

Internally Coated Stainless Steel Two-Stage Model

Description: This two-stage stainless steel, high-purity regulator has been designed to provide precise pressure regulation for the Airgas EPA Protocol Mercury Standards. The two-stage body, diaphragms, internal carriers, internal compression members, 0.06 Cv poppets, conical compression springs, ¼" compression fitting and CGA 660 nipple are all passivated using a proprietary coating. This unique coating mitigates the chances of any level of mercury attaching to the internal wetted components of this specialty regulator. The result is a two-stage pressure regulator that will not hold back or alter any level (PPM or PPB) of the mercury standard.

The internal threadless seat design of the two-stage stainless steel regulator is the same as used in our high-purity Y12-C445 series. The convoluted Hastelloy C-22 diaphragms provide excellent regulating characteristics and allow for internal vacuum purging. An outlet ¼" compression fitting is provided to maintain optimum system purity.

Mercury Standards

PRESSURE REGULATORS



Specifications	
Maximum Rated Inlet Pressure	4,000 psig
Outlet Pressure Ranges	2-30 psig
Flow Capacity	Cv=0.06
Ambient Operating Temperature	-40° F to +150°F
Designed Leak Rate	2x10 ⁻⁸ ccs (helium)
Weight	4 lbs
Outlet	¼" TOD Compression Fitting
Decay Inlet Characteristics	0.01/100 psi

Materials	
Body	316 Stainless Steel
Bonnet	Nickel Plated Brass
Seat	PCTFE
Diaphragm	Hastelloy C22
Gauges	2 ½" Stainless Steel
Filter	316 Stainless Steel
Outlet Valve & Fitting	316 Stainless Steel
Trim	316 Stainless Steel

Design Features

- **Unique Proprietary Passivation Process**
special coating prevents mercury from "sticking" to the internal wetted components of the stainless steel regulator
- **Convoluted Hastelloy C-22 Diaphragms**
provide superior leak integrity without contamination from a non-metallic liner or seal
- **Threadless Seat Design**
provides longer regulator life

Equipment

Single-Stage Ordering Information						
Product Number	Material	Max Inlet Pressure (psig)	Max Outlet Pressure (psig)	Capacity (scfh @ Max Del. Press.)	Inlet Gauge Range (psig)	Delivery Gauge Range (psig)
Y12-HG445A660	316 SS	4,000	30	190	0 - 4000	30"Hg -0-30