



## PRODUCTION LINE FOR PRESS-HARDENED STEEL THERMAL PROCESS TECHNOLOGY

Eisenmann Thermal Solutions offers a broad range of process and high-temperature technologies – from basic chamber kilns to gas-tight roller-type kilns with vacuum doors. Core competencies include heat treatment of lightweight materials such as aluminum, press-hardened steel, and carbon fiber; surface treatment of coil; thermal systems for high-performance ceramics; powder metallurgy; metal hardening; powder metal sintering; and enameling.

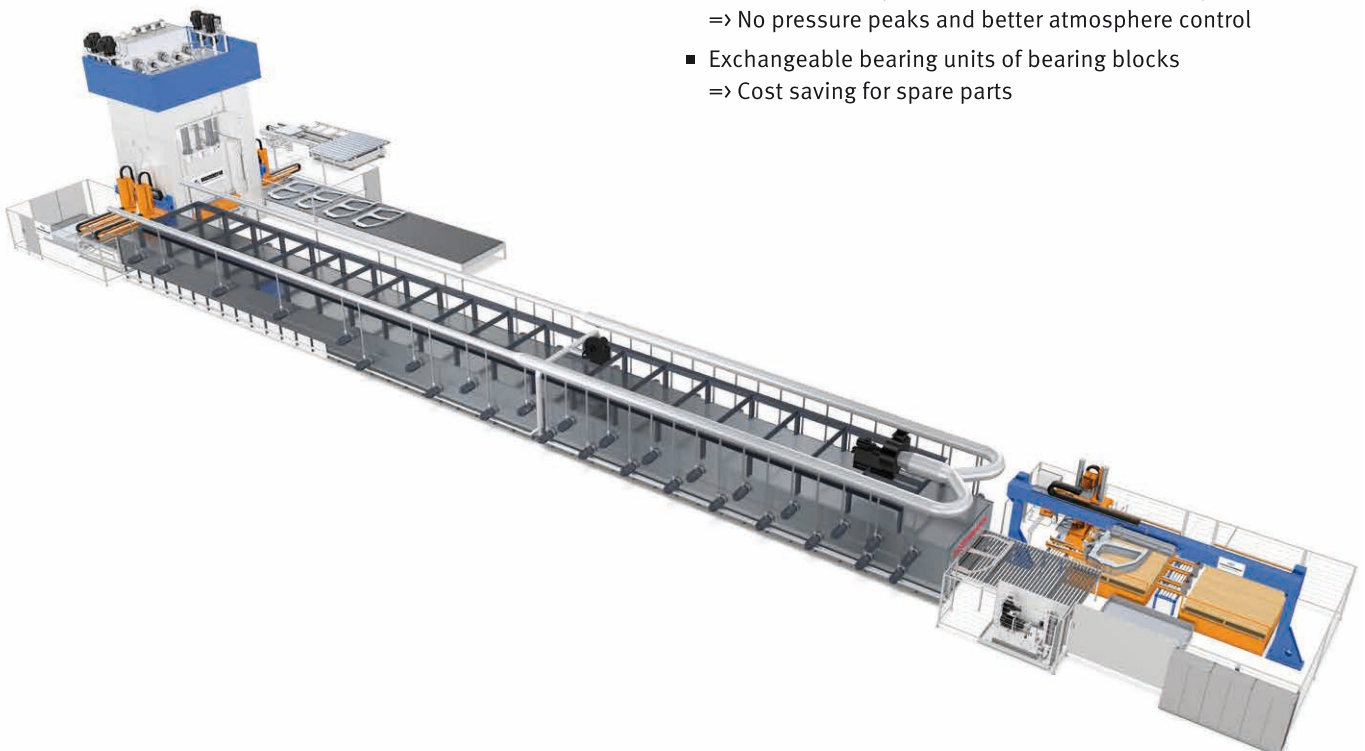
### Leading Edge Press Hardening Solutions

Demand for press-hardened steel parts is rising sharply. In response, Eisenmann recently established a new subsidiary: Telos Global, headquartered in Knoxville, Tennessee. A center for die-making and a complete production-scale pilot plant are under construction at this site. Through its extensive experience with component design and die-making, Telos can offer a comprehensive portfolio of services. These include component design and planning, specification of technical solutions, plant imple-

mentation and optimization. The end-to-end offer enables Telos Global's customers to rapidly put new components into production, improving the efficiency of new existing manufacturing lines.

### Furnace

- Wider furnace with usable width of 2,700 mm instead of 2,300 mm ⇒ Higher throughput for door rings due to sideways orientation
- Gas tight design ⇒ Lower consumption of process gas/dry air
- Superior roller material ⇒ Reduced sticking and infiltration of silicium and longer roller life time
- Brick wall insulation  
⇒ Lifelong durability and walls can not be damaged by parts
- SiC radiant tubes with protection for bottom burners  
⇒ No more turning of radiant tubes
- Continuous dew point regulation instead of simple on/off  
⇒ No pressure peaks and better atmosphere control
- Exchangeable bearing units of bearing blocks  
⇒ Cost saving for spare parts



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## Destacker with Hydraulic Marking Station

- Destacking with highest speed and smallest footprint
- Low noise and long service life of the marking station
- Efficient double blank control with the hydraulic cylinder

## Centering Station

- Fingers individually driven by servomotors
- Long service life with minimum maintenance
- Robust, manually adjustable crossbar stop (servo drive optional)

## Transfer for Loading and Unloading the Press

- Proven worldwide in hundreds of applications
- Modular design up to 4 axes and minimized maintenance
- No vibrations even with top speed and maximum load

## Press

- Pre-stressed housing style press frame structure optimized by finite element analysis => Press meets the highest industrial standards for both deflection and stresses
- Heavy fabricated and stress relieved slide with high guiding ratio => Accommodate heavy off-center loading conditions

- Adjustable, automatic grease-lubricated, 8-point guide arrangement for the slide => Enhanced guiding and parallelism
- Self-contained, fully manifolded hydraulic system featuring multiple high performance pumps and servo-proportional valves => Precise and reliable pressure and flow control
- Hydraulic auxiliary circuits controlled from the HMI with independent proportional or discreet control => Full die function integration with the press controls
- Equipped with a quick die change system => Rapid, safe and accurate die change through the side of the press

## Line Control System

- Central visualization system to operate complete line
- Data tracking and reporting of complete line
- Remote monitoring with mobile device or notepad access

### Line data

Blank coating	AlSi coated/uncoated
Blank length	max. 2,500 mm
Blank width	max. 2,700 mm
Throughput	max. 7,600 kg/h
Cycle time	min. 10 sec

**EISENMANN**

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