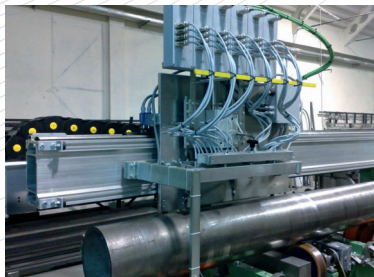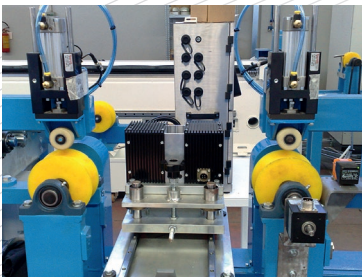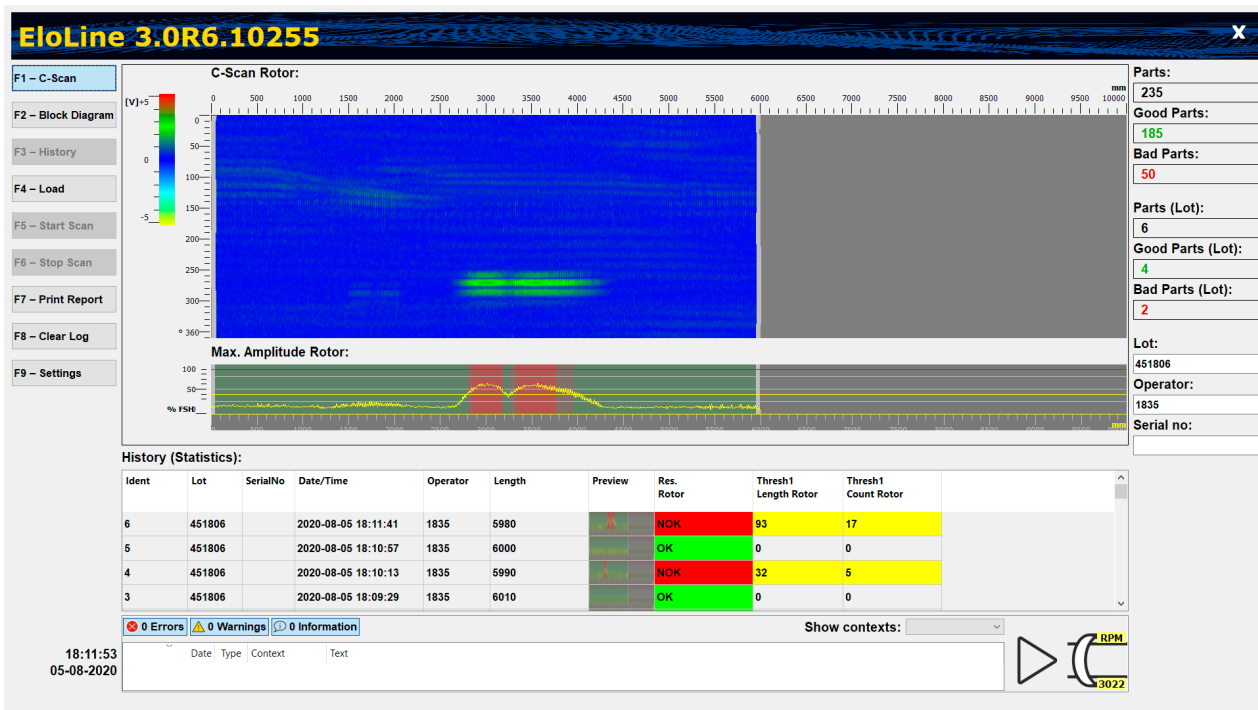e∫r

Rohmann GmbH

EloLine

Analyzing Software

Software for recording test results of long products

The software, developed by Rohmann, is used in the eddy current testing of long products for visualizing and recording the test results.

It supports testing with simple encircling coils to complex multichannel or multiplex sensor array applications.

A maximum of 8 testing channels can be processed and aggregated in an overall result which can then be analyzed in relation to the actual location.

Eddy Current Testing Instruments and Systems

EloLine 3 -
Eddy current testing of long parts and semi-finished products

The application range of the EloLine software covers the inspection of various long products such as bars, tubes, profiles and rails. The tested areas are plotted and any detected anomalies are recorded. A report on the testing can be printed afterwards.

Different views are provided for the display of the test areas of current or loaded tests: block diagrams, amplitude displays or C Scans. All of the selectable display modes show the entire test area.

Recordings in the data base:

▸ The consecutive test part number (ID)
▸ The batch
▸ Any assigned serial number
▸ The test date and time (at the end of the test)
▸ The name of the testing person
▸ The length of the tested part
▸ Any information on the number and total lengths of the possibly defective points
▸ Previews of the block diagram, the C-Scan and the maximum amplitude graphs. In addition, the C-Scan and the maximum amplitude graph of every test are stored in the file directory.

User interface of the EloLine software

After the start the software shows the main screen (Figure 1) in full screen mode.
The buttons for any modifications of the main view are on the left. The display of the signals as C-Scans or y/t eddy current signal representations is in the center. Any information on the batch, the serial number, the testing person etc. is on the right.

The lower section remains unchanged, even if a function has been selected. It displays the history of the tests conducted so far. The current date and time, the application messages and the status indications of the process stations are displayed at the bottom.
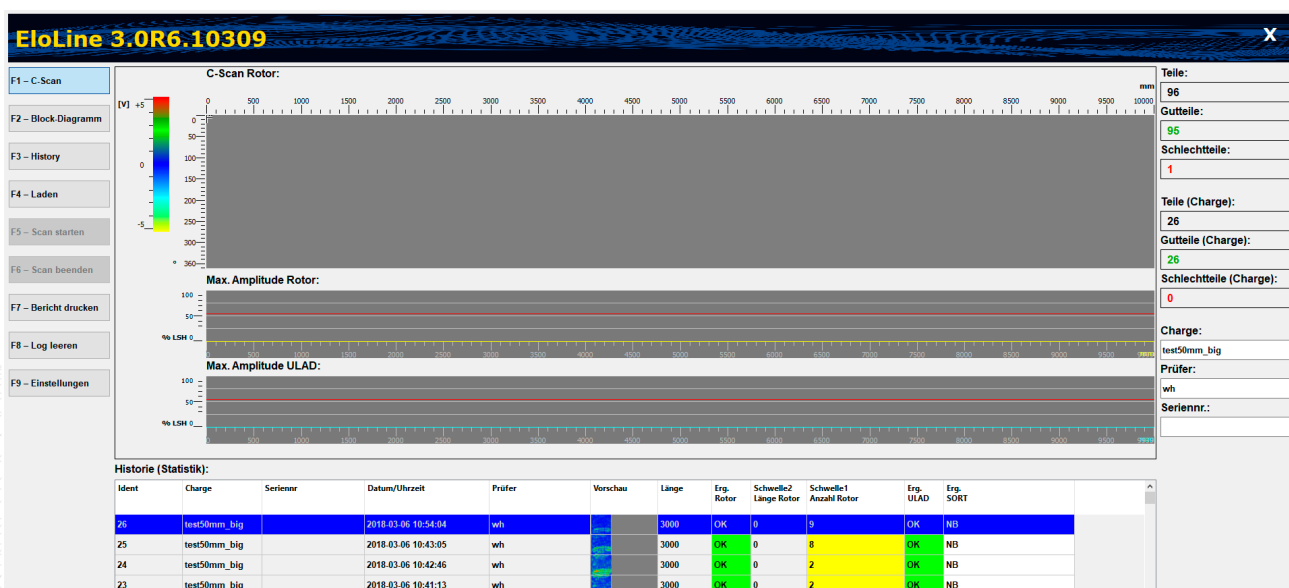

Figure 1: EloLine 3, main screen

Analysis and display of the test results on a PC
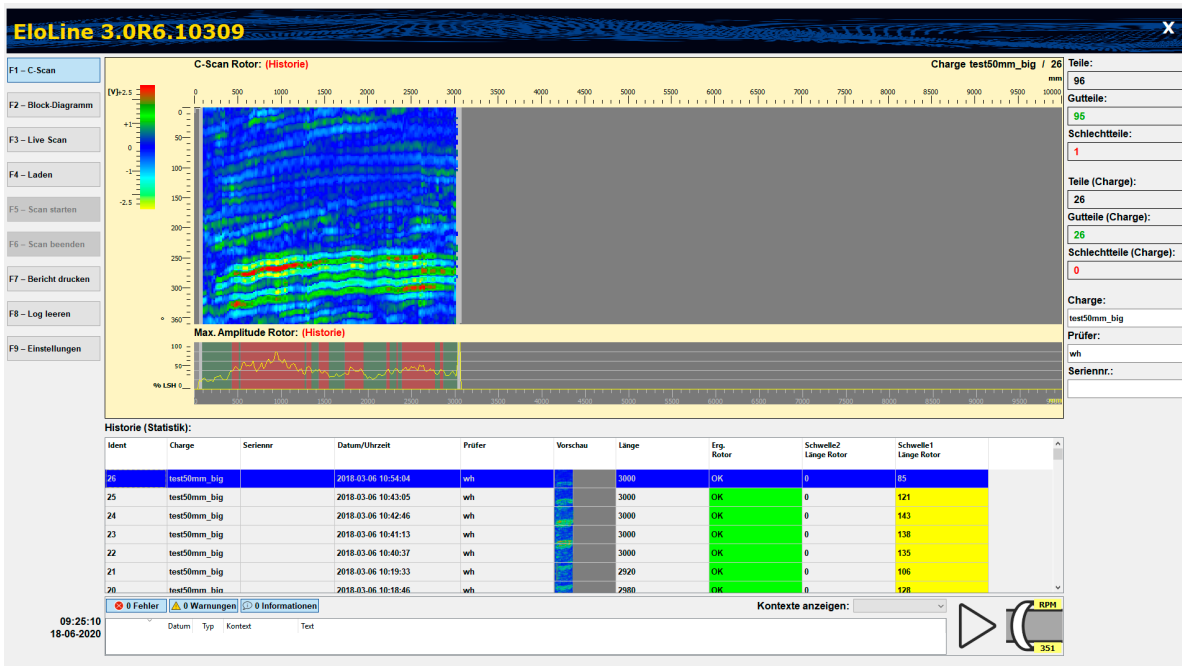

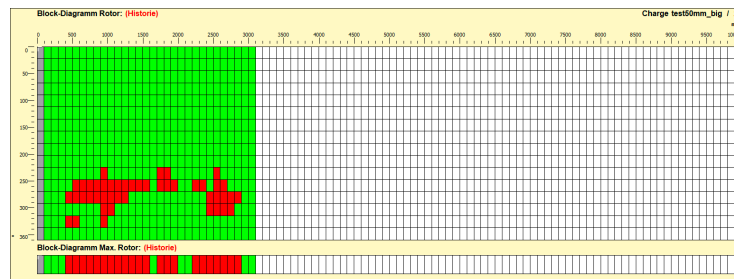Figure 2: C-Scan and y/t-eddy current signal representation

Figure 3: EloLine block diagram

The required analyzing PC* can be installed inside a control cabinet. The industrial computer functions with a Windows operating system and provides the requirements listed below:

▸ min. 2 x 480 GB SSD, RAID System, the SSDs are mirrored by default
▸ min. 2 x RJ45 Ethernet at 1 Gbit/s
▸ min. 2 x USB 3.0
▸ 1 touch screen monitor (IP67).

The touch screen can be installed directly on the system or inside the control cabinet.

The EloLine test result can be displayed as a y/t eddy current signal representation (Figure 2) or as a block diagram (Figure 3).

An interface to the software can be used for the straight forward exchange of information or direct communication with the overriding systems. In this case, the operator does not have to make any entries in the EloLine software.

EloLine analysis all relevant testing information from ELOTEST PL600 and displays the results on the screen on the test station. All test data are saved in a data base. The files with the test results are stored in TIFF / PNG format in order to provide a simple display on any PC. The files also contain the compressed test data.

The test results can be deleted automatically after a definable time or number. The files can be archived by the client according to the requirements of data storage and software routines of the client, before they are deleted. Please observe that the storage capacity of the analyzing computer is not sufficient for the data archiving.

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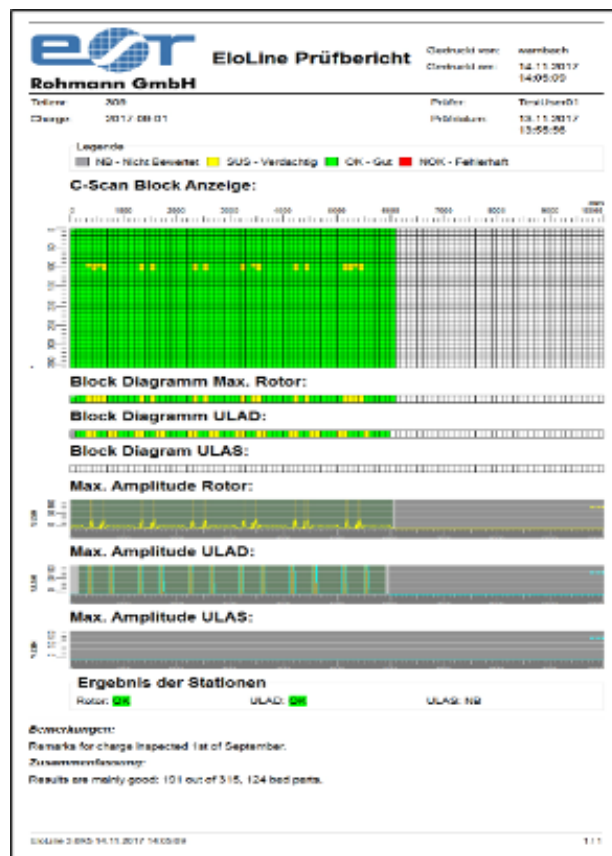## EloLine software - recording of the test results

The EloLine software provides different possibilities for recording the test results.

Both a detailed test report for every single test part and a report for a specific production batch can be printed out. This batch report may only show statistics (number of tested parts with and without defect indications) or else a list of all tested parts. Information on the number of features and their length can be displayed for every single test part when necessary. The operator can enter specific comments or a summary before any output, which follows as a PDF file or printout.

Information on the current testing person and the date of the output are shown in the header; the batch and part number of the tested part are shown on the left, below the header.
The block indications, the block diagrams of the maximum amplitudes, the amplitude graphs,

the results of every test station and the notes of the operator and the summary are shown in the report itself.

We generally recommend connecting the analyzing computer to the Internet, which permits TCP/IP based remote access as an option or for servicing purposes.

Specifications of the EloLine software

System requirements:

- ▸ Windows 10, 64 Bit
- ▸ CPU: i5, better i7 or similar CPU
- ▸ 8 GByte RAM
- ▸ Screen 1920 x 1080 Pixel (Full-HD)
- ▸ Two 1 GBit Ethernet cards for ELOTEST PL600 and host computer
- ▸ 500 GByte hard disk space for storing data
- ▸ Local administrator rights are required for installation, normal user rights are sufficient for normal operation.

Scope of delivery:

- ▸ Files for installation as a download
- ▸ License with a serial number
- ▸ Manual
- ▸ Languages: German, English, French, Spanish,
- ▸ Chinese (simplified). Other languages on request.

*If the client provides his own computer, we will charge for the required support according to our respective current cost rates. We do not provide any warranty for equipment we do not supply.

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