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UK DEVELOPED COOLANT INCREASES SUMP LIFE IN RUSSIA

Lost production time and high metalworking fluid replacement costs were the price a Russian manufacturer was paying for the unacceptable short sump life of its existing product. However by changing to TRIM® SC412, a semi-synthetic cutting and grinding fluid developed in the UK by Master Chemical Europe, the company has significantly improved its cost-efficiency.

The Electroshield Group, based in Samara, is a leading manufacturer serving both the electrical engineering and construction markets. Its products range from switchgear to profile flooring and fascia panelling. Innovation in electrical design is one of the company's key strengths. Indeed more than 75% of its total output involves new products in this field.

The metalworking process that was proving uneconomic for Electroshield was in the manufacture of transformer substations and their related components. A VF2 HAAS milling machine is used to produce parts from low carbon steel but both the quality of the process and its cost efficiency were being compromised.

The cause of the problem was domestically-supplied metalworking fluid that needed to be renewed every month. Annual consumption of this fluid was in excess of 3,000 litres.

Yury Reshmin, Master Chemical Europe's District Manager for Russia, recommended Electroshield should conduct a trial using TRIM® SC412. This is a fluid that Master Chemical Europe formulated specifically for cost effective, high quality cast iron and steel machining. It provides excellent rust protection and eliminates the build-up of graphite residue so a clean production environment is assured.

This is a versatile fluid that can be used for turning, drilling and tapping as well as milling and grinding. It is also extremely hard water tolerant, an important issue for Electroshield as water hardness in the Volga Region can be up to 380ppm.

For the trial, the 155 litre machine tank was filled with TRIM® SC412 at 11% concentration and run for three months, during which time Yury Reshmin visited the factory six times to monitor the operation and give further advice.

He confirmed: "At the end of the trial our TRIM® fluid was performing as well as it did at the start, even though the concentration had been reduced to 5.8%. The company is now running it at 0.76% and the performance is still the same."

As only 7.6 litres of the concentrate had been used during the entire trial period, TRIM® SC412 proved to be highly economical right from the start. For Electroshield, it provided the attractive combination of low consumption and a long sump life.

The biostability of the product was proven, holding firm at 9.5 pH throughout the trial. Corrosion protection and machine cleanliness were both good and importantly, operator acceptance was high. In common with all metalworking fluids from Master Chemical Europe, TRIM® SC412 is kind to both operators and the environment. It contains no DEA, chlorine, nitrites or phenolic compounds.

On the strength of its performance Electroshield has now switched to TRIM® SC412 for low carbon steel machining.

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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 website at www.masterchemical.com

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