EMA
induction
technology

IGBT Converter – Applications

optimal adaptation to every requirement

Converter Type TIV

The product line of EMA Indutec comprises a broad assortment of cutting-edge IGBT converters. The products are known across sectors for their reliability and high efficiency. EMA Indutec delivers power supplies for a wide variety of applications.

Every IGBT converter has its own digital controller. This controller's numerous integrated interfaces allow connection to current bus systems, controllers and further components.

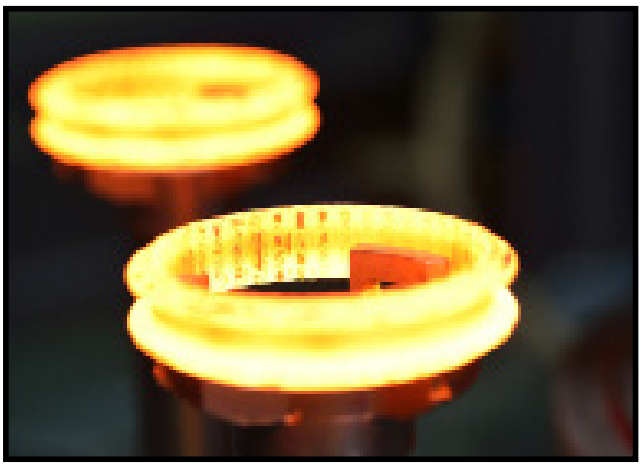
Thanks to their user-friendly activation and operation as well as their modular construction, EMA Indutec converters are very easy to adapt to any requirement..

Advantages of the converter controller

- One uniform controller component for all frequency and output ranges
- Parameterization by software
- Ethernet, Profinet-/Profibus-interface, USB and RS232 present
- Remote maintenance via Internet integrated
- Changing the operating parameters via remote access
- Error memory
- Actual value memory with integrated continuous line recorder
- Glass bath-specific secondary measurement integrable

New converter technology that convinces

- Power range from 10 kW up to several Megawatt
- Frequencies from 5 Hz to 400 kHz
- Several individually controllable outlets possible, also with different frequencies and power ranges
- Synchronization of the frequency for converter groups in parallel operation
- Cos phi nearly 1 on the net with full and part load
- ready for industry 4.0
- Indirect semiconductor cooling
- Precise and reproducible energy dosage

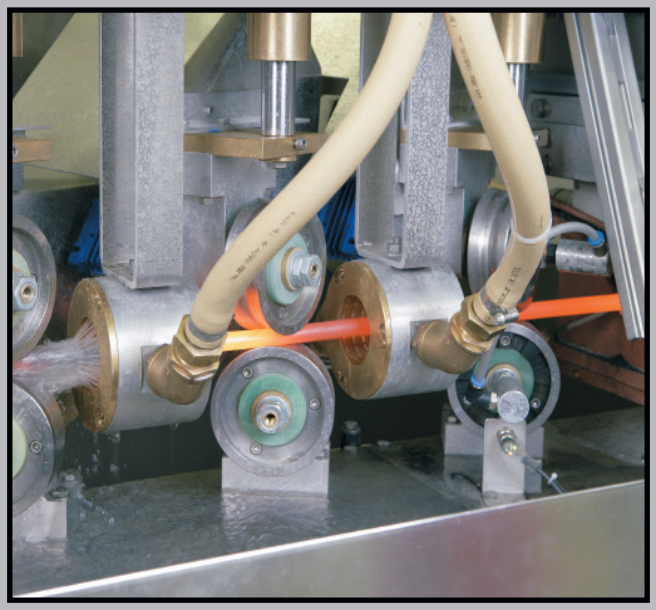


Hardening, annealing and tempering

- Tooth systems
- Axles, cams and shafts
- Bar Steels
- DriveLine components

Heating

- Shrinking, Bonding and soldering
- Coating and drying
- strip, wire and glass bath heating

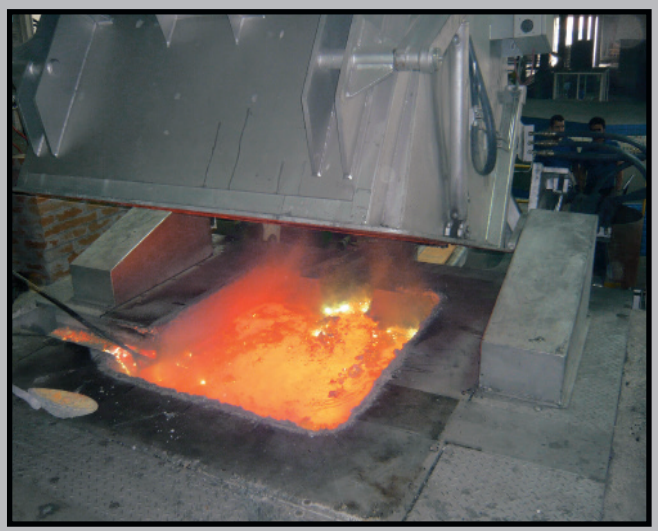


Melting

- Crucible melting furnaces
- Laboratory furnaces
- Vacuum furnaces

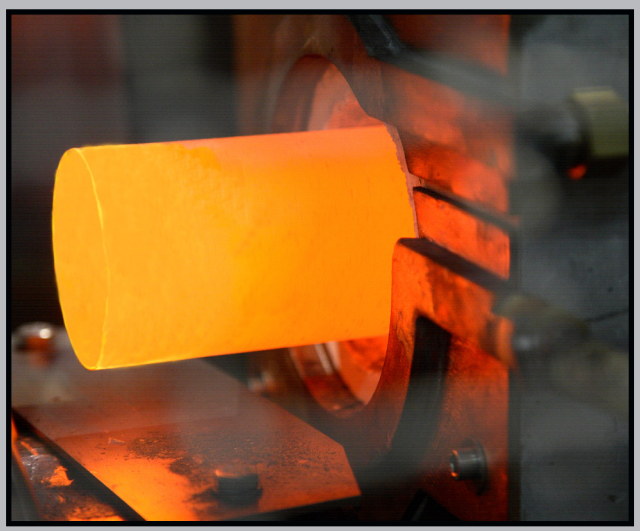
Channel furnaces

- Copper and copper base alloys
- Aluminum and aluminum base alloys
- Steels



Forging and forming

- Blocks, bars and billets
- Tubes and tube ends
- Rails



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Ideal Solutions for Heat Treatment

Induction heating and hardening systems

- Economical and highly reliable systems
- Low energy consumption per workpiece
- Accurately reproducible hardening results
- High throughputs
- Heating zones and times can be determined precisely
- Heat treatment processes with low distortion
- Scale-free hardness zones due to heat treatment with protective gas
- Simple to integrate into production lines
- Lower expenses for production parts
- Tailor-made induction systems from a single source
- User-friendly adjustment, retrofitting and maintenance
- Modern engineering supported by FEM simulation
- Areas of application: surface hardening, annealing and tempering, heat shrinking, fixture hardening

IGBT converters

- Digital converter control
- Power range from 10 kW up to several Megawatt
- Frequencies from 5 Hz to 400 kHz
- Heating and melting
- Hardening, annealing and tempering
- Forging and forming
- High energy efficiency
- Easy integration into production lines
- Customized solutions and special systems
- Replacement of old and external devices

After Sales Service

- Qualified and knowledgeable Service Centre
- Service hotline for troubleshooting
- Preventive maintenance
- Smart remote control solutions
- Efficient spare part concepts
- Customized plant-retrofit
- Inductor development, construction and repair service
- Training for operators, maintenance personnel and induction experts (also on site)

Top quality from one source

- More than 80 years of experience in heat treatment
- Over 10,000 induction systems in long-term operation worldwide
- Development and manufacture from a single source
- DIN EN ISO 9001:2015 certified
- Efficient project and quality management from the first question to subsequent service

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