

# HINSPECT

Surface inspection system  
for hot rolled round, hexagon  
and square products

**DANIELI** AUTOMATION

AUTOMATION  
**HiNSPECT**

# HiNSPECT

HiNSPECT is a family of systems to analyze the bar surface during hot rolling, casting or cold finishing processes, automatically detecting any surface defects on the product. HiNSPECT device is based on high-power LED lighting and high-resolution acquisition system, which make possible to recognize and identify surface defects, both delimited and distributed on the bar, as:

- seams, laps, slivers, scabs
- cracks (originated in conticaster)
- periodic marks (caused by rolling problems)

**Features**

- > Complete surface inspection based on an innovative perimetric rotating pulsed light sequence
- > Optical system installed in protected environment

- > Optical path kept clean by internal forced air flux, in order to eliminate pollution due to dust and scale
- > Different sizes to better fit Customers' needs
- > Full interface with plant automation system

**Benefits**

- > HiNSPECT gives a significant added value to the quality certification activities
- > No more off-line inspection required, with a significative increase in plant productivity
- > Improved product quality monitoring
- > HiNSPECT fully supports a back tracking analysis for defect source identification
- > Historical database for quality control purposes
- > Real-time results for a fast feedback
- > Low maintenance & operational cost

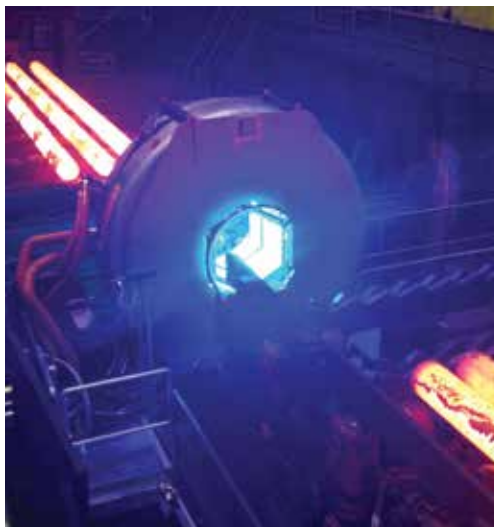
**Applications**

- > Wire rod and bar mills
- > Billet and bloom casters
- > Cold finishing lines

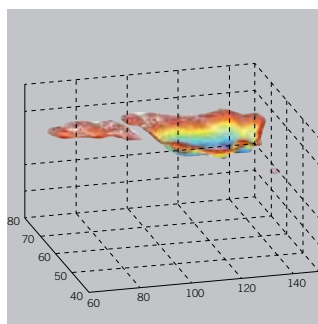
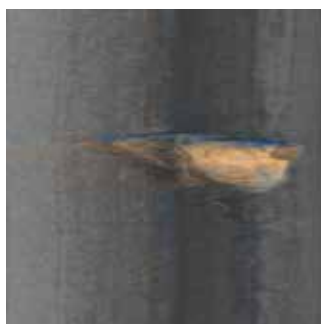
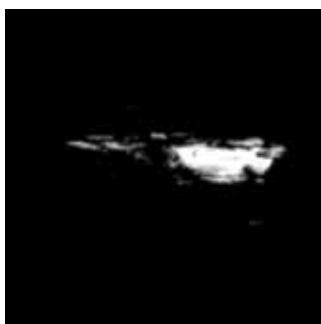
**HiNSPECT - Technical specifications**

	wire rod	small bars	medium bars	big bars	blooms
BarDiameter	28 mm max	60 mm max	180 mm max	260 mm max	430 mm max
Bar speed (minimum dia)	up to 120 m/s	up to 20 m/s	up to 20 m/s	up to 5 m/s	up to 5 m/s
Defect sensitivity	down to 0.05 mm				
Product temperature	max 1,100 °C				

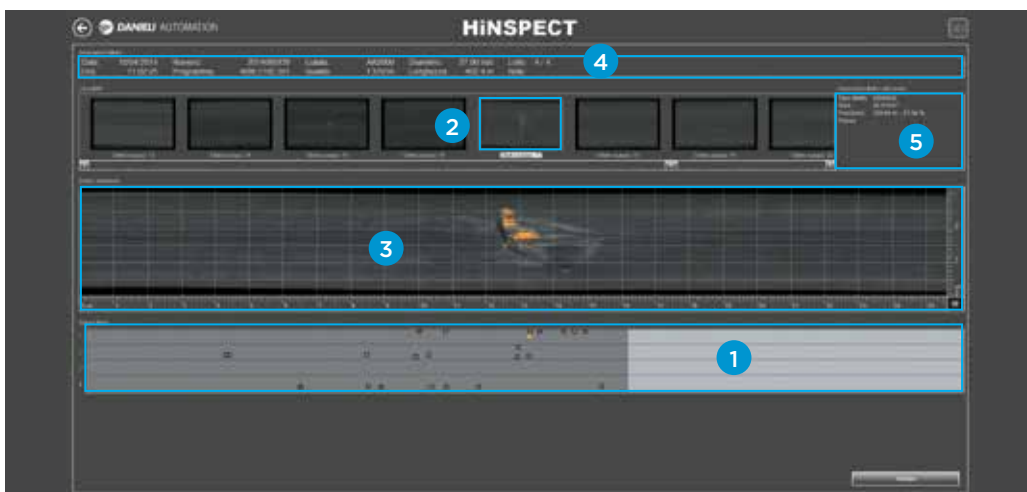




HiNSPECT plant installations



An innovative pseudo 3D view allows a coarse defect depth indication in post-processing analysis



- 1. Defect map localization
- 2. Defect list
- 3. Selected defect
- 4. Product information data
- 5. Defect information data

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