FET | SUBSEA

base materials

Optimising Forum Energy Technologies' UK-based ROV operations

Fostering a partnership with a syntactic materials specialist

Key products

Subtec® Range

Challenge

As a world-renowned provider of value-added solutions that increase the safety and efficiency of energy exploration and production, Forum Energy Technologies (FET) boasts one of the world's most comprehensive ranges of Work-Class and Electric Observation-Class Remotely Operated Vehicles (ROVs) designed to perform a wide variety of deepwater operations in the world's harshest environments.

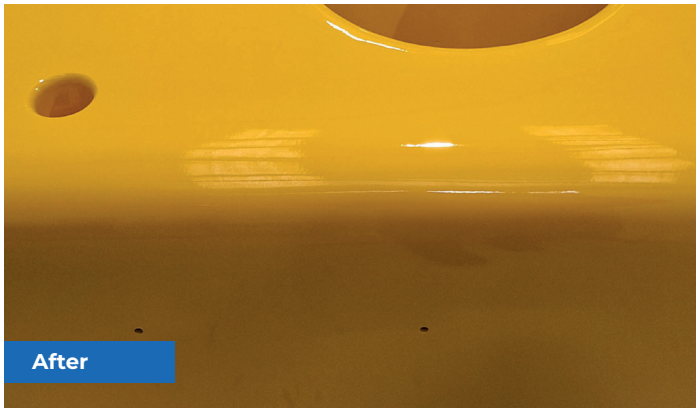
FET are world-renowned for their extensive aftercare and support functions which now also includes a rapidly expanding service workshop.

In the face of heightened demand for deep-sea exploration, rising operational and import costs are forcing many ROV manufacturers to explore ways to optimise the cost-competitiveness of their supply chains whilst maintaining the same level of performance from their buoyancy modules.

FET recognised Base Materials as experts in syntactic materials, identifying the opportunity to build a collaborative technical partnership to further develop their buoyancy systems and compliment their service workshop.

FET valued having a UK-based partner that could not only supply high-performance buoyancy modules, for use by its Work-Class and Electric Observation-Class ROVs, but with the expertise to offer a refurbishment and repair service capable of extending the operational lifespan of its existing syntactic foam modules.

Before



After

Solution

To date, Base Materials has supplied multiple sets of its Subtec® buoyancy modules for its Mohican Observation-Class ROVs, its XLX-C next generation heavy-duty Work-Class hydraulic ROVs, its Super Mohawk ROVs, and its Comanche ROVs.

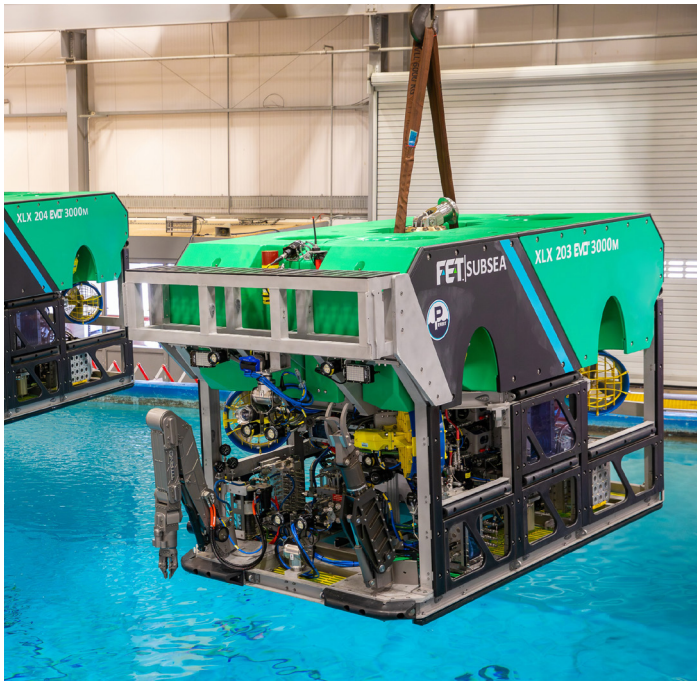
The next step in the partnership was to jointly develop a repair and refurbishment service to extend the operational lifespan of two sets of existing modules, some of which were 15 years old, for use across FET's industry leading XLX ROVs - heavy-duty Work-Class hydraulic ROVs designed for demanding deepwater intervention and survey tasks. By giving existing modules a second lease of life FET and their customers can extend the overall service life of an ROV, significantly cutting capital expenditure and reducing landfill waste.

The ROV industry is facing significant challenges in the number of available ROVs, resulting in operators looking at all available options to extend the life expectancy of their current fleet of vehicles. FET's XLX and XLX Evo make ideal candidates for life extension through Base Materials buoyancy repair and refurbishment scheme.

Provided from its production facility in Birmingham, UK, Base Materials' repair and refurbishment service comprises an inspection of the buoyancy module to review the material core, damage, breakage or corrosion of metallic inserts, weight in air and weight in water calibrated testing, and a dimensional laser scan. To ensure the modules meet original specifications, Base Materials can repair scuffs, cracks, splits and chips, and replace missing sections or damaged inserts. The service also includes re-paint and re-coat of a module's protective skin to improve longevity for abrasion and impact resistance, meeting the high standards FET require.

About Subtec®

With densities from 400 – 650 Kg/m³ and grades to suit a range of seawater depths from 2,000 metres to 11,500 metres, Base Materials' DNV approved Subtec® buoyancy materials comprise high-grade hollow glass microspheres and a novel thermoset polymer matrix, producing ultra-high strength-to-weight characteristics with excellent water ingress resistance.



"Partnering with Base Materials has been instrumental in optimising our UK-based ROV manufacturing supply chain. Their expertise in syntactic materials and broad range of services has allowed us to strategically enhance our portfolio and provide our clients with a full end to end turn-key solution."

MATTHEW SIMPSON
Systems Support Manager
at Forum Energy Technologies

Subsea buoyancy repair and refurbishment

Did you know that:

- Repairing and refurbing existing modules can greatly extend their service life for many years to come.
- The refurb process reduces lead times compared to manufacturing and delivering new modules.
- If just 1% of the ROVs currently in operation globally were decommissioned, it could result in approximately 30 to 40 cubic meters of syntactic foam going into landfill.