



Actuated Valves Product Guide & Engineering Specifications

Unitized Actuated Diaphragm Valves - Pneumatic with Plastic Housing

Spears® Unitized Pneumatic Actuated Diaphragm Valve Package

Industrial grade Weir-type design, excellent for throttling and use with viscous fluids or slurries.

Compact, Light Weight Design

True Union Socket/Thread, SR Thread, or Spigot End Connections

- sizes 1/2"-2" Pressure Rated to 235 psi @ 73°F (23°C)

Flanged Ends (& PTFE diaphragms) - sizes 1/2" - 2" Pressure Rated to 150 psi @ 73°F (23°C)

Corrosion Resistant Plastic Housing

Stainless Steel Hardware

90 psi Operating Pressure

Linear Action Operation with Preset Stops

Air-Air, Air-Spring Closed, or Optional Air-Spring Open

NOTE: "Socket" valves include standard plastic thread end connectors.



Typical Illustration

Diaphragm Valve Specifications

Style	Diaphragm • Weir type • fully repairable
Material	PVC, CPVC, PP
Size Range	1/2" - 2"
Pressure Rating	PVC & CPVC 1/2" - 2" = 235 psi @ 73°F Flanged and PTFE Diaphragm 1/2" - 2" = 150 psi @ 73°F PP: 1/2" - 2" = 150 psi @ 73°F
Diaphragm	EPDM, FKM, or elastomer backed PTFE
End Connector	PVC & CPVC = True Union socket/threaded/SR threaded, or Spigot Body (1/2" - 2") Flanged Body (1/2" - 2") PP: True Union SR threaded (1/2" - 2")

Standard 2-Position Actuator Specifications

Valve Sizes 1/2" - 2":	
Type	Linear action
Standard Operation	Air-to-Air (double acting), Air-to-Spring Closed or Air-to-Spring Open
Supply Pressure	90 psi
Air Connection	1/8"
Body	Polypropylene
Visual Position Indicator	

Special Valve Options & Accessories

- Diaphragm & O-ring Replacement Kits
- Hypalon® (CSM) Diaphragms
- EPDM backed PTFE Diaphragms
- FKM backed PTFE Diaphragms

Custom Pneumatic Actuation Options & Accessories

- Pneumatic & Electro Pneumatic Positioners
- 3 & 4 Way Solenoid Valves
- Customized ID Tags

Sample Engineering Specification

All pneumatically actuated diaphragm valves shall be True Union Socket/Thread or Flanged or Spigot type constructed from PVC Type I Cell Classification 12454 or CPVC Type IV Cell Classification 23447 or UV Stabilized PP. All valve diaphragms shall be EPDM, FKM or Hypalon® or elastomer backed PTFE. All True Union valve union nuts shall have Buttress threads. All valve components shall be replaceable. All 1/2" through 2" valves shall be pressure rated to 235 psi, 1/2" - 2" flanged valves and 1/2" - 2" PTFE diaphragm valves to 150 psi. Pneumatic Actuators shall be factory installed, linear type with preset stops. Operation shall be Air-to-Air (double acting), Air-to-Spring Closed or Air-to-Spring Open for 90 psi supply pressure range as selected. Actuator shall be equipped with [selected options list], as manufactured by Spears® Manufacturing Company.