

CASTROL METALWORKING FLUID BENEFITS FINANCIAL AND PHYSICAL HEALTH AT ASTLEY PRECISION



How Castrol Alusol AU 70 helps Astley Precision Machine Co., Inc. meet the challenges of delivering high quality machining and maintaining an immaculate workshop.

astley | precision
machine co.

Supplying products and services to highly demanding industries requires a commitment to quality that is second to none. When the items produced are destined to be used in hospitals, science labs and other high tech industries, the pressure to deliver high quality, precision engineering is paramount, as is securing the welfare of employees.

This is the challenge that Astley Precision Machine Co., Inc. has risen to successfully for over thirty years. The Pittsburgh, PA based company manufactures components and assemblies primarily for medical, scientific and research industries. It is renowned for producing high quality parts and is trusted by its customers to manufacture their most complicated designs.

STATE-OF-THE-ART EQUIPMENT AND MATERIALS

In order to meet the standards that customers demand, Astley Precision has invested heavily in state-of-the-art facilities. Business sectors include cutting-edge technologies such as mass spectrometry and electron microscopy apparatus. The company pays just as much attention to the materials it uses in its processes. Among its specialist operations are precision milling and turning, surface and form grinding for a range of materials including MACOR, PEEK, ULTEM, Vespel, nickel and platinum. The company's decision to use the soluble cutting coolant, Castrol Alusol AU 70, as a core metal working fluid, reflects its forward thinking approach to using high quality materials to deliver excellent results.

Operations Manager, Tony Desimone, explains, "Our meticulous approach to high-end engineering means that we not only use the latest metal working technology, we ensure that today we use the best fluids to meet our cutting and lubricating demands."

EXISTING LUBRICANTS DIDN'T MEET HIGH STANDARDS

The cleanliness of the workshop is a particular concern, especially as Astley Precision's output is widely used within medical and scientific industries. For Desimone this is every bit as important as the precision machining they offer, "Our manufacturing operations have to be conducted in a spotlessly clean environment," he explains. "This was proving difficult with the lubricant technology we had been using."

Astley Precision had traditionally been using mineral neat oil lubricants in its machining processes. These were far from ideal as they compromised both performance and cleanliness – key criteria for the company's business. The oxidising nature of the mineral-based lubricants created a build-up of residue which caused machinery to stick and become unproductive during frequent, unscheduled maintenance. In addition the oils caused misting during the cutting processes. The droplets being released into the air resulted in a number of respiratory and dermatological problems for machine operators.

HIGHLIGHTS:

Castrol Alusol AU 70 has helped Astley Precision Machine Co. to:

- Observe up to 20% increase in machine performance*
- Double tool life*
- Increase machine speeds and feed and still deliver excellent surface finish*
- Improve the workshop environment*

* Compared with mineral based oils previously used



Our decision to use Castrol Alusol AU 70 in our machining processes has certainly paid off. It is the most superior cutting fluid we have ever used and it delivers tangible benefits to our business.

Jeff Astley, Company President



IT'S MORE THAN JUST OIL. IT'S LIQUID ENGINEERING.

