

Climate
Control

IMI Flow Design

AC SBS, ACR SBS



Automatic Balancing Valves

Flow regulator & union with stainless steel ball and stem

AC SBS, ACR SBS

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 stainless steel stem, large diameter stainless steel 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 SBS is the more Compact, Y-shaped combination ball valve, AutoFlow regulator and union with four accessory port locations.



Key features

Flow Limiting

No wasted pumping

Tamper Resistant

Stainless Steel Ball and Stem

Combination Valve

Union, regulator and shut-off in one

Accuracy

+/-5%

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

Ball and stem: Stainless steel

Flow cartridge: Series 300 stainless steel wear surfaces with stainless steel spring

Dimensions:

1/2" - 2" AC SBS Valve

Connections

AC SBS

Model	Size		Fixed Conn. (Outlet)			Union Conn. (Intlet)		
	in./mm		in./mm			in./mm		
ACSBS050	1/2"	(15)	1/2"	(15)	S, F	1/2	(15)	F, M, S
						3/4	(20)	F, M, S
ACSBS075	3/4"	(20)	3/4"	(15)	S, F	1/2	(15)	F, M, S
						3/4	(20)	F, M, S
						1	(25)	M, S
ACSBS100	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
ACSBS125	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
ACSBS150	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
ACSBS200	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 SBS

Model	Size		Fixed Conn. (Outlet)			Union Conn. (Intlet)		
	in./mm		in./mm			in./mm		
ACRSBS050	1/2"	(15)	1/2"	(15)	S, F	1/2	(15)	F, M, S
						3/4	(20)	F, M, S
ACRSBS075	3/4"	(20)	3/4"	(20)	S, F	1/2	(15)	F, M, S
						3/4	(20)	F, M, S
						1	(25)	M, S
ACRSBS100*	1"	(25)	1"	(25)	S, F	1/2	(15)	F, M, S
						3/4	(20)	F, M, S
						1	(25)	M, S
						1/2	(15)	F, M, S
ACRSBS150*	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)	M, S
						1 1/2	(40)	M, S

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

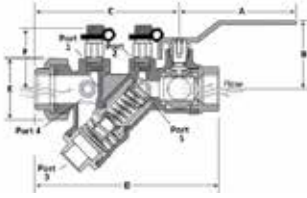
Notes

*) Denotes female thread not available on union end.

Articles

Dimensions / Flow

AC SBS



Model	Size	A	B	C	D	E	F	Maximum Flow gpm (lps)*	
								Control Range psi (kpa)	
	in.	in./mm	in./mm	in./mm	in./mm	in./mm	in./mm	2-32 (L) (14-220)	5-60 (H) (35-414)
ACSBS050	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)
ACSBS075	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)
ACSBS100	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)
ACSBS125	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)
ACSBS150	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)
ACSBS200	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.

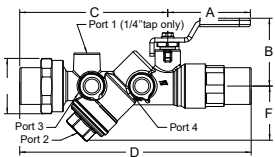
Dimensions are subject to minor changes.

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.

Dimensions / Flow

ACR SBS



1/2" - 3/4" ACR SBS

Model	Size	A	B	C	D	E	F	Maximum Flow gpm (lps)*	
								Control Range psi (kpa)	
	in./mm	in./mm	in./mm	in./mm	in./mm	in./mm	in./mm	2-32 (L) (14-220)	5-60 (H) (35-414)
ACRSBS050*	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)
ACRSBS075*	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)
ACRSBS100	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)
ACRSBS150	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)

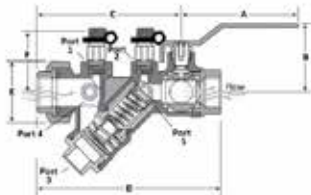
Notes

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.



1" - 1-1/2" ACR SBS

Weight / Cv

AC SBS

Model	Weight lb./(kg)	Cv (Kv)
ACSBS050	2.5 (1.13)	7.9 (6.8)
ACSBS075	2.5 (1.13)	8.8 (7.6)
ACSBS100	6.2 (2.81)	19.7 (17.0)
ACSBS125	6.1 (2.80)	20.4 (17.6)
ACSBS150	15.6 (7.08)	52.7 (45.6)
ACSBS200	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 SBS

Model	Weight lb./(kg)	Cv (Kv)
ACRSBS050	1.5 (0.7)	5.7 (4.9)
ACRSBS075	1.5 (0.7)	5.7 (4.9)
ACRSBS100	2.5 (1.13)	8.8 (7.6)
ACRSBS150	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

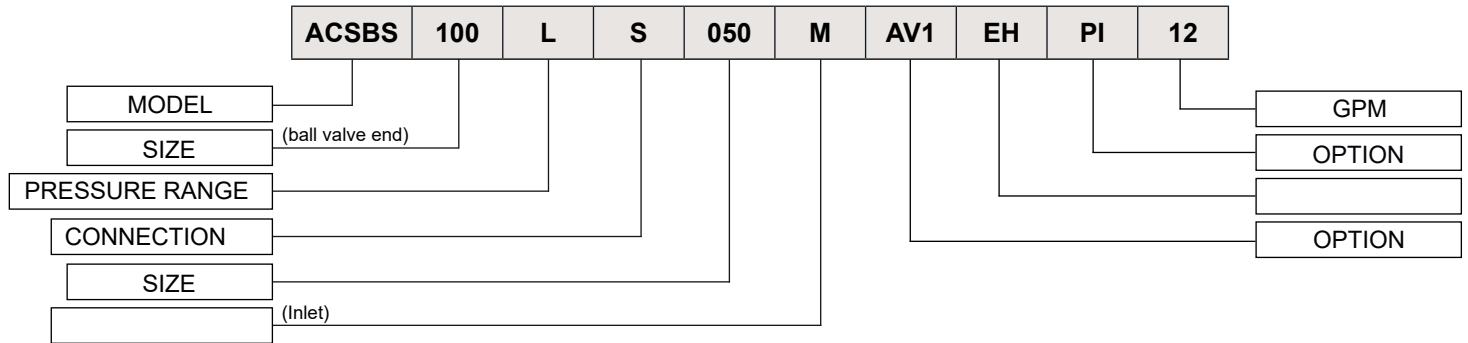
AC SBS

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 SBS

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

- | | |
|---|-------------------------|
| 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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