

IRON VALVES

**SUPREME DURABILITY
AND SUPERIOR HYDRAULIC
PERFORMANCE**



**MANUAL IRON
THREADED VALVE**



**BASIC IRON
GROOVED VALVE**



**PRESSURE REDUCING ELECTRIC
IRON FLANGED VALVE**

PRODUCT ADVANTAGES

- Unique design allows a straight flow pattern with lowest friction loss in the industry.
- Superb hydraulic performance with low operating pressure.
- Direct sealing diaphragm for positive opening and closing.
- Simple inline installation with minimal parts provides low maintenance requirements.
- Iron valves have protective polyester coating for resistance to corrosive elements and UV protection.

APPLICATIONS

- High pressure applications

SPECIFICATIONS

- Optional Functions: Manual, Electric, Pressure Reducing and Pressure Sustaining
- Connections:
Threaded ANSI NPT Female
Grooved ANSI/AWWA C-606
Flanged ANSI CL-125

MATERIALS

- Body and Bonnet:
Cast Iron (ASTM A 125 CLB)
- Spring: Stainless Steel (AISI 302)
- Nuts, Bolts, Washers:
Stainless Steel (BS 5216)
- Diaphragm: Natural Rubber

3-WAY CONTROL VALVES

The 3-Way control valve only ports water (or air) into the control chamber to close the valve or releases it from the control chamber to open the valve. This non-continuous porting technique allows for full opening of the main valve when operating conditions require the valve to be fully open.

AVAILABLE MODELS & SIZES

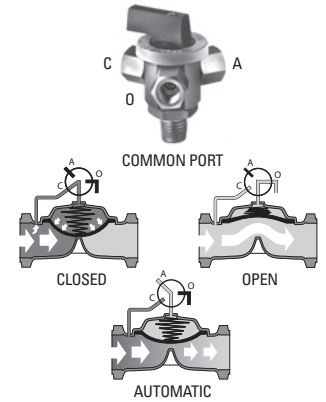
MATERIAL/CONNECTION	1"	1 1/2"	2"	2" AN	323	323 AN	3"	3" AN	4"	4" AN	6"	6" AN
IRON FLANGED	-	-	-	-	-	-	X	-	X	X	X	X
IRON THREADED	X	X	X	X	X	-	X	X	-	-	-	-
IRON GROOVED	-	-	X	-	X	-	X	X	X	-	X	-

AN = ANGLE VALVE

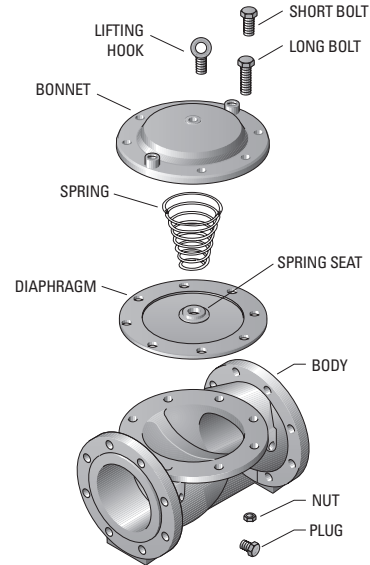
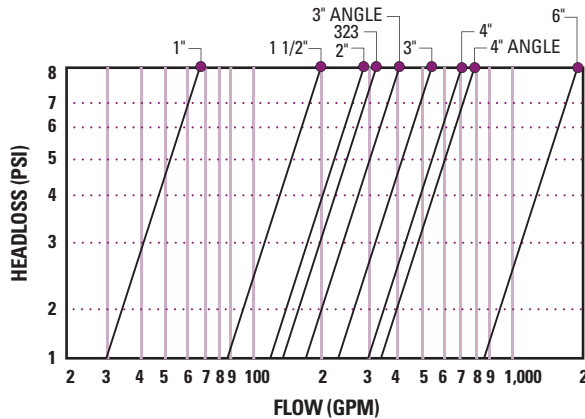
IRON VALVES

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



IRON FLANGED VALVE SHOWN

IRON VALVES DIMENSIONS & WEIGHT

SIZE/CONNECTION	LENGTH	HEIGHT	WEIGHT *
1" THREADED	4 3/4"	2"	2.2 LBS.
1 1/2" THREADED	6 11/16"	3 11/16"	4.9 LBS.
2" THREADED	7 7/16"	4 9/16"	7.0 LBS.
323 THREADED	8 7/8"	5"	9.9 LBS.
3" THREADED	8 7/8"	5"	24.0 LBS.
2" GROOVED	7 1/2"	4"	5.7 LBS.
323 GROOVED	7 15/16"	4 3/4"	6.6 LBS.
3" GROOVED	11 1/4"	4 7/8"	24.3 LBS.
4" GROOVED	12 1/2"	5 1/4"	26.4 LBS.
6" GROOVED	15 7/16"	9 7/8"	68.3 LBS.
3" FLANGED	11 1/4"	7 3/4"	37.5 LBS.
4" FLANGED	12"	9 1/16"	48.5 LBS.
6" FLANGED	15 3/8"	12 3/8"	101 LBS.

* WEIGHT FOR BASIC VALVE

HYDRAULIC SPECIFICATIONS

SIZE	MAX. RECOMMENDED FLOW RATE (GPM)	FLOW FACTOR (Cv)	OPERATING PRESSURE RANGE (psi) *
1"	44	20	17 - 230
1 1/2"	110	75	17 - 230
2"	176	110	21 - 230
323	176	110	21 - 230
3"	396	200	17 - 230
4"	440	260	17 - 230
6"	1,540	700	21 - 230

* HIGH PRESSURE DIAPHRAGM - LOW PRESSURE DIAPHRAGMS AVAILABLE FOR ALL SIZES
MINIMUM FLOW RATE FOR ALL SIZES: <1



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