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MASTER CHEMICAL METALWORKING FLUIDS FOR AEROSPACE

The long standing popularity of Master Chemical's cutting, grinding and cleaning fluids in the global aerospace industry is celebrated in a new publication that introduces the reader to some of its most successful products. The four page brochure highlights four aerospace metalworking fluids from the company's comprehensive TRIM® range. Application examples complete the picture and confirm the features and benefits that have overcome production issues common in this sector.

Unparalleled lubricity

Heading the list of the Master Chemical code-compliant, manufacturer approved fluids featured in this brochure is TRIM® E950, a product that is compatible with all aerospace materials. It blends Master Chemical's new vegetable based technology and premium lubricity additives to give a very high performance, low management fluid. Exceptional surface finish and tool life on difficult to machine aluminium alloys, inconel, titanium and high strength steels, are characteristic of this product.

A manufacturer of aerospace structural parts tested TRIM® E950 against seven competitive products, including one advertised as 'the best available soluble oil for aerospace'. The results were striking, with TRIM® E950 improving tool life between 10% and 100% when used for titanium milling. With approval to Rolls Royce specifications CSS129 and CSS131, this Master Chemical fluid is widely used by aerospace OEMs and subcontractors.

High fluid pressures

The merits of TRIM® C272 used for viper grinding in the production of aerospace turbine blades are also covered in this new brochure. For one manufacturer, the problem of poor coolant filtration had caused an existing coolant product to foam and burning issues on parts. The 10 micron filter cartridge was being changed every day until it was removed altogether. This led to other production problems including dirty coolant being offered to the parts and tools.

By switching to the synthetic TRIM® C272, the cartridge could be re-introduced and filter life extended from one per day to one every three months. Coolant foaming disappeared, grinding wheel life increased and part burning eliminated; sump life was reported to be in excess of two years.

This is just one example of how this product is used in this sector. An excellent choice for nickel alloys and steel machining and grinding, it has a proven, stable, synthetic formula that is designed to operate at very high fluid pressures and volume with little or no foam. Its credentials include Rolls Royce CSS130 and Snecma approvals.



Master Chemical Europe Limited, Maitland Road, Lion Barn Business Park, Needham Market, Ipswich, Suffolk IP6 8NZ ☎ 01449 726800 📠 01449 721719 e mail: info@masterchemical.co.uk
Company registered in England 2509745 www.masterchemical.com

Exceptional for aerospace alloys

Whilst it is particularly well suited for machining and grinding mixed metals, TRIM® Microsol® 585 XT has proven to be an exceptional coolant for titanium alloy machining. Indeed for one customer it eliminated a host of problems experienced with alternative fluids. These included bad smells, excessive carry off, smoking and seal damage.

Approved by Airbus, Boeing, Pratt & Whitney (United Technologies), Bombardier and Safran, TRIM® Microsol® 585 XT is a high lubrication, semi-synthetic micro emulsion coolant. It provides excellent coolant and mechanical lubricity. Fast wetting gets the fluid to the point-of-cut quickly and ensures work piece and chips are thoroughly coated for superior corrosion protection.

Quality all-rounder

Completing the featured products in this new Master Chemical brochure is TRIM® E715, another high quality and stable formula that provides long operational life and consistent performance. It has broad application scope in machining and grinding on a wide range of materials. High levels of both chemical and mechanical lubricity in this product enable it to handle medium to heavy duty machining and grinding.

TRIM® E715 is an extremely fine solution oil emulsion which reduces carry off for low total operating cost. It is chlorine- and formaldehyde donor biocide free and particularly well suited to machining aerospace aluminium alloys, a quality borne out by one manufacturer who was experiencing heavy residues on machines and short sump life with a competitive product.

TRIM® E715 was installed and sump life increased beyond a year between cleanouts. Machine cleanliness and operator working conditions improved dramatically. Indeed the change resulted in downtime savings of 24 hours per machine per year.

Simply entitled Master Chemical for Aerospace Industry, the new four page brochure can be downloaded as a pdf from www.masterchemical.com. Naturally the site also provides access to in-depth information on the complete range of TRIM® products for the aerospace sector including those highlighted in this publication.

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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

For press enquiries and additional images please contact **NEW RIVER**
Tel: 01920 468443 Email: info@newriver.co.uk www.newriver.co.uk



Master Chemical Europe Limited, Maitland Road, Lion Barn Business Park, Needham Market, Ipswich, Suffolk IP6 8NZ ☎ 01449 726800 📠 01449 721719 e mail: info@masterchemical.co.uk
Company registered in England 2509745 www.masterchemical.com