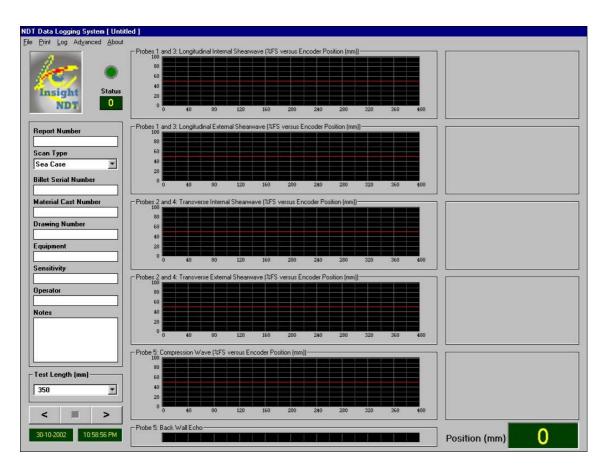
CHART RECORDER PACKAGE FOR EDDY CURRENT & ULTRASONIC TESTING SYSTEMS



This chart recorder package can interface to a new or existing ultrasonic, eddy current systems or combination of both. It can be supplied to work with the existing ultrasonic flaw detector system or a new PC based system can be supplied. See the reverse of this brochure.

Chart records of ultrasonic shear wave and compression wave results.

Single bar graph for loss of back wall echo.

Table for each test of flaw responses above the set threshold showing position and signal amplitude.

Positional plotting readout from encoder/s.

Recording and recall of set-up and test results.

Can be customised for specific inspection system requirements.



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This software package is a general purpose one for ultrasonic and eddy current data presentation and defect analysis package. It can support up to 32 analogue input channels, which may come from an ultrasonic instrument, eddy current instrument or a combination of the two.

The data capture rate is such, that most NDT applications will present no problem to the system. Therefore the system is suitable for the very high speed pulses that are commonly encountered on on-line bar and tube NDT inspection systems.

The system provides a real-time display of the data from each of the signal channels, and has both the option to save the captured data, and to print out test records. Where products are inspected in batches then the first product can be given a specific number and subsequent products are sequentially numbered.

General Specification

Number of Channels	Maximum of 32 analogue channels
Input Voltage range	Nominally 0 to 5V unidirectional
Frequency response	In excess of 10KHz per channel
Data Entry	Typically including; Product serial number Job reference Date of inspection Inspector Additional information as required
Product Numbering	Entry of specific product number for a single product inspection

Entry of a sequence of numbers for batch inspection

Entry of the first serial number with subsequent product numbers automatically incremented.

Y Axis Scaling Selection for each channel of 0 to 100% scale positions based on the

input voltage fro that channel

Flaw Independently set threshold for Threshold each channel.

> Automatic threshold level calculated from а statistical algorithm

X Axis Scaling

Operates in time mode for unidirectional plotting of the charts

time base Selectable which operates on all channels to give a displayed chart length corresponding to 1 second to 250 second of testing time

X Axis Scaling Continued

High speed time bases can be used for local interrogation of calibration standards and specific indications and lower speed time bases for normal scanning

Optional bi-directional scan

Print Outs Options to print single test reports

or batch reports

High speed testing of many product may necessitate storage and recall from printing when

buffer store is full

Storage of Records

Chart records stored to floppy disk,

hard disk or CD

Manual operation of chart using keypad entry or remote switch

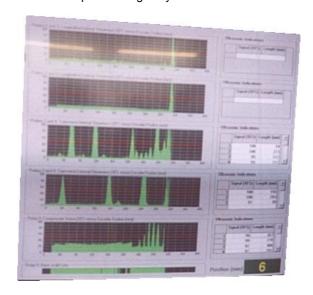
Remote operation by operator or

proximity detectors

Proven Applications

This chart recorder package has been used in the following applications;

- Inspection of bar products, using a rotating ultrasonic probe.
- Inspection of tube and bar products, using a spiral drive mechanical arrangement
- Inspection of shells
- Inspection system for heavy walled tubes and short billets
- Inspection of Coiled duplex tubing using an ultrasonic rotating probe
- Inspection of submerged arc welded pipes
- Inspection of drill pipe ends
- Inspection of gas cylinders



A typical display for a 5 channel system is shown above.