

- **Globe valves** ▪ High pressure globe valve HD 2000 ▪ 200 LM ▪ PN 500 ▪ DN 10-65
- **Globe valves** ▪ Lift check valve HD 2000 ▪ 240 MT ▪ PN 500 ▪ DN 10-65



**ASME**  
version  
available

**Range of application**

Admissible operating pressure [bar] at design temperature [°C] <sup>1)</sup>

Material	PN	20	50	100	120	150	200	250	300	350	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570	580 <sup>2)</sup>	590 <sup>2)</sup>	600 <sup>2)</sup>	610 <sup>2)</sup>	620 <sup>2)</sup>	630 <sup>2)</sup>	640 <sup>2)</sup>	650 <sup>2)</sup>				
<b>1.0460</b>	500	550	550	550	550	550	550	518	463	389	315	300	285	270	255	240	213	177	146																					
<b>1.5415</b>	500	550	550	550	550	550	550	550	550	537	518	514	510	507	503	500	496	493	489	426	333	253	200	160																
<b>1.7335</b>	500	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	500	426	338	275	222	173	142	116												
<b>1.7383<sup>2)</sup></b>	500	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	500	437	381	333	289	252	214	189	163	140	124									
<b>1.4903<sup>2)</sup></b>	500	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	500	465	430	380	338	298	261	231	198	172			
<b>1.4901<sup>2)</sup></b>	500	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	526	470	419	370	322	278	241	207			
<b>1.4550</b>	500	550	550	550	550	550	550	544	504	481	463	460	456	454	451	449	447	445	443	442	441	440	439	438	437	437	436	435	434	433	396	363	320	271	240	207				

1) Operating temperature = design temperature minus temperature surcharge acc. to DIN regulations.

2) For temperatures > 570 °C, stem in 1.4980 and high-temperature-packing.

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#### Standard features

- Disc and stem in one piece
- Die-forged valve body
- Non-turning, rising stem
- Position indicator / Anti-rotation device
- Throttle disc
- Yoke sleeve supported by needle bearings
- Greater than DN 20 with integral actuator flange
- Back seat type available (200 LS / 200 LJ)
- All HD 2000 valves also available in angle pattern (e.g. 202 LM)

#### Pressure and temperature ratings

- Pressure rating up to 550 bar
- Temperature rating from -10 °C up to 650 °C (depending on selected material)

#### Materials

- 1.0460
- 1.4550
- 1.4901
- 1.4903
- 1.5415
- 1.7335
- 1.7383 Further materials on request.

#### Media

Depending on the material the valves are suitable for water, gas, oil and other non aggressive media

#### Fields of application

High temperature steam and water, refining (catalytic reformers and hydrocrackers, petrochemical and chemical industries)

#### Design Highlights

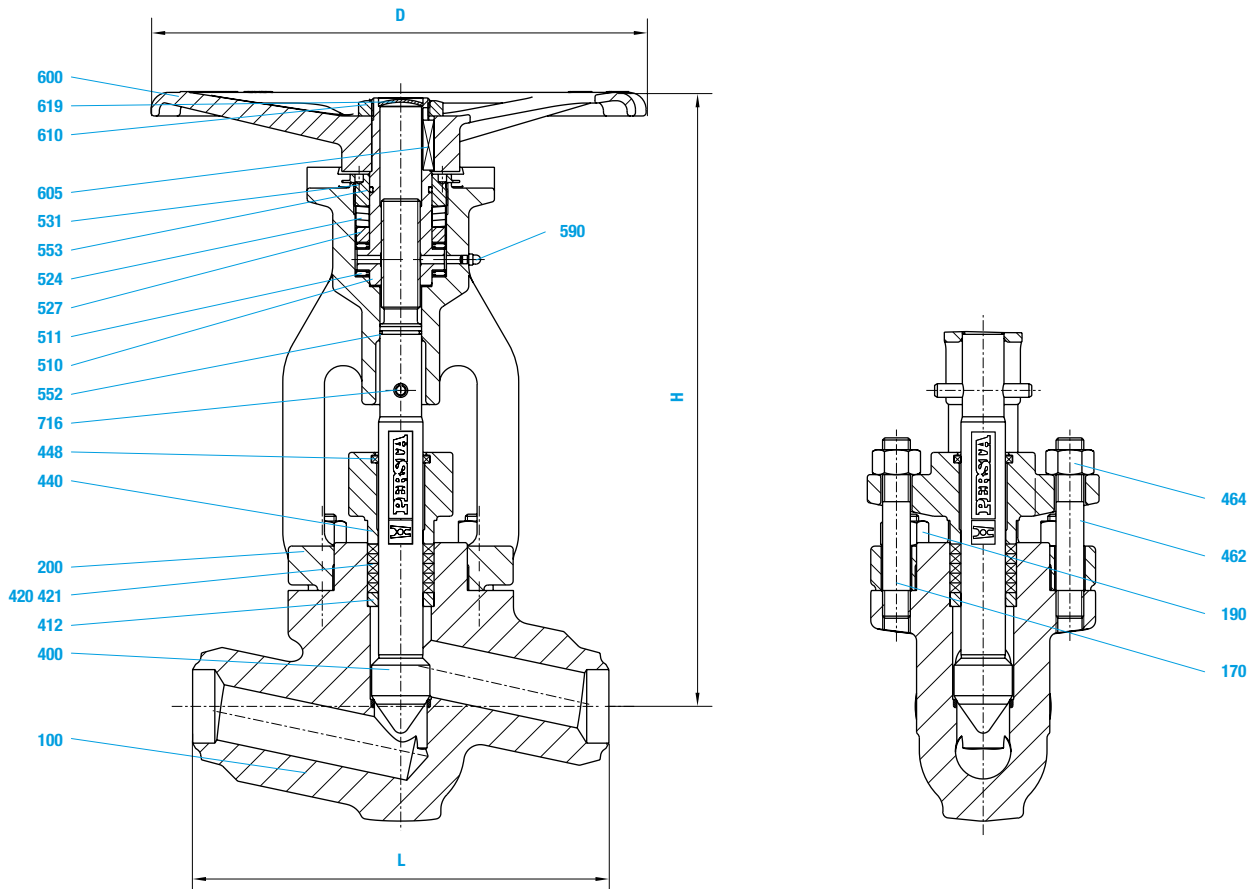
- Body seat: tapered seat welded on integrally with stellite
- Disc and stem in one piece; up from 570 °C with stellite tapered seat
- Sealing to the outside only by means of the gland packing
- Body and bonnet in two separate pieces with bolted connection
- Yoke sleeve made of bronze
- Cup springs above the upper needle bearing

#### Benefits

- No pressed in or screwed seat ring, therefore no crevice corrosion or loosening
- Damage between disc and stem due to high flowrates is prevented
- No bonnet gasket, therefore reduction of possible leakage areas
- To ease maintenance work, e.g. regrinding of the body seats
- Good emergency running properties
- To maintain the necessary closing forces when dimensions change between stem and yoke arms due to thermal fluctuation

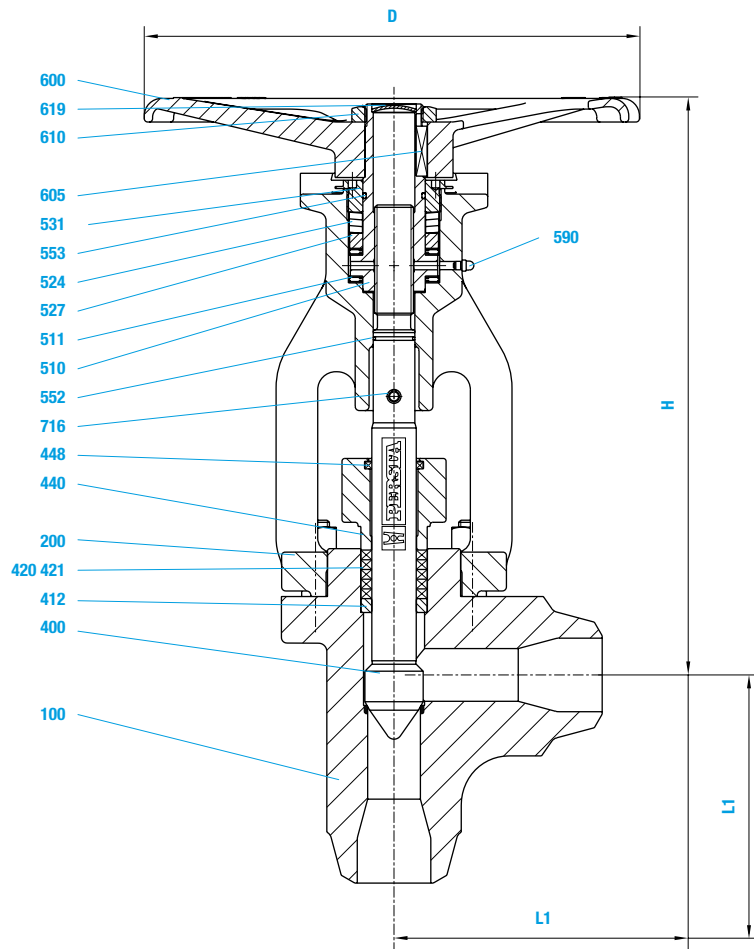
▪ **Globe valves** ▪ High pressure globe valve HD 2000 ▪ 200 LM ▪ PN 500 ▪ DN 10-65

200 LM Shut-off globe valve



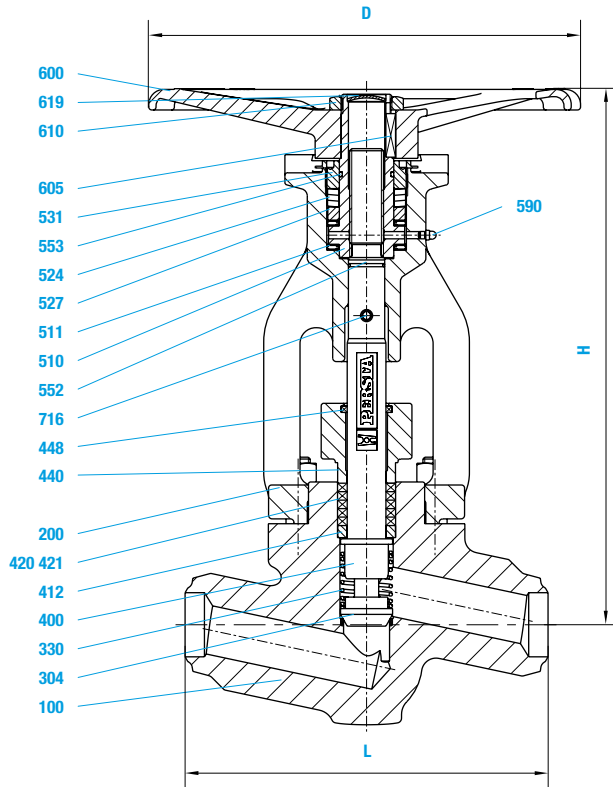
- **Globe valves** ▪ High pressure globe valve HD 2000 ▪ 202 LM ▪ PN 500 ▪ DN 10-65

**202 LM Shut-off globe valve**

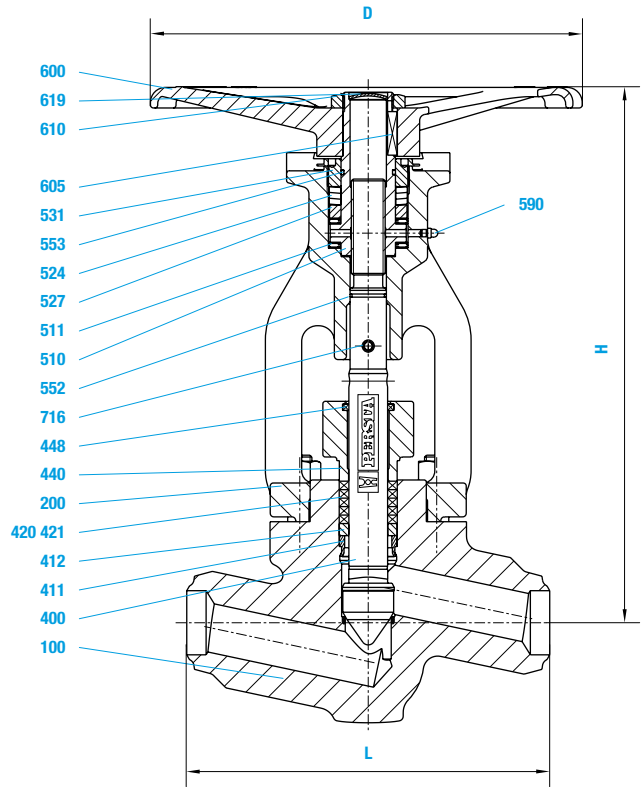


- **Globe valves** ▪ High pressure globe valve HD 2000 ▪ 200 LS ▪ PN 500 ▪ DN 10-65
- **Globe valves** ▪ Stop check valve ▪ 240 MM ▪ PN 500 ▪ DN 10-65
- **Globe valves** ▪ Lift check valve HD 2000 ▪ 240 MT ▪ PN 500 ▪ DN 10-65

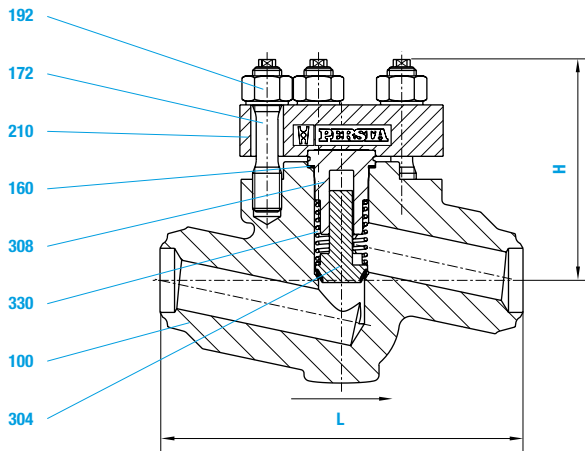
**240 MM Stop check valve**  
also available in angle pattern



**200 LS globe valve with back seat**  
also available in angle pattern



**240 MT Lift check valve**  
also available in angle pattern



- **Globe valves** ▪ High pressure globe valve HD 2000 ▪ 200 LM/LS ▪ PN 500 ▪ DN 10-65
- **Globe valves** ▪ Stop check valve ▪ 240 MM ▪ PN 500 ▪ DN 10-65
- **Globe valves** ▪ Lift check valve HD 2000 ▪ 240 MT ▪ PN 500 ▪ DN 10-65

Materials								
Pos.	Component	1.0460 (21)	1.5415 (42)	1.7335 (44)	1.7383 (45) <sup>2)</sup>	1.4903 (63) <sup>2)</sup>	1.4901(66) <sup>2)</sup>	1.4550 (89)
100	Body welded on with	1.0460	1.5415	1.7335	1.7383	1.4903	1.4901	1.4550
		Stellite	Stellite	Stellite	Stellite	Stellite	Stellite	Stellite
160	▶ Gasket	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
170	Stud	1.7709	1.7709	1.7709	1.7709	1.4923	1.4923	1.4980
172	Stud	1.4923	1.4923	1.4923	1.4923	1.4986	1.4986	1.4986
190	Hexagonal nut	1.7218	1.7709	1.7218	1.4986	1.4986	1.4923	1.4986
192	Hexagonal nut	1.4923	1.4923	1.4923	1.4923	1.4986	1.4986	1.4986
200	Bonnet	1.7379	1.7379	1.7379	1.7379	1.7379	1.7379	1.7379 <sup>3)</sup>
210	Cover	1.7380	1.7380	1.7380	1.7380	1.4903	1.4901	1.4550
304	▶ Disc	1.4923	1.4923	1.4923	1.4923	1.4923	1.4923	1.4980
308	Guide bush	1.4923	1.4923	1.4923	1.4923	1.4980	1.4980	1.4980
330	Pressure spring	2.4669	2.4669	2.4669	2.4669	2.4699	2.4699	2.4669
400	▶ Stem	1.4122 <sup>1)</sup>	1.4122 <sup>1)</sup>	1.4122 <sup>1)</sup>	1.4122 <sup>1)2)</sup>	1.4122 <sup>1)2)</sup>	1.4122 <sup>1)2)</sup>	1.4980 <sup>1)</sup>
411	Back seat ring	1.4980	1.4980	1.4980	1.4980	1.4980	1.4980	1.4980
412	Guide sleeve	0.7660	0.7660	0.7660	0.7660	0.7660	0.7660	0.7660
420	▶ Packing	Pure graphite	Pure graphite	Pure graphite	Pure graphite	Pure graphite	Pure graphite	Pure graphite
421	▶ Thrust ring	Pure graphite	Pure graphite	Pure graphite	Pure graphite	Pure graphite	Pure graphite	Pure graphite
440	Gland flange	1.7379	1.7379	1.7379	1.7379	1.7379	1.7379	1.7379 <sup>3)</sup>
448	▶ Dirt scraper	Graphite plait	Graphite plait	Graphite plait	Graphite plait	Graphite plait	Graphite plait	Graphite plait
462	Stud	1.7709	1.7709	1.7709	1.7709	1.4923	1.4980	1.4980
464	Hexagonal nut	1.7218	1.7218	1.7218	1.7218	1.4923	1.4923	1.4986
510	▶ Yoke sleeve	CW 713 R	CW 713 R	CW 713 R	CW 713 R	CW 713 R	CW 713 R	CW 713 R
511	▶ Bearing	WLSt	WLSt	WLSt	WLSt	WLSt	WLSt	WLSt
524	Spring	1.8159	1.8159	1.8159	1.8159	1.8159	1.8159	1.8159
527	Supporting ring	1.4021	1.4021	1.4021	1.4021	1.4021	1.4021	1.4021
531	Screwing	1.0460	1.0460	1.0460	1.0460	1.0460	1.4122	1.0460
552	▶ O-Ring	Viton	Viton	Viton	Viton	Viton	Viton	Viton
553	▶ O-Ring	Viton	Viton	Viton	Viton	Viton	Viton	Viton
590	Grease nipple	5.8	5.8	5.8	5.8	5.8	5.8	5.8
600	Handwheel	5.3106	5.3106	5.3106	5.3106	5.3106	5.3106	5.3106
605	Key	1.0060	1.0060	1.0060	1.0060	1.0060	1.0060	1.0060
610	Hexagonal nut	St	St	St	St	St	St	St
619	Lock washer	St	St	St	St	St	St	St
716	Tension pin	1.0904	1.0904	1.0904	1.0904	1.0904	1.0904	1.0904

▶ Spare parts

1) On request stem with stellite seats  
 2) For temperatures > 570 °C stem with stellite seats in 1.4980 and high-temperature-packing.  
 3) Nickel plated

Dimensions/mm								
DN	L	L1	H	H1	Stroke	R/ Stroke	D	DIN/ISO 5210
<b>10</b>	150	75	228	99	10	5	140	F07 <sup>1)</sup>
<b>15</b>	150	75	228	99	10	5	140	F07 <sup>1)</sup>
<b>20</b>	180	90	280	122	16	8	225	F10
<b>25</b>	180	90	280	122	16	8	225	F10
<b>32</b>	300	150	445	182	27	9	360	F10/F14
<b>40</b>	300	150	445	182	27	9	360	F10/F14
<b>50</b>	300	150	445	182	27	9	360	F10/F14
<b>65</b>	360	200	563	208	36	12	450	F14/F16

1) Specify flange ends when placing order

Attention: In case of welding connections the permissible operating overpressure is valid for the corresponding tube dimension.

Weights/kg and Kvs-values						
DN	BW 200 LM	BW 202 LM	BW 240 MM	BW 200 LS	BW 240 MT	Kvs (m <sup>3</sup> /h) 200 LM / LS
<b>10</b>	6,0	6,0	6,0	6,0	3,8	2,3
<b>15</b>	6,0	6,0	6,0	6,0	3,8	3,4
<b>20</b>	11,5	11,5	11,5	11,5	7,9	6,2
<b>25</b>	11,3	11,3	11,3	11,3	7,7	7,9
<b>32</b>	47,5	47,5	47,5	47,5	30,5	20,0
<b>40</b>	47,0	47,0	47,0	47,0	30,0	24,1
<b>50</b>	46,5	46,5	46,5	46,5	29,5	28,3
<b>65</b>	107,0	107,0	128,0	107,0	72,0	48,5