

Analytical Instruments for Used Oil and Fuel Analysis

Spectro Inc. is a world leader in condition monitoring instrumentation through oil analysis. Below is a listing of our primary analytical instruments for used oil and fuel analysis. Please contact us if you require additional information or if you have any questions.

Product	Description
	<p>Spectroil M Family of Oil and Fuel Analysis Spectrometers</p> <ul style="list-style-type: none"> • Bench top and transportable • 30 second analysis time for up to 24 wear metals, contaminants and additives • No sample preparation, uses no gases • Simple to operate • Fulfills ASTM Standard Test Method D6595 and D6728 requirements • Continuously available for immediate analysis • Meets stringent Department of Defense (JOAP) requirements • Optional accessories for automatic analysis and for large wear particle analysis
	<p>Expert Wear Particle Analysis System, LaserNet Fines-C</p> <ul style="list-style-type: none"> • Particle Shape Classifier, automatic shape recognition for classification of fatigue wear, cutting wear, severe sliding wear, and nonmetallic particles • Particle Counter, provides ISO Code 4406 (1999) and many other codes, intrinsically accurate, requires no calibration • Provides image maps for all particles greater than 20 μm and trends for size ranges • Measures soot content in used diesel engine oil • Analyzes highly contaminated used oils as well as hydraulic fluids • Optional sample processor is available for automatic sample analysis
	<p>Spectro FTIR Oil Analyzer</p> <ul style="list-style-type: none"> • Instrument and software specifically designed for the analysis of used oil • Fixed interferometer, does not require software or manual alignment • Exceptional stability and reliability in harsh operating environments • Completely sealed and desiccated to prevent humidity interferences • Optional sample changer is available for automatic and unattended analysis
	<p>Spectro-Visc Automatic Viscometer</p> <ul style="list-style-type: none"> • Complies with ASTM D 445, D 7289 and related specifications • High throughput - up to 60 samples per hour to ASTM precision • Small sample volume - 0.3 to 0.6 ml • Low solvent consumption - 2.5 ml per sample • Extremely easy to operate • Fully automatic flow time measurement, cleaning and drying • Fast, easy tube replacement, no need to drain bath • No PC required for system to operate • System is chemically resistant • Optional dual measurement capability



Product	Description
	<p style="text-align: center;">Fuel Contamination in Crankcase Oils, The Fuel Sniffer</p> <ul style="list-style-type: none"> • Measures 0-10% fuel dilution in used oils • Easy to operate • One minute analysis time • Requires no consumables or solvents • Small size, ideal for field or laboratory use • Low maintenance, self-diagnostic program
	<p style="text-align: center;">Ferrography Laboratory, T²FM</p> <ul style="list-style-type: none"> • Magnetic separation of wear and contaminant particles from fluid samples • Rapid preparation of ferrogram • No deformation of particles • Bichromatic microscope • Video Camera • Image capture software
	<p style="text-align: center;">Robotic System for Oil Analysis, Model D2R2</p> <ul style="list-style-type: none"> • Provides fully automatic, unattended analysis of used oil • Analyzes up to 80 samples per hour • Designed from the ground up for oil analysis • Eliminates the need to clean and re-sharpen graphite electrodes • Maintains JOAP data base correlation
	<p style="text-align: center;">Analysis of Large Wear & Contaminant Particles Automated Rotrode Filter Spectroscopy (A-RFS)</p> <ul style="list-style-type: none"> • Complements spectrometric analysis with analytical results for large particles • Separates and concentrates particles from a sample on a graphite electrode for analysis • Automatic and simultaneous preparation of up to five samples at one time • Very low detection limits, extremely sensitive • Samples can be processed and stored until ready for analysis
	<p style="text-align: center;">Automatic Sample Processor (ASP)</p> <p>For automatic unattended sample analysis by LaserNet Fines Particle Shape Classifier and Particle Counter</p> <ul style="list-style-type: none"> • No sample preparation • Automatic re-suspension of settled particles • Negligible carryover • Works with standard, readily available sample bottles • Uses inexpensive solvents

Product

Description



Consumables and Spare Parts

Consumables and spare parts are available for all Spectro Products. All are performance-certified and fully warranted to perform to the original instrument specifications. They include:

- Graphite Electrodes
- Sample Holders
- Re-calibration Standards
- Spare Parts Kits

SPECTROIL M
Wear Metals, Contaminants & Additives



Rotrode Filter Spectroscopy
Large Particle Analysis

LaserNet Fines
Particle Shape & Size Classification



ASP
Automatic Sample Processor

Spectro-Visc Viscometer
Viscosity



Ethernet HUB



Spectro FT-IR
Lubricant Degradation & Contamination



Fuel Sniffer
Fuel Dilution



T2FM
Ferroggraphy



Data Storage & Diagnosis



Turnkey Oil Analysis Laboratory

The Spectro Industrial Tribology Laboratory (ITL) is a turnkey system providing condition monitoring for machines and engines by oil analysis. Any, or all of Spectro's oil analysis instruments can be used in the turnkey oil analysis lab. The measurements made using the Industrial Tribology Laboratory determine both lubricant and machine condition, the cornerstones of any effective predictive maintenance system.

About Spectro Incorporated

Spectro Incorporated is a high technology company that specializes in instrumentation for machine condition monitoring based on oil and fuel analysis. Its primary customers are industrial and military organizations as well as laboratories that provide oil analysis services. A second market consists of instruments for the analysis of contaminants in gas turbine fuels as used in power generation applications or marine propulsion systems. Spectro manufactures its own instrumentation, and when appropriate, combine them into complete oil analysis systems through integration with products manufactured by other companies.

The mainstays of Spectro's product line has been the successful Spectroil M optical emission spectrometers which have become the primary wear metal analysis instruments of many commercial laboratories and most of the world's military organizations. Recently, Spectro also entered into an exclusive worldwide marketing and sales agreement with Lockheed Martin Tactical Defense Systems for their LaserNet Fines Particle Shape Classifier and Particle Counter; a cutting edge analytical instrument that has brought new capabilities to the wear particle analysis market. Other Spectro products include the T2FM Ferrography System, the Fuel Sniffer Fuel Dilution Meter, the Spectro FT-IR Lubricant Condition Monitor, the Spectro-Visc and HSV semi-automatic viscometers, and used oil analysis laboratory management software. Recently, Spectro also introduced an automatic sample processor for the LaserNet Fines and the A-RFS, an innovative accessory to the Spectroil M that detects and quantifies large wear particles.

Spectro products are unique in that they have been designed them to work equally well in the field or in the laboratory. Spectro products are used throughout the world and a major portion of its market has been outside of the continental USA. Spectro has technical and sales representatives in every major country.

Spectro Incorporated employs a team of professionals and experts to maintain its position as a recognized and respected industry leader. Spectro upholds its commitment to provide customers with innovation in product design, products of unsurpassed quality, and exceptional customer support

This year, Spectro Incorporated celebrates its 25th anniversary. The past 25 years have demonstrated Spectro's ability to provide its markets with innovative technology and instrumentation that provide their customers with cutting edge techniques to detect abnormal wear or contamination in oil-wetted machinery and fuels. Spectro continually works on new products and enhancements to existing ones in response to customers needs for more capabilities, automation or enhanced performance. There is every indication that this trend of innovation will continue into the future.

Your local representative for sales and service is:

Spectro Incorporated is the only company dedicated exclusively to provide instrumentation, software, service and applications support for machine condition monitoring through oil analysis.

Contact us for your instrumentation need and complete turnkey systems for oil analysis.

