

Model ASB

Aluminum-Silicon-Bronze, Positive Seal (Tied Seat), High Flow Regulators

The Model ASB regulator has been specifically designed for use with acid-forming gases such as Hydrogen Chloride or Boron Trifluoride. It is constructed primarily of Aluminum-Silicon-Bronze metal, which has shown superior corrosion-resistant properties in these demanding services.

The ASB also features a Monel® nozzle, and Monel® filter screens, along with a stainless steel diaphragm which has been lined with Hastelloy C-22®. This combination allows for its use in high purity applications, while also enhancing its resistance to corrosion.



ASB Regulator

Standard Features

- Aluminum-Silicon-Bronze Construction provides superior corrosion resistance to acid-forming gases such as HCl.
- Stainless Steel Diaphragm Lined with Hastelloy C-22® maintains gas purity while also providing enhanced resistance to corrosion.
- High Purity Regulator Design permits vacuum purging of regulator.
- Tied Seat (tied diaphragm) ensures positive shutoff if particulate matter should lodge in the seat, a common problem with corrosive gases.
- Threaded Holes in Rear of Regulator permit front panel mounting.
- Aluminum-Silicon Bronze Diaphragm Seal Outlet Valve maintains gas purity.

Optional Features

- Bonnet Vent Connector provides a 1/8" NPT female port allowing bonnet to be connected to a vent line or disposal system as a precaution in the unlikely event of a diaphragm failure.
- Internal (Inboard) Helium Leak Test and Test Report determines inboard leak rate; test report certifies leak rate of less than 2×10^{-8} sccs air equivalent.
- External (Outboard) Helium Leak Test and Test Report determines leak rate of gas from regulator to atmosphere; test report certifies leak rate of less than 5×10^{-7} sccs air equivalent.

Specifications

Maximum Inlet Pressure: See Table I
 Inlet Pressure Gauge: See Table I
 Delivery Pressure Range: See Table I
 Delivery Pressure Gauge: See Table I
 Gauge Size: 2 1/2" Dial
 Flow Coefficient:
 Regulator: Cv = 0.624
 Outlet Valve: Cv = 0.17
 Inlet Connection:
 CGA 330, 350, or 660 as ordered
 Outlet Connection: 1/4" NPT female
 Supply Pressure Effect:
 1 psi per 100 psi (approximate)
 Approximate Weight: 7 lbs

Materials of Construction

Body and Outlet Valve:
 Aluminum Silicon Bronze
 Gauges: Type 316 Stainless Steel
 Bonnet: Nickel-Chrome Plated Brass
 Other Metal Parts Exposed to Gas:
 Type 316 Stainless Steel, Monel®, and Inconel®
 Seats (Regulator and Outlet Valve): PCTFE
 Diaphragm: Type 316 Stainless Steel lined with Hastelloy C-22®
 Seals: PTFE

Table I

Part No.	Inlet Pressure (psig)		Delivery Pressure (psig)	
	Maximum	Gauge	Range	Gauge
ASB-3-75-(CGA)	3000	0-4000	3-75	0-100
ASB-3-150-(CGA)	3000	0-4000	10-150	0-200
ASB-2-75-(CGA)	800	0-1000	3-75	0-100
ASB-2-150-(CGA)	800	0-1000	10-150	0-200
ASB-1-75-(CGA)	300	0-400	3-75	0-100
ASB-1-150-(CGA)	300	0-400	10-150	0-200
ASB-0-75-(CGA)	3000	none	3-75	0-100
ASB-0-150-(CGA)	3000	none	10-150	0-200

Where "(CGA)" is indicated above, insert appropriate Compressed Gas Association connection number to complete the part number. Example: ASB-3-75-330. Order by complete part number.

Optional Equipment

Equipment	Part No.
Bonnet Vent Connector*	SG5647V
Inboard Helium Leak Test and Test Report	HT1000
Outboard Helium Leak Test and Test Report	HT1001
Check Valves*	See page 141
Purge Assemblies* (Cross purge assemblies are recommended)	See page 134

* If selected, these items are not installed on the regulator. They are shipped as separate items.