

Offshore Wind Energy Innovations

Pile Fixation Tool

Drivers

- Challenging rocky seabed and sea-state conditions
- Desire to minimize movement of monopile to less than +/-3mm during curing stage of grouting.

Pile Fixation Tool

- Bespoke design for Monopile Foundation installation support.
- Vessel deck mounted system consisting of control unit and Pile Fixation Tool (PFT).
- System positioned on top of Monopile and then PFT runs down pile to interface with pre-installed stabilizing pins in the monopile.
- The PFT then extends the pins to contact and load against the foundation wall and the borehole walls, thus providing the secure fixing of the monopiles, demanded, prior to the grouting process.
- System recovered to vessel ready for next pile.



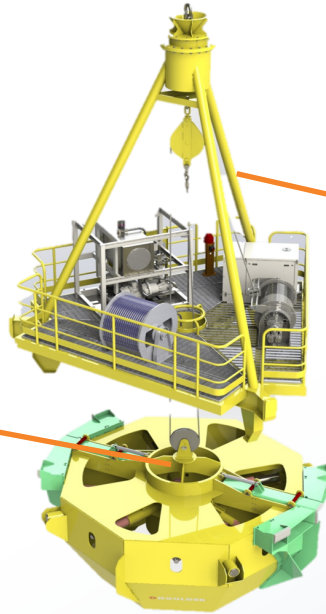
Currently being used by Global EPCI Contractor on Major European Windfarm Project



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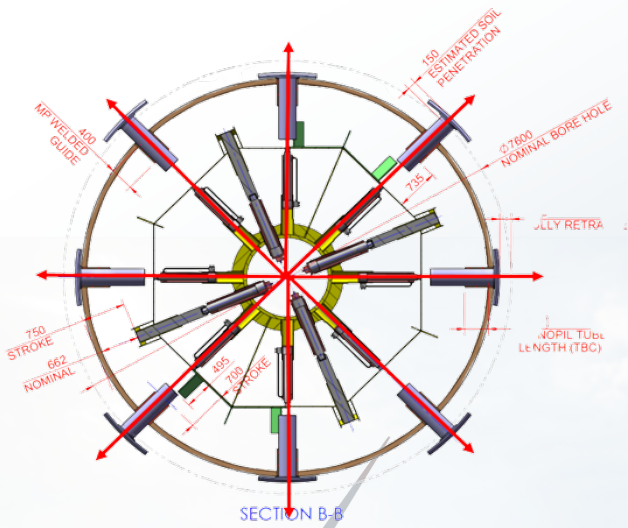
Pile Fixation Tool

Technical Overview

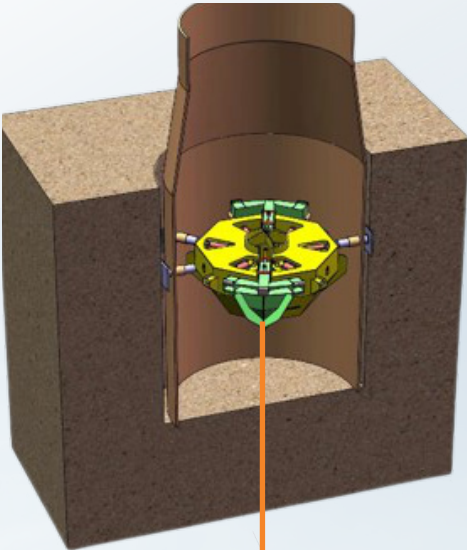


PFT body contains orientation sleeves, cylinders, cameras and proximity sensors

Work platform, winch, HPU & Controls
 Located on top section of pile
 Controlled remotely from support vessel



Tool preloads in sequence to maintain concentricity



Tool positioned within the pipe