

# SERIES AZ 1000

## SINGLE STAGE REGULATOR

Flow Rates to 120 slpm



- SS 316L construction
- 10  $\mu$ in. surface finish (25  $\mu$ in. optional)
- Vacuum to 3500 psig (241 bar) inlet
- 1 to 150 psig (0.07 to 10 bar) outlet
- Cleaned, assembled and packaged for high purity semiconductor applications
- Flow rates
  - Standard to 30 slpm
  - HF option to 120 slpm
- Regulator of choice for point of use 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)
AZ 1001 and TF option	vacuum to 300 psig (21 bar)
Delivery pressure	AZ 1001 1 to 10 psig (0.07 to 0.7 bar)
	AZ 1002 1 to 30 psig (0.07 to 2 bar)
	AZ 1006 2 to 60 psig (0.14 to 4 bar)
	AZ 1010 2 to 100 psig (0.14 to 7 bar)
	AZ 1015 5 to 150 psig (.34 to 10 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
Flow coefficient (Cv)	0.09 (0.15 HF option)
Internal volume	0.49 in <sup>3</sup> (8 cm <sup>3</sup> )
Operating temperature	-40° to +160°F (-40° to +71°C)
Surface finish	10 $\mu$ in. (0.25 $\mu$ m) Ra avg. standard 25 $\mu$ in. (0.62 $\mu$ m) Ra avg. optional
Inboard leakage	2 x 10 <sup>-10</sup> sccs
Outboard leakage	2 x 10 <sup>-9</sup> sccs He
Leakage across seat	4 x 10 <sup>-8</sup> sccs He
Installation	surface or panel (optional)
Delivery pressure rise	0.25 psig per 100 psig source pressure drop
HF	0.75 psig per 100 psig source pressure drop

### Materials

	Series AZ 1000 S	Series AZ 1000 SHP
Wetted Parts		
Body, nozzle	SS 316L*	SS 316L*
Poppet, diaphragm	SS 316L	Hastelloy® C-22®
Finish	electropolished and passivated	electropolished and passivated
Seat	PCTFE (Vespel® and PTFE optional)	PCTFE (PTFE optional)

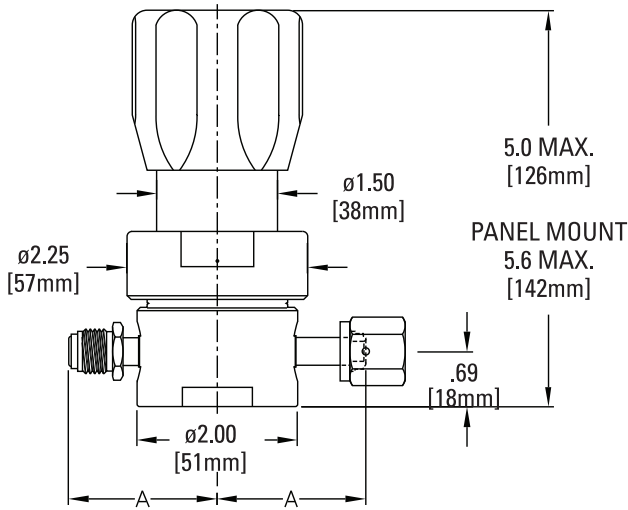
All specifications subject to change without notice.

\* Please refer to product note PN 414 regarding single melt 316L SS material

Hastelloy® C-22® Haynes Corporation Vespel® DuPont

# ULTRACLEAN BY DESIGN AND MANUFACTURING

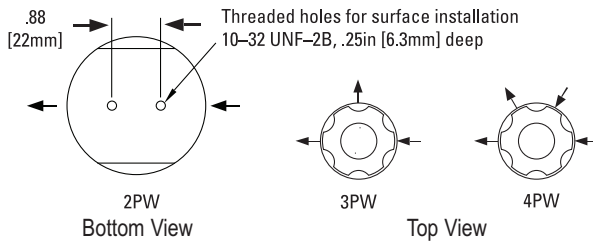
## DIMENSIONAL INFORMATION



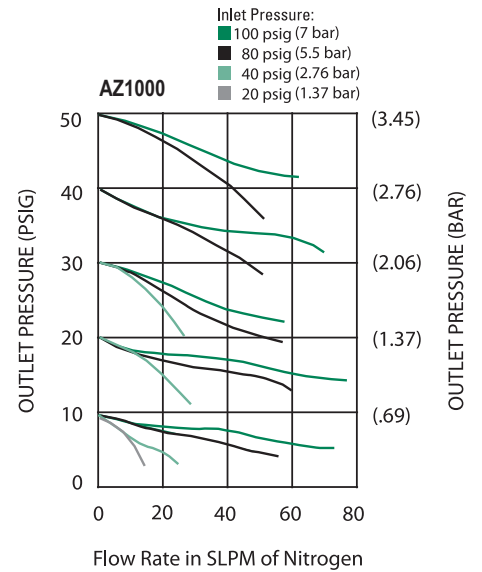
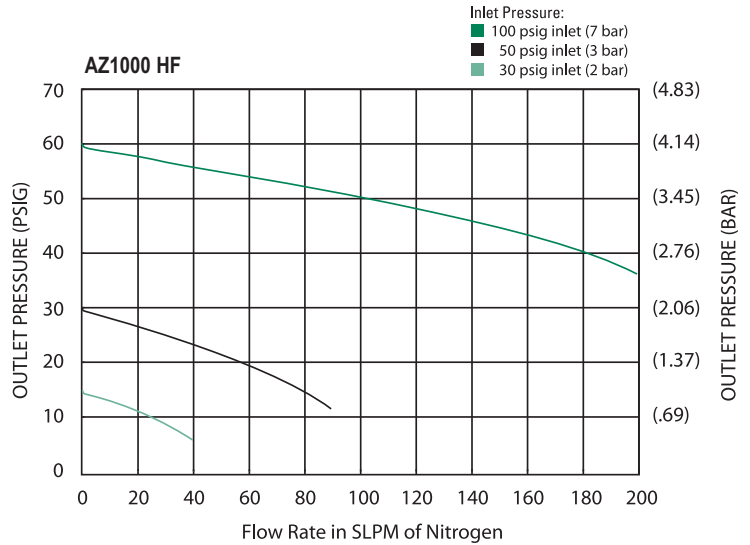
All dimensions in inches. Metric dimensions (mm) are for reference only.

Face Seal	A	
	in	mm
1/4"	1.85 ±.01	47
3/8"	2.35 ±.02	60

## 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

AZ 1010SQ 2PW FV4 FV4

**AZ 1010 | Series**

AZ 1001 = 1-10 psig (.07 to .7 bar)  
AZ 1002 = 1-30 psig (.07 to 2 bar)  
AZ 1006 = 2-60 psig (.14 to 4 bar)  
AZ 1010 = 2-100 psig (.14 to 7 bar)  
AZ 1015 = 5-150 psig (.34 to 10 bar)

**S | Material**

S = Stainless steel (SS)  
SHP = SS/Hastelloy poppet and diaphragm

**Q | Surface Finish Option**

Q = 25 µin. Ra avg.

**2PW | 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

**Delivery Gauge\***

0 = No gauge  
V3 = 30-0-30 psig/bar  
L = 30-0-60 psig/bar  
1 = 30-0-100 psig/bar  
H = 30-0-160 psig/bar

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

**Options**

VS = Vespel seat  
TF = PTFE seat  
HF = High flow  
P = Panel installation\*\*

\*\* Panel hole 1.56" diameter.