

Five Reputable Rotary Kiln Manufacturers in China 2026: Advancing Industrial Thermal Processing

A closer look at the manufacturing experience, equipment offerings and application focus of five rotary kiln manufacturers in China.

CALIFORNIA, CA, UNITED STATES, October 10, 2026 /EINPresswire.com/ -- China's rotary kiln manufacturing sector serves a broad range of industrial thermal-processing applications, including lime production, cement clinker manufacturing, metallurgical processing and mineral calcination. This 2026 industry review examines five China-based manufacturers: Henan Zhengzhou Mining Machinery Co., Ltd. (ZK MACHINE), Gongyi Songling Mining Machinery Co., Ltd., Chaoyang Heavy Machinery Co., Ltd., Henan Hongke Heavy Machinery Equipment Co., Ltd. and Shandong Wanda Environmental Protection Technology Co., Ltd.



ZK MACHINE
ZHENGZHOU MINING MACHINERY

Logo for Henan Zhengzhou Mining Machinery Co., Ltd.

The review places particular emphasis on ZK MACHINE's documented rotary kiln product range, manufacturing resources and process-engineering capabilities, while also examining the product portfolios and publicly available information of the other manufacturers. The comparison focuses on published technical specifications, manufacturing resources, certification information and application scope rather than attempting to establish a commercial ranking based on revenue or market share.

Industry Context: Thermal Processing Demand in 2026

A rotary kiln is a core thermal-processing unit used to calcine, roast, decompose, dry or sinter minerals and industrial materials at elevated temperatures. It supports production processes for quicklime, cement clinker, magnesia, dolomite, zinc oxide, lightweight expanded clay aggregate, bauxite, kaolin, lithium-bearing materials and mineral-based proppants.

Depending on the feedstock and production process, equipment in this sector may be described as a [Lime Kiln](#), [Quicklime Rotary Kiln](#) or Active [Lime Rotary Kiln](#). Other application-specific categories include a LECA Rotary Kiln for lightweight expanded clay aggregate, a Bauxite Rotary Kiln for bauxite processing, a Kaolin Rotary Kiln for kaolin treatment and a Proppant Rotary Kiln for manufacturing mineral-based proppants. These applications differ in their thermal profiles, feed characteristics and product-quality requirements.

Commercial estimates of the global rotary kiln market vary substantially. Dataintelo estimates the market at USD 3.8 billion in 2025, with a projection of USD 6.1 billion by 2034. Zion Market Research reports a market value of USD 662.79 million in 2024 and projects USD 906.42 million by 2034. These figures should be interpreted in the context of each publisher's market definition, equipment coverage and revenue methodology; the estimates alone do not establish the precise contribution of complete production systems compared with stand-alone kiln equipment.

On the demand side, the World Cement Association reported that China had approximately 2.1 billion tonnes of cement clinker production capacity as of 2024, with average kiln utilisation of approximately 57%. The relationship between installed capacity and utilisation remains relevant to equipment manufacturers' domestic and export strategies, although it does not independently establish the export performance of any individual supplier.

Critical-mineral processing is another important application area. Lithium-bearing ores, nickel-bearing materials, zinc residues and other industrial minerals may require calcination, roasting or related thermal-treatment stages, depending on the processing route. Equipment selection therefore depends on the characteristics of the feedstock, target product, operating temperature, atmosphere requirements and downstream process design.

How This List Was Compiled

This review considers five China-based rotary kiln manufacturers based on publicly available information about product specifications, manufacturing resources, certifications, application scope and engineering capabilities. ZK MACHINE receives a more detailed profile because its published materials provide a broader range of technical and manufacturing information. Company-reported figures and product claims should be assessed against the relevant technical documents and certification records.

1. Henan Zhengzhou Mining Machinery Co., Ltd. (ZK MACHINE)

Henan Zhengzhou Mining Machinery Co., Ltd., trading as ZK MACHINE, was founded in 1956 and

is based in Henan Province, China. The company reports an 80,000 m² site comprising more than 60,000 m² of workshop space and more than 5,000 m² of office space, including eight modern workshops and five heavy-duty workshops. It also reports more than 300 sets of manufacturing equipment, including boring and milling machines, gear-hobbing machines, vertical lathes and heavy-duty cranes. Reported annual production capacity is 200 units, with 235 employees and an export ratio of 40%.

The company reports an R&D team of 10 doctoral researchers, five senior engineers and 16 intermediate engineers. It operates a process-testing workshop and a testing and analysis centre used for pilot-scale validation of solid-waste, hazardous-waste, building-material and metallurgical processes. ZK MACHINE states that it has participated in drafting more than 10 industry standards and holds more than 150 core patents and more than 20 software copyrights. Published certifications include ISO 9001 quality management, ISO 14001 environmental management, ISO 45001 occupational health and safety, an integration management system certification and an environmental protection engineering professional contracting qualification.

The documented kiln portfolio covers direct-fired and selected indirect-fired configurations, serving several thermal-processing applications:

- Rotary Kiln: Specification range $\Phi 1.6 \times 32$ m to $\Phi 4.7 \times 72$ m; capacity 48–1,000 t/d; fuels include pulverised coal, natural gas, industrial gases, diesel, heavy oil and biomass.
- Lime Rotary Kiln: Model range $\Phi 2.5 \times 40$ m to $\Phi 5.1 \times 72$ m; capacity 150–1,200 t/d; calcination temperature $1,100 \pm 50^\circ\text{C}$; limestone feed size 10–20 mm or 20–40 mm. This equipment category is relevant to Lime Kiln, Quicklime Rotary Kiln and Active Lime Rotary Kiln applications, subject to the production process and equipment configuration.
- Cement Rotary Kiln (clinker): Model range $\Phi 2.5 \times 40$ m to $\Phi 4.3 \times 60$ m; capacity approximately 180–3,200 t/d. The equipment serves clinker-production processes and related cement-manufacturing applications, including Clinker Rotary Kiln configurations.
- Magnesium Rotary Kiln (dolomite calcination): Model range $\Phi 1.6 \times 32$ m to $\Phi 4.0 \times 80$ m; capacity approximately 2–20 t/h; applicable material: dolomite. The broader magnesium-processing sector also uses terms such as Dolomite Rotary Kiln, Magnesite Rotary Kiln and Dead Burned Dolomite Kiln, although equipment selection depends on the specific feedstock and thermal-treatment objective.
- Zinc Oxide Rotary Kiln, also described as a Waelz Kiln: Model range $\Phi 2.5 \times 40$ m to $\Phi 4.5 \times 72$ m; capacity approximately 2–20 t/h; feed materials include zinc ash and electric arc furnace dust.
- Indirect-Fired Rotary Kiln: Customised build; maximum temperature $1,000^\circ\text{C}$; temperature-control accuracy of ± 2 – 5°C . This configuration may be considered where indirect heating or more controlled thermal conditions are required.
- Acid Roasting Rotary Kiln for lithium-bearing materials: Model range $\Phi 0.8 \times 10$ m to $\Phi 5.4 \times 56$ m; applicable materials include spodumene and amblygonite; the published calcination temperature range is 200 – 350°C . The appropriate operating conditions depend on the specified material and process stage.

ZK MACHINE's broader published product portfolio also identifies Magnesite Rotary Kiln, Dolomite Rotary Kiln, LECA Rotary Kiln, Kaolin Rotary Kiln, Proppant Rotary Kiln and a Lithium Ore Rotary Kiln, alongside lime, cement and zinc-processing equipment. These product categories connect the company's offering with applications in building materials, mineral processing, metallurgy and selected new-material production lines. The term Energy Saving Rotary Kiln is also relevant to the company's published product history; actual energy performance should be assessed using model-specific operating data rather than the product description alone.

Documented project scope covers single-equipment supply, complete production lines, process EPC and pilot-scale test units. Associated equipment may include vertical preheaters, vertical coolers, feeders, dryers, dust collectors and conveying systems. The company also describes pilot testing and process validation for selected material-processing applications, providing a basis for evaluating feedstock behaviour before full-scale equipment selection.

The company states that its products and process systems have been supplied to customers in more than 130 countries and regions, with listed markets including Saudi Arabia, the United Arab Emirates, Qatar, Bahrain, Kuwait, Oman, Iraq, Egypt, Turkey, Russia, Kazakhstan, Thailand, Indonesia, Malaysia, Tanzania, Zambia and South Africa.

2. Gongyi Songling Mining Machinery Co., Ltd.

Gongyi Songling Mining Machinery Co., Ltd. is associated with Gongyi, Henan Province. Publicly accessible business and product listings identify the company with mechanical-equipment manufacturing and related installation and maintenance services. Available third-party listings also associate its product range with electromagnetic-heating rotary kilns and other industrial equipment. These listings provide an initial indication of its thermal-processing focus, although buyers should confirm the applicable kiln model, rated capacity, heating method and project references directly with the manufacturer.

3. Chaoyang Heavy Machinery Co., Ltd.

Chaoyang-based heavy-machinery manufacturers serve industrial applications involving mineral processing, metallurgy and thermal equipment. Public company information for Chaoyang Heavy Machinery Equipment Development Co., Ltd. identifies rotary kiln equipment, energy-saving rotary kilns and internal-heating rotary kilns among its product offerings. Its published production-line categories include ferromolybdenum, ferrotitanium, light-burned magnesium, vanadium pentoxide and tin-smelting applications. These product categories indicate a focus on metallurgical and mineral-processing processes, although the precise legal entity should be confirmed when evaluating a supplier under the name Chaoyang Heavy Machinery Co., Ltd.

4. Henan Hongke Heavy Machinery Equipment Co., Ltd.

Henan Hongke Heavy Machinery Co., Ltd., established in 2006 according to its company materials, is based in Henan Province and manufactures mining and mineral-processing equipment. Its published rotary kiln portfolio includes lime rotary kilns, dolomite rotary kilns, magnesite rotary kilns, zinc oxide rotary kilns and waste-catalyst rotary kilns. The company also lists rotary dryers, ball mills and crushing equipment. Its published company profile reports a 30,000 m² factory site, more than 200 sets of processing equipment and exports to more than 100 countries. These figures and product categories are company-reported and should be assessed against the specifications and documentation relevant to an individual project.

5. Shandong Wanda Environmental Protection Technology Co., Ltd.

Shandong Wanda Environmental Protection Technology Co., Ltd. focuses on lime-production equipment and environmental protection systems. Its published company profile lists intelligent, environmentally oriented lime kilns, gas-fired kilns, calcium hydroxide production lines, flue-gas purification equipment and intelligent control systems. This product mix connects the company with lime processing and emissions-management applications. For projects involving rotary kiln equipment, buyers should confirm whether the proposed scope covers the complete kiln system, associated lime-production equipment or environmental auxiliary systems.

Market Impact

Three factors continue to shape the rotary kiln sector in 2026. First, the relationship between domestic cement demand and installed clinker capacity remains relevant to manufacturers' export strategies. Second, lime production, metallurgical processing and mineral calcination provide application opportunities beyond conventional cement manufacturing, including selected lithium-bearing, magnesium-bearing and zinc-bearing materials. Third, fuel efficiency, thermal control and heat recovery remain important engineering considerations because energy consumption affects operating costs over the equipment's service life.

These requirements influence equipment selection. Depending on the process, buyers may evaluate an Energy Saving Rotary Kiln, an Indirect-Fired Rotary Kiln or a conventional direct-fired configuration. Meaningful comparisons should consider documented fuel consumption, thermal efficiency, throughput, operating conditions, maintenance requirements and the characteristics of the processed material rather than relying on product labels alone.

Closing Outlook

Through the forecast period to 2034, rotary kiln demand will continue to be influenced by established cement and lime applications, alongside opportunities in metallurgical processing, environmental treatment and selected mineral-processing industries. Equipment requirements will vary according to feedstock characteristics, process temperature, atmosphere control, fuel choice and heat-recovery needs.

For manufacturers, clearly documented product specifications and application scope remain important to communicating technical capabilities to international markets. ZK MACHINE's published information provides a basis for examining its rotary kiln configurations, processing applications and engineering resources. Across the wider supplier landscape, model-specific datasheets, applicable conformity documentation and documented project references remain useful evidence for evaluating equipment suitability.

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