



Via Cantone, 19  
20010 Pogliano Milanese (MI) - Italy  
Tel.: ++39 029341221/2  
Fax: ++39 0293549211  
Site: [www.cife.it](http://www.cife.it)  
E-mail: [info@cife.it](mailto:info@cife.it)

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**MELTING DEFERRIZATION FURNACES**



- **Purpose of the Furnaces :**

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

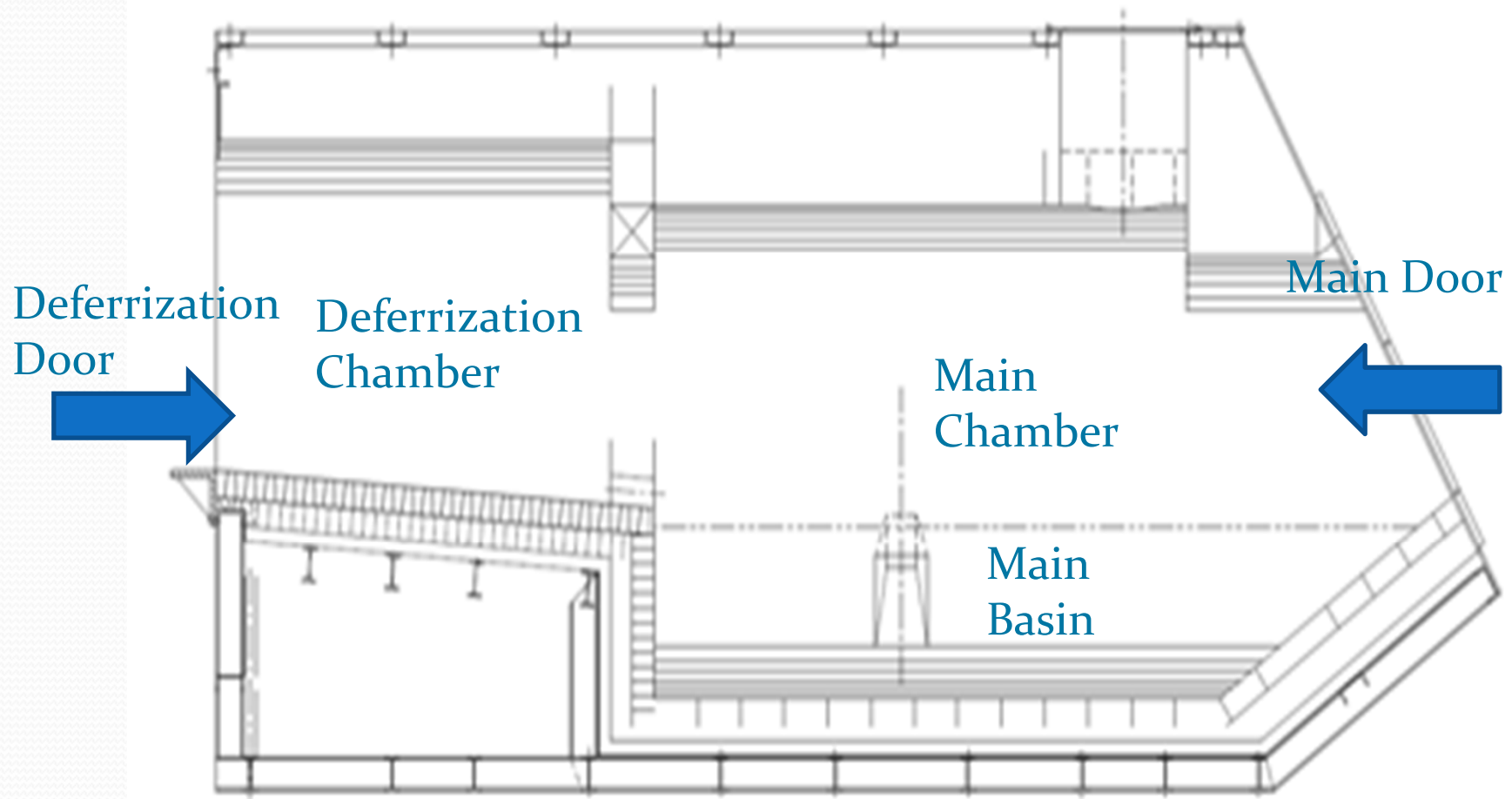
- **Capacity of the furnaces :**

- *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*

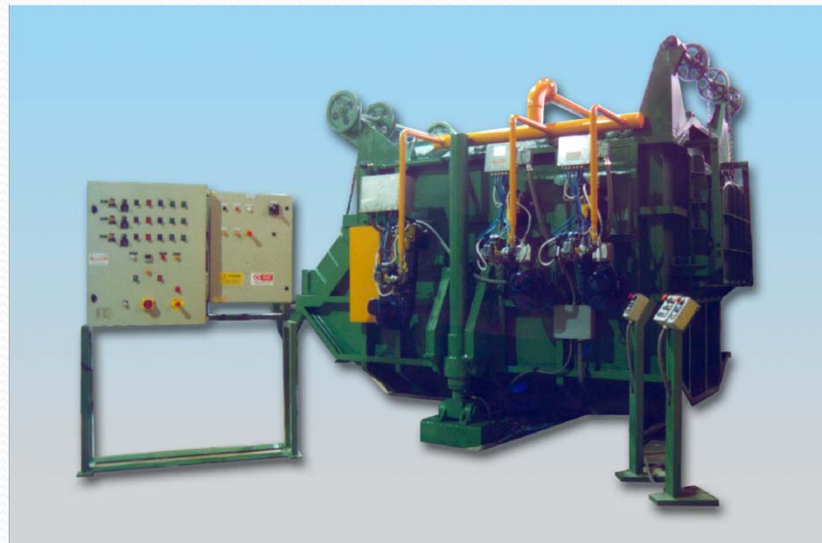
- *Consumes (Methane) :  $\approx$  900 Kcal/Kg of loaded aluminum at 720° C.*
- *Consumes are strongly influenced by the amount of iron in the scraps.*
- *Production : 0,5 - 2,0 ton / h depending on furnace dimensions and on type of load .*

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 42/44<sup>0</sup>%;*
  - *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.*

