

GROVE G7 Valves

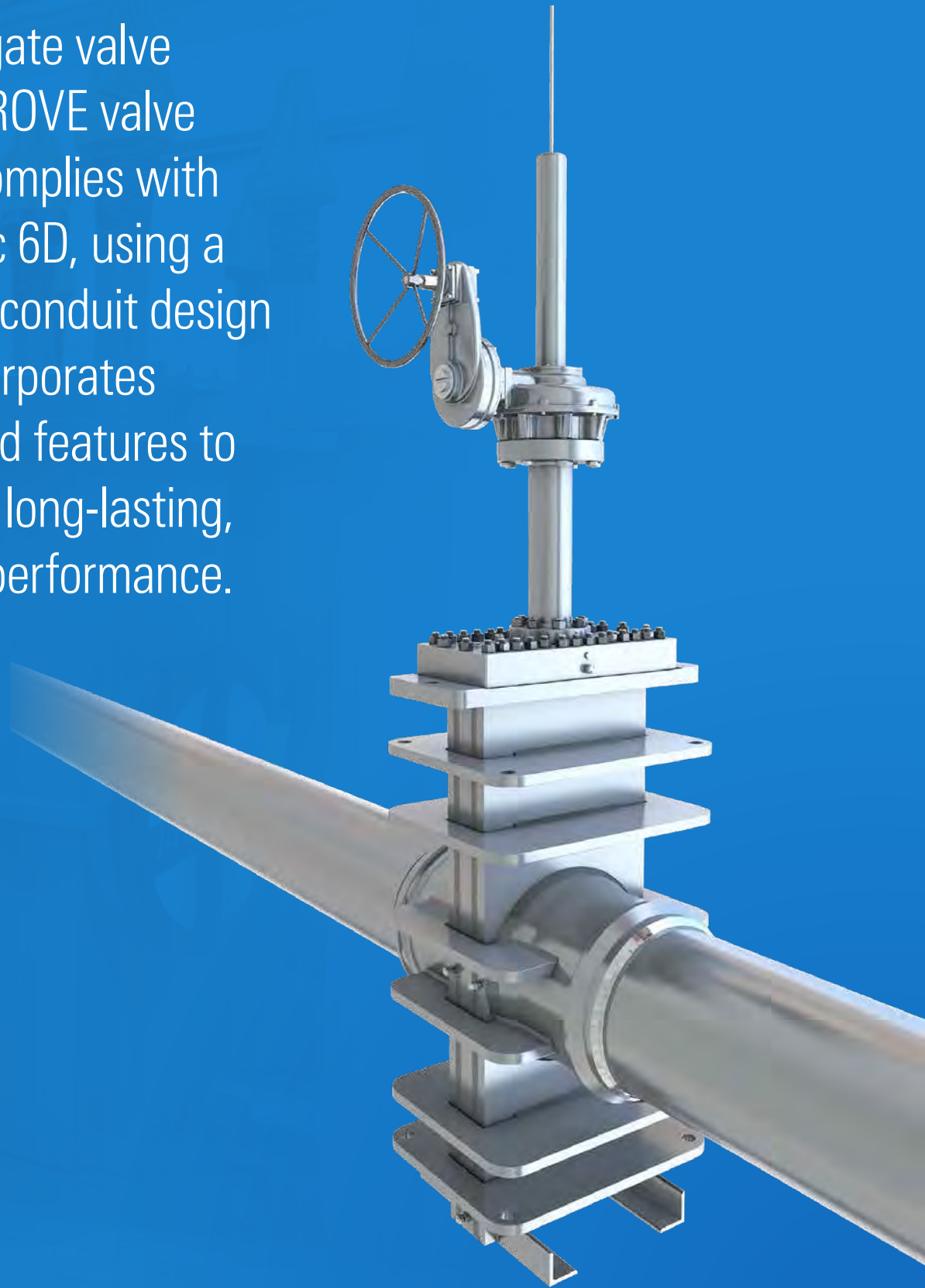
Through-conduit, double block-and-bleed slab gate valves with fully protected seat faces for long-lasting, drop-tight shutoff in liquid pipelines



Contents

General Information.....	2
Design Features.....	3
SLS* Spring-Loaded Lip Seal.....	4
Optional Features.....	5
Valve Assembly.....	6
Material Specifications.....	7
Dimensions and Weights	
ASME Class 150.....	8
ASME Class 300.....	10
ASME Class 600.....	12
ASME Class 900.....	14
Topworks.....	16

The G7 gate valve in the GROVE valve family complies with API Spec 6D, using a through-conduit design that incorporates enhanced features to promote long-lasting, reliable performance.



GROVE G7 Gate Valves

Applications

- Pipeline main valves
- Manifolds
- Storage tanks
- Pig launchers and receivers
- Station valves
- Oil and gas transmission
- Distribution industry
- Hot tap
- Meter bypass



Product Range

Size, in [mm]	ASME Class			
	150	300	600	900
6 [150]	X	X	X	X
8 [200]	X	X	X	X
10 [250]	X	X	X	X
12 [300]	X	X	X	X
14 [350]	X	X	X	
16 [400]	X	X	X	
18 [450]	X	X	X	
20 [500]	X	X	X	
22 [550]				
24 [600]	X	X	X	
26 [650]				
28 [700]				
30 [750]	X	X	X	
32 [800]				
34 [850]				
36 [900]	X	X	X	
38 [950]				
40 [1,000]				
42 [1,050]	X	X	X	
48 [1,200]	X			

Reduced-bore valves and sizes not listed available upon request.

Design Standards

Design	Specification
Valve assembly	API Spec 6D CSA Z245.15 available
End flanges	ASME B16.5 and B16.47
Weld ends	ASME B16.25 (ASME B31.3, B31.4, and B31.8)
Fire tested	ISO 10497 API Standard 6FA
Sour service	NACE MR0175 and ISO 15156
Piping codes	ASME B31.4 and ASME B31.8
Top works	ISO 5211 and MSS SP-102
Body weld construction and inspection	ASME IX, ASME BPVC VIII, DIV 1 UW-51 and UW-53
Quality system	ISO 9001 API Spec Q1

Country	Regulation Compliance
United States	Liquid pipelines: CFR Title 49, Part 195 Gas pipelines: CFR Title 49, Part 192
Canada	Canadian Registration Number (CRN)
Europe	Pressure Equipment Directive (PED)

Design Features

Enhanced fabricated body construction

The GROVE G7 valve body is constructed of pressure-vessel-grade plating, which is less prone to raw material defects and allows for less body cavity volume versus traditional cast gate valves. All full-penetration, pressure-containing welds on the GROVE G7 valve fabricated body have been enhanced to accommodate volumetric and surface examination to further confirm the integrity of the valve body per ASME codes.

SLS spring-loaded lip seal

The SLS lip seal optimizes performance and reduces maintenance requirements. The seal has a long history of proven performance and is hydrocarbon fugitive emission and fire tested. The self-energizing SLS seal requires no plastic packing to energize.

Blowout proof stem with backseat

The stem forms an API Spec 6D-compliant metal-to-metal seal with the bonnet when the stem is in the up position. The backseat isolates and protects the SLS seal from line pressure, greatly extending its service life.

Stem injection port

The standard stem injection port enables the option to lubricate the stem for extended valve service or inject plastic packing for emergency stem sealing.

Seat injection port

The standard seat injection feature enables the option to lubricate the seat face for extended valve service or inject sealant for emergency seat sealing.

Fullbore through conduit

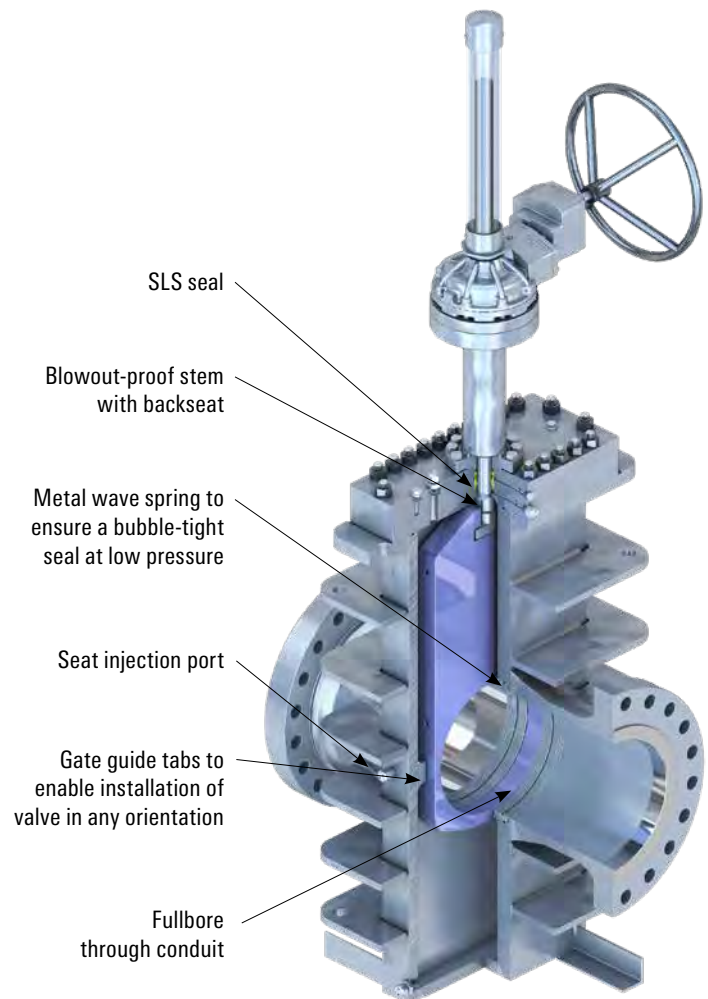
Destructive turbulence is reduced. In a fullbore valve, pressure drop through the valve is no greater than that through an equal length of equal-diameter pipe. The fullbore, through-conduit design also allows passage of pigs and scrapers.

Double block-and-bleed and double isolation-and-bleed design

In the closed or open position, a tight seal is formed between the gate and both seats. This allows the body cavity to be bled and effectively creates two barriers for isolating pressure downstream of the valve for increased safety.

Protection of seat faces

Seat faces are outside of the flowstream and in full contact with the gate in both open and closed positions, greatly extending the seat life



SLS Spring-Loaded Lip Seal

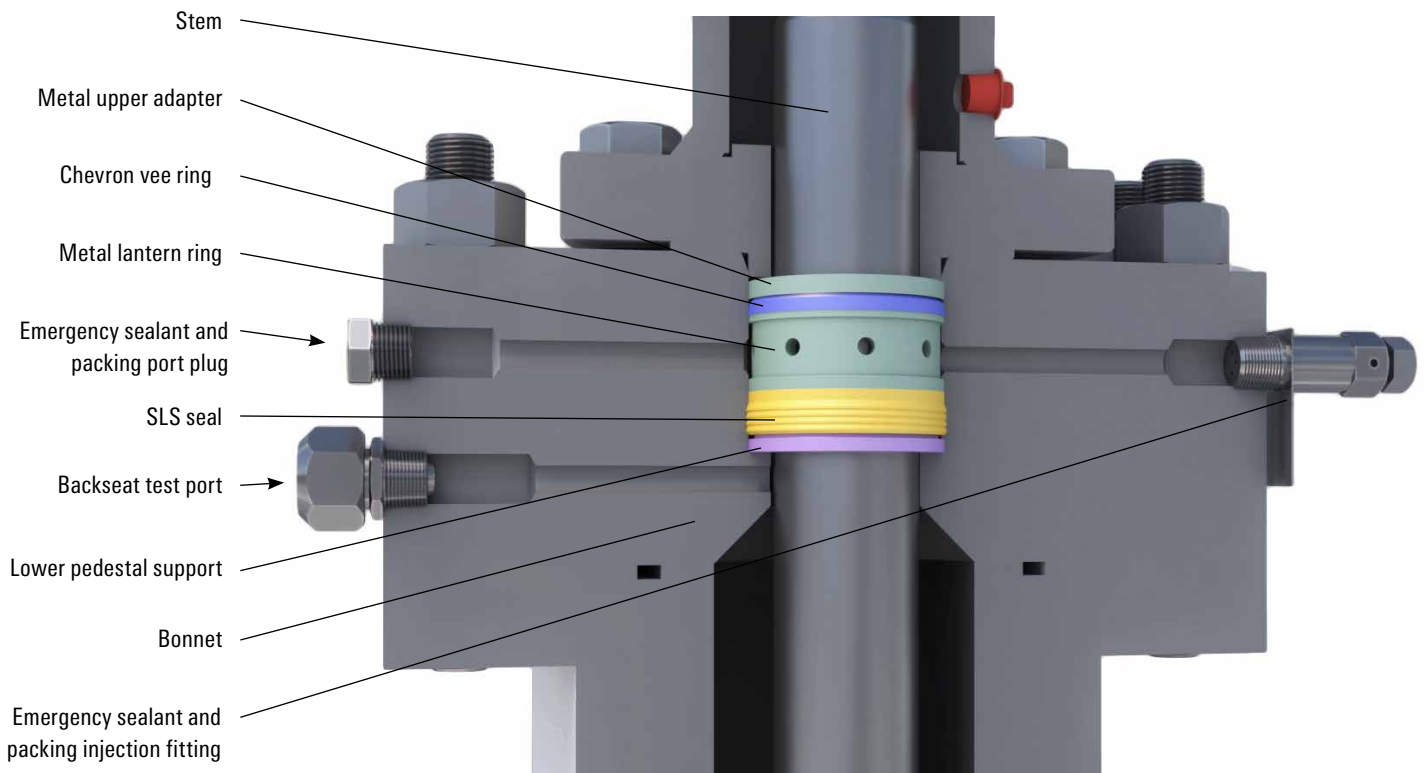
The SLS seal is designed to provide optimal performance and reduce maintenance requirements.

Features

- Self-energizing seal designed to reduce maintenance
- No plastic packing required to establish an effective seal
- Four separate sealing bands promote reliability
- Filled PTFE shell is backed with a corrosion-resistant alloy spring making it suitable for virtually all line media

Design

- **SLS seal** is fugitive-emissions tested and compatible with most media. The metal spring provides an initial seal while assisting with uniform loading over a wide pressure and temperature range.
- **Metal lantern ring** acts as a spacer in conjunction with the metal upper adapter as a bearing to center the stem.
- **Chevron vee ring** acts as an emergency seal, should it be necessary to inject plastic packing, and acts as a wiper from external contaminants.
- **Lower pedestal support** centers the stem, supports the SLS seal, and acts as a stem wiper to keep internal contaminants away from sealing members.



Optional Features

Pup pipes and transition pieces

Transition pieces can be welded to the valve during the manufacturing process based your specifications or with design consultancy from our dedicated engineering team.

Stem extensions

GROVE G7 valves can be provided with optional stem extensions to permit buried or underground installations in remote or inaccessible areas.

When used for buried valve service, stem extension housings can be furnished watertight. Piping of the vent, drain, and grease and emergency sealant injection system may also be extended.

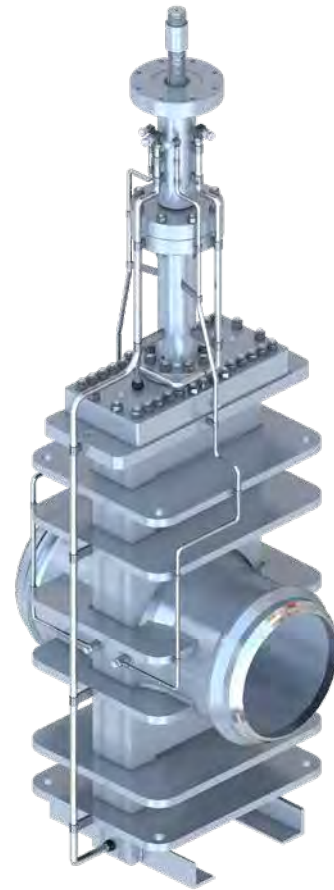
When ordering extensions, please specify the distance required from the valve centerline to the top of the yoke tube.

Actuation options

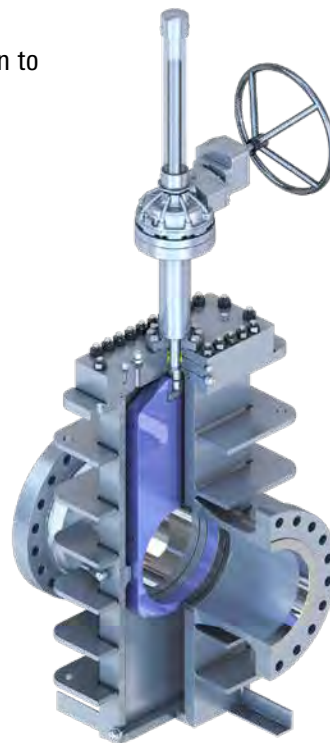
- Handwheel
- Bevel-gear operator
- Electric actuators
- Piston actuators

Normal-acting and reverse-acting gate designs

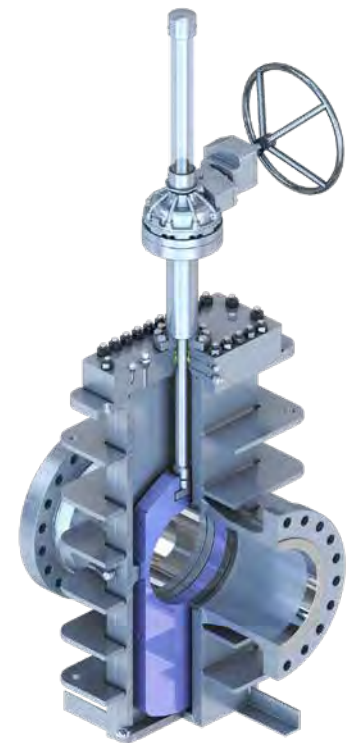
The gate can be supplied as normal acting (gate moves down to close) or reverse acting (gate moves up to close).



GROVE G7 valve with extended stem, injection, and drain ports.



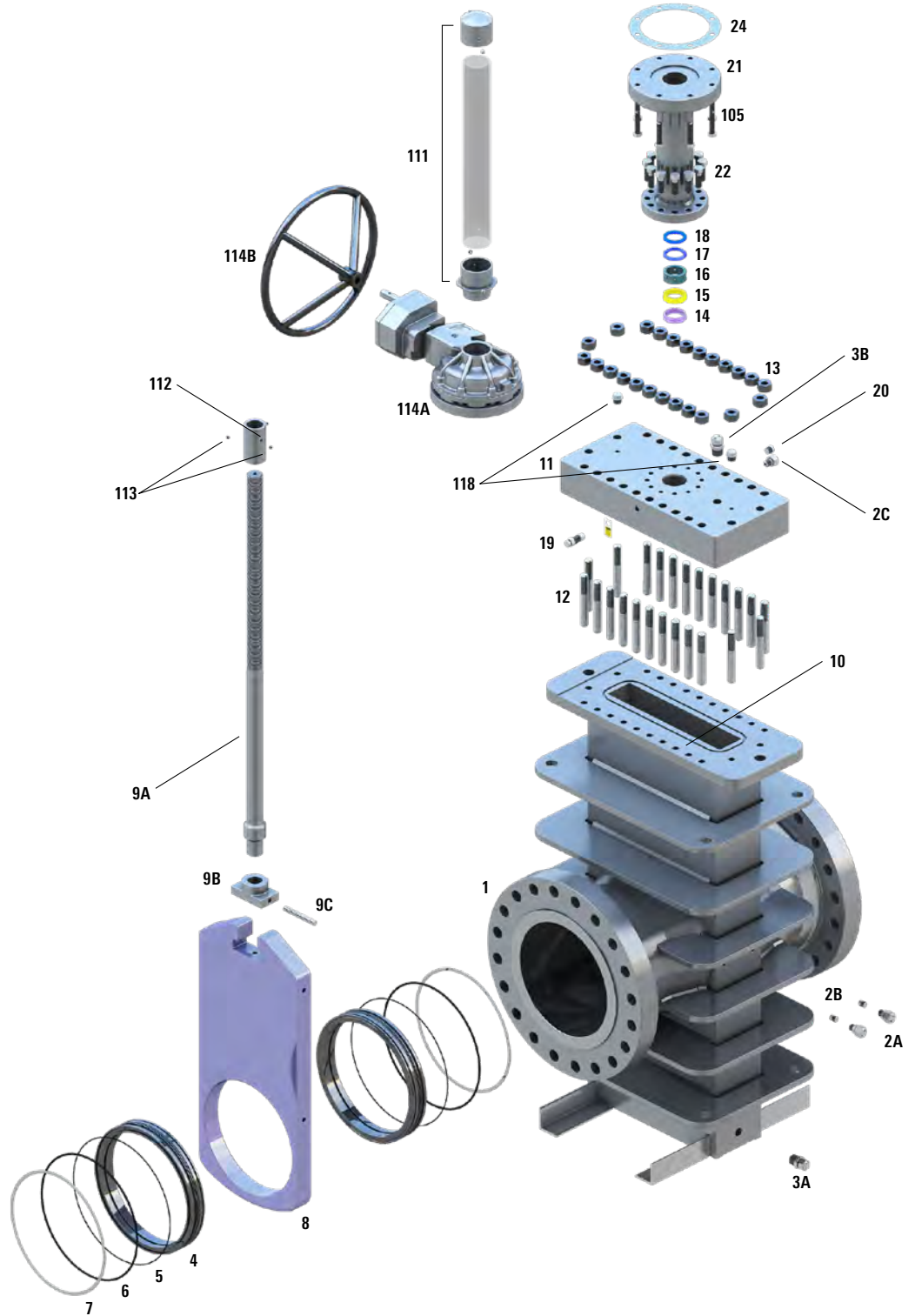
Normal-acting gate design.



Reverse-acting gate design.

Valve Assembly

Item	Part Name
1	Body
2A	Grease fitting (seat lube)
2B	Buried check valve
2C	Stem backseat fitting
3A	Grease fitting (drain)
3B	Grease fitting (vent)
4	Seat assembly
5	Grease O-ring
6	Seat O-ring
7	Wave spring
8	Gate
9	Stem assembly
9A	Stem body
9B	Stem head
9C	Stem pin
10	Bonnet O-ring
11	Bonnet
12	Bonnet studs
13	Bonnet nuts
14	Pedestal
15	SLS seal
16	Lantern ring
17	Vee-ring
18	Upper adapter
19	Packing fitting assembly
20	Packing plug
21	Yoke tube
22	Yoke tube studs [†]
23	Yoke tube pull plug
24	Gasket
25	Information plate [‡]
26	Instruction plate [‡]
27	Name plate [‡]
28	Trim plate [‡]
29	Yoke tube nuts [†]
105	Operator bolt
109	Indicator rod [§]
110	Rod wipe [§]
111	Stem protector [§]
112	Stop ring nut
113	Set screw
114	Bevel gear operator with handwheel
116	Bolt [§]
117	Gasket [§]
118	Plastic plug



One set of spares should be kept in stock for every five valves in service, for a given size and pressure class. This number may vary depending on the severity of the service. Quantity depends on the particular valve assembly. Cameron reserves the right to substitute equivalent materials that comply with API Spec 6D.

[†] Some sizes use bolts instead of studs and nuts.

[‡] Not shown on drawings.

[§] Some sizes use a clear plastic stem protector instead of a carbon steel stem protector. Clear plastic stem protectors do not require bolts or a gasket.

Material Specifications

G-20 high aromatic, fire tested

For essentially nonsour and noncorrosive, aromatic ladings or nonaromatic service with methanol- or ethanol-based corrosion inhibitors where up to 40% MTBE, ETBE, or TAME may be present. Elastomeric sealing components utilized are of high-fluorine fluoroelastomer (FKM) compounds for use with refined products, gasoline, benzene, ethylene, toluene, carbon tetrachloride, and phosphate ester hydraulic fluids.

G-21 sour gas and oil, fire tested (NACE MR0175 and ISO 15156)

Primarily for sour gas and oil (NACE MR0175) where resistance to hydrogen sulfide embrittlement is required. Also suitable for other chemical, products, or hydrocarbons when hydrogen sulfide (H₂S) is present. May be used when carbon dioxide (CO₂) is present in smaller amounts than H₂S. Typical uses are pipelines, manifold, scraper trap, and other similar installations.

G-23 low-temperature, fire tested (NACE MR0175 and ISO 15156)

Primarily for sour gas and oil (NACE MR0175) where resistance to H₂S embrittlement is required at service of –50 degF. The pressure-retaining components (body, bonnet, and bolting) are of impact-tested materials. Also suitable for other chemicals, products, or hydrocarbons when H₂S is present. May also be used when CO₂ is present in smaller amounts than H₂S.

G-20 Trim Chart

Design	Specification
Services	Standard
Body	A537 and A350 LF2
Bonnet	A105, A516
Gate	Carbon steel, nickel plated
Seat	Carbon steel, nickel plated, 25% GF TFE insert
Wave spring	Carbon steel
Stem seal	Filled PTFE shell; UNS R30003 (CoNiCrMo) spring
Other seals	High-fluorine FKM
Stem	AISI 4130 and 4140, NACE
Bolting	Alloy steel
Fittings	Carbon steel
Temperature range	–20 to 250 degF [–29 to 121 degC]

G-21 Trim Chart

Design	Specification
Services	Sour, mildly corrosive
Body	A537 and A350 LF2
Bonnet	A105, A516
Gate	Carbon steel, nickel plated
Seat	Carbon steel, nickel plated, 25% GF TFE insert
Wave spring	Alloy X-750
Stem seal	Filled PTFE shell; UNS R30003 (Co Ni Cr Mo) spring
Other seals	High-fluorine FKM
Stem	AISI 4130 and 4140, NACE
Bolting	Alloy steel, NACE
Fittings	Stainless steel
Temperature range	–20 to 250 degF [–29 to 121 degC]

G-23 Trim Chart

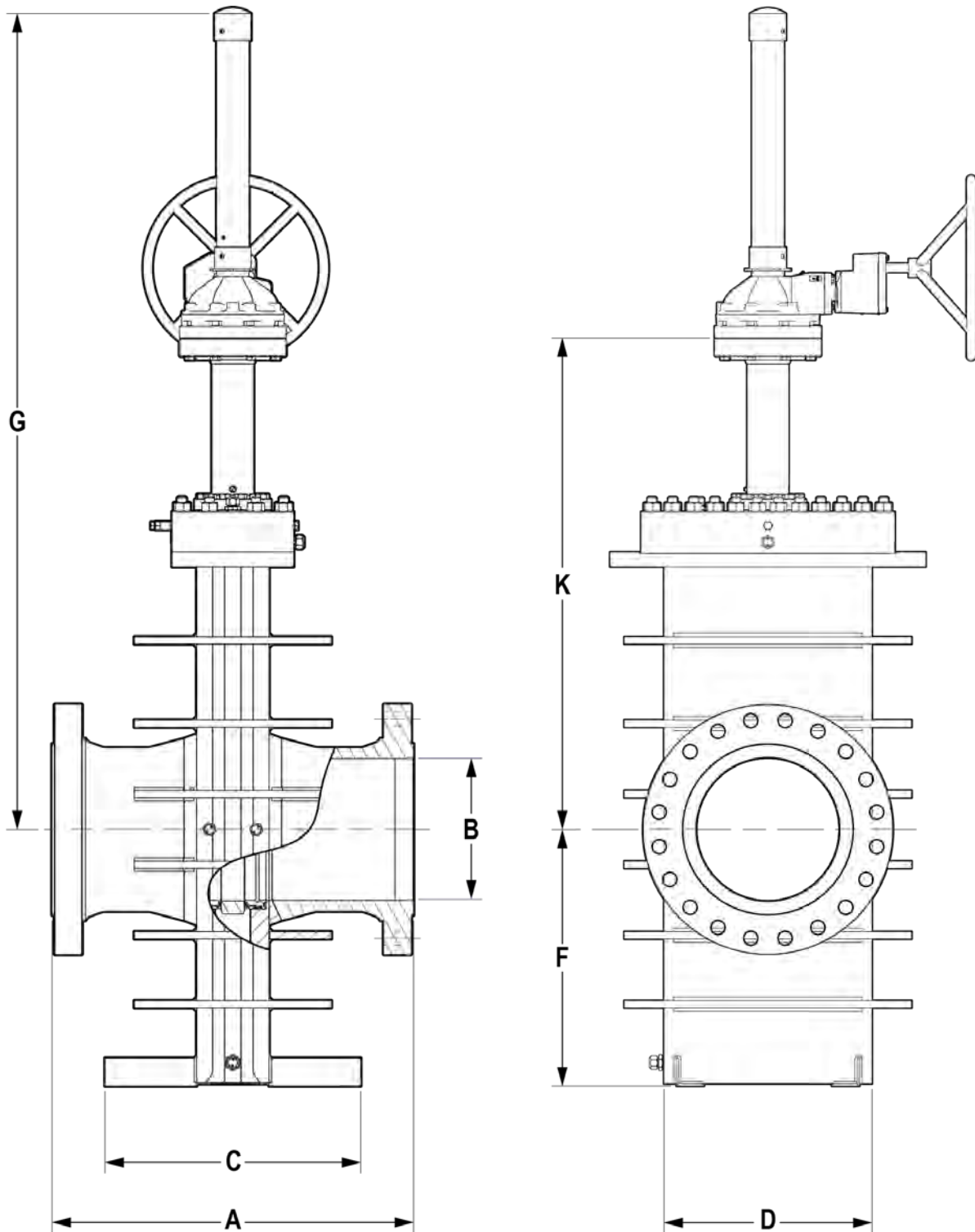
Design	Specification
Services	Low temperature, sour, mildly corrosive
Body	A537 and A350 LF2, impact tested
Bonnet	A350 LF2, A537, impact tested
Gate	Carbon steel, nickel plated
Seat	Carbon steel, nickel plated, 25% GF TFE insert
Wave spring	Alloy X-750
Stem seal	Filled PTFE shell; UNS R30003 (Co Ni Cr Mo) spring
Other seals	High-fluorine FKM
Stem	AISI 4130 and 4140, NACE
Bolting	Alloy steel, NACE, impact tested
Fittings	Stainless steel
Temperature range	–50 to 250 degF [–46 to 121 degC]

Consult Cameron for applications that may require operation near the design temperature limits. Other materials are available upon request.

Dimensions and Weight

ASME Class 150

Sizes 6–48 in [150–1,200 mm]



Reduced-bore valves and sizes not listed are available upon request.
Dimensions and weight are subject to change; confirm at time of order.

ASME Class 150 Dimensions

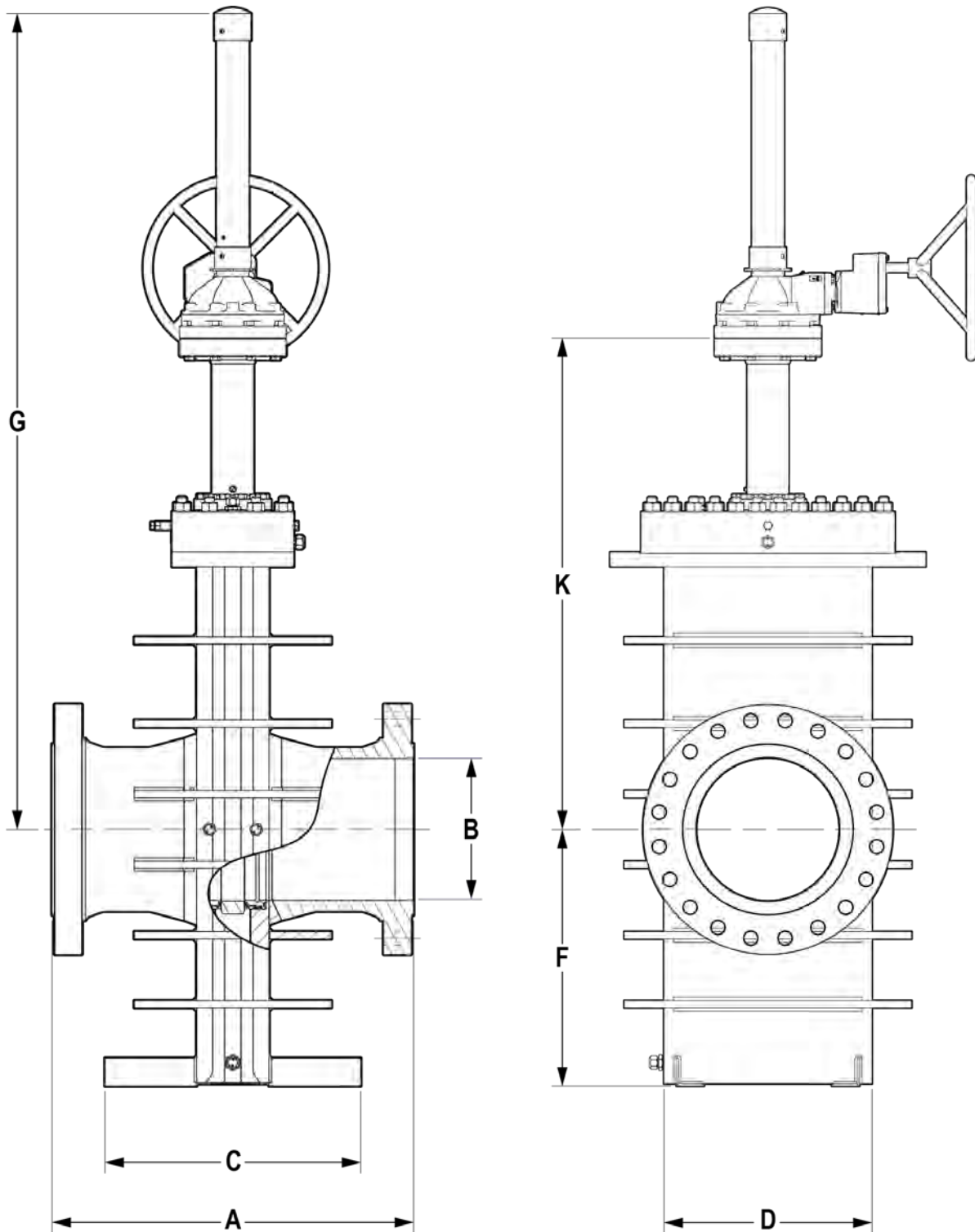
Size, in [mm]	A		B	C	D	F	G	K	Weight, lbm [kg]		
	Flanged End (FE)	Welded End (WE)							FE	WE	WE X FE
6 [150]	10.50 [267]	15.88 [403]	6 [152]	10.35 [263]	10.93 [278]	13.06 [332]	45.60 [1,158]	27.44 [697]	630 [286]	632 [287]	631 [286]
8 [200]	11.50 [292]	16.50 [419]	8 [203]	9.86 [250]	12.58 [320]	16.38 [416]	57.68 [1,465]	34.41 [874]	794 [360]	792 [359]	793 [360]
10 [250]	13 [330]	18 [457]	10 [254]	12 [305]	14.58 [370]	19.52 [496]	61.22 [1,555]	37.80 [960]	1,041 [472]	1,034 [469]	1,037 [471]
12 [300]	14 [356]	19.75 [502]	12 [305]	12.86 [327]	17.58 [447]	22.54 [573]	73.99 [1,879]	43.16 [1,096]	1,503 [682]	1,451 [658]	1,477 [670]
14 [350]	15 [381]	22.50 [572]	13.25 [337]	11.74 [298]	18.57 [472]	24.22 [615]	74.69 [1,897]	46.06 [1,170]	1,602 [727]	1,587 [720]	1,594 [723]
16 [400]	16 [406]	24 [610]	15.25 [387]	14.80 [376]	21.27 [540]	27.51 [699]	83.48 [2,120]	50.93 [1,294]	2,177 [988]	2,147 [974]	2,162 [981]
18 [450]	17 [432]	26 [660]	17.25 [438]	15.08 [383]	23.71 [602]	30.63 [778]	89.09 [2,263]	56.56 [1,437]	2,605 [1,182]	2,590 [1,175]	2,598 [1,178]
20 [500]	18 [457]	28 [711]	19.25 [489]	17.75 [451]	26.45 [672]	33.75 [857]	96.64 [2,455]	61.90 [1,572]	3,446 [1,563]	3,344 [1,517]	3,395 [1,540]
22 [550]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
24 [600]	20 [508]	32 [813]	23.25 [591]	17.92 [455]	29.93 [760]	40.63 [1,032]	118.04 [2,998]	75.65 [1,922]	4,563 [2,070]	4,521 [2,051]	4,542 [2,060]
26 [650]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
28 [700]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
30 [750]	26 [660]	36 [914]	29 [737]	25.19 [640]	36.62 [930]	50.97 [1,295]	140.08 [3,558]	92.01 [2,337]	8,105 [3,676]	7,830 [3,552]	7,967 [3,614]
32 [800]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
34 [850]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
36 [900]	32 [813]	40 [1016]	34.50 [876]	29.34 [745]	42.60 [1,082]	59.41 [1,509]	163.31 [4,148]	107.50 [2,731]	12,544 [5,690]	11,963 [5,426]	12,253 [5,558]
38 [950]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
40 [1,000]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
42 [1,050]	38 [965]	38 [965]	40.25 [1,022]	35.72 [907]	50.39 [1,280]	68.29 [1,735]	181.63 [4,613]	121.63 [3,089]	20,814 [9,441]	19,440 [8,818]	20,127 [9,129]
48 [1,200]	46 [1,168]	46 [1,168]	46 [1,168]	37.10 [942]	55.86 [1,419]	77.88 [1,978]	210 [5,334]	139.25 [3,537]	25,491 [11,563]	23,769 [10,781]	24,630 [11,172]

† Upon request.

Flanges up to 24 in [600 mm], except 22 in [550 mm], in accordance with ASME B16.5; 22 in [550 mm] and above 24 in [600 mm] in accordance with ASME B16.47, if applicable.

Butt-weld ends according to ASME B16.25.

ASME Class 300
Sizes 6–48 in [150–1,200 mm]



Reduced-bore valves and sizes not listed are available upon request.
Dimensions and weight are subject to change; confirm at time of order.

ASME Class 300 Dimensions

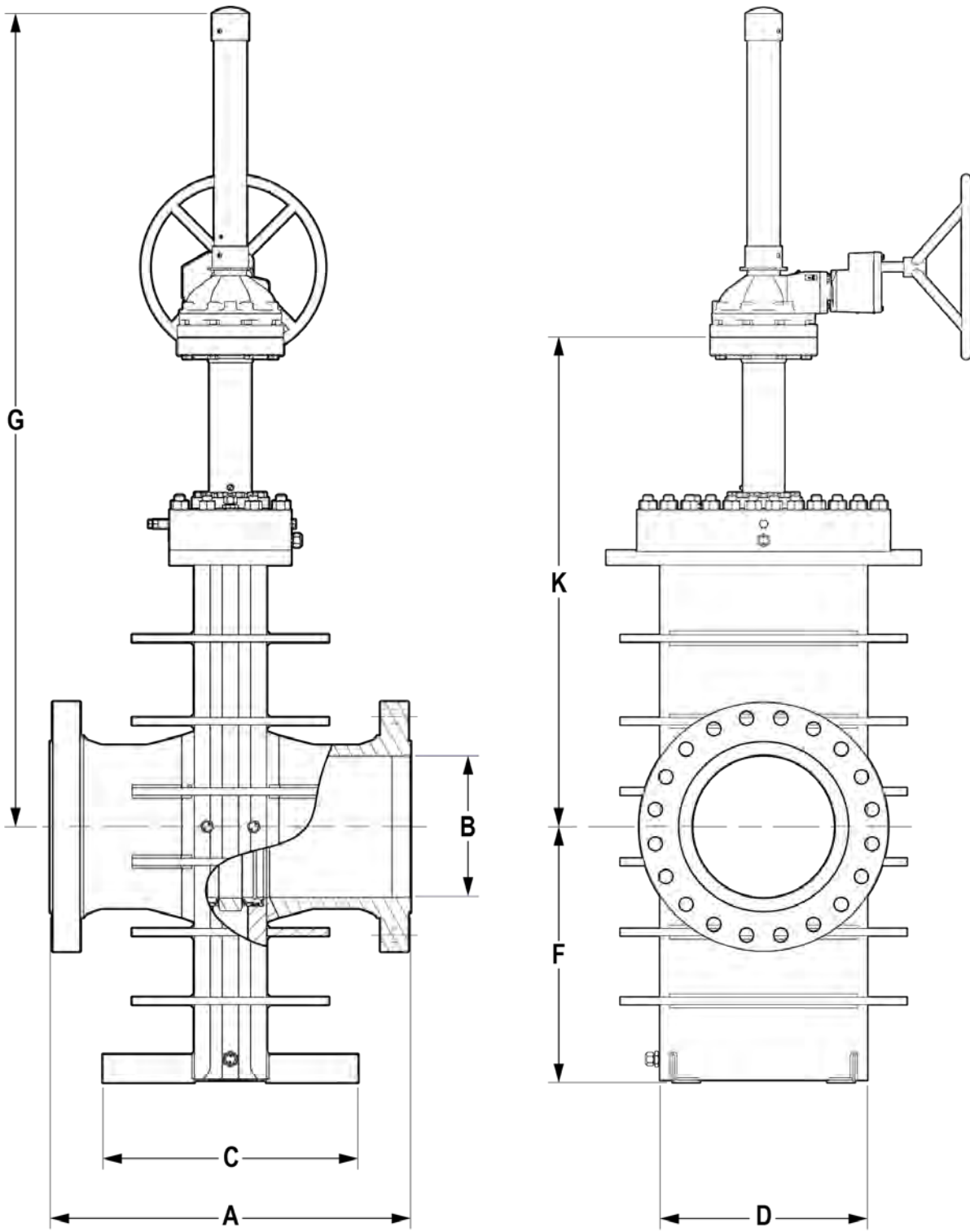
Size, in [mm]	A		B	C	D	F	G	K	Weight, lbm [kg]		
	FE	WE							FE	WE	WEX FE
6 [150]	15.88 [403]	15.88 [403]	6 [152]	13.35 [339]	11.33 [288]	13.06 [332]	47.06 [1,195]	27.44 [697]	642 [291]	579 [263]	610 [277]
8 [200]	16.50 [419]	16.50 [419]	8 [203]	12.86 [327]	12.58 [320]	16.38 [416]	58.16 [1,477]	34.41 [874]	904 [410]	820 [372]	862 [391]
10 [250]	18 [457]	18 [457]	10 [254]	13.99 [355]	14.58 [370]	19.52 [496]	63.25 [1,607]	37.80 [960]	1,248 [566]	1,130 [512]	1,189 [539]
12 [300]	19.75 [502]	19.75 [502]	12 [305]	13.26 [337]	18.11 [460]	22.54 [573]	72.03 [1,830]	43.16 [1,096]	1,798 [816]	1,652 [749]	1,725 [782]
14 [350]	30 [762]	30 [762]	13.25 [337]	20.49 [520]	19.36 [492]	24.22 [615]	78.09 [1,983]	48.25 [1,226]	2,337 [1,060]	2,162 [980]	2,249 [1,020]
16 [400]	33 [838]	33 [838]	15.25 [387]	27.08 [688]	21.26 [540]	27.38 [695]	81.43 [2,068]	52.19 [1,326]	3,092 [1,403]	2,775 [1,259]	2,904 [1,317]
18 [450]	36 [914]	36 [914]	17.25 [438]	27.58 [701]	24.11 [612]	30.95 [786]	92.63 [2,353]	57.30 [1,455]	3,768 [1,709]	3,333 [1,512]	3,550 [1,610]
20 [500]	39 [991]	39 [991]	19.25 [489]	28.69 [729]	25.66 [652]	34.12 [867]	98.93 [2,513]	62.76 [1,594]	5,099 [2,313]	4,600 [2,087]	4,850 [2,200]
22 [500]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
24 [600]	45 [1,143]	45 [1,143]	23.25 [591]	33.82 [859]	29.92 [760]	40.62 [1,032]	116.87 [2,968]	75.38 [1,915]	7,644 [3,467]	6,917 [3,138]	7,281 [3,302]
26 [650]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
28 [700]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
30 [750]	55 [1,397]	55 [1,397]	29 [737]	33.83 [859]	38.19 [970]	50.97 [1,295]	146.50 [3,721]	94.50 [2,400]	13,749 [6,236]	12,547 [5,691]	13,148 [5,964]
32 [800]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
34 [850]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
36 [900]	68 [1,727]	68 [1,727]	34.50 [876]	51.60 [1,311]	44.17 [1,122]	59.52 [1,512]	159.45 [4,050]	107.24 [2,724]	22,565 [10,235]	20,663 [9,372]	21,614 [9,804]
38 [950]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
400 [1000]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
42 [1050]	66.50 [1,689]	66.50 [1,689]	40.25 [1,022]	51.92 [1,319]	51.19 [1,300]	69.07 [1,754]	190.70 [4,844]	127.17 [3,230]	31,302 [14,198]	30,066 [13,638]	30,684 [13,918]
48 [1200]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †

† Upon request.

Flanges up to 24 in [600 mm], except 22 in [550 mm], in accordance with ASME B16.5; 22 in [550 mm] and above 24 in [600 mm] in accordance with ASME B16.47, if applicable.

Butt-weld ends according to ASME B16.25.

ASME Class 600
Sizes 6–48 in [150–1,200 mm]



Reduced-bore valves and sizes not listed are available upon request.
Dimensions and weight are subject to change; confirm at time of order.

AME Class 600 Dimensions

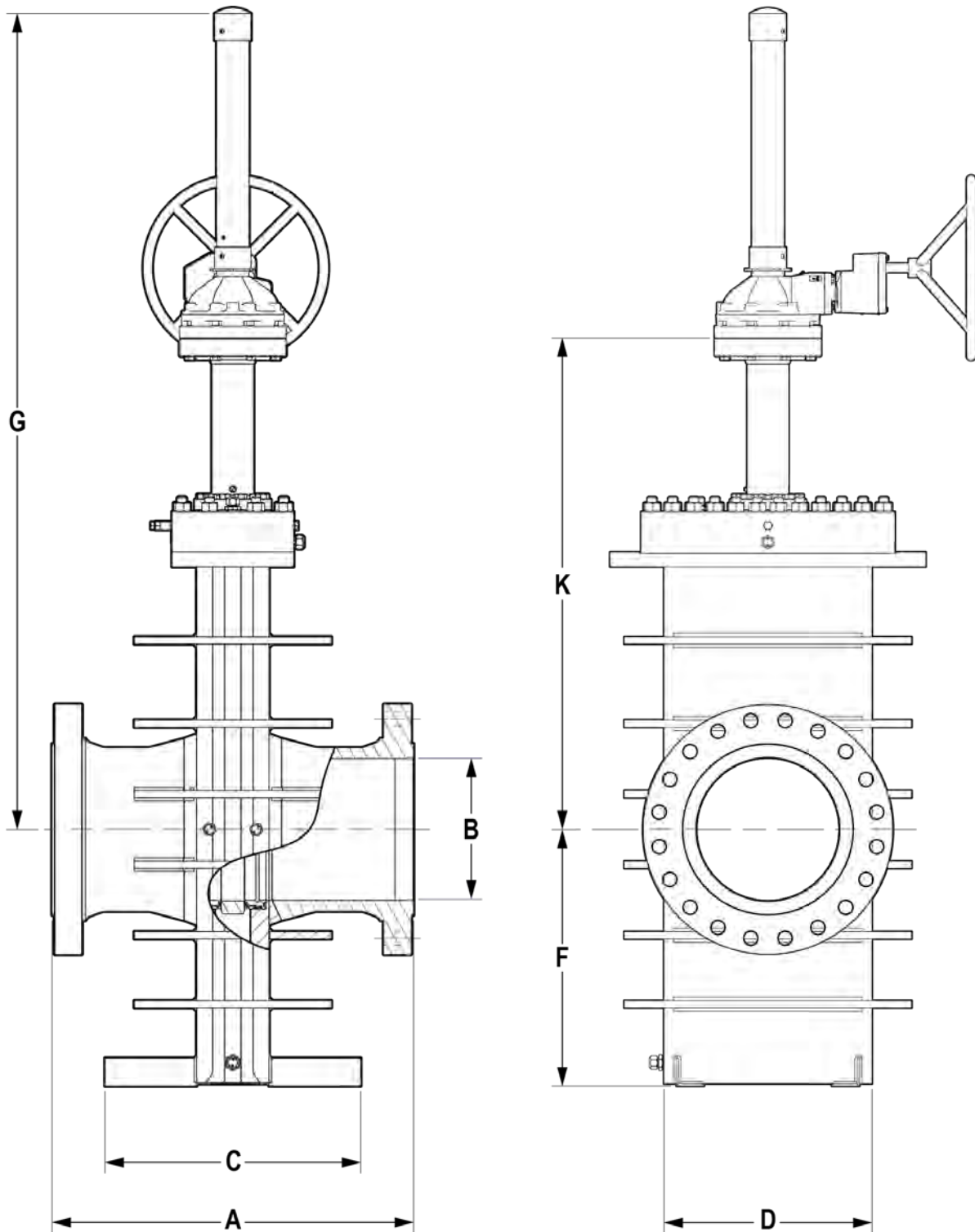
Size, in [mm]	A		B	C	D	F	G	K	Weight, lbm [kg]		
	FE	WE							FE	WE	WEX FE
6 [150]	22 [559]	22 [559]	6 [152]	13.85 [352]	11.33 [288]	13.06 [332]	47.21 [1,199]	27.44 [697]	811 [368]	723 [328]	767 [348]
8 [200]	26 [660]	26 [660]	8 [203]	19.86 [504]	12.57 [319]	16.57 [421]	58.00 [1,473]	34.66 [880]	1,151 [522]	1,031 [468]	1,091 [495]
10 [250]	31 [787]	31 [787]	10 [254]	19.99 [508]	15.36 [390]	19.52 [496]	63.60 [1,615]	37.80 [960]	1,709 [775]	1,522 [691]	1,616 [733]
12 [300]	33 [838]	33 [838]	12 [305]	26.26 [667]	18.36 [466]	22.54 [573]	73.51 [1,867]	43.16 [1,096]	2,389 [1,084]	2,168 [983]	2,278 [1,033]
14 [350]	35 [889]	35 [889]	13.25 [337]	26.49 [673]	19.76 [502]	24.34 [618]	78.11 [1,984]	48.25 [1,226]	2,889 [1,310]	2,640 [1,197]	2,764 [1,254]
16 [400]	39 [991]	39 [991]	15.25 [387]	27.58 [701]	22.44 [570]	27.54 [700]	87.97 [2,234]	52.98 [1,346]	4,344 [1,970]	3,818 [1,732]	4,081 [1,851]
18 [450]	43 [1,092]	43 [1,092]	17.25 [438]	28.88 [734]	24.51 [623]	30.95 [786]	96.48 [2,451]	59.38 [1,508]	5,815 [2,637]	5,148 [2,335]	5,481 [2,486]
20 [500]	47 [1,194]	47 [1,194]	19.25 [489]	33.44 [849]	26.85 [682]	34.13 [867]	102.35 [2,600]	65.25 [1,657]	7,701 [3,493]	6,907 [3,133]	7,304 [3,313]
22 [500]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
24 [600]	55 [1,397]	55 [1,397]	23.25 [591]	34.89 [886]	31.50 [800]	41.02 [1,042]	120.94 [3,072]	79.75 [2,026]	11,742 [5,326]	10,672 [4,841]	11,207 [5,084]
26 [650]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
28 [700]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
30 [750]	65 [1,651]	65 [1,651]	29 [737]	50.72 [1,288]	38.19 [970]	50.90 [1,293]	143.63 [3,648]	96.45 [2,450]	19,664 [8,920]	18,455 [8,371]	19,060 [8,645]
32 [800]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
34 [850]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
36 [900]	82 [2,083]	82 [2,083]	34.50 [876]	60.76 [1,543]	44.96 [1,142]	59.81 [1,519]	171.29 [4,351]	116.05 [2948]	34,945 [15,851]	32,793 [14,875]	33,869 [15,363]
38 [950]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
400 [1,000]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
42 [1,050]	75 [1,905]	75 [1,905]	40.25 [1,022]	61.03 [1,550]	51.19 [1,300]	69.29 [1,760]	200.43 [5,091]	130.71 [3,320]	50,665 [22,981]	47,814 [21,688]	49,239 [22,335]
48 [1,200]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †

† Upon request.

Flanges up to 24 in [600 mm], except 22 in [550 mm], in accordance with ASME B16.5; 22 in [550 mm] and above 24 in [600 mm] in accordance with ASME B16.47, if applicable.

Butt-weld ends according to ASME B16.25.

ASME Class 900
Sizes 6–48 in [150–1,200 mm]



Reduced-bore valves and sizes not listed are available upon request.
Dimensions and weight are subject to change; confirm at time of order.

ASME Class 900 Dimensions

Size, in [mm]	A		B	C	D	F	G	K	Weight, lbm [kg]		
	FE	WE							FE	WE	WEX FE
6 [150]	24 [610]	24 [610]	6 [152]	15.35 [390]	12.11 [308]	13.45 [342]	47.10 [1196]	27.44 [697]	981 [445]	873 [396]	927 [421]
8 [200]	29 [737]	29 [737]	8 [203]	19.99 [508]	13.36 [339]	16.52 [420]	63.28 [1607]	34.66 [880]	1,400 [635]	1,217 [552]	1,308 [593]
10 [250]	33 [838]	33 [838]	10 [254]	20.39 [518]	15.36 [390]	19.72 [501]	63.70 [1618]	37.80 [960]	2,151 [976]	1,914 [868]	2,033 [922]
12 [300]	38 [965]	38 [965]	12 [305]	26.51 [673]	18.76 [477]	22.84 [580]	69.11 [1755]	43.66 [1109]	3,145 [1426]	2,858 [1296]	3,001 [1361]
14 [350]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
16 [400]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
18 [450]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
20 [500]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
22 [500]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
24 [600]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
26 [650]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
28 [700]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
30 [750]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
32 [800]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
34 [850]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
36 [900]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
38 [950]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
400 [1,000]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
42 [1,050]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †
48 [1,200]	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †	† †

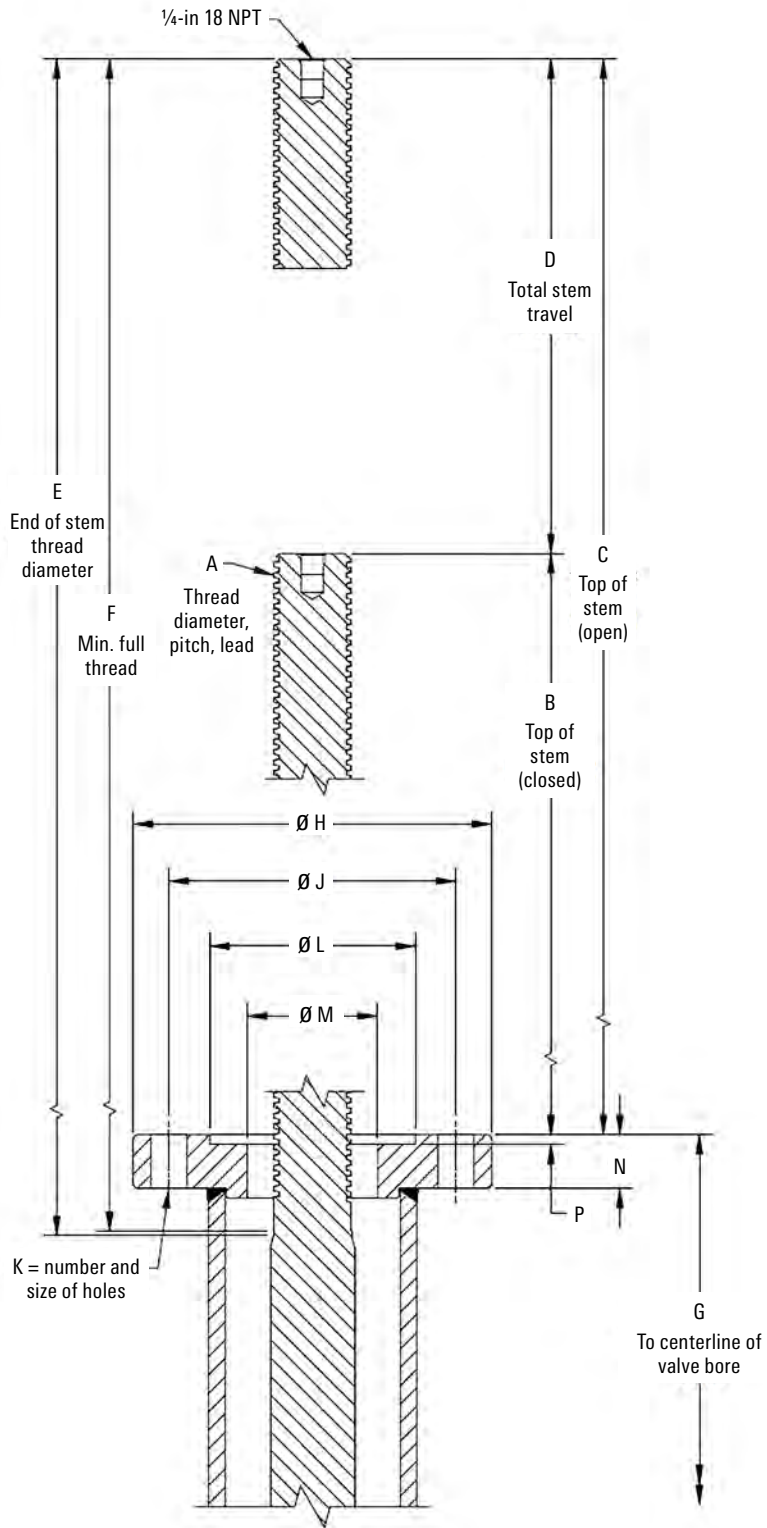
† Upon request.

Flanges up to 24 in [600 mm], except 22 in [550 mm], in accordance with ASME B16.5; 22 in [550 mm] and above 24 in [600 mm] in accordance with ASME B16.47, if applicable.

Butt-weld ends according to ASME B16.25.

Topworks

Sizes 6 in through 48 in (150 mm through 1200 mm)



Topworks details are subject to change; confirm at time of order.

Topworks Dimensions

Size, in	ASME Class	A (ACME-2G-LH, in)	B	C	D	E	F	G	H	J	K	L	M	N	P
6	150	1.25, 0.25P, 0.25L	8.52	15.67	7.13	16.83	16.31	27.44	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
6	300	1.25, 0.25P, 0.25L	8.52	15.67	7.13	16.83	16.31	27.44	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
6	600	1.25, 0.25P, 0.25L	8.52	15.67	7.13	16.83	16.31	27.44	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
6	900	1.25, 0.25P, 0.25L	8.52	15.67	7.13	16.83	16.31	27.44	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
8	150	1.75, 0.25P, 0.25L	11.17	20.38	9.20	20.95	20.44	34.41	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
8	300	1.75, 0.25P, 0.25L	11.17	20.38	9.20	20.95	20.44	34.41	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
8	600	1.75, 0.25P, 0.25L	10.92	20.13	9.20	20.95	20.44	34.66	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
8	900	1.75, 0.25P, 0.25L	10.92	20.13	9.20	20.95	20.44	34.66	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
10	150	1.75, 0.25P, 0.25L	8.84	20.05	11.20	20.95	20.44	37.80	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
10	300	1.75, 0.25P, 0.25L	8.84	20.05	11.20	20.95	20.44	37.80	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
10	600	1.75, 0.25P, 0.25L	8.84	20.05	11.20	20.95	20.44	37.80	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
10	900	1.75, 0.25P, 0.25L	8.84	20.05	11.20	20.95	20.44	37.80	8.27	6.50	4, 0.812	5.25	2.50	1.50	0.23
12	150	1.75, 0.25P, 0.25L	10.34	23.57	13.22	24.45	23.94	43.16	8.27	6.50	4, 0.812	5.25	2.50	1.50	0.23
12	300	1.75, 0.25P, 0.25L	10.34	23.57	13.22	24.45	23.94	43.16	8.27	6.50	4, 0.812	5.25	2.50	1.50	0.23
12	600	1.75, 0.25P, 0.25L	10.34	23.57	13.22	24.45	23.94	43.16	8.27	6.50	4, 0.812	5.25	2.50	1.50	0.23
12	900	2, 0.25P, 0.25L	10.35	23.48	13.12	24.33	23.81	43.66	8.27	6.50	4, 0.812	5.25	3.25	1.50	0.23
14	150	1.5, 0.2P, 0.4L	11.54	25.79	14.25	26.77	26.07	46.06	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
14	300	2, 0.25P, 0.5L	12.59	26.84	14.25	27.65	27.07	48.25	8.25	6.50	4, 0.812	5.01	3.13	1.50	0.23
14	600	2, 0.25P, 0.5L	12.59	26.84	14.25	27.65	27.07	48.25	8.25	6.50	4, 0.812	5.01	3.13	1.50	0.23
16	150	1.5, 0.2P, 0.4L	11.22	27.47	16.25	28.39	27.81	50.93	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
16	300	1.5, 0.2P, 0.4L	9.09	25.34	16.25	26.52	25.94	52.19	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
16	600	2, 0.25P, 0.5L	11.20	27.45	16.25	28.20	27.69	52.98	11.50	10.00	8, 0.69	6.01	3.12	2.00	0.23
18	150	1.5, 0.2P, 0.4L	12.28	30.53	18.25	31.39	30.81	56.57	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
18	300	1.75, 0.25P, 0.5L	11.96	30.21	18.25	31.08	30.50	57.30	6.89	5.51	4, 0.688	3.95	2.50	1.18	0.17
18	600	2.25, 0.25P, 0.5L	13.19	31.44	18.25	32.39	31.81	59.38	11.50	10.00	8, 0.69	6.01	3.00	2.36	0.23
20	150	1.75, 0.25P, 0.5L	11.82	32.07	20.25	32.95	32.38	61.90	7.13	5.51	4, 0.688	3.95	2.50	1.03	0.17
20	300	2, 0.25P, 0.5L	13.27	33.52	20.25	34.33	33.76	62.76	8.25	6.50	4, 0.812	5.01	3.13	1.50	0.23
20	600	2.75, 0.4P, 0.8L	13.48	33.73	20.25	34.88	34.30	65.25	13.62	11.75	8, 0.88	7.01	3.50	2.75	0.23
24	150	2, 0.25P, 0.5L	11.40	36.01	24.61	37.02	36.44	75.65	6.89	5.51	4, 0.688	3.95	2.50	1.03	0.17
24	300	2.25, 0.25P, 0.5L	12.64	37.25	24.61	38.08	37.50	75.38	11.50	10.00	8, 0.69	6.01	3.00	2.36	0.23
24	600	3.25, 0.4P, 0.8L	13.87	38.48	24.61	39.95	39.38	79.75	16.12	14.00	8, 1.12	8.51	4.50	3.00	0.23
30	150	2.25, 0.25P, 0.5L	11.48	42.24	30.76	43.70	43.13	92.01	8.25	6.50	4, 0.812	5.01	2.88	1.50	0.23
30	300	3, 0.4P, 0.8L	16.74	47.50	30.76	48.33	47.75	94.50	13.62	11.75	8, 0.88	7.01	3.50	2.75	0.23
30	600	3.75, 0.4P, 0.8L	15.04	45.80	30.76	47.50	46.75	96.45	16.13	14.00	8, 1.13	8.51	6.00	3.13	0.23
36	150	2.75, 0.4P, 0.8L	14.25	50.75	36.50	52.38	51.63	107.50	8.25	6.50	4, 0.812	5.01	3.13	1.50	0.223
36	300	3.25, 0.4P, 0.8L	13.89	50.39	36.50	51.58	51.00	107.24	16.50	14.00	8, 1.12	8.51	4.50	3.00	0.23
36	600	4.25, 0.4P, 0.8L	16.26	52.76	36.50	58.58	58.00	116.05	18.70	16.00	8, 1.38	9.01	7.50	3.44	0.44
42	150	3, 0.4P, 0.8L	13.43	56.43	43.00	57.26	56.69	121.63	13.62	11.75	8, 0.88	7.01	3.50	2.75	0.23
42	300	4, 0.4P, 0.8L	18.15	61.15	43.00	61.96	61.38	127.17	18.70	16.00	8, 1.38	9.01	7.50	3.44	0.23
42	600	5, 0.4P, 0.8L	22.17	65.17	43.00	66.08	65.50	130.71	22.00	19.00	12, 1.38	14.51	7.00	4.25	0.44
48	150	3.75, 0.4P, 0.8L	17.44	66.44	49.00	67.58	66.89	139.25	13.62	11.75	8, 0.88	7.01	4.50	2.75	0.23

GROVE G7 Gate Valves



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