

BURR DETECTION ON STEEL SLABS

THE OPPORTUNITY

When cutting steel slabs, there is a flow of slag which can solidify as burrs on the underside of the slab, or it is flattened against or rolled into the bottom of the slab during further conveying on the roller tracks. The removal of this burr is critical.

For the production of steel slabs as semi-finished products intended for further processing, molten steel is poured in a controlled manner into a cooled mold.

This mold determines the cross-section of the slab. Cutting of the slabs is done with flame cutters in the cutting and slitting line. The flame cutting operation causes a flow of slag.

In the downstream process, the slabs are also run through an automatic deburring machine for removal of protruding ridges. Depending on the steel grade of the slabs, however, these ridges may be very flat, so that the slab edges cannot always be completely deburred.

Currently used systems have not proven reliable for residual burr detection. The use of an innovative thermal imaging system, on the contrary, ensures residual burr detection after the slab-cutting process with high reliability.



OUR SOLUTION

The use of Advanced Energy's Mikron MC320 thermal imager ensures residual burr detection after the slab-cutting process. It allows users to accurately detect temperature differences between slab and burrs through the use of 76,800-pixel high-resolution cameras.

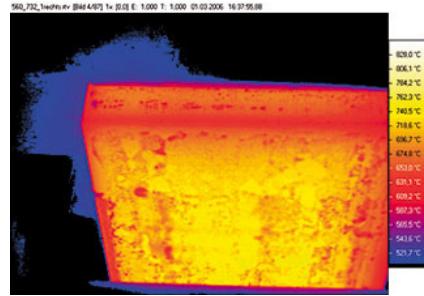


Mikron MC320

Mikron MC320 series thermal imagers enable real-time display of image sequences and evaluation of temperature information in specific regions (regions of interest) using LumaSpec™ RT software.

YOUR BENEFITS

- Users can also transfer data to a higher level control unit for removal of bad slabs from the process (using digital or analog output modules and TCP/IP protocols)
- Rugged enclosures with air purge and cooling are available for harsh industrial environment
- Ensure continuous high quality to assist in avoiding costly customer complaints



Thermal image of a steel slab



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