

# Sandvik Materials Technology

## Knowledge, competence & expertise for demanding markets



**Sandvik Materials Technology prides itself on the metallurgy expertise that it has accumulated over many years. As its core competence, this expertise allows it to find solutions for customers in the most demanding applications around the globe. Increasing demand from end users for products that improve safety and reliability while at the same time minimizing environmental impact is helping to drive ahead developments. Working directly with end users to develop efficient solutions therefore remains one of its key strategies. Stainless Steel World spoke to Mr. Eduardo Gomes, Regional Sales Director Americas, about how these issues are pushing ahead demand for innovative, high value materials.**

*By Joanne McIntyre*

As part of the Sandvik Group, Sandvik Materials Technology (SMT) works primarily with advanced, high added-value products such as advanced stainless steels and specialty alloys products. SMT focuses largely on developing and delivering solutions

through its metallurgy expertise, which is the group's core competence. Its customers are found in the most demanding industries, including oil & gas, nuclear, aerospace, chemical and petrochemical. The company's activities are strongly correlated to

energy efficiency and the global drive for sources of energy that are cleaner and more efficient in energy production and use. This trend continues to offer SMT opportunities to develop new solutions in cooperation with its customers.



### Product development

The SMT product development team is consistently working to both develop new grades and improve on existing ones, explains Mr. Gomes. "Product development is one of the key components in our strategy. We're not only developing new products, we're also working hard to improve our existing portfolio, using the most modern manufacturing technologies and optimizing their properties. For instance we recently expanded the offering for hydraulic and instrumentation tubing; this is an area where Sandvik has been a very strong player and recognised as a referenced manufacturer for many years. Besides a standard program in 316L which has optimized chemistry and corrosion properties, named Sandvik 3R60, we also have a range of high performance alloys including grades

like Sanicro 28, Alloy 825, the 6 moly grade 254 SMO and our super duplex SAF 2507, often used in high pressure instrumentation systems exposed to corrosive conditions such as marine environments. And now we are adding higher nickel grades like Alloy 625 and C276. These have all been developed in response to our customers demands."

The material grade has excellent fabrication properties and can be welded using standard austenitic stainless steel welding processes. Post weld treatment is not necessary as it is resistant to intergranular corrosion even after welding.

### Oil & gas

Despite the on-going changes in the O&G industry and consequent drop in oil and gas prices, this market will remain an important segment for SMT, says Mr. Gomes. "There have been important changes in the way this industry is structured and the trend forward poses new cost and technical challenges. However those come with opportunities and Sandvik has been well positioned to support our customers in the development of cost effective technologies through R&D resources, product manufacturing expertise and our team of field application engineers. We work directly with the end users of our products to develop efficient solutions. This both helps our customers to be more competitive and better assists the efforts of the industry in reaching more efficient and cost effective means of producing oil and gas."

"In addition to the focus on the technical side; we also pay extensive attention to the supply chain. It's important to ensure that our products and solutions are accessible to our customers when and how they need them. From that perspective our global manufacturing footprint supports, the delivery of our products directly or through a loyal and well established network of distributors. Our partners in distribution are an important part of the process."

### Projects demand cost efficiency

Looking at the global project situation, Mr. Gomes points out that it is in a 'fair' state. "Overall we see an increased demand for cost efficiency as a result of how project activity has shifted between different positions in the chain. The lower prices of certain raw materials, such as oil and gas, have benefited



*Eduardo Gomes: "R&D is an essential part of our strategy."*

the downstream part of the business. In the Americas we've been involved in various projects for removing bottlenecks, such as upgrading or expansion of refineries. These projects require a wide range of tube and pipe, primarily serviced by our network of distributors. We're also seeing a higher demand from plant management and process engineering for increased reliability. That places Sandvik in a good position to be the manufacturer of choice, given our focus on quality and process control, delivering products with the best properties."

"Some major projects in the oil & gas segments are now in the final completion stage," continues Mr. Gomes. "One good example is the Jack and St. Malo project which utilized a significant amount of our super duplex Sandvik SAF 2507™. This material was used for umbilicals and much of the subsea infrastructure including pipes, tubing and even hot isostatic pressed products. We have also supplied to other major projects recently in the North Sea, such as the Johan Sverdrup platform."

### R&D: making the most of material properties

Research and development remains one of the key activities of Sandvik. Sandvik invests about SEK 3 billion each year in research and development and more than 2,700 employees are active in this area. The Group has about 5,500 active patents. "R&D is an essential part of our strategy," explains Mr. Gomes. "We're constantly working to optimize the properties and performance of our products, both in

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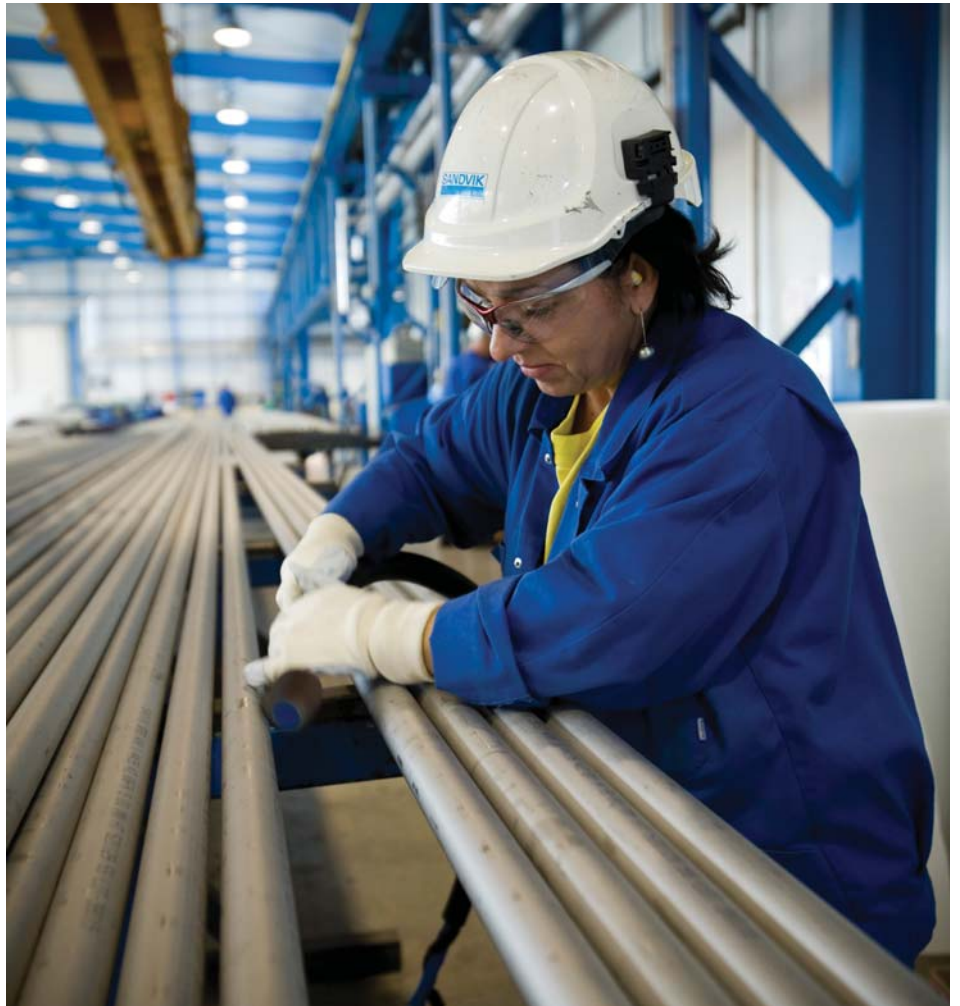
alloy development and in applying the most modern manufacturing technologies. Powder metallurgy is a good example of how we've expanded our product offering capabilities in special grades. It's a technology that ensures our customers can make products in complicated shapes that would either be too costly if produced using traditional manufacturing methods, or present technical challenges to meet the required properties."

"It's a good example of how we ensure customers can take full advantage of the unique properties of our grades in every product form they may need. This strongly relates to our global presence; being so close to our customers means we are available when - or even before - they realise they need us."

"Our R&D teams work on the entire SMT product range to make the most of our metallurgy competence. When we develop a grade it also includes matching filler metal and welding guidelines. We cooperate with users of our products to ensure that they get it in the right product form and with the right support to apply it

### Close cooperation with end users

"Our customers appreciate the quality of the products we manufacture, our technical knowledge in metallurgy and our experience in applications. We ensure our availability to support them to make the best choices for their needs. The fact that we offer knowledge and a wide portfolio, from small diameter tubing to large pipes, and complement it with new manufacturing processes



*High demands for safety and reliability have translated into stringent technical requirements for products.*

such as powder metallurgy is also appreciated. The expertise and service we provide is part of our model to work in close cooperation with customers so they can take full advantage of what we can offer," continues Mr. Gomes.

"This extends to distribution services where we have secured effective supply routes to meet quality, delivery and cost requirements. Sandvik holds a global manufacturing footprint. For instance in the Americas we have four production plants for tubular products. That's an important part of being close and able to service our customers on a local basis. The end users of our products are the ones driving the demand but we need to ensure products are reaching them in the right form, in the right way and through the right channels and that's when our distribution network comes into play. While some customers have a more customized product or specific service need that would benefit from direct supply from our mills, many are serviced via our distributors." SMT also develops products specifically for end users with applications requiring a unique solution.

"One example is the SANMAC product line which is optimized to provide the best productivity to customers machining bar or hollow bar. New alloys, such as the hyper duplex Sandvik



*The company is proud of its experienced and highly knowledgeable staff.*

SAF 2707 HD, were developed based on input from various potential users. At the end of the day we need to provide a good technical solution that is also very cost efficient for our customers while providing the level of reliability and safety that their processes require.” Sandvik will attend the IMTS show in Chicago, US on Sep. 2016, where more advanced displayed product will be showcased.

**Focusing on safety, reliability, environment**

With Mr. Gomes being based in the Americas he is well positioned to comment on that market. “End users in the Americas have high demands for safety and reliability and this is well aligned with the beliefs of our company. It’s an area where we can add significant

“There is also a growing awareness of the environmental policies of different steel producers. At Sandvik, we are constantly looking at ways to minimize the environmental impact of our processes and that’s perfectly in line with the objectives of many of our customers. They are also spending significant resources and efforts to secure that through their whole supply chain and this is something we very much welcome. At our manufacturing units we have the most restrictive environmental policies in place. Sandvik is proud to primarily use recycled raw materials and to apply to a high level of control on the sourcing of alloying elements. This is a way to improve how we supply our products and contribute to our customers’ environmental goals.”

*“Being so close to our customers means we are available when - or even before - they realise they need us”*

value to our customers through the products and alloys we develop, how we control production and meet their requirements, for the products and mill qualification. From that perspective I’m proud to say that our manufacturing units are included in almost all the referenced approved manufacturer’s lists (AML’s) in the industry. The demand for safety and reliability is high and that’s translated into very stringent technical requirements for the products.”

**Americas: a ‘home’ market**

“As the head of the sales and marketing group for the Americas region, I see the Americas as a home market for Sandvik,” explains Mr. Gomes. “Over the years we have invested heavily in our local manufacturing footprint. We’ve built a very high level of competence in our workforce in the region and are developing true cooperation with our local customers to find the most effective solutions for their needs. We’re engaged with our



*Sandvik has four production plants for tubular products in the Americas.*

distribution partners to ensure our products get to our customers at the right time with the right quality and in the right way. We will continue to invest in our growth in the region. As a matter of fact, we have just concluded an important investment at our manufacturing site in Scranton, PA, and there are other ongoing investments in our plants in the region. We’re certainly prepared to meet the requirements of our customers and contribute to making them more competitive through cost efficient solutions both technically and on the supply side.”



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**Facts & Figures**

Name:	Sandvik Materials Technology
Product range:	Tube, primary products, strip, wire, heating technology
Sales:	approx. 13,900 MSEK (2015)
Employees:	approx. 6,500 (2015)
Website:	<a href="http://smt.sandvik.com/en/">http://smt.sandvik.com/en/</a>