

Organised by



**European Conference on Heat Treatment**

**Motion in Heat Treatment – Heat Treatment in Motion**

5<sup>th</sup> International Conference on Heat Treatment and Surface Engineering  
in Automotive and Transportation Applications



**June 4<sup>th</sup> – 6<sup>th</sup> 2025, Kaiserstein Palace, Prague, Czech Republic**

# PROGRAM

in cooperation with



30. DTZ 2026

Call for Papers  
November 25<sup>th</sup> – 26<sup>th</sup> 2026

30<sup>th</sup> National Conference

# ON HEAT TREATMENT



30. DTZ 2026  
THE BEST PAPER

SMA – Best Presentation  
Paper Contest

Take part in a contest for the best paper (for authors under 35 years old). The winner will be awarded prize 200,- € and free participation in the 2027 conference. Applications must be dispatched by **September 30<sup>th</sup> 2026**.

Association for the Heat Treatment of Metals  
**ECOSOND s.r.o.**

K Vodárně 531, 257 22 Čerčany, Czech Republic  
Tel./fax: +420 317 777 772-5, tel.: +420 604 273 865  
E-mail: [conference@asociacetz.cz](mailto:conference@asociacetz.cz)  
[www.htconference.cz](http://www.htconference.cz)

## MAIN TOPICS

- Phase transformations and diffusion processes in metals
- Materials for heat treatment, microstructure and properties relationships, distortion in heat treatment
- Equipment and technologies for heat and chemical-heat treatment of metals
- Equipment and technologies for surface heat treatment, rapid heating, CVD, PVD
- Low-pressure processes in heat and chemical-heat treatment
- Modelling and simulation methods in heat treatment
- Materials for 3D printing and the specifics of heat treatment of additive manufactured products
- Heat treatment in upcoming Industry 4.0 - process control, service management, data processing
- Standards and norms applied in heat treatment of metals
- Metallography in heat treatment – new trends, analysis of results and failures, mechanical tests
- Quality assurance, measurement methods for monitoring the heat treatment processes
- Heat treatment of non-ferrous and complex alloys
- Poster section

ECOSOND

ATZK  
ASSOCIATION  
for the Heat Treatment of Metals



## Conference sponsored by

The conference is organized by ATZK – Association for the Heat Treatment of Metals in close cooperation with A3TS, AIM, ASMET, AWT, SVW, VWT and IFHTSE

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## Venue / Accommodation

The Conference will be held in **Prague**, in **Kaiserstein Palace** – the jewel of the lower part of Malostranské Square.

**Address:** Kaiserstein Palace, Malostranské nám. 23/37, 110 00 Praha – Malá Strana

**GPS:** 50.08805206493896, 14.404946154341486

## Prague

Prague, the capital of the Czech Republic, is a city steeped in history and known for its unique blend of Gothic and Baroque architecture. The city's heart is the Old Town Square, home to the famous Astronomical Clock, which dates back to the 15th century. The Charles Bridge, adorned with 30 statues, offers stunning views of the Vltava River. Prague Castle, the largest ancient castle in the world, dominates the city skyline. The city is also renowned for its vibrant nightlife and diverse culinary scene. From its cobblestone streets to its beautiful parks and gardens, Prague offers a fairy-tale experience for every traveler. Enjoy your visit to this enchanting city!

## Kaiserstein Palace

Kaiserstein Palace is a baroque building on the Lesser Town Square in Prague at the foot of Prague Castle. It was the residence of famous important historical figures, today it serves as a venue for social events and cultural activities. You can admire its rich architectural and sculptural decoration, as well as its historical atmosphere.

It has been there even since before St. Nicholas' Cathedral was erected and is a pride of Prague's baroque, protected as cultural heritage by UNESCO. The oldest references to the palace date back to the year 1400.

Kaiserštejn Palace inherited its name from František Helfrid, the Lord of Kaiserštejn (1699), who was the first to carry out extensive building reconstructions. The oldest structural elements, in the form of massive gothic walls, can still be seen within the basement premises, where visitors can enjoy the pleasant atmosphere of a club. The most remarkable interior of the palace is the Crystal Hall on the first floor, with an entranceway made of artificial marble. The ceilings are decorated with stucco of late classicism and baroque. The historical oven is unfortunately a mere decoration today. On the first floor, visitors may see the unique premises of old dining rooms, Marie and Helena, with wooden decorated ceilings (1616). The largest hall is the Ema Destinová concert hall on the second floor. The terrace offers a breathtaking and absolutely unexpected view of the Prague Castle.

More info

<https://www.prague.eu/en>

<https://www.praha.eu/jnp/en/index.html>

<https://www.kaiserstejnskipalac.cz/en>

# www.atzk-echt2025.com

## Committees

### Conference Chairman

- **VRÁBLÍK Filip**, ATZK, z.s. / Czech Republic

### Co-Chairman

- **JURČI Peter**, STU Trnava / Slovak Republic
- **PELLIZZARI Massimo**, University of Trento / Italy

### International Committee

- **COLÁS Rafael**, Universidad Autónoma de Nueva Leon / Mexico
- **FECHTE-HEINEN Rainer**, Leibniz-IWT / Germany
- **FELDE Imre**, Óbuda University / Hungary
- **FRAME Lesley**, University of Connecticut / USA
- **GU Jianfeng**, Shanghai Jiao Tong University / China
- **HOCK Stefan**, IFHTSE / Switzerland
- **KUNTZMANN Bernard**, SVW, Listemann AG / Switzerland
- **LÖSER Klaus**, AWT / Germany
- **MACKENZIE Scott**, Quaker Houghton Inc / USA
- **MORGANO Enrico**, AIM / Italy
- **OKUMIYA Masahiro**, Toyota Technological Institute / Japan
- **SCHNEIDER Reinhold**, ASMET, Univ. of Appl. Sciences Upper Austria / Austria
- **SOMERS Marcel**, Technical University of Denmark / Denmark
- **STOCKY Christophe**, A3TS, R&D centre of ABS Acciaierie Bertoli Safau / France
- **TROELL Eva**, RISE IVF Research Institutes of Sweden / Sweden
- **VANDEWIELE Bernard**, VWT / Belgium
- **VITRY Veronique**, A3TS / France
- **WALDENMAIER Thomas**, AWT / Germany
- **YAN Mufu**, Harbin Institute of Technology / China

### Local Organising Committee

- **DLOUHÝ Ivo**, VUT in Brno / Czech Republic
- **HOŠEK Václav**, ECOSOND s.r.o. / Czech Republic
- **KŘÍŽ Antonín**, UJEP / Czech Republic
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- **MUSILOVÁ Alexandra**, ATZK, z.s. / Czech Republic
- **NOVÁK Pavel**, UCT in Prague / Czech Republic
- **NOVÁK Viktor**, MEDUNA vacuum hardening shop s.r.o. / Czech Republic
- **PRIKNEROVÁ Petra**, PRIKNER – HT of Metals / Czech Republic
- **ŠUCHMANN Pavel**, COMTES FHT, a.s. / Czech Republic



## MEETING with Mr. Stefan Hock

### SPECIAL MEETING ON PRESENTATIONS

*Slides which help the audience follow the talk - Getting research results efficiently across to the attendee's minds.*

We are very glad to announce the talk given by legendary speaker, who listens and connects the people from all over the world.

The meeting takes place in the Meeting's Room on Thursday from 4 p.m.



## SHOWCASE – the face of heat treatment of metals in the Czech meadows and groves

On the occasion of the European Heat Treatment Conference ECHT 2025, we invite you to visit a small showcase located near the main entrance of the Kaiserstein Palace. Its aim is to present heat treatment plants, processes, or installations from the Czech Republic and Slovakia in an unconventional and engaging way.

During the first two days of the conference, you – the participants – will have the opportunity to vote for the most impressive or interesting showcased piece. Simply scan the QR code to cast your vote. Each participant has one vote, but you may change it at any time until June 5 at 18:00.

The three most popular pieces will be announced at the Gala Evening on June 5.

Thank you for taking part and helping us highlight outstanding contributions from our region!



## Engage with the Speakers – Submit Your Questions

Scan this QR code to submit your questions and comments related to the current or immediately preceding presentation. Please use this channel exclusively for questions about the ongoing or just-concluded lecture. All presentations share the same discussion thread.

We look forward to your participation!

## Registration Desk Hours

03. 06.	<b>Tuesday</b>	16:00 – 18:00
04. 06.	<b>Wednesday</b>	08:00 – 16:00
05. 06.	<b>Thursday</b>	08:30 – 16:00
06. 06.	<b>Friday</b>	08:30 – 10:00

## Wednesday

4. 6. 2025

## SESSION A MAIN CONFERENCE HALL

Opening Ceremony

**9:00 Introduction and Welcome**  
**Filip Vráblík**, ATZK President

Keynote lectures

**9:10 Utilization of ann supporting heat treatment proscesse**  
I. Felde, Obuda University / IFHTSE, Hungary

Opening of the Exhibition

## Digitalization - Industry 4.0, Artificial Intelligence (AI) Quenching technology, equipment and quenchants

**Chairpersons:** **Reinhold Schneider** – IFHTSE / University of Applied Sciences Upper Austria  
**Filip Vráblík** – ATZK

**9:50 From automation to intelligent autonomy: AI and Edge Control in sustainable heat treatment**  
P. Sherwin, Eurotherm by Watlow, United States

**10:10 Analysis of effects due to stepped quenching during case hardening of gears**  
M. Hunkel, Leibniz-Institut für Werkstofforientierte Technologien – IWT, Germany

**10:30 Water spray quenching – a new process option for intensive quenching of serial parts**  
V. Heuer, ALD Vacuum Technologies GmbH, Germany



☕ 10:50 – 11:10 Coffee Break ☕  
1<sup>st</sup> Floor by Exhibitions

- 11:10 Limitations of standard probes for the measurement of spray quenching**  
R. Goldstein, Fluxtrol, Inc., United States
- 11:30 Modern quenching oils for low-pressure carburizing processes requirements – properties – applications**  
R. Braun, BURGDORF GmbH & Co. KG, Germany
- 11:50 Vacuum oil quenching system : an enabler for treatment of massive pieces**  
C. Villard, ECM Technologies, France
- 12:10 Cooling curve analysis of an aqueous polyvinylpyrrolidone (PVP) polymer quenchant as a function of fluid velocity**  
S. Gallegos Cantu, Quaker Houghton, United States
- 12:30 Flexible and modular multiprocess installations**  
K. Beaujon, ECM Technologies, France

🍴 12:50 – 14:00 Lunch 🍴  
1<sup>st</sup> and 2<sup>nd</sup> Floors

#### Thermochemical Treatments Treatment of Additive Manufactured Parts

**Chairpersons:** Massimo Pellizzari – IFHTSE  
Pavel Šuchmann – COMTES FHT, a.s.

- 14:00 Microstructure and mechanical properties of low-carbon steels quenched and tempered after gas carburizing, carbonitriding, and nitriding**  
K. Kawata, Kawata PE Office, Japan
- 14:20 Effectiveness of surface activation in correlation with surface finishing condition for expanded austenite formation during plasma nitrocarburizing of AISI 316L**  
S. M. Jafarpour, Technische Universität Bergakademie Freiberg, Germany
- 14:40 Influence of HIP on the mechanical properties of selected metallic materials**  
T. Čegan, VSB - Technical University of Ostrava, Czech Republic
- 15:00 Center of excellence for medical applications**  
J. Stanislav, JST Consultancy, Czech Republic

- 15:20 Heat treatment strategies for tailoring the microstructure of aluminium matrix composites fabricated via LPBF**  
**Candidate for Young Speaker Aichelin Award**  
M. Bona, Politecnico di Milano, Italy

☕ 15:40 – 16:00 Coffee Break ☕  
1<sup>st</sup> Floor by Exhibitions

#### Heat Treatment of Steels, Non Ferrous and Complex Alloys

**Chairpersons:** Pavel Novák – University of Chemical Technology in Prague  
Bernard Kuntzmann – Listemann AG


- 16:00 Grades for transmission parts with improved resistance to fatigue and in-use softening**  
T. Picot, Arcelormittal Maizieres Research SA, France
- 16:20 Intermetallic composites as wear resistant materials**  
P. Novák, University of Chemical Technology in Prague, Czech Republic
- 16:40 Mechanical properties of 6000 series aluminum substrates joined together using a flux-free brazing technology in a graphite vacuum furnace**  
A. Hadian, University of Applied Science Northwestern Switzerland, Switzerland
- 17:00 Effect of heat treatment on the microstructure and properties of FeSi-NiAl composite prepared by induction melting**  
V. Kaloč, VSB - Technical University of Ostrava, Czech Republic
- 17:20 Innovations in vacuum aluminum brazing furnaces for contemporary EV thermal management systems**  
G. Valsecchi, TAV VACUUM FURNACES, Italy

#### SESSION B MEETING'S ROOM

**Chairpersons:** Martin Kuřík – Czech Technical University in Prague

- 14:00 CQI-9 Guideline is an opportunity or a burden?**  
S. Rašková, Czech Society for Quality, z.s., Czech Republic
- 14:20 Effect of laser shock peening and hot isostatic pressing on the microstructure of MoNiCr nickel based alloy**  
D. Bricin, Research Centre Řež, Czech Republic

- 14:40 MoNiCr nickel alloy for energy industry applications produced via additive manufacturing**  
D. Nacházelová, COMTES FHT a.s., Czech Republic
- 15:00 Effect of heat treatment on mechanical properties, microstructure and corrosion resistance of M789 steel produced by LPBF method**  
**Candidate for Young Speaker Aichelin Award**  
A. Málková, University of West Bohemia in Pilsen, Czech Republic
- 15:20 Cleaning for heat treatment**  
S. Kozdroń, Quaker Houghton, Poland

 **15:40 – 16:00 Coffee Break**   
1<sup>st</sup> Floor by Exhibitions

**17:40 END of the first day**

**19:00 – 20:00 Visit to St. Nicholas Church  
with Concert**



**Aichelin Young Speaker Award**

- by a speaker under 35 years of age
- on an issue of high scientific or commercial relevance
- with implication for the industrial practice
- in a clear and comprehensible fashion
- accompanied by concise and plausible visualization
- with poised and competent answers to any questions from the audience

**The award is endowed with the sum of 1 500 €.**

**Thursday**



**5. 6. 2025**

## MAIN CONFERENCE HALL

### Surface Hardening (Induction, Laser, Electron Beam) Hydrogen in Heat Treatment Industry

**Chairpersons:** **Anja Buchwalder** – Fachhochschule Northwestern Switzerland FHNW  
**Václav Hošek** – Ecosond s.r.o.

- 9:00 Lasers in additive manufacturing**  
S. Němeček, University of West Bohemia in Pilsen, Czech Republic
- 9:20 Laser hardening of complex geometries with dynamic beam shaping and temperature field control**  
M. Seifert, Fraunhofer IWS Dresden, Germany
- 9:40 Homogenization of the element distribution during wire electron beam cladding of CuAl8 onto AlSi10Mg**  
P. Hengst, Technische Universität Bergakademie Freiberg, Germany
- 10:00 Hydrogen susceptibility linked to the mechanical properties and microstructural aspects of common steel for future decarbonated mobility**  
S. Catteau, ABS Centre Métallurgique, France
- 10:20 Hydrogen in high-pressure gas quenching: creating opportunities**  
D. Kraus, Aichelin Holding GmbH, Austria

 **10:40 – 11:10 Coffee Break**   
1<sup>st</sup> Floor by Exhibitions

### Numerical Simulation in Heat Treatment

**Chairpersons:** **Imre Felde** – IFHTSE  
**Viktor Novák** – MEDUNA vacuum hardening plant

- 11:00 Numerical modelling of the carburization - quenching process in steels**  
**Candidate for Young Speaker Aichelin Award**  
B. A. Salim, GeePs-CentraleSupélec and LSPM-USPN, France
- 11:20 CFD simulation of air quenching**  
**Candidate for Young Speaker Aichelin Award**  
A. Cardon, Safran Tech, France

- 11:40 Optimizing gas flow in a furnace through numerical simulation: A case study using qobeo®**  
L. Sardo, Sciences Computers Consultants, France
- 12:00 Optimal design of steel grades to meet a target hardenability profile through evolutionary computation and autoencoders**  
V. Colla, Scuola Superiore Sant'Anna, TeCIP Institute, Italy
- 12:20 Importance of radiative heat transfer in industrial furnaces: insights from numerical simulation of single and multi-part heating**  
M. Binagot, Transvalor S.A, France

 **12:40 – 14:00 Lunch**   
1<sup>st</sup> and 2<sup>nd</sup> Floors

### Testing and Characterization of Heat Treated Parts

**Chairpersons:** **Thomas Waldenmaier** – Robert Bosch GmbH  
**Klára Tesárková** – Bodycote HT s.r.o.

- 14:00 Non-destructive evaluation of layers after thermo-chemical treatment**  
K. Tesárková, Bodycote HT s.r.o., Czech Republic
- 14:20 Mössbauer spectroscopy and its application to the characterization of heat treated parts**  
J. Pechoušek, Palacký University Olomouc, Czech Republic
- 14:40 Phosphorus embrittlement in austenite during heat treatment of an air hardening steel**  
**Candidate for Young Speaker Aichelin Award**  
D. David, University of Applied Sciences Upper Austria, Austria
- 15:00 Metallurgical characterization of electrodeposited hard chromium from a trivalent inorganic electrolyte**  
R. Le Barbenchon, La Rochelle Université, France
- 15:20 Reduction of distortion by using of fixture hardening machines**  
H. Juretzko, HEES GmbH & Co KG, Germany

 **15:40 – 16:00 Coffee Break**   
1<sup>st</sup> Floor by Exhibitions

## 16:00 – 16:30 MEETING ON PRESENTATIONS MEETING'S ROOM

Slides which help the audience follow the talk - Getting research results efficiently across to the attendees' minds  
S. Hock, IFHTSE, Switzerland

## 16:00 – 17:00 POSTER SESSION BURGDORF AWARD

**High surface hardening depths in large rolls and how specially adapted converter technology helps to achieve them**  
Ch. Tränkner, ITG Induktionsanlagen GmbH, Germany

**Annealing treatment and microstructure analysis on the electroplating Ni-B alloys prepared in TMAB enriched watts baths**  
I. S. Yu, National Dong Hwa University, Taiwan

**Local temperatures in mechanical alloying**  
J. Jeníček, University of Chemistry and Technology, Czech Republic

**Changes in mechanical properties of medium manganese steel after forming and heat treatment**  
R. Leták, University of West Bohemia in Pilsen, Czech Republic

**Press-hardening of high carbon low-density steels**  
F. Votava, University of West Bohemia in Pilsen, Czech Republic

**Analysis of heat treatment effects on the microstructure and mechanical properties of 3D-printed and conventionally manufactured H11 steel**  
P. Fialová, University of West Bohemia in Pilsen, Czech Republic

**Innovative heat-treatment for manufacturing structural parts from high strength aluminum alloys**  
M. Kumar, EBNER Industrieofenbau GmbH, Austria

**17:40 END of the second day**

## 17:30 Guide Tour at the Restaurant Cervený Jelen

**19:00 – 22:00 Gala Dinner**  
Restaurant Cervený Jelen

## MAIN CONFERENCE HALL

### 9:00 – 11:00 Panel Discussion

**Chairpersons:** **Reinhold Schneider** – IFHTSE / University of Applied Sciences Upper Austria  
**Filip Vráblík** – ATZK

#### R&D

Massimo Pellizzari, AIM / IFHTSE, Italy  
 Masahiro Okumiya, JSHT / IFHTSE / Toyota Technological Institute, Japan

#### Heat Treatment Companies

Thomas Waldenmaier, Robert Bosch GmbH / AWT, Germany  
 Yoichi Watanabe, Nihon Parkerizing Co., LTD., Japan

#### Steel Industry

Francesca Maurigh, AIM / Acciaierie Bertoli Safau, Italy  
 Shunsuke Toyoda, JSHT, Japan

#### Car Manufacturers

Martin Hrdlička, Škoda Auto a.s., Czech Republic  
 Tsuyoshi Sugimoto, JSHT / National Institute of Technology, Asahikawa College / formerly Nissan Motor Corporation, Japan

☕ 11:00 – 11:20 Coffee Break ☕  
 1<sup>st</sup> Floor by Exhibitions

### Sustainability in Heat Treatment and Surface Engineering Energy Savings and CO2 Reduction, Energy Efficiency Enhancement

**Chairpersons:** **Klaus Löser** – ALD Vacuum Technologies GmbH  
**Václav Hošek** – Ecosond s.r.o.

- 11:20 Heat treatment path towards sustainable and CO2-neutral manufacturing through digital tools and renewable fuels**  
**Candidate for Young Speaker Aichelin Award**  
 P. Kus, Air Products PLC, United Kingdom
- 11:40 High-temperature heat pumps for waste heat upgrading in industrial heat treatment**  
 J. Špale, Czech Technical University in Prague, Czech Republic

- 12:00 Innovations in high power laser cladding: the COAXquattro and Flextrack systems for enhanced manufacturing efficiency**  
 L. Toma, Fraunhofer IWS Dresden, Germany
- 12:20 Prediction of power and energy demand for hybrid furnaces to optimize the use of fluctuating green energy sources**  
 M. Hellwig, Ipsen International GmbH, Germany
- 12:40 How can low pressure carburizing save your money and increase process efficiency?**  
 M. Bazel, SECO/WARWICK S.A, Poland
- 13:00 Energy and CO2 emission evaluation of a vacuum gas quenching process**  
 B. Özdeşlik, Sistem Teknik Industrial Furnaces, Turkey
- 13:20 Announcement of the Poster Award winner, sponsored by Burgdorf GmbH**
- 13:30 Announcement of the Aichelin Young Speakers Award winner, sponsored by Aichelin of Mödling**
- 13:40 Announcement of the European Conference on Heat Treatment 2026**
- 13:45 Closing Ceremony**
- 13:50 End of the Conference**

🍴 13:50 – 14:30 Lunch 🍴  
 1<sup>st</sup> and 2<sup>nd</sup> Floors



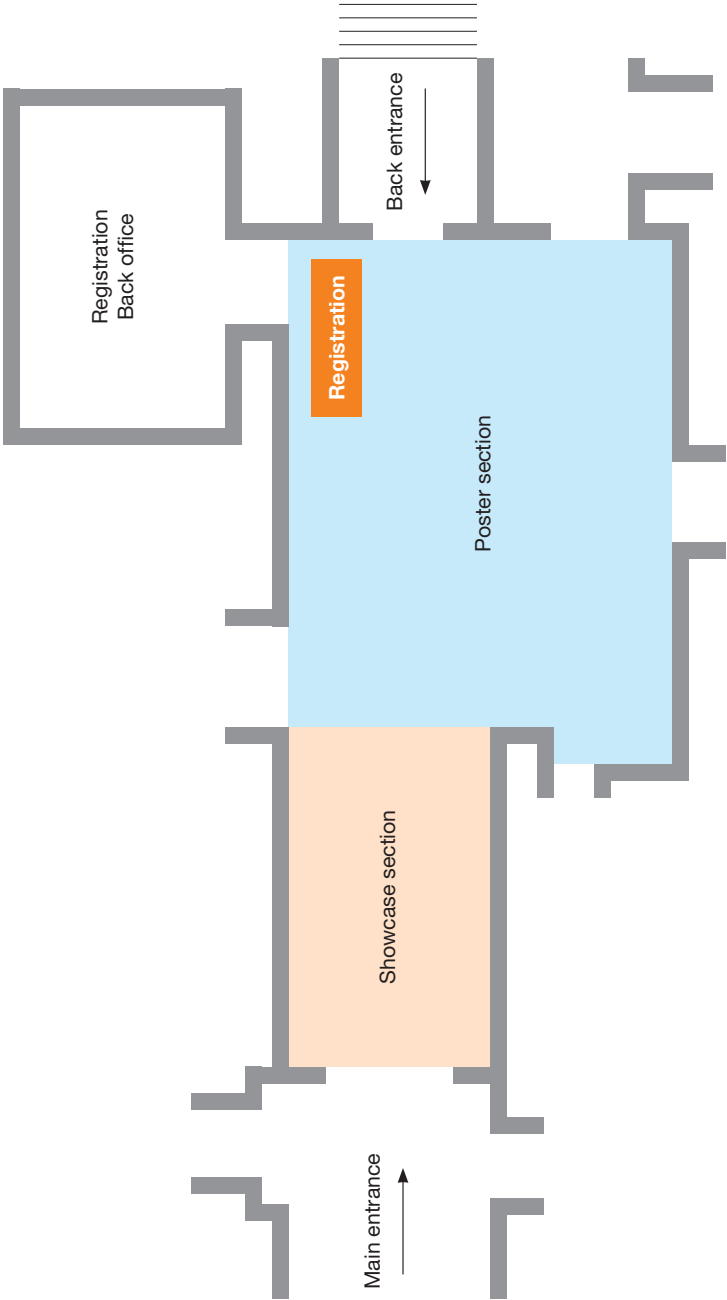
### Burgdorf Poster Award

The best posters will be awarded and announced during the conference and in the reports. We value posters equally as oral presentations. They give you the chance to present your results, graphs and pictures in a non-transient form and discuss them with the participants during the dedicated poster session or any other time.



# Kaiserstein Palace

Ground floor



# List of Exhibitors 2025

1<sup>st</sup> Floor





### Stand 1

#### Fours Industriels BMI

[www.bmi-fours.com](http://www.bmi-fours.com)

BMI is a French designer and manufacturer of vacuum furnaces for the heat treatment of steels. With almost 80 years of experience and over 1500 units in operation worldwide, BMI has proven its expertise in providing premium heat treatment solutions.

Our in-house Engineering office and Metallurgical laboratory allow us to offer our customers tailor-made solutions (design, size, process...) in order to meet their most specific requirements.

We have extensive knowledge of the aerospace and medical sectors for which we comply with the industry standards (AMS2750...). We also have a strong customer base in commercial heat treatment, general industry, tooling, automotive etc.



#### IVA Schmetz GmbH

[www.iva-schmetz.de](http://www.iva-schmetz.de)

IVA Schmetz GmbH is specialist for vacuum and atmosphere furnaces. Each of our furnaces is unique!

We offer reliable heat treatment solutions to our customers in the aerospace, wind energy, automotive, steel and many other industries. Whether for IVA Schmetz or manufacturer-independent furnaces.

With regular maintenance, modernization, and replacement of spare parts, we support you at any time, worldwide.



### Stand 2

#### Air Products spol. s r.o.

[www.airproducts.cz](http://www.airproducts.cz)

Air Products is a world-leading industrial gases company operating for over 80 years, serving energy, environmental, and emerging markets. We provide essential gases like oxygen, nitrogen, argon, hydrogen, and helium to various industries, improving efficiency and reducing emissions. Our high-purity gases, equipment, and technical support enhance product quality, cut costs, and boost production. One of our focuses is to support heat treaters and manufacturers with tailored solutions for processes like annealing, brazing, carburizing, and nitriding.

### Stand 3

#### REALISTIC, a.s.

[www.realistic.cz](http://www.realistic.cz)

REALISTIC, a.s., based in Karlovy Vary, is a leading manufacturer of industrial furnaces with a history dating back to 1927. The company specializes in equipment for heat and thermo-chemical metal processing, porcelain and ceramic firing, preheating before forging, non-ferrous metal melting, and drying furnaces.

REALISTIC holds an ISO 9001 quality certificate from the prestigious Bureau Veritas organization. Its key products include furnaces for the engineering, forging, foundry, automotive, and ceramic industries. Our company emphasizes tradition, quality, and the reliability of its products and services.



### Stand 4

#### Cronite CZ

[www.cronite-group.com](http://www.cronite-group.com)

Cronite Group is global leader in designing and production of Heat Treatment Fixtures as well as furnace spare parts (fabricated, cast, composite).

We can provide you the optimal solution meeting your requirements. Cronite Group has a global presence, supported with several production sites, own R&D center and 20 designers.



## Stand 5

### BURGDORF GmbH & Co. KG

[www.bongroup.de](http://www.bongroup.de)

The companies BURGDORF GmbH & Co. KG and OSMIROL GmbH are located in Stuttgart, Germany. They have been working for more than 75 years exclusively in the field of heat treatment of metals, developing all kind of quenchants, cleaners and anticorrosion products - without salts and gases. Nüssle GmbH & Co. KG is located in Nagold / Germany and is also acting as an expert in the field of heat treatment and is the worldwide leading company in the development of high-quality protective paints (stop-off paints) for carburizing, nitriding, annealing and sealing processes.

The companies are partner of the automotive industry and its suppliers, the screw, spring and large gear industries, of machine construction and plant engineering companies, the forging industry and furthermore of commercial heat treaters. The focus of activities is on product development, on application technology and process consultancy but also in supporting laboratory tests and providing internal trainings. The company group is involved in international research projects.



## Stand 6

### ITG Induktionsanlagen GmbH

[www.itg-induktion.de](http://www.itg-induktion.de)

ITG Induktionsanlagen GmbH is a leading manufacturer of induction heating systems, offering complete induction solutions, e.g. for hardening, annealing, melting, forging, or coating. Our core competence is the implementation of individual customer requirements into marketable solutions – with the experience of many years of intense development and the realisation of a wide variety of processes and energy-optimised systems. In addition to complete induction systems, we also offer frequency converters, coils, and spare parts. And we are your contact for maintenance and service, process development and rental converters!

As part of the SYSTEC Karlstadt group, ITG has access to an above-average level of know-how and service from various business areas and uses these synergies for an even better implementation of our customers' requests.



## Stand 7

### ROTANEO s.r.o.

[www.rotaneo.sk](http://www.rotaneo.sk)

- Supply of graphite parts as heating rods, bridges, transitions, tables, brackets, basket-shaped heating elements, etc. If the customer does not have the drawing documentation, we will draw the individual parts of the furnace on request.
- Supply of graphite insulation materials and CFC elements: insulation boards, soft insulation felt, graphite foil, CFC elements (plates, screws, nuts)
- Ceramic and molybdenum elements for vacuum furnaces: corundum ceramics (electrical insulator), molybdenum wires, rods, brackets, plates
- Service and repair of vacuum furnaces (in cooperation)

For each individual project, we can offer our customers a flexible approach – from the inspection of the vacuum furnace and the preparation of a quotation through the completion of the drawing documentation, the manufacture and supply of spare parts to expert advice. In cooperation we also offer installation of spare parts and furnace servicing.



## Stand 8

### Transvalor S.A.

[www.transvalor.com](http://www.transvalor.com)

Transvalor is a leading player simulation software field for material forming processes, covering metal casting, solidification, forging, heat treatment, welding, and brazing. Thousands of users worldwide trust Transvalor, whose solutions deliver significant added value in engineering and production across a wide range of industries, including automotive, aerospace, energy, heavy industry, medical, watchmaking, and many more.



## Stand 9

### Nippon Kornmeyer Carbon Group GmbH

[www.nk-carbon.com](http://www.nk-carbon.com)

Engineered Carbon Solutions. Since 1968, the Kornmeyer family has been supplying and innovating the carbon-based materials market. Today, Nippon Kornmeyer Carbon Group (NKCG) is a company jointly operated by the shareholders of Kornmeyer Carbon-Group (Germany) and Nippon Carbon Co. Ltd. (Japan), a Tokyo stock exchange listed carbon manufacturer. NKCG specializes in design, simulation, manufacturing, coating, purification and technical support of carbon- and ceramic-based materials for companies in Europe, Middle-East, Africa, Asia, and the Americas. Key industries served cover the segments: industrial, metals, heat treatment, automotive, solar (photovoltaic), semiconductor and aerospace.

## Stand 10



### Hi-Tech engineering s.r.l.

[www.hitecheng.com](http://www.hitecheng.com)

Hi-Tech engineering designs and manufactures heat treatment installations for raw parts in steel and aluminium alloys. Roller type furnaces with automatic loaders, batch type furnaces with charging machines, quench systems in oil, polymer, water, air. Installations are compliant with AMS2750, CQI-9 requirements. Complete turnkey systems, compatible with existing equipment, spaces and conditions. Feasibility tests. Assistance within 24-48 hours.



## Stand 11

### TAV VACUUM FURNACES SPA

[www.tav-vacuumfurnaces.com](http://www.tav-vacuumfurnaces.com)

TAV VACUUM FURNACES SPA designs and manufactures vacuum furnaces for industry and research worldwide in a wide range of heat treatments for different materials. They are mainly applied in the following industries: production of heat exchangers, aviation/aerospace, automotive, IGT (industrial gas turbine) industry, additive manufacturing, commercial heat treatment, component sintering industry (medical, precision mechanics, optics, fashion) and R&D laboratories.

## Stand 12



### Eurotherm By Watlow

[www.watlow.com](http://www.watlow.com)

Watlow and Eurotherm provide the industry's most advanced, integrated thermal systems - combining precision heaters, intelligent control, energy-efficient power and actionable data intelligence to optimize performance, compliance, and sustainability in complex industrial environments.

## Stand 13



### HTS vacuum furnaces Srl

[www.htsfurnaces.com](http://www.htsfurnaces.com)

HTS Vacuum Furnaces Srl specializes in the design and production of vacuum furnaces for heat treatments. With advanced know-how and cutting-edge technological solutions, HTS provides high-performance systems for industries such as aerospace, automotive, energy, and precision engineering.





## Stand 14

### AICHELIN Group

[www.htsfurnaces.com](http://www.htsfurnaces.com)

The AICHELIN Group, part of Berndorf AG, is a leading global provider of heat treatment solutions headquartered near Vienna, Austria. Its portfolio includes industrial furnaces, heating systems, control and automation solutions, and Industry 4.0 services. Founded in 1868, AICHELIN operates through brands like AFC-Holcroft, SAFED, BOSIO, and NOXMAT, with subsidiaries in Austria, Germany, Slovenia, France, Türkiye, China, India, and the USA. A sales network in 22 countries completes the Group's global presence.

## Stand 15



### ALD Vacuum Technologies GmbH

[www.ald-vt.com](http://www.ald-vt.com)

ALD Vacuum Technologies designs, engineers, and produces advanced vacuum metallurgy, heat treatment and additive manufacturing furnace systems involving many different technologies. Close cooperation with well-known manufacturers and OEMs have strengthened ALD's capabilities as a supplier of key technologies to demanding aviation, power generation, environmental, photovoltaic and automotive markets.

ALD is part of AMG Critical Materials N.V.

With our ModulTherm® system, we enable vacuum heat treatment in large-scale production with a correspondingly high level of production and process flexibility. The DualTherm® system is ideal for smaller production quantities using comparable system technology. For integrating the heat treatment directly into the production chain (one-piece flow) or for the heat treatment of small batches of components (small batch production), we recommend our SyncroTherm® system. ALD offers individual solutions for the best economic performance with worldwide care and maintenance service of high-quality plants for their entire lifecycle.



## Stand 16

### Vakuum Servis s.r.o.

[www.vakuum-servis.cz](http://www.vakuum-servis.cz)

Vakuum servis is provider of state-of-the-art industrial degassing furnaces for professional heat treatment of materials in UHV.

- Ultra purity of your materials after degassing
- Suitable for heat treatment in UHV up to 1300°C (degassing, vacuum soldering, annealing)
- Configurable system with up to 3 heating zones with 2°C temperature setpoint precision

## Stand 17



### COMTES FHT a.s.

[www.comtesfht.cz](http://www.comtesfht.cz)

COMTES FHT a.s. is an engineering and R&D company focusing on metallurgy, materials development, and testing. As a technology service provider and accredited laboratory, we work with over 100 research staff and technicians for well-known companies such as Apple, Volkswagen, Schaeffler or Doosan. We also participate in international R&D projects together with prestigious universities and research institutes worldwide. We place great emphasis on practical solutions to technical problems. Our mission is to be a reliable R&D partner of production companies.

## Stand 18



### ELTRO GmbH

[www.eltropuls.de](http://www.eltropuls.de)

ELTROPULS supplies plasma nitriding and PVD coating equipment.

With over 45 years of experience, we not only supply the equipment, but also the know-how and support to treat parts with excellent results in the most efficient way.

We supply bell, pit and horizontal furnaces in a range of sizes. From 0.45m to 6m in diameter and 0.8 to 5m in height. Fully automated nitriding systems are also available.

Our Heat Treatment Shop can assist with the production of prototypes, single parts or high volume applications.



## Stand 19

### Wuxi Junteng Fanghu Alloy Casting Co., Ltd

[www.alloy-casting.com](http://www.alloy-casting.com)

Wuxi Junteng Fanghu Alloy Casting Co., Ltd. is a professional designer and manufacturer of heat resistant casting products and furnace spare parts. Our Main technologies are lost wax precision casting and centrifugal casting. Our foundry is in Wuxi city, very close to Shanghai.

Our products are widely used in different brand furnaces (IPSEN, AICHELIN, AFC, TISCO, SECO-WARWICK, CAN-ENG, SAN-YUNG, SAFED, DOWA, ALD, IVA, CIEFFE, TAV...) and different type furnaces (Batch furnace, Vacuum furnace, Pit furnace, LPC furnace, Roller Hearth furnace, Continuous furnace, mesh belt furnaces...). Our products are widely accepted and trusted by our customers all over the world. Current now we have more than 170 foreign customers all over the world, many of them are big groups.

## Stand 20



### SECO/WARWICK S.A.

[www.secowarwick.com](http://www.secowarwick.com)

SECO/WARWICK is the 1<sup>st</sup> Choice Supplier of Solutions for Heat Treatment and Metallurgy.

We create innovative products that provide our customers with reliable, safe and environmentally friendly solutions for heat treatment and metallurgy and ensure the economic efficiency of their businesses. Expertise includes end-to-end solutions in 5 categories: vacuum heat treatment, atmosphere, and aluminum thermal processing, controlled atmosphere brazing of aluminum heat exchangers and vacuum metallurgy. SECO/WARWICK Group, with 8 companies located on 3 continents, has customers in nearly 70 countries with more than 4000 deployed solutions. The company provides standard or customized state-of-the-art heat processing and metallurgy equipment and technologies to leading companies in the following industries: automotive, aerospace, electronics, tooling, medical, recycling, energy including nuclear, wind, oil, gas, solar and production of steel, titanium, and aluminum.



## Stand 21

### Pfeiffer Vacuum Austria

[www.pfeiffer-vacuum.com](http://www.pfeiffer-vacuum.com)

In addition to a complete range of hybrid and magnetic bearing turbo pumps, the product portfolio includes backing pumps, leak detectors, measuring and analytical equipment, vacuum components and vacuum chambers and systems.

Since the invention of the turbo pump by Pfeiffer, the company has stood for innovative solutions and high-tech products in the markets of analytics, industry, research & development as well as semiconductors and future technologies.

Founded in 1890, Pfeiffer is now active worldwide with more than 25 employees in Austria and Prague.

Since 2024, Busch Vacuum Solutions, Pfeiffer Vacuum+Fab Solutions, and centrotherm clean solutions have been combined under the umbrella of the new Busch Group.

## Stand 22



### MEAPFORNI S.R.L.

[www.meapforni.com](http://www.meapforni.com)

**MEAPFORNI** is Italian company operating in heat treatment business and helps its clients successfully execute technically demanding heat treatments. With **35+ years of experience**, highly qualified employees we have a strong knowledge and experience in heat treating sector.

The combination of local presence and international expertise ensures that client needs are met in the best possible way. Reliable, cost effective and CO2 friendly MEAP furnaces come through a well-prepared engineering and design process.

**MEAPFORNI** portfolio includes protective atmosphere furnaces (mesh belt, batch, roller etc.), vacuum furnaces (LPN, LPC), tailor made solutions.



## Stand 23

### ECM Technologies

[www.ecm-furnaces.com](http://www.ecm-furnaces.com)

ECM Technologies is specialized in the conception, manufacturing, and commissioning of advanced heat treatment installations. With a strong heritage, several inventions and continuing innovation, it is today the world leader in vacuum carburizing with an installed base of more than 1700 furnaces worldwide, representing approximately 380 systems.

Our industrial furnace company offers services, processes and installations to help you reduce your manufacturing costs and improve the performance of manufactured parts. Our furnaces meet the expectations of all industrial sectors, and particularly : Automotive, Aeronautics, Electronics, Mechanical Industries, Heat Exchangers, and the Elaboration of Materials.

Better metallurgical results, improved mechanical properties, distortion control... ECM's innovations and R&D studies have highlighted ways to improve the quality of the parts thanks to heat treatments and gas quenching with measurable and highly repeatable results proven with our ICBP® installations!



## Stand 24

### Ipsen International GmbH

[www.ipsenglobal.com](http://www.ipsenglobal.com)

Powering Innovation worldwide.

Ipsen is a world leader in heat treatment systems with over 75 years of experience. They create innovative, eco-friendly furnaces that help customers reduce their carbon footprints. Their award-winning furnace „Ipsen Atlas Green“ won the German Innovation Award 2024, and the company was named Hidden Champion 2025.

Ipsen offers more than just products. When you work with them, you get a full team that supports you from sales and service to engineering, production, and quality control. Their advanced engineering solutions are used in many industries such as space exploration, medical implants, and efficient vehicles.

Ipsen continues to drive innovation and excellence, offering proven technology and expert-driven solutions for a wide range of applications.



## Stand 25

### I.C.M.I. Industrial Furnaces

[www.icmiforniindustriali.com](http://www.icmiforniindustriali.com)

I.C.M.I Industrial Furnaces is a company with over 30 years of experience in the field of plant engineering.

The company is specialized in the design, construction and assistance of plants for the steel and aluminum industry (with its alloys).

Our Products are INDUSTRIAL HEAT TREATMENT AND HEATING FURNACES FOR:

- Carbon steel
- Stainless steel
- Alloy steel
- Aluminum

„Turnkey“ is the criterion with which I.C.M.I. Industrial Furnaces offers its products. I.C.M.I. Industrial Furnaces puts its experience in research and innovation to good use, building machines that, using new technologies, minimize the impact on the environment.

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