

SERIES AP 3800

MANUAL SPRINGLESS 1/2" DIAPHRAGM VALVE

Defining new levels of ultraclean



- Visual open/closed indication
- Stainless steel 316L VAR secondary remelt construction
- 10 μ in. surface finish (7 and 5 μ in. optional)
- Multiport and monoblock integrated components
- Vacuum to 250 psig (17 bar)
- Hot DI cleaned and baked
- Installation and operating instructions available at www.aptech-online.com in the Tech Briefs section

Operating Parameters

Inlet pressure	vacuum to 250 psig (17 bar)
Outlet pressure	vacuum to inlet pressure
Proof pressure	500 psig (34 bar)
Burst pressure	1,000 psig (69 bar)

Other Parameters

Inlet /outlet connectors	3/8, 1/2 or 3/4 inch face seal or tube weld
Flow coefficient (Cv)	2.8, X _T = 1.0
Internal volume	0.76 in ³ (12.52 cm ³)
Operating temperature	-40° to +160°F (-40° to +71°C)
Bake out temperature	+220°F (105°C), +400°F (200°C) optional
Surface finish	10 μ in. Ra max standard; 7 μ in (0.18 μ m); and 5 μ in (0.13 μ m) optional
Inboard leakage	2 x 10 ⁻¹⁰ sccs
Outboard leakage	2 x 10 ⁻⁹ sccs He at 125 psig
Leakage across seat	4 x 10 ⁻⁸ sccs He at 125 psig inlet pressure

Materials

	Series AP 3800
Wetted Parts	
Body	SS 316L secondary remelt
Finish	electropolished and passivated
Diaphragm	stainless steel 316L
Seat	PCTFE (Vespel® optional)

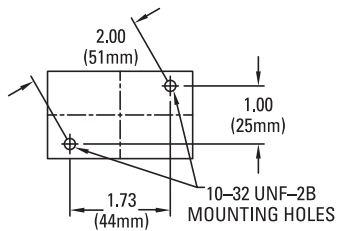
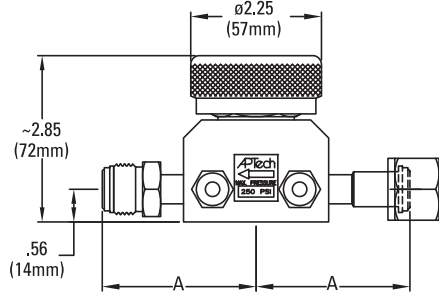
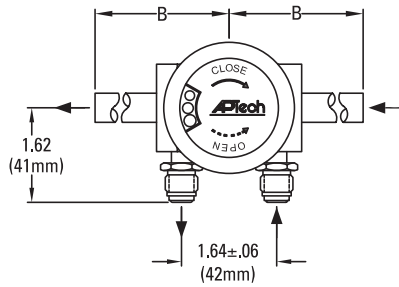
All specifications subject to change without notice

Vespel® DuPont

ENGINEERING DATA — SERIES AP 3800 MANUAL SPRINGLESS 1/2" DIAPHRAGM VALVE

DEFINING NEW LEVELS OF ULTRACLEAN

DIMENSIONAL INFORMATION



Connections	A		B	
	in [±.02]	mm	in [±.02]	mm
FV8, MV8	2.65	67	–	–
TW6, TW8, TW12	–	–	4.25	108
FV12, MV12	3.20	81	–	–

All dimensions in inches (mm). Metric dimensions are for reference only.

PORTING CONFIGURATIONS

Please refer to Technical Bulletin 204 for multiport and monoblock configurations.

CAUTION: Product selection is the sole responsibility of the user, regardless of any recommendations or suggestions made by the factory. The user shall make selections based upon their own analysis and testing with regard to function, material compatibility and product ratings. Proper installation, operation and maintenance are also required to assure safe, trouble free performance.

ORDERING INFORMATION

Sample Order Number **AP 3800SM TW8 TW8 M0 VS**

AP 3800 | Series

AP 3800

S | Material

S = Stainless steel (SS)

M | Surface Finish Options

M = 10 µin. Ra max
V = 7 µin. Ra max
X = 5 µin. Ra max

Please refer to Technical Bulletin 204 for multiport or monoblock configurations

TW8 TW8 | Connections Inlet / Outlet

TW6 = 3/8 inch tube stub weld
TW8 = 1/2 inch tube stub weld
MV8 = 1/2 inch face seal male
FV8 = 1/2 inch face seal female
TW12 = 3/4 inch tube stub weld
MV12 = 3/4 inch face seal male
FV12 = 3/4 inch face seal female

M0 | Purge Port Inlet / Outlet

M = Inlet purge port (main)
B = Outlet purge port (branch)
0 = No purge port

VS | Options

VS = Vespel Seat
C = Capped Purge Port