

Furnace Engineering

Leaders in Heat Processing Solutions

Stirring Molten Aluminium

Applications:

Stirring the molten Aluminium bath in stationary, tilting, melting and holding furnaces

Advantages of stirring:

- Faster Melting with lower energy consumption
- Faster Alloying with greater homogeneity
- Lower oxide formation
- Uniformity of temp. in the bath

Types of Non-Contact Stirring

- Permanent Magnet Stirring (PMS)
- Electromagnetic Stirring (EMS)

Permanent Magnet Stirring (PMS)

- This is the lowest cost method
- Ideal for smaller furnaces
- Very simple and robust design
- Requires space under the furnace for a permanent magnet rotation device
- Air cooled and very low operating and maintenance cost
- The distinguishing feature of this product is the proven retention of magnetic properties over time

Electromagnetic Stirring (EMS)

This is where the moving field is created by having electrical windings under the furnace. EMS has the advantage of being able to be used on large furnaces.



PMS Air Cooled Stirrer under a furnace



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