

SERIES AP 1500

TIED DIAPHRAGM REGULATOR

Low Flow — High Pressure



- Single stage
- Hastelloy® alloy C-22® or SS 316L VAR secondary remelt construction
- Cleaned, assembled and packaged for high purity semiconductor applications
- 15 µin. surface finish (10, 7 and 5 µin. opt)
- Vacuum to 3,500 psig (241 bar) inlet
- No threads in contact with fluid media
- Industry standard for cylinder applications

Operating Parameters

Source pressure	vacuum to 3,500 psig (241 bar)
Delivery pressure AP 1502	1 to 30 psig (0.07 to 2 bar)
AP 1506	2 to 60 psig (0.14 to 4 bar)
AP 1510	2 to 100 psig (0.14 to 7 bar)
Proof pressure	5,000 psig (345 bar)
Burst pressure	10,000 psig (690 bar)

Other Parameters

Inlet/outlet connectors	1/4 or 3/8 inch face seal or tube weld
Bonnet port	1/8 inch NPT
Flow coefficient (Cv)	0.09
Internal volume	0.51 in ³ (8.4 cm ³)
Operating temperature	-40° to +160°F (-40° to +71°C)
Surface finish	15 µin. (0.4 µm) Ra max standard; 10 µin (0.25 µm); 7 µin (0.18 µm); and 5 µin (0.13 µm) optional
Inboard leakage	2 x 10 ⁻¹⁰ sccs
Outboard leakage	2 x 10 ⁻⁹ sccs He at 1,500 psig inlet pressure
Leakage across seat	4 x 10 ⁻⁸ sccs He at 1,000 psig inlet pressure
Installation	surface or panel (optional)
Delivery pressure rise	0.25 psig per 100 psig source pressure drop

Materials

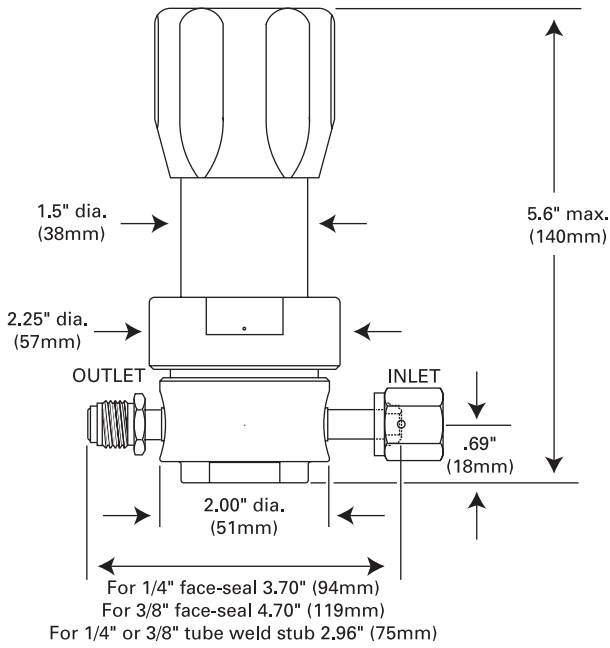
Type of Service	Series AP 1500 S Noncorrosive	Series AP 1500 SH Corrosive	Series AP 1500 H Corrosive
Wetted Parts			
Body	SS 316L secondary remelt	SS 316L secondary remelt	Hastelloy alloy C-22
Poppet, nozzle, diaphragm	SS 316L	Hastelloy alloy C-22	Hastelloy alloy C-22
Finish	electropolished and passivated	electropolished and passivated	electropolished
Seat	PCTFE (Vespel® optional)	PCTFE	PCTFE

All specifications subject to change without notice.

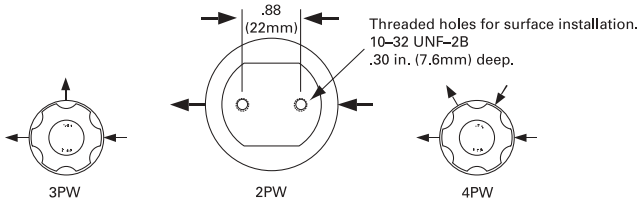
Hastelloy® C-22® Haynes Corporation Vespel® DuPont

ULTRACLEAN TECHNOLOGY BACKED BY SERVICE AND SUPPORT

DIMENSIONAL INFORMATION



PORTING CONFIGURATIONS



All dimensions in inches (mm).

ORDERING INFORMATION

Sample Order Number **AP 1510SSM 4PW FV4 FV4 40 1 P**

AP 1510 | Series

AP 1502 = 1-30 psig (.07 to 2 bar)
 AP 1506 = 2-60 psig (.14 to 4 bar)
 AP 1510 = 2-100 psig (.14 to 7 bar)

S | Material

S = Stainless steel
 SH = SS with Hastelloy internals
 H = Hastelloy alloy C-22

M | Surface Finish Options

M = 10 μ m. Ra max
 V = 7 μ m. Ra max
 X = 5 μ m. Ra max

4PW | Ports

2PW = 2 ports butt weld
 3PW = 3 ports butt weld
 4PW = 4 ports butt weld

FV4 FV4 | Connections Inlet / Outlet

FV4 = 1/4 inch face seal female
 MV4 = 1/4 inch face seal male
 FV6 = 3/8 inch face seal female
 MV6 = 3/8 inch face seal male

Tube weld stub available

40 1 | Gauges* Source / Delivery

0 = No gauge
 V3 = 30-0-30 psig/bar
 L = 30-0-60 psig/bar
 1 = 30-0-100 psig/bar
 2 = 0-200 psig/bar
 4 = 0-400 psig/bar
 10 = 0-1000 psig/bar
 40 = 0-4000 psig/bar

* Standard gauge ports are 1/4 inch face seal male (1/4 inch female available).

P | Options

P = Panel installation**
 VS = Vespel seat

** On panel mount option, bonnet port is not threaded. Panel hole 1.56" diameter.

