

# Spectroil M/C-W

## OIL ANALYSIS SPECTROMETER

Predictive Maintenance by Oil Analysis



The Spectroil M/C-W is a compact, rugged, transportable spectrometer designed specifically for the analysis of oil samples. It measures trace quantities of elements dissolved or suspended as fine particles in natural or synthetic petroleum-based products using the time-tested and reliable rotating disc electrode (RDE) technique.

The Spectroil M/C-W has the capability to analyze all the wear metals, contaminants and additives typically found in used oil samples. The Spectroil M/C-W was designed specifically for the analysis of used oil and is equally at home in the laboratory or on-site where immediate oil analysis results can be vital and sample turnaround time is crucial.

### The easiest and most expedient way to perform the rapid analysis of wear metals, contaminants and additives in lubricants, hydraulic fluids, and coolants

The Spectroil M/C-W has become the standard instrument at most commercial oil analysis laboratories and machine condition monitoring programs that require the rapid analysis of wear metals, contaminants and additives in lubricants. It fulfills the requirements of ASTM D6595 Standard Method for Determination of Wear Metals and Contaminants in Used Lubricating Oils or Hydraulic Fluids by Rotating Disc Electrode Atomic Emission Spectrometry.

The Spectroil M/C-W continues to be the ideal used oil analysis spectrometer for commercial applications because technology has made it smaller, faster, more stable, more accurate and easier to operate with new capabilities and enhanced performance. Optional configurations include the D2R2 (Double Disc Rapid Robot) robotic system for automatic and unattended operation and the A-RFS (Rotrode Filter Spectroscopy) system for the analysis of large particles. Additional capabilities to analyze engine coolants and sulfur in oil are also available as options. Other versions of the Spectroil include the Spectroil M/N-W for military used oil analysis and the Spectroil M/F-W for gas turbine and diesel engine fuel analysis.

### Predictive Maintenance – Used Oil Analysis

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.



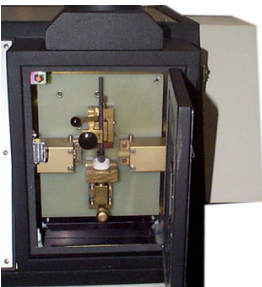
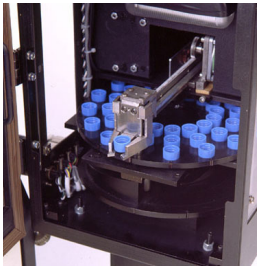


## Benefits of Oil Analysis

- Reduce maintenance costs
- Reduce unexpected downtime
- Increase equipment availability
- Improve safety

## Features

- Conforms to ASTM Standard Test Method D6595 requirements
- No sample preparation
- 30 second analysis time
- Benchtop and transportable
- Analyzes up to 32 elements simultaneously
- Always ready to analyze samples
- Simple to operate without special training or background
- Standard and readily available consumables
- Environmentally sealed
- Requires no special utilities or gases, only AC power
- Windows® operating system
- Spectroil M Series meets stringent Department of Defense requirements (JOAP).
- Optional large particle analysis capability
- Optional sulfur analysis capability
- Optional coolant analysis capability



Oil Analysis Consumables

## SPECTROIL ACCESSORIES AND OPTIONS

Standard Configuration	Standard oil calibration, 23 Elements Al, Ba, B, Cd, Ca, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, P, K, Si, Ag, Na, Sn, Ti, V, Zn, Li
Calibration Options	Coolant Calibration Program Washdown Water Calibration Program Fuel Calibration (light Fuel, Heavy Fuel) Program Sulfur Calibration (Sulfur Optics Required) Program Additional 9 Elements Calibration (Sb, Bi, As, In, Co, Zr, W, Sr, Ce)
Hardware Configurations	ARFS (Large Particle Analysis) D2R2 Robotic Automation Sulfur Optics for Fuel Analysis
Operating Software	Spectroil M
Optional LIMS data trending	SpectroTrack IMS