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# ProfiTherm



**SOLO® Bell-type furnace**

 Innovative. Reliable. Precise.



## PROCESSES

- Austenitisation under neutral atmosphere or under controlled atmosphere
  - Carburising
  - Carbonitriding
  - Nitriding
  - Nitrocarburizing
  - Oxynitriding
  - Annealing
  - Tempering
  - Brazing
  - Black superficial oxidation
- AMS 2750E & ATEX Standards (upon request)**

## FURNACE

- Temperature up to 1100°C
- 3 cascades T- regulation
- Metallic retort
- Electrical heating
- Automatic quench
- Axial turbine
- Oxygen-probe

## QUENCH TANK

- Water / Polymer
- Oil 60-160°C
- Salt 180-500°C
- High ratio between volume and load weight >10

### Equipment:

- Media circulation adjustable
- Lift speed adjustable
- Heat exchanger for quenching one load per hour
- Media level control
- Door



### GAS DISTRIBUTION

- N2 purging, safety and cycle
- CH3OH direct injection
- Carbon potential regulation with air/propane (mass-flow-meter)
- All security for gas injection
- Safety double valves

### MAJOR OPTIONS

- NH3 for carbonitriding
- NH3 mass-flow meter for carbonitriding
- Infra-red CO/CO2 analyser for O2 -probe control or carbon potential regulation

### SOFTWARE

- Process regulation and control
- Security management
- Automatic quench sequences
- Alarms in clear text
- Graphical display (curves and synoptic)
- Visualisation, online modifications of the process parameters
- Cycles, programmes, recipes, parts and load management with archiving (data base)
- Parameter set-up for regulation and calibration data (AMS2750)
- Recipes and load management with archiving
- Weekly ON/OFF calendar

### HARDWARE

- Latest PC with 19" screen, Windows, WinCC by Siemens
- Siemens CPU and I/O (Hot Swap)
- Modem & internet connection
- Colour printer, UPS

### MAJOR OPTIONS

- AXRON MES products
- Open connectivity (SAP, Microsoft, ..)



## Additional equipment



Additional quench furnace fully equipped



Fork lift



Washing machines 1, 2 or 3 tanks



Robot



Loading material



Tempering furnaces

MODELS	P50	P80	P150	P300	P500
Batch gross weight (kg)	50	80	150	300	500
Max height (mm)	300	600	700	700/1100	700/1100
Useful dimension (mm)	□300x300	□300x300	□400x400	500	Ø700

## *Different configurations*



*1 furnace and 2 tanks*

*2 furnaces and 1 tank*



- 2 austenitizing furnaces
- 1 salt tank for bainitic hardening
- 1 salt tank for martensitic hardening
- Washing machine
- Salt recovery
- Tempering furnace
- 5-axis robot
- Storage for 20 loads

