

SG Series

- 1/4" - 4" Sizes
- CFOS Cleaned and Bagged
- Integrated Valve Assemblies
- Standard Spool Assemblies & Custom Spool Lengths (Customer Specified In Feet/Meters)
- 100% Helium Leak Tested



Evans SG Series

The 304L SG Series valves offer a lower cost option vs. BA Series 316L stainless models. ASTM A269 tube stubs can be orbitally welded or used in Presslok installations.

Evans Manifold Assemblies

Creating Value

- Pulled Tee Design Eliminates Over 70% of Field Welds
- Helium Leak Tested, 1×10^{-8} scc/sec
- Proven Automated Weld Technology, Minimized Deadleg
- Cleaned, Assembled, & Packaged in Cleanroom Environment
- 304L SS material of construction
- Ideal Solution for Fast Track Projects
- Lowest Installed Cost



Features

Lower Installed Cost

- Reduced number of welds
- Elimination of fittings in systems (tee's, crosses, etc.)
- No valve disassembly required for welding
- Pre-fabricated, leak tested spools

Quality Production of Assembly in Controlled Environment

- Reduced tool down time
- Reduced field failure
- Fast track line certification and qualification
- Higher quality, lower installed cost

Spool Manufacturing

- Standard spool assemblies
- Special overall lengths / configurations (Customer specified)
- Wide variety of end connections

Full Selection of Ball Valves

- Sizes from 1/4" to 4"
- Integrated valves with heat traceable 304L SS tube extensions

Locking Handles

- Standard locking lever, 1/4" - 4"

Testing of Valve Assemblies

- 1/4" - 4" valves leak tested to 1×10^{-8} scc/sec

High Purity Cleaning & Packaging

- All Evans High Purity Ball Valves are assembled & tested in a cleanroom
- Visual inspection of all wetted surfaces
- Final DI water rinse and oven dried
- Polyethylene bag packaging with Mylar lined
- polyethylene cap

Specifications

Stainless Steel Body Specifications (SS Series)

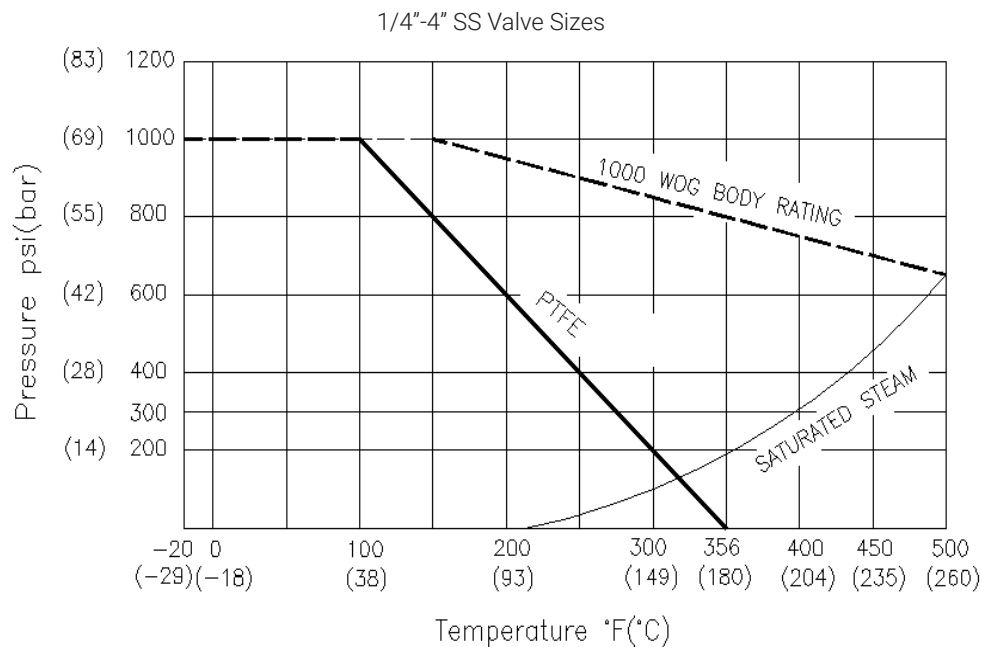
Pressure Rating: Vacuum to 1000 psig (69 bar) size 1/4" - 4"

General Tube/Pipe Specifications

Standard 304L/316L tubing is mechanically polished on the ID to 25 RA μ m. Sulfur content is controlled to .005 - .017 percent. Tube ends are square cut, faced and designed for orbital welding.

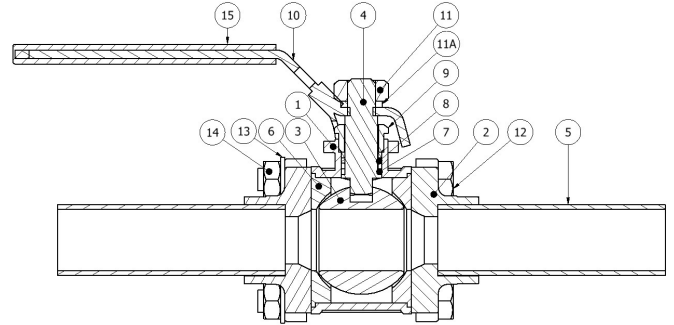
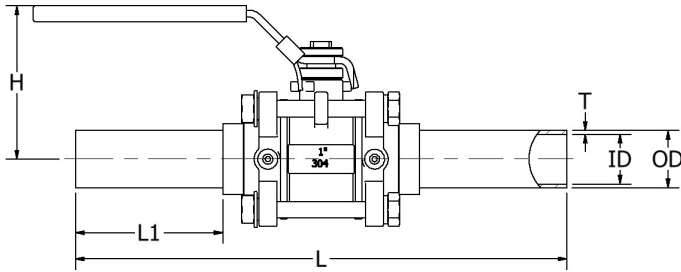
SCH10S S.S. pipe stubs supplied either mechanically polished or pickled/passivated to 40 RA μ m

Flow Specifications (Cv)		
SIZE	Cv	Kv
1/4"	1.1	1.0
3/8"	2.8	2.4
1/2"	19	16
3/4"	35	30
1"	50	43
1.25"	110	95
1.5"	200	173
2"	350	303
2.5"	650	562
3"	1100	952
4"	2100	1817



CE/PED Pressure Equipment Directive 2014/68/EU	
Valve Size	Certification Type
1/4" - 1"	SEP (Sound Engineering Practice)
1-1/2" - 3"	Category I, Group 1 & 2 Gas, Module A
4"	Category II, Group 1 & 2 Gas, Module H

Tube Sized Valve Information



Size	ØID	ØOD	T	L	L1	H
	IN (mm)	IN (mm)	IN (mm)	IN (mm)	IN (mm)	IN (mm)
1/4"	0.18 (4.57)	0.25 (6.35)	0.035 (0.89)	3.31 (84.0)	0.62 (15.7)	1.93 (49.0)
3/8"	0.305 (7.75)	0.375 (9.53)	0.035 (0.89)	3.31 (84.0)	0.62 (15.7)	1.93 (49.0)
1/2"	0.402 (10.21)	0.50 (12.70)	0.049 (1.24)	6.71 (170.3)	1.94 (49.3)	2.36 (60.0)
3/4"	0.62 (15.75)	0.75 (19.05)	0.065 (1.650)	7.64 (194.1)	2.24 (56.8)	2.58 (65.6)
1"	0.870 (22.10)	1.00 (25.40)	0.065 (1.650)	8.60 (218.4)	2.58 (65.5)	2.68 (68.2)
1-1/2"	1.370 (34.80)	1.50 (38.10)	0.065 (1.650)	10.10 (256.7)	2.75 (69.9)	3.26 (82.9)
2"	1.870 (47.50)	2.00 (50.80)	0.065 (1.650)	12.95 (329.0)	3.91 (99.3)	3.57 (90.7)
2-1/2"	2.370 (60.33)	2.50 (63.50)	0.065 (1.650)	15.01 (381.3)	3.75 (95.3)	5.06 (128.5)
3"	2.870 (72.90)	3.00 (76.20)	0.065 (1.650)	16.36 (415.5)	4.24 (107.7)	5.55 (140.8)
4"	3.834 (97.38)	4.00 (101.6)	0.083 (2.11)	18.40 (467.4)	4.78 (121.3)	6.50 (165.1)

Item	Description	Material	Qty.
1	Body	SS304	1
2	End Cap	CF8/CF3	2
3	Ball	SS304	1
4	Stem	SS304	1
5	Tube Extension	ASTM A269 304L	2
6	Ball Seat	RTFE	2
7	Thrust Washer	RTFE	1
8	Stem Packing	RTFE	1
9	Stem Nut	SS304	1
10	Handle	SS304	1
11	Handle Nut	SS304	1
11A	Handle Washer	SS304	1
12	Body Bolt	SS304	4
13	Bolt Washer	SS304	4
14	Bolt Nut	SS304	4
15	Handle Sleeve	VINYL	1

Part Number Matrix

EXAMPLE:

SG - 08 - 24 DHC W C 08 - XP
1 - 2 - 3 4 5 6 7 - 8 9

1/2" stainless steel, double horizontal cross with a 1-1/2" 304L stainless steel tube main, a 1/2" stainless steel compression branch and a single, downstream compression purge port

1. Series (Body Material) Designator

SG - 304 Stainless Steel (1/4"-4")

2. Valve Size

04 - 1/4"	32 - 2"
06 - 3/8"	40 - 2-1/2"
08 - 1/2"	48 - 3"
10 - 5/8"	64 - 4"
12 - 3/4"	
16 - 1"	(For valves larger than 4", consult Evans BA Series catalog)
24 - 1-1/2"	

3. Main Size Designator

04 - 1/4"	32 - 2"
06 - 3/8"	40 - 2-1/2"
08 - 1/2"	48 - 3"
10 - 5/8"	64 - 4"
12 - 3/4"	80 - 5"
16 - 1"	96 - 6"
24 - 1-1/2"	128 - 8"

4. Valve Assembly Pattern Designator

STR - Straight 2-way
 SHC - Single Horizontal Cross
 SHC2 - Single Horizontal Cross (2-valves)
 DHC - Double Horizontal Cross
 DHT - Double Horizontal Tee
 DVT - Double Vertical Tee

* PED/CE Marking of valves is not standard and must be specified at time of order

5. Inlet Connection Designator

6. Outlet Connection Designator
 (Skip this designator for STR (straight 2-way valves) if outlet is same as inlet connection)

C - SS Compression Fitting
 D - Plugged SS Compression Fitting
 E - Pipe Socket Weld (Up to 2")
 F - Female NPT (Up to 2")
 G - 304L Sch. 10S Pipe Extension
 W - 304L SS Tube Extension
 U - 150# ANSI Pipe Flange

7. Outlet Connection Size

(Skip this designator for 2-way valves)

04 - 1/4"	16 - 1"	48 - 3"
06 - 3/8"	24 - 1-1/2"	64 - 4"
08 - 1/2"	32 - 2"	
12 - 3/4"	40 - 2-1/2"	

8. Purge Port Designator (Upstream/Downstream)

(1/4" purge port: 1/4" - 2", 1/2" purge port: 2-1/2"-14"
 3/4" purge port: 16"-20", 1" purge port: 24")

X - No Purge Port
 V - Purge Valve (capped compression end connection)
 VZ - Purge Valve (capped VCR end connection)
 P - Capped Compression
 Z - Capped Male Face Seal

9. Optional Colored Handle Designator

(Leave Blank for Standard Blue Handle)

W - White
 G - Green
 Y - Yellow

Configurations

Straight 2-Way



Single Horizontal Cross



Single Horizontal Cross 2- Valve



Double Horizontal Tee



Double Vertical Tee

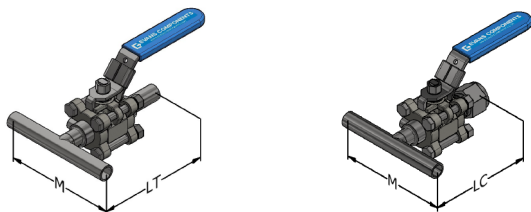


Double Horizontal Cross



Integrated Valve Dimensions

Single Horizontal Cross (SHC)

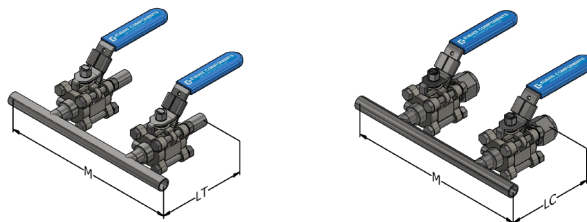


SIZE	M in	M mm	LT in	LT mm	LC in	LC mm
1/2" X 1/4"	3.75	95.3	C/F	C/F	C/F	C/F
1/2" X 1/2"	3.75	95.3	C/F	C/F	C/F	C/F
3/4" X 1/4"	4.00	101.6	C/F	C/F	C/F	C/F
3/4" X 1/2"	4.00	101.6	C/F	C/F	C/F	C/F
3/4" X 3/4"	4.00	101.6	C/F	C/F	C/F	C/F
1" X 1/2"	7.00	177.8	C/F	C/F	C/F	C/F
1" X 3/4"	7.00	177.8	C/F	C/F	C/F	C/F
1" X 1"	7.00	177.8	C/F	C/F	C/F	C/F
1-1/2" X 1/2"	7.00	177.8	C/F	C/F	C/F	C/F
1-1/2" X 3/4"	7.00	177.8	C/F	C/F	C/F	C/F
1-1/2" X 1"	7.00	177.8	C/F	C/F	C/F	C/F
1-1/2" X 1-1/2"	7.00	177.8	C/F	C/F	C/F	C/F
2" X 1/2"	5.75	146.1	C/F	C/F	C/F	C/F
2" X 3/4"	5.75	146.1	C/F	C/F	C/F	C/F
2" X 1"	9.00	228.6	C/F	C/F	C/F	C/F
2" X 1-1/2"	9.00	228.6	C/F	C/F	C/F	C/F
2" X 2"	9.00	228.6	C/F	C/F	C/F	C/F
3" X 1/2"	6.75	171.5	C/F	C/F	C/F	C/F
3" X 3/4"	6.75	171.5	C/F	C/F	C/F	C/F
3" X 1"	9.00	228.6	C/F	C/F	C/F	C/F
3" X 2"	9.00	228.6	C/F	C/F	C/F	C/F
4" X 1"	8.25	209.6	C/F	C/F	C/F	C/F
4" X 1-1/2"	8.25	209.6	C/F	C/F	C/F	C/F
4" X 2"	8.25	209.6	C/F	C/F	C/F	C/F
4" X 3"	14.00	355.6	C/F	C/F	N/A	N/A
6" X 1"	11.25	285.8	C/F	C/F	C/F	C/F
6" X 1-1/2"	11.25	285.8	C/F	C/F	C/F	C/F
6" X 2"	11.25	285.8	C/F	C/F	C/F	C/F
6" X 3"	14.00	355.6	C/F	C/F	N/A	N/A
6" X 4"	14.00	355.6	C/F	C/F	N/A	N/A

Dimensions are +/- 0.2"

*C/F - Consult Factory

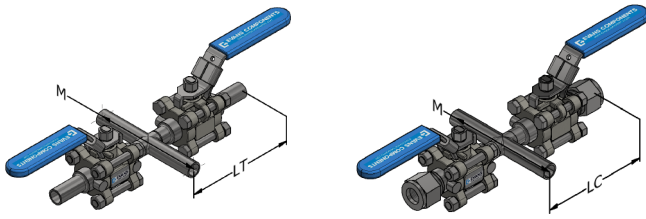
Single Horizontal Cross 2-Valve (SHC2)



SIZE	M in	M mm	LT in	LT mm	LC in	LC mm
1/2" X 1/4"	19.00	482.6	C/F	C/F	C/F	C/F
1/2" X 1/2"	19.00	482.6	C/F	C/F	C/F	C/F
3/4" X 1/4"	19.00	482.6	C/F	C/F	C/F	C/F
3/4" X 1/2"	19.00	482.6	C/F	C/F	C/F	C/F
3/4" X 3/4"	19.00	482.6	C/F	C/F	C/F	C/F
1" X 1/2"	19.00	482.6	C/F	C/F	C/F	C/F
1" X 3/4"	19.00	482.6	C/F	C/F	C/F	C/F
1" X 1"	19.00	482.6	C/F	C/F	C/F	C/F
1-1/2" X 1/2"	19.00	482.6	C/F	C/F	C/F	C/F
1-1/2" X 3/4"	19.00	482.6	C/F	C/F	C/F	C/F
1-1/2" X 1"	19.00	482.6	C/F	C/F	C/F	C/F
1-1/2" X 1-1/2"	C/F	C/F	C/F	C/F	C/F	C/F
2" X 1/2"	19.00	482.6	C/F	C/F	C/F	C/F
2" X 3/4"	19.00	482.6	C/F	C/F	C/F	C/F
2" X 1"	19.00	482.6	C/F	C/F	C/F	C/F
2" X 1-1/2"	C/F	C/F	C/F	C/F	C/F	C/F
2" X 2"	C/F	C/F	C/F	C/F	C/F	C/F
3" X 1/2"	19.00	482.6	C/F	C/F	C/F	C/F
3" X 3/4"	19.00	482.6	C/F	C/F	C/F	C/F
3" X 1"	19.00	482.6	C/F	C/F	C/F	C/F
3" X 2"	C/F	C/F	C/F	C/F	C/F	C/F
4" X 1"	19.00	482.6	C/F	C/F	C/F	C/F
4" X 1-1/2"	C/F	C/F	C/F	C/F	C/F	C/F
4" X 2"	C/F	C/F	C/F	C/F	C/F	C/F
4" X 3"	C/F	C/F	C/F	C/F	N/A	N/A
6" X 1"	19.00	482.6	C/F	C/F	C/F	C/F
6" X 1-1/2"	C/F	C/F	C/F	C/F	C/F	C/F
6" X 2"	C/F	C/F	C/F	C/F	C/F	C/F
6" X 3"	C/F	C/F	C/F	C/F	N/A	N/A
6" X 4"	C/F	C/F	C/F	C/F	N/A	N/A

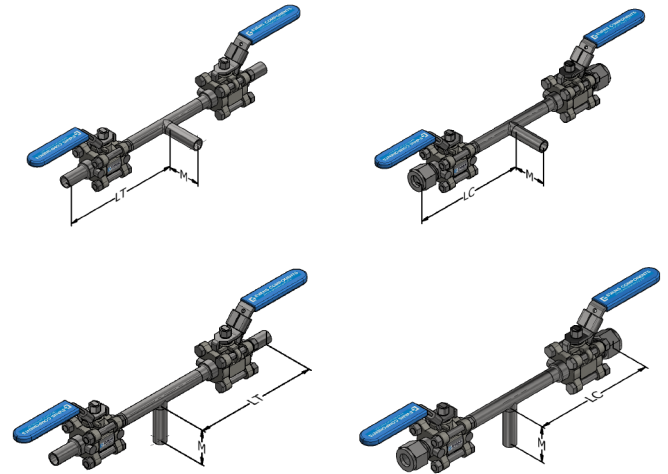
Integrated Valve Dimensions

Double Horizontal Cross (DHC)



SIZE	M in	M mm	LT in	LT mm	LC in	LC mm
1/2" X 1/4"	3.75	95.3	C/F	C/F	C/F	C/F
1/2" X 1/2"	3.75	95.3	C/F	C/F	C/F	C/F
3/4" X 1/4"	4.00	101.6	C/F	C/F	C/F	C/F
3/4" X 1/2"	4.00	101.6	C/F	C/F	C/F	C/F
3/4" X 3/4"	4.00	101.6	C/F	C/F	C/F	C/F
1" X 1/2"	7.00	177.8	C/F	C/F	C/F	C/F
1" X 3/4"	7.00	177.8	C/F	C/F	C/F	C/F
1" X 1"	7.00	177.8	C/F	C/F	C/F	C/F
1-1/2" X 1/2"	7.00	177.8	C/F	C/F	C/F	C/F
1-1/2" X 3/4"	7.00	177.8	C/F	C/F	C/F	C/F
1-1/2" X 1"	7.00	177.8	C/F	C/F	C/F	C/F
1-1/2" X 1-1/2"	7.00	177.8	C/F	C/F	C/F	C/F
2" X 1/2"	5.75	146.1	C/F	C/F	C/F	C/F
2" X 3/4"	5.75	146.1	C/F	C/F	C/F	C/F
2" X 1"	9.00	228.6	C/F	C/F	C/F	C/F
2" X 1-1/2"	9.00	228.6	C/F	C/F	C/F	C/F
2" X 2"	9.00	228.6	C/F	C/F	C/F	C/F
3" X 1/2"	6.75	171.5	C/F	C/F	C/F	C/F
3" X 3/4"	6.75	171.5	C/F	C/F	C/F	C/F
3" X 1"	9.00	228.6	C/F	C/F	C/F	C/F
3" X 2"	9.00	228.6	C/F	C/F	C/F	C/F
4" X 1"	8.25	209.6	C/F	C/F	C/F	C/F
4" X 1-1/2"	8.25	209.6	C/F	C/F	C/F	C/F
4" X 2"	8.25	209.6	C/F	C/F	C/F	C/F
4" X 3"	14.00	355.6	C/F	C/F	C/F	C/F
6" X 1"	11.25	285.8	C/F	C/F	C/F	C/F
6" X 1-1/2"	11.25	285.8	C/F	C/F	C/F	C/F
6" X 2"	11.25	285.8	C/F	C/F	C/F	C/F
6" X 3"	14.00	355.6	C/F	C/F	C/F	C/F
6" X 4"	14.00	355.6	C/F	C/F	C/F	C/F

Double Horizontal/Vertical Tee (DHT/DVT)



SIZE	M in	M mm	LT in	LT mm	LC in	LC mm
1/2" X 1/2"	C/F	C/F	C/F	C/F	C/F	C/F
3/4" X 1/2"	C/F	C/F	C/F	C/F	C/F	C/F
3/4" X 3/4"	C/F	C/F	C/F	C/F	C/F	C/F
1" X 1/2"	C/F	C/F	C/F	C/F	C/F	C/F
1" X 3/4"	C/F	C/F	C/F	C/F	C/F	C/F
1" X 1"	C/F	C/F	C/F	C/F	C/F	C/F
1-1/2" X 1/2"	C/F	C/F	C/F	C/F	C/F	C/F
1-1/2" X 3/4"	C/F	C/F	C/F	C/F	C/F	C/F
1-1/2" X 1-1/2"	C/F	C/F	C/F	C/F	C/F	C/F
2" X 1/2"	C/F	C/F	C/F	C/F	C/F	C/F
2" X 3/4"	C/F	C/F	C/F	C/F	C/F	C/F
2" X 1"	C/F	C/F	C/F	C/F	C/F	C/F
2" X 2"	C/F	C/F	C/F	C/F	C/F	C/F
3" X 1/2"	C/F	C/F	C/F	C/F	C/F	C/F
3" X 3/4"	C/F	C/F	C/F	C/F	C/F	C/F
3" X 1"	C/F	C/F	C/F	C/F	C/F	C/F
3" X 2"	C/F	C/F	C/F	C/F	C/F	C/F
4" X 2"	C/F	C/F	C/F	C/F	C/F	C/F

Dimensions are +/- 0.2"
*C/F - Consult Factory

Learn more about related Evans Products

EVANS COMPONENTS | Evans Ball Valves
High Purity 304/316 Stainless



BA-SG Series

- 1/4" - 24" and (15A-489A) Sizes
- CFOS Cleaned and Bagged
- Integrated Valve Assemblies
- Standard Spool Assemblies & Custom Spool Lengths (Customer Specified In Feet)
- 100% Helium Leak Tested



EVANS COMPONENTS | Evans PLT Series Presslok[®] Stainless Tube Fittings/Valves
Tube Size Range: 1/2" thru 4"



PRESSLOK[®] GO/NO-GO GAUGES

If Presslok[®] Go/No-Go Gauge slips over-pressed section of fitting, press is acceptable. If gauge does not slip over pressed section, press is unacceptable.



EVANS COMPONENTS | Evans SS-G & GXL Series
Integrated Stainless Gas Sticks



G & GXL Series Features

- 316SS CF8M Body Construction
- CFOS Cleaned and packaged in cleanroom
- 2-PC Design G-series allows for isolation and removal of regulator



www.evanscomponents.com

7606 SW Bridgeport Road
Portland, Oregon 97224

Office 971.249.1600

Fax 971.249.1601