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## Precision Investment Casting Parts

SHENGFA Hardware, who was established in 2007 and located in Ningbo China, has been committed to providing high-quality ferrous and non-ferrous precision investment casting parts to the customer from all of the world. SHENGFA's one-stop service manufacturing process includes everything from design for manufacturing to in-house casting, CNC machining, and forging. Our vertically integrated manufacturing process significantly reduces cost and lead times without sacrificing products' quality. When design complexity, tolerance control and repeatability are the most important issues, precision investment casting by far is considered as the most cost-effective solution compared to other methods of producing metal parts and assemblies.

### What is Precision Investment Casting Parts?

Precision investment casting uses an expendable injection wax molded wax pattern method that makes complex forms that have exceptional surface qualities. Precision investment casting is a great method that can get you exceptional accuracy in detailing a product despite their size and material type.

### What are the Benefits of Investment Castings?

Precision investment casting parts create the finest surface finishes in ferrous and non-ferrous parts. Clean, intricate designs with tight tolerances speed manufacturing time without machining or sanding. Complex metal castings poured from more than 100 metals and alloys require no welding, assembling or finishing work. Precision casting drives multiple parts to market faster with the lost wax method of investment castings.

### Why work with SHENGFA as your precision investment casting parts supplier?

SHENGFA's skilled and experienced technicians and experts use advanced machines and technology to ensure that our investment cast components meet customer needs and applicable industry standards. Normally a linear tolerance of  $\pm 0.005$  inch/inch is standard for investment casting although it varies depending on the size and complexity of the part. SHENGFA can do better than the liner tolerance.



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SHENGFA Hardware is uniquely capable of delivering larger metal castings up to 25 inches or 63.5cm and 150 lbs or 68 kg for steel and 50 lbs or 22.7 kg for aluminum parts. We regularly pour more than 100 of the most requested metals and alloys from aluminum and cobalt to nickel and stainless steel castings. Custom metal casting alloys are also available to meet your needs. Besides, we routinely produce cast alloy components or parts with complex shapes requiring only minimal surface finishing or machining for completion.

With the precision lost-wax investment casting process, we can produce metal parts with strict tolerance requirements. Our precision investment casting experts pour high quality metal castings from one to thousands of pieces from simple to multiple complex designs. We do what we say and we will provide excellent customer service and on-time delivery.

The SHENGFA Hardware investment casting process provides distinctive advantages comparing to sand and other casting methods. Our precision investment casting parts turn out high strength castings with greater dimensional accuracy, higher consistency, superior product integrity and improved surface finish. We frequently participate in up-front design with our customers to ensure manufacturability and the lowest cost design while maintaining critical machining tolerances.

Contact with one of our experts today to learn how our precision investment casting parts will meet your demands.

#### Product Parameters

Material	Carbon steel, alloy steel, stainless steel, copper Alloy
Process	Investment (lost wax) casting + CNC machining
Casting dimension tolerance	CT7
Casting surface roughness	Ra 12.5 um
Casting weight range	0.1-90 kg
Casting Size	Max linear size: 1200 mm, Max diameter size: 600 mm
Machining Precision	Positioning accuracy 0.008 mm, Rep. position. accuracy 0.006 mm
Machining surface roughness	Ra0.8 ~ 6.3 um
Max Travel Of Spindle	1900 mm x 850 mm x 700 mm
Max Turning	830 mm



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Diameter	
Material standard	GB, ASTM, AISI, DIN, BS, JIS, NF, AS, AAR
Surface treatment	KTL (E-coating), Zinc plating, Mirror Polishing, Sand Blasting, Acid pickling, black oxide, Painting, Hot galvanizing, Powder coating, Nickel plating.
Service available	OEM & ODM
Quality control	0 defects, 100% inspection before packing
Application	<ul style="list-style-type: none"><li>● Aerospace and defense</li><li>● Power generation</li><li>● Automotive</li><li>● Oil and gas</li><li>● Space exploration</li><li>● Medical/orthopedics</li><li>● Agriculture</li><li>● Construction</li><li>● Commercial and consumer products</li></ul>