



## Press release

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### Henkel Multan F AFS: improved forming lubricants for air-conditioner manufacturers

## High lubricity, low consumption

Henkel's industrial division is a major supplier to the international air-conditioning industry. Up to now the main focus of the product portfolio has been on pre-treatment products and cleaners as well as adhesives and sealants for the manufacture of the casings. Now the product range has been extended to include a range of the special lubricants required in large quantities in the manufacture of heat exchangers. Users benefit not only from enhanced performance and lower consumption, but also from improved health and safety aspects.

Düsseldorf – Under the name Multan F ASF, Henkel is offering a new series of rapidly evaporating forming lubricants that are particularly well suited to the processing of aluminium sheet metal in the manufacture of air-conditioning equipment. The fins and frame of the air-conditioner heat exchangers are stamped and formed from aluminium sheets. Before entering the press, the aluminium sheet is dipped to moisten the surface with a film of forming oil to decrease friction and tool wear. The forming oils evaporate after processing and should leave as little residue on the parts as possible. Hence the technical properties of the lubricant that is used have a considerable effect on the quality of the components and the efficiency of the processes involved.



### **Suitable for the whole heat-exchanger manufacturing process**

Henkel has succeeded in developing a formula that offers high lubricity and low consumption. The products in the Multan F AFS range are hydrocarbons with a very low aromatic content and narrow boiling range, their particular characteristic being accelerated evaporation. Even though they can be applied to the sheet metal very sparingly, they nevertheless surpass the performance of conventional forming lubricants. This also extends tool service lives. A further advantage is that the Multan lubricants are suited to the processing of copper piping, which is likewise required in the manufacture of heat exchangers. Thus forming processes such as hair-pin bending and tube widening can be carried out with the same lubricant, meaning that manufacturers only need to use a single product. Beyond that, the cleanness of the manufactured parts is also remarkable. After the oil has evaporated, all that remains is a scarcely visible film on the surface of the component. There is no need for subsequent cleaning and the piping can be brazed immediately. The compatibility of the lubricants with all customary refrigerant gases is also guaranteed, and the relevant requirements of the ASHRAE Standard 97 are fulfilled.

### **Improving the climate in climate-control manufacture**

The Multan F AFS product range also represents a significant improvement in terms of industrial health and safety. The forming and stamping lubricants are virtually odour-neutral and demonstrate an excellent skin compatibility. This is confirmed by SKM, the leading air-conditioning equipment manufacturer, who has used the products for over a year on all heat-exchanger manufacturing machines at its plant in Sharjah, UAE. The poor lubricity and strong odours of the lubricants used previously had forced the company to look for a new product. The acceptance of the Multan lubricants by operating personnel is excellent, as there have since been no more unpleasant odours or cases of skin irritation. The superior cost-effectiveness of the Multan lubricants is also confirmed by SKM, who has reported a 25 percent drop in lubricant consumption at the Sharja plant and an extended tool life.

### **Systems partner for the air-conditioner manufacturing industry**

Henkel is a global market leader in state-of-the-art surface technologies for the metalworking industries. With the development of new kinds of forming and stamping lubricants, the company underscores its expertise as a systems supplier to the air-conditioning industry. By developing specific operating-fluid concepts, Henkel makes

a significant contribution to the improvement of production processes, which in turn boosts its customers' competitiveness. The Multan F AFS range comprises four different product variants for processing different thicknesses of material.

For more than 130 years, Henkel has been a leader with brands and technologies that make people's lives easier, better and more beautiful. Henkel operates in three business areas – Home Care, Personal Care, and Adhesives Technologies – and ranks among the Fortune Global 500 companies. In fiscal 2006, Henkel generated sales of 12.740 billion euros and operating profit of 1,298 million euros. Our 52,000 employees worldwide are dedicated to fulfilling our corporate claim, "A Brand like a Friend," and ensuring that people in more than 125 countries can trust in brands and technologies from Henkel.

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