

## 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 BDC provides exceptional single pass or kidney loop diesel particulate filtration and continuous water removal. All 3 filters combine Schroeder's fully synthetic media and patent-pending fuel water separation technology. The BDC is ideal for fuel maintenance operations.

## Features and Benefits

- Great for kidney loop clean-up and single pass transfer of diesel fuel in larger storage tanks
- Incorporates a bag element pre-filter, available from 1 to 200 micron, for gross removal of microbial bloom contamination and rust
- Fuel and water separation media technology in a three-phase element construction for high efficiency, single-pass removal of emulsified and free-water in Ultra-low Sulfur Diesel (ULSD) and biodiesel fuels
- Designed because prior generation coalescing methods no longer provide high-efficiency separation in ULSD and biodiesel
- Real time fuel condition monitoring can be achieved while using the supplied test points and one of our contamination sensing products
- Pump motor is 115VAC with re-settable overload and 7' power cord for 25 gpm models and available as 220V Single Phase, 230V Three Phase, or 460V Three Phase for 70 gpm models
- Helps protect expensive, vital engine components against failures caused by contaminated fuel



Model no. of filter in photograph is: BDC39QPMLZ3VAVM

## Markets



INDUSTRIAL



MOBILE VEHICLES



MARINE



MINING TECHNOLOGY



AGRICULTURE



POWER GENERATION



COMMON RAIL INJECTOR SYSTEMS



FLEET



RAILROAD



BULK FUEL FILTRATION

25 or 70 gpm<sup>ICF</sup>

95 or 275 L/min

BDFA

BDA

GHPF

GHCF

QCF

BDS

BDS2

BDS3

BDS4

LVH-F

LVH-C

BDFC

BDFP

**BDC**

HDP

HDPD

EPM

EPTT

EWU

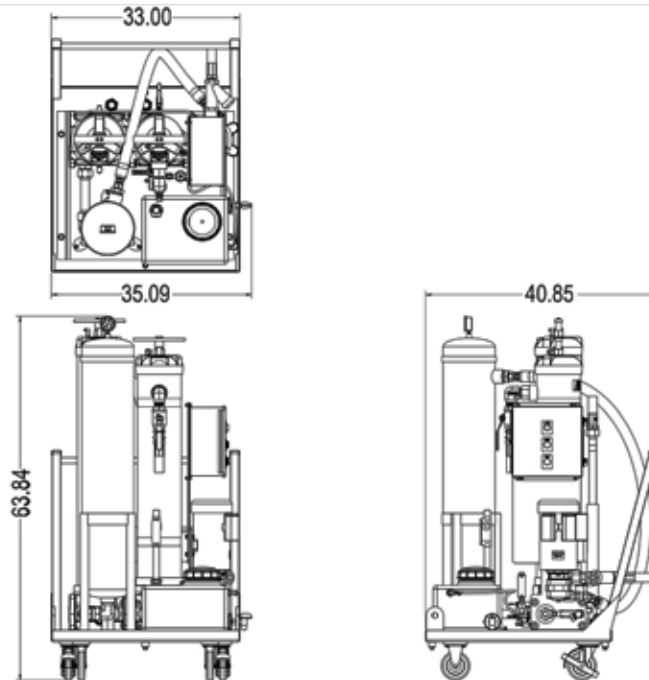
BCC

## Filter Housing Specifications

Flow Rating:	Up to 25 gpm (95 L/min) or 70 gpm (265 L/min) for ULSD15 & biodiesel blends	
Temperature Range:	32°F to 150°F (0°C to 66°C) standard and with AWD option -20°F to 150°F (-29°C to 66°C) with heater option	
Bypass Indication:	Particulate Filter Particulate: 15 psi (1.03 bar)	Coalescing Filter Coalescing: 25 psi (1.7 bar)
Bypass Valve Cracking:	Particulate Filter Particulate: 20 psi ( 1.37 bar)	Coalescing Filter Coalescing: 30 psi (2 bar)
Materials of Construction:	Porting Base: Anodized Aluminum Cap: Plated Steel Bag Housing: 304 Stainless Steel Particulate Filter Housing: Epoxy Paint w/ High-phos Electroless Nickel Plating (Standard) Coalescing Filter Housing: Epoxy Paint w/ High-phos Electroless Nickel Plating (Standard)	
Weight:	25 gpm model - 785 lbs. (356 kg), 70 gpm model - contact factory	
Element Change Clearance:	33.8" (858 mm)	
Operating Frequency*:	60 Hz	
Operating Phase*:	Single	
Full Load Amperage @ Operating Voltage*:	13.4 A @ 115 VAC 7.2-6.7 A @ 208-230 VAC	
Service Factor Amperage @ Operating Voltage*:	15.2 A @ 115 VAC 8.1-7.6 A @ 208-230 VAC	

\*For 25 gpm models only.  
For electrical on 70 gpm models, Contact Factory.

## AWD Version



Metric dimensions in ( ).  
Dimensions shown are inches [millimeters] for general information and overall envelope size only.  
For complete dimensions please contact Schroeder Industries to request a certified print.

**Filtration Ratio per ISO 16889**  
Using APC calibrated per ISO 11171

Particulate Elements	DHC	$\beta_x (c) \geq 200$	$\beta_x (c) \geq 1000$
39QPMLZ1V	1485 grams	<4.0	4.2
39QPMLZ3V	1525 grams	<4.0	4.8

Coalescing Element	Pressure Side Coalescing	
	Max Flow	Single Pass Water Removal Efficiency
C396Z5V	70 gpm	≥ 99.5%

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

<b>Coalescing Element</b>	
Flow Direction:	Inside Out
Element Nominal Dimensions:	6.4" (163 mm) O.D. x 39.4" (1001 mm) long
<b>Particulate Element</b>	
Flow Direction:	Outside In
Element Nominal Dimensions:	6.0" (150 mm) O.D. x 37.8" (960 mm) long

Part Number	Description	Micron Rating	Elements Per Case
C396Z5V	Coalescing Element	5 $\mu$ m	1
39QPMLZ1V	Particulate Element	1 $\mu$ m	1
39QPMLZ3V	Particulate Element	3 $\mu$ m	1
PEF5P2PH	Bag Element	5 $\mu$ m	50
PEF25P2PH	Bag Element	25 $\mu$ m	50
PEF50P2PH	Bag Element	50 $\mu$ m	50
PEF100P2PH	Bag Element	100 $\mu$ m	50

## Element Particulate Performance Information

## Element Water Coalescing Performance Information

Particulate and Coalescing Elements Sold with Cart

Highlighted product eligible for **QuickDelivery**

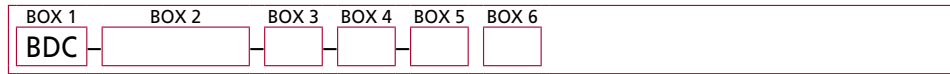
## Optional Replacement Elements

Highlighted product eligible for **QuickDelivery**

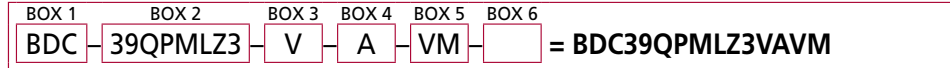
- ICF
- BDF
- BDA
- BDA
- GHPF
- GHCF
- QCF
- BDS
- BDS2
- BDS3
- BDS4
- LVH-F
- LVH-C
- BDFC
- BDFP
- BDC
- HDP
- PD
- EPM
- EPTT
- EWU
- BCC

## Filter Model Number Selection

Highlighted product eligible for **QuickDelivery**



Example: NOTE: One option per box



BOX 1	BOX 2	BOX 3	BOX 4
<b>Filter Series</b>	<b>Particulate Element Micron Rating</b>	<b>Housing Seal Material</b>	<b>Bag Element Micron Rating</b>
BDC	39QPMLZ1 = 1 µm 39QPMLZ3 = 3 µm	V = Viton®	A = 5 µm B = 25 µm C = 50 µm D = 100 µm
	<b>BOX 5</b>	<b>BOX 6</b>	
	<b>Dirt Alarm®</b>	<b>Options</b>	
	VM = Visual pop-up w/ Manual Reset	Omit = None (standard) H = Sump Heater AW = Automatic Water Drain 5 gal Tank w/ Failsafe 70A = 70 gpm 230VAC Single Phase 60 Hz 70B = 70 gpm 230VAC Three Phase 60 Hz 70C = 70 gpm 460VAC Three Phase 60 Hz	

### NOTES:

Optional AWD is for use only >32°F (0°)

For 50Hz applications, contact factory

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

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### Note:

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#### Coalescing Element

Flow Direction: Inside Out

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#### Particulate Element

Flow Direction: Outside In

Element Nominal Dimensions: 6.0" (150 mm) O.D. x 37.8" (960 mm) long

## Element Part Number Selection

Highlighted product eligible for **QuickDelivery**

## 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