RÖSSEL MESSTECHNIK

FURNACE CONSTRUCTION

FURNACE CONSTRUCTION AND TEMPERATURE MEASUREMENT IN AND ON INDUSTRIAL FURNACES

Consultation. Solution. Innovation.

FURNACE CONSTRUCTION

FACED WITH EXTREME CONDITIONS? OUR SENSORS ARE DESIGNED TO TAKE ON EVERY ENDURANCE TEST

FURNACE CONSTRUCTION AND TEMPERATURE MEASUREMENT IN AND ON INDUSTRIAL FURNACES

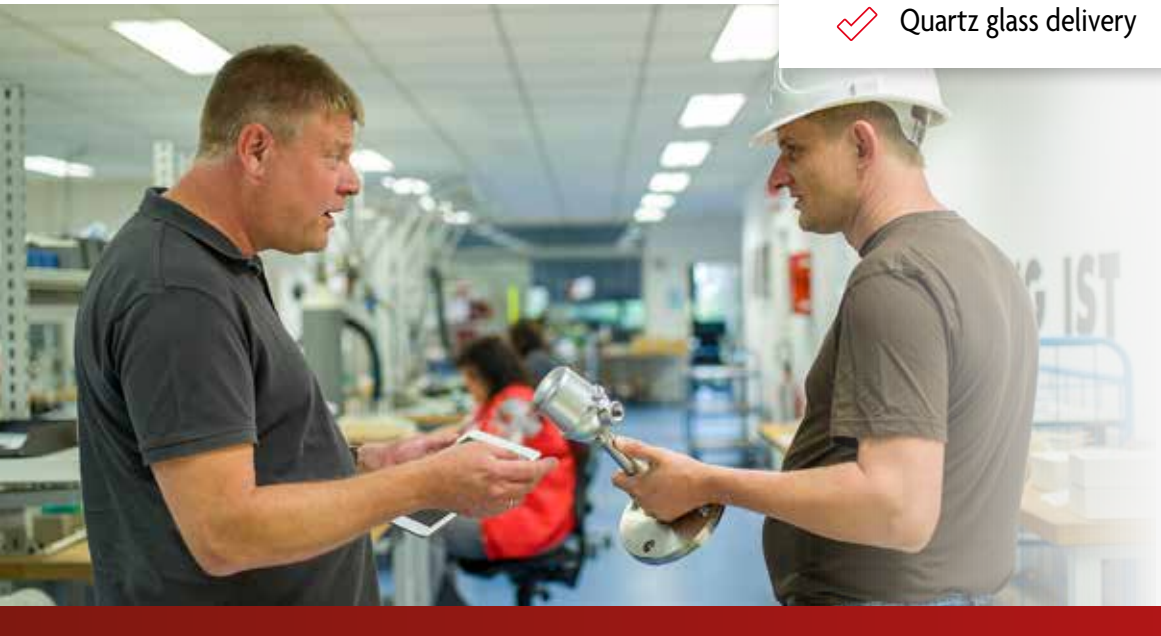
From small laboratory furnaces to large-scale incinerators, from coating and hardening processes to waste incineration and crystal growing: Accurate temperature measurement under extreme conditions is crucial. That's where RÖSSEL-Messtechnik comes in.

Backed by years of experience, we support our customers in the field of furnace construction with accurate temperature measurement. Our thermometers and products contribute to process control, quality assurance and product control. Many furnaces are especially designed for special applications. We produce temperature sensors optimized for specific applications as a result.

This includes our entire range of measurement technology from tungsten-rhenium thermocouples with special thermowells materials such as molybdenum or quartz to the bolometer used to measure the uniform heating of flat glasses or ceramics. We will also find the optimum solution for your system with industry-specific calibrations, individual design and our expertise in special material applications.

Whatever the process, our experts are the first point of call!

- Approved for use in potentially explosive atmospheres
- Furnace volumes from 10 liters up to industrial furnaces with volumes exceeding 200m³
- Calibration in compliance with AMS 2750 and CQI9, and under inert gas
- TUS/SAT measurement
- High temperature tungsten-rhenium thermocouples
- Quartz glass delivery



OUR
SUCCESS STORY

TRANSMITTING SIGNALS WITH RADIO SYSTEM SOLUTIONS

Increasing the demands placed on process monitoring also requires more and more measurement data in furnace construction – but the lack of installation space and specified signal paths make data transmission complicated. In response, RÖSSEL-Messtechnik has developed a radio system capable of transmitting measurement data up to 100 meters with simple installation and without any signals. The radio technology transmits for two years without maintenance or interruptions and can also be used in plants subject to the requirements laid out in AMS 2750 for aerospace technology and CQI9 for the automotive industry.

THE CHALLENGE

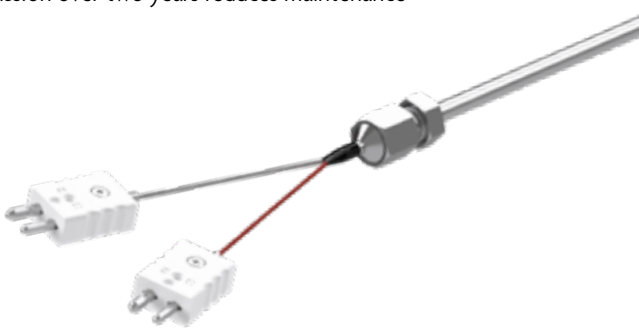
Exclusively thermocouples protected with various metallic and/or ceramic thermowells are used in furnace construction. The designs range from straight to wound, from a length of a few centimeters to several meters, rigid or bendable. In most cases, the installation space for the thermocouples is limited and the signal paths are already fixed. It often isn't possible to transfer signals via an additional cable for additional measurements. The task is particularly complicated in rotary kilns as the slip rings only feature a few contacts to transmit the thermoelectric voltage signals.

THE SOLUTION

RÖSSEL-Messtechnik has developed a radio system tailored to the special conditions in furnace construction and capable of wirelessly transmitting temperature measurement data from thermocouples. The radio technology consists of sheathed thermocouples or straight thermocouples with a transducer and receiver unit. The transmitters transmit with an integrated power supply. Up to six sensors can be connected to one receiver unit. The solution is also used in systems subject to the requirements laid out in AMS 2750 for aerospace technology and CQI9 for the automotive industry.

THE ADVANTAGE

By transmitting signals by radio, furnace manufacturers and operators can set up new measuring points with flexibility and minimal installation effort. Reliable and comprehensive measurement data increase process reliability and production quality. With a range of 100 meters, the radio sensors save materials and space. Maintenance-free transmission over two years reduces maintenance effort and costs.



High temperature thermocouples

YOUR PERSONAL
CONTACT PARTNER

Consultation. Solution. Innovation.

“Do you have any questions? Fire away!”

Hubert Topmöller

Furnace construction expert

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WE FIND
SOLUTIONS FOR

+ TEMPERING, HARDENING, PREHEATING
+ FIRING OF CERAMICS
+ THERMAL PROCESSING OF SMALL QUANTITIES IN THE LABORATORY
+ THERMAL COATING (DEPOSITION) OF SOLAR MATERIALS
+ CRYSTAL GROWING
+ RUST CONTROL, EDDY CURRENT COMBUSTION

GET TO KNOW US
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RÖSSEL-MESSTECHNIK – YOUR CERTIFIED PARTNER

As a leading manufacturer of temperature measuring technology for industrial and research purposes, we meet the strictest production standards. With internationally recognized approvals and calibrations, we offer quality you can rely on around the globe.

TÜV NORD CERT GmbH DIN EN ISO 9001

CENTROCAL

DNV