



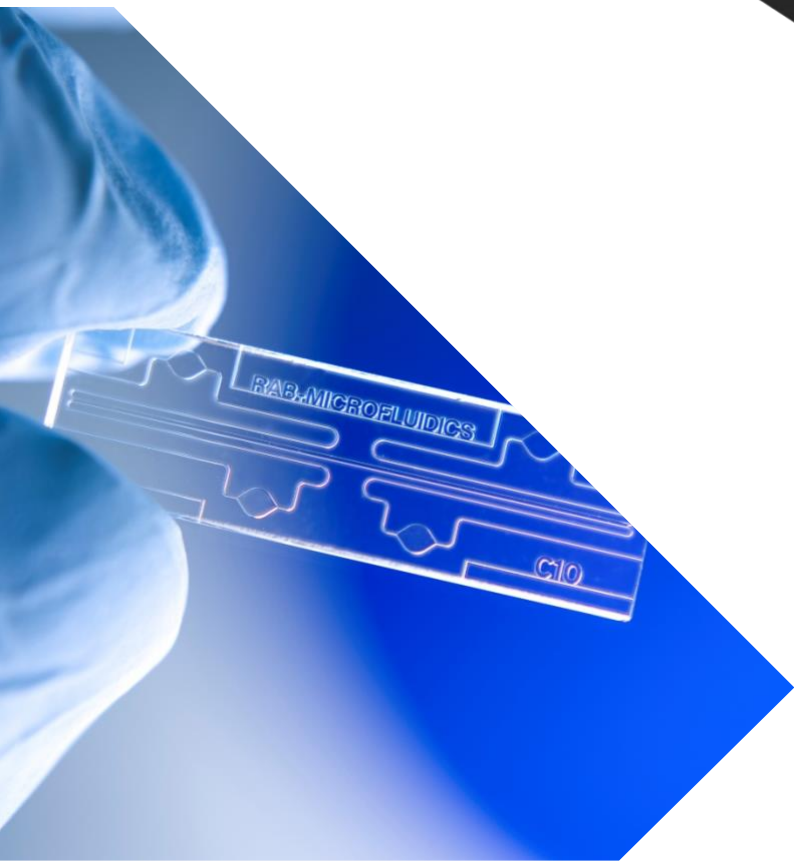
Oleum Oracle



RAB
MICROFLUIDICS
Point of need analysis

Oleum Oracle Instrument

On site, real time, lab quality oil results.



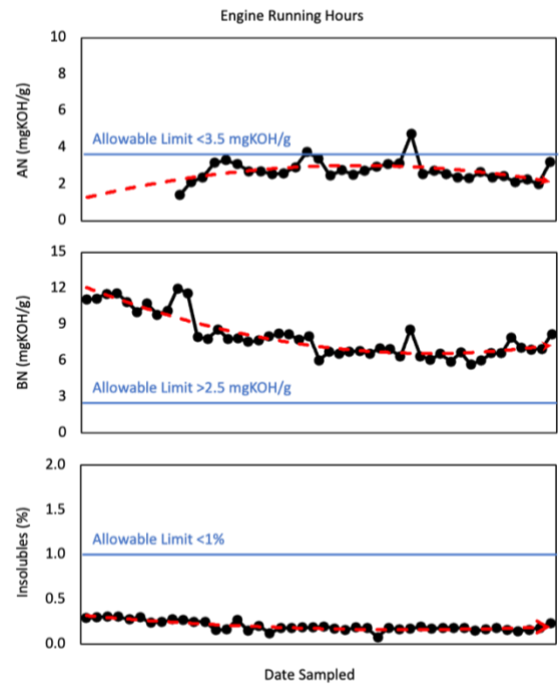
Product Sheet

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The Oleum Oracle instrument is a portable device that permits onsite, real-time chemical and physical property analysis of lubricating oil obtained from rotating equipment. The Oleum Oracle instrument is deployable onsite, e.g., onboard a vessel, offshore drilling platform etc. and allows users to measure parameters such as acidity (AN), alkaline reserve (BN), Insolubles, Viscosity, Iron content etc. These parameters capture three failure modes 1) contamination, 2) degradation and 3) wear.

Multiple measurements can be made per day for multiple machinery. Frequent measurements permit the trending of equipment condition giving users the ability to monitor engine health over time.

Data collected from the Oleum Oracle instrument are uploaded to the RAB Microfluidics Cloud Analytics Platform called RAB-Illuminare. On RAB-Illuminare, users can view data from multiple devices across managed assets. Additional measurement parameters of fuel dilution and additive depletion can also be viewed on Illuminare. This gives valuable insights into machine performance allowing key operational decisions to be made.



Key Features

Product (Part Number)	Oleum Oracle (POCM-ALC)
Temperature Range	Operating temperature +18°C to 30°C. Ambient +4°C to 45°C
Dimensions	H 33cm x W 35cm x D 29cm
Enclosure Material	Stainless Steel
Power Supply	110v or 220v
Air Pressure	96KPa ± 10PKa
Connectivity	Ethernet interface with RJ45 connection suitable for CAT5/6
Visual Display	5-inch touch screen

	Measurements	Limit of Detection	Repeatability*
Acid number (AN)	measure of acid content in oil	0.05 mgKOH/g	±12% of mean
Base Number (BN)	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	±15% of mean
Iron Content (Fe)	measure of Iron due to corrosion and abrasion	10 ppm	±20% of mean
Additive Depletion	measure of remaining life of oil		
Fuel Dilution	measure of fuel ingress in lubricating oil system		

Rotating equipment types monitored

Diesel engines, compressors, turbines, pumps, generators, gearboxes etc.

Oil types analysed

Mineral, semi-synthetic and fully synthetic oils

*95% of measurements fall within repeatability limited reported.

Key Benefits:

- Real-time sampling and analysis
- Early diagnosis of equipment deterioration
- Trending of equipment condition data
- Eliminates risk of sample mix-up
- Lower environmental footprint, reducing transport, oil sample and solvent volumes
- Lower cost of more regular sampling

