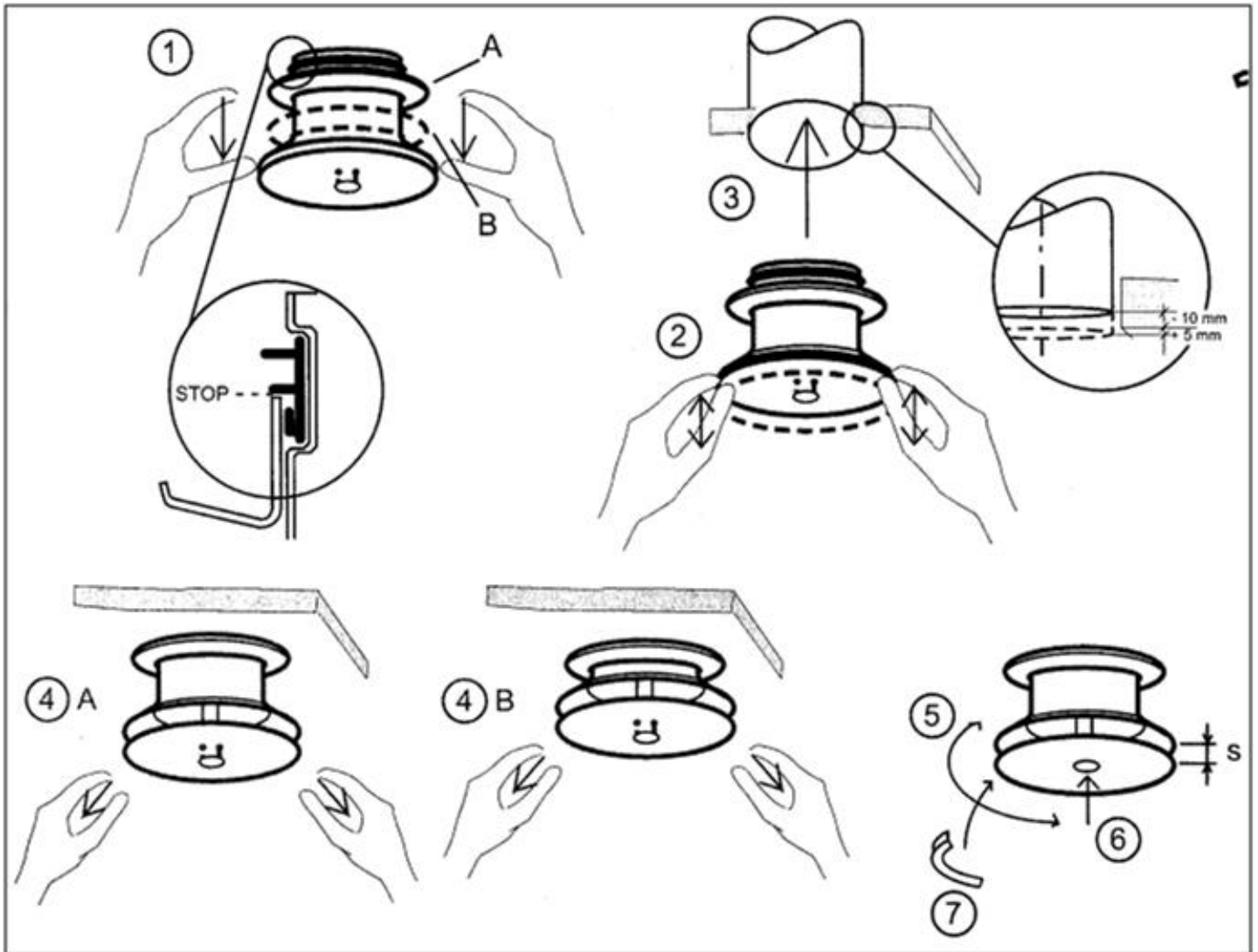
TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTI SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

INSTALLATION



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTVB SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The **DTVB** is a supply air valve for ceiling mounting in offices, houses and hotel rooms.

The air discharged from the valve is mixed thoroughly with the room air thus providing a draught-free air supply.

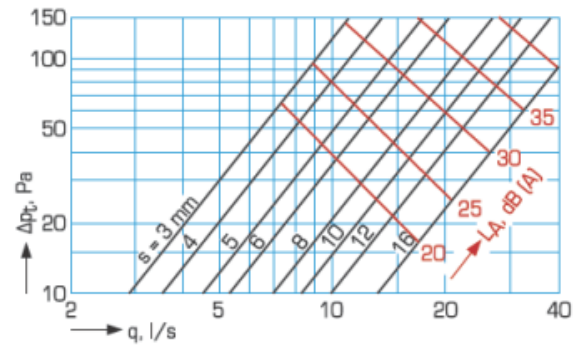
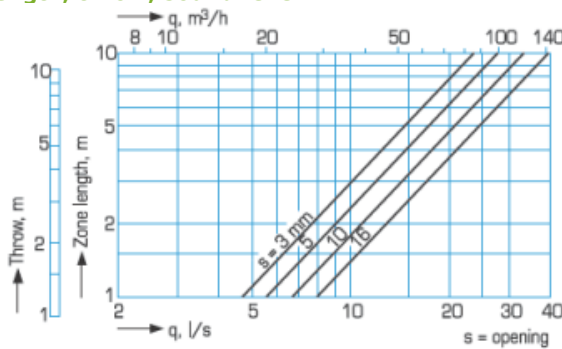
- Supply air valve intended for installation in the ceiling
- Manufactured of steel

Quick selection

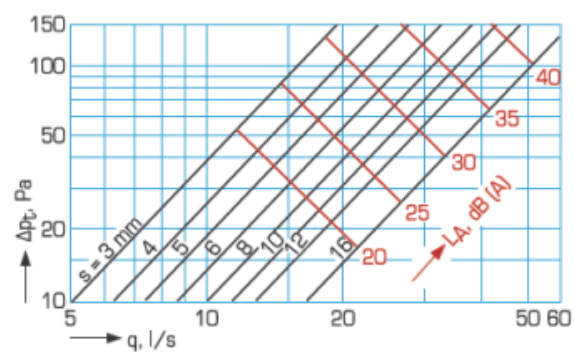
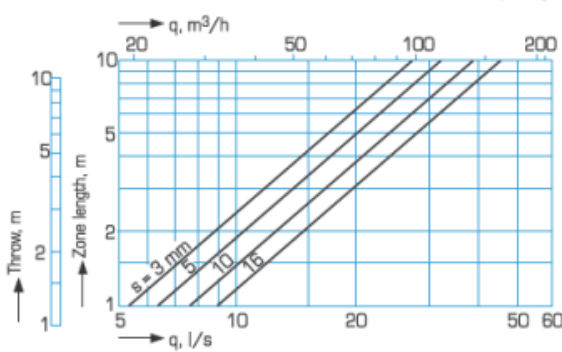
Diffuser	Connection	Air flow range l/s (m ³ /h) at noise level		
Size	mm	25 dB	30 dB	35 dB
DTVB100	100	21	27 (97)	32
DTVB125	125	28	33 (119)	42

Air flow, zone length, throw, sound level

DTVB100



DTVB125



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTVB SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

Sound power level

Size	Connection	Correction of sound attenuation (dB) at Hz							
		63	125	250	500	1000	2000	4000	8000
100	Straight	2	-3	-3	0	-1	-1	-9	-16
100	Angle	4	-2	-3	-1	-1	-1	-7	-14
125	Straight	3	2	1	1	0	-3	-9	-12

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula: $L = L_{A10} + K_{ok}$
Correction K_{oct} is average value in range of use of DTVB unit.

Air stream diffusion

$$B_v = I_{0,2} \times 0,1$$

$$B_h = I_{0,2} \times 1,0 \quad \text{where } I_{0,2} = 1,2 \times \text{zone length}$$

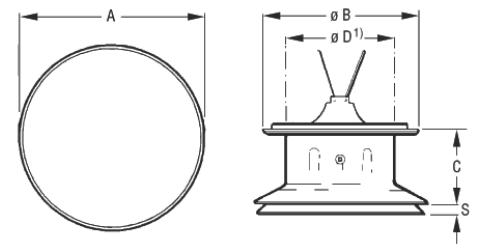
Note! In installations when DTVB is mounted with with angle duct DGEZ-43 the sound power level will increase by 3 dB(A).

Sound attenuation, dimensions and weights

Sound attenuation

Size	Connection	Sound attenuation in dB at							
		63	125	250	500	1000	2000	4000	8000
100	Straight	25	22	17	13	12	11	11	11
100	Angle	27	23	18	14	12	11	11	12
125	Straight	25	20	15	12	11	9	9	9

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in ceiling installation, is obtained in the table above.



Dimensions and weights

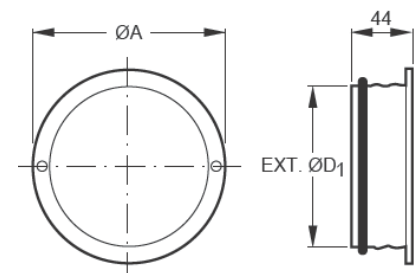
Size	A	B	C	D 1)	Smin	Smax	Weight
	mm	mm	mm	mm	mm	Mm	kg
100	155	140	65	100	3	16	0,45
125	185	165	70	125	3	16	0,58

1) Nominal connection diameter

Mountin ring DGEZ-01, insertion connection

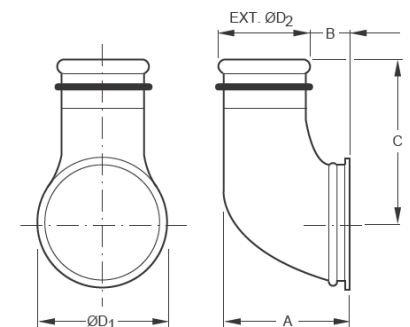
Size	A	D1	Hole 1)	Weight
	mm	mm	mm	kg
100	125	99.3	110	0.1
125	150	124.3	135	0.1

1) Tolerance ± 5 mm



Angle duct DGEZ-43

Size	A	B	C	D1	D2	Weight
	mm	mm	mm	mm	mm	kg
100-080	120	39	148	125	79.3	0.4
100-100	140	39	98	125	99.3	0.4
120-100	146	45	120	140	99.3	0.5



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTVB SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

Installation, adjustment, application and function, material

Application and function

The DTVB is a supply air valve for one-way air diffusion and ceiling mounting. The valve is suitable for use in small premises, such as offices, houses and hotel rooms. The air discharged from the valve is mixed thoroughly with the room air thus providing a draught-free air supply. The direction of air diffusion and the air flow are adjustable. The design of the DTVB minimizes the risk of dust deposits forming on the ceiling surface. The valve is easy to install and easy to keep clean since it has large, smooth surfaces.

Material and surface finish

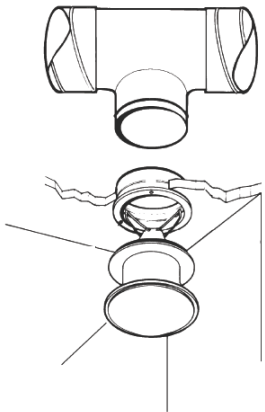
The valve is made from hot-dip galvanized steel sheet. Visible parts are powder-coated for a high surface finish and good impact and scratch resistance. Standard colour White RAL 9003. Other colours on request.

Instructions

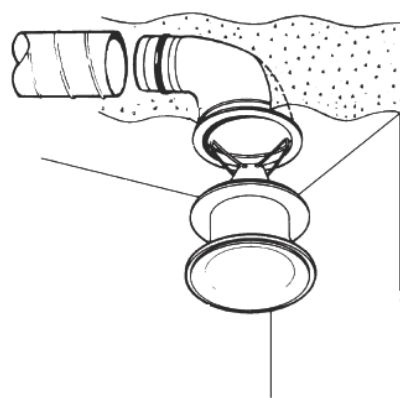
Directions for installation, adjustment and care are set out in detail in our technical instruction which accompanies each product.

Installation

Supply air valve connected to a mounting ring

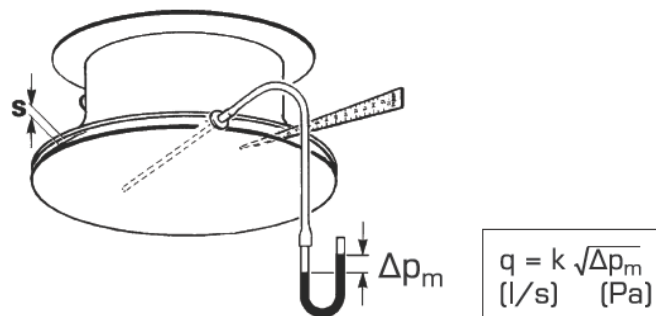


Supply air valve connected to an angle duct



Adjustment

s	k	
	100	125
3	0.9	-
4	1.2	2.0
5	1.4	2.3
6	1.7	2.6
7	1.9	3.0
8	2.1	3.3
10	2.6	4.0
12	3.1	4.7
16	4.1	6.0
20	-	-



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTS SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

DTS valve is a supply air valve for ceiling mounting in offices, houses etc.

CONSTRUCTION

The body is equipped with cellular plastic gasket to form an airtight seal with the mounting ring.

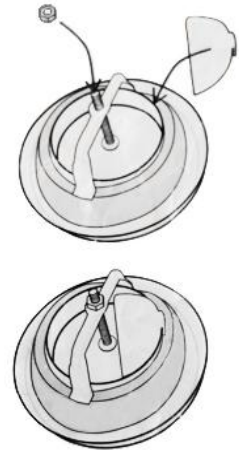
The valve is equipped with a sector plate for direction of the air flow. Adjustment of the valve or sector plate is achieved by simply rotating the disc and/or sector plate to the desired setting and secured by means of a single lock nut.

The DTS is manufactured from sheet steel and stove enameled in white. Other colors are available to special order.

- Equipped with a sector plate for direction of the air flow
- Equipped with a nut to fixate the disk
- Manufactured of powder coated steel

The sector plate as well as the nut is separately packed.

This needs to be assembled with the valve. Please view the assembling instructions.



QUICK SELECTION

Size		Air flow l/s (m ³ /h) at sound level		
		25dB	30dB	35dB
DTS100	With sector plate	15	22 (79)	-
DTS100	Without sector plate	19	29 (104)	-
DTS125	With sector plate	20	28 (101)	-
DTS125	Without sector plate	25	42 (151)	-
DTS160	With sector plate	20	42 (151)	-
DTS160	Without sector plate	40	66 (238)	-

INSTALLATION

Mounting ring is fitted into the duct with screws or rivets. The valve is fitted into the mounting ring by a "screwing action" to locate lugs into indents in the mounting ring. The valve can also be fitted with springs (**model DTS-J**) and the mounting ring is not needed.

Measurement and regulation of air flow

The measurement of air flow is made by a pressure difference measurement with a separate measuring tube. Air flow can be adjusted by changing the adjustments by rotating the disc.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

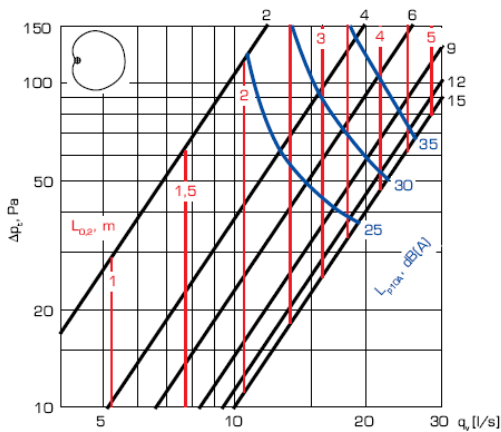


DTS SUPPLY AIR VALVE

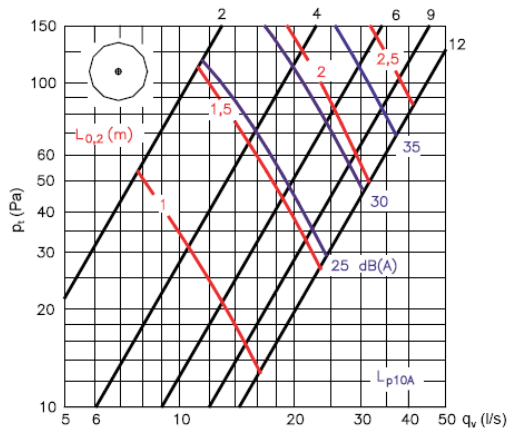
AIR MANAGEMENT SYSTEMS

SELECTION DIAGRAMS

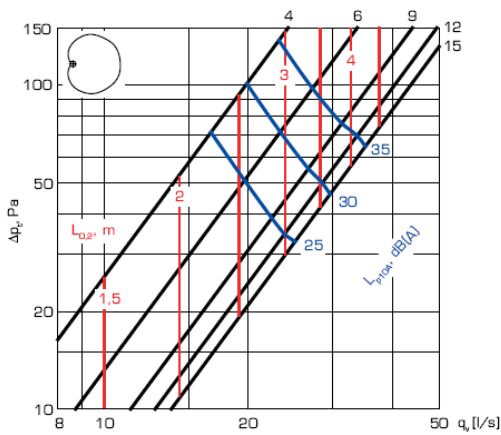
DTS-100 with sector plate



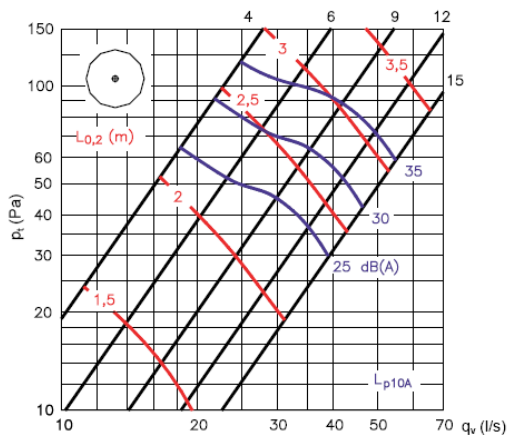
DTS-100 without sector plate



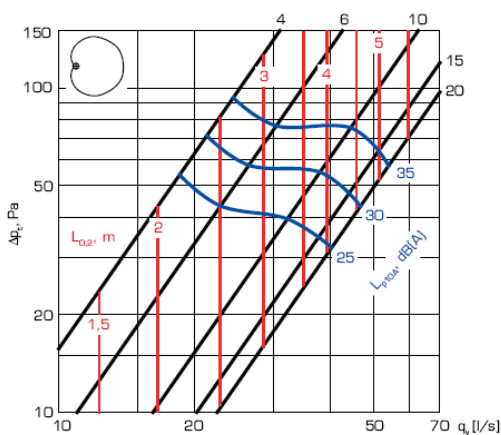
DTS-125 with sector plate



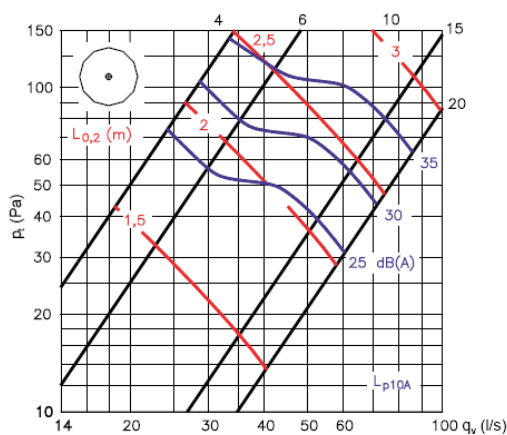
DTS-125 without sector plate



DTS-160 with sector plate



DTS-160 without sector plate



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTS SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

Acoustical data, dimensions and weight

Sound power level L_w

DTS with sector plate

DTS	Correction of sound level in dB at octave bands, middle frequency, Hz						
	125	250	500	1000	2000	4000	8000
100	2	2	0	-2	-4	-4	-12
125	3	3	3	0	-8	-15	-29
160	7	4	2	-1	-6	-17	-31
Tol. ±	3	2	2	2	2	2	3

DTS without sector plate

DTS	Correction of sound level in dB at octave bands, middle frequency, Hz						
	125	250	500	1000	2000	4000	8000
100	-2	2	1	-1	-4	-5	-11
125	4	5	3	-1	-11	-17	-29
160	7	6	3	-2	-11	-19	-32
Tol. ±	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A), the corrections K_{oct} presented in the table according to the following formula:

$$L_{Woct} = L_{p10A} + K_{oct}$$

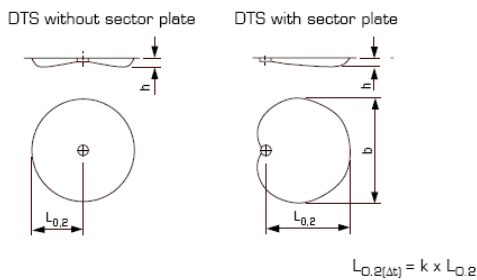
Correction K_{oct} is average value in range of use of the unit.

Sound attenuation ΔL

DTS	Correction of sound level in dB at						
	63	125	250	500	1000	2000	4000 8000 Hz
100	22	18	13	11	9	8	7 8
125	20	16	11	9	9	7	6 5
160	18	14	10	9	9	7	6 6
Tol. ±	6	3	2	2	2	2	2 3

The average sound attenuation ΔL from duct to room including the orifice attenuation of the connecting duct in ceiling installation, is obtained in the table above.

Diffusion pattern



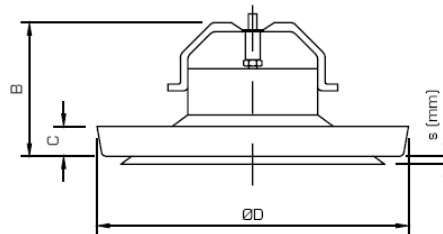
Regulation	Δt (C°)	b	h	k
s = 4	0	1.45 x $L_{0,2}$	0.04 x $L_{0,2}$	1.0
s = 4	-10	1.45 x $L_{0,2(\Delta t)}$	0.08 x $L_{0,2(\Delta t)}$	0.8
s = 15	0	1.45 x $L_{0,2}$	0.04 x $L_{0,2}$	1.0
s = 15	-10	1.45 x $L_{0,2(\Delta t)}$	0.1 x $L_{0,2(\Delta t)}$	0.75

Throw in free space mounting

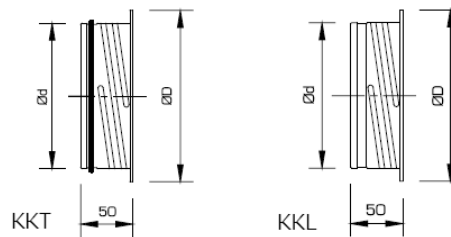
In case of free space mounting the throw can be calculated by using the following factors: when $\Delta t = 0^\circ C$:

Adjustment s (mm)	factor
4	0.5
9	0.45
15	0.4

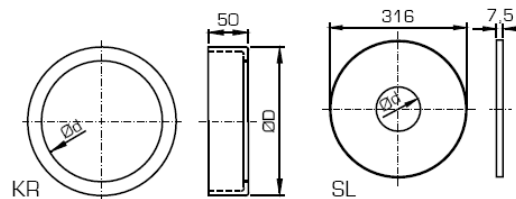
Dimensions and weight



Size	ØD	Ød	B	Weight g
100	143	67	17	270
125	173	76	18	430
160	216	80	19	580



Size	Ød	ØD	Weight KKT (g)	Weight KKL (g)
100	99	122	75	71
125	124	148	102	97
160	159	184	131	125



Size	ØD	Ød
100	150	100
125	180	125
160	223	160

Size	ØD
100	102
125	130
160	160

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DRKT DISC AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

DRKT is designed for natural exhaust ventilation. They can also be used as supply and fresh air valves.

CONSTRUCTION

The body is equipped with cellular plastic gasket to form an airtight seal.

Adjustment of the valve or sector plate is achieved by simply rotating the disc to the desired setting and secured by means of a single lock nut. The DRKT is manufactured from sheet steel and stove enameled in white.

QUICK SELECTION

Size	Connection Ø mm	Air flow range l/s(m ³ /h) when slot 15 mm and pressure drop		
		50Pa	100Pa	150Pa
DRKT080	80	24	33 (119)	41
DRKT100	100	23	32 (115)	41
DRKT125	125	38	55 (198)	68
DRKT160	160	45	62 (223)	78
DRKT200	200	60	85 (306)	100

INSTALLATION

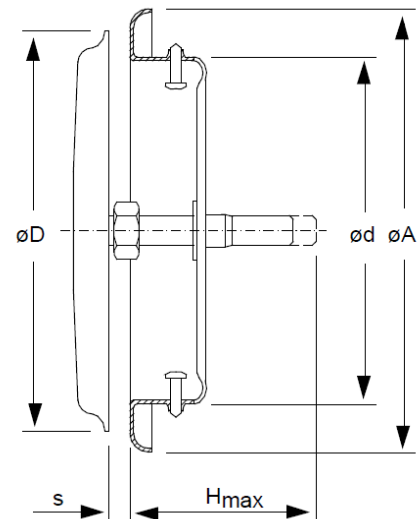
The valve is fixed to a duct by means of two screws (included) (zinc-coated steel), turning the screws from the inside of the valve body. Valves of sizes 100 - 200 can be mounted without screws to a covering plate.

Measurement and regulation of air flow

The measurement of air flow is made by a pressure difference measurement with a separate measuring tube. Air flow can be adjusted by changing the adjustments by rotating the disc.

Dimensions and weights

Nominal size	ØD (mm)	ØA (mm)	Ød (mm)	Hmax (mm)	Weight (kg)
080	90	100	77	35	0.16
100	110	120	97	45	0.19
125	140	150	122	45	0.26
160	180	190	157	55	0.37
200	220	230	197	55	0.50



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

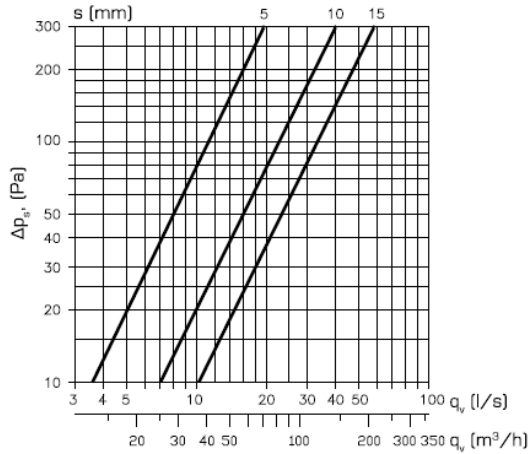


DRKT DISC AIR VALVE

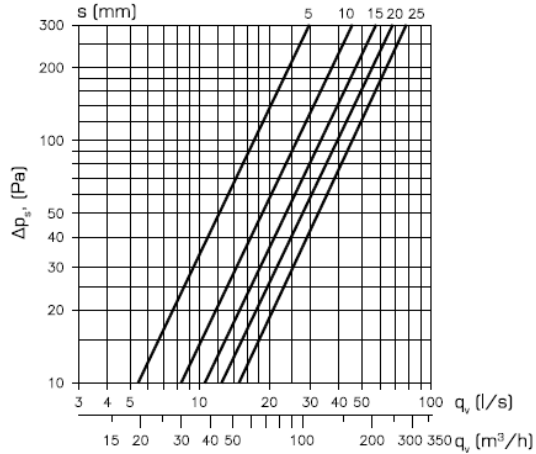
AIR MANAGEMENT SYSTEMS

SELECTION DIAGRAMS

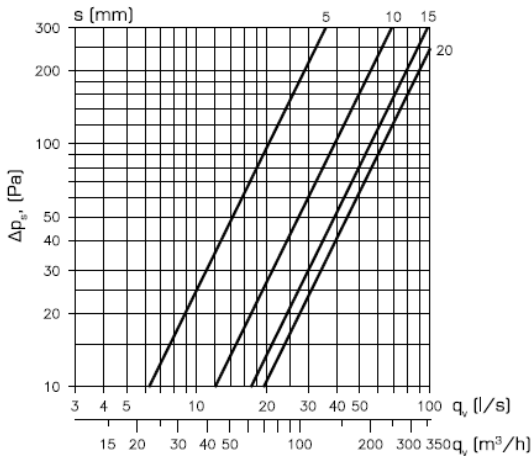
DRKT80



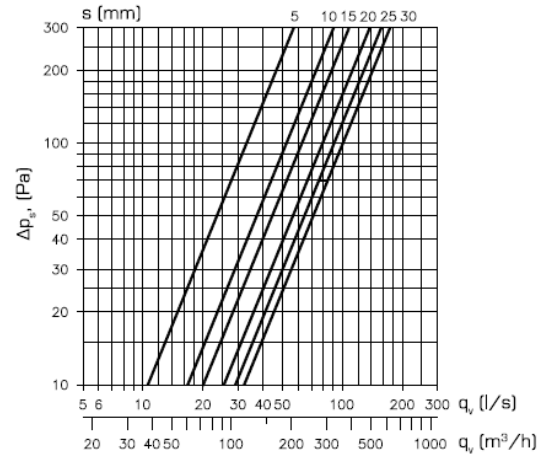
DRKT100



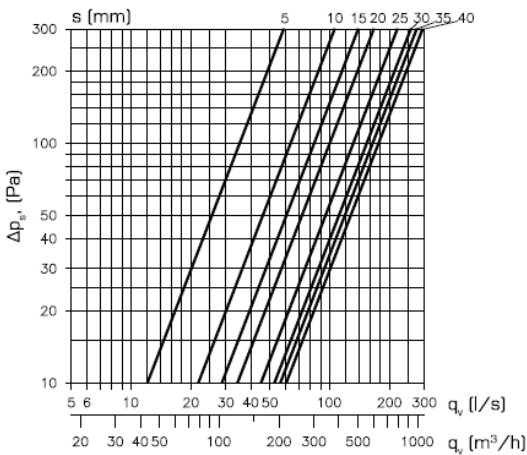
DRKT125



DRKT160



DRKT200



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DKT MOUNTING RING

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The tight mounting ring **DKT** is designed for use with circular supply and exhaust valves in order to give a complete solution for various mounting options with circular spiral and flexible ducts. The gasket of **DKT** guarantees a tight installation.

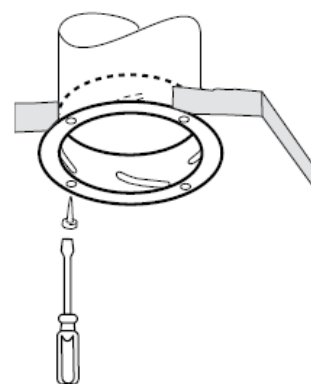
CONSTRUCTION

The mounting ring is made of steel sheet. Model **DKT** is supplied with rubber gasket.

INSTALLATION

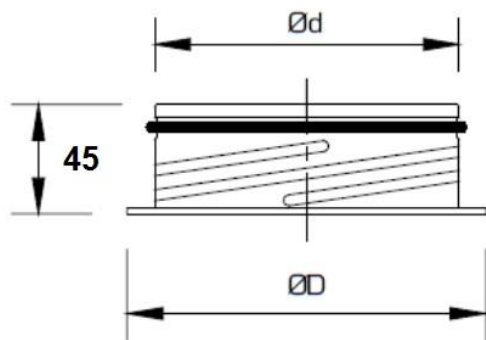
DKT is designed for fast and easy mounting both with spiral and flexible ducting. Mounting rings **DKT** is easy to install with rivets or screws into the duct. The gasket of **DKT** guarantees a tight installation of the ring in a circular duct. The ring can be fastened to the surrounding material with screws which go through the openings in the ring flange.

Please use screws to fit the hole.



Dimensions and weights

Nominal size	Ød (mm)	ØD (mm)	Weight (kg)
080	079	102	0.66
100	099	123	0.75
125	124	148	1.02
150	149	175	1.23
160	159	184	1.31
200	199	227	1.65



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVS-F MOUNTING RING

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The tight mounting ring **DVS-F** is designed for use with circular supply and exhaust valves in order to give a complete solution for various mounting options with circular spiral and flexible ducts.

CONSTRUCTION

The mounting ring is made of steel sheet. Model **DVS-F** is NOT supplied with rubber gasket.

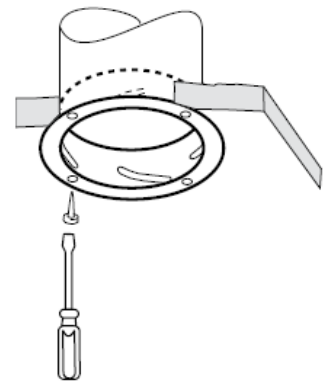
INSTALLATION

DVS-F is designed for fast and easy mounting both with spiral and flexible ducting.

Mounting rings **DVS-F** is easy to install with rivets or screws into the duct.

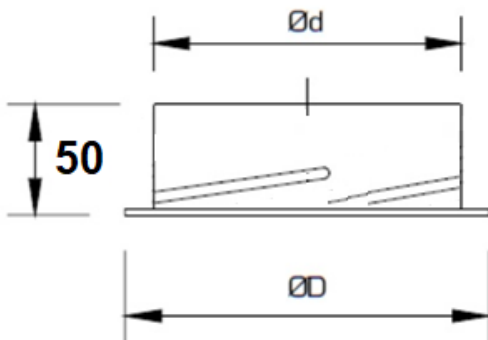
The ring can be fastened to the surrounding material with screws which go through the openings in the ring flange.

Please use screws to fit the hole.



Dimensions and weights

Nominal size	Ød (mm)	ØD (mm)	Weight (kg)
080	079	102	0.63
100	099	123	0.79
125	124	148	0.99
150	149	175	1.19
160	159	184	1.26
200	199	227	1.59



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVS-F Long sleeve MOUNTING RING

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The tight mounting ring **DVS-F-LS** is designed for use with circular supply and exhaust valves in order to give a complete solution for various mounting options with circular spiral and flexible ducts.

CONSTRUCTION

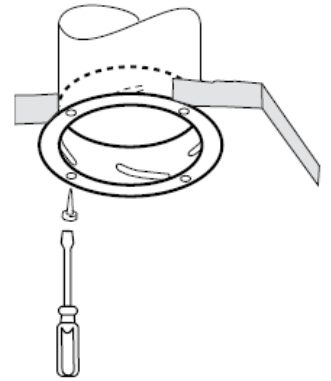
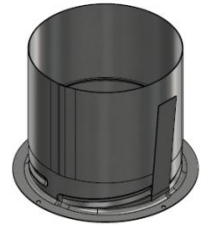
The mounting ring is made of steel sheet. Model **DVS-F-LS** is NOT supplied with rubber gasket.

INSTALLATION

DVS-F-LS is designed for fast and easy mounting both with spiral and flexible ducting.

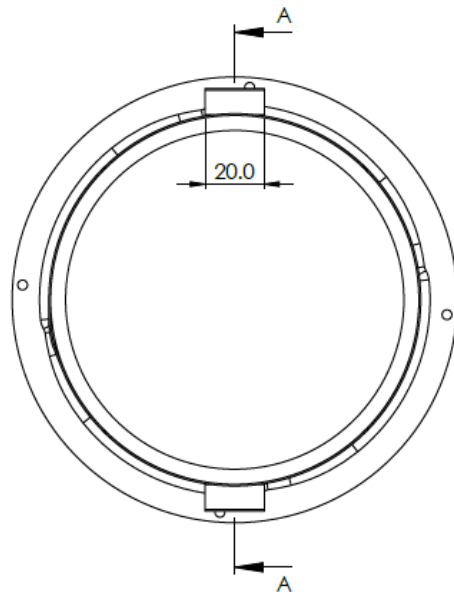
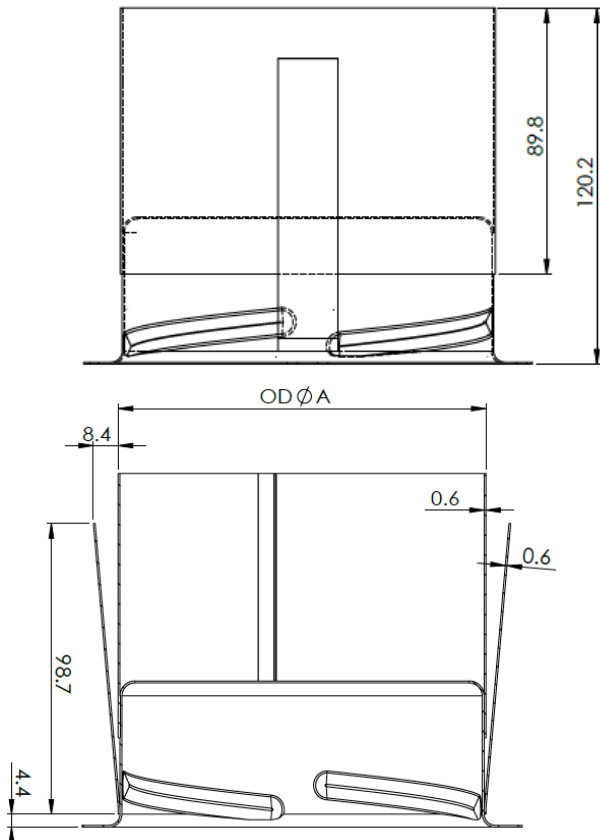
The mounting ring is easy to install with rivets or screws into the duct or with the clamps to bend over the ceiling.

The ring can be fastened to the surrounding material with screws which go through the openings in the ring flange. **Please use screws to fit the hole.**



Dimensions and weights

Nominal size	Ød (mm)	ØD (mm)
080	079	102
100	099	123
125	124	148
150	149	175
160	159	184
200	199	227



LIABILITY:

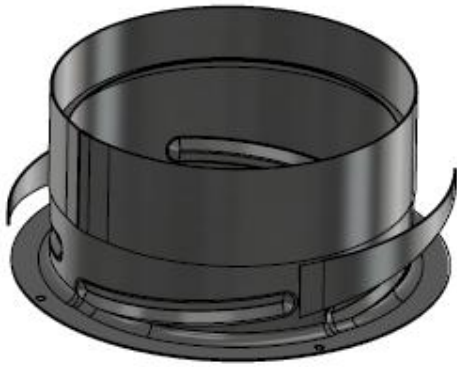
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVS-F Short sleeve MOUNTING RING

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The tight mounting ring **DVS-F-SS** is designed for use with circular supply and exhaust valves in order to give a complete solution for various mounting options with circular spiral and flexible ducts. DVS-FxxxSS can be used with DVS, DVS-P, DVSR, DVSER, etc.

CONSTRUCTION

The mounting ring is made of steel sheet. Model **DVS-F-SS** is NOT supplied with rubber gasket.

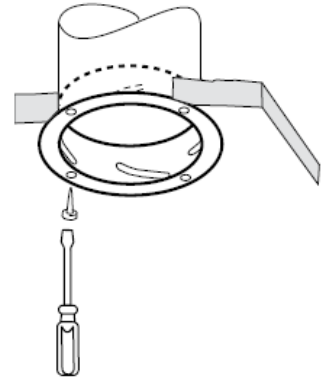
INSTALLATION

DVS-F-SS is designed for fast and easy mounting both with spiral and flexible ducting.

The mounting ring is easy to install with rivets or screws into the duct.

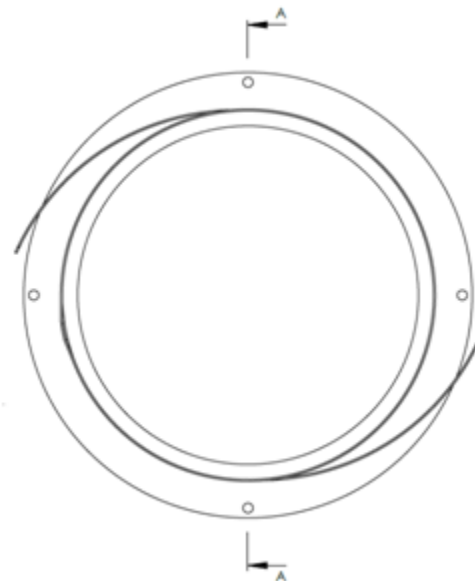
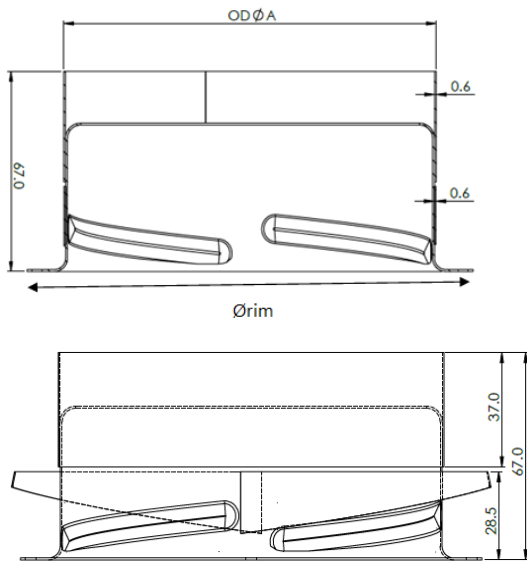
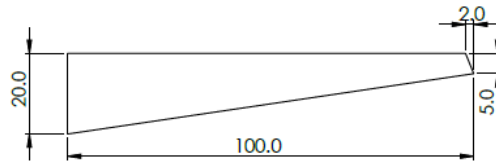
The ring can be fastened to the surrounding material with screws which go through the openings in the ring flange. Please use screws to fit the hole.

Or with the 2 claws to twist into the ceiling to grip into soft wall.



Dimensions and weights

Nominal size	ODØA (mm)	Ørim (mm)
080	080.5	102
100	100.5	123
125	125.5	148
150	150.5	175
160	160.5	184
200	200.5	227



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTVK SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

POWDER COATED METAL SUPPLY VALVE

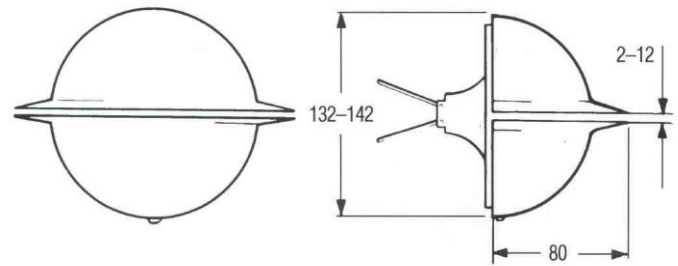
The **DTVK** is a very quiet supply air valve designed for wall mounting. The valve is suitable for use in small premises, such as offices, houses and hotel rooms. The air discharged from the valve is mixed thoroughly with room air thus providing a draught-free air supply. The air flow is adjustable.

The DTVK-125 has different mounting springs and a cover plate, but the values are the same as DTVK-100.

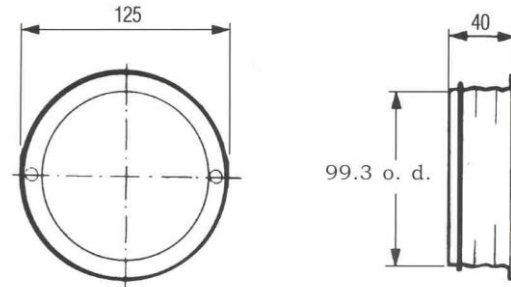
The design of the **DTVK** minimizes the risk of dust deposits forming on the wall surface. The valve is easy to install and easy to keep clean since it has large, smooth surfaces. The DTVK is made of hot galvanized sheet steel and stove enamelled in white (RAL9003).

DIMENSIONS (IN MILLIMETRES)

Supply air valve DTVK-100 (weight 0.4kg)



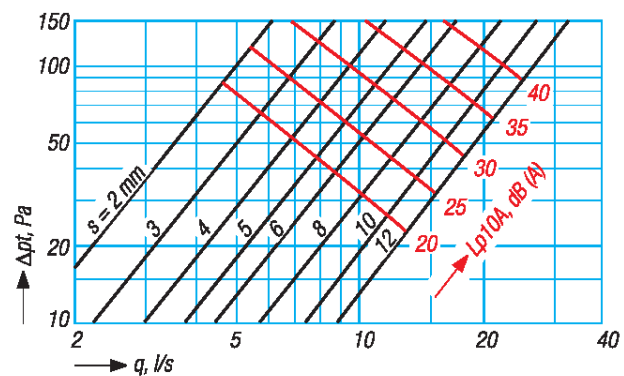
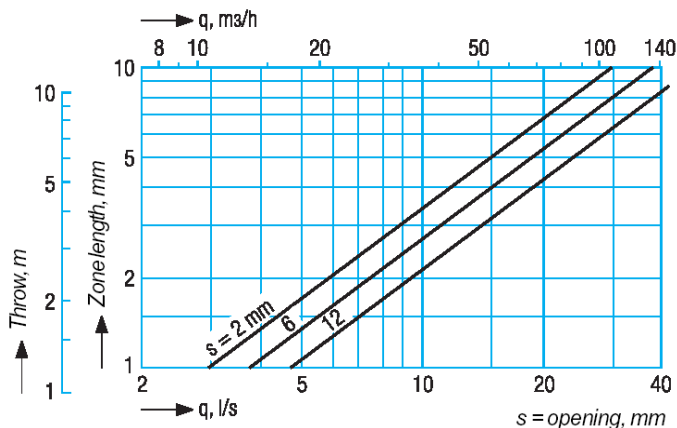
Mounting ring DGEZ-10 (weight 0.1kg)



DTVK	SOUND ATTENUATION ΔL							
	Middle frequency by octave band (Hz)							
	63	125	250	500	1k	2k	4k	8k
100	24	20	18	12	10	10	10	10
Tol.±	6	3	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in wall installation, is obtained in the table above.

Air flow, zone length, throw, pressuredrop



Air stream diffusion

$$B_v = 0.1 \times L_{0.2}$$

$$B_h = 0.6 \times L_{0.2}$$

Where $L_{0.2} = 1.2 \times$ zone length

LIABILITY:

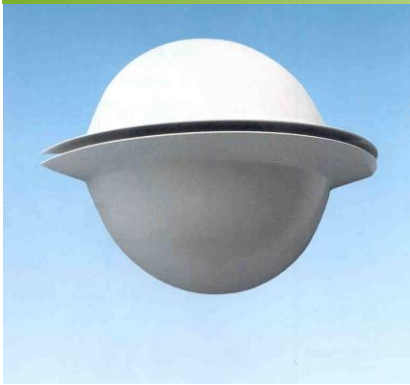
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTVK SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

SOUND POWER LEVEL L_w

DTVK	CORRECTION K_{oct}							
	Middle frequency by octave band (Hz)							
	63	125	250	500	1k	2k	4k	8k
100	2	-3	-3	0	0	-3	-6	-10
Tol. +/-	6	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula:

$$L_{w_{oct}} = L_{p1-A} + K_{oct}$$

Correction K_{oct} is average value in range of use of DTVK unit.

ADJUSTMENT

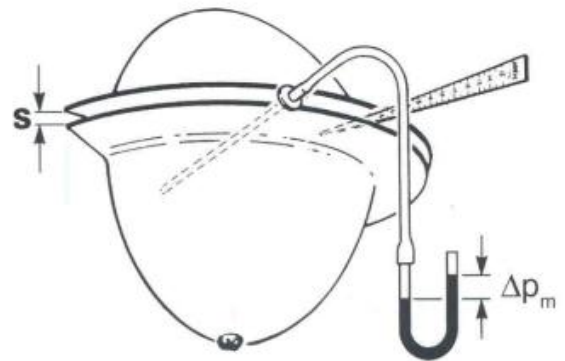
DTVK	S, mm	2	3	4	5	6	8	10	12
100	k	0.48	0.71	0.94	1.2	1.4	1.8	2.2	2.7

$$q = k \sqrt{\Delta p_m}$$

(l/s) (Pa)

$$q = 3.6k \sqrt{\Delta p_m}$$

(m³/h) (Pa)

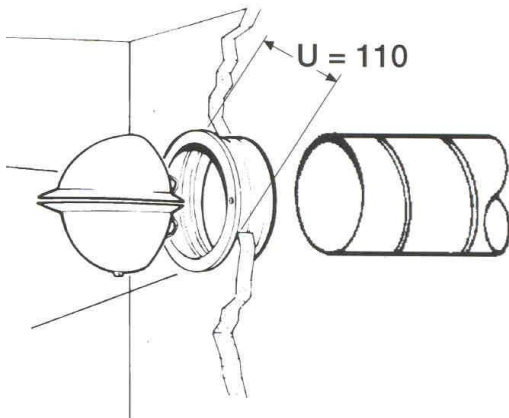


Definitions:

q	air volume	(l/s), (m ³ /h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4dB Room attenuation (10m ² sab)	[dB(A)]
L_{w_{oct}}	sound power level	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)
L_{0.2}	throw corresponding 0.2m/s Final velocity	(m)

INSTALLATION

DTVK connected to a mounting ring



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTVK

SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

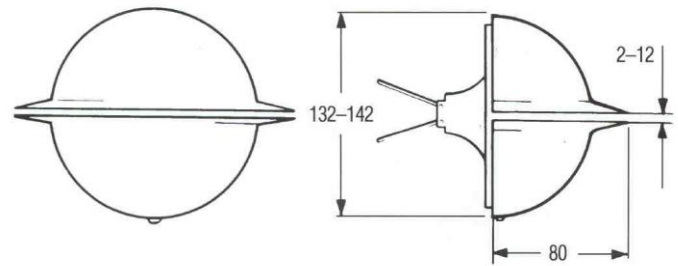
POWDER COATED METAL SUPPLY VALVE

The **DTVK** is a very quiet supply air valve designed for wall mounting. The valve is suitable for use in small premises, such as offices, houses and hotel rooms. The air discharged from the valve is mixed thoroughly with room air thus providing a draught-free air supply. The air flow is adjustable.

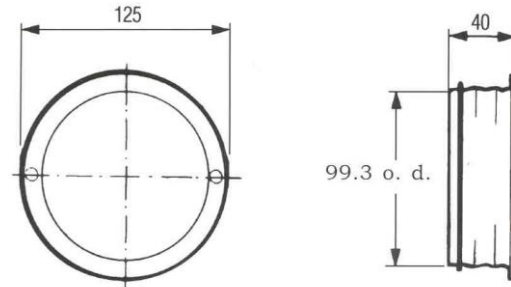
The design of the **DTVK** minimizes the risk of dust deposits forming on the wall surface. The valve is easy to install and easy to keep clean since it has large, smooth surfaces. The DTVK is made of hot galvanized sheet steel and stove enamelled in white (RAL9010).

DIMENSIONS (IN MILLIMETRES)

Supply air valve DTVK-100 (weight 0.4kg)



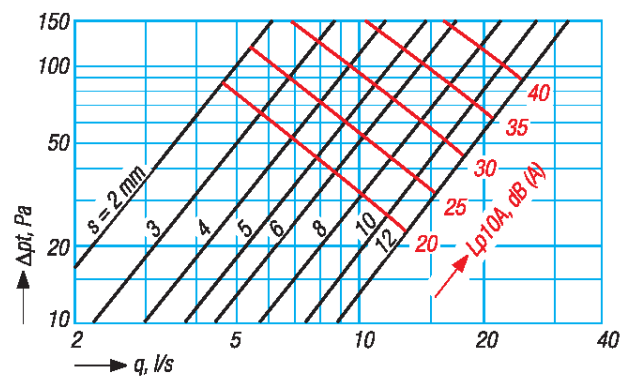
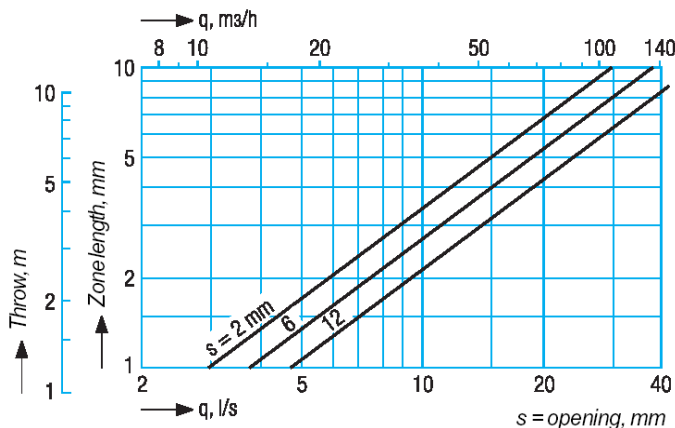
Mounting ring DGEZ-10 (weight 0.1kg)



DTVK	SOUND ATTENUATION ΔL							
	Middle frequency by octave band (Hz)							
	63	125	250	500	1k	2k	4k	8k
100	24	20	18	12	10	10	10	10
Tol.±	6	3	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in wall installation, is obtained in the table above.

Air flow, zone length, throw, pressuredrop



Air stream diffusion

$$Bv = 0.1 \times L_{0,2}$$

$$Bh = 0.6 \times L_{0,2}$$

Where $L_{0,2} = 1.2 \times$ zone length

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTVK SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

SOUND POWER LEVEL L_w

DTVK	CORRECTION K_{oct}								
	Middle frequency by octave band (Hz)								
	63	125	250	500	1k	2k	4k	8k	
100	2	-3	-3	0	0	-3	-6	-10	
Tol. +/-	6	3	2	2	2	2	2	3	

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A) the corrections K_{oct} presented in the table according to the following formula:

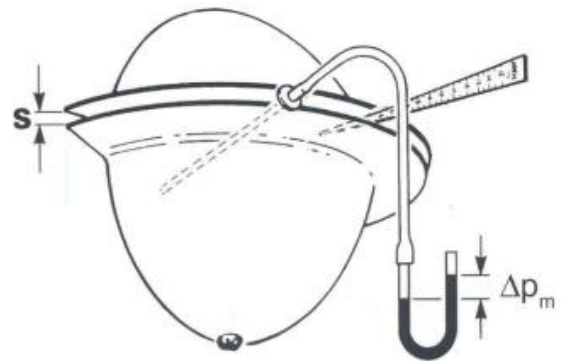
$$L_{w_{oct}} = L_{p1-A} + K_{oct}$$

Correction K_{oct} is average value in range of use of DTVK unit.

ADJUSTMENT

DTVK	S, mm	2	3	4	5	6	8	10	12
100	k	0.48	0.71	0.94	1.2	1.4	1.8	2.2	2.7

$q = k \sqrt{\Delta p_m}$	$q = 3.6k \sqrt{\Delta p_m}$
(l/s) (Pa)	(m ³ /h) (Pa)

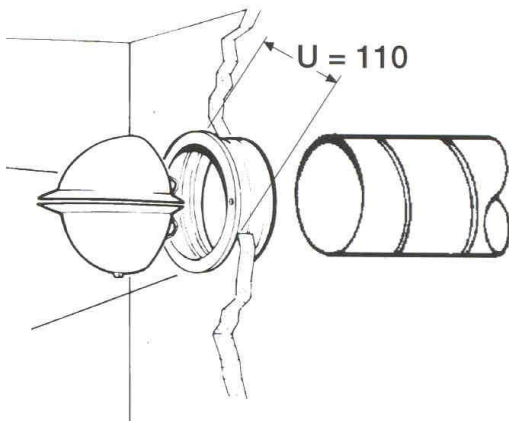


Definitions:

q	air volume	(l/s), (m ³ /h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4dB Room attenuation (10m ² sab)	[dB(A)]
L_{w_{oct}}	sound power level	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)
L_{0.2}	throw corresponding 0.2m/s Final velocity	(m)

INSTALLATION

DTVK connected to a mounting ring



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



alpha

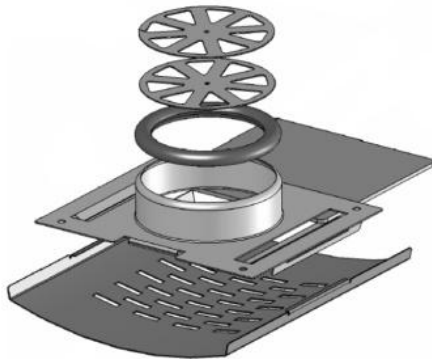
DLD-P AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES POWDER COATED METAL DESIGN AIR VALVE

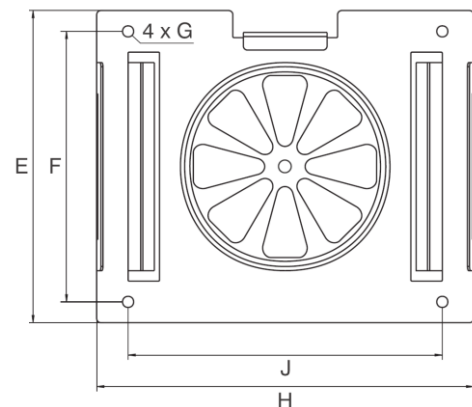
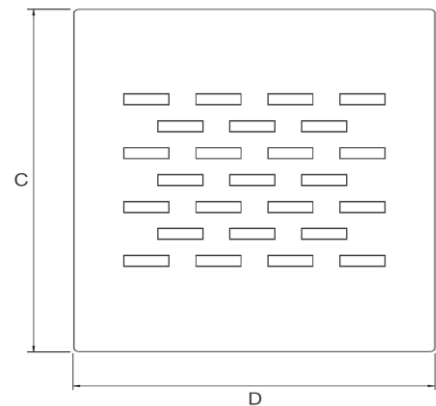
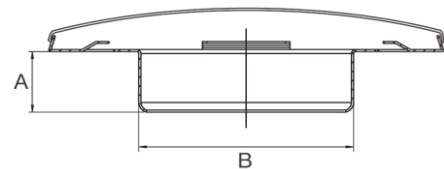
Design air valve **DLD-P** for use as supply or exhaust air valve in ventilation systems. Valve-body and removable screen are manufactured out white powder-coated steel sheet. All sizes are equipped with connection sleeves and integrated, steplessly adjustable throttle screen for flow rate adjustment. For the reduction of dirt entry in/from the ducting system all air valves are supplied with a removable washable aluminium filter.

- Nominal size 100, 125, 160 and 200 mm
- White powder-coated steel sheet (RAL 9010)
- Also available in stainless steel
- Removable screen
- Integrated variable adjustable throttle
- Connection for direct assembly with flexible ducts
- Washable aluminum expanded metal filter



DIMENSIONS (IN MILLIMETRES)

DLD-P	Ø100	Ø 125	Ø 160	Ø 200
A	30	30	30	30
B	98	123	158	198
C	210	210	270	320
D	182	207	242	282
E	150	175	210	250
F	130	155	190	230
G	5.5	5.5	5.5	5.5
H	180	205	240	280
J	150	175	210	250



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

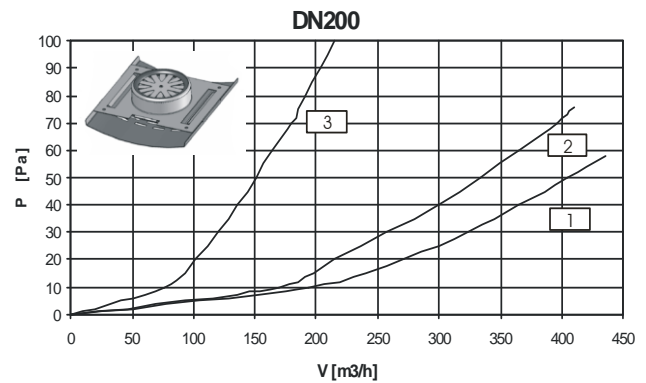
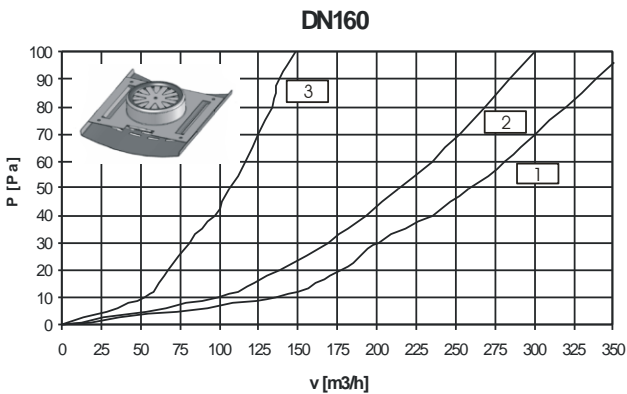
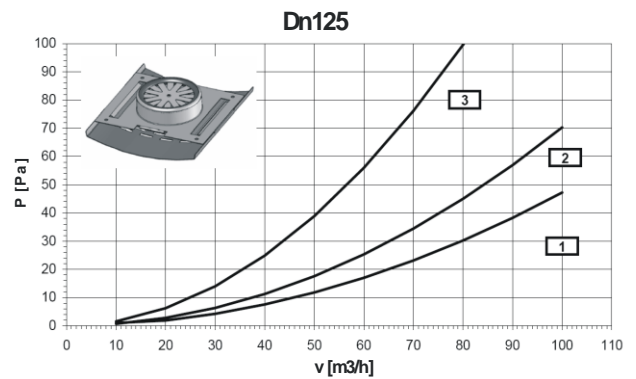
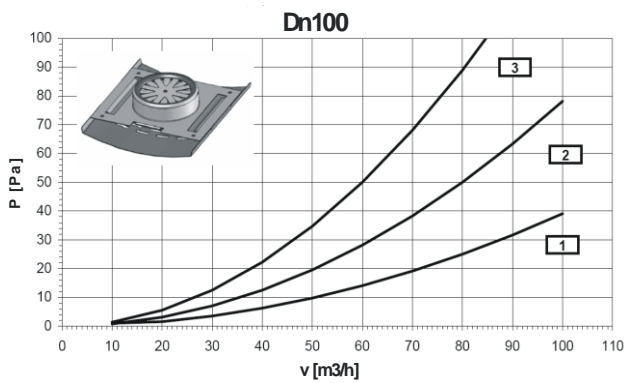
TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



alpha

DLD-P
AIR VALVE
AIR MANAGEMENT SYSTEMS

1 without filter & fully opened, 2 with clean filter & fully opened, 3 with clean filter, 50 % opened
Measurement: Filter in the pure/clean condition !



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTQA SUPPLY AIR DIFFUSER

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

DTQA is a very quiet supply air diffuser which is suitable for air distribution in offices, houses and rooms where wall mounting is required. It can be mounted on wall and also close to the ceiling. DTQA has a removable front plate for easy cleaning, measuring and adjustment of air flow.

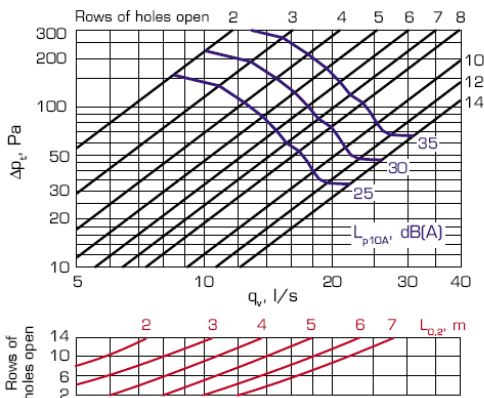
Product facts

- Low noise level
- Can be mounted close to the ceiling
- Removable front plate for easy cleaning, measuring and adjustment of air flow

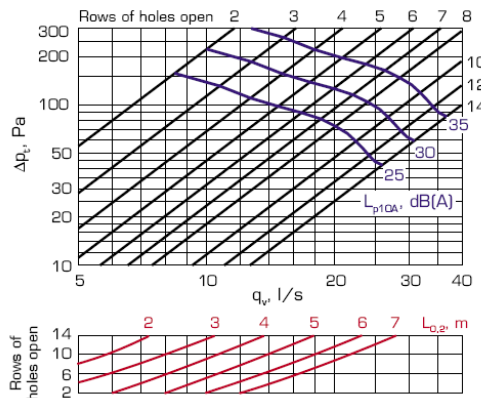
Quick selection when 8 open rows

Diffuser	Connection	Air flow l/s (m ³ /h) and noise level		
Size	mm	25 dB(A)	30 dB(A)	35 dB(A)
DTQA100	100	17	20(72)	24
DTQA125	125	20	24(86)	28

Air flow, pressure drop, sound level, throw DTQA100



DTQA125

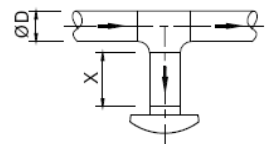


Sound power level L_w

STQA	CORRECTION K _{cor} (dB)						
	125	250	500	1000	2000	4000	8000
100	-1	-4	0	0	-2	-11	-14
125	2	-3	-2	-1	-1	-8	-13
Toler. ±	3	2	2	2	2	2	3

Effect of distance X and open rows of holes to the noise level at different connections

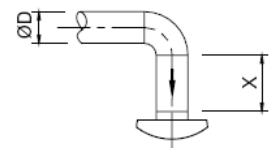
Ø100	Rows of holes open					
	14	8	2	14	8	2
X						
4D	+0 dB	+2 dB	+0 dB	+2 dB	+0 dB	+0 dB
2D	+3 dB	+4 dB	+2 dB	+4 dB	+0 dB	+0 dB
0D	+4 dB	+6 dB	+3 dB	+5 dB	+0 dB	+0 dB



Sound attenuation ΔL

STQA	Rows of holes open	SOUND ATTENUATION ΔL (dB)							
		63	125	250	500	1000	2000	4000	8000
100	14	19	13	8	0	0	1	3	3
	8	19	13	7	0	0	4	5	5
	2	19	14	7	7	10	7	9	12
125	14	17	12	6	0	0	1	2	3
	8	17	12	6	1	2	4	5	5
	2	19	14	8	8	10	7	10	11
Toler. ±		6	3	2	2	2	2	2	3

Ø125	Rows of holes open					
	14	8	2	14	8	2
X						
4D	+0 dB	+0 dB	+0 dB	+0 dB	+0 dB	+0 dB
2D	+2 dB	+3 dB	+2 dB	+3 dB	+0 dB	+0 dB
0D	+3 dB	+4 dB	+3 dB	+4 dB	+0 dB	+0 dB



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



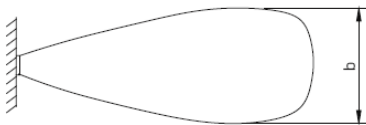
DTQA SUPPLY AIR DIFFUSER

AIR MANAGEMENT SYSTEMS

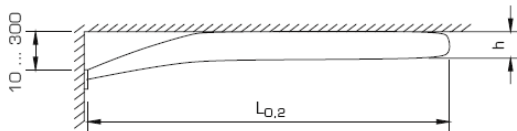
Diffusion pattern, dimensions, installation

Diffusion pattern

From top



From side



Installation

DTQA is mounted straight to the duct without mounting ring. Fastening is secured with screws to the wall or with pop rivets to the duct. Front plate is fastened to the body with spring clips.

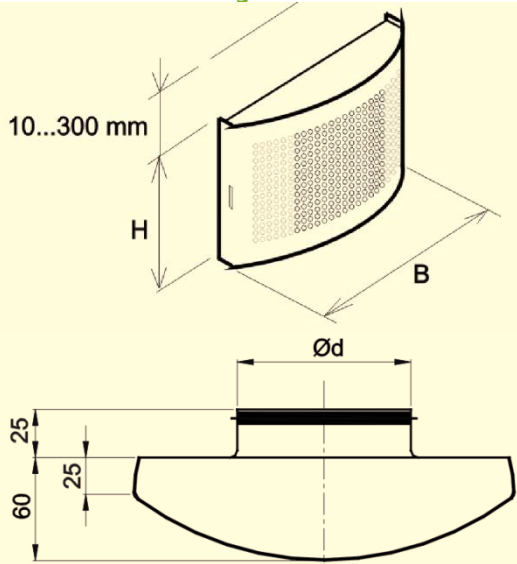
Measuring and adjustment of the air flow

Air flow measurement is made by measuring the pressure difference from the front plate hole. Adjustment of the air volume is obtained by opening and closing the rows of front plate holes.

Trow when chilled air is obtained by correction factor k according to the following formula: $L_{0,2(t)} = k \times L_{0,2}$

T (°C)	B	h	K
0	$0,6 \times L_{0,2}$	$0,07 \times L_{0,2}$	1,0
-7	$0,8 \times L_{0,2}$	$0,15 \times L_{0,2}$	0,7

Dimensions and weight



Size	Ød	B x H	W (kg)
100	98	218x156	0.66
125	123	218x156	0.65

Application and function

DTQA is a very quiet supply air diffuser which can be mounted on wall and also close to the ceiling. It is suitable for air distribution in offices, houses and rooms where wall mounting is required. DTQA has a removable front plate for easy cleaning, measuring and adjustment of air flow. The body of DTQA is equipped with circular rubber sealing gasket joint.

Material and surface finish

The diffuser is made of hot-dip galvanized steel sheet, SS 1151, and meets the requirements for corrosivity class C2 in accordance with SS-EN ISO 12944-2.

The diffusers are powder-coated, which gives a high surface finish and good impact and scratch resistance. Standard color is white RAL 9010, gloss 70. Other colors are available to special order.

Also available in stainless steel shiny 1.4301 (DTQAY)



Instructions

Instructions for installation, adjustment and maintenance are described in detail in our technical instructions, which are supplied with every product.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DQD-P SUPPLY AIR DIFFUSER

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

DQD-P is a very quiet supply air diffuser which is suitable for air distribution in offices, houses and rooms where wall mounting is required. It can be mounted on wall and also close to the ceiling. The DQD-P has a removable front plate for easy cleaning, measuring and adjustment of air flow.

Product facts

- Low noise level
- Can be mounted close to the ceiling
- Removable front plate for easy cleaning, measuring and adjustment of air flow

Installation

DQD-P is mounted straight to the duct without mounting ring. Fastening is secured with screws to the wall or with pop rivets to the duct. Front plate is fastened to the body with Magnet strips.

Measuring and adjustment of the air flow

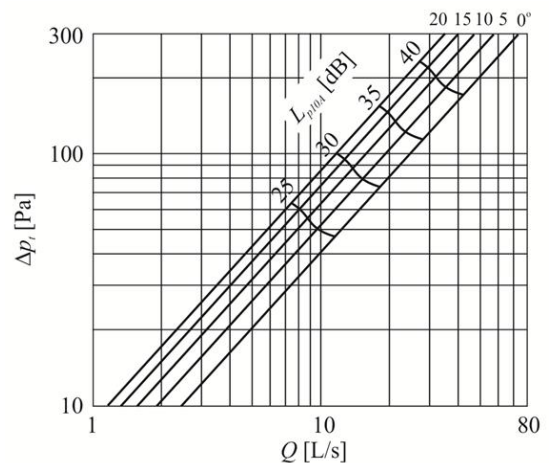
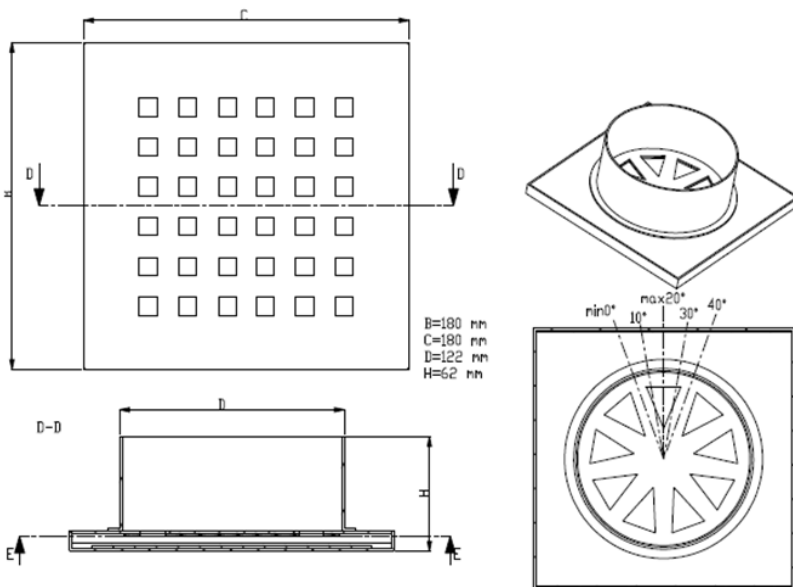
Air flow measurement is made by measuring the pressure difference from the front plate hole. Adjustment of the air volume is obtained by opening and closing the rows of front plate holes.

Material and surface finish

The diffusers are powder-coated, which gives a high surface finish and good impact and scratch resistance. Standard color is white RAL 9010, gloss 70. Other colors are available to special order.

The valve is totally opened when the angle of the valve actuating element is 0° or 40°. Minimum openness appears when the angle of the valve actuating element is 20°. This valve type was tested together with filter that is an integral part of the valve.

The Fig. graphically shows the dependence of flow rate, noise intensity and total pressure drop across the valve type **DQD - P125**



LIABILITY:

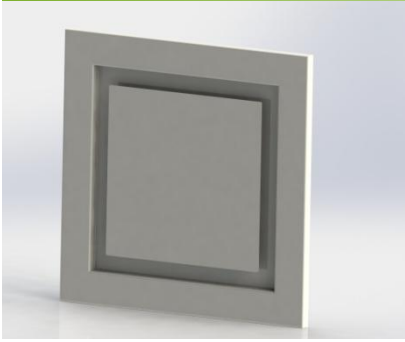
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



i-VALVE[®] ACERO

SQUARE METAL VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The **i-VALVE[®] ACERO** is perfectly well designed as an elegant -square supply and extract valve. The best solution for the indoor climate. Suitable for sealing and wall installation in offices or mansions. Due to the industrial designing we create the highest performance with regard to noise and to adjust the pressure and consequently air volume. Easy to insert a removable Volume or Filter unit. Just remove the front plate and place one of the units. The air pressure through **the i-VALVE[®] ACERO** is easy to adjust by rotating the volume regulator.

DESIGN

The **i-VALVE[®] ACERO** is manufactured from high quality steel sheet with a white powder-coated finish. These are UV-resistant, scratch resistant, colourfast and Anti-static. Standard color white (RAL9016).

The **i-VALVE[®] ACERO** is available in the following diameters: Ø100 and Ø125.

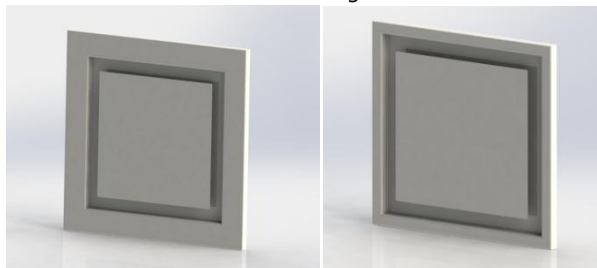
Both valves have a version small and wide edge. Lipseal on mounting ring to prevent air leakage from the side.

CONSTRUCTION

The **i-VALVE[®] ACERO** is manufactured from steel sheet, powder coated. Standard color white RAL 9016 also available in RAL 9003. Removable front plate to place Volume unit or Filter unit.

PACKAGING

Luxurious single white box
2 variations: Wide and Small edge.

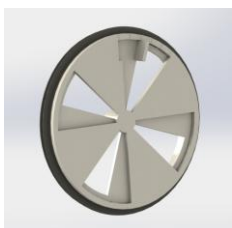


Version W

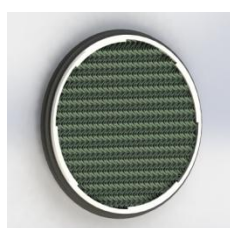
Version S

Accessories included:

Volume unit Antistatic (5 steps) + Filter unit antistatic/antibacterial



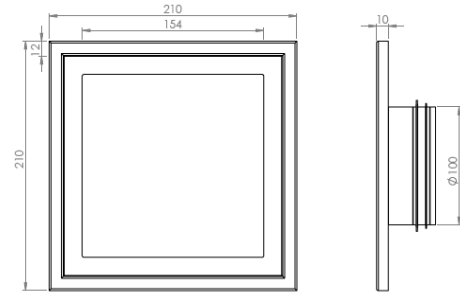
Art.code: **VUAØ**



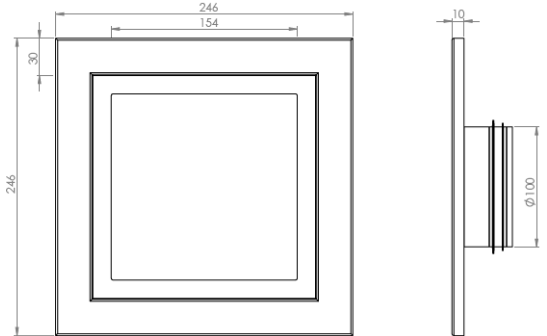
Art.code: **FUAØ**

DIMENSIONS in mm

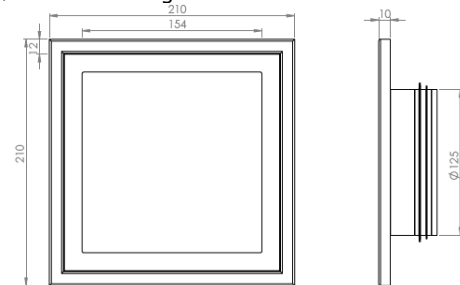
Ø100 Small edge: **SMV1VF-100-R9016**



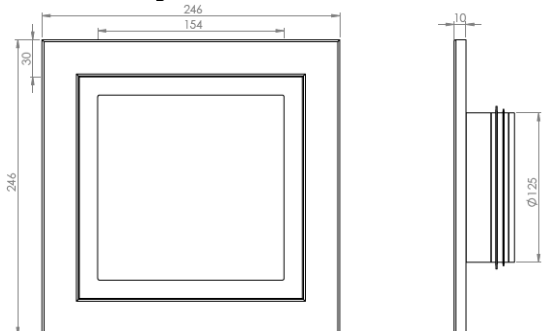
Ø100 Wide edge: **SMV2VF-100-R9016**



Ø125 Small edge: **SMV1VF-125-R9016**



Ø125 Wide edge: **SMV2VF-125-R9016**



LIABILITY:

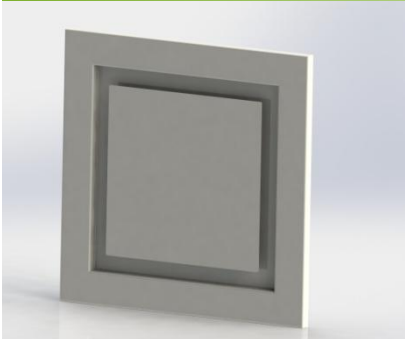
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



i-VALVE[®] ACERO

SQUARE METAL VALVE

AIR MANAGEMENT SYSTEMS

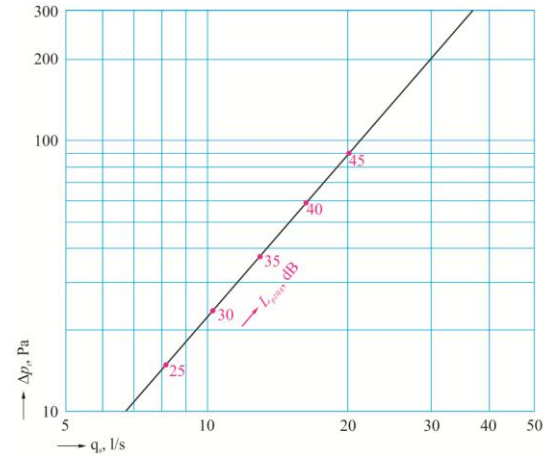
Ø100 Exhaust

Ø100 Supply

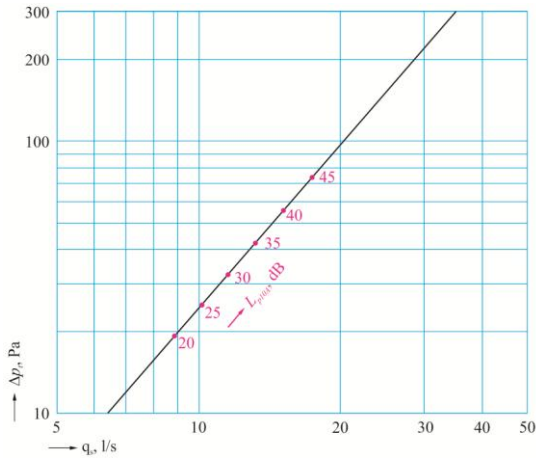
Version W EXHAUST
100 mm



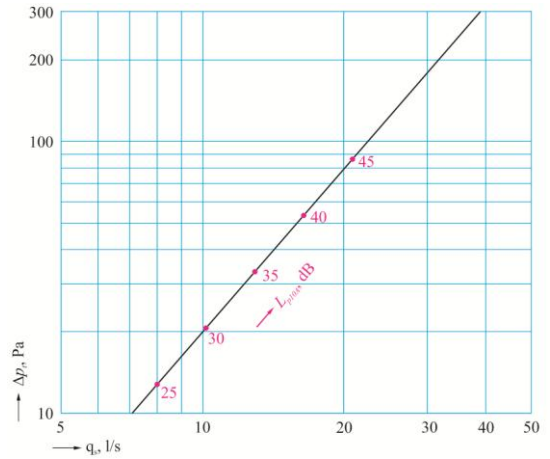
Version W SUPPLY
100 mm



Version S EXHAUST
100 mm



Version S SUPPLY
100 mm



GRAFICS EXPLANATION

a, b, c, d, e = positions of regulator
f - filter
0 gap of valve

DEFINITIONS

q_v	air volume	(l/s)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m ² sab)	[dB(A)]

LIABILITY:

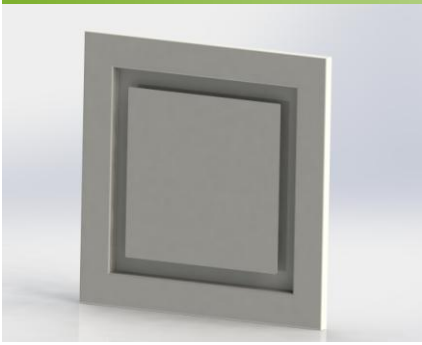
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



i-VALVE[®] ACERO

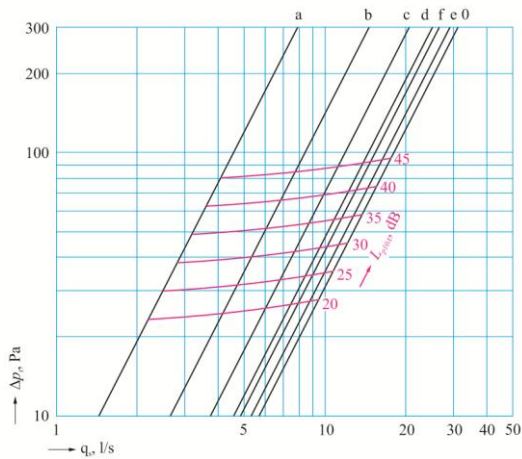
SQUARE METAL VALVE

AIR MANAGEMENT SYSTEMS

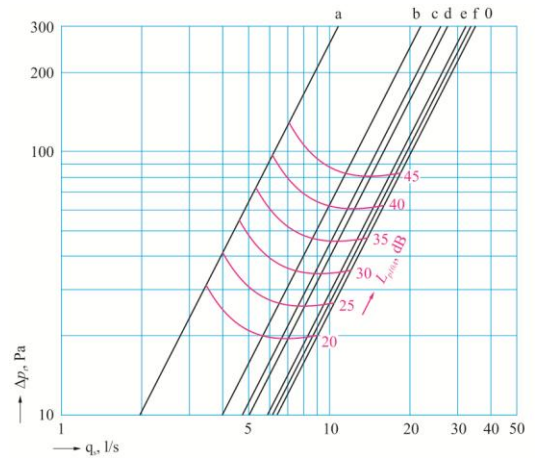
Ø125 Exhaust

Ø125 Supply

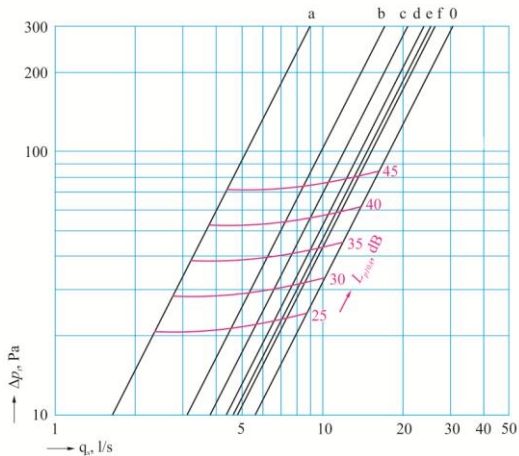
Version W EXHAUST
125mm FILTER +REGULATOR



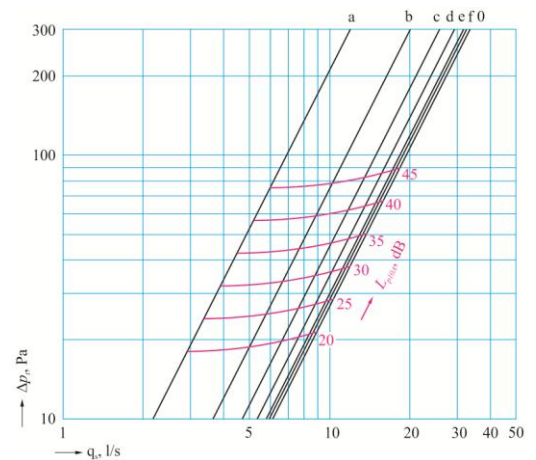
Version W SUPPLY
125mm FILTER +REGULATOR



Version S EXHAUST
125mm FILTER +REGULATOR



Version S SUPPLY
125mm FILTER +REGULATOR



GRAPHICS EXPLANATION

a, b, c, d, e = positions of regulator

f - filter

0 gap of valve

DEFINITIONS

q_v	air volume	(l/s)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m ² sab)	[dB(A)]

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DRIS IRIS DAMPER

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES IRIS REGULATION AND MEASURING DEVICE

The ideal solution for the exact and quick air flow measuring and regulation.

- Low noise level
- Operation independent of flow direction
- Fully openable for cleaning of duct tight construction
- Solid construction

CONSTRUCTION

The IRIS DAMPER **DRIS** is composed of regulation plates, regulating nut and regulation scale plus manometer connections and casing.

INSTALLATION

The IRIS DAMPER is secured to the ducting with rivets. For vertical mounting, ensure the weight of the interconnecting ductwork is fully supported. Refer to the table for recommended safety distances.

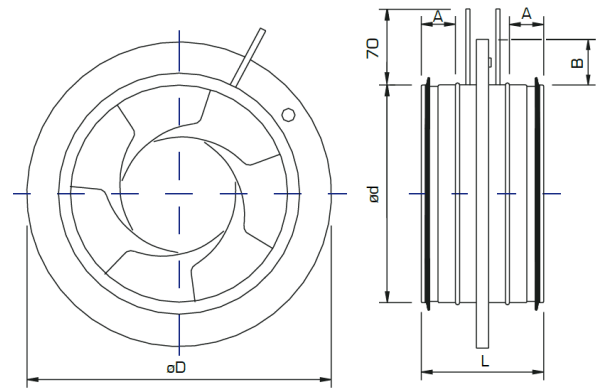
REGULATION AND MEASUREMENT OF AIR FLOW

The regulation plates form a virtually ideal measuring orifice which enables an easy and reliable measurement of the air flow. To determine the airflow, measure the pressure difference Δp_m at the manometer connections and check the corresponding airflow from the regulation chart.

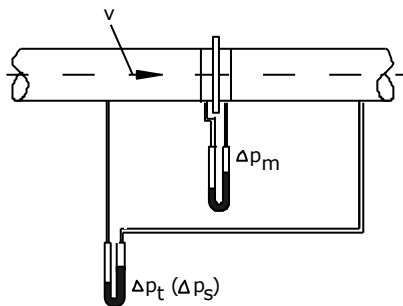
The chart is shown on the damper casing and in the separate information for air flow regulation and measurement (the selection diagrams do not serve the air flow measurement).

The adjustment of the Iris is simple, all that is needed is a standard 13mm spanner and the damper locks in the right position automatically

DIMENSIONS in mm



Size	Ød	ØD	L	A	B
80	79	125	115	33	22
100	99	165	115	27	32
125	124	188	115	27	32
150	149	230	115	27	40
160	159	230	115	27	35
200	199	285	115	27	42
250	249	335	135	33	42
315	314	405	140	33	47
400	398	525	150	46	62
500	498	655	150	46	77
630	628	815	155	46	92
800	798	1015	285	110	107



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

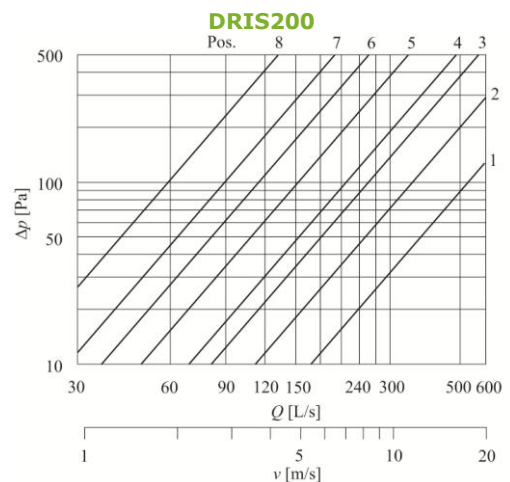
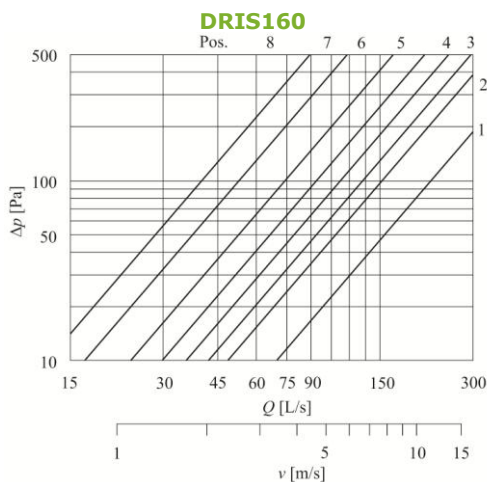
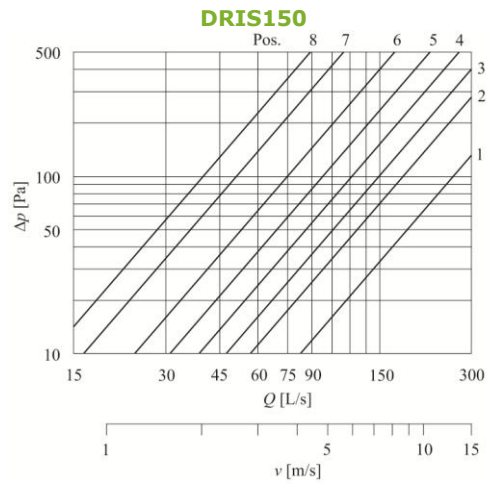
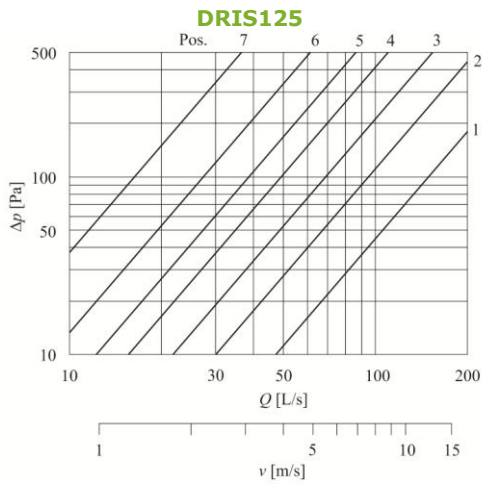
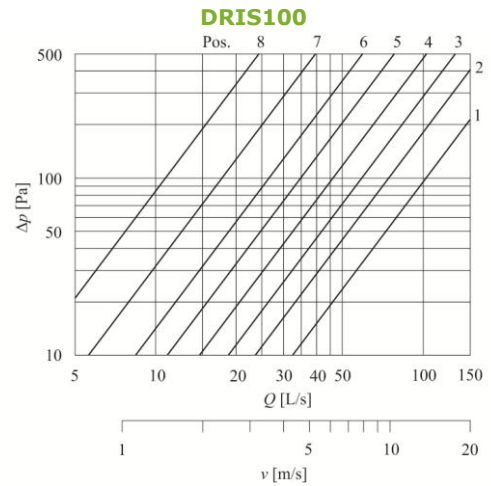
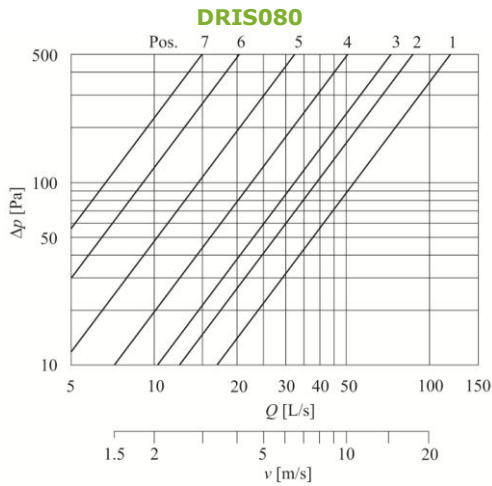
TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DRIS IRIS DAMPER

AIR MANAGEMENT SYSTEMS



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

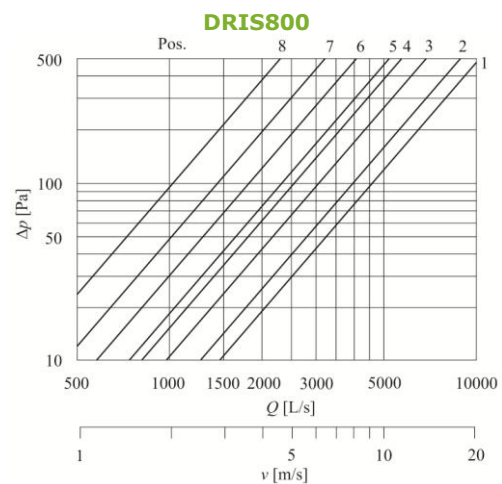
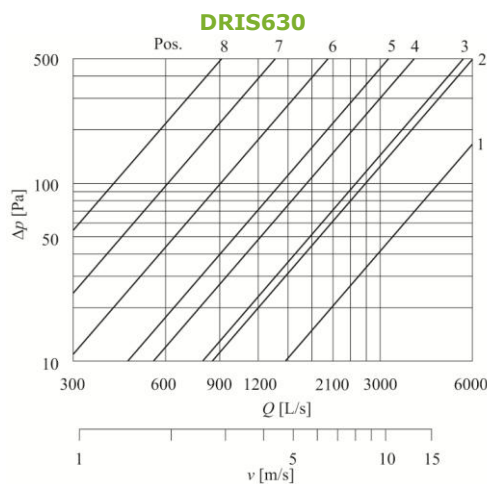
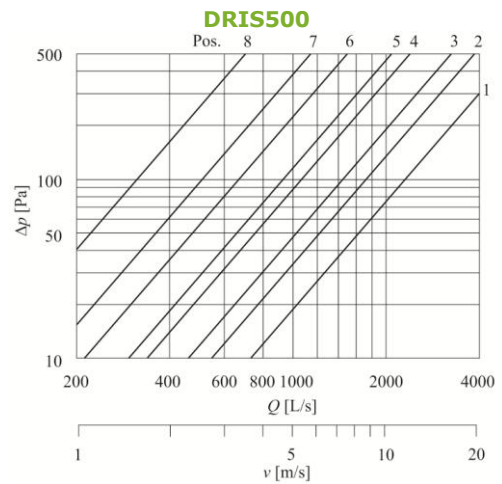
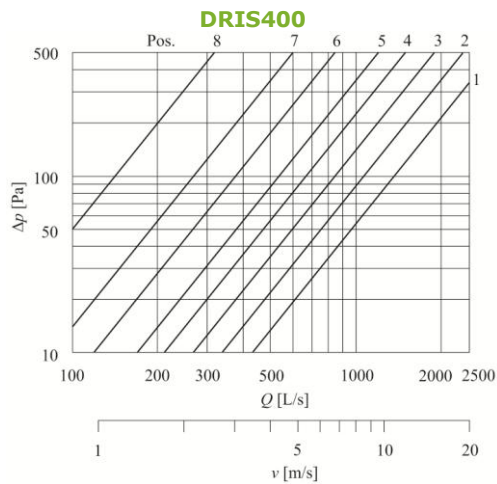
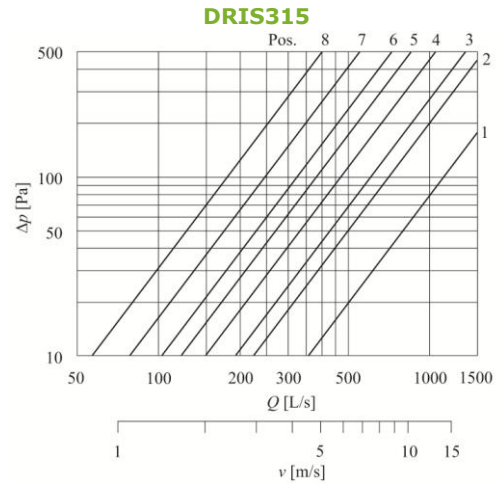
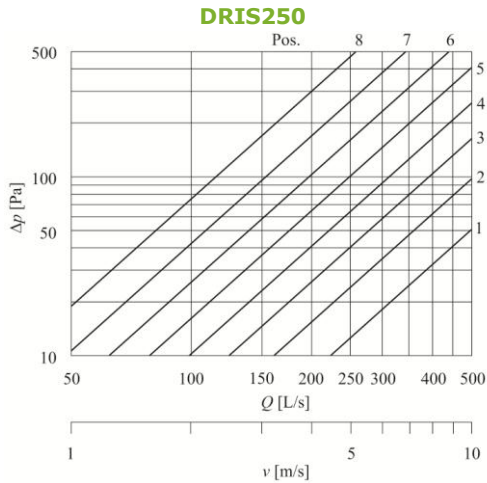
TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DRIS IRIS DAMPER

AIR MANAGEMENT SYSTEMS



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DRIS IRIS DAMPER

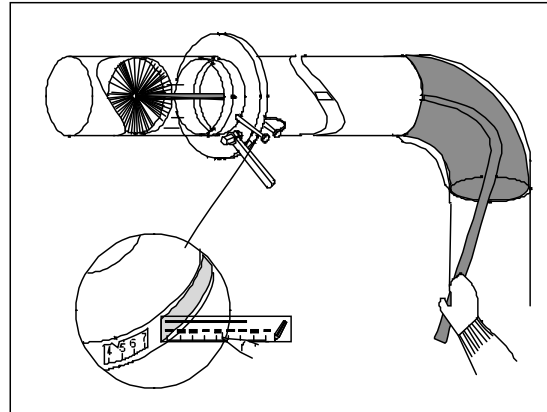
AIR MANAGEMENT SYSTEMS

SAFETY DISTANCES

Type of flow disturbance	The required safety distance L	
	$m^2 = \pm 7\%$	$m^2 = \pm 10\%$
	$\geq 1 D$	$\geq 1 D$
	$\geq 4 D$	$\geq 2 D$
	$\geq 2 D$	$\geq 2 D$
	$\geq 2 D$	$\geq 2 D$

Accuracy of calibration during disturbance free air flow $\pm 5\%$

CLEANING



To ensure the functioning of the inlet air diffuser

SYMBOLS

q_v	air volume	(m^3/h)
Δp_t	total pressure drop	(Pa)
Δp_s	static pressure drop	(Pa)
Δp_m	pressure difference	(Pa)
m_2	method-specific measurement tolerance	%
v	average velocity	(m/s)

LIABILITY:

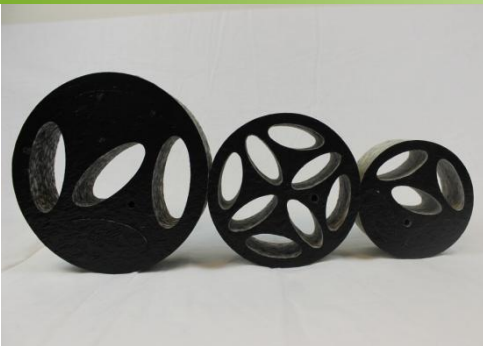
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



IFD INLINE FOAM DAMPER

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

IFD (DINØRP) is an inline damper for circular ducts. It is completely made from soft elastic plastic foam with good damping abilities.

The damper has a number of oval openings equipped with releasable plugs. The pressure drop across the damper is adjusted by varying the number of open holes. Due to the special material and the design of the holes, sound generation will be low even at large pressure drops. The damper is equipped with a measurement outlet to make adjustment faster. The stable plastic foam has an open cellular structure and high density, which makes for an extraordinary ability to absorb sound.

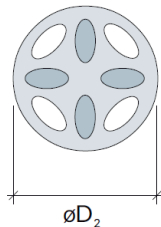
Because of this, the damper acts as a simple silencer. By placing several dampers after one another in a duct, the silencing is increased further. Sound problems, such as overhearing between rooms, can often be solved.

FIRECLASS Flame retardant (EN ISO 11925-2:2002).

MATERIAL The Foam damper is mainly made from a flexible polyurethane foam on one side Protective PU-foil.

DIMENSIONS

Size	øD1	øD2	S
80	80	82	50
100	100	102	50
125	125	127	50
160	160	162	50
200	200	202	50
250	250	252	75
315	315	318	75



øD1 = diameter of the duct

INSTALLATION

The damper is incredibly easy to install which makes it an ideal choice for use with existing installations. Simply insert the damper in the duct opening from the room side. No tools are needed. The formable damper will seal tightly against the duct wall. The damper can be easily cleaned with a vacuum during duct cleaning.

A (mm) B (mm)

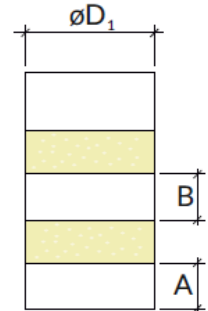
Supply air > 50-350 50-250

Exhaust air > 0-50 50-250

øD1 = Diameter of the duct

A = Minimum distance between duct opening and the first damper

B = Minimum distance between dampers



ACOUSTIC DATA

Sound power level $L_w = L_{wa} + K_w$ / Table K_w

Size	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
80	6	4	3	0	-9	-10	-17	-24
100	6	4	3	0	-9	-10	-17	-24
125	4	2	1	0	-8	-10	-18	-24
160	5	4	3	0	-9	-10	-18	-22
200	4	2	5	-4	-10	-15	-20	-25
250	5	4	3	0	-9	-10	-18	-22
315	4	2	5	-4	-10	-15	-20	-25

SOUND ATTENUATION

The sound attenuation without end reflection. Number of open holes

Size	open Holes	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
80	2	2.5	2	3	4.5	6	9	10	16
	3	3	3.5	2.5	5.5	8.5	8.5	15	19
100	5	1.5	2.5	1.5	3.5	6	6.5	12	17
	3	5	6	5	5	12	13	19	21
125	8	1	1.5	1.5	2.5	6	6	11	18
	1	6.5	7	4	9.5	13	16	18	22
160	5	3	3.5	2.5	5.5	8.5	8.5	15	20
	2	4	6.5	2.5	5.5	13	14	18	16
200	8	2	2	1	1.5	7	7	13	14
	3	5	4	3	7	13	19	18	17
250	10	2	3	1.5	2.5	7.5	11	14	13
	4	5	5	3	6	12	15	16	18
315	14	2	2	1	1.5	7	8	10	13



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

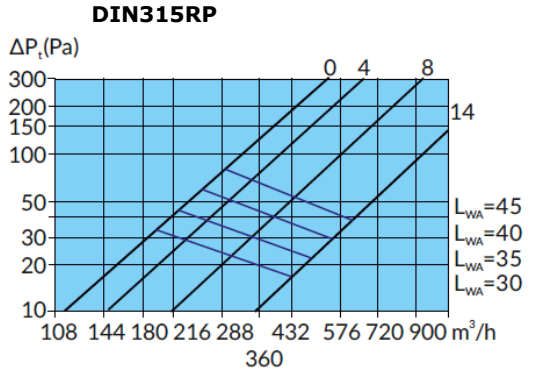
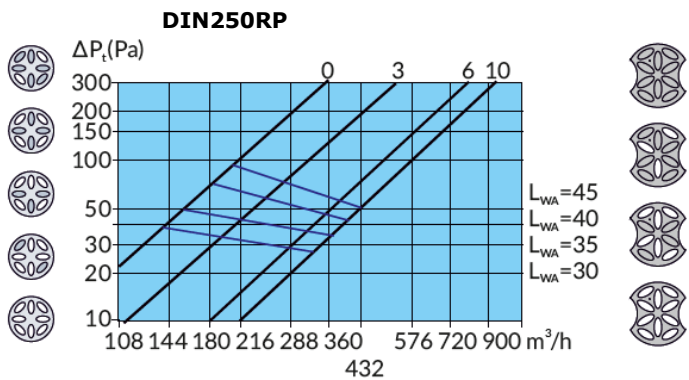
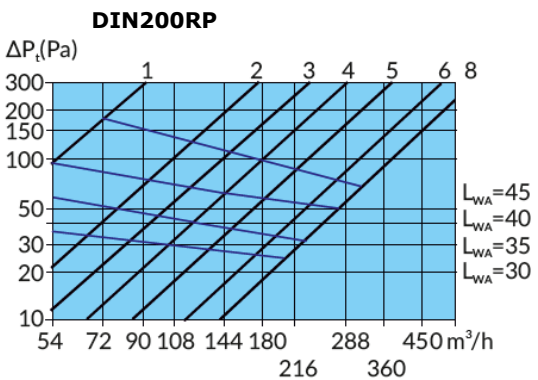
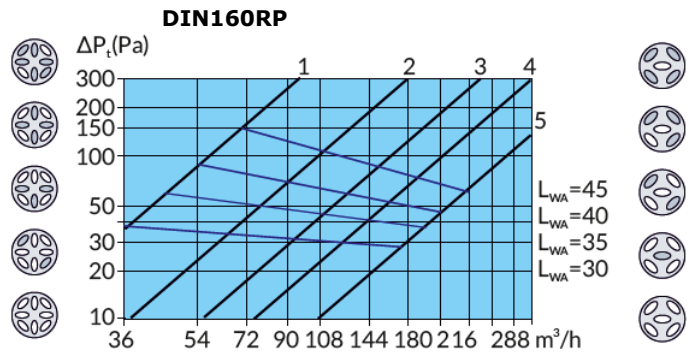
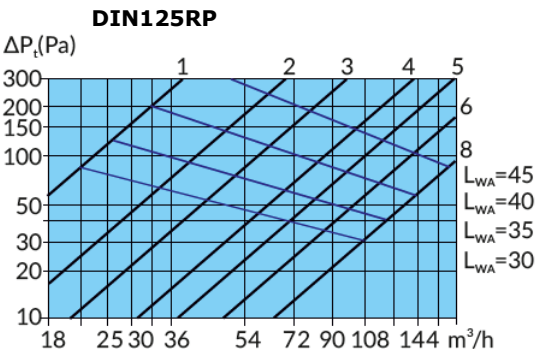
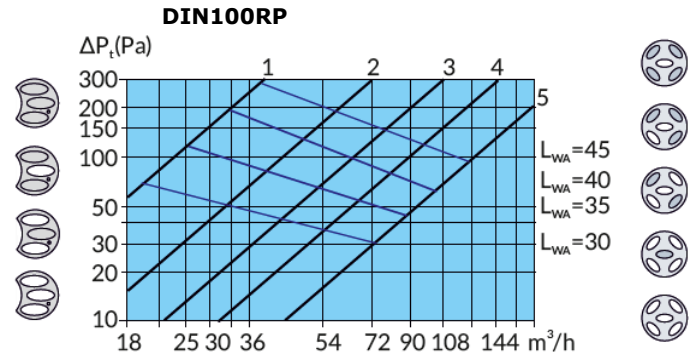
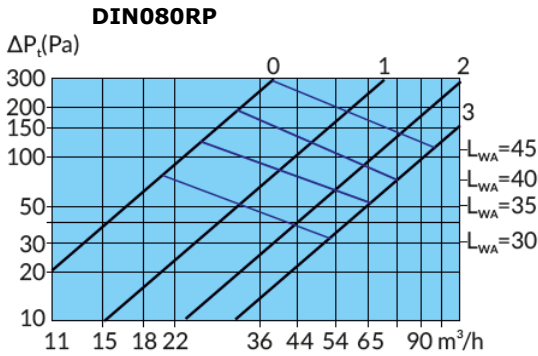


IFD INLINE FOAM DAMPER

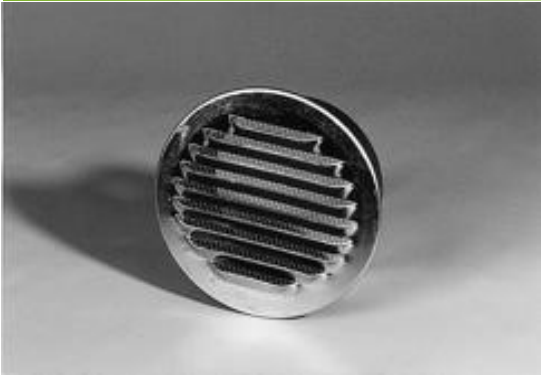
AIR MANAGEMENT SYSTEMS

AIR FLOW RATE & PRESSURE LOSS

L = Sound power level in the duct dB(A). ΔP_t (Pa) = Total pressure loss



The symbol shows the number of open holes. The curved in the diagram are keyed with a number. The number shows how many holes are open



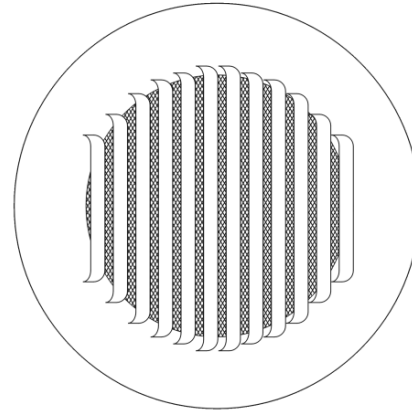
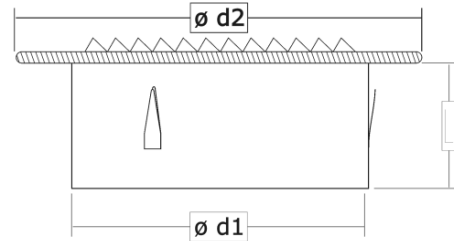
DWRA WEATHER PROTECTION GRILL AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

WEATHER PROTECTION GRILL DWRA

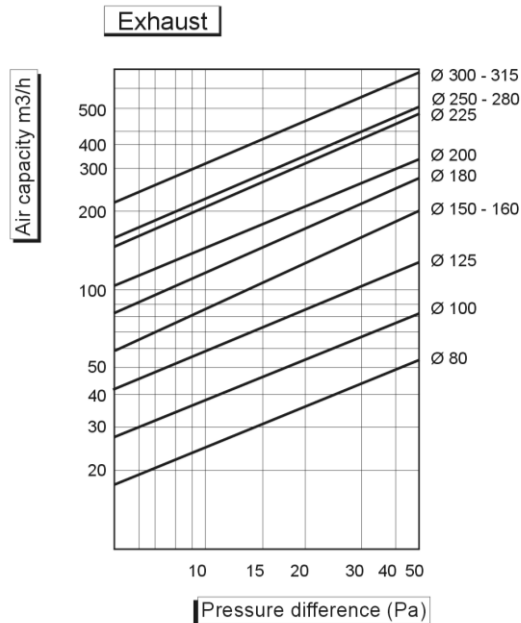
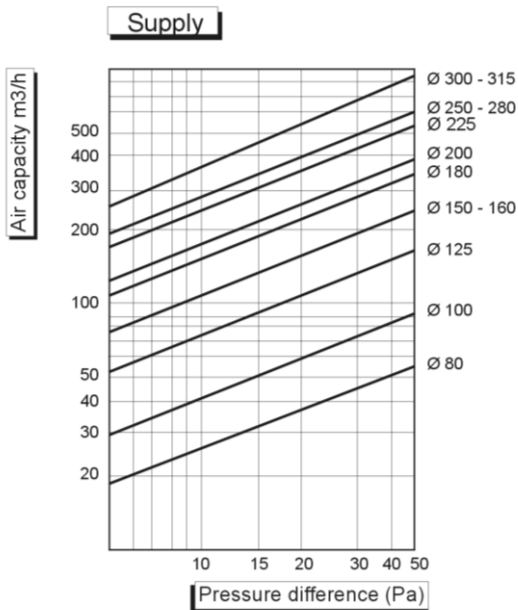
For exhaust and supply.
With connection bush, clamp fixing and wire gauze.
Every 3 Months the screen should be cleaned to prevent clogging!
Dimension = Dimension connection bush.
Material: Aluminium.

DIMENSIONS (IN MILLIMETRES)



Dimension and weight			
d1*	d2 ± 2 mm	L ± 5 mm	weight (g)≈
080	103	50	065
100	125	50	090
125	150	50	120
150	175	50	160
160	188	50	175
180	210	50	215
200	225	50	230
224	250	50	300
250	275	50	320
280	310	50	430
300	325	50	470
315	340	50	550

PRESSURELOSS



LIABILITY:

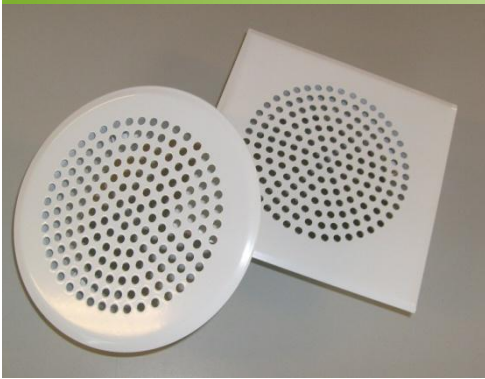
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DLGRAW+DLGQAW

Air GRILL

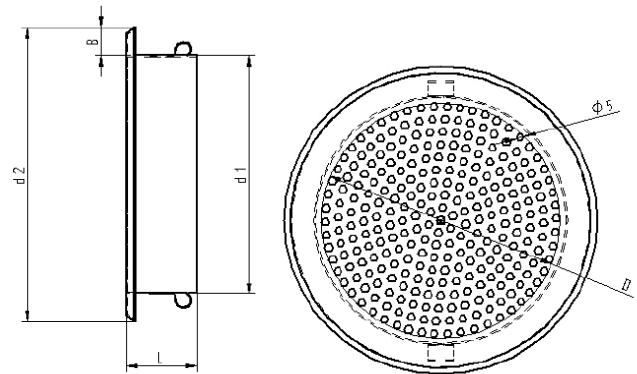
AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

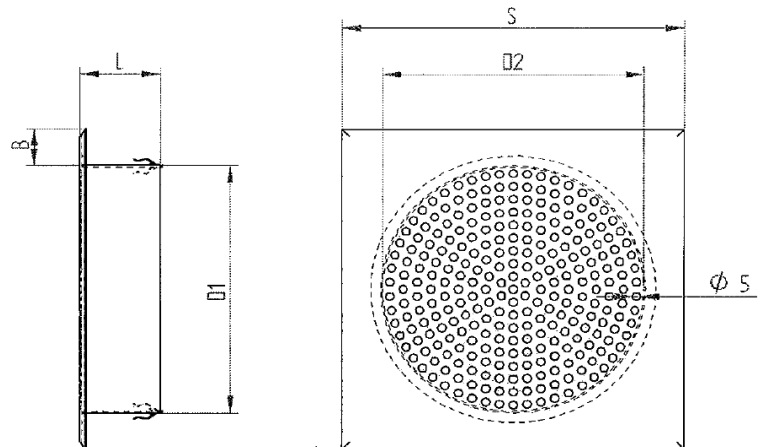
AIR GRILL DLGRAW (round) and DLGQAW (square)

For exhaust and supply.
With connection bush and clamp fixing.
Every 3 Months the screen should be cleaned to prevent clogging!
Dimension = Dimension connection bush.
Material: Aluminium White RAL 9016

Dimension DLGRAW					
Ø	d1	d2	L	B	D
100	95	135	50	20	94
125	120	160	50	20	117
150	145	195	50	20	149
160	155	195	50	20	149



Dimension DLGQAW					
Ø	S	D1	D2	L	B
80	140x140	75	71	50	30
100	140x140	95	91	50	20
125	165x165	120	116	50	20
150	200x200	145	141	50	25
160	200x200	155	151	50	20
180	220x220	175	171	50	20
200	240x240	195	191	50	20



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



BDS BACK DRAUGHT SHUTTER AIR MANAGEMENT SYSTEMS

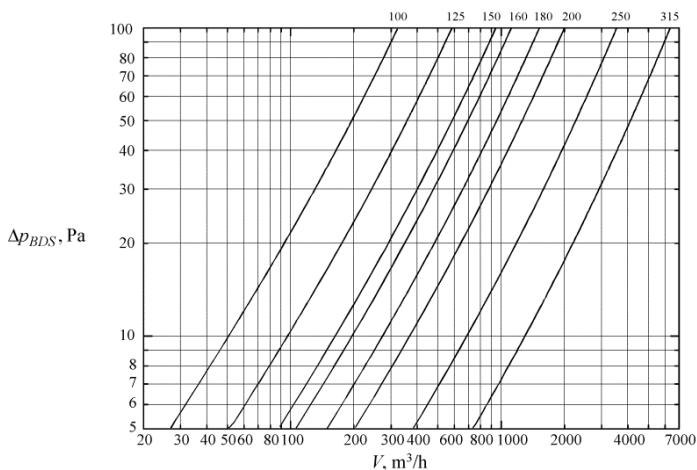
PRODUCT PROPERTIES

The butterfly shutter type **BDS** is used to preventing the reverse of air-flow in circular duct systems.

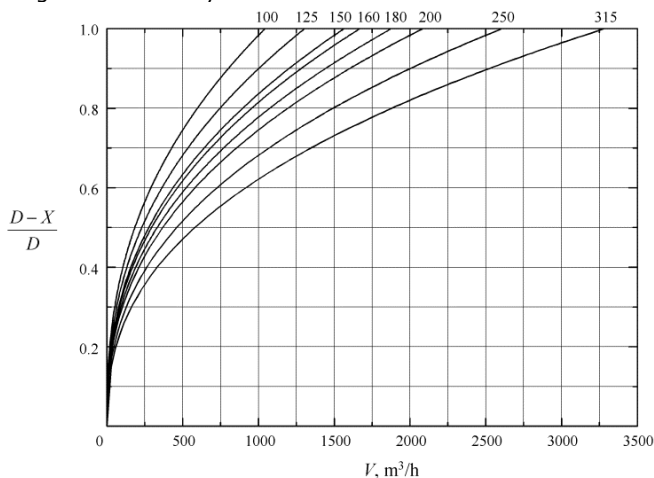
CONSTRUCTION

The casing of the BDS has been constructed from galvanised steel. The blades are made of aluminium. The shaft and the spring are made of stainless steel. The butterfly shutter is fitted with a return spring, which closes the blades onto a sound absorbing ring. Nominal diameters correspond to those in DIN 24145. For production range and main dimensions see the tables.

PRESSURELOSS



Opening of the butterfly blades as the function of air flow rate



INSTALLATION

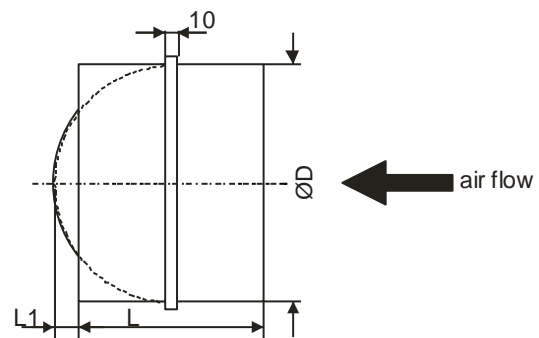
It is recommended to install the shutter into horizontal ducting. The shaft axis must be vertical. The shutter is installed into the duct by simple slide-in.

OPERATION CONDITIONS

The shutter is destined for operation in a standard environment with ambient temperature up to 60°C, for transportation of clean air free of coarse dust, grease, chemical vapors and other impurities.

DIMENSIONS (IN MILLIMETRES)

Type	ØD (mm)	L (mm)	L1 (mm)	Case thickness (mm)	Average weight
BDS100	098.6±0.4	88	6	0.55	0.13 kg
BDS125	123.6±0.4	88	19	0.55	0.17 kg
BDS150	148.8±0.4	88	31	0.55	0.22 kg
BDS160	158.6±0.4	88	36	0.55	0.24 kg
BDS180	178.8±0.4	88	46	0.55	0.26 kg
BDS200	198.6±0.4	88	56	0.55	0.29 kg
BDS250	248.6±0.6	128	61	0.8	0.68 kg
BDS315	312.7±0.6	128	94	0.8	0.81 kg
BDS355	352.7±0.6	198	65	0.8	1.47 kg
BDS400	398.7±0.6	198	94	0.8	1.68 kg
BDS450	448.7±0.6	248	80	0.8	2.43 kg
BDS500	498.7±0.6	248	107	0.8	2.76 kg



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



BDSI

INLINE BACK DRAUGHT SHUTTER

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The Inline backdraught shutter type **BDSI** is used to preventing the reverse of air-flow in circular duct systems.

CONSTRUCTION

The casing of the shutter is made of galvanized steel sheet. The blades are made of aluminium, shaft and spring are made of stainless steel. The inner rubber seal is used for better tightness and for noise reduction. The outer foam sealing strip provides good tightening and fixing of the BDSI inside the duct. The nominal dimensions correspond with the DIN 24145.

Production range and main dimensions see the table.

INSTALLATION

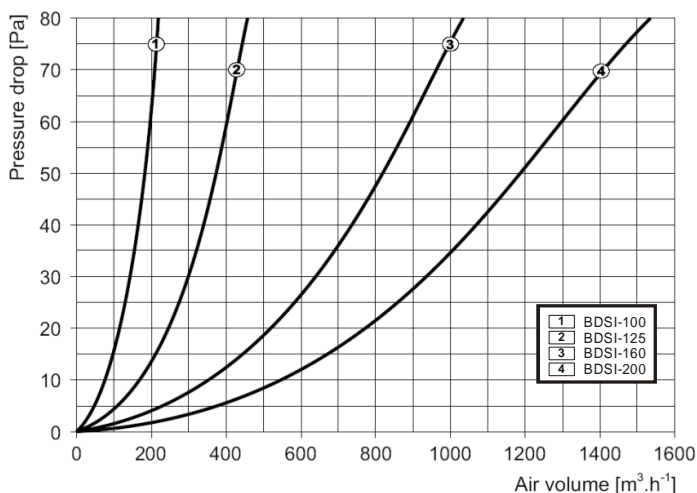
The BDSI has to be installed in horizontal position. The shaft axis must be positioned vertically. The BDSI must be inserted fully into the duct.

OPERATION CONDITIONS

The shutter is destined for operation in a standard environment with ambient temperature up to 60°C, for transportation of clean air free of coarse dust, grease, chemical vapours and other impurities.

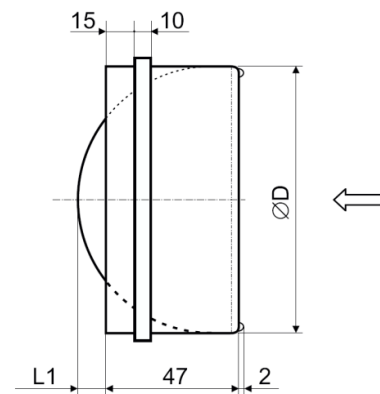
The BDSI is sold by the piece.

PRESSURE LOSS



DIMENSIONS (IN MILLIMETRES)

Type	ØD (mm)	L1 (mm)	Average weight
BDSI100	100 +0/-0.5	8	0.15
BDSI125	125 +0/-0.5	17	0.20
BDSI150	150 +0/-0.5	32	0.30
BDSI160	160 +0/-0.5	37	0.40
BDSI200	200 +0/-0.5	56	0.70



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DAM QUADRANTS

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

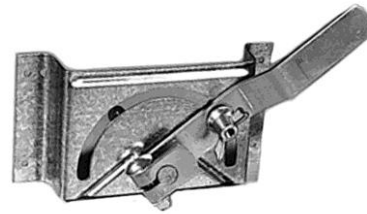
Type DAM 010

The metal DAM 010 can be mounted without any other tools in:

- Rectangular ducts in all sizes.
- Round ducts from diameter 200 mm
(*other sizes after adjusting, see mounting instructions*)
- Ducts with inner insulation.
- Ducts with outer insulation.
- Not insulated ducts.

Advantages of the DAM 010:

- Multipurpose and reliable
- No air leakage
- Efficient and fast to mount



Type DAM 020

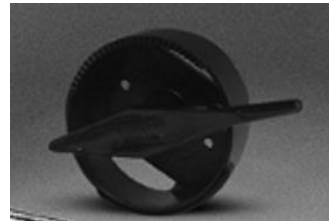
Standard included: Contra bearing to stabilize valve.

The nylon(6.6) DAM 020 is suitable for:

- Round ducts up to max. Ø 250 mm.
- Rectangular ducts in all sizes.
- Application in combination with blades out of steel plate up to 1 mm thickness.

Advantages of the DAM 020

- Quick mounting because of single bearing
- Solid construction
- No air leakage
- Position lever is always the same position as the blade



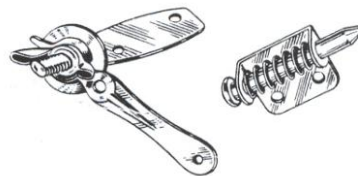
Also Available for the DAM020:

- DAMRING : O-Ring / Sealing ring.



Type DAM 030

The metal DAM 030, exists out of an axl with propeller wire, feather, rings and wingnut. Easy assembling without further appliances in: rectangular canals with all dimensions and round canals up to diameter 250 mm



Type DAM 040 & DAM 050

The metal DAM 040 and DAM 050, existing out of round digitplate, oval axl without propeller wire, feather, screw bold and wingnut. Easy assembling without further appliances in: rectangular canals with all dimensions and round canals up to diameter 300mm (DAM040) and diameter 500mm(DAM050).



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DAM KSP/KSK ADJUSTABLE QUADRANTS

AIR MANAGEMENT SYSTEMS

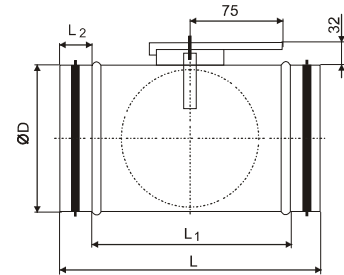
PRODUCT PROPERTIES ADJUSTABLE VALVES

Circular blade duct dampers, manually operated quadrants. In closed position the blades of both types has 10% less diameter than the casing has.

CONSTRUCTION DAM KSP

Damper with a nylon based quadrant housing and axle. The blade is fixed by the nylon axle at one side with twenty four fixed positions, between fully open and closed. The adjusting of the blade can be fixed with a 5 mm self drilling screw. The damper is used primarily for air flow control in the duct. It is suitable for low en medium velocity installations. To support the sealing of the connection with the duct, the damper has been fitted with T-shape rubber. The greatest advantage is the short build-in length.

Type	ØD (mm)	L (mm)	L1 (mm)	L2 (mm)	Case thickn. (mm)	weight (kg)
DAMKSP100	100	200	120	40	0.55	0.4
DAMKSP125	125	200	120	40	0.55	0.5
DAMKSP140	140	200	120	40	0.55	0.5
DAMKSP150	150	200	120	40	0.55	0.6
DAMKSP160	160	200	120	40	0.55	0.6
DAMKSP180	180	200	120	40	0.55	0.6
DAMKSP200	200	200	120	40	0.55	0.7

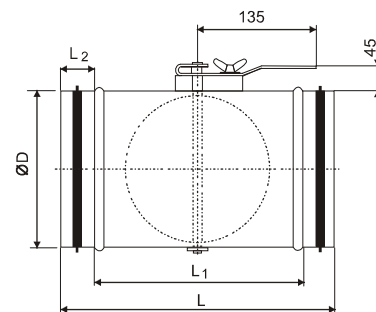


CONSTRUCTION DAM KSK

Damper with a galvanised based quadrant housing, blade and aluminium axle. The axle has been situated in polyamide bearings at both sides. The quadrant has stepless positions, between fully open and closed. The adjusting of the blade can be fixed with a wing nut. The damper is primarily suitable for airflow control in the duct and for low, medium and high velocity installations.

To support the sealing of the connection with the duct, the damper is fitted with T-shape rubber. The greatest advantage is the short build-in length. For product series and nominal dimensions, conform to DIN 24145, see the tables.

Type	ØD (mm)	L (mm)	L1 (mm)	L2 (mm)	Case thickn. (mm)	Weight (kg)
DAMKSK080	80	250	170	40	0.55	0.4
DAMKSK100	100	250	170	40	0.55	0.6
DAMKSK125	125	250	170	40	0.55	0.7
DAMKSK140	140	250	170	40	0.55	0.8
DAMKSK150	150	250	170	40	0.55	0.8
DAMKSK160	160	250	170	60	0.55	0.9
DAMKSK180	180	250	170	60	0.55	1.0
DAMKSK200	200	250	170	60	0.55	1.2
DAMKSK224	224	250	170	60	0.55	1.5
DAMKSK250	250	350	230	60	0.8	2.2
DAMKSK280	280	350	230	60	0.8	2.8
DAMKSK315	315	350	230	60	0.8	3.2
DAMKSK355	355	350	230	60	0.8	4.3
DAMKSK400	400	600	440	80	0.8	6.1
DAMKSK450	450	600	440	80	1.0	8.1
DAMKSK500	500	600	440	80	1.0	9.2
DAMKSK560	560	600	440	80	1.0	10.3
DAMKSK630	630	600	440	80	1.0	12.5



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



IPD ACCESS DOORS

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The high quality ACCESS DOORS are manufactured for the air conditioning industry. Used as an easy re-sealable way of gaining access to rigid air conditioning ducts and conditioner housings for equipment maintenance and cleaning purposes. Equipment such as fire dampers, smoke and volume dampers, variable air volume units (VAV), duct heater coils and filters can all be accessible for compliance with building code standards.

SPECIFICATIONS

ACCESS DOORS are deliverable in four different sizes. The sizes which are in great demand, the IPD1, the IPD2 and the IPD3 are deliverable from stock.

Model	Nominal Size	A x B	C x D	E x F	Box Pcs	Weight Kg
IPD0	650 x 500	457 x 609	500 x 652	550 x 700	3	19
IPD1	500 x 375	325 x 462	366 x 500	419 x 545	5	18.3
IPD2	375 x 240	196 x 332	239 x 372	288 x 425	10	18.5
IPD3	240 x 150	116 x 207	148 x 240	194 x 284	12	10.5

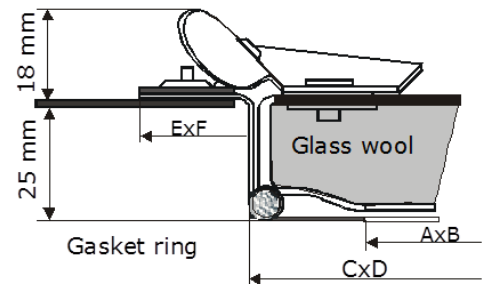
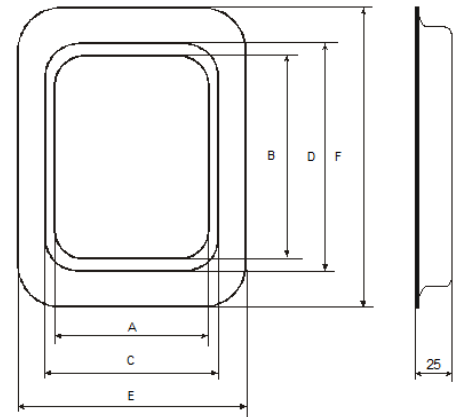
Access Door Installation Instructions

The Access Door is suitable for 2 styles of installation – Flush mount or Raised/external mount. Flush mounting is ideal for internally insulated Duct or Conditioner Housings. Raised or external mounting is ideal for externally insulated or slightly under sized duct. Please use the following installation instructions as a guide to achieve the best seal for your system.

- 1) Locate where access is required on the duct / housing for maintenance or inspection purposes of fire dampers, smoke dampers, heater coils etc...
- 2) Remove the panel from the frame by opening the sash cam locks provided on the panel.
- 3) For internally insulated duct use the panel as a template by laying out on duct in position of choice and mark out a cut line. Refer table dim. C x D.
- 4) For externally insulated duct mount use the frame as the template and mark out its' internal edge for a cut out line. Refer table dimensions A x B.
- 5) Using a sharp pair of snips, neatly cut out slug from duct / housing.
- 6) Using mastic or silicon sealant seal surface between panel frame and duct / housing to reduce leakage before mechanically fixing frame to duct with rivets or tek screws.
- 7) Cover any sharp internal edges after installation of panel frame, ensuring foil faced insulation is also sealed off. NOTE: This will help to prevent insulation being torn and/or dislodged from ductwork during normal system operation or maintenance.
- 8) Insert panel into frame and close off sash cams for a tight seal

CONSTRUCTION

ACCESS DOORS have been constructed from a galvanized frame with a double-walled panel, which has been fastened into the frame airtight. The frame will be fixed into the duct. The panel has been performed double-walled. In order to get a good thermic insulation a filling of a 25 mm glasswool has been added. A sealing ring, fixed to the panel provides an air tight sealing until 2000 Pa. Quick-acting closures see to that taking off and putting back the panel will take no more than a second.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



IPDC/IPDF ACCESS DOORS

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

ACCESS DOORS are used in air duct systems for controlling fire dampers, control and shut off dampers, batteries and other parts of a duct system. Access doors allow easy admittance to the ventilation ducting for the purpose of inspection and cleaning. Access doors are flat for rectangular ducting and curved for round ducting.

CONSTRUCTION

ACCESS DOORS have been constructed from a galvanized frame with a double-walled panel. Available in flat or curved model. Quick-acting closures see to that taking off and putting back the panel will take no more than a second.

- Temperature range: -70C up to +70C Celsius
- Air-tightness: Correctly installed access doors are air-tight up to at least +5000 Pa and at least -5000 Pa (500mm w.g.)
- Self-adhesive drilling template in each bag

ACCESS DOORS needs to be fitted :

- at least every 7,5 m
- after every change of airflow direction of more than 45 °C
- after every change of duct diameter within the duct network
- before and after every fitting (Dampers, fire dampers, filters, duct fans, duct heaters,...)

ACCESS DOORS are deliverable in several different sizes.

Art. code:

IPDF200x100:	Flat Access door 200x100mm
IPDF300x200:	Flat Access door 300x200mm
IPDF400x300:	Flat Access door 400x300mm
IPDF500x400:	Flat Access door 500x400mm
IPDF600x500:	Flat Access door 600x500mm



Art. code:

IPDC180X80-10:	Curved Access door for Ø 100mm
IPDC180X80-12:	Curved Access door for Ø 125mm
IPDC200X100-14/15:	Curved Access door for Ø 140mm up to 150mm
IPDC200X100-16/18	Curved Access door for Ø 160mm up to 180mm
IPDC200X100-20/22	Curved Access door for Ø 200mm up to 224mm
IPDC200X100-25/28	Curved Access door for Ø 250mm up to 280mm
IPDC200X100-31/35	Curved Access door for Ø 315mm up to 355mm
IPDC300X200-31:	Curved Access door for Ø 315mm
IPDC300X200-35:	Curved Access door for Ø 355mm
IPDC300X200-40:	Curved Access door for Ø 400mm
IPDC400X300-40:	Curved Access door for Ø 400mm



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DSAV EXTERNAL LOUVRE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

EXTERNAL LOUVRES DSAV

External louvres are used as covering grilles in air supply and exhaust openings.

CONSTRUCTION

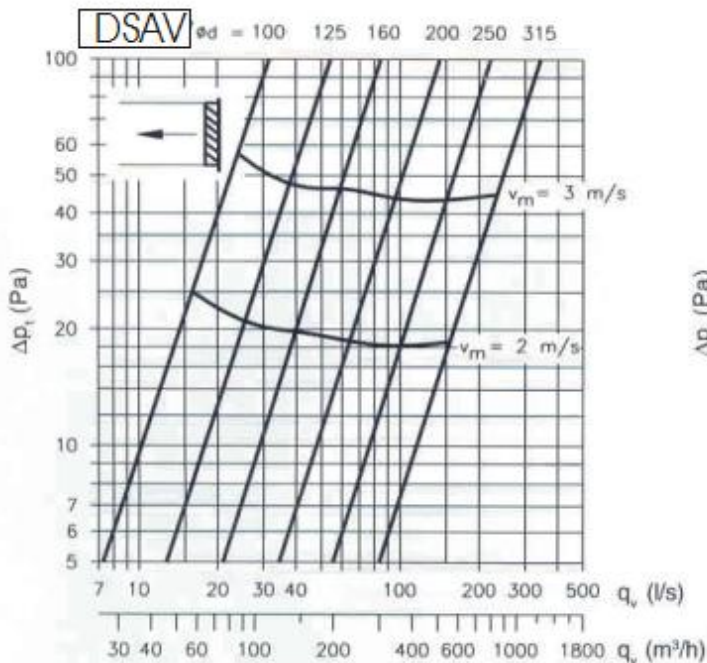
The DSAV is moulded of aluminium and has a strong design. The standard **DSAVØC** is available as coated grey (RAL9006) and KTL-black (**DSAVØB**) versions. The standard **DSAVØC** is not suitable for salty ambient air. The standard external louvres are equipped with insect screen (pitch 2mm steel zinc plated). The DSAV is also available with screen 'pitch' 10mm steel zinc plated (**DSAV10.Ø**).

*Every 3 Months the screen should be cleaned to prevent clogging!
The insect screen has to be removed in mechanical ventilation when used for supply air.*

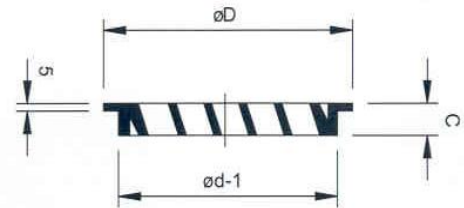
INSTALLATION

The DSAV is fitted by nails or by casting

SELECTION DIAGRAM



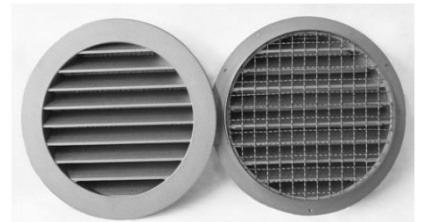
Size Ød	ØD (mm)	C (mm)	Weight (gr)
DSAV80C	101	14	115
DSAV100C	132	25	165
DSAV125C	155	25	235
DSAV150C	175	20	360
DSAV160C	190	25	410
DSAV200C	230	25	490
DSAV250C	280	28	740
DSAV315C	350	20	1940



DSAVØC



DSAVØB



DSAV10.Ø

DEFINITIONS

q_v	air flow	(l/s), (m ³ /h)
Δp_t	total pressure drop	(Pa)
v_m	average velocity in the duct	(m/s)
B	width	(mm)
H	height	(mm)

LIABILITY:

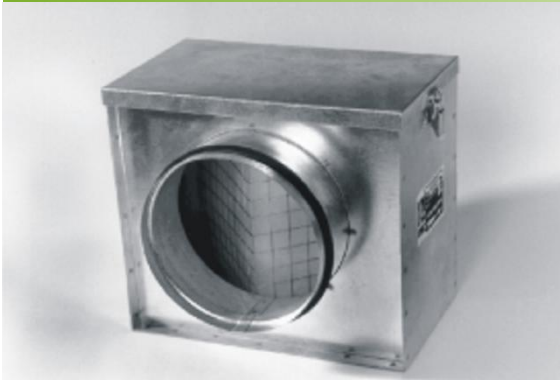
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DFB PLATE FILTERBOX

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The **PLATE FILTER BOX DFB** is suitable to fit into a circular duct system, where a lower particle separation rate is sufficient. Due to its small size the DFB is suitable in areas with limited space.

CONSTRUCTION

The casing of the DFB has been constructed from galvanized steel, zinc quality according NEN-EN 10.142 (275g/m²). Tolerances according to NEN-EN 10.143. The lid is fixed to the casing by a simple clamp. This enables an easy access to the filter, without using any tools. Make sure that clamp is placed in such a way that the lid is being pressed in to the gasket tape for an airtight sealing. To support the sealing of the connection to the duct the casing has been fitted with a rubber. For product series and nominal dimensions, conform to DIN 24145, see the tables.

FILTER (DFBSF)

Filtration class :G4, other classes on request
 Particle separation rate :70%
 Max. temperature :100°C
 Material :synthetic fibre non-woven cloth
 Cleaning :dry mechanic way, e.g. by vacuum cleaner

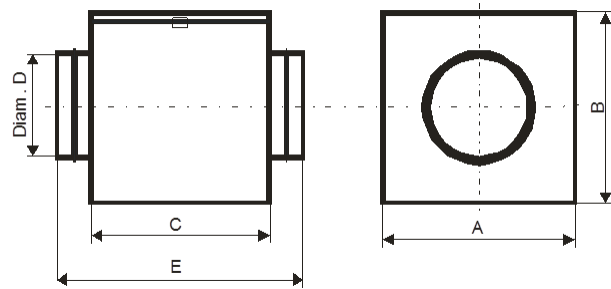
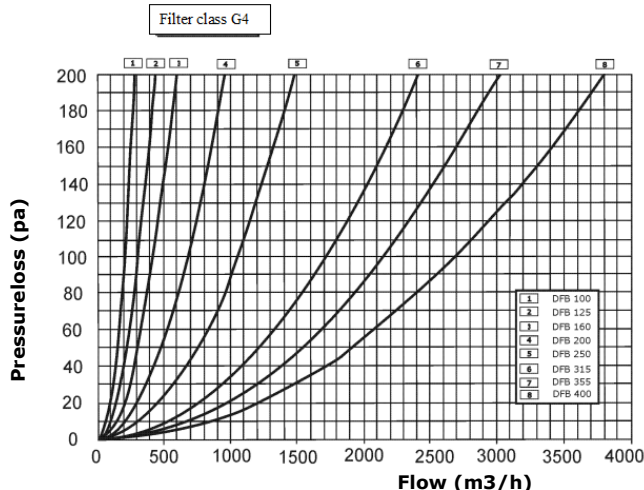
Cleaning/exchange interval :
 when the pressure loss is twice the clean filter value

INSTALLATION

The air filter has to be installed in the duct system before the fan and heat exchangers.

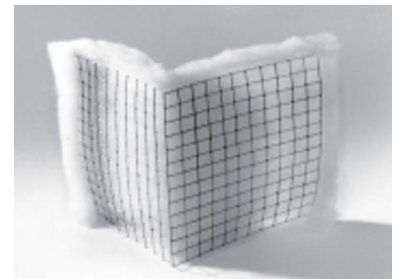
It is necessary to keep the air flow direction (marked on the casing) and to leave enough access to the filter for cleaning and filter exchange purposes.

PRESSURELOSS



Type	ØD (mm)	A (mm)	B (mm)	C (mm)	E (mm)	Weight (kg)
DFB100G4	100	199	168	120	194	~1.0
DFB125G4	125	209	204	140	214	~1.5
DFB160G4	160	260	232	155	229	~1.6
DFB200G4	200	311	272	180	312	~2.2
DFB250G4	250	358	320	230	362	~3.0
DFB315G4	315	422	392	330	462	~4.6
DFB355G4	355	512	494	455	587	~8.0
DFB400G4	400	512	494	455	587	~8.0

Spare pocket filter	
Type	Dimensions (mm)
DFBSF100	280 x 175
DFBSF125	320 x 210
DFBSF160	360 x 240
DFBSF200	440 x 280
DFBSF250	540 x 330
DFBSF315	725 x 395
DFBSF355	1010 x 500
DFBSF400	1010 x 500



LIABILITY:

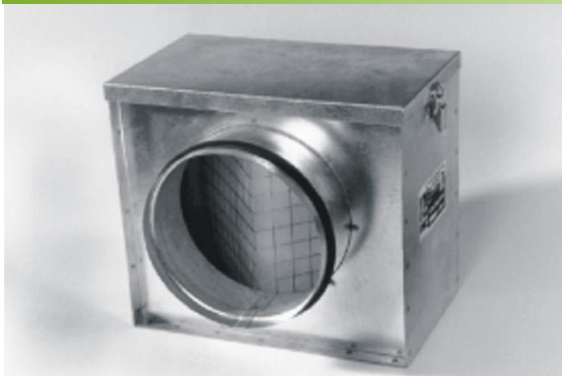
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DFBP POCKET FILTERBOX

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The pocket filter box **DFBP** is appropriate for fitting into a circular duct system.

CONSTRUCTION

The pockets of the filter are fitted into a frame of galvanized steel. They have been reinforced by steel wire to ensure a maximum use of the filter area. The cover is fixed to the casing by simple clamps. This enables an easy access to the filter, without using any tools. To support the sealing of the connection with the duct, the filter has been fitted with T-shape rubber. For product series and nominal dimensions, conform to DIN 24145, see the tables.

POCKET FILTER (DFBPSF)

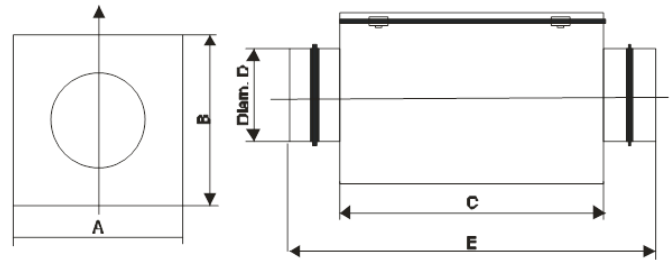
The pockets of the filters are fitted into a frame of galvanized steel. They have been reinforced by steel wire to ensure a maximum use of the filter area.

Filtration class : G4, other classes on request
 Particle separation rate : 90%
 Max. temperature : 100°C
 Material : synthetic non-woven cloth
 Cleaning : dry mechanic way e.g. by vacuum cleaner

Cleaning/exchange interval:
 when the pressure loss is twice the clean filter value

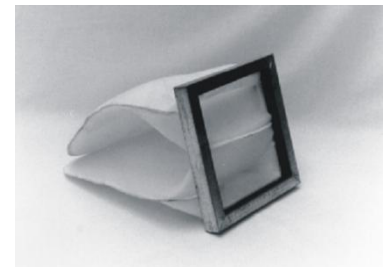
INSTALLATION

The air filter has to be installed in the duct systems before the fan and the heat exchangers. It is necessary to keep the air flow direction (marked on the casing) and to leave enough access to the filter for cleaning and exchange purposes.

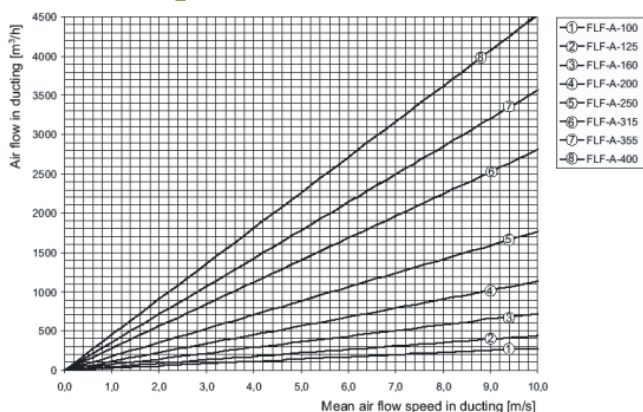


Type	ØD (mm)	A (mm)	B (mm)	C (mm)	E (mm)	Weight (kg)
DFBP100	100	204	204	400	480	3.5
DFBP125	125	204	204	400	480	3.5
DFBP160	160	294	295	400	480	4.3
DFBP200	200	294	295	400	480	4.3
DFBP250	250	424	385	480	600	5.2
DFBP315	315	424	385	480	600	5.2
DFBP355	355	504	505	600	720	6.6
DFBP400	400	504	505	600	720	6.6

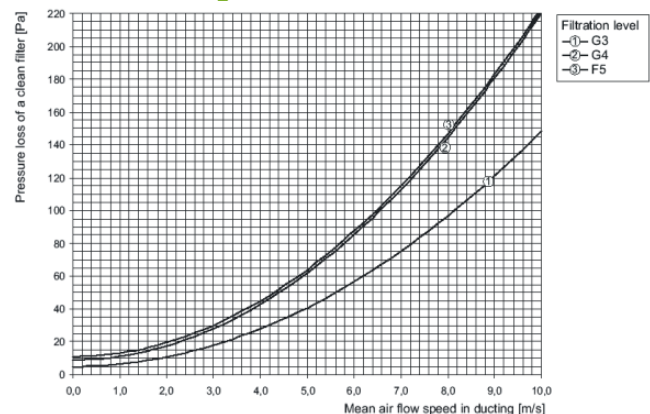
Spare pocket filter	
Type	Dimensions (mm)
DFBPSF100	198x198x340
DFBPSF125	198x198x340
DFBPSF160	288x288x340
DFBPSF200	288x288x340
DFBPSF250	418x387x440
DFBPSF315	418x387x440
DFBPSF355	498x498x540
DFBPSF400	498x498x540



Conversion diagram airflow



Pressure loss diagram



LIABILITY:

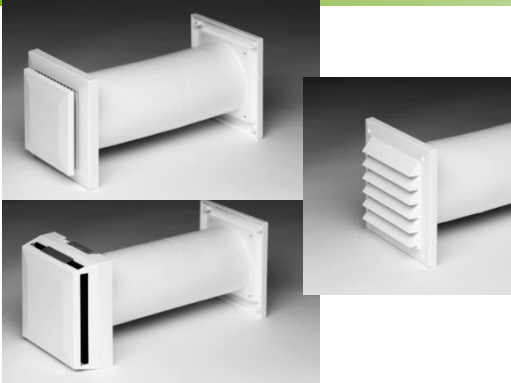
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTL98 AIR INLET

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The air inlet is a ventilation unit designed to provide a continuous flow of air into a building. The unit can be installed in bedrooms, living rooms or any other kind of room in need of ventilation. It is recommended that the unit is placed high up, preferably in suitable relationship to a radiator. This mixes the incoming air with the convection flow of warm air, ensuring maximum comfort.

AIR INLET with filter and precision damper.
(Ordering number: **DTL98P**)

This unit consists of a precision damper and filter, five pipes and a louvre vent. Each ventilator includes 3 air-direction plugs and a locking plate, which fixes the unit in the required position. It can be regulated by means of a cord, which is supplied as standard

AIR INLET

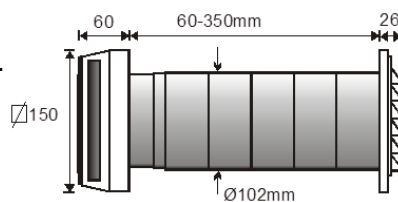
(Ordering number: **DTL98E**)

This unit consists of an interior section, three pipes end a louvre vent, which incorporates a fly-screen. The interior part includes a cover fitted with a condensation screen. This cover functions as a damper and also directs the airflow. The volume of air is set by moving the cover to the requested position, the direction of the airflow is controlled by adjusting the cover to the required angle.

TECHNICAL DATA:

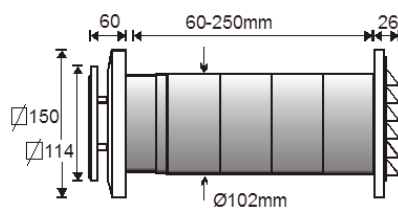
DTL98P

- Capacity at 10Pa
- Fully open, position 10: 8,8 l/s
- Half open, position 5: 6,2 l/s
- Mounting Hole: 105mm
- Max. wall thickness: 350mm.
(for thicker walls you can add pipes.)
- Adjustable spread pattern.
- Condensation screen.
- Filter



DTL98E

- Capacity at 10Pa
- Fully open, 12 mm: 9,8 l/s
- Half open, 6 mm: 6,2 l/s
- Mounting Hole: 105mm
- Max. wall thickness: 250mm.
(for thicker walls you can add pipes.)
- Condensation screen.



Function DTL98P

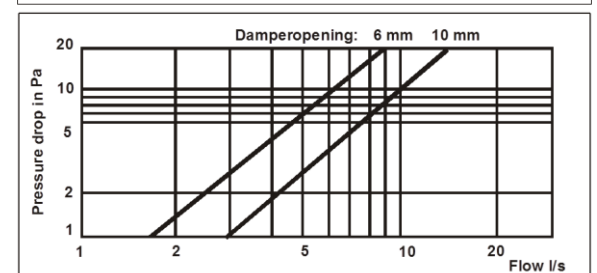
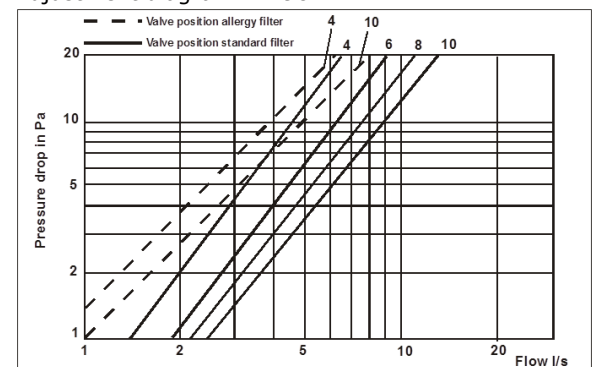
The incoming air flows along the inner wall, where it is warmed and spread to the rest of the room. The spread of air can be varied by mounting the air direction plugs in the air stream of the housing. The unit is fitted with a precision damper for exact adjustment of the airflow. This is done by means of scale on the cover and the adjustment diagram.

The damper is actuated by a regulator situated on the underside of the air inlet. It can also be adjusted by a hanging cord if required. The housing is also fitted with a minimum flow stop at position 2, in order to ensure a certain minimum ventilation. At this point the flow is c.3 lit./sec. at 10Pa. If the air inlet needs to be closed completely for any reason, the stop can be overcome by pressing the regulator harder towards the 0 position. To adjust the air inlet to a fixed flow, remove the regulator grip and replace it with a locking plate to prevent the damper being reset.

MAINTENANCE

The housing is easy to clean. The cover and the filter can be pulled off together. It is then easy to separate them and to replace them. It is important to keep the filter clean (wash-and replace when necessary), in order to ensure the correct flow of air and to retain good air quality

Adjustment diagram DTL98P



LIABILITY:

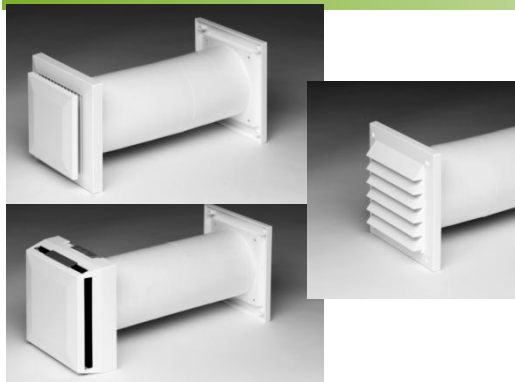
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DTL98 AIR INLET

AIR MANAGEMENT SYSTEMS

INSTALLATION

The air inlet should be mounted high up, preferably in suitable relation to a heating unit.

DTL98E

1. Hole diameter.

Cut a hole through the wall 105mm in diameter, slanted downwards slightly (1mm/100mm) in the outward direction. Use a hole saw or drill a ring of small holes remove the core using a chisel etc.

2. Mounting the outer parts.

Press the outer muff on the louvred vent. Fit further pipes so that the total length is just slightly less than the wall thickness. Insert the vent and pipes through the wall from the outside. Fix the vent in place using four of the screws supplied. Seal between the vent and the façade with sealing compound where necessary.

3. Mounting the interior part.

Loosen the inner adapter from the interior-part. Mount the adapter and fix in place with the remaining four screws. Press the interior part back onto the adapter. If the interior part is to be secured, first remove the cover, then the part can be fixed in place using the two small screws supplied.

DTL98P

1. Hole diameter (Same as DTL98E !)

2. Mounting the outer parts (Same as DTL98E !)

3. Mounting the inner parts.

Loosen the cover from the chassis. Press the inner adapter on to the back of the chassis. Fit the inner part and fix in place using the remaining four screws. Refit the cover and set the required air flow by means of the regulator and the scale.

4. Adjustment.

If a fixed setting is required, this can be set as follows:
Bend the regulator away using the fingers or a small screwdriver. Adjust to setting required by moving the regulator tab along the scale. Fit the locking plate, pressing it firmly in place.

5. Fitting the cord (handicap adaption).

Remove the cover.

Open the pre-marked holes (one each side of the regulator) using a bradawl or a 2mm drill. Thread one end of the cord through each hole and tie a knot behind the equivalent hole in the ring. Use triple overhand knots.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



SMOKEDEC

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The **SMOKEDEC** is an efficient and a simple tool to visualize, movements of air such as leakage of ventilation systems and chimneys.

- Air flow around grids during balancing of the A/C system.
- Leakage in a high-pressure hose.
- Checking the flow of chimneys.
- Controlling of boilers.
- Conserving energy: draught from doors and windows.

FUNCTION

Each cartridge emits generous amount of grayish-white smoke with almost the same density as air to be able to visualize movements of air streams without rising or falling. The grayish-white colour is visible, even in dark corners. The smoke is ionized and oil-free and is emitted in a constant stream

INSTRUCTION

Place one smokedec cartridge on a non combustible place. Light up the cartridge for the chosen smoking time.

Never use SMOKEDEC unattended.

WARNING

Use this product **ONLY** in a professional way (see instructions). Avoid any contact and inhaling of the smoke. The room must be ventilated properly afterwards. Keep product under lock and key.

PREVENTING MEASUREMENTS

- Possibility to rinse eyes.
- Using gloves.
- Keep fire extinguisher stand-by.

Smokedec	Burningtime	Smokevolume	Weight of 1 cartr.	In pack of
SM045	45 sec	2.5 m ³ /h	3 Gr	10 x 10
SM065	65 sec	8.5 m ³ /h	9 Gr	10 x 10
SM150	3-4 min	17 m ³ /h	18 Gr	10 x 5
SM240	3-4 min	55 m ³ /h	60 Gr	10 x 5
SM300	6-8 min	400 m ³ /h	430 Gr	6 x1

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DMK PIPE/FAN CONNECTOR

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

This **COUPLING COLLAR DMK** serves for connecting of a fan with a circular duct in the same diameter and at the same time it is of service for decrease of a transfer of vibrations from a fan to duct. The advantage of this type of connection is a possibility to take the fan out of the air distribution system at any time by reason of some revision, reparation or exchange.

CONSTRUCTION

The collar is made of galvanized steel sheet, stucked with a foam polyethylene sealing of a thickness 6 mm on its inward side. For a fixation of the collar serves two screws M6 stepped into the ends of the collar: screws as well as nuts are parts of the product. The general constructional settlement of a collar guarantees a high strenght of the construction.

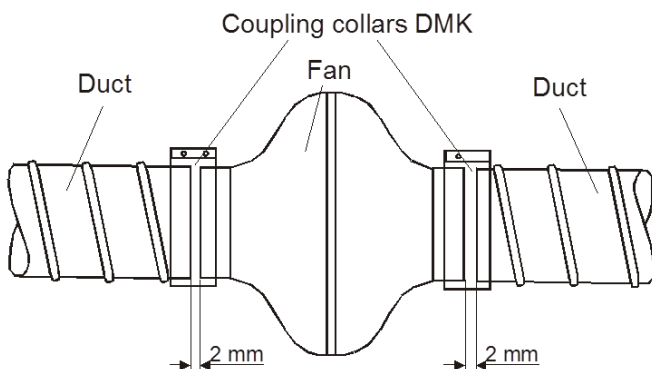
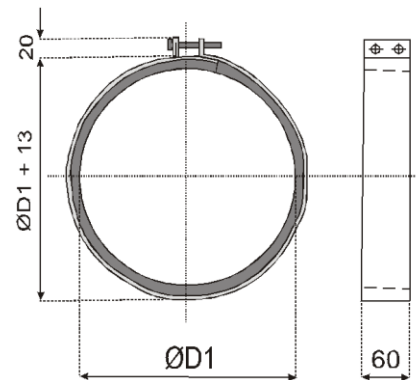
OPERATION CONDITIONS

The Pipe\Fan connector is destined for operation in a standard environment with ambient temperature up to 60°C, for transportation of clean air free of coarse dust, grease, chemical vapours and other impurities.

INSTALLATION

Wind a collar round a collet of a fan and a connecting duct, between them must be an interspace around 2 mm. Clep a screwhead to the cutting on the end of a collar. Wear both screws out in turns so that the connection is hard-set and tight enough and that any deformation of a collar cannot occur.

Type	ØD1 mm	Sheet mm	Weight kg
DMK100	100	0.55	0.14
DMK125	125	0.55	0.16
DMK150	150	0.55	0.19
DMK160	160	0.55	0.20
DMK180	180	0.55	0.22
DMK200	200	0.55	0.23
DMK224	224	0.55	0.24
DMK250	250	0.55	0.27
DMK315	315	0.55	0.32
DMK355	355	0.55	0.40
DMK400	400	0.55	0.45



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



D579* LOUVRE WITH INSECTSCREEN

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Round external louvre with insectscreen .

Stainless steel construction for wall mounting.

For exhaust and supply.

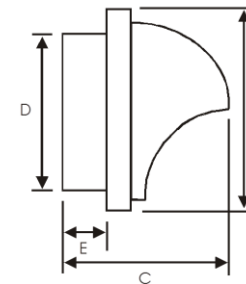
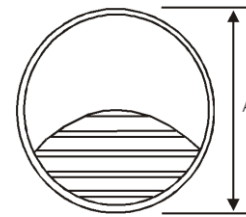
With connection bush, clamp fixing and wire gauze.

Material: Stainless steel 304/2B.

Louvre is packed in a transparent bag.

Including 2 stainless steel screw.

Every 3 Months the screen should be cleaned to prevent clogging!



Code	Type mm	D(dia) mm	A(dia) mm	C mm	E mm	Q M ³ /h	Weight Gr.
D579311	100	100	150	115	42	60	161
D579611	125	125	190	145	48	80	258
D579811	150	150	210	155	55	125	346
D579911	160	155	210	165	55	135	346
D579211	200	195	253	205	62	-	930

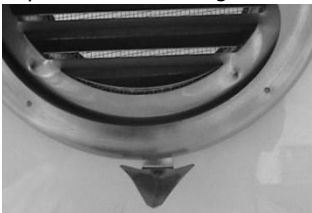
Airflow (Q) selected by $V_{eff} = 4m/sec.$

Type: D579*11

Type: D579*11-L



The anti watermarking part is installed to the bottom of the product in order to protect the wall against watermarking.



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

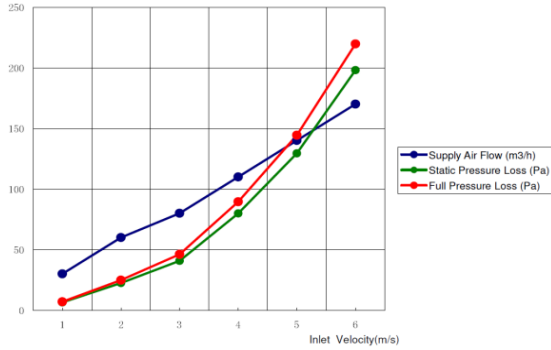


D579*

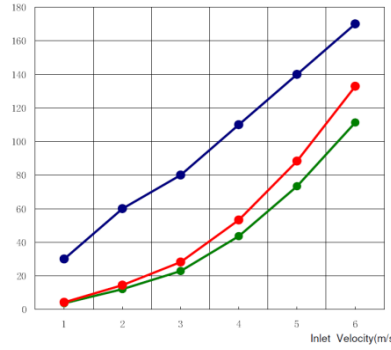
LOUVRE WITH INSECTSCREEN

AIR MANAGEMENT SYSTEMS

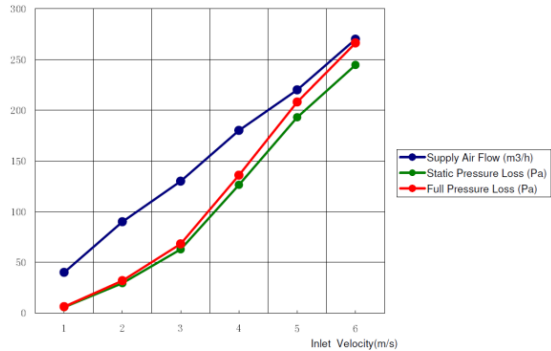
DIAM 100



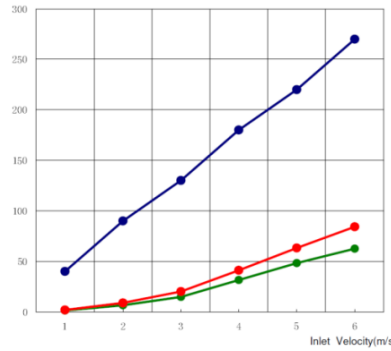
DIAM.100



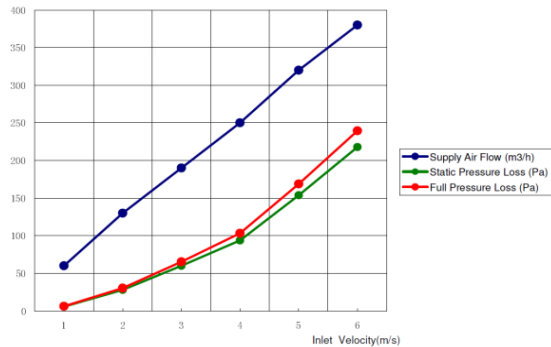
DIAM.125



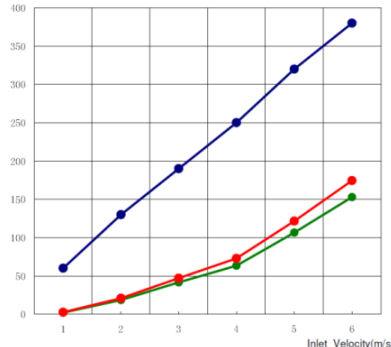
DIAM.125



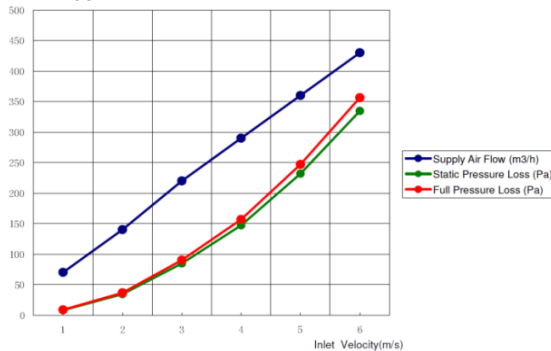
DIAM.150



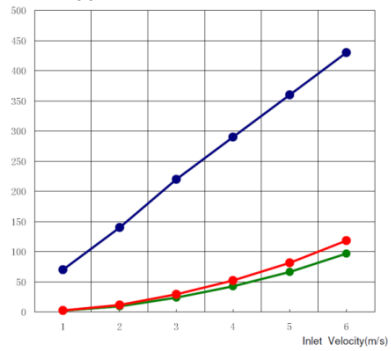
DIAM.150



DIAM.160



DIAM.160



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DVR(V) PLASTIC VENTILATION GRILLS

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

PLASTIC VENTILATION GRILL (DVR)

For exhaust and supply.

Color: White

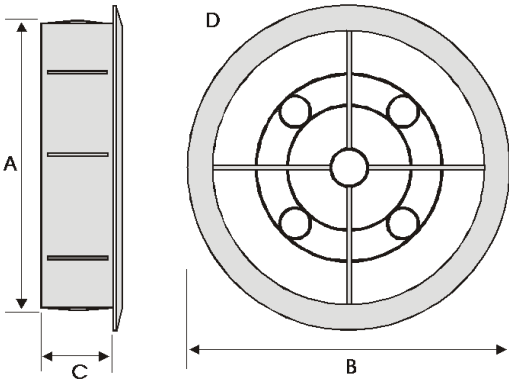
Material: Polypropylene

Article code: **DVR {Ø}**

Dimensions

Type mm	A mm	B mm	C mm	D cm ²
DVR100	100	124	30	65
DVR120	120	147	30	90
DVR150	150	185	30	130

Air Transit



PLASTIC ADJUSTABLE VENTILATION GRILL (DVRV)

For exhaust and supply.

Variable volume flow control by turn able front cover.

Color: White

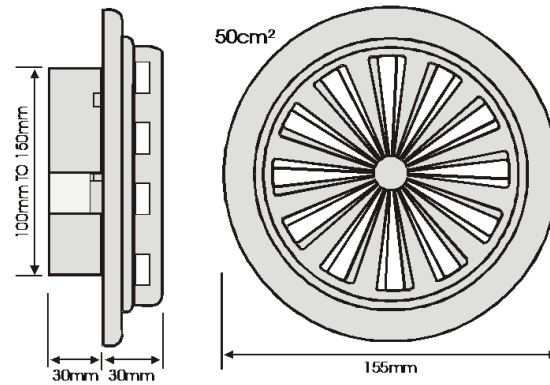
Material: Polypropylene

Article code: **DVRV100-150**

Dimensions

Multi-fit/adjustable connection bush for diameters from 100mm up to 150mm.

Air Transit



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DBR

Protection grid for pipe connections

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

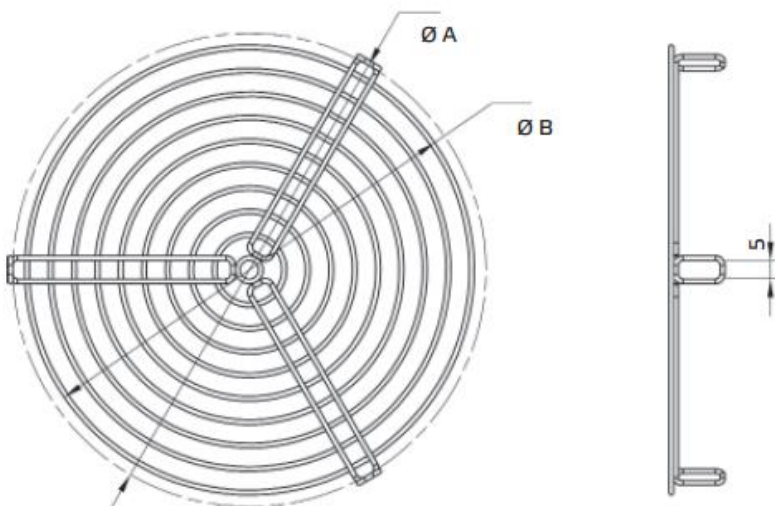
Protection grid for pipe connections (**DBR**)

For suction and pressure-side mounting
material: steel grid wire, chrome plated

According to EN 294, a fan must be provided with a fixed and separating protective device if there is a possibility that the moving parts of the wheel or the engine can be touched with the hand (touch protection).
In a both sided pipe connection this is not required!

Dimensions

Typ mm	A mm	B mm	Weight kg
DBR100	100	90	0.1
DBR125	125	110	0.1
DBR150	150	150	0.1
DBR160	160	150	0.1
DBR200	200	190	0.2
DBR250	250	250	0.3
DBR315	315	315	0.5
DBR355	350	350	0.6
DBR400	400	400	0.8



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DMR MODULO CONSTANT VOLUME DAMPER

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Constant Airflow Regulator multi-airflow

The DMR Modulo regulates to an adjustable airflow. One code corresponds to several airflow setting options. The DMR MODULO incorporates a rotating ring for a tool-free airflow setting.

7 diameters (mm): 80, 100, 125, 150, 160, 200 and 250.

- Best constant airflow regulation thanks to the silicone membrane (avoids clogging).
- Optimum silent operation (no mechanical clatter or other noise interference due to variations in pressure).

Airflow accuracy

+/- 5 m³/h for nominal flow ≤ 50 m³/h.

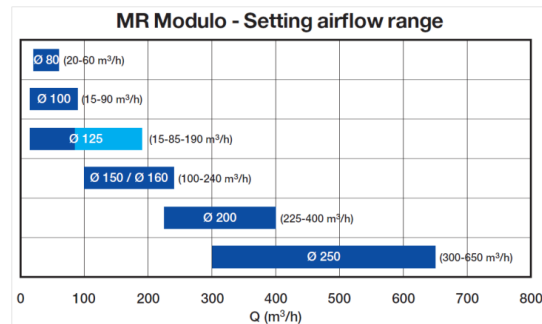
+/- 10% for nominal flow > 50 m³/h.

Operating differential pressure range:

Standard range: 50 - 250 Pa.

Temperature range of use:

-10 to 60°C.

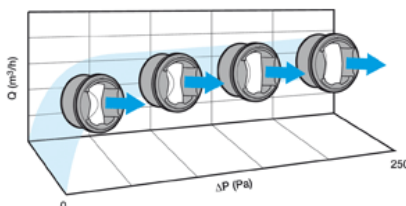


Principle

Operating

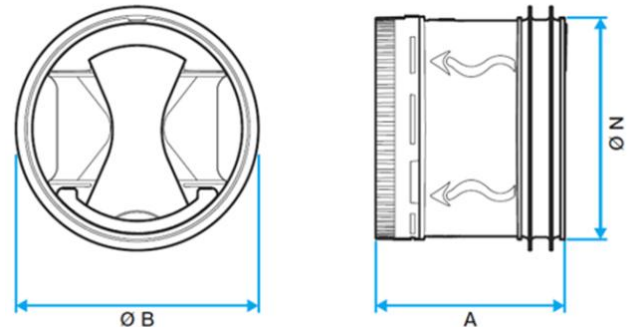
They fit easily into a part of the circular ductwork to maintain constant and reliable airflow within a wide range of differential pressure (50 - 250 Pa) for the standard version and for the high-pressure version (150 - 650 Pa).

Its flexible membrane inflates and deflates according to the difference in pressure between the upstream and downstream flow, thus modifying the airflow. This principle of operation guarantees constant airflow regardless of the pressure variations in the ductwork.



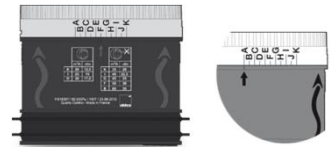
Dimensions - weight

Ø Duct	ØN	ØB	A	W (kg)
80	76	85	65	0.07
100	92	105	70	0.11
125	116	132	70	0.17
125	116	132	110	0.22
150	147	153	118	0.30
160	153	167	118	0.34
200	190	210	144	0.65
250	238	262	179	1.20



The following information is indicated directly on the product:

- Airflow direction
- Diameter in mm and inch
- Operating differential pressure range
- Product code
- Traceability data
- Quality control
- The airflow setting range correlation table (in m³/h and cfm).



The right balance in aeraulic networks

Modern constructions need to be airtight in order to be energy efficient.

In addition to thermal comfort (heating or cooling) air-conditioning systems are now specifically sized to guarantee a supply of fresh air into the building for health purposes (notably in terms of oxygen content).

Therefore it is increasingly important to ensure that operating airflows correspond to the ones calculated for the HVAC system sizing (air balancing).

Correct air balancing is key to a properly commissioned HVAC system and to avoid side effects generated by over-ventilation (noise, high temperatures, high energy consumption) or by under-ventilation (deteriorated air quality and uncomfortably cold temperatures...)

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

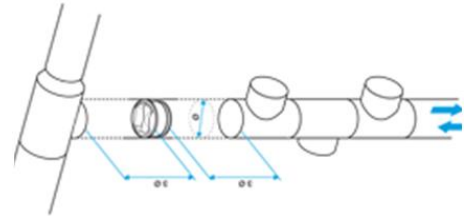


DMR MODULO CONSTANT VOLUME DAMPER

AIR MANAGEMENT SYSTEMS

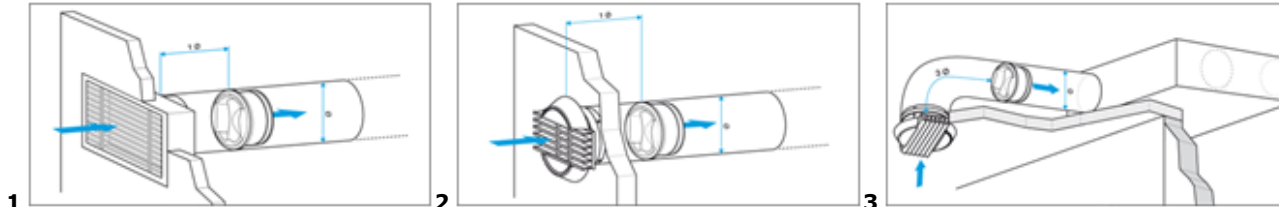
Typical applications

Airflow stabilization for a ventilation or air-conditioning ductwork section



Exhaust airflow stabilization.

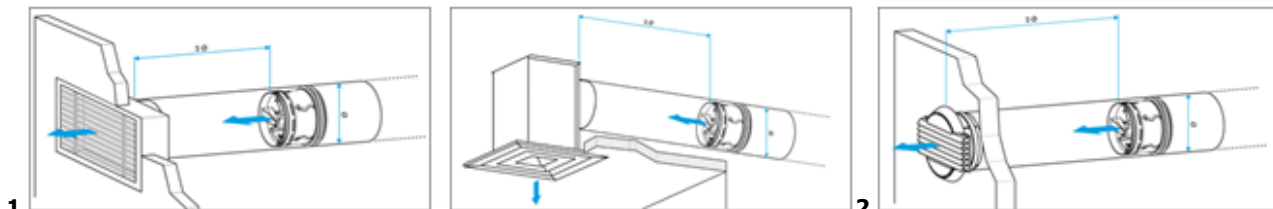
In air extraction, we recommend a 1-diameter distance between the terminal and the DMR to allow homogenization of air velocities in the duct and thus avoid acoustic or aeraulic disturbances.



- 1/ DMR installed after a supply plenum box
- 2/ DMR installed after a BIM-type grille
- 3/ DMR installed before a fan coil

Supply airflow stabilisation.

In air supply, we also recommend a distance of 3 diameters between the terminal and the DMR to allow homogenization of the air velocities in the duct and thus avoid acoustic or aeraulics disturbances.

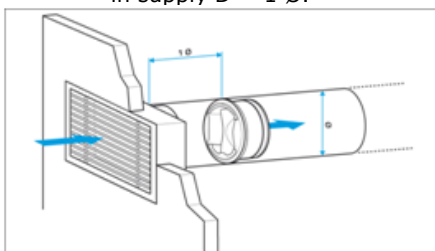


- 1/ DMR installed before a supply plenum box
- 2/ DMR installed before a BIM-type grille

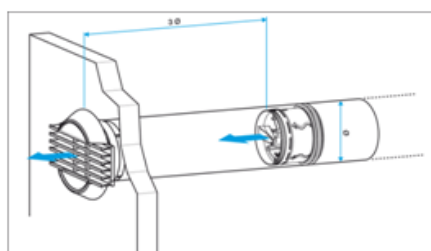
IMPLEMENTATION

DMR Modulo will push-fit into circular ducts in close proximity to a take-off or a terminal.

- Observe the installation direction (corresponding to airflow) directly indicated with an arrow on the MR.
- Can be mounted either horizontally or vertically. There is no recommendation regarding the positioning of the membrane.
- In order to avoid acoustic and aeraulic interference it is recommended to respect a minimal distance between the DMR and the terminal (grille / diffuser / inlet):
 - in extraction $D = 3 \text{ } \varnothing$,
 - in supply $D = 1 \text{ } \varnothing$.



In extraction



In supply

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

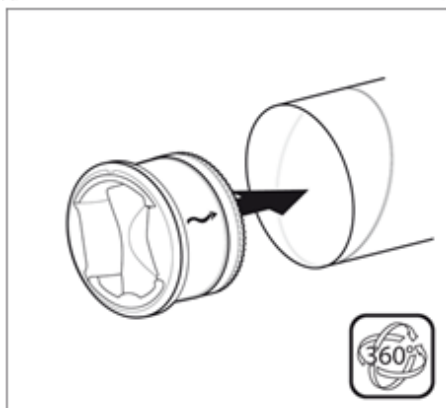
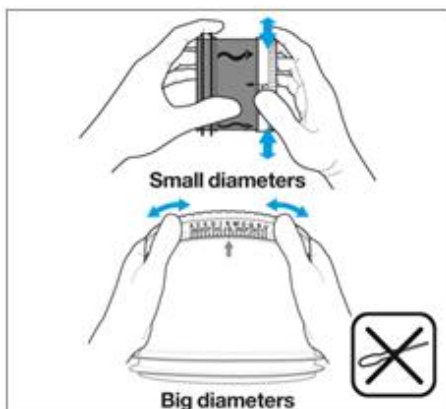
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DMR MODULO CONSTANT VOLUME DAMPER

AIR MANAGEMENT SYSTEMS

DMR Modulo installation



1. **Adjust the airflow setting**

Rotate the adjustment ring for a tool-free airflow setting until the desired airflow is reached.

2. **Position the MR Modulo**

Introduce the DMR in the duct according to the arrow showing the airflow direction. Minimum straight upstream and downstream distances must be observed.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



D5G/D5 EXTERNAL LOUVRES

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

External louvres are used as covering grilles in air exhaust openings.

The **D5G** has a beautiful design with a slanted front grille hood for exhaust air, the deflection shutter helps to control back-drafts and resist water from entering. The shutter is opened in case of overpressure.

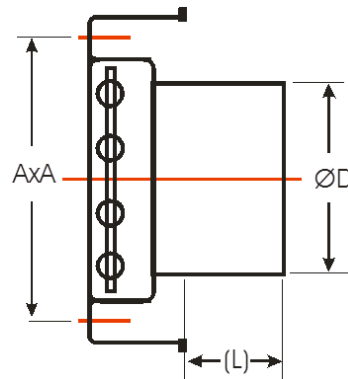
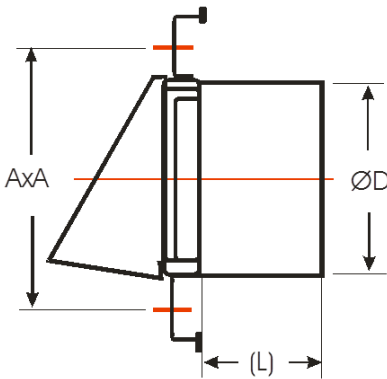
Made of durable stainless steel 304/2B.

The **D5** with moveable vanes are extremely solid and made of high quality 304/2B stainless steel.

The movable vanes are opened in case of overpressure and help control back-drafts and resist water from entering.

Code	L (mm)	ØD (mm)	A x A (mm)	Thickness (mm)	Weight (gr)
D5G100	52	97	137 x 137	0.31 - 0.6	360
D5G125	52	120	167 x 167	0.4 - 0.6	440
D5G150	62	145	167 x 167	0.4 - 0.6	500

Code	L (mm)	ØD (mm)	A x A (mm)	Thickness (mm)	Weight (gr)
D5100100	52	97	137 x 137	0.5 - 0.6	300
D5125125	52	120	167 x 167	0.5 - 0.6	470
D5150150	62	145	167 x 167	0.5 - 0.6	500



LIABILITY:

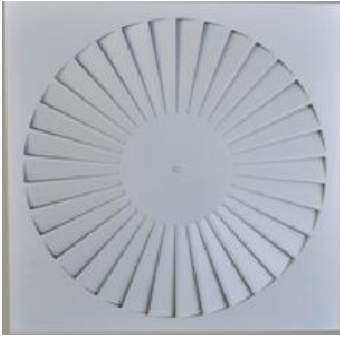
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DSD SWIRL DIFFUSERS

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Square Swirl diffusers for system ceiling with fixed blades

Application

Diffusers consist of fixed, rapidly arranged air control blades.

The **diffuser B** offers a high volume flow rate at low sound power levels

The **diffuser SW** generates high-quality diffuse air flow according to the principle of turbulent mixing air flow.

For air supply and exhaust in ventilation and air conditioning systems.

Material

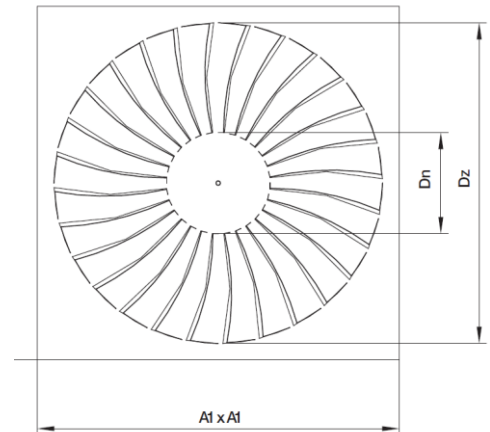
White powder coated Steel RAL9016

Composition

Fixed blades

Central screw mounting (Fixing by central screw in the crossbar of the plenum box)

Type	A1xA1 (mm)	Dz (mm)	Dn (mm)
DSD-B-300	595x595	254	84
DSD-B-400	595x595	336	92
DSD-B-500	595x595	440	150
DSD-B-600	595x595	530	170
DSD-B-625	620x620	540	170
DSD-SW-600X600	595x595	535	170



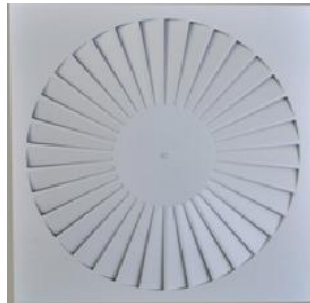
DSD-B-300

DSD-B-400

DSD-B-500

DSD-B-600

DSD-B-625



DSD-SW-600X600

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DSD SWIRL DIFFUSERS

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Square swirl ceiling diffusers with adjustable blades

Application

For air supply and exhaust in ventilation and air conditioning systems

Material

White powder coated Steel RAL9016 with black deflectors

Composition

- Square swirl ceiling diffuser made of steel.
- The radial black deflector blades are individually adjustable and are developed for optimal diffusion, ensuring an instant mixture of primary and secondary air.
- The first number (400) represents the dimension of the panel, the second number (16) represents the quantity of slots/blades.
- Central screw mounting (Fixing by central screw in the crossbar of the plenum box)

Type	Slots/Blades	Square (mm)
DSD-CA-300x8	8	298 x 298
DSD-CA-400x16	16	396 x 396
DSD-CA-500x24	24	498 x 498
DSD-CA-600x24	24	598 x 598
DSD-CA-625x24	24	623 x 623
DSD-CA-600x48	48	598 x 598
DSD-CA-625x48	48	623 x 623
DSD-CB-600x24	24	600 x 600



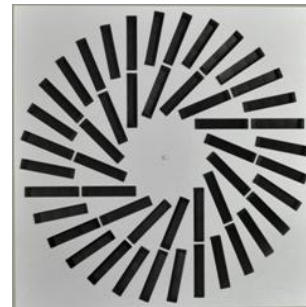
DSD-CA-300x8



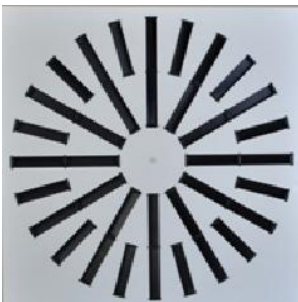
DSD-CA-400x16



DSD-CA-500x24
DSD-CA-600x24
DSD-CA-625x24



DSD-CA-600x48
DSD-CA-625x48



DSD-CB-600x24

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DCD-SA SQUARE DIFFUSERS

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Square air diffuser CD-SA-145

Application

- The square ceiling diffuser is ideal for flush mounting in ceilings.
- Suitable for use in rooms with heights up to 4m.
- Ceiling diffusers can be used for both supply and exhaust air applications.
- The diffuser core is available in 1, 2, 3 and 4 way discharge pattern.
- The inner core is removable (Safety wire is available)
- Can match with OBD and plenum box.

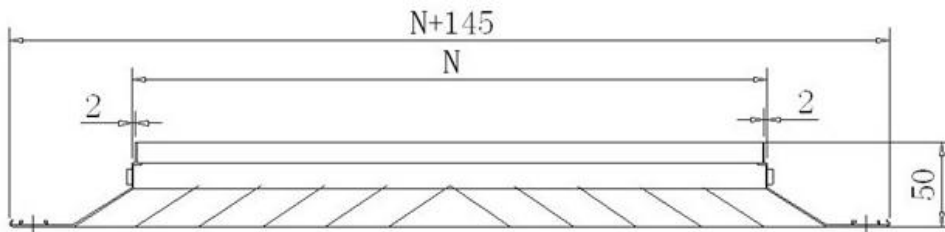
Material

The diffuser face is made of extruded aluminium sections with powder coated white RAL9016.

Size : 150x150 mm, 225x225 mm, 300x300mm, 375x375 mm, 450x450mm



Type	N mm
DCD-SA-145-300	150
DCD-SA-145-375	225
DCD-SA-145-450	300
DCD-SA-145-520	375
DCD-SA-145-600	450



Also available with Damper.

Type
DCD-SA-145-300VCD
DCD-SA-145-375 VCD
DCD-SA-145-450 VCD
DCD-SA-145-520 VCD
DCD-SA-145-600 VCD



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DCD-RA ROUND DIFFUSERS

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Round air diffuser CD-RA-110

Application

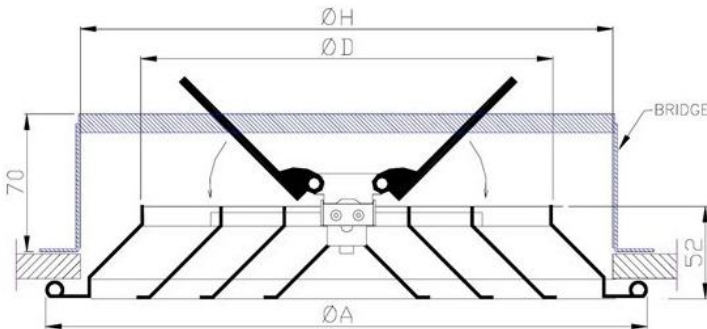
- The diffuser is recommended for flush installation in ceilings.
- In this way a colander effect with a radial discharge is guaranteed.
- Flush mounting is not absolutely necessary for extract air applications.
- The diffusers can be used in standard ceiling systems.
- Ceiling diffusers can be used for both supply and exhaust air applications.
- The diffuser core is available in 1, 2, 3 and 4 way discharge pattern.
- The inner core is removable (Safety wire is available)
- Can match with OBD and plenum box.

Material

The diffuser face is made of extruded aluminium sections with powder coated white RAL9016.
The damper is plastic.

Size : Ø150mm, 200mm, 300mm, 350mm

Type	D Ø mm
DCD-RA-110-150	150
DCD-RA-110-200	200
DCD-RA-110-250	250
DCD-RA-110-300	300
DCD-RA-110-350	350



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DECMF MIXED FLOW FANS

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

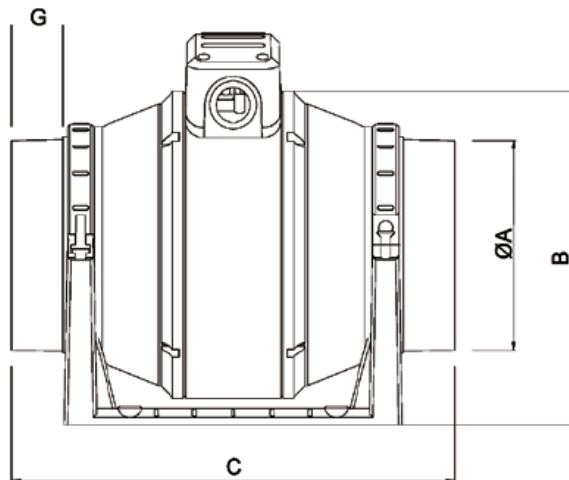
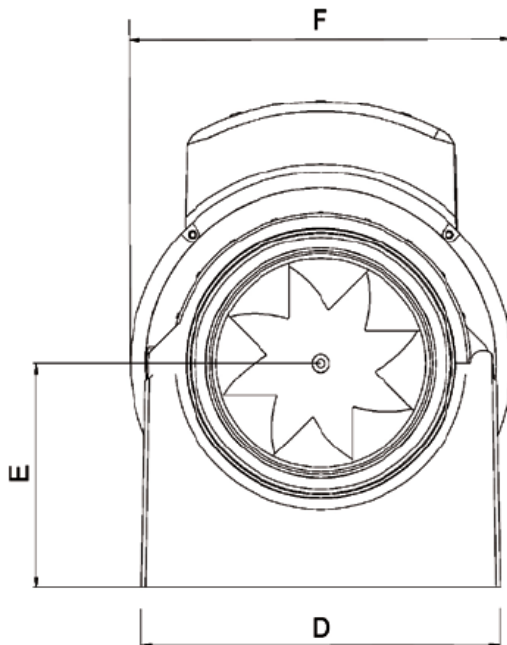
These powerful in-duct mounted mixed flow fans have been designed to produce higher working pressures for applications that require high air flows, with low relative noise.

Mixflo fans can be mounted in a variety of applications as shown and are suitable for use with either rigid or flexible ducting.

- High quality ball bearing, long life motors, continuously rated and warranted for a minimum of 30,000 hours or 3 years.
- High air flows are achieved through flexible duct
- Compact overall dimensions
- 2 speed fan settings for 100mm/4", 125mm/5" and 150mm/6" models
- 3 speed fan settings for the 200mm/8" model
- Double Insulation - no earth required
- Fully Building Code compliant
- Fully BEAB approved rated to IPX4.
- Easy installation and maintenance with the fan assembly easily removed from rigid ducting installations using the specially designed construction

Dimensions (mm)

Type	ØA	B	C	D	E	F	G	Spigot Int Diameter
DECMF100	102	195	298	162	105	175	30	98
DECMF125	122a	195	260	162	105	175	30	118
DECMF150	150	217	307	192	120	226	30	145
DECMF200	197	240	300	195	130	250	35 (narrow part) 63 (overall)	192



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



DECMF MIXED FLOW FANS

AIR MANAGEMENT SYSTEMS

Technical specifications

S= Standard T=Timer	Speed	RPM	Wattage	Max Airflow (M3/hr)	Max Airflow (LPS)	Max Pressure (PA)	dB(A) 3m*	Max Operating Temp °C
DECMF100S	H	2400	25	245	68	200	24	40
DECMF100T	L	1700	20	180	50	120	20	40
DECMF125S	H	2400	33	310	86	230	25	40
DECMF125T	L	1700	28	240	67	160	21	40
DECMF150S	H	2400	48	500	138	360	35	40
DECMF150T	L	1700	42	400	111	320	31	40
DECMF200S	H	2700	120	855	238	313	48	40
DECMF200T	M	2750	113	738	205	280	48	40
	L	2000	110	648	180	260	48	40

*Lp dB(A) 3 metres - sound pressure based on the high speed for each fan

LIABILITY:

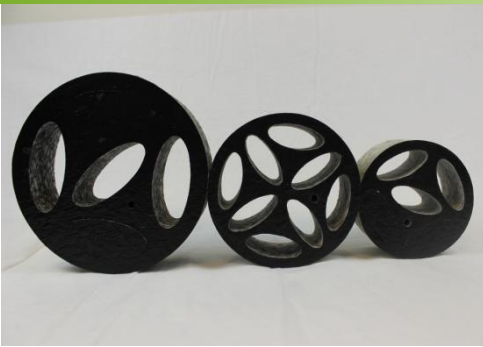
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



IFD

INLINE FOAM DAMPER

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

IFD (DINØRP) is an inline damper for circular ducts. It is completely made from soft elastic plastic foam with good damping abilities.

The damper has a number of oval openings equipped with releasable plugs. The pressure drop across the damper is adjusted by varying the number of open holes. Due to the special material and the design of the holes, sound generation will be low even at large pressure drops. The damper is equipped with a measurement outlet to make adjustment faster. The stable plastic foam has an open cellular structure and high density, which makes for an extraordinary ability to absorb sound.

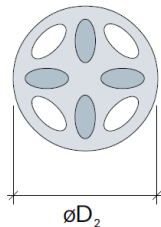
Because of this, the damper acts as a simple silencer. By placing several dampers after one another in a duct, the silencing is increased further. Sound problems, such as overhearing between rooms, can often be solved.

FIRECLASS Flame retardant (EN ISO 11925-2:2002).

MATERIAL The Foam damper is mainly made from a flexible polyurethane foam on one side Protective PU-foil.

DIMENSIONS

Size	øD1	øD2	S
80	80	82	50
100	100	102	50
125	125	127	50
160	160	162	50
200	200	202	50
250	250	252	75
315	315	318	75



øD1 = diameter of the duct

INSTALLATION

The damper is incredibly easy to install which makes it an ideal choice for use with existing installations. Simply insert the damper in the duct opening from the room side. No tools are needed. The formable damper will seal tightly against the duct wall. The damper can be easily cleaned with a vacuum during duct cleaning.

A (mm) B (mm)

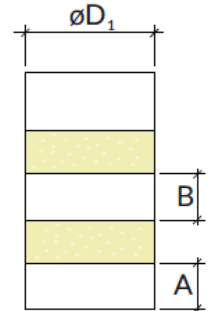
Supply air > 50-350 50-250

Exhaust air > 0-50 50-250

øD1 = Diameter of the duct

A = Minimum distance between duct opening and the first damper

B = Minimum distance between dampers



ACOUSTIC DATA

Sound power level $L_w = L_{wa} + K_w$ / Table K_w

Size	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
80	6	4	3	0	-9	-10	-17	-24
100	6	4	3	0	-9	-10	-17	-24
125	4	2	1	0	-8	-10	-18	-24
160	5	4	3	0	-9	-10	-18	-22
200	4	2	5	-4	-10	-15	-20	-25
250	5	4	3	0	-9	-10	-18	-22
315	4	2	5	-4	-10	-15	-20	-25

SOUND ATTENUATION

The sound attenuation without end reflection. Number of open holes

Size	open Holes	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
80	2	2.5	2	3	4.5	6	9	10	16
	3	3	3.5	2.5	5.5	8.5	8.5	15	19
100	5	1.5	2.5	1.5	3.5	6	6.5	12	17
	3	5	6	5	5	12	13	19	21
125	8	1	1.5	1.5	2.5	6	6	11	18
	1	6.5	7	4	9.5	13	16	18	22
160	5	3	3.5	2.5	5.5	8.5	8.5	15	20
	2	4	6.5	2.5	5.5	13	14	18	16
200	8	2	2	1	1.5	7	7	13	14
	3	5	4	3	7	13	19	18	17
250	10	2	3	1.5	2.5	7.5	11	14	13
	4	5	5	3	6	12	15	16	18
315	14	2	2	1	1.5	7	8	10	13



LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

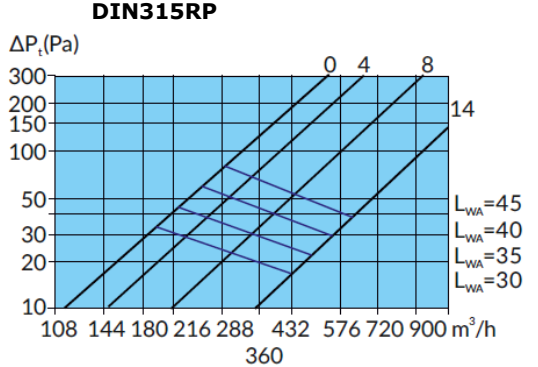
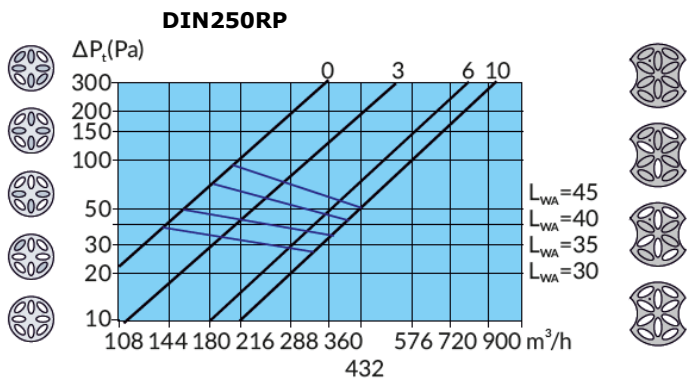
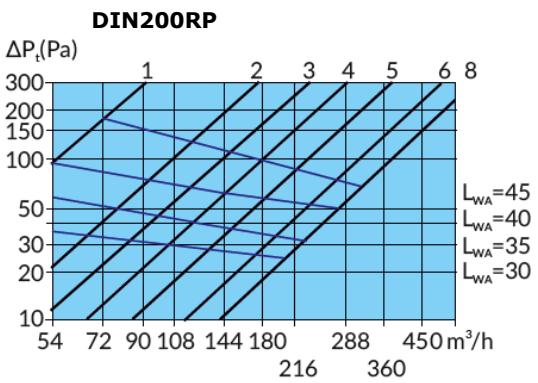
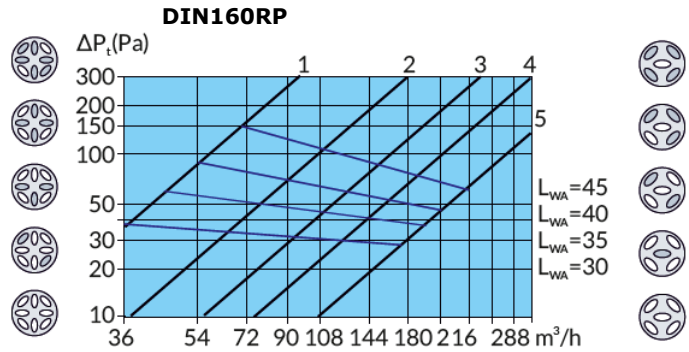
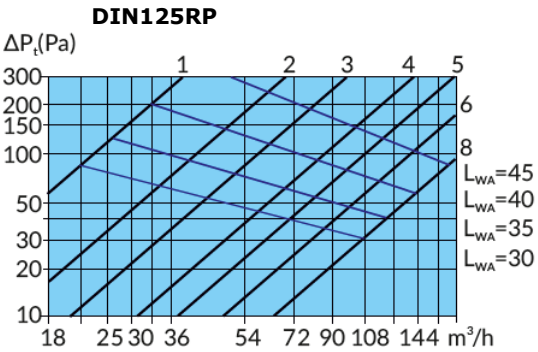
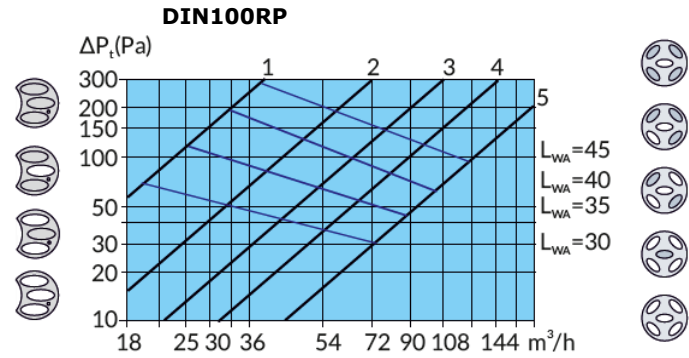
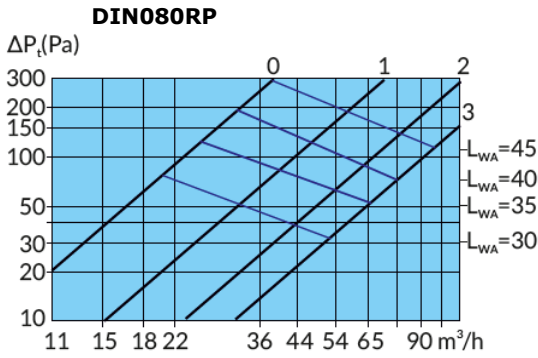


IFD INLINE FOAM DAMPER

AIR MANAGEMENT SYSTEMS

AIR FLOW RATE & PRESSURE LOSS

L = Sound power level in the duct dB(A). ΔP_t (Pa) = Total pressure loss



The symbol shows the number of open holes. The curved in the diagram are keyed with a number. The number shows how many holes are open

LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



i-VALVE® QUADRO

EXHAUST/SUPPLY
SQUARE ABS VALVE
AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

The **I-Valve Cuadro Ø125** is perfectly well designed as a supply and extract valve. The best solution for the indoor climate. Suitable for sealing and wall installation. The perfect match.

Easy to select the right air volume by adjusting the front plate in 5 lockable positions (5mm steps, gap height is 0-25mm).

Due to the removable cone we create the highest performance with regard to noise and to adjust the pressure and consequently the air volume.

The **I-Valve Cuadro** is manufactured from high quality ABS. These are UV-resistant, scratch resistant, colourfast and Anti-static. Standard color white (RAL9002).

Easy to insert a removable Volume or Filter unit as accessories. Just remove the front plate and place one of the units.

Rubber sealing for the perfect fitting and airtightness.

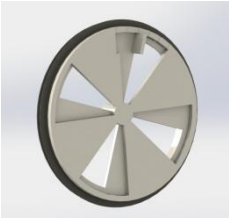
PACKAGING

Individually packed in a single white box.

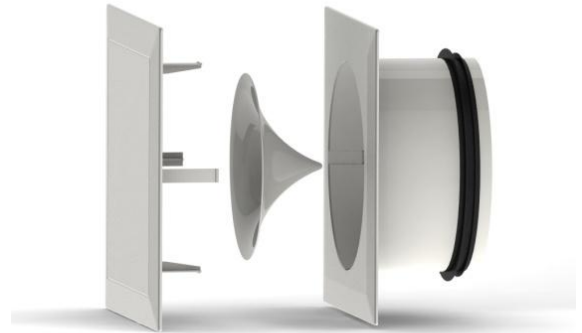
Article code: SABSV-125-R9002

Available accessories

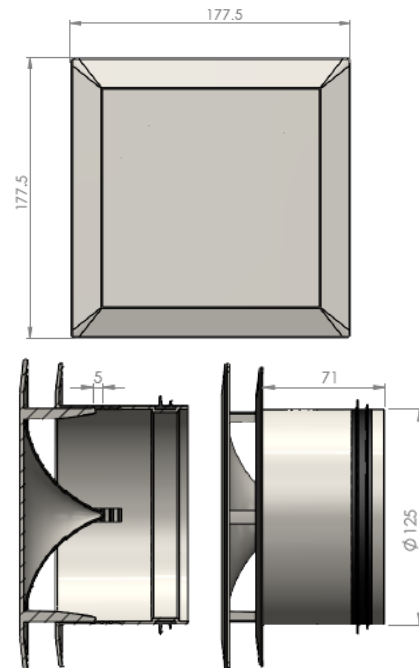
Art.code: **VUA125** - Volume unit Antistatic (5 steps)



Art.code: **FUAA125** - Filter unit antistatic/antibacterial



DIMENSIONS in mm



GRAFICS EXPLANATION

For Graphics Exhaust and Supply (with and without filter): 1, 2, 3, 4 = valve positions

For Graphics Exhaust and Supply (With regulator): a, b, c, d, e = positions of regulator in valve position 1

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

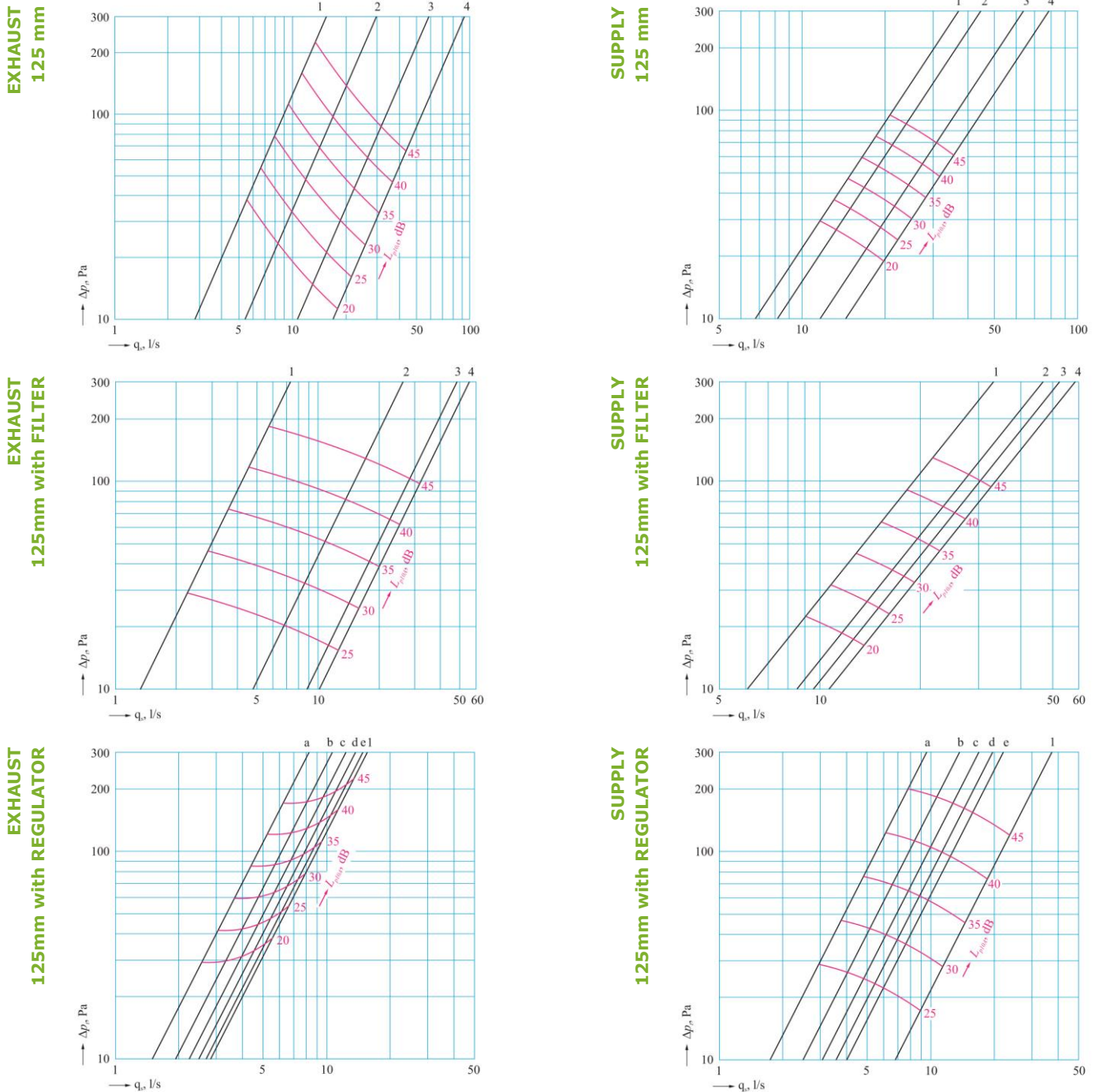
TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



i-VALVE[®] QUADRO

EXHAUST/SUPPLY
ABS VALVE
AIR MANAGEMENT SYSTEMS



DEFINITIONS		
q_v	air volume	(l/s)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m ² sab)	[dB(A)]

LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



i-VALVE[®] Filter unit antistatic/antibacterial

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

High Air Flow (HAF) Air Filters

Available in 2 diameters with perfect fit for the I-VALVE range

FUAA100- I-VALVE Filter unit Antistatic/Antibacterial 100 mm
FUAA125- I-VALVE Filter unit Antistatic/Antibacterial 125 mm

The open channel construction of **High Air Flow (HAF) Air Filters** offers low initial airflow resistance while its unique microstructure and electrostatic charge provide effective particle capture and retention. This may translate to fewer filter changeouts, reduced coil cleaning, and/or reduced maintenance cost.

A balanced approach to improved air filtration

HAF Air Filters may offer an ideal alternative in applications where regular filter replacement is difficult or impractical, but where low airflow resistance is important. Developed using innovative technologies, **HAF Air Filters** are constructed from an array of open flow channels. These filters are electrostatically charged for enhanced particle capture and retention.

HAF Air Filters are available with an antimicrobial agent to help inhibit the growth of mold and mildew on the filter media. Users should be aware that mold and mildew may grow on captured particles that build up over time on the filter.

Product Details

- Electrostatically charged for enhanced particle capture and retention
- Microstructure design assists in effective particle capture
- 100% synthetic media
- Airborne dust capture maintains productivity of in-room heating and air conditioning units while maintaining good airflow
- Antimicrobial agent helps inhibit the growth of mold and mildew on the filter media*

* The agent helps inhibit the growth of mold and mildew on the filter media. Users should be aware that mold and mildew may grow on captured particles that build up over time on the filter

- RoHS Directive compliant. The product does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC.\
- Maximum operating temperature: 158°F (70°C)
- Cleaning: Filters should be replaced rather than cleaned. If filters are cleaned, vacuuming may restore initial air flow rates; however, other performance metrics may not be restored, depending upon the type of particles encountered in the application.
- Does not recommend washing HAF Air Filters, because washing them can negatively impact efficiency, arrestance, and dust holding capacity of filters, whether large particles are present in the environment or not.

The filter offers low initial airflow resistance while the microstructure design and electrostatic charge provide effective particle capture. This may translate to fewer filter change-outs as compared to alternative dust filters, reduced coil cleaning, and/or reduced maintenance cost. They also include an antimicrobial agent.

The filter offers low initial airflow resistance while its microstructure design and electrostatic charge provide effective particle capture. This may translate to fewer filter change-outs as compared to alternative dust filters, reduced coil cleaning, and/or reduced maintenance cost.

Antimicrobial agent incorporated into filter media helps inhibit the growth of mold and mildew on the filter media. With 100% synthetic media and seamless adaptability to a variety of existing equipment configurations, these filters can be a great choice for your air filtration efforts.

LIABILITY:

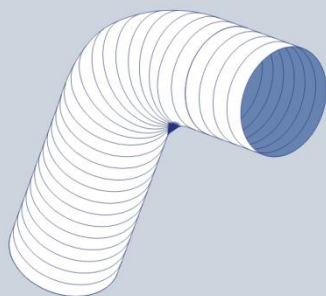
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

DEC International and the DEC logo are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



GENERAL MOUNTING INSTRUCTIONS

FLEXIBLE DUCTING

INTRODUCTION

For installing and using several DEC products optimally some items have to be considered. In this chapter general and specific instructions for all relevant products will be described:

- A flexible ducts (general)
- B flexible ducts with insulation (specific)

GENERAL MOUNTING INSTRUCTIONS FLEXIBLE DUCTS

To mount flexible ducts correctly, the next items should be considered. The items will be explained shortly and the drawings will illustrate how to mount the duct.

- A.1 mounting instructions (general)
- A.2 shortening of ducts
- A.3 making connections
- A.4 suspension points
- A.5 bending radius
- A.6 support
- A.7 connection to ducts and armatures
- A.8 static electricity
- A.9 situations in practice

A.1 Mounting instructions (general)

- The duct has to be stretched completely. A duct that has not been stretched completely causes a lot of pressure loss.
- Do not use more of the duct than necessary.
- Use about 1 - 1.5m of the duct for each connection piece. If more length will be needed (e.g. for acoustic ducts) the duct has to be fastened correctly with saddle brackets (see A.5 and A.7).
- During mounting take care that the duct will not be damaged (e.g. a co-ordination with respect to light armatures and ceiling constructions).
- Replace damaged ducts by new ones. Replace also damaged outer jackets of insulated ducts (in connection with loss of air and density of steam).

A.2 Shortening of ducts

- The duct has to be stretched completely
- Measure the correct length and mark it with a felt marker
- Cut the duct into two pieces over the entire diameter right in a winding.
- Cut the spiral

A.3 Making a connection

- Shorten the duct correctly.
- Push the duct 50mm beyond the connection piece.
- Seal the connection airtight with DEC aluminium tape. (*For Marine use we recommend to use always an ASB tape*)
- Fix the sealed duct with a nylon or metal clamp. (*For Marine use we recommend to use always metal clamps*)

LIABILITY:

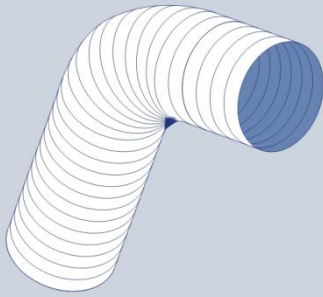
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEK, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



GENERAL MOUNTING INSTRUCTIONS

FLEXIBLE DUCTING

A.4 Suspension points

The maximal sagging of the duct, between two fastening points, should not exceed 50 mm/m (see fig 1). The distance between two suspension points varies from 1.5 up to 3m depending of the duct type. A flexible duct above a ceiling construction needs a 1m centre-to-centre distance support.

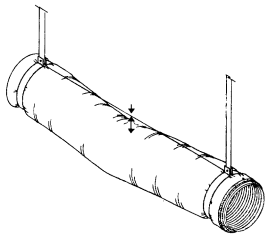
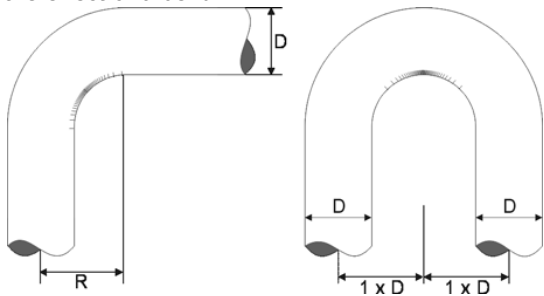


Fig. 1 Max. Sagging 50 mm/m

A.5 Bending radius

The minimal bending radius of each product has been described on the product information page. The bending should be as large as possible. A minimal bending radius provides a greater pressure loss. The bending should be twice the diameter for minimizing the effect of a bend



A.6 SUPPORT

A duct is, generally, very flexible and can be transformed easily. In case of transformation the inner diameter will decrease and the pressure loss will increase. Much attention should be paid to fastening the ducts, in case of using clips.

Use the correct clip diameter and make sure that the clips support the duct half of the diameter minimally (see fig. 2).

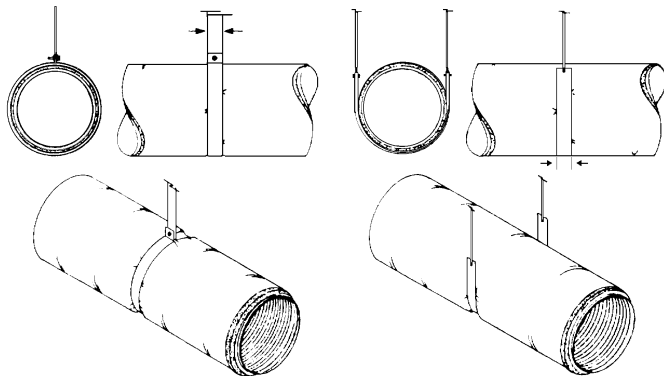


Fig. 2

LIABILITY:

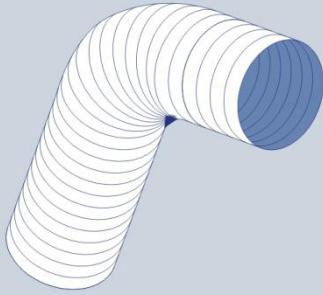
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



GENERAL MOUNTING INSTRUCTIONS

FLEXIBLE DUCTING

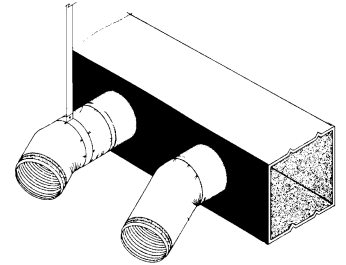
A.7 Connections to canals and armatures

The connection of flexible ducts to canals and armatures should be performed very carefully. Because many ducts have been mounted with a bend, right after the connection to a canal or armature, a supporting clip will be needed.

Fig. 3 The right connection is too "sharp"

correct

Incorrect



Metal ducts can produce a crack if the canal connections are too "sharp" (fig. 4.3)

If the duct has to be connected to light- or air armatures the connection should be as "direct" as possible. The instructions should be consulted. Too many bends close to an armature will cause increasing of pressure loss. It will also cause unnecessary noise.

Fig. 4 shows an "incorrect" armature connection. Fig. 5 shows a "correct" connection.

Fig. 4

incorrect

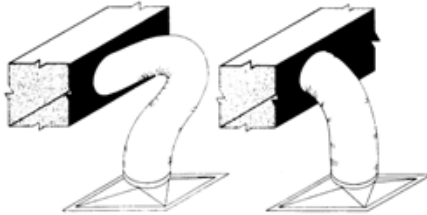
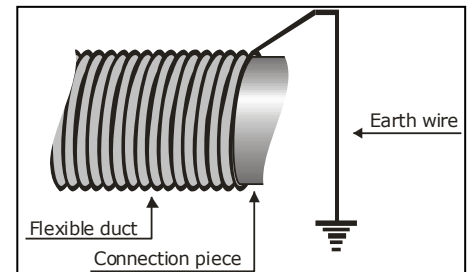


Fig. 5

correct

A.8 Static electricity

Building up and discharging electricity can cause explosion risk. This could happen if air, with organic solvents, flows through a synthetic or a laminate duct with high speed. Making a connection between the spiral wire of the duct and an earth wire can minimize building up static electricity. For machine exhausting a connection can be made between the metal wire of the duct and the casing of the machine. The earthen of the machine and the connection between machine and duct, however, has to be controlled frequently. Especially if the exhaust system is in motion or the machine causes vibrations.



A.9 Situations in practice

During mounting there are often situations where a longer flexible duct is recommended. An example is the bridging between the differences in height where no standard connection pieces can be used. Take care that there is no contact between the duct and other existing components with a high temperature. A duct provided with a PVC layer will quickly fall apart, if it is in contact with the tube of the central heating for a while. Even a central heating tube can increase the ageing process of such a duct.

The lifespan of ducts can rather be shortened if ducts with different metals (also from other ducts) will be in contact intensively. Rooms, which are warm and damp, could cause a quicker corrosion.

Fig 6

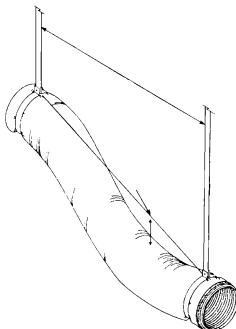
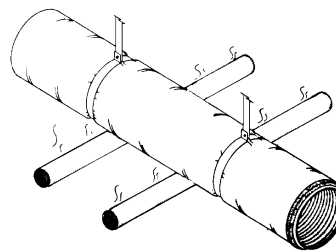


Fig 7



LIABILITY:

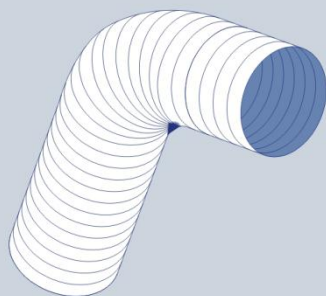
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEK, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



GENERAL MOUNTING INSTRUCTIONS

FLEXIBLE DUCTING

Flexible insulated ducts

For insulated flexible ducts there are more points to consider. These points are mainly concentrated on the processing of the duct. For various applications a difference has been made between thermally and acoustically insulated ducts

B.1 thermally insulated

DEC's product series has no ducts, which have already been sealed. But this is possible on request. Ducts which have not been sealed have a maximal output, if the items below have been considered (see fig.9)

- Shorten the duct correctly
- Push the duct over the connection piece 50 mm minimally
- Push back the insulation blanket
- Seal the connection piece of the inner duct with DEC aluminium tape (ALUTAPE) at least two windings around the duct
- Take away the insulation blanket
- Attach the outer jacket with ALUTAPE to the inner duct, at least two complete windings around the duct
- Take care that the end piece of the duct has been sealed air-tight
- Attach outer jacket and inner duct together with nylon or metal clamps.
(For Marine use we recommend to use always metal clamps)

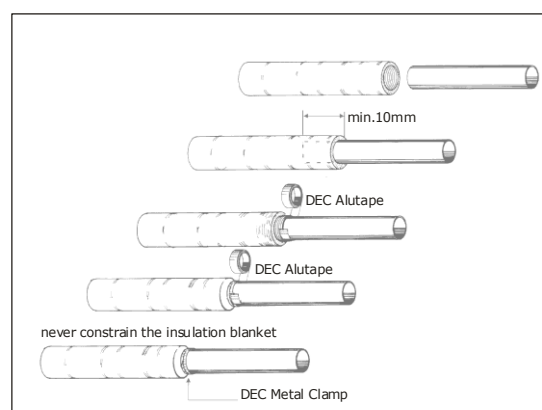


Fig. 9

Mistakes in practice

A mistake which has been made often is the fixing of the insulation blanket with a clamp, without sealing with tape. There is no guarantee that this way of working is effective, because the sealing is not airtight.

B.2A Acoustically insulated ducts

DEC has two types of ducts within the assortment of this product group: sealed and non-sealed ducts:

- 1/ Perforated ducts enveloped by a polyester barrier to prevent that "very small" glass wool particulars penetrate the air system
- 2/ Perforated ducts without a polyester barrier

IMPORTANT

DEC's barrier provides a closed system. That is why the acoustic duct, if installed properly, can be used as a thermal application as well. This is in contrast with many other competing products.

Sealed ducts like SONODEC TRD and SONODEC GLX have already been provided with a sealed end part.

During mounting two items have to be considered:

- The duct has to be pushed around the attachment point for 50 cm minimally. For an optimal sound attenuation push the duct around the attachment point completely
- Fasten the "taped" duct firmly with a clamp

Non-sealed ducts have to be prepared the same way as the thermally insulated ducts (see fig. 9). The polyester barrier, however, should be fastened with a tape together with the micro perforated inner duct. Now follow the same steps, which have been described.

For the SONODEC 25 and the SONODEC 250 the air-tightness is more important. The micro perforation causes a lot of pressure to the outer jacket. The pressure loss increases and the coefficient of the desired attenuation decreases, because the ducts have not been sealed completely. A bad sealing can also cause untightness and interfering noises.

Situations in practice

In the SONODEC 25 a polyester layer has been inserted, to prevent diffusion of glass fibre particles from the insulation blanket into the system. The barrier has to be attached to the connection piece with DEC aluminium tape. When the system is under pressure the barrier could move if it has not been fixed properly.

LIABILITY:

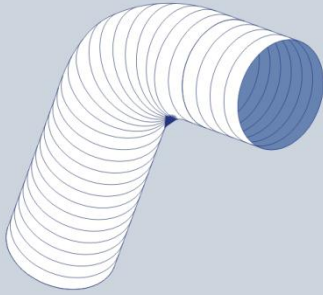
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

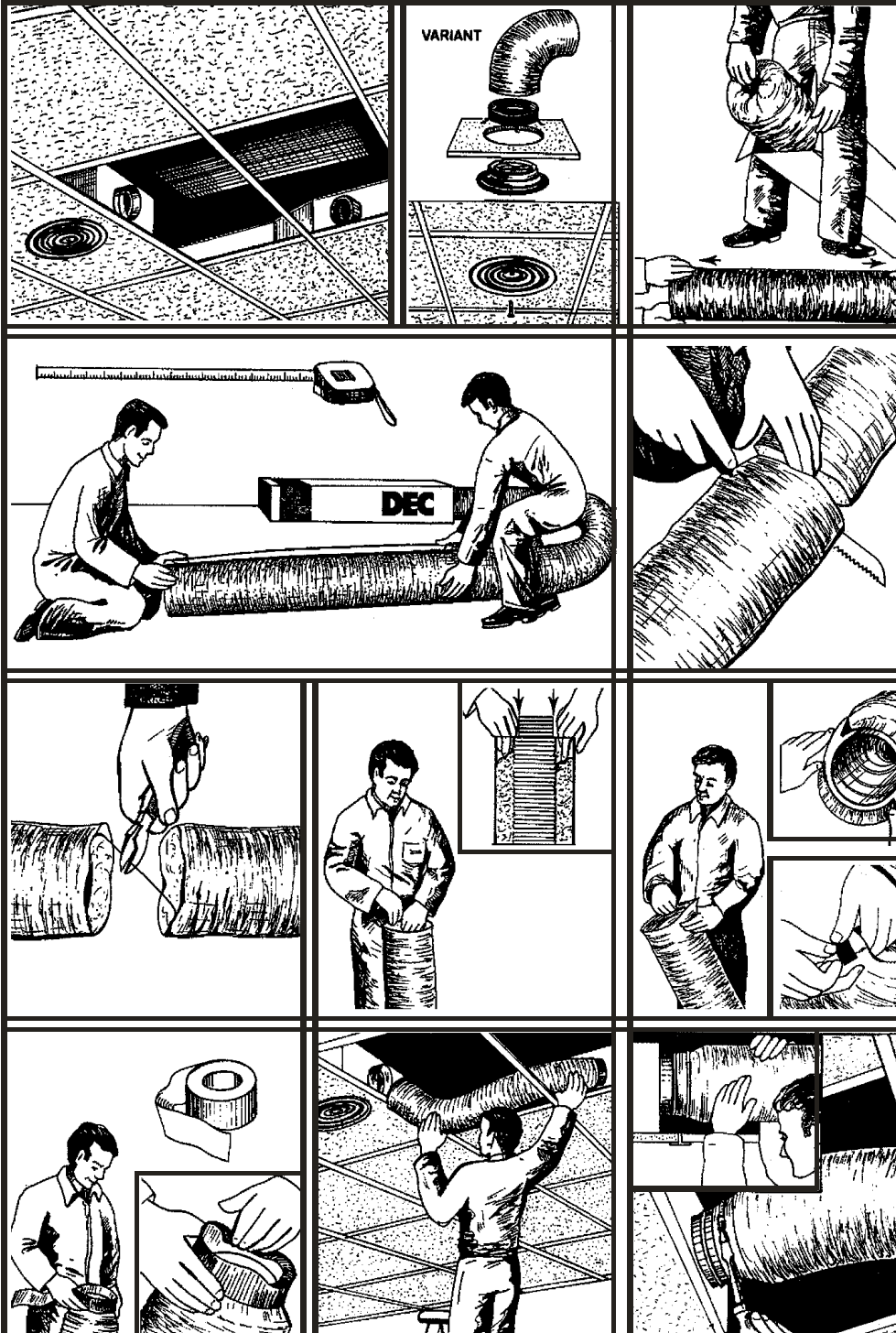
ALUDEK, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



GENERAL MOUNTING INSTRUCTIONS

FLEXIBLE DUCTING

DUCTS WITH BARRIER



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
ALUDEK, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



MOUNTING INSTRUCTIONS

FIXING & SEALING

GOLDEN RULE:

For all of the products of the tapes and sealants group the next golden rule is mainly in force:

THE SURFACE HAS TO BE CLEAN, DRY AND FAT-FREE

Typ	Points of attention
ASB	max. adhesion after 24 hours (press firmly)
PSB	max. adhesion after 24 hours (press firmly)
ALU	low percentage of elongation
ALU-R	can be applied at temperatures below zero
PVC	adhesion relative weak
DUCT	adhesion relative weak
GT	high percentage of elongation
SDS	ventilate during processing
WDS	storage/processing frost resistant

USERS GUIDE ASB/PSB

THE SURFACE HAS TO BE CLEAN, DRY AND FAT-FREE.

The application temperature must be higher than 5°C. Particularly when the tape is going to be attached at a lower temperature it should be pressed firmly. Apply on round (PSB/ASB) or square (ASB) ducts. A max stretch (PSB) of 3% is allowed and will help the tape to set itself on the duct. If the duct has a diameter >250mm, some clearance between the ducts can be expected due to tolerances; we advise to use only ASB width 75mm or wider. Use an overlap of 5cm or larger.

Do not use PSB for outdoor applications.

DEC PRODUCTS

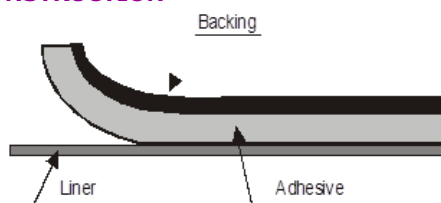
1/SELF ADHESIVE TAPE

- PSB (polyethylene foil)
- ASB (aluminium foil)

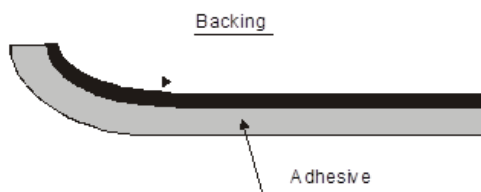
2/SEALANTS

- WDS606 (waterbased mastic)
- SDS400 (solvent based mastic)

CONSTRUCTION



ASB - PSB - ALU TAPE



DUCT TAPE - PVC - GT TAPE

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



MOUNTING INSTRUCTIONS

FIXING & SEALING

SOME CATEGORIES/NAMES

Aluminium tapes

Cloth tapes
PVC tapes
Polyethylene tapes
Foam tapes

} backing

Bitumen tapes

Butyl tapes
Acrylic tapes
Silicone tapes

} adhesive

Packaging tapes

Splicing tapes
Electrical tapes
First aid & hospital tapes
Corrosion tapes
Duct sealing tape

} application

PSB = Polyethylene tape (backing)
= Duct sealing tape (application/function)
= Cold shrinking tape (property)
= (Butyl rubber tape) (adhesive)

ASB = Aluminium tape (backing)
= Duct sealing tape (application)
= Cold shrinking tape (property)
= (Butyl rubber tape) (adhesive)

SPECIFICATION

PSB = cold shrinking tape specially made for duct sealing

Backing : light grey polyethylene
Adhesive: hotmelt (PSA)
Liner : silicone treated paper

ASB = tape specially made for duct sealing

Backing : aluminium foil
Adhesive: hotmelt (PSA)
Liner : silicone treated paper

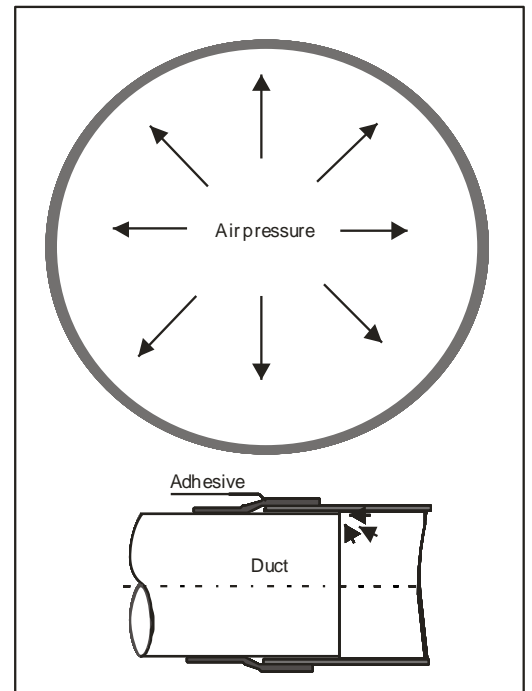
EXPRESSIONS

Adhesion: the strength which connect 2 materials together (tape and substrate)

Cohesion: the mutual connection force between parts (molecules) in an adhesive.

Tack : the quick binding capability; It is the property which enables an adhesive to form a bond with a surface of another material upon brief contact under light pressure

Cold flow : material (adhesive) is seeking its lowest level with respect to gravity

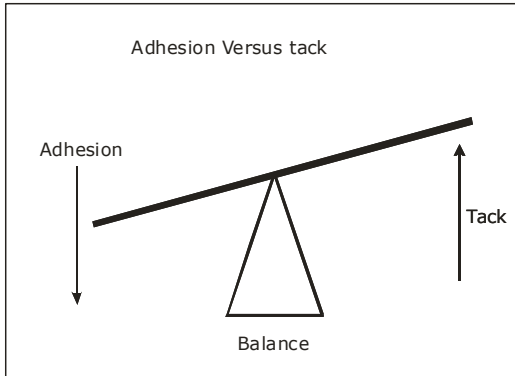




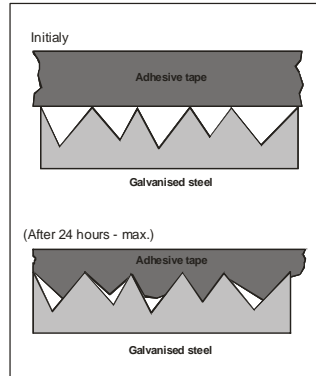
MOUNTING INSTRUCTIONS

FIXING & SEALING

ADHESION VERSUS TACK



ADHESIVE TAPE TO BE APPLIED ON GALVANISED MATERIAL



ADVANTAGES AND DISADVANTAGES

PSB		ASB	
ADVANTAGES	DISADVANTAGES	ADVANTAGES	DISADVANTAGES
100 % airtight flexible by stretching more tape absorbs oil saves labour costs DIN 4102 B2	material price not suitable for wet surfaces	100 % air tight absorbs oil high tack/ high adhesion saves labour costs DIN 4102 B2	material price not suitable for wet surfaces cannot be stretched

The tapes are non toxic and contains no solvents!!

ADVANTAGES AND DISADVANTAGES WDS606/SDS400

WATERBASED SEALANTS (WDS606)

ADVANTAGES	DISADVANTAGES
not harmful not flammable environmentally friendly can be applied by brush adheres on surfaces with some moisture long shelf life easy cleaning 100 % use	drying time depends on humidity limited for outdoor application

SOLVENT BASED SEALANTS (SDS400)

ADVANTAGES	DISADVANTAGES
short drying time (fast skinning) application does not depend on weather adheres on slightly oily surfaces not flammable (dry)	harmful inflammable (wet) not environmentally friendly can only be used in well ventilated places limited shelf life

LIABILITY:

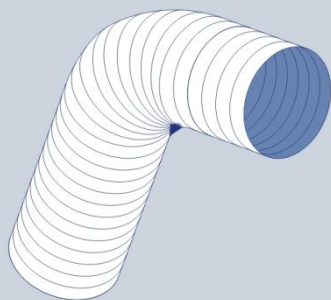
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PRESSURE LOSS

FLEXIBLE DUCTING

The effect of a few parameters on the friction coefficient and the resistance coefficient in DEC International®-ducts and -bends has been investigated by TNO, report number 90-042/R.24/LIS. The following parameters have been examined: duct type, duct diameter, compressing (lengthwise), direction of flow, air velocity and the shape of the bends.

From this research the following became evident:

- The duct type affects the friction coefficient only in ducts which have been stretched completely (0% compressing). The measure of compressing has a great effect on the friction coefficient. A 5% compressing could already redouble the friction coefficient. The effect of the duct type can be neglected then.
- The effect of the duct diameter (102 mm - 305 mm), the air velocity (2 m/s - 6 m/s) and the direction of flow on the friction coefficient can be neglected.
- The resistance coefficients of the bends hardly depend on the duct type.

The results of the research will be given in pressure loss charts.

NOTATIONS:

D	duct diameter	[m]
f	friction coefficient	[-]
i	compressing percentage according to formula (3)	[-]
k	wall roughness	[m]
L	real duct length	[m]
Le	equivalent length according to formula	[m]
Li	length inflow section	[m]
Lm	maximal duct length	[m]
Δp	pressure loss	[Pa]
Pb	barometer pressure	[mbar]
Ph	pressure in test department	[Pa]
R	radius of a bend	[m]
Re	Reynolds number	[-]
T	temperature	[°C]
U	average velocity	[m/s]
ζ	resistance coefficient	[-]
v	kinematic viscosity	[m ² /s]
ρ	density	[kg/m ³]

LIABILITY:

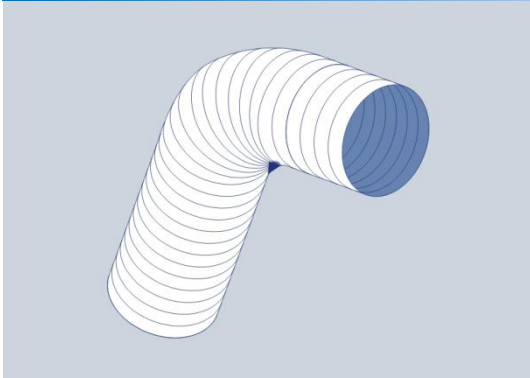
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PRESSURE LOSS

FLEXIBLE DUCTING

1. INTRODUCTION

The pressure loss in a duct, consisting of one or more straight parts and some bends, depends among other things on the friction coefficients of the ducts and the resistance coefficients of the bends.

In order to find the pressure loss in a duct, the coefficients must be known.

TNO measured the effect of some parameters on those coefficients.

While investigating the ducts the effect of the following parameters on the friction coefficients has been examined:

- Duct type
- Duct diameter
- Degree of compressing
- Direction of flow
- Air velocity

While investigating the bends the effect of the following parameters on the resistance coefficients has been examined:

- Shape of the bend
- Duct type

On behalf of the research a measurement setup has been built up (see fig. 3).

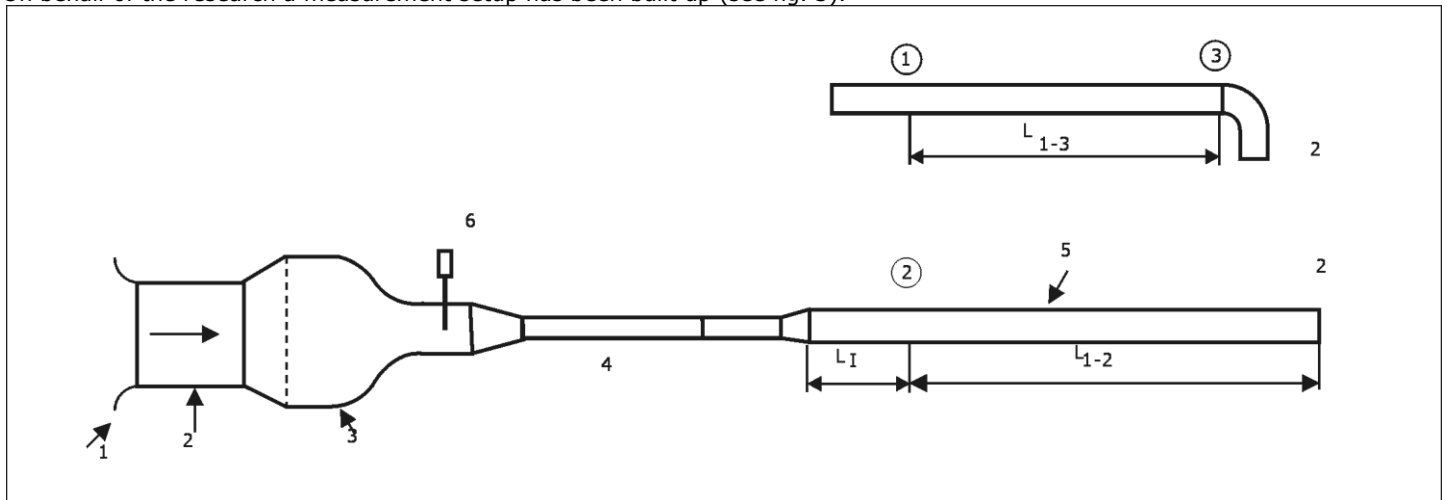


Figure 3

The formulas, making out the pressure loss of a straight part or a bend, will be given in 5.2.

Hereby we will go further into the effect of the duct diameter, the roughness of the inner duct wall and the Reynolds number on the friction coefficient. Secondly we will go further into the equivalent length of the bends.

LIABILITY:

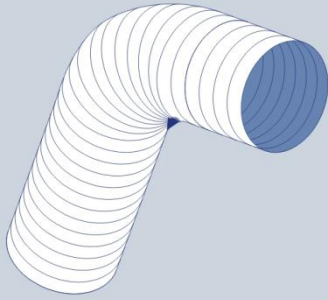
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PRESSURE LOSS

FLEXIBLE DUCTING

2. PRESSURE LOSS

In general a mounted duct has a few straight parts and a few bends. If a gas is flowing through the duct a pressure loss will occur in each straight part and each bend of the duct. When determining the conveying height of a fan, the pressure loss of each straight part and each bend of the duct has to be determined.

2.1 STRAIGHT PART OF A DUCT

The pressure loss (also called pressure drop or resistance) of a straight part of a duct can be calculated with the next formula:

Δp	= the pressure loss	[Pa]
f	= the friction coefficient of the duct	[-]
L	= the (real) length of the duct	[m]
D	= the diameter of the duct	[m]
ρ	= the density of the gas	[kg/m ³]
U	= the average velocity	

$$\Delta p = f \cdot \frac{L}{D} \cdot \frac{1}{2} \rho U^2$$

From this formula the following can be deduced:

- the pressure loss is proportional to the friction coefficient
- the pressure loss is proportional to the density of the gas. For (dry) air the density is:

P_b	= the barometer pressure in millibar
T	= the temperature in °C

$$\rho = 1.293 \cdot \frac{P_b}{1013} \cdot \frac{273}{273 + T}$$

From the Moody-diagram [1] for ducts can be deduced that:

- The friction coefficient decreases slightly if the value of the Reynolds number ($Re = U \cdot D / \rho$) increases
- The friction coefficient decreases if the relative roughness decreases k/D

From this it follows that:

- The friction coefficient decreases slightly if the velocity increases (higher Re-number)
- The friction coefficient decreases if the diameter increases, if the wall roughness stays the same (higher Re-number and decreasing relative roughness)

The wall roughness is determined by:

- The duct type
- The extent of compression

The measure of compressing will be defined as follows:

L_m	= the maximal duct length
L	= the real duct length

$$i = \frac{L_m - L}{L_m} \cdot 100\%$$

The effect of the duct on the friction coefficient has been determined with a 0% compression. The real length of the duct is then equal to the maximal length.

2.2 BENDS

The pressure loss of a bend can be determined with the following formula:

Δp	= the pressure loss	[Pa]
ζ	= the resistance coefficient of the bend	[-]
ρ	= the density of the gas	[kg/m ³]
U	= the average velocity	[m/s]

$$\Delta p = \zeta \cdot \frac{1}{2} \rho U^2$$

The pressure loss in a duct bend is greater than the pressure loss in a welded bend with the same diameter and radius of curvature. Because the friction losses in a bend are considerable greater. In a metal bend the inner wall is smooth in contrast to a duct bend. Especially the inner bend of the duct will compress intensely. Because of this the flow-through surface becomes smaller and the flow velocity higher.

LIABILITY:

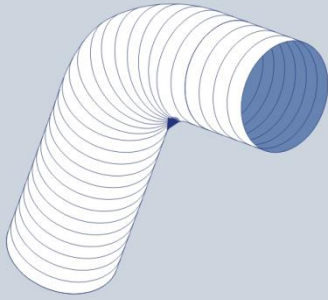
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEK, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PRESSURE LOSS

FLEXIBLE DUCTING

2.3 EQUIVALENT LENGTH

The equivalent length of a bend is the length of a straight duct, from which the pressure loss is equal to the pressure loss in the bend.

$$\Delta p_s = f \frac{L}{D} \cdot \frac{1}{2} \rho U^2$$

$$\Delta p_b = \zeta \cdot \frac{1}{2} \rho U^2$$

This equivalent length follows from:

To $\Delta p_s = \Delta p_b$ the formula is:

$$f \frac{L_e}{D} = \zeta$$

$$L_e = \frac{\zeta}{f} \cdot D$$

The equivalent lengths of the tested ducts of the \varnothing 102 mm Aludec 70 have been determined with this formula.

3. DIAMETER

At four out of the five duct types, which have been investigated, the friction coefficient hardly depended on the duct diameter. Only the Greydec 100 had an increasing of the friction coefficient with the diameter. It appears that if the roughness of the duct wall stays the same, the friction coefficient decreases if the diameter increases. The increasing could be explained by presuming that the 203 mm and the 305 mm Greydec ducts must have had a certain degree of compressing. Although they have been stretched till maximum stated length. If we leave the measure results of the Greydec 100 out of consideration, the effect of the duct diameter on the friction coefficient could be neglected.

4. VELOCITY

In flexible ducts the friction coefficient slightly decreases if the velocity increases.

It appears that for DEC-ducts this is also the case with the Greydec 100, the Aludec 70 and the Aludec AA3, but in a less degree with the Aludec 112 and the Sonodec 25. In general the effect of the velocity on the friction coefficient is small. It can be neglected with respect to the effects of the duct type and the degree of compression.

5. DIRECTION OF FLOW

The friction coefficient of the Aludec 70 has been measured in both the flow directions. Due to the manufacturing method one flow direction provides a sudden (very small) narrowing at each overlap, whilst the other flow direction provides a sudden (very small) expansion. From the measurements it appears that the average value of the friction coefficient of the duct just in one case differs 5% from the other direction. In general this difference can be neglected.

LIABILITY:

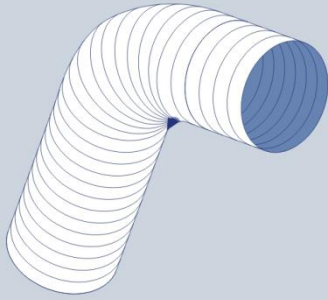
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PRESSURE LOSS

FLEXIBLE DUCTING

6. COMPRESSION

The compression of the ducts has a great effect on the friction coefficient (figure 4). It appears that, if a duct will be compressed only 5%, this already leads to a roughly double friction coefficient (figure 4).

Apparently, the roughness of the inner duct wall increases strongly if the compression is very small. Figure 4 also shows that the friction coefficient increases almost linear during compressing, provided that the compression is less than 20%. To each percent of compressing the increasing of the friction coefficient is ca. 0.01. If a duct has been compressed only 3% the friction coefficient will increase ca. 0.03. The increasing is the same as the differences of the five duct types, which have been measured.

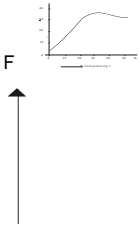


Figure 4

7. FRICTION COEFFICIENTS

From the above it follows that the effects of the duct diameter, air velocity and direction of flow on the friction coefficients of the ducts can be neglected. It also appears that the degree of compressing has more effect than the duct type. To determine the degree of compressing with formula 4, information on the maximal length of the concerning duct will be needed. The maximal length, however, depends on the size of the effort determining this length. Besides, a certain force at a duct with a small diameter, causes a greater tensile stress than at a duct with a larger diameter and the same wall thickness. In this research the friction coefficient for the different duct types only applies for ducts, which have been stretched to the same length as the ducts which have been tested.

LIABILITY:

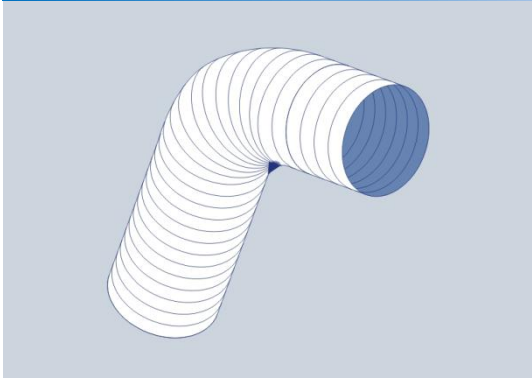
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

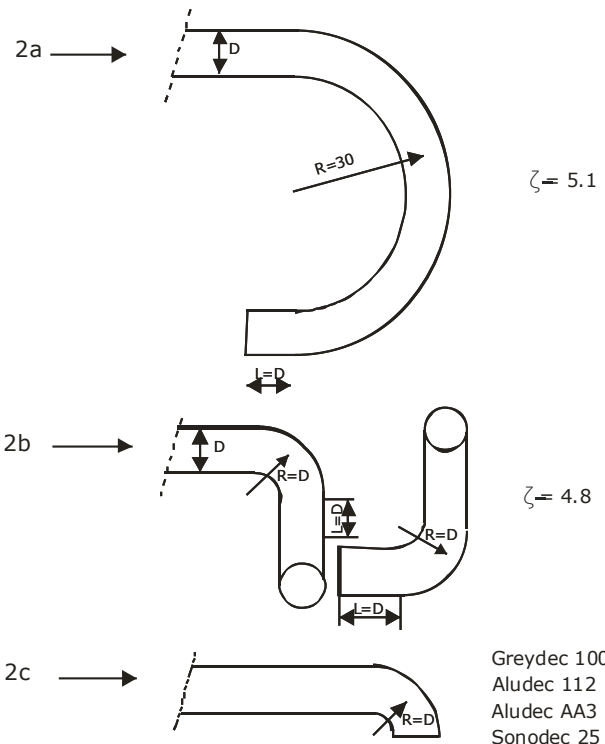
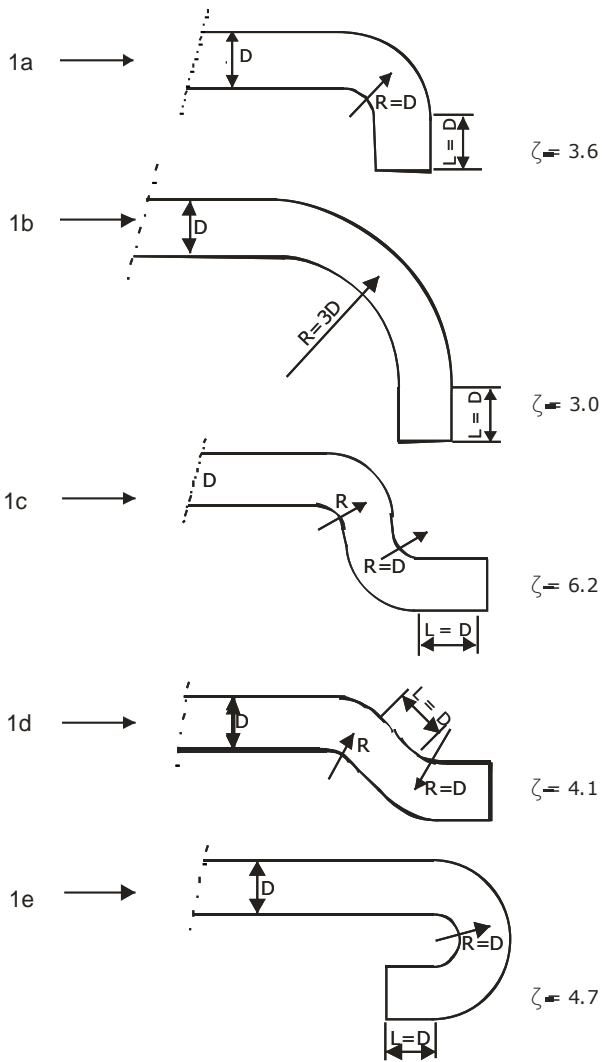
ALUDEK, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PRESSURE LOSS

FLEXIBLE DUCTING

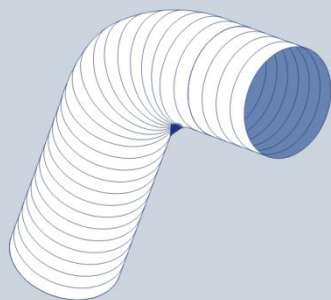
RESISTANCE COEFFICIENT OF THE BENDS



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
ALUDEc, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PRESSURE LOSS

FLEXIBLE DUCTING

8. RESISTANCE COEFFICIENTS OF THE BENDS

The resistance coefficients of the bends have been mentioned in the figures 1 and 2. It appears that the air velocity has hardly any effect on the size of the resistance coefficient. From the figures 1a, 1b, 2a and 2b it appears that an increasing of the curvature radius of the 90°-bend provides a decreasing of the resistance coefficient. The 180°-bend, however, shows an increasing. This is against all expectations. Probably this is due to the small differences of roughness of the bends, because the compression of the bends will differ from one another. A difference in flow model in both the bends could also be the cause. The duct type seems to have only a small effect on the resistance coefficient of the bends (figure 2c). This was to be expected. The inner bend is always compressed in such a way that its roughness is much larger than the roughness of the (maximally stretched) ducts.

9. PRESSURE LOSS CHARTS

Pressure loss charts have been made for the different types of DEC-ducts and DEC-ends.

The charts show the pressure loss per meter duct for 0°C air.

The charts for the different duct types have been given in the following figures

GREYDEC 100	(f=0.033)
ALUDEC 70	(f=0.037)
ALUDEC 112	(f=0.053)
ALUDEC AA3	(f=0.031)
SONODEC 25	(f=0.053)

The charts for the ALUDEC 112 and the SONODEC 25 are identical.

If the air has a temperature different from 0°C the pressure loss should be multiplied with a correction factor.

This correction factor is $273 / (273+T)$.

Emphatically it has been stated that the charts apply to ducts, which have been stretched maximally (**compression 0%**).

The pressure loss charts on the bends according to the figures 1 and 2, are given in 5.11a.

These charts apply to air with a temperature of 0°C. Also here it applies that, if the air has a temperature other than 0°C, the pressure loss has to be multiplied with the correction factor. In order to make the charts resistance coefficients have been applied, as mentioned in the figures 1 and 2. The average value of the measured coefficients has been used (2.6) for the bend according to figure 2c.

LIABILITY:

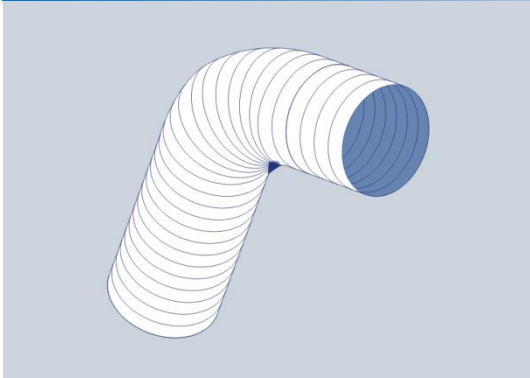
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



PRESSURE LOSS

FLEXIBLE DUCTING

10. CONCLUSIONS

- The friction coefficients of five different DEC-ducts have been determined in a measurement setup. The results have been given in a chart. The friction coefficients are applied to ducts, which have a 0% compression. On behalf of the effect of the compressing of the duct the effects of duct diameter, air velocity and direction of flow on the friction coefficients are to be neglected.
- Compressing a duct lengthwise, in some degree, will lead to a strong increasing of the friction coefficient. If compressing ca. 5% a redoubling of the friction coefficient appears.
- Charts have been made for the different duct types on the basis of the measured friction coefficients.
- The resistance coefficients of eight different bends have been measured. These coefficients seem to be independent of the air velocity and the duct type has only a small effect. The resistance coefficients of the duct bends have been given in the figures 1 and 2.
- Pressure loss charts for the bends have been made on the basis of measured resistance coefficients.
- If the air has a temperature different from 0°C the pressure loss should be multiplied with a correction factor. This correction factor is $273/(273+T)$
- With respect to the wire distance the type of the tested ducts are a reflection of the several types of flexible ducts out of DEC International's delivery program. Compressing affects the pressure loss most seriously. The duct type has hardly any influence on pressure loss in bends. Therefore DEC International has deduced the pressure loss diagrams from the following duct types:

Duct type:	Deducted from:
Aludec (2)45	Aludec 112
Combidec 2000	Aludec AA3
Combidec 2100	Aludec 112
Combidec 2300	Aludec 112
PVC white	Aludec AA3
Isodec 25	Sonodec 25
Isodec 250	Aludec 112
Sonodec 250	Aludec 112
Sonodec GLX	Aludec 112
Sonodec TRD	Sonodec 25
CE-FLEX	Aludec AA3
Aludec 270	Aludec 112

LIABILITY:

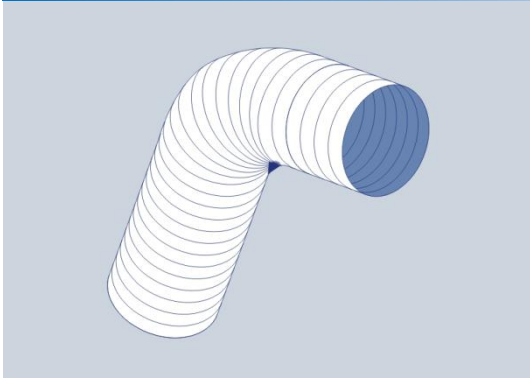
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

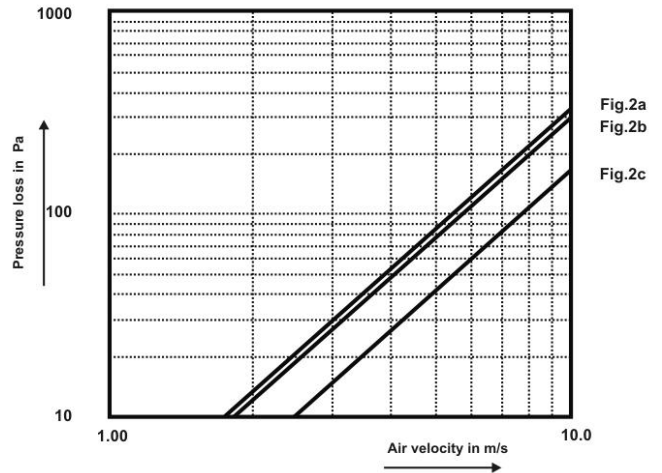
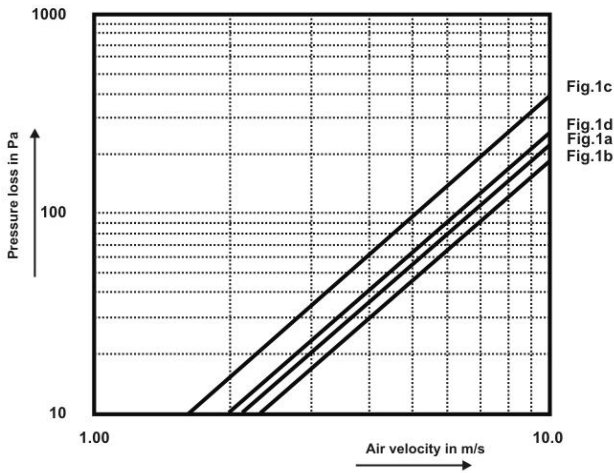


PRESSURE LOSS

FLEXIBLE DUCTING

11 GRAFICS

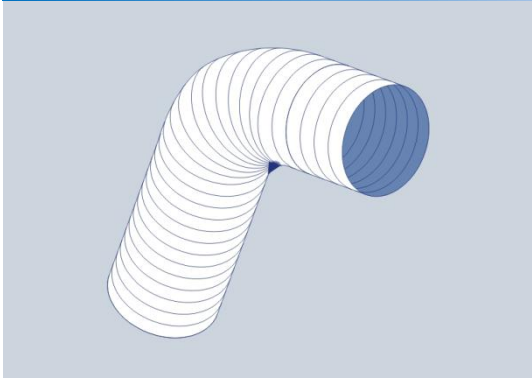
11a PRESSURE LOSS OF THE BENDS



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



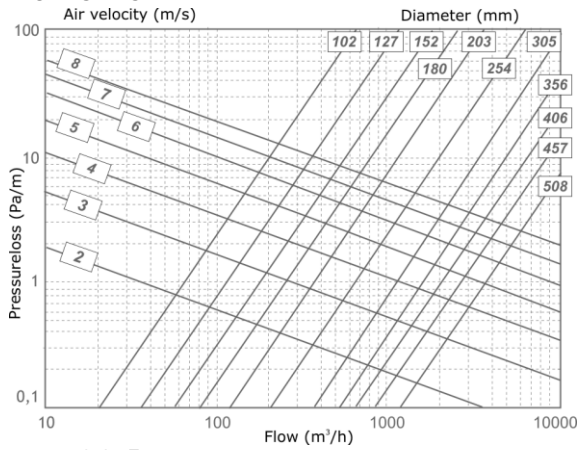
PRESSURE LOSS

FLEXIBLE DUCTING

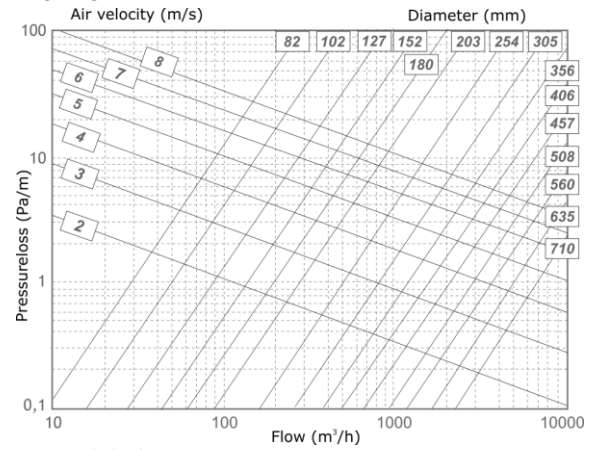
11 GRAFICS

11b PRESSURE LOSS DEC DUCTING

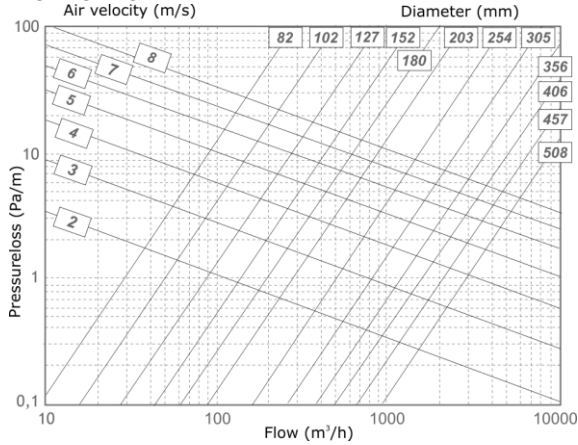
ALUDEC AA3



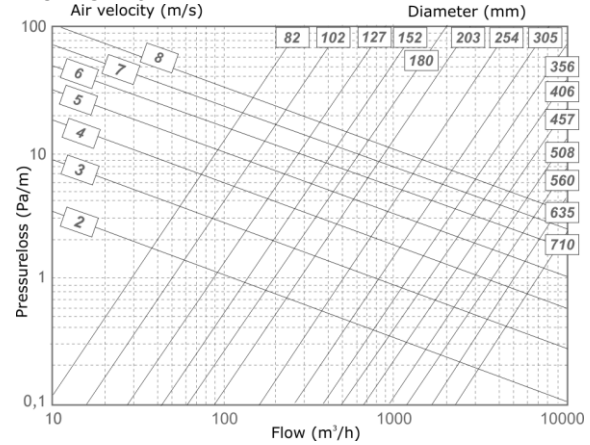
ALUDEC 112



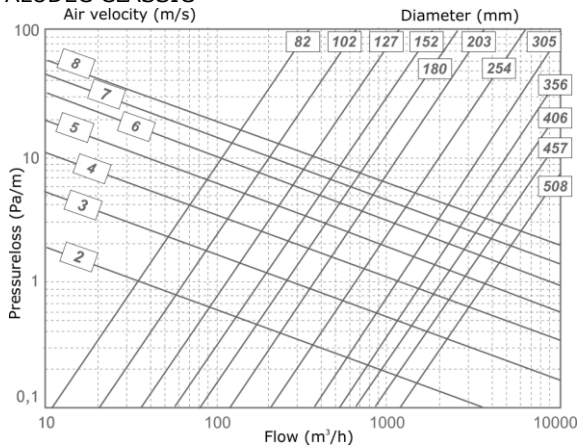
ALUDEC 245



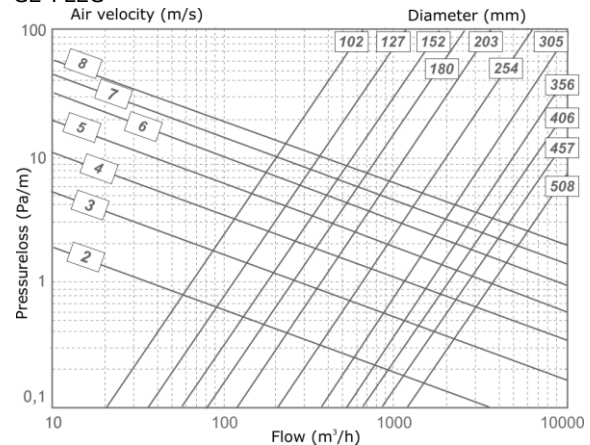
ALUDEC 270



ALUDEC CLASSIC



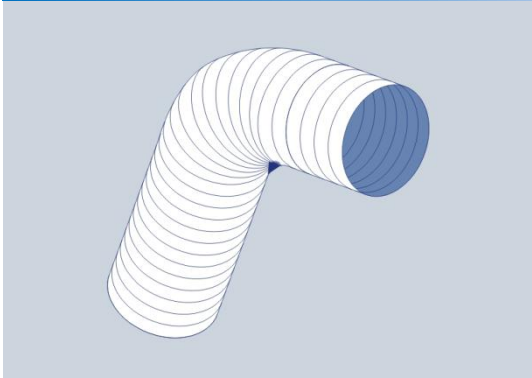
CE-FLEC



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



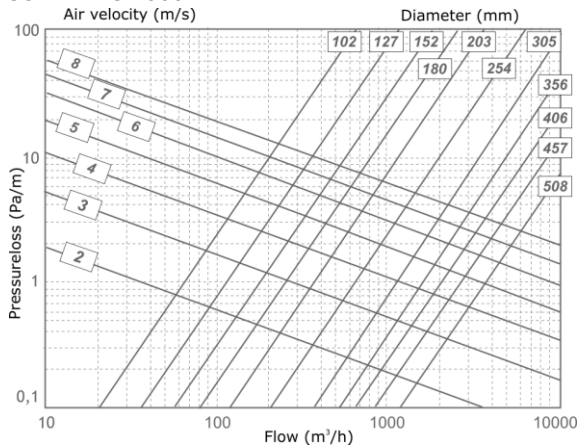
PRESSURE LOSS

FLEXIBLE DUCTING

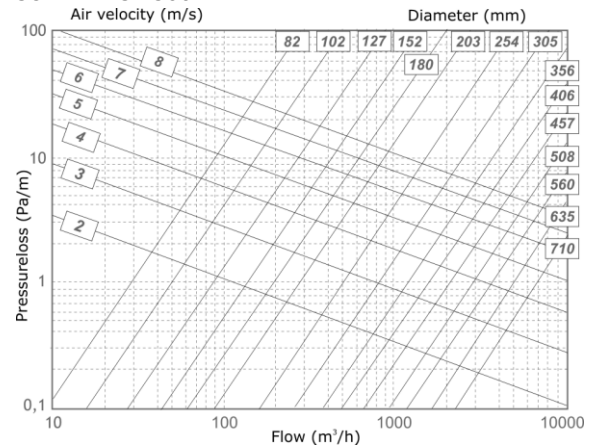
11 GRAFICS

11b PRESSURE LOSS DEC DUCTING

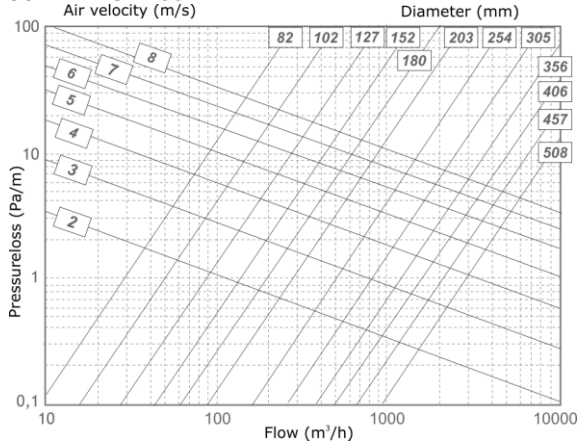
COMBIDEC 2000



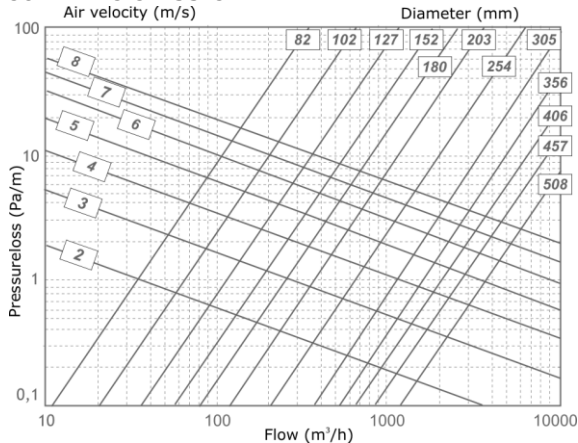
COMBIDEC 2300



COMBIDEC 2100



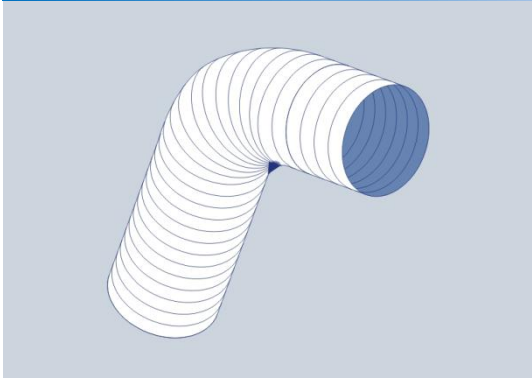
COMBIDEC CLASSIC



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



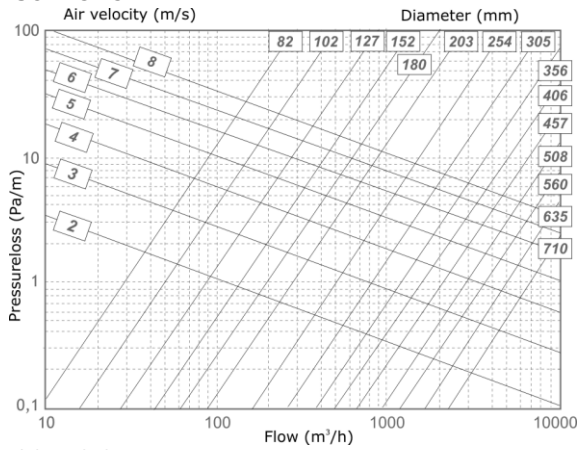
PRESSURE LOSS

FLEXIBLE DUCTING

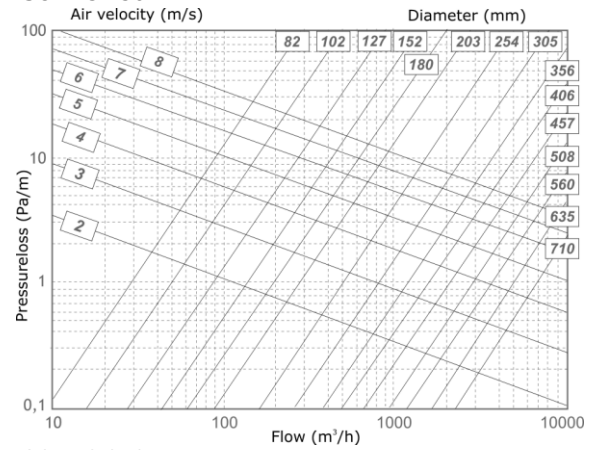
11 GRAFICS

11b PRESSURE LOSS DEC DUCTING

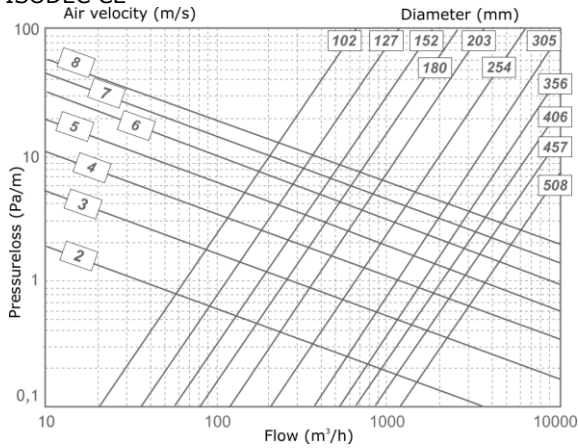
ISODEC 25



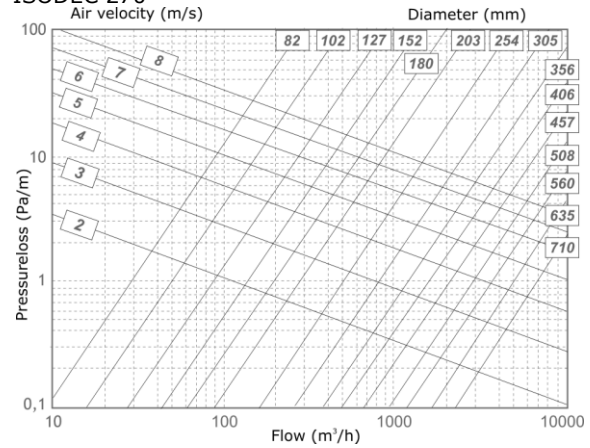
ISODEC 250



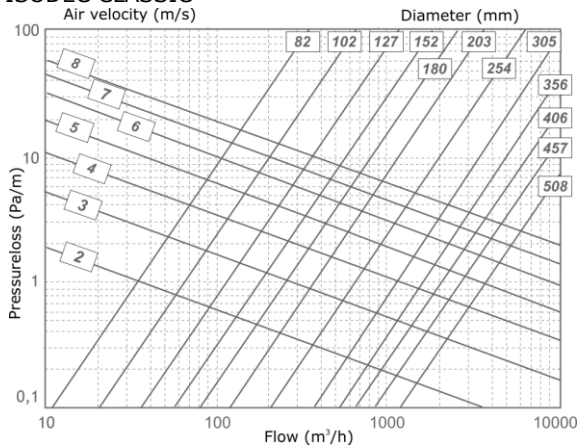
ISODEC CE



ISODEC 270



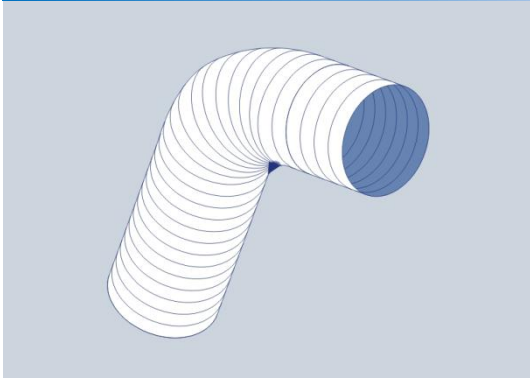
ISODEC CLASSIC



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



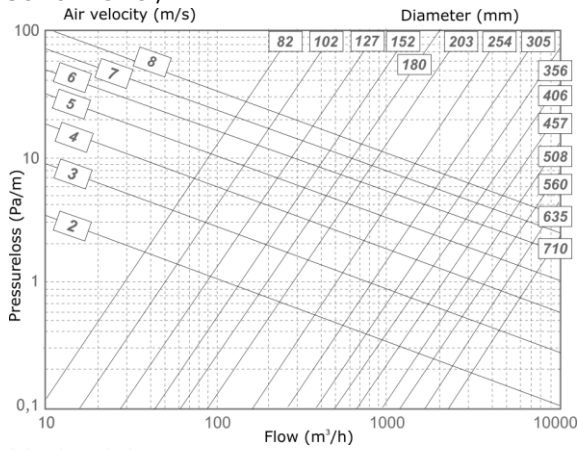
PRESSURE LOSS

FLEXIBLE DUCTING

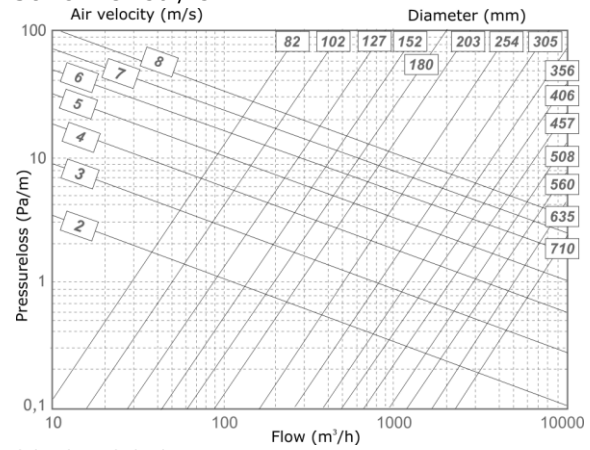
11 GRAFICS

11b PRESSURE LOSS DEC DUCTING

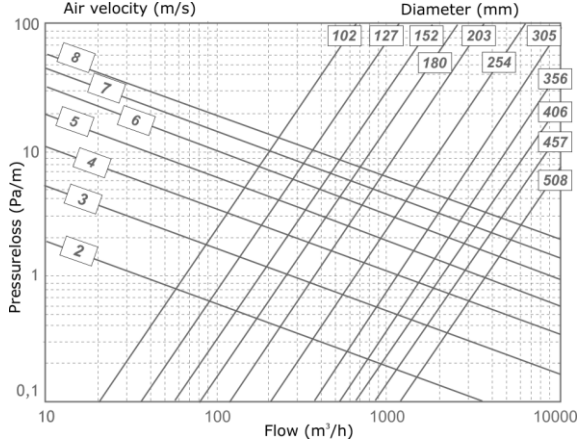
SONODEC 25 / TRD



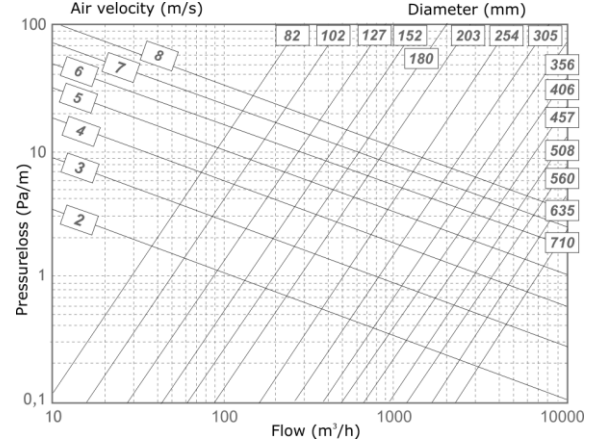
SONODEC 250 / GLX



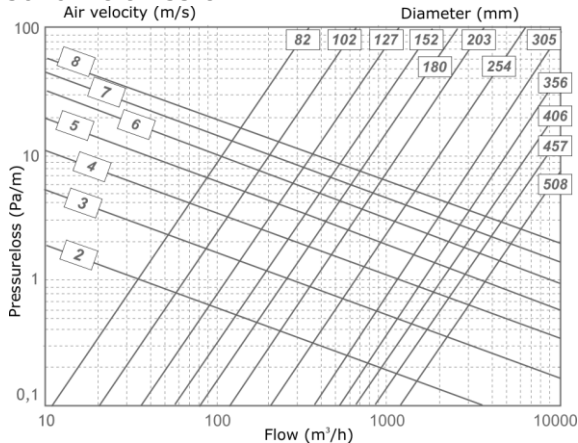
SONODEC CE



SONODEC 270



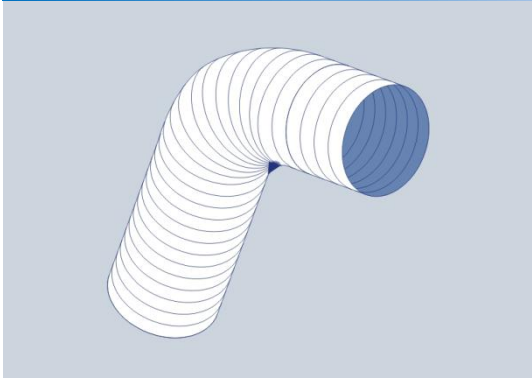
SONODEC CLASSIC



LIABILITY:
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:
ALUDEK, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



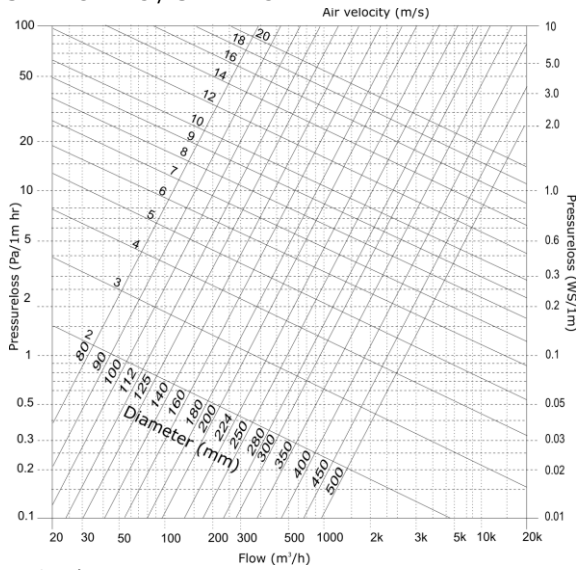
PRESSURE LOSS

FLEXIBLE DUCTING

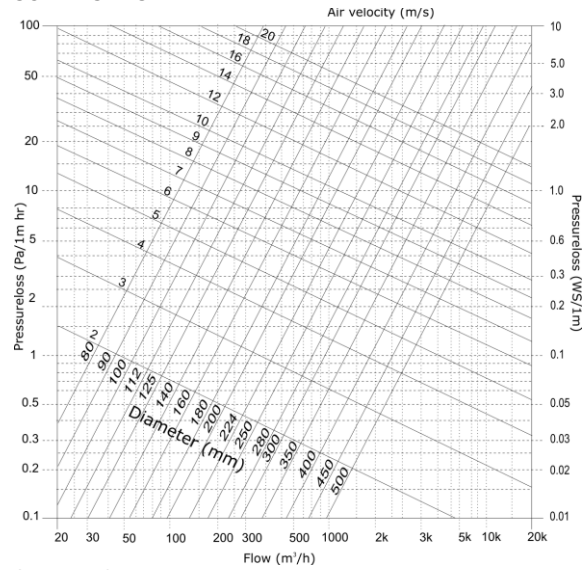
11 GRAFICS

11b PRESSURE LOSS DEC DUCTING

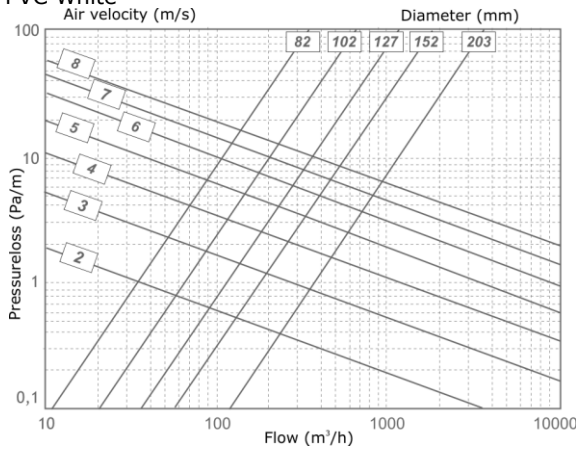
STRETCHDEC / SEMIDEC



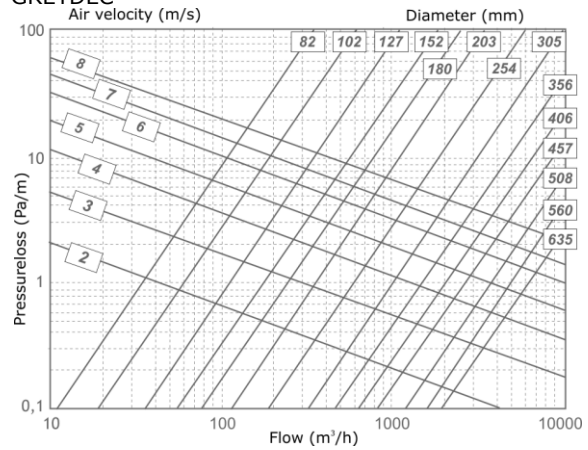
COMPACDEC



PVC White



GREYDEC



LIABILITY:

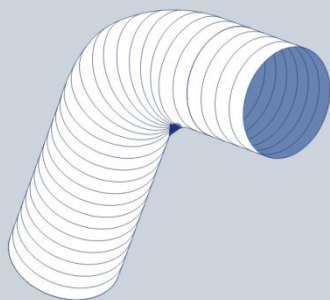
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

ALUDEC, the DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



NEGATIVE PRESSURE

FLEXIBLE DUCTING

1. INTRODUCTION

One of the major elements in a ventilation system is pressure. Air pressure is used absolutely as well as relatively for the density of molecules in a space. If the density is high, the pressure will be high and vice versa. If working with ductwork and ventilation systems, the density can be compared with a density of molecules somewhere else. This is called a difference in air pressure.

Since we live in a more or less standard air pressure of about 1000 hectopascal, pressures could be related to this standard pressure.

A ventilator, pulling air out of the atmosphere and pumping it into a volume, will create a certain pressure difference between the atmosphere and the volume. In this report we just mention pressure if it is related to standard pressure. Since the difference can be positive or negative we will mention positive and negative pressure. Both have been measured in relation to the standard air pressure.

Air ventilation systems can use both positive and negative pressures. This depends on the fact if air has been extracted from or pushed into a volume.

A ventilator, getting fresh air from outdoors, will at first cause a certain negative pressure in the ductwork, between the air inlet and the fan. This negative pressure causes an airflow from outdoors (where the pressure is higher) into the inlet. Depending on the air-resistance of the inlet and the power of the fan, this pressure could increase to dangerous values for our products. In this report we will explain what happens, if negative pressures occur in a duct and what protective action could be taken in order to prevent the ductwork from getting damaged.

2. THE DIFFERENCE BETWEEN POSITIVE AND NEGATIVE PRESSURE

It is very important to consider that positive and negative pressures do not have the same effect on ductwork. A positive pressure in a volume will yield a force of which the direction is pointed outwards. This force is caused by collisions of molecules to the wall of the volume.

3. NEGATIVE PRESSURE IN FLEXIBLE DUCTS

If air has been blown into a balloon, the volume will expand. The higher pressure inside the balloon will give a force and this force will push the wall of the balloon in all directions. Due to the fact that the wall increases in tension, thus causing a reverse force, a balance will be created and the expansion will be brought to a halt. Actually, a negative pressure inside a volume gives the same physical result. A force has been created, but now the direction points inwards the volume. The behavior of the volume depends on the size and the wall structure.

Large volumes appear to be more sensitive to pressure than small volumes. This is clarified by the fact that pressure is equal to a force, being applied to a certain area.

A 1000 Pa pressure would result in a force, caused by a 100 kg weight resting upon a 1m² area. Enlarging the volume (larger diameter) will result in a bigger total force, being applied to the wall surface. It needs no explanation that a flexible duct with a larger diameter has less resistance to negative pressures. A flexible duct could be damaged by negative pressure in two ways. The duct will either be squeezed or subjected to the, so called, domino effect.

Both ways of damaging duct will be explained below.

LIABILITY:

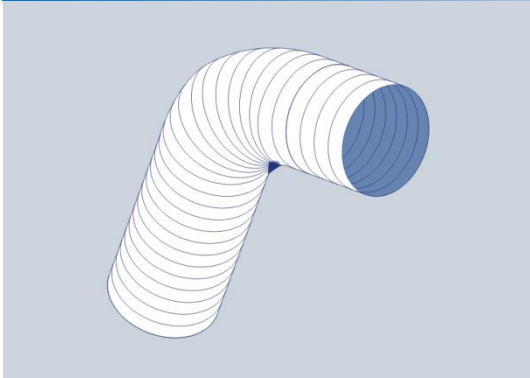
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

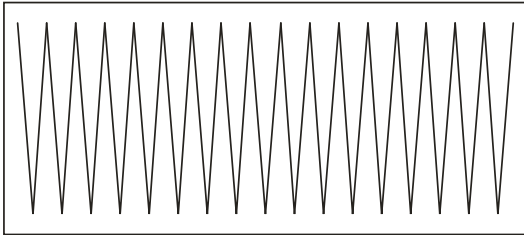
The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



NEGATIVE PRESSURE FLEXIBLE DUCTING

4. THE DOMINO EFFECT

Depending on the structure of the flexible duct several effects can occur.
The most important effect to flexible ductwork will be shown in the next few drawings.



Drawing 1.

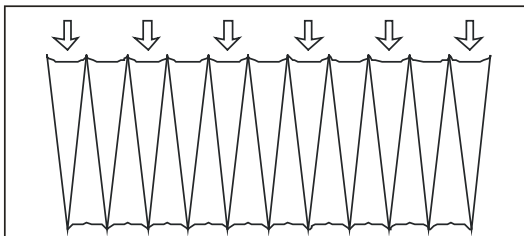
(Drawing 1) This is the normal position of the wire helix inside the wall of a flexible duct, as seen from the side.
The wires of two neighboring windings are connected with the laminate of the duct. Depending on the nature of this material, the wire spacing can be different. The wire prevents the duct from dents etc.

The laminate, however, gives an either stiff or souple behavior to the duct.

We already explained that the force, caused by a negative pressure inside the duct, points inwards the duct. Normally, the direction is perpendicular to the duct wall. In that case the wire, as well as the laminate, will have to resist the force.

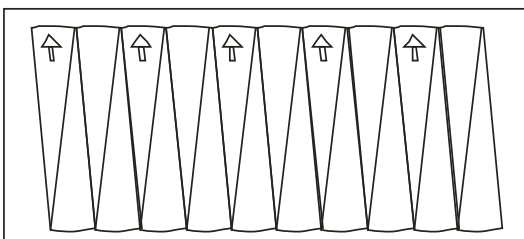
The force has been indicated by arrows, in drawing 2.

The tear resistance of the wall material will now determine the maximum applicable force.



Drawing 2.

This would, more or less, be the same as the maximum positive pressure, of which the arrows point in the reverse direction (drawing 3).



Drawing 3.

LIABILITY:

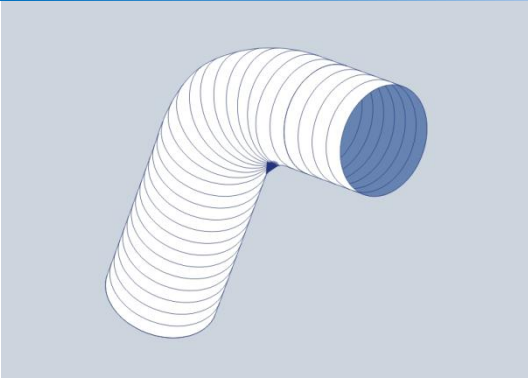
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

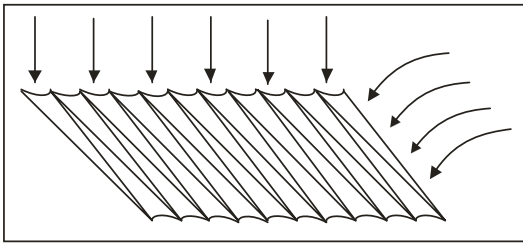
TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



NEGATIVE PRESSURE FLEXIBLE DUCTING

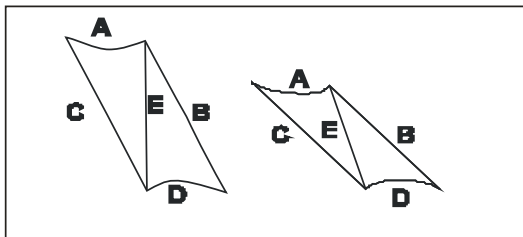
Unfortunately this is not the case. What in fact happens is that the windings will fall like a row of domino stones (see drawing 4). With this movement the volume, inside the duct, has been decreased by the pressing force from outside.



Drawing 4.

For this effect a force with much less strength is enough. It is useful to know which of the important parts of the duct determine the resistance to this domino-effect.

We will have a close view at what is happening.



Drawing 5.

Let us assume that a small piece of duct, drawn at the left, is more or less rectangular. If this has been deformed into the shape of the drawing at the right, the shape becomes a rhomboid. Two major effects will counteract such a movement:

Effect 1 - The wire E will be shortened and the wires B and C will get slightly longer. This has not been done by stretching and shrinking, of course, but a piece of 'E' has been given to B and C. One can imagine that this has been caused by shifting in the warp direction of the wire in the overlap. The wire E will get a sharper curve, the wires B and C will have a less sharp curve. This deforming of the original form of the wire has been counteracted by the wire itself.

Effect 2 - The laminate A, in drawing 5, will not result in any effect, since the distance between the windings at this place remains the same. The same goes for the laminate D at the bottom. The material in the middle of the duct, between B and C, will cause a certain resistance against this movement. This resistance can be compared by taking a piece of paper in a 'portrait' position, while pressing the four corners of the paper against the table with both hands. Use thumbs and forefingers. Now move the left hand away from you, while pressing the two left corners against the table. The paper starts to fold in the middle. You have tried to make a rhomboid out of a rectangular. The same effect occurs with the laminate between each of the two windings, at the side of the duct. Depending on the nature of this material the deforming can be easy or difficult.

Depending on the nature of the materials, mentioned in 1 and 2, the movement in drawing 5, will be counteracted with more or less force. However, this force is much less than the force needed to tear the material itself. This will be done when too high a positive pressure is applied. Therefore the maximum negative pressure, which a flexible duct can resist, is much less than the maximum positive pressure.

With this conclusion, we come to one of the determining elements of the behavior of a flexible duct with negative pressures.

LIABILITY:

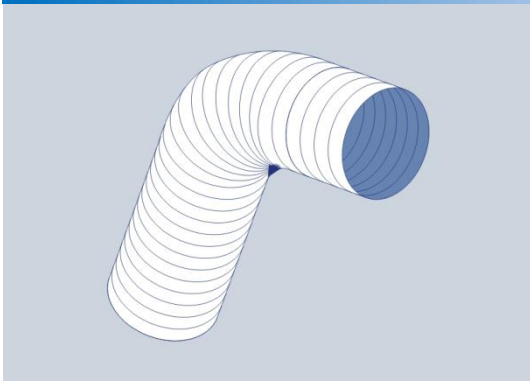
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

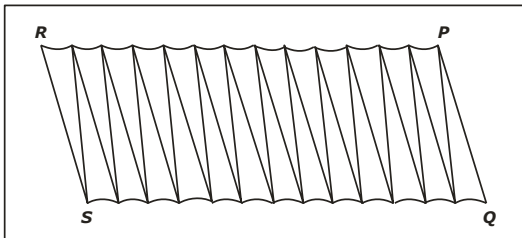


NEGATIVE PRESSURE FLEXIBLE DUCTING

How can we give optimal resistance to negative pressures?

To achieve this, it is necessary to minimize the chance of the domino effect. There are several possibilities of minimizing the chance:

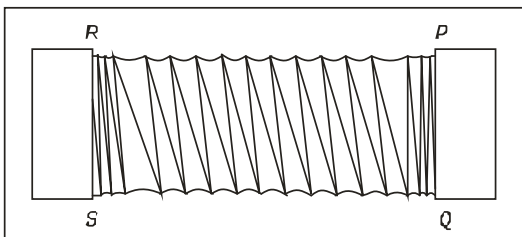
- 1** Stiffer material could be used for the duct wall. The stiffer material will not fold easily and therefore it would be more difficult to deform the rectangular of drawing 5. A less flexible product, however, would be the consequence. In practice it has been shown that an Aludec 112 has a better resistance against negative pressures than a PVC duct has.
- 2** Thicker wire could be used. The toughness of the wire will give resistance to the deforming in 'effect 1'.
- 3** When the pitch of the wire helix has been decreased, it will be more difficult to deform the rectangular of drawing 5. 'A' and 'D' have become shorter and this results in a closer contact between 'C' and 'B'. It will be less easy to move 'C' in relation to 'B'. Decreasing the wire spacing is a very good method of achieving a better resistance to negative pressures. The price of the duct, however, will increase accordingly.
- 4** The last possibility is one of major importance! The first three methods have to be performed by the manufacturer, because of the differences in the structure of the duct wall. The last one could be done by the user of the duct, without making any changes to the actual duct structure. Since this last method has a big influence on the capability of the duct to resist negative pressures, we will give much attention to explaining how and why. Referring to drawing 6, we see a duct, subjected to the domino effect.



Drawing 6

Normally, P, Q, R and S would have been fit to an accessory, which has been attached to the main ventilation system. Therefore P should be straight over Q, the same goes for R and S.

In reality the duct in drawing 6 would have been mounted like drawing 7.



Drawing 7

P is straight over Q now and R over S. The first and the last winding of the wire helix will have to be positioned vertically. The windings in the middle are collapsed, due to the negative pressure inside. The windings in the middle, however, can only be subjected to the domino effect, if there is enough clearance in the material at point P and S. The material at Q has been compressed and the material at P has been extracted, in order to give the wire the possibility of moving according to the domino effect.

LIABILITY:

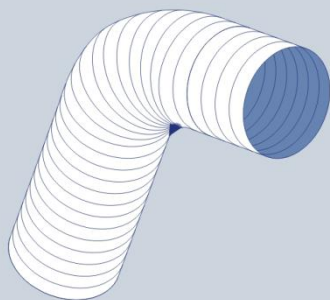
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



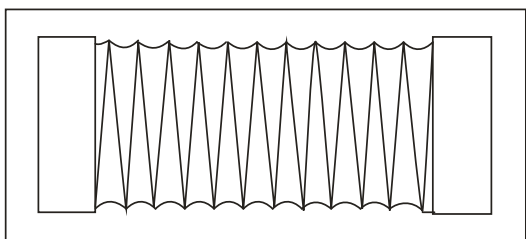
NEGATIVE PRESSURE FLEXIBLE DUCTING

To achieve this, it is necessary to minimize the chance of the domino effect.

When no clearance is available, the laminate will keep the wire in position (drawing 8). This will be done if the flexible duct has been stretched completely and connected between the accessories with a slight tension. It could be said that each winding of the wire has been pulled from both sides and therefore it is not able to move.

This will prevent the domino effect! This installation method will be more difficult if there have to be curves, formed by the duct. Despite of this it is important to mount the duct in the optimal position and to stretch and connect it properly.

We have discussed the first one of two ways of damaging a flexible duct by negative pressures. The second one is squeezing.



Drawing 8

5. SQUEEZING

This effect occurs if the wire helix of the duct is less strong than the wall structure. This means that the wall structure of the duct has a better resistance against the domino effect, than the wire helix has against squeezing.

The deforming, which occurs if a duct has been squeezed, would be the same as if a heavy object should be placed on the duct. The duct will simply become flat. For this action it will be necessary to deform all helix windings to an oval, or even a flat shape.

The wire will be bent at two places in each winding. It is easy to consider that the resistance against this squeeze-effect improves, if the wire thickness increases or the wire spacing decreases. In the latter case there are more windings to resist the force.

This explains why a vacuum cleaner-duct has a thick wire and a very small wire spacing.

It is very important to consider that the resistance of a flexible duct decreases very much, if the diameter is enlarged. Forces on the surface of a duct with a bigger diameter, will put more strain on the wire helix and therefore the duct will squeeze more easily. When too thin a wire has been used for a very big diameter, e.g. 710 mm, the duct will almost be squeezed by its own weight. A very small pressure can be the key to a full collapse.

A user cannot do much to improve the resistance against squeezing. When a duct reaches the end of its capacity, starts to deform and becomes oval, there is nothing the user can do, except from applying less negative pressure or use a better duct.

6. CONCLUSIONS

We have discovered that the behavior of a duct to negative pressure is worse than to positive pressure. Depending on the diameter and the construction of the duct wall the domino or the squeeze effect will occur. If the domino effect occurs first, the user can take some steps to enlarge the ducts behavior greatly by installing it in a proper way. But as soon as the squeeze effect occurs you can be sure that the end limit of the possibilities of the duct has been reached.

A test laboratory can examine the behavior of a flexible duct with negative pressures, but the results will always refer to the test situation and the form of the duct in that particular situation. Transformation during mounting because of treating the material roughly as well as the way of mounting can be of such a great influence that it would not be correct to give values.

LIABILITY:

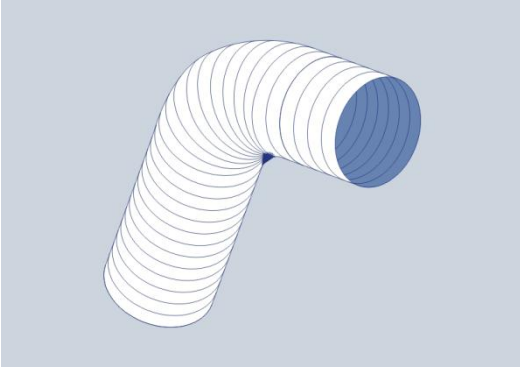
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



FIRE SAFETY

FLEXIBLE DUCTING

1. INTRODUCTION

Why is the fire safety of a duct so important?

An air duct system will be used for the diffusion of the air in a building. This means that the air will be transported from several rooms in the building into a central place: a fan casing or an air conditioning system. When a fire breaks out in one of the connected rooms, there could be a chance that the flames will be transported through the duct system, together with the air which is sucked in.

If the duct system has been built up out of incombustible materials the diffusion in the duct will be restricted. If the system, however, has been built up out of combustible materials there will be a chance that the fire will be transmitted through the duct. In this case the fire can be transferred to a fan casing or an air conditioning system. After destroying these parts the fire will expand to other rooms in the building. A fire is able to reproduce extremely fast to the different stocks of a building by way of air duct systems. Therefore the combustibility of the air duct is of great importance. The wall of a duct has to keep the fire from transmitting as long as possible.

Each country has its own requirements concerning fire safety of ducts and hoses. The requirements are very variously especially comparing Europe with the United States. Many ducts, used in buildings in the United States, are prohibited in Europe for a long time in view of the fire safety. Because no definitive standard has been developed in Europe until now, a manufacturer should have the ducts tested per country, looking forward to a European standard.

DEC INTERNATIONAL® products have been tested in the following countries:

- **The Netherlands**
- **United Kingdom**
- **France**
- **Germany**
- **Austria**
- **Italy**
- **Sweden**
- **Switzerland**

In order to give you a general view about the differences and agreements the, most asked, test results per country will be explained. It is not possible to mention all of them, because the test criteria are moving all the time.

LIABILITY:

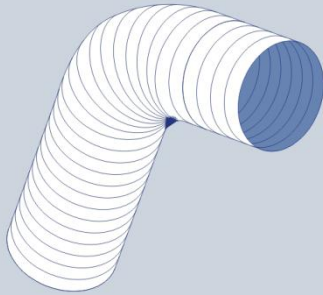
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



FIRE SAFETY

FLEXIBLE DUCTING

2 THE NETHERLANDS

Until 1996 the **NEN 3883** was operative in the Netherlands for the testing of flexible ducts. This norm gives methods for the defining of the contribution to fire transmitting and the method to the defining of the degree of smoke development, caused by the duct in case of a fire. In 1996 the **NEN 3883** has been split up into **NEN 6065** and **NEN 6066**.

NEN 6065 describes the testing methods for the defining of the flame transmission and the contribution to spreading of the flames. **NEN 6066** describes the testing methods for the defining of the smoke production.

2.1. SPREADING OF THE FLAMES

For the defining of the spreading of the flames a sample of the test material will be exposed to the heat of radiation, in such a way that the incident radiation will flow over the surface of the sample in a special direction. At the same time on the place of the greatest radiation intensity a gas flame of a certain dimension will make contact with the sample. The distances over which the flames will move during the first 10 minutes are representative for the spreading of flames of the testing material. This distance will be translated into a flame spreading class.

2.2. FLASH OVER OF THE FLAMES

To the defining of the contribution to the flashing over of the flames two samples of the testing material will be arranged vertically and parallel to one another in a testing cabinet. By means of electrical spiral filaments so much warmth will be added to the cabinet, that flame spreading might occur. The electric energy flow, occurring after some time, are representative for the contribution to flame spreading from the tested side of the material. The materials will be divided into classes during these tests referring to the way the material comes out of the test.

2.3. SMOKE NUMBER INSULATION MATERIALS

The smoke development of an insulation material is explained in the (**smoke number**) (**R**). According to **NEN 3881**:

R < 5	weak smoke development
5 > R < 60	moderate smoke development
60 > R < 150	strong smoke development
R > 150	very strong smoke development

The degree of toxicity of gases, given off in case of a fire, has been defined according to a norm

LIABILITY:

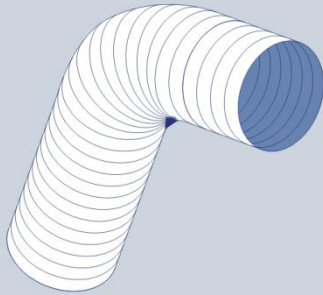
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



FIRE SAFETY

FLEXIBLE DUCTING

3 UNITED KINGDOM

In the United Kingdom three different test methods are applicable to flexible ducts. These three methods are described in one standard: **BS 476 (BS = British Standards)**. This standard has been divided into more paragraphs, where the paragraphs 6, 7 and 20 are applicable to flexible ducts.

3.1. BS 476 part 6

The method, described in **part 6** gives an indication about the amount of energy, released by an increasing of the temperature. This method shows how much the contribution of energy is in case of a fire. During this test a sample will be heated in an oven and the amount of combustible gases, released out of the material, will be measured. The measurement data are controlled with the data of an incombustible material.

3.2. BS 476 part 7

The **BS 476 Part 7** is comparable with the Dutch **NEN 6065**. Here the products are also divided into classes, the lower the class number the less combustible gas will be released out of the product.

3.3. BS 476 part 20

The purpose of **BS 476 part 20** is to observe the properties of a flexible duct in order to prevent that the fire in the duct will be moved from the inside to the outside. The duct has to keep the fire as long as possible inside, in order to prevent the surroundings of the duct to get on fire. The velocity of spreading of a fire in a building depends among other things on this property. During the test in **part 20** an air flow of heated gases, arouse in a hot-air oven, will be lead through a duct in the same way as a fire would move. The temperature of the gas is determined in the **BS 476 part 20**. The test will be stand if the duct (hose) will not produce any holes or spontaneous combustion after 15 minutes. In the report delivered by the testing authority has been stated when exactly this happens. For **DEC INTERNATIONAL®** laminate ducts this happened between 20 and 30 minutes. So the test was stand without any problems.

LIABILITY:

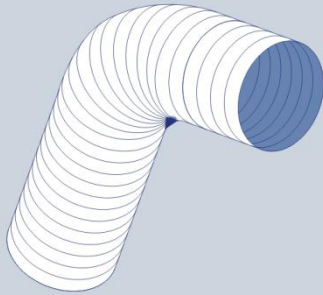
The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.



FIRE SAFETY

FLEXIBLE DUCTING

4 GERMANY

In Germany a great range of tests are applicable to the fire safety or flexible tests, we will describe the most important ones. The German standard for these tests is **DIN 4102**. In Germany the fire class has been divided in two classes: A and B.

4.1. CLASS A

The A-class points to the combination of the elements. A product from the **A1 class** has been built up out of incombustible elements. A product with an **A2** classification has been built up out of combustible and incombustible elements. The tests belonging to this class contain among other things a flame-spreading test. The **A-class** has a control-contract as well. If a product has been tested and classified a contract has to be fixed with the controlling authorities. This authority controls by means of a yearly sampling test whether the product still comes up to the requirements. The inspection will be unannounced and therefore very objective. Each product type will get its own certificate number; this number has to be attached to the product.

4.2. CLASS B

Within the B-class the following difference will be made:

- B1** = hardly combustible
- B2** = not easily combustible
- B3** = easily combustible

The division of the product will be made according to a few, e.g. spreading of the flames.

4.3. TOXICITY

If a duct burns is not only the combustibility of the duct important but also the combination of the smoke. In Germany the combustion products of the **ALUDEC 112** have been tested on toxicity. The combustion gases have been classified into the category: "**Unbedenklich**"

5 FRANCE

In France the flexible ducts have been tested according to the standard **NF P92-501/509**. The sample will be tested in different ways, according to the thickness. During the tests the spreading of the flames and the energy, which will be released, will be tested. According to these data a product will be classified into a M1 class. The M class ranges from M0 up to and including M5. M0 is the best class, in several French building projects the ducts, which are prescribed, have to conform to the class M0 or M1.

The dividing will be made according to the spreading of the flames.

The **DEC INTERNATIONAL®** products have been tested in France by **CSTB/LNE**.

6 AUSTRIA

Austria has, just like Germany, the **fire classes A and B**. The A-class has not been divided, but stays just A. If the product does not burn up at a 750°C temperature it comes up to the classes.

The **B class** has also like in Germany, been divided in the categories **B1, B2 and B3**. The standards for this division and the accompanying test methods have been fixed in the Austrian standard: **Önorm 3800**. The products will be tested, among other things, on spreading of the flames, smoke density and dripping.

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

8.0 PROJECTS

DEC INTERNATIONAL®s complete programme has been prepared in such a way that it will be useful under all circumstances. Therefore DEC could open branches world wide. All-round utility is understood by the **DEC technicians**. The flexibility of the product range and the flexible attitude of the **DEC employees** assures that **DEC** is able to work in many different areas. In this chapter we will give you a compendious survey of our projects in various countries.



AUSTRIA:

- Ares Tower Vienna
- Office park Airport Vienna

BELGIUM:

- Alhambra Brussels
- All Suite Hotel Brussels
- Blue Tower Brussels
- Charlemagne Brussels
- Crédit Lyonnais Brussels
- EEC Building Brussels
- Eurosurie Brussel
- General Hospital Klina Brasschaat
- Innogenetics Gent
- Investissement Foncier Hulpe Brussels
- Les Communautés Brussels
- Montbourg Brussels
- Museum of Arts Gent
- Phoenix Brussels
- Procter and Gamble building Strombeek
- Tenneco Zaventem
- Zaventem Airport Brussels

BULGARIA:

- American Embassy Sofia
- Japanese hospital "Tokuda" in Sofia Vlagoklima Ltd
- "Ultra marine" modern complex of office buildings and apartment flats in Varna
- Bioklima A&R

CHINA:

- Airport Beijng

GERMANY:

- Airport Munich
- Airport Frankfurt
- Westhafen Tower
- Bulgarian Embassy Berlin

GREECE:

- Hyatt Hotel (Salonica)
- Monastery of Lazarines
- Macedonia building (Athens)
- Shelman building (Athens)
- Goulandris Museum of History of Nature
- Athens Academy building
- Cosmote building (Athens)
- Panafon building (Athens)
- New Sparta Airport
- Onassis Heart Surgery Hospital

HONG KONG:

- Apple Daily Post (Tsueng Kwan Workshop)
- Air Cargo Terminal
- Bank of America
- Cathay Pacific Catering Services
- Central Plaza Renovation
- Chai Wan T. I.
- China Fleet Club
- District Court Harbour Road
- Exchange Square Phase I
- Exchange Square Phase II
- Finance Building
- Financial Building
- Grand Hyatt Hotel Renovation
- H-6 Project

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

8.0 PROJECTS



- Hartcourt House
- Happy Valley Grandstand II
- H.K. Convention & Exhibition Centre
- H.K.U. Office 3/F, Admiralty Centre
- H.K.U. of Science & Technology
- H.K.U. of Science & Technology Phase II
- Hong Kong Shanghai Bank Building
- Hong Kong Country Club
- HSBC-Headquarters
- HSBC-664 Nathan Road
- Kai Tak Airport Terminal
- Kai Tak Cargo Terminal
- KCR House
- Luk Kwok Centre
- Macau Cultural Centre
- Man Kam To
- Melbourne House Renovation
- Ngau Chi Wan Market
- N KIL 5909
- N0.9 Queen's Road Development
- Oxford House
- Pacific Phase I
- Pricewater House
- Queensway Government Office
- Ritz Carlton Hotel
- Satin Race & Jockey Club
- Shanghai Pudong International
- Shanghai Hong Qiao Hotel China
- Shenzhen New Overseas Hotel China
- Silver Bay Redevelopment
- Standard Chartered Bank
- Standard Chartered Bank 31/F TO 35/F Renovation
- Tsing Shan Wan Eng. Centre
- T.S.T. Gateway Phase 2 & 3
- Tsuen Wan Govt. Office
- Tsueng Kwan O Area 59 Phase 7
- Tuen Mun Cultural Complex
- Tuen Mun Cultural Complex II
- Wang Tau HOM Phase 12
- Western Urban Council Complex
- World Bank Conference 1997

ITALY:

- Acquario Genova
- Aeroporto Capodichino Airport Napoli
- American Hospital Roma
- Bambino (children's) Hospital Roma
- BNL Bank Roma
- Boheringer Mannheim Offices Monza
- Bolonga Airport Bologna
- Bristol Myers Squibb Pharmaceutical Industry Sermoneta
- Central Railway Station Napoli
- Centro Commerciale Shops Firenze
- CNR Experimental Centre Milano
- CRN Offices Napoli
- Croce Rossa Italiana Offices Venezia
- Della Valle Offices and Factory Massa Carrara
- Divani & Divani Showroom Roma
- Elasis Electronic Industry Napoli
- Emporio Armani Showroom Roma
- Hilton Hotel Milano
- Hospital Trento
- Hotel Congressi Roma
- Hotel Massimo d'Azeglio Roma
- Humanitas Hospital Milano
- I.S.I. S. Antino Laboratories Napoli
- IBM Offices Roma
- IFIS Industry Caserta
- Il Sole 24 ore Offices Milano
- IPER Coop Shops Afragola Napoli
- Jean Louis David Showroom Roma
- Malpensa 2000 Airport Milano

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

8.0 PROJECTS



- McDonald's Fast food Restaurants various locations
- Ministero Interni Roma
- Palazzo della Regione Cagliari
- Palermo Airport Palermo
- RAS Offices Milano
- Roma Airport
- S. Pietro Hospital Roma
- SGS Thomson Catania
- Sirte Conference Rooms Lybia
- Soc. Autostrade Offices Roma
- Telecom Italia Roma
- Universita Cattolica Milano
- Villaggio Valtur Holiday Resort Catanzaro
- Vitro Ciset Offices Roma

JORDAN:

- Dutch Embassy

NETHERLANDS:

- Technical University, faculty of mining
- Schiphol Airport Amsterdam
- Zestienhoven Airport Rotterdam
- Amsterdam Arena (Stadium A.F.C. Ajax)
- Weena building Rotterdam
- Rabo bank Eindhoven
- Rabo bank Rotterdam
- Rabo bank Utrecht
- ING bank Amsterdam
- Philips building
- Roka Energy plant Rotterdam
- PEN Energy plant Alkmaar
- PNEM Energy plant Geertruidenberg
- Music school Eindhoven
- Dutch Railway Co. Headquarters Utrecht
- Congress centre Eindhoven
- Office building Willems shipyards Rotterdam
- Computer centre Ministry of Defence de Lier
- Computer centre municipal hall Rotterdam
- Nationale Nederlanden (Insurances) Headquarters Rotterdam
- Delta Lloyd Main office Rotterdam
- Sky tower Rotterdam
- University Leiden
- Municipal Library Rotterdam
- Technical University, faculty of electrical engineering
- National Air and Space Laboratory Emmeloord
- Academic Hospital Utrecht
- Academic Hospital Leiden
- World Trade Centre Amsterdam
- Institute of veterinary science Lelystad
- Casino Breda
- Casino Den Haag
- Casino Zandvoort
- Airport Zuid-Limburg Beek
- Exchange building Rotterdam
- Hospital Enschede
- Hospital Delft
- Hospital Alkmaar
- Hospital Zoetermeer
- Jail house Zoetermeer
- Office building PTT (national postal services) Den Haag
- Office building PTT (national postal services) Groningen
- Main distribution centre PTT (national postal services) Rotterdam
- Main building Gasunie Groningen
- Royal Palace Noordeinde Den Haag
- Millenium Tower Amsterdam

POLAND:

- Merkurs Hotel Poznan
- The Warsaw Stock Exchange
- Carrefour Supermarket Wroclaw
- Géant Supermarket "Korona" Entertainm. Shopping Centre Wroclaw
- Volkswagen Manufacturing Poznan

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

8.0 PROJECTS

- Petrol Stations Wroclaw
- Sewage Treatment Plant Gdansk
- Radio Studio Wroclaw
- Television Studio Wroclaw
- Coal mine Belchatów
- Ahold Supermarket Rzeszów
- Szalony MAX Supermarkets Krosno en Nowa Sól
- One-family House Olawa
- National Museum



RUSSIA:

- Kremlin
- Moscow Offices
- Ulansky Center
- Riverside Towers Moscow
- Expocentre Moscow
- White House Moscow
- Parliament House Moscow
- UPRK Complex Moscow
- Gazprom Moscow
- Tverskaya Hotel Moscow
- Tverskaya Business Center Moscow
- Vatutinki Hotel Moscow
- Petrograd Hotel St. Petersburg
- Military Houses Baranowitschi
- Military Houses Kiev
- Maternity Hospital Moscow
- Mosenka Hospital Moscow
- Lazurnaya Hotel Soci
- RCC Project
- Kaluga Bank
- Krasnoyorsk Project
- Tschist Project
- Kabardinka Hotel
- GPV Housing Project
- Airport Shermetyevo Moscow
- Airport Domodedova, Moscow
- Hotel Ukriana, Moscow
- Airport Pulkovo St.Petersburg
- Winterpalace, Hermitage St.Petersburg
- Hotel Astoria St.Petersburg

SPAIN:

- Department stores "El Corte Ingles" Spain
- Torre Picaso Madrid
- Edificio Mapfre Barcelona
- Airport Barcelona
- Airport Madrid
- Sant Pau Hospital Barcelona
- Regional Hospital Blanes
- Regional Hospital Mataró
- Cultural Forum Barcelona
- Torre Agbar – Barcelona
- An infinite number of offices and commercial centres Spain

SWEDEN:

- Airport Gardemoen Oslo
- Kvaerner Masa Shi
- Café Opera Stockholm

SWITZERLAND:

- Kloten Airport Zürich
- Skyguide Dübendorf
- Messetum Basel
- DiAx Tower Zürich

SERBIA, MONTENEGRO, FRo MACEDONIA:

- Ministry of internal affairs(Banjica);
- Student Campus;
- Embassy of Canada;
- Embassy of Portugal;
- Embassy of USA;

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

8.0 PROJECTS



- Embassy of UK;
- Yugoslav Drama Theatre,
- Belgrade Drama Theatre;
- Terazije Theatre;
- Madlenianum Theatre;
- Parliament of Serbia and Montenegro;
- Hidrometereological bureue.
- Parliament of Vojvodina – Novi Sad ;
- Clinical Centre-Nis
- Hotels:Belgrade; „Slavija“ , „Srbija“ , „Mladost“ ;„Tadz“Novi Pazar; „Moravica“ – Soko Banja; „Bern“Struga; „Neda-Zamit“ – Rudnik; „Montenegro“ – Becici; „Tis“ – Zajecar;
- Banks: Beograd; „Zepter Bank“, „Delta Bank“, Exim Bank“, „Nacional Bank of Greece“, „AIK Bank“ „Air Bank“ – Kragujevac; „Bank of Cacak“ – Gornji Milanovac; „Delta Insurance“ – Nis; „Delta Bank“ – Nis; „Nacional Bank of Greece“Nis; „Aik Bank“ – Nis; „Delta Bank“Pancevo; „Exim Bank“Zajecar; „National Bank of Greece“Krusevac; „National Bank of Greece“Pozarevac; „Nacional Bank of Greece“Subotica; „Nacional Bank of Greece“Cacak; „Nacional Bank of Greece“Vranje; „Nacional Bank of Greece“-Zrenjanin
- Restaurants: Belgrade; „Srpski konak“ , „Pink“ , „Molen“ „Porto“; „Dvor“ Novi Sad
- Companies: Belgrade; „Pionir“ „Maxi Discount (about 20 objects); Super markets: „Veropulos“, „Merkator“; car shop „Verano Motors, Tennis club „Djukic“, „Mobte; 063“ ; house of fashion“Legend“ ; department store „Big bull“ ; new trade centre „ in Makedonska 32 street ; „Plenet“ ; „Milenijum“ ; „Tera Nova“ ; „RTS“ ; „B92“ ; „GTC“ ; health centre „Vracar“; health center „Zvezdara“; Committee for protection of life enviroment ; KBC „Bezanijska kosa“ ; KBC „Dragisa misovic“; Filharmony of Belgrade, Airport; „Knjaz Milos“ –Arandjelovac; „Protein“Becej; „Pionir –Mega Market“Subotica; Mega market „Rodic“ – Indjija; Tabacco factory „Monus“ – Indjija; „McDonalds“Podgorica – „Hemofarm Engineering“ – Podgorica; „Telecom Monetenegro“Podgorica; „McDonalds“-Budva; „Mip“-Pancevo; „Medela“ – Vrbas; „Boja“-Sombor; „Tehnomat“Novi Sad; „RTS“Novi Sad; „MB Braca Roric“ BreweryNovi Sad; Clinical Centre-Novi Sad; „Marbo product“Novi Sad; „Metalac“-Gornji Milanovac; „Visol“-Cacak; „Kolubara“-Vreoci; „Heba“-Bujanovac; „Hemofarm Engineering“Vrsac; „Juhor“-Jagodina; „Somboled“-Sombor;„Building of the Police“-Valjevo
- Others objects:Blocks of flats L1-L5 (Bezanijska kosa) ; stadium „Obilic“ ; TV studi „Pink“; TV studio Vrsac ; Hall of sports: Belgrade arena“ ; cement plant “Popovac“, cultural and trade center „Sava Centre“ ;

SOUTH KOREA:

- The Blue House Presidential Residence
- The National Assembly Building
- Building Assembly Hall
- Public Prosecutors Office Building
- Central Government Building
- Pusan Local Government Building
- Pundang Local Government Building
- Diplomacy Center Building
- National Assembly constitutional government memorial Center
- Concert Hall of Art
- National Central Museum
- National Korean Music Hall
- Korean Broadcasting System
- International Broadcasting System
- Seoul Broadcasting System
- Buddhism Broadcasting System
- Christian Broadcasting System
- Peace Broadcasting System
- Lotte Department Store
- Shinseggyue Department Store
- New Core Department Store
- LG Department Store
- Grace Department Store
- Lotte Hotel
- Intercontinental Hotel
- Kal Hotel
- Grand Hotel
- Olympia Hotel
- Paradise Hotel
- Seoul University General Hospital Polyclinic
- Samsung Medical Institution
- Kumi Medical Center
- Korean Communication Center
- Seoul Communication Center
- Korean Public Energy Corporation
- Kwangyang Iron Mill
- Pohang Iron Mill
- Samsung Semiconductor Center
- Samsung Electron Building
- Samsung Life Building

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

8.0 PROJECTS

- Samsung Motor Center Building
- Hyundai Security Building
- Asiana Airline Building
- The Bank of Korea
- Korea Hanmi Bank
- Branch of Chase Manhattan Bank
- Jungang Ilbo Newspaper Building
- Kukmin Ilbo Newspaper Building
- Asem World Trade Center Building
- Incheon International Airport
- various Subway stations



TURKEY:

- Demirbank
- Kempinski Hotel
- Çiracan Palace Istanbul
- Swiss Hotel Bosphorus Istanbul
- Movenpick Hotel Istanbul
- Hilton Conrad Hotel Istanbul
- Akgûn Hotel Istanbul
- Penta Hotel Istanbul
- Holiday Inn Istanbul
- Hyatt Regency Hotel Istanbul
- Sultanahmet Hotel Istanbul
- Sabanci Business Center Istanbul
- Akmerkez Istanbul
- Çamlica Business Center Istanbul
- Üçem Business Center Istanbul
- Esbank HQ Istanbul
- Türk Ticaret Bankasi HQ Istanbul
- Milli Reasürans Binalari Istanbul
- Mustafa Nevzat Factory Istanbul
- Roche Factory Istanbul
- Eczacıbaşı Factory Istanbul
- Milliyet Newspaper Istanbul
- Istanbul Stock Exchange Istanbul
- Lapis Business Center Istanbul
- Cağaloğlu Hali Sarayı Istanbul
- Barboros Hotel Istanbul
- Anadolu Endüstri Holding Merkez Bina Istanbul
- Istanbul CNR Istanbul
- Migros Galleria Istanbul
- Arçelik Çayırova Factory Istanbul
- Üçem Plaza Istanbul
- Sinai Yatırım Bankasi Istanbul
- Esbank Istanbul
- Yapi Kredi Bankasi HQ Istanbul
- Demirbank HQ Istanbul
- Korteks Business Center Istanbul
- İbankasi HQ Istanbul
- Istanbul Tekstilciler Merkezi Istanbul
- Osmanli Bankasi Istanbul
- Inco Business Center Istanbul
- Four Seasons Hotel Istanbul
- Arçelik Engineering Building Gebze
- Arçelik HQ Gebze
- Emlakbank Yahya Kaptan Konutlari Izmir
- Hilton Hotel Izmir
- Büyük Efes Hotel Izmir
- Eylül Universitesi Izmir
- Reynolds Sigara Fabrikasi Izmir
- Philsa Philip Morris Sabanci Sigara Fabrikasi Izmir
- Migros/Balçova Izmir
- Karum Business Center Ankara
- An Tubitak Binalari kara
- Emlabank Elvankent Konutlari Ankara
- Aselsan Elektrooptik Fabrikasi Ankara
- Başari Elektronik Fabrikasi Ankara
- Halk Bankasi HQ Ankara
- Ankara Alüminyum Ankara
- Metro Grosmarket Bursa

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

8.0 PROJECTS

- Tofa□ Idare Binasi Bursa
- Ramada Hotel Mersin
- Migros Adana
- Club Hotel Sirene Antalya
- Club Mega Saray Antalya
- Zeynep Hotel Antalya
- Mega Kiri□ Hotel Antalya
- Lapis Serbest Bölge Tesisleri Antalya
- Lapis Çimtur Tesisleri Antalya
- Perge Turistik Sati□ Tesisleri Antalya
- Lapis Tesisleri Selçuk
- Robinson Club Fethiye
- Hapimag Hotel Bodrum
- Arttek Marmaris Hotel Marmaris



UNITED KINGDOM:

- Gatwick Airport London

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

9.0 CHEMICAL RESISTANCE

ALUMINIUM FOIL

	NORMAL CONDITIONS						HUMID CONDITIONS					
	S	E	G	F	P	NR	S	E	G	F	P	NR
ACETIC ACID				•								
ACETONE			•									
ACETYLENE			•									
AMMONIA			•									
BENZENE			•								•	
BROMINE			•								•	
BUTANE			•									
CARBON DIOXIDE			•							•		
CHLORINE			•								•	
ETHENE												
FORMALDEHYDE				•								
HELIUM			•									
HYDROGEN			•									
HYDROCHLORIC ACID												
METHANE			•									
METHANE CARBOXYLIC ACID												
METHANOL												
METHYL BENZENE												
NEON			•									
NITRIC ACID					•							
NITROGEN			•									
OZONE				•								
PHENOL				•								
PHOSPORIC ACID					•							
PROPANE			•									
SULPHUR			•									
SULPHURIC ACID					•							
SULPHUROUS ACID				•								
TOLUENE			•									
WATER				•								

S = Superior F = Fair
 E = Excellent P = Poor
 G = Good NR = Not recommended

CHEMICAL RESISTANCE

COATED FABRICS (GREYDEC)

	NORMAL CONDITIONS						HUMID CONDITIONS					
	S	E	G	F	P	NR	S	E	G	F	P	NR
ACETIC ACID												
ACETONE						•						•
ACETYLENE		•						•				
AMMONIA SOLUTION				•						•		
AMMONIA CONCENTRATED				•						•		
BENZENE						•						•
BROMIDE			•						•			
BUTANE		•						•				
CARBON DIOXIDE	•						•					
CHLORINE	•						•					
ETHANE		•						•				
FORMALDEHYDE												
HELIUM	•						•					
HYDROGEN	•						•					
HYDROCHLORIC ACID		•						•				
METHANE		•						•				
METHANE CARBOXYLIC ACID			•						•			
METHANOL				•						•		
METHYL BENZENE				•						•		
NEON		•						•				
NITRIC ACID			•						•			
NITROGEN	•						•					
OZONE			•						•			
PHENOL			•						•			
PHOSPHORIC ACID 30%			•						•			
PROPANE		•						•				
SULPHUR	•						•					
SULPHURIC ACID 50% SOLUTION		•						•				
SULPHUROUS ACID 30% SOLUTION		•						•				
TOLUENE						•						•
WATER	•						•					

S = Superior
F = Fair
P = Poor

E = Excellent
G = Good
NR = Not recommended

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

CHEMICAL RESISTANCE

POLYESTER FOIL

	NORMAL CONDITIONS						HUMID CONDITIONS					
	S	E	G	F	P	NR	S	E	G	F	P	NR
ACETIC ACID												
ACETONE		•						•				
ACETYLENE		•						•				
AMMONIA SOLUTION					•						•	
AMMONIA CONCENTRATED						•						•
BENZENE		•						•				
BROMINE		•						•				
BUTANE		•						•				
CARBON DIOXIDE		•						•				
CHLORINE		•						•				
ETHENE		•						•				
FORMALDEHYDE												
HELIUM		•						•				
HYDROGEN		•						•				
HYDROCHLORIC ACID				•						•		
METHANE		•						•				
METHANE CARBOXYLIC ACID		•						•				
METHANOL		•						•				
METHYL BENZENE		•						•				
NEON		•						•				
NITRIC ACID				•						•		
NITROGEN		•						•				
OZONE			•						•			
PHENOL			•						•			
PHOSPHORIC ACID 30%		•						•				
PROPANE		•						•				
SULPHUR			•						•			
SULPHURIC ACID 50% SOLUTION				•						•		
SULPHUROUS ACID 30% SOLUTION				•						•		
TOLUENE												
WATER	•						•					

S = Superior E = Excellent
 G = Good F = Fair
 P = Poor NR = Not recommended

CHEMICAL RESISTANCE

PVC

	NORMAL CONDITIONS						HUMID CONDITIONS					
	S	E	G	F	P	NR	S	E	G	F	P	NR
ACETIC ACID						•						•
ACETONE												
ACETYLENE												
AMMONIA SOLUTION		•										
AMMONIA CONCENTRATED						•						
BENZENE						•						•
BROMINE						•						•
BUTANE		•						•				
CARBON DIOXIDE		•						•				
CHLORINE												
ETHENE												
FORMALDEHYDE												
HELIUM												
HYDROGEN		•						•				
HYDROCHLORIC ACID		•						•				
METHANE												
METHANE CARBOXYLIC ACID												
METHANOL												
METHYL BENZENE												
NEON												
NITRIC ACID			•						•			
NITROGEN	•						•					
OZONE		•						•				
PHENOL						•						•
PHOSPORIC ACID 30%			•						•			
PROPANE			•						•			
SULPHUR												
SULPHURIC ACID 50% SOLUTION		•						•				
SULPHUROUS ACID 30% SOLUTION			•						•			
TOLUENE	•						•					
WATER	•						•					

S = Superior F = Fair
 E = Excellent P = Poor
 G = Good NR = Not recommended

LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

The DEC logo and DEC International are trademarks, or registered trademarks of Dutch Environment Corporation BV in the Netherlands and/or other countries.

CHEMICAL RESISTANCE

ASB TAPE

	NORMAL CONDITIONS						HUMID CONDITIONS					
	S	E	G	F	P	NR	S	E	G	F	P	NR
ACETIC ACID				•						•		
ACETONE			•						•			
AMMONIA			•							•		
BENZENE			•								•	
BROMINE					•						•	
BUTANOL			•						•			
CARBON DIOXIDE			•							•		
ETHANOL			•						•			
FORMALDEHYDE				•						•		
HELIUM			•						•			
HYDROGEN			•						•			
HYDROCHLORIC ACID					•						•	
METHANOL			•						•			
NITRIC ACID UP					•						•	
NITROGEN			•						•			
OZONE				•						•		
PHENOL				•						•		
PHOSPORIC ACID					•						•	
PROPANE			•						•			
SULPHUR			•									
SULPHURIC ACID UP					•						•	
TOLUENE			•						•			
UV RADIATION			•						•			
WATER			•						•			

S = Superior F = Fair
 E = Excellent P = Poor
 G = Good NR = Not recommended

CHEMICAL RESISTANCE

PSB TAPE

	NORMAL CONDITIONS						HUMID CONDITIONS					
	S	E	G	F	P	NR	S	E	G	F	P	NR
ACETIC ACID			•						•			
ACETONE					•						•	
AMMONIA			•							•		
BENZENE					•						•	
BROMINE					•						•	
BUTANOL			•						•			
CARBON DIOXIDE			•						•			
ETHANOL			•						•			
FORMALDEHYDE				•						•		
HELIUM			•						•			
HYDROGEN			•						•			
HYDROCHLORIC ACID			•						•			
METHANOL			•						•			
METHYLENECHLORIDE					•						•	
NITRIC ACID UP TO 30%			•						•			
NITRIC ACID UP OVER 30%				•						•		
NITRIC ACID UP OVER 90%					•						•	
NITROGEN			•						•			
OZONE				•						•		
PHENOL				•						•		
PHOSPORIC ACID			•						•			
PROPANE			•						•			
SULPHUR			•						•			
SULPHURIC ACID UP TO 70%			•						•			
TOLUENE					•						•	
UV RADIATION				•						•		
WATER		•						•				

S = Superior F = Fair
 E = Excellent P = Poor
 G = Good NR = Not recommended

DEC FLEXIBELE SLANGEN EN HUN AKOESTISCHE EIGENSCHAPPEN

DEC International[®] Semi flexibele geluidsdempers zijn de oplossing voor de akoestische problemen in de luchtbehandelingsystemen en mechanische ventilatie.

In het akoestisch laboratorium van **PEUTZ BV** zijn de volgende typen en diameters gemeten.

Type **AKUDEC**[™] 25

L=600 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

L=1200 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

Type **AKUDEC**[™] 50

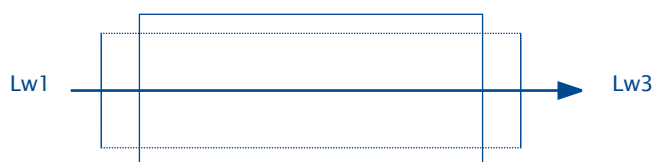
L=1200 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

Zowel de geluidsdemping als de wandreductie zijn gemeten voor de bovengenoemde lengten. De metingen zijn uitgevoerd conform de norm: **ISO 7235:2003** "Akoestiek - Laboratorium meetprocedures voor geluidsdempers in kanalen en luchtverdeelssystemen - Tussenschakelverzwakking, stromingsgeluid en totaal drukverlies". De norm ISO 7235 is binnen alle landen van de EU aanvaard als Europese Norm **EN-ISO 7235:2003**.

Op verzoek zijn kopieën van de originele meetrapporten ter inzage verkrijgbaar. Deze kopie-rapporten blijven echter eigendom van **Dutch Environment Corporation**[®] B.V. en mogen zonder diens toestemming niet worden gekopieerd of aan derden ter inzage worden verstrekt.

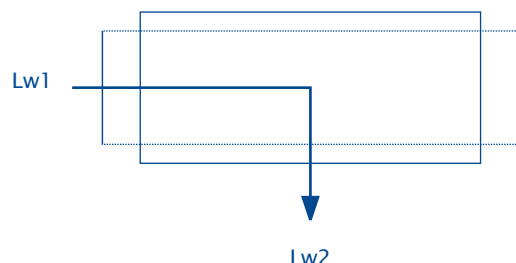
Met betrekking tot de bijgaande grafieken kan het volgende worden toegelicht:

Demping



De demping is het verschil tussen het geluidsvermogen **Lw1** in het meetkanaal vóór de slang en het geluidsvermogen **Lw3** in het meetkanaal ná de slang (gemiddeld over drie meetplaatsen).

Wandreductie



De wandreductie is het verschil tussen het geluidsvermogen **Lw1** in het meetkanaal vóór de slang (gemiddeld over drie meetplaatsen) en het afgestraalde geluidsvermogen **Lw2** in de nagalmkamer (gemiddeld over de ruimte met behulp van een draaiende microfoon).

AKUDEC[™] geluidsdempers.

De **AKUDEC**[™] demper van **DEC International**[®] heeft een binnenslang van geperforeerd en geprofileerd aluminium, omringd door een 25mm (**AKUDEC**[™]50 een 50mm) isolatiedeken en de slang is standaard aan beide zijden voorzien van metalen aansluitbussen voor een rechtstreekse montage aan het starre leidingsysteem of apparaat.

Dutch Environment Corporation[®] BV **DEC International**[®]

Ir. Hanlostraat 18-22 - Postbus 35
NL-7500 AA Enschede
Tel.: +31(0)53 4302675
Fax: +31(0)53 4302685
www.decinternational.com
decinternational@decinternational.com

Data rechtstreeks ontnomen uit:
Rapportnummer : A1672-1
Datum : 08-2007

PEUTZ BV
Lindelaan 41, Molenhoek,
Postbus 66, 6585 ZH, Mook
Tel.: +31(0)24 3570707
Fax: +31(0)24 3585150
Info@mook.peutz.nl
www.peutz.nl

DEC FLEXIBLE HOSES AND THEIR ACOUSTIC PROPERTIES

DEC International® Semi flexible sound attenuators are the solution to the acoustic problems in air treatment and mechanical ventilation systems.

The following types and diameters have been measured in the acoustic laboratory of **PEUTZ BV**:

Type AKUDEC™ 25

L=600 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm
 L=1200 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

Type AKUDEC™ 50

L=1200 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

The sound attenuation and wall reduction levels have been measured for the types and diameters of the above-mentioned lengths.

The measurements were carried out in accordance with the Norm: **ISO 7235:2003** "Acoustics - Laboratory measurement procedures for ducted silencers and air-terminal units - Insertion loss, flow noise and total pressure loss".

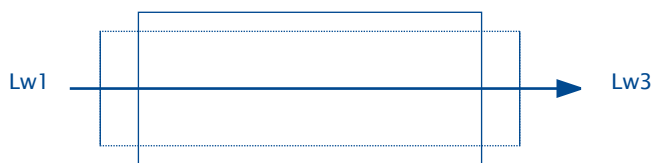
The Norm **ISO 7235** is in all EC countries accepted as European Norm **EN-ISO 7235:2003**

Copies of the original test results are available for inspection on request. The copies of the results remain the property of

Dutch Environment Corporation® **B.V.** and may not be copied or made available to others for inspection without permission.

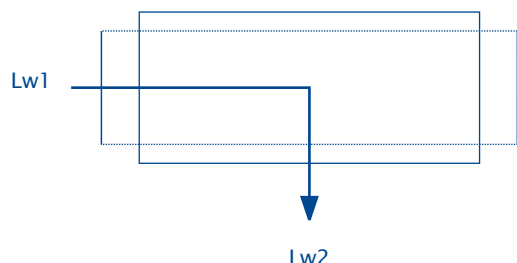
The following explanations refer to the enclosed graphics:

Attenuation



Attenuation is the difference between the acoustic capacity **Lw1** in the test channel in front of the ducting and the acoustic capacity **Lw3** in the test channel after the ducting (averaged over three measuring points).

Wall Reduction



Wall reduction is the difference between the acoustic capacity **Lw1** in the test channel in front of the ducting (averaged over three measuring points) and the radiated acoustic capacity **Lw2** in the reverberant room (averaged over the whole space by using a rotating microphone).

AKUDEC™ Sound attenuators

The **AKUDEC™** sound attenuator from **DEC International**® has a perforated and corrugated aluminium innerduct, enclosed within a 25mm (**AKUDEC™ 50** a 50mm) insulation layer and provided with an aluminium layered outer jacket strengthened with glass fibre. The duct is standard fitted with metal sleeves at both ends to fit to any rigid ductwork or appliance instantly.

Dutch Environment Corporation® BV

DEC International®

Ir. Hanlostraat 18-22 - P.O.Box 35
 NL-7500 AA Enschede
 Tel.: +31(0)53 4302675
 Fax: +31(0)53 4302685
www.decinternational.com
decinternational@decinternational.com

Data extracted from:

Reportnumber : A1672-1
 Date : 08-2007

PEUTZ BV

Lindelaan 41, Molenhoek,
 P.O.Box 66, 6585 ZH, Mook
 Tel.: +31(0)24 3570707
 Fax: +31(0)24 3585150
Info@mook.peutz.nl
www.peutz.nl
peutz.london@tiscali.co.uk

FLEXIBLE SCHLÄUCHE VON DEC UND IHRE AKUSTISCHEN EIGENSCHAFTEN

DEC International® Semi-flexiblen, Telefonie Schalldämpfer sind die Lösung für die akustischen Probleme, die bei Raumluftsystemen und mechanischer Ventilation auftreten.

Im akustischen Labor von **PEUTZ BV** sind folgende Typen und Durchmesser geprüft worden:

Type AKUDEC™ 25

L=600 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm
L=1200 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

Type AKUDEC™ 50

L=1200 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

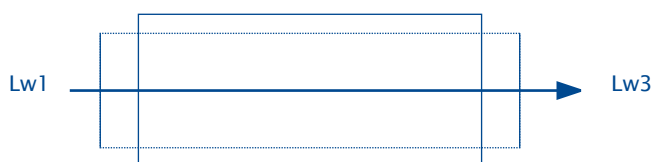
Von allen Typen und allen Durchmessern wurden sowohl die Schalldämpfung als auch die Wandreduktion bei oben aufgeführten Längen gemessen.

Messungen sind gemäß **ISO 7235:2003** "Akustik - Labormessungen an Schalldämpfern in Kanälen - Einfügungsdämpfung, Strömungsgeräusch und Gesamtdruckverlust" (Deutsche Fassung **EN ISO 7235:2003**) vorgenommen worden.

Auf Anfrage sind Abschriften der Originalmeßberichte zur Einsicht erhältlich. Diese Abschriften bleiben jedoch Eigentum von **Dutch Environment Corporation® B.V.** und dürfen ohne vorherige Genehmigung von **Dutch Environment Corporation® B.V.** nicht kopiert oder Dritten zur Einsicht ausgehändigt werden.

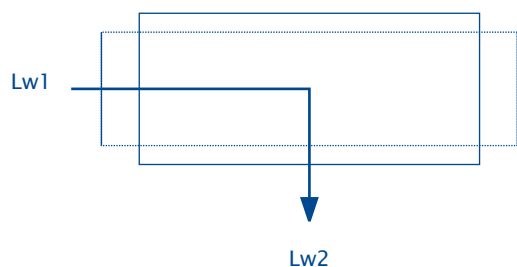
Bezüglich beiliegender graphischer Darstellungen ist folgendes zu erläutern:

Dämpfung



Unter "Dämpfung" versteht man die Differenz zwischen dem Schalleistungspegel **Lw1** im Prüfkanal vor dem flexiblen Schlauch (gemittelt über drei Meßstellen) und den Schalleistungspegel **Lw3** im Prüfkanal hinter dem flexiblen Schlauch.

Wandreduktion



Unter "Wandreduktion" versteht man die Differenz zwischen dem Schalleistungspegel **Lw1** im Prüfkanal vor dem flexiblen Schlauch (gemittelt über drei Meßstellen) und dem in Hallraum abgestrahlten diffusen Schalleistungspegel **Lw2** (ermittelt mit dem Schwenkarm-Mikrofon).

AKUDEC™ Telefonie Schalldämpfer

Der **AKUDEC™** Dämpfer von **DEC International**® ist mit einem perforierten und profilierten Aluminium Innenschlauch versehen, der von einer 25mm (**AKUDEC™ 50** mit einer 50mm) dicken Isolierschicht und der Außenmantel ist ein glasfaserverstärktes aluminium Laminat. Der Schalldämpfer ist beidseitig mit metall Anschlußstutzen versehen zum direkten Anschluss an starren systemen und Apparaten.

Dutch Environment Corporation® BV DEC International®

Ir. Hanlostraat 18-22 - P.O.Box 35
NL-7500 AA Enschede
Tel.: +31(0)53 4302675
Fax: +31(0)53 4302685
www.decinternational.com
decinternational@decinternational.com

Daten aus:
Prüfbericht : A1672-1
Datum : 08-2007

PEUTZ BV
Lindelaan 41, Molenhoek,
Postfach 66, 6585 ZH, Mook
Tel.: +31(0)24 3570707
Fax: +31(0)24 3585150
Info@mook.peutz.nl
www.Peutz.nl / www.peutz.de

DEC FLEXIBLE HOSES AND THEIR ACOUSTIC PROPERTIES

DEC International® Semi-flexibla ljuddämpare är lösningen på de akustiska problemen vid luftbehandling och mekaniska ventilationssystem.

Följande typer och diametrar har uppmätts i **PEUTZ BVs** akustiska laboratorium:

Typ AKUDEEC 25

L=500 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm
L=1000 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

Typ AKUDEEC 50

L=1000 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

Ljuddämpnings- och väggreduceringsnivåerna har uppmätts för typerna och diametrarna för ovannämnda längder.

Mätningarna utfördes enligt Norm:

ISO 7235: 2003 "Akustik - Laboratiormätningprocedurer för kanaldämpare och luftenheter - Insättningstab, flödesbuller och total tryckförlust".

Normen ISO 7235 är godkänd som europeisk norm EN-ISO 7235: 2003 i alla EG-länder

Kopior av de ursprungliga testresultaten är tillgängliga för inspektion på begäran. Kopiorna av resultaten förblir egendom till

Dutch Environment Corporation® B.V.

och får inte kopieras eller göras tillgänglig för andra för inspektion utan tillstånd.

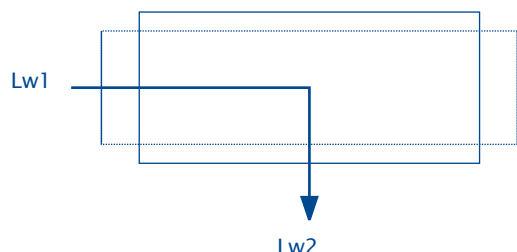
Följande förklaringar hänvisar till bifogad grafik:

Ljuddämpning



Dämpning är skillnaden mellan den akustiska kapaciteten **Lw1** i provkanalen framför kanalen och den akustiska kapaciteten **Lw3** i provkanalen efter kanaliseringen (medeltal över tre mätpunkter).

Väggreducering



Väggreducering är skillnaden mellan akustikkapaciteten **Lw1** i provkanalen framför kanalen (medeltal över tre mätpunkter) och den utstrålade akustiska kapaciteten **Lw2** i det efterklara rummet (i genomsnitt över hela utrymmet med hjälp av en roterande mikrofon).

AKUDEEC™ Ljuddämpare

AKUDEEC ljuddämpare från **DEC International®** har perforerad och korrugerad aluminium-innerrör, omgiven av 25mm (**AKUDEEC 50mm**) isolering och försedd med en aluminiumskiktad ytterjacka förstärkt med glasfiber. Kanalen är standard utrustad med metallkopplingar i båda ändar för att passa till ett styvt kanalsystem eller direktkoppling till luftdon

Dutch Environment Corporation® BV DEC International®

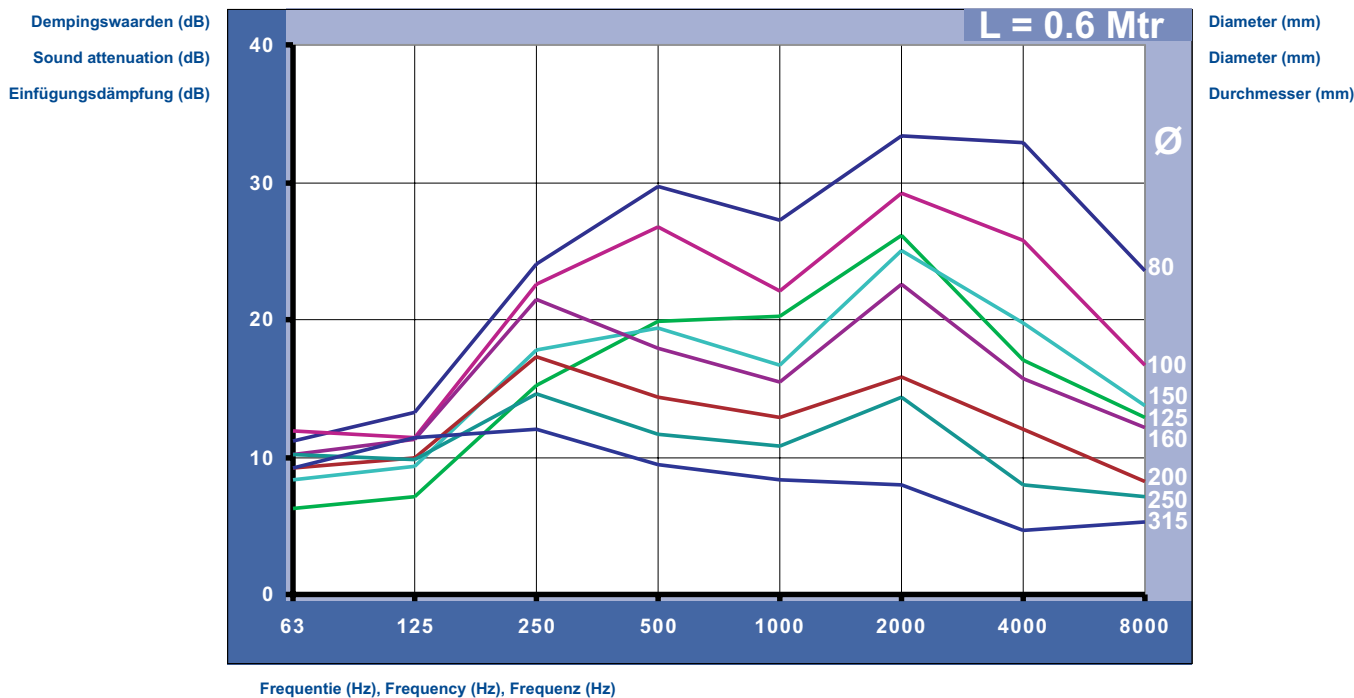
Ir. Hanlostraat 18-22 - P.O.Box 35
NL-7500 AA Enschede
Tel.: +31(0)53 4302675
Fax: +31(0)53 4302685
www.decinternational.com
decinternational@decinternational.com

Data extraherad från:
Reportnumber : A1672-1
Date : 08-2007

PEUTZ BV

Lindelaan 41, Molenhoek,
P.O.Box 66, 6585 ZH, Mook
Tel.: +31(0)24 3570707
Fax: +31(0)24 3585150
Info@mook.peutz.nl
www.peutz.nl
peutz.london@tiscali.co.uk

AKUDEC25



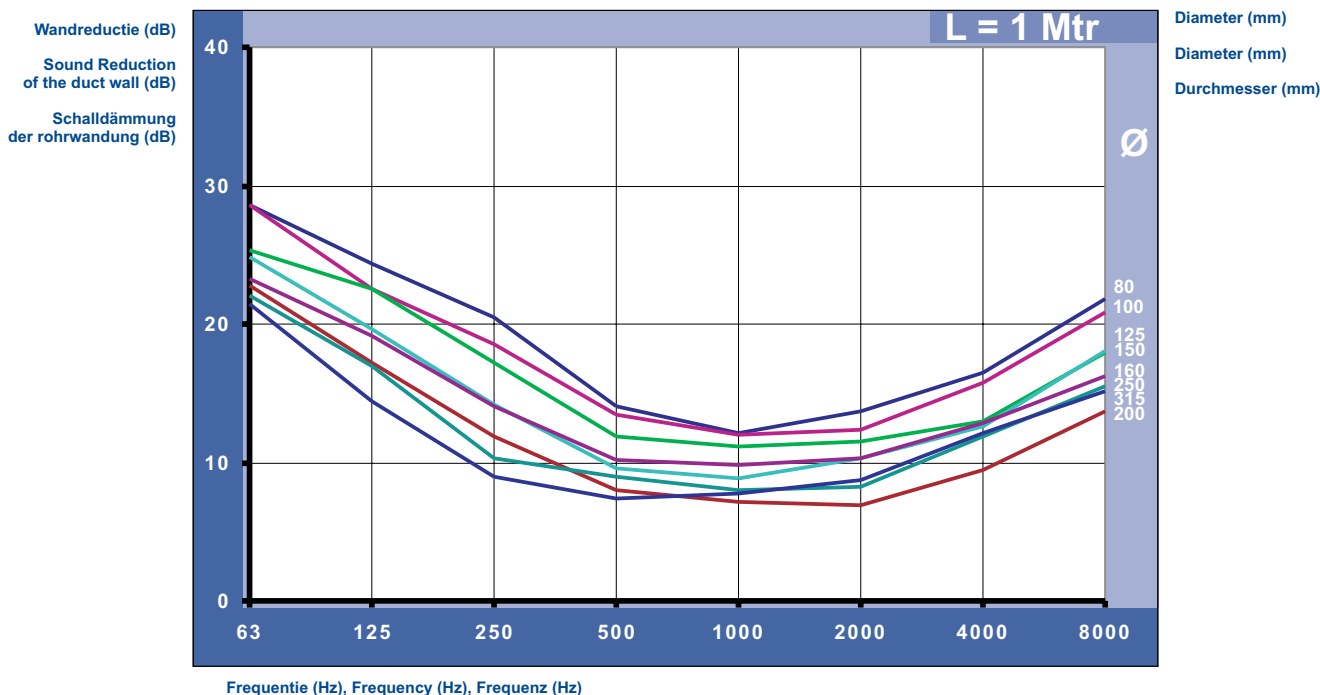
	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	12.1		10.5		6.2		10.9		10.9		9.4		8.3		9.6	
63 Hz	14.3	11.2	14.9	11.9	6	6.3	5.5	8.3	7.7	10.2	7.9	9.2	16.3	10.2	12.2	9.2
80 Hz	8.9		11.3		6.7		10.7		14.4		10.6		9.4		7.2	
100 Hz	8.8		7.0		3.6		5.3		7.4		6.7		6.9		8.1	
125 Hz	26.5	13.3	18.8	11.4	10.0	7.1	14.9	9.3	14.4	11.3	12.1	10.0	10.3	9.8	13.4	1104.0
160 Hz	21.7		21.9		13.0		16.6		22.9		16.0		17.5		18.3	
200 Hz	20.3		19.7		12.4		14.5		20.6		15.9		15.6		13.0	
250 Hz	28.1	24.1	26.0	22.6	18.1	15.2	22.0	17.8	24.4	21.5	20.4	17.3	15.9	14.6	13.1	12.0
315 Hz	30.8		25.1		17.6		20.9		20.6		16.8		13.0		10.5	
400 Hz	34.6		28.3		19.0		22.0		19.5		15.4		12.9		10.4	
500 Hz	30.1	29.7	28.1	26.8	23.2	19.9	20.0	19.4	17.9	17.9	15.0	14.3	11.9	11.7	9.1	9.4
630 Hz	27.2		24.9		18.8		17.4		16.7		13.0		10.7		8.8	
800 Hz	26.4		22.6		19.6		15.8		14.9		12.8		10.0		8.3	
1000 Hz	27.4	27.2	21.8	22.1	20.8	20.3	16.7	16.7	15.6	15.5	13.1	12.9	10.9	10.8	7.9	8.3
1250 Hz	28.1		22.0		20.6		17.7		16.2		12.8		11.6		8.8	
1600 Hz	30.4		25.8		22.3		22.0		19.8		15.0		15.6		9.2	
2000 Hz	34.1	33.4	31.0	29.2	28.8	26.1	26.3	25.0	24.4	22.6	16.1	15.8	15.9	14.3	9.1	8.0
2500 Hz	42.4		37.6		38.8		31.2		26.2		16.4		12.3		6.3	
3150 Hz	48.0		41.3		28.7		24.8		20.6		14.6		10.7		5.9	
4000 Hz	37.7	32.9	29.5	25.8	19.7	17.1	21.4	19.8	17.2	15.7	12.8	12.0	7.3	8.0	4.8	4.7
5000 Hz	28.7		21.8		13.3		16.8		12.7		9.9		6.9		3.7	
6300 Hz	22.8		17.3		13.1		14.5		12.7		8.4		6.8		5.0	
8000 Hz	23.3	23.5	16.6	16.7	13.1	12.9	14.3	13.8	12.4	12.1	8.3	8.2	7.3	7.1	5.1	5.3
10000 Hz	24.5		16.3		12.5		12.8		11.2		7.9		7.2		5.9	
Di	30dB		26dB		22dB		21dB		19dB		14dB		12dB		8dB	

Di = Gemiddelde Demping (dB)

Di = Average Attenuation (dB)

Di = Mittleres Dämmmaß (dB)

AKUDEC25



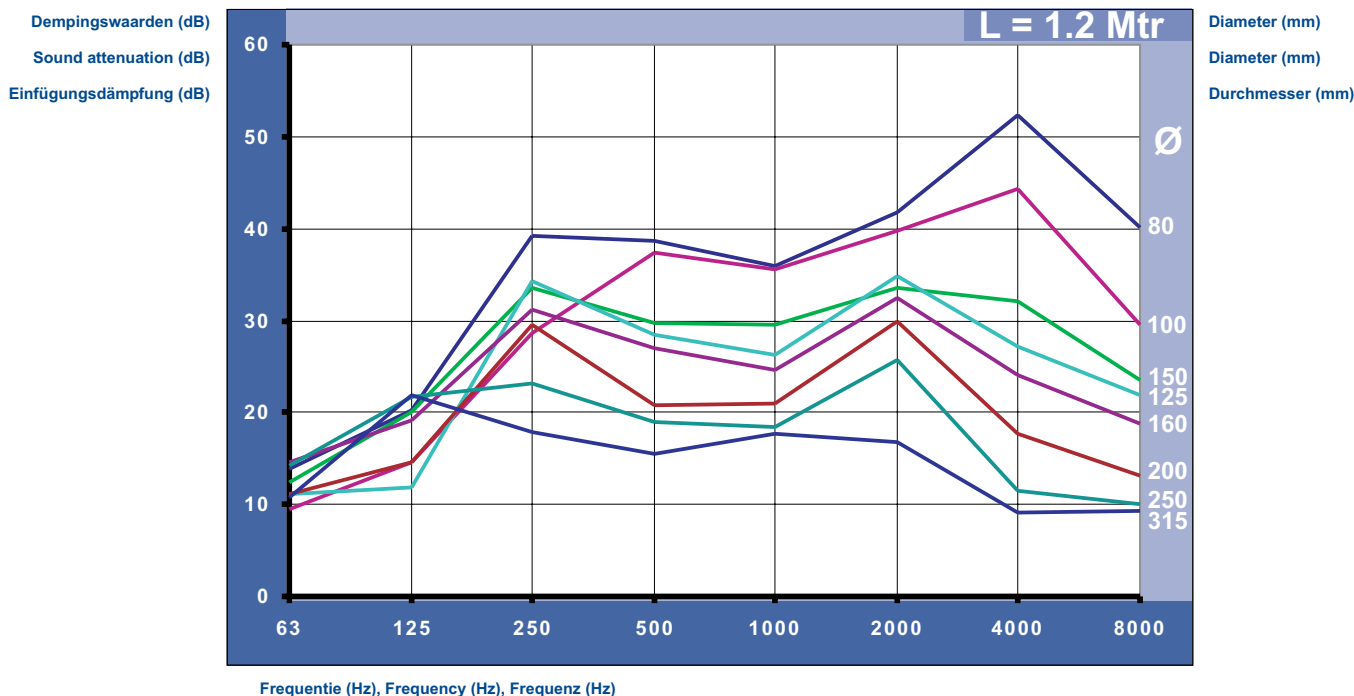
	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	33.3		32.3		30.1		27.1		25.4		23.7		24.8		24.8	
63 Hz	29.1	28.6	28.9	28.6	28.3	25.3	28.9	24.8	25.6	23.3	23.5	22.8	23.9	22.1	21.5	21.4
80 Hz	26.1		26.5		21.9		21.9		20.8		21.5		19.6		19.5	
100 Hz	24.4		22.4		23.7		21.4		21.0		18.8		19.2		17.6	
125 Hz	25.1	24.4	23.7	22.6	23.0	22.5	19.5	19.6	19.2	19.2	17.4	17.2	17.1	17.0	14.3	14.4
160 Hz	23.8		21.9		21.2		18.3		18.0		15.9		15.5		12.6	
200 Hz	22.5		20.5		20.1		16.8		17.1		13.7		13.4		10.4	
250 Hz	20.6	20.5	18.2	18.6	17.1	17.2	13.9	14.2	13.9	14.1	11.7	11.9	9.4	10.3	8.4	9.0
315 Hz	19.1		17.5		15.6		12.8		12.4		10.9		9.3		8.6	
400 Hz	16.3		15.9		13.8		10.9		10.9		8.9		9.2		7.1	
500 Hz	14.4	14.1	13.9	13.5	11.5	11.9	9.5	9.6	10.3	10.2	8.0	8.0	9.5	9.0	7.8	7.4
630 Hz	12.4		11.7		11.0		8.6		9.4		7.3		8.3		7.2	
800 Hz	12.1		12.0		10.3		8.2		9.0		6.5		7.5		7.4	
1000 Hz	12.2	12.1	11.8	12.0	11.5	11.2	8.9	8.9	9.7	9.8	8.0	7.2	8.6	8.0	8.2	7.7
1250 Hz	12.1		12.1		12.0		9.7		11.0		7.1		8.0		7.6	
1600 Hz	13.6		12.0		12.8		10.5		11.9		7.6		8.3		8.9	
2000 Hz	13.7	13.7	12.3	12.4	11.4	11.5	10.2	10.3	9.2	10.3	6.7	6.9	8.0	8.3	8.1	8.7
2500 Hz	13.8		13.0		10.5		10.3		10.1		6.6		8.5		9.1	
3150 Hz	14.6		14.2		12.0		10.9		11.5		7.8		10.4		11.0	
4000 Hz	16.8	16.5	16.2	15.8	12.8	13.0	12.5	12.6	12.5	12.9	9.6	9.5	11.9	11.9	11.9	12.1
5000 Hz	19.2		17.9		14.7		15.5		15.5		11.9		14.4		14.0	
6300 Hz	20.9		19.3		16.5		16.7		15.7		12.4		14.6		14.1	
8000 Hz	21.6	21.8	21.3	20.8	18.3	18.0	18.5	18.1	17.1	16.3	14.7	13.7	16.5	15.5	16.2	15.2
10000 Hz	23.3		22.3		19.8		19.6		16.3		14.4		15.6		15.6	
Dt	13dB		13dB		12dB		10dB		10dB		7dB		9dB		8dB	

Dt = Gemiddelde Wandreductie (dB)

Dt = Average Sound Reduction of the duct wall (dB)

Dt = Mittleres Schalldämmung der rohrwandung (dB)

AKUDEC25



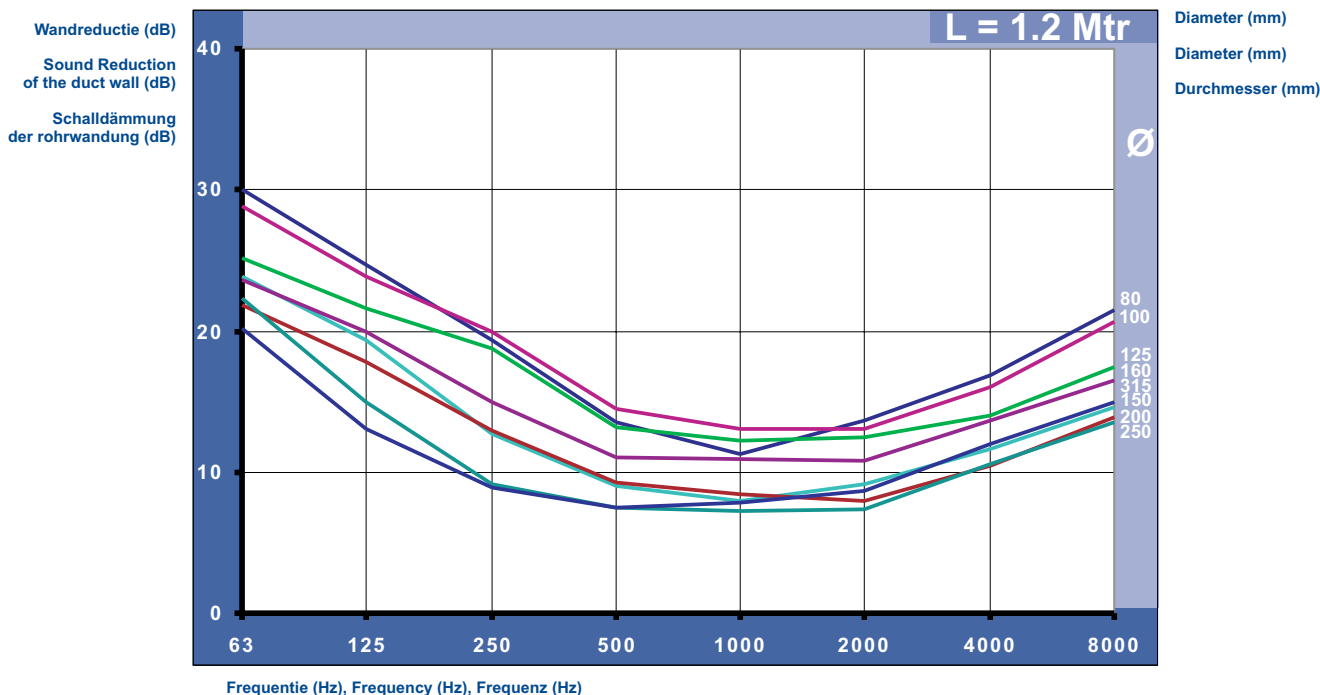
	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	13.6		7.3		10.5		10.2		12.4		9.3		11.5		8.8	
63 Hz	17.0	13.8	10.8	9.5	12.9		9.7	11.1	14.3	14.6	10.0	11.1	16.9	14.2	12.7	10.8
80 Hz	12.2		11.9		15.1	12.4	15.1		20.2		17.6		16.2		11.8	
100 Hz	15.6		10.4		16.9		7.2		14.6		10.0		18.3		19.8	
125 Hz	29.5	20.2	18.6	14.5	20.6	20.1	21.2	11.8	27.3	19.1	23.8	14.6	23.3	21.7	22.7	21.9
160 Hz	36.8		28.6		34.0		27.4		34.4		33.5		30.5		24.4	
200 Hz	35.1		24.1		29.9		31.9		29.6		29.7		24.8		17.3	
250 Hz	47.0	39.3	38.4	28.6	37.7	33.6	40.7	34.2	34.9	31.1	33.7	29.5	22.6	23.1	20.3	17.9
315 Hz	45.7		38.6		39.3		33.9		30.5		27.2		22.2		16.9	
400 Hz	41.4		39.7		33.0		31.1		27.9		21.9		20.7		15.6	
500 Hz	38.8	38.6	38.4	37.4	29.3	29.8	29.0	28.5	27.1	27.0	21.1	20.7	18.8	18.9	15.2	15.5
630 Hz	36.8		35.4		28.4		26.6		26.1		19.4		17.6		15.7	
800 Hz	35.4		37.1		29.1		24.7		24.2		20.3		16.6		15.5	
1000 Hz	35.7	36.0	35.1	35.6	30.2	29.5	27.1	26.3	24.3	24.7	21.1	21.0	18.6	18.4	18.0	17.7
1250 Hz	37.1		35.0		29.4		27.7		25.6		21.8		21.4		21.3	
1600 Hz	39.8		36.6		31.1		32.2		29.5		27.5		29.6		24.1	
2000 Hz	42.0	41.8	42.4	39.8	34.2	33.6	36.1	34.9	34.1	32.5	34.0	30.0	30.5	25.7	19.3	16.7
2500 Hz	45.1		44.4		37.8		39.3		37.5		30.9		22.1		13.2	
3150 Hz	49.7		47.7		40.5		35.6		33.3		23.1		17.0		11.6	
4000 Hz	54.1	52.4	49.0	44.3	38.2	32.1	30.4	27.2	26.6	24.0	19.9	17.7	11.9	11.4	8.6	9.2
5000 Hz	55.5		40.8		27.9		23.5		20.3		14.5		8.8		8.2	
6300 Hz	40.8		30.5		23.8		21.2		19.6		12.9		9.2		7.9	
8000 Hz	40.8	40.2	29.9	29.5	24.6	23.6	22.2	21.8	18.8	18.7	14.0	13.2	9.9	10.1	9.8	9.3
10000 Hz	39.3		28.4		22.7		22.0		17.8		12.7		11.4		10.6	
Di	39dB		36dB		32dB		30dB		29dB		23dB		20dB		17dB	

Di = Gemiddelde Damping (dB)

Di = Average Attenuation (dB)

Di = Mittleres Dämmmaß (dB)

AKUDEC25



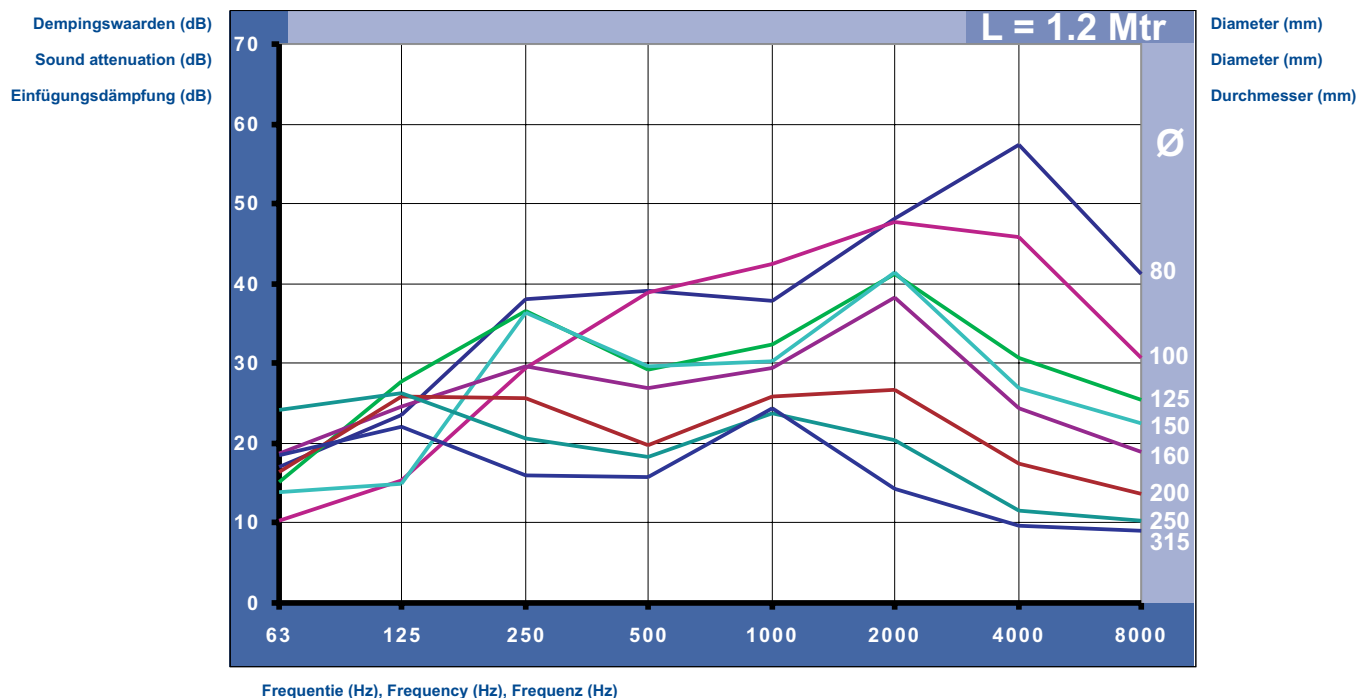
	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	34.8		31.8		32.2		29.5		27.1		24.8		26.9		27.5	
63 Hz	30.9	30.0	29.4	28.8	26.3	25.2	24.8	23.9	25.7	23.6	22.6	21.8	22.6	22.3	20.9	20.2
80 Hz	27.3		26.6		22.2		21.1		20.8		19.5		19.9		17.3	
100 Hz	24.2	24.7	24.5	23.9	22.8	21.6	20.9	19.4	21.1	19.9	20.1	17.8	17.3	15.0	15.3	13.0
125 Hz	25.7		23.4		21.2		19.2		19.5		18.1		14.6		12.8	
160 Hz	24.4		23.8		21.0		18.4		19.2		16.2		13.9		11.7	
200 Hz	21.3	19.3	21.5	20.0	20.3	18.7	16.1	12.7	18.1	15.0	14.9	12.9	12.0	9.1	9.6	8.9
250 Hz	19.4		19.4		19.1		12.5		15.1		12.8		8.2		8.6	
315 Hz	17.9		19.4		17.2		11.0		13.2		11.7		8.0		8.5	
400 Hz	15.1	13.5	16.8	14.5	14.7	13.2	10.0	9.0	11.3	11.0	10.1	9.3	7.7	7.5	7.3	7.5
500 Hz	14.2		14.3		12.9		8.8		11.2		9.3		8.1		7.8	
630 Hz	11.8		13.1		12.4		8.3		10.5		8.7		6.7		7.3	
800 Hz	11.0	11.3	13.4	13.1	11.8	12.2	7.5	8.0	10.0	10.9	7.9	8.4	6.5	7.2	7.3	7.8
1000 Hz	11.4		13.3		12.3		8.0		11.0		9.1		7.9		8.4	
1250 Hz	11.4		12.7		12.4		8.6		12.0		8.2		7.4		7.7	
1600 Hz	13.2	13.6	12.7	13.0	13.3	12.5	9.1	9.1	12.3	10.8	9.1	8.0	7.8	7.4	9.1	8.7
2000 Hz	13.6		13.1		12.1		8.9		9.8		7.7		7.2		8.1	
2500 Hz	14.2		13.3		12.1		9.4		10.7		7.3		7.3		9.0	
3150 Hz	15.1	16.9	14.7	16.0	13.1	14.0	10.3	11.6	12.2	13.6	9.0	10.5	9.4	10.6	11.0	12.0
4000 Hz	17.3		16.0		14.0		11.8		13.4		10.7		10.5		11.9	
5000 Hz	19.1		17.8		15.0		13.3		15.8		12.5		12.4		13.6	
6300 Hz	20.6	21.5	19.3	20.7	15.7	17.5	13.6	14.6	15.8	16.5	13.0	13.9	12.4	13.5	13.9	15.0
8000 Hz	21.1		20.9		18.2		15.3		17.6		14.6		14.3		15.8	
10000 Hz	23.0		22.5		19.6		15.2		16.4		14.4		14.1		15.4	
Dt	13dB		14dB		13dB		9dB		11dB		9dB		8dB		9dB	

Dt = Gemiddelde Wandreductie (dB)

Dt = Average Sound Reduction of the duct wall (dB)

Dt = Mittleres Schalldämmung der rohrwandung (dB)

AKUDEC50



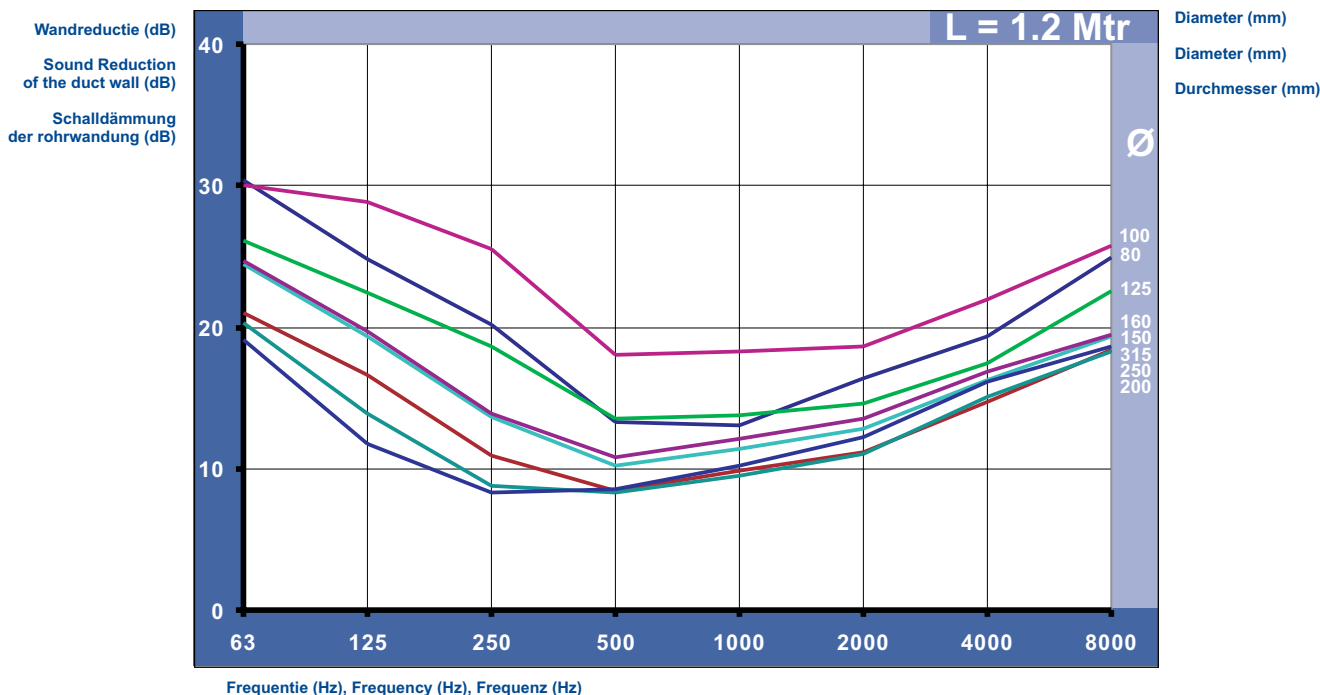
	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	18.4		8.3		12.7		12.5		16.7		13.3		20.4		17.9	
63 Hz	19.2	17.1	11.6	10.3	16.3	15.2	13.5	13.9	18.0	18.7	17.2	16.5	28.9	24.1	18.9	18.5
80 Hz	15.0		12.0		18.7		16.9		25.3		28.0		28.8		22.9	
100 Hz	19.0		11.6		24.7		10.5		20.2		21.8		26.4		25.0	
125 Hz	33.5	23.6	17.5	15.3	28.3	37.7	23.6	15.0	30.8	24.5	33.1	25.8	26.4	26.3	25.0	22.1
160 Hz	39.4		29.0		40.9		29.1		37.1		30.8		26.1		20.0	
200 Hz	34.6		24.9		34.3		34.8		29.1		24.6		21.0		15.9	
250 Hz	42.4	38.0	38.6	29.4	41.6	36.6	42.4	36.3	32.8	29.7	29.9	25.7	20.8	20.5	17.4	16.0
315 Hz	41.5		41.3		36.7		35.1		18.4		24.5		19.9		15.0	
400 Hz	41.4		37.3		30.5		32.1		27.5		19.9		19.1		14.8	
500 Hz	38.4	39.2	40.1	38.8	29.5	29.3	30.5	29.6	26.7	27.0	19.7	19.8	17.9	18.3	15.5	15.8
630 Hz	38.4		39.4		28.5		27.4		26.8		19.7		18.1		17.7	
800 Hz	36.1		40.0		30.2		27.2		27.6		22.5		20.1		21.1	
1000 Hz	37.4	37.8	44.5	42.5	33.4	32.4	31.8	30.2	29.6	29.4	28.0	25.8	26.0	23.7	28.6	24.4
1250 Hz	41.3		44.8		35.2		35.0		32.4		32.0		33.5		27.3	
1600 Hz	45.7		44.8		37.8		40.8		38.6		34.9		29.8		20.0	
2000 Hz	48.4	48.1	49.1	47.8	43.2	41.1	43.5	41.5	40.4	38.3	28.2	26.7	22.2	20.3	15.8	14.3
2500 Hz	53.3		53.9		47.0		40.7		36.7		23.4		16.8		11.3	
3150 Hz	57.1		54.7		44.8		32.2		30.1		20.0		14.6		11.6	
4000 Hz	61.4	47.4	49.4	45.9	34.0	30.7	28.2	27.0	26.2	24.3	19.3	17.4	12.5	11.6	8.8	9.6
5000 Hz	55.6		42.1		26.7		24.2		21.1		14.9		9.3		9.0	
6300 Hz	43.6		32.9		25.7		23.4		20.3		14.1		9.8		7.9	
8000 Hz	42.1	41.3	31.9	30.6	26.7	25.5	23.7	22.4	19.7	18.9	14.6	13.6	10.1	10.3	9.6	9.1
10000 Hz	39.3		28.4		24.4		20.8		17.4		12.4		11.2		10.2	
Di	41dB		40dB		34dB		33dB		31dB		24dB		20dB		17dB	

Di = Gemiddelde Damping (dB)

Di = Average Attenuation (dB)

Di = Mittleres Dämmmaß (dB)

AKUDEC50



	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	38.1		34.0		32.3		29.3		28.1		23.2		23.5		24.5	
63 Hz	31.2	30.4	29.8	30	26.7	26.1	26.2	24.6	25.7	24.7	21.7	21	20.5	20.3	18.9	19.1
80 Hz	27.8		28.0		23.4		21.5		22.3		19.1		18.3		16.9	
100 Hz	25.1		28.6		22.4		20.1		21.5		19.0		16.1		14.8	
125 Hz	25.3	24.8	28.7	28.8	22.3	22.4	19.3	19.4	19.3	18.7	16.9	16.6	13.6	13.9	11.6	11.8
160 Hz	24.1		29.0		22.6		18.9		18.8		14.8		12.6		10.1	
200 Hz	22.0		28.4		21.1		16.8		17.6		12.8		11.0		8.4	
250 Hz	20.5	20.2	26.0	25.5	18.5	18.6	13.4	13.7	13.7	13.9	10.7	10.9	8.0	8.8	8.0	8.3
315 Hz	18.8		23.4		17.0		12.1		12.0		9.7		8.0		8.6	
400 Hz	15.4		19.3		15.0		10.2		11.1		8.3		7.6		7.7	
500 Hz	13.5	13.3	17.6	18.0	12.9	13.5	10.1	10.2	10.9	10.8	8.4	8.4	8.9	8.3	9.2	8.6
630 Hz	11.8		17.4		12.7		10.4		10.5		8.5		8.5		9.2	
800 Hz	12.5		18.8		13.1		10.6		10.8		8.7		8.7		9.8	
1000 Hz	13.3	13.0	18.1	18.3	14.1	13.8	11.6	11.4	12.2	12.1	10.7	9.8	10.2	9.5	10.6	10.2
1250 Hz	13.4		18.0		14.4		12.3		13.7		10.2		9.8		10.2	
1600 Hz	16.1		18.1		15.4		12.8		14.6		11.2		10.9		11.9	
2000 Hz	16.5	16.4	18.6	18.6	14.4	14.6	12.5	12.8	12.4	13.5	10.7	11.1	10.6	11.0	11.8	12.2
2500 Hz	16.5		19.3		14.1		13.1		13.8		11.3		11.5		12.9	
3150 Hz	17.2		20.6		16.1		14.5		15.2		13.1		13.6		15.0	
4000 Hz	20.1	19.4	21.9	21.9	17.3	17.5	16.9	16.3	14.8	16.9	14.8	14.7	15.1	15.1	16.0	16.2
5000 Hz	22.8		23.6		19.7		18.2		17.3		17.3		17.2		18.0	
6300 Hz	24.0		24.5		21.0		19.3		18.0		18.0		17.8		18.7	
8000 Hz	24.9	24.9	26.1	25.7	23.0	22.5	21.0	19.3	19.8	19.5	19.8	18.4	19.7	18.3	20.2	18.6
10000 Hz	25.9		26.8		24.2		18.0		17.6		17.6		17.6		17.4	
Dt	15dB		19dB		14dB		12dB		13dB		10dB		10dB		11dB	

Dt = Gemiddelde Wandreductie (dB)

Dt = Average Sound Reduction of the duct wall (dB)

Dt = Mittleres Schalldämmung der rohrwandung (dB)

DEC FLEXIBLE HOSES AND THEIR ACOUSTIC PROPERTIES

DEC International[®] Semi flexible sound attenuators are the solution to the acoustic problems in air treatment and mechanical ventilation systems.

The following types and diameters have been measured in the acoustic laboratory of **PEUTZ BV**:

Type AKUDEC[™] 25

L=600 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm
 L=1200 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

Type AKUDEC[™] 50

L=1200 mm :Ø 80, 100, 125, 150, 160, 200, 250, 315 mm

The sound attenuation and wall reduction levels have been measured for the types and diameters of the above-mentioned lengths.

The measurements were carried out in accordance with the Norm: **ISO 7235:2003** "Acoustics - Laboratory measurement procedures for ducted silencers and air-terminal units - Insertion loss, flow noise and total pressure loss".

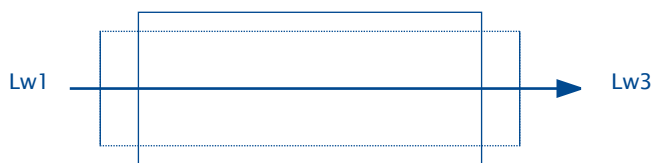
The Norm **ISO 7235** is in all EC countries accepted as European Norm **EN-ISO 7235:2003**

Copies of the original test results are available for inspection on request. The copies of the results remain the property of

Dutch Environment Corporation[®] B.V. and may not be copied or made available to others for inspection without permission.

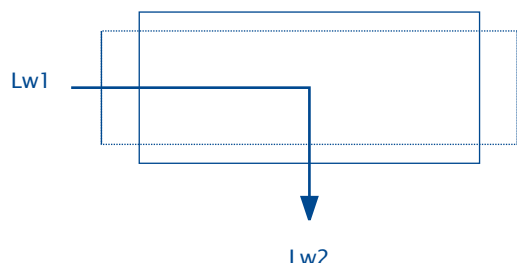
The following explanations refer to the enclosed graphics:

Attenuation



Attenuation is the difference between the acoustic capacity **Lw1** in the test channel in front of the ducting and the acoustic capacity **Lw3** in the test channel after the ducting (averaged over three measuring points).

Wall Reduction



Wall reduction is the difference between the acoustic capacity **Lw1** in the test channel in front of the ducting (averaged over three measuring points) and the radiated acoustic capacity **Lw2** in the reverberant room (averaged over the whole space by using a rotating microphone).

AKUDEC[™] Sound attenuators

The **AKUDEC[™]** sound attenuator from **DEC International[®]** has a perforated and corrugated aluminium innerduct, enclosed within a 25mm (**AKUDEC[™] 50** a 50mm) insulation layer and provided with an aluminium layered outer jacket strengthened with glass fibre. The duct is standard fitted with metal sleeves at both ends to fit to any rigid ductwork or appliance instantly.

Dutch Environment Corporation[®] BV

DEC International[®]

Ir. Hanlostraat 18-22 - P.O.Box 35
 NL-7500 AA Enschede
 Tel.: +31(0)53 4302675
 Fax: +31(0)53 4302685
www.decinternational.com
decinternational@decinternational.com

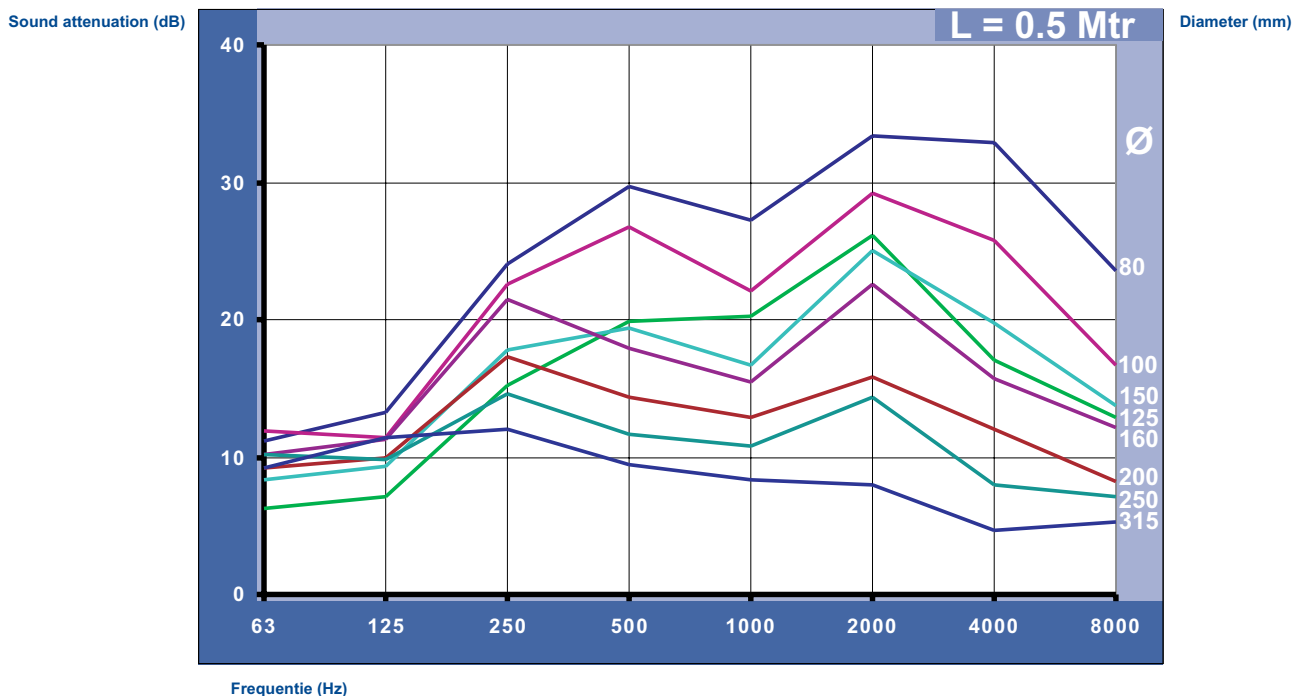
Data extracted from:

Reportnumber : A1672-1
 Date : 08-2007

PEUTZ BV

Lindelaan 41, Molenhoek,
 P.O.Box 66, 6585 ZH, Mook
 Tel.: +31(0)24 3570707
 Fax: +31(0)24 3585150
Info@mook.peutz.nl
www.peutz.nl
peutz.london@tiscali.co.uk

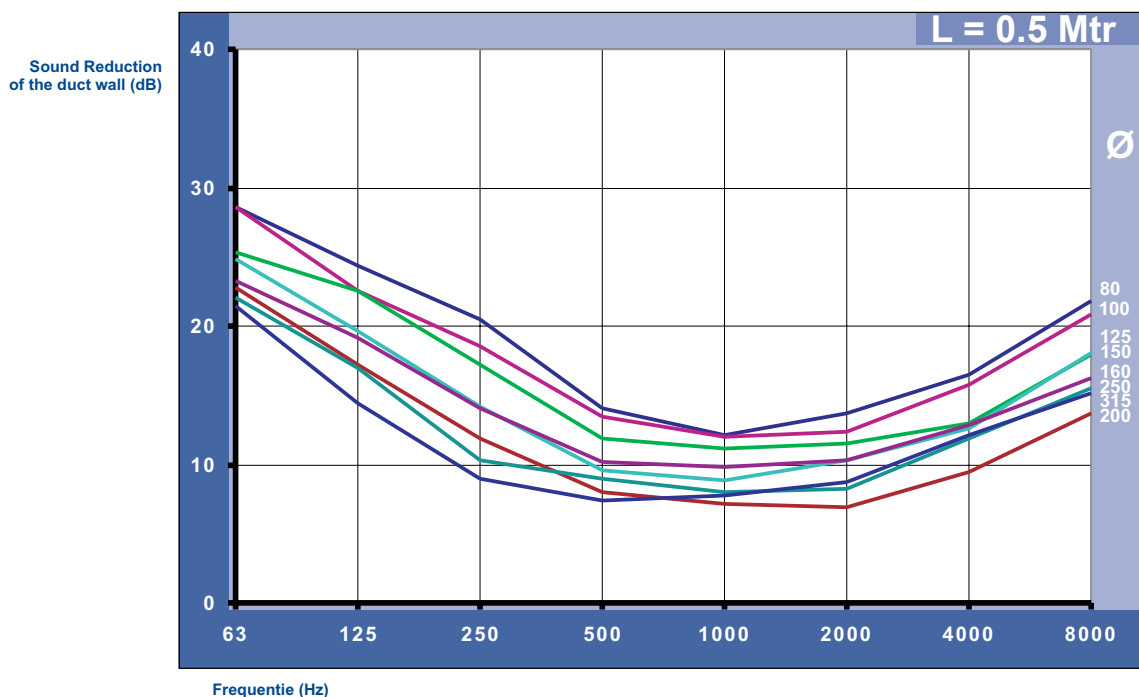
AKUDEC25



	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	12.1		10.5		6.2		10.9		10.9		9.4		8.3		9.6	
63 Hz	14.3	11.2	14.9	11.9	6	6.3	5.5	8.3	7.7	10.2	7.9	9.2	16.3	10.2	12.2	9.2
80 Hz	8.9		11.3		6.7		10.7		14.4		10.6		9.4		7.2	
100 Hz	8.8		7.0		3.6		5.3		7.4		6.7		6.9		8.1	
125 Hz	26.5	13.3	18.8	11.4	10.0	7.1	14.9	9.3	14.4	11.3	12.1	10.0	10.3	9.8	13.4	1104.0
160 Hz	21.7		21.9		13.0		16.6		22.9		16.0		17.5		18.3	
200 Hz	20.3		19.7		12.4		14.5		20.6		15.9		15.6		13.0	
250 Hz	28.1	24.1	26.0	22.6	18.1	15.2	22.0	17.8	24.4	21.5	20.4	17.3	15.9	14.6	13.1	12.0
315 Hz	30.8		25.1		17.6		20.9		20.6		16.8		13.0		10.5	
400 Hz	34.6		28.3		19.0		22.0		19.5		15.4		12.9		10.4	
500 Hz	30.1	29.7	28.1	26.8	23.2	19.9	20.0	19.4	17.9	17.9	15.0	14.3	11.9	11.7	9.1	9.4
630 Hz	27.2		24.9		18.8		17.4		16.7		13.0		10.7		8.8	
800 Hz	26.4		22.6		19.6		15.8		14.9		12.8		10.0		8.3	
1000 Hz	27.4	27.2	21.8	22.1	20.8	20.3	16.7	16.7	15.6	15.5	13.1	12.9	10.9	10.8	7.9	8.3
1250 Hz	28.1		22.0		20.6		17.7		16.2		12.8		11.6		8.8	
1600 Hz	30.4		25.8		22.3		22.0		19.8		15.0		15.6		9.2	
2000 Hz	34.1	33.4	31.0	29.2	28.8	26.1	26.3	25.0	24.4	22.6	16.1	15.8	15.9	14.3	9.1	8.0
2500 Hz	42.4		37.6		38.8		31.2		26.2		16.4		12.3		6.3	
3150 Hz	48.0		41.3		28.7		24.8		20.6		14.6		10.7		5.9	
4000 Hz	37.7	32.9	29.5	25.8	19.7	17.1	21.4	19.8	17.2	15.7	12.8	12.0	7.3	8.0	4.8	4.7
5000 Hz	28.7		21.8		13.3		16.8		12.7		9.9		6.9		3.7	
6300 Hz	22.8		17.3		13.1		14.5		12.7		8.4		6.8		5.0	
8000 Hz	23.3	23.5	16.6	16.7	13.1	12.9	14.3	13.8	12.4	12.1	8.3	8.2	7.3	7.1	5.1	5.3
10000 Hz	24.5		16.3		12.5		12.8		11.2		7.9		7.2		5.9	
Di	30dB		26dB		22dB		21dB		19dB		14dB		12dB		8dB	

Di = Average Attenuation (dB)

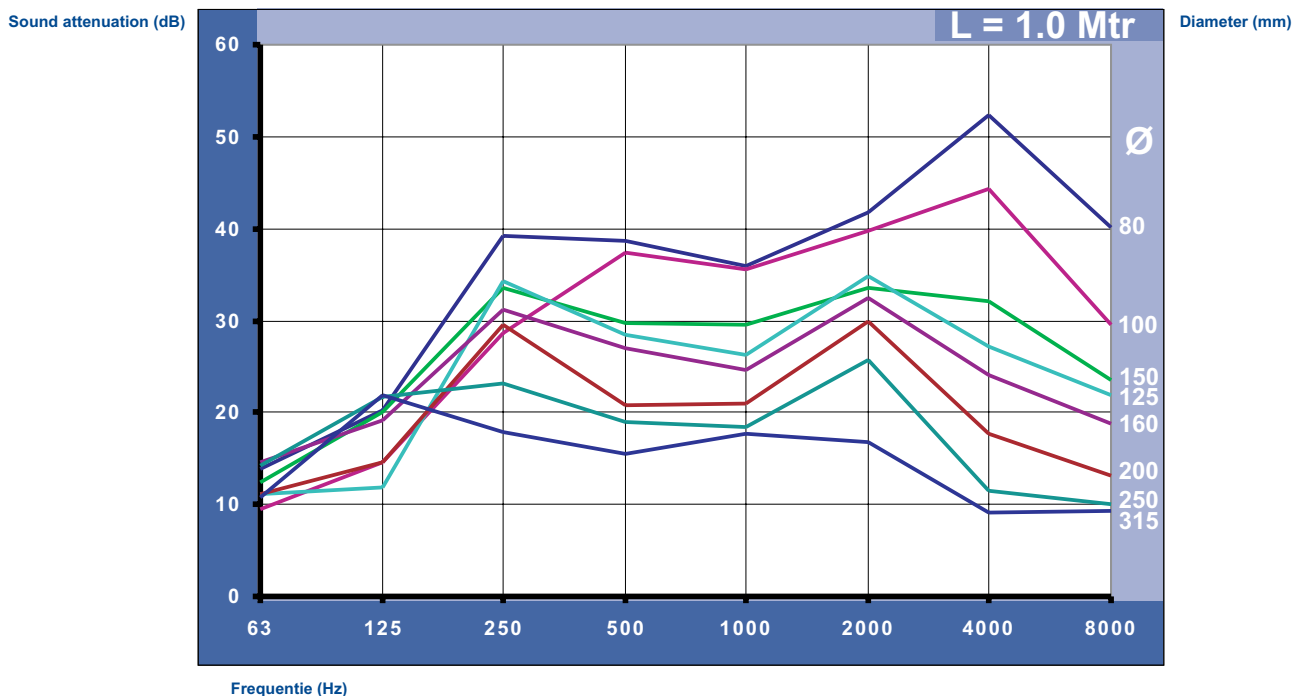
AKUDEC25



	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	33.3		32.3		30.1		27.1		25.4		23.7		24.8		24.8	
63 Hz	29.1	28.6	28.9	28.6	28.3	25.3	28.9	24.8	25.6	23.3	23.5	22.8	23.9	22.1	21.5	21.4
80 Hz	26.1		26.5		21.9		21.9		20.8		21.5		19.6		19.5	
100 Hz	24.4		22.4		23.7		21.4		21.0		18.8		19.2		17.6	
125 Hz	25.1	24.4	23.7	22.6	23.0	22.5	19.5	19.6	19.2	19.2	17.4	17.2	17.1	17.0	14.3	14.4
160 Hz	23.8		21.9		21.2		18.3		18.0		15.9		15.5		12.6	
200 Hz	22.5		20.5		20.1		16.8		17.1		13.7		13.4		10.4	
250 Hz	20.6	20.5	18.2	18.6	17.1	17.2	13.9	14.2	13.9	14.1	11.7	11.9	9.4	10.3	8.4	9.0
315 Hz	19.1		17.5		15.6		12.8		12.4		10.9		9.3		8.6	
400 Hz	16.3		15.9		13.8		10.9		10.9		8.9		9.2		7.1	
500 Hz	14.4	14.1	13.9	13.5	11.5	11.9	9.5	9.6	10.3	10.2	8.0	8.0	9.5	9.0	7.8	7.4
630 Hz	12.4		11.7		11.0		8.6		9.4		7.3		8.3		7.2	
800 Hz	12.1		12.0		10.3		8.2		9.0		6.5		7.5		7.4	
1000 Hz	12.2	12.1	11.8	12.0	11.5	11.2	8.9	8.9	9.7	9.8	8.0	7.2	8.6	8.0	8.2	7.7
1250 Hz	12.1		12.1		12.0		9.7		11.0		7.1		8.0		7.6	
1600 Hz	13.6		12.0		12.8		10.5		11.9		7.6		8.3		8.9	
2000 Hz	13.7	13.7	12.3	12.4	11.4	11.5	10.2	10.3	9.2	10.3	6.7	6.9	8.0	8.3	8.1	8.7
2500 Hz	13.8		13.0		10.5		10.3		10.1		6.6		8.5		9.1	
3150 Hz	14.6		14.2		12.0		10.9		11.5		7.8		10.4		11.0	
4000 Hz	16.8	16.5	16.2	15.8	12.8	13.0	12.5	12.6	12.5	12.9	9.6	9.5	11.9	11.9	11.9	12.1
5000 Hz	19.2		17.9		14.7		15.5		15.5		11.9		14.4		14.0	
6300 Hz	20.9		19.3		16.5		16.7		15.7		12.4		14.6		14.1	
8000 Hz	21.6	21.8	21.3	20.8	18.3	18.0	18.5	18.1	17.1	16.3	14.7	13.7	16.5	15.5	16.2	15.2
10000 Hz	23.3		22.3		19.8		19.6		16.3		14.4		15.6		15.6	
Dt	13dB		13dB		12dB		10dB		10dB		7dB		9dB		8dB	

Dt = Average Sound Reduction of the duct wall (dB)

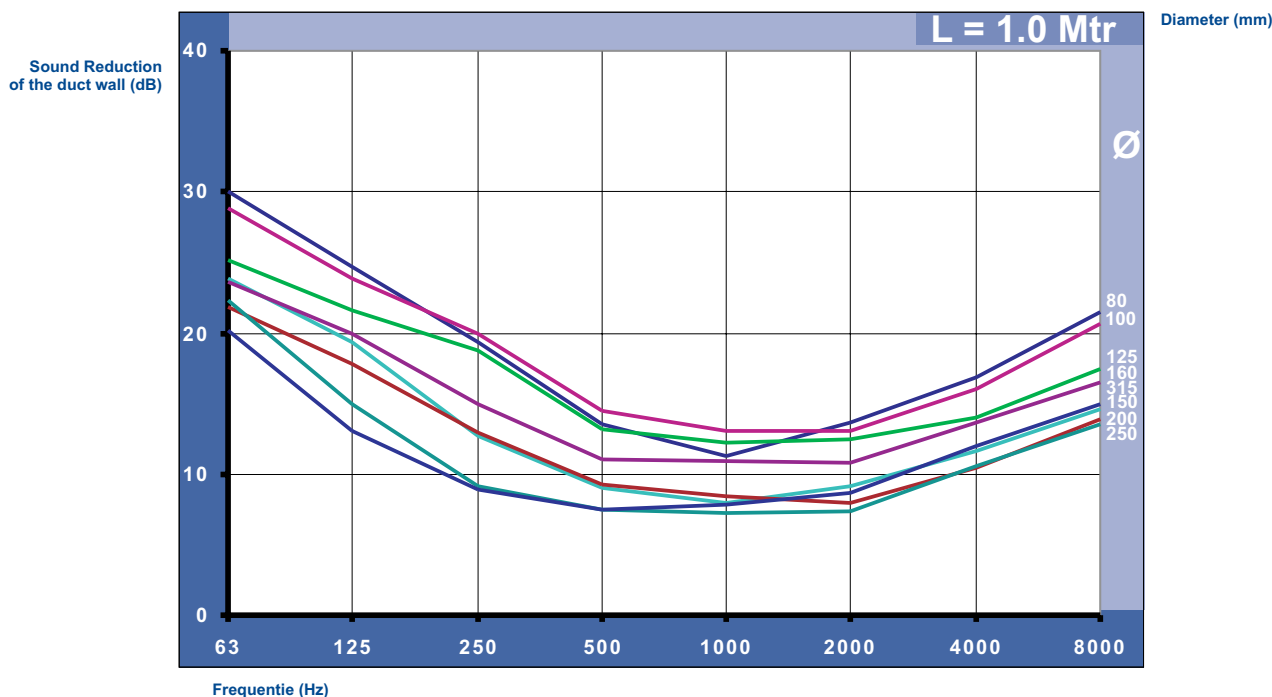
AKUDEC25



	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	13.6		7.3		10.5		10.2		12.4		9.3		11.5		8.8	
63 Hz	17.0	13.8	10.8	9.5	12.9		9.7	11.1	14.3	14.6	10.0	11.1	16.9	14.2	12.7	10.8
80 Hz	12.2		11.9		15.1	12.4	15.1		20.2		17.6		16.2		11.8	
100 Hz	15.6		10.4		16.9		7.2	11.8	14.6		10.0		18.3		19.8	
125 Hz	29.5	20.2	18.6	14.5	20.6	20.1	21.2	11.8	27.3	19.1	23.8	14.6	23.3	21.7	22.7	21.9
160 Hz	36.8		28.6		34.0		27.4		34.4		33.5		30.5		24.4	
200 Hz	35.1		24.1		29.9		31.9		29.6		29.7		24.8		17.3	
250 Hz	47.0	39.3	38.4	28.6	37.7	33.6	40.7	34.2	34.9	31.1	33.7	29.5	22.6	23.1	20.3	17.9
315 Hz	45.7		38.6		39.3		33.9		30.5		27.2		22.2		16.9	
400 Hz	41.4		39.7		33.0		31.1		27.9		21.9		20.7		15.6	
500 Hz	38.8	38.6	38.4	37.4	29.3	29.8	29.0	28.5	27.1	27.0	21.1	20.7	18.8	18.9	15.2	15.5
630 Hz	36.8		35.4		28.4		26.6		26.1		19.4		17.6		15.7	
800 Hz	35.4		37.1		29.1		24.7		24.2		20.3		16.6		15.5	
1000 Hz	35.7	36.0	35.1	35.6	30.2	29.5	27.1	26.3	24.3	24.7	21.1	21.0	18.6	18.4	18.0	17.7
1250 Hz	37.1		35.0		29.4		27.7		25.6		21.8		21.4		21.3	
1600 Hz	39.8		36.6		31.1		32.2		29.5		27.5		29.6		24.1	
2000 Hz	42.0	41.8	42.4	39.8	34.2	33.6	36.1	34.9	34.1	32.5	34.0	30.0	30.5	25.7	19.3	16.7
2500 Hz	45.1		44.4		37.8		39.3		37.5		30.9		22.1		13.2	
3150 Hz	49.7		47.7		40.5		35.6		33.3		23.1		17.0		11.6	
4000 Hz	54.1	52.4	49.0	44.3	38.2	32.1	30.4	27.2	26.6	24.0	19.9	17.7	11.9	11.4	8.6	9.2
5000 Hz	55.5		40.8		27.9		23.5		20.3		14.5		8.8		8.2	
6300 Hz	40.8		30.5		23.8		21.2		19.6		12.9		9.2		7.9	
8000 Hz	40.8	40.2	29.9	29.5	24.6	23.6	22.2	21.8	18.8	18.7	14.0	13.2	9.9	10.1	9.8	9.3
10000 Hz	39.3		28.4		22.7		22.0		17.8		12.7		11.4		10.6	
Di	39dB		36dB		32dB		30dB		29dB		23dB		20dB		17dB	

Di = Average Attenuation (dB)

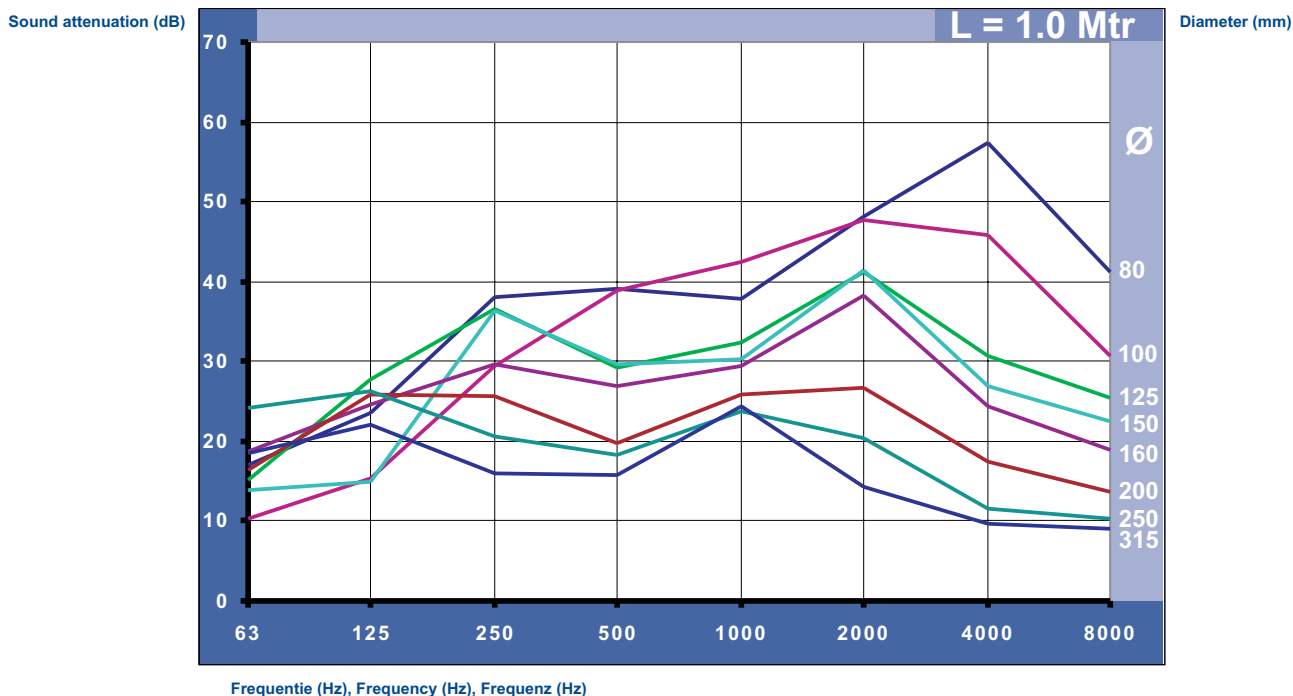
AKUDEC25



	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	34.8		31.8		32.2		29.5		27.1		24.8		26.9		27.5	
63 Hz	30.9	30.0	29.4	28.8	26.3	25.2	24.8	23.9	25.7	23.6	22.6	21.8	22.6	22.3	20.9	20.2
80 Hz	27.3		26.6		22.2		21.1		20.8		19.5		19.9		17.3	
100 Hz	24.2	24.7	24.5	23.9	22.8	21.6	20.9	19.4	21.1	19.9	20.1	17.8	17.3	15.0	15.3	13.0
125 Hz	25.7		23.4		21.2		19.2		19.5		18.1		14.6		12.8	
160 Hz	24.4		23.8		21.0		18.4		19.2		16.2		13.9		11.7	
200 Hz	21.3	19.3	21.5	20.0	20.3	18.7	16.1	12.7	18.1	15.0	14.9	12.9	12.0	9.1	9.6	8.9
250 Hz	19.4		19.4		19.1		12.5		15.1		12.8		8.2		8.6	
315 Hz	17.9		19.4		17.2		11.0		13.2		11.7		8.0		8.5	
400 Hz	15.1	13.5	16.8	14.5	14.7	13.2	10.0	9.0	11.3	11.0	10.1	9.3	7.7	7.5	7.3	7.5
500 Hz	14.2		14.3		12.9		8.8		11.2		9.3		8.1		7.8	
630 Hz	11.8		13.1		12.4		8.3		10.5		8.7		6.7		7.3	
800 Hz	11.0	11.3	13.4	13.1	11.8	12.2	7.5	8.0	10.0	10.9	7.9	8.4	6.5	7.2	7.3	7.8
1000 Hz	11.4		13.3		12.3		8.0		11.0		9.1		7.9		8.4	
1250 Hz	11.4		12.7		12.4		8.6		12.0		8.2		7.4		7.7	
1600 Hz	13.2	13.6	12.7	13.0	13.3	12.5	9.1	9.1	12.3	10.8	9.1	8.0	7.8	7.4	9.1	8.7
2000 Hz	13.6		13.1		12.1		8.9		9.8		7.7		7.2		8.1	
2500 Hz	14.2		13.3		12.1		9.4		10.7		7.3		7.3		9.0	
3150 Hz	15.1	16.9	14.7	16.0	13.1	14.0	10.3	11.6	12.2	13.6	9.0	10.5	9.4	10.6	11.0	12.0
4000 Hz	17.3		16.0		14.0		11.8		13.4		10.7		10.5		11.9	
5000 Hz	19.1		17.8		15.0		13.3		15.8		12.5		12.4		13.6	
6300 Hz	20.6	21.5	19.3	20.7	15.7	17.5	13.6	14.6	15.8	16.5	13.0	13.9	12.4	13.5	13.9	15.0
8000 Hz	21.1		20.9		18.2		15.3		17.6		14.6		14.3		15.8	
10000 Hz	23.0		22.5		19.6		15.2		16.4		14.4		14.1		15.4	
Dt	13dB		14dB		13dB		9dB		11dB		9dB		8dB		9dB	

Dt = Average Sound Reduction of the duct wall (dB)

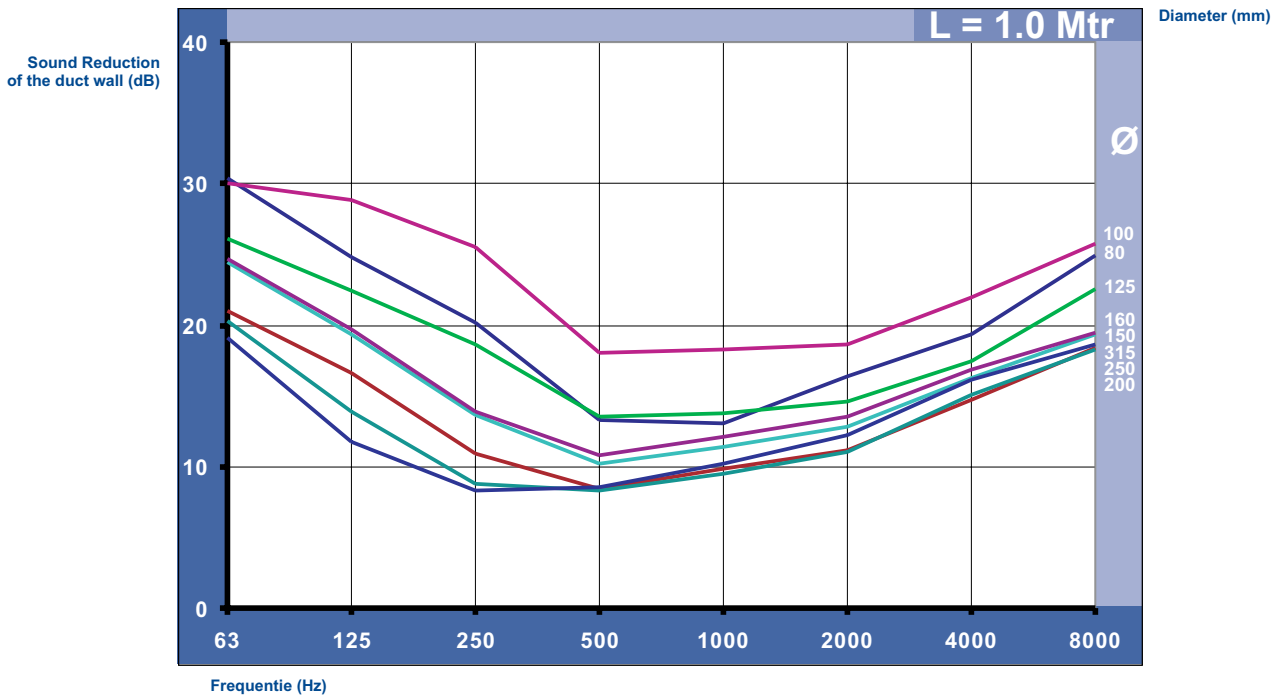
AKUDEC50



	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	18.4		8.3		12.7		12.5		16.7		13.3		20.4		17.9	
63 Hz	19.2	17.1	11.6	10.3	16.3	15.2	13.5	13.9	18.0	18.7	17.2	16.5	28.9	24.1	18.9	18.5
80 Hz	15.0		12.0		18.7		16.9		25.3		28.0		28.8		18.8	
100 Hz	19.0		11.6		24.7		10.5		20.2		21.8		26.4		22.9	
125 Hz	33.5	23.6	17.5	15.3	28.3	37.7	23.6	15.0	30.8	24.5	33.1	25.8	26.4	26.3	25.0	22.1
160 Hz	39.4		29.0		40.9		29.1		37.1		30.8		26.1		20.0	
200 Hz	34.6		24.9		34.3		34.8		29.1		24.6		21.0		15.9	
250 Hz	42.4	38.0	38.6	29.4	41.6	36.6	42.4	36.3	32.8	29.7	29.9	25.7	20.8	20.5	17.4	16.0
315 Hz	41.5		41.3		36.7		35.1		18.4		24.5		19.9		15.0	
400 Hz	41.4		37.3		30.5		32.1		27.5		19.9		19.1		14.8	
500 Hz	38.4	39.2	40.1	38.8	29.5	29.3	30.5	29.6	26.7	27.0	19.7	19.8	17.9	18.3	15.5	15.8
630 Hz	38.4		39.4		28.5		27.4		26.8		19.7		18.1		17.7	
800 Hz	36.1		40.0		30.2		27.2		27.6		22.5		20.1		21.1	
1000 Hz	37.4	37.8	44.5	42.5	33.4	32.4	31.8	30.2	29.6	29.4	28.0	25.8	26.0	23.7	28.6	24.4
1250 Hz	41.3		44.8		35.2		35.0		32.4		32.0		33.5		27.3	
1600 Hz	45.7		44.8		37.8		40.8		38.6		34.9		29.8		20.0	
2000 Hz	48.4	48.1	49.1	47.8	43.2	41.1	43.5	41.5	40.4	38.3	28.2	26.7	22.2	20.3	15.8	14.3
2500 Hz	53.3		53.9		47.0		40.7		36.7		23.4		16.8		11.3	
3150 Hz	57.1		54.7		44.8		32.2		30.1		20.0		14.6		11.6	
4000 Hz	61.4	47.4	49.4	45.9	34.0	30.7	28.2	27.0	26.2	24.3	19.3	17.4	12.5	11.6	8.8	9.6
5000 Hz	55.6		42.1		26.7		24.2		21.1		14.9		9.3		9.0	
6300 Hz	43.6		32.9		25.7		23.4		20.3		14.1		9.8		7.9	
8000 Hz	42.1	41.3	31.9	30.6	26.7	25.5	23.7	22.4	19.7	18.9	14.6	13.6	10.1	10.3	9.6	9.1
10000 Hz	39.3		28.4		24.4		20.8		17.4		12.4		11.2		10.2	
Di	41dB		40dB		34dB		33dB		31dB		24dB		20dB		17dB	

Di = Average Attenuation (dB)

AKUDEC50



	D= 80		D=100		D= 125		D= 150		D= 160		D=200		D= 250		D= 315	
	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.	1/3 oct.	1/1 oct.
50 Hz	38.1		34.0		32.3		29.3		28.1		23.2		23.5		24.5	
63 Hz	31.2	30.4	29.8	30	26.7	26.1	26.2	24.6	25.7	24.7	21.7	21	20.5	20.3	18.9	19.1
80 Hz	27.8		28.0		23.4		21.5		22.3		19.1		18.3		16.9	
100 Hz	25.1		28.6		22.4		20.1		21.5		19.0		16.1		14.8	
125 Hz	25.3	24.8	28.7	28.8	22.3	22.4	19.3	19.4	19.3	18.7	16.9	16.6	13.6	13.9	11.6	11.8
160 Hz	24.1		29.0		22.6		18.9		18.8		14.8		12.6		10.1	
200 Hz	22.0		28.4		21.1		16.8		17.6		12.8		11.0		8.4	
250 Hz	20.5	20.2	26.0	25.5	18.5	18.6	13.4	13.7	13.7	13.9	10.7	10.9	8.0	8.8	8.0	8.3
315 Hz	18.8		23.4		17.0		12.1		12.0		9.7		8.0		8.6	
400 Hz	15.4		19.3		15.0		10.2		11.1		8.3		7.6		7.7	
500 Hz	13.5	13.3	17.6	18.0	12.9	13.5	10.1	10.2	10.9	10.8	8.4	8.4	8.9	8.3	9.2	8.6
630 Hz	11.8		17.4		12.7		10.4		10.5		8.5		8.5		9.2	
800 Hz	12.5		18.8		13.1		10.6		10.8		8.7		8.7		9.8	
1000 Hz	13.3	13.0	18.1	18.3	14.1	13.8	11.6	11.4	12.2	12.1	10.7	9.8	10.2	9.5	10.6	10.2
1250 Hz	13.4		18.0		14.4		12.3		13.7		10.2		9.8		10.2	
1600 Hz	16.1		18.1		15.4		12.8		14.6		11.2		10.9		11.9	
2000 Hz	16.5	16.4	18.6	18.6	14.4	14.6	12.5	12.8	12.4	13.5	10.7	11.1	10.6	11.0	11.8	12.2
2500 Hz	16.5		19.3		14.1		13.1		13.8		11.3		11.5		12.9	
3150 Hz	17.2		20.6		16.1		14.5		15.2		13.1		13.6		15.0	
4000 Hz	20.1	19.4	21.9	21.9	17.3	17.5	16.9	16.3	14.8	16.9	14.8	14.7	15.1	15.1	16.0	16.2
5000 Hz	22.8		23.6		19.7		18.2		17.3		17.3		17.2		18.0	
6300 Hz	24.0		24.5		21.0		19.3		18.0		18.0		17.8		18.7	
8000 Hz	24.9	24.9	26.1	25.7	23.0	22.5	21.0	19.3	19.8	19.5	19.8	18.4	19.7	18.3	20.2	18.6
10000 Hz	25.9		26.8		24.2		18.0		17.6		17.6		17.6		17.4	
Dt	15dB		19dB		14dB		12dB		13dB		10dB		10dB		11dB	

Dt = Average Sound Reduction of the duct wall (dB)