

Material Impacts The Precision Machining Industry 2007

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Major appliance manufacturer Whirlpool recently told investors that the company expected its business to be impacted by about \$400 million in 2007 by the increased costs of materials needed to make its products. While the impacts of raw material price increases may not be in the hundreds of millions of dollars for our shops, the fact remains that raw materials continue to make a substantial impact on our business.

Nickel. Nickel is the current poster boy for still-escalating record prices. The price of nickel that we track increased 127 percent from January 2006 to January 2007. Nickel affects our businesses because it is a major component of stainless steels and many of the superalloy components that we produce for industry.

The global balance between nickel supply and demand is extremely tight, with supplies of the metal for trading said to be at levels of less than a week's usage. At the time of this writing, a nickel is worth about 7 cents, and the United States Treasury has forbidden export of U.S. coinage.

How these high nickel prices impact our machining businesses:

- 1) Short supply of nickel-bearing materials.
- 2) High cost of nickel-bearing materials because of high demand.
- 3) High surcharges directly attributable to the nickel content.

Nickel surcharges are backward-looking, in that the surcharge today is designed to recover the higher prices paid one, two or even three

months prior. This lag means that the nickel surcharge will continue to rise for several months after nickel finally tops out. No relief is seen on the horizon, as it takes years to engineer and develop new mines and processing plants.

Copper and brass. Copper and brass have recently declined in price, resulting in a January 2006 to January 2007 change of 15 to 20 percent. However, these materials have been above \$2 per pound for more than a year. China is the primary driver of the red metal; it is 16 percent of the global market for copper and is the biggest consumer in the world.

Aluminum. While aluminum prices above \$1 a pound may not seem like much of a bargain to those of us who remember its 65-cent cost in 2005, the fact is that aluminum has neither been as volatile nor as persistent an increase as other metallic raw materials.

Aluminum started in 2007 at 11.26 percent above the January 2006 price. The metal's lower volatility, similar engineering properties and lower weight per pound have made it a favored material once again for automotive engineers looking to lighten weight, reduce mass and decrease energy usage. Nobody likes to build a business plan on volatility, and aluminum seems to be the low-volatility material for pricing in the current market.

Steel. Steel prices have actually declined 7 percent January to January. However, with all of the surcharges that are tacked on to steel, nobody enjoys writing

checks to their suppliers.

Surcharges abound for scrap, raw materials, manganese, alloys and fuel. Earnings (and cash flow) are not going unnoticed, and the industry continues to consolidate. Watching steel service center inventory levels seems to have risen to spectator sport status as these levels indicate where the market is currently and where it is going.

The precision machining industry converts raw materials into precision-engineered components using energy through the application of advanced machining and tooling technology. We all know that the technology continues to improve. Plus, the prices for our raw materials and the energy we use to machine them continue to rise. Stay connected to these trends by monitoring the PMPA's Materials Impacts Reports on the PMPA Web site at www.pmpa.org. That way, you will have a strategic background and a factual basis for understanding these \$400 million impacts.

