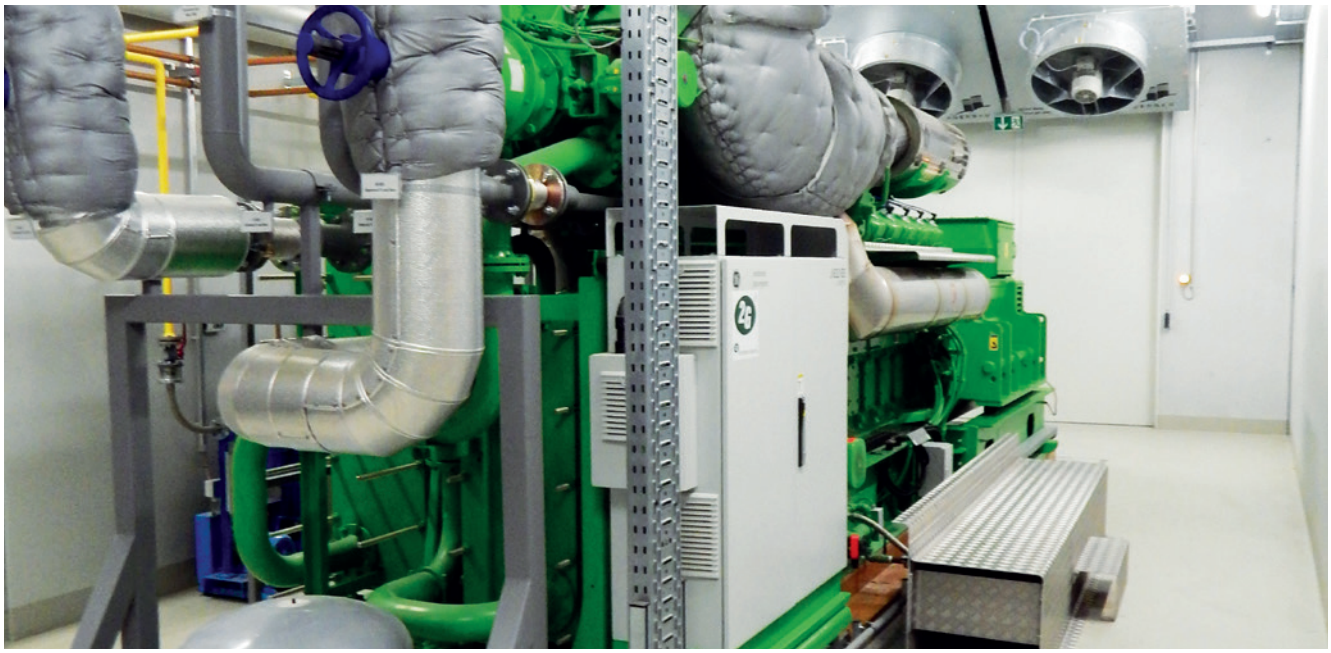
Testo Reference
2G Energy AG

Be sure. testo

Ensuring the efficient operation of combined heat and power plants with the testo 350 flue gas analyzer.



From commissioning, via control measurements, through to troubleshooting: the daily service and maintenance tasks for combined heat and power plants make a wide variety of measurement demands on 2G Energy AG. In this respect, “TI Air” is the relevant standard for the company's developers and engineers. The emissions limit values for numerous substances and groups of substances contained in it are checked at regular intervals by independent testing bodies. In addition to this however, 2G itself also regularly checks whether the plants' motors are actually running below the specified limit values once every 2,000 operating hours.

2G Energy AG

The company from Heek in Nordrhein-Westfalen is one of the leading international manufacturers of combined heat and power plants (CHPs) for decentralized generation and supply of power and heat. Medium-sized commercial and industrial customers, public utility companies and major energy suppliers, as well as farmers, local authorities and the housing sector, are all part of the company's diverse customer mix. 2G Energy AG's workforce of over 500 employees generated a turnover of more than 186.6 million euros in 2014.

2G®

A 2G combined heat and power plant in operation.

Preparation for a control measurement on a combined heat and power plant with the testo 350.

The challenge

When it comes to the commissioning of combined heat and power plants, long-term monitoring of their motors using an appropriate analyzer is particularly important. To do this, the fitter responsible must always keep an eye on the NO_x and lambda values above all. This also applies to regular maintenance checks on the legal emission limit values – a task which involved using a lambda probe at 2G in the past. However, it was very imprecise and had to be replaced every year, which meant extra costs and workload.

The solution

In order to be able to develop, commission and maintain their combined heat and power plants in a more efficient way, 2G Energy AG decided on the testo 350 flue gas analyzer. It meets the highest demands in industrial emissions measurement: easy handling, accurate measuring technology and robust design are practical features which impress on a daily basis. Furthermore, it can be fitted with up to six gas sensors. Five of these are available as an option enabling a free choice between sensors for CO, NO, NO_2, SO_2, H_2S, CxHy or CO_2.

> “The testo 350 has established itself as the ideal analyzer for us thanks to its high level of accuracy and reliability. It ensures that our motors run in a lean and above all very material-friendly way. Personally, I find it really good that you have an overview of the sensors with the testo 350. I can see via a traffic light system how the wear of the measuring cells is progressing. This means there is enough response time to calibrate the instrument ourselves in house or to replace measuring cells.”
>
> Alexander Vollmer
> Training Manager, 2G Energy AG

The advantages

2G's 150 service engineers are each equipped with a testo 350 in order to carry out maintenance and breakdown service operations. However, the company's commissioning engineers, who connect 2G plants to the grid all over the world, also use the analyzer. For them, the analyzer's robust case, which also means it can be transported by plane without any problem, is one of the elements that has proved its worth. Furthermore, the research and development department uses the testo 350 for efficiency measurements. One of the most important functions of the testo 350 for 2G is dilution (measuring range extension). This gives the possibility of diluting the measurement gas to a ratio of 39:1, so as to be able to measure particularly high concentrations as well.

More information

You can get more information about the testo 350 flue gas analyzer and answers to all your questions on emission measurement at www.testo.com.