DI/DO & DSO Series

Particulate Filtration

Particulate and Water Removal from Diesel Fuel

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.

Parker'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.

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 Parker Laboratories for further analysis of your fuel for presence of surfactants
- Coalescing not recommended for Biodiesel blends over 5% (B5)

Tiered Ratings

- Parker's 5 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.

Benefits

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

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Specifications

- Multi-layer pleated filtration layers using engineered fiber blends for solids retention. Sequenced coalescing materials to grow large water droplets from emulsified water.
- All filter components compatible with diesel and biodiesel blends
- Inside diameter
  - 3.5 in (88.9 mm)
- Outside diameter
  - 6 in (152.4 mm)
- DI - coalescer flow direction - inside to outside
- DO - coalescer flow direction - outside to inside (DVX Series)
- DSO - separator flow direction - outside to inside
- Recommended change out pressure: 25 psid (1.7 bar)
- Downstream free-water level typically below 50 ppm
- Nitrile sealing materials are standard
- Maximum Operating Temperature: 150°F (65°C)
- End cap configuration options
  - Double open end
  - Threaded base
- Maximum burst pressure
  - 75 psi (5.2 bar)
- pH range (continuous operation)
  - 5-9

Element Part Numbers

Part Number	Length (inch)	Micron Rating (µm)	End Cap Configuration
DI-622D5TB	22	5	Threaded Base
DI-622D10TB	22	10	Threaded Base
DI-622D25TB	22	25	Threaded Base
DI-633D5TB	33	5	Threaded Base
DI-633D10TB	33	10	Threaded Base
DI-633D25TB	33	25	Threaded Base
DI-638D5TB	38	5	Threaded Base
DI-638D10TB	38	10	Threaded Base
DI-638D25TB	38	25	Threaded Base
DI-644D5TB	44	5	Threaded Base
DI-644D10TB	44	10	Threaded Base
DI-644D25TB	44	25	Threaded Base
DI-656D5TB	56	5	Threaded Base
DI-656D10TB	56	10	Threaded Base
DI-565D25TB	56	25	Threaded Base
DO-815D5	15	5	Open End
DO-815D10	15	10	Open End
DO-815D25	15	25	Open End
DO-830D5	30	5	Open End
DO-830D10	30	10	Open End
DO-830D25	30	25	Open End
DO-844D5	44	5	Open End
DO-844D10	44	10	Open End
DO-844D25	44	25	Open End

Part Number	Length (inch)	Media	End Cap Configuration
DSO-415PL	15	Cellulose	Open End
DSO-430PL	30	Cellulose	Open End
DSO-444PL	44	Cellulose	Open End
DSO-622C	22	Screen	Open End
DSO-622PLF3	22	Cellulose	Open End
DSO-629C	29	Screen	Open End
DSO-629PLF3	29	Cellulose	Open End
DSO-633C	33	Screen	Open End
DSO-633PLF3	33	Cellulose	Open End
DSO-644C	44	Screen	Open End
DSO-644PLF3	44	Cellulose	Open End