



ADVANCED PRESSURE TECHNOLOGY

## SERIES AK 1200 SINGLE STAGE PRESSURE REGULATOR TIED DIAPHRAGM—DESIGNED FOR SAFETY

- ◆ Vacuum to 1,700 psig (117 bar) inlet, 150 psig (10 bar) outlet
- ◆ Flow capacity<sup>†</sup>  
1 to 1,000 slpm (0.03 to 35.3 scfm)
- ◆ Stainless Steel or Brass construction
- ◆ Hastelloy® C-22® Internals, 'SH' option, for added corrosion resistance
- ◆ High leak integrity
- ◆ Machined from bar stock
- ◆ Optional accessories
- ◆ Fine adjustment control  
(six turns of the knob from off to wide open)
- ◆ Cleaned for O2 service
- ◆ Field repairable
- ◆ Diffusion resistant Hastelloy C-22 diaphragm
- ◆ Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section



### ENGINEERING DATA

#### Operating Parameters

Source pressure	vacuum to 1,700 psig (117 bar) AK 1200 HR vacuum to 3,000 psig (207 bar)
Delivery pressure	1 to 30 psig (0.07 to 2 bar) AK 1202 2 to 100 psig (0.14 to 7 bar) AK 1210 5 to 150 psig (0.3 to 10 bar) AK 1215*
Proof pressure	2,550 psig (176 bar)
Burst pressure	8,000 psig (552 bar)

#### Other Parameters

Inlet /outlet ports	1/4", 3/8" and 1/2" NPT and compression (optional porting available)
Flow coefficient, Cv	0.9 (HF option 1.1)
Internal volume	0.65 in <sup>3</sup> (10.6 cm <sup>3</sup> )
Operating temperature	-40 to +160F (-40 to +71C)**
Leak rate	1 x 10 <sup>-9</sup> sccs
Delivery pressure rise	3.5 psig per 100 psig source pressure drop

### MATERIALS OF CONSTRUCTION

	AK 1200B	AK 1200S	AK 1200SH
Body	brass	SS 316	SS 316
Poppet	SS 316	SS 316	Hastelloy C-22
Diaphragm	Hastelloy C-22	Hastelloy C-22	Hastelloy C-22
Seat	PCTFE (Vespel® opt.)	PCTFE (Vespel opt.)	PCTFE

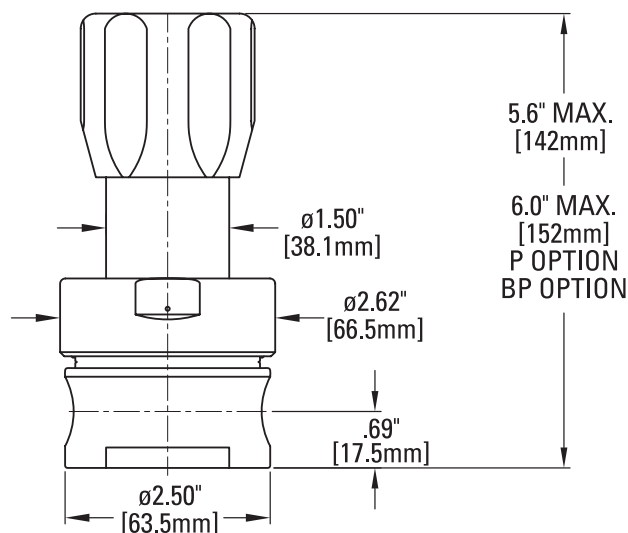
<sup>†</sup>Flow rating based upon N2 @ 100 psig inlet, varying gas type and, or inlet/outlet pressures will effect rating.

\*AK 1215 will not achieve full outlet pressure rating at all inlet pressures.

\*\*Optional temperature ranges available. Please consult factory

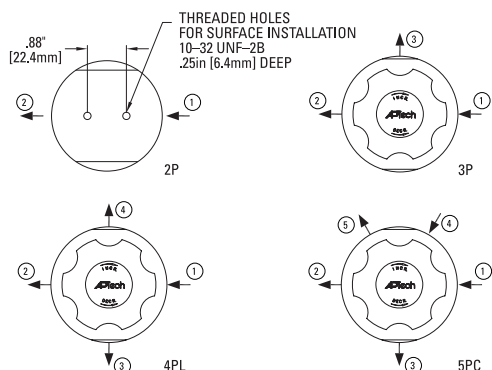
All specifications subject to change without notice.  
Hastelloy® C-22® Haynes Corporation  
Vespel® DuPont

# SERIES AK 1200 — QUALITY, RELIABILITY & PERFORMANCE!

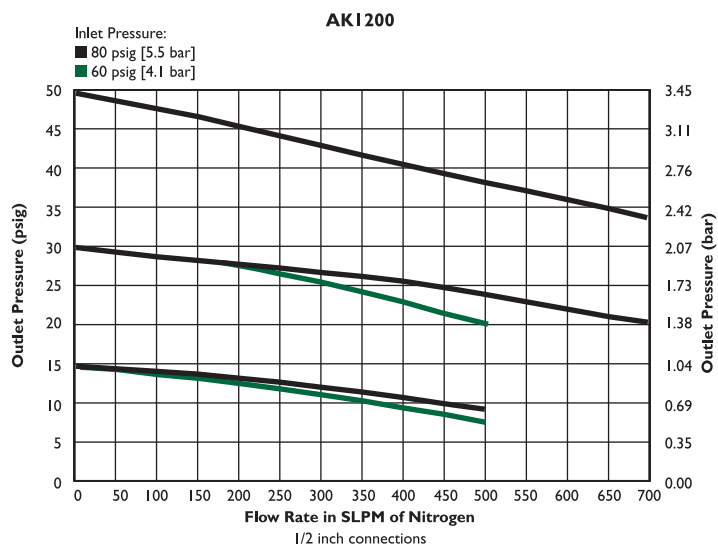
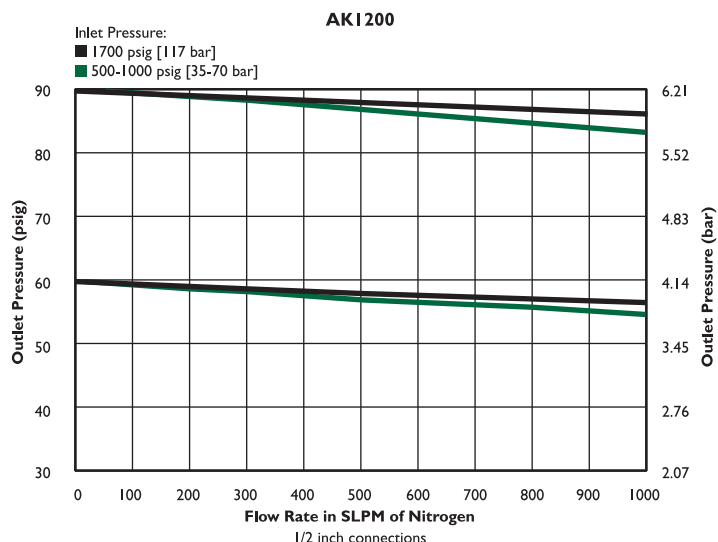


All dimensions in inches (mm).  
Metric dimensions are for reference only.

## Porting Configurations



**NOTE:** Not all porting configurations available in brass or every connection size.  
Ports, other than 1 & 2, are only available 1/4 inch NPT.



**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

AK 1202 Series	S Material	4PL Ports	6 ① ② Ports	0 V3 ③ ④ ⑤ Ports (Gauge/Accessory)	P Options
AK 1202 = 1-30 psig (.07 to 2 bar) AK 1210 = 2-100 psig (.14 to 7 bar) AK 1215 = 5-150 psig (.3 to 10 bar)		2P = 2 Ports 3P = 3 Ports 4PL = 4 Ports 5PC = 5 Ports	4 = 1/4 inch NPT 6 = 3/8 inch NPT 8 = 1/2 inch NPT 4T = 1/4 inch comp 6T = 3/8 inch comp 8T = 1/2 inch comp	0 = No gauge or device installed V3 = 30-0-30 psig/bar 1 = 30-0-100 psig/bar 2 = 0-200 psig/bar 10 = 0-1000 psig/bar 40 = 0-4000 psig/bar	P = Panel installation** CGA = Inlet fitting 320, 330, 326, 660, 678 VS = Vespel seat *HF = High flow *HR = High inlet pressure

**NOTE:** Designators required for all ports, but "0" not required if there isn't a port. A 2P has designators only for ① & ② ports, as example AK 1210 S 2P 44 not AK 1210 S 2P 44 000.

\*HF and HR options are only available separately. These options may not be combined.

\*\*Panel hole 1.56 inch diameter.

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