

MicroLab 30

On-Site Oil Analyzer

ASTM D7417

The MicroLab combines automation and artificial intelligence in an all-in-one oil analysis tool, making on-site oil analysis possible for any fleet.

- Simple to use – no special operator required
- Fast – results in less than 15 minutes
- Easy to read reports – color-coded alarms and maintenance actions

MicroLab 30 is designed for fleets operating over-the-road vehicles or generator equipment. This analyzer best suited for companies interested in testing primarily engine oils to determine the serviceable life of the oil and the equipment condition. The MicroLab 30 analyzes six oil chemistry parameters along with viscosity to determine proper drain intervals. The standard 10 element version provides information on oil contamination and wear metal analysis.

Monitoring equipment and oil health with oil analysis

The three automated MicroLab 30 tests provide a complete look at equipment and oil condition.

Mechanical condition parameters indicate potential equipment failure

- Wear metal analysis
- Contamination (glycol, dirt, water)

Oil condition parameters indicate potential degradation and contamination

- Viscosity
- Oil chemistry
(Total Base Number, oxidation, nitration)
- Contamination (glycol, water, soot)
- Oil additive levels

to determine if mechanical issues exist. The MicroLab 30 can be upgraded to 20 elements if there is an interest to analyze oil additive levels as well as additional wear metals.



Chemistry

The MicroLab infrared spectrometer measures six key parameters which indicate potential oil degradation and contamination.

Both the MicroLab 30 provide:

- Oil degradation: oxidation, nitration, total base number
- Oil contamination: soot, water, glycol

Viscosity

The MicroLab Dual Temperature Viscometer (DTV) provides kinematic viscosity analysis which can identify potential oil degradation or contamination.

- Kinematic viscosity at 40°C and 100 °C
- Viscosity index (VI)

Elemental Analysis

The MicroLab Optical Emission Spectrometer quantifies wear metals caused from mechanical components, as well as other elements from oil additives and contamination.

• Basic metals include

Al, Cr, Cu, Fe, Pb, Mo, K, Si, Na, Sn

• Extended metals include

Ba, B, Ca, Mg, Mn, Ni, P, Ti, V, Zn

