



# Product overview



Plants and solutions for heat-treatment of serial parts

**RELIABILITY AT WORK**

# Plants and solutions for heat-treatment of precision and serial parts...



## **Complete heat treatment lines**

consisting of loading device, hardening furnace, quenching in salt, oil or emulsion, washing machine before and after heat treatment, tempering furnace. Complemented with protective-gas generators and process control.

## **Mesh belt conveyor furnaces Type T/TG**

with muffle and integrated quenching tank. This plant technology offers high precision, reproducibility and fulfils the strictest metallurgical demands. Hardening, carburizing, carbonitriding with oil or polymer quenching, bainite and martensitic hardening using salt-quenching, nitrocarburizing OXYCAD®.



## **Mesh belt conveyor furnaces Type TC/TCG**

without muffle, with integrated quenching tank. Besides the advantages of the production series T/TG, suitable above all for particularly large capacities. Hardening, carburizing, carbonitriding with oil or polymer quenching, bainite and martensitic hardening using salt-quenching, austempering.

## **Mesh belt conveyor furnaces Type BdL/BdLT**

with air-circulation by means of turbines. Heated by gas or electricity. Heat treatment of steel and cast iron, tempering, annealing, stabilization, aging of aluminum. For BdLT series with integrated water cooling tank.



## **Mesh belt conveyor furnaces Type Bd/BdT**

with muffle and cooling channel. Heated by gas or electricity. Bright hardening, bright annealing, sintering and annealing of iron, non-ferrous metals and stainless steel materials. Type BdT with integrated water cooling tank.

## **Mesh belt conveyor furnaces Type T9**

with muffle and integrated quenching tank. Compact plants with control and gas-supply board, particularly for small parts in the watch and the micro-engineering industry. Offers high precision in the smallest spaces, reproducibility and fulfils the strictest metallurgical demands. Hardening, carburizing, carbonitriding.



... for the following industry segments :

- Vehicles
- Watch and precision engineering
- Fasteners
- Bearings and semi-finished products
- Tools
- Knives and cutlery
- Furniture and wood industry
- as well as several additional applications



#### **Shaker hearth furnaces Type Vi**

with muffle and integrated quenching tank that are used primarily for very small parts with low production volumes.

Hardening, carburizing, carbonitriding with oil or polymer quenching, bainite and martensitic hardening using salt quenching.

#### **Retort furnaces Type SN/SL/SG**

with atmosphere circulation, also in evacuable configuration for heat treatment of charges. Austenitizing, carburizing, carbonitriding, tempering, annealing, preheating, heat treatment of light metals.



#### **Integrated protective gas generators**

with a retort integrated in the furnace for methanol or natural gas dissociation for the production series T/TG or external vaporisators for the production series TC/TCG. Controlled and reproducible gas composition.

#### **Stationary protective gas generators**

includes endothermic gas generators based on natural gas or propane as well as methanol and ammoniac dissociators.

#### **Rotary drum washing machines Type TRAS**

Loading the parts as bulk material, they run continuously through a drum of stainless steel with several zones : washing, dephosphating, rinsing and drying with hot air. Configuration according to the application and the desired cleaning result. Optimal cleaning result for flat and dipped parts.



#### **Belt type washing machines Type TPAS**

Loading the parts as bulk material or in a defined position (e.g. by robots). They run through the plant on a conveyor belt of stainless steel with several zones: washing, dephosphating, rinsing and drying with hot air. Configuration according to the application and the desired cleaning result. Optimal cleaning result, even for delicate parts.

