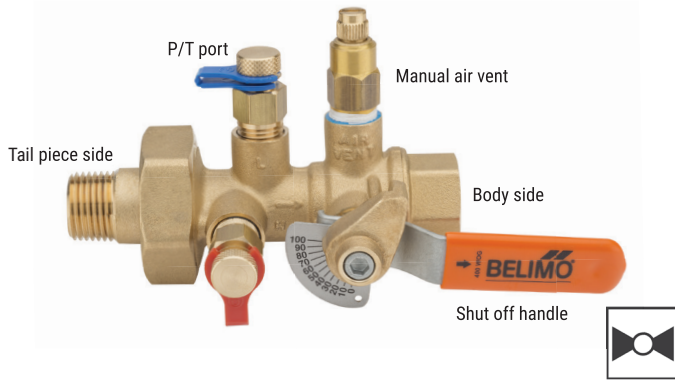
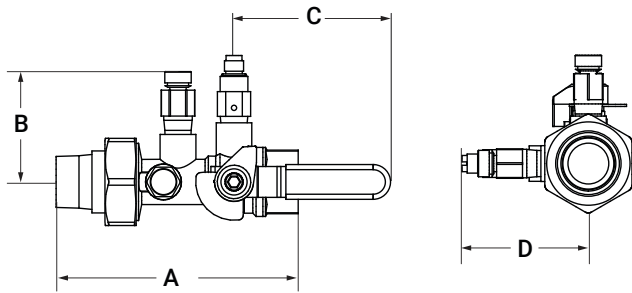


Manual Balance Valve

Integrated Manual Balancing Valve/Union/Isolation Valve



Technical Data	
Fluid	chilled or hot water, 60% glycol
Sizes	½", ¾", 1, 1¼", 1½", 2"
Materials:	
Body	forged brass
Ball	chrome plated/forged brass
Stem	extruded brass
Union	forged brass
Tailpiece	forged brass
Gland nut	extruded brass
Seals & packing	Virgin PTFE
O-rings	Viton
Venturi	extruded brass
Readout port body & cap	extruded brass
Readout port seal	Nordel
Memory stop	forged brass
Pressure /temp. ratings:	
½"...2"	400 psi
Component temperature	300°F maximum
Leakage	0%



Dimensions					
Valve Nominal Size		Dimensions Inches [mm]			
Inches	DN [mm]	A	B	C	D
½"	[10]	4.50 [114.30]	2.05 [52.07]	3.00 [76.20]	2.42 [61.47]
¾"	[15]	4.63 [117.60]	2.05 [52.07]	3.00 [76.20]	2.42 [61.47]
1"	[25]	5.37 [136.40]	2.15 [54.61]	3.90 [99.06]	2.55 [64.77]
1¼"	[32]	6.67 [169.42]	2.30 [58.42]	4.70 [119.38]	2.68 [68.07]
1½"	[40]	7.31 [185.67]	2.49 [63.25]	4.72 [119.89]	2.89 [73.41]
2"	[50]	8.50 [215.90]	3.32 [84.33]	6.17 [156.72]	3.11 [78.99]

*For calculated press drop across the Manual Balance Valve calculate $P = \frac{(GPM)^2}{C_v}$
 Cv rating is based on Venturi size and Cv noted in graph on page 2
 (i.e. Venturi 4 has a Cv rating of 1.30)

Application

The Manual Balance Valve combines the features of an isolation valve, union, and pressure/temperature readout ports, along with the added value of a low-loss, high-signal venturi readout device into a single unit. The addition of the venturi makes this product perfect for readout and setting flow of individual circuits accurate to +/- 2%. Also, the forged brass body of the Manual Balance Valve is favored by Engineers because it ensures reliable, leak-free performance.

The Manual Balance Valve greatly simplifies the Contractor's job by eliminating up to ten piping connections, thus saving time, money, and potential leak points. Finally, the Manual Balance Valve is available with female NPT, male NPT, or SWT, single and double nominal size reducer tailpiece connections making tough piping jobs a snap.

- All Manual Balance Valves come with a manual air vent.

Connection Availability

Body end	female NPT ½"...2" copper SWT ½"...2"
Tailpiece end	male NPT ½"...2"
Body end with one size reduction	female NPT ¾"...2" copper SWT ¾"...2"
Body end with two size reductions	female NPT 1"...2" copper SWT 1"...2"

Part Number

PPL1111	½" x ½" (Cv 1.30, 0.48...1.21 GPM)
PPL1112	½" x ½" (Cv 2.65, 0.89...2.47 GPM)
PPL1113	½" x ½" (Cv 7.05, 2.22...6.60 GPM)
PPL2111	¾" x ¾" (Cv 1.30, 0.48...1.21 GPM)
PPL2112	¾" x ¾" (Cv 2.65, 0.89...2.47 GPM)
PPL2113	¾" x ¾" (Cv 7.05, 2.22...6.60 GPM)
PPL3114	1" x 1" (Cv 7.05, 2.6...6.60 GPM)
PPL3115	1" x 1" (Cv 17.6, 5.5...16.5 GPM)
PPL4114	1" x ¾" (Cv 7.05, 2.6...6.60 GPM)
PPL4115	1" x ¾" (Cv 17.6, 5.5...16.5 GPM)
PPL5111	¾" x ½" (Cv 1.30, 0.48...1.21 GPM)
PPL5112	¾" x ½" (Cv 2.65, 0.89...2.47 GPM)
PPL5113	¾" x ½" (Cv 7.05, 2.22...6.60 GPM)
PPLA11B*	1½" x 1½" (Cv 57.0, 12.8...38.0 GPM)
PPLB11A*	1¼" x 1¼" (Cv 34.0, 10.6...31.8 GPM)
PPLC11C*	2" x 2" (Cv 57.0, 18.0...38.0 GPM)
PPLC11D*	2" x 2" (Cv 88, 30.0...88.0 GPM)
PPLD114*	1¼" x 1" (Cv 34.0, 10.6...31.8 GPM)
PPL11B*	1½" x 1¼" (Cv 57.0, 12.8...38.0 GPM)
PPLF11C*	2" x 1½" (Cv 57.0, 18.0...53.0 GPM)
PPLG114*	1" x ½" (Cv 7.05, 2.6...6.6 GPM)
PPLG115*	1" x ½" (Cv 17.6, 5.5...16.5 GPM)
PPLH11A*	1¼" x ¾" (Cv 34.0, 10.6...31.8 GPM)
PPLJ11B*	1½" x 1" (Cv 57.0, 12.8...38.0 GPM)
PPLK11C*	2" x 1¼" (Cv 57.0, 18.0...53.0 GPM)

*Non-Standard Items

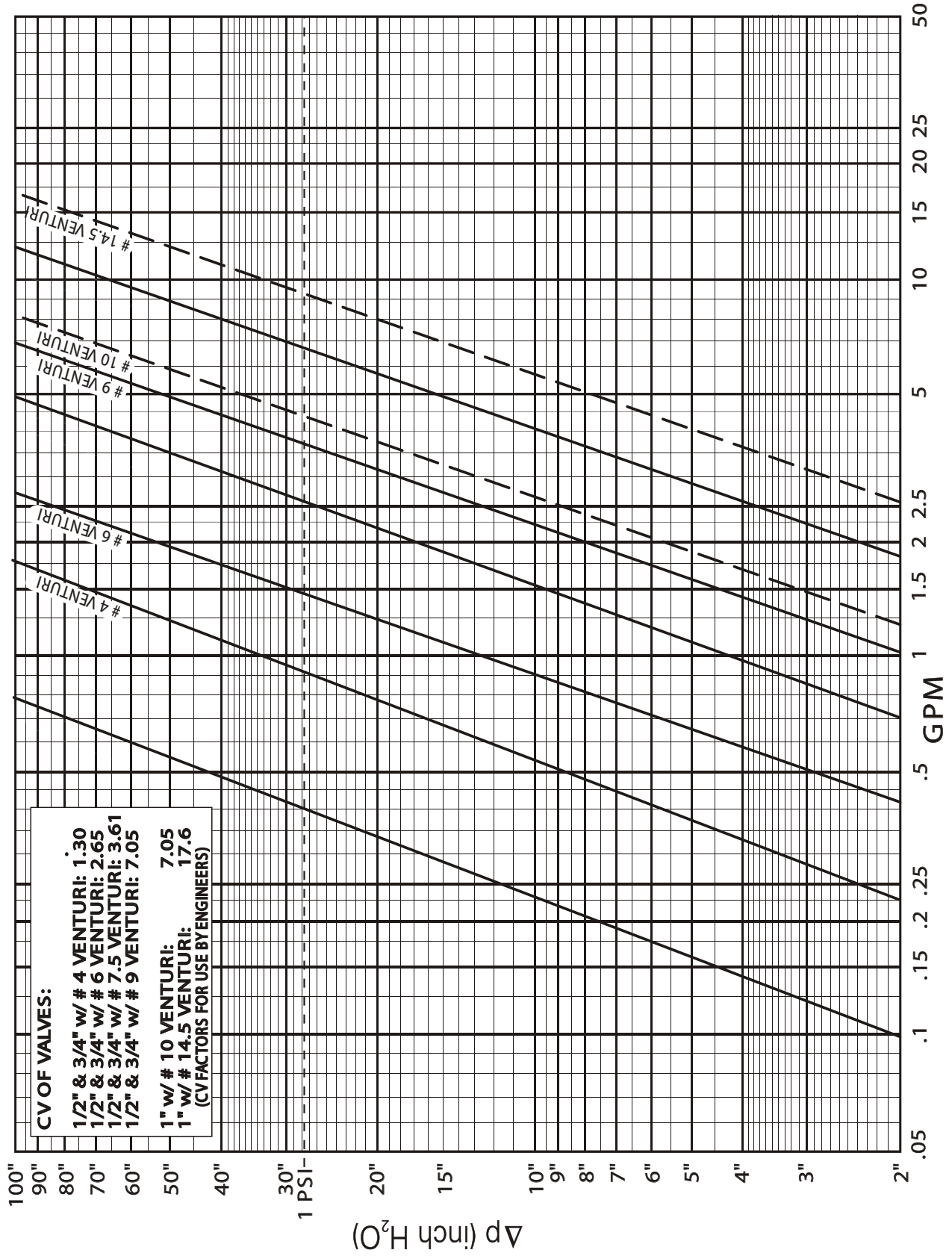
**Referenced flow values are based on 10...90" Dp range at 2 ft. head.

Custom Option: The Manual Balance Valve is available in a body side press fit option for sizes ½"...2". The Press Fit Manual Balance Valve is rated 250PSI WOG. Connections are manufactured to IAPMO PS 117 for direct mechanical connection to ASTM B88-Type K, L and M copper tubing in the hard drawn condition.

Safety Note

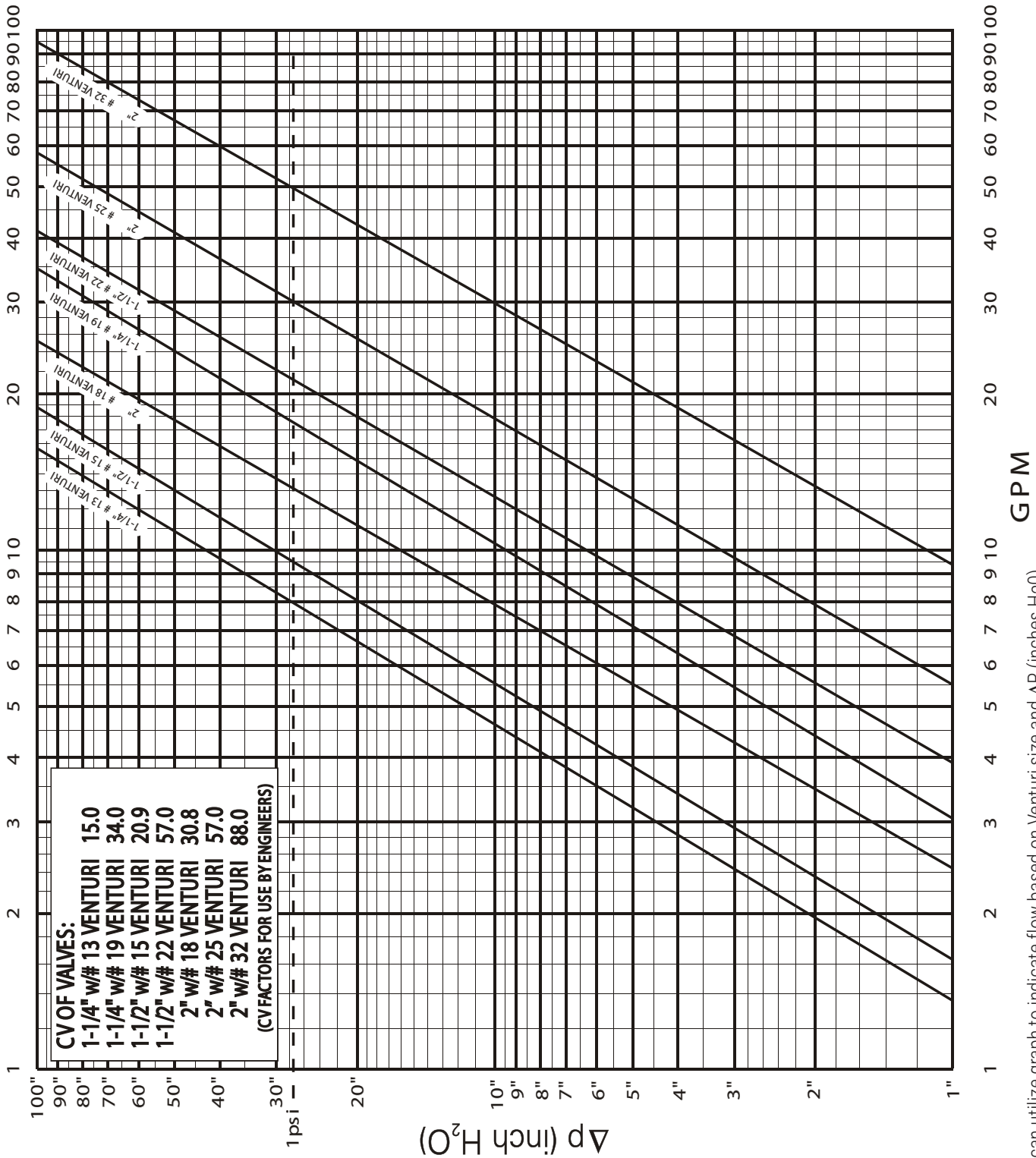
Warning: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

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Balancer can utilize graph to indicate flow based on Venturi size and ΔP (inches H₂O).

Manual Balance Valve Pressure Drop Diagram



Balancer can utilize graph to indicate flow based on Venturi size and ΔP (inches H₂O).

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