SERIES 90
PVC CONTROL VALVES

SIMPLE, RELIABLE DESIGN IS HIGHLY RESISTANT TO FERTILIZERS AND CHEMICALS

MANUAL PVC SLIP VALVE

PRESSURE REDUCING PVC THREADED VALVE

ELECTRIC PVC SLIP VALVE

PRODUCT ADVANTAGES

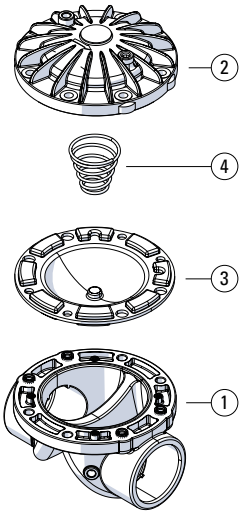
- **Superb Performance**
  Excellent regulation capabilities achieved by a flexible diaphragm mechanism that is design to allow maximal to near zero flow while operating at a very low head loss.
- **Exceptional Efficiency**
  Available with full selection of control functions and various end connections. The optional underground installation reduces both costs and friction losses by eliminating the use of elbow joints.
- **Improved Resistance**
  Resistance to corrosive fludids is accomplished by using high-quality corrosion-free materials, both externally and internally. Optional materials for highly concentrated chemicals protection.

APPLICATIONS

Exclusive valve series (3"-6") suitable for underground and above-ground installation in open fields and greenhouses.

SPECIFICATIONS

- Max Pressure: 145 psi
- Minimum recommended flow - 5 GPM
- Minimum operationg pressure: 4 psi
- Minimum operationg temperature: 104° F



AVAILABLE MODELS & SIZES

MATERIAL		PVC	
CONNECTION		THREADED	SLIP
SIZES	3"	X	X
	4"	-	X
	6"	-	X

MATERIALS

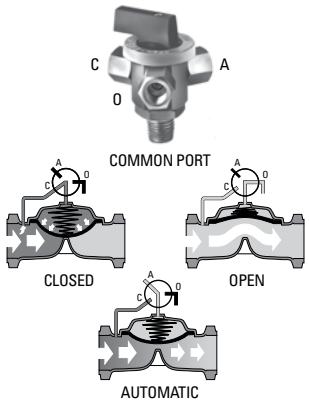
#	PART	STANDARD	OPTIONAL*
1	Body	uPVC	-
2	Bonnet	Glass reinforced polyamide	PPS
3	Diaphragm**	Natural rubber	ALD, EPDM
4	Spring	SST 302	SST 316

*. Optional parts for special chemical resistance

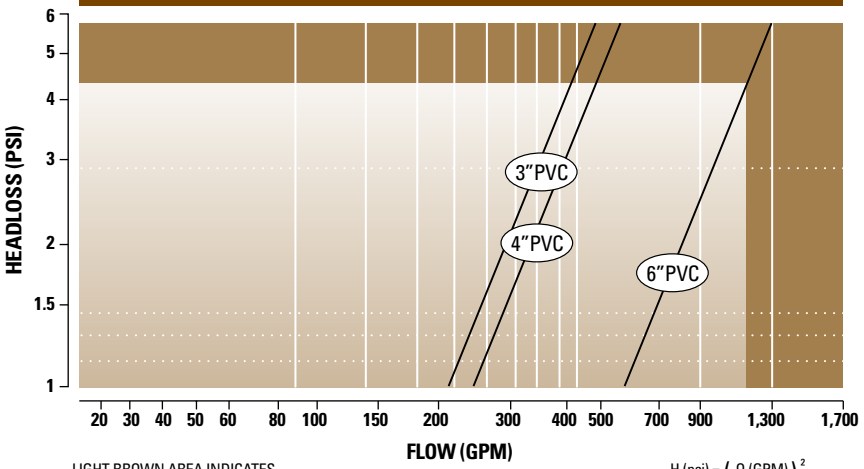
**. Wide selection of pressure ranges

MANUAL VALVE OPERATION WITH A 3-WAY SELECTOR

- CLOSED (C): Upstream pressure or pressure from an external source is applied to the control chamber. Initiated by the spring, the diaphragm is pressed down to close the valve drip-tight.
- OPEN (O): Relieving the water or air pressure to the atmosphere from the control chamber causes the valve to open.
- AUTOMATIC (A): The automatic port of the 3-Way selector is connected to a solenoid, hydraulic relay or pilot which controls the valve. The common port of the 3-Way selector connects the control chamber to either A, O or C, depending on the direction the selector is pointed.



FLOW RATE VS. PRESSURE LOSS



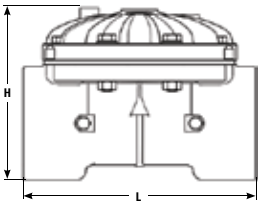
LIGHT BROWN AREA INDICATES RECOMMENDED OPERATING RANGE.

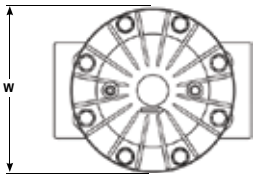
$$H\,(psi) = \left(\frac{Q\,(GPM)}{Cv}\right)^2$$

DIMENSIONS & WEIGHT

SIZE/CONNECTION	LENGTH	HEIGHT	WEIGHT *
3" PVC SLIP	10 1/8"	8"	8.8 LBS.
4" PVC SLIP	11"	8"	9.2 LBS.
6" PVC SLIP	14"	15"	26 LBS.

* Weight for Basic Valve





HYDRAULIC PERFORMANCES

VALVE SIZE		3	4	6
FLOW RATE FACTOR*	K_v	155	215	480
	C_v	180	250	560

*In order to calculate the head loss at any desired flow rate, use the following equation: Head loss = (Flow rate/Flow rate factor)2

SPECIFICATIONS

SIZE	MAX. FLOW (GPM)	Cv	OPERATING PRESSURE (psi) *
3" PVC	400	175	9 - 115
4" PVC	700	250	9 - 115
6" PVC	1,540	554	7 - 145

* Low Pressure Diaphragms also available

VALVE INSTALLATION TIPS

- THREADED VALVES: Use a few layers of Teflon sealer compound on the adapter and tighten by hand. Use a wrench to tighten the adapter another half revolution.
- SOCKET OR 'SLIP' VALVE WITH PVC PIPE: Use the same procedure as when cementing PVC pipes. Mark the pipe first, then apply glue to the socket of the valve and the PVC pipe. Insert the pipe until reaching the mark and rotate a quarter turn. Hold the joint in place until the cement hardens.
- INSTALLATION ABOVE GROUND: When installing a manifold above ground, the length of the manifold should be kept as short as possible (this eliminates the need for additional support). For longer lengths, a firm support under the horizontal pipes is recommended. Always install the valve with the bonnet exposed to the sun.

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