

## A Re-Energized Look for Great Technology

Spectro Inc. Introduces the Next Generation in the Spectroil Product Line Incorporating Advancements in Manufacturing and Materials



## Results

ThermoFab understood the complex design requirements and was able to deliver parts with tighter tolerances and sharp detail. The enclosure's new front door now has three different colors, which makes this tried and tested instrument pop. Olson concluded, "The quality of the product and their complete process were the reasons ThermoFab won the business. As we prepare to introduce this instrument at trade shows, I know they have delivered."

## Challenge

Spectro Inc., part of QinetiQ North America since 2008, is one of the largest worldwide suppliers of oil and fuel analysis equipment to the US military and a range of industries, such as petrochemical, mining, power generation, and commercial testing laboratories. For over 18 years, the Spectroil line of emission spectrometers for wear metal analysis has been deployed to military installations, mining operations, and other mobile sites. Due to the military's requirements, the instruments are rugged, sturdy and impervious to heat and dust. They can handle frequent moves and quickly be set up and operational in the field. As the product became an industry standard for oil and fuel analysis, Spectro saw an increase in demand from commercial customers. Whereas the military and field operations had stringent requirements for sturdiness and transportability, the consumer space that included large corporations and commercial testing facilities did not. Seeing this opportunity, Spectro set out to redesign and introduce the next generation Spectroil line, the Q100. In May of 2009, a team led by Eric Olson, Product Development Manager, launched the project to bring the newest instrument to the marketplace.

## Solution – The Right Design, The Right Materials

Spectro selected Carroll Design, a Massachusetts-based industrial design and engineering firm, to assist with this project. Olson stated, "As a team, we started with the goal of incorporating the latest in manufacturing and technology combined with new materials while improving the design aesthetics and ergonomics of the instrument."

The Spectroil Q100 is focused on the commercial customer in a fixed lab environment. Staying in one place eliminated the traditional US Department of Defense "MIL-SPEC" requirements of being exceptionally durable for frequent deployments. The new instrument design included the use of vibrant color, a custom plastic enclosure, and a more compact foot print. Carroll Design's Steve Johnson stated, "This was Eric Olson's first experience working with thermoforming, and we knew ThermoFab was the right partner for this project. We felt confident in their capabilities and knew they would deliver quality parts in the timeframe Spectro was looking for."

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