



NINGBO EMPIRE

ENGINEERING COMPONENTS & ADVANCED MATERIALS

Manufacturing Capability Profile

A procurement-ready overview of Ningbo Empire's owned manufacturing network, production routes and engineering support.



50

DIE-CASTING MACHINES

46

ALUMINUM MACHINES

4

ZINC MACHINES

88-4,400
T

CLAMPING RANGE

Supply scope: permanent magnets, magnetic assemblies, aluminum and zinc die castings, CNC-machined components, electronic housings, thermal structures and managed secondary operations.

Prepared for international sourcing, engineering and supplier-qualification review. Final process route, capacity allocation, inspection plan and documentation are confirmed against each drawing and RFQ.

One Network, Four Manufacturing Provinces

Specialist sites in Zhejiang, Jiangsu, Anhui and Sichuan coordinate material production, forming, machining, joining, assembly, inspection and export packing.

Product family	Manufacturing scope	Representative outputs
Permanent magnets	NdFeB, SmCo, ferrite, AlNiCo and flexible-magnet routes	Blocks, rings, arcs, segments, sheets and strips
Magnetic assemblies	Magnetizing, bonding, overmolding, balancing and verification	Rotors, Halbach arrays, couplings and custom assemblies
Die casting	50 machines across five equipment groups; aluminum and zinc	Housings, heat sinks, structural and precision castings
Precision machining	CNC milling, turning, finishing and dimensional verification	Ports, bores, sealing faces, datums and finished components
Secondary operations	Heat treatment, coating, joining, assembly and project testing	Production-ready parts and integrated subassemblies

Die-Casting Capacity at a Glance

50 DIE-CASTING MACHINES	46 ALUMINUM MACHINES	4 ZINC MACHINES	88-4,400 T CLAMPING RANGE
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Equipment group	Location	Aluminum	Zinc	Routing focus
Ningbo facility A	Ningbo, Zhejiang	15	-	Large-tonnage aluminum route
Ningbo facility B	Ningbo, Zhejiang	10	2	Aluminum and zinc routes / In-house spray process
Ningbo facility C	Ningbo, Zhejiang	9	-	Broad mid-tonnage coverage
Jiangsu facility	Jiangsu	6	-	Regional aluminum capacity
Ningbo facility D	Ningbo, Zhejiang	6	2	Aluminum and zinc routes / In-house spray process

Die-Casting Sourcing Programs

Five focused program routes help procurement and engineering teams identify the drawing inputs, process controls and validation scope needed before quotation. These are capability routes, not unverified customer case studies.

Program	Representative components	Engineering and quality focus
Automotive die-cast housings	Steering, braking, transmission and coolant-pump housings	Critical datums, sealing, inserts, traceability and PPAP scope
Telecom and 5G enclosures	Radio-unit housings, RF cavities and outdoor thermal chassis	Thermal fins, EMI grounding, RF faces, IP sealing and coating
Battery and energy-storage housings	BMS, junction-box, inverter and liquid-cooling housings	Electrical isolation, thermal interfaces, cleanliness and leak testing
Large structural die castings	Shock towers, underbody structures and battery crossmembers	Projected area, fill path, load structure, joining and dimensional control
Zinc die-casting components	Locks, connector shells, compact gear housings and mechanisms	Thin walls, Zamak grade, plating allowance and cosmetic control

Program Links

www.china-empire.com/automotive-die-cast-housings - Automotive housings

www.china-empire.com/telecom-5g-enclosures - Telecom and 5G

www.china-empire.com/battery-energy-storage-housings - Battery and energy storage

www.china-empire.com/large-structural-die-castings - Large structural castings

www.china-empire.com/zinc-die-casting-components - Zinc die casting

For quotation, submit the 2D drawing and STEP model together with alloy or property target, finished weight, projected area where known, annual volume, surface treatment, leak requirement and FAI/PPAP scope.

Visible Factory Evidence

The photographs below are real facility and equipment views used on the Ningbo Empire website. Representative product photography is kept separate from factory evidence.



Automated high-pressure die-casting cell



Integrated die-casting campus



Precision CNC machining line



Coordinate-measurement inspection room

From RFQ to Production Release

Stage	Buyer input	Ningbo Empire output
1. RFQ review	2D drawing, 3D model, alloy, annual volume and critical requirements	Feasibility review, questions and quotation scope
2. DFM and tooling	Datum structure, sealing zones, appearance class and test criteria	DFM feedback, tooling route and project schedule
3. Validation	Approval requirements and documentation level	Samples, FAI and agreed validation records
4. Production	Release schedule and packaging requirements	Controlled manufacturing, inspection and export packing
5. Change control	Drawing revisions and forecast changes	Documented review before process or tooling changes

RFQ Checklist

- 2D drawing and 3D model
- Material/alloy and finish
- Annual volume and release quantity
- Critical dimensions and datums
- Inspection, leak-test or functional-test requirements
- Documentation level (FAI, control plan, PPAP as applicable)
- Packaging and Incoterms

Start an engineering review

RFQ: www.china-empire.com/rfq

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This profile is a capability overview, not a process guarantee. Machine assignment, tolerances, inspection frequency, certificates and project documentation are confirmed in the quotation and quality agreement.