A MAJOR US OIL LAB CRITIQUES THE SPECTREX PARTICLE COUNTER

24 MARCH 2006

Kurt Parker, Chief Chemist and Particle Count Manager Oil Analysis Lab

From:

Kurt Parker Chief Chemist and Particle Count Manager Oil Analysis Lab

Sirs:

I have been utilizing Spectrex Laser Particle Counters for about fifteen years. Currently we have four of the PC-2000 series in operation in lab bench applications.

We process 3000+ oil samples per month from a vastly differing customer application base. I also do some water samples on the instruments. I have found the Instruments to be reliable and relatively problem free. When, occasionally, problems cropped up, I was able to obtain parts and help from Mr. Hoyte and the Spectrex Staff to quickly repair the instrument myself. Also, they have repaired and upgraded the instruments quickly at their facility.

The Spectrex Particle Counter (PC) oil application is a good fit. Most of the 5 competitor PC's I have personally had a chance to evaluate all had the same problems: sample to sample contamination, large sample flow volumes, high and low total count bias, dark oil bias, water contamination bias, and limitations on oil viscosity (high and low viscosity samples would not run).

When sampling greatly varying oil types and very dirty oils, typical flow-through systems retained particles and oil through the next sample—even with large volume rinses (up to 12 x 250 mL. rinses to clean down to an ISO of 14). The beaker/sample system may seem cumbersome and slow. However, it is more reliable, accurate and consistent. The contamination carryover is nil, with about three 15 mL rinses being optimal during normal oil sample analysis. Being able to do sample dilution on the fly in a beaker is an advantage. None of the current flow-through systems automatically diluted, they had to be hand diluted.

The Spectrex flow-through adapter would work well placed into a system for continuous monitoring of moderate to very clean oil flows requiring no dilutions. A shorter path-length cell is available for more contaminated oils.

The cost of the current Spectrex model is quite good compared to other comparable models on the market. The operating system can be installed on any current computer and is easy to understand and operate.

Kurt Parker 24 March 2006