

HISECTION

Section gauge system
for metal industry

DANIELI AUTOMATION



HiSECTION

Applications

- In hot rod & bar mills
 cold stainless steel or
 non-ferrous rod & bar
 mills
- > Bar balancing in
 slitting lines
 - > Tension control
 - > Roll and roller guides
 wear monitoring
 - > Weight-per-meter
 calculation

HiSECTION is a non-contact eddy current system for in-line measurement of the cross sectional area of hot-rolled bars.

The MD5000 family of sensors measures rounds, ovals and rebars.

The system can be used in any application where bar sections require continuous real-time monitoring.

HiSECTION is based on the detection of eddy currents inducted on the surface of the rolled bar by a variable electromagnetic field.

The electromagnetic design of the sensor is optimized by using FEM techniques. In this way vibration and transverse movements of the bar don't affect the measure.

An advanced and innovative signal processing calculates in real-time the cross-section of the rolled bar, independently by its steel grade.

Different sensor sizes are available to cover different product ranges.

Features

- > Compact-size water-cooled stainless steel head
- > Measure independent by steel grade of the material
- > Bar vibration and transversal movement proof
- > Built in standard industrial interfaces
- > Web based configuration and diagnostic

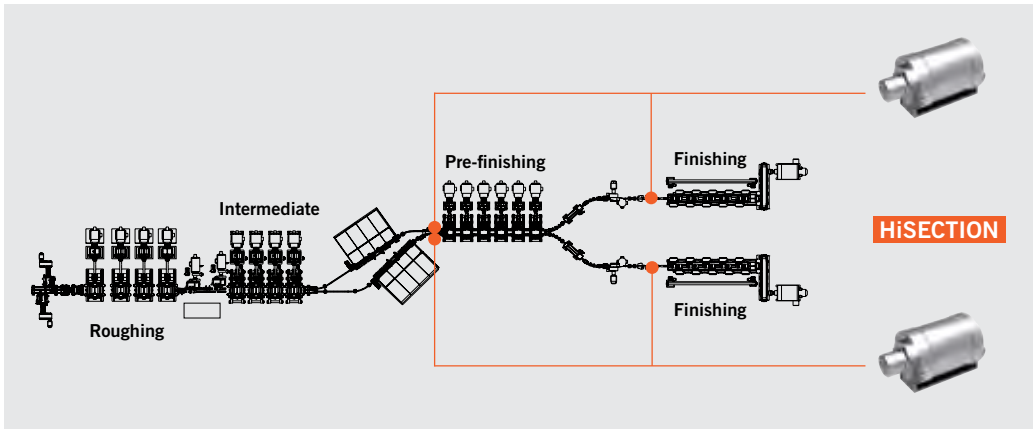
Benefits

- > Real time cross-sectional area measurement and weight-per-meter calculation
- > High measurement accuracy
- > No physical contact with rolled product
- > Very high reliability and availability
- > No moving parts
- > Fast return on investment - Typical plant efficiency increase: 2 - 4%
- > Reduction of wear and break-down of roller guides and the working rolls
- > Improved product tolerances
- > 100% Quality monitoring of product
- > Reduction of scrap
- > Low operational costs
- > Enhanced plant safety

HiSECTION - Technical specifications

Measuring method	Eddy current
Product range	ø 5 to 80 mm
Max product speed	Over 120 m/s
Outputs	Profibus, MODBUS, Profinet and TCP/IP on ethernet. Analog & digital I/O at field level





HiSECTION system configuration



HiSECTION HMI workstation interface



HiSECTION plant installations

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