

1107

Globe valve
Bellow sealed
Straight seat type
PN 10-40 DN 15-200

Design
 Acc. to DIN 3356

Top part
 Non-rising handwheel
 Rising Stem

Stem sealing
 Bellow with additional
 stuffing box

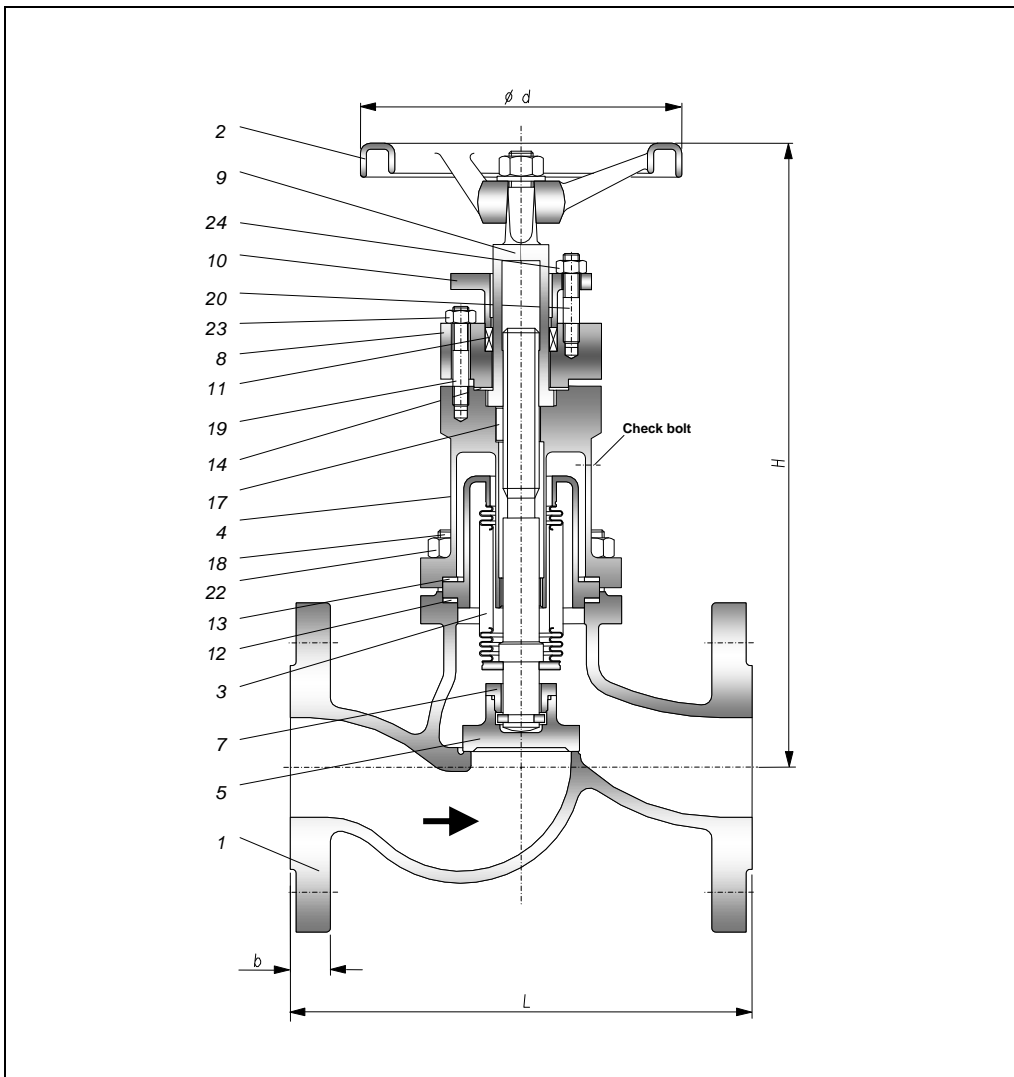
Obturator
 Disk

Body seat
 Integral seat

Valve ends
 Flanges acc. to
 EN 1092-1 (DIN 2501
 Part 1)

Requirements and tests
 Acc. to DIN 3356 Part 1
 BA = 1,3 x PN

Marking
 Nominal size DN
 Nominal pressure PN
 Body material
 Manufacturer brand
 Flow direction arrow



Pos.	Denomination	Material		Pos.	Denomination	Material	
		1.4308	1.4408			1.4308	1.4408
1	Body	1.4308	1.4408	11	Packing	Graphite	Graphite
2	Handwheel	GTS7GTW	GTS/GTW	12,13	Gasket	Graphite /	Graphite /
3	Bellow insert	1.4541	1.4571			1.4401	1.4401
	- Bellow	1.4571	1.4571	14	Bearing	PTFE/Coal	PTFE/Coal
4	Bonnet	1.0402 /	1.0402/	17	Fitting key	1.0531	1.0531
		1.0305	1.0305	18	Stud bolt	A2-70	A4-70
5	Disk	1.4541	1.4571	18	Stud bolt	A2-70	A4-70
7	Disk screwing	1.4541	1.4571	20	Stud bolt	5.6	5.6
8	Cover	1.0042	1.0042	22	Hex. nut	A2	A4
9	Stem nut	0.7040	0.7040	23	Hex. nut	A2	A4
10	Gland	1.0042	1.0042	24	Hex. nut	5	5

Face-to-face dimension acc. to EN 558 series 1 (DIN 3202-F1)

DN	15	20	25	32	40	50	65	80	100	125	150	200	
L	130	150	160	180	200	230	290	310	350	400	480	600	
H	320	345	345	345	405	405	510	540	585	650	685	830	
Ø d	140	140	140	140	180	180	200	200	225	280	280	320	
PN	b											24	
10	kg								use PN 16				
PN	b							18	20	20	22	22	26
16	kg			use PN 40									
PN	b											30	
25	kg								use PN 40				
PN	b	16	18	18	18	18	20	22	24	24	26	28	34
40	kg												
k _{vs}		4	6,3	10	16	25	40	63	100	160	250	360	630

Pressure/Temperature ratings in bar g at Temperature in °C

Material	PN	50°C	100°C	120°C	150°C	200°C	250°C	300°C				
»1.4308« GX5CrNi19-10 EN 10213	10	10,0	7,7	7,7	6,7	5,7	5,2	4,8				
	16	16,0	12,3	12,3	10,7	9,1	8,4	7,7				
	25	25,0	19,2	19,2	16,7	14,2	13,1	12,1				
	40	40,0	30,8	30,8	26,8	22,8	21,0	19,4				
»1.4408« GX6CrNiMo18-10-2 EN 10213	10	10,0	8,2	8,2	7,2	6,2	5,7	5,1				
	16	16,0	13,2	13,2	11,6	10,0	9,1	8,2				
	25	25,0	20,7	20,7	18,1	15,7	14,2	12,8				
	40	40,0	33,1	33,1	29,0	25,1	22,8	20,5				

Modifications

- Position Indicator
- Throttle plug / Regulating disk
- Relief plug / By-pass disk
- Bonnet made of stainless steel
- Soft seated disk
- Conical disk

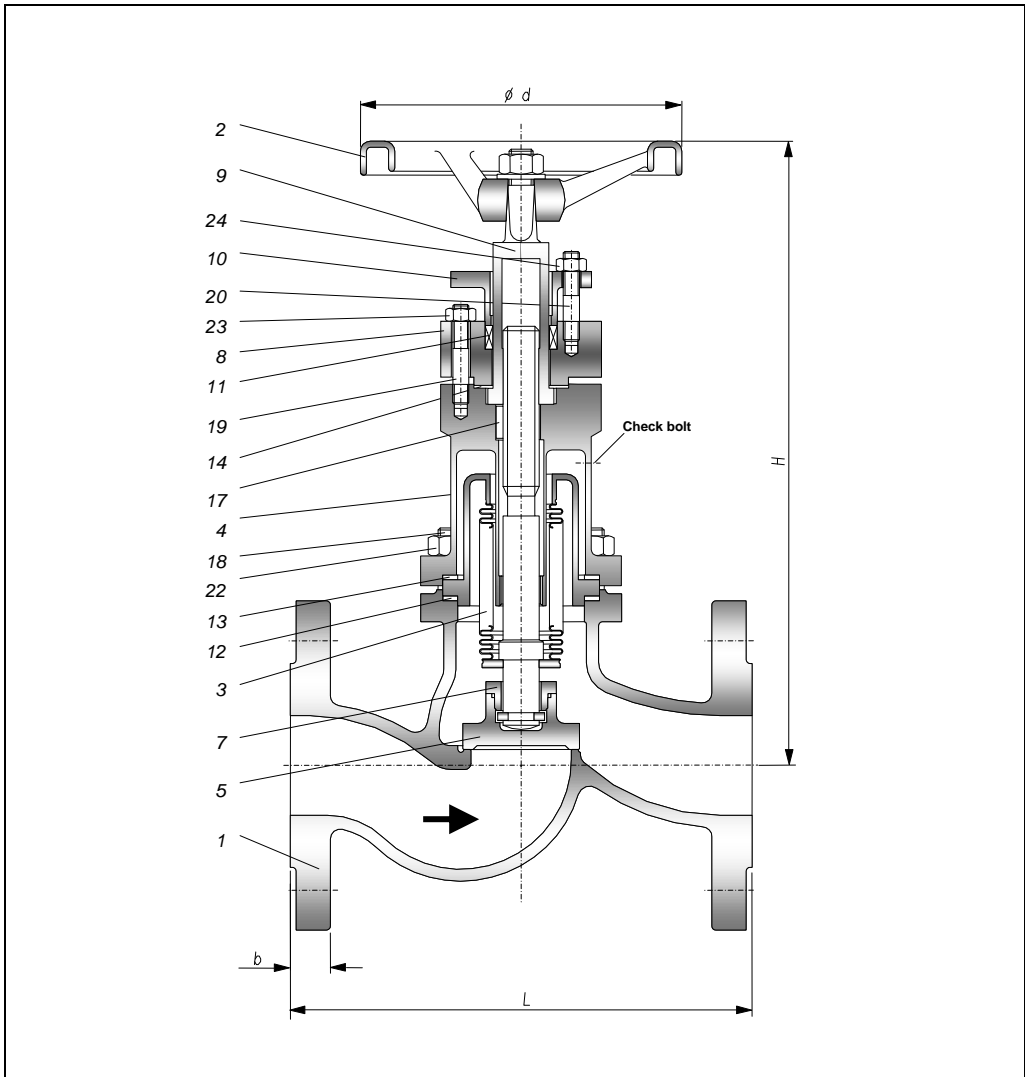


Installation

Piping is to be in such a manner that injurious thrust and bending forces are kept away from the valve casings. Globe valves are usually installed thus allowing the liquid to enter below the plug and to leave above it. Globe valves can also be installed in pipelines with changing flow directions up to the under mentioned differential pressures between the working pressure before the closing plug and the back pressure behind it. As soon as these differential pressures will be exceeded, relief plugs have to be provided for. These have to be installed in such a way that the pressure to be sealed has to be above the plug.

Nominal size DN	125	150	200
Δp [bar]	33	21	14

The relief plug has the function of a by-pass and can only serve its purpose when after opening a back pressure is built up so that the differential pressure becomes smaller than the figures in the above table. If this is not possible, special designs are necessary. In this case we need the exact working conditions. When turning the handwheel it is not allowed to use additional levers.



1107

Globe valve
Bellow sealed
Straight seat type
PN 63-100 DN15-100

Design
 Acc. to DIN 3356

Top part
 Non-rising handwheel
 Rising Stem

Stem sealing
 Bellow with additional
 stuffing box

Obturator
 Disk

Body seat
 Integral seat

Valve ends
 Flanges acc. to
 EN 1092-1 (DIN 2501
 Part 1)

Requirements and tests
 Acc. to DIN 3356 Part 1
 BA = 1,3 x PN

Marking
 Nominal size DN
 Nominal pressure PN
 Body material
 Manufacturer brand
 Flow direction arrow

Pos.	Denomination	Material		Pos.	Denomination	Material	
		1.4308	1.4581			1.4308	1.4581
1	Body	1.4308	1.4581	11	Packing	Graphite	Graphite
2	Handwheel	GTS/GTW	GTS/GTW	12,13	Gasket	1.4541 /	1.4571 /
3	Bellow insert	1.4541	1.4571		(grooved)	Graphite	Graphite
	- Bellow	1.4571	1.4571	14	Bearing	PTFE/Coal	PTFE/ Coal
4	Bonnet	1.0402 /	1.0402/	17	Fitting key	1.0531	1.0531
		1.0305	1.0305	18	Stud bolt	A2-70	A4-70
5	Disk	1.4541	1.4571	18	Stud bolt	A2-70	A4-70
7	Disk screwing	1.4541	1.4571	20	Stud bolt	5.6	5.6
8	Cover	1.0042	1.0042	22	Hex. nut	A2	A4
9	Stem nut	0.7040	0.7040	23	Hex. nut	A2	A4
10	Gland	1.0042	1.0042	24	Hex. nut	5	5

Face-to-face dimension acc. to EN 558 series 2 (DIN 3202-F2)

DN	15	20/25	25	32	40	50	65	80	100	
L	210	230	230	260	260	300	340	380	430	
H	250	250	250	330	330	350		535	570	
Ø d	160	160	160		200	200		320	320	
PN	b	20	22	24	26	28	26	26	28	30
63	kg									
PN	b	20	22	24						
100	kg						on special demand			
k _{vs}		4	6,3	10	16	25	40	63	100	160

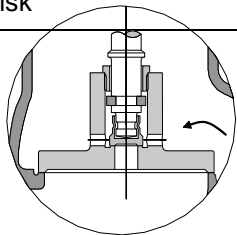
Pressure/Temperature ratings in bar g at Temperature in °C

Material	PN	50°C	100°C	120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	500°C	550°C
»1.4308« GX5CrNi19-10 EN 10213	63	63,0	48,6	48,6	42,3	36,0	33,1	30,6					
	100	100,0	77,1	77,1	67,1	57,1	52,5	48,5					
»1.4581« GX5CrNiMonB19-11-2 EN 10213	63	63,0	57,6	57,6	53,2	48,6	45,7	43,2	40,3	37,8	36,0	34,2	32,4
	100	100,0	91,4	91,4	84,5	77,1	72,5	68,5	64,0	60,0	57,1	54,2	51,4

For temperatures > +400°C: Bolting material 1.7709 and bonnet made of stainless steel

Modifications

- Throttle plug / Regulating disk
- Relief plug / By-pass disk
- Bonnet made of stainless steel
- Soft seated disk
- Conical disk



Relief plug / By-pass disk

Installation

Piping is to be in such a manner that injurious thrust and bending forces are kept away from the valve casings. Globe valves are usually installed thus allowing the liquid to enter below the plug and to leave above it. Globe valves can also be installed in pipelines with changing flow directions up to the under mentioned differential pressures between the working pressure before the closing plug and the back pressure behind it. As soon as these differential pressures will be exceeded, relief plugs have to be provided for. These have to be installed in such a way that the pressure to be sealed has to be above the plug.

Nominal size DN	80	100
Δp [bar]	70	44

The relief plug has the function of a by-pass and can only serve its purpose when after opening a back pressure is built up so that the differential pressure becomes smaller than the figures in the above table. If this is not possible, special designs are necessary. In this case we need the exact working conditions. When turning the handwheel it is not allowed to use additional levers.