

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.

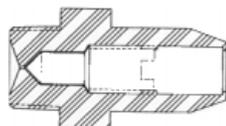
The hollow ball design is based on R&D lab work and years of field experience. Manufacture of the hollow ball requires a technical level not found in most substitutes. Heavier is not

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

Dimensions, Port Size
in inches (mm)

Model BV602
One-piece body

| 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 | 3/4" | 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"

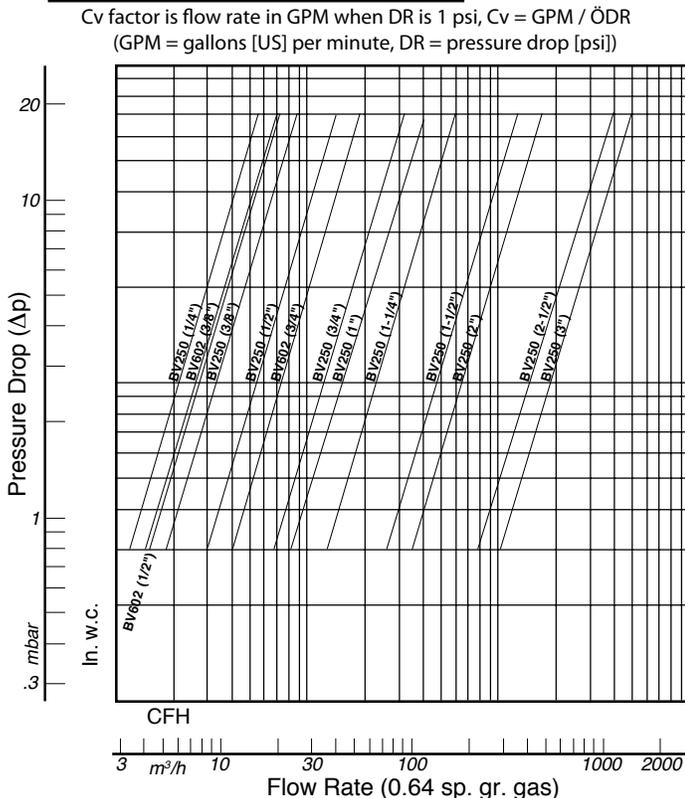
Dimensions, Port Size
in inches (mm)

Model BV250
Two-piece body

Includes 602S-88

| 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



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