

# SLOFEC™ FloorScanner Info

- General Information
- SLOFEC™ FloorScanner FS400.V1
- SLOFEC™ FloorScanner FS300PM.V1 Type A
- SLOFEC™ WallScanner LS100C.V1



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## Tankfloor Inspection Services

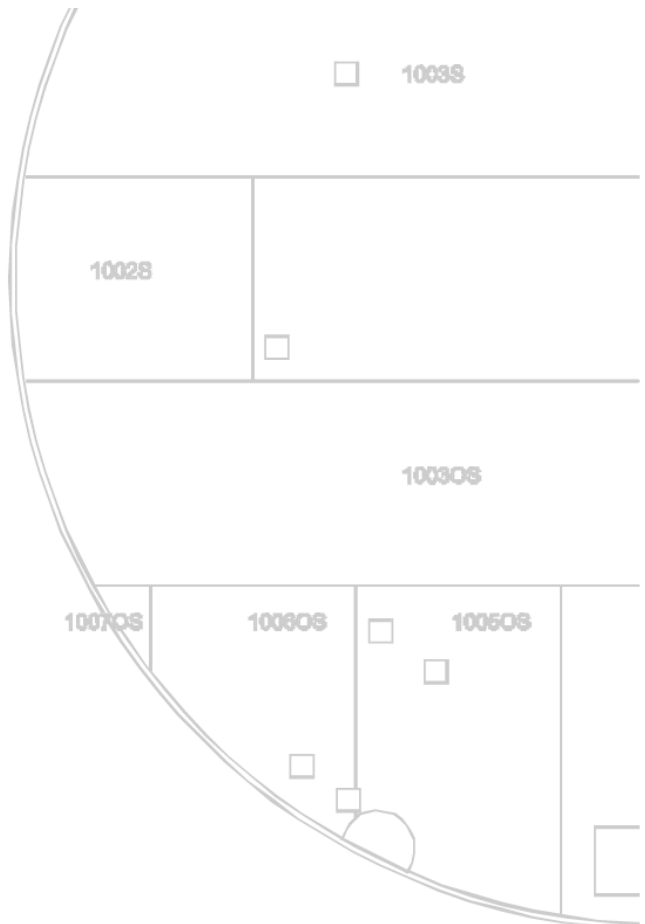


## The Technique

The SLOFEC Tankfloor Inspection Tools are based on the Eddy Current technique. The SLOFEC (Saturated Low Frequency Eddy Current) technique has significant advantages to existing Magnetic Flux Leakage (MFL) and Ultrasonic Testing (UT) systems.

Its superiority is based on the following :

- Applicable to wall thickness up to 30mm
- Inspection through thick coatings up to 12mm
- High inspection speed
- High defect detection capability
- Detection and distinction between top-side and bottom-side corrossions
- No couplant is necessary
- Applicable for inspection of both ferromagnetic and non-ferromagnetic materials



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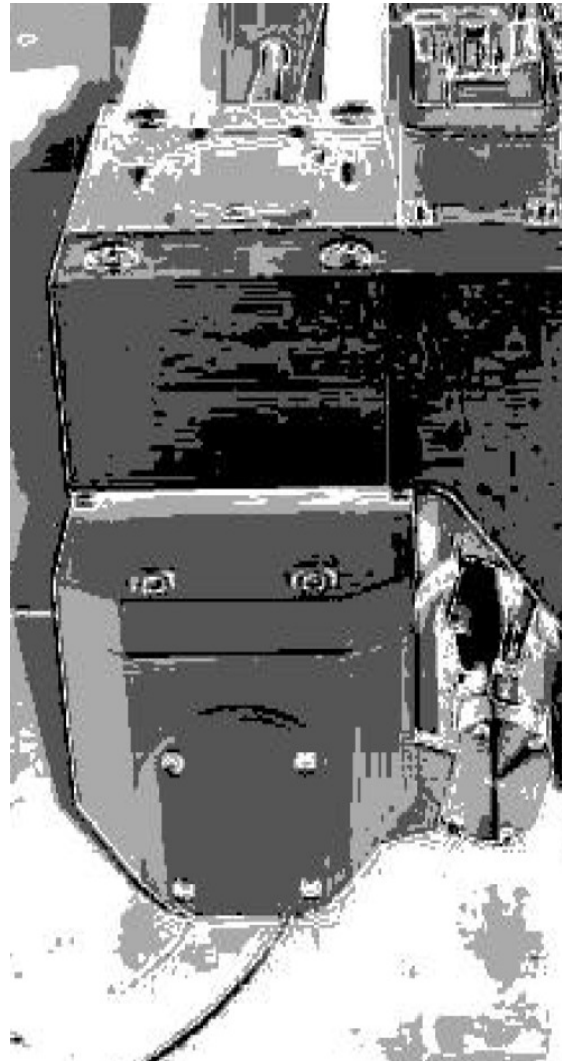
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### The Scanner FS400.V1

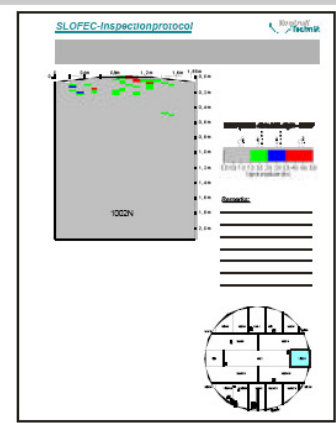
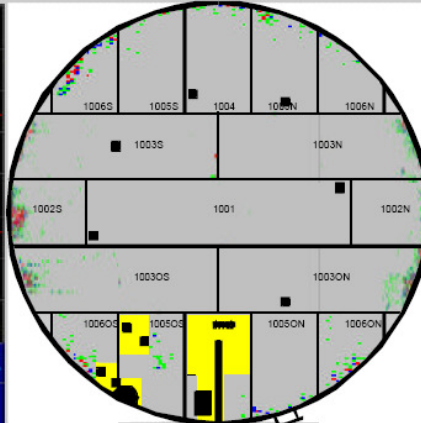
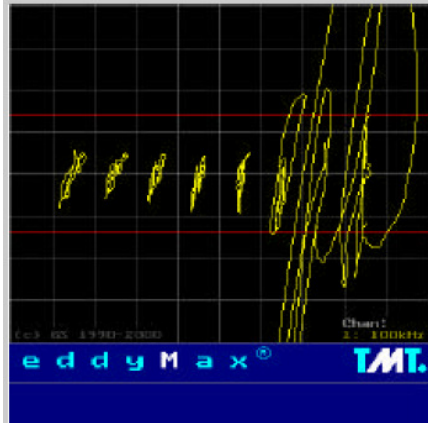
The mechanical design of the Scanner **FS400.V1** allows the fast, accurate and cost effective operation of the inspection tool on bottom plates as well as on annular plates. The capabilities of this tool are:

- Effective operation by 400mm scanning width
- 8-channel sensor array for high defect resolution (optional 8-channel absolute mode for detection of large area corrosion)
- Twin DC-motor drive for scanning speed up to 0.4m/sec in both directions
- Guidable rear wheels for easy maneuverability
- Turnable and up-down movable handlebar for optimal access to difficult-to-reach areas
- Modular design for optimal installation into the tank. The scanner unit will be assembled inside the tank by plug modules
- Stop on defect and LED-bar indication for both scanning directions
- Side rollers for driving along the tank wall



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## The Documentation

The SLOFEC Scanner **FS400.V1** is able to fulfill all defect marking and documentation requirements.

With the stop-on-defect function and LED-bar indication for both scanning directions, the fast and reliable marking of the defect positions directly on the tank floors is possible.

The signal data from every scanned track is stored on the computer and can be processed and combined to a colour scan of the tested plate.

The colour maps for every inspected plate are generated with the original software package.



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### Technical Data – FS400.V1

#### Scanner FS400.V1

- Weight : 120 kg (divided into 6 modules)
- Dimensions : 555 x 400 x 300mm (LxWxH)  
(without handlebar)
- No. of Sensors : 8
- Sensor Width : 50mm each

#### Power Supply Unit

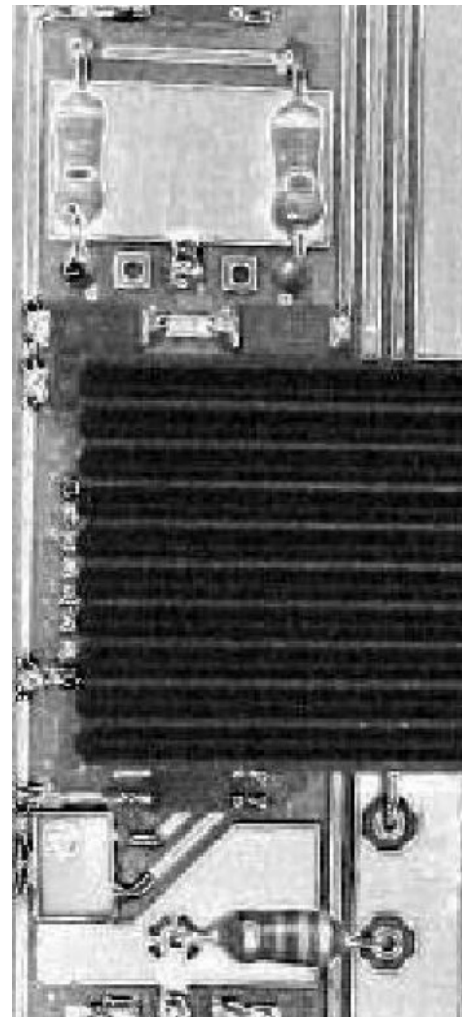
- Power Supply : 110VAC – 240VAC (outside the tank)  
40 VDC (magnetisation inside the tank)  
24 VDC (motor & electronics inside the tank)
- Weight : 42 kg
- Dimensions : 500 x 500 x 500 mm (LxWxH)

#### Signal Cable

- Max. cable length : 150 meters
- Weight : 1 kg/m

#### Eddy Current Unit and Computer

- Type : EddyMax ec-Computer plug-in boards
- No. of boards : 1x (optional 2x for testing in differential and absolute mode)
- Computer : Laptop (upon customer specification)



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### The Scanner FS300PM.V1 Type A

The FS300 Scanner is designed to cover the most common tank floor plate thickness up to 15mm. The mechanical design of the **FS300PM.V1** Scanner enables the fast setup of the equipment in the tank as well as the accurate and cost effective operation of the inspection tool on the bottom and annular plates.

Due to its low height of 120mm, the FS300.V1 Scanner is ideal for inspection work under heating pipes or other obstacles. For the inspection of larger areas covered by e.g. heating pipe assemblies, the handle bar can be completely removed and the Scanner can be remotely operated via an 8m long cable.

The capabilities of this tool are:

- Effective operation by 300mm scanning width
- Minimal height of 120mm to enable the inspection under heating pipes and obstacles
- 8-channel sensor array for high defect resolution (option 8-channel absolute mode for detection of large area corrosion)
- DC motor drive for scanning speed up to 0.5 m/sec in both directions (optional)
- Guidable rear wheels for easy maneuverability
- Turnable (3 steps) and up-down movable handlebar for optimal access to difficult-to-reach areas
- Removable handlebar for easy installation inside the tank
- Stop-on-defect and LED-bar indication for both scanning directions (only in combination with motor option)
- Side rollers for driving along the tank wall

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## Technical Data – FS300PM.V1

### Scanner FS300PM.V1

- Weight : 55 kg
- Dimensions : 470 x 300 x 120mm (LxWxH)  
(without handlebar)
- No. of Sensors : 8 in one sensor bar
- Sensor Width : 37.5mm each

### Power Supply Unit

- Power Supply : 110VAC – 240VAC (outside the tank)  
Optional external battery pack  
24 VDC (motor & electronics inside the tank)
- Weight : 20 kg
- Dimensions : 400 x 300 x 400 mm (LxWxH)

### Signal Cable

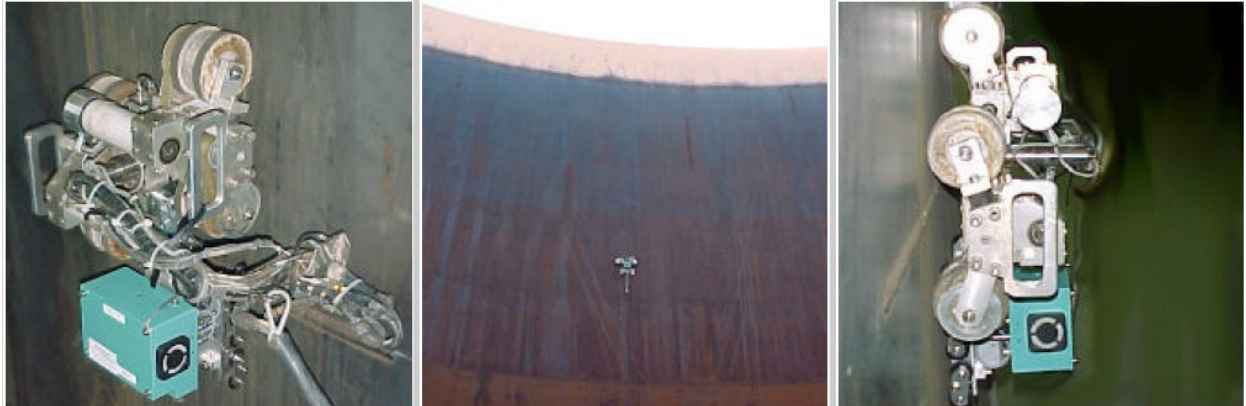
- Max. cable length : 150 meters
- Weight : 0.3 kg/m

### Eddy Current Unit and Computer

- Type : EddyMax ec-Computer plug-in boards
- No. of boards : 1x
- Computer : Laptop (upon customer specification)

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### The WallScanner LS100C.V1

The WallScanner **LS100C.V1** consists of a drive unit and the SLOFEC Scanner. The drive unit is held onto the wall by magnet wheels.

This tool is applicable on the both the inner and outer tank wall and the inspection through paintings and coatings is also possible.

The capabilities of this tool are:

- Effective operation by 100mm scanning width
- 4-channel sensor array for high defect resolution
- Twin DC motor drive
- Applicable to wall thickness up to 10mm

### Technical Data

#### Scanner LS100C.V1

- Weight : ~ 12 kg (SLOFEC Scanner)  
~ 15 kg (drive unit)
- Dimensions : 400 x 200 x 130mm (LxWxH)
- No. of Sensors : 4
- Sensor Width : 25mm each

#### Power Supply Unit

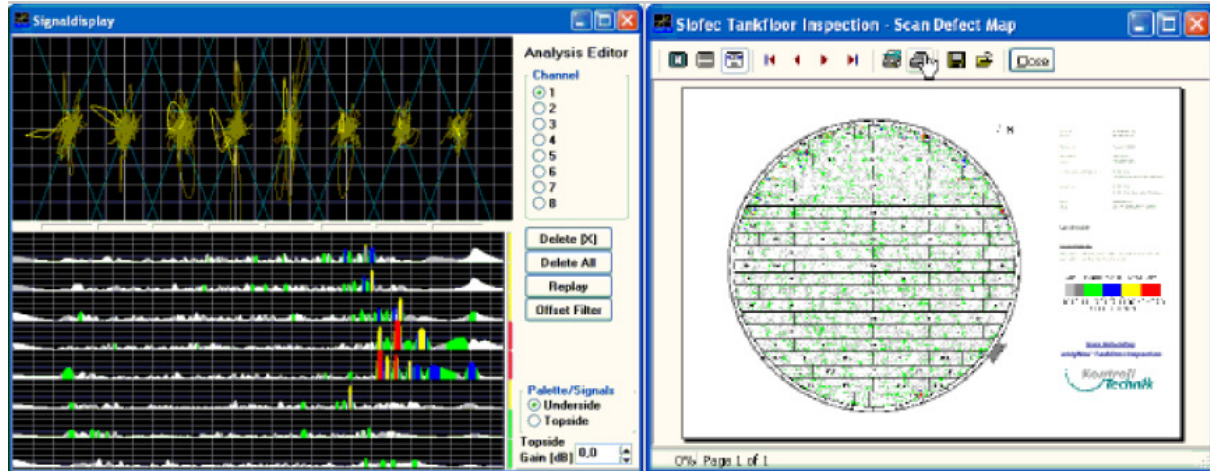
- Power Supply : 110VAC – 240VAC (outside the tank)

#### Eddy Current Unit and Computer

- Type : EddyMax ec-Computer plug-in boards
- No. of boards : 1x
- Computer : Laptop (upon customer specification)

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## The SLOFEC™ C-Scan Reporting Software

The SLOFEC system is capable of fulfilling all defect marking and documentation requirements. With the stop-on-defect function, fast and reliable marking of defect positions directly on the tank floor is possible. The signal data from every scanned track can be processed and combined to a comprehensive colour scan documentation of the complete tank floor and each tested plate using the SLOFEC Floor Manager software.

The capabilities of the SLOFEC Floor Manager software package are:

- Generation of tank floor maps
- Storage of signal data on the computer
- Online conversion of signals into colour maps
- Separate colour maps for sub-surface and surface defects
- Change of colour palette after inspection
- Input of installations on different layer
- Laptop version for independent documentation
- Repair plate input and documentation