ASME
version
available

HIGH PRESSURE GLOBE VALVE

HD 91.1 200 JM PN 320 DN 20-65/50

Design highlights

- Body seat as integral edge seat, armoured with Stellite
- Stem with disc > 570 °C with armoured Stellite edge seat
- External seal only provided by gland packing
- Body and bolted bonnet
- Yoke sleeve in special brass
- Retrofittable actuator flange

Advantages

- No seat ring, therefore no gap corrosion and separation
- No damage between disc and stem due to high flow speeds
- No cover gasket, therefore reduction of possible leackage
- Improved service options, e.g. when regrinding the body seat
- Good emergency running characteristics
- Retrofitting the valve with an electric actuator

Version

- Flow passage with straight top part
- Forged body
- Non-rotating, rising stem
- Position indicator / anti-twist device
- Throttle disc
- neadle bearing yoke sleeve on both sides
- Retrofittable actuator connection flange

Operating data

- Operating pressure up to 320 bar
- Operating temperature from -10 °C to 600 °C

Materials

- 1.0460
- 1.5415
- 1.7335
- 1.7383

Other materials available on request.

Flow medium

Depending on the choice of materials, the valves can be used for water, steam, gas, oil or other non-aggressive media.

Applications

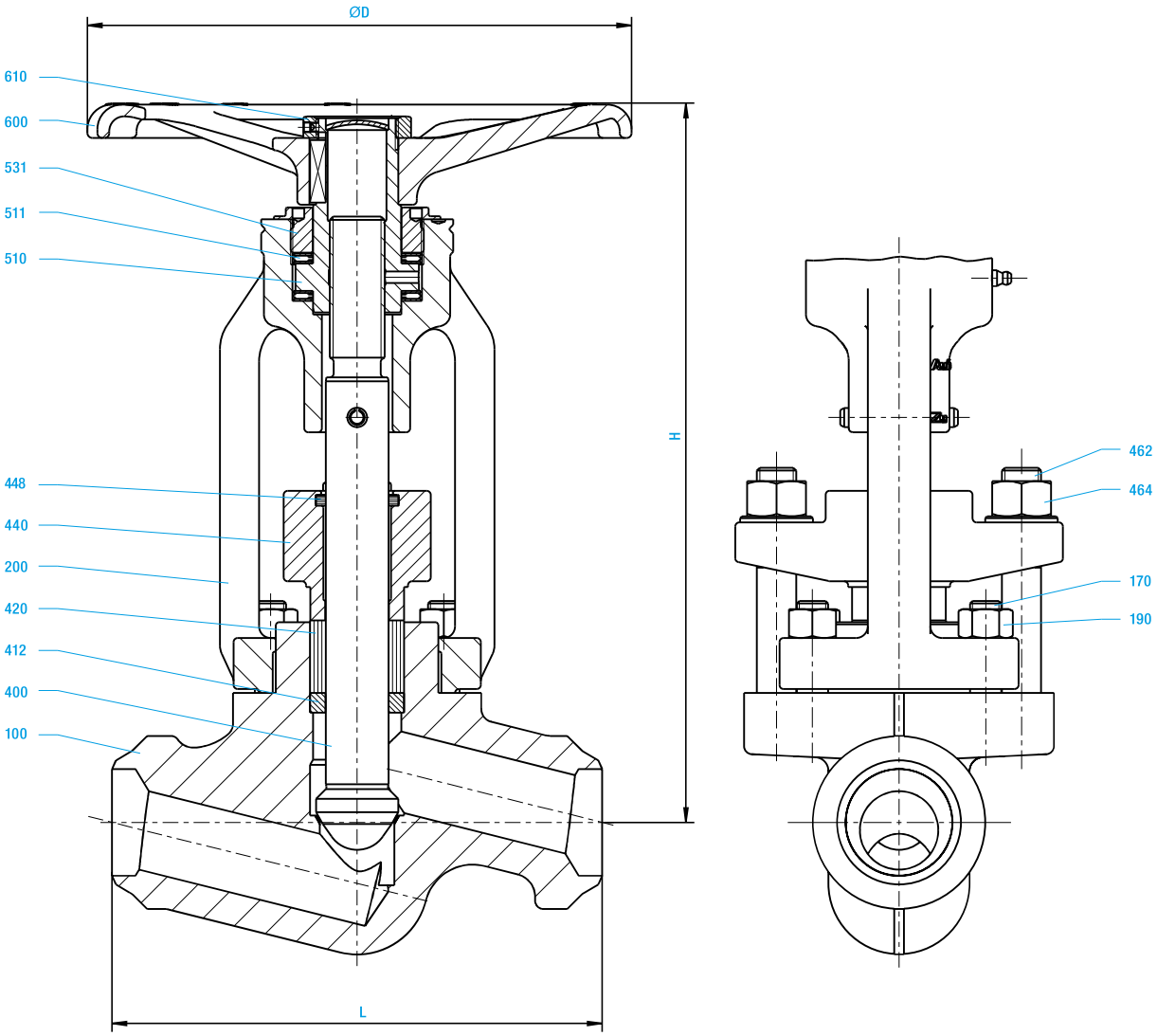
In industrial plants, power stations, process engineering plants and in shipbuilding.

Area of application

Permissible operating pressure [bar(g)] at calculation temperature [°C] [1)]

Material	PN	-10	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 [2)]	590 [2)]	600 [2)]
1.0460	**320**	320	320	320	320	320	320	302	264	236	198	160	153	145	138	130	123	109	91	75												
1.5415	**320**	320	320	320	320	320	320	320	320	283	273	264	262	260	258	256	255	253	251	249	217	170	129	102	81							
1.7335	**320**	320	320	320	320	320	320	320	320	320	320	311	307	304	300	296	292	290	289	287	285	258	217	172	140	113	88	72	59			
1.7383	**320**	320	320	320	320	320	320	320	320	320	320	320	320	320	319	315	311	307	304	300	287	255	223	194	170	147	128	109	96	83	72	63

1) Operating temperature = calculation temperature minus temperature surcharge according to the standard codes.
2) For temperatures > 570 °C, stem material 1.4923 and high-temperature packing



Materials

Item	Designation	1.0460 (21)	1.5415 (42)	1.7335 (44)	1.7383 (45)
100	Body	1.0460	1.5415	1.7335	1.7383
	Body seat	Stellite	Stellite	Stellite	Stellite
170	Bolt	1.7709	1.7709	1.7709	1.7709
190	Hexagonal nut	1.7218	1.7218	1.7218	1.7218
200	Bonnet	1.7379	1.7379	1.7379	1.7379
400	*Stem*	*1.4122 1)*	*1.4122 1)*	*1.4122 1)*	*1.4122 1)2)*
412	Guide sleeve	0.7660	0.7660	0.7660	0.7660
420	*Packing*	*Pure graphite*	*Pure graphite*	*Pure graphite*	*Pure graphite 2)*
440	Gland	1.7379	1.7379	1.7379	1.7379
448	*Packing ring*	*Graphite mesh*	*Graphite mesh*	*Graphite mesh*	*Graphite mesh*
462	Bolt	1.7709	1.7709	1.7709	1.7709
464	Hexagonal nut	1.7218	1.7218	1.7218	1.7218
510	*Yoke sleeve*	*CW 713 R*	*CW 713 R*	*CW 713 R*	*CW 713 R*
511	*Anti-friction bearing*	*WLSt*	*WLSt*	*WLSt*	*WLSt*
531	Threaded connection	1.0460	1.0460	1.0460	1.0460
600	Handwheel	5.3106	5.3106	5.3106	5.3106
610	Hexagonal nut	St	St	St	St

Spare parts

1) Disc armoured with Stellite on request, stem material 1.4923.
2) For temperatures > 570 °C, stem with disc material 1.4923, seat armoured with Stellite, and high-temperature packing.

Dimensions/mm

DN	L	H	Stroke length	Rev/stroke	ØD	DIN/ISO 5210
20	160	244	16	8	180	F10
25	160	244	16	8	180	F10
32	250	367	27	9	280	F10/F14
40	250	367	27	9	280	F10/F14
50	250	367	27	9	280	F10/F14
65 / 50	250	367	27	9	280	F10/F14

Attention: In the case of machined butt-weld ends, the permissible positive operating pressures and test pressures for the relevant pipe dimension apply.

Weights/kg and Kvs value m³/h

DN	Butt-weld ends	Kvs * [m³/h]
20	8.1	6.2
25	8.1	7.9
32	27.5	20
40	27.5	24.1
50	27.5	28.3
65 / 50	27.5	28.3

* Deviations are possible due to changed connection dimensions.