



Space constraints

Opus Maxim Ltd had been commissioned to provide its Compact Flotation Units (CFU) as part of a Platform upgrade located in the Danish Sector of the North Sea.

Access on the platform was limited and so the CFU would have to be built as three integrated skid units which would be bolted together on the rig.

When it came to selecting pumps, it became apparent that a standard pump would be too big for this bespoke CFU. Opus put together its criteria for a pump:

- Fit the space
- API 610 compliant
- Suitable for offshore use
- Meet the Norsok specifications
- Delivery within 24 weeks
- Build to a specified cost

First Point Assessment

Space and weight are critical constraints in designing equipment for offshore applications and so a flexible approach was required on the project.

Opus decided to look for a supplier registered with First Point Assessment (FPAL), the oil and gas supply chain database to identify potential suppliers.

Amarinth was already FPAL registered and had previously provided bespoke pumps to Wood Group for the Amerada Hess Triton FPSO vessel for which Opus had also provided its CFU Technology. As such, Opus was confident that Amaranth would be able to provide a quality, on-time and cost effective solution.

Initially Opus specified Amaranth's API 610 OH2 A Series pump, but this was quickly ruled out as it was too big.

A truly bespoke solution

Amarinth suggested using their API 610 OHI B Series pumps as these would be smaller. However, even these proved too big and so Amaranth set about designing a bespoke base plate to save even more space. Although a bespoke design, the new base plate actually contributed a cost saving to the project.

During the project, Opus became aware that Amaranth could supply Protect System Plan 53A sealant systems. There were issues relating to where these could be placed in order that they did not hang over the side of the skid and there were also height considerations.

Therefore a truly bespoke solution was designed by Amaranth comprising of a left and a right handed pump system that enabled everything to fit on the skid.

Commissioned on time

Without the innovative changes delivered by Amaranth, Opus would have had to undertake design alterations to the CFU, resulting in a more expensive solution and delaying the delivery of the package to the platform.

Further CFU's are expected to be installed on oil platforms in the North Sea and the compact design of the Amaranth B series solution will provide a competitive option where space is at a premium.



Opus

Opus Maxim offers the oil and gas industry a range of products and services that cover all aspects of produced water treatment and oil and gas separation.

Opus operates alongside sister company Opus Plus Limited, located in the Orkney Isles, to provide the oil and gas market with a range of engineering and environmental services, including fluids characterisation and performance monitoring of offshore facilities, validation testing of process equipment and aquatic toxicity biodegradation and bioaccumulation studies of offshore chemicals.

"Amarinth were quick to react and help with the packaging issues that we had to resolve. The creation of right and left handed seal systems was a particularly innovative approach."

Peter Randall
Project Manager