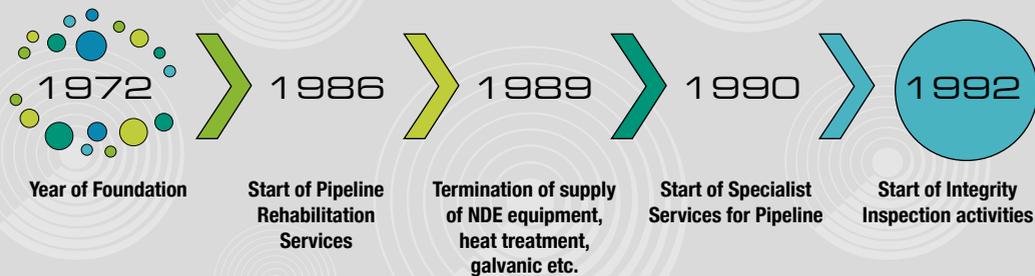


50
YEARS
1972 • 2022

TECMA[®]
PIPELINE SERVICES



EVOLUTION AND EXPERIENCE



A collage celebrating 50 years of Tecma Pipeline Services. The central focus is a large '50' logo with 'YEARS 1972-2022' and the 'TECMA PIPELINE SERVICES' logo. Surrounding this are several images of pipeline maintenance and inspection activities, each with a caption in Italian and English. A laptop in the bottom right corner displays the company's website.

- PULIZIA PIPELINE CLEANING**: Image of a pipeline cleaning operation.
- ISPEZIONE PIPELINE INSPECTION**: Image of a worker inspecting a pipeline.
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- ISPEZIONE PIPELINE INSPECTION**: Image of a worker inspecting a pipeline.
- RINFORZO DIFETTI PIPELINE REPAIR**: Image of a pipeline repair operation.
- ISPEZIONE PIPELINE INSPECTION**: Image of a worker inspecting a pipeline.
- ISPEZIONE PIPELINE INSPECTION**: Image of a worker inspecting a pipeline.

info@tecma.it - www.tecma.it

SPECIAL PRODUCTS FOR PIPELINES

- Polyurethane foam pigs
- Temporary and Real Time Pig Passage monitoring systems
- Urethanic Monolithic Pigs
- Design and Implementation of Specialist Pigs
- Quick opening closures for Launch/Receive Traps
- Intrusive and Non-Intrusive Pig Signallers
- Temporary Launch and Receive Traps
- E/M transmitters
- E/M receivers
- Acoustic Geophones
- Submarine Pig Passage Detection Systems



Courtesy of CDI Inc.

Courtesy of Online Electronics Ltd.

SPECIAL PRODUCTS FOR PIPELINES: CLEANING SERVICES

- Crude Oil Transfer Pipelines
- On-Off Shore Pipelines/Gas Pipelines
- Multiphase pipelines
- NON-PIGGABLE pipelines
- Hydromechanical cleaning tools to remove strong deposits

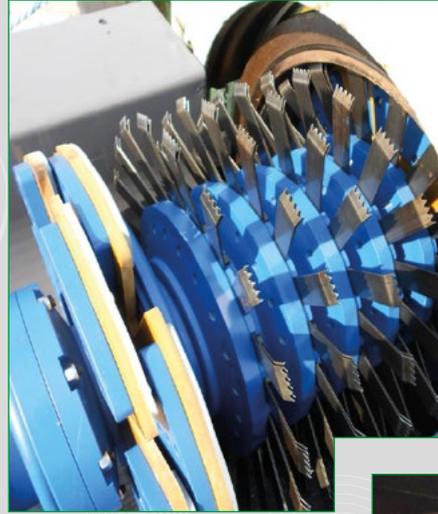


Courtesy of Pigtek Ltd.

PIPELINE CLEANING SERVICES: CUSTOMIZED HYDROMECHANICAL TOOLS

The hydromechanical cleaning of the pipelines is carried out in cooperation with Reinhart Hydrocleaning SA:

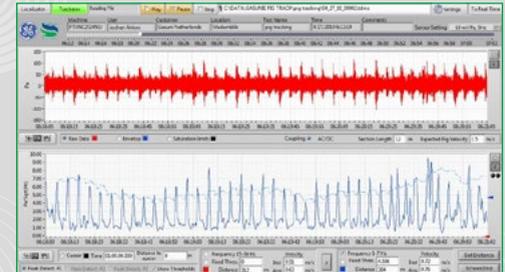
- Without cables or connections, these special tools are able to remove deposits and incrustations with a limited number of runs, even in situations where traditional techniques cannot do the job.
- Achieves maximum results effectively and quickly avoiding the use of solvents and limiting the use of semi-finished products.



Courtesy of Reinhart Hydrocleaning SA

SPECIAL PRODUCTS FOR PIPELINES: REAL-TIME PIG TRACKING

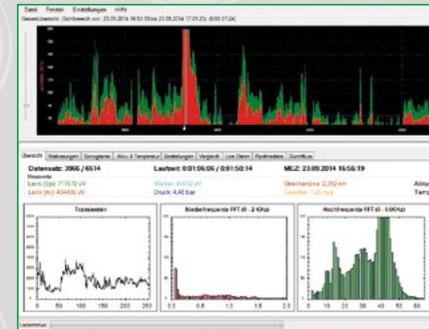
- Pig tracking
- Real-time continuous recording of pressure and flow rate during pigging



Courtesy of CDI Inc., Keller SA, Crystal Eng.

SPECIAL PRODUCTS FOR PIPELINES: LEAK DETECTION SERVICE

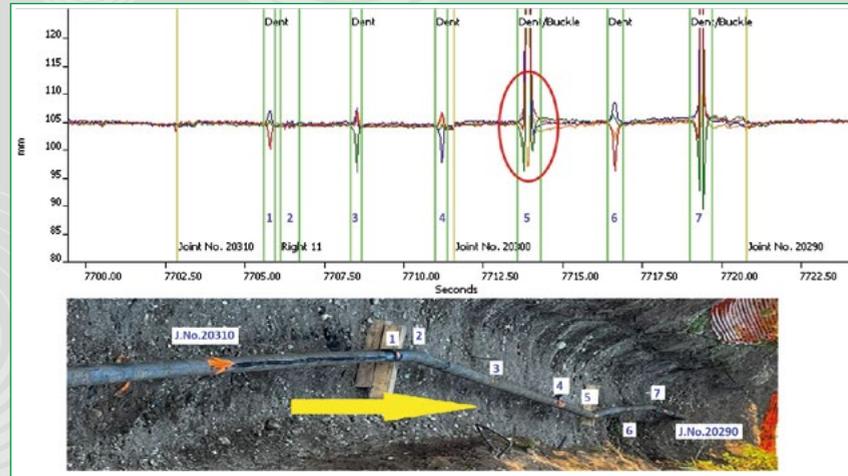
- Reliable Leak Detection
- Acoustic Measurement Principle
- Leak Detection in High Noise Environments



Courtesy of Gottsberg

SPECIAL PRODUCTS FOR PIPELINES: FOAM CALIPER PIG, SCOUTING PIG

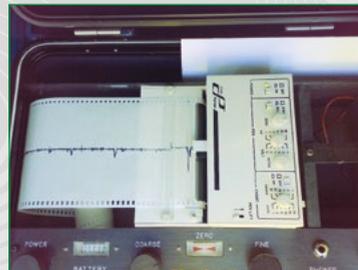
Innovative exploratory pig with special sensors embedded in polyurethane foam to calibrate pipelines and determine the presence of deposits and debris within the pipeline. Ideal for pipelines that have never been pigged and in any case before running more intrusive pigs that could compromise the safe pipeline operation.



Courtesy of P.I.L.

LODGED PIG DETECTION SERVICES

Combining multiple technologies, we have developed a field-proven expertise to identify the position of a pig stuck in the line, mitigating the risks of reducing or halting the flow during normal pipeline operation or product transfer.



TIGAS - 1" gas pipeline rescue pig operation

Time	Location	Event									
00:00	Station 1	Start	00:00	Station 2	End	00:00	Station 3	Start	00:00	Station 4	End
00:00	Station 1	Start	00:00	Station 2	End	00:00	Station 3	Start	00:00	Station 4	End

Time	Location	Event									
00:00	Station 1	Start	00:00	Station 2	End	00:00	Station 3	Start	00:00	Station 4	End
00:00	Station 1	Start	00:00	Station 2	End	00:00	Station 3	Start	00:00	Station 4	End

Courtesy Pigtek Ltd.

PIPELINE UT INSPECTION SERVICES

- Cleaning and Calibration
- Mechanical Activities, Temporary Traps Rental and Installation
- Issuing Procedures and Hydraulic Simulations
- Preparation of customized ILI pigs and spare parts
- Pipeline Inspection
- Availability of different Pig Propulsion Systems (Approved and tested Liquids)



Courtesy of NDT Global

PIPELINE MFL INSPECTION SERVICES

- Cleaning and Calibration
- Mechanical Activities, Temporary Traps Rental and Installation
- Issuing Procedures and Hydraulic Simulations
- Preparation of customized ILI pigs and spare parts
- Pipeline Inspection
- Availability of different Pig Propulsion Systems (Nitrogen, Water pumping, etc...)



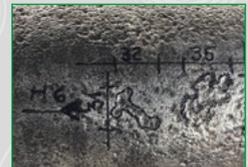
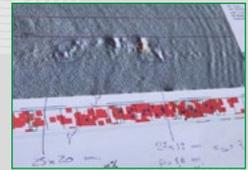
Courtesy of BAKER HUGHES

ILLEGAL TAPPING DETECTION SERVICE

- Since 2001, TECMA, with the support of its partner Baker Hughes, have significantly invested in developing a specific detection capability for illegal tapping, implementing the analysis process with a series of “Pull Through Tests” using real tapping samples. Thus gaining a deep experience.
- **Feedback from its customers confirms that 100%** of the active and latent illegal tapping sites reported by TECMA-BH through an inspection data analysis process known as “Change Report” **match perfectly.**

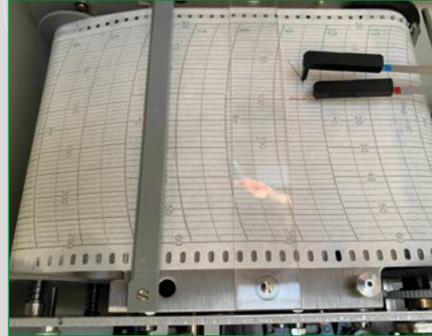


SUPPORT TO IN-FIELD DEFECTS VERIFICATION



HYDRAULIC AND PNEUMATIC TESTING SERVICES

- Hydraulic Test Cabin equipped with specialized equipment
- Single Range Dead-Weight tester
- Portable Temperature Probe
- Digital Gauge Pressure Recorder
- Pressure and Temperature Tape Recorders
- Reinforced Testing Pigs
- Preparation of detailed Procedures



PIPELINE REPAIR AND REINFORCEMENT SERVICES

- Composite repair system ideal for repairing external metal leaks up to 80% of wall thickness.
- Special Repair System for repairing corrosion, leaks and attempted break-ins in straight bars, bends, elbows, T-pieces, reductions and any complex geometry ISO TS 24817/ASME PCC₂ validated system.



Courtesy of CS-NRI Inc.

PIPELINE REPAIR AND REINFORCEMENT SERVICES

- Composite repair systems deliver safe, sustainable solutions for the construction, maintenance, and emergency repair of critical infrastructure.
- Pre-tensioned composite coils are ideal for repairing external metal loss up to 80% of the pipeline wall thickness.
- Carbon Fiber Repair System for repairing corrosion, cracks, leaks and attempted break-ins at bends, elbows, T-pieces, reductions and any complex geometry ISO TS 24817/ASME PCC₂ validated system.



Courtesy of CS-NRI Inc., Iridium Inc.

PIPELINE NITROGEN SERVICES WITH CRYOGENIC PUMPER AND AMBIENT VAPORIZERS

- Pigging feasibility assessment, mechanical modifications and temporary traps rental
- Fluid-dynamic detailed studies
- Equipment sizing
- Pipeline pigging using nitrogen vaporizers
- Air Drying and Pipeline inertization
- Process plant and Reactor purging and inerting
- Process plant accelerated cooling



Courtesy of Linde Gas Italia S.r.L.

PIPELINE SERVICE CHANGE & PIPELINE DECOMMISSIONING

- Pipelines Displacement using Nitrogen
- Pipeline Service Change
- Hydraulic studies
- Pipeline Cleaning using Chemical Products
- Pipeline Inertisation using Nitrogen or Water
- Preparation of detailed Procedures
- Pipeline Abandonment

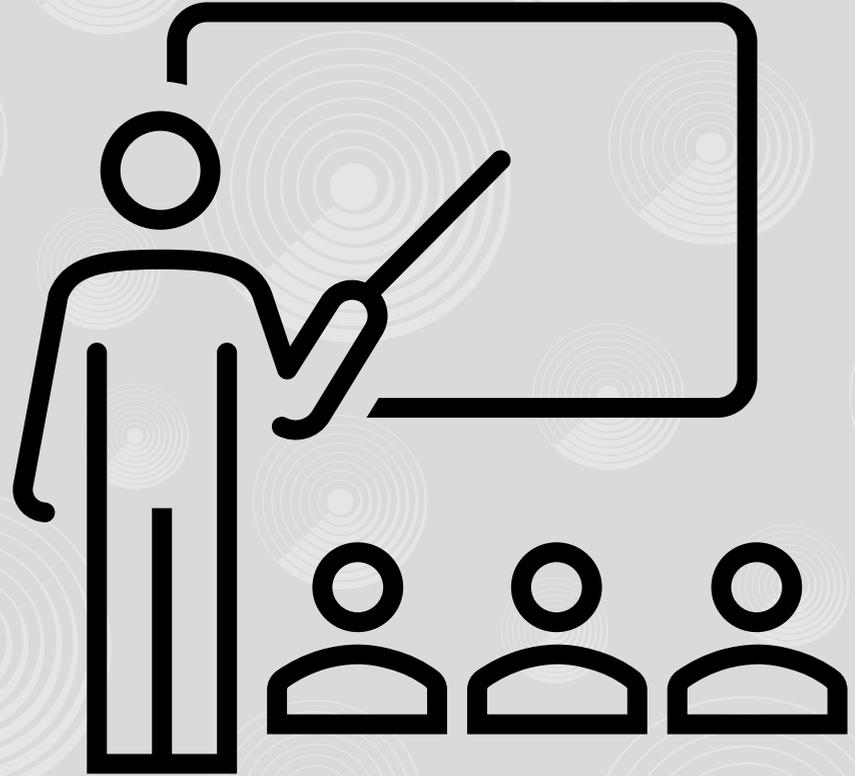


Courtesy of Linde Gas Italia S.r.L.

TRAINING

To ensure high quality standards and offer constantly improved services, **TECMA** provides continuous training and updates on health and safety issues to its technicians in order to pursue a “zero accidents” culture.

We believe that the company’s success depends on **TECMA**’s ability to continuously improve the quality of its services through constant implementations of its integrated Quality, Safety and Environment management system.



ISO CERTIFICATES



QUALITY



ENVIROMENT



SAFETY



Please scan
this QR code
and visit our
Web Site



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