Services for Oil & Gas

01 Services

Supervision & inspection in manufacturing & assembly.

On-site Supervision & Inspection.

Quality Assurance & QA/QC.

Non-Destructive Testing (NDT).

Inspection of non-scrapable pipeline.

UAV & Predictive Maintenance Technologies

Technical Staffing Services

Engineering & Industrial Safety

Environmental Management & LDAR

Technology & Digitalization

02 Diversified Industries

Supervision and inspection in manufacturing and assembly – (Oil and Gas pipelines)

We offer integral solutions of quality supervision and inspection in origin, mechanical supervision and optional management, during the manufacture and assembly of pipelines and installations in pipelines and pipelines.

We monitor the degree of compliance with the technical and quality requirements set forth in the contract and guarantee compliance with the applicable current legislation.

We prepare work reports related to:

- Control of special processes (welding, coating, curving, painting, END's)
- Control of execution procedures
- Control of the number of welds made, reclassification of radiographic plates and determination of the index of repairs
- Elaboration, review and compliance of programs of applicable inspection points
- Follow the tube book
- Construction certifications
- Plans as built according to actual assembly

- Have greater control of the material and human resources thanks to the daily monitoring of work
- Avoid delays in the delivery of the work to detect in time possible setbacks
- Obtain quantifiable certifications through PPI's and book of tubes

Supervision and inspection in manufacturing and assembly – (Major Projects and Infrastructures)

We propose integral solutions, in industrial plants, for the control and the quality management in manufacture and assembly:

- Inspection at source of equipment and components, activation and monitoring
- Work supervision and optional management
- Homologation of procedures
- Non-destructive testing (NDT) under ASME, ASTM, UNE, DIN Standards
    - END's Conventional: X-rays, Penetrating Liquids, Ultrasound, Magnetic Particles.
    - END's Advanced: MFL, Induced Currents-RFT-IRIS, Incotest, Digitized Radiography, Automated ToFD & Phased Array
- CE marked according to PED 97/23

- Check the quality of the equipment, through inspection, reception and qualification
- Ensure the good condition of each of the components of the plant

We ensure the correct monitoring and achievement of the quality plan for the construction and assembly of the facilities, in accordance with current regulations and contractual documents.

Supervision and inspection in manufacturing and assembly – (Advice on quality of supplies)

We offer integral services in the quality assurance of critical systems, components and equipment from the evaluation of the supplier to its reception in its location, guaranteeing its correct manufacture in the facilities of its supplier worldwide.

- Evaluation and homologation of contractors and suppliers of equipment and services, technical assistance to the purchasing function
- Comprehensive Supply Chain Management
- Elaboration of technical documentation:
  - Material and equipment purchase specifications
  - Manufacturing Inspection Procedures
  - Test Procedures
  - Inspection point programs
  - Equipment reception procedures
  - Inspection, quality control, activation in manufacturing and
  - assembly of components, systems and industrial installations
- Welding Inspection
- Supervision and authorization of shipments and receptions of equipment

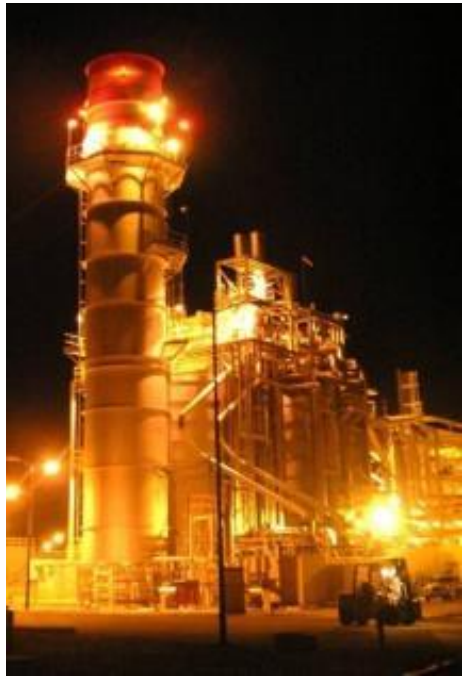
- Guarantee your investment in the purchase of your critical equipment, ensuring its correct manufacture
- Have detailed information during the manufacturing process to make decisions
- Avoid conflicts and problems with your supplier, thanks to our experience in supply assurance
- Have a team of experts around the world that guarantee the success of our work

On-site supervision and inspection – (Thermal and hydraulic plants)

Our wide experience in the sector allows us to locate the areas susceptible to failure, to identify the defective mechanisms and to treat them accordingly, thanks to the knowledge of the regulations and the international codes.

There is research in continuous treatment of these mechanisms for their diagnosis in the field, supported in turn by our materials laboratory and fault diagnosis.

- We elaborate specific inspection plans for each type of plant and plant integrity plans. These plans are live by applying the philosophy of optimization of maintenance as condition.
- We advise on repairs, recommending materials, processes, procedures and welding consumables. We make the characterization of materials by positive identification of the same.
- We advise the most suitable and reliable inspection technique for each case, even valuing the economic costs.
- We obtain the theoretical calculations of remaining life in critical components, taking into account operating parameters and physical and maintenance data. We are based on TRD 301 & 308, TRD 508, ASME Code and finite elements.
- Development of ad hoc tests to provide a solution in advance to the specific failure mechanisms of these installations.



- Reduce leakage unavailability and improve availability
- Improve the security and reliability of the installation
- Reduce operation and maintenance costs

On-site supervision and inspection – (Fault analysis and metallurgical studies)

We determine the causes that have caused the failure in service of metallic parts and we verify the state of metallurgical integrity in the metallic components. The methodology used by our laboratory is based on techniques recommended by EPRI, as well as in ASTM, ASME and UNE-EN.

We provide comprehensive advice in both industrial monitoring and diagnostics and non-destructive testing.

This allows us to apply extensive experience, accumulated in fieldwork in multiple sectors, to the analysis performed in the laboratory.

For this reason, our reports include not only results and conclusions, but comments and recommendations to avoid repetition of failures.

- Verify the quality of materials when procuring supplies
- Avoid periodic or repetitive faults, optimizing the processes of operation
- Claim responsibilities in case of defects in manufacture, operation or assembly

On-site supervision and inspection – (Petrochemical plants)

Our work is carried out both during the occasional stops of independent units and in large stops where a large number of inspectors and / or inspection teams are required. We provide first level infrastructure such as testing facilities, laboratories, technology centers, etc.

We have personnel with adequate technical capacity and experience, precise documentation, legislation and applicable standards to undertake the work efficiently and effectively.

We are a Control Body in Spain authorized by ENAC (Spanish Accreditation Entity) to carry out the official inspections of equipment and pipelines using END's techniques, which allows us to know the state of the component.

Non-conventional END techniques complement inspections of tanks, spheres, exchangers, pipes, etc.

- Have official inspections acting as Control Body
- Improve installation and worker safety
- Reduce operating and inspection costs

Our services can be provided in:

- Maintenance and Opportunity Stops
- Service Inspections
- If temperature or insulation permit, thickness measurement is performed.
- Tanks and spheres

On-site supervision and inspection – (Combined cycles)

We carry out supervision and inspection work in an integrated way in combined cycle plant installations, with a team of professionals specialized in combined cycles, consolidated by the trajectory and tradition of our company in the energy sector.

We perform the inspection of the plants involved with our customers through a methodology of our own:

- We begin with a documentary study specific to each plant. This allows us to carry out a complete inspection plan (PI) that includes the main failure mechanisms and their detection through the appropriate END's techniques for each system.
- During scheduled stops, the inspections defined in the inspection plan are carried out. The work team moved to the plant, led by a supervisor, executes the actions set in the IP, acquiring all the information generated and reporting the detected anomalies. The results are collected in a daily report.

- The experience gained in the inspections provides feedback to the IP, this should be understood as a dynamic document, so that it is adapted and updated to the inspection needs permanently.
- The capacity of this working group allows continuous support and technical advice to its clients, solving questions of diverse nature (welding procedures, metallurgy, cycle chemistry, etc.).
- Development of ad hoc tests to provide a solution in advance to the specific failure mechanisms of these installations.

- Have comprehensive and dynamic inspection plans
- Reduce leakage unavailability
- Improve installation security
- Minimize operating and assembly costs
- Have technical advice that increases the efficiency of the plant

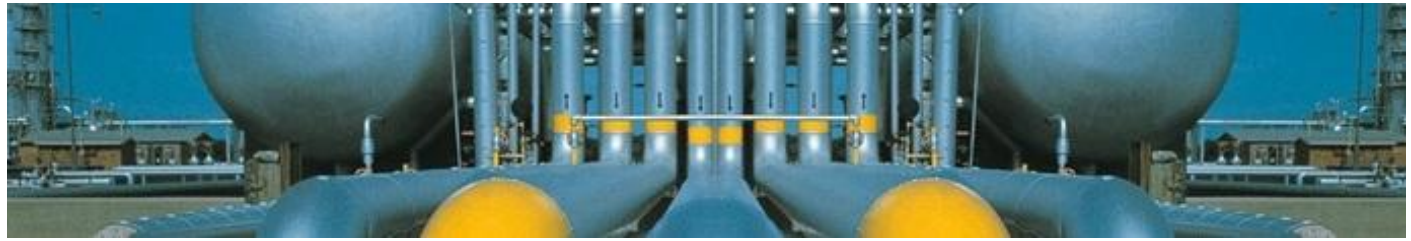
On-site supervision and inspection – (Cathodic protection)

We inspect, supervise, install and maintain cathodic protection systems on buried or submerged metal structures. We provide our own equipment able to diagnose facilities and even complete "turnkey" projects.

Thanks to our commitment to R & D, we innovate in the diagnostic and installation techniques of cathodic protection systems (SPC).

- Testing, diagnosis and evaluation of SPC: we carry out preventive and corrective maintenance
- Carrying out monthly and annual SPC check routes
- Control of the evolution of currents of protection of infrastructures in gas pipelines, pipelines, etc.
- Studies of the status of the network and the feasibility of installing cathodic protection equipment (cathodic protection stations and drains, potential outlets, anode beds, etc.)
- Installation and / or supply of SPC materials. Commissioning of facilities
- Control and surveillance of works or installations carried out by third parties
- Review of coating faults by DCVG method

- Reduce leakage unavailability
- Improve installation security
- Integrate a system that foresees the possible appearance of corrosion in the installations and cancels them



Rig Services:

Inspection Services

- Conventional NDT Rig Services; Advanced NDT Inspection; Lifting Gear Inspection
- Dropped Objects Protection Scheme
- Hull Inspection & Class surveys
- Drilling & Hoisting Equipment
- Derrick Inspection
- Offshore Crane Inspection
- Wire Rope Inspection & Lubrication

Repair and Upgrade

- Heat shielding, Cold/warm Stack Rig Services
- Piping Inspection / Pressure Vessel Inspection
- Pressure Relief Valve (PRV) / Critical Gauge Testing and Certification
- Rig Audit
- Platform Repairs, Refinery Repairs and Hull and Tank Repairs

Electrical Services

- Hazardous Area Equipment Register (HAER))
- Infrared Thermography Testing(IRT) & Online Partial Discharge Testing (OLPD)
- Electrical Inspection and Testing; Electrical Installation, Commissioning, Repair and Maintenance Scopes
- Heat Tracing; Lighting and Small power (L&SP); Fire and Gas & Control and Instrumentation

Construction

- Derrick Assembly-Structure; Mechanical and Equipment Installation; Pipe Installation; Electrical Installation; Commissioning; Shipyard Services

Engineering

- Structural Analysis; Engineering Design; Equipment Integration and Interfaces; 3D Laser Scanning/Modeling
- Engineering Design Solutions: Fabric Heat Shield Solutions; Radiant Heat Shield Cladding Panel Solutions; Passive Fire Protection & Fire Loading Consequence

Technical Assistance – (Quality management of industrial projects (QA / QC))

We offer an integral service, assuring the fulfillment of the requirements of quality, term and costs in the different phases of an industrial project (design, construction, start-up, operation and dismantling).

- Control of the project: control of scheduling and deadlines, risks and costs
- Management of quality documentation: preparation and revision of quality plans, manuals, plan inspection points, etc.
- Technical assistance in purchasing and material logistics: preparation and review of purchasing specifications, supplier evaluation, validation of spare parts lists, interchangeability, etc.
- Manufacturing, assembly and start-up supervision: conventional and / or advanced non-destructive testing, technical procedures review, material qualification tests and tests, certification at source, thermography, etc.

- Ensure compliance with quality, environmental and prevention specifications at all stages of the project
- Have quality assessment by an independent entity at all stages
- Reduce costs

Our clients have at their disposal personnel, in any part of the world, highly qualified, experienced and specialized, in the design and construction of power generation plants, gasification and regasification plants, gas pipelines, etc.

Non-destructive Testing – (Conventional)

We perform non-destructive testing on materials, welding and equipment during manufacture, assembly and service.

We have qualified professionals according to the ISO 9712 and / or SNT-TC 1A standards in various techniques, equipped with equipment suitable for inspection techniques.

We carry out inspections according to the specific regulations ASME, EN, UNE, etc.

- Radiographed / graphed: volumetric inspection of welds and materials according to norms
- Ultrasonic, volumetric inspection of welds and materials according to specific regulations: welding inspection in boiler tubes of reduced thickness
- Penetrating liquids: surface inspection of welds and materials, non-porous, following specific regulations
- Magnetic particles: surface inspection of welds and materials, ferromagnetic, according to specific regulations
- Vacuum box: inspection of welds in bottoms and roofs of tanks and inspection of the union bottom with first ferrule, by means of vacuum technique
- Visual inspection: direct and remote visual inspection (video endoscope) of welding, components and equipment

- Have a team of qualified inspectors with extensive inspection experience according to ASME, EN, AWS
- Have the necessary equipment and technical means, distributed throughout the national territory, speeding up the work

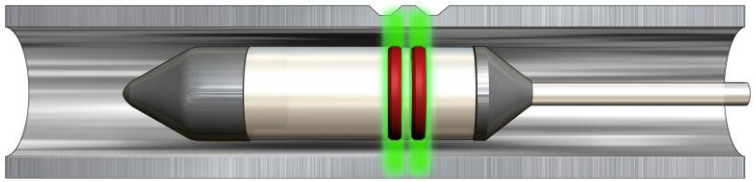
Non-destructive Testing – (Advanced)

In order to develop these complementary tests to the conventional inspection techniques during the manufacture, assembly and service, we have a large team of professionals qualified in diverse techniques with a marked technological character.

- **MFL:** inspection of bottoms, roof, and ferrules of storage tanks of petrochemical products according to API 653
- **Inspection of tubes:** induced currents, RFT & IRIS, inspection of tubular bundles of exchangers, capacitors, etc.
- **RX:** digital X-ray with phosphor plate of components and works of art
- **Incotest:** corrosion detection system under insulation (painting, epoxy, heat-proofing, fireproofing, etc.)
- **Recordable (automated) ultrasound:** ToFD and Phased Array
- **Guided waves:** inspection system for lines and pipes for the detection of corrosion and other anomalies (particularly in heat-insulated and inaccessible areas)

- Get high inspection speeds with high reliability
- Have qualified inspectors with extensive inspection experience according to ASME, EN, AWS, API
- To have capacity for automated implementation of END's techniques, oriented to the needs of the clients

In recent years the ultrasound technique has undergone a breakthrough. We are equipped with the latest techniques such as ToFD and Phased Array to provide a more exhaustive inspection, with higher quality and safety for the installations when performing the inspection automatically and with registration of the same.



IWEX

IWEX (Inverse Wavefield Extrapolation) is an advanced ultrasonic inspection technology based on full matrix capture (FMC) data acquisition and high-performance signal processing. It reconstructs full 2D and 3D images of internal flaws using complete wavefield information captured by array transducers.

This technique processes ultrasonic data in a similar way to seismic imaging and medical ultrasound, enabling highly accurate visualization of defects in complex geometries and weld structures.

IWEX significantly enhances defect detection, sizing and characterization capabilities compared to conventional ultrasonic methods such as phased array or standard UT. It allows real-time imaging and advanced interpretation of indications, improving engineering assessment and decision-making.

The technology is widely used in critical infrastructure inspection within the energy sector, particularly for pipelines,welds and pressure equipment, where high reliability and accurate flaw characterization are essential.

- Full matrix capture (FMC) ultrasonic imaging technology
- Real-time 2D and 3D defect visualization
- High-resolution flaw detection, sizing and characterization
- Advanced processing of complete ultrasonic wavefields
- Inspection of girth welds, seam welds and pressure vessels
- Qualification support for in-line inspection (ILI) tools
- Detection of defects in any orientation and complex geometries
- Improved engineering assessment and failure probability evaluation

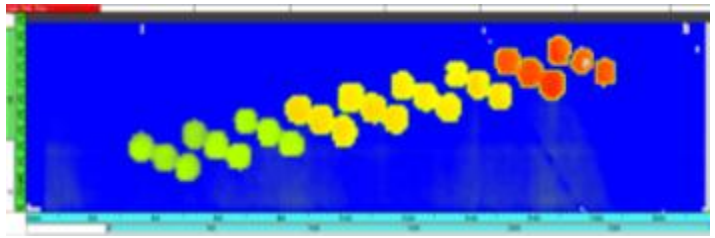
Non-destructive Testing – Mapscan (PA)

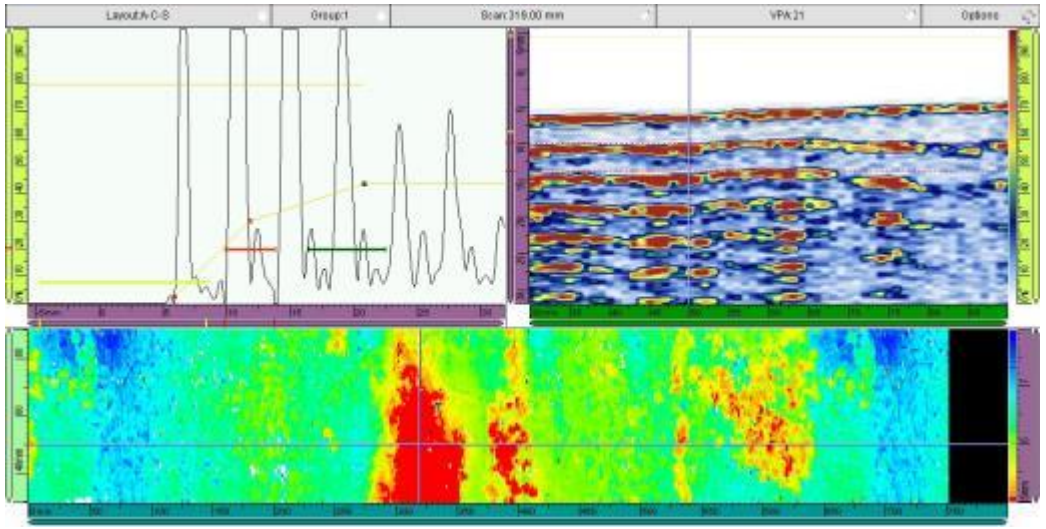
Accurate and fast wall thickness measurements :

- Accurate wall thickness measurement on one specific place
- Manual scanning with a position sensor
- Remaining wall thickness direct visible in color
- Object remains in service

Capabilities:

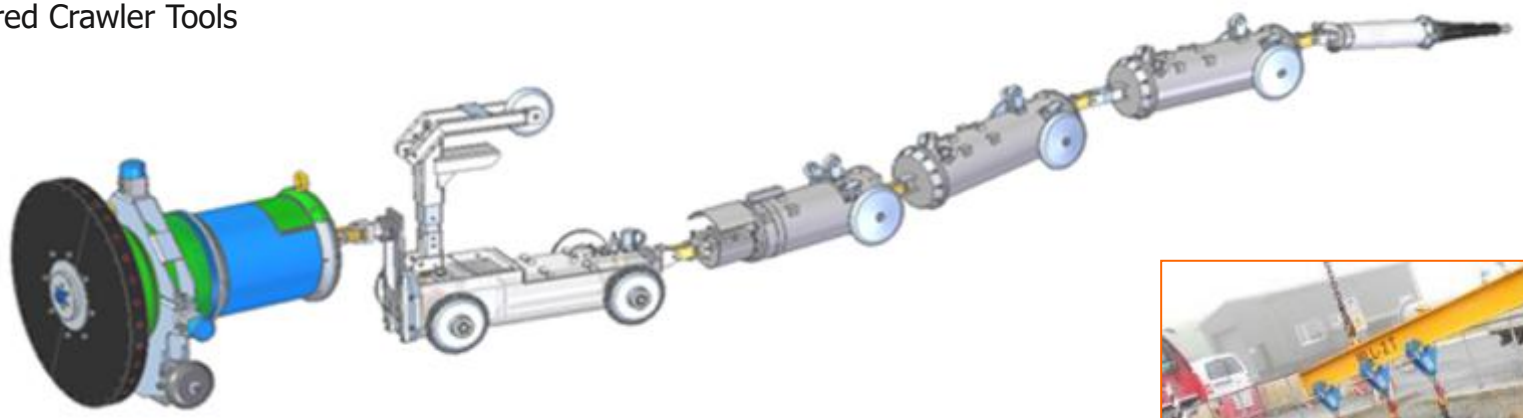
- Accurate inspection of internal corrosion
- Local inspection area; 250 x 500 mm
- Wall thickness <3mm up to 300mm
- Suitable for pipelines, tanks, vessels
- Smooth measuring surface
- Deployable till 50°C



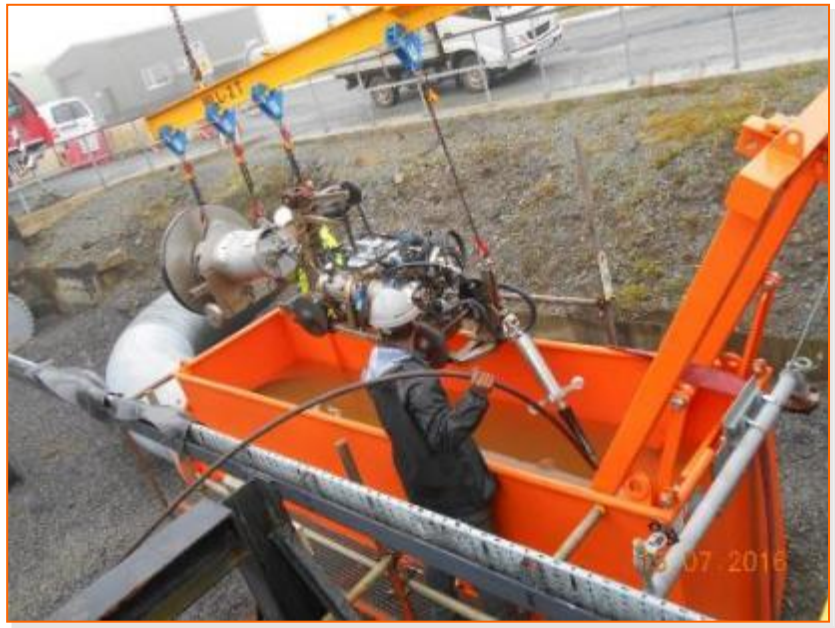


Inspection of non-scrapable pipelines (PIT)

Tethered Crawler Tools



- Rotohead with ultrasonic probes
- Providing 100% coverage up to 960 measurements in the circumference
- High resolution in one inspection run
- Diameter range: 6” to 60”
- Bend radius 1.5D
- Speed: 500 m/hr.



Inspection of non-scrapable pipelines (PIT)

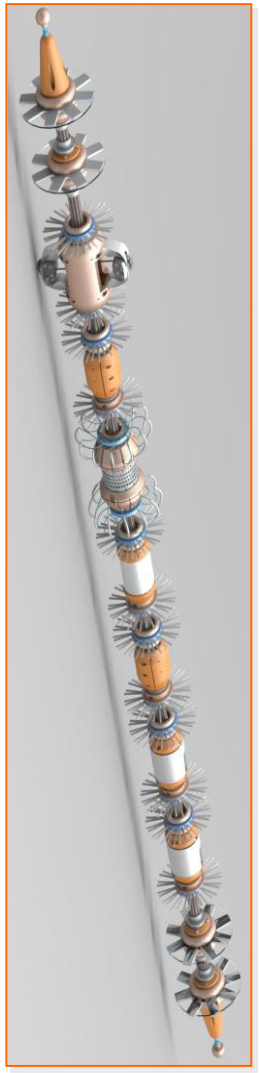
Main operational aspects of the Pipeline Inspection Tool (tethered crawler)

- Pipe length range: <1 – 20 km
- No launch traps required
- No pumping and liquid handling required
- Inspection in crude oil, product, seawater possible
- Possibility to passage dents and bends from 1.5D
- Detects; Internal and external corrosion, dents, mechanical defects, deformations, ovality and lamination
- No cleaning necessary (just flushing)
- Real-time data presentation
- Pinger system fitted for accurate defect location (diver operated)
- Reinforced cable (safety aspect!!)
- Comprehensive report with view program and inspection data on storage device
- MAOP B31G calculations

Inspection of non-scrapable pipeline (DTI Trekscan)

DTI Trekscan 6”- 8” Tool

- Flexible; can pass **1D** bends back to back (U and S shape)
- **160** ultrasonic transducers with UT beam 3 – 4 mm. (5MHz)
- Axial resolution 2.5 mm
- Maximum speed 1.2 m/sec (with 2.5 mm axial measurement interval)
- Very little differential pressure required **(< 1bar)**
- Light weight tool approx. < **30 kg**
- Pipe length up to 35 km
- IMU sensors (magnetometers, accelerometers and gyros)
- Automated Data Quality Analysis immediately after inspection run while downloading to PC
- No special launcher receiver requirements
- Can work from launcher to receiver or as Bi-Di
- High flexibility to be launched under many different circumstances



UAV – Unmanned Aerial Vehicle (Drones)

We provide advanced UAV (Unmanned Aerial Vehicle) inspection and surveying services for industrial assets and critical infrastructure, combining innovative drone technologies with high-resolution data acquisition and digital analysis tools.

Our UAV solutions support inspections of critical infrastructure, pipelines, power lines, confined spaces, tanks, bridges, communication towers and industrial facilities, as well as topographic and environmental monitoring studies.

Using advanced sensors and cameras — including high-resolution visual cameras, thermal imaging, multispectral sensors and LiDAR technologies — we obtain accurate and actionable data for inspection, geospatial analysis, predictive maintenance and asset integrity management.

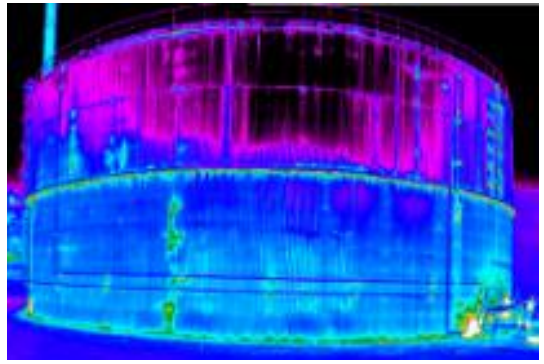
Drone inspection and surveying technologies improve operational efficiency by reducing inspection times, minimizing human exposure to hazardous or hard-to-access environments and enabling rapid coverage of large industrial areas while maintaining high-quality inspection standards.

- UAV inspections for industrial assets & critical infrastructure
- High-resolution visual, thermal, multispectral & LiDAR inspections.
- Inspection of pipelines, tanks, flare stacks & power lines.
- UAV inspections in confined and hazardous areas
- Topographic surveying & environmental monitoring.
- Reduced shutdown times and operational costs.
- Improved personnel safety and operational efficiency.
- Integration with asset management & predictive maintenance systems

Predictive mechanics – (Thermographic Inspection)

Through an infrared spectrum camera, we explore and analyze the thermal state of the installations and equipment, also quantifying the temperatures, thanks to the thermograph-pictogram analysis.

- Thermographic studies, reviews or inspections
- Pre-feasibility analysis to achieve the objective
- Thermographic systems covering all conventional (short wave - longwave) inspections with accessories (lenses, recording systems up to 50 fps, etc.) complemented with specific analysis software
- Conducting inspections from terrestrial, air, sea or other available means
- Technicians and inspectors with exclusive dedication in this technique, highly experienced and qualified
- Detailed inspection reports; history of anomalies and evolution, etc.
- Essential support for plant operation, service and maintenance
- Absolute geographical availability and provision of immediate service



- Ensure the non-interference in the production process and the non-modification of temperature of the studied object
- View and detect in real time, with the possibility of registering very fast transients
- Minimize human, material or economic risk by accident, breakage or indisposition
- Ensure Return on Investment (ROI)
- Having an absolute geographical availability and providing immediate service

Predictive mechanics – (Stator currents in medium voltage motors)

We used the spectral measurement and analysis of the feed stream of motors with squirrel cage rotor, to detect and diagnose rotor asymmetries. This technique allows us to increase the reliability of these motors common in most industries, based on two concepts:

- The study in the frequency domain of the feed stream, in which the rotor asymmetry is manifested and determined by a perturbation of the stator current
- The spectral study of the vibrations that allows to detect the mechanical effects of this asymmetry.

Service provided with highly qualified personnel with proven experience in the sector which, in addition, allows a wide coverage of the service throughout the national and international territory.

We offer this service:

- In a specific way: for the diagnosis of specific anomalies or for the evaluation of the state of the engines
- Periodically: as a predictive maintenance for the early detection or early detection of the evolution of any detected anomaly or problem in the rotor

- Increase the reliability of industrial facilities
- Reduce maintenance times and costs
- Optimize the preventive and corrective maintenance actions, as it helps to a more exhaustive and adjusted planning of the same ones
- Readjust the target for both stocks of spare parts and number of backup equipment
- Ensuring safety on the premises
- Extending your life

Predictive mechanics – (Stator currents in medium voltage motors)

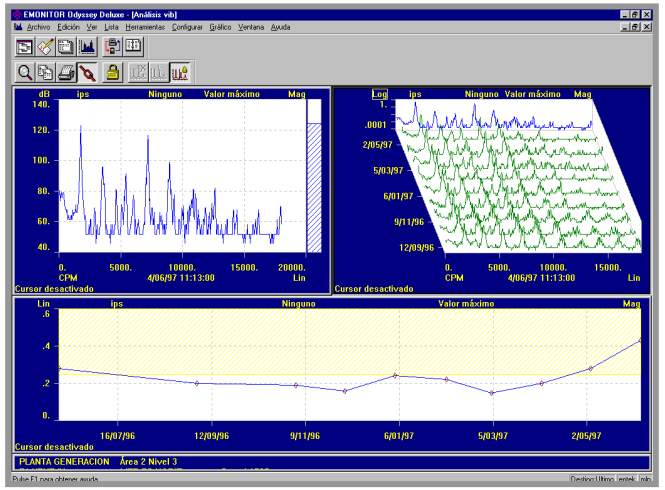
Spectral measurement and analysis of vibration in rotary machines to non-intrusively detect and diagnose faults in incipient state. This technique guarantees the reliability of the installations based on:

- Study of the trends of the global values of vibration, which allows the detection of mechanical faults and / or breakdowns in any rotary machine (imbalance, eccentricities, misalignments, deformations, clearances, defective lubrication, gear damage, resonances, ...), and the assessment of their severity
- Analysis of the vibrations in the frequency domain for the diagnosis of the anomaly and its origin

Service provided with highly qualified personnel with proven experience in the sector which, in addition, allows a wide coverage of the service throughout the national and international territory.

We offer this service:

- In a specific way: for the diagnosis of specific anomalies or for the evaluation of the state of the machine
- Periodically: as a predictive maintenance for the early or early detection and monitoring of the evolution of any anomaly detected



- Increase the reliability of industrial facilities
- Reduce maintenance times and costs and adjust both spare parts stocks and spare equipment numbers
- Optimize the preventive and corrective maintenance actions, as it helps to a more exhaustive and adjusted planning of the same ones
- Readjust the target for both stocks of spare parts and number of backup equipment
- Ensuring safety on the premises
- Extending your life

Predictive mechanics – (Delta TG and partial discharge tests)

We carry out complementary tests for the diagnosis of the insulation condition in electric medium voltage rotary machines (motors / generators).

The used techniques are:

- Dc test: obtains information on surface contamination and humidity of the insulation
- Delta tangent measurement: measures the weight of the resistive and capacitive component with respect to the total current flowing through the insulation.
- Partial Discharge Test: quantifies and measures transient electrical discharges that partially short-circuit the insulation between conductors and can occur in both voids inside the insulation and on its surface.
- Test TVA probe: detects defective coils, after extraction of the rotor.
- CID test: detects short circuits between magnetic plates, after extraction of the rotor.

We offer this service

- In a specific way: for the diagnosis of specific anomalies or for the evaluation of the state of the machine
- Periodically: as a predictive maintenance for the early or early detection and monitoring of the evolution of any anomaly detected

- Increase the reliability of industrial installations
- Reduction of maintenance costs and target adjustment both spare parts stocks and number of spare equipment
- Optimization of the maintenance actions, as it helps to a more exhaustive and adjusted planning of the same ones

TSS – (Technical Staffing Services)

With knowledge and experience within multiple industries we are able to borrow synergistic skillsets from complementarily industries if required.

- Direct Hire aka Permanent Recruitment: We source a suitable candidate that is employed by the Client on a contract of employment and the Client payrolls. We receive a "finders fee" which is typically a % of the candidates first years salary package
- Contingent Labour aka Labour Hire aka Temporary / Contract Recruitment: We source suitable candidate(s) and engage them on a contract for services to work for our Clients. We payroll and deal with statutory deductions etc. Typically we charge a % mark-up on the candidates gross hourly/daily pay rate
- Payroll Services aka Payroll Bureau: The Client identifies a candidate(s) that they would like to engage. We engage them on a contract for services to work for the Client. We charge a % mark-up on the hourly/daily gross pay rate.

Our global footprint affords us to work 24/7 on our Clients urgent vacancies utilizing our network of offices and various time zones to our advantage. We "follow the sun" and work whilst our competitors sleep.

Our footprint also means that we can borrow specialist resource from various Countries – not only can we source the required skillsets but are experienced at dealing with legislation and taxation pertaining to locals/nationals or expatriates.

- We operate an Integrated Quality, Environment and Health & Safety Management System (IMS) certified
- We are members of the; Energy Industry Council (EIC), Engineering Construction Industry Association (ECIA), American Petroleum Institute (API), The Recruitment & Employment Confederation (REC) who represent the whole of the recruitment industry.
- We are approved by Achilles:
  - First Point Assessment (FPAL) - Oil & Gas Prequalification Scheme
- We have held Investors in People (IiP) since 2004.

TSS – (Technical Staffing Services)

Our internal capabilities combined with our renowned technology partners allow us to offer a range of vocational and specialized training modules suited to the operational needs covering:

- NDT: Our training program focuses on both in-house NDT operations and portable/field use of NDT methods. We provide the equipment, consumable materials, procedures and typical applications used in a variety of industry settings. In conjunction with traditional classroom instruction, we provide hands-on training simulations and demonstrations to promote and enhance our trainees' understanding of NDT methods and acquisition of practical NDT skills.
- Emergency response: Basic and advanced training to International/EU Standards offering competency to all levels of response from first responders to managers operating at a strategic level when required to deal with major emergencies
- HSE: We offer training for all employees covering basic Working Safety, ISO 14001, ISO 45001, up to NEBOSH IGS and Diploma
- Lifting: Rigging, Lifting, appointed person…
- Scaffolding: We provide expert training and certification at onshore and offshore locations for all categories of scaffolders:
    - Basic scaffolding safety awareness
    - Scaffolding supervisor awareness
    - Scaffolding inspector awareness
    - Scaffolding safety awareness for supervisory /inspection

- As leaders in the non-destructive testing and inspection industry, our comprehensive and practical NDT training courses ensure the qualification and certification of client personnel in compliance with the most stringent international standards, including ISO 9712, SNT TC 1A and NAS410.

- Scaffolding training courses provide an in-depth understanding of scaffolding components, forms of construction and inspection procedures, right up to the development of core management skills required to supervise safe scaffolding operations.

Engineering – (Instrumentation and control of industrial processes)

We analyze, implement and maintain the systems and technologies necessary for the automatic operation of any industrial installation, both nationally and internationally, improving its production processes.

Our services are endorsed by teams with a long history in the design, supervision and maintenance of instrumentation and control systems in such demanding sectors as nuclear power, fossil fuel thermal plants, combined cycle plants, refineries, factories, public administrations , etc.

Providing technical assistance to:

- Maintenance during refueling of nuclear power plants and plant shutdowns
- Control system design modifications
- Supervision of new projects
- Engineering design of control loops (data sheets, specification and wiring)
- Maintenance in operation, environmental instrumentation and process.

Implementation of turnkey projects and supplies of:

- Control systems based on programmable automata and SCADA
- Environmental monitoring networks (monitoring of pollution in atmosphere and water)
- Instrumentation for control of atmospheric emissions (large combustion plants)
- Monitoring, tele control and industrial communications systems
- Industrial Software

- Significantly save on costs, production times and facilities management, information and on-line control
- Increase the safety and productivity of plant installations and systems
- Improve standardization and, in many cases, the quality of processes and products

Engineering – (Energy efficiency in systems and industrial plants)

We carry out studies and actions that allow to reduce the energy costs of an industrial installation, while improving its production capacities, without altering the quality of the final product.

- Energy diagnostics that provide a verdict on the energy status of the installation and potential savings
- Comprehensive study and audit of energy efficiency that allow the detailed determination of energy accounting and saving measures
- Assistance and engineering for the implementation of savings measures: projects and assistance for the implementation of the action plans. Management of subsidies and projects of implementation of renewable energies
- Determination of yields of industrial systems (cogeneration, boilers, solar installations, etc.)
- Tariff and management advice of your demand to save on your electricity bills, gas, etc.

- Optimize consumption, rate and energy efficiency, which translates into a significant cost reduction
- Improve the competitiveness of the production center, as a result of the reduction of production costs
- Protecting the environment and sustainable development by reducing CO2 emissions (ecological footprint)

We provide proven results in all industrial sectors through a multidisciplinary technical team with extensive experience in electrical, thermal, process, tariff studies, steam networks, compressed air, etc. We carry out on-site measurements of the energy variables and their consumption.

Our methodology, based on phases of action, allows us to obtain profitability for our clients in the short, medium and long term.

Engineering – (Energy efficiency in systems and industrial plants)

Ensuring optimal asset integrity is a growing challenge in major industry and utilities worldwide.

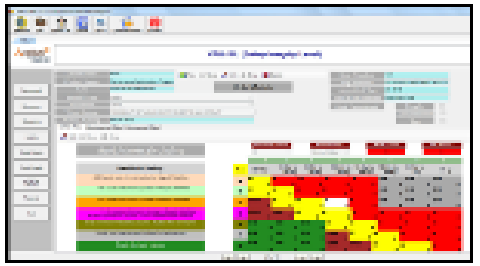
Upstream and downstream oil and gas exploration and production facilities, as well as conventional and nuclear power plant industries, require continuous assurance that their assets are secure and fit for purpose.

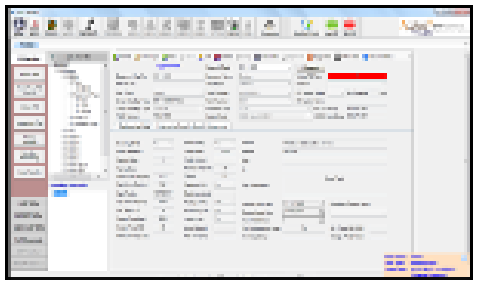
We deliver asset integrity assurance through the provision of specialized services using the latest technology, operated by highly qualified personnel and guided by the latest techniques and innovative solutions.

National and international legislation, along with safety, reliability and environmental considerations, guide every aspect of our work on behalf of our clients.

We offer this service through the following tools:

- RBI: Risk Based Inspection
- RCM: Reliability Centered Maintenance
- SIL: Safety Integrity Level
- HSECES: Health, Safety & Environmental Critical Equipment Systems
- CMP: Corrosion Management Plan
- FFS: Fitness for Service





- Assurance that facilities are designed in accordance with governing standards and meet specified operating requirements
- Assurance that appropriate work processes for Maintenance & Inspection systems and data management are done to keep the operations available
- Assurance that appropriate knowledge, experience, manning, competence and decision making data to operate the plant as intended throughout its lifecycle.

Technological support

VAIL-Plant (SW for Asset Integrity Management System)
VAIL-PHA (SW for Process Hazards Analysis)
VAIL-PSRA (SW for Petrol Stations Risk Assessment)
VAIL-CTR (SW for Cost, Time & Resources Management)

Engineering – (Industrial safety, risks and safety studies)

We provide to all the activities involving hazardous materials with a wide range of professional services adapted to the most demanding needs of analysis and quantification of technological risks.

We meet the evaluation and control requirements made compulsory by current legislation providing technical assistance through:

- Official projects
- ATEX studies
- ADR/RID/IMDG/Dangerous goods
- Codes and standards implementation (i.e.: ASTM E 1739/E 2205 regulatory application)
- Layout studies according to UNE EN 1473 and NFPA 59A standards
- Safety Reports and QRA (using SAFETI or RISKCURVES)
- Special calculations: flare, plume, PSV discharges, LNG boiling on land and sea, transient heavy gas calculations, CFD (Computational Fluid Dynamics), etc.
- RCBA Studies
- PHA Studies: HAZID, HAZOP, FMEA, What if, Check-List, SIF Identification, SIL selection, SIL verification, SRS (Software Requirements Specification), LOPA

- System Reliability
- System Optimization
- Improved Maintenance Intervals
- Improving Safety and Minimizing Risk

Technological support

Specific software tools for the gas sector: HEGADAS, HGSYSTEM

Specific software to identify hazards, evaluate consequences and quantify risks: PHAWorks, PHAST/SAFETI, EFFECTS/RISKCURVES, FLACS and exSILentia

Specific software for the estimation of consequences: PHAST, EFFECTS, ALOHA, CIRRUS, OOMS, DEGADIS, SLAB

Specific software for Air Dispersion Modeling: ISCLT, ISCST, CALPUFF, AERMOD

Specific software for Diffuse Emissions: EPAS AP-42

LDAR – (Leak Detection And Repair)

We carry out inspections to detect leaks. The Inspection is done using an IR Camera and a PID Analyzer. Inspection process is according to EPA 21.

The results allow to unify the Inspection Programs (whose objective is the detection and quantification of pollutants like VOC's, H2, CH4,...), the Maintenance Programs (whose objective is the optimal functioning of the facilities for maximum operational performance) and the Action Plans and Action Programs (whose objective is the decision making for the purchase of elements: Valves, Flanges, Connections, etc.).

COMPONENT IDENTIFICATION

- Preliminary visit and unique identification of each component; creation of records (log) associated with each of the elements through which leaks may occur
- Start of inventory from P & ID drawings and process data

LEAK DEFINITION

- Definition of LEAK levels: Limit from which the presence of a leak is established
- Establishment of intervention levels: Classification of the importance of leaks in order to repair them

MONITORING OF COMPONENTS

- Qualitative leak detection: IR camera. Establishment of priority zones
- Quantitative leak detection: PID analyzer

COMPONENT REPAIR

- Communication of results
- Establishment of a repair program by priorities
- Leak repair ands verification of repairs: Re-monitoring

RECORD KEEPING

- Data Management
- Report
- Software Implementation

- Emissions Control (residual fumes, raw materials and products)
- Improves environmental quality and occupational health
- Minimizes environmental risks and accident risks
- Reduces maintenance costs and allows decision-making regarding the operation and purchase of equipment and components
- Reduces direct operating costs: Saving of raw materials and energy, and increasing production (less product losses)

Environment Management Services

We provide integrated environmental management services to support clients in reducing environmental impact, ensuring regulatory compliance and improving sustainability performance across the entire lifecycle of their assets and projects.

Our multidisciplinary approach combines technical expertise, accredited methodologies and advanced digital tools to deliver reliable environmental data, risk-based assessments and actionable insights that support informed decision-making in complex industrial environments.

We work across all project phases, from planning and design through construction, operation and decommissioning, helping clients identify environmental risks early, optimize resource usage and ensure compliance with national and international environmental regulations.
Our global experience across multiple industrial sectors allows us to deliver consistent, high-quality environmental solutions adapted to each client's operational and regulatory context.

- Environmental monitoring (air, water, soil & noise)
- Environmental impact assessment & risk analysis
- Waste management & circular economy solutions
- Climate change & carbon footprint studies
- Biodiversity & natural capital assessment
- Environmental permitting, audits & compliance support
- Contaminated land investigation & remediation

Services for Oil & Gas

Knowledge in Mechanical Industrial

Technological supports

- **FAC** system and methodology control corrosion water-steam cycle
- **SITUA / MAPSCAN** automated system for detection of internal corrosion in pipes and surfaces
- **INCOTEST** corrosion detection system under insulation
- **GUIDED WAVES** corrosion detection system under insulation and in long distances
- **PTI / DTI TREKSCAN** inspection of non-scrapable pipelines
- **SITD** integrated system of diagnostic and inspection techniques for industrial plants
- **SIGRID** integrated system of management of industrial regulations
- **ROTOSCAN** automated UT welding system
- **EMAT** high temp. thickness testing and corrosion under supports
- **PAULIS UT8** multifunctional equipment combining PA and TOFD
- **RFT** inspection system of interchangeable ferromagnetic tubes
- **DIGITAL RT** digital radiographic testing
- **CATHODIC PROTECTION** installation to an active protection against external corrosion
- **SAETA / ENVITE** automated system of inspection of bottom and ferrules of tanks

Diversified Industries

Telecommunications

We provide services for operators, telecommunications infrastructure managers, equipment manufacturers, large engineering companies, private corporations and public bodies in the **deployment, operation and maintenance** of fixed and mobile telecommunications networks.

Marine

We provide a diverse range of marine non-destructive testing (NDT) and maritime certification services, as well as **technical training and process outsourcing** for vessels, rigs, marine and harbor applications. In addition, we carry out the product and service evaluation within the maritime and offshore inspection industry.

Government and Public Organizations

We deliver **energy efficiency surveys, environmental management, process optimization, supervision and maintenance services** for public infrastructure and assets.

Industry

We assure the integrity of our clients' assets by **complying with regulatory and quality standards**, from international engineering codes to local health and safety, and environmental requirements.

Thanks!

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