Bronze high pressure ball valves “Optibal” with full flow

Technical information

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

Application:

Oventrop bronze ball valves “Optibal” with full flow are especially used for district heating, amongst other transmission stations, 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).

Function:

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

Advantages:

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

Application range:

Heating systems, water, district heating

Pressure and temperature range:

PN 40 for central heating systems, especially for district heating, for flow temperatures up to 150°C (with aluminium lever) or 120°C (with plastic handle).

Construction:

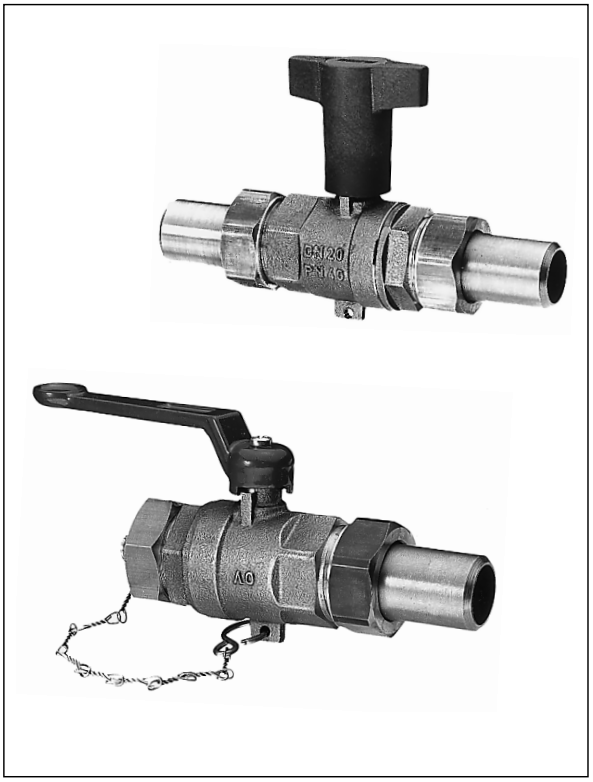
Two-piece body, unplated bronze,
full flow,
ball made of chrome plated brass with PTFE seats, brass stem with double O-ring seal.

Ball valves “Optibal”, bronze, unplated, full flow:

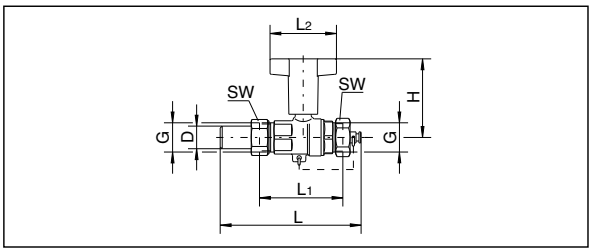
one port weldable tailpipe made of steel, one port cap:

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

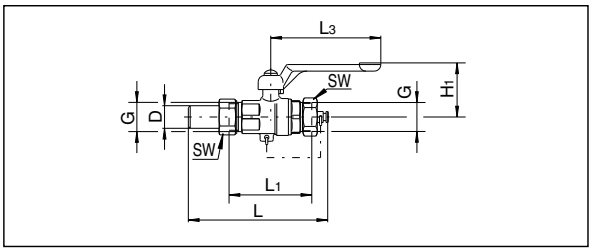
*SW = spanner size



Bronze high pressure ball valves “Optibal” PN 40



Item no. 106 66 04-10 (DN15 to DN 32)
Extended plastic handle



Item no. 106 65 04-10 (DN 15 to DN 32)
Aluminium lever

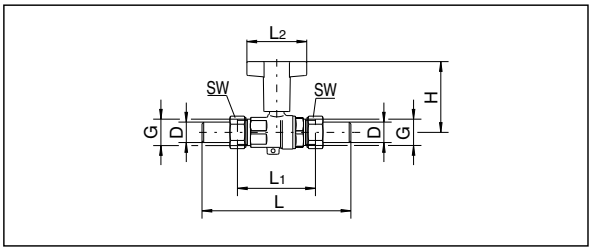
both ports weldable tailpipe made of steel:

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

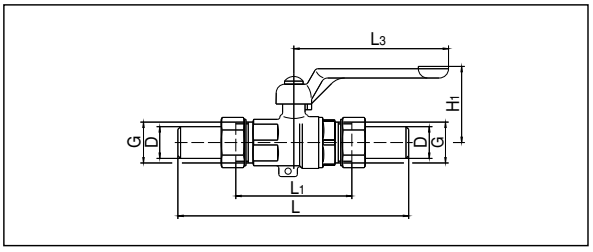
* SW = spanner size

Insulation:

The Oventrop bronze ball valves “Optibal” with extended plastic handle may be covered with standard insulation material.



Item no. 106 56 04-10 (DN 15 to DN 32)
Extended plastic handle



Item no. 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 or moderate affect
3: strong affect, may not be used
-: no data existing

Fluids	Values of resistance
Air, compressed air	1
Amyl alcohol, 60°C	1
Barium sulphate	-
Barium sulphide	3
Beer, 20°C	2
Benzole	2
Borax, aqueous, 60°C	-
Butane, gaseous, 20°C	1
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
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
Paraffin, aqueous, 60°C	1
Petroleum, 60°C	1
Petroleum ether, 60°C	1
Potassium chloride, aqueous, 60°C	3
Propane, gaseous, 20°C	1
Refrigerating agents according to DIN 8960:	
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 bicarbonate, 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
Sulphuric carbon, 20°C	-
Tartaric acid, aqueous	3
Trichloroethylene, dry, 20°C	2
Turpentine, 60°C	2
Water	1
Water-glycol-mixture, 100°C	2

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Product group 5
ti 180-1/10/MW
Edition 2009

Printed on paper free from chlorine bleaching.