

HISTORY

FILTERS® was founded in 1989 and has since achieved excellence in the field of specialized and custom made filters for industrial purposes.

Today Filters® combines outstanding know-how in filtration and separation technologies with in depth experience in engineering, providing equipment, technology and services for the Oil & Gas, Power Generation and Chemical industries, and excels in all fields where filtration and separation require high technical competence and product quality.

Filters® develops, designs, builds and integrates advanced technologies into its products.

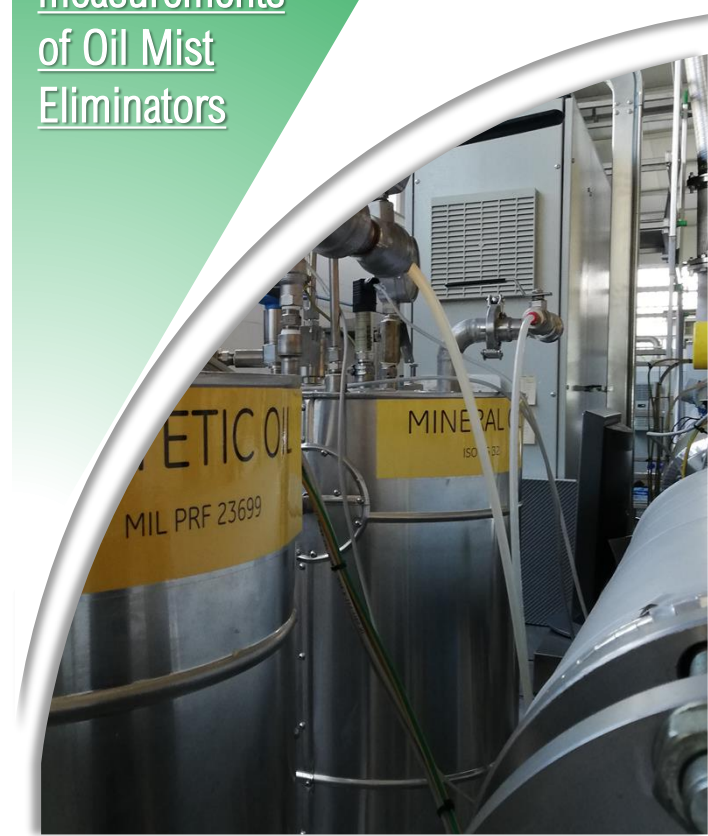


FILTERS SPA
Via della Rimembranza 1 - 10060 Piscina (TO), Italy
+39 011 9866231
+39 011 9866310
info@filters.it



COALESCING TEST BENCH

Performance
measurements
of Oil Mist
Eliminators



TEST BENCH

Main components of the test bench:

- **Centrifugal fan:** centrifugal fan to feed the air stream to the oil mist eliminator;
- **Heaters:** heat exchangers to heat process air, compressed air, injection oil and stored oil;
- **Atomizer nozzle:** atomizer nozzle to generate the oil mist inside the air stream, inserted in a flow glass that allows to see the oil mist generation;
- **Oil mist eliminator group:** vessel to hold the cartridges to be tested. It is possible to assemble customized vessel and cartridges on the test bench;
- **Particle sizer:** particle sizer to determine the distribution and size of droplets (from $0.01\ \mu\text{m}$ up to $10\ \mu\text{m}$).
- **The Control Panel** and the PLC allow remote management, monitoring and control of the Plant. The parameters controlled are flowrate, temperature and pressure.



EVALUABLE FEATURES

The following variables can be evaluated according with the possible tests that can be performed:

- Determination of **DIFFERENTIAL PRESSURE of a coalescing cartridge element (DRY/WET condition);**
- Determination of **DIMENSIONAL DISTRIBUTION OF PARTICLES inlet/outlet of an Oil Mist Eliminator;**
- Determination of **FILTRATION EFFICACY of an Oil Mist Eliminator**
- Determination of **DIFFERENTIAL PRESSURE of an Oil Mist Eliminator;**

Atomizer Nozzle



APPLICATION EXAMPLES

Some practical applications of the bench:

- **New Housing/Cartridges** pressure drop and filtration efficiency evaluation;
- **Verification of filtration efficiency** and determination of the concentration of oil emitted into the atmosphere (ppm);
- Real condition simulation (out of specification conditions);
- Verification of the **saturation cycles** of the coalescing cartridges

Oil Mist Eliminator

