

# 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
- Surface finish  
15 Ra max/10 Ra avg  
(10, 7 & 5 Ra max options)
- Vacuum to 3,500 psig (241 bar) inlet
- No threads in contact with fluid media
- Industry standard for cylinder applications
- Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section

### 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 <sup>3</sup> (8.4 cm <sup>3</sup> )
Operating temperature	-40° to +160°F (-40° to +71°C)
Surface finish	15 µin Ra max / 10 µin. Ra avg. (0.4/0.25 µm) standard; 10 µin (0.25 µm); 7 µin (0.18 µm); and 5 µin (0.13 µm) Ra max optional
Inboard leakage	2 x 10 <sup>-10</sup> sccs
Outboard leakage	2 x 10 <sup>-9</sup> sccs He at 1,500 psig inlet pressure
Leakage across seat	4 x 10 <sup>-8</sup> 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

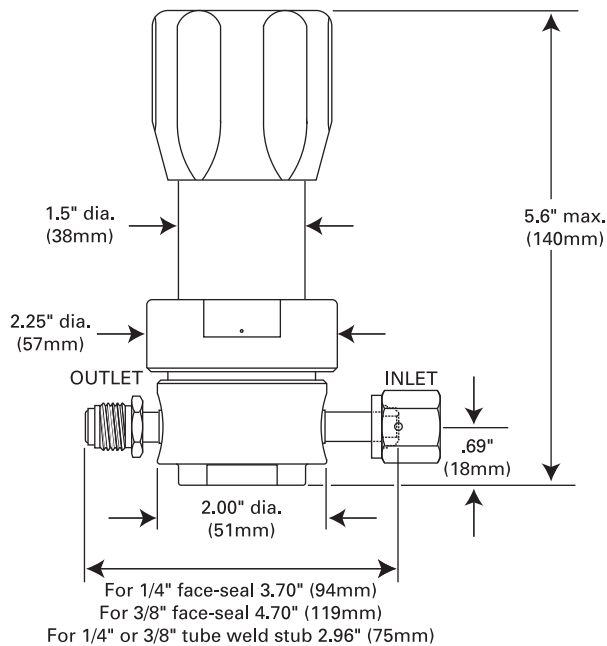
Type of Service	Series AP 1500 S Noncorrosive	Series AP 1500 SH Corrosive	Series AP 1500 H Corrosive
Wetted Parts			
Body	SS 316L secondary remelt	SS 316L secondary remelt	Hastelloy alloy C-22
Poppet, nozzle, diaphragm	SS 316L	Hastelloy alloy C-22	Hastelloy alloy C-22
Finish	electropolished and passivated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

All specifications subject to change without notice.

Hastelloy® C-22® Haynes Corporation Vespel® DuPont

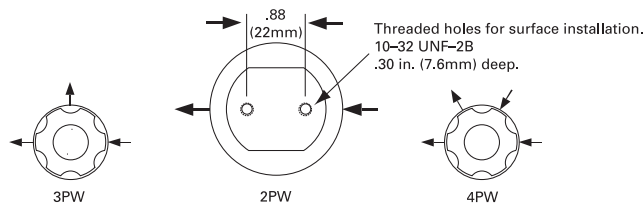
# ULTRACLEAN TECHNOLOGY BACKED BY SERVICE AND SUPPORT

## DIMENSIONAL INFORMATION

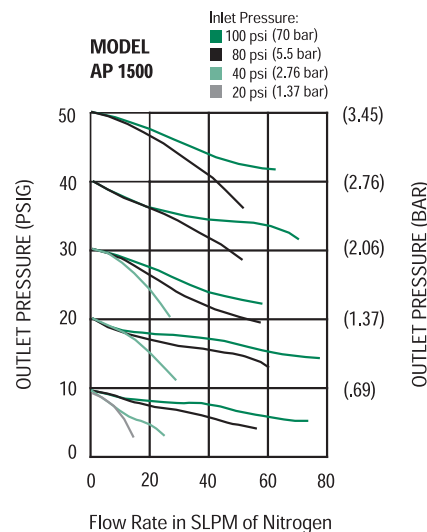
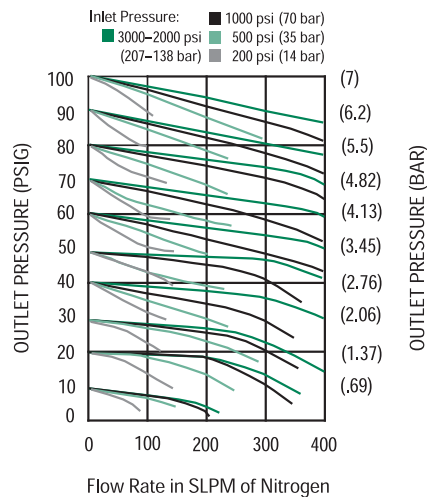


All dimensions in inches (mm). Metric dimensions are for reference only.

## PORTING 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 1510SM 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 (SS) SH = SS/Hastelloy internals H = Hastelloy alloy C-22		
M   Surface Finish Options	M = 10 µin. Ra max V = 7 µin. Ra max X = 5 µin. 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.		