



# SERIES AZ 1000

## SINGLE STAGE REGULATOR

Flow Rates to 120 slpm

- SS 316L construction
- 10  $\mu$ m. surface finish (25  $\mu$ m. 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

### 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 $\mu$ m. (0.25 $\mu$ m) Ra avg<br>25 $\mu$ m. (0.62 $\mu$ m) 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)          |

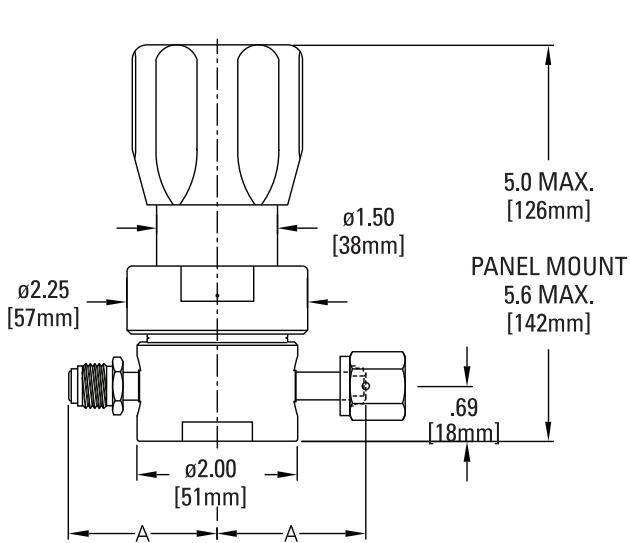
All specifications subject to change without notice.

Hastelloy® C-22® Haynes Corporation Vespel® DuPont

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

# ULTRACLEAN BY DESIGN AND MANUFACTURING

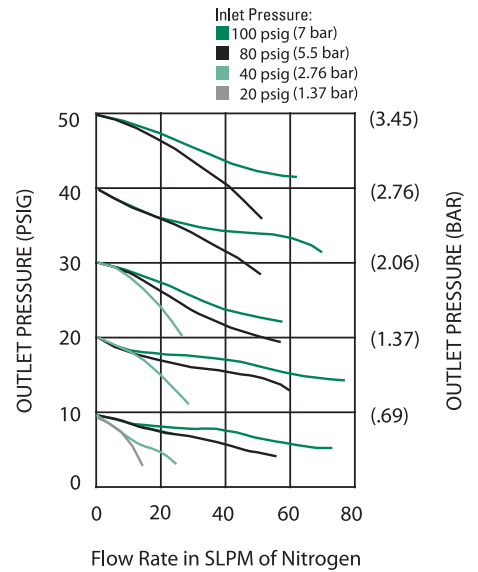
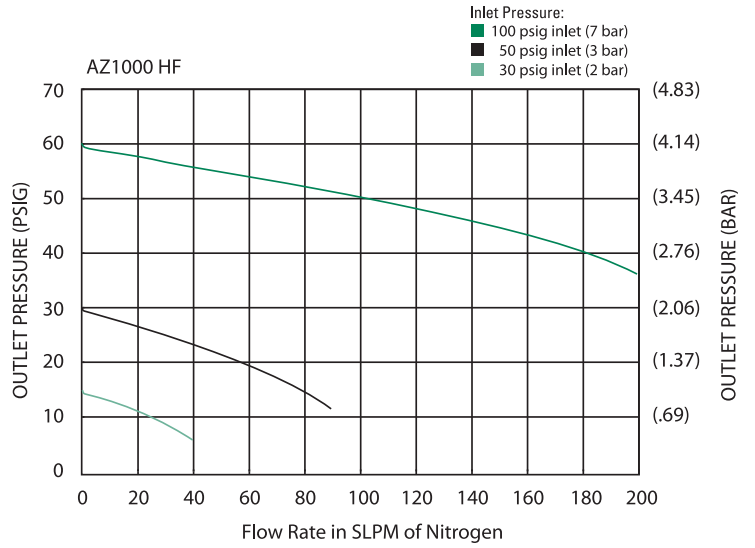
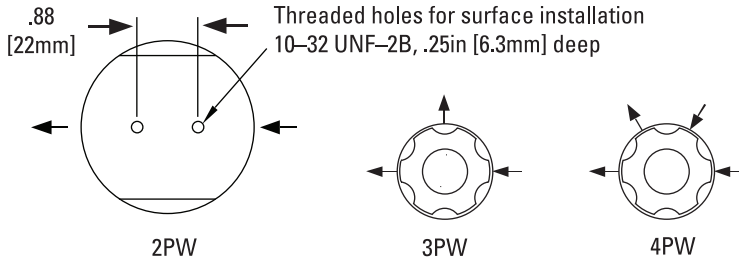
## DIMENSIONAL INFORMATION



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

All dimensions in inches (mm).

## PORTING CONFIGURATIONS



## ORDERING INFORMATION

|                                  |  |   |  |
|----------------------------------|--|---|--|
| <b>Sample Order Number</b>       | <b>AZ 1010SQ 2PW FV4 FV4</b>   |   |  |
| <b>AZ 1010   Series</b>          | AZ 1001 = 1-10 psig (.07 to .7 bar)<br>AZ 1002 = 1-30 psig (.07 to 2 bar)<br>AZ 1006 = 2-60 psig (.14 to 4 bar)<br>AZ 1010 = 2-100 psig (.14 to 7 bar)<br>AZ 1015 = 5-150 psig (.34 to 10 bar) | <b>FV4 FV4   Connections Inlet / Outlet</b> | FV4 = 1/4 inch face seal female<br>MV4 = 1/4 inch face seal male<br>FV6 = 3/8 inch face seal female<br>MV6 = 3/8 inch face seal male<br><br>Tube weld stub available   |
| <b>S   Material</b>              | S = Stainless steel (SS)<br>SHP = SS/Hastelloy poppet and diaphragm  | <b>Delivery Gauge*</b>                      | 0 = No gauge<br>V3 = 30-0-30 psig/bar<br>L = 30-0-60 psig/bar<br>1 = 30-0-100 psig/bar<br>H = 30-0-160 psig/bar<br><br>* Standard gauge port is 1/4 inch face seal male (1/4 inch face seal female are available). |
| <b>Q   Surface Finish Option</b> | Q = 25 µin.  | <b>Options</b>                              | P = Panel installation**<br>VS = Vespel seat<br>TF = PTFE seat<br>HF = High flow<br><br>** Panel hole 1.56" diameter.  |
| <b>2PW   Ports</b>               | 2PW = 2 ports butt weld<br>3PW = 3 ports butt weld<br>4PW = 4 ports butt weld  |   |  |