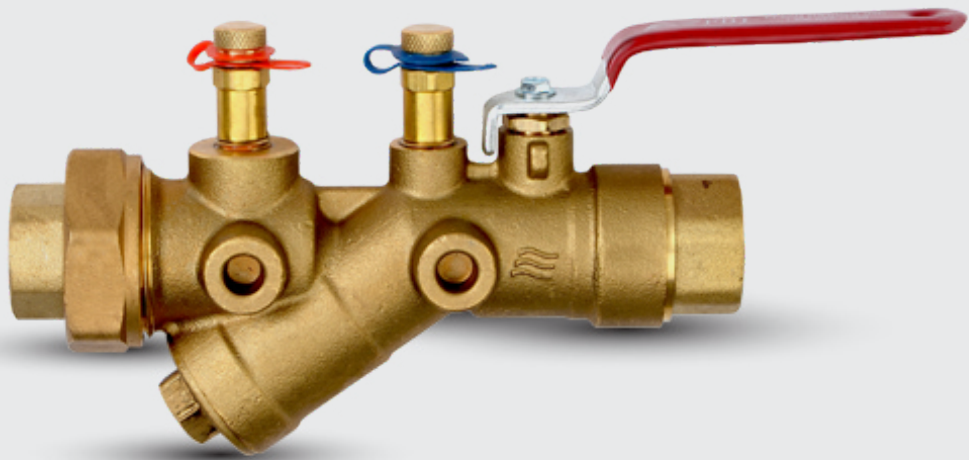


AC



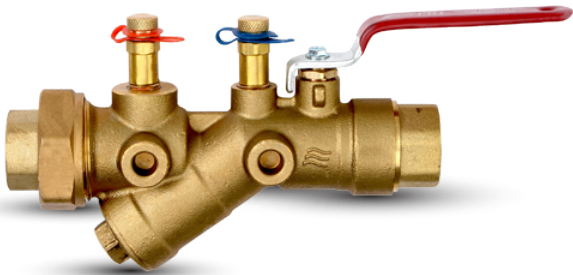
## Automatic Balancing Valves

Flow regulator & union

Engineering  
*GREAT* Solutions

# 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
- > **Combination Valve**  
Union, regulator and shut-off in one
- > **+/- 5%**
- > **Tamper Resistant**

## Technical description

**Application:**  
Hydronic Balancing

**Functions:**  
Flow regulator, union and shut-off

**Dimensions:**  
1/2" - 2" AC Valve

**Rating:**  
400 psig at 250° F (27 bar at 120° C)

**Pressure range:**  
2-32 psi or 5-60 psi

**Accuracy:**  
±5%

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

## Connections

### AC

Model	Size in./mm		Fixed Conn. (Outlet) in./mm			Union Conn. (Inlet) 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

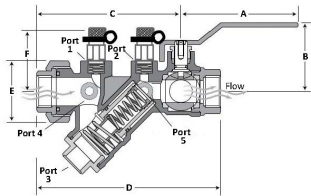
### ACR

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

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

#### Notes

\*Denotes female thread not available on union end.



Dimensions / Flow

AC

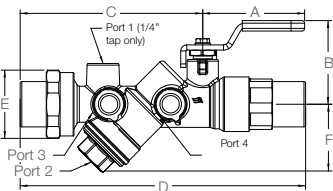
Model	Size	Maximum Flow gpm (lps)*									
		Control Range psi (kpa)									
		A	B	C	D	E	F	2-32 (L)	5-60 (H)		
	in.	in./mm	in./mm	in./mm	in./mm	in./mm	in./mm	(14-220)	(35-414)		
AC050	1/2	4.1 (104)	2.0 (51)	4.8 (122)	6.7 (170)	2.1 (53)	2.2 (56)	8 (0.5)	12 (0.75)		
AC075	3/4	4.1 (104)	2.0 (51)	4.9 (124)	6.7 (170)	2.1 (53)	2.2 (56)	8 (0.5)	12 (0.75)		
AC100	1	4.7 (104)	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	5.6 (119)	3.6 (91)	8.4 (213)	11.7 (297)	3.8 (97)	2.4 (61)	50 (3.15)	70 (4.4)		
AC200	2	5.6 (119)	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.

ACR

Dimensions / Flow



Model	Size	Maximum Flow gpm (lps)*									
		Control Range psi (kpa)									
		A	B	C	D	E	F	2-32 (L)	5-60 (H)		
	in./mm	in./mm	in./mm	in./mm	in./mm	in./mm	in./mm	(14-220)	(35-414)		
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)		

Notes

Weights based on S X S connections and will vary with mixed options/connections.  
Dimensions are subject to minor changes.  
\*1/4" port (1/2 & 3/4 only)  
See IOM for cartridge change instructions.

## Weight / Cv

### AC

Model	Weight	Cv (Kv)	
	lb./(kg)		
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	Cv (Kv)	
	lb./(kg)		
ACR050	2.5 (1.13)	7.9	(6.8)
ACR075	2.5 (1.13)	8.8	(7.6)
ACR100	2.5 (1.13)	8.8	(7.6)
ACR150	6.8 (3.08)	20.4	(17.65)

#### Notes

Weights based on S X S 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 IOM for cartridge change instructions.

## Flow Rate AC

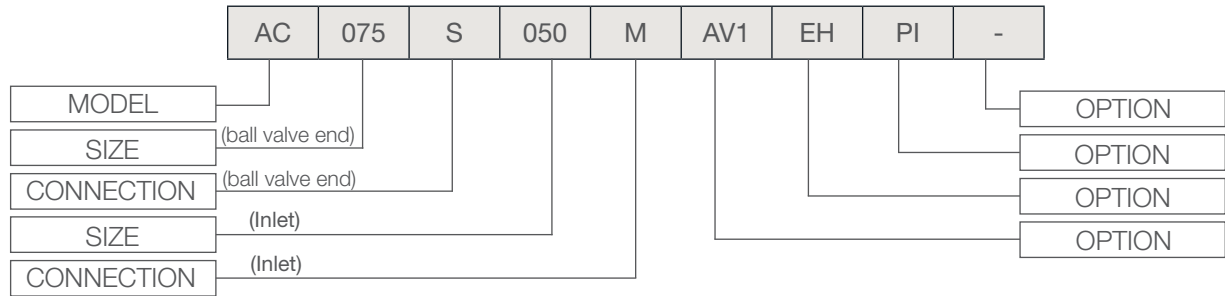
Size	psid Range	Flow Rate (gpm)
1/2" - 3/4"	2 - 32 (L)	0.33, 0.5, 0.67, 0.75, 0.88, 1.0, 1.1, 1.25, 1.5, 1.75, 2.0, 2.25, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.28, 6.0, 7.0, 8.0
	5 - 60 (H)	1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10, 11, 12
1" - 1 1/4"	2 - 32 (L)	0.5, 0.67, 0.75, 0.88, 1.0, 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
	5 - 60 (H)	1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27
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
	5 - 60 (H)	8.0, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 68, 70
Size	kPa Range	Flow Rate (lps)
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
	35 - 414 (H)	0.063, 0.095, 0.126, 0.158, 0.189, 0.252, 0.315, 0.379, 0.442, 0.505, 0.568, 0.631, 0.694, 0.757
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
	35 - 414 (H)	0.063, 0.095, 0.126, 0.158, 0.189, 0.252, 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, 1.325, 1.388, 1.451, 1.514, 1.577, 1.640, 1.703
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
	35 - 414 (H)	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, 1.325, 1.388, 1.451, 1.514, 1.577, 1.640, 1.703, 1.767, 1.893, 2.019, 2.145, 2.271, 2.397, 2.524, 2.650, 2.776, 2.902, 3.028, 3.155, 3.281, 3.407, 3.533, 3.659, 3.785, 3.912, 4.038, 4.290, 4.416

## ACR

Size	psid Range	Flow Rate (gpm)
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
1"	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
	5 - 60 (H)	1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10, 11, 12
1 1/2"	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
	5 - 60 (H)	1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27
Size	kPa Range	Flow Rate (lps)
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
25 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
	35 - 414 (H)	0.063, 0.095, 0.126, 0.158, 0.189, 0.252, 0.315, 0.379, 0.442, 0.505, 0.568, 0.631, 0.694, 0.757
40 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
	35 - 414 (H)	0.063, 0.095, 0.126, 0.158, 0.189, 0.252, 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, 1.325, 1.388, 1.451, 1.514, 1.577, 1.640, 1.703



## Model Order Designation



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

## Options Available

<b>AA</b> Automatic Air Vent	<b>PP</b> Propress®
<b>AV</b> Manual Air Vent	<b>SE</b> Stem Extender
<b>EH</b> Extended Handle	<b>T2</b> 1/2" F Tap
<b>HN</b> Hose End Drain Valve with Cap	<b>T4</b> 1/4" F Tap
<b>MI</b> Metal ID Tag	<b>XL</b> Ext. P/T Port
<b>PI</b> Plastic ID Tag	<b>60</b> 60 Mesh Stainless Steel Start up Screen
<b>PL</b> Plug	

