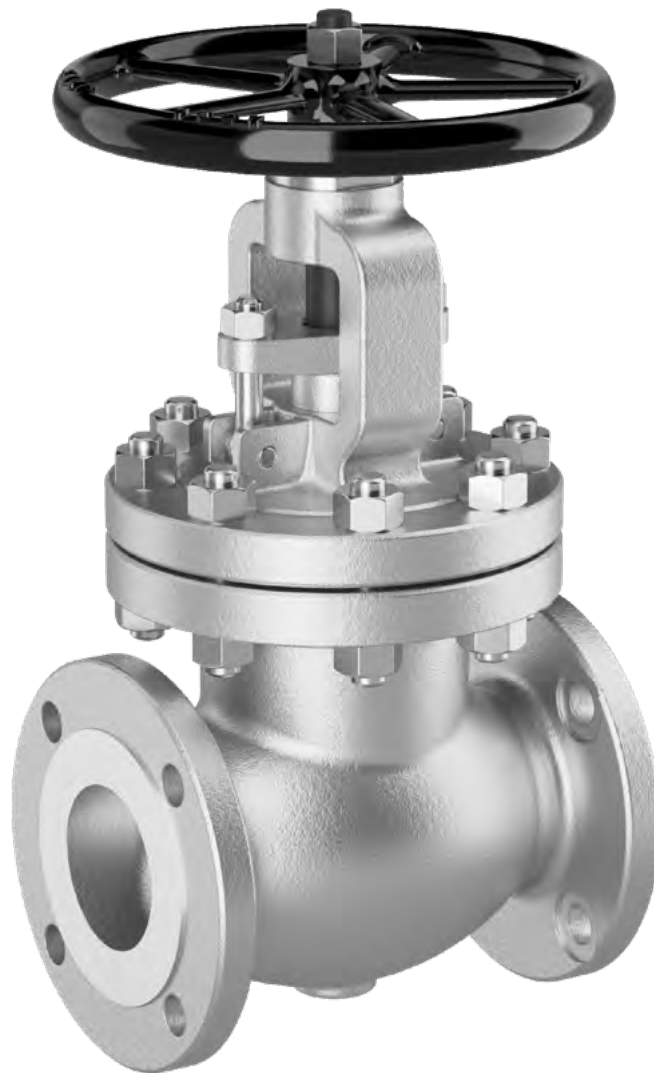


GLOBE VALVES

Beaver API 600 Cast Steel Bolted Bonnet Globe Valve

A cast steel globe valve that offers superior flow control, throttling, and shut-off service in high-pressure and high-temperature applications.

L31, L32, L33



B | E | A | V | E | R

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Beaver L31 Globe Valve

Beaver G31–G33 API 600 Cast Steel Bolted Bonnet Gate Valve

The Beaver API 600 Cast Steel Bolted Bonnet Globe Valve is suitable for throttling, shut-off, and on/off services, provided pressure drop isn't a critical factor when the valve is open.

It has a T-pattern design, which means the stem and disc travel perpendicular to the flow, and the seat opens proportionally to how far the disc has travelled. This gives the valve high flow resistance but also makes it prone to high pressure drop.

The valve has a conical plug disc which rotates freely on the stem at a differential angle to the seat ring. In the closed position, this provides complete shut-off and reduces the risk of the disc sticking in the body seat.

Beaver cast steel bolted bonnet globe valves exceed requirements set by API 600 standards. You can choose from three different pressure classes (Class 150, 300, and 600) to suit your requirements.

KEY FEATURES

- Unidirectional valve with cast steel construction that offers durability in high-pressure and high-temperature applications.
- Fully ported, spherical valve that maintains consistent flow rate with minimal resistance and turbulence.
- Unique plug and stem design provides tight shut-off and low risk of sticking in the body seat.
- Available in three pressure classes (Class 150, 300, and 600).

Need technical advice? Our friendly specialists are here to help.

L31-L33

API 600 Cast Steel Bolted Bonnet Globe Valve

Tables 1-2. L31-L33 Specifications

Technical Specifications	
Brand	Beaver
Model	L31 (Class 150) L32 (Class 300) L33 (Class 600)
Size range	Class 150: DN40-500 (1½-20") Class 300: DN50-400 (2-16") Class 600: DN50-300 (2-12")
Pressure class	Class 150/300/600
Face to face	ASME B16.10
End flange	ASME B16.5
Buttweld	ASME B16.25

Material Specifications	
Body, bonnet, gland flange	A216 WCB, A352 LCC, A217 WC6, A217 WC9, A217 C5, A217 C12, A351 CF8M
Gate	A216 WCB + 13CR, A352 LCC + 316 SS, A217 WC6 + 13CR, A217 C5 + 13CR, A217 C12 + 13CR, A315 CF8M
Seat ring	A105, LF2, A182 F11, A182 F22, A182 F5, A182 F9, A182 F316 all with Stellite
Handwheel	Malleable iron
Stem	A182 F6, A182 F316
Backseat bushing, packing gland, disc nut	A276 410, A276 316
Handwheel nut, gland eyebolt pin	AISI 1045, A276 316
Bonnet bolt, gland eyebolt	A193 B7, A320 L7, A193 B16, A193 B8
Bonnet nut, gland adjustment nut	A194 2H, A194 4, A194 8
Packing	Braided graphite and die-formed graphite rings
Gasket	Class 150 and 300: Spiral wound 316 SS + graphite Class 600: Soft ring joint
Nameplate	Stainless steel

Diagram 1. L31-L33 Parts

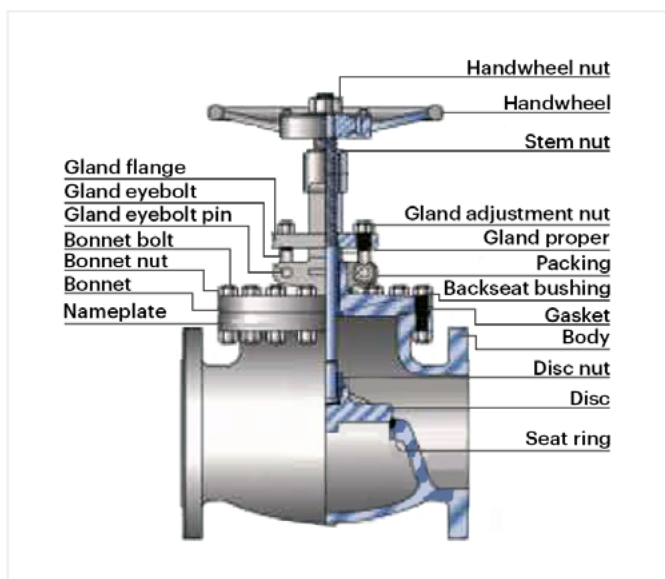
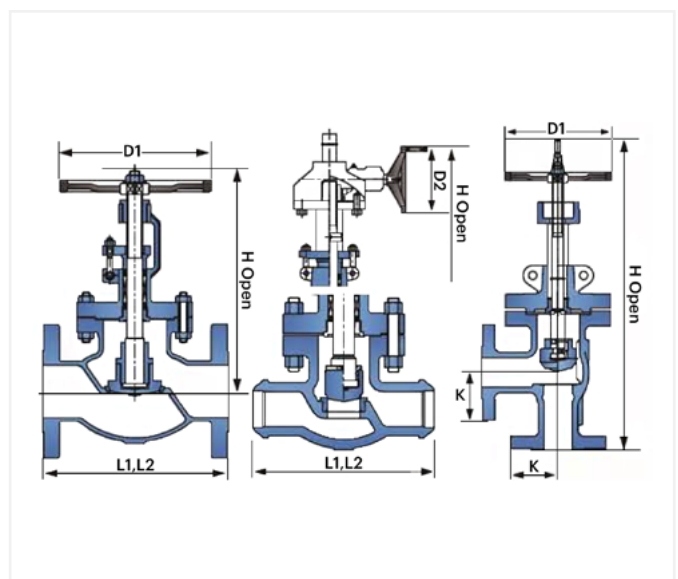


Diagram 2. L31-L33 Dimensions



L31-L33

API 600 Cast Steel Bolted Bonnet Globe Valve

Table 3. L31 Class 150 Dimensions

Product Dimensions (mm)								
Size		40	50	65	80	100	150	200
Face to face	L1 (RF)	165.1	203.2	215.9	241.3	292.1	406.4	495.3
	L2 (RTJ)	177.8	215.9	228.6	254.0	304.8	419.1	508.0
	L3 (BW)	165.1	203.2	215.9	241.3	292.1	406.4	495.3
	K (RF/BW)	82.6	101.6	108.0	120.7	146.1	203.2	247.7
Open height (H)		290.1	316.0	329.9	365.0	414.0	504.7	623.1
Handwheel diameter (D1)		180.1	199.9	249.9	249.9	300.0	350.0	450.1
Handwheel diameter (D2)						0.0	355.1	460.0
Weight (kg)	RF	17.2	20.9	28.1	34.0	51.7	94.8	168.3
	BW	15.0	16.3	24.0	27.2	40.8	73.9	143.3

Product Dimensions (mm)								
Size		250	300	350	400	450	500	
Face to face	L1 (RF)	622.3	698.5	787.4	914.4	977.9	977.9	
	L2 (RTJ)	635.0	711.2	800.1	927.1	990.6	990.6	
	L3 (BW)	622.3	698.5	787.4	929.6	990.6	990.6	
	K (RF/BW)	311.2	349.3	393.7	457.2			
Open height (H)		802.9	839.0	1345.9	1548.9	1778.0	2006.1	
Handwheel diameter (D1)		450.1	538.5	538.5	629.9	800.1	800.1	
Handwheel diameter (D2)		540.0	540.0	540.0	610.1	610.1	610.1	
Weight (kg)	RF	242.2	404.2	619.2	820.1	977.9	1280.0	
	BW	193.2	356.5	559.7	750.7	890.9	1178.0	

Table 4. L32 Class 300 Dimensions

Product Dimensions (mm)								
Size		40	50	65	80	100	150	200
Face to face	L1 (RF)	165.1	203.2	215.9	241.3	292.1	406.4	495.3
	L2 (RTJ)	177.8	215.9	228.6	254.0	304.8	419.1	508.0
	L3 (BW)	165.1	203.2	215.9	241.3	292.1	406.4	495.3
	K (RF/BW)	82.6	101.6	108.0	120.7	146.1	203.2	247.7
Open height (H)		290.1	316.0	329.9	365.0	414.0	504.7	623.1
Handwheel diameter (D1)		180.1	199.9	249.9	249.9	300.0	350.0	450.1
Handwheel diameter (D2)						0.0	355.1	460.0
Weight (kg)	RF	17.2	20.9	28.1	34.0	51.7	94.8	168.3
	BW	15.0	16.3	24.0	27.2	40.8	73.9	143.3

Product Dimensions (mm)								
Size		250	300	350	400	450	500	
Face to face	L1 (RF)	622.3	698.5	787.4	914.4	977.9	977.9	
	L2 (RTJ)	635.0	711.2	800.1	927.1	990.6	990.6	
	L3 (BW)	622.3	698.5	787.4	929.6	990.6	990.6	
	K (RF/BW)	311.2	349.3	393.7	457.2			
Open height (H)		802.9	839.0	1345.9	1548.9	1778.0	2006.1	
Handwheel diameter (D1)		450.1	538.5	538.5	629.9	800.1	800.1	
Handwheel diameter (D2)		540.0	540.0	540.0	610.1	610.1	610.1	
Weight (kg)	RF	242.2	404.2	619.2	820.1	977.9	1280.0	
	BW	193.2	356.5	559.7	750.7	890.9	1178.0	

L31-L33

API600 Cast Steel Bolted Bonnet Globe Valve

Table 5. L33 Class 600 Dimensions

Size		Product Dimensions (mm)							
		50	65	80	100	150	200	250	300
Face to face	L1 (RF)	292.1	330.2	355.6	431.8	558.8	660.4	787.4	838.2
	L2 (RTJ)	295.4	333.5	358.9	435.1	562.1	663.7	790.7	841.5
	L3 (BW)	292.1	330.2	355.6	431.8	558.8	660.4	787.4	838.2
	K (RF/BW)	133.4	146.1	158.8	203.2	247.7	298.5	336.6	381.0
Open height (H)		391.9	431.8	478.0	530.1	674.9	721.1	972.1	1073.9
Handwheel diameter (D1)		249.9	300.0	350.0	450.1	500.1	560.1	700.0	700.0
Handwheel diameter (D2)					355.1	460.0	610.1	610.1	810.0
Weight (kg)	RF	37.2	40.4	62.1	114.8	238.1	362.9	682.7	899.9
	BW	30.8	31.8	49.4	89.8	188.2	288.9	560.2	758.0



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2. Choose the right solution.

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3. Get the job done.

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