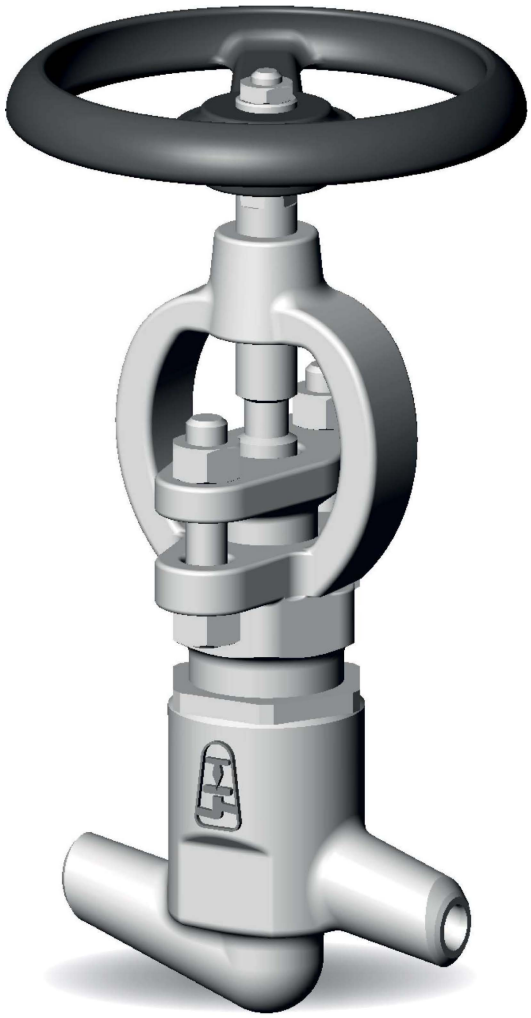
HIGH-PRESSURE GLOBE VALVE V45

PN 100–250; DN 10; T_{MAX}: 550 °C



APPLICATION

- water, steam, gas, oil, petroleum products, non-aggressive and aggressive substances

CONNECTION

- weld ends

OPERATION

- handwheel

DESCRIPTION

- rotating rising stem
- shut-off cone
- conical seat
- sealing surfaces is welded by hard facing Stellite 6
- stem gland packing in yoke
- complies with the requirements of the directive 2014/68/EU and standard EN 13709
- testing is carried out according to standard EN 12266-1; part 2

BASIC DESIGN OPTIONS

- PTFE gland packing (max. 200 °C) on request
- delivery according to TRD 201

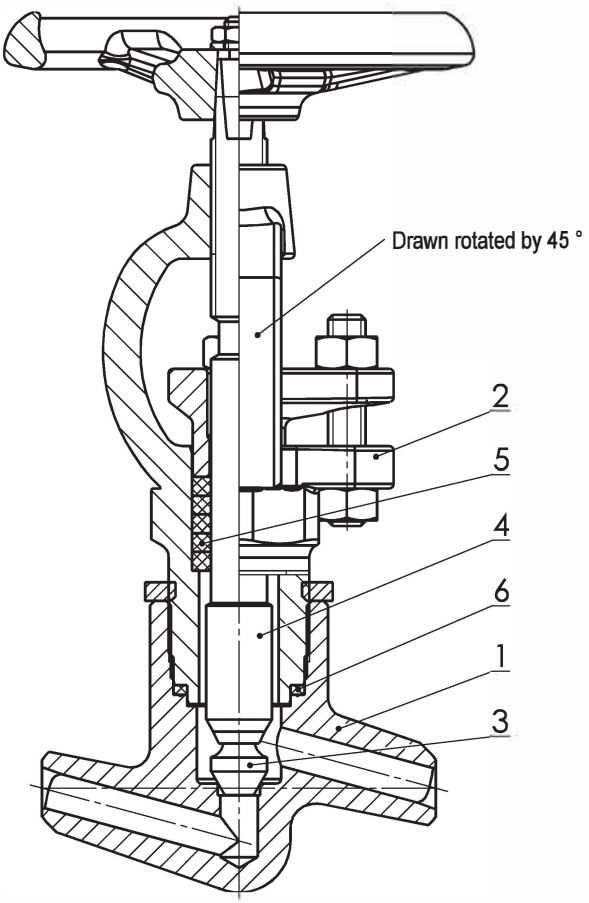
PRESSURE-TEMPERATURE-RATINGS

Material	PN	Admissible operating pressure PS [bar] at operating temperature TS [°C]																
		-10	50	100	150	200	250	300	350	400	450	475	500	510	520	530	540	550
P250GH (1.0460)	100	100	100	88	83	78	69	59	55	49	38	-	-	-	-	-	-	-
	160	160	160	141	133	125	110	94	87	78	61	-	-	-	-	-	-	-
	250	250	250	221	208	196	172	147	137	123	95	-	-	-	-	-	-	-
13CrMo4-5 (1.7335)	100	100	100	100	100	100	98	94	93	89	85	81	72	61	49	38	29	21
	160	160	160	160	160	160	157	152	150	143	136	129	116	98	77.5	61	45	34
	250	250	250	250	250	250	245	237	233	223	213	202	180	151	122	95	72	53
11CrMo9-10 (1.7383) 15 128	100	100	100	100	100	100	98	94	93	89	85	81	72	61	49	43	37	32
	160	160	160	160	160	160	157	152	150	143	136	129	116	96	78	68	60	51
	250	250	250	250	250	250	245	237	233	223	213	202	180	151	122	107	93	79

Material	PN	Admissible operating pressure PS [bar] at operating temperature TS [°C]												
		-196 *)	-10	50	100	150	200	250	300	350	400	450	500	550
X6CrNiTi 18-10 (1.4541)	100	100	100	100	88	82	76	73	69	65	62	60	57	55
	160	160	160	160	141	131	122	116	110	104	99	95	92	88
	250	250	250	250	220	205	190	181	172	163	155	149	143	137

*) Use for temperatures up to -196 ° C on request

USED MATERIALS

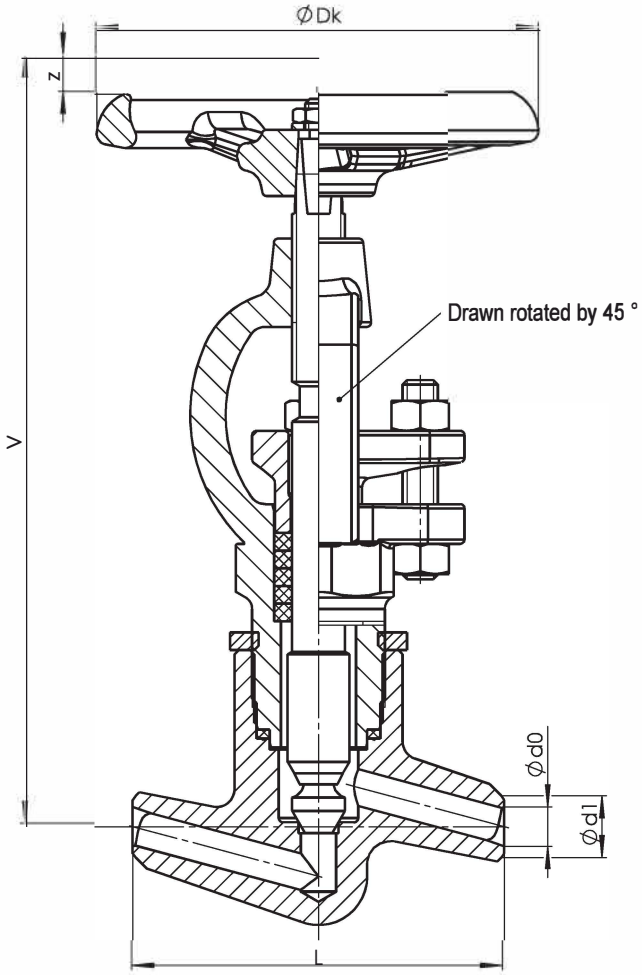


Pos.	Part	Material			
1	Body	P250GH (1.0460), 11 416	13CrMo4-5 (1.7335)	11CrMo9-10 (1.7383)	X6CrNiTi18-10 (1.4541)
	Hard facing of sealing surface	X20CrMo17-1 (1.4115)	Stellite 6	Stellite 6	-
2	Adapter	G17CrMo5-5 (1.7357, 42 2744)			GX5CrNiNb19-11, GX5CrNiMoNb19-11-2 (1.4552, 1.4581)
3	Disc	X20Cr13 (1.4021)	X6CrNiMoTi17-12-2 (1.4571)	X6CrNiMoTi17-12-2 (1.4571)	X6CrNiMoTi17-12-2 (1.4571)
	Hard facing of sealing surface	-	Stellite 6		
4	Stem	X20Cr13 (1.4021)	X22CrMoV12-1 (1.4923)	X22CrMoV12-1 (1.4923)	X22CrMoV12-1 (1.4923)
5	Packing	Graphite			
6	Gasket	Graphite			

VALVE DIMENSIONS

Weld ends

Face-to-face dimensions: as per table
Dimensions of welding ends: as per table (ČSN 13 1075)



Nominal pressure	Nominal size	Face-to-face	Centre-to-top	Stroke	Handwheel	Weld ends		Pipe dimension	Approximate weight
PN	DN	L	V	z	$øD_k$	$ød_1$	$ød_0$	TR KR x s	m [kg]
100	10	85	175	6	125	14	10	14 x 2	1,3
160		85	175	6	125	14	10	14 x 2,5	1,3
250		85	175	6	125	14	9	14 x 3	1,3

VALVE DESCRIPTION CODE

V45 121–3160–10

- DN
- PN

Body material

0 – stainless steel

X6CrNiTi18-10	1.4541	(max. 550 °C)
3 – alloyed steel – forged		
11CrMo9-10	1.7383	(max. 550 °C)
	15 128	(max. 550 °C)
13CrMo4-5	1.7335	(max. 550 °C)
4 – carbon steel – forged		
P 250GH	1.0460	(max. 450 °C)

Operation

1 – handwheel

Type of connection

2 – weld ends

Body/bonnet design

1 – straigh-way pattern

Valve type

V – shut-off globe valves

45 – shut-off

VALVE INSTALLATION

Valve can be installed in any position. Medium must flow under the cone in accordance with the direction indicated on the valve body.
It is necessary to consider the following points during assembly and operation:

- operating conditions must comply with operating parameters of the valve
- proper function of the valve is affected by the presence of impurities in the pipeline and flowing medium, therefore it is necessary keep working environment a pipeline clean, for example with using filters
- the medium used must be comply with the corrosion resistance of the valve material
- use of mechanically damaged valves during the operation is prohibited

The service life of valves significantly extends regular maintenance and minor repairs carried out by trained personnel.