



Oil & Gas



GE imagination at work

“Committed to providing our Oil & Gas industry customers with leading edge inspection solutions that boost productivity and improve safety.



Your partner in productivity & safety

With an increasing need for corrosion detection and weld inspection comes the requirement of improved productivity. Versatility, portability, and a high degree of availability are the key requirements from inspection technology solutions.

GE Inspection Technologies is developing industry-specific applications that address the critical need for weld inspection and corrosion monitoring techniques that are user-friendly and improve productivity.

Our long-term aim is to work in collaboration with customers to provide technology breakthroughs such as:

- Permanently installed sensors
- Real time digital radiography
- Phased array UT
- Advanced imaging software
- Advanced scanning techniques for corrosion under insulation.

We are the first company in the NDT industry to have dedicated, segment-based marketing, sales and product management teams to better understand customer needs and help develop specific applications to resolve those needs.

Ensuring safety in tough environments

Ultrasonic inspections

Wall thickness measurement

The **DM Series** of ultrasonic thickness gauges are compact, rugged and efficient. This allows them to carry out a large number of demanding tasks, such as reading wall thickness measurements on components subject to wear.

DM4 -
a member of
the DM Series
ultrasonic
thickness
gauges



Flaw detection

Portable ultrasonic flaw detectors such as the **USM 35X** are protected against the ingress of dust and strong jets of water to the IP 66 standard. Modifications made as a result of on-site and customer trials make it more robust and suitable for application in the most aggressive operating environments.



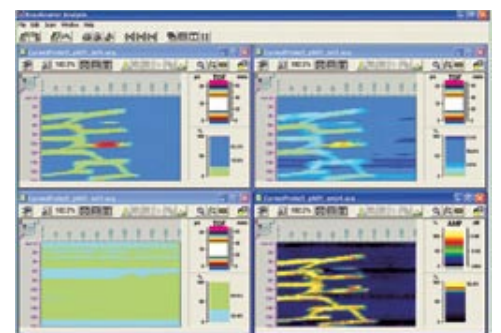
Weld inspection using automated UT

ASME code case 2235 allows for weld inspection on pressure vessels and piping using automated UT. GE Inspection Technologies has considerable experience designing testing machines and UT products and we can design a system for your specific needs.

GE is also developing a Phased Array UT based automated system for testing girth welds on new pipelines. This will offer improved speed and accuracy over traditional methods.

Corrosion mapping

The **IAS50** has been developed specifically for the Oil & Gas segment. It is a complete, automated UT solution used to map and assess corrosion and base material flaws on pipelines and other critical ferrous-based structures. It achieves at least ten times more productivity over manual solutions.



IAS 50 Corrosion Mapper and graphical display

"We found the IAS50 to be an excellent all round mapping tool for establishing the extent of corrosion on vessels and pipes. It is uncomplicated and easy to use, lightweight and portable, whilst giving consistently reliable and repeatable readings."

— Alan Parker, SIS Operations Manager
Oceaneering (OIS) International

Creating lean practices through smart inspection solutions

Eddy Current inspections



Locator 2s in protective splashproof case (above)
WeldScan Probe (right)

Eddy Current is an ideal technique for inspecting cracking in welds at or near the surface of metals, working through coatings such as paint.



GE Inspection Technologies' solution comprises of a **Locator** instrument and **WeldScan** probe. The Locator is a light, handheld eddy current instrument that is rugged enough for continuous use and the harsh environments associated with the Oil & Gas industry.

WeldScan probes have been designed to be extremely hard-wearing so that they can handle the rough weld surface while detecting any faults in the weld.

Hardness testing solutions



Mobile hardness testing is becoming more sophisticated and advanced. In these times of cost pressure and higher quality requirements, it represents a quick and economical supplement to stationary hardness testing in the modern production process. The application possibilities are endless for large and smaller components, especially in positions which are difficult to access.

GE offers a full range of portable Hardness Testers designed for field and shop applications. They can operate on battery or AC power and have direct digital hardness readout in Rockwell, Vickers or Brinell Scales. Micro indentation, rebound and optical through indentation viewing testers are available as well. GE can also offer options on the various methods of portable Hardness Testing. For example, the **MIC Hardness Tester** uses the Ultrasonic Contact Impedance (UCI) and Rebound test methods.

Computed radiography & X-ray

Computed radiography

Computed radiography (CR) scanners such as the **CR^X Tower** allows for digital imaging and can greatly improve productivity and safety. A digital image allows the end user to enhance a particular area of interest for precise viewing and interpretation of results. The wide exposure latitude of this technique can also reduce re-shoots due to radiographic variances.

Film

Traditional and still very popular X-ray methods require the use of film. GE Inspection Technologies is the worldwide leader and supplier of Structurix NDT film and related equipment. We also provide the entire range of film accessories ranging from digitizers to processors.

Imaging plates

GE supplies a range of Storage Phosphor Imaging Plates that give the user the ability to optimize images for unmatched quality and reduced exposure times. For on-stream applications, the IPC minimizes exposure and plant shut-down times, while the IPX guarantees the highest test standards in weld inspection can be met.

Portable X-ray sources

Portable X-ray units are designed to be reliable in some of the world's toughest conditions. Using modern compact electronics to minimize weight and provide a high power output with extremely low ripple, and a sturdy metal ceramic X-ray tube, the **ERESCO Series** generates a high X-ray dose. This delivers the shortest exposure time, resulting in higher productivity.

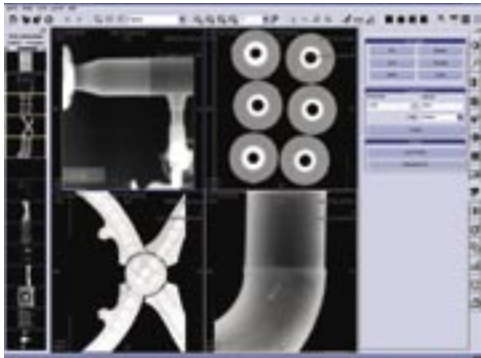


CR^X Tower with imaging plate



Increasing productivity through technology & collaboration

Software solutions



Rhythm screen showing multiple viewports

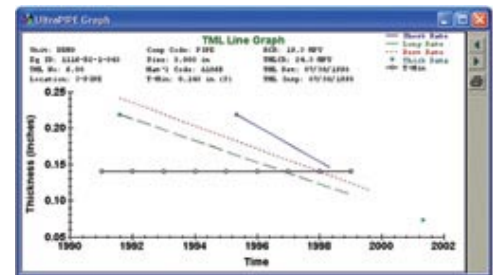
Inspect, interpret, collaborate

The **Rhythm Suite** of user-friendly software from GE Inspection Technologies offers advanced image review tools and data management for all X-ray inspection modalities, including computed radiography, digital radiography and film digitization.

Increased efficiency

UltraPipe maximizes inspection dollars by focusing only on the equipment items that need inspection. The software analysis equipment predicts replacements and schedules inspections, thereby reducing inspection frequencies of corrosion monitored equipment.

Its advanced data sharing capabilities and wall thickness measurement software significantly improves productivity and enables faster identification of quality problems. This leads to a reduction in production defects and better in-service asset management. Using industry-standard, non-proprietary data formats, Rhythm provides an advanced and cohesive solution for data management and sharing, while creating a stable platform for future NDT software capabilities.



UltraPipe Report



Long-term support

Four levels of service agreements					
What	On demand	Basic	Extended	Premium	Custom
Inspection	•	•	•	•	•
Maintenance	•	•	•	•	•
Calibration	•	•	•	•	•
Guaranteed response time	•	•	•	•	•
Discounted repair	•		•	•	•
Technical phone support	•		•	•	•
Loaner unit	•		•	•	•
Remote monitoring & diagnostics	•		•	•	•
Software upgrades	•			•	•
Spare parts	•			•	•
Training	•				•
Lease/finance/rental	•				•
Hardware upgrades	•				•
24/7 support					•
Service level agreements					•

Team

GE Inspection Technologies' application centers provide a broad spectrum of services to users of NDT testing applications. Our mission is to bring together worldwide knowledge and experience across multiple industries and modalities to help customers quickly solve their inspection application problems. See geinspectiontechnologies.com for details and site locations.

Training

We provide a wide array of training programs designed to keep your staff up-to-date on all critical inspection methods. We understand the importance of keeping your staff well trained and informed, so we structure our courses to deliver both theoretical and practical training.

Leasing & rentals

Customized financial solutions are available to solve your budgetary problems including capital leases, fair-market-value leases, sale leaseback and rental solutions. Equipment can be quickly dispatched from our regional service facilities to your job site, including the required consumables, instructions and software to ensure a successful inspection project.

After sales support

A full line-up of equipment repair and calibration services is also available. With a global service network, GE Inspection Technologies can repair equipment faster than others in the business. Of course, GE's financial strength means that we will be around to back up our warranties and provide you with the parts and accessories you need.

Backed by GE, our after sales support provides you with the parts, accessories and service you need.



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