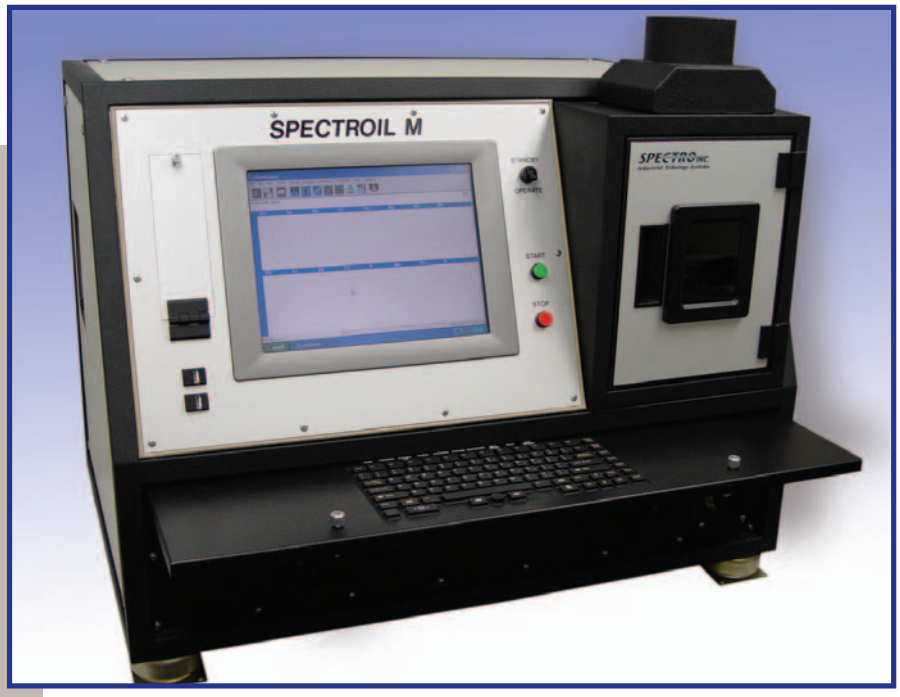
Predictive Maintenance by Oil Analysis

Spectroil M/C and M/N Oil Analysis Spectrometers



"…for the rapid analysis of wear metals, contaminants and additives in lubricants, hydraulic fluids, and coolants"

Benefits

- Reduces maintenance costs
- Reduces unexpected downtime
- Increases equipment availability
- Improves safety

Features

- Benchtop and transportable
- Analyzes up to 32 elements simultaneously
- 30 second analysis time
- No sample preparation
- Simple to operate
- Standard and readily available consumables
- Environmentally sealed
- Windows operating system
- Fulfills ASTM Standard Test Method D6595 requirements
- Meets stringent Department of Defense requirements (JOAP)
- Optional robotic sample changer
- Optional sulfur analysis capability

Oil Analysis Spectrometers

The Spectroil M/C and M/N are compact, rugged, transportable and easy to use spectrometers, designed specifically for oil analysis. They use the time-tested and reliable rotating disc electrode (RDE) technique, improved with new capabilities and enhanced performance.

Spectroils measure trace quantities of elements dissolved or suspended as fine particles in natural or synthetic petroleum based products. They remain the preferred oil analysis instruments for commercial and military applications because technology has made them smaller, faster, more stable, more accurate and easier to operate. Their design is based on years of field and laboratory experience obtained from their predecessors, the Spectroil M and the Spectroil Jr.

The Spectroil M/C for commercial applications has the capability to analyze all the wear metals, contaminants and additives typically found in used oil samples. The Spectroil M/N has identical analytical capabilities but also provides additional shielding for use aboard vessels or in areas near sensitive electronic equipment. Both versions are equally at home in the laboratory or on-site where immediate oil analysis results can be vital.

The Spectroil M/N is the only mobile spectrometer tested and approved to meet the complete technical and performance requirements of the U.S. Department of Defense Joint Oil Analysis Program (JOAP) CID-0191 Specification per Test Plan TP-0191. It is the primary laboratory and deployable oil analysis spectrometer for the United States of America Armed Forces, and the preferred spectrometer for most of the world's military organizations. The Spectroil M/N has National Stock Number, NSN 6650-01-415-1767.

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Predictive Maintenance

Spectrometric oil analysis is applicable to any closed loop lubricating system, such as those found in diesel and gasoline engines, gas turbines, transmissions, gear boxes, compressors and hydraulic systems. In practice, one takes an oil sample from a system. The spectrometer analyzes the sample for trace levels of metal worn from moving parts, as well as for extraneous contamination and additive element levels. The resulting data, when compared to previous analyses and allowable limits, may indicate a sound mechanism showing only normal wear—or it may point out a potentially serious problem in its early stages. With this advance warning, steps may be taken to correct the situation before serious damage or injury occurs.

Coolant Analysis

Spectroils can also be calibrated with water/glycol standards to quantify the wear metals, contaminant, and additives in engine coolants. Not only are coolants expensive to buy, but they are also costly to dispose of properly. Coolant analysis can be used to extend the life of coolants by indicating corrosion, wear, contamination and additive depletion in the coolant system.

Quality Control

Manufacturing today's sophisticated lubricant blends requires constant on-site monitoring to assure product composition and consistency. Spectroils are ideal for monitoring and verifying the blending process. With multiple matrix program capability, Spectroils accurately analyze the lubricant blends commonly produced by refineries and blending operations. Software selectable features—such as readout selection of either percent concentration or parts per million—permit flexibility to monitor typical additives in a wide variety of lubricant bases.

Typical Applications

- Commercial Laboratories
- Oil Companies
- Railroads
- Airlines
- Public Transportation Companies
- Electric Power Generation Companies
- Mines
- Refineries
- Construction Equipment Dealers
- Chemical Processors
- Steel Mills
- Manufacturing Plants
- Marine Fleets
- Military
- Formula 1 Racing Teams

Spectro Incorporated is the only company dedicated exclusively to provide instrumentation, software and applications support for machine condition monitoring through oil analysis. Contact us for your instrumentation needs and complete turnkey systems for oil analysis.

Your local representative for sales and service is:

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