



Reliable Flaw Detection. Fast Inspection Times.

High quality non-destructive testing services tailored for all your needs.

The reliability of an NDT method depends on the expertise of the operator.



Prevention is Better than Cure. Your Assets Included.

Ensuring the failure-free operation of structural components and systems is essential within any industrial sector. Even as components and structures age, they must continue to fulfill their function reliably and cost-effectively. Should defects remain undetected, damage may be caused to the component, possibly leading to operation shutdown with costly loss of production. With the help of our non-destructive testing (NDT) services you can benefit from different testing methods that determine and characterize the actual condition of equipment, thus enabling early damage detection.

As a leading provider of independent inspection services with a company history of over 140 years, we have extensive experience in advanced NDT methods and special NDT applications, particularly ultrasonic testing. We have also designed and developed a range of ultrasonic inspection systems for the industrial sector and are involved in the normalization and standardization

process of the time of flight diffraction (TOFD) method.

Many of our inspections are carried out under extreme circumstances, enabling inspections – whether pre-service or in-service – to be carried out during production. From power generation to infrastructure and manufacturing, a wide range of industries benefit from

our weld inspection and corrosion monitoring services even on complex geometries with our non-intrusive inspection capabilities. We are able to combine several techniques in order to attain your main inspection goals: high probability of detection, fast inspection time and cost efficiency.

Our NDT services for industries around the world

- Oil and gas
- Chemical and petrochemical
- Power generation
- Aerospace
- Construction
- Manufacturing
- Processing
- Transportation
- Defence
- Pharmaceutical
- Medical
- Food

Your benefits at a glance

- Well-trained inspection technicians with a depth of experience and expert knowledge
- Many years of experience in the field of non-destructive testing
- Extensive array of non-destructive testing services
- Level III capability
- Well-documented safety standards
- Compliance with international specifications and local requirements
- International presence and capacity
- Validated testing capabilities, allied with best possible accuracies
- Digitized inspection results for future reference and verification
- Speedy inspections
- State-of-the-art equipment

Understanding Your Problem. Knowing What You Need.

We have abundant experience in providing non-destructive testing services for global customers. Our clients and their inspection requirements are extremely diverse and the technology we use is leading edge.

NDT consultancy services

Many Non Destructive Testing methods are available, each with their own advantages and limitations. We can help you to choose the method that best suits your needs.

Our NDT consultancy services include:

- Writing and maintaining written practices for NDT companies.
- Carrying out ultrasonic modelling and simulation.
- Assistance in the preparation of procedures prior to inspection.
- Advice on training and staff qualification requirements.
- Quality assurance.
- Performance evaluation.
- Auditing services for different application methods.
- Dispute arbitration.

State-of-the-art equipment. Latest inspection technology.

We constantly develop more effective processes to better serve your requirements. We have many years of experience in responding to the needs of industry and quickly providing answers to the inspection challenges that arise. Our specialized applications help clients by enhancing inspection quality, simplifying processes, speeding up inspection setup and making the results easier to understand.

Our advanced NDT testing methods include:

- Computed Radiography
- Corrosion Mapping (SeeScan)
- Pulsed Eddy-Current
- Phased Array
- Sampling Phased Array
- Time of Flight Diffraction (TOFD)
- Synthetic Aperture Focusing Technique (SAFT)

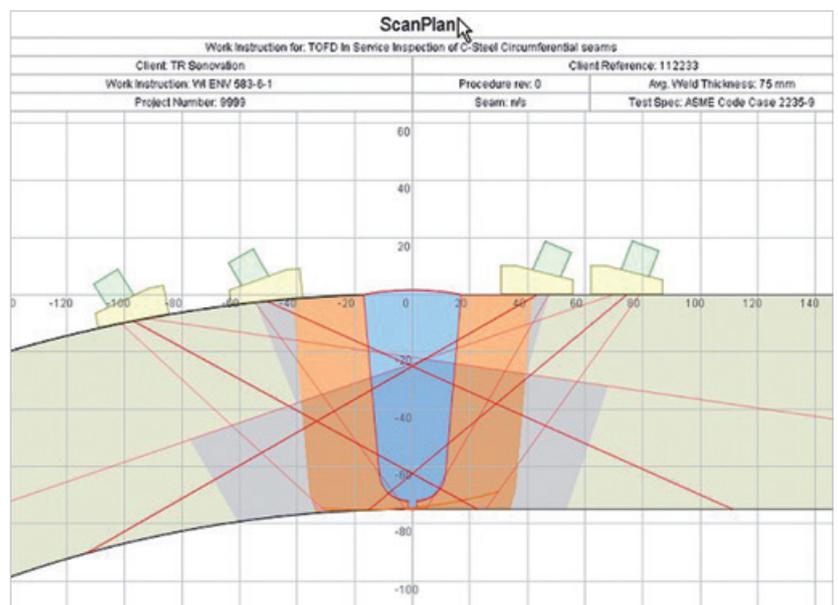
Areas of application	Methods applicable
Weld root erosion	TOFD
Weld inspection	TOFD, multi-skip TOFD, Pulsed Eddy Current, Phased Array, SAFT
Hydrogen induced cracking	TOFD, Phased Array
High temperature NDT inspection	TOFD, Corrosion Mapping, Phased Array
High temperature hydrogen attack	Backscatter technique, velocity ratio measurement, TOFD
Corrosion under insulation	Pulsed Eddy Current
Wall thickness measurement	Automated Ultrasonic Testing (AUT)
Supervision of liquid/gasified pressure test	Acoustic Emission (AE) testing



ScanPlan® - software developed in-house to enhance inspection results

Main benefits of our software:

- Preparation of procedures and reports
- Fast, easy and accurate input of component geometry
- Instant calculation of inspection parameters
- Instant visualization of inspection effectiveness on the actual geometry
- Acceptance of weld profiles
- Formulation of UT techniques setup procedures
- Optimization of proposed UT techniques solution
- Production of required test plans
- Integration with reporting formats
- Inspection-friendly design
- Data management of complete inspection projects



Our accreditations

- ISO 9001 and ISO 17025
- ISO 9712 (formerly EN 473)
- American SNT recommended practices
- KTA Certificate - Kerntechnischer Ausschuss (German Nuclear Safety Standards Commission)
- VCA* Certificate - Veiligheids Checklist Aannemers (Dutch: Safety Certificate for Contractors)
- ASME - American Society of Mechanical Engineers - XI 10CFR50
- CP 189
- Nadcap - National Aerospace and Defense Contractors Accreditation Program
- A2LA - American Association for Laboratory Accreditation
- AWS - American Welding Society

Proven Performance. Extensive Experience.

Confirming the basics with conventional NDT methods

In addition to advanced testing methods, our dedicated team provides qualified inspectors capable of applying conventional NDT testing methods in order to solve any inspection challenge that an industrial project could potentially face. This assures you both safe operation and improved quality, while reducing overall costs. We perform shop or field inspections whenever and wherever they are required, to any guideline, standard or customer specification.

Our conventional NDT testing methods include:

- Visual testing (VT)
- Dye penetrant testing (PT)
- Magnetic particle testing (MT)
- Eddy-current testing (ET)
- Radiographic testing (RT)
- Acoustic Emission testing (AE)
- Positive material identification (PMI)
- Non-destructive laboratory testing
- Sorting and containment services

Transferring what we know. Helping you grow.

In the field of non-destructive testing, it is essential that inspection and testing personnel have specific and special qualifications. We offer bespoke NDT qualification courses with trainers who have gathered a broad practical and theoretical knowledge from many years of experience. Our courses can provide formal qualifications or be tailored according to client requirements, such as training for managers or design engineers. Our courses are held in various languages and are available around the globe.

Our professional NDT qualification training courses include:

- Visual testing (VT)
- Dye penetrant testing (PT)
- Magnetic particle testing (MT)
- Ultrasonic testing (UT)
- Radiographic testing (RT)
- Acoustic Emission testing (AE)
- Time of flight diffraction (TOFD)
- Phased array (PA)

Certification schemes:

- ISO 9712 (formerly EN 473) based training and certification system
- ASNT – American Society for Nondestructive Testing – TC 1A

Research and Development

In addition to generic research and development carried out by TÜV Rheinland Sonovation, we also perform R&D on a contractual basis as we have experience with many aspects of NDT.

The R&D team is made up of physicists, mathematicians, electronics and software graduates who are well placed to implement research projects.

Dedicated to Optimized Solutions. Extensively, Expertly and Efficiently.

Our services will support you to save costs and minimize inspection times. We are passionate about our services, including our special applications that furnish you with specific training, detailed work preparations and valuable experience. Our solutions will solve your problems.



Founded 140 years ago, TÜV Rheinland is a global leader in independent inspection services, ensuring quality and safety for people, the environment, and technology in nearly all aspects of life.

When it comes to corporate sustainability policies and the responsible use of resources, we lead by example. That is why, since 2006, we have been a member of the United Nations Global Compact to promote sustainability and combat corruption.





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