# MARKIV TANK FLOOR SCANNER

MANUAL AND MAPPING MODES REAL-TIME DISPLAY FULLY INTEGRATED, USER-FRIENDLY SOFTWARE SPEED COMPENSATION SOFTWARE ANALYTICAL REPORTING FEATURES HOT SWAPPABLE BATTERIES FULLY ADJUSTABLE HANDLES

## **ONLY 65 LBS!**

The Mark IV takes the precision, reliability, and durability of its predecessors to another level with state-of-the-art, user-friendly software and a lightweight build. Its slim design boasts an unprecedented weight of only 65 lb.

Operators are able to discover volume loss in real time with its true real-time display and switch to a mapping mode with the touch of a button. A carbon fiber body, military-spec breakaway cables, and the ability to conveniently separate and store the Mark IV into two separate custom cases ensure the Mark IV is durable, easily transportable, reliable, and unrivaled.

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## MARK IV TANK FLOOR SCANNER

### SOFTWARE

MFE Enterprises, Inc. has designed an MFL software package that allows the operator to quickly and efficiently map the tank floor bottom in record time.

#### **USER-FRIENDLY SOFTWARE**

The software guides the operator through an intuitive process that begins with quickly generating a sketch of the tank floor bottom and ends with a comprehensive detailed MFL map of the tank floor bottom.

#### **REAL-TIME DISPLAY**

The real-time "A-Scan" display features an LED signal response that runs concurrently with a "C-Scan" mapping preview that clearly illustrates where the defect is relative to the magnetic bridge. This allows defects to be located even faster and drastically eliminates the needs of the scanner to be constantly moving while locating defects.

#### TANK FLOOR BOTTOM

In less than 10 minutes, the operator can quickly recreate the tank floor plate layout, including annular plates. Detailed information for each plate is not required until the operator is ready to begin the MFL scan.

#### SPEED TRACKING

Our new speed tracking feature provides the operator immediate feedback so they are confident they are scanning within an optimal speed range, ensuring consistent and accurate results.

#### SPEED COMPENSATION SOFTWARE

Our new speed compensation software allows operators scanning at different speeds to obtain the same results. The signal response is normalized when scanning within the speed tracking range.

## **CUSTOM CASES**

When not in use, the Mark IV may be quickly separated into two parts: the bridge and the handle assembly. The Mark IV's 65 lb weight is distributed into two custom carrying cases. The separate cases make transport even easier, from shipping to a job to carrying the equipment through a manway.

The bridge case comes equipped with a keeper plate that keeps the bridge safely secure in accordance to IATA packing instruction.



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# **MARK IV SPECIFICATIONS**

GENERAL	
Principle of operation	Magnetic Flux Leakage
Sensor Type	24 Coil Sensor, 12 channels. "Coil type is adequately sensitive & stable and durable"
Scanning Modes	3 scanning modes of (Mapping, Manual (Free scan) and Alarm on Defect )
Scan Width	12 Inches / 300 mm
SYSTEM SPECS	
Scanner Weight	30 kg / 65 lbs.
Method of propulsion	Manual/ Free push, wheel size (5in/127mm dia.)
Transit case	Meets IATA Requirements for Transporting Magnet sable Material
	2 Cases, Dimensions {1st (90x47x20 cm) & 2nd (45x40x20 cm)}
Mobility / Handling	Only 2 persons.
Cables	3 Advanced Mil-Spec Breakaway Cables
Handles	Detachable and Fully Adjustable Handle made from carbon fiber material.
Scanner Lift up "Magnets & Floor breaking"	Special design for easy and professional breaking of the magnets by operator.
Power	Hot Swappable Batteries - No switch off; reinsert fresh batteries without losing power.
	Li-Ion smart battery (11.4V, 2160mAh)   Dim. (160 x 77 x 7 mm)/ 50 gm
	8 hrs. of continuous use, 4 batteries supplied - charging time 0.30 min/work time 2 hrs.
Sensor Height Control	Flexibility setting (Up and Down) depends on Floor Status - 6 levels setting.
Maximum Single Scan Length	Unlimited length "None"
Scanner Height	Adjustable handle down to 28" inches / 71 cm.
Speed Tracker / Scanner Speed	Yes, Variable Up to 3.3 ft. – 1.1m / sec. !
SCANNER CAPABILITES	
Thickness Range	Standard: Up to 0.50" / 12.7 mm (Standard Range: 6 mm – 12.7 mm) Optional: from 0.50" to 0.75" / (12.7 mm - 20 mm) "High Flux Bridge Upgrade"
Positional Accuracy	-/+ ¼" / 6 mm.
Minimum defect detection sensitivity	20% for ¼" (6 mm) diameter defect, On ¼" (6 mm) Plate.
Origin of defect detection	Bottom and Top side.
Test through Coatings	Yes, if non-magnetic.
Coating/Lining Thickness	Up to .50" / 12.7 mm.
Minimum man-way size	450 mm / 17.5 in
Temperature	Operating temperature - 21°C to 60°C (-5.8° F to 140° F)
	storage temperature limits - 51.1°C to 71°C (-60° F to 160° F)
SCANNER CAPABILITES	
Supported plate types	Rectangle, annular and sketch
Un-scanned area	20 mm (3/8") from plate weld, Corner 119x119 mm (4.7x4.7") dead zone
Real Time Display	Yes
A and C Scan View	Yes, X / Y position
Alarm on defect	Yes, Adjustable Threshold - Screen Freeze Alarm
Sensitivity setting	Yes, (Min – Max) adjustable.
Report file extension Type	Word file - Editable Format.   add photos , commentsetc.
CAD Tank Drawing Software	Yes, Automatically generated

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## MARK IV TANK FLOOR SCANNER

**MANUAL & MAPPING MODES** 

#### FULLY-INTEGRATED SOFTWARE

**ADVANCED MILITARY-SPEC CABLES** 

**REAL-TIME DISPLAY** 

**TANK DRAWING** 

**ANALYTICAL REPORTS** 

#### **HOT SWAPPABLE BATTERIES**

TELESCOPIC HANDLES FOR HEIGHT ADJUSTMENT

QUICK RELEASE DETACHABLE Handle Assembly INTEGRATED ELECTRONICS

MAPING ENCODER

## 65 LB/30 KG!

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