



Fontijne Grotnes: Expanders for Precise Rings



Metal components make up nearly 90% of the weight and over one-third of the value of a modern wind turbine, as Fontijne Grotnes well knows. The Netherlands-based company designed an expander for sizing seamless rolled rings for slewing bearings for the production of wind turbines. "Along with the growing demand for wind turbines comes equal growth in demand for forged parts that are integral to their operational efficiency", the company management explains. Fontijne Grotnes expanders are used to calibrate the ring

in order to minimize machining allowances and to eliminate local stresses. This greatly reduces the required amount of machining as the ring is closer to its final shape and more stable during post operations. The seamless rolled rings used in most wind turbines measure up to 6 meters in diameter and 12 tons in weight. "By allowing the turbine to rotate efficiently remaining

on track with the wind, slewing bearings constitute an essential part of wind turbine

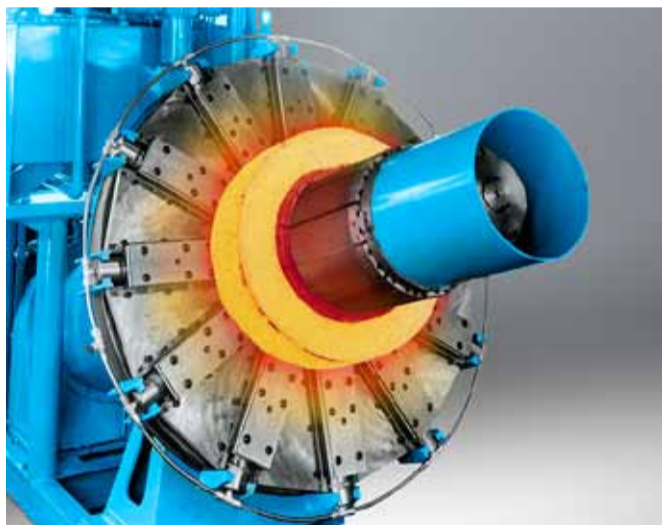


equipment and help transform wind power into electric power." The Fontijne Grotnes sizing and forming technologies are also a valuable contribution to aerospace production processes to calibrate and form different parts for jet engines such as rings, cylinders, cones, etc. which require tight tolerances.

The company achieves very tight inside diameter and ovality tolerances, they explain. "We have a unique method of measuring the inside diameter of the ring during and shortly after the expanding process. This measuring system can also be used to gauge (measure)

the ring after the expanding process, while still hot on the expander. Keeping these very tight tolerances and consistency result in reducing the amount of machining, therefore material savings and time savings. And, improvement of mechanical properties by exceeding material yield strength up to 20% which can lead to using a start off material with lower mechanical properties and therefore saving cost."

Fontijne Grotnes' headquarter is located in Vlaardingen in the Netherlands with a sales and manufacturing office in Chicago and sales offices in China, Russia, India and Japan.



Dutch Market: A Set of Specialists



The Netherlands is a small country. Correspondingly, there are not too many castings companies and each of these has established its own niche, explains Daan Klensmann, sales manager of the Dutch castings-company Ebers Group Industries. "The castings companies are highly specialised," he says. "There are, as far as I know, not two companies that offer completely the same service. If a potentially new client has a special requirement, there will always be one company that can offer him the very best technical solution." Competition is not such a strong topic in this market. Ebers, for example, is specialised in the production of small series. They cast iron, steel, bronze and aluminium.

Still, one overall tendency can be spotted in the Dutch market anyway: the demand for ready products. "We invested in modern machinery so that we can grind, drill, polish and so forth. We even offer the assembling of parts before we deliver them," continues Klensmann. "One stop shop" is the keyword. "Clients want to have only one contact person, they want to be able to trace sources easily in case of problems, and they want to keep the logistical effort as small as possible," Klensmann concludes. Another characteristic of the Dutch market is the importance of exports. "We export about 70% of our products", explains the sales manager. Especially Germany is an important target market for the Netherlands. Ebers also exports to Denmark, France and Great Britain.

New Milling & Turning Machine at Sanders



Sanders' Iron Foundry and Machine Factory BV, located in the east of The Netherlands in the city of Goor, installed a new CNC Turning and milling Machine in January.

Sanders, an expert in manufacturing gear and manual castings, prides itself in over 150 years of experience and its superior customer service. The company's small-scale services enable them to work flexibly and directly according to customer specifications. The new CNC



turning and milling machine, a SHW Unispeed 5T, was supplied by SHW Werkzeugmaschinen GmbH, a leading manufacturers of large machine tools.

BUVO Castings Rated #1



Dun & Bradstreet has once again awarded BUVO Castings with "Rating #1", the highest possible rating. This result is once more a confirmation of the company's financial stability. Buvo Castings, located in Helmond, The Netherlands, is a modern foundry that produces and machines high-pressure aluminium die-castings for various applications. Buvo

Technology, which allows demanding products to be manufactured reliably with a high degree of repeatability. The Perfect Fit™ principle ensures that the die-castings are produced to exacting tolerances in the mould, thus avoiding the extra costs of a possible machining operation.

In addition to the conventional die-casting Buvo also offer vacuum die-casting. This method is an effective solution for special applications where porosity must be kept to an absolute minimum.

Buvo also uses different alloys in order to satisfy the requirements of different applications. The most commonly used materials are 226 (GDAISI-9Cu3) and 230 (GDAISI12). The company has melting ovens for both materials, from which the die-casting machines are fed. The available options are considered on a case-by-case basis if an application requires a different material.

Buvo Castings service the needs of the automobile, gas, office equipment, telecom and medical industries.



also develops and produces tooling in its own in-house toolmaking facility, BUVO Tools.

The company's foundry is outfitted with 15 high-quality die-casting machines with closing forces ranging from 250 to 1,000 tonnes. Eleven of these machines are equipped with Shot Control

Eurotech Offers Ductalucast®



Eurotech Aluminium Casting, based in Venlo in The Netherlands, has the unique combination of a fully au-

the casting process and less hydrogen is absorbed. These products are typically applied to highly stressed parts with low weight. Some of the applications for Ductalucast® products are in aircrafts, vehicles, and drive lines.

Recently the company ordered a Fastems system, an automatic loading system which will enable unmanned production 24 hours a day, 7 days a week, and a third Okuma MH600B



horizontal machining centre. Eurotech already has one Okuma MH600B in the Czech Republic and one in the Netherlands. The system, scheduled for installation during the first half of 2011, will be the perfect complement to the automatic sand moulding line. Eurotech Aluminium Castings currently operates in several markets including medical, engine, textiles, imaging, energy, defence, graphics and racing.

Eurotech Aluminium Casting has over 150 employees at its Venlo location.

Highest Marks for Dutch Payment Morale



"A1" – this is the best rating Coface, the German Association for Credit Management, gives in its analysis of business risks for the countries worldwide. A1 is also the mark The Netherlands received from Coface. The A1 rating mirrors a very stable political and business situation which in turn has a positive impact on the payment morale of Dutch companies. The likelihood of payment deficits in The Netherlands

is very low concludes Coface.

The index of payment defaults in the Netherlands compared to the world paints a clear picture. Defaults in the Netherlands were always much smaller than the average worldwide, and the difference became even larger during the last ten years. For example, just a few years ago the index stood at 100 for the world (average of 12 months; base: world 1995=100) while the value for the Netherlands was below 50. Today The Netherlands A1 rating is still holding strong.