



STEEL INDUSTRY

TEMPERATURE MEASUREMENT AND
MEASUREMENT TECHNOLOGY FOR
STEEL PRODUCTION

Consultation. Solution. Innovation.



STEEL INDUSTRY

FROM THE ENVIRONMENT TO THE DEPTHS OF SPACE –
WE CONTRIBUTE TO RESEARCH AND INNOVATION IN
THE STEEL INDUSTRY

MEASUREMENT TECHNOLOGY FOR STEEL PRODUCTION

Steel is almost entirely recyclable, making it one of the most important materials on the planet. Many environmentally relevant technologies such as wind farms, turbines or lighter car chassis are based on innovations in the steel industry.

RÖSSEL-Messtechnik supports the steel industry along the entire path of technological advancement as an experience partner. Our thermocouples and resistance thermometers are used for process control and monitoring in all parts of the industry. We offer calibrated sensors compliant with CQI9 and AMS 2750 as well as sensors with ATEX approval from one single provider. We also produce special thermowell combinations for use in casting machines for both molten aluminum or for molten steel. Whether it's processing sheet metal for the aerospace industry or for everyday use: RÖSSEL-Messtechnik not only supplies the suitable thermocouples and resistance thermom-

eters for steel processing, we also conduct long-term research and development projects, for example in partnership with the Montanuniversität in Leoben, Austria.

Do you want to find out more about new processes or optimize your plants? We're happy to help! Pressure and vacuum-tight thermocouples, high-temperature thermocouples and corrosion-resistant sensors for etching processes are just a few examples of the products we specialize in at RÖSSEL-Messtechnik. Designed with the semiconductor industry in mind, RÖSSEL-Messtechnik runs a class 5 clean room to ensure we consistently meet the strictest quality requirements.

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

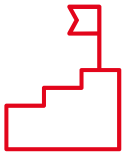
- ✓ Temperate range from - 200 °C to + 2000 °C
- ✓ ATEX approved
- ✓ Calibration in compliance with CQI9 and AMS 2750
- ✓ High temperature tungsten-rhenium thermocouples





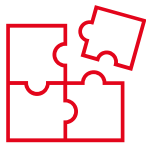
WINNING OVER STEELWORKERS WITH TIME-SAVING IDEAS

When it comes to steel tube production, ever-higher quality requirements are making increasingly time-consuming comparative measurements on furnaces mandatory. One of our customers with seven production sites and 4,400 employees around the globe found this had a major impact on costs and safety. Before we stepped in, the process had to be brought to a full stop to check the measurement technology, costing valuable production time. RÖSSEL-Messtechnik designed an innovative connection housing that allows sensors to be inspected during ongoing operations, saving time and significantly improving occupational safety as a result.



THE CHALLENGE

The previous method used to install sensors required undertaking checks with tools. High temperatures meant checking the sensors on the furnaces was not without its risks. A design modification was required to make it easier and safer to check the sensors. The solution also needed to be independently applicable for sensors from different manufacturers and also work in confined spaces in existing systems.



THE SOLUTION

Instead of the standard connection head with integrated couplers, RÖSSEL-Messtechnik developed a functional connection casing made of aluminum. Due to the innovative design, the thermocouple and cable can now be checked and evaluated without the use of tools. The design modification can be applied to all temperature sensors, regardless of their manufacturer. 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

This design has significantly reduced the time required to check a furnace. In this sense, efficient furnace testing during ongoing operations saves costs. Occupational safety for fitters in the plants has also improved with the risk of work accidents due to overtemperature being ruled out. Customer satisfaction has been verified with seven installations in seven countries. The design modification can also be used in other industries, for example furnace construction.



Thermocouple with steel thermowell



learn more...



"Prefer steel talk to small talk?
I'm your guy!"

Carsten Tillmann

Steel industry expert

0800 - 15000 - 60

carsten.tillmann@roessel-messtechnik.de

WE FIND
SOLUTIONS FOR

+ SMELTING ORE OR SCRAP INTO PIG
IRON

+ CARBON OXIDATION IN PIG IRON
STEELMAKING

+ HOT ROLLING



+ ANNEALING, COLD ROLLING AND
COATING

GET TO KNOW US
CONTACT





 **RÖSSEL Messtechnik GmbH**
Seidnitzer Weg 9
D-01237 Dresden



 +49 351 312 25-10

 info@roessel-messtechnik.de
 www.roessel-messtechnik.de



 **RÖSSEL Messtechnik GmbH**
Lohstraße 2
D-59368 Werne

 +49 2389 409-0

 info@roessel-messtechnik.de
 www.roessel-messtechnik.de

Version: 01/2024

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.



CENTROC 

