

# bulk fuel and lube oil filtration

## Overview

OMSA offers a diverse range of products and solutions for diesel and lubricant filtration. With the ongoing demand for supply of diesel and lubricant oils, it has become imperative to supply cleaner product to various industries such as earthmoving, mining, transport, marine and others which account for an ever-growing economy in sub-Saharan Africa. Contamination is the biggest threat to the supply of clean bulk fuel product. Dirt particulate and water ingress during transport and storage of bulk products is the root cause of many equipment failures. OMSA offers products and solutions to assist in prevention of these failures. The cost of filtration and solutions versus production downtime or equipment failure is priceless.

## Product Range

### 1. Diesel:

- Water coalescer and separator filter manifold - up to 500 l/min
- Manifolds assembled in various configurations
- These units remove dirt particulate and water ingress

### 2. Lube Oils:

- Filter manifold, dependent on viscosity of oil - up to 1000 l/min
- Water absorbing filters, free suspended water - up to 80 l/min
- Suitable for removing dirt ingress on gearbox, transmission, engine and hydraulic oils
- Lube oil pumping station enclosed in a 20 foot container:
  - This system is typically utilised at oil storage depots - the complete solution is enclosed in a 20 foot container which is commissioned at our factory and then delivered to site which is based on the "plug and play" concept

### 3. Accessories:

- Pre-filter (bag filtration):  
Pre-filters are fitted before filter manifolds and increase spin-on element filter life using a "bag filter" with a large surface area for dirt-holding capacity
- In-line particle counter:  
This portable unit detects particle sizes via infra-red laser and displays ISO 4406 codes digitally on the cleanliness of a fluid  
Requires 9-36 Volt DC supply and will log data via fibre optic cable onto standard PC or laptop, 99.5% accuracy

## We Offer

- Top quality products in bulk filtration
- Design and commissioning of diesel and oil lubrication systems
- In-line diesel and oil conditioning and particle monitoring
- Filtration training
- Installation, maintenance manuals and procedures for product range

## Resources and Structures

- Design engineers for system solutions
- Drawing office and draughtspeople using 3D Inventor
- Production facility - 3000m<sup>2</sup>
- On-site technicians
- Comprehensive range for all filtration requirements
- Sufficient stockholding of replacement parts and spares

### Johannesburg (Head Office)

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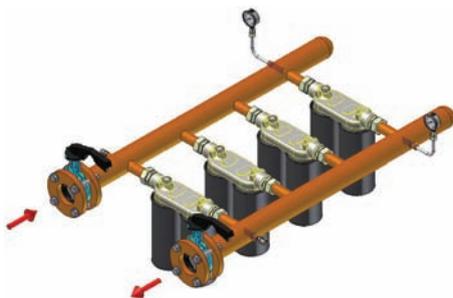
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## Filter Manifold c/w Water Coalescer and Separator



Technical Data	
Fluid type	Diesel
Flow rates	2-way @ 0 - 200 l/min: flanged 3 inch ASA 150 3-way @ 0 - 300 l/min: flanged 3 inch ASA 150 4-way @ 0 - 400 l/min: flanged 3 inch ASA 150 5-way @ 0 - 500 l/min: flanged 4 inch ASA 150
Working pressure	Up to 10 bar
Replacement of	Differential pressure $\Delta p = 2.2$ bar
Spin-on filter	Differential pressure $\Delta p = 1$ bar
Water coalescer and separator cartridge	1/2 inch BSP lockable ball valve
Drain	

## Standard Filter Manifold



Technical Data	
Fluid type	Diesel and lubricant oil
Flow rates	2-way @ 0 - 400 l/min: flanged 3 inch ASA 150 3-way @ 0 - 600 l/min: flanged 3 inch ASA 150 4-way @ 0 - 800 l/min: flanged 3 inch ASA 150 5-way @ 0 - 1000 l/min: flanged 4 inch ASA 150
Replacement of	Differential pressure $\Delta p = 2.2$ bar
Spin-on filter	Up to 10 bar
Pressure	

## Filter Elements for Manifolds



Technical Data	
Spin-on filter elements	
Absolute micron ratings	3 $\mu\text{m}$ , 6 $\mu\text{m}$ , 10 $\mu\text{m}$ , 25 $\mu\text{m}$
Absolute rating efficiency	99.5%
Nominal micron ratings	10 $\mu\text{m}$ , 25 $\mu\text{m}$
Nominal rating efficiency	50%
Water coalescer and separator cartridge	
Nominal micron rating	25 $\mu\text{m}$
Nominal rating efficiency	50%

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## Pre-Filters Standard



## Technical Data

Fluid type	Diesel
Flow rates	Single bag housing @ 0 - 300 //min: flanged 3 inch ASA 150 Dual bag housing @ 0 - 600 //min: flanged 3 inch ASA 150 3-bag housing @ 0 - 1000 //min: flanged 4 inch ASA 150
Pressure	Up to 10 bar
Replacement of bag filter	Differential pressure $\Delta p = 1.5$ bar
Drain	1 inch BSP lockable ball valve

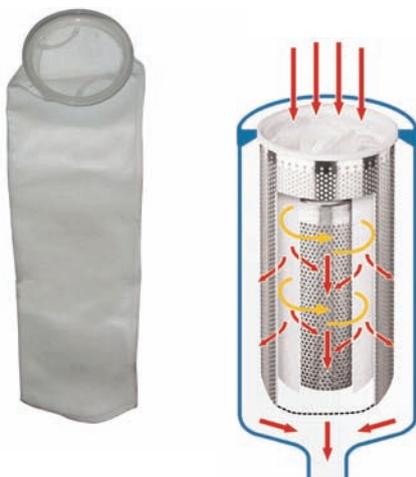
## Pre-Filters 316 Stainless Steel



## Technical Data

Fluid type	Diesel
Flow rates	Single bag housing @ 0 - 300 //min: flanged 2 inch DIN 50 2-way manifold @ 0 - 600 //min: flanged 3 inch ASA 150 3-way manifold @ 0 - 900 //min: flanged 3 inch ASA 150 4-way manifold @ 0 - 1200 //min: flanged 4 inch ASA 150 5-way manifold @ 0 - 1500 //min: flanged 4 inch ASA 150
Pressure	Up to 10 bar
Replacement of bag filter	Differential pressure $\Delta p = 1.5$ bar
Drain	½ inch BSP lockable ball valve

## Filter Bags



## Technical Data

Single filter bag or Dual core filter bag

Dual core filter bag:

- Higher flow rates - smaller, less costly vessel can be used
- Up to 35 times more effective than standard filter cartridges
- Low differential pressure results in less energy consumption of pumps
- Surface area is up to 65% greater than a similar size filter bag
- Element change: weighs up to 75% less than a filter bag
- Easier maintenance with reduced costs
- Easy retro fit to existing filter vessels
- Micron ratings - 1  $\mu\text{m}$ , 5  $\mu\text{m}$ , 10  $\mu\text{m}$ , 15  $\mu\text{m}$ , 25  $\mu\text{m}$ , 50  $\mu\text{m}$ , 100  $\mu\text{m}$

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 oil & gas  
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## Portable Contamination Monitor



## Technical Data

Fluid type	Diesel and lubricant oil
Power supply	12 V DC
Operating temperature	80°C
Specifications	Sensor type - infra-red laser Particulate ISO counts 4 µm, 6 µm, 14 µm, 21 µm Digital display of ISO counts

## In-Line Particle Counter



## Technical Data

Fluid type	Diesel and lubricant oil
Flow rates	Minimum 50 to 500 ml/min
Pressure	Up to 500 bar
Power supply required	9 V DC to 36 V DC
Operating temperature	80°C
Specifications	Sensor type - infra-red laser Particulate ISO counts 4 µm, 6 µm, 14 µm, 21 µm Digital display of ISO counts

## Water Absorbing Filter



## Technical Data

Fluid type	Diesel and lubricant oil
Flow rates	Up to 80 l/min
Pressure	Up to 16 bar
Porting	2 inch SAE 4-bolt
Filter element rating	
absolute	10 µm
nominal	25 µm

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