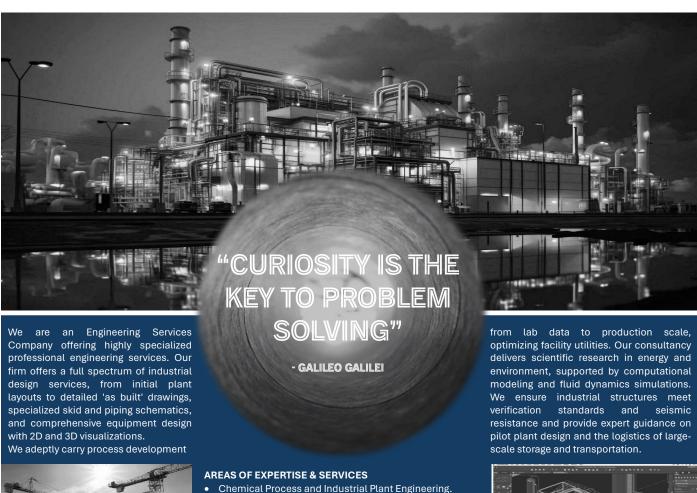


# VIS INGENII





- Feasibility Studies.
- Project Services.
- Process Engineering.
- Engineering Services.
- Projects Aids & Construction Supervision.

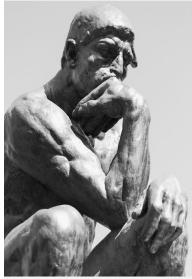
# WHAT WE DO

We are specialized in supporting key industrial plan engineering activities such as:

- Preliminary diagram of the production plant.
- Chemical-physical properties and parameters estimation.
- Unit operations simulation and calculation.
- Non ideal interphase equilibria simulation.
- Chemical reactions modelling and chemical systems characterization.
- Fluid dynamics modelling, process design and simulation.
- Heat transfer and stirring design.
- Conceptual design.
- Plant Process Flow Diagram and detailed engineering.
- 2D and 3D Plants layouts.
- Structural and seismic analysis.
- Pressure vessel equipment's design and Datasheets.
- Plant Piping, Pipe Flows and Instrumental Diagram.
- Electrical and Instrumental Diagrams including specifications.
- Automation design and documentation.
- Procurement tasks and Investment Costs Estimation (+/- 10%).
- Computations, Verifications and Stress Tests and Analyses.
- Risk and Compliance Assessments.



- Our adaptable approach enhances your skills with our expertise, effectively filling efficiently realize your goals.
- Our team has lot of experience and is highly skilled and very professional.
- We are reliable.







# **COMPANY HISTORY**



This is a story of successful entrepreneurship that has its roots in the vibrant heart of Milano.

Vis Ingenii's inception in 2016 marked the culmination of a journey that began in 2008 when Lorenzo Canzi and Maria Cecilia Varischetti, both distinguished engineers and life partners, started consulting together. Their union was more than matrimonial; it was a fusion of shared fervor for engineering brilliance.

Lorenzo, with his profound knowledge in Industrial Engineering, and Maria Cecilia, a virtuoso in Chemical Engineering and a doctorate in Physics, brought together an extraordinary array of skills. Their collaborative consulting period laid the groundwork for what would become Vis Ingenii – a company synonymous with innovation, driven by their vision, aspirations, and relentless commitment to excellence.

In 2016, their entrepreneurial dream materialized into Vis Ingenii. The company quickly became a beacon of innovation, ignited by their combined expertise in Chemical and Industrial Engineering and enriched by Maria Cecilia's profound understanding of Physics. This unique amalgamation of skills enabled them to navigate the multifaceted challenges of the industry with finesse, introducing cutting-edge solutions underpinned by insightful leadership.

Together, Lorenzo and Maria Cecilia have sculpted a legacy that transcends geographical boundaries, a legacy that is a testament to the power of shared dreams and the relentless pursuit of quality. Vis Ingenii, under their stewardship, has emerged as a paradigm of engineering excellence, inspiring a generation of engineers and entrepreneurs alike. Their journey from a consulting duo to the founders of a globally recognized firm epitomizes the essence of true entrepreneurship in the world of engineering.

# THE FIRST PERIOD - 2016-2020

From its inception in 2016 to 2020, Vis Ingenii embarked on a remarkable journey, laying a robust foundation under the strategic guidance of Lorenzo Canzi and Maria Cecilia Varischetti. During these formative years, the duo's visionary leadership and technical acumen were instrumental in steering the company through the initial phases of establishment and growth.

In this period, Lorenzo and Cecilia focused on building a solid foundation for Vis Ingenii. They meticulously crafted the company's ethos, blending innovative engineering solutions with an unwavering commitment to quality and client satisfaction. Their collaborative approach, drawing from Lorenzo's industrial engineering expertise and Cecilia's profound knowledge in chemical engineering and physics, positioned Vis Ingenii as a unique player in the engineering professional services market

A significant achievement in these early years was the development of a robust customer and partner base. Through their extensive network and reputation for excellence, they attracted a diverse clientele, ranging from small enterprises to large corporations. The partnerships they forged were based not only on business transactions but also on shared values and mutual respect, which became a hallmark of Vis Ingenii's approach to business relationships.

Lorenzo and Cecilia also focused on establishing Vis Ingenii's credibility and presence in the competitive engineering services market. They achieved this through consistent delivery of high-quality services, adherence to industry standards, and by staying ahead of technological advancements. Their commitment to innovative solutions and customer-centric approach rapidly garnered recognition and accreditation in the industry.

By 2020, Vis Ingenii had not only established itself as a reliable and innovative engineering services provider but had also laid a strong foundation for future growth. The company's early years were marked by strategic decisions, solid customer relationships, and a reputation for excellence, setting the stage for its continued success and expansion in the engineering sector. Lorenzo and Cecilia's leadership during these years was pivotal in shaping the company's trajectory and in building a legacy that continues to drive Vis Ingenii forward



# THE MOST RECENT YEARS - 2010-NOW

From 2020 onwards, Vis Ingenii navigated through the unprecedented challenges posed by the COVID-19 pandemic, demonstrating remarkable resilience and adaptability. In these years, the company not only sustained growth but also expanded its customer and partner base, a testament to its robust operational model and forward-thinking leadership.

Despite the global economic uncertainties, Vis Ingenii seized the opportunity to deepen its market presence. Leveraging their strong foundation, Lorenzo and Cecilia led the company in adapting to the new normal. They embraced innovative technologies and remote collaboration tools, ensuring uninterrupted service delivery and maintaining close ties with clients and partners. This period saw Vis Ingenii expanding its reach, welcoming new clients from various sectors and forging strategic alliances with key industry players. The focus remained on delivering exceptional value, with an emphasis on understanding and meeting the evolving needs of their clients during these challenging times.

One of the most notable aspects of this phase was Vis Ingenii's involvement in several groundbreaking engineering projects. The company undertook initiatives that were not only complex but also path-breaking, reflecting their commitment to innovation and technical excellence. Some of these projects, recognized for their ingenuity and technical prowess, are still in progress, promising to set new benchmarks in the engineering sector. During these years, Vis Ingenii's growth trajectory was characterized by strategic expansion, a reinforced customer base, and a steadfast commitment to delivering quality. The company's ability to thrive amidst adversity showcased its agility and preparedness, further cementing its reputation as a reliable and forward-thinking player in the engineering services industry. Lorenzo and Cecilia's leadership through these times steered Vis Ingenii through challenges, turning them into opportunities for growth and innovation.

# FOUNDERS PROFESSIONAL PROFILES



# **LORENZO CANZI**

Lorenzo Canzi is the company founder, CSO and COO.

Lorenzo is a Chemical Engineer with 30+ years' experience in chemical plant design, project management, procurement, and chemical plants scale-up.

Lorenzo's academic foundation is anchored in his master's degree in chemical engineering, which he obtained from the prestigious Politecnico di Milano. His academic journey, spanning from November 1985 to January 1990, culminated in an exceptional achievement, as he graduated with a perfect score of 100/100, earning the distinction of Summa Cum Laude. This accomplishment not only reflects his deep understanding of chemical engineering principles but also demonstrates his dedication and commitment to excellence in his field.

Lorenzo Canzi is a seasoned professional in the field of engineering, with a focus on chemical and pharmaceutical plant operations. Since October 2016, he has been a partner at Vis Ingenii S.r.L., where he specializes in process design and optimization, leveraging his skills in computational analysis and detailed engineering.

Prior to his current role, from 2014 to 2016, Lorenzo was a partner in another engineering firm, undertaking similar responsibilities and contributing significantly to process engineering and design within the industry.

From 2012 to 2014, he excelled as a General Manager, managing all business functions of a company, including compliance with cGMP and ISO norms. His experience at a multinational pharmaceutical company between 2005 and 2012, where he served in various capacities including General Manager and Process Engineer, further solidified his leadership and technical skills in managing operations across multiple sites.

Lorenzo's professional journey commenced in the early 1990s, with a role in a global chemical corporation, where he developed a strong foundation in process engineering and plant management. This experience laid the groundwork for his subsequent achievements and established him as a respected figure in the engineering sector.

# MARIA CECILIA VARISCHETTI

Cecilia is Vis Ingenii co-founder and CEO.

Cecilia's journey in the realm of science and engineering is both profound and distinguished. She holds not one, but two undergraduate degrees: the first in Chemical Engineering and the second in Nuclear Engineering, both conferred by the prestigious Politecnico di Milano. Her insatiable quest for knowledge propelled her further into the academic world, leading her to earn a doctorate in Physics between 2003 and 2005.

Upon completing her doctorate, Cecilia embarked on a pivotal chapter in her professional saga, serving as a researcher at the esteemed Centro Nazionale delle Ricerche (CNR), Italy's National Research Center. There, she honed her expertise and contributed to the cutting edge of scientific inquiry.

The trajectory of her career took a collaborative turn when she met Lorenzo Canzi, her husband and kindred spirit in innovation. Together, they embarked on freelance projects, leveraging their engineering prowess to provide solutions to various firms.

Their professional synergy and entrepreneurial spirit flourished, culminating in the formal establishment of Vis Ingenii in 2016. This venture stands as a monument to their shared expertise and unwavering dedication to the excellence of engineering, marking a significant milestone in their joint parrative.

At Vis Ingenii, Cecilia's pivotal role encompasses a vast array of engineering projects, enhancing partnerships with various firms, and impacting sectors like oil & gas, energy, and industrial manufacturing. Her expertise ranges from the intricate design of equipment and optimization of processes to the comprehensive planning of energy systems.

She excels in blending scientific research with practical applications, evident in her work on computational modeling, seismic resistance, and environmental consultancy. Cecilia's innovative approach to pilot plant design and her commitment to sustainable, efficient solutions are the hallmarks of her contribution to the engineering field.



# **ENGINEERING SERVICES**

# "THINGS ARE CONNECTED BY INVISIBLE BONDS. YOU CANNOT PLUCK A FLOWER WITHOUT DISTURBING A STAR." -GALILEO GALILEI

# **ENGINEERING SERVICES**

 $We provide \ engineering \ services \ in \ the \ mechanical, \ plant \ engineering, \ piping, \ and \ electrical \ and \ instrumental \ areas:$ 

Equipment detailed, constructive, installation design, layout 2D and/or 3D drawings.

Process, plants and utilities design and optimization.

Scientific research and consultancy, on energy and environment.

Computational analysis, modelling, and fluid dynamics simulation.

Verification and design of industrial structures.

Seismic resistance verification of industrial devices.

# **ENGINEERING WORKS SUPPORT**

We provide help, support and supervision for any engineering work needed in your projects:

Large storage, moving and transportation consultancy.

Planning and optimization of industrial traditional and alternative energy sources.

Steam generators design, optimization, and energy recovery.

Computational analysis, modelling, and fluid dynamics simulation.

Verification and design of industrial structures.

Seismic resistance verification of industrial devices.

Pilot plant design.

# PROJECT-RELATED SERVICES

We can complement your project resources before, during and after the project lifecycle, by leveraging our string skills in project budgeting, project planning and optimization, project management, mechanical drawing, computations, plant test, compliance assessment and more. Examples:

- Scientific research and consultancy, on energy and environment.
- Pilot plant design.



# **FEASIBILITY STUDIES**



At the specific request of the client, Vis Ingenii provides comprehensive feasibility studies grounded in technical and economic evaluations. These studies are conducted using clear and transparent criteria, ensuring the objectivity of both the study and its outcomes. The scope of the study encompasses a suite of analyses and recommendations regarding the potential realization of the project. It offers crucial insights for defining project priorities, operational strategies, working methodologies, and tactical approaches.

These services by Vis Ingeenii are essential in ensuring that a project is not only feasible but also strategically sound and viable in the long term. By providing these detailed assessments and forward-looking analyses, Vis Ingenii aids clients in making informed decisions that align with their goals and the project's ultimate success.

# FEASIBILITY STUDIES

### FEASIBILITY AND PROJECT VALIDITY STUDIES

In-depth feasibility studies and validation of project viability: These studies delve into the practicality of the project, assessing its feasibility from multiple angles including technical feasibility, financial viability, and overall project sustainability.

### CONCEPTUAL FRONT-END STUDIES

Conceptual front-end studies: These preliminary studies focus on the early stages of project planning. They involve exploring various conceptual approaches and frameworks, laying the groundwork for the project by identifying key parameters, potential challenges, and the best possible routes for successful implementation.

# EXISTING STUDIES VALIDATION

In the realm of project management and development, the verification and validation of feasibility studies play a crucial role in ensuring the success and viability of a project. These processes involve a thorough examination and assessment of feasibility studies to confirm that the project is not only theoretically sound but also practically achievable. This dual assessment helps in minimizing risks, optimizing resources, and enhancing the likelihood of the project's success.



# PROJECTS AIDS & CONSTRUCTION SUPERVISION



Vis Ingenii offers comprehensive assistance and supervision services, complementing our suite of project design and engineering solutions.

# PROJECTS AIDS & CONSTRUCTION SUPERVISION

### PROCUREMENT ASSISTANCE

We guide clients through the procurement process, ensuring the acquisition of the right materials and services aligns with project specifications and standards.

# CONSTRUCTION ASSISTANCE AND SUPERVISION

Our team closely monitors construction activities, ensuring adherence to design plans, safety protocols, and quality standards.

### PRECOMMISSIONING AND COMMISSIONING ACTIVITIES

We oversee the critical stages of pre-commissioning and commissioning, ensuring systems are operational, safe, and ready for service.

# PLANT START-UP OPERATIONS

Our expertise extends to the crucial start-up phase of plant operations, ensuring a smooth and efficient transition to full-scale production.

# FINAL TESTING AND THIRD-PARTY CERTIFICATION ASSISTANCE

We conduct thorough final inspections and testing, aiding in securing necessary third-party certifications, affirming compliance with industry regulations and standards.



# **PROJECT SERVICES**



Our specialized team delivers a comprehensive and multidisciplinary service, with a steadfast commitment to achieving complete customer satisfaction and catering to their unique needs. This approach ensures that every project is not only meticulously executed but also aligns seamlessly with the client's specific requirements and expectations.

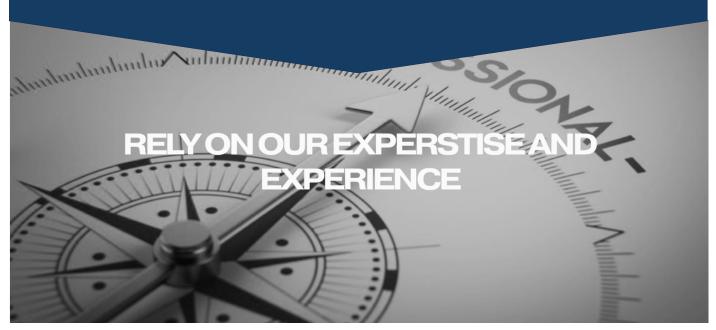
Vis Ingenii offers a comprehensive suite of auxiliary engineering services, ensuring excellence from concept to completion. Our services range from expert validation of third-party engineering designs to detailed process and front-end engineering, all tailored to meet your project's unique needs. Partner with us for precision in every aspect, from basic to detailed engineering, shop drawings, and efficient vendor coordination, driving your projects towards success.

# PROJECT SERVICES

Vis Ingenii offers a range of auxiliary services, designed to enhance, and complement your engineering projects, including:

- Endorsement of Engineering Work Produced by Third Parties: We provide expert approval and validation for engineering designs created externally, ensuring they meet the highest standards of quality and efficiency.
- Process Engineering Design: Our team specializes in designing and optimizing industrial processes, focusing on maximizing efficiency and performance.
- Basic Engineering and Design: We lay the foundational groundwork for projects, outlining the primary specifications, parameters, and requirements.
- Front-End Engineering Design (FEED): Our FEED services involve detailed planning and analysis at the early stages of a project, setting the stage for successful implementation.
- Detailed Engineering: We delve into the specifics, providing thorough and precise engineering solutions for complex projects.
- Shop Drawings Engineering: Our expertise extends to creating detailed shop drawings, essential for accurate fabrication and construction.
- Technical Bid Evaluations (TBE): We conduct comprehensive evaluations of technical bids, ensuring they align with project objectives and specifications.
- · Vendor Follow-Up: Our team ensures smooth coordination and communication with vendors, guaranteeing timely and quality deliveries.

Each of these services is tailored to ensure the seamless progression of your engineering projects from conception to completion.





# PROCESS ENGINEERING

Discover Vis Ingenii's extensive engineering expertise, offering a spectrum of services from civil works and mechanical design to advanced plant engineering and electrical solutions, all tailored for industry excellence.

# PROCESS ENGINEERING

Vis Ingenii specializes in a diverse array of engineering services, each tailored to meet the intricate demands of modern industry.

#### PLANT DESIGN, UPGRADE, AND OPTIMIZATION

We offer comprehensive design and calculation services for civil structures, including foundation design, sewage network planning, and concrete and prestressed concrete structures for industrial plants and zones.

#### **DESIGN AND STRUCTURAL VERIFICATIONS**

Our expertise extends to the calculation and design of steel structures and buildings.

#### HIGH, MEDIUM, LOW TENSION SYSTEMS DESIGN

We provide detailed project designs and drawings, auxiliary carpentry, lifting machinery, solid transport machinery, and special equipment.

#### SYSTEM DESIGN AND IMPLEMENTATION

Our team excels in refining mechanical schemes based on process diagrams provided by clients.

#### ANTI-FIRE AND SAFETY

We conduct extensive studies on general layout, equipment layout, piping, foundations, piping assembly, piping stress calculation, supports, isometrics, equipment specifications, construction drawings, and material lists.

### **COMPLEX PROJECTS DEVELOPMENT**

Our services encompass single-line and automation schematics, layout and interconnections, transformer stations, MCC and control power panels, lighting and grounding networks, detailed drawings for primary and secondary connections, and compliance checks with C.E.I. regulations.

## **MISCELLANEOUS SERVICES**

We offer topographic surveys, industrial modeling, specialized personnel for quotations and bids, operational and maintenance manual development.

# PLANTS DESIGN, UPGRADE, AND OPTIMIZATION

Process engineering is a multidisciplinary science focused on the design, management, control, and optimization of chemical, physical, and biological processes. Utilizing state-of-the-art computational and simulation systems, it aims to streamline and enhance industrial operations. At the core of this field is the adaptation of each plant to meet the specific requirements of the client, while adhering to operational, design conditions, and rigorous safety standards set by regulatory norms.

Vis Ingenii excels in this domain with a range of services:

- Analysis of material and energy balances: Assessing the input and output of resources to optimize efficiency and sustainability.
- Generation of Process Flow Diagrams (PFDs): Creating detailed diagrams that map out the flow and interaction of process components.
- Production of Process & Instrumentation Diagrams (P&IDs):
   Developing comprehensive diagrams that detail the instrumentation and control devices integrated into the process.
- Calculation of control and safety valves: Ensuring optimal flow regulation and safety within the system.
- Definition of Line Specifications: Establishing the criteria and standards for process lines to ensure optimal functionality.
- Assignment of piping classes: Categorizing pipes based on their function, material, and other relevant criteria to streamline process operations.



These services are integral to optimizing plant performance, ensuring operational excellence, safety, and compliance with industry standards. Tecnoplan's approach is not just about meeting needs; it's about exceeding expectations and driving innovation in process engineering.



# **DESIGN AND STRUCTURAL VERIFICATIONS**

The mechanical and piping phase is a critical bridge in process engineering, transitioning from the conceptual analysis of various process stages to the tangible design of lines, equipment, package plants, and systems in their entirety. This phase involves defining the typological and functional characteristics of each piece of equipment or system, arranging their placement within the plant, and ensuring their mechanical interconnectivity.



Vis Ingenii excels in this phase with a comprehensive suite of services:

- Equipment Inventory: Cataloging all equipment involved in the process for streamlined management and oversight.
- Line Listing: Detailing all lines, ensuring each is optimally designed for efficient flow.
- Technical Data Sheets for Equipment: Providing detailed specifications for each piece of equipment, outlining their features and requirements.
- Orientation Definition for Equipment Nozzles: Strategically designing nozzle placements for maximum efficiency and accessibility.
- Assembly and Detailed Piping Line Drawings: Creating precise blueprints that detail the configuration and layout of piping systems.
- Isometric Piping Drawings: Producing detailed isometric representations of piping layouts to aid in visualization and construction.
- Stress Analysis Calculations: Assessing the structural integrity and resilience of piping systems under various conditions.
- Sizing and Positioning of Piping Supports: Ensuring that piping is adequately supported and positioned for safety and efficiency.
- Material List Compilation: Documenting all materials required for the project, facilitating procurement and inventory management.
- Drafting Technical Purchase Specifications for Equipment: Detailing the technical requirements for equipment procurement to ensure compatibility and performance.
- Technical Specifications for Painting and Insulation: Outlining the specifications for protective coatings and insulation to ensure longevity and compliance with standards.

In this phase, Vis Ingenii's meticulous approach ensures that every aspect of mechanical and piping design is thoroughly considered, contributing to the overall efficiency, safety, and success of the process engineering project.

# HIGH, MEDIUM, LOW TENSION SYSTEMS DESIGN

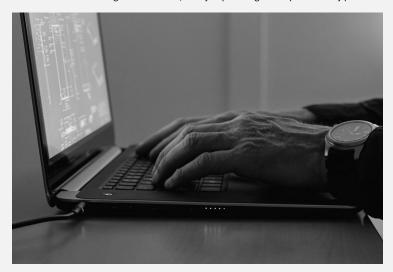
Electro-instrumental engineering involves the design of high, medium, and low voltage systems, including the related plant engineering and all the instrumental systems necessary for the control and regulation of the plants. The main activities developed by Vis Ingenii in this field include:

- Compilation of electrical load lists.
- Issuance of electrical balance sheets.
- Calculations and sizing of ground systems.
- Calculations and sizing of electrical protections.
- Calculations and sizing of electrical cables.
- Lighting calculations.
- Single-line and functional diagrams.
- Technical data sheets of electrical equipment.
- Assembly and detailed drawings of electrical utilities, cable routes, and ground networks.
- Electrical wiring diagrams.
- List of instruments and valves.
- Technical data sheets of instruments and valves.
- Assembly and detailed drawings of instruments, junction boxes, and tubing routes.
- Typical instrument installation diagrams (hook-up).
- Wiring drawings of junction boxes.
- Issuance of wiring diagrams.
- Lists of electrical and instrumental cables.
- Compilation of the materials list.
- Drafting of technical purchasing specifications.



# SYSTEM DESIGN AND IMPLEMENTATION

All industrial plants, regardless of their complexity, are equipped with sophisticated automation and control systems. These systems allow operators to regulate and command processes efficiently and effectively. Adhering to the functional and operational criteria defined by the process, Vis Ingenii develops systems aligned with the latest technological standards, always upholding the required safety parameters.



Key activities undertaken by Vis Ingenii in this realm include:

- Drafting Functional Specifications for Automation/Control Systems:
   Detailing the operational requirements and objectives of the automation systems to ensure they meet the process needs.
- Developing Cause and Effect Tables: Analyzing and documenting the relationships between different operational scenarios and their respective effects on the system.
- Compiling Input/Output (I/O) Lists: Cataloging all the inputs and outputs associated with the control systems, essential for understanding system interactions.
- Issuing Loop Diagrams: Creating detailed diagrams that illustrate the feedback loops within control systems, essential for troubleshooting and system optimization.
- Developing Automation and Regulatory Logic Schemes: Designing the logical frameworks that underpin the automation and control systems, ensuring efficient and accurate process regulation.
- Drafting Technical Purchase Specifications: Preparing detailed requirements for the procurement of automation and control equipment, ensuring compatibility and quality.

Vis Ingenii's approach to automation and control engineering prioritizes efficiency, safety, and technological advancement. Our expertise ensures that industrial plants are not only equipped with cutting-edge control systems but also operate with optimal precision and safety.

# **ANTI-FIRE AND SAFETY**

Vis Ingenii specializes in the study and development of fire and gas safety systems, a critical aspect of industrial safety engineering. This involves assessing risks associated with fire and explosion, as well as designing systems for the prevention, detection, and extinguishing of such events.

Key services provided by Vis Ingenii include:

- Calculations for Determining the Extent of Classified Areas: Conducting thorough assessments to define the boundaries of areas at risk, ensuring compliance with safety standards.
- Detailed Assembly Drawings of Classified Areas: Creating precise blueprints that highlight areas prone to fire and gas risks, aiding in strategic safety planning.
- Design and Sizing of Automatic Extinguishing Systems: Developing effective fire suppression systems tailored to specific environmental needs and risks
- Technical Data Sheets for Detection and Alert Equipment: Providing comprehensive specifications for advanced detection and alert systems, ensuring optimal responsiveness and reliability.
- Assembly and Detailed Drawings of Detection, Alert, and Extinguishing Systems: Producing meticulous designs for integrated fire and gas safety systems, ensuring comprehensive coverage and functionality.
- Drafting of Technical Purchase Specifications: Detailing the technical requirements for procurement of safety equipment, guaranteeing the acquisition of high-quality, effective solutions.



At Vis Ingenii, our approach to fire and gas safety engineering is rooted in precision, innovation, and a deep understanding of industrial risks. Our expertise ensures that facilities are not only compliant with safety regulations but also equipped with the most advanced systems for ensuring ongoing safety and security.

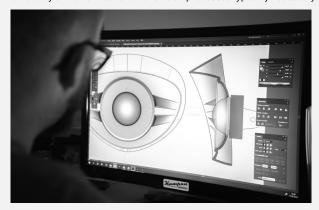


# COMPLEX PROJECTS DEVELOPMENT

Vis Ingenii provides an integrated team approach for High-Tech Project Development.

At Vis Ingenii, every project with complex, high-tech requirements are meticulously managed by activating an integrated team of specialized technicians for each specific discipline. This approach ensures a seamless coordination of resources, effectively managing each interface while simultaneously minimizing any potential interferences.

For complex installations, we leverage the industry's leading 3D modeling systems to develop complete facilities or specific parts thereof, thereby maximizing the efficiency of the verification and revision processes typically necessary in such projects.



The key 3D modeling software utilized by Vis Ingenii includes:

- $\bullet$   $\,$  Autodesk Inventor: A leading tool for mechanical design, documentation, and product simulation.
- **Solidworks:** Widely used for 3D modeling in various engineering disciplines, known for its user-friendly interface and robust features.
- Intergraph PDS: A comprehensive, intelligent computer-aided design/engineering (CAD/CAE) application for plant design, construction, and operations.
- ESApro Piping 3D: Specialized in piping design, offering advanced features for complex projects.
- Pro/Engineer (PTC Creo): Renowned for its extensive range of capabilities in 3D CAD modeling.
- Microstation: A versatile CAD software for design, construction, and operation of infrastructure.

By harnessing the capabilities of these sophisticated tools, Vis Ingenii ensures precision, efficiency, and innovation in every aspect of project development, from initial concept to final execution. Our commitment to using cutting-edge technology and an integrated team approach positions us at the forefront of engineering solutions, ready to tackle the challenges of today's complex technical landscapes.

# **MISCELLANEOUS SERVICES**

Vis Ingenii: Specialized Engineering Solutions Across Multiple Disciplines:

- Process Engineering: Vis Ingenii specializes in process engineering, focusing on designing, managing, controlling, and optimizing physical, chemical, and biological processes. Utilizing the most advanced computational and simulation systems available, we guarantee excellence in all aspects of industrial plant operations.
- Mechanical and Piping Engineering: In the realm of industrial plants, Vis Ingenii delivers efficient solutions in designing complete lines, equipment, plants, and packaged systems. Our team meticulously identifies typological and functional characteristics of each system or equipment, ensuring proper installation and mechanical connectivity.



### Services include:

- Detailed assembly and piping line drawings.
- Isometric piping drawings.
- Stress analysis calculations.
- Sizing and positioning of piping supports.
- Drafting technical purchase specifications for equipment.

**Electro-Instrumental Engineering:** Our specialists offer top-tier services in designing high, medium, and low voltage systems, including all related plant engineering and various instrumental systems for control and regulation. Our experienced team provides:

- Detailed electrical utility drawings, cable routes, and grounding networks.
- Electrical wiring schematics.
- Instrument and valve listings.
- Junction box wiring drawings.
- Production of wiring diagrams.
- Drafting technical purchase specifications.

# Automation and Control Engineering: We are equipped to handle:

- Automation and control systems.
- Functional specification drafting for automation/control systems.
- Loop diagram issuance.
- Development of automation and regulatory logic schemes.

Fire Safety and Security Engineering: Our expertise extends to fire and explosion risk assessments, defining systems for prevention, detection, and extinguishing such events. We provide:

Assembly and detailed drawings for detection, alerting, and extinguishing systems.

Vis Ingenii's multidisciplinary approach combines seasoned professionals and advanced know-how, ensuring our clients receive tailored, efficient, and secure engineering solutions.



We would love to start collaborating with you and your company. If you need any additional information, or if you want to start partnering with us, or if you need our professional services, do not hesitate to contact us.



# Company details:

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