



DFO - PARTICULATE FILTRATION

High Quality Filtration for Diesel and Biodiesel Applications

Benefits

- Reduced operating costs by removing particulates that can cause engine damage
- Reliable fuel injector performance when particulate contaminants are removed to meet ISO 4406 Cleanliness Standards
- Improved equipment uptime, reduces equipment failures, repairs, and/or replacements
- Efficient fuel consumption due to reduction in particulate contaminants

Description

Diesel fuel is stored and transferred multiple times from refining to dispensing. Preventative action does not always eliminate contamination. Common contaminants introduced during transportation include both extremely fine and abrasive silica as well as pipe scale. These contaminants can quickly deteriorate fuel cleanliness beyond engine manufacturing limits, reducing the durability and performance of an engine.

Velcon's DFO filters transform contaminated fuels to meet stringent downstream ISO 4406 cleanliness standards for the demanding limits placed on diesel and biodiesel fuels. The DFO design balances high surface area and depth filtration to maximize filter life which reduces the filtration costs.

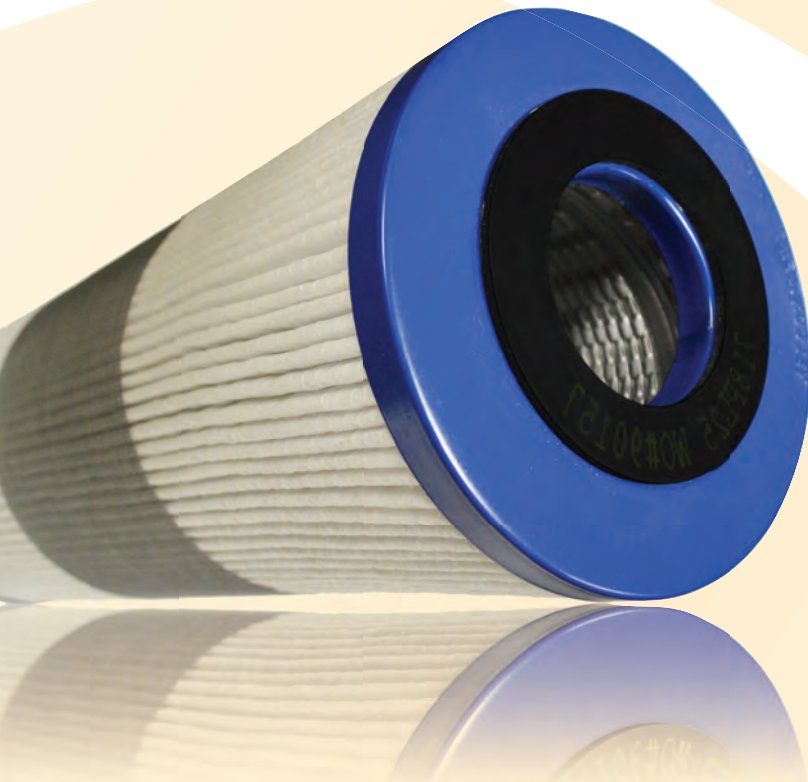
Tiered Ratings

To meet the ISO 4406 standards, Velcon developed pleated media filters for diesel and biodiesel fuels. In accordance with the ISO standards, the DFO filters were designed with tiered media classification using a micron (μm) rating media. Each media tier provides a unique solution from managing fuel contamination to final fuel conditioning.

- DFO filters with ratings of 2 and 4 micron are the ultimate solution to condition fuel for dispensing while assuring ISO 4406 Cleanliness Standards are consistently met. Each progressively tighter DFO filter rating delivers additional particle removal and fuel cleanliness; therefore progressively lower ISO 4406 particle counts.
- The mid-range DFO filters of 6 and 10 micron extend fuel life following secondary conditioning by removing solid contaminants and allowing Velcon's downstream coalescing products to focus on water removal rather than particle removal.
- The DFO filters rated at 25 and 40 micron are the ideal solution to manage contaminated fuel entering and leaving terminal storage tanks throughout the fuel transferring process.

Specifications

- All filter components compatible with diesel and biodiesel blends
- Recommended change out pressure – 25 psid (1.7 bar)
- Buna-N sealing materials standard
- Maximum operating temperature – 250 °F (121 °C)
- Internal core diameter 3 ½ inches (89 mm)

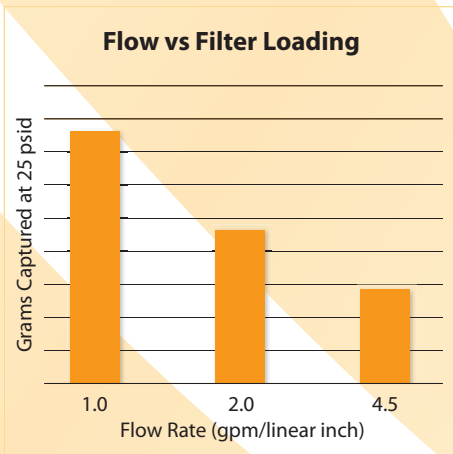


System Sizing

Velcon is a recognized leader in the development and application of particulate filtration technology. Our 60 years of experience has proven that the successful implementation of coalescing systems is dependent on the initial system sizing and configuration. Many companies commonly under-size filtration systems while increasing filtration flow rates in order to minimize up-front costs. Sizing a filtration system solely on flow while failing to account for incoming fluid contamination levels results in reduced filter life and high operating costs. Velcon's extensive bulk fuel handling experience and our state-of-the-art fuel testing laboratory have quantitatively proven that increased system/housing will allow for

lower flow rates per filter while dramatically extending the service life of the elements. **Systems "sized for life" commonly see a full repayment of the additional system cost through operating savings.** Using Velcon's proprietary software, **SizeRight™**, for system sizing, we can help you select the right housing and elements for your application based on your ISO 4406 cleanliness requirements and specified change-out interval while also providing you estimated yearly operating cost.

For additional information on this powerful tool, please contact Velcon or our local representative to have your filtration system **SizeRight™** for your specific needs.



ISO Code vs Mass

ISO Code	lbs/yr (kg/yr)
24/22/20	1609 (730)
22/20/18	564 (256)
17/15/13	20 (9.1)
12/9/7	4 (1.8)

Notes:

1. Values are based on usage of +3.5M Liter per year
2. Field results may vary

DFO Part Numbering

Velcon recommends use of threaded base endcaps for ease of installation and to minimize components.

	O.D. in. (mm)	Length in. (mm)	Rating (µm)	Endcap	Compatible Housing
DFO —	5 5 5/8 (143)	12 – 12 (305) 24 – 24 (610)	PLF 2, 4, 6, 10, 25, 40	TB (Threaded base)	VF-61 VF-62
DFO —	6 6 (152)	14 – 14 5/8 (371) 29 – 29 1/8 (740) 36 – 36 (915) 44 – 44 1/8 (1121) 56 – 56 1/8 (1426)	PLF 2, 4, 6, 10, 25, 40	TB (Threaded base)	VF Series

Example:

DFO-614PLF25

Variables that often change for the DFO part numbers when placing an order are the length and the µm ratings; as seen in the case of the above example with number 14 (length) and number 25 (µm rating).

CLEANDiesel™



Products are sold and serviced by a worldwide network of representatives. To order, contact Velcon corporate headquarters or a local Velcon representative:

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