Brück goes the extr

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Brück, the German manufacturer of seamless hot-rolled rings, flanges, and special forgings epitomises everything that makes German industry so highly regarded throughout the world today. Through a concise, systematic way of operating this high-value company, Brück is capable of sustaining itself in an increasingly competitive environment. To learn how Brück continues to achieve this we went to Ensheim, which is close to Saarbrücken, to speak with CEO Matthias Brück and Noël Smeets who is the Managing Director of Brück's sales office in The Netherlands.

By Michael van Wijngaarden

Although the total number of employees of all the Brück companies adds up to almost 1000, the company still is an independent family-owned enterprise with Matthias Brück and his sister Anne Brück-Tauer firmly at the wheel. The company started out in 1923 as a manufacturer of metal works and iron fittings and was involved in bending and welding of steel. After having moved the entire company twice during World War II, Brück returned to its birthplace of Ensheim. At that time, Mr Brück's father was in charge and he realised that in order for the company to survive it would have to expand its product and service range. Consequently, in 1948 the first bending and welding of rings took place.

"We had identified a clear need for these rings," Mr Brück commences, "and decided to step into this market. In those early days the rings were welded manually but soon after we installed a welding machine to further develop our production capacity. From the early 1960s onwards demand for welded neck flanges grew so rapidly that in order to keep up and simultaneously continue to improve our production capacity and product quality we installed a forming machine that had been developed in-house. This machine was able to produce Welding Neck Flanges up to ND 1600 in profile, which was an important step up from the ND 600 flanges that we produced before that. It really enabled us to expand the company because we could now answer growing market demand."

At the end of the 1960s the company's production capacity was further expanded by the installation of the first ring rolling mill. This mill allowed Brück to move away from the bended, welded rings and specialise in seamless rings. "It was one of the first ring rolling mills that could handle both radial and axial dimensions and our first step into the speciality manufacturing of seamless ring rolling", Mr Brück adds.

Production

Specialisation has been the key word ever since and Brück now is a true supplier of pipe connections and components in all kinds of materials and shapes to a myriad of specifications for every conceivable application. To achieve this, huge investments have been made over the years in buying new machines and even establishing a completely new production facility from scratch in the Czech Republic in 1995. In this state-of-the-art facility, with a workforce of 175, Brück executes

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The Ensheim headquarters boasts no less then 12 sawing machines to cut the huge raw material bars into pieces that are eventually turned into rings and flanges. These pieces are then 'worked' in the forging mill that can handle different types of steel. The presses use a pressure of up to 4,000 tons and rings with an OD of 12 inches to 208 inches are rolled by 5 ring rollers.

the final machining of the already forged and rolled parts made in Saarbrücken. Consistently re-investing into expanding the company's assets has resulted in a manufacturing facility to be proud of. The Ensheim headquarters boasts, for example, no less then 12 sawing machines to cut the huge raw material bars into pieces that are eventually turned into rings and flanges. These pieces are then 'worked' in the forging mill that can handle different types of steel. The presses use a pressure of up to 4,000 tons and rings with an OD of 12 inches to 208 inches are rolled by 5 ring rollers. Especially worth mentioning is a recent upgrade, the ring rolling mill nr. 5, which allows Brück to manufacture rings up to 69 inches in height with an OD of 208 inches, weighing 27 tons each. During the hot forming process, heat input from the furnaces is strictly controlled and all furnaces are calibrated at regular times. Then a wide array of testing equipment is used by the quality assurance staff to make sure every piece meets order specifications and material standards before it leaves the plant or is further processed in the machine shop. Here, more than 50 semiautomatic and CNC-controlled milling and drilling machines enable Brück to manufacture complex products. When the product is finished it goes through another comprehensive test procedure including a dimensional test as well as a surface roughness control test and a final ultrasonic test. The stainless steel products, which are in particularly high demand from the chemical and offshore industry, go through an even wider range of tests before they receive the Brück stamp. Right now, Brück is expanding its production area even further. During a trip around the plant we were able to witness the construction of two massive new hangars for machining facilities and a heat-treatment expansion as part of a 25 million Euro investment over 2004 and 2005. During the trip Mr Smeets explained that on 1 October the completion of this plan will be celebrated with all employees.

Adding value

"Perhaps in contrast to what people may think," Mr Brück continues, "all our efforts to expand our production capabilities and product range are not so much aimed at becoming the biggest supplier of rings and forgings but more at becoming one of the best suppliers of our current and future customers. We feel that the way to do this is by truly contributing to their operations by adding value to them through supplying products and services with a high added-value. The result is that practically our entire product range consists of custom made products. In fact, we do not have a proprietary product range."

Sales, we learned from Mr Smeets, is also geared to adding value and very much a face-to-face business for Brück. The company philosophy is that customers can be serviced best directly by the company, without intermediaries. The result is that Brück does not have a network of agents or representatives, all business takes

place from Ensheim and the company's European sales offices in Germany, The Netherlands, the UK and Ireland. "Consequently, business takes us around the world. We spend quite an amount of time in traditional areas to visit customers but, as they say, the world is our oyster so we will go wherever our business takes us." This picture truly characterises the way in which Brück does business. All products are sold on a face-to-face basis and made-to-order in close co-operation with the customer. The company can achieve this through the extensive production facilities described earlier. An average stock of 14,000 tons of raw material is kept to make sure fluctuation in demand can be handled and, most importantly, the Brück employees are always ready to go the extra mile and make sure the right product is delivered at the right place at the right moment. It has earned the company a good reputation in the most demanding industries, such as nuclear power generation.

"All our efforts are aimed at becoming one of the best suppliers"

Express Service

Mr Brück elaborates on a project his company was involved in recently and which provides a showcase of the company's talents. "We were called in by the Biblis nuclear power plant to supply four entirely new fitting. During a scheduled shut-down it had been determined that a forged fitting was showing cracks. It was decided to not only replace the one fitting but also to replace three similar fittings as well. On Friday morning before the Easter weekend our Express Service received the order to provide four special forgings within 15 working days. The technical drawings were received at four in the afternoon on the same day and we started production of the fittings at eight o'clock. With a team of six we worked the entire Saturday to get things finished, until on Sunday we received a call from our client that two fittings needed to be supplied eight days earlier than has been specified! We consequently liased with our production team and assured our client that everything would be done to have the fittings ready in time. By putting in the extra effort and with close co-operation between the various departments involved, we were able, in the end, to supply the fittings in time. Normally, an order like that could take 12 to 14 weeks, a financial catastrophe for the power plant at a daily cost of 500,000 Euros. However, through our express service, we were able to deliver the fittings from scratch within 15 working days. This is what makes our company and our employees unique. We can meet schedules that may sometimes seem impossible, even if it means working late or through the weekend."

Growth

Maintenance and repair orders such as these are important to Brück, but it is not where the bulk of the demand growth comes from. Much more promising prospects are to be found in power generation. According to Mr Brück, the market for wind power is growing, especially in countries such as the USA, Spain, UK, Japan and India. The mention of India may perhaps come as some surprise but apparently the country invests heavily in developing windmill parks and one of the biggest windmill manufacturers is based in India. He adds: "There are clearly identifiable areas in the world that are perfectly suitable for windmill parks. The UK, for example, is such a country. Prospects are that it will also invest heavily in the development of wind power in the coming years.
Other growth opportunities are to be found in the oil and gas markets where pipe connections increasingly face more demanding conditions and delivery times are getting shorter and shorter. "This is actually right up our alley" Mr Smeets explains. "We thrive on on-demand manufacturing and our strength lies in our flexibility. When you look at the oil and gas industry, for example, one of the elements that we supply are duplex swivels for FPSO swivel stacks and turrets. These components are characterised by large diameters and extreme quality demands but, although the delivery time of a complete FPSO Turret has been reduced to just over a year, we are always able to deliver them on-time. One specific project we are particularly proud of in this respect is the American Energy Bridge project for which we supplied the swivels. We expect this market to develop even further because of the increased use of FPSOs to transport gas to shore."
"In general," Mr Brück concludes, "the entire energy market is rapidly expanding because of the enormous current demand for energy in the world. Whether this be traditional oil and gas energy, wind energy or nuclear energy, all are being developed which offers tremendous opportunities for us. This is the reason why we will continue to invest in our company by expanding our facilities in Ensheim, and in the Czech Republic so that we are able to keep servicing our customers in the future." ■

About Brück

Brück is a leading worldwide supplier of seamless hot rolled rings, flanges, and special forgings. The company manufactures a broad product range according to customer design or standard in more than 1.000 different material grades.
Workforce: 365 employees
Branches: BRÜCK® AM spol. s.r.o., Zamrsk, Czech Republic
Workforce: 175 employees
BRÜCK® - subsidiaries: 65 employees
Associated company: 375 employees
IMO Momentenlager GmbH, Gremsdorf
IMO Antriebseinheit GmbH, Gremsdorf - Renowned producer of slewing rings and slew drives