

# **Ultra-high Throughput Oil Analysis System**

The SampleSense *FAST* UHT-O system for Agilent 5900 ICP-OES provides ultra-high throughput analysis for in-service oil laboratories running ASTM Method D5185. The SampleSense *FAST* UHT-O system provides in-service lubricant laboratories an entirely new level of performance. SampleSense *FAST* UHT-O combines ultra-high throughput ICP-OES analysis, minimizes ICP system maintenance, maximizes profit per sample and provides significantly improved data.

SampleSense *FAST* UHT-O is a complete, automated sample introduction system for oil analysis. It combines the DXCi Autocorrecting Autosampler with SampleSense technology to fully automate the sample loading process. After the sample is mixed, the unique SampleSense valve automatically detects the presence of sample as it is loaded rapidly from the autosampler. Once the sample loop fill is confirmed by the sensors, the sample is automatically injected and the ICP-OES analysis is triggered for a tightly timed analytical sequence.

### **Benefits**

- Reduces carbon buildup on torch
- Maximizes profit per sample
- Eliminates oil drips from sample probe
- Improves stability for longer, more productive runs
- Up to 180 samples per hour

SampleSense FAST UHT-O Sample Throughput Performance

1 Minute 1 Hour 8 Hours 24 Hours



## **Features**

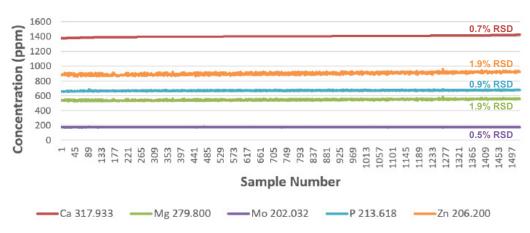
- SampleSense optically monitored sample loading
  - Fully automated sample loading no timings required
  - Automatically adjusts for samples of varying viscosity
  - Unsensed samples are reported back to software
- DXCi Autocorrecting Autosampler
  - Intelligently autocorrects probe position even if accidentally obstructed
  - Highest speed probe movement

- Gas infusion mixing option provides rapidly controlled sample homogenization just prior to uptake
- Patent-pending probe design that eliminates sample drips and resulting cross contamination

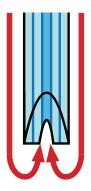




### **Elements in Used Motor Oil**



SampleSense *FAST* UHT-O system 9.5 hour stability run on Agilent 5900 for 5 higher concentration elements in used oil



Closeup diagram of V-shaped tapered tip probe on SampleSense FAST UHT-O system. The probe design allows the applied vacuum to efficiently remove sample droplets to eliminate contamination of other samples.

#### SampleSense FAST UHT-O for Agilent 5900 ICP-OES

Description	Total Sample Capacity
2DXCi SampleSense FAST UHT-O for Agilent ICP-OES	180
4DXCi SampleSense FAST UHT-O for Agilent ICP-OES	360
8DXCi SampleSense FAST UHT-O for Agilent ICP-OES	720
14DXCi SampleSense FAST UHT-O for Agilent ICP-OES	1260



Gas infusion mixing of used oil and solvent with SampleSense *FAST* UHT-O system just prior to analysis on Agilent 5900 ICP-OES.

