



# SERIES AP 1000

## SINGLE STAGE REGULATOR

Low to intermediate flow

- Hastelloy® alloy C-22® or SS 316L VAR secondary remelt construction
- Surface finish  
15 Ra max/10 Ra avg  
(10, 7 & 5 Ra max options)
- Two Hastelloy C-22 internal options
- Vacuum to 3500 psig (241 bar) inlet
- Flow rates—Standard to 30 SLPM (1 SCFM)  
HF option to 120 SLPM (4 SCFM)
- Industry standard 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);
AP 1001 and TF option		vacuum to 300 psig (21 bar)
Delivery pressure	AP 1001	1 to 10 psig (0.07 to 0.7 bar)
	AP 1002	1 to 30 psig (0.07 to 2 bar)
	AP 1006	2 to 60 psig (0.14 to 4 bar)
	AP 1010	2 to 100 psig (0.14 to 7 bar)
	AP 1015	5 to 150 psig (0.34 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
Bonnet port	1/8 inch NPT
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	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 1500 psig inlet pressure
Leakage across seat	4 x 10 <sup>-8</sup> sccs He at 1000 psig inlet pressure
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

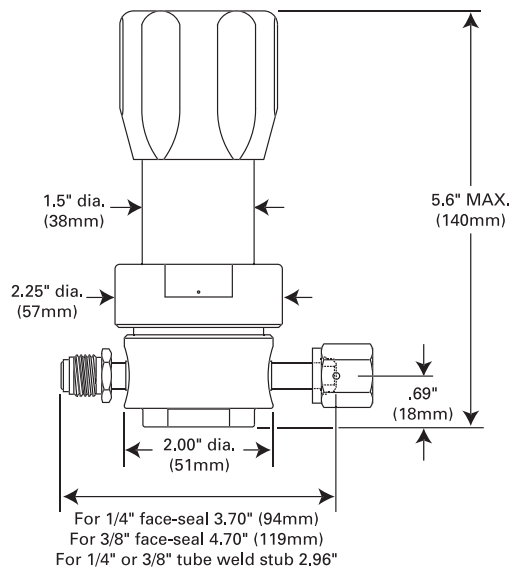
Type of Service	Series AP 1000 S Noncorrosive	Series AP 1000 SH Corrosive (SHP* opt)	Series AP 1000 H Corrosive
Wetted Parts			
Body	SS 316L secondary remelt	SS 316L secondary remelt	Hastelloy alloy C-22
Poppet, nozzle, diaphragm*	SS 316L	Hastelloy alloy C-22	Hastelloy alloy C-22
Finish	electropolished and passivated	electropolished and passivated	electropolished
Seat	PCTFE (Vespel® and PTFE optional)	PCTFE (PTFE optional)	PCTFE (PTFE optional)

All specifications subject to change without notice.  
\* SHP option, poppet and diaphragm Hastelloy C-22.

Hastelloy® C-22® Haynes Corporation Vespel® DuPont

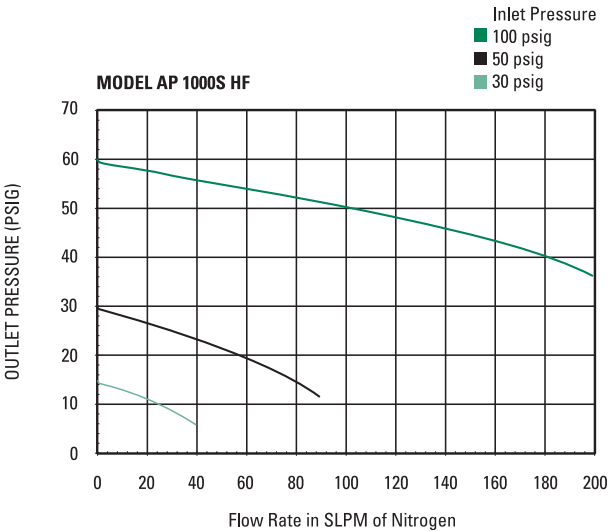
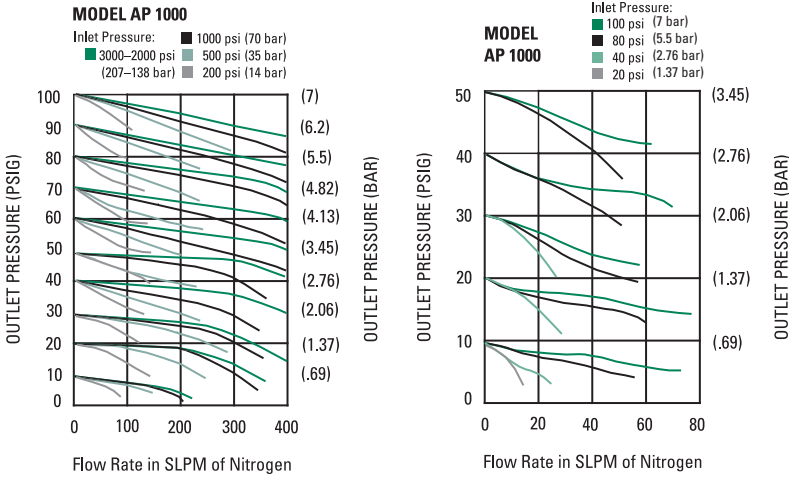
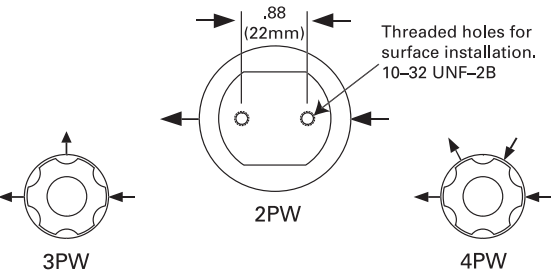
DEFINING NEW LEVELS OF ULTRACLEAN

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 1010SM 2PW FV4 FV4			
AP 1010	Series	AP 1001 = 1-10 psig (.07 to .7 bar) AP 1002 = 1-30 psig (.07 to 2 bar) AP 1006 = 2-60 psig (.14 to 4 bar) AP 1010 = 2-100 psig (.14 to 7 bar) AP 1015 = 5-150 psig (.34 to 10 bar)	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
S	Material	S = Stainless steel (SS) SH = SS/Hastelloy internals SHP = SS/Hastelloy poppet and diaphragm H = Hastelloy alloy C-22		Gauges* Source / Delivery	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 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).
M	Surface Finish Options	M = 10 µin. Ra V = 7 µin. Ra X = 5 µin. Ra			
2PW	Ports	2PW = 2 ports butt weld 3PW = 3 ports butt weld 4PW = 4 ports butt weld		Options	P = Panel installation** VS = Vespel seat TF = PTFE seat HF = High flow  ** On panel mount option, bonnet port is not threaded. Panel hole 1.56" diameter.