



Stainless Steel Silica Sol Investment Casting for Automobile

Zhiye Mechanical as the professional manufacturer, we would like to provide you Stainless Steel Silica Sol Investment Casting for Automobile. Zhiye Mechanical Has more than 11 years of experience in the automobile steel casting industry and provides higher-quality investment casting automobile steel for customers. And seeking affordable automobile steel casting manufacturers in China? Please do not hesitate to contact us.

Product Description

China Stainless Steel Silica Sol Investment Casting for Automobile Factory Directly Supply. Zhiye Mechanical is a large-scale Stainless Steel Silica Sol Investment Casting for Automobile manufacturer and supplier in China.

Material:Stainless Steel

Technique:Silica Sol Investment Casting

Gross Weight:0.5KG

Application Area:Automobile

Product Name:Stainless Steel Auto parts

Anti-Rust:with anti-rust water

Heat treatment:As Cast,Is

Fire, Tempering, Annealing, Quenching, Carburizing, Permeability, Thermal Refining, Hardening are available.

Ningbo Zhiye Mechanical Components Co.,Ltd. Has more than 11 years of experience in the automobile steel casting industry and provides higher-quality investment casting automobile steel for customers. And seeking affordable automobile steel casting manufacturers in China? Please do not hesitate to contact us.



Ningbo Zhiye Mechanical Components Co.,Ltd.

Automotive is one of the common applications that stainless steel casting served. Since vehicles require complex shapes and sizes for different parts of the vehicle, it is almost mandatory to use stainless steel investment casting. Due to the precise accuracy of this process, the need for further machining is practically non-existent. This alone saves an exuberant amount of time and money for the manufacturing of automotive parts. Stainless steel casting provides corrosion resistance, strength, flexibility, and smooth surface finish that you cannot match with other materials.



Ningbo Zhiye Foundry is the leading supplier of precision stainless steel casting components to the automotive industry with capabilities ranging from 0.05kg-60kgs. Supplying customers globally, we are accustomed to working to the just-in-time supply requirements of the automotive OEMs manufacturers. Manufacturing billions of components each year, CFS consistently meets the industry's most stringent quality standards and tolerances.

The major automotive stainless steel components are manufactured by CFS. Our advanced stainless steel investment casting process, combined with machining are highly suited to manufacture complex automotive components at high volumes.



Ningbo Zhiye experience is unrivaled in the design, development, and manufacture of stainless steel casting solutions for a wide range of automotive applications, including but

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not limited to:

- Exhaust system (Exhaust Manifold)
- Transmission Components
- Vehicle Interior Components
- Air-Conditioning Systems
- Engine Parts
- Brake Systems and Hardware
- Power Steering Systems
- And More...

Stainless Steel Casting Benefits for the Automotive Industry



Ningbo Zhiye Mechanical Components Co., Ltd.

Ningbo Zhiye has over 30 years of experience supplying automotive manufacturers stainless steel casting components. When you work with CFS, you can receive the following benefits from our stainless steel casting process:

- More design freedom and flexibility to create complex parts

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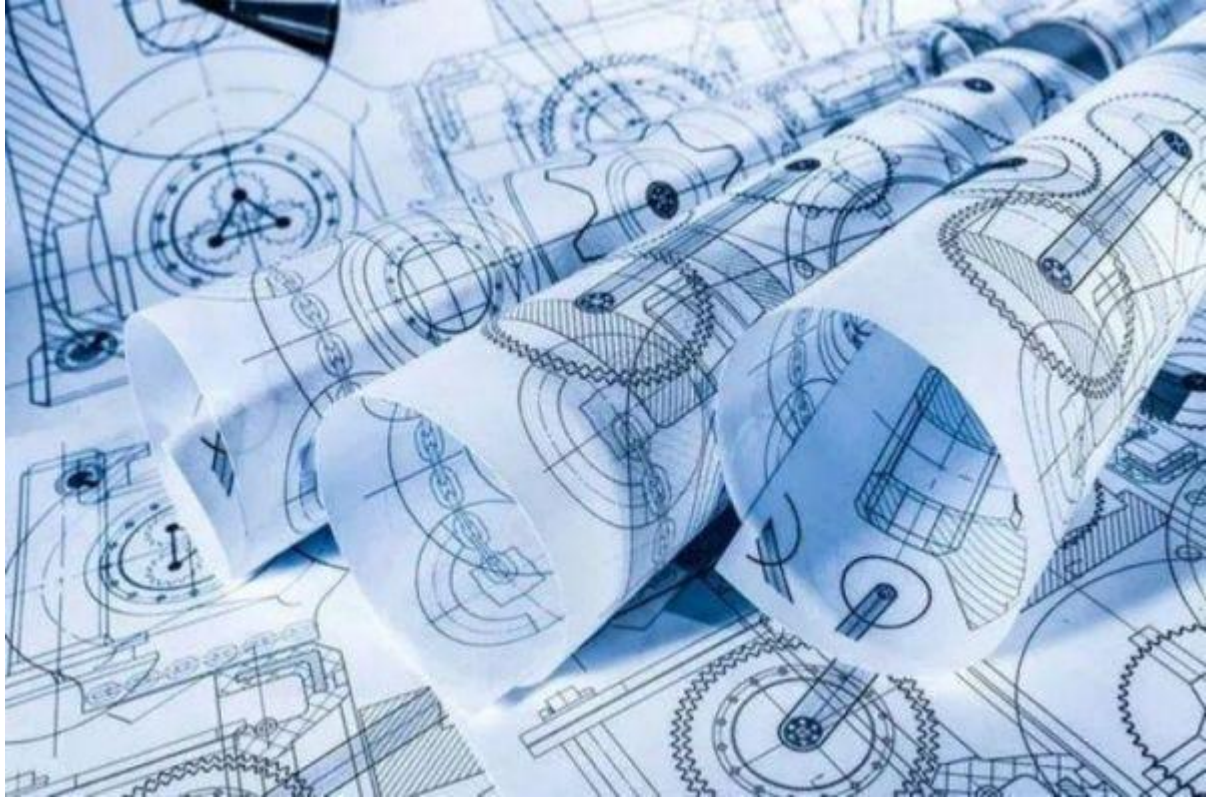
- A wide selection of cast stainless steel grades to improve the working performance
- By stainless steel casting, good corrosion resistance and rust resistance properties can be achieved to longer the serving life of automotive parts
- Our investment casting method can create automotive stainless steel parts with net shape or near net shape, which can effectively save machining cost
- A wide variety of surface finishes are available from shot blasting to mirror polishing finish.



Ningbo Zhiye produces and exports stainless steel cast automotive parts with OEM services globally, manufacturing precision stainless steel components utilizing most advanced investment casting technology. Our one-stop solution supports our customers from design, tooling, and pre-production stages, as well as full-scale manufacturing. Any inquiry on stainless steel casting for automotive applications, pls feel free to contact us!

Casting Parts In Automobile Automobile Investment Casting Process

Casting Car Parts Service: Each process of automobile casting parts in automobile is executed in strict accordance with the Standard Operation Procedure (SOP). The main investment automobile casting parts in automobile process is as the following: Pouring simulation, Mold development, Raw material inspection, Wax pattern, Shell preparation, Metal pouring, Cleaning and Heat treatment, Inspection, Warehouse packaging, and Shipping.



Advantage

Our company has an excellent technical R&D team, and mastered a variety of design software tools (CAD, PRO/E, Solidwork, UG) and casting simulation software (Huazhu-CAE, Hypermesh), to provide customers with the following professional services.

 <p><i>material choose</i></p>	<p>We can develop samples by surveying and drawing on the actual samples provided by customers.</p>	 <p><i>weight reduction</i></p>	<p>We can provide customers structure transforming on stamping parts, welding parts to castings which will improve the service life of the product and reduce the product cost.</p>	 <p><i>patent</i></p>
<p>According to the customer's requirements, we will choose the most suitable materials by research & development to reduce the cost of product.</p>	 <p><i>Actual sample survey</i></p>	<p>We can provide customers suggestions and design solutions for lightweight products.</p>	 <p><i>Structure transform</i></p>	<p>We have our own patented designs.</p>



Mold Development

The technical department develops the mold, and the quality department uses the three coordinates to carry out the dimensional inspection.



Wax Pattern

The workshop uses automatic waxing machines to set the waxing pressure, holding time, etc. and to produce high quality wax patterns.



Shell Preparation

The workshop has 4 automatic production lines, able to produce 1800 sets of shells. We use hygromograph, aerometer, and PH to monitor humidity, temperature, and concentration of liquor aluminum chloride.



Metal Pouring

4 sets of 500KG furnaces are in production, and 3 sets of 500KG spare furnaces are ready when capacity increases. The operators conduct rigorous tests to fulfill material requirements.



Clean And Heat Treat

The workshop is fully equipped with 8 heat treatment furnaces, 3 quenching furnaces, 1 central shot blasting machine and 11 large shot blasting machines.



Inspection

All blank dimensions are checked using a CMM. We have rockwell hardness machine, dynamic balance instrument, roundness meter, etc. The company's quality department has certified employees to do UT, PT, MT testing.



Casting Parts In Automobile Automobile Sand Casting Process

Casting Car Parts Service: Each process of automobile casting parts in automobile parts production is executed in strict accordance with the Standard Operation Procedure (SOP). The main automobile casting parts in automobile process is as the following: Pouring simulation, Mold development, Raw material inspection, Modeling (Core-Making), Melting, Metal pouring, Cleaning and Heat treatment, Inspection, Warehouse packaging, and Shipping.

4.5 NBZY - Production Process of Silica Sol Casting





Mold Development

Design and produce molds according to the requirements of the drawings. Generally, wood molds can be used for single-piece production, plastic molds and metal molds are made for mass production, and templates can be made for mass castings. Our mold is mainly made of aluminum.



Modeling (Core-Making)

Includes modeling (forming the cavity of the casting with molding sand), core-making (forming the inner shape of the casting), and mold matching (putting the core into the cavity and closing the upper and lower flasks). Modeling is a key process in casting.



Melting

According to the required metal composition, the chemical composition is matched, and the appropriate melting furnace is selected to melt the alloy material to form a qualified liquid metal liquid (including qualified composition and qualified temperature).



Metal Pouring

Pour qualified molten metal into the sand box equipped with the mold. The pouring stage has high safety requirement, and we have rigorous process control to protect the safety of our employees.



Clean And Heat Treat

After the molten metal is poured and solidified, the molding sand is removed, and the gate and other attachments are knocked out to form the required casting.



Inspection

All blank dimensions are checked using a CMM. We have rockwell hardness machine, dynamic balance instrument, roundness meter, etc. The company's quality department has certified employees to do UT, PT, MT testing.

PED Material Certifications We Past For Automobile Casting

Casting Car Parts Service: We can provide a variety of automobile casting parts in automobile, and have passed PED material certification (Pressure Equipment Directive 2014/68/EU), AD2000 certification.

EN10213: 1.4308, 1.4408, 1.4309, 1.4409, 1.4581, 1.4469, 1.0619, 1.6220, 1.4308, 1.4408, 1.4581

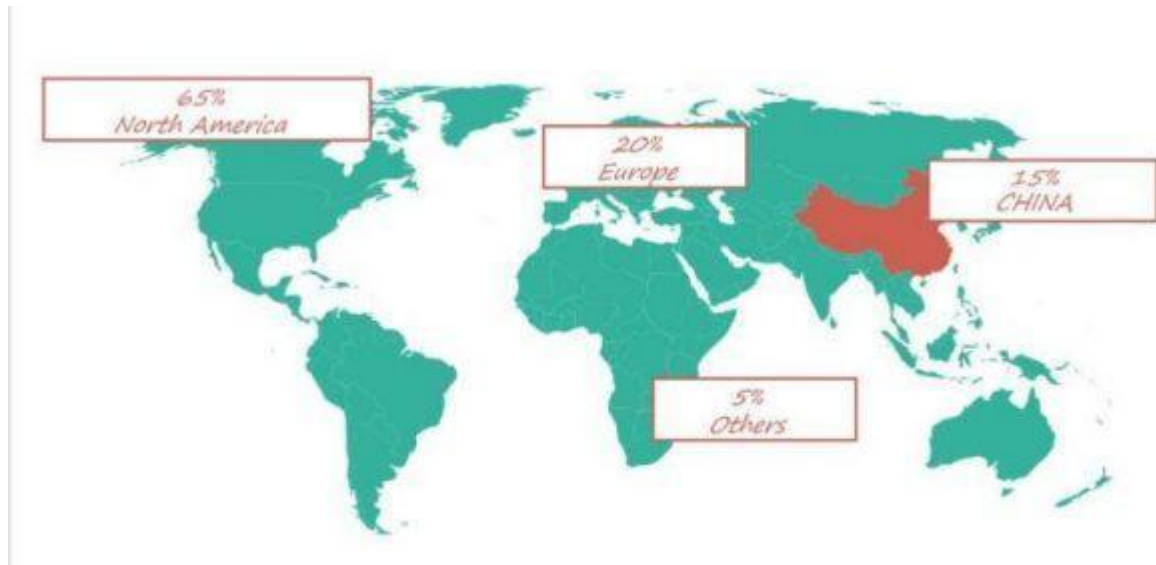
AISI: 304, 304L, 316, 316L

ASTM A351: CF3, CF3M, CF8, CF8M

ASTM A743: CG3M

ASTM A995: 5A

ASTM A216: WCA,WCB,WCC



FAQ

Q: What do I need for offering a quote ?

A: Please offer us 2D or 3D drawings (with material, dimension, tolerance, surface treatment and other technical requirement etc.) ,quantity, application or samples. Then we will quote the best price within 24h.

Q: What is your MOQ?

A: MOQ depends on our client's needs, besides,we welcome trial order before mass-production.

Q: What is the production cycle?

A: It varies a lot depending on product dimension,technical requirements and quantity. We always try to meet customers' requirement by adjusting our workshop schedule.

Q: What kind of payment terms do you accept?

A.: T/T, L/C, Escrow, paypal, western union, moneygram etc.

Q: Is it possible to know how is my product going on without visiting your company?

A: We will offer a detailed products schedule and send weekly reports with digital pictures and videos which show the machining progress.