



# High Purity Stainless Steel Single Stage Regulator HSS1 - Series

### DESCRIPTION

The HSS1 regulators are designed and constructed for both high purity and general purpose applications where a slight pressure rise is acceptable due to the decrease in cylinder pressure. This regulator provides outstanding performance, but are rugged and versatile enough for laboratory or plant applications.

### FEATURES

- Minimal internal volume:
- Seat area protected by a 10 micron filter.
- Five delivery pressure ranges available.
- Stainless steel diaphragm eliminates contamination from diffusion or out gassing.
- Body is pre-tapped and has milled flats for back panel mounting.
- $1 \times 10^{-9}$  cc/sec. inboard helium leak rate



### APPLICATIONS

The HSS1 series regulators are ideally suited for use with cylinders of research purity, high purity, ultra high purity and corrosive gases up to 6.0 purity. The small internal volume and high purity design result in more efficient use of expensive materials because it takes less gas to fill the internal cavity. They are useful for less critical pressure reduction applications, where the precise control of pressure or flow is not required.

### MATERIALS OF CONSTRUCTION

- Body: 316L Stainless Steel Barstock
- Bonnet: Chrome Plated Brass Barstock
- Diaphragm: 316L Stainless Steel
- Seat: PTFE Teflon
- Seals: PTFE Teflon
- Filters: 10 micron sintered stainless steel
- Gauges: 2" Stainless Steel

### SPECIFICATIONS

- Max. Inlet Pressure: 3,000 psig
- Operating Temperature Range: -20°F to 120°F
- Internal Volume:
- Leakage:
- Flow Coefficient ( $C_v$ ): 0.08
- Shipping Weight: 2.92 lbs

### OPTION SPECIFICATIONS

- Optional Diaphragm Valve: Stainless Steel Body  
Kel-f Seat, Eigeloy  
Diaphragm and Viton  
seals

**Warning:** A purge assembly is strongly suggested when using the above regulator with any corrosive gas.

### Model Selection Guide

Example: HSS1250V320 = model HSS1 with up to 125 psig delivery pressure, with diaphragm outlet valve and CGA320 connection

Specify:	Maximum Delivery Pressure		Outlet Port	CGA Inlet Connection
<b>HSS1</b>	[***]		[*]	[***]
	<b>Delivery Pressure Range</b> 015 = 0-15 psig 050 = 0-50 psig 125 = 0-125 psig 250 = 0-250 psig 500 = 0-500 psig	<b>Delivery Pressure Gauge</b> 30" Hg - 30 psig 30" Hg - 100 psig 30" Hg - 200 psig 0 - 400 psig 0 - 1000 psig	0 = No Valve (1/4" NPT female)  V = Diaphragm Valve	000 = None (1/4" NPT female) 240 = Ammonia 320 = Carbon Dioxide 326 = Nitrous Oxide 330 = Corrosive Gases 346 = Zero Air, Compressed Air 350 = Hydrogen 540 = Oxygen 580 = Argon, Helium, Nitrogen 590 = Zero Air 660 = Refrigerant Gases 705 = Ammonia