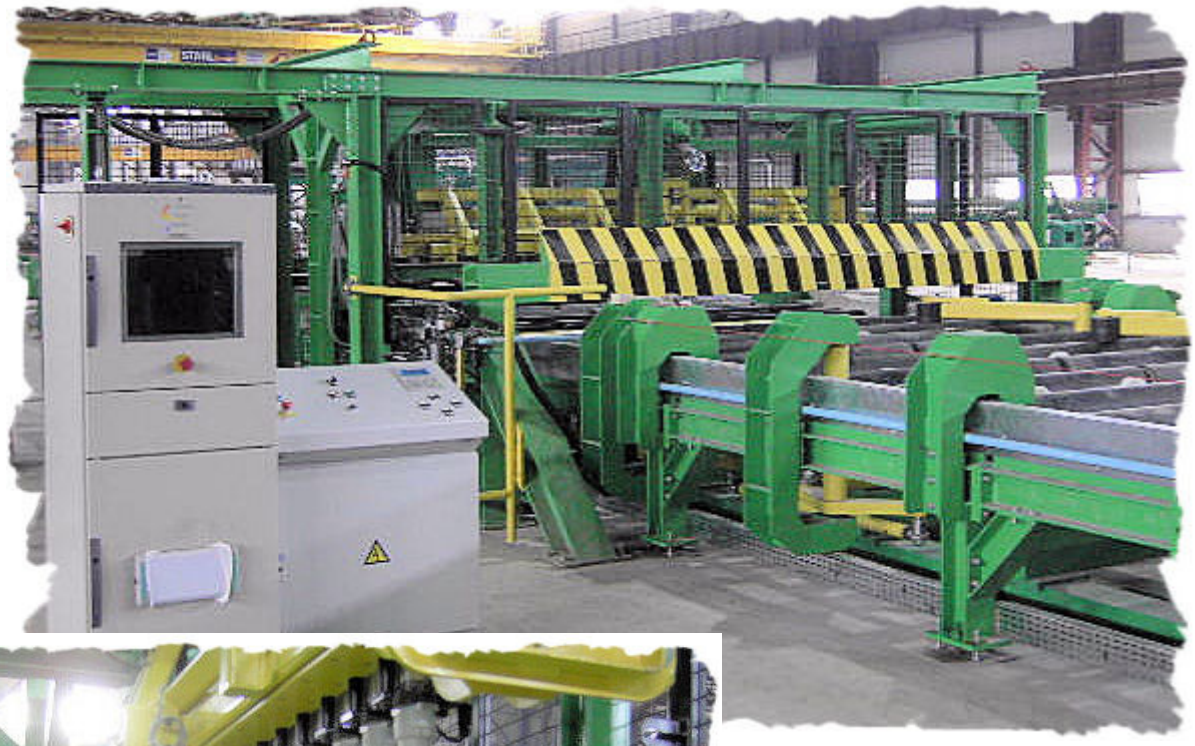
Contrôle Mesure Systèmes

Eddyscan® 30X

Conductivity measurement by Eddy-Current of large aluminium plate



- Turnkey system
- Fully automated
- High measurement accuracy
- Automatic calibration
- Network capabilities

Description

This system is intended to achieve conductivity measurement on the full surface (top and bottom) of large aluminium alloy plates.

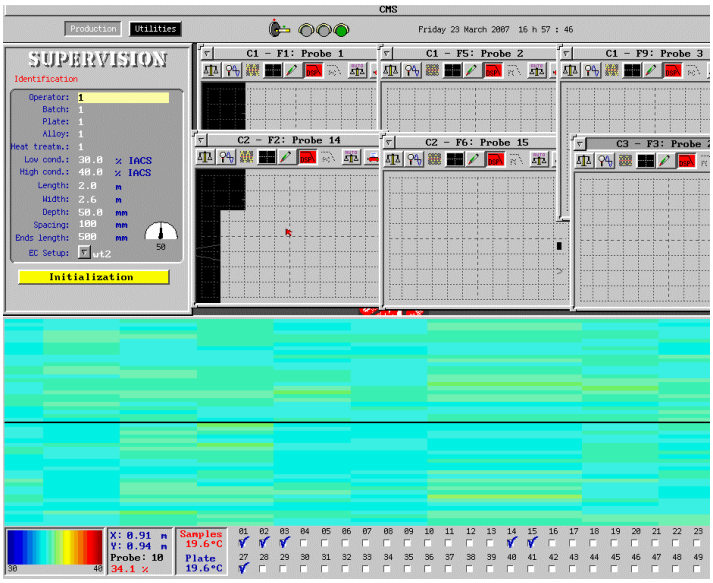
The system is based on a robust mechanic and a multi channels Eddy Current equipment *Eddyscan® 30X*.

The mechanic is composed of input and output conveyors, plate centering device and an inspection/calibration unit (drawing below).

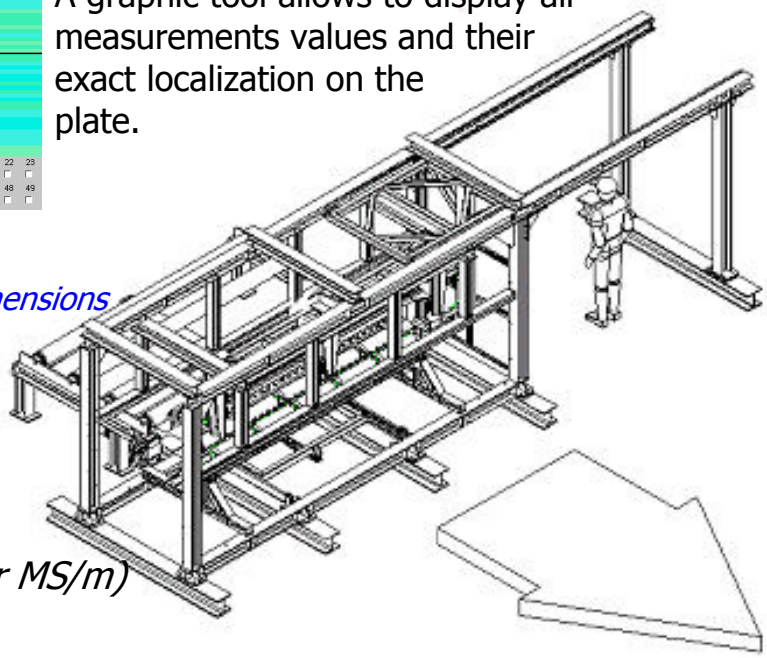
The conductivity measurement is achieved by numerous Eddy Current probes (52 probes) placed on the top and bottom face of the plate in order to cover its full width.

After an automatic calibration of each individual probes, the plate is moving automatically step by step (programmable) along the conveyors through the inspection unit and the conductivity measurements is done.

All the results of the conductivity measurements are processed, displayed and store on the Eddyscan 30X as shown is the screenshot below. A color map of the conductivity of the 2 faces of the plate is displayed in real time in order to visualize quickly the heterogeneity of the plate conductivity.



The system is fully automated (calibration, conveying and conductivity measurements). The plate identification and the conductivity tolerance are received via a central workshop supervisor.
The conductivity measurement (image file, excel report) are stored automatically on the workshop server.
A graphic tool allows to display all measurements values and their exact localization on the plate.



Technical data

Subject to change according to other plate dimensions

Mechanical

Plate length: 2 m to 32 m
Plate width: 1.2 m to 2.6 m
Plate thickness: 6 mm to 152 mm

Conductivity measurement (in %IACS or MS/m)

Probe frequency: 60 kHz
Range: 8 to 100 % IACS
Accuracy: ± 0.5 % IACS

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