MFE Inspection Solutions

ROV / Crawlers

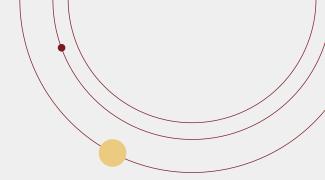
Equipment Catalog



Providing 30 years of equipment rentals, sales, repairs, calibrations & training

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Valued Customers













Who is MFE Inspection Solutions?

Welcome to MFE. Our story isn't just a list of products and services, it's about a team driven to innovate in non-destructive testing (NDT), remote visual inspection (RVI), environmental monitoring (ENV), and the use of unmanned robotic systems. We're the combination of MFE Enterprises, MFE Inspection Solutions, and NDT Electronics—a blend that's pushing the industry forward.

Starting Point: MFE Enterprises

(Founded in 1994)

It all started with MFE Enterprises. Founded by Bill Duke and his family, we hit the ground running with Magnetic Flux Leakage (MFL) technology for inspecting storage tanks and pipelines. With tools like the 65 lb Mark IV Tank Floor Scanner and the 61 lb MFE Edge, we've made inspections faster, more accurate, and cost-effective. This foundation of innovation and quality set the pace for everything that followed.

Expansion: MFE Inspection Solutions

(Founded in 2009)

Building on MFE Enterprises' legacy, we launched MFE Inspection Solutions in 2009. Starting in a modest office in Texas, our ambition was global. MFE's focus has been on delivering the best tools and technology, supported by dependable customer service. With 14 offices in five countries, we ensure we're always where our customers need us.

Broadening Our Scope: NDT Electronics

(Founded in 1981, Joined in 2016)

The acquisition of NDT Electronics in 2016 expanded our capabilities. Founded in 1981 by William Ganch, Jr., NDT Electronics brought decades of expertise in calibration and repair services, as well as a catalog of NDT equipment and supplies. This addition has allowed us to offer a broader range of services and maintain our commitment to quality and value.

Forward Together

Today, MFE stands as a unified force in the inspection industry, dedicated to innovation, excellence, and serving our customers. Our combined experience and expertise mean we offer a comprehensive range of products and services designed to meet your needs.

We're committed to your success and pride ourselves on offering solutions that enhance your projects with precision and safety. If you have questions or need support, our team is ready to help.

Thank you for choosing MFE. We're excited to continue this journey with you, providing the reliable, professional service you expect and deserve.









Endo Control

Crab Robot Crawlers

Overview

The Endo Control Crab Crawler Robot is a highly customizable ROV designed for precise navigation within piping systems. Its state-of-the-art design allows the robot to maneuver through tight bends and travel vertically within pipes, making it ideal for various inspection tasks in challenging environments.

Features

Advanced Maneuverability: The Crab Crawler Robot can navigate tight bends and travel vertically, ensuring thorough inspections in complex piping systems.

Spring-Loaded Drive Arms: Equipped with 6 spring-loaded motor drive arms, the robot maintains maximum traction and stability inside pipes, adapting to uneven surfaces and navigating cross-sections with ease.

High-Quality Imaging: Offers forward view, pan-tilt, and pan-tilt-zoom camera options with CCD imaging for sharp, crisp visuals.

Durable Construction: Features a planetary transmission, 32 radial ball bearings, and 12 rubber-coated wheels, providing robust performance in various conditions.

Pipe Size Compatibility: Suitable for pipes with diameters ranging from 50mm to 1,000mm. Additional Accessories: Options for CRM-180/230 laser sensors, digital video recorders, and portable video inspection systems.

Customizable Camera Modules: Changeable camera heads available for specific inspection needs, ensuring versatility and adaptability.

Integrated Lighting System: Built-in LED lighting enhances visibility in dark or submerged environments. **Portable and User-Friendly:** The system includes a portable, dustproof, and waterproof video inspection unit with a 7-inch TFT touch screen for convenient operation.



DT840 UGV

Overview:

The Deep Trekker DT840 UGV is an advanced unmanned ground vehicle (UGV) designed for robust and versatile inspections. This fully submersible and highly mobile robotic crawler is ideal for a range of industrial applications, including utility, pipe, and submersible inspections. Its rugged construction and intuitive controls make it well-suited for navigating and assessing challenging environments.

Features

High-Definition Imaging: Equipped with 4-1080 HD cameras, the DT840 UGV delivers clear and detailed visuals, with a 280° total range of view.

Durable Build: Designed to withstand harsh operational conditions, featuring a robust chassis and high-efficiency, fully dimmable LED lights.

Long Battery Life: Offers up to 8 hours of run time with a battery recharge time of just 3 hours.

Advanced Control System: Includes a 178 mm (7") wide-angle LCD screen controller with up to 4K recording capabilities, ensuring high-quality data capture.

Intuitive Navigation: The waterproof controller with USB, SD, HDMI, and Ethernet connectivity provides ease of use in various environments.

Versatile Tether: Features a neutrally buoyant tether in water, with options extending up to 600 meters, allowing extensive inspection reach.

Accessory Options: Can be equipped with additional tools such as a manipulator, two-way audio communication, IR lights, and a fire-fighting attachment.

Portable Case: Available with an optional custom Pelican Air 1650 case for easy transport and protection.



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Pipe Trekker A-150

Overview:

The Pipe Trekker A-150 is a highly efficient and portable crawler designed for streamlined sewer pipe inspections. It is engineered to accommodate pipes ranging from 6 to 24 inches in diameter, ensuring quick and hassle-free deployment in small to medium-sized pipes. The A-150's compact design and robust features make it ideal for various industrial inspection applications.

Features

High-Definition PT Camera: Equipped with a high-definition pan/tilt camera, the A-150 captures detailed visuals for clear inspection results.

Weatherproof Controller: Comes with a weatherproof hand controller, ensuring reliable operation in harsh weather conditions.

Motorized Lift Arm: Facilitates seamless vertical movement, allowing for efficient inspection of pipes with varying depths and bends.

Modular Wheel Kits: Features modular rubber wheel kits, providing enhanced traction and stability during inspections.

512 Hz Sonde: Allows for efficient localization and identification of anomalies.

Floodlights & Laser Scaler: Equipped with floodlights and a laser scaler to enhance visibility and measurement accuracy during inspections.

Durable Construction: Built with stainless steel, anodized aluminum, polyurethane, rubber, and high-strength sapphire for robustness and longevity.

Depth Rating: Can operate up to 50 meters (164 feet) deep.

Battery Life: Offers up to 11 hours of idle time and 2.5 hours of continuous operation.



Pipe Trekker A-200

Overview:

The Pipe Trekker A-200 is an advanced pipe inspection crawler designed for efficient and reliable sewer pipe inspections. Its robust and portable design allows for easy deployment and operation in pipes 8 inches and larger, making it suitable for various industrial applications. The A-200 is equipped with high-resolution cameras and powerful LED lights to ensure clear and detailed imaging even in challenging environments.

Features

High-Resolution PTZ Camera: Provides clear, detailed visuals for precise inspections.

Weatherproof Controller: Ensures reliable operation in various environmental conditions.

Robust Construction: Built with durable materials to withstand harsh operational environments.

Enhanced Maneuverability: Equipped with advanced traction systems for navigating complex pipe networks.

Long Battery Life: Offers extended operational time for thorough inspections. **Integrated Lighting System:** High-efficiency LED lights enhance visibility in dark or submerged conditions.

Modular Design: Allows for customization with additional tools such as a manipulator, two-way audio communication, and IR lights.

Versatile Tether: Available in lengths up to 600 meters, providing extensive reach for inspections.

Portable and User-Friendly: Comes with a protective case for easy transport and setup.



QYSEA

FIFISH V6

Overview:

The QYSEA FIFISH V6 is an advanced underwater ROV designed for professional and recreational use, offering exceptional maneuverability and high-definition imaging. This versatile ROV is perfect for underwater photography, videography, and inspection tasks, providing a user-friendly experience with cutting-edge features.

Features

360° Omnidirectional Movement: The FIFISH V6 provides full 360-degree movement in all directions, including left, right, up, down, forward, backward, and rotation, thanks to its six thrusters.

4K UHD Camera: Equipped with a 4K UHD camera for capturing high-resolution video and images with a 166° wide field of view.

VR Head Tracking Control: Offers an immersive underwater experience with smart VR goggles, allowing the operator to control the ROV simply by moving their head.

Posture Lock: Capable of locking in any posture while moving, ensuring stable and accurate inspections.

High-Efficiency LED Lighting: Features 4,000 lumens of brightness with a beam angle of 120° and a correlated color temperature of 5500K, providing excellent visibility in low-light conditions.

Electronic Image Stabilization (EIS): Ensures smooth and stable video recording, even in turbulent underwater environments.

Depth Rating: Operates at depths of up to 100 meters (328 feet), making it suitable for deep underwater explorations.

Long Battery Life: Offers up to 4 hours of continuous operation on a single charge.

Durable Construction: Built with high-quality materials, including a robust chassis to withstand harsh underwater conditions.

Integrated Storage: Comes with 64 GB of internal storage for ample video and image recording capacity.



QYSEA

FIFISH V-EVO

Overview:

The QYSEA FIFISH V-EVO is an innovative underwater ROV designed for professional-grade underwater inspections and creative videography. Its compact design and advanced maneuverability make it suitable for a wide range of underwater applications, from industrial inspections to underwater exploration and filming.

Features

4K UHD Camera: Equipped with a 4K UHD camera for capturing high-resolution video and images with exceptional clarity.

360° Omnidirectional Movement: Offers full 360-degree movement in all directions, including left, right, up, down, forward, backward, and rotation.

VR Head Tracking Control: Provides an immersive underwater experience with VR goggles, allowing intuitive control of the ROV through head movements.

Posture Lock: Capable of maintaining any posture while moving, ensuring stable and accurate inspections.

High-Efficiency LED Lighting: Features 4,000 lumens of brightness with a wide 120° beam angle and a correlated color temperature of 5500K, ideal for low-light conditions.

Electronic Image Stabilization (EIS): Ensures smooth and stable video recording, even in turbulent waters.

Depth Rating: Operates at depths of up to 100 meters (328 feet), making it suitable for deep underwater explorations.

Long Battery Life: Provides up to 4 hours of continuous operation on a single charge. **Durable Construction:** Built with robust materials to withstand harsh underwater environments.

Integrated Storage: Comes with 64 GB of internal storage for ample video and image recording capacity.



QYSEA

FIFISH V6 Expert

Overview:

The QYSEA FIFISH V6 Expert is a professional-grade underwater ROV designed for advanced underwater inspections, photography, and videography. This highly maneuverable and robust ROV offers cutting-edge features to meet the demands of both industrial and creative underwater tasks.

Features

4K UHD Camera: Equipped with a 4K UHD camera for capturing high-resolution video and images, ensuring exceptional clarity and detail.

360° Omnidirectional Movement: Provides full 360-degree movement in all directions, including left, right, up, down, forward, backward, and rotation, thanks to its six thrusters.

VR Head Tracking Control: Offers an immersive underwater experience with smart VR goggles, allowing the operator to control the ROV simply by moving their head.

Posture Lock: Capable of locking in any posture while moving, ensuring stable and accurate inspections.

High-Efficiency LED Lighting: Features 4,000 lumens of brightness with a wide 120° beam angle and a correlated color temperature of 5500K, ideal for low-light conditions.

Electronic Image Stabilization (EIS): Ensures smooth and stable video recording, even in turbulent waters.

Depth Rating: Operates at depths of up to 100 meters (328 feet), making it suitable for deep underwater explorations.

Long Battery Life: Provides up to 8 hours of continuous operation on a single charge.

Durable Construction: Built with robust materials to withstand harsh underwater environments.

Integrated Storage: Comes with 64 GB of internal storage for ample video and image recording capacity.



PHOTON

Overview:

The Deep Trekker PHOTON is a compact and agile underwater ROV designed for comprehensive underwater exploration and inspection. With its lightweight build and advanced features, the PHOTON offers exceptional maneuverability and high-quality imaging, making it ideal for various underwater tasks.

Features

Enhanced 4K Camera: Equipped with an enhanced 4K camera optimized by Deep Trekker's BRIDGE software, providing superior underwater viewing and clear, detailed imagery.

High-Efficiency LED Lights: Features high-intensity LED floodlights for vivid imagery and a wide field of view, even in low-light conditions.

Lightweight Build: Weighs only 10 kg (20 lbs) and is built from durable materials like carbon fiber and aluminum for easy transport and robust performance.

Precision Maneuverability: Six thrusters offer powerful, stable, and precise movement, enabling efficient inspections in any underwater environment.

Seamless Portability: The compact and lightweight design ensures easy transport and deployment.

Intuitive Operations: Integrated with BRIDGE technology for user-friendly operation, featuring a 7-inch LCD interface displaying sonar, mapping, telemetry, and live feeds.

Advanced Navigation: The PHOTON NAV package includes enhanced navigation capabilities with map position tracking and a tool skid with a grabber for more complex inspections.

Customizable Tether Lengths: Available in tether lengths up to 2 kilometers, providing extensive reach for inspections.

Durable Construction: Built to withstand challenging underwater conditions with materials like carbon fiber and anodized machined aluminum.



Overview:

The Deep Trekker DT640 Utility Crawler is a robust and versatile ROV designed for inspection and maintenance operations across various industrial applications. Its compact and durable design allows it to operate in challenging environments, including underwater settings. The DT640 is engineered for both cleaning and inspection tasks, making it an invaluable tool for industries requiring detailed and reliable inspections.

Features

High-Definition Camera: Equipped with a high-definition camera that provides detailed visual inspections.

Submersible Capability: Can be submerged up to 50 meters (164 feet), allowing for comprehensive underwater inspections.

Zero-Turn Radius: Features a zero-turn radius for enhanced maneuverability in confined spaces.

Battery Operated: Provides up to 8 hours of continuous operation, ensuring long-lasting performance during inspections.

Portable Design: Lightweight and portable, designed for one-man transport and easy deployment.

Durable Construction: Built with an anodized aluminum shell and rubber wheels, offering durability in various terrains and environments.

Integrated LED Lighting: Includes built-in LED lights to enhance visibility in dark or murky conditions.

Accessory Compatibility: Supports various cleaning and inspection accessories, such as vacuum heads and pressure washer kits, for added functionality.

Intuitive Control System: Offers user-friendly controls for precise maneuverability and operation.



Spot Robot

Overview:

The Boston Dynamics Spot is a versatile and agile quadruped robot designed for a wide range of industrial applications, including inspection, mapping, and remote monitoring. Spot's advanced mobility and payload capabilities allow it to navigate challenging environments and perform complex tasks autonomously.

Features

360° Omnidirectional Movement: Spot can traverse rough terrain, climb stairs, and navigate indoor and outdoor environments with ease.

Advanced Sensor Suite: Equipped with multiple sensors, including stereo cameras and 3D LIDAR, for accurate environment mapping and obstacle avoidance

Payload Capacity: Supports various payloads up to 14 kg, including cameras, sensors, and robotic arms for enhanced functionality.

Remote Operation Software: Utilizes Boston Dynamics' Orbit software for real-time robot fleet management, mission scheduling, and data analysis.

Autonomous Navigation: Capable of autonomous path planning and execution, reducing the need for manual control.

Durable Construction: Built to withstand harsh industrial environments, with an IP54 rating for dust and water resistance.

Integration with Al: Compatible with Al models for tasks such as gauge reading and anomaly detection, enhancing operational efficiency.

Long Battery Life: Provides up to 90 minutes of continuous operation with quick-swap batteries for extended missions.

Enhanced Safety Features: Includes emergency stop buttons, pre-configured light patterns, and audio signals to ensure safe interaction with human operators.



MFE Enterprises

HSR Crawler

Overview

The MFE Enterprises HSR Crawler (High-Speed Raster) is an innovative ultrasonic scanner designed to meet the demands of high-performance and durable inspections across a range of industrial applications. This crawler is specifically built to traverse large vessels and obstacles, providing reliable corrosion scanning on pipes with minimal adjustments needed.

Features

Wide Application Range: Suitable for storage tanks and pipes as small as 2 inches in nominal diameter.

High Speed and High Torque: Ensures efficient scanning without compromising on power or performance.

Rugged Construction: Engineered for challenging environments, featuring robust environmental sealing.

Advanced Mobility: Equipped with custom-engineered gearing and direct-coupled four-wheel drive for enhanced maneuverability.

Suspension System: Spring-centered suspension allows all four wheels to maintain contact on uneven surfaces, with a parking function to lift the transducer for crossing obstacles.

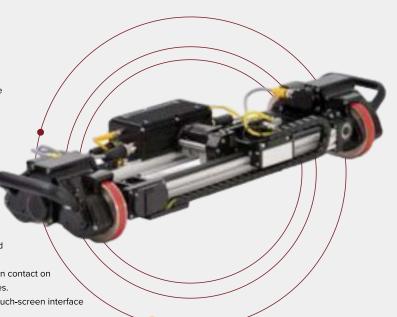
Joystick and Touchscreen Controls: Offers intuitive steering controls through a touch-screen interface or optional extended joystick.

High-Strength Magnetic Wheels: Utilizes rare earth magnets for optimal traction on steel surfaces.

Remote Probe Lifting Mechanism: Facilitates crossing larger obstacles without manual adjustments.

Internal and External Scan Control: Provides flexibility in scanning operations with low EMI noise motor drives.

Phased Array Capability: Supports circumferential scans and axial indexing for detailed phased array inspections.



MFE Enterprises

X3 Scanner

Overview

The MFE Enterprises X3 Scanner is a lightweight and compact tank inspection system designed for maximum portability without sacrificing performance. This advanced scanner is optimized for high-speed ultrasonic inspections, capturing detailed A-scans and B-scans for comprehensive data analysis.

Features

Lightweight and Portable: Designed for easy transport and setup, making it ideal for various inspection sites.

High-Speed Scanning: Ensures efficient and accurate ultrasonic inspections. **Compatibility:** Works with Danatronics Echo-9 and Olympus 38DL for B-scan

encoding, and can be customized for other UT instruments.

User-Friendly: No training required; plug-and-play operation. **Durable Cables:** Lightweight and robust, designed for ease of use and long-term reliability.

Advanced Control Module: Compact controller for simplified operations and efficient data capture.

MFE Enterprises

HPX Wall Crawler

Overview

The MFE Enterprises HPX Wall Crawler is a high-performance magnetic crawler designed for inspecting vertical structures, such as tank walls and roofs. This crawler combines advanced maneuverability with powerful rare earth magnet motors, making it ideal for remote access inspections. Its robust construction and high-speed capabilities ensure efficient and reliable operations in challenging environments.

Features

Advanced Magnetic Technology: Ensures stable vertical navigation and secure adhesion to steel surfaces.

High-Speed Inspections: Offers the fastest method for inspecting remote access areas with speeds up to 30 ft/min.

Durable Construction: Built from billet 6061 aluminum and 303 stainless steel with hard coat anodizing for enhanced durability.

Large Suspension Travel: Capable of handling difficult obstructions and surfaces with ease. Sealed Positional Encoder: Provides accurate B-scan data acquisition for detailed inspections.

Powerful Motors: Features the highest power density rare earth motors for increased power, torque, and adhesion.

Proprietary Gear Set Design: Direct drive system eliminates chains, belts, and clamps, reducing slippage and maintenance.

Lightweight and Portable: Weighs only 12.5 lbs, making it easy to transport and deploy. **Enhanced Safety:** A safer alternative for inspecting tank walls and roofs, reducing the need for manual inspections.



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MFE Office Locations

MFE USA

MFE Inspection Solutions - HQ

150 Holder Lane Dripping Springs, TX 78620

(281) 441-8284

Concord, CA

5040 Commercial Circle, Suite B Concord CA 94520

(707) 360-4665

MFE CANADA

Edmonton, AB

4424 Roper Rd Edmonton, AB T6B 3R1

(587) 758-7128

MFE MEXICO

Veracruz, MX

Torre Exertia, Nivel 15, Oficina 1505, Calle 4750 C.P. 94299 Boca del Río, Veracruz

+22 9325 5112

Atlanta, GA

1785 West Oak Parkway Suite 2 Marietta, GA 30062

(678) 398-7910

Corpus Christi, TX

226 Enterprize Pkwy Suite 108 Corpus Christi, TX 78405

(361) 881-4723

Toronto, ON

2840 Argentia Road Unit 6 Mississauga, ON L5N8G4

(647) 560-0003

MFE MIDDLE EAST

Dubai, UAE

Building No. A4, Office No. 104 Dubai Digital Park, Dubai Silicon Oasis

+971 4 880 6154

Baton Rouge, LA

12030 Lakeland Park Blvd Suite 105 Baton Rouge, LA 70809

(225) 456-5285

Houston, TX

6025 Fairmont Pkwv Pasadena, TX 77505

(832) 230-4650

Chicago, IL

12552 West Harvey Drive New Lenox, IL 60451

(815) 717-8274

Huntington Beach, CA

5445 Oceanus Drive Suite 104-105 Huntington Beach, CA 92649

(707) 360-4665

Wharton, ON - XRF Division

3230 Wharton Way Mississauga, ON L4X 2C1

+22 9325 5112

MFE mfe-is.com

sales@mfe-is.com

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