



The Oventrop Quality Management System is certified to DIN-EN-ISO 9001

Valves, controls + systems

Bronze ball valves "Optibal" with full flow

Technical information

Application:

Oventrop bronze ball valves "Optibal" with full flow are especially used for district heating, among other things transmission units, up to a nominal pressure of 40 bar. They are suitable for flow temperatures up to 150°C (with aluminium lever) or 120°C (with plastic handle).

Functions:

The ball valve is opened/closed by turning the handwheel by 90°. The position of the ball is indicated by the position of the handle which moves parallel to it. Even if the handle or lever were removed, the stem with two flats still indicates the position of the ball.

Advantages:

- full flow
- all standard types of handles and levers available
- simple insulation of the models with extended plastic handle
- suitable for high pressures due to solid bodies
- PN 40

Insulation:

The Oventrop bronze ball valves with extended plastic handle may be equipped with standard insulations.

Ball valves "Optibal", bronze, unplated, full flow:

one port weldable tailpipe made of steel, one port cap:

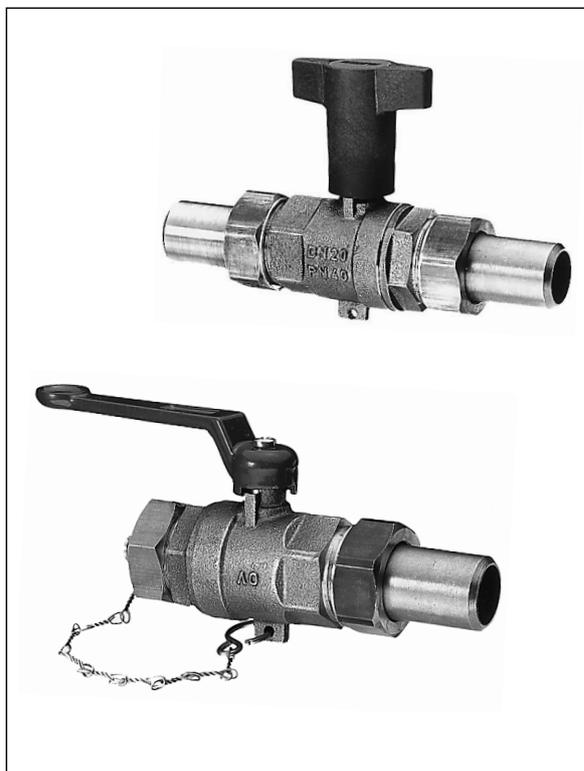
Application:
Heating systems, water

Pressure and temperature range:
PN 40 for central heating systems, especially for district heating, flow temperature up to 150°C (with aluminium lever) or 120°C (with plastic handle)

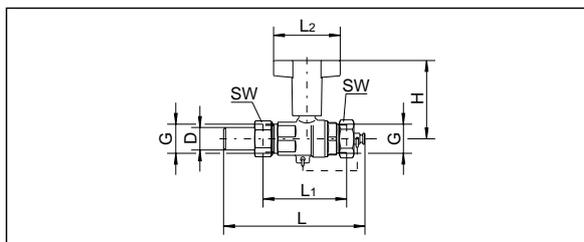
Construction:
Two-piece body, unplated bronze, full flow, ball made of chrome plated brass with PTFE seats, brass stem with double FKM O-ring seal.

DN	D	L	L ₁	L ₂	L ₃	H	H ₁	SW*	G
15	20.5	179	75	60	100	72	50	30	¾
20	26	186	82	60	100	76	54	37	1
25	33	220	96	80	120	82	62	46	1¼
32	42.5	260	136	80	120	89	67	58	1¾

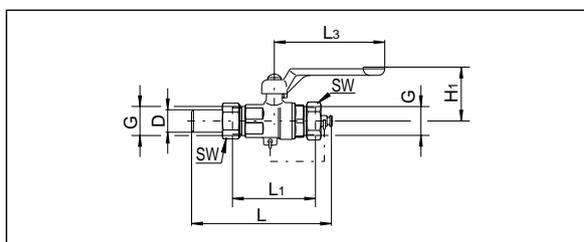
* SW = spanner size



Ball valves "Optibal" PN 40 made of bronze



Item nos. 106 66 04-10 (DN 15 to DN 32)
Extended plastic handle



Item nos. 106 65 04-10 (DN 15 to DN 32)
Aluminium lever

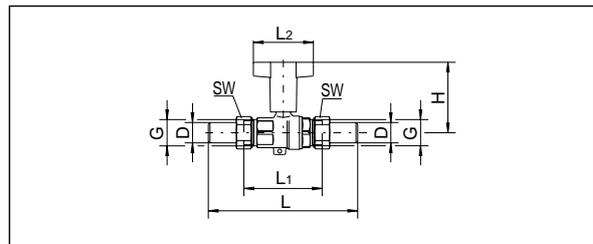
both ports weldable tailpipes made of steel:

Application:
Heating systems, water

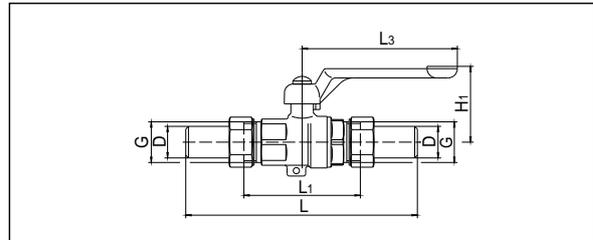
Pressure and temperature range:
PN 40 for central heating systems, especially for district heating,
flow temperature up to 150°C (with aluminium lever) or 120°C
(with plastic handle)

DN	D	L	L ₁	L ₂	L ₃	H	H ₁	SW*	G
15	20.5	142	75	60	100	72	50	30	¾
20	26	149	82	60	100	76	54	37	1
25	33	173	96	80	120	82	62	46	1¼
32	42.5	214	136	80	120	89	67	58	1¾

*SW = spanner size



Item nos. 106 56 04 - 10 (DN 15 to DN 32)
Extended plastic handle



Item nos. 106 55 04 - 10 (DN 15 to DN 32)
Aluminium lever

Resistance of the ball valves to fluids being transported:

The indications in the table are for general orientation.
Unknown factors may impair the resistance considerably.
Therefore the given values are not binding. The ball valves
“Optibal” are not DVGW approved.

Values of resistance:

- 1: low or no affect
- 2: weak to moderate effect
- 3: strong affect, may not be used
- 4: no data existing

Fluids	Values of resistance
Air, compressed air	1
Amyl alcohol, 60°C	-
Barium sulphate	-
Barium sulphide (black ash)	3
Beer, 20°C	2
Benzole	2
Borax, aqueous, 60°C	-
Butane, gaseous, 20°C	1
Carbon bisulphide, 20°C	-
carbon dioxide, dry, 60°C	1
Chlorine, dry, gaseous, 20°C	3
Chloroform, dry, 20°C	2
Citric acid, aqueous	3
Crude oil, 20°C	1
Crude petroleum, 60°C	1
Diesel oil, 60°C	1
Ethyl alcohol, 30-96%, 20°C	-
Gasoline, trade quality	1
Glucose, aqueous, 80°C	1
Glycerine, aqueous, 100°C	1
Heating oil, 60°C	1
Hydraulic oil	1
Hydrogen, 20°C	1
Lactic acid, aqueous, 10%, 20°C	3
Linseed oil, 60°C	2
Machine oil, mineral, 80°C	1
Magnesium hydroxide	2
Magnesium sulphate, aqueous, 100°C	3
Methane, 20°C	1
Methyl alcohol (methanol)	2
Methyl chloride	2
Methylene chloride, 20°C	2
Mineral oil	1

Fluids	Values of resistance
Natural gas, 20°C	1
Nitrogen, gaseous, 20°C	1
Oxalic acid, aqueous, 100°C	3
Paraffine, aqueous, 60°C	1
Petroleum ether, 60°C	1
Potassium chloride, aqueous, 60°C	3
Propane, gaseous, 20°C	1
Refrigerating agents according to DIN 8962:	
R 11	2
R 12	2
R 13	1
R 13 B1	2
R 14	1
R 32	3
R 113	2
R 115	2
R C318	2
Saturated steam	1
Sea water, 20°C	2
Silicone oil, 20°C	1
Soap suds, aqueous, 20°C	2
Sodium hydrogen carbonate, aqueous, 20°C	3
Sodium silicate, aqueous, 60°C	2
Sodium sulphate, aqueous, 60°C	2
Starch, aqueous, 60°C	1
Sulphur dioxide, dry, 80°C	1
Tartaric acid, aqueous	3
Trichlorethylene, dry, 20°C	2
Turpentine, 60°C	2
Water	1
Water-glycol-mixture 100°C	2

Subject to technical modification without notice
Product range 5
ti 180-1/10/MW
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