



**SCV VALVE**  
Innovative Valve Solutions®



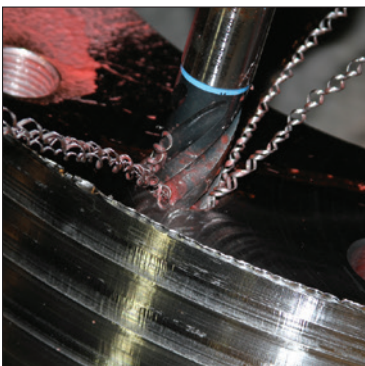
[281] 482-4728 • [www.scvvalve.com](http://www.scvvalve.com)



## Thru Conduit Slab & Expanding Gate Valves - API 6A & API 6D

Class: 150 - 1500  
Sizes: 2" - 42"





**SCV VALVE** manufactures some of the most dependable cast steel Thru Conduit Slab and Expanding Gate Valves in the industry. Both designs utilize flanged and butt-weld end connections, and are manufactured and tested in accordance with API 6D. The full port design minimizes pressure drop and turbulence. The SCV design offers many features and options beneficial for oil, gas, and liquid applications making it the most demanded Thru Conduit Gate on the market.

**Innovative Valve Solutions.®**

# SCV Thru Conduit Slab & Expanding Gate Valves

[ Product Preview ]

For more information call us @ [281] 482-4728 or visit our website @ [www.scvvalve.com](http://www.scvvalve.com)

## SCV Thru Conduit Slab & Expanding Gate Valves

- 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

## SCV Thru Conduit Slab Gate (Bi-Directional)

- Pressure assisted seats for high pressure sealing
- Spring loaded seat for low pressure sealing
- Double block and bleed capabilities
- Internal pressure relieving through self relieving seats
- Secondary sealant injection at seats and stems
- Full port thru conduit for passage of pigs

## SCV Thru Conduit Expanding Gate (Bi-Directional) with Preferred Pressure Side

- Expanding mechanical gate forms positive tight sealing
- Seals at low and high pressure
- Double block and bleed capabilities
- Secondary sealant injections at seats and stems
- Optional by-pass system for thermal cavity relief venting
- Full port thru conduit for passage of pigs

**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.





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# Complete Product Line

Call SCV Valve today @ (281) 482-4728 for all your valve needs or visit us on the web @ [www.scvvalve.com](http://www.scvvalve.com).

## THRU CONDUIT GATES - SLAB & EXPANDING

**Design: API 6D**

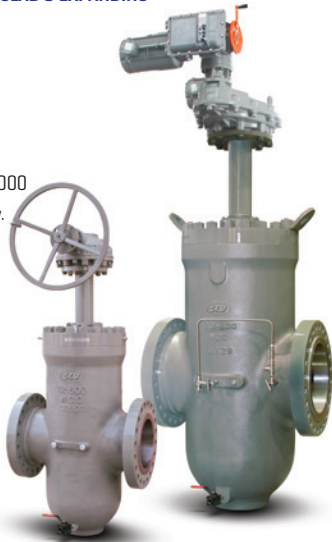
Sizes: 2" - 42"  
Class: 150 - 1500

Standard stock.

**Design: API 6A**

Sizes: 9", 11" & 13-5/8"  
Pressure: 2000, 3000, 5000

Limited inventory availability.  
All sizes and pressure classes made to order.



## PISTON CHECKS

**Design: API 6D**

Sizes: 2" - 24"  
Class: 150 - 2500

Standard stock.



## GLOBES

**Design: API 623**

Sizes: 2" - 24"  
Class: 150 - 2500

Limited inventory availability.  
All sizes and pressure classes made to order.



## 3-PIECE TRUNNION BALLS

**Design: API 6D**

Sizes: 2" - 42"  
Class: 150 - 2500

Standard stock.

**Design: API 6A**

Sizes: 2-1/16" - 7-1/6"  
Pressure: 2000, 3000, 5000

Limited inventory availability.  
All sizes and pressure classes made to order.

Bore Coating: Scotchkote™ 134



## FULL PORT SWING CHECKS

**Design: API 6D**

Sizes: 2" - 36"  
Class: 150 - 2500

Standard stock.



Exterior Coating: Epoxy

## WEDGE GATES

**Design: API 600**

Sizes: 2" - 48"  
Class: 150 - 2500

Limited inventory availability. All sizes and pressure classes made to order.



## FLOATING BALL VALVES

**Design: B16.34**

Sizes: 1/2" - 12"  
Class: 150 - 1500

Standard stock.

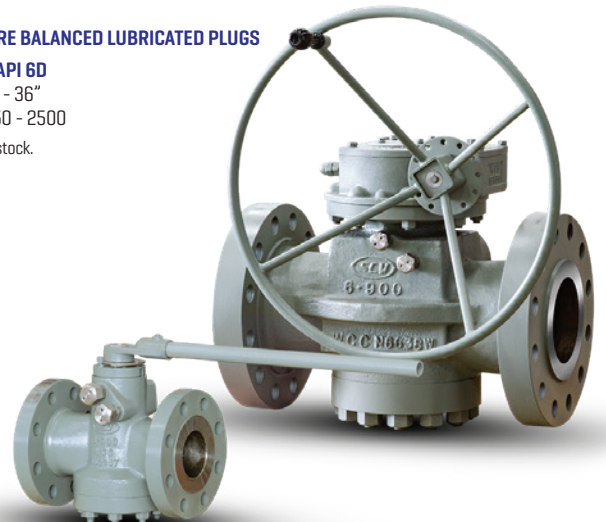


## PRESSURE BALANCED LUBRICATED PLUGS

**Design: API 6D**

Sizes: 2" - 36"  
Class: 150 - 2500

Standard stock.



# Certifications & Registrations

## American Petroleum Institute (API)

### API 6A Certification



Note: Extension letter available on our website.

### API 6D Certification



Note: Extension letter available on our website.

### ISO 9001:2015 Certificate



### CE PED Certificate



### Canadian Registration Number

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

# SCV Figure Number Chart

Note: SCV Figure Chart is subject to change without notice.

1

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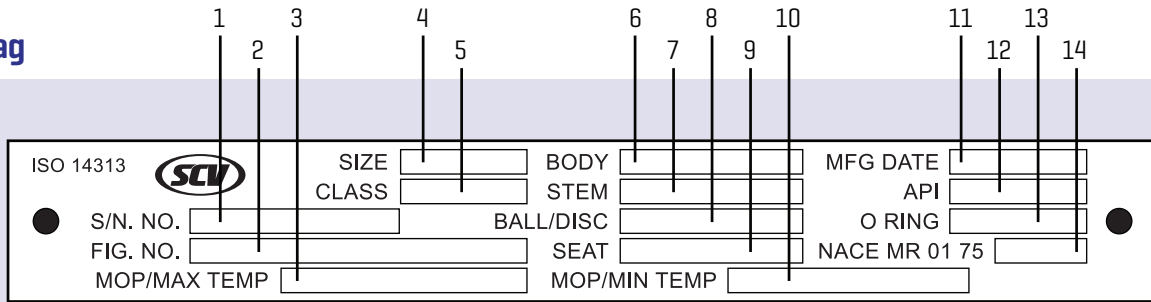
Valve Type	Bore Size	Class	Body/Bonnet Conf.	Body Material	Obturator Material	Ends	Operator
BAL = Trunnion Ball Valve	50 = 1/2"	01 = 150	B = Bolted	02 = A352 LCC	01 = A352 LLC + 410	A = RF x WE	/ = N/A
CEG = Compact Expanding Gate Valve	75 = 3/4"	03 = 300	L = Lug Style	06 = A351 CF8M	02 = A352 LCC + ENP	B = RTJ x WE	B = Bare Stem
DCK = Dual Plate Check Valve	01 = 1"	04 = 400	P = Pressure Seal	08 = A216 WCC	06 = A216 WCC + ENP	D = RF x RTJ	D = Dual Acting Actuator
EPG = Expanding Gate Valve	15 = 1-1/2"	06 = 600	S = Seal Weld	10 = A216 WCB	09 = A351 CF8M	E = RTJ x RF	E = Electric Actuator
FBV = Floating Ball Valve	02 = 2"	09 = 900	T = Top Entry	11 = A352 LCB	10 = A216 + CR13	J = RTJ	G = Gear
FCK = Full Port Swing Check Valve	21 = 2-1/16"	15 = 1500	U = Union	12 = A350 LF2	11 = CR13 HF	K = WE x RF	H = Handwheel
GAT = Wedge Gate Valve	25 = 2-1/2"	20 = 2000		13 = A105	12 = A105 + CR13	L = WE x RTJ	I = Linear Actuator
GLB = Globe Valve	27 = 2-9/16"	25 = 2500		16 = A217 WC6	13 = A105 + ENP	R = RF	L = Lever
PCK = Piston Check Valve	03 = 3"	30 = 3000		30 = A29 4130	14 = A694 Gr. F60 + ENP	W = WE	
PLG = Lubricated Plug Valve	31 = 3-1/8"	50 = 5000		36 = A182 316	15 = A350 LF2 + ENP		
PSG = Parallel Slide Gate Valve	37 = 3-9/16"	10 = 10000		51 = A182 F51 Duplex	16 = A216 WCC + 316		
RSB = Rising Stem Ball Valve	04 = 4"			55 = A182 F55 Duplex	17 = 17-4 PH		
SCK = Conv. Port Swing Check Valve	41 = 4-1/16"			60 = A216 WCC + Inconel 625	20 = A216 WCB + Ni65		
TCG = Slab Gate Valve	05 = 5"			87 = A487 4C	23 = A182 316L + Stellite 21		
	51 = 5-1/8"			88 = A890-4A	34 = A182 304		
	06 = 6"				35 = A182 316 HF		
	71 = 7-1/16"				36 = A182 316		
	08 = 8"				41 = A182 F6A Class 2		
	09 = 9"				42 = A182 F6A + Nitride		
	10 = 10"				51 = A182 F51 Duplex		
	23 = 10-3/8"				52 = A351 CF8M + Stellite 6		
	11 = 11"				54 = A182 F51 Duplex + CoCr-A		
	12 = 12"				59 = A352 LCC + Stellite 6		
	19 = 12-3/8"				60 = A105 + HF		
	13 = 13-5/8"				61 = A105 + Nitride + Stellite 6		
	14 = 14"				62 = A105 + Inconel 625		
	16 = 16"				69 = A350 LF2 + Tungsten Carbide		
	17 = 16-3/4"				73 = A182 410 + Tungsten Carbide		
	18 = 18"				81 = A350 LF2 + Nitride + HF		
	20 = 20"				85 = A743 CA15 + Nitride		
	22 = 22"				88 = A890-4A		
	24 = 24"				96 = A216 WCB + CR13		
	26 = 26"						
	28 = 28"						
	30 = 30"						
	32 = 32"						
	34 = 34"						
	36 = 36"						
	38 = 38"						
	40 = 40"						
	42 = 42"						
	48 = 48"						
	52 = 52"						
	56 = 56"						
	60 = 60"						





# Valve ID Tag & Valve Markings Identification

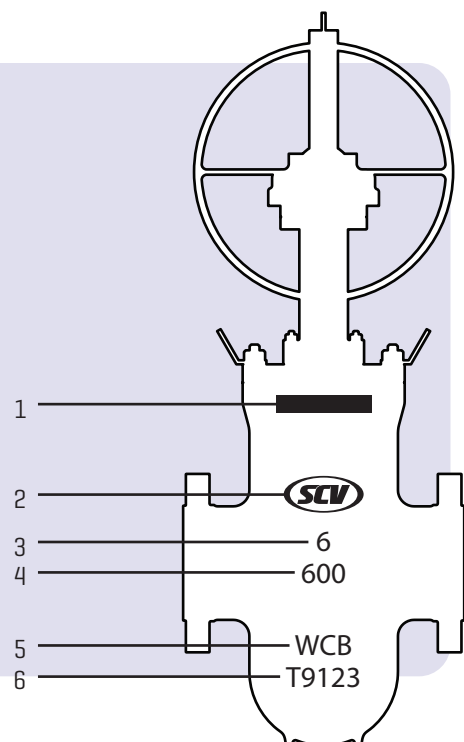
## Valve ID Tag



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

Class: 150 - 1500/Sizes: 2" - 42"

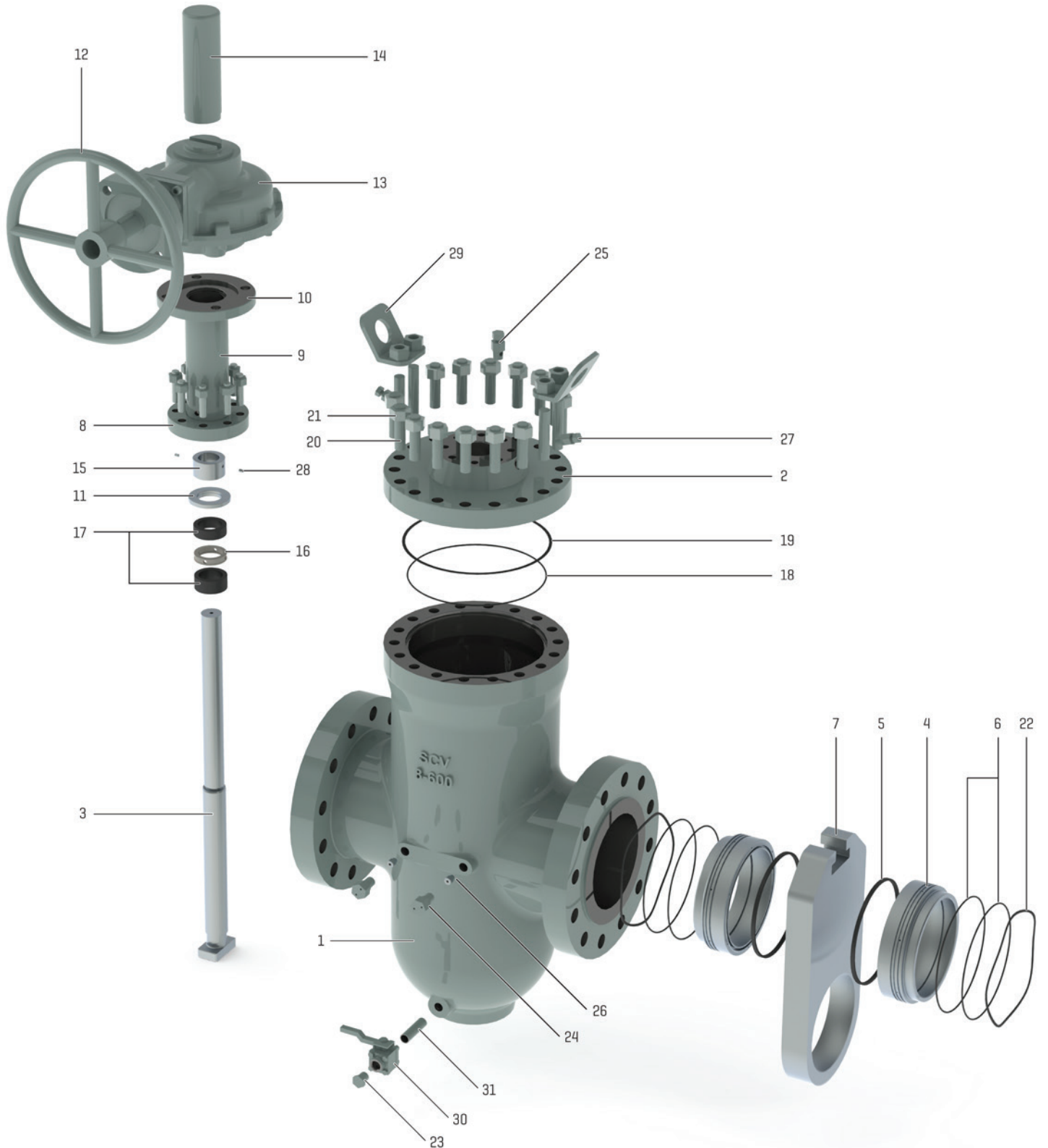


Design and Manufacturing Standards	
Basic Design	API 6D
Face-to-Face Dimension	ANSI B16.10
Flange End Dimension	ANSI/ASME B16.5 [2" to 24"] ANSI/ASME B16.47 & MSS SP-44 [26" & up]
Butt-Weld End Dimension	ANSI/ASME B16.25
Inspection & Testing	API 6D
Fire Safe Design	API 6FA



# Thru Conduit Slab Gate Valve (Bi-Directional) .....

[ Expanded View ]





# Thru Conduit Slab Gate Valve (Bi-Directional) ■■■■■■■■■■

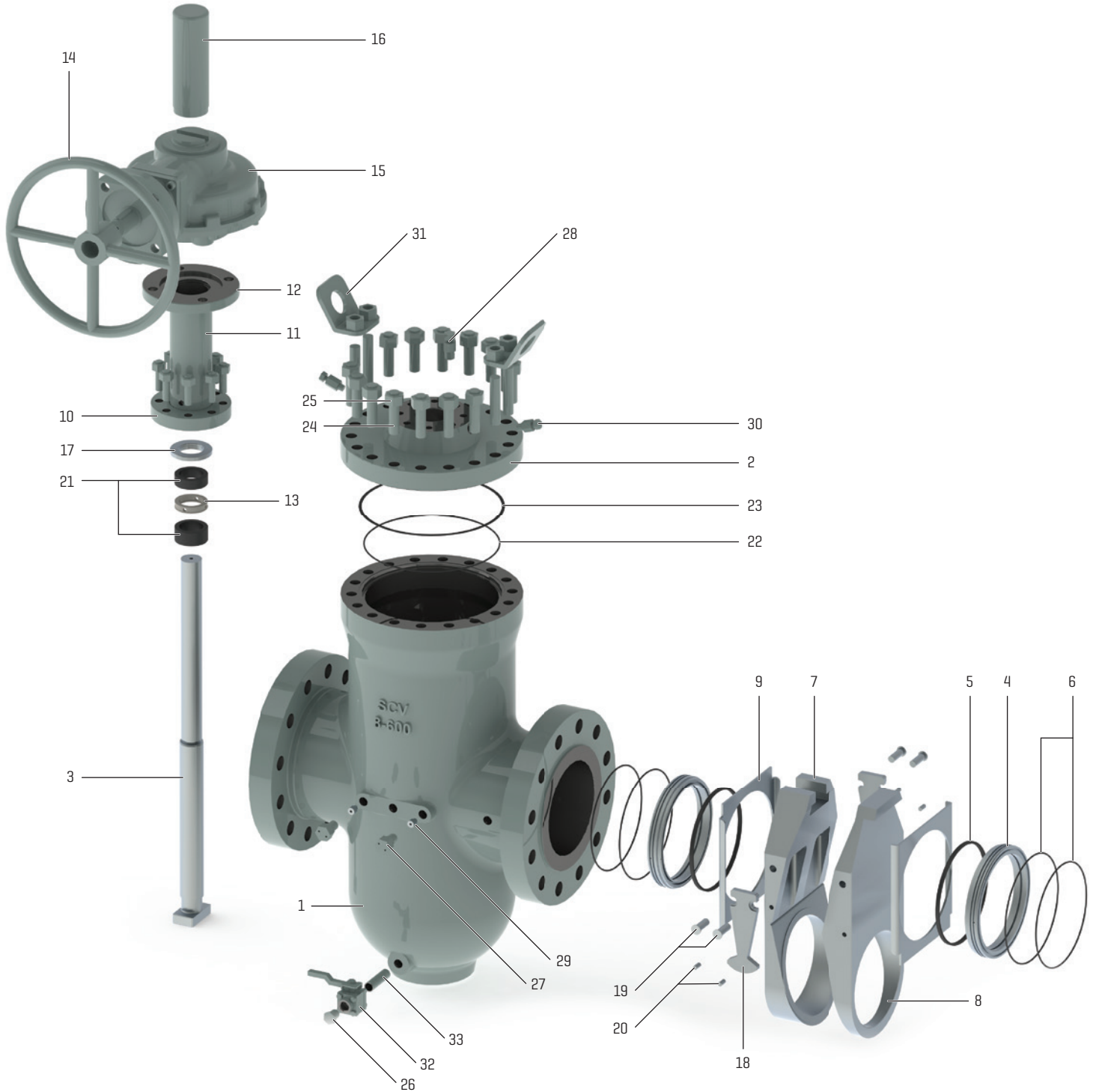
[ Bill of Materials ]

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

# Thru Conduit Expanding Gate Valve [Bi-Directional] with Preferred Pressure Side

[ Expanded View ]



# Thru Conduit Expanding Gate Valve ■■■■■■■■■■ (Bi-Directional) with Preferred Pressure Side

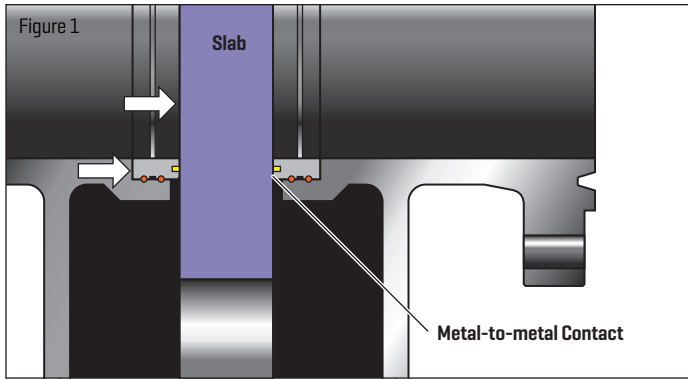
[ Bill of Materials ]

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 TType 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 A216 WCC + ENP		ASTM A352 LCC + ENP
8	Segment	ASTM A216 WCC + ENP		ASTM A352 LCC + ENP
9	Skirt	ASTM A573 Gr. 50		
10	Yoke Base	ASTM A105		
11	Yoke Tube	ASTM A106 Gr. B Pipe		
12	Yoke Top	ASTM A105		
13	Lantern Ring	PEEK		
14	Handwheel	Carbon Steel		
15	Gear	Carbon Steel		
16	Stem Protector	Clear Plastic		
17	Gland	ASTM A105		
18	Lever Lock Arm	ASTM A514 Gr. B		
19	Lever Arm Pins	4130 Alloy Steel		
20	Gate Pins	ASTM A105		
21	Packing	Viton/Duck		
22	Bonnet O-Ring	Viton AED		HNBR
23	Gasket	Stainless Steel/Graphite - GHE		
24	Stud	ASTM A193 B7M		ASTM A320 L7M
25	Heavy Hex Nut	ASTM A194 2HM		ASTM A320 L7M
26	NPT Plug	316 Stainless Steel		
27	Grease Fitting, GBH	316 Stainless Steel		
28	Vent Fitting	316 Stainless Steel		
29	Ball Check	316 Stainless Steel		
30	Packing Injection Fitting	316 Stainless Steel		
31	Lift Plate	A36		
32	Ball Valve	Carbon Steel		
33	Pipe Nipple	ASTM A106		

# Slab Gate Advanced Mechanical Details

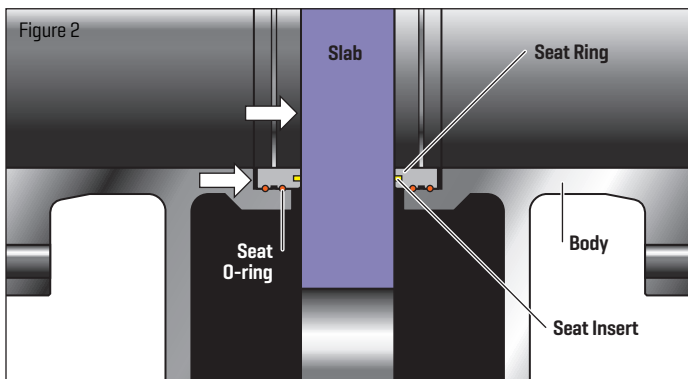
Through its simple design and efficient performance, the slab gate's two spring loaded floating seats are pressure energized. This allows for complete sealing, both upstream and downstream.

## [ Features Overview ]



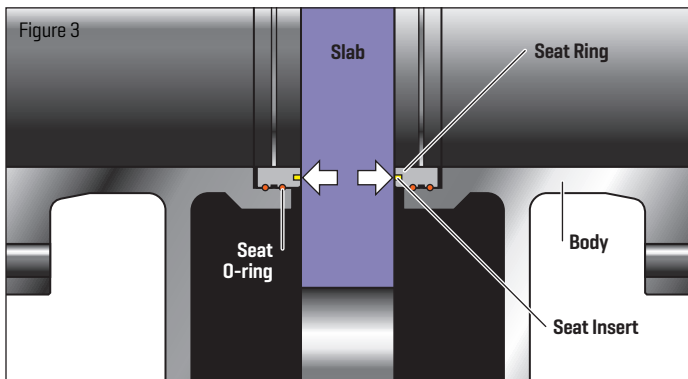
### Seats - Soft & Metal

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)**

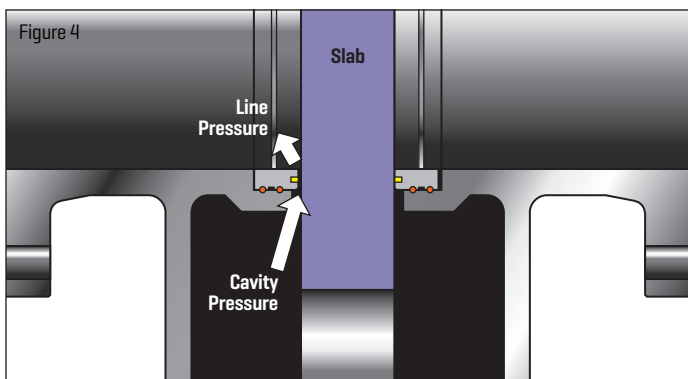


### Double Block

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)**

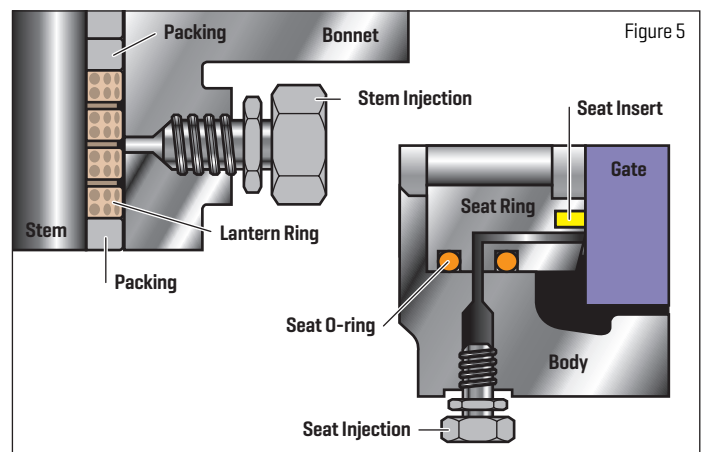


### Self Relieving Cavity

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 pressure will relieve to the lower differential side. **(Figure 4)**

### Secondary Sealant and Packing Injection System

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)**

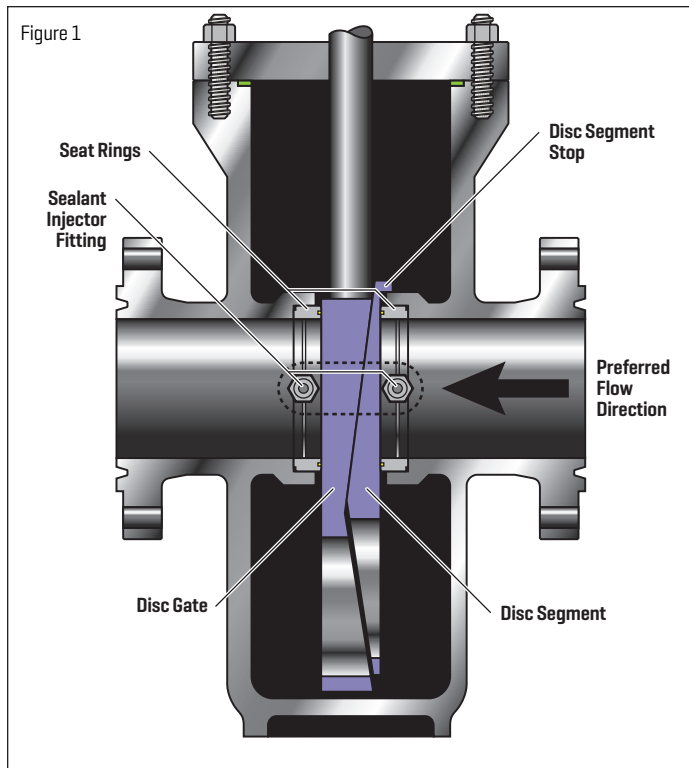




# Expanding Gate Advanced Mechanical Details

The SCV Expanding Gate valve design provides a mechanical seal between the seats and the gate in both high and low pressure applications. The expanding gate valve does not require line pressure to seal and is recommended when a tight mechanical seal is required.

## [ Features Overview ]



### Full Expanded Closed

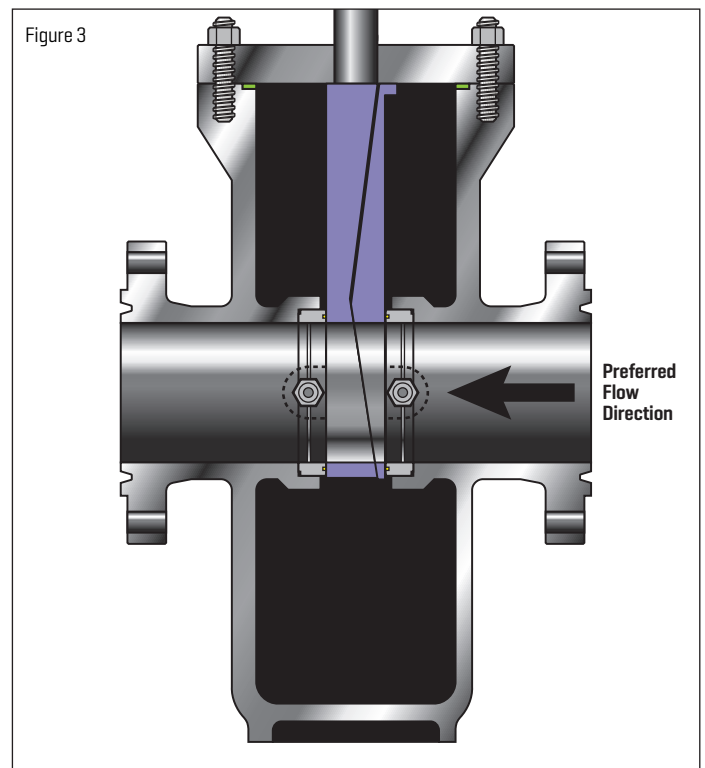
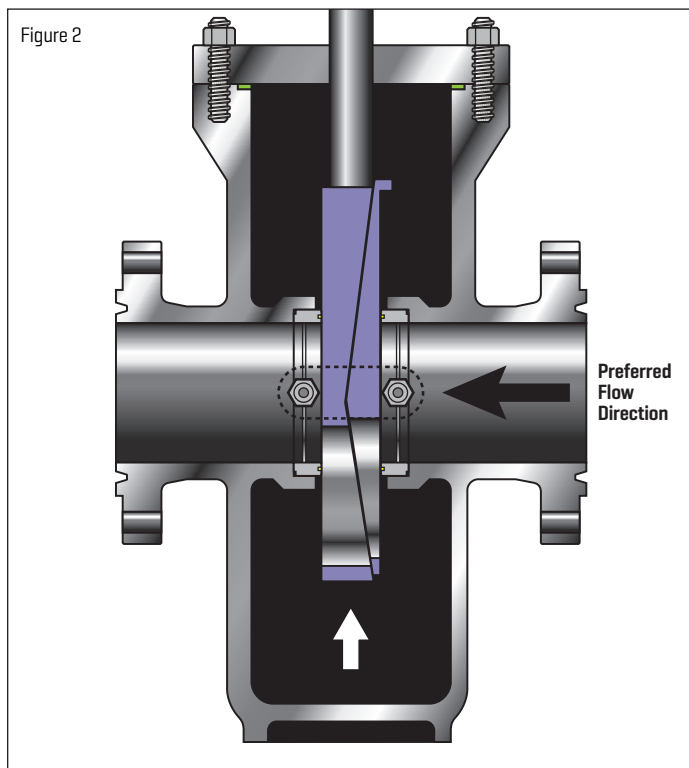
In the full expanded closed position, the segment stop has engaged with the lower body stop and the gate is wedged downward, expanding the gate and segment to form a tight seal against the upstream and downstream seats. Body cavity venting will assist to provide tight shut off. **(Figure 1)**

### Mid Position

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

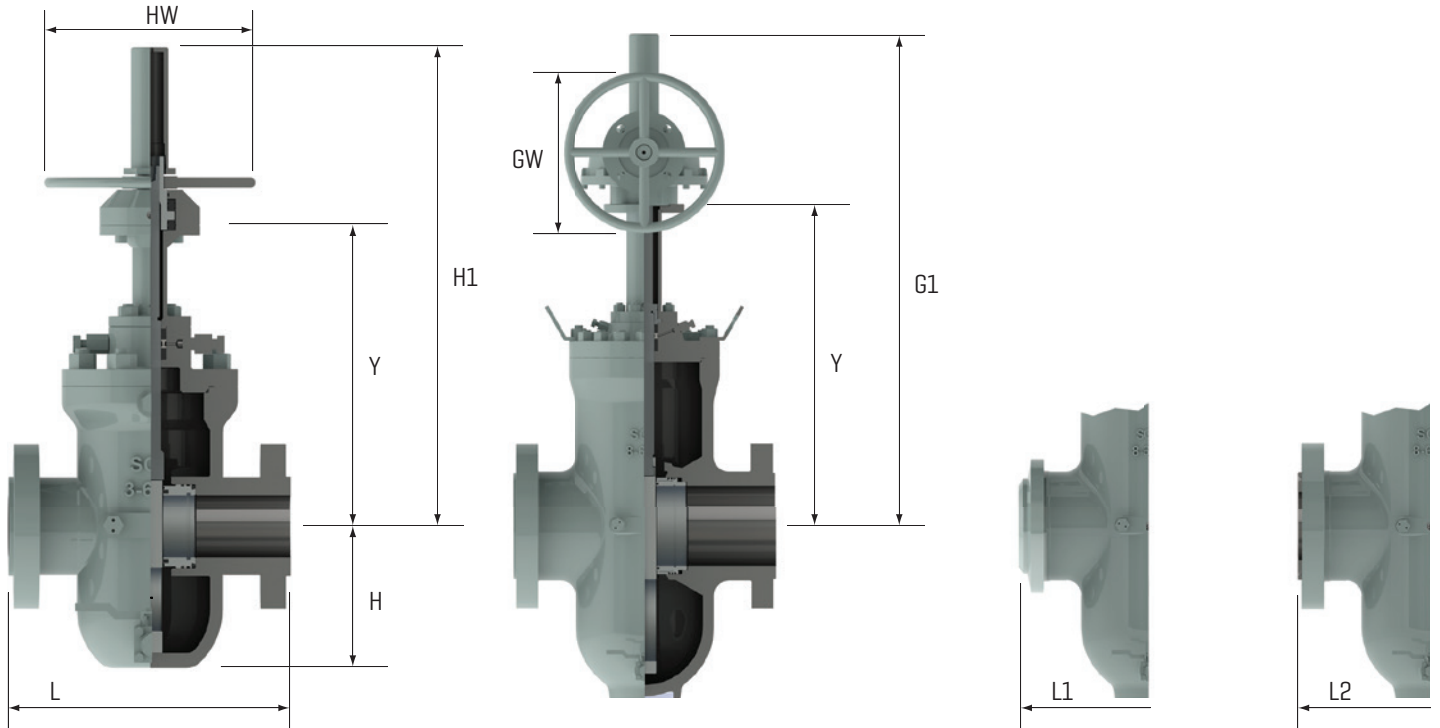
### Full Expanded Open

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)**



# Slab Gate Valve Dimensions

Size: 2" - 42"  
Class: 150



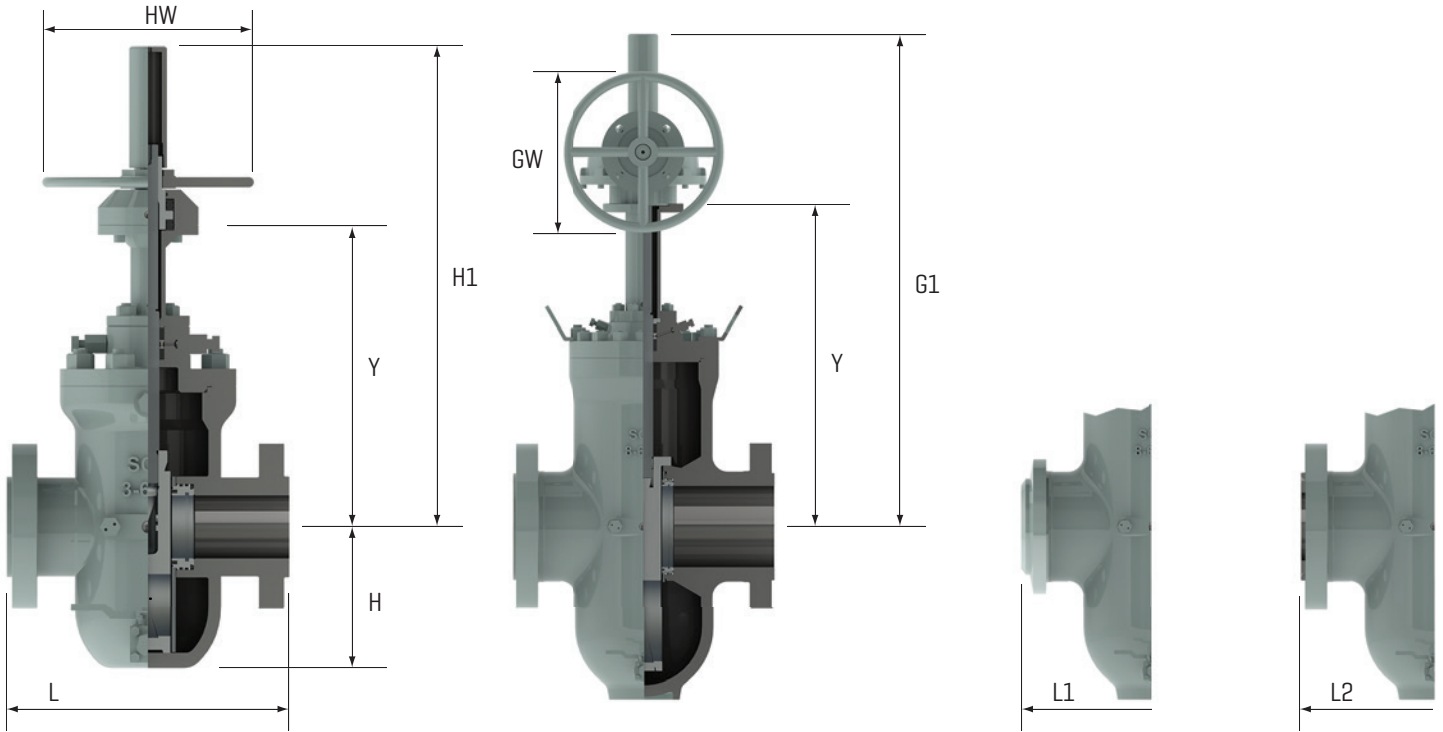
CLASS 150	SIZE		BORE	END-TO-END		CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL OPERATED	GEAR OPERATED		WEIGHTS LBS/KG	
	IN	MM	F	RF - L	BW - L1	H	Y	H1	HW	G1		GW
	2	50	2.06	7.00	/	5.7	11.7	19.0	10	19.0	10	88
	3	80	3.13	8.00	/	7.3	14.5	22.9	10.0	22.9	10.0	120
	4	100	4.06	9.00	/	9.0	16.9	26.2	10.0	26.2	10.0	150
	6	150	6.06	10.50	/	11.5	21.6	33.7	12.0	33.7	12.0	202
	8	200	8.06	11.50	/	15.3	27.7	42.1	18.0	42.1	18.0	373
	10	250	10.06	13.00	/	18.1	33.1	50.7	18.0	50.7	18.0	536
	12	300	12.06	14.00	/	22.0	38.6	58.4	18.0	58.4	18.0	868
	14	350	13.25	15.00	/	23.8	41.4	62.4	18.0	62.4	18.0	1125
	16	400	15.25	16.00	/	26.5	46.7	70.5	18.0	70.5	18.0	1516
	18	450	17.25	17.00	/	29.5	51.3	78.2	18.0	78.2	18.0	1893
	20	500	19.25	18.00	/	33.2	57.2	85.1	24.0	85.1	24.0	2561
	24	600	23.25	20.00	/	39.7	68.6	101.2	24.0	101.2	24.0	4245
	28	700	27.00	24.00	/	46.0	80.5	117.4	24.0	117.4	24.0	6556
	30	750	29.00	26.00	/	49.3	84.0	122.5	24.0	122.5	24.0	7778
	32	800	30.75	28.00	/	52.6	88.8	129.9	24.0	129.9	24.0	9119
	36	900	34.50	32.00	/	58.0	97.2	141.0	24.0	141.0	24.0	11860
	40	1000	38.50	36.00	/	64.8	110.0	158.3	24.0	158.3	24.0	15466
	42	1050	40.25	36.00	/	67.4	114.5	169.7	24.0	169.7	24.0	17304
			1022	914	/	1712	2908	4303	610	4303	610	7849

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.

# Expanding Gate Valve Dimensions

Size: 2" - 40"

Class: 150

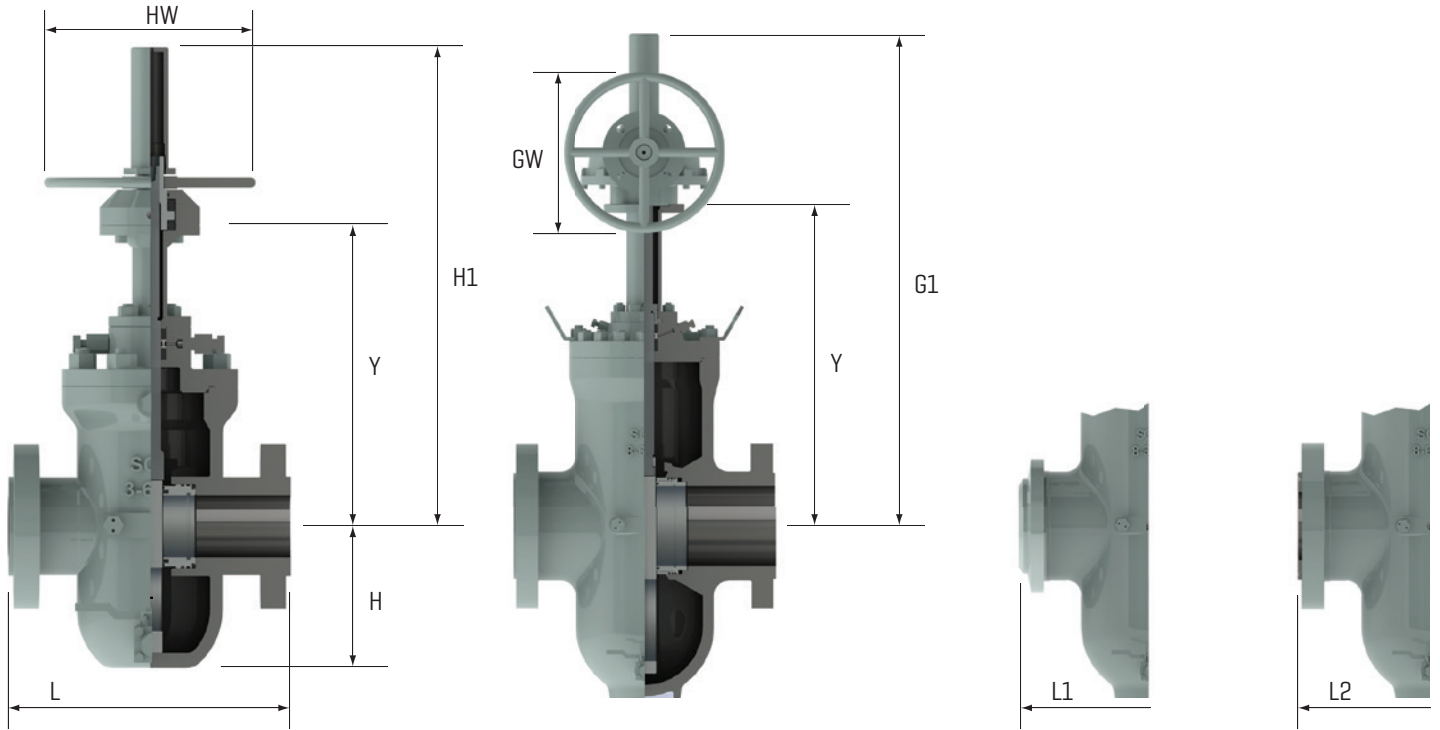


CLASS 150	SIZE		BORE	END-TO-END		CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL OPERATED	GEAR OPERATED		WEIGHTS LBS/KG	
	IN	MM	F	RF - L	BW - L1	H	Y	H1	HW	G1		GW
	3	80	3.13	11.13	/	7.0	14.9	23.8	10.0	23.8	10.0	155
	4	100	4.06	9.00	/	9.0	16.9	27.4	10.0	27.4	10.0	150
	6	150	6.06	10.50	/	12.1	21.7	34.0	12.0	34.0	12.0	232
	8	200	8.06	11.50	/	15.9	27.9	43.1	18.0	43.1	18.0	434
	10	250	10.06	13.00	/	19.4	33.5	51.6	18.0	51.6	18.0	713
	12	300	12.06	14.00	/	22.6	39.1	59.2	18.0	59.2	18.0	1053
	16	400	15.25	16.00	/	28.0	47.9	72.0	18.0	72.0	18.0	1922
	18	450	/	/	/	/	/	/	/	/	/	/
	20	500	19.25	18.00	/	34.5	58.0	86.1	24.0	86.1	24.0	3361
	22	550	21.25	19.00	/	38.8	/	99.3	24.0	99.3	24.0	4495
	24	600	23.25	20.00	/	40.8	70.4	103.1	24.0	103.1	24.0	5172
	30	750	29.00	26.00	/	50.4	83.9	125.4	24.0	125.4	24.0	9589
	32	800	30.75	/	/	/	/	/	/	/	/	/
	36	900	34.50	34.50	/	59.5	98.6	145.4	24.0	145.4	24.0	14060
	40	1000	38.50	36.00	/	66.5	110.7	159.0	24.0	159.0	24.0	21077
	40	1000	978	914	/	1689	2812	4039	610	4039	610	9560

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

Size: 2" - 40"  
Class: 300



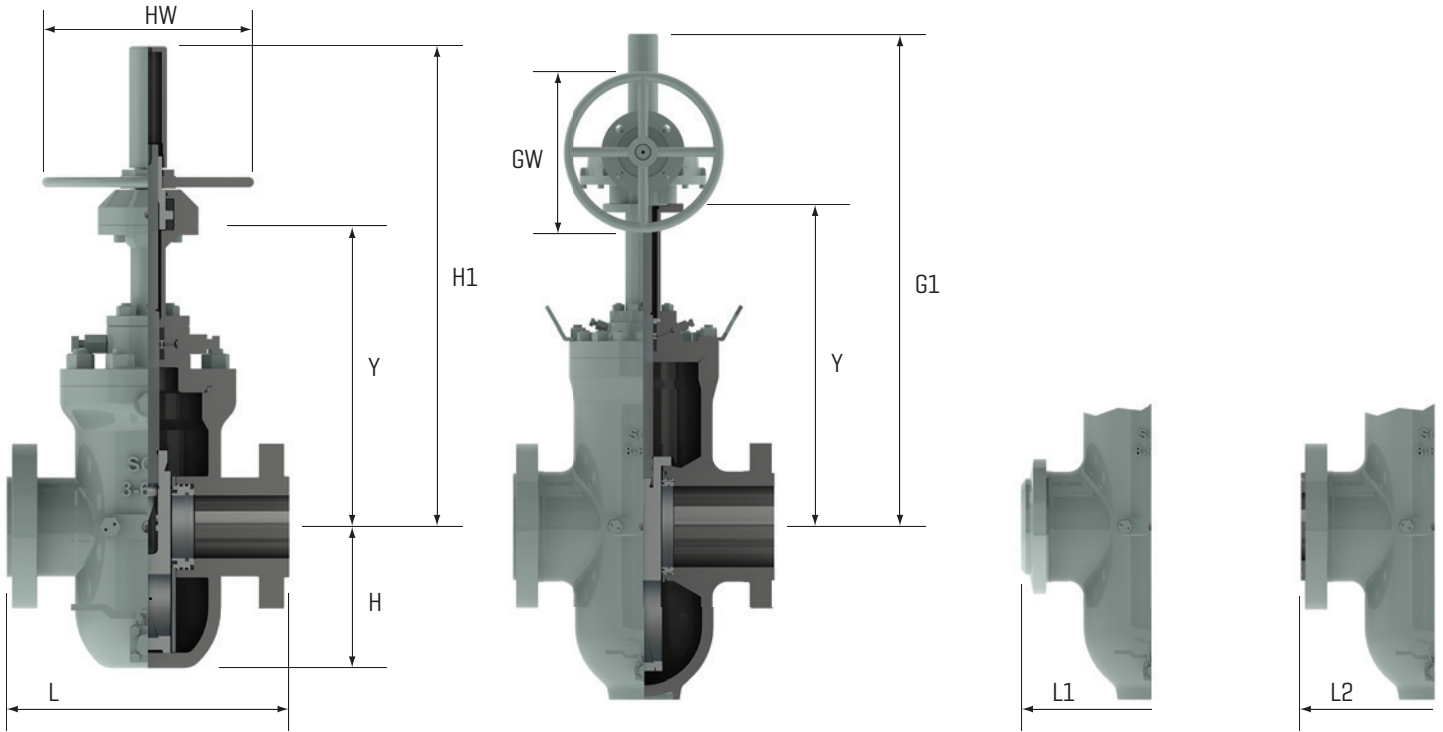
CLASS 300	SIZE		BORE	END-TO-END		CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL OPERATED		GEAR OPERATED		WEIGHTS
	IN	MM	F	RF - L	BW - L1	H	Y	H1	HW	G1	GW	LBS/KG
	2	50	2.06	8.50	/	5.7	11.7	19.0	10	19.0	10	124
	3	80	3.13	11.13	/	7.3	14.5	22.9	10.0	22.9	10.0	163
	4	100	4.06	12.00	/	9.0	16.9	26.2	10.0	26.2	10.0	181
	6	150	6.06	15.88	/	11.5	21.6	33.7	12.0	33.7	12.0	335
	8	200	8.06	16.50	/	15.3	27.7	42.1	18.0	42.1	18.0	609
	10	250	10.06	18.00	/	18.1	33.1	50.7	18.0	50.7	18.0	1000
	12	300	12.06	19.75	/	22.0	38.6	58.4	18.0	58.4	18.0	1402
	16	400	15.25	33.00	/	26.5	46.7	70.5	18.0	70.5	18.0	2764
	20	500	19.25	39.00	/	33.2	57.2	85.1	24.0	85.1	24.0	4429
	22	550	21.25	43.00	/	38.5	66.4	98.5	24.0	98.5	24.0	6488
	24	600	23.25	45.00	/	39.7	68.6	101.2	24.0	101.2	24.0	7039
	30	750	29.00	55.00	/	49.3	84.0	122.5	24.0	122.5	24.0	12389
	36	900	34.50	68.00	/	58.0	97.2	141.0	24.0	141.0	24.0	19722
	40	1000	38.50	84.50	/	64.8	110.0	158.3	24.0	158.3	24.0	26401
	50	1250	47.25	104.25	/	79.0	136.5	196.5	24.0	196.5	24.0	33125
	60	1500	56.50	125.50	/	93.0	160.0	226.0	24.0	226.0	24.0	39600
	72	1800	67.50	153.00	/	111.0	192.0	273.0	24.0	273.0	24.0	48600
	84	2100	80.50	181.00	/	132.0	228.0	324.0	24.0	324.0	24.0	59400
	100	2500	98.50	221.00	/	159.0	276.0	396.0	24.0	396.0	24.0	71400
	120	3000	118.50	265.50	/	192.0	336.0	474.0	24.0	474.0	24.0	86400
	144	3600	142.50	316.50	/	228.0	396.0	564.0	24.0	564.0	24.0	103680
	168	4200	169.50	373.50	/	267.0	462.0	666.0	24.0	666.0	24.0	123960
	192	4800	199.50	436.50	/	309.0	534.0	780.0	24.0	780.0	24.0	146640
	216	5400	232.50	505.50	/	354.0	612.0	906.0	24.0	906.0	24.0	171720
	240	6000	268.50	580.50	/	402.0	702.0	1044.0	24.0	1044.0	24.0	199080
	264	6600	307.50	661.50	/	453.0	804.0	1194.0	24.0	1194.0	24.0	228960
	288	7200	349.50	748.50	/	507.0	918.0	1356.0	24.0	1356.0	24.0	261720
	312	7800	394.50	841.50	/	564.0	1044.0	1530.0	24.0	1530.0	24.0	297480
	336	8400	442.50	940.50	/	624.0	1182.0	1716.0	24.0	1716.0	24.0	336240
	360	9000	493.50	1045.50	/	687.0	1332.0	1914.0	24.0	1914.0	24.0	378000
	384	9600	547.50	1156.50	/	753.0	1494.0	2124.0	24.0	2124.0	24.0	422640
	408	10200	604.50	1273.50	/	822.0	1668.0	2346.0	24.0	2346.0	24.0	470160
	432	10800	664.50	1396.50	/	894.0	1854.0	2580.0	24.0	2580.0	24.0	520440
	456	11400	727.50	1525.50	/	969.0	2052.0	2826.0	24.0	2826.0	24.0	573480
	480	12000	793.50	1660.50	/	1047.0	2262.0	3084.0	24.0	3084.0	24.0	629280
	504	12600	862.50	1801.50	/	1128.0	2484.0	3354.0	24.0	3354.0	24.0	687840
	528	13200	934.50	1948.50	/	1212.0	2718.0	3636.0	24.0	3636.0	24.0	749160
	552	13800	1009.50	2101.50	/	1299.0	2964.0	3930.0	24.0	3930.0	24.0	813240
	576	14400	1087.50	2260.50	/	1389.0	3222.0	4236.0	24.0	4236.0	24.0	880080
	600	15000	1168.50	2425.50	/	1482.0	3492.0	4554.0	24.0	4554.0	24.0	949680
	624	15600	1252.50	2596.50	/	1578.0	3774.0	4884.0	24.0	4884.0	24.0	1021920
	648	16200	1339.50	2773.50	/	1677.0	4068.0	5226.0	24.0	5226.0	24.0	1096800
	672	16800	1429.50	2956.50	/	1779.0	4374.0	5580.0	24.0	5580.0	24.0	1174320
	696	17400	1522.50	3145.50	/	1884.0	4692.0	5946.0	24.0	5946.0	24.0	1254480
	720	18000	1618.50	3340.50	/	1992.0	5022.0	6324.0	24.0	6324.0	24.0	1337280
	744	18600	1717.50	3541.50	/	2103.0	5364.0	6714.0	24.0	6714.0	24.0	1422720
	768	19200	1819.50	3748.50	/	2217.0	5718.0	7116.0	24.0	7116.0	24.0	1510800
	792	19800	1924.50	3961.50	/	2334.0	6084.0	7530.0	24.0	7530.0	24.0	1601520
	816	20400	2032.50	4180.50	/	2454.0	6462.0	7956.0	24.0	7956.0	24.0	1694880
	840	21000	2143.50	4405.50	/	2577.0	6852.0	8394.0	24.0	8394.0	24.0	1790880
	864	21600	2257.50	4636.50	/	2703.0	7254.0	8844.0	24.0	8844.0	24.0	1889400
	888	22200	2374.50	4873.50	/	2832.0	7668.0	9306.0	24.0	9306.0	24.0	1990440
	912	22800	2494.50	5116.50	/	2964.0	8094.0	9780.0	24.0	9780.0	24.0	2093920
	936	23400	2617.50	5365.50	/	3108.0	8532.0	10266.0	24.0	10266.0	24.0	2200080
	960	24000	2743.50	5620.50	/	3254.0	8982.0	10764.0	24.0	10764.0	24.0	2308920
	984	24600	2872.50	5881.50	/	3402.0	9444.0	11274.0	24.0	11274.0	24.0	2420400
	1008	25200	3004.50	6148.50	/	3552.0	9918.0	11796.0	24.0	11796.0	24.0	2534400
	1032	25800	3139.50	6421.50	/	3704.0	10404.0	12330.0	24.0	12330.0	24.0	2650800
	1056	26400	3277.50	6700.50	/	3858.0	10902.0	12876.0	24.0	12876.0	24.0	2769600
	1080	27000	3418.50	6985.50	/	4014.0	11412.0	13434.0	24.0	13434.0	24.0	2890800
	1104	27600	3562.50	7276.50	/	4172.0	11934.0	14004.0	24.0	14004.0	24.0	3014280
	1128	28200	3709.50	7573.50	/	4332.0	12468.0	14586.0	24.0	14586.0	24.0	3140040
	1152	28800	3859.50	7876.50	/	4494.0	13014.0	15180.0	24.0	15180.0	24.0	3268080
	1176	29400	4012.50	8185.50	/	4658.0	13572.0	15786.0	24.0	15786.0	24.0	3398280
	1200	30000	4168.50	8500.50	/	4824.0	14142.0	16404.0	24.0	16404.0	24.0	3530520
	1224	30600	4327.50	8821.50	/	4992.0	14724.0	17034.0	24.0	17034.0	24.0	3664800
	1248	31200	4489.50	9148.50	/	5162.0	15318.0	17676.0	24.0	17676.0	24.0	3801120
	1272	31800	4654.50	9481.50	/	5334.0	15924.0	18330.0	24.0	18330.0	24.0	3939480
	1296	32400	4822.50	9820.50	/	5508.0	16542.0	18996.0	24.0	18996.0	24.0	4080840
	1320	33000	4993.50	10165.50	/	5684.0	17172.0	19674.0	24.0	19674.0	24.0	4225160
	1344	33600	5167.50	10516.50	/	5862.0	17814.0	20364.0	24.0	20364.0	24.0	4372440
	1368	34200	5344.50	10873.50	/	6042.0	18468.0	21066.0	24.0	21066.0	24.0	4522680
	1392	34800	5524.50	11236.50	/	6224.0	19134.0	21780.0	24.0	21780.0	24.0	4675800
	1416	35400	5707.50	11605.50	/	6408.0	19812.0	22506.0	24.0	22506.0	24.0	4831720
	1440	36000	5893.50	11980.50	/	6594.0	20502.0	23244.0	24.0	23244.0	24.0	4989480
	1464	36600	6082.50	12361.50	/	6782.0	21204.0	23994.0	24.0	23994.0	24.0	5149920
	1488	37200	6274.50	12748.50	/	6972.0	21918.0	24756.0	24.0	24756.0	24.0	5312960
	1512	37800	6469.50	13141.50	/	7164.0	22644.0	25530.0	24.0	25530.0	24.0	5478480
	1536	38400	6667.50	13540.50	/	7358.0	23382.0	26316.0	24.0	26316.0	24.0	5646480
	1560	39000	6868.50	13945.50	/	7554.0	24132.0	27114.0	24.0	27114.0	24.0	5816880
	1584	39600	7072.50	14356.50	/	7752.0	24894.0	27924.0	24.0	27924.0	24.0	5989640
	1608	40200	7279.50	14773.50	/	7952.0	25668.0	28746.0	24.0	28746.0	24.0	6164720
	1632	40800	7489.50	15196.50	/	8154.0	26454.0	29580.0	24.0	29580.0	24.0	6342000
	1656	41400	7702.50	15625.50	/	8358.0	27252.0	30426.0	24.0	30426.0	24.0	6521440
	1680	42000	7918.50	16060.50	/	8564.0	28062.0	31284.0	24.0	31284.0	24.0	6703000
	1704	42600	8137.50	16501.50	/	8772.0	28884.0	32154.0	24.0	32154.0	24.0	6886640
	1728	43200	8359.50	16948.50	/	8982.0	29718.0	33036.0	24.0	33036.0	24.0	7072320
	1752	43800	8584.50	17401.50	/	9194.0	30564.0	33930.0	24.0	33930.0	24.0	7260000
	1776	44400	8812.50	17860.50	/	9408.0	31422.0	34836.0	24.0	34836.0	24.0	7449680
	1800	45000	9043.50	18325.50	/	9624.0	32292.0	35754.0	24.0	35754.0	24.0	7641280
	1824	45600	9277.50	18796.50	/	9842.0	33174.0	36684.0	24.0	36684.0	24.0	7834760
	1848	46200	9514.50	19273.50	/	10062.0	34068.0	37626.0	24.0	37626.0	24.0	8030080
	1872	46800	9754.50	19756.50	/	10284.0	34974.0	38580.0	24.0	38580.0	24.0	8227160
	1896	47400	10007.50	20245.50	/	10508.0	35892.0	39546.0	24.0	3		



# Expanding Gate Valve Dimensions

Size: 2" - 42"

Class: 300

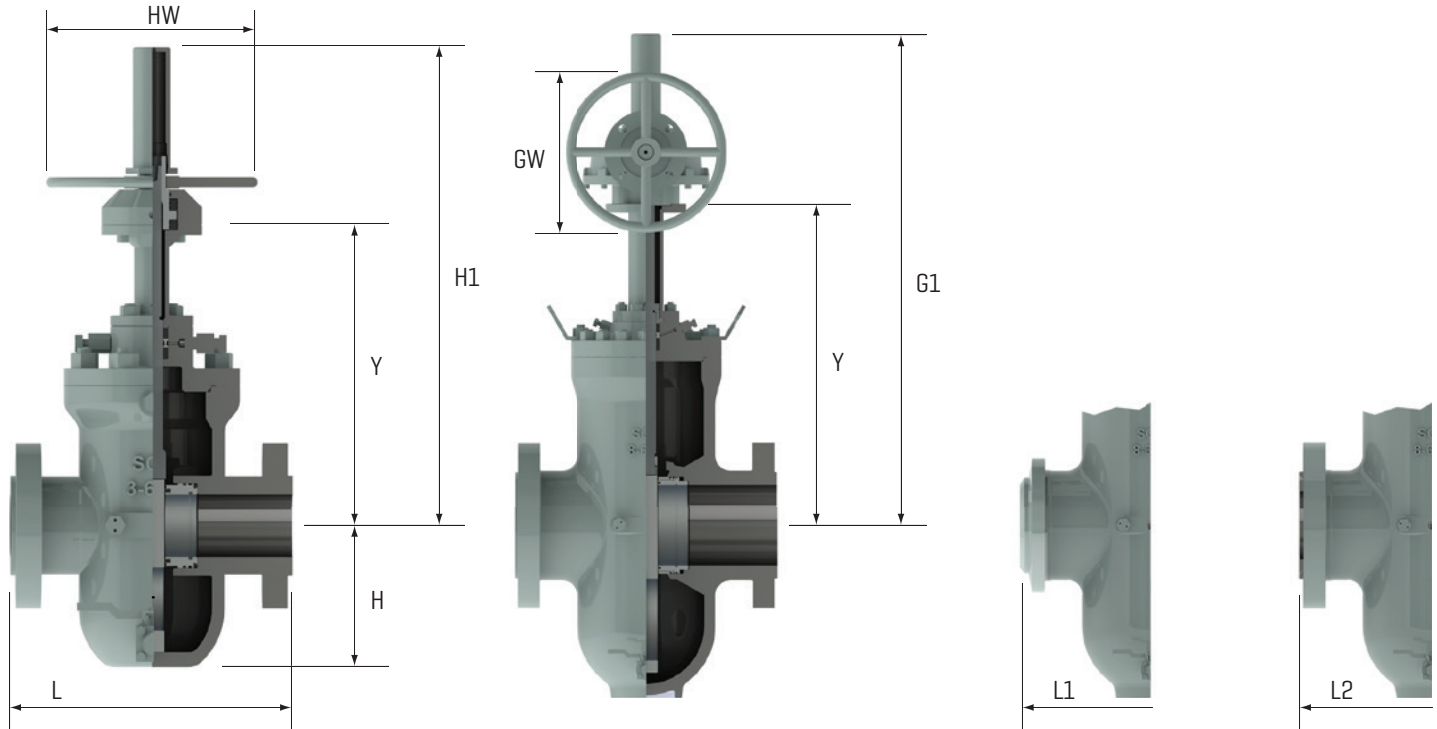


CLASS 300	SIZE		BORE	END-TO-END		CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL OPERATED		GEAR OPERATED		WEIGHTS
	IN	MM	F	RF - L	BW - L1	H	Y	H1	HW	G1	GW	LBS/KG
	2	50	2.06	8.50	/	5.7	11.7	19.0	10	19.0	10	93
	3	80	3.13	11.13	/	7.3	14.5	22.9	10.0	22.9	10.0	141
	4	100	4.06	12.00	/	9.0	16.9	26.2	10.0	26.2	10.0	181
	6	150	6.06	15.88	/	11.5	21.6	33.7	12.0	33.7	12.0	310
	8	200	8.06	16.50	/	15.3	27.7	42.1	18.0	42.1	18.0	540
	10	250	10.06	18.00	/	18.1	33.1	50.7	18.0	50.7	18.0	733
	12	300	12.06	19.75	/	22.0	38.6	58.4	18.0	58.4	18.0	1300
	14	350	13.25	30.00	/	23.8	41.4	62.4	18.0	62.4	18.0	1626
	16	400	15.25	33.00	/	26.5	46.7	70.5	18.0	70.5	18.0	2420
	18	450	17.25	36.00	/	29.5	51.3	78.2	18.0	78.2	18.0	3197
	20	500	19.25	39.00	/	33.2	57.2	85.1	24.0	85.1	24.0	4000
	24	600	23.25	45.00	/	39.7	68.6	101.2	24.0	101.2	24.0	6391
	30	750	29.00	55.00	/	49.3	84.0	122.5	24.0	122.5	24.0	11272
	36	900	34.50	68.00	/	58.0	97.2	141.0	24.0	141.0	24.0	17885
	40	1000	38.50	84.50	/	64.8	110.0	158.3	24.0	158.3	24.0	22237
	42	1050	40.25	72.00	/	67.4	114.5	169.7	24.0	169.7	24.0	20381
	42	1050	40.25	72.00	/	67.4	114.5	169.7	24.0	169.7	24.0	20381
	42	1050	40.25	72.00	/	67.4	114.5	169.7	24.0	169.7	24.0	20381

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

Size: 2" - 36"  
Class: 600



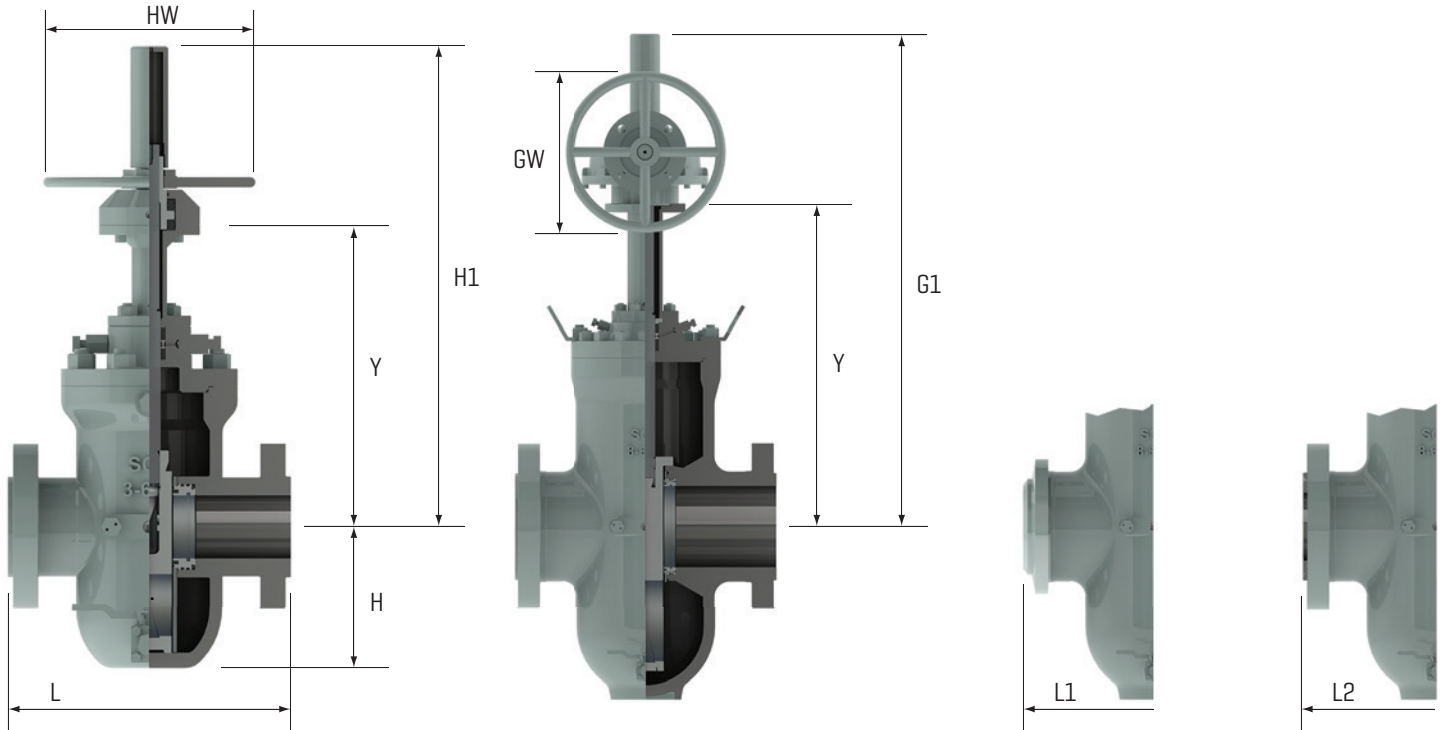
CLASS 600	SIZE		BORE	END-TO-END		CENTER-TO-BOTTOM		CENTER-TO-TOP OF YOKE		HANDWHEEL OPERATED		GEAR OPERATED		WEIGHTS
	IN	MM	F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW	LBS/KG	
	2	50	2.06	11.50	11.50	11.88	5.4	12.1	19.0	12.0	19.0	12.0	124	
	3	80	3.13	14.00	14.00	14.12	7.0	14.96	23.3	12.0	23.3	12.0	179	
	4	100	4.06	17.00	17.00	17.12	10.1	20.5	31.4	12.0	31.4	12.0	350	
	6	150	6.06	22.00	22.00	22.12	12.8	25.8	39.3	18.0	39.3	18.0	603	
	8	200	8.06	26.00	26.00	26.12	17.1	31.9	48.5	18.0	48.5	18.0	1069	
	10	250	10.06	31.00	31.00	31.12	21.3	38.0	57.6	18.0	57.6	18.0	1846	
	12	300	12.06	33.00	33.00	33.12	23.5	43.9	64.9	18.0	64.9	18.0	2442	
	14	350	13.25	35.00	35.00	35.12	26.8	47.4	71.4	24.0	71.4	24.0	3237	
	16	400	15.25	39.00	39.00	39.12	29.5	52.8	77.6	24.0	77.6	24.0	4204	
	18	450	17.25	43.00	43.00	43.12	33.3	58.2	87.8	24.0	87.8	24.0	5880	
	20	500	19.19	47.00	47.00	47.25	36.8	65.7	98.3	30.0	98.3	30.0	8325	
	22	550	21.25	51.00	/	/	40.8	72.4	107.3	24.0	107.3	24.0	10292	
	24	600	23.25	55.00	55.00	55.38	44.5	78.3	115.3	24.0	115.3	24.0	12718	
	30	750	29.00	65.00	65.00	65.38	54.0	94.4	140.1	24.0	140.1	24.0	21489	
	36	900	34.50	82.00	/	/	63.5	108.6	160.7	24.0	160.7	24.0	33646	

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.

# Expanding Gate Valve Dimensions

Size: 2" - 36"

Class: 600



CLASS 600	SIZE		BORE	END-TO-END			CENTER-TO-BOTTOM		CENTER-TO-TOP OF YOKE		HANDWHEEL OPERATED		GEAR OPERATED		WEIGHTS
	IN	MM	F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW	LBS/KG		
	2	50	2.06	11.50	11.50	11.88	5.4	12.1	19.0	12.0	19.0	12.0	124		
	3	80	3.13	14.00	14.00	14.12	7.0	14.96	23.3	12.0	23.3	12.0	184		
	4	100	4.06	17.00	17.00	17.12	10.1	20.5	31.4	12.0	31.4	12.0	349		
	6	150	6.06	22.00	22.00	22.12	12.8	25.8	39.3	18.0	39.3	18.0	601		
	8	200	8.06	26.00	26.00	26.12	17.1	31.9	48.5	18.0	48.5	18.0	1075		
	10	250	10.06	31.00	31.00	31.12	21.3	38.0	57.6	18.0	57.6	18.0	1876		
	12	300	12.06	33.00	33.00	33.12	23.5	43.9	64.9	18.0	64.9	18.0	2494		
	14	350	13.25	35.00	35.00	35.12	26.8	47.4	71.4	24.0	71.4	24.0	3327		
	16	400	15.25	39.00	39.00	39.12	29.5	52.8	77.6	24.0	77.6	24.0	4367		
	18	450	17.25	43.00	43.00	43.12	33.1	58.2	87.8	24.0	87.8	24.0	6047		
	20	500	19.19	47.00	47.00	47.25	36.8	65.7	98.3	30.0	98.3	30.0	8610		
	22	550	21.25	51.00	/	/	40.8	72.4	107.3	24.0	107.3	24.0	10720		
	24	600	23.25	55.00	55.00	55.38	44.5	78.3	115.3	24.0	115.3	24.0	13315		
	26	650	25.00	57.00	**	**	48.6	78.3	115.3	24.0	115.3	24.0	16417		
	28	700	27.00	61.00	**	**	52.0	78.3	115.3	24.0	115.3	24.0	18692		
	30	750	29.00	65.00	**	**	54.0	94.4	140.1	24.0	140.1	24.0	22606		
	36	900	34.50	82.00	**	**	64.0	108.6	160.7	24.0	160.7	24.0	35984		
			876	2083	**	**	1626	2785	4082	610	4082	610	16322		

\*\* = Consult factory.

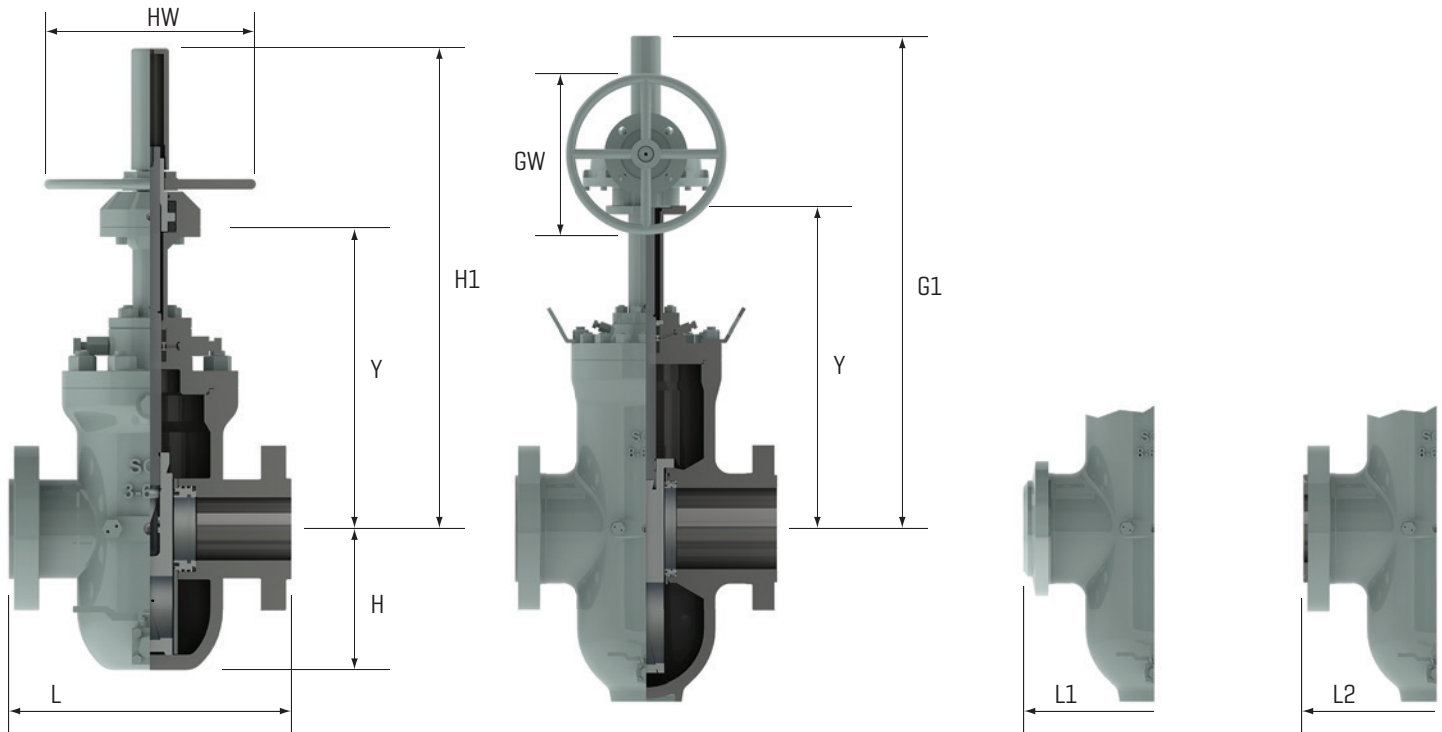
Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog. Larger sizes can be engineered if needed.



# Expanding Gate Valve Dimensions

Size: 2" - 24"

Class: 900



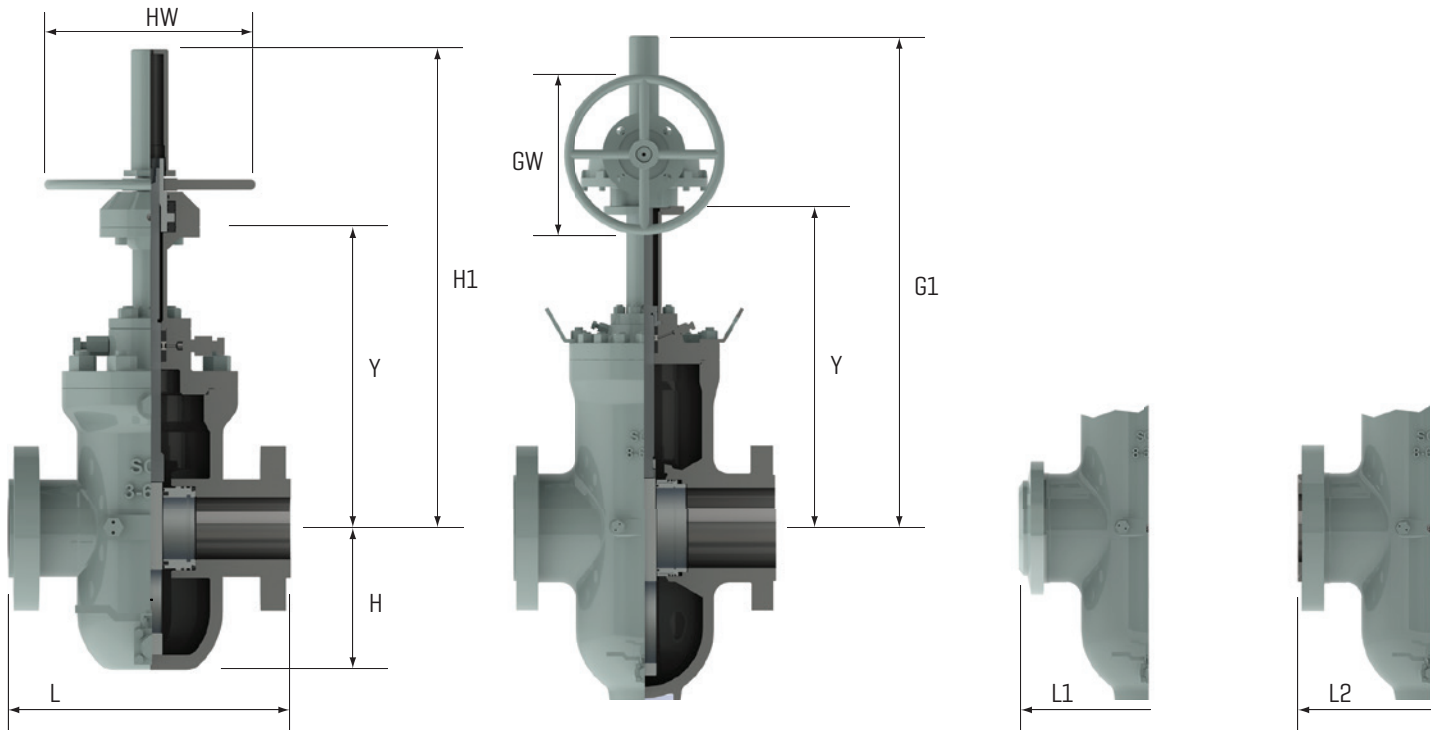
CLASS 900	SIZE		BORE	END-TO-END				CENTER-TO-BOTTOM		CENTER-TO-TOP OF YOKE		HANDWHEEL OPERATED		GEAR OPERATED		WEIGHTS LBS/KG
	IN	MM	F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW				
	2	50	2.06	14.50	14.50	14.62	6.0	12.2	20.2	12.0	20.2	12.0	215			
	3	80	3.13	15.00	15.00	15.12	7.0	14.9	23.8	12.0	23.8	12.0	225			
	4	100	4.06	18.00	18.00	18.12	10.3	20.5	31.2	12.0	31.2	12.0	410			
	6	150	6.06	24.00	24.00	24.12	13.1	25.8	38.8	18.0	38.8	18.0	798			
	8	200	8.06	29.00	29.00	29.12	17.5	31.9	48.3	18.0	48.3	18.0	1351			
	10	250	10.06	33.00	33.00	33.12	21.8	38.0	57.4	18.0	57.4	18.0	2402			
	12	300	12.06	38.00	38.00	38.12	24.4	43.9	65.2	24.0	65.2	24.0	3307			
	14	350	13.25	40.50	40.50	40.88	27.9	47.4	70.6	24.0	70.6	24.0	4295			
	16	400	15.25	44.50	44.50	44.88	30.0	52.8	77.6	24.0	77.6	24.0	5505			
	18	450	17.25	48.00	48.00	48.50	33.6	58.2	88.0	24.0	88.0	24.0	7582			
	20	500	19.19	52.00	52.00	52.50	37.9	66.2	97.9	30.0	97.9	30.0	11666			
	24	600	25.00	57.00	/	/	48.8	83.4	116.6	30.0	116.6	30.0	19298			

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

Size: 2" - 10"  
Class: 1500

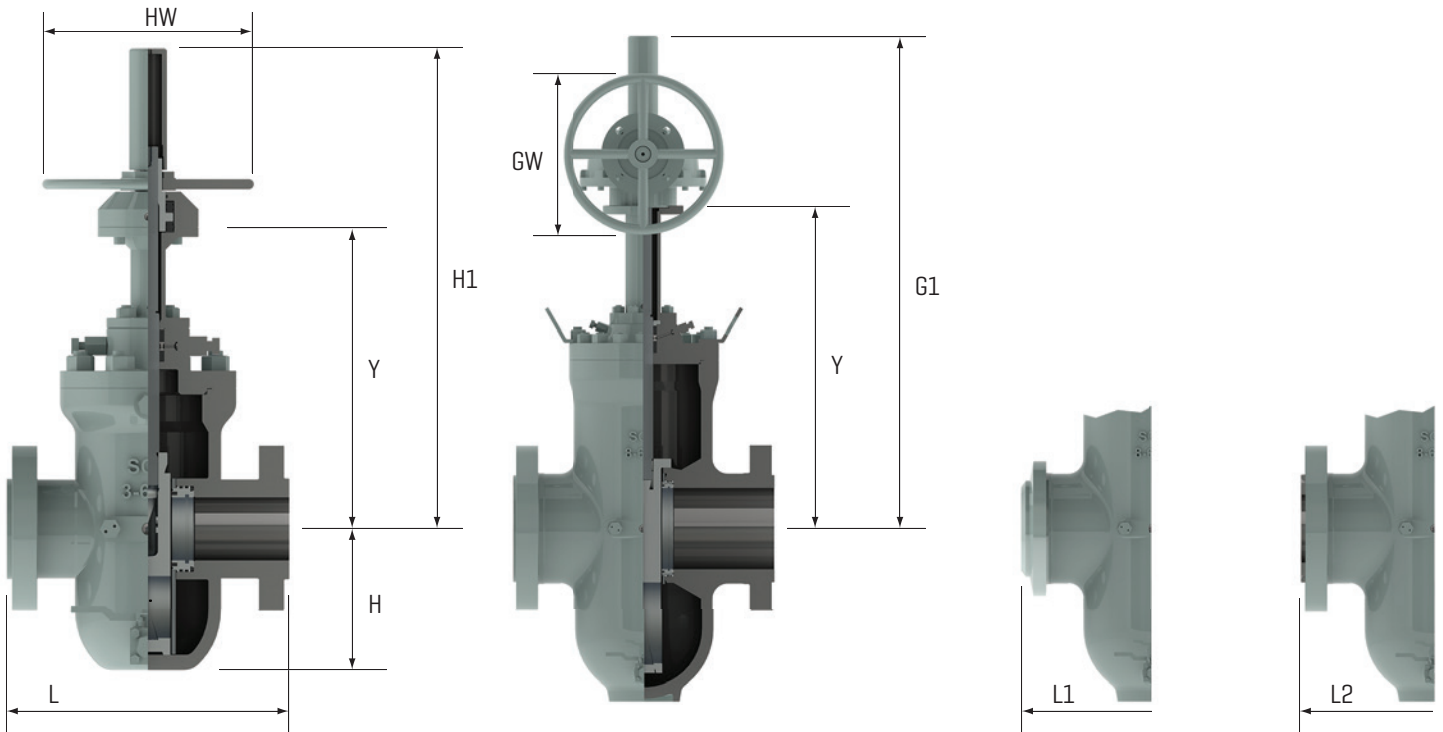


CLASS 1500	SIZE		BORE	END-TO-END			CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL OPERATED		GEAR OPERATED		WEIGHTS LBS/KG
	IN	MM	F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW	
	2	50	2.06	14.50	14.50	14.62	6.0	12.2	19.1	12.0	19.1	12.0	216
	4	100	4.06	18.00	18.00	18.12	10.3	20.5	31.4	12.0	31.4	12.0	403
	6	150	6.06	24.00	24.00	24.12	13.1	25.8	39.2	18.0	39.2	18.0	800
	8	200	8.06	29.00	29.00	29.12	17.5	31.9	48.5	18.0	48.5	18.0	1346
	10	250	10.06	33.00	33.00	33.12	21.8	38.0	57.6	18.0	57.6	18.0	2380

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.

# Expanding Gate Valve Dimensions

Size: 2" - 10"  
Class: 1500



CLASS 1500	SIZE		BORE	END-TO-END			CENTER-TO-BOTTOM	CENTER-TO-TOP OF YOKE	HANDWHEEL OPERATED		GEAR OPERATED		WEIGHTS LBS/KG
	IN	MM	F	RF - L	BW - L1	RTJ - L2	H	Y	H1	HW	G1	GW	
	2	50	2.06	14.50	14.50	14.62	6.0	12.2	20.2	12.0	20.2	12.0	216
	4	100	4.06	18.00	18.00	18.12	10.3	20.5	31.4	12.0	31.4	12.0	403
	6	150	6.06	24.00	24.00	24.12	13.1	25.8	39.2	18.0	39.2	18.0	800
	8	200	8.06	29.00	29.00	29.12	17.5	31.9	46.6	24.0	46.6	24.0	2242
	10	250	10.06	/	/	39.38	22.6	38.0	58.5	24.0	58.5	24.0	4086
	10	250	256	/	/	1000	574	965	1486	610	1486	610	1853

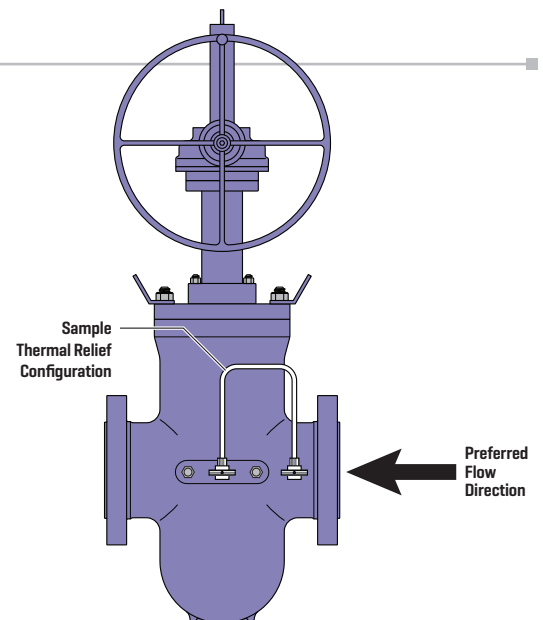
Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog. Larger sizes can be engineered if needed.

## Expanding Gate Thermal Relief System

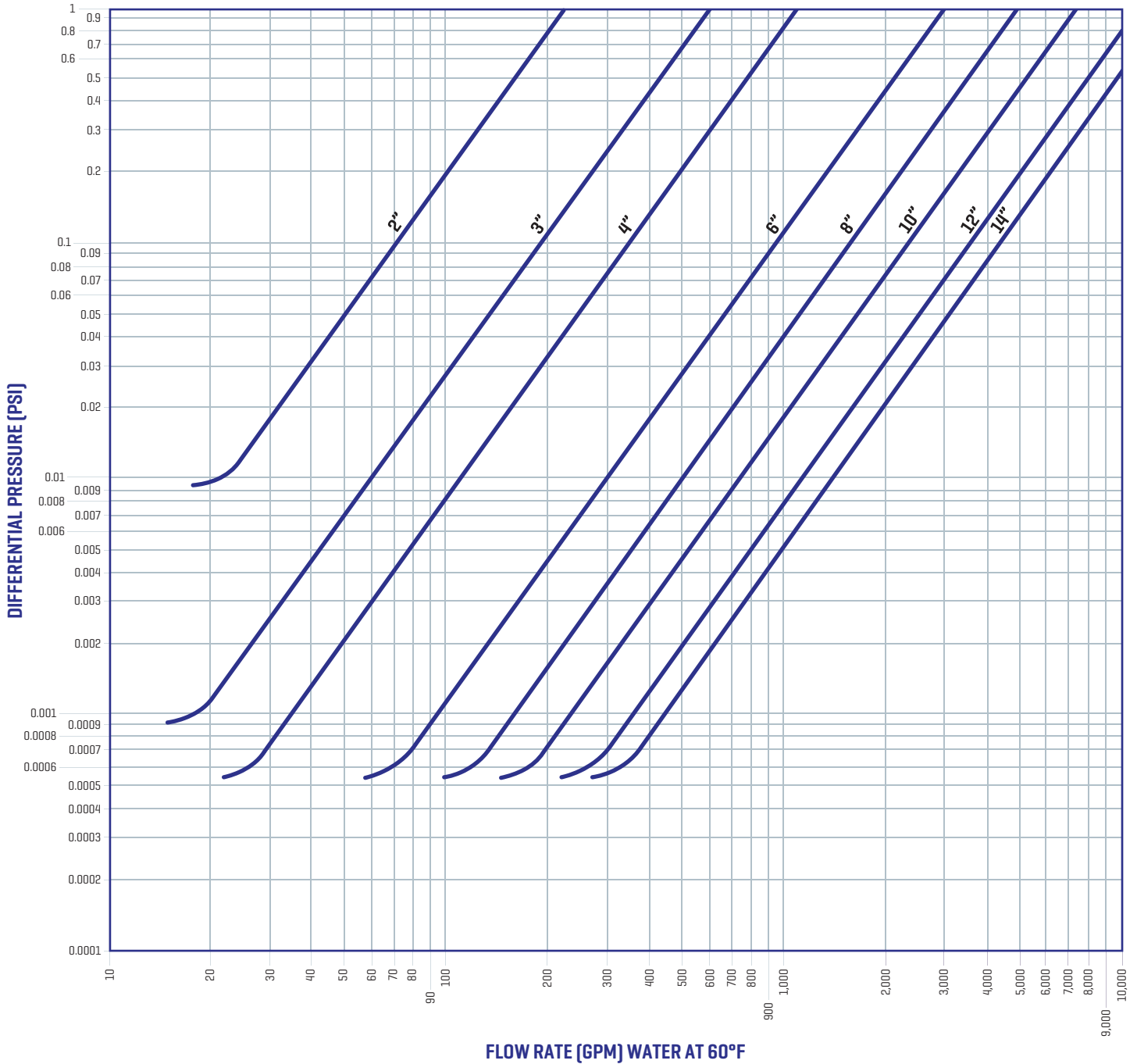
With the expanding gate design, it is possible for Thermal Expansion to occur within the body cavity while the valve is in the closed position. A Thermal Relief system allows the body cavity to relieve into the upstream side of the valve.



SCV Valve installed Thermal Relief system on 16" Class 600 Thru Conduit Expanding Gate Valve.



# Liquid: Pressure Loss Curves for TCG Valves - 2" thru 14"



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.

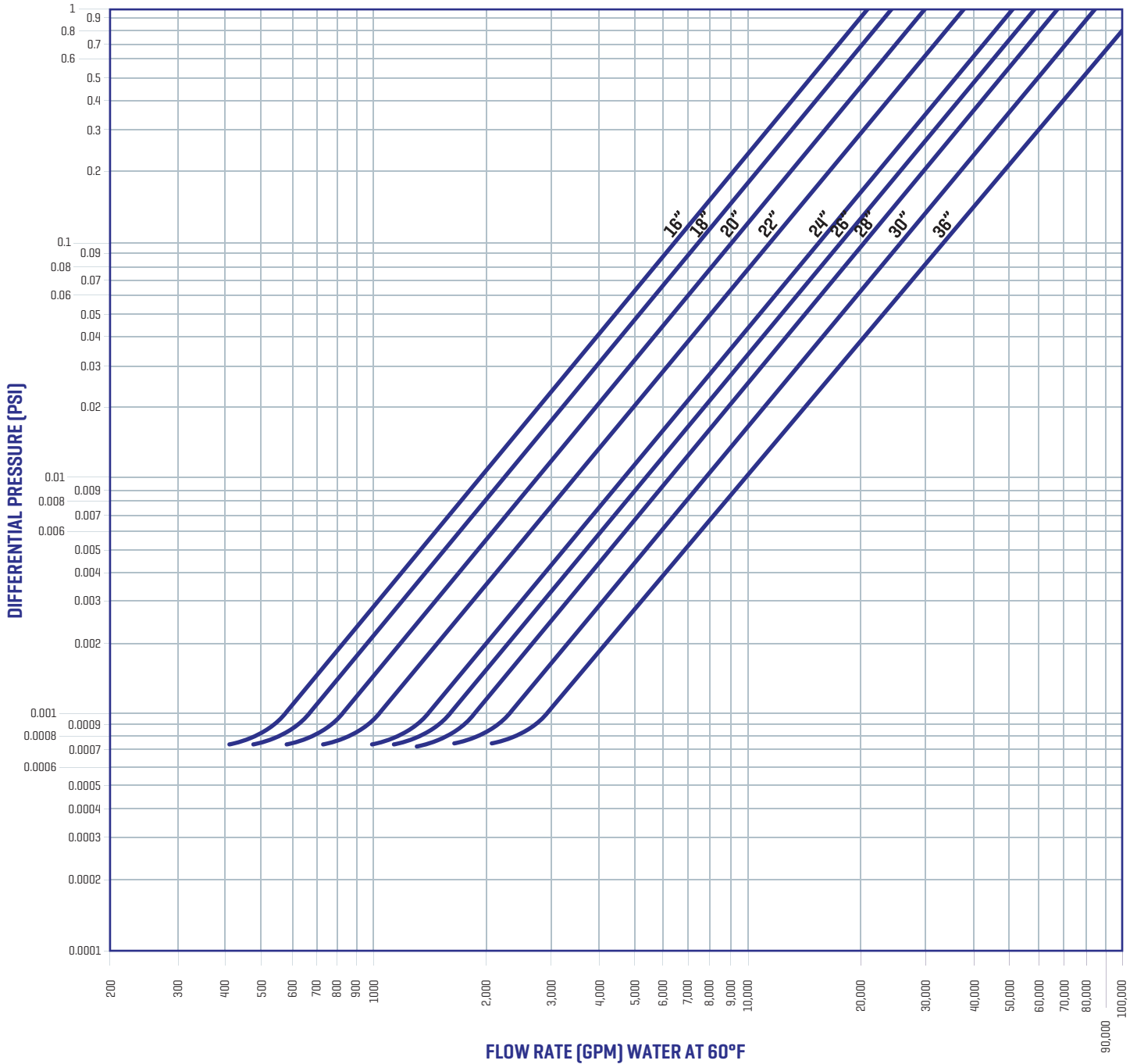
Flow Coefficient for Fully Open Valves	
2	228
3	601
4	1,108
6	3,000
8	5,000
10	7,560
12	11,547
14	13,416

Glossary of Terms	
<b>Q</b>	Flow Rate, Liquids - GPM
<b>C<sub>v</sub></b>	Flow Coefficient
<b>P<sub>1</sub></b>	Inlet Pressure
<b>P<sub>2</sub></b>	Outlet Pressure
<b>ΔP</b>	Pressure Drop [P <sub>1</sub> - P <sub>2</sub> ]
<b>G</b>	Specific Gravity (Water = 1)

### Liquid (Incompressible Flow)

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

# Liquid: Pressure Loss Curves for TCG Valves - 16" thru 36"



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	
16	21,213
18	25,000
20	30,237
22	37,187
24	50,709
26	58,423
28	67,131
30	80,041
36	109,888

Glossary of Terms	
<b>Q</b>	Flow Rate, Liquids - GPM
<b>C<sub>v</sub></b>	Flow Coefficient
<b>P<sub>1</sub></b>	Inlet Pressure
<b>P<sub>2</sub></b>	Outlet Pressure
<b>ΔP</b>	Pressure Drop (P <sub>1</sub> - P <sub>2</sub> )
<b>G</b>	Specific Gravity (Water = 1)

### Liquid (Incompressible Flow)

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

# Seal & Seat Pressure Temperature Chart

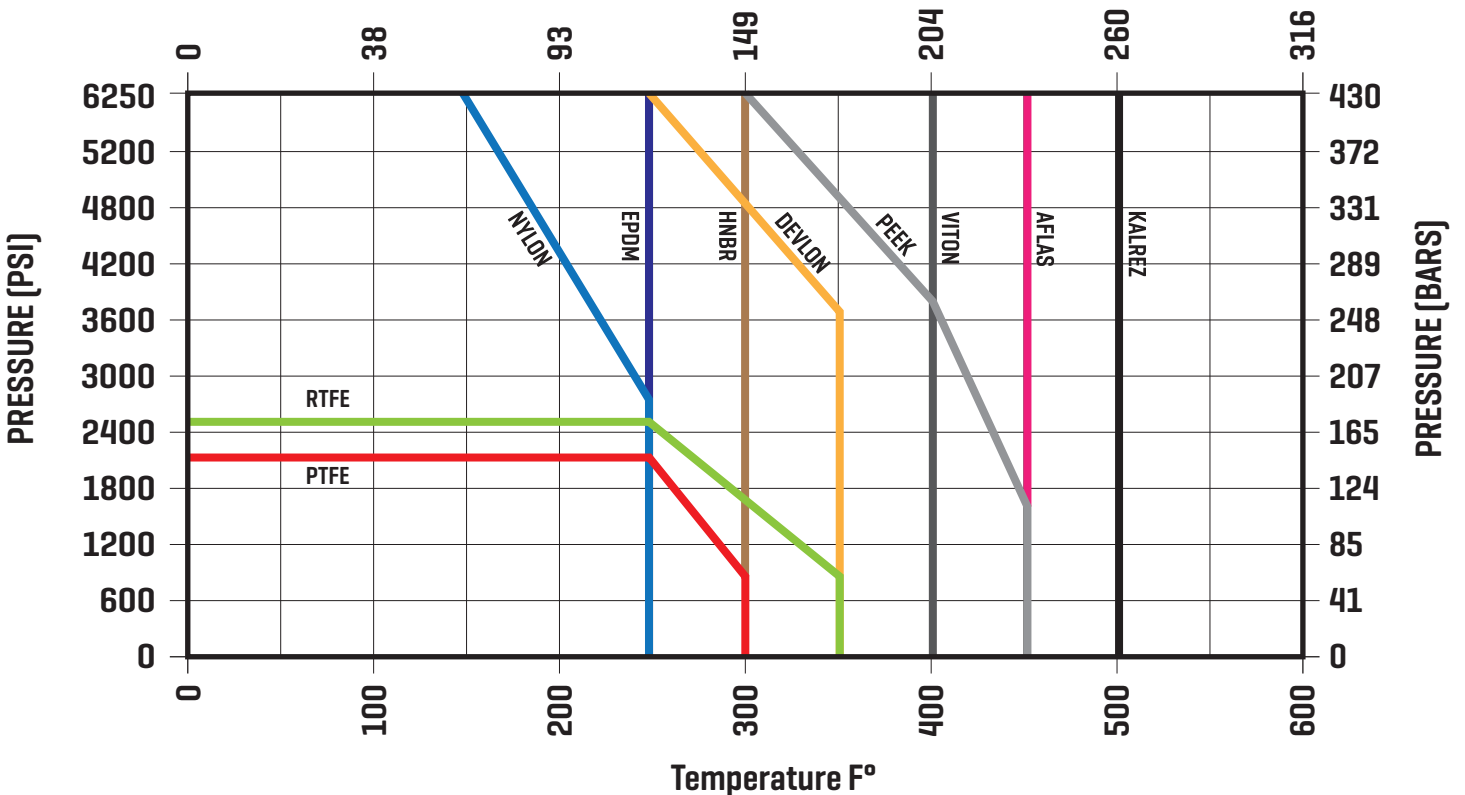
This chart depicts pressure and temperature ratings for common plastics and elastomers used in SCV Valve products.

## SCV VALVE SOFT GOOD CHEMICAL COMPATIBILITY

	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	●	●	●	●	●

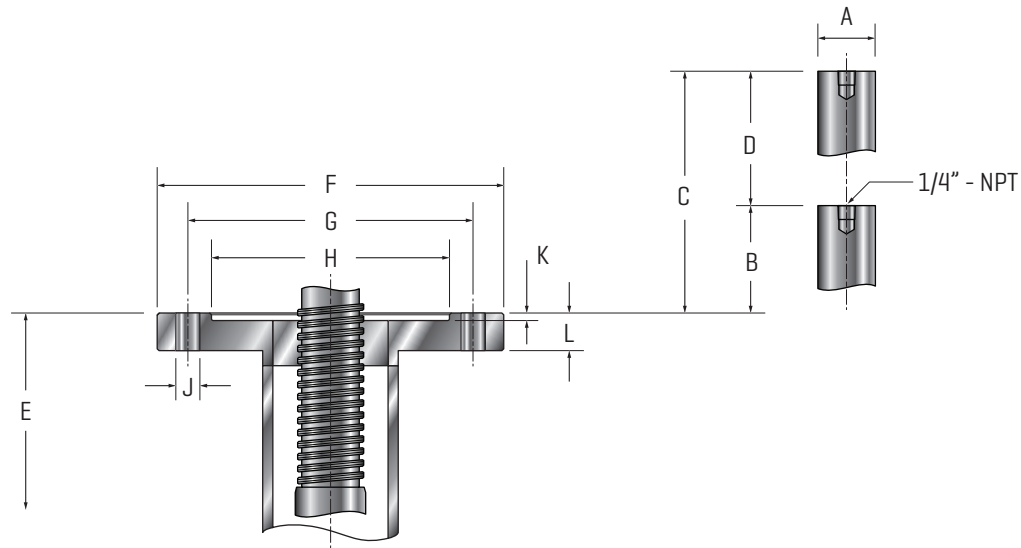
\* Viton OK for JP-3/4/5/6/8/9/10. \* HNBR OK for JP-3/4/5/6.

## PRESSURE TEMPERATURE CHART





# Expanding Gate Valve Operator Interface



Valve Size	ANSI Class	Stem Thread * Double Lead Thread	Top of Stem Closed "B"	Top of Stem Open "C"	Total Travel "D"	To Ctr. of Valve "E"	Mtg. Plt. O.D. "F"	Bolt Circle "G"	Flg. Pilot Dia. "H"	Mounting Holes "J"	Flg. Pilot Depth "K"	Mtg. Plt Thickness "L"	ISO/MSS Mtg. Pattern
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
2	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
2	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
3	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
3	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
3	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 .50	0.15	0.43	FA10
4	300	1-5TPI-2G-LH	3.90	8.50	4.60	16.90	5.00	4.02	2.79	4 X .50	0.15	0.43	FA10
4	600	1-1/4-5TPI-2G-LH	4.17	9.05	4.88	20.5	27.00	5.50	3.98	4 X .75	0.18	1.00	FA14
4	900	1-1/4-5TPI-2G-LH	4.17	9.05	4.88	20.52	7.00	5.50	3.98	4 X .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 .50	0.15	0.43	FA10
6	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
6	600	1-1/2-4TPI-2G-LH	4.54	11.39	6.85	25.78	7.00	5.50	3.98	4 X .75	0.18	1.00	FA14
6	900	1-1/2-4TPI-2G-LH	4.54	11.39	6.85	25.78	7.00	5.50	3.98	4 X .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 .69	0.18	0.70	FA14
8	300	1-1/2-4TPI-2G-LH	4.47	13.60	9.13	27.88	6.75	5.50	3.98	4 X .69	0.19	0.70	FA14
8	600	1-3/4-4TPI-2G-LH	5.34	14.72	9.38	31.94	8.00	6.50	5.15	4 X .81	0.23	1.15	FA16
8	900	1-3/4-4TPI-2G-LH	5.37	14.75	9.38	31.94	8.00	6.50	5.15	4 X .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 .69	0.18	0.70	FA14
10	300	1-1/2-4TPI-2G-LH	5.18	16.37	11.19	33.46	6.75	5.50	3.97	4 X .69	0.19	0.70	FA14
10	600	2-4TPI-2G-LH	6.08	17.79	11.71	37.99	8.50	6.50	5.15	4 X .88	0.25	1.13	FA16
10	900	2-4TPI-2G-LH	6.08	17.79	11.71	37.99	8.50	6.50	5.15	4 X .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 .69	0.18	0.70	FA14
12	300	1-1/2-4TPI-2G-LH	5.44	18.55	13.11	39.11	6.75	5.50	3.98	4 X .69	0.18	0.70	FA14
12	600	2-1/4-3TPI-2G-LH	6.11	19.72	13.61	43.88	11.50	10.00	7.90	8 X .75	0.25	1.25	FA25
12	900	2-1/4-3TPI-2G-LH	6.11	19.72	13.61	43.88	11.50	10.00	7.90	8 X .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 .75	0.25	1.25	FA25
14	900	2-1/2-3TPI-2G-LH	6.75	21.89	15.14	47.44	11.50	10.00	7.90	8 X .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 .69	0.15	0.70	FA14
16	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 .75	0.20	0.88	FA25
16	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 .75	0.25	1.25	FA25
16	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 .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 .75	0.25	1.25	AF25
18	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 .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 .81	0.23	0.75	FA16
20	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 .75	0.20	0.88	FA25
20	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 .88	0.25	1.39	FA30
20	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 .75	0.22	1.00	FA25
24	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 .88	0.22	1.00	FA30
24	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
24	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 .88	0.22	0.88	FA30
30	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
30	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 Valve Operator Interface

Valve Size	ANSI Class	Stem Thread * Double Lead Thread	Top of Stem Closed	Top of Stem Open	Total Travel	To Ctr. of Valve	Mtg. Plt. O.D.	Bolt Circle	Flg. Pilot Dia.	Mounting Holes	Flg. Pilot Depth	Mtg. Plt Thickness	ISO/MSS Mtg. Pattern
		"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	"L"	
2	150	1-5TPI-2G-LH	3.49	6.33	2.84	11.72	5.00	4.02	2.60	4 X 0.43	0.28	0.50	FA10
2	300	1-5TPI-2G-LH	3.49	6.32	2.83	11.72	5.00	4.02	2.60	4 X 0.43	0.28	0.50	FA10
2	600	1-5TPI-2G-LH	3.25	6.30	3.05	12.07	5.00	4.02	2.60	4 X 0.43	0.28	0.50	FA10
2	900/1500	1-5TPI-2G-LH	3.15	6.30	3.15	12.17	5.00	4.02	2.60	4 X 0.43	0.28	0.50	FA10
3	150	1-5TPI-2G-LH	3.36	7.15	3.79	14.45	5.00	4.02	2.60	4 X 0.43	0.28	0.50	FA10
3	300	1-5TPI-2G-LH	3.36	7.12	3.76	14.45	5.00	4.02	2.60	4 X 0.43	0.28	0.50	FA10
3	600	1-5TPI-2G-LH	2.91	6.56	3.65	14.94	5.00	4.02	2.60	4 X 0.43	0.28	0.50	FA10
3	900	1-5TPI-2G-LH	2.91	6.56	3.65	14.94	5.00	4.02	2.60	4 X 0.43	0.28	0.50	FA10
4	150	1-5TPI-2G-LH	3.80	8.56	4.76	16.63	5.00	4.02	2.79	4 X 0.50	0.15	0.43	FA10
4	300	1-5TPI-2G-LH	3.80	10.50	6.70	16.63	5.00	4.02	2.79	4 X 0.50	0.15	0.46	FA10
4	600	1-1/4-5TPI-2G-LH	4.39	9.29	4.90	20.52	7.00	5.50	3.98	4 X 0.75	0.18	1.00	FA14
4	900	1-1/4-5TPI-2G-LH	4.39	9.29	4.90	20.52	7.00	5.50	3.98	4 X 0.75	0.18	1.00	FA14
6	150	1-5TPI-2G-LH	3.70	10.45	6.75	21.63	5.00	4.02	2.79	4 X 0.50	0.15	0.43	FA10
6	300	1-5TPI-2G-LH	3.70	10.45	6.75	21.63	5.00	4.02	2.79	4 X 0.50	0.15	0.43	FA10
6	600	1-1/2-4TPI-2G-LH	5.01	11.86	6.85	25.78	7.00	5.50	3.98	4 X 0.75	0.18	1.00	FA14
6	900	1-1/2-4TPI-2G-LH	5.01	11.86	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	4.30	13.13	8.83	27.69	6.75	5.50	3.98	4 X 0.69	0.18	0.70	FA14
8	300	1-1/2-4TPI-2G-LH	4.30	13.13	8.83	27.69	6.75	5.50	3.98	4 X 0.69	0.18	0.70	FA14
8	600	1-3/4-4TPI-2G-LH	5.50	14.88	9.38	31.94	8.00	6.50	5.15	4 X 0.81	0.23	1.15	FA16
8	900	1-3/4-4TPI-2G-LH	5.50	14.88	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	5.10	15.98	10.88	33.14	6.75	5.50	3.98	4 X 0.69	0.19	0.70	FA14
10	300	1-1/2-4TPI-2G-LH	5.10	15.98	10.88	33.14	6.75	5.50	3.98	4 X 0.69	0.19	0.70	FA14
10	600	2-4TPI-2G-LH	6.40	17.90	11.50	37.99	8.50	6.50	5.15	4 X 0.88	0.25	1.13	FA16
10	900	2-4TPI-2G-LH	6.40	17.90	11.50	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	5.10	18.10	13.00	38.63	6.75	5.50	3.98	4 X 0.69	0.19	0.70	FA14
12	300	1-1/2-4TPI-2G-LH	5.10	18.10	13.00	38.63	6.75	5.50	3.98	4 X 0.69	0.19	0.70	FA14
12	600	2-1/4-3TPI-2G-LH	7.00	20.25	13.25	43.88	11.50	10.00	7.90	8 X 0.75	0.25	1.25	FA25
12	900	2-1/4-3TPI-2G-LH	7.00	20.25	13.25	43.88	11.50	10.00	7.90	8 X 0.75	0.25	1.25	FA25
14	150	*1.5-0.20P-0.40L-ACME-2G-LH	5.10	19.39	14.29	41.42	6.75	5.50	3.98	4 X 0.69	0.19	0.70	FA14
14	300	*1.5-0.20P-0.40L-ACME-2G-LH	5.10	19.39	14.29	41.42	6.75	5.50	3.98	4 X 0.69	0.19	0.70	FA14
14	600	2-1/2-3TPI-2G-LH	7.30	22.30	15.00	47.44	11.50	10.00	7.90	8 X 0.75	0.25	1.25	FA25
14	900	2-1/2-3TPI-2G-LH	7.30	22.30	15.00	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	6.10	22.28	16.18	46.73	6.75	5.50	3.98	4 X 0.69	0.19	0.70	FA14
16	300	*1.5-0.20P-0.40L-ACME-2G-LH	6.10	22.28	16.18	46.73	6.75	5.50	3.98	4 X 0.69	0.19	0.70	FA14
16	600	*2.5-0.40P-0.80L-ACME-2G-LH	7.20	23.70	16.50	52.25	12.00	10.00	7.90	8 X 0.75	0.25	1.25	FA25
16	900	*2.5-0.40P-0.80L-ACME-2G-LH	7.20	23.70	16.50	52.25	12.00	10.00	7.90	8 X 0.75	0.25	1.25	FA25
18	150	*1.75"-0.25P-0.50L-ACME-2G-LH	7.10	25.26	18.16	51.31	8.25	6.50	5.14	4 X 0.81	0.22	0.75	FA16
18	300	*1.75"-0.25P-0.50L-ACME-2G-LH	6.60	24.76	18.16	51.79	8.25	6.50	5.14	4 X 0.81	0.22	0.75	FA16
18	600	*3.0-0.40P-0.80L-ACME-2G-LH	9.30	27.96	18.66	58.18	12.00	10.00	7.90	8 X 0.75	0.25	1.25	FA25
18	900	*3.0-0.40P-0.80L-ACME-2G-LH	9.30	27.96	18.66	58.18	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	5.80	26.04	20.24	57.21	8.25	6.50	5.15	4 X 0.81	0.25	0.75	FA16
20	300	*2.0-0.25P-0.50L-ACME-2G-LH	5.80	25.93	20.13	57.21	8.25	6.50	5.15	4 X 0.81	0.25	0.75	FA16
20	600	*3.25-0.40P-0.80L-ACME-2G-LH	9.91	31.01	21.10	65.70	14.02	11.73	9.10	8 X 0.88	0.25	1.38	FA30
20	900	*3.25-0.40P-0.80L-ACME-2G-LH	9.90	30.49	20.59	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	10.10	33.41	23.31	70.54	16.38	14.02	10.28	8 X 1.25	0.25	1.25	FA35
24	150	*2.0-0.25P-0.50L-ACME-2G-LH	6.50	30.96	24.46	68.61	8.25	6.50	5.15	4 X 0.81	0.23	0.75	FA16
24	300	*2.0-0.25P-0.50L-ACME-2G-LH	5.90	30.36	24.46	69.24	8.25	6.50	5.15	4 X 0.81	0.23	0.75	FA16
24	600	*4.0-0.40P-0.80L-ACME-2G-LH	10.40	35.73	25.33	78.30	16.38	14.02	10.28	8 X 1.25	0.25	1.25	FA35
26	600	*4.0-0.40P-0.80L-ACME-2G-LH	11.00	37.88	26.88	83.41	16.38	14.02	10.28	8 X 1.25	0.25	1.25	FA35
28	150	*2.5-0.40P-0.80L-ACME-2G-LH	6.60	35.22	28.62	80.48	8.25	6.50	5.15	4 X 0.81	0.25	0.88	FA25
30	150	*2.5-0.40P-0.80L-ACME-2G-LH	6.70	37.02	30.32	83.98	8.25	6.50	5.15	4 X 0.81	0.23	0.75	FA25
30	300	*2.5-0.40P-0.80L-ACME-2G-LH	6.90	37.28	30.38	85.66	11.50	10.00	7.90	8 X 0.69	0.25	1.00	FA25
30	600	*4.0-0.40P-0.80L-ACME-2G-LH	10.80	41.80	31.00	94.41	18.50	15.98	11.84	8 X 1.38	0.33	1.25	FA40
32	150	*2.5-0.40P-0.80L-ACME-2G-LH	6.80	38.98	32.18	88.79	8.25	6.50	5.15	4 X 0.81	0.25	0.88	FA25
36	150	*2.5-0.40P-0.80L-ACME-2G-LH	6.40	42.15	35.75	97.23	11.50	10.00	7.90	8 X 0.69	0.25	1.00	FA25
36	300	*2.75-0.40P-0.80L-ACME-2G-LH	9.20	45.30	36.10	105.37	16.38	14.02	10.28	8 X 1.25	0.25	1.25	FA35
36	600	*4.0-0.40P-0.80L-ACME-2G-LH	11.30	47.80	36.50	105.88	18.50	15.98	11.84	8 X 1.38	0.33	1.25	FA40
40	150	*2.75-0.40P-0.80L-ACME-2G-LH	6.60	47.20	40.60	110.01	14.02	11.75	9.10	8 X 0.88	0.25	1.00	FA30
40	300	*3.25-0.40P-0.80L-ACME-2G-LH	7.50	47.80	40.30	115.18	18.50	15.98	11.84	8 X 1.38	0.33	1.25	FA40
42	150	*2.75-0.40P-0.80L-ACME-2G-LH	6.60	48.90	42.30	114.39	14.02	11.75	9.10	8 X 0.88	0.25	1.00	FA30
42	300	*3.25-0.40P-0.80L-ACME-2G-LH	8.20	50.00	41.80	118.55	18.50	15.98	11.84	8 X 1.38	0.33	1.25	FA40

# Pressure Temperature Ratings - ASME B16.34 ■■■■■■■■■■

Note: Pressures in PSI

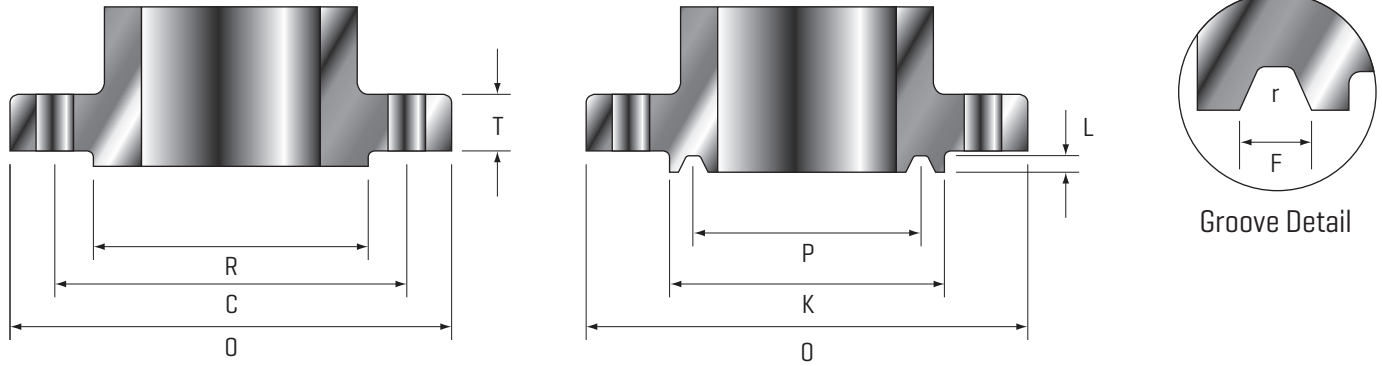
	Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	150	-20 to 100	285	285	285	290	265	290	290	290	290	290	275	275	290
200	260	260	260	260	260	255	260	260	260	260	260	235	235	260	260
300	230	230	230	230	230	230	230	230	230	230	230	215	215	230	230
400	200	200	200	200	200	200	200	200	200	200	200	195	195	200	200
500	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
600	140	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	125
700	110	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	95
800	80	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	65	/	/
900	50	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	35	/	/
1000	20	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	680	750	660	750	750	750	750	750	620	620	745	745
300	655	655	655	655	730	640	720	730	730	730	730	560	560	665	665
400	635	635	635	635	705	615	695	705	705	705	705	515	515	615	615
500	605	605	605	605	665	585	665	665	665	665	665	480	480	580	580
600	570	570	570	570	605	550	605	605	605	605	605	450	450	555	555
650	550	550	550	550	590	535	590	590	590	590	590	440	440	545	545
700	530	530	530	530	555	510	570	555	570	570	570	435	435	540	540
750	505	505	505	505	505	475	530	505	530	530	530	425	425	530	530
800	410	410	410	410	410	390	510	410	510	510	510	420	420	/	/
850	320	320	320	320	320	300	485	320	485	485	485	420	420	/	/
900	230	230	230	230	225	200	450	225	375	450	450	415	415	/	/
950	135	135	135	135	135	135	320	135	275	375	385	385	385	/	/
1000	85	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	/	/





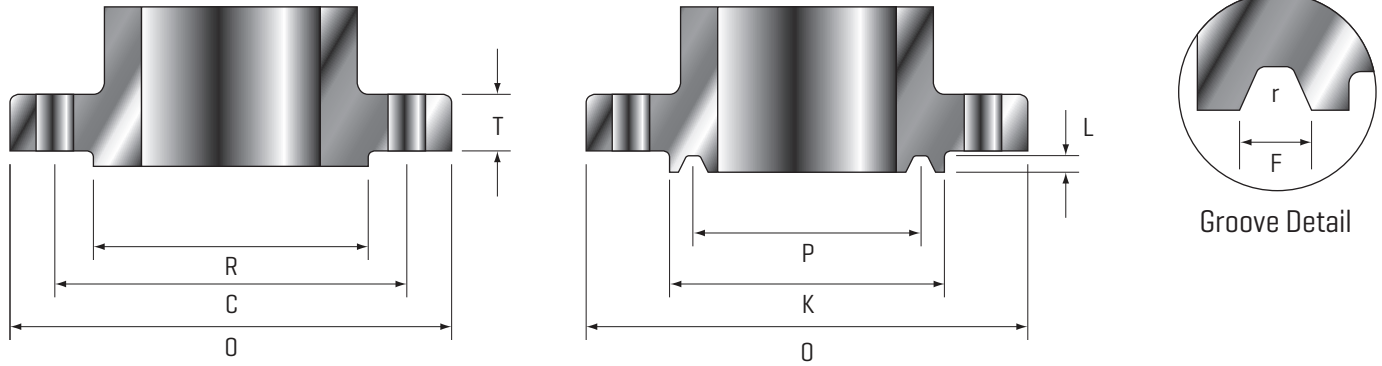


# Flange Dimensions - ANSI B16.5 & B16.47



Class	Size	Fig. Dia.	Fig. Thick.	Raised Face Dia.	Drilling			Face Dia.	Ring Joint				
					Bolt Circle 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	

# Flange Dimensions - ANSI B16.5 & B16.47



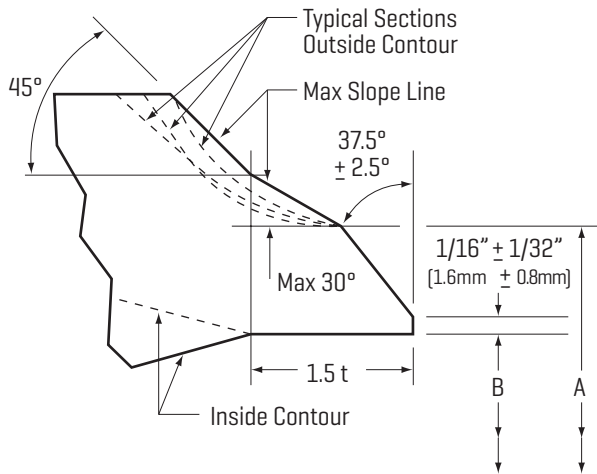
Class	Size	Flg. Dia.	Flg. Thick.	Raised Face Dia.	Drilling			Face Dia.	Ring Joint				
					Bolt Circle Dia.	# of Bolts	Hole Dia.		Pitch Dia.	Grv. Depth	Grv. Width	Btm. Radius	Ring No.
600	2	6.50	1.00	3.62	5.00	8	0.75	4.25	3.250	0.312	0.469	0.03	R23
	2.5	7.50	1.12	4.12	5.88	8	0.88	5.00	4.000	0.312	0.469	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

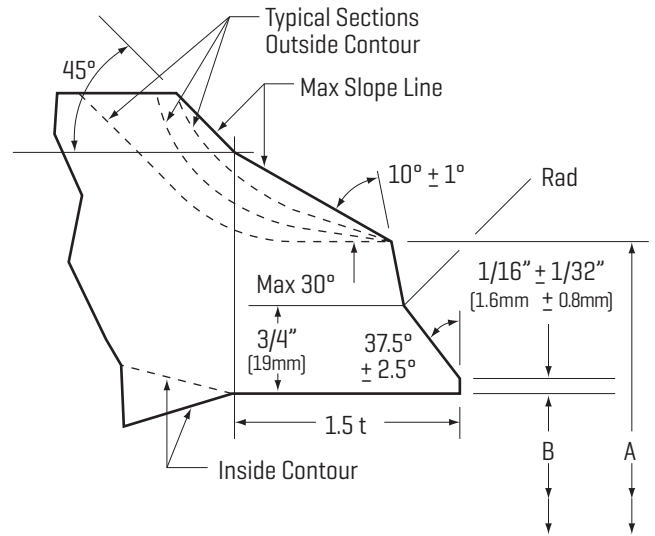
## Plain Bevel Butt-welding End for Pipe Wall Thickness is 7/8" [22.23mm] or less.

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



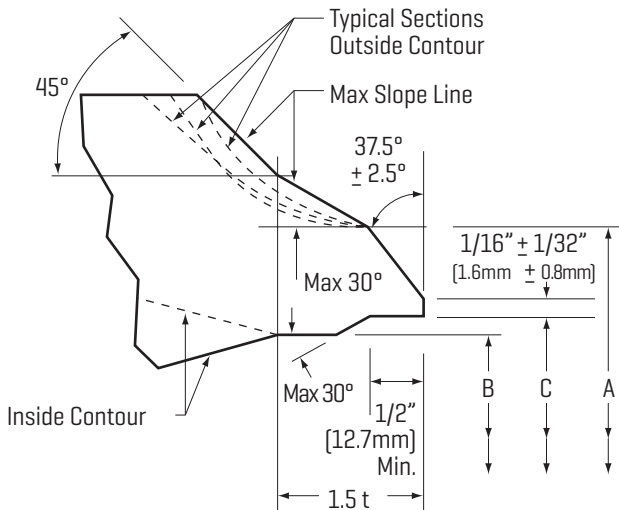
## Compound Bevel Butt-welding End for Pipe Wall Thickness Greater than 7/8" [22.23mm].

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



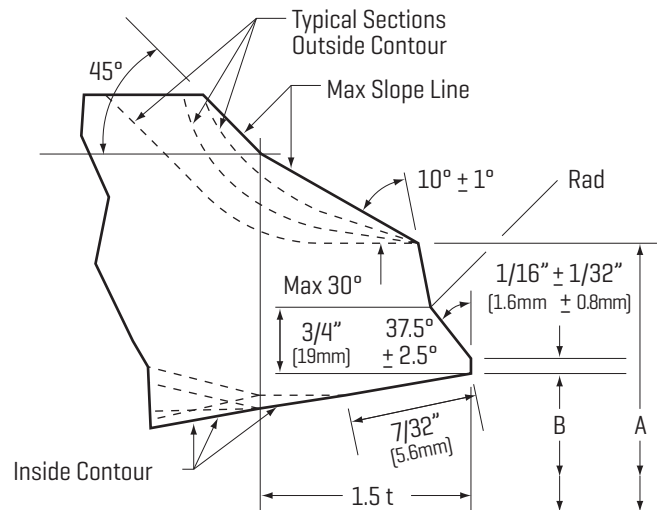
## Plain Bevel Butt-welding End for Pipe Wall Thickness is 7/8" [22.23mm] or less.

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.



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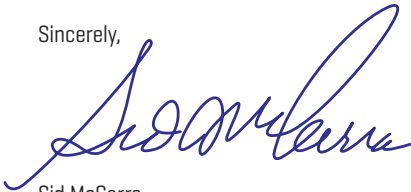
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Sincerely,



Sid McCarra

President

SCV Valve, LLC

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