

Application

Globe valves (V46) are industrial valves designed to open or close the service fluid flow fully. Control (V40) valves are used to regulate flowing fluid. Both types are used especially in power engineering, chemical industry as well as other industries putting great demands on functionality at high pressures and high temperatures.

Working medium

- water
- steam
- gas
- other fluids
- seawater

Technical description

The valve has a one-piece body which can be a forged or a cast depending on nominal size and nominal pressure. The yoke-type bonnet is also cast or forged and is connected with the body by means of a bolted or flanged joint. The seat and the disc are hard faced. The disc is made as either a plug type disc (valves V46) or a regulating disc (valves V40). Valves with regulating disc have a linear regulating characteristic. Tightness is achieved by means of special graphite gaskets and packing rings. Tightness of the stem of valve type V46.6 is achieved by a bellows. The valves are designed so as to be earthquake resistant.

Operation

- manual (hand wheel, chain wheel)
- electric actuator
- pneumatic actuator, hydraulic actuator
- actuator located out of the valve

Globe valves can be equipped with a locking device. Position indicator on request.

Operation is dimensioned for the working parameters acc. to EN 13709.



Testing

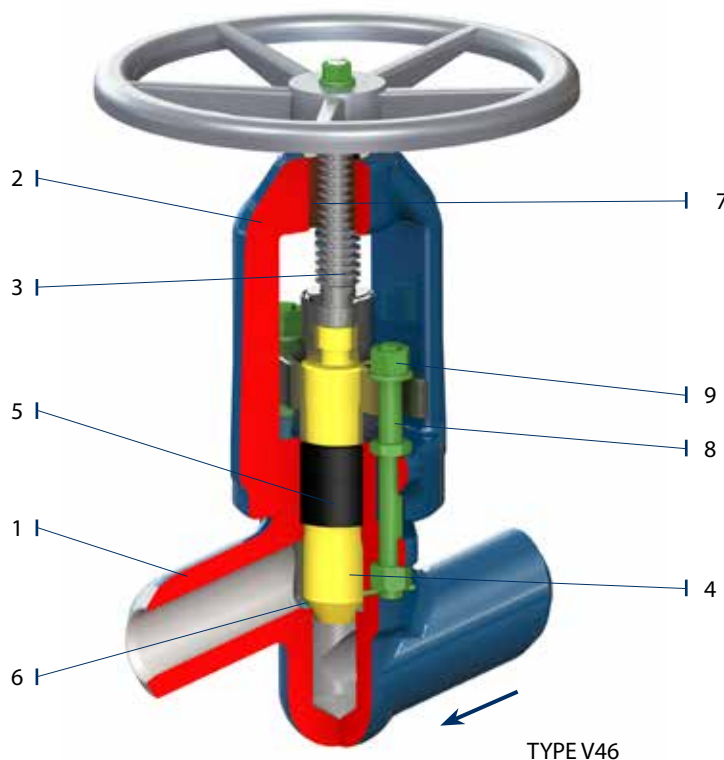
Valves are subject to shell strength test, shell tightness test, seat tightness test and functionality test according to EN 12266 with water as a standard. If required, other tests may be performed as well.

Connection to the piping

- flanged ends acc. to EN 1092-1, ISO 7005-1, GOST 12815-80
- welded ends acc. to EN 12627

Installation

Valves may be installed in any position. The flow direction shall correspond to the arrow on the valve body.

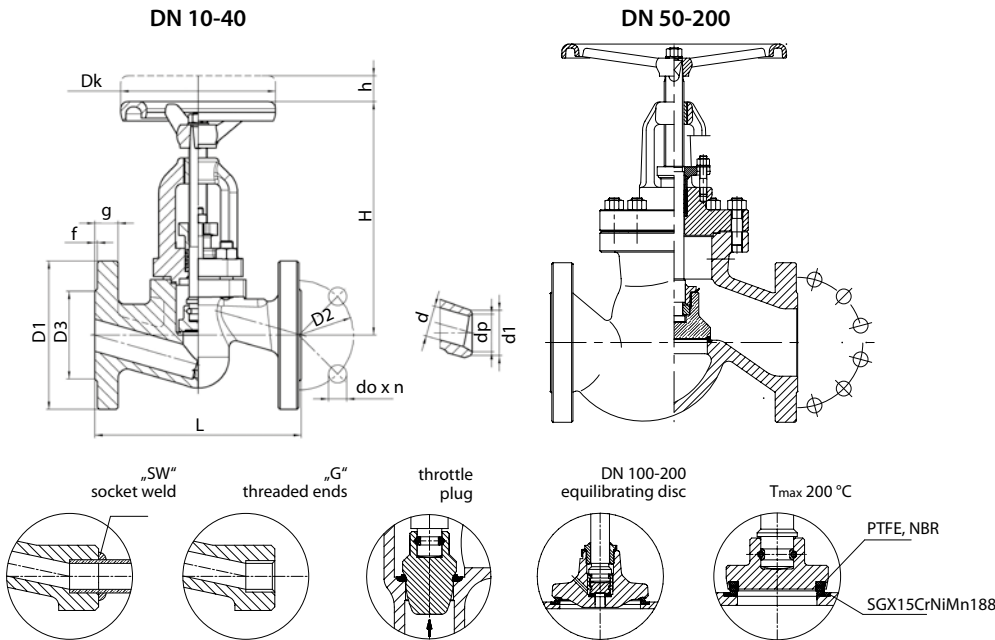


Position	Component
1	Body
2	Bonnet
3	Top stem
4	Bottom stem
5	Packing
6	Seat
7	Stem nut
8	Bolts
9	Nuts



PN 63-100 • DN 10-200 • Tmax 560 °C (450 °C)

Connection: EN 1092-1, ISO 7005-1, GOST 12815-80 FLANGED ENDS
 EN 12627 WELDED ENDS



Material

Component	Tmax 450 °C	Tmax 530 °C	Tmax 560 °C	Other versions
Body, bonnet DN 15-40	(P250GH) C22.8 (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	(P250GH) C22.8, 16Mo3, 13CrMo4-5
Body, bonnet DN 50-200	GP240GH (1.0619)	G20Mo5 (1.5419)	G17CrMo5-5 (1.7357)	GP240GH, G20Mo5, G17CrMo5-5
Seat	13Cr *	Stellite		13Cr, PTFE, NBR
Disc DN 15-50	P250GH (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	X30Cr13, 13CrMo4-5
Disc DN 65-200	P250GH (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	P250GH, 13CrMo4-5
Disc ring	13Cr *	Stellite		13Cr, PTFE, NBR
Stem	13Cr			1.4923
Gasket	Graphite + Austenite			

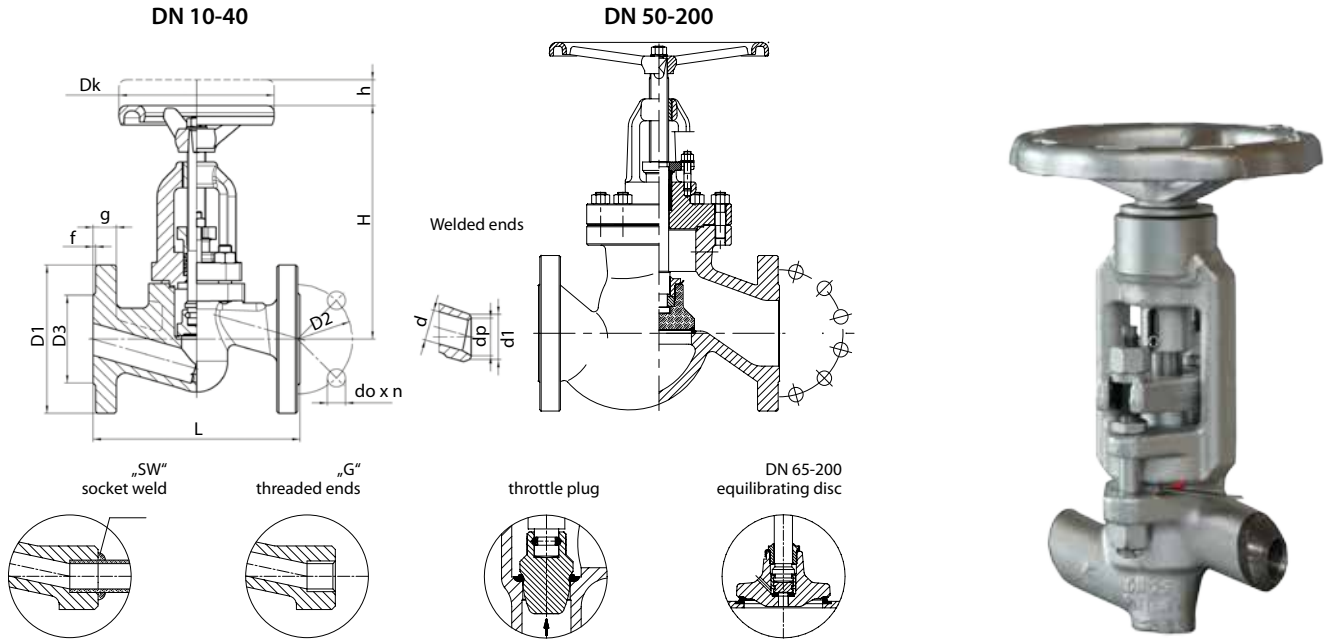
* We recommend Stellite overlay for steam as a medium (Trim.5)

PN	DN	d	Flanged ends											Welded ends					
			D1		D3		D2	do x n	L	g	f	H	h	Dk	kg	*d1	*dp	L	kg
			GOST	EN	GOST	EN													
63	10	10	100		42	40	70	14 x 4	210	20	2	160	13	120	5,4	18	13	150	3,0
	15	14	105		47	45	75	14 x 4	210	20	2	160	13	120	5,4	22	17	150	3,0
	20	19	125	130	58	90	18 x 4	230	22	2	160	13	120	9,8	28	22	160	3,0	
	25	23	135	140	68	100	18 x 4	230	24	2	160	13	120	10,8	35	28,5	160	3,0	
	32	30	150	155	78	110	22 x 4	260	24	2	210	16	160	15,0	44	36,5	230	9,3	
63	40	38	165	170	88	125	22 x 4	260	28	3	210	18	160	15,7	50	43	230	9,5	
	50	45	175	180	102	135	22 x 4	300	26	3	250	22	200	30,7	62	54	300	19,9	
	65	62	200	205	122	160	22 x 8	340	26	3	290	30	250	46,0	77	69	340	30,9	
	80	73	210	215	133	138	170	22 x 8	380	28	3	300	40	320	62,0	91	81	380	48,7
	100	94	250		158	162	200	22 x 8	430	30	3	500	55	360	121,5	117	104	430	95,1
	125	120	295		184	188	240	26 x 8	500	34	3	600	65	400	168,0	144	130,5	500	137,9
100	150	144	340	345	212	218	280	33 x 8	550	36	3	700	70	500	251,0	172	156,5	550	201,1
	200	195	405	415	285		345	36 x 12	650	42	3	900	100	600	290,0	223	204,5	650	215,0
	50	45	195		102		145	26 x 4	300	28	3	250	22	200	30,7	62	54	300	19,9
	65	62	220		122		170	26 x 8	340	30	3	290	30	280	46,0	77	69	340	30,9
	80	73	230		133	138	180	26 x 8	380	32	3	300	40	360	62,0	91	81	380	48,7
	100	94	265		158	162	210	30 x 8	430	36	3	500	55	360	121,5	117	104	430	95,1

*These dimensions of welded ends may vary acc. to the specifications of customer orders.

PN 160 • DN 10-200 • Tmax 560 °C (450 °C)

Connection: EN 1092-1, ISO 7005-1, GOST 12815-80 FLANGED ENDS
 EN 12627 WELDED ENDS



Material

Component	Tmax 450 °C	Tmax 530 °C	Tmax 560 °C	Other versions
Body, bonnet DN 15-40	(P250GH) C22.8 (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	(P250GH) C22.8, 16Mo3, 13CrMo4-5
Body, bonnet DN 50-200	GP240GH (1.0619)	G20Mo5 (1.5419)	G17CrMo5-5 (1.7357)	GP240GH, G20Mo5, G17CrMo5-5
Seat	13Cr*	Stellite		13Cr
Disc DN 15-50	X30Cr13 (1.4028)	X30Cr13 (1.4028)	13CrMo4-5 (1.7335)	X30Cr13, 13CrMo4-5
Disc DN 65-200	P250GH (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	P250GH, 13CrMo4-5
Disc ring	13Cr*	Stellite		Stellite
Stem	13Cr			1.4923
Gasket	Graphite + Austenite			

* We recommend Stellite overlay for steam as a medium (Trim.5)

PN 160

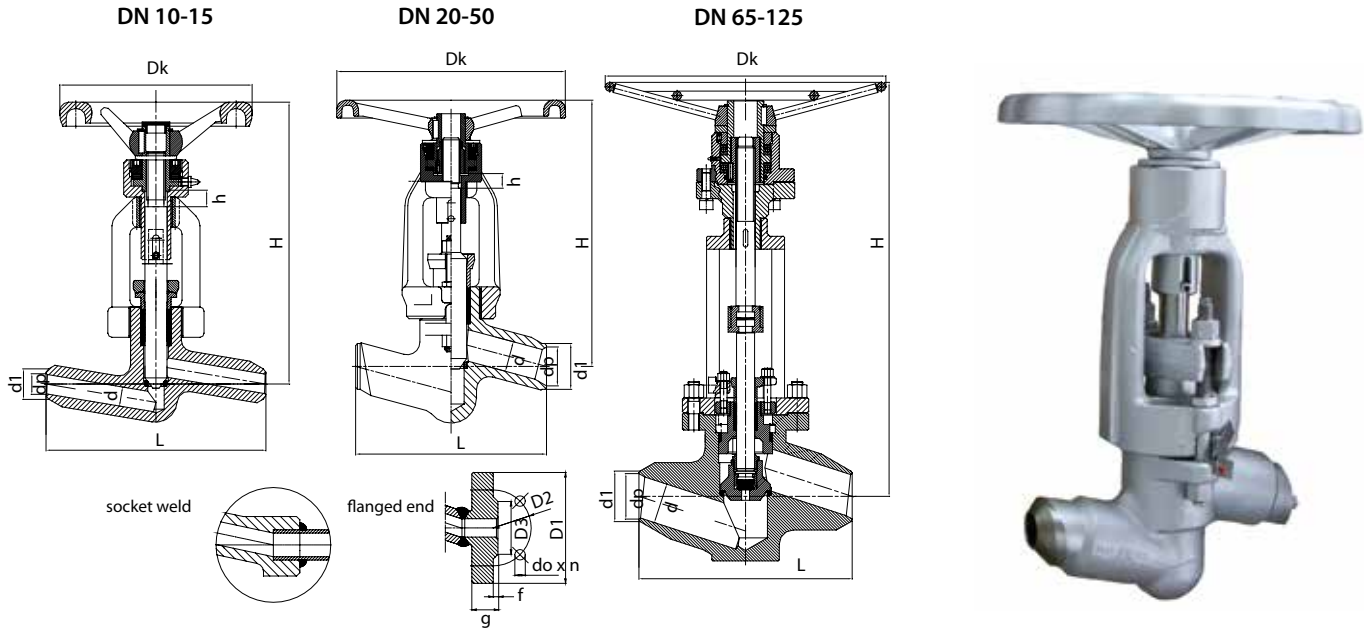
DN	d	Flanged ends												Welded ends				
		D1		D3		D2	do x n	L	g	f	H	h	Dk	kg	*d1	*dp	L	kg
		GOST	EN	GOST	EN													
10	10	-	100	-	40	70	14 x 4	210	20	2	175	13	120	5,4	18	13	150	3,2
15	15	105		47	45	75	14 x 4	210	20	2	175	13	120	5,4	22	17	150	3
20	20	125	130	58		90	18 x 4	230	22	2	215	13	120	9,7	28	21	160	3
25	24	135	140	68		100	18 x 4	230	24	2	215	13	120	10,6	35	27	160	2,8
32	30	150	155	78		110	22 x 4	260	24	2	245	16	160	15,6	44	34,5	230	10,1
40	38	165	170	88		125	22 x 4	260	28	3	245	18	160	17,3	50	41	230	9,4
50	47	195		102		145	30 x 4	300	30	3	300	22	180	29,0	62	52,5	300	8,7
65	63	220		122		170	26 x 8	340	34	3	330	30	280	47,8	77	65	340	16
80	73	230		133	138	180	26 x 8	380	36	3	375	40	360	62,0	91	76,5	380	23
100	95	265		158	162	210	30 x 8	430	40	3	520	55	360	112,0	117	98,5	430	55
125	120	310	315	184	188	250	33 x 8	500	44	3	600	65	400	165,0	144	120,5	500	70
150	145	350	355	212	218	290	33 x 12	550	44	3	700	70	500	251,0	172	144,5	550	174
200	190	430		285		360	36 x 12	650	60	3	900	110	600	295,0	223	189	650	220

*These dimensions of welded ends may vary acc. to the specifications of customer orders.



PN 250-400 • DN 10-125 • Tmax 670 °C (450 °C)

Connection: EN 1092-1, ISO 7005-1 FLANGED ENDS
 EN 12627 WELDED ENDS



Material

Component	Tmax 450 °C	Tmax 530 °C	Tmax 560 °C	Tmax 600 °C	Tmax 570 °C	Tmax 670 °C
Body	(P250GH) C22.8 (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	11 CrMo9-10 (1.7383)	14MoV6-3 (1.7715)	X10CrMoVNb9-1 (1.4903)
Bonnet	DN 15-25 13CrMo4-5 (1.7335)		DN 32-125 G17CrMo5-5 (1.7357)			
Stem DN 15-65	X39CrNi17-1 (1.4122), sX22CrMoV12-1 (1.4923)					1.4923
Disc DN 80-125	C22.8 (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	11 CrMo9-10 (1.7383)	14MoV6-3 (1.7715)	X10CrMoVNb9-1 (1.4903)
Seat	Stellite, Titanium VT9		Stellite			
Upper stem	X17CrNi16-2 (1.4057), X39CrNi17-1 (1.4122)					1.4923
Gasket	Graphite					
Packing rings DN 65-125	Graphite					

PN 250

DN	Welded ends				d	H	h	Dk	Flanged ends							
	*d1	*dp	L	kg					D1	D3	D2	do x n	L	g	f	kg
10	20	12,0	150	10	9	205	12	140	125	40	85	18 x 4	230	24	2	13,7
15	22	16,0	150	9	14	205	12	140	130	45	90	18 x 4	230	26	2	13,7
20	28	19,5	160	9	18	266	19	200	-	-	-	-	-	-	-	-
25	35	26,5	160	9	24	266	19	200	150	68	105	22 x 4	260	28	2	18,3
32	44	32,5	300	30	30	418	23	360	-	-	-	-	-	-	-	-
40	50	38,5	300	30	34	418	37	360	185	88	135	26 x 4	300	34	3	45,2
50	62	45,0	300	30	42	418	37	360	200	102	150	26 x 8	350	38	3	47,0
65	77	59,5	340	40	56	714	45	700	230	122	180	26 x 8	400	42	3	71,3
80	117	93,0	380	70	76	637	36	500	255	138	200	30 x 8	450	46	3	107,5
100	144	116,5	430	90	92	720	50	500	300	162	235	33 x 8	520	54	3	157,5
125	159	120,5	500	125	112	750	65	500	340	188	275	33 x 12	600	60	3	220,9

*These dimensions of welded ends may vary acc. to the specifications of customer orders.

PN 320

DN	Welded ends				d	H	h	Dk	Flanged ends							
	*d1	*dp	L	kg					D1	D3	D2	do x n	L	g	f	kg
10	20	12	150	10	9	205	12	140	125	40	85	18 x 4	230	24	2	13,7
15	22	15,0	150	9	14	205	12	140	130	45	90	18 x 4	230	26	2	13,7
20	28	19,0	160	9	18	266	19	200	-	-	-	-	-	-	-	-
25	35	24,0	160	9	24	266	19	200	160	68	115	22 x 4	260	34	2	18,3
32	44	31,5	300	30	30	418	23	360	-	-	-	-	-	-	-	-
40	50	36,0	300	30	34	418	37	360	195	88	145	26 x 4	300	38	3	45,2
50	77	59,5	300	30	42	418	37	360	210	102	160	26 x 8	350	42	3	47,0
65	91	68,0	340	40	56	714	45	GNR 700	255	122	200	30 x 8	400	51	3	71,3
80	117	87,5	380	70	76	637	36	GNR 500	275	138	220	30 x 8	450	55	3	107,5
100	144	109,5	430	90	92	720	50	GNR 500	335	162	265	36 x 8	520	65	3	157,5
125	159	120,5	500	125	112	750	65	500	380	188	310	36 x 12	600	75	3	220,9

PN 400

DN	Welded ends				d	H	h	Dk	Flanged ends							
	*d1	*dp	L	kg					D1	D3	D2	do x n	L	g	f	kg
10	20	10,0	150	10	9	205	12	140	125	40	85	18 x 4	230	28	2	13,7
15	28	17,0	150	9	14	205	12	140	145	45	90	22 x 4	230	30	2	13,7
20	35	23,0	160	9	18	266	19	200	-	-	-	-	-	-	-	-
25	44	29,0	160	9	24	266	19	200	180	68	105	26 x 4	260	38	2	18,3
32	50	33,0	300	30	30	418	23	360	-	-	-	-	-	-	-	-
40	61	40,0	300	30	34	418	37	360	200	88	135	30 x 4	300	48	3	45,2
50	77	49,5	300	30	42	418	37	360	235	102	150	30 x 8	350	52	3	47,0
65	91	62,0	340	40	56	714	45	GNR 700	290	122	180	33 x 8	400	64	3	71,3
80	117	81,0	380	70	76	637	36	GNR 500	305	138	200	33 x 8	450	68	3	107,5
100	144	102,0	430	90	92	720	50	GNR 500	370	162	235	39 x 8	520	80	3	157,5
125	159	120,5	500	125	112	750	65	500	415	188	275	39 x 12	600	92	3	220,9

*These dimensions of welded ends may vary acc. to the specifications of customer orders.

