



WARNING



- The rapid oxidation of the active adsorbent in this filter can cause the filter bed to become extremely hot, resulting in danger of fire or burn injuries. Limited exposure of the filter to air during installation does not result in rapid reaction or dangerous heat generation.
- Do not pass air or oxidizing gases in concentrations above 0.1% through this filter!
- Maximum pressure 68 bar / 6800 kPa (1000 psig). Wear eye protection and use caution when working with pressurized systems.

Product Information

This is a high-capacity Oxygen Trap intended for use with non-oxidizing gases such as He, Ar, N₂, H₂ or CH₄. The CRS Oxygen Trap has a capacity of 2.5 liters of oxygen at room temperature. The filter body is filled with a high-surface area copper-based adsorbent and molecular sieve. An internal 10 micron frit at each end of the trap prevents particle contamination. The maximum recommended flow rate is 1 liter/min.

Approximate dimensions are 50 x 350 mm including fittings.

Installation:

To connect in-line, first purge the gas line to remove air or oxygen. While maintaining a low purge rate of 10 to 30 cc/min, remove the end plugs from both ends of the oxygen trap. Note which end is labeled as the outlet, then attach the inlet end of the trap to the gas line.

Attach the outlet end of the trap and continue purging the entire system until a total of 2 to 3 liters of gas has been flushed through. The fittings should be tightened $\frac{3}{4}$ turn past finger tight.

While the end plugs are removed from the trap during installation, the active catalyst will react with air at a very slow rate limited by diffusion.

As long as the trap is attached to the gas line within a few minutes, trap heating and the loss of oxygen-adsorbing capacity will be negligible.

Regeneration Procedure:

The CRS Oxygen Trap can be regenerated numerous times, however, sulfur compounds permanently poison the catalyst's ability to adsorb oxygen. Regeneration service is also available from CRS. To regenerate it use a blend of inert gas, such as nitrogen or helium, with 10% hydrogen. Attach the "outlet" end of the trap to the regeneration gas line.

Heat the Oxygen Trap to 130°C with a flow rate 50 cc/min, venting to a hood. After 15 minutes, raise the flow rate to 350cc / minute and raise the temperature to 150°C. Water is formed as the hydrogen reacts with adsorbed oxygen, and the inert gas sweeps the water vapor from the trap.

Regeneration is complete when water vapor can no longer be detected in the gas stream. Regeneration takes at least 4 hours. Allow the trap to cool, and seal the fittings.

Chromatography Research Supplies, Inc.

2601 Technology Drive
Louisville, KY 40299
USA

Phone: +1 502 491 6300

Fax: +1-502-491-3390

www.chromres.com