

Be sure. **testo**



Good for the climate. And for your balance sheet.

Sustainable reduction of emissions and energy costs –
with industrial flue gas measuring instruments from Testo.

Climate protection pays off. For businesses and the environment.

To be successful in the long term, you have to reduce energy consumption and emissions. At the latest since the Paris Climate Agreement, there is no way around a long-term sustainability strategy. Legal requirements are becoming stricter, and the cost of emission rights is rising – a real challenge for many companies that work with fossil fuels. With Testo as a partner at your side, it becomes a real opportunity. For your company. For the future.



How efficient is your combustion process?

With industrial flue gas analyzers from Testo, you can find out. All relevant indicator values can be determined quickly and precisely - and the results can be used to sustainably optimize your processes. This way, you simply save three times over: Energy, emissions and costs. That does the environment good. And your balance sheet too!



Optimize combustion processes and profit. Ecological. And economical.

There is great potential in efficient combustion processes. Because the more heat obtained from one unit of fuel, the lower the relative CO₂ and therefore the greenhouse effect. Based on the excess air, the optimum operating range of your furnace can first be determined and then set up. The smaller, the more efficient, the better. This means that measurably less hot flue gas is produced at your plants, you lose less heat energy, and in the end you simply do more for a sustainable future.



Optimize the efficiency. Minimize costs.

Optimum efficiency has a positive effect. On your energy and fuel consumption and, of course, the associated costs. To ensure perfect efficiency for your industrial plant, it is first necessary to perform a flue gas analysis and precisely determine the proportions of O₂, CO, and CO₂. These values are used to determine the excess air, which must be minimized. Because: The lower the excess air, the greater the efficiency of your system - the greater your profit in the end.

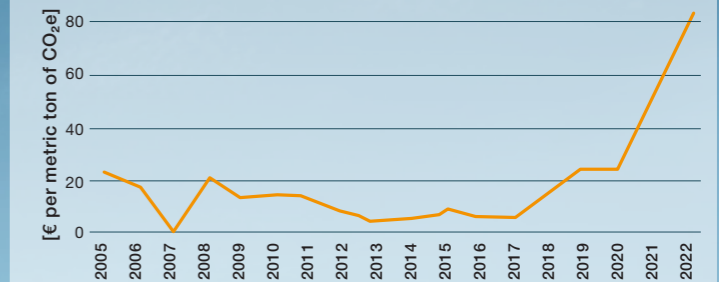
1%
less
excess air

1%
more
efficiency

Save emissions. Emission rights too.

In addition to the savings in monthly fuel costs, there is also a savings in the emission rights needed. These become more and more expensive over time. The unit of measurement for emission rights is the metric ton of CO₂ equivalent (t CO₂).

**CO₂ emission permits:
Annual price development in EU emissions trading until 2022**



Price development of CO₂ emission rights in European emissions trading (EU-ETS) from 2005 to 2022 (in euros per metric ton of CO₂ equivalent) (Source: Statista)



Savings in emission permits in a lignite-fired power plant (model calculation)

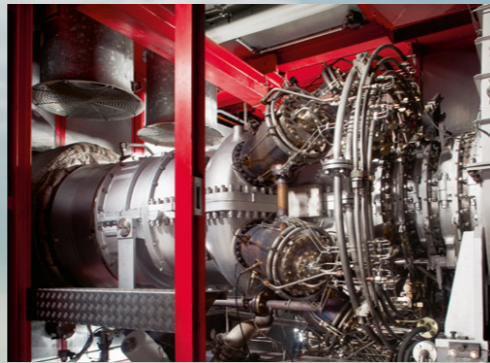
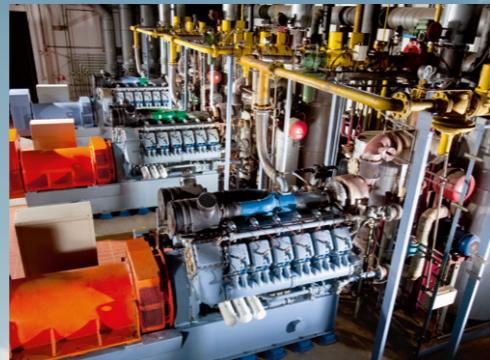
| CO ₂ emissions legislation EU [€/t CO ₂ e] | Output [MW] | Operating hours per year [h] | CO ₂ emissions [t] | CO ₂ savings [%] | Cost savings [€] |
|---|----------------|---------------------------------|----------------------------------|--------------------------------|---------------------|
| 81.04 | 100 | 8,000 | 752,038 | 1 | 609,451 |
| 81.04 | 500 | 8,000 | 3,760,188 | 1 | 3,047,256 |

**With fuel costs of 15 million € / month
save up to 150,000 €**

In 2022, for example, a lignite-fired power plant with a capacity of 500 MW and annual emissions of approx. 3.8 million t CO₂ could save approx. 3 million euros with a reduction of CO₂ emissions by 1%.

Optimal combustion processes. Emission measurement with Testo.

Whether burners, industrial engines, gas turbines, thermal processes, power, steel or cement plants: the right setting is everything – especially in industrial combustion processes. With the mobile flue gas analyzers testo 340 and testo 350, you can quickly and easily determine the exact flue gas components, optimize your combustion process and maximize cost efficiency.



How does the measurement work?

The compact flue gas analyzers **testo 340** and **testo 350** can be used quite flexibly at any measuring point – even in parallel with stationary measuring systems. Equipped with suitable probes and sensors, they determine all relevant flue gas values quickly and precisely and show them on the clear display at a glance.

Two pros. One goal: A measurably more efficient industry.

testo 340 – flue gas analyzer for industry.



The **testo 340** is the ideal handheld measuring instrument for industrial flue gas analysis. With its especially compact design, it combines reliable technology and maximum mobility - making it perfect for international service jobs and the commissioning and inspection of industrial combustion and power generation plants.

testo 340 flue gas analyzer

incl. rechargeable battery, calibration protocol and carrying strap, with O₂ sensor and integrated flow/differential pressure measurement, individual dilution and dilution of all sensors. Upgradable to max. 4 gas sensors from the selection of CO, COlow, NO, NOlow, NO₂, SO₂.

Order no. 0632 3340

XXX.XX €



testo 350 – emission measurement for the highest demands.

Ideal for professional flue gas analysis and industrial emission measurement: The flue gas analyzer **testo 350** performs a variety of measuring and analysis tasks, is impressive over the long term thanks to its heavy-duty industrial design and is also suitable for complex data acquisition.



testo 350 Control Unit

displays the measurement data and controls the analysis box. Incl. rechargeable battery, measurement data memory, USB interface

Order no. 0632 3511

XXX.XX €



testo 350 analyzer box

with O₂, including differential pressure sensor, temperature probe input Type K NiCr-Ni and Type S, Pt10Rh-Pt, Testo data bus connection, rechargeable battery, integrated combustion air probe (NTC), trigger input, measurement data memory, USB interface Upgradable to max. 6 gas sensors from the selection of CO, COlow, NO, NOlow, NO₂, SO₂, CO₂ (NDIR), C_xH_y, H₂S.

Order no. 0632 3510

XXX.XX €



Official partner of industry.

To be sustainably successful in industry, you have to make climate targets measurable. At Testo, we support you in this. Let our experts advise you on the optimal configuration of your measuring instruments and get the best not only for your company, but also for our environment.

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All prices net, plus shipping costs and VAT, valid from 01/01/2023. Payment within 30 days net.



Find out more

