

Rauschert Steinbach GmbH

# THE EXPERTS FOR INNOVATIVE HEATING TECHNOLOGY

very long lifetime

energy-efficient

proved & tested 10,000 times



**Rauschert**

# HIGHLY COMPETENT FOR OVER 110 YEARS

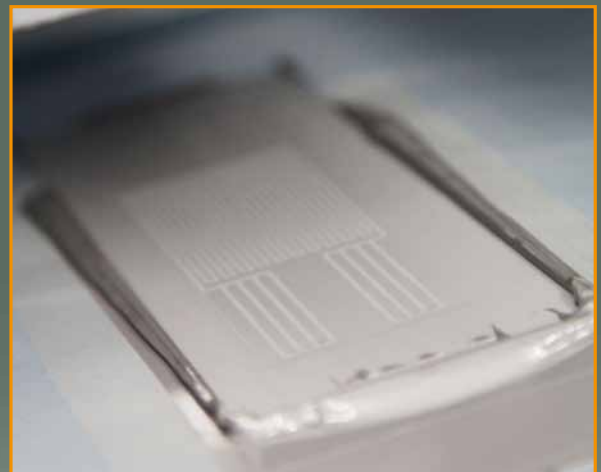
The company Rauschert has been in existence since 1898 and today, with well over 1,000 employees, is one of the leading manufacturers of technical ceramics worldwide. Further product areas are plastic moulded parts, functional components and composites, engineering and solar technology. Despite our size and wide range of diversification, we continue to be a family-run company, now in its fourth generation, which manufactures predominantly in Germany and Europe.

For our customers this means high-quality and innovative products that are manufactured by optimally qualified and frequently self-trained employees in accordance with a DIN EN ISO 9001-2008-certified quality management. As a sturdy and independent group of companies we offer a large portfolio of modern serial products, but at the same time we are able to implement customer-specific solutions quickly and flexibly.

Since the 1980s we have been involved with ignition elements and are recognised as the international market leader in the sector of high-voltage spark igniters for heating systems. In combination with a high degree of competence in technical ceramics, this know-how also makes us a strong supplier of innovative high-temperature heating elements.

Since 2006 we have been manufacturing heaters in series, and we have a customer base of several hundred companies. These range from large corporations with requirements of tens of thousands of heaters down to institutes and universities, for which we provide individual heating solutions.

From high-quality standard products down to tailor-made heating elements, we are able to address every customer request.



## Quarzsandwerke Weissenbrunn

### Wir liefern

- Porzellanmassen und Glasuren aller Art
- Steatitmassen
- Cordieritmassen
- Aluminiumoxidmassen (Al<sub>2</sub>O<sub>3</sub> - Gehalt: 60 - 99 %)
- Sondermassen nach technischen Erfordernissen
- Specksteine roh, kalziniert, gebrochen oder gemahlen



### Wir übernehmen

- Vermahlen, Aufbereiten und Versprühen keramischer Materialien



QSW | Braustraße 19  
D-96369 Weissenbrunn

Tel: +49 (0) 92 61 - 62 80 3-0  
Fax: +49 (0) 92 61 - 5 22 24  
Email: [info@qsw-weissenbrunn.de](mailto:info@qsw-weissenbrunn.de)  
[www.qsw-weissenbrunn.de](http://www.qsw-weissenbrunn.de)



## GLOWING EFFICIENCY: HIGH-TEMPERATURE HEATING ELEMENTS (HTH)

Our ceramic heating elements consist of  $\text{Al}_2\text{O}_3$  insulation ceramics with an integrated platinum conductor, and reach a permanent operating temperature of between 1000 and 1100°C.

### They are deployed in the following areas:

- Heating applications above 750°C, in which standard heating cartridges would have long since failed
- Very precise, rapid heating due to the extremely low thermal mass
- Efficient hot gas generation through the extremely large heat transfer surface area

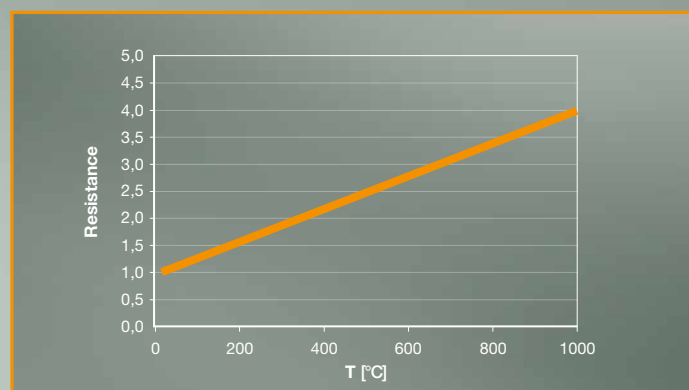
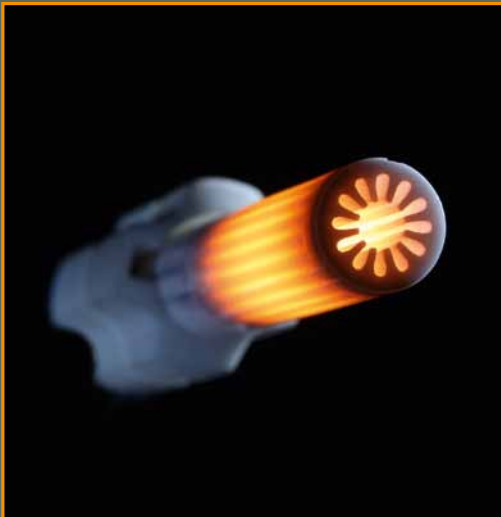
Our heater portfolio covers a broad performance spectrum (depending on the desired purpose) and various patented structural forms. In addition to this the heating elements can be designed on an individual customer basis and be equipped with a complete electrical connection technology.

### Concrete applications:

- Hot surface igniters (ignition of gas, oil, biomass, pellets)
- Hot air generation
- Tool heating
- Melting/welding/soldering/hot gas soldering
- Heaters for chemical analysis and laboratory equipment (e.g. mini-furnaces, reactors)
- Customer-specific heating solutions

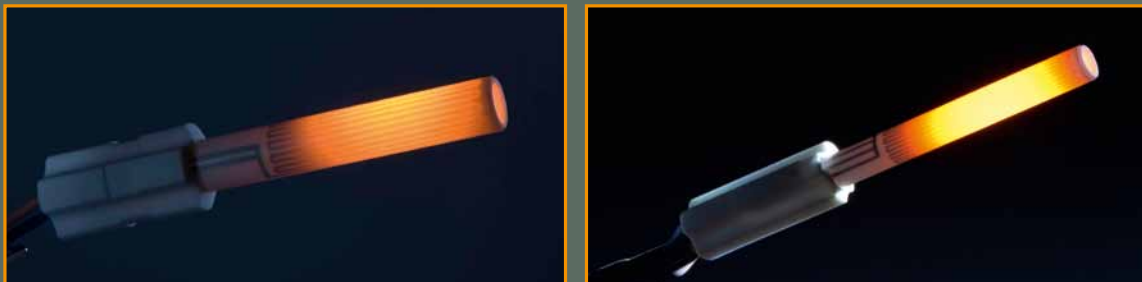
### A summary of the advantages:

- Extremely fast and hot (permanently at 1100°C, for the short term up to 1300°C)
- Extremely energy-efficient
- Resistant to thermal stress (rapid switching is easily tolerated)
- Can be regulated easily and seamlessly (Pt characteristic)
- Very corrosion-resistant
- Practically non-ageing
- Electrical contacts by means of patented high-temperature-resistant plug connector
- Integrated temperature measurement possible by means of platinum conductor. Heater and sensor in one!



# HIGHLY DURABLE AND ENERGY-EFFICIENT: CERAMIC IGNITERS FOR SOLID FUEL FURNACES

One special application area for the high-temperature heaters is in heating systems that use solid fuels such as wood pellets as the energy source. The challenge here is to ignite the biomass in a very short time while retaining very low emission values. This can only be achieved with a sufficiently high ignition temperature.



Our hot surface igniters are perfectly suited for this purpose. The special geometry of the cylindrical ceramic heaters, in combination with an extremely high surface temperature of 1000 °C, heats up the supply air in the shortest possible time to an extremely high temperature. After a maximum of 90 seconds, the fuel is ignited with a fraction of the energy that is required for a hot air or ignition blower. This works, of course, not only with pellets, but also with wood chips, firewood, coal bricks or other solid fuels made of biomass. Further product advantages:

- Ready assembled, easy-to-install systems
- Space-saving, noiseless and impervious to overheating (in case the blower fails)
- Extremely long-lasting and resilient
- Minimal energy consumption
- Completely electrically insulated
- No exposed electrical contacts
- No sensitive welding points

Not without reason, the HTH pellet igniter is **THE** reliable standard ignition system for pellet heating systems in Europe – hundreds of satisfied customers speak for themselves.

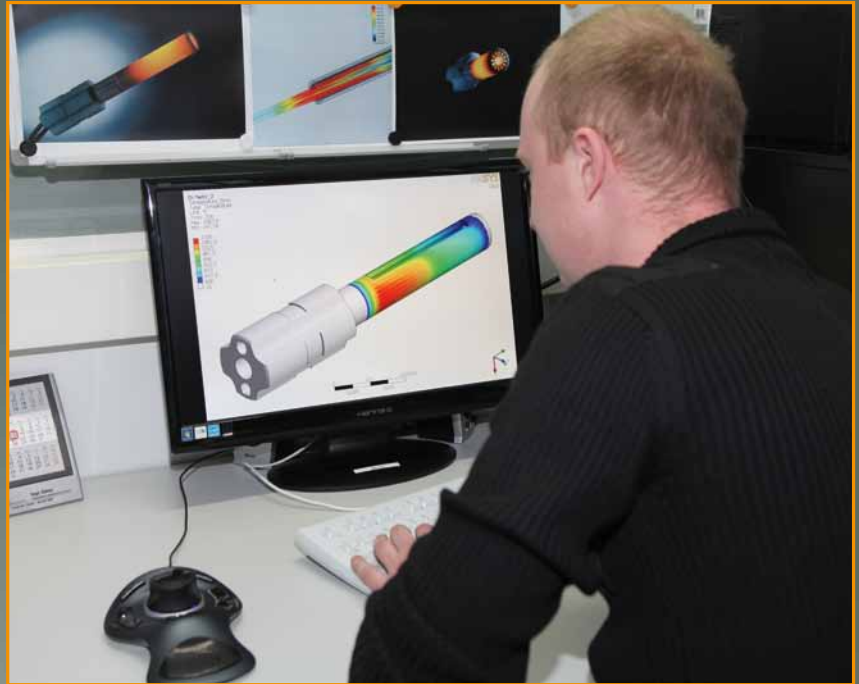




## TAILOR-MADE HEATING SOLUTIONS

Our HTH can be delivered as tube-, rod-, platelet- and honeycomb-shaped constructions and can be customised to specific requirements as complete systems across the entire product range. Whether this be cabling with special connectors or metal components customised to the installation situation, such as metal tubes, metal jets or mounting systems: all solutions are possible with our experienced Engineering department.

Using a special simulation programme (FEM: Finite Element Method), we are already able to test in advance whether the desired solution will work, and we can perform possible modifications that may be required. In this way we guarantee a product that is optimally tuned to customer requirements, and also ensure a very rational production planning and implementation.



Just get in touch with us, our Sales department will be pleased to help you if you have any questions or request further information:



**Jürgen Schüssler**  
Commercial Manager



**Dr. Hannes Kühl**  
Technical Manager  
Heating Elements &  
Glow Igniters



**Ralf Drechsel**  
Technical Manager  
Ignition Systems & Cable Assembly



**Sales Team**

**Rauschert Steinbach GmbH**  
Fabrikweg 1  
96361 Steinbach am Wald

**Jürgen Schüssler**  
Commercial Manager  
Tel.: +49 (0)9263 875-925  
Fax: +49 (0)9263 875-298

[j.schuesser@rauschert.de](mailto:j.schuesser@rauschert.de)  
[www.rauschert.com](http://www.rauschert.com)

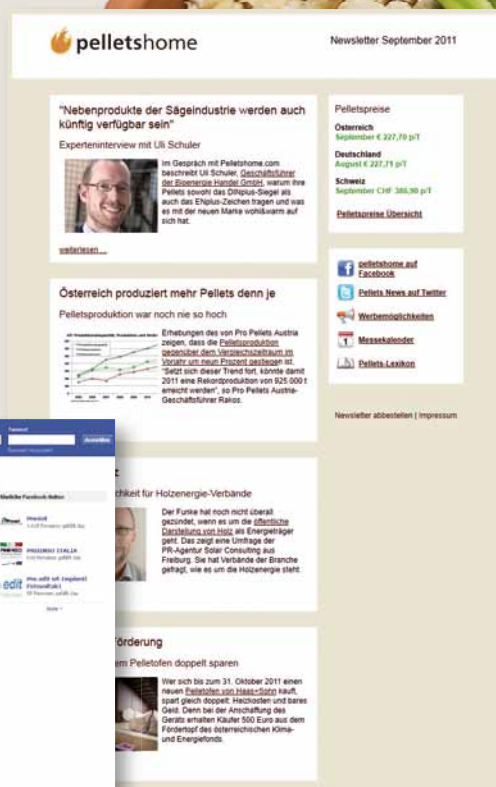


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