Continuous Furnaces
Electrically Heated or Gas-Fired

Continuous furnace D 700/10000/300/45S with chain conveyor for 950 °C, gas-fired

Service window

Continuous furnaces are the right choice for processes with fixed cycle times such as drying or preheating, curing or degassing, etc.. The furnaces are available for various temperatures up to a maximum of 1000 °C. The furnace design depends on the required throughput, the process requirements for heat treatment and the required cycle time. The conveyor technology (e.g. belt, rollers) is tailored to the required working temperature and the geometry of the charge. The conveyor speed and the number of control zones are defined by the process specifications.

Alternative furnace design subject to process specifications:

Conveyor concepts

- Conveyor belt
- Metal conveyor belt with adjusted mesh gauges
- Drive chain
- Roller conveyors
- Pusher-type furnace

Discharge of D 650/S

Continuous furnace for bulk materials in baskets

Roller continuous furnace N 650/45 AS for heat treatment of heavy workparts

Mesh belt drive in a continuous furnace

Conveyor plant D 1600/3100/1200/55, consisting of solution annealing furnace, cooling station and conveyor system

Heating systems
- Electric heating, radiation or convection
- Direct or indirect gas-fired
- Infrared heating
- Heating with the use of external heat sources

Temperature cycles
- Control of working temperature across the whole length of the furnace, such as for drying or preheating
- Automatic control of a process curve applying defined heat-up, dwell and cooling time
- Control of a temperature curve including a final quenching of the charge

Process atmosphere
- In air
- In non-flammable protective or reactive gases such as nitrogen, argon or forming gas
- In flammable protective or reactive gases such as hydrogen incl. the necessary safety technology

Basic configuration criteria
- Conveyor speed
- Temperature uniformity
- Operating temperature
- Process curve
- Work space width
- Charge weights
- Cycle time or throughput
- Length of charge and discharge zone
- Generated exhaust gases
- Specific industry standards such as AMS, CQI-9, FDA etc.
- Other individual customer requirements

Water bath and tilt mechanism for removing the rivet