

Indicating Oxy-Trap™



- Self-Indicating
- No More Guessing When To Replace Your Trap
- Supplied Ready-To-Use



Description

Indicating Oxy-Trap™ is a compact unit designed to remove oxygen from carrier gas streams. Its indicating characteristics warn you when the adsorbent must be regenerated. The color change is sharp and vivid, turning from beige to dark brown. The unit works with nitrogen, helium, hydrogen, argon, argon/methane mixtures, alkanes, etc. When used in series on the downstream side of our larger capacity Non-Indicating Oxy-Trap™, there is a positive indication as to when regeneration is required to maintain an oxygen-free carrier gas stream.

Design

The Indicating Oxy-Trap™ is supplied with the catalyst in a reduced state, ready for use. By necessity, the indicating adsorbent is supplied in a heavy-walled, 3/8" o.d. borosilicate glass tube which prevents air from entering the system and allows for visual inspection. The Indicating Oxy-Trap™ (Part No. 4004) has a non-indicating, higher capacity catalyst at each end to protect the indicating material from oxygen exposure during installation. The Super Indicating Oxy-Trap™ (Part No. 4334) has one band of indicating material near the outlet end, in order to accommodate a larger amount of high-capacity catalyst. The traps are protected with a clear, shrinkable plastic cover to minimize breakage hazards. Overall length is 18 inches.

The Indicating Oxy-Trap™ is used for removing the last few parts per million (ppm) of oxygen from an already purified gas stream. The oxygen level is below the limits detectable by ASTM Method D 2223. The units are self-indicating, alerting you when regeneration is required. If disposal is preferred over regeneration, dispose as you would any solid chemical.

The color change between fresh and spent catalyst is quite vivid. The active catalyst has a sand-like color which changes to dark brown upon contact with oxygen. Normally, there is a sharp boundary separating the spent from the fresh catalyst. With use, the front advances slowly, depending on the flow rate and oxygen content of the gas stream.

WARNING:

The oxygen adsorbing material in this unit is self-heating. **DO NOT ATTEMPT TO REMOVE, REPLACE OR REGENERATE THE MATERIAL.** This unit is intended for use with instrument grade carrier gases such as hydrogen, helium, argon or nitrogen. **DO NOT USE WITH GAS STREAMS CONTAINING MORE THAN TRACE AMOUNTS OF OXYGEN.** The oxygen adsorbent materials bind oxygen via an exothermic reaction. The material will generate excessive heat if exposed to gases containing more than trace amounts of oxygen. Such conditions will result in potentially hazardous damage to the unit. Please observe all safety guidelines included in the instruction sheets.

Capacity

The adsorption capacity of the Indicating Oxy-Trap™ (Part No. 4004) is about 10cc of oxygen at STP (about 20cc for the Super Indicating Oxy-Trap™ (Part No. 4334). At a continuous flow rate of 50cc/min of carrier gas containing 10ppm oxygen, the traps will last for about 2 weeks. For higher capacity, we recommend using a Non-Indicating Oxy-Trap™ (Part Nos. 4001, 4002 or 4003) upstream from the Indicating Oxy-Trap™.

Installation

The Indicating Oxy-Trap™ is supplied with PTFE reducing ferrules for 1/8" carrier gas lines and brass ferrules for 1/4" lines. Before removing the sealing plugs from the ends, prepare your system to receive the trap. Purge the incoming gas line so as to remove residual oxygen. Remove both sealing plugs from the trap and with the carrier gas still flowing at a trickle, connect the inlet end of the trap using two wrenches to avoid undue strain on the glass tube. When attaching Oxy-Trap™ to gas line, ensure that nut **A** is held secure while tightening nut **B**. This will prevent twisting of glass center and prevent cracking. Connect the outlet end to your system and check for leaks. Traps are fragile where glass meets fittings. Use caution during installation.

Indicating Oxy-Trap™

Description	Part No.
Indicating Oxy-Trap™	4004
Super Indicating Oxy-Trap™	4334
Regeneration Service for 4004	4014
Regeneration Service for 4334	4019
Repl. Shrinkable Plastic Tube	4016
1/4" to 1/8" PTFE Reducing Ferrules, 10/pkg	RF-400/200-T
1/4" No-Hole PTFE Ferrules, 10/pkg	RF-400/0-T

Non-Indicating Oxy-Trap™

Description	Part No.
Oxy-Trap™ Column with 1/8" Fitting	4001
Oxy-Trap™ Column with 1/4" Fitting	4002
Large Oxy-Trap™ Column	4003

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