

Bulk Diesel Fuel Filter Cart BDFC

*Coalescing Elements Patent Pending



Applications



POINT OF USE
FUEL DISPENSING



FLEET FILL / BULK FUEL
TRANSFER



BULK FUEL
UNLOADING



PROTECTION FOR
HIGH-FLOW FUEL
INJECTION SYSTEMS



BULK TANK
KIDNEY LOOP /
RECIRCULATION

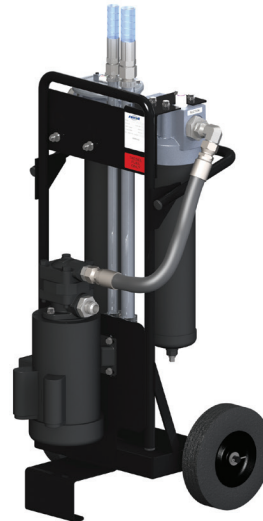
Application Introduction:

The Reason for Better Bulk Fuel Filtration

The BDFC provides exceptional single-pass or kidney loop diesel particulate filtration and continuous water removal. Both filters combine Filtroil's fully synthetic Excellement® Z-Media® in a particulate pre-filter, the KL3, with our patent-pending coalescing water removal filter, the ICF, to fully protect vital diesel engine components from dirt and water. The BDFC is ideal for fuel maintenance operations.

Features and Benefits

- Designed with integrated particulate removal pre-filtration for maximum coalescing filter element life in the downstream housing
- Routine element change only needed on KL3 particulate filter, saving time and money
- Patent-pending, three-phase, particulate and fuel/water separation media technology
- A revolutionary element designed for the highest single-pass water and particulate removal efficiencies in today's ultra-low sulfur diesel (ULSD) fluids
- Protects expensive Tier 3 and Tier 4 engine components against failures caused by particulate and water transferred from the bulk fuels tanks to the vehicle
- Allows users to achieve or exceed the particulate and water removal specifications of the injection system OEMs
- Previously acceptable industry standard products no longer provide the high-efficiency separation needed in today's ULSD fluids
- Anti-Static Pleat Media (ASP®) is standard for all coalescing elements
- 10' Hoses with 3' wands
- At just 22" wide, cart will fit through standard doorways
- Pump motor is 115VAC with resettable overload and 7' power cord
- Pressure indicator setting for the coalescing ICF filter at 25 psi bypass indication, with bypass valve cracking at 40 psi, and for the KL3 particulate filter at 25 psi bypass indication with bypass valve cracking at 30 psi, allows for early indication before by-pass of filter for advanced time for maintenance



Model no. of filter in photograph is:
BDFCKKZ1VVM

14 gpm
53 L/min

Markets



INDUSTRIAL



MOBILE
VEHICLES



MARINE



MINING
TECHNOLOGY



AGRICULTURE



POWER
GENERATION



COMMON RAIL
INJECTOR SYSTEMS



FLEET



RAILROAD



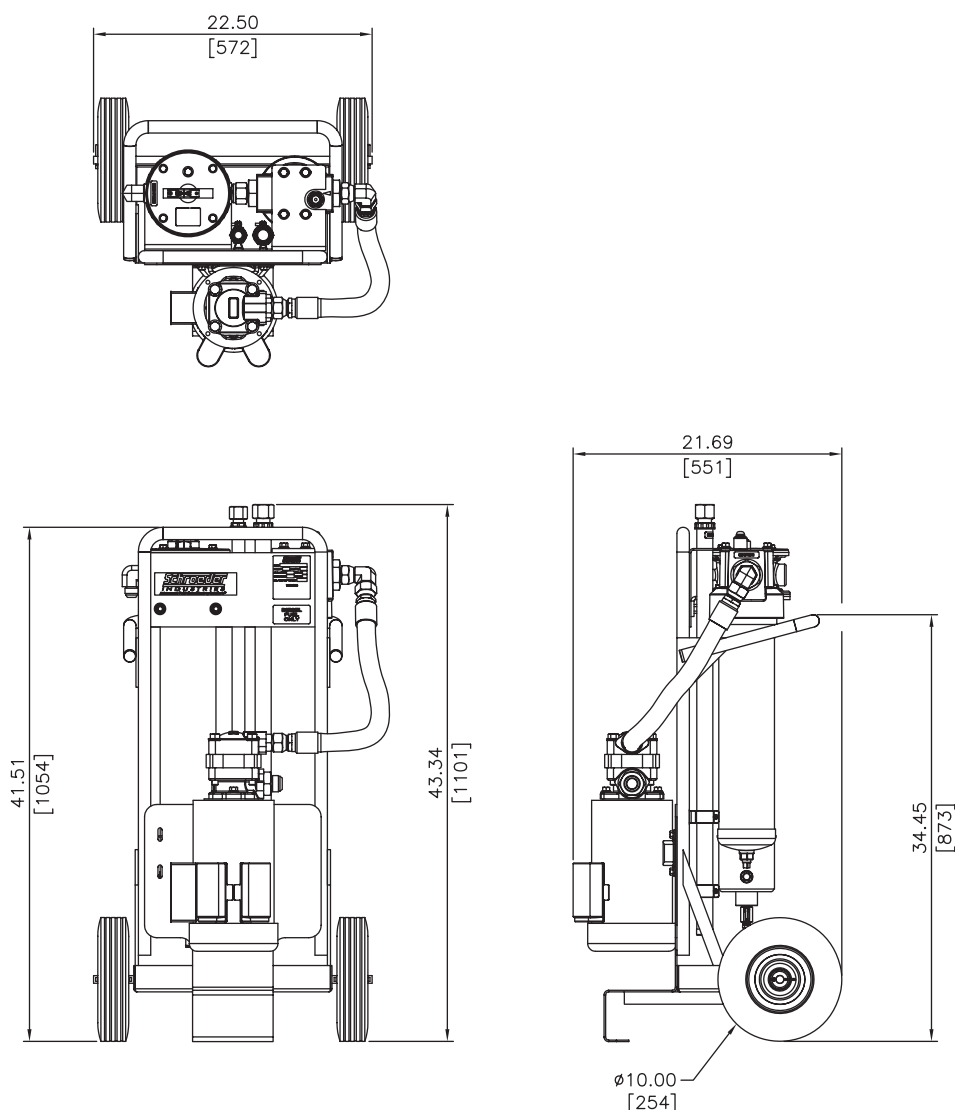
BULK FUEL
FILTRATION

BDFC

Bulk Diesel Fuel Filter Cart

Filter Housing Specifications

| | | |
|--|---|--|
| Flow Rating: | Up to 14 gpm (53 L/min) for ULSD15 & biodiesel blends | |
| Fluid Temperature Range: | -20°F to 165°F (-29°C to 74°C) Standard | |
| Ambient Environment Temperature Range: | -20°F to 104°F (-29°C to 40°C) | |
| Bypass Indication: | <u>Particulate Filter</u> | <u>Coalescing Filter</u> |
| | Particulate: 25 psi (1.7 bar) | Coalescing: 36 psi (2.5 bar) |
| Bypass Valve Cracking: | <u>Particulate Filter</u> | <u>Coalescing Filter</u> |
| | Particulate: 30 psi (2 bar) | Coalescing: 40 psi (2.8 bar) |
| Materials of Construction: | <u>Particulate Filter</u> | <u>Coalescing Filter</u> |
| | Porting Head/Cap: Cast Aluminum | Porting Head/Cap: Anodized Aluminum |
| | Element Bowl: Steel | Element Bowl: Epoxy Paint w/ High-phos Electroless Nickel Plating (Standard) |
| Weight: | 131 lbs. (59.4 kg) | |
| Element Change Clearance: | 18" (457.2 mm) (Elements sold with the filter cart) | |



Metric dimensions in ().

Bulk Diesel Fuel Filter Cart **BDFC**



| Filtration Ratio per ISO 16889 Using APC calibrated per ISO 11171 | | | |
|--|-----------|-----------------------|------------------------|
| Particulate Elements | DHC | $\beta_x(c) \geq 200$ | $\beta_x(c) \geq 1000$ |
| KKZ1V | 224 grams | <4.0 | 4.2 |
| KKZ3V | 230 grams | <4.0 | 4.8 |

| Coalescing Element | Pressure Side Coalescing | |
|--------------------|--------------------------|--------------------------------------|
| | Max Flow | Single Pass Water Removal Efficiency |
| C184Z5V | 16 gpm | $\geq 99.5\%$ |

Note: Based on ULSD15 with 27 Dynes/cm surface tension and 0.25% (2500 ppm) water injection

| | |
|-----------------------------|--|
| Particulate Element | |
| Flow Direction: | Outside In |
| Element Nominal Dimensions: | 4.0" (102 mm) O.D. x 18.5" (470 mm) long |

| | |
|-----------------------------|--|
| Coalescing Element | |
| Flow Direction: | Inside Out |
| Element Nominal Dimensions: | 4.0" (102 mm) O.D. x 18.5" (470 mm) long |

Element
Particulate
Performance
Information

Element
Water
Coalescing
Performance
Information
Particulate and
Coalescing
Elements Sold
with Cart

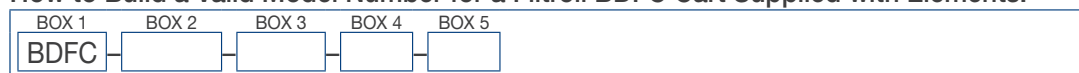
| |
|-------|
| Notes |
| |
| |
| |
| |
| |
| |
| |
| |
| |

BDFC

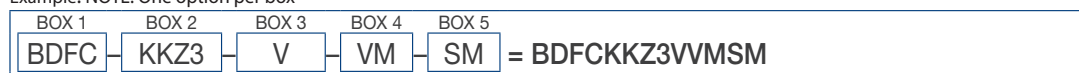
Bulk Diesel Fuel Filter Cart

Filter Model Number Selection

How to Build a Valid Model Number for a Filtroil BDFC Cart Supplied with Elements:



Example: NOTE: One option per box



| BOX 1 | BOX 2 | BOX 3 | BOX 4 |
|---------------|----------------------------------|-----------------------|---------------------------------------|
| Filter Series | Particulate Filter Micron Rating | Housing Seal Material | Dirt Alarm® |
| BDFC | KKZ1 = 1 µm KKZ3 = 3 µm | V = Viton® | VM = Visual pop-up w/ Manual Reset |

| BOX 5 |
|--|
| Options |
| S = Sight Glass |
| M = Magnetic Suction Strainer |
| N = Fuel Nozzle with integrated Flow Meter |
| Omit = None |

NOTES:

For 50Hz applications, contact factory

Box 3. Viton® is a registered trademark of DuPont Dow Elastomers

Box 5. Only box that will allow a combination of options

Element Part Number Selection

Filtration Ratio per ISO 16889
Using APC calibrated per ISO 11171

| Particulate Elements | DHC | $\beta_x(c) \geq 200$ | $\beta_x(c) \geq 1000$ |
|----------------------|-----------|-----------------------|------------------------|
| KKZ1V | 224 grams | <4.0 | 4.2 |
| KKZ3V | 230 grams | <4.0 | 4.8 |

| Coalescing Element | Pressure Side Coalescing | |
|--------------------|--------------------------|--------------------------------------|
| | Max Flow | Single Pass Water Removal Efficiency |
| C184Z5V | 16 gpm | ≥ 99.5% |

Note:

Based on ULSD15 with 27 Dynes/cm surface tension and 0.25% (2500) water injection

Particulate Element

Flow Direction: Outside In
Element Nominal Dimensions: 4.0" (102 mm) O.D. x 18.5" (470 mm) long

Coalescing Element

Flow Direction: Inside Out
Element Nominal Dimensions: 4.0" (102 mm) O.D. x 18.5" (470 mm) long

Fluid Compatibility

Fuel Oils

- ULSD15, low sulfur diesel and high sulfur diesel
- Biodiesel blends
- Synthetic diesel and blends
- No. 2 fuel oil and heating oil