NAGAMORI

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上海森永工程设备股份有限公司
Shanghai Nagamori Machinery Co.,Ltd.

致力于成为全球领先的工业装备及系统解决方案服务商

Committed to become the world's leading industrial equipment and system solutions provider

目录 CONTENT

公司简介	Company Profile	1
基本信息	Basic Information	1
技术研发能力	Technology R&D Capability	3
制造能力	Manufacturing Capability	7
产品介绍	Products	9
核电设备	Nuclear Power Equipment	10
搅拌器与反应器	Agitator & Reactor	11
薄膜蒸发器	Thin Film Evaporator	15
振动干燥机	Vibrating Dryer	17
其他机器设备	Other Mechanical Equipment	18
成套装置	Module Skid	19
涉足领域	Fields	21
全生命周期服务	Lifecycle Service	23

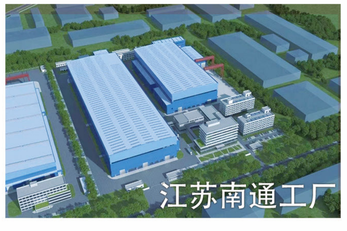
公司简介
Company Profile

上海松江工厂

SINCE 1990

上海森永工程设备股份有限公司

上海叶新工厂


江苏南通工厂

上海森永工程设备股份有限公司（原上海森松压力容器有限公司）成立于1990年。主要从事压力容器、搅拌器、核电设备、机器类设备以及模块化装置的设计与制造，服务于石油化工、湿法冶金、核电、精细化工、电子化学品等行业。产品遍及世界各地，质量及服务得到了国内外客户的高度赞誉。

森永股份有各类专业技术人才上百名，研究生及以上 30+。以先进的分析设计试验能力、齐全的加工设备、先进的管理理念、完善的质量管理体系向客户提供服务。拥有核2&3级容器换热器制造、ASME U钢印、PED、ISO9001/14001/45001等资质，在各类搅拌器与反应器、薄膜蒸发器、振动干燥机及其它机器设备方面拥有独特的优势，在特殊材料的冷作和焊接方面拥有丰富经验，打破国外垄断，实现多行业关键设备的首次国产化。

公司始终坚持务实、专注、创新、共赢，致力于成为全球领先的工业装备及系统解决方案服务商！

Shanghai Nagamori Machinery Co., Ltd.

Shanghai Nagamori Machinery Co., Ltd. (formerly Shanghai Morimatsu Pressure Vessel Co., Ltd.) was founded in 1990 . Mainly engaged in the design and manufacture of pressure vessels, agitators, nuclear power equipment, machine-type equipment and modular devices, served petrochemical, hydrometallurgy, nuclear power, fine chemicals, electronic chemicals and other industries. Our products are sold all over the world, and the quality and service are highly praised by customers both at home and abroad.

Nagamori has hundreds of professional and technical personnel, including more than 30 postgraduates . With advanced analytical design and testing capabilities, comprehensive processing equipment, advanced management concepts, perfect quality management system to provide customers with professional services.

Nagamori has the manufacturing of nuclear class Ⅱ and Ⅲ vessel heat exchanger , ASME U steel stamp PED, ISO9001 / 14001 / 45001, etc. It has unique advantages in all kinds of agitators and reactors, thin film evaporators, vibration dryers and other machines and equipment, and has extensive experience in cold working and welding of special materials, breaking the monopoly of foreign countries, and realizing the initial domestically produced of the key equipments of many industries.

Nagamori has always insisted on pragmatic, focused, innovative and win-win concepts, and is committed to becoming the world's leading industrial equipment and system solution service provider!

技术研发能力
Technology R&D Capability

Technical Talents
技术人才储备

150+

设计及工艺人员：

拥有设计及工艺相关的工程师150多名

Design and Manufacturing engineer

More than 150 engineers engaged indesign ,manufacturing technology.

30+

研究生及以上：

从事专业研发的人员30多名

Graduate-level or higher education

More than 30 people engaged in professional research and development.

凭借着国外先进的技术优势，为客户提供设备技术解决方案，旨在达到与客户的合作双赢。

Leveraging advanced foreign technology, we provide customers with technical solutions, aiming for a win-win situation.

技术来源　Technical Source

引自日本，深耕中国，公司多年的研发创新，推动混合/反应/蒸发分离技术在产品应用上的巨大发展。

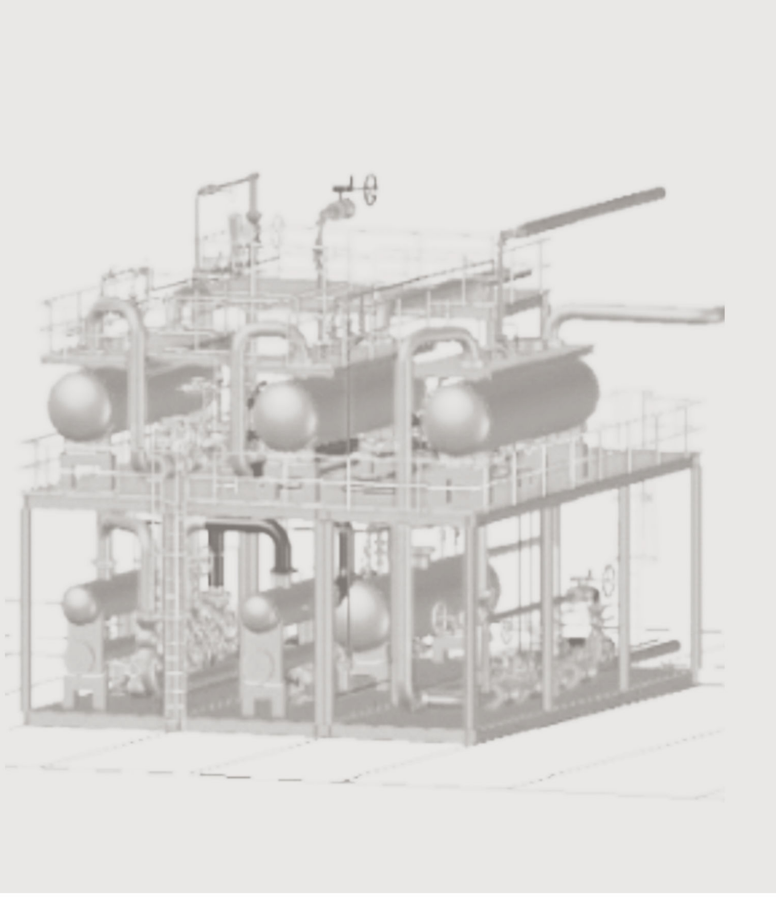
Introduced from Japan and deeply developed in China, Nagamori's years of R&D and innovation have promoted the mixing / reaction / evaporator and separation technology to great development.

专业的实验室　Professional Laboratory

由于实际流体的特性参数的不确定，以及加工制造误差的存在，必须通过验证性实验来确定偏离计算结果的程度，另外新型桨叶开发过程中，搅拌实验也是必需的，为此我司设立了搅拌实验室。

Due to the uncertainty of the actual fluid characteristic parameters and the existence of processing and manufacturing errors, The degree of deviation from the calculated results must be determined by verification experiments, In addition, stirring experiments are also necessary during the development of new propellers, for which our company has set up a mixing laboratory.

技术研发能力
Technology R&D Capability



参与客户工艺研发

拥有计算与分析团队，行业专家级顾问。
With a calculative and analytical team, and industry-leading consultants.

设备选型

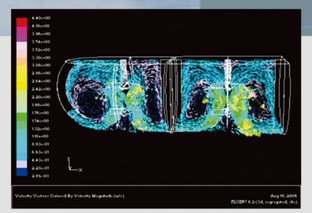
具有FEA结构分析、CFD流体动力学分析，ASPEN传热计算分析能力等。
With FEA structural analysis, CFD fluid dynamics analysis, ASPEN heat transfer calculation and analysis capabilities, etc.

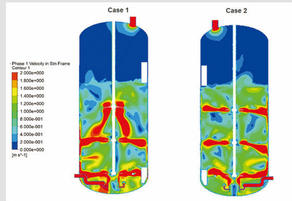
性能评价

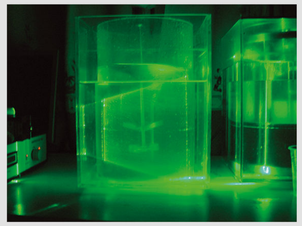
具有应力分析、振动分析和热场分析能力。
With stress analysis, vibration analysis and thermal field analysis capability.

设计放大

除了拥有专业的压力容器设计软件外，也拥有专业的混合技术与工程类软件。
In addition to professional pressure vessel design software, Nagamori also has specialized mixing technology and engineering software.







- **参与客户工艺研发，包括设备选型，设备性能评价，设计放大。**
  Participating in R&D process of customer, including equipment selection, equiment performance evaluation, and design amplification.
- **现有装置的技术改造。提高产能，节能降耗，减少维护，提升品质。**
  Technical transformation of existing installations. Increasing production capacity, saving energy and reducing consumption and improving quality.
- **以国际一流的产品，实现进口设备国产化。**
  Realizing the localization of imported equipment with world-class products.

制造能力
Manufacturing Capability

健全的质量保证体系

采用全过程、全周期质量管理、通过持续不断的改进质量管理，为海外客户提供各类设备，助力各行业客户发展，是公司质量保证的首决条件。

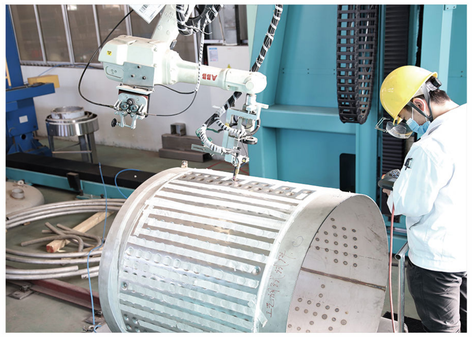
Quality Assurance System

Adopting whole-process and full-cycle quality management, and continuously improving quality management.
The company provides all kinds of equipment for customers domestic and abroad, and help the development of customers in various industries .

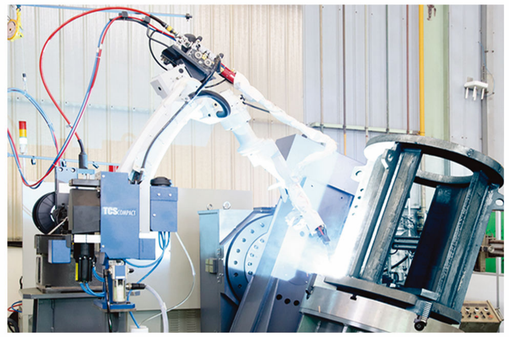
智能化机加工中心（4台）
CNC Machining Center

数控卧式车床（12m）
不同规格10台
CNC Horizontal Lathe(12m)

焊接机器人（自主研发6台）
Automatic Welding Robot



蜂窝夹套自动焊机
Dimple Jacket Automatic Welding Machine



自动焊接机器人
Automatic Welding Robot

MIG自动焊接系统
MIG Automatic Welding System

动设备检测仪器
Dynamic Balance Machine

健康/安全/环境 HSE

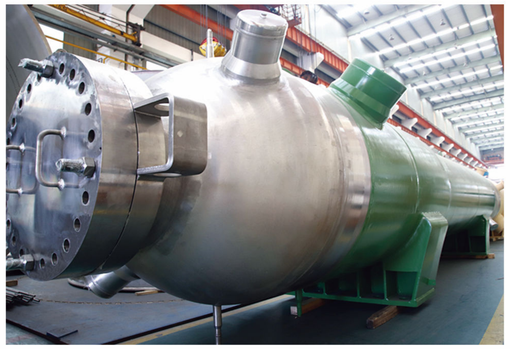
以人为本，减少事故：
预防污染，遵章守法；
全员参与，持续改进。

People-oriented,
Accidents reduction;
Pollution prevention,
Compliance with the law;
Full participation,
Continuous improvement.

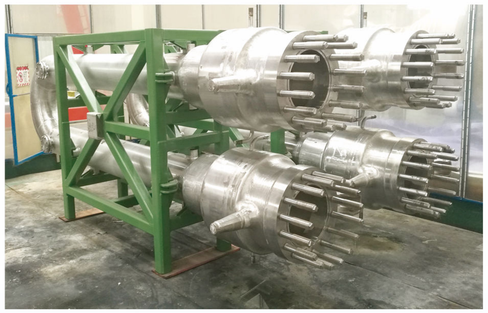
核电设备
Nuclear Power Equipment

2008年公司取得核电2&3级容器与换热器制造资质，开始进入核电领域；以丰富的设备制造经验，为国内外核电技术公司、核电工程公司提供优质的设备与完善的服务。
主要从事核2&3级、非核级容器、换热器、乏燃料格架、核电站常规岛设备和各类系统模块等产品制造。

In 2008, Nagamori obtained the qualification of manufacturing nuclear power class Ⅱ & Ⅲ vessels and heat exchangers, and stepped in the nuclear power field.
With rich experience in equipment manufacturing, we provide high-quality equipment and perfect service for domestic and foreign nuclear power technology companies and nuclear power engineering companies.
Nagamori is mainly engaged in the manufacture of nuclear class Ⅱ & Ⅲ and non-nuclear class vessels and heat exchangers, spent fuel storage racks, conventional island equipment and various system modules for nuclear power plants.



余排热交换器 Residual Heat Exchanger
国内首台出口发达国家核级换热器
The first domestic nuclear grade heat exchanger exported to developed countries



下泄热交换器
Excess Letdown Heat Exchanger

乏燃料贮存格架
Spent Fuel Storage Rack

硼酸贮存罐 Boric Acid Storage Tank
目前最大的核级不锈钢设备
The largest nuclear grade sainless steel vessel

搅拌器与反应器
Agitator & Reactor

引进日本著名搅拌制作商岛崎的全套技术，培养专业搅拌设计人员，并在此基础上不断研发，探索新的应用场景，拥有丰富的经验，实际应用中得到客户的高度认可。

We have introduced the full set of technologies from Shimazaki, a famous Japanese mixing manufacturer. Since then, our employees were trained with professional technics, and further explore new application scenarios. With rich experience, we are highly praised by our customers in practical applications.

整体设计与制造的优势

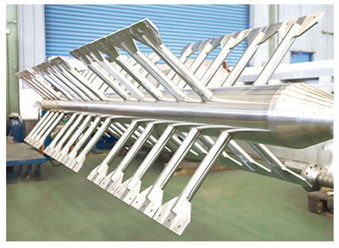
A 公司内进行试运转，有效控制整套装置的共振和晃动；
B 降低客户现场装配时出现不可预知问题的风险；
C 避免由于釜体与搅拌供应商不同带来的分歧；
D 减轻客户现场工作量。

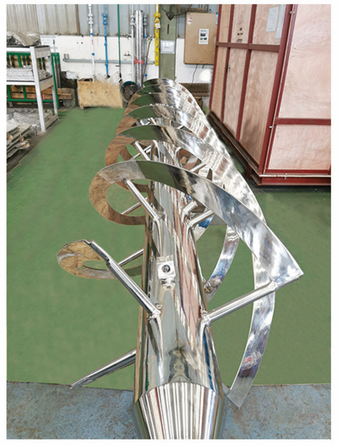
Advantages

A. Conducting tried operations within the company to effectively control resonance and vibrations of the entire system.
B. Reducing the risk of unpredictable issues during assembly at the customer's site.
C. Avoiding discrepancies caused by different suppliers for the agitator and the mixing unit.
D. Reducing the workload at the customer's site.

我们为客户提供定制化服务，帮助客户达到最佳的搅拌效果。公司核心的设计理念是提供给客户经济、先进的设计方案，使客户获得最大的收益是我们的追求。

We provide customised services helping customers to achieve the optimal mixing results. Nagamori's core design concept is to provide customers with economic-friendly and advanced design solutions, and maximize the benefits for the customers.





搅拌器与反应器
Agitator & Reactor

锆材反应釜(醋酸)
Zirconium Reactor (Acetic Acid)

聚合反应釜（PVC）
Polymerization Reactor(PVC)

公司有着30多年压力容器及搅拌器的设计、制造经验，为不同的反应装置提供了众多优质的反应设备，产品满足世界各地的标准要求。

With more than 30 years of experience in the design and manufacture of pressure vessels and agitators, Nagamori has supplied many high-quality reaction equipment for different reaction units, and the products meet the requirements of standards all over the world.

加氢反应器（哈氏合金）
Hydrogenation Reactor (Hastelloy)

主要应用于石油化工、湿法冶金、精细化工、电子化学品等。
主要产品有反应器、搅拌器、换热器、塔器及成套装置等。

Mainly used in petrochemicals, hydrometallurgy, fine chemicals, electronic chemicals and so on.

The main products include reactors, agitators, heat exchangers, towers and module skids.

聚合釜及机械密封辅助系统(氟化工)
Polymerization Reactor (PVDF)

氧化反应器（PTA）
Oxidation Reactor(PTA)

聚合釜（尼龙66）
Polymerization Reactor (Nylon 66)

聚合釜(ABS)
Polymerization Reactor(ABS)

钛材加压釜(湿法冶金)
Titanium Autoclave (Hydrometallurgy)

薄膜蒸发器
Thin Film Evaporator

2003年，公司研发制造了第一台薄膜蒸发器，打开了该产品的市场。
2021年，制造出国际上工艺先进、结构独特的薄膜蒸发器，实现了该设备的国产化。

In 2003, the company manufactured self-developed thin film evaporator, which opened up the market of this product.
In 2021, the company manufactured the thin film evaporator with advanced technology and unique structure in the world, which realised the localization of this equipment.

刮板的形式
Scraper Types

固定刮板 Fixed scraper　活动刮板 Movable scraper　铰链刮板 Hinged scraper　弹性刮板 Elastic scraper

Pilot System
实验系统：小试--中试--设计放大

1.可利用薄膜蒸发器进行单级薄膜蒸发或者和短程蒸发组合进行二级薄膜蒸发实验；
2.可直接进入短程薄膜蒸发器进行蒸发,轻组分被蒸发并在内置冷凝器内冷凝，实现低沸点组分与高沸点组分的高效分离;
3.提供客户现场热模实验，进行工艺确定、改进优化。

1. Use thin film evaporator to carry out single-stage thin film evaporation or combine with short-range evaporation to carry out two-stage thin film evaporation experiment;
2. Enter the short-range thin evaporator for evaporation directly, the light component is evaporated and condensed in the built-in condenser, realising the high-effciency separation of low-boiling-point component and high-boiling-point component;
3. Provide customers with on-site heat mode experiments for process determination, improvement and optimisation.

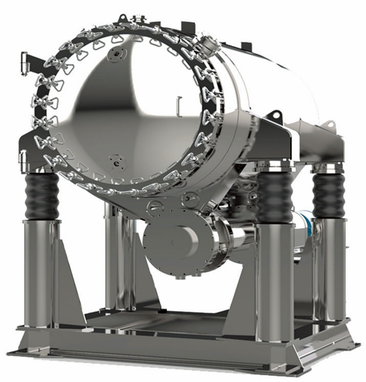
薄膜蒸发器的特点
Features of Thin Film Evaporator

1.压力损失小；
2.蒸发温度低，受热时间短；
3.总传热系数大，蒸发效率高；
4.对产品的浓度的调节范围大；
5.适用于高粘度、热敏性、易结垢和含固体颗粒的物料。

1. Small pressure loss;
2. Low evaporation temperature and short heating time;
3. Large total heat transfer coefficient, high evaporation efficiency;
4. Wide range of adjustment for the concentration of the product;
5. Suitable for harsh fluids such as highly viscous fluids, heat-sensitive materials, solid-containing materials, and easily scaled materials.

振动干燥机
Vibrating Dryer

立式 Vertical



卧式 Horizontal

技术来源 Technology Sources

技术来自于拥有70多年该产品技术研发历史的日本中央化工机株式会社。

The technology comes from the famous Japanese CHUO KAKOHKI Co., Ltd. which has more than 70 years of history of technology development of Vibrating Dryer.

产品特点 Product Features

1. 其应用范围广，放入球等介质，可以达到粉碎、干燥一起进行，也作为浆料干燥、蒸发装置使用，大大超越了传统干燥机的性能；
2. 适用浆料干燥到粉料，在干燥过程中不破坏物料的凝集构造。
3. 可达到卫生级要求，满足GMP要求。

1. Its wide range of applications, put into the ball and other media, can achieve crushing, drying together, but also as a slurry drying, evaporation device to use, greatly exceeding the performance of the traditional dryer;
2. It is suitable for drying slurry to powder, and does not destroy the agglomeration structure of materials in the drying process;
3. It can reach the sanitary level requirement and meet the GMP requirement.

其它机器设备
Other Mechanical Equipment

多功能过滤器 Multifunctional Filter

盘式干燥机 Disc Dryer

高效粉体包覆机
Powder Coating Machine

碟式过滤器 Disc Filter

自清洗过滤器
Self-Cleaning Filter

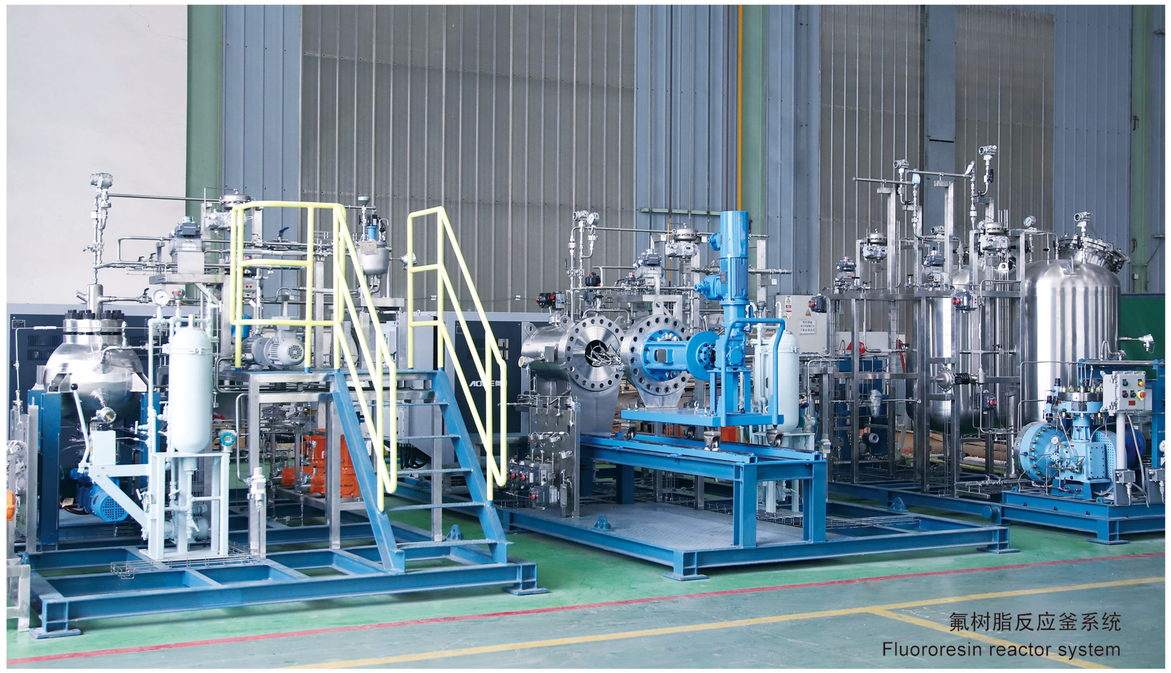
Advantages

The internal structure is simple, smooth and bump free, making it particular easy to clean.
There is no shaft seal, and no impurities are mixed in.
The inlet and outlet of the materials can be programmed to produce automatically.
The solid contents requirements of slurry have wide range.

产品优势

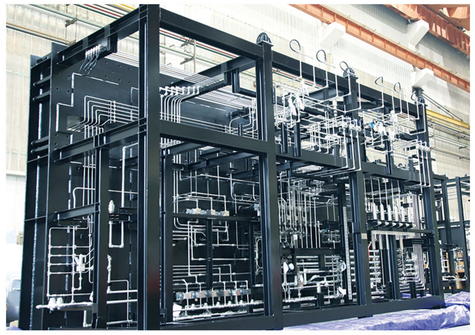
1、内部简单、平滑无凹凸，特别易清洗；
2、没有轴封，不会混入杂质；
3、物料进出可程控，全自动连续生产；
4、对浆料的固含量要求范围广。

成套装置
Module Skid

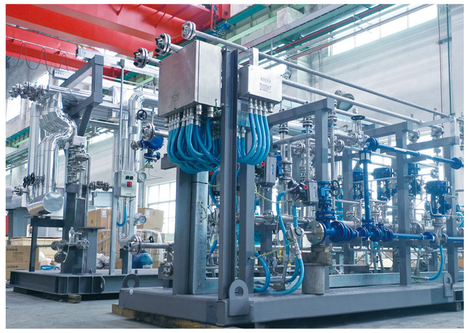


氟树脂反应釜系统
Fluororesin reactor system

废树脂干燥系统
Waste resin drying system

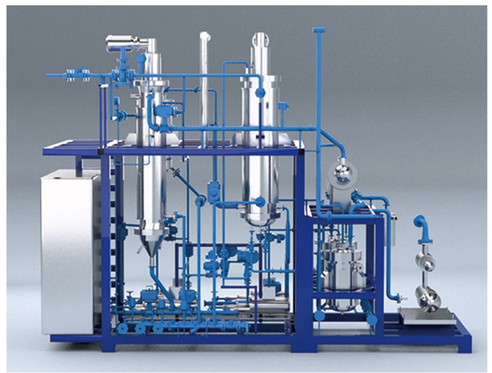


核岛机械模块
Nuclear machinery module



PFR反应器系统
PFR reactor system

800L紫外光胶反应釜系统
800L UV gel reactor system



公司不仅制造单体设备，同时在工艺功能集成方面有着丰富的经验，根据工艺要求，为客户提供工艺集成的成套装置。

可确定的缩短交期；质量保证；
搬迁便利、兼容性强；
降低现场不可预见性，有效的成本控制。

Nagamori not only produces single equipment, but also has rich experience in functional integration, and provides complete sets of equipment according to process requirements.

Definite shortening of delivery time; Quality assurance;
Convenient relocation and strong compatibility;
Reduce on-site unpredictability and effective cost control.

涉足领域 Fields

石化行业 Petrochemical

公司成立以来，以提供客户高品质的产品为使命，精益求精，得到了国内外石化客户的高度认可，是中石化，中石油，中海油，中国神华，万华化学，华谊集团以及BASF，壳牌，科思创，科莱恩等著名石化公司合格供应商。

Since its establishment, the company has committed to providing customers with high-quality products, thus was highly praised by domestic and foreign petrochemical customers. The company is recognized as a qualified supplier of SINOPEC, CNPC, CNOOC, China ShenHua, WanHua, HUAYI, BASF, SHELL, COVESTRO and CLARIANT, etc.

电力行业 Electricity

公司为国内外各大工程公司及设计院签定多个供货合同，涉及反应堆类型有华龙一号，EPR，CPR1000，CAP1400，AP1000，ACP1000，VVER，CFR600等，产品出口日本，英国，巴西，法国，巴基斯坦等。2019年被英国欣克利角项目评为十佳国际供应商。

The company has signed contracts for engineering companies and design institutes, involving reactor types including Hualong I, EPR, CPR1000, CAP1400, AP1000, ACP1000, VVER, CFR-600, and products exported to Japan, Britain, Brazil, France, Pakistan, etc. It was awarded as one of the top ten international suppliers by the British Hinkley Point Project in 2019.

冶金行业 Metallurgy

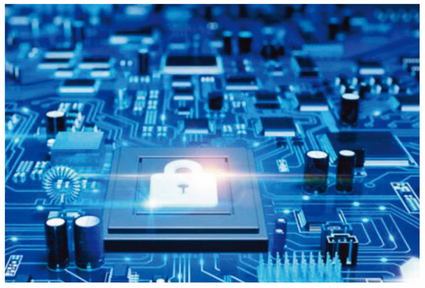
公司在湿法冶金行业中核心设备的设计与制造，有很高声誉，与国内外著名公司LAVALIN，长沙院及华友，格林美，力勤，金川，文山，紫金矿业等有密切合作，核心设备加压釜出口巴布亚新几内亚，马达加斯加，土耳其，俄罗斯，印尼，智利等国。

The company enjoys a high reputation for its equipment in the hydrometallurgy industry, and has close cooperation with famous engineering companies at home and abroad, such as LAVALIN, Changsha Academy and HuaYou, Grimme, Likin, Jinchuan, Wenshan, Zijin Mining. Our autoclave exported to Papua New Guinea, Madagascar, Turkey, Russia, Indonesia, Chile, etc.

精细化工行业 Fine Chemical

公司设计并制造精细化学品所需要的设备，在精细化工行业，公司有着丰富的业绩，与行业中具有潜力的各个客户有深入的合作，比如万华，齐翔腾达，联化，巨化，永太，巴斯夫，亨斯曼，索尔维，科思创，陶氏等。

The company designs and manufactures equipment required for fine chemicals and has an extensive track record in the fine chemicals industry. Nagamori has deep cooperation ewith promising clients in the industry, such as Wanhua, Qixiang Tengda, Lianhua, Juhua, Yongtai, BASF, Huntsman, Solvay, Costron, Dow, etc.



电子化学品行业 Electronic Chemical

随着高端电子材料的发展，在合成材料、感光材料、磁性材料、催化剂、试剂、高分子絮凝剂、表面活性剂等领域进行研发，为行业客户提供高品质产品，薄膜蒸发器，振动干燥机及粉碎机、过滤器等。

With the development of high-end electronic materials, Nagamori conducts research and development in the fields of synthetic materials, photosensitive materials, magnetic materials, catalysts, reagents, polymer flocculants, surfactants, etc, and provides high-quality products, thin film evaporators, vibration dryers and pulverisers, filters, etc.

动力锂电行业 Lithium Battery

公司为动力电池正极材料、负极材料、电解液电解质及其它辅助材料的制备提供关键设备，如加压釜、振动干燥机、多功能过滤器等。已与国内外著名的厂家有密切的合作，森永的产品与服务也得取了客户的高度认可。

The company provides key equipments for the preparation of power battery cathode materials, anode materials, electrolyte electrolyte and other auxiliary materials, such as autoclave, vibration dryer and multifunctional filter. Nagamori collaborates with famous manufacturers at home and abroad. The products and services have been highly praised by clients.

全生命周期服务
Lifecycle Service

1. 项目前期服务

- 保密协议
- 计算分析、实验验证、工艺优化
- 合规性审查等整体化解决方案
- 保质，及时的交货

2. 定制化维保解决方案

- 长周期运行和实时检测系统
- 高效精准的设备/搅拌/管道大修维保
- 专业诊断及解决方案
- 专业后台支持APP与维保团队
- 同时为客户维修其他产品

3. 后期产品更换、升级

- 设备更换服务
- 参与设备升级方案
- 快速有效的紧急故障解决方案

4. 机械密封、材料的供应

- 紧固件、机械密封等
- 设备部件（法兰、接管等）
- 焊材、板材、管材等
- 特材类原材料、部件等
- 搅拌设备易损件等

1. Pre-project services

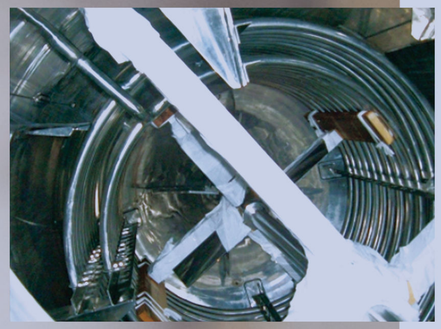
- Confidential Agreement
- Computational analysis, experimental validation, process optimisation
- Compliance review and other holistic solutions
- Quality and timely delivery

2. Customised maintenance solutions

- Long-cycle operation and real-time testing.
- Efficient and accurate overhaul maintenance of equipment, mixing and pipework .
- Professional back-office support APP.
- Maintenance of other products for customers.

3. Post-product upgrades

- Equipment Replacement Service.
- Participation in equipment upgrade.
- Effective solutions for emergent breakdowns.

4. Supply of mechanical seals and materials

- Fasteners, mechanical seals, etc.
- Equipment components (flanges, receivers, etc.)
- Welding consumables, plates, pipes, etc.
- Speciality raw materials and components, etc.
- Wear parts for mixing equipment, etc.