

SERIES AP 1100

ABSOLUTE REGULATOR

Low flow — sub-atmospheric pressure



- Single stage
- Hastelloy® alloy C-22® or SS 316L VAR secondary remelt construction
- 15 µin. Ra max surface finish (10, 7 and 5 µin. opt)
- Only one nonmetallic seal (PCTFE) in the process stream
- Cleaned, assembled and packaged for high purity semiconductor applications
- Flow rate to 500 sccm
- Vacuum to 300 psig (21 bar) inlet, 100 torr to 10 psig (.7 bar) outlet

Operating Parameters

Source pressure	vacuum to 300 psig (21 bar)
Delivery pressure AP 1101	100 mm Hg absolute to 10 psig
Proof pressure	500 psig (34 bar)
Burst pressure	8,000 psig (552 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)	0.05
Internal volume	0.49 in ³ (8 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 300 psig inlet pressure
Leakage across seat	4 x 10 ⁻⁸ sccs He at 300 psig inlet pressure
Installation	surface or panel (optional)

Materials

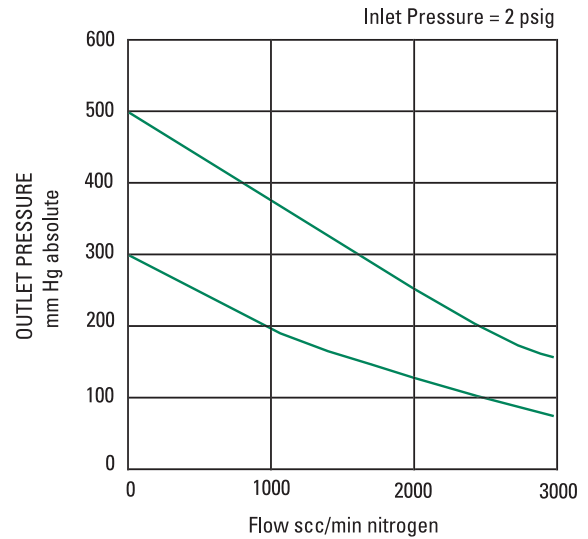
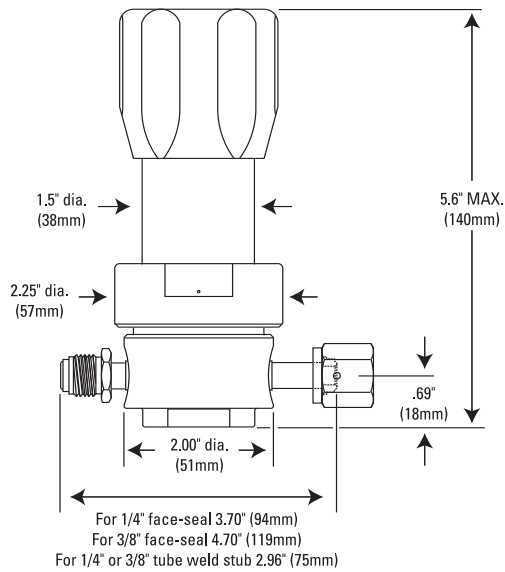
	Series AP 1100 S Noncorrosive	Series AP 1100 SH Corrosive (SHP* opt)	Series AP 1100 H Corrosive
Type of Service			
Wetted Parts			
Body	SS 316L secondary remelt	SS 316L secondary remelt	Hastelloy alloy C-22
Poppet, nozzle, diaphragm	SS 316L	Hastelloy alloy C-22	Hastelloy alloy C-22
Finish	electropolished and passivated	electropolished and passivated	electropolished
Seat	PCTFE	PCTFE	PCTFE

All specifications subject to change without notice.
*SHP option Hastelloy poppet and diaphragm only.

Hastelloy® C-22® Haynes Corporation

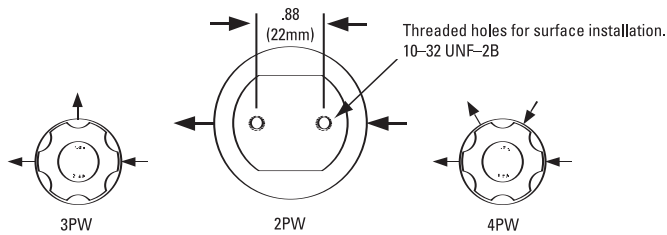
ULTRACLEAN TECHNOLOGY BACKED BY SERVICE AND SUPPORT

DIMENSIONAL INFORMATION



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

PORTING CONFIGURATIONS



ORDERING INFORMATION

Sample Order Number

AP 1101SM 4PW FV4 FV4 V3 V3

AP 1101 | Series

AP 1101 = 100 mm Hg – 10 psig

S | Material

S = Stainless steel (SS)
SH = SS/Hastelloy internals
SHP = SS/Hastelloy poppet and diaphragm
H = Hastelloy alloy C-22

M | Surface Finish Options

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

V3 V3 | Gauges* Source / Delivery

0 = No gauge
V3 = 30-0-30 psig/bar
L = 30-0-60 psig/bar

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

Options

P = Panel installation**

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