

Press release

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Hempel protects the ground-breaking O2 tidal energy turbine

World-leading coatings supplier Hempel has provided coatings to protect the Orbital O2 tidal energy turbine – the world's most powerful tidal turbine. Hempel's ambition is to become the leading global coatings solution provider for the global renewable energy segment.

O2 is set to operate at the European Marine Energy Centre (EMEC) in the Orkney Islands in the UK. Around the islands of Orkney, tidal currents can reach over four meters per second, making them some of the strongest in the world. To harness this energy, Orbital's O2 comprises two 1 MW turbines, which together create a 600 m² rotor area and can generate 2 MW of clean, predictable energy. O2 is capable of supplying enough energy to power around 2,000 UK homes.

"We're proud to be playing a part in the development of the O2, a ground-breaking project with the potential to help make tidal energy a viable source of energy in the UK and overseas. We see enormous potential in helping customers like Orbital put the world on a more sustainable path," comments Nick Frowen, Managing Director at Hempel UK Ltd.

Hempel has been involved in the project since Orbital's prototype SR2000 turbine was built in 2015. As well as high-performance anti-corrosion coatings, Hempel has supplied Hempaguard X7 for the O2's turbine rotor blades. Hempaguard X7 was developed specifically to combat biofouling, such as algae and barnacles. On a ship, it keeps the vessel's hull smooth to reduce drag and lower fuel consumption and associated emissions. On the O2, it performs a similar role, keeping the rotor blades free from biofouling so they can deliver full power with each rotation.

David Heal, Global Head of Renewable Energy in Hempel, sees the collaboration with Orbital as an important element in Hempel's effort to meet its goal of becoming the leader in renewable energy solutions: "Our ambition is to double our energy business by 2025 with particular focus on sustainability to ensure we are leading the way in enabling all energy projects to maximise efficiency and minimise carbon emissions. By participating in a project as ground-breaking as Orbital's O2, we illustrate the value of a trusted partnership and we demonstrate what our solutions are capable of in supporting increased sustainability for the energy sector."

According to Andrew Scott, CEO of Orbital, collaborations with companies like Hempel have been key to the O2's development. "We rely heavily on our supply chain to help deliver our pioneering technology such that it exceeds expectations, and in that regard, we are delighted to continue our relationship with Hempel for our novel coating applications," he says.

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For more information, please contact:

Nina Lomborg Linneke, Communication Manager

Email: nilo@hempel.com

Phone: +45 6155 1500

About Hempel

As a world-leading supplier of trusted coating solutions, Hempel is a global company with strong values, working with customers in the decorative, marine, infrastructure and energy industries. Hempel factories, R&D centres and stock points are established in every region.

Hempel's paints and coatings protect and beautify buildings, infrastructure and other assets, and play an essential role in our customers' businesses. They help minimise maintenance costs, improve aesthetics and increase energy efficiency.

At Hempel, our purpose is to shape a brighter future with sustainable coating solutions. We firmly believe that we will succeed as a business only if we place sustainability at our heart. Not only is it the right thing to do, it will strengthen our competitive position, make ourselves more resilient and reduce our risk.

Hempel was founded in Copenhagen, Denmark in 1915. It is proudly owned by the Hempel Foundation, which ensures a solid economic base for the Hempel Group and supports cultural, social, humanitarian and scientific purposes around the world.

About Orbital

Orbital Marine Power Ltd is an innovative UK technology company focused on the development of a tidal energy turbine technology capable of producing a dramatic reduction in the cost of energy from tidal currents. The Orbital technology has been under continuous engineering development, including rigorous testing of scaled systems in both tank conditions and open ocean environments since the company was founded in 2002. The company currently employs 32 staff with offices in Orkney and Edinburgh.

Media contact: Sarah Watt, Marketing and Media Manager – s.watt@orbitalmarine.com
orbitalmarine.com