



# ITT

## Dia-Flo® Diaphragm Valves

# Diaphragm Valve Accessories



**Contained in this section:**

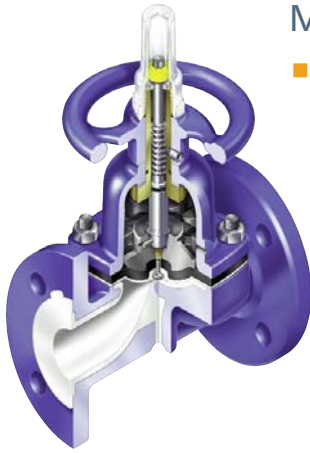
- Accessories for:
- Manual Valves
  - Actuated Valves

4. DIAPHRAGM  
VALVE ACCESSORIES

*Engineered for life*

## Accessories for Manually Operated Valves

### Manual Bonnet Assembly Options



"O" Ring Sealed Bonnet

- **"O" Ring Sealed Bonnet...**Provides a secondary seal which retains fluids or gases within the valve bonnet in the event of diaphragm failure. A standard sealed bonnet is recommended for hazardous materials which will not damage bonnet shell, bushing or spindle (stem). On corrosive fluids or gases, either non-sealed bonnets or in cases where the fluids or gases must be contained, more corrosion resistant materials should be utilized. All sealed bonnets are provided with v-notch vent plugs to provide a safe and easy method of checking diaphragm integrity.

If a sealed bonnet is used and the bonnet assembly cannot handle the line media for a prolonged period of time, contact ITT for recommendations.

- **Handwheel Locking Device...**Secures valve in position so that it may not be operated unless unlocked and disengaged.
- **Chain Wheel Operated...**Uses standard sprocket rim, guide and chain. Available 1/2"-12", weir or straightway.
- **Extended Stem...**Available in all sizes. Not available with solid plastic bodies.
- **Direct Loaded Bonnet...**An inexpensive approach to automatic on-off operation. Ideal for multi-valve panel operation of batching systems, water and waste treatment systems. Furnished with or without pilot solenoid utilizing pneumatic or hydraulic operation. Available in sizes 1/2"-3" for pressures up to 100 psi. Suitable for all standard weir body materials.



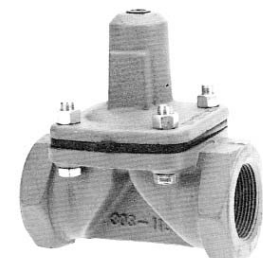
Handwheel Locking Device



Chainwheel Operated



Extended Stem



Direct Loaded Bonnets  
See Actuator Section for Detail

- **Other Available Options...**
  - Bonnet Assemblies of
    - Stainless Steel
    - Ductile iron
    - Bronze
    - PAS (polyarylsulfone) plastic
- **Gear Boxes...**Especially suitable for large size valves with high line pressures this accessory reduces the amount of force required to manually operate the valve.
- **Vacuum Preparation...**Dia-Flo diaphragm valves are capable of bubble-tight shut-off down to 0.1 micron. Elastomer or PTFE diaphragms may be used. The standard weir valve design with elastomer diaphragm is capable of in-leakage of less than  $1 \times 10^{-6}$  atm-cc/sec, and on special order it can be furnished with a substantially lower in-leak rate.

## Accessories for Pneumatically Operated Valves

**Positioners...**For stable and accurate positioning of the actuator stem for precise control of flow through the valve



Conoflow Positioner



Pneumatic Moore Positioner with Gauges



Digital positioner with Fieldbus Communications Protocol

**Limit Switches...**For determining valve position remotely. Choose from a wide range of mechanical or proximity options including models suitable for hazardous locations.



Honeywell Micro-Switch  
BAF1-2RN



Proximity Westlock Switch  
Mod 3



Advance Switch Pack (ASP)  
Network capability



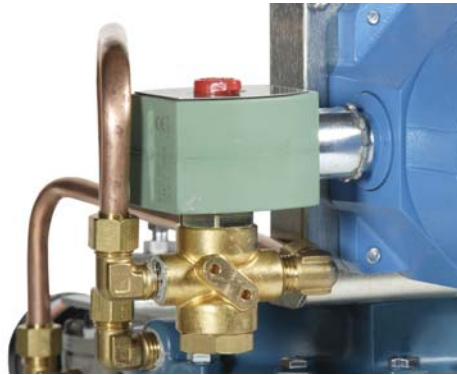
Value Switch Pack (VSP)  
Mechanical and Proximity Switch



SP 2.0 Switch Pack

## Accessories for Pneumatically Operated Valves

**Solenoids**...Used to control valve activation, solenoid valves are available in 3-way normally closed or open models as well as 4-way for double-acting actuators.



Asco Solenoid Valve

**Speed Control Valves**...To control the rate at which automated pneumatic valves operate.



Schraeder Speed Control Valve Option

**Filter Regulators**...Used to provide clean, regulated air pressure to instruments, controls and actuators.

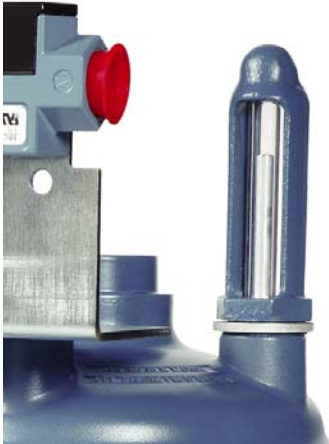


Conoflow Filter Regulator with Gauge

**Transducers**...Accept a variety of electrical input signals and convert them to proportional output signals of typically 3-15 psi.



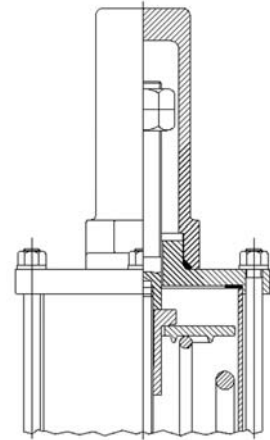
Conoflow Transducer

**Accessories for Pneumatically Operated Valves**


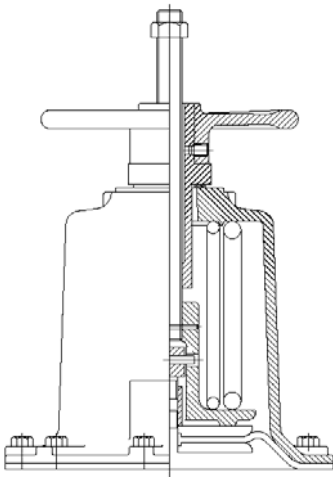
**PI**  
**Position Indicator**  
 Metal rod in a plastic tube indicates whether the valve is open or closed. Furnished as a standard on all valves equipped with positioners. Position indicators can be furnished for field installation. Available on all Dia-Flo air motors.



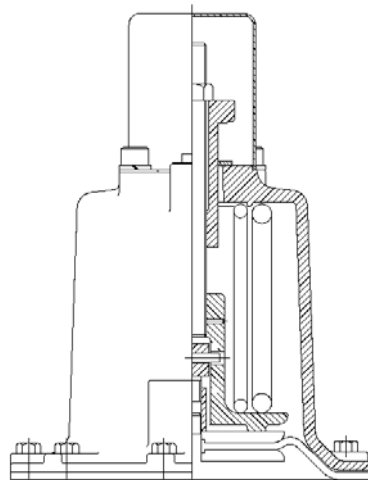
**AO**  
**Adjustable Opening Stop**  
 The external threaded bolt can be adjusted to limit the opening of the valve. In an emergency the valve can also be closed using this device. Available on all #25 and larger actuators.



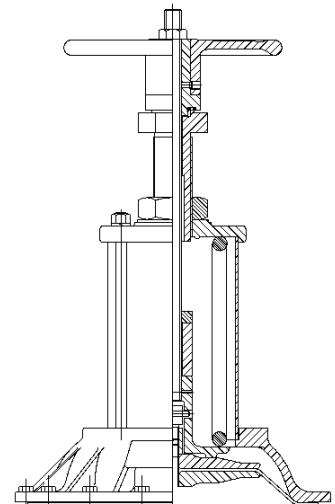
**ATS**  
**Adjustable Travel Stop**  
 Field or factory adjustable dosing travel stop will prevent over closure of the valve due to the use of excessive air pressure. Adjustable travel stops are standard on all #25 and larger fail close actuators. It is optional for #12 fail close actuators as well as for all fail open and double acting actuators.



**HWO**  
**Handwheel Opening Device**  
 An emergency opening device for fail close valves that includes travel stop. This option is available on all fail close actuators.

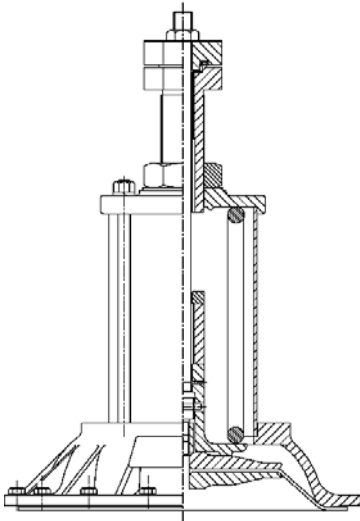


**WO**  
**Wrench Opening Device**  
 Similar to the handwheel opening device except a wrench replaces the handwheel. Includes travel stop. This option is available on all fail close actuators except #250.



**TOHO**  
**Adjustable Opening Stop & Handwheel Opening Device**  
 A combination device which includes an opening stop, travel stop and a handwheel to manually open the valve, if necessary. Available only on fail close actuators. This option available on all fail close actuators except #250.

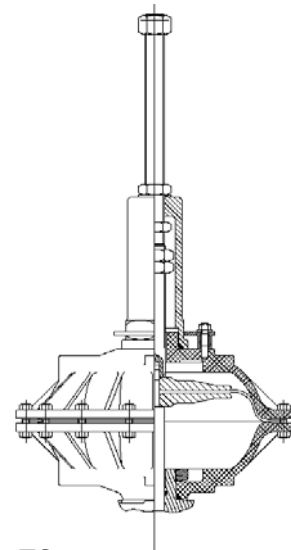


**Accessories for Dia-Flo Pneumatic Actuators**


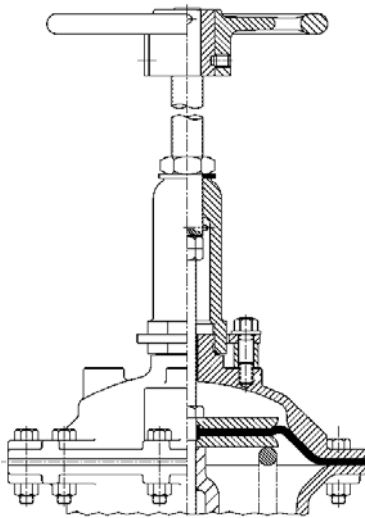
**TOWO**  
 Adjustable Opening Stop & Wrench Opening Device  
 Similar to the V/TOHO except a wrench is utilized to open the valve in lieu of a handwheel. Available only on fail close actuators #12-75.



**HWC**  
 Handwheel Closing Device  
 This accessory will limit the opening of the valve and can be closed manually with the handwheel. Available with fail open and double-acting actuators, #25 and larger.



**TO**  
 Adjustable Opening Stop & Adjustable Travel Stop  
 Combination device which includes both an opening stop and a closing stop. Available on fail open and double-acting actuators #25 and larger.



**THC**  
 Adjustable Opening, Adjustable Travel Stop & Handwheel Closing Device  
 A combination device which includes an opening stop, closing stop and handwheel to manually close the valve. Available on fail open and double-acting actuators #25 and larger.



**TOHC**  
 Adjustable Opening, Adjustable Travel Stop & Handwheel Closing Device  
 Special device only for #12 fail open and double-acting actuator. This accessory performs the same function as the V/THC. (Can be used instead of AO, HWC, TO or THC for #12 actuators.)

**For additional information  
on other Engineered Valves products  
visit [www.engvalves.com](http://www.engvalves.com)**



**ITT Engineered Valves**  
33 Centerville Road  
Lancaster, PA 17603  
Phone: 717-509-2200  
800-336-1111  
Fax: 717-509-2336  
Email: [engvalves.custserv@itt.com](mailto:engvalves.custserv@itt.com)  
Website: [www.engvalves.com](http://www.engvalves.com)



**ITT**