C.T.I.

CONSULENZE TECNICHE INDUSTRIALI

Advanced Solutions for Industrial Integrity

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Technical Consulting, Specialized Engineering, Industrial Inspections, Quality Control and Assurance (QA/QC).

A technical partner of excellence for the construction of industrial plants in Italy and worldwide. From design to commissioning, from process qualification to on-site activity supervision, C.T.I. S.r.l. is the point of reference for those who compromise on neither quality nor reliability.

🏛 Rome — HQ

Registered and administrative headquarters of the company.

🏭 Taranto — Operations

Operational hub in the heart of Southern Italy's heavy industry, offering rapid deployment of specialized technicians.

SK Slovacchia — EU Branch

European presence for managing international projects and providing technical support to EU clients.

About Us – A streamlined organization with high-level expertise

Lean Organization Model

C.T.I. Srl is an industrial technical consulting firm structured according to the **Lean Organization** model: a streamlined structure designed to eliminate unnecessary hierarchical levels and quickly bring the most highly qualified know-how directly into the field. In an industry where speed of response and technical expertise are critical success factors, C.T.I. invests in the skills of its experts rather than in complex bureaucratic structures.

Decision-Making Agility

No bureaucratic layers between the client and the expert.Technical decisions are made quickly, with full accountability and traceability.

The deployment of technical staff is immediate, ensuring rapid intervention even in the most critical situations.

Synergy Across Locations

The three locations — Rome, Taranto, and the Slovakian branch — operate as an integrated system. Specialized expertise is shared across the board: a complex project can be managed simultaneously by multiple offices, with centralized coordination and local execution. This model allows us to handle national and international contracts while maintaining the responsiveness of a local setup.

- Centralized management and distributed delivery
- Pool of senior experts available on a project basis
- Minimization of fixed costs passed on to the client

Surface Coating Technology: Wall Papering CTI Srl

Years of experience in supervising executive procedures and practices aimed at quality, efficiency, and the preservation of machinery and plant components, capitalized into advanced technological solutions against physical and chemical attacks on metallic structures.

Technological Leadership in Italy

Our technicians were **the first in Italy** to develop the application technology for metallic linings on components and machinery, with a lifespan far exceeding that achieved by other world-renowned engineering firms. An exclusive expertise, built in the field and consolidated on real plants operating in highly critical environments.

Applications of Excellence

The application of these studies and their related execution technologies across multiple plants has produced excellent results, positioning CTI Srl as a benchmark supplier in Italy, Europe, and international markets, thanks to world-renowned clients who require both project execution and subsequent inspection checks.

- **DESOX plants** (flue gas desulfurization)
- **DENOX plants** (nitrogen oxide reduction)
- **Power plant flue gas chimneys** (or: Power plant exhaust stacks)

"What is Wall Papering?

Wall Papering, a proprietary technology of CTI Srl, is defined as **the finest surface coating process using welding systems**, carried out through the application of superalloys with high corrosion resistance. The result is a coating metallurgically bonded to the substrate, providing durability and protection performance significantly superior to traditional painting or thermal spray systems.

Operational and Competitive Advantages

The technology ensures long-lasting protection against chemical corrosion and physical wear in aggressive environments, drastically reducing cyclic maintenance costs and unscheduled plant downtime. The international presence, supported by leading clients, attests to the reliability and replicability of the solution across different operational contexts.

1°

In Italy

First developers of metallic lining technology for industrial components in Italy

3+

Key Industries

DESOX, DENOX, and Power Plant Stacks: Extreme Environments Where CTI Technology Excels

EU+

Global footprint

Projects executed in Italy, Europe, and international markets, supported by top-tier global clients

Non-Destructive Testing (NDT) – Supervision and Inspection

STRUCTURAL INSPECTION | REGULATORY COMPLIANCE

Non-Destructive Testing (NDT) is a key element of asset integrity management programs. C.T.I. S.r.l. provides supervision and inspection verification services for NDT activities, with personnel qualified according to EN ISO 9712 and SNT-TC-1A (Levels 2 and 3), supporting the entire plant lifecycle.

1

Industrial Radiographic Testing (RT)

Supervision and inspection verification of industrial radiography activities carried out by qualified operators, ensuring proper procedure implementation and compliance with reference codes (ASME, EN, ISO). Validation of radiographic reports and defect interpretations in welded joints.

2

Ultrasonic Testing (UT / TOFD / PAUT)

Inspection verification of advanced ultrasonic techniques used for flaw detection and characterization. Monitoring test execution accuracy, reviewing results, and validating technical documentation.

3

Liquid Penetrant Testing (PT) and Magnetic Particle Testing (MT)

Supervision of surface testing activities to detect open or surface-breaking discontinuities. Verification of procedure compliance, personnel qualifications, and test reports.

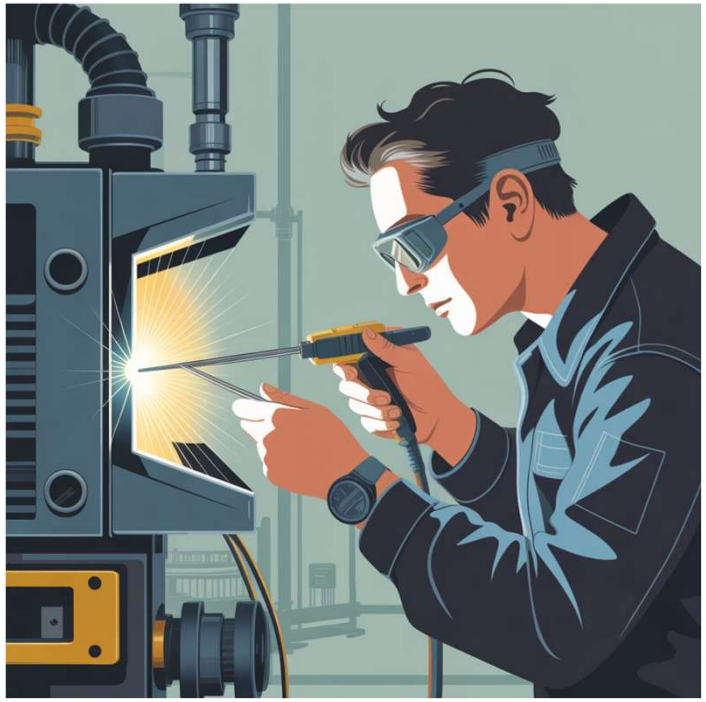
4

Visual Inspection (VT)

Qualified visual inspection of welds and structural components during fabrication and assembly stages. Verification of compliance with design requirements, applicable standards, and project technical specifications.

Quality Control & Welding Inspection

EWE / IWE CERTIFIED | ASME · EN · ISO



Welding process quality in industrial environments is not an optional variable: it is a primary safety requirement, governed by stringent international standards and subject to ongoing documentary and inspection audits. **C.T.I. Srl provides EWE (European Welding Engineer) and IWI/IWE (International Welding Inspector/Engineer) certified welding inspectors**, capable of operating as an independent third party or integrated into the client's quality team.

Welding Inspection Activities

- Qualification and approval of welding procedures (WPS/PQR) according to ASME Sec. IX, EN ISO 15614, and EN ISO 15609
- Welder qualification (WPQ) and management of welder performance records
- Continuous on-site supervision during joint execution
- Document chain verification: material certificates (EN 10204 3.1/3.2), consumable traceability
- Defect evaluation and acceptability assessment according to standard criteria (ISO 5817 quality levels)

Reference Standards

ASME VIII / IX	EN 13445
EN 13480	API 510 / 570

Engineering and Design

ENGINEERING SUPPORT | PLANT OPTIMIZATION

C.T.I. Srl's engineering support goes far beyond simple documentary consulting: it translates into hands-on technical partnership covering the entire asset lifecycle, from initial engineering through to revamping and life extension activities for existing plants.



Mechanical Design

Structural calculation and pressure verification of ASME/PED (Pressure Equipment Directive 2014/68/EU) equipment. Design of custom mechanical components, special flanges, nozzles, supports, and internals, utilizing FEM software for limit state verification. Issuance of comprehensive technical documentation (construction drawings, data sheets, bills of materials) compliant with client specifications and international standards.



Plant Optimization Consulting

Critical performance analysis of existing plants through *Fitness-for-Service assessment* techniques (API 579 / ASME FFS-1) and evaluation of asset remaining life. Identification of operational bottlenecks, engineering modification proposals, and support in drafting technical procurement specifications. Technical due diligence activities supporting M&A operations or compliance with insurance and regulatory requirements.



Technical Documentation & As-Built

Reconstruction and updating of plant technical documentation (P&IDs, isometric drawings, equipment data books). Management of construction dossiers, inspection certificates, and change logs (MOC — Management of Change). Support in obtaining commissioning permits and regulatory approvals from notified bodies (third-party Inspection Bodies, INAIL).



Engineering Services, Remote Management, and Sustainability

Specialized support and document management for complex projects and the energy transition. A team of highly qualified professionals operating remotely across national and international projects, supporting critical processes within the renewable energy and industrial engineering sectors.

Quality Management

Integrated Quality Systems and Process Engineering Delivered Remotely

QA/QC Documentation

Specialized management of Technical Data Books and final documentation

Project Development

Strategic development of Wind, Solar PV, and BESS projects

Project Management & Expediting

SUPPLY CHAIN OPTIMIZATION | EPC PROJECTS

In major **EPC (Engineering, Procurement & Construction)** industrial projects, adherence to schedule is a critical business factor: every day of delay on key equipment can translate into contractual penalties, postponed commissioning, and loss of operating margin. C.T.I. Srl offers structured **Project Management and Vendor Expediting** services to ensure that supplies progress on schedule and that potential criticalities are identified and managed in advance.

Industrial Project Management

- Schedule planning and control (WBS, Gantt, milestone tracking)
- Cross-disciplinary clash and interface management (mechanical, civil, electrical, instrumentation)
- Technical risk management and proactive identification of criticalities
- Periodic reporting to clients and stakeholders (physical and document progress KPIs)
- Management of technical and administrative variations during execution

Expediting: Supply Chain Control

Expediting is an often-underestimated yet decisive activity. C.T.I.'s service includes regular visits — on-site or desk-based — to **qualified vendors** to monitor fabrication progress, verify the availability of base materials and consumables, and anticipate potential bottlenecks before they result in irreversible delays.

- Weekly order tracking and progress monitoring
- On-site inspection visits at vendor workshops and manufacturing plants
- Verification of quality plans and document availability
- Direct liaison between client and vendor for Non-Conformity resolution
- Coordination with TPIs (Third-Party Inspectors) for acceptance testing

Quality Management & Engineering Delivered Remotely

The integrated management of quality systems and process engineering represents one of the most critical assets for any complex project. Our **fully remote** approach allows us to deliver these high-value-added services while eliminating the need for continuous physical presence on-site, resulting in a significant reduction in operational and logistical costs for the client.

The team ensures **regulatory compliance** with applicable international standards (ISO, EN, IEC) and the optimization of internal workflows through structured Quality Management System (QMS) methodologies. Every phase of the project lifecycle is monitored through dedicated quality plans, standardized operating procedures, and periodic audits.

Process engineering is supported through advanced digital tools for collaboration and document review, ensuring rapid response times, complete traceability of technical decisions, and seamless integration with client teams already operating on-site.

- Drafting and management of Project Quality Plans and Inspection & Test Plans (PQP/ITP)
- Oversight of regulatory compliance with ISO 9001, ISO 45001, and ISO 14001 standards
- Optimization of approval workflows and cycle time reduction
- Remote support for inspections

Why Choose the Remote Delivery Model

International projects demand flexibility and responsiveness. An experienced remote team guarantees service continuity, reduced travel costs, and immediate availability of specialized expertise—without the typical constraints of resident personnel.

1 **Overhead Reduction**

2 **Responsiveness**

3 **Operational Continuity**

QA/QC Documentation Control & Technical Data Books

The management of final technical documentation often represents the most critical bottleneck during the close-out phase of a plant engineering project. Delays in handing over Manufacturer Data Books (MDBs) and Loop Data Books (LDBs) can stall final testing, commissioning, and the release of contractual guarantees, leading to significant financial repercussions for the client.



Technical Data Books (TDB)

Collection, formal review, and validation of all technical supply documentation: material certificates, certificates of conformity, operation and maintenance manuals, as-built drawings, and test reports. Every document is tracked within a dedicated management system with real-time approval status.



MDB / LDB Compilation & Validation

Structured management of Manufacturer Data Books (MDBs) and Loop Data Books (LDBs) aligned with the contractual requirements of the end client (EPC/Owner). Implementation of transmittal lists, tracking of outstanding items, and direct vendor interface to complete missing or non-compliant documentation.



Bottleneck Elimination

Our team serves as an active interface between the client, suppliers, and third-party bodies (Notified Bodies, Inspection & Testing Authorities), accelerating the document close-out process and ensuring compliance with contractual milestones for final documentation.

Measurable Outcome: Professional management of Technical Data Books reduces final document close-out times by an average of 30–50% at project completion, directly accelerating the release of the Final Acceptance Certificate (FAC) and the payment of contractual withholdings/retentions.

Project Development for Renewable Energy

"The renewable energy sector is rapidly expanding and requires multidisciplinary expertise spanning engineering, permitting regulations, technical feasibility, and interface management with institutional stakeholders. We provide strategic and operational support across the entire development lifecycle of green projects.



Wind Energy

Support for the development of onshore wind power plants: site analysis, wind resource assessments, Environmental Impact Assessments (EIA/VIA), permitting procedures (Unique Autorizzation under D.Lgs. 387/03), and coordination with GSE and Terna. Preliminary and detailed engineering for connection to the national power grid.



Photovoltaic Energy

Development of utility-scale and agrivoltaic plants: technical and economic feasibility studies, layout design, management of permitting procedures (AU, PAS, PAUR), energy yield analysis (P50/P90), and coordination with DSOs and TSOs for grid connections. Technical due diligence support for investors and lenders.

From Permitting to Technical Feasibility

The Italian permitting process for renewable energy is among the most complex in Europe, involving regional authorities, ministries, heritage preservation bodies (Soprintendence), and grid operators. Our team possesses in-depth knowledge of current regulatory procedures (AU, PAUR, national EIA/VIA, Suitable Areas Decree) and supports clients from initial site assessment to securing all necessary permits, effectively streamlining development timelines and mitigating permitting risks.

Multistakeholder Coordination

The complexity of renewable energy projects demands effective coordination among diverse stakeholders: landowners, local authorities, regulatory bodies, grid operators, financial investors, and local communities. Our services encompass interface management, stakeholder documentation preparation, and end-to-end support during public consultation phases within EIA/VIA and Appropriate Assessment (VIncA) procedures.

Industry Sectors

CONTROLLED ENVIRONMENTS | OPERATIONAL VERSATILITY

C.T.I. Srl operates in the most demanding industrial sectors, where technical and regulatory requirements are at their peak and margins of error are near zero. The breadth of operational contexts in which C.T.I. has built its expertise ensures clients a partner capable of transferring cross-industry best practices and proven solutions across diverse environments.

Oil & Gas

Inspection and maintenance of upstream, midstream, and downstream facilities. Support for pipelines, compressor stations, gas treatment plants, LNG terminals, and offshore platforms. Direct expertise in managing HSSE requirements and ensuring compliance with ATEX directives.

Petrochemical & Chemical

Services for ethylene crackers, polymerization units, fractional distillation columns, and hazardous substance storage facilities. Wallpapering and Non-Destructive Testing (NDT) for the protection of equipment subject to hydrogen sulfide (H_2S) corrosion, concentrated acids, and HTHA (High Temperature Hydrogen Attack) environments.

Steel & Metallurgy

Technical supervision and Quality Control (QC) in integrated steelworks and mini-mills. Quality control on welded structures, heavy structural steelwork, and equipment subjected to severe thermal cycling. Direct expertise working with major steelmaking facilities across Southern Italy.

Energy & Power Generation

Technical support for thermoelectric power plants, combined cycle gas turbine (CCGT) facilities, waste-to-energy plants, and grid infrastructure. Inspections of steam turbines, high-pressure boilers, condensers, and flue gas treatment systems.

Process Engineering & Chemical Industries

Consulting e inspection services for pharmaceutical, food & beverage, and industrial water treatment facilities requiring the highest quality standards (GMP, FDA, EHEDG). Regulatory compliance management in highly regulated environments through structured, auditable documentation.

Experience and Value Added

KEY STRENGTHS

Choosing C.T.I. Srl means relying on a technical partner that combines **deep specialized expertise, operational flexibility, and an international footprint**. Below are the key differentiators that make C.T.I. a strategic choice for industrial asset integrity management.

1. Structured International Presence

With operational locations in Italy (Rome, Taranto) and Central Europe (Slovakia), C.T.I. seamlessly supports cross-border projects without the overhead and complexity associated with local subcontractors. Our European branch provides direct access to CEE markets—specifically for petrochemical and power projects across Poland, the Czech Republic, Hungary, and Romania, regions currently undergoing significant infrastructure expansion.

2. Specialized Technical Expertise: High-Alloy Wallpapering

Expertise in wallpapering with high-performance alloys (Hastelloy, Inconel, Titanium) represents a key competitive differentiator that is difficult to replicate. This is not a off-the-shelf technology: it demands years of hands-on application experience, an in-depth understanding of specialized metallurgy, and fully qualified welding procedures (WPS/PQR). C.T.I. has developed this specialized know-how through execution on mission-critical facilities, offering clients a concrete solution to extend asset service life and defer major capital expenditures for component replacement.

3. Flexibility and Rapid Deployment

C.T.I.'s lean organizational structure enables rapid deployment of technical personnel, delivering response times rarely matched by large engineering firms—and without the heavy overhead costs that larger contractors routinely pass on to clients. In time-critical scenarios involving urgent inspection requirements or strict regulatory compliance deadlines, this agility delivers immediate, measurable value by protecting operational continuity and driving cost efficiency.

4. Technical Independence and Impartiality

C.T.I. operates as an independent third party, free from conflicts of interest related to material supply or construction execution. This position enables us to provide clients with objective technical evaluations, impartial opinions in supplier disputes, and authoritative support before regulatory bodies (INAIL, Notified Bodies, technical insurers). Third-party independence is a structural regulatory prerequisite across many frameworks (PED, ATEX, CLP), and C.T.I. guarantees it at a structural level.

3	25+	15+	100%
Operating Offices	**Decades of Technical Expertise**	**Asset Life Extension**	**Third-Party Impartiality**
Italy and Central Europe for International Coverage	In high-complexity industrial sectors	Asset life extension guaranteed by specialized wallpapering	Guaranteed independence from vendors and contractors

TRUSTED BY INDUSTRY LEADERS



Building Plant Safety Together

Structural safety, operational continuity, and regulatory compliance for your industrial assets are not one-time milestones: they demand continuous, up-to-date, and meticulously documented technical oversight. **C.T.I. Srl is prepared to serve as your primary technical partner—from** initial diagnostic audits through to long-term integrated asset integrity management.

> *"Industrial asset integrity is not an expense: it is the foundation upon which productivity, workforce safety, and corporate reputation are built."*

📍 Operating Location

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74123 Taranto (TA) — Italy

📧 Email

segreteria@ctisrl.com

For quotation requests, technical site inspections, and service inquiries. Our team responds within 24 business hours.

🌐 Website

www.ctisrl.com

"Visit our website for technical insights, project case histories, and our complete organizational profile."

Request a complimentary initial consultation. Our senior engineering team is available for a first technical meeting—on-site or remotely—to evaluate your specific requirements and recommend the most effective solutions for inspection, corrosion protection, and regulatory compliance.