

# APPLICATION REPORT

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**Picture 1 Detmaster 1400 MPH pinhole detection system installed on Inspection Line No. 12**

## DETMASER MPH PINHOLE DETECTION SYSTEM ON A COIL INSPECTION LINE

In February 2007, Detmaster 1400 MPH pinhole detection system was commissioned at Corus Ijmuiden Works on Coil Inspection Line No. 12 where maximum strip width is 1220 mm and maximum line speed is 600 m/min. The Detmaster MPH system replaced with an enhanced detection capability of 10  $\mu\text{m}$  pinholes the previous pinhole detection system installed on the same location in coil inspection line.

The Detmaster MPH system frame includes a roll-out mechanism, which allows system pullout from the measurement position when needed e.g. to carry out maintenance tasks or to verify the system performance with the dedicated dynamic verification tools. The dynamic performance verification tools comprise a motor controlled rotating disc including certified pinhole and hole samples. The motor control enables maximum line speed simulation for the pinhole and hole sample detection.

The Detmaster MPH system does not include any edge masks and mechanical edge following units, thus enhancing the system reliability by excluding actively moving mechanical parts close to a strip. Furthermore, the Detmaster MPH system is integrated with the works information system, supplying detected pinhole, hole and edge crack information via TCP/IP communication link to the operators' control room. Respectively, via TCP/IP communication link the Detmaster MPH system receives the coil numbers from the works information system.