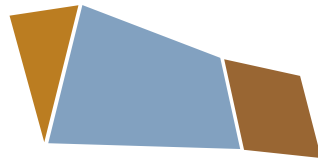




## **Ruizhun Precision Metal Co., Ltd.**

### **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 70000m<sup>2</sup> have been established to serve customers. Committed 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” antonomous 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.

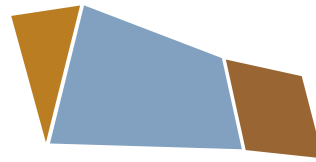


B factory: engaged in mold design, mold manufacturing, mold testing and production, precision injection molding. It is responsible for the prophase mold business of products. has 15 years of experience for the manufacture of moulds. 10 mold manufacturing teams serve customers.

factory A

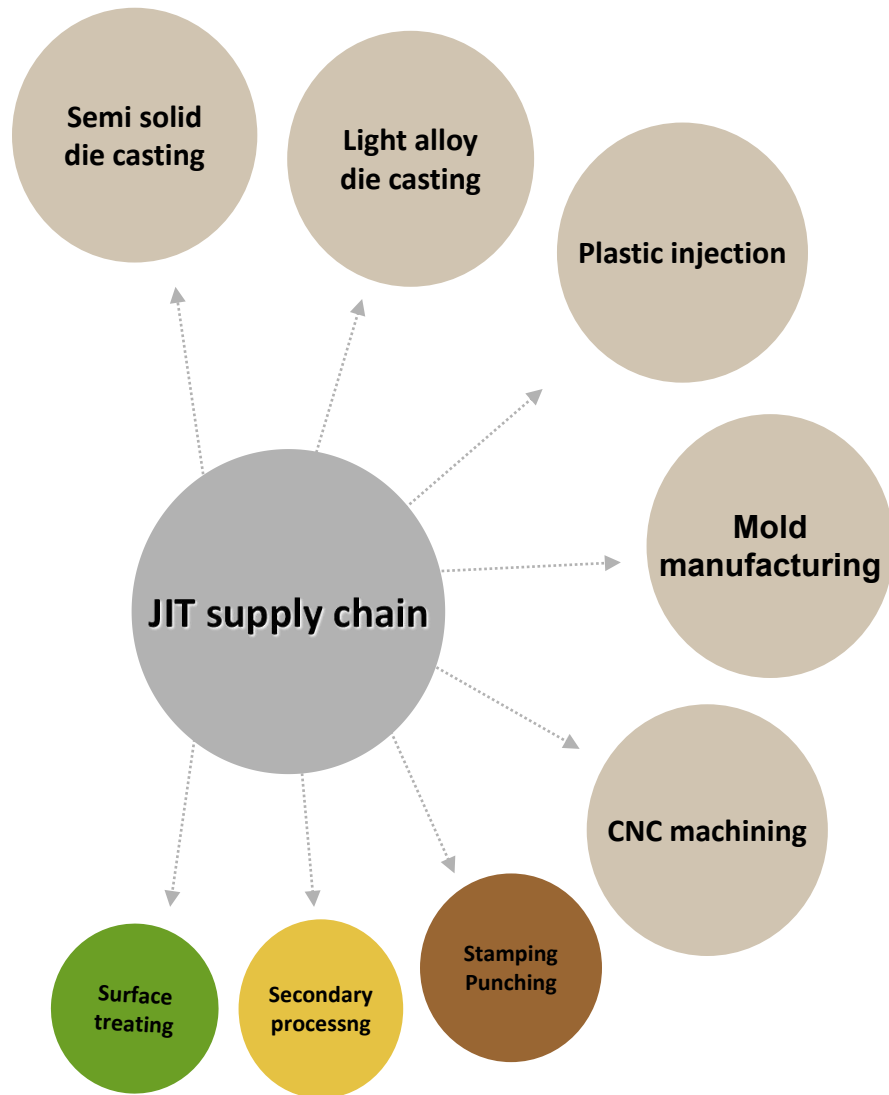
factory B





## 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.

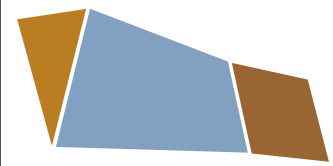


LIGHTWEIGHT

PRECISION

HIGH QUALITY

ENVIRONMENTAL PROTECTION



## SSC ( MAGNESIUM ALLOY )

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.

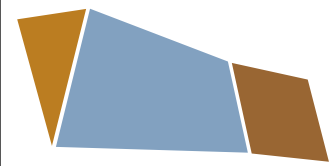
Twenty traditional liquid die casting machines are equipped with **automatic feeding and clamping system.**

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.

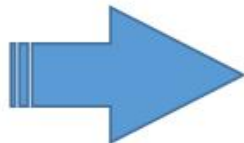
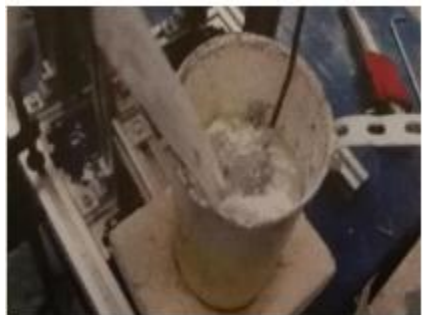
Smooth and stable, special metal coating process, has been perfect



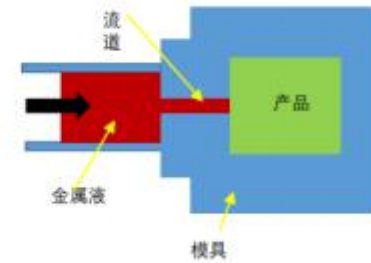


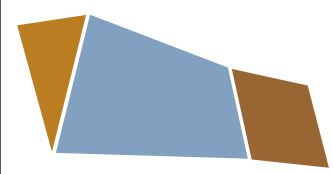
## SEMI-SOLID DIE CASTING

- ✦ 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.



熔炉





# TECHNOLOGICAL SUPERIORITY

Key indicators of slurry:

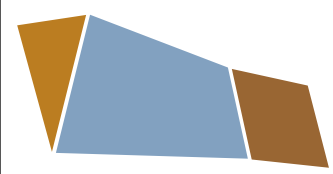
- Fine and uniform grains
- Spherical and subspherical

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**

	Stoma	Sand hole	Density (profile)
Traditional die casting			
Semi-solid Die Casting			
RZ RPD Semi-solid Die Casting			



## MAGNESIUM ALLOY

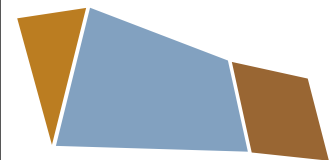
The application of new technology and new energy, the pursuit of environmental protection and health in concept, lightweight has become a major trend.

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

Material type	Density g/cm <sup>3</sup>	Conduct heat W/m·k	Expand μm/m·k	Vibration reduction MPa	Specific heat j/l·k	Fusion kj/l	Freezing °C	Corrosion Mg/cm/d
AZ91	1.81	51	26	29	1900	673	470-595	0.02
AM60	1.79	61	25.6	52	1921	680	540-615	0.05
ADC12	2.74	96	22	1.3	2640	1066	540-595	0.1
A380	2.69	159	21.5	1.2	2590	1023	555-615	0.12

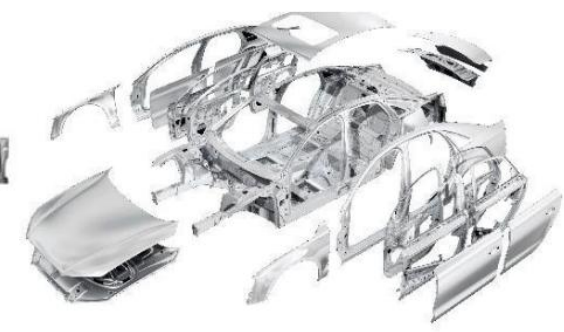
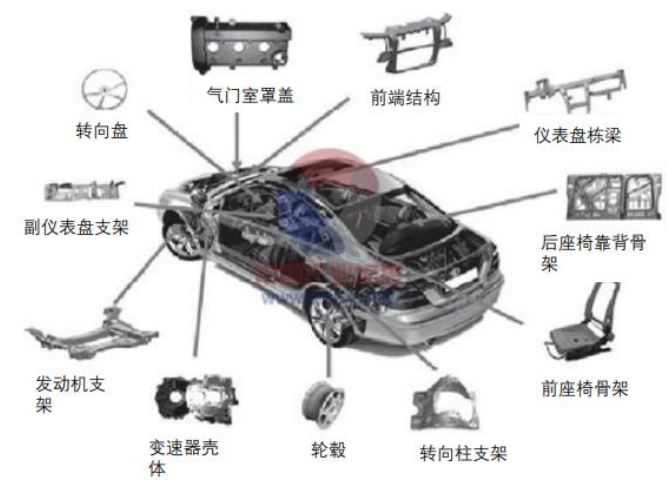




## PRODUCT USE

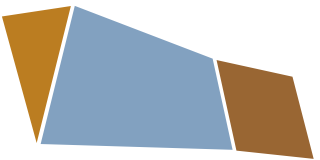
Widely used in aviation, automobile, communications, electronics, electrical appliances, instruments, medical and other high application industries

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



车门、车身、前盖、后盖、车顶





# 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.



VARIOUS TYPES OF INJECTION MOLDING PRODUCTS



LARGE INJECTION MOLDING MACHINE



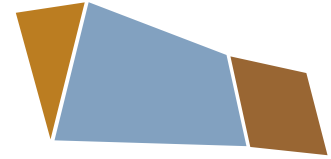
UAV PARTS



AUTO PARTS



DOUBLE COLOR

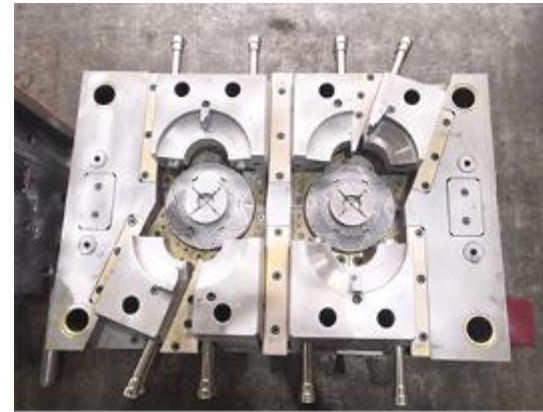


## MOULD MANUFACTURING

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.



SMALL PRECISION MOLD



LARGE AUTOMOBILE MOLD



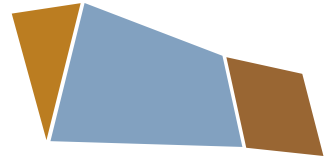
LARGE AUTOMOBILE MOLD



AUTO PARTS MOLD



HOT RUNNER MOLD

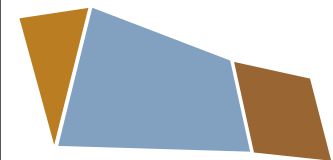


## CNC MACHINING

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

Process Spec.:  
length 400×width300×height500mm  $\varnothing \leq 300\text{mm}$   
Accuracy  $\pm 0.02\text{mm}$  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.

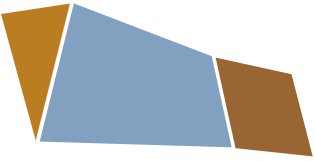


← before →



← after →





## QUALITY MANAGEMENT

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

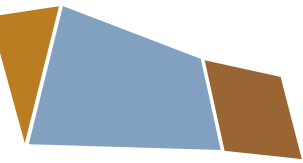
**Analysis and Budget:** According to requirement of the product, Analysis material and procedures processing to evaluate and budget exactly for customers.

**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

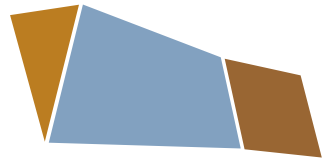
## Certification:

Passed ISO9001: 2015; ISO14001: 2015; ISO/TSTS16949: 2016 quality management system certification and UL safety certification in North America.

## 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

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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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Wechat



Website