

AMSOIL Lab Ensures Ma

Since its inception in 1972, AMSOIL INC. has followed one guiding principle: manufacture products that “exceed customer expectations.”

AMSOIL products are tested against the most rigorous standards of the American Society for Testing and Materials (ASTM) International, one of the largest voluntary standards development organizations in the world for technical standards for materials, products, systems and services. ASTM standards are the benchmark for motor oil and lubricant companies.

AMSOIL quality standards make the AMSOIL laboratory critical to the company. The lab moved to the AMSOIL Center in January 2008, where it was expanded to 3,100 square feet, an increase of about 35 percent over its original location in the old AMSOIL Distribution Center.

“The lab was relocated into a well-laid-out space that increases the efficiency of our monitoring AMSOIL materials from delivery by rail and truck to finished products,” said Vice President of Operations Scott Davis. “It’s an impressive laboratory. When vendors and customers see it, it’s a ‘wow’ factor; when we see it, it’s a confidence factor. The layout and design improve processing and efficiency.”

Chemists Use ASTM Standard Test Methods

“We follow the testing protocol as it is written for each ASTM standard test method,” said Dave Leitten, laboratory director. Test methods prescribed in ASTM standards manuals are used internationally to evaluate the properties of lubricants, oils, fuels and solvents. That means, “other testing laboratories follow the exact same procedures when they run ASTM Standard Test Methods,” Leitten said.

Quality Control Measures

Raw materials arriving at the AMSOIL Center in Superior, Wis. are tested prior to acceptance of the delivery to ensure they meet AMSOIL quality parameters. Samples are taken directly from the tankers to the lab. Only after the lab reports the raw materials meet quality standards are they sent to the holding tanks, from which they are then blended and bottled.

“We calibrate our equipment on a regular basis to ensure our test results are accurate,” Leitten said. “In terms of product quality control, we test our products in three stages. Stage one involves testing all of the raw materials that go into our products.

“Stage two involves testing of the finished blends. Stage three involves testing a production line sample



QUALITY CONTROL — Matthew Johnson, lab technician, tests product materials for quality in the AMSOIL lab.

of product going into bottles, pails, drums and totes. We use the same ASTM test methods used in competitive product testing in our day-to-day laboratory quality control testing.”

In stages one and two, raw materials and finished blends are tested against the specifications provided by each material manufacturer. They also must meet specific AMSOIL product specifications for finished goods. “The specifications for our finished goods are based on industry specifications,” Leitten said. “We tend to tighten up the finished goods specification ranges so that the variability of the products we manufacture is minimal.”

Those specifications usually have an acceptable minimum and maximum range for various attributes. “As an example, a base oil could have an acceptable range for kinematic viscosity at 100° C of 5 centistokes (cSt) (minimum) to 5.4 cSt (maximum),” Leitten said. “We would test this material using ASTM D-445 Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids and compare our tested value with the acceptable range and accept or reject the material or blend based on the results.” Kinematic viscosity is the measure of a fluid’s resistance to flow under gravity at a specific temperature.

Innovative, Superior Products

“We strive to bring innovative products of the highest quality to our customers,” Leitten said. “Our corporate policy is to provide products with exceptional performance that exceed customer expectations. We continually test competitor products to benchmark our performance versus other players in the lubricant indus-

Maximum Quality Control

try. This testing is expensive and very time-consuming, but it is vital to ensuring our products are the very best our industry has to offer."

Published Results Prove Product Quality

"We often publish the results of our competitor testing as proof of our product quality," Leitten said. "Formulating is a balancing act. Changing the attributes of a product in one area may negatively affect the properties in another. As an example, adding corrosion inhibitors to a lubricant may detract from its wear performance. The key to creating superior products is to balance all the performance areas to create a well-rounded lubricant. Our products are near the top in all critical areas of performance and, more often than not, they're at the very top."



AMSOIL LAB — The photos on this page provide a view of the AMSOIL laboratory where all of the materials and products distributed to the AMSOIL network are tested and approved.