



Tidal energy blades



Tidal energy is based on harnessing the kinetic energy of ocean tides. Tidal turbines are used to generate the energy. Their technology is similar to that of wind turbines, but the blades are shorter and more robust. This is because water is denser and heavier than wind, which requires **stronger blades to withstand the pressure.**

Manufacturing these blades requires a combination of **technical skills and experience in the wind energy industry, experience in the use and handling of composite materials, specific manufacturing techniques such as lamination and resin infusion, knowledge of safety regulations and quality standards applicable to component manufacturing, and the ability to identify and troubleshoot problems in the manufacturing process.**



Our experience in the manufacture of large GRP parts has resulted in a leading participation in the **Nemmo Project, funded by the European Union under the H2020 program.** We have collaborated closely with eleven companies from five countries with the aim of improving the design and performance of tidal blades. In particular, our role in this project has involved **research into new, more resistant resins and the development of the blade production process.**

This project was successfully completed in September 2023, delivering a total of three units of upgraded blades that will be tested under real-world conditions. In addition, an additional unit has been earmarked for the development of the testing and certification process. The collaboration on the Nemmo Project has represented a significant milestone in our track record, and we expect the resulting innovations to have a positive impact on the industry and contribute to a more sustainable future in the GRP sector.