



FILE NO: 36.513
 DATE: Sept. 26, 2011
 SUPERSEDES: 36.513
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ARMflo Circuit Balancing Valves

CBV - Venturi Style 1/2" to 2" (DN15 to DN50) - Dezincification Resistant

SUBMITTAL

JOB: _____ REPRESENTATIVE: _____

 ENGINEER: _____ ORDER NO: _____ DATE: _____
 SUBMITTED BY: _____ DATE: _____
 CONTRACTOR: _____ APPROVED BY: _____ DATE: _____

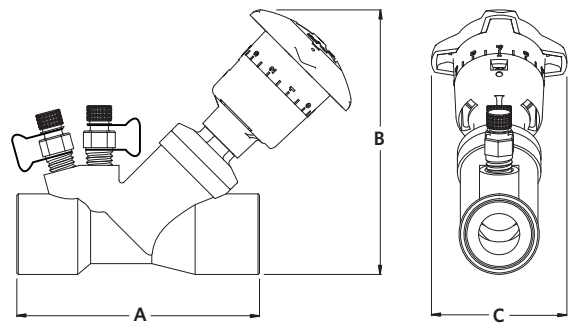
MODEL NUMBER	QTY REQ'D	IDENTIFICATION	MODEL NUMBER	QTY REQ'D	IDENTIFICATION

TECHNICAL DATA	
Connection	Model CBV-VS - Solder Joint Model CBV-VT - Threaded NPT Model CBV-VB - Threaded BSPP (ISO-228)
Maximum Working Pressure	300 psi / 20 bar (PN20)
Operating Temperature Range	-4°F to 300°F (-20°C to 150°C)

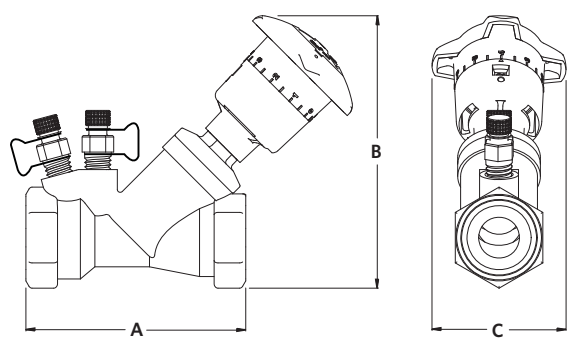
MATERIALS OF CONSTRUCTION	
Body, Bonnet, Stem and Disc	Brass Alloy CW602N, Dezincification Resistant (DZR) to EN12165 per ISO-6509
Elastomers	EPDM (may contain silicone)
Handwheel	Reinforced Nylon; ABS

DIMENSIONS AND WEIGHTS					
PIPE SIZE	MODEL	A	B	C	WEIGHT
SOLDER JOINT CONNECTION					
1/2" (DN15)	CBV050VSCR-LF	3.19 (81)	4.56 (116)	2.76 (70)	1.05 (0.48)
	CBV050VSCR				
3/4" (DN20)	CBV075VSCR-LF	3.64 (93)	4.65 (118)	2.76 (70)	1.09 (0.49)
	CBV075VSCR				
1" (DN25)	CBV100VSCR	4.26 (108)	4.95 (126)	2.76 (70)	1.68 (0.76)
1 1/4" (DN32)	CBV125VSCR	4.94 (125)	5.40 (137)	2.76 (70)	2.26 (1.03)
1 1/2" (DN40)	CBV150VSCR	5.67 (144)	5.60 (142)	2.76 (70)	3.22 (1.46)
2" (DN50)	CBV200VSCR	7.03 (179)	6.36 (162)	2.76 (70)	5.40 (2.45)
THREADED CONNECTION					
1/2" (DN15)	CBV050V(X)CR-LF	2.99 (76)	4.60 (117)	2.76 (70)	1.07 (0.49)
	CBV050V(X)CR				
3/4" (DN20)	CBV075V(X)CR-LF	3.26 (83)	4.90 (125)	2.76 (70)	1.21 (0.55)
	CBV075V(X)CR				
1" (DN25)	CBV100V(X)CR	3.80 (97)	5.29 (135)	2.76 (70)	1.86 (0.84)
1 1/4" (DN32)	CBV125V(X)CR	4.32 (110)	5.60 (143)	2.76 (70)	2.34 (1.06)
1 1/2" (DN40)	CBV150V(X)CR	5.07 (129)	5.90 (150)	2.76 (70)	3.49 (1.59)
2" (DN50)	CBV200V(X)CR	6.00 (153)	6.68 (170)	2.76 (70)	5.97 (2.46)

MODEL: CBV-VS 1/2" - 2" (DN15 - DN50)



MODEL: CBV-VT / CBV-VB 1/2" - 2" (DN15 - DN50)



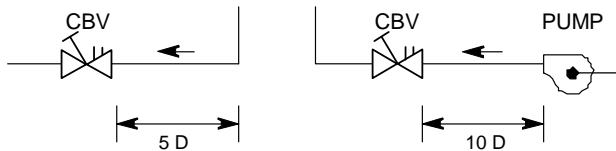
Note: All dimensions are in inches (mm) and weights in lbs (kg)
 Where Model (x) = Connection Type: T = NPT or B = BSPP (ISO-228)

INSTALLATION

ARMflo circuit balancing valves provide excellent results when mounted directly to other fittings.

However, for optimum accuracy, locate the valve:

- 5 pipe diameters downstream of a fitting.
- 2 pipe diameters upstream of a fitting.
- 10 pipe diameters upstream or downstream of a pump.



NOTES:

Valves can be "line sized" for applications with 2 to 4 ft/sec (0.7 to 1.3 m/s) flow velocity for nominal pipe size.

For valve sizing based on design flow, check the Range Chart and Flow Rate Ranges.

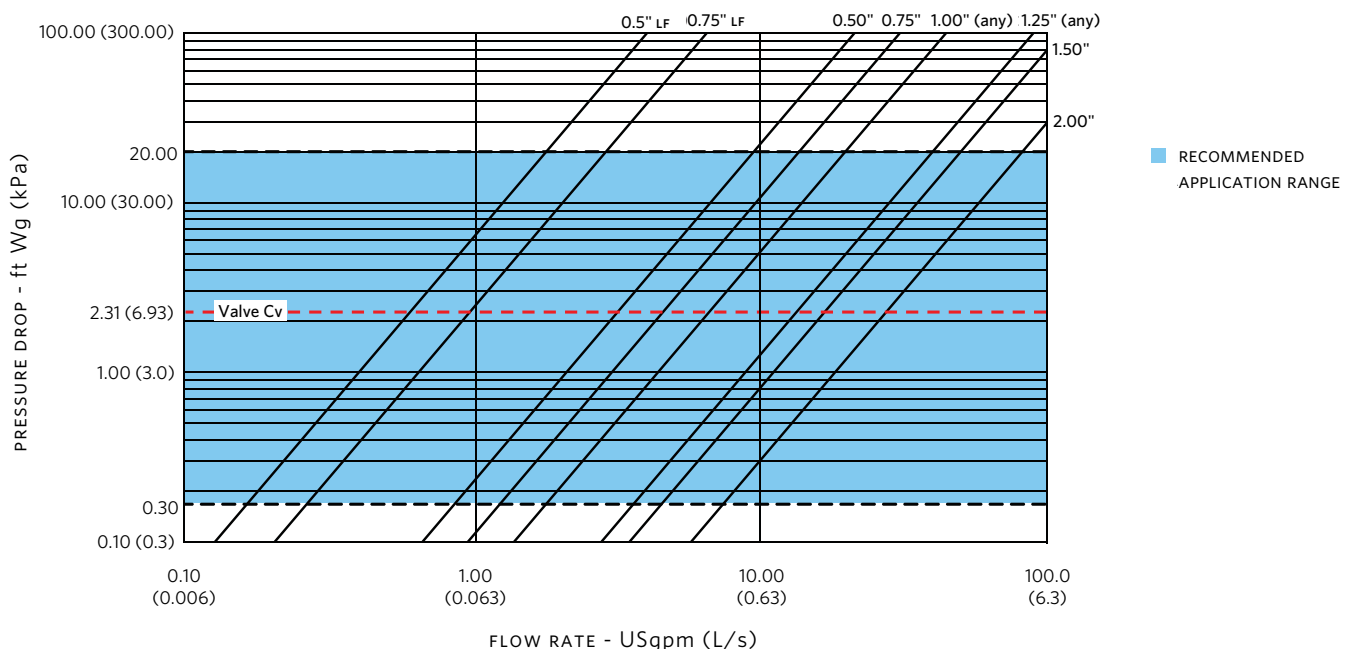
All valves are furnished with PT Ports for differential pressure measurement across the venturi.

Refer to Flow Rate Ranges for venturi Flow Coefficients.

Do not attempt to use Range Chart or Performance Curves for flow measurement.

RANGE CHART

CBV - DZR 1/2" TO 2" HEAD LOSS (5 TURNS OPEN)



FLOW RATE RANGES

VALVE MODEL	SIZE		MINIMUM FLOW RATE		MAXIMUM FLOWRATE		VENTURI FLOW COEFFICIENTS	
	IMPERIAL	METRIC	Usgpm	L/s	Usgpm	L/s	Cv	Kv
CBV050V(X)CR-LF	½" LF	DN15 LF	0.26	0.02	1.98	0.12	0.69	0.59
CBV075V(X)CR-LF	¾" LF	DN20 LF	0.41	0.03	3.11	0.20	1.08	0.93
CBV050V(X)CR	½"	DN15	1.22	0.08	9.57	0.60	3.20	2.74
CBV075V(X)CR	¾"	DN20	1.99	0.13	13.76	0.87	5.21	4.47
CBV100V(X)CR	1"	DN25	5.36	0.34	19.90	1.25	14.08	12.06
CBV125V(X)CR	1¼"	DN32	4.98	0.31	41.02	2.58	13.07	11.20
CBV100V(X)CR (Rev. C)	1" c	DN25C	4.57	0.29	22.97	1.45	12.01	10.29
CBV125V(X)CR (Rev. C)	1¼" c	DN32C	6.17	0.39	38.00	2.39	16.19	13.88
CBV150V(X)CR	1½"	DN40	9.02	0.57	50.07	3.15	23.69	20.30
CBV200V(X)CR	2"	DN50	15.50	0.98	81.92	5.16	40.70	34.88

Notes: Where Model (x) = Connection Type: T = NPT, S = Sweat, B = BSPP (ISO-228).
 1" and 1¼" models with "C" on the handle label (date code 1005 or greater) have modified flow performance from prior versions; ensure the correct performance data and balancing slide rules are used.

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