

Advanced Filter System I (AFS I)

Description: The Advance Filter System I (AFS I) is a high capacity gas purifier that removes O₂, H₂O, and Hydrocarbons with (5 or more carbons) from inert gases, hydrogen, and nitrogen to low ppb levels. Common applications include gas chromatography (GC) and inductively-coupled plasma spectroscopy (ICP).

Because of its features of high capacity and robust construction, the AFS is suitable for installations requiring multiple instruments. AFS features a double sealing system that serves as a safeguard against gas leaks, keeping hazardous gases from escaping into the laboratory.

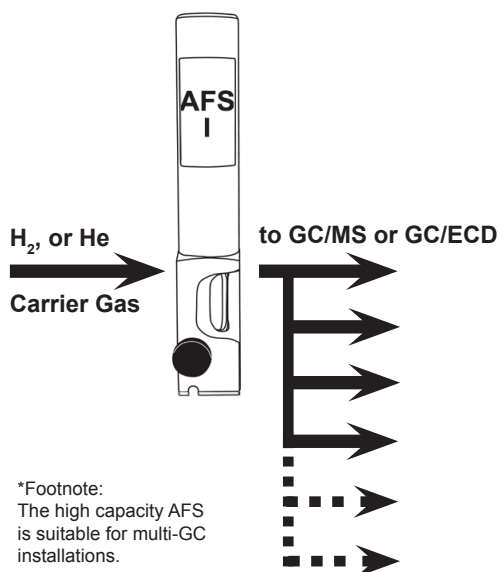
The AFS system requires installation of a stainless steel manifold to the gas line (options are ¼" or ½" standard compression fittings). Brackets and hardware are included to mount the manifold to the bench or wall. Once the manifold is installed the easily replaceable cartridge is attached to the manifold with a clamping knob.

The AFS I is not suitable for use with O₂ or air. The AFS I is strongly recommended for GC/MS testing platforms and for the carrier gas line of GC/FID systems.

Applications

- Point of use purification of carrier gases used with the operation of GC/FID platforms
- Point of use purification of carrier gases used with the operation of GC/MS platforms
- Carrier gas and make-up gas for GC/ECD
- Removal of O₂, H₂O and Hydrocarbons (5 or more carbons)

GC Carrier Gas



CRS

PURIFIERS



Design Features/Components

- Dual Sealing System (Safety)
- Assembled with Heavy Duty Components (Safety)
- Sensitive Visual Indicators (O₂ & H₂O)
- Simple Cartridge Replacement
- Stainless Steel Manifold Fittings
- 10 micron frits on cartridge
- 100% Helium leak tested
- Shipped filled with Helium

Specifications

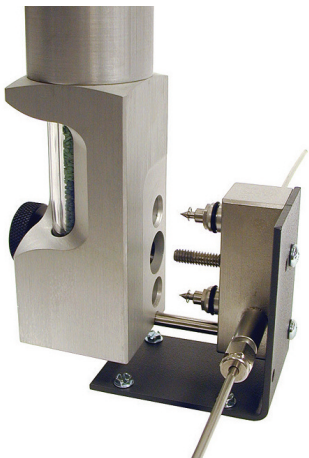
| | |
|--------------------------------|---|
| Maximum Operating Pressure: | 200 psi |
| Recommended Maximum Flow: | 2 slpm |
| Source Gas: | He, Ar, N ₂ , H ₂ |
| Maximum Operating Temperature: | 35°C |
| Efficiency: | O ₂ - 5 ppb H ₂ O - 20 ppb HC - 5 ppb (>C4) |
| O ₂ Capacity: | 850 cc |
| H ₂ O Capacity: | 12 g |
| HC Capacity: | 8 g |
| Dimensions: | 12 in. x 2 in. x 2 in. |
| Approximate Weight: | 5.9 lbs. |

PURIFIERS

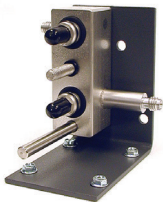
CRS

Advanced Filter System I (AFS I) Cont.

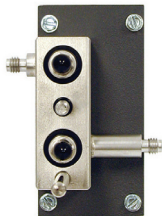
| Materials of Constructions | | |
|----------------------------|----------------------------------|---|
| | Manifold | Purifier Cartridge |
| Body: | Stainless Steel | Internal Structure: Stainless Steel inner tube, Borosilicate Glass, and Polycarbonate plastic |
| | | External Structure: Aluminim (Anodized) |
| Fittings: | ¼" & ⅝" Stainless Steel Fittings | N/A |
| O-Ring Seal | Fluoroelastomer | Fluoroelastomer |



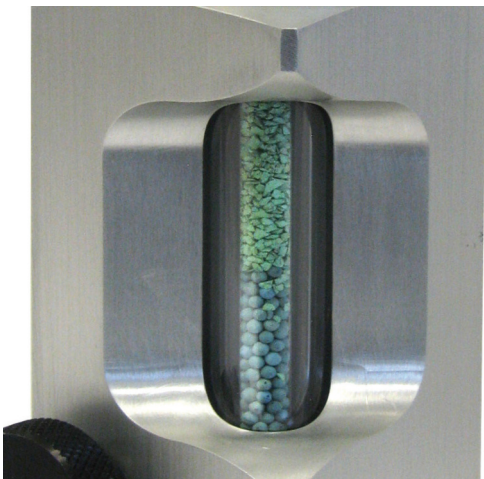
AFS Cartridge and Bench Mount Manifold
Easy to change cartridge. No tools required.



Bench Mount Manifold



Wall Mount Manifold



AFS I indicator, Oxygen is the green indicator that changes to gray when depilated. Moisture is the blue indicator that changes to light brown when depilated.

| Ordering Information | | |
|----------------------|---|----------------------|
| Product Number | Description | Compression Fittings |
| Y40-AFS18 | Advanced Filter System I, Complete Kit | ⅝" Fittings |
| Y40-AFS14 | Advanced Filter System I, Complete Kit | ¼" Fittings |
| Y40-AFSRC1 | Replacement Cartridge, Advanced Filter System I | |
| Y40-AFSFSM8 | ⅝" Advanced Filter System Manifold | |
| Y40-AFSFSM4 | ¼" Advanced Filter System Manifold | |