



# T6 Heat Treatment Continuous Installation

**insertec**  
Furnaces & Refractories

T6 Heat Treatment - En

**INSERTEC** manufactures and supplies Continuous Installations for Aluminium T6 Heat Treatment, specially aimed at industrial sectors, such as:

- Automotive parts.
- Railway.
- Electric and energy.
- Marine.

Basically heat treatment installations consists of:

- Loading Table.
- Solution Furnace.
- Quenching Tank (water, etc.).
- Aging Furnace.
- Unloading Table.
- Transfer Car (Optional).
- Baskets return system (Optional).
- Cooling Chamber (Optional).

## Applications:

Heat treatments of aluminium die-casting process.

## Additional Options:

- Lineal or "U" type arrangement on site, provided with transfer car located between both Furnaces.
- Automatic basket positioning systems.
- Automatic load feeding devices.
- Foundry sand collecting hoppers for being recovered.
- Direct gas fired heating system by means of burners or electrical heating system by means of resistances.



General view of T6 Heat Treatment Installation based on "U" type arrangement.



General view of T6 Heat Treatment Installation based on lineal arrangement.

## Process Description:

Baskets with parts to be heat treated are positioned on the loading table just in front of the Solution Furnace.

When discharge operation starts, the Solution Furnace rear door is opened and the last basket is driven out towards quenching position.

Solution Furnace rear door is closed and lifting mechanism takes the mentioned basket down to the quenching bath. After that, Solution Furnace front door is opened and a new basket is driven into the Furnace being moved all the existing baskets inside the Furnace at the same time.

Once quenching process is finished, basket is lifted up to initial position and driven just in front of Aging Furnace, waiting for permission to be loaded.

On completion of aging process, Ageing Furnace rear door is opened and the last basket is driven out towards unloading table.

Then Ageing Furnace rear door is closed, and afterwards front door is opened so as to let basket be loaded into the Furnace being moved all the existing baskets inside the Furnace at the same time.

The system is completely automatic with limit switches and position detectors for controlling basket movements along the whole process.



T6 Heat Treatment Installation provided with loading and unloading tables.



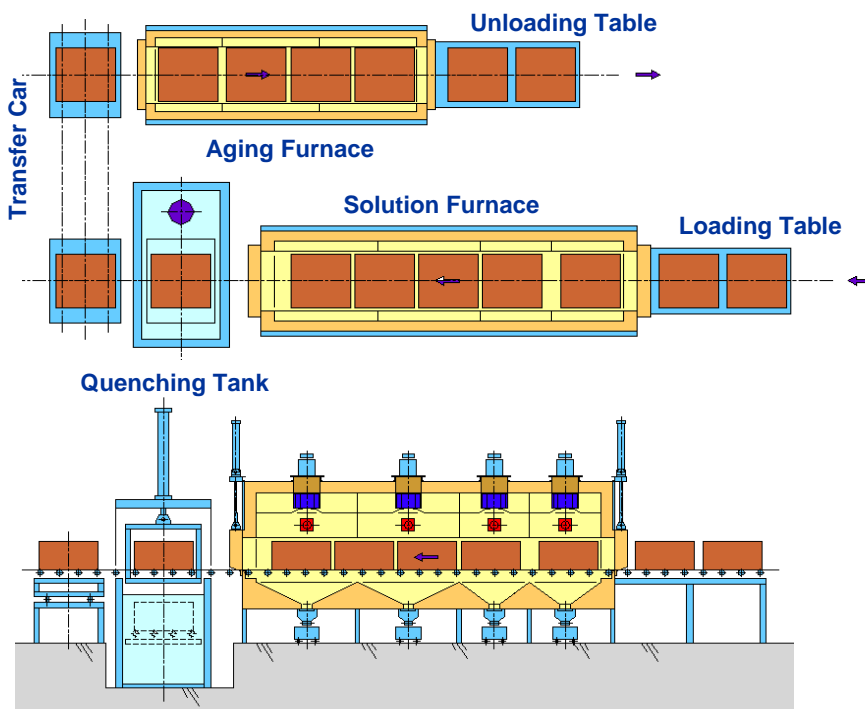
Solution Furnace with open front door.

Fully automated and programmable installations depending on the required temperature-time cycle for each type of load, provided with:

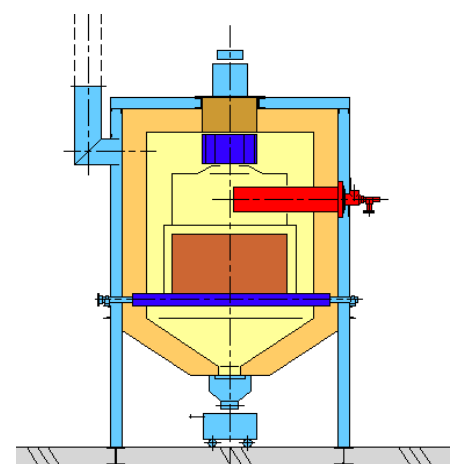
- Limit switches.
- Position detectors.
- Safety alarms and inter-locked operation system.



Load baskets placed on loading table.



T6 Installation lay-out based on "U" type arrangement.



Cross section view of inner Furnace chamber provided with sand collecting hopper.