

Tracer

Portable C-Scan Mapping System



Tracer - Inverted scan inspection

Tracer is a versatile freehand scanning system that calculates and outputs accurate X-Y positional data for C-scan inspections without the constraints of a scanning frame. Tracer is ideally suited to operate with linear array probes to provide a fast, simple and flexible portable C-scan inspection kit.

Benefits

- **Versatile:** Freehand scanning providing X-Y positional information without the constraints of a scanning frame
- **Fast:** quick to set up and calibrate in 5 simple steps
- **Portable:** The easy to handle, lightweight system consists of just two wire encoder units with mounts, a probe holding c-clamp, and an in-line interface box
- **Compatible:** Can be used with any instrument that has X-Y encoder inputs
- **Low Cost** solution for C-scan inspections

Typical applications for Tracer include:

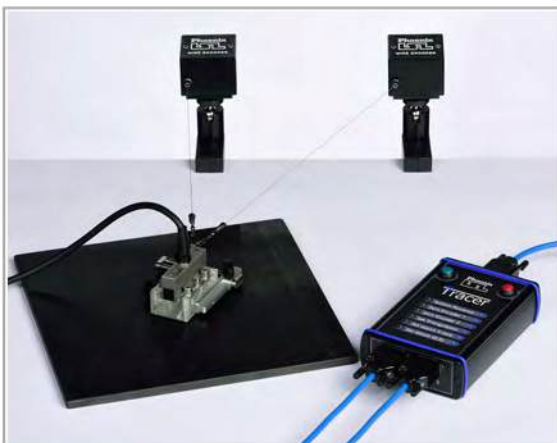
- Corrosion mapping
- Delamination or defect detection in composites
- Bond inspection
- Crack detection with eddy current arrays
- In-service C-scans

Tracer comprises two wire encoders both linked to the probe being scanned. The output from the encoders passes to an interface unit which then calculates and provides the X-Y encoder values for your instrumentation.

The encoders can be mounted anywhere close to the inspection site permitting set up on or near to the component, or around obstructions. They come with three snap fit mounting options for different surfaces: vacuum cup, magnet and clamp. The mounts can be used to fix the encoders upright, on their side or even inverted. The wire encoders are then attached to a c-clamp which is able to grip any probe or wedge up to 55mm wide.

Tracer can be used on an inspection area of up to 2m x 2m from a single position. It is also possible to set up an inspection area at any angle relative to the location of the encoders. This enables C-scan inspection in difficult to access areas. Tracer does not lose position when the probe is lifted off the surface and then replaced, therefore, maximum scan coverage is achieved up to and around obstructions.

Tracer can be connected to any instrument capable of recording two axes of encoder information. It is powered through the encoder 5V supply and requires no other power source.



Tracer Set-Up

Features

- Inspection resolution: 5 steps / mm
- Inspection area: 2m x 2m
- Inspection Speed: Up to 500mm/s in any direction
- Probe width: Up to 55mm
- Mounting separation: 0.2m to 2m
- Inspection Orientation: Any, user defined during calibration
- Mounting options:
 - Magnetic (4" OD to flat on ferritic material)
 - Vacuum cup (4" OD to flat on smooth surface)
 - Clamp (up to 40mm between parallel surfaces)
- Mounting orientation: Any - inverted, horizontal, vertical
- Termination: Any manufacturer's compatible instrumentation



Typical scanning application

Mounting Options



Clamp



Magnetic



Vacuum Cup

Scan

For more information and video of Tracer:



Standard Kit

- 2 x wire encoders
- 2 x magnetic, vacuum and clamp encoder mounts
- 1 x probe holding c-clamp
- 1 x Tracer interface box
- 1 x 2.5m X-Y encoder cable
- 1 x protective case



Accessories

- Linear phased array probes and wedges
- Couplant pump systems
- Phased array calibration block
- Manual and Automated twin crystal probes