



Investment Casting

What is Investment Casting Process?

Investment casting is an industrial metal casting process based on lost-wax precision casting, generally used for producing complex-shaped metal components that require tighter tolerances, thinner walls and better surface finish than other sand cast parts. Baoding Guokun can produce various investment casting parts in low-carbon steel, mild steel, alloy steel, stainless steel for pump, valve, agriculture, railway, road, forklift, tillage, mining, automotive, medical, food, and aircraft, etc.



The process of Baoding Guokun Investment casting involves several steps after producing a professional tool or mold in high-grade aluminum alloy, including:

No.	Steps	Details
1	Patterns Makings	Hot wax is poured into the mold patten and allowed to harden, and then adding sprues to the wax model to create a tree-like structure.
2	Shell Building	Coating the wax pattern with a layer of fire-resistant paint, and then to be sprinkled with sand, so after a period of hardening, the surface will form a layer of fire-resistant thin shell.
3	Dewaxing	Removing the wax, the shell is placed into an oven, melting the wax so that it can run out of the shell.
4	Pouring	Pouring the molten stainless steel into the shell, and waiting for solidification under room temperature.
5	Post treatment	After cooling, knock the shell and cut the sprue gate by grinding machinery to achieve net shape impeller castings. Then shot blasting to move mill scales to assure the smooth casting surface.
6	Machining	CNC Machining



Baoding Guokun Machinery Co., Ltd

Address: 777 Chaoyang South Street, Baoding City, 071000, Hebei, China



Web: www.guokuncasting.com

Email: gina@guokuncasting.com

Mobile: +86-18132789710



Baoding Guokun Machinery Co., Ltd

Address: 777 Chaoyang South Street, Baoding City, 071000, Hebei, China

Advantages of Lost-wax investment casting

- High dimensional accuracy: Investment casting can achieve dimensional accuracy of about +/-0.005 in per inch, more precise than sand casting process.
- Excellent surface finish: The investment casting produced by Baoding Guokun can achieve excellent casting surface finish of 125 Ra, which often can eliminate the further machining's need.
- Extremely complex and intricate metal parts are castable: Investment precision casting process can create complex geometries and intricate designs.
- Widely alloy selection: Almost any metal can be casted, for example, low-carbon steel, mild steel, alloy steel, stainless steel, even aluminum, brass and bronze.
- No flash or parting lines should exist.: Compared with close die forging or mold forging parts, the investment casting parts are with no flash and parting line. This will help to improve the effective utilization of metals and enhance surface aesthetics.
- Low Cost: The investment casting of Baoding Guokun is cost-effective because that our steel investment casting parts are with near-net shape, high production yield, fine surface finish and reduced machining needs. And investment casting process has lower tooling or mold costs than other metal casting methods.

Investment Casting Process Disadvantages

Like other metal casting processes, investment casting is not suitable for producing extremely large parts. And the mold for lost wax casting is complex and time-consuming to manufacture. But the production cost will be lower with large orders.

Investment Casting Application

Pump casting, Valve casting, agricultural casting, aircraft casting, railway casting, road casting, motor casting, mining casting, power generation investment casting, Medical casting, marine industry casting

[Baoding Guokun Machinery Co., Ltd.](#)

Office Add: 777# Chaoyang South Street, Baoding City, Hebei, 071000, China

Factory Address: Wangdu County, Baoding City, Hebei, 071000, China

Website: www.metalcastingfactory.com

Tel: 86-312-5951319 Fax: 86-312-5951296

Phone: 86-181 3278 9710 (WhatsApp & WeChat)

Email: gina@guokuncasting.com or gina.guokun@gmail.com

Web: www.guokuncasting.com

Email: gina@guokuncasting.com

Mobile:+86-18132789710