Portable Oil Condition Monitoring (P-OCM) Device

On site, real time, lab quality oil results.

Product Sheet

The RAB Microfluidics P-OCM device permits onsite real-time chemical and physical property analysis of lubricating oil obtained from machinery. This P-OCM device allows users to obtain an output of four parameters (TAN, TBN, Insolubles and Viscosity) after each sample run, and enable multiple measurements per day for multiple machinery. Frequent measurements permit the trending of machine condition data giving users the ability to monitor engine health over time. These parameters capture three failure modes:

- Contamination
- Degradation
- Wear

Data collected from the P-OCM Device are uploaded to the RAB-Microfluidics Cloud Analytics Platform, where users can view data from multiple devices across managed assets. This gives valuable insights into machine performance allowing key operational decisions to be made.
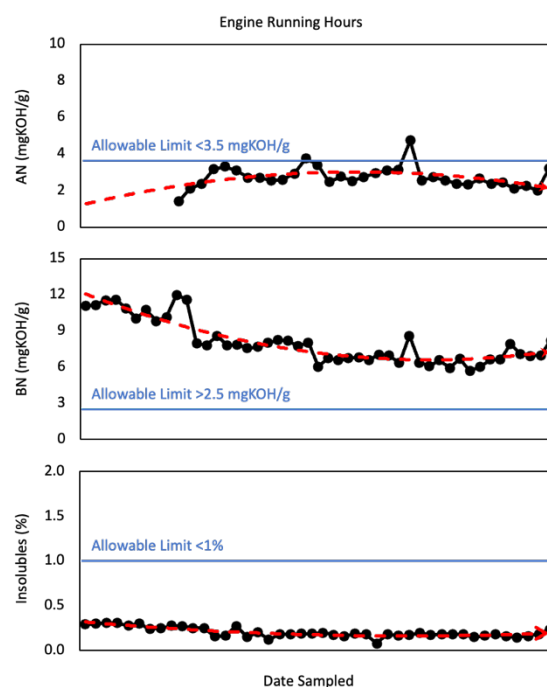
Portable Oil Condition Monitoring Device – Key Features

Temperature Range	Operating temperature +18°C to 30°C. Ambient +4°C to 45°C
Dimensions	H 33cm x W 28cm x D 27cm
Enclosure Material	Stainless Steel
Power Supply	110v or 220v
Air Pressure	96KPa ± 10PKa for Marine application
Connectivity	Ethernet interface with RJ45 connection suitable for CAT5/6
Visual Display	5 inch touch screen

Measurements		Limit of Detection	Repeatability*
Total Acid number (TAN)	measure of acid content in oil	0.05 mgKOH/g	±12% of mean
Total Base Number (TBN)	measurement of alkaline reserve in oil	2.5 mgKOH/g	±5% of mean
Insolubles Content	measure of total insoluble and soot content in oil	0.1%	±10% of mean
Viscosity	measure of oil resistance to flow	20 cSt @ 40°C	±10% of mean

*95% of measurements fall within repeatability limited reported.

Key Benefits:

- Automated sample process
- Real-time sampling and analysis
- Continuous data streams
- Trending of machine data
- Eliminates risk of sample mix-up
- Lower environmental footprint, reducing transport, oil sample and solvent volumes
- Lower cost of more regular sampling

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