

SHANGHAI NAGAMORI MACHINERY

Provider of Chemical Equipment
and System Solutions

Shanghai Nagamori Machinery Co.,Ltd.

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Vision

Dedicated to becoming a global leading service provider in industrial equipment and system solutions.



Mission

Delivering values for customers, creating a stage where our people can realize their full potential.



Value

Pragmatic Focused Innovative Win-win

Contents

Company Profile	01
Honors	02
Core Competency	03
Chemical Industry Solutions	05
Mixing & Reaction	05
Evaporation/Separation/Crystallization	11
Drying & Milling	13
Hydrometallurgy Solutions	15
Power Equipment Solutions	17
Customer Service	19



Established in 1990, Shanghai Nagamori Machinery specialize in the design and manufacture of reactors, agitators, thin film evaporators, vibratory dryers, and modular skid, serving industries including petrochemicals, hydrometallurgy, fine chemicals, and power energy.

Backed by advanced analytical, design, and testing capabilities, comprehensive manufacturing facilities, cutting-edge management concepts, and a rigorous quality management system, Nagamori Machinery provides premium solutions to our clients, supported by extensive qualifications—including Special Equipment Design and Manufacturing Licenses, ASME U/U2, PED, Japanese Electricity Business Act, Nuclear Class 1, 2, 3 modules, Nuclear Class 2 & 3 pressure vessels and heat exchangers, as well as ISO 9001/14001/45001—with products distributed globally that have earned high acclaim from domestic and international clients for both quality and service.

By driving technological innovation, global expansion, and management upgrades, we have established ourselves as a pioneer in China's high-end equipment manufacturing sector, with extensive expertise and a leading market position in the fabrication of special material equipment.

Guided by our core values of pragmatism, focus, innovation, and mutual success, we remain committed to becoming a world-leading provider of industrial equipment and system solutions.



Shanghai Plant



Shanghai Plant (Yexin)



Jiangsu Plant



Area of Jiangsu Plant

133,000m²

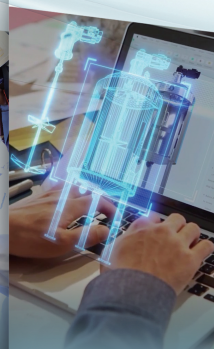
Area of Shanghai Plant

62,000m²

Technical Engineers

170⁺

Certified Welders

200⁺

Patent Certificates

70⁺

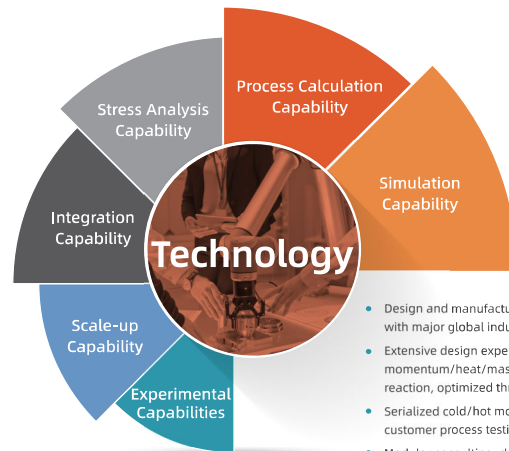
Honors

- Shanghai Manufacturing Single Champion
- National-level Specialized, Refined, Differential, and Innovation (SRDI) Little Giant Enterprise
- CGN Five-Star Supplier
- High-Tech Enterprise



Management

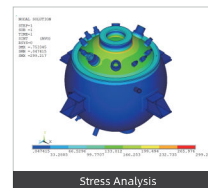
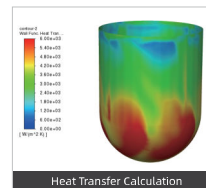
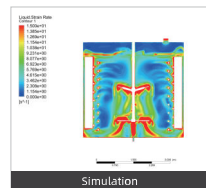
Comprehensive System Assurance



- Design and manufacturing capabilities compliant with major global industry standards
- Extensive design experience in momentum/heat/mass transfer and chemical reaction, optimized through simulation technology
- Serialized cold/hot mock-up test rigs, supporting customer process testing and validation
- Modular consulting, design, manufacturing, and commissioning for nuclear power and fine chemical sectors

Manufacture

Automated, Intelligent, and Digital Production



Experimental Capabilities



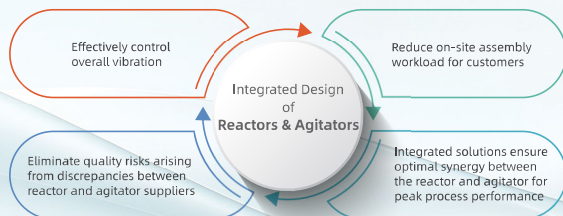
Chemical Industry Solutions



Mixing & Reaction

Reactors & Agitators

With over 30 years of experience in the design and manufacture of reactors and agitators, the Company has provided numerous high-quality equipment solutions for various reaction units, with products meeting international standards worldwide.



Hydrogenation reactor

Make solutions more precise & benefits more tangible

Leveraging advanced international technical advantages, we provide customers with equipment-based technical solutions aimed at achieving a win-win partnership.



SAN Reactor
2020 Guangdong, China

Size: $\Phi 3,000 \times 4,900 \times 38 + 3$
Weight: 41T Material: Q345R + S30403



PVC Polymerization Reactor
2010 Xinjiang, China

Size: $\Phi 4,360 \times 13,850 \times 29 + 3$
Weight: 63T Material: Q345R + 304



Acetic Acid Reactor
2009 Henan, China

Size: $\Phi 3,600 \times 5,674 \times 65 + 3$
Weight: 60T
Material: SA-S16Gr55+S8551,R60700



Polyacrylonitrile Reactor
2022 Jiangsu, China

Size: $\Phi 3,500 \times 4,700 \times 14$
Weight: 30T Material: 304L



PTA Oxidation Reactor
2009 Jiangsu, China

Size: $\Phi 6,900 \times 8,150$
Weight: 265T Material: Q345R + S8265Gr.1



Optical Adhesive Pilot Reaction Skid
2024 Jiangsu, China

Size: L 3,000 x W 1,900 x H 3,000
Weight: 5T Material: 304 + PTFE

Chemical Industry Solutions



Mixing & Reaction

Deeply engaged in the R&D of various agitators, the company has mastered numerous high-difficulty mixing & reaction technologies.



Heat and Mass Transfer
Coupling Technology



Integrated Design of
Reactors and Agitators



Overall Mechanical &
Vibration Analysis



Batch or
Continuous Reaction



Multi-phase
Mixing Technology



High-viscosity System
Mixing Applications

Dual-action Catalytic Reactor

- Perform technical retrofitting of customers' existing units to increase capacity, save energy, reduce consumption, minimize maintenance, and enhance quality.
- Participate in customer process R&D, including equipment selection, equipment performance evaluation, and design scale-up.



Wastewater Treatment Oxidation Reactor
2023 Jiangsu, China

Size: $\Phi 2,500 \times 35,020 \times 88 + 4.5$
Weight: 194T Material: Q345R + TA9



Nitrous Oxide Reactor
2024 Henan, China

Size: $\Phi 2,540 \times 14,326 \times 14$
Weight: 73T Material: 304/800H



Chlorine Oxidation Reactor
2021 Jiangsu, China

Size: $\Phi 3,800 \times 20,550 \times 20 + 4$
Weight: 143T Material: 304L+Q345R, N06600



Cyclohexanone Hydrogenation Reactor
2024 Fujian, China

Size: $\Phi 3,000 \times 5,400 \times 100 + 3$
Weight: 96.5T Material: Q345R + HC-276



Polyester Final Polymerizer
2025 Zhejiang, China

Size: $\Phi 3,300 \times 17,200 \times 32 + 5$
Weight: 90T Material: Q345R + S30408



BDO Reaction Skid-Mounted Equipment
2025 Jiangsu, China

Size: L 9,500 x W 4,500 x H 21,500
Weight: 120T Material: 316L

Chemical Industry Solutions

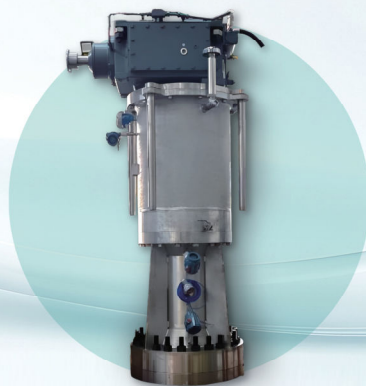


Mixing & Reaction

Mechanical Seals & Magnetic Couplings

Power: 450kW
Rotation Speed: 340r/min
Torque: 16000N·m

- Adaptable to complex operating conditions, suitable for high-pressure, toxic, flammable, and explosive media.
- Eliminate need for complex sealing systems, featuring a simple structure.
- Hermetically sealed with zero leakage risk.
- No internal wear parts, ensuring low maintenance costs.



- Equipped with industry expert-level calculation and analysis team.
- Proficient in core simulation technologies including FEA structural analysis, CFD fluid dynamics analysis, and ASPEN heat transfer calculation.
- Possess analytical and validation capabilities in stress, vibration, and thermal field analysis.
- Provide customized solutions ranging from laboratory small-scale formula validation to pilot-scale optimization and large-scale industrial production.

Paddle Selection & Application Cases



DT121



T150



S100



F210



Spiral Type (Polyacrylonitrile)



Three-blade Swept-back Type (PVC)



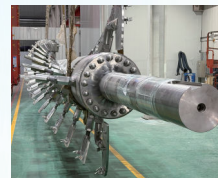
Double-screw Ribbon Type (Spandex)



Six-Blade Turbine Type (HDPE)



Special R&D Type (Special Chemicals)



Special R&D Type (r-PET)

Chemical Industry Solutions



Evaporation / Separation / Crystallization

Short-path Evaporator

Technical Advantages

- Adopt a single-piece shell structure to reduce sealing surfaces and lower leakage risks.
- Conduct vacuum nitrogen testing under operating pressure to ensure extremely low leakage rates.
- Equipped with laser trackers to inspect the roundness/straightness of the shell and rotor to meet high-precision manufacturing requirements.
- Possess ASPEN simulation capabilities, covering integrated design & delivery for short-path, vacuum, and utility systems.

Types of Scrapers



Fixed Scraper



Sliding Scraper



Hinged Scraper



Elastic Scraper



Thin Film Evaporator

Technical Advantages

- Minimal pressure drop.
- Low evaporation temperature, short heat exposure time.
- High overall heat transfer coefficient, high evaporation efficiency.
- Wide range of product concentration adjustment.
- Suitable for harsh fluids, including high-viscosity fluids, solid-containing materials, fouling-prone materials, and heat-sensitive materials.



PTMEG Short-path Evaporator
2025 Chongqing, China

Size: $\Phi 2,000 \times 14,000 \times 28$
Weight: 47T Material: 304



r-PET Short-path Evaporator
2025 Hubei, China

Size: 2,250 x 14,500 x 24 + 3
Weight: 59T Material: SA516.70 + 304L



Lyocell Fiber Thin Film Evaporator
2021 Nanjing, China

Size: 1,800 x 12,900 x 20 + 3
Weight: 48T Material: Q345R + 316L



PTA Thin Film Evaporator
2022 Chongqing, China

Size: $\Phi 1,200 \times 10,100 \times 24 + 6$
Weight: 22T Material: 316L + C276



TPU Thin Film Evaporator Skid-Mounted Equipment
2025 Shandong, China

Size: L 10,500 x W 4,050 x H 12,000
Weight: 75T Material: 304L

Chemical Industry Solutions



Drying & Milling

Primarily applied in sectors such as electronics and semiconductors, advanced ceramics, and energy materials

Vibrating Drying

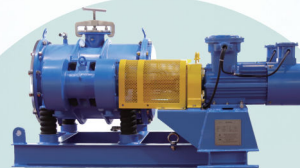
- Drying in a fluidized state, supporting modular production.
- Suitable for slurries, filter cakes, and powders, ensuring uniform drying and preventing agglomeration.
- 20°C-280°C, single-batch processing capacity of 5L-6250L.
- No shaft seals or agitators, easy to clean, no impurity contamination.



Drying Skid-mounted Equipment



Model VH-100 Dryer (Batch Type)



Vibrating Milling

- Milling time is 1/10th that of traditional ball mills.
- Maximum acceleration of milling can reach 14G.
- Suitable for both dry and wet applications.
- Continuous or batch production, with processing capacity of 100-5500 kg/h.



Mixing & Coating

- High-frequency vibration analysis.
- Ideal coating results.



Model VH-120 Dryer (Batch Type)



Model CD Mill (Continuous Type)



Model FV Mill (Batch Type)

Hydrometallurgy Solutions



HPAL

Mixing Condition



260°C

High Temperature



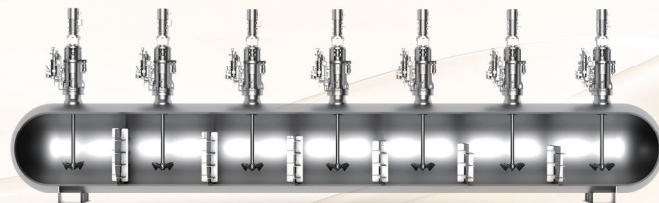
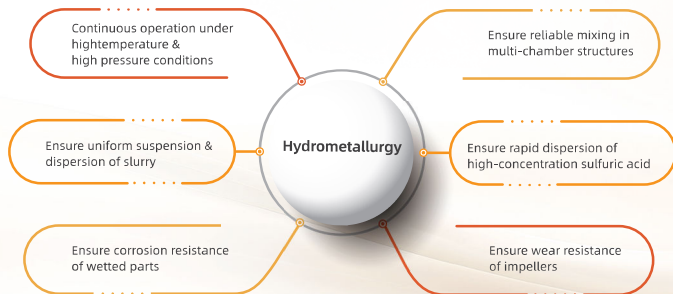
5.5MPa

High Pressure



330Days

Continuous Operation



2004 Gansu, China

Size: 3,800x19,000
Quantity: 36 units in total
Material: 16MnR + TA2



2019 Indonesia

Size: 4,800 x 28,000
Quantity: 12 units in total
Material: 16MnR + TA2



2022 Indonesia

Size: 5,300 x 36,000
Quantity: 7 units in total
Material: 16MnR + TA2



2022 Zhejiang, China

Quantity: 114 units in total
Material: 316L



2022 Indonesia

Quantity: 5 units in total
Material: Ti Gr.12



2024 Indonesia

Quantity: 21 units in total
Material: Ti Gr.12

Power Equipment Solutions



Nuclear Power
Thermal Power

Entered Nuclear Sector in 2008;
China's First Enterprise Certified for Civil Nuclear Class 2/3 Vessels &
Heat Exchangers and Class 1/2/3 Modules.



Long-Term Supplier to
China's 3 Major
Nuclear Groups

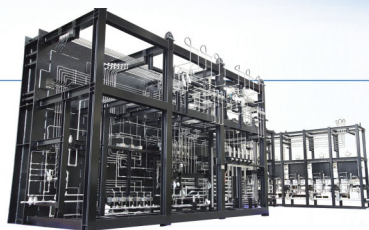


China's First Exporter of
Nuclear-Class Heat Exchangers to
Developed Countries



Five-Star Supplier to
CGN & CNNC

Over 3,000 Sets of Equipment Supplied to Global Power Plants.



Nuclear Class 3 Mechanical Module | Hua Long 1

Size: L6,200 × W3,100 × H3,700 Weight: 16T
Material: CS, SS



RIS Heat Exchanger | EPR

Size: $\Phi 1,410 \times 5,086 \times 43$ Weight: 24T
Material: Z2CN18-10, P295GH



Normal Residual Heat Removal
Heat Exchanger | CAP1400

Size: 1,700 × 10,746 × 16 Weight: 42.3T
Material: SA-516 Cr-70, SA-213 TP304L



Pressure Relief Tank | International
Thermonuclear Experimental Reactor

Size: $\Phi 1,820 \times 3,910 \times 20$ Weight: 7T
Material: 304L



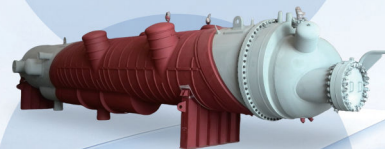
Pressure Relief Tank | Hua Long 1

Size: $\Phi 3,084 \times 6,430 \times 42$ Weight: 39.4T
Material: Z2CND18-12 (Nitrogen control)

Closed Cooling
Water Heat Exchanger



Low Pressure
Feed Water Heater



High Pressure
Feed Water Heater





Overhaul & Maintenance Services

Annual Maintenance
Instrument Inspection
Electrical Overhaul
Piping Replacement
Replacement of Gaskets & Diaphragms



Customized Technical Solutions

On-site Inspection Services
Agitation Simulation Design
Technical Support Services
Engineering Technical Consulting
Regular Inspection of Conventional Agitation Equipment



Supply of Spare Parts & Materials

Fasteners
Mechanical Seal
Wear Parts for Agitators
Equipment Components
Special Material
Welding Consumables, Plates, and Pipes

Global Service Network



Selected Partners

