

Primary characteristics

These valves are available in carbon steel and alloy steel.

The main characteristics of this valve type include:

- Direct welded sealing surfaces
- Stem made of stainless steel
- Packing of graphite

Design

The Globe valves have external threaded rising stem and hand wheel. This valve type has bolted connection between body and bonnet. The valve disc is made in one piece, free to move on the stem, to which it is fitted by over pressing and the seats are flat. The seats are direct welded and are available in Cr or Stellite .

Applications

The valves in this data sheet are suitable for shut-off of clean media like air, steam, condensate or other media which do not damage the included parts.

CE-marked: according to Pressure Equipment Directive PED 97/23/EG category III.



Capacity (Table 1)

DN	Resistance factor, Z	Kv value
15	3,5	4,8
20	5,8	6,6
25	8,5	8,5
32	6,4	16
40	4,5	30
50	6,1	40
65	4,7	77
80	5,2	111
100	5,0	178
125	5,8	257
150	6,2	358

The specified resistance factors are applicable when the valves are fully opened. The Kv-values are specified in m³/h at a pressure drop of 1 bar over the valve. The relation between Kv and Cv is as follows:

$Kv=0,86 \times Cv$ $Cv=1,16 \times Kv$

Technical specification

Range of sizes:	DN15 - DN150
Material:	Carbon steel, Alloy steel
Pressure ratings:	PN25 - PN160
Temperature range:	-10 - 530°C see table 2
Connections:	Flanges according to EN1092-1 ¹⁾ Welding ends according to EN12627
Face-to-face:	Flanges according to EN558-1 Welding ends according to EN12982
Test pressure:	According to EN12266 1,5 x PN open valve 1,1 x PN closed valve

¹⁾ PN160 according to DIN2501, DIN2638, DIN2548

Working pressure and temperatures (Table 2)

for material group 3E0 and 5E0 according to EN1092-1.

Body material	Pressure (bar) / temperature (°C)													
	PN	RT	50	100	150	200	250	300	350	400	450	500	520	530
Carbon steel 3E0	25/40	40,0	39,0	37,3	34,7	30,2	28,4	25,8	24,0	23,1				
Alloy steel 5E0		40,0	40,0	40,0	40,0	40,0	39,1	36,4	33,8	32,0	30,2	24,4	16,7	13,5
Carbon steel 3E0	63	63,0	61,4	58,8	54,6	47,6	44,8	40,6	37,8	36,4				
Alloy steel 5E0		63,0	63,0	63,0	63,0	63,0	61,6	57,4	53,2	50,4	47,6	38,4	26,3	21,8
Carbon steel 3E0	100	100,0	97,5	93,3	86,7	75,6	71,1	64,4	60,0	57,8				
Alloy steel 5E0		100,0	100,0	100,0	100,0	100,0	97,8	91,1	84,4	80,0	75,5	60,9	41,8	34,7
Carbon steel 3E0	160*	156,0	148,8	136,4	126,7	113,7	104,0	94,2	87,7	84,4				
Alloy steel 5E0		163,3	163,3	162,7	158,5	149,4	143,0	133,2	123,4	115,5	106,7	89,1	67,8	56,3

* Calculated according to EN 12516-1, annex F

Material specification (Table 3)

Pos	Part	Dim	Carbon steel acc. 3E0	Alloy acc. 5E0
			-10°C to 400°C**	-10°C to 530°C
1	Body	DN15-25	1.0460 (3E0)	1.7335 (5E0)
		DN32-150	1.0619 (3E0)	1.7357 (5E0)
2	Bonnet	DN15-25	1.0460 (3E0)	1.7335 (5E0)
		DN32-150	1.0619 (3E0)	1.7357 (5E0)
3	Disc	DN15-50	1.4021	1.7335
		DN65-150	1.0619	1.7357
4	Sealing surface		13%Cr / Stellite®	Stellite®
5	Sealing surface disc	DN15-50	1.4021 tempered	Stellite®
		DN65-150	13%Cr / Stellite®	Stellite®
6	Stem		min 13% Cr	
7	Stem nut		2.0940 (eller 1.1191)	
8	Screw		1.7225	1.7709
9	Nut		1.1191	1.7709
10*	Bonnet gasket		reinforced graphite	
11*	Packing		graphite	
12	Hand wheel		0.6025	

*Recommended spare part **over 350°C is Stellite recommended

Figure 1

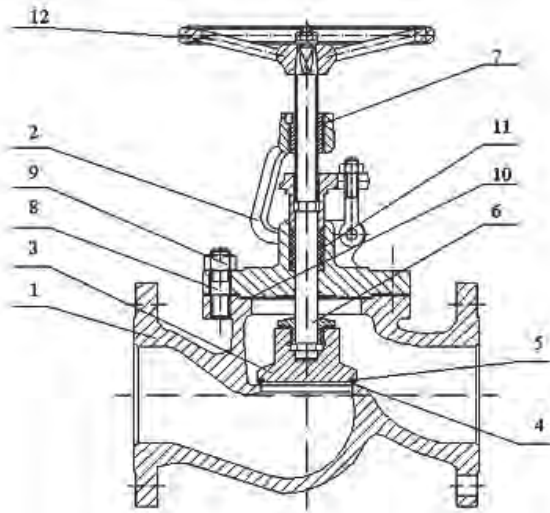
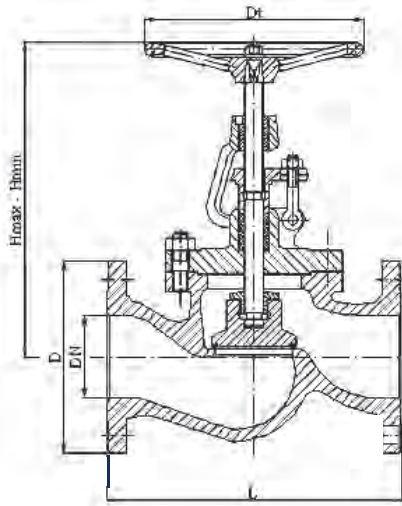
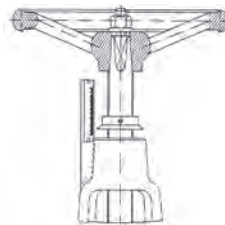


Figure 2



Limit indication on valves with control disc (Figure 3)



Control disc (Figure 4)

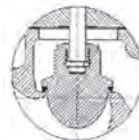
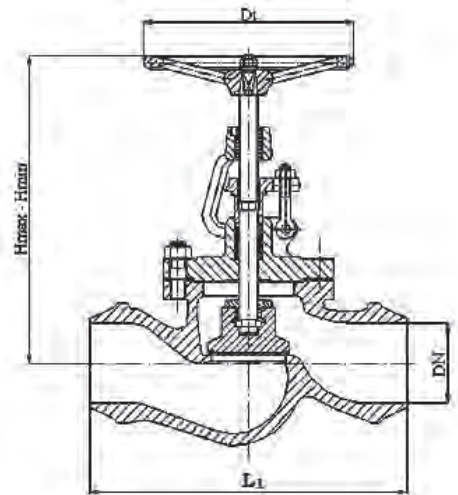
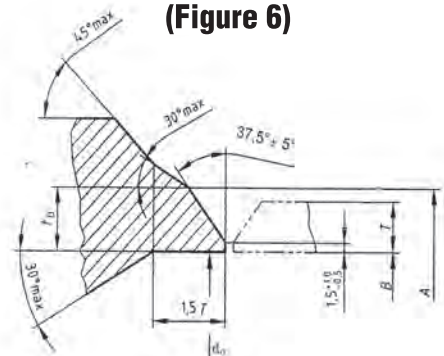


Figure 5



Welding end (Figure 6)



$t_D \times 1,5$
according to EN12627:1999

Flow direction (Table 4)

PN25/40	PN63/100/160	Flow direction acc. to figure 1
DN15-100	DN15-50	→
DN125-150	DN65-150	←

PN25/40 (Table 5)

DN	Flanged			Welding ends				H min	H max	Dt
	D mm	L mm	Vikt kg	L ₁ mm	Mass kg	A mm	d ₀ mm			
15	95	130	4	130	2,3	22	16	235	220	120
20	105	150	4,5	130	2,5	28	21,1	235	220	120
25	115	160	5,5	130	3	35	27,2	235	220	120
32	140	180	8,5	160	5	44	36,2	315	295	160
40	150	200	11,5	180	7,5	50	42,2	315	295	160
50	165	230	14,5	210	9,5	62	53,3	324	295	160
65	185	290	22,5	290	15,5	77	68,3	324	295	200
80	200	310	36	310	27,5	91	81,4	365	325	250
100	235	350	50	350	39	117	106,2	410	365	250
125	270	400	70	400	55	144	132,0	500	450	315
150	300	480	98	480	79	172	158,5	545	485	315

PN63 (Table 6)

DN	Flanged			Welding ends				H min	H max	Dt
	D mm	L mm	Mass kg	L ₁ mm	Mass kg	A mm	d ₀ mm			
15-25	See PN160									
32	155	260	17	180	11,2	44	30,0	295	315	200
40	170	260	17,5	210	12	50	41,3	295	315	200
50	180	300	32	250	20	62	53,3	334	370	250
65	205	340	41	340	33,5	77	67,4	385	415	315
80	215	380	69	380	67	91	80,2	457	492	315
100	250	430	111	430	96	117	105,0	540	585	400
125	295	500	184	500	155	144	130,5	580	635	400
150	345	550	289	550	251	172	155,2	645	705	500

PN100 (Table 7)

DN	Flanged			Welding ends				H min	H max	Dt
	D mm	L mm	Mass kg	L ₁ mm	Mass kg	A mm	d ₀ mm			
15-25	See PN160									
32	155	260	17	See PN160				295	315	200
40	170	260	17,5	See PN160				295	315	200
50	195	300	32,5	See PN160				334	370	250
65	220	340	43	See PN160				385	415	315
80	230	380	70	See PN160				457	492	315
100	265	430	114	See PN160				540	585	400
125	315	500	188	See PN160				580	635	400
150	355	550	295	See PN160				645	705	500

PN160 (Table 8)

DN	Flanged			Welding ends				H min	H max	Dt
	D mm	L mm	Mass kg	L ₁ mm	Mass kg	A mm	d ₀ mm			
15	105	210	6,8	150	4,4	22	16	220	235	160
20	130	230	8,5	150	4,6	28	20,2	220	235	160
25	140	230	10	160	4,8	35	26,3	220	235	160
32	155	260	17	180	11,2	44	30,0	295	315	200
40	170	260	18	210	12	50	39,2	295	315	250
50	195	300	33,6	250	20	62	50,0	334	370	250
65	220	340	45	340	33,5	77	62,0	385	415	315
80	230	380	72,5	380	67	91	72,1	457	492	315
100	265	430	117	430	96	117	93,0	540	585	400
125	315	500	192	500	155	144	114,0	580	635	400
150	355	550	303	550	251	172	134,5	645	705	500

