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MELTING DEFERRIZATION FURNACES



- **Purpose of the Furnaces :**

- *Melting of aluminium scraps and separating the iron contained.*

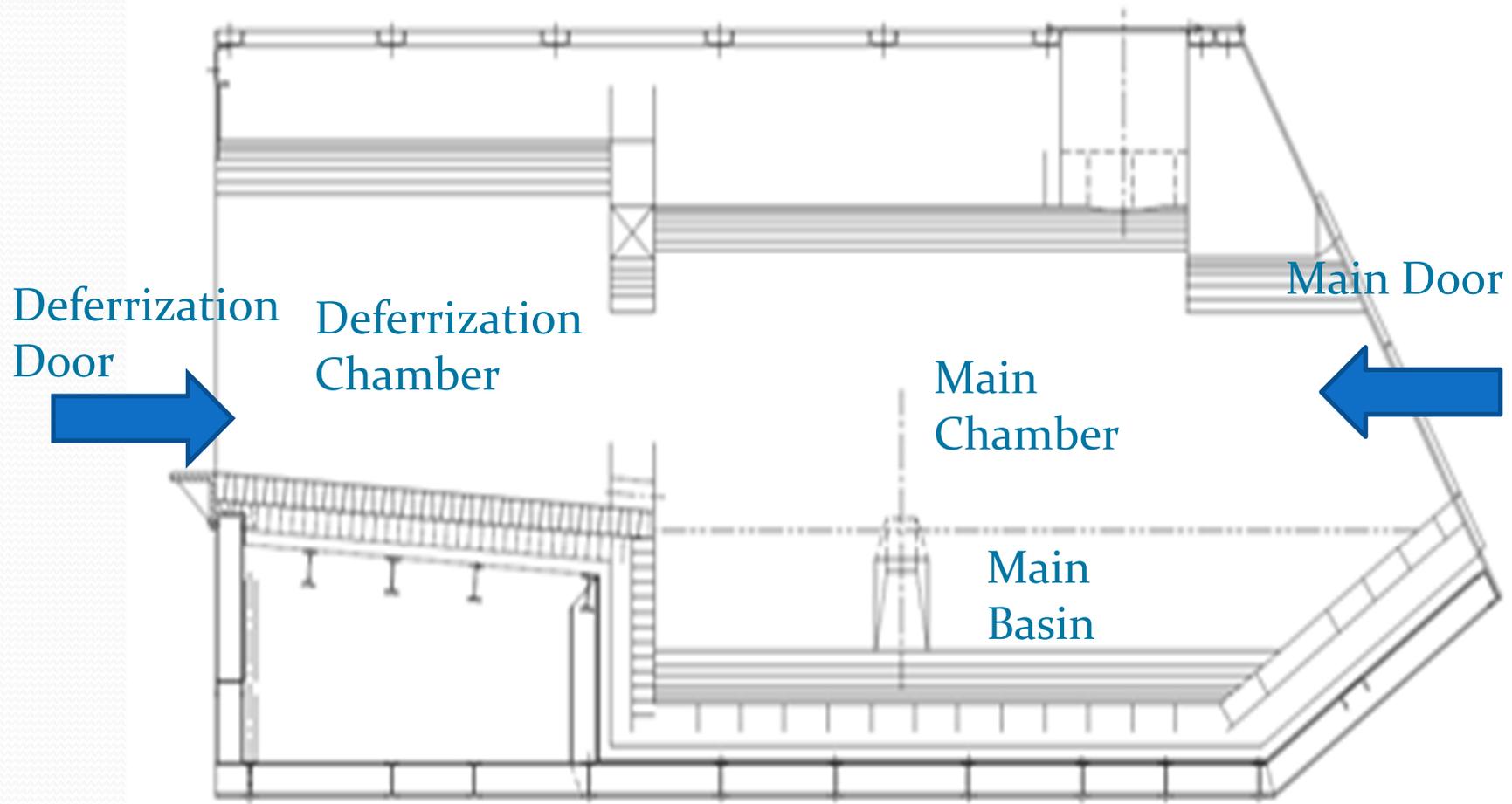
- **Capacity of the furnaces :**

- *3-20 tons of liquid aluminum, depending on customer needs*

Furnace description

- *The furnace is designed in order to melt aluminum scrap and separate the iron contained (in carters for example...).*
- *This is achieved by loading scrap from the deferrization door and melting the aluminum in the deferrization chamber, on a little inclined surface made of castable refractory. The liquid aluminum can therefore flow into the main basin, placed at the back of the furnace (main chamber).*
- *Clean aluminum scrap or liquid aluminum coming from other furnaces can be instead loaded through a back door directly into the main basin and the necessary material corrections, in order to obtain the right alloy, can be added too.*
- *The solid iron, thus separated from the aluminum in the deferrization chamber, can be unloaded easily through rakes.*

Furnace Sketch



Technical Specification

- *Maximum height of smelted bath : $\approx 750\text{mm}$.*
- *Spillage of melted aluminum : By tilting the furnace on the axis of the spout with oil dynamic system with a gear case.*
- *Heating of the furnace : By a combustion plant driven by Diesel Oil / Propane / Methane, depending on customer needs, made up of automatic burners and all the safety protections.*
- *Thermal power installed : 1.000.000 - 3.000.000 Kcal/h depending on furnace dimensions*

cont.....

Technical Specification

- *Consumes (Methane) : ≈ 900 Kcal/Kg of loaded aluminum at 720° C.*
- *Consumes are strongly influenced by the amount of iron in the scraps.*
- *Production : 0,5 - 2,0 ton / h depending on furnace dimensions and on type of load .*

Cont.....

Technical Specification

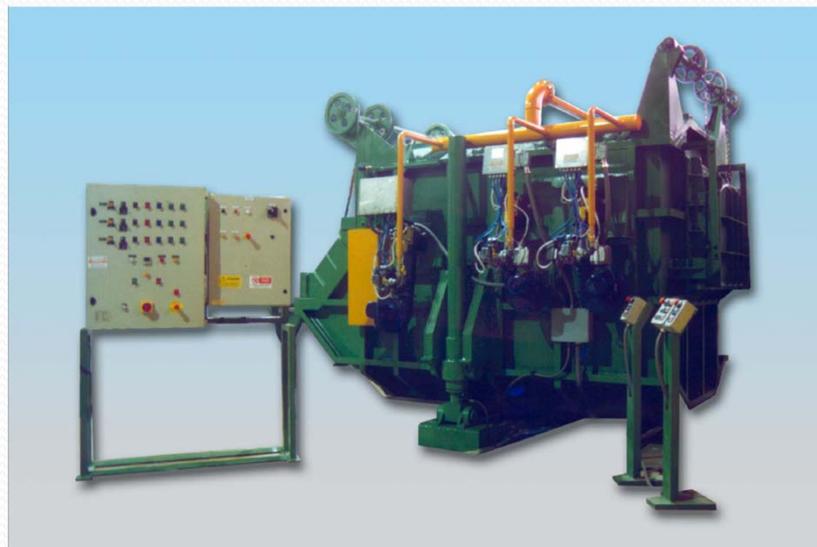
- *The lining of the furnace is made up of:*
 - *Low density bricks;*
 - *Intermediate refractory materials to prevent infiltration;*
 - *Refractory basin made up of silicon-aluminum bricks at 42/44⁰%;*
 - *Lining is accurately installed by specialized workers as established by the refractory manufacturer in our factory.*

- *Electrical Panel:*
 - *Electrical panel controls the furnace and the automatic system of burners.*

- *Manual books and layouts:*
 - *Manual books and layouts (written in English) are supplied with the casting machine and the catalogues of all the equipments such as hydraulic, gas and electrical diagrams. A complete list of the spare parts is provided for the best operation of the plant.*

 - *CE certification is included.*

FURNACE PHOTOS



HYDRAULIC BUCKET FOR WHEEL LOADERS & FORK-LIFTER

- *The bucket is constructed in a metallic structure made of a fixed and a mobile part.*
- *The side shit plate of the wheel loader is assured by the bolts.*
- *The mobile part moves inside, between two guides, driven by a mechanism activated by an hydraulic piston, which uses the oil pump of the wheel loader.*
- *Dimensions: ≈ Length 1500 mm x Width 1500 mm x height 800 mm depending on customer needs.*

