



# ANDUSTRY *news*

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ANDUS GROUP SERVING THE INDUSTRY

**ANDUS** *group* companies:

## *Manufacturing*

FIB Industries

Gouda Refractories

Van Voorden Foundry

## *Services & Maintenance*

Gouda Vuurvast Belgium

Gouda Vuurvast Services

Gouda Feuerfest Deutschland

ISS Projects Slovakia

Lengkeek Staalbouw

Rijndijk Engineering

## *Contracting*

Armada Janse

Armada Mobility

HSM Offshore

HSM Steel Structures

RijnDijk Staalconstructies

## GOUDA SPECIALISTS IN FRANCE

The chemical concern Borealis is, amongst other things, one of the largest nitrogen fertiliser producers in Europe. Borealis has a production location in Grandpuits, slightly to the south-east of Paris, which was the home base for 65 (!) employees of Gouda Vuurvast Belgium and partner firms for a duration of six weeks. They faced the immense task of replacing the refractory lining of two large furnaces. Philip Knipscheer, director of Gouda Vuurvast Belgium, provides the following information about this complicated and heavy work.

Philip: "The first discussions with Borealis started about two years ago. In particular, the roofs of the furnaces – equipment with a multitude of vertical tubes - had started to show signs of weakness. Furthermore, there were significant energy losses in places where the tubes come through the roof. Together with colleagues from Gouda Refractories, we started re-engineering. An ingenious steel roof construction was designed, from which the refractory bricks – which connect to each other like Lego bricks - were suspended. Implementation of fibre paper, fibre blanket and insulating castable reduced energy loss."

### Difficult conditions

"To gain experience with the assembly, a trial installation was created here at Gouda Belgium first. This already showed it would be a labour-intensive job, even under 'normal' working

conditions. And conditions in France would not be anything like normal. There was asbestos in the furnaces, forcing the men from Gouda to carry out their jobs in full protective clothing, like proper astronauts. All while working at a height of five metres. But that was not all. Specifically because of the asbestos, large tents were built around the furnaces to create a low pressure situation. This meant that the working area was hard to reach. The steel and 25,000 bricks therefore had to be brought up manually."

### Put yourself in their shoes

"Six weeks abroad, bunking in caravans and cottages. Working in two teams in ten hour shifts. In full protective clothing, no more than 2.5 hours in the furnace in a row due to working conditions, undressing in the tent, shower, a short break and then back into the suit. And that three times a day, six



days a week. An extremely specialist job, that we were able to achieve as cooperating Gouda companies. Respect!"



# INDUSTRIOUSNESS AND TEAMWORK AT FIB INDUSTRIES



This year, FIB has once again performed a number of interesting assignments and acquired some interesting orders. One of those ended up in the order portfolio thanks to a 'golden tip' from Lengkeek Staalbouw...

While performing activities for a client in the Botlek area, Lengkeek heard of a problem with a distillation column. This is not the expertise of Lengkeek, but it is the expertise of FIB. FIB was quickly brought in and contacted the client. Although FIB was not yet on the list of preferred suppliers, the client was interested in the solution that FIB had to offer. Based on good experience with Lengkeek, and the accurate actions of FIB Industries, there was sufficient trust for the project to be given the go-ahead. The experience with building columns, international references, speed of action and short delivery times were deciding factors. This

is why work is now being done on a complicated stainless steel column, which stands on a 'skirt'. Naturally, four boxes of delicious Frisian 'oranjekoek' have been delivered to Lengkeek, with our thanks for their collegiality.

## Customer-oriented

Another assignment that FIB can be proud of is the supply of a duplex storage tank for a client in Pernis. The tank has a diameter of 7.6 metres, is 13.5 metres high, and equipped with a spiral staircase and railing. Normally, such tanks are constructed on-site, meaning numerous safety measures need to be taken, which costs both money and time. FIB

proposed to construct the tank 'fully dressed' in Leeuwarden and transport it to Pernis with Mammoth Transport. It turned out to be a very efficient method. "It is always the key to success: customer-oriented working and keeping in mind the specific needs in different market segments. The four distillation columns that FIB Industries will now supply in the USA, where the plant owner is a Danish pharmaceutical company and the client Irish, are excellent proof of that as well. Talking about international!", says Ruurd Schut, International Sales Manager at FIB Industries.



Duplex storage tank

## RENEWAL OF UNLOADING QUAY IN GOUDA

A lot of raw materials are needed to produce 65,000 tons of refractory bricks per year. Luckily, Gouda Refractories has been located at the Goudkade for over 115 years, right on the river Gouwe. About every two weeks, an inland vessel moors at the company with tons of bulk raw materials. That saves quite a lot of freight traffic on the Goudkade, because these quantities would require dozens of lorries. It is one of the reasons to cherish this spot on the Gouwe.



Over the last years, it became clear that the unloading quay at Gouda Refractories was in need of serious maintenance. The river was starting to silt up, which meant ships could barely get close enough to the quay. Dredging was essential. Furthermore, the quay itself needed some renovation. However, the problem was that the quay was not property of Gouda Refractories itself: it was owned by the Gouda municipality. Because of the importance of this supply route, we initiated talks with the municipality, which finally resulted in the purchase of the ground by the Andus Group-affiliated property company. The work could get started!

## Solid work

It was easier said than done, because you cannot just start digging on a quay. Especially when it concerns a water barrier. Many investigations, probes and reports followed, and the Water Board demanded that 'the new dam' should last at least 50 years. In the end, all parties agreed on the way in which the work was to be executed, so the procurement could begin and activities started. In August 2017, it was finally time: the new unloading quay was commissioned. The river has been dredged, and new dam walls have been placed over a length of 26 metres. The entire quay, with its three new mooring poles and

two bollards, is fully compliant with today's requirements. And because of the solidity of the construction, Gouda is set for another 100 years.





# NEW RAILROAD BRIDGE, MAGNIFICENT CONSTRUCTION

To handle the increasing passenger traffic as efficiently as possible, ProRail has been working on doubling the tracks between Utrecht and Woerden for many years. The entire route now has four tracks, except the section between Utrecht Central and Leidsche Rijn. But in April 2018, that part of the track will be ready as well. This is when the new railroad bridge over the Amsterdam-Rhine Canal will be ready: an impressive operation!

The project 'UtARK' started in July 2015 with the preliminary award of the project to the combination BAM and HSM Steel Structures. HSM is responsible for the construction and installation of the steel bridge. The circumstances in which the UtARK project is to be realised ask the utmost in terms of experience, creativity and care from the entire project team.

## Complicated conditions

The new railroad bridge will be placed between two existing bridges, which are about 25 metres apart. Building the bridge over the canal on-site was not an option; it would create excessive hindrance to the

traffic. This is why the bridge had to be built at a 'pre-build location', so it could then be 'slid' between the existing bridges in its entirety. To cause as little hindrance as possible, HSM decided to build the bridge at their own site in six pieces that were as large as possible; the plan was then to transport the pieces to the pre-build location by water. Quite an operation, if you realise that each



Photo: Gerrit Serné via ProRail

piece is about sixty metres long and weighs about 500 tons...

## Spectacular transport

Over the last year, the individual bridge parts have been assembled into a complete bridge at the pre-build location: an immense construction with a length of 170 metres, a width of 15 metres and a height of 29 metres. Total weight including first concrete layer: 3,400 tons. Over

the weekend of 17 - 19 November, the pièce de résistance will follow; the spectacular transport of the bridge to the Amsterdam-Rhine Canal. Heavy transport carriers will be driven under the front and back of the bridge, where the bridge will come to rest on a total of 640 wheels. Subsequently, the bridge will 'drive' to its final destination and be slid in place: about six centimetres from the existing railroad bridge. Impressive!

See <https://www.prorail.nl/nieuws/video-spoorbrug-vervoerd-over-het-water> or YouTube: <https://www.youtube.com/watch?v=t-alun8jSME>

## THE CONFIDENCE OF PRORAIL

Harry van Iersel is Rail System Engineer at ProRail. Together with Edwin Schepers, Project Manager at HSM, he speaks of the procurement and construction of the new railroad bridge at Leidsche Rijn.

Harry van Iersel: "It was clear to us that this was a very complex project. This is because of the limited working area on the one hand and because, as the builder, you cannot cause unplanned hindrance - let alone unplanned traffic stops. Furthermore, our goal was to have zero accidents and to keep management costs as low as possible. This is why we wrote a procurement based on 'Best Value Procurement': the deciding factor is then who provides the highest quality and puts as little pressure on the environment as possible. With an expenditure ceiling, naturally."

## Dear bidder

"The procurement starts with the presentation of the plans of the inte-

rested parties. How do they want to carry out the project, in what time period and what risks and opportunities do they see? After that, we interviewed the best candidates. Conversations with the people that will be doing the job. Their knowledge and experience was a very important factor. In the end, we 'preliminarily' awarded the works to the combination of BAM and HSM in July 2015. Edwin Schepers: "The preliminary award is not the end, of course. It means you can start developing the plans. All the ideas you presented have to be translated into actual achievable solutions. You must prove that you have sufficient control over the project to actually make the pledged quality and other promises a reality." Van Iersel:

"Building and transporting a bridge like that has quite an impact, also for the environment. How do you ensure minimal hindrance and limitations in the availability of the tracks? Either way, the action plan and solutions that were offered were encouraging enough that the final assignment was awarded at the end of 2015."

## Transparent

Schepers: "So far, the project is going smoothly. We are actually ahead of schedule, and have been able to put nearly all the ideas we thought up on the drawing table into practice. We still have the finale: the final placement. But that is all under control as well." Van Iersel: "We at ProRail have full



HSM's construction team

confidence. So far, the cooperation has been very good. The open attitude at HSM and BAM is particularly impressive. They continually inform us of the developments and show us what they are doing. If there are any deviations, they inform us immediately, which creates confidence. Furthermore, we assess the process and quality of the activities intensely, and it is clear that HSM provides what the company promised."



# RISK MANAGEMENT IN A BROAD SENSE

At Andus Group, a lot of attention is paid to Health, Safety and Environment (HSE). We want to make sure that everyone arrives home safe and sound after work. This means we need to reduce the risk of and at our work to a minimum. This is what our (HSE) policy focuses on, which connects very well to the principles of the 'new' ISO 9001:2015 norm.

The newest ISO norm takes risk management within the organisation and its environment as its core principle. What do stakeholders (clients, staff, environment, etc.) expect from the company, and where are the risks and opportunities? Once you have mapped that, you decide which measures to take in order to reduce those risks as much as possible. This is a way of thinking that we at

Andus Group are happy to support and in fact, have put into practice for many years.

To underline the importance of 'responsible working', Andus publishes the booklet 'Safe, responsible and environmentally conscious work' in Dutch, English, German and Slovakian. The publication, which was recently supplied to every staff member,

contains rules of conduct and regulations that everyone needs to adhere to. Policy statements from the Board have also been included. This is to emphasise that quality, working conditions and the environment are an integral component of the Andus policy, with the highest priority.

André Kraaijvanger  
HSE officer



# AN OVERWHELMING PARTY

Undoubtedly you will not have missed it: Andus Group is celebrating its 20th anniversary this year. On 10 June, we celebrated in style with all staff and partners in the amazing ambiance of the Railroad Museum. It was a fantastic experience! Everyone went home in one big conga line. The Andus train is on track, so join us for the next 5 years.



# JOIN US AT THE EXHIBITION

The Offshore Energy Exhibition & Conference (OECC) is Europe's largest offshore energy event. The exhibition is held in the Amsterdam RAI on 10 and 11

October, and we are definitely going to be there. HSM Offshore, FIB Industries and Van Voorden Foundry will be in an genuine Andus pavilion to present them-

selves to the very best of the offshore energy market. Feel free to come and visit us at stand 1.166/1.167!

## ANDUS GROUP SERVING THE INDUSTRY

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**Editorial committee**  
Kris Rooijackers  
Jennifer van Rijn  
Niels Wibier

**Layout and Production**  
HOW communicate | create

**Editorial adress**  
Voorstraat 56  
4132 AS Vianen

Andus Group BV  
Vianen / Tel. +31 (0)30 - 211 58 00

FIB Industries BV  
Leeuwarden / Tel. +31 (0)58 - 294 59 45

Gouda Refractories BV  
Gouda / Geldermalsen  
TEL. +31 (0)182 - 59 14 00

Nedstaal BV  
Alblasserdam / Tel. +31 (0)78 - 692 37 00

Van Voorden Foundry  
Zaltbommel / Tel. +31 (0)418 - 57 12 00

Gouda Vuurvast Belgium NV  
Wijnegem / Tel. +32(0)3 - 326 57 00

Gouda Vuurvast Services BV  
Gouda / Tel. +31 (0)182 - 59 14 00

Gouda Feuerfest Deutschland GmbH  
Bochum / Tel. +49 (0)2154 - 888 700

ISS Projects sro  
Košice / Tel. +42 155 729 92 27

Lengkeek Staalbouw BV  
Hoogvliet RT / Tel. +31 (0)10 - 416 16 44

Armada Janse BV  
Budel / Tel. +31 (0)40 - 256 19 11

Armada Mobility BV  
Nieuwegein / Tel. +31 (0)30 - 246 95 00

HSM Offshore BV  
Schiedam / Tel. +31 (0)10 - 427 92 00

HSM Steel Structures BV  
Schiedam / Tel. +31 (0)10 - 427 92 00

RijnDijk Staalconstructies BV  
Budel / Tel. +31 (0)40 - 246 72 28

RijnDijk Engineering BV  
Breda / Tel. +31 (0)88 - 066 41 11