



EDGEMON

HIGH STRIP EDGE QUALITY THROUGH AUTOMATIC INSPECTION

EdgeMon - the standard in strip edge surface inspection is essential for producing high quality strip trimming. The condition of the knife and detection of knife breakouts are key factors for trimming. In combination with offline analysis using the "EdgeMon Viewer" app quality issues can be identified. Therefore, the process is improved sustainably, increasing yield, reducing scrap and reworking efforts.

YOUR CHALLENGE

High product quality and plant availability require correct knife set up and reduced edge inspection time.

Without automatic inline inspection only subjective assessment, which varies with experience and only considers current quality issues, is possible. Systematic, continuous and sustainable process improvement is also challenging, whilst manual inspection causes delays.

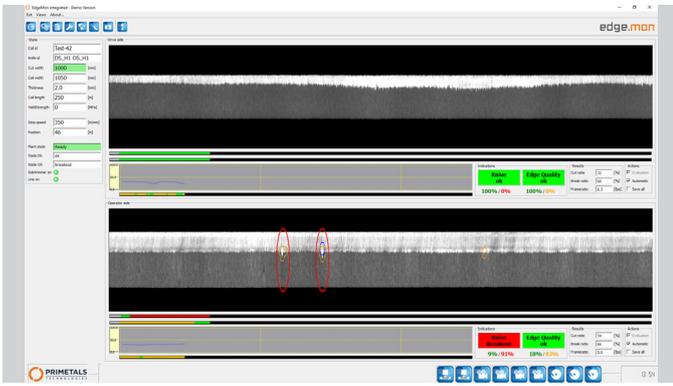
OUR SOLUTION

EdgeMon provides simultaneous inspection of both sides of the strip at full plant speed. Magnified images automatically show detected knife damage and warnings are issued in the event of worsening edge quality. Cut-break ratio and burr are measured, enabling operators to make decisions on knife changes, knife set-up or quality of the coil.

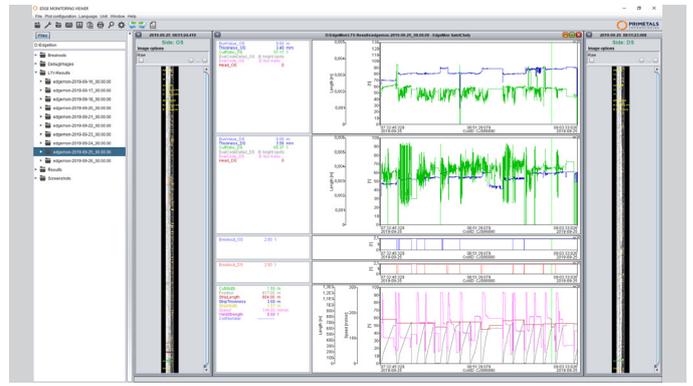
Inspection results and images are stored for a minimum of 1 year. With the EdgeMon Viewer data can be viewed and the side trimming process continuously improved.

EdgeMon is suitable for all plants equipped with side trimmers. EdgeMon is available as a stand-alone system or can be integrated into the side trimmer.

INCREASED YIELD
REDUCED SCRAP
AND REWORKING
EFFORT



Operator HMI



EdgeMon Viewer app for easy data screening

RESULTS

EdgeMon software assesses high quality continuous images and uses a traffic light system to indicate the overall quality of the cut edge. Information for cut-break ratio, knife damage and burr is provided on screen in real time. The on screen image is synchronised with the shear knife circumference and displays one full rotation of the knives. Image quality is independent of strip thickness, speed and width. 100% of both strip edges is automatically inspected. All images are stored and the EdgeMon Viewer can be used for offline analysis and process improvement.

EDGEMON ARRANGEMENT

EdgeMon Integrated – sensors are mounted on exit end of each shear housing, four sensors are used in the case of turret type shears. The sensors move with the shear and maintain a constant focal length to the strip edge regardless of the strip width.

EdgeMon Standalone – used when it is not possible to integrate the sensors. The sensors are mounted on a dedicated traversing unit which is automatically adjusted to strip width to maintain a constant focal length to the strip edge.

PLANT DATA

Strip thickness	0.1 – 7.5 mm
Strip width	800 – 1600 mm
Strip speed	up to 750 m/min
Safe working distance	up to 800 mm

USE CASES

EdgeMon is suitable for a variety of applications in both steel and aluminium strip production. It can be used in both hot and cold rolling applications and also in pickling and processing lines.

MAIN BENEFITS

- Avoids strip breakage due to knife breakouts
- Increases efficiency of the plant through the simultaneous inspection of both sides at full speed
- Reduce maintenance costs
- Save setup time and tool costs
- Reduce reclamation costs



REDUCED PRODUCTION COSTS



INDUSTRY 4.0



ENHANCED QUALITY

Primetals Technologies Austria GmbH

A joint venture of Mitsubishi Heavy Industries and partners

Turmstrasse 44 | 4031 Linz | Austria
primetals.com

Order No. T10-4-N195-L2-P-V4-EN
 Printed in Linz | © 2022

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