



Some technologies we reply on for our Marine Division



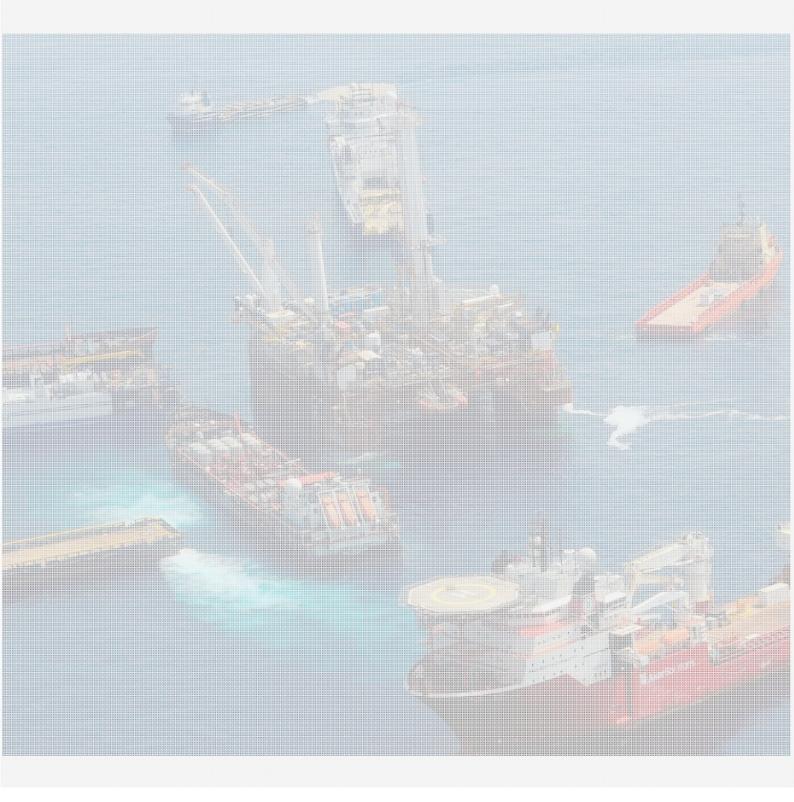
Marine Industry

Products we offer

- Communications and navigations
- Controls and Ship Automation
- Corrosion, Cathodic Protection, Coatings and Insulation
- Electrical Equipment and Power Supply
- Fire Fighting, Detection and Insulation
- HVAC, Refrigeration and Purification
- Mooring, Chains and Anchors
- Propulsion, Transmission and Engine Room Equipment
- Pumps and Compressors
- Separation, Filtration and Desalination
- Shipboard Handling and Deck Machinery
- Steel, Special Metals and Welding
- Shipbuilding, Conversion, Repair and MRO
- Port and Terminal Equipment



Marine Industry





HAFE Project Solutions



making project engineering, procurement and contraction easier

WHO WE ARE

Based in China, HAFE Project Solutions (abbr. HAFEPS) is the key industrial project platform initiated and operated by HAFE International Limited since 2013. And it is established on the basis of our over 10 years' experience accumulations of expertise and know-how in various industries.

WHAT WE DO

HAFE-PS is aiming to provide EPC companies, small & medium contractors, designer companies, global equipment distributors, or other independent project players with our unique project supports through multitude of interdisciplinary product and service solutions and procurement consulting & implementation for engineering, procurement and construction process.

WHY WORK WITH US

Working with us, you may get some of the below benefits:

- Ever best and viable industrial product & equipment procurement, quick response and support to projects just in time
- Enhancement of your capability to support your downstream business concerning EPC life cycle
- Diversification of your upstream resources by leveraging portable product and service solutions
- Boosting business strength and improving overall competitiveness
- Enlarge potential business scope and tap new business area with optimized chances and minimized risk

HAFE-PS OFFERS PRODUCTS AND SERVICES TO AN EXTENSIVE RANGE OF CLIENT MARKETS

- HAFE-PS provides a series of project-life-cycle product and service solutions for small and medium worldwide EPC (engineering, procurement, construction) companies and distributors or dealers serving local EPC companies and their project needs.
- HAFE-PS has capability and resources, above all, expertise and know-how to provide Clients with confidence that their project needs met timely, rightly, safely, and within budget.



HAFE Marine Division

HAFE's marine division helps owners and operators of marine vessels successfully address ever growing market and economic challenges, to evolve in an efficient and effective manner. That's the underlying premise of our marine solutions approach: continuously finding and developing innovations aimed at keeping your business operating and competing successfully and sustainably.

We also offer a full range of services from service agreements focusing on overall equipment performance to spare parts, technical support, performance optimization, upgrades, conversions and environmental solutions.

TYPICAL PRODUCTS AND THEIR APPLICATIONS CONTROLS Communications and navigations Controls and Ship Automation Corrosion, Cathodic Protection, Coatings and Insulation Electrical Equipment and Power Supply Fire Fighting, Detection and Insulation HVAC, Refrigeration and Purification Mooring, Chains and Anchors Propulsion, Transmission and Engine Room Equipment Pumps and Compressors Separation, Filtration and Desalination Shipboard Handling and Deck Machinery Steel, Special Metals and Welding Shipbuilding, Conversion, Repair and MRO Port and Terminal Equipment RATION, FILTRATION >

Products we offer



COMMUNICATIONS AND NAVIGATIONS

Our primary aim is to provide all of the necessary information and communication technologies required by modern mobile workspaces.

- Mobile communication equipment
- Mobile phones, durable communication devices and smartphones
- Integrated marine communication solutions
- Public address and general alarm systems for maritime vessels
- Voice communications systems

CONTROLS AND SHIP AUTOMATION

HAFE is one of the suppliers of advanced marine automation equipment, marketed under the OEM or original brand name. Our offer for marine automation system includes:

- Alarm and control systems for shipping applications
- Main engine control systems
- Stand-alone instruments and integrated systems for shipping
- Integrated platform management systems (IPMS)
- Machinery control and surveillance systems (MCAS)
- Alarm systems
- Power management systems, Propulsion control systems
- Variable speed drives

CORROSION, CATHODIC PROTECTION, COATINGS AND INSULATION

The company provides customer-oriented industrial surface treatment, fireproofing, floor coating,

scaffolding, access technology and engineering services for marine industry applications.

- Anti-corrosive coating and acid spraying
- Thermal spraying for strain and corrosion-resistant coatings
- Blasting and cleaning equipment for surface preparation and corrosion control in the marine industry
- Abrasives for marine surface preparation and corrosion control
- Painting equipment for ships

ELECTRICAL EQUIPMENT AND POWER SUPPLY

HAFE is an independent leading supplier of generators and electric motors for the marine, power

generation, industrial and oil and gas industries.

- Low and high-voltage (15kV), Horizontal and vertical mounting
- Polarity from two to 32
- Air and water heat exchangers
- Marine applications include: Main propulsion, Bow thrusters, Power generation, Auxiliaries

FIRE FIGHTING, DETECTION AND INSULATION

We are specialists supplier for fire and gas detection, fire suppression systems, breathing apparatus and safety equipment for marine and land-based applications.

- Fire suppression and detection
- Foam system testing and analysis of foam samples
- Portable fire extinguishers
- Authorised distributor and system designers for Ansul, Tyco and Kidde
- Fire protection panels and materials





Various degrees of protection, Explosion proof (ATEX)





PROJEC

HVAC, REFRIGERATION AND PURIFICATION

- Single duct air conditioning systems, Packaged air conditioning units
- Cabin air conditioning units, Zone heating systems
- Thermal oil-fed heating systems
- Electric heating systems, Central heating systems
- Boilers, Radiators, Heat exchangers
- Engine room ventilation systems, Cargo area ventilation systems
- Water separators / mist eliminators



MOORING, CHAINS AND ANCHORS

HAFE offers the following products:

- Studlink anchor-chains, Studless anchor-chains
- Shackles Ramfor type and swivels
- Triangular plates, Chafing chains
- Mooring wire ropes, lifeboats, anodes, chocks, bollards and rollers



PROPULSION, TRANSMISSION AND ENGINE ROOM EQUIPMENT

The outputs of our main propulsion engines range from 93kW to 16,000kW, and outputs of 10kWe to

7,680kWe are available from our marine generator sets

- Main propulsion engines and marine generator sets
- Diesel engines for ships
- High speed marine engines
- Marine transmissions
- Marine propellers, Marine steering systems



PUMPS AND COMPRESSORS

Pumps and compressors can be used in a range of offshore and onshore applications, including: Chemical injection packages.

- Methanol and MEG injection packages
- High-pressure and ultra-high-pressure injection
- Produced water pumps, Multiphase pumping (twin screw)
- Utility process pumps, Cargo pumps, Ballast and machine room pumps
- Mud and drill cutting pumps
- Cargo handling, dry bulk and liquid cargo (PG-MACS)
- Oil and gas, condensate refineries
- Subsea multi-application pumps



SEPARATION, FILTRATION AND DESALINATION

We are in the supply of automatic filtration systems for the specific application of Ballast Water Treatment (BWT), and offshore oil rigs' injection water.

- BWT automatic filtration systems
- Reverse Osmosis desalination equipment or plants for marine use
- Hydraulic oil, lubricant oil and fuel filtration

Products we offer



SHIPBOARD HANDLING AND DECK MACHINERY

We supply standards-compliant cranes and davits, built to the exacting standards of the industries.

- Crane booms and davits
- Telescopic boom crane (TB series)
- Anchor handling towing winches, Mooring winches, Anchor windlass
- Capstan and tugger winches
- Shark jaws and tow pins, Power packs
- Cranes,Streamer and gun winch
- Launch and recovery (LAR) system



STEEL, SPECIAL METALS AND WELDING

We supply all types of welding and cutting products for shipbuilding, including machinery, supplies and accessories. HAFE offers a complete line of MIG, TIG, MMA and SAW welding equipment as well as all the filler metals - from cored wires to covered electrodes - you need to complete the job

- Shipbuilding welding and cutting equipment
- Shipbuilding welding automation equipment
- Welding consumables
- Thermal, non-contact cutting systems

SHIPBUILDING, CONVERSION, REPAIR AND MRO

Shipbuilding consulting services

We offer comprehensive shipbuilding solutions, from assistance in selecting good-quality shipbuilding yards in China, through the project advisory stage, to technical assistance during the shipbuilding process, and vessel delivery. Some ship repair yards we work with include:

- China Shipping Industry Co Ltd
- Dalian COSCO Shipyard Co Ltd
- Dalian STX (DaYang) Shipyard Co Ltd
- COSCO (Shanghai) Shipyard Co Ltd
- COSCO (Guangzhou) Shipyard Co Ltd
- YiuLian Dockyard (Shekou) Limited
- GSI Guangzhou Shipyard International
- China Shipping Industry Co Ltd



SHIPYARD, PORT AND TERMINAL EQUIPMENT

In includes below portfolios:

- Port crane, quay hoist machinery
- Marine winch and hoisting equipment
- Land material handling and transportation equipment