



Filter Housing VF-61

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

FEATURES

- Free and emulsified water to less than 5 ppm
- 1/2 micrometer particulate removal
- Provides protection against “slugs” of water
- Pressure increase signals cartridge change
- Use with existing filter housings

DESCRIPTION

The VF-61 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 common surfactants or additives. Water capacity is as much as 1½ 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 oils and other high viscosity liquids, the pressure drop will rapidly increase, signaling the need to change cartridges.

The VF-61, 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-61 shown with standard accessories and (inset) with optional quick release hand bolts.

*****CAUTION*****

DO NOT USE WITH PRE-MIXED FUELS CONTAINING ANTI-ICING ADDITIVES.

WARNING: Absorbent-type monitor cartridges will not remove water from fuel containing alcohol-blending agents (commonly called gasohol). For removal of solids, please use Velcon particle removal filters specifically made for gasohol. Consult your Velcon representative.

SPECIFICATIONS

Filter Housing VF-61

- Maximum Operating Pressure: 150 psi
- Material: die cast aluminum head and closure clamp assembly; carbon steel shell with epoxy coated exterior and interior.
- 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

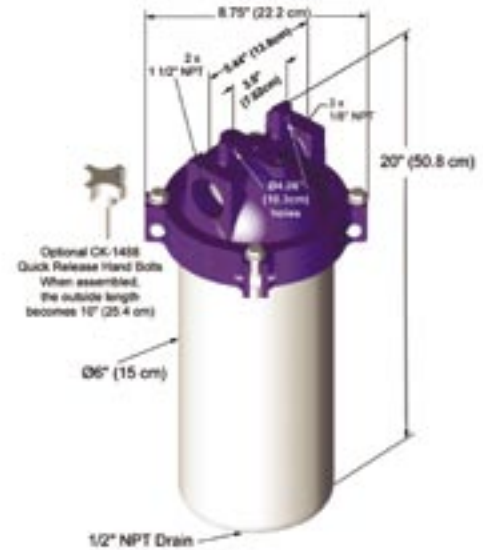
Cartridges

- Maximum Operating Temperature: 200°F
- 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-51201L | 1/2 | 2 ppm | 5 - 50 USGPM ⁽²⁾ |
| Motor Gasoline | AC-51205 | 5 | 5 ppm | 5 - 50 USGPM |
| Diesel Fuel | AD-51225 | 25 | 50 ppm | 15 - 50 USGPM |
| Oils | AC-51205 AD-51225 | 5 25 | See Note (3) | Varies with viscosity. See Form #1709. |
| Solvents | ASL-51201 | 1 | 5 ppm | 5 - 50 USGPM |
| Dirt Removal Only | FO-512PL05 FO-512PL1/2 FO-512PL25 | 5 1/2 25 | N/A | 1 - 50 USGPM |

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 USGPM. This will result in a somewhat reduced cartridge life and higher initial pressure drop. In jet fuel with an ACO-51201L installed, the initial pressure drop is 6 psi at 50 USGPM, 10 psi at 75 USGPM.
- (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-61 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 #1959)

RECOMMENDED SPARES

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

OPTIONS

- Part Number 554Y020 is a Carbon Steel 1/2" NPT Ball Valve, with Mounting Nipple
- Part Number CK-1488 quick release hand bolts (set of 4) to replace closure bolts (shown on page 1 inset photo)



Velcon products are sold and serviced by a world-wide representative network. To order, contact Headquarters or your **LOCAL REPRESENTATIVE**:

COMPANY HEADQUARTERS:
 Velcon Filters, Inc.
 1210 Garden of the Gods Road
 Colorado Springs, CO 80907-3410
 Phone: 1.800.531.0180 / 1.719.531.5855
 Fax: 719.531.5690
 e-mail: vfsales@velcon.com
 www.velcon.com

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