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TOTAL METALWORKING FLUID PACKAGE REDUCES COST OF MANUFACTURING

Improving production efficiency isn't just about investing in the latest machining technology. Important cost savings can be found by making relatively minor changes such as adopting a more cost effective coolant regime. A British manufacturer of aircraft parts is a good case in point. A price increase imposed by incumbent fluid suppliers prompted the company to explore the market. This move resulted in the adoption of Master Chemical Europe fluids, a move that has streamlined methods with the added bonus of a longer sump life.

The success this company enjoys in the aerospace sector is based on high quality products and service. So it was clear from the start that any alternative metalworking fluids could not be allowed to compromise these all-important factors. The existing fluids were doing a quality job but their supply involved multiple vendors and the manufacturer recognised that this was unwieldy both from an inventory and management point of view.

The UK-headquartered, developer and supplier of metalworking fluids, Master Chemical Europe, was recommended by one of the company's high profile aerospace customers. Indeed, Master Chemical across the globe is a preferred supplier in this sector. This introduction led to Master Chemical's TRIM® E708 being trialled on Dugard machines at the company's Midlands site. Dugard itself recommends Master Chemical coolants so this was a good starting point from which to explore the product's suitability.

TRIM® E708 is a high quality, universal soluble oil which requires minimal maintenance even in the most demanding fluid management systems. It has broad application scope in machining and grinding on a wide range of materials. The stable and predictable performance of this product makes it a popular choice for high quality, consistent parts manufacture and it will run effectively for long periods without the need for costly additives.

The performance criteria for the TRIM® E708 test were good corrosion protection for both the machine and parts, good tool life and compatibility with several materials. Typical products manufactured by this aerospace company are kits of parts for landing gear and oxygen delivery using materials such as aluminium, inconels, steels, titanium and alu-bronze. Also specified was low odour for greater operator acceptance.

As expected, TRIM® E708 passed the initial test with flying colours and the next step was to explore Master Chemical's ability to provide a complete fluid package to meet the company's overall needs. Having identified and qualified TRIM® E708 as the ideal replacement for general machining applications, TRIM® C115 was recommended for dedicated grinding. This is a high performance synthetic fluid, primarily for cast iron and mild steels. State-of-the-art chemical technology provides excellent coolant and chip setting, good tramp oil rejection and machine cleanliness while leaving a protective film on the machine tool.

In addition, TRIM® OG223 - a medium to heavy duty neat oil - was proposed for selected turning applications. It is particularly good in high pressure applications where low oil mist is advantageous. In common with all the products selected for this total package TRIM® OG223 conforms to the latest Chip 3 and aerospace regulations and therefore contains no chlorine or active sulphur additives.

The final fluid chosen was TRIM® RPO 6 rust preventative oil, a non-staining, water displacing thin film that can be used on a variety of materials, providing excellent protection for precision parts during the production process and in transit.

Completing the package was Master Chemical's commitment to monthly site visits to carry out coolant condition checks, report findings and make any recommendations for improvement. What was proposed was a complete production partnership underpinned by Master Chemical's technical support. And this part of the agreement proved central to Master Chemical securing the business.

The company's base at Needham Market in Suffolk houses sophisticated laboratories and testing facilities and a team of research chemists whose role is to develop and continuously improve fluid formulations specifically for the needs of the European manufacturer. So this gave the British aerospace manufacturer instant access to experts who are able to re-formulate fluids in line with changing production needs.

Following the changeover, the aerospace manufacturer has confirmed that the Master Chemical products certainly meet the performance standards it requires in terms of tool life and surface finish. The unexpected bonus is a significant improvement in sump life and this is complemented by the simplification of fluid supply and management, a factor that continues to save time and costs.

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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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