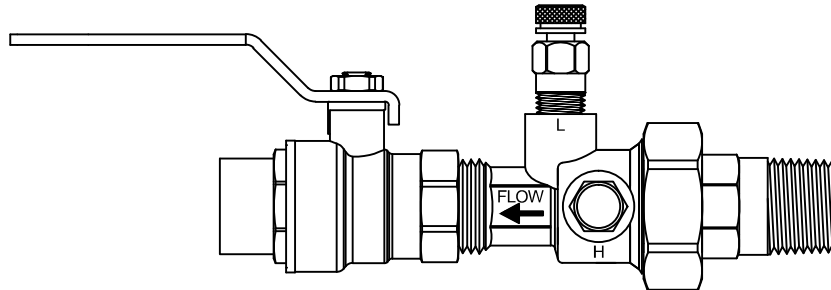


PRO Hydronic Specialties

CBV Series Specifications Combination Ball Valve/Venturi



PRODUCT DESCRIPTION: The CBV flow balancing brass venturi provides highly accurate flow measurement capabilities rated at 600 WOG / CWP @ 250°F. The efficient low loss venturi design provides effective flow balancing with minimal system pressure loss. The CBV includes a standard port ball valve with memory stop, a venturi with an integral union on the inlet side, and a fixed FNPT or SWT on the run-out side. The CBV comes standard with two pressure/temperature ports for instrument readings. The union side incorporates an o-ring for maximum sealing protection. The union connection options include MNPT, FNPT, SWT, and a variety of reductions.

NOTE: If the same size male, female, sweat, or an reducing male tail piece is used, no extra pipe diameter is required.

RECOMMENDED FLOW RANGES (GPM)					STANDARD MATERIAL SPECIFICATIONS	
Model	Size	Minimum	@ 100"	@ 200"		
CBV050L	½	0.3	1.1	1.5	Venturi	Cast Brass ASTM B763-08A
CBV050H	½	0.9	3.0	4.2	Ball Valve	Forged Brass ASTM B283-06
CBV075L	¾	0.9	3.0	4.2	O-ring	EPDM
CBV075H	¾	1.8	6.0	8.5	Tail Piece	Brass ASTM B124-09, B228-06, or B763-08A
CBV100	1	2.8	9.5	14.0	PT Seal	EPDM Dual Durometer Core
CBV125	1¼	5.4	17.0	24.0	Handle	Chrome Plated Steel
CBV150	1½	9.0	26.0	36.0	Stem	Brass ASTM B124-09 - Explosion Proof
CBV200	2	16.0	46.0	66.0	Ball	Chrome Plated Brass - Standard Port
					Ball Seat	Teflon
					Specification information is provided to assist and is given without obligation or warranty. The Company reserves the right to make changes in design, materials, and/or specifications without notice or liability.	

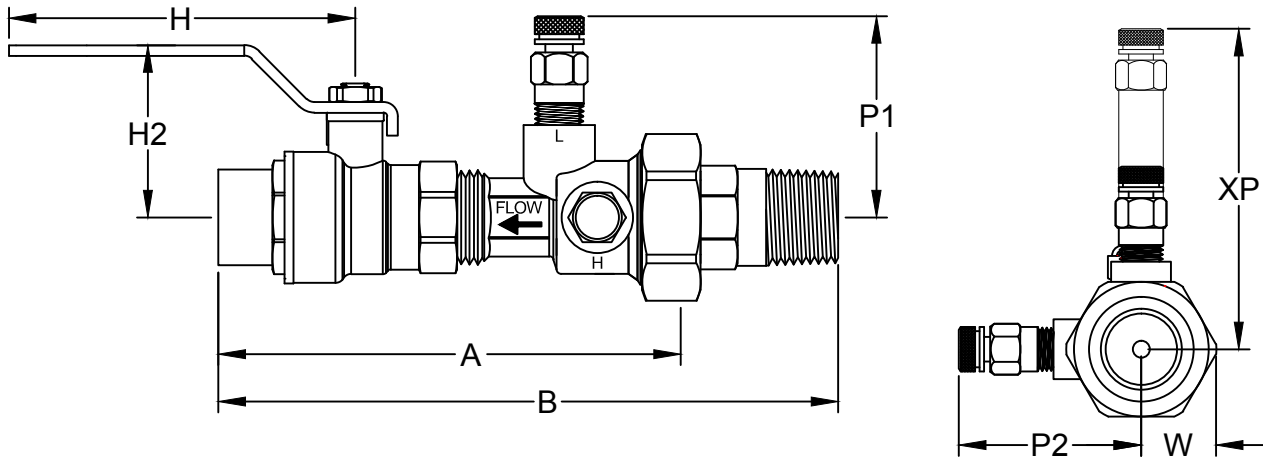
PRODUCT SPECIFICATIONS:

- Devices shall have a 15° regain chamber for optimal pressure regain and minimal permanent pressure drop
- Venturi tube shall be independent of the throttling valve
- Venturi tube shall include proper pipe diameters for optimal accuracy
- Valve shall be designed with memory stop to limit flow once balanced
- The Model CBV shall have an accuracy rating of:
 - ±1% between 10" W.C. and 70" W.C.
 - ±3% between 5" W.C. and 150" W.C.
 - ±5% less than 5" W.C. and over 150" W.C.

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CBV Series Dimensions

Combination Ball Valve/Venturi



Model	Size	A		H	H2	P1	P2	W	Option XP	Cv *
		FPT	SWT							
CBV050L	1/2"	4.5	4.9	3.5	1.3	2.1	2.1	0.8	3.3	0.55
CBV050H	1/2"	4.5	4.9	3.5	1.3	2.1	2.1	0.8	3.3	1.52
CBV075L	3/4"	4.7	5.0	3.7	1.5	2.1	2.1	1.0	3.3	1.52
CBV075H	3/4"	4.7	5.0	3.7	1.5	2.1	2.1	1.0	3.3	3.1
CBV100	1"	5.1	5.4	4.5	1.8	2.3	2.3	1.1	3.4	4.9
CBV125	1 1/4"	5.6	6.0	5.5	2.1	2.4	2.4	1.4	3.6	8.8
CBV150	1 1/2"	7.0	7.3	5.5	2.5	2.8	-	1.7	3.9	13.1
CBV200	2"	7.6	8.1	5.9	2.6	3.0	-	2.0	4.1	24.0

Note: All dimensions, weights, and materials are subject to minor variations. Consult with factory for confirmation of dimensions, weights, and material specifications.

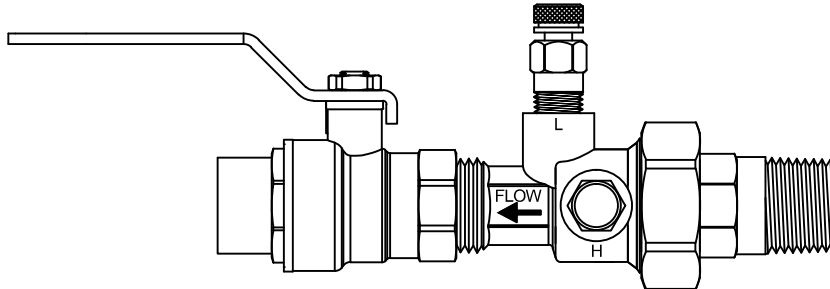
* Cv = Estimated with Union connection same as inlet, no reductions.

Size	Tail Piece	B	Weight	Size	Tail Piece	B	Weight
1/2" SWT	- M	6.4	1.2	1/2" FPT	- M	6.0	1.2
	1/2" - F	5.5	1.1		1/2" - F	5.1	1.1
	- S	5.5	1.1		- S	5.1	1.1
3/4" SWT	- M	6.7	1.6	3/4" FPT	- M	6.4	1.6
	1/2" - F	5.8	1.6		1/2" - F	5.5	1.6
	- S	5.7	1.5		- S	5.4	1.4
	- M	7.0	1.6		- M	6.2	1.5
	3/4" - F	7.0	1.5		3/4" - F	5.8	1.5
	- S	5.8	1.4		- S	5.4	1.4
1" SWT	1/2" - M	7.4	2.3	1" FPT	1/2" - M	7.1	2.3
	3/4" - M	6.3	2.0		3/4" - M	6.0	2.3
	- S	6.4	2.1		3/4" - S	6.1	2.1
	- M	7.2	2.3		- M	7.1	2.3
	1" - F	7.4	2.1		1" - F	7.1	2.1
- S	7.4	2.1	- S	6.0	2.1		
1 1/4" SWT	1/2" - M	8.0	3.5	1 1/4" FPT	1/2" - M	7.6	3.5
	3/4" - M	7.0	3.7		3/4" - M	6.6	3.7
	1" - M	7.1	3.7		1" - M	6.6	3.6
	- M	7.7	3.7		- M	7.4	3.8
	1 1/4" - F	8.0	3.6		1 1/4" - F	7.6	3.6
	- S	8.0	3.3		- S	7.6	3.3
1 1/2" SWT	3/4" - M	9.8	6.0	1 1/2" FPT	3/4" - M	9.4	6.0
	1" - M	8.8	4.9		1" - M	8.2	5.8
	1 1/4" - M	8.5	5.9		1 1/4" - M	8.1	5.8
	- M	9.2	5.8		- M	8.8	5.9
	1 1/2" - F	9.8	5.5		1 1/2" - F	9.4	5.5
	- S	9.8	4.3		- S	9.4	5.3
2" SWT	1" - M	11.1	9.2	2" FPT	1" - M	10.1	9.0
	1 1/4" - M	9.2	9.1		1 1/4" - M	8.7	9.0
	1 1/2" - M	9.5	9.0		1 1/2" - M	9.0	8.8
	- M	10.1	9.0		- M	9.6	8.8
	2" - F	11.1	8.3		2" - F	10.6	8.1
	- S	11.1	7.9		- S	10.6	7.8

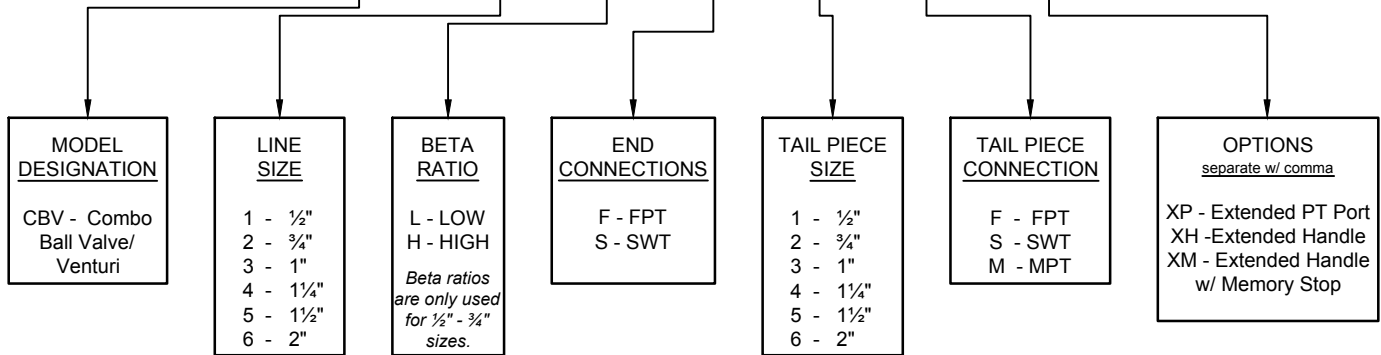
Note: Sweat size listed is nominal and will differ from the actual, measurable size.

PRO Hydronic Specialties

CBV Series Submittal Combination Ball Valve/Venturi



CBV - X - X - X - X - X - XX,



JOB NAME:		CUSTOMER:	
ENGINEER:		REF/PO#:	DATE:
CONTRACTOR:		SUBMITTED BY:	DATE:
PART # (See table above)	TAGGING/JOB INFORMATION	GPM	QUANTITY