

Manual Ball Valves

for gas and other applications

Model BV602: 3/8", 1/2", 3/4" NPT

Model BV250: 1/4", 3/8", 1/2", 3/4", 1",
1 1/4", 1 1/2", 2", 2 1/2", 3", 4" NPT

Ball valves from Maxitrol for gas, water, oil, steam and other applications have a strong body of forged brass, female NPT inlet and outlet, hard chrome plated ball, and anticorrosion Dacromet treated handle.

BV602 models contain seats of Buna N, and are of one-piece construction. BV250 models contain seats of PTFE (Teflon®), and are of two-piece construction. Each of the two standard models is equipped with a different lever style handle (see reverse).

A Self Locking Nut improves reliability between the stem and lever by providing additional stability against vibrations. In addition to the seal created by the O-Ring, a PTFE anti-thrust washer seals against the shoulder of the valve.

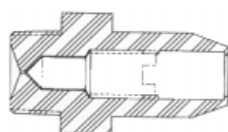
The valves also feature innovative designs of the ball and seat.

The hollow ball design is based on R&D lab work and years of field experience. Manufacture of the hollow ball requires a technical level not found in most substitutes. Heavier is not necessarily better, in fact the lighter ball decreases wear associated with on-off turning action. Typically the greatest friction loss takes place at the point of highest gravitational force. The lighter hollow ball increases the life of the valve seats from 10% to 20% more than with a solid ball.

The valves are manufactured with a unique new seat shape to reduce friction during opening and closing. Compared with other seat shapes the maneuver torque is reduced 20% to 40%.

S-model valves have side pressure taps (602S-44 shown).

Pressure Tap Connector Available



BV602 shown,
see reverse for model BV250



Certifications for BV602 models (one-piece body)

- (1/2" and 3/4") UL Listed 757X (water)
- (1/2" and 3/4") Complies with CSA requirement 3.88 for 2 psig
- CSA Certified in compliance with Z21.15

Certifications for BV250 models (two-piece body)

- CSA Certified Tamper Resistant construction
- CSA Verified for ambient temperature range from -40° to 300°F
- (2 1/2" and 3") CSA Certified in compliance with Z21.15
- (1/2", 3/4", 1", 1 1/4", 1 1/2", 2") CSA certified to requirement 3.88 for 2 and 5 psig
- (1/2", 3/4", 1") CSA Certified under Certificate 633-3A, following Standard ANSI B.16.33-1981 for gas at 125 psi
- (1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2") NFPA 58-UL 250 psi
- (1/2", 3/4", 1", 1 1/4", 1 1/2", 2") UL 258 for 175 psi
- (1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2") UL Listed LP gas shut-off valves - Standard YSTD under Listing 44R8 for 400 psig
- UL Listed:
 - Gas shut-off valves (UL Standard YRPV)
 - Compressed gas shut-off valves (UL Standard YQNZ)
 - Manual valves (UL Standard MHKZ)
- for the following fluid service:
 - natural and manufactured gas
 - fuel oil No.1-6 (260°F)
 - air
 - acetylene
 - nitrogen
 - carbon dioxide
 - inert gases
- (1/2", 3/4", 1", 1 1/4", 1 1/2", 2") FM approved for sprinkler systems (Approval No. J.I. ON7A5.AH)
- (3/8", 1/2", 3/4", 1") CSA approved
- (All sizes) Rating of 150 WSP
 - (1/4", 3/8", 1/2", 3/4",) 600 WOG
 - (1", 1 1/4", 1 1/2", 2") 500 WOG
 - (2 1/2", 3", 4") 400 WOG
- Other international approvals include WRC in the U.K., VA in Denmark, IAA in Korea, KFT in Hungary, SVGW in Switzerland, and conformity to the new proposed European standard prEN 331
- S Model Side tap is 1/8" NPT

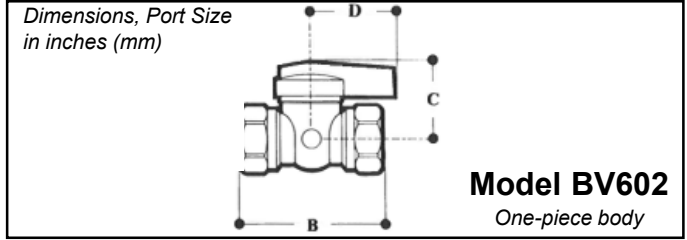
No. PF10 - Pressure tap connector installed as part of the control. It is a hose fitting incorporating a captured sealing means for testing inlet and outlet pressures. This eliminates the need for a special barb fitting.

Capacity, Pressure Drop

Model	Size	Capacity CFH (m ³ /h) 0.64 sp. gr. gas	
		ΔP	
		.3" w.c.	1" w.c.
BV250T-22	1/4"	117 (3.31)	214 (6.06)
BV250-33	3/8"	183.5 (5.20)	335 (9.49)
BV602-33	3/8"	136 (3.85)	249 (7.05)
BV250-44	1/2"	296.5 (8.40)	541.3 (15.33)
BV602-44 ** or S-44	1/2"	151 (4.28)	275 (7.79)
BV250-66	3/4"	682.4 (19.32)	1245.9 (35.28)
BV602-66 ** or S-66	3/4"	405 (11.47)	740 (20.95)
BV250-88 ** or 602S-88	1"	834 (23.62)	1523 (43.13)
BV250-1010	1 1/4"	1278 (36.19)	2334 (66.09)
BV250-1212	1 1/2"	2605 (73.77)	4756 (134.68)
BV250-1616	2"	3562 (100.87)	6503.7 (184.17)
BV250-2020	2 1/2"	7947 (225.04)	14508.7 (410.85)
BV250-2424	3"	10296 (291.56)	18797.5 (532.30)
BV250-2424	4"		

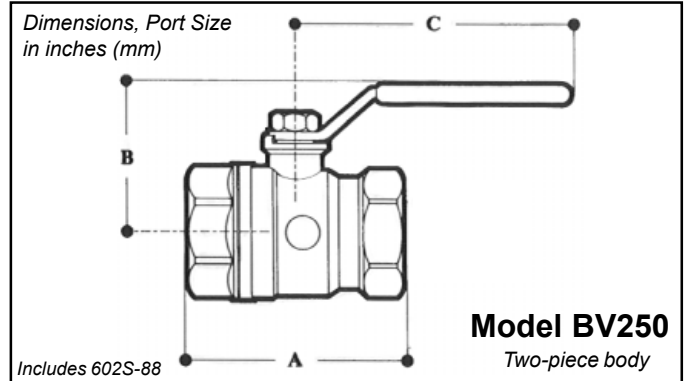


Dimensions, Port Size, Cv Factor



Model	Size	Port	Cv	B	C	B
BV602-33	3/8"	0.4" (10)	5.95	2.02" (51.3)	1.69" (42.9)	1.41" (35.8)
BV602-44 ** or S-44	1/2"	0.4" (10)	6.26	2.35" (59.7)	1.69" (42.9)	1.41" (35.8)
BV602-66 ** or S-66	3/8"	0.6" (15)	14.1	2.59" (65.8)	1.69" (42.9)	1.41" (35.8)

** S-models have side pressure taps (602S-44 shown)
Widths: 602S-44 = 1.57", 602S-66 = 1.78", 602S-88 = 2.09"

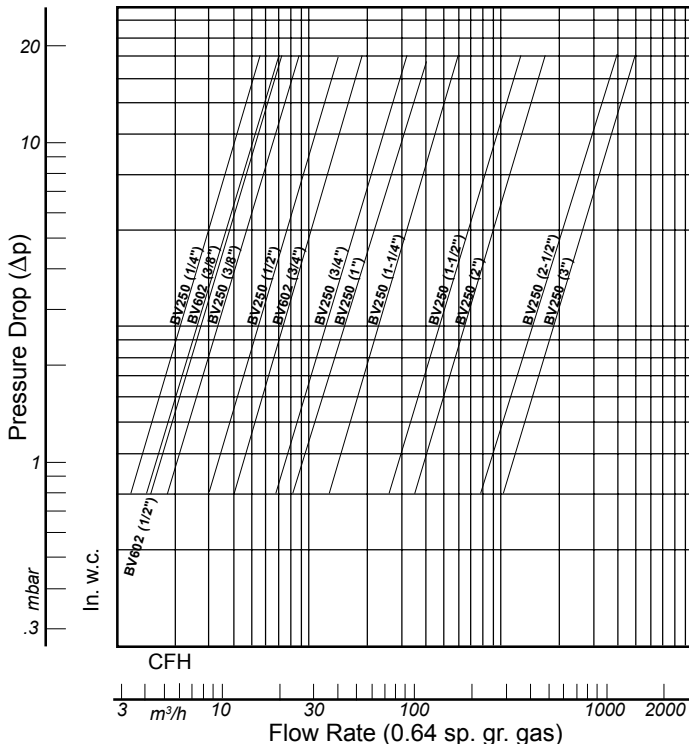


Model	Size	Port	Cv	A	B	C
BV250T-22*	1/4"	0.3" (8)	7.68	1.61" (40.89)	0.99" (25.15)	*
BV250-33	3/8"	0.4" (10)	7.79	1.77" (44.96)	1.28" (32.51)	3.07" (77.98)
BV250-44	1/2"	0.5" (13)	11.9	2.08" (52.83)	1.42" (36.07)	3.07" (77.98)
BV250-66	3/4"	0.7" (18)	21.4	2.35" (59.69)	1.87" (47.50)	3.78" (96.01)
BV250-88 ** or 602S-88	1"	0.9" (22)	42.2	2.91" (73.91)	2.02" (51.31)	3.78" (96.01)
BV250-1010	1-1/4"	1.1" (28)	85.5	3.28" (83.31)	2.22" (56.39)	3.78" (96.01)
BV250-1212	1-1/2"	1.4" (35)	122.2	3.72" (94.49)	2.78" (70.61)	5.43" (137.92)
BV250-1616	2"	1.8" (45)	184	4.28" (108.71)	3.09" (78.49)	4.43" (112.52)
BV250-2020	2-1/2"	2.3" (58)	279.3	5.63" (143.00)	3.98" (101.09)	6.97" (177.04)
BV250-2424	3"	2.7" (68)	313.1	6.30" (160.02)	4.29" (108.97)	6.77" (171.96)
BV250-3232	4"	2.7" (68)	537	7.99" (202.95)	4.13" (104.90)	8.00" (203.20)

*Model BV250T-22 equipped with T-handle



Cv factor is flow rate in GPM when DR is 1 psi, Cv = GPM / $\sqrt{\text{DR}}$
(GPM = gallons [US] per minute, DR = pressure drop [psi])



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