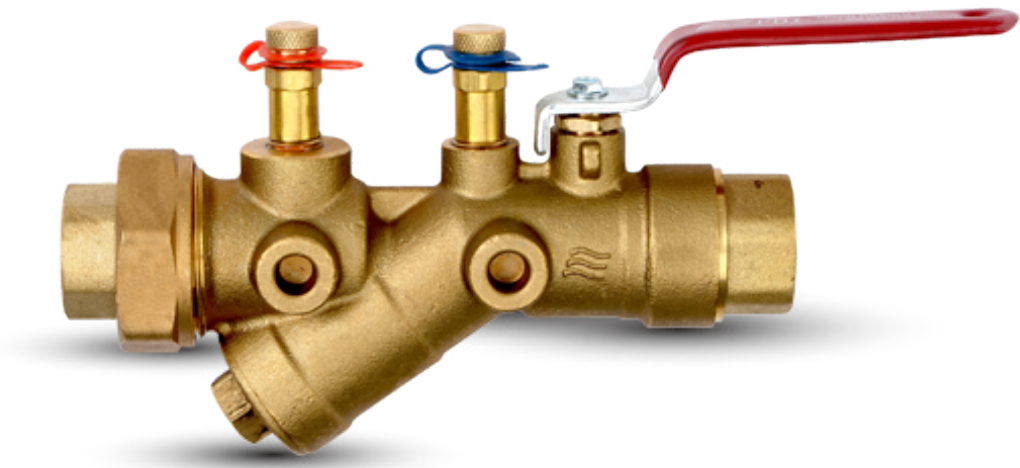


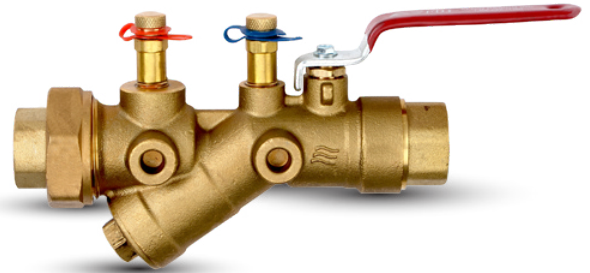
AC/ACR



Automatic Balancing Valves
Flow regulator & union

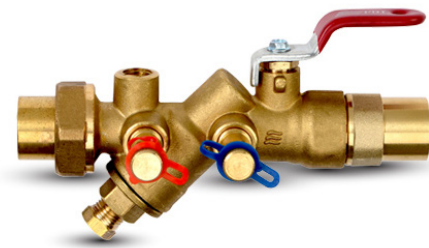
AC

AutoFlow combination ball valve, AutoFlow regulator and union with up to five (5) accessory port locations. Unit is factory set to automatically limit the flow rate to within 5% of the specified amount. The flow cartridge is removable from the valve body to provide access for flow rate changes, inspection, and cleaning without breaking the main piping. The ball valve has PTFE packing, brass packing nut and blowout-proof stem, large diameter plated ball and a full size steel handle with vinyl grip. The union has an EPDM "O"-ring and tailpiece available in M, F and S connections. Ball valve end is available only in FPT or SWT. Pressure / Temperature ports are standard.



ACR

Compact, Y-shaped combination ball valve, AutoFlow regulator and union with four accessory port locations.



Key features

- > Flow Limiting
No wasted pumping
- > Accuracy
+/-5%
- > Combination Valve
Union, regulator and shut-off in one
- > Tamper Resistant

Technical description

Application:

Hydronic Balancing

Rating:

400 psig at 250° F (27 bar at 120° C)

Accuracy:

±5%

Functions:

Flow regulator, union and shut-off

Pressure range:

2-32 psi or 5-60 psi

Material:

Body: DZR Brass
Flow cartridge: Series 300 stainless steel wear surfaces with stainless steel spring

Dimensions:

1/2" - 2-1/2"

Connections

AC

| Model | Size in./mm | Fixed Conn. (Outlet) in./mm | Union Conn. (Intlet) in./mm |
|-------|----------------|--------------------------------|--------------------------------|
| AC050 | 1/2" (15) | 1/2" (15) S, F | 1/2 (15) F, M, S |
| | | | 3/4 (20) F, M, S |
| AC075 | 3/4" (20) | 3/4" (15) S, F | 1/2 (15) F, M, S |
| | | | 3/4 (20) F, M, S |
| | | | 1 (25) M, S |
| AC100 | 1" (25) | 1" (25) S, F | 1/2 (15) M, S |
| | | | 3/4 (20) F, M, S |
| | | | 1 (25) F, M, S |
| | | | 1 1/4 (32) F, M, S |
| AC125 | 1 1/4" (32) | 1 1/4" (32) S, F | 1/2 (15) M, S |
| | | | 3/4 (20) F, M, S |
| | | | 1 (25) F, M, S |
| | | | 1 1/4 (32) F, M, S |
| | | | 1 1/2 (40) M, S |
| AC150 | 1 1/2" (40) | 1 1/2" (40) S, F | 1 1/4 (32) F, M, S |
| | | | 1 1/2 (40) F, M, S |
| | | | 2 (50) F, M, S |
| AC200 | 2" (50) | 2" (50) S, F | 1 1/4 (32) F, M, S |
| | | | 1 1/2 (40) F, M, S |
| | | | 2 (50) F, M, S |
| | | | 2 1/2 (65) F, M |

ACR

| Model | Size in./mm | Fixed Conn. (Outlet) in./mm | Union Conn. (Intlet) in./mm |
|---------|----------------|--------------------------------|--------------------------------|
| ACR050 | 1/2" (15) | 1/2" (15) S, F | 1/2 (15) F, M, S |
| | | | 3/4 (20) F, M, S |
| ACR075 | 3/4" (20) | 3/4" (20) S, F | 1/2 (15) F, M, S |
| | | | 3/4 (20) F, M, S |
| | | | 1 (25) M, S |
| ACR100* | 1" (25) | 1" (25) S, F | 1/2 (15) F, M, S |
| | | | 3/4 (20) F, M, S |
| | | | 1 (25) M, S |
| | | | 1 1/2 (40) M, S |
| ACR150* | 1 1/2" (40) | 1 1/2" (40) S, F | 1/2 (15) F, M, S |
| | | | 3/4 (20) F, M, S |
| | | | 1 (25) F, M, S |
| | | | 1 1/4 (32) F, M, S |
| | | | 1 1/2 (40) M, S |
| ACR250 | 2 1/2" (65) | 2 1/2" (65) S, F | 2 (50) F, M |
| | | | 2 1/2 (65) F, M |

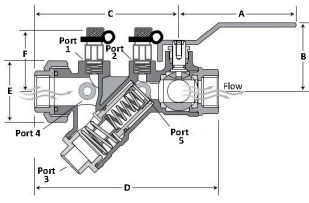
S = sweat F = female NPT M = male NPT

Notes

*Denotes female thread not available on union end.

Dimensions / Flow

AC



| Model | Size | A | B | C | D | E | F | Maximum Flow gpm (lps)* | |
|-------|-------|-----------|----------|-----------|------------|----------|----------|-------------------------|-----------|
| | | | | | | | | Control Range psi (kpa) | |
| | | | | | | | | 2-32 (L) | 5-60 (H) |
| AC050 | 1/2 | 4.1 (104) | 2.0 (51) | 4.8 (122) | 6.7 (170) | 2.1 (53) | 2.2 (56) | 8 (0.5) | 12 (0.75) |
| AC075 | 3/4 | 4.1 (104) | 2.0 (51) | 4.9 (124) | 6.7 (170) | 2.1 (53) | 2.2 (56) | 8 (0.5) | 12 (0.75) |
| AC100 | 1 | 4.7 (119) | 2.7 (69) | 6.6 (168) | 9.5 (241) | 2.8 (71) | 2.3 (58) | 19 (1.2) | 27 (1.7) |
| AC125 | 1 1/4 | 4.7 (119) | 2.7 (69) | 6.6 (168) | 9.6 (244) | 2.8 (71) | 2.3 (58) | 19 (1.2) | 27 (1.7) |
| AC150 | 1 1/2 | 5.7 (141) | 3.6 (91) | 8.4 (213) | 11.7 (297) | 3.8 (97) | 2.4 (61) | 50 (3.15) | 70 (4.4) |
| AC200 | 2 | 5.7 (141) | 3.6 (91) | 8.5 (216) | 12.0 (305) | 3.8 (97) | 2.4 (61) | 50 (3.15) | 70 (4.4) |

Notes

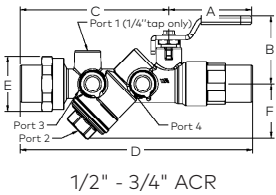
Dimensions based on F X F connections and will vary with mixed options/connections. Dimensions are subject to minor changes.

For pump head calculations, add the indicated pressure drop of 4.6 ft or 2 psi for 2-32 psi or 11.6 ft or 5 psi for 5-60 psi to the calculated drop for other components.

Available in ISO7 threads.

Dimensions / Flow

ACR



1/2" - 3/4" ACR

| Model | Size | A | B | C | D | E | F | Maximum Flow gpm (lps)* | |
|---------|-------|-----------|----------|-----------|------------|-----------|-----------|-------------------------|-----------|
| | | | | | | | | Control Range psi (kpa) | |
| | | | | | | | | 2-32 (L) | 5-60 (H) |
| ACR050* | 1/2 | 2.3 (58) | 1.9 (48) | 4.0 (102) | 6.0 (152) | 1.6 (41) | 1.5 (38) | 3 (0.19) | 5 (0.31) |
| ACR075* | 3/4 | 2.3 (58) | 1.9 (48) | 4.1 (104) | 6.5 (165) | 1.6 (41) | 1.5 (38) | 3 (0.19) | 5 (0.31) |
| ACR100 | 1 | 4.1 (104) | 2.0 (51) | 5.5 (140) | 7.6 (193) | 2.1 (53) | 1.97 (50) | 8 (0.5) | 12 (0.75) |
| ACR150 | 1 1/2 | 4.7 (119) | 2.7 (69) | 7.9 (201) | 10.7 (271) | 2.8 (71) | 2.64 (67) | 19 (1.2) | 27 (1.7) |
| ACR250 | 2 1/2 | 5.6 (119) | 3.6 (91) | 9 (228) | 12.5 (317) | 4.6 (120) | 2.4 (61) | 50 (3.15) | 70 (4.4) |

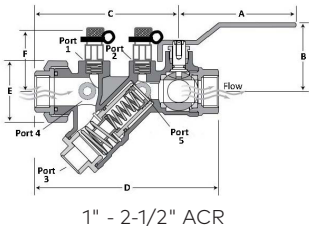
Notes

Dimensions based on S X S connections and will vary with mixed options/connections. For ACR250, dimensions based on FxF connection.

Dimensions are subject to minor changes.

*Denotes female thread not available on union end.

See IOM for cartridge change instructions.



1" - 2-1/2" ACR

Weight / Cv

AC

| Model | Weight lb./(kg) | Cv (Kv) |
|-------|--------------------|-------------|
| AC050 | 2.5 (1.13) | 7.9 (6.8) |
| AC075 | 2.5 (1.13) | 8.8 (7.6) |
| AC100 | 6.2 (2.81) | 19.7 (17.0) |
| AC125 | 6.1 (2.80) | 20.4 (17.6) |
| AC150 | 15.6 (7.08) | 52.7 (45.6) |
| AC200 | 15.4 (6.99) | 55.1 (47.7) |

Notes

Weights based on F X F connections and will vary with mixed options connections
 Weights are subject to minor changes
 Cv's based on the body only without flow cartridge.
 See operation manual for Installation and Maintenance F033

ACR

| Model | Weight lb./(kg) | Cv (Kv) |
|--------|--------------------|--------------|
| ACR050 | 1.5 (0.7) | 5.7 (4.9) |
| ACR075 | 1.5 (0.7) | 5.7 (4.9) |
| ACR100 | 2.5 (1.13) | 8.8 (7.6) |
| ACR150 | 6.8 (3.08) | 20.4 (17.65) |
| ACR250 | 17.5 (7.9) | 55.0 (48.0) |

Notes

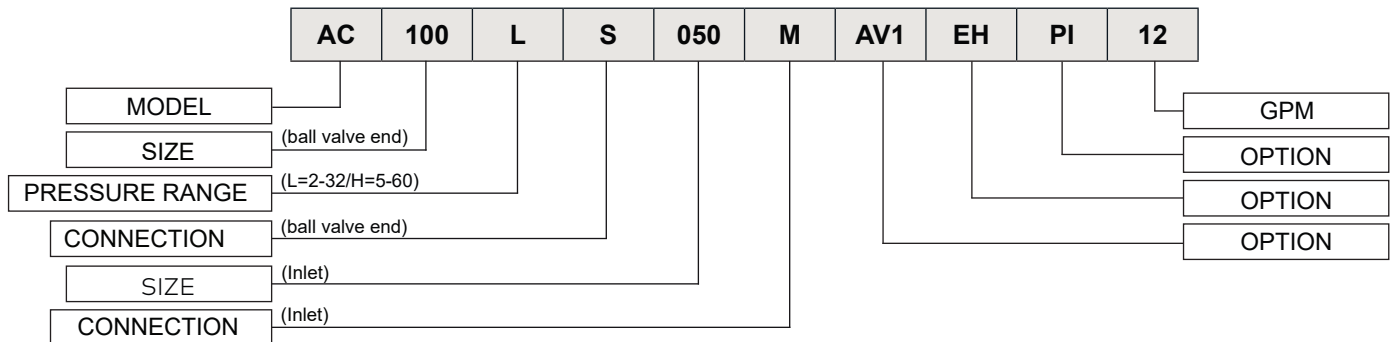
Weights based on S X S connections and will vary with mixed options/connections. For ACR250, weight based on FxF connections.
 Weights are subject to minor changes.
 Cv's based on the body only without flow cartridge.
 See IOM for cartridge change instructions.

Flow Rate
ACR/AC

| Size | psid Range | Flow Rate (gpm) |
|------------------------|-------------------|---|
| ACR 1/2" - 3/4" | 2 - 32 (L) | 0.33, 0.5, 0.67, 0.75, 0.88, 1.0, 1.1, 1.25, 1.5, 1.75, 2.0, 2.25, 2.5, 3.0 |
| | 5 - 60 (H) | 1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0 |
| AC 1/2" - 3/4" | 2 - 32 (L) | 0.33, 0.5, 0.67, 0.75, 0.88, 1.0, 1.1, 1.25, 1.5, 1.75, 2.0, 2.25, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.28, 6.0, 7.0, 8.0 |
| | ACR 1" | 5 - 60 (H) |
| AC 1" - 1 1/4" | 2 - 32 (L) | 0.5, 0.67, 0.75, 0.88, 1.0, 1.1, 1.25, 1.5, 1.75, 2.0, 2.25, 2.5, 2.64, 3.0, 3.5, 4.0, 4.5, 5.0, 5.28, 6.0, 7.0, 8.0, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 |
| | ACR 1 1/2" | 5 - 60 (H) |
| AC 1 1/2" - 2" | 2 - 32 (L) | 5.0, 6.0, 7.0, 8.0, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50 |
| | ACR 2 1/2" | 5 - 60 (H) |

| Size | kPa Range | Flow Rate (lps) |
|-----------------------|------------------|--|
| ACR 15 - 20 mm | 2-32 (L) | 0.021, 0.035, 0.042, 0.047, 0.056, 0.063, 0.069, 0.079, 0.095, 0.110, 0.126, 0.142, 0.158, 0.167 |
| | 5-60 (H) | 0.063,0.095, 0.126,0.158,0.189,0.252, 0.315 |
| AC 15 - 20 mm | 14 - 220 (L) | 0.021, 0.032, 0.042, 0.047, 0.056, 0.063, 0.069, 0.079, 0.095, 0.110, 0.126, 0.142, 0.158, 0.167, 0.189, 0.221, 0.252, 0.284, 0.315, 0.333, 0.379, 0.442, 0.505 |
| | ACR 25 mm | 35 - 414 (H) |
| AC 25 - 32 mm | 14 - 220 (L) | 0.032, 0.042, 0.047, 0.056, 0.063, 0.069, 0.079, 0.095, 0.110, 0.126, 0.142, 0.158, 0.167, 0.189, 0.221, 0.252, 0.284, 0.315, 0.333, 0.379, 0.442, 0.505, 0.568, 0.631, 0.694, 0.757,0.820, 0.883, 0.946, 1.009, 1.073, 1.136, 1.199 |
| | ACR 40 mm | 35 - 414 (H) |
| AC 40 - 50 mm | 14 - 220 (L) | 0.315, 0.379, 0.442, 0.505, 0.568, 0.631, 0.694, 0.757, 0.820, 0.883, 0.946, 1.009, 1.073, 1.136, 1.199, 1.262, 1.388, 1.514, 1.640, 1.767, 1.893, 2.019, 2.145, 2.271, 2.397, 2.524, 2.650, 2.776, 2.902, 3.028, 3.155 |
| | ACR 65 mm | 35 - 414 (H) |

Model Order Designation



S = female sweat **F** = female NPT **M** = male npt

Options Available

| | |
|---|-------------------------|
| AA Automatic Air Vent | PL Plug |
| AV Manual Air Vent | PP Propress® |
| DX Dual Extended P/T Ports | SE Stem Extender |
| EH Extended Handle | T4 1/4" F Tap |
| HN Hose End Drain Valve with Cap | XL Ext. P/T Port |
| MI Metal ID Tag | |
| PI Plastic ID Tag | |



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