



High-Speed Machining and High-Quality Metalworking Fluids ... The Perfect Pair

January 25, 2010

Metalworking fluid performance directly impacts Aluminum high-speed machining

CONSHOHOCKEN, Pa., Jan 25, 2010 /PRNewswire via COMTEX/ -- Metalworking fluid manufacturers are watching as the high-speed machining (HSM) trend continues to grow in the Aluminum engine and transmission industry. As competition increases, engine and transmission manufacturers continue to turn to HSM for its gains in productivity, improvement in the machining operation, and quality of the part produced. However, a question still remains if machining performance at these high speeds is influenced by the quality of the metalworking fluid used. Quaker Chemical, a global leader in process chemicals, recently conducted research to determine the answer ... which is YES.

Extensive testing showed that tool wear and finish are significantly influenced by the metalworking fluid used. Using different quality fluids, Quaker's research scientists observed Aluminum machining at 18,000 RPMs and then measured the finish and tool flank wear. "Our tests showed there is a direct link between the quality of the metalworking fluids used and tool wear. As HSM continues to grow in the Aluminum engines and transmission market, performance properties of fluids will play an important role," comments Dr. Robert Evans of Quaker's global Metalworking Research Laboratory.

To meet the high-speed needs of this market, Quaker offers the QUAKERAL(R) 300 series of fluids for Aluminum machining. These high-performance, emulsifiable metalworking fluids are designed for heavy-duty machining and grinding operations requiring a high degree of lubricity, cleanliness, cooling, and corrosion protection. They are recommended for critical surface finish machining of cast and wrought aluminum alloys, as well as more difficult machining, grinding, and honing operations on cast iron and steel alloys.

To share more detailed findings of this important machining performance study, Quaker's Dr. Evans will speak at the Association for Manufacturing Technology's IMTS conference in September 2010. For more information on Quaker Chemical, please visit www.quakerchem.com.

Quaker Chemical Corporation (NYSE: KWR) is a leading global provider of process chemicals, chemical specialties, services, and technical expertise to a wide range of industries -- including steel, automotive, tube and pipe, coatings and construction materials. Quaker's products and chemical management services enhance their customers' processes, improve their product quality, and lower their costs. Quaker's headquarters is located in Conshohocken, Pennsylvania.

SOURCE Quaker Chemical Corporation