

# DI/DSO

Coalescer & Separator for Particulate and Water Removal from Diesel Fuel

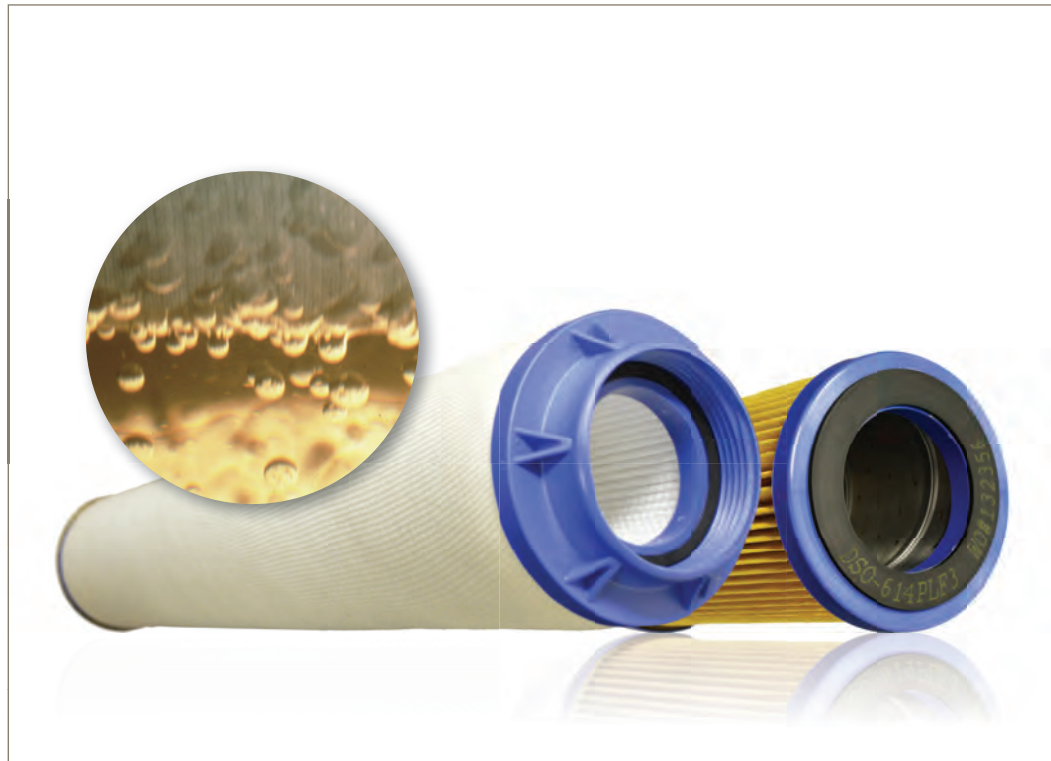


## Description

As fuel is transported from the refinery to its point-of-use, it can quickly become contaminated from silica, pipe scale, and water condensate. These contaminants rapidly deteriorate fuel cleanliness far below engine manufacturers minimum for fuel cleanliness.

Velcon's DI coalescers in combination with DSO separators, contaminated fuels are cleaned to a level that meets stringent downstream fuel cleanliness standards for petroleum based diesel fuels.

The first stage in the DI coalescer removes particles through an inside-out flow and coalesces emulsified water into large droplets, which then fall to the housing sump. In the second stage, an outside-in process, the DSO separator creates a hydrophobic barrier to block the coalesced water droplets from flowing downstream of the housing. This multi-stage design assures the fuel is conditioned to a clean and dry state, ready for use.



## Contact Information: Benefits

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- Extended equipment up-time
- Reduced operating costs
- Reliable fuel injector performance
- Improved equipment up-time
- Reduced fuel system maintenance



ENGINEERING YOUR SUCCESS.

## TIERED RATINGS

- Velcon's 4 micron coalescer combines leading-edge particle removal with world-class coalescing technology to provide optimal fuel cleanliness
- The 10 and 25 micron rated filter coalescer provides effective particle removal with industry proven coalescing technology.

## SURFACTANTS

- Water coalescing is not effective in the presence of fuels containing high levels of surfactants/alcohols or unrefined biofuels
- Detergents and additives inhibits the ability of coalescers to effectively remove water by reducing Interfacial Tension (IFT) and can eventually disarm coalescers

- Contact Velcon Laboratories for further analysis of your fuel for presence of surfactants

## PRODUCT SPECIFICATIONS

- All filter components compatible with petroleum based diesel fuels
- Downstream free-water level typically below 50ppm
- Recommended change out pressure: 25 psid (1.7 bar)
- Buna-N sealing materials standard
- Maximum operating temperature: 150°F (65°C)
- 6" (15.2 cm) outer diameter
- DI - coalescer flow direction - inside to outside
- DSO - separator flow direction - outside to inside

## RECOMMENDED HOUSINGS



V Series  
Filter-Coalescer/Separator

## DI PART NUMBERING

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

		O.D. in. (mm)	Length in. (mm)		Micron Rating (µm)	Endcap Options
DI	-	6 6 (152)	14 - 14 5/8 (371) 28 - 27 7/8 (709) 33 - 33 (838) 38 - 38 (965) 44 - 44 (1118) 56 - 56 (1422)	D	4, 10, 25	S (SOE) V (Viton® Seal) TB (Threaded base)

### DI-628D25TB

Variables that often change for the DI part numbers when placing an order are the length and the µm ratings; as seen in the case of the above example with the number 28 (length) and the number 25 (µm rating).

Note: Other lengths and end fittings available. Please contact Velcon for further assistance.

## DSO PART NUMBERING

		O.D. in. (mm)	Length in. (mm)		Endcap Options
DSO	-	6 6 (152)	14 - 14 5/8 (371) 29 - 29 1/8 (737) 33 - 33 1/4 (914) 44 - 44 (1118)	PLF3 (paper) C (screen)	S (SOE) V (Viton Seal)

### DSO-614PLF3

Variables that often change for the DSO part numbers when placing an order are the length and the hydrophobic material. In the case of the above example with the number 14 (length) and the PLF3 (hydrophobic material) change.

Note: Other lengths and end fittings available. Please contact Velcon for further assistance.