

DVF Series

Vertical Filter Housings

For Use with AD-6 & DFO-6 Elements

Clean fuel is more important than ever with HPCR (High Pressure Common Rail) systems becoming the standard in diesel engines. Contaminants as small as 2 microns can lead to a loss of fuel economy, a less efficient engine, down time, component failure, catastrophic engine failure and potentially the rejection of a warranty claim from the engine manufacturer. Currently, the ISO code of 18/16/13 by some engine manufacturers require fuel to be cleaner than some Aviation Military fuel standards. The standard DVF series offers several options in element micron ratings, including water absorption and a range of single vessel flows from 176 gallons per minute to 7,392 gallons per minute. Parker's DVF series of vessels are design to meet today's engine manufacturers requirements for clean fuel while allowing older engines to operate at maximum efficiencies. The DVF series filters all types of diesel fuels from standard diesel to 100% biodiesel.



Typical Applications

The DVF series offers many options which makes it perfect for many markets and applications. In the Natural Resources market, the DVF can be utilized in mining equipment, fuel transfer, fuel polishing and fuel delivery. Opportunities exist for small and large fuel terminals. The Power Generation market offers several potential applications. Fuel transfers from terminals and polishing of bulk storage tanks, the DVF will provide superior clean fuel. The Transportation market also provides many different opportunities. Larger commercial marine vessels can filter fuel as it is offloaded from land or sea suppliers. Railroad terminals can filter fuel as it is transferred to maintain superior fuel quality. The DVF series can be used to meet the fuel cleanliness requirement set by the engine manufactures. Clean fuel allows the engines to operate at maximum efficiencies and maintain emission requirements.



DVF Series

Features

Standard Design Features

- 1 150 psi (10.34 bar) welded steel ASME Code construction (stamp on request)
- 2 Epoxy coated interior, primed exterior
- 3 Swing bolt closure with nitrile cover seals
- 4 Inlet/Outlet sample ports
- 5 Hydraulic lifting davit¹

Options

- 6 Automatic air eliminator
- 7 Pressure relief valve
- 8 Differential pressure gauge
- 9 Drain valve(s)
- 10 Choice of micron rating from 2 to 25 microns
- 11 Choice of pleated or depth type media

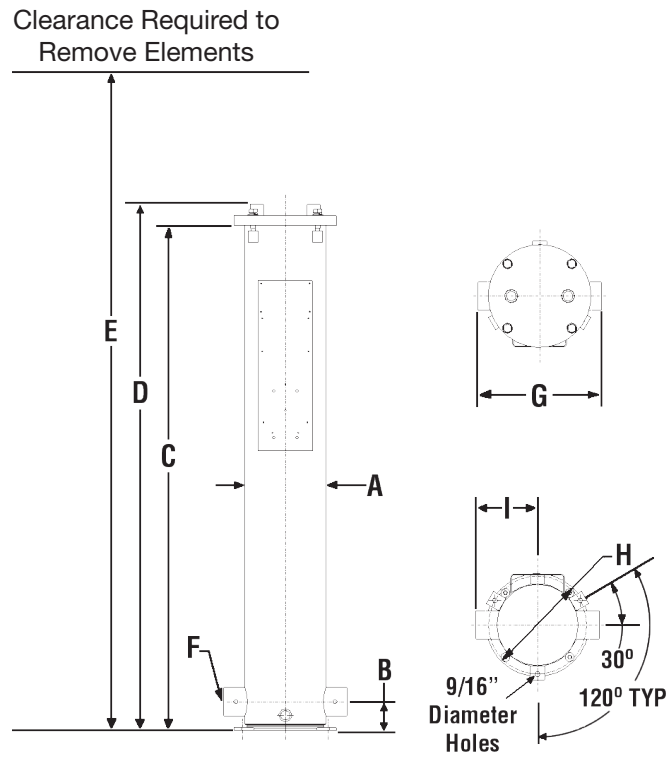


1. DVF16 and DVF20 Series vessels have flat covers. DVF16 Series vessels do not have hydraulic lift jacks.

DVF Series

Specifications

Figure 1



Clearance Required to Remove Elements

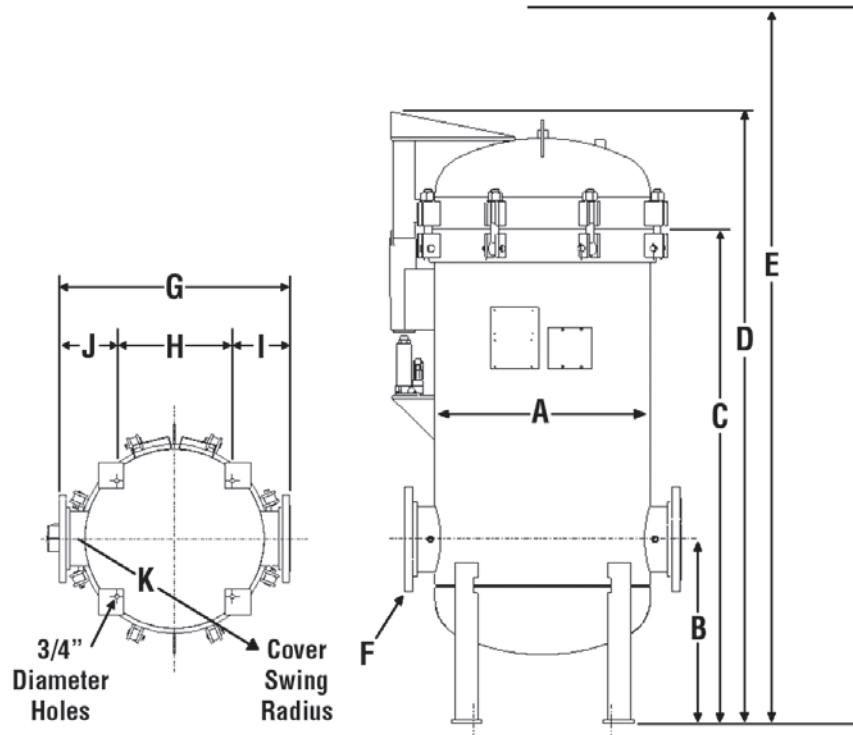


Figure 2

DVF Series

Specifications

Model	Flow Rate Range gpm (lpm)			Length in (mm)	Qty of Elements	Fig. No.	Dimensions in (mm)		
	Max	Target	Fuel Processed Per Filter Change (US Gallons)				A	B	C
DVF829	116 (439)	65 (247)	50000	29 (737)	1	1	8.63 (219)	3 (76)	57.06 (991)
DVF844	176 (665)	99 (375)	75000	44 (1118)	1	1	8.63 (219)	3 (76)	57.06 (1449)
DVF1629	464 (1756)	261 (988)	200000	29 (737)	4	1	16 (406)	15 (381)	52.81 (1341)
DVF1644	704 (2665)	396 (1499)	300000	44 (1118)	4	1	16 (406)	15 (381)	66.75 (1695)
DVF2044	1056 (3997)	594 (2248)	450000	44 (1118)	6	1	20 (508)	19.5 (495)	74.63 (1895)
DVF2444	1408 (5329)	792 (2998)	600000	44 (1118)	8	2	24 (610)	21 (533)	65 (1651)
DVF2456	1792 (6783)	1008 (3815)	770000	56 (1422)	8	2	24 (610)	21 (533)	77 (1956)
DVF2844	2112 (7994)	1188 (4497)	900000	44 (1118)	12	2	28 (711)	24 (610)	64.38 (1635)
DVF2856	2688 (10174)	1512 (5723)	1110000	56 (1422)	12	2	28 (711)	24 (610)	76.38 (1940)
DVF3644	3168 (11991)	1782 (6745)	1400000	44 (1118)	18	2	36.63 (930)	26 (660)	64.38 (1635)
DVF3656	4032 (15261)	2268 (8584)	1700000	56 (1422)	18	2	36.63 (930)	26 (660)	76.38 (1940)
DVF4244	4752 (17986)	2673 (10117)	2000000	44 (1118)	27	2	42.75 (1086)	28 (711)	66 (1676)
DVF4256	6048 (22892)	3402 (12877)	2600000	56 (1422)	27	2	42.75 (1086)	28 (711)	78 (1981)
DVF4856	7392 (27979)	4158 (15738)	3100000	56 (1422)	33	2	48 (1219)	29 (737)	80 (2032)

Model	Dimensions in (mm)								Wt. w/Skid lbs (kgs)	Volume US gal (ltr.)
	D	E	F	G	H	I	J	K		
DVF829	41.13 (1045)	68 (1727)	2 (51)	13 (330)	10.38 (264)	6.5 (165)			265 (120)	8 (30)
DVF844	59.44 (1510)	101 (2565)	2 (51)	13 (330)	10.38 (264)	6.5 (165)			305 (138)	11 (42)
DVF1629	55.81 (1418)	82 (2083)	4 (102)	24.25 (616)	9 (229)	7.63 (194)	7.63 (194)	18.44 (468)	560 (254)	35 (132)
DVF1644	69.75 (1772)	110 (2794)	4 (102)	24.25 (616)	9 (229)	7.63 (194)	7.63 (194)	18.44 (468)	620 (281)	50 (189)
DVF2044	80.44 (2043)	118 (2997)	6 (152)	28 (711)	13 (330)	7.5 (191)	7.5 (191)	26 (660)	1100 (499)	90 (341)
DVF2444	72 (1829)	112 (2845)	6 (152)	32 (813)	15 (381)	8 (203)	8 (203)	32 (813)	1300 (590)	120 (454)
DVF2456	84 (2134)	122 (3099)	6 (152)	32 (813)	15 (381)	8 (203)	8 (203)	32 (813)	1350 (612)	150 (568)
DVF2844	79.75 (2026)	108 (2743)	8 (203)	36 (914)	18 (457)	9 (229)	9 (229)	35 (889)	1600 (726)	165 (625)
DVF2856	91.75 (2330)	120 (3048)	8 (203)	36 (914)	18 (457)	9 (229)	9 (229)	35 (889)	1750 (794)	200 (757)
DVF3644	84 (2134)	109 (2769)	10 (254)	48 (1219)	23 (584)	12.5 (318)	12.5 (318)	44 (1118)	2250 (1021)	290 (1098)
DVF3656	96 (2438)	121 (3073)	10 (254)	48 (1219)	23 (584)	12.5 (318)	12.5 (318)	44 (1118)	2400 (1089)	350 (1325)
DVF4244	87.38 (2219)	110 (2794)	12 (305)	54 (1372)	28 (711)	13 (330)	13 (330)	52.25 (1327)	3800 (1724)	400 (1514)
DVF4256	98.38 (2499)	122 (3099)	12 (305)	54 (1372)	28 (711)	13 (330)	13 (330)	52.25 (1327)	4000 (1814)	475 (1798)
DVF4856	108 (2743)	165 (4191)	14 (356)	66 (1676)	36.5 (927)	14.75 (375)	14.75 (375)	65 (1651)	4400 (1996)	630 (2385)

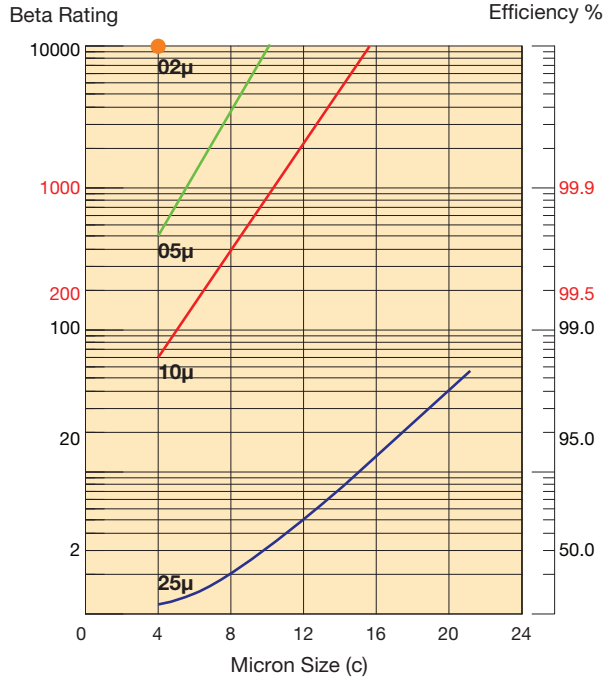
- For higher viscosity fluids or operating in highly variable temperature conditions, consult your Parker Representative.
- DVF Series are designed to accommodate our standard 6 in. O.D., 3½ in. I.D. Elements including Parker's DFO, DI, DSO, and Aquacon® AD.
- DVF16 and DVF20 Series vessels have flat covers. DVF16 Series vessels do not have hydraulic lift jacks.
- In applications where increased dirt contamination is present, it may be desirable to oversize filtration equipment. Contact Parker for oversizing recommendations.
- Actual flow rates may vary based on field conditions.
- Fuel processed is based on target flow rate and 21/18/16 ISO 4406 or 5 mg/liter incoming contamination levels. Field conditions will vary and actual results may be different than these estimates.

Dimensions shown are for estimating purposes only. For exact dimensional detail, obtain certified copy of vessel drawing.

DVF Series

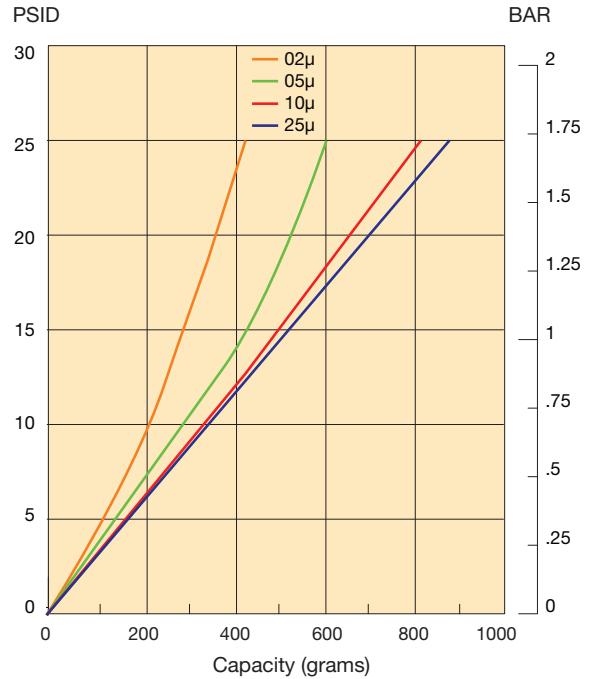
Element Performance

DFO-629... Efficiency



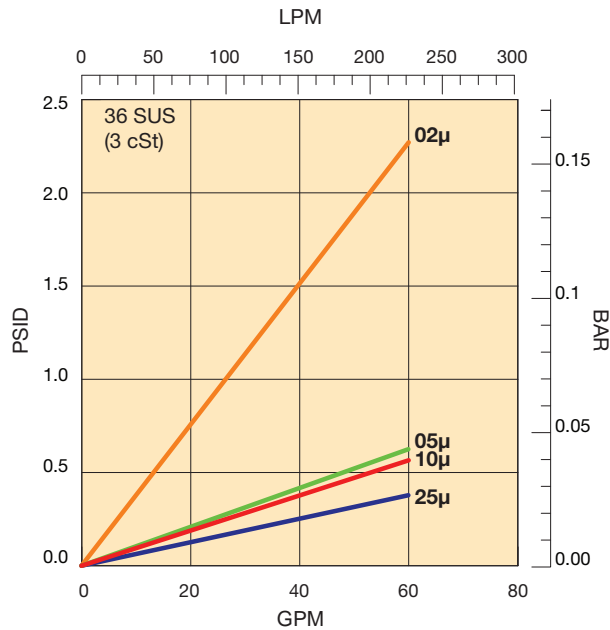
Single-pass tests run per SAE J1985
@ 60 GPM - 5 mg/L BUGL

DFO-629... Capacity



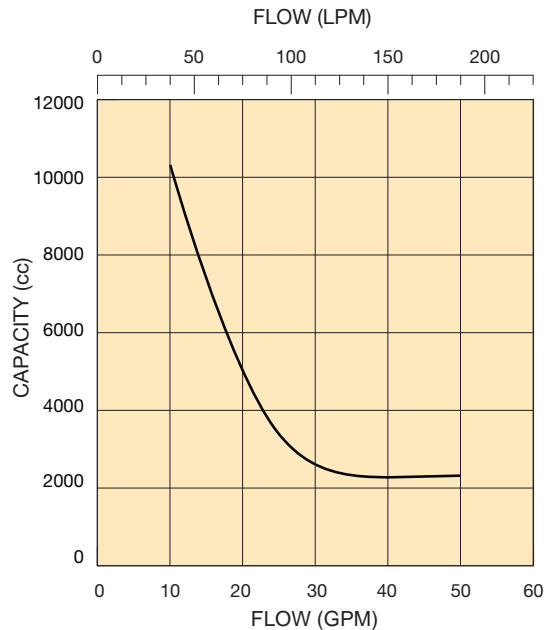
Multi-pass tests run per SAE J905
@ 60 GPM to 25 PSID terminal - 20 mg/L BUGL

DFO-629... Flow vs Pressure Loss



ISO 3968

AD-62... Water Capacity

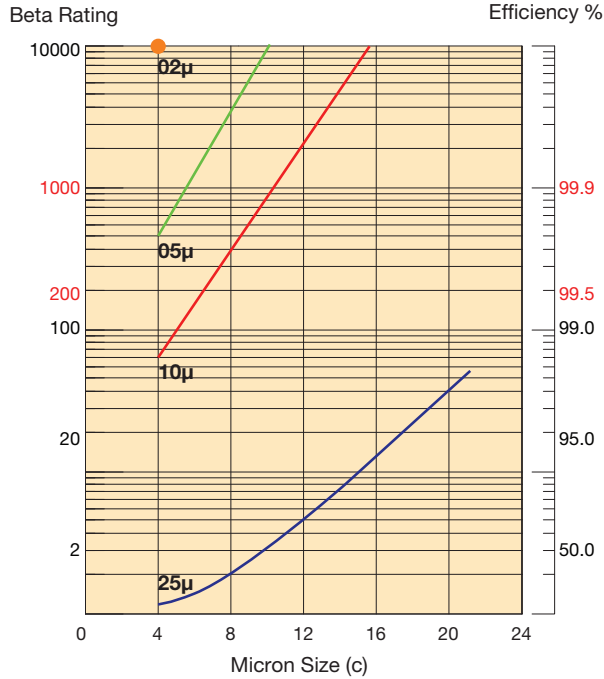


Internal test @ 60 GPM to
25 PSID terminal - 100 ppm H₂O

DVF Series

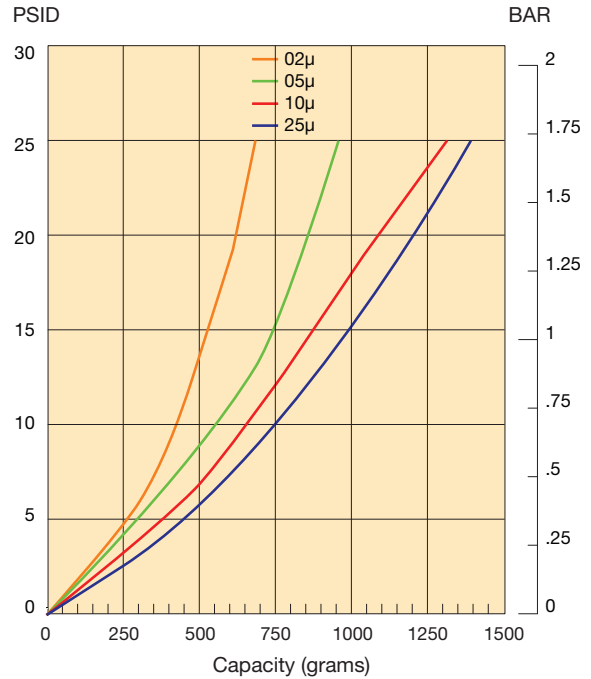
Element Performance

DFO-644... Efficiency



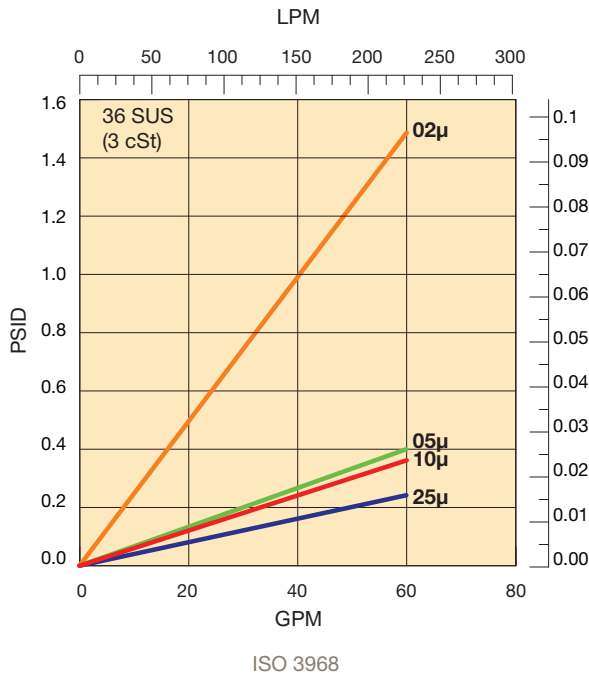
Single-pass tests run per SAE J1985
@ 90 GPM - 5 mg/L BUGL

DFO-644... Capacity



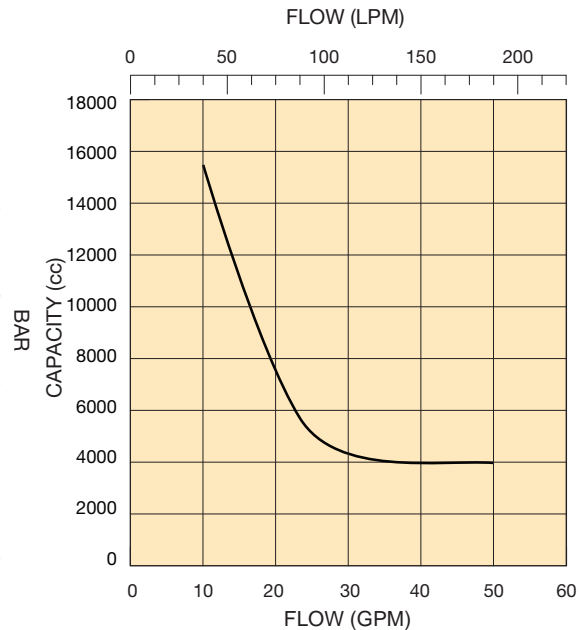
Multi-pass tests run per SAE J905
@ 90 GPM to 25 PSID terminal - 20 mg/L BUGL

DFO-644... Flow vs Pressure Loss



ISO 3968

AD-64... Water Capacity

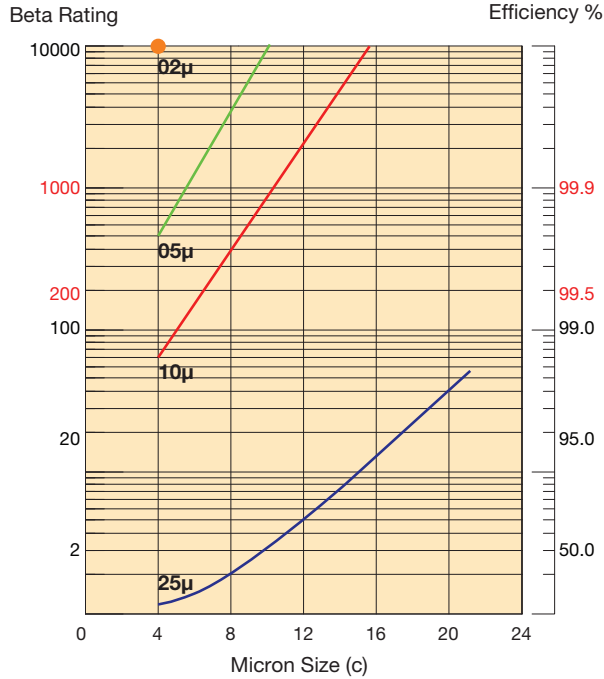


Internal test @ 90 GPM to
25 PSID terminal - 100 ppm H₂O

DVF Series

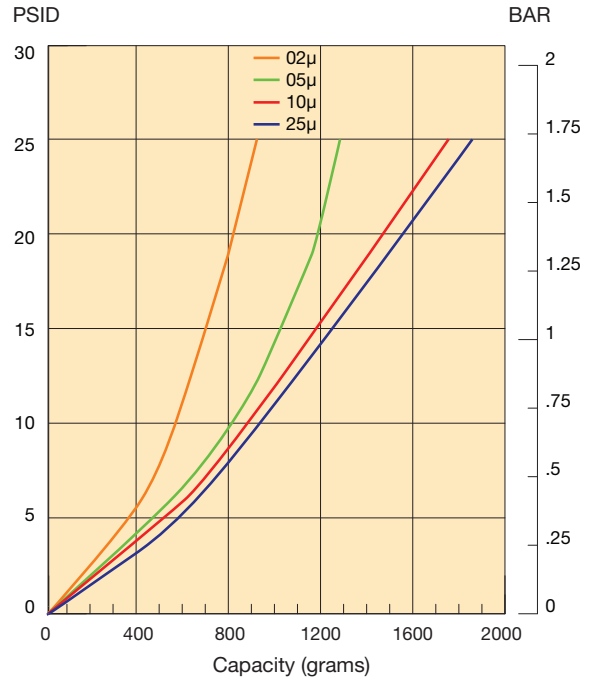
Element Performance

DFO-656... Efficiency



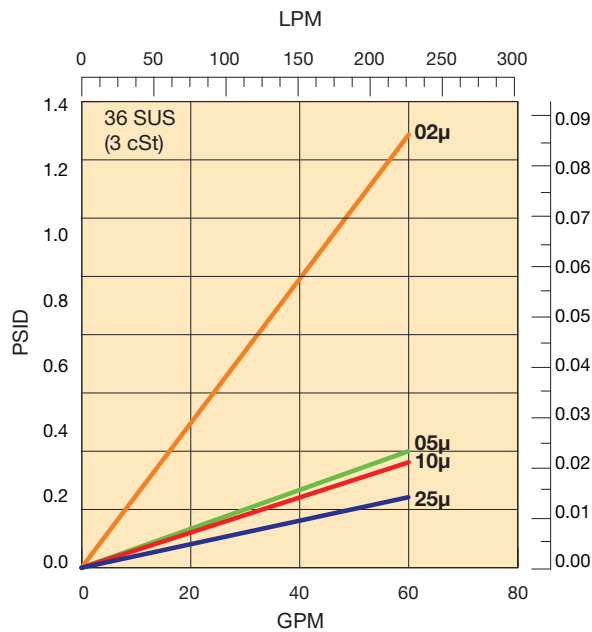
Single-pass tests run per SAE J1985
@ 115 GPM - 5 mg/L BUGL

DFO-656... Capacity



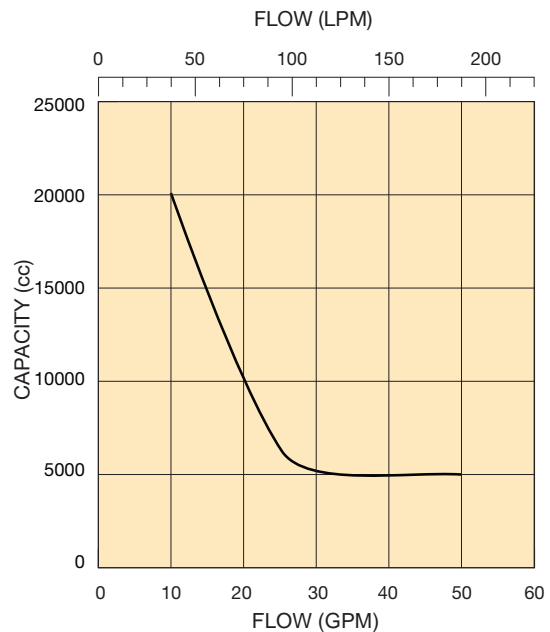
Multi-pass tests run per SAE J905
@ 115 GPM to 25 PSID terminal - 20 mg/L BUGL

DFO-656... Flow vs Pressure Loss



ISO 3968

AD-65... Water Capacity



Internal test @ 115 GPM to
25 PSID terminal - 100 ppm H₂O

DVF8 Series

Vertical Filter Housings for use with DFO-6 and AD-6 Elements for Flows up to 176 gpm (665 lpm)

How to Order

Select the desired symbol (in the correct position) to construct a model code. Example:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
DVF8	29	P	X	B	DP	A2	1

BOX 1: Filter Series	
Symbol	Description
DVF8	Diesel Vertical Filter up to 176 gpm/750 lpm

BOX 4: Media Code	
Symbol	Description
X	No Element Installed (1 required) ¹

BOX 7: Ports	
Symbol	Description
A2	2" 150# RF ANSI

BOX 2: Element Length	
Symbol	Description
29	29 in (727 mm)
44	44 in (1118 mm)

BOX 5: Seals	
Symbol	Description
B	Nitrile
V	Fluorocarbon

BOX 8: Options ²	
Symbol	Description
1	None
AE	Air Eliminator
DV	Drain Valve
PR	Pressure Relief Valve 150#

BOX 3: Filtration Type	
Symbol	Description
P	Particulate
A	Water Absorption

BOX 6: Pressure Gauge	
Symbol	Description
P	Port Plugged
DP	Differential Pressure
M2	Visual Automatic Reset

Please note the bolded options reflect standard options with reduced lead-time.

Notes:

- Use the chosen codes from Box 2 and Box 3, along with the desired filtration rating to select the correct element from the tables below. **Example:** For model DVF8**29P**XBPA21, element DFO-629PLF10TB would be required.
- Select one or more options, as desired.

Replacement Elements

Type / Media			
Particulate	<i>29 in (737 mm)</i>	<i>44 in (1118 mm)</i>	
	2 micron	DFO-629PLF2TB	DFO-644PLF2TB
	5 micron	DFO-629PLF5TB	DFO-644PLF5TB
	10 micron	DFO-629PLF10TB	DFO-644PLF10TB
	25 micron	DFO-629PLF25TB	DFO-644PLF25TB
Water Absorption	<i>29 in (737 mm)</i>	<i>44 in (1118 mm)</i>	
	2 micron	AD-6292TB	AD-6442TB
	5 micron	AD-6295TB	AD-6445TB
	10 micron	AD-62910TB	AD-64410TB
	25 micron	AD-62925TB	AD-64425TB

Accessories

Part Number	Description
101-G	Air Eliminator
115-C	Drain Valve
130-BT	Pressure Relief Valve 150#

Part Number	Description
120-Q	Differential Pressure Gauge
G-2105	Cover Gasket

DVF16 Series

Vertical Filter Housings for use with DFO-6 and AD-6 Elements for Flows up to 704 gpm (2665 lpm)

How to Order

Select the desired symbol (in the correct position) to construct a model code. Example:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
DVF16	29	P	X	B	DP	A4	1

BOX 1: Filter Series	
Symbol	Description
DVF16	Diesel Vertical Filter up to 704 gpm/2665 lpm

BOX 4: Media Code	
Symbol	Description
X	No Element Installed (1 required)¹

BOX 7: Ports	
Symbol	Description
A4	4" 150# RF ANSI

BOX 2: Element Length	
Symbol	Description
29	29 in (727 mm)
44	44 in (1118 mm)

BOX 5: Seals	
Symbol	Description
B	Nitrile
V	Fluorocarbon

BOX 8: Options ²	
Symbol	Description
1	None
AE	Air Eliminator
CL	Custom Leg Height ³
DV	Drain Valve
PR	Pressure Relief Valve 150#

BOX 3: Filtration Type	
Symbol	Description
P	Particulate
A	Water Absorption

BOX 6: Pressure Gauge	
Symbol	Description
P	Port Plugged
DP	Differential Pressure
M2	Visual Automatic Reset

Please note the bolded options reflect standard options with reduced lead-time.

Notes:

1. Use the chosen codes from Box 2 and Box 3, along with the desired filtration rating to select the correct element from the tables below. **Example:** For model DVF16**29P**XBPA41, element DFO-629PLF10TB would be required.
2. Select one or more options, as desired.
3. Customer must supply the length for Dimension B referenced in Figure 2 on page 82.

Replacement Elements

Type / Media			
Particulate	29 in (737 mm)	44 in (1118 mm)	
	2 micron	DFO-629PLF2TB	DFO-644PLF2TB
	5 micron	DFO-629PLF5TB	DFO-644PLF5TB
	10 micron	DFO-629PLF10TB	DFO-644PLF10TB
	25 micron	DFO-629PLF25TB	DFO-644PLF25TB
Water Absorption	29 in (737 mm)	44 in (1118 mm)	
	2 micron	AD-6292TB	AD-6442TB
	5 micron	AD-6295TB	AD-6445TB
	10 micron	AD-62910TB	AD-64410TB
	25 micron	AD-62925TB	AD-64425TB

Accessories

Part Number	Description
101-G	Air Eliminator
115-C	Drain Valve
130-BT	Pressure Relief Valve 150#

Part Number	Description
120-Q	Differential Pressure Gauge
G-2033	Cover Gasket

DVF20/24/28 Series

Vertical Filter Housings for use with DFO-6 and AD-6 Elements

for Flows up to 2866 gpm (10174 lpm)

How to Order

Select the desired symbol (in the correct position) to construct a model code. Example:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
DVF20	44	P	X	B	DP	A6	1

BOX 1: Filter Series ¹	
Symbol	Description
DVF20	Diesel Vertical Filter up to 1056 gpm/3997 lpm
DVF24	Diesel Vertical Filter up to 1792 gpm/6783 lpm
DVF28	Diesel Vertical Filter up to 2866 gpm/10174 lpm

BOX 2: Element Length	
Symbol	Description
44	44 in (1118 mm)
56	56 in (1422 mm)

BOX 3: Filtration Type	
Symbol	Description
P	Particulate
A	Water Absorption

BOX 4: Media Code	
Symbol	Description
X	No Element Installed ^{2,3}

BOX 5: Seals	
Symbol	Description
B	Nitrile
V	Fluorocarbon

BOX 6: Indicator	
Symbol	Description
P	Port Plugged
DP	Differential Pressure
M2	Visual Automatic Reset

BOX 7: Ports	
Symbol	Description
A2	2" 150# RF ANSI
A3	3" 150# RF ANSI
A4	4" 150# RF ANSI
A6	6" 150# RF ANSI
A8	8" 150# RF ANSI

BOX 8: Options ⁴	
Symbol	Description
1	None
AE	Air Eliminator
CL	Custom Leg Height ⁵
DV	Drain Valve
PR	Pressure Relief Valve 150#

Please note the bolded options reflect standard options with reduced lead-time.

Notes:

- When DVF20 is selected in Box 1, select "44" in Box 2.
- Use the chosen codes from Box 2 and Box 3, along with the desired filtration rating to select the correct element from the tables below. **Example:** For model DVF20**44P**XBPA61, element DFO-644PLF10TB would be required.
- Element qty required: DVF20 (6), DVF24 (8), DVF28 (12)
- Select one or more options, as desired.
- Customer must supply the length for Dimension B referenced in Figure 2 on page 82.

Replacement Elements

Type / Media			
Particulate	44 in (1118 mm)	56 in (1422 mm)	
	2 micron	DFO-644PLF2TB	DFO-656PLF2TB
	5 micron	DFO-644PLF5TB	DFO-656PLF5TB
	10 micron	DFO-644PLF10TB	DFO-656PLF10TB
	25 micron	DFO-644PLF25TB	DFO-656PLF25TB
Water Absorption	44 in (1118 mm)	56 in (1422 mm)	
	2 micron	AD-6442TB	AD-6562TB
	5 micron	AD-6445TB	AD-6565TB
	10 micron	AD-64410TB	AD-65610TB
	25 micron	AD-64425TB	AD-65625TB

Accessories

Part Number	Description
101-G	Air Eliminator
115-C	Drain Valve
130-BT	Pressure Relief Valve 150#

Part Number	Description
120-Q	Differential Pressure Gauge
G-2027 (DVF20) G-2042 (DVF24) G-0769 (DVF28)	Cover Gasket

DVF36 Series

Vertical Filter Housings for use with DFO-6 and AD-6 Elements for Flows up to 4032 gpm (15261 lpm)

How to Order

Select the desired symbol (in the correct position) to construct a model code. Example:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
DVF36	44	P	X	B	DP	A10	1

BOX 1: Filter Series	
Symbol	Description
DVF36	Diesel Vertical Filter up to 4032 gpm/15261 lpm

BOX 4: Media Code	
Symbol	Description
X	No Element Installed (18 required)¹

BOX 7: Ports	
Symbol	Description
A6	6" 150# RF ANSI
A8	8" 150# RF ANSI
A10	10" 150# RF ANSI
A12	12" 150# RF ANSI

BOX 2: Element Length	
Symbol	Description
44	44 in (1118 mm)
56	56 in (1422 mm)

BOX 5: Seals	
Symbol	Description
B	Nitrile
V	Fluorocarbon

BOX 8: Options ²	
Symbol	Description
1	None
AE	Air Eliminator
CL	Custom Leg Height ³
DV	Drain Valve
PR	Pressure Relief Valve 150#

BOX 3: Filtration Type	
Symbol	Description
P	Particulate
A	Water Absorption

BOX 6: Indicator	
Symbol	Description
P	Port Plugged
DP	Differential Pressure
M2	Visual Automatic Reset

Please note the bolded options reflect standard options with reduced lead-time.

Notes:

- Use the chosen codes from Box 2 and Box 3, along with the desired filtration rating to select the correct element from the tables below. **Example:** For model DVF36**44P**XBPA101, element DFO-644PLF10TB would be required.
- Select one or more options, as desired.
- Customer must supply the length for Dimension B referenced in Figure 2 on page 82.

Replacement Elements

Type / Media		
Particulate	44 in (1118 mm)	56 in (1422 mm)
2 micron	DFO-644PLF2TB	DFO-656PLF2TB
5 micron	DFO-644PLF5TB	DFO-656PLF5TB
10 micron	DFO-644PLF10TB	DFO-656PLF10TB
25 micron	DFO-644PLF25TB	DFO-656PLF25TB
Water Absorption	44 in (1118 mm)	56 in (1422 mm)
2 micron	AD-6442TB	AD-6562TB
5 micron	AD-6445TB	AD-6565TB
10 micron	AD-64410TB	AD-65610TB
25 micron	AD-64425TB	AD-65625TB

Accessories

Part Number	Description
101-G	Air Eliminator
115-C	Drain Valve
130-BT	Pressure Relief Valve 150#

Part Number	Description
120-Q	Differential Pressure Gauge
G-511A	Cover Gasket

DVF42/48 Series

Vertical Filter Housings for use with DFO-6 and AD-6 Elements

for Flows up to 7392 gpm (27979 lpm)

How to Order

Select the desired symbol (in the correct position) to construct a model code. Example:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
DVF42	44	P	X	B	DP	A10	1

BOX 1: Filter Series	
Symbol	Description
DVF42	Diesel Vertical Filter up to 6048 gpm/22892 lpm
DVF48	Diesel Vertical Filter up to 7392 gpm/27979 lpm

BOX 2: Element Length	
Symbol	Description
44	44 in (1118 mm)
56	56 in (1422 mm)

BOX 3: Filtration Type	
Symbol	Description
P	Particulate
A	Water Absorption

BOX 4: Media Code	
Symbol	Description
X	No Element Installed ^{2,3}

BOX 5: Seals	
Symbol	Description
B	Nitrile
V	Fluorocarbon

BOX 6: Indicator	
Symbol	Description
P	Port Plugged
DP	Differential Pressure
M2	Visual Automatic Reset

BOX 7: Ports	
Symbol	Description
A6	6" 150# RF ANSI
A8	8" 150# RF ANSI
A10	10" 150# RF ANSI
A12	12" 150# RF ANSI

BOX 8: Options ¹	
Symbol	Description
1	None
AE	Air Eliminator
CL	Custom Leg Height
DV	Drain Valve
PR	Pressure Relief Valve 150#

Please note the bolded options reflect standard options with reduced lead-time.

Notes:

- When DVF48 is selected in Box 1, select "56" in Box 2.
- Use the chosen codes from Box 2 and Box 3, along with the desired filtration rating to select the correct element from the tables below. **Example:** For model DVF42**44P**XBPA101, element DFO-644PLF10TB would be required.
- Element qty required: DVF42 (27), DVF48 (33)
- Select one or more options, as desired.
- Customer must supply the length for Dimension B referenced in Figure 2 on page 82.

Replacement Elements

Type / Media		
Particulate	44 in (1118 mm)	56 in (1422 mm)
2 micron	DFO-644PLF2TB	DFO-656PLF2TB
5 micron	DFO-644PLF5TB	DFO-656PLF5TB
10 micron	DFO-644PLF10TB	DFO-656PLF10TB
25 micron	DFO-644PLF25TB	DFO-656PLF25TB
Water Absorption	44 in (1118 mm)	56 in (1422 mm)
2 micron	AD-6442TB	AD-6562TB
5 micron	AD-6445TB	AD-6565TB
10 micron	AD-64410TB	AD-65610TB
25 micron	AD-64425TB	AD-65625TB

Accessories

Part Number	Description
101-G	Air Eliminator
115-C	Drain Valve
130-BT	Pressure Relief Valve 150#

Part Number	Description
120-Q	Differential Pressure Gauge
G-0050E (DVF42) N/A (DVF48)	Cover Gasket