

FluidScan

Infrared Oil Analyzer

ASTM D7889, ASTM E2412, ASTM E1655

The FluidScan® 1000 series handheld Infrared oil analyzer provides direct quantitative measurement of a lubricant's condition and plays an important role in Machine Condition Monitoring (MCM) for proactive and predictive maintenance in Reliability Management programs. It determines when oil needs to be serviced due to degradation of the oil chemistry or contamination by other fluids such as water or the wrong oil. It is compliant with ASTM D7889 "Standard Test Method for Field Determination of In-Service Fluid Properties Using IR Spectroscopy".

Dedicated Direct Infrared Spectrometer

- No moving parts, designed for handheld and field use applications
- Multivariate calibration with unique oil-specific algorithms

Easy to use

- Needs just one drop of oil and one minute to test
- No solvents required to clean
- Color-coded, user adjustable alarm limits

Determine when in service oil not fit for use

- Direct immediate measurement of water, TAN and oxidation for lubricants used in gearboxes, turbines and hydraulic systems
- Also measures TBN, water, glycol, soot, additive depletion and oxidation for engine oil

Applications include

- Mineral and synthetic oils used in gear boxes, engines, transmissions
- Hydraulic systems, turbines and other machinery components
- Biodiesel/Fuel
- Quality assurance of new oils



Innovative water and fluid identity methods

- Patented total water algorithm for both dissolved and free water
- Solvent free alternative to Karl Fischer titration
- Water index for grease condition monitoring
- Fluid integrity to determine fluid mix ups

Innovation in hardware and calibration

At the core of the FluidScan is a patented, mid-infrared spectrometer with grating optics and a linear detector array. The spectrometer collects the infrared light transmitted through the fluid in the flip top cell into a waveguide. The waveguide then carries the light to a prism-like diffraction grating that reflects the light into a high-performance array detector which registers the infrared spectrum of the fluid. It provides more than adequate spectral range, resolution and signal-to-noise ratio for the rapid analysis of in-service lubricants.

It also fulfils the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (NESHAP RICE) requirements for extending oil change intervals in engines and back-up generators when used in conjunction with the Spectro MiniVisc 3050 Portable Viscometer.