SCV VALVE

THRU CONDUIT GATE VALVES

API 6D Slab & Expanding Gate Designs

2” - 42” | 150 - 1500



Engineered for Performance. Built on Trust.

LIQUIDS PIPELINES

OIL & GAS

LIQUID TRANSPORT

LIQUIDS TERMINALS

www.SCVVALVE.com | (281)482-4728



Thru Conduit Expanding Gate - 16" - 600

Full-Port Thru Conduit Gate Valve Solutions

SCV Valve manufactures some of the industry's most dependable API 6D Thru Conduit Slab and Expanding Gate Valves, engineered to deliver exceptional performance in the most demanding pipeline and process applications. Designed for positive shutoff, low operating torque, and long service life, both valve designs are available with flanged or butt-weld end connections and are manufactured, tested, and inspected in strict accordance with API 6D standards. The full-port bore provides unrestricted flow, minimizing pressure loss, reducing turbulence, and allowing for efficient pigging operations without flow restrictions.

Built for oil, refined products, petrochemical, and other critical liquid service applications, SCV Thru Conduit Gate Valves incorporate a robust sealing system that provides dependable bidirectional sealing while protecting the seating surfaces from wear during operation. Available in a wide range of pressure classes, materials, trims, coatings, and sealing configurations, each valve can be customized to meet the specific requirements of the application. Optional electric, pneumatic and hydraulic actuation packages are also available to support automated and remote operations.

Backed by decades of manufacturing expertise and a reputation for uncompromising quality, SCV Valve's Thru Conduit Gate Valves are trusted throughout the energy industry for their durability, reliability, and low cost of ownership. Whether installed in liquids terminals, liquids pipelines, or processing facilities, SCV delivers the performance, safety, and long-term dependability customers expect from a world-class valve manufacturer.

Note: Not recommended for throttling applications.
Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

For more information, call us @ (281) 482-4728
or visit our website @ www.scvvalve.com

Product Preview

Applicable Industry Standards

- Basic Design: API 6D
- Face-to-Face Dimension: ANSI B16.10
- Flange End Dimension: ANSI/ASME B16.5 (2” to 24”), ANSI/ASME B16.47 & MSS SP-44 (26” & up)
- Butt-Weld End Dimension: ANSI/ASME B16.25
- Inspection & Testing: API 6D
- Fire Safe Design: API 6FA

Thru Conduit Slab Gate

- Double block and bleed
- Internal pressure relieving through self relieving seats
- Spring loaded seat for low pressure sealing
- Pressure enegized seats for high pressure sealing
- Secondary sealant injection at seats and stems

Thru Conduit Expanding Gate

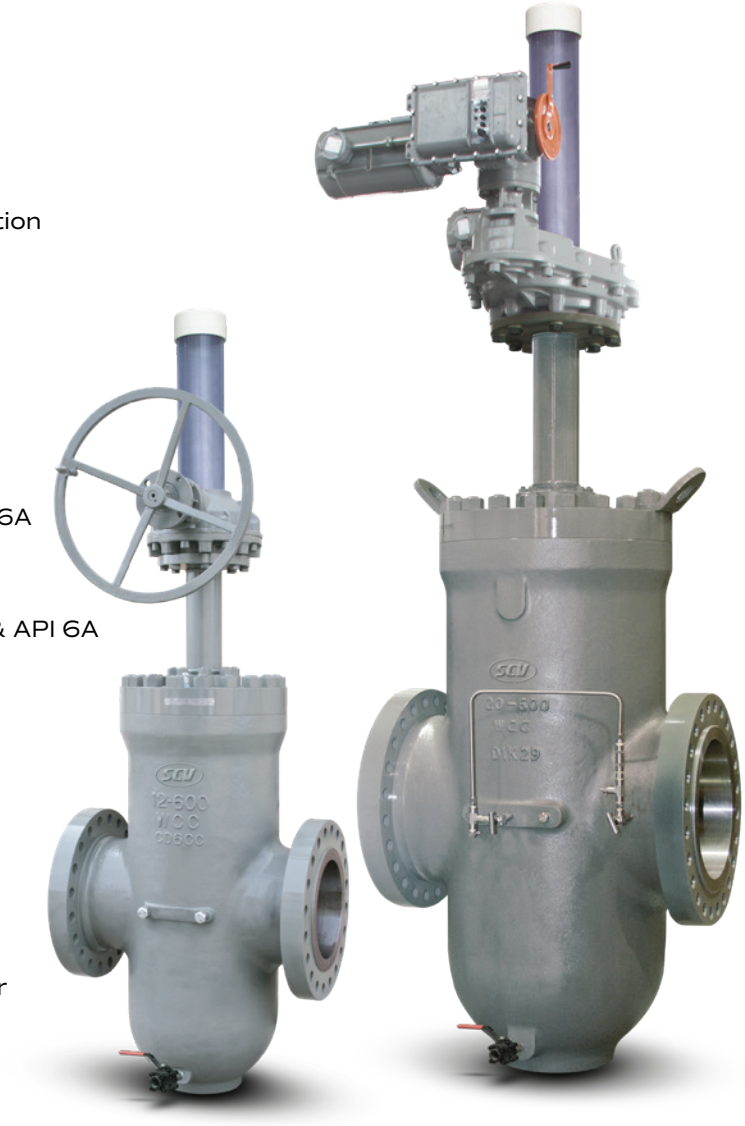
- Double isolation and bleed
- Mechanical sealing
- Expanding gate seals at low and high pressures
- Customizable DTR (Differential Thermal Relief) configuration
- Secondary sealant injections at seats and stems

Product Line

SCV Valve’s product lines include commodity valves as well as specialty valves in all sizes, pressure classes & metallurgy; including carbon steel, stainless steel & exotic alloys. The valve types include:

- Thru Conduit Gates - Slab & Expanding Gates - API 6D & API 6A
- Compact Slab & Expanding Gates - API 6D
- Geothermal Wedge, Slab & Expanding Gates - API 6D
- 3-Piece Bolted & Welded Trunnion Mounted Balls - API 6D & API 6A
- Rising Stem Balls - API 6D
- Floating Balls - B16.34
- Piston Checks - API 6D
- Full Port Swing Checks - API 6D
- Wedge Gates - API 600
- Globes - API 623
- Lubricated Plugs - API 6D

SCV Valve’s high quality standards demand 100% pressure testing of every valve to insure its reliability and full customer satisfaction. We pride ourselves with high quality products, timely deliveries, and competitive prices.



About SCV Valve

Company History

A LEGACY OF PERFORMANCE. A COMMITMENT TO QUALITY.

Since 2005, SCV Valve has built its reputation on a commitment to delivering dependable valve solutions backed by quality, technical expertise, and responsive customer service.

Originally operating in Friendswood, Texas, SCV Valve entered a new chapter of growth in 2009 with the relocation of its operations to Santa Fe, Texas. The new 28,000-square-foot facility provided the foundation for continued expansion and increased manufacturing capabilities. Since that move, SCV Valve has completed four phases of expansion, growing its Santa Fe operation to more than 120,000 square feet of assembly, modification, testing, inventory, and project staging space.

SCV's growth has been driven by scaling manufacturing capacity, capabilities, new product development, and a large ready to ship inventory to support the oil & gas, gas distribution, geothermal, and industrial markets. Today, SCV Valve manufactures a comprehensive range of API and ASME compliant valves, including thru conduit gate, trunnion mounted ball, floating ball, wedge gate, globe, swing check, piston check, dual plate check, lubricated plug, and specialty valve designs.

From its Santa Fe manufacturing facility, SCV Valve continues to invest in people, engineering, manufacturing technology, quality control, and customer support. The growth from 28,000 to more than 120,000 square feet reflects the same philosophy that has guided the company since 2005—continually expanding its capabilities while maintaining a relentless focus on quality, reliability, and customer satisfaction.

SCV Valve. Engineered for Performance. Built on Trust.

Mission Statement

SCV Valve is committed to consistently providing products that meet or exceed customer and regulatory specifications. SCV Valve aims to enhance customer satisfaction through implementing the highest levels of quality standards while assuring full conformity to those requirements.

What SCV Stand For

The letters SCV represent more than just a name—they reflect the principles that have shaped who we are and how we do business.



SERVICE

...represents our commitment to being responsive, dependable, and there when our customers need us.



CRAFTSMANSHIP

...reflects the skill, precision, and pride built into every valve we manufacture.



VALUES

...represent the integrity, accountability, and lasting relationships at the heart of our company.

These words weren't simply chosen to fit our initials—they were chosen because they describe the standards we strive to uphold every day. **SERVICE. CRAFTSMANSHIP. VALUES. That's SCV!**

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Product Line Overview



THRU CONDUIT SLAB & EXPANDING GATES

API 6D
2" - 42" | 150 - 1500

API 6A
9" - 13.625" | 2K, 3K, 5K



COMPACT THRU CONDUIT GATES

API 6D
2" - 36" | 150



GEOTHERMAL GATES

WEDGE GATES

API 600
2" - 48" | 150 - 2500

THRU CONDUIT SLAB & EXPANDING GATES

API 6D
2" - 30" | 150 - 600



3-PIECE TRUNNION BALLS

API 6D
2" - 42" | 150 - 2500

API 6A
9" - 13.625" | 2K, 3K, 5K



RISING STEM BALLS

API 600
2" - 20" | 150 - 2500



FLOATING BALL VALVES

B16.34
1/2" - 12" | 150 - 1500



PISTON CHECKS

API 6D
2" - 24" | 150 - 2500



FULL PORT SWING CHECKS

API 6D
2" - 36" | 150 - 2500



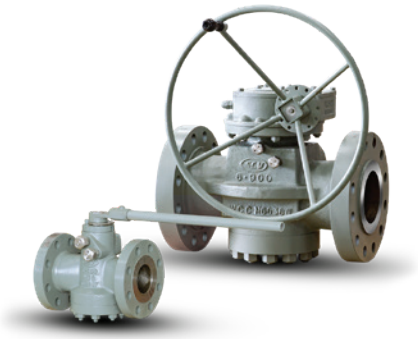
WEDGE GATES

API 600
2" - 48" | 150 - 2500



GLOBES

API 623
2" - 24" | 150 - 2500



LUBRICATED PLUGS

API 6D
2" - 36" | 150 - 2500

COMPLETE VALVE SOLUTIONS

SCV Valve offers one of the industry's most comprehensive product lines, combining fast delivery stock valves with custom engineered solutions for demanding applications. From specialized coatings to complete electric, pneumatic and hydraulic actuation packages, every valve is engineered to deliver the quality, performance, and reliability you expect from SCV.

Certifications & Registrations



API 6D CERTIFICATION

Pipeline valve performance & reliability

SCV Valve's API 6D-certified products are engineered to perform where reliability matters most. Manufactured and tested in accordance with the industry's most recognized pipeline valve standard, they provide exceptional pressure integrity, dependable sealing performance, and proven durability for critical oil, gas, petrochemical, and industrial applications. When uptime and safety are essential, customers around the world trust API 6D-certified SCV Valve products.

API 6A CERTIFICATION

Wellhead & upstream pressure control

SCV Valve's API 6A-certified products are engineered for the demanding conditions of upstream oil and gas production. Manufactured and tested to one of the industry's most stringent standards, they provide outstanding pressure containment, dependable sealing performance, and proven durability in high-pressure, high-temperature service. When safety, reliability, and performance are critical, operators trust API 6A-certified SCV Valve products to perform where failure is not an option.





ISO 9001:2015 CERTIFICATION

Quality management & manufacturing excellence

SCV Valve's ISO 9001:2015-certified Quality Management System reflects our commitment to manufacturing excellence and customer satisfaction. Every process—from engineering and material sourcing to production, inspection, and final testing—is guided by proven quality controls to ensure consistent performance, dependable reliability, and the highest standards of craftsmanship. It's another way SCV Valve delivers products our customers can trust, project after project.

CE PED CERTIFICATION

International regulatory compliance, pressure equipment safety & quality assurance

SCV Valve's CE PED-certified products are manufactured in accordance with the European Pressure Equipment Directive, ensuring compliance with rigorous safety, quality, and performance requirements. Through comprehensive design verification, manufacturing controls, and pressure testing, our valves deliver the reliability, pressure integrity, and regulatory compliance demanded by critical industrial and energy applications around the world.



CANADIAN REGISTRATION NUMBERS

- Alberta - OC07063.2
- British Columbia - OC07063.21
- New Brunswick - OC07063.27
- New Foundland & Laborador - OC07063.20
- Northwest Territory - OC07063.25
- Novascotia - OC07063.27
- Nunavut - OC07063.2N
- Manitoba - OC07063.24
- Ontario - OC07063.25
- Prince Edward Island - OC07063.29
- Yukon - OC07063.2

SCV Figure Number Chart

1 2 3 4 5

VALVE TYPE	BORE	CLASS	TRIM			PORT
CODE = DESCRIPTION	CODE = SIZE	CODE = CLASS	TYPE	CODE = BODY	TRIM	CODE = DESCR
BAL = Bolted Body Trunnion Ball	75 = 3/4	01 = 150	BAL	LE = LF2	LF2 + ENP	F = Full Port
WBT = Welded Body Trunnion Ball	01 = 1	03 = 300	BAL	L3 = LF2	316	R = 1 Step Reduced Port
FBV = Floating Ball	15 = 1-1/2	06 = 600	BAL	L4 = LF2	410	T 2 Step Reduced Port
FCK = Full Port Swing Check	02 = 2	09 = 900	BAL	L7 = LF2	17-4	S = Short
GAT = Wedge Gate	21 = 2-1/16	15 = 1500	BAL	LD = LF2	Duplex	SV = Short/Venturi
GLB = Globe	25 = 2-1/2	25 = 2500	BAL	ME = LF6	LF6 + ENP	R = Regular
PCK = Piston Check	27 = 2-9/16	20 = 2000	BAL	M4 = LF6	410	RV = Regular/Venturi
PLG = Lubricated Plug	03 = 3	30 = 3000	BAL	S3 = F316	316	V = Venturi
EPG = Expanding Gate	31 = 3-1/8	50 = 5000	BAL	SD = F316	Duplex	^LGs Only
TCG = Slab Gate	37 = 3-9/16	10 = 10000	BAL	DD = Duplex	Duplex	
CEG = Compact Expanding Gate	04 = 4	51 = 15000	BAL	CE = A105	A105 + ENP	
CSG = Compact Slab Gate	41 = 4-1/16		BAL	C4 = A105	410	
RSB = Rising Stem Ball	05 = 5		BAL	CX = A105	CUSTOM	
TPV = Top Entry Plug	51 = 5-1/8		PCK	CHS = WCC	CS+Ni + ST.	
FPP = Full Port Top Entry Plug	06 = 6		PCK	C3S = WCC	316 + ST.	
	71 = 7-1/16		PCK	LHS = LCC	LCS+Ni + ST.	
	08 = 8		PCK	L3S = LCC	316 + ST.	
	09 = 9		PCK	S3S = 316	316 + ST.	
	10 = 10		PCK	SDS = 316	Duplex + ST.	
	23 = 10-3/8		FCK	CH4 = WCC	CS+CR13 (410)	
	11 = 11		FCK	C3S = WCC	316 + ST.	
	12 = 12		FCK	LH4 = LCC	LCS+CR13 (410)	
	19 = 12-3/8		FCK	L3S = LCC	316 + ST.	
	13 = 13-5/8		FCK	S3S = 316	316 + ST.	
	14 = 14		GAT	CHS = WCB	CS + ST.	
	16 = 16		GAT	C3S = WCB	316 + ST.	
	17 = 17		GAT	L3S = LCB	316 + ST.	
	18 = 18		GAT	LHS = LCB	LCS + ST.	
	20 = 20		GAT	S3S = 316	316 + ST.	
	24 = 24		FBV	L3 = LCS		
	26 = 26		FBV	S3 = 316		
	28 = 28		FBV	B3 = A105		
	30 = 30		PLG	C4N = WCC		
	32 = 32		PLG	C3N = WCC		
	36 = 36		PLG	CDN = WCC		
	40 = 40		PLG	L4N = LCC		
	42 = 42		PLG	S3N = 316		
	38 = 38		GLB	CHS = CS		
	52 = 52		GLB	C4S = CS		
	56 = 56		GLB	C3S = CS		
	60 = 60		GLB	LHS = LCS		
			GLB	L4S = LCS		
			GLB	L3S = LCS		
			GLB	S3S = 316		
			TCG/EPG	CE = WCC		
			TCG/EPG	C4 = WCC		
			TCG/EPG	C3 = WCC		
			TCG/EPG	C7 = WCC		
			TCG/EPG	CD = WCC		
			TCG/EPG	LE = LCC		
			TCG/EPG	L4 = LCC		
			TCG/EPG	L3 = LCC		
			TCG/EPG	L7 = LCC		
			TCG/EPG	LD = LCC		
			TCG/EPG	S3 = CF8M		
			TCG/EPG	SD = CF8M		
			TCG/EPG	DD = Duplex		
			Geothermal	C3S = WCC		
			Geothermal	S3S = CF8M		
			Geothermal	C3O = WCC		
			Geothermal	S3O = CF8M		
			Geothermal	C3O = WCC		
			Geothermal	S3O = CF8M		

OPERATOR	O-RING	SEAT	FLANGE CONFIGURATION					WELD END SCHEDULE
CODE = DESCR	CODE = DESCR	CODE = DESCR	SPE = DESCR	DPE	SPExDPE	DPExSPE	THERMAL	CODE = DESCR
B = Bare Stem	A = AFLAS	C = Carbide Chrome	1 = RF	A	R	!	J	A = SCH. 40
A = Actuator	E = EPDM	D = Devlon	2 = RTJ	B	S	@	K	B = SCH. 80
L = Lever	H = HNBR	N = Nylon	3 = BWxBW	C	T	+	L	C = SCH. 160
G = Gear	I = HNBR 95 Duro	O = Generic Overlay	4 = RFxBW	D	U	%	M	D = SCH. XX(XXH)
H = Handwheel	K = FFKM	P = PEEK	5 = BWxRF	E	V	^	N	S = SCH. STD
S = Reverse Acting Actuator	V = Viton A	R = RTFE	6 = RTJxBW	#	W	&	O	X = SCH. XS
^Tcgs Only	W = Viton B	S = ST.6 Overlay	7 = RTJxRF	G	X	*	P	8 = SCH. 80S
L = Lock Open Lever	X = Viton F	T = PTFE	8 = BWxRTJ	H	Y	(	Q	9 = SCH. 40S
G = Lock Open Gear	Y = Viton GFLT	U = ST.21 Overlay	9 = RFxRTJ	I	Z	)	O	O = SCH. 10
D = Dampener	Z = Viton GLT	F = FFxFF	F = FFxFF	^Trunnions only				1 = SCH. 100
^Fcks Only								2 = SCH. 20
								3 = SCH. 120
								4 = SCH. 30
								5 = SCH. 140
								6 = SCH. 60
								7 = SCH. 10S
								Z = Custom Schedule

Control #: MSF 3.5-16 rev 22

Sample Figure Numbers & Descriptions

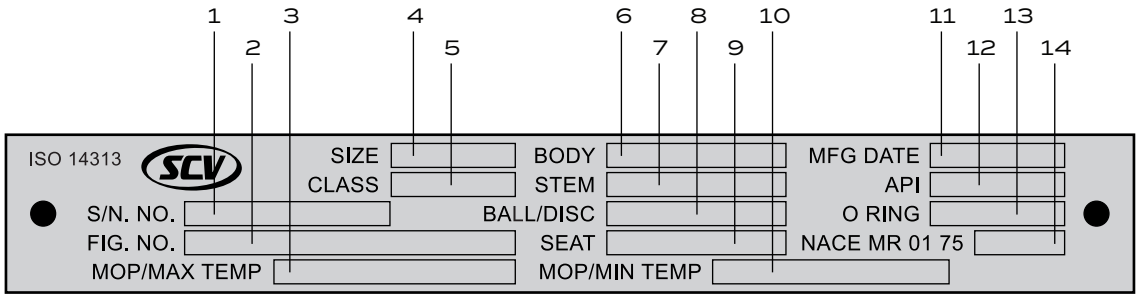
			1	2		3		4			5	6	7	8	9	10
	SEAT TYPE	DESCRIPTION	TYPE	BORE		CLASS		TRIM			PORT	OPERATOR	O-RING	SEAT	FLANGE	SCHEDULE
TRUNNION BALL	SOFT	BAL0206L4FLZD1	BAL	O	4	O	6	L		4	F	L	Z	D	1	/
	METAL	BAL0206L4TFLZ1	BAL	O	4	O	6	L	4	T	F	L	Z	/	1	/
FLOATING BALL	SOFT	FBV0206C3FLZP1	FBV	O	2	O	6	C		3	F	L	Z	P	1	/
RISING STEM BALL	SOFT	RSB	RSB	O	2	O	6					H	V	N	1	/
	METAL	RSB	RSB	O	2	O	6	C	H	S	/	H	V	/	1	/
EXPANDING GATE	SOFT	EPG	EPG	O	2	O	6	C		E	/	H	V	N	1	/
	METAL	EPG	EPG	O	2	O	6	C	H	S	/	H	V	/	1	/
SLAB GATE	SOFT	TCG0206CEHVN1	TCG	O	2	O	6	C		E	/	H	V	N	1	/
	METAL	TCG0206CHSHV1	TCG	O	2	O	6	C	H	S	/	H	V	/	1	/
COMPACT EXP. GATE	SOFT	CEG	CEG	O	2	O	6								1	/
WEDGE GATE	SOFT	GAT0206CHSH1	GAT	O	2	O	6	C	H	S	/	H	/		1	/
GLOBE	SOFT	GAT0206CHSH1	GAT	O	2	O	6	C	H	S	/	H	/		1	/
F.P. SWING CHECK	SOFT	FCK0206CH4V1	FCK	O	2	O	6	C	H	4	/	/	L	V	1	/
PISTON CHECK	SOFT	PCK0206CHSV1	PCK	O	2	O	6	C	H	S	/		V	/	1	/
LUBRICATED PLUG	SOFT	PLG0206C4NRVLV1	PLG	O	2	O	6	C	4	N	RV	L	V	/	1	/

Note: SCV Figure Chart is subject to change without notice. Custom engineered valves may have part numbers not reflected here.

For more information, call us @ (281) 482-4728 or visit our website @ www.scvvalve.com

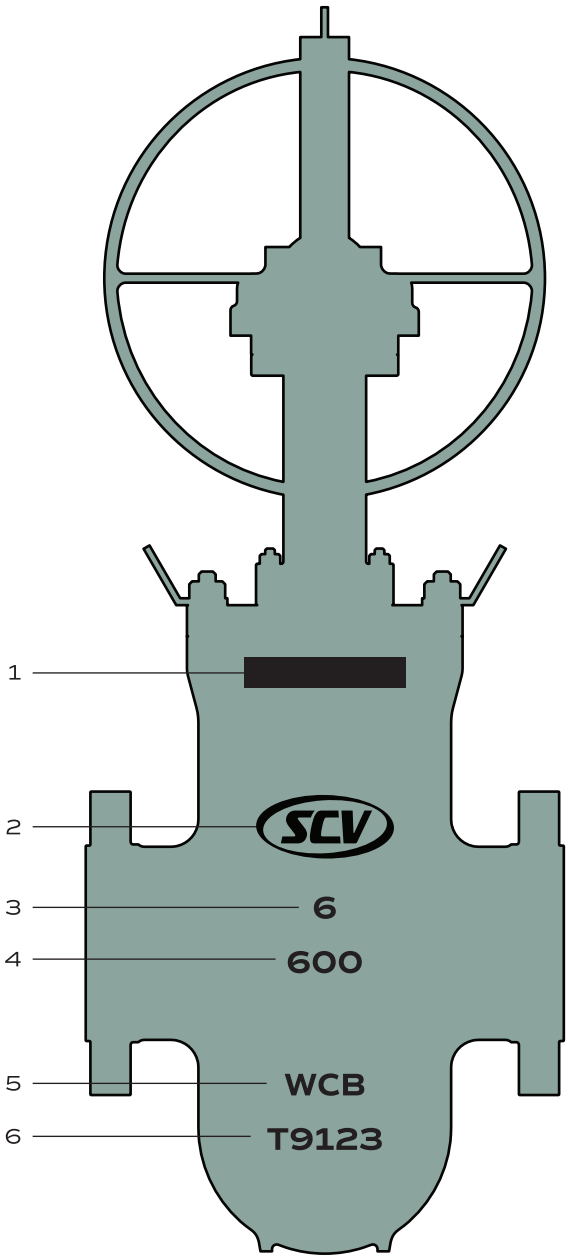
Valve ID Tag & Valve Markings Identification

Valve ID Tag



Tag Descriptions

NO.	FIGURE NUMBER CODE	DESCRIPTION
1	SERIAL NUMBER	Identifies certified manufacturers serial number
2	FIGURE NUMBER	Identifies the detailed valve configuration (valve type, bore size, pressure class, materials, etc.)
3	MOP/MAX. TEMP.	Identifies the maximum operating pressure in PSI and maximum operating temperature in Fahrenheit
4	SIZE	Identifies bore size
5	PRESSURE CLASS	Identifies pressure classifications per API requirements
6	BODY MATERIAL	Identifies body metal material composition (A105, WCB, F51, CF8M, etc.)
7	STEM MATERIAL	Identifies stem material composition (A105, 410SS, 17-4pH, etc.)
8	BALL/DISC MATERIAL	Identifies ball/disc material composition (A105, 316SS, ENP, etc.)
9	SEAT MATERIAL	Identifies seat material composition (PEEK, Teflon, Nylon, etc.)
10	MOP/MIN. TEMP.	Identifies the maximum operating pressure in PSI and minimum operating temperature in Fahrenheit
11	MANUFACTURING DATE	Identifies the date the valve manufacturing completion date
12	API CONFORMANCE	Identifies API conformance (600, 6D, 6A, etc.)
13	O RING	Identifies the O Ring material composition (Viton, Viton GLT, etc.)
14	NACE MR 01 75	Identifies corrosion resistance



Valve Markings

NO.	VALVE ID COMPONENTS
1	TAG
2	BRAND
3	SIZE
4	PRESSURE CLASS
5	BODY MATERIAL
6	HEAT NUMBER

Note: SCV reserves the right to modify our products for improvement without prior notice.

Thru Conduit Slab & Expanding Gate Valves | 2” - 42” | 150 - 1500

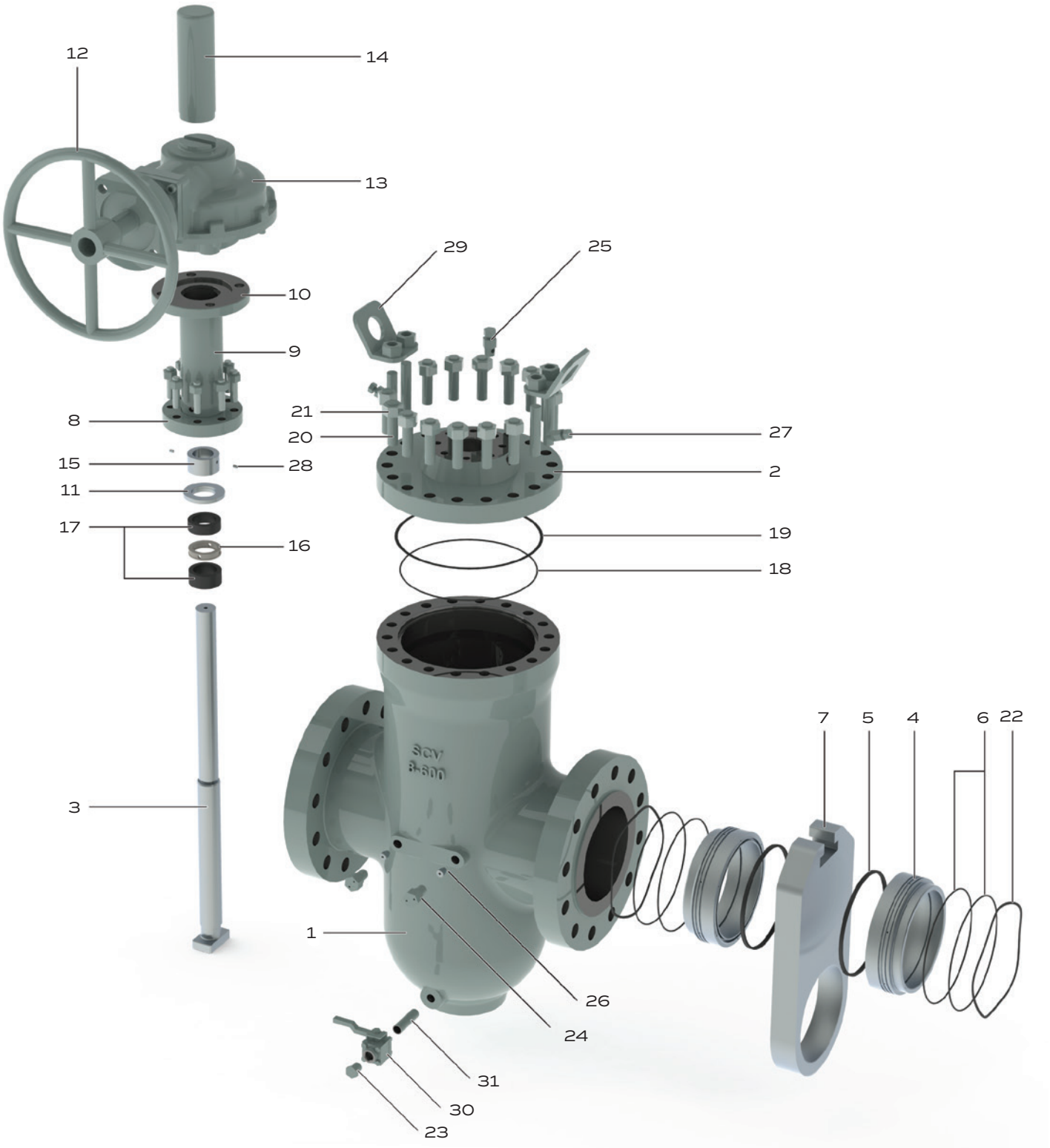
DESIGN & MANUFACTURING STANDARDS	
BASIC DESIGN	API 6D
FACE-TO-FACE DIMENSION	ANSI B16.10
FLANGE END DIMENSION	ANSI/ASME B16.5 (2” to 24”) & ANSI/ASME B16.47 & MSS SP-44 (26” & up)
BUTT-WELD END DIMENSION	ANSI/ASME B16.25
INSPECTION & TESTING	API 6D
FIRE SAFE DESIGN	API 6FA





Thru Conduit Expanding Gate - 20” - 150
w/Epoxy Coating

Expanded View

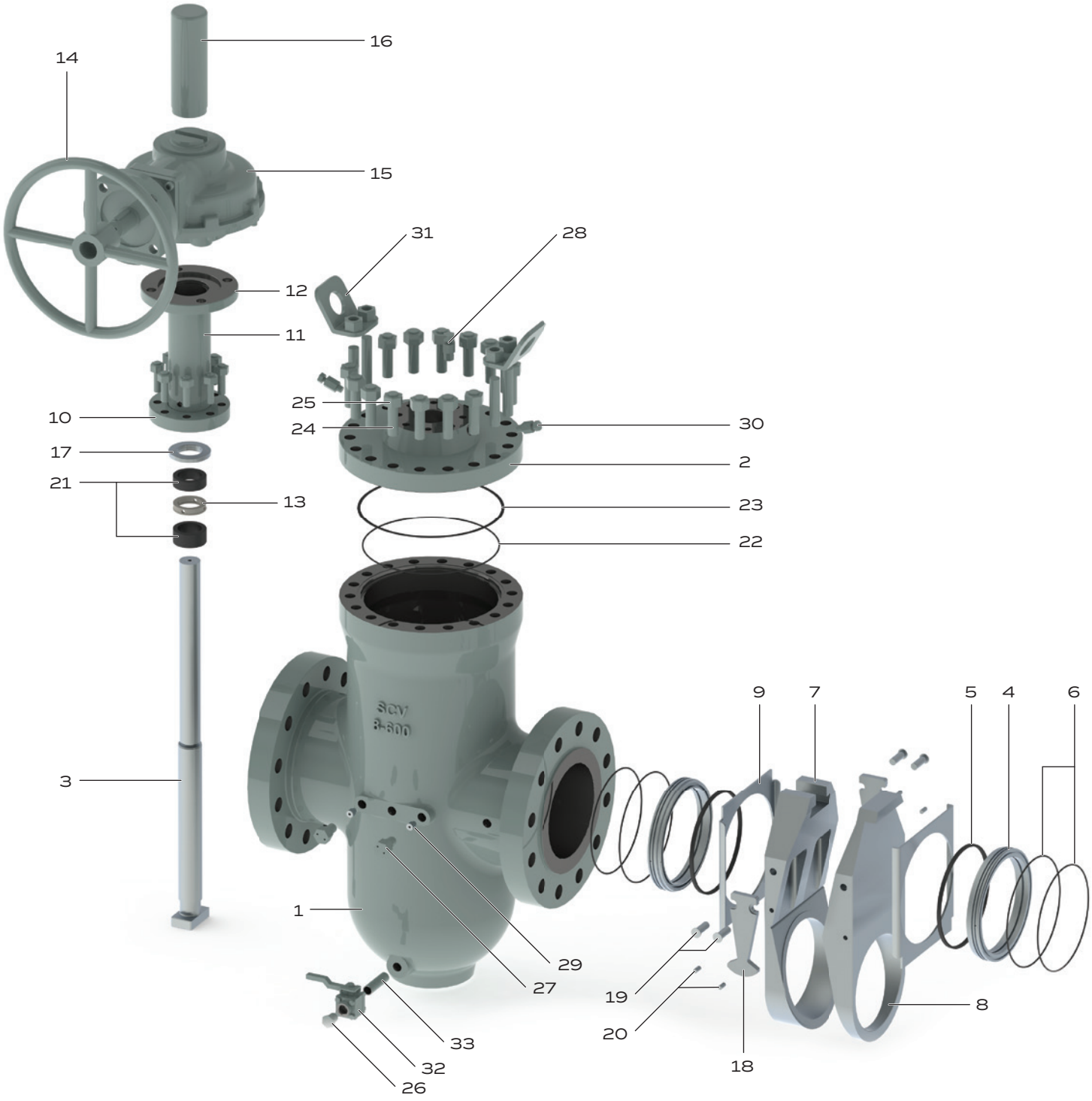


Bill of Materials

NO.	PART	MATERIAL		
		FIGURE NUMBER: 0813-VN	FIGURE NUMBER: 0813-VR	FIGURE NUMBER: 0215-HD
1	BODY	ASTM A216 WCC		ASTM A352 LCC
2	BONNET	ASTM A105		ASTM A350 LF2
3	STEM	ASTM A564 T Type 630, 17-4		
4	SEAT	ASTM A105 + ENP		ASTM A350 LF2 + ENP
5	SEAT INSERT	Nylon	RTFE	Devlon
6	SEAT O-RINGS	Viton AED		HNBR
7	GATE	ASTM A105 + ENP		ASTM A350 LF2 + ENP
8	YOKE BASE	ASTM A105		
9	YOKE TUBE	ASTM A106 Gr. B Pipe		
10	YOKE TOP	ASTM A105		
11	LANTERN RING	PEEK		
12	HANDWHEEL	Carbon Steel		
13	GEAR	Carbon Steel		
14	STEM PROTECTOR	Clear Plastic		
15	INTERNAL STOP NUT	ASTM A105		
16	GLAND	ASTM A105		
17	PACKING	Viton/Duck		
18	BONNET O-RING	Viton AED		HNBR
19	GASKET	Stainless Steel/Graphite - GHE		
20	STUD	ASTM A193 B7M		ASTM A320 L7M
21	HEAVY HEX NUT	ASTM A194 2HM		ASTM A320 L7M
22	WAVESPRING	17-7 Stainless Steel		
23	NPT PLUG	316 Stainless Steel		
24	GREASE FITTING, GBH	316 Stainless Steel		
25	VENT FITTING	316 Stainless Steel		
26	BALL CHECK	316 Stainless Steel		
27	PACKING INJECTION FITTING	316 Stainless Steel		
28	SET SCREW	B7M		
29	LIFT PLATE	A36		
30	BALL VALVE	Carbon Steel		
31	PIPE NIPPLE	ASTM A106		

Note: Backup Rings (PEEK) are utilized on Class 1500 and 2500

Expanded View

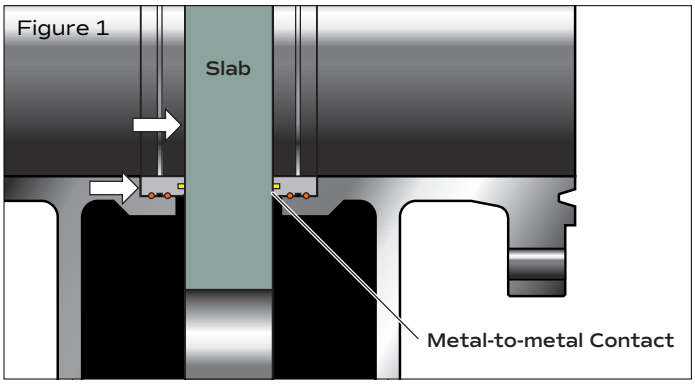


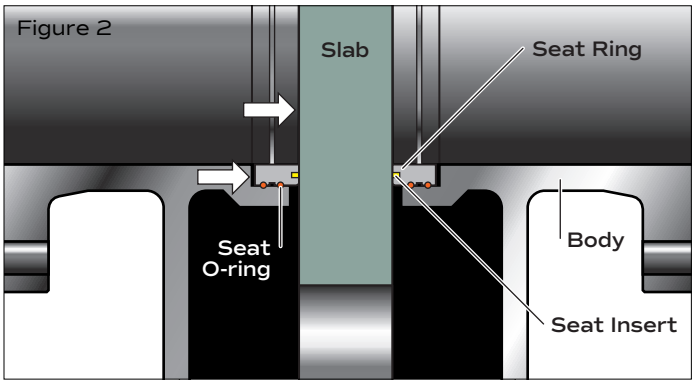
Bill of Materials

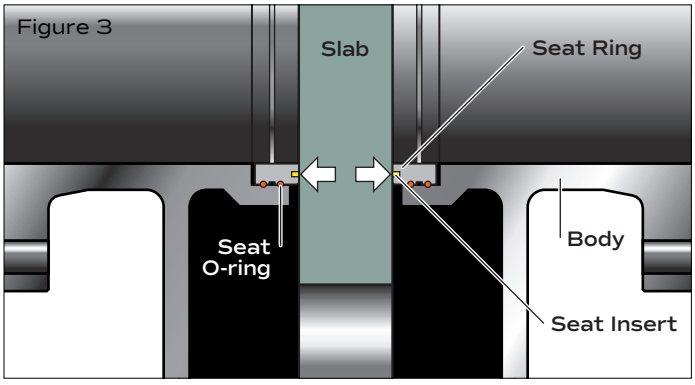
NO.	PART	MATERIAL		
		FIGURE NUMBER: 0813-VN	FIGURE NUMBER: 0813-VR	FIGURE NUMBER: 0215-HD
1	BODY	ASTM A216 WCC		ASTM A352 LCC
2	BONNET	ASTM A105		ASTM A350 LF2
3	STEM	ASTM A564 T Type 630, 17-4		
4	SEAT	ASTM A105 + ENP		ASTM A350 LF2 + ENP
5	SEAT INSERT	Nylon	RTFE	Devlon
6	SEAT O-RINGS	Viton AED		HNBR
7	GATE	ASTM A105 + ENP		ASTM A350 LF2 + ENP
8	YOKE BASE	ASTM A105		
9	YOKE TUBE	ASTM A106 Gr. B Pipe		
10	YOKE TOP	ASTM A105		
11	LANTERN RING	PEEK		
12	HANDWHEEL	Carbon Steel		
13	GEAR	Carbon Steel		
14	STEM PROTECTOR	Clear Plastic		
15	INTERNAL STOP NUT	ASTM A105		
16	GLAND	ASTM A105		
17	PACKING	Viton/Duck		
18	BONNET O-RING	Viton AED		HNBR
19	GASKET	Stainless Steel/Graphite - GHE		
20	STUD	ASTM A193 B7M		ASTM A320 L7M
21	HEAVY HEX NUT	ASTM A194 2HM		ASTM A320 L7M
22	WAVESPRING	17-7 Stainless Steel		
23	NPT PLUG	316 Stainless Steel		
24	GREASE FITTING, GBH	316 Stainless Steel		
25	VENT FITTING	316 Stainless Steel		
26	BALL CHECK	316 Stainless Steel		
27	PACKING INJECTION FITTING	316 Stainless Steel		
28	SET SCREW	B7M		
29	LIFT PLATE	A36		
30	BALL VALVE	Carbon Steel		
31	PIPE NIPPLE	ASTM A106		

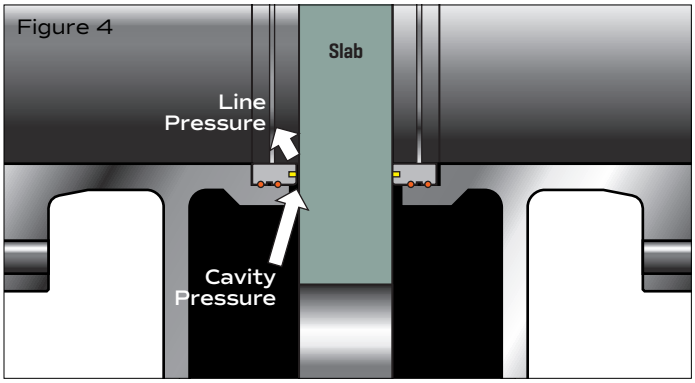
Note: Backup Rings (PEEK) are utilized on Class 1500 and 2500

Slab Gate Advanced Mechanical Details









SEATS – SOFT & METAL

The spring loaded double O-ring design seats maintain a perfect seal with the gate in both low and high pressure applications. The soft seat inserts help to ensure that the primary sealing occurs at the gate. In the event of soft seat damage, the seating of metal to metal will function as a secondary seal. **(Figure 1)**

DOUBLE BLOCK

When the valve is in the closed position and also has equal or no pressure, both spring loaded seats can shut off line pressure independently of upstream and downstream pressure. This creates a double block scenario. **(Figure 2)**

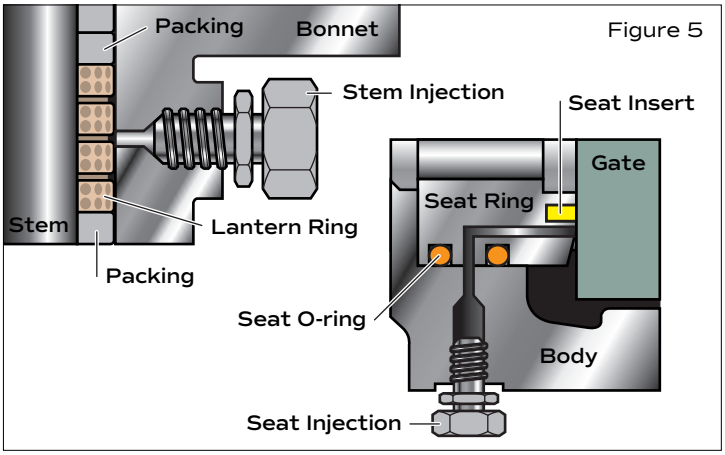
When line pressure is applied, the pressure forces the slab gate to float against the downstream seat and form a tight seal. At the same time, the upstream line pressure forces the upstream seat on the slab gate to form an upstream seal. **(Figure 3)**

SELF RELIEVING CAVITY

The double block and bleed slab gate design, in the closed position, may experience an increase in cavity pressure due to thermal expansion. When the cavity pressure exceeds the line pressure, the seat is forced away from the gate surface allowing the excess cavity pressure to be vented into the line. This allows for a pressure balance between the body cavity and the line. The valve body presure will relieve to the lower differential side. **(Figure 4)**

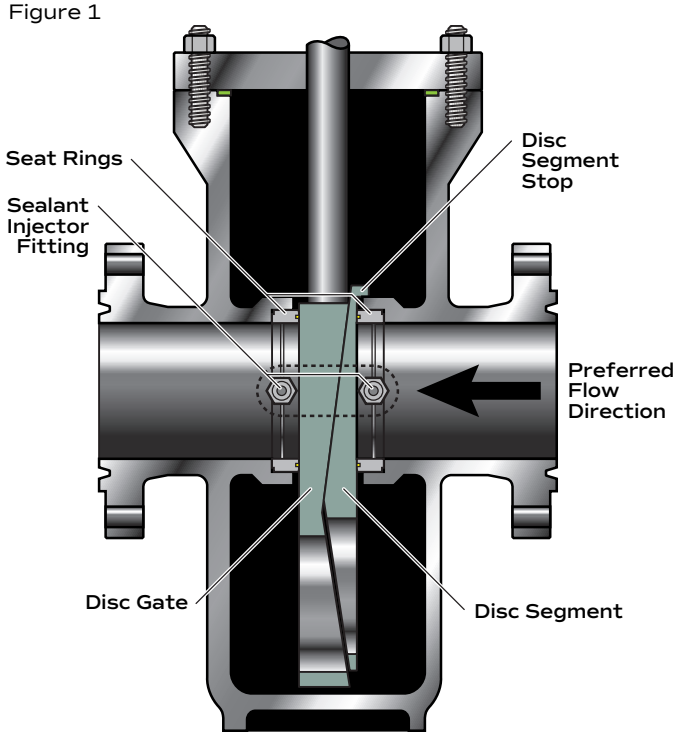
SECONDARY SEALANT & PACKING INJECTION

All valves will have secondary sealant injection fittings for the stem and seats. If the seat inserts or O-rings become damaged, leakage from the seat can be prevented by injecting sealant into the fittings. **(Figure 5)**



Expanding Gate Advanced Mechanical Details

Figure 1



FULL EXPANDED CLOSED

In the full expanded closed position, the segment stop has engaged with the lower body stop and the gate is wedged downward, expanding the gate and segment to form a tight seal against the upstream and downstream seats. Body cavity venting will assist to provide tight shut off. **(Figure 1)**

MID POSITION

When operating towards the open position, the gate travels across the wedge angle of the segment. This retracts the assembly so that is will slide freely between the seat faces. **(Figure 2)**

FULL EXPANDED OPEN

In the full expanded open position, the segment stop has engaged the upper body stop and the gate is wedged upward. This expands the segment and the gate into the seats, isolating the flow from the cavity. **(Figure 3)**

Figure 2

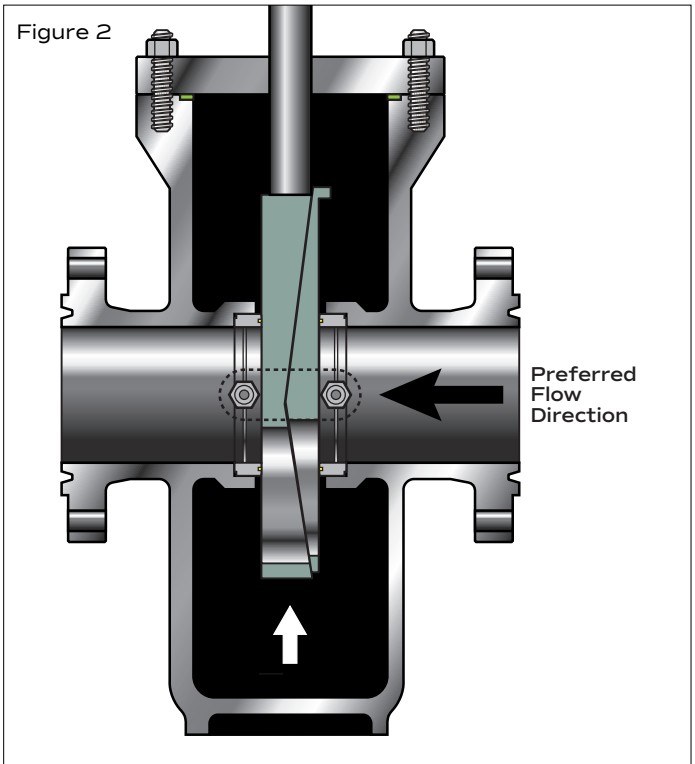
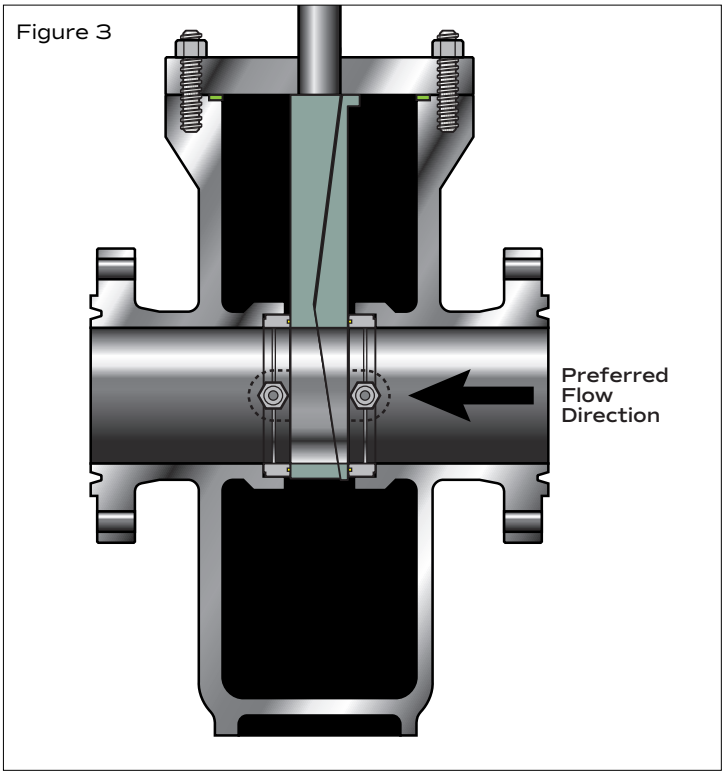
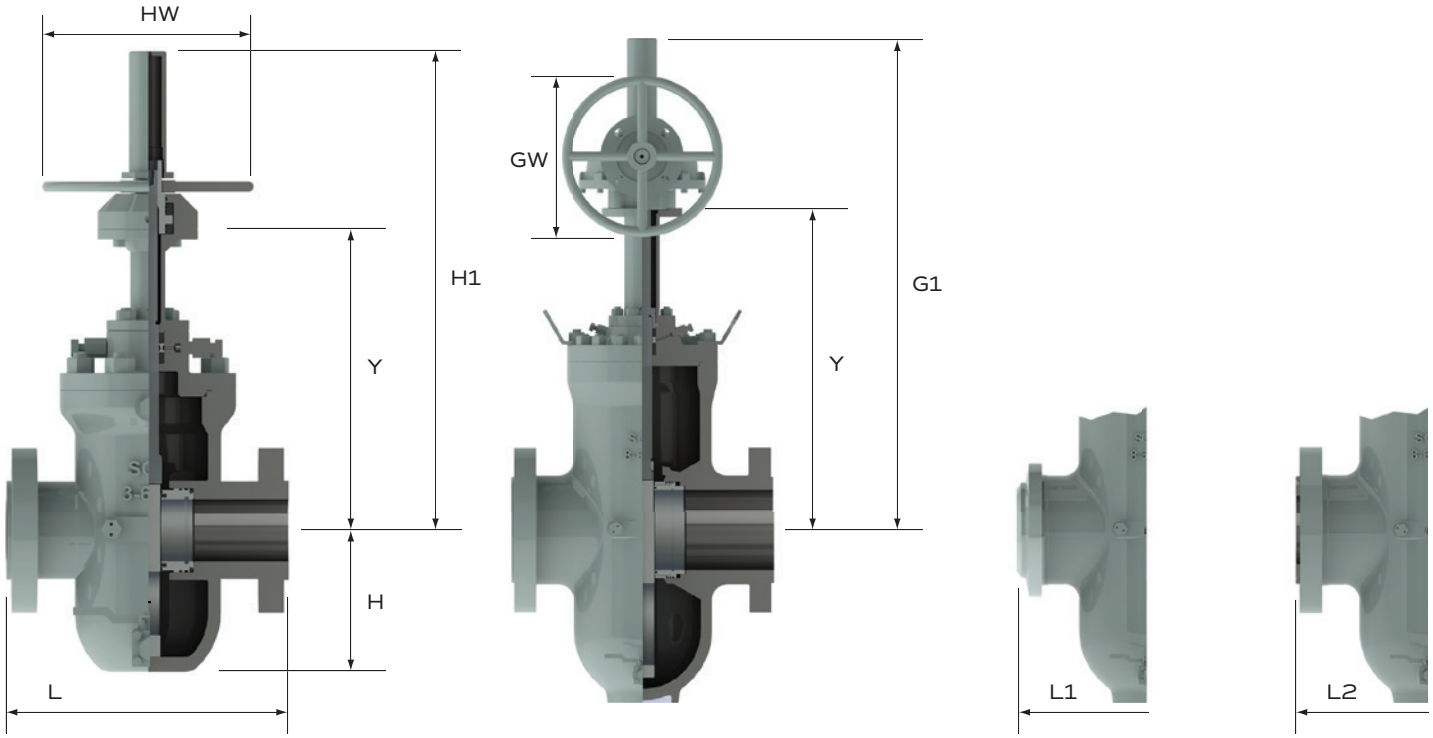


Figure 3

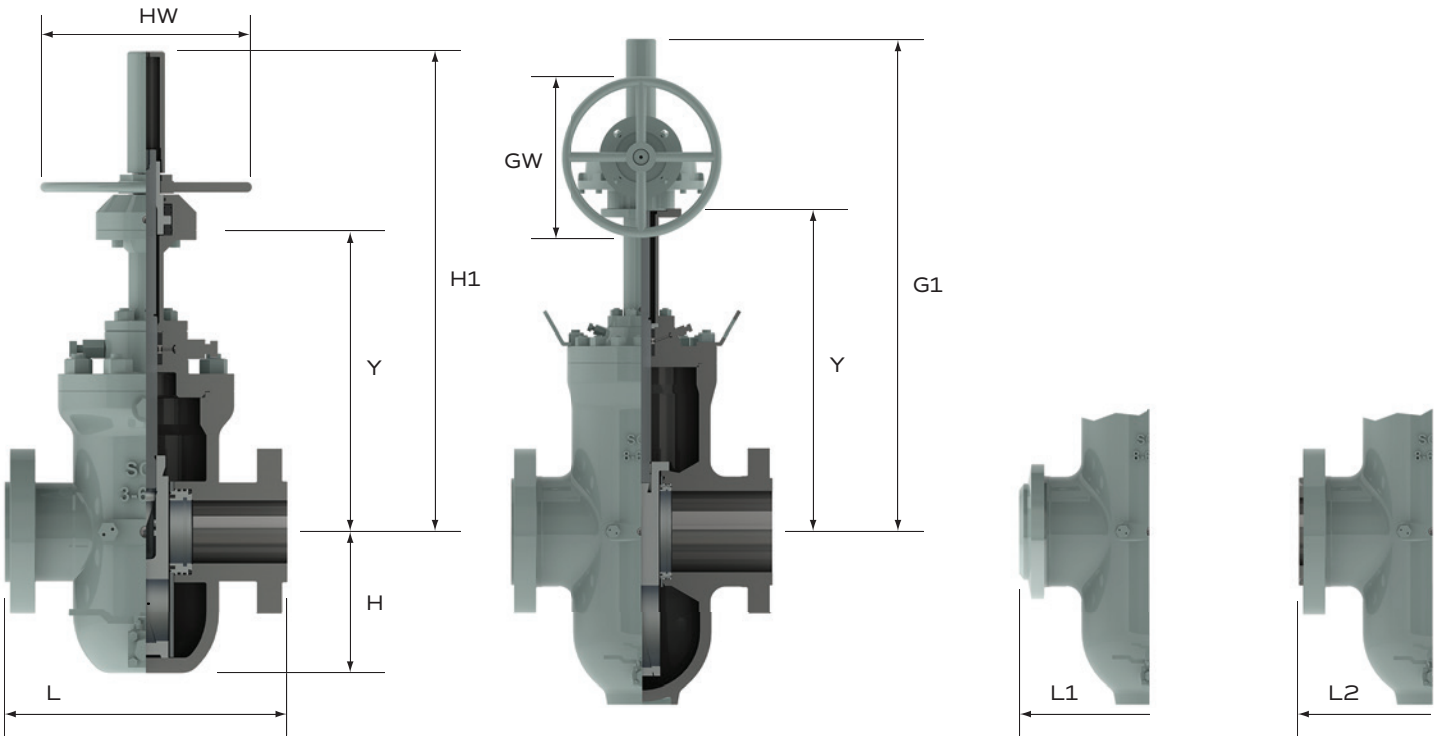


Slab Gate Valve Dimensions | 2” - 42” | 150



SIZE		BORE	END-TO-END		CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL		GEAR		WEIGHTS
		F	RF - L	BW - L1	H	Y	H1	HW	G1	GW	LBS/KG
IN	2	2.06	7.00	/	5.7	11.7	19.0	10	19.0	10	88
MM	50	52	178	/	145	297	483	254	483	254	40
IN	3	3.13	8.00	/	7.3	14.5	22.9	10.0	22.9	10.0	120
MM	80	80	203	/	185	868	582	254	582	254	54
IN	4	4.06	9.00	/	9.0	16.9	26.2	10.0	26.2	10.0	150
MM	100	103	229	/	229	429	665	254	665	254	68
IN	6	6.06	10.50	/	11.5	21.6	33.7	12.0	33.7	12.0	202
MM	150	154	267	/	292	549	856	305	856	305	92
IN	8	8.06	11.50	/	15.3	27.7	42.1	18.0	42.1	18.0	373
MM	200	205	292	/	389	704	1069	457	1069	457	169
IN	10	10.06	13.00	/	18.1	33.1	50.7	18.0	50.7	18.0	536
MM	250	256	330	/	460	841	1288	457	1288	457	243
IN	12	12.06	14.00	/	22.0	38.6	58.4	18.0	58.4	18.0	868
MM	300	306	356	/	559	980	1483	457	1483	457	394
IN	14	13.25	15.00	/	23.8	41.4	62.4	18.0	62.4	18.0	1125
MM	350	337	381	/	605	1052	1585	457	1585	457	510
IN	16	15.25	16.00	/	26.5	46.7	70.5	18.0	70.5	18.0	1516
MM	400	387	406	/	673	1186	1791	457	1791	457	688
IN	18	17.25	17.00	/	29.5	51.3	78.2	18.0	78.2	18.0	1893
MM	450	438	432	/	749	1303	1986	457	1986	457	859
IN	20	19.25	18.00	/	33.2	57.2	85.1	24.0	85.1	24.0	2561
MM	500	489	457	/	843	1453	2162	610	2162	610	1162
IN	24	23.25	20.00	/	39.7	68.6	101.2	24.0	101.2	24.0	4245
MM	600	591	508	/	1008	1742	2570	610	2570	610	1926
IN	28	27.00	24.00	/	46.0	80.5	117.4	24.0	117.4	24.0	6556
MM	700	686	610	/	1168	2045	2982	610	2982	610	2974
IN	30	29.00	26.00	/	49.3	84.0	122.5	24.0	122.5	24.0	7778
MM	750	737	660	/	1252	2134	3112	610	3112	610	3528
IN	32	30.75	28.00	/	52.6	88.8	129.9	24.0	129.9	24.0	9119
MM	800	781	813	/	1336	2256	3299	610	3299	610	4136
IN	36	34.50	32.00	/	58.0	97.2	141.0	24.0	141.0	24.0	11860
MM	900	876	813	/	1473	2469	3581	610	3581	610	5380
IN	40	38.50	36.00	/	64.8	110.0	158.3	24.0	158.3	24.0	15466
MM	1000	978	914	/	1646	2794	4021	610	4021	610	7015
IN	42	40.25	36.00	/	67.4	114.5	169.7	24.0	169.7	24.0	17304
MM	1050	1022	914	/	1712	2908	4303	610	4303	610	7849

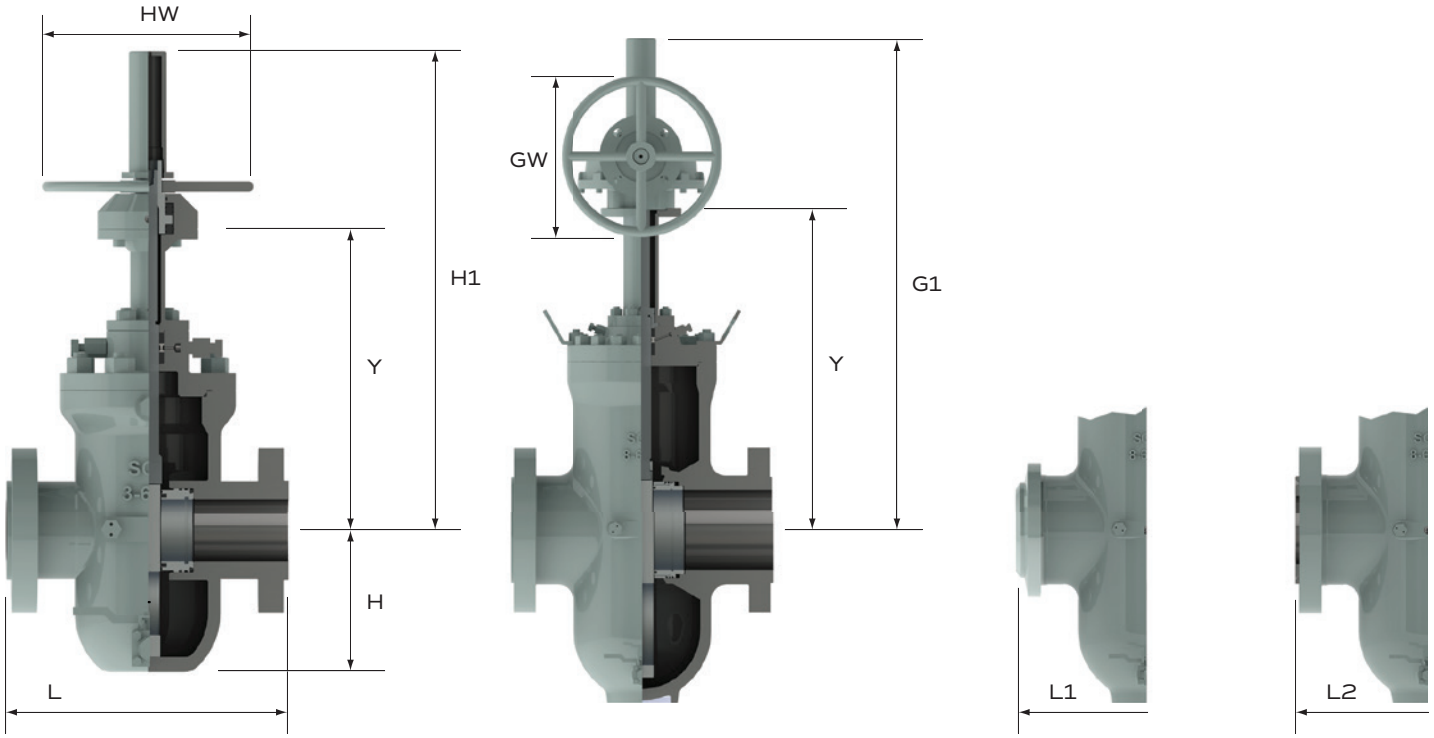
Expanding Gate Valve Dimensions | 2” - 40” | 150



SIZE		BORE	END-TO-END		CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL		GEAR		WEIGHTS
		F	RF - L	BW - L1	H	Y	H1	HW	G1	GW	LBS/KG
IN	3	3.13	11.13	/	7.0	14.9	23.8	10.0	23.8	10.0	155
MM	80	80	283	/	178	378	605	254	605	254	70
IN	4	4.06	9.00	/	9.0	16.9	27.4	10.0	27.4	10.0	150
MM	100	103	229	/	229	429	696	254	696	254	68
IN	6	6.06	10.50	/	12.1	21.7	34.0	12.0	34.0	12.0	232
MM	150	154	267	/	307	551	864	305	864	305	105
IN	8	8.06	11.50	/	15.9	27.9	43.1	18.0	43.1	18.0	434
MM	200	205	292	/	404	709	1095	457	1095	457	197
IN	10	10.06	13.00	/	19.4	33.5	51.6	18.0	51.6	18.0	713
MM	250	256	330	/	493	851	1311	457	1311	457	323
IN	12	12.06	14.00	/	22.6	39.1	59.2	18.0	59.2	18.0	1053
MM	300	306	356	/	574	993	15.4	457	15.4	457	478
IN	16	15.25	16.00	/	28.0	47.9	72.0	18.0	72.0	18.0	1922
MM	400	387	406	/	711	1217	1829	457	1829	457	872
IN	18	/	/	/	/	/	/	/	/	/	/
MM	450	/	/	/	/	/	/	/	/	/	/
IN	20	19.25	18.00	/	34.5	58.0	86.1	24.0	86.1	24.0	3361
MM	500	489	457	/	876	1473	2187	610	2187	610	1525
IN	22	21.25	19.00	/	38.8	/	99.3	24.0	99.3	24.0	4495
MM	550	540	483	/	986	/	2522	610	2522	610	2039
IN	24	23.25	20.00	/	40.8	70.4	103.1	24.0	103.1	24.0	5172
MM	600	591	508	/	1036	1788	2619	610	2619	610	2346
IN	30	29.00	26.00	/	50.4	83.9	125.4	24.0	125.4	24.0	9589
MM	750	737	660	/	1280	2131	3185	610	3185	610	4349
IN	32	30.75	/	/	/	/	/	/	/	/	/
MM	800	781	/	/	/	/	/	/	/	/	/
IN	36	34.50	34.50	/	59.5	98.6	145.4	24.0	145.4	24.0	14060
MM	900	876	876	/	1511	2504	3693	610	3693	610	6378
IN	40	38.50	36.00	/	66.5	110.7	159.0	24.0	159.0	24.0	21077
MM	1000	978	914	/	1689	2812	4039	610	4039	610	9560

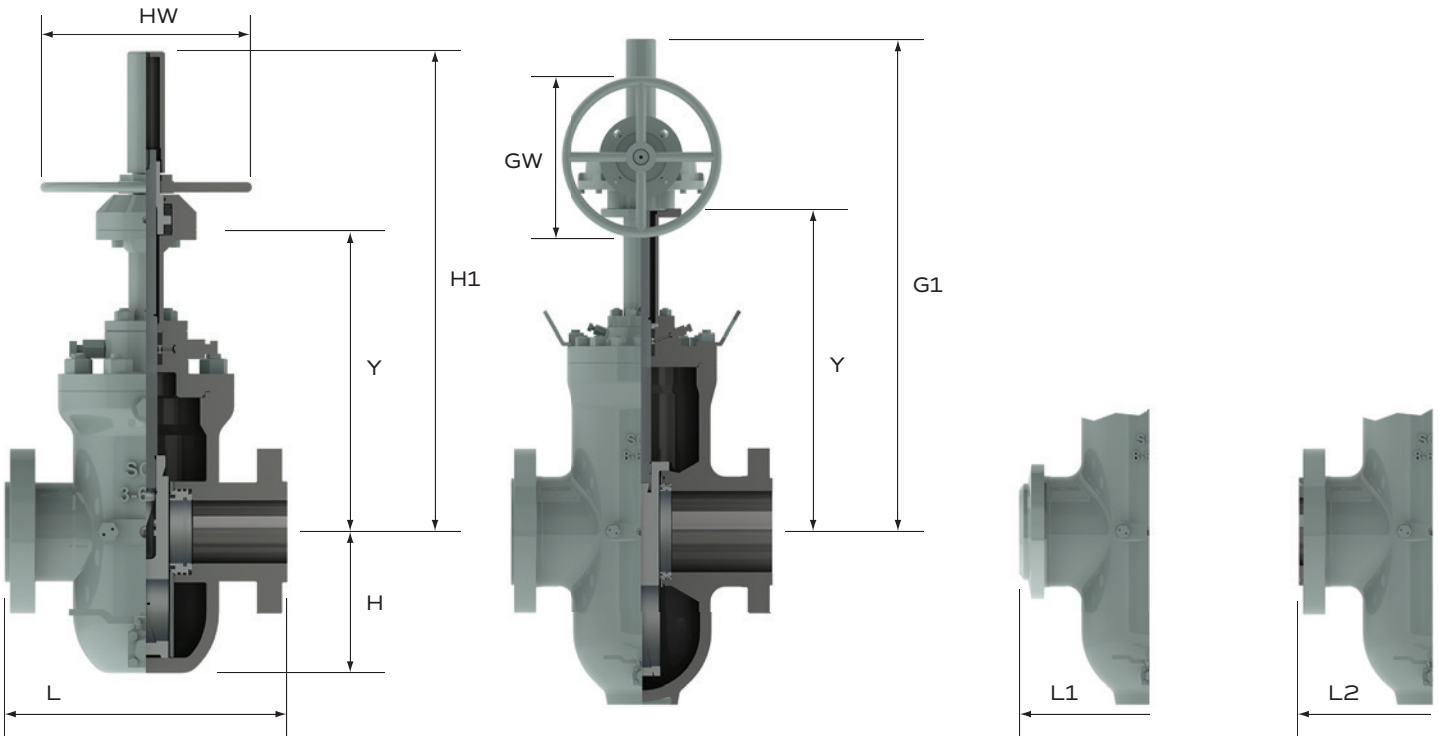
** = Consult factory.
Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog. Larger sizes can be engineered if needed.

Slab Gate Valve Dimensions | 2” - 40” | 300



SIZE		BORE	END-TO-END		CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL		GEAR		WEIGHTS LBS/KG
		F	RF - L	BW - L1	H	Y	H1	HW	G1	GW	
IN	2	2.06	8.50	/	5.7	11.7	19.0	10	19.0	10	124
MM	50	52	216	/	145	297	483	254	483	254	56
IN	3	3.13	11.13	/	7.3	14.5	22.9	10.0	22.9	10.0	163
MM	80	80	283	/	185	368	582	254	582	254	74
IN	4	4.06	12.00	/	9.0	16.9	26.2	10.0	26.2	10.0	181
MM	100	103	305	/	229	429	665	254	665	254	82
IN	6	6.06	15.88	/	11.5	21.6	33.7	12.0	33.7	12.0	335
MM	150	154	403	/	292	549	856	305	856	305	152
IN	8	8.06	16.50	/	15.3	27.7	42.1	18.0	42.1	18.0	609
MM	200	205	419	/	389	704	1069	457	1069	457	276
IN	10	10.06	18.00	/	18.1	33.1	50.7	18.0	50.7	18.0	1000
MM	250	256	457	/	460	841	1288	457	1288	457	454
IN	12	12.06	19.75	/	22.0	38.6	58.4	18.0	58.4	18.0	1402
MM	300	306	502	/	559	980	1483	457	1483	457	636
IN	16	15.25	33.00	/	26.5	46.7	70.5	18.0	70.5	18.0	2764
MM	400	387	838	/	673	1186	1791	457	1791	457	1254
IN	20	19.25	39.00	/	33.2	57.2	85.1	24.0	85.1	24.0	4429
MM	500	489	991	/	843	1453	2162	610	2162	610	2009
IN	22	21.25	43.00	/	38.5	66.4	98.5	24.0	98.5	24.0	6488
MM	550	540	1092	/	978	1687	2502	610	2502	610	2943
IN	24	23.25	45.00	/	39.7	68.6	101.2	24.0	101.2	24.0	7039
MM	600	591	1143	/	1008	1742	2570	610	2570	610	3193
IN	30	29.00	55.00	/	49.3	84.0	122.5	24.0	122.5	24.0	12389
MM	750	737	1397	/	1252	2134	3112	610	3112	610	5620
IN	36	34.50	68.00	/	58.0	97.2	141.0	24.0	141.0	24.0	19722
MM	900	876	1727	/	1473	2469	3581	610	3581	610	8946
IN	40	38.50	84.50	/	64.8	110.0	158.3	24.0	158.3	24.0	26401
MM	1000	978	2146	/	1646	2794	4021	610	4021	610	11975

Expanding Gate Valve Dimensions | 2” - 42” | 300

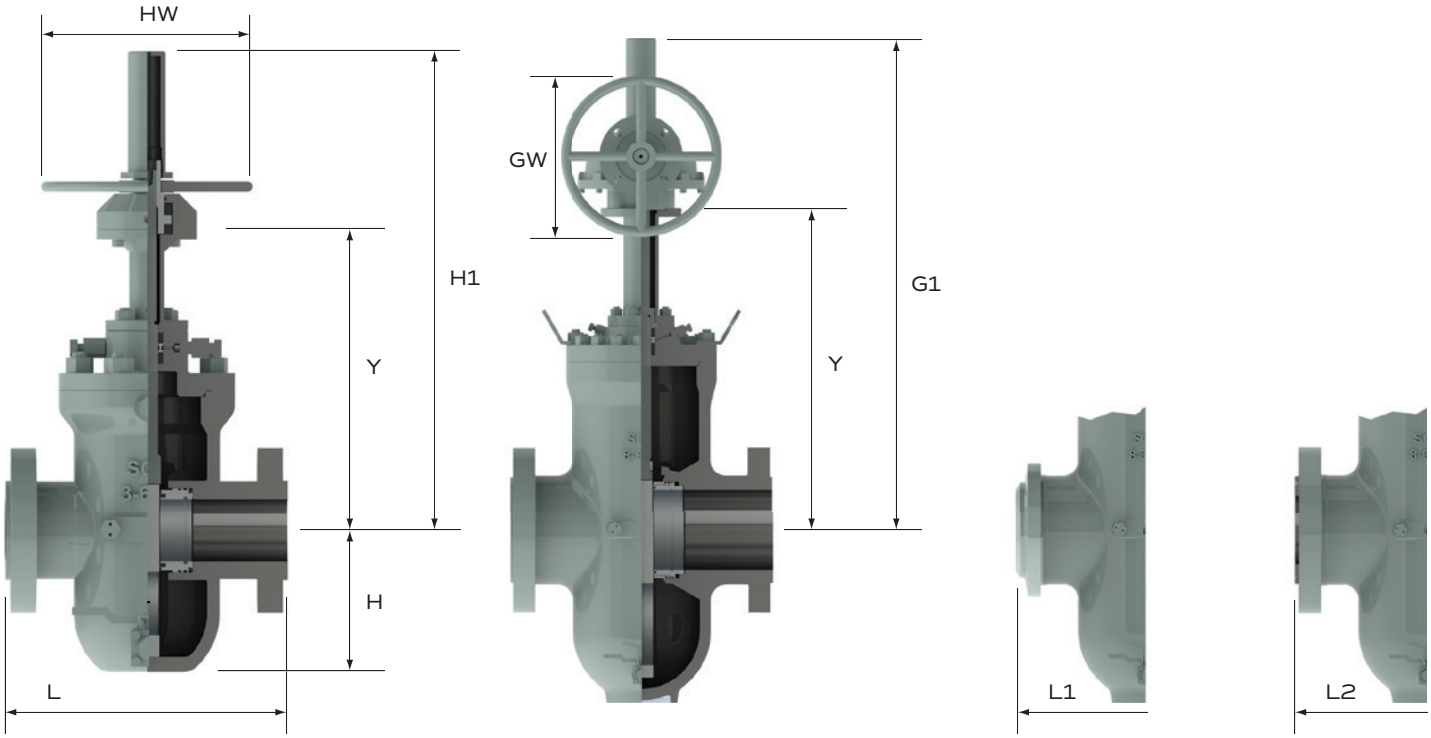


SIZE		BORE	END-TO-END		CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL		GEAR		WEIGHTS LBS/KG
		F	RF - L	BW - L1	H	Y	H1	HW	G1	GW	
IN	2	2.06	8.50	/	5.7	11.7	19.0	10	19.0	10	93
MM	50	52	216	/	145	297	483	254	483	254	42
IN	3	3.13	11.13	/	7.3	14.5	22.9	10.0	22.9	10.0	141
MM	80	80	283	/	185	368	582	254	582	254	64
IN	4	4.06	12.00	/	9.0	16.9	26.2	10.0	26.2	10.0	181
MM	100	103	305	/	229	429	665	254	665	254	82
IN	6	6.06	15.88	/	11.5	21.6	33.7	12.0	33.7	12.0	310
MM	150	154	403	/	292	549	856	305	856	305	141
IN	8	8.06	16.50	/	15.3	27.7	42.1	18.0	42.1	18.0	540
MM	200	205	419	/	389	704	1069	457	1069	457	245
IN	10	10.06	18.00	/	18.1	33.1	50.7	18.0	50.7	18.0	733
MM	250	256	457	/	460	841	1288	457	1288	457	332
IN	12	12.06	19.75	/	22.0	38.6	58.4	18.0	58.4	18.0	1300
MM	300	306	502	/	559	980	1483	457	1483	457	590
IN	14	13.25	30.00	/	23.8	41.4	62.4	18.0	62.4	18.0	1626
MM	350	337	762	/	605	1052	1585	457	1585	457	738
IN	16	15.25	33.00	/	26.5	46.7	70.5	18.0	70.5	18.0	2420
MM	400	387	838	/	673	1186	1791	457	1791	457	1098
IN	18	17.25	36.00	/	29.5	51.3	78.2	18.0	78.2	18.0	3197
MM	450	438	914	/	749	1303	1986	457	1986	457	1450
IN	20	19.25	39.00	/	33.2	57.2	85.1	24.0	85.1	24.0	4000
MM	500	489	991	/	843	1453	2162	610	2162	610	1814
IN	24	23.25	45.00	/	39.7	68.6	101.2	24.0	101.2	24.0	6391
MM	600	591	1143	/	1008	1742	2570	610	2570	610	2899
IN	30	29.00	55.00	/	49.3	84.0	122.5	24.0	122.5	24.0	11272
MM	750	737	1397	/	1252	2134	3112	610	3112	610	5113
IN	36	34.50	68.00	/	58.0	97.2	141.0	24.0	141.0	24.0	17885
MM	900	876	1727	/	1473	2469	3581	610	3581	610	8112
IN	40	38.50	84.50	/	64.8	110.0	158.3	24.0	158.3	24.0	22237
MM	1000	978	2146	/	1646	2794	4021	610	4021	610	10087
IN	42	40.25	72.00	/	67.4	114.5	169.7	24.0	169.7	24.0	20381
MM	1050	1022	1829	/	1712	2908	4303	610	4303	610	9245

** = Consult factory.

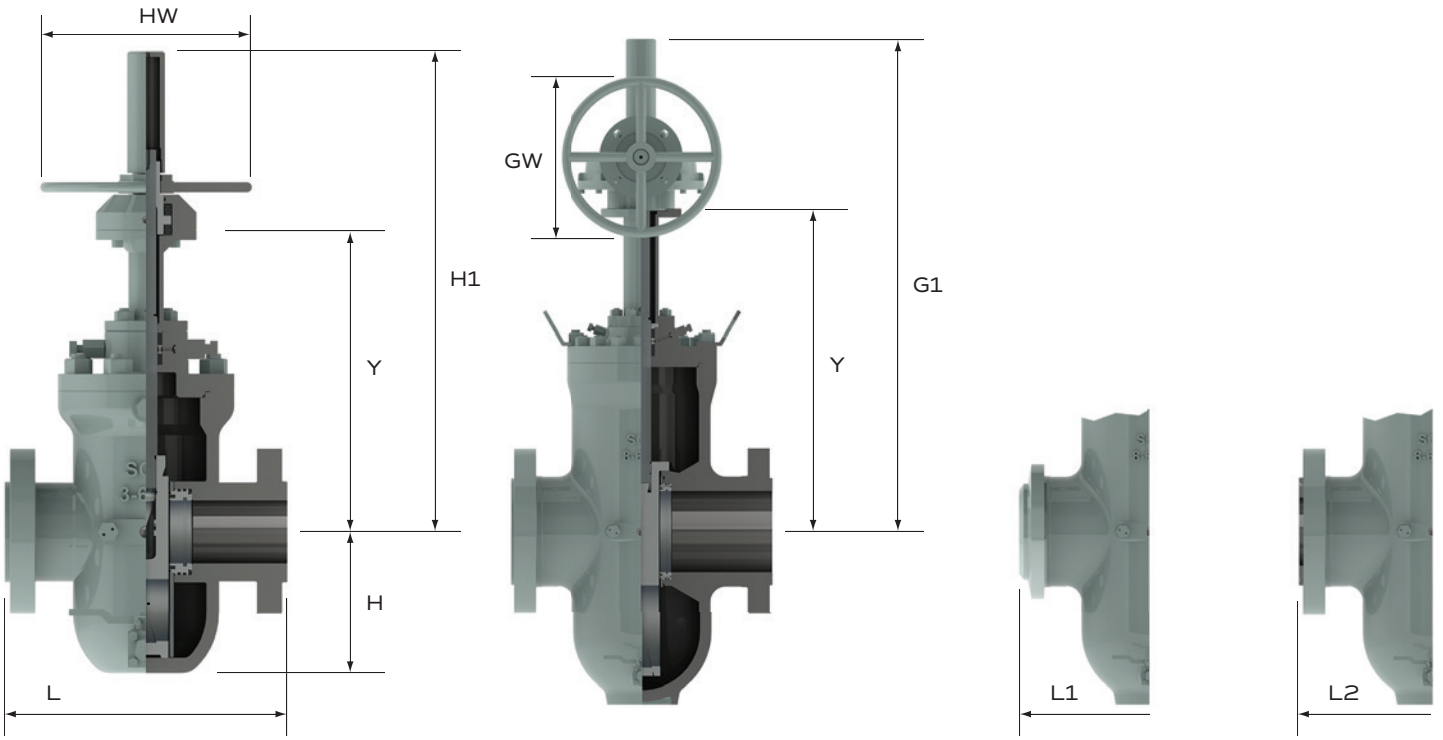
Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog. Larger sizes can be engineered if needed.

Slab Gate Valve Dimensions | 2” - 36” | 600



SIZE		BORE	END-TO-END			CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL		GEAR		WEIGHTS LBS/KG
		F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW	
IN	2	2.06	11.50	11.50	11.88	5.4	12.1	19.0	12.0	19.0	12.0	124
MM	50	52	292	292	302	137	307	483	305	483	305	56
IN	3	3.13	14.00	14.00	14.12	7.0	14.96	23.3	12.0	23.3	12.0	179
MM	80	80	356	356	359	178	380	592	305	592	305	81
IN	4	4.06	17.00	17.00	17.12	10.1	20.5	31.4	12.0	31.4	12.0	350
MM	100	103	432	432	435	257	521	798	305	798	305	159
IN	6	6.06	22.00	22.00	22.12	12.8	25.8	39.3	18.0	39.3	18.0	603
MM	150	154	559	559	562	325	655	998	457	998	457	274
IN	8	8.06	26.00	26.00	26.12	17.1	31.9	48.5	18.0	48.5	18.0	1069
MM	200	205	660	660	663	434	810	1232	457	1232	457	485
IN	10	10.06	31.00	31.00	31.12	21.3	38.0	57.6	18.0	57.6	18.0	1846
MM	250	256	787	787	790	541	965	1463	457	1463	457	837
IN	12	12.06	33.00	33.00	33.12	23.5	43.9	64.9	18.0	64.9	18.0	2442
MM	300	306	838	838	841	597	1115	1648	457	1648	457	1108
IN	14	13.25	35.00	35.00	35.12	26.8	47.4	71.4	24.0	71.4	24.0	3237
MM	350	337	889	889	892	681	1204	1814	610	1814	610	1468
IN	16	15.25	39.00	39.00	39.12	29.5	52.8	77.6	24.0	77.6	24.0	4204
MM	400	387	991	991	994	749	1341	1971	610	1971	610	1907
IN	18	17.25	43.00	43.00	43.12	33.3	58.2	87.8	24.0	87.8	24.0	5880
MM	450	438	1092	1092	1095	846	1478	2230	610	2230	610	2667
IN	20	19.19	47.00	47.00	47.25	36.8	65.7	98.3	30.0	98.3	30.0	8325
MM	500	487	1194	1194	1200	935	1669	2497	610	2497	610	3776
IN	22	21.25	51.00	/	/	40.8	72.4	107.3	24.0	107.3	24.0	10292
MM	550	540	1295	/	/	1036	1839	2725	610	2725	610	4668
IN	24	23.25	55.00	55.00	55.38	44.5	78.3	115.3	24.0	115.3	24.0	12718
MM	600	591	1397	1397	1407	1130	1989	2929	610	2929	610	5769
IN	30	29.00	65.00	65.00	65.38	54.0	94.4	140.1	24.0	140.1	24.0	21489
MM	750	737	1651	1651	1661	1372	2398	3559	610	3559	610	9747
IN	36	34.50	82.00	/	/	63.5	108.6	160.7	24.0	160.7	24.0	33646
MM	900	876	2083	/	/	1613	2785	4082	610	4082	610	15262

Expanding Gate Valve Dimensions | 2” - 36” | 600

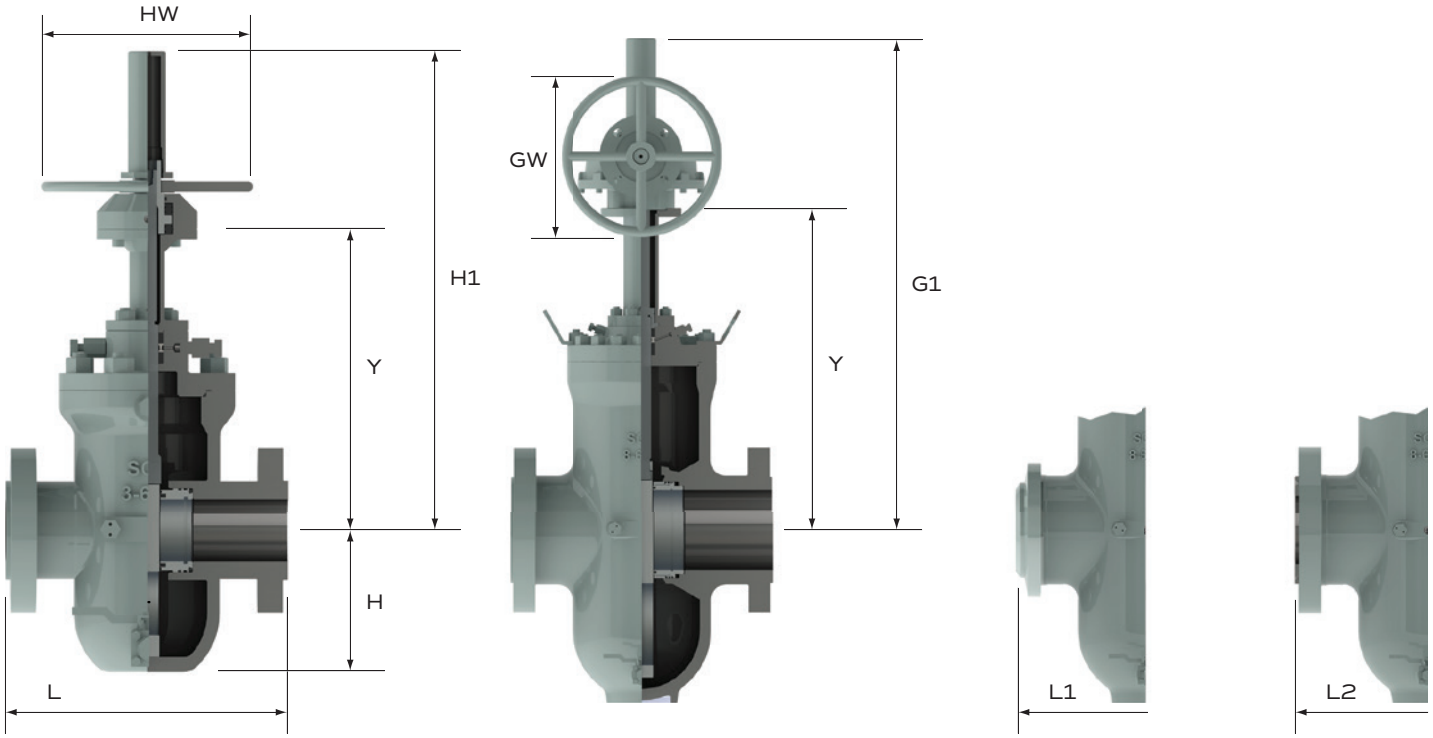


SIZE		BORE	END-TO-END			CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL		GEAR		WEIGHTS LBS/KG
		F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW	
IN	2	2.06	11.50	11.50	11.88	5.4	12.1	19.0	12.0	19.0	12.0	124
MM	50	52	292	292	302	137	307	483	305	483	305	56
IN	3	3.13	14.00	14.00	14.12	7.0	14.96	23.3	12.0	23.3	12.0	184
MM	80	80	356	356	359	178	380	592	305	592	305	83
IN	4	4.06	17.00	17.00	17.12	10.1	20.5	31.4	12.0	31.4	12.0	349
MM	100	103	432	432	435	257	521	798	305	798	305	158
IN	6	6.06	22.00	22.00	22.12	12.8	25.8	39.3	18.0	39.3	18.0	601
MM	150	154	559	559	562	325	655	998	457	998	457	273
IN	8	8.06	26.00	26.00	26.12	17.1	31.9	48.5	18.0	48.5	18.0	1075
MM	200	205	660	660	663	434	810	1232	457	1232	457	488
IN	10	10.06	31.00	31.00	31.12	21.3	38.0	57.6	18.0	57.6	18.0	1876
MM	250	256	787	787	790	541	965	1463	457	1463	457	851
IN	12	12.06	33.00	33.00	33.12	23.5	43.9	64.9	18.0	64.9	18.0	2494
MM	300	306	838	838	841	597	1115	1648	457	1648	457	1131
IN	14	13.25	35.00	35.00	35.12	26.8	47.4	71.4	24.0	71.4	24.0	3327
MM	350	337	889	889	892	681	1204	1814	610	1814	610	1059
IN	16	15.25	39.00	39.00	39.12	29.5	52.8	77.6	24.0	77.6	24.0	4367
MM	400	387	991	991	994	749	1341	1971	610	1971	610	1981
IN	18	17.25	43.00	43.00	43.12	33.1	58.2	87.8	24.0	87.8	24.0	6047
MM	450	438	1092	1092	1095	841	1478	2230	610	2230	610	2743
IN	20	19.19	47.00	47.00	47.25	36.8	65.7	98.3	30.0	98.3	30.0	8610
MM	500	487	1194	1194	1200	935	1669	2497	610	2497	610	3905
IN	22	21.25	51.00	/	/	40.8	72.4	107.3	24.0	107.3	24.0	10720
MM	550	540	1295	/	/	1036	1839	2725	610	2725	610	4863
IN	24	23.25	55.00	55.00	55.38	44.5	78.3	115.3	24.0	115.3	24.0	13315
MM	600	591	1397	1397	1407	1130	1989	2929	610	2929	610	6040
IN	26	25.00	57.00	**	**	48.6	78.3	115.3	24.0	115.3	24.0	16417
MM	650	635	1448	**	**	1234	1989	2929	610	2929	610	7447
IN	28	27.00	61.00	**	**	52.0	78.3	115.3	24.0	115.3	24.0	18692
MM	700	686	1549	**	**	1321	1989	2929	610	2929	610	8476
IN	30	29.00	65.00	**	**	54.0	94.4	140.1	24.0	140.1	24.0	22606
MM	750	737	1651	**	**	1372	2398	3559	610	3559	610	10254
IN	36	34.50	82.00	**	**	64.0	108.6	160.7	24.0	160.7	24.0	35984
MM	900	876	2083	**	**	1626	2785	4082	610	4082	610	16322

** = Consult factory.

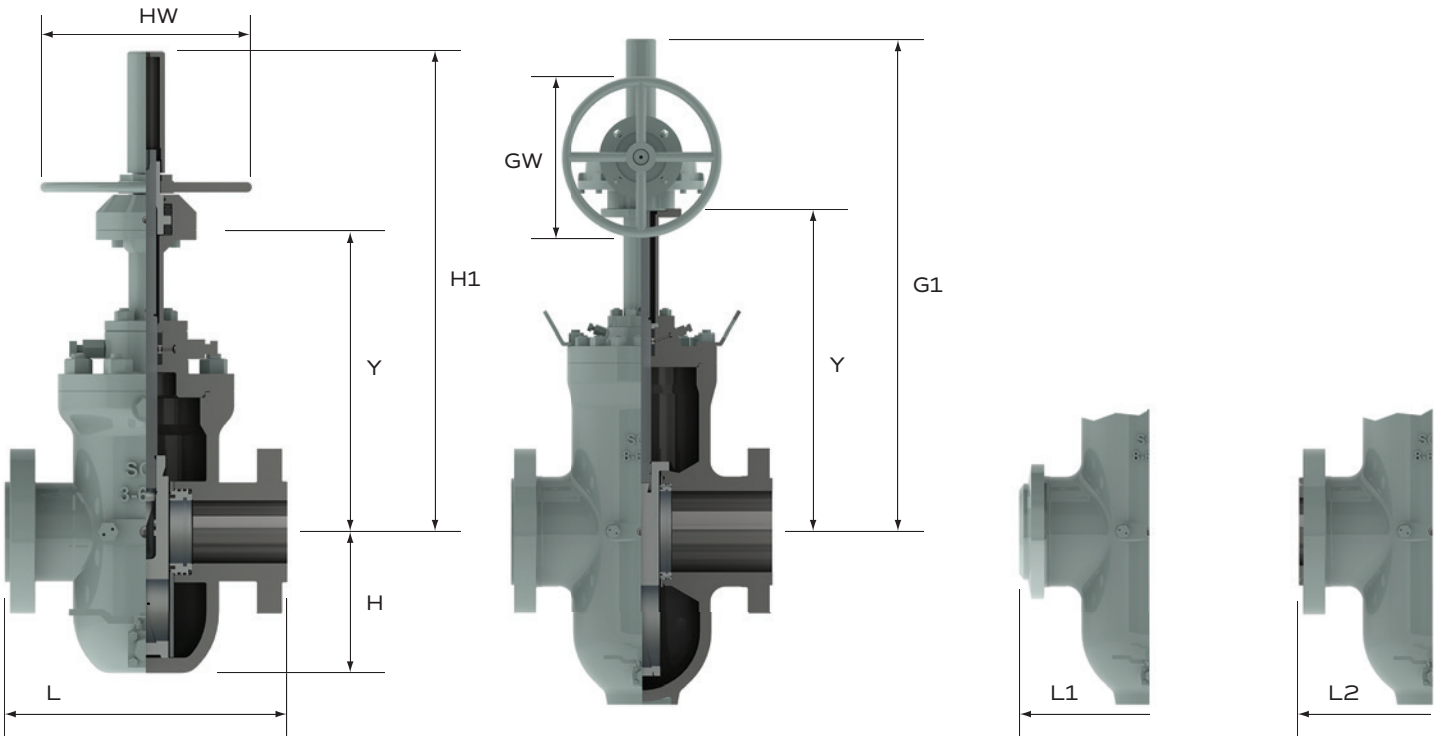
Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog. Larger sizes can be engineered if needed.

Slab Gate Valve Dimensions | 2” - 24” | 900



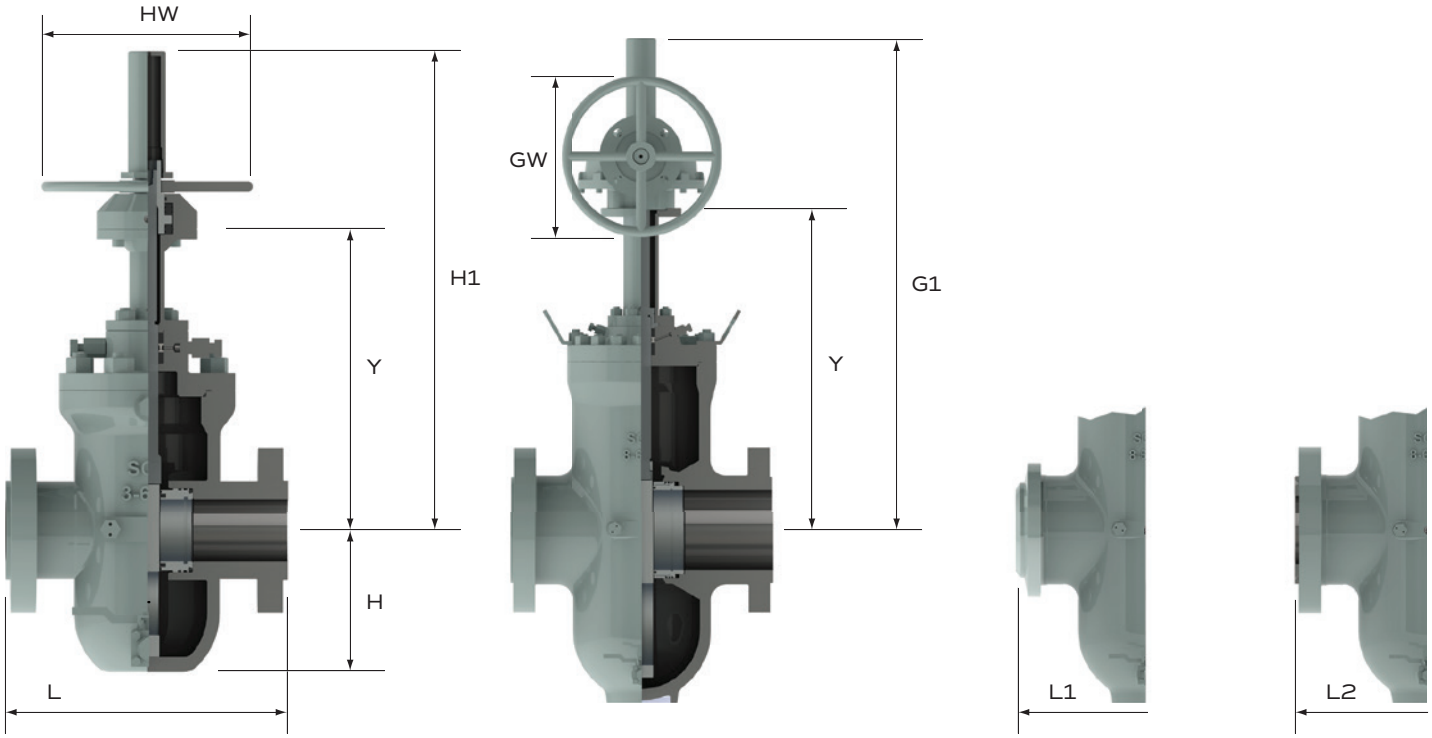
SIZE		BORE	END-TO-END			CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL		GEAR		WEIGHTS
		F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW	LBS/KG
IN	2	2.06	14.50	14.50	14.62	6.0	12.2	19.1	12.0	19.1	12.0	216
MM	50	52	368	368	371	152	310	485	305	485	305	98
IN	3	3.13	15.00	15.00	15.12	7.0	14.9	23.3	12.0	23.3	12.0	224
MM	80	80	381	381	384	178	378	592	305	592	305	107
IN	4	4.06	18.00	18.00	18.12	10.3	20.5	31.4	12.0	31.4	12.0	403
MM	100	103	457	457	460	262	521	798	305	798	305	183
IN	6	6.06	24.00	24.00	24.12	13.1	25.8	39.2	18.0	39.2	18.0	800
MM	150	154	610	610	613	333	665	996	457	996	457	363
IN	8	8.06	29.00	29.00	29.12	17.5	31.9	48.5	18.0	48.5	18.0	1346
MM	200	205	737	737	740	445	810	1232	457	1232	457	611
IN	10	10.06	33.00	33.00	33.12	21.8	38.0	57.6	18.0	57.6	18.0	2380
MM	250	256	838	838	841	554	965	1463	457	1463	457	1080
IN	12	12.06	38.00	38.00	38.12	24.4	43.9	65.6	24.0	65.6	24.0	3258
MM	300	306	965	965	968	620	1115	1666	610	1666	610	1478
IN	14	13.25	40.50	40.50	40.88	27.9	47.4	71.4	24.0	71.4	24.0	4208
MM	350	337	1029	1029	1038	709	1204	1814	610	1814	610	1909
IN	16	15.25	44.50	44.50	44.88	30.0	52.8	77.6	24.0	77.6	24.0	5343
MM	400	387	1130	1130	1140	762	1341	1971	610	1971	610	2424
IN	18	17.25	48.00	48.00	48.50	33.6	58.2	87.8	24.0	87.8	24.0	7382
MM	450	438	1219	1219	1232	853	1478	2230	610	2230	610	3348
IN	20	19.19	52.00	52.00	52.50	37.9	66.2	98.3	30.0	98.3	30.0	11400
MM	500	487	1321	1321	1336	963	1681	2497	610	2497	610	5171
IN	24	25.00	57.00	/	/	48.8	83.4	122.9	30.0	122.9	30.0	15737
MM	600	635	1448	/	/	1240	2118	3122	610	3122	610	7138

Expanding Gate Valve Dimensions | 2” - 24” | 900



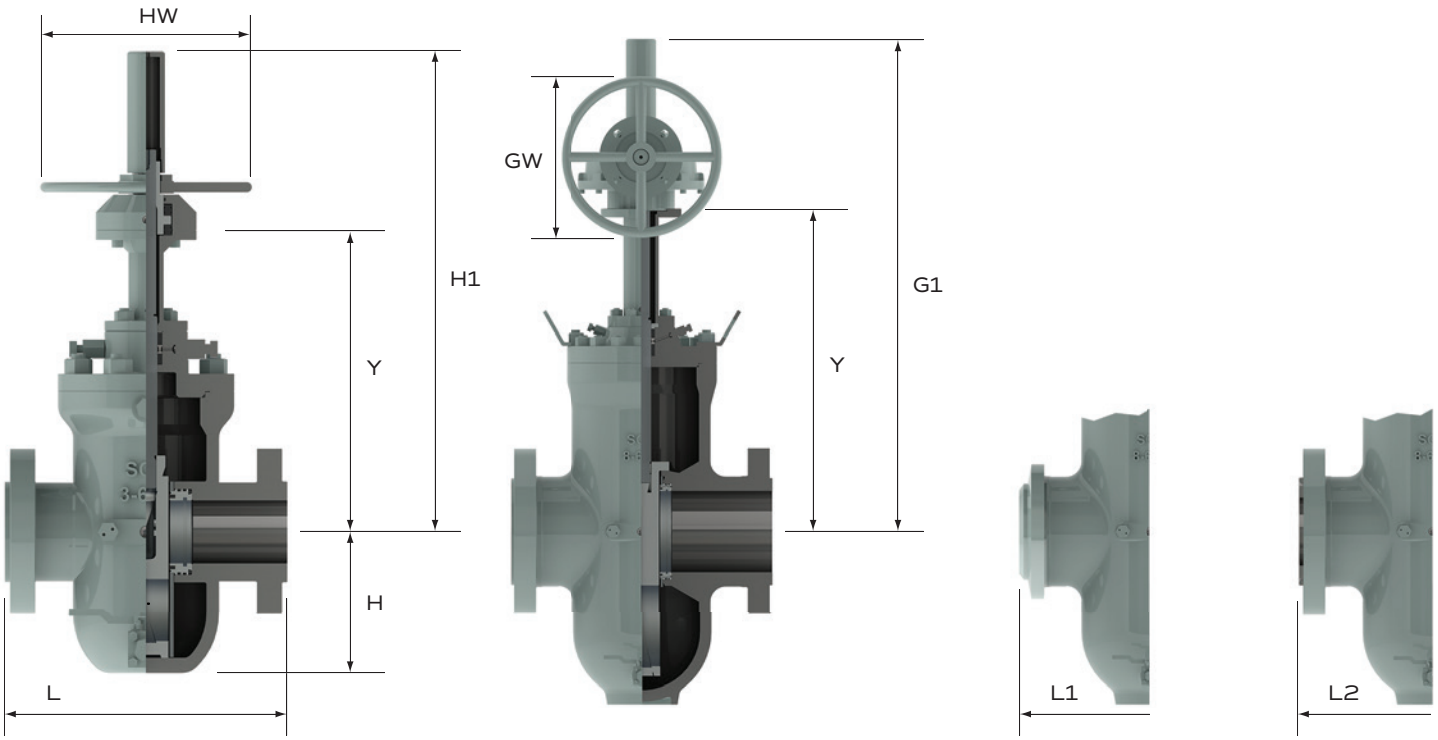
SIZE		BORE	END-TO-END			CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL		GEAR		WEIGHTS LBS/KG
		F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW	
IN	2	2.06	14.50	14.50	14.62	6.0	12.2	20.2	12.0	20.2	12.0	215
MM	50	52	368	368	371	152	310	513	305	513	305	98
IN	3	3.13	15.00	15.00	15.12	7.0	14.9	23.8	12.0	23.8	12.0	225
MM	80	80	381	381	384	178	378	605	305	605	305	102
IN	4	4.06	18.00	18.00	18.12	10.3	20.5	31.2	12.0	31.2	12.0	410
MM	100	103	457	457	460	262	521	792	305	792	305	186
IN	6	6.06	24.00	24.00	24.12	13.1	25.8	38.8	18.0	38.8	18.0	798
MM	150	154	610	610	613	333	665	986	457	986	457	362
IN	8	8.06	29.00	29.00	29.12	17.5	31.9	48.3	18.0	48.3	18.0	1351
MM	200	205	737	737	740	445	810	1227	457	1227	457	613
IN	10	10.06	33.00	33.00	33.12	21.8	38.0	57.4	18.0	57.4	18.0	2402
MM	250	256	838	838	841	554	965	1458	457	1458	457	1090
IN	12	12.06	38.00	38.00	38.12	24.4	43.9	65.2	24.0	65.2	24.0	3307
MM	300	306	965	965	968	620	1115	1656	610	1656	610	1500
IN	14	13.25	40.50	40.50	40.88	27.9	47.4	70.6	24.0	70.6	24.0	4295
MM	350	337	1029	1029	1038	709	1204	1793	610	1793	610	1948
IN	16	15.25	44.50	44.50	44.88	30.0	52.8	77.6	24.0	77.6	24.0	5505
MM	400	387	1130	1130	1140	762	1341	1971	610	1971	610	2497
IN	18	17.25	48.00	48.00	48.50	33.6	58.2	88.0	24.0	88.0	24.0	7582
MM	450	438	1219	1219	1232	853	1478	2235	610	2235	610	3439
IN	20	19.19	52.00	52.00	52.50	37.9	66.2	97.9	30.0	97.9	30.0	11666
MM	500	487	1321	1321	1336	963	1681	2487	610	2487	610	5292
IN	24	25.00	57.00	/	/	48.8	83.4	116.6	30.0	116.6	30.0	19298
MM	600	635	1448	/	/	1240	2118	2962	610	2962	610	8753

Slab Gate Valve Dimensions | 2” - 10” | 1500



SIZE		BORE	END-TO-END			CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL		GEAR		WEIGHTS
		F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW	LBS/KG
IN	2	2.06	14.50	14.50	14.62	6.0	12.2	19.1	12.0	19.1	12.0	216
MM	50	52	368	368	371	152	310	485	305	485	305	98
IN	4	4.06	18.00	18.00	18.12	10.3	20.5	31.4	12.0	31.4	12.0	403
MM	100	103	457	457	460	262	521	798	305	798	305	183
IN	6	6.06	24.00	24.00	24.12	13.1	25.8	39.2	18.0	39.2	18.0	800
MM	150	154	610	610	613	333	665	996	457	996	457	363
IN	8	8.06	29.00	29.00	29.12	17.5	31.9	48.5	18.0	48.5	18.0	1346
MM	200	205	737	737	740	445	810	1232	457	1232	457	611
IN	10	10.06	33.00	33.00	33.12	21.8	38.0	57.6	18.0	57.6	18.0	2380
MM	250	256	838	838	841	554	965	1463	457	1463	457	1080

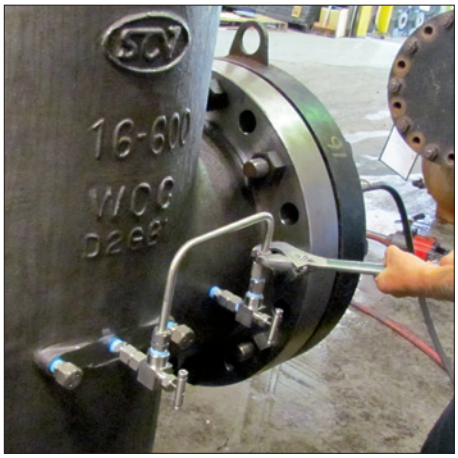
Expanding Gate Valve Dimensions | 2” - 10” | 1500



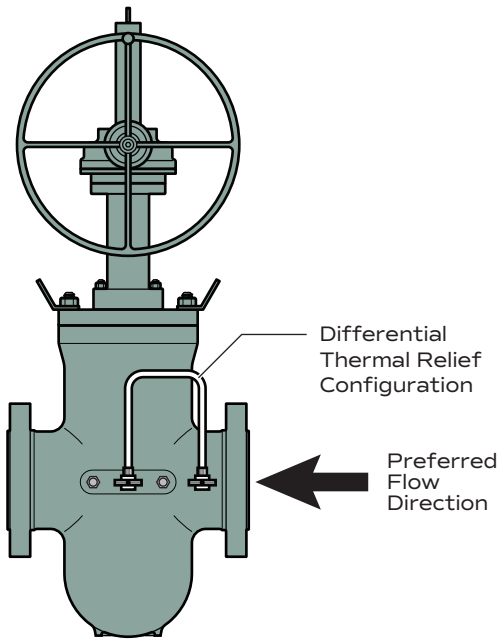
SIZE		BORE	END-TO-END			CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL		GEAR		WEIGHTS
		F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW	LBS/KG
IN	2	2.06	14.50	14.50	14.62	6.0	12.2	20.2	12.0	20.2	12.0	216
MM	50	52	368	368	371	152	310	513	305	513	305	98
IN	4	4.06	18.00	18.00	18.12	10.3	20.5	31.4	12.0	31.4	12.0	403
MM	100	103	457	457	460	262	521	798	305	798	305	183
IN	6	6.06	24.00	24.00	24.12	13.1	25.8	39.2	18.0	39.2	18.0	800
MM	150	154	610	610	613	333	665	996	457	996	457	363
IN	8	8.06	29.00	29.00	29.12	17.5	31.9	46.6	24.0	46.6	24.0	2242
MM	200	205	737	737	740	445	810	1184	610	1184	610	1017
IN	10	10.06	/	/	39.38	22.6	38.0	58.5	24.0	58.5	24.0	4086
MM	250	256	/	/	1000	574	965	1486	610	1486	610	1853

Expanding Gate Differential Thermal Relief System

With the expanding gate design, it is possible for thermal expansion to occur within the body cavity while the valve is in the closed position. A Differential Thermal Relief system allows the body cavity to relieve into the upstream side of the valve.



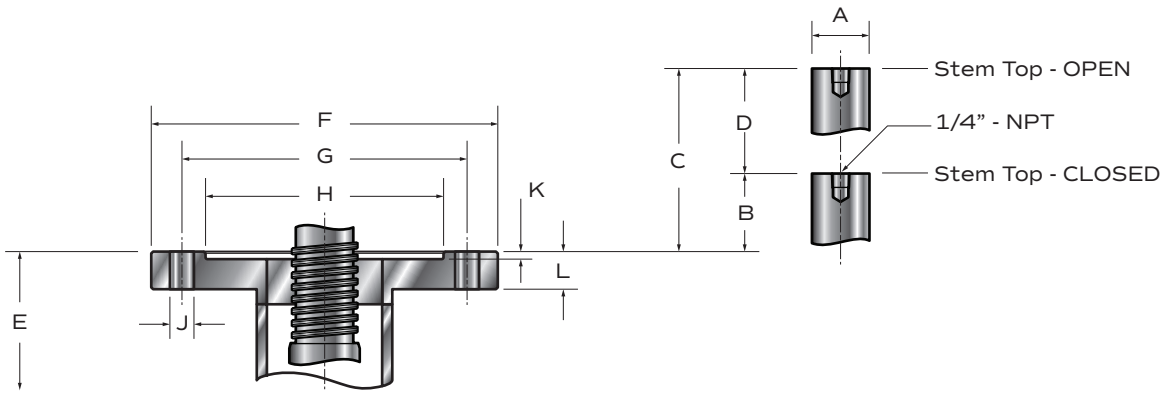
Differential Thermal Relief system being installed on a 16” Class 600 Thru Conduit Expanding Gate Valve.



Expanding Gate Torques | 2" thru 40"

TYPE		EXPANDING GATE VALVE - FULL PORT - API 6D					BY APPR.	AW JM
DESCRIPTION		OPERATOR SIZE						
SIZE	CLASS	STEM THREAD	OPERATING TORQUE	OPERATING THRUST	MAST TORQUE	MAST THRUST	TOTAL STEM	TURNS TO OPEN
2	300	1-5TPI-2G-LH	8	1090	180	13864	3.00	15
	600		17	2773	180	13864	3.10	15
	900		43	6932	180	13864	3.10	15
	1500							
3	150	1-5TPI-2G-LH	9	815	180	13864	4.12	21
	300		18	2150	180	13864	4.12	21
	600		34	3960	180	13864	4.12	21
	900		55	6280	180	13864	4.12	21
4	150	1-5TPI-2G-LH	15	1385	180	13864	4.95	25
	300		36	3395	180	13864	4.60	23
	600	1-1/4-5TPI-2G-LH	74	7260	282	22450	4.88	25
	900		108	10172	282	22450	4.88	25
6	150	1-5TPI-2G-LH	23	2386	180	13864	6.78	33
	300		62	6396	180	13864	6.78	34
	600	1-1/2-4TPI-2G-LH	125	11780	552	36864	6.85	28
	900		238	18940	552	36864	6.85	28
8	150	1-1/2-4TPI-2G-LH	53	3365	552	36864	9.13	37
	300		155	11690	552	36864	9.13	37
	600		289	20780	754	62340	9.38	38
	900		377	31170	754	62340	9.38	38
10	150	1-1/2-4TPI-2G-LH	80	5914	552	36864	11.19	45
	300		215	15851	552	36864	11.19	45
	600	2-4TPI-2G-LH	572	31920	1714	95760	11.71	47
	900		857	47880	1714	95760	11.71	47
12	150	1-1/2-4TPI-2G-LH	100	7589	552	36864	13.11	53
	300		269	20338	552	46850	13.11	52
	600	2-1/4-3TPI-2G-LH	762	43150	2476	128308	13.61	41
	900		1105	61045	2476	128308	13.61	41
14	600	2-1/2-3TPI-2G-LH	936	48630	3858	168540	15.14	46
	900		1285	71950	3858	168540	15.14	45
16	150	*1.5-0.20P-0.40L-ACME-2G-LH	243	15655	552	36864	16.50	41
	300	*2.0-0.25P-0.50L-ACME-2G-LH	511	39582	1714	95760	16.44	33
	600	*2.5-0.40P-0.80L-ACME-2G-LH	1286	61600	3858	168540	16.65	21
	900		1795	92400	3858	168540	16.65	21
18	600	*3-0.40P-0.80L-ACME-2G-LH	1752	71580	5620	256430	19.03	24
	900		2215	107370	5620	256430	19.03	24
20	150	*2.0-0.25P-0.50L-ACME-2G-LH	362	24762	1714	95760	20.60	41
	300		744	48425	1714	95760	20.18	40
	600	*3.25-0.40P-0.80L-ACME-2G-LH	2386	78240	6202	289650	20.96	26
	900		3101	122450	6202	289650	20.96	26
22	600	*3.25-0.40P-0.80L-ACME-2G-LH	2850	99636	6202	289650	23.31	29
24	150	*2.5-0.40P-0.80L-ACME-2G-LH	578	35670	3858	168540	24.56	31
	300		1423	53640	3858	168540	24.50	31
	600	*4.0-0.40P-0.80L-ACME-2G-LH	3865	135847	24344	726000	25.33	32
	900		6184	215630	24344	726000	25.33	32
26	600	*4.0-0.40P-0.80L-ACME-2G-LH	4776	143250	24344	726000	26.88	34
28	600	*4.0-0.40P-0.80L-ACME-2G-LH	5236	168962	24344	726000	29.62	37
30	150	*2.5-0.40P-0.80L-ACME-2G-LH	1162	51430	3858	168540	30.56	38
	300	*2.75-0.40P-0.80L-ACME-2G-LH	2358	99710	4716	199420	30.56	38
	600	*4.0-0.40P-0.80L-ACME-2G-LH	6062	196250	24344	726000	30.80	39
36	150	*2.75-0.40P-0.80L-ACME-2G-LH	1952	84520	4716	199420	35.81	45
	300	*2.75-0.40P-0.80L-ACME-2G-LH	4165	185600	10272	449870	35.81	45
	600	*4.0-0.40P-0.80L-ACME-2G-LH	12172	363000	24344	726000	36.10	45
40	300	*3.50-0.40P-0.80L-ACME-2G-LH	5896	268520	13680	537040	40.50	51

Expanding Gate Valve Operator Interface | 2” thru 40”



SIZE	CLASS	STEM THREAD *DOUBLE LEAD THREAD	STEM TOP CLOSED	STEM TOP OPEN	TOTAL TRAVEL	CTR. OF VALVE	MTG. PLT. O.D.	BOLT CRCL	FLG. PLT. DIA.	MTG. HOLES	FLG. PLT. DEPTH	MTG. PLT THK	ISO/MSS MTG. PAT.
		“A”	“B”	“C”	“D”	“E”	“F”	“G”	“H”	“J”	“K”	“L”	
2	300	1-5TPI-2G-LH	3.36	6.46	3.10	12.07	5.00	4.02	2.60	4 X .43	0.28	0.50	FA10
	600	1-5TPI-2G-LH	3.36	6.46	3.10	12.07	5.00	4.02	2.60	4 X .43	0.28	0.50	FA10
	900/1500	1-5TPI-2G-LH	3.36	6.46	3.10	12.17	5.00	4.02	2.60	4 X .43	0.28	0.50	FA10
3	150	1-5TPI-2G-LH	2.23	6.35	4.12	14.94	5.00	4.02	2.60	4 X .43	0.28	0.50	FA10
	300	1-5TPI-2G-LH	2.20	6.32	4.12	14.94	5.00	4.02	2.60	4 X .43	0.28	0.50	FA10
	600	1-5TPI-2G-LH	3.98	8.10	4.12	14.94	5.00	4.02	2.60	4 X .43	0.28	0.50	FA10
	900	1-5TPI-2G-LH	3.9	8.10	4.12	14.94	5.00	4.02	2.60	4 X .43	0.28	0.50	FA10
4	150	1-5TPI-2G-LH	3.90	8.85	4.95	16.90	5.00	4.02	2.79	4 X 0.50	0.15	0.43	FA10
	300	1-5TPI-2G-LH	3.90	8.50	4.60	16.90	5.00	4.02	2.79	4 X 0.50	0.15	0.43	FA10
	600	1-1/4-5TPI-2G-LH	4.17	9.05	4.88	20.5	2 7.00	5.50	3.98	4 X 0.75	0.18	1.00	FA14
	900	1-1/4-5TPI-2G-LH	4.17	9.05	4.88	20.52	7.00	5.50	3.98	4 X 0.75	0.18	1.00	FA14
6	150	1-5TPI-2G-LH	3.94	10.72	6.78	21.70	5.00	4.02	2.79	4 X 0.50	0.15	0.43	FA10
	300	1-5TPI-2G-LH	3.94	10.72	6.78	21.70	5.00	4.02	2.79	4 X .50	0.15	0.43	FA10
	600	1-1/2-4TPI-2G-LH	4.54	11.39	6.85	25.78	7.00	5.50	3.98	4 X 0.75	0.18	1.00	FA14
	900	1-1/2-4TPI-2G-LH	4.54	11.39	6.85	25.78	7.00	5.50	3.98	4 X 0.75	0.18	1.00	FA14
8	150	1-1/2-4TPI-2G-LH	4.47	13.60	9.13	27.88	6.75	5.50	3.98	4 X 0.69	0.18	0.70	FA14
	300	1-1/2-4TPI-2G-LH	4.47	13.60	9.13	27.88	6.75	5.50	3.98	4 X 0.69	0.19	0.70	FA14
	600	1-3/4-4TPI-2G-LH	5.34	14.72	9.38	31.94	8.00	6.50	5.15	4 X 0.81	0.23	1.15	FA16
	900	1-3/4-4TPI-2G-LH	5.37	14.75	9.38	31.94	8.00	6.50	5.15	4 X 0.81	0.23	1.15	FA16
10	150	1-1/2-4TPI-2G-LH	5.11	16.29	11.19	33.54	6.75	5.50	3.98	4 X 0.69	0.18	0.70	FA14
	300	1-1/2-4TPI-2G-LH	5.18	16.37	11.19	33.46	6.75	5.50	3.97	4 x 0.69	0.19	0.70	FA14
	600	2-4TPI-2G-LH	6.08	17.79	11.71	37.99	8.50	6.50	5.15	4 X 0.88	0.25	1.13	FA16
	900	2-4TPI-2G-LH	6.08	17.79	11.71	37.99	8.50	6.50	5.15	4 X 0.88	0.25	1.13	FA16
12	150	1-1/2-4TPI-2G-LH	5.44	18.55	13.11	39.11	6.75	5.50	3.98	4 X 0.69	0.18	0.70	FA14
	300	1-1/2-4TPI-2G-LH	5.44	18.55	13.11	39.11	6.75	5.50	3.98	4 X 0.69	1.85	0.70	FA14
	600	2-1/4-3TPI-2G-LH	6.11	19.72	13.61	43.88	11.50	10.00	7.90	8 X 0.75	0.25	1.25	FA25
	900	2-1/4-3TPI-2G-LH	6.11	19.72	13.61	43.88	11.50	10.00	7.90	8 X 0.75	0.25	1.25	FA25
14	600	2-1/2-3TPI-2G-LH	6.75	21.89	15.14	47.52	11.50	10.00	7.90	8 X 0.75	0.25	1.25	FA25
	900	2-1/2-3TPI-2G-LH	6.75	21.89	15.14	47.44	11.50	10.00	7.90	8 X 0.75	0.25	1.25	FA25
16	150	*1.5-0.20P-0.40L-ACME-2G-LH	6.02	22.52	16.50	47.89	6.75	5.50	3.96	4 X 0.69	0.15	0.70	FA14
	300	*2.0-0.25P-0.50L-ACME-2G-LH	6.01	22.45	16.44	48.38	11.80	10.00	7.89	8 X 0.75	0.20	0.88	FA25
	600	*2.5-0.40P-0.80L-ACME-2G-LH	6.42	23.07	16.65	52.25	12.00	10.00	7.90	8 X 0.75	0.25	1.25	FA25
	900	*2.5-0.40P-0.80L-ACME-2G-LH	6.52	23.17	16.65	52.25	12.00	10.00	7.90	8 X 0.75	0.25	1.25	FA25
18	600	*3.0-0.40P-0.80L-ACME-2G-LH	8.71	27.74	19.03	58.55	12.00	10.00	7.90	8 X 0.75	0.25	1.25	AF25
	900	*3.0-0.40P-0.80L-ACME-2G-LH	8.71	27.74	19.03	58.55	12.00	10.00	7.90	8 X 0.75	0.25	1.25	FA25
20	150	*2.0-0.25P-0.50L-ACME-2G-LH	5.93	26.17	20.24	57.99	8.25	6.50	5.14	4 X 0.81	0.23	0.75	FA16
	300	*2.0-0.25P-0.50L-ACME-2G-LH	5.87	26.05	20.18	58.11	11.80	10.00	7.89	8 X 0.75	0.20	0.88	FA25
	600	*3.25-0.40P-0.80L-ACME-2G-LH	9.37	30.33	20.96	65.70	14.00	11.73	9.10	8 X 0.88	0.25	1.39	FA30
	900	*3.25-0.40P-0.80L-ACME-2G-LH	8.88	29.84	20.96	66.20	16.38	14.02	10.28	8 X 1.25	0.25	1.39	FA35
22	600	*3.25-0.40P-0.80L-ACME-2G-LH	9.43	32.74	23.31	72.41	16.38	14.02	10.28	8 X 1.25	0.25	1.25	FA35
24	150	*2.5-0.40P-0.80L-ACME-2G-LH	7.22	31.80	24.58	70.38	11.80	10.00	7.89	8 X 0.75	0.22	1.00	FA25
	300	*2.5-0.40P-0.80L-ACME-2G-LH	7.04	31.54	24.50	70.63	13.75	11.73	9.07	8 x 0.88	0.22	1.00	FA30
	600	*4.0-0.40P-0.80L-ACME-2G-LH	9.64	34.97	25.33	78.35	16.38	14.02	10.28	8 X 1.25	0.25	1.25	FA35
	900	*4.0-0.40P-0.80L-ACME-2G-LH	9.15	34.47	25.33	78.80	18.50	15.98	11.84	8 X 1.38	0.33	1.25	FA40
26	600	*4.0-0.40P-0.80L-ACME-2G-LH	9.80	36.68	26.88	83.41	16.38	14.02	10.28	8 X 1.25	0.25	1.25	FA35
28	600	*4.0-0.40P-0.80L-ACME-2G-LH	9.60	39.22	29.62	87.09	16.38	14.02	10.26	8 X 1.25	0.25	1.25	FA35
30	150	*2.5-0.40P-0.80L-ACME-2G-LH	7.00	37.56	30.56	83.93	13.75	11.73	9.07	8 X 0.88	0.22	0.88	FA30
	300	*2.75-0.40P-0.80L-ACME-2G-LH	7.44	38.00	30.56	86.41	16.30	14.02	10.24	8 X 1.25	0.23	1.13	FA35
	600	*4.0-0.40P-0.80L-ACME-2G-LH	10.20	41.00	30.80	94.41	18.50	15.98	11.84	8 X 1.38	0.33	1.3	FA40
36	150	*2.75-0.40P-0.80L-ACME-2G-LH	6.93	42.74	35.81	98.64	16.38	14.02	10.24	8 X 1.25	0.23	1.13	FA35
40	300	*3.25-0.40P-0.80L-ACME-2G-LH	7.89	43.70	35.81	101.68	18.50	15.98	11.84	8 X 1.38	0.33	1.38	FA40

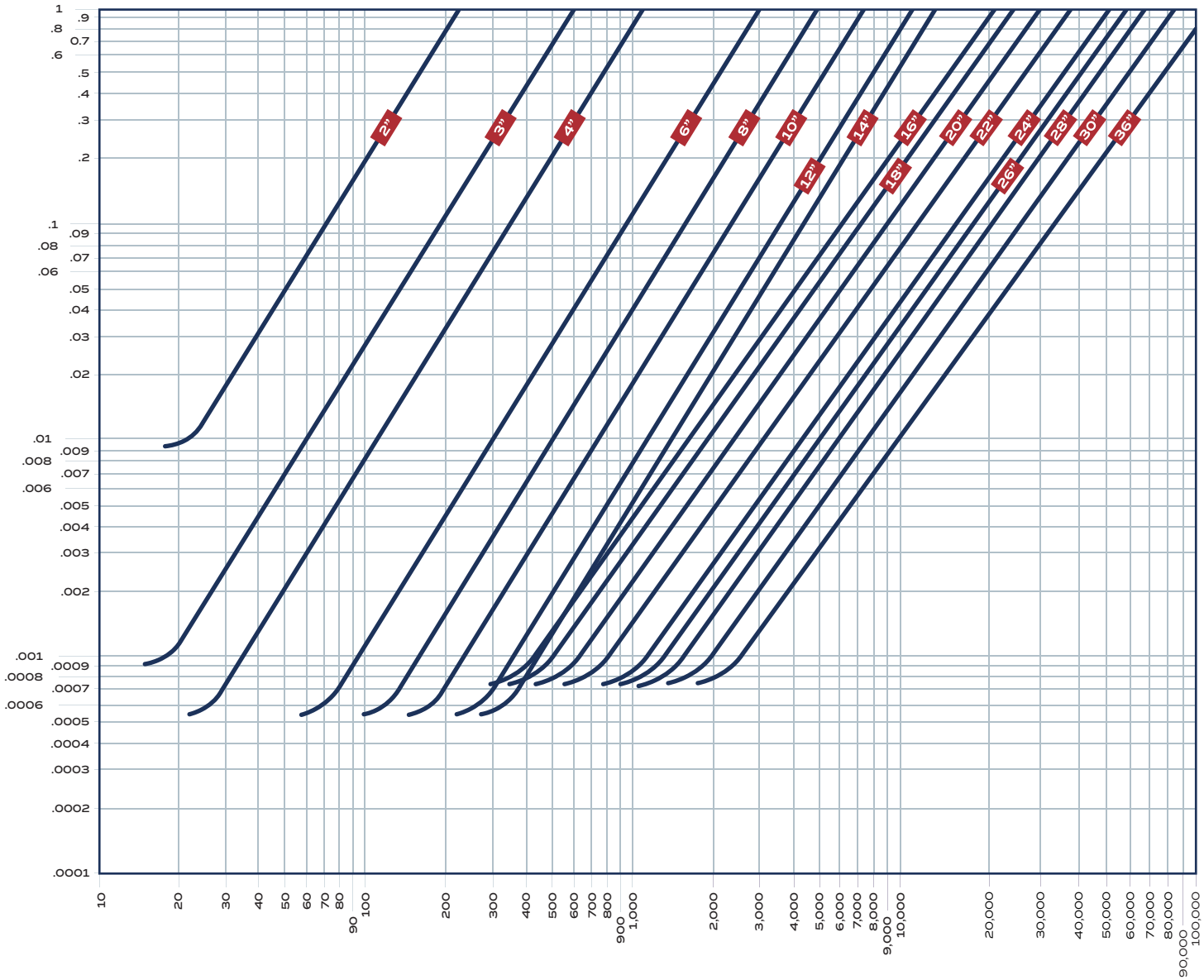
Slab Gate Torques | 2" thru 12"

TYPE		EXPANDING GATE VALVE - FULL PORT - API 6D					BY APPR.	AW JM
DESCRIPTION		OPERATOR SIZE						
SIZE	CLASS	STEM THREAD	OPERATING TORQUE	OPERATING THRUST	MAST TORQUE	MAST THRUST	TOTAL STEM	TURNS TO OPEN
2	150	1-5TPI-2G-LH	4	485	180	13864	2.84	14
	300		8	1065	180	13864	2.83	14
	600		18	2463	180	13864	3.05	15
	900		43	5890	180	13864	3.15	16
	1500							
3	150	1-5TPI-2G-LH	9	840	180	13864	3.79	19
	300		19	2180	180	13864	3.76	19
	600		34	4060	180	13864	3.65	19
	900		55	6374	180	13864	3.65	19
4	150	1-5TPI-2G-LH	14	1310	180	13864	4.76	24
	300		37	3456	180	13864	6.70	24
	600	1-1/4-5TPI-2G-LH	68	6542	282	22450	4.90	25
	900		102	9813	282	22450	4.90	25
6	150	1-5TPI-2G-LH	20	2154	180	13864	6.75	34
	300		50	5639	180	13864	6.75	34
	600	1-1/2-4TPI-2G-LH	103	10540	552	36864	6.85	29
	900		148	14263	552	36864	6.85	29
8	150	1-1/2-4TPI-2G-LH	25	3390	552	36864	8.83	35
	300		92	8170	552	36864	8.83	35
	600	1-3/4-4TPI-2G-LH	177	16020	754	62340	9.38	38
	900		267	24215	754	62340	9.38	38
10	150	1-1/2-4TPI-2G-LH	50	4560	552	36864	10.88	44
	300		125	11360	552	36864	10.88	44
	600	2-4TPI-2G-LH	255	23165	1714	95760	11.50	46
	900		382	34890	1714	95760	11.50	46
12	150	1-1/2-4TPI-2G-LH	68	6085	552	36864	13.00	52
	300		175	15980	552	36864	13.00	52
	600	2-1/4-3TPI-2G-LH	373	32500	2476	128308	13.25	40
	900		610	49730	2476	128308	13.25	40

Slab Gate Valve Operator Interface | 14" thru 42"

TYPE		EXPANDING GATE VALVE - FULL PORT - API 6D					BY APPR.	AW JM
DESCRIPTION		OPERATOR SIZE						
SIZE	CLASS	STEM THREAD	OPERATING TORQUE	OPERATING THRUST	MAST TORQUE	MAST THRUST	TOTAL STEM	TURNS TO OPEN
14	150	*1.5-0.20P-0.40L-ACME-2G-LH	104	8109	552	36864	14.29	36
	300		299	23324	552	36864	14.29	36
	600	2-1/2-3TPI-2G-LH	670	46769	3858	168540	15.00	45
	900		1006	70154	3858	168540	15.00	45
16	150	*1.5-0.20P-0.40L-ACME-2G-LH	126	10361	552	36864	16.18	40
	300		280	27266	552	36864	16.18	40
	600	*2.5-0.40P-0.80L-ACME-2G-LH	859	55320	3858	168540	16.50	21
	900		1290	82980	3858	168540	16.50	21
18	150	*1.75"-0.25P-0.50L-ACME-2G LH	175	13713	754	62340	18.16	36
	300		410	36087	754	62340	18.16	36
	600	*3.0-0.40P-0.80L-ACME-2G-LH	1202	65350	5620	256430	18.66	37
	900		1622	99506	5620	256430	18.66	37
20	150	*2.0-0.25P-0.50L-ACME-2G-LH	253	15453	2476	128308	20.24	40
	300		528	31594	2476	128308	20.13	40
	600	*3.25-0.40P-0.80L-ACME-2G-LH	1770	102650	10272	449870	21.10	26
	900		2550	153875	10272	449870	20.59	26
22	600	*3.25-0.40P-0.80L-ACME-2G-LH	2166	131230	10272	449870	23.31	29
24	150	*2.0-0.25P-0.50L-ACME-2G-LH	357	21568	2476	128308	24.46	49
	300		738	58296	2476	128308	24.46	49
	600	*4.0-0.40P-0.80L-ACME-2G-LH	2873	157034	24344	726000	25.33	32
26	600	*4.0-0.40P-0.80L-ACME-2G-LH	3980	177303	24344	726000	26.88	34
28	600	*2.5-0.40P-0.80L-ACME-2G-LH	648	29860	3858	168540	28.62	36
30	150	*2.5-0.40P-0.80L-ACME-2G-LH	780	33689	3858	168540	30.32	38
	300		1560	88655	3858	168540	30.38	38
	600	*4.0-0.40P-0.80L-ACME-2G-LH	4930	189620	24344	726000	31.00	39
32	150	*2.5-0.40P-0.80L-ACME-2G-LH	926	40144	3858	168540	32.18	40
36	150	*2.5-0.40P-0.80L-ACME-2G-LH	1050	45949	3858	168540	35.75	45
	300	*2.75-0.40P-0.80L-ACME-2G-LH	2975	135500	4716	199420	36.25	45
	600	*4.0-0.40P-0.80L-ACME-2G-LH	7277	239900	24344	726000	36.50	46
40	150	*2.75-0.40P-0.80L-ACME-2G-LH	1628	62131	4716	199420	40.60	51
	300	*3.25-0.40P-0.80L-ACME-2G-LH	4286	165539	10272	449870	40.30	50
42	150	*2.75-0.40P-0.80L-ACME-2G-LH	1868	73680	4716	199420	42.40	53
	300	*3.25-0.40P-0.80L-ACME-2G-LH	4928	196530	10272	449870	42.50	53

Liquid: Pressure Loss Curves for TCG Valves - 2" thru 36"



FLOW RATE (GPM) WATER AT 60°F

The above graph is based on simulations. Results may differ due to uncertainty within the pipeline or flow conditions. The formulas can be used to find the actual flow coefficient for a given condition of flow. The equations are valid only for incompressible flow.

FLOW COEFFICIENT FOR FULLY OPEN VALVES			
2	228	18	25,000
3	601	20	30,237
4	1,108	22	37,187
6	3,000	24	50,709
8	5,000	26	58,423
10	7,560	28	67,131
12	11,547	30	80,041
14	13,416	36	109,888
16	21,213		

GLOSSARY OF TERMS	
Q	Flow Rate, Liquids - GPM
Cv	Flow Coefficient
P_1	Inlet Pressure
P_2	Outlet Pressure
ΔP	Pressure Drop (P_1 - P_2)
G	Specific Gravity (Water = 1)

Liquid (Incompressible Flow)

$$C_v = Q\sqrt{\frac{G}{\Delta P}} \qquad Q = C_v\sqrt{\frac{\Delta P}{G}} \qquad \Delta P = \left[\frac{Q}{C_v}\right]^2 G$$

Seal & Seat Pressure Temperature Chart

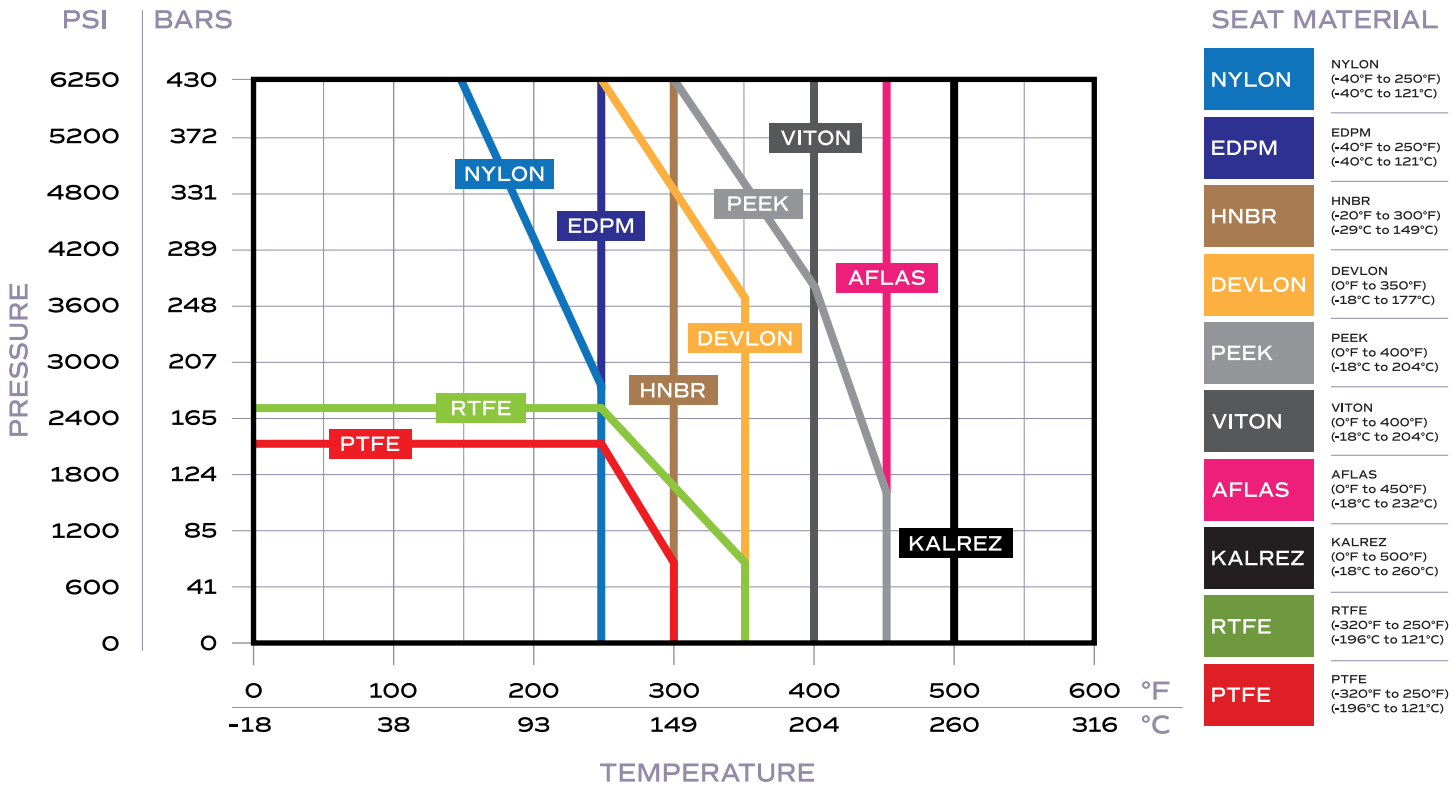
This chart depicts pressure and temperature ratings for common plastics and elastomers used in SCV Valve products.

Soft Good Chemical Compatibility

CHEMICAL	SEAL MATERIAL			SEAT MATERIAL			
	VITON	HNBR	KALREZ	RTFE	NYLON	DEVLON	PEEK
AMINES	X	X	●	●	X	X	●
AMMONIA	X	X	●	●	●	●	●
BUTANE	●	●	●	●	●	●	●
CARBON DIOXIDE	●	●	●	●	●	●	●
CRUDE OIL	●	●	●	●	●	●	●
ETHANE	●	●	●	●	X	X	●
ETHYLENE	●	●	●	●	●	●	●
GLYCOL	●	●	●	●	●	X	●
HYDROCARBON	●	●	●	●	●	●	●
HYDROGEN	●	●	●	●	●	●	●
JET FUEL	*	*	●	●	X	X	●
METHANE	●	●	●	●	●	●	●
NATURAL GAS	●	●	●	●	●	●	●
NITROGEN	●	●	●	●	●	●	●
PROPANE	●	●	●	●	●	●	●
PROPYLENE	●	X	●	●	●	●	●

* Viton Ok For Jp-3/4/5/6/8/9/10. * Hnbr Ok For Jp-3/4/5/6.

Pressure Temperature Chart



RATINGS:
Pressure/temperature ratings shown are the general reference only. For specific application service, consult factory.

NOTES:
Pressure ratings are based on ASME B16.34. The pressure temperature ratings for a valve body may be limited by the end connection, seat material, or other components.

Pressure Temperature Ratings - ASME B16.34

Note: Pressures in PSI

	TEMP. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
150	-20 to 100	285	285	285	290	265	290	290	290	290	290	275	275	290	290
	200	260	260	260	260	255	260	260	260	260	260	235	235	260	260
	300	230	230	230	230	230	230	230	230	230	230	215	215	230	230
	400	200	200	200	200	200	200	200	200	200	200	195	195	200	200
	500	170	170	170	170	170	170	170	170	170	170	170	170	170	170
	600	140	140	140	140	140	140	140	140	140	140	140	140	140	140
	650	125	125	125	125	125	125	125	125	125	125	125	125	125	125
	700	110	110	110	110	110	110	110	110	110	110	110	110	110	110
	750	95	95	95	95	95	95	95	95	95	95	95	95	95	95
	800	80	80	80	80	80	80	80	80	80	80	80	80	/	/
	850	65	65	65	65	65	65	65	65	65	65	65	65	/	/
	900	50	50	50	50	50	50	50	50	50	50	50	50	/	/
	950	35	35	35	35	35	35	35	35	35	35	35	35	/	/
	1000	20	20	20	20	20	20	20	20	20	20	20	20	/	/
	1050	/	/	/	/	/	20	/	20	20	20	20	20	/	/
	1100	/	/	/	/	/	20	/	20	20	20	20	20	/	/
	1150	/	/	/	/	/	20	/	20	20	20	20	20	/	/
	1200	/	/	/	/	/	15	/	15	20	20	20	20	/	/
	1250	/	/	/	/	/	/	/	/	/	/	20	20	/	/
	1300	/	/	/	/	/	/	/	/	/	/	20	20	/	/
	1350	/	/	/	/	/	/	/	/	/	/	20	20	/	/
	1400	/	/	/	/	/	/	/	/	/	/	20	20	/	/
	1450	/	/	/	/	/	/	/	/	/	/	20	20	/	/
	1500	/	/	/	/	/	/	/	/	/	/	15	15	/	/
300	TEMP. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	740	740	740	750	695	750	750	750	750	750	720	720	750	750
	200	680	680	680	750	660	750	750	750	750	750	620	620	745	745
	300	655	655	655	730	640	720	730	730	730	730	560	560	665	665
	400	635	635	635	705	615	695	705	705	705	705	515	515	615	615
	500	605	605	605	665	585	665	665	665	665	665	480	480	580	580
	600	570	570	570	605	550	605	605	605	605	605	450	450	555	555
	650	550	550	550	590	535	590	590	590	590	590	440	440	545	545
	700	530	530	530	555	510	570	555	570	570	570	435	435	540	540
	750	505	505	505	505	475	530	505	530	530	530	425	425	530	530
	800	410	410	410	410	390	510	410	510	510	510	420	420	/	/
	850	320	320	320	320	300	485	320	485	485	485	420	420	/	/
	900	230	230	230	225	200	450	225	375	450	450	415	415	/	/
	950	135	135	135	135	135	320	135	275	375	385	385	385	/	/
	1000	85	85	85	85	85	215	85	200	255	365	365	365	/	/
	1050	/	/	/	/	/	145	/	145	170	360	160	160	/	/
	1100	/	/	/	/	/	95	/	100	115	300	305	305	/	/
	1150	/	/	/	/	/	65	/	60	75	225	235	235	/	/
	1200	/	/	/	/	/	40	/	35	50	145	185	185	/	/
	1250	/	/	/	/	/	/	/	/	/	/	145	145	/	/
	1300	/	/	/	/	/	/	/	/	/	/	115	115	/	/
	1350	/	/	/	/	/	/	/	/	/	/	95	95	/	/
	1400	/	/	/	/	/	/	/	/	/	/	75	75	/	/
	1450	/	/	/	/	/	/	/	/	/	/	60	60	/	/
	1500	/	/	/	/	/	/	/	/	/	/	40	40	/	/
600	TEMP. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	1480	1480	1480	1500	1395	1500	1500	1500	1500	1500	1440	1440	1500	1500
	200	1360	1360	1360	1500	1320	1500	1500	1500	1500	1500	1240	1240	1490	1490
	300	1310	1310	1310	1455	1275	1445	1455	1455	1455	1455	1120	1120	1335	1335
	400	1265	1265	1265	1405	1230	1385	1405	1410	1410	1410	1025	1025	1230	1230
	500	1205	1205	1205	1330	1175	1330	1330	1330	1330	1330	995	995	1160	1160
	600	1135	1135	1135	1210	1105	1210	1210	1210	1210	1210	900	900	1115	1115
	650	1100	1100	1100	1175	1065	1175	1175	1175	1175	1175	885	885	1095	1095
	700	1060	1060	1060	1110	1025	1135	1110	1135	1135	1135	870	870	1085	1085
	750	1015	1015	1015	1015	955	1065	1015	1065	1065	1065	855	855	1065	1065
	800	825	825	825	825	780	1015	825	1015	1015	1015	845	845	/	/
	850	640	640	640	640	595	975	640	975	975	975	835	835	/	/
	900	460	460	460	460	445	405	900	445	745	900	900	830	830	/	/
	950	275	275	275	275	275	640	275	550	755	775	775	775	/	/
	1000	170	170	170	170	170	430	170	400	505	725	725	725	/	/
	1050	/	/	/	/	/	290	/	290	345	720	720	720	/	/
	1100	/	/	/	/	/	190	/	200	225	605	610	610	/	/
	1150	/	/	/	/	/	130	/	125	150	445	475	475	/	/
	1200	/	/	/	/	/	80	/	70	105	290	370	370	/	/
	1250	/	/	/	/	/	/	/	/	/	/	295	295	/	/
	1300	/	/	/	/	/	/	/	/	/	/	235	235	/	/
	1350	/	/	/	/	/	/	/	/	/	/	190	190	/	/
	1400	/	/	/	/	/	/	/	/	/	/	150	150	/	/
	1450	/	/	/	/	/	/	/	/	/	/	115	115	/	/
	1500	/	/	/	/	/	/	/	/	/	/	85	85	/	/

900

TEMP. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
-20 to 100	2220	2220	2220	2250	2090	2250	2250	2250	2250	2250	2160	2160	2250	2250
200	2035	2035	2035	2250	1980	2250	2250	2250	2250	2250	1860	1860	2230	2230
300	1965	1965	1965	2185	1915	2165	2185	2185	2185	2185	1680	1680	2000	2000
400	1900	1900	1900	2110	1845	2080	2110	2115	2115	2115	1540	1540	1845	1845
500	1810	1810	1810	1995	1760	1995	1995	1995	1995	1995	1435	1435	1740	1740
600	1705	1705	1705	1815	1655	1815	1815	1815	1815	1815	1355	1355	1670	1670
650	1650	1650	1650	1765	1600	1765	1765	1765	1765	1765	1325	1325	1640	1640
700	1590	1590	1590	1665	1535	1705	1665	1705	1705	1705	1305	1305	1625	1625
750	1520	1520	1520	1520	1430	1595	1520	1595	1595	1595	1280	1280	1595	1595
800	1235	1235	1235	1235	1175	1525	1235	1525	1525	1525	1265	1265	/	/
850	955	955	955	955	895	1460	955	1460	1460	1460	1255	1255	/	/
900	690	690	690	670	605	1350	670	1120	1350	1350	1245	1245	/	/
950	410	410	410	410	410	955	410	825	1130	1160	1160	1160	/	/
1000	255	255	255	255	255	650	255	595	760	1090	1090	1090	/	/
1050	/	/	/	/	/	430	/	430	515	1080	1080	1080	/	/
1100	/	/	/	/	/	290	/	300	340	905	915	915	/	/
1150	/	/	/	/	/	195	/	185	225	670	710	710	/	/
1200	/	/	/	/	/	125	/	105	155	430	555	555	/	/
1250	/	/	/	/	/	/	/	/	/	/	440	440	/	/
1300	/	/	/	/	/	/	/	/	/	/	350	350	/	/
1350	/	/	/	/	/	/	/	/	/	/	290	290	/	/
1400	/	/	/	/	/	/	/	/	/	/	225	225	/	/
1450	/	/	/	/	/	/	/	/	/	/	175	175	/	/
1500	/	/	/	/	/	/	/	/	/	/	125	125	/	/

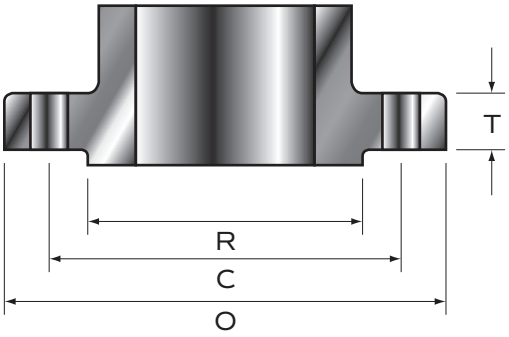
1500

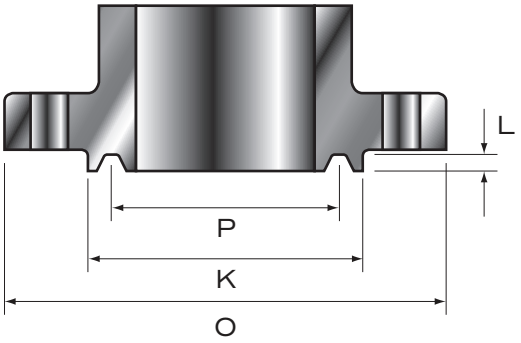
TEMP. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
-20 to 100	3705	3705	3705	3750	3480	3750	3750	3750	3750	3750	3600	3600	3750	3750
200	3395	3395	3395	3750	3300	3750	3750	3750	3750	3750	3095	3095	3720	3720
300	3270	3270	3270	3640	3190	3610	3640	3640	3640	3640	2795	2795	3335	3335
400	3170	3170	3170	3520	3075	3465	3520	3530	3530	3530	2570	2570	3070	3070
500	3015	3015	3015	3325	2930	3325	3325	3325	3325	3325	2390	2390	2905	2905
600	2840	2840	2840	3025	2755	3025	3025	3025	3025	3025	2255	2255	2785	2785
650	2745	2745	2745	2940	2665	2940	2940	2940	2940	2940	2210	2210	2735	2735
700	2665	2665	2665	2775	2560	2840	2775	2840	2840	2840	2170	2170	2710	2710
750	2535	2535	2535	2535	2385	2660	2535	2660	2660	2660	2135	2135	2660	2660
800	2055	2055	2055	2055	1955	2540	2055	2540	2540	2540	2110	2110	/	/
850	1595	1595	1595	1595	1490	2435	1595	2435	2435	2435	2090	2090	/	/
900	1150	1150	1150	1115	1010	2245	1115	1870	2245	2245	2075	2075	/	/
950	685	685	685	685	685	1591	685	1370	1885	1930	1930	1930	/	/
1000	430	430	430	430	430	1080	430	995	1270	1820	1820	1820	/	/
1050	/	/	/	/	/	720	/	720	855	1800	1800	1800	/	/
1100	/	/	/	/	/	480	/	495	565	1510	1525	1525	/	/
1150	/	/	/	/	/	325	/	310	375	1115	1185	1185	/	/
1200	/	/	/	/	/	205	/	170	255	720	925	925	/	/
1250	/	/	/	/	/	/	/	/	/	/	735	735	/	/
1300	/	/	/	/	/	/	/	/	/	/	585	585	/	/
1350	/	/	/	/	/	/	/	/	/	/	480	480	/	/
1400	/	/	/	/	/	/	/	/	/	/	380	380	/	/
1450	/	/	/	/	/	/	/	/	/	/	290	290	/	/
1500	/	/	/	/	/	/	/	/	/	/	205	205	/	/

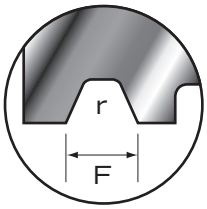
2500

TEMP. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
-20 to 100	6170	6170	6170	6250	5805	6250	6250	6250	3250	6250	6000	6000	6250	6250
200	5655	5655	5655	6250	5505	6250	6250	6250	6250	6250	5160	5160	6200	6200
300	5450	5450	5450	6070	5315	6015	6070	6070	6070	6070	4660	4660	5560	5560
400	5280	5280	5280	5865	5125	5775	5865	5880	5880	5880	4280	4280	5120	5120
500	5025	5025	5025	5540	4885	5540	5540	5540	5540	5540	3980	3980	4840	4840
600	4730	4730	4730	5040	4595	5040	5040	5040	5040	5040	3760	3760	4640	4640
650	4575	4575	4575	4905	4440	4905	4905	4905	4905	4905	3680	3680	4560	4560
700	4425	4425	4425	4630	4270	4730	4630	4730	4730	4730	3620	3620	4520	4520
750	4230	4230	4230	4230	3970	4430	4230	4430	4430	4430	3560	3560	4430	4430
800	3430	3430	3430	3430	3255	4230	3430	4230	4230	4230	3520	3520	/	/
850	2655	2655	2655	2655	2485	4060	2655	4060	4060	4060	3480	3480	/	/
900	1915	1915	1915	1855	1685	3745	1855	3115	3745	3745	3460	3460	/	/
950	1145	1145	1145	1145	1145	3655	1145	2285	3145	3220	3220	3220	/	/
1000	715	715	715	715	715	1800	715	1655	2115	3030	3030	3030	/	/
1050	/	/	/	/	/	1200	/	1200	1430	3000	3000	3000	/	/
1100	/	/	/	/	/	800	/	830	945	2515	2545	2545	/	/
1150	/	/	/	/	/	545	/	515	630	1855	1970	1970	/	/
1200	/	/	/	/	/	345	/	285	770	1200	1545	1545	/	/
1250	/	/	/	/	/	/	/	/	/	/	1230	1230	/	/
1300	/	/	/	/	/	/	/	/	/	/	970	970	/	/
1350	/	/	/	/	/	/	/	/	/	/	800	800	/	/
1400	/	/	/	/	/	/	/	/	/	/	630	630	/	/
1450	/	/	/	/	/	/	/	/	/	/	485	485	/	/
1500	/	/	/	/	/	/	/	/	/	/	345	345	/	/

Flange Dimensions - ANSI B16.5 & B16.47







Groove Detail

CLASS	SIZE	FLG. DIA.	FLG. THICK.	RAISED FACE DIA.	DRILLING			FACE DIA.	RING JOINT				
					BOLT CIR. DIA.	# OF BOLTS	HOLE DIA.		PITCH DIA.	GRV. DEPTH	GRV. WIDTH	BTM. RADIUS	RING NO.
		O	T	R	C			K	P	L	F	R	
150	2	6.00	0.75	3.62	4.75	4	0.75	4.00	3.250	0.250	0.344	0.03	R22
	2.5	7.00	0.88	4.12	5.50	4	0.75	4.75	4.000	0.250	0.344	0.03	R25
	3	7.50	0.94	5.00	6.00	4	0.75	5.25	4.500	0.250	0.344	0.03	R29
	4	9.00	0.94	6.19	7.50	8	0.75	6.75	5.875	0.250	0.344	0.03	R36
	6	11.00	1.00	8.50	9.50	8	0.88	8.62	7.625	0.250	0.344	0.03	R43
	8	13.50	1.12	10.62	11.75	8	0.88	10.75	9.750	0.250	0.344	0.03	R48
	10	16.00	1.19	12.75	14.25	12	1.00	13.00	12.000	0.250	0.344	0.03	R52
	12	19.00	1.25	15.00	17.00	12	1.00	16.00	15.000	0.250	0.344	0.03	R56
	14	21.00	1.38	16.25	18.75	12	1.12	16.75	15.625	0.250	0.344	0.03	R59
	16	23.50	1.44	18.50	21.25	16	1.12	19.00	17.875	0.250	0.344	0.03	R64
	18	25.00	1.56	21.00	22.75	16	1.25	21.50	20.375	0.250	0.344	0.03	R68
	20	27.50	1.69	23.00	25.00	20	1.25	23.50	22.000	0.250	0.344	0.03	R72
	22	29.50	1.81	25.25	27.25	20	1.38	/	/	/	/	/	/
	24	32.00	1.88	27.25	29.50	20	1.38	28.00	26.500	0.250	0.344	0.03	R76
	26	34.25	2.69	29.50	31.75	24	1.38	/	29.500	0.500	0.781	0.060	R93
	28	36.50	2.81	31.50	34.00	28	1.38	/	31.500	0.500	0.781	0.060	R94
	30	38.75	2.94	33.75	36.00	28	1.38	/	33.750	0.500	0.781	0.060	R95
	32	41.75	3.19	36.00	38.50	28	1.62	/	36.000	0.562	0.906	0.060	R96
	34	43.75	3.25	38.00	40.50	32	1.62	/	38.000	0.562	0.906	0.060	R97
	36	46.00	3.56	40.25	42.75	32	1.62	/	40.250	0.562	0.906	0.060	R98
300	2	6.50	0.88	3.62	5.00	8	0.75	4.25	3.250	0.312	0.469	0.03	R23
	2.5	7.50	1.00	4.12	5.88	8	0.88	5.00	4.000	0.312	0.469	0.03	R26
	3	8.25	1.12	5.00	6.62	8	0.88	5.75	4.875	0.312	0.469	0.03	R31
	4	10.00	1.25	6.19	7.88	8	0.88	6.88	5.875	0.312	0.469	0.03	R37
	6	12.50	1.44	8.50	10.62	12	0.88	9.50	8.312	0.312	0.469	0.03	R45
	8	15.00	1.62	10.62	13.00	12	1.00	11.88	10.625	0.312	0.469	0.03	R49
	10	17.50	1.88	12.75	15.25	16	1.12	14.00	12.750	0.312	0.469	0.03	R53
	12	20.50	2.00	15.00	17.75	16	1.25	16.25	15.000	0.312	0.469	0.03	R57
	14	23.00	2.12	16.25	20.25	20	1.25	18.00	16.500	0.312	0.469	0.03	R61
	16	25.50	2.25	18.50	22.50	20	1.38	20.00	18.500	0.312	0.469	0.03	R65
	18	28.00	2.38	21.00	24.75	24	1.38	22.62	21.000	0.312	0.469	0.03	R69
	20	30.50	2.50	23.00	27.00	24	1.38	25.00	23.000	0.375	0.531	0.06	R73
	22	33.00	2.62	25.25	29.25	24	1.62	27.00	25.000	0.438	0.594	0.06	R81
	24	36.00	2.75	27.25	32.00	24	1.62	29.50	27.250	0.438	0.656	0.06	R77
	26	38.25	3.31	29.50	34.50	28	1.75	31.88	29.500	0.500	0.781	0.06	R93
	28	40.75	3.56	31.50	37.00	28	1.75	33.88	31.500	0.500	0.781	0.06	R94
	30	43.00	3.75	33.75	39.25	28	1.88	36.12	33.750	0.500	0.781	0.06	R95
	32	45.25	3.94	36.00	41.50	28	2.00	38.75	36.000	0.562	0.906	0.06	R96
	34	47.50	4.12	38.00	43.50	28	2.00	40.75	38.000	0.562	0.906	0.06	R97
	36	50.00	4.38	40.25	46.00	32	2.12	43.00	40.250	0.562	0.906	0.06	R98

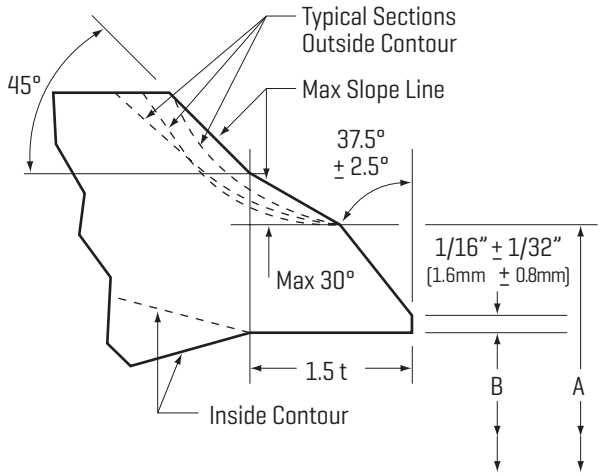
CLASS	SIZE	FLG. DIA.	FLG. THICK.	RAISED FACE DIA.	DRILLING			FACE DIA.	RING JOINT				
					BOLT CIR. DIA.	# OF BOLTS	HOLE DIA.		PITCH DIA.	GRV. DEPTH	GRV. WIDTH	BTM. RADIUS	RING NO.
		O	T	R	C			K	P	L	F	R	
600	2	6.50	1.00	3.62	5.00	8	0.75	4.25	3.250	0.312	0.469	0.03	R23
	2.5	7.50	1.12	4.12	5.88	8	0.88	5.00	4.000	0.312	0.469	0.03	R26
	3	8.25	1.25	5.00	6.62	8	0.88	5.75	4.875	0.312	0.469	0.03	R31
	4	10.75	1.50	6.19	8.50	8	1.00	6.88	5.875	0.312	0.469	0.03	R37
	6	14.00	1.88	8.50	11.50	12	1.12	9.50	8.312	0.312	0.469	0.03	R45
	8	16.50	2.19	10.62	13.75	12	1.25	11.88	10.625	0.312	0.469	0.03	R49
	10	20.00	2.50	12.75	17.00	16	1.38	14.00	12.750	0.312	0.469	0.03	R53
	12	22.00	2.62	15.00	19.25	20	1.38	16.25	15.000	0.312	0.469	0.03	R57
	14	23.75	2.75	16.25	20.75	20	1.5	18.00	16.500	0.312	0.469	0.03	R61
	16	27.00	3.00	18.50	23.75	20	1.62	20.00	18.500	0.312	0.469	0.03	R65
	18	29.25	3.25	21.00	25.75	20	1.75	22.62	21.000	0.312	0.469	0.03	R69
	20	32.00	3.50	23.00	28.50	24	1.75	25.00	23.000	0.375	0.531	0.06	R73
	22	34.25	3.75	25.25	30.62	24	1.88	27.00	25.000	0.438	0.594	0.06	R81
	24	37.00	4.00	27.25	33.00	24	2.00	29.50	27.250	0.438	0.659	0.06	R77
900	2	8.5	1.5	3.62	6.5	8	1	4.88	3.75	0.312	0.469	0.03	R24
	2.5	9.62	1.62	4.12	7.50	8	1.12	5.39	4.250	0.312	0.469	0.03	R27
	3	9.50	1.50	5.00	7.50	8	1.00	6.12	4.875	0.312	0.469	0.03	R31
	4	11.50	1.75	6.19	9.25	8	1.25	7.12	5.875	0.312	0.469	0.03	R37
	6	15.50	2.19	8.50	12.50	12	1.25	9.50	8.312	0.312	0.469	0.03	R45
	8	18.50	2.50	10.62	15.50	12	1.50	12.12	10.625	0.312	0.469	0.03	R49
	10	21.50	2.75	12.75	18.50	16	1.50	14.25	12.750	0.312	0.469	0.03	R53
	12	24.00	3.12	15.00	21.00	20	1.50	16.50	15.000	0.312	0.469	0.03	R57
	14	25.25	3.38	16.25	22.00	20	1.62	18.38	16.500	0.438	0.656	0.06	R62
	16	27.75	3.50	18.50	24.25	20	1.75	20.62	18.500	0.438	0.656	0.06	R66
	18	31.00	4.00	21.00	27.00	20	2.00	23.38	21.00	0.500	0.781	0.06	R70
	20	33.75	4.25	23.00	29.50	20	2.12	25.50	23.000	0.500	0.781	0.06	R74
	24	41.00	5.50	27.25	35.50	20	2.62	30.38	27.250	0.625	1.062	0.09	R78
1500	2	8.50	1.50	3.62	6.50	8	1.00	4.88	3.750	0.312	0.469	0.03	R24
	2.5	9.62	1.62	4.12	7.50	8	1.12	5.38	4.250	0.312	0.469	0.03	R27
	3	10.50	1.88	5.00	8.00	8	1.25	6.62	5.375	0.312	0.469	0.03	R35
	4	12.25	2.12	6.19	9.50	8	1.38	7.62	6.375	0.312	0.469	0.03	R39
	6	15.50	3.25	8.50	12.50	12	1.50	9.75	8.312	0.375	0.531	0.06	R46
	8	19.00	3.62	10.62	15.50	12	1.75	12.50	10.625	0.438	0.656	0.06	R50
	10	23.00	4.25	12.75	19.00	12	2.00	14.62	12.750	0.438	0.656	0.06	R54
	12	26.00	4.88	15.00	22.50	16	2.12	17.25	15.000	0.562	0.906	0.06	R58
	14	29.50	5.25	16.25	25.00	16	2.38	19.25	16.500	0.625	1.062	0.09	R63
	16	32.50	5.75	18.50	27.75	16	2.62	21.50	18.500	0.688	1.188	0.09	R67
	18	36.00	6.38	21.00	30.50	16	2.88	24.12	21.000	0.688	1.188	0.09	R71
	20	38.75	7.00	23.00	32.75	16	3.12	26.50	23.000	0.688	1.312	0.09	R75
	24	46.00	8.00	27.25	39.00	16	3.62	31.25	27.250	0.812	1.438	0.09	R79
2500	2	9.25	2.00	3.62	6.75	8	1.00	4.48	4.000	0.312	0.469	0.030	R26
	2.5	10.50	2.25	4.12	7.75	8	1.13	5.86	4.375	0.375	0.531	0.060	R28
	3	12.00	2.62	5.00	9.00	8	1.25	6.61	5.000	0.375	0.531	0.060	R32
	4	14.00	3.00	6.19	10.75	8	1.50	7.99	6.188	0.438	0.656	0.060	R38
	5	16.50	3.62	7.31	12.75	8	1.75	9.48	7.500	0.500	0.781	0.060	R40
	6	19.00	4.25	8.50	14.50	8	2.00	10.98	9.000	0.500	0.781	0.060	R47
	8	21.75	5.00	10.62	17.25	12	2.00	13.38	11.000	0.562	0.906	0.060	R51
	10	26.50	6.50	12.75	21.75	12	2.50	16.73	13.500	0.688	1.188	0.090	R55
	12	30.00	7.25	15.00	24.38	12	2.75	19.48	16.000	0.688	1.312	0.090	R60

Butt-welding Dimensions - ANSI B16.25

NOMINAL PIPE SIZE	SCHEDULE NUMBER OR WALL	OUTSIDE DIAMETER (CAST STEEL VALVES) A		NOMINAL INSIDE DIAMETER B		MACHINED INSIDE DIAMETER C		NOMINAL WALL THICKNESS T	
		INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
3	XXS	3-19/32	91.282	2.300	58.42	2.409	61.19	0.600	15.24
4	XXS	4-5/8	117.48	3.152	80.06	3.279	83.29	0.674	17.12
5	160	5-11/16	144.46	4.313	109.55	4.428	112.47	0.625	15.88
	XXS			4.063	103.20	4.209	106.91	0.750	19.05
6	120	6-25/32	172.34	5.501	139.72	5.600	142.24	0.562	14.27
	160			5.189	131.80	5.327	135.31	0.719	18.26
	XXS			4.897	124.38	5.072	128.83	0.864	21.95
8	100	8-23/32	223.04	7.439	188.93	7.546	191.67	0.594	15.09
	120			7.189	182.60	7.327	186.11	0.719	18.26
	140			7.001	177.83	7.163	181.94	0.812	20.62
	xxs			6.875	174.63	7.053	179.15	0.875	22.23
	160			6.813	173.05	6.998	177.75	0.960	23.01
10	50	10-15/16	277.81	9.564	242.93	9.671	245.64	0.594	15.09
	100			9.314	236.58	9.452	240.08	0.719	18.26
	120			9.064	230.23	9.234	234.54	0.844	21.44
	140			8.750	222.25	8.959	227.56	1.000	25.40
	160			8.500	215.90	8.740	222.00	1.125	28.58
12	60	12-31/32	329.41	11.626	295.30	11.725	297.82	0.562	14.27
	80			11.376	288.95	11.507	292.28	0.688	17.48
	100			11.064	281.03	11.234	284.34	0.844	21.44
	120			10.750	273.05	10.959	278.36	1.000	25.40
	140			10.500	266.70	10.740	272.80	1.125	28.58
	160			10.126	257.20	10.413	264.49	1.312	33.32
14	60	14-1/4	361.95	12.814	352.48	12.921	328.19	0.594	15.09
	80			12.500	317.50	12.646	321.21	0.750	19.05
	100			12.126	308.00	12.319	312.90	0.938	23.83
	120			11.814	300.08	12.046	305.97	1.094	27.79
	140			11.500	292.10	11.771	298.98	1.250	31.75
	160			11.188	284.18	11.498	292.05	1.406	35.71
16	60	16-1/4	412.75	14.688	373.08	14.811	376.20	0.656	16.66
	80			14.314	363.58	14.484	367.89	0.844	21.44
	100			13.938	354.03	14.155	359.54	1.031	26.19
	120			13.564	344.53	13.827	351.21	1.219	30.96
	140			13.124	333.35	13.442	341.43	1.438	36.53
	160			12.814	325.48	13.171	334.54	1.594	40.49
18	40	18-9/32	464.34	16.876	428.65	16.975	431.17	0.562	14.27
	60			16.500	419.10	16.646	422.81	0.750	19.05
	80			16.126	409.60	16.319	414.50	0.938	23.83
	100			15.688	398.48	15.936	404.50	1.156	29.36
	120			15.250	387.35	15.553	395.05	1.375	34.93
	140			14.876	377.85	15.225	386.72	1.562	39.67
	160			14.438	366.73	14.842	376.99	1.781	45.24
20	40	20-5/16	515.94	18.814	477.88	18.921	480.59	0.594	15.09
	60			18.376	466.75	18.538	470.87	0.812	20.62
	80			17.938	455.63	18.155	461.14	1.031	26.19
	100			17.438	442.93	17.717	450.01	1.281	32.54
	120			17.000	431.80	17.334	440.28	1.500	38.10
	140			16.500	419.10	16.896	429.16	1.750	44.45
	160			16.064	408.03	16.515	419.48	1.969	50.01
24	30	24-3/8	619.13	22.876	581.05	22.975	583.57	0.562	14.27
	40			22.626	574.70	22.757	578.03	0.688	17.48
	60			22.064	560.43	22.265	565.53	0.969	24.61
	80			21.564	547.73	21.827	554.41	1.219	30.96
	100			20.938	531.83	21.280	540.51	1.531	38.89
	120			20.376	517.55	20.788	528.02	1.812	46.02
	140			19.876	504.85	20.350	516.89	2.062	52.37
	160			19.314	490.58	19.859	504.42	2.344	59.54

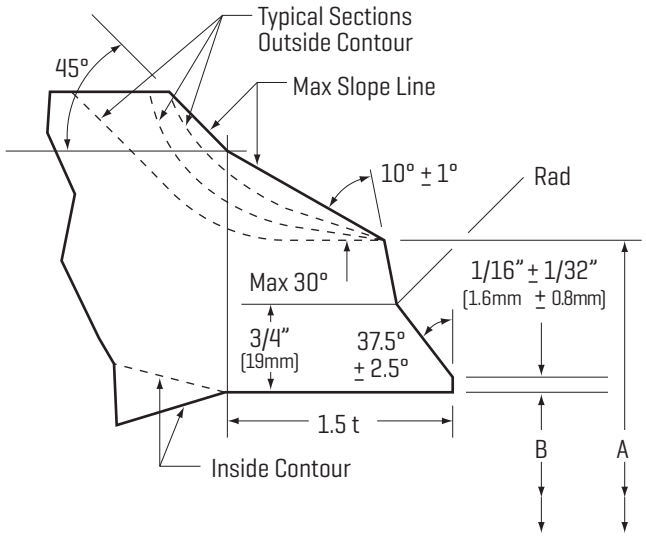
Plain Bevel Butt-welding End for Pipe Wall Thickness is 7/8” (22.23mm) or less.

Welding end details for cast components for use without backing ring or with split backing ring.



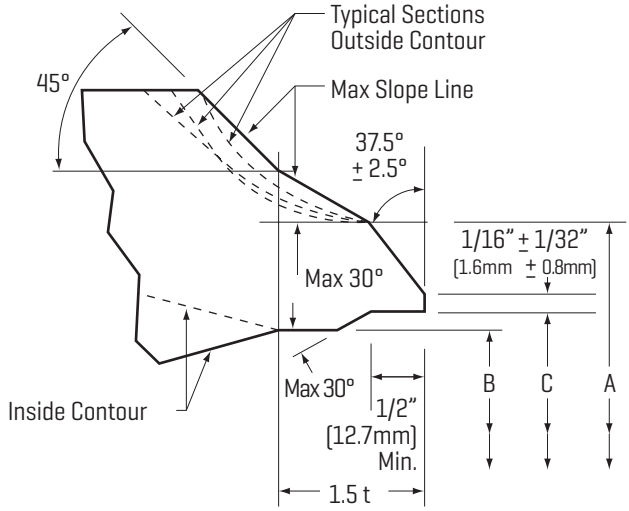
Compound Bevel Butt-welding End for Pipe Wall Thickness Greater than 7/8” (22.23mm).

Welding end details for cast components for use without backing ring or with split backing ring.



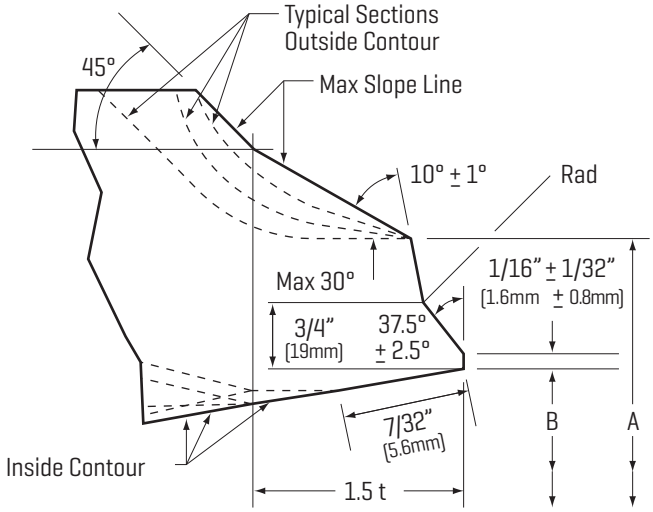
Plain Bevel Butt-welding End for Pipe Wall Thickness is 7/8” (22.23mm) or less.

Welding end details for cast components for use with continuous rectangular or tapered backing ring.



Compound Bevel Butt-welding End for Pipe Wall Thickness Greater than 7/8” (22.23mm).

Welding end details for cast components for use with continuous rectangular or tapered backing ring.



SCV VALVE

A Commitment to Our Customers

At SCV Valve, our commitment goes beyond manufacturing quality valves. It is about earning the confidence of our customers through dependable products, responsive service, and relationships built to last.

We understand that our products operate in demanding applications where quality, reliability, and performance are essential. That responsibility drives our commitment to maintaining high standards throughout our organization—from engineering and manufacturing to quality assurance, delivery, and customer support.

Just as important as the products we manufacture are the relationships we develop with the people and companies we serve. We believe strong business relationships are built through integrity, communication, consistency, and doing what we say we will do. Whether you have worked with SCV Valve for many years or are considering us for the first time, our goal is to become a trusted and dependable partner for your organization.

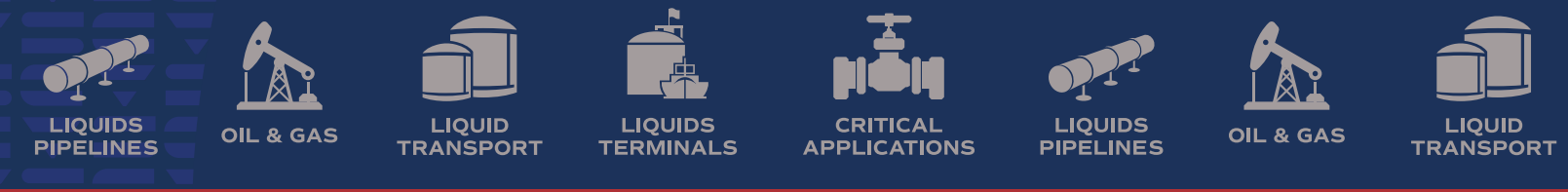
As we continue to grow, we remain focused on the principles that strengthen long-term partnerships: quality products, exceptional service, technical expertise, and a genuine commitment to our customers' success.

On behalf of everyone at SCV Valve, thank you to our existing customers for your continued trust and loyalty. To our prospective customers, we welcome the opportunity to earn your business and demonstrate the level of quality and service you can expect from SCV Valve.

We look forward to building lasting relationships and serving our customers for many years to come.

Sincerely,

Sid McCarra
President
SCV Valve, LLC



SALES, PROJECTS, ENGINEERING, MANUFACTURING, & WAREHOUSING

3521 FM 646 Rd. North
Santa Fe, TX 77510
Phone: (281) 482-4728
Fax: (281) 482-9728
Hours: 8:00 a.m. to 5:00 p.m. Central Standard
Email: sales@scvvalve.com

Rev: SCV - TCGV - API6D - 092926