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
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.

**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

**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.

---

**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.
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.

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.

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

**Centres of Excellence**

Canada: +1 418 780 1565  
UK: +44 (0) 1792 798711  

**Sales Offices**

South Africa: +27 21 557 5740  
Abu Dhabi: +971 2 505 6622  
Dubai: +971 4 360 6751  
France: +33 4 28 36 0100  
USA: +1 281 542 3292  

www.silverwingndt.com  
sales@silverwingndt.com  
www.eddyfi.com  
sales@eddyfi.com