

# WTG Foundations



# ISC

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# The Company

We are an engineering services company based in Denmark, where the company was founded in 1967. Working worldwide to create value for our clients through innovative engineering solutions for on- and offshore projects.

We have been providing engineering services to offshore wind projects since we designed the world's first offshore substation 20 years ago.

We provide engineering design and service solutions within sectors such as renewable energy, offshore oil & gas, buildings, industry and infrastructure.

We have worldwide experience with projects in more than 70 countries on five continents.

We have offices located in Copenhagen, Aarhus, Aalborg, Esbjerg, Viborg, Kalundborg and Kolding in Denmark.



# Employees

We count more than 250 employees in 2023 and are continuously growing.

We maintain standing agreements of cooperation with individual experts and public scientific institutions, thereby supplementing the company's know-how in connection with assignments requiring multiprofessional teams of specialists outside the company's own staff.

For further information about the products and services we are providing, please visit [www.isc.dk/en](http://www.isc.dk/en)



## WTG Foundation Design

Our offshore experience has given us expertise that we utilize in WTG foundation projects. This covers various types of underwater structures, including the monopile and various jacket types.

We have experience working with local authorities throughout Europe, APAC and the US to create regulatory approved solutions in accordance with local regulations.

We have solid experience liaising with all stakeholders within a WTG foundation project. Taking into account inputs from O&M, HSE, WTG supplier, fabricators, and various installation parties among others.

## Transport & Installation

We have made installation tools and sea fastening designs for topsides, jackets, and monopiles for shorter and longer sea voyages considering sea transportation loads and fatigues loads.

We have a long-lasting experience with engineering of constructions for installation and transportation of offshore structures. Our experience with multiple international projects and customers prove that we can deliver in all project phases from FEED to detailed design through supervision during fabrication and offshore installation.

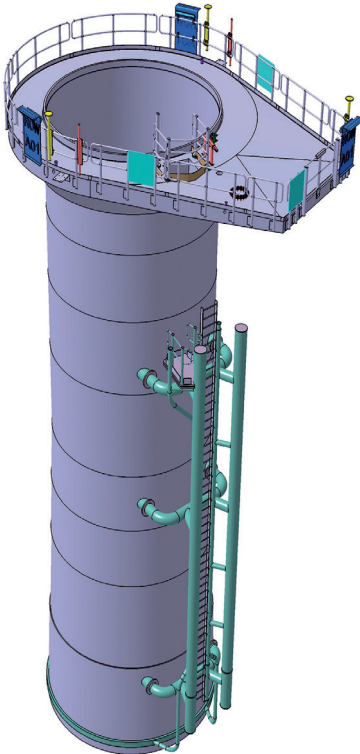
We always provide reliable engineering services for our customers and for the project as a whole, as we know that the T&I phase is a cost-intensive part of any offshore project.



# Engineering Disciplines

We cover all engineering disciplines within Concept, FEED, Detailed Design Fabrication, Installation and Operation & Maintenance.

- Structural Design
- Motion Analysis
- Secondary Structures
- Mechanical
- Piping & Process
- FE-Analysis
- Safety (HSE)
- HAZID
- Electrical
- Fire & Safety



The following tasks have been performed on WTG Foundations projects. The tasks performed on each project depend on the requirements from the client and owner.

## Primary Steel

- MP/TP (incl. Grouted or Bolted Connection)
- Extended MP without TP
- Jackets

## Secondary Steel

- **Anode Cages**, offshore installed, no divers
- **Boat Landing and Ladders**, on- and offshore installed
- **External Platforms**, concrete or steel, on- and offshore installed
- **Internal Platform Modules**, on- and offshore installed
- **Internal Bolting Platforms**, airtight, on- and offshore installed
- **J-tubes**, on- and offshore installed

## Special

- H2 producing WTG platforms
- Bumpers and Guides for installation
- O&M Structural Integrity Assessment
- Pile Gripper
- Client Specific Technical Standards

# Projects

ISC has been involved in the design for  
WTG Foundations on the following projects.

## APAC

- Formosa 3 (WTG jacket)
- Greater Changhua 1+2a (WTG jacket)
- Greater Changhua 2b+4 (WTG jacket)

## US

- Ocean Wind 1
- Revolution 1
- Skip Jack 1
- Southfork 1
- Sunrise 1
- West Coast of Virginia 1

## EU

- Borkum Riffgrund 1+2
- Borkum Riffgrund 3
- Borssele 1+2
- Frederikshavn test site
- Gode Wind 1+2
- Gode Wind 3
- Hollandse Kust Zuid 1-4
- Horns Rev 2
- Kaskasi 2
- Kriegers Flak
- Nysted

## UK

- Barrow
- Burbo Bank Extension
- Hornsea 1
- Hornsea 2
- Lincs
- Race Bank
- Walney 2
- Walney 3
- Walney 4
- Westermost Rough



Visit our WTG page



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