



# Marine Energy Device & Support Vessel Design & Build

## EXPERTISE

With our specific marine engineering expertise, optimum location for marine based projects and extensive experience in this emerging and fast growing sector, Mainstay Marine Solutions is a partner of choice for marine energy device and support vessel fabrication projects.

Design • Welding & Fabrication • Mechanical & Electrical Engineering  
Marine Coatings & Blasting • Drive Train Alignment and Balancing • Project Management

## TIME IS CRITICAL

Through experience, we understand that Marine Energy device development projects require significant investment and involve many complex facets which must come together efficiently.

We are committed to ensuring deadlines are met and the device fabrication process is meticulously managed to eliminate project downtime.

## PRECISION CRAFT

Central to Mainstay Marine Solutions are our people. Our highly skilled, employed workforce have hands-on Marine Energy Device and Support Vessel design and build knowledge and experience.

We apply absolute precision and craftsmanship to every job, large or small, to give optimum results.





## FACILITIES

Mainstay Marine's direct deep sea access (via four Slipways, a 'roll-on roll-off' slipway and a wet basin) allows the company to launch vessels straight into the Milford Haven waterway.

## LOCATION

Our prime location on the Milford Haven Waterway provides perfect deep sea access to the UK's three wave and tidal demonstration zones.

## CASE STUDY: TIDAL ENERGY DEVICE

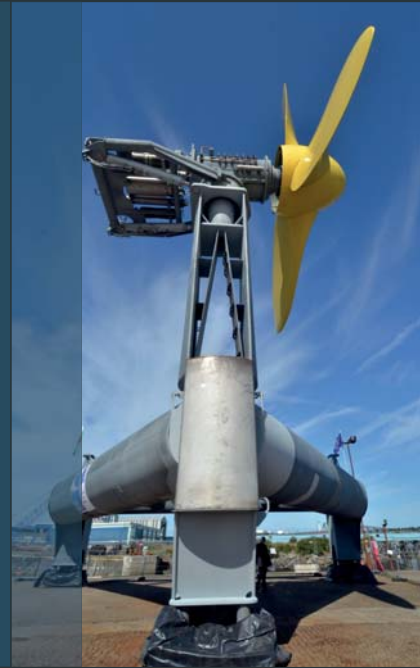
The 'DeltaStream' Tidal Energy Device for Tidal Energy Ltd was the first private marine project to be fully developed in Wales. The 400kW demonstration device, weighing 150 tonnes and with a frame 16m long by 20m high, was fabricated and assembled by Mainstay Marine Solutions.

Each item was grit blasted and coated with an anti-corrosion finish. The interconnecting 15 metre steel tube sections of the triangular base-frame were over 2 metres in diameter and 20 mm thick, and connected to fabricated interconnecting nodes incorporating a patented rock penetrating foot assembly designed to secure the structure to the ocean bed.

The nacelle assembly was fabricated and fitted out with the gearbox, drive train and generator by Mainstay's experienced fitters and electricians.

“Mainstay provided the enthusiasm needed for such an innovative project, with a positive 'can do' attitude that was essential to its success.”

Clive Adshead, Operations Manager  
Tidal Energy Limited



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WORKBOATS  
MARINE ENERGY  
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