ProfiTherm

SOLO® Bell-type furnace

Innovative. Reliable. Precise.
Basic equipment

**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

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

**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)
GAS DISTRIBUTION
• N\textsubscript{2} purging, safety and cycle
• CH\textsubscript{3}OH direct injection
• Carbon potential regulation with air/propane (mass-flow-meter)
• All security for gas injection
• Safety double valves

MAJOR OPTIONS
• NH\textsubscript{3} for carbonitriding
• NH\textsubscript{3} mass-flow meter for carbonitriding
• Infra-red CO/CO\textsubscript{2} analyser for O\textsubscript{2}-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

<table>
<thead>
<tr>
<th>MODELS</th>
<th>P50</th>
<th>P80</th>
<th>P150</th>
<th>P300</th>
<th>P500</th>
<th>P800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch gross weight (kg)</td>
<td>50</td>
<td>80</td>
<td>150</td>
<td>300</td>
<td>500</td>
<td>800</td>
</tr>
<tr>
<td>Max height (mm)</td>
<td>300</td>
<td>600</td>
<td>700</td>
<td>700/1100</td>
<td>700/1100</td>
<td>900/1500</td>
</tr>
<tr>
<td>Useful dimension (mm)</td>
<td>□300x300</td>
<td>□300x300</td>
<td>□400x400</td>
<td>500</td>
<td>Ø700</td>
<td>Ø900</td>
</tr>
</tbody>
</table>

### Different configurations

- 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