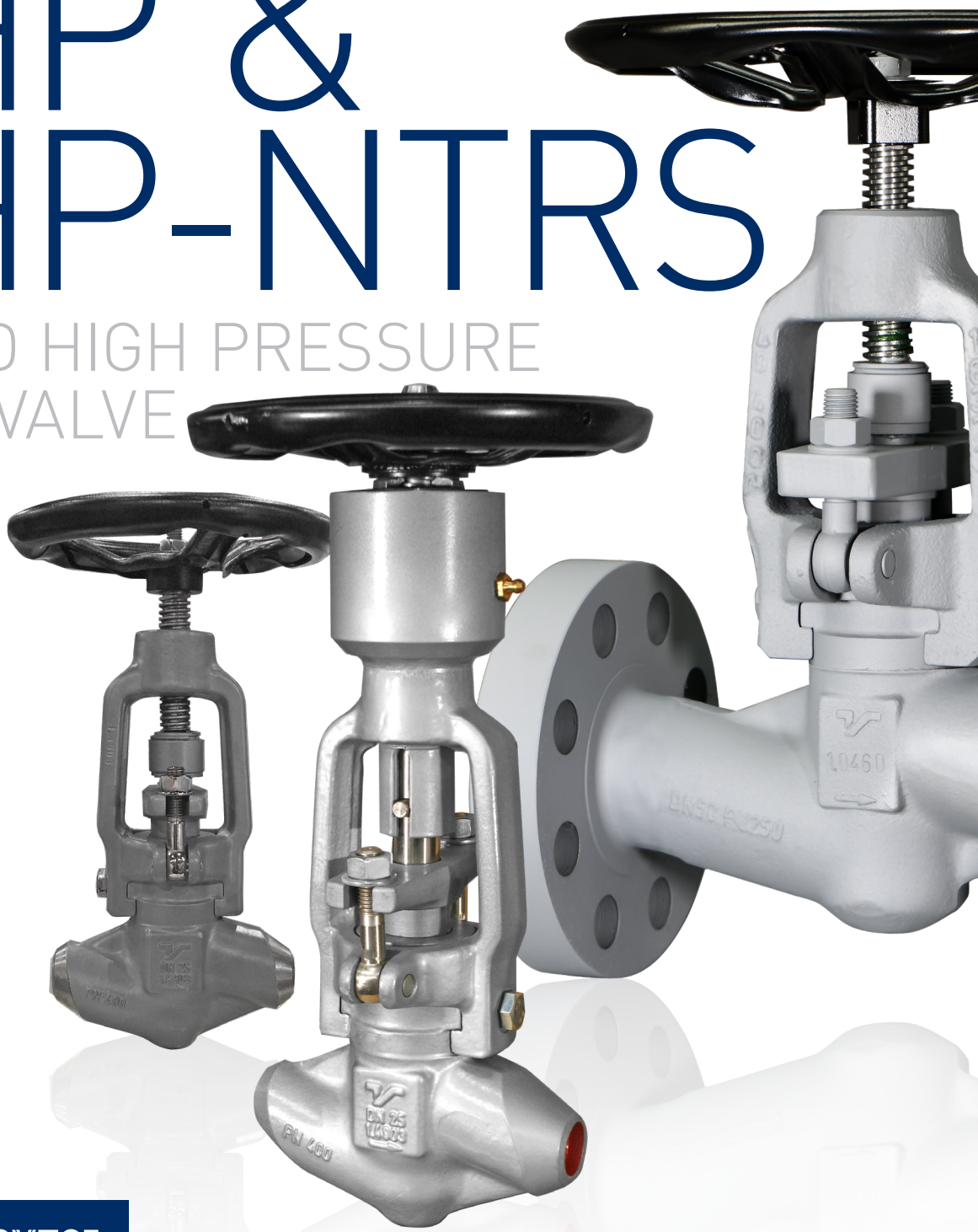
TECHNICAL DATA SHEET

VHP & VHP-NTRS

FORGED HIGH PRESSURE GLOBE VALVE



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TECHNICAL DATA SHEET

1. GENERAL FEATURES

Forged High Pressure Globe Valves
VHP Type – Rising Stem
VHP-NTRS Type – Non Turning Rising Stem

DN 10 (NPS 3/8”) ÷ DN 65 (NPS 2 1/2”)
PN 250 ÷ PN 400
Class 1500 ÷ Class 2500

Design

- T-pattern globe type
- Closed-Die-Forged body
- Pressure seal design
- Rising stem (RS), outside screw and yoke (OS&Y)
- Non turning rising stem (NTRS)
- Hard faced seats

Applications

- The main purpose of the VHP & VHP-NTRS are to isolate fluid flow through pipeline for Power plant, Chemical, Petrochemical, Refining, Water supply and other

Media

- Water, steam, gas, oil and other non-aggressive media

Pressure and temperature ratings

- PN 250 ÷ PN 400
- Class 1500 ÷ Class 2500
- Temperatures up to 600˚C
- p/T according to EN 12516-1 or ASME B16.34

Materials

- Carbon, low temperature and heat-resistant alloys

Advantages

- Long service life
- Respect for emission standards
- Easy handling and maintenance

Optional executions

- Electric actuator
- Pneumatic actuator
- Spring loaded stuffing box (SLSB)
- Locking devices
- Disassembling disc
- Y type
- Angle type
- Flanged or weld ends according to other Standards and Norms.

Testing

- Every produced globe valve shall be tested acording to EN 12266 or API 598

2. PARTS & MATERIALS

2.1 Parts & Materials VHP type

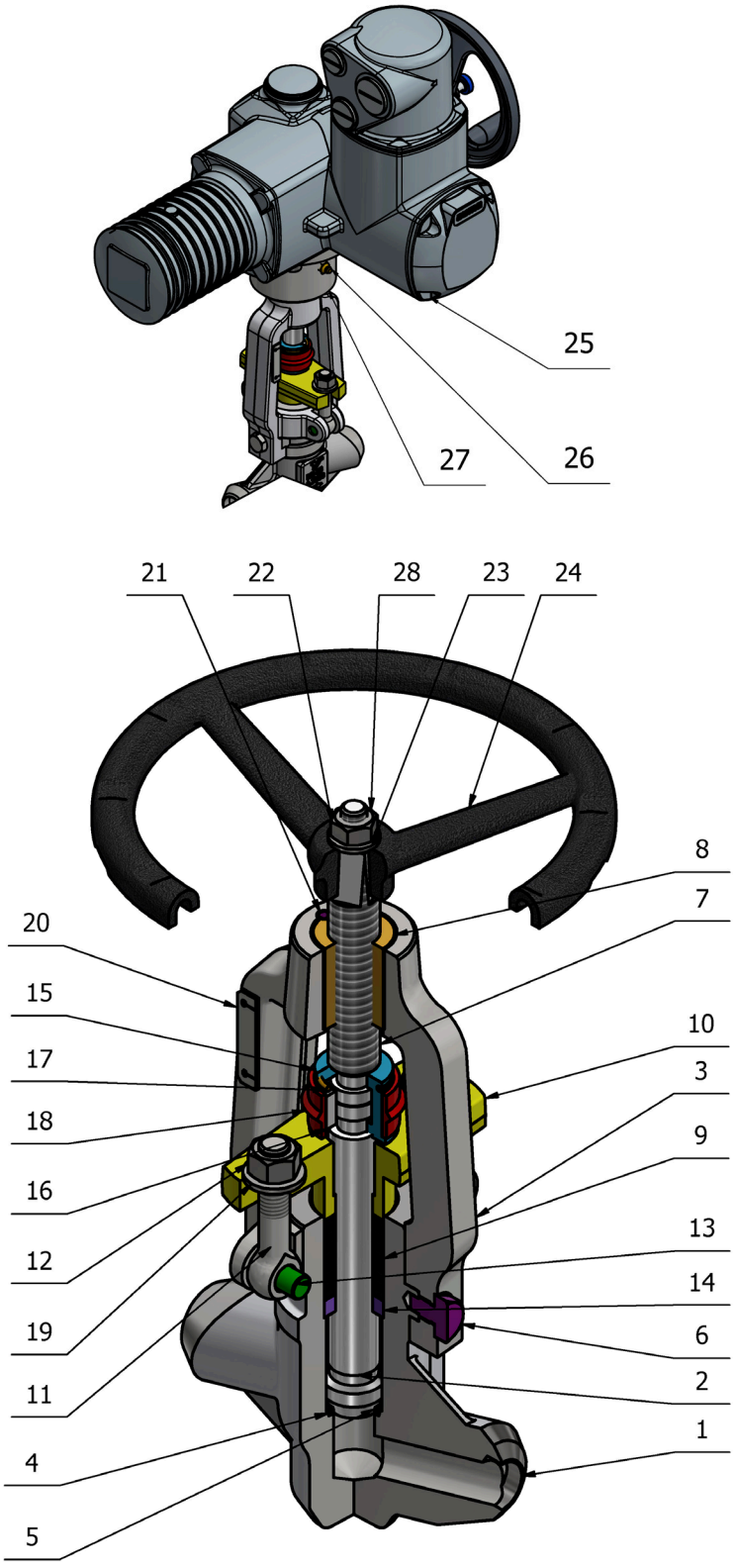


Figure B.1 – Parts VHP type

List of materials **Table B.1**

Parts	Name		Material Group acc. to EN 12516-1 or ASME B16.34				
1	Body [1]	EN 12516-1	1.0460	1.5415	1.7335	1.7383	1.4903
		ASME B16.34	A105	F1	F11 Cl.2	F22 Cl.3	F91
2	Disc		1.4122 / 1.4923[3]				
3	Bonnet [1]	EN 12516-1	1.0619		1.7357		
		ASME B16.34	WCB		WC6		
4	Body seat overlay [2]		Hard Faced 13Cr or Stellite™				
5	Disc seat overlay [2]						
6	Bolt		1.7225				
7	Stem		1.4021				
8	Stem nut		1.0715 / Cu-Alloy				
9	Stem packing rings		graphite with corrosion inhibitor				
10	Gland		1.0460				
11	Gland bolts		A193 B7 / 1.7225				
12	Gland nuts		A194 2H / 1.1191				
13	Pin		steel				
14	Ring		hardened 1.4021 / 1.4122 / 1.4923[3]				
15	Coupling		1.7225				
16	Segment		1.1191				
17	Safety ring		1.7225				
18	Position indicator		1.1191				
19	Washers		steel				
20	Scale		steel				
21	Spring type pin		steel				
22	Handwheel nut		1.1191				
23	Washer		steel				
24	Handwheel		epoxy coated steel				
25	Electric actuator		commercial				
26	Grease injector		Cu-Alloy / steel				
27	Carrier		1.1191				
28	Nameplate		stainless steel				

TM trademark materials
(1) Other materials available acc. to EN standard and ASTM specifications
(2) Hardness differential between the body and disc seating surfaces shell be min. 50 HB
(3) Over 500°C

2.2 Parts & Materials VHP – NTRS type

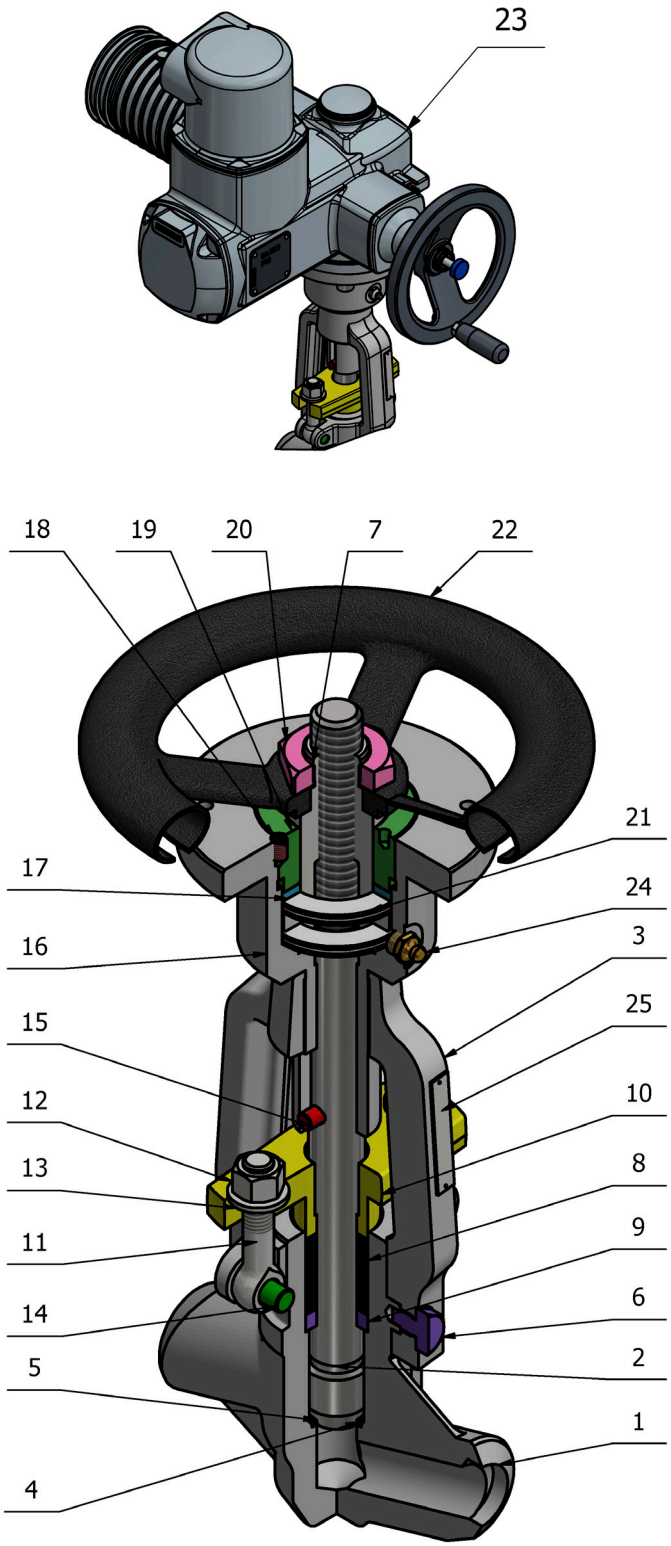


Figure B.2 – Parts VHP-NTRS type

List of materials **Table B.2**

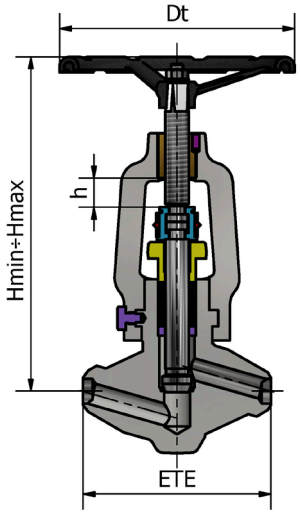
Parts	Name		Material Group acc. to EN 12516-1 or ASME B16.34				
1	Body [1]	EN 12516-1	1.0460	1.5415	1.7335	1.7383	1.4903
		ASME B16.34	A105	F1	F11 Cl.2	F22 Cl.3	F91
2	Disc - Stem		1.4021 / 1.4122 / 1.4923[3]				
3	Bonnet [1]	EN 12516-1	1.0619		1.7357		
		ASME B16.34	WCB		WC6		
4	Body seat [2]		Hard Faced 13Cr or Stellite™				
5	Disc seat [2]						
6	Bolt		1.7225				
7	Stem nut		1.0715 / Cu-Alloy				
8	Stem packing rings		graphite with corrosion inhibitor				
9	Ring		hardened 1.4021 / 1.4122 / 1.4923[3]				
10	Gland		1.0460				
11	Gland bolts		A193 B7 / 1.7225				
12	Gland nuts		A194 2H / 1.1191				
13	Washers		steel				
14	Pin		steel				
15	Position indicator		1.7225				
16	Carrier		1.1191				
17	Bearing ring		1.4021				
18	Slotted set screw		steel				
19	Cover bearing		1.1191				
20	Handwheel nut		1.1191				
21	Bearings		needle				
22	Handwheel		epoxy coated steel				
23	Electric actuator		commercial				
24	Grease injector		Cu-Alloy / steel				
25	Nameplate		stainless steel				

TM trademark materials
(1) Other materials available acc. to EN standard and ASTM specifications
(2) Hardness differential between the body and disc seating surfaces shell be min. 50 HB
(3) Over 500°C

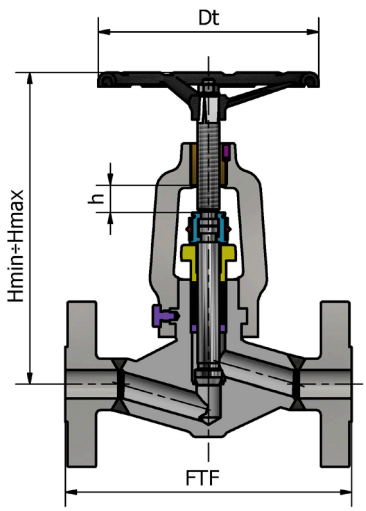
3. STANDARDS & DIMENSIONS

Standards **Table B.3**

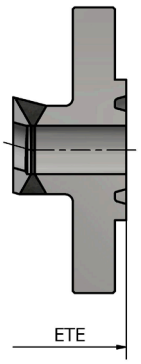
VHP & VHP-NTRS	PN 250 ÷ PN 400 (Class 1500 ÷ Class 2500)
General design	EN 12516 and ASME B16.34
Wall thickness	EN 12516 and ASME B16.34
Pressure / temperature rating	EN 12516 and ASME B16.34
FTF and ETE according to	Manufacturer standard, EN 558 or ASME B16.10
Flanged Ends according to	EN 1092-1 or ASME B16.5
Welding Ends according to	EN 12627 or ASME B16.25



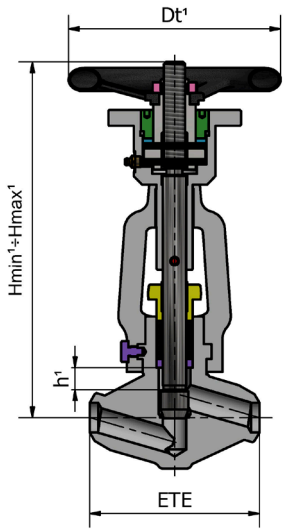
VHP with welding ends



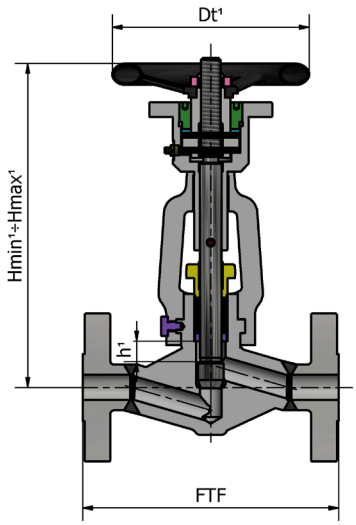
VHP with flanged ends (Raised Face)



VHP & VHP-NTRS with flanged ends (Ring Joint)



VHP-NTRS with welding ends



VHP-NTRS with flanged ends (Raised Face)

Figure B.3 – Dimensions VHP & VHP-NTRS

[VHP & VHP-NTRS] Dimensions **Table B.4**

Nominal Pressure (Pressure Class)	Diameter Nominal (Nominal pipe size)	End-To-End	Face-To-Face (RF)	End-To-End (RTJ)	Centre-to-top (close-open) VHP	Centre-to-top (close-open) VHP-NTRS	Handwheel	Stroke	Connection flange ISO 5210	Kvs	Weight	
PN / Class	**DN (NPS)**	**ETE**	**FTF**	**ETE**	**Hmin / Hmax**	**Hmin[1] / Hmax[1]**	**Dt / Dt[1]**	**h / h[1]**		**m^3/h**	**ETE**	**FTF**
		mm									Kg	
PN 250	10	110	230	-	182 / 192	211 / 221	100 / 150	10	F10-B1	1,6	1,5	5,5
	15	160	230	-	251 / 275	308 / 323	150 / 200	24 / 15	F10-B1	4	5	10
	20	160	-	-	251 / 275	308 / 323	150 / 200	24 / 15	F10-B1	6	5	-
	25	160	260	-	293 / 316	330 / 346	200	23 / 16	F10-B1	9	8,5	15
	32	210	-	-	352 / 376	386 / 406	300	24 / 20	F10-B1	16	19	-
	40	260	300	-	352 / 376	386 / 406	300	24 / 20	F10-B1	17	24	37
	50	260	350	-	352 / 376	386 / 406	300	24 / 20	F10-B1	17	24	40
	65	300	400	-	411 / 438	470 / 492	400	27 / 22	F14-B1	29	39	65
PN 320	10	110	230	-	182 / 192	211 / 221	100 / 150	10	F10-B1	1,6	1,5	5,5
	15	160	230	-	251 / 275	308 / 323	150 / 200	24 / 15	F10-B1	6	5	10
	20	160	-	-	251 / 275	308 / 323	150 / 200	24 / 15	F10-B1	6	5	-
	25	160	260	-	293 / 316	330 / 346	200	23 / 16	F10-B1	9	8,5	18
	32	210	-	-	352 / 376	386 / 406	300	24 / 20	F10-B1	16	19	-
	40	260	300	-	352 / 376	386 / 406	300	24 / 20	F10-B1	17	24	41
	50	300	350	-	411 / 438	470 / 492	400	27 / 22	F14-B1	29	39	60
PN 400	10	110	230	-	182 / 192	211 / 221	100 / 150	10	F10-B1	1,6	1,5	6,5
	15	160	230	-	251 / 275	308 / 323	150 / 200	24 / 15	F10-B1	6	5	12
	20	160	-	-	251 / 275	308 / 323	150 / 200	24 / 15	F10-B1	6	5	-
	25	160	260	-	293 / 316	330 / 346	200	23 / 16	F10-B1	9	8,5	23
	32	210	-	-	352 / 376	386 / 406	300	24 / 20	F10-B1	16	19	-
	40	260	300	-	352 / 376	386 / 406	300	24 / 20	F10-B1	17	24	52
	50	300	350	-	411 / 438	470 / 492	400	27 / 22	F14-B1	29	39	67
Class 1500	10 (3/8")	110	-		182 / 192	211 / 221	100 / 150	10	F10-B1	1,6	1,5	-
	15 (1/2")	160	216		251 / 275	308 / 323	150 / 200	24 / 15	F10-B1	6	5	9
	20 (3/4")	160	229		251 / 275	308 / 323	150 / 200	24 / 15	F10-B1	6	5	11
	25 (1")	160	254		293 / 316	330 / 346	200	23 / 16	F10-B1	9	8,5	15,5
	32 (1 ¼")	210	279		352 / 376	386 / 406	300	24 / 20	F10-B1	16	19	28
	40 (1 ½")	260	305		352 / 376	386 / 406	300	24 / 20	F10-B1	17	24	37
	50 (2")	260	368	371	352 / 376	386 / 406	300	24 / 20	F10-B1	17	24	47
	65 (2 ½")	300	419	422	411 / 438	470 / 492	400	27 / 22	F14-B1	29	39	72
Class 2500	10 (3/8")	110	-		182 / 192	211 / 221	100 / 150	10	F10-B1	1,6	1,5	-
	15 (1/2")	160	264		251 / 275	308 / 323	150 / 200	24 / 15	F10-B1	6	5	11
	20 (3/4")	160	273		251 / 275	308 / 323	150 / 200	24 / 15	F10-B1	6	5	13
	25 (1")	160	308		293 / 316	330 / 346	200	23 / 16	F10-B1	9	8,5	18,5
	32 (1 ¼")	210	349	352	352 / 376	386 / 406	300	24 / 20	F10-B1	16	19	34
	40 (1 ½")	260	384	387	352 / 376	386 / 406	300	24 / 20	F10-B1	17	24	43
	50 (2")	300	451	454	411 / 438	470 / 492	400	27 / 22	F14-B1	29	39	74

- Technical data for valves over PN 400 on request.
- Depending on the executions dimensions and weights are subject to modification.

4. BUTT WELDING ENDS DESIGN

Symbols **Table B.5**

A	- outside diameter of the Valve butt welding end in mm
B	- outside diameter of the Pipe butt welding end in mm
T	- wall thickness of the pipe in mm

4.1 Butt Welding Ends according to EN 12627

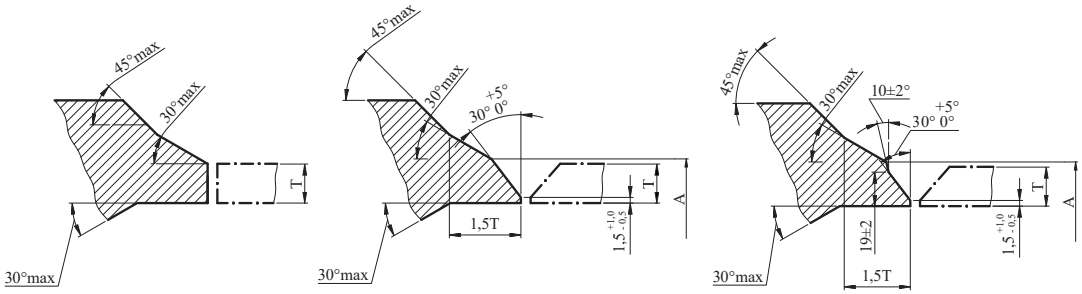


Figure B.4 - Form of the butt welding ends

Dimensions and tolerance of outside diameter **Table B.6**

DN	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65
A (mm)	18	22	28	35	44	50	62	78
Tolerance (mm)	+2,5 -1		+2,5 -1,5		+2,5 -2,0			

4.2 Butt Welding Ends according to ASME B16.25

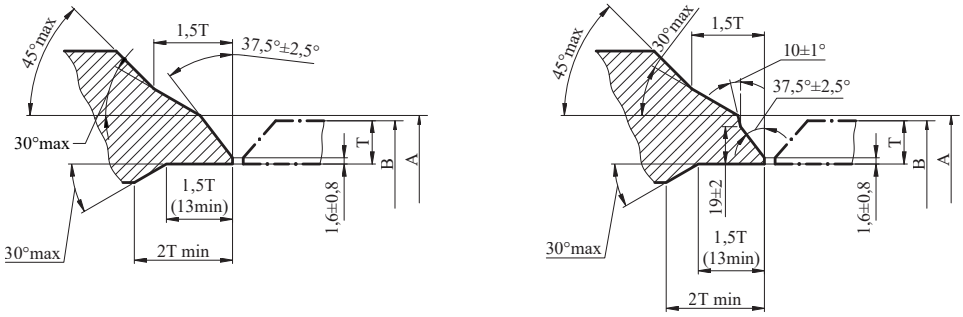


Figure B.5 - Form of the butt welding ends

Dimensions of outside diameter and wall thickness **Table B.7**

DN (NPS)	B	A	T							
			Sch. 10	Sch. 30	Sch. Std	Sch. 40	Sch. XS	Sch. 80	Sch. 160	Sch. XXS
10(3/8)	17,1	---	1,65	1,85	2,31	2,31	3,20	3,20	---	---
15(1/2)	21,3	---	2,11	2,41	2,77	2,77	3,73	3,73	4,78	---
20(3/4)	26,6	---	2,11	2,41	2,87	2,87	3,91	3,91	5,56	7,82
25(1)	33,4	---	2,77	2,90	3,38	3,38	4,55	4,54	6,35	9,09
32(1 ¼)	42,2	---	2,77	2,97	3,56	3,55	4,85	4,85	6,35	9,70
40(1 ½)	48,3	---	2,77	3,18	3,68	3,68	5,08	5,08	7,14	10,15
50(2)	60,3	---	2,77	3,18	3,91	3,91	5,54	5,54	8,74	11,07
65(2 ½)	73,0	75	3,05	4,78	5,16	5,16	7,01	7,01	9,53	14,02

5. OPTIONAL EXECUTIONS

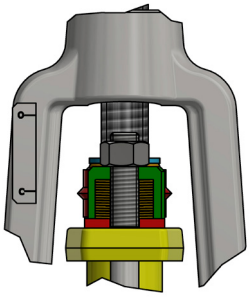


Figure B.6 - Spring Loaded Stuffing Box

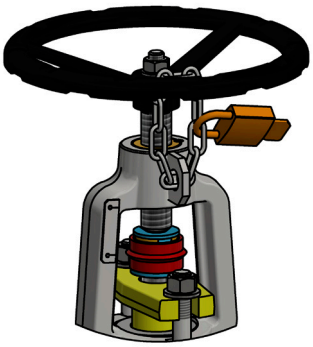


Figure B.7 – Locking Devices

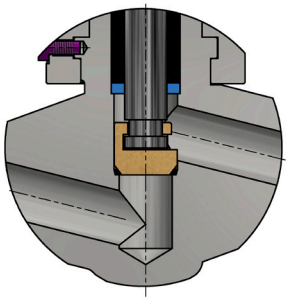


Figure B.8 - Disassembling Disc

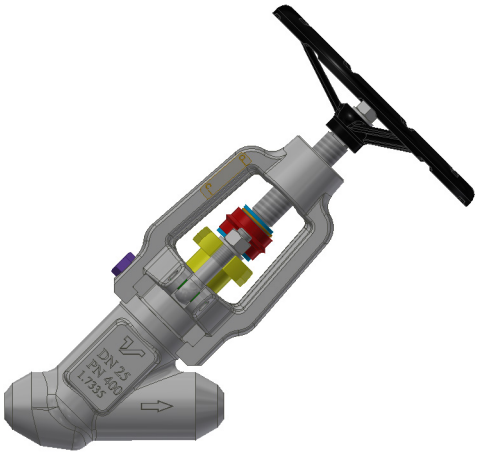


Figure B.9 – Y type (VHPY)

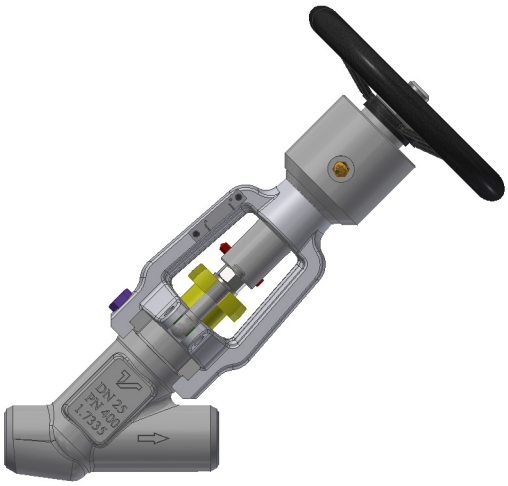


Figure B.10 – Y type (VHPY-NTRS)

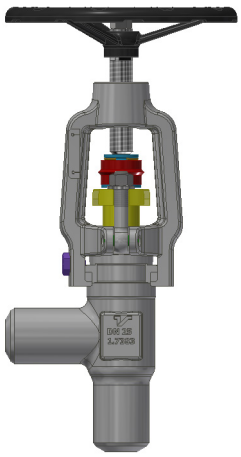


Figure B.11 – Angle type (VHPA)

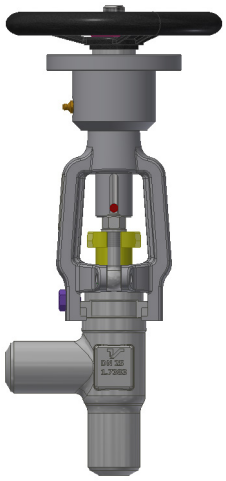


Figure B.12 – Angle type (VHPA-NTRS)

6. 6. PRESSURE & TEMPERATURE RATINGS

6.1 Pressure/Temperature ratings for EN materials

Pressure (bar)/Temperature (°C) ratings acc. to EN 12516-1 **Table B.8**

Materials	PN	-10	20	50	100	150	200	250	300	350	400	420	450	475	480	500	510	525	530	550	575	600
1.0460	250	250,0	250,0	250,0	234,1	222,1	210,1	192,1	174,1	162,0	150,0	137,4										
	320	320,0	320,0	320,0	299,6	284,2	268,9	245,8	222,8	207,4	192,1	175,8										
	400	400,0	400,0	400,0	374,5	355,3	336,1	307,3	278,5	259,3	240,1	219,8										
1.5415	250	250,0	250,0	250,0	250,0	244,6	228,1	213,1	198,1	186,1	180,1	177,4	166,8	163,8	163,2	113,4	98,7	70,7	62,7			
	320	320,0	320,0	320,0	320,0	313,1	292,0	272,8	253,6	238,2	230,5	227,1	213,6	209,8	209,0	145,1	126,4	90,5	80,2			
	400	400,0	400,0	400,0	400,0	391,3	364,9	340,9	316,9	297,7	288,1	283,9	267,0	262,2	261,2	181,4	157,9	113,1	100,3			
1.7335	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	232,9	213,4	206,0	197,2	184,7	180,7	156,0	139,5	114,7	104,8			
	320	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	298,1	273,1	263,9	252,5	236,4	231,3	199,8	178,6	146,8	83,7			
	400	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	372,6	341,4	329,6	315,6	295,5	289,1	249,7	223,2	183,5	167,7	104,6		
1.7383	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	234,7	213,4	206,0	197,2	184,7	180,7	164,5	158,9	134,7	125,4	88,0	68,0	37,3
	320	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	300,4	273,1	263,7	252,5	236,4	231,3	210,6	203,4	174,2	160,5	112,7	87,0	47,8
	400	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	375,5	341,4	329,6	315,6	295,5	289,1	263,3	254,3	215,5	200,6	140,9	108,8	59,8
1.4903	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	234,7	213,4	206,0	197,23	184,7	180,7	164,5	158,9	150,4	149,5	145,6	139,7	125,0
	320	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	300,4	273,2	263,7	252,5	236,5	231,3	210,7	203,4	192,6	191,3	186,3	177,8	160,1
	400	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	375,5	341,4	329,6	315,6	295,5	289,1	263,3	254,3	240,7	239,1	232,9	223,5	200,1

Note: Presented values belong to Standard Rating. For Special Class contact Termovent SC.

Pressure (bar)/Temperature (°C) ratings acc. to EN 12516-1 **Table B.9**

Materials	Class	-10	20	50	100	150	200	250	300	350	400	420	450	475	480	500	510	525	530	550	575	600
1.0460	1500	246,9	246,9	232,7	200,6	190,31	180,0	164,6	149,2	138,9	128,6	117,7										
	2500	411,4	411,4	387,8	334,3	317,1	300,0	274,3	248,5	231,4	214,3	196,2										
1.5415	1500	252,0	252,0	252,0	223,7	209,6	195,5	182,6	169,7	159,4	154,3	149,8	143,0	140,4	139,9	97,2	84,6	60,6	53,7			
	2500	420,0	420,0	420,0	372,8	349,2	325,7	304,3	282,8	265,7	257,1	249,6	238,3	234,0	233,1	161,9	140,9	100,9	89,5			
1.7335	1500	258,6	258,6	258,6	257,7	251,0	243,3	231,6	214,2	199,6	182,9	176,5	169,0	158,3	154,8	133,7	119,6	98,3	91,2	56,0		
	2500	430,9	430,9	430,9	429,4	418,2	405,4	386,0	357,0	332,5	304,7	294,2	281,6	263,7	258,0	222,8	199,2	163,8	152,0	93,3		
1.7383	1500	258,6	258,6	258,6	257,7	251,0	241,7	231,61	214,2	201,1	182,9	176,5	169,0	158,3	154,8	141,0	136,2	115,4	107,4	75,4	58,3	32,0
	2500	430,9	430,9	430,9	429,4	418,2	402,8	386,0	357,0	335,1	304,7	294,2	281,6	263,7	258,0	235,0	226,9	192,4	179,1	125,7	97,1	53,3
1.4903	1500	258,6	258,6	258,6	257,7	251,0	243,3	231,6	214,2	201,1	182,9	176,5	169,0	158,3	154,8	141,0	136,2	128,9	128,1	124,7	119,7	107,1
	2500	430,9	430,9	430,9	429,4	418,2	405,4	386,0	357,0	335,1	304,7	294,2	281,6	263,7	258,0	235,0	226,9	214,8	213,4	207,9	199,5	178,5

Note: Presented values belong to Standard Rating. For Special Class contact Termovent SC.

6.2 Pressure/Temperature ratings for ASTM materials

Pressure (bar)/Temperature (°C) ratings acc. to EN 12516-1 **Table B.10**

Materials	PN	-10	20	38	50	100	150	200	250	300	325	350	375	400	425	450	470	500	538	550	595	600
A105	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	244,7	232,4	225,9	219,2	212,2	202,6	167,9							
	320	320,0	320,0	320,0	320,0	320,0	320,0	320,0	313,3	297,4	289,2	280,6	271,6	259,4	214,9							
	400	400,0	400,0	400,0	400,0	400,0	400,0	400,0	391,6	371,8	361,5	350,7	339,5	324,2	268,6							
F1	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	241,0	234,7	226,3	213,4	204,1	197,2	187,2					
	320	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	308,6	300,4	289,7	373,2	261,3	252,5	239,7					
	400	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	385,7	375,5	362,1	341,4	326,6	315,6	299,5					
F11Cl.2	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	241,0	234,7	226,3	213,4	204,1	197,2	187,2	150,1	86,9	74,1	38,8	
	320	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	308,6	300,4	289,7	273,1	261,3	252,5	239,6	192,2	111,3	94,9	49,6	
	400	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	385,7	375,5	362,1	341,4	326,6	315,6	299,5	240,2	139,1	118,6	62,0	
F22Cl.3	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	241,0	234,7	226,31	213,4	204,1	197,2	187,2	164,5	107,6	91,2	44,4	
	320	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	308,6	300,4	289,7	273,1	261,3	252,5	239,6	210,6	137,8	116,8	56,9	
	400	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	385,7	375,5	362,1	341,4	326,6	315,6	299,5	263,3	172,2	146,0	71,1	
F91	250	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	250,0	241,0	234,7	226,3	213,4	204,1	197,2	187,2	164,5	146,2	145,6	119,0	113,8
	320	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	308,6	300,4	289,7	272,9	261,3	252,5	239,6	210,6	187,1	186,3	152,3	145,7
	400	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	400,0	385,7	375,5	362,1	341,4	326,6	315,6	289,1	263,3	233,9	232,9	190,4	182,1

Note: Presented values belong to Standard Rating. For Special Class contact Termovent SC.

Pressure (bar) / Temperature (°C) ratings according to ASME B16.34 **Table B.11**

Materials	Class	-29÷38	50	100	150	200	250	300	325	350	375	400	425	450	470	500	538	550	595	600
A105	1500	255,3	250,6	233,0	225,4	219,0	209,7	199,1	193,6	187,8	181,8	173,6	143,8							
	2500	425,5	417,7	388,3	375,6	365,0	349,5	331,8	322,6	313,0	303,1	289,3	239,7							
F1	1500	240,1	240,1	236,7	236,7	229,0	222,5	214,4	206,6	201,1	194,1	183,1	175,1	169,0	160,4					
	2500	400,1	400,1	399,5	394,5	381,7	370,9	357,1	344,3	335,3	323,2	304,9	291,6	281,8	267,3					
F11Cl.2	1500	258,6	258,6	257,4	248,7	239,8	231,8	214,4	206,6	201,1	194,1	183,1	175,1	169,0	160,4	128,6	74,5	63,5	33,2	
	2500	430,9	430,9	429,0	414,5	399,6	386,2	357,1	344,3	335,3	323,2	304,9	291,6	281,8	267,3	214,4	124,1	105,9	55,4	
F22Cl.3	1500	258,6	258,6	257,6	250,8	243,4	231,8	214,4	206,61	201,1	194,1	183,1	175,1	169,0	160,4	140,9	92,2	78,2	38,1	
	2500	430,9	430,9	429,4	418,2	405,4	386,2	357,1	344,3	335,3	323,2	304,9	291,6	281,8	267,3	235,0	153,7	130,3	42,9	
F91	1500	258,6	258,6	257,6	250,8	243,4	231,8	214,4	206,6	201,1	194,1	183,1	175,1	169,0	160,4	140,9	125,5	124,9	101,9	93,1
	2500	430,9	430,9	429,4	418,2	405,4	386,2	357,1	344,3	335,3	323,2	304,9	291,6	281,8	267,3	235,0	208,9	208,0	169,9	155,1

Note: Presented values belong to Standard Rating. For Special Class contact Termovent SC.

7. MARKING & LABELING

Globe valve shall be marked in accordance with general design specification and the requirements of standard EN 19 or ANSI/MSS SP-25-2018.

7.1 Marking

General marking of the valve Table B.12

Item[a]	Subject		Marking	
			PN designed valves	**Class designed valves**
1	Product identification	Type	VHP & VHP-NTRS	VHP & VHP-NTRS
		Serial number	xxxx.xx.xx/xx	xxxx.xx.xx/xx
2	Nominal size		DN xxx	DN xxx
3	PN/Class designation		PN xxx	Class xxxx
4	Body material		xxx	xxx
5	Heat batch identification		xxx	xxx
6	Allowable flow direction arrow		→	→
7	Manufacturer's name and registered trade details		Termovent SC Serbia	Termovent SC Serbia
8	Ring joint number		-	R xx
9	Maximum allowable temperature, *TS*max		xx °C or xx C	xx °C or xx C
	Minimum allowable temperature, *TS*min		xx °C or xx C	xx °C or xx C
10	Threaded end identification		*R*, *R*c, *R*p, G, NPT	*R*, *R*c, *R*p, G, NPT
			or other markings according to the relevant standard	or other markings according to the relevant standard
11	Maximum allowable pressure PS		xx bar	xx bar
12	Trim identification		xxx	xxx
13	Month / year of manufacturing		mm/yy	mm/yy

[a] *Other (additional) markings may be requested by the user or recommended by the manufacturer.*

7.1.1 Additional Marking

Equipment that meets specific requirements for safety and operation in potentially explosive atmospheres should be marked with an additional mark as follows:

CE

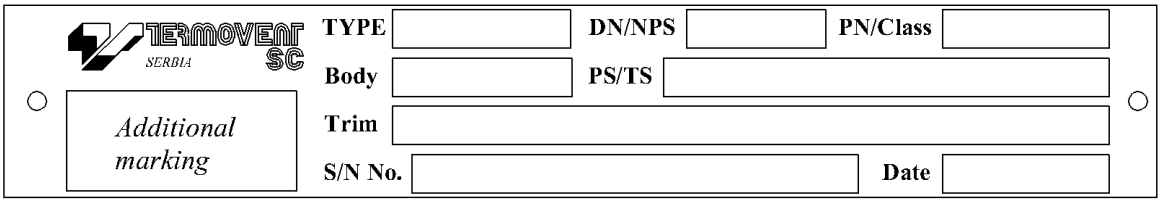
The valves satisfy the safety requirements of Annex I of the European Pressure Equipment Directive 2014/68/EU (PED) for fluids in Groups 1 and 2.

Ex

The valves do not have a potential internal source of ignition and can be used in potentially explosive atmospheres, Group II, category 2 (zones 1+21) and category 3 (zone 2+22) to ATEX 2014/34/EU.

7.2 Labeling

Valve information can be found on the valve body, and the typical valve nameplate is shown on the Figure B.13.



TYPE	Type of valve
DN / NPS	Nominal valve size
Rating designation	Nominal pressure
Body	Material
PS / TS	Pressure-temperature rating
S / N No.	Serial Number
Date	Date of manufacture
Additional marking	As per 7.1.1

Figure B.13

8. SURFACE PROTECTION *

The supplied valves are already protected against corrosion with a manufacturer-standard paint system. The protective paint system meets the requirements of ISO 12944 for corrosion category C3-M.

** Note: At the customer's request, a special surface protection and color different from the standard can be applied.*

9. PACKAGING

Termovent SC products are packed in standard boxes to ensure safe transport by truck to their destination. The standard packaging includes boxes made of OSB-3 panels fixed on a heat-treated wooden pallet and further protected by outer nylon foil.

It's important to note that standard crates are not stackable.

However, upon request, the packaging can be customized to meet specific customer requirements, such as stackable or sea-worthy packaging.

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