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SEMI-SYNTHETICS – COST-EFFECTIVE PERFORMANCE ON DIFFICULT MATERIALS

As they combine the cooling and lubricity benefits of synthetic metalworking fluids with the better residue characteristics of emulsions, Master Chemical semi-synthetics are proving a popular choice, particularly for more difficult-to-machine materials.

Recent additions to this family of products were developed in the Master Chemical laboratory in the UK specifically for the European market. Their unique formulation ensures low levels of foam not generally seen with other fluids of this type.

TRIM® SC617 additionally contains a traditional extreme pressure (EP) additive that boosts cutting performance and is therefore highly effective on stainless steel and other hard steels. Its low foam profile also enables its use in through tool machining applications.

Indeed, foaming issues were the reason why a general subcontractor in Littlehampton trialled the product. Although the performance of the incumbent product was not a concern, the company had to supplement it with anti-foam; an extra process and an additional cost.

The main problem was in a Daewoo machining centre but it was completely rectified by TRIM® SC617. Foam was minimised without any loss of performance on hard materials. As a result the company is saving costs as anti-foam is no longer needed and it is in the process of converting all its machines to this semi-synthetic.

Another manufacturer involved in the manufacture of injection moulds for the plastic closures industry also saved costs and improved the working environment by changing to TRIM® SC617. It reported poor sump life with the product it was then using in its turning centres, milling and grinding machines.

The metalworking fluid was giving off a bad odour after just two months of use, prompting the company to recharge the machines with fresh product prematurely at significant additional cost.



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Following a site visit to an established TRIM® SC617 customer, the subcontractor agreed to trial the product in a lathe and a surface grinder. Not only did it perform well on the steels and aluminium predominantly used by the Devon-based subcontractor it also extended the sump life way beyond the existing maximum of twelve weeks.

TRIM® SC617 was also reported to run cleaner than the existing fluid and deemed suitable for use on all machining and grinding applications. As a result the company has not only significantly reduced the frequency of fluid renewal, it has also been able to standardise on one product for the entire shop.

Price and back-up were the driving forces behind a Bedfordshire based manufacturer's change to another Master Chemical semi-synthetic. It produces work holding fixtures for CNC milling machines and agreed to a trial of TRIM® SC516 on a Bridgeport machining centre to evaluate its performance.

TRIM® SC516 has been specifically formulated for machining and grinding cast iron, steel and aluminium, this company's principal materials of manufacture. Its clean running formulation prevents the loading of grinding wheels, ensuring good surface finish and minimal burning.

The product performed well during the test on all operations and materials and as a result the company has reduced its costs, acquired Master Chemical's ongoing support and reduced its product inventory from two metalworking fluids to one.

-ENDS-

About Master Chemical Corporation: Master Chemical Corporation was founded on November 13, 1951. Since then, working closely with the worldwide metalworking community, Master Chemical Corporation has developed and marketed a full line of specialty cutting and grinding fluids, cutting oils, concentrated washing and cleaning compounds, and rust preventives all under the TRIM® brand trademark. These products are both environmentally sound and when used in conjunction with Master Chemical's XYBEX® Coolant Recycling and Filtration Systems, are the most durable and stable products available anywhere today. Master Chemical has always been committed to the safety of the people who use our products, the protection of our planet, the environment we live in, and the overall impact on our customers' profitability. Master Chemical serves customers globally. For further information please contact a local distributor near you <http://www.2trim.us/distributors.php>, call us at (44) + (0) 1449 726800, or visit our web site at www.masterchemical.com

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