菱川船舶机械有限公司
Ling Chuan Marine Equipment Limited
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Company Profile

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### General Information

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<th>Company Headquarters</th>
<th>Ling Chuan Marine Equipment Limited</th>
</tr>
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<td>Established Time</td>
<td>1996</td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.qdlcme.com">http://www.qdlcme.com</a></td>
</tr>
<tr>
<td>Staffs Number</td>
<td>More than 60 persons</td>
</tr>
<tr>
<td>Company Address</td>
<td>Unit A (Rm 9),3/F,Cheong Sun Tower,116-118 Wing Lok Street ,Sheung Wan,HK</td>
</tr>
<tr>
<td>Branch Office</td>
<td>Qingdao Ling Chuan Marine Equipment Co., Ltd</td>
</tr>
<tr>
<td>Branch Office Address</td>
<td>Room 2305-2306 , No.193 Jiangshan Middle Road ,Qingdao Economic &amp; Technological Zone ,Qingdao, China</td>
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History

1996~2000

• Ling Chuan Marine Equipment Limited was established
• Main business, marine spare parts
• We were committed to the transformation and technical services for Marine fuel supply system.
• The first set F.O. supply unit had been produced independent R&D by us and been rapidly applied to domestic large and medium-sized shipyards.
• Homogeneous filter independent R&D by us achieves the great success and had been applied to energy conservation and environmental protection field for low consumption, environmental protection and energy saving etc.
• passed ISO 9001:2000 quality Certification system and obtain a certificate.
2001~2005

• Ling Chuan became the first-level agent for Mitsubishi Kakoki Kaisha Ltd and achieve the sole “three power agent” (equipment sales and after-service, spare parts supply.)

• Independent reach & development Purifier module by us with convenient maintenance, high efficiency, had been applied to ship construction projects.

• We were committed to sea-transportation, Business, Import & Export service & products promotion & sales to oversea markets etc.

• We further expanded the scale of production, owning the factory area of 3000 square meters, matching perfect mechanical processing equipments, crane equipments and all kinds of professional testing equipments.

• passed China classification society (CCS), the royal approval committee (UKAS) approval, ISO 9001:2008 Quality Management System (QMS)
2006~2010年：

• we were committed to developing land use market and developing many kinds of equipments and modules for supporting power plant, which have been widely used in ship building, ocean engineering, land use power plant etc.

• Land use supporting modular product Type Oil Purifier Modules, Pumps modules, Oil/Water tanks modules, other units modules

• Independent reach & development high efficiency , energy-saving environment-friendly Automatic Back-flushing Filter. It was used for matching with own equipment s and sales

• Devoted to European market, for the newest demands of Europe and America waters, had begun to develop low sulfur fuel cooling equipments.

Obtained the authorized agent of Grundfos pump in Chinese market and were committed to the promotion of conveying equipment.

Meanwhile, we became the MAHLE NFV ballast water treatment system, oil-water separator, marine lube oil filter (AKO), fuel oil filter & heavy fuel oil filter (AKO)

• Became the DHP fresh water generator.
2011~2015

• Became Mitsubishi Heavy Industries Ltd Marine Machinery & diesel engine (UE main engine) authorized agent
• Became MERUS authorized agent
• Became the Settima Meccanica S.r.l. pump authorized agent
• We were committed to Industrial field liquid-liquid, solid-liquid separation and filtration equipment sales, production & technical service
• So far, we have been committed to perfect management & costs control all the time for adopting to current market new situation.
Ling Chuan Marine
Ling Chuan Marine
Ling Chuan Marine-Production Department
Ling Chuan Marine-Cover an area of 3000 $m^2$
企业资质

Certification System

• In 2005, Pass China classification society (CCS) and the royal approval committee (UKAS) approval
Classification Society Certificate & Type approval certificate
Classification Society Certificate & Type approval certificate
As Mitsubishi Kakoki Kaisha Ltd the sole three power agent, gain many times awards and honors in reputation and achievements.
Productivity

- Oil purifier module 480 sets/Year
- FO Supply Unit 200 sets/Year
- Filter 200 sets/Year
- Low sulfur oil equipment 100 sets/Year
销售产值
Revenues

总值(万)USD

www.qdlcme.com
So far, the company has formed a perfect sales system. In the marine market, the sales network of company throughout the whole area of China, is divided into the northern regions, central district, east & south China regional. In the land use market, sales network of the company is all over the northwest north district & east China.
Through the cooperation with MKK, formed a global after-sale service network.
The company insists on the tenet of "sincerity, innovation in business", by the high quality products and timely perfect service, competitive price for the new and old customers to create higher value!

Ling Chuan, after years of efforts, has now formed a more perfect technical service system, marketing system, business service system and after-sales service system.
产品目录
Product List

• Mitsubishi SJ-H Series Purifier
• Purifier Module
• Mitsubishi UE Engine
• Mitsubishi Fin Stabilizer
• Mitsubishi Propeller
• Mitsubishi Generator
• Mitsubishi MET Turbochargers
• Mitsubishi Ship Crane
• Mitsubishi Steering Gears
• Mitsubishi Deck Machinery
• Mitsubishi Marine Steam Turbine
• Mitsubishi Boiler & Turbines
• Mitsubishi Waste Heat Recovery System
• Supply System
• Kajiwara Heater
• Low sulphur fuel oil cooling modules
• Sea water pump frequency conversion cooling system
• Automatic Back-flushing filter
• Homogeneous filter
• Chemical Waste material Separator
• Other Modular products & stationery module
• Power plant matching equipments & Modular production

• Fuel supply system reform

• Fuel supply system after-service

• Spare parts (purifier, diesel engine, FO supply unit, UE Engine, Fin Stabilizer, Propeller, Generator, Turbo Charger, Turbo Charger etc. marine equipments spare parts, Pumps, valves, heater, Air-compressors, Air-conditioner, marine electric & Instruments etc.)

• Import & Export Customs Brokerage, Bonded warehousing services etc.
Mitsubishi Selfjector

Mitsubishi Selfjectors (oil purifiers) are the best selling centrifugal disc type separators, which are backed by a history of over seventy years and sales of over 90,000 units to date (Hercules-series).

Mitsubishi Selfjector Hercules (SJ-H) Series, the latest version of its series, is compact and yet offers improved fine particulate removal and higher output, thanks to Mitsubishi’s years of expertise. With its outstanding reliability and purification performance, the Mitsubishi Selfjector Hercules (SJ-H) Series is ideal for purifying not only fuel oils and lubrication oils for vessels, but also mineral oils that are commonly used in a wide range of industrial applications.
SJ-H Series Features

- The rotating bowl employs well proven and highly reliable pilot-valve method.
- In addition to standard type, H-HIDENS or SUPER HIDENS (optional) systems is available for processing low-grade fuel oils
- Multi-display monitor panel, showing oil flow-through rate, discharge pressure, flow-through temperature and detection of leaks.
- To realize lower environmental load
- A gear pump fitted as standard for processing low-viscosity fuel oils
- Higher discharge pressure centripetal pump (25 m head) for processing light liquid enables the application of purifiers for larger vessels.
- Compact design requires less installation space
- Addition of higher-capacity models in lineups for higher-output engines
Oil purifier Module

Based on customer’s requirements, we can consider Mitsubishi oil purifier as a center, as system demands and adopt domestic and overseas advanced design idea and function equipment to make the system pipeline, valve, function parts as a whole, as oil purifier module matching to the customers.

Meanwhile, heating unit and oil pump units can be provided separately. It not only provide the stability of the fuel handling system greatly, but also offer convenience for installing, operating and maintenance. We can design & make single module, double modules and three modules according to customer’s demands.

Advantages
Compact & small footprint
Convenient installation
easy to operate & maintain
high reliable system
FO supply Unit

We produce fuel oil supply unit mainly used in diesel engine heavy fuel oil quality improvement and supply. It is easier for user management control and operation, which is more convenient for design and installation debugging. In the aspect of the technique and process, we adopts domestic and overseas advanced design idea, by means of advanced instruments and equipment to complete production. This equipment has reached the world advanced level with perfect fault detection and alarming system.

The unit is with compact structure, reliable work, high automation and easy to maintain. The operating principle is as follows:
The fuel oil from daily light oil tank and daily heavy oil tank of fuel through unit inlet three-way valve, pass the strainer from the supply pump to mix oil cylinder (collection chamber) and then by circulation booster pump to achieve boost pressure to enter into heater to heat,. Through viscosity test control system, control the steam regulating valve by installed on the heater steam inlet to achieve control fuel oil viscosity within the set range.

Heating fuel oil is sent to carry out automatic backwash filter, after finishing fine filtration, and is conveyed to fuel oil supply unit. Then the rest of fuel oil will return to mix oil cylinder by return port and mixed with fuel from supplement of supply pump and enter into the next circulation process.

In order to ensure to supply oil to marine diesel engine continuously, there are two entire system as spare and can be mixed to use each other.

Filter adopts the German BOLL automatic backwash filter. It is the most advanced domestic and foreign markets, most reliable performance fuel fine filter, the filter fineness reaching 10 μ. It solves disadvantage that after fine filter work a long time, it need stop to clean & replace filter cartridge from the design aspects, which ensure the continuity of filter work & consistency of filter fineness. The filter Cartridge service life is very long and It never replaces filter.
The fuel oil viscosity control adopts imported EMERSON viscometer. This equipment is with structure compact, high technology level. It is the most competitive price viscometer in the current markets. The menu selection and operating system display is intuitive, clear and easy to operate. Automatic or manual operation can be arbitrary selection. It can be adjusted according to actual condition and set temperature. Under setting control conditions, when there is a deviation, it can balance deviation in a fast and accurately. It can be arbitrarily set alarm condition. The alarm status can be chosen unlock alarm, automatic lock alarm and manual lock alarm.

Electrical control box, based on the features of fuel oil supply unit and combined with most of the crews operation habit, is designed by ourselves & with strictly supervision to produce. The electric control box can meet the requirements of various vessels with line concise, high automation and meet the requirements of unmanned engine room. This system control box use Schneider components, with two sets of independent system control circuit, two sets of control circuit of the electric power supply separately independent switchboard and emergency switchboard, two sets of power system, which can be mutually standby, and can be used in combination and the isolated between lines for safe maintenance. When the equipment broke down, they can be automatic conversion with perfect fault detection and alarm system. All functions can be achieved by PLC procedural operation according to the customer’s requirements.
Mitsubishi Heavy Industries over 130 years experience & reputation

Utilizing exclusive & the latest technologies create rich product line-up.

Started from shipbuilding industry in 1884, MHI created many brilliant achievements in the field of Shipbuilding and had been widely recognized in the world. UE Diesel engine is MHI’s patent product of independent reach & development & design.

The UE engine MHI-MME’s highly popular low-speed diesel engine launched in 1955. It has over 50 years history.

Over the years, UE engine in Economical, Environmentally friendly, Highly reliable aim, MHI-MME has optimized the design to meet the needs of the times, adding new and innovative products to the UE engine lineup. Such as the earliest A/B/C/D/E Series and with creative spirit H/HA Series, which improve UE Type diesel engine L/LA / LS Series popularity and has being widely applied to modern LSⅡ/ LS-Eco, LSE / LSE-Eco Series to meet more high performance & better Environmentally friendly demands.

www.qdlcme.com
UE Engine Features

UE Diesel Engine with highly Economical efficiency & reliability, it is the sole domestic low-speed diesel engine

- Economical Low fuel consumptions, Highly reliable, Highly reliable, Environmentally friendly
- The bore size is complete. Main propulsion for a wide range of merchant ships, Tankers, Bulk carriers, Pure car and truck carriers, Container vessels etc. from twenty thousand ton to three hundred thousand ton.
- Easy maintenance & operation.
- There are 3 Chinese Licensees to meet Chinese market requirements

Depending on MHI great support, made in China & made in Japan is the same quality demands. MHI can replace Licensed factory to provide after-service.
MHI – UEC main engine, besides the UE main engine excellent performance, is the following features:

- Ecological, Low NOx, Smokeless operation
- Economical, Low fuel consumption, Low maintenance costs
- Excellent condition, Reliable, Early failure warning system
- Easy to control, Stable low-load operation, Excellent startup and crush astern
Other MHI Products

- Boilers and Turbines
- Deck Cranes
- MET Turbochargers
- Mitsubishi Marine
- Steam Turbine
- Steering Gears
- Deck Machinery
Kajiwara Heater

- Japan KAJIWARA is with nearly hundreds years history professional manufacturer. The products is applied to heating lubricating oil, fuel oil, jacket water, sea water etc. and more than 90% market share in Japan. The product is high heat-exchange efficiency, small volume, reliable & durable. With the Sweden SUNROD technology, it has ever established long-term cooperation with Denmark AALBORG in design, production & sales aspects for the shell-and-tube heater.
- In 2015, We registered joint venture with Japan KAJIWARA company. Main product is KAJIWARA heater. Company owns the professional technical personnel & advanced production equipment, reliable quality & high cost-effective.
- Heater type, Pipe-shell heat exchanger, Coil heater exchange. The Classification Society Certificate can be provided.
Kajiwara Features:

- High heat-exchange efficiency
- Small volume, light weight
- Clean itself
- Not affected by heat treatment
- Easy maintenance
Kajiwara Heater

Shell-and-tube heater

The coil of shell and tube type heater

Shell-and-tube heater

The coil type shell and tube type heater
Low sulphur fuel oil cooling modules

According to the law issued by European Union in 2005 (DIRECTIVE 2005/33/EC), since January 1, 2010, European Union has started implementation of Marine low sulphur fuel regulation.

The ships berthed in the European Union port over two hours, the fuel sulfur content must be controlled within 0.1%.

This laws & decrees is enforced to carry out from the July 1

But low sulfur fuel oil low viscosity (40 °C when the viscosity of 1.5 CST) will cause great damage to related equipments especially main engine

Ling chuan is long-term committed to marine fuel oil processing, supply and ship pollution prevention equipment research and development.

According to the existing Marine diesel engine design requirements, fuel oil viscosity need over 2 CST.

Independent research and development, design and production by us low sulfur fuel oil cooling module, through reducing the temperature of low sulphur fuel to 17 °C or making the oil viscosity guarantee above 2 cst, meet the requirements of Marine diesel engine and fuel supply system demands.

A complete set of module includes the refrigeration system, chilled water system, water and oil heat exchange system and central integrated control system. Most of the modules equipments adopts imported brand & PLC control. So module performance can be guaranteed.

This low sulphur fuel oil cooling module has the advantages of novel design, compact structure, easy operation, high automation, stable, safe and reliable operation and low failure rate, convenient maintenance, energy conservation and environmental friendly etc. features to provide better equipment for ships.
system principle diagram
Sea water pump frequency conversion of the cooling system according to the seawater temperature and load situation of main auxiliary engine equipment can reduce the energy consumption by 50% ~ 90% so that it reduces the cost.

The system has been widely recognized and promoted in Europe. Energy-saving effects is very obvious. The domestic ship-owners are also gradually high attention.

Traditional main sea water pump in the cooling system, sea water pump will have been running at full capacity status. This set of frequency cooling system, according to the area of the navigation of ships change of water temperature to automatically adjust the sea water pump speed to achieve the goal of the central cooler water export temperature of 36℃. Don't need to run at full capacity to reduce energy consumption and to achieve energy-saving and save money.
PACO VLS Marine easy-disassemble type vertical pipeline centrifugal pump

Material: Cast iron, stainless steel, bronze, nodular cast iron
Volute, pressure range 12-16 bar
Medium temperature: -5-100°C
Flow range: 5-818 m³/h
Hydraulic head / Lift: 5-122 m
Inlet & outlet diameter: 32mm-250mm
Impeller diameter: 127mm-300mm
Pump efficiency: highest 87%
Power range: 0.75-160 Kw

Apply to all kinds of Marine facilities, such as cooling pump, ballast pump, bilge pump, water pump, fire pump, deck flushing, auxiliary equipment cooling, desalination device etc.

Features:

- Compact structure
- Wide application range
- Standard motors
- The same inlet & outlet diameter
- Vertical installation & saving installation space
- Lengthened coupling, convenient maintenance and replacement the shaft seal not to move the motor
- Diameter >75mm with double spiral case structure, running more smoothly and effectively extending the service life of shaft seals and bearing etc.
vertical multi-stage centrifugal pump CR/CRN/CRT

- Material
  304 Stainless Steel
  316 Stainless Steel
  Titanium alloy

- Application
  cleaning system
  Refrigeration and air conditioning system
  water supply system
  water processing system
  fire protection system
  boiler feed water system
Automatic Back-flushing Filter

This product is a fully automatic backwash fuel oil filter with structure design artfully, reasonable filtering procedure design. It can not only realize automatic backwash filter screen filter cartridge, but also the whole process of filtration and reverse wash is continuous from beginning to run and meet the requirements of unmanned engine room management work. Solve the manual filter can't back flush filter and solve the existing automatic filter is structure complex or expensive price & can’t discharge harmful impurities automatically.

This invention for solving the technical problems adopts cylindrical structure, special disc type filter screen of composite filter body, by rotating fluid flow control system, at the same time in the filtration of fuel oil to fully automatic recoil cleaning filter then through differential pressure controller and automatic drain system, automatic timing or according to differential pressure start discharge the harmful impurities.
[HFF 系列自动均质滤器]
HFF series auto homogenizer filter

随着国际燃油价格的持续上涨，燃油成本在运营成本中所占比例越来越大，这使越来越多的船东在新建船项目中都选择使用可靠更经济的均质燃油系统。由于燃油品质的降低，提高了对船用燃油设备的要求，尤其是对进主机前的燃油过滤设备提出了更高的要求。

为了适应市场的需要，我公司引进日本技术，研发并生产了 HFF 系列自动均质滤器。该滤器结合了自动反冲洗滤器和均质机的优点，绝对过滤精度达到了 10um，对于所有粗用主机，该滤器都能满足其对于燃油的精度要求。并且由于该滤器加入了均质功能，使得燃油中存在的油污得到了全面的控制，使主机燃油的品质得到了更高的提升。

均质过滤一体化的安装形式，成本低，便于维护管理；降低备件数量，降低了后期的使用成本，成为船舶设备市场为数不多的高性价比的产品之一。

本产品主要有以下三大功能和特点：
1. 过滤功能
   - 采用精度高滤芯，绝对过滤精度达到了 20um。
   - 高速旋转的滤芯产生的离心力，使得滤芯表面的污物不易附着和堵塞。
   - 全不锈钢材料的滤芯，保证了滤芯的使用寿命，即使出现损坏也可以修复。
   - 采用高效旋转的滤芯，使得相向过滤精度可达 10um。
2. 均质功能
   - 特殊结构加速旋转的滤芯，使得燃油介质中残存的微小污物颗粒和附着油水颗粒得到了充分粉碎和均质。
3. 维护特点
   - 高速旋转的滤芯产生的离心力，使得燃油在过滤网上的重液层颗粒，使得其不能顺利流出而滞留在滤芯内。
   - 滤芯的滤层使得燃油介质在滤芯内形成一个隔层，重液层会向旋转向低层而被定时自动（手动）排出。
   - 无需清洗，减少了滤清再生的难题，提高了供货效率。
   - 滤芯使用寿命长。

www.qdlcme.com
Other modular products and land module

In order to speed up the construction, the construction enterprises are more and more use of modular products to replace the original complex pipe connection. Modular product has the advantage of compact structure, easy installation, operation, maintenance and management.

Our company can be according to customer's requirements, surrounding the diesel engine system design to produce various types of functional module and have been widely used in power station, ship building, drilling platform, fuel oil power plants etc .fields.
• Land module sales and services

Since January 2009, our company have sold over 100 sets oil purifier module and other modules for land power station project and all the equipments are checked & accepted at one time

• Land oil purifier module
Oil purifier module – Antigua and Barbuda 6X5MW Heavy oil power station project
Oil purifier module Nigeria IKEJA 7X2000KW power station project
Oil purifier module -Nigeria IKEJA 5X2000KW power station project
Oil purifier module -1700KW Mobile power station
Oil purifier module- Indonesia LDZE41-1800 Box type generator project
Oil purifier module-Philippines 10500KW power station project
Oil purifier module- 4*1000KW power station project

• Land use other modules
Antigua and Barbuda 6X5MW Heavy oil power station project

  Light oil transmission module  Light oil unloading module  Light oil emergency supply unit
  Dirty oil unloading module  Lubricating oil supply module  Lubricating oil transmission module
  Fuel supply module  High temperature water pump module  Low temperature water pump module
  Nozzle cooling modules  Water processing module  Heavy oil transmission module
  Heavy oil unloading module

SAUDI power station project Fuel oil Supply Unit

PAKISTAN 9L32/40 power station project Fuel oil Supply Unit, Diesel Unit etc.

• Debug Service: Our products & service can meet overseas demands.

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Nozzle cooling modules

Lubricating oil supply module

Lubricating oil transmission module

High temperature water pump module
Spare parts

Mitsubishi Purifier spare parts

Diesel Engine spare parts
Spare parts

Mitsubishi Purifier spare parts

Main seal ring, O Ring

3-WAY SOLENOID VALVE

FRICITION BLOCK

Connecting pipe

Disc

www.qdlcme.com
Spare parts

Mitsubishi Purifier

MULTI MONITOR (MM1)  SOLENOID VALVE  GRAVITY DISC  SAFETY JOINT, Oil seal

MULTI-MONITOR MM32  automatic control box  Main seal Ring  Board
Spare parts

Mitsubishi purifier spare parts

Oil seal

Motor

Diesel engine spare parts

Mechanical Seal

O Ring

 Diesel engine spare parts

Pressure gage

Cylinder cover

Mechanical seal

www.qdlcmve.com
Spare parts

Diesel engine spare parts

Cylinder head
Cylinder Liner
Air – cooler
The exhaust system assembly

Nozzle
Fuel Injector
Inlet valve, Outlet valve
Valve seat

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Diesel engine spare parts

- Gasket, Bolt 石墨垫片
- Connecting rod bearing
- Filter Cartridge
- Stainless Steel Filter
- Connecting rod bush
- Rockshaft
- Exhaust pipe gasket

www.qdlume.com
Spare parts

Fuel supply unit

- VAF Viscometer
- Electronic Flow meter
- IMO Pump /IMO AB
- Temperature Control Valve
- Plate Heater
- Pump
- SETTIMA Pump

www.qdlcme.com
Spare parts

Other marine spare parts

Marine Lights

Tools

www.qdlcme.com
Fuel supply unit transformation of technical service

Our company own rich experience senior engineers 4 persons, intermediate engineers 7 persons with many classification society approval such as CCS, LR certifications. Our engineers, in the marine and land power station aspects have accumulated years of experience in design, production, maintenance. In line with the rigorous, professional, careful and thoughtful service, get the high praise from the majority of customers.
Fuel Supply Unit & Oil Purifier maintenance, commissioning, after-service

We have a complete service network in the global, timely solving various problems in any place.

We have rich experience, getting Mitsubishi Kakoki Kaisha Ltd recognition professional after-sales service engineers to provide with a variety of problems of rationalization proposal and maintenance services for customers.
Thank you for your attention

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