

# ECONOMICAL, CORROSIVE GAS, HIGH PURITY 1-STAGE REGULATOR Series 3450

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## DESCRIPTION

The Series 3450 single stage regulators are specifically designed and constructed for use with difficult to handle gases, like chlorine and hydrogen chloride. The monel® diaphragm, inlet filter, poppet and nozzle assembly installed in a 316L stainless steel body create an economical high purity corrosive gas regulator for most applications.

## FEATURES

- Hastelloy® internal parts for added corrosion resistance.
- Encapsulated seat.
- High purity diffusion resistant, metal diaphragm construction.
- Diffusion resistant, diaphragm packless control valve installed on outlet as standard.
- Designed to pass an inboard helium leak-rate test of  $1 \times 10^{-9}$  cc per sec.
- All parts ultrasonically cleaned prior to assembly
- Rear panel mounting holes.

## APPLICATIONS

The 3450 Series regulators are ideal for use with many corrosive gases, such as chlorine, hydrogen chloride, boron trichloride, and boron trifluoride. They are also useful for controlling the pressure of gas mixtures containing these corrosive gas components, particularly at higher concentration levels.

## SPECIFICATIONS

Max. Inlet Pressure: 3000 psig  
Operating Temp. Range: -40° to +185°  
Flow Coefficient(C<sub>v</sub>): 0.08  
Inlet and Outlet: 1/4" NPT Female

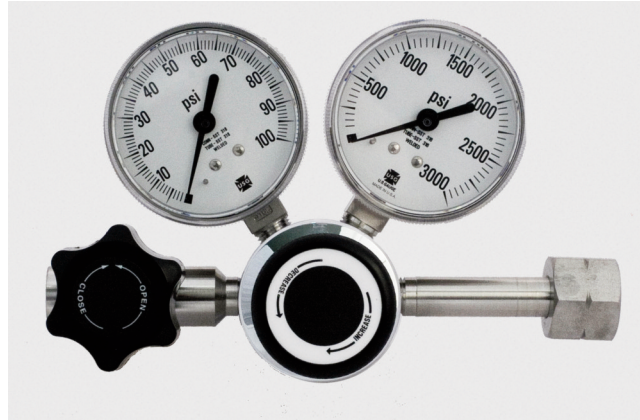
## HOW TO ORDER\*\*\*

Model Number+	Del. Press. Range psig	Del. Press. Gauge psig	Inlet Press. Gauge psig
3451-25-CGA*	5-25	0-60	0-3000
3451-50-CGA*	5-50	0-100	0-3000
3451-100-CGA*	10-100	0-200	0-3000
3452-25-CGA*	5-25	0-60	0-1000
3452-50-CGA*	5-50	0-100	0-1000
3452-100-CGA*	10-100	0-200	0-1000
3453-25-CGA*	5-25	0-60	0-400
3453-50-CGA*	5-50	0-100	0-400
3454-25-CGA*	5-25	0-60	none
3454-50-CGA*	5-50	0-100	none

\*Specify CGA Connection Number when ordering

\*\*\*For panel mounting bonnet add "PM" to base number (i.e., 3451PM-50-CGA).

**Warning:** A Purge assembly (see pages 86 and 87) is strongly suggested when using the above regulators with any corrosive gas.



## MATERIALS OF CONSTRUCTION

Body: 316L stainless steel  
Seat Assembly: Hastelloy® C 22  
Poppet Spring: Hastelloy® C 276 Seat:  
Teflon® PFA  
Diaphragm: Elgiloy  
Diaphragm Seal: Teflon®  
Inlet Filter: Hastelloy® C 276  
Bonnet: nickel plated aluminum  
Gauges: 316 stainless steel  
Outlet Valve: 316 stainless steel Outlet  
Connections: 316 stainless steel Knob:  
aluminum - black anodized

## OUTLET OPTIONS

	P/N Suffix
No Outlet Valve	NV
1/4" Compression Fitting	T4F
1/8" Compression Fitting	T2F
1/4" NPT Male	P4M
1/4" Hose Barb	4HB



EZ3100 Bracket (see page 91).