



# Filter Housings

## VF-61, VF-61E, VF-62

### Clean Dry Fuels and Oils with High Performance *Aquacon*<sup>®</sup> 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, and VF-62 are versatile filter housings designed for use with several different high performance *Aquacon* filter cartridges, as well as a variety of paper filters and coalescer/separator cartridges. Refer to the cartridge selection table on page 3.

*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 1 1/2 quarts, depending on the flow rate. These cartridges also effectively filter out dirt, rust and other particulates. (See caution, page 4)

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.

Use the VF-61E with band clamp closure for areas with limited space.

#### APPLICATIONS

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



VF-61



VF-61E  
with Band Clamp Closure

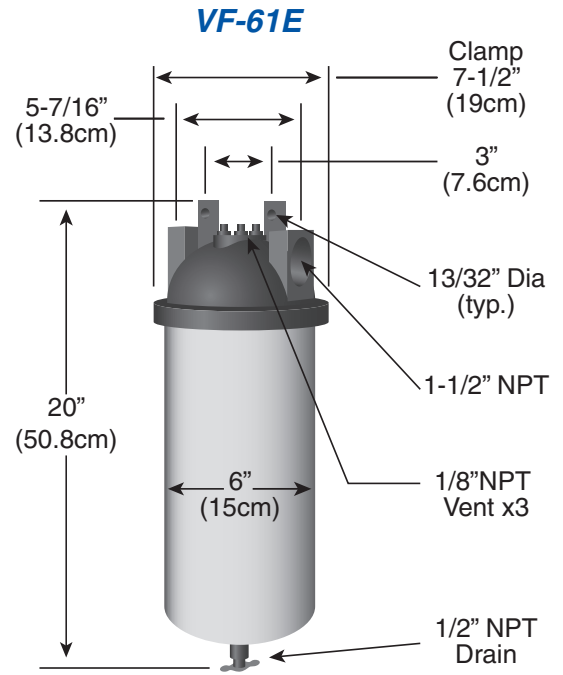
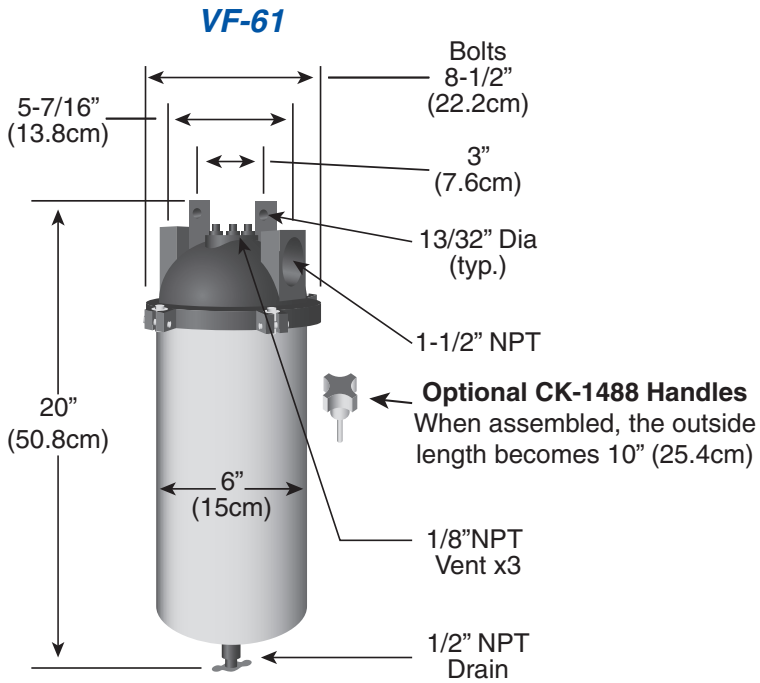


VF-62  
Pictured with Optional  
Hand Knobs

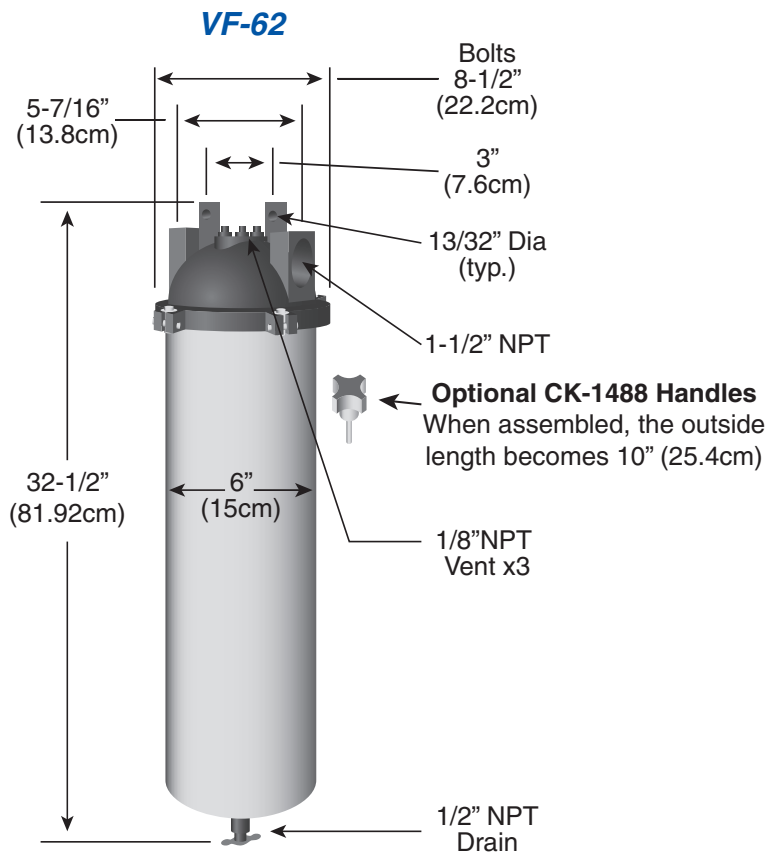
## DIMENSIONAL DRAWINGS

Please note: Drawings are not to scale. Dimensions are shown for estimating purposes only.

Allow 6 inches (15.2 cm) below the vessel to safely remove the vessel to gain access to the cartridge.



**VF-61E has a band clamp closure. Use in areas with limited space.**



**VF-62 has a longer body for areas and applications that require higher flow rate.**



## FILTER CARTRIDGE SELECTION TABLE

Housing P/N	Product being filtered	Application	Cartridge P/N	Data Sheet	Type	Micron	Flow Rate (GPM)
VF-61, VF-61E	Jet Fuel & Avgas <sup>(1)</sup>	Dirt & Free water	ACO-512P3L	1681	<b>Aquacon</b> <sup>®</sup> (Absorbent)	0.3	5-50
			ACO-51201L			0.5	5-50
	Mo-gas		OS-51288	1858	Coalescer/ Separator	0.5	Jet: 5-35 Avgas: 5-45
			AC-51205	1582	<b>Aquacon</b> <sup>®</sup> (Absorbent)	5	5-50
	Diesel <sup>(1)</sup>		AD-51225	1655		25	15-50
			Biodiesel	OS-51286	2118	Coalescer/ Separator	5
	Oils			AD-51225	1655	<b>Aquacon</b> <sup>®</sup> (Absorbent)	25
			Solvents	AC-51205	1582		5
	ALL			AD-51225	1655	Paper Filter	25
			ASL-51201	1692	1		5-50
				FO-512PL1/2	1549	Paper Filter	0.5
			FO-512PL05	5			
FO-512PL25	25						
	FOS-512PL25	1734	Synthetic Filter	25			
VF-62	Jet Fuel & Avgas <sup>(1)</sup>	Dirt & Free water	ACO-52401L	1681	<b>Aquacon</b> <sup>®</sup> (Absorbent)	0.5	10-100
	Motor Gasoline		AC-52405	1582		5	10-100
	Diesel <sup>(1)</sup>		AD-52425	1655		25	30-100
	Biodiesel		AC-52405	1582		5	Varies with viscosity See Form #1709
			AD-52425	1655		25	
	Solvents		ASL-52401	1692		1	10-100
	ALL		Dirt	FO-524PL1/2		1549	Paper Filter
		FO-524PL05		5			
FO-524PL25		25					

### NOTES:

(1) For aviation and diesel fuel applications, always install a differential pressure gauge or other means of determining differential pressure.

(2) See Data Sheet #1709 for absorbent cartridge (AC, AD) flow rates.

(3) See Data Sheet # 1532 for paper filter (FO) flow rates, see Data Sheet # 1747 for synthetic filter (FOS) flow rates.

***Please consult installation instructions and operating procedures that accompany products for more detailed information.***

## SPECIFICATIONS

### Filter Housing VF-61, VF-61E, VF-62

- Maximum Operating Pressure: 150 psi
- Inlet/Outlet Connection: 1½" NPT
- Closure Seal: Buna-N O-Ring (P/N G-0986)
- 1/8" brass petcock vent valve and 1/2" drain valve
- Material:
  - » **VF-61, VF-62:** Die cast aluminum head and closure clamp assembly; carbon steel shell with epoxy coated exterior and interior.
  - » **VF-61E:** Die cast aluminum head; stainless steel band clamp; carbon steel shell with epoxy coated exterior and interior.
- Weight:
  - » **VF-61:** 10 lbs., Shipping Weight: 12lbs.
  - » **VF-61E:** 8 lbs., Shipping Weight: 10 lbs.
  - » **VF-62:** 16 lbs., Shipping Weight: 18 lbs.

### Cartridges

- Maximum Operating Temperature: 200°F
- Collapse Strength: 75 psi (5 bar)
- pH Range: 5 - 9
- Nominal Filtration Efficiency: 98%

## ORDERING INFORMATION

- Specify Model VF-61, VF-61E, or VF-62 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.

## RECOMMENDED SPARES

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

### CAUTION

To protect the fuel system, including the filter housing & other components, be sure to install pressure relief valve(s).

## 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 (as shown on page 2) VF-61 and VF-62 only.
- Part Number 10678 Differential Pressure Gauge Assembly (See Form #1959)

## DIFFERENTIAL PRESSURE GAUGE



P/N 10678

### Color Indicates Pressure Drop

Green: Clean 0 - 15 psi  
Red: Change 16 - 25 psi

## OVER PRESSURE PROTECTION

When exposed to a high concentration of water, the differential pressure across an absorbent cartridge (AC, ACO, AD, or ASL Series cartridges) will immediately increase. Pressure bypasses or other means to limit the inlet pressure to 75 psi (5 bar) should be installed to prevent cartridge from collapsing.

### CAUTION

Do not use **Aquacon**® absorbent cartridges (AC, ACO, AD or ASL Series) with pre-mixed jet fuel containing anti-icing additives, or with gasoline/alcohol blends.



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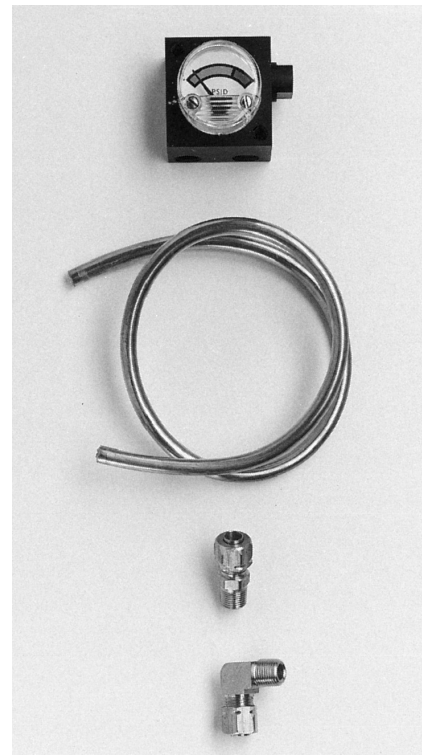


**Liquid Filtration  
and Separation  
Specialists**



# Differential Pressure Gauge

## Assembly Part Number 10678



## Differential Pressure Gauge Kit for use with the VF-61, VF-61E, and VF-62 Housings

This unit measures pressure difference between two points. The gauge allows for a simple reading on an easy-to-read scale. A red/green dial with a breakpoint located at 15 psid alerts the user of the condition of the process.

This kit consists of the following components:

- Differential Pressure Gauge: aluminum body, 1/8" NPT bottom, 1" molded lens & 0-20 psid scale,
- Compression Fittings: 1 straight, 1 90° elbow
- 1/4 O.D. Copper Tubing

## Operation

When the needle is in the green zone of the gauge during normal flow, the differential pressure is less than 15 psid across the installed element, and the element does not need to be changed out.

When the needle is in the red zone, the differential pressure is more than 15 psid and the element should be changed out. It has reached its recommended maximum pressure differential.

### CAUTION:

Do not mount the P/N 10678 differential pressure gauge assembly any closer than 2" from a steel bracket or pipe. The gauge has a magnetic piston, and mounting too close to steel may affect the accuracy.