

PARTNERSHIP YOU CAN TRUST

- Since the early 2000's we design, fabricate and assemble all our kilns in our facility in the heart of high tech science and technology Park in Hefei, administrative capital of Anhui province.
- Our solution will be entirely based on practical experience and cutting edge designs that are industry-proven.



- Knowledge of both the technical and the economic aspects can prevent our clients from making expensive mistakes.
- Full data set of a kiln operational life, the exact power, gas and water consumption figures, maintenance cost data collected over the years will be beneficial for your investment teams.
- We already know what works and what doesn't. We provide a clear way for a battery project from a lab-scale dream to an industrial flagship. As tempting as it may sound, reinventing the wheel is neither reasonable, nor necessary.

OUR CUSTOMERS



ANODE MATERIALS

Carbon
Silicon + Carbon
Si-Graphite composite
Metal oxide ($\text{Li}_4\text{Ti}_5\text{O}_{12}$ and others)
Graphite
Natural Graphite
Synthetic Graphite

CATHODE MATERIALS

NCM ($\text{Ni}+\text{Co}+\text{Mn}$)
 LiCoO_2
High Density LFP Gen 4
 LiMn_2O_4 LFP ($\text{Li}+\text{Fe}+\text{P}$)
Sodium ($\text{Na}+\text{Fe}$)
LMFP Classic LFP
 LiNiO_2

HENGLI
WATER AND GAS
TREATMENT
Bespoke Designs

HENGLI
RECYCLING
Rotary Kiln

HENGLI
ROLLER HEARTH KILNS UNIVERSALLY
SUITABLE FOR BOTH CATHODE AND
ANODE PROCESSING



HENGLI
DIGITAL «LIGHTS OUT»
FACTORY MES SOLUTIONS

Our Digital Factory Twin MES application suite is uniquely based on many years of high-yielding industries' best practices. It fulfils or exceeds typical Industry 4.0 requirements and integrates well as a perfect asset management tool for corporate clients.

CONTACT US

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LEADERSHIP STEWARDSHIP KNOWLEDGE

Over **6,550** kilns and furnaces of various designs delivered worldwide.

As of Q3, 2025 over **1,330** HengLi furnaces and kilns are used by our customers in anode and cathode materials production. The first example was delivered in 2005.

That number includes **680** industrial scale roller hearth kilns with advanced saggar handling systems making over **2,8 million tons** of product per year in total.

5,320 HengLi furnaces, ovens and kilns are operating in semiconductor, photovoltaic, power electronics, hybrid thick film and metal brazing applications. Many unique applications were co-developed with HengLi team.

Smart Production Lines
for Anode and Cathode Materials

Celebrating

35

YEARS OF LEADERSHIP IN THERMAL PROCESSING OF ADVANCED MATERIALS

HENGLI



- Solutions for any mainstream Cathode and Anode chemistry from laboratory to pilot, up to industrial scale and Gigafactory.
- 180 patents and inventions and nearly 20 years practical experience in real-world cathode and anode field.
- Following our recent years' success with projects in North America, Europe and the Far East we now offer our expertise worldwide.
- RHK/SHS solutions come fully compliant with a regional set of core Design, Electrical and Environmental Safety and certifications in mind.
- Our engineering and technical support partners offer their services to make your project a success in all aspects.
- To all our new customers we offer access to our test laboratory and introduction to our engineering, supply chain and certification partners who would all contribute to a turnkey project.

Laboratory

Pilot production

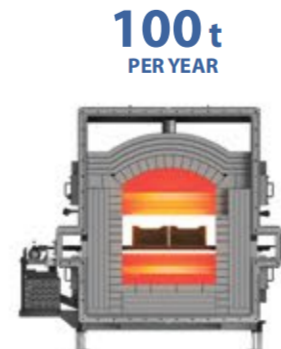
Industrial scale

HENGLI

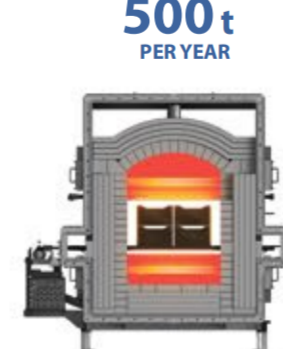
Gigafactory scale



1..8
STANDARD
SAGGAR LOAD



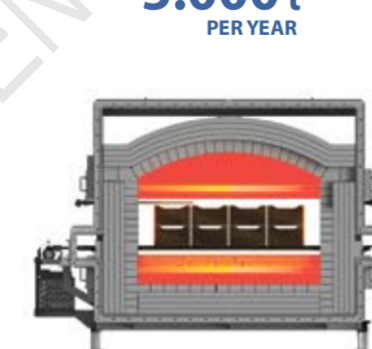
100t
PER YEAR



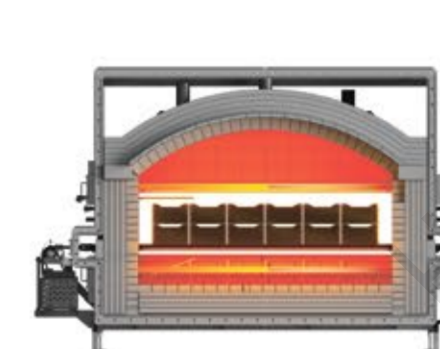
500t
PER YEAR



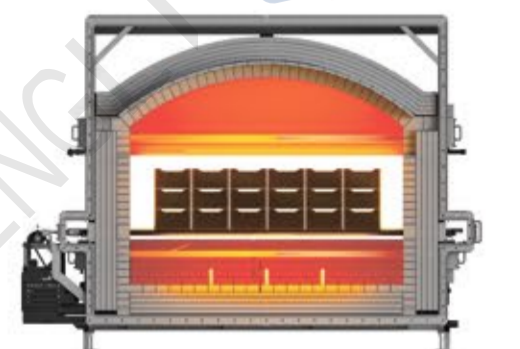
1.000t
PER YEAR



5.000t
PER YEAR



8.000t
PER YEAR



PER KILN
up to 25.000 t
PER YEAR

10m

20m

25m

60-80m

85-100m

110-120m

Active Cathode Material (CAM) and Anode Roller Kilns

Available configurations

Cathode: NCM, LFP, MLFP and others
Anode: Natural and Synthetic Graphite, C+Si

Process atmospheres available

Air • O₂ • N₂

Atmosphere purity

O₂ < 10 ppm for N₂ processes (peak zone)
O₂ > 99% for O₂ processes (peak zone)

Available models

Laboratory kilns

models for 1, 2, 4 and 8 saggars load

Pilot kilns

automatic or semiautomatic load of saggars
in 2 rows, single layer stack

Industrial scale kilns

2, 4 or 6 rows, 2- or 3-layer saggars stacks

Design features

RHK Transmission

Fully contained, N₂ flushed
Patented self-aligning spur and bevel gear drive

Temperature control system

Heaters' location, gas preheating and distribution
for a uniform thermal field

Temperature tolerance (measured on the product)

Laboratory kilns: better than ± 3°C
Industrial kilns: better than ± 5°C

Process control

Patented heater design and distribution, zoning
and PID control algorithm allow for a full flexibility
in process curve fine-tuning and monitoring

Saggar Handling Systems

Handling of multiple kilns

Individual or shared handling system configurations
Series or parallel architecture for minimal tact time

Saggar handling system design

Set of individually PLC-controlled functional
modules
with network interface to the main kiln control
system

Atmosphere containment

Fully sealed and filled with N₂ or dry air

Atmosphere moisture ingress

less than + 100 ppm in total
Non-metal transport conveyor rollers and grippers
to prevent product contamination

Loading

Top side combination screw mixer / loader module
Mettler Toledo® precision scale integration

Saggar capacity (typical)

7...16kg (LFP / MLFP cathode)
4...16 kg (NCM cathode)
18...25 kg (Graphite & Pitch anode)

Loading accuracy

better than ±50g per saggar

Stacking (rows x stack height)

2 x 1, 2 x 2, 4 x 2, 6 x 2, 6 x 3, with or without top lid

