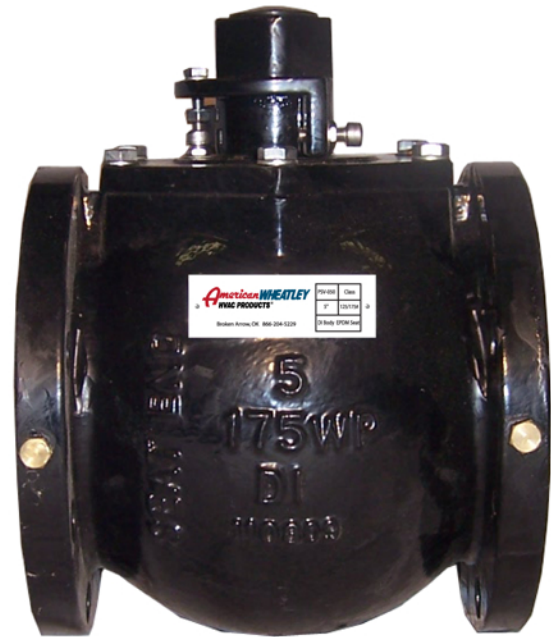


Plug Style Balancing Valve

Features:

- Compact design, quarter turn operation
- Easy to read flow indication plate
- Gear operator standard on 10" and larger models
- Maximum working pressure of 175 psi
- Ideal for HVAC hydronic balancing
- Adjustable memory stop standard on 2 1/2" through 8" - Balance to 24" Gear Operated
- Schrader style test port connections for balancing
- Maximum working temperature of 250°F



MODEL	SIZE	A	B	C	D	E	F*	WEIGHT
PSV025	2 1/2"	7"	6 3/16"	3 1/2"	11/16"	7 1/2"	-	30 lbs.
PSV030	3"	7 1/2"	6 3/16"	3 3/4"	3/4"	8"	-	40 lbs.
PSV040	4"	9"	7 1/4"	4 1/2"	15/16"	9"	-	70 lbs.
PSV050	5"	10"	8 3/8"	5 3/4"	15/16"	10"	-	105 lbs.
PSV060	6"	11"	8 3/8"	5 3/4"	1"	10 1/2"	-	115 lbs.
PSV080	8"	13 1/2"	10 11/16"	7 5/8"	1 1/8"	11 1/2"	-	190 lbs.
PSV080WG	8"	13 1/2"	10 11/16"	7 5/8"	1 1/8"	11 1/2"	12"	245 lbs.**
PSV100WG	10"	16"	11 1/8"	8 7/8"	1 3/16"	13"	12"	345 lbs.**
PSV120WG	12"	19"	12 13/16"	10"	1 1/4"	14"	12"	440 lbs.**
PSV140WG	14"	21"	14 9/16"	13"	1 3/8"	17"	18"	905 lbs.**
PSV160WG	16"	23 1/2"	15 13/16"	14"	1 7/16"	17 3/4"	18"	1,030 lbs.**
PSV180WG	18"	25"	16 23/64"	15"	1 9/16"	21 1/2"	18"	1,355 lbs.**
PSV200WG	20"	27 1/2"	17 5/8"	16"	1 11/16"	23 1/2"	18"	1,880 lbs.**
PSV240WG	24"	32"	25 1/8"	21 5/8"	1 7/8"	42"	24"	3,800 lbs.**

*10" and above come standard with gear.

**Weight includes gear

All packaging materials, thread protectors, plastic plugs and caps must be removed before installation. Dimensions are subject to change without notice, please confirm actual dimensions with factory at time of order.

JOB NAME _____
LOCATION _____

CONTRACTOR _____
CONTRACTOR P.O. NO. _____

ITEMS	QUANTITY
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



2701 W. Concord Street
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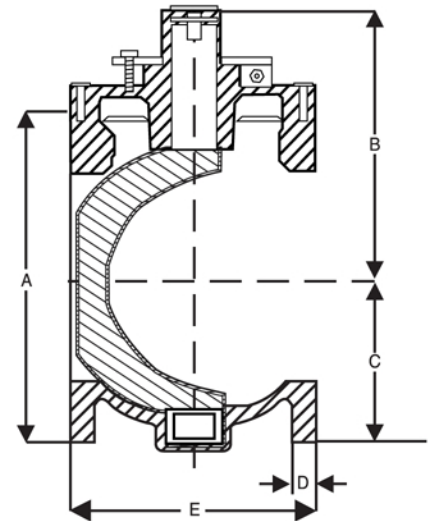
Bill of Materials

Part	Material
Body	65-45-12 Ductile Iron
Plug	DI-Vulcanized Rubber
Bearings	Stainless Steel
Packing	EPDM
Cap	Cast Iron A126
Torque Collar	Ductile Iron ASTM A536
Journal Bearing	Stainless Steel ANSI 316
PTFE Washer (Grit Seal)	PTFE
O Ring	Elas. as Specified
U Cup Seal	Elas. as Specified
Washer	Brass ASTM B-138-675
Internal Snap Ring	Spring Steel
Set Screw	Steel (Zinc Plated)
Stops	Steel (Zinc Plated)
Locking Washer	Steel
Nut	Steel (Zinc Plated)
Torque Bolt	Steel (Zinc Plated)
Travel Stop	Steel
Washer	Steel

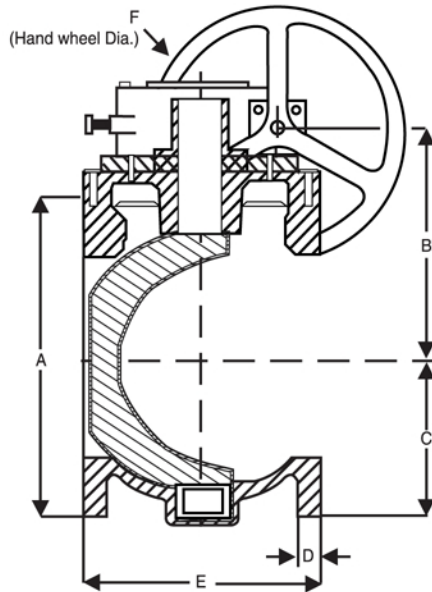
C_v Chart

Value Size	C Values - Wide Open (Flow in GPM of Water at 1 psi pressure drop)
2 1/2"	236
3"	330
4"	560
5"	1180
6"	1180
8"	2030
10"	3130
12"	4140

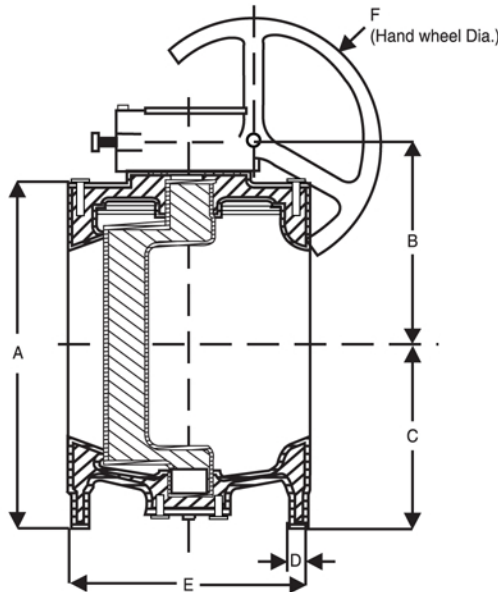
2 1/2" - 8"



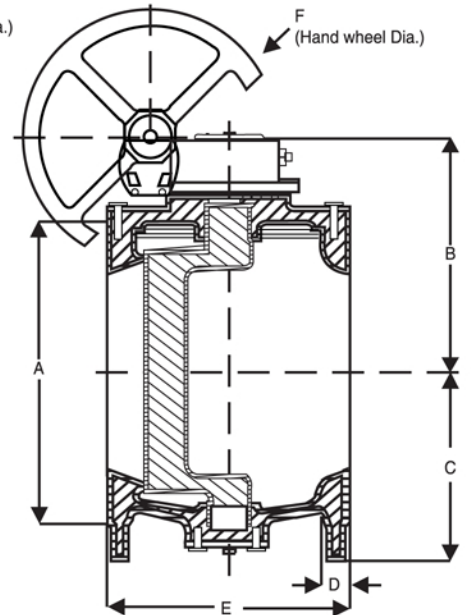
2 1/2 - 12"



14" - 20"



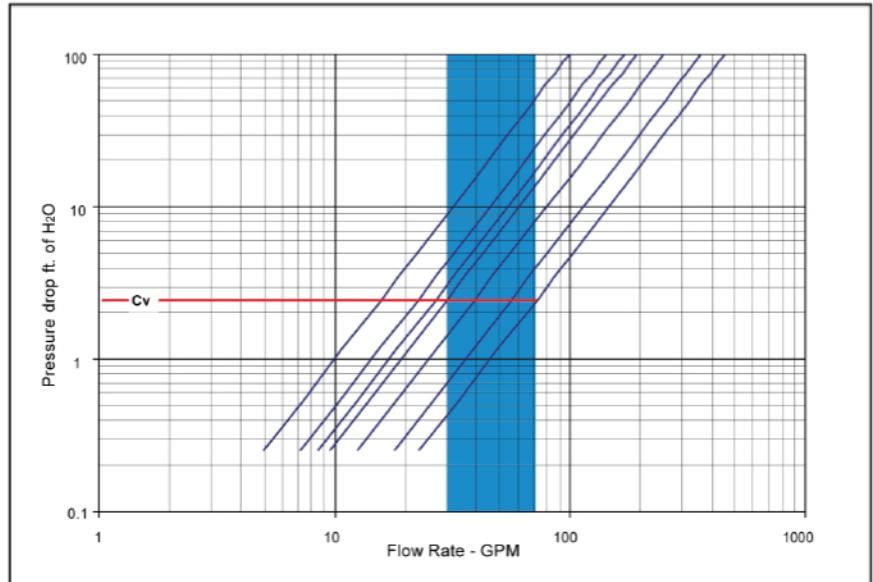
24"



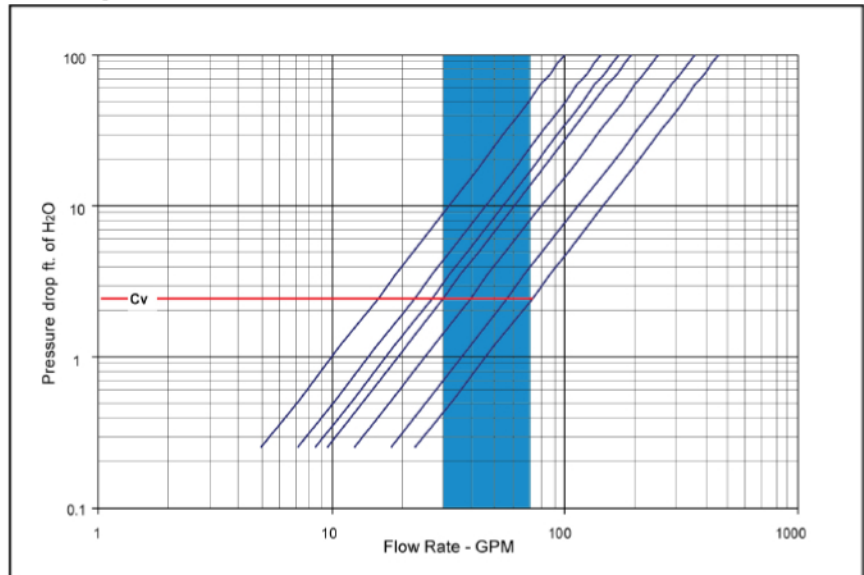
Globe Style Balancing Valve Balancing Charts

Graphs for determining flow vs pressure differential across balance valve. The shaded area indicates optimum performance with Pd between 1'-4'/100, selection above 4' can result in lower system efficiency, reduced air removal, and component failure. Use of the same pressure gauge for readings on both sides of valve is required for accurate Pd readings.

**Globe Style Balancing Valve
2.5" Straight Pattern**



2.5" Angled Pattern

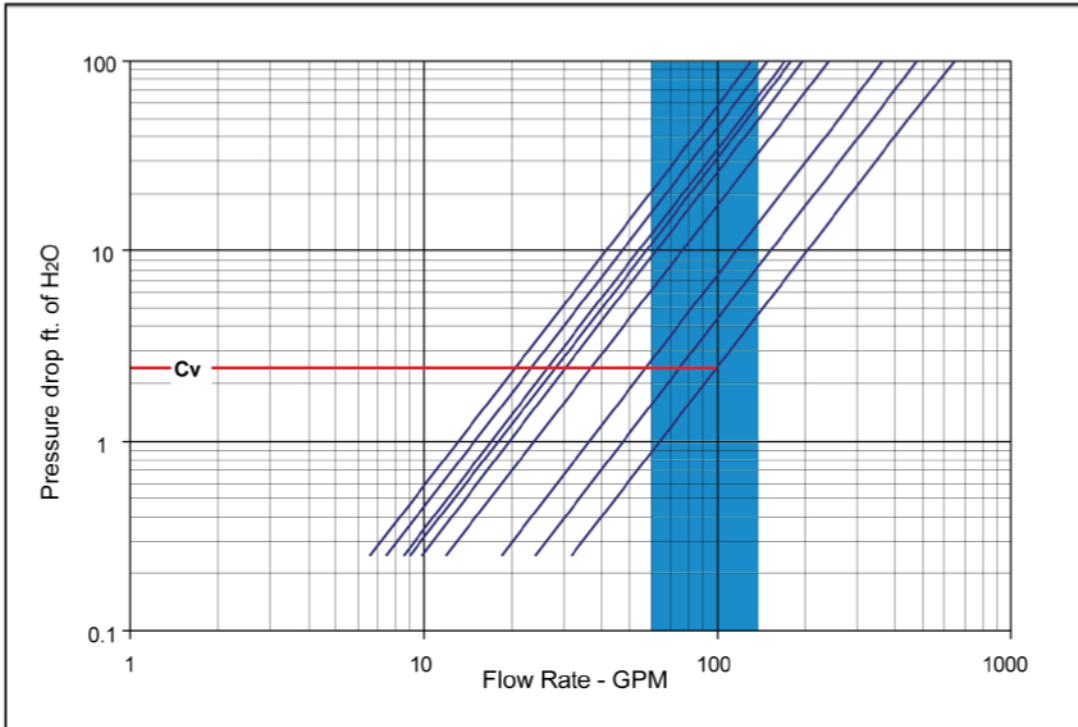


JOB NAME _____
 LOCATION _____

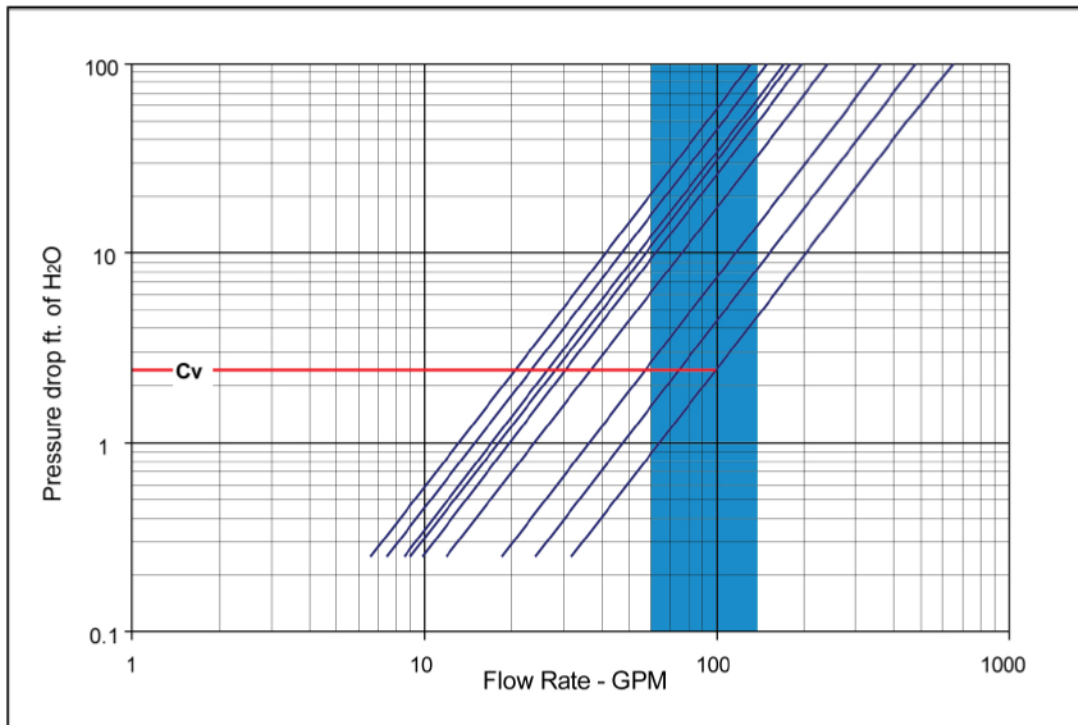
 CONTRACTOR _____
 CONTRACTOR P.O. NO. _____

ITEMS	QUANTITY
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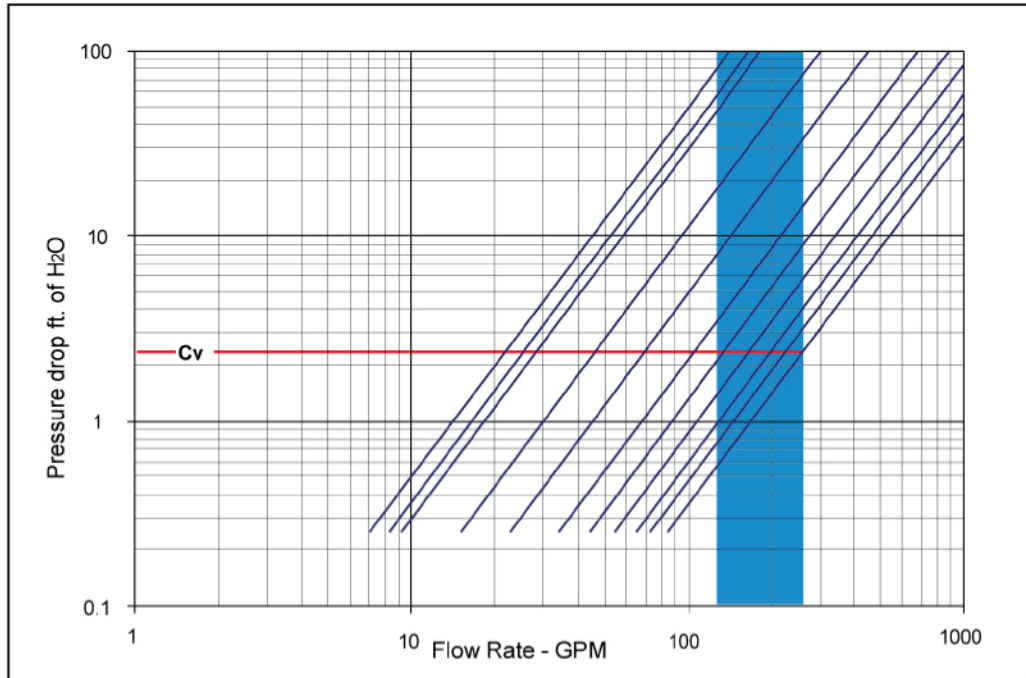
**Globe Style Balancing Valve
3" Straight Pattern**



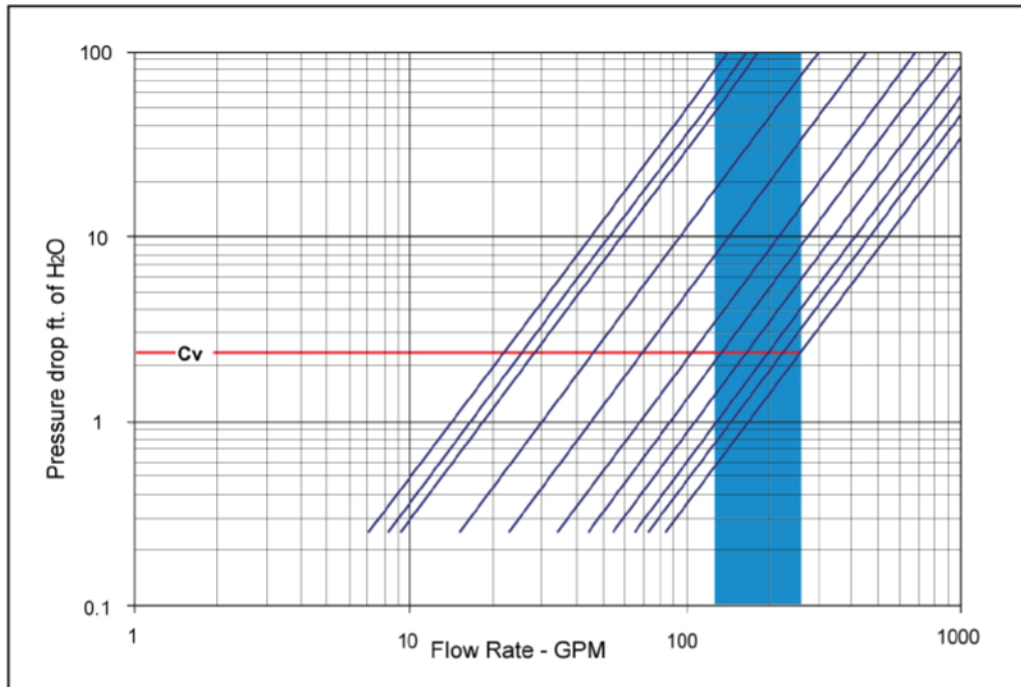
3" Angled Pattern



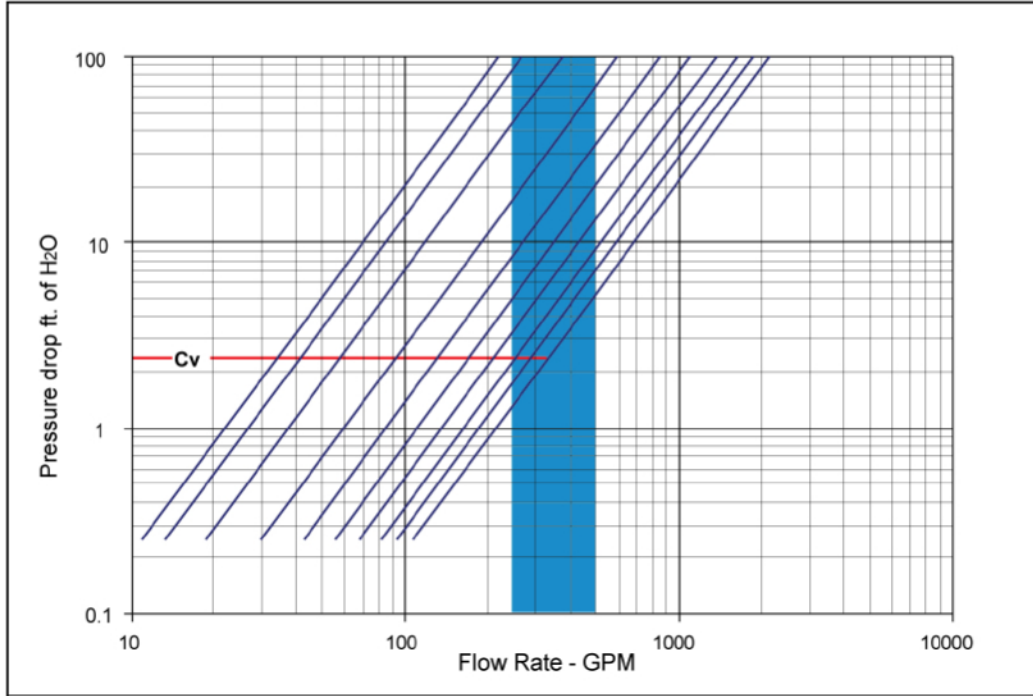
**Globe Style Balancing Valve
4" Straight Pattern**



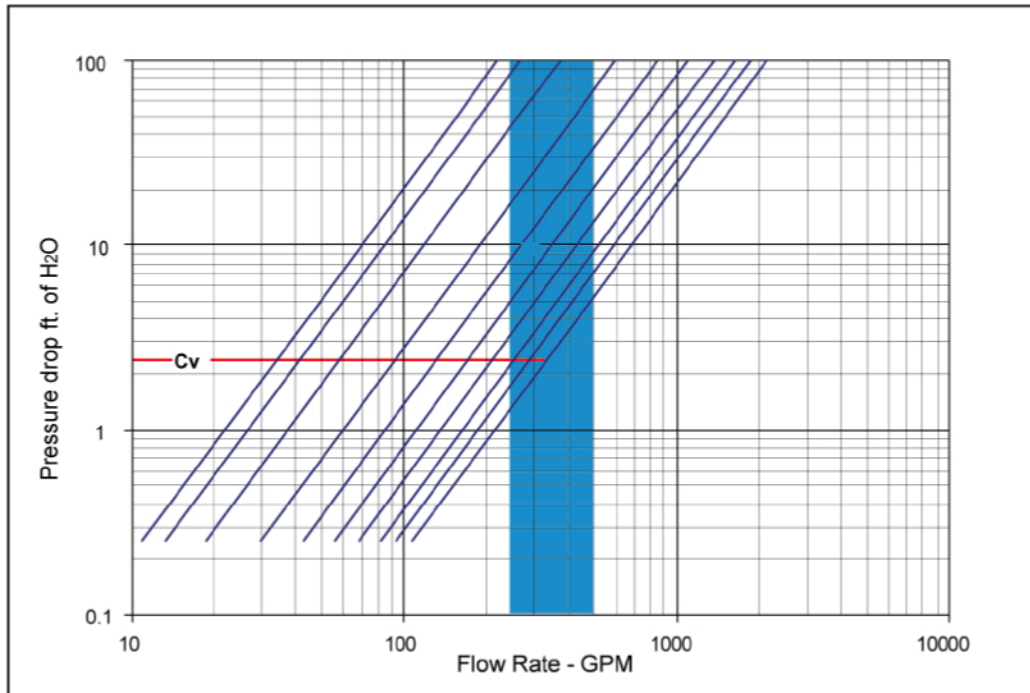
4" Angled Pattern



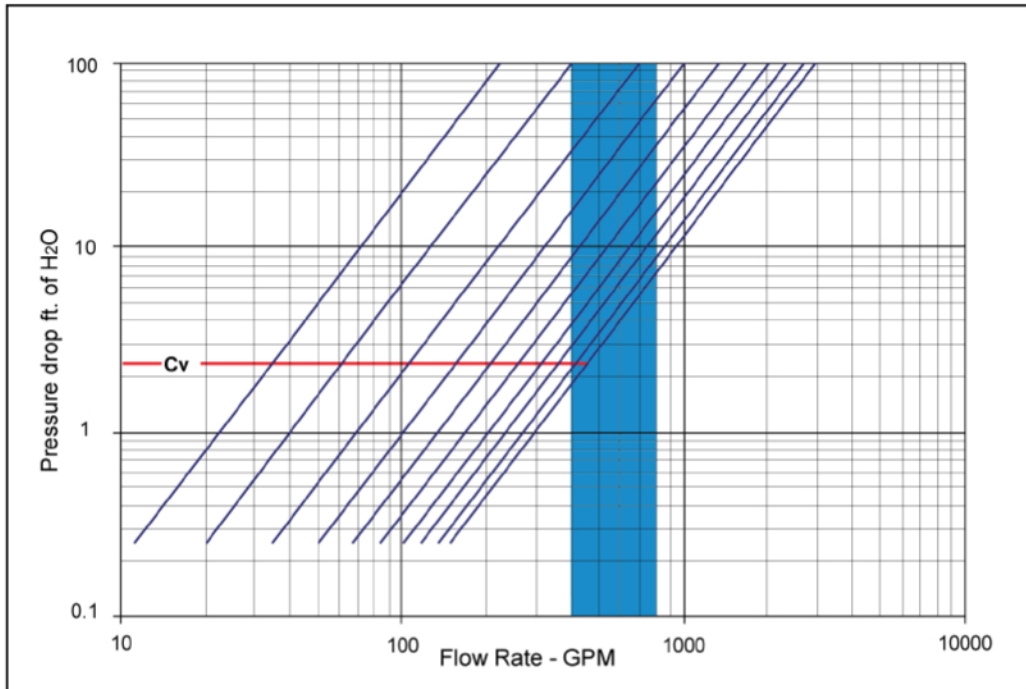
**Globe Style Balancing Valve
5" Straight Pattern**



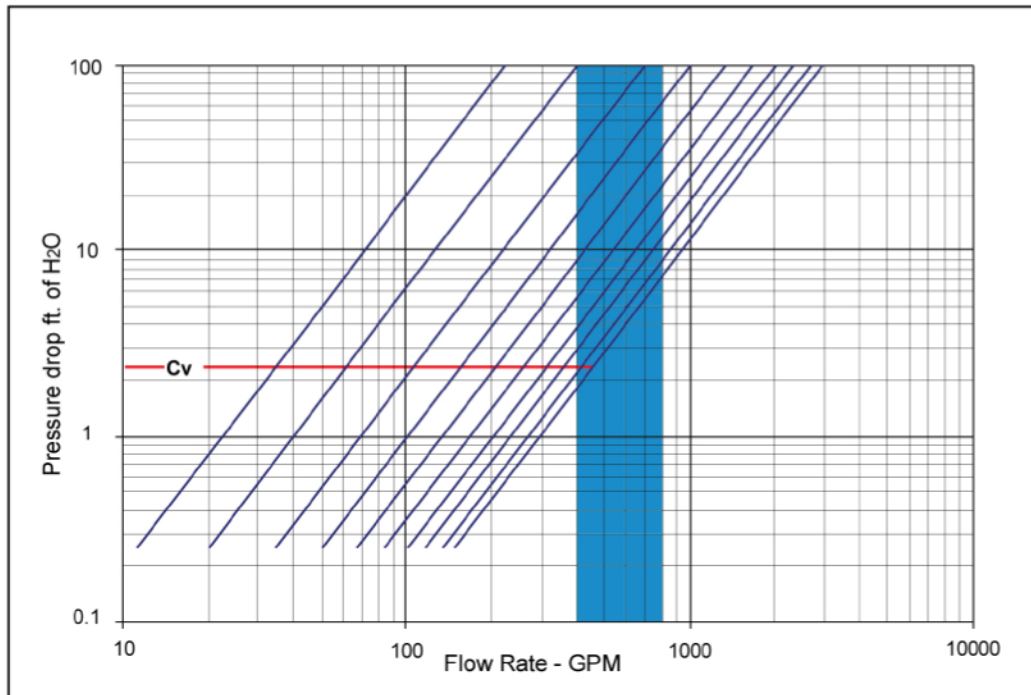
5" Angled Pattern



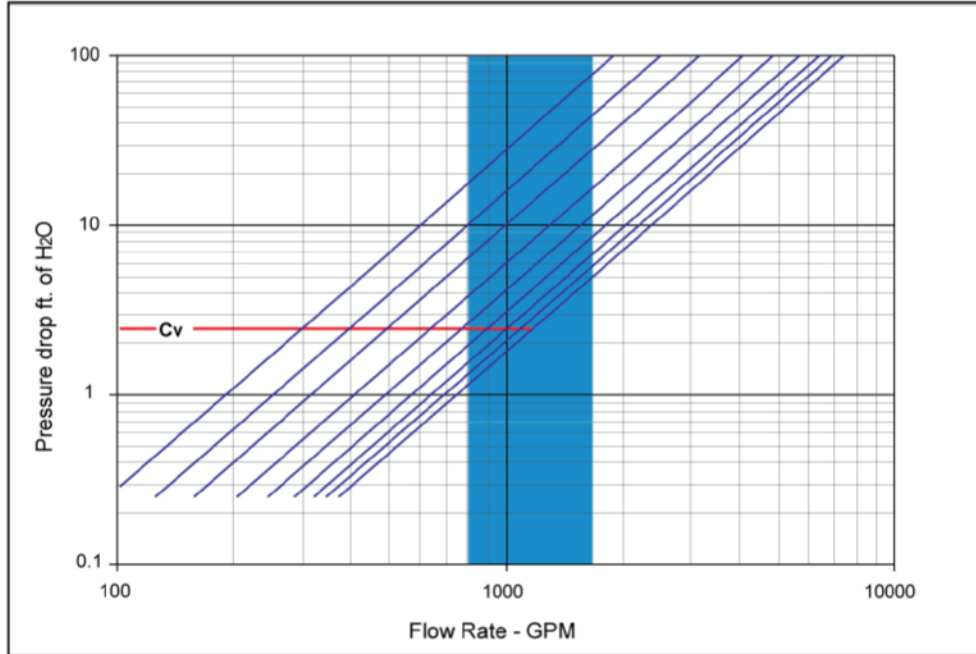
**Globe Style Balancing Valve
6" Straight Pattern**



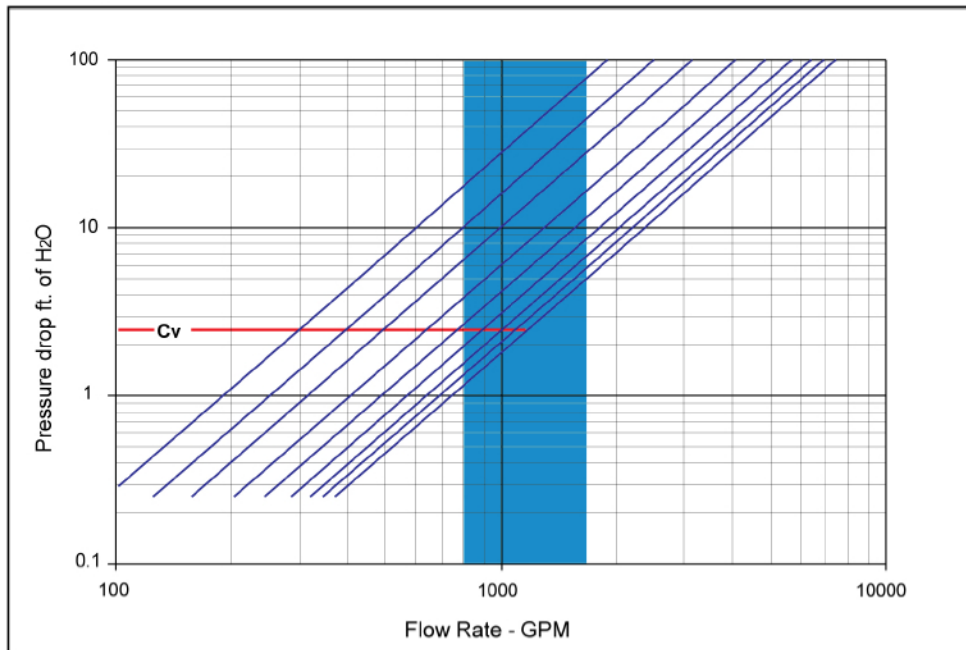
6" Angled Pattern



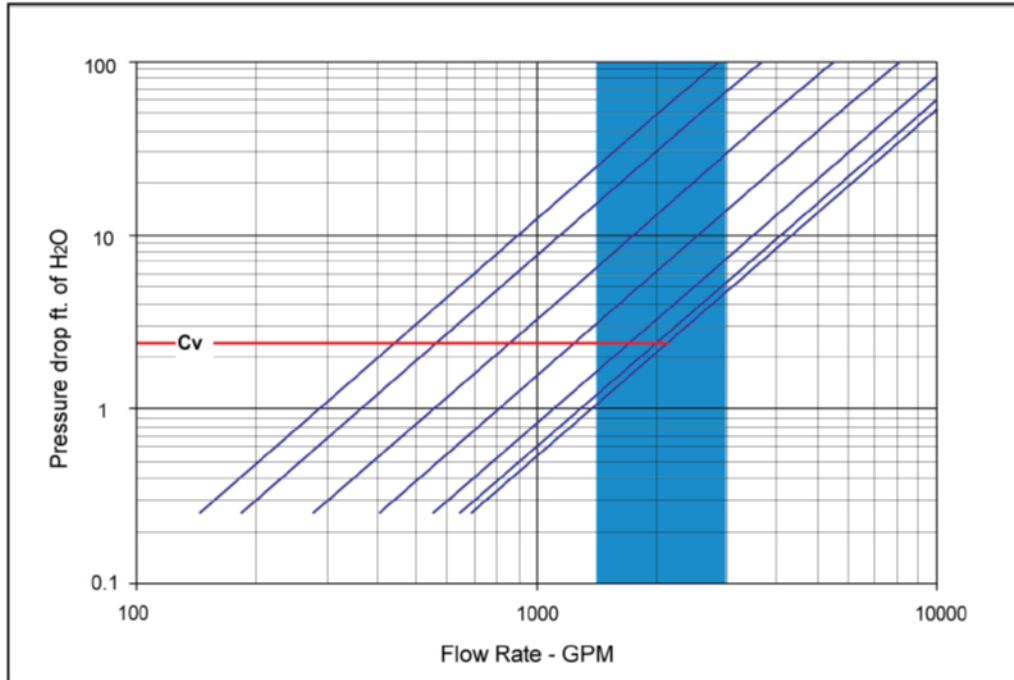
**Globe Style Balancing Valve
8" Straight Pattern**



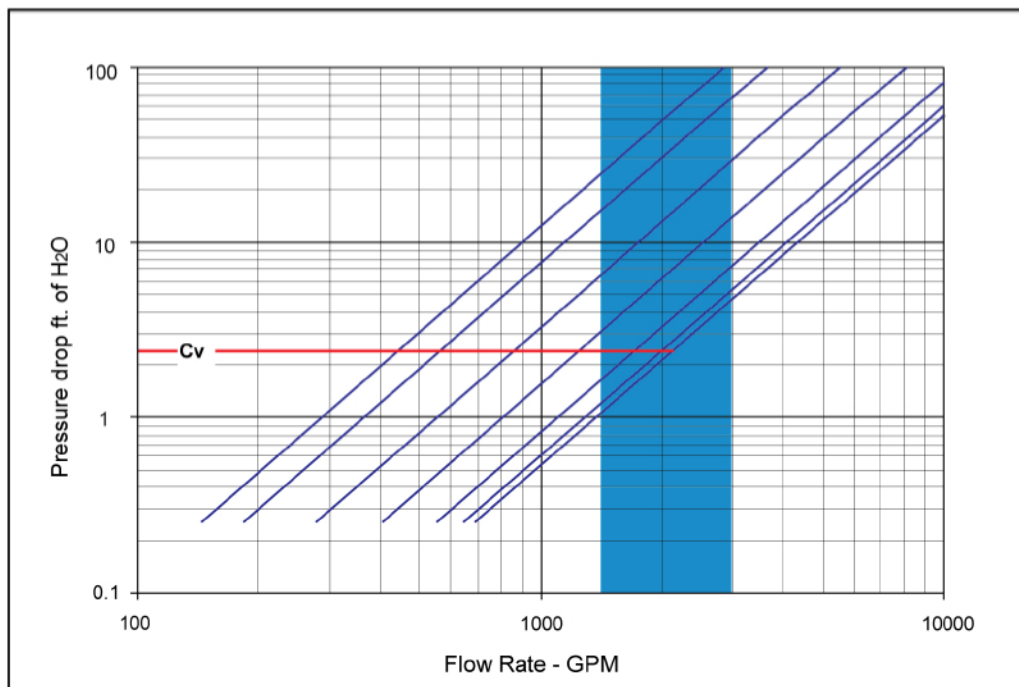
8" Angled Pattern



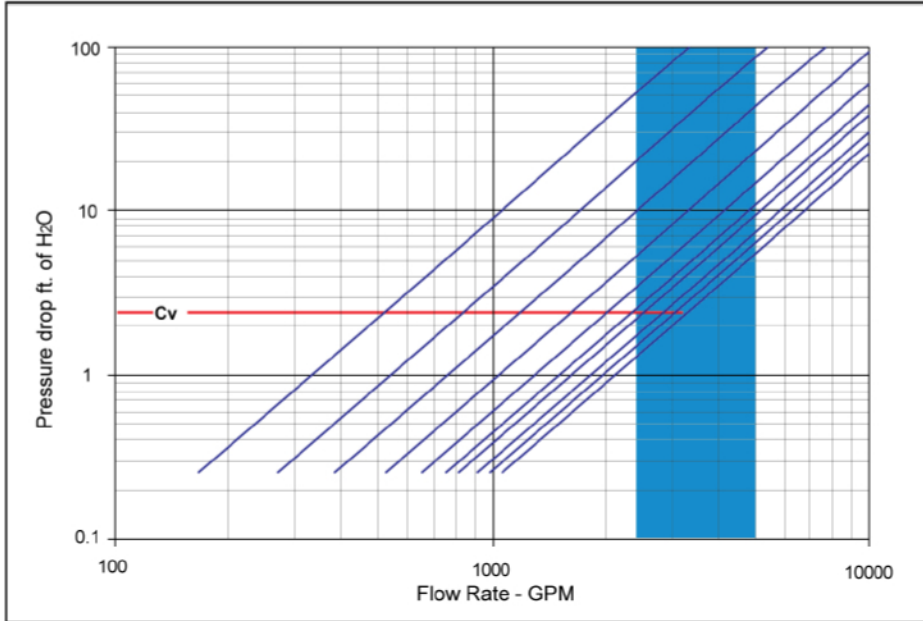
**Globe Style Balancing Valve
10" Straight Pattern**



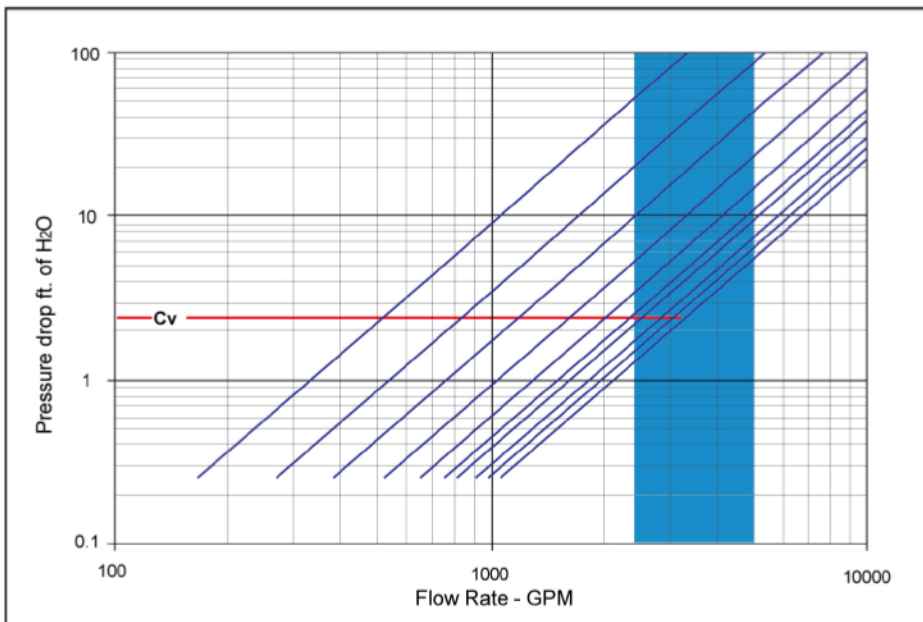
10" Angled Pattern



**Globe Style Balancing Valve
12" Straight Pattern**



12" Angled Pattern



Balance Valve-Readout Procedure Installation & Operation Instructions

NOTE: BALANCE VALVES ARE NOT DESIGNED TO OPERATE IN A FULL OPEN POSITION Be sure that the balance valve is installed in an appropriate location per the following: For optimum operation as a balance device measuring differential pressure, it is required that a distance of 10 pipe diameters straight pipe be installed upstream of the BV and 5 times the pipe diameter downstream. The balance valve should be closed at least 10% for proper operation. The valve cannot be installed with the stem pointing downward. The stem must point upward to avoid premature failure.

1. Attached the hoses from the readout meter kit to the port on the inlet and outlet of the balance valve Be sure to vent any air from the hoses and meter kit
2. Close both valves on the meter kit, and close the balance valve to a desired starting point.
3. Open the valve attached to the hose on the inlet side of the balance valve. Note this gauge reading, this is the inlet reading before the valve.
4. Close inlet valve and Open the valve attached to the hose on the discharge side of the balance valve. Note this gauge reading, this is the outlet reading after pressure drop across the valve.
5. Deduct the reading in Step 4 from the reading in Step 3, this is your pressure differential across the valve Example:

$$\begin{array}{r}
 \text{Step 3 reading} = 25 \text{ psi} \\
 \text{Step 4 reading} = 20 \text{ psi} \\
 \hline
 \text{Differential} = 5 \text{ psi}
 \end{array}$$

6. Identify the correct curve applying to the valve and valve size.
7. Read differential pressure on left side vertical axis of curve, follow this point across the chart until it intersects the point corresponding to the setting of the valve, draw a line to the bottom of the chart and read flow in GPM at this setting. See page 2 example: 5 psid (differential) at 3 full rotations= 30 gpm
8. Readjust balance valve setting and repeat above as necessary.

JOB NAME _____
LOCATION _____
CONTRACTOR _____
CONTRACTOR P.O. NO. _____

ITEMS	QUANTITY
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



A GFP COMPANY

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