



PRECISION

CASTING

PRECISION CASTING

ISO8062 CT7-9

Precision casting is one of complex casting process, includes Lost Wax Casting & Silica sol Casting, the cast components are for a variety of applications, which of construction machinery, agricultural machinery, excavators, mining equipment, automobiles, textile equipment, forestry equipment, industrial machinery. We will choose the appropriate production method for our customers according to the casting requirements, product structure, and usage environment, so as to ensure the internal quality of the product and the appropriate production cost to win the market position for our customers.

Designers can design the product structure according to the actual use environment of the product without restriction, so as to achieve the ultimate goal of customized products. This also reflects the advantages of precision casting for the production of complex structural products.

RAYMOND MACHINERY CO.,LTD

CAST PRODUCTION

***Manufacturing wax injection tool**

In order to manufacture a component using the casting process, a mold or matrix is required. This mold represents the contours of the cast component. Since the mold wax does not have an abrasive effect on the matrix, it has a very long service life. One-off or non-recurring work step.

***Wax model production**

The future cast component and the sprue system are injected into mold wax. The injection pressure of the machine and the temperature of the mold wax must be precisely coordinated to ensure high dimensional accuracy and surface quality.

***Wax model assembly**

In this work step, the wax models and the trunk are assembled to form a wax tree. Great care in assembling the wax trees by experienced employees ensures high quality of the cast part.

***Dipping, sanding and drying**

By repeatedly dipping the wax tree in mold slip, then sanding and drying, a ceramic shell made up of several layers is created. The first layer, consisting of particularly fine-grained zirconium sand, gives our investment cast components a very high surface quality.

***Melting out**

During the melting out process, the mold wax is melted out of the ceramic shell under pressure in a steam autoclave.

CAST PRODUCTION

***Firing**

During the firing of the ceramic molds, the last traces of mold wax are burned completely and without residue. Firing gives the ceramic shells the necessary strength.

***Casting**

The customer-specific alloy components are melted in the induction furnace and the molten steel is then poured into the hot ceramic molds using a casting ladle. The precise temperature control ensures high material quality and surface quality even for thin-walled, complex components.

***Demolding**

After the casting cluster has cooled, the ceramic shell is carefully removed.

***Separating**

The cast component and the cast trunk are separated from each other.

***Blasting**

In order to remove any remaining ceramic residues from the surface of the cast parts, they are subjected to a blasting process.

Production Capacity

Unit Cast Weight

0.1-60KGS

Support

precision machining

90% Exports to Europe and the United States

20-25DAYS

For raw cast sample making

150TONS

Production Capacity per month