



## Falcon "S" Series Storage Tank NDT System

The Testex Falcon "S" Series is a revolutionary designed self-propelled tank floor inspection system. It is based on Saturation Low Frequency Electromagnetic Technique and has the ability to automatically differentiate between topside and bottom side flaws. The system is in a league all by itself with its ability to inspect through coatings up to 0.500" (12.7 mm).

### System Details:

- Adjustable scanning speed
- High speed up to 10" (254.0 mm) per second
- Inspection of floor thicknesses up to 1" (25.4 mm)
- Inspection through various non-metallic coatings up to 0.500" (12.7 mm)
- High sensitivity and differentiation of topside and bottom side defects
- Pitting can be detected and sized
- Localized Wall Loss can be detected and sized
- Cracks can be detected depending on orientation
- High resolution 14" (355.6 mm) wide scanner with 16-channel array
- Real time encoded data acquisition
- Capability to use handheld 5" (127.0 mm) wide scanner for specific areas
- Preliminary report can be issued immediately after testing is completed
- Report includes color-coded tank floor maps so that location of problem areas can be identified

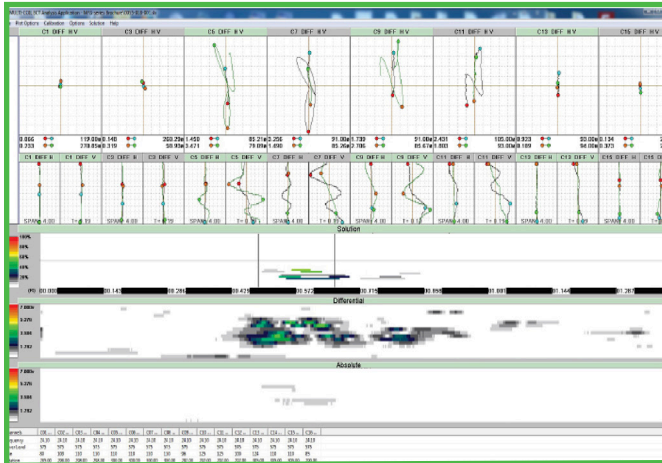
### System Contains:

- 14" (355.6 mm) wide floor scanner with 16 channel sensor array
- Optional 5" (127.0 mm) hand scanner with 4 channel sensor array
- 1500 W portable power supply
- Power cable reel with up to 246 ft. (75.0 m) of cable



- Software suite featuring USB connectivity to your Windows laptop. Analysis software including raw and processed data with topside and bottom side flaw differentiation and sizing capabilities
- Tank Floor Mapping Software for creating simple or complex tank floor maps. It works in conjunction with the analysis software to produce accurate mapping of flaw location and sizing
- AR-Wizard report writing software allows the user the ability to generate a full inspection report including color coded maps, and sample waveforms from the inspection

## Falcon "S" Series Storage Tank NDT System *(continued)*



Complete solution screen of up to 60% bottom side corrosion

### Technical Specifications:

#### Electronics

- **Channels:** 16
- **Frequency Range:** 8 kHz - 50 kHz
- **Mode:** Sequential Injection
- **Dimensions:** 14.75" (374.7 mm) L x 11" (279.4 mm) W x 6" (152.4 mm) H
- **Weight:** 14.33 lbs. (6.5 kg)

#### Tank Floor Scanner

- **Scanner Measuring Technique:** Saturation Low Frequency Eddy Current Technique
- **Maximum Penetration:** 1" (30 mm) Carbon Steel
- **Maximum Coating Thickness:** 0.50" (12.7 mm) non-metallic
- **Adjustable Cart Clearance:** 0.12", 0.20", 0.28" (3, 5, 7 mm)
- **Number of Sensors/Channels:** 16
- **Method of Propulsion:** DC motor
- **Inspection Width:** 14" (355.6 mm)
- **Scanning Speed:** 45 - 50 ft. (14 - 15 m) per minute
- **Area Coverage:** 17.8 sq. ft. (5.4 m<sup>2</sup>) per minute
- **Weight (Without Electronic Box):** 118.2 lbs. (53.6 kg)

#### Hand Scanner

- **Measuring Technique:** Saturation Low Frequency Eddy Current Technique

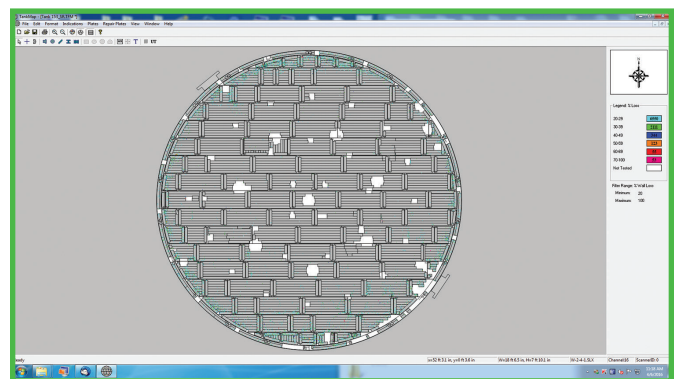
- **Maximum Penetration:** 0.75" (19.1 mm)
- **Maximum Coating Thickness:** 0.35" (9 mm)
- **Adjustable Cart Clearance:** 0.12", 0.20", 0.28" (3, 5, 7 mm)
- **Number of Sensors Channels:** 4
- **Method of Propulsion:** Manual
- **Inspection Width:** 5" (127.0 mm)
- **Scanning Speed:** up to 17.55 ft. (5.4 m) per minute
- **Area Coverage:** 5.9 sq. ft. (1.8 m<sup>2</sup>) per minute
- **Weight (without Electronic Box):** 37 lbs. (16.8 kg)

#### Power Supply

- **Power Supply Line Voltage:** 110/220 VAC
- **Power Consumption (Maximum):** 1500 W
- **Weight:** 55 lbs. (25.0 kg)
- **Cable Reel:** 150 ft (46 m) cable
- **Weight:** 77.2 lbs. (35.0 kg) with max cable

#### Software

- **Acquisition:** Windows compatible / USB interface Structured File Storage
- **Analysis:** Amplitude profile plot (DIFF and ABS), C-scan Amplitude plot (DIFF and ABS), C-scan Solution plot (DIFF), High Pass/Low Pass filtering, Impedance plane, Linear encoder display
- **Mapping:** Creates simple and advanced tank floor maps. Allows for quickly importing scan data
- **Detection Capabilities:** Detection of bottom side 0.12" (3 mm) pits 30% on 0.50" (12.7 mm) plate
- **AR Wizard (optional):** Report writing software creates a complete inspection report including color coded plate map



Tank floor mapping software showing all scan paths and corrosion locations.



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