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AIMING FOR LEADERSHIP IN INVESTMENT CASTING

Nectar Incorporation Supplies High-Quality Precision Investment Casting in a Wide Variety of Steel and Stainless Steel Composition for Many Industrial and Aerospace Application. We Can Provide Customers With a Total Customised Solution, Enabling them to Place the Parts or Assemblies Directly Into Their Manufacturing Process.

HISTORY

Nectar Incorporation Was Established in the Year 2015,
To Manufacture and Supply Ready to Use Precision Investment Casting to Customers Requiring High Value-added Casting in Location Around World.

VISION

To Be a Global Solution Provider for Metallurgical Components for Diversified Markets;

To Optimise Relevant and Innovative Technologies and Retain Our Position as Leader in The Indian Investment Casting Field.

Our Goal Is to Become a Leading Manufacturing of Precision Investment Casting in Ready-to-assemble Condition for Industrial Segment Requiring High-quality Standards,

As Well as the Aerospace and Industrial Gas Turbine (IGT) Industries.

WORLD CLASS FACILITY

Nectar Incorporation State of Art, 30,000Sq Ft Manufacturing Facility Is Located at Rajkot, India. The Facility Is Located in a 5 Acre Industrial Plot and Has Easy Access to Rajkot of the Major Manufacturing Centre of India. The Plant Is Approximately 20km East Of Rajkot.

PROCESS

WAX MOULDS



- Injection Moulds Are Designed and Constructed.
- Wax Trees and Proper Melting Gates Are Designed.
- Wax Injection Patterns, Wax Trees, and Gating Are Moulded Under Controlled Condition.

WAX ASSEMBLY

- Wax Patterns Are Inspected and Assembled Onto a Wax Tree to Form the Mould.
- The Wax Trees Are Cleaned and Etched.



SHELL MOULDS



- A Prime Zircon Coat Is Applied to Wax by Dipping in Slurry Followed by Applying Dry Stucco and Is Dried.
- Number of Back Up Fused Silica Coats Are Applied Onto the Tree to Achieve Necessary Strength for Ceramic Moulds.
- The Ceramic Shells Are Dried Under Controlled Atmosphere Condition.



DEWAXING

- The Wax in Shell Moulds Is Melted Using Superheated Steam in an Autoclave.
- The De-waxed Moulds Are Preheated to Aid Complete Removal of Wax.

POURING

- Controlled Chemistry Molten Metal Made in Induction Furnace Is Poured Into the Pre-Heated Shell Moulds.



CLEANING

- The Ceramic Shell Is Removed From the Metal-is Removed From the Metal Mould Using
- Pneumatic Knock Out, Shot Blasting and/ or Grit Blasting Machined.
- The Individual Casting Are Cut Off Using Abrasive Wheel Cut Off and Gate and Unwanted
- Material Is Removed by Precise Grinding.



FINISHED PARTS

- The Casting Are Inspected for Dimensional and Metallurgical Quality.
- The Casting Are Further Heat-treated to Enhance Mechanical Properties.
- The Casting Era Finished Machined to Customer's Requirements.
- Surface Preparation Treatment Are Applied to the Casting to Make Them Ready to Use.

FLEXIBLE AND ECONOMICAL

TECHNICAL CHARACTERISTICS

- Freedom of Geometry - High Complex Shapes
- Facility for Complex Inner Contours
- A Wide Range of Weight - 1 G to 20 Kg
- Big Variety of Alloys
- High Degree of Dimensional Accuracy
- High Standard of Surface Quality

ECONOMICAL ADVANTAGES

- Design Optimised and Bionic Shapes
- Multifunctional Components
- Optimal Alloy
- Near-net-shape
- Reduced Machining

APPLICATIONS

- Vanes, Blades and Heat Shields (Aerospace and IGT)
- Housings (Optics, Electronics, Gear Boxes, Pumps, Valves)
- Turbine Wheels (Automotive and Truck, IGT)
- Structural and Mechanical Components



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