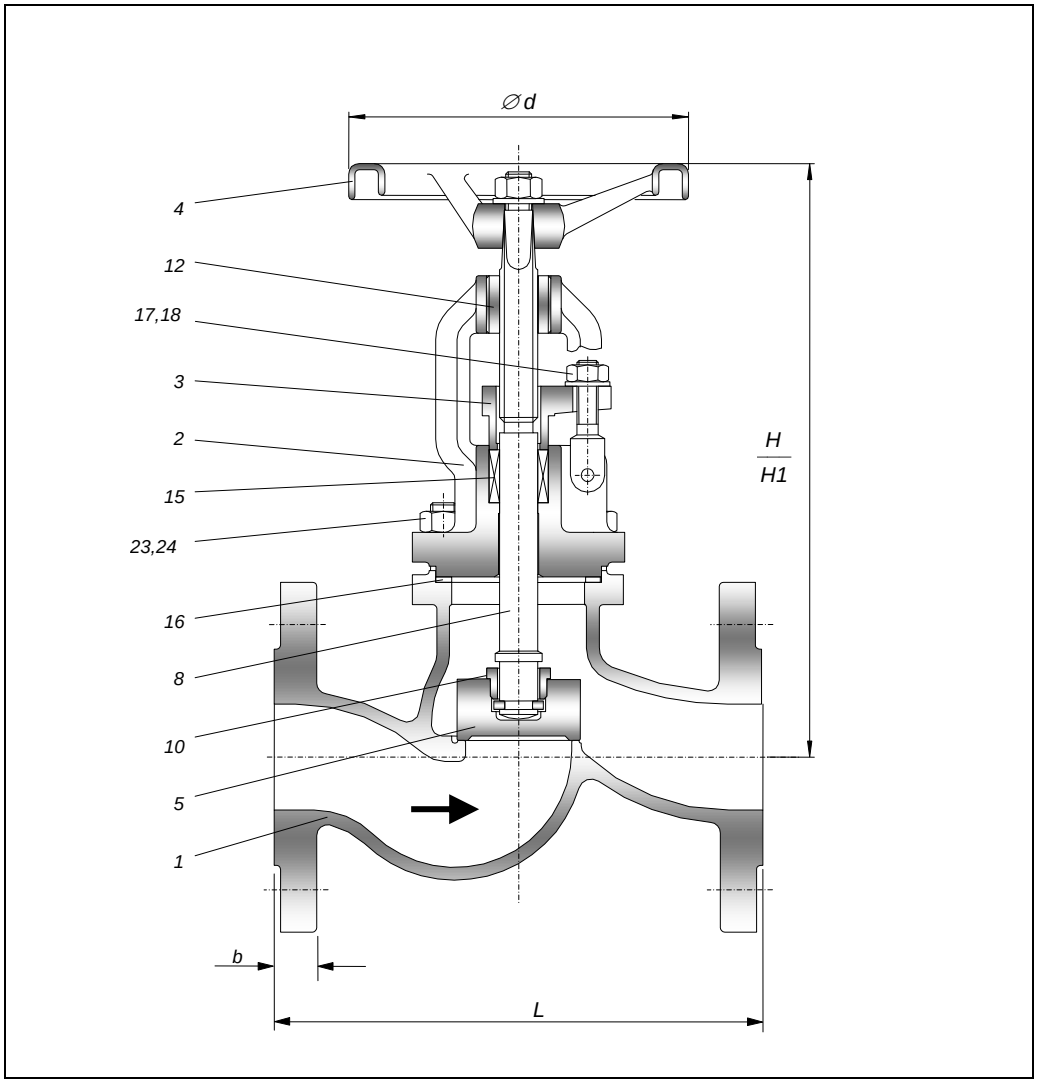
1101

Globe valves
Straight seat type
PN 10-40 DN 15-300



Design
Acc. to DIN 3356

Top part
Outside screw
Rising Handwheel
Rising stem

Stem sealing
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

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	15	Packing	Graphite	Graphite
2	Yoke	1.4308	1.4408	16	Gasket	Graphite / 1.4401	Graphite / 1.4401
3	Gland	1.4541	1.4571				
4	Hand wheel	GTS/GTW	GTS/GTW	17	Hasp screw	1.4541	1.4571
5	Disk	1.4541	1.4571	18	Hex. Nut	A2	A4
8	Stem	1.4541	1.4571	23	Stud bolt	A2-70	A4-70
10	Disk screwing	1.4541	1.4571	24	Hex. Nut	A2	A4
12	Sleeve	1.4021	1.4021				

[1] further materials are shown in the technical part

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	250	300
L		130	150	160	180	200	230	290	310	350	400	480	600	730	850
H		175	225	225	230	270	285	340	370	410	460	535	635	640	760
H1		185	240	240	250	300	320	360	395	450	515	585	695	720	850
Ø d		100	120	120	120	140	160	180	180	200	225	250	280	320	360
PN 10	b	use PN 40						use PN 16					24	26	26
	kg												146		
PN 16	b							18	20	20	22	22	24	26	28
	kg							21	35	48	57	90	146		
PN 25	b							use PN 40					30	32	39[2]
	kg												185		
PN 40	b	16	18	18	18	18	20	22	24	24	26	28	34	38	47[2]
	kg	5	6	7	10	12	17	23	37	53	64	98	192		
k_{VS}		4	6,3	10	16	25	40	63	100	160	250	360	630	1000	1400

[2] reinforced against DIN / EN

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

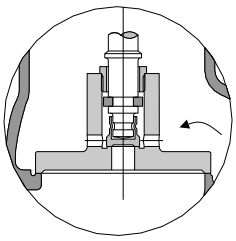
Material	PN	50°C	100°C	120°C	150°C	200°C	250°C	300°C					
»**1.4308**«	**10**	10,0	7,7	7,7	6,7	5,7	5,2	4,8					
GX5CrNi19-10	**16**	16,0	12,3	12,3	10,7	9,1	8,4	7,7					
EN 10213	**25**	25,0	19,2	19,2	16,7	14,2	13,1	12,1					
	40	40,0	30,8	30,8	26,8	22,8	21,0	19,4					
»**1.4408**«	**10**	10,0	8,2	8,2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

Indicator
Relief plug / By-pass disk
Heating jacket
Extended bonnet
Soft seated disk
Conical seat
Throttle plug / Regulating disk

Additional equipment

Chain wheel
Stem extension
Gear
Electric actuator
Pneumatic actuator



Relief plug / By-pass disk

Installation

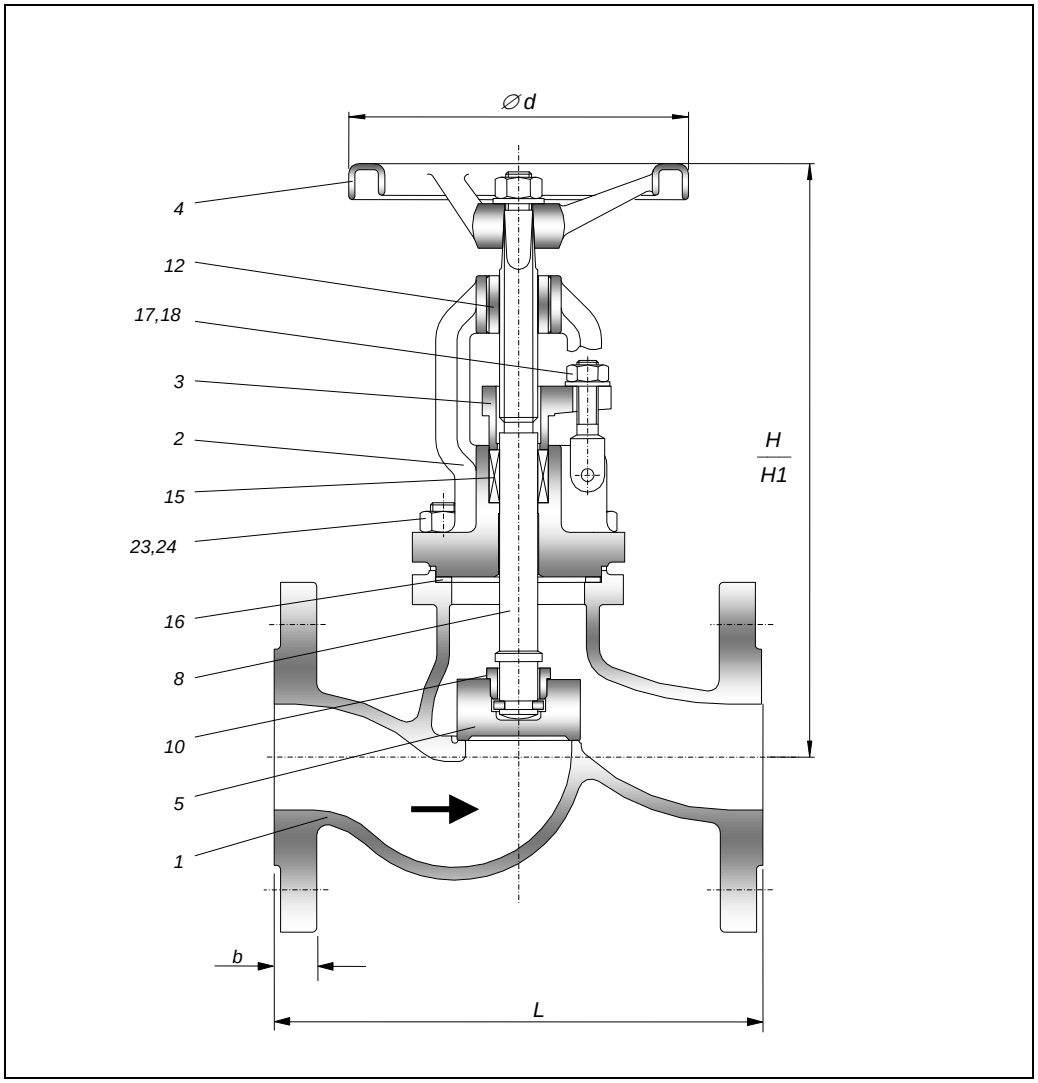
Piping is to bed in such a manner that injurious thrust and bending forces are kept away from the valve casings. Globe valves are usually installed thus allowing the liquid to enter below the plug and to leave above it. Globe valves can also be installed in pipelines with changing flow directions up 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	250	300
Δp [bar]	33	21	14	9	6

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.

1101

Globe valves
Straight seat type
PN 63-160 DN 15-200



Design
Acc. to DIN 3356

Top part
Outside screw
Rising Handwheel
Rising stem

Stem sealing
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

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	15	Packing	Graphite	Graphite
2	Yoke	1.4308	1.4581	16	Gasket	1.4541 /	1.4571 /
3	Gland	1.4541	1.4571		(grooved)	Graphite	Graphite
4	Hand wheel	GTS/GTW	GTS/GTW	17	Hasp screw	1.4541	1.4571
5	Disk	1.4541	1.4571	18	Hex. Nut	A2	A4
8	Stem	1.4541	1.4571	23	Stud bolt	A2-70	A4-70
10	Disk screwing	1.4541	1.4571	24	Hex. Nut	A2	A4
12	Sleeve	1.4021	1.4021				

[1] further materials are shown in the technical part

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

DN		15	20/25	25	32	40	50	65	80	100	125	150	200
L		210	230	230	260	260	300	340	380	430	500	550	650
H		280	285	285	300	345	345	405	445	430	550	500	565
H1		285	293	293	310	357	360	438	470	460	588	545	625
Ø d		140	140	140	160	200	200	200	250	250	320	320	360
PN 63	b	use PN 160					26	26	28	30	34	36	42
	kg						27	48	60	73	125	159	241
PN 100	b						use PN 160				---	---	---
	kg										---	---	---
PN 160	b	20	22	24	26	28	30	34	36	40	---	---	---
	kg	11	13	14	20	28	40	53	92	99	---	---	---
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

Materials	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**«	**63**	63,0	48,6	48,6	42,3	36,0	33,1	30,6					
GX5CrNi19-10	**100**	100,0	77,1	77,1	67,1	57,1	52,5	48,5					
EN 10213	**160**	160,0	123,4	123,4	107,4	91,4	84,1	77,7					
»**1.4581**«	**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
GX5CrNiMonB19-11-2	**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
EN 10213	**160**	160,0	146,2	146,2	135,3	123,4	116,1	109,7	102,4	96,0	91,4	86,8	82,2

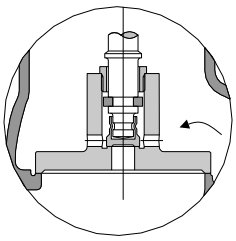
For temperatures > +400°C: Bolting material 1.7709

Modifications

Indicator
Relief plug / By-pass disk
Heating jacket
Extended bonnet
Soft seated disk
Conical seat
Throttle plug / Regulating disk

Additional equipment

Chain wheel
Stem extension
Gear
Electric actuator
Pneumatic actuator



Relief plug / By-pass disk

Installation

Piping is to bed 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	65	80	100	125	150	200
Δp [bar]	110	70	44	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.