



HIBARAM

Energizing Wind !

Integrated Solutions for Offshore Wind Foundation



Content

01	Company Overview	12	Condition Monitoring System
02 / 03	Mission and Vision / Core Value	13 - 14	E&I
04 / 05	Competency / Our Service	15 / 16	Rubber / ICCP System & TP Cover
06 / 07	Our Goods / Kit Package	17 / 19	Packaging and Shipping / Workshop
08	Diversified Business	20 / 21	Ongoing Project / Customers and Partners
09 / 10	TP Secondary Parts / Jacket Secondary Parts	22	Why Hibaram ?
11	Fiberglass Grating System / Anti-slip Plates		

01 Company Overview

A company specialized in secondary parts solutions for offshore wind foundation.

A trusted partner for project owner, EPC contractors and foundation manufacturers worldwide.

Possess a global supply chain which is reliable in terms of quality, delivery time and cost.

Focus on delivering integrated component packages and raw materials inclusive of steel plate, steel pipe, flange, etc..

Our products include secondary steel structures, ICCP, condition monitoring system, rubber seal, electrical parts (power distribution panel, cables, off shore lights), functional parts, fasteners and so on.

Teams are equipped with technical / quality expertise with certificates and more than 10 years experiences in global top tier foundation / steel structure manufactures.



02

Mission and Vision



A

Mission

“We provide customers with one-stop goods and services with high quality, on time and less cost”



B

Vision

Become a global leading integrated supplier for offshore wind foundation components.

Become a trusted partner for clients and offer customized solutions for design, procurement, production, construction and logistics.

Become the client's "procurement center" and provide competitive global material integration supply solutions for clients.

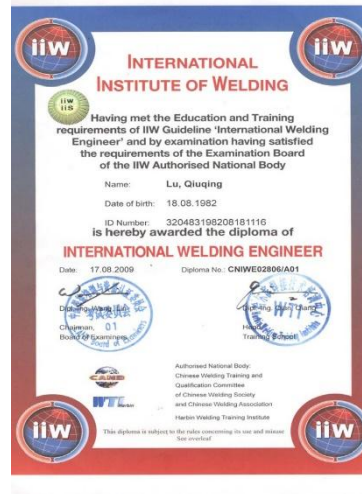
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Core Value

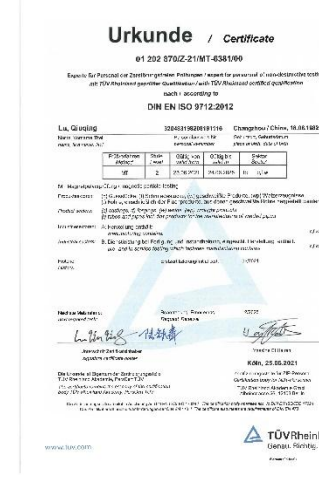


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Competency

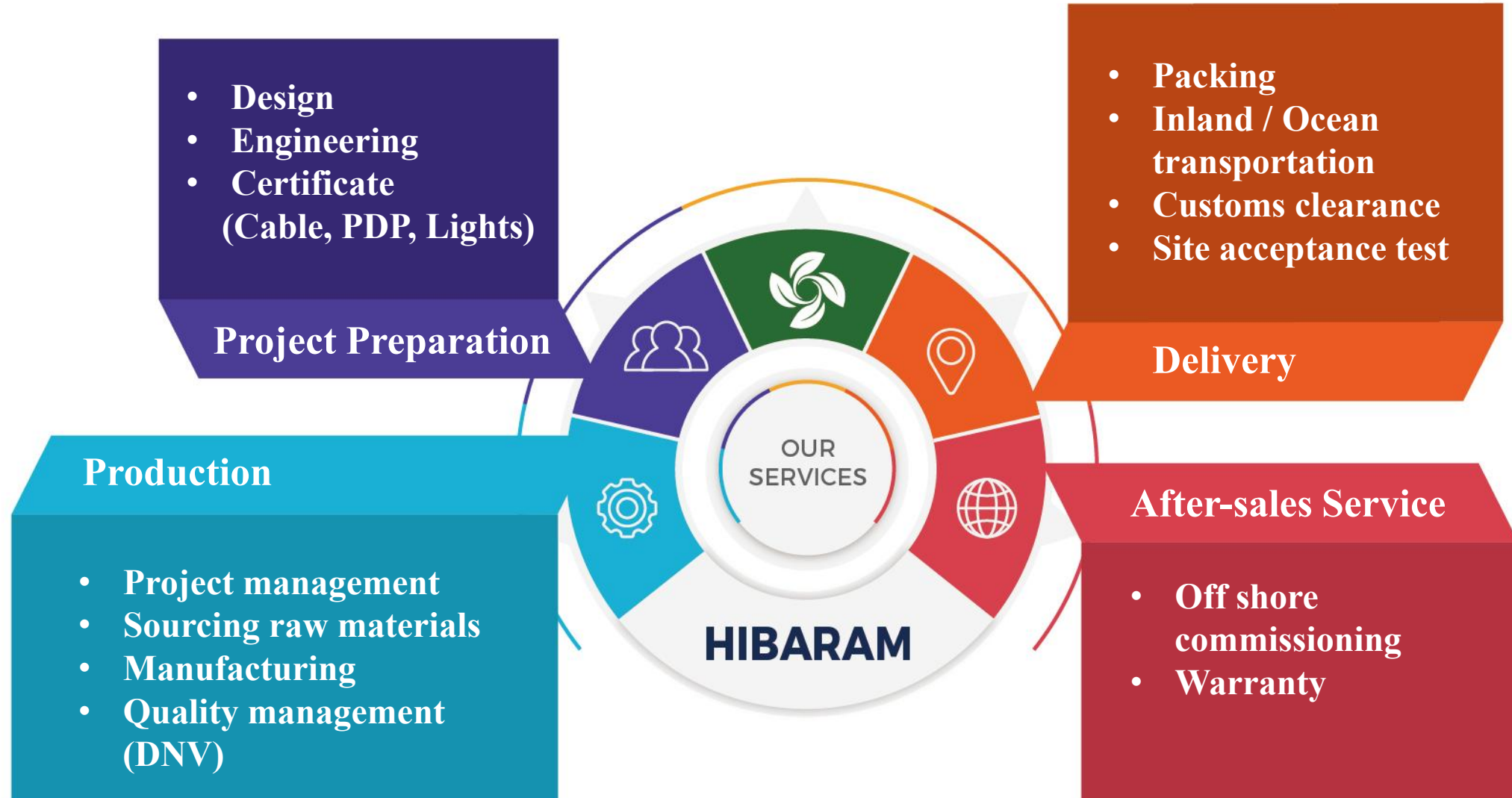


**Our teams
are equipped with
technical / quality
expertise
in wind industry**



05

Competency



06

Our Goods

Foundation Secondary Part

Steel structure parts

Various welded parts
+ bolted parts

FRP system

Load calculation
reports, shop
drawings, fiberglass
gratings, anti-slip
plate

Kit-set package

Fasteners, ladders,
fall protection
equipment,
ventilation system,
electrical components,
etc.

ICCP

Strategic partnership,
providing installation
and on / off shore
commissions

Condition Monitor System

Electric monitoring
solution, providing
on / off shore
commission

Seal / Electrical parts

Rubber seal,
cable seal,
cable tray,
power distribution
cabinet, light

Raw Material

Steel plate

Various steel plates
for foundation and
towers

Steel pipe

Various steel pipes
for foundation and
towers

Flange

Big diameter flanges
for foundation and
towers

Fasteners

High-strength
structural bolt

07

Kit Package

01

Electrical components

light, cable, power distribute cabinet, etc.

02

Hardware components

fastener, sheet metal part

03

Rubber products

damping device, waterproof sealing strips, rubber, plastic tube

06

Climbing safety components

aluminum alloy ladder, fall arrest device, safety anchor point, etc.

05

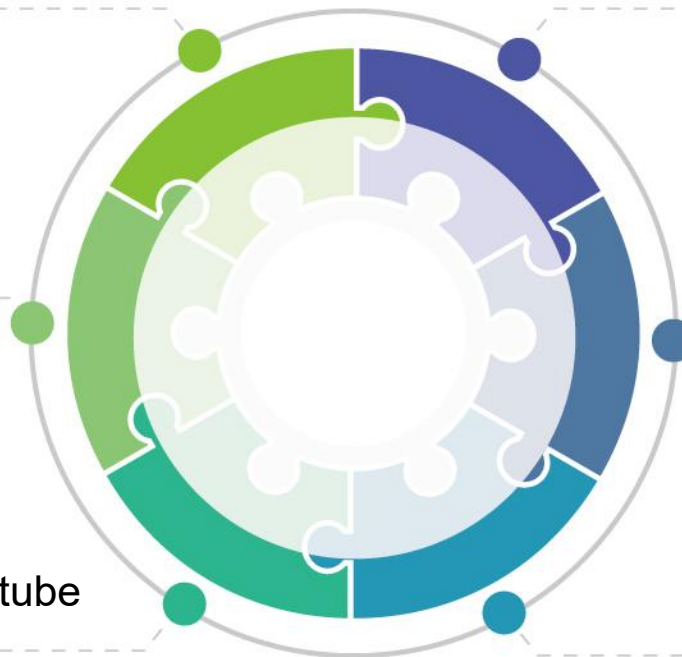
Metal structural components

internal and external platforms

04

Functional components

ventilation system, lightning rod, etc.



Solution for offshore TP / MP, Jacket

TP / MP

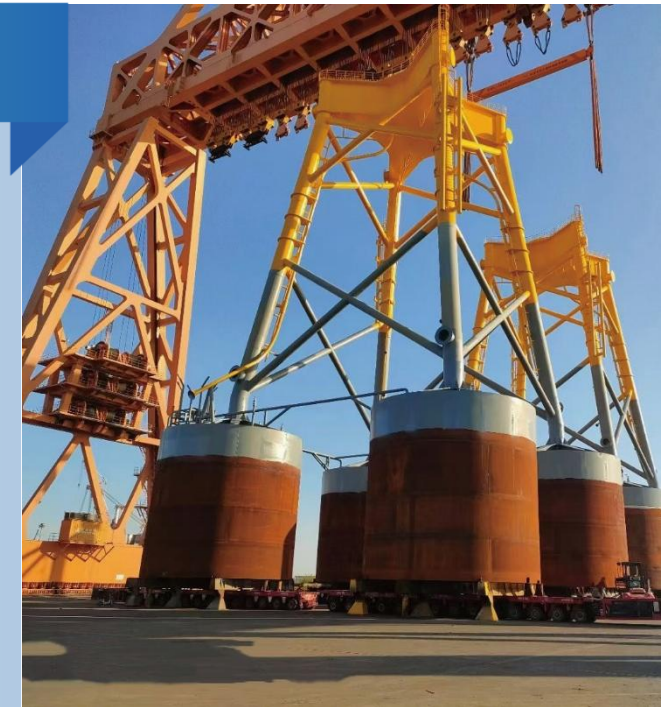
Business Model

- Provide main production material: steel plate, flange, etc.
- Provide integrated solution
- Provide semi-finished product based on localization demand

Jacket

Business Model

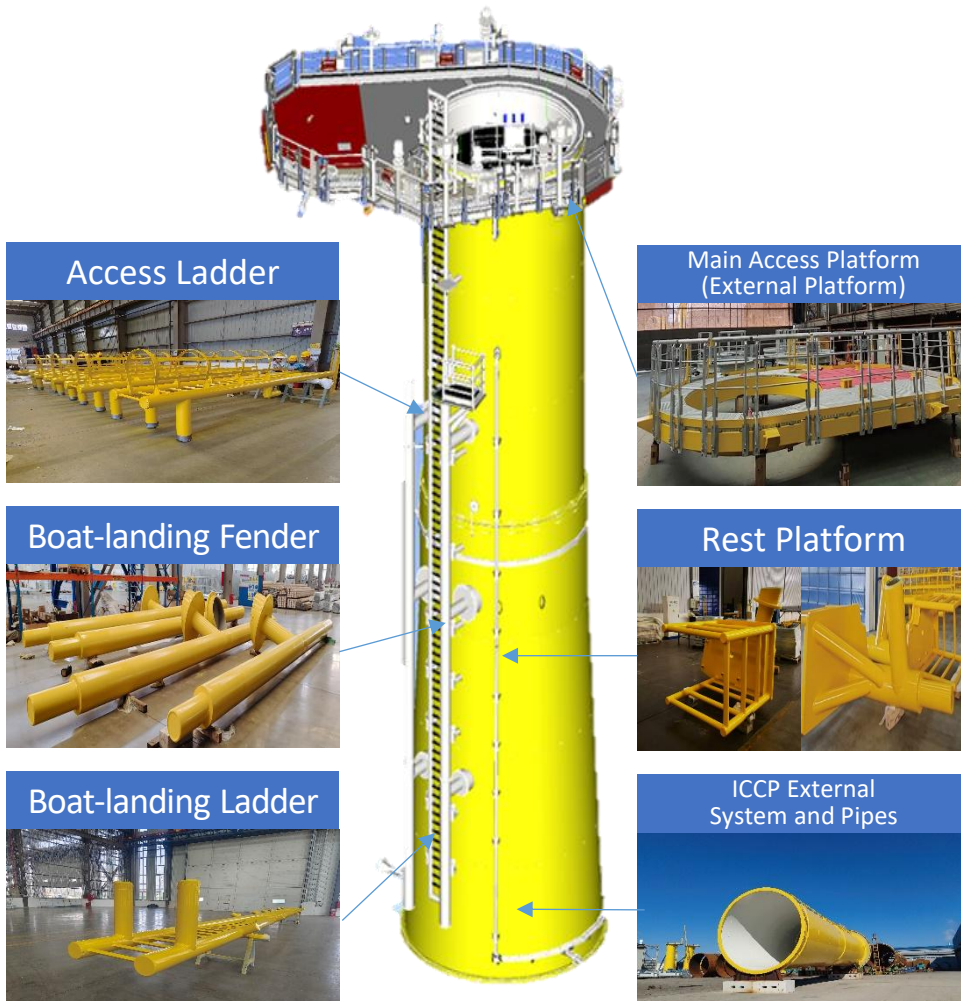
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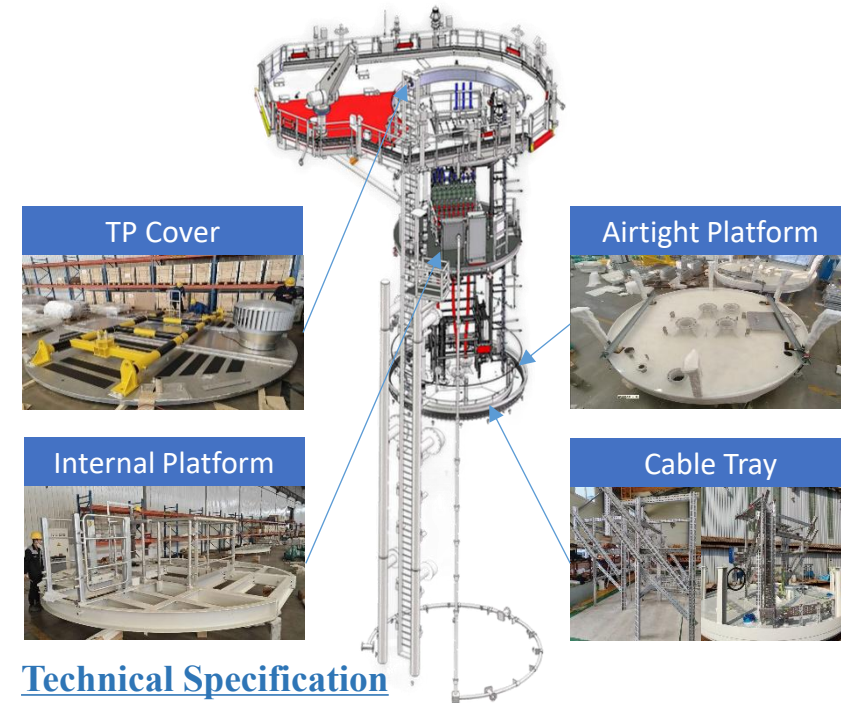
09

TP Secondary Parts

TP Outside



TP Inside



Technical Specification

No.	Specification	Standard			
1	Technical Specs - Material	· EN10025 · EN10088	· EN10210 · EN15088	· EN10219 · EN10204	· EN1022
2	Technical Specs- Fabrication	· EN1090-2 · ISO14732	· ISO3834 · ISO15609-1	· ISO9606-1 · ISO15614-1	
3	Technical Specs - Coating	· ISO12944	· ISO1461	· ISO2063	

10

Jacket Secondary Parts

Access Ladder



Main Leg Pipe



Sacrificial Anode Block



Flange Seal



Access Platform



Railing & Ladder



Cross Bracing Pipe



J tube / Cable Conduit



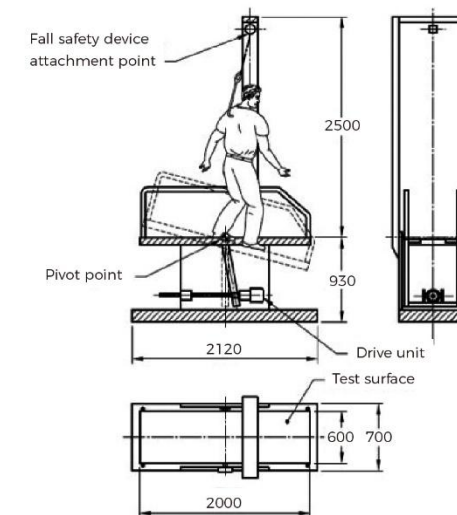
11

Fiberglass Grating System / Anti-slip Plates



- Provide shop drawing of fiberglass system to supplier.
- Calculate and test the load jointly with the supplier.
- Test anti-slip coefficient by 3rd party.

Test Procedure / Requirements



DIMENSIONS IF MILLIMETRES

Illustration 2 inspect device with safety mechanism (inclined plane)

Remark:

1. The test shoes were adopted the specification conformed to DIN 51130-2014 as per client's agreement.
2. The test was stopped when the angle reached 36.0° due to the operator safety consideration.
3. The test was conducted on the back surface (grip strips with concave surface) of the submitted

12

Condition Monitoring System

Front view



Functions



KC Mark



관 리 번 호 : Ebe-CMSysstem

상 호 : 에코바람에너지주식회사

기자재 명칭 : Condition Monitoring System

모 델 명 : Intelligent Wind Turbine Structural Condition Monitoring System

제 조 년 월 : 별도표기

제조자 및 제조국가 : Hibaram Co., LTD / 중국

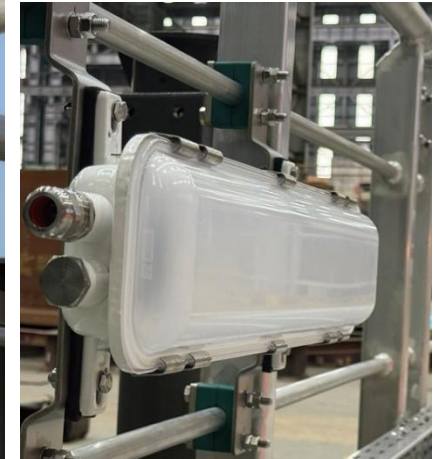
13

E&I



Cable tray

Cutting & Packing

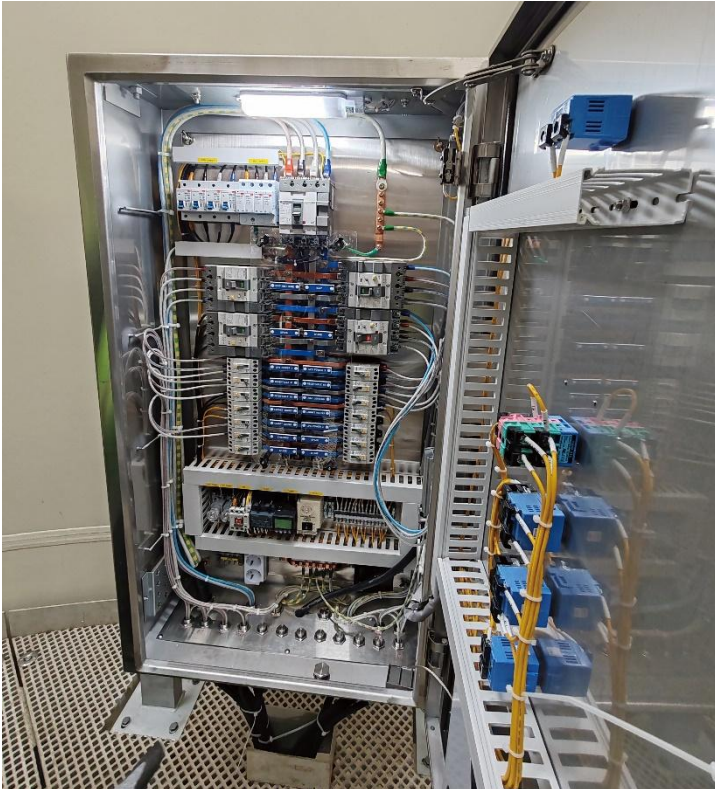


Ocean lights



14

E&I



Power distribution cabinet



Cable seal



Cables

- Power cable
- Communication cable
- Earth cable

15

Rubber



Rubber seal
(>7m OD)

Rubber fender

16

ICCP System & TP Cover



ICCP system
onshore commissioning



TP cover

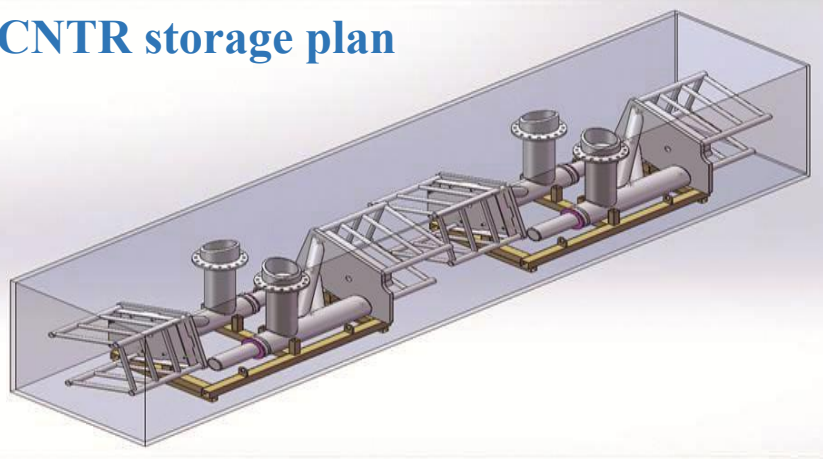


17

Packaging and Shipping



CNTR storage plan



18

Workshop 1 for steel structure



Items	Workshop	
Area (m ²)	173,000	
Certificate	· ISO 9001 · ISO 14001 · ISO 18001	· EN 1090 · ISO 3834
Max product weight (ton)	173,000	
Max product dimension (m)	15 × 10 × 6	
Export	USA, Europe, Australia, South Korea, Vietnam, etc.	

19

Workshop 2 for steel structure



Items	Workshop
Area (m ²)	330,000 + 220,000
Certificate	· ISO 9001 · ISO 14001 · ISO 18001 · EN 1090 · ISO 3834 · AISC · CWB · DNV · ABS
Max product weight (ton)	500
Max product dimension (m)	20 × 12 × 7
Export	USA, Europe, Japan, South Korea, Singapore, etc.

20

Ongoing Project

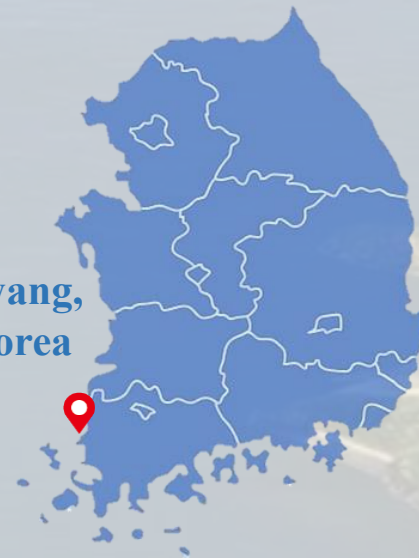


HIBARAM
Energizing Wind !

365 MW Offshore Wind Farm Project



Yeonggwang,
South Korea





One-stop packaging services can effectively cut down the cost of procurement, labor and communication for project owners, guaranteeing high-quality products on time.

Cost Advantages

- Lower customer procurement costs:
Reduce cost by centralized procurement and global supply chain resources
- Reduction of indirect and hidden costs:
Minimize indirect, hidden expenditures such as communication, logistics, and quality inspection for customers dealing with multiple suppliers.
- Flexible payment terms:
Standardize the settlement cycle to optimize the customer's cash flow.

Efficiency Advantages

- One-stop procurement:
Meet all the items on the customer's demand list at once, eliminating the need for coordinating multiple suppliers (saving 70% of the time).
- Shorter delivery cycle:
Materials in short supply can be allocated at any time.

Risk Control Advantages

- Quality standardization:
All product categories go through a unified quality inspection system, with a pass rate of over 99.5%.
- Supply stability:
Strategic cooperation with over hundreds of global suppliers.
- After-sales guarantee:
Respond to problem materials within 48 hours, and provide one-stop return and exchange services.

Value-added Services

- Customer-specific solutions:
Offer exclusive packaging plans in accordance with customer needs.
- Zero inventory:
Deliver goods in batches according to the customer's usage progress.
- Data service:
Provide procurement data analysis reports to optimize the customer's procurement decisions.



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