

HUBERT

water treatment installations



Introduction:

Hubert has more than a century experience in the market of water purification, water treatment and water intake systems. Over the years we gained an extensive number of satisfied customers all over the world.

Hubert & Co - as we were known at the time - was founded in 1880 and was based at two different locations in the Frisian town of Sneek. At the time, Hubert specialised in the production and maintenance of a diversity of machinery, (steam-powered) ships, steam engines and bridges. Over the years, Hubert has had an increasing focus on the design and construction of machinery and installations for (waste) water treatment. In the 1980's and 1990's, it was decided to close the sites in Sneek and to bring everything together under one roof at the production site in Stavoren, likewise in Friesland. This location, close to the railway and on the shore of the IJsselmeer, enables Hubert to ship its large prefabricated constructions worldwide.

Nowadays Hubert forms part of the Harlingen Holding group. With an enthusiastic workforce, Hubert is active in the design, engineering, production and installation of a water treatment equipment. Generally speaking, Hubert products can be split in 2 divisions.

First, waste water treatment for both household waste water and the purification of waste water from industry. Hubert waste water installations are known for their fit-for-purpose design and their high quality, which give excellent performance and mean longer lifespans. Due to the diversity of applications for which our installations can be used, our clients worldwide range from water boards and authorities in the public sector, to multi-nationals in the petrochemical industry.

Second, Hubert supplies a complete package of products for cooling water intake systems. This means our products are able to purify untreated surface water before it reaches the cooling water components, such as pumps and heat exchangers. Hubert screening installations are usually built as complete intake stations for power stations and petrochemical plants. Given that cooling water intake systems are a crucial part of a production facility, it goes without saying that our installations have to operate efficiently and reliably in extreme (weather) conditions. The installations we supply are designed and produced in-house in Stavoren. Over the years, our specific products and expertise have enabled Hubert to become a major player on the global market for cooling water intake systems.



Founder Wopke Hubert

Hubert Waste Water Projects:

New equipment for WWTP Birdaard, the Netherlands.

For the Birdaard waste water treatment plant owned by Wetterskip Fryslân - the provincial water board - Hubert was commissioned to deliver and install a new clarifier.

This waste water treatment plant, located in the north of the Netherlands, is already operating with the aid of Hubert thickeners, aerators and clarifiers. The new project involves the construction of a new triangular-shaped aluminium bridge which covers two-thirds of the 44-metre-wide clarifier tank. The stainless steel scraper construction is driven by a peripheral two-wheel drive unit. As would be expected from Hubert, the installation incorporates operational and safety devices, such as a maintenance platform, a swimming ladder and obstacle protection.

As main contractor, Hubert is also responsible for all project-related E&I and civil engineering work. After finalising the engineering design process at the start of the year, production work is now in full swing at our production site. Installation and completion of the project will take place in June 2019.



Hubert floating aerators on their way to Hong Kong!

The worldwide sales over the years is tangible proof of the Hubair high-efficiency aerator. In addition to high efficiency, its proven and trusted design gives excellent operating reliability, a fact which is greatly appreciated by our clients in the (industrial) waste water sector. For the Hong Kong project, this involves 16 complete floating assemblies consisting of a drive unit, Hubair aerator a service platform and a floating structure. The complete package has been produced in Stavoren and is being shipped out to Hong Kong where it will be installed in a lagoon.

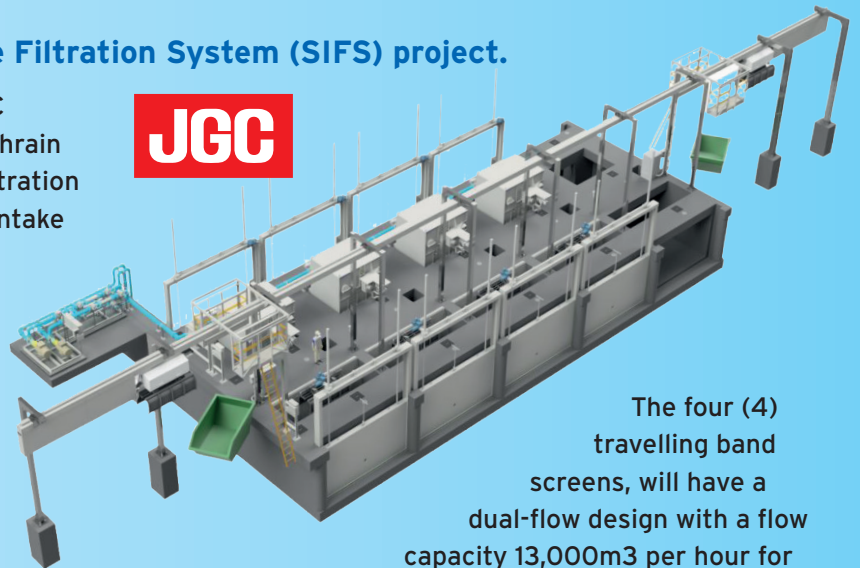
Hubert Screens Projects:

JGC Gulf / BAPCO, Seawater Intake Filtration System (SIFS) project.

Hubert recently received an order from JGC Gulf International Co. Ltd to improve the Bahrain Petroleum Company's (BAPCO) seawater filtration system at its HLPH facility. The Sea Water Intake Filtration system comes complete with all the ancillary equipment, units and services in order to satisfy the design and environmental conditions.

The filtration system will ensure the complete removal of seaweed, debris, plastic bags, wood chips, molluscs, jelly-fish, etc. The system consists of sluice gates which are positioned upstream and downstream of the Hubert bar screen and band screen. The motorised sluice gates serve to dry each of the intake channels and to allow maintenance to be carried out on the bar screen and travelling band screen.

The bar screens will help prevent large particulates from entering the water intake system. The bar screens will be cleaned by means of an automatic raking system. Two (2) independently operating trash grippers will clean the rakes and dispose the debris into the containers on deck.



The four (4) travelling band screens, will have a dual-flow design with a flow capacity 13,000m³ per hour for each band screen. This means a total water flow of more than 50,000m³ per hour. With a mesh opening of 4x4 mm, the band screens are responsible for removal of the small debris. All machinery and parts will be installed outdoors. This means that the equipment is weatherproof and suitable for saltwater marine applications. In general, all submerged parts will be manufactured from Duplex material. Production of the equipment is now in full progress and installation and completion of the work on site is expected in the summer of 2019.

Kyrskaja Power Plant - 2.

Hubert was commissioned by ASE (Rosatom State Corporation Engineering Division) to supply water-treatment units for the GA make-up water installation at the Kyrskaya nuclear power plant.



ASE is one of the leading exponents in the international nuclear engineering business and holds 31% of the global NPP construction market. Through a network of offices and branches worldwide, it operates in 15 countries (see website: ase-ec.ru/en).

The water treatment units it uses are Hubert travelling band screens. The band screens are mounted within a support frame and will be supplied as a package for immediate installation and operation on-site. The design and quality requirements for the manufacturing process and the materials used will guarantee reliability throughout its operating lifespan. All rotating parts will be fabricated in 316L stainless steel. The complete band screen housing is produced from carbon steel which has been given a high-quality, multilayer epoxy coating for protection against local environmental conditions. The design flow capacity for each band screen is 9,000m³ per hour. The square mesh opening in the screen panels is 2 x 2mm. Delivery is scheduled for May 2019.



Hubert Service & Aftersales.



Hubert's service and after-sales department is responsible for the distribution of parts and providing technical support worldwide. This applies to both the waste water and cooling water intake market. Given Hubert's illustrious past (after all, the company has been in existence for more than 135 years!) and the diversity of its product portfolio, it comes as little surprise that demand for parts and support is still extremely high. Our clients worldwide are provided with advice and technical support by our team of supervisors and technicians. Whether this involves repair of installations or the upgrading of existing ones to state-of-the-art technology, Hubert Service & After-sales has been a household word for service and reliability for many a year.

Thanks to our well maintained archives we can still manufacture and supply spare parts for equipment made after 1950, manufactured by:

- Hubert Sneek
- Esmil Hubert
- Stork
- Vivendi
- US Filter

For direct contact:

Call Hubert : +31(0)514 684 444 or
mobile +31(0)6 201 386 84

E: sales@hubert.nl

Recent projects in the Netherlands:

- Complete overhaul of four (4) centrally driven primary clarifiers with tank diameters of 50 metres each for one of the largest waste water treatment plants in the Netherlands.
- Repair and maintenance work on cooling water intake systems for Shell Nederland.
- Renovation of Hubert micro-screens for various drinking water stations.
- Consulting work and design engineering for band screen systems for energy provider, Nuon.
- Renovation of waste water treatment plant at Givaudan Nederland.

Recent projects worldwide:

- Delivery and installation of waste water equipment at BASF Ludwigshafen, Germany.
- Delivery of parts for cooling water intake systems for Statoil, Norway.
- Reconditioning of Hubert micro-filters for Anglian Water, UK.
- Installation and supervision of cooling water intake systems for Shell in Oman.
- Reconditioning of Hubert micro-filters for drinking water facilities in Belgium.

HUBERT

water treatment installations

Hubert Stavoren BV • Kooyweg 20 • 8715 EP Stavoren
E: info@hubert.nl • I: www.hubert.nl • T: +31 (0) 514 - 684 444

Quality Assurance:

Hubert is certified in compliance with:

- ISO 9001/2015
- VCA ** (SCC-SHE)
- IIW EN ISO 3834-2

This means that all our design, manufacturing and installation activities take place in compliance with the procedures set down in these quality management systems.

Welding and construction codes

Hubert has extensive experience with the following quality standards:

- Welders qualified in compliance with EN 9606-1/ASME IX/AWS D1.1
- Welding procedures qualifications in compliance with EN 15614/ASME IX/AWS D1.1
- Welding qualifications for various materials

Cooperation with internationally recognized notified bodies

- German TUV • Lloyds • Det Norske Veritas • Bureau Veritas • ABS
- Achilles JQS, Joint Qualification System for suppliers to the Oil Industry in Norway and Denmark.

References





Replacement of the screening drum FLA 1 way B FLAMANVILLE EDF Nuclear Power Plant

CONGRATULATIONS !

We all can be very proud and fully satisfied of the work achieved.

After five months of construction, the installation of our first screening drum on the Flamanville nuclear power plant was successfully completed on August 23, 2018. This large-scale project is a technical outstanding performance and positions REEL as a builder on this new strategic segment.

As a reminder, this semi-submerged equipment overall 165T and 22m in diameter, ensures the fine filtration of seawater upstream of the cold water intake pumps that supply the engine room cooling circuit. This new drum therefore starts up for a little over eighteen months of non-stop operation and represents one of the major equipment important for the Flamanville's reactor n°1 safe running.

The on-site water tests have ideally completed this extraordinary project of five years, since the first shots of pencil on a blank page until the delivery of the equipment to the EDF operators.

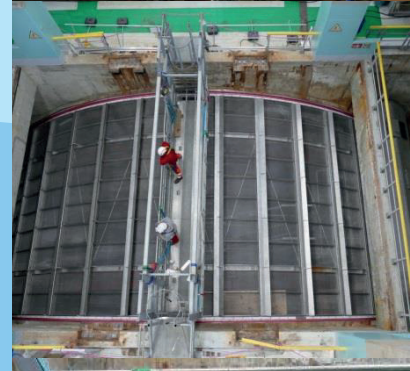
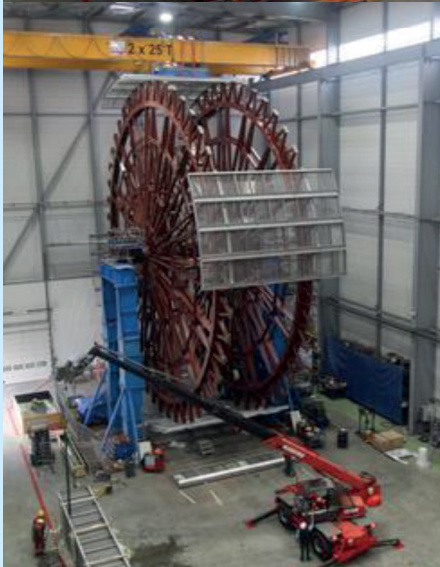
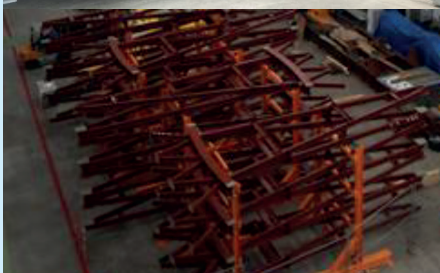
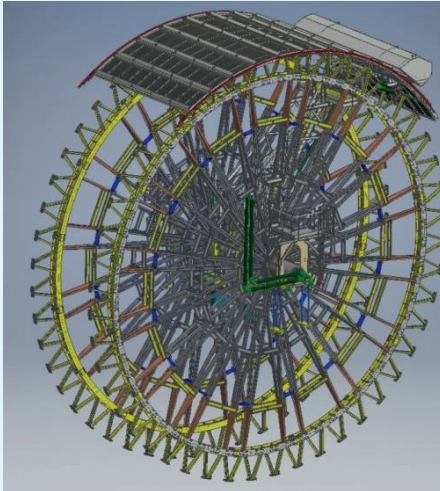
Many actors have contributed to this challenge and have participated in this success: REEL Design Offices and its subcontractors, Project Support Services (Purchasing and Quality Assurance), REEL manufacturing plants in Villefranche sur Saône and La Rochelle, the REEL assembling teams and subcontractors working on the site, not to forget a special mention to our Dutch strategic partner, the HUBERT company, whose tenacity we salute for the work accomplished.

Also, we would like to welcome all the suppliers and subcontractors from France and Europe who have been able to provide, and in some cases, qualify solutions to the multiple issues raised.

**Congratulations and thank you all for your support,
commitment and your professionalism!**

By the admission of our client EDF itself, it is a success. The congratulations of their respective directions are reaching us to underline this high level of satisfaction.

The next achievement is already coming very quickly in continuity for Unit 2 no later than 2019; the way will then be opened for achievements until 2024.



Project update: EDF Nuclear Power plant.



Since the qualification of Hubert, together with its French partner, REEL, several projects have been accomplished. The Hubert / REEL drum screen was installed at the Flamanville 1 NNP in Normandy and this installation has been in operation since late 2018. In 2018 Hubert carried out production work on the filter band parts, spray water system and the walkways and maintenance platforms for the Flamanville 2 project. In the same period, engineering activities for the Bugey project were carried out and manufacturing activities for this project have been scheduled for 2019.

New projects which will be followed up in the coming years are the replacement of drum screen equipment for the Graveline NPP and the Penly NPP. In total, a minimum of five drum screens will have to be completely replaced in the period from 2020 to 2024! In addition to these activities, design studies have been carried out with respect to other screening equipment.

In the meantime, Hubert continues to collaborate successfully with REEL. As well as the activities for EDF NPP, we are now discussing potential new markets in which Hubert can cooperate with REEL.