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# VF-61UL INSTRUCTIONS

# **DESCRIPTION**

The Velcon VF-61UL filter housing is designed to operate with various **Aquacon**® or microfilter elements in diesel fuel applications. The filter housing is shipped with *no cartridge* installed. *Cartridges must be ordered separately*. The VF-61UL vessel only (no cartridges) is **Underwriters Laboratory Approved** under Component Listing.

Connections Size: 1-1/2" Female NPT Housing Pressure Rating: 150 psi

**NOTE:** FOR LIQUID SERVICE ONLY. Do not use or leak test this filter vessel with compressed air or other gases.

#### **CARTRIDGE SELECTION**

ТУРЕ	MODEL NUMBER	DEGREE OF FILTRATION	COLLAPSE STRENGTH
PLEATED MEDIA (Dirt Removal Only)	FO-512PL <sup>1</sup> / <sub>2</sub> FO-512PL05 FO-512PL25	<sup>1</sup> / <sub>2</sub> MICRON 5 MICRON 25 MICRON	75 psi 75 psi 75 psi
Aquacon® MEDIA (Dirt and Water Removal)	AC-51205	5 MICRON	75 psi
	AD-51225	25 MICRON	75 psi

# \*\*\*\*\*CAUTION!\*\*\*\*\*

To protect the fuel system, including the VF-61UL and other components, be sure to install pressure relief valve(s).

#### INSTALLATION

Install the housing at a convenient point in the line. Note "Inlet" and "Outlet" markings on the cast head which indicate direction of flow. DO NOT install the housing backwards.

Provide room for the housing shell to clear the cartridge during change-out.

It is good practice to install a differential pressure gauge so that the differential pressure across the housing can be monitored. This allows accurate determination of when the cartridge should be changed. Part number 10678, as described on Form 1715 (PN 09-880) is a differential pressure gauge specifically designed to be used on VF-61. NOTE: PN 09-880 Pressure Gauge is not UL tested or approved.

FOR **Aquacon**® CARTRIDGES USED IN DIESEL FUEL SERVICE, **ALWAYS** INSTALL A DIFFERENTIAL PRESSURE GAUGE OR OTHER MEANS OF DETERMINING THE DIFFERENTIAL PRESSURE. For diesel fuel service, flow rate should be kept between 15 and 50 gpm. Consult factory for other flow applications.

On systems where pressures can exceed 75 psi, a pressure bypass around the pump should be installed to protect the cartridge and the system from a high pressure shock or sudden cartridge seal-off due to a slug of water in the product.

Valves ahead of and behind the housing may be required to isolate it during cartridge change-out.

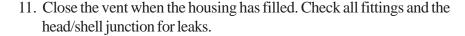
# **CARTRIDGE CHANGE-OUT**

Replace the cartridge when the differential pressure exceeds 25 psi, after 1 year of service, when the flow is significantly reduced, or if pressure has been steadily climbing and then begins to decrease – whichever occurs first.

# IMPORTANT SAFETY PRECAUTION: MAKE CERTAIN FILTER HOUSING IS COMPLETELY VENTED BEFORE OPENING HOUSING.

- 1. Turn off pump.
- 2. Close isolation valves (if any) and open the valve vent at the top.
- 3. Place a bucket under the housing to contain any spilled liquid.
- 4. Drain all liquid from the housing through the bottom plug.
- 5. Loosen the four bolts and rotate out and down to clear the top clamp. Drop the housing shell. Remove the spent cartridge.

- 6. Wipe the inside of the shell clean of any contaminants.
- 7. Inspect the O-ring and replace if damaged. Lightly lubricate the O-ring with the fuel or oil in which it will be used, and position it on the head.
- 8. Install a new element onto the nozzle of the filter head. Twist and push the cartridge until it bottoms against the step on the nozzle.
- 9. Lift shell up to the housing head, making sure the head O-ring is in place. Align shell bolts so they do not interfere with inlet and outlet piping. Rotate bolts over clamp top half (see photo). Note: Small O-rings on bolts do not seal, but just hold washers next to bolt head. Tighten all bolts to 33 ft-lbs, alternating in a criss-cross fashion.
- 10. Open isolation valves and the vent valve so that the vessel slowly bleeds air from the top vent while filling the housing.





# REPLACEMENT PARTS

The VF-61UL is shipped with a Buna-N O-ring installed. When ordering replacement O-rings from Velcon, specify:

G-0986 for Buna-N (UL Approved) 420X066 for Viton (UL Approved)

Use only UL Approved O-rings listed above to keep UL Component Listing status.

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.