



**Press information**

**MULTAN turns 30**

## **Henkel Technologies: Pioneers in Developing Cutting Fluids**

**Henkel began developing cutting fluids for the metal processing industries in the early 70s. Marketed as the MULTAN line of products, Henkel cutting fluids have since then repeatedly set industry-wide standards for technical performance, safe working, environmental safety and economy in coolant applications. Today, MULTAN performance figures for aluminum processing have once again created a flutter in the industry.**

Düsseldorf – Metal products go through several processing steps during production, from shaping to surface finishing. In between, they are subjected to various cutting operations such as drilling, turning, milling, sawing and grinding – processes which have been improved significantly in recent decades. Modern machine tools allow for increasingly higher speeds and at the same time, increasingly sophisticated processing, both of which translate into enhanced productivity and quality for the industries. One essential component in the processing chain are cutting fluids which are mixed with water and continuously made to flow past the metal piece being processed, thus rinsing away metal chips and shavings. cutting fluids also absorb the heat which is generated by friction between the tool and the work-piece and form a lubricating, protective layer. This layer helps to obtain a smooth surface finish and reduces wear and tear of the tool. The overall equation should be apparent: the higher the machine performance and quality requirements, the higher the demands on cutting fluids as well.

### **Backed by scientific know-how from Henkel**

When Henkel decided to add cutting fluids to their product palette in 1970, the company had already established a very successful presence in the metal industry for several decades for their cleaning agents and other surface treatment compounds. The idea was to utilize and transfer existing know-how from other processing stages in order to be able to offer customers a matched set of products. The compatibility of cutting fluids with downstream processes is an argument which is more relevant today than ever before because production processes have become more complex on the whole and need to be correspondingly fine-tuned. When Henkel launched the first batch of MULTAN cutting fluids on the markets in 1973, the product line was backed by solid scientific research. Engineers, chemists, microbiologists and toxicologists were involved in product development and they succeeded at first go in developing a premium grade product line with respect to performance, hygienic working and environmental requirements. The biggest problem plaguing the cutting fluids in those days was the shelf life: the coolants decomposed rapidly due to bacteria and certain fungi which broke down some components of the fluid. As a result, not only was the emulsion unusable, the decomposition also threw up problems of odor and workplace hygiene. The research team at Henkel succeeded subsequently in stabilizing the cooling lubricant against bacteria and fungi – an early, unique quality plus for MULTAN.

### **Higher returns for customers**

Since then, Henkel have been consistently successful in enhancing the stability of cutting fluids again and again. For instance, the current MULTAN 97-10 D cutting fluids feature shelf lives of two and more years. A state-of-the-art product, the cooling lubricant offers excellent metal removing capacity, lower wear and tear on tools, optimum workplace hygiene, lower waste water overheads and low consumption. Machines, tools and work-pieces stay cleaner for longer periods compared to conventional cutting fluids. For customers, these benefits translate into higher productivity and returns across all process stages. Developed mainly for light alloys and metals, MULTAN 97-10 D is also universally applicable in machining applications for steel and castings.

Customer reports indicate top-notch results for instance from aluminum wheel machining applications for the automobile industry where tool lifetimes had been extended by 20 percent. Coolant consumption in contrast, had been reduced by 20 percent.

### **System technology for the global market**

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