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COMPANY

Alternalab is a cutting-edge engineering consulting company in the industrial sector. With a strong commitment to excellence, we collaborate with leading companies in the Rail, Oil & Gas, Automotive, Food, and Industrial markets. Our consistent path of growth has taken us from an initial team of 5 members in 2014 to a robust team of 57 professionals at the beginning of 2024.

Our success is built on expanding our client base nationally, reflected in an exponential increase in revenue. Alternalab distinguishes itself as a team of experts in each sector, with a portfolio of over

70 steadily growing clients. We leverage the most advanced hardware and software technologies to manage design and training processes in an integrated manner, maintaining continuous updates to our skills.

At Alternalab, access to the best industry know-how is ensured through the adoption of the most advanced technologies and our dedication to continuous training. Our strength lies in the ability to combine expertise, flexibility, and attention to customer needs.

MISSION

We aim to be among the top partners worldwide in the Industrial sector, contributing to growth and innovation. Competence, entrepreneurship, and adaptability are our key success factors.

VALUES

The values on which Alternalab bases its foundation are the cornerstones that have allowed for the company's constant and rapid growth. We base our vision on three fundamental concepts that guide our work and focus our attention: **GROWTH**, **COLLABORATION**, and **CARE**.



ISO 9001-14001 CERTIFIED

ISO 9001
ISO 14001

BUREAU VERITAS
Certification



AREAS OF EXPERTISE

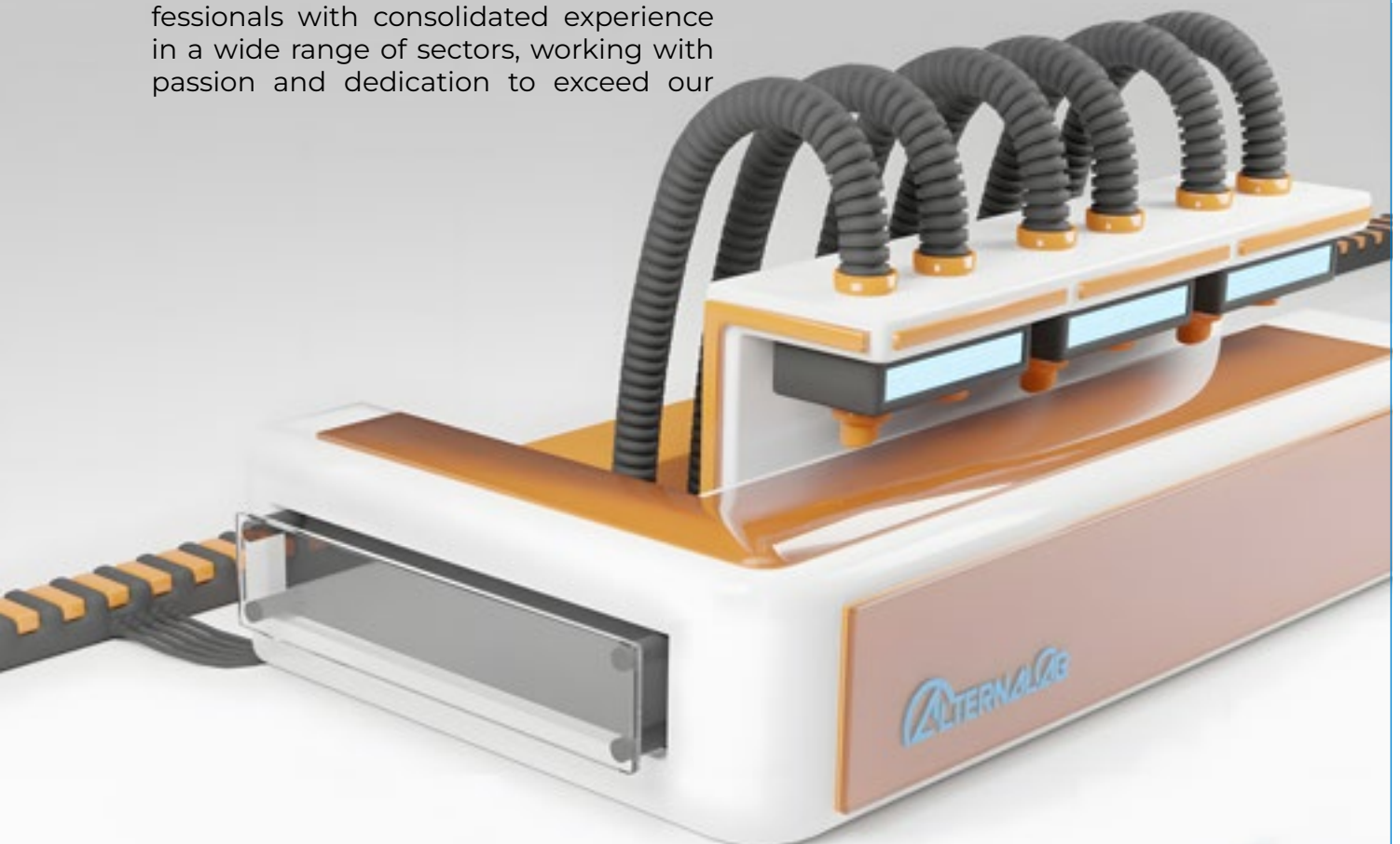
Alternalab is a reference point in the field of engineering consultancy, offering tailor-made solutions for the most complex and dynamic challenges of the contemporary industrial world.

With a solid knowledge base and an interdisciplinary approach, we are committed to providing innovative and future-oriented services, helping companies thrive in a continuously evolving competitive environment.

Our team consists of highly qualified professionals with consolidated experience in a wide range of sectors, working with passion and dedication to exceed our

clients' expectations. We are driven by a constant commitment to technical excellence, environmental sustainability, and continuous innovation, aiming to actively contribute to the success and growth of the companies we collaborate with.

In a world where complexity and uncertainty are the norm, we are the reliable partner that businesses can count on to tackle tomorrow's challenges and to transform opportunities into concrete and lasting results.





AEREOSPACE

Design and engineering services for components and systems intended for the aerospace industry.



INDUSTRIES

Supporting companies in optimizing production processes, contributing to the success and growth of businesses.



AUTOMOTIVE

Design and development of electric and traditional vehicles, with a special focus on emissions reduction and energy efficiency.



OIL&GAS

Engineering solutions for the extraction, transportation, and treatment of hydrocarbons, ensuring regulatory compliance and environmental sustainability.



PAPER CONVERTING MACHINE

Designing solutions for optimizing paper production processes and developing innovative and sustainable packaging.



RAIL

Consulting services and design of rail transportation systems.



FOOD

Designing plants and consulting to improve production processes while complying with current regulations.

SERVICES PROVIDED

At Alternalab, engineering becomes an adventure, and challenges are our daily bread. With our team of engineers, we commit to bringing innovative ideas from paper to reality.

From 3D modeling that brings projects to life to construction drawings that chart the path to perfection, we ensure that every detail is handled with care and dedication.

And we don't stop there: in our constant search for practical and efficient solutions, we transform electrical schematics

into safe and reliable systems, while our printed circuits give life to cutting-edge electronic devices.

And when it comes to saving energy and preserving the environment, we get to work with passion and commitment.

But our true priority is ensuring customer satisfaction: every product and service we offer undergoes rigorous checks to ensure quality and reliability. Alternalab guarantees an engineering journey that surprises and satisfies the customer.





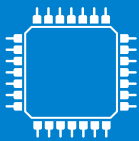
MECHANICAL ENGINEERING

We offer comprehensive mechanical engineering services, including 3D modeling, construction and layout drawings, along with advanced solid and fluid mechanics calculations, to ensure the precision and efficiency of projects.



QUALITY AND DOCUMENTATION

We are committed to ensuring the highest quality of products, managing documentation rigorously, and providing clear manuals for installation, use, and maintenance. Additionally, we assist in obtaining certifications, ensuring regulatory compliance and product safety.



ELECTRONICS

We specialize in electronic and software design, covering the entire spectrum from PLC implementation to PCB design, with advanced troubleshooting skills and tailored firmware and software development.



ENERGY

We design and develop energy production plants, with particular attention to maximizing efficiency and reducing polluting emissions. We implement decarbonized solutions such as solar, wind, and geothermal energy.



ELECTRICAL

Our expertise in electrical engineering extends from creating electrical schematics to accurately selecting components, such as connectors, to complete routing, ensuring reliable and high-performing electrical systems.



TIMINGS AND METHODS

Through thorough analysis, we ensure maximum optimization of times, methods, industrial efficiency, and productivity. We offer innovative customized solutions to optimize resources and improve product quality.

MECHANICAL ENGINEERING

We offer a full range of engineering services to drive your projects to success. From mechanical design to 3D modeling, from installation drawings to prototyping and 3D printing, we handle every phase of the process. Our experts in problem-solving and structural calculations ensure ro-

bust and practical solutions, while our on-site assembly assistance and supervision guarantee seamless implementation.

✓ Mechanical design

✓ Feasibility studies

✓ 3D modeling

✓ Assembly assistance

✓ Installation and layout drawings

✓ Product and process industrialization

✓ Production drawings

✓ Problem solving

✓ Prototyping and 3D printing

✓ Process diagrams (P&ID, Flow-sheet)

✓ Structural calculations and FEM analysis

✓ On-site supervision

ELECTRONICS

We offer comprehensive services ranging from electronic circuit design to advanced PLC system implementation. Our expertise includes tailored electronic prototyping, ensuring innovative and reliable solutions. Additionally, we specialize in the design and supply of high-quality PCBs customized to your specific needs. With advanced skills in firmware and

software, we ensure optimal operation of your electronic devices. Finally, we conduct rigorous functional tests to ensure reliable and consistent performance.

✓ Electronic circuit design

✓ PCB design and supply

✓ PLC

✓ Firmware & Software

✓ Electronic prototyping

✓ Functional tests

ELECTRICS

We excel in providing a wide range of engineering services for our clients. Our plant design stands out for its precision and efficiency, ensuring optimal solutions for the specific needs of each project. Accurate cable sizing ensures safe and reliable installation, while our electrical schematics provide clear guidance for electrical wiring. With routing, we optimize the path of cables and conduits to maximize efficiency and reduce costs. Our construction drawings and layouts

are detailed and precise, ensuring proper project implementation. Additionally, we offer assembly assistance to ensure smooth progress during the construction phase, and on-site supervision to ensure that everything is carried out according to plan.

✓ **Plant design**

✓ **Harness design**

✓ **Electrical schematics**

✓ **Routing**

✓ **Construction drawings and layouts**

✓ **Assembly assistance**

✓ **On-site supervision**

QUALITY AND DOCUMENTATION

We take care of every aspect of business management to ensure the success of your projects and the satisfaction of your customers. From contract management to production and documentation drafting, we ensure that every phase of the process is handled efficiently and accurately. With product and quality process verification, we guarantee that your highest standards are always met. Risk analysis and management of non-conformities and complaints allow us to identify and promptly resolve any issues. Through

customer satisfaction analysis, we maintain constant monitoring of your needs and preferences. Communication management ensures clear and transparent communication at every stage of the project. Lastly, job analysis and competency gap analysis help us identify areas for improvement and develop tailored solutions for your specific needs.

✓ **Order management**

✓ **Customer satisfaction analysis**

✓ **Documentation management and drafting**

✓ **Product verification**

✓ **Communication management**

✓ **Risk analysis**

✓ **Production management**

✓ **Quality process verification**

✓ **Non-conformity and compliant management**

✓ **Context analysis**

✓ **Job and competency gap analysis**

ENERGY

We are committed to providing cutting-edge energy solutions that not only reduce operating costs but also promote environmental sustainability. Our energy efficiency assessment goes beyond identifying potential energy savings; it also examines sources of energy waste and suggests practical solutions to optimize the overall efficiency of your facilities. By utilizing advanced software and monitoring technologies, we carefully analyze energy consumption to pinpoint areas for improvement and develop customized strategies to reduce costs and environmental impact.

Calculating energy demand is crucial for designing reliable and efficient energy systems. Our team of experts analyzes project specifications, considering factors such as building size, thermal load characteristics, and specific application needs. Using advanced models and carefully calibrated simulations, we accurately

determine the energy demand of the facility, allowing us to design solutions that maximize energy efficiency and optimize occupant comfort.

Designing energy systems is at the heart of our approach to energy sustainability. With deep knowledge of available technologies and extensive experience in integrating complex systems, we develop tailored solutions that meet your specific needs and exceed your expectations. From component selection to layout design, we ensure that every detail is carefully considered to ensure optimal performance and long-term energy efficiency.

✓ **Energy efficiency assessment**

✓ **Design of energy systems**

✓ **Energy demand calculation**

TIMINGS AND METHODS

Alternalab offers a comprehensive process engineering service, with a particular focus on optimizing timing and methods. Through a combination of in-depth analysis, process modeling, and implementation of innovative solutions, we are committed to improving the efficiency and productivity of our clients' industrial operations. Our team of expert engineers works closely with companies to identify critical areas and optimization opportunities within their production processes. Using data-driven approaches and ad-

vanced tools (such as Yamazumi, FMEA, PFMEA, and more), we develop customized solutions that enable reducing production times, optimizing resource utilization, and improving product quality. Our goal is to deliver tangible and lasting results, enabling our clients to gain a competitive edge in the market through more efficient and agile processes.

✓ **Analysis of production processes**

✓ **Optimization of production lines**

✓ **Design of production lines**

✓ **Product industrialization**

✓ **Product improvement**



SOFTWARE

To ensure the highest quality and precision in consultancy services, we rely on a careful selection of cutting-edge software. Innovation and efficiency drive our choice of the best digital tools, allowing

us to provide high-level solutions and fully meet the needs of our clients..

SOFTWARE USED:

- ✓ **Adobe Creative Suite:** A professional suite for graphic design, layout, and the creation of high-quality brochures, pamphlets, and promotional materials.
- ✓ **Microsoft Office Suite:** Essential tools for creating documents, spreadsheets, and presentations, crucial for drafting and preparing manuals.
- ✓ **Blender:** A versatile software for 3D modeling, animation, and rendering, useful for creating engaging visual content in manuals.
- ✓ **SolidWorks:** An application for 3D mechanical part design and assembly creation.
- ✓ **PTC Creo:** Advanced software for product design, modeling, and simulation.
- ✓ **CATIA:** A leading platform for industrial design and drafting.
- ✓ **Solid Edge:** 3D modeling software and product data management.
- ✓ **Autodesk Inventor:** Application for 3D product design and motion simulation.
- ✓ **AutoCAD:** Software for technical drawing and documentation.
- ✓ **Rhinoceros:** Platform for 3D modeling and freeform surface creation.
- ✓ **Keyshot:** Platform for creating 3D renders and animations.
- ✓ **Navisworks Freedom 2024:** Software for 3D model visualization and project analysis for construction and engineering.
- ✓ **SketchUp:** Application for 3D design and architectural modeling.
- ✓ **Windchill:** Product Lifecycle Management (PLM) platform for collaboration, data management, and process control.

These are some of the main software tools that complement our technical capabilities. Our careful selection and expertise in using these platforms enable us to pro-

vide high-quality and precise services, exceeding our clients' expectations.



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