



Model 450B

High Pressure / Low Capacity Gas Purifier

Description

The Model 450B Gas Purifier is ideal for removing oil, water vapor and foreign particles from many* non-corrosive gases, and is designed for operating at high line working pressures where lower capacities of contaminant removal are required. The Model 450B is constructed of a black anodized aluminum housing that accepts purifier cartridges for specific applications. Removal of foreign matter is accomplished through the use of molecular sieve materials and special filters in replaceable cartridges. Matheson Tri-Gas Model 450B accepts any one of the four cartridges for various applications. The inlet and outlet parts are located at the top of the shell on the cylinder head. The purifier must be used with replaceable cartridges 451, 452, 453 or 454. Cartridges are shipped separately in hermetically sealed cans.



Specifications

Maximum Operating Pressure:	2000 psig
Maximum Oxygen	
Operating Pressure:	500 psig
Temperature Range:	-40 to 165°F (-40 to 74°C)
Pressure Drop:	0.2 psi for 1 scfm 0.9 psi for 2 scfm 2.4 psi for 3 scfm
Dimensions:	2" dia. x 5-3/4" L
Inlet & Outlet:	1/4" FPT
Water Removal Capacity:	451: 5.4 grams 452: 6 grams
Dew Point Achieved:	-100°F (-73°C) (1.5 ppm)
Shipping Weight:	2 lbs

Materials of Construction

Shell Body:	Black anodized aluminum
Cylinder Head:	Nickel plated brass
O-Ring:	Buna N (P/N RNS-0126-BU)
Cartridge:	451: 13X Molecular sieve 452: 4A Molecular sieve 453: Sintered bronze 454: Activated charcoal

Ordering Information

Model No. (Housing)	Description
450B	Purifier Housing (without cartridge)
Model No. (Cartridge)	Description
451	For Removal of Oil and Water
452	For Removal of Water
453	For Removal of particles over 5 microns**
454	Activated Charcoal Purifier***

* Consult Matheson Tri-Gas for specific applications.

** Not for Acetylene use

*** For acetone control in acetylene

Model 460

Low Pressure / High Capacity Gas Purifier

Description

The Model 460 Gas Purifier is similar in operation to the Model 450B; however, this purifier is specifically designed for higher capacities of contaminant removal and lower working line pressure. The Model 460 is constructed of an aluminum housing that accepts large capacity cartridges. The housing may be permanently installed in the line and may be serviced without disturbing the line connections (assure 12" clearance space under flanged end). Spring pressure seats the replaceable cartridge tightly against the top gasket to prevent gas from bypassing the cartridge. The inlet is on the side and the outlet is on the top.

The Model 460 purifier must be used with replaceable cartridges 461, 462, or 463. Cartridges are shipped in hermetically sealed cans.



Specifications

Maximum Operating Pressure:	350 psig
Temperature Range:	-40 to 200°F (-40 to 93°C)
Maximum Flow Rate	10 scfm for short periods (<15 mins) 1 to 3 scfm for extended use
Pressure Drop:	0.12 psi for 3 scfm 1 psi for 7.5 scfm
Capacity:	461: 134 grams H2O 462: 126 grams H2O
Dew Point Achieved:	-100°F (-73°C) (1.5 ppm)
Dimensions:	4-3/4" dia. x 16-3/4" L
Inlet & Outlet:	1/4" MPT, stainless steel (non-removable)
Shipping Weight:	7 lbs

Materials of Construction

Shell Body:	Aluminum
Strainer Assembly:	Monel & brass
Gaskets:	Neoprene GSK-0066-NB-Flange GSK-0155-NB-Cartridge
Cartridge:	461: 4A Molecular sieve 462: 13X Molecular sieve 463: Activated charcoal*

Ordering Information

Model No. (Housing)	Description
460	Purifier Housing (without cartridge)
Model No. (Cartridge)	Description
461	For Removal of Water
462	For Removal of Oil and Water
463	For Removal of Oil and Heavy Hydrocarbons

This series is not suitable for acetylene