



Pressure | Temperature | Level

# Measurement technology in energy from waste plants



Smart in sensing

# High-temperature monitoring in the combustion chamber

The monitoring of the very high temperatures of around 1,000 °C in the ceiling and second pass of the combustion chamber is a critical measurement for any EFW stations. These measurements are taken in order to monitor the performance of the burning of the waste and also to maintain the NO<sub>x</sub> levels to ensure the that emission output complies with the local environmental standards. Another task of the measurement is to ensure the protection of the refractory wall inside the combustion chambers.

Burning domestic plastic creates very corrosive gases, in particular chlorides and hydrochloric acid, which attack most standard industry high-temperature materials for thermocouples such as stainless steel and Inconel.

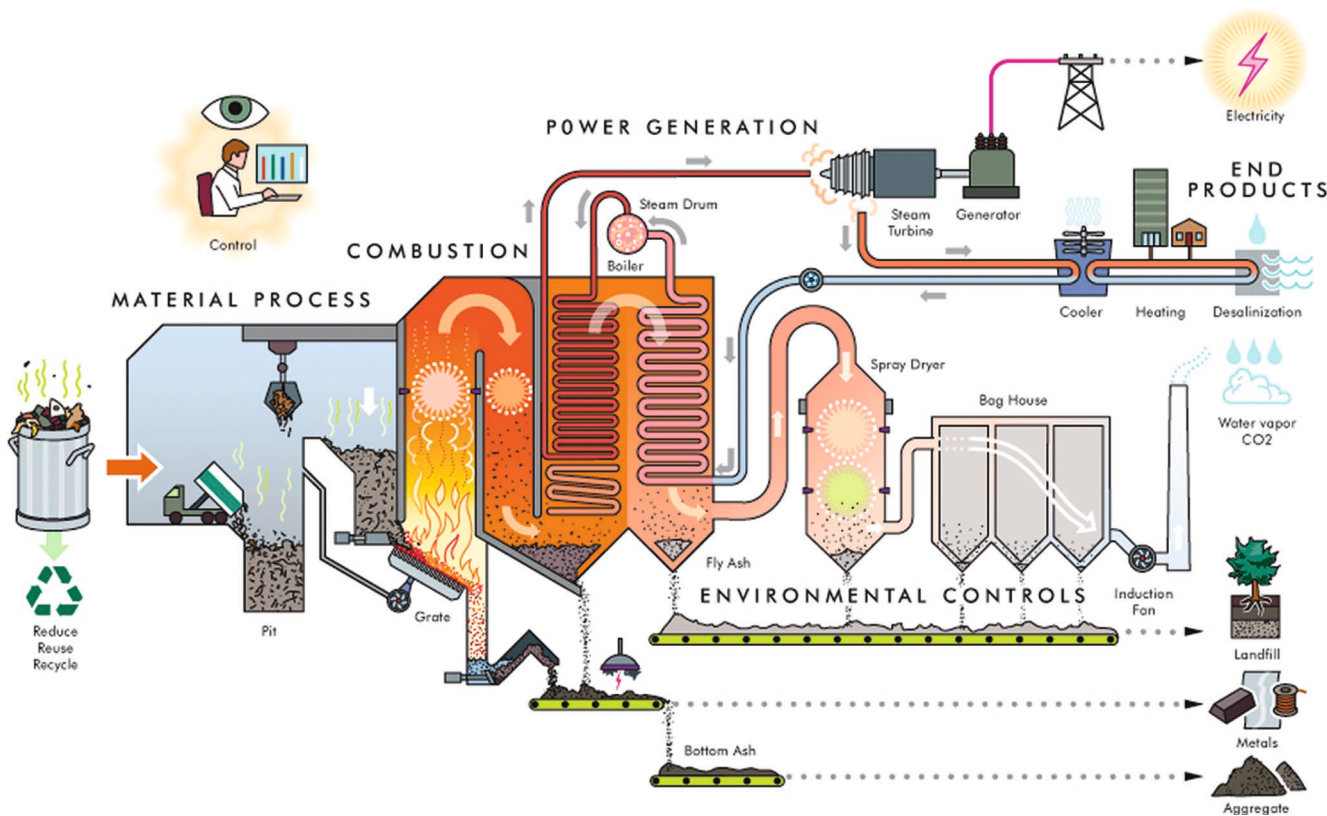
The chlorides and hydrochloric acid formed in the combustion chamber reduce the material life of these high-temperature thermocouples. Due to the position of the measuring points the replacement process of the sensor is difficult, time-consuming and expensive. As these measurements are critical to plant operations, early and unexpected failures are highly undesirable.

WIKA has a 'special' material as part of the TC81 product line where we offer the pocket of the thermocouple that is proven and tested in these environments. This pocket offers a much increased longevity compared to the standard high-temperature materials that are used in the industry today.



High-temperature sensor TC81

**YOUR BENEFIT**  
Longer service life due to special material!

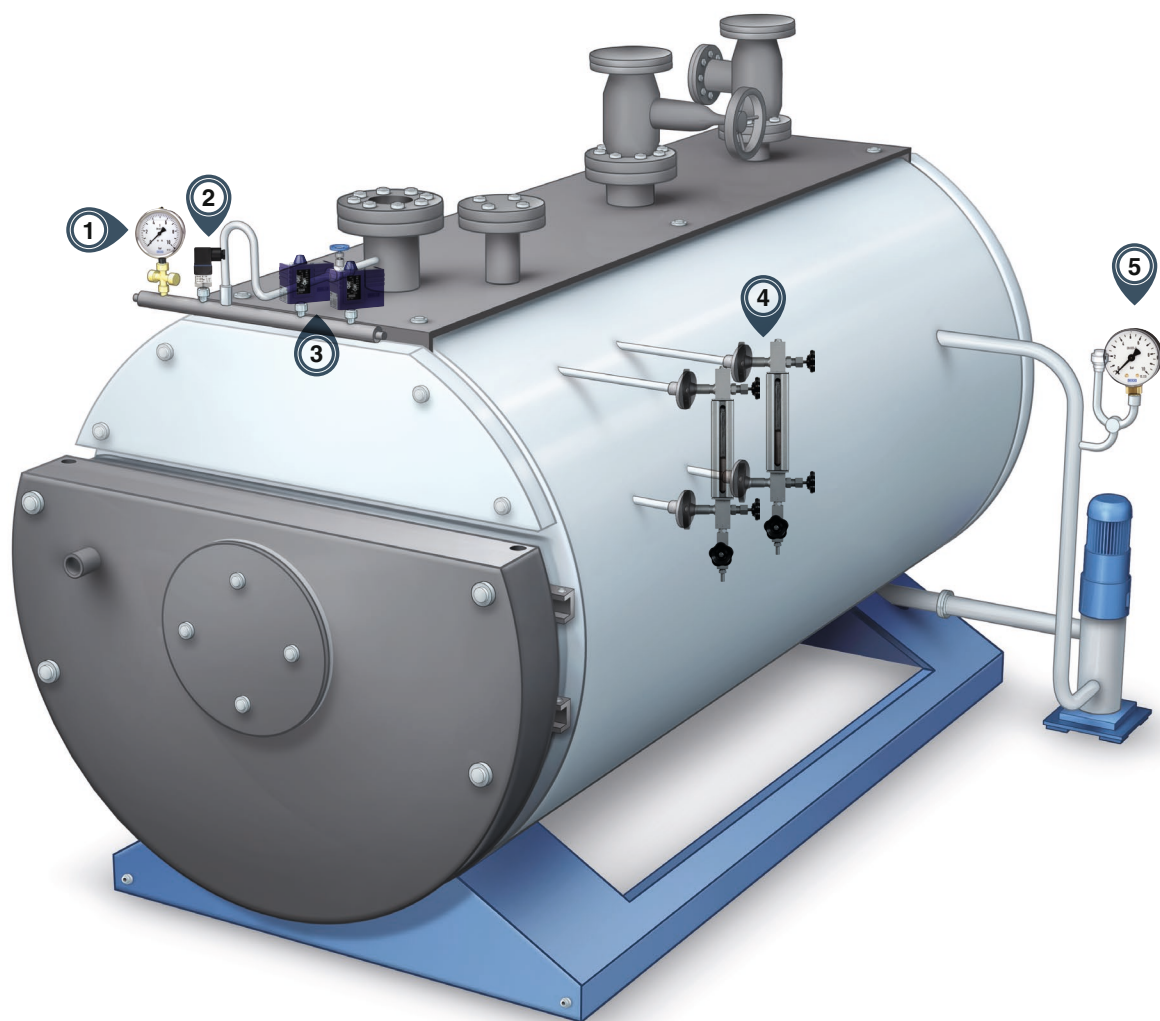


# Industrial steam or hot-water boiler systems

Industrial steam or hot-water boiler systems are used in the food industry, in hospitals, in the automotive industry and many other areas. A whole series of components work hand in hand: for example boilers, economisers, oil pressure control, water treatment, return flow temperature safeguard and others. The goal is the efficient provision of energy in the form of hot water or steam.

As a manufacturer of modules for industrial plants of this magnitude, you know how important it is to be able to rely on every single component, one hundred percent. As a supplier of safety-relevant measuring and switching instruments, we understand this responsibility. That is why WIKA focuses on the **reliability and accuracy** of the measuring instruments, as well as a high **delivery performance**.

The graphic indicates, representative for the different components of a boiler system, the most important measuring instruments and switches on a steam boiler. These include a glass level gauge, which is a mandatory part of a steam boiler through DIN EN 12953-6.



Legend – Measuring points:

- |                        |                     |
|------------------------|---------------------|
| ① Pressure gauge       | ④ Glass level gauge |
| ② Pressure transmitter | ⑤ Pressure gauge    |
| ③ Pressure switch      |                     |

# Product selection

## Pressure



**Pressure gauge**  
111.10  
213.53  
232.50, 233.50  
212.20



**Capsule pressure gauge**  
612.20



**Differential pressure gauge**  
DPGT40  
DPGT43,100



**Pressure transmitter**  
A-10, S-11, S-20



**Pressure switch**  
PSM-520, PSM-550



**Pressure switch**  
PSM02



**Accessories, shut-off valve for pressure measuring instruments**  
910.11

## Temperature



**Resistance thermometer**  
TR30, TR34



**Dial thermometer**  
A52



**Expansion thermometer with switch contact**  
SB15, SW15



**Thermowell**  
SWT52G



**High-temperature sensor**  
TC81

## Level



**Glass level gauge**  
LGG-E, LGG-T, LGG-R



**Accessories for glass level gauge**  
LGI



**Bypass level indicator**  
BNA



**Accessories for bypass level indicators**  
BGU, MRF, BLR, BMD, BLM, BFT

WIKA offers you a comprehensive product portfolio for the measurement parameters of pressure, temperature and level. Furthermore, we offer you maximum flexibility through **innovative and customised product developments.**



**Smart in sensing**

**WIKA Alexander Wiegand SE & Co. KG**  
Alexander-Wiegand-Straße 30 · 63911 Klingenberg · Germany  
Tel. +49 9372 132-0 · info@wika.de · www.wika.de