

#### **ANDUS** group companies:

### Refractories

Gouda Refractories

Gouda Vuurvast Belgium

Gouda Vuurvast Services

Gouda Feuerfest Deutschland

### Steel Structures

HSM Offshore
HSM Steel Structures
Lengkeek Staalbouw
RijnDijk Staalconstructies

### **Specialties**

Armada Janse
Armada Mobility
FIB Beer Systems
FIB Industries
ISS Projects Slovakia
Van Voorden Foundry

# **EXXONMOBIL RELIES ON GOUDA VUURVAST BELGIUM**

Only a few companies in Europe have the expertise to replace the refractory material in an FCC unit at an oil refinery. Gouda Vuurvast Belgium is one of those companies. Since the 1980s, the company has been called in to perform work during so-called "Turnarounds" (complete maintenance stop) at refineries throughout Europe: from Wales to Greece, from Belarus to Turkmenistan. And of course, in the Benelux too. More recently at ExxonMobil in Antwerp.

During Fluid Catalytic Cracking (FCC) oil is "cracked" in a huge vessel (50 metres high) to form base oils for fuels. The vessel is covered with steel anchoring material into which a concrete, wear-resistant ramming mix is applied. Due to the chemical process and the high temperatures in the vessel, this "coating" must be replaced once every six/ seven years. It is a huge operation, planned and carried out with military precision.

#### The order process

An extensive qualification procedure took place prior to the order. This time, it was expanded even further because Gouda Vuurvast Belgium suggested using a new type of castable that has been developed with Gouda Refractories in recent years. After going through many test protocols, the green light was given: ExxonMobil chose to use the Gouda material instead of the material prescribed from another manufacturer.

#### Specialists at work

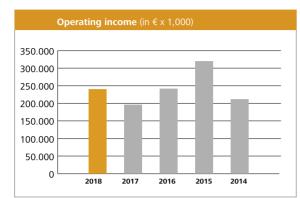
After nine months of preparation, work commenced in May 2019: five weeks, seven days a week, with forty safety-certified employees working in two shifts of eleven hours each in the interior of the reactor vessel. First the old inner lining was removed. Tightly packed and protected, the men used heavy breakers to tackle the hard concrete and the coke (a kind of residue). And if one square meter per man

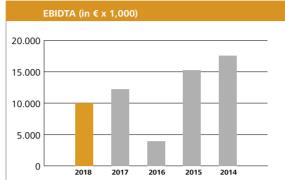
is removed after a shift of eleven hours, that can be considered a good result ... The new anchoring can then be applied. This is very specialised welding work for which a permanent partner from England was engaged. Finally, the application of the refractory material follows. It sounds simple on paper, but it is always a huge effort.

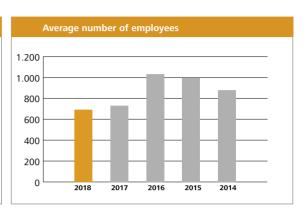


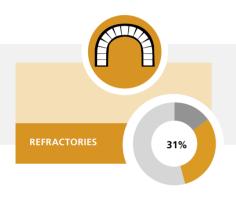
### **2018: SHORT OVERVIEW**

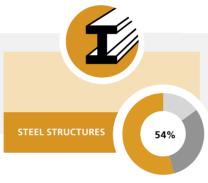
In general, Andus Group can look back on the 2018 financial year with satisfaction. The impressive turnover at HSM Offshore in particular resulted in a turnover of €240 million (+20%). However, these projects had a broad scope with a lot of subcontracting and purchasing, which means the result did not show the same increase. The EBIDTA fell slightly from €12 to €10 million compared to 2017, but these are still good figures. Given the developments within the markets and the group, this gives us good confidence for the future. Our full annual report can be downloaded via our website www.andusgroup.com

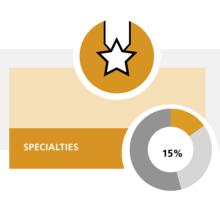
















### **D&B RATING**

Andus Group has once again been given a rating of r by Dun & Bradstreet. This means the company is extremely healthy and that the risk level is assessed as "minimal".

# **CROSS-BORDER SUCCESS**

Gouda Refractories made a name for itself with its refractory products in the global industry. But Gouda Refractories is also well known in the Netherlands. Century Aluminium Vlissingen recently signed an order for the delivery of 6,000 tonnes of refractory materials. And a new order has also been signed for the supply of 9,000 tonnes of refractory linings for a Rio Tinto aluminium smelter. The destination is a bit further from home - 18,600 km: Invercargill on the southernmost tip of New Zealand.

We do not realise it every day, but it is a very special situation when people come from the other side of the world to Gouda in the Netherlands to buy refractory materials. It is definitely something to be proud of. Gouda Refractories has traditionally had a good name "down under". Various aluminium smelters in both Australia and Tasmania are using Gouda Refractories products. This first order from New Zealand was obtained on the basis of these references and extensive tests. And as

a result, the list of countries Gouda supplies is growing steadily. With a nice order from Kazakhstan recently, the impressive spread is increasing: Russia, India, the Middle East, South Africa, USA, Canada, to name just a few destinations. Part of the success? The high-quality products and inno-

vations. With the new high-quality mixing line, Gouda Refractories is able to take further important steps on the road to developing new products and markets.



# **EXPANSION ACTIVITIES TO GERMANY**

Gouda Vuurvast Services is market leader in the Dutch "waste to energy" market. Half of the twelve Dutch waste processing companies use the Gouda Vuurvast Services refractory tile system in their incinerators. The system is known for its "smartness" of concept and its robustness, which has a positive effect on the lifespan. Our neighbours to the east must also be interested in that ...



A few years ago Gouda Vuurvast
Services decided to focus its
attention on the "waste to energy"
market in North Rhine-Westphalia,
a sub-republic of Germany with
around 18 million inhabitants and
the "home base" of more than
twenty waste processing companies. Because "the oven" is an
essential part of the installation,
these companies naturally are not
willing to simply switch to another
refractory supplier. Recently,

Gouda Vuurvast Services has focused mainly on "die Türknauf putzen". In other words: making and maintaining contacts. And this has been successful. Orders have been acquired from three plants.

#### New site

Due to this first success, it was decided to expand the existing Sales Office in Bochum and move to a larger location with storage space for materials and emergency inventory. We have hired a German foreman who knows the ins and outs of the German market well. The new location will also become the base for other Andus operating companies. This is how Van Voorden Foundry will also achieve success on the German market; and there are plenty of opportunities there. A German location is an advantage.

### **ONWARDS TO THE NORTH SEA!**

In earlier editions of Andustry news, we often reported on orders that HSM Offshore acquired for the construction and installation of two transformer platforms for TenneT. After the jacket was installed in the so-called Alpha field in the North Sea in August 2018, the next "big day" was 10 May 2019: the sail away from the Borssele Alpha topside. And that's just the beginning. Because the jacket for Borssele Beta also started its journey to the North Sea. Followed by the Beta topside in 2020 ...

All the numbers, dimensions and results are impressive. The two transformer platforms automatically regulate the power transmission of around 150 gigantic wind turbines to the TenneT land station in Borssele. Total capacity: 1,400 MW. In other words: they provide twice the energy needs of Rotterdam. A few more figures: the Alpha topside, the Beta jacket, and the necessary foundation piles that were transported had a total weight of over 8,000 tons.

Just as impressive as the implementation of the project. It was an order in which HSM Offshore completely relieved the customer of all the responsibilities. The scope of the work is enormous: from engineering to the purchase of all the required materials and equipment; from the construction of the platform, to testing the installation at sea and commissioning it. This meant, among other things, the adaptation of information systems and the introduction of new document

management systems. A total of 10,000 inspections were carried out during the project! But what makes HSM Offshore particularly proud is that, at its height, more than 500 people were active on site and more than one million man-hours were worked by numerous subcontractors. The highest safety standards were observed, which resulted in a very good safety score. René Postulart, Tennet Manager Projects Offshore NL, also expresses his pride on www. maritiemnieuws.nl: an immense project that was safely carried out on

time and within budget! We cannot get a better compliment.





### **ANDUS GROUP IN MOTION**

The Vrijstad Vianen Loop was held on Sunday 14 April. A local initiative that wants to promote increased movement, a healthy lifestyle, underlined by connections and social contacts in the municipality of Vianen. Young and old, beginners and advanced, could walk or run a wonderful route over several different distances. It was a successful edition with nearly 1,000 participants, including a delegation from Andus Group and various operating companies of course. To endorse this charity, and to show solidarity with the local community, Andus Group supported the route as a "social sponsor". Next year, on Sunday April 5th, we will be there again!

# RESPONDING TO CUSTOMER AND TRAVELLERS' WISHES

Nobody enjoys waiting for the tram or bus. Certainly not when it's cold, dark and wet. A comfortable shelter that offers protection from the weather and provides a safer feeling due to the lighting is very welcome. Armada Mobility regularly achieves success in the shelter market thanks to the quality, modular approach, design options and the attention to circularity.





Following recent orders in the provinces of Friesland and Groningen, Armada Mobility has also won attractive orders from councils in Hoorn, Heerhugowaard, Amsterdam and Veldhoven. Hundreds of Armada shelters now decorate the cityscape and landscape. And when we say decorate, we mean it - because clients are demanding more and more design quality. And they are quite right to do so. Armada Mobility scores very well on this.

#### **Environment** is weighing heavily

Another aspect becoming increasingly important is the sustainability and circularity of the shelter and the entire production process. Armada Mobility, with the highest score on the CO2 performance ladder, pays particular attention to this. Each raw material is critically examined: what is the lifespan, can it be easily reused, what percentage of the aluminium comes from recycled material, are concrete products bio-based? These are some of the many questions that are asked. In addition, there is a strong focus

on innovations and the application of energy-saving measures. For example, shelters with solar panels and LED lighting. Armada Mobility is currently involved in a number of contracts for initiatives on behalf of NS and ProRail to equip existing resources with LED lighting or to renew LED lighting. This includes projects such as the clocks and signposts in the travellers information systems, and the NS bicycle parking facilities. This means Armada Mobility is doing its utmost to keep the environmental impact for the customer as low as possible.

# LENGKEEK STAALBOUW: FIRST IN THE SHELL PERNIS SAFETY RANKING

During the Shell Safety Day on 27 March 2019, Lengkeek Staalbouw received the "Working together safely on Shell Pernis 2018" certificate as recognition for achieving first place in the 2018 Contractor Safety Ranking. A great achievement that can only be accomplished if safety is in your DNA.

Klaas Appelmelk, H&S coordinator and Senior Safety Officer, and Dick van de Poel, Manager Sales/Projects of Lengkeek Staalbouw talk about this recognition.

#### Continuously being aware

Klaas: "If you come in first place from approximately 35 contractors, you must all be doing something good. There are no rules or tricks. It is simply a mindset for all of us." Dick: "When I go down the stairs, I hold the handrail. If I have to drill a hole at home, I put on safety glasses. I don't even

think about it." These are of course small examples. Quite different from working at Pernis. Where every day starts with a safety kick-off: what went well, what could be better, what are we going to do today?" Klaas: "You have to be constantly aware of and thinking about risks. Actively identifying if something is wrong, and addressing situations. Have you spotted a risky situation? Report it, even if it has nothing to do with your work. Shell also pays attention to this. Do you attend the meetings, do you contribute to the matters at hand? We also encourage this internally. We celebrate our safety successes together, and every month we offer one or two gift vouchers for the 'Report of the month'."

#### No improvisation

Dick: "During stoppage periods, it is hectic at the refinery; it is teeming with people; there is enormous time pressure; and you are always faced with surprises. You have to stay focussed. Of course flexibility is important, but improvisation is out of the question. If you have any doubts,



Dick van de Poel and Klaas Appelmelk with the certificate

stop working and start talking." Klaas: "Shell takes safety very seriously and goes a long way to implement it. All materials and tools must, for example, be on a leash, including safety glasses and helmets. And now a project, 'Working without hands' has been started to keep your hands out of 'the line of fire'. It will certainly not be the last. But let's face it, it provides us with something that is very important. We have now worked for 2,000 days without an accident. That's what it's about: everyone going home in good health."

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Lay-out and Production
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