



EBNER hotPHASE® furnaces.

Technology for press hardening.

- » Roller-hearth furnaces in various configurations.
- » Multi-level batch-type furnaces for high performance in a small space.
- » Fully-automatable furnaces for small-scale testing.

EBNER

Perfect technology
for unique solutions.
MADE BY EBNER.

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Roller-hearth furnace with gas-fired radiant tubes.

Thanks to the use of cost-effective natural gas to provide energy, the production costs for heating press hardening blanks in this furnace are kept to a minimum.

The roller rotation monitoring system allows preventative maintenance to be carried out and malfunctions to be remedied.



BRAUN CarTec. Germany.



BRAUN CarTec. Germany.

Double-decker roller-hearth furnace.

A compact solution. This **hotPHASE®** furnace has the throughput of two furnaces in half the space.

The furnace can be heated either with a gas combustion system, a hybrid gas and electric system or electric only.

The furnace is also designed for tailored tempering. Braun CarTec uses differential heating in their tailor tempering process.

Roller-hearth furnace with hybrid heating.

Hardenable steel blanks of the correct size, with thicknesses around 1.5 mm are heated in the **hotPHASE®** roller-hearth furnace to about 930 °C, moved out of the furnace and centered extremely quickly before being taken from the discharging roller table by a robot (or feeder), placed in the press hardening die and pressed immediately.

EBNER's hybrid heating system keeps investment and running costs low.

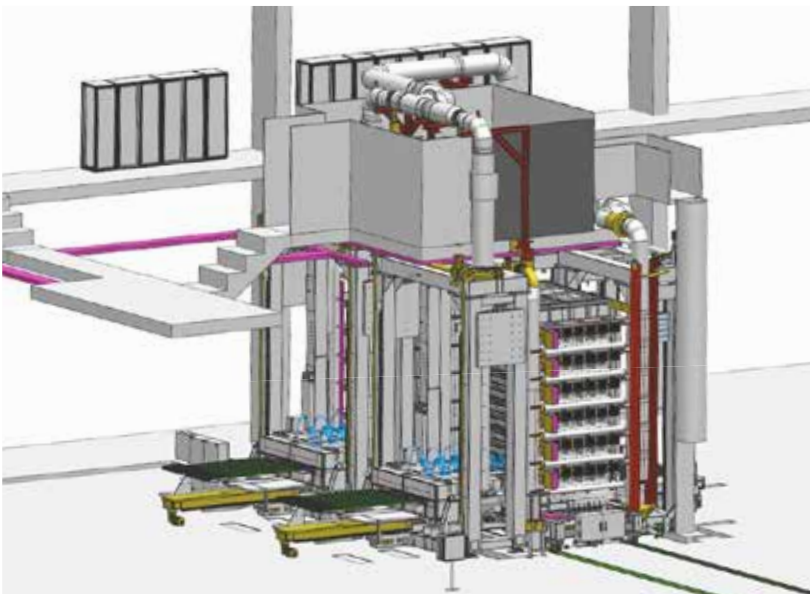


GEDIA Poland. Poland.

EBNER hotPHASE[®] furnaces.

Only the most modern technology meets automotive suppliers' high quality standards. **EBNER hotPHASE[®]** furnaces are efficient, precise, and durable.

Complex structural parts with a tensile strength in excess of 1500 MPa set new standards in lightweight automotive engineering and enhanced crash test performance. **EBNER hotPHASE[®]** press hardening furnaces offer impressive flexibility and precision in process atmosphere and temperature control, the tightest temperature tolerances within the heated blanks, highest availability thanks to rugged construction and very straightforward maintenance. Several heating systems are available: gas-fired radiant tubes, hybrid systems combining gas-fired radiant tubes and electric heating elements, and 100% electric heating systems with or without radiant tubes and elements. We can help our customers choose the most economical heating system for their facility.



Multi-level batch-type furnace.

The biggest advantage of multi-level furnaces is their compact size. Strong blank supports without hearth rollers allow galvanized blanks to be processed, too. Uncoated blanks cannot be heat treated in process atmosphere using this type of furnace.

The furnace is also designed for tailored tempering, which is achieved by means of differential cooling.

Multi-level batch-type furnace for tailored tempering.

EBNER advantages.

- » SISIC radiant tube heating above and below the rollers for uniform temperature distribution to the blanks.
- » Long service life without bearing cooling system.
- » Double roller seal for a low workload space dewpoint.
- » Blank handling system with simple, quick settings to precisely position the blanks, ensuring flexible, trouble-free operation.
- » Fully-automatic valve stand.
- » COS and analyzers supervise the furnace atmosphere, guaranteeing the highest level of safety and best quality.
- » Dewpoint control system ensures constant dewpoint and optimizes consumption data.
- » Tailored tempering mode available since 2010 for coated and uncoated blanks.

EBNER hotPHASE® FURNACES.

EBNER hotPHASE® furnaces are modular and can be expanded at any time. The modules for gas, hybrid or electric heating systems are identical for higher flexibility.

We have the right furnace size for your application!

Standard sizes.

RO	190	10	1528
roller-hearth furnace	clear inside width (cm)	clear inside height (cm)	heated length (cm)
RO 190/10/1528	RO 190/10/2292	RO 190/10/3056	RO 190/10/4584
RO 250/10/1528	RO 250/10/2292	RO 250/10/3056	RO 250/10/4584

Custom lengths and widths are also available upon request!

EBNER. Perfect technology.

- » Modern furnace and automation technology.
- » Simple, robust components.
- » Modular design.
- » Highest production throughputs.
- » Best availability.
- » Flexible solutions.
- » Everything from one source.
- » Continued product development.
- » Global presence and support.
- » Best total cost of ownership.

Have we sparked your interest?



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**We look forward to
hearing from you!**



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