



Thanks to thermal imaging, "Erdinger Weissbräu" ensures that kegs contain wheat beer – and nothing else!

A FLIR Systems infrared camera watches over the bottling of the world-famous Erdinger wheat beer.

Erdinger Weissbräu is one of Germany's largest and most successful private breweries. The Munich-based brewery exports its specialty beers to more than 70 countries. And this figure keeps growing. Erdinger brews its beers only in its plant in Erding, six days a week around the clock, and without ever deviating from its high quality standard.

Erdinger is known for its strict quality policy and its consistent brand awareness. Its production processes, from selection and acceptance of raw materials to filling and maturing, are strictly monitored. Consequently, Erdinger Weissbräu maintains a permanent chain of security controls for the its keg filling and packing process.

Simulation and risk analysis have shown that however careful the production, it was conceivable that customers could take delivery of a keg filled with lye instead of beer. In order to prevent accidents of

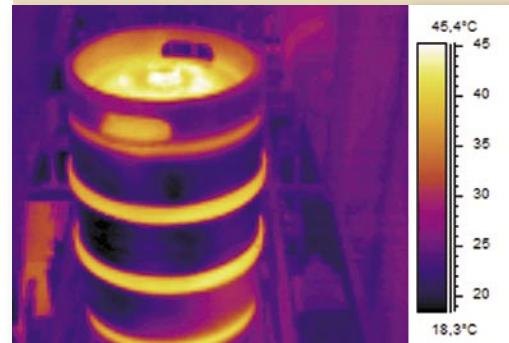
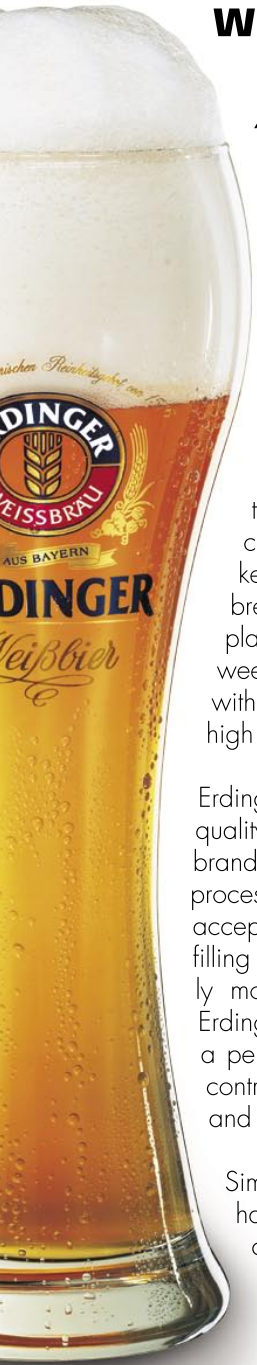
this kind, HACCP, a quality assurance program for the food industry, stipulates the installation of critical control points.

Perfect quality control

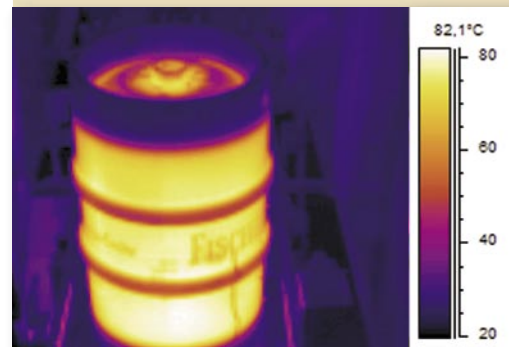
However, cases of this kind are not unknown in the industry. Drawing on its exceptional quality and brand awareness, Erdinger Weissbräu decided to ensure a 100% protection of its keg cleaning and filling process. Risk analysis demonstrated the need to set up an additional control point to ensure that a keg filled with lye could not slip through the conventional control points.

As a keg containing lye has a considerably higher temperature than a keg filled with beer, continuous monitoring of temperatures proved to be the optimum solution. In this way, it was easy to identify wrongly filled kegs by measuring their temperature.

Non-contact temperature measurement using spot pyrometer thermometers proved to be not sufficiently reliable for this application. Accordingly, an infrared camera was the chosen option. When correctly adjusted and interpreted, the camera's images enable a virtually error-free measurement.



Keg filled with beer



Keg filled with lye

The infrared image clearly shows that a keg filled with beer is cooler than a keg filled with lye.

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The infrared camera (top left in the image), checks each passing keg.



Infrared image of a keg filled with beer.

Infrared sees the difference

A FLIR Systems ThermoVision™ A20-M camera now measures the temperature of every keg before it leaves the conveyor belt of the filling installation. If the infrared camera identifies a keg with a different temperature, it sets off an alarm and the conveyor belt is automatically halted. The keg is then manually removed.

The monitoring system with the infrared camera has been in use for six months at the Erdinger brewery and it has proven to be extremely successful. The system is regularly inspected, but even in error simulations the A20-M FireWire camera has proven itself particularly reliable – any deviation has been identified immediately, triggering the appropriate alarm stage. "Not one keg filled with lye has left the filling shed. The infrared camera solution is now an established part of our plant", says a spokesman for Erdinger Weissbräu.

FLIR's range for breweries

The FLIR Systems ThermoVison A20, installed in a protective housing, plays a crucial role in this solution. Through FireWire, the camera is connected to a touch screen monitor that shows which size and type of keg is currently going through the cleaning and filling process. A thermal image of the keg going through is simultaneously shown on the monitor screen in real time. The system is not incorporated into the washing and filling machinery, which means that it can be used on all, new or existing, filling installations.



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