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MORIMATSU (JIANGSU) HEAVY INDUSTRY CO., LTD.

森松（江苏）重工有限公司

2021年11月印刷

森松
以世界第一位为目标

MORIMATSU
Strive to lead in the industry

软件、硬件完美整合
行业解决方案的提供商
售前、售后服务
国内外著名公司的供应商
关键设备制造能力
国内外著名工艺技术公司的供应商
国内外著名工程公司的供应商

Approved Vendor of Domestic and International Well-known Companies
Approved Vendor of Domestic and International Well-known Engineering Companies
Perfect Integration of Soft Power and Hard Power
Approved Vendor of Domestic and International Well-known Process Technology Companies
Capabilities of Manufacturing Key Equipment
Pre-sale and After-sale Service
Provider of Industrial Solution


Why is MORIMATSU Always Preferred?

董事长致辞 Message from President



森松，1947年成立于日本，自1990年进入中国以来，以先进的技术应用和健全的质量保证体系保障，使“技术森松”得到了来自国内外客户的高度赞誉。我们为能为社会提供优质的产品和服务而感到非常骄傲和喜悦。作为国际化公司，我们仍将持之以恒“以客户为中心”的服务理念，持续增长，并将继续为行业内世界各地的发展作出更大的贡献，我们努力创新前行！

Morimatsu Industry established itself in Japan in 1947. After entering the Chinese market in 1990, Morimatsu Industry, also referred to as "Technical Morimatsu", received high praise from clients worldwide due to its rigorous quality assurance system and technical prowess. To this day, we strive to provide first-class products and services to our clients while maintaining a customer-centric philosophy. Morimatsu stands ready to serve global industries and continues to persevere, despite many challenges ahead, in pursuit of success.

董事长 President: 
Terumoto Matsuhisa

MORIMATSU

Morimatsu
森松

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B 发展历程 Business Milestones

1947

松久辰夫创立森松工业株式会社。
Morimatsu Industry Co., Ltd. was established by Matsuhisa Tatsuo.

1990

上海森松压力容器有限公司成立，占地面积27,000m²。
Shanghai Morimatsu Pressure Vessel Co., Ltd. was established, covering an area of 27,000 m².

2002

森松开创了中国设备首次出口到欧洲。
Morimatsu became the first Chinese supplier to export pressure equipment to Europe.

2008

全球最大6台湿法冶金加压釜顺利出口。
Six world's largest hydrometallurgical pressure vessels were successfully exported.

森松休斯敦公司成立。
Morimatsu Houston Corporation was established.

2011

森松南通工场一期工程竣工投产使用。
Morimatsu (China) Group completed the first-phase construction of Nantong Plant.

森松江苏重工取得ASME "U", "U2" 钢印证书。
Morimatsu (Jiangsu) Heavy Industry Co., Ltd. obtained ASME "U", "U2" stamped certificates.

2012

森松南通工场二期工程竣工投产使用。
Morimatsu (China) Group completed the second-phase construction of Nantong Plant.

成功完成四台当时全球最大的PTA氧化反应器，印证了森松的实力，得到客户的赞扬。
Four world's largest oxidation reactors at the time were completed which marked the capabilities of Morimatsu and were highly praised by the client.

2013

松久晃基出任森松工业株式会社董事长。
Terumoto Matsuhisa served as President of Morimatsu Industry Co., Ltd.

2014

FPSO上部两套SRU模块，单体尺寸为22米长X22米宽X16米高，顺利运往现场。
Two sets of SRU modules in the upper part of FPSO were successfully shipped to the site, with a dimension of 22mLx22mWx16mH each.

2016

亚洲最大乙烯项目急冷塔与分馏塔圆满完成。
The quench tower and fractionating column were successfully completed for Asia's largest Ethylene Project.

2017

中国第一套轻烃裂解装置核心塔器顺利出货。丙烯精馏塔115m高，将成为华东第一高塔。
The core column of China's first light hydrocarbon cracker was successfully delivered. The propylene distillation tower was 115 meters in height and would become the tallest tower of its kind in East China.

2018

森松(江苏)重工三期开工奠基。
The groundbreaking ceremony took place in the third-phase of Morimatsu (Jiangsu) Heavy Industry.

2019

森松(江苏)重工三期竣工投产。
Completed the Phase III construction of Nantong Plant.

2020

森松(江苏)重工项目核心装备加压釜顺利出货。
The 1100-ton MEG Module constructed by Morimatsu (Jiangsu) Heavy Industry Co., Ltd. in CNOOC Lingshui 17-2 Project have been successfully delivered.

2021

2155.HK, 森松国际成功上市。
Morimatsu International Holdings Ltd. was officially listed on The Stock Exchange of Hong Kong Limited ("HKEx").

全球最大的两台PDH核心塔器的顺利出货。高120米，直径近12米。
Two sets of world's largest PDH core columns were successfully delivered, which were 120m in height and 12 meters in diameter.

中海油番禺900吨MEG模块项目顺利交付。
A 900-ton MEG module for CNOOC's Panyu project was successfully delivered.

森松(江苏)重工承建的中海石油陵水17-2气田开发工程项目1100吨MEG模块圆满交付。
Critical Equipment Autoclave in Huayou Nickel Cobalt Hydrometallurgy Project have been successfully delivered.

森松(江苏)重工三期开工奠基。
The groundbreaking ceremony took place in the third-phase of Morimatsu (Jiangsu) Heavy Industry.

企业简介 Company Introduction

668,000m²

南通工场
Nantong Plant

50,000T/年

生产能力
Capacity

日本森松工业株式会社创立于1947年，70多年来，一直致力于金属材料压力容器的研发、设计与制造，拥有代表本行业国际先进水平的焊接技术、冷作加工技术和防腐技术，在行业中享有很高的信誉。

森松是日本森松工业株式会社于上海浦东开发的第一年（1990年）在华投资的全资子公司，被当时各大媒体誉为“浦东1号”。最先在中国实现了湿法冶金、PVC、PTA、BDO、PDH、醋酸、太阳能光伏等多个行业关键装备的国产化。

近30年来，森松取得了卓越的发展。先后在美国休斯敦、印度设立了分公司，并收购全球模块化工厂先行者瑞典法玛度公司，成为业务遍布全球的国际化跨国公司。收购法玛度后，森松在全球模块化的市场和业务取得了飞速的增长，在上海和江苏拥有三大制造基地，江苏南通工场获批港口经营许可，外轮可以直接停靠，降低了运输费用，使森松在超大超重型核

心设备与装置，工艺模块、撬块、系统工程的生产和运输能力大幅提升，为森松国际化的市场战略推进提供了有力的支持。

森松以客户需求为动力源，不断创新，在设备制造的同时将先进的模块化建造理念带给客户，实现了从单一设备制造发展到以核心装备制造以及模块化工厂、智能模块化工厂、各类工艺模块与撬块建造的转型；成为制药日化洁净模块等高新技术制造模块化工厂的解决方案和太阳能、锂电池、数据中心及电子相关等行业模块化解决方案的提供者，业务涉及油气、炼油、化工、湿法冶金、医药日化、新能源、电子等行业和领域。

全球化人才战略，先进的管理理念，诚挚的服务态度，诚信的合作方式，使森松国际化品牌形象深入人心，我们将继续秉承森松的优良传统，竭诚服务于国内外客户。

Founded in 1947, Morimatsu Industry Co., Ltd. has been dedicated to the research, design and manufacturing of metal pressure vessels for more than 70 years. Morimatsu possesses world's leading technologies in welding, cold processing and anti-corrosion, and enjoys a high reputation in the industry.

Morimatsu was a wholly-owned subsidiary of Morimatsu Industry Co., Ltd., which was established in Pudong, Shanghai, in the starting year (1990) of Pudong New Area development. Hence it was praised by many media as "Pudong No. 1". Morimatsu first realized the localization of key equipment in many industries such as hydrometallurgy, PVC, PTA, BDO, PDH, acetic acid, photovoltaic, etc. in China.

In the past 30 years, Morimatsu has achieved remarkable growth. It has established branches in Houston and India, and has acquired the global leader in modular Facilities - Pharmadule in Sweden, and become an international company with global operations. After the acquisition of Pharmadule, Morimatsu achieved rapid growth in the global modular market and business. It runs three manufacturing bases in Shanghai and Jiangsu, and the Nantong Plant in Jiangsu has been granted permission to operate a port. The foreign ships can directly dock at the port with reduced transportation costs. Thus the company has significantly enhanced the production and transportation

设备/工艺模块/撬块
Equipment/Process Modules/Skids

反应器 Reactor
φ300~20,000mm

换热器 Heat exchanger
φ200~20,000mm

塔器 Tower
φ200~20,000×200,000mm

容器 Vessel
单台设备或模块最大重量5,000吨
Maximum Unit weight of the Equipment or Module: 5,000T

capabilities of ultra-heavy and heavy-large core equipment and devices, process modules, skid blocks, and engineering systems, substantially supporting the global market strategy of Morimatsu.

Morimatsu takes client's demand as its driving force for continuous innovations, and brings advanced modular construction concept to its clients when providing equipment manufacturing services. It has realized the transformation from sole equipment manufacturing to the integrated manufacturing of key equipment, modular facility, intelligent modular facility, various process modules and skid blocks. Morimatsu has become the provider of high-tech modular facility solutions for pharmaceutical, daily chemical and cleaning products, etc. and modular solutions for industries such as solar energy, lithium batteries, data centers and electronics and related industries. Its business involves in oil and gas, oil refining, chemical, hydrometallurgy, pharmaceuticals, new energy, electronics and other industries and fields.

The global talent strategy, advanced management philosophy, sincere attitude of service, and good-faith cooperation has set a leading brand image of Morimatsu. We will continue to uphold the fine tradition of Morimatsu and sincerely serve our domestic and international clients.

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+

+

企业文化

Corporate Culture

- **敢攀高峰** 敢创大业的进取精神
- **敢为人先** 敢争一流的创新精神
- **不屈不挠** 永不言败的务实精神
- **团结协作** 忠诚互助的团队精神

通过森松的自我创新、团队协作，实现客户的可持续发展；
通过客户的发展推进森松的更大进步，实现森松品牌的强大。



- Spirit of entrepreneurship, to do what's never been done.
- Spirit of innovation, to be number one.
- Spirit of realism, to pursue continuous success.
- Spirit of cooperation, to unite and help each other.

To achieve clients' sustainable growth through self-innovation and team collaboration of Morimatsu.
To achieve higher progress and stronger brand of Morimatsu through clients' growth.



H

S

E



健康、安全和环境

Health, Safety & Environment

健康、安全和环境一直是森松的核心价值之一，在各项工作中，将健康、安全和环保放在重要的位置，保护每一位参与公司生产作业，生活在公司的团体或使用企业产品人员的健康与安全，在确保公司可持续发展的同时，重视环境保护。

Health, safety and environment have always been one of the core values of Morimatsu. In all kinds of operations, health, safety and environment protection are placed in an important position to protect the health and safety of every person who involves in the manufacturing, lives in the company or uses the products of the company, and to attach great importance to environmental protection while ensuring the company's sustainable growth.



先进的软件支持

Advanced Supporting Software

Design Software 设计软件

Computing Software 计算软件

- COMPRESS: 标准计算软件
- PVELite: 压力容器分析设计软件
- STAAD: 结构设计软件
- SW6: 过程设备强度计算
- HTRI: 换热器传热计算(我们是他们的组织成员)
- HYSYS: 油田地面工程建设设计和石油石化炼油工程设计计算分析
- TASC艾斯本: 管壳式换热器传热/传质设计、校核、模拟和机械设计

CFD计算

ANSYS CFX Promixus

ANSYS CFX 5.6

ANSYS FLUENT 6.3

Structural Software 结构软件

STAAD Pro / SACS

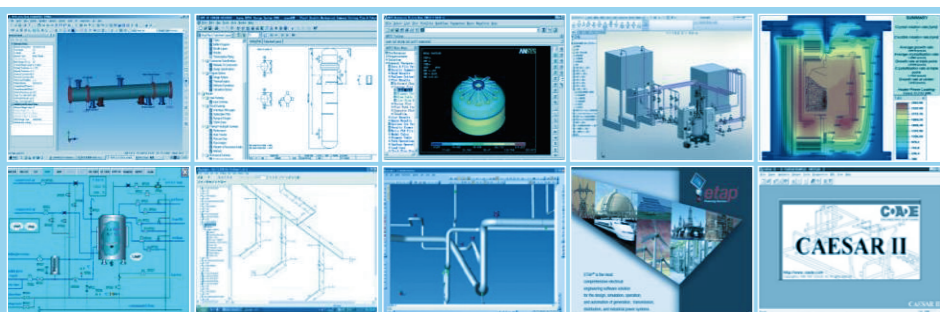
ANSYS

Tekla Structures Xsteel

Pipeline Software 管道软件

PDMS

CAESAR II



管理软件 Management Software

森松运用先进信息技术和智能化管控模式，打破集团人、财、物、信息、流程等之间的壁垒和边界，实现不同业务流程的关联互动，将SAP-ERP、CRM、OA、EPDM、远程监控等系统充分应用于公司管理中，并不段改进升级。同时根据公司的实际需要，自主研发的整合生产执行系统iMES，整合不同平台，交互应用，共享数据，使用APP实现可移动管理。

Morimatsu uses advanced information technology and intelligent management and control models to break down the barriers and boundaries between persons, finances, materials, information, and processes in the group, and realize the interaction between different business processes. SAP-ERP, CRM, OA, EPDM, remote supervision and other systems are fully applied in the company's management and are continually upgraded. At the same time, based on the company's actual needs, the integrated manufacturing execution system, known as iMES, was independently developed to incorporate various platforms, to interact with applications, and to share data. It supports mobile management with the use of APP.



VR新体验

New VR Experience

- 虚拟现实 (VR)，是一种崭新的人机交互手段；
- 进行协同设计，团队成员可同步或异步地从事操作；
- 对仿真对象进行评估、讨论以及设计等活动；
- 将缺陷杜绝在设计初期，优化设计，提高产品质量；
- 在三维空间中实时地与他们的仿真产品进行交互；
- 模拟真实模块、模块工厂的构造等，辅助审批设计、规避设计投资风险；
- 通过VR展现，可对客户、员工进行培训。

- Virtual Reality (VR) is a new method of human-computer interaction;
- Collaborative design allows team members to engage in project operations either synchronously or asynchronously;
- Evaluation, discussion and design can be carried out on simulation objects;
- Defects can be eliminated in the stage of initial design, design can be optimized and product quality can be improved;
- Real-time interactions with simulation products are available in three-dimensional space;
- Simulation of real modules, structures of the modular factory, etc. assists in the approval of the design to avoid the risk in design investment;
- The clients and employees can be trained through VR presentation.



核心设备 Core Equipment

森松在中国最先实现了PVC、PTA、湿法冶金、醋酸、BDO、PDH、太阳能光伏等行业和领域关键设备的国产化。

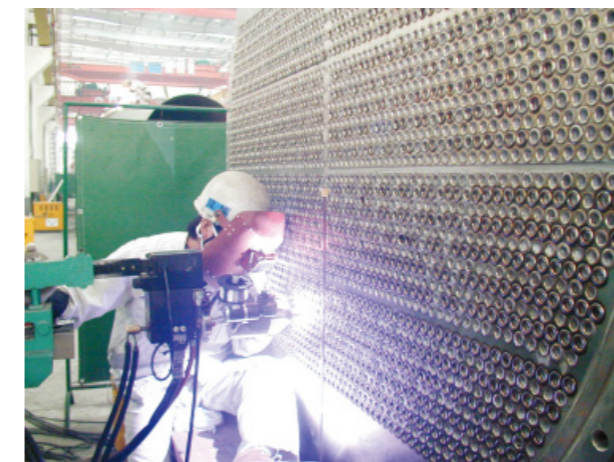
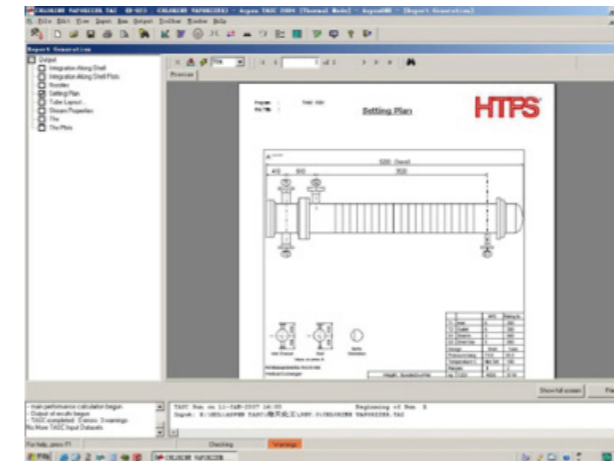
Morimatsu was the first to realize the localization of core equipment in industries and fields such as PVC, PTA, hydrometallurgy, acetic acid, BDO, PDH and solar photovoltaic.



换热器 HEAT EXCHANGER

森松是HTFS的会员，拥有正版换热器Aspen HTFS传热工艺设计软件。

Morimatsu is a member of HTFS and has a licensed Aspen HTFS heat transfer technological design software for heat exchangers.



1. 计算软件
2. 高压换热器
3. 管子-管板自动焊接
4. 双管板换热器 材料Mat.: 316L/SA516 Gr.70 (世界著名化工企业订购)

1. Calculation Software (Aspen HTFS)
2. High Pressure Heat Exchanger Ø1,620×6,800mm Design Pressure: 60Mpa
3. Tube-Tubesheet Automatic Welding
4. Double Tubesheet Heat Exchanger Ø2,600×12,130mm (Produced for a Global Chemical Company)



反应器 REACTOR

森松多年的制造经验以及试验装备与先进的软件，可根据客户的需求进行模拟试验，改进优化工艺流程，对产能进行放大。

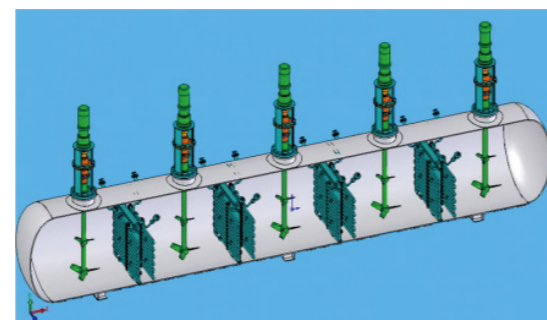
With many years of manufacturing experience and experimental equipment and advanced software, Morimatsu can perform simulation tests upon clients' needs to improve and optimize process flow, and maximize production capacity.

设备和搅拌装置一体化开发、设计、制造、检验和试动转的优点

- 有效控制整个设备的振动和晃动
- 在加压状态下进行试车
- 降低了由于罐和搅拌供应商不同带来的分歧
- 减轻客户现场工作量
- 降低连接发生的风险

The advantages of integrated development, design, manufacturing, inspection and test run of equipment and stirrer

- Effective control of vibration and shaking of the whole equipment.
- Test run under pressure.
- Reduced disagreements due to differences between tank and mixing suppliers.
- Reduced client's on-site workload.
- Reduced risk in connection.



激光粒子成像流场测试
Particle imaging velocimetry

核心设备 Core Equipment



塔器 TOWER

森松得天独厚的地理位置，方便的航道交通条件，为大型塔器的制造创造了先决条件。雄厚的制造能力，为大型核心塔器的制造提供了保证。

Morimatsu has a unique geographical location and convenient waterway traffic conditions, which have created preconditions for manufacturing large-scale towers and columns. Strong manufacturing capabilities provide guarantees for the manufacture of large core towers.

1. 急冷塔和分馏塔（亚洲最大炼化一体化项目）
Quench Column & Gasoline Fractionation Tower
(for Asia's largest refining and chemical integration project)
材料Mat.: SA516 Gr.70 Ø12,500/18,000×59,000mm Ø12,900×66,000mm
重量Weight: 1,500 Ton
2. 乙烯塔和丙烯精馏塔（中国第一套轻烃裂解装置）
Ethylene Column & Propylene Distillation Column
(for China's first light hydrocarbon cracker)
材料Mat.: S30408/SA516 Gr.70 Ø6,100×95,000/115,000mm
重量Weight: 1000 Ton
3. 分离塔和脱异丁烷塔（全球最大PDH装置）
P-P Splitter & Isobutane Column
(core equipment of the world's largest PDH plant)
材料Mat.: SA516 Gr.70 Ø6,400/10,400×95,000/115,000mm
重量Weight: 1,200 Ton



森松近30年的压力容器设计、制造能力以及对国内外标准的掌握使森松始终走在行业的前沿，特别在特殊材料设备的选材、焊接、制造等方面有着丰富的经验以及领先的技术。

Morimatsu's pressure vessel design and manufacturing capabilities over the past 30 years and its mastery of domestic and international standards have made Morimatsu always at the forefront of the industry. Morimatsu has extensive experience and leading technologies in material selection, welding, and manufacturing of special materials.

特种材料设备 SPECIAL MATERIALS EQUIPMENT

根据客户产品介质进行设备选材；
森松拥有专门用于特材设备制造的洁净车间，以及多年对特种材料的焊接经验与能力。

Material qualification according to the process materials for client's product.
Morimatsu has a clean workshop exclusively for the manufacture of special material equipment, with many years of welding experience and capabilities for special materials.



1. 氯化反应器 材料Mat.: 904L,N06600,Q345R
Oxychlorination Reactor Ø3,800×20,550mm
2. 反应器 材料Mat.: S31603+Hastelloy C276
Reactor Ø5,200×4,370×(28+3)mm
3. 冷凝器（管子管板射线探伤）材料Mat.: 2205
Condenser Ø2,600×8,200mm (RT for tube-tube sheet seam)



1. 反应器 材料Mat.: Hastelloy B3
世界最大Hastelloy B3材料反应器
 2. TOX反应器 材料Mat.: Hastelloy C276
 3. 脱水塔 材料Mat.: SA516 Gr.70+SB265 Gr.1
世界著名PTA生产商订购
 4. 塔器 材料Mat.: 锆 Zr R60702
 5. PTA第一冷凝器 材料Mat.: SA516.70+SB265Gr.1
 6. 加酸管 材料Mat.: 钽Tantalum
1. Reactor Ø4,300×11,700mm
The Biggest Hastelloy B3 Reactor in the World
2. TOX Reactor Ø4,000×10,780mm
3. Dehydration Column Ø6,900×49,000mm
Produced for a Global Leading PTA Manufacturer
4. Column Ø2,800×31,000mm
5. PTA 1st Condenser Ø3,600/5,400×9,000mm
6. Acid Dosing Pipe

工艺模块/撬块 Process Module / Skids

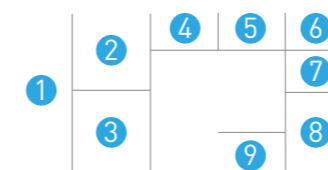
模块化建造已经越来越多的被大家接受，广泛应用于油气，石油化工，湿法冶金，精细化工，环保与核电等领域。森松最先涉足该领域，在模块设计与建造上，有着丰富的经验。

Modular construction has been accepted by more and more clients. It is widely used in the fields of oil and gas, petrochemicals, hydrometallurgy, fine chemicals, environmental protection and nuclear power. Morimatsu was the first to get involved in this field and has extensive experience in module design and construction.

- 将工艺装置和设施整合到一个功能模块内
Integrating process equipment and facilities into one functional module
- 发货前试运转，质量和安全更有保障
Pre-delivery commissioning to secure better quality and safety
- 降低现场施工的不可预知性
Reducing the unpredictability of on-site construction
- 易拆卸、搬迁和复制
Easy to disassemble, relocate and duplicate



1. 化工模块
Chemical Module
规格 Size(LxWxH): 13.7x12x11.3m
重量 Weight: 915 Ton
2. 大型管廊架
Jumbo Pipe Rack
规格 Size(LxWxH): About 40x8x12m
重量 Weight: 13,550 Ton
总长度 Total length: 3km
3. MEG模块
MEG Module
规格 Size(LxWxH): 20x15x20m
重量 Weight: 900 Ton
4. 湿法冶金中试系统
Hydrometallurgy Pilot System
规格 Size(LxWxH): 10.5x3.5x3.5m
重量 Weight: 15 Ton
5. SRU模块
SRU Module
规格 Size(LxWxH): 22x22x9m
重量 Weight: 635 Ton
6. 湿垃圾制有机肥模块
Kitchen Waste Producing Organic Fertilizer Module
规格 Size(LxWxH): 14x4.5x11m
重量 Weight: 54 Ton
7. 精细化工模块
Fine Chemicals Module
规格 Size(LxWxH): 19x4x4m
重量 Weight: 2526 Ton
模块数量 Module Number: 101 sets
8. 化工中试模块
Chemical Pilot Module
规格 Size(LxWxH): 20x8x26m
重量 Weight: 295 Ton
9. 井口分离器撬块
Well Pad Separator Skids
规格 Size(LxWxH): 9x4.8x5m
模块数量 Module Number: 137 sets



湿法冶金行业 HYDROMETALLURGY (MINING & REFINERY) INDUSTRY

森松拥有冷态浸出实验室，成功实现了加压浸出，常压浸出工艺的钛、钛复合板湿法冶金加压釜的系列化制造。设备已出口马达加斯加，巴布亚新几内亚和博茨瓦纳，土耳其，哈萨克斯坦，俄罗斯等国家。

Morimatsu has a cold leaching laboratory and successfully achieved serial production of pressurized metal leaching and atmospheric pressure leaching of titanium and titanium composite plates for hydrometallurgical pressure vessels. Equipment has been exported to Madagascar, Papua New Guinea, Botswana, Turkey, Kazakhstan, Russia and other countries.



煤化工行业 COAL CHEMICAL INDUSTRY

森松为煤化工行业提供了甲醇合成塔、变换炉、低温甲醇洗涤塔等关键设备。

Morimatsu provides key equipment such as methanol synthesis towers, shift furnaces, and low-temperature methanol scrubbers for the coal chemical industry.



甲醇合成塔
Methanol Synthesis Tower



变换炉
Transform Furnace



低温甲醇洗涤塔
Low Temperature Methanol Wash Tower



锂电池原料 LITHIUM BATTERY MATERIAL

森松模块化电浆系统优势

依托森松在制药、日化领域的丰富项目经验，在锂电混料系统采用ASME BPE规范标准执行项目，可在设计、材料、制造、检验等各个阶段最大限度地降低系统硬件对产品污染的可能性，保证系统的干燥度、洁净度，对高镍三元等高碱性材料的混料系统尤为适用。

Advantages of Morimatsu Modular Plasma System

Based on the extensive project experience in the field of pharmaceuticals and daily chemicals, Morimatsu applies the ASME BPE standards in lithium-ion mixing systems to minimize the potential for system hardware contamination during design, materials, manufacturing, and inspection stages, thus guaranteeing the system's dryness and cleanliness. It is especially suitable for high nickel ternary and other highly alkaline material mixing systems.

森松模块化六氟磷酸锂装置

- 无混酸，副产物为31%盐酸；
- 优化了系统换热网络降低冷冻负荷；
- 充分利用液氮、深冷尾气冷量降低冷冻负荷；
- 粉料全自动拆包、密闭输送，并控制室内温度、湿度防止水气进入；
- 整套系统的倒料不需要拆卸、旋转设备，系统内做到全密闭，最大限度保证装置操作便利性及可靠性。

Morimatsu Modular Lithium Hexafluorophosphate Device

- Mixed acid-free, with the by-product of 31% hydrochloric acid;
- Optimized system heat exchange network to reduce refrigeration load;
- Full use of liquid nitrogen and cryogenic exhaust gas to reduce refrigeration load;
- Fully automated power unpacking, sealed conveying, controlled room temperature and humidity, and prevention of moisture from entering.
- No need to disassemble or rotate the equipment to feed raw materials in the entire system. The system is fully enclosed to ensure maximum convenience and reliability of the equipment operation.



电子及相关行业 ELECTRONICS AND RELATED INDUSTRIES

森松在洁净工程领域积累了20多年的经验，提供电子及相关行业的管道工程和工艺模块系统。

Morimatsu has more than 20 years of experience in the field of clean engineering and provides pipeline engineering and process module systems for the electronics and related industry.

森松在电子及相关行业有如下优势

- 引进日本全套电抛光处理技术；
- 对电子及相关行业的需求有很好的理解；
- 资源雄厚，场所完善，设备先进；
- 齐全的检测设备，保证质量；
- 严格控制金属含量，良好的去油、脱脂、酸洗、钝化等性能，保证无尘、无油、无脂。

We have the following advantages in electronics and related industries:

- Introduce Japan's full set of electropolishing technology
- Thorough understanding of the needs of electronics and related industries.
- Abundant resources, perfect facilities, advanced equipment.
- Complete testing equipment for quality assurance.
- Strict control of metal content, good degreasing, pickling, passivation and other properties to ensure dust-free, oil-free and fat-free.

公司资质 Company Qualification



设计、制造标准 Design and Manufacturing Standards

- 中国国家标准 GB150, GB151
- 美国机械工程师协会 ASME
- 美国管壳式换热器标准 TEMA
- 美国石油协会标准 API650
- 欧盟承压设备指令 PED
- 欧洲标准 EN13445
- 核电标准 RCC-M、ASME-III
- 日本压力容器构造规范 JIS B 8266-2003
- 日本管壳式换热器标准 JIS B 8249-99
- 日本劳动省第一种、第二种压力容器标准 PV-1, PV-2
- 日本高压气体特定设备标准 HPGSL
- 澳洲标准 AS1210、AS4458、AS4037、AS3992、AS3998
- 美国SSPC防护涂料协会 SSPC-QP3
- 钢结构 Steel Structure: GB 50009/50011/50017, AISC 360/341, AS 4100, EN, API RP 2A-WSD/LRFD, ABS, CSA S16-09, DNV-OS-C101/10
- 管道 Pipeline: GB, ASME 31.3, API 14E, EN 13480, CSA B51
- 电仪 Electrical: IEC, AS, ATEX, CSA, NEC, CEC
- 质量 Quality: GB, ASME, AWS D1.1/D1.8, AISC, ABS, DNV
- 建造 Construct: GB, JGJ, ASME, AWS, AISC 303, AS, API, DNV-OS-C401, CSA W59-03, CSA W47.1-03

售后服务 After Sale Services

业务范围 Scope of Business

1. 现场检测服务
On-site inspection service
2. 设备（尤其特材）技术改造、维修业务
Technical transformation and maintenance of equipment (especially special materials equipment)
 - 提供设备结构优化的技术改进方案
 - 提供快速有效的设备故障解决方案
 - 提供高效精准的现场施工服务
 - 提供客户定制的限时服务承诺
 - 提供全方位的长期现场维保技术服务
3. 技术解决方案
Technical solutions
 - 传热计算
 - 应力分析计算（有限元计算）
 - 结构优化计算
 - 流体分析计算
 - 智能模块化工厂的整体设计及升级设计
4. 设备及管道的现场安装、调试
On-site installation and commissioning of equipment and pipelines
5. 产品备品、备件、材料的提供
Provision of spare parts and materials
 - 紧固件、密封件
 - 设备部件（法兰、接管等）
 - 焊材等
 - 板材、管材等
 - 特材类原材料、部件及焊材等

