

World-Class Testing Facilities Developed Over Decades of Expertise

Non Destructive Testing Services

Advanced NDT Services

- | Phased Array Ultrasonic Testing (PAUT)
- | Automated Ultrasonic Testing (AUT)
- | Robotic Tank Inspection Service
- | Scorpion B Scanning
- | RMS Scanning
- | MFL Pipe Scanning
- | 3D MFL floor Scanning
- | Time of Flight Diffraction (TOFD)
- | Remote Field Eddy current Testing (RFET)
- | Internal Rotary Inspection Services (IRIS)
- | LRUT inspection
- | Short Range Ultrasonic Testing
- | ACFM
- | Corrosion Mapping
- | Pulsed Eddy Current (PEC)
- | Digital Radiography
- | Automated RT Crawler
- | SCAR System
- | Borescope Inspection
- | Profile Radiography
- | Radiography Film Digitization
- | Computed Radiography

Conventional NDT Services

- | UT scanning
- | Dye penetrant Test
- | Magnetic Particle Inspection
- | Holiday Testing/ Spark testing (Low & High)
- | Radiography Services
- | PWHT/ Stress Relieving
- | Hardness Testing (UCI & Rebound)
- | Vacuum Box Testing
- | Visual Inspection
- | Positive Material Identification
- | Level III Services & ASME U Stamp Services

Non Destructive Testing Services

Aries is a leading NDT service provider offering a wide range of service worldwide. This includes quality control, post weld heat treatment services (PWHT) and specialized NDT inspection methods such as crawler radiography, eddy current testing, positive material identification, MFL Pipe Scan, RMS scanning, Digital-Computed Radiography, SCAR system to name a few.

Our team of professionally qualified and certified technician are well versed and experienced to perform conventional and advanced NDT inspection. Our team of technicians are available on a 24 x 7 standby call irrespective of environmental conditions.

We are approved by all 14 classification societies and oil majors, some of the few names are GASCO, ADCO, ZADCO, TAKREER, ADMA, BP, Qatar Gas and QP.

We are also accredited by Dubai Central Lab, a worldwide recognized body.

Aries NDT is actively engaged in areas such as :

- Radiography Testing (Gamma Ray, X-Ray including crawler system)
- Radiography film digitization: In addition to traditional film used in radiography we offer film digitization, which is a fast and efficient way to maintain radiographic records for long term use with minimal space required. We currently utilize the 2095 Array Digitizer, which meets all standards for ISO 14096 Class DS and ASME Section V. We are able to digitize both new and existing radiography results, allowing you to access your radiography results quickly and efficiently, without requiring any physical storage space as they would be stored digitally. Film digitization also provides you with the ability to transfer data globally, for either storage reasons or to any party that may have interest in reviewing records.
- Phased Array Ultrasonic Testing (PAUT)
- Digital-Computed Radiography
- SCAR system
- Ultrasonic Flaw Detection (Manual & AUT)
- Ultrasonic Tightness Testing/ Leak Testing - Magnetic Particle Testing (Visible and Fluorescence)
- Dye Penetrant Testing (Visible and Fluorescence)
- Ferrite measurement
- Coating inspection using Holiday Detectors
- Eddy Current Testing
- Scorpion B scanning
- RMS scanning
- MFL Pipe Scanning

- Positive Material Identification (XRF)
- Holiday Testing/ Spark Testing (LOW & HIGH)
- PWHT/ Stress Relieving
- Hardness Testing (UCI & Rebound)
- Vacuum box Testing
- Visual Inspection
- Level III Services & ASME U Stamp services
- Time of Flight Diffraction (TOFD)
- Rapid Motion Scanning RMS (300/450/600) corrosion mapping
- R scan corrosion mapping (Silver wing)
- AUT solution accuScan corrosion mapping
- Olympus Hydrofoam scan corrosion mapping
- Bore scope inspection
- Eddy current tube testing
- MFL tube testing
- Remote filed eddy current testing
- Internal Rotary inspection service
- LRUT inspection service

We have spread our wings to the civil construction industry as well by providing our quality services to several prestigious projects of UAE such as Dubai Metro, Dubai Mall, Burj Khalifa and so many others.....

We are an ISO 9001:2015, ISO/IEC17020, ISO 14001:2015, ISO/TS 29001:2010, ISO 45001:2018 certified company.

Our qualified employees are certified by ASNT & EN ISO 9712

"Experience is the best teacher" - we have successfully completed 4000 projects and still continuing to do so...

Our qualified ASNT & EN ISO 9712 LEVEL - III personal ensures proper training, proper quality assurance and safety.

Corrosion Mapping

Aries provides the latest Ultrasound Corrosion Mapping system which finds out the major application in corrosion and defect monitoring in tanks, vessels, reactor units and plant pipes.

Scorpion B Scanning

The Scorpion B-scan is a rugged remote access ultrasonic (UT) crawler designed for A and B-scan imaging on above ground ferromagnetic structures such as storage tanks, vessels and offshore installations without the need for costly scaffolding or rope access associated with UT thickness gauging.

Scorpion can be bought as a complete system, integrating ultrasonic pulser/receiver, data logging and motion control for easy set up and seamless operation and scorpion B-scan system continuously records thickness measurements as it moves over the inspection surface. The recorded thickness information is presented in the software as an A-scan trace, a digital thickness measurement and a B-scan profile



RMS scanning

RMS2 scanning is remote access corrosion mapping unit designed to evaluate the condition of ferrous materials structures and it extremely flexible with a range of scanning heads to suit different inspection requirements and application such as storage tanks, pipelines, pressure vessels and other critical equipment.

The RMS2 can give 100% coverage in a band up to 1000 mm wide, significantly increasing Probability of Detection (POD) of corrosion, enabling engineers to determine the optimum repair strategy and improve risk life assessment (RLA) & risk based inspection (RBI) maintenance programs.

MFL pipe scan

MFL pipe scan systems is using for rapid screening and detection of random internal corrosion in pipe and small diameter vessels, It have coverage of all diameters from 48mm to 2.4 metres with a limited number of scanning heads

MFL Pipe scan is an easy to use, cost effective, and portable. Magnetic flux leakage inspection is not affected by product flowing through the pipe so surveys can be carried out both on-line and off-line and at surface temperatures up to 90°C. Use of Pipe scan, with its high probability of detection to locate the corrosion, coupled with ultrasonic probe up, provides a cost effective accurate system for the determination of plant integrity.

Positive Alloy Material Identification Facility

Fast and reliable material analysis, Aries handheld NITON Systems provide 100% positive material identification and superior material sorting.

Crawler Radiography

Aries uses JME brand pipeline crawlers. The crawler is a suitable inspection tool which aids for pipes of dia 6" to 60", both onshore and offshore.

X-Ray and Gamma Ray Radiography

Aries Technicians are well experienced and diversified to work and meet client stringent requirements of Power plants, Refineries, Vessels, onshore and offshore oilfields.

Aries also provide onboard inspection result by utilizing onboard film processing unit by its vast experienced personnel to deliver quick and timely results within minutes of Inspection.

Digital-Computed Radiography

Digital Radiography (DR/CR) is a powerful technique that can be used in nondestructive inspection of internal features of an object to obtain two-dimensional computed tomography images needed to characterize material properties, identify defects and measure part geometry.

Multiple slices can also be assembled to create accurate three-dimensional CT that can be used for a variety of different purposes as viewing the shape of defects.

Aries can provide site inspection utilizing method above for all your needs and requirements.

Applications for computed radiography include:

- Corrosion surveys on pipes, often through insulation
- Examination of valves for erosion;
- Best when used with Se75 for small core piping due to internal scatter created by Ir192's wavelength
- No silver based film or chemicals are required to process film.
- Reduced film storage costs because images can be stored digitally.
- By adjusting image brightness and/or contrast, a wide range of thicknesses may be examined in one exposure, unlike conventional film based radiography, which may require a different exposure or multiple film speeds in one exposure to cover wide thickness range in a component.
- Images can be enhanced digitally to aid in interpretation.
- Images can be stored on disk or transmitted for off-site review.
- Ever growing technology makes the CR more affordable than ever today. With Chemicals, dark room storage and staff to organize them, you could own a CR for the same monthly cost while being environmentally conscious, depending upon the size of the Radiographic

The SCAR system

Radiography is a well-established conventional NDT technique with inherent risks associated with the use of radiation. Managing the safety risk by the setting of 'controlled areas' has the adverse effect of reducing clients' production time. The SCAR equipment enables radiography to be performed in the heart of the workplace without disruption to normal operations.

The SCAR system comprises an internationally certified, purpose built Se-75 gamma radiation source camera. The shielding and beam collimation provided by the camera allows the source exposure to be done to the required standard of radiation protection.

Ultrasonic Inspection - (Flaw Detectors)

Aries uses modern equipment like Krautkramer USM 35 DAC, USM Go, EPCHO 600 etc for easy and variable Ultrasonic flaw detection.

PWHT Stress Relieving

Aries provides Post Weld Heat Treatment for carbon steel, alloy steel and Inconel Super Alloy steel pipe joints. We undertake PWHT of the entire vessel with the state-of-art system.

Tank Floor & Pipe Inspection using 3DMFL

Aries employs 3D MFL floor scan capable of independent identification and recording of top and bottom defects with a single scan. Portable handy-scan also utilized for annular plate and area with restricted accessibility.

Advanced UT for Plant Piping, Vessels, Spheres and Tanks

Aries deploys the latest state-of-the-art Automated Ultrasonic girth weld inspection systems using phased array/ TOFD technology with high Probability of Detection (POD)

Advanced Ultrasonic & TOFD (Time of Flight Diffraction) equipment now makes it possible to inspect with multiple angles.





This technology improves inspection capabilities through software control of characteristics.

Tube inspection -ECT/IRIS/MFL/RFET

Aries has a multi-functional system for tube inspection to detect wall thinning by using Eddy current testing, Internal Rotary Inspection System (IRIS) and Remote Field & Magnetic Flux Leakage Testing.

AUT solution Accuscan

Accuscan is an automated 2-axis scanner that can scan up to 30 inches per second. It will scan items ranging from 2" pipe to flat surfaces, and can be used on items that are 300°F or higher to suit different inspection requirements such as storage tank pipelines, pressure vessels etc.

Guided Wave Ultrasonic Testing Technology

The Long Range Guided Wave Ultrasonic Technique (LRUT) was designed to inspect 100% of a pipe segment from one single location.

Its primary application is within the Oil and Gas Refining, Petrochemical, Storage, Offshore and Pipeline Transportation industries where it is used to inspect piping systems that are difficult to access such as:

- Insulated Pipe in Refineries
- Offshore Pipeline Risers
- Cased Road or Railway Crossings
- Loading Lines
- Tank Dyke Pipeline Crossings
- Above Ground or Buried Flow Lines
- River or Bridge Pipeline Crossings
- Pipe Inspection

Pulsed Eddy Current (PEC)

Lyft PEC/PECA equipment is an advanced nondestructive testing technique capable of identifying metal losses in ferrous material through insulation or fire proofing. The working principal of PEC technology is the probe induces eddy currents into the test material then receives a response as these eddy currents decay. Based on the characteristics of this decay an inferred thickness can be determined.

Applications:

- Corrosion under insulation (CUI)
- Corrosion blisters and scabs

- Flow accelerated corrosion
- Corrosion under fireproofing (CUF)
- Corrosion under coatings
- Splash zone
- Surface and waterworks corrosion.

Benefits:

PEC is a noninvasive technique that can be performed on equipment's while in service without insulation removal. Latest in Eddfyi LYFT PEC/PECA technology can even inspect through galvanized steel weather jackets. Our trained analysts provide timely inspection and reports with easy to interpret c-scan data presentation

Long Range Ultrasonic testing

The Long Range Guided Wave Ultrasonic Technique was designed to inspect long section of piping from a single location.

How It Works - torsional or longitudinal guided waves are induced into the pipe body and propagated along the pipe segment being inspected. When these guided waves identify an anomaly of pipe feature they mode convert into laminar waves and reflect back to the tools original location. Using a laptop these signals are digitally captured and processed. The time-of-flight for each signature is calculated to determine the distance from the tool and the significance of the anomaly. The octants determine the position around the pipe

Application

- Road and river crossings
- Power plant tubing
- Risers
- Offshore topsides pipework
- Jetty lines
- Jetty Supports
- Refinery pipework
- CUI

Features

- Diameters - 1.5" to 48"
- 100% Coverage
- Test Range
- Typical $\pm 30m$
- Ideal conditions $\pm 180m$
- Productivity
- Typical 600m per day
- Under ideal conditions 3km has been achieved
- Service Temperature up to $+125^{\circ}C$



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Time is money... We count even seconds.