



Zoppas Industries

Heating Element Technologies



HEATING SOLUTIONS FOR PROFESSIONAL OVENS

We are a **reliable, state-of-the-art partner for the catering and professional cooking industries**, designing elements and complete **systems** with the highest levels of performance and durability.

We have the **know-how, experience, processes and range of materials** that allow us to develop innovative products that meet the **most demanding performance and dimensional requirements**, always in compliance with food safety and current regulations.

Our **long history and experience in supplying the food service market** allows us to offer a wide range of products, from components to **integrated solutions, designed, manufactured and certified** to meet the highest performance and regulatory standards.



SOLUTIONS FOR PROFESSIONAL OVENS

Solutions for Combi ovens



Cavity heaters



Steam boilers



Steam flange heater

Solutions for Convection ovens



Smoker heaters



Motor breaking heaters

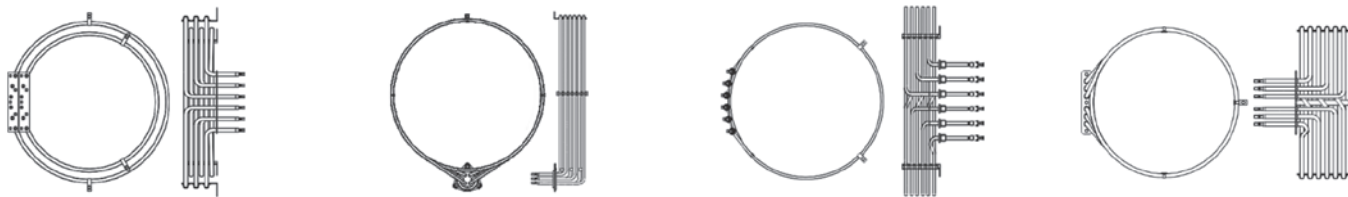


Catalyzer heaters

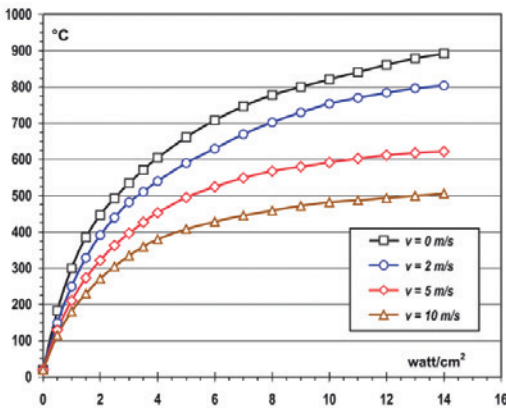


CAVITY HEATER

- Fast temperature ramp-up
- Robust structure, perfect insulation, with uniform heat distribution
- Energy saving and environment-friendly
- Compliant with high standard safety requirements i.e. VDE, UL, ... (Depending on specific customer's request and applications)
- Compliant with Gastro Norm
- Wide range of material options: AISI 304/304L/321/309S/316L, Incoloy 800/840
- Outstanding serviceability even in challenging applications

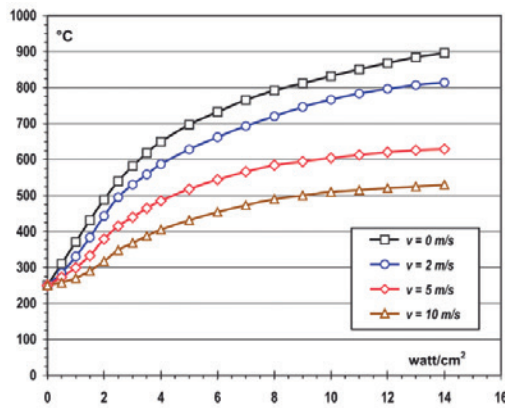


Typical oven size	Smaller	6 1/1	6 2/1	10 1/1	10 2/1	20 1/1	20 2/1
Power [KW]	4 - 10	9	20	18	34	2 x 18	2 x 34
No. of elements	3	3	6	3	6	2 x 3	2 x 6
Ø elements [mm]	6.25 - 8.5	6.25 - 8.5	8.5 - 12.5	8.5	8.5 - 12.5	8.5	8.5 - 12.5
Load [W/Cm²]	5 - 6.5						
Working - Temperature[°C]	500 - 550						
Material	AISI 304/304L/321/309S/316L, Incoloy 800/840						
Sealing	Silicone (not hermetic) / Epoxy (hermetic) / NIP						
Assembling	Crimping / Brazing						



Temperature Profiles in forced air at ambient 20°C

Sheath temperature as a function of specific surface load by changing the air flow rate (v) at ambient temperature of 20°C



Temperature Profiles in forced air at ambient 250°C

Sheath temperature as a function of specific surface load by changing the air flow rate (v) at ambient temperature of 250°C

STEAM GENERATOR

Steam boiler



Figure	Specs
Materials	AISI304, AISI 316L
Surface treatments	Natural / Pickling and Passivation on demand
Welding	TIG welding (protected atmosphere on demand)
Heater slots	1-2-3-4
Connectors	Nipples - Out water - Out Steam
	Tubes connectors - In chemicals - In water
Water level control	internal probes / external sensors
Insulations	Available on demand and different materials

Steam flange heater



Figure	Specs
Tube diameters	6.25 mm - 8.50 mm
Mechanical assembly	Flange (Brazing or TIG)
No. of heating tube	3 - 6
Watt density	>8W / cm²
Tube material	INCOLOY 800/825
Sealing	Hermetic (epoxy)
Electrical connections	Wiring / Faston / threaded pin / threaded tab
Temperature control	Thermostat pockets

SOLUTIONS FOR CONVECTION OVENS

Smoker heater



Figure	Specs
Tube diameter	6.25 mm - 8.50 mm
Mechanical assembly	Flange
N° of phases	1
Tube material	INCOLOY 800
Sealing	Hermetic (Epoxy)
Electrical connection	Teflon Wiring + plug

Motor breaking heater



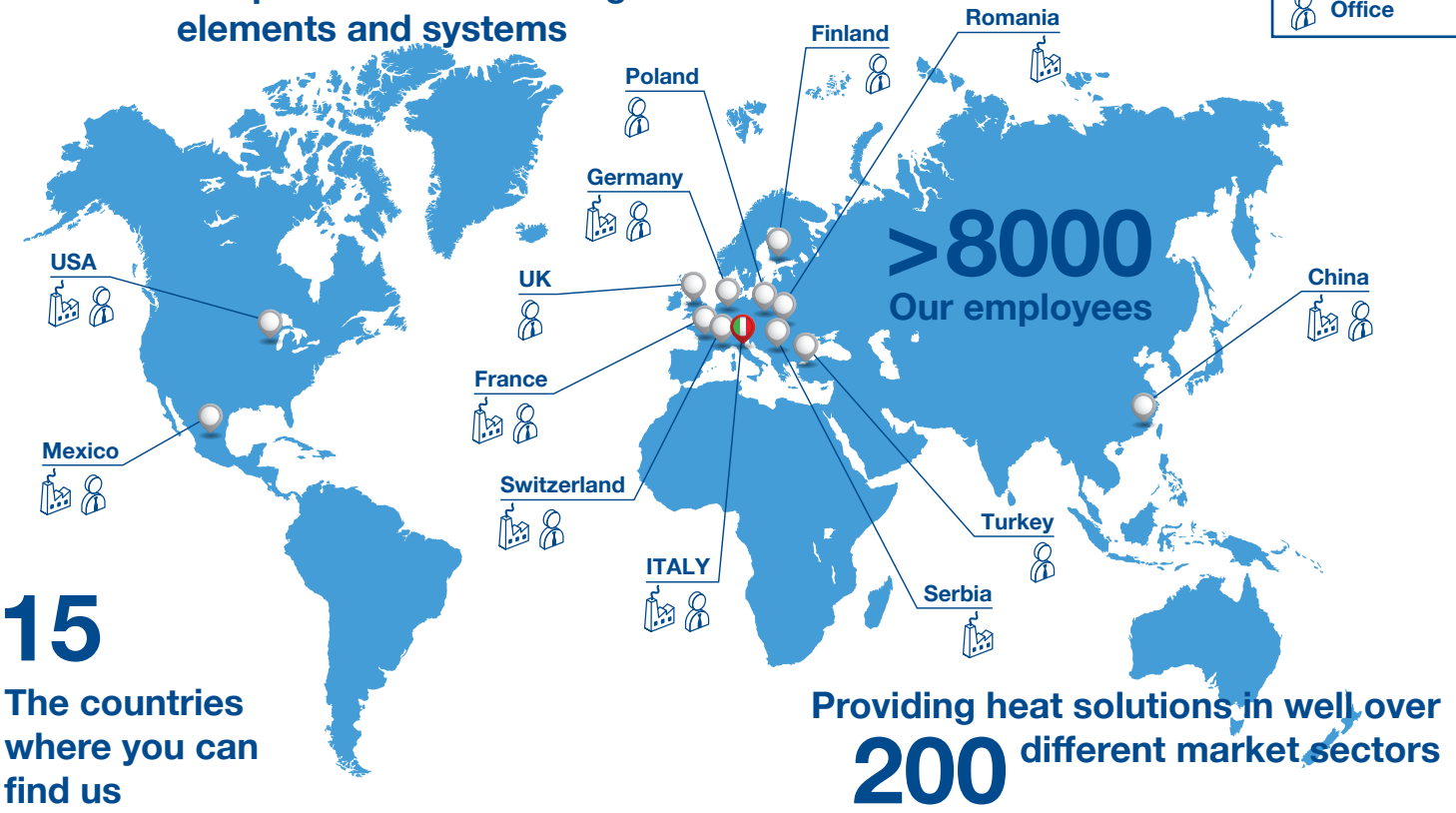
Figure	Specs
Tube diameter	6.25 mm
Mechanical assembly	Flange
N° of phases	1
Tube material	INCOLOY 800
Sealing	Hermetic (Epoxy)
Electrical connection	Faston / Wiring / Therated tab / Theated pins

Catalyzer heater



Figure	Specs
Tube diameter	6.25 mm
N° of phases	1
Tube material	AISI304 / ASI321 / INCOLOY 800
Sealing	Silicon / NIP
Electrical connection	Faston
Body	Carter + Catalytic cell

60+ Years of experience in design and production of heating elements and systems



ZOPPAS INDUSTRIES Partner

- Experience Zoppas Industries increasing efficiency using lean enterprise across all facilities and departments.
- Access our state-of-the-art laboratory facilities with over 30 years' design experience.
- Benefit from Zoppas Industries manufacturing and design facilities which maintain Quality Management Systems according to ISO 9001, EN 9100 and IATF 16949, Environmental Management System according to ISO 14001 and Energy Management System according to ISO 50001.
- Access one of the widest Heating Element Technology product portfolios in the world including completely integrated thermal assemblies with sensors, connectors, enclosures, etc.
- Benefit from Zoppas Industries global presence through design and manufacturing facilities across Europe, North America, South America and Asia - lowering your Total Cost of Ownership (TCO) including reduced logistics, design, communication and support costs.
- Access Zoppas Industries' in-house design, development and R&D capabilities, such as CAD 3D design, FEA, DOE, FMEA.
- Benefit from Zoppas Industries products third-party certification, such as UL and VDE: marking applied on customer's request.

We at ZOPPAS INDUSTRIES put you in the front seat of internationalization - sourcing your local needs globally.

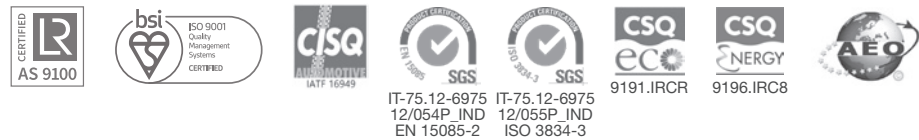


PRODUCT TRADEMARKS



Compliance with the mark of each specific product must be properly reviewed with our Sales Department.

COMPANY CERTIFICATIONS





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