

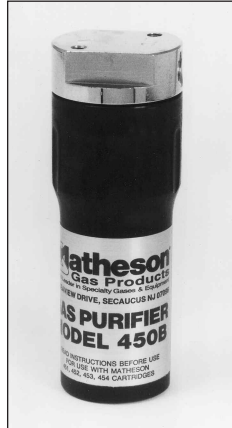


## Model 450B

### 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<br>0.9 psi for 2 scfm<br>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<br>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<br>452: 4A Molecular sieve<br>453: Sintered bronze<br>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)<br>1 to 3 scfm for extended use |
| Pressure Drop:              | 0.12 psi for 3 scfm<br>1 psi for 7.5 scfm                            |
| Capacity:                   | 461: 134 grams H <sub>2</sub> O<br>462: 126 grams H <sub>2</sub> O   |
| 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 (P/N GSK-0026-NB)  |
| Cartridge:         | 461: 4A Molecular sieve<br>462: 13X Molecular sieve<br>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*