

Evans 80 Series

Mini Ball Valves





Features

- Bi-directional flow (fully opened or fully closed)
- Directional handle indicating ON/OFF position
- Low operating torque
- Encapsulated low dead space seat
- One piece body to eliminate multiple seal points
- Unique top-loaded capsule designed for easy seat packing adjustment while valve is in line
- Assembled utilizing Evans proprietary 111 High Purity Lubricant. Oxygen compatible, contains no hydrocarbons (oil), low vapor pressure rated to 1×10^{-7}
- CFOS cleaned, cleanroom packaged

VALUE SERIES	PRESSURE RATING	TEMPERATURE RATING "80"
82	2500 PSIG (172 Bar)	50°F to 150°F (10°C to 65°C)
83	3000 PSIG (206 Bar)	
84, 85	2500 PSIG (172 Bar)	

Item	Description	Valve Body/Materials
		Material Grades / ASTM Specifications
		316
1	Handles	ABS
2	Packing Bolt	316/A276
3	Upper Gland	316/A276
4	Bushing	PTFE/D1710 type 1
5	Lower Gland	316/A276
6	Upper Packing	PTFE/D1710 type 1,
7	Ball Stem	316/A276
8	Side Rings	316
9	Slide Discs	(Fluorocarbon coating)
10	Lower Packing	PTFE/D1710 type 1,
11	Panel Nut	316/A276
12	Body	316/A276

Materials of Construction

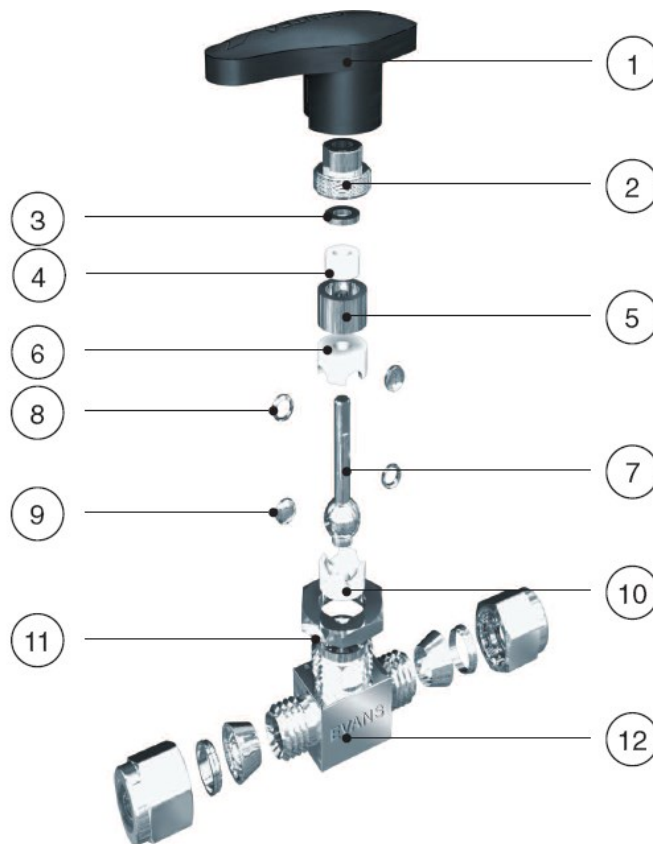
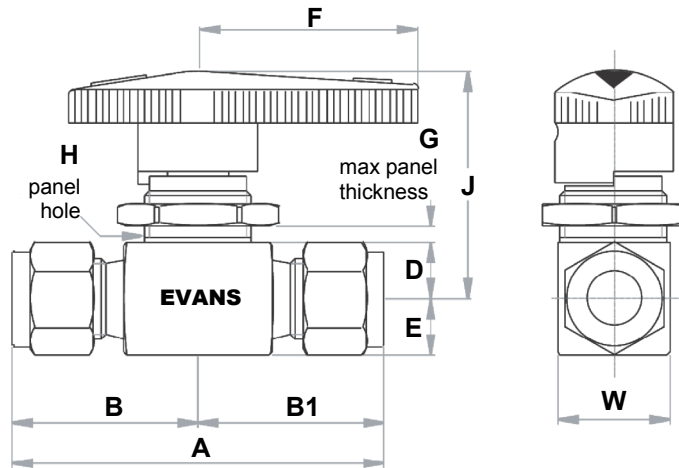


Table of Dimensions



Straight Pattern

Flow Coefficient (C _v)	Pressure Drop to Atmosphere (Δp), psi (bar)					
	10 (0.68)	50 (3.40)	100 (6.80)	10 (0.68)	50 (3.40)	100 (6.80)
	Air Flow std ft ³ /min (std L/min)			Water Flow U.S. gal/min (std L/min)		
0.06	0.7 (19)	1.8 (50)	3.2 (90)	0.2 (0.7)	0.4 (1.5)	0.6 (2.2)
0.08	0.9 (25)	2.4 (67)	4.3 (120)	0.3 (1.1)	0.6 (2.2)	0.8 (3.0)
0.20	2.3 (65)	6.0 (160)	11 (310)	0.6 (2.2)	1.4 (5.2)	2.0 (7.5)
0.60	6.8 (190)	18 (500)	32 (900)	1.9 (7.1)	4.2 (15)	6.0 (22)
0.90	10 (280)	27 (760)	48 (1,300)	2.8 (10)	6.4 (24)	9.0 (34)
1.50	17 (480)	45 (1,200)	80 (2,200)	4.7 (17)	11 (41)	15 (56)
2.40	27 (760)	72 (2,000)	120 (3,300)	7.6 (28)	17 (64)	24 (90)
2.60	29 (820)	78 (2,200)	140 (3,900)	8.2 (31)	18 (68)	26 (98)
6.00	68 (1,900)	180 (5,000)	320 (9,000)	19 (71)	42 (150)	60 (220)
6.30	71 (2,000)	190 (5,300)	330 (9,300)	20 (75)	45 (170)	63 (230)
6.40	72 (2,000)	190 (5,300)	340 (9,600)	20 (75)	45 (170)	64 (240)
12.0	130 (3,600)	360 (10,000)	640 (18,000)	38 (140)	85 (320)	120 (450)

End Connections		Basic Ordering Number	C _v	Orifice		Dimensions, in. (mm)									
Inlet/Outlet	Size			in.	mm	A	B	B ₁	D	E	F	G	H	J	W
Fractional Compression Tube Fittings	1/4	SS-82S4	0.6	0.125	3.2	2.21 (56.1)	1.10 (27.9)	0.34 (8.6)	0.28 (7.1)	1.12 (28.4)	1/4 (6.4)	19/32 (15.1)	1.36 (34.5)	0.58 (14.7)	
		SS-83S4	2.4	0.187	4.8	2.36 (59.9)	1.18 (30.0)								0.44 (11.2)
	3/8	SS-83S6	1.5			2.58 (65.5)	1.29 (32.8)	0.56 (14.2)	2.00 (50.8)	3/8 (9.5)	1-1/8 (28.6)	2.07 (52.6)	1.12 (28.4)		
		SS-84S6	6.0	0.281	7.1	3.05 (77.5)	1.52 (38.6)							0.69 (17.5)	3.00 (76.2)
	1/2	SS-85S8	12	0.406	10.3	3.92 (99.6)	1.96 (49.8)								
3/4	SS-85S12	6.4	0.406	10.3	3.92 (99.6)	1.96 (49.8)									
Metric Compression Tube Fittings	3 mm	SS-81S3MM	0.2	0.093	2.4	2.01 (51.1)	1.01 (25.7)	0.34 (8.6)	0.28 (7.1)	1.12 (28.4)	1/4 (6.4)	19/32 (15.1)	1.36 (34.5)	0.58 (14.7)	
	6 mm	SS-82S6MM	0.6	0.125	3.2	2.21 (56.1)	1.10 (27.9)								0.44 (11.2)
		SS-83S6MM	2.4	0.187	4.8	2.39 (60.7)	1.20 (30.5)								
	8 mm	SS-83S8MM	1.5			0.281	7.1	2.46 (62.5)	1.23 (31.2)	0.56 (14.2)	2.00 (50.8)	3/8 (9.5)	1-1/8 (28.6)	2.07 (52.6)	1.12 (28.4)
	10 mm	SS-84S10MM	6.0	0.281	7.1	3.07 (78.0)	1.53 (38.9)	0.69 (17.5)	3.00 (76.2)						
12 mm	SS-85S12MM	12	0.406	10.3	3.92 (99.6)	1.96 (49.8)									
Female NPT	1/4	SS-83F4	0.9	0.187	4.8	2.06 (52.3)	1.03 (26.2)	0.44 (11.2)	0.38 (9.7)	1.53 (38.9)	3/16 (4.8)	25/32 (19.8)	1.56 (39.6)	0.78 (19.8)	
	3/8	SS-84F6	2.6	0.281	7.1	2.50 (63.5)	1.25 (31.8)								0.56 (14.2)
	1/2	SS-85F8	6.3	0.406	10.3	3.12 (79.2)	1.56 (39.6)	0.69 (17.5)	3.00 (76.2)	1-1/2 (38.1)	2.43 (61.7)	1.50 (38.1)			
Male Face Seal Fittings	1/4	SS-83VM4	2.4	0.187	4.8	2.06 (52.3)	1.03 (26.2)						0.44 (11.2)	0.38 (9.7)	1.53 (38.9)
	1/2	SS-85VM8	12	0.406	10.3	3.12 (79.2)	1.56 (39.6)	0.69 (17.5)	3.00 (76.2)	3/8 (9.5)	1-1/2 (38.1)	2.43 (61.7)			

Evans G-Series

Integrated Gas Sticks



Evans Ball Valves

High Purity Stainless



BA Series

- 1/4" - 12" and 15A-300A Sizes
- CFOS Cleaned and Bagged
- Integrated Valve Assemblies
- Spool Assemblies up to 20' (6m) Lengths
- 100% Helium Leak Tested



Evans Ball Valves

Solar Grade Stainless



SG Series

- 1/4" - 12" and 15A-300A Sizes
- CFOS Cleaned and Bagged
- Integrated Valve Assemblies
- Spool Assemblies up to 20' (6m) Lengths
- 100% Helium Leak Tested
- Integrated Pressure Gauge for Tool Hook-up



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NOTE: Product availability and specifications contained herein are subject to change without notice. Consult local distributor or factory for potential revisions.