

VOKES
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Liquid Particulate Filters and Coalescers

The VOKES range of oil filters has been developed to provide reliable and efficient fuel and lubricating oil filtration systems for all industrial applications. Relying upon VOKES long life disposable cartridges, VOKES filters are designed for the optimum protection of fuel pumps, injectors, bearings and gears, by completely removing all accumulated contaminants when the cartridges are replaced.

The current range of VOKES oil filters has evolved through a programme of continuous product development and improvement, undertaken in conjunction with leading industrial companies.

VOKES fuel and lubricating oil filters are the result of more than eighty years experience in the field of filtration technology and are in service world-wide in power generation, marine (merchant & naval), rail traction, pumping and offshore applications.



FUEL & LUBRICATING OIL FILTERS

Designed for use with VOKES Microfelt and Microfine disposable cartridges, VOKES filters will remove particulate contaminants from oils of diverse specification. VOKES filters are manufactured in a variety of configurations including drop sump and top servicing designs. They are available as simplex filters or as duplex filters, with a transflow changeover valve, suitable for applications where continuous operation is necessary.

FUEL & LUBRICATING OIL COALESCERS

VOKES filter coalescers are based on a specifically developed multi-stage filter cartridge, which comprises a particulate pre-filter and two coalescing stages manufactured from an inorganic fibre media. Removing water from fuel and lubricating oil helps to protect machinery by eliminating contamination resulting from corrosion and microbiological growth. When used on gas turbine fuel systems, coalescers minimise the risk of turbine blade corrosion by removing soluble salts.

Designed for the removal of free water from oil, they will typically remove water down to 10ppm for fuel oil and 300ppm for lubricating oil. VOKES filter coalescers can be supplied as individual units or as modules with heaters and pumps.

DISPOSABLE FILTER CARTRIDGES

VOKES filtration systems are designed around high efficiency, high integrity disposable filter cartridges to ensure all collected contaminants are removed from the system when a new cartridge is fitted, avoiding the risk of clean side contamination.

Microfelt and Microfine Cartridges

VOKES' Microfelt cartridges are designed for the fine filtration of fuel and lubricating oils, along with other fluids including hydraulic oils and glycol. Microfelt cartridges have excellent depth filtration characteristics and a high dirt holding capacity. VOKES Microfine filter cartridges are

designed for the ultra-fine filtration of hydraulic, lubrication and light fuel oils. The semi-depth filtration characteristic of the cartridges provide the optimum combination of high dirt holding capacity and fine filtration performance.

Genuine Part Replacement

Specified by leading diesel engine and turbine manufacturers for original equipment, to maintain the specified performance it is essential that only genuine VOKES filter cartridges are fitted during servicing. A full range of replacement cartridges is available worldwide from either VOKES distributors or from the service parts organisations of the original equipment manufacturers.



OIL MIST ELIMINATORS

Manufactured by VOKES for the removal of oil mist from air flows, oil mist eliminators remove the risk of oil pollution from diesel engine crankcase breathers, turbine tank and gland vents and vacuum pumps. Featuring specially developed disposable cartridges, VOKES oil mist eliminators are capable of efficiencies better than 99% and are available for air flows up to 3000m³/h.

APB (Automatic Pressure Balancing) Technology has been developed specifically for use on turbines and variable speed diesel engines. Continuously sensing crankcase or vent pressure, the APB Technology controls the oil mist eliminator keeping the system at exactly the correct pressure for optimum operation. This provides a truly 'Fit and Forget' solution for oil mist control.

CUSTOMISED FILTRATION SYSTEMS

Based on the standard range of oil filters, filter coalescers and oil mist eliminators, VOKES has the capability to design and manufacture filtration systems to meet specific customer requirements. High capacity filtration systems are available as skid mounted units, or as sub-assemblies ready for installation on oil filter modules. Where required, filters can be specially designed to meet performance requirements such as shock-loading to navy specifications or seismically qualified for the nuclear industry.

TOP SERVICING INDUSTRIAL FUEL FILTERS

Standard units for flows up to 68 m³/hr



Simplex & Duplex units for the filtration of fuel

- Simple to service
- VOKES disposable filter cartridge
- Transflow changeover valve
- Designed for floor mounting
- Steam jackets/trace heating available as an option for heavy fuel oil

| Model | Style | Flow (m ³ /hr) | Design Pressure (Bar) | Connection (inch) | Temp (°C) |
|--------------------|---------|---------------------------|-----------------------|-------------------|-----------|
| FTU3 • FTU4 • FTU5 | Simplex | 40 | 10.3 | 2 | 120 |
| FTD3 • FTD4 • FTD5 | Duplex | 40 | 10.3 | 2 | 120 |
| HD3 • HD4 • HD5 | Duplex | 20 | 16 | 2 | 160 |
| TU63 • TU64 | Simplex | 68 | 10.3 | 4 | 60 |
| TD63 • TD64 | Duplex | 68 | 10.3 | 4 | 60 |
| DD31 • DD33 | Duplex | 21 | 10.3 | 2 | 60 |

COMPACT FUEL FILTERS FOR INDUSTRIAL USE

Standard units for flows up to 100 l/min



Compact Simplex & Duplex units for the filtration of fuel

- Simple to service
- Maximum temperature 60 °C
- Suitable for engine mounting
- Transflow changeover valve and DOTI safety latch version

| Model | Style | Flow (l/min) | Design Pressure (Bar) | Connection (inch) |
|-------|-----------------------|--------------|-----------------------|-------------------|
| E224F | Simplex Drop Sump | 22 | 7 | ½ |
| E228F | Simplex Drop Sump | 30 | 6.9 | ½ |
| E229F | Simplex Drop Sump | 30 | 6.9 | 1 |
| E238F | Duplex Drop Sump | 30 | 6.9 | 1 |
| E260F | Simplex Top Servicing | 100 | 6.9 | 2 |
| E426F | Duplex Drop Sump | 100 | 10.3 | 1½ |
| E426F | Duplex Top Servicing | 100 | 9.2 | 1½ |

TOP SERVICING INDUSTRIAL LUBRICATING OIL FILTERS

Standard units for flows up to 360 m³/h



Simplex & Duplex units for the filtration of lubricating oil

- Simple to service
- VOKES disposable filter cartridge
- Suitable for engine or floor mounting
- Duplex units with transflow changeover valve available

| Model | Flow (m ³ /hr) | Design Pressure (Bar) | Connection (inch) |
|-------------------------------|---------------------------|-----------------------|-------------------|
| E426L | 21 | 9.2 | 2 |
| ED3 | 64 | 10.3 | 2 |
| ED4 | 64 | 10.3 | 3 |
| FTD31 • FTD33 | 90 | 10.3 | 2 & 4 |
| FTD3 • FTD4 • FTD5 | 170 | 10.3 | 2 to 6 |
| TS336 • TS337 • TS338 • TS339 | 250 | 10.3 | 4 to 8 |
| TD63 • TD64 | 360 | 10.3 | 4 to 8 |
| TS318L | 48 | 10.3 | 3 |

COMPACT DROP SUMP LUBRICATING OIL FILTERS

Standard units for flows up to 270 l/min



Compact Simplex & Duplex units for the filtration of lubricating oil

- Simple to service
- VOKES disposable filter cartridges
- Suitable for engine mounting
- Transflow changeover valve available on some models

| Model | Flow (l/min) | Design Pressure (Bar) | Connection (inch) |
|-------|--------------|-----------------------|-------------------|
| E224L | 22.5 | 6.9 | ½ |
| E228L | 15 | 6.9 | ½ |
| E229L | 81 | 6.9 | 1 |
| E238L | 81 | 6.9 | 1 |
| E260L | 226 | 6.9 | 2 |
| E426L | 191 | 10 | 1½ |
| E259L | 264 | 6.9 | 2 |

TOP SERVICING FUEL & LUBRICATING OIL COALESCERS

Standard units for flows up to 12 m³/h



Units for the removal of water from fuel and lubricating oil

- VOKES disposable coalescer cartridges
- Suitable for floor mounting
- High level alarm and/or automatic drain available
- No moving parts and simple to service
- Modules featuring heaters and pumps available

| Model | Maximum Flow Rate (m ³ /h) | | Filter Coalescer Cartridge | |
|--------|---------------------------------------|-----------------|----------------------------|----------|
| | Fuel Oil | Lubricating Oil | Part No. | Quantity |
| 360/1 | 1 | 0.3 | B6354368 | 1 |
| 361/1 | 2 | 0.45 | B6352849 | 1 |
| 361/2 | 4 | 0.91 | B6352849 | 2 |
| 360/6 | 6 | 1.80 | B6354368 | 6 |
| 360/9 | 9 | 2.70 | B6354368 | 9 |
| 360/12 | 12 | 3.60 | B6354368 | 12 |

DROP SUMP FUEL & LUBRICATING OIL COALESCERS

Standard units for flows up to 9 l/min



Units for the removal of water from fuel and lubricating oil

- Available in simplex, duplex and twin bowl varieties
- VOKES disposable coalescer cartridges
- Suitable for engine mounting
- Transflow changeover valve (duplex version)
- Simple to service

| Model | Style | Maximum Flow Rate (l/min) | |
|-------|-----------|---------------------------|-----------------|
| | | Fuel Oil | Lubricating Oil |
| E229C | Simplex | 4.5 | 1 |
| E238C | Duplex | 4.5 | 1 |
| E238C | Twin Bowl | 9.0 | 2 |

FAN ASSISTED OIL MIST ELIMINATORS

Standard units for flows up to 3000m³/h



Compact and high volume oil mist removal units

| Model | Flow (m ³ /h) | Power (kW) | Inlet Connection | Outlet Connection |
|----------|--------------------------|------------|------------------|-------------------|
| MMF 15 | 15 | 0.4 | 38mm O.D | 1 ¼" BSP |
| MMF 50 | 50 | 0.75 | 2" BSP | 1 ½" BSP |
| MMF 100 | 100 | 1.5 | 2" BSP | 2" BSP |
| MMF 250 | 250 | 2.2 | 3" BSP | 2" BSP |
| MMF 500 | 500 | 5.5 | 4" BSP | 3" BSP |
| MMF 850 | 850 | 7.5 | 6" Flange | 4" Flange |
| MMF1275 | 1275 | 4.0 | 8" Flange | 6" Flange |
| MMF 1700 | 1700 | 11 | 8" Flange | 6" Flange |
| MMF 3000 | 3000 | 11 | 10" Flange | 8" Flange |

APB OIL MIST ELIMINATORS



Compact and high volume oil mist removal units

Automatic Pressure Balancing control system for 'fit and forget' operation.

No user intervention required apart from periodic cartridge changes.

VOKES Oil Mist Elimators (OME's) with APB Technology are designed to constantly sense system pressure

(lube oil tank, engine crankcase, etc.) and adjust the oil mist eliminator to maintain a desired system pressure regardless of operating conditions.

APB Technology is a tried and tested system relying on a relatively few, robust components thus ensuring trouble free operation and a long life.

DISPOSABLE FILTER CARTRIDGES



- Depth media to ensure long service life
- Unaffected by water, salt or engine acids
- Mechanically secured sealing rings provide a leak proof seal at each end of the cartridge
- Positive spacing between media pleats to ensure effective use of media area
- High frequency welding of media seams eliminates the risk of channelling
- Cartridges are multi-pass tested to prove performance



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