

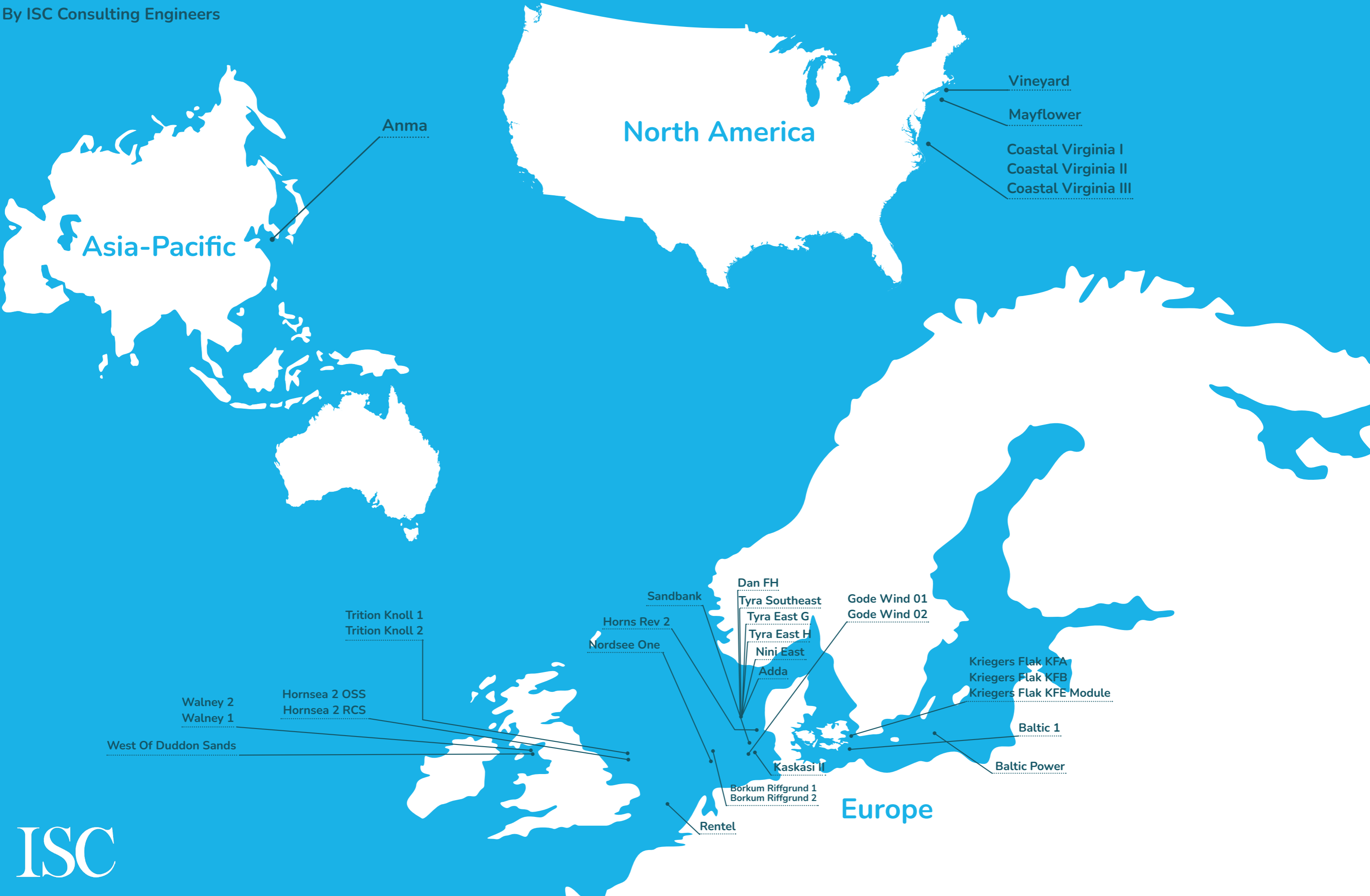
# OFFSHORE SUBSTRUCTURES



ISC

# Substructure designs

By ISC Consulting Engineers

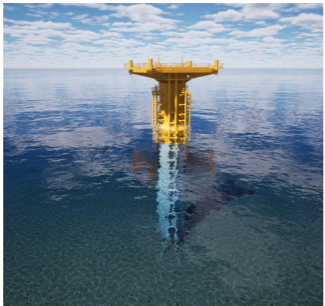


# Substructure designs

By ISC Consulting Engineers



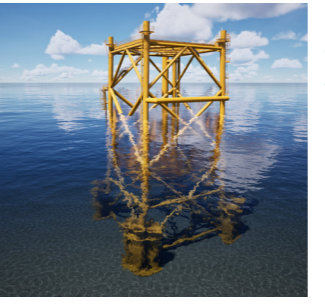
**East Anglia**  
 Topside Weight: N/A  
 Jacket Weight: N/A  
 Project Year: N/A  
 Water Depth: N/A  
 Substructure: N/A  
 Client: N/A  
**Location:** UK North Sea



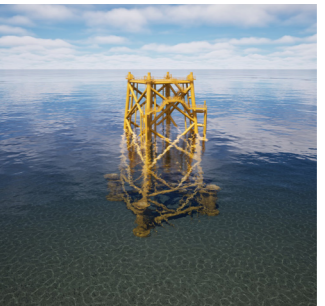
**Baltic Power**  
 Topside Weight: 2.350 tonnes  
 Project Year: 2021  
 Water Depth: 38, 37 meters  
 Substructure: Monopile  
 Owner/Client: Baltic Power /Bladt/Semco  
**Location:** Baltic Sea



**Tyra East H**  
 Topside Weight: 4.500 tonnes  
 Project Year: 2016  
 Water Depth: 43 meters  
 Substructure: 4-legged Jacket  
 Client: Maersk  
**Location:** German Bight



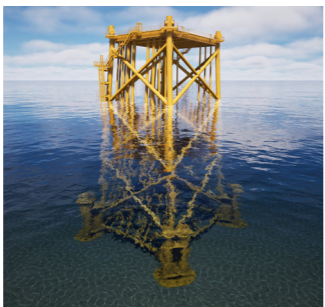
**Dan FH**  
 Topside Weight: 6.700 tonnes  
 Jacket Weight: 3.050 tonnes  
 Project Year: 2014  
 Water Depth: 44 meters  
 Substructure: 4-legged Jacket  
 Client: Maersk  
**Location:** German Bight



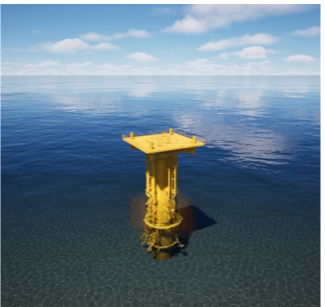
**Nordsee One**  
 Topside Weight: 1.900 tonnes  
 Jacket Weight: 1.400 tonnes  
 Project Year: 2012  
 Water Depth: 28 meters  
 Substructure: 4-legged Jacket  
 Client: RWE Innogy/Bladt  
**Location:** German Bight



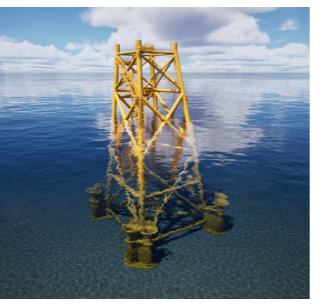
**HVDC Float Over Jacket**  
 Topside Weight: N/A  
 Jacket Weight: N/A  
 Project Year: N/A  
 Water Depth: N/A  
 Substructure: Jacket  
 Detailed Design: Substructure  
 Client: N/A  
**Location:** N/A



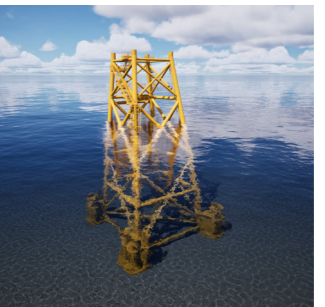
**Mayflower**  
 Topside Weight: 4.200 tonnes  
 Water Depth: 45 meters  
 Substructure: 4-legged Jacket  
 Owner/Client: Mayflower Wind /BSR  
**Location:** US East Coast



**Triton Knoll**  
 Topside Weight: 1350/1650/700 tonnes  
 Project Year: 2016  
 Water Depth: 16/16 meters  
 Substructure: GBS Structure  
 Owner/Client: Energinet.dk  
**Location:** Danish Baltic Sea



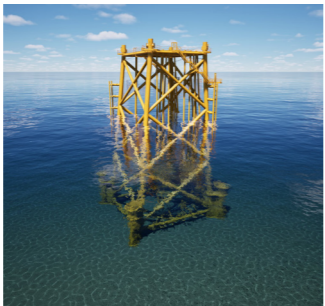
**Adda**  
 Topside Weight: 2.000 tonnes  
 Jacket Weight: 2.300 tonnes  
 Project Year: 2013  
 Water Depth: 41 meters  
 Substructure: 4-legged Jacket  
 Client: Maersk  
**Location:** Danish North Sea



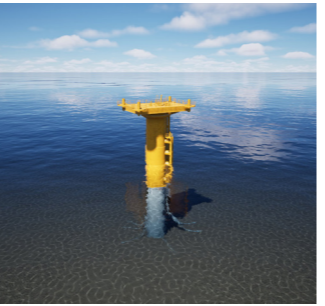
**Tyra Southeast**  
 Topside Weight: 1.500 tonnes  
 Jacket Weight: 2.100 tonnes  
 Project Year: 2011  
 Water Depth: 39 meters  
 Substructure: 4-legged Jacket  
 Client: Maersk  
**Location:** Danish North Sea



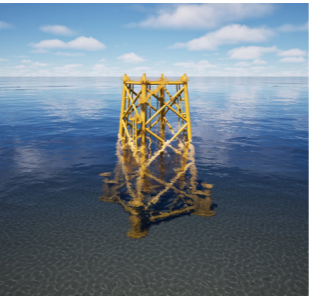
**HVDC Float Over Jacket**  
 Topside Weight: N/A  
 Jacket Weight: N/A  
 Project Year: N/A  
 Water Depth: N/A  
 Substructure: Jacket  
 Detailed Design: Substructure  
 Client: N/A  
**Location:** N/A



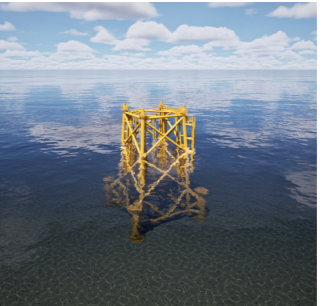
**Vineyard**  
 Topside Weight: 3.050 tonnes  
 Project Year: 2017  
 Water Depth: 39 meters  
 Substructure: 4-legged Jacket  
 Client: Vineyard Wind/Bladt  
**Location:** US East Coast



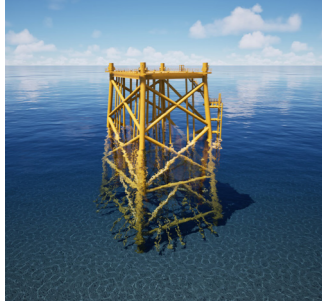
**Kaskasi**  
 Topside Weight: 1.250 tonnes  
 Project Year: 2016  
 Water Depth: 23 meters  
 Substructure: Monopile/Transition Piece  
 Owner/Client: Innogy/Bladt  
**Location:** German Bight



**SANDBANK**  
 Topside Weight: 2.250 tonnes  
 Jacket Weight: 1.550 tonnes  
 Project Year: 2013  
 Water Depth: 28 meters  
 Substructure: 4-legged Jacket  
 Client: Vattenfall/Bladt  
**Location:** German Bight



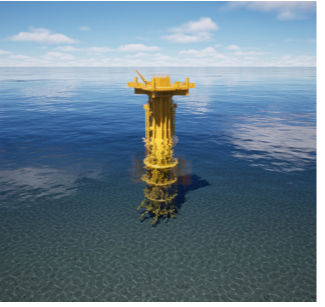
**West of Duddon Sands**  
 Topside Weight: 1.500 tonnes  
 Jacket Weight: 1.200 tonnes  
 Project Year: 2011  
 Water Depth: 19 meters  
 Substructure: 4-legged Jacket  
 Client: Dong Energy and Scottish Power  
**Location:** UK Irish Sea



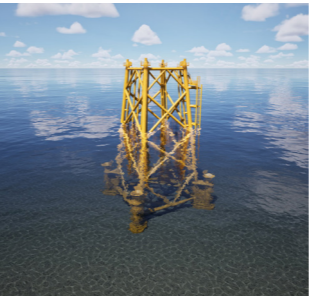
**Coastal Virginia I  
 Coastal Virginia II  
 Coastal Virginia III**  
 Topside Weight: 4.000 tonnes  
 Project Year: 2023  
 Water Depth: 27/29/29 meters  
 Substructure: Pre-Pile Jacket  
 Client: Dominion Energy  
**Location:** US East Coast



**Hornsea II OSS & RCS**  
 Topside Weight: 8.000/1.850 tonnes  
 Project Year: 2017  
 Water Depth: 36/22 meters  
 Substructure: 6-legged/4-legged Jacket  
 Client: Ørsted  
**Location:** UK North Sea



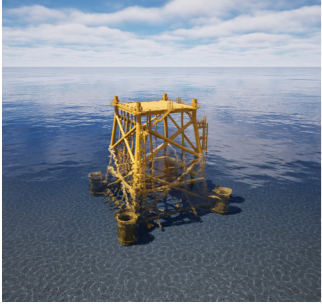
**Rentel**  
 Topside Weight: 800 tonnes  
 Monopile Weight: 1.100 tonnes  
 Project Year: 2016  
 Water Depth: 31 meters  
 Substructure: Monopile/Transition Piece  
 Client: Rentel/STX  
**Location:** Belgian North Sea



**Godewind 1+2**  
 Transition Piece Weight: 1.950/1.950 tonnes  
 Project Year: 2012  
 Water Depth: 30/33 meters  
 Substructure: 4-legged Jacket  
 Client: Ørsted  
**Location:** German Baltic Sea



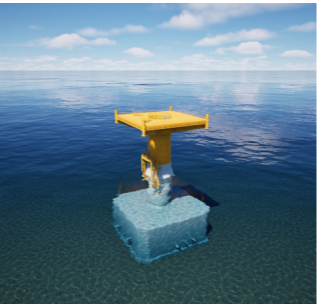
**Walney 1+2**  
 Topside Weight: 1.000 tonnes  
 Jacket Weight: 950/950 tonnes  
 Project Year: 2008  
 Water Depth: 21/24 meters  
 Substructure: 4-legged Jacket  
 Client: Dong Energy  
**Location:** UK Irish Sea



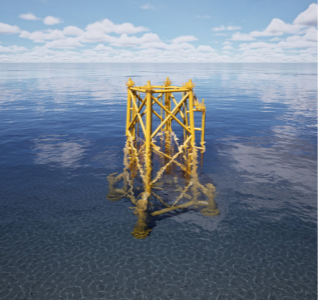
**Anma**  
 Project Year: 2023  
 Water Depth: 20 meters  
 Substructure: Post-Pizle Jacket  
 Owner/Client: HBA Future Energy/Anma Offshore Wind Energy  
**Location:** South West of South Korea



**Tyra East G**  
 Topside Weight: 14.500 tonnes  
 Project Year: 2016  
 Water Depth: 43 meters  
 Substructure: 6-legged Jacket  
 Client: Maersk  
**Location:** German Bight



**Kriegers Flak KFA/KFB /KFE**  
 Topside Weight: 1.350/1.650/700 tonnes  
 Project Year: 2015  
 Water Depth: 20/16 meters  
 Substructure: GBS Structure  
 Owner/Client: Energinet  
**Location:** Danish Baltic Sea



**Borkum Riffgrund 1+2**  
 Topside Weight: 1.900/2.200 tonnes  
 Jacket Weight: 1.685/1670 tonnes  
 Project Year: 2007/2014  
 Water Depth: 24/27 meters  
 Substructure: 4-legged Jacket  
 Client: Ørsted  
**Location:** German Bight



## The full range of designs globally

We have been working in the offshore industry since 1975. Since then we have designed all types of substructures, as seen in the illustrations below.

Our knowledge and experience is accumulated in close collaboration with first movers within oil and gas in the North Sea and pioneers in offshore wind globally.

We designed the world's first offshore substation in 2003, which is still going strong. And we are redeveloping the oil and gas sector to reduce emissions.

Today we continue to push the boundaries for offshore energy globally, and have projects all over the Northern Hemisphere and Australia.

We continuously challenge the design and way of thinking together with our clients to create solutions that are reliable and cost-efficient.

## All disciplines in-house

ISC provide all engineering services for substations, and have decade long partnerships with major players in the oil & gas industry.

We have all disciplines in-house, which means that we have full overview and control of all technical aspects of designing substructures. Substructures that meets the specific needs are reliable and cost-efficient.

Our portfolio consists of detailed designs, as shown, but also includes offshore surveys, site supervision, assistance during the full project execution, numerous studies and new concept developments.

We are working directly with wind farm owners, oil field operators, EPC or EPCI partnerships in the offshore energy business.

## Since the beginning in the North Sea

We are an engineering services company based in Denmark, where the company was also founded in 1967.

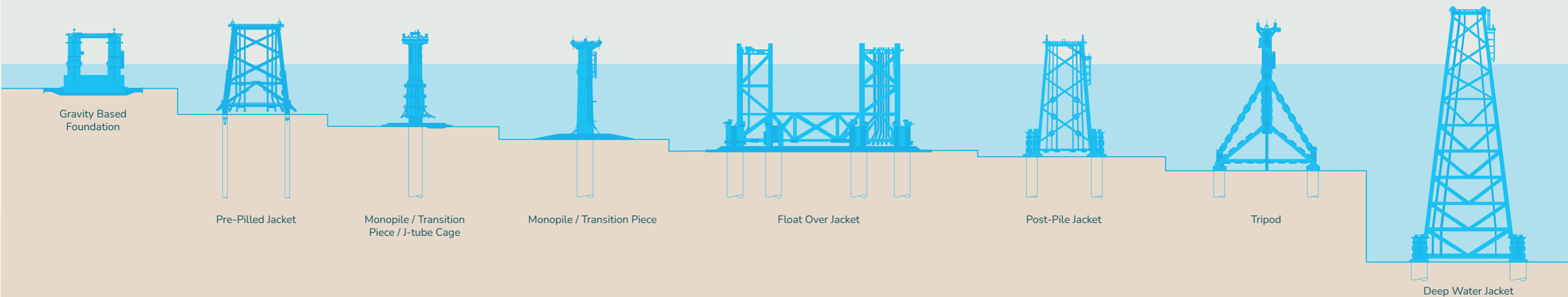
We have been providing engineering services to offshore oil and wind projects for more than 50 years, and in more than 70 countries worldwide.

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

ISC count more than 250 employees in 2026 and is continously growing.



Tyra East H



## Services

We provide independent engineering consultancy directly for wind farm owners, oil field operators and developers and EPCI contractors.

### Our services include

- Feasibility study
- Concept study
- FEED designs
- Basic & detail design
- Workshop drawing
- Assistance with certifications
- Assistance with authority approval  
BSH, Boem etc.
- Offshore assistance  
Skilled staff holding offshore certificates.
- Employer engineer  
Engineering support during detail design, manufacturing and commissioning.  
Development of employers' requirements, philosophies and assistance doing EPC/EPCI contracting.

## Engineering disciplines

We have all disciplines in-house, which means that we have full overview and control of all technical aspects of designing substructures.

### Our engineering disciplines include

- Structural (primary & secondary steel)
- Geotechnical & foundations
- Transport & installation engineering
- Hydrodynamics
- Mechanical & equipment
- Piping & layout
- Fabrication & constructability
- Fatigue & structural integrity

## ISC Consulting Engineers

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To learn more visit us on  
<https://www.isc.dk/en/services/renewable-energy>



### Contact

Andreas Laugaard  
VP Renewable Energy

✉ alg@isc.dk  
☎ +45 22699058

Torben Løkkegaard  
Head of Offshore  
Substructures & Geotechnics

✉ tol@isc.dk  
☎ +45 40720800

