

press release

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Amarinth delivers complex "plug-and-play" API 610 pump skid package for the Mariner Platform in the North Sea

Amarinth, a leading company specialising in the design, application and manufacture of centrifugal pumps and associated equipment to the Oil & Gas, petrochemical, chemical, industrial and power markets, has delivered a complex skid package with an API 610 OH2 pump for a water treatment package for a de-sanding application to be used on the Mariner platform in the North Sea.

The Mariner field is located 140km southeast of the United Kingdom Shetland Islands in a water depth of 110m and is ranked as one of UK's largest undeveloped oil finds. The required skid package for the platform was constrained by an existing project which was already well underway. The specification was for a $3.6m \times 1.5m$ skid to house the pump, seal support system and all associated pipework, monitoring and ancillary equipment. This all had to be contained within the skid footprint with hookup and piping termination points to the platform already determined. Furthermore delivery was required in just 38 weeks.

The short lead-time led to an evolving scope to fit the specified duty and space constraints with Amarinth advising on the pump selection, packaging and design considerations to fit with the existing infrastructure. This involved complex pipework to stay within the footprint without generating excessive losses, ensuring no loads or movement was projected to the existing pipework on the platform and maintaining serviceability around the skid package.

Finite element analysis was used to evaluate the fixed pipe loads, ensure their structural integrity and make sure no loading would be passed through to the platform's pipework. To prevent any movement being transmitted to the connecting pipework during start-up, operation and shutdown of the pump, a sliding baseplate was engineered using a PTFE layer in the baseplate, isolating the movement of equipment on the skid from the platform.

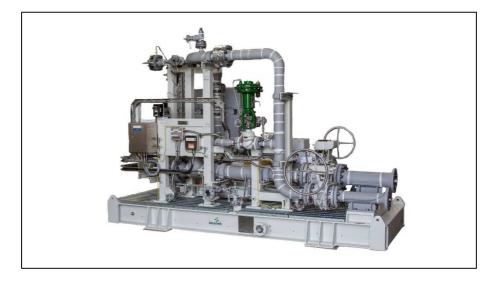
To protect the pump during low flow situations, a flow meter and low flow bypass control valve were incorporated and heat tracing was installed for frost protection. With all of the ancillary components such as terminal boxes, switches, flow meters and control valves that are usually placed off the skid having to be contained within the footprint, Amarinth used human factor software to position cable trays, gratings and walkways and simulate human movements to ensure operators and maintenance engineers could complete their tasks unhindered in and around the skid.

The final "plug-and-play" skid package, which also incorporated a unique lifting frame carefully designed for the stresses involved in correctly positioning the skid in the water treatment package on the platform, has just been delivered on-time.

Oliver Brigginshaw, Managing Director of Amarinth, commented: "Our willingness to look at the most demanding of problems, combined with our engineering agility to design bespoke skid packages on short lead times, ensured that we were able to deliver a pumping solution that met all of the challenging criteria for this water treatment package within the timescales required enabling the overall project schedule to be maintained for the end-user."

– END –

OPTIONAL PANEL or BOX ITEMS



Amarinth API 610 pump skid package ready for delivery to the Mariner Platform

NOTES TO EDITORS:

Founded in 2002, Amarinth has harnessed the skills, creativity and passion of people who have worked in the pump industry for many years. Amarinth delivers world-leading expertise in the design, application and manufacture of centrifugal pumps and associated equipment to ISO, ANSI & API standards, primarily for the Oil & Gas, petrochemical, chemical, industrial and power markets. The company's portfolio includes:

- **Pumps**: Horizontal and vertical API 610 pumps, chemical and industrial pumps, many of which are interchangeable with the Girdlestone pump ranges, eliminating the need for expensive modifications when replacements are required.
- **Pressure Vessels**: Protect System Plan 52 and 53A and 53B sealant systems with inbuilt condition monitoring for pumps and mixers that are suitable for Safe area up to Zone I.
- **Spares & Service**: High quality, fast lead-time re-engineered spare parts to improve performance and extend pump life, including many which are directly interchangeable with the Girdlestone pump ranges.
- **Packages & Modules**: Condensate Recovery Units manufactured for Spirax Sarco incorporating the innovative Ci-Nergy intelligent variable speed control system, plus bespoke packages & skids built to order.
- **Business Systems**: state-of-the-art e-commerce technologies that deliver 24/7 support enabling customers to select pumps and place orders on-line and then track every stage of manufacture through to delivery, any time, anywhere in the world.

The company operates globally from its base in Rendlesham Suffolk, United Kingdom and has a customer base of world-leading companies, including BP, Shell, ExxonMobil, GlaxoSmithKline, Pfizer, Spirax Sarco, Diageo, AMEC, Fluor and Halliburton.

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