



WeldScan

Eddy Current Probes for Inspection of Ferromagnetic Steel Welds

- Quick and easy to use
- Sensitive and very reliable
- No need to remove surface paint from weld or parent material
- Detects surface breaking fatigue cracks
- In common use with major engineering companies
- Choice of probe size and shape
- Underwater probe available
- Compatible with Hocking Phasec and QuickCheck instruments
- Compatible with other manufacturers' phase plane instruments

HOCKING

WeldScan Probes

WeldScan is an Eddy Current technique for detecting and sizing fatigue cracks in ferrous welds. WeldScan is also the trade name of a Hocking range of probes dedicated to this task.

WeldScan probes offer a cost effective alternative to Magnetic Particle Inspection (MPI or MT) for in-service inspection of ferrous steel welds. They can detect surface breaking fatigue cracks through non-conducting surface coatings up to 2mm and are therefore less expensive and quicker to use than only other technique when paint removal is required.

WeldScan incorporates a balanced sensor to minimise the effects of material variations and probe lift-off in the weld and heat affected zone. This design of probe greatly reduces the problems of inspecting uneven and undressed weld surfaces where there will also be changes in coating thickness.

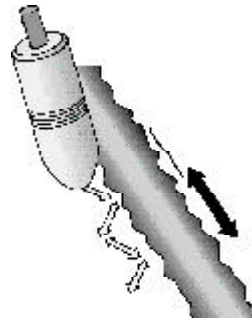
Many certifying authorities in the oil industry accept WeldScan and recommend its use with a Hocking phase plane instrument which provides hard copy printout of both the test results and instrument calibration. WeldScan is also compatible with the Hocking QuickCheck instrument which is ideal for general purpose crack detection and generally requires less operator skill, although it does not provide a printout of test results.

Scanning Across Weld Cap

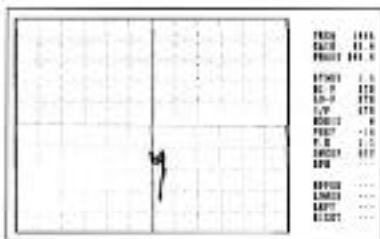


Scanning technique to detect surface or near surface cracks in the weld cap

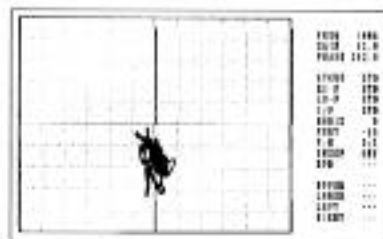
Scanning Weld Toe and HAZ



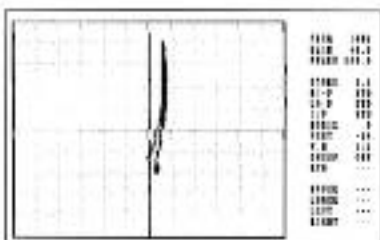
Scanning technique to detect surface or near surface cracks in the weld toe and Heat Affected Zone of the parent metal



Typical display from a good weld



Typical display from a good weld



Typical display from a 2mm slot in the weld cap



Typical display from the toe of a weld containing 4 slots (0.5, 1.0, 1.5 and 2.0mm deep)

Straight Probe



PRN	800P01	800P04
Diameter	0.375" (9.5mm)	0.625" (16mm)
Length	2" (50mm)	2.2" (55mm)
Tip Radius	0.19" (4.8mm)	0.31" (8mm)
Cable Length	16' (5m)	16' (5m)

90° Tip Inline Probe



PRN	801P01	801P04
Diameter	0.500" (13mm)	0.625" (16mm)
Tip Length	2" (50mm)	5.4" (138mm)
Tip Radius	0.19" (4.8mm)	0.31" (8mm)
Cable Length	16' (5m)	16' (5m)

90° Tip Angle Probe



PRN	801P02
Diameter	0.500" (13mm)
Tip Length	0.9" (23mm)
Tip Radius	0.19" (4.8mm)
Cable Length	16' (5m)

Broad Band Probe



To measure coating thickness, WeldScan probes (above) can then be used for crack detection without removing the surface coating (usually 2mm maximum coating thickness).

PRN	130P3
Length	4" (100mm)
Cable	Refer to Probe Catalogue
Balance Load	5A003 (82μH)

Other WeldScan Probes

Refer to Hocking Probe Catalog for details of other sizes (non standard) and water resistant WeldScan probes.

HOCKING

Hocking NDT Ltd

129 Camp Road • St Albans • Herts • AL1 5HL • UK
 Tel: +44 (0)1727 795500 • Fax: +44 (0)1727 795400
 Email: info@hocking.com • URL: www.hocking.com