

## INNOVATIVE MOORING CONNECTOR - MINESTRO WAVE ENERGY PROJECT, HOLYHEAD DEEP

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### THE PROBLEM

The Minesto wave energy project in Holyhead Deep off the coast of North West Wales, is a novel application, which flies a "kite" subsea, generating electricity via a turbine mounted in the front of the device.

The kite moves in a figure of eight on its side and through 180 degrees as the tide turns.

The loads imparted to the seabed anchor connector are constantly varying in magnitude and direction, so the client approached Acteon's sister company, SRP, to design a bespoke solution to counter these high stresses, based on their standard current connector technology.

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### THE SOLUTION

SRP offered a variant on their qualified subsea mooring connector, Rocksteady. The connector allowed the high vectoring loads to be transferred from the kite to the gravity base foundation.

To resist the extreme static and fatigue loads, the SRP connector generates a high preload between the mating halves of the connector to accommodate the bending, tension and shear loads applied.

SRP supplied a full set of design drawings, specifications and procedures, to allow Probe to manufacture, assemble and test the full system.

To guarantee that our product systems meet the clients' requirements and specifications, all these services are delivered in-house.

This in-house capability provides savings to the client, minimises inefficiencies and lead times.

Marc Saiche, Sales Engineer, Probe, said, "Whilst working closely with the SRP engineers, Probe manufactured all components, and subsequently aided the SRP engineers to fully assemble and comprehensively test the mooring connector using our on-site machine centre and state of the art testing equipment. The factory acceptance testing (FAT) was witnessed by the end user, with excellent feedback and approval. I am delighted that we were able to work collaboratively with our sister company on this project and feel we have produced potentially an industry-leading product."

### THE RESULT

For the end client, a successful solution to their high loading mooring requirement was achieved

"Working alongside the Probe team enabled SRP to provide a solution that enabled our client to benefit from our collective experience and expertise. They received a full turnkey, project designed, manufactured and tested solution from the Acteon collaborative supply chain, in line with their expectations and timeframes. We now hope to cement our collaboration with Probe to provide a turnkey supply route for our Rocksteady range of mooring connectors moving forward." Mark Hudson Project Manager, SRP



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