

# SyScrew 300-1400 Air CO

Air Cooled Chillers with or without total heat recovery  
Engineering Data Manual



R134a



295 to 1395 kW





# Features & Strength Points

Technology and the research created the straight-way towards innovation: **Welcome to SyScrew Air.**

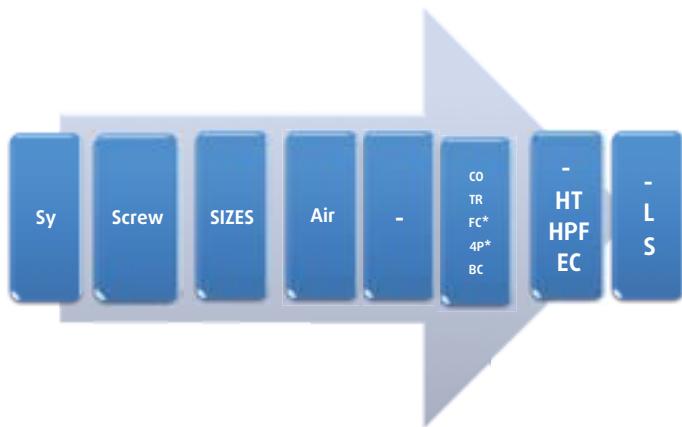
A completely new generation of modern Systemair Air Cooled Chiller which were developed and built consistently according to the market target: "For Air Conditioning and Industrial process applications with lowest environment impact". In SyScrew Air range, all this has become possible thanks to a new modular concept, equipped with new microchannel coils, optimized screw compressors and advanced control.

SyScrew Air is Experience and Technology.

- New Microchannel coils.
- High efficiency **shell and tube counter flow** evaporator.
- All the versions keep the **same configuration of the base units** (same structure, electrical board, compressors and coils).

- **Electronic expansion devices** on all units as standard.
- **Compressors box is standard on all units** – internal sound-proofing for Super Low Noise (SLN) version.
- High Temperature (HT) for high operating limits. Both versions are equipped with axial fans of large diameter (electronic brushless type motor-EC).
- **External electrical box** to improve internal aerodynamic (more air flow; which increases heat rejection by the coils).
- **Hydro kits** without buffer tank but with pump(s) only, fitted on board of the chiller to perform outstandingly the package solution and the plug & play concept.
- Polar version for application with low air temperature -18°C.
- Brine version for application with low water temperature below 0°C.

# Specifications



CO = Cooling Only; TR = Totaly Heat Recovery; FC = Free Cooling; 4P = 4 Pipe; BC = Brine Application; Version - = BLN; HT = HT; HPF = HPF; Version - = BLN; L = LN; S = Super LN; For HT and HPF not available L and S;  
\* Not available.

## General

The new units have been designed to operate with R134a refrigerant. All components have been optimized for this refrigerant. Each unit consists of **two independent refrigerant circuits** complete with screw compressors and one double circuit pure counterflow shell and tube heat exchanger. The condenser section is complete with new microchannel finned coils, of monobloc type, and new optimized fan deck. All the units are equipped with **electronic expansion valves**, one for each circuit.

The units are available in **21 sizes**, with a nominal capacity range from **296 to 1395 kW**.

The version can be supplied with **3 acoustic options**:

- **Basic Low Noise (-)**: The units are equipped with **delta connected fan motors**. The chillers are not supplied with fan speed controller, but fitted with **compressors box** to reduce the noise emissions.
- **Low Noise (L)**: The units are equipped with **star connected fan motors**. The chillers are not supplied with fan speed controller, but fitted with **compressors box** to reduce the noise emissions.
- **Super Low Noise (S)**: The units are equipped with **star connected fan motors**, fitted with a speed controller which allows the units to operate with a very low rpm. The chillers are supplied with **acoustically insulated compressors box and flexible pipes as well as mufflers on compressor discharge lines**.

In addition to the Standard version, the ranges offer **2 more versions**:

- **HT (High Temperature) version**: It has same equipment as that of the Standard version, except that the units are equipped with **special inverter fans**, of large diameter, driven by EC (electronic brushless type) motors with **integrated electronic inverter**. The HT version can be supplied with Basic Low Noise acoustic option only.

- **HPF (High Pressure Fan) version**: It has same equipment as STD units, except that the units are equipped with **special inverter fans** driven by EC motors **with integrated electronic inverter**. The HPF version provides external static pressure up to **120 Pa**. This version can be supplied with acoustic option only.

Also, 2 heat recovery options are available:

- **Desuperheater**: All the versions can be supplied with plate type heat exchangers fitted, one on each refrigerant circuit, on the compressor discharge line to recover about **20 % of the total heat** rejected to the condensers.
- **Totaly Heat Recovery**: The versions of the **cooling only** units can be supplied with suitable heat exchanger ( double circuit plate or S&T type) to recover **100 % of heat rejection** by the condensers. 4-way valves and a field installed control sensor are also provided to ensure the cooling/heat recovery mode changeover.

## Special Versions

- **Polar Version**: Special version with Electronic fans and dedicate devices on refrigeration system allow the units to operate at ambient temperature down to **-18°C**.
- **Brine Version**: Special Version with dedicate devices on refrigeration system allow the units to operate with brine ( ethylenic or propylenic glycol) down to **-8°C**.

## Cabinet and structure

The unit cabinet and structure are made of heavy gauge galvanized steel. All the galvanized steel components are individually painted, with a polyester powder based painting (**RAL 7040**), under a special painting process before the assembly of the unit. This painting system performs and stands a homogeneous protection of the corrosion.

All parts of the structure are totally fastened with stainless steel bolts and rivets.

## Refrigerant circuits

All the units are composed of two independent and separate refrigerant circuits. Each refrigerant circuit is equipped with discharge line shutoff valves, filter-drier with solid core, sight glass and [electronic expansion valve](#). Some units are equipped with economic system (ECO) to improve the performances and the efficiency. The functional diagram of each circuit is shown in the section "Refrigerant flow diagram".

## Semi-hermetic screw compressors

The compressors installed in the units are of semi-hermetic screw type integrating a step type or stepless type (on request) cooling capacity control system.

All compressors are fitted with an electronic control system ensuring the following functions:

- Protection against high temperature and excessive load;
- Correct direction of rotation;
- Phase monitoring.

The main features of cooling capacity control of each compressor are stated below:

- Compressor capacity reduction by means of solenoid valves ;
- Capacity reduction steps relating to each compressor:
  - standard compressors: 25% (at start-up and pump down), 50%, 75% and 100%.
  - stepless compressors: infinity steps between 50% and 100%.
- Capacity steps on 2 refrigerant circuit units:
  - standard compressors: 6 steps (25%, 50%, 63%, 75%, 87% and 100%).
  - stepless compressors : 25 to 100%.

Furthermore, the screw compressors are provided with control devices to make the units more reliable:

- Electric motor temperature sensor;
- Discharge temperature sensor.

The compressors are supplied a Star-Delta starting system.

Also soft starter is available on request (refer to section "Compressor electrical data").

## Evaporator

Evaporator is of a new generation shell and tube, of pure counter flow type heat exchanger. It is insulated with a 19 mm thick closed cell polyethylene foam material and is fitted with an electric heater on the external surface to prevent the unit from freezing at a low temperature (down to -18 °C) when the unit is off.

Water connections of heat exchanger are of Victaulic type supplied with coupling stub pipe to be welded.

## Condenser coils

The condenser coils are of microchannel type, made of 100% aluminium (fins, tubes and headers) with the exception of pipe couplings which are in copper.

## Condenser fans

For each size, all versions keep the same number of fans. Large diameter, direct drive axial type fans with asynchronous three-phase motors are used in all acoustic versions (-L,S) of STD units. Special inverter fans with electronic brushless type motors are used in HT and HPF units. On high pressure fans of HPF units, the external static pressure ( $\leq 120$  Pa) can be adjusted on site to match the customer demand directly from the electronic control panel of the unit. Fans are equipped with externally mounted nozzle profile housing which generates low sound levels.

## Fan speed control

The airflow is controlled in order to operate at a low ambient temperature. On standard unit equipped with axial fans, the air flow control is:

- step type for - and L versions without fan speed controls, achieved by switching off some fans of each circuit in function of condensing pressure corrected by external temperature.
- stepless type for S version, achieved by an electronic fan speed control, supplied as standard, in function of condensing pressure.

The pressure actuated stepless type fan speed controller can be supplied as optional on - and L versions. It allows the units to operate in cooling mode at ambient temperature down to -10°C.

On HPF units with electronic axial fans, the pressure actuated stepless type fan speed control is supplied as standard, because these electronic fans are already equipped with an integrated fan speed control (fan speed range: 50 to 1100 rpm; ambient temperature limit: -10 °C).

## Electrical board

The electrical board is located in a metal case arranged outside the unit. The metal case has an IP54 protection rating and is complete with grilles for natural air ventilation.

## Electronic control

The units are supplied with the new microprocessor-based electronic control and management system ensuring the following functions:

- Management of the operation of compressors:
  - Power on/off
  - Anticycle management
  - Unloading for high pressure or high compressor pressure ratio (integrated inside the curves of compressor operating limits).
- Chilled water temperature regulation (control option on inlet water temperature RWT (P+I type) or outlet water temperature LWT (neutral band type) of the evaporator).
- Control of superheating on suction line.
- Evaporator antifreeze protection.
- Management of high and low pressure alarms.
- Management of the compressors on the two circuits.

- Management of the electronic expansion valves by means of EEV controller.
- Management of external interlocks.
- Management of the remote control:
  - Unit power on/off
  - Summary alarm signals
- Remote signalling, by free contacts:
  - Voltage presence.
  - Compressors in operation.
  - Circuit alarm unit.
- Management of the hydro kit: start-up of pump.
- Management of the heat recovery mode by means of inlet water temperature sensor at the heat recovery condenser.

The unit controller can also clearly show all control parameters of the machine on the liquid crystal display, such as:

- Display of superheating value.
- Display of the temperature at the evaporator inlet and outlet.
- Display of the ambient air temperature.
- Display of the circuit 1 and circuit 2 discharge pressure and suction pressure.
- Display of the set point.
- Display of opening steps of EEV.
- Display of speed control signal (voltage) of fans.
- Display of the various alarm and operation status:
  - Compressor start-up alarm (discharge pressure check).
  - Low / High pressure.
  - Low / High super-heating.
  - Evaporator antifreeze.
  - Flow switch signal for lack of water.
  - Control of the compressor operating hours.
  - Compressors in operation.
  - Pump in operation.
  - Thermal protection of compressors.
  - Thermal protection of fans.
  - Faulty sensors.

### **Control and safety devices**

Each unit is fitted with the following devices:

#### **Safety:**

- Power disconnect switch with an emergency stop function.
- Safety valve on the discharge line (HP side) set to 21 bar.
- Safety valve on the suction line (LP side) set to 14.5 bar.
- HP switches (double on each circuit) set to 19 bar, manual reset to be reinitialized from control board.
- LP switches (one for each circuit) set to 0.5 bar, manual reset to be reinitialized from control board.
- Antifreeze temperature sensor (set to +4 °C) on the evaporator.
- Discharge gas temperature protection, on the discharge line of each compressor.

#### **Control:**

- HP and LP transducers.
- Evaporator water inlet temperature sensor.
- Evaporator water outlet temperature sensor (with an antifreeze function).
- Suction temperature sensor for EEV control.
- Ambient air temperature sensor.
- Heat recovery condenser temperature sensor.

### **Conformity with standards**

The following applies to all the sizes and versions of units:

- Machine Directive: 2006/42/EC.
- Low Voltage Directive: 2006/95/EC.
- Electromagnetic Compatibility Directive: 2014/30/EU.
- Pressure Equipment Directive: 2014/68/EU.

### **Standard equipment**

- Set point timer/clock card.
- Back light display.
- Digital pressure and temperature reading.
- High ambient pressure control.
- Double set point.
- Sequence phase control.
- Electronic expansion valves.
- Compressor part Windings or Star/Delta starting.
- Control circuit transformer 400 V/230 V.
- Data logger.
- Power supply without neutral.
- Main switch.
- Refrigerant R134a.
- PED approval.
- Evaporator antifreeze electric heater.
- Shell and tube evaporator.
- Compressor box.
- Compressor acoustic box (S version only).
- Water pump acoustic box (S version only).
- Left hand water connection.

### **Optional hydro kits**

[On board hydro kits](#) and [remote hydro kits](#) are available.

On board hydro kits can be supplied without buffer tank but with pump(s) only (in standard or high pressure version), while remote hydro kits are always supplied with internal tank and pump(s). The HPT models can be used as remote hydro kits for field installation.

The on board hydro kit, located inside the unit, with has the following components:

- Single or double pump with low static pressure (150 kPa) or high static pressure (250 kPa),
- Expansion tank,
- Water filter,
- Shut-off valves,
- Safety valve,
- Automatic air vent valve,
- Thermal insulation for pipes and water pump(s),

- Antifreeze electric heater for hydraulic pipes (available on request),
- The water pump(s) is supplied with sound proof box for units in S version.

#### Factory-installed options

- Stepless capacity control.
- Compressors soft starter.
- Pressure actuated stepless fan speed controller for low ambient operation (-10 °C) (- & L versions).
- Power factor correction capacitors.
- Automatic circuit breakers.
- HP & LP manometers.
- Compressor liquid injection.
- Compressor oil cooler.
- Compresoir oil switch (standard on stepless control option).
- Condenser coils with E-Coating.
- High static pressure fans (ESP<120 Pa) for HPF version.
- Chiller grilles.
- Compressor acoustic box.
- Water pump acoustic box.

- Total heat recovery (TR).
- Desuperheater.
- On board hydro kits without buffer tank, with 1 or 2 low or high pressure pump(s) and relevant accessories.

#### Field-installed accessories

- Remote ON/OFF control.
- ModBus protocol kit for BMS.
- Lonwork protocol kit for BMS.
- Bacnet protocol kit for BMS.
- WEBctrl.
- Remote keyboard panel.
- Master and slaves control, up to 4 units max.
- GSM.
- Chiller grilles.
- Spring anti-vibration mounts for basic unit.
- Spring anti-vibration mounts for internal hydro kit.
- Flow switch.
- Water filter.
- Remote hydro kits with buffer tank, 1 or 2 low or high pressure pump(s), relevant accessories and with or without tank antifreeze heater.

## Accessories & Options

SyScrew 300-1400 Air	Delivery	Abbreviation	Description & Benefit
Set point timer/Clock card	Std	CLK	To schedule 4 different interval time with different active water T setpoint.
Back light display	Std		User Display panel mounted. Suggested for outdoor installation.
Digital pressures and temperatures reading Kit	Std		Pressure Transducers & Sensors to show the Discharge and Suction pressure and temperature during running condition.
High pressure control on capacity	Std		Functions able to protect multistage circuit from High discharge pressure values. Circuit is partloaded whenever the Discharge pressure is too high to prevent HP tripping.
Sequence phases control	Std	PHC	It allows to check the correct sense R-S-T of electric supply phases for 400/3/50 units.
Electronic expansion valves	Std	EEV	It is the device able to control the refrigerant flow on suction line through a stepper motor in order to keep the superheat as constant as possible.
Control circuit transformer 400V/230V	Std	TRF	Voltage transformer to provide correctly the separated voltage to the auxiliary line.
Data logger	Std	DL	Record continuously the essential thermodynamic operating parameters, during the last hours. This facilitates debug and service activity on field.
Power supply without neutral	Std	3PH	Unit to be supplied with 400/3/50. No need of Neutral cable.
Main switch	Std		Front operated switch-disconnector with direct mounted handle to cut the power Supply Line according CE standards.
Antifreeze electric heater kit	Std	EEH	Electrical Heater protects the plate exchanger.
Remote On/Off control	Accessory		It enables the operator to power on the unit when it is in standby mode, to display alarms and switch over cooling-heat pump. Maximum lenght: 50mt.
Remote keyboard panel	Accessory		Makes it possible to control the unit through the remote terminal, up to a maximum distance of 400mt of telephone cable.
Modbus protocol kit for BMS	Option	MBS	It permits the integration of the unit with BMS with Modbus protocol through RS485 port.
Lonwork protocol kit for BMS	Option	LON	It permits the integration of the unit with BMS with Lonwork Network.
Bacnet protocol kit for BMS	Option	BAC	It permits the integration of the unit with BMS with Bacnet protocol through RS485 port.

## Accessories & Options (continued)

SyScrew 300-1400 Air	Delivery	Abbreviation	Description & Benefit
Interface Kit ethernet/webctrl pcos (Modbus & Bacnet already included)	Option		It permits the integration of the unit with BMS with Modbus or Bacnet protocol through Ethernet port (TCP/IP).
Softstarter for compressor	Option	SS	An electronic device that automatically starts up the compressors gradually. The starting current can be reduced by up to 40% of the direct on line value.
Low ambient kit (pressostatic stepless fan speed control)	Option	FSC	Electronic speed controllers are designed to control the speed of fan motors in Air Cooled Chiller and Heatpump. Fan Speed controlled by Condensing Pressure in cool mode or by Air Temp in heat mode. Using variable fan speed controllers offers following benefits in commercial refrigeration or air-conditioning applications High Efficiency, Low Noise level, Low air temperature in cool mode and High air temperature in heat mode.
Double set point	Std	DSP	Can manage two different applications (set point) selected by remote dry contact Circuit 1 and Circuit 2. On/Off or Part Load by remote Dry contact.
Power factor corrector capacitors	Option	PFC	The purpose of the power factor corrector capacitor is to minimize the input current distortion and make the current in phase with the voltage. Target is to keep Power Factor about 0.90 in any running condition.
Sequencer for up to 4 chillers installation	Accessory	SEQ	It can easily pilot up to 4 units, chiller or heat pumps, belonging to the same family, fitted in parallel, 50 metres apart maximum.
Master and slave up to 4 chillers installation: CHILLERNET	Accessory		It is a network of chillers. They are hydraulically connected in parallel on the same installation. They are intended to work together as a single machine whose capacity equals the total amount of capacities. Up to 4 chillers of the same family can be connected together. One of these chillers is called MASTER, the others are SLAVE. The MASTER chiller will control all the other chillers.
GSM	Option	GSM	Makes it possible to check the working mode or the switching on/off of the unit via SMS. In case of any alarms, the unit sends an SMS to the user.
Automatic circuit breaker	Option	ACB	ACB is an automatically operated electrical switch designed to protect an electrical circuit from damage caused by overload or short circuit. Providing Magnetic and Thermal protection to Fan and Compressor motors.
Mechanical gauges kit (HP and LP manometers)	Option	KM	Pressure gauges that display the operating pressure in the high and low pressure sections of the refrigerant circuit.
E-coating MCHX	Option		It is a treatment for MCHX coil for medium level of pollution and for marine atmosphere.
Chiller grilles	Option	KG	Grilles to protect unit avoiding possible intrusion into the unit.
Total heat recovery	Option	TR	Additional exchanger in order to recover 100% of capacity for Domestic Hot Water application.
Desuperheater	Option	D	Additional exchanger in order to recover 20% of capacity for Domestic Hot Water application.
Flow switch	Accessory	FS	Prevents the operation of the unit if the circulating chilled fluid is insufficient. It is recommended to install a flow switch to ensure the correct operation of the unit.
Water filter	Accessory		Filter to remove impurities from the water supply.
Polar Version	Option		Special version with Electronic fans and dedicated devices on refrigeration system allow the units to operate at ambient temperature down to -18°C.
Brine Version	Option		Special Version with dedicated devices on refrigeration system allow the units to operate with brine (ethylenic or propylenic glycol) down to -8°C.

Accessories are loosed and to install in the field. Options are mounted in factory.

## EN 14511-2011

Starting 2012 Campaign Eurovent Certification Company took decision to start certify only performances declared in according severe European Standard EN14511.

### BEFORE 2012: GROSS PERFORMANCES

Before this date all capacity performances are declared, measured and certified by Eurovent, as GROSS performances. COOLING or HEATING CAPACITY was rated without taking in account the negative contribution of the heat exchanger Pressure Drop or the positive contribution of the Head Available prevalence in example.

POWER INPUT was rated as pure sum of all power input contribution from all motors fitted on the unit. Without taking in account the correction due to power spent to win the exchanger Pressure Drop in example.

### AFTER 2012: NET PERFORMANCES

After this date all data are certified according EN14511. Mainly consequences in example on Water chiller or heatpump are: COOLING or HEATING CAPACITY is now rated taking in account the negative contribution of the heat exchanger Pressure Drop or the positive contribution of the Head Available prevalence in example. In case of Water to Water unit, in example, both exchanger Pressure Drop values are taken in account in the formula.

POWER INPUT is now rated as all power input contribution from all motors fitted on the unit taking in account also the correction due to power spent to win the exchanger Pressure Drop in example.

As an important consequence of these new rules setted by Eurovent is that EER, COP and ESEER are also affected by these correction. All efficiency index are now calculated, measured and certified according new rules setted by Eurovent according EN14511.

Air to water unit (non ducted outdoor):

	Indoor pump is an integral part		Indoor pump is not an integral part	
	ECC 2011 (gross)	EN14511:2011	ECC 2011 (gross)	EN14511:2011
Ph	$P_{h_m}^{(1)}$	$P_{h_m} - \frac{q_{wi} \Delta p_{e,wi}}{\eta_{pi}}$	$P_{h_m}$	$P_{h_m} + \frac{q_{wi} (-\Delta p_{i,wi})}{\eta_{pi}}$
Pc	$P_{C_m}^{(1)}$	$P_{C_m} + \frac{q_{wi} \Delta p_{e,wi}}{\eta_{pi}}$	$P_{C_m}$	$P_{C_m} - \frac{q_{wi} (-\Delta p_{i,wi})}{\eta_{pi}}$
Pe	$P_{e_m}^{(1)}$	$P_{e_m} - \frac{q_{wi} \Delta p_{e,wi}}{\eta_{pi}}$	$P_{e_m}$	$P_{e_m} + \frac{q_{wi} (-\Delta p_{i,wi})}{\eta_{pi}}$

(1) Measured with the indoor pump not running.

Where:

Ph = NET heating capacity.

Pc = NET cooling capacity.

Pe = electrical power input.

$P_{h_m}$  = is the gross heat capacity, expressed in Watts.

$P_{C_m}$  = is the gross cool capacity, expressed in Watts.

$q_{wi}$  = is the nominal liquid flow rate.

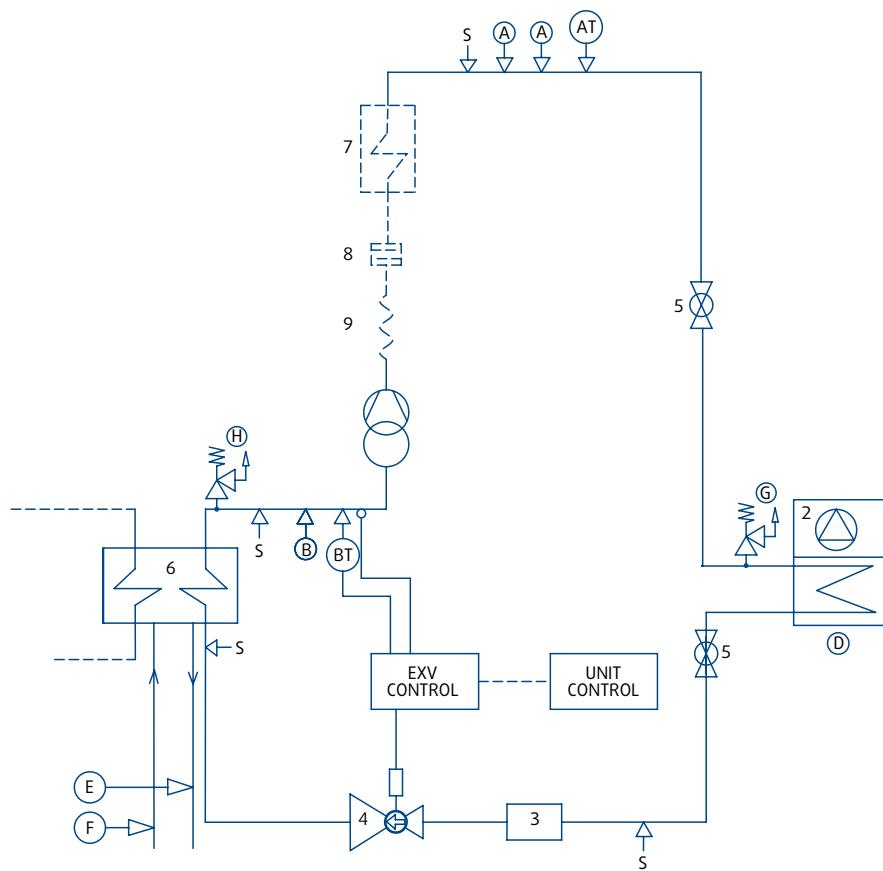
$\Delta_{pe,wi}$  = is the measured available external static pressure.

$\Delta_{pi,wi}$  = is the measured internal static pressure difference.

$\eta_{pi}$  = is the efficiency of the pump.

Reference: Guidelines for the declaration of performances according to EN14511:2011 (available a copy upon request for Systemair customer).

## Refrigerant Flow Diagram - SyScrew Air 300 - 360



### COMPONENTS

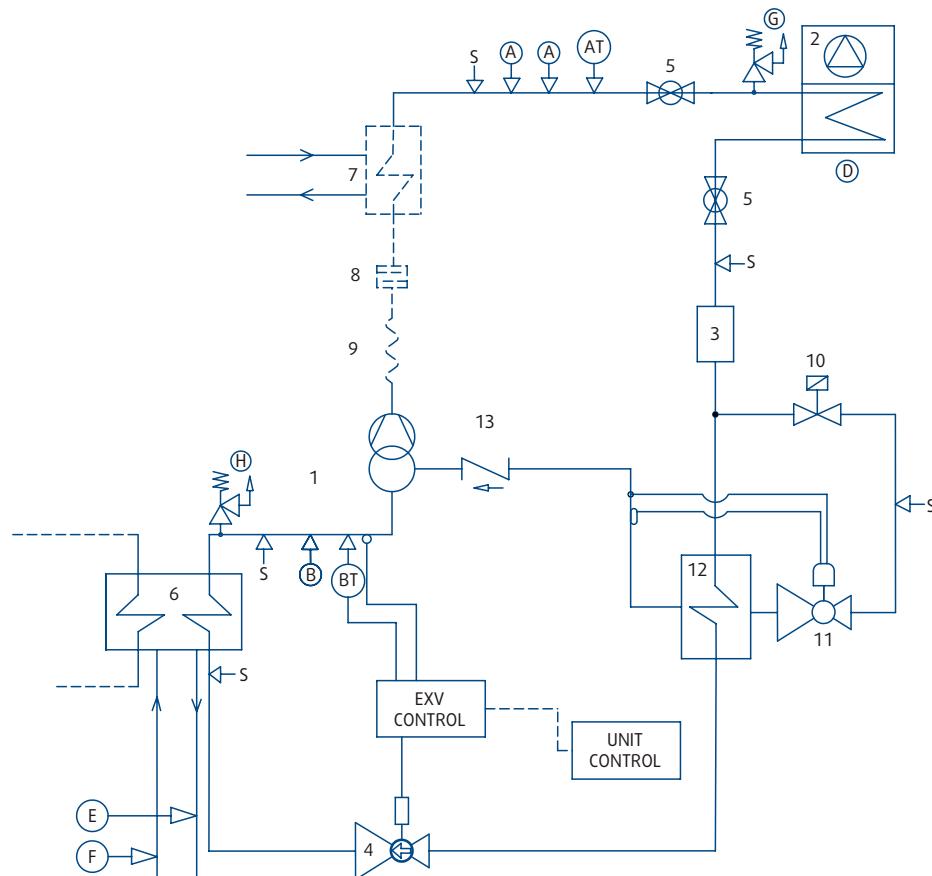
- 1 Compressor (Screw type)
- 2 Air cooled condenser
- 3 Filter drier
- 4 Electronic expansion valve
- 5 Globe valve
- 6 Heat exchanger (Shell & Tube Type)
- 7 Desuperheater (Optional)
- 8 Muffler (Optional)
- 9 Anti-vibration pipe (Optional)

### SAFETY/CONTROL DEVICES

- A High pressure switch (19 bar)
- AT High pressure transducer
- B Low pressure switch (0.5 bar)
- BT Low pressure transducer
- D Air temperature sensor
- E Outlet water temperature sensor
- F Inlet water temperature sensor
- G PED pressure relief valve HP side (21 bar)
- H PED pressure relief valve LP side (14.5 bar)
- S Shrader connection (Service only)
- ↓ Pipe connection with Shrader valve

Note: For reasons of readability, one circuit only is shown. The second circuit is identical.

## SyScrew Air 410-450-650-720-1000-1070-1130-1170-1300-1400



### COMPONENTS

- 1 Compressor (Screw type)
- 2 Air cooled condenser
- 3 Filter drier
- 4 Electronic expansion valve
- 5 Globe valve
- 6 Heat exchanger (Shell & Tube Type)
- 7 Desuperheater (Optional)
- 8 Muffler (Optional)
- 9 Anti-vibration pipe (Optional)
- 10 Solenoid valve (ECO)
- 11 Thermostatic expansion valve (ECO)
- 12 Heat exchanger (Phetype) (ECO)
- 13 Non return valve (ECO)

### SAFETY/CONTROL DEVICES

- A High pressure switch (19 bar)
- AT High pressure transducer
- B Low pressure switch (0.5 bar)
- BT Low pressure transducer
- D Air temperature sensor
- E Outlet water temperature sensor
- F Inlet water temperature sensor
- G PED pressure relief valve HP side (21 bar)
- H PED pressure relief valve LP side (14.5 bar)
- S Shrader connection (Service only)
- ↓ Pipe connection with Shrader valve



## Operating limits

SyScrew 300-1400			850		910		970		1000		1070				
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max			
Chilled liquid	Liquid outlet temperature	Water outlet	°C	0 to +15 (from 0 to +5 with Water/Glycol)											
		Brine outlet (1)	°C	-8 to +15											
		Temperature spread	K	+8 to +3											
	Flow rate (2)		l/h	91.913	245.100	98.148	261.727	104.813	279.500	108.790	290.107	115.455			
	Pressure drop (2)		kPa	21	149	23	167	22	155	23	167	12			
	Maximum operating pressure		bar	10											
Ambient air	Air entering temperature	Cooling (BLN)	°C	0 to +48	0 to +48		0 to +48		0 to +48		0 to +48				
		Cooling (L)	°C	0 to +46	0 to +46	0 to +46	0 to +46	0 to +46	0 to +46						
		Cooling S (3)	°C	-10 to +42	-10 to +42		-10 to +42		-10 to +42		-10 to +42				
		Cooling HT (3)(4)	°C	-10 to +50	-10 to +50		-10 to +50		-10 to +50		-10 to +50				
		Minimum ext. air (5)	°C	-18	-18		-18		-18		-18				
	External static pressure	Standard fans	Pa	0											
		High pressure fans	Pa	< 120											
Recommended system chilled water volume (6)			l	6.413	6.848		7.313		7.590		8.055				
Minimum capacity step			%	23	25		23		25		23				
Power supply voltage			V	400 V +/-10%, 3 Ø, 50 Hz (nominal)											

SyScrew 300-1400			1130		1170		1200		1300		1400				
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max			
Chilled liquid	Liquid outlet temperature	Water outlet	°C	0 to +15 (from 0 to +5 with Water/Glycol)											
		Brine outlet (1)	°C	-8 to +15											
		Temperature spread	K	+8 to +3											
	Flow rate (2)		l/h	122.013	325.367	126.313	336.833	131.258	350.020	141.900	378.400	150.400			
	Pressure drop (2)		kPa	13	95	14	98	15	105	17	122	19			
	Maximum operating pressure		bar	10											
Ambient air	Air entering temperature	Cooling (BLN)	°C	0 to +48	0 to +48		0 to +48		0 to +48		0 to +48				
		Cooling (L)	°C	0 to +46	0 to +46	0 to +46	0 to +46	0 to +46	0 to +46						
		Cooling S (3)	°C	-10 to +42	-10 to +42		-10 to +42		-10 to +42		-10 to +42				
		Cooling HT (3)(4)	°C	-10 to +50	-10 to +50		-10 to +50		-10 to +50		-10 to +50				
		Minimum ext. air (5)	°C	-18	-18		-18		-18		-18				
	External static pressure	Standard fans	Pa	0											
		High pressure fans	Pa	< 120											
Recommended system chilled water volume (6)			l	8.513	8.813		9.158		9.900		10.500				
Minimum capacity step			%	25	23		25		25		25				
Power supply voltage			V	400 V +/-10%, 3 Ø, 50 Hz (nominal)											

(1) Special Unit (BRINE VERSION).

(2) Total unit flow rate and pressure drop are given for BLN unit.

Caution: Minimum flow rates may only be used with brine solutions after reprogramming unit parameters.

(3) With FSC or EC fans.

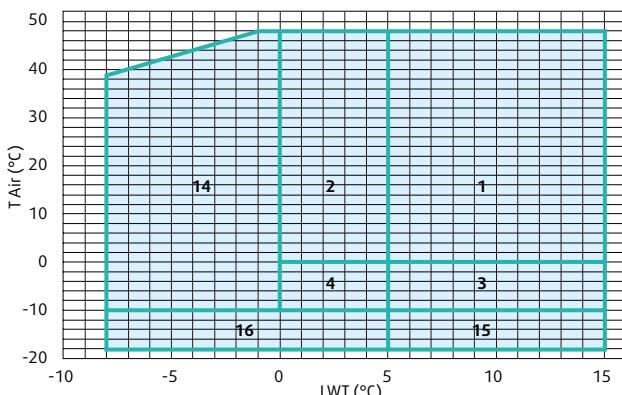
(4) Max. ambient air temperature over 50 °C in part loaded conditions.

(5) Special Unit (POLAR VERSION).

(6) Table shows minimum water/brine volume of system (about 7,5 lt/kW).

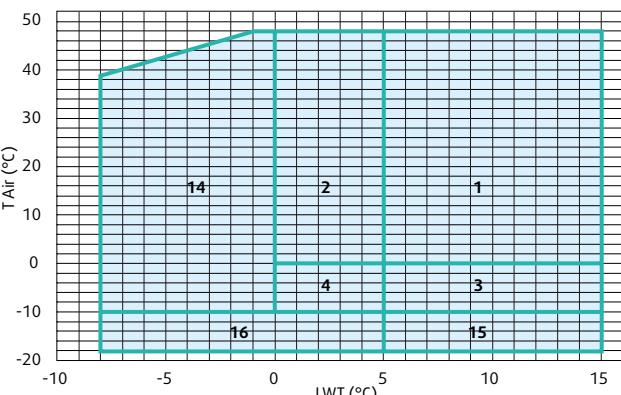
## Operating Limits and Correction Factors

### STD Version



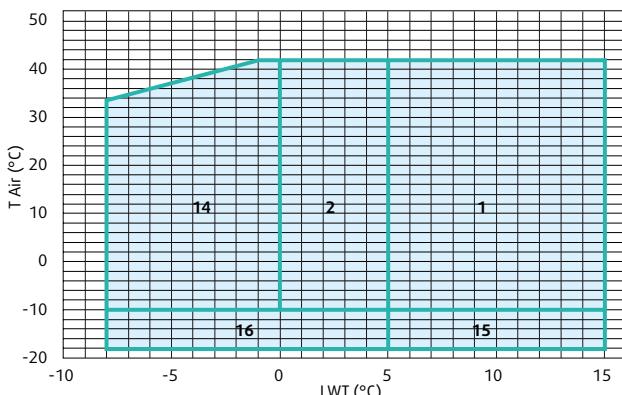
- 1 Water.  
2 Water + Glycol.  
3 Water + FSC.  
4 Water + Glycol + FSC.  
14 Brine Version.  
15 Polar Version.  
16 Polar + Glycol.  
1 + 2 Standard unit.

### L Version



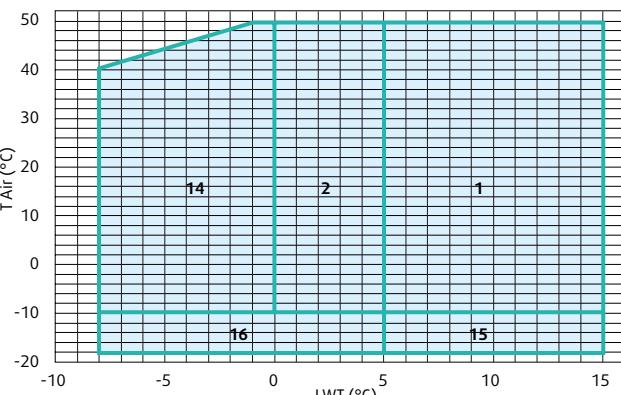
- 1 Water.  
2 Water + Glycol.  
3 Water + FSC.  
4 Water + Glycol + FSC.  
14 Brine Version.  
15 Polar Version.  
16 Polar + Glycol.  
1 + 2 Standard unit.

### S Version



- 1 Water.  
2 Water + Glycol.  
14 Brine Version.  
15 Polar Version.  
16 Polar + Glycol.  
1 + 2 Standard unit.

### HT Version



- 1 Water.  
2 Water + Glycol.  
14 Brine Version.  
15 Polar Version.  
16 Polar + Glycol.  
1 + 2 Standard unit.

## Fouling factors

EVAPORATOR			CONDENSER		
Fouling factor (m <sup>2</sup> .°C/kW)	Cooling capacity factor	Power input factor	Fouling factor (m <sup>2</sup> .°C/kW)	Cooling capacity factor	Power input factor
0.044	1.000	1.000	0.044	1.000	1.000
0.088	0.987	0.995	0.088	0.987	1.023
0.176	0.964	0.985	0.176	0.955	1.068
0.352	0.915	0.962	0.352	0.910	1.135

## Altitude factors

Altitude (m)	Cooling capacity factor	Power input factor
0	1.000	1.000
600	0.987	1.010
1.200	0.973	1.020
1.800	0.958	1.029
2.400	0.943	1.038

## Technical Data - SyScrew 300-1400 (Standard)

### Units subject to the Eurovent certification program LCP/A/P/C

Model		300	360	410	450	480	500	540	580
Cooling Capacity (1)(2)	kW	296	366	415	447	482	506	541	576
Total Input Power (1)(2)	kW	102,2	132,7	150,2	166,1	174,3	182,7	197,0	210,6
EER (2)		2,76	2,76	2,76	2,69	2,76	2,77	2,75	2,74
Water flow rate	m³/h	50,9	63,0	71,3	76,8	82,9	87,0	93,1	99,1
Water pressure drop	kPa	36,4	57,3	39,0	45,3	52,4	31,8	36,3	40,4
Cooling Capacity (1)(3)	kW	295	365	413	445	480	505	540	575
Total Input Power (1)(3)	kW	103,1	134,4	151,5	167,7	176,3	184,1	198,6	212,5
EER (3)		2,71	2,71	2,73	2,65	2,72	2,74	2,72	2,70
EER Efficiency Class	C	C	C	D	C	C	C	C	C
SEER (6)		3,83	3,83	4,13	3,75	3,70	3,65	3,63	3,60
SEPR (7)		2,76	2,63	3,21	3,13	3,02	3,03	2,91	3,22
Number of Refrigerant Circuits		2	2	2	2	2	2	2	2
Part Load Steps	%				25-50-62-75-87-100				
Power Supply					400V/3/50Hz				
Start-up Type	PW	PW	PW	PW	PW	PW	PW	PW	SD
<b>Compressor</b>									
Number		2	2	2	2	2	2	2	2
Type					Screw				
<b>Internal heat exchanger (Evaporator)</b>									
Number		1	1	1	1	1	1	1	1
Type					Shall & tube (Pure counterflow)				
Water connections	inch	5	5	6	6	6	6	6	6
<b>External heat exchanger (Coils)</b>									
Number		6	6	8	8	8	8	9	10
Type					MCHX - Al/Alloy				
<b>Fan</b>									
Number		6	6	8	8	8	8	9	10
Air flow	m³/h	38,3	38,3	51,1	51,1	51,1	51,1	57,5	63,9
Total Input Power	kW	12,6	12,6	16,8	16,8	16,8	16,8	18,9	21,0
<b>Refrigerant</b>									
Type					R134a				
Charge (Total)	kg	43	53	60	65	70	74	79	84
<b>Desuperheater</b>									
Number		2	2	2	2	2	2	2	2
Type					PHE				
Heat recovery	kW	38,8	48,0	54,0	59,0	63,0	66,0	71,0	76,0
Water flow Rate	l/s	1,85	2,29	2,58	2,81	3,01	3,17	3,39	3,61
Water Pressure Drop	kPa	4,3	6,6	8,3	7,3	8,4	7,0	8,0	9,1
<b>Weight</b>									
Shipping	kg	3.160	3.200	3.520	3.830	4.140	4.170	4.400	4.660
Operating	kg	3.270	3.300	3.670	3.990	4.290	4.320	4.550	4.800
<b>Dimensions</b>									
Length	mm	4.600	4.600	4.600	4.600	4.600	4.600	5.700	6.700
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>									
Sound Power Level (4)	dB(A)	95	96	97	97	97	97	98	98
Sound Pressure Level (5)	dB(A)	63	64	65	65	65	65	66	65

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

## Technical Data - SyScrew 300-1400 (Standard)

Model		650	720	800	850	910	970	1000
Cooling Capacity (1)(2)	kW	653,4	715,0	796,4	854,7	913,0	974,6	1.012,0
Total Input Power (1)(2)	kW	235,2	251,4	273,0	295,6	316,4	336,7	346,5
EER (2)		2,78	2,84	2,92	2,89	2,89	2,89	2,92
Water flow rate	m³/h	112,4	123,0	137,0	147,0	157,0	167,6	174,1
Water pressure drop	kPa	30,4	36,2	46,5	53,4	60,2	55,4	60,2
Cooling Capacity (1)(3)	kW	652	713	794	851	909	971	1.008
Total Input Power (1)(3)	kW	236,8	253,4	275,7	298,9	320,2	340,5	350,7
EER (3)		2,75	2,81	2,88	2,85	2,84	2,85	2,87
EER Efficiency Class		C	C	C	C	C	C	C
SEER (6)		3,70	3,68	3,60	3,65	3,63	3,70	3,75
SEPR (7)		3,22	3,22	3,23	3,22	3,22	3,23	3,25
Number of Refrigerant Circuits		2	2	2	2	2	2	2
Part Load Steps	%				25-50-62-75-87-100			
Power Supply					400V/3/50Hz			
Start-up Type		SD	SD	SD	SD	SD	SD	SD
<b>Compressor</b>								
Number		2	2	2	2	2	2	2
Type					Screw			
<b>Internal heat exchanger (Evaporator)</b>								
Number		1	1	1	1	1	1	1
Type					Shall & tube (Pure counterflow)			
Water connections	inch	6	6	8	8	8	8	8
<b>External heat exchanger (Coils)</b>								
Number		12	12	12	14	14	15	16
Type					MCHX - Al/Alloy			
<b>Fan</b>								
Number		12	12	12	14	14	15	16
Air flow	m³/h	76,7	76,7	76,7	89,4	89,4	95,8	102,2
Total Input Power	kW	25,2	25,2	25,2	29,4	29,4	31,5	33,6
<b>Refrigerant</b>								
Type					R134a			
Charge (Total)	kg	95	104	116	124	133	142	147
<b>Desuperheater</b>								
Number		2	2	2	2	2	2	2
Type					PHE			
Heat recovery	kW	85,0	93,0	103,0	111,0	118,0	126,0	131,0
Water flow Rate	l/s	4,07	4,43	4,92	5,28	5,65	6,03	6,24
Water Pressure Drop	kPa	6,8	8,1	10,0	7,9	9,0	10,3	7,9
<b>Weight</b>								
Shipping	kg	5.080	5.500	5.990	6.510	6.600	6.810	6.900
Operating	kg	5.330	5.760	6.220	6.750	6.830	7.090	7.180
<b>Dimensions</b>								
Length	mm	6.700	6.700	6.700	8.800	8.800	8.800	8.800
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>								
Sound Power Level (4)	dB(A)	99	99	99	100	100	100	100
Sound Pressure Level (5)	dB(A)	66	66	66	67	67	67	67

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

Model		1070	1130	1170	1200	1300	1400
Cooling Capacity (1)(2)	kW	1.073,6	1.135,2	1.174,8	1.221,0	1.320,0	1.399,2
Total Input Power (1)(2)	kW	369,3	388,9	407,5	427,9	461,8	478,7
EER (2)		2,91	2,92	2,88	2,85	2,86	2,92
Water flow rate	m³/h	184,7	195,3	202,1	210,0	227,0	240,7
Water pressure drop	kPa	30,7	34,3	35,1	37,9	43,9	49,0
Cooling Capacity (1)(3)	kW	1.071	1.132	1.172	1.218	1.316	1.395
Total Input Power (1)(3)	kW	371,8	391,8	410,5	431,2	465,9	483,3
EER (3)		2,88	2,89	2,85	2,82	2,82	2,89
EER Efficiency Class		C	C	C	C	C	C
SEER (6)		4,10	3,78	3,70	3,78	4,10	3,90
SEPR (7)		3,24	3,30	3,26	3,22	3,23	3,22
Number of Refrigerant Circuits		2	2	2	2	2	2
Part Load Steps	%			25-50-62-75-87-100			
Power Supply				400V/3/50Hz			
Start-up Type		SD	SD	SD	SD	SD	SD
<b>Compressor</b>							
Number		2	2	2	2	2	2
Type				Screw			
<b>Internal heat exchanger (Evaporator)</b>							
Number		1	1	1	1	1	1
Type				Shall & tube (Pure counterflow)			
Water connections	inch	8	8	8	8	10	10
<b>External heat exchanger (Coils)</b>							
Number		17	18	19	20	22	24
Type				MCHX - Al/Alloy			
<b>Fan</b>							
Number		17	18	19	20	22	24
Air flow	m³/h	108,6	115,0	121,4	127,8	140,6	153,4
Total Input Power	kW	35,7	37,8	39,9	42,0	46,2	50,4
<b>Refrigerant</b>				R134a			
Type							
Charge (Total)	kg	156	165	171	178	192	204
<b>Desuperheater</b>							
Number		2	2	2	2	2	2
Type				PHE			
Heat recovery	kW	139,0	147,0	152,0	158,0	171,0	181,3
Water flow Rate	l/s	6,63	7,00	7,27	7,57	8,18	8,66
Water Pressure Drop	kPa	8,9	7,7	8,3	7,0	8,2	9,2
<b>Weight</b>							
Shipping	kg	7.490	7.760	7.970	8.180	8.570	8.890
Operating	kg	7.880	8.150	8.350	8.560	8.940	9.245
<b>Dimensions</b>							
Length	mm	9.900	10.900	10.900	10.900	12.000	13.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>							
Sound Power Level (4)	dB(A)	100	101	101	101	102	103
Sound Pressure Level (5)	dB(A)	67	68	68	68	69	70

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

## Technical Data - SyScrew 300-1400 (L - Low Noise Version)

### Units subject to the Eurovent certification program LCP/A/P/C

Model		300	360	410	450	480	500	540	580
Cooling Capacity (1)(2)	kW	284	359	406	438	472	496	530	565
Total Input Power (1)(2)	kW	101,7	131,8	147,9	164,4	173,0	181,7	195,6	208,7
EER (2)		2,79	2,72	2,75	2,66	2,73	2,73	2,71	2,71
Water flow rate	m³/h	48,8	61,7	69,9	75,3	81,2	85,3	91,2	97,2
Water pressure drop	kPa	33,5	55,1	37,5	43,5	50,4	30,5	34,8	38,8
Cooling Capacity (1)(3)	kW	283	357	405	436	470	495	529	563
Total Input Power (1)(3)	kW	102,6	133,4	149,2	166,0	174,9	183,0	197,1	210,5
EER (3)		2,76	2,68	2,72	2,63	2,69	2,70	2,68	2,68
EER Efficiency Class		C	D	C	D	D	C	D	D
SEER (6)		3,83	3,83	4,13	4,13	3,70	3,70	3,63	3,55
SEPR (7)		3,05	2,91	3,50	3,41	3,22	3,24	3,09	3,35
Number of Refrigerant Circuits		2	2	2	2	2	2	2	2
Part Load Steps	%					25-50-62-75-87-100			
Power Supply						400V/3/50Hz			
Start-up Type		PW	PW	PW	PW	PW	PW	PW	SD
<b>Compressor</b>									
Number		2	2	2	2	2	2	2	2
Type						Screw			
<b>Internal heat exchanger (Evaporator)</b>									
Number		1	1	1	1	1	1	1	1
Type						Shall & tube (Pure counterflow)			
Water connections	inch	5	5	6	6	6	6	6	6
<b>External heat exchanger (Coils)</b>									
Number		6	6	8	8	8	8	9	10
Type						MCHX - Al/Alloy			
<b>Fan</b>									
Number		6	6	8	8	8	8	9	10
Air flow	m³/h	31,8	31,8	42,4	42,4	42,4	42,4	47,8	53,1
Total Input Power	kW	6,9	6,9	9,2	9,2	9,2	9,2	10,4	11,5
<b>Refrigerant</b>									
Type						R134a			
<b>Desuperheater</b>									
Number		2	2	2	2	2	2	2	2
Type						PHE			
<b>Weight</b>									
Shipping	kg	3.160	3.200	3.520	3.830	4.140	4.170	4.400	4.660
Operating	kg	3.270	3.300	3.670	3.990	4.290	4.320	4.550	4.800
<b>Dimensions</b>									
Length	mm	4.600	4.600	4.600	4.600	4.600	4.600	5.700	6.700
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>									
Sound Power Level (4)	dB(A)	89	90	91	91	91	91	92	92
Sound Pressure Level (5)	dB(A)	57	58	59	59	59	59	60	59

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

Model		650	720	800	850	910	970	1000
Cooling Capacity (1)(2)	kW	640,3	700,7	780,5	837,6	894,7	955,1	991,8
Total Input Power (1)(2)	kW	232,2	249,0	269,4	292,9	314,6	334,6	343,8
EER (2)		2,76	2,81	2,90	2,86	2,84	2,85	2,88
Water flow rate	m³/h	110,1	120,5	134,2	144,1	153,9	164,3	170,6
Water pressure drop	kPa	29,2	34,8	44,7	51,3	57,8	53,2	57,8
Cooling Capacity (1)(3)	kW	639	699	778	835	891	952	988
Total Input Power (1)(3)	kW	233,7	250,9	272,0	296,0	318,2	338,2	347,8
EER (3)		2,73	2,78	2,86	2,82	2,80	2,81	2,84
EER Efficiency Class		C	C	C	C	C	C	C
SEER (6)		4,10	3,70	3,50	3,68	3,65	3,70	4,13
SEPR (7)		3,29	3,37	3,31	3,44	3,43	3,44	3,40
Number of Refrigerant Circuits		2	2	2	2	2	2	2
Part Load Steps	%				25-50-62-75-87-100			
Power Supply					400V/3/50Hz			
Start-up Type		SD	SD	SD	SD	SD	SD	SD
<b>Compressor</b>								
Number		2	2	2	2	2	2	2
Type					Screw			
<b>Internal heat exchanger (Evaporator)</b>								
Number		1	1	1	1	1	1	1
Type					Shall & tube (Pure counterflow)			
Water connections	inch	6	6	8	8	8	8	8
<b>External heat exchanger (Coils)</b>								
Number		12	12	12	14	14	15	16
Type					MCHX - Al/Alloy			
<b>Fan</b>								
Number		12	12	12	14	14	15	16
Air flow	m³/h	63,7	63,7	63,7	74,3	74,3	79,6	84,9
Total Input Power	kW	13,8	13,8	13,8	16,1	16,1	17,3	18,4
<b>Refrigerant</b>								
Type					R134a			
<b>Desuperheater</b>								
Number		2	2	2	2	2	2	2
Type					PHE			
<b>Weight</b>								
Shipping	kg	5.080	5.500	5.990	6.510	6.600	6.810	6.900
Operating	kg	5.330	5.760	6.220	6.750	6.830	7.090	7.180
<b>Dimensions</b>								
Length	mm	6.700	6.700	6.700	8.800	8.800	8.800	8.800
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>								
Sound Power Level (4)	dB(A)	93	93	93	94	94	94	94
Sound Pressure Level (5)	dB(A)	60	60	60	61	61	61	61

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

## Technical Data - SyScrew 300-1400 (L - Low Noise Version)

Model		1070	1130	1170	1200	1300	1400
Cooling Capacity (1)(2)	kW	1.052,1	1.112,5	1.151,3	1.196,6	1.293,6	1.350,4
Total Input Power (1)(2)	kW	366,5	385,9	404,2	424,3	457,6	487,1
EER (2)		2,87	2,88	2,85	2,82	2,83	2,77
Water flow rate	m³/h	181,0	191,3	198,0	205,8	222,5	232,3
Water pressure drop	kPa	29,5	32,9	33,7	36,4	42,2	45,6
Cooling Capacity (1)(3)	kW	1.050	1.110	1.148	1.193	1.290	1.346
Total Input Power (1)(3)	kW	368,8	388,6	407,0	427,4	461,4	491,3
EER (3)		2,85	2,86	2,82	2,79	2,80	2,74
EER Efficiency Class		C	C	C	C	C	C
SEER (6)		4,15	4,13	3,75	4,13	4,13	3,98
SEPR (7)		3,38	3,50	3,34	3,37	3,37	3,29
Number of Refrigerant Circuits		2	2	2	2	2	2
Part Load Steps	%			25-50-62-75-87-100			
Power Supply				400V/3/50Hz			
Start-up Type		SD	SD	SD	SD	SD	SD
<b>Compressor</b>							
Number		2	2	2	2	2	2
Type				Screw			
<b>Internal heat exchanger (Evaporator)</b>							
Number		1	1	1	1	1	1
Type				Shall & tube (Pure counterflow)			
Water connections	inch	8	8	8	8	10	10
<b>External heat exchanger (Coils)</b>							
Number		17	18	19	20	22	24
Type				MCHX - Al/Alloy			
<b>Fan</b>							
Number		17	18	19	20	22	24
Air flow	m³/h	90,2	95,5	100,8	106,1	116,7	127,3
Total Input Power	kW	19,6	20,7	21,9	23,0	25,3	27,6
<b>Refrigerant</b>							
Type				R134a			
<b>Desuperheater</b>							
Number		2	2	2	2	2	2
Type				PHE			
<b>Weight</b>							
Shipping	kg	7.490	7.760	7.970	8.180	8.570	8.890
Operating	kg	7.880	8.150	8.350	8.560	8.940	9.245
<b>Dimensions</b>							
Length	mm	9.900	10.900	10.900	10.900	12.000	13.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>							
Sound Power Level (4)	dB(A)	94	95	95	95	96	97
Sound Pressure Level (5)	dB(A)	61	62	62	62	63	64

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

## Technical Data - SyScrew 300-1400 (S - Super Low Noise Version)

### Units subject to the Eurovent certification program LCP/A/P/C

Model		300	360	410	450	480	500	540	580
Cooling Capacity (1)(2)	kW	277	341	386	415	448	471	503	536
Total Input Power (1)(2)	kW	104,9	139,0	155,9	173,4	182,4	191,7	206,3	220,1
EER (2)		2,64	2,45	2,47	2,40	2,46	2,45	2,44	2,44
Water flow rate	m³/h	47,6	58,6	66,3	71,4	77,1	80,9	86,6	92,2
Water pressure drop	kPa	31,8	49,6	33,8	39,2	45,4	27,5	31,4	35,0
Cooling Capacity (1)(3)	kW	276	339	385	414	446	469	502	535
Total Input Power (1)(3)	kW	105,7	140,4	157,0	174,7	184,1	192,8	207,6	221,6
EER (3)		2,61	2,42	2,45	2,37	2,43	2,43	2,42	2,41
EER Efficiency Class		D	E	E	E	E	E	E	E
SEER (6)		3,40	3,35	3,73	3,70	3,48	3,53	3,48	3,43
SEPR (7)		2,96	2,82	2,82	3,39	3,31	3,12	3,13	3,02
Number of Refrigerant Circuits		2	2	2	2	2	2	2	2
Part Load Steps	%				25-50-62-75-87-100				
Power Supply					400V/3/50Hz				
Start-up Type		PW	PW	PW	PW	PW	PW	PW	SD
<b>Compressor</b>									
Number		2	2	2	2	2	2	2	2
Type					Screw				
<b>Internal heat exchanger (Evaporator)</b>									
Number		1	1	1	1	1	1	1	1
Type					Shall & tube (Pure counterflow)				
Water connections	inch	5	5	6	6	6	6	6	6
<b>External heat exchanger (Coils)</b>									
Number		6	6	8	8	8	8	9	10
Type					MCHX - Al/Alloy				
<b>Fan</b>									
Number		6	6	8	8	8	8	9	10
Air flow	m³/h	25,8	25,8	34,4	34,4	34,4	34,4	38,6	43,1
Total Input Power	kW	6,9	6,9	9,2	9,2	9,2	9,2	10,4	11,5
<b>Refrigerant</b>									
Type					R134a				
<b>Desuperheater</b>									
Number		2	2	2	2	2	2	2	2
Type					PHE				
<b>Weight</b>									
Shipping	kg	3.240	3.280	3.600	3.920	4.230	4.260	4.490	4.760
Operating	kg	3.350	3.380	3.760	4.080	4.390	4.410	4.640	4.900
<b>Dimensions</b>									
Length	mm	4.600	4.600	4.600	4.600	4.600	4.600	5.700	6.700
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>									
Sound Power Level (4)	dB(A)	85	86	87	87	87	87	88	88
Sound Pressure Level (5)	dB(A)	53	54	55	55	55	55	56	55

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

## Technical Data - SyScrew 300-1400 (S - Super Low Noise Version)

Model		650	720	800	850	910	970	1000
Cooling Capacity (1)(2)	kW	607,7	665,0	740,7	794,9	849,1	906,4	941,2
Total Input Power (1)(2)	kW	244,8	262,6	284,0	308,9	331,8	352,9	362,6
EER (2)		2,48	2,53	2,61	2,57	2,56	2,57	2,60
Water flow rate	m³/h	104,5	114,4	127,4	136,7	146,0	155,9	161,9
Water pressure drop	kPa	26,3	31,3	40,2	46,2	52,0	47,9	52,0
Cooling Capacity (1)(3)	kW	606	663	738	792	846	903	938
Total Input Power (1)(3)	kW	246,1	264,3	286,3	311,6	335,0	356,1	366,0
EER (3)		2,46	2,51	2,58	2,54	2,53	2,54	2,56
EER Efficiency Class		E	D	D	D	D	D	D
SEER (6)		3,65	3,55	3,33	3,53	3,48	3,53	3,65
SEPR (7)		3,26	3,26	3,27	3,33	3,32	3,33	3,29
Number of Refrigerant Circuits		2	2	2	2	2	2	2
Part Load Steps	%				25-50-62-75-87-100			
Power Supply					400V/3/50Hz			
Start-up Type		SD	SD	SD	SD	SD	SD	SD
<b>Compressor</b>								
Number		2	2	2	2	2	2	2
Type					Screw			
<b>Internal heat exchanger (Evaporator)</b>								
Number		1	1	1	1	1	1	1
Type					Shall & tube (Pure counterflow)			
Water connections	inch	6	6	8	8	8	8	8
<b>External heat exchanger (Coils)</b>								
Number		12	12	12	14	14	15	16
Type					MCHX - Al/Alloy			
<b>Fan</b>								
Number		12	12	12	14	14	15	16
Air flow	m³/h	51,7	51,7	51,7	60,3	60,3	64,6	68,9
Total Input Power	kW	13,8	13,8	13,8	16,1	16,1	17,3	18,4
<b>Refrigerant</b>								
Type					R134a			
<b>Desuperheater</b>								
Number		2	2	2	2	2	2	2
Type					PHE			
<b>Weight</b>								
Shipping	kg	5.180	5.600	6.090	6.620	6.700	6.920	7.010
Operating	kg	5.430	5.860	6.320	6.850	6.930	7.190	7.280
<b>Dimensions</b>								
Length	mm	6.700	6.700	6.700	8.800	8.800	8.800	8.800
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>								
Sound Power Level (4)	dB(A)	89	89	89	89	90	90	90
Sound Pressure Level (5)	dB(A)	56	56	56	56	57	57	57

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

Model		1070	1130	1170	1200	1300	1400
Cooling Capacity (1)(2)	kW	998,4	1.055,7	1.092,6	1.135,5	1.227,6	1.328,4
Total Input Power (1)(2)	kW	386,5	406,9	426,3	447,4	482,5	507,0
EER (2)		2,58	2,59	2,56	2,54	2,54	2,62
Water flow rate	m³/h	171,7	181,6	187,9	195,3	211,1	228,5
Water pressure drop	kPa	26,6	29,6	30,3	32,8	38,0	44,2
Cooling Capacity (1)(3)	kW	996	1.053	1.090	1.133	1.224	1.324
Total Input Power (1)(3)	kW	388,5	409,3	428,7	450,2	485,8	511,0
EER (3)		2,56	2,57	2,54	2,52	2,52	2,59
EER Efficiency Class		D	D	D	D	D	D
SEER (6)		3,73	3,65	3,58	3,45	3,68	3,83
SEPR (7)		3,28	3,39	3,24	3,26	3,26	3,26
Number of Refrigerant Circuits		2	2	2	2	2	2
Part Load Steps	%			25-50-62-75-87-100			
Power Supply				400V/3/50Hz			
Start-up Type		SD	SD	SD	SD	SD	SD
<b>Compressor</b>							
Number		2	2	2	2	2	2
Type				Screw			
<b>Internal heat exchanger (Evaporator)</b>							
Number		1	1	1	1	1	1
Type				Shall & tube (Pure counterflow)			
Water connections	inch	8	8	8	8	10	10
<b>External heat exchanger (Coils)</b>							
Number		17	18	19	20	22	24
Type				MCHX - Al/Alloy			
<b>Fan</b>							
Number		17	18	19	20	22	24
Air flow	m³/h	73,2	77,5	81,8	86,1	94,7	103,3
Total Input Power	kW	19,6	20,7	21,9	23,0	25,3	27,6
<b>Refrigerant</b>							
Type				R134a			
<b>Desuperheater</b>							
Number		2	2	2	2	2	2
Type				PHE			
<b>Weight</b>							
Shipping	kg	7.590	7.860	8.070	8.280	8.670	8.990
Operating	kg	7.980	8.250	8.450	8.660	9.040	9.345
<b>Dimensions</b>							
Length	mm	9.900	10.900	10.900	10.900	12.000	13.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>							
Sound Power Level (4)	dB(A)	90	91	91	91	92	93
Sound Pressure Level (5)	dB(A)	57	58	58	58	59	60

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

## Technical Data - SyScrew 300-1400 (HT - High Temperature Version)

### Units subject to the Eurovent certification program LCP/A/P/C

Model		300	360	410	450	480	500	540	580
Cooling Capacity (1)(2)	kW	302	374	423	456	491	516	552	588
Total Input Power (1)(2)	kW	105,8	129,7	147,8	162,5	170,3	178,2	192,6	206,0
EER (2)		2,85	2,88	2,86	2,80	2,89	2,90	2,87	2,85
Water flow rate	m³/h	51,9	64,3	72,8	78,4	84,5	88,8	94,9	101,1
Water pressure drop	kPa	37,9	59,7	40,6	47,2	54,6	33,1	37,7	42,0
Cooling Capacity (1)(3)	kW	301	372	422	454	489	515	550	586
Total Input Power (1)(3)	kW	106,8	138,1	156,9	172,8	181,2	188,8	204,1	218,8
EER (3)		2,82	2,69	2,69	2,63	2,70	2,73	2,70	2,68
EER Efficiency Class		C	D	D	D	C	C	D	D
SEER (6)		3,70	3,83	4,13	4,10	3,75	3,70	3,73	3,63
SEPR (7)		2,84	2,71	3,28	3,19	3,07	3,08	2,96	3,25
Number of Refrigerant Circuits		2	2	2	2	2	2	2	2
Part Load Steps	%					25-50-62-75-87-100			
Power Supply						400V/3/50Hz			
Start-up Type		PW	PW	PW	PW	PW	PW	PW	SD
<b>Compressor</b>									
Number		2	2	2	2	2	2	2	2
Type						Screw			
<b>Internal heat exchanger (Evaporator)</b>									
Number		1	1	1	1	1	1	1	1
Type						Shall & tube (Pure counterflow)			
Water connections	inch	5	5	6	6	6	6	6	6
<b>External heat exchanger (Coils)</b>									
Number		6	6	8	8	8	8	9	10
Type						MCHX - Al/Alloy			
<b>Fan</b>									
Number		6	6	8	8	8	8	9	10
Air flow	m³/h	46,8	46,8	62,4	62,4	62,4	62,4	70,3	78,1
Total Input Power	kW	18,6	18,6	24,8	24,8	24,8	24,8	27,9	31,0
<b>Refrigerant</b>									
Type						R134a			
<b>Desuperheater</b>									
Number		2	2	2	2	2	2	2	2
Type						PHE			
<b>Weight</b>									
Shipping	kg	3.160	3.200	3.520	3.830	4.140	4.170	4.400	4.660
Operating	kg	3.270	3.300	3.670	3.990	4.290	4.320	4.550	4.800
<b>Dimensions</b>									
Length	mm	4.600	4.600	4.600	4.600	4.600	4.600	5.700	6.700
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>									
Sound Power Level (4)	dB(A)	101	102	103	103	103	103	104	104
Sound Pressure Level (5)	dB(A)	69	70	71	71	71	71	72	71

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

Model		650	720	800	850	910	970	1000
Cooling Capacity (1)(2)	kW	666,5	729,3	812,3	871,8	931,3	994,1	1.032,2
Total Input Power (1)(2)	kW	231,0	248,6	269,6	289,2	308,8	330,1	341,6
EER (2)		2,89	2,93	3,01	3,01	3,02	3,01	3,02
Water flow rate	m³/h	114,6	125,4	139,7	149,9	160,2	171,0	177,5
Water pressure drop	kPa	31,6	37,7	48,4	55,5	62,6	57,7	62,6
Cooling Capacity (1)(3)	kW	665	727	809	868	927	990	1.028
Total Input Power (1)(3)	kW	244,7	261,0	285,0	307,7	328,7	349,6	360,6
EER (3)		2,72	2,79	2,84	2,82	2,82	2,83	2,85
EER Efficiency Class		C	C	C	C	C	C	C
SEER (6)		3,75	3,73	3,65	3,70	3,70	3,75	4,13
SEPR (7)		3,24	3,23	3,25	3,28	3,27	3,28	3,27
Number of Refrigerant Circuits		2	2	2	2	2	2	2
Part Load Steps	%				25-50-62-75-87-100			
Power Supply					400V/3/50Hz			
Start-up Type		SD	SD	SD	SD	SD	SD	SD
<b>Compressor</b>								
Number		2	2	2	2	2	2	2
Type					Screw			
<b>Internal heat exchanger (Evaporator)</b>								
Number		1	1	1	1	1	1	1
Type					Shall & tube (Pure counterflow)			
Water connections	inch	6	6	8	8	8	8	8
<b>External heat exchanger (Coils)</b>								
Number		12	12	12	14	14	15	16
Type					MCHX - Al/Alloy			
<b>Fan</b>								
Number		12	12	12	14	14	15	16
Air flow	m³/h	93,7	93,7	93,7	109,3	109,3	117,1	124,9
Total Input Power	kW	37,2	37,2	37,2	43,4	43,4	46,5	49,6
<b>Refrigerant</b>								
Type					R134a			
<b>Desuperheater</b>								
Number		2	2	2	2	2	2	2
Type					PHE			
<b>Weight</b>								
Shipping	kg	5.080	5.500	5.990	6.510	6.600	6.810	6.900
Operating	kg	5.330	5.760	6.220	6.750	6.830	7.090	7.180
<b>Dimensions</b>								
Length	mm	6.700	6.700	6.700	8.800	8.800	8.800	8.800
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>								
Sound Power Level (4)	dB(A)	105	105	105	106	106	106	106
Sound Pressure Level (5)	dB(A)	72	72	72	73	73	73	73

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

## Technical Data - SyScrew 300-1400 (HT - High Temperature Version)

Model		1070	1130	1170	1200	1300	1400
Cooling Capacity (1)(2)	kW	1.095,1	1.157,9	1.198,3	1.245,4	1.346,4	1.420,1
Total Input Power (1)(2)	kW	361,9	381,3	406,5	426,8	460,5	489,2
EER (2)		3,03	3,04	2,95	2,92	2,92	2,90
Water flow rate	m³/h	188,4	199,2	206,1	214,2	231,6	244,3
Water pressure drop	kPa	32,0	35,6	36,5	39,5	45,7	50,5
Cooling Capacity (1)(3)	kW	1.092	1.155	1.195	1.242	1.342	1.415
Total Input Power (1)(3)	kW	382,2	402,9	422,3	443,6	479,8	494,0
EER (3)		2,86	2,87	2,83	2,80	2,80	2,86
EER Efficiency Class	C	C	C	C	C	C	C
SEER (6)		4,13	4,13	3,75	4,15	4,13	3,90
SEPR (7)		3,25	3,35	3,22	3,24	3,29	3,25
Number of Refrigerant Circuits		2	2	2	2	2	2
Part Load Steps	%			25-50-62-75-87-100			
Power Supply				400V/3/50Hz			
Start-up Type		SD	SD	SD	SD	SD	SD
<b>Compressor</b>							
Number		2	2	2	2	2	2
Type				Screw			
<b>Internal heat exchanger (Evaporator)</b>							
Number		1	1	1	1	1	1
Type				Shall & tube (Pure counterflow)			
Water connections	inch	8	8	8	8	10	10
<b>External heat exchanger (Coils)</b>							
Number		17	18	19	20	22	24
Type				MCHX - Al/Alloy			
<b>Fan</b>							
Number		17	18	19	20	22	24
Air flow	m³/h	132,7	140,5	148,3	156,1	171,7	187,3
Total Input Power	kW	52,7	55,8	58,9	62,0	68,2	74,4
<b>Refrigerant</b>							
Type				R134a			
<b>Desuperheater</b>							
Number		2	2	2	2	2	2
Type				PHE			
<b>Weight</b>							
Shipping	kg	7.490	7.760	7.970	8.180	8.570	8.890
Operating	kg	7.880	8.150	8.350	8.560	8.940	9.245
<b>Dimensions</b>							
Length	mm	9.900	10.900	10.900	10.900	12.000	13.000
Width	mm	2.200	2.200	2.200	2.200	2.200	2.200
Height	mm	2.510	2.510	2.510	2.510	2.510	2.510
<b>Acoustic Data</b>							
Sound Power Level (4)	dB(A)	106	107	107	107	108	109
Sound Pressure Level (5)	dB(A)	73	74	74	74	75	76

(1) Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser OAT 35 °C.

(2) GROSS value (without hydraulic contribute).

(3) NET value - According to standard EN 14511-3:2011.

(4) Sound power levels refers to standard ISO 3744 and Eurovent 8/1 for units certified - Units at fully loaded conditions.

(5) Sound pressure levels refers to unit in free field on reflective surface at 10 m - Values derived from sound power levels (standard ISO 3744 with parallelepiped shape).

(6) Following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.

(7) Following COMMISSION REGULATION (EU) No 1095/2015 for medium temperature process chiller.

## Electrical Data - SyScrew 300-1400

### Compressors @ 400V/3/50Hz

Model	System	Frame	Compressor start mode	Power input nominal Cond. compressor	Nom. Cond. current compressor	Power input max. Cond. compressor	Max. running current compressor FLA	Starting current compressor LRA	Carter oil 230Vac	Nominal power factor
				kW	A	kW	A	A	W	
300	1	4V	PW	43	75	78	124	290	200	0,83
	2			43	75	78	124	290	200	0,83
360	1	4V	PW	56	93	96	162	423	200	0,87
	2			56	93	96	162	423	200	0,87
410	1	4V	PW	62	101	96	162	423	200	0,88
	2			62	101	96	162	423	200	0,88
450	1	4V	PW	62	101	96	162	423	200	0,88
	2			76	128	110	182	457	300	0,86
480	1	4V	PW	69	117	110	182	457	300	0,85
	2			77	132	120	196	562	300	0,84
500	1	4V	PW	77	132	120	196	562	300	0,84
	2			77	132	120	196	562	300	0,84
540	1	5V	PW	77	132	120	196	562	300	0,84
	2			88	149	131	214	579	300	0,85
580	1	6V	SD	88	149	131	214	306	300	0,85
	2			88	149	131	214	306	300	0,85
650	1	6V	SD	97	163	131	214	306	300	0,86
	2			97	163	131	214	306	300	0,86
720	1	6V	SD	97	163	131	214	306	300	0,86
	2			115	188	155	280	436	300	0,88
800	1	6V	SD	115	186	175	310	465	300	0,89
	2			115	186	175	310	465	300	0,89
850	1	8V	SD	115	186	175	310	465	300	0,89
	2			134	223	204	320	586	300	0,87
910	1	8V	SD	134	223	204	320	586	300	0,87
	2			134	223	204	320	586	300	0,87
970	1	8V	SD	134	223	204	320	586	300	0,87
	2			151	250	222	360	650	300	0,87
1000	1	8V	SD	147	243	204	320	586	300	0,87
	2			147	243	204	320	586	300	0,87
1070	1	9V	SD	147	243	204	320	586	300	0,87
	2			164	269	222	360	650	300	0,88
1130	1	10V	SD	164	269	222	360	650	300	0,88
	2			164	269	222	360	650	300	0,88
1170	1	10V	SD	164	269	222	360	650	300	0,88
	2			186	306	254	413	805	300	0,88
1200	1	10V	SD	184	309	277	447	917	300	0,86
	2			184	309	277	447	917	300	0,86
1300	1	11V	SD	198	329	277	447	917	300	0,87
	2			198	329	277	447	917	300	0,87
1400	1	12V	SD	198	329	277	447	917	300	0,87
	2			198	329	277	447	917	300	0,87

## Electrical Data - SyScrew 300-1400

### Fans @ 400V/3/50Hz

Model	Standard AC fans 080 6 poli 400V-3-50		
	Number	Nominal power (kW) Δ	Max. running current (A) Δ
<b>- Version</b>			
300	6	1,9	3,9
360	6	1,9	3,9
400	8	1,9	3,9
430	8	1,9	3,9
460	8	1,9	3,9
490	8	1,9	3,9
540	9	1,9	3,9
580	10	1,9	3,9
650	12	1,9	3,9
720	12	1,9	3,9
800	12	1,9	3,9
850	14	1,9	3,9
910	14	1,9	3,9
970	15	1,9	3,9
1000	16	1,9	3,9
1070	17	1,9	3,9
1130	18	1,9	3,9
1170	19	1,9	3,9
1200	20	1,9	3,9
1300	22	1,9	3,9
1400	24	1,9	3,9
<b>L/S Version</b>			
300	6	1,1	2
360	6	1,1	2
410	8	1,1	2
450	8	1,1	2
480	8	1,1	2
500	8	1,1	2
540	9	1,1	2
580	10	1,1	2
650	12	1,1	2
720	12	1,1	2
800	12	1,1	2
850	14	1,1	2
910	14	1,1	2
970	15	1,1	2
1000	16	1,1	2
1070	17	1,1	2
1130	18	1,1	2
1170	19	1,1	2
1200	20	1,1	2
1300	22	1,1	2
1400	24	1,1	2
<b>HT/HPF Version</b>			
300	6	3,1	4,8
360	6	3,1	4,8
410	8	3,1	4,8
450	8	3,1	4,8
480	8	3,1	4,8
500	8	3,1	4,8
540	9	3,1	4,8
580	10	3,1	4,8
650	12	3,1	4,8
720	12	3,1	4,8
800	12	3,1	4,8
850	14	3,1	4,8
910	14	3,1	4,8
970	15	3,1	4,8
1000	16	3,1	4,8
1070	17	3,1	4,8
1130	18	3,1	4,8
1170	19	3,1	4,8
1200	20	3,1	4,8
1300	22	3,1	4,8
1400	24	3,1	4,8

**Units @ 400 V/3 Ph/50 Hz**

- Version		300	360	410	450	480	500	540	580	650	720	800	850	910	970	1000	1070	1130	1170	1200	1300	1400	
Current input	Nominal	A	173	209	234	260	280	296	317	338	373	398	419	464	501	532	548	578	608	649	696	744	752
	Maximum	A	271	347	355	375	409	423	445	467	475	541	667	685	695	739	702	746	790	847	972	980	988
Power input	Nominal	kW	97	123	139	153	161	169	182	195	217	235	252	275	294	313	324	343	361	386	407	438	442
	Maximum	kW	167	203	207	221	245	255	268	281	285	309	373	406	435	455	438	458	478	512	592	596	600
Max Start-up current	A	437	608	616	650	775	789	811	559	567	697	822	951	961	1.029	968	1.036	1.080	1.239	1.442	1.450	1.458	
UNIT (aM) FUSES	A	315	400	400	400	500	500	500	500	500	630	800	800	800	800	800	800	800	1.000	1.000	1.250	1.250	1.250
Phase WIRE SECTION	mm <sup>2</sup>	185	240	240	240	240	2x 185	2x 240	2x 300	2x 300	2x 400	2x 400	2x 400	2x 400									

L/S Version		300	360	410	450	480	500	540	580	650	720	800	850	910	970	1000	1070	1130	1170	1200	1300	1400	
Current input	Nominal	A	162	197	218	245	265	281	300	319	350	375	396	437	474	503	518	546	574	613	658	702	706
	Maximum	A	260	336	340	360	394	408	428	448	452	518	644	658	668	710	672	714	756	811	934	938	942
Power input	Nominal	kW	93	119	132	147	155	163	175	187	208	225	243	264	283	301	311	329	347	371	391	420	423
	Maximum	kW	163	199	201	215	239	249	261	273	275	299	363	394	423	443	426	445	464	497	576	578	580
Max Start-up current	A	426	597	601	635	760	774	794	540	544	674	799	924	934	1.000	938	1.004	1.046	1.203	1.404	1.408	1.412	
UNIT (aM) FUSES	A	315	400	400	400	500	500	500	500	500	630	800	800	800	800	800	800	800	1.000	1.250	1.250	1.250	
Phase WIRE SECTION	mm <sup>2</sup>	185	240	240	240	240	2x 185	2x 240	2x 300	2x 300	2x 400	2x 400	2x 400	2x 400									

HT/HPP Version		300	360	410	450	480	500	540	580	650	720	800	850	910	970	1000	1070	1130	1170	1200	1300	1400	
Current input	Nominal	A	179	214	241	268	287	303	325	347	384	409	430	476	513	545	563	594	624	666	714	764	773
	Maximum	A	277	353	362	382	416	430	453	476	486	552	678	697	707	752	717	762	806	864	990	1.000	1.009
Power input	Nominal	kW	105	131	148	163	171	179	193	207	232	249	267	292	311	331	343	363	383	409	431	464	471
	Maximum	kW	175	211	217	231	255	265	279	293	299	323	387	422	451	473	458	479	500	535	616	622	628
Max Start-up current	A	443	614	623	657	782	796	819	568	578	708	833	963	973	1.042	983	1.052	1.096	1.256	1.460	1.470	1.479	
UNIT (aM) FUSES	A	315	400	400	400	500	500	500	500	500	630	800	800	800	800	800	800	800	1.000	1.250	1.250	1.250	
Phase WIRE SECTION	mm <sup>2</sup>	185	240	240	240	240	2x 185	2x 240	2x 300	2x 300	2x 400	2x 400	2x 400	2x 400									

## Sound Data - SyScrew 300-1400

Model	Frequency (Hz)								Sound Power dB(A)	Sound Pressure dB(A)(*)
	63	125	250	500	1000	2000	4000	8000		
<b>- Version</b>										
300	103	98	96	93	89	84	82	74	95	63
360	104	99	97	94	90	85	83	75	96	64
410	105	100	98	95	91	86	84	76	97	65
450	105	100	98	95	91	86	84	76	97	65
480	105	100	98	95	91	86	84	76	97	65
500	105	100	98	95	91	86	84	76	97	65
540	106	101	99	96	92	87	85	77	98	66
580	106	101	99	96	92	87	85	77	98	65
650	107	102	100	97	93	88	86	78	99	66
720	107	102	100	97	93	88	86	78	99	66
800	107	102	100	97	93	88	86	78	99	66
850	108	103	101	98	94	89	87	79	100	67
910	108	103	101	98	94	89	87	79	100	67
970	108	103	101	98	94	89	87	79	100	67
1000	108	103	101	98	94	89	87	79	100	67
1070	108	103	101	98	94	89	87	79	100	67
1130	109	104	102	99	95	90	88	80	101	68
1170	109	104	102	99	95	90	88	80	101	68
1200	109	104	102	99	95	90	88	80	101	68
1300	110	105	103	100	96	91	89	81	102	69
1400	111	106	104	101	97	92	90	82	103	70
<b>L Version</b>										
300	97	92	90	87	83	78	76	68	89	57
360	98	93	91	88	84	79	77	69	90	58
410	99	94	92	89	85	80	78	70	91	59
450	99	94	92	89	85	80	78	70	91	59
480	99	94	92	89	85	80	78	70	91	59
500	99	94	92	89	85	80	78	70	91	59
540	100	95	93	90	86	81	79	71	92	60
580	100	95	93	90	86	81	79	71	92	59
650	101	96	94	91	87	82	80	72	93	60
720	101	96	94	91	87	82	80	72	93	60
800	101	96	94	91	87	82	80	72	93	60
850	102	97	95	92	88	83	81	73	94	61
910	102	97	95	92	88	83	81	73	94	61
970	102	97	95	92	88	83	81	73	94	61
1000	102	97	95	92	88	83	81	73	94	61
1070	102	97	95	92	88	83	81	73	94	61
1130	103	98	96	93	89	84	82	74	95	62
1170	103	98	96	93	89	84	82	74	95	62
1200	103	98	96	93	89	84	82	74	95	62
1300	104	99	97	94	90	85	83	75	96	63
1400	105	100	98	95	91	86	84	76	97	64

(\*) Sound pressure level at 10 m.- Values refers to Standard UNI EN ISO 3744 with parallelepiped shape.

Model	Frequency (Hz)								Sound Power dB(A)	Sound Pressure dB(A)(*)
	63	125	250	500	1000	2000	4000	8000		
<b>S Version</b>										
300	93	88	86	83	79	74	72	64	85	53
360	94	89	87	84	80	75	73	65	86	54
410	95	90	88	85	81	76	74	66	87	55
450	95	90	88	85	81	76	74	66	87	55
480	95	90	88	85	81	76	74	66	87	55
500	95	90	88	85	81	76	74	66	87	55
540	96	91	89	86	82	77	75	67	88	56
580	96	91	89	86	82	77	75	67	88	55
650	97	92	90	87	83	78	76	68	89	56
720	97	92	90	87	83	78	76	68	89	56
800	97	92	90	87	83	78	76	68	89	56
850	98	93	91	88	84	79	77	69	90	57
910	98	93	91	88	84	79	77	69	90	57
970	98	93	91	88	84	79	77	69	90	57
1000	98	93	91	88	84	79	77	69	90	57
1070	98	93	91	88	84	79	77	69	90	57
1130	99	94	92	89	85	80	78	70	91	58
1170	99	94	92	89	85	80	78	70	91	58
1200	99	94	92	89	85	80	78	70	91	58
1300	100	95	93	90	86	81	79	71	92	59
1400	101	96	94	91	87	82	80	72	93	60
<b>HT Version</b>										
300	109	104	102	99	95	90	88	80	101	69
360	110	105	103	100	96	91	89	81	102	70
410	111	106	104	101	97	92	90	82	103	71
450	111	106	104	101	97	92	90	82	103	71
480	111	106	104	101	97	92	90	82	103	71
500	111	106	104	101	97	92	90	82	103	71
540	112	107	105	102	98	93	91	83	104	72
580	112	107	105	102	98	93	91	83	104	71
650	113	108	106	103	99	94	92	84	105	72
720	113	108	106	103	99	94	92	84	105	72
800	113	108	106	103	99	94	92	84	105	72
850	114	109	107	104	100	95	93	85	106	73
910	114	109	107	104	100	95	93	85	106	73
970	114	109	107	104	100	95	93	85	106	73
1000	114	109	107	104	100	95	93	85	106	73
1070	114	109	107	104	100	95	93	85	106	73
1130	115	110	108	105	101	96	94	86	107	74
1170	115	110	108	105	101	96	94	86	107	74
1200	115	110	108	105	101	96	94	86	107	74
1300	116	111	109	106	102	97	95	87	108	75
1400	117	112	110	107	103	98	96	88	109	76

(\*) Sound pressure level at 10 m.- Values refers to Standard UNI EN ISO 3744 with parallelepiped shape.







Model	LWT °C	Condensing Air Temperature °C								
		40			44			46		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
		kW	kW	kPa	kW	kW	kPa	kW	kW	kPa
650	5	573,2	228,2	23,4	546,5	242,8	21,3	519,7	257,3	19,2
	6	590,4	230,6	24,8	562,7	245,3	22,5	535,0	260,0	20,4
	7	607,2	233,0	26,3	578,9	247,8	23,9	550,7	262,5	21,6
	8	622,7	235,2	27,6	593,7	250,1	25,1	564,6	265,0	22,7
	9	638,4	237,6	29,0	608,5	252,5	26,4	578,7	267,4	23,8
	10	652,9	240,0	30,4	622,7	255,0	27,6	592,4	270,1	25,0
	12	684,4	245,2	33,4	652,4	260,5	30,3	620,3	275,7	27,4
	15	731,4	252,8	38,1	697,1	268,3	34,6	662,7	283,8	31,3
720	5	627,3	245,8	27,9	598,0	261,5	25,3	568,7	277,2	22,9
	6	646,0	248,4	29,6	615,7	264,3	26,9	585,5	280,1	24,3
	7	664,5	251,0	31,3	633,5	266,9	28,4	602,6	282,8	25,7
	8	681,5	253,3	32,9	649,6	269,4	29,9	617,8	285,4	27,0
	9	698,6	255,9	34,6	665,9	272,0	31,4	633,2	288,1	28,4
	10	714,5	258,5	36,2	681,4	274,7	32,9	648,2	291,0	29,8
	12	749,0	264,1	39,7	713,9	280,6	36,1	678,8	297,0	32,6
	15	800,4	272,4	45,4	762,8	289,0	41,2	725,2	305,7	37,2
800	5	698,7	269,0	35,8	666,0	286,2	32,5	633,4	303,3	29,4
	6	719,6	271,8	38,0	685,8	289,2	34,5	652,1	306,5	31,2
	7	740,1	274,6	40,2	705,6	292,0	36,5	671,2	309,4	33,0
	8	759,0	277,2	42,3	723,6	294,8	38,4	688,2	312,3	34,7
	9	778,1	280,0	44,4	741,7	297,6	40,3	705,3	315,2	36,5
	10	795,8	282,9	46,4	758,9	300,6	42,2	722,0	318,4	38,2
	12	834,2	289,0	51,0	795,1	307,0	46,4	756,0	325,0	41,9
	15	891,5	298,0	58,3	849,6	316,2	52,9	807,7	334,5	47,8
850	5	749,8	289,3	41,1	714,8	307,8	37,3	679,8	326,2	33,8
	6	772,2	292,3	43,6	736,1	311,0	39,6	699,9	329,6	35,8
	7	794,3	295,4	46,1	757,3	314,1	41,9	720,3	332,8	37,9
	8	814,6	298,1	48,5	776,6	317,0	44,1	738,5	335,9	39,9
	9	835,1	301,2	51,0	796,0	320,1	46,3	757,0	339,0	41,9
	10	854,1	304,2	53,3	814,5	323,3	48,5	774,9	342,4	43,9
	12	895,3	310,8	58,6	853,3	330,2	53,2	811,4	349,5	48,1
	15	956,8	320,5	66,9	911,8	340,1	60,8	866,9	359,7	54,9
910	5	801,0	311,9	46,3	763,6	331,8	42,1	726,2	351,7	38,1
	6	824,9	315,2	49,1	786,3	335,3	44,6	747,6	355,4	40,3
	7	848,5	318,5	52,0	808,9	338,6	47,2	769,4	358,8	42,7
	8	870,2	321,5	54,6	829,5	341,8	49,7	788,9	362,2	44,9
	9	892,1	324,7	57,4	850,3	345,1	52,2	808,6	365,5	47,2
	10	912,3	328,0	60,1	870,0	348,6	54,6	827,8	369,2	49,4
	12	956,4	335,2	66,0	911,5	356,0	60,0	866,7	376,8	54,2
	15	1.022,1	345,6	75,4	974,0	366,7	68,5	926,0	387,9	61,9
970	5	855,0	331,7	42,7	815,1	352,8	38,8	775,2	374,0	35,1
	6	880,6	335,2	45,2	839,3	356,5	41,1	798,1	377,9	37,2
	7	905,7	338,6	47,9	863,5	360,1	43,5	821,3	381,5	39,4
	8	928,9	341,8	50,3	885,5	363,4	45,8	842,1	385,1	41,4
	9	952,3	345,3	52,9	907,7	367,0	48,1	863,1	388,7	43,5
	10	973,9	348,8	55,3	928,7	370,7	50,3	883,6	392,6	45,6
	12	1.020,9	356,4	60,8	973,1	378,5	55,3	925,2	400,7	50,0
	15	1.091,0	367,5	69,5	1.039,7	389,9	63,1	988,5	412,4	57,0
1000	5	887,8	340,0	46,3	846,4	361,7	42,1	804,9	383,4	38,1
	6	914,3	343,6	49,1	871,5	365,5	44,6	828,7	387,4	40,3
	7	940,5	347,2	52,0	896,7	369,1	47,2	852,9	391,1	42,7
	8	964,5	350,4	54,6	919,5	372,6	49,7	874,4	394,8	44,9
	9	988,8	354,0	57,4	942,5	376,2	52,2	896,3	398,5	47,2
	10	1.011,2	357,6	60,1	964,4	380,0	54,6	917,5	402,5	49,5
	12	1.060,1	365,4	66,0	1.010,4	388,1	60,0	960,7	410,8	54,2
	15	1.132,9	376,7	75,4	1.079,6	399,8	68,5	1.026,4	422,8	61,9

(\*) Only Compressors.



Model	LWT °C	Condensing Air Temperature °C								
		40			44			46		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
		kW	kW	kPa	kW	kW	kPa	kW	kW	kPa
1070	5	941,8	362,5	23,7	897,9	385,7	21,5	853,9	408,8	19,4
	6	970,0	366,4	25,1	924,6	389,7	22,8	879,1	413,1	20,6
	7	997,7	370,2	26,5	951,2	393,6	24,1	904,8	417,0	21,8
	8	1.023,2	373,6	27,9	975,5	397,3	25,4	927,7	420,9	22,9
	9	1.049,0	377,4	29,3	999,9	401,1	26,7	950,8	424,8	24,1
	10	1.072,8	381,2	30,7	1.023,1	405,2	27,9	973,4	429,1	25,3
	12	1.124,6	389,6	33,7	1.071,9	413,8	30,6	1.019,2	438,0	27,7
	15	1.201,8	401,7	38,5	1.145,4	426,2	35,0	1.088,9	450,8	31,6
1130	5	995,9	381,6	26,4	949,4	406,0	24,0	902,9	430,3	21,7
	6	1.025,7	385,6	28,0	977,6	410,2	25,4	929,6	434,8	23,0
	7	1.055,0	389,6	29,6	1.005,8	414,3	26,9	956,7	438,9	24,3
	8	1.081,9	393,3	31,1	1.031,4	418,2	28,3	980,9	443,0	25,6
	9	1.109,2	397,3	32,7	1.057,3	422,2	29,7	1.005,4	447,2	26,9
	10	1.134,4	401,3	34,2	1.081,8	426,5	31,1	1.029,2	451,7	28,2
	12	1.189,1	410,0	37,6	1.133,4	435,5	34,1	1.077,7	461,0	30,9
	15	1.270,8	422,8	42,9	1.211,1	448,6	39,0	1.151,3	474,5	35,2
1170	5	1.030,6	399,6	27,0	982,5	425,1	24,5	934,4	450,6	22,2
	6	1.061,4	403,8	28,6	1.011,7	429,5	26,0	962,0	455,3	23,5
	7	1.091,8	408,0	30,3	1.040,9	433,8	27,5	990,1	459,6	24,9
	8	1.119,7	411,8	31,9	1.067,4	437,8	28,9	1.015,1	463,9	26,2
	9	1.147,9	416,0	33,5	1.094,2	442,1	30,4	1.040,5	468,2	27,5
	10	1.173,9	420,2	35,0	1.119,5	446,5	31,8	1.065,1	472,9	28,8
	12	1.230,6	429,3	38,5	1.172,9	456,0	35,0	1.115,3	482,7	31,6
	15	1.315,1	442,7	43,9	1.253,3	469,8	39,9	1.191,5	496,8	36,1
1200	5	1.071,2	419,4	29,2	1.021,2	446,1	26,5	971,1	472,9	24,0
	6	1.103,2	423,8	31,0	1.051,5	450,8	28,1	999,8	477,8	25,4
	7	1.134,7	428,2	32,8	1.081,8	455,3	29,8	1.029,0	482,4	26,9
	8	1.163,7	432,2	34,5	1.109,4	459,5	31,3	1.055,0	486,9	28,3
	9	1.193,0	436,6	36,2	1.137,2	464,0	32,9	1.081,4	491,4	29,8
	10	1.220,1	441,0	37,9	1.163,5	468,7	34,4	1.107,0	496,4	31,2
	12	1.279,0	450,6	41,6	1.219,1	478,6	37,8	1.159,1	506,6	34,2
	15	1.366,8	464,6	47,5	1.302,6	493,0	43,2	1.238,4	521,5	39,0
1300	5	1.158,0	451,7	33,8	1.103,9	480,6	30,7	1.049,9	509,4	27,8
	6	1.192,6	456,5	35,9	1.136,8	485,6	32,6	1.080,9	514,7	29,5
	7	1.226,7	461,2	37,9	1.169,6	490,4	34,5	1.112,4	519,6	31,2
	8	1.258,1	465,5	39,9	1.199,3	495,0	36,3	1.140,6	524,5	32,8
	9	1.289,7	470,3	41,9	1.229,4	499,8	38,1	1.169,0	529,3	34,4
	10	1.319,0	475,0	43,9	1.257,9	504,8	39,9	1.196,8	534,7	36,1
	12	1.382,7	485,4	48,2	1.317,9	515,6	43,8	1.253,1	545,8	39,6
	15	1.477,7	500,5	55,0	1.408,2	531,1	50,0	1.338,8	561,7	45,2
1400	5	1.227,5	465,5	37,7	1.170,2	495,2	34,3	1.112,9	524,9	31,0
	6	1.264,2	470,4	40,0	1.205,0	500,4	36,3	1.145,7	530,4	32,9
	7	1.300,3	475,3	42,3	1.239,7	505,3	38,5	1.179,2	535,4	34,8
	8	1.333,6	479,7	44,5	1.271,3	510,1	40,5	1.209,0	540,4	36,6
	9	1.367,1	484,6	46,8	1.303,2	515,0	42,5	1.239,2	545,5	38,4
	10	1.398,2	489,5	48,9	1.333,4	520,2	44,5	1.268,6	550,9	40,3
	12	1.465,7	500,2	53,8	1.397,0	531,3	48,8	1.328,3	562,4	44,2
	15	1.566,3	515,7	61,4	1.492,7	547,3	55,8	1.419,1	578,8	50,4

(\*) Only Compressors.



Model	LWT °C	Condensing Air Temperature °C								
		40			44			46		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
		kW	kW	kPa	kW	kW	kPa	kW	kW	kPa
300	5	249,1	103,0	25,8	237,4	109,6	23,4	225,8	116,2	21,2
	6	256,5	104,1	27,3	244,5	110,8	24,8	232,5	117,4	22,5
	7	263,8	105,2	28,9	251,5	111,9	26,3	239,3	118,5	23,8
	8	270,6	106,2	30,4	257,9	112,9	27,7	245,3	119,6	25,0
	9	277,4	107,3	32,0	264,4	114,0	29,1	251,4	120,7	26,3
	10	283,7	108,3	33,4	270,5	115,1	30,4	257,4	121,9	27,5
	12	297,4	110,7	36,8	283,4	117,6	33,4	269,5	124,5	30,2
	15	317,8	114,2	42,0	302,9	121,1	38,1	287,9	128,1	34,5
360	5	314,9	135,8	42,4	300,2	144,4	38,5	285,5	153,1	34,8
	6	324,3	137,2	45,0	309,1	145,9	40,8	293,9	154,7	36,9
	7	333,6	138,6	47,6	318,1	147,4	43,2	302,5	156,2	39,1
	8	342,1	139,9	50,0	326,2	148,8	45,5	310,2	157,6	41,1
	9	350,7	141,3	52,6	334,3	150,2	47,8	317,9	159,1	43,2
	10	358,7	142,8	55,0	342,1	151,7	50,0	325,5	160,7	45,3
	12	376,0	145,9	60,4	358,4	154,9	54,9	340,8	164,0	49,6
	15	401,9	150,4	69,0	383,0	159,6	62,7	364,1	168,8	56,6
410	5	356,5	150,7	28,8	339,9	160,4	26,2	323,2	170,0	23,7
	6	367,2	152,3	30,6	350,0	162,1	27,8	332,8	171,8	25,1
	7	377,7	153,9	32,4	360,1	163,7	29,4	342,5	173,4	26,6
	8	387,3	155,4	34,0	369,3	165,2	30,9	351,2	175,0	28,0
	9	397,1	156,9	35,8	378,5	166,8	32,5	359,9	176,7	29,4
	10	406,1	158,5	37,4	387,3	168,5	34,0	368,5	178,4	30,8
	12	425,7	162,0	41,1	405,8	172,1	37,4	385,8	182,1	33,8
	15	454,9	167,0	47,0	433,6	177,2	42,7	412,2	187,5	38,6
450	5	384,0	168,7	33,5	366,0	179,5	30,4	348,1	190,2	27,5
	6	395,4	170,5	35,5	376,9	181,4	32,3	358,4	192,2	29,2
	7	406,7	172,3	37,6	387,8	183,2	34,2	368,8	194,1	30,9
	8	417,1	173,9	39,5	397,7	184,9	35,9	378,2	195,9	32,5
	9	427,6	175,6	41,6	407,6	186,7	37,8	387,6	197,7	34,1
	10	437,3	177,4	43,5	417,1	188,5	39,5	396,8	199,7	35,8
	12	458,5	181,3	47,8	437,0	192,5	43,4	415,5	203,8	39,2
	15	489,9	186,9	54,6	466,9	198,3	49,5	443,9	209,8	44,8
480	5	414,2	178,0	38,8	394,9	189,4	35,2	375,5	200,7	31,9
	6	426,6	179,9	41,1	406,6	191,4	37,3	386,6	202,8	33,8
	7	438,8	181,7	43,5	418,4	193,2	39,5	397,9	204,7	35,8
	8	450,0	183,4	45,7	429,0	195,1	41,6	408,0	206,7	37,6
	9	461,3	185,3	48,1	439,8	197,0	43,7	418,2	208,6	39,5
	10	471,8	187,2	50,3	449,9	198,9	45,7	428,1	210,7	41,4
	12	494,6	191,3	55,3	471,4	203,2	50,2	448,2	215,1	45,4
	15	528,6	197,2	63,1	503,7	209,3	57,3	478,9	221,3	51,8
500	5	435,0	187,5	23,5	414,7	199,5	21,3	394,4	211,5	19,3
	6	448,0	189,5	24,9	427,0	201,6	22,6	406,1	213,7	20,5
	7	460,8	191,5	26,4	439,4	203,6	24,0	417,9	215,7	21,7
	8	472,6	193,3	27,7	450,5	205,5	25,2	428,5	217,7	22,8
	9	484,5	195,2	29,1	461,8	207,5	26,5	439,2	219,7	23,9
	10	495,5	197,2	30,5	472,5	209,6	27,7	449,6	221,9	25,1
	12	519,4	201,5	33,5	495,1	214,0	30,4	470,7	226,6	27,5
	15	555,1	207,8	38,2	529,0	220,5	34,7	502,9	233,2	31,4
540	5	465,3	201,3	26,8	443,6	214,2	24,4	421,8	227,0	22,0
	6	479,2	203,4	28,4	456,7	216,4	25,8	434,3	229,4	23,4
	7	492,9	205,5	30,1	469,9	218,6	27,4	447,0	231,6	24,7
	8	505,5	207,5	31,7	481,9	220,6	28,8	458,3	233,7	26,0
	9	518,2	209,6	33,3	494,0	222,7	30,2	469,7	235,9	27,3
	10	530,0	211,7	34,8	505,4	225,0	31,6	480,9	238,3	28,6
	12	555,6	216,3	38,2	529,5	229,8	34,7	503,5	243,2	31,4
	15	593,7	223,0	43,7	565,8	236,7	39,7	537,9	250,3	35,8
580	5	495,6	214,4	29,9	472,4	228,0	27,1	449,3	241,7	24,6
	6	510,4	216,6	31,7	486,5	230,4	28,8	462,5	244,2	26,0
	7	524,9	218,9	33,5	500,5	232,7	30,5	476,0	246,6	27,6
	8	538,4	220,9	35,3	513,2	234,9	32,0	488,1	248,9	29,0
	9	551,9	223,2	37,1	526,1	237,2	33,7	500,3	251,2	30,4
	10	564,4	225,4	38,8	538,3	239,6	35,2	512,1	253,7	31,9
	12	591,7	230,3	42,6	564,0	244,6	38,7	536,2	259,0	35,0
	15	632,3	237,5	48,6	602,6	252,0	44,2	572,9	266,5	39,9

(\*) Only Compressors.



Model	LWT °C	Condensing Air Temperature °C								
		40			44			46		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
		kW	kW	kPa	kW	kW	kPa	kW	kW	kPa
650	5	561,8	237,3	22,5	535,5	252,5	20,4	509,3	267,6	18,5
	6	578,5	239,8	23,8	551,4	255,1	21,7	524,3	270,4	19,6
	7	595,1	242,3	25,2	567,4	257,7	22,9	539,6	273,0	20,7
	8	610,3	244,6	26,5	581,8	260,1	24,1	553,3	275,6	21,8
	9	625,7	247,1	27,9	596,4	262,6	25,3	567,1	278,1	22,9
	10	639,9	249,6	29,1	610,2	265,2	26,5	580,5	280,9	24,0
	12	670,8	255,0	32,0	639,3	270,9	29,1	607,9	286,7	26,3
	15	716,8	263,0	36,6	683,1	279,0	33,2	649,4	295,1	30,0
720	5	614,7	255,7	26,8	586,0	272,0	24,3	557,3	288,3	22,0
	6	633,1	258,3	28,4	603,4	274,8	25,8	573,8	291,3	23,3
	7	651,2	261,0	30,0	620,8	277,6	27,3	590,5	294,1	24,7
	8	667,8	263,5	31,6	636,6	280,2	28,7	605,5	296,8	26,0
	9	684,6	266,2	33,2	652,6	282,9	30,2	620,6	299,6	27,3
	10	700,2	268,8	34,7	667,7	285,7	31,6	635,3	302,6	28,6
	12	734,0	274,7	38,2	699,6	291,8	34,7	665,2	308,9	31,3
	15	784,4	283,3	43,6	747,5	300,6	39,6	710,7	317,9	35,8
800	5	684,7	277,8	34,4	652,7	295,5	31,2	620,8	313,3	28,3
	6	705,2	280,7	36,5	672,1	298,6	33,1	639,1	316,5	30,0
	7	725,3	283,6	38,6	691,5	301,6	35,1	657,7	319,5	31,7
	8	743,9	286,3	40,6	709,1	304,4	36,9	674,4	322,5	33,4
	9	762,6	289,2	42,6	726,9	307,4	38,8	691,2	325,5	35,0
	10	779,9	292,1	44,6	743,7	310,5	40,6	707,6	328,8	36,7
	12	817,6	298,5	49,0	779,2	317,0	44,5	740,9	335,6	40,3
	15	873,7	307,8	56,0	832,6	326,6	50,8	791,6	345,4	46,0
850	5	734,8	300,9	39,5	700,5	320,1	35,9	666,2	339,3	32,4
	6	756,8	304,0	41,9	721,3	323,4	38,0	685,9	342,8	34,4
	7	778,4	307,2	44,3	742,1	326,6	40,3	705,9	346,1	36,4
	8	798,3	310,1	46,6	761,0	329,7	42,3	723,8	349,3	38,3
	9	818,4	313,2	48,9	780,1	332,9	44,5	741,8	352,6	40,2
	10	837,0	316,4	51,2	798,2	336,2	46,6	759,4	356,1	42,1
	12	877,4	323,3	56,3	836,3	343,4	51,1	795,2	363,5	46,2
	15	937,7	333,3	64,2	893,6	353,7	58,4	849,5	374,1	52,7
910	5	784,9	324,4	44,5	748,3	345,1	40,4	711,6	365,8	36,5
	6	808,4	327,8	47,2	770,5	348,7	42,8	732,7	369,6	38,7
	7	831,5	331,2	49,9	792,8	352,2	45,4	754,0	373,1	41,0
	8	852,8	334,3	52,5	812,9	355,5	47,7	773,1	376,6	43,1
	9	874,2	337,7	55,2	833,3	358,9	50,1	792,4	380,1	45,3
	10	894,1	341,1	57,7	852,6	362,5	52,5	811,2	384,0	47,5
	12	937,2	348,6	63,4	893,3	370,2	57,6	849,4	391,9	52,1
	15	1.001,6	359,4	72,4	954,5	381,4	65,8	907,5	403,4	59,4
970	5	837,9	344,9	41,0	798,8	367,0	37,2	759,7	389,0	33,7
	6	862,9	348,6	43,5	822,5	370,8	39,5	782,1	393,0	35,7
	7	887,6	352,2	46,0	846,3	374,5	41,8	804,9	396,8	37,8
	8	910,3	355,5	48,4	867,8	378,0	43,9	825,3	400,5	39,7
	9	933,2	359,1	50,8	889,5	381,7	46,2	845,9	404,2	41,8
	10	954,4	362,7	53,2	910,2	385,5	48,3	865,9	408,3	43,8
	12	1.000,5	370,6	58,4	953,6	393,7	53,1	906,7	416,7	48,0
	15	1.069,2	382,2	66,7	1.018,9	405,5	60,6	968,7	428,9	54,8
1000	5	870,1	353,6	44,5	829,4	376,2	40,4	788,8	398,8	36,6
	6	896,1	357,3	47,2	854,1	380,1	42,9	812,1	402,9	38,7
	7	921,7	361,1	49,9	878,7	383,9	45,4	835,8	406,8	41,0
	8	945,2	364,4	52,5	901,1	387,5	47,7	857,0	410,6	43,1
	9	969,0	368,2	55,2	923,7	391,3	50,1	878,3	414,4	45,3
	10	991,0	371,9	57,7	945,1	395,2	52,5	899,2	418,6	47,5
	12	1.038,9	380,0	63,4	990,2	403,6	57,6	941,5	427,2	52,1
	15	1.110,2	391,8	72,4	1.058,0	415,8	65,8	1.005,9	439,7	59,4

(\*) Only Compressors.

## Cooling Capacities - SyScrew Air L (Low Noise)

Model	LWT °C	Condensing Air Temperature °C											
		25			30			32			35		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
1070	5	1.102,5	283,3	32,4	1.049,5	310,9	29,4	1.027,2	322,3	28,1	992,9	339,5	26,3
	6	1.135,5	286,4	34,4	1.080,0	314,5	31,1	1.057,6	325,8	29,8	1.022,1	343,4	27,9
	7	1.168,5	289,9	36,4	1.111,7	318,0	33,0	1.088,1	329,7	31,6	1.052,1	346,9	29,5
	8	1.197,7	293,4	38,3	1.139,9	321,5	34,7	1.116,0	333,2	33,2	1.078,5	350,8	31,0
	9	1.227,7	296,9	40,2	1.168,0	325,3	36,4	1.142,8	337,0	34,8	1.105,9	354,3	32,6
	10	1.256,9	300,7	42,1	1.196,2	328,8	38,2	1.170,7	340,9	36,5	1.132,2	358,5	34,2
	12	1.316,9	308,1	46,2	1.252,8	336,9	41,9	1.226,7	348,6	40,1	1.186,0	366,3	37,5
	15	1.406,5	319,9	52,8	1.339,1	348,5	47,8	1.310,7	360,6	45,8	1.266,3	378,9	42,8
1130	5	1.165,8	298,1	36,1	1.109,8	327,3	32,7	1.086,1	339,2	31,4	1.049,9	357,4	29,3
	6	1.200,6	301,5	38,3	1.141,9	331,0	34,7	1.118,3	342,9	33,2	1.080,7	361,5	31,0
	7	1.235,5	305,1	40,6	1.175,5	334,7	36,7	1.150,5	347,0	35,2	1.112,5	365,2	32,9
	8	1.266,5	308,8	42,6	1.205,3	338,4	38,6	1.180,0	350,7	37,0	1.140,3	369,2	34,6
	9	1.298,1	312,5	44,8	1.235,0	342,4	40,5	1.208,4	354,7	38,8	1.169,3	372,9	36,3
	10	1.329,0	316,5	46,9	1.264,8	346,1	42,5	1.237,9	358,8	40,7	1.197,2	377,4	38,1
	12	1.392,4	324,2	51,5	1.324,7	354,6	46,6	1.297,1	366,9	44,7	1.254,0	385,5	41,8
	15	1.487,2	336,7	58,8	1.415,9	366,8	53,3	1.385,9	379,5	51,1	1.339,0	398,9	47,7
1170	5	1.206,4	312,2	37,0	1.148,5	342,7	33,5	1.124,0	355,2	32,1	1.086,5	374,2	30,0
	6	1.242,5	315,6	39,2	1.181,8	346,6	35,5	1.157,3	359,1	34,0	1.118,4	378,5	31,8
	7	1.278,6	319,5	41,5	1.216,5	350,4	37,6	1.190,6	363,3	36,0	1.151,3	382,3	33,7
	8	1.310,6	323,3	43,6	1.247,4	354,3	39,5	1.221,2	367,2	37,9	1.180,1	386,6	35,4
	9	1.343,4	327,2	45,9	1.278,0	358,5	41,5	1.250,5	371,4	39,7	1.210,1	390,5	37,2
	10	1.375,4	331,4	48,1	1.308,9	362,4	43,5	1.281,1	375,7	41,7	1.238,9	395,1	39,0
	12	1.441,0	339,5	52,8	1.370,9	371,3	47,8	1.342,3	384,2	45,8	1.297,8	403,7	42,8
	15	1.539,1	352,6	60,2	1.465,3	384,0	54,5	1.434,3	397,4	52,3	1.385,7	417,6	48,8
1200	5	1.253,9	327,7	40,0	1.193,6	359,7	36,3	1.168,2	372,8	34,7	1.129,3	392,8	32,4
	6	1.291,4	331,3	42,4	1.228,2	363,7	38,4	1.202,8	376,9	36,8	1.162,4	397,2	34,4
	7	1.328,9	335,3	44,9	1.264,3	367,8	40,7	1.237,4	381,3	39,0	1.196,6	401,3	36,4
	8	1.362,2	339,4	47,2	1.296,4	371,8	42,8	1.269,2	385,4	41,0	1.226,5	405,8	38,3
	9	1.396,2	343,4	49,6	1.328,3	376,3	44,9	1.299,7	389,9	43,0	1.257,7	409,8	40,2
	10	1.429,5	347,9	52,0	1.360,4	380,4	47,1	1.331,4	394,3	45,1	1.287,7	414,7	42,2
	12	1.497,7	356,3	57,1	1.424,8	389,7	51,7	1.395,1	403,3	49,5	1.348,8	423,7	46,3
	15	1.599,6	370,1	65,1	1.522,9	403,1	59,0	1.490,7	417,1	56,5	1.440,2	438,3	52,8
1300	5	1.355,5	352,9	46,3	1.290,4	387,4	42,0	1.262,9	401,6	40,2	1.220,8	423,1	37,6
	6	1.396,1	356,9	49,1	1.327,8	391,8	44,4	1.300,4	405,9	42,6	1.256,7	427,9	39,8
	7	1.436,6	361,2	52,0	1.366,8	396,2	47,1	1.337,8	410,8	45,1	1.293,6	432,3	42,2
	8	1.472,6	365,6	54,7	1.401,6	400,5	49,5	1.372,1	415,1	47,5	1.326,0	437,1	44,3
	9	1.509,4	369,9	57,4	1.436,0	405,4	52,0	1.405,1	419,9	49,8	1.359,7	441,5	46,6
	10	1.545,4	374,7	60,2	1.470,7	409,7	54,5	1.439,4	424,8	52,2	1.392,1	446,7	48,8
	12	1.619,1	383,8	66,1	1.540,4	419,8	59,8	1.508,3	434,4	57,3	1.458,2	456,4	53,6
	15	1.729,3	398,6	75,4	1.646,4	434,2	68,3	1.611,6	449,3	65,5	1.556,9	472,2	61,1
1400	5	1.415,1	375,2	50,1	1.347,1	411,8	45,4	1.318,4	426,9	43,5	1.274,4	449,7	40,6
	6	1.457,4	379,3	53,1	1.386,1	416,5	48,0	1.357,5	431,5	46,1	1.311,8	454,8	43,0
	7	1.499,7	384,0	56,2	1.426,8	421,1	50,9	1.396,5	436,6	48,8	1.350,4	459,5	45,6
	8	1.537,3	388,6	59,1	1463,1	425,8	53,5	1.432,3	441,3	51,3	1.384,2	464,6	47,9
	9	1.575,7	393,2	62,1	1499,1	430,9	56,2	1.466,8	446,4	53,8	1.419,4	469,3	50,4
	10	1.613,3	398,3	65,1	1535,3	435,5	58,9	1.502,6	451,5	56,5	1.453,2	474,9	52,8
	12	1.690,2	408,0	71,4	1608,0	446,2	64,7	1.574,5	461,7	62,0	1.522,2	485,1	57,9
	15	1.805,2	423,7	81,5	1718,7	461,5	73,9	1.682,3	477,6	70,8	1.625,3	501,9	66,1

(\*) Only Compressors.

Model	LWT °C	Condensing Air Temperature °C								
		40			44			46		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
		kW	kW	kPa	kW	kW	kPa	kW	kW	kPa
1070	5	923,0	377,0	22,7	879,9	401,1	20,6	836,8	425,2	18,7
	6	950,6	381,0	24,1	906,1	405,3	21,9	861,5	429,6	19,8
	7	977,8	385,0	25,5	932,2	409,3	23,2	886,7	433,7	21,0
	8	1.002,8	388,6	26,8	955,9	413,2	24,4	909,1	437,8	22,0
	9	1.028,0	392,5	28,2	979,9	417,2	25,6	931,8	441,8	23,2
	10	1.051,3	396,5	29,5	1.002,6	421,4	26,8	953,9	446,3	24,3
	12	1.102,1	405,1	32,4	1.050,5	430,3	29,4	998,8	455,5	26,6
	15	1.177,8	417,7	37,0	1.122,4	443,3	33,6	1.067,1	468,8	30,4
1130	5	976,0	396,9	25,3	930,4	422,2	23,0	884,8	447,5	20,8
	6	1.005,1	401,0	26,9	958,1	426,6	24,4	911,0	452,2	22,1
	7	1.033,9	405,2	28,4	985,7	430,8	25,8	937,6	456,5	23,4
	8	1.060,3	409,0	29,9	1.010,8	434,9	27,2	961,3	460,8	24,6
	9	1.087,0	413,2	31,4	1.036,1	439,1	28,5	985,3	465,0	25,8
	10	1.111,7	417,3	32,8	1.060,1	443,5	29,9	1.008,6	469,7	27,0
	12	1.165,3	426,4	36,1	1.110,7	452,9	32,8	1.056,1	479,5	29,6
	15	1.245,4	439,7	41,2	1.186,8	466,6	37,4	1.128,3	493,5	33,8
1170	5	1.010,0	415,5	25,9	962,9	442,1	23,6	915,7	468,6	21,3
	6	1.040,2	419,9	27,5	991,5	446,7	25,0	942,8	473,5	22,6
	7	1.069,9	424,3	29,1	1.020,1	451,1	26,4	970,3	478,0	23,9
	8	1.097,3	428,2	30,6	1.046,1	455,3	27,8	994,8	482,4	25,1
	9	1.124,9	432,6	32,2	1.072,3	459,8	29,2	1.019,6	486,9	26,4
	10	1.150,4	437,0	33,6	1.097,1	464,4	30,6	1.043,8	491,8	27,7
	12	1.206,0	446,5	37,0	1.149,5	474,3	33,6	1.092,9	502,0	30,3
	15	1.288,8	460,4	42,2	1.228,2	488,5	38,3	1.167,7	516,7	34,6
1200	5	1.049,7	436,1	28,0	1.000,7	464,0	25,5	951,7	491,8	23,0
	6	1.081,1	440,7	29,7	1.030,5	468,8	27,0	979,8	497,0	24,4
	7	1.112,0	445,3	31,5	1.060,2	473,5	28,6	1.008,4	501,7	25,9
	8	1.140,4	449,5	33,1	1.087,2	477,9	30,1	1.033,9	506,4	27,2
	9	1.169,1	454,0	34,8	1.114,4	482,6	31,6	1.059,7	511,1	28,6
	10	1.195,7	458,6	36,4	1.140,3	487,4	33,1	1.084,9	516,2	29,9
	12	1.253,4	468,6	40,0	1.194,7	497,8	36,3	1.135,9	526,9	32,8
	15	1.339,5	483,2	45,7	1.276,6	512,8	41,5	1.213,6	542,3	37,5
1300	5	1.134,9	469,8	32,5	1.081,9	499,8	29,5	1.028,9	529,8	26,7
	6	1.168,8	474,7	34,4	1.114,0	505,0	31,3	1.059,3	535,3	28,3
	7	1.202,2	479,7	36,4	1.146,2	510,0	33,1	1.090,2	540,4	30,0
	8	1.232,9	484,2	38,3	1.175,3	514,8	34,8	1.117,8	545,5	31,5
	9	1.263,9	489,1	40,3	1.204,8	519,8	36,6	1.145,7	550,5	33,1
	10	1.292,6	494,0	42,1	1.232,7	525,0	38,3	1.172,8	556,1	34,7
	12	1.355,1	504,8	46,3	1.291,5	536,2	42,0	1.228,0	567,6	38,0
	15	1.448,1	520,5	52,9	1.380,1	552,3	48,0	1.312,0	584,2	43,4
1400	5	1.184,7	499,4	35,1	1.129,4	531,3	31,9	1.074,1	563,1	28,8
	6	1.220,1	504,6	37,2	1.162,9	536,8	33,8	1.105,8	569,0	30,6
	7	1.255,0	509,9	39,4	1.196,5	542,2	35,8	1.138,0	574,4	32,4
	8	1.287,0	514,7	41,4	1.226,9	547,2	37,6	1.166,8	579,8	34,0
	9	1.319,4	519,9	43,5	1.257,7	552,6	39,6	1.196,0	585,2	35,8
	10	1.349,4	525,2	45,5	1.286,9	558,1	41,4	1.224,3	591,1	37,5
	12	1.414,6	536,6	50,0	1.348,3	570,0	45,5	1.282,0	603,3	41,1
	15	1.511,7	553,3	57,1	1.440,7	587,1	51,9	1.369,6	621,0	46,9

(\*) Only Compressors.

## Cooling Capacities - SyScrew Air S (Super Low Noise)

Model	LWT °C	Condensing Air Temperature °C								
		25			30			32		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
300	5	289,9	80,0	34,9	276,0	87,8	31,6	270,1	91,0	30,3
	6	298,6	80,9	37,0	284,0	88,8	33,5	278,1	92,0	32,1
	7	307,3	81,9	39,2	292,4	89,8	35,5	286,2	93,1	34,0
	8	315,0	82,9	41,2	299,8	90,8	37,3	293,5	94,1	35,8
	9	322,9	83,9	43,3	307,2	91,9	39,2	300,5	95,2	37,5
	10	330,6	84,9	45,4	314,6	92,9	41,1	307,9	96,3	39,4
	12	346,3	87,0	49,8	329,5	95,2	45,1	322,6	98,5	43,2
	15	369,9	90,4	56,8	352,2	98,4	51,5	344,7	101,9	49,4
360	5	357,0	107,9	54,5	339,8	118,4	49,3	332,6	122,7	47,3
	6	367,6	109,1	57,8	349,7	119,8	52,2	342,4	124,1	50,1
	7	378,3	110,4	61,2	359,9	121,1	55,4	352,3	125,5	53,0
	8	387,8	111,7	64,3	369,1	122,4	58,2	361,3	126,9	55,8
	9	397,5	113,1	67,5	378,2	123,9	61,1	370,0	128,4	58,5
	10	407,0	114,5	70,8	387,3	125,2	64,1	379,1	129,8	61,4
	12	426,4	117,3	77,7	405,6	128,3	70,3	397,2	132,8	67,4
	15	455,4	121,8	88,6	433,6	132,7	80,3	424,4	137,3	77,0
410	5	404,1	119,8	37,1	384,7	131,5	33,6	376,5	136,3	32,2
	6	416,2	121,1	39,3	395,9	133,0	35,6	387,7	137,8	34,1
	7	428,3	122,6	41,6	407,5	134,5	37,7	398,8	139,4	36,1
	8	439,0	124,1	43,7	417,9	135,9	39,6	409,1	140,9	38,0
	9	450,0	125,5	46,0	428,1	137,6	41,6	418,9	142,5	39,8
	10	460,7	127,2	48,2	438,5	139,1	43,6	429,1	144,2	41,8
	12	482,7	130,3	52,9	459,2	142,5	47,9	449,7	147,4	45,9
	15	515,6	135,3	60,3	490,8	147,4	54,7	480,5	152,5	52,4
450	5	435,2	134,1	43,0	414,3	147,2	39,0	405,5	152,5	37,4
	6	448,2	135,5	45,7	426,3	148,8	41,3	417,5	154,2	39,6
	7	461,3	137,2	48,4	438,9	150,5	43,8	429,5	156,0	41,9
	8	472,8	138,8	50,8	450,0	152,1	46,0	440,5	157,7	44,1
	9	484,6	140,5	53,4	461,1	154,0	48,3	451,1	159,5	46,3
	10	496,2	142,3	55,9	472,2	155,6	50,7	462,1	161,3	48,5
	12	519,9	145,8	61,4	494,6	159,4	55,6	484,3	165,0	53,3
	15	555,2	151,4	70,1	528,6	164,9	63,5	517,4	170,6	60,8
480	5	469,5	141,4	49,8	447,0	155,3	45,1	437,4	160,9	43,2
	6	483,6	143,0	52,8	459,9	157,0	47,8	450,4	162,7	45,8
	7	497,6	144,8	55,9	473,4	158,8	50,6	463,4	164,6	48,5
	8	510,1	146,5	58,8	485,5	160,5	53,2	475,3	166,4	51,0
	9	522,8	148,2	61,8	497,4	162,4	55,9	486,7	168,3	53,5
	10	535,3	150,2	64,7	509,4	164,2	58,6	498,6	170,2	56,2
	12	560,8	153,8	71,1	533,5	168,2	64,3	522,4	174,1	61,7
	15	599,0	159,8	81,1	570,3	174,0	73,5	558,2	180,0	70,4
500	5	493,1	149,0	30,2	469,4	163,6	27,3	459,4	169,5	26,2
	6	507,9	150,7	32,0	483,0	165,4	29,0	473,0	171,4	27,8
	7	522,6	152,5	33,9	497,2	167,3	30,7	486,7	173,4	29,4
	8	535,7	154,3	35,6	509,9	169,1	32,3	499,1	175,3	30,9
	9	549,1	156,2	37,4	522,4	171,1	33,9	511,1	177,3	32,4
	10	562,2	158,2	39,2	535,0	173,0	35,5	523,6	179,3	34,0
	12	589,0	162,0	43,1	560,3	177,2	39,0	548,7	183,4	37,4
	15	629,1	168,3	49,1	598,9	183,3	44,5	586,2	189,7	42,7
540	5	527,4	160,0	34,5	502,1	175,6	31,2	491,4	182,0	29,9
	6	543,2	161,7	36,6	516,6	177,6	33,1	505,9	184,0	31,7
	7	559,0	163,7	38,7	531,8	179,6	35,0	520,5	186,2	33,6
	8	573,0	165,7	40,7	545,3	181,5	36,8	533,9	188,2	35,3
	9	587,3	167,7	42,7	558,7	183,7	38,7	546,7	190,3	37,0
	10	601,3	169,8	44,8	572,2	185,7	40,6	560,0	192,5	38,9
	12	630,0	174,0	49,2	599,3	190,3	44,5	586,8	196,9	42,7
	15	672,8	180,7	56,1	640,6	196,8	50,8	627,0	203,6	48,7
580	5	561,7	170,3	38,4	534,7	187,0	34,8	523,3	193,8	33,3
	6	578,5	172,2	40,7	550,2	189,1	36,8	538,9	195,9	35,3
	7	595,3	174,3	43,1	566,4	191,2	39,0	554,4	198,2	37,4
	8	610,2	176,4	45,3	580,8	193,3	41,0	568,6	200,3	39,3
	9	625,5	178,5	47,6	595,1	195,6	43,1	582,2	202,7	41,2
	10	640,4	180,8	49,9	609,4	197,7	45,2	596,5	205,0	43,3
	12	670,9	185,2	54,8	638,3	202,6	49,6	625,0	209,6	47,5
	15	716,6	192,4	62,5	682,2	209,5	56,6	667,8	216,8	54,2

(\*) Only Compressors.

Model	LWT °C	Condensing Air Temperature °C								
		35			40			42		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
		kW	kW	kPa	kW	kW	kPa	kW	kW	kPa
300	5	261,1	95,9	28,3	242,7	106,5	24,5	238,0	109,4	23,5
	6	268,8	97,0	30,0	250,0	107,6	26,0	245,1	110,5	24,9
	7	<b>276,7</b>	<b>98,0</b>	<b>31,8</b>	257,1	108,7	27,5	252,1	111,6	26,4
	8	283,6	99,1	33,4	263,7	109,8	28,9	258,5	112,7	27,7
	9	290,8	100,1	35,1	270,4	110,9	30,4	265,0	113,8	29,1
	10	297,8	101,3	36,8	276,5	112,0	31,8	271,0	114,9	30,5
	12	311,9	103,5	40,4	289,8	114,4	34,9	284,1	117,4	33,5
	15	333,0	107,0	46,1	309,8	118,0	39,9	303,6	121,0	38,3
360	5	321,5	129,3	44,2	298,9	143,6	38,2	292,3	148,0	36,5
	6	330,9	130,8	46,8	307,8	145,1	40,5	300,5	149,7	38,6
	7	<b>340,7</b>	<b>132,1</b>	<b>49,6</b>	316,6	146,6	42,8	309,3	151,0	40,9
	8	349,2	133,6	52,1	324,7	148,0	45,0	307,6	152,5	40,4
	9	358,1	134,9	54,8	332,8	149,5	47,3	325,3	154,1	45,2
	10	366,6	136,5	57,4	340,4	151,0	49,5	332,1	155,6	47,1
	12	384,0	139,5	63,0	356,8	154,3	54,4	348,2	158,9	51,8
	15	410,0	144,3	71,8	381,3	159,1	62,1	372,7	163,8	59,3
410	5	364,0	143,6	30,1	338,3	159,4	26,0	330,9	164,3	24,8
	6	374,7	145,2	31,9	348,5	161,1	27,6	340,2	166,2	26,3
	7	<b>385,7</b>	<b>146,7</b>	<b>33,8</b>	358,4	162,8	29,1	350,2	167,7	27,8
	8	395,3	148,3	35,5	367,6	164,3	30,7	348,3	169,3	27,5
	9	405,4	149,8	37,3	376,8	166,0	32,2	368,3	171,1	30,8
	10	415,0	151,6	39,1	385,4	167,7	33,7	376,0	172,8	32,1
	12	434,7	154,9	42,9	404,0	171,3	37,0	394,2	176,5	35,3
	15	464,2	160,2	48,9	431,7	176,7	42,3	421,9	181,9	40,4
450	5	392,0	160,7	34,9	364,4	178,4	30,2	356,4	183,9	28,9
	6	403,5	162,5	37,0	375,3	180,3	32,0	366,3	186,0	30,5
	7	<b>415,3</b>	<b>164,2</b>	<b>39,2</b>	386,0	182,2	33,9	377,1	187,7	32,3
	8	425,7	166,0	41,2	395,9	183,9	35,6	375,1	189,5	32,0
	9	436,6	167,7	43,3	405,8	185,8	37,4	396,6	191,4	35,8
	10	447,0	169,7	45,4	415,0	187,6	39,1	405,0	193,4	37,3
	12	468,2	173,3	49,8	435,1	191,7	43,0	424,5	197,5	40,9
	15	499,9	179,3	56,8	464,9	197,7	49,1	454,4	203,6	46,9
480	5	422,9	169,5	40,4	393,1	188,3	34,9	384,4	194,0	33,4
	6	435,3	171,5	42,8	404,8	190,3	37,0	395,2	196,3	35,3
	7	<b>448,1</b>	<b>173,2</b>	<b>45,4</b>	416,4	192,2	39,2	406,9	198,0	37,4
	8	459,3	175,2	47,7	427,1	194,0	41,2	404,6	199,9	37,0
	9	471,0	176,9	50,1	437,8	196,0	43,3	427,9	202,0	41,4
	10	482,2	179,0	52,5	447,7	198,0	45,3	436,9	204,1	43,1
	12	505,1	182,9	57,6	469,4	202,3	49,8	457,9	208,4	47,4
	15	539,3	189,2	65,7	501,6	208,6	56,8	490,2	214,8	54,3
500	5	444,1	178,6	24,5	412,8	198,3	21,1	403,8	204,4	20,2
	6	457,1	180,6	25,9	425,2	200,4	22,4	415,1	206,8	21,4
	7	<b>470,6</b>	<b>182,5</b>	<b>27,5</b>	437,3	202,5	23,7	427,3	208,6	22,7
	8	482,4	184,5	28,9	448,5	204,4	25,0	424,9	210,6	22,4
	9	494,6	186,4	30,4	459,8	206,5	26,2	449,4	212,8	25,1
	10	506,4	188,6	31,8	470,2	208,6	27,4	458,8	215,0	26,1
	12	530,5	192,7	34,9	492,9	213,1	30,2	480,9	219,5	28,7
	15	566,4	199,3	39,8	526,8	219,7	34,4	514,8	226,3	32,9
540	5	475,0	191,7	27,9	441,5	212,9	24,2	431,8	219,4	23,1
	6	488,9	193,9	29,6	454,7	215,2	25,6	443,9	222,0	24,4
	7	<b>503,3</b>	<b>195,9</b>	<b>31,4</b>	467,7	217,4	27,1	457,0	223,9	25,9
	8	515,9	198,1	33,0	479,7	219,4	28,5	454,5	226,1	25,6
	9	529,0	200,1	34,7	491,8	221,7	30,0	480,7	228,4	28,6
	10	541,6	202,5	36,3	502,9	223,9	31,3	490,7	230,8	29,8
	12	567,4	206,8	39,9	527,2	228,8	34,4	514,4	235,7	32,8
	15	605,8	214,0	45,5	563,4	235,9	39,3	550,6	242,9	37,6
580	5	505,9	204,2	31,1	470,3	226,7	26,9	459,9	233,6	25,7
	6	520,7	206,5	33,0	484,3	229,1	28,5	472,8	236,4	27,2
	7	<b>536,1</b>	<b>208,6</b>	<b>35,0</b>	498,2	231,5	30,2	486,7	238,4	28,8
	8	549,5	210,9	36,7	510,9	233,7	31,8	484,1	240,7	28,5
	9	563,4	213,1	38,6	523,8	236,0	33,4	511,9	243,2	31,9
	10	576,9	215,6	40,5	535,7	238,4	34,9	522,7	245,7	33,2
	12	604,3	220,2	44,4	561,5	243,6	38,4	547,8	251,0	36,5
	15	645,2	227,9	50,6	600,1	251,2	43,8	586,4	258,7	41,8

(\*) Only Compressors.

## Cooling Capacities - SyScrew Air S (Super Low Noise)

Model	LWT °C	Condensing Air Temperature °C								
		25			30			32		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
650	5	636,8	188,6	28,9	606,2	207,0	26,2	593,3	214,6	25,1
	6	655,8	190,7	30,6	623,7	209,4	27,7	610,8	216,9	26,6
	7	674,8	193,0	32,4	642,1	211,7	29,4	628,4	219,5	28,1
	8	691,8	195,3	34,1	658,4	214,0	30,9	644,5	221,8	29,6
	9	709,0	197,7	35,8	674,6	216,6	32,4	660,0	224,4	31,0
	10	725,9	200,2	37,5	690,9	218,9	34,0	676,1	227,0	32,6
	12	760,6	205,1	41,2	723,6	224,3	37,3	708,5	232,1	35,7
	15	812,3	213,0	47,0	773,4	232,0	42,6	757,0	240,1	40,8
720	5	696,8	203,1	34,4	663,3	223,0	31,2	649,2	231,1	29,8
	6	717,6	205,4	36,5	682,5	225,5	33,0	668,4	233,7	31,6
	7	738,5	207,9	38,6	702,6	228,0	35,0	687,7	236,4	33,5
	8	757,0	210,4	40,6	720,4	230,5	36,8	705,3	238,9	35,2
	9	775,9	212,9	42,6	738,2	233,3	38,6	722,3	241,7	36,9
	10	794,4	215,7	44,7	756,0	235,8	40,5	739,9	244,5	38,8
	12	832,3	220,9	49,1	791,8	241,6	44,4	775,3	250,0	42,6
	15	888,9	229,4	56,0	846,3	249,9	50,7	828,4	258,6	48,6
800	5	776,1	220,6	44,2	738,8	242,2	40,0	723,1	251,0	38,3
	6	799,3	223,1	46,9	760,2	244,9	42,4	744,5	253,7	40,7
	7	822,5	225,8	49,6	782,6	247,6	44,9	765,9	256,8	43,0
	8	843,2	228,5	52,1	802,5	250,4	47,2	785,6	259,5	45,3
	9	864,2	231,2	54,8	822,2	253,4	49,6	804,5	262,5	47,5
	10	884,8	234,2	57,4	842,1	256,1	52,0	824,1	265,5	49,8
	12	927,0	239,9	63,0	881,9	262,4	57,0	863,6	271,5	54,7
	15	990,1	249,2	71,9	942,6	271,4	65,2	922,7	280,8	62,4
850	5	832,9	239,1	50,7	792,9	262,4	45,9	776,0	272,0	44,0
	6	857,8	241,7	53,8	815,9	265,4	48,6	799,0	275,0	46,7
	7	882,8	244,7	56,9	839,9	268,4	51,5	822,0	278,2	49,4
	8	904,9	247,6	59,8	861,2	271,3	54,2	843,1	281,2	51,9
	9	927,5	250,6	62,9	882,4	274,6	56,9	863,4	284,5	54,5
	10	949,6	253,8	65,9	903,7	277,5	59,7	884,5	287,7	57,2
	12	994,9	260,0	72,3	946,5	284,3	65,5	926,8	294,2	62,8
	15	1.062,6	270,0	82,5	1.011,6	294,1	74,8	990,3	304,3	71,7
910	5	889,7	257,8	57,1	847,0	283,0	51,8	829,0	293,3	49,6
	6	916,4	260,6	60,6	871,6	286,2	54,8	853,5	296,5	52,6
	7	943,0	263,8	64,2	897,2	289,3	58,1	878,1	300,0	55,6
	8	966,6	267,0	67,4	919,9	292,5	61,1	900,6	303,2	58,5
	9	990,8	270,2	70,8	942,6	296,0	64,1	922,3	306,7	61,4
	10	1.014,4	273,7	74,3	965,3	299,2	67,2	944,8	310,2	64,4
	12	1.062,8	280,3	81,5	1.011,1	306,6	73,8	990,0	317,3	70,7
	15	1.135,1	291,1	93,0	1.080,6	317,1	84,3	1.057,8	328,1	80,7
970	5	949,8	274,1	52,6	904,2	300,9	47,7	884,9	311,9	45,7
	6	978,2	277,1	55,8	930,4	304,3	50,5	911,1	315,3	48,4
	7	1.006,6	280,5	59,1	957,7	307,7	53,5	937,3	319,0	51,3
	8	1.031,8	283,9	62,1	982,0	311,1	56,3	961,4	322,4	53,9
	9	1.057,6	287,3	65,3	1.006,2	314,8	59,1	984,5	326,1	56,6
	10	1.082,8	291,0	68,4	1.030,5	318,2	62,0	1.008,5	329,9	59,4
	12	1.134,5	298,1	75,1	1.079,3	326,0	68,0	1.056,8	337,3	65,2
	15	1.211,7	309,6	85,7	1.153,6	337,2	77,7	1.129,2	348,9	74,4
1000	5	986,2	281,0	57,1	938,8	308,5	51,8	918,8	319,7	49,6
	6	1.015,7	284,1	60,6	966,1	311,9	54,8	946,1	323,2	52,6
	7	1.045,2	287,6	64,2	994,4	315,4	58,1	973,3	327,0	55,6
	8	1.071,4	291,0	67,4	1.019,7	318,9	61,1	998,3	330,5	58,5
	9	1.098,2	294,5	70,8	1.044,8	322,7	64,1	1.022,3	334,3	61,4
	10	1.124,4	298,3	74,3	1.070,0	326,2	67,3	1.047,2	338,2	64,4
	12	1.178,0	305,6	81,5	1.120,7	334,2	73,8	1.097,3	345,8	70,7
	15	1.258,2	317,4	93,0	1.197,8	345,7	84,3	1.172,5	357,7	80,8

(\*) Only Compressors.

Model	LWT °C	Condensing Air Temperature °C								
		35			40			42		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
		kW	kW	kPa	kW	kW	kPa	kW	kW	kPa
650	5	573,5	226,1	23,4	533,1	251,0	20,2	521,4	258,7	19,4
	6	590,3	228,6	24,8	549,0	253,7	21,5	536,0	261,7	20,5
	7	<b>607,7</b>	<b>231,0</b>	<b>26,3</b>	564,7	256,3	22,7	551,8	264,0	21,7
	8	622,9	233,6	27,6	579,2	258,7	23,9	548,7	266,6	21,4
	9	638,7	235,9	29,0	593,7	261,3	25,1	580,3	269,3	24,0
	10	653,9	238,7	30,4	607,2	264,0	26,3	592,5	272,1	25,0
	12	685,0	243,9	33,4	636,5	269,7	28,8	621,0	277,9	27,5
	15	731,4	252,3	38,1	680,2	278,1	32,9	664,8	286,4	31,5
720	5	627,5	243,5	27,9	583,3	270,4	24,1	570,5	278,7	23,1
	6	646,0	246,3	29,6	600,8	273,3	25,6	586,5	281,9	24,4
	7	<b>665,0</b>	<b>248,8</b>	<b>31,3</b>	618,0	276,1	27,0	603,8	284,4	25,8
	8	681,6	251,6	32,9	633,8	278,7	28,4	600,4	287,1	25,5
	9	698,9	254,1	34,6	649,7	281,5	29,9	635,0	290,1	28,6
	10	715,6	257,1	36,3	664,5	284,4	31,3	648,3	293,1	29,8
	12	749,5	262,7	39,8	696,5	290,6	34,4	679,6	299,3	32,7
	15	800,3	271,8	45,4	744,4	299,6	39,2	727,5	308,5	37,5
800	5	699,0	264,4	35,8	649,8	293,7	31,0	635,5	302,6	29,6
	6	719,5	267,5	38,0	669,2	296,7	32,8	653,3	306,1	31,3
	7	<b>740,7</b>	<b>270,2</b>	<b>40,2</b>	688,3	299,8	34,7	672,5	308,8	33,2
	8	759,2	273,2	42,3	705,9	302,6	36,5	668,8	311,8	32,8
	9	778,5	276,0	44,4	723,7	305,7	38,4	707,3	315,1	36,7
	10	797,0	279,2	46,6	740,1	308,8	40,2	722,1	318,3	38,2
	12	834,9	285,3	51,1	775,8	315,5	44,1	756,9	325,1	42,0
	15	891,4	295,1	58,3	829,1	325,4	50,4	810,3	335,0	48,2
850	5	750,1	286,6	41,1	697,3	318,2	35,5	682,0	327,9	34,0
	6	772,2	289,8	43,6	718,2	321,6	37,7	701,1	331,7	35,9
	7	<b>794,9</b>	<b>292,8</b>	<b>46,2</b>	738,7	324,9	39,9	721,7	334,7	38,1
	8	814,8	296,1	48,5	757,6	327,9	41,9	717,8	337,9	37,6
	9	835,5	299,0	51,0	776,6	331,3	44,1	759,1	341,4	42,1
	10	855,4	302,6	53,5	794,3	334,6	46,1	775,0	344,9	43,9
	12	896,0	309,1	58,7	832,6	341,9	50,7	812,4	352,2	48,2
	15	956,7	319,8	66,9	889,8	352,6	57,9	869,6	363,1	55,3
910	5	801,3	309,0	46,3	744,9	343,1	40,0	728,5	353,6	38,3
	6	824,9	312,5	49,1	767,2	346,7	42,5	748,9	357,7	40,5
	7	<b>849,1</b>	<b>315,7</b>	<b>52,0</b>	789,1	350,3	44,9	771,0	360,9	42,9
	8	870,3	319,2	54,7	809,3	353,6	47,3	766,7	364,3	42,4
	9	892,5	322,4	57,5	829,6	357,2	49,7	810,9	368,1	47,4
	10	913,7	326,3	60,2	848,5	360,8	51,9	827,9	371,9	49,5
	12	957,1	333,3	66,1	889,4	368,7	57,1	867,8	379,8	54,3
	15	1.021,9	344,8	75,4	950,5	380,2	65,2	928,9	391,5	62,3
970	5	855,4	328,5	42,7	795,1	364,8	36,9	777,7	376,0	35,3
	6	880,5	332,3	45,2	818,9	368,7	39,1	799,4	380,3	37,3
	7	<b>906,4</b>	<b>335,7</b>	<b>47,9</b>	842,3	372,5	41,4	823,0	383,7	39,5
	8	929,1	339,4	50,4	863,9	376,0	43,5	818,5	387,4	39,1
	9	952,7	342,8	53,0	885,6	379,8	45,8	865,6	391,4	43,7
	10	975,4	346,9	55,5	905,7	383,7	47,9	883,7	395,5	45,6
	12	1.021,7	354,4	60,9	949,4	392,0	52,6	926,3	403,8	50,1
	15	1.090,9	366,7	69,4	1.014,6	404,2	60,1	991,6	416,3	57,4
1000	5	888,2	336,8	46,3	825,7	374,0	40,0	807,5	385,5	38,3
	6	914,3	340,7	49,1	850,3	378,0	42,5	830,1	389,9	40,5
	7	<b>941,2</b>	<b>344,2</b>	<b>52,0</b>	874,6	381,9	44,9	854,6	393,4	42,9
	8	964,7	348,0	54,7	897,0	385,5	47,3	849,9	397,2	42,4
	9	989,2	351,5	57,5	919,6	389,4	49,7	898,8	401,3	47,5
	10	1.012,8	355,7	60,3	940,5	393,3	52,0	917,6	405,4	49,5
	12	1.060,9	363,4	66,1	985,9	401,9	57,1	961,9	414,0	54,3
	15	1.132,7	375,9	75,4	1.053,6	414,4	65,2	1.029,6	426,8	62,3

(\*) Only Compressors.

## Cooling Capacities - SyScrew Air S (Super Low Noise)

Model	LWT °C	Condensing Air Temperature °C								
		25			30			32		
		Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop	Cool	Input Power (*)	Pressure Drop
1070	5	1.046,3	299,6	29,2	996,0	328,9	26,5	974,8	340,9	25,3
	6	1.077,5	302,9	31,0	1.024,9	332,6	28,0	1.003,7	344,6	26,9
	7	1.108,8	306,6	32,8	1.055,0	336,3	29,7	1.032,6	348,7	28,4
	8	1.136,6	310,3	34,5	1.081,8	340,0	31,2	1.059,0	352,4	29,9
	9	1.165,0	314,0	36,2	1.108,4	344,1	32,8	1.084,5	356,5	31,4
	10	1.192,8	318,1	37,9	1.135,2	347,8	34,4	1.111,0	360,6	32,9
	12	1.249,7	325,8	41,6	1.188,9	356,3	37,7	1.164,1	368,7	36,1
	15	1.334,7	338,4	47,5	1.270,7	368,6	43,1	1.243,9	381,4	41,3
1130	5	1.106,3	315,3	32,5	1.053,1	346,2	29,5	1.030,7	358,8	28,2
	6	1.139,4	318,8	34,5	1.083,7	350,1	31,2	1.061,2	362,7	29,9
	7	1.172,5	322,7	36,5	1.115,5	354,0	33,1	1.091,8	367,0	31,7
	8	1.201,8	326,6	38,4	1.143,8	357,9	34,8	1.119,8	370,9	33,3
	9	1.231,9	330,5	40,3	1.172,0	362,2	36,5	1.146,7	375,2	35,0
	10	1.261,2	334,8	42,3	1.200,3	366,1	38,3	1.174,7	379,5	36,7
	12	1.321,4	343,0	46,4	1.257,1	375,1	42,0	1.230,9	388,1	40,3
	15	1.411,3	356,2	52,9	1.343,6	387,9	48,0	1.315,2	401,4	46,0
1170	5	1.144,9	330,2	33,3	1.089,9	362,5	30,2	1.066,7	375,7	28,9
	6	1.179,1	333,8	35,3	1.121,5	366,5	32,0	1.098,3	379,8	30,6
	7	1.213,4	337,9	37,4	1.154,4	370,6	33,9	1.129,9	384,3	32,4
	8	1.243,8	342,0	39,3	1.183,7	374,7	35,6	1.158,9	388,4	34,1
	9	1.274,8	346,1	41,3	1.212,8	379,2	37,4	1.186,7	392,9	35,8
	10	1.305,2	350,5	43,3	1.242,2	383,3	39,2	1.215,7	397,4	37,5
	12	1.367,5	359,1	47,5	1.301,0	392,7	43,0	1.273,9	406,4	41,2
	15	1.460,6	372,9	54,2	1.390,5	406,2	49,1	1.361,1	420,3	47,1
1200	5	1.189,9	346,6	36,0	1.132,7	380,4	32,6	1.108,6	394,3	31,3
	6	1.225,5	350,4	38,2	1.165,6	384,7	34,6	1.141,5	398,6	33,2
	7	1.261,1	354,7	40,5	1.199,8	389,0	36,6	1.174,3	403,3	35,1
	8	1.292,7	358,9	42,5	1.230,3	393,3	38,5	1.204,4	407,6	36,9
	9	1.325,0	363,2	44,7	1.260,5	398,0	40,4	1.233,4	412,3	38,7
	10	1.356,6	367,9	46,8	1.291,0	402,3	42,4	1.263,5	417,1	40,6
	12	1.421,3	376,9	51,4	1.352,1	412,2	46,5	1.324,0	426,5	44,6
	15	1.518,0	391,4	58,6	1.445,2	426,3	53,1	1.414,6	441,1	50,9
1300	5	1.286,4	373,3	41,7	1.224,6	409,8	37,8	1.198,5	424,7	36,2
	6	1.324,8	377,4	44,2	1.260,1	414,4	40,0	1.234,0	429,4	38,4
	7	1.363,3	382,0	46,9	1.297,1	419,0	42,4	1.269,5	434,5	40,6
	8	1.397,5	386,7	49,2	1.330,0	423,7	44,6	1.302,1	439,1	42,7
	9	1.432,4	391,3	51,7	1.362,7	428,7	46,8	1.333,4	444,2	44,8
	10	1.466,6	396,3	54,2	1.395,7	433,4	49,1	1.366,0	449,3	47,0
	12	1.536,5	406,0	59,5	1.461,8	444,0	53,9	1.431,3	459,4	51,6
	15	1.641,1	421,6	67,9	1.562,4	459,2	61,5	1.529,3	475,2	59,0
1400	5	1.392,0	391,4	48,5	1.325,1	429,7	44,0	1.296,9	445,4	42,1
	6	1.433,6	395,8	51,5	1.363,5	434,5	46,6	1.335,3	450,2	44,7
	7	1.475,3	400,6	54,5	1.403,6	439,4	49,3	1.373,8	455,5	47,3
	8	1.512,3	405,4	57,3	1.439,3	444,2	51,9	1.409,0	460,4	49,7
	9	1.550,0	410,2	60,2	1.474,6	449,5	54,5	1.442,9	465,7	52,1
	10	1.587,0	415,6	63,1	1.510,3	454,4	57,1	1.478,1	471,1	54,7
	12	1.662,7	425,7	69,2	1.581,8	465,5	62,7	1.548,8	481,7	60,1
	15	1.775,8	442,1	79,0	1.690,7	481,5	71,6	1.654,9	498,2	68,6

(\*) Only Compressors.









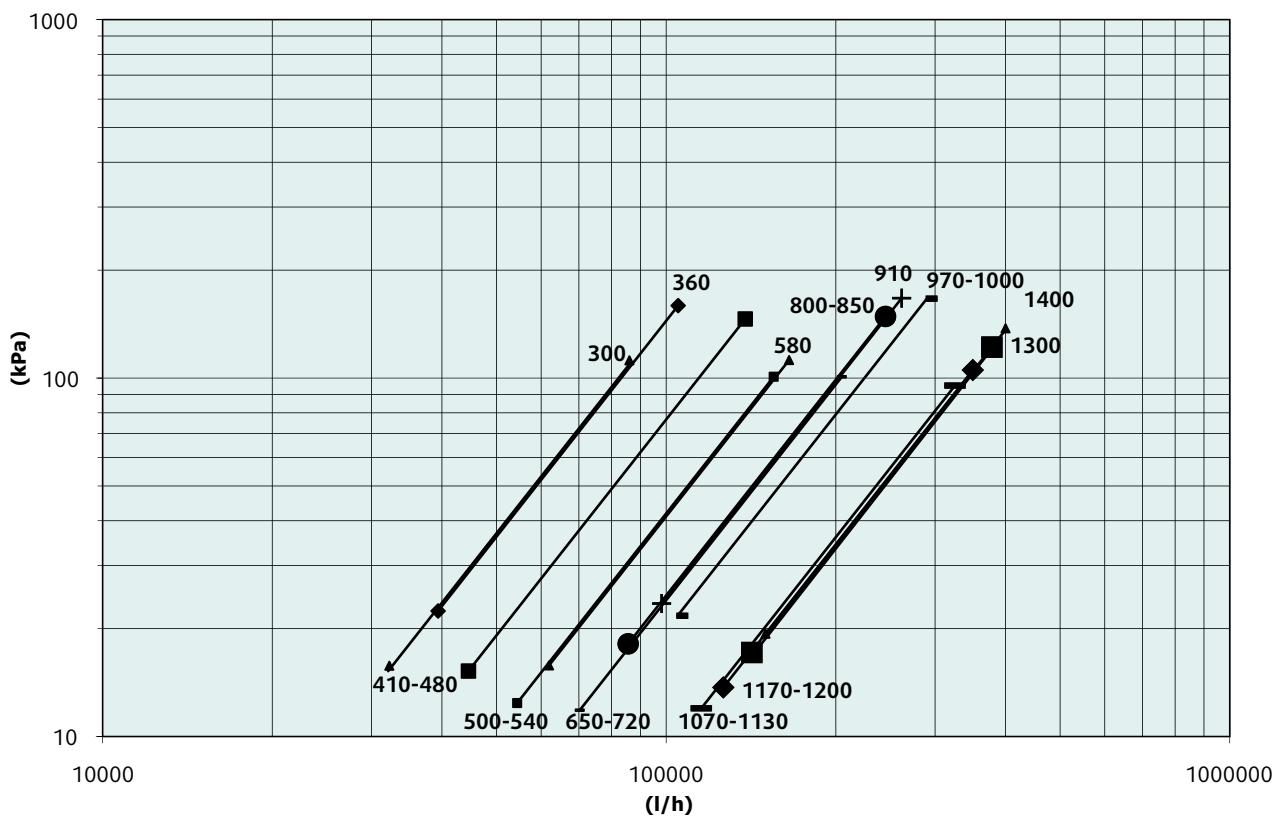






## Evaporator Pressure Drop

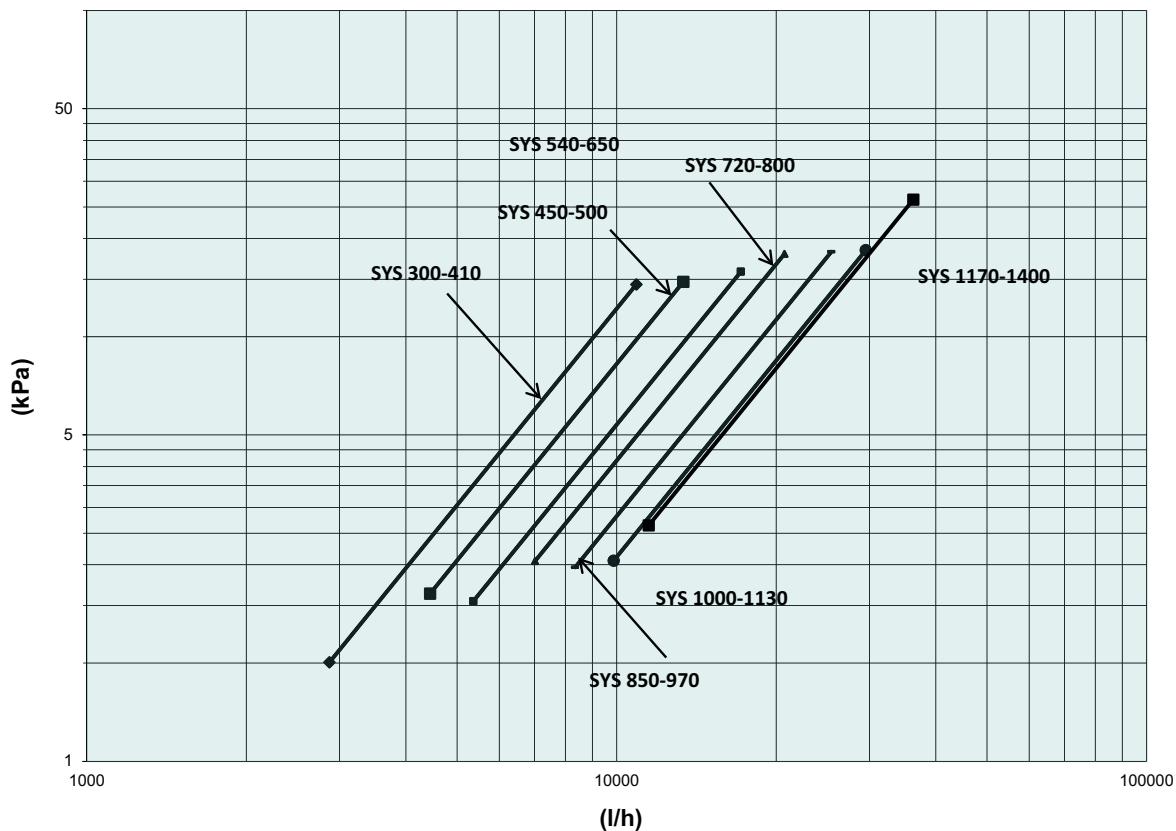
Model	Nom. Capacity	Qnom.	Qmax.	Qmin.	K	Dp nom	DP max	DP min
	kW	l/h	l/h	l/h	kPa/(l/h) <sup>2</sup>	kPa	kPa	kPa
300	296	50.878	84.796	31.799	1,405E-08	36,4	101,0	14,2
360	366	63.004	105.006	39.377	1,444E-08	57,3	159,3	22,4
410	415	71.328	118.881	44.580	7,663E-09	39,0	108,3	15,2
450	447	76.815	128.025	48.010	7,663E-09	45,2	125,6	17,7
480	482	82.870	138.116	51.794	7,663E-09	52,6	146,2	20,6
500	506	87.032	145.053	54.395	4,191E-09	31,7	88,2	12,4
540	541	93.086	155.144	58.179	4,191E-09	36,3	100,9	14,2
580	576	99.141	165.235	61.963	4,112E-09	40,4	112,3	15,8
650	653	112.385	187.308	70.241	2,400E-09	30,3	84,2	11,8
720	715	122.980	204.967	76.863	2,400E-09	36,3	100,8	14,2
800	796	136.981	228.301	85.613	2,475E-09	46,4	129,0	18,1
850	855	147.008	245.014	91.880	2,475E-09	53,5	148,6	20,9
910	913	157.036	261.727	98.148	2,439E-09	60,2	167,1	23,5
970	975	167.631	279.385	104.770	1,979E-09	55,6	154,5	21,7
1000	1.012	174.064	290.107	108.790	1,979E-09	60,0	166,6	23,4
1070	1.074	184.659	307.765	115.412	8,999E-10	30,7	85,2	12,0
1130	1.135	195.254	325.424	122.034	8,999E-10	34,3	95,3	13,4
1170	1.175	202.066	336.776	126.291	8,594E-10	35,1	97,5	13,7
1200	1.221	210.012	350.020	131.258	8,594E-10	37,9	105,3	14,8
1300	1.320	227.040	378.400	141.900	8,521E-10	43,9	122,0	17,2
1400	1.399	240.662	401.104	150.414	8,459E-10	49,0	136,1	19,1



## Desuperheater pressure drop

Model	Nom. Capacity	Qnom.	Qmax.	Qmin.	K	Dp nom	DP max	DP min
	kW (*)	l/h	l/h	l/h	kPa/(l/h)^2	kPa	kPa	kPa
300	27	4.590	7.650	2.869	1,2201E-07	2,6	7,1	1,0
360	34	5.802	9.670	3.626	1,2201E-07	4,1	11,4	1,6
410	38	6.535	10.892	4.084	1,2201E-07	5,2	14,5	2,0
450	41	7.110	11.851	4.444	8,2611E-08	4,2	11,6	1,6
480	44	7.625	12.709	4.766	8,2611E-08	4,8	13,3	1,9
500	47	8.015	13.358	5.009	8,2611E-08	5,3	14,7	2,1
540	50	8.581	14.302	5.363	5,3791E-08	4,0	11,0	1,5
580	53	9.138	15.231	5.712	5,3791E-08	4,5	12,5	1,8
650	60	10.295	17.158	6.434	5,3791E-08	5,7	15,8	2,2
720	65	11.219	18.698	7.012	4,1753E-08	5,3	14,6	2,1
800	72	12.439	20.732	7.774	4,1753E-08	6,5	17,9	2,5
850	78	13.357	22.261	8.348	2,8203E-08	5,0	14,0	2,0
910	83	14.302	23.837	8.939	2,8203E-08	5,8	16,0	2,3
970	89	15.252	25.420	9.532	2,8203E-08	6,6	18,2	2,6
1000	92	15.785	26.309	9.866	2,1147E-08	5,3	14,6	2,1
1070	97	16.768	27.946	10.480	2,1147E-08	5,9	16,5	2,3
1130	103	17.709	29.515	11.068	2,1147E-08	6,6	18,4	2,6
1170	107	18.382	30.637	11.489	2,0000E-08	6,8	18,8	2,6
1200	111	19.153	31.922	11.971	2,0000E-08	7,3	20,4	2,9
1300	120	20.687	34.478	12.929	2,0000E-08	8,6	23,8	3,3
1400	127	21.770	36.283	13.606	2,0000E-08	9,5	26,3	3,7

(\*) Capacity referred to only one circuit.

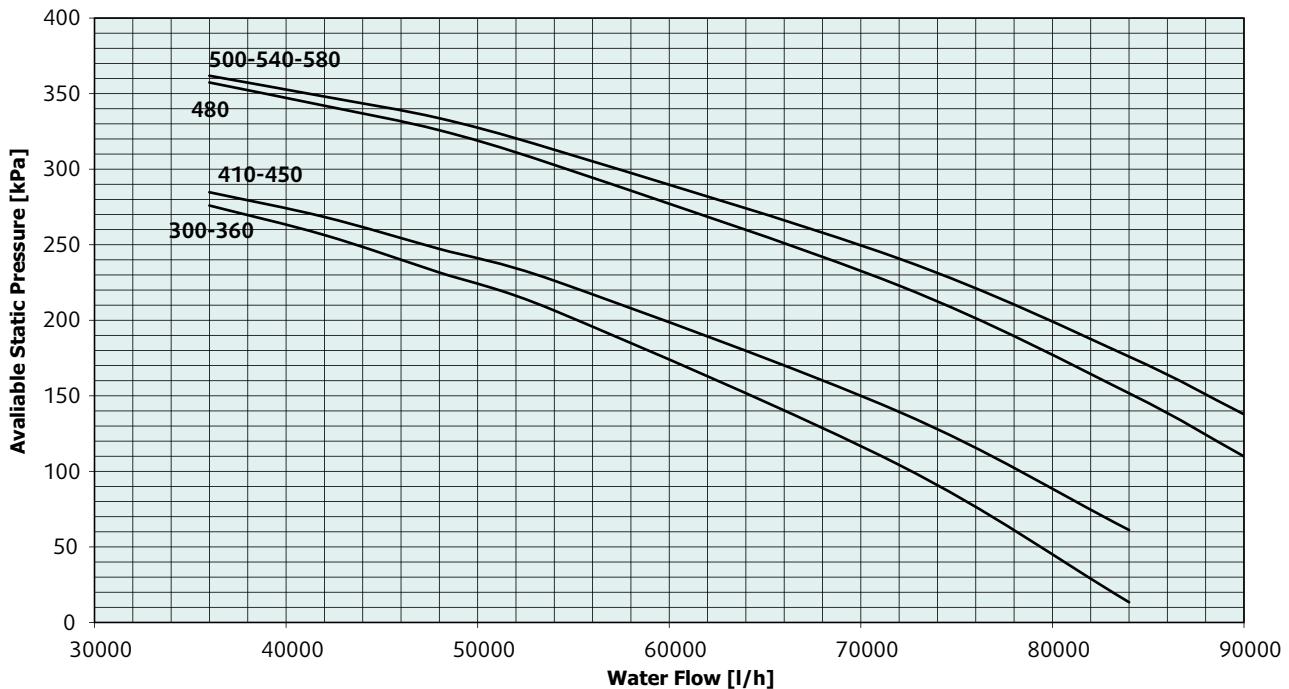


## Hydro options

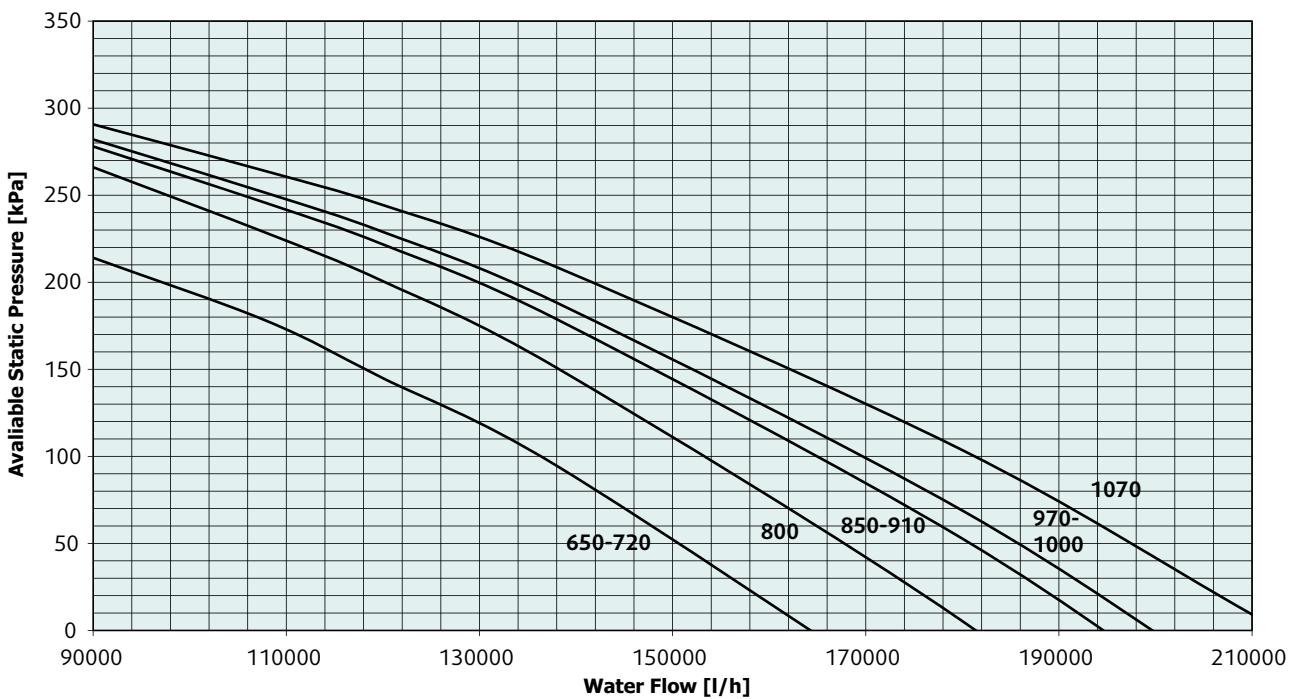
Chiller model	Pump model (3Ph - 50 Hz - 2 poles)	Low head pump/s					
		Q <sub>nom</sub>	H <sub>pump</sub>	Δp <sub>circuit</sub>	H	Pmax	F.L.A
	I/h	kPa	kPa	kPa	kW	A	
SyScrew Air 300	A	50.878	234	47	186	5,5	10,6
SyScrew Air 360		63.004	216	74	142	5,5	10,6
SyScrew Air 410		71.328	202	61	142	5,5	10,6
SyScrew Air 450		76.815	193	70	122	5,5	10,6
SyScrew Air 480	B	82.870	234	82	153	7,5	13,6
SyScrew Air 500		87.032	227	64	163	7,5	13,6
SyScrew Air 540		93.086	216	73	143	7,5	13,6
SyScrew Air 580	C	99.141	230	82	148	11,0	20,2
SyScrew Air 650	D	112.385	236	84	152	15,0	26,6
SyScrew Air 720		122.980	233	100	133	15,0	26,6
SyScrew Air 800	E	136.981	273	126	147	18,5	33,0
SyScrew Air 850		147.008	270	98	172	18,5	33,0
SyScrew Air 910		157.036	266	111	155	18,5	33,0
SyScrew Air 970		167.631	261	113	149	18,5	33,0
SyScrew Air 1000		174.064	225	122	136	18,5	33,0
SyScrew Air 1070		184.659	258	100	153	18,5	33,0
SyScrew Air 1130	F	195.254	253	112	180	22,0	40,4
SyScrew Air 1170		202.066	292	118	170	22,0	40,4
SyScrew Air 1200		210.012	288	128	155	22,0	40,4

Chiller model	Pump model (3Ph - 50 Hz - 2 poles)	High head pump/s					
		Q <sub>nom</sub>	H <sub>pump</sub>	Δp <sub>circuit</sub>	H	Pmax	F.L.A
	I/h	kPa	kPa	kPa	kW	A	
SyScrew Air 300	G	50.878	330	47	282	9,2	17,2
SyScrew Air 360		63.004	314	74	239	9,2	17,2
SyScrew Air 410		71.328	301	61	241	9,2	17,2
SyScrew Air 450		76.815	292	70	222	9,2	17,2
SyScrew Air 480	H	82.870	325	82	244	11,0	21,3
SyScrew Air 500		87.032	318	64	255	11,0	21,3
SyScrew Air 540		93.086	309	73	236	11,0	21,3
SyScrew Air 580	I	99.141	302	82	220	15,0	26,6
SyScrew Air 650		112.385	293	84	209	15,0	26,6
SyScrew Air 720	L	122.980	334	100	234	18,5	33,0
SyScrew Air 800	M	136.981	370	126	244	22,0	40,4
SyScrew Air 850		147.008	361	98	263	22,0	40,4
SyScrew Air 910		157.036	351	111	240	22,0	40,4
SyScrew Air 970		167.631	340	113	227	22,0	40,4
SyScrew Air 1000		174.064	332	122	210	22,0	40,4
SyScrew Air 1070		184.659	320	100	220	22,0	40,4
SyScrew Air 1130	N	195.254	384	112	272	30,0	53,5
SyScrew Air 1170		202.066	380	118	262	30,0	53,5
SyScrew Air 1200		210.012	376	128	248	30,0	53,5

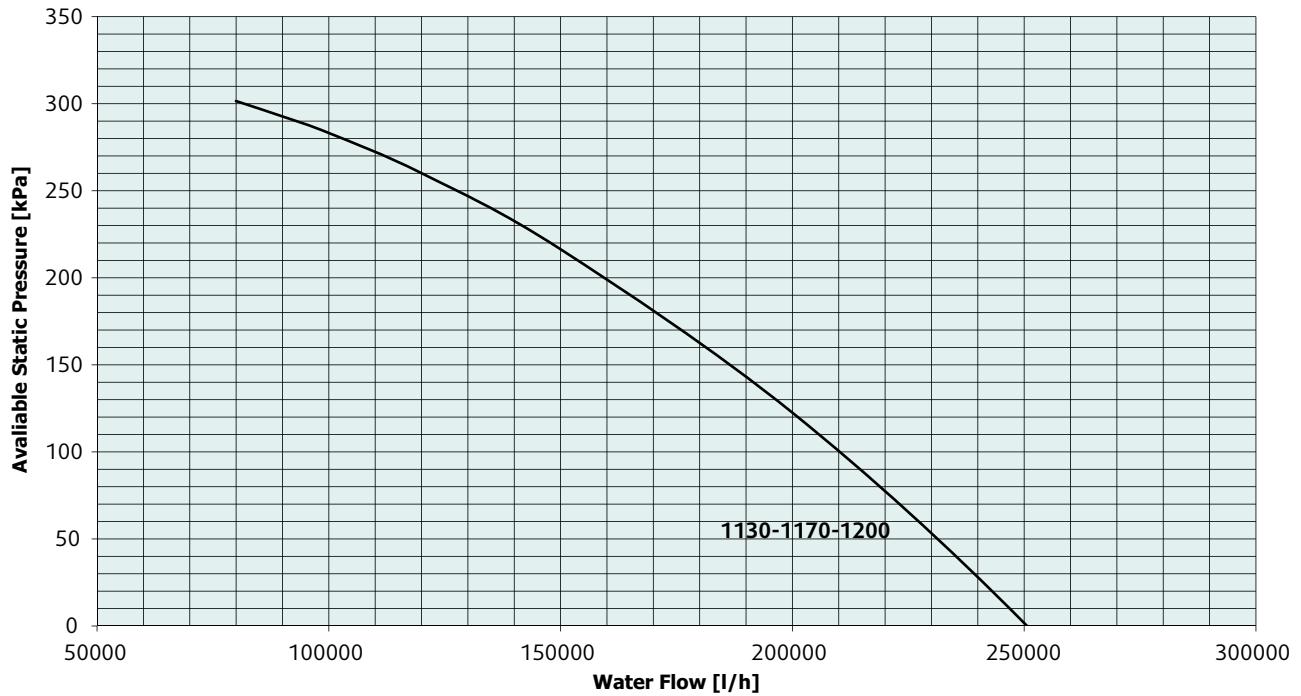
## Available Pressure (Low head - Pump "A" & "B") Models 300-580



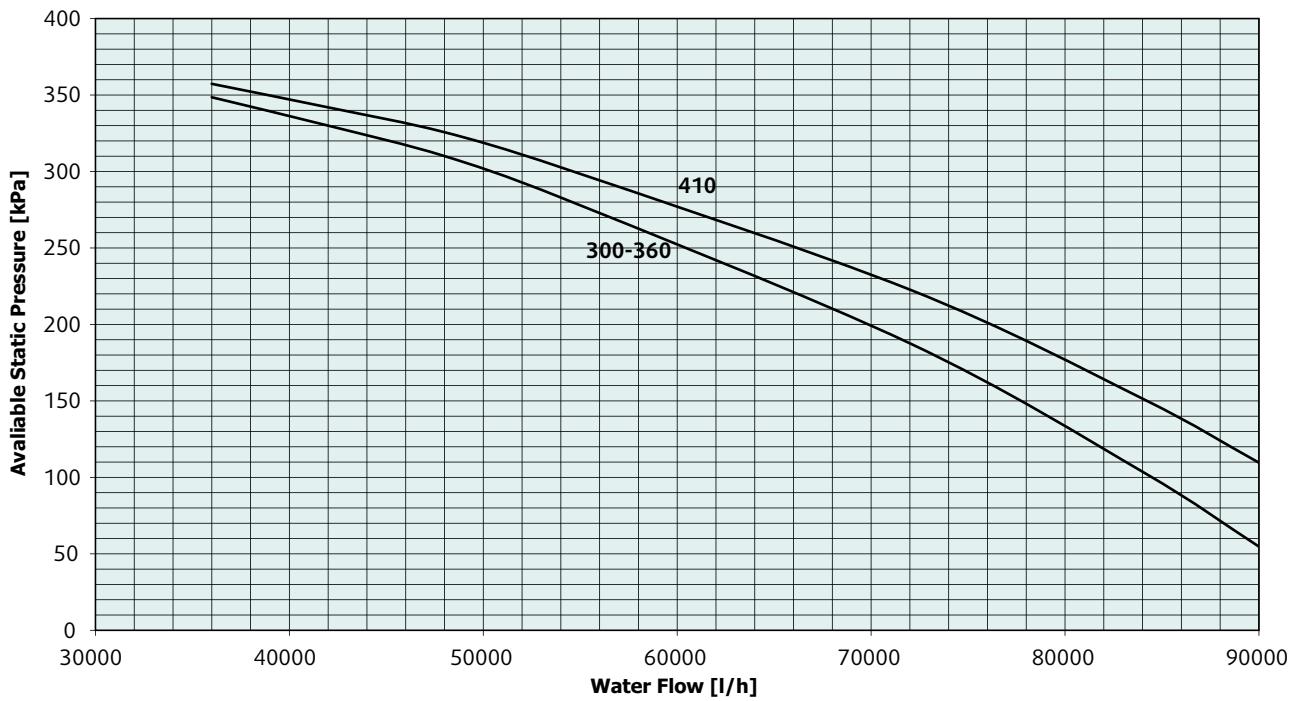
## Available Pressure (Low head - Pump "C" & "D") Models 650-1070



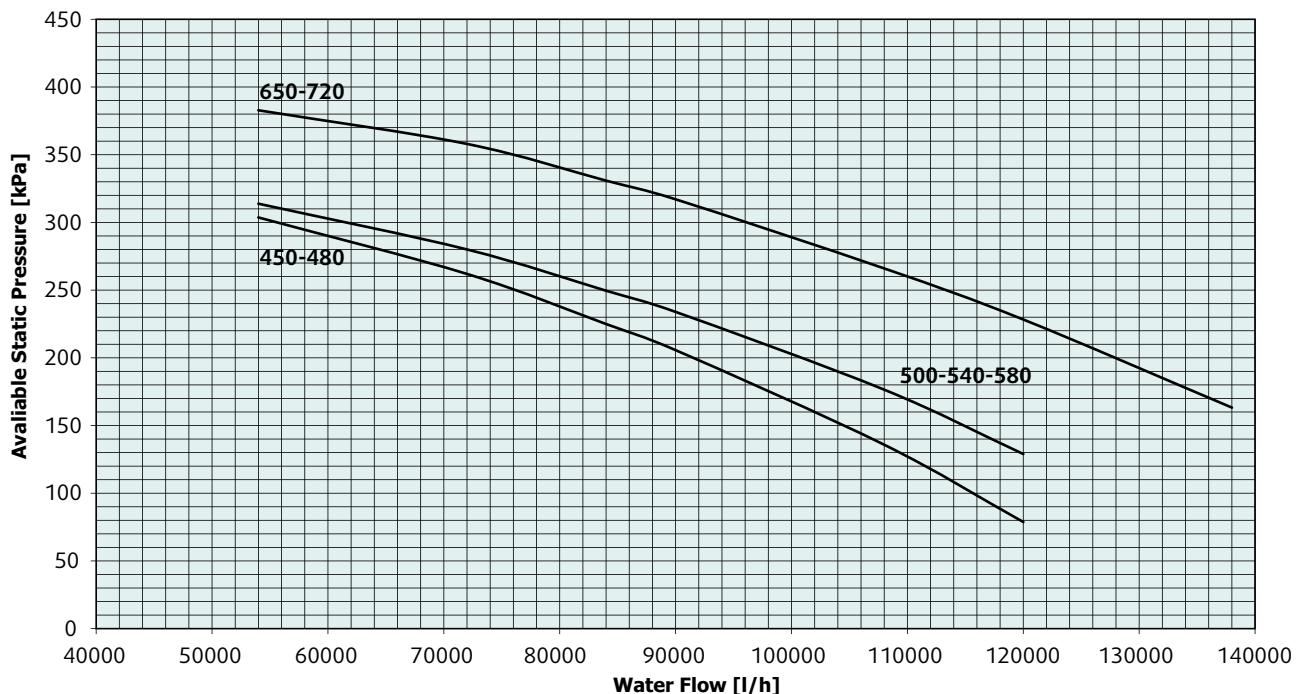
### Available Pressure (Low Head - Pump "E") Models 1130-1200



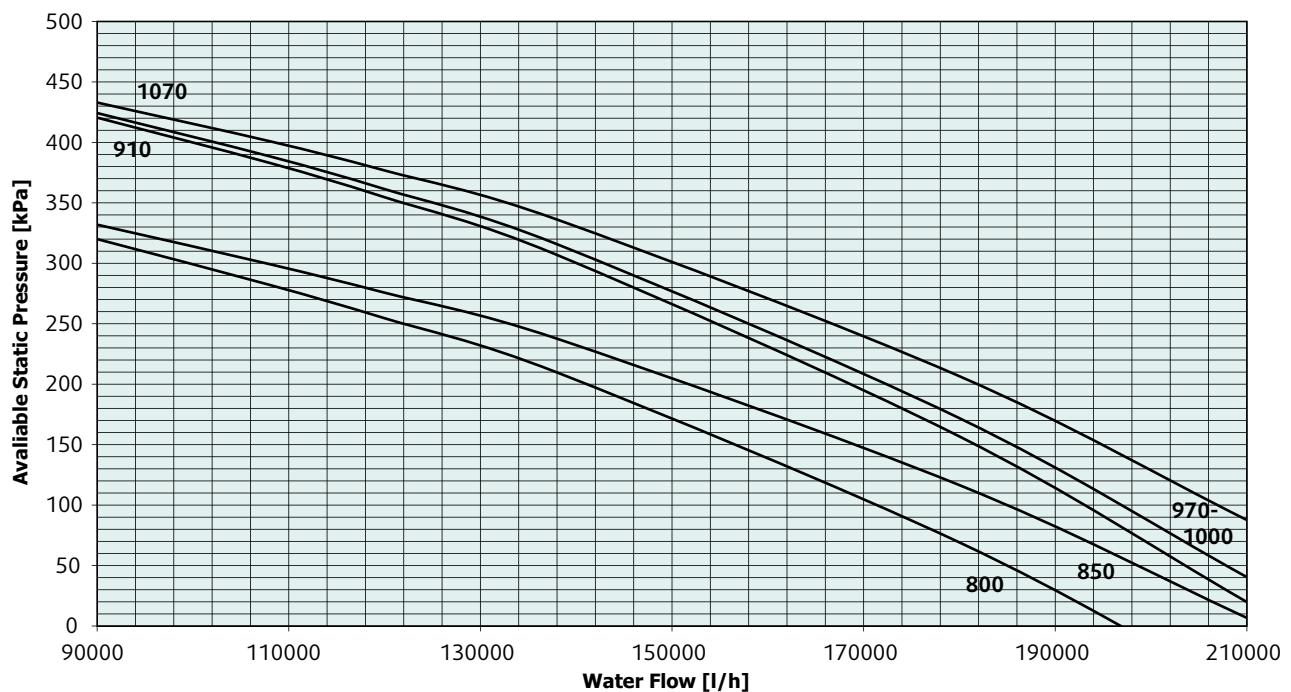
### Available Pressure (High Head - Pump "F") Models 300-410



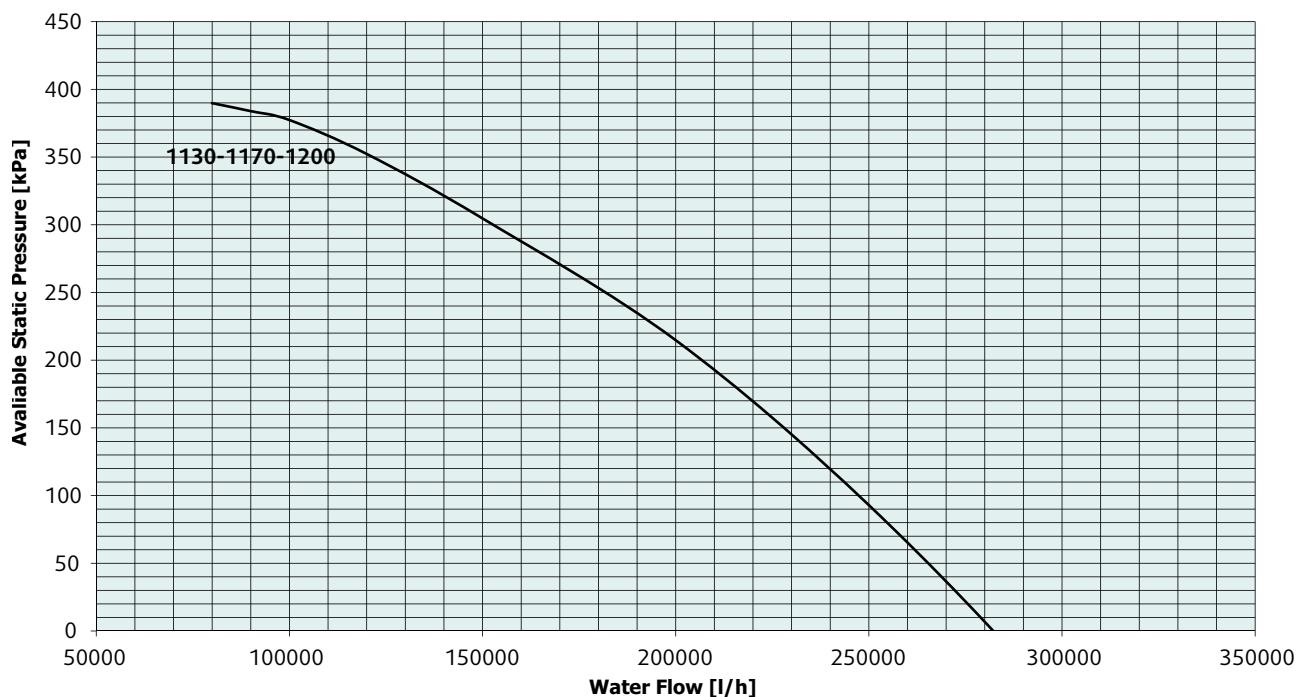
## Available Pressure (High Head - Pump "G" & "H") Models 450-720



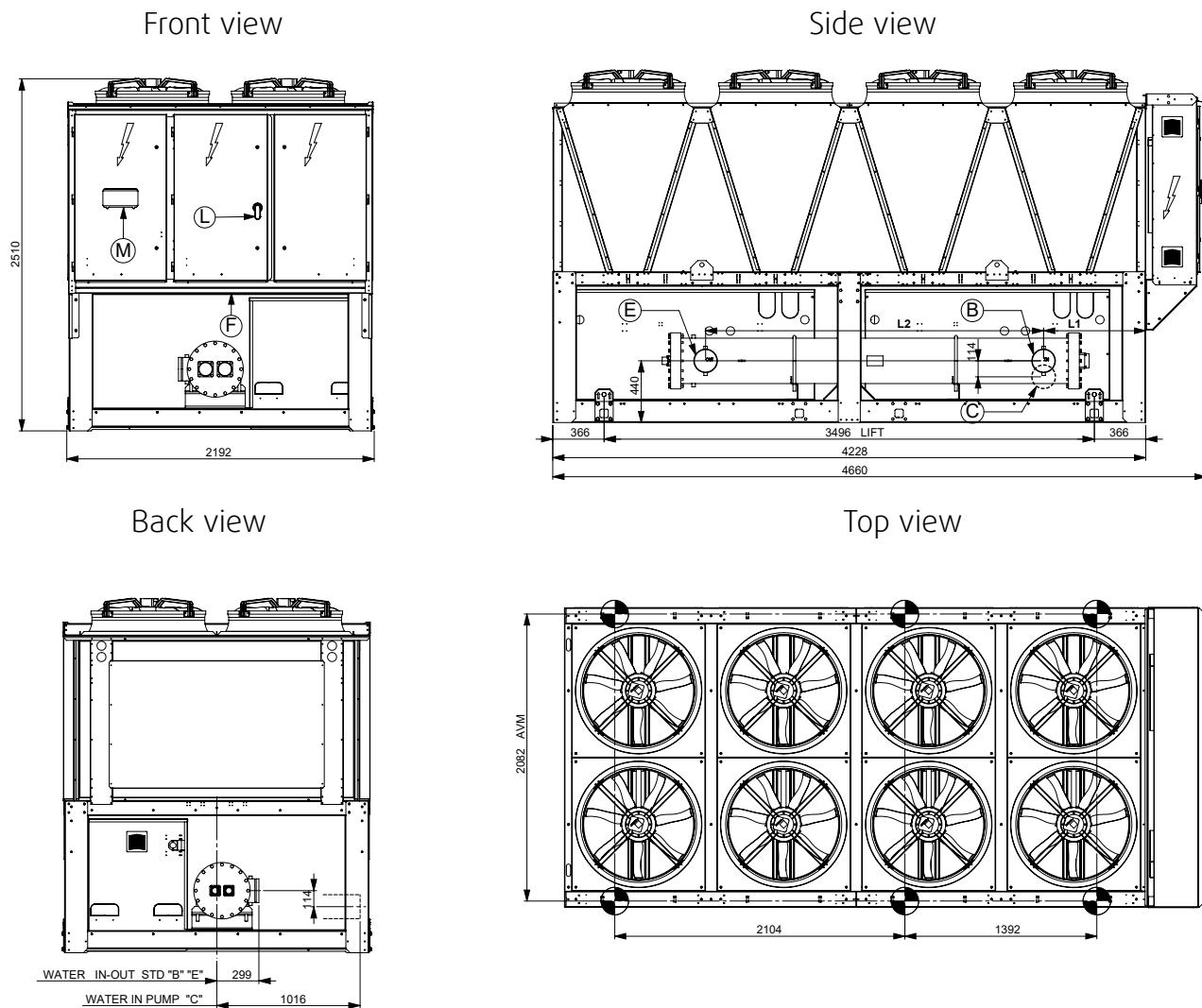
## Available Pressure (High Head - Pump "I" & "J") Models 800-1070



## Available Pressure (High Head - Pump "K") Models 1130-1200



## Dimensions SyScrew 4V 300-360-410-450-480-500



### NOTES

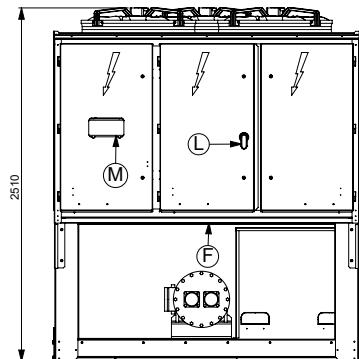
- B E Water connection
- F Electrical power supply
- L Main switch
- M Control keypad / display

Water connections	300-360	410-500
L1	722	725
L2	2.410	2.410

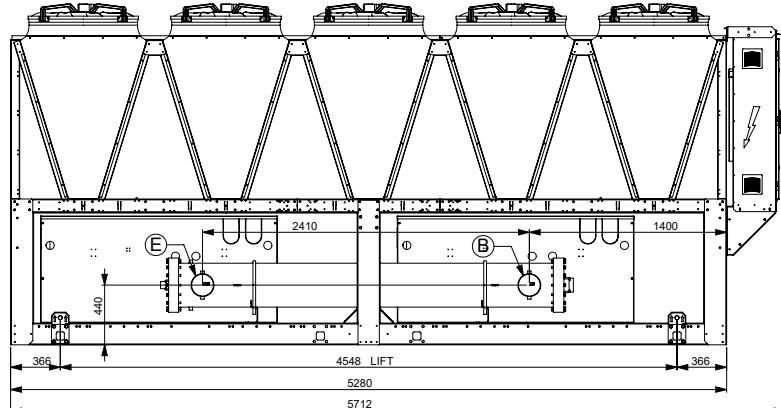
Hydraulic option	Water in	Water out
STD	B	E
B-E	300-360/5"	410-400/6"
1P/2P	5"	6"
Desuperheaters	2"	2"

## Dimensions SyScrew 5V 540

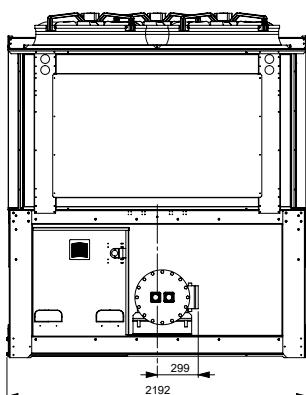
Front view



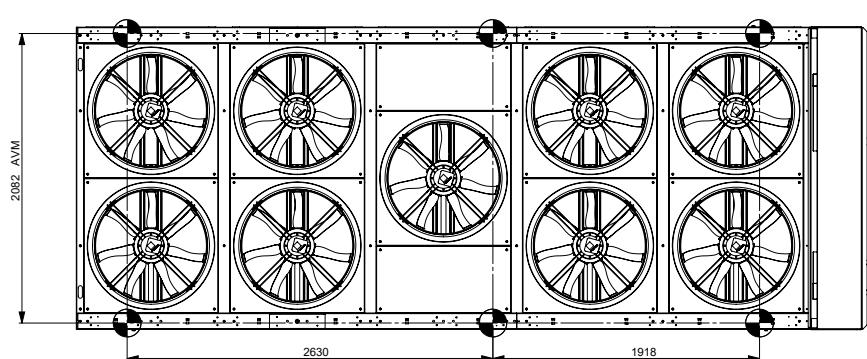
Side view



Back view



Top view

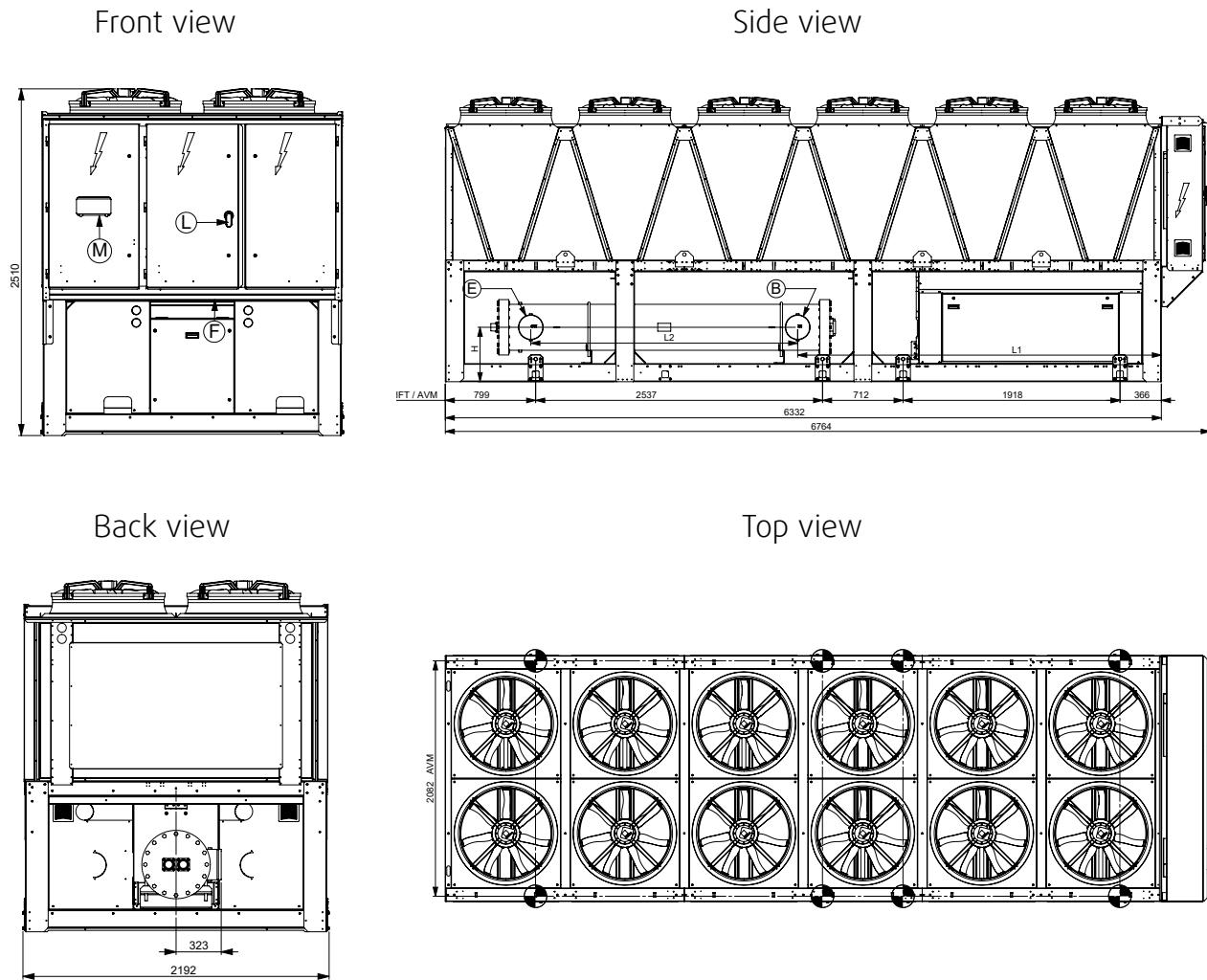


### NOTES

- B E Water connection
- F Electrical power supply
- L Main switch
- M Control keypad / display

Hydraulic option	Water in	Water out
STD	B	E
B-E	6"	6"
1P/2P	t.b.d.	t.b.d.
Desuperheaters	t.b.d.	t.b.d.

## Dimensions SyScrew 6V 580-650-720-800



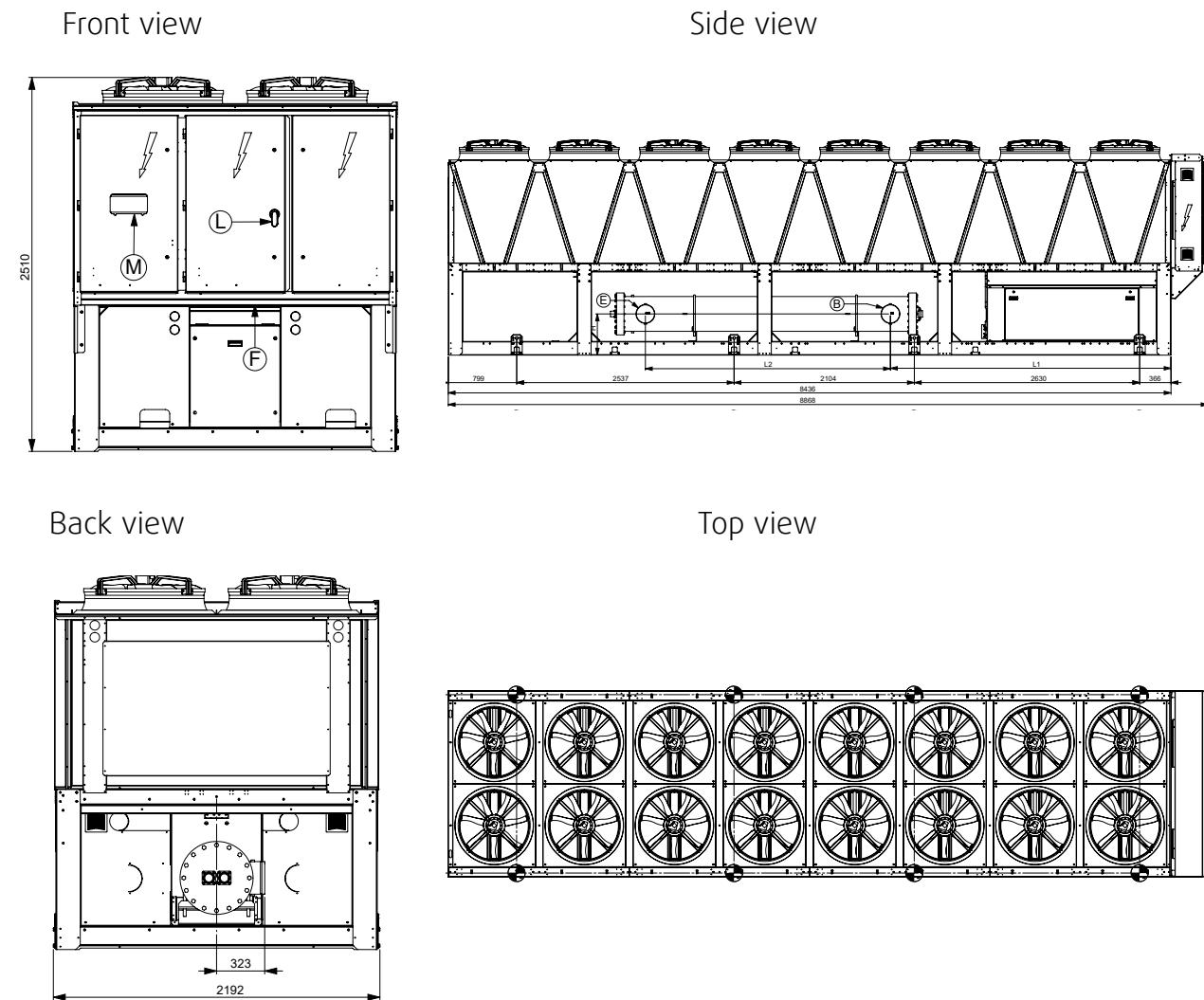
### NOTES

- B E Water connection
- F Electrical power supply
- L Main switch
- M Control keypad / display

Water connections	580	650-720-800
H	440	480
L1	2.852	2.881
L2	2.410	2.360

Hydraulic option	Water in	Water out
STD	B	E
B-E	6"	6" (800 8")
1P/2P	t.b.d.	t.b.d.
Desuperheaters	t.b.d.	t.b.d.

## Dimensions SyScrew 8V 850-910-970-1000



### NOTES

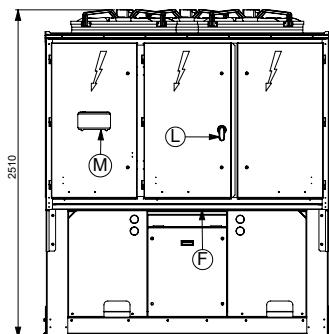
- B E Water connection
- F Electrical power supply
- L Main switch
- M Control keypad / display

Water connections	850-910	970-1000
H	480	530
L1	3.344	3.379
L2	2.360	2.860

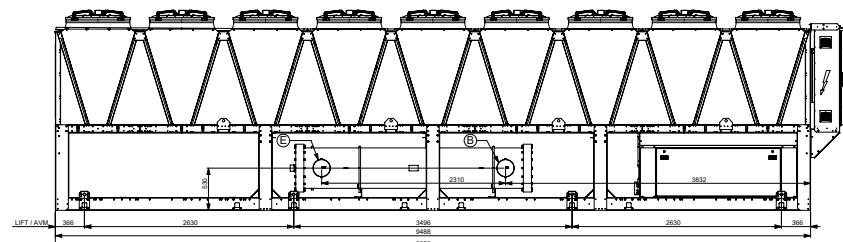
Hydraulic option	Water in	Water out
STD	B	E
B-E	8"	8"
1P/2P	t.b.d.	t.b.d.
Desuperheaters	t.b.d.	t.b.d.

## Dimensions SyScrew 9V 1070

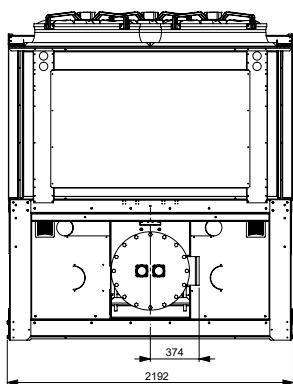
Front view



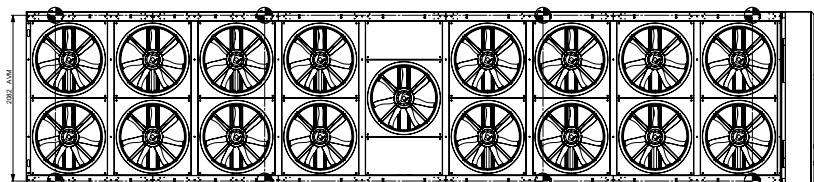
Side view



Back view



Top view

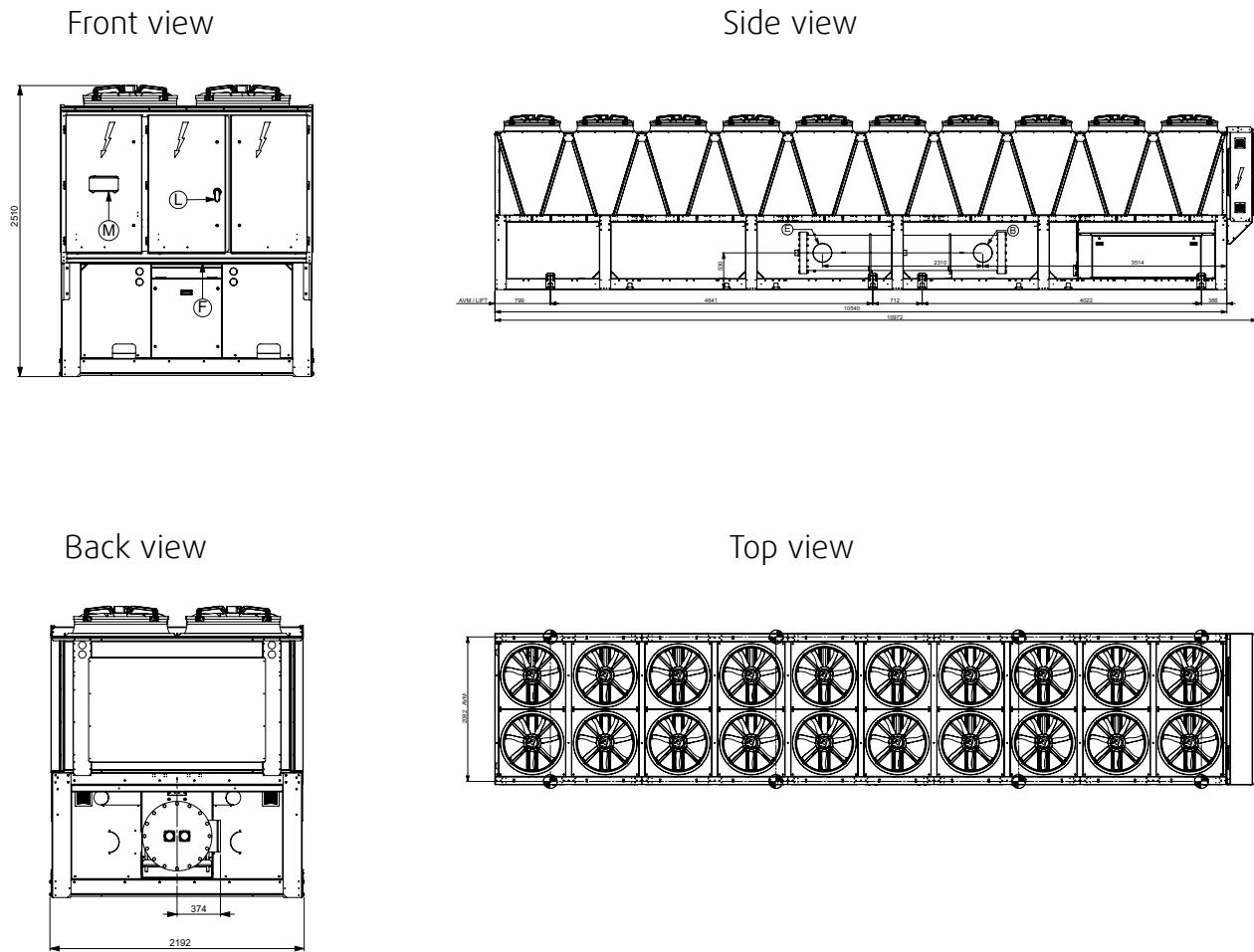


### NOTES

- B E Water connection
- F Electrical power supply
- L Main switch
- M Control keypad / display

Hydraulic option	Water in	Water out
STD	B	E
B-E	8"	8"
1P/2P	t.b.d.	t.b.d.
Desuperheaters	t.b.d.	t.b.d.

## Dimensions SyScrew 10V 1130-1170-1200



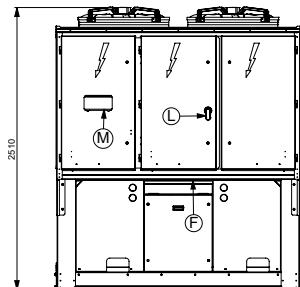
### NOTES

- B E Water connection
- F Electrical power supply
- L Main switch
- M Control keypad / display

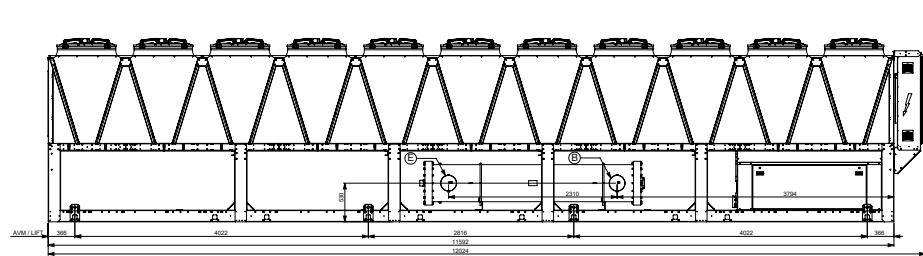
Hydraulic option	Water in	Water out
STD	B	E
B-E	8"	8"
1P/2P	t.b.d.	t.b.d.
Desuperheaters	t.b.d.	t.b.d.

## Dimensions SyScrew 11V 1300

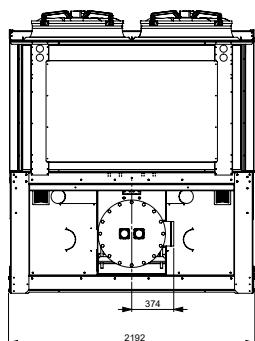
Front view



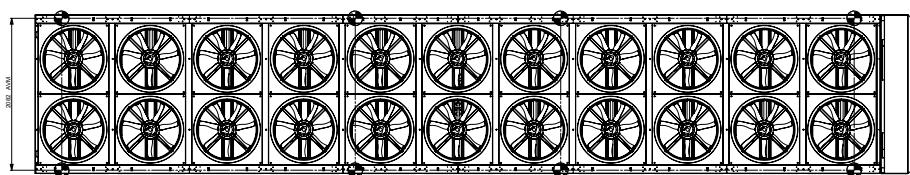
Side view



Back view



Top view



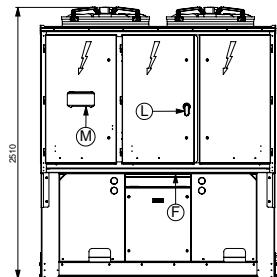
### NOTES

- B E Water connection
- F Electrical power supply
- L Main switch
- M Control keypad / display

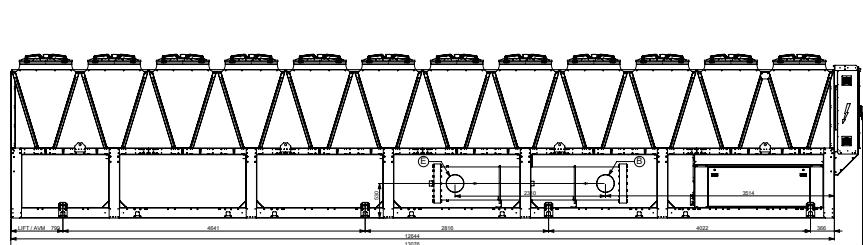
Hydraulic option	Water in	Water out
STD	B	E
B-E	8"	8"
1P/2P	t.b.d.	t.b.d.
Desuperheaters	t.b.d.	t.b.d.

## Dimensions SyScrew 12V 1400

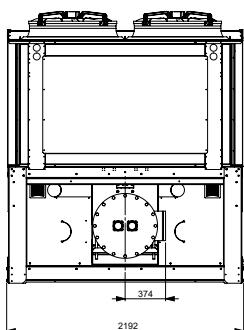
Front view



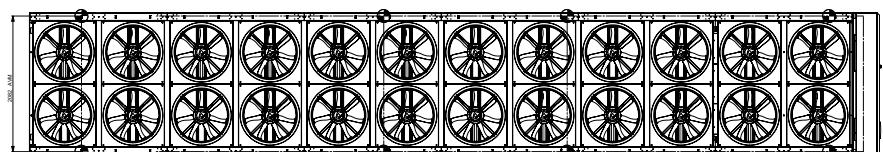
Side view



Back view



Top view

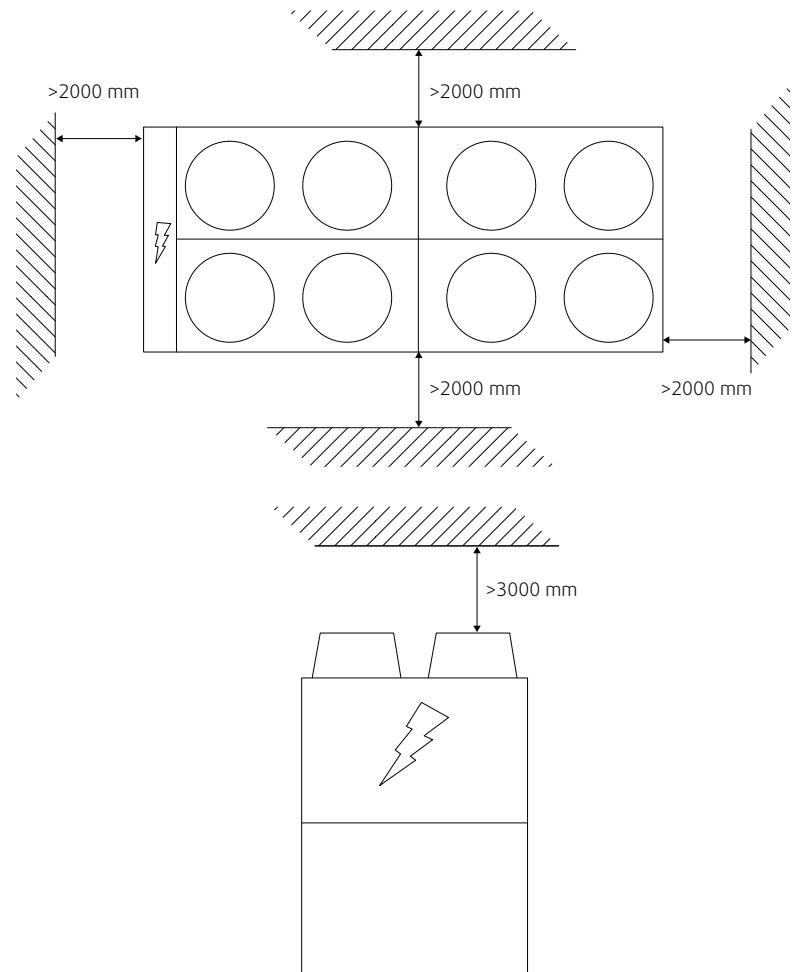


### NOTES

- B E Water connection
- F Electrical power supply
- L Main switch
- M Control keypad / display

Hydraulic option	Water in	Water out
STD	B	E
B-E	10"	10"
1P/2P	t.b.d.	t.b.d.
Desuperheaters	t.b.d.	t.b.d.

## Space Requirements



# Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



[www.systemair.com](http://www.systemair.com)

**Systemair srl**  
Via XXV Aprile, 29  
20825 Barlassina (MB)  
Italy

Tel. +39 0362 680 1  
Fax +39 0362 680 693  
[info@systemair.it](mailto:info@systemair.it)