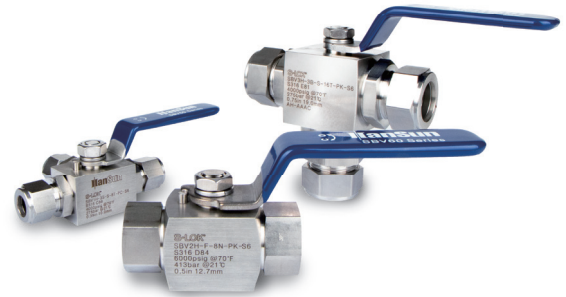


SBV60 Series High Pressure Ball Valves

Features

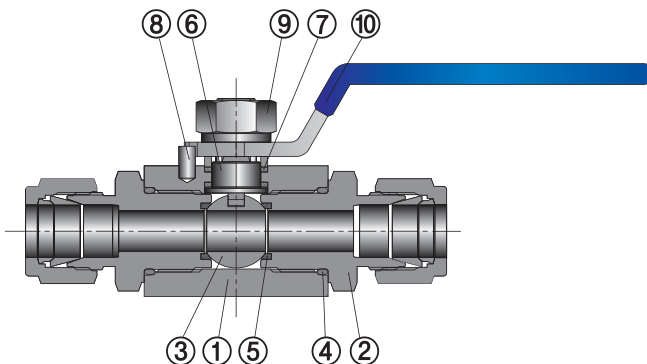
- Pressure rating up to 10000psig (689bar) @ 21°C (70°F).
- Temperature rating from -30°C (-22°F) to 180°C (355°F) with PCTFE seat or from -54°C (-65°F) to 260°C (500°F) with PEEK seat.
- Robust body is best suited for high pressure application and allows various pattern including.
 - : 2-way straight pattern, 3-way side port inlet, 3-way bottom port inlet.
- Panel mounting and locking devices are available as option.
- Blow out proof design with internally loaded stem.
- Floating ball design ensures leak proof shut-off at high pressure.
- Straight through flow path for minimum pressure drop.
- Variety of end connections include reliable S-LOK tube fittings, male/female NPT & ISO/BSP threads.
- Handle with PVC color coated allows easy and quick operation with low torque.
- 90degree actuation.
- Every valve is 100% factory tested with the Nitrogen @ 1000psi (69bar).
- Optional sour gas service to NACE MR 0175.



Operation

- S-LOK SBV60 Series ball valves provide quick 1/4 turn on-off control of fluids in process, power and instrumentation applications.
- All ports are suitable as inlets in full operation pressure of the valve.
- A broad selection of valve body, seat, and seal materials provide a wide range of pressure and temperatures at which the valve may be used.
- Valves that have not been actuated for a period of time may have a higher actuation torque.

Materials of Construction

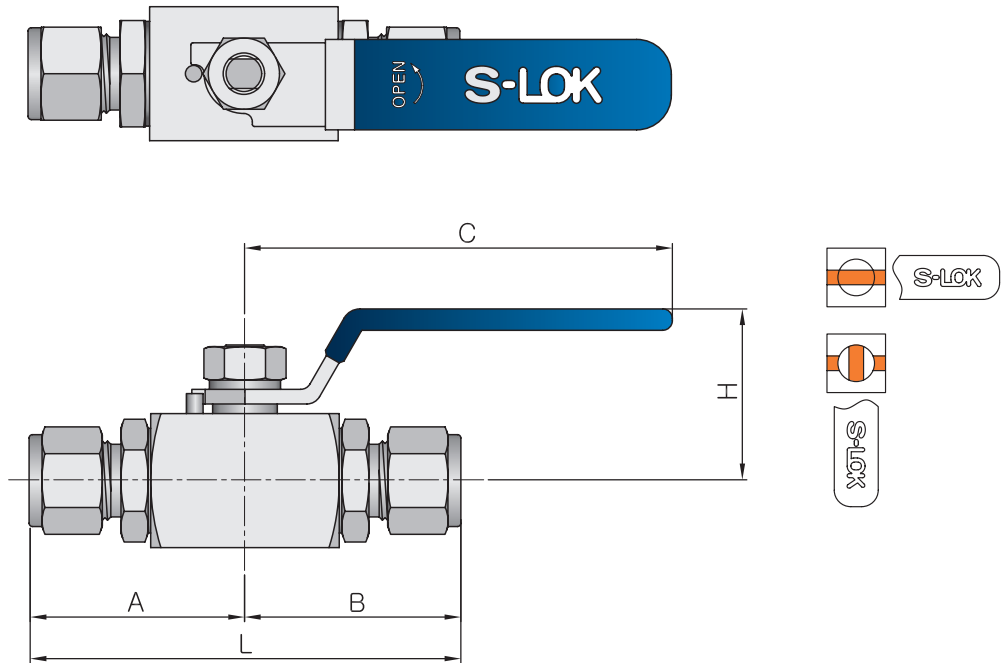


No	Component	Material
1	Body	SS316 / A479 or A276
2	End Connector	SS316 / A479 or A276
3	Ball	SS316 / A479 or A276
4	End Seal	FKM (VITON)
5	Seat	PCTFE (Optional PEEK)
6	Stem	SS316 / A479 or A276
7	Stem Packing	PTFE
8	Stop Pin	Stainless Steel
9	Hex Nut	Stainless Steel
10	Handle	Stainless Steel with PVC Coating

- Note : Wetted parts lubricant is fluorocarbon based.

Dimensions

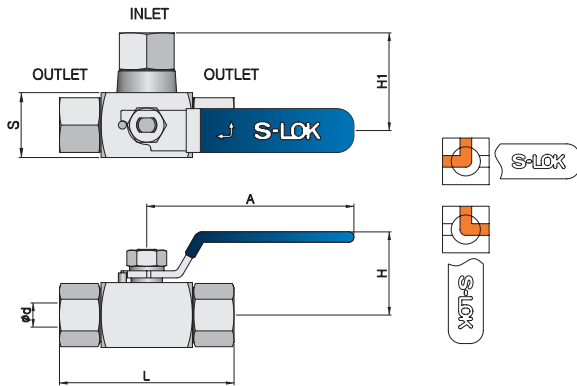
2-Way



Ordering Number		Orifice		Cv	End Connections		Dimensions (mm)					
		mm	inch		Inlet	Outlet	A	B	L	H	C	S
SBV1H	S-4T	4.8	0.19	1.2	1/4" S-LOK		46.0		92.0	39.0	101.0	32.0
	S-6T	7.1	0.28	3.7	3/8" S-LOK		47.5		95.0			
	S-8T	10.0	0.39	7.5	1/2" S-LOK		50.0		100.0			
	F-4N				1/4" Female NPT		32.5		65.0			
	F-6N				3/8" Female NPT		38.0		76.0			
	F-8N	1/2" Female NPT		43.0		86.0						
	M-4N	7.1	0.28	3.7	1/4" Male NPT		42.0		84.0			
	M-6N	9.7	0.38	7.2	3/8" Male NPT		42.0		84.0			
	M-8N	10.0	0.39	7.5	1/2" Male NPT		47.5		95.0			
SBV2H	S-10T	12.7	0.5	10.1	5/8" S-LOK		55.5		111.0	51.0	135.0	40.0
	S-12T				3/4" S-LOK		55.5		111.0			
	F-8N				1/2" Female NPT		45.5		91.0			
	F-12N				3/4" Female NPT		47.5		95.0			
	M-12N				3/4" Male NPT		54.5		109.0			
SBV3H	S-12T	15.8	0.62	19.0	3/4" S-LOK		58.5		117.0	56.0	135.0	50.0
	S-16T	19.0	0.75	30.0	1" S-LOK		65.0		130.0			
	F-12N				3/4" Female NPT		48.0		96.0			
	F-16N	1" Female NPT		50.0		100.0						
	M-12N	15.8	0.62	19.0	3/4" Male NPT		58.0		116.0			
	M-16N	19.0	0.75	30.0	1" Male NPT		62.5		125.0			

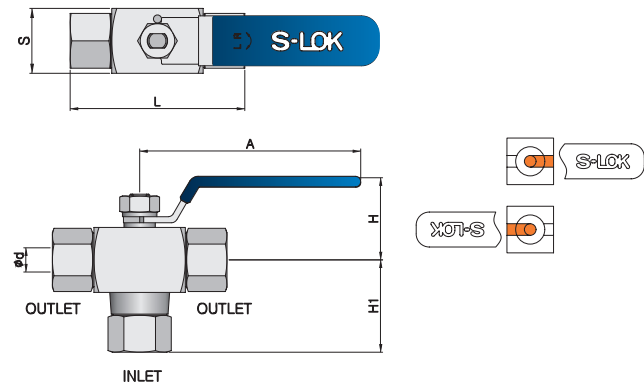
3-Way Side Port (3S)

- 1/4 Turn handle for flow switching.



3-Way Bottom Port (3B)

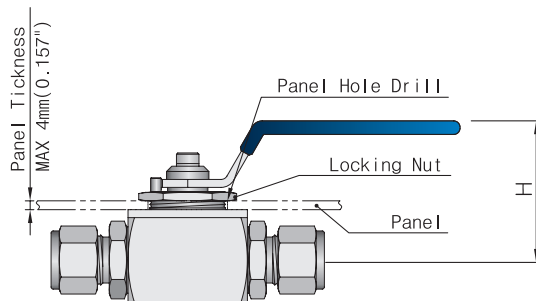
- 1/2 Turn handle for flow switching and isolation.



Ordering Number		Orifice		End Connections		Dimensions (mm)				
		mm	inch	Inlet	Outlet	A	H	H1	L	S
SBV1H-3B or SBV1H-3S	S-4T	4.8	0.19	1/4" S-LOK		101.0	39.0	51.5	92.0	32.0
	S-6T	7.1	0.28	3/8" S-LOK				53.0	95.0	
	S-8T	10.0	0.39	1/2" S-LOK				55.8	100.0	
	F-4N			1/4" Female NPT				36.7	65.0	
	F-6N			3/8" Female NPT				40.2	76.0	
	F-8N			1/2" Female NPT				45.5	86.0	
SBV2H-3B or SBV2H-3S	S-10T	12.7	0.5	5/8" S-LOK		135.0	51.0	65.5	111.0	40.0
	S-12T			3/4" S-LOK				65.5	111.0	
	F-8N			1/2" Female NPT				49.7	91.0	
	F-12N			3/4" Female NPT				55.2	95.0	
SBV3H-3B or SBV3H-3S	S-12T	15.8	0.62	3/4" S-LOK		135.0	56.0	70.0	117.0	50.0
	S-16T	19.0	0.75	1" S-LOK				76.6	130.0	
	F-12N			3/4" Female NPT				56.7	96.0	
	F-16N			1" Female NPT				60.8	100.0	

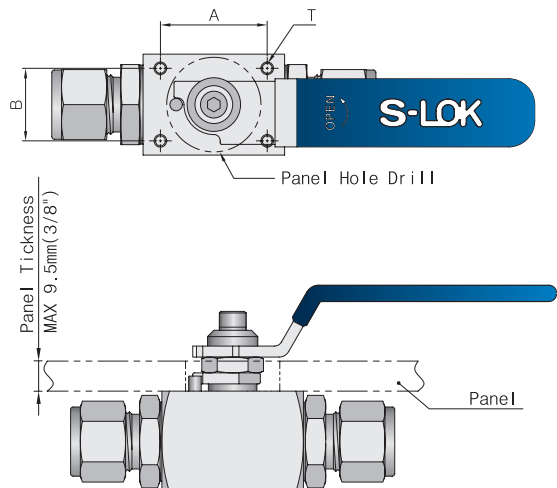
* '3S' for side port 3-way, '3B' for Bottom port 3-way.

Locking Nut Panel Mounting Option (PN)



Valve Series	Panel Hole Drill	H	A	B	T
SBV1H	30.0(1.18)	49.9	34.0(1.33)	23.0(0.91)	M4
SBV2H	38.0(1.50)	64.5	36.0(1.42)	29.2(1.15)	M5
SBV3H	38.0(1.50)	69.3	40.0(1.57)	35.0(1.37)	M5

Screw Hole Panel Mounting Option (PS)



Technical Data

Pressure and Temperature Rating

Valve Series	Sealing Material			Pressure Rating @ 21°C(70°F)		Temperature Range
	Seat	Stem Packing	End Seal	2-Way	3-Way	
SBV1H	PCTFE	PTFE	FKM	6000psig (413 bar)	4000psig (275 bar)	-30 to 180 °C (-22 to 355 °F)
	PEEK			10000psig (689 bar)	6000psig (413 bar)	-54 to 260 °C (-65 to 500 °F)
SBV2H SBV3H	PCTFE	PTFE	FKM	5000psig (344 bar)	3000psig (206 bar)	-23 to 160 °C (-9 to 320 °F)
	PEEK			6000psig (413 bar)	4000psig (275 bar)	-35 to 210 °C (-31 to 410 °F)

- The above pressure rating is for 2-way In-line pattern valves. 80% of the above rating shall be applicable to 2-way angle pattern valves and 3-way valves.
- The rated pressure shown above is the maximum allowable pressure to the seat. If the system requires higher pressure to test, the valve must be in open position before and during test so as not to damage the seat.
- Pressure ratings of valves are sometimes limited to the maximum working pressure of pipe ends and tubing connected.
- The working pressure of tubing must be considered in the calculation of total system working pressure.

CNG / NGV Certifications (SBVC Series)

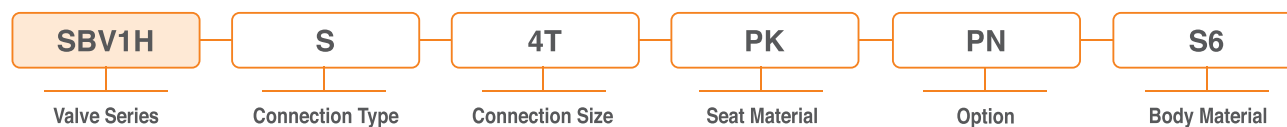
- SBVC Series valve provides leak tight integrity in both low and high pressure systems in CNG & NGV applications.
- Valves with PEEK seat, HNBR O-ring and add Disc Spring are compatible with CNG fluid.

Certificates	ECE R110	ANSI NGV3.1-2012	ISO 15500
CERT. No.	E4-110R-010333	126840AUT14	12684MECH103
Classification	Class 0	P36	Manual Valve
Temperature Range	-40 to 120 °C (-40 to 248 °F)	-40 to 120 °C (-40 to 248 °F)	-40 to 120 °C (-40 to 248 °F)
Pressure Rating	260 bar	248 bar	260 bar

Testing

- Every valve is tested for bubble-tight leakage at both seat and stem packing with nitrogen @ 1000psig (69bar).
- Seats have a maximum allowable leak rate of 0.1(SCCM).
- Optional tests are available upon request.

Ordering Information



- **SBV^H** : Standard
- **SBV^H-3S** : Side port 3-way
- **SBV^H-3B** : Bottom port 3-way
- **SBVC^H** : CNG / NGV Service

- **Nil** : PCTFE (Standard)
- **PK** : PEEK
- **Nil** : Standard
- **PN** : Lock Nut Panel Mounting
- **PS** : Screw Hole Panel Mounting
- **LD** : Locking Device
- **OH** : Oval Handle
(Applicable only for SBV1H)
- **SG** : Sour Gas Service

- **S6** : 316 Stainless Steel

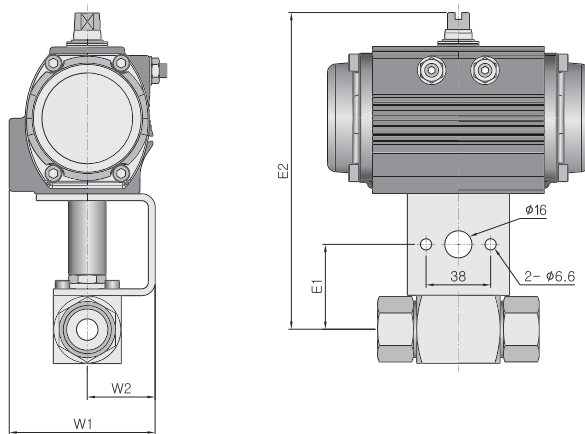
Actuated Ball Valves (SBV60 Series)

Features

- Rack and pinion pneumatic actuator.
- Double acting and spring return mode.
- Operating Pressure : 3 ~ 8bar
- Rotating Angle : 90° ±3°
- Temperature Range : -20°C (-4°F) to 80°C (176°F).



Ordering Information and Dimensions



Valve Series	Dimensions (mm)			
	E1	E2	W1	W2
SBV1H	40.0	154.0	40.0	86.0
	40.0	154.0	40.0	86.0
SBV2H	50.0	186.5	40.0	86.0
	50.0	186.5	40.0	86.0
SBV3H	55.0	211.0	45.0	94.5
	55.0	211.0	45.0	94.5

SBV1H-S-4T

Valve Basic Ordering Number

PDA

Actuator Type Designator

- PDA : Double Acting (Normal Close)
- PNO : Spring Return (Normal Open)
- PNC : Spring Return (Normal Close)

40

Actuator Series Designator

- 40 : R40 Actuator
- 50 : R50 Actuator(Standard for SBV1H)
- 65 : R65 Actuator(Standard for SBV2H)
- 80 : R80 Actuator(Standard for SBV3H)

S6

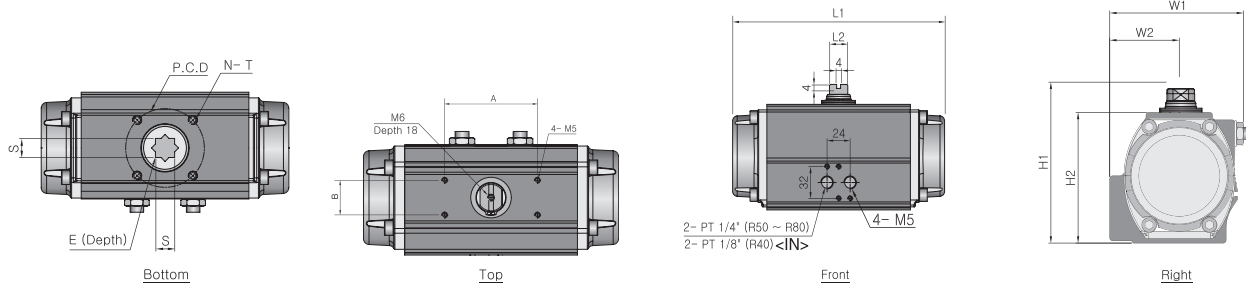
Valve Material Designator

- S6 : 316 Stainless Steel

Torque Table for SBV60 Series

Valve Series	Torque (N·m)					
	1000psig	2000psig	3000psig	4000psig	5000psig	6000psig
SBV1H	1.0	1.8	2.5	3.3	4.0	4.8
SBV2H	2.0	3.7	5.4	7.0	8.7	10.4
SBV3H	4.7	9.0	13.3	17.6	21.9	26.3

Actuator Dimensions



Actuator Series	ISO Flange Type	P.C.D	N- T	Dimensions (mm)										Weight (kg)	
				L1	L2	H1	H2	W1	W2	S	E	A	B	RD	RS
R40	F03/F05	36/50	4- M5/M6	97.0	9.0	75.0	55.0	63.0	32.0	9.0	9.0	50.0	25.0	0.5	0.6
	*F04	*42	*4- M5												
R50	F03/F05/F07	36/50/70	4- M5/M6/M8	133.0	9.0	90.0	70.0	75.0	40.0	11.0	13.0	80.0	30.0	1.0	1.1
	*F04	*42	*4- M5												
R65	F05/F07	50/70	4- M6/M8	154.0	13.0	106.5	86.5	89.0	46.0	14.0	16.0	80.0	30.0	1.4	1.5
	*F07	*70	*4- M8												
R80	F07	70	4- M8	220.0	19.0	126.0	106.0	101.0	49.5	17.0	19.0	80.0	30.0	2.9	3.3

* Option.

Torque Table for RD Series - Double Acting

Actuator Model	Supply Air (bar)														
	3		4		4.5		5		6		7		8		
	Torque (N·m)														
RD40-AL	5.5		7.4		8.4		9.2		11.1		13.0		14.8		
RD50-AL	9.4		12.5		14.3		15.9		19.1		22.5		25.8		
RD65-AL	18.3		24.7		27.8		30.8		36.8		42.9		49.2		
RD80-AL	44.5		58.9		66.5		74.4		89.3		104.3		117.8		

Torque Table for RS Series - Spring Return

Actuator Model	Supply Air (bar) to Open															
	3		4		4.5		5		6		7		8		Spring to Close	
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
	Torque (N·m)															
RS40-AL	1.0	-	2.9	0.5	3.8	1.2	4.8	2.1	6.7	3.8	8.6	5.1	10.5	6.4	5.9	3.9
RS50-AL	4.1	1.2	7.4	4.4	9.0	6.1	10.7	7.6	14.2	11.1	17.3	14.5	20.8	18.0	8.1	5.2
RS65-AL	4.1	1.2	8.7	3.6	14.7	9.5	17.9	12.5	21.1	15.7	27.2	22.0	33.3	28.1	13.7	8.4
RS80-AL	21.1	6.1	35.3	21.0	42.9	29.1	50.5	35.7	65.6	51.3	80.8	66.4	95.7	80.5	33.7	21.7

SFBV60 Series

High Pressure Forged Ball Valves

Features

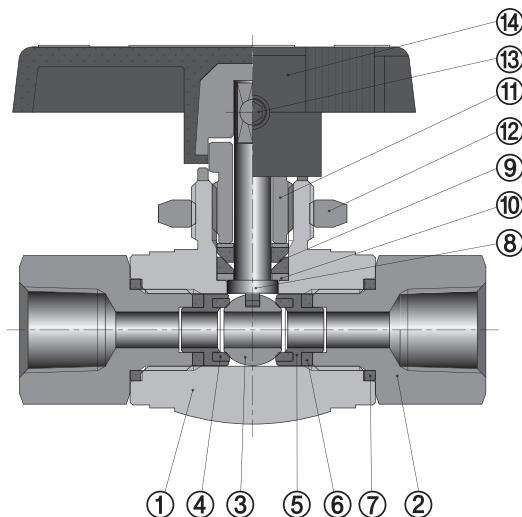
- Pressure rating up to 6000psig (413bar) @ 21°C (70°F).
- Temperature rating from -54°C (-65°F) to 177°C (350°F) with standard PCTFE seat.
- Free floating ball design provides seat wear compensation, therefore ensures leak proof shut-off at high pressure.
- High flow in a compact design.
- Panel mountable as standard.
- Blow out proof design with internally loaded stem.
- Micro-finished ball provides a positive seal.
- Low operating torques and positive handle stops.
- Handle indicates flow direction.
- Straight through flow path for minimum pressure drop.
- Bi-directional flow.
- Chevron packing standard for positive leak tight.
- 90 degree actuation.
- Every valve is 100% factory tested with the Nitrogen @ 1000psi (69bar).
- Variety of end connections include reliable S-LOK tube fittings Male/Female NPT & ISO/BSP threads.



Applications

- Water, Oil, Gas, Petrochemical

Materials of Construction

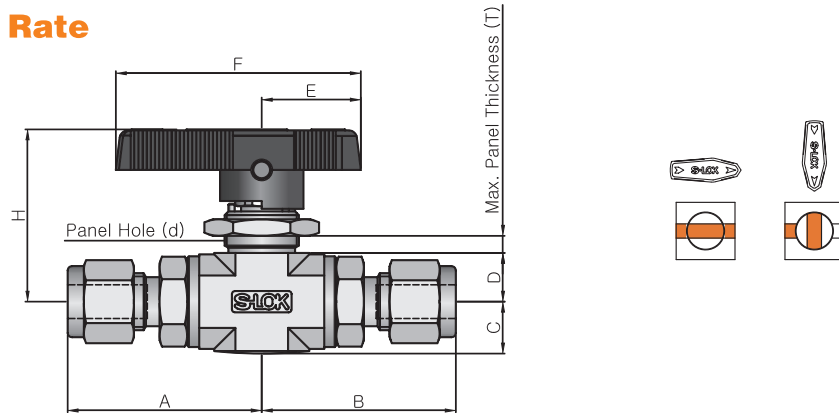


No	Component	Material
1	Body	A182 F316
2	End Connector	SS316 / A479 or A276
3	Ball	SS316 / A479 or A276
4	Seat	PCTFE (Optional PTFE, PEEK)
5	Retainer	SS316 / A479 or A276
6	Retainer Seal	PTFE
7	End Seal	PTFE
8	Stem	SS316 / A479 or A276
9	Stem Packing	PTFE
10	Stem Washer	Stainless Steel
11	Packing Bolt	SS316 / A479 or A276
12	Lock Nut	Stainless Steel
13	Set Screw	Stainless Steel
14	Handle	Black Nylon

- **Note** : Wetted parts lubricant is fluorocarbon based.

Dimensions & Flow Rate

2-Way (Shut-off Valves)

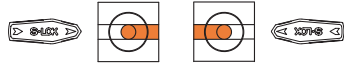


Ordering Number		Orifice		Cv	End Connections		Dimensions (mm)										
		mm	inch		Inlet	Outlet	A	B	C	D	E	F	H	d	T		
SFBV1	S-1T	1.3	0.052	0.06	1/16" S-LOK		33.0										
	S-2T	2.4	0.093	0.21	1/8" S-LOK		34.5										
	F-2N	4.2	0.165	0.93	1/8" Female NPT		27.2	10.0	9.4	19.0	47.0	33.2	16.3	3.3			
	M-2N				1/8" Male NPT		29.9										
	S-4T				1/4" S-LOK		37.6										
	M-4N				1/4" Male NPT		34.3										
S-3M	2.2	0.086	0.18	3mm S-LOK		34.8											
SFBV2	S-2T	2.4	0.093	0.26	1/8" S-LOK		41.9								10.7	11.9	25.6
	S-4T	1/4" S-LOK		44.2													
	MS-4N-4T	4.8	0.189	1.04	1/4" Male NPT	1/4" S-LOK	44.2	41.1									
	FS-4N4T				1/4" Female NPT	1/4" S-LOK	38.4										
	F-4N	1/4" Female NPT		38.4													
	M-4N	1/4" Male NPT		41.1													
	MF-4N	6.4	0.25	2.34	1/4" Male NPT	1/4" Female NPT	38.4	41.1									
	MS-4N6T				1/4" Male NPT	3/8" S-LOK	45.7	41.1									
	FS-4N6T				1/4" Female NPT	3/8" S-LOK	38.4										
	S-6T				3/8" S-LOK		45.7										
	M-6N	3/8" Male NPT		41.1													
	S-6M	4.8	0.189	1.04	6mm S-LOK		44.5										
	S-8M	6.4	0.25	2.34	8mm S-LOK		45.2										
	S-10M				10mm S-LOK		46.0										
SFBV3	F-6N	10.3	0.406	6.42	3/8" Female NPT		49.5	17.5	17.8	38.1	99.0	62.9	22.9	9.7			
	F-8N				1/2" Female NPT		54.6										
	S-8T				1/2" S-LOK		59.4										
	M-8N				1/2" Male NPT		56.4										
	S-12T	3/4" S-LOK		59.2													
	S-12M	9.5	0.375		5.57	12mm S-LOK											
S-16M	10.3	0.406	6.42	16mm S-LOK													

Pressure Drop to Atmosphere (Δp), psi		Cv								
		0.06	0.18	0.21	0.26	0.93	1.04	2.34	5.57	6.42
Air SCFM @70°F(21°C)	10	5.9	17.7	20.7	25.6	91.5	102.4	230.3	548.2	631.9
	50	13.2	39.6	46.2	57.2	204.7	228.9	515.0	1225.9	1413.0
	100	18.7	56.0	65.4	80.9	289.5	323.7	728.3	1733.7	1998.3
Water US GPM @70°F(21°C)	10	0.2	0.6	0.7	0.8	2.9	3.3	7.4	17.6	20.3
	50	0.4	1.3	1.5	1.8	6.6	7.4	16.5	39.4	45.4
	100	0.6	1.8	2.1	2.6	9.3	10.4	23.4	55.7	64.2

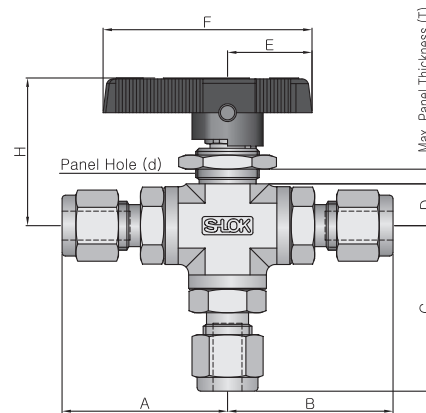
* Flow rate calculated with 1000psig (69 bar) inlet pressure.
 * To determine m³/hr multiply GPM by SCFM by 1.69.

3-Way (Switching Valves)



3-Way ball valve

SFBV 3-way ball valve is designed to switch media through the bottom port and direct it to out of two outlet ports.



Ordering Number		Orifice		Cv	End Connections		Dimensions (mm)							
		mm	inch		Inlet	Outlet	A	B	C	D	E	F	H	d
SFBV1-3B	S-1T	1.3	0.052	0.06	1/16" S-LOK		33.0	33.7	8.5	19.0	47.0	33.2	16.3	3.3
	S-2T	2.4	0.093	0.21	1/8" S-LOK		34.5	36.4						
	F-2N	4.2	0.165	0.63	1/8" Female NPT		27.2	29.9						
	M-2N				1/8" Male NPT		29.9	29.9						
	S-4T				1/4" S-LOK		37.6	37.2						
	M-4N				1/4" Male NPT		34.3	29.9						
S-3M	2.2	0.086	0.18	3mm S-LOK		34.8	36.4							
SFBV2-3B	S-2T	2.4	0.093	0.21	1/8" S-LOK		41.9	45.5	11.9	25.6	78.0	49.6	19.6	6.4
	S-4T	4.8	0.189	0.7	1/4" S-LOK		44.2	47.8						
	F-4N	5.0	0.196	0.87	1/4" Female NPT		38.4	41.9						
	M-4N				1/4" Male NPT		41.1	44.7						
	S-6T				3/8" S-LOK		45.7	49.3						
	M-6N				3/8" Male NPT		41.1	44.7						
	S-6M	4.8	0.189	0.7	6mm S-LOK		44.5	47.8						
	S-8M	5.0	0.196	0.87	8mm S-LOK		45.2	48.5						
S-10M	10mm S-LOK				46.0	49.5								
SFBV3-3B	F-6N	10.3	0.406	3.62	3/8" Female NPT		49.5	58.2	17.8	38.1	99.0	62.9	22.9	9.7
	F-8N				1/2" Female NPT		54.6	63.2						
	S-8T				1/2" S-LOK		59.4	68.1						
	M-8N				1/2" Male NPT		56.4	65.8						
	S-12T				3/4" S-LOK		59.2	68.1						
	S-12M	9.5	0.375	3.46	12mm S-LOK			67.8						
	S-16M	10.3	0.406	3.62	16mm S-LOK		56.9	65.5						

Pressure Drop to Atmosphere (Δp), psi		Cv										
		0.06	0.18	0.21	0.63	0.7	0.87	0.93	2.34	3.46	3.62	6.42
Air SCFM @ 70°F (21°)	10	5.9	17.7	20.7	62.0	68.9	85.6	91.5	230.3	340.6	356.3	631.9
	50	13.2	39.6	46.2	138.7	154.1	191.5	204.7	515.0	761.5	796.7	1413.0
	100	18.7	56.0	65.4	196.1	217.9	270.8	289.5	728.3	1077.0	1126.8	1998.3
Water US GPM @ 70°F (21°)	10	0.2	0.6	0.7	2.0	2.2	2.8	2.9	7.4	10.9	11.4	20.3
	50	0.4	1.3	1.5	4.5	4.9	6.2	6.6	16.5	24.5	25.6	45.4
	100	0.6	1.8	2.1	6.3	7.0	8.7	9.3	23.4	34.6	36.2	64.2

* Flow rate calculated with 1000psig (69 bar) inlet pressure.

* To determine m³/hr multiply GPM by 0.227 SCFM by 1.69.

Technical Data

Pressure and Temperature Rating

Seat Material	Pressure Rating @ 21°C (70°F)	Temperature Range	Pressure Rating @ Max. Temperature
PCTFE	6000psig (413 bar)	-54 to 177°C (-65 to 350°F)	1000psig (69 bar) @ 177°C (350°F)
PEEK	6000psig (413 bar)	-54 to 232°C (-65 to 450°F)	700psig (48 bar) @ 232°C (450°F)
PTFE	1500psig (103 bar)	-54 to 177°C (-65 to 350°F)	250psig (17.2 bar) @ 177°C (350°F)

* Pressure Rating with 3-way side ports of as inlet : 150psig (10bar)

CNG / NGV Certifications (SFBVC Series)

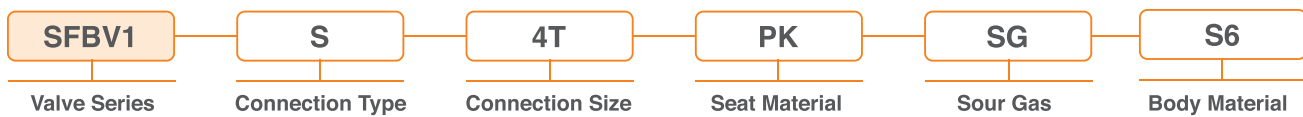
- SFBVC Series valve provides leak tight integrity in both low and high pressure systems in CNG & NGV applications.
- Valves with PEEK seat, HNBR O-ring and add Disc Spring are compatible with CNG fluid.

Certificates	ECE R110	ANSI NGV3.1-2012	ISO 15500
CERT. No.	E4-110R-010333	126840AUT14	12684MECH103
Classification	Class 0	P36	Manual Valve
Temperature Range	-40 to 120°C (-40 to 248°F)	-40 to 120°C (-40 to 248°F)	-40 to 120°C (-40 to 248°F)
Pressure Rating	260 bar	248 bar	260 bar

Testing

- Every valve is tested for bubble-tight leakage at both seat and stem packing with nitrogen at 1000psig (69bar).
- Seats have a maximum allowable leak rate of 0.1(SCCM).
- Optional tests are available upon request.

Ordering Information



- SFBV** : 2-Way Straight
- SFBV-3B** : 3-Way Switching
- SFBVC** : CNG / NGV Service

- Nil** : PCTFE (Standard)
- PK** : PEEK
- TE** : PTFE

- Nil** : Standard
- SG** : Sour Gas Service

- S6** : 316 Stainless Steel
- BS** : Brass

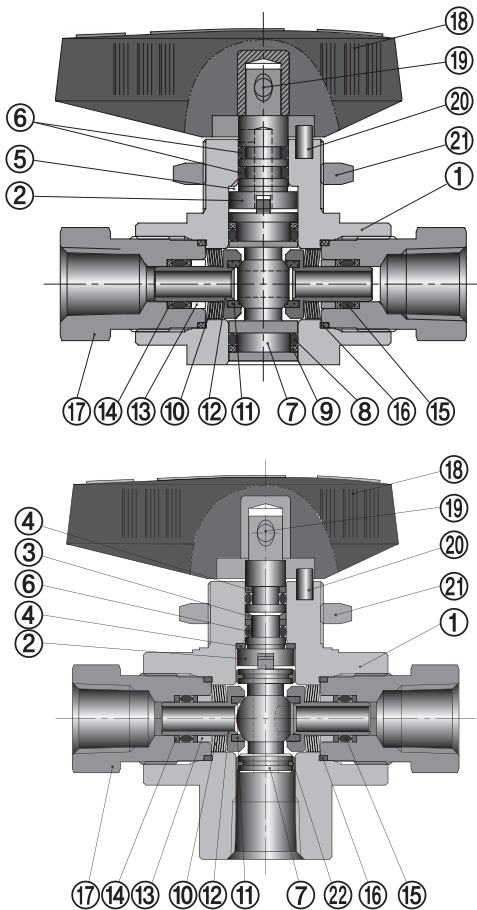
STBV60 Series Trunnion Ball Valves

Features

- Pressure rating up to 6000psig (413bar) @ 21°C (70°F).
- Maximum flow in a compact design.
- Panel mountable as standard.
- Handle indicates flow direction.
- Lower torque actuation.
- 2-way “Shut-up” and 3-way “Switching” type.
- Variety of end connections include reliable S-LOK tube fittings Male/Female NPT & ISO/BSP threads.
- Optional sour gas service to NACE MR 0175.
- Every valve is 100% factory tested with Nitrogen @ 1000psig (69bar).



Material of Construction

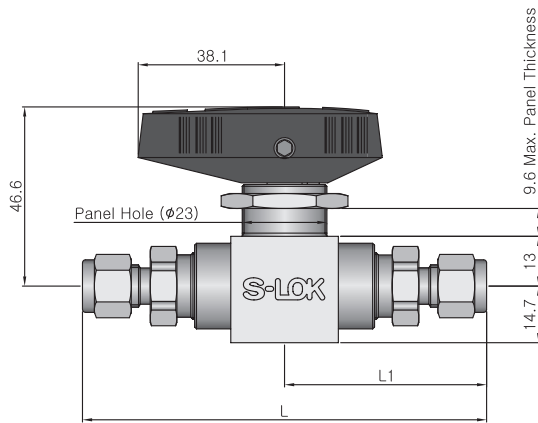


No	Component	Material	
		2-Way	3-Way
1	Body	SS316 / A479 or A276, A182	
2	*Stem	SS316 / A479 or A276	
3	*Stem Support Ring	-	PEEK
4	*Stem Backup Ring	-	PTFE
5	*Stem Bearing	PEEK	
6	*Stem O-ring	FKM	
7	*Trunnion Ball	SS316 / A479 or A276	
8	*Ball O-ring	FKM	-
9	*Ball Backup Ring	PTFE	-
10	*Disc Spring	Alloy X-750	
11	*Seat	PCTFE (Optional PTFE, PEEK)	
12	*Seat Carrier	Stainless Steel	
13	*Seat Carrier Guide	SS316 / A479 or A276	
14	*Seat Carrier Backup Ring	PTFE	
15	*Seat Carrier O-ring	FKM	
16	*Connector Seal	PTFE	
17	End Connector	SS316 / A479 or A276	
18	*Handle	Phenolic with Brass Insert	
19	*Set Screw	Stainless Steel	
20	Stop Pin	Stainless Steel	
21	Lock Nut	Stainless Steel	
22	*Slip Ring	-	PTFE

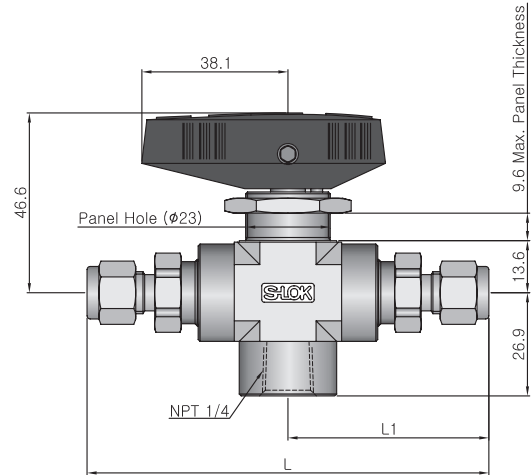
* Service kits contain part.

Dimensions

2-Way (Shut-off Valves)



3-Way (Switching Valves)



Ordering Number		Orifice		Cv	End Connections		Dimensions (mm)	
		mm	inch		Inlet	Outlet	L	L1
STBV	F-2N	4.75	0.187	1.2	1/8" Female NPT		76.2	38.1
	F-4N			1/4" Female NPT		76.2	38.1	
	F-8N			1/2" Female NPT		108.2	54.1	
	S-4T			1/4" S-LOK		105.2	52.6	
	S-6T			3/8" S-LOK		111.2	55.6	
	S-8T			1/2" S-LOK		116.8	58.4	
	S-6M			6mm S-LOK		105.2	52.6	
	S-8M			8mm S-LOK		105.2	52.6	
	S-10M			10mm S-LOK		111.8	55.9	
	S-12M			12mm S-LOK		116.8	58.4	
STBV-3B	F-2N	4.75	0.187	0.75	1/8" Female NPT		76.2	38.1
	F-4N				1/4" Female NPT		76.2	38.1
	S-4T				1/4" S-LOK		105.2	52.6
	S-6T				3/8" S-LOK		111.2	55.6
	S-8T				1/2" S-LOK		116.8	58.4
	S-6M				6mm S-LOK		105.2	52.6
	S-8M				8mm S-LOK		105.2	52.6
	S-10M				10mm S-LOK		111.8	55.9
	S-12M				12mm S-LOK		116.8	58.4

* Bottom port of all 3-way valves is 1/4" Female NPT.

Technical Data

Pressure and Temperature Rating

Seat Material	Pressure Rating @21°C (70°F)	Temperature Range
PCTFE	6000psig (413 bar)	-17 to 121°C (0 to 250°F)
PEEK	6000psig (413 bar)	-17 to 232°C (0 to 450°F)
PTFE	1500psig (103 bar)	-17 to 232°C (0 to 450°F)

CNG / NGV Certifications (STBVC Series)

- STBVC Series valve provides leak tight integrity in both low and high pressure systems in CNG & NGV applications.
- Valves with PEEK seat and HNBR O-ring are compatible with CNG fluid.

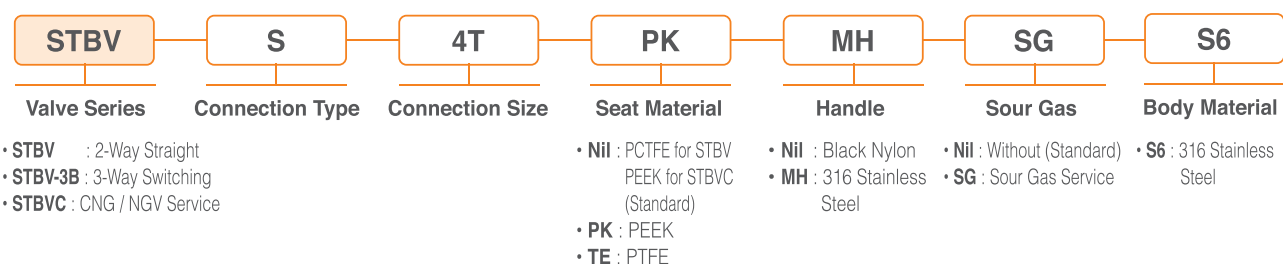
Valve Series	Certificates	ECE R110	ANSI NGV3.1-2012	ISO 15500
STBVC / STBVC-3B	CERT. No.	E4-110R-010333	126840AUT14	12684MECH103
	Classification	Class 0	P36	Manual Valve
	Temperature Range	-40 to 120°C (-40 to 248°F)	-40 to 120°C (-40 to 248°F)	-40 to 120°C (-40 to 248°F)
	Pressure Rating	260 bar	248 bar	260 bar

Testing

- The rated pressure shown above is the maximum allowable pressure to the seat. If the system requires higher pressure to test, the valve must be in open position before and during test so as not to damage the seat.
- Every valve is tested for bubble-tight leakage at both seat and stem packing with nitrogen at 1000psig (69bar).
- Seats have a maximum allowable leak rate of 0.1(SCCM).
- Optional tests are available upon request.

Ordering Information

Product



Service Kit

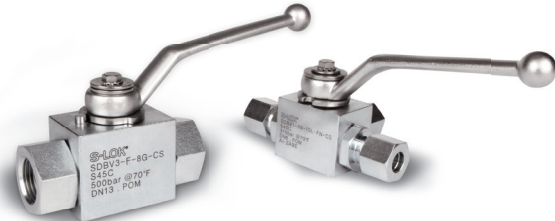
- Service kits contain components of the same materials as new components.
- To order the service kit selection of the applicable options from the designators are listed mark(*) of Material of Construction.



SDBV Series Ball Valves for DIN Standard

↗ Features

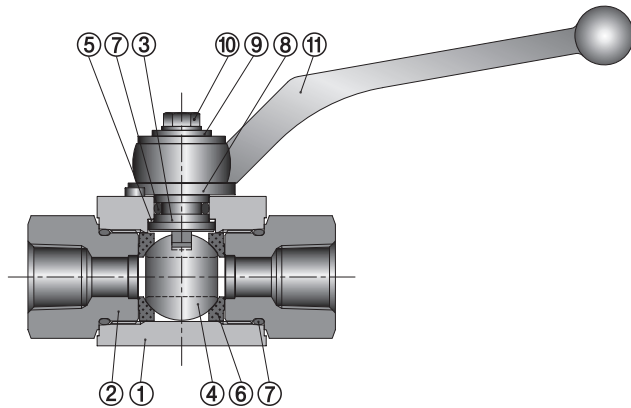
- Pressure rating up to 500bar @ 21°C.
- Temperature rating from -20°C to 100°C with POM and FKM standard.
- Conforms to DIN standard.
- Compact design with maximum orifice.
- Variety of end connections such as DIN2353 "L" & "S" series, Male/Female DIN / ISO / BSP and NPT threads.
- Handle is only available in cast stainless steel standard.
- Every valve is 100% factory tested with Nitrogen @ 1000psig (69bar).



↗ Applications

- Hydraulic fluids, Compressed air, Lubricants and Fuel oil system

↗ Materials of Construction



No	Component	Material
1	Body	SS316 / A479 or A276 DIN 17440 / 1.4401
2	End Connector	
3	Stem	
4	Ball	
5	Stem Bearing	PEEK
6	Ball Seat	POM (Optional PTFE)
7	Stem & End Seal	FKM
8	Locking Device	Stainless Steel
9	Upper Washer	Stainless Steel
10	Hex Bolt	Stainless Steel
11	Handle	A351 CF8M

↗ Temperature Rating

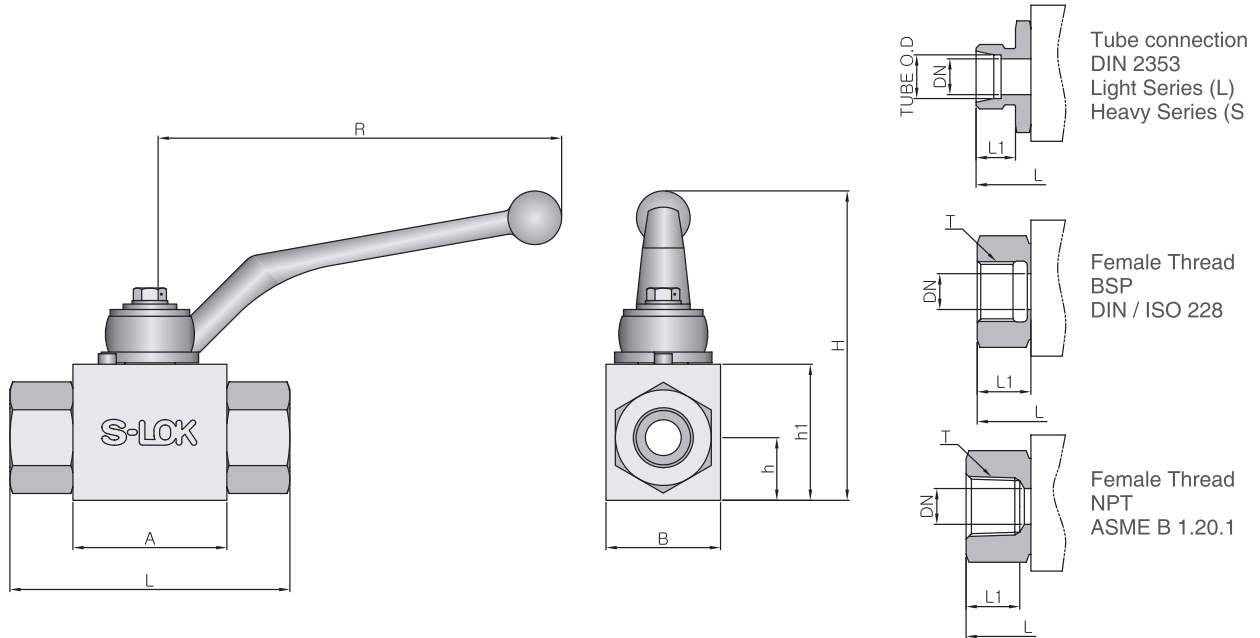
Seal Material	Temperature Range
NBR	-23 to 121°C
FKM	-23 to 200°C
EPDM	-46 to 149°C

Seat Material	Temperature Range
POM	-30 to 100°C
PTFE	-54 to 65°C

↗ Testing

- Every valve is tested for bubble-tight leakage at both seat and stem packing with nitrogen @ 1000psig (69bar).
- Seats have a maximum allowable leak rate of 0.1(SCCM).
- Hydraulic shell test is performed at 1.5 times the working pressure.

Dimensions



DIN 2353 Light (L) Tube Series

Ordering Number	DN	PB	End Connections		Dimensions (mm)								Weight (kg)
			Inlet	Outlet	L	L1	A	B	H	h	h1	R	
SDBV1	6L	4	315	6mm	67.0	10.0	40.0	26.0	82.0	13.5	33.0	115.0	0.4
	8L	6		8mm	67.0	10.0							0.4
	10L	6		10mm	74.0	11.0							0.5
SDBV2	12L	10	315	12mm	74.0	11.0	43.0	32.0	87.0	17.5	38.0	115.0	0.6
SDBV3	15L	13	315	15mm	82.0	12.0	48.0	35.0	89.0	19.0	40.0	115.0	0.7
	18L	13		18mm	82.0	12.0							0.8
SDBV4	22L	20	160	22mm	101.0	14.0	62.0	49.0	114.0	24.5	57.0	159.0	2.1
SDBV5	28L	25	160	28mm	108.0	14.0	66.2	58.0	122.0	29.5	65.0	159.0	2.3
	35L	25		35mm	112.0	16.0							2.3

DIN 2353 Heavy (S) Tube Series

Ordering Number	DN	PB	End Connections		Dimensions (mm)								Weight (kg)
			Inlet	Outlet	L	L1	A	B	H	h	h1	R	
SDBV1	8S	4	500	8mm	73.0	12.0	40.0	26.0	82.0	13.5	33.0	115.0	0.4
	10S	6		10mm	73.0	12.0							0.4
SDBV2	12S	6	500	12mm	76.0	12.0	43.0	32.0	87.0	17.5	38.0	115.0	0.5
	14S	10		14mm	80.0	14.0							0.6
SDBV3	16S	13	400	16mm	86.0	14.0	48.0	35.0	89.0	19.0	40.0	115.0	0.7
	20S	13		20mm	90.0	16.0							0.8
SDBV4	25S	20	315	25mm	109.0	18.0	62.0	49.0	114.0	24.5	57.0	159.0	2.1
SDBV5	30S	25	315	30mm	120.0	20.0	66.2	58.0	122.0	29.5	65.0	159.0	2.3
	38S			38mm	124.0	22.0							2.3

Female BSP (DIN / ISO 228)

Ordering Number		DN	PB	End Connections		Dimensions (mm)								Weight (kg)
				Inlet	Outlet	L	L1	A	B	H	h	h1	R	
SDBV1	F-2G	6	500	PF 1/8"		68.8	10.0	40.0	26.0	82.0	13.5	33.0	115.0	0.4
	F-4G			PF 1/4"		68.8	14.0							0.4
SDBV2	F-6G	10	500	PF 3/8"		71.9	14.0	43.0	32.0	87.0	17.5	38.0	115.0	0.6
SDBV3	F-8G	13	500	PF 1/2"		82.3	16.5	48.0	35.0	89.0	19.0	40.0	115.0	0.7
SDBV4	F-12G	20	315	PF 3/4"		95.4	18.0	62.0	49.0	114.0	24.5	57.0	159.0	1.6
SDBV5	F-16G	25	315	PF 1"		112.7	20.0	66.2	58.0	122.0	29.5	65.0	159.0	2.3
SDBV6	F-20G	32	315	PF 1-1/4"		120.0	22.0	68.0	75.0	165.0	37.5	82.0	260.0	4.4
SDBV7	F-24G	38	315	PF 1-1/2"		130.0	24.0	85.0	95.0	182.0	47.5	99.1	260.0	6.8
SDBV8	F-32G	50	315	PF 2"		140.0	26.0	100.0	115.0	198.0	57.5	115.2	260.0	9.5

Female NPT (ASME B 1.20.1)

Ordering Number		DN	PB	End Connections		Dimensions (mm)								Weight (kg)
				Inlet	Outlet	L	L1	A	B	H	h	h1	R	
SDBV1	F-4N	6	500	NPT 1/4"		68.8	15.0	40.0	26.0	82.0	13.5	33.0	115.0	0.4
SDBV2	F-6N	10	500	NPT 3/8"		78.0	15.0	43.0	32.0	87.0	17.5	38.0	115.0	0.7
SDBV3	F-8N	13	500	NPT 1/2"		104.0	20.5	48.0	35.0	89.0	19.0	40.0	115.0	1.0
SDBV4	F-12N	20	315	NPT 3/4"		102.0	21.5	62.0	49.0	114.0	24.5	57.0	159.0	1.8
SDBV5	F-16N	25	315	NPT 1"		119.0	25.4	66.2	58.0	122.0	29.5	65.0	159.0	2.5
SDBV6	F-20N	32	315	NPT 1-1/4"		120.0	27.0	68.0	75.0	165.0	37.5	82.0	260.0	4.4
SDBV7	F-24N	38	315	NPT 1-1/2"		130.0	27.0	85.0	95.0	182.0	47.5	99.1	260.0	6.8
SDBV8	F-32N	50	315	NPT 2"		162.0	31.0	100.0	115.0	198.0	57.5	115.2	260.0	11.5

Ordering Information

