

GATE VALVES

Beaver API 600 Cast Steel Bolted Bonnet Gate Valve

A bi-directional, corrosion-resistant gate valve suited for heavy-duty slurry transport.

G31, G32, G33



B | E | A | V | E | R

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Beaver G31 Gate Valve

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

The Beaver API 600 bolted bonnet gate valve is a hard wearing, bi-directional cast steel valve suited for applications where minimal pressure loss and a free bore are required. It is often used as a stop or isolating valve.

The valve is design so that when it's fully open there is minimal obstruction of flow and low pressure drop.

A solid, flexible gate is guided to the seats to create a tight seal. The gate's flexibility is beneficial where line loads or thermal expansion could distort the seat face in the valve.

The seat ring is made with corrosion-resistant cast steel and designed to reduce turbulence in the pipe. There are no cavities in the seat to cause build-up or sticking.

This Beaver API600 bolted bonnet gate valve is manufactured according to API 600 standards.

KEY FEATURES

- Cast steel construction provides corrosion resistance and durability in severe service applications.
- Suitable as a stop or isolating valve with bi-directional flow.
- Solid, flexible gate provides a tight seal against seat even if distortion occurs.
- Seat ring design reduces turbulence in the pipe.
- Available from DN40–900 from pressure classes 150–600.

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

G31-G33

API 600 Cast Steel Bolted Bonnet Gate Valve

Tables 1-2. G31-G33 Specifications

Technical Specifications	
Brand	Beaver
Model	G31 (Class 150) G32 (Class 300) G33 (Class 600)
Size range	Class 150: DN40-900 (1½-36") Class 300: DN40-900 (1½-36") Class 600: DN50-750 (1½-30")
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, yoke, 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 WC9 + 13CR, A217 C5 + 13 CR, A217 C12 + 13 CR, 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	A276 410, A276 316
Yoke cap, handwheel nut, gland eyebolt pin	AISI 1045, A276 316
Bonnet bolt, gland eyebolt, yoke bolt	A193 B7, A320 L7, A193 B16, A193 B8
Bonnet nut, gland adjustment nut, yoke nut	A194 2H, A194 4, A194 8
Packing	Braided graphite and die-formed graphite rings
Nameplate	Stainless steel

Diagram 1. G31-G33 Parts

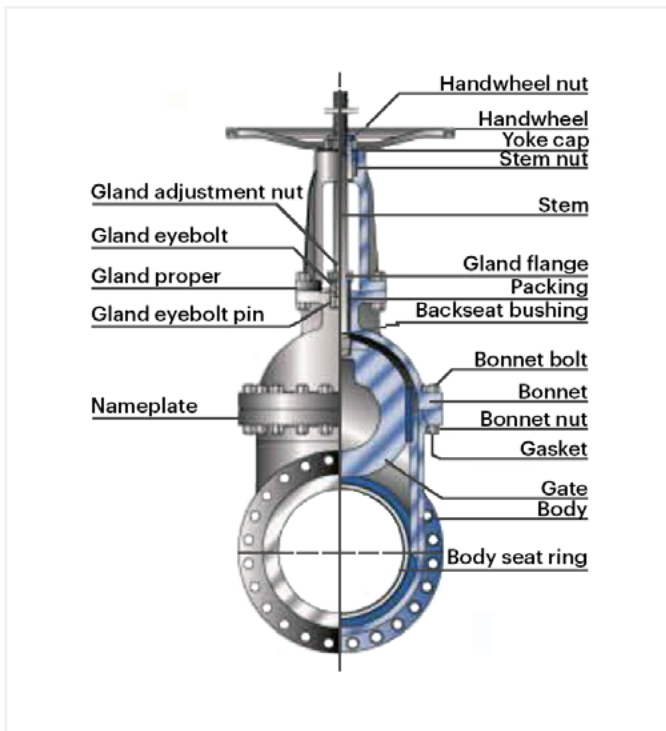
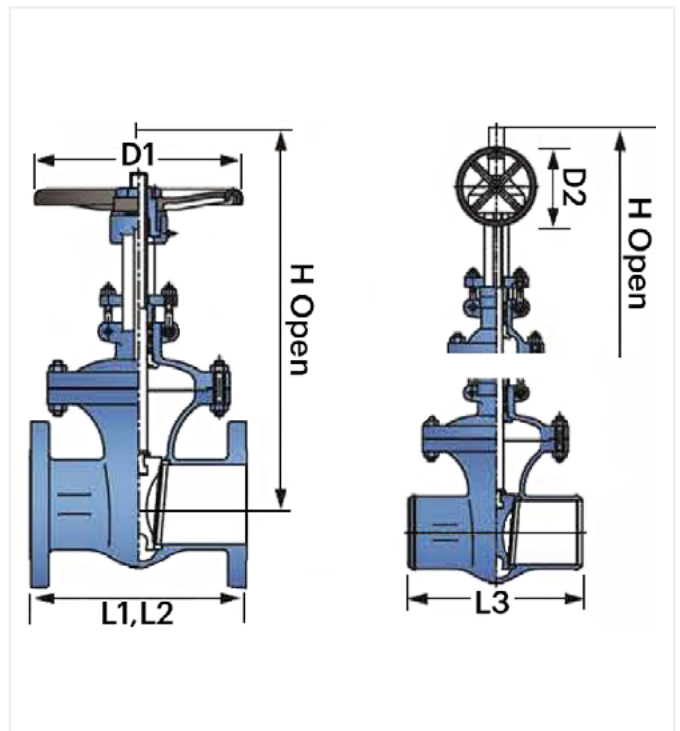


Diagram 2. G31-G33 Dimensions



G31-G33

API 600 Cast Steel Bolted Bonnet Gate Valve

Table 3. G31 Class 150 Dimensions

Size		Product Dimensions (mm)							
Size		40	50	65	80	100	150	200	250
Face to face	L1 (RF)	165.1	177.8	190.5	203.2	228.6	266.7	292.1	330.2
	L2 (RTJ)	177.8	190.5	203.2	215.9	241.3	279.4	304.8	342.9
	L3 (BW)	165.1	215.9	241.3	282.7	304.8	403.4	419.1	457.2
Open height (H)		324.1	367.0	397.0	458.0	560.1	763.0	960.1	1166.1
Handwheel diameter (D1)		180.1	199.9	249.9	249.9	249.9	349.8	349.8	400.1
Handwheel diameter (D2)						315.0	315.0	315.0	315.0
Weight (kg)	RF	16.3	18.6	26.3	33.1	48.1	87.1	128.8	180.1
	BW	14.1	16.3	21.3	27.7	39.0	75.3	109.8	148.3

Size		Product Dimensions (mm)							
Size		300	350	400	450	500	600	750	900
Face to face	L1 (RF)	355.6	381.0	406.4	431.8	457.2	508.0	609.6	711.2
	L2 (RTJ)	368.3	393.7	419.1	444.5	469.9	520.7		
	L3 (BW)	501.7	571.5	609.6	660.4	711.2	812.8	914.4	1016.0
Open height (H)		1369.1	1515.1	1823.7	1899.9	2120.9	2501.9	3200.4	3561.1
Handwheel diameter (D1)		450.1	500.1	560.1	640.1	640.1	720.1	899.9	1092.2
Handwheel diameter (D2)		315.0	460.0	460.0	460.0	460.0	540.0	610.1	610.1
Weight (kg)	RF	280.3	410.0	580.1	674.9	841.9	1379.8	2100.1	2903.0
	BW	232.7	351.1	510.7	587.9	740.3	1226.1	1789.0	2859.9

Table 4. G32 Class 300 Dimensions

Size		Product Dimensions (mm)							
Size		40	50	65	80	100	150	200	250
Face to face	L1 (RF)	190.5	215.9	241.3	282.7	304.8	402.1	419.1	457.2
	L2 (RTJ)	203.2	231.6	257.3	298.2	320.8	419.1	435.1	473.2
	L3 (BW)	190.5	215.9	241.3	282.7	304.8	402.1	419.1	457.2
Open height (H)		381.0	404.9	439.7	500.1	592.1	816.1	1041.9	1227.1
Handwheel diameter (D1)		199.9	199.9	249.9	249.9	300.0	350.0	400.1	450.1
Handwheel diameter (D2)						309.9	309.9	309.9	460.0
Weight (kg)	RF	18.1	26.3	34.0	49.9	74.8	143.8	249.5	319.3
	BW	13.2	22.2	27.2	38.1	54.0	113.9	209.6	254.5

Size		Product Dimensions (mm)							
Size		300	350	400	450	500	600	750	900
Face to face	L1 (RF)	501.7	762.0	838.2	914.4	990.6	1143.0	1397.0	1727.2
	L2 (RTJ)	517.7	778.0	854.2	930.4	1009.7	1165.4	1422.4	1752.6
	L3 (BW)	501.7	762.0	838.2	914.4	990.6	1143.0	1397.0	1727.2
Open height (H)		1442.0	1588.0	1890.0	2039.9	2197.1	3078.0	3241.0	4038.6
Handwheel diameter (D1)		500.1	560.1	629.9	709.9	800.1	899.9	1295.9	1600.2
Handwheel diameter (D2)		460.0	460.0	460.0	540.0	540.0	610.1	810.0	810.0
Weight (kg)	RF	479.0	678.6	970.2	1257.4	1608.0	2424.9	3772.1	7574.1
	BW	366.5	558.8	813.3	1067.8	1387.1	1980.8	3193.3	6785.7

G31-G33

API 600 Cast Steel Bolted Bonnet Gate Valve

Table 5. G33 Class 600 Dimensions

Product Dimensions (mm)								
Size		50	65	80	100	150	200	250
Face to face	L1 (RF)	292.1	330.2	355.6	431.8	558.8	660.4	787.4
	L2 (RTJ)	295.4	333.5	358.9	435.1	562.1	663.7	790.7
	L3 (BW)	292.1	330.2	355.6	431.8	558.8	660.4	787.4
Open height (H)		422.9	456.9	511.0	635.0	958.1	1078.0	1241.0
Handwheel diameter (D1)		249.9	249.9	300.0	350.0	450.1	500.1	640.1
Handwheel diameter (D2)					315.0	309.9	309.9	460.0
Weight (kg)	RF	36.3	51.3	64.9	125.6	241.3	424.1	628.2
	BW	31.3	44.0	55.3	99.8	191.9	337.5	499.9

Product Dimensions (mm)								
Size		300	350	400	450	500	600	750
Face to face	L1 (RF)	838.2	889.0	990.6	1092.2	1193.8	1397.0	1651.0
	L2 (RTJ)	841.5	892.3	993.9	1095.5	1200.2	1406.7	1663.7
	L3 (BW)	838.2	889.0	990.6	1092.2	1193.8	1397.0	1651.0
Open height (H)		1439.9	1272.3	1804.9	1984.0	2030.0	2717.8	3961.9
Handwheel diameter (D1)		680.0	720.1	899.9	899.9	1091.9	1091.9	1600.2
Handwheel diameter (D2)		540.0	610.1	610.1	610.1	610.1	810.0	899.9
Weight (kg)	RF	899.9	1205.6	1409.8	2218.5	2810.9	3926.3	6731.3
	BW	715.8	1035.6	1121.7	1923.2	2436.2	3389.7	5810.5



We're here to help

We know it's important for you to talk to someone who knows their stuff. So if you have technical questions or need help choosing the right products, talk to our team. We'll walk you through our proven problem solving process.

1. Tell us what you need.

Tell us about your project. What do you want to achieve? What problems do you need to overcome? Let's work back from there.

2. Choose the right solution.

Weigh up the options. We'll do the analysis, discuss the options with you, and make a recommendation—the choice we'd make in your shoes.

3. Get the job done.

Complete your project, with the right products, on time and to spec. We've got your back all the way, with support during installation and commissioning.

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