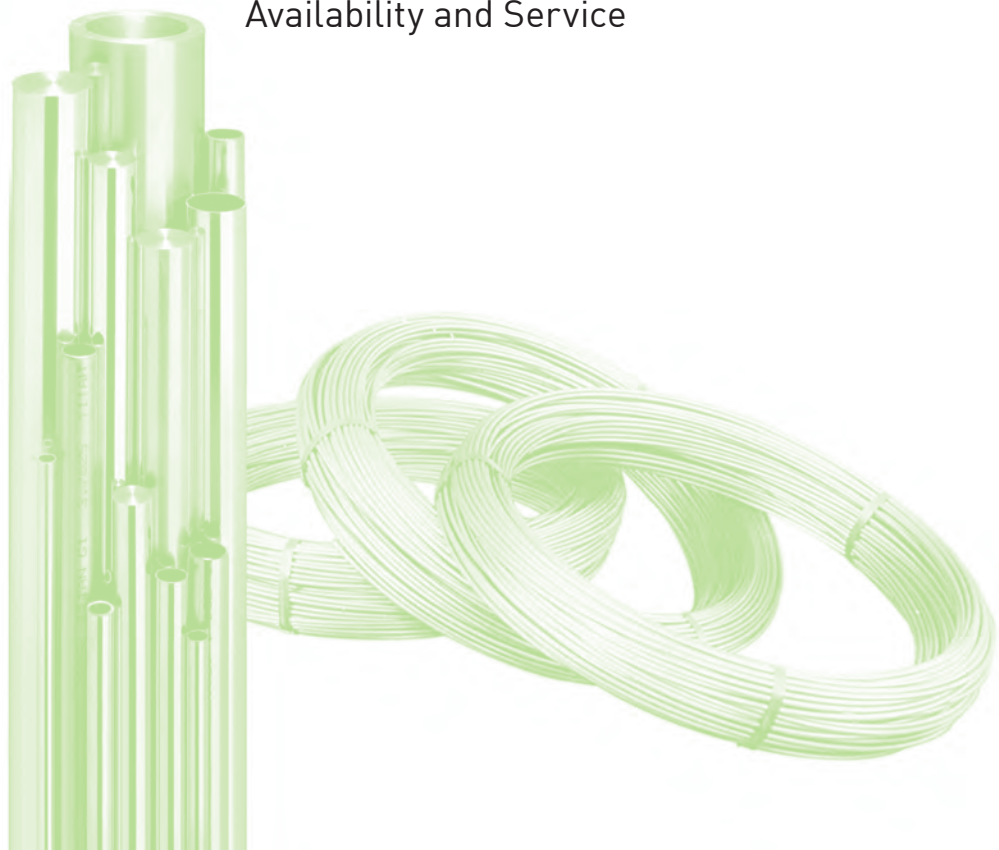
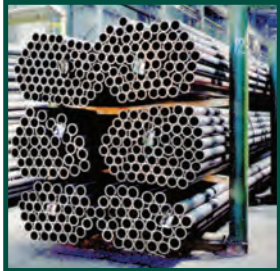
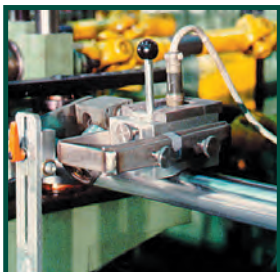


EDDY-CURRENT TESTING WITH DEFECTOMAT® CI



COMPACT INTELLIGENCE

- State-of-the-art data communication
- Top technical performance
- Intuitive operating
- Availability and Service



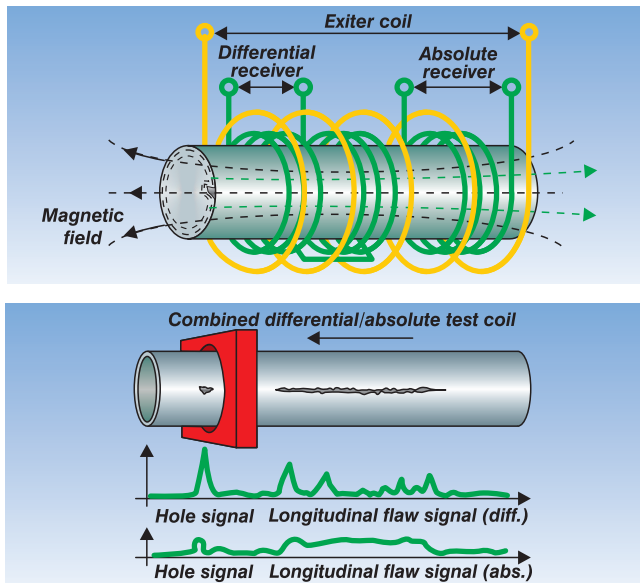
DEFECTOMAT CI

New technology for the classical eddy-current testing

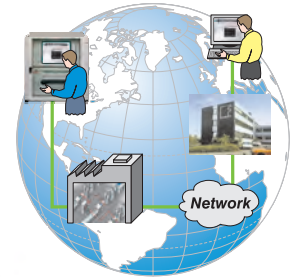
New compact EC tester

DEFECTOMAT CI – the original compact eddy-current tester now with new technology. It is the successor of the globally successful DEFECTOMAT C and CP versions.

One of the new features on offer is the fully optional 2-channel evaluation, which allows e.g. the simultaneous use of the differential and absolute channel, 2-frequency applications and simultaneous signal evaluation in the eddy-current and FERROMAT channel.



Eddy-current principle using encircling coil technique



Technical features

State-of-the-art data communication

- State-of-the-art computer technology
- Full network integration
- Remote control of the settings
- Takeover of the result data
- Periphery diversity with USB port for memory stick, modem, printer, mouse, keyboard (also wireless), CD burner, portable hard disk, card reader etc.
- XML log structure for every tested part and every order can be displayed by standardized format using Internet Explorer
- Data export and import using a memory stick



Availability and service

- Sensor monitoring based on the noise level
- Recognition of cable break and short-circuit
- Remote service via telephone, modem or internet Log-in
- Logged calibration including sensor
- Simple replacement of the predecessor model through pin-compatible line and sensor connections

Optimum technical performance

- Optional, full 2-channel evaluation Diff/Abs, Diff/Diff, Diff/Ferromat
- 12 test frequencies from 1 to 1000 kHz
- Filter tracking according to the test speed
- Point exact, location-precise marking
- Sector signal evaluation with 2 trigger thresholds
- Analog output

Intuitive operation

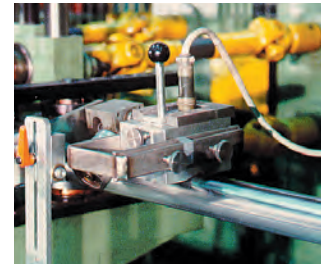
- Quick and easy with "turn and push"
- Password-protected operating level
- Easy to read colour screen
- Visualisation of test sequence
- Constant display of the most important test parameters
- Unlimited settings archive
- Stored sensor list with features

APPLICATIONS



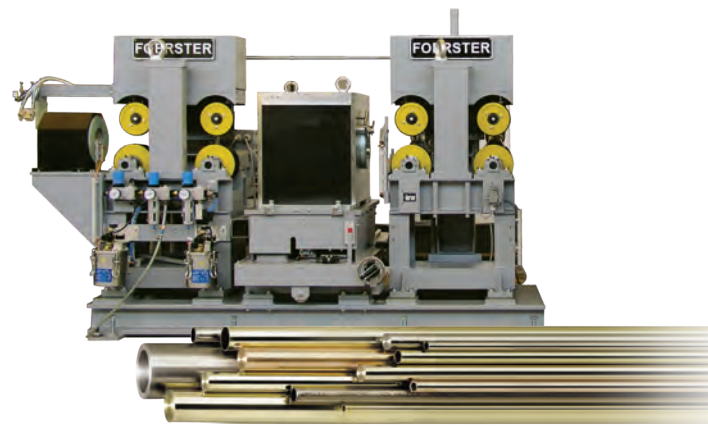
In tube welding lines, using the differential and absolute channels to monitor the weld quality with weld probes or segment coils. The optional absolute channel detects open seam tubes and is more sensitive with the new sector evalua-

tion, since disturbances such as temperature fluctuations may be suppressed phase-selectively.



In tube finishing lines, using a 2-frequency test for optimal detection of surface flaws or using the differential channel for flaw testing and the static absolute channel to monitor the material properties, such as a simple grade verification or geometric check with respect to the same tube wall.

In bar stock finishing lines for small and medium-sized dimensions, using the differential channel for surface flaw testing. Here too the static absolute channel can be used for a simple grade verification.



In endless wire lines, e.g. drawing lines or rewinders, the section-specific evaluation of defect signals over selectable limit values produces three quality statements. When using two evaluation channels, the limit values may be set differently so that

for instance in the second evaluation channel, a single serious defect signal can cause the entire wire coil to be rejected.

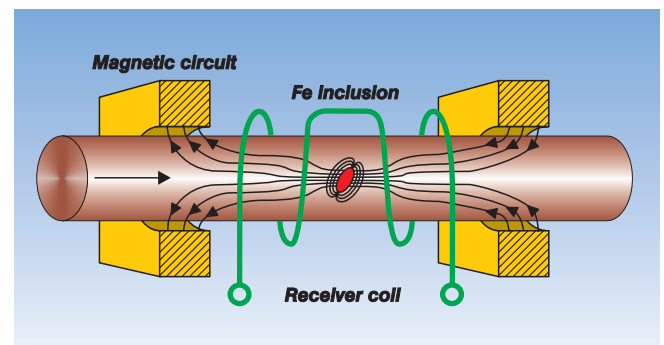
The absolute channel assists in improving the detection of longitudinal flaws.

The phase-selective sector evaluation also facilitates the suppression of interferences.

For small wire dimensions, the use of the differential and absolute channels is possible.



In casting/rolling lines for producing rolled copper wire, the simultaneous use of an eddy-current channel to detect flaws and a FERROMAT channel to detect ferrous inclusions is state-of-the-art. The limit values must be set differently in the two channels as in general one FERROMAT signal must lead to rejection.



▲ Inductive principle for the detection of ferrous inclusions with FERROMAT by supplementing the eddy-current coil with a permanent magnetisation.



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