

REVERBERATORY FRLB

Aluminium melting & holding

insertec
Furnaces & Refractories

Reverberatory FRLB - En

Tilting Reverberatory Furnace, type FRLB, for melting and holding of aluminium, with capacities from 15 to 100 Mton.

The furnace is designed to customers requirements on melting/holding capacity and the application.

The furnace is in general a **rectangular design** and with one main large lifting door providing clear and unobstructed access to the heating chamber for material charging alloying and drossing etc.

The furnace is **hydraulically tilted** with two hydraulic cylinders positioned on opposite sides of the furnace. The Main door is also hydraulically operated.

The **burners** are positioned opposite to both the pouring spout and the exhaust gas duct. This increases the residence time and optimises path for the hot gases inside the heating chamber.

Burners size is according to furnace purpose (melting, holding or alloying), and are controlled automatically according to bath and roof temperatures.

Monolithic refractory hearth and wall construction are lined with castables processing non wetting properties.



Flat roof fabricated from steel sections for added strength and the composite refractory lining is chosen for its thermal properties and durability .

Dry precast **door frame** material with the high mechanical strength resistance to temperature fluctuations and abrasion.

Charging well and Poring spout axis can be lined with the tilting axis. This innovate design allows the charging well and pouring spout rotate about tilting axis, and so designed for simultaneous and continuous receiving and pouring of the molten metal on demand.



Detail of main doors with dry pre-cast shape frames

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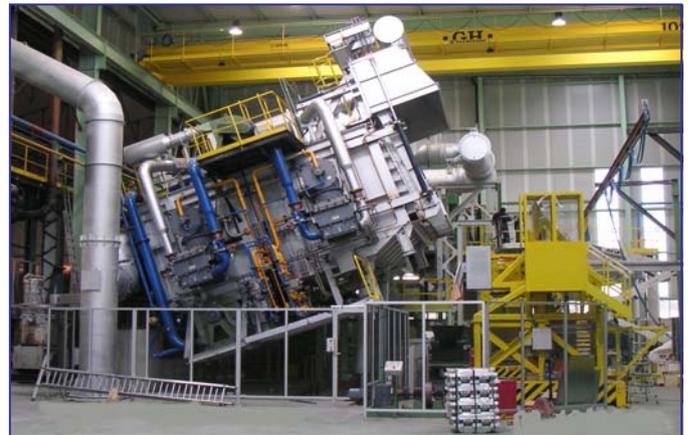
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View of a tilted furnace with the door opened



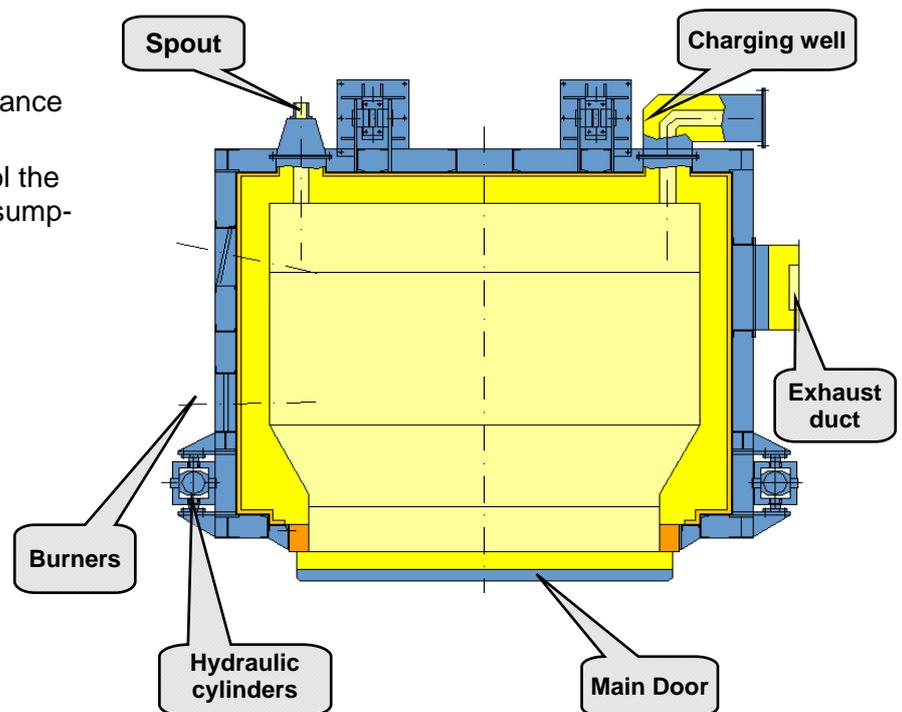
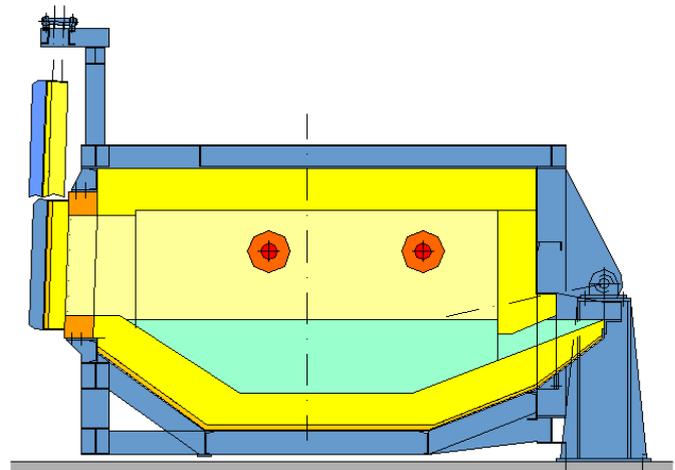
Tilting reverberatory furnace with regenerative burners

Options:

- **Stationary reverberatory furnaces** are also available
- **Combustion System** with high velocity nozzle-mix burners, regenerative or oxi-gas burners
- **Furnaces pressure control system**, through and actuated valve on fumes exhaust
- **Dry-hearth** for melting big solid materials without molten bath contact
- **Electromagnetic stirring system** of molten metal by a flat coil, for metal homogenization or alloy
- **Degassing system** of molten metal by means of porous plugs or lances
- **Auxiliary ports** for additives or maintenance doors
- **SCADA monitoring systems** for control the Furnace and register and managing consumptions and production data



Detail of the pouring spout aligned with the tilting axis and rotary exhaust exit



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