› **Our technology. Your success.**
Pumps ▪ Valves ▪ Service

BOA®-H – Maintenance-free Bellows-type Globe Valves

BOA®-H EN-GJS-400-18-LT

Applications:

- Hot water heating systems
- High-temperature hot water heating systems
- Heat transfer systems
- Pressure vessel equipment
- Steam boiler systems
- Other fluids on request.

The limits given in the technical codes must be complied with. Please contact us for details.

More information:
www.ksb.com/products

BOA®-H EN-GJL-250

Your contact:

BOA®-H – Maintenance-free Bellows-type Globe Valves

1 Improved energy efficiency of the system

The high-temperature version made of nodular cast iron, in particular, benefits from an easy-to-insulate bonnet design and a heat barrier toward the handwheel.
As a result, heat losses are reduced by more than 50 % compared with yoke-type globe valves.

2 Greater reliability and longer service life of bellows

The bellows is fully confined when the valve is open and protected against surge pressures. The bellows is welded to the stem, so no vibrations are transmitted from the valve plug.

3 High user comfort at no extra charge

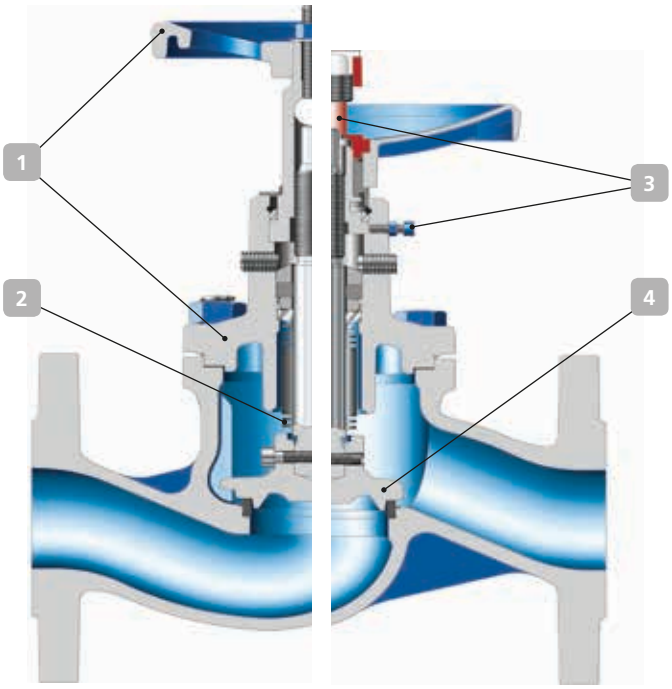
- Position indicator with travel stop and locking device are standard features on all valve sizes.
- Colour coding for identification of valve design during replacement work. The plug type and plug/seat interface material can be checked from outside without removing the insulation.

4 Optimum value for money: one valve offers two functions.

One valve model for shut-off and throttling thanks to throttling valve plug up to DN 100. Good throttling function with excellent flow coefficients.

Enhanced application range

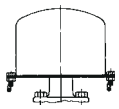
Its seat-guided V-port plug enables the valve to reliably handle maximum application requirements resulting from, e.g., vibration problems and high flow velocities.



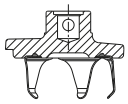
BOA®-H
EN-GJS-400-18-LT

BOA®-H
EN-GJL-250

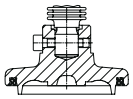
Variants



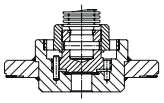
Lead-sealable cap (assembly set) (only EN-GJL-250)



V-port plug



Plug with PTFE gasket, DN 15 - 200



Pilot plug, from DN 200

Additional type series

BOA®-H angle valve
BOA®-R non-return valve
Version with gland packing and electric actuator see BOA-H Mat E.

Pressure/temperature ratings

Nom. pressure	Material	Permissible operating pressures in bar at temperatures in °C [1]				
		-10 to +120	+200	+250	+300	+350
PN16	EN-GJL-250	16	12.8	11.2	9.6	–
PN16	EN-GJS-400-18-LT	16	14.7	13.9	12.8	11.2
PN25	EN-GJS-400-18-LT	25	23	21.8	20	17.5

[1] Intermediate temperatures can be derived by linear interpolation.
The limits given in the technical codes must be complied with. Please contact us for details.

Other variants

V-port plug (seat-guided throttling plug for maximum requirements) for DN 15-300
High-temperature resistant paint (grey aluminium)
Oil and grease free version
Special flange designs
Version with either one or two limit switches (GJS only)

KSB SE & Co. KGaA
Johann-Klein-Straße 9
67227 Frankenthal (Germany)
www.ksb.com

Chemical Resistance Chart
7150.2/2-10

BOA®-H

Maintenance-free globe valves with metal-to-metal seat

and bellows seal

Grey cast iron	**PN 16**	**DN 15-300**
Nodular cast iron	**PN 16**	**DN 15-350**
Nodular cast iron	**PN 25**	**DN 15-150**

The details given in this chemical resistance chart are based on experimental values, Dechema lists (by the German society for chemical apparatus) and information provided by the manufacturers. The corrosive load is strongly influenced by the operating conditions, temperatures and concentrations. The hydroabrasive wear and tear of suspended fluids has not been taken into consideration.
Thus the details in this list are only for orientation and are not guaranteed.

Temperature limits:

PN 16,	GJL-250	-10 °C to	+300 °C,
	GJS-400-18-LT	-10 °C to	+350 °C,
PN 25,	GJS-400-18-LT	-10 °C to	+350 °C,

Chemical resistance chart see overleaf

Chemical Resistance Chart

Variant A: BOA®-H to type series booklet 7150.1 GJL-250 JL 1040 T max. + 300 °C
Variant B: BOA®-H to type series booklet 7150.1 GJS-400-18-LT JS 1025 T max. + 350 °C

Medium	Concentration	Max. temperature	A	B
Water				
Brackish water [1) 4)]			-	-
Service water [1) 4)]			+	+
Fire-fighting water [1)]			+	+
Chlorinated water [1)]	0.6 mg/kg		+	+
Deionized (demineralized) water			-	-
Distilled water			-	-
Boiler feed water [3)]			+	+
Hot water [1)]			+	+
Superheated water [3)]		T = f (p)	+	+
Condensate [3)]			+	+
Cooling water containing no oil [1)]			+	+
Cooling water containing oil [1)]			+	+
Ozonated water [1)]	0.5 mg/kg		+	+
Pure water [1)]			+	+
Seawater			-	-
Sintering lime water [1) 4)]			o	o
Raw water [1) 4)]			+	+
Partly desalinated water			-	-
Fully desalinated water			-	-
Waste water, municipal [4)]			o	o
Waste water, industrial [4)]			o	o
Oils (aromatic content 5 mg/kg)				
Oils, plant-based mineral-based synthetic			+	+
Crude oil			+	+
Petroleum			+	+
Fuel oil, light			+	+
Fuel oil, heavy			+	+
Linseed oil			+	+
Oil-water emulsion [4)]			+	+
Kerosene			+ [2)]	+
Petrol			+ [2)]	+

Medium	Concentration	Max. temperature	A	B
Cooling agents				
Ammonia water	25 %	+25	+	+
Glycol (ethylene glycol)			+	+
Propylene glycol			+	+
Water-glycol mixture	50 %	+40	+	+
Cooling brine, inorganic ph 7.5 inhib.			+	+
Thermal oils				
synthetic			+	+
mineral-based			+	+
Acids				
Hydrochloric acid			-	-
Sulphuric acid (pure, techn., conc.)			-	-
Sulphurous acid			-	-
Fatty acid			-	-
Nitric acid			-	-
Cleaning agents				
Lye for bottle rinsing, e.g. P3 [4)]		≤ 80 °C	o	o
Lye for cleaning metal [4)]		≤ 80 °C	o	o
Other				
Soda lye	< 50 %	≤ 50 °C	o	o
Natural gas			+	+
Compressed air, containing oil			+	+
Chlorine, dry		+30 °C	+	+
Ammonia			+	+
Butane (liquid gas)			+	+
Glycerine, aqueous			+	+
Carbon dioxide, gaseous			+	+
Carbon dioxide, aqueous solution			-	-
Vapour				
Saturated steam			+	+

1) General limits when using unalloyed materials to transport water
pH value 6.5 - 12
Chloride ions (Cl): < 150 mg/kg
Chlorine (Cl_2): < 0.6 mg/kg

2) For safety reasons (ductility) we recommend the use of GJS-400-18-LT

3) Water treatment shall be in accordance with the guidelines for feed water (e.g. VdTÜV 1466, TRO 611, etc.).
pH value: ≥ 9,0
O_2 content: ≤ 0,02 mg/l

4) Solids, permissible concentration

Key

+ Materials are normally not corroded by these media.
- Materials will be corroded. Valves cannot be used.
o Materials or valves can only be used under certain conditions. Please contact us with information on operating conditions such as concentration, temperature, pH value and compounds in the media, if any.

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KSB Aktiengesellschaft
Johann-Klein-Strasse 9 • 67227 Frankenthal (Germany)