

N310

Sizes 2" – 12"



Description

This heavy-duty globe valve complies with API and BS standards. The seat ring and wedge disc are precision-ground and lapped to achieve mirror-like finishes, ensuring optimal sealing surfaces. A plug-type disc is standard, with flat and regulating discs available upon request.

The heat-treated stainless steel stem features precision-machined ACME threads for extended service life. A machined backseat bushing provides a secondary metal-to-metal stem seal. The rising stem clearly indicates the valve's open/closed position, and the large-diameter handwheel allows for easy operation.

The yoke sleeve is constructed from austenitic ductile iron, offering excellent resistance to heat, corrosion, and wear. A two-piece, self-aligning gland bushing and gland flange prevent damage, reinforced by high-strength alloy steel stud bolts.

- **Body/bonnet austenitic stainless steel castings offer excellent impact strength at low temperature and corrosion protection.**
- **Hard facing on seating surfaces available**
- **Customizable bonnet extension**
- **Optional degrease, clean and seal to prevent contamination**
- **Rising, non-rotating, one-piece stem design available**

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Cryogenic Globe Valve API 600 Class 150-900

- **Bolted or welded bonnet design**
- **Hand and Gear Wheel Operated (Actuation Available)**
- **Extended bonnet to isolate the packing from the cryogenic fluid**
- **Flexible wedge with pressure relief vent**
- **Low emission design**
- **High-Pressure and High-Temperature Capabilities**



Beschreibung

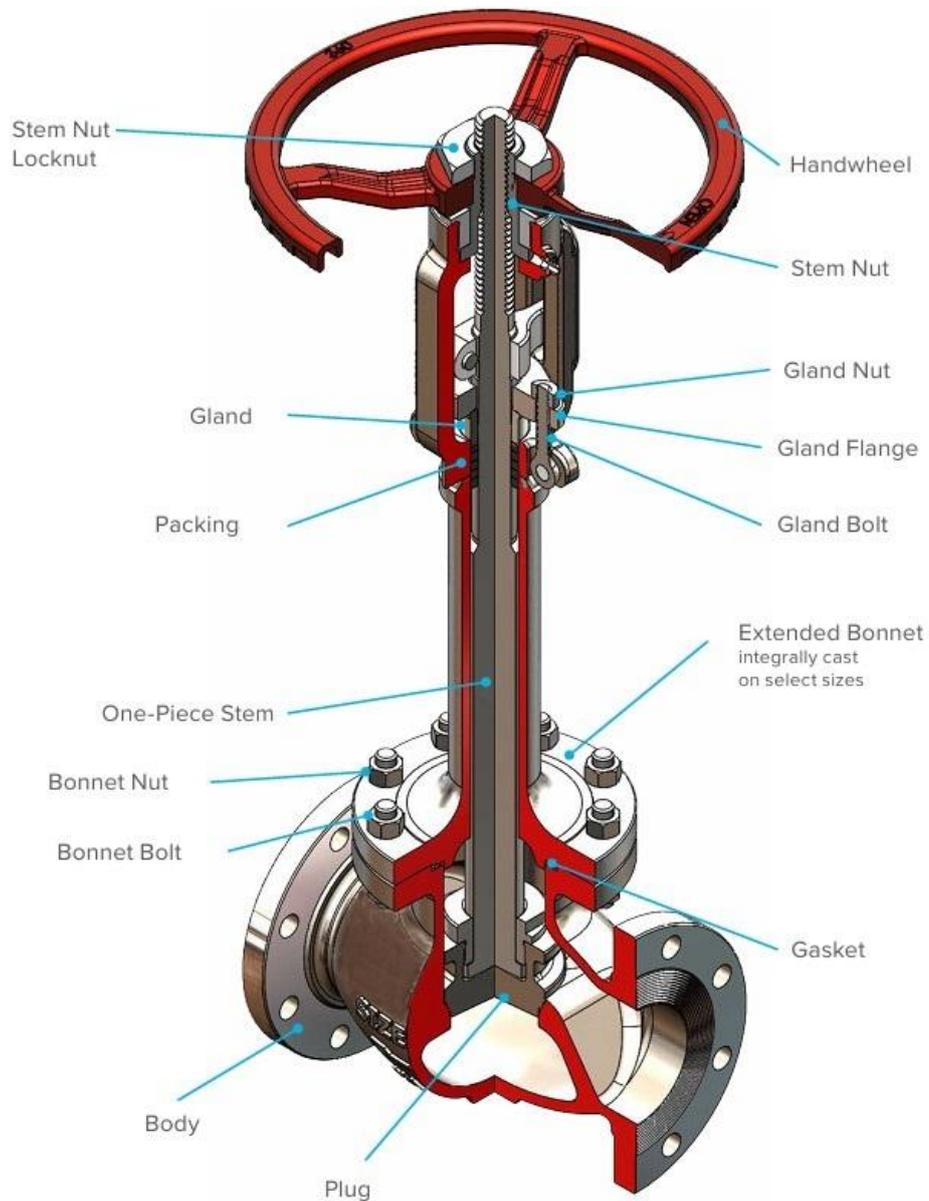
Konstruiert nach API 6D und druckgeprüft gemäß API 598/EN 12266-1, bietet dieses robuste Flansch-Absperrventil hervorragende Langlebigkeit für anspruchsvolle industrielle Anwendungen, Kesselanlagen und raue Umgebungen. Das Ventil ist mit ANSI 150 Flanschen erhältlich und gewährleistet durch ein robustes Handrad eine maximale Lebensdauer.



Description

Designed to API 6D and pressure tested according to API 598/EN 12266-1, this robust flanged gate valve offers exceptional durability for demanding industrial applications, boiler systems, and harsh environments. Available with ANSI 150 flanges, the valve ensures maximum service life through a sturdy handwheel.

Cast Cryogenic Globe Valve



- Threaded, socket weld, butt weld ends class 150 – 600
- Tested in accordance to API 598
- Flanged ends class 150 to class 1500
- Class 150–600
- Hard facing on seating surfaces available
- Customizable bonnet extension

Material Design

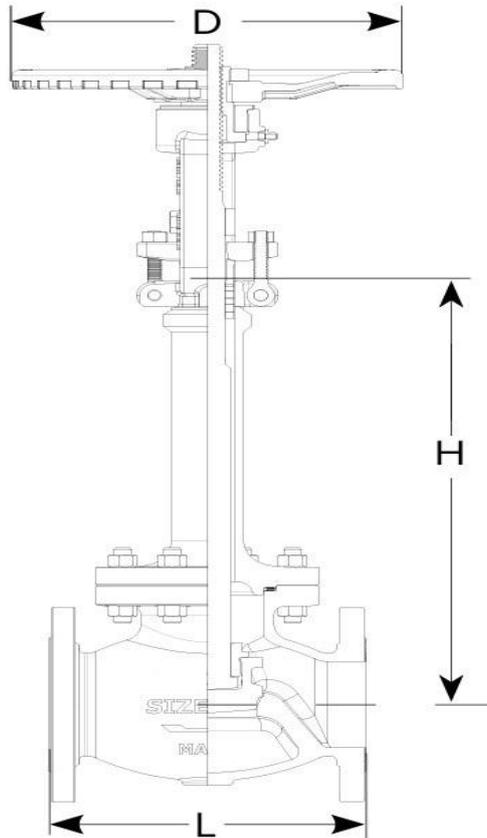
Component	Common Materials	Remarks
Body & Bonnet	SS304; ASTM A351 CF8 / ASTM A182 F304	High strength, corrosion-resistant, good at cryogenic temperatures
	SS316; ASTM A351 CF8M / ASTM A182 F316	Better corrosion resistance (Mo added)
	SS304L; ASTM A351 CF3 / ASTM A182 F304L	Low carbon, better weldability
	SS316L; ASTM A351 CF3M / ASTM A182 F316L	Low carbon version of SS316
	Low-Temp Carbon Steel; ASTM A352 LCB / LCC	Suitable for moderate cryogenic applications
	Duplex Stainless Steel; ASTM A995 Gr. 4A / 6A	High strength, corrosion-resistant
	Monel 400; ASTM A494 M35-1	Excellent corrosion resistance, good at cryogenic temperatures
Disc / Plug	SS316; ASTM A182 F316	Good corrosion resistance and mechanical strength
	SS316L; ASTM A182 F316L	Low carbon for better weld ability
	Monel 400; ASTM B164 / ASTM B564 N04400	Corrosion-resistant, used for aggressive environments
	Stellite 6; Co-Cr Alloy	Excellent wear and erosion resistance
Sear Ring	SS316; ASTM A182 F316	Corrosion-resistant and good sealing properties
	Monel 400; ASTM B164 / ASTM B564 N04400	Suitable for corrosive and cryogenic applications
	Stellite 6; Co-Cr Alloy	Hard, wear-resistant, and durable
Stem	SS316; ASTM A182 F316	High strength and corrosion resistance
	SS316L; ASTM A182 F316L	Low carbon version for better weldability
	Monel 400; ASTM B164 / ASTM B564 N04400	Best for severe corrosive conditions
Gland / Packing Flange	SS304; ASTM A182 F304	Standard stainless steel for cryogenic use

	SS316; ASTM A182 F316	Corrosion-resistant, suitable for chemical environments
Packing	PTFE;-	Excellent low-friction and chemical resistance
	Graphite;-	High-temperature capability and good sealing properties
Gasket	SS304 + Graphite; ASTM A240 SS304	Common spiral-wound gasket material
	SS316 + Graphite; ASTM A240 SS316	Better corrosion resistance than SS304
	PTFE;-	Excellent chemical resistance and flexibility
Bolts & Nuts	SS304; ASTM A193 B8 / A194 8	Standard stainless steel for cryogenic applications
	SS316; ASTM A193 B8M / A194 8M	Better corrosion resistance for aggressive conditions

Material Selection Considerations:

- Low-Temperature Toughness: Austenitic stainless steels (SS304, SS316) retain good mechanical properties at cryogenic temperatures.
- Corrosion Resistance: SS316 and Monel 400 are preferred for aggressive environments.
- Wear & Erosion Resistance: Stellite 6 is commonly used for disc and seat rings to ensure durability.
- Sealing Performance: PTFE and Graphite are commonly used for packing to provide reliable sealing.
- Cost vs. Performance: Low-temperature carbon steel (LCB/LCC) is a more cost-effective option for some cryogenic applications.

Cast Cryogenic Globe VALVES



150 LBS

SIZE	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"	10"	12"
L	4.25	4.63	5.00	6.50	8.00	9.50	11.50	16.00	19.50	24.50	27.50
D	3.50	3.50	4.88	6.50	6.50	9.84	12.40	13.98	13.98	15.75	15.75
H	12	12	12	14	16	18	22	24	27	32	36
WT LBS	13	13	20	32	48	65	115	225	421	594	975

300 LBS

SIZE	½"	¾"	1"	1 ½"	2"	3"	4"	6"	8"	10"	12"
L	6.00	7.00	8.00	9.00	10.50	12.50	14.00	17.50	22.00	24.50	28.00
D	4.88	4.88	6.50	7.50	7.50	9.84	12.40	13.98	15.75	17.72	16.69
H	12	12	12	14	16	18	22	24	27	32	36
WT LBS	16	18	29	52	73	92	138	329	593	980	1,300

600 LBS

SIZE	½"	¾"	1"	1½"	2"	3"	4"	6"	8"	10"	12"
L	6.50	7.50	8.50	9.50	11.50	14.00	17.00	22.00	26.00	31.00	33.00
D	4.88	4.88	6.50	7.50	7.50	12.40	12.40	17.72	22.05	24.80	31.50
H	12		12	14	16	18	22	24	27	32	36
WT LBS	18	23	32	58	77	139	265	514	915	1,437	2,901

900 LBS

SIZE	3"	4"	6"	8"
L	15.00	18.00	24.00	29.00
D	12.40	13.98	17.72	27.95
H-OPEN	18	22	24	27
WT LBS	247	420	895	1,544