



NON-DESTRUCTIVE TESTING

FULL SCOPE OF INTEGRATED NDT SERVICES

WWW.SGS.COM/NDT

SGS



RIGHT SERVICE – MAXIMUM RETURN

Whether it is in fabrication, pipe manufacturing, pipeline, plant construction, chemical, petrochemical plants, shipyards or offshore industry, in conventional and nuclear power plants - our non-destructive testing services provide quality assurance and process safety. SGS has a world wide track record with proven performance on new construction, pipeline installation, in-service inspection and expansion projects as the total NDT solution provider. SGS' scope of services covers both, conventional and advanced NDT

systems, provided by qualified inspectors to international standards. SGS understands better than most that the excellence of any service commences with quality and the implementation of detailed and effective inspection procedures, state-of-the-art equipment and most of all our professional people. SGS' fast growing network of NDT inspectors is suitably trained, multifunctional and prepared to be available whenever our services are required. SGS creates added value to your business by applying improved

technologies, looking for the fastest inspection methods, integrating our workforce into your daily activities, combining technologies and carefully listening to your needs.

When you need to save overall costs, improve quality and want to be sure of reliable production or operating processes, NDT is the toolset you need. In every stage of the life cycle of your assets SGS can contribute with added value NDT services.

CREATING ADDED VALUE WITH INTEGRATED NDT

Integration to SGS means seamless cooperation with your organisation to help you get the best out of your processes and correct deviations from your desired standards before they lead to non-compliance. SGS will supply all necessary data for Asset Integrity Management (AIM) programmes, degradation trending and risk assessments. SGS offers a fully integrated service pack combining NDT, Inspection and AIM. You will be provided with KPI's to effectively manage your assets. All field inspection coordination

and data management will be handled by SGS. Integration also means we will challenge your service request when there is room for improvement in terms of costs and or quality. You can count on SGS when you need to control and improve process safety and reliability. SGS provides the correct NDT techniques to locate and size defects in your assets, and this will lead to the highest reliability of your assets. SGS trains and certifies NDT Inspectors all over the world to support and protect your assets including production, processing plants, piping

systems, pressure vessels and other process related equipment.

**SGS IS YOUR RELIABLE PARTNER,
PRESENT IN ALL MAJOR INDUSTRIAL
COUNTRIES AROUND THE WORLD.**

PROTECTING YOUR INVESTMENT THROUGHOUT THE **ASSET LIFE CYCLE**

DESIGN

Already in the design phase it is important to select relevant inspection codes and levels that need to be met in future. In this stage you need to make sure NDT can be applied to your design to prevent future (monitoring) problems. In this stage you also require the most up to date NDT consultancy services in order to determine the most efficient inspection technologies stretching your design limits.

PROCUREMENT

During procurement a lot of NDT is required. The professional SGS network ensures the services in your home country are the same as the ones provided at the other side of the globe. SGS will verify the materials used and certificates supplied. SGS can perform 0-measurements when all components are accessible. SGS also audits 1st party NDT results and reviews any NDT procedures.

DESIGN

PROCUREMENT

OPERATION

INSTALLATION

OPERATION

Once in operation you will need the highest quality NDT inspection services to ensure reliable and safe performance. Advanced NDT will support you saving costs and minimise intrusive inspections as much as possible. Our local approach ensures we speak your language and advise you on the Best Practice. Aligning the same level of quality in the procurement, installation and operation stage can prevent unplanned failures which can affect production.

INSTALLATION

During the installation phase NDT supports the welding processes and ensures that specifications are met. Our wide range of services allows us to select the most appropriate and efficient technologies. Therefore, we can assure that you meet your schedule. In this stage typically first preparations should be made establishing an Asset Integrity Management System or to integrate the NDT results into your existing systems.



INDEPENDENT AND IMPARTIAL TESTING

SGS continuously develops its services and applications. Our NDT services are not only integrated with our AIM solutions, but also with our Material Testing laboratories and seamlessly fit into our Supply Chain Services. Our services are packaged around your assets and production processes to be utilised whenever required and efficient. Our NDT applications are endless, but a summary of applied technologies can be found below

STANDARD TESTING METHODS

- Visual Inspection (VI)
- Dye/Liquid Penetrant Testing (PT)
- Magnetic Particle Testing (MT)
- Manual Ultrasonic Testing (UT)
- Radiographic Testing (RT)
- Positive Material Identification (PMI)

ADVANCED NDT METHODS

- Ultrasonic Phased Array (PA)
- Long Range Ultrasonic Testing (LRUT)
- Automatic Ultrasonic Testing (AUT)
- Guided Wave (GW)
- Time of Flight Diffraction (ToFD)
- Corroscan/C-scan
- Infrared Thermography
- Magnetic Flux Leakage (MFL)

- Remote Visual Inspection, Endoscopy/Videoscopy (RVI)
- Hardness Measurements (HT)
- Eddy Current Testing, Electromagnetic Testing (ET/RFET)
- Alternating Current Field Measurement (ACFM)
- IRIS Testing
- Acoustic Emission (AE)
- Leak Testing of tanks and pipelines
- Digital/Computed Radiography
- 3D Computed Tomography (CT)

EXAMPLE APPLICATIONS

- ASME pressure vessel and piping as-built inspections
- Fabrication inspections during and after manufacturing
- Piping and pressure vessel corrosion monitoring incl. data management
- Full Storage Tank Assessment
- Shutdown inspections (visual, NDT, advanced NDT incl. coordination)
- Development of piping and pressure vessel reliability programmes
- In-service equipment inspections (non-intrusive)
- Complete data management for all of the above

ACCREDITATIONS

SGS holds ISO/IEC 17025 accreditation for mechanical lab activities and ISO/IEC 17020 accreditation for its inspection body type A activities.

SHARING KNOWLEDGE

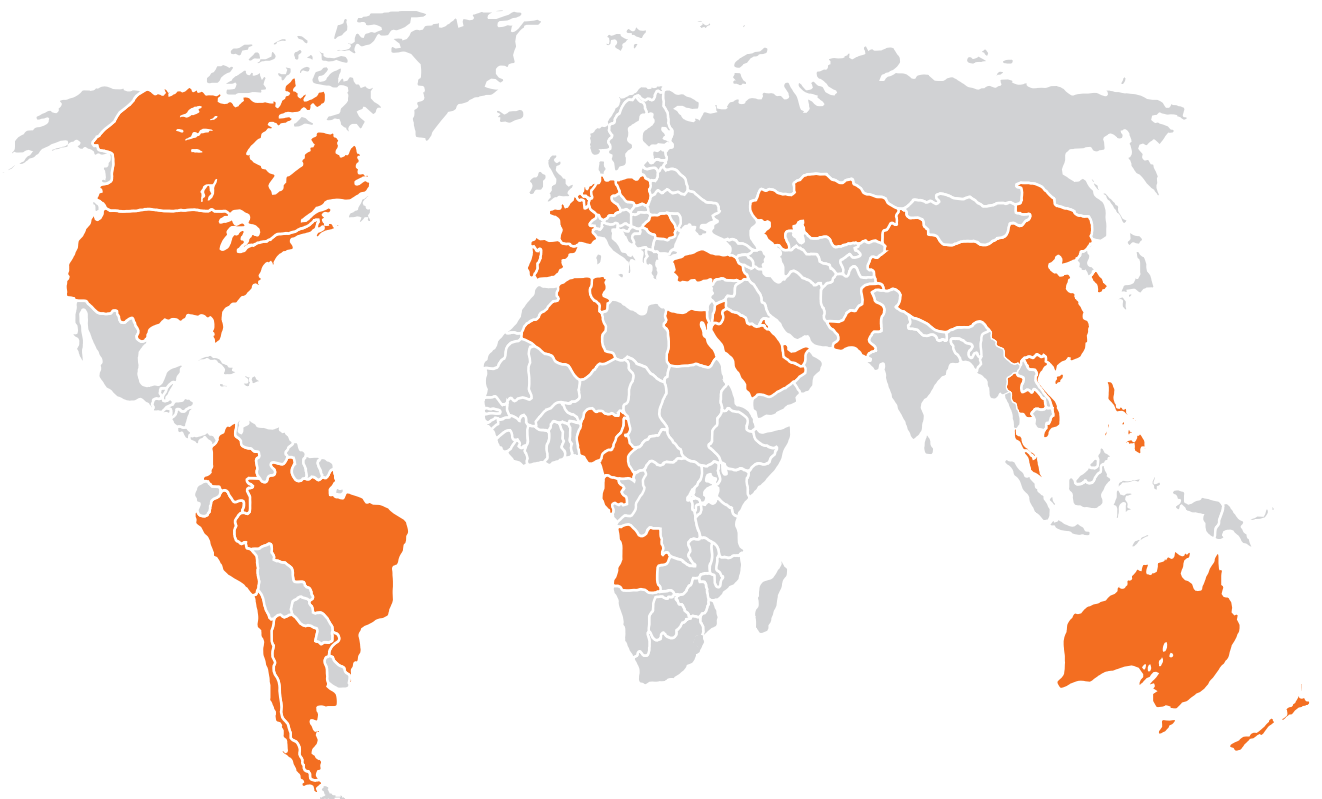
SGS offers a complete suite of NDT training courses suitable to our customers needs and can also provide workshops at your company location. Experienced instructors share knowledge that complies with guidelines as well as local and international NDT/NDE standards, such as ASNT and EN 473.

SGS trains and certifies people to the highest inspection standards in all parts of the world. Wherever you are based, when you procure equipment you deserve the highest standards of personnel and certification as a basis for Quality Assured Inspection. SGS will train and invest continuously in its assets - its Inspection Workforce.

OFFERING A GLOBAL INTEGRATED NDT NETWORK

SGS IS YOUR RELIABLE PARTNER, PRESENT IN ALL MAJOR INDUSTRIAL COUNTRIES AROUND THE WORLD.

SGS is the global leader and innovator in inspection, verification, testing and certification services. Founded in 1878, SGS is recognised as the global benchmark in quality and integrity. With 59,000 employees, SGS operates a network of over 1,000 offices and laboratories around the world.



CONTACT US WWW.SGS.COM/NDT
WWW.SGS.COM/NDT-TRAINING
WWW.SGS.COM/AIM
OR INDUSTRIAL.GLOBAL@SGS.COM

