



Carbon Steel Sol Investment Casting for Machinery

What is Carbon Steel Casting ? Ningbo Zhiye Carbon steel is an iron-carbon alloy with a carbon content of 0.0218% to 2.11%. Also called carbon steel for casting. It also generally contains small amounts of silicon, manganese, sulfur, and phosphorus. The higher the carbon content, the higher the strength and the hardness. Carbon steel is among one main materials in the world of steel castings. So Carbon Steel Sol Investment Casting for Machinery products of our company are widely used attracting many customers from all over the world.

Product Description

Find a huge selection of carbon steel sol Investment casting for Machinery from China at Zhiye. Provide professional after-sales service and the right price, looking forward to cooperation.

Material: Carbon Steel

Technique: Silica Sol Investment Casting

Gross Weight: 0.1KG

Application Area: Mechanical Engineering

Product Name: Ring

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.

Phone: +86-18958238181

E-mail: santos@zy-casting.com



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CARBON STEEL GRADES

There are three types of carbon steel based on the composition of carbon content. They are low carbon steel, medium carbon steel, High carbon steel. Different grades and processes are used for industrial projects. Such as machine-building, heavy manufacturing, automotive parts, and aviation and rail projects.

CARBON STEEL GRADES :

Types	Low Carbon steel	Medium carbon steel	High carbon steel
Carbon Content	0.05%-0.25%	0.29% to 0.54%	0.55-0.95%
UTS	400 – 450N/mm2.	700 – 850N/mm2	800 – 1000N/mm2
Elongation	15%	11%	5-8%

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HB	120-180	200-300	250-400
Features	Low carbon steels offer a range of tensile properties via heat treatment. And the heat treatment can give high surface hardness with abrasion resistance and good core ductility.	This composition allows it to be more durable, pliable, and stronger. Good tensile strengths, ductility, and shock resistance. Readily machined in the softened condition.	strong and has good shape memory, making it a particularly useful option for spring manufacturers.
Applications	Low carbon steel alloy is more commonly used in the form of engineering steels for low and medium-strength applications, like brackets, casings, and links.	Medium carbon steel alloy is most used where ductility, good shock, and fatigue strengths are required. such as with levers, air-frame parts, and hydraulic machinery.	High carbon steel alloy steel for high tensile applications withstands wear and abrasion and is suitable for heavy-duty applications as well, such as cranks and pins.

Carbon Steel Casting

Both mid carbon and low carbon steel are used for investment casting. Mild carbon steel provides good ductility, strength, and wear resistance. It can also be hardened and tempered through heat treatment. Low carbon steel is easily shaped but cannot be strengthened by heat treating. As an alternative, carburizing can be used to increase the alloy's surface hardness.

JC Casting provides different alloys, including carbon steel. We pour with weights up to 1000 kgs. and specialize in tight tolerances and complex designs. We offer several grades that meet MIL, AMS and ASTM specifications.

Low Carbon Steel Casting

Low carbon steel contains lower levels of carbon content. It is known for its ductility, weldability, and machinability. It is softer and has a lower tensile strength than other steel and is not suitable for heat treatment. Low Carbon steel casting is typically used for automotive and construction applications. Including fasteners, bolts, shafts, rods, pins, assemblies, and more.

Our low carbon steels for investment casting: 1010, 1020, 4130, 8620, 8630, Armco Iron, WCB

Mild Carbon Steel Casting

Mid carbon steel contains medium levels of carbon content and is known for its wear resistance. It is harder than low-carbon steel and able to be strengthened using heat treatment. Mid carbon steel casting alloys are used for military and defense applications. Including engine components, couplings, crankshafts, plane tubing, and firearms.

Our mid carbon steel alloys, including: 1040, 4140, 4340, 6150, 8640, CA6NM



Carbon Steel Casting Benefits

- For the low material cost and a variety of material grades, carbon steel casting is commonly used.
- Wide applications in different industries.
- Due to its ferromagnetic properties, particularly useful for motor and electrical appliances.
- Carbon steel is safe and durable and has a high level of structural integrity.

Carbon Steel Casting Process

Same as alloy steel casting, carbon steel casting can be produced in two kinds of different casting processes: Silica Sol Casting and Water Glass Casting.

Silica Sol Casting: Lost wax casting method for carbon steel casting. This casting process can control carbon steel castings within tolerance CT5-6. Also, the surface finish will be much better. The only consideration of selecting this process is its high production cost. If you have high demands on your carbon steel castings, this is the best choice.

Water Glass Casting: This type of casting process can make carbon steel castings with tolerance CT7-CT8. Most carbon steel castings use a water glass casting process for their low cost. In China, around 75% of casting foundries are water glass, casting manufacturers. Looking for cost savings? Maybe this is the answer.

We also have the capabilities of furnishing secondary operations such as machining, non-destructive testing, heat treat, surface treatment, and final assembly. Carbon Steel Casting Grades can be met as customer's requirements in different countries' standards.

WHY CHOOSE US

1. Quality Control



2.Risk Control



Delivery time control:

- (1) Dedicated merchandiser
- (2) Production Schedule Form
- (3) Sales and merchandiser weekly review.



Packing:

- (1) variety of packings pallet, plywood box, wrapping film, carton box, etc.
- (2) customize according to different parts.



Trade Assurance

- (1) 100% product quality protection.
- (2) 100% on-time shipment protection
- (3) 100% payment protection



CUSTOMER MESSAGE



I've ever visited lots of factories. Although your equipment aren't the most advanced, process control is one of the best.

What we are looking for is the partner, not only a supplier. Your team just impressed me deeply.



Various casting processes in your company provides me with many choices.

We have cooperated for 10 years. During this process, I extremely appreciate your attitude of constantly pursuing improvement. You aren't only my supplier, also my best friends in China.



Your strict test attitude eliminates all my worries about product's quality.

Three years ago, we choose 3 suppliers for these parts. Today, you are the biggest supplier. I wish you could guarantee product's quality forever.



FAQ

1.Are you a manufacturer or trading company?Do you have your own factory?

We are a professional manufacturer with over 8 years' export experience for designing and producing.Yes, we have two of our own factories.An iron casting factory and a steel

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casting factory.

2.How can I get some samples of Iron casting,cast ductile iron,cast grey iron part?

If you need,we will offer you samples for free,but new customers are expected to pay express charge.

3.Do you provide customized parts?

Yes,Customers give us drawings and we will manufacture accordingly.

4.Can you make castings based on our sample of Iron casting,cast ductile iron,cast grey iron part?

Yes,we can make measurement based on your samples to make drawings.

5.I can't see the goods or tough the goods,how can I deal with the risk involved?

We have established the quality management system conforming to ISO 9001:2008.We are absolutely worth your trust.

.....More questions welcome to contact with us.