

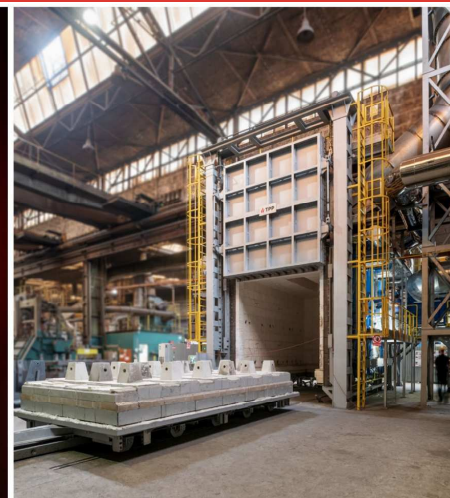
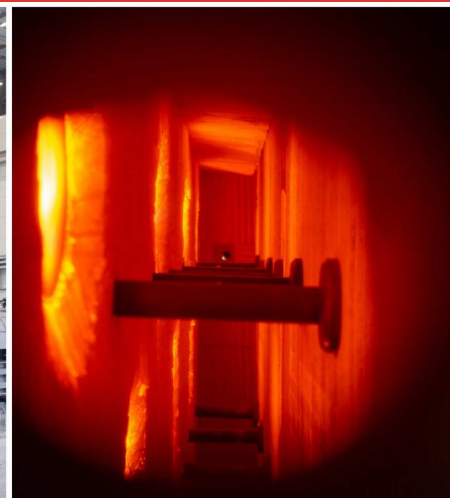


**TEPLOTECHNA PRŮMYSLOVÉ PECE, s.r.o.**

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Tel: +420 585 570 333, [tpp@tpp.cz](mailto:tpp@tpp.cz), [www.tpp.cz](http://www.tpp.cz)

# INTRODUCTION OF THE COMPANY



ID No.: 47668253, VAT No.: CZ47668253, OR Regional Court in Ostrava, Section C, Insert 4903

**LANIK Group**

  
 **About us**



## Basic data

### About us

- **Experience** - more than 200 projects completed in 25 years worldwide
- **Professionalism** - 40 employees, 25 designers
- **Background** - long-term contracts with manufacturing plants and assembly companies
- **Reliability** - repeated orders from satisfied customers
- **Quality** - quality management system
- **Annual turnover** - EUR 7 million

### What we offer

- Turnkey projects
- General repairs as well as partial reconstruction of technological units
- Technical and economic feasibility studies
- Thermal balance calculations
- Project documentation in Czech, English, German or Russian language
- Remote control and monitoring for easy technical support



## History of the company

1950



Founded as a state-owned enterprises

1992



Privatized

2015



TPP became the subsidiary of  
LANIK s.r.o. ([www.lanik.eu](http://www.lanik.eu))


# What we offer





## Our products

### Gas-fired or electrically heated furnaces and accessories for:

1 Heat treatment of metals

2 Production of ceramics

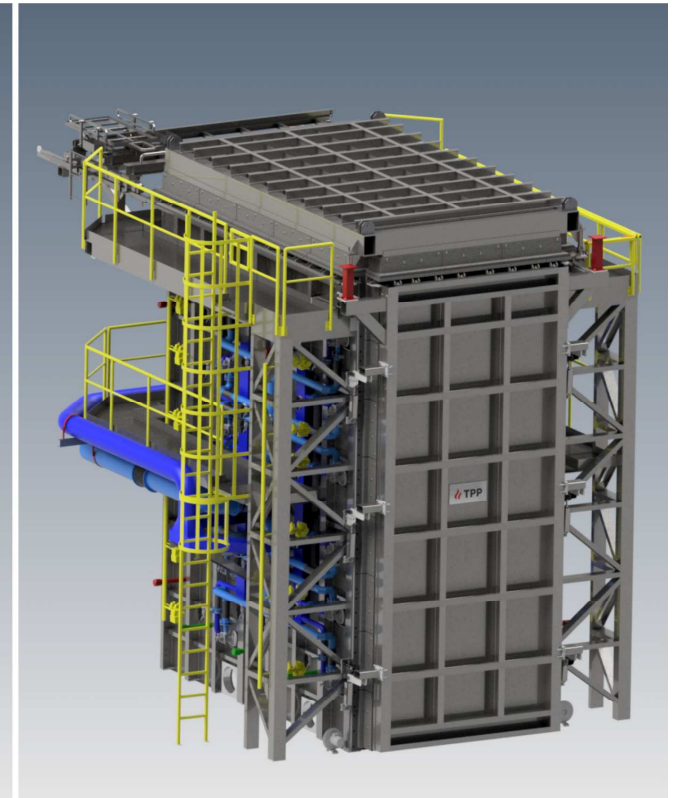
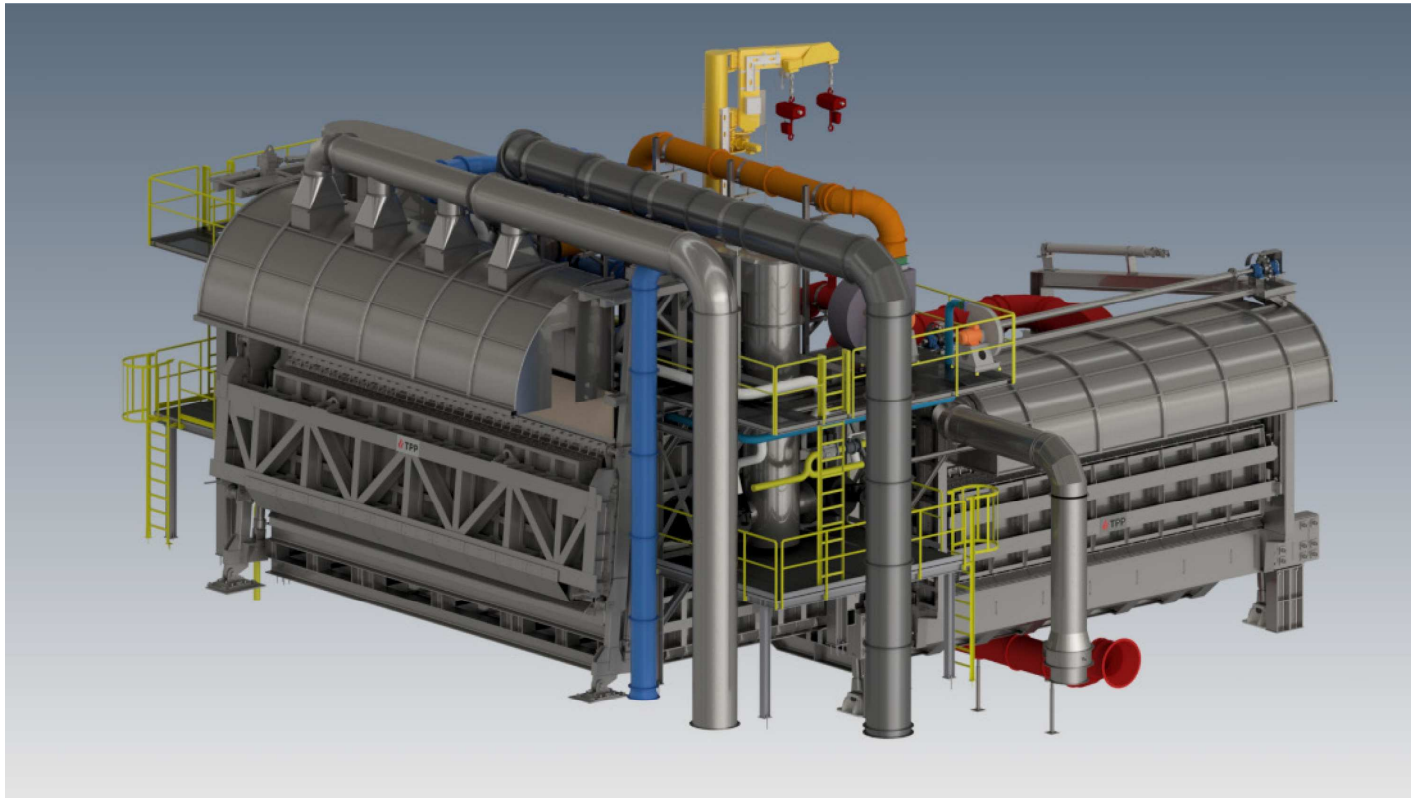
3 Hot dip galvanizing

4 Melting and casting of metals

5 Drying of products

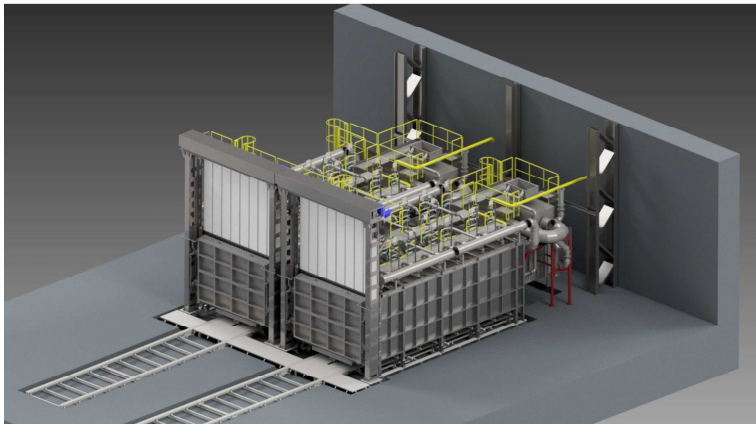
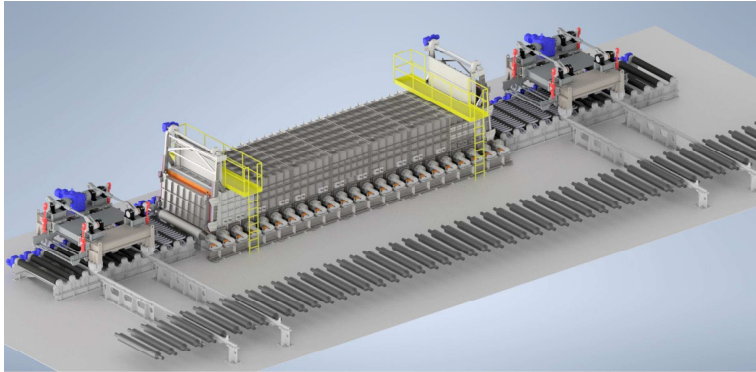


## Design in Autodesk Inventor





## Design in Autodesk Inventor

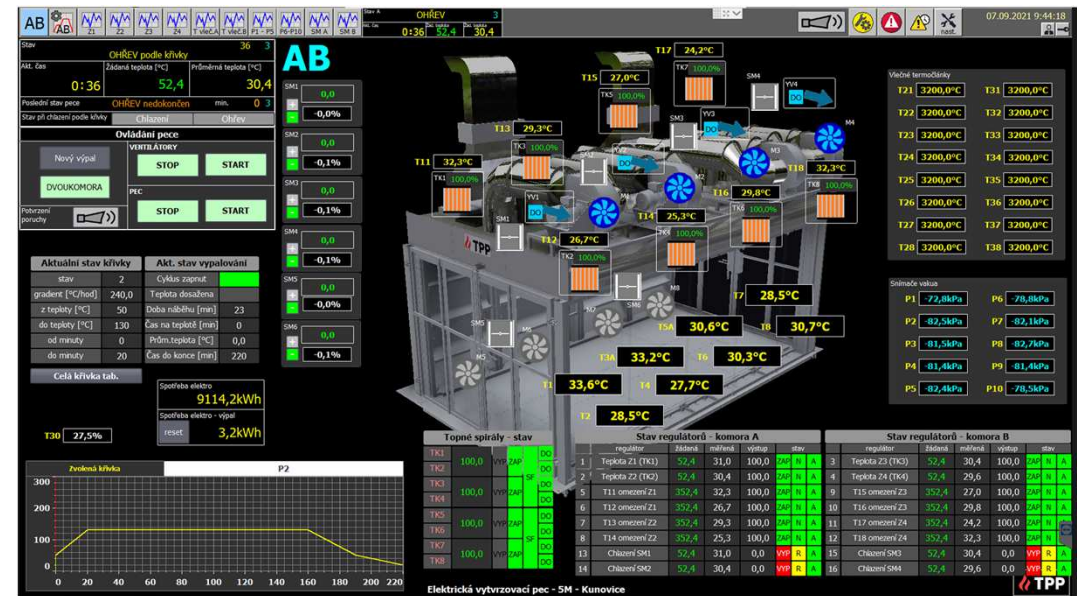






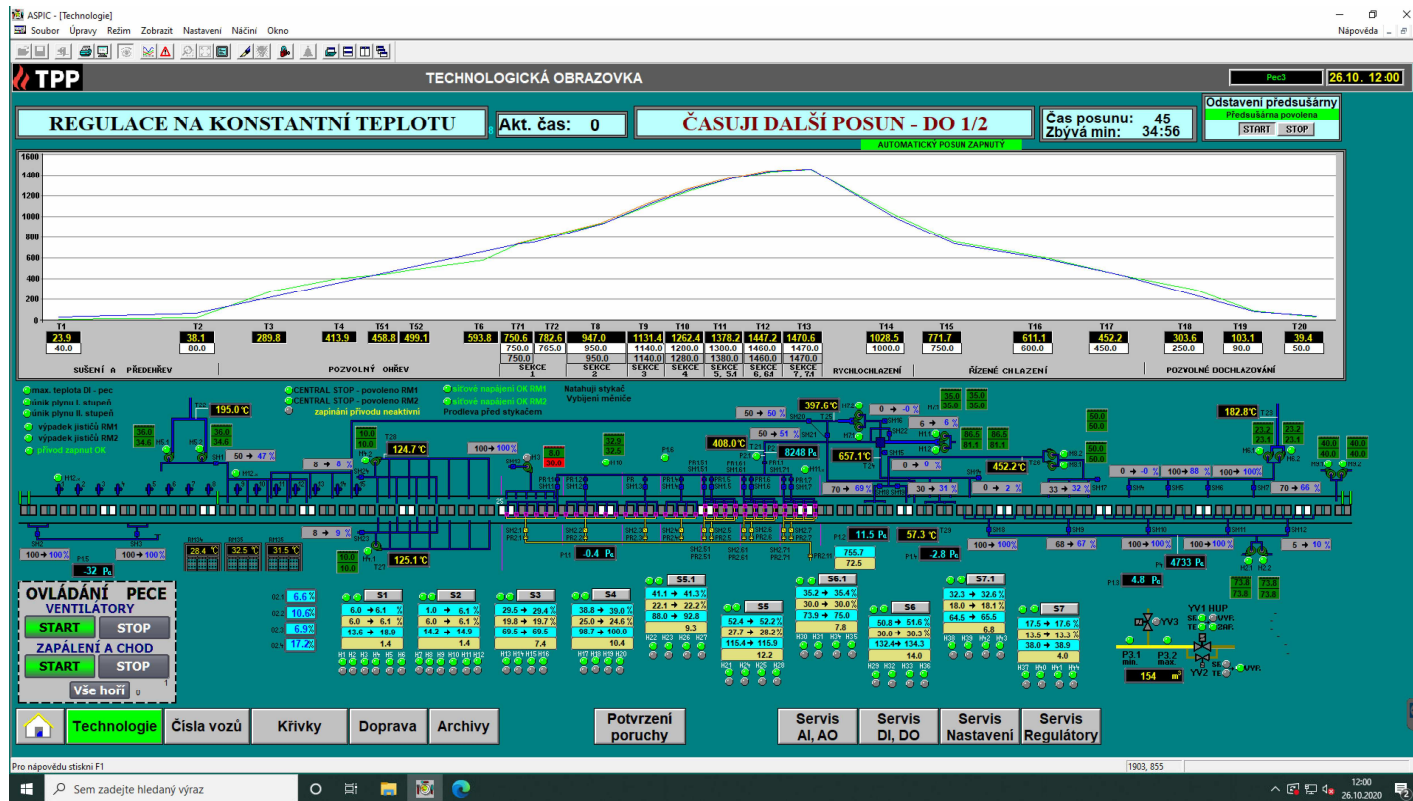
# Visualisation of the control software

- Siemens Simatic or Allan-Bradley control system
- Control of the furnace and thermal process
- Continuous check of all safety parameters and conditions
- Self-diagnostic of entire control system
- Record of the heat treatment parameters with an option of generate protocols
- Data transfer from the furnace control system to the customer's in-house system





# Visualisation of the control software




# Gas and electric furnaces



## Heat treatment of metals

### Furnace customized according to individual customer requirements

- Chamber, bogie hearth, bell type, continuous, rotary hearth and walking beam types of furnaces
- Heating system: electric, natural gas or blast furnace gas
- Homogenization, tempering, annealing, quenching, preheating
- Possibility to use regenerative or recuperative type of burners
- Temperatures up to 1350 °C, charge weight up to 400 t



# Heat treatment of metals

Annealing furnaces (4 pcs) 1150 °C, 15 t





# Heat treatment of metals

Annealing furnace for titanium products 1150 °C, 7 t, according to AMS 2750E



Quenching chamber furnace 1100 °C, 10 t





# Heat treatment of metals

Electric bogie hearth annealing furnace 1150 °C, 5 t



Bell type annealing furnace 1150 °C, 40 t





# Heat treatment of metals

## Selected references

**UNEX a.s., Uničov**

- Annealing furnaces for heat treatment of large weldments

**AL INVEST Břidličná, a.s.**

- Reconstruction of a walking beam furnace for heating slabs

**BOHEMIA RINGS s.r.o., Zámorsk**

- 2 pcs of heating furnaces 40 t with temperature up to 1250 °C
- 4 pcs of bell type annealing furnaces 40 t with temperatures up to 900 and 1150 °C
- Bell type annealing furnace 25 t with temperature up to 900 °C

**Bekaert Hlohovec, a.s.**

- 2 pcs of annealing furnaces with lead bath

**ŽĐAS a.s., Žďár nad Sázavou**

- 8 pcs of heating furnaces for preheating castings for forging 1350 °C
- 4 pcs of annealing furnaces 1150 °C

**Metso Czech Republic, s.r.o.**

- 5 pcs of quenching and tempering furnaces from 10 to 30 t (with rapid cooling for surface hardening of castings)

**KRÁLOVOPOLSKÁ KOVÁRNA, s.r.o.,  
Brno  
Slévárny Třinec, a.s.**

- 4 pcs of annealing furnaces 1150 °C
- Annealing furnace 1150 °C (with rapid cooling for surface hardening of castings)
- Annealing furnace for titanium products AMS 2750E

**Mettis Group, England**





## Firing and drying of technical ceramics

### Gas and electric furnaces and dryers according to individual customer requirements

- Chamber, bogie hearth, bell type, continuous or tunnel types of furnaces
- Firing up to 1800 °C, drying up to 300 °C
- Inside lining made from ceramic fiber, blocks, preshaped and monolithic refractories
- High-velocity burners with central recuperator for preheating of combustion air
- Electric heating with air circulation

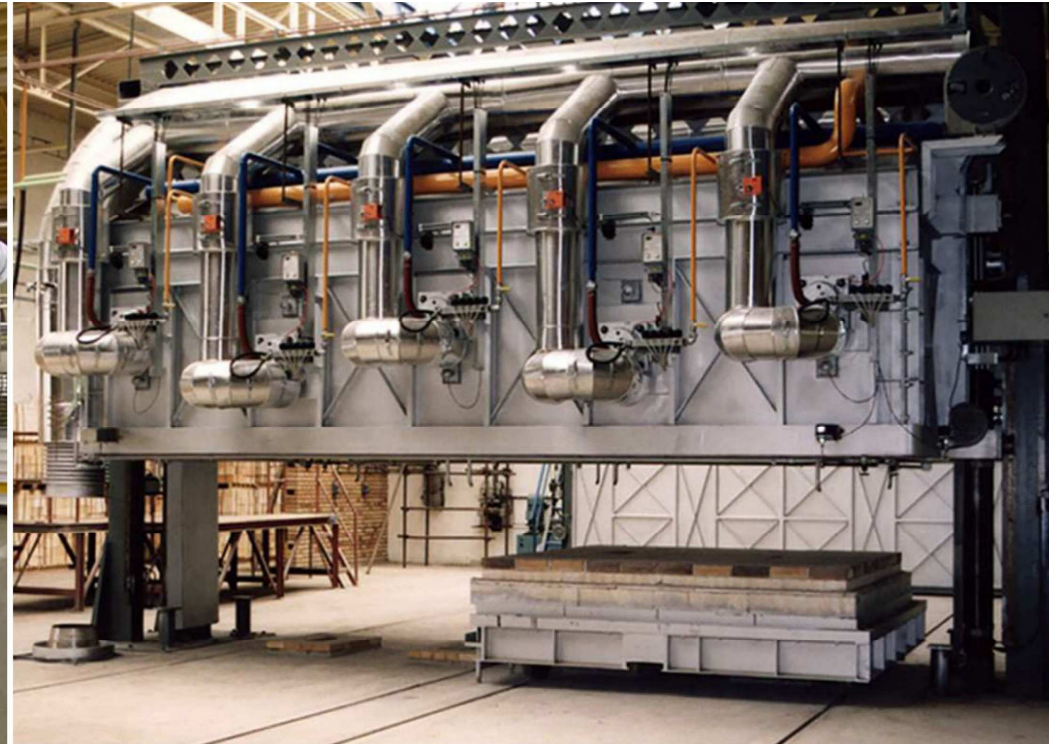


## Firing and drying of technical ceramics

Bell type furnace for firing special ceramics with inert atmosphere 1150 °C



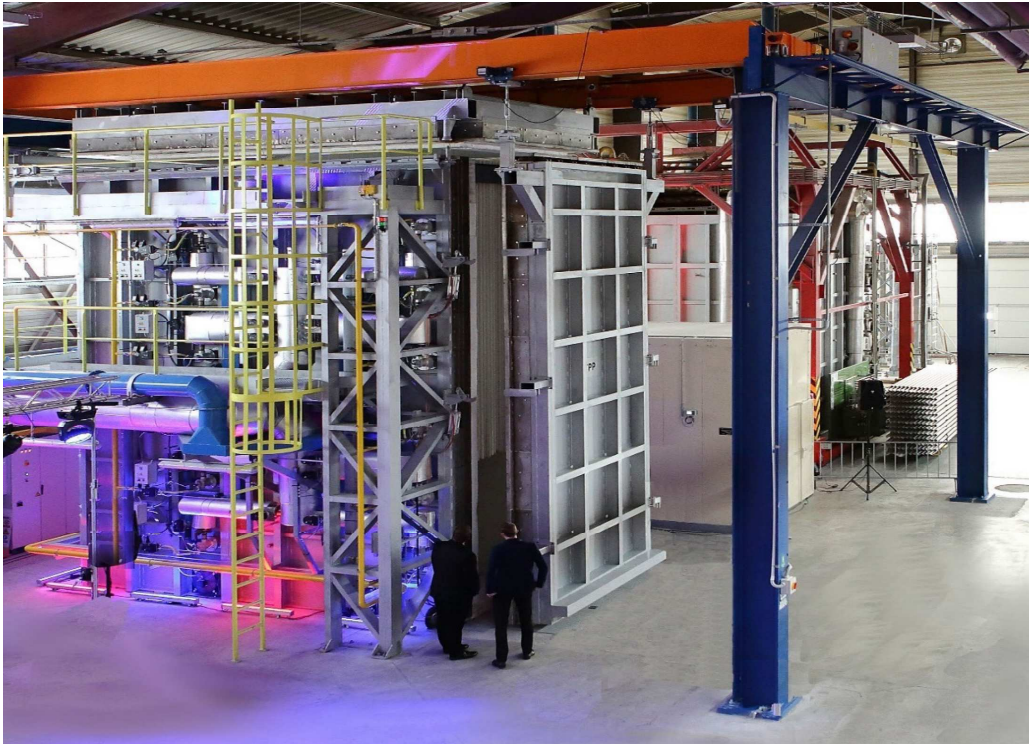
Bell type furnace for firing technical ceramics 1650 °C





## Firing and drying of technical ceramics

Furnace for firing ceramic rollers 1600 °C



Bogie hearth furnace for firing technical ceramics 1100 °C





## Firing and drying of technical ceramics

Tunnel kiln for firing of dinas and fireclay 1550 °C, 160 m length, consumption: fireclay 3.0 MJ/kg, dinas 4.1 MJ/kg





# Firing and drying of technical ceramics

## Dryers





# Firing and drying of technical ceramics

## Selected references

- |   |   |
|---|---|
| <b>BRISK Tábor a.s.</b>                   | ▪ 2 pcs of tunnel furnaces 1700 °C  |
| <b>REFRASIL, s.r.o., Trinec</b>           | ▪ Bogie hearth furnace 1650 °C  |
| <b>Refratechnik Ceramics GmbH</b>         | ▪ Bogie hearth furnace 1800 °C  |
| <b>RMS Košice s.r.o.</b>                  | ▪ Bell type furnace 1700 °C   |
| <b>SLOVMAG, a.s. Lubeník</b>              | ▪ Bell type furnace for magnesite 1800 °C   |
| <b>SEEIF Ceramic, a.s.</b>                | ▪ 2 pcs of tunnel furnaces 1550 °C<br>▪ 2 pcs of chamber furnaces 1550 °C                                       |
| <b>PYROTEK CZ, s.r.o., Blansko</b>        | ▪ 3 pcs of chamber furnaces 1100 °C, 7 t<br>▪ Bell type furnace 1100 °C, 50 t<br>▪ Chamber furnace 1550 °C, 5 t |
| <b>CAPITAL REFRACTORIES s.r.o., Šenov</b> | ▪ 5 pcs of bell type and bogie hearth furnaces 1580 °C  |



# Firing and drying of technical ceramics

## Selected references

- CARBORUNDUM ELECTRITE a.s.**   ▪ Tunnel furnace 1350 °C, bell type furnace 1350 °C, 2 pcs of bogie hearth furnaces 1350 °C, firing of grinding wheels
- LANIK s.r.o., Boskovice**   ▪ Bell type furnace 3 m<sup>3</sup> 1370 °C, bell type furnace 4 m<sup>3</sup> 1340 °C, chamber furnaces 1400 °C, roller furnace 1250 °C, firing of ceramic filters and shapes
- diamorph hob certec s.r.o., Horní Bříza**   ▪ Chamber furnace 1600 °C, roller length 6.5 m, bell type kiln 1600 °C, roller length 5.5 m, 3 pcs of drying chambers, drying and firing of ceramic rollers
- P-D Refractories CZ a.s.**   ▪ 4 pcs of tunnel furnaces 1550 °C, bogie hearth furnace, drying furnaces all for drying and firing of fireclay shapes
- Samri Company Ltd., Korea  
Pyrotek Dubai,  
AE Pyrotek Krasnoyarsk, RU**   ▪ Bell type furnace 3 m<sup>3</sup> 1400 °C, firing of ceramic filters  
▪ Electric bogie hearth furnace 900 °C, 200 kW  
▪ Electric bogie hearth furnace 900 °C, 200 kW



## Hot dip galvanizing

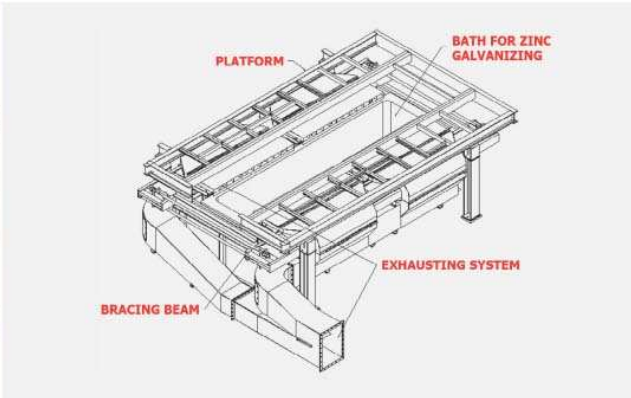
### Furnaces for hot dip galvanizing according to individual customer requirements

- Furnaces for continuous or piece material hot dip galvanizing
- Gas, electric heating
- Steel, ceramic galvanizing bath
- Drying furnaces, extraction, heat exchangers
- Bath length up to 20 m





# Hot dip galvanizing





## Hot dip galvanizing

Gas heating from side of the bath  $7 \times 1.8 \times 2.9$  m,  $14 \times 90$  kW Electric heating from side of the bath  $5,3 \times 1 \times 1,8$  m,  $24 \times 19$  kW



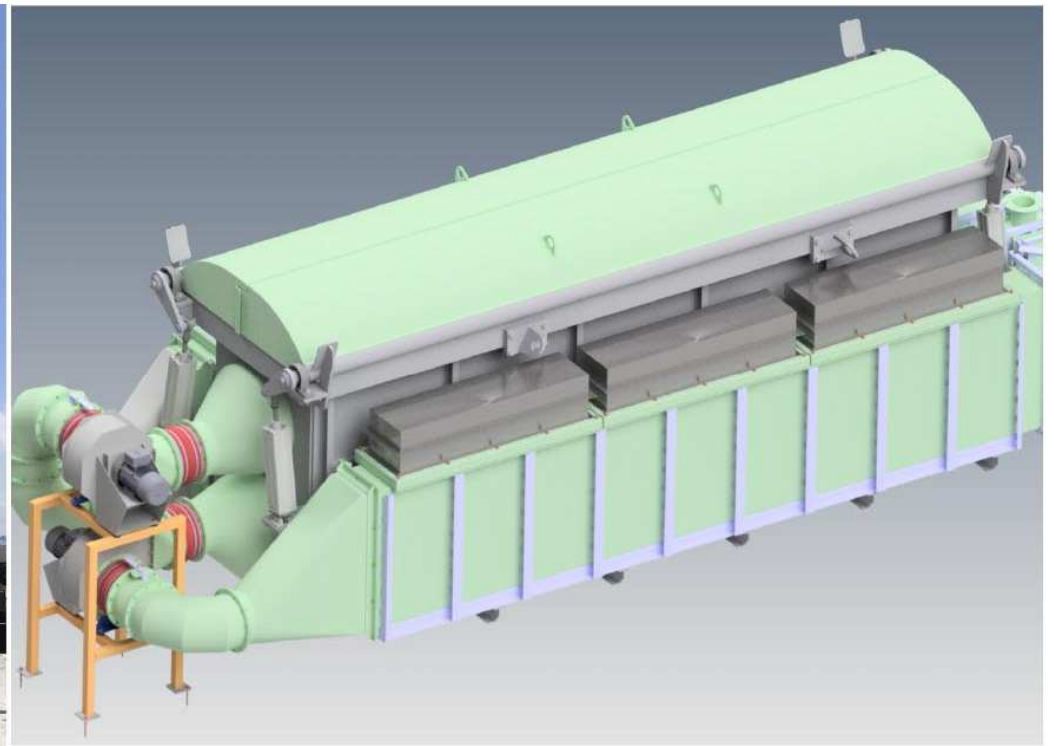


## Hot dip galvanizing

Installation of the furnace 7 x 1,8 x 3,5 m



Electrically heated drying furnace





# Hot dip galvanizing

## Selected references

**Elektrovod Slovakia s.r.o., Žilina, Slovakia**

- Galvanizing furnace with ceramic bath for galvanizing of fasteners, galvanizing furnace with steel bath 9 × 1,4 × 2,3 m, double chamber drying room, equipment for dust extraction from galvanizing furnace

**Bekaert Hlohovec, a.s., Slovakia**

- Galvanizing furnace with steel bath 6 × 1,5 × 1,2 m, drying furnace, annealing furnace, galvanizing furnace with steel bath 6 × 1,5 × 1,5 m, drying furnace, annealing furnace

**KOVOTVAR, production cooperative, Kutý, Slovakia**

- Double-sided galvanizing furnace with ceramic bath, galvanizing furnace with ceramic bath 7 × 1,4 × 1,4 m, dust extraction equipment, reconstruction of drying unit for galvanizing furnace

**WIEGEL GROUP Graben, Höchstadt, Plankstadt**

- Galvanizing furnace with steel bath 7 × 1,8 × 3,5 m

**Großostheim**

- Galvanizing furnace with steel bath 7 × 1,8 × 2,9 m

**Eching**

- Galvanizing furnace with steel bath 15,5 × 1,8 × 3,0 m



# Hot dip galvanizing

## Selected references

- ZIN s.r.o., Hronský Beňadik, Slovakia** ▪ Galvanizing furnace with steel bath 4,5 × 1,2 × 1,8 m, drying chamber furnace, extraction from galvanizing furnace
- Zemědělské družstvo Hraničář  
Loděnice** ▪ Galvanizing furnace with ceramic bath, heat exchanger, drying furnace
- WIEGEL GROUP CZ**
  - Žebrák, Čenkov** ▪ Galvanizing furnace with steel bath 7 × 1,5 × 2,5 m
  - Pravčice** ▪ Galvanizing furnace with steel bath 7 × 1,8 × 2,9 m
- Liberty Ostrava a.s.** ▪ Electric galvanizing furnace with steel bath 5,3 × 1 × 1,8 m, drying furnace
- EKOZINK Praha, s.r.o., Kouřim** ▪ Furnace for melting zinc granules
- ŽDB DRÁTOVNA a.s., Bohumín** ▪ Galvanizing furnace with steel bath 6 × 1 × 1 m, drying furnace



## Aluminium melting and casting

### Furnaces customized according to individual customer requirements

- Melting, casting and holding furnaces
- Stationary, tilting
- Charge from 5 t up to 60 t
- Gas, electric heating, indirect heating option
- Use of regenerative, flat-flame, high-speed or recuperative burners
- Consumption: 540 kWh/t of molten aluminium at 740 °C, with a weight of 45 t of charge



# Aluminium melting and casting

Melting furnace 18 t



Crucible melting furnace 1 t





# Aluminium melting and casting

Melting furnace 20 t with tilting casting furnace 20 t







# Aluminium melting and casting

Melting furnace 45 t with tilting casting furnace 45 t





# Aluminium melting and casting

## Selected references

### AL INVEST Břidličná, a.s., Czech Republic

- Melting furnace TLA 9
- Casting furnace TLA 9
- Melting furnace TLA 15

### Constellium Extrusions Děčín s.r.o., Czech Republic

- Melting furnace 30 t and 38 t with regenerative burners
- Casting furnace 20 t and 30 t
- Tilting casting furnace 20 t with indirect heating
- Melting and holding furnace 22 t
- Melting and holding furnace 45 t

### ŠKODA AUTO a.s., Mladá Boleslav, Czech Republic

- Casting furnace FRANCI 2300



## Service and support



- Consultations and calculations of equipment savings
- Prompt service action
- Remote access to monitoring or diagnostic
- Preventive controls and inspections of the heating system
- Reconstruction of heating systems
- Supply of spare parts for heating and control systems





# Customers





## Customers





# Customers





**Thank you for your attention**

**[www.tpp.cz](http://www.tpp.cz)**

