



ING. ERHARD FISCHER GMBH

# Thermal Solutions Management


BROCHURE

Transforming complex requirements into precisely tailored thermal solutions for critical industrial applications.


We are your technical sparring partner.



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This brochure provides a compact overview of the product range in the field of thermal solutions and the technical capabilities of Ing. Erhard Fischer GmbH.

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WE FOR YOU

## Over 40 Years of Expert Engineering Support and Dedicated Customer Service

Since our founding in 1982, Ing. Erhard Fischer GmbH has proudly served as a premium solution provider across a wide range of industries. Our expertise spans medical technology, semiconductor industry, manufacturing, research and development, automotive, solar, automation, aerospace/aviation, academic research, defense and security, and more.

In an increasingly digital world, we place great value on personal contact and individual consultation. Whether by phone or email, you'll be connected directly with a technical expert – focused on understanding your application and providing the right solution.

Get in touch with us today and let's work together to solve your technical challenges. We look forward to supporting you!

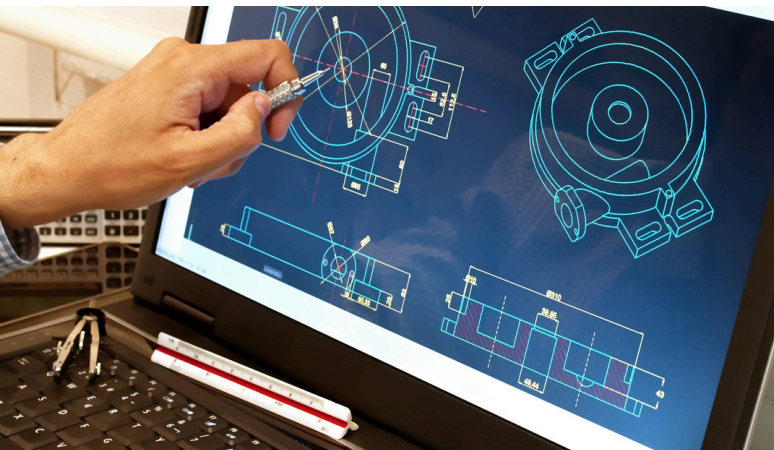




PROVEN SINCE 1982

# Technical Excellence from the Beginning

A key factor in our success is the careful selection of our partners and suppliers. As an ISO 9001:2015 certified company, we maintain long-standing partnerships with internationally operating manufacturers who meet the highest quality standards and drive technological innovation. This enables us to offer products that stand out for their reliability and technical excellence.



## // OUR STRENGTHS AT A GLANCE



FAST PROTOTYPING



PREMIUM QUALITY



DEDICATED CUSTOMER SERVICE

## // INDUSTRIES

Our heaters are ideal for applications that require efficient thermal management. We work with customers across a range of industries, including:

- Medical Technology
- Semiconductor
- Defense
- Security
- Aviation & Aerospace
- Battery Development & Industrial

## // CERTIFICATIONS

We work exclusively with high-quality manufacturers. Our products meet some of the highest industry standards and hold the following certifications:

- AS 9100
- ISO 9001
- ISO 13485
- ITAR
- UL and CSA
- CE



EXCEPTIONAL IS OUR STANDARD

# Certifications, Standards & Awards

We are proud that our company is regularly recognized by prestigious institutions such as Die Presse, KSV1870 and Pricewaterhouse Coopers (PwC), which have been selecting the best companies in Austria in an annual business competition since 1998.

Furthermore Ing. Erhard Fischer GmbH is an ISO 9001:2015 certified company. We are committed to continuous improvement, lean processes and operational precision. Our manufacturing partners uphold the same standards, ensuring that every step of production – from material sourcing to final testing – meets stringent quality and safety requirements.



ALC

## COMPETITION

Austria's Leading Companies awarded by "Die Presse", KSV1870 und PwC.



HERMES

## COMPETITION

Supported by the Federal Ministry of Labor and Economy

The following certifications and standards are fulfilled throughout development and production:

QUALITY MANAGEMENT SYSTEM	ISO9001
MEDICAL DEVICE QM	ISO13485
AEROSPACE QUALITY STANDARD	AS9100D
EUROPEAN SAFETY & HEALTH	CE

**RoHS** Restriction of Hazardous Substances

**REACH** Chemical Substance and Material Compliance

These certifications give our customers a measurable advantage:

Standardized processes, full traceability, and regulatory readiness reduce your qualification workload, accelerate approvals, and ensure consistent product quality across every stage – from development to delivery.

STANDARDS & CERTIFICATIONS

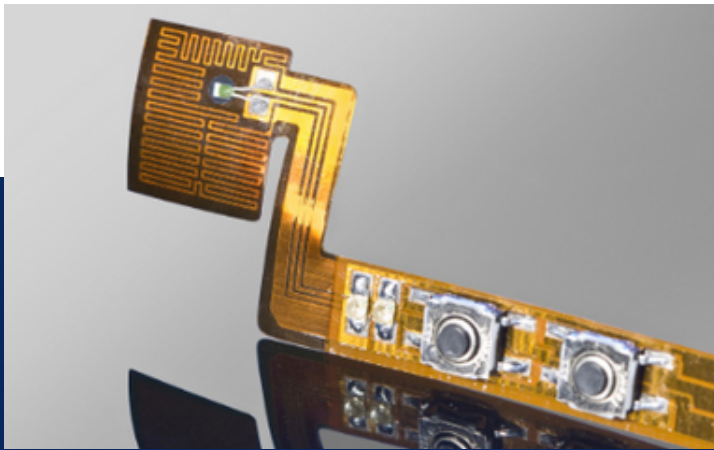


SOLUTIONS TAILORED TO YOUR NEEDS

## From Concept to Production

Custom flexible heaters are the ideal choice for precise, reliable heat transfer in demanding applications where off-the-shelf solutions don't meet the requirements.

From your initial inquiry through prototyping to small- or large-scale production, you'll be supported by a dedicated technical contact – guiding you through each stage with expertise and attention to detail.



### // SERVICES



100% TURNKEY ASSEMBLIES



100% CUSTOMER SUPPORT



100% SOLUTION EXPERTS

### // CONSULTATION & REQUIREMENT ANALYSIS

Application-specific guidance based on your inquiry and technical specifications, with feasibility assessments and engineering alignment to ensure your application's needs are clearly understood from the outset.

### // QUOTE, DESIGN, PROTOTYPING

Customized proposals including set-up and prototyping costs, volume pricing, and delivery timelines supported by technical drawings & prototype samples after design approval.

### // SERIES PRODUCTION & DELIVERY

High-quality manufacturing with tight tolerances, available from small volumes to large-scale series. Flexible supply chain support is available via framework agreements.

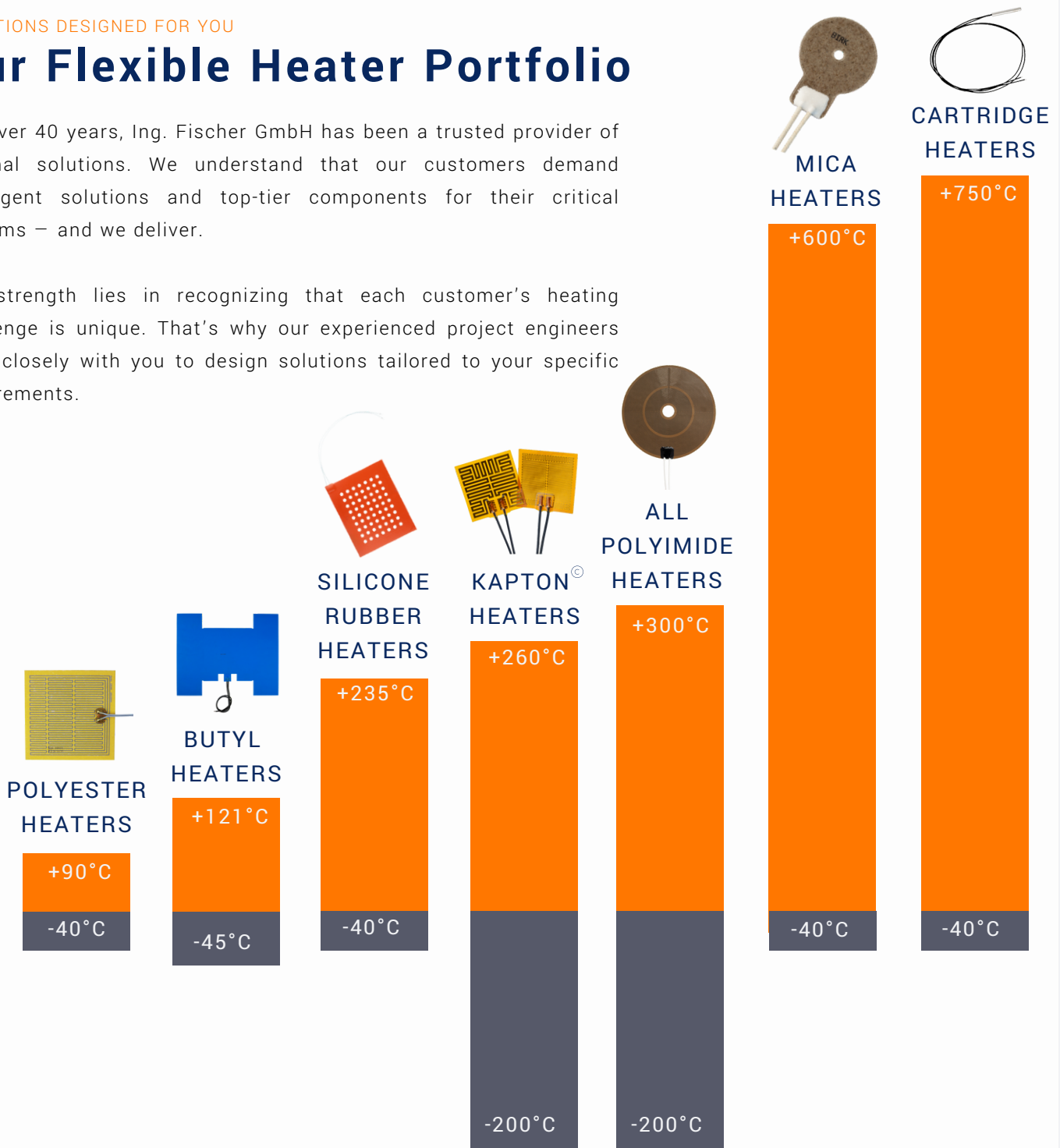


SOLUTIONS DESIGNED FOR YOU

# Our Flexible Heater Portfolio

For over 40 years, Ing. Fischer GmbH has been a trusted provider of thermal solutions. We understand that our customers demand intelligent solutions and top-tier components for their critical systems – and we deliver.

Our strength lies in recognizing that each customer's heating challenge is unique. That's why our experienced project engineers work closely with you to design solutions tailored to your specific requirements.



	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
Dimensions minimum:	20 x 20	6.35 x 6.35	6.35 x 6.35	6.35 x 6.35	6.35 x 6.35	6.35 x 6.35	L: 25.4 - 609.6
Dimensions maximum:	750 x 1000	889 x 1143	890 x ∞	558 x 762	584 x 584	558 x 711	∅ 3.18 - 25.4
Power density (max.)	1.5 [W/cm <sup>2</sup> ]	0.755 [W/cm <sup>2</sup> ]	4.65 [W/cm <sup>2</sup> ]	18.6 [W/cm <sup>2</sup> ]	18.6 [W/cm <sup>2</sup> ]	23.25 [W/cm <sup>2</sup> ]	23.25 [W/cm <sup>2</sup> ]



MEDTECH | SEMICONDUCTOR

# Key Industries & Applications

## MEDICAL INDUSTRY

Our heating systems are engineered to meet the demanding standards of modern medical devices and diagnostic equipments.

Each heater is designed for precise adhesion to surgical instruments, efficient thermal contact across compact geometries, or seamless integration with components such as Teflon® tubing or machined parts.



- PCR and qPCR **thermal cyclers**
- Microplate heaters for **ELISA and high-throughput assays**
- Temperature stability of **incubators**
- **Mass spectrometry** instruments
- Temperature stability in **MRT/CT**
- Integration in **surgical tools**
- Thermal regulation of **hemostasis** systems

All heating systems can be manufactured in compliance with ISO 13485, with performance verified through in-house testing to ensure medical-grade reliability and complete traceability.

## SEMICONDUCTOR INDUSTRY

Thermal solutions management plays a critical role in maintaining precision, yield and reliability in semiconductor processing.

Our flexible heating systems are used in key areas of chip manufacturing, inspection, testing, and packaging – supporting consistent and precise thermal control across highly complex applications.



- **Gas distributors** and **gas lines**
- **CVD** and **PVD** systems
- **Wafer processors** and heat treatment systems
- **Burn-in & stress** test systems
- **Semiconductor dicing** & packaging
- Temperature control in **lithography**
- Inspection at wafer level

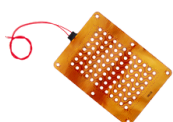
Designed for seamless integration into high-tech manufacturing equipment, these solutions meet the industry's exacting performance and quality standards.



Pic 1: Heating of molecular diagnostic equipment for multiple assays



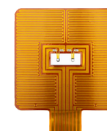
Pic 2: Infant ventilator equipment



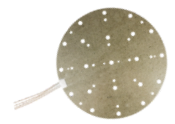
Pic 3: 96-well-plate heater for PCR-, Thermo-cycler devices



Pic 4: Respirator filter heater



Pic D: Wafer chuck heater with RTDs



Pic A: MICA heater for chucks in wafer production



Pic B: Kapton valve heater cover with thermistor



Pic C: Valve heater on gas lines



DEFENSE | SECURITY

# Key Industries & Applications

## DEFENSE INDUSTRY

Thermal control systems play a critical role in maintaining performance and reliability in mission-critical defense equipment.

From rugged electronics to unmanned systems, consistent temperature regulation ensures stability under extreme conditions.

## SECURITY INDUSTRY

In security systems, thermal management enhances functionality and reliability in sensitive environments such as outdoor installations.

Our heating elements are used in detection, surveillance, and diagnostic devices to maintain precise operating conditions.



// KEY APPLICATIONS



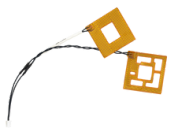
// KEY APPLICATIONS

- **Radar** and **phased array systems**
- Robust **computer components** and **communication systems**
- **Guided missile** and **rocket systems**
- **Optical modules** and **sensors**
- **Battery heating**
- **Satellite** and **UAV electronics**
- **Laser weapon systems** and **target acquisition**

- Bomb and chemical **detectors**
- Handheld **screening tools**
- Outdoor **surveillance cameras**
- Baggage and parcel **scanners**
- **Enclosure** heating systems
- **Drift tube** temperature control
- **Sensor stabilization** modules

Our heating solutions are specifically designed to meet strict military specifications and can be integrated into aerospace, vehicle, and field-deployable systems.

These solutions support critical tasks such as chemical detection, lens defogging, and outdoor monitoring, and can be integrated directly into custom assemblies.



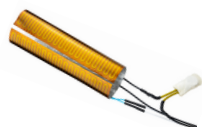
**Pic 1.** Heating of components in two-way radio communication devices in cold weather



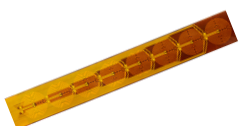
**Pic A.** Formed Mica heater for chemical detection equipment



**Pic 2.** All polyimide instrument panel heater



**Pic B.** Heating of sample in mass spectrometry



**Pic 3.** Battery pack heater



**Pic C.** Heating of components inside x-ray imaging and chemical analysis products



AEROSPACE & AVIATION | INDUSTRIAL ENVIRONMENT

# Key Industries & Applications

## AEROSPACE AND AVIATION

In aerospace environments, maintaining thermal stability is essential for optimal performance, operational reliability, and overall system safety.

Our heating systems are used to protect critical electronic, optical, and structural components in both atmospheric and space applications.



// KEY APPLICATIONS

- Thermal control for **avionics systems**
- De-fogging and de-icing of **optical systems**
- **Spacecrafts** and **satellites**
- Heating of **propulsion systems** and **life support systems**
- Support of **fuel** and **propulsion systems**
- Battery temperature of **drones**
- **Displays** and **instruments**

Designed for integration with minimal mass, low outgassing, and precise heat distribution, these solutions support optimal system functionality under extreme conditions.

## INDUSTRIAL ENVIRONMENT

Thermal systems are critical in a wide range of industrial environments, from transportation and infrastructure to telecom and HVAC.

Our heating solutions are built for durability, system integration, and stable operation under harsh environmental conditions.



// KEY APPLICATIONS

- Heating of **fuel cells** and **battery packs**
- **HVAC** condensation and frost protection
- De-icing for **traffic safety** and **transportation**
- Temperature control for **data centers** and **telecommunications**
- **Food processing** and **packaging** industry
- **Evaporation systems** for drip pans

Whether self-regulating or sensor-controlled, these heating foils maintain equipment reliability and help prevent environmental or process-related system failures.



Pic 1. Battery pack heater for optimal temperature for charging



Pic 2. All Polyimide battery heater



Pic 3. De-icing of plane wings



Pic 4. Satellite optics heater with thermistor



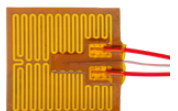
Pic D. Heater for calibration of non-contact measuring devices



Pic A. Heating of packaging device to seal plastic bags filled with air



Pic B. Fluid warming to prevent build up inside tube



Pic C. Heater with thermocouple for 3D printing print head



## INTEGRATED SENSORS &amp; CONTROLLERS

# Custom Heating Assemblies

## PRECISE TEMPERATURE REGULATION IS CRITICAL.

As part of our value-added services, we offer a wide range of sensor and control components designed for seamless integration into custom heater assemblies and subsystems. Whether for standalone use or fully embedded into your application, these components ensure stable, responsive, and application-specific thermal management – from development through production.

### CARTRIDGE HEATERS

Compact heating elements designed for precise, localized thermal input up to 750°C. Ideal for embedded use in tools, molds, and metal components.

### RTD SENSORS

Highly accurate, stable resistance sensors for precision temperature measurement in critical industrial and medical systems.

### THERMOCOUPLE SENSORS

Robust and fast-responding sensors for wide-range temperature monitoring, suited for high-heat and dynamic environments.

### THERMISTORS

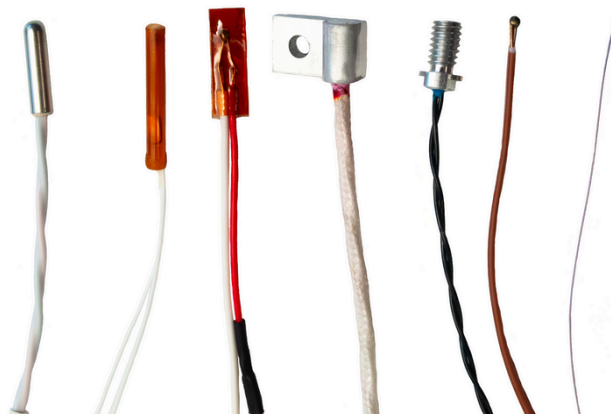
Compact, cost-effective sensors with fast response times – available in NTC and PTC formats for flexible system integration.

### THERMOSTATS

Reliable, simple switching devices that maintain set-point control or serve as fail-safe protection in a wide range of applications.

### CONTROLLERS

Custom-configured control units designed to maintain target temperatures with precision – from basic on-off logic to PID regulation.





## Your Benefits - Our Services

### TURN-KEY ASSEMBLIES

Fully integrated heating assemblies engineered to your specifications, with exceptional reliability and meticulous attention to every detail – ready for seamless implementation into your system.

### ONGOING CUSTOMER SUPPORT

We support you throughout the entire project lifecycle – from the first idea to series production and beyond. With us, you have a reliable partner by your side at every stage. Our expert team is always available for consultation and ready to assist with any type of inquiry.

## Value-added Assemblies & Customized Heating Solutions

- Lamination or vulcanization onto machined components
- Integration of sensors, switches, and thermal cut-offs
- Custom wiring harnesses and connectors
- Electrical and thermal testing
- Flex circuit and heater integration
- Incorporation of customer-specified components
- Vendor management.



### CROSS-INDUSTRY EXPERTISE

With decades of experience, we've delivered tailored thermal assemblies to leading manufacturers across various industries, including Medical, Semiconductor, Defense and Aviation.



### STREAMLINED INTEGRATION FOR EFFICIENCY

Integrated heater assemblies reduce interface complexity, shorten supply chains and support streamlined production workflows. Benefit from > 40 years of know-how.



### APPROVAL AND REVISION

Our engineering team excels at creating bespoke heating solutions that address complex challenges. We focus on delivering precise, reliable, and application-specific designs that meet your unique thermal management needs.



ING. ERHARD FISCHER GMBH

## Your Trusted Partner in Thermal Solutions

Founded in 1982, Ing. Erhard Fischer GmbH is an Austrian company specializing in high-quality electrical and electronic specialty products. With over 40 years of experience, we have established ourselves as a premium solution provider in the fields of flexible heating foils, industrial power supplies and precision measurement technology.



WALTER WAGNER

Managing Director

Our commitment to excellence is reflected in our long-standing partnerships with internationally recognized manufacturers, ensuring that we offer products that meet the highest standards of quality and innovation.

Based in Hinterbrühl, near Vienna, Austria we serve a diverse client base spanning various industries, including medical technology, semiconductor industry, R&D, automotive, solar, automation, aerospace/aviation and defense & security, among others.



"At Ing. Erhard Fischer GmbH, we pride ourselves on our customer-centric approach, providing tailored solutions that meet the specific needs of each project. Our ISO 9001:2015 certification underscores our dedication to continuous improvement and quality management."



## YOUR CONTACT PERSONS

## Our Thermal Solutions Team

With more than four decades of experience, Ing. Erhard Fischer GmbH stands for solution-oriented expertise and long-term customer partnerships.

Even in today's digital age, we remain committed to personal interaction and tailored technical advice. When you contact us, you'll speak directly with an expert who understands your application and works with you to find the right thermal solution.

Get in touch with us today - we're here to support you and your project every step of the way.



### Walter Wagner

MANAGING DIRECTOR &  
HEAD OF SALES

In addition to his role as Managing Director, Walter coordinates all sales activities across the company's three business divisions and oversees strategic procurement as well as supplier management.

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### Erwin Kovacs

PROJECT ENGINEER &  
BUSINESS DEVELOPMENT

Your direct contact for all thermal solution inquiries. Erwin is responsible for overseeing heater related projects and managing our product and accessory portfolio across the European market.

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### Adel Hulesch

INSIDE SALES, ORDER  
PROCESSING & LOGISTICS

Managing all customer inquiries related to orders, Adel ensures clear coordination, dependable communication & excellent customer service. She is also responsible for logistics.

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INDUSTRIAL POWER SUPPLIES

# Premium Power Supplies for R&D, Laboratories, Testing Facilities and Production

In addition to our innovative thermal solutions with electrically operated heating foils, we offer you another key element for industrial applications with our second product division: High-quality industrial power supplies - including free equipment rental service.

// FREE EQUIPMENT RENTAL SERVICE



// YOUR BENEFITS



Free Rental Unit (2-3 weeks)



Expert advice on device selection



Testing in your own lab environment

// LABORATORY POWER SUPPLIES

Industrial laboratory power supplies are essential tools in modern research, development, and measurement technology. They provide precise voltage and current control, ensuring stable conditions for testing and measurement. This allows products to be tested under consistent, repeatable conditions.

// FLEXIBLE INTEGRATION & 19" RACK SOLUTIONS

With programmable functions and flexible interfaces, laboratory power supplies are ideally suited for automated test environments and complex industrial applications. Various operating modes and a wide range of configuration options make these devices highly adaptable across different use cases. In addition we build 19" cabinets incl. built-in power supplies.

RELATED LINKS



POWER SUPPLIES 800W



POWER SUPPLIES 1500W



POWER SUPPLIES 3300W

// YOUR CONTACT PERSON



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PROJECT ENGINEER

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ING. ERHARD FISCHER GMBH




# Your Strategic Partner in **Thermal Solutions**



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