YIELD MANAGEMENT SOLUTIONS

DETMASTER MPG–SERIES

PICKLING GRADE MEASUREMENT SYSTEMS FOR METAL INDUSTRY

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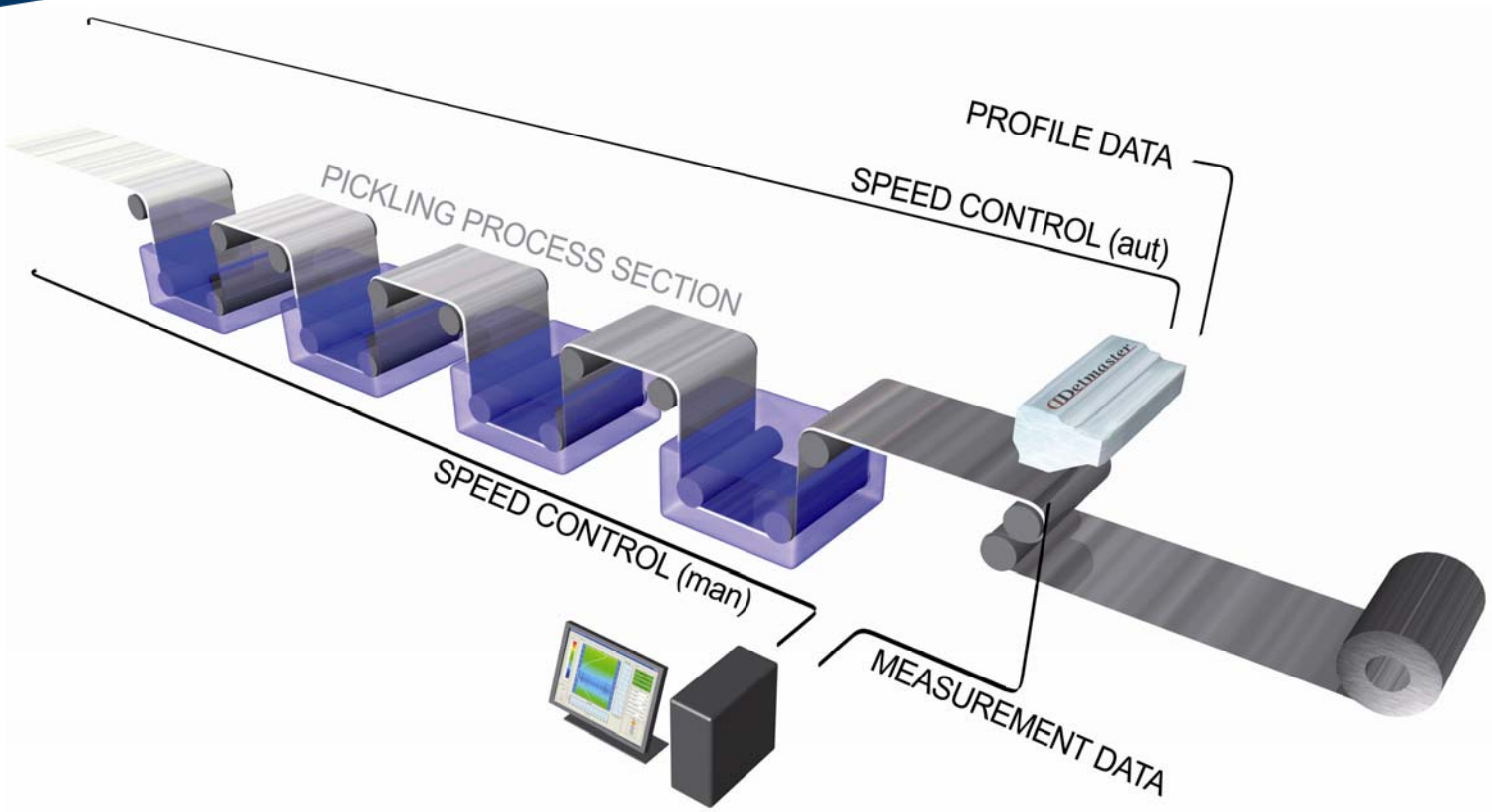

OVERVIEW

The patented Detmaster MPG - series provides brand new high performance solution for steel pickling lines for:

- Pickling Grade Measurement

The state-of-the-art Detmaster MPG Pickling Grade Measurement System measures accurately on-line, covering the entire strip surface, the remaining scale i.e. pickling level (nominal pickling, under pickling, over pickling) on pickling lines in order to maximize the pickling line capacity and assure the pickled strip quality.

The Detmaster MPG System provides the most advantages on coupled pickling + tandem cold rolling mills by ensuring optimal strip surface quality in terms of pickling grade for the immediate subsequent cold rolling process and increasing concerned process line capacity by reducing operator safety margins.

Furthermore, the Detmaster MPG System eliminates ”underpickling” and thus all re-pickling on separate pickling lines as well as avoids ”overpickling”, which causes surface quality problems and inefficiency for the pickling process.

All Detmaster systems have been developed in close co-operation with metals manufacturers. As a result, superior detection and measurement accuracy, system reliability and low cost of investment and maintaining are available in just one system – Detmaster.

TECHNICAL SPECIFICATIONS

Performance	
Measurement accuracy:	Residual scale <2%
Applicability	
Line speed:	0 - 1000 m/min
Strip width:	No limitations
Type of measurement:	Multi-angle optical reflectance measurement
Detector Beam	
Sensors:	Multi channel detector modules with high purity silicon PIN photodiodes and DSP signal processing (DSP-processor).
Reflectance illumination:	Integrated LED illumination from several angles. Each illumination angle is implemented with own modulation frequency allowing various simultaneous specific measurements.
Cleaning and cooling:	Automatic with low pressure air
Distance from strip:	85 mm
Power Supply	
Power consumption:	150 W/m, voltage 110 – 240 VAC, 43 – 60 Hz
User Interface	
Hardware:	PC, 22" LCD Color Display, Mouse + Keyboard
Software:	Windows based including measurement data, trends, historic data, self-diagnostics, alarms, user defined threshold levels
Mill Interface	
Isolated digital Outputs:	10 user definable, 4 RS-485, 2 Real Time
Isolated digital Inputs:	8
Mill way connections:	TCP/IP (optional)
Analog outputs:	4 CH 0 – 10 VDC / 4 – 20mA (optional)
Dimensions	
Minimum space requirements:	MD: 900 mm, above strip 700 mm for single-side system MD: 900 mm, above strip 700 mm, below strip 700 mm for double-side system
Electronics cabinet:	H 1000 mm, W 600 mm, L 250 mm
Standard Operating Environment	
Operating temperature:	+10 °C - +50 °C
Humidity:	30...90%, non-condensing
Calibration	
Integrated in system enclosure:	Calibration is carried out on-line with the dedicated calibration sample. For calibration procedure the MPG system detector modules turn automatically / manually regularly for a while towards the integrated calibration sample
Structure	
Supporting mechanics:	The supporting mechanics comprises motorized ball-race screws to lift the MPG system enclosure up to the inspection position and let the system enclosure down to the maintenance position.