

# HANDSCAN

# Mini Manual MFL Corrosion Detection System



- > MANUAL MFL SCANNING SYSTEM
- > LOW COST & RELIABLE RAPID SCREENING SYSTEM
- > LOW PROFILE WITH EXTENDABLE HANDLE
- > WIDE RANGE OF APPLICATIONS

TANKS



# HANDSCAN MINI MANUAL MFL CORROSION DETECTION SYSTEM FOR AREAS INACCESSIBLE BY THE FLOORMAP

The Handscan MFL corrosion detection mini scanner is designed to complement the Floormap and manual MFL floorscanners.

Even in such a small configuration the latest generation of permanent magnets enable localized magnetic saturation of the floor area under test.

#### **THRESHOLD CONTROL**

Signals from corrosion, above the operator controllable threshold, are displayed as both a visual and audible alarm. It's low profile and extendable handle allow scanning in otherwise inaccessible areas of storage tanks such as the shell to annular area and under pipe work or heater coils.

#### **KEY FEATURES**

- > High POD of corrosion issues
- > Easy to use by semi skilled operator
- Alternative heads available for internal scanning of small vessels and pipes
- > Ideal solution for small diameter tanks below 15 m with petal design
- > Low profile with extendable Handle
- > Separate battery operated lightweight control module
- > Proven MFL technology
- > Cost effective inspection tool
- > Field proven durability & reliability



# FLOORMAP3Di

The Floormap3Di with STARS technology is the highest performance computerised Magnetic Flux Leakage (MFL) storage tank inspection system on the market today.

Silverwing has developed top and bottom defect discrimination using surface topology air-gap reluctance sensors (STARS), enabling tank engineers to determine the optimum repair strategy and improve risk life assessment (RLA) & risk based inspection (RBI) maintenance programs.

# FLOORMAPVS2i

The FloormapVS2i is a computerised MFL system designed to detect, size and map corrosion on storage tank floors and is currently the most widely operated MFL tank inspection system in the world.

The battery powered, motorised FloormapVS2i scanner is complimented by powerful, yet easy to use dedicated software packages that work seamlessly to enhance efficiency and simplify the data collection and reporting workflow.



#### MFL CONTROL MODULE

The easy to use Handscan system consists of a scanning head and a rechargeable battery powered portable MFL control module which provides up to 8 hours of operation. The same control module can be utilised with the Pipescan MFL pipe scanner

The control module features audible and visual alarms to alert the operator to the presence of corrosion during a scan.

The alarm sensitivity is adjustable, allowing the operator to calibrate the Handscan to detect corrosion above the defined reporting level, but ignore low level, non-relevant corrosion signals.

#### **HOW IT WORKS**

The operator first connects the sensor cable between the scanning head and control module. Switch on the control module, set the required plate thickness and adjust the alarm sensitivity using a reference plate with known artificial defects. Then simply position the scanning head on the tank floor to be inspected, push or pull the scanning head and monitor the control module for the audible and visual alarm.

Any areas identified by the Handscan system can then be marked on the floor for further analysis by a secondary inspection technique, normally ultrasonic.

Inspection results can then be added to the SIMS reporting software to be included within the final inspection report.

# THE SILVERWING SYSTEM

Silverwing produce a full range of equipment for corrosion inspection of storage tanks, including floor plate, wall and roof structures. The product range includes MFL mapping and manual systems, ultrasonic crawlers for thickness measurement, and vacuum boxes for weld inspection. By supplying a complete range we can offer unrivalled support, and ensure the highest quality inspection in the most efficient way. All our products are field proven by our in house teams and used by the most respected global inspection companies. For a complete overview contact our technical sales team.



For more information on Silverwing Systems please visit our web site: www.silverwingndt.com

### **MFL3000**

The MFL3000 is an advanced, motorised 'stop on defect' MFL tank floor scanner.

The cost effective, easy to use MFL3000 uses a high contrast real time rolling display with multi- threshold defect alarms to maximise detection confidence. A range of post-scan review and rethresholding options further enhance detection capabilities.



# **TECHNICAL SPECIFICATION**

Principle of operation	Magnetic Flux Leakage	
Detection	16 off Hall Effect sensors	
Scan width	150 mm (6")	
Method of propulsion	Hand push pull	
Speed	0.5 m/ sec	
Handle	Extendable	
Profile	Clearance under pipework required 120 mm	
Thickness range	Maximum 15 mm	
Test through coatings	Yes if non magnetic	
Maximum coating thickness	6 mm	
Max sensitivity	10% underfloor on un-coated 6 mm plate	
	20% underfloor on coated 6 mm plate	
Connecting cable	5 metre standard length	
Power requirements	12v battery operation	
Transit case	Meets IATA requirements for transporting magnetizable material	
Operating weight	18 Kg - combined weight of scanning head and electronics module	







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