

EddyStar

Configurable In-production Eddy Current Non-destructive Testing



Technofour EddyStar is a novel concept of configurable - yet economical - networked Eddy Current non-destructive testing in production lines. EddyStar systems are controlled by a PC or laptop over ethernet from any convenient location in the factory.

EddyStar can be utilized for defect detection in tube production lines or for testing automotive components for surface defects, or as a simple grade sorter for in-production 100% quality inspection of metallic components or raw stock.

Several EddyStar systems can be connected to a single computer in a TCP/IP ethernet network. They can even be heterogenous, i.e., Some in the network can function as grade sorters, while others can operate as surface-defect detection systems. Each EddyStar can also handle automatic sorting and paint marking through a locally connected PLC.

Two versions of EddyStar are offered:

EddyStar-SD can handle static (grade sorting) as well as dynamic (defect detection of tubes or components like ballpins, gudgeon pins etc) tasks.

EddyStar-S is engineered to cater only to simple grade sorting applications in a cost-efficient manner.

- Static and Dynamic tests
- Eddy Current defect detection in tube mills
- Online or offline operation in tube mills
- Surface defect detection on roto-symmetrical components
- Grade sorting of components or bars, forgings, tubes etc
- Wide frequency range
- Load or save often used parameter sets from a computer
- Independent High-pass and Low-pass filters
- Absolute channel option for open-weld detection of tubes
- Automation/ paint marking handled by PLCs
- TCP/IP ethernet connection with a remote controller
- Up to eight systems can be controlled by a single computer
- Log results in the control computer
- Print reports from the control computer
- Cost effective with uncomplicated eddy current tests

Some features are only available in EddyStar-SD



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EddyStar TECHNICAL DATA

Frequency Range

5 KHz - 400 KHz (Dynamic modes)
100 Hz - 1 KHz (Static mode)

Signal Gain

0 dB to 86 dB in steps of 0.5 dB

Phase

0 deg to 359 deg in steps of 1 deg

Thresholds

Static Mode: Single circular GO/NO-GO
Dynamic mode: Amplitude / V-component

Filters (Dynamic mode)

Independent high-pass and low-pass

Connectivity and control

External computer connected over ethernet

Setup

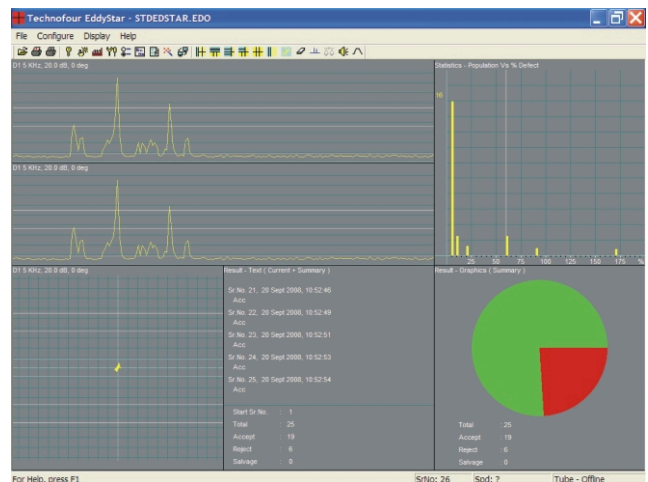
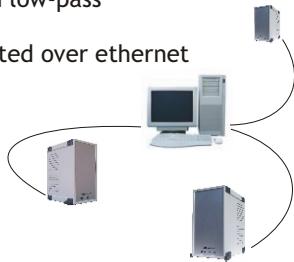
Manual and Automatic

Test Probes

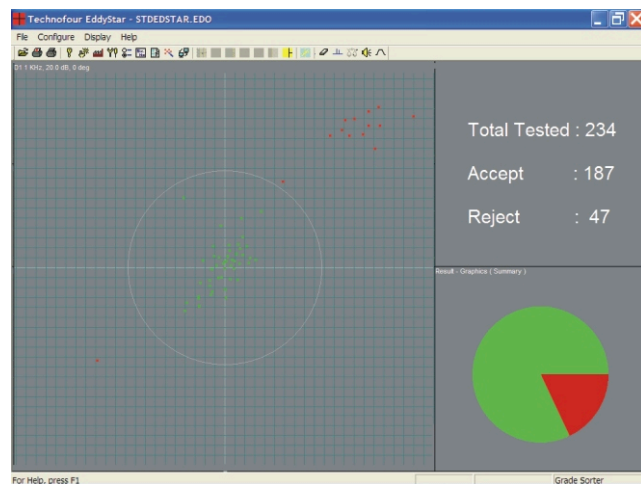
Encircling coils
Segment coils

Automation

External PLC



EddyStar-SD can be configured for online or offline tests in tube mills, or to detect surface cracks in automotive or other roto-symmetrical components. All signals and statistics are displayed on the controlling computer.



EddyStar can be configured to sort metal components or raw stock as a simple Go/No-Go tester in production lines. The system can also be connected to a gate-sorter for automated sorting of components in two groups.

All types of encircling and segment test heads, probes and saturation/demag systems are available.



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NDT House, 45, Dr Ambedkar Rd, Pune 411001, INDIA
Tel: +91 20 2605 8060 Fax: +91 20 2605 8070
Info@technofour.com www.technofour.com



Automatic sorter for EddyStar-S