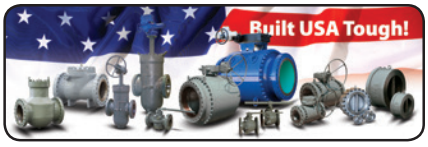
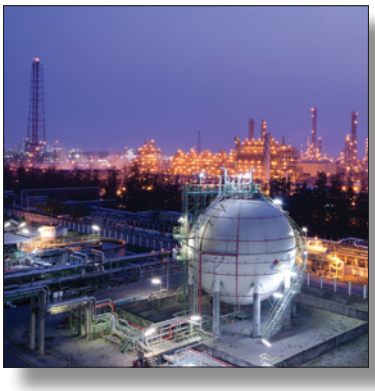
SCV VALVE
Innovative Valve Solutions®

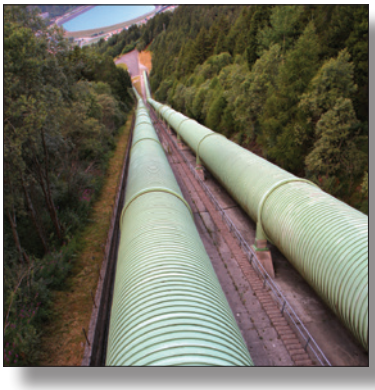


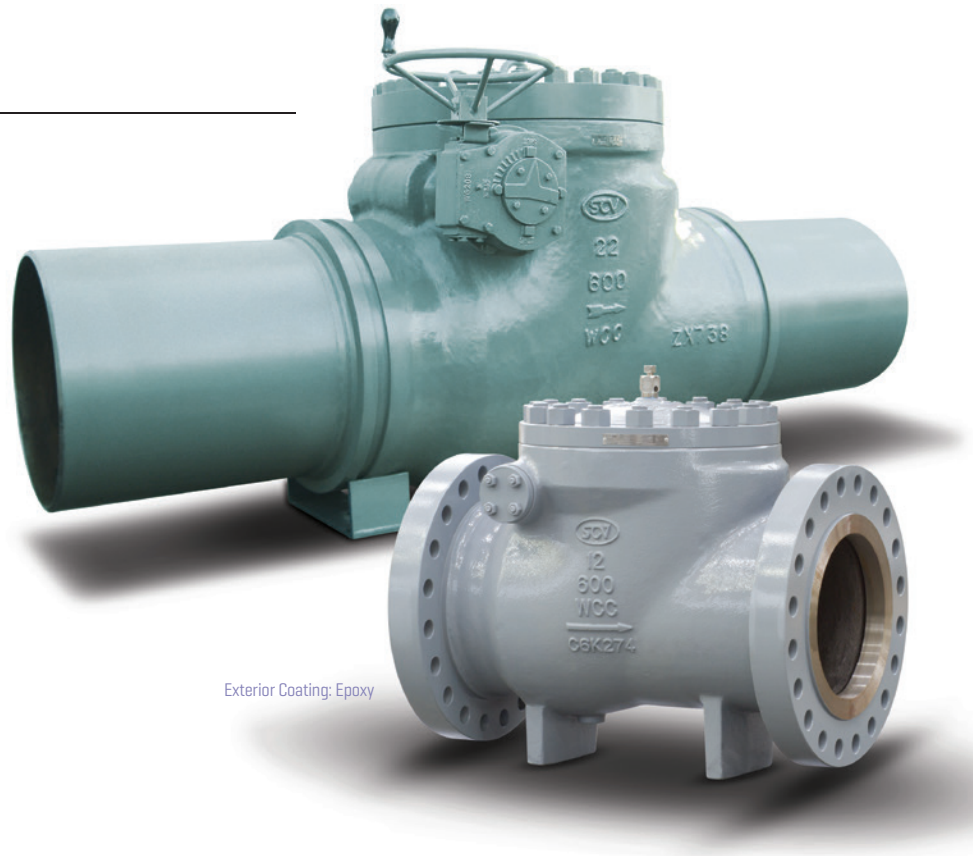
(281) 482-4728 · www.scvvalve.com

Full Port Swing Check Valves - API 6D

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







Exterior Coating: Epoxy

SCV VALVE

SCV VALVE manufactures a premium array of check valves. Our products are manufactured and tested in accordance with respective API, ASME, and ANSI standards.

SCV Valve is a global leader in valve manufacturing for power, paper and pulp, oil and gas, and petro-chemical industries. SCV check valves have serviced critical backflow prevention applications for more than 40 years. From pipelines to chemical processing, SCV offers a complete line of full port swing checks in a variety of materials making them appropriate for many environments, temperatures and pressures, that will accommodate your most stringent needs. Our check valve product line has positioned SCV as a go-to source for all of your backflow prevention needs. The Full Port Swing Checks can be installed in horizontal or vertical, upward flow pipelines.

SCV utilizes a replaceable seat design for simple field service and replacement. Seat materials are selected based on valve application, media, temperature, pressure and other conditions. Standard seat materials are ASTM A105 in carbon steel designs and A352 LCC in stainless steel designs.

Innovative Valve Solutions.®

SCV Full Port Swing Check Valves

[Product Preview]

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

Full Port Swing Check Valves - API 6D

- Basic Design: API 6D & ANSI B16.34
- Wall Thickness: API 6D
- Face-to-Face Dimension: ANSI/ASME B16.10
- Flange End Dimension: ANSI/ASME B16.5 (2' to 24") MSS SP-44 (26" & up)
- Butt-Weld End Dimension: ANSI/ASME B16.25
- Inspection & Testing: API 6D

Design Features

SCV Full Port Swing Check Valves are all designed to operate without any assistance, reacting to dominate flow direction. Minimal forward flow will instantly open the valve disc, while zero flow closes the valve disc preventing backflow. Optional mechanical devices (manual levers or gear operators) are available to manually or remotely open or close the valve. The full port design results in lower turbulence and pressure drops than competitors. Full Port Swing Check Valves are fully "piggable" to accommodate inspection and cleaning devices. Available sizes range from 2" thru 36" in Classes 150 thru 2500.

Optional Features

- Extended Shaft Gland/Seal Assembly
- Extended Shaft Cover
- Lock Open Lever
- Lock Open Gear
- Slam Retarder

Exterior Coating: Epoxy

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.

SCV VALVE

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 Gate Designs
- 3-Piece Trunnion Mounted Balls
- Floating Balls
- Wedge Gates
- Globes
- Full Port Swing Checks
- Piston Checks
- Dual Plate Checks - Wafer & Lug Designs
- Pressure Balanced Lubricated Plugs
- Pressure Seal Gates
- Pressure Seal Globes
- Pressure Seal Checks

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.

Company History

The SCV valve brand was established in 1972. The primary focus of the Company was to provide full inline field service for valve maintenance as well as in house valve modifications. While serving the Power Industry, Paper & Pulp, Oil & Gas, and the Petro Chemical Industry; through years of dedication and commitment to quality and service, SCV had become one of the largest full range, field service companies, with a reputation for superior quality.

In the mid 1970s, the SCV brand entered the valve manufacturing industry, primarily serving the Power Industry. Since that time, the SCV brand has expanded its products to cover a broad range of valves. SCV Valve holds the API 6A & API 6D Monogram, API Q1 Quality Management System, and ASME "R" stamp. The manufacturing facility, sales and projects office is located in Santa Fe, Texas.

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.

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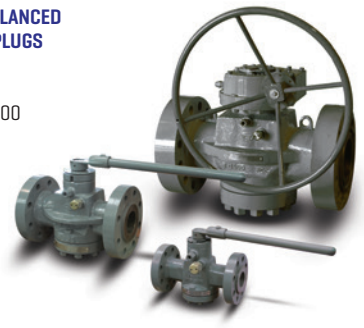
Complete Product Line

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

BOLTED BONNET OS&Y WEDGE GATES
Carbon & Stainless
Sizes: 2" - 48"
Class: 150 - 2500
Design: API 600

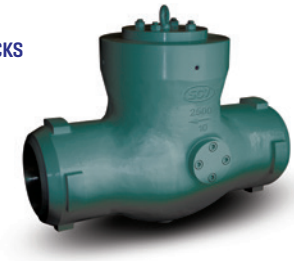
PRESSURE SEAL GLOBES
Carbon & Stainless
Sizes: 2" - 16"
Class: 600 - 2500
Design: API623
B16.34

PRESSURE BALANCED LUBRICATED PLUGS
Carbon Steel
Sizes: 2" - 36"
Class: 150 - 2500
Design: API 6D

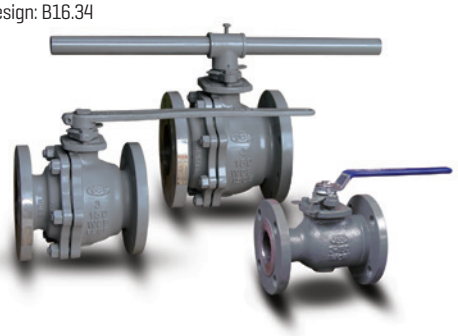


THRU CONDUIT GATES - SLAB & EXPANDING
Carbon Steel
Sizes: 2" - 36"
Class: 150 - 1500
Design: API 6D

PRESSURE SEAL CHECKS
Carbon & Stainless
Sizes: 2" - 24"
Class: 600 - 2500
Design: API 594
B16.34



FLOATING BALL VALVES - 1-PIECE REDUCED PORT & 2-PIECE FULL PORT
Carbon & Stainless
Sizes: 1/2" - 12"
Class: 150 - 1500
Design: B16.34



BOLTED COVER FULL PORT SWING CHECKS
Carbon & Stainless
Sizes: 2" - 36"
Class: 150 - 2500
Design: API 6D

Exterior Coating: Epoxy

PRESSURE SEAL GATES
Carbon & Stainless
Sizes: 2" - 24"
Class: 600 - 2500
Design: API 600
B16.34

3-PIECE TRUNNION BALLS
Carbon & Stainless
Sizes: 2-1/16" - 13-5/8"
Pressure: 2000, 3000 & 5000
Design: API 6A

COVER PISTON CHECKS
Carbon Steel
Sizes: 2" - 24"
Class: 150 - 2500
Design: API 6D

BOLTED BONNET GLOBES
Carbon & Stainless
Sizes: 2" - 24"
Class: 150 - 2500
Design: BS1873
B16.34

DUAL PLATE CHECKS - WAFER & LUG
Carbon & Stainless
Wafer Sizes: 1.5" - 36"
Wafer Class: 150 - 2500
Lug Sizes: 2" - 36"
Lug Class: 150 - 900
Design: API 594

Bore Coating: Scotchkote™ 134

3-PIECE TRUNNION BALLS BOLTED & WELDED BODY
Carbon & Stainless
Sizes: 2" - 42"
Class: 150 - 2500
Design: API 6D

Certifications & Registrations

American Petroleum Institute (API)

Texas Facility: API 6A Certification

Certificate of Authority to use the Official API Monogram
License Number: 6A-1190 ORIGINAL

The American Petroleum Institute hereby grants to

SCV VALVE
3521 FM 646 Road North
Santa Fe, TX

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and API-6A and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with this certificate number: 6A-1190

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.
The scope of this license includes the following: Valves at PSL 1

QMS Exclusions: No Exclusions Identified as Applicable

Effective Date: JANUARY 1, 2017
Expiration Date: DECEMBER 6, 2016

To verify the authenticity of this license, go to www.api.org/compositelist.

Vice President, API Global Industry Services

American Petroleum Institute

Note: Extension letter availavle on our website.

Texas Facility: API 6D Certification

Certificate of Authority to use the Official API Monogram
License Number: 6D-1099 ORIGINAL

The American Petroleum Institute hereby grants to

SCV VALVE
3521 FM 646 Road North
Santa Fe, TX

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and API-6D and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with this certificate number: 6D-1099

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.
The scope of this license includes the following: Gate Valves, Plug Valves, Ball Valves and Check Valves

QMS Exclusions: No Exclusions Identified as Applicable

Effective Date: JANUARY 1, 2017
Expiration Date: DECEMBER 6, 2016

To verify the authenticity of this license, go to www.api.org/compositelist.

Vice President, API Global Industry Services

American Petroleum Institute

Note: Extension letter availavle on our website.

ISO 9001:2008 Certificate

ABS Quality Evaluations
Certificate Of Conformance
This is to certify that the Quality Management System of:
Southern California Valve

Southern California Valve
Texas Operations
3521 FM 646 Rd. North
Santa Fe, TX 77510
U.S.A

Southern California Valve
California Operations
13903 Maryton Avenue
Santa Fe Springs, CA 90670
U.S.A

has been assessed by ABS Quality Evaluations, Inc. and found to be in conformance with the requirements set forth by:
ISO 9001:2008
The Quality Management System is applicable to:

ENGINEERING, MANUFACTURING, SALES, AND SERVICE OF HIGH PERFORMANCE VALVE PRODUCTS.
PRODUCT RANGE INCLUDES ALL SEVERE SERVICE & HIGH PRESSURE APPLICATIONS

Certificate No: 44703
Original Certification Date 16 June 2010
Effective Date: 11 June 2013
Expiration Date: 15 June 2016
Revision Date: 11 June 2013

Alex Weisselberg, President

Validity of this certificate is based on the periodic audits of the management system defined by the above scope and is contingent upon prompt, written notification to ABS Quality Evaluations, Inc. of significant changes to the management system or components thereof.
ABS Quality Evaluations, Inc. 16855 Northchase Drive, Houston, TX 77060, U.S.A.
Validity of this certificate may be confirmed at www.abs-qe.com/cert_validation.

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CE PED Certificate

HPi VS
HPI Verification Services

Certificate of Quality System Approval

This is to certify that the product listed below conforms to the requirements of the
Pressure Equipment Directive 2014/68/EU
Annex III Module H

Certificate Number HPiVS/P1012-055-Q-03
Date of Issue 28-Jul-2016 Date of Expiry 24-Jun-2019
Surveillance due Jun 2017

Manufacturer
SCV Valve
- 13903 Maryton Ave.
Santa Fe Springs, California 90670
- 3521 FM 646 Road North, Santa Fe
Texas 77510

Description of Pressure Equipment: Ball valves, Check valves, Gate valves, Globe valves and Plug valves; Range: 1/2" – 48" Class 150 through 2500

Equipment Identification: Each valve CE marked

Other Certification Standards Applied: ABSQE ISO 9001 cert 44073 exp. Sep.2018
API 6A, API 6D

Report Reference: HPiVS/P1012-055-3

This Certificate is valid in any European Economic Area Member State.
This Report has been issued by HPi Verification Services Ltd which is a body notified to the European Commission according to the provisions of the Pressure Equipment Directive (Notified Body number 1521).
This Report is issued following the assessment of the documentation and implementation of the Quality System in accordance with the provisions of the quoted Conformity Assessment Module of the above directive. The CE Mark may be affixed to the Pressure Equipment within the scope of approval as described above once the EU 'declaration of conformity' has been signed by the responsible person. The number '1521', being HPi Verification Services Notified Body number should also be placed on the equipment

Managing Director Technical Manager

CE
EU Notified Body No. 1521
Company registered in England #7217086
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Email enquiries@eucertification.com
www.eucertification.com

HPi Verification Services Ltd.
The Manor House
Howbery Park, Wallingford
OX10 8BA, United Kingdom

Canadian Registration Number

- Alberta
  - 0C07063.2
- New Foundland & Laborador
  - 0C07063.20
- Novascotia
  - 0C07063.27
- Manitoba
  - 0C07063.24
- Prince Edward island
  - 0C07063.29
- New Brunswick
  - 0C07063.27
- Northwest Territory
  - 0C07063.25
- Nunavut
  - 0C07063.2N
- Ontario
  - 0C07063.25
- Yukon
  - 0C07063.2

SCV Figure Number Chart

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

1	2	3	4	5	6	7	8
Valve Type	**Bore Size**	**Pressure Class**	**Body/Bonnet**	**Body Material**	**Trim Material**	**Ends**	**Operator**
BAL = Trunnion Ball Valve	49 = 1/4"	01 = 150	B = Bolted	02 = A352 LCC	02 = A352 LCC + ENP	A = RF x WE	B = Bare Stem
DBV = Double Ball Valve	50 = 1/2"	02 = 200	L = Lug Style	04 = A351 CF8	04 = A352 LCB + ENP	B = RTJ x WE	D = Dual Acting Actuator
DCK = Dual Plate Check Valve	75 = 3/4"	03 = 300	P = Pressure Seal	05 = A351 CF8C	06 = A216 WCC + ENP	C = Clamp	E = Electric Actuator
EPG = Expanding Gate Valve	01 = 1"	04 = 400	S = Seal Weld	06 = A351 CF8M	08 = A216 WCB + ENP	D = RF x RTJ	G = Gear
FBV = Floating Ball Valve	15 = 1-1/2"	06 = 600	T = Top Entry	08 = A216 WCC	09 = A351 CF8M	E = RTJ x RF	H = Handwheel
FCK = Full Port Swing Check Valve	02 = 2"	08 = 800	U = Union	09 = A217 WC9	10 = CR13	F = Flat	L = Lever
GAT = Wedge Gate Valve	21 = 2-1/16"	09 = 900	W = Wafer	10 = A216 WCB	11 = CR13 HF	H = Hub	O = Oil/Gas Actuator
GLB = Globe Valve	25 = 2-1/2"	11= 1000		11 = A352 LCB	12 = CR13 HF + HF	J = RTJ	S = Spring Return Actuator
PCK = Piston Check Valve	27 = 2-9/16"	15 = 1500		12 = A350 LF2	13 = A105 + ENP	K = WE x RF	Y = Hydraulic Actuator
PLG = Lubricated Plug Valve	03 = 3"	20 = 2000		13 = A105	15 = A350 LF2 + ENP	L = WE x RTJ	
RSB = Rising Stem Ball Valve	31 = 3-1/8"	25 = 2500		14 = A352 LC3	16 = A216 WCC + 316	N = TH x SW	
SCK = Conv. Port Swing Check Valve	37 = 3-9/16"	30 = 3000		15 = A217 C5	17 = 17-4 PH	M = SW x TH	
TCG = Slab Gate Valve	04 = 4"	37 = 3705		16 = A217 WC6	18 = A350 LF3 + ENP	R = RF	
	41 = 4-1/16"	45 = 4500		17 = 17-4 PH	20 = Alloy 20	S = SW	
	05 = 5"	50 = 5000		19 = A350 LF4	21 = Alloy 20 HF	T = TH	
	51 = 5-1/8"	60 = 6000		20 = Alloy 20	22 = A182 F22	W = WE	
	06 = 6"	10 = 10000		21 = A182 F11	30 = A29 4130		
	71 = 7-1/16"	05 = 15000		22 = A182 F22	31 = A182 321		
	08 = 8"	50 = 5000		23 = A350 LF3	32 = A182 316L		
	09 = 9"	60 = 6000		26 = A182 F91	33 = A182 304 HF		
	10 = 10"	10 = 10000		28 = A182 F9	34 = A182 304		
	11 = 11"	05 = 15000		29 = A217 C12	35 = A182 316 HF		
	12 = 12"			30 = A29 4130	36 = A182 316		
	13 = 13-5/8"			31 = A182 321	37 = A182 317 HF		
	14 = 14"			32 = A182 321L	38 = A182 317		
	16 = 16"			33 = A182 304L	39 = A29 1040		
	17 = 16-3/4"			34 = A182 304	40 = A29 4140		
	18 = 18"			35 = A182 316L	41 = A182 F6a Class 2		
	20 = 20"			36 = A182 316	44 = A182 F44 Duplex		
	22 = 22"			37 = A182 317L	47 = A182 347		
	24 = 24"			38 = A182 317	48 = A182 347 HF		
	26 = 26"			40 = A29 4140	50 = Monel		
	30 = 30"			41 = A182 F6A Class 2	51 = A182 F51 Duplex		
	32 = 32"			44 = A182 F44 Duplex	53 = A182 F53 Duplex		
	36 = 36"			47 = A182 347	55 = A182 F55 Duplex		
	40 = 40"			48 = A182 347L	57 = A537 Class 1 + ENP		
	42 = 42"			50 = Monel	60 = A105 + HF		
	48 = 48"			51 = A182 F51 Duplex	61 = A105 + Nitride + HF		
	52 = 52"			53 = A182 F53 Duplex	62 = Inconel 625		
	56 = 56"			55 = A182 F55 Duplex	63 = A352 LCC + Tungsten Carbide		
	60 = 60"			62 = Inconel 625	64 = A352 LCC + Nickel Boron		
				83 = Hastelloy B	65 = A216 WCC + Tungsten Carbide		
				84 = Hastelloy C	66 = A216 WCC + Nickel Boron		
				87 = A487 4C	67 = A105 + Tungsten Carbide		
				88 = A890-4A	68 = A105 + Nickel Boron		
				89 = A890-5A	69 = A350 LF2 + Tungsten Carbide		
				90 = Titanium	70 = A350 LF2 + Nickel Boron		
					71 = CR13 + Tungsten Carbide		
					72 = CR13 + Nickel Boron		
					73 = A182 410 +Tungsten Carbide		
					74 = A182 410 + Nickel Boron		
					78 = Inconel 718		
					83 = Hastelloy		
					84 = A743 CA15		
					87 = A487 4C		
					88 = A890-4A		
					89 = A890-5A		
					90 = Titanium		
					92 = Inconel 925		

9	10	11	12	13	14	15
Bore Type	**Seal Material**	**Seat Material**	**Seat Insert/Overlay Material**	**Stem Material**	**Packing Material**	**Service**
F = Full Port	A = Aflas	08 = A216 WCB	B = Nickel Boron	A = A350 LF2 + ENP	B = Braided Graphoil	A = Stem Extension
R = Reduced Port	B = Buna	10 = CR13	D = Devlon	B = A105 + ENP	G = Graphite	B = By Pass
C = Conventional	E = EPDM	11 = CR13 HF	F = PTFE	C = A182 F6a Class 2	T = Teflon	C = Cryogenic
T = Regular Pattern	F = Fluorosilicone	13 = A105 + ENP	G = RTFE - Glass filled	D = 17-4 PH	V = Viton Duck	D = Double Piston Effect
U = Short Pattern	G = Graphite	14 = A105	H = Hard Face (Stellite 6)	E = 4130 + ENP		E = External Coating
V = Venturi Pattern	H = HNBR	15 = A350 LF2 + ENP	K = PCTFE	F = A182 F316		F = Dampener
	K = Kalrez	17 = 17-4 PH	N = Nylon	G = A182 F51 Duplex		G = Geothermal
	L = Lip Seal	20 = Alloy 20	P = Peek	H = A182 F56 Duplex		H = High Temperature
	N = Neoprene	30 = A29 4130	R = RTFE - Carbon Filled	I = Inconel 625		I = Internal Coating
	P = Polyuerethane	31 = A182 321	T = Tungsten Carbide			J = Linear Actuator (short yoke)
	R = NBR	32 = A182 316L	V = Viton			L = Lock Open Device
	S = Silicone	34 = A182 304	3 = 316			P = Pipe Pups
	T = Teflon	36 = A182 316	W = UHMWE			S = Standard Service
	U = Floursint	37 = A182 317				T = Special Thermal Relief
	V = Viton	38 = A182 317L				W = Sub Sea
	3 = 304 Ring	41 = A182 F6a Class 2				X = Special
	4 = 304 / Graphite	47 = A182 347				Y = Teflon Bolting
	5 = 316 Ring	50 = Monel				Z = Zinc Bolting
	6 = 316 / Graphite	51 = F51 Duplex				
	7 = Soft Iron Ring	53 = F53 Duplex				
		55 = F55 Duplex				
		62 = Inconel 625				
		78 = Inconel 718				
		83 = Hastelloy B				
		84 = Hastelloy C				
		90 = Titanium				

Sample Figure Numbers & Descriptions

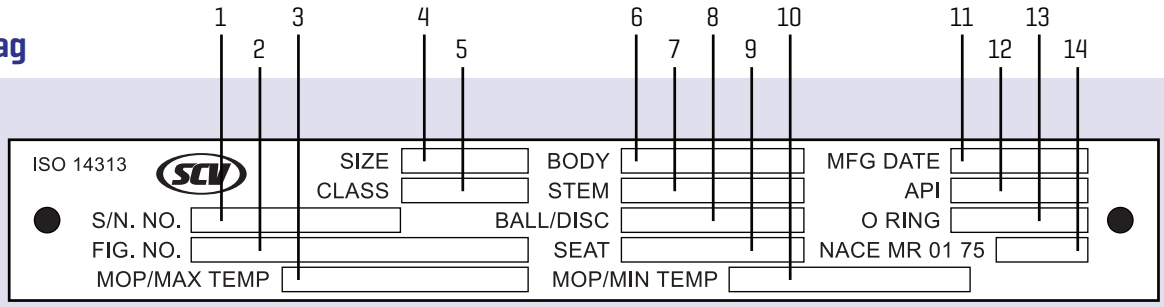
	Figure No. Chart Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Pressure Classes	**Type**	**Size**	**Class**	**Body Conf.**	**Body**	**Obturator**	**End**	**Oper**	**Bore Type**	**Seal**	**Seat.base**	**Seat/Insert**	**Stem**	**Packing**	**Service**
TRUNNION BALL	150, 300, 600	BAL	12	06	B	12	15	R	G	F	H	15	D	A	/	S
	12" 600 Trunnion Ball Valve, Bolted A350 LF2 Body, LF2 + ENP Obturator, RF Ends, Gear Operated, Full Bore, HNBR AED Seals, A350 LF2 + ENP Seat Base Material, Devlon Seat Inserts, A350 LF2 + ENP Stem, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant															
	900, 1500, 2500	BAL	12	15	B	12	41	J	G	F	H	41	D	C	/	S
	12" 1500 Trunnion Ball Valve, Bolted Configuration, A350 LF2 Body, A182 F6a Class 2 Obturator, RTJ Ends, Gear Operated, Full Bore, HNBR AED Seals, A182 F6a Class 2 Seat Base Material, Devlon Seat Inserts, A182 F6a Class 2 Stem, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant															
FLOATING BALL	ALL	FBV	12	01	B	10	36	R	L	F	3	36	R	F	/	S
	12" 150 Floating Ball Valve, Bolted Configuration, A216 WCB Body, A182 F316 Obturator, RF Ends, Lever Operated, Full Bore, A182 F316 Seat Base Material, Devlon Seat Inserts, A182 F316 Stem, Standard Service, API 608 Design, API 598 Test, NACE MR-01-75 Compliant															
DUAL PLATE WAFER CHECK	ALL	DCK	12	06	W	10	09	R	/	C	/	08	H	/	/	S
	12" 600 Dual Plate Check Valve, Wafer Configuration, A216 WCB Body, A351 CF8M Obturator, RF Ends, Conventional Bore, A216 WCB Seat Base Material, Hardface Seat Overlay, Standard Service, API 594 Design, API 598 Test, NACE MR-01-75 Compliant															
SLAB GATE	ALL	TCG	12	06	B	08	13	R	B	F	V	13	R	D	V	S
	12" 600 Thru Conduit Slab Gate Valve, Bolted A216 WCC Body, A105 + ENP Obturator, RF Ends, Bare Stem, Full Bore, Viton AED Seals, A105 + ENP Seat Base Material, RTFE Seat Inserts, 17-4 PH Stem, Viton Duck Packing, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant															
EXPANDING GATE	ALL	EPG	12	06	B	08	06	R	B	F	V	13	R	D	V	S
	12" 600 Thru Conduit Expanding Gate Valve, Bolted A216 WCC Body, A216 WCC + ENP Obturator, RF Ends, Bare Stem, Full Bore, Viton AED Seals, A105 + ENP Seat Base Material, RTFE Seat Inserts, 17-4 PH Stem, Viton Duck Packing, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant															
FULL PORT SWING CHECK	ALL	FCK	12	06	B	08	16	R	/	F	V	11	V	/	/	S
	12" 600 Full Port Swing Check Valve, Bolted A216 WCC Body, A216 WCC + 316 Obturator, RF Ends, Full Bore, Viton AED Seals, CR13 HF Seat Base Material, Viton Seat Inserts, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant															
PISTON CHECK	150, 300, 600, 900	PCK	12	06	B	08	61	R	/	C	V	14	H	/	/	S
	12" 600 Piston Check Valve, Bolted A216 WCC Body, A105 + Nitride + HF Obturator, RF Ends, Coventional Bore, Viton AED Seals, A105 Seat Base Material, Hardface Seat Overlay, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant															
	1500, 2500	PCK	12	15	B	08	61	R	/	C	V	41	H	/	/	S
	12" 1500 Piston Check Valve, Bolted A216 WCC Body, A105 + Nitride + HF Obturator, RF Ends, Coventional Bore, Viton AED Seals, A182 F6a Class 2 Seat Base Material, Hardface Seat Overlay, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant															
LUBRICATED PLUG	ALL	PLG	12	06	B	10	84	R	L	C	V	/	/	/	G	S
	12" 600 Lubricated Plug Valve, Bolted A216 WCB Body, A743 CA15 Obturator, RF Ends, Lever Operated, Coventional Bore, Viton AED Seals, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant															
WEDGE GATE	ALL	GAT	12	06	B	10	7	R	H	C	4	14	H	C	G	S
	12" 600 Wedge Gate Valve, Bolted A216 WCB Body, A216 WCB + Hardface Obturator, RF Ends, Handwheel Operated, Conventional Bore, 304 + Graphite Gasket, A105 Seat Base Material, Hardface Seat Overlay, A182 F6a Class 2 Stem, Graphite Packing, Standard Service, API 600 Design, API 598 Test, NACE MR-01-75 Compliant															
GLOBE	ALL	GLB	12	06	B	10	60	R	H	C	4	14	H	C	G	S
	12" 600 GlobeValve, Bolted A216 WCB Body, A105+ Hardface Obturator, RF Ends, Handwheel Operated, Conventional Bore, 304 + Graphite Gasket, A105 Seat Base Material, Hardface Seat Overlay, A182 F6a Class 2 Stem, Graphite Packing, Standard Service, API 623 Design, API 598 Test, NACE MR-01-75 Compliant															

Note: Subject to change without notice.

Control #: MSF 3.5-16 rev 11

Valve ID Tag & Valve Markings Identification

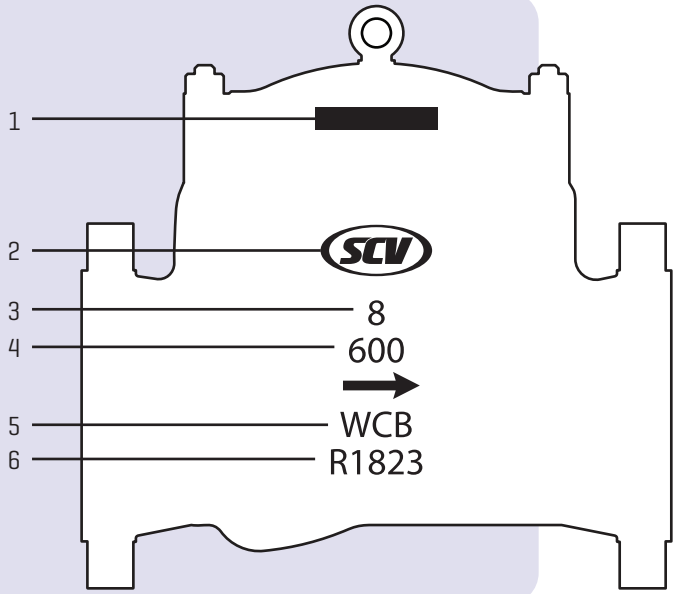
Valve ID Tag



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

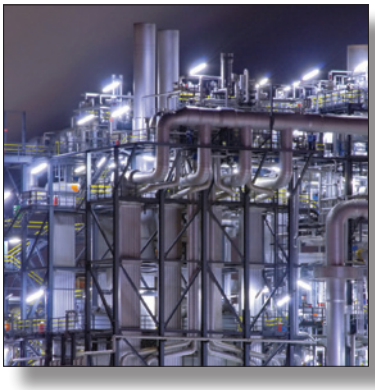
Valve Markings

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.

SCV VALVE



Full Port Swing Check Valves - API 6D

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

Design and Manufacturing Standards	
Basic Design	API 6D & ANSI B16.34
Wall Thickness	API 6D
Face-to-Face Dimension	ANSI/ASME B16.10
Flange End Dimension	ANSI/ASME B16.5 (2' to 24") MSS SP-44 (26" & up)
Butt-Weld End Dimension	ANSI/ASME B16.25
Inspection & Testing	API 6D

Exterior Coating: Epoxy

Optional Features

Extended Shaft Gland/Seal Assembly

The gland seal assembly is standard for extended shaft valve designs and bolts to the valve body to allow for lock open lever, lock open gear, slam retarder, or extended shaft cover installation. It also features a shaft seal and a lubricant /sealant injection port.

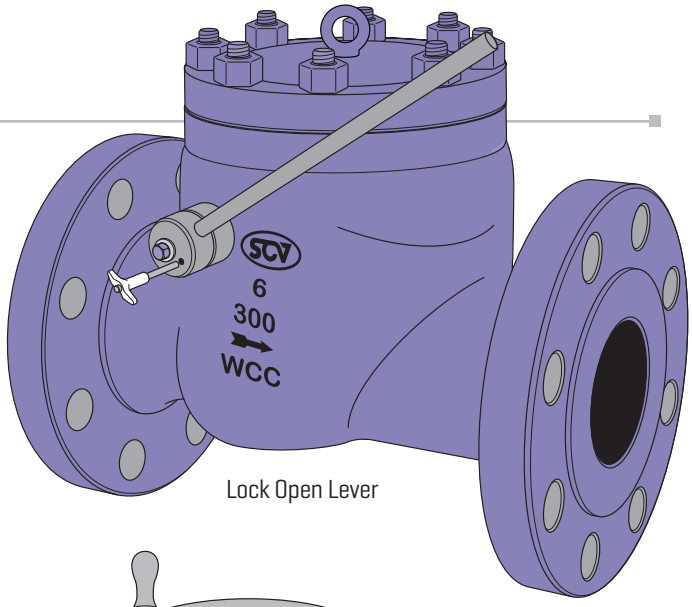
Extended Shaft Cover

Used to protect the extended shaft when lock open devices are not being utilized.

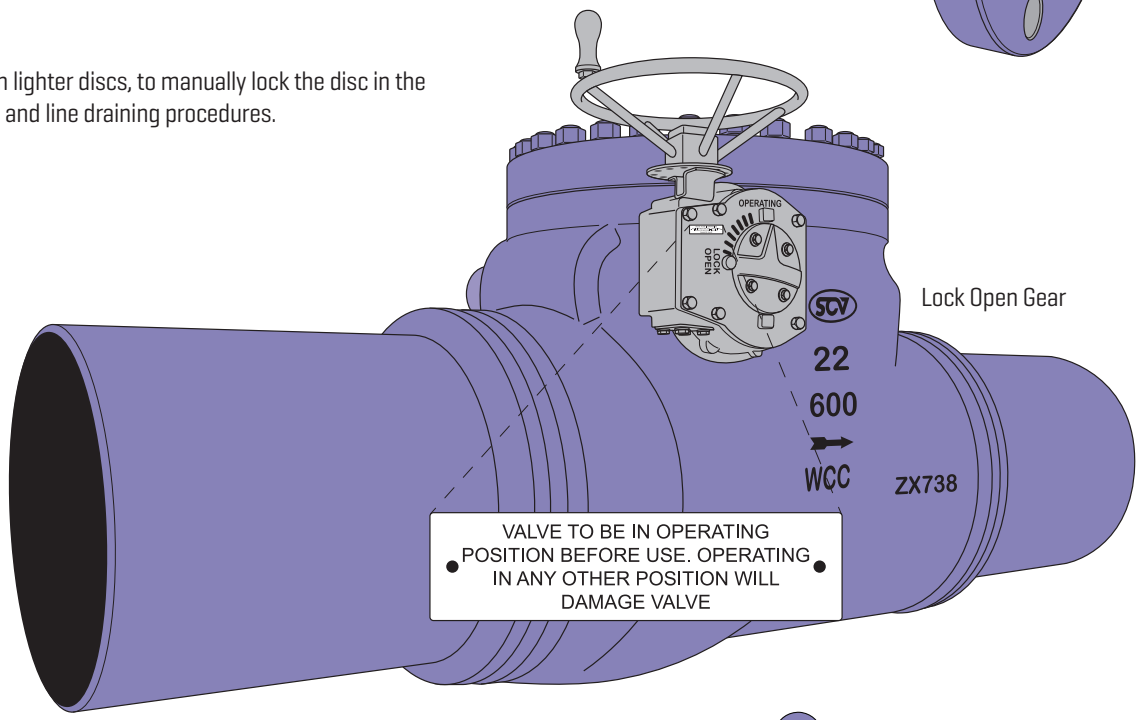
Lock Open Lever

Used on smaller diameter valves, with lighter discs, to manually lock the disc in the open position for pigging, inspection, and line draining procedures.

Sizes: 2" thru 16"



Lock Open Lever



Lock Open Gear

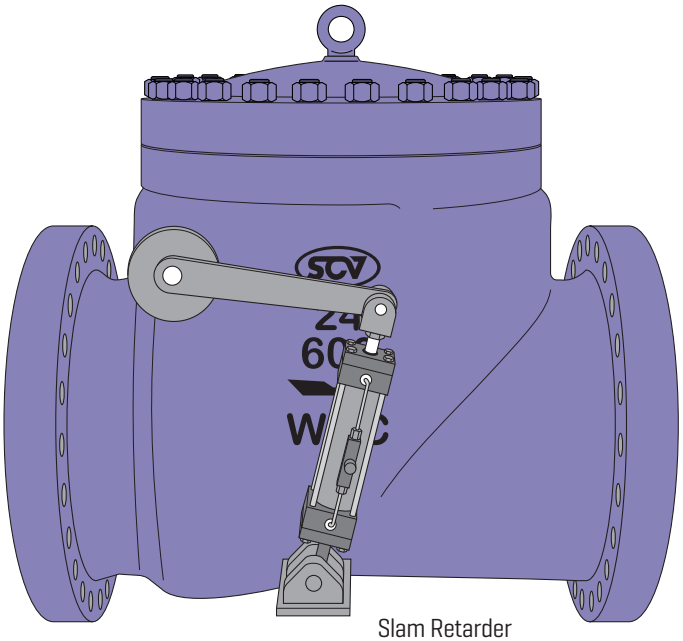
Lock Open Gear

Used on larger diameter valves, with heavier discs, to manually lock the disc in the open position for pigging, inspection, and line draining procedures.

Sizes: 18" thru 36"

Slam Retarder

Used to decelerate the disc during closing to prevent slamming against the seat during backflow situations which could result in valve damage or malfunction. A hydraulic assembly with an adjustable governor regulates the speed of closure.

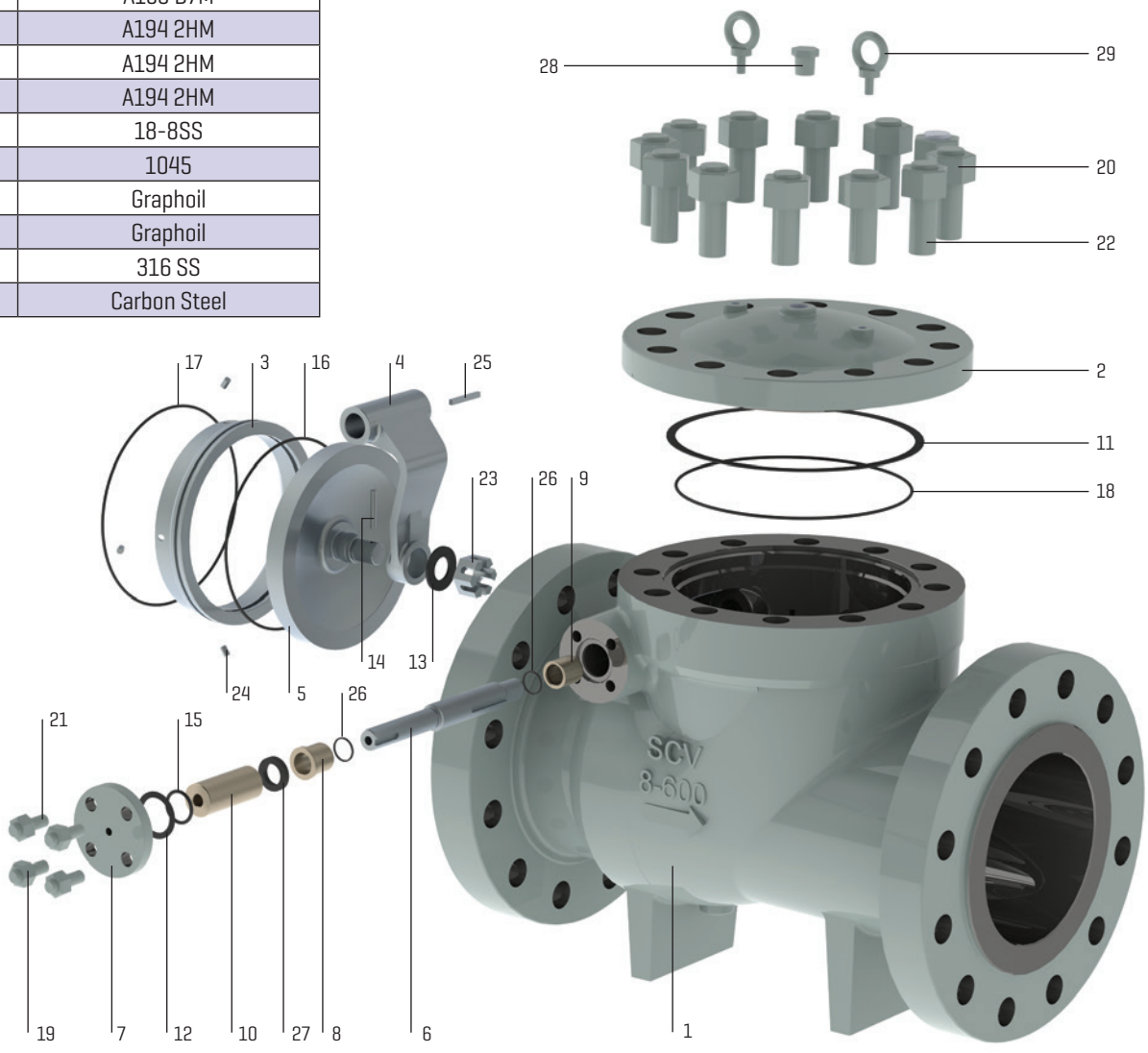


Slam Retarder

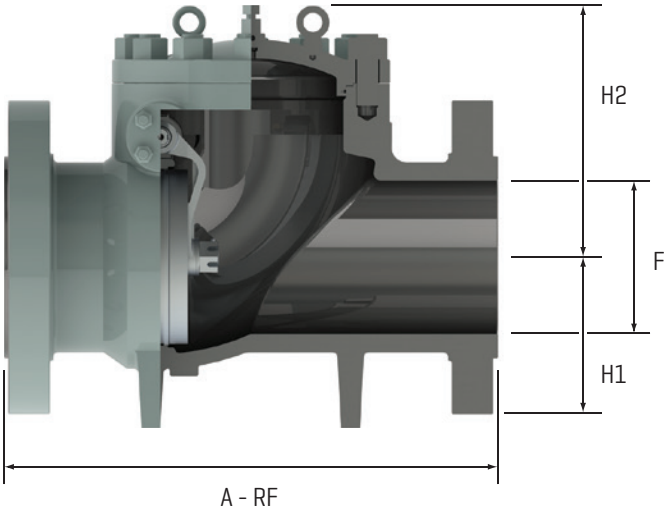
Full Port Swing Check Valves - API 6

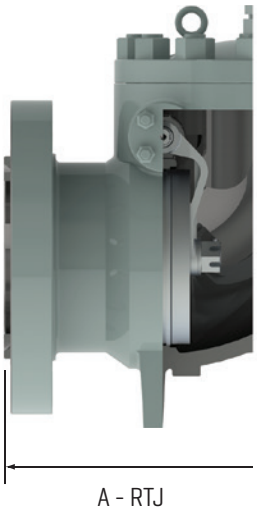
[Expanded View & Bill of Materials]

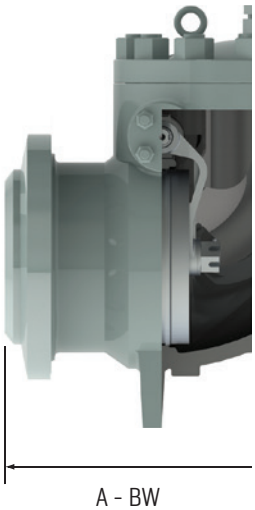
No.	Part	WCC
1	Body	A216 WCC
2	Bonnet	A105
3	Seat	410 + HF
4	Arm	A216 WCC
5	Disc	A216 WCC + 316
6	Shaft	316 SS
7	End Cap	A105
8	Bearing	Nitronic 60
9	End Bearing	Nitronic 60
10	Spacer	A105
11	Gasket	SS Graphite
12	Gasket	SS Graphite
13	Washer	304 SS
14	Pin	304 SS
15	O-Ring	VITON
16	O-Ring	VITON
17	O-Ring	VITON
18	O-Ring	VITON
19	Stud	A193 B7M
20	Stud	A193 B7M
21	Heavy Hex Nut	A194 2HM
22	Heavy Hex Nut	A194 2HM
23	Slotted Hex Nut	A194 2HM
24	Set Screw	18-8SS
25	Key	1045
26	Graphoil Rope	Graphoil
27	Graphoil Rope	Graphoil
28	NPT Plug	316 SS
29	Eye Bolt	Carbon Steel



Full Port Swing Check Valve Dimensions
Size: 2” - 36”
Class: 150 - 2500







CLASS 150	SIZE	NPS	2	2.5	3	4	6	8	10	12	14	16	18	20	24	28	30	36
		DN	50	65	80	100	150	200	250	300	350	400	450	500	600	700	750	900
	A - RF	IN	8.0	9.5	9.5	11.5	14.0	19.5	24.5	27.5	31.0	34.0	38.5	38.5	51.0	57.0	60.0	77.0
		MM	203	241	241	292	356	495	622	699	787	864	978	978	1295	1448	1524	1956
	A - BW	IN	8.0	9.5	9.5	11.5	14.0	19.5	24.5	27.5	31.0	34.0	38.5	38.5	51.0	57.0	60.0	77.0
		MM	203	241	241	292	356	495	622	699	787	864	978	978	1295	1448	1524	1956
	F	IN	2.01	/	2.99	4.02	5.98	7.99	9.92	11.89	13.15	15.28	17.17	19.29	23.31	/	/	/
		MM	51	/	76	102	152	203	252	302	334	388	436	490	592	/	/	/
	H1	IN	1.93	4.02	2.56	3.19	4.21	5.59	6.77	7.56	8.9	9.76	10.83	12.13	14.37	21	22.5	26
		MM	49	102	65	81	107	142	172	192	226	248	275	308	365	533	571	600
	H2	IN	4.25	6.4	5.67	6.89	9.45	11.14	14.37	16.3	17.8	19.37	20.79	22.74	27.17	40.0	45.2	53.1
		MM	108	163	144	175	240	283	365	414	452	492	528	575	690	1016	1149	1349
	WGT (RF)	LB	35	49	66	97	172	260	520	758	930	1398	1799	2165	3925	4521	4644	7389
		KG	16	22	30	44	78	118	236	344	422	634	816	982	1780	2050	2108	3350
	WGT (BW)	LB	26	33	46	57	137	201	450	646	776	1195	1579	1879	3528	4300	4424	6946
		KG	12	15	21	26	62	91	204	293	352	542	716	852	1600	1950	2008	3150

CLASS 300	SIZE	NPS	2	2.5	3	4	6	8	10	12	14	16	18	20	24	28	30	36
		DN	50	65	80	100	150	200	250	300	350	400	450	500	600	700	750	900
	A - RF	IN	10.5	12.5	12.5	14.0	17.5	21.0	24.5	28.0	33.0	34.0	38.5	40.0	53.0	59.0	62.75	82.0
		MM	267	318	318	356	445	553	622	711	838	864	978	1016	1346	1499	1594	2083
	A - BW	IN	10.5	12.5	12.5	14.0	17.5	21.0	24.5	28.0	33.0	34.0	38.5	40.0	53.0	59.0	62.75	82.0
		MM	267	318	318	356	445	553	622	711	838	864	978	1016	1346	1499	1594	2083
	F	IN	2.01	/	2.99	4.02	5.98	7.99	9.92	11.89	13.15	15.28	17.17	19.29	23.31	/	/	/
		MM	51	/	76	102	152	203	252	302	334	388	436	490	592	/	/	/
	H1	IN	1.89	4.0	2.56	3.11	4.21	5.59	6.5	7.99	9.13	10.04	11.22	12.28	14.76	21	22.5	26
		MM	48	102	65	79	107	142	165	203	232	255	285	312	375	533	571	600
	H2	IN	4.41	7.1	5.83	7.09	9.88	12.28	14.76	16.73	18.23	19.88	21.3	23.03	27.52	45.2	50.0	60.6
		MM	112	180	148	180	251	312	375	425	463	505	541	585	699	1149	1270	1540
	WGT (RF)	LB	53	82	99	150	302	485	595	1092	1498	2095	2646	3304.5	4851	6174	7497	11025
		KG	24	37	45	68	137	220	270	495	680	950	1200	1500	2200	2800	3400	5000
	WGT (BW)	LB	46	77	77	112	242	401	463	1014	1157	1764	2139	2688	3925	5292	6505	9482
		KG	21	35	35	51	110	182	210	460	525	800	970	1220	1780	2400	2950	4300

Full Port Swing Check Valve Dimensions

CLASS 600

SIZE	NPS	2	2.5	3	4	6	8	10	12	14	16	18	20	24	28	30
	DN	50	65	80	100	150	200	250	300	350	400	450	500	600	700	750
A - RF	IN	11.5	14.0	14.0	17.0	22.0	26.0	31.0	33.0	35.0	39.0	43.0	47.0	55.0	63.0	65.0
	MM	292	356	356	432	559	660	787	838	889	991	1092	1194	1397	1600	1651
A - RTJ	IN	11.62	14.12	14.12	17.12	22.12	26.12	31.12	33.12	35.12	39.12	43.12	47.25	55.38	63.5	65.5
	MM	295	359	359	435	562	664	791	841	892	994	1095	1200	1407	1613	1664
A - BW	IN	11.5	14.0	14.0	17.0	22.0	26.0	31.0	33.0	35.0	39.0	43.0	47.0	55.0	63.0	65.0
	MM	292	356	356	432	559	660	787	838	889	991	1092	1194	1397	1600	1651
F	IN	2.01	/	2.99	4.02	5.98	7.99	9.92	11.89	13.15	15.28	17.17	19.29	23.31	/	/
	MM	51	/	76	102	152	203	252	302	334	388	436	490	592	/	/
H1	IN	2.09	4.0	2.72	3.89	4.69	6.14	7.36	8.46	9.72	10.59	11.89	12.99	15.47	23.5	27.5
	MM	53	102	69	86	119	156	187	215	247	269	302	330	393	597	698
H2	IN	4.92	8.6	6.36	7.48	10.51	13.43	15.87	18.23	20.67	22.24	24.69	26.69	31.34	53.1	56.3
	MM	125	219	161.5	190	267	341	403	463	525	565	627	678	796	1349	1429
WGT (RF)	LB	88	121	159	254	551	926	1349	1786	2426	3638	3969	6168	7197	9041	11025
	KG	40	55	72	115	250	420	612	810	1100	1650	1800	2800	3264	4100	5000
WGT (BW)	LB	68	99	132	176	452	805	1085	1577	1940	2955	3197	5177	5654	7718	9482
	KG	31	45	60	80	205	365	492	715	880	1340	1450	2350	2564	3500	4300

CLASS 900

SIZE	NPS	2	2.5	3	4	6	8	10	12	14	16	18	20	24	28	30
	DN	50	65	80	100	150	200	250	300	350	400	450	500	600	700	750
A - RF	IN	14.5	15.0	15.0	18.0	24.0	29.0	33.0	38.0	40.5	44.5	48.0	52.0	61.0	69.0	73.0
	MM	368	381	381	457	610	737	838	965	1029	1130	1219	1321	1549	1753	1854
A - RTJ	IN	14.62	16.62	16.62	18.12	24.12	29.12	33.12	38.12	40.88	44.88	48.5	52.5	61.75	69.9	73.9
	MM	371	422	422	460	613	740	841	968	1038	1140	1232	1333	1568	1775	1876
A - BW	IN	14.5	15.0	15.0	18.0	24.0	29.0	33.0	38.0	40.5	44.5	48.0	52.0	61.0	69.0	73.0
	MM	368	381	381	457	610	737	838	965	1029	1130	1219	1321	1549	1753	1854
F	IN	2.05	/	2.99	4.02	5.98	7.99	9.92	12.01	12.68	14.68	/	/	/	/	/
	MM	52	/	76	102	152	203	252	305	322	373	/	/	/	/	/
H1	IN	4	5	3.03	3.7	8.86	6.42	7.72	8.98	10	10.83	16.5	18.0	26.5	25.25	30
	MM	61	127	77	94	225	163	196	228	254	275	419	457	546	641	762
H2	IN	5.2	13.7	7.28	8.86	11.69	14.96	17.4	20	23.66	24.02	36.3	41.4	47.2	55.1	61.8
	MM	132	349	185	225	297	380	442	508	601	610	921	1051	1200	1400	1569
WGT (RF)	LB	154	243	243	471	838	1375	2536	3197	3859	5336	7166	8820	12789	17309	19955
	KG	70	110	110	214	380	624	1150	1450	1750	2420	3250	4000	5800	7800	9050
WGT (BW)	LB	110	192	187	383	662	1088	2095	2602	3197	4520	5954	7275	9923	14663	16868
	KG	50	87	85	174	300	494	950	1180	1450	2050	2700	3300	4500	6650	7650

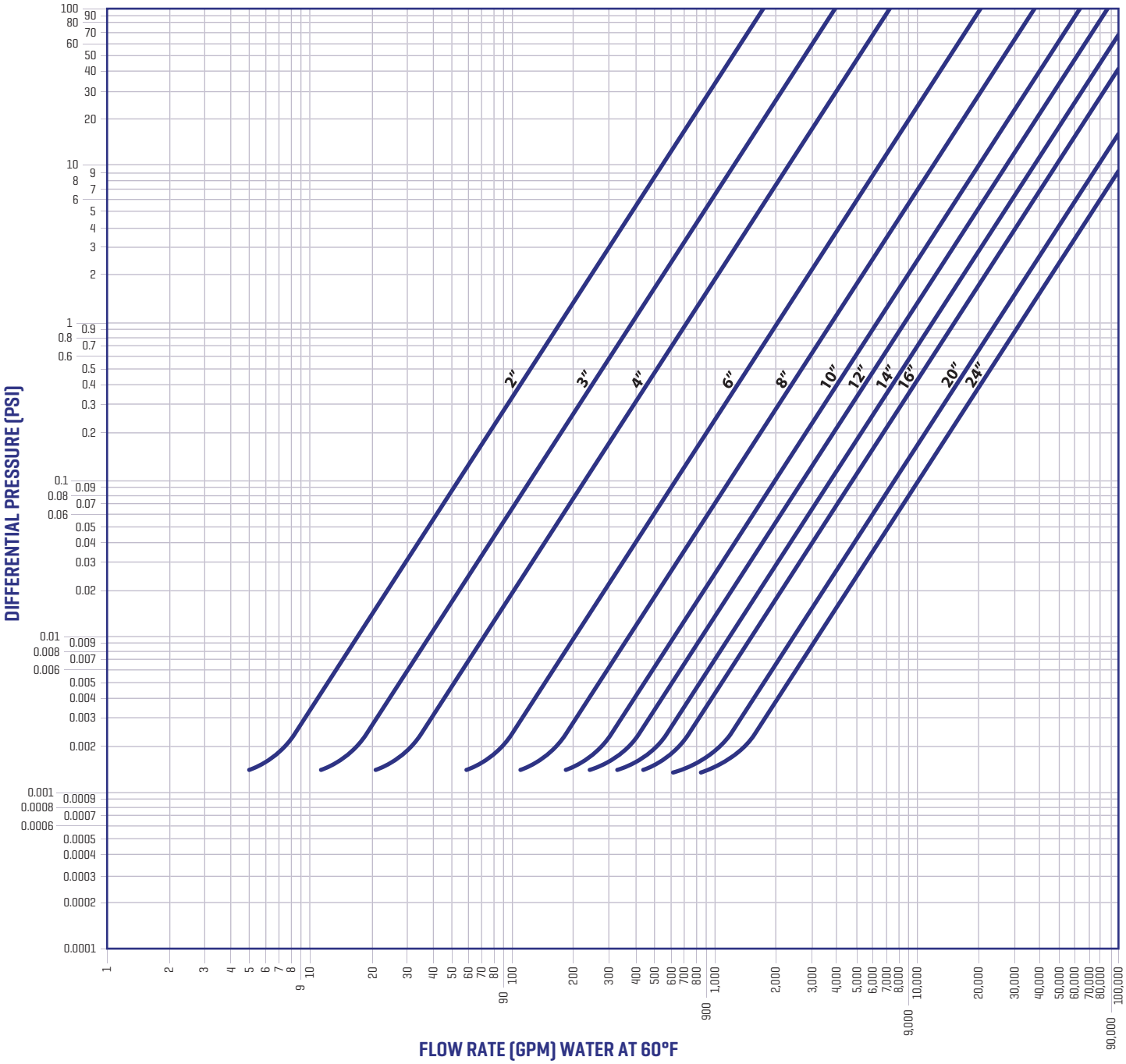
CLASS 1500

SIZE	NPS	2	2.5	3	4	6	8	10	12	14	16	18	20	24
	DN	50	65	80	100	150	200	250	300	350	400	450	500	600
A - RF	IN	14.5	18.5	18.5	21.5	27.75	32.75	39.0	44.5	49.5	54.5	60.5	65.5	76.5
	MM	368	470	470	546	705	832	991	1130	1257	1383	1537	1664	1943
A - RTJ	IN	14.62	18.62	18.62	21.62	28.0	33.13	39.38	45.12	50.25	55.38	61.38	66.38	77.62
	MM	371	473	473	549	711	841	1000	1146	1276	1407	1559	1686	1972
A - BW	IN	14.5	18.5	18.5	21.5	27.75	32.75	39.0	44.5	49.5	54.5	60.5	65.5	76.5
	MM	368	470	470	546	705	832	991	1130	1257	1383	1537	1664	1943
F	IN	2.01	/	2.99	4.02	5.75	7.64	9.53	15.35	/	/	/	/	/
	MM	51	/	76	102	146	194	242	390	/	/	/	/	/
H1	IN	2.83	5.25	3.5	4.17	5.43	6.93	8.35	9.76	16.25	17.25	19.0	20.5	24.0
	MM	72	133	89	106	138	176	212	248	412	438	482	520	609
H2	IN	6.61	13.7	8.82	10.32	13.27	16.63	19.69	20.98	40.8	42.0	47.1	51.1	57.1
	MM	168	349	224	262	337	422.5	500	553	1035	1067	1197	1299	1451
WGT (RF)	LB	154	243	375	662	1531	2624	4079	7336	7938	10805	14553	17971	25909
	KG	70	110	170	300	695	1190	1850	3330	3600	4900	6600	8150	11750
WGT (BW)	LB	110	192	298	540	1234	2128	3263.	6080	6251	8599	11576	14222	19845
	KG	50	87	135	245	560	965	1480	2760	2835	3900	5250	6450	9000

CLASS 2500

SIZE	NPS	2	2.5	3	4	6	8	10	12	14	16
	DN	50	65	80	100	150	200	250	300	350	400
A - RF	IN	17.75	22.75	22.75	26.5	36.0	40.25	42.13	56.0	62.0	68.0
	MM	451	578	578	673	914	1022	1070	1422	1575	1727
A - RTJ	IN	17.87	23.0	23.0	26.88	36.5	40.87	50.88	56.88	62.88	68.88
	MM	454	584	584	683	927	1038	1292	1445	1597	1750
A - BW	IN	17.75	22.75	22.75	26.5	36.0	40.25	42.13	56.0	62.0	68.0
	MM	451	578	578	673	914	1022	1070	1422	1575	1727
F	IN	1.65	/	2.44	3.42	5.16	7.05	8.78	10.43	/	/
	MM	42	/	62	87	131	179	223	265	/	/
H1	IN	3.15	6.0	3.86	4.65	5.94	7.36	9.06	10	17.5	19.25
	MM	80	152	98	118	151	187	230	254	444	489
H2	IN	6.93	16.5	9.92	11.22	14.37	17.83	21.26	23.46	47.2	51.1
	MM	176	419	252	285	365	453	540	596	1200	1299
WGT (RF)	LB	331	529	772	1433	3197	5622	8709	12568	/	/
	KG	150	240	350	650	1450	2550	3950	5700	/	/
WGT (BW)	LB	225	430	477	839	2646	4851	6946	10033	13671	17861
	KG	102	195	216	381	1200	2200	3150	4550	6200	8100

Pressure Loss Curves for Swing Check Valves



Flow Coefficient for Fully Open Valves	
2	174
3	394
4	722
6	2,062
8	3,774
10	6,359
12	8,751
14	11,882
16	15,922
18	20,000
20	24,618
24	32,879

The equations listed are the basis for the above graph. The formulas can be used to find the actual flow coefficient for a given condition of flow.

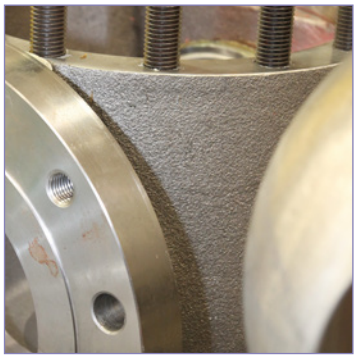
Glossary of Terms	
Q	Flow Rate, Liquids - GPM
Cv	Flow Coefficient
P_1	Inlet Pressure
P_2	Outlet Pressure
AP	Pressure Drop (P_1 - P_2)
G	Specific Graqvity (Water = 1)

Liquid (Incompressible Flow)

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

All New SCV 6D RSBV

From pipelines to processing, **SCV Valve** has the 6D products to complete your projects.


SCV VALVE manufactures one of the most advanced Rising Stem Ball Valves in the industry. The stem employs an offset ball and mechanical cam that creates the very reliable "Shift, Rotate, & Index" (SRI) ball movement. The SRI technology precisely moves the ball into the seat resulting in a uniformed seal that exceeds industry standards while minimizing seat wear and friction, which is the main cause of seal failure.

SCV's Rising Stem Ball Valves offer low torque requirements, quick & easy interchangeable seats, extended performance, and bubble-tight shutoff in flanged and butt-weld designs.

Standard Features

- Zero-friction Opening and Closing
- Low-torque Requirements
- Stem Track & Pin Guided
- Single-seat Design
- Adjustable Packing
- Top-entry Design
- Quick & Easy Interchangeable Seat
- Full Port Performance
- In-line Serviceable

Service Applications

- Produced Water
- Sand Slurry
- Hot Oil
- Steam
- Dehydration of Gas and Regeneration
- Hydrocarbons Wet Gas
- Fiscal Gas Metering
- Emergency Blow Down
- Emergency Shutdown
- High Temperature
- Lethal H2S
- Molecular Sieve Frequent Switching
- Low Temperature (-248° F)
- High Temperature (+1200° F)

Specifications

- Basic Design: API 6D
- Inspection & Testing: API 6D
- Face-to-Face: API 6D
- Shell Wall Thickness: API 6D
- Fire Safe Design: API 6FA/BS 6755
- Flange Dimensions: ANSI/ASME B16.5
- Butt-Weld End Dimensions: ANSI/ASME B16.25

Sizes: 2" thru 16"
Class: 150 thru 900

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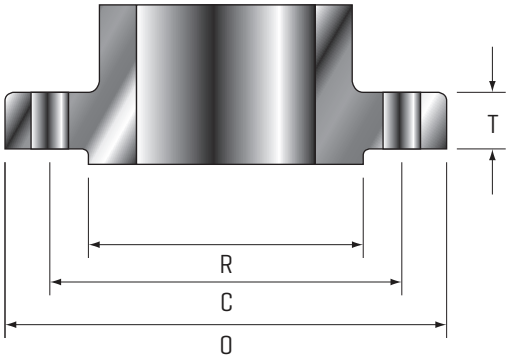
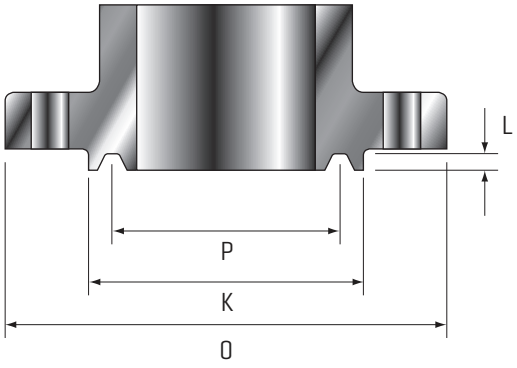
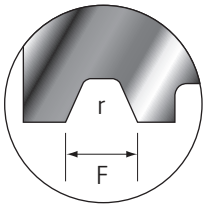
Flange Dimensions - ANSI B16.5 & B16.47



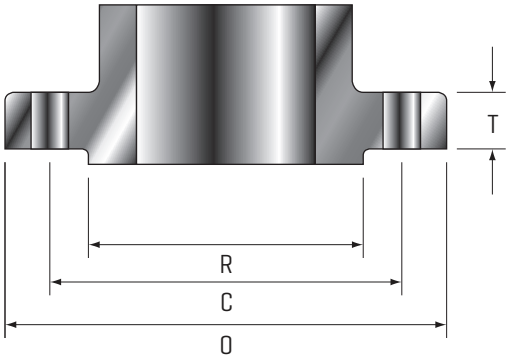


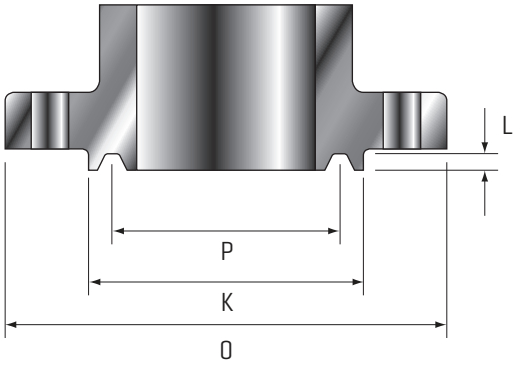


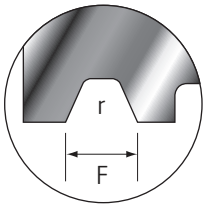
Groove Detail

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.
		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







Groove Detail

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.
		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

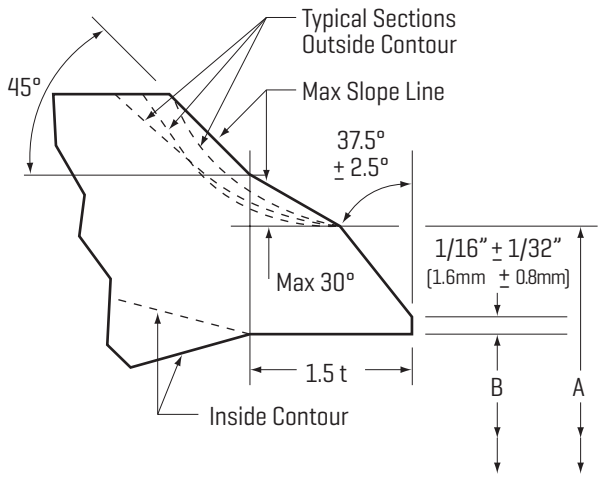
Butt-welding Dimensions - ANSI B16.25

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

Butt-welding Dimensions - ANSI B16.25

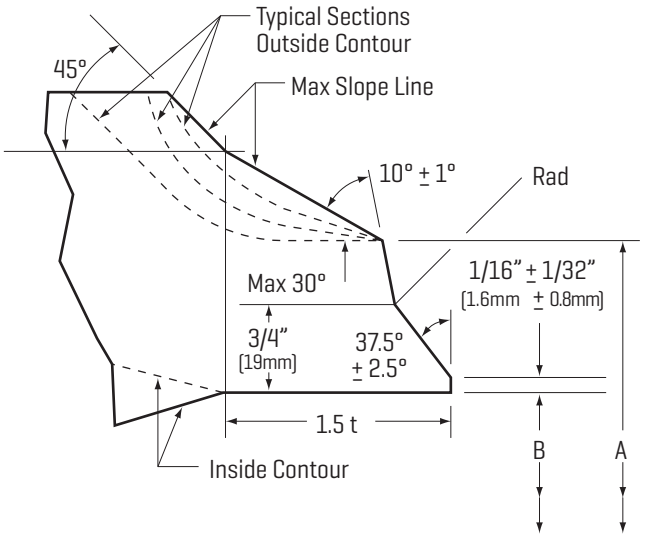
Plain Bevel Butt-welding End for Pipe Wall Thickness is 7/8" (22.23mm) or less.

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



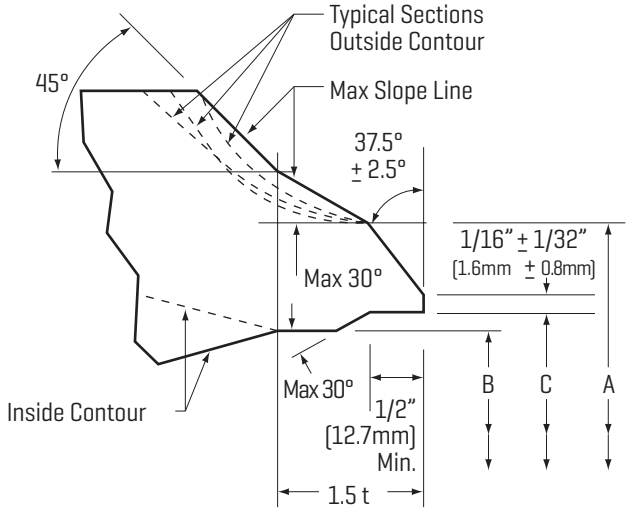
Compound Bevel Butt-welding End for Pipe Wall Thickness Greater than 7/8" (22.23mm).

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



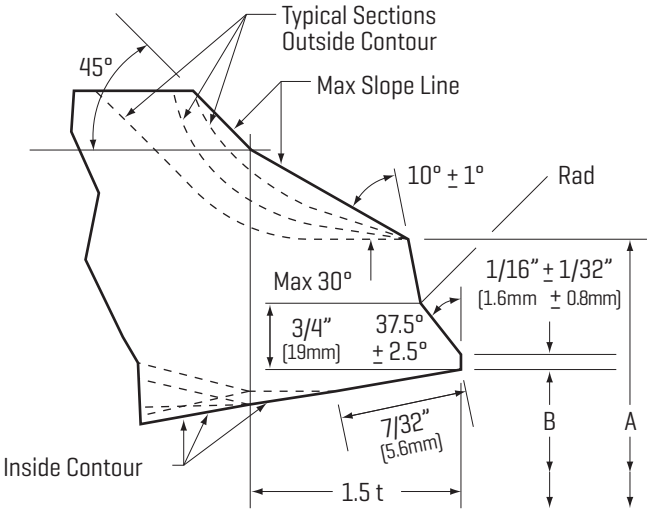
Plain Bevel Butt-welding End for Pipe Wall Thickness is 7/8" (22.23mm) or less.

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.



Industry Standards for Valve Manufacturing

This information is for reference only.

American Society of Mechanical Engineers (ASME)

ASME Code - Boiler & pressure vessel code
ASME A13.1 - Scheme for the identification of piping systems
ASME B1.1 - Unified inch screw threads, UN, & UNR thread form
ASME B1.5 - ACME screw threads
ASME B1.7M - Nomenclature, definitions, & letter symbols for screw threads
ASME B1.8 - Stub ACME screw threads
ASME B1.12 - Class 5 interference - fit thread
ASME B1.20.1 - Pipe threads, general purpose, inch
ASME B1.20.3 - Dry-seal pipe threads, inch
ANSI/ASME B16.1 - Cast iron pipe flanges & flanged fittings
ANSI/ASME B16.5 - Pipe flanges & flanged fittings: NPS 1/2" - 24"
ASME B16.9 - Factory made wrought steel buttwelding fittings
ANSI/ASME B16.10 - Face-to-face & end-to-end dimensions of valves
ASME B16.11 - Forged fittings, socket welding & threaded
ASME B16.20 - Metallic gaskets for pipe flanges: ring joint spiral wound & jacketed
ASME B16.21 - Non-metallic flat gaskets for pipe flanges
ASME B16.25 - Buttwelding ends
ANSI/ASME B16.33 - Manually operated metallic gas valves for use in gas piping systems up to 125 PSI (sizes NPS 1/2" - 2")
ANSI/ASME B31.1 - Power piping
ANSI/ASME B31.3 - Process piping
ANSI/ASME B16.34 - Valves flanged, threaded & welding end
ANSI/ASME B16.36 - Orifice flanges
ANSI/ASME B16.38 - Large metallic valves for gas distribution (manually operated, NPS 2-1/2" - 12", 125 PSIG maximum)
ANSI/ASME B16.42 - Ductile iron pipe flanges & flanged fittings: classes 150 & 300
ANSI/ASME B16.47 - Large diameter steel flanges
ANSI B17.1 - Keys & keyseats
ANSI B18.2.2 - Square & hex nuts
ASME B31.4 - Pipeline transportation systems for liquid hydrocarbons & other ammonia & alcohols
ANSI/ASME B31.8 - Gas transmission & distribution piping systems
ANSI/ASME B36.10 - Welded & seamless wrought steel pipe
ANSI/ASME B36.19 - Stainless steel pipe
ANSI FCI-2 - Control valve seat leakage

American Society Non-destructive Test (ASNT)

ASNT-TC-1A - Recommended practice no. SNT-TC-1A 1996

American Society for Testing and Materials (ASTM)

American Petroleum Institute (API)

API RP 574 - Inspection practices for piping system components
API 589 - Fire test for evaluation of valve stem packing
API RP 591 - Process valve qualification procedure
API 594 - Check valves-flanged, lug, wafer & buttwelding
API 597 - Steel venturi gate valves, flanged, buttwelding ends
API 598 - Valve inspection & testing
API 599 - Metal plug valves - flanged, welding ends
API 601 - Metallic gaskets for raised-face pipe flanges & flanged connections (double-jacketed corrugated & spiral wound)
API 600 - Bolted bonnet steel gate valves for petroleum & natural as industries "ISO adoption from ISO 10434"
API 602 - Steel gate, globe, & check valves for sizes DN100 and smaller for the petroleum & natural gas industries
API 603 - Corrosion-resistant, bolted bonnet gate valves-flanged & buttweld ends
API 604 - Ductile iron gate valves, flanged ends
API 605 - Large-diameter carbon steel flanges (nominal pipe sizes 26" - 60", classes 75, 150, 300, 400, 600, & 900 (replaced by ANSI/ASME B16.47)
API 606 - Compact steel gate valves, extended body (included in API 602) fire test for soft-seated quarter-turn valves "ISO adoption from ISO 10497-5 2004"
API 607 - Fire test for soft-seated quarter-turn valves "ISO adoption from ISO 10497-5 2004"
API 608 - Metal ball valves, flanged, threaded, & welding ends
API 609 - Butterfly valves-double flanged, lug- & wafer-type
API RP 941 - Steel for hydrogen service at elevated temperatures & pressures in petroleum refineries & petrochemical plants
API RP 520, Part 1 - Sizing, selection & installation of pressure relieving devices in refineries
API RP 520, Part 2 - Sizing, selection & installation of pressure relieving devices in refineries devices in refineries
API Spec 6A - Specification for wellhead & christmas tree equipment
API Spec 6D - Specifications for pipeline valves
API Spec 14D - Specifications for wellhead surface safety valves & underwater safety valves for offshore service
API 5B - Threading, gauging thread inspection of coring, tubing, & line pipe threads
API 6AM - Material toughness
API 6FA - Fire test for valves
API 6FC - Fire test for valves with backseats
API 6FD - Specification for fire test for check valves
API Q1 - Specification for quality programs for the petroleum, petrochemical, & natural gas

National Association of Corrosion Engineers (NACE)

MR0175 - Sulfide stress cracking resistant metallic materials for oil field equipment
MR0103 - Materials resistant to sulfide street cracking in corrosive petroleum refining environments

Canadian Standards Association

B51-97 - Boiler, pressure vessel, & pressure piping code
Z245.15-96 - Steel valves
CAN3-z299.4-85 - Quality assurance program - Category 4
CAN3-z299.3-85 - Quality assurance program - Category 3

British Standards Institute (BS)

BS 1414 - Gate, wedge & double disk valves: steel
BS 1868 - Check valves: steel
BS 1873 - Globe & check valves: steel
BS 2080 - Flanged & buttweld end steel valves
BS 5146 - (withdrawn) Replaced by BS 6755 p.1 steel valves testing (1986) & BS 6755 p.2 (1984)
BS 5152 - Globe & check: cast iron
BS 5153 - Check: cast iron
BS 5159 - Ball: cast iron & carbon steel
BS 5160 - Globe & check: steel
BS 5163 - Gate, wedge & double disk: cast iron
BS 5351 - Ball: steel
BS 5352 - Globe & check: steel
BS 5418 - (withdrawn) Replaced by BS EN 19 (1992) marking: general purpose industrial
BS 5840 - Valve mating details for actuator operation
BS 6364 - Cryogenic
BS 6683 - Guide: installation & use of valves
BS 6755: Part 1 - Specification for production pressure testing requirements
BS 6755: Part 2 - Specification for fire type-testing requirements
BS EN 19 - Marking of general purpose industrial valves

International Organization for Standardization

ISO 5211/1 - Industrial valves- part-turn actuator attachments
ISO 5211/2 - Part-turn valve actuator attachment-flange & coupling performance characteristics
ISO 5211/3 - Part-turn valve actuator attachment-dimensions of driving components
ISO 5752 - Metal valves for use in flanged pipe systems face-to-face & center-to-face dimensions
ISO 9000 - Quality management systems and fundamentals & vocabulary
ISO 10012-1 - Quality assurance requirements for measuring equipment

Manufacturers Standardization Society

SP-6 - Standard finishes for contact faces of pipe flanges & connecting-end flanges of valves & fittings
SP-9 - Spot facing for bronze, iron & steel flanges
SP-25 - Standard marking system for valves, fittings, flanges & unions
SP-42 - Class 150 corrosion resistant gate, globe, angle, & check valves with flanged & buttweld ends
SP-44 - Steel pipeline flanges
SP-45 - Bypass & drain connections
SP-51 - Class 150/w corrosion resistant cast flanges & flanged fittings
SP-53 - Quality standard for steel castings & forgings for valves, flanges, & fittings & other piping components: magnetic particle exam method
SP-54 - Quality standard for steel castings for valves, flanges, & fittings and other piping components: radiographic examination method
SP-55 - Quality standard for steel castings for valves, flanges other piping components-visual method for evaluation of surface irregularities
SP-60 - Connecting flange joint between tapping sleeves & tapping valves
SP-61 - Pressure testing of steel valves
SP-65 - High pressure chemical industry flanges & threaded stubs for use with lens gaskets
SP-67 - Butterfly valves
SP-69 - ANSI/MSS edition pipe hangers & supports, selection & application
SP-70 - Cast iron gate valves, flanged & threaded ends
SP-71 - Gray iron swing check valves, flanged & threaded ends
SP-72 - Ball valves with flanged or butt-welding ends for general service
SP-79 - Socket-welding reducer inserts
SP-81 - Stainless steel, bonnetless, flanged knife gate valves
SP-82 - Valve pressure testing methods
SP-84 - Valves - socket welding & threaded ends
SP-85 - Cast iron globe & angle valves, flanged & threaded ends
SP-86 - Guidelines for metric data in standards for valves, flanges, fittings & actuators
SP-88 - Diaphragm valves
SP-91 - Guidelines for manual operation of valves
SP-92 - MSS valve user guide
SP-93 - Quality standard for steel castings & forgings for valves, flanges & fittings & other piping components-liquid penetrant exam method
SP-94 - Quality standard for ferritic & martensitic steel castings for valves, flanges, & fittings and others piping components - ultrasonic exam method
SP-96 - Guidelines on terminology for valves & fittings
SP-98 - Protective coatings for the interior of valves, hydrants, & fittings
SP-99 - Instrument valves
SP-101 - Part-turn valve actuator attachment-flange and driving component dimensions & performance characteristics
SP-102 - Multi-turn valve actuator attachment: flange and driving component dimensions & performance characteristics
SP-110 - Ball valves threaded, socket-welding, solder joint, grooved, & flared ends
SP-117 - Bellows seals for globe & gate valves
SP-118 - Compact steel globe and check valves-flanged, flangeless, threaded & welding ends (chemical & petroleum refinery service)
SP-120 - Flexible graphite packing system for rising stem steel valves (design requirements)
SP-121 - Qualification testing methods for stem packing for rising stem steel valves

Terms & Conditions

Quotation Validity

This quotation is valid for 30 days from the date quotation is sent. Validity on special metals, including Stainless Steel, is 14 days from the date the quotation is sent. All products offered from stock are subject to prior sale.

Shipments

All items quoted are EXW our Dock - (Ex Works - SCV Valve Facility Sante Fe, Texas 77510) - unless otherwise noted and agreed to in writing. Shipment may be billed either third party billing to the buyer or freight collect. Shipment dates offered above are forecasted delivery lead times and are estimated from the date payment terms (acceptable to seller) are established, clarification is received on all technical information, and resolution of customer's written approval of drawings is received (when required). The equipment quoted shall be packed in accordance with seller's standard packing procedure unless otherwise noted and agreed to in writing by the seller.

Force Majeure

If in the case of an act of God, war, riot, fire, explosion, flood, or any other circumstances of whatsoever nature which are beyond the control of the seller and which in any way affect the ability of the seller to fulfill its delivery obligations, the delivery is hindered, impeded, or delayed the seller shall be exonerated from all responsibilities and reserves the right to postpone the delivery beyond the original schedule.

Payment terms

All terms are to be negotiated. Credit cards accepted (Master Card, Visa, American Express).

Purchase Orders

All buyer's purchase orders supplied to the seller are to be written in the English language.

Prices

All prices quoted are in USD as per the preceding pricing schedule. The minimum order value is $5,000.00 (five thousand dollars), unless otherwise agreed to by seller. If for some reason any items are changed or additions to the order required, seller reserves the right to adjust prices accordingly. All sales are subject to approval of seller's credit department. If buyer fails to meet the agreed upon and established commercial terms of the contract, the seller may with-hold all subsequent deliveries until such time that the original commercial terms of the contract have been met by the buyer (or subsequent commercial terms have been agreed upon by the seller with the buyer).

Intellectual Property

All specifications, illustrations, drawings, certificates, and other particulars supplied by seller remain the intellectual property of the seller and should not be disclosed to any third party without the prior written consent of seller.

Governing Law; Arbitration; Jurisdiction

The terms and conditions of this quotation and any subsequent purchase order shall be construed, interpreted, and performed exclusively according to the laws of the State of Texas, USA. The courts of such state shall have exclusive jurisdiction out of all controversies arising out of or in connection with this agreement. The parties consent that process may be served upon them in any such action by registered mail at the address stated for Buyer on its purchase order, and upon SCV Valve at the address noted above in Santa Fe, Texas, or personally within or without the State of Texas. Any legal action with respect to any agreement must be commenced within one year after the cause of action has accrued. The provisions of the Uniform Commercial Code as adopted by the State of Texas, and not under the United Nations Convention on Contracts for the International Sale of Goods, shall apply.

Warranty

All seller's products are guaranteed against defects in workmanship for a period of twelve (12) months after being placed in service, but not exceeding eighteen (18) months after shipment, when products are properly installed per seller specifications and used within the service and pressure range for which they were manufactured. Full risk of loss shall pass to the buyer upon delivery at FOB point, or destination port in case of CIF. This guarantee is limited to the replacement of any valve parts/components found to be defective either in material or workmanship. This guarantee does not extend to costs of labor, freight, or any other consequential charges. The unauthorized use of third party components and workmanship in seller's products voids this warranty.

Limitation of Liability

The liability of the seller under this agreement or with respect to any products supplied or services performed pursuant to this agreement, whether in contract, in tort, in strict liability or otherwise, shall not exceed the purchase price paid by the buyer with respect thereto. In no event will the seller be liable in contract, in tort, in strict liability or otherwise for any special, indirect, incidental, or consequential damages. This is including but not limited to loss of anticipated profits or revenues, loss of use, non-operation or increased expense of operation of equipment, cost of capital, or claims from customer or buyer for failure or delay in achieving anticipated profits or products.

Cancellation

No contract may be canceled by the buyer except upon written notice to seller and upon payment to seller of all costs incurred by the contract arising out of, or in connection with, the contract. Export of goods covered hereby is subject to United States Customs Control. Standard stocking items will be subject to a twenty-five percent (25%) restocking and/or cancellation charge. Non-standard stocking items will be subject to a one-hundred percent (100%) restocking and/or cancellation charge.

Cancellation Charge

The following indicates the rates of cancellation charge of contract value for project manufactured items and/or special engineered items at various stages of production:

- **Time of cancellation: Order Acknowledgement and prior to Engineering engagement.** **Cancellation Charge: 10%**
- **Time of cancellation: After start of engineering but prior to release to production.** **Cancellation Charge: 30%**
- **Time of cancellation: After release to production but prior to completion of fabrication.** **Cancellation Charge: 80%**
- **Time of cancellation: After completion of fabrication.** **Cancellation Charge: 100%**

Return of Goods

No product shall be returned to seller without written authorization and shipping instructions having been obtained from seller. Products authorized for returns are to be shipped freight pre-paid to the SCV Valve Facility identified in writing, unless otherwise notified, and are subject to seller's standard re-stocking fees.

Documentation

MTR's are available at no charge upon request. The seller's standard document package is per ISO 10474 3.1B requirements. Additional requested documentation is subject to charge.

Inspection

The customer or his authorized representative may, with four (4) weeks prior notice given to seller, visually inspect products manufactured by seller. Such seller approved inspections will be carried out in accordance with seller's standard or seller approved customer inspection procedures. If any inspection or documentation requested by the customer is over and beyond the scope and criteria initially agreed to by the seller, any costs incurred by conducting such inspection or preparation of special documents shall be paid by the buyer prior to release of the items for shipment.

Witness Hydro-testing

Witness hydro-testing is available at a cost. A scope of buyers inspection request is to be provided to seller at order placement. Late notice of such requested inspection is subject to additional costs. The cost associated with such witness hydro request is to be agreed on prior to any such testing taking place. Payment of this type of testing to be negotiated. Additionally, any costs associated with a third party inspector will not be at the sellers expense.

The SCV valve brand was established in 1972 as a maintenance and modification company with the ability to provide full in-line valve service and repair. In the mid-1970's, after experiencing many shortcomings of other valve products in the industry, the first SCV valve was manufactured. Since that time, the SCV brand has been expanded its manufactured products to cover a broad range of valves. Industries served include the power, paper and pulp, oil and gas, and petro-chemical sectors.

SCV Valve takes sincere pride in our ability to manufacture both commodity and specialty valves that meet and exceed the needs of our customers. All sizes, pressure classes, and metallurgical compositions are managed in house utilizing the strictest quality control measures to ensure the customer's total satisfaction.

SCV Valve products include thru conduit gates, wedge gates, globes, full port swing checks, piston checks, trunnion mounted balls, floating balls, lubricated plugs, and pressure seal gates, globes and checks. Valves utilized throughout the industry must meet rigorous quality and production standards. SCV Valve has earned its API 6A, API 6D, ISO: 9001, CE-PED, and CRN certifications while operating under the API Q1 Quality Management System.

With years of dedication and commitment to quality, design, and service, SCV Valve has grown to be one of the premier valve manufacturers in the industry with the largest inventory of high pressure ball, gate, and check valves. We pride ourselves on our high quality products, timely delivery capabilities, and competitive prices.

On behalf of all of the members at SCV Valve, we thank you for the opportunity to earn your business.

Sincerely,

Sid McCarra
President
SCV Valve, LLC

Since 1972, the SCV brand has been committed to providing quality flow control products to the Power, Paper & Pulp, Oil & Gas, and Petro Chemical industries.

As one of the largest valve manufacturers, SCV Valve's reputation is unparalleled for producing high quality commodity and specialty valves. Products range in sizes 1/2" - 48", in pressure classes from 150# - 2500# and are backed by timely deliveries and competitive prices.

Call SCV today at (281)482-4728 for all your valve needs or visit us on the web @ www.scvvalve.com.

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