

Gas Purification/Management

Purifiers: OMI® (Oxygen Moisture Indicating) Polishing Purifiers

OMI® (Oxygen Moisture Indicating) Polishing Purifiers

The OMI is a polishing purifier that removes many contaminants that other upstream purifiers miss. It will simultaneously and irreversibly remove moisture, oxygen, carbon monoxide, carbon dioxide, most sulfur compounds, most halogen compounds, alcohols, and phenols to less than 10 ppb. It is recommended that an OMI be installed in carrier gas streams just upstream of every GC. It consists of two components:

- A re-useable **tube holder** that is installed into the gas delivery system. The use of polycarbonate provides see-through capability along with safety.
- A **purifier tube** containing an indicating resin (changes color from black to brown when exposed to as little as 1 ppm of moisture or oxygen). The use of glass provides see-through capability and prevents diffusion of room contaminants into the gas stream.

Spent purifier tubes are easily replaced. Simply unscrew the end assembly from the tube holder and replace it with a new purifier tube. The design prevents room air from entering the new tube during installation (protective foil covers on each end are only pierced as the end assembly is screwed back onto the tube holder to complete installation).

OMI® Tube Holder

Specifications:

- The OMI-2 tube holder is 10 in. (25.4 cm) long with a diameter of 1.5 in. (3.8 cm) and 1/8 in. fittings.
- The OMI-4 tube holder is 16 in. (40.6 cm) long with a diameter of 1.5 in. (3.8 cm) and 1/8 in. fittings.



OMI-2 tube holder

Description	Cat. No.	Qty
for use with OMI-2 purifier tubes	23921	1 ea
for use with OMI-4 purifier tubes	23926	1 ea

OMI® Purifier Tube



OMI-2 purifier tube

Description	Cat. No.	Qty
OMI-1 Purifier Tube	23900-U	1 ea
OMI-2 Purifier Tube	23906	1 ea
OMI-4 Purifier Tube	23909	1 ea

OMI® Seal Kit

Replace worn seals on OMI-2 and OMI-4 tube holders periodically to reduce the risk of leaks. Kits includes two PTFE seals and handy tool.

23917	1 ea
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Supeltex® M-1 Ferrule

Replace ferrules on OMI-1 tube holders periodically to reduce the risk of leaks.

- **Max. Temp.:** 250 °C
- **Composition:** Ceramic-filled PTFE
- **Characteristics:** Ideal for connection to mass spectrometers. High reusability. Isothermal use only.

Cat. No.	Qty
22311	10 ea

High Capacity Gas Purifiers (Remove Moisture and Oxygen)

The best purifier choice for removing moisture and oxygen from carrier gas streams is our High Capacity Gas Purifier. It consists of three parts:

- Clam-shell oven
- Replaceable heating elements
- Replaceable converter tube

A convenient starter kit contains all three items for new installations.

High Capacity Gas Purifier, Starter Kit

No other purifier removes both moisture and oxygen in such large quantities (35 liters of moisture, 14 liters of oxygen).

Protects GC columns and detectors from damage caused by moisture and oxygen in the carrier gas stream, even when present up to 100 ppm levels. The clam-shell oven heats a converter tube to 580 °C, causing moisture and oxygen to irreversibly react with the reactant material. This chemical reaction prevents contaminants from returning to the gas stream, even when the material approaches saturation, or when the oven is cooled. Carbon monoxide and carbon dioxide are also removed.

It is recommended to install 4 ft. (1.2 m) of tubing downstream of the oven to allow heat to dissipate from the gas stream. This tubing can be coiled to reduce space.

The starter kit includes a clam-shell oven, two elements (installed), and a converter tube.

Note: Not for use with hydrogen gas.

Clam-Shell Oven

- **Length:** 14 1/2 in. (36.8 cm)
- **Height:** 5 1/4 in. (13.3 cm)
- **Depth:** 6 in. (15.2 cm)
- **Operating Temp.:** 580 °C
- **Power Consumption:** 90 watt
- **Mounting:** Horizontally only (bench or wall) using integral bracket
- **Warranty:** 1 year

Converter Tube

- **Length:** 10 in. (25.4 cm)
- **Diameter:** 1/2 in. (12.7 mm)
- **Max. Inlet Pressure:** 150 psi
- **Max. Flow Rate:** 1100 mL/min.