

# FieldLab 58

## Portable Oil Lab

ASTM D7889, ASTM D8092, ASTM D8120

The Spectro The battery-powered device enables complete lubricant assessment for condition monitoring and rapid results that permit informed maintenance decisions. It takes only 3 ml of oil to perform a comprehensive oil analysis and no chemicals or solvents are needed for sample preparation or cleaning. The complete analysis, with all four tests, only takes about 5 - 7 minutes, depending on oil viscosity.

The FieldLab 58 includes four oil analysis technologies into a case weighing only 15kg and powered by Li-Ion battery so a comprehensive oil analysis can be conducted in the field wherever the asset is located. The four technologies are:

- Energy Dispersive (ED) XRF for elemental analysis of 13 elements for particles larger than 5 micron. They are Al, Si, Cr, Fe, Ni, Pb, Cu, Sn, Mo, Ag, Zn, and V, common wear metals.
- Infrared spectroscopy based on patented FluidScan direct infrared spectroscopy with flip-top cell for simple sample introduction. The IR produces oil properties such as Oxidation, Nitration, Sulfation, TBN and/or TAN, anti-wear additive depletion, and contamination such as water, soot, and glycol.
- Viscometer based on patented split cell design used in MiniVisc 3000 Series . It measures kinematic viscosity at 40°C.
- Pore blockage particle counter that measures particle count for larger than 4 microns. ISO code is also reported.

A filtergram coupon is used for the pore blockage particle counter; the remaining particles on the filter are scanned by XRF for elemental analysis. In the meantime, viscosity and IR tests are performed simultaneously to speed test results. A Li-Ion battery provides enough power for up to 4 hours of continuous operation. An on board computer with a touch screen controls all the hardware, as well as the asset and reference fluid database and alarm limits for immediate oil analysis report. Data can be synchronized to a PC via a USB using Fluid Manager software.



### Key Features

- Rugged design with battery power for on-site, field use
- No solvent, no chemical
- Only use 3ml of oil
- 4 complete oil tests, over 20 oil analysis parameters in 5 to 7 minutes
- On board computer with asset and reference oil database, alarm limits for immediate results
- Intuitive, touch screen user interface

