MFE / MAHAGANPATI FURNACE ENGINEERING
PRIVATE LIMITED

Foundry Equipment Catalogue

PRODUCT OVERVIEW | ENGINEERING & AUTOMATION

FURNACES

Melting Furnace

Aluminium melting systems for foundry production.

Crucible or other suitable furnace configuration; fuel or electrical heating options; temperature monitoring; refractory and insulation selection.

FURNACES

Holding Furnace

Controlled molten aluminium holding at the casting line.

Capacity and holding temperature to suit production; temperature control; access and tapping arrangement; optional integration with pouring systems.

FURNACES

Rotary Melting Furnace

Rotary furnace solutions for aluminium melting applications.

Batch capacity; burner and fuel configuration; rotary drive; refractory selection; charging and discharge arrangement.

CASTING

LPDC Machine

Low pressure die casting equipment and controls.

Die size and clamping requirements; programmable pressure cycle; cooling zones; PLC/HMI recipes and interlocks.

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CASTING

GDC Machine

Gravity die casting equipment including tilting configurations.

Die mounting and opening arrangement; tilt range and drive selection; hydraulic or servo options; PLC/HMI sequence control.

CASTING

Core Shooter Machine

Core making equipment for foundry processes.

Core box configuration; shooting and curing sequence; pneumatic and hydraulic actuation; recipe-based controls.

FINISHING

Decoring Machine

Casting decoring equipment for sand removal.

Fixture and casting geometry; vibration or impact sequence; rotation arrangement; enclosure and safety interlocks.

FINISHING

RCM & Gate Cutting Machine

Casting runner, riser and gate removal solutions.

Cutting tool and workholding design; part envelope; feed and drive arrangement; guarding and controls.

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AUTOMATION

Robotic Automation

Robot integration for molten metal and casting handling.

Robotic pouring; casting extraction; pick and place; PLC communication; cell interlocking and safety engineering.

FURNACES

Degassing Machine

Rotary degassing equipment for molten aluminium treatment.

Rotor and drive arrangement; vertical travel; stationary or travelling configuration; process controls; gas supply integration.

FURNACES

Ladle Preheater

Preheating equipment for aluminium transfer ladles.

Ladle capacity; burner and blower selection; preheat timing; temperature indication; combustion safety system.

FURNACES

Heat Treatment Furnace

Thermal processing equipment for foundry applications.

Chamber size and charge weight; heating system; temperature uniformity requirements; controls and recording.

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PRODUCT OVERVIEW | ENGINEERING & AUTOMATION

FINISHING

Conveyor & Cooling Station

Material handling and controlled casting cooling solutions.

Conveyor length and loading; station layout; cooling fan arrangement; fixtures and line controls.

AUTOMATION

Electrical Control Panel

Industrial control panels and machine automation.

PLC and HMI selection; VFD and servo integration; panel design; machine wiring; alarms and process data acquisition.

SERVICES

Furnace Lining & Reconditioning

Refractory lining, furnace repair and reconditioning.

Existing furnace inspection; refractory and insulation specification; lining replacement; commissioning plan.

AUTOMATION

Special Purpose Machines

Application-specific equipment for foundry manufacturing.

Process study; mechanical and electrical design; fixture development; sequence control; commissioning and validation.