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Number 28

MARKETING MATTERS

Economic Rebound Boosts German Metalworking Fluids

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The German metalworking market is one of the few in the world expected to recover to pre-recession levels this year. Like most industrialized nations, it did not go unscathed by the international economic crisis of 2008 and 2009. However, the German economy proved itself to be particularly resilient to the turbulence, bouncing back strongly in 2010 and almost reaching pre-crisis levels.

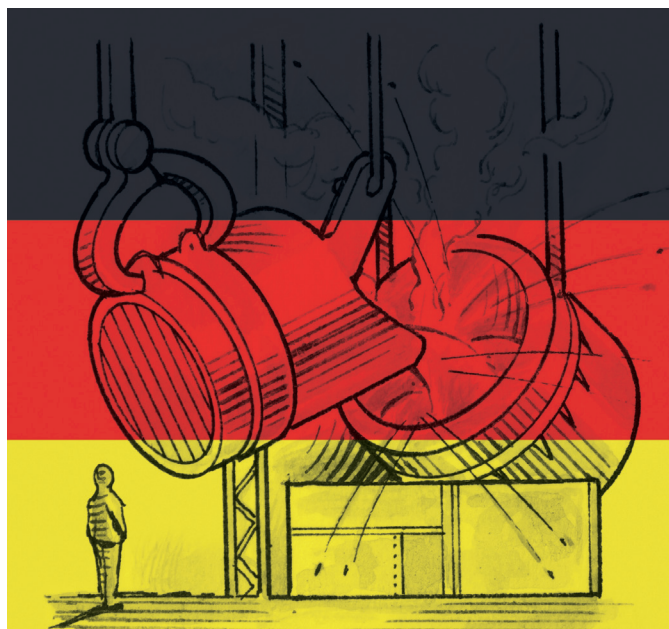
According to Kline's latest study, "Metalworking Fluids 2010 Global Series: Market Analysis and Opportunities," metalworking fluid demand in Germany is forecast to grow at an annual rate of 0.5 percent

annually over the next 5 years, rising to 123,000 metric tons in 2016. Factors that will aid this growth include enhanced domestic demand on account of improved consumer sentiment, as well as increased international orders in industries such as primary ferrous products manufacturing, vehicle manufacturing and manufacturing of machinery and machine tools.

France and the United States, which have been major export destinations for German products, also saw their economies bounce back strongly in 2010 and 2011. The geographic location of Germany makes it a favorable hub for Europe's automotive, steel and machinery and equipment industries. The growth rate for industrial production in Germany in 2010 was estimated at 9 percent.

As a result, metalworking fluid demand increased 41 percent during the year, reaching 120,000 tons compared to 85,000 tons in 2009. Removal fluids constituted 59 percent of the total consumption, followed by forming fluids at 28 percent in 2010. Germany's total metalworking fluid consumption dropped 10 percent in 2008 and another 35 percent in 2009.

The automotive industry is the largest industrial sector in Germany, accounting for about 20 percent of the country's industrial revenue. Automobile production witnessed a strong 13.4 percent increase in 2010, and this trend continued in the first half of 2011. Germany is the fourth largest vehicle manufacturer globally after China, Japan and the United States. Within the premium segment, German automakers are clearly market leaders. Demand for German branded vehicles is projected to grow at an average of 1.4 percent annually through 2020. A sizeable amount of the incremental vehicle production volume will be manufactured within



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Metalworking fluid demand in Germany rose 41 percent in 2010 as the country's economy rebounded from the recession.

Germany, leading to an increase in the consumption of soluble removal and forming fluids.

As in the case of the automotive industry, steel production in Germany increased 34 percent in 2010 and 2.3 percent during the first half of 2011, leading to an increase in metalworking fluid consumption in this industry during the period. Germany is by far the largest steel producer in Europe, accounting for over 20 percent of the total production in the region. The largest consumer of steel produced in Germany is the country's automotive industry. It is estimated that steel production will increase at 3 percent to 4 percent annually through 2015. This will subsequently lead to an increase in demand for rolling oils and straight protecting fluids.

The German machinery and machine tool manufacturing industry is the largest and strongest within Europe. The industry grew 7.5 percent in 2010 and is forecast to grow 14 percent in 2011. Germany is the world leader in machinery exports, accounting for approximately 19 percent

of the global total. The key future market for machinery equipment is the renewable energy industry. With wind energy and bio energy industries in Germany poised for double digit growth by 2020, demand for machinery and equipment from these sectors is also set to rise, consequently leading to growth in consumption of semi-synthetic removal fluids and straight treating oils.

There is an increased focus in Germany on the concept of dry machining, a method that has many drawbacks and does not pose a threat to conventional lubricating methods. This technology is expected to grow slowly with new machine launches due to the high incidental costs associated with its adoption. Another trend that is expected to gain momentum in the years to come is the increasing attention by the metal processing industry on performance, precision, and efficiency. This will in turn lead to an increase in preference for high-speed cutting oils and high-speed grinding oils.

The composition of metalworking fluids in Germany will continue to be affected by environmental and health issues. Kline's

study found that a sizeable number of metalworking fluid suppliers are discontinuing some product lines due to REACH regulations. This is especially true for smaller suppliers that feel that the cost of registering low-volume products with REACH is a major deterrent. The marking and labeling of water-miscible coolants that contain boric acid has become an important issue in the last few years. REACH has required all water-miscible cooling lubricants with more than 5.5 percent boric acid have to be labeled since 1 December 2010, onwards.

Other notable trends include a slower increase in consumption on account of longer life water-based fluids and the increased penetration of mineral oil-free products on account of higher costs associated with the latter. There is also a trend towards increasing the consumption of boron-free products.

The metalworking fluids market is forecast to fully recover in 2011 as a result of further strengthening of the German economy. However, not all categories will grow at the same rate. □



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