



## Maintenance-free metallic seat shut-off globe valves

with bellows

flanged  
to new European  
standard 1092-2 type 21

<b>Grey cast iron</b>	<b>PN 16</b>	<b>DN 15-300</b>
<b>Nodular cast iron</b>	<b>PN 16</b>	<b>DN 15-350</b>
<b>Nodular cast iron</b>	<b>PN 25</b>	<b>DN 15-150</b>

### Application

- Warm-water heating systems DIN 4751
- Hot-water heating systems DIN 4752
- Heat-transfer systems DIN 4754
- Pressure vessel equipment to TRB 801 no. 45 <sup>1)</sup>
- Steam boiler installations to TRD 108/110 <sup>1)</sup>

<sup>1)</sup> Please contact KSB for limitations imposed by the applicable technical codes.

### Operating data

- Temperature range:
  - 10 up to + 300 °C for EN-GJL-250, JL 1040 \*)
  - 10 up to + 350 °C for EN-GJS-400-18-LT, JS 1025 \*)
- Pressure range:
  - Δ p = 16 bar
  - Δ p = 25 bar only for nodular cast iron, DN 15-150

### Materials

#### Body:

- Straight-way pattern:
  - Grey cast iron EN-GJL-250, JL 1040 \*)
  - Nodular cast iron EN-GJS-400-18-LT, JS 1025 \*)
- Angle pattern:
  - Grey cast iron EN-GJL-250, JL 1040 \*)
- For further details see table of materials

### Design

- Straight-way or angle pattern with straight bonnet
- Compact body cover
- Maintenance-free stem sealed by bellows and safety gland
- Non-rising handwheel
- Position indicator
- Flange to DIN EN 1092-2 type 21
- Free from asbestos, PCB and CFC
- Exterior finish: blue RAL 5002

The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED) of annex I for fluids of the groups 1 and 2.



### Standard variants

- Cone with PTFE-gasket (max. 200 °C, DN 15-200, with throttle cone DN 15-150)
- Throttle cone, position indicator, locking device and lift stop
- Lead-sealable cap against unauthorized closing
- Pressure relief cone from DN 200 onwards
- Oil and grease-free design
- Special flange designs
- Electric actuators
- Nuts having high impact strength at low temperature down to -30 °C (only for JS 1025)
- 3.1 B submittal of certificates

### Remarks

- Flow characteristics 7150.4
- Operating instructions 0570.8

### On all inquiries/orders please specify

Shut-off globe valve

1. BOA<sup>®</sup>-H according to type series booklet 7150.1
2. PN 16 or PN 25
3. EN-GJL-250, JL 1040 \*) or EN-GJS-400-18-LT, JS 1025 \*)
4. Straight-way or angle pattern (angle pattern only in EN-GJL-250, JL 1040 \*)
5. DN 15-350 (DN 350 only in EN-GJS-400-18-LT, JS 1025 \*)
6. Standard variants

#### \*) Please note:

In accordance with the material designations in force, the designations GG-25 and GGG-40.3 are superseded. For GG-25 the new material number is JL 1040, the name of the material is EN-GJL-250. For GGG-40.3 the new material number is JS 1025, the name of the material is EN-GJS-400-18-LT.

The valves do not have a potential internal source of ignition and can be used in potentially explosive atmospheres, group II, category 2 (zones 1+21) and category 3 (zones 2+22) according to ATEX 94/9/EC.



## Working pressures

Nominal pressure PN	Material	Body pressure test in bar Body <sup>1)</sup>	Seat leakage with water Seat <sup>2)</sup>	Pressure Temperature table <sup>3)</sup>				
				- 10 up to + 120 °C	200	250	300	350
16	EN-GJL-250	24	16	16	12.8	11.2	9.6	-
	EN-GJS-400-18-LT			16	14.7	13.9	12.8	11.2
25	EN-GJS-400-18-LT	37.5	25	25	23	21.8	20	17.5

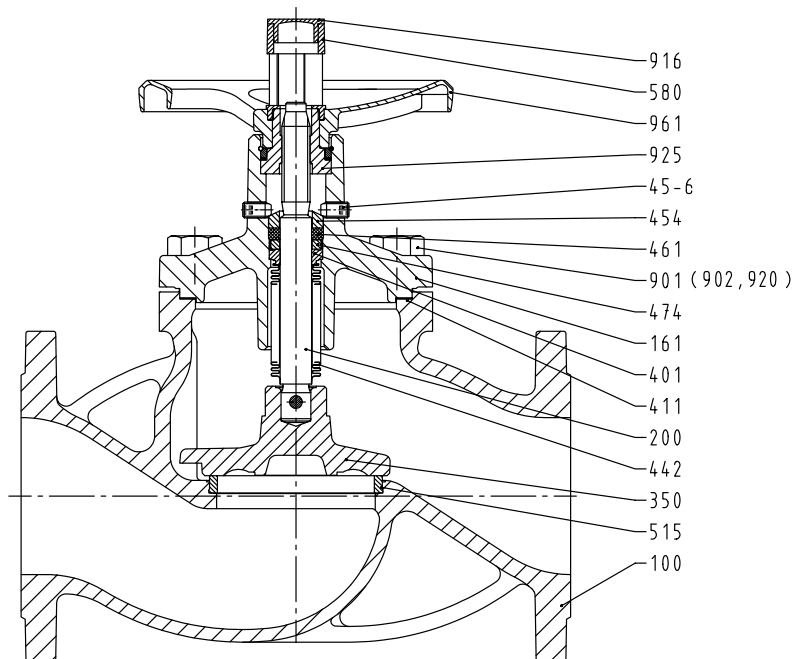
<sup>1)</sup> DIN 3230 - BQ (ISO 5208)

<sup>2)</sup> DIN 3230 BN/leak rate 1 (ISO 5208/rate A)

<sup>3)</sup> For intermediate temperatures use linear interpolation.

Please note: DIN EN 1092-2, para. 5.3, AD W7, TRD 106 and plant-specific regulations must be observed when selecting connecting elements between the valve flange and the pipeline flange.

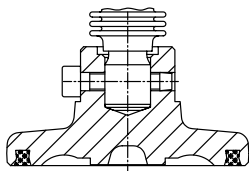
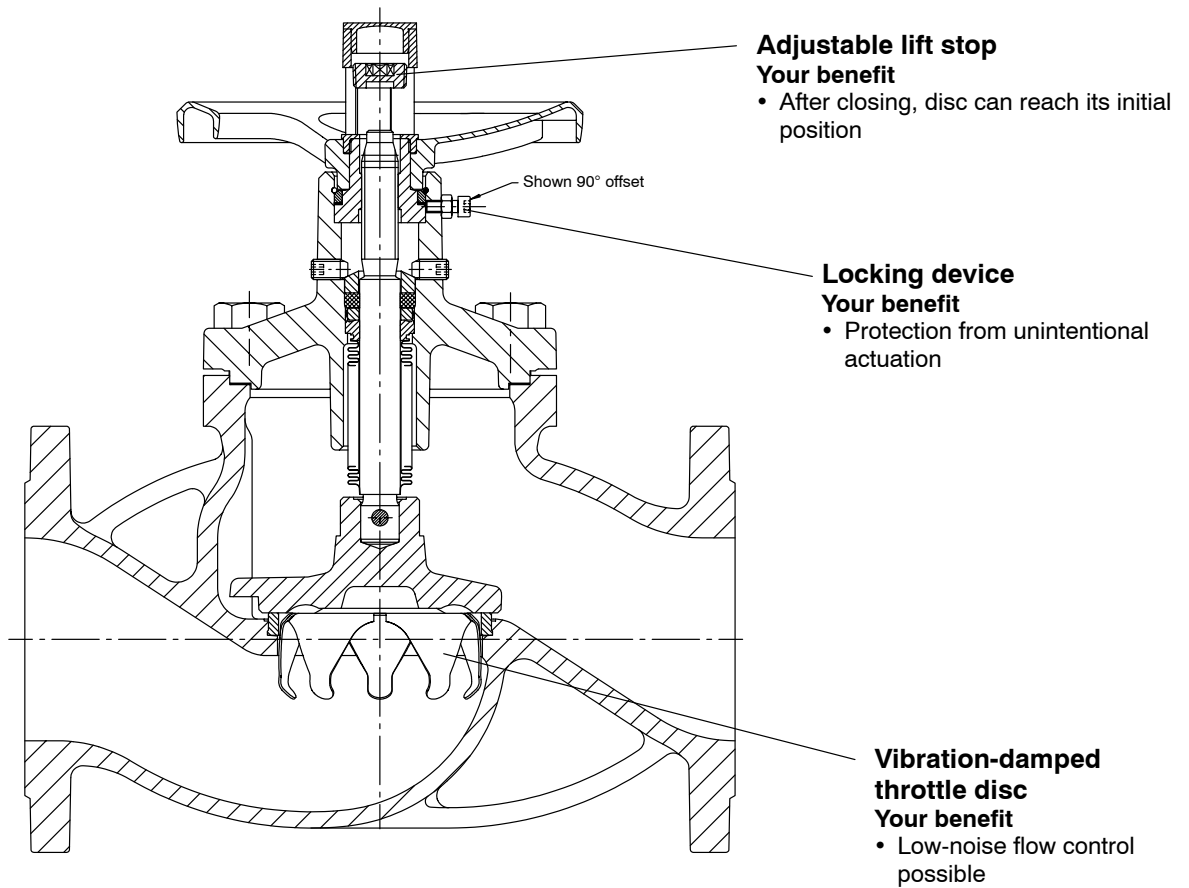
Shown: DN 100



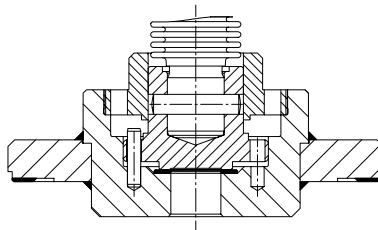
## Materials

Part-no.	Name of parts	DN	Material/Material designation	Material-no.
100	Body	15-300	EN-GJL-250	JL1040
		15-350	EN-GJS-400-18-LT	JS1025
161	Body cover	15-300	EN-GJL-250	JL1040
		15-350	EN-GJS-400-18-LT	JS1025
350	Cone	15-150	X 20 Cr 13	1.4021+QT (1.4021)
		200-350	C 22 / X 15 CrNi 18 8	1.0402 / 1.4370
411	Gasket		CRNiSt-graphite	
440	Bellows set comprising:			
	200 Stem		Stainless steel (min. 13% Cr)	
	401 Welding ring		Stainless steel	
	442 Bellows		X 6 CrNiTi 18 10	1.4541
454	Gland ring		Stainless steel	
45-6	Gland bolt		Steel	
461	Gland packing		Pure graphite	
474	Thrust ring		Stainless steel	
515	Seat ring		Stainless steel	
543	Spacer bush	15-65	Glass fibre reinforced plastic	
580	Cap	15-150	Glass-fibre reinforced plastic, impact resistant	
		200-350	Steel	
901	Hexagon head bolt		8.8 for EN-GJL-250	
902	Stud		CK 35 V for EN-GJS-400-18-LT	
920	Hexagon nut		C35 for EN-GJS-400-18-LT	
916	Plug		Plastic	
925	Stem nut		Steel, coated	
961	Handwheel	15-150	Aluminium die-casting	
		200-350	EN-GJL-250	JL1040

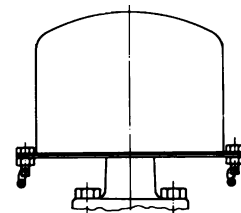
**Product features - to our Customer's Benefit (1)**  
**The Variants**



Cone with PTFE-gasket, DN 15-200



Relief cone from DN 200 onwards



Lead-sealable cap

## Product features - to our Customer's Benefit (2) The Standard design

### Distinction of designs by means of colour coding system

#### Your benefit

- No confusion possible

### Non-rising handwheel

#### Your benefit

- Ideal in confined spaces

### Non-rotating stem, protected external thread

#### Your benefit

- High reliability

### Bellows welded on stem

#### Your benefit

- Cone replaceable
- No vibration transmission from cone to bellows

### Cap fitted as standard with position indicator outside the insulation

#### Your benefit

- Valve position easily seen

### Downstream safety gland made of pure graphite, e. g. for heat transfer systems to DIN 4754

#### Your benefit

- Additional reliability against bellows failure

### Cover gasket, inside and outside confined

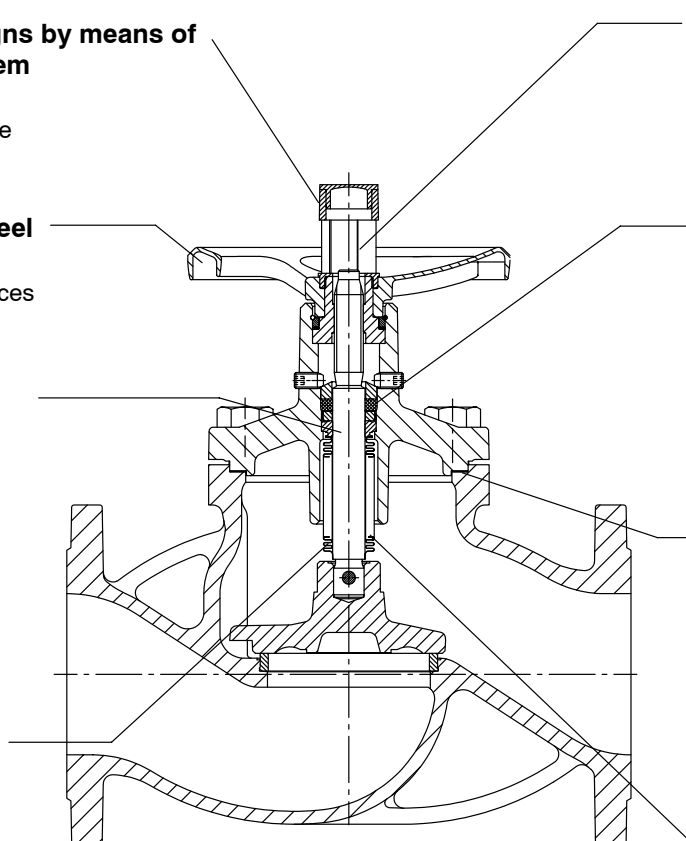
#### Your benefit

- No gasket slip possible, long service life

### Protected bellows with valve fully opened

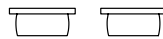
#### Your benefit

- Protection of bellows from pressure surge



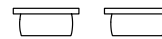
### Colour coding system

Plug blue  
Design:  
flat cone



Plug white  
Design:  
throttle cone

Plug blue  
Design:  
flat cone

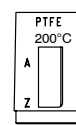


Plug white  
Design:  
throttle cone



Cap  
crimson red

Design:  
cone mechanically sealing



Cap  
blood orange

Design:  
cone with PTFE gasket