

Of Mutual Interest

May 2007

Solutions for Our Service Center Marketing Partners from Outokumpu

OUTOKUMPU

Despite Nickel Trouble, Stainless Market Growing

With the price of nickel at an all-time high and its availability so pressured that there is even talk of nickel rationing by 2008, why is there cause for optimism in the stainless steel market? “The

demand for stainless steel remains very high, and there are alloy alternatives available, particularly duplex grades,” reported Mike Stateczny, Outokumpu Senior Vice President for Plate Products.

Indeed, the global market for stainless steel is estimated to have increased by 15% in 2006 and continues

to grow. “The demand for hot rolled plate, for example, has reached levels we haven’t seen in many years,” Stateczny added.

There seems to be no near-term remedy for the short supply of nickel. “New mines take about four years to open and although Outokumpu has taken a stake in a new Finnish mine and other projects are ongoing in Australia, Siberia and Canada, bringing more nickel to the market is still a while off,”

observed Elisabeth Torsner, Outokumpu Vice President Market Development/Technical Coordinator. As a result, service centers are purchasing stainless steel cautiously. “Distributors are ordering just what they need right now. They don’t want to be sitting on a lot of nickel in case the price goes down, which would cause an inventory loss,” Torsner noted. In response, Outokumpu and other stainless producers are reducing capacity in the second quarter for cold rolled 304 and 316 grades.

Old and New Industries Demand Stainless

While some producers are slowing production on certain stainless grades, the demand for stainless steel is increasing. More industries are using stainless steel in their corrosion resistant materials so that products and process equipment have a longer life with less maintenance. The increased use of duplex grade LDX 2101® for industrial storage tanks is one such example. The use of stainless steel in general construction is also booming, both for aesthetic and maintenance-cost reasons. New U.S. Environmental Protection Agency regulations on emission reductions have greatly increased the use of stainless steel in the power industry, particularly for flue gas



New regulations are driving the demand for stainless steel absorbers used in the power industry.

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Outokumpu is an international stainless steel company. Our vision is to be the undisputed number one in stainless, with success based on operational excellence. Customers in a wide range of industries use our stainless steel and services worldwide. We are dedicated to helping our customers gain competitive advantage.

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desulphurization. Duplex grades are now approved for drinking water applications, so stainless steels are becoming the focus of attention for municipal water-related infrastructures that are reaching the end of their life cycles. And new industries such as bio-fuels have corrosion concerns that lend themselves to the solutions of stainless steel. "The

ethanol industry is huge right now and growing every day. The new U.S. goal of 35 billion gallons per year by 2017 will demand a growth rate of 20% a year," Torsner indicated. "And we now have a very good product for this market in LDX 2101." ■

SSINA Connection

An excellent resource for information on stainless steel is the Web site of the Specialty Steel Industry of North America (SSINA). You can read the latest industry news and access vital data on industry trends at *SSINA Connection*, the organization's on-line newsletter. Link to the Spring 2007 *SSINA Connection* at <http://www.ssina.com/newsletter/april07.html>. ■

Process Improvements at Richburg

Continuous improvements at Outokumpu's bar facility in Richburg, South



The bar facility in Richburg is implementing the OK-1 process which is used throughout the mill.

Carolina have allowed the bar team to develop new

capabilities and markets. One of the latest improvements in Richburg is implementation of the OK-1 process, which is used to analyze problems, determine potential causes, establish new procedures, train employees, review results, and develop control systems to ensure that the improvements are maintained.

One of the process tools, called a machine board, is used to show performance of a machine or process line in question, by monitoring the results from the line and recording training activities.

"Since the addition of machine boards on three of our cells, the communication of key metrics that run our business have been easily tracked. These metrics give our employees a weekly status of performance," noted Richburg's Plant Coordinator, Frank Irons. "We are very pleased with the teamwork that has gone into the OK-1 process," added Lou Kern, Outokumpu Executive VP, Long Products. "I'm expecting significant savings for our business as a result of this work," Kern concluded. ■

Outokumpu in the News

When the employees of Outokumpu's New Castle, Indiana plate mill produced the stainless plate for the U.S. Air Force Memorial, they generated more than annealed, pickled plate and a satisfied customer. They created some good press for Outokumpu, as well. Stories on Outokumpu's role in the creation of the 270-foot-tall memorial were replayed in industry press including *Modern Metals* and *Stainless Steel World Community Journal*. Both industry publications detailed the mill's work in producing 345 tons of hot rolled plate to 1/2 commercial flatness despite its 3/4-inch thickness.



Outokumpu has been featured recently in numerous trade publications.

The memorial ranks among the world's largest stainless steel structures in terms of both height and tonnage.

Outokumpu was featured in a number of industry publication articles this past year. A four-page article in the January 2006 issue of *Modern Metals* highlighted the use of stainless steel in architecture, featuring projects using Outokumpu stainless and quoting company experts. Other recent articles featuring Outokumpu projects (and experts) included a two-page piece on stainless steel usage in bridges around the world in the September 2006 issue of *Roads and Bridges*; and a six-page story in the *Forming and Fabricating Journal* on the new OHS A standard on Hex Cr exposure which quoted Outokumpu experts throughout.

"Outokumpu is well known for technical expertise and solving customers' problems, so it's not unusual for our experts to be sought after by industry writers," explained Maureen Meeker, Outokumpu Manager of

Marketing Communications & Advertising. "Whether we are talking about the benefits of stainless steel in general, or highlighting specific Outokumpu applications, positive press about our products is good for business — ours and our service centers'." ■

Tradeshows Expand Stainless Markets

As a partner with service centers in developing new end-user applications and new markets for stainless steel, Outokumpu representatives are active participants at major industry tradeshows. Additional conferences have been added to our 2007 schedule, including:

■ **AIRPOL, June 26-28, Louisville, KY; focuses on innovative technologies in air pollution control. This year's focus will be on materials used in flue gas desulphurization (FGD) systems. Outokumpu's Claes Olsson will present a paper on the use of stainless steel in this market.**



■ **International Fuel Ethanol Workshop & Expo (FEW 2007), June 26-28, St. Louis, MO; the world's largest ethanol industry conference will have more than 500 exhibitors in attendance for this significant growth market.**

■ **AMTA American Membrane Technology Association, July 23-26, Las Vegas, NV; focuses on the understanding and application of membrane technology to create safe, affordable and reliable water**



The Outokumpu tradeshow exhibit will be seen at more events in 2007.

supplies, and to treat municipal, industrial, agricultural and waste waters for beneficial use. "Our specific interest is in desalination, and the reverse osmosis process which requires stainless grade 2507 for seawater," noted Elisabeth Torsner, Outokumpu Vice President Market Development/ Technical Coordinator. "But there is also a great interest in using stainless for upgrading U.S. municipal water supplies." ■

Will 304 Remain the Norm?

“In most technical drawings in which stainless steel is used, the material specified is still either 304 or 316 because that’s been the norm for the past 25 years,” explained

Elisabeth Torsner, Outokumpu Vice President/ Technical Coordinator. Grade 304

getting to
know our
products

remains the most versatile and most widely used stainless steel, available in a wider range of products, forms and finishes than any other, with excellent forming and welding characteristics. Grade 304 is commonly

used in consumer and food industry preparation products such as sinks,



Grade 304 is commonly used for food industry preparation products.

tabletops, stoves, refrigerators, dairy

equipment, and steam tables. It is also used in utensils such as cooking appliances, pots, pans, and flatware.

“304 has a minimum of 8% nickel, which gives it the ductility to be used even in cryogenic environments where an austenitic material is required,” noted Torsner. “But the high nickel content has pushed the price of 304 to the point where customers are looking for alternatives, such as duplex grades,” she added. “Our duplex grades can cover virtually all of the uses of 304, except cryogenic, but with a lower nickel content. So the customer benefits from less price volatility,” said Torsner. ■

Agreement Reached on HexCr

The Specialty Steel Industry of North America and the National Association of Manufacturers executed a settlement agreement with the U.S. Occupational Safety and Health Administration (OSHA) on OSHA’s final rule regarding occupational exposure to hexavalent chromium. The agreement letter from OSHA and additional information on the settlement can be found at the OSHA Web site www.osha.gov. Great relief was gained on approval of the use of personal respiratory protection in confined and enclosed spaces as opposed to having to install engineering controls, but we were not able to gain any other exemptions for welding,” reported Elisabeth Torsner, Outokumpu Vice President Market Development/Technical Coordinator. “The industry wanted exemptions for welding in certain physical positions, methods, and for welding certain materials, but they were not granted by OSHA,” Torsner explained.



OSHA has given a final rule regarding occupational exposure to hexavalent chromium.

According to Torsner, most service centers do not exceed the permissible exposure limit for hexavalent chromium — and for all Cr(VI) compounds — of 5 micrograms per cubic meter of air as an 8-hour time-weighted average. But many downstream customers who are performing welding can be affected by the OSHA ruling. OSHA will issue additional letters of clarification as their inspectors begin enforcing the provisions. ■