

SUPPLIER QUALIFICATION PACK

Manufacturing, Quality & Supply Program Overview

A compact onboarding reference for sourcing, engineering and supplier-quality teams evaluating investment casting, CNC machining, finished castings, industrial valves and repeat supply programs.

30+ years

manufacturing history

150 t/month

investment-casting capacity

40+

CNC machines

U.S. ·

Europe ·

China

stocking / release support

Who the buyer is qualifying

China Precision Metal is the shared market-facing website for two separate legal entities. The quotation / PO entity is identified for each program.

Item	Qualification reference
Market-facing name	China Precision Metal
Legal entities	Qingdao Zhonghe Precision Casting Metal Co., Ltd.; Qingdao Vastar Industrial Co., Ltd. - separate legal entities
Operating model	The same operating team handles manufacturing, engineering and commercial work for both entities; the contracting entity is confirmed per customer program.
China manufacturing	122 Songhuajiang Rd., Qingdao, Shandong 266510, China
North America contact	1500 Mercado Way, San Jose, CA 95131, United States
RFQ	info@chinaprecisionmetal.com

Qualification principle: qualify the actual manufacturing, inspection and supply route for the part family - not a generic brochure.

Supplier onboarding pack can include

Legal identity & contracting

Legal entity, manufacturing address, quotation / PO entity and commercial contact.

Manufacturing scope

Process map, equipment family, capacity summary and responsibility boundaries.

QMS & certificates

Applicable certificate records and current scope confirmation.

Inspection & traceability

Equipment, methods, calibration status, material route and sample records as applicable.

From near-net casting to finished drawing

Process	Published capability
Investment casting	Silica-sol lost-wax process; 3 g to 150 kg per part; approximately 150 tons/month capacity.
CNC machining	40+ machines; turning, turn-mill, 3-, 4- and 5-axis, HMC and VMC routes.
Surface finishing	Mirror, glossy, matte, brushed and hygienic polishing; blasting, pickling/passivation and electropolishing where specified.
Pressure & leak testing	Hydrostatic and pneumatic routes selected to the drawing / specification.
Secondary operations	Balancing for suitable rotating parts, marking, approved repair route and dimensional correction where permitted.
Industrial valves	Ball, butterfly and check valves, Y strainers, pneumatic actuation and private-label programs.
Production model	High-mix, low-volume industrial programs; multiple part numbers and repeat production lots.

Common component families

- Pump housings
- Valve bodies
- Impellers & diffusers
- Pressure-tight components
- Sanitary components
- Marine hardware
- Industrial machinery parts
- AI liquid-cooling wet-end parts

No universal MOQ is published. Practical lot size depends on tooling, alloy, part weight, setup and inspection scope. Repeat programs can separate economical production lots from customer release quantities through stocking / release models.

Material route, inspection and records

Material families

Stainless steels including CF8 / CF8M / CF3M families; duplex and super duplex; carbon and low-alloy steels; heat-resistant steels; nickel-based alloys; other selected materials for machining programs.

RFQ material definition

State exact grade, governing standard, heat-treatment condition, mechanical properties, corrosion / service conditions and repair restrictions.

Core inspection resources

Control objective	Typical route / equipment
Dimensional verification	Hexagon and Mitutoyo CMMs plus drawing-specific gauges / measurement methods.
Material verification	Spectrometry, ferrite measurement and linked material records.
Surface / hardness	Roughness measurement; Brinell / Rockwell hardness as applicable.
Pressure integrity	Hydrostatic or pneumatic test route to agreed conditions.
NDT / specialist testing	PT, UT, RT and other project-specific testing where required and technically suitable; specialist routes coordinated to specification.
Rotating-part verification	Static / dynamic balance verification for suitable components when specified.

Quality documentation is project-specific. FAI / PPAP, Cpk evidence, NDT, pressure-test reports, material traceability and other records are agreed from the drawing, governing standard and customer program.

Evidence for supplier-quality review

The current website certificate archive includes the ISO 9001:2015 certificate 01 100 039019 for Qingdao Zhonghe Precision Casting Metal Co., Ltd., covering manufacturing and machining of cast steel parts. Other applicable certificate records are confirmed during qualification according to entity, scope and validity.

Factory review options

Live video walk-through

Review relevant process areas, equipment, inspection flow and manufacturing controls remotely.

On-site audit

Customer / third-party review can be arranged around the process scope relevant to the program.

Document review

Qualification questionnaire, certificate records, process responsibility and requested sample records.

Launch controls

FAI / PPAP / capability evidence such as Cpk when required by the customer program.

Recommended audit focus: process ownership, material identification, special-process responsibility, calibration, nonconformance control, traceability, inspection records, packaging and repeat-supply controls.

VMI, safety stock, release and JIT

For repeat programs, supply can be structured around vendor-managed inventory, blanket orders, stock-and-release, Kanban replenishment, safety stock and JIT delivery through agreed warehouse arrangements in the United States, Europe or China.

Program variable	What should be agreed
Demand signal	Forecast / consumption data and update cadence.
Production economics	Economic production lot versus customer release quantity.
Inventory target	Min / max, safety stock or reorder point.
Ownership	Inventory ownership, Incoterms and transfer point.
Release model	Blanket order, stock release, Kanban or scheduled JIT.
Revision control	How engineering changes affect stocked material and replenishment.

Second-source / alternate-source qualification

Existing production drawings can be reviewed specifically for supplier diversification, capacity overflow or alternate-source qualification. The most useful starting package is the controlled drawing, annual demand, release size, material / inspection standard and reason for re-sourcing.

What to send for an efficient review

1. Controlled 2D drawing and 3D model, with revision.
2. Material grade and governing specification.
3. Annual quantity and expected lot size / release quantity.
4. Critical dimensions, datums, sealing interfaces and surface requirements.
5. NDT, pressure-test, cleanliness and documentation requirements.
6. Heat treatment / finish / marking / packaging requirements.
7. Delivery target and required Incoterms.
8. Supply model if relevant: standard PO, blanket order, stock-and-release, VMI, Kanban, safety stock or JIT.

For second-source programs, include the reason for re-sourcing and any tooling / fixture / validation constraints so the qualification plan can focus on actual transfer risk.

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