

# USED EQUIPMENT

## 7 Position Tempering Tunnel Oven



This furnace under air convection is foreseen for tempering after carburizing and quenching. It is a tunnel furnace with a chain transfer system. There is one loading position and one unloading position.

### Casing

- Made in mild steel with straightening structure
- Supports are installed for loading at 1100mm (43.3in from finished floor)
- Loading through a front door / unloading through the rear door
- Both doors are operated by geared motors
- Casing roof is fitted for fans and their base plates

### Insulation

- Casing inside is insulated with rock wool/ceramic fiber with 150mm (6in.) thickness
- Protected from air convection by a mild steel face fixed on the casing with welded rods

### Convection

- 7 centrifugal fans on the roof / 1.5 kW each
- 1500 RPM motors are on stands cooled by air / fixed at the end of an extended shaft
- Baffle sets convection on the load from bottom to top / forces air on heating elements

### Heating Elements

- Re-inforced type with network voltage power supply
- Installed on both sides of convection baffles / divided in two heating zones

### Conveying

- Ensured by pinions, chains and geared motor
- Step by step (indexing) procedure / one load in & one load out
- During transfer, every load is forwarded (indexed) one step further in the furnace. The exit load is forwarded to an unloading point, which makes room at the loading point.

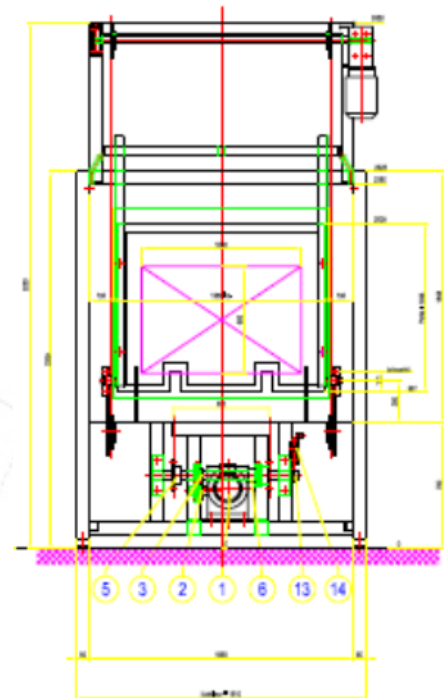
### Temperature control

- Thermocouple and PLC application - Siemens PLC included
- Zones controlled by type K thermocouple placed above the load
- Safety thermocouple (type K) also placed nearby heating elements

### Temperature safety

- Over-heating: 4 temperature controllers EURO THERM 2132 or equivalent

| FURNACE DIMENSIONS          |  |
|-----------------------------|--|
| LENGTH                      | 7700mm (303in / 25.25ft)                         |
| WIDTH                       | 1800mm (70.8in / 5.9ft)                          |
| LOAD SIZE                   | 1000mm x 610mm x 660mm<br>(39.3in x 24in x 26in) |
| MAXIMUM TEMPERATURE         | 250°C (482°F)                                    |
| WORKING TEMPERATURE         | 130°C (266°F) to 200°C (392°F)                   |
| HOMOGENEITY IN SOAKING ZONE | +/- 5°C  |
| POSITIONS                   | 7 positions                                      |
| TAK TIME                    | Variable; 15 to 30 mins.                         |
| DWELL TIME IN FURNACE       | 90 - 180 mins                                    |
| HEATING POWER               | 130 kW   |
| TOTAL POWER CONNECTED       | 160 kW   |



**Interested in the Tempering Tunnel Oven? Contact Dennis Beauchesne at (336) 210-5316**

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