



Filter Housing

VF-61EP1/2

Clean Dry Fuels and Oils with High Performance *Aquacon*® Filter Cartridges

FEATURES

- **Positive Water Removal** – *Aquacon* cartridges remove free and emulsified water from fuels and oils.
- **Positive Water Holding** – Filtered water is chemically locked-in and can't be squeezed out.
- **Positive Shut-off** – Saturated cartridges stop the flow of unfiltered fuels.
- **Effective Dirt Removal** – 98%+ efficiency for 1/2, 5, or 25 micrometer particles.

DESCRIPTION

The VF-61EP1/2 is a versatile filter housing designed for use with several different high performance *Aquacon* filter cartridges. Refer to the cartridge selection table on the reverse side.

Aquacon cartridges filter out water by chemically locking it into layers of super-absorbent media. Water removal efficiency is not affected by surfactants or additives, and once captured, the water cannot be squeezed out. Water capacity is as much as 1 1/2 quarts, depending on the flow rate. These cartridges also effectively filter out dirt, rust and other particulates. (See caution below, right.)

As a cartridge reaches its water-holding limit, the media expands very rapidly and restricts the flow. For fuels, the flow will completely stop, giving positive shut-off and guaranteeing water will not get downstream. For oils and other high viscosity liquids, the pressure drop will rapidly increase, signaling the need to change cartridges.

The VF-61EP1/2, with ACO series cartridges installed, has become the standard for low flow rate full flow aviation fuel monitor applications.

APPLICATIONS

- | | |
|----------------|-------------------|
| Jet Fuel | Insulating Oil |
| Avgas | Hydraulic Oil |
| Motor Gasoline | Lubricating Oil |
| Diesel Fuel | Selected Solvents |



VF-61EP1/2 with optional pressure gauge connections and cutaway of ACO-51201K cartridge.

*****CAUTION*****

In fuels containing anti-icing additive (Di-EGME, FSII, Prist®), stagnant water bottoms can absorb large amounts of the anti-icing additive. This water/FSII solution can disarm water-absorbing elements allowing water to pass downstream. Daily draining of the monitor vessel and of water bottoms upstream of the elements is **IMPERATIVE**. Also, changeout @ 15 psid.

SPECIFICATIONS

Filter Housing VF-61EP1/2

- Maximum Operating Pressure: 150 psi
- Material: die cast aluminum head; carbon steel shell with epoxy coated exterior and interior; stainless steel band clamp.
- Inlet/Outlet Connection: 1 1/2" NPT
- Closure Seal: Buna-N O-Ring (P/N G-0986)
- Weight: 8 lbs., Shipping Weight: 10 lbs.
- 1/8" brass petcock vent valve and 1/2" drain valve

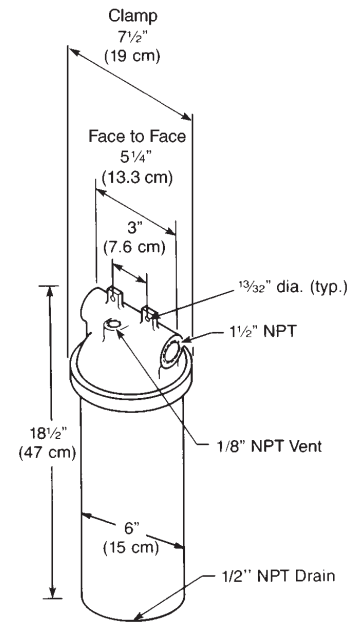
Cartridges

- Maximum Operating Temperature: 250°F (121°C)
- Collapse Strength: 75 psi (5 bar)
- pH Range: 5 - 9
- Nominal Filtration Efficiency: 98%

Over Pressure Protection

- When exposed to a high concentration of water, the differential pressure across an **Aquacon** cartridge will immediately increase. Pressure bypasses or other means to limit the inlet pressure to 75 psi (5 bar) should be installed to prevent the cartridge from collapsing.

VESSEL DIMENSIONS



FILTER CARTRIDGE SELECTION TABLE

Application	Cartridge	Rating	Typical Free Water in Effluent (Maximum)	Recommended Flow Rates
Jet Fuel ⁽¹⁾ Avgas ⁽¹⁾	ACO-51201K	1/2	2 ppm	5 - 50 GPM ⁽²⁾
Motor Gasoline	AC-51205	5	5 ppm	5 - 50 GPM
Diesel Fuel	AD-51225	25	50 ppm	15 - 50 GPM
Oils	AC-51205 AD-51225	5 25	See Note (3)	Varies with viscosity. See Form #1709.
Solvents	ASL-51201	1	5 ppm	5 - 50 GPM
Dirt Removal Only	FO-512PL05 FO-512PL1/2 FO-512PL25	5 1/2 25	N/A	1 - 50 GPM

NOTES:

- (1) For Aviation Fuels, if system pressure can exceed 25 psi, and for Diesel Fuel Systems, always install pressure gauge or other means of determining differential pressure.
- (2) For Full Flow Fuel Monitor applications, the flow rate can be increased to 75 GPM. This will result in a somewhat reduced cartridge life and higher initial pressure drop. In jet fuel with an ACO-51201K installed, the initial pressure drop is 6 psi at 50 GPM, 10 psi at 75 GPM.
- (3) For oils and other liquids with viscosity above 100 SUS, more than one pass is typically required through the cartridge. After several passes, water levels of 5 ppm can be achieved.

ORDERING INFORMATION

- Specify Model VF-61EP1/2 Filter Housing
- Unit is supplied with G-0986 Buna-N O-Ring and 1/8" valve and 1/2" drain plug installed. 1/2" petcock drain valve is shipped loose.
- Cartridges are not supplied and must be ordered separately.
- Viton O-Rings (P/N G-0986A) are available but must be ordered separately. They are recommended for gasoline and solvent applications.
- Optional Differential Pressure Gauge Assembly is Part Number 10678 (See Form #1715)

RECOMMENDED SPARES

- 1 each G-0986 Buna-N O-Ring
- 6 each Cartridges
- If Viton O-Rings are desired, 2 each G-0986A

OPTIONAL DRAIN VALVE

- Part Number 554Y020 is a Carbon Steel 1/2" NPT Ball Valve, with Mounting Nipple

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