"Cast" on the new quality
"manufacture" a new light

Ruizhun Precision Metal Co., Ltd.

COMPANY PROFILE
ABOUT US

Ruizhun Precision Metal Co., Ltd.

Focus on Semi solid die casting (magnesium alloy), Light alloy die casting, Precision injection molding, Mould manufacturing, CNC machining.

As a group factory, two large-scale factories with an covers 70000㎡ have been established to serve customers. Commited to Creating International Advanced Product and Service Supply Chain Provide new one-spot management “designing →mold / forming → mass processing → quality management ”→ JIT supply chain”.

At present, it has developed into a high-tech enterprise in China and passed the national certification.

More than 50 people’s R & D team and three market teams can keep in touch with product customers. As RZ pay special attention to accumulate techniques and R & D. advocate “Magnesium Culture” forward industrial innovation trend. Created “MEIZUN” autonomous brand and registered it in Germany and domestic.
A factory: a group factory basis on semi solid casting (SSC), Light alloy die casting, traditional die casting service. Focus on international business, conducting in project analysis and budget, VIP customer service and customized supply chain service.

B factory: engaged in mold design, mold manufacturing, mold testing and production, precision injection molding. It is responsible for the prophase mold business of products. Has 15 years of experience for the manufacture of moulds. 10 mold manufacturing teams serve customers.
SCOPE OF BUSINESS

1. Advanced technology: Semi-solid Rheological Die Casting of Magnesium Alloys, Integrated Semi-solid Die Casting of All Imported Magnesium Alloys 100 machines, 20 traditional liquid die casting machines, all equipped with automatic feeding and clamping system, provide the largest scale. State-of-the-art magnesium alloy forming and processing services.

2. CNC machining: Equipped with 180 Franc CNC Machining Centers, Precision Processing Die Casting Products, Better Service for Semi-solid Magnesium Alloy Die Casting Products.

3. Mold Manufacturing: 10 Mold Manufacturing Groups and Molding Machines, 15 years of experience in Molding, All moulds design and manufacturing are in-house processes at Ruizhun mould factory.

4. Brand service: JUST-IN-TIME special supply chain for the clients with long-term supporting cooperation.

5. Brand culture: Magnesium culture spread Mg alloy material application in the industry and life. Magnesium alloy “MEIZUN” series alloy project.
Semi-solid die casting, short for SSC, is a new metal forming process in the world.
Semi-solid magnesium alloy die casting has become a trend of lightweight products.

There are 100 integrated rheological semi-solid die casting machines for magnesium alloys.
Twenty traditional liquid die casting machines are equipped with automatic feeding and clamping system.
Provide the largest and most advanced magnesium alloy forming service for magnesium alloy die casting business.

Eight major processes of semi-solid die casting are all completed in the factory, and the process flow is in line with each other.
Smooth and stable, special metal coating process, has been perfect.
SEMI-SOLID DIE CASTING

In the solidification process of metal, the solidification process is controlled, and a solid-liquid mixture slurry with a certain solid component suspended uniformly in the mother liquor of liquid metal (even up to 60% of the solid component) is obtained in the solid-liquid temperature range.

This semi-solid metal slurry has rheological properties, i.e. good flow.

It is called semi-solid die casting that the metal slurry which is neither completely liquid nor completely solid is combined with die casting equipment and technology.
## TECHNOCLOGICAL SUPERIORITY

Key indicators of slurry:

- Fine and uniform grains
- Spherical and subspherical

Spherical semi-solid metals have thixotropy, i.e. they are solid when not pressed, and have high viscous liquid fluidity when pressed. Semi-solid die casting products have **Excellent compactness**.

Semi-solid process greatly reduces casting shrinkage and thermal deformation. When forming, only 10-50% of the metal is liquid and needs to be compensated.

It has both advantages of liquid forming (easy forming) and solid forming. Type A has advantages (high quality) and avoids their disadvantages.

Semi-solid product **Excellent dimension control**

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<th>Stoma</th>
<th>Sand hole</th>
<th>Density (profile)</th>
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MAGNESIUM ALLOY

The application of new technology and new energy, the pursuit of environmental protection and health concept, lightweight has become a major trend. magnesium alloy: Lighter than aluminum 33%; Lighter than steel 75%

* 100% environmentally friendly recycling
* Better corrosion resistance and impact resistance
* Metal structure has higher strength and better dimensional stability
* Thin-walled die casting is more stable, simplified design and reduced cost

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<tr>
<th>Material type</th>
<th>Density g/cm³</th>
<th>Conduct heat W/m·k</th>
<th>Expand μm/m·k</th>
<th>Vibration reduction MPa</th>
<th>Specific heat j/l·k</th>
<th>Fusion kj/l</th>
<th>Freezing ℃</th>
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PRODUCT USE

Widely used in aviation, automobile, communications, electronics, electrical appliances, instruments, medical and other high application industries

Or industries with high quality requirements of "lightweight, precision, high quality, high efficiency and environmental protection"
INJECTION MOLDING

A total of 60 tonnage high speed, high precision injection molding, single color two color injection molding machine; can be used for the production of large and small plastic products of various industries.

Six automatic production lines and dust-free workshop are available for medical grade, high precision, environmental protection and other requirements. The daily production capacity is 14000 PCS.
The main business of B factory is injection molding and mold manufacturing, with independent mold design team.

Ten mold manufacturing teams, 36 injection molding machines. Design, manufacture, test and injection are all carried out in the factory area. Mold products involve aerospace industry, automotive industry, telecommunications electronics, medical equipment and other industries with high precision requirements for products.

It can make injection mould and die casting mould. Manufacture production module (mold injection molded product) and test die (mold) according to customer needs.
CNC MACHINING

Equipped with 180 Franc CNC Machining Centers, Precision Processing Die Casting Products

Process Spec.:
length 400 × width 300 × height 500 mm  ≤ 300 mm
Accuracy ± 0.02 mm can be achieved
PAINTING PROCESS

In order to enhance the corrosion resistance, wear resistance and appearance requirements of the products, three new fully automatic spraying production lines have been put into operation.

Spraying effect of magnesium alloy products is more uniform, more beautiful and better.
QUALITY MANAGEMENT

The establishment of an international standard laboratory, a variety of tests to ensure that finished products meet customer needs.

**Analysis and Budget:** According to requirement of the product, Analysis material and procedures processing to evaluate and budget exactly for customers.

**Inspection:** setted Coordinate Measuring Machine (CMM), salt spray tester….

- Internal checking: mold checking, material checking, produce monitoring, finished-goods checking, shipment inspection.
- Customized inspection: refers to customized test procedure with specify equipment by the customer.
- The third inspection: the third party analysis and inspect product/project system quality.

**JIT supply chain:** By engaged with us, you can get Just-in-time supply chain. With scale priority policy such as produce priority, scale price favorable, investment priority ….
CERTIFICATES AND HONORS

Certification:

R & D results:
The R&D team of more than 50 people has achieved many research and development results and more than 20 patent certificates for magnesium alloy die casting and semi-solid die casting, aiming at the technical characteristics of "high efficiency, light weight and environmental protection".
CONTACT US

Quotation data required:

2D, 3D, Technical requirement document, samples (if needed) are required our engineering team will evaluate and offer you our best quote.

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