

# DIAPHRAGM OPERATED VALVES



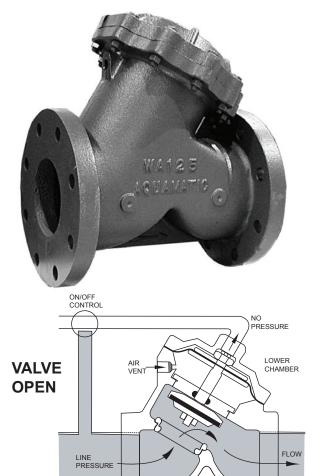
The Y-pattern diaphragm valve, with large seat opening and high lift disc, permits greater flows at lower pressure loss than any comparable valve. Positive control action is achieved, either hydraulically or pneumatically without the aid of springs. Components are serviceable while the valve is in line. These valves are available in both metallic and thermoplastic materials and are ideal for water treatment equipment such as water softeners and media filters.

#### **FEATURES**

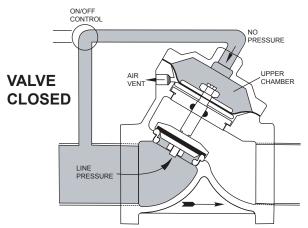
- Durable & Cost effective
- Extended diaphragm life
- · Low pressure loss through valve
- · Large opening, high lift disc gives high flow rates
- · Positive closing and opening
- · Hydraulic or pneumatic operation
- Diaphragm replaceable without interruption of flow
- Adaptable to many control devices

### **OPTIONS**

- Flow Limit Stops
- Spring-Assist. Open
- Spring-Assist. Closed
- Normally Closed
- Position Indication



**Full Open Operation** When closing pressure, in upper chamber, is relieved by venting the pilot line, the valve opens, positively, by line pressure on the disc.



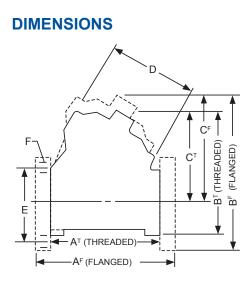
**Drip-Tight Closing** Closure is obtained by directing line pressure or equivilent independent pressure into the upper chamber. This pressure on the large diaphragm area causes the valve

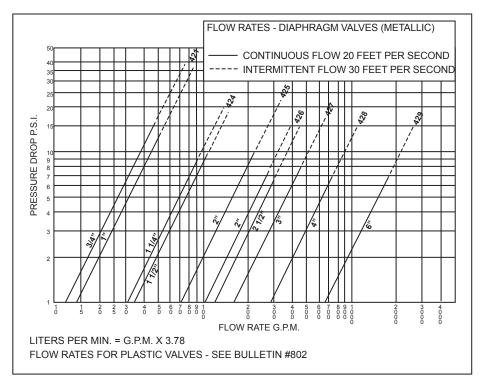
## **FLOW RATES**

Y-pattern design, large seat opening and high-lift diaphragm produce excellent flow characteristics. There are no springs and related parts to consume space or restrict flow.

The diaphragm is shape-formed of Buna N on Nylon to assure long life. It can be replaced without stopping flow, and all parts can be serviced with the valve in line. Valves are available with cast iron and brass. Maximum operating pressure: 125 psi (860 kPa); Minimum operating pressure: 7 psi (48 kPa); Maximum temperature: 300<sup>o</sup> F. (148<sup>o</sup> C).

For versatillity of application, valves are available to be either opened or closed by pilot pressure.





Size	Ends	Series		AT	AF	Β	BĔ	CT	CĔ	D	Е	F
3⁄4–1	THRD	421	ln.	3 <sup>11</sup> / <sub>16</sub>		4¼		3¼		2¾		
			mm.	94		108		82		70		
1¼–1½	THRD	424	ln.	4¾		5%		4		3½		
			mm.	120		136		101		89		
2	THRD	425	ln.	6.62		7.25		5.376		4.875		
			mm.	168		184		136		123		
2–2½	THRD	426	ln.	7¾		8		5¾		61⁄8		
			mm.	187		203		146		155		
3-S	THRD	427-S	In.	9		<b>9</b> ¾		6¾		7¼		
			mm.	228		247		171		184		
3-F	FLGD	427-F	ln.		10%		10¾		7	7¼	6	3⁄4
			mm.		270		273		178	184	160	18
4-F	FLGD	428-F	ln.		11¾		14¾		10	8¾	<b>7</b> ½	3⁄4
			mm.		298		375		254	222	180	18
6-F	FLGD	429-F	ln.		17		19		13½	15¾	9½	7⁄8
			mm.		431		482		343	402	240	20

## SPECIFICATIONS

Sizes: 3/4"–3" Threaded / 3"–6" Flanged Clas

ed Class: 125 Pound

Pressure: 125 PSI recommended Working Pressure (860 kPa).

**Temperature**: Water-Air – Standard  $32^{\circ}F-150^{\circ}F$  ( $0^{\circ}C-65^{\circ}C$ ) High Temperature  $150^{\circ}F-300^{\circ}F$  ( $65^{\circ}C-148^{\circ}C$ )

Materials: Body & Cap – Cast Iron or Bronze (consult factory for thermoplastic valves)

Trim – Bronze with Stainless Steel Shaft

Diaphragm – Standard: Buna N / Nylon

High Temperature: EPDM/Nomex

Seals – <u>Standard</u> Static: Buna N Dynamic: Buna N High Temperature EPDM EPDM

