

NDT, Inspection & Asset Integrity Solutions

Advanced technologies for safer, more reliable and better-performing assets.

> Conventional NDT | Remote Visual Inspection | Digital Radiography | Advanced Ultrasonics | Tank & Tube Inspection | 3D Laser Scanning



Oil & Gas



Petrochemical



Power
Generation



Marine &
Offshore



Manufacturing



Infrastructure



BIEWU INTERNATIONAL TRADING W.L.L.
P.O. BOX: 24534
Doha, Qatar



Telephone: +974 44354768



Fax: +974 44423129



E-mail: sales@biewuinternational.com



www.biewuinternational.com

Company Overview

Inspection and asset-integrity support across the asset lifecycle.

BIEWU provides Non-Destructive Testing, inspection, digital inspection, and asset integrity solutions for oil & gas, petrochemical, power generation, marine, manufacturing, infrastructure, aerospace, and renewable energy sectors.

We support clients through every stage of the asset lifecycle—fabrication, construction, commissioning, operations, maintenance, shutdowns and turnarounds, reliability improvement, and life-extension programs.

Our solutions deliver reliable inspection data, reduced downtime, better maintenance decisions, improved safety, and confidence—even in the most challenging, difficult-access environments.

ASSET LIFECYCLE SUPPORT



End-to-end inspection and integrity support to help maximize performance and extend asset life.

WHY CLIENTS CHOOSE BIEWU



Conventional NDT Services

Trusted inspection methods for quality, integrity, and compliance.



Visual Testing (VT)

- ② **Method:** Visual examination.
- ② **Finds:** Surface defects, damage and discontinuities.
- ② **Typical use:** Welds, structures, components, and assemblies.
- ② **Benefit:** Early defect detection and compliance verification.



Liquid Penetrant Testing (PT)

- ② **Method:** Dye penetrant inspection.
- ② **Finds:** Surface-breaking cracks and fine discontinuities.
- ② **Typical use:** Non-porous materials and critical components.
- ② **Benefit:** Simple, effective surface flaw detection.



Magnetic Particle Testing (MT)

- ② **Method:** Magnetic particle inspection.
- ② **Finds:** Surface and near-surface flaws in ferromagnetic materials.
- ② **Typical use:** Welds, forgings, plates, and castings.
- ② **Benefit:** High sensitivity with fast, reliable results.



Ultrasonic Testing (UT)

- ② **Method:** High-frequency sound wave inspection.
- ② **Finds:** Internal flaws and discontinuities.
- ② **Typical use:** Welds, plates, pipes, forgings, and castings.
- ② **Benefit:** Detects hidden defects and ensures structural integrity.



Ultrasonic Thickness Measurement

- ② **Method:** Ultrasonic thickness gauging.
- ② **Finds:** Remaining wall thickness and material loss.
- ② **Typical use:** Corrosion assessment, pressure vessels, and piping.
- ② **Benefit:** Ensures fitness-for-service and safety compliance.



Surface Eddy Current Testing (ECT)

- ② **Method:** Eddy current inspection.
- ② **Finds:** Surface and near-surface cracks and flaws.
- ② **Typical use:** Tubing, heat exchangers, welds, and aircraft parts.
- ② **Benefit:** Fast scanning with high reliability on conductive materials.



Hardness Testing (HT)

- ② **Method:** Portable hardness testing.
- ② **Finds:** Material hardness and consistency.
- ② **Typical use:** Heat-affected zones, welds, plates, and components.
- ② **Benefit:** Confirms material properties and process quality.



Ferrite Number Testing (FN)

- ② **Method:** Ferrite content measurement.
- ② **Finds:** Ferrite level in stainless steel welds and base metal.
- ② **Typical use:** Duplex stainless steels and weld quality control.
- ② **Benefit:** Prevents corrosion and ensures material performance.



Dry Film Thickness Measurement (DFT)

- ② **Method:** Non-destructive coating thickness measurement.
- ② **Finds:** Coating thickness on metal surfaces.
- ② **Typical use:** Coating inspection on structures, tanks, and pipelines.
- ② **Benefit:** Ensures coating compliance and protection integrity.



Coating Holiday Detection

- ② **Method:** High-voltage holiday detection.
- ② **Finds:** Holidays, pinholes, and coating discontinuities.
- ② **Typical use:** Pipeline coatings, tanks, and linings.
- ② **Benefit:** Prevents corrosion and extends asset life.



Positive Material Identification (PMI)

- ② **Method:** XRF-based alloy analysis.
- ② **Finds:** Alloy grade and elemental composition.
- ② **Typical use:** Incoming materials, piping, fittings, and welds.
- ② **Benefit:** Confirms material identity and avoids mix-ups.

Typical Outcomes



Defect detection
& flaw identification



Wall-thickness
verification



Coating quality
assurance



Alloy & material
confirmation



Weld integrity
verification



Maintenance planning
& risk reduction

Remote Visual & Robotic Inspection

Safer access to confined, hazardous, and difficult-to-reach areas.

Our advanced remote visual and robotic inspection solutions enable high-quality data capture without the need for personnel entry—improving safety, reducing downtime, and supporting confident integrity decisions.

Technology	Best Application	Main Benefit
 Video borescope	Internal visual inspection	Rapid access and detailed imaging
 Magnetic robot	Steel structures, vessels and piping	Reduced access and safety exposure
 Inspection crawler	Pipes, confined spaces and remote tooling	Versatile remote inspection

01 Waygate Mentor Visual iQ+ Borescope



High-resolution imaging with advanced articulation and measurement tools for comprehensive internal visual inspection.

02 Waygate BIKE Magnetic Robotic Platform



Strong magnetic drive for vertical and overhead inspection on ferromagnetic surfaces in hazardous or restricted areas.

03 Eddyfi VersaTrax Inspection Crawlers



Modular crawler systems for UT, MFL, visual and multi-tech inspections in pipes and confined spaces.



OPERATIONAL VALUE

-  Improved safety exposure control
-  Faster access and mobilization
-  Better image quality and data confidence
-  Practical reporting for decision-making



Oil & Gas



Power Generation



Refineries & Petrochemicals



Pipelines & Terminals

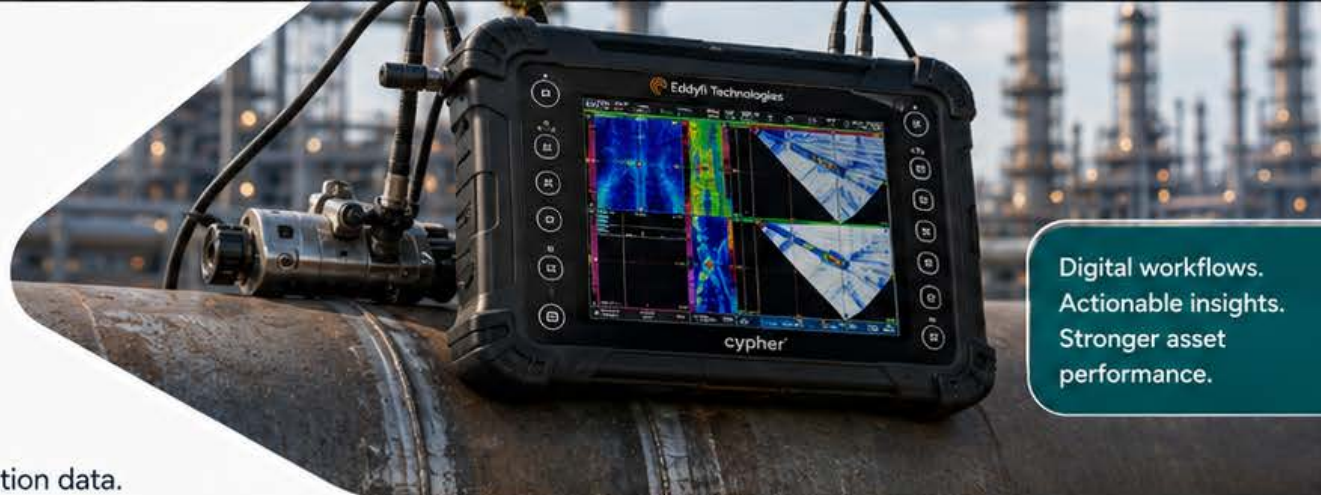


Marine & Offshore

➤ Ideal for confined spaces, restricted-access areas, pipes and vessels, power-generation facilities, oil & gas assets, and hazardous environments where direct human entry is undesirable.

Advanced NDT & Digital Inspection

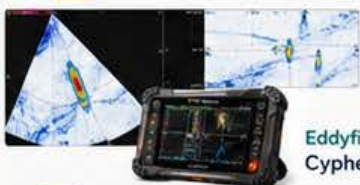
Faster acquisition, better coverage, and digitally traceable inspection data.



Digital workflows.
Actionable insights.
Stronger asset
performance.

OUR ADVANCED NDT PORTFOLIO

01 Phased Array Ultrasonic Testing (PAUT)



High-resolution flaw detection with superior sizing accuracy.

Eddyfi
Cypher

02 Time of Flight Diffraction (TOFD)



Precise defect characterization with reliable sizing and throughput.

Eddyfi
Cypher

03 Total Focusing Method Imaging (TFM)



Complete volumetric imaging for critical weld assessments.

Eddyfi
Cypher

04 Digital Radiography (DR)



High-quality radiographs with immediate results.

Waygate
DXR75
DXR140

05 Flexible Digital Detector Technology



Adaptable, lightweight detectors for complex geometries.

Waygate
DXR Flex
1025
1043

06 Computed Radiography (CR)



Durable, efficient CR solutions for reproducible, high-quality images.

Waygate
CRx25P
CRxVision

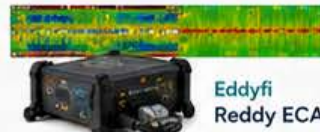
07 Guided Wave Ultrasonic Testing (GWUT)



Long-range screening of piping and structures with fewer accesses.

Eddyfi
Sonyks

08 Surface Eddy Current Array (ECA)



Rapid surface crack detection with accurate sizing.

Eddyfi
Reddy ECA

DELIVERING WHAT MATTERS



Improved Defect Detection
Advanced sensing and imaging reveal more, with greater confidence.



Faster Data Acquisition
Higher productivity with optimized inspection workflows.



Rapid Image Availability
Instant access to results for quicker decisions.



Better Inspection Coverage
Wider, deeper and more consistent coverage of critical areas.



Easier Interpretation
Clear visuals and intuitive software reduce complexity.



Digital Traceability
Secure, traceable data from field to final report.



Reduced Repeat Inspection
Right data, right the first time.



More Informed Maintenance Decisions
Actionable insights that extend asset life and reduce risk.

DIGITAL WORKFLOW. END-TO-END TRACEABILITY.



Plan & Setup



Data Acquisition



Processing & Imaging



Analysis & Interpretation



Reporting & Storage



Secure Archiving
& Traceability



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Tanks, Tubes & 3D Digital Asset Integrity

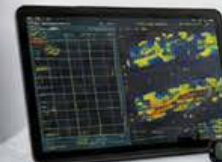
From corrosion mapping to digital decision support.

01

TANK FLOOR INSPECTION

- Corrosion & pitting detection
- Wall loss measurement
- Tank-bottom mapping
- Critical-zone inspection
- Top & bottom corrosion discrimination

Eddyfi
FloormapX



HIGH-RESOLUTION
MAPPING

TRUE TOP/BOTTOM
DISCRIMINATION

ACTIONABLE
INSIGHTS



02

HEAT EXCHANGER, CONDENSER & BOILER TUBE INSPECTION

Advanced NDT methods for comprehensive
tube integrity evaluation.

IRIS
Internal Rotary
Inspection
System

ECT
Eddy Current
Testing

NFT
Near Field
Testing

RFT
Remote Field
Testing

NFA
Near Field
Acoustic

RFA
Remote Field
Acoustic

ECA
Eddy Current
Array

MAGNETIC
FLUX
ANALYSIS

Eddyfi
Ectane 3



03

3D LASER SCANNING & DIGITAL ASSET INTEGRITY

- 3D laser scanning
- Reverse engineering
- Dimensional inspection
- Scan-to-CAD
- Quality inspection
- Corrosion and erosion mapping
- Dent and mechanical-damage analysis
- Deformation and ovality analysis
- Wrinkle analysis
- Pressure-equipment assessment
- Digital twin generation
- Remaining-life support
- Burst-pressure simulation



- Creaform
HandySCAN 3D
BLACK Series
- Creaform
Metrology Suite
- Scan-to-CAD
- Inspection
- Creaform
Integrity Suite



DIGITAL WORKFLOW



INDUSTRIES & APPLICATIONS

Pipelines

Pressure
Vessels

Storage
Tanks

Welds

Heat
Exchangers

Boilers

Condensers

Structural
Components

Coated
Surfaces

Rotating
Components

Aircraft
Structures

Difficult-Access
Areas



Protect Asset Integrity. Reduce Risk. Make Better Maintenance Decisions.

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