

Antonius Vesselheads of a prosperous and diverse



Founded in 1937, Antonius Vesselheads is specialised in the design and production of high-quality heads, pressure vessel heads and other pressed parts in every type of metal and alloy. With an outstanding reputation for quality and performance the company continues to thrive and produce innovative in-house developments. Commercial Director Guido Slump and the Head of Sales Huub Slijpen spoke to Stainless Steel World about how diversification and expertise will guarantee their continued success in future.

By John Butterfield and Joanne McIntyre

confident future



With an eye to exploring new avenues for maximising their extensive resources, Antonius Vesselheads began a program of diversification over two years ago which will prove invaluable in the uncertain economic climate ahead. "While head forming will remain our core business we realised that concentrating solely on producing pressure vessel heads, heads and cones could make us vulnerable to fluctuations in the market" explains Huub. "Therefore in 2006 we

diversified into new products and strategic partnerships and it's been incredibly successful for us. For instance we now manufacture duplex panels for chemical tankers. Our output for these panels will double next year and it has already grown to a substantial part of our business! Our expertise and superior technology mean we're able to provide better quality panels more quickly, with less environmental impact and more cost effectively than other companies."

Another interesting diversification the company has delved into is the manufacturing of exhaust collectors for Rolls Royce. "We've just signed a five year contract with them and while this activity involves sheet metal forming and welding, it's a completely new direction for us. The collectors are part of a gas turbine which is used for the propulsion of naval vessels. The first prototypes were built in 2006.

"At the same time we have entered into preliminary research to develop parts for airplanes. These are all examples of what we're doing to spread our risk and develop a large, solid base which will insulate the company against fluctuations in the market and global economy. For instance when the oil price is high the pressure vessel business is good, while it has the opposite effect on the airline industry. By diversifying into both fields we can smooth the waters to ensure plain sailing in the future" Huub smiles.

"Forming sheet and welding sheet will remain our core business although diversification makes great economic sense" adds Guido. "At the same time we're improving our efficiency by looking to the domestic market for supplementary products we can produce in order to maximise the capacity of our equipment. For example some of our automatic welding equipment was under-utilised so we looked for business which would pinpoint the use of this equipment. We now use it for welding duplex components, construction welding and heat treatment for hydraulic cylinders. We have a wealth of knowledge about the metals and the technology to make these items so it just makes sense. While this activity may not significantly affect our overheads, maximising the capacity of our workshops does make us more cost effective for our customers. Similarly the huge cutting and welding facilities we have for manufacturing really large heads was only running for 25 hours per week. Having targeted the utilisation of this equipment we've now quadrupled its running hours."

In-house innovation

The company has also put its extensive knowledge of metallurgy and its high-tech workshops to use in developing ground-breaking robotic milling equipment to machine the edges of plates. "This is a great invention" says Guido proudly. "It will follow any surface faultlessly, even if it's curved or uneven which is important because steel plates are often not completely flat. The machine can quickly and precisely remove the cladding from the edge of welds of any shape, an important detail which must be done to avoid problems later on. Many faults are caused by the shape of the weld edge. With automatic welding, it's a disaster to have uneven weld edges. Any stops and starts in the procedure create additional problems, especially with thick material. We believe that this incredibly precise machine is the way of the future. The robot was developed in-house in response to demand from many companies in the Netherlands who are looking for spare capacity for welding, annealing, and other services. We've had the robot in production since June

and it will help us to realise our ambitions in the segmental business. A highly significant advantage the robot creates is that the finely machined edges allow us to carry out narrow gap welding, reducing the time required to weld segments together by around 50%. It's a very new technique but it's definitely the way ahead for us."

The global trend for larger vessel heads has led to increased transportation costs which in turn prompted Antonius Vesselheads to develop techniques for producing segmented heads which can easily fit inside containers for shipping. Huub explains further: "Producing the heads in segments, in combination with our superior welding technology which reduces the cost of weld material, means we are able to offer our customers a complete package which is very economically attractive. A further benefit is that because special grades of metal are usually made in smaller sized plates, the ability to manufacture heads in smaller segments is also a distinct advantage."

The same principal applies to the large pressure vessel the company produces, such as eight metre high vats for the beer brewing industry. "We lead the market in supplying equipment to the beer brewing industry. Asia is the growth area for this market and it is a distinct advantage to be able to move the large size vessels in segments which fit inside a shipping container."

The company has invested heavily in calibrating tools on its presses in order to calibrate the various segments with great precision. "Increasing the precision of segments calibration and the detailing of weld edges mean we can offer our customers packages which save them a lot of money on welding as well as improving the welding quality and reducing flaws."

The company believes strongly in investing in its own people; the staff is offered ongoing training to continually raise the standard of knowledge in-house.

"We need our highly skilled team for projects such as our extensive research program. Currently we're researching welding technologies to speed up processes" says Guido. "Issues we are working on resolving are how to speed up processes without having materials deteriorate and how to reduce flaws which can appear after forming. This has led to us developing new inspection technologies such as ultra sonic testing equipment for stainless steels. It's very new and in some codes it's not yet an accepted technology but we believe it has great potential because it's non destructive. In future it could eliminate or substitute x-ray or other techniques because it is quicker, more economic, and environmentally safer. Ultra sonic testing allows us to inspect every weld before forming and gain more control over the process."

Confidence running high

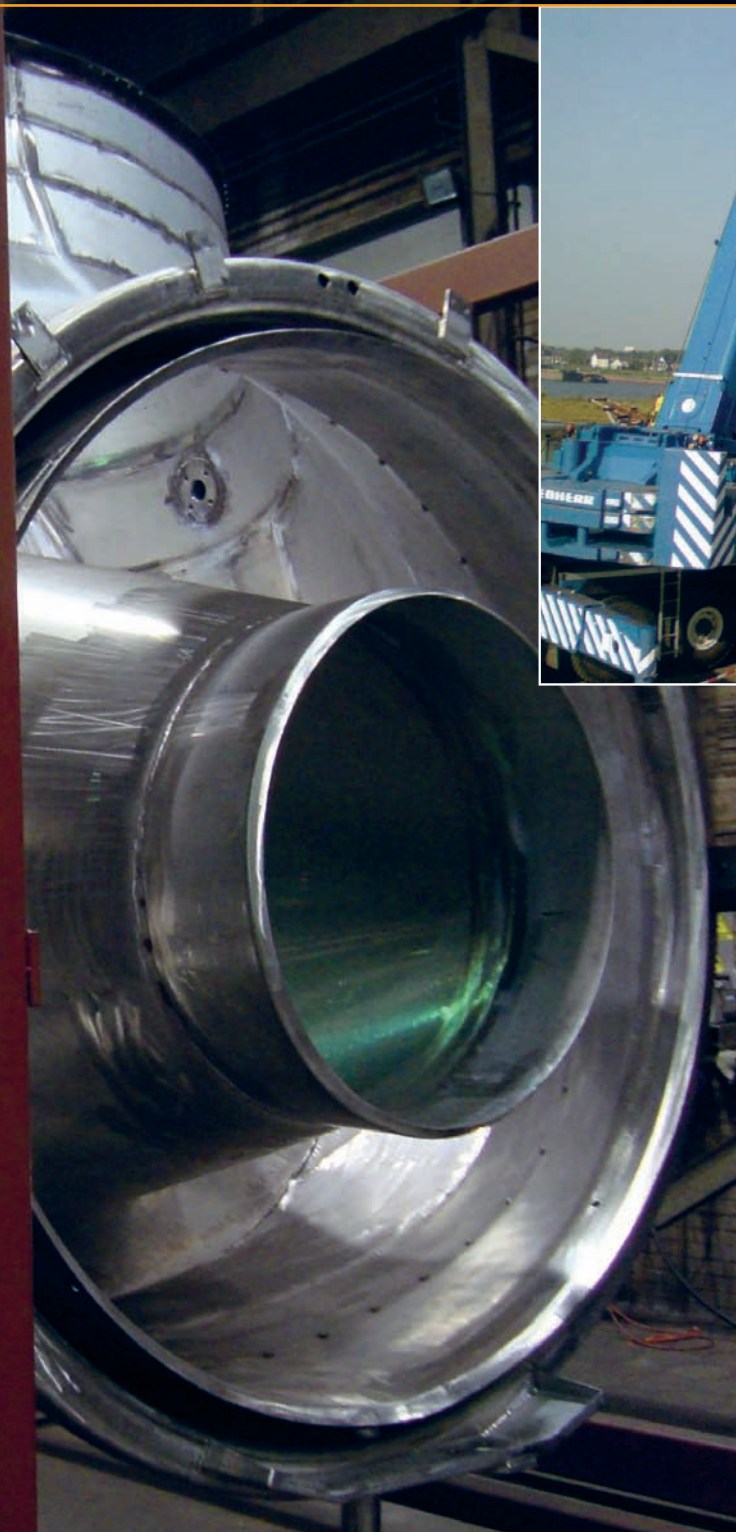
"Our strategic location in Maasbracht in the south of the Netherlands means we are geographically close to many of our customers and able to access to a highly skilled pool of people" explains Guido, who is clearly keen to outline some of the factors which have seen Antonius Vesselheads flourish for over seventy years. "It's a very convenient location for our customers - logistically we can ship items quickly and we're often in the same or a similar time zone. This is ideal when you consider that 50% of our exports are within Europe. Furthermore we have our own harbour on the Maas River which facilitates efficient transport to some of the largest ports in Europe. Our well-established, strongly multi-



lingual team are accustomed to dealing with companies all over the world."

"At the end of the day, this business is all about confidence; if a customer has a difficult specification they need to be confident that the job will be done exactly according to that specification" continues Guido. "People know they can absolutely rely on what we do and this is a tremendous advantage. Inspectors know that they can trust us and customers have confidence in us."

One of the company's main strengths is the high level of metallurgical knowledge in-house. In addition to carbon and stainless steel, the Antonius Vesselheads is known worldwide for its expertise in handling alloys, non-ferritic materials and all kinds of clad combinations.



"We have a strong team with extensive knowledge of how every aspect of working with metals including how to treat and weld them. This fact, combined with our many years of experience and the large number of projects we've been involved with, gives us confidence in what we can achieve with our materials" says Guido.

While the mining industries in Australia and New Zealand have proven to be a prosperous market for Antonius Vesselheads, now that nickel prices have fallen less work is coming out of that region and the company is looking to other areas for future growth. "Flexibility is one of our strengths" smile Huub, "and we're now looking at expanding our presence in South America. The area is booming and Brazil in particular. The prominent role that country will play in our future

inspired us to organise a series of seminars for Petrobras in partnership with Sandvik Materials Technology to explore opportunities in the Brazilian market. Brazil has huge oil and gas resources and a relatively safe and stable climate compared to some other oil producing areas."

"Russia is also an area which holds great potential for us. Indeed many of the items which we supply to Italy in fact end up in Russia. This motivated us to participate in the Metal-Expo in Moscow this November. With a Russian speaking sales manager we are able to communicate very well with Russian clients."

"Iran is another country with huge potential and we already do some business in that country, although the threats of economic blockades means companies operating there need to proceed cautiously. There are plenty of projects and a lot of oil and gas in Iran and we're very hopeful that business relations will be normalised there in the near future."

Positive outlook for the future

Despite the current economic climate the team at Antonius Vesselheads remain optimistic and have ambitious yet realistic plans for growth in the years ahead. "It certainly seems clear that the 'credit crunch' will make it difficult for big parties to get money to finance their projects" admits Guido. "However demand for the basic materials which are requirements for all of our economies will remain strong. Countries such as India and China are still experiencing growth and people around the globe are still striving to improve their quality of life. The niche industries that we deal in won't even notice the current economic woes affecting other industries. For example our largest steel supplier deals in less than one million tonnes of steel per year; that's a completely different scale than the huge automotive companies who are feeling the pinch. Furthermore there are a lot of long-running projects underway around the globe and these will not be abandoned overnight."

The company has good reason to feel confident. With turnover having doubled in the last four years and showing no sign of slowing down, Antonius Vesselheads has the reputation, quality, and now the diversity of product to weather the current storm and continue to grow in the future. ■