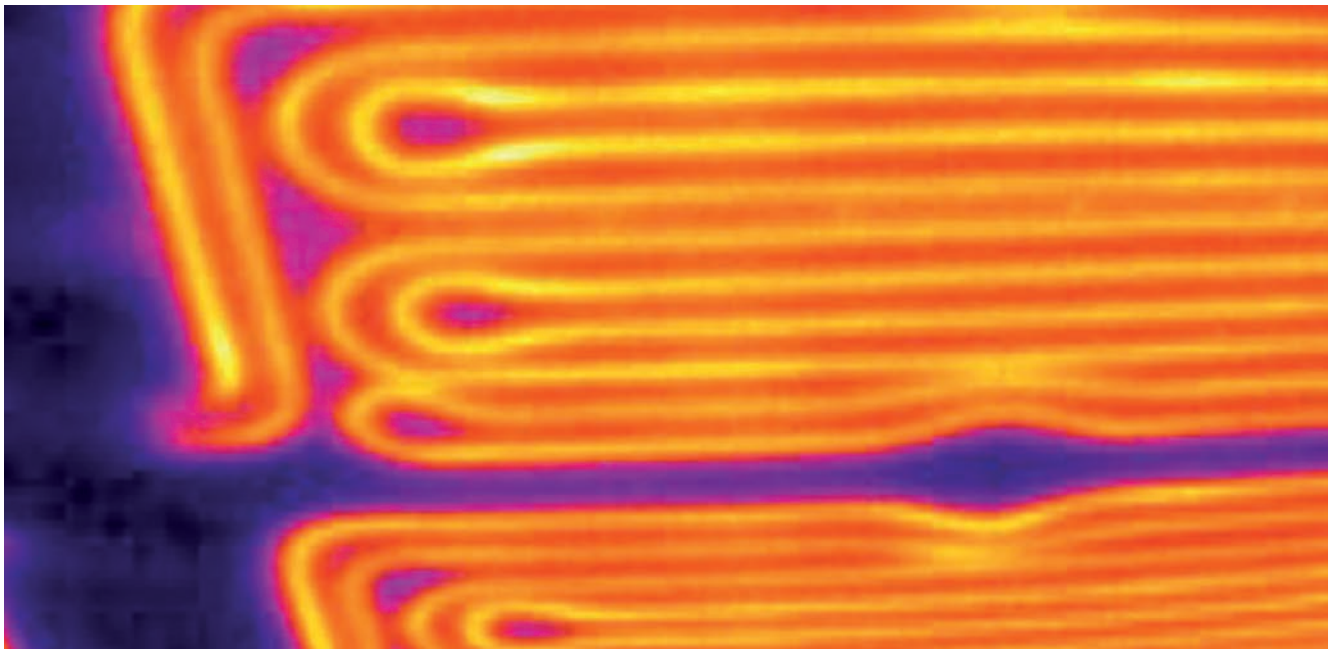




## Testing the performance of heating and refrigeration systems using Testo high-resolution thermal imagers.



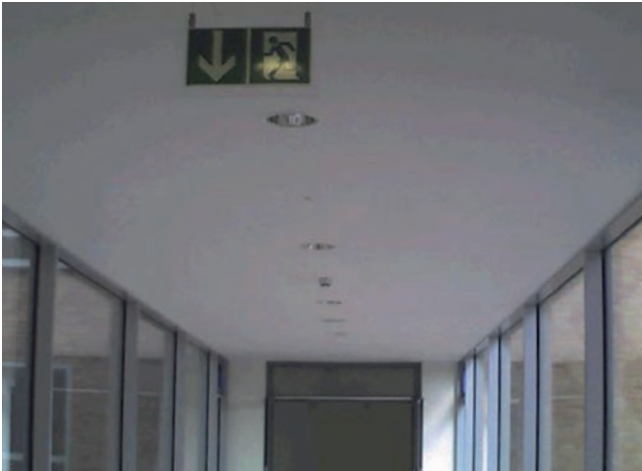
Qualitatively high-value and individually produced heating and cooling ceilings are being used in more and more buildings. Compared to conventional air conditioning systems, they offer, among other things, the advantage of not causing unpleasant draughts. This has a positive effect on the level of comfort and well-being in the room. For this reason, they are used mainly for the regulation of climate in offices and public buildings. In order to be able to test whether their heating and cooling ceilings are running smoothly, and to be able to demonstrate this to the customers, the company Ecker Heiz- und Kühlsysteme chose the thermal imager testo 875.

The company was able to create high-resolution thermal images of their systems with the SuperResolution technology and the high thermal sensitivity of the imager, thus efficiently testing their functionality and installation.

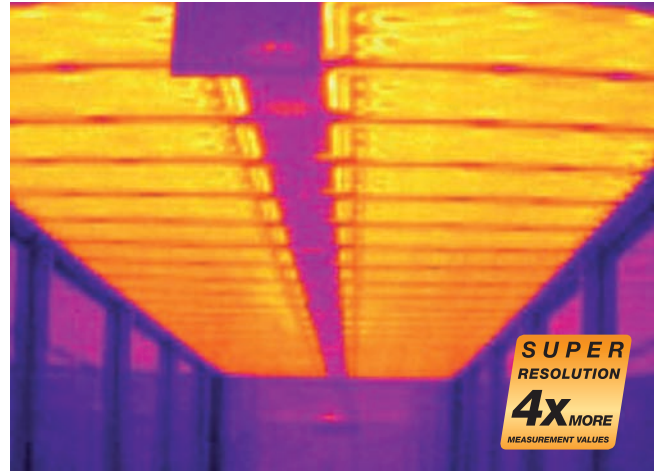
### **Ecker Heiz- und Kühlflächensysteme GmbH**

The company Ecker Heiz- und Kühlflächensysteme is well-known among architects, fitters and building developers for excellent heating and cooling ceilings. The company was founded in 1991 as Ecker Heizung, Sanitär und Klima. Since 1996, the focus has been on the development and production of heating and cooling ceilings. Today, 27 staff in Wallerfing, 90 kilometres south west of Regensburg, produce up to 150,000 square metres of heating and cooling surface for delivery all over Europe.





Real image



Thermal image with Testo SuperResolution

**The challenge.**

In order to test whether the heating and cooling ceilings produced by the company were working correctly, Ecker decided to invest in a thermal imager. These tests were previously carried out by other companies. The high contract volume has now made it worthwhile for the company to procure its own instrument. In the course of their research into possible suppliers, Ecker Heiz- und Kühlflächensysteme GmbH quickly became aware of Testo AG.

**The solution.**

Ecker decided on the model testo 875. The entry level instrument for professional thermography covers a temperature range from -20 °C to + 280 °C, and can be used for heating as well as for cooling ceiling systems. In addition to this, the testo 875 has a thermal sensitivity of < 80 mK as well as automatic hot-cold-spot recognition. With this, small and critical temperature differences are recognized and directly displayed – for example allowing more serious damage to a cooling ceiling to be avoided at a glance. In order to obtain even more detailed and sharper thermal



images, Ecker carried out a software upgrade to the Testo SuperResolution technology. This provided Ecker with high-resolution thermal images in 320 x 240 pixels instead of the native 160 x 120 pixels.

**The advantages.**

With SuperResolution, Ecker creates thermographic images of its plants in sharp detail, in order to see whether they are perfectly installed and working accordingly. The company moreover often juxtaposes real and thermal images in its reports. This means they can show their customers that an object may look well-insulated in the real image, however not until the thermal image has been viewed can a statement be made as to whether this impression is correct. The company intends to continue using the testo 875 to demonstrate the function of their cooling and heating ceilings in the future – thus convincing fitters, building developers and architects.

“I can absolutely recommend not only the thermal imager testo 875, but also the SuperResolution technology. Thanks to the better resolution provided by the SuperResolution function, we can show our customers an even better view of the respective cooling ceiling.”

Heribert Ecker, Managing Director  
Ecker Heiz- und Kühlflächensysteme GmbH



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