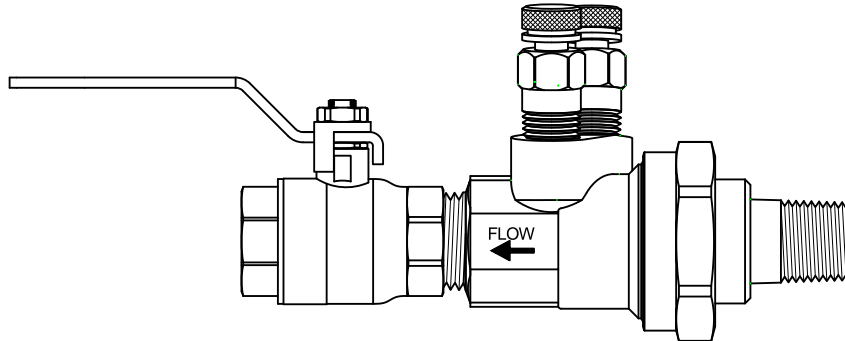




## CBV Series Specifications

### Combination Ball Valve/Venturi



**PRODUCT DESCRIPTION:** The CBV flow balancing brass venturi provides highly accurate flow measurement capabilities. The efficient low loss venturi design provides effective flow balancing with minimal system pressure loss. The CBV includes a brass ball valve with memory stop, and a venturi with an integral union. 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 FNPT, MNPT, SWT, and a variety of reductions.

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

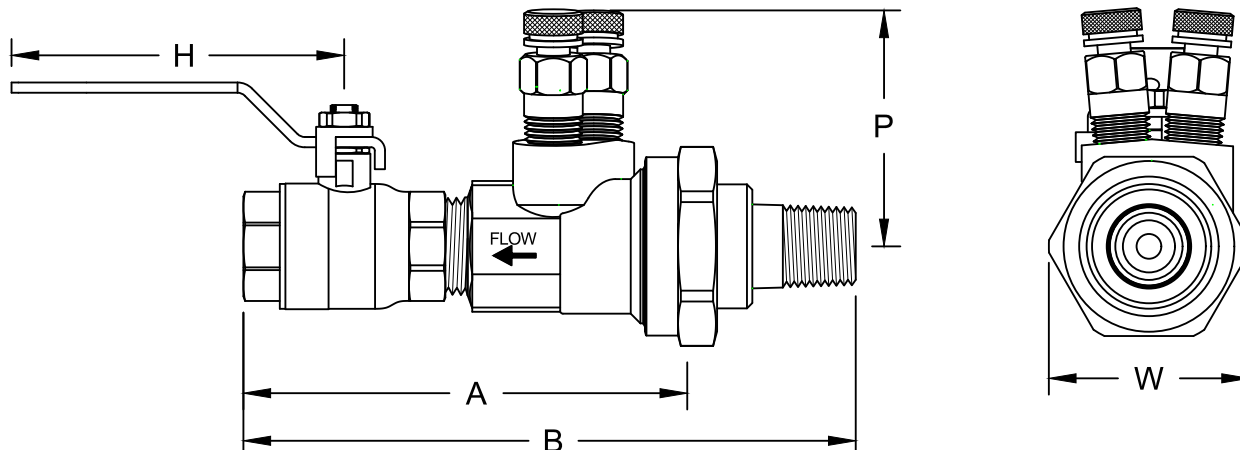
RECOMMENDED FLOW RANGES (GPM)					STANDARD MATERIAL SPECIFICATIONS	
Model	Size	Minimum	@ 100"	@ 200"	Venturi Ball Valve O-ring Tail Piece Union Nut PT Seal Handle Memory Stop Stem Ball Ball Seat Packing Nut Packing Gland	Cast Brass ASTM B763-08A Forged Brass ASTM B283-06 EPDM Brass ASTM B124-09, B228-06, or B763-08A Brass ASTM B455 EPDM Dual Durometer Core Chrome Plated Steel 302 Stainless Steel Brass ASTM B124-09 - Blow-Out Proof Chrome Plated Brass Teflon Brass ASTM B124-09, B228-06, or B763-08A Teflon
CBV050L	½"	0.3	1.2	1.8		
CBV050H	½"	0.8	2.9	4.2		
CBV075UL	¾"	0.3	1.2	1.8		
CBV075L	¾"	0.8	2.9	4.2		
CBV075H	¾"	1.8	6.1	8.9		
CBV100	1"	2.8	9.8	14.3		
CBV125	1¼"	4.8	16.4	24.0		
CBV150	1½"	7.5	24.4	35.5		
CBV200	2"	12.0	40.8	69.3		
STANDARD OPERATING SPECIFICATIONS						
Maximum Working Pressure: 600 WOG / CWP      Maximum Operating Temperature: 40° F to 250° F						
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.



## CBV Series Dimensions Combination Ball Valve/Venturi



Model	Size	A		H	P	W	Cv **
		FPT	SWT				
CBV050L	½"	4.5	4.8	3.7	2.1	1.6	1.1
CBV050H	½"	4.5	4.8	3.7	2.1	1.6	3.8
CBV075UL*	¾"	4.7	5.2	3.8	2.1	1.6	1.1
CBV075L	¾"	4.7	5.2	3.8	2.1	1.8	2.3
CBV075H	¾"	4.7	5.2	3.8	2.1	1.8	8.0
CBV100	1"	5.1	5.7	5.0	2.2	2.1	13.4
CBV125	1¼"	5.8	6.5	5.0	2.4	2.8	25
CBV150	1½"	7.0	8.0	6.3	2.7	3.1	31
CBV200	2"	7.6	8.7	6.2	3.0	3.8	87

*Note: Dimensions listed do not include ProPress or any other special fittings or adapters. All dimensions, weights, and materials are subject to minor variations. Consult with factory for confirmation of dimensions, weights, and material specifications.*

\* CBV075UL Tailpiece size is ½"

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

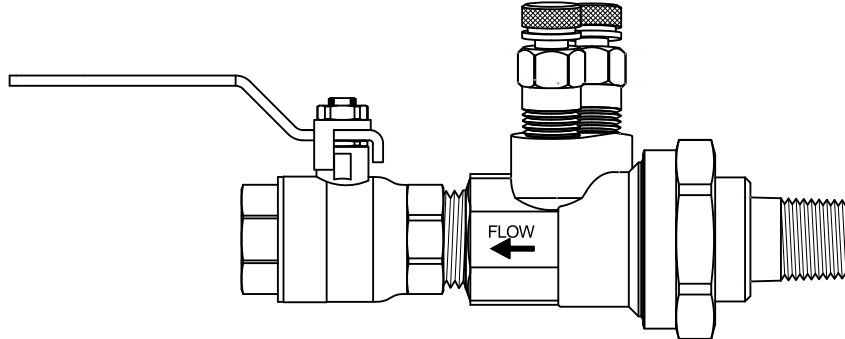
Size	Tail Piece	B	Weight	Size	Tail Piece	B	Weight
½" SWT	- M	6.2	1.4	½" FPT	- M	6.0	1.4
	½" - F	5.5	1.3		½" - F	5.1	1.3
	- S	5.5	1.3		- S	5.1	1.3
¾" SWT	- M	6.7	1.8	¾" FPT	- M	6.5	1.8
	½" - F	6.3	1.8		½" - F	5.8	1.8
	- S	6.0	1.7		- S	5.5	1.7
	- M	6.8	1.8		- M	6.5	1.8
	¾" - F	6.0	1.7		¾" - F	5.5	1.8
	- S	6.0	1.7		- S	5.5	1.7
1" SWT	½" - M	7.7	2.7	1" FPT	½" - M	7.1	2.7
	¾" - M	7.7	2.7		¾" - M	7.1	2.7
	- M	7.7	2.7		- M	7.0	2.7
	1" - F	6.7	2.5		1" - F	6.0	2.5
	- S	6.7	2.5		- S	6.0	2.5
	- M	8.1	3.9	1¼" FPT	½" - M	7.5	3.9
1¼" SWT	¾" - M	8.3	4.0		¾" - M	7.7	4.0
	1" - M	8.3	4.1		1" - M	7.7	4.1
	- M	8.5	4.2		- M	7.7	4.1
	1¼" - F	7.5	3.9		1¼" - F	6.7	3.8
	- S	7.5	3.7		- S	7.0	3.7
1½" SWT	¾" - M	9.7	5.6	1½" FPT	¾" - M	9.3	5.7
	1" - M	10.7	6.1		1" - M	9.5	6.0
	1¼" - M	10.7	6.2		1¼" - M	9.5	6.1
	- M	10.5	6.0		- M	9.5	6.0
	1½" - F	9.1	5.8		1½" - F	8.2	5.7
	- S	9.1	5.6		- S	8.2	5.6
2" SWT	1" - M	11.7	9.3	2" FPT	1" - M	10.5	9.1
	1¼" - M	11.7	8.9		1¼" - M	10.5	8.6
	1½" - M	11.7	8.9		1½" - M	10.5	8.7
	- M	11.7	9.0		- M	10.5	8.8
	2" - F	9.8	8.3		2" - F	8.7	8.1
	- S	10.1	8.0		- S	9.0	7.8

*Note: Sweat size listed is nominal and will differ from the actual, measurable size. Not all available tailpiece connections are listed, please consult with factory for additional information.*



# CBV Series Submittal

## Combination Ball Valve/Venturi



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

MODEL DESIGNATION	LINE SIZE	BETA RATIO	END CONNECTIONS	TAIL PIECE SIZE	TAIL PIECE CONNECTION	OPTIONS <small>separate w/ comma</small>
CBV - Combo Ball Valve/Venturi	1 - 1/2" 2 - 3/4" 3 - 1" 4 - 1 1/4" 5 - 1 1/2" 6 - 2"	L - LOW H - HIGH  <i>Beta ratios are only used for 1/2" - 3/4" sizes.</i>	F - FPT S - SWT	1 - 1/2" 2 - 3/4" 3 - 1" 4 - 1 1/4" 5 - 1 1/2" 6 - 2"	F - FPT S - SWT M - MPT	XP - Extended PT Port XM - Extended Handle w/ Memory Stop

JOB NAME:		REPRESENTATIVE:	
ENGINEER:		REF/PO#:	
CONTRACTOR:		SUBMITTED BY:	
		DATE:	
		DATE:	

PART # (See table above)	TAGGING/JOB INFORMATION	GPM	QUANTITY