



Sandvik strongly focuses on long term partnerships in order to serve the often demanding materials challenges of customers.

Sandvik Materials Technology

By Miel Bingen

Not long after Sandvik was founded in 1862 the company developed a very clear vision for business strategy: to supply the world with high-quality products for niche markets that were developed in close co-operation with customers and could be distributed all over the world. Today, some 140 years later this business vision still holds true. And now it is time to carry it even further by intensifying the focus on high-value-added products. As part of this effort, the organisational structure within the business area Sandvik Specialty Steels is being changed as of 1 January 2003. In line with the ongoing shift in the business area's focus, it has also been decided to change the name to Sandvik Materials Technology.

“I always thought that I knew the Swedish stainless industry like the back of my hand,” says Mr Gossas, who was appointed President of Sandvik Steel in May 2002. “I knew when I started working for Sandvik I would be working for a niche market player, but even so I was surprised at the extent of the specialisation, which is much greater here at Sandvik Steel than I could ever imagine. With over 900 grades ready for production and a vast range of product forms, the concept of a ‘niche market’ has been carried much further than anything I have seen before. It forms the basis of the company’s success.” But Sandvik has decided to intensify its focus on high-value-added products even further. As a consequence the organisational structure within the business area Sandvik Specialty Steels - of which Sandvik Steel has been a part together with Kanthal and Sandvik Process Systems - is being changed as of 1 January 2003. At the same time the business area will change its name to Sandvik Materials Technology. Sandvik Materials Technology, with about 8,000 employees and annual sales of approximately SEK 14,500 M, will be a world-leading supplier of high-value-added products made from advanced metals, special alloys, metallic and ceramic resistance materials as well as process plants based on steel conveyor belts and sorting systems. The business area comprises five business sectors: Tube, Strip, Wire, Kanthal and Process Systems, so with the establishment of the new organisation, the Sandvik Steel business sector ceases to exist. “The new organisation provides a more distinct and simpler structure and is part of our efforts to increase efficiency and improve profitability”, says Peter Gossas who has been

appointed head of Sandvik Materials Technology. “The aim of the name change is to highlight our role as a high-technology co-operation partner within the field of materials technology and to strengthen our leading position within advanced materials and high-value-added products, developed in close co-operation with our customers.”

What makes Sandvik such a powerful niche player is the way product development takes place. The company consequently turns to the end users to see what their needs are and puts end user requirements at the basis of their product development (see “Applied solutions” box). In fact, the close co-operation with the end user is vital for the success of Sandvik Steel. Mr Göran Nyström, Vice President, Sales & Marketing, explains: “The challenges of an end user are actually the starting point for Sandvik. We try to offer made-to-fit solutions to our customers, so developing a close co-operation or partnership with the end user is essential. The materials problems of our customers are an opportunity for us and we try to turn a problem into a solution. Not only are the properties of a material taken into consideration, but also product forms are optimised. Our finned tubes used in the production of ethylene are a good example. We like to think that in many cases we do not deliver simply a product but offer a solution to our customers. To fully understand the importance of our R&D approach one should realise that no less than 17% of the Sandvik Steel turnover is generated by products that have been developed in the past five years.”

The close contact with the end user goes further than just solving his problem of the day. Sandvik sees the dialogue with the customer as a way of determining what route to take in the future as it gives information on the materials problems of tomorrow. Consequently its R&D department not only works on the development of new solutions but also on solutions posed by tomorrow’s technology.

“There is more to solving our customers needs than just technology, though. Not only do we have to develop the right solution, we also have to be sure we do it in the optimal way. In order to be competitive we have to ensure that we are the most cost-efficient producer. Also, short lead times are very important when supplying niche products. A customer cannot afford to wait for a product for weeks and weeks. Therefore we have to be able to produce and deliver within days,” Mr Gossas says.

OPEN-ENDED RESEARCH

Not all research is done in close co-operation with partners and customers. A significant amount of Sandvik Steel’s R&D budget is spent on open-ended research, where the final outcome of the project is not always clear from the start.



Sandvik Steel's President Mr Peter Gossas (left) and Vice President Sales and Marketing Mr Göran Nyström emphasise the role of Sandvik Steel as a highly technology driven company.

Mr Gossas: "There are many interesting developments in our industry and often there are ideas that could turn out to be very valuable, even though there is no customer or partner to be served from start. We at Sandvik feel that these ideas are often too valuable to be left in the cold. Consequently we allocate resources to open-ended research. With one of Europe's largest R&D facilities for stainless steels and special alloys and a highly trained staff of more than 200 materials and process development experts, we are well equipped to carry out this kind of activities that are often remarkably successful." Mr Nyström further explains: "Transferring open-ended research into actual applications is a true challenge for everyone within the organisation. It doesn't matter if somebody works in marketing or in R&D, everyone within Sandvik Steel is constantly looking for opportunities to use expertise or products that were developed for other applications. This doesn't hold just for the results of our open-ended research. If we have developed a certain product for let's say umbilicals, we will definitely try to make use of its characteristics in other fields where it can be of benefit for other customers."

An excellent example of such knowledge transfer is the Sandvik Nanoflex™ material. Sandvik Nanoflex is a new sort of stainless steel in which nano-particles function as a reinforcement. This makes the material extremely hard and tough at the same time. First used for surgical needles, it has now found its way to a wide and growing range of interesting applications in new industrial sectors. A major success is its use in items for electrical razors.

STANDARD PRODUCTS

Although Sandvik is definitely a niche market player it also has its more standard grades, as Mr Gossas explains. "Over time products mature, and what once was a top-of-the-line

product developed for the smallest of niches will often mature into a product that requires less technical assistance from our side and is produced in larger quantities. But don't get me wrong, Sandvik is a niche market player. When a product really becomes a bulk item Sandvik will discontinue production, as we have decided to do with our spring wire production at Gusab Stainless here in Sweden. But more mature products are part of our product portfolio. These products are of great importance to Sandvik, as they are responsible for a significant part of our turnover. Especially for these products, cost efficiency is of vital importance. When a niche product develops into a more mature product it becomes even more important to ensure that we maintain our position as the most efficient producer.

Therefore we consequently invest in optimising our production facilities. Our latest tube mill is a good example of this. As some seamless tube products developed into larger volume products we had to ensure our production techniques were the most efficient around."

Especially for these more mature products the role of distributors is important. Mr Nyström remarks: "Distributors are maybe Sandvik's most important customers if you look at it from a volume point of view. Also in this field we constantly strive to improve the service we offer our customer. In this case it is the distributor who is the partner. Again it is the concept of delivering a complete solution to the

FACTS & FIGURES

Sandvik Materials Technology, valid from January 2003, is a world-leading supplier of high-value-added products in advanced metals, special alloys, metallic and ceramic resistance materials as well as process plants based on steel conveyor belts and sorting systems. The business area, with about 8,000 employees and annual sales of approximately SEK 14,500 M, will comprise five business sectors: Tube, Strip, Wire, Kanthal and Process Systems. Materials technology is at the base of the Sandvik's business philosophy. The company strongly focuses on long-term relationships and together with clients and partners Sandvik Materials Technology develops solutions for a wide variety of industry segments. With the establishment of the new organisation, Sandvik Steel ceases to exist. Sandvik Materials Technology is a business area within the Sandvik Group. The group has 37,000 employees in 130 countries and generates a turnover of approximately SEK 55,000 M .
www.steel.sandvik.com

Applied solutions and technology alliances

As explained initially, Sandvik Steel has a long tradition of developing products in close co-operation with customers. Today, Sandvik takes the idea even further and actively promotes the concept of applied solutions, as Mr Ad Raatgeep, Marketing & Sales Manager, Tube Division, explains. "More than a supplier of simple materials, Sandvik is a technology-driven company. We do not only know our materials and products but also the applications for which they are used. Even so, to take things a step further we need to dig in even deeper. Therefore we think it's important that true partnerships should develop further than even a close customer-supplier relationship. We are constantly on the lookout for companies that can not only solve present-day problems but can also work with us to identify and solve the issues of tomorrow. The key to a successful partnership is an open exchange of information to exploit synergetic effects to the maximum. Through such a close and long-term co-operation we can better assist our partner in gaining an edge over the competition, and ourselves gain insight into end-user challenges we might otherwise miss."

A good example is the co-operation between Sandvik Steel and Stamicarbon. Together with this leading engineering company in the urea industry Sandvik developed Sandvik 2RE69, which has been a material of choice for many years. While Stamicarbon improved its process by reducing the oxygen content during urea production, Sandvik was able to develop a new material to further improve the process called Safurex®, which offers higher strength and better corrosion resistance, as well as many other process and design advantages. Mr Raatgeep expects the material to become the standard for urea production. That is, until Sandvik and Stamicarbon's partnership bears its next fruit.

Further information on the concept of applied solutions can be found on the web portal:
www.steel.sandvik.com/solutions/

market that is the driving force. Through developing our services to distributors we try to further streamline the supply chain to the end user, especially for these products that do not require a one-to-one support from Sandvik's technical staff." Mr Nyström continues: "In many market segments our ambition is to service the endusers ourselves. We must then make sure to deliver not only a piece of pipe but also complementary products, for instance from our very wide stock of fittings and flanges, or from our welding products range. The ambition is to deliver a complete solution."

so specialised and our people so involved with a particular application that they tend to forget that there might be other opportunities for the product in another niche. We must and can make better use of our resources and are adapting our organisation accordingly within Sandvik Materials Technology by introducing a new function for new business development that will work across all business sectors. We also try to make our people even more aware of their role as entrepreneurs. After all, it's the people at Sandvik who make it possible." ◀

INNOVATIVE PRODUCTS

So what is at the top of Sandvik Materials Technology's priority list for the coming five years? For Mr Gossas and his staff the answer is clear: bring more innovative products to the market. Even if few companies could match Sandvik Steel's figure of 17 per cent of turnover generated by products that have been developed in the past five years, it is not enough for Sandvik. Mr Gossas: "We want to strengthen our position as a niche market player even further, so product development will be even more important in the future. Of course we will continue our R&D effort, which is already well developed. Where we can gain extra speed is in bringing our ideas to the market. The lead time for new products to reach the market can be reduced. In some areas development work is



SANMAC is the result of extensive efforts to improve the machinability, finish and availability of stainless steel grades for machining applications. Development work together Sandvik Coromant and qualified endusers, gives a unique possibility to develop continued productivity improvements for the machining industry.