

Inspecting Special Bar Quality Steel (SBQ)

Rotary and Coil Eddy Current NDT Methods

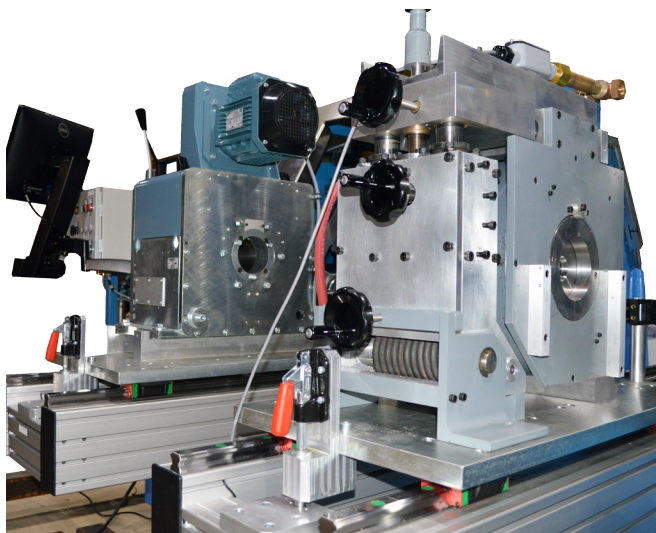


The System

- ☑ Feed System
- ☑ 3 Channels of Multimac® Eddy Current Electronics
- ☑ Displays Rotary & Coil Channels Simultaneously
- ☑ Environmental Cabinet with built-in monitor and Sliding Keyboard and additional Rack Mount Display
- ☑ Rotary Model 10R 350M with Slide Mechanism
- ☑ Coil Platform CP502 with Slide Mechanism
- ☑ Demagnetizer 475 Air Cooled Coil
- ☑ Triple Guide Roll Constant Centering Bench



This rotary and coil eddy current system was designed to inspect SBQ steel from 0.750" - 3.5" diameter directly after the straightening process. The material is lifted onto the feed system which includes Release Mechanisms, Intermediate Stop Arm Attachments, and E-Z Drop Channel Section Loading Attachments-all within a programmable controller.



MAC customers have taken special notice of the quick and easy size change-over features of the system.

The material under test first passes through an eddy current rotary with a rotating headplate to detect long, continuous type surface defects. It then goes through an encircling coil to detect short defects; meaning, the coil never comes into direct contact with the material under test. Lastly, a demagnetizer removes any residual magnetization, and, 2 paint markers spray any detected defects. The accepted material is then sorted from the rejected material in the outlet conveyor.

Results are all recorded and stored in MAC's Multimac software with full networking capabilities. MAC Software provides control of sensitivity, frequency, phase, filters, and threshold outputs through on-screen menus.

The NDT system guarantees a defect free bar down to 1.6% of the external diameter. The necessity of a defect free bar at this stage is due to nature of its additional processing by forging manufacturers.

This NDT system can ensure surface quality of hot rolled product that meets and exceeds customer expectations.



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