



accessafe
WE BUILD SAFETY



ENGINEERING AND CONSULTING SERVICES

WE BUILD SAFETY



WHO WE SERVE



MACHINE BUILDERS

We support machine builders throughout the compliance process, **covering the entire CE marking procedure and the application of European directives and international regulations.**

We support manufacturers during the design and development phases of the machine, **providing expert knowledge in risk assessment, safety design and the integration of safety solutions.** We work closely with technical teams to translate regulatory requirements into coherent and practical design decisions.

Dedicated services include:

- Risk assessments in accordance with EN ISO 12100;
- Safety design and engineering;
- Validation of safety functions;
- Support for CE marking;
- OT cybersecurity and technical documentation.

A structured pathway to place safe, compliant and reliable machinery on the market.



MACHINE USERS

For end users, we support work on existing or newly installed machinery and plant, offering turnkey solutions for safety upgrades. We provide support for verification and compliance with applicable workplace safety regulations, operating on complex plant and active production environments, with careful attention to operational continuity and the protection of personnel. The expertise of our technicians – internationally certified and developed through many years of field experience – allows us to design and implement targeted interventions, tailored to the specific requirements of each production environment.

An approach that integrates regulatory knowledge, technical expertise and operational experience, to manage safety in a structured, effective and sustainable manner.



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MACHINERY COMPLIANCE ANALYSIS (GAP ANALYSIS)

VERIFICATION OF THE ACTUAL SAFETY STATUS OF MACHINERY AND PLANT

When evaluating a machine, a line or a plant, the first requirement is to establish whether the safety level is **genuinely aligned with applicable regulatory requirements**.

The **Machinery Compliance Analysis (Gap Analysis)** is designed to address this need, verifying the actual safety status of machinery and plant against **Machinery Directive 2006/42/EC**, the **New Machinery Regulation (EU) 2023/1230** and applicable harmonised standards. The activity involves **technical audits** at the client's premises and **a structured assessment of operating conditions**, safety solutions adopted and available documentation, with the objective of **identifying any non-conformities and areas of concern**.



SITUATIONS WHERE THIS IS REQUIRED

Typically required in the following situations:

- During the purchase or sale of machinery and plant;
- During mergers and acquisitions (M&A), to assess the compliance status of production assets;
- Following significant modifications to existing machines or lines;
- During audits, internal reviews or requests from supervisory authorities.



HOW THE ACTIVITY IS CONDUCTED

The analysis comprises:

- Technical verification of the machinery, including a review of operating, maintenance and usage conditions
- Verification of the technical documentation, including the **Technical Construction File**, operating and maintenance manuals, and the **Declaration of Conformity**;
- Assessment of regulatory conformity against applicable European directives and harmonised standards;
- Identification of non-conformities and safety risks.



WHAT WE DELIVER

At the conclusion of the activity, we provide a final report that highlights:

- Issues identified;
- Non-conformities with respect to applicable requirements;
- Technical guidance for the upgrade of the machinery or plant.

NOTE: The report provides an objective basis for making informed technical, operational and strategic decisions.

CE CONFORMITY OF MACHINERY

VERIFICATION OF CONFORMITY WITH THE MACHINERY DIRECTIVE AND THE NEW MACHINERY REGULATION

Prior to CE marking and placing the machine on the market or putting it into service, it is necessary to verify that the machine complies with all applicable requirements.

This activity enables the conformity of the machinery to be assessed against **Machinery Directive 2006/42/EC**, related applicable standards, and the **New Machinery Regulation (EU) 2023/1230**, which will come into force in 2027. Verification may be carried out **both on new machinery and on machinery in use** that has undergone substantial modifications, or in the case of the integration of several machines into a production line.



SITUATIONS WHERE THIS IS REQUIRED

Verification is required:

- Prior to CE marking of a new machine;
- Prior to placing on the market or putting into service;
- On existing machinery following substantial modifications;
- In the case of integration of several machines.



HOW THE ACTIVITY IS CONDUCTED

The activity is a technical and documentary verification aimed at reviewing:

- Conformity of the machinery with the requirements of the **Machinery Directive**;
- The presence and accuracy of mandatory technical documentation, including the **Technical Construction File, Declaration of Conformity**, and **Operating and Maintenance Manual**;
- Identification of any non-conformities in accordance with EN ISO 12100;
- Correct application of harmonised standards;
- Correct affixing of CE marking.

NOTE: Verification is conducted taking into account the technical characteristics of the machine and the actual conditions of use.

“ **Compliance evolves in line with Directives and real-world risks** ”



WHAT WE DELIVER

At the conclusion of the activity, a structured summary of the conformity status of the machinery is provided, comprising:

- Evidence of any non-conformities identified;
- Technical guidance for compliance with applicable requirements;
- Support in managing the CE marking process.

RISK ASSESSMENT (EN ISO 12100)

RISK ASSESSMENT OF MACHINERY AND PLANT IN ACCORDANCE WITH EN ISO 121000

Risk assessment should be conducted in a structured manner, consistent with the applicable regulatory framework. The activity allows the risks present throughout the entire life cycle of the machinery to be analysed, ensuring compliance with applicable regulations and supporting technical decisions during the design, use or upgrade phases. Risk assessment is conducted in accordance with EN ISO 12100, taking into account the applicable regulatory framework in relation to the age and condition of the machinery.



SITUATIONS WHERE THIS IS REQUIRED

Risk assessment is required:

- For CE-marked machinery, in accordance with **Machinery Directive 2006/42/EC** and **Machinery Regulation (EU) 2023/1230**;
- For machinery and plant predating September 1996, pursuant to Legislative Decree 81/08;
- During design, modification or upgrading of machinery and plant;
- In support of prevention activities and the protection of workers' health and safety.



HOW THE ACTIVITY IS CONDUCTED

The assessment activity comprises the following phases:

- Definition of the limits of the machine, taking into account the intended use and reasonably foreseeable misuse;
- Identification of hazards, with analysis of risks associated with normal operating conditions and foreseeable improper use;
- Estimation and evaluation of risk using the HRN methodology, based on probability, frequency of exposure, severity of harm and number of persons exposed;
- Preparation of the assessment report, documenting identified risks and proposing technical solutions for their reduction.



WHAT WE DELIVER

At the conclusion of the activity, we provide:

- A risk assessment report, compliant with EN ISO 12100;
- An intervention plan for the upgrade of machines in accordance with applicable directives, regulations and technical standards;
- Technical guidance in support of subsequent design, upgrade or operational management phases.

CE MARKING AND TECHNICAL DOCUMENTATION

FULL SUPPORT FOR MACHINERY, ASSEMBLIES OF MACHINERY AND IN-HOUSE BUILT MACHINERY

If a machine is new, modified or constitutes an assembly of several machines, CE marking requires a structured and verifiable technical process. This activity supports both machine builders and end users in managing the entire CE marking process, ensuring compliance with the essential health and safety requirements set out in the applicable legislation. Support is provided pursuant to **Machinery Directive 2006/42/EC** and **Machinery Regulation (EU) 2023/1230**, to enable the safe placing on the market and use of machinery and plant.



SITUATIONS WHERE THIS IS REQUIRED

CE marking is required for:

- New machinery;
- Modified machinery or machinery subject to substantial modifications;
- Assemblies of machinery;
- In-house built machinery;
- Cases in which preparation or updating of the CE Declaration of Conformity is required.



HOW THE ACTIVITY IS CONDUCTED

The activity comprises:

- Risk assessment in accordance with EN ISO 12100 and verification of the correct application of general safety principles;
- Verification of applicable essential health and safety requirements;
- Verification of compliance with applicable general and/or specific requirements of Type A, B and C harmonised standards applicable to the machine under examination;
- Preparation of the safety design, defining technical solutions for risk mitigation;
- Preparation of the operating and maintenance manual;
- Compilation of the **Technical Construction File**;
- Execution of required measurements and tests, such as noise, vibrations, electromagnetic compatibility, stopping times, etc.;
- Analysis, verification and validation of control circuits with safety functions in accordance with EN ISO 13849-1 and EN ISO 13849-2.



Marking requires a systematic approach and solid evidence



WHAT WE DELIVER

At the conclusion of the activity, the following are provided:

- Technical Construction File;
- Operating and Maintenance Manual;
- Declaration of Conformity, drafted on behalf of the Client;
- CE marking plate to be affixed to the Machine or Line;
- Technical documentation in support of the correct placing on the market or putting into service.



Under the **New Machinery Regulation**, Accessafe may act as the Authorised Representative in carrying out CE marking and act as the technical and documentary point of reference vis-à-vis market surveillance authorities. In this case, documentation will be archived and managed via the **SECURE** safe portal, ensuring long-term preservation, revision traceability and immediate availability of information required by market surveillance authorities.

SAFETY DESIGN AND DETAILED ENGINEERING PROJECT (DEP)

DESIGN OF SAFETY DEVICES FOR MACHINERY

The Detailed Engineering Project (DEP) for safety upgrading is a structured activity that comprehensively and precisely defines all interventions required to make machinery and process lines safe. It includes the design of safety devices and supporting technical solutions, with the objective of ensuring regulatory compliance, correct integration on the plant and production continuity.

The project constitutes the operational basis for the execution of safety retrofit interventions and for the coherent coordination of mechanical, electrical and automation activities.



SITUATIONS WHERE THIS IS REQUIRED

The Detailed Engineering Project is required in the following cases:

- Safety upgrading of existing machines or plant;
- Functional or production modifications affecting safety systems;
- Retrofit of process lines or revamping of machines;
- Integration of new mechanical and electronic protective devices;
- Updating of control and safe-stop systems;
- Preparation of interventions for compliance with applicable safety regulations.



HOW THE ACTIVITY IS CONDUCTED

The activity is developed through a structured pre-engineering phase and comprises:

- Preliminary analysis of the machine or line and technical field surveys;
- Definition of the most suitable safety solutions – mechanical, electrical, pneumatic and hydraulic;
- Design of safe-stop systems in relation to the safety PLC and existing automation;
- Development of drawings for guards and protective devices;
- Preparation of electrical, pneumatic and hydraulic diagrams;
- Development of safety PLC logic and programming;
- Sharing and validation of solutions with the client's personnel.



WHAT WE DELIVER

At the conclusion of the activity, a complete detailed engineering document is provided, which includes:

- Drawings of all protective devices and guards;
- Updated electrical, pneumatic and hydraulic diagrams;
- Process documentation and description of safety functions;
- Safety PLC software and logic;
- Operational instructions for the installation and implementation of interventions.

VALIDATION OF SAFETY FUNCTIONS

VERIFICATION AND TESTING OF SAFETY FUNCTIONS IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS

To ensure the correct implementation of safety systems and the implementation of the protective measures described in the Detailed Engineering Project (DEP), it is necessary to carry out the validation process, which comprises analysis and testing activities. This activity enables verification that protective measures are correctly installed, function as intended and comply with applicable regulatory requirements.

Validation of safety functions is the essential step connecting the design to the actual commissioning of the safety system.



SITUATIONS WHERE THIS IS REQUIRED

Validation of safety functions is required when:

- Safety functions have been implemented on machines or plant;
- It is necessary to verify the correct application of protective measures defined in the detailed engineering project;
- Conformity with applicable standards must be demonstrated (e.g. EN ISO 13849-1 and EN ISO 13849-2);
- Objective evidence of the performance level achieved (PL) is required.



HOW THE ACTIVITY IS CONDUCTED

The validation process for safety functions comprises structured analysis and testing activities, including:

- Verification of conformity of safety functions with applicable regulatory requirements;
- Verification of correct installation of safety components;
- Functional testing of safety functions under real operating conditions;
- Fault simulation and verification of correct system behaviour;
- Analysis of the performance level achieved (PL) and comparison with the required performance level (PLr);
- Verification of correct implementation of the prescribed reaction logic.

The PL is verified, not assumed



WHAT WE DELIVER

At the conclusion of the activity, we provide:

- Documented evidence of the verification and testing activities carried out;
- Technical validation documentation, comprising: safety function specifications, block diagrams, PL calculations and evaluations ($PL \geq PLr$), fault exclusion analyses, reaction matrix and test results;
- Support to machine builders and end users in the validation process for safety functions, providing a structured approach compliant with regulatory requirements.

THE FUTURE OF SAFETY

The digitalisation of machines and production systems has substantially altered the scope of industrial safety. Software, networks, remote connections and control systems are now an integral part of the machine and influence its behaviour both under normal operating conditions and in fault situations.

When cyber events affect OT systems, the consequences are not limited to the IT domain. They can compromise safety functions, generate dangerous situations and impact the ability to place a machine on the market or maintain its compliance over time.

The **New Machinery Regulation (EU) 2023/1230** makes this connection explicit, introducing specific requirements regarding protection against tampering, security and reliability of control systems, and protection of software and critical data.

We support machine builders, integrators and users in the structured management of OT cybersecurity applied to machinery and plant, **integrating technical analysis, regulatory requirements and engineering criteria.**

The approach is focused on the safety of persons, operational continuity and the robustness of the machine throughout its entire life cycle, avoiding any overlap with non-pertinent IT activities or assessments not required for safety purposes.

Our interventions are built around the actual perimeter of the machine and its OT systems, with the objective of making the cybersecurity aspects that affect safety and regulatory compliance manageable.





Depending on the context, **activities may include the analysis and organisation of existing OT systems**, the verification of cybersecurity requirements relevant to CE marking, the assessment of security levels in accordance with international standards, and the validation of software that contributes to safety functions.

Each measure is tailored to the applicable regulatory requirements and the specific technical context, avoiding the introduction of unnecessary requirements and maintaining a focus on aspects relevant to machine safety.

INNOVATIVE SOLUTIONS FOR THE SECURITY OF YOUR FACILITIES

To support operational management and safety traceability throughout a machine's lifecycle, we provide software solutions developed specifically for the industrial sector, integrated with OT systems and designed to prevent incidents and ensure technical and legal compliance.

C-MON safe enables the monitoring and analysis of machine signals to identify potentially hazardous conditions and safety-related faults.

SECURE safe is a platform designed for the secure and verifiable management of data, documents and events, supporting traceability and legal protection over time.



OT SYSTEM ASSESSMENT IN THE CONTEXT OF CYBERSECURITY

PRELIMINARY ANALYSIS OF MACHINE OT SYSTEMS

When working on an existing machine, on systems destined for non-EU markets or in preliminary phases not linked to CE marking, the priority is to understand how the OT system is structured and how it is managed over time.

Layered configurations, hidden assets and inconsistent operational practices make any subsequent assessment – whether technical or regulatory – difficult.

The OT Cyber System Overview is designed to provide a clear and structured view of the automation and control systems of an industrial machine, bringing order to the system perimeter, assets, architecture and operational practices.



SITUATIONS WHERE THIS IS REQUIRED

The service is particularly indicated when:

- Existing machines or machines already in operation are being analysed;
- The machine is intended for non-EU markets;
- A preliminary analysis not aimed at CE marking is required;
- A structured overview of OT systems, roles and operational responsibilities is lacking.



HOW THE ACTIVITY IS CONDUCTED

The activity is descriptive and structural in nature:

- Definition of the OT perimeter of the machine;
- Mapping of principal OT assets;
- High-level analysis of the control systems architecture;
- Verification of access methods and operational practices;
- Verification of fundamental OT cybersecurity practices.

NOTE: The activity does not include regulatory compliance checks, structured risk analyses, vulnerability assessments, penetration testing or Security Level determination in accordance with IEC 62443.



WHAT WE DELIVER

At the conclusion of the activity, we provide:

- A summary report on the status of OT systems;
- A clear representation of the perimeter, assets and architecture;
- Evidence of principal baseline issues;
- Operational guidance for improving the technical order of the system.

CYBER COMPLIANCE FOR CE MARKING

VERIFICATION OF CYBERSECURITY REQUIREMENTS FOR THE NEW MACHINERY REGULATION (EU) 2023/1230

Where a machine incorporates software, communication networks or remote connections, cyber events can directly affect the safety of persons and the reliability of control systems.

The **New Machinery Regulation (EU) 2023/1230** makes these aspects an integral part of the essential health and safety requirements, linking them explicitly to CE marking. The Cyber Compliance for CE Marking service supports the manufacturer in verifying and implementing the cybersecurity measures necessary for the machine or related product to be placed on the market or put into service in conformity with the Regulation.



SITUATIONS WHERE THIS IS REQUIRED

The service is particularly indicated when:

- A machine incorporates software, programmable control systems or connections to external or remote devices;
- CE marking is required pursuant to Regulation (EU) 2023/1230;
- It is necessary to demonstrate compliance with requirements for protection against tampering and security of control systems;
- Software and critical data contribute to the safe operation of the machine.



Algorithms and functions must be regulated



HOW THE ACTIVITY IS CONDUCTED

The activity consists of a technical and documentary verification targeted at cybersecurity requirements relevant to CE marking:

- Verification that connections to external or remote devices do not generate dangerous situations, even in the presence of unauthorised access or foreseeable improper use;
- Verification of the design and configuration of control systems with respect to intentional or unintentional external influences;
- Analysis of safety-critical software and data, with verification of identification, protection against tampering, and access and update management;
- Verification of protection of hardware relevant to access to safety-critical software;
- Verification of evidence-collection mechanisms relating to software interventions, configuration changes and interventions on hardware components relevant to safety;
- Verification of version traceability for safety software over the period stipulated by the Regulation.



WHAT WE DELIVER

At the conclusion of the activity, the following are provided:

- Technical verification report on cybersecurity requirements relevant to CE marking;
- Evidence of gaps with respect to the requirements of Annex III of Regulation (EU) 2023/1230;
- Technical guidance for compliance;
- Support for updating the machine's technical documentation.

CYBER COMPLIANCE FOR CE MARKING – ADVANCED

MACHINE CYBERSECURITY BEYOND THE REQUIREMENTS OF REGULATION (EU) 2023/1230

In industrial machinery, cybersecurity is not limited solely to the minimum requirements for CE marking. Digital components, extended OT systems and complex architectures may introduce technical exposures that affect the manageability, reliability and evolution of the machine over time. The Cyber Compliance for CE Marking – Advanced service extends the analysis beyond what is strictly required by Regulation (EU) 2023/1230, supporting machine builders and integrators in adopting a more comprehensive and engineering-based approach to machine cybersecurity.



SITUATIONS WHERE THIS IS REQUIRED

The service is indicated when:

- It is desired to strengthen cybersecurity beyond the minimum requirements for CE marking;
- The machine incorporates an extended OT ecosystem, with components not directly involved in safety functions;
- It is necessary to manage cybersecurity throughout the entire life cycle of the machine;
- It is desired to anticipate the impact of future regulatory requirements in the cyber domain.



HOW THE ACTIVITY IS CONDUCTED

The service includes all activities provided under the Cyber Compliance for CE Marking service and extends them to the entire OT context of the machine. The activity includes:

- Extended analysis of the OT context, with definition of the overall perimeter;
- Mapping of OT assets, including components not directly relevant to functional safety;
- Analysis of OT architecture, encompassing networks, operational interfaces and connections with external systems;
- Identification of technical weaknesses and plausible exposures, without penetration testing or exploitation activities;
- Engineering definition of cybersecurity measures applicable to the entire OT ecosystem, with reference to access and identity management, logical separation of functions, software and critical parameter integrity, communications management, and operational and maintenance aspects;
- Framing with respect to the Cyber Resilience Act (CRA), aimed at supporting future technical planning.

NOTE: The activity does not include regulatory compliance checks, structured risk analyses, vulnerability assessments, penetration testing or Security Level determination in accordance with IEC 62443.



WHAT WE DELIVER

At the conclusion of the activity, we provide:

- CE compliance report, prepared in accordance with the Cyber Compliance for CE Marking service;
- Machine cybersecurity technical specification, describing the OT architecture analysed, cybersecurity measures defined, technical requirements and operational guidance for management over time.

* NOTE: The technical specification does not form part of the mandatory CE documentation and constitutes a stable design and operational reference.

SECURITY LEVEL DETERMINATION IN ACCORDANCE WITH IEC 62443

ASSESSMENT OF THE SECURITY LEVEL OF MACHINE OT SYSTEMS

The IEC 62443 standard provides a structured reference for assessing the security of industrial automation and control systems. Applying it to a machine means establishing whether the technical measures adopted are adequate for the operating context and potential impacts on the production process. The Security Level Determination service allows the security level actually implemented on the machine to be assessed, highlighting design deficiencies, architectural limitations and requirements not met with respect to the IEC 62443 standard.



SITUATIONS WHERE THIS IS REQUIRED

The service is indicated when:

- A structured assessment of the security level of the machine's OT systems is required;
- It is necessary to compare implemented measures with IEC 62443 requirements;
- Architectural limitations that may affect operational continuity and reliability are to be identified;
- A technical reference for planning security improvement interventions is required.



HOW THE ACTIVITY IS CONDUCTED

The activity is structured in accordance with IEC 62443-3-3 and IEC 62443-3-2 references:

- Definition of the OT perimeter of the machine, with mapping of assets, communication networks, control devices and interfaces with external systems;
- Framing of the security context and qualitative assessment of the impact of security events on machine operation and plant operability;
- Verification of IEC 62443-3-3 requirements, with reference to the seven Foundational Requirements: identification and authentication control, use control, system integrity, data confidentiality, restricted data flow, timely response to events, and resource availability.

NOTE: The assessment does not include advanced threat modelling or exhaustive attack scenario simulations.

“**Security level
is a matter of
context**”



WHAT WE DELIVER

At the conclusion of the activity, the following are provided:

- Determination of the Security Level achievable by the machine (Capability SL);
- Identification of the required Security Level (Target SL) based on the context;
- Identification of requirements not met;
- Clear and structured technical guidance for any security upgrade and improvement activities.

SOFTWARE APPLICATIONS FOR INDUSTRIAL SAFETY



C-MON-SAFE INTELLIGENT MONITORING OF MACHINE SAFETY

The safety of a machine is built over time, through operational behaviour, modifications, interventions and the evolution of control systems. In the real life cycle, tampering, anomalies, degradation of safety components or inconsistent use can alter the conditions of protection for operators. C-MON-SAFE **is a software solution designed to make this evolution observable and manageable**, transforming the signals already present in the machine's control systems into actionable information for the management of operational safety.

Safety Telemetry – Continuous and Verifiable

During its life cycle, a machine changes. Maintenance interventions, adjustments, component replacements, local or remote access modify the behaviour of safety systems, often without leaving obvious traces. C-MON-SAFE comes into play to verify that safety functions maintain the same effectiveness as when the machine was first put into service.

It is designed for plant and machinery in which:

- Safety systems are present but difficult to monitor over time;
- It is necessary to identify software modifications or unauthorised changes;
- It is desired to intercept an anomaly before it becomes a plant shutdown or an accident;
- Safety must be managed as a continuous process, not as an occasional verification;
- It is necessary to save critical data and compliance documents in a certified and protected environment.





What it observes and makes visible

The software continuously monitors the risks of the production process, makes anomalies visible, records events and transmits critical ones to the SECURE **safe** platform.

In particular, it enables:

- Observation of the actual behaviour of safety functions over time;
- Detection of operational anomalies, inconsistent use or device bypassing;
- Identification of functional degradation signals before they become critical;
- Tracking of software modifications, installed versions and interventions on control systems;
- Generation of targeted notifications;
- Archiving with cryptographic integrity mechanisms on blockchain;
- Ensuring traceability, immutability and technically verifiable evidence over time.

An operational tool for:

- Supporting OEMs in post-sale monitoring and the evolutionary management of machines;
- Providing HSE managers and employers with objective evidence of the actual status of safety functions;
- Reducing technical uncertainty in the management of modifications and interventions;
- Preventing events through early detection of weak signals.

The result is an objective, documented and consultable view of machine safety throughout its life cycle. Safety thus becomes an observable and manageable datum, not a presumed condition.



SOFTWARE APPLICATIONS FOR INDUSTRIAL SAFETY



SECURE-SAFE SECURE AND VERIFIABLE MANAGEMENT OF SAFETY EVIDENCE

SECURE-SAFE is the platform that protects, preserves and makes verifiable over time the critical data generated by safety function monitoring systems such as C-MON-SAFE, transforming them into traceable and verifiable evidence. In the life cycle of a machine, events, interventions and modifications leave traces that become decisive when it is necessary to reconstruct what happened, when and under what operating conditions. Documents, data, logs, records and software versions must remain available and consistent over time, with guarantees of integrity and traceability. SECURE-SAFE is a solution designed to collect and preserve in a safe and verifiable manner the evidence linked to industrial safety, making it consultable, traceable and defensible over time.

Safety Traceability — In Time and in Fact

In day-to-day work, information becomes dispersed: documents in different folders, unrelated events, files updated without trace, videos and data archived inconsistently. If an objective reconstruction is required, the company risks having to work from memory, precisely at the most critical moment.

SECURE-SAFE is a solution that transforms data, documents and events into an orderly, consultable and verifiable asset.

It is designed for contexts in which:

- It is necessary to preserve technical and documentary evidence linked to safety;
- It is desired to track interventions, modifications and versions over time;
- It is necessary to ensure integrity, traceability and availability of data in the cloud;
- There is a need to reduce uncertainty and consequences in the event of a critical incident or accident;
- Safety must be managed as a continuous process, not as a point-in-time check.





What it collects and makes verifiable

SECURE **safe** manages documents, events, data and records relevant to industrial safety, making them available in the cloud with controlled access.

In particular, it enables:

- Archiving of documents, events, video and information relevant to safety;
- Ensuring data integrity through registration of fingerprints (hash) on blockchain;
- Protecting content with blockchain encryption and access control;
- Managing multi-tenant environments with logical isolation of clients and sub-clients;
- Natively integrating data from C-MON safe for machine events and telemetry;
- Accessing and integrating information via graphical interface (Secure Safety Hub) or secure REST APIs.

NOTE: The result is a well-organised, verifiable and accessible system that ensures the reliability of the data over time.

An operational tool for:

- Supporting technical and documentary management of safety;
- Ensuring traceability of events, interventions and software versions;
- Preserving evidence usable in audits, inspections and critical situations;
- Reducing legal consequences in the event of an accident.

Evidence consists of verifiable and defensible data, not an uncertain after-the-fact reconstruction.



SAFETY RETROFIT

SAFETY UPGRADE OF MACHINERY IN ACCORDANCE WITH THE DETAILED ENGINEERING PROJECT

In machinery in operation, technical modifications, production updates and regulatory compliance may make it necessary to intervene directly on the machine to restore its safety level to appropriate and verifiable standards. In these contexts, the designed solutions must be translated into concrete interventions, integrated into existing systems and compatible with the plant's operational requirements. Safety retrofit allows the upgrades defined in the Detailed Engineering Project to be implemented in a structured manner, coordinating supply, installation, integration and commissioning of safety solutions.



SITUATIONS WHERE THIS IS REQUIRED

The service is indicated when:

- An existing machine must be upgraded to meet applicable safety requirements;
- Technical solutions have been defined within a Detailed Engineering Project;
- It is necessary to support work on machinery in operation whilst minimising production downtime;
- Coherence between design, implementation and commissioning must be ensured.



HOW THE ACTIVITY IS CONDUCTED

The activity comprises the complete implementation of upgrading interventions, including:

- Manufacture and installation of safety guards, including fixed and movable guards at the machine, perimeter guards in steel, stainless steel or aluminium, soundproofed enclosures, laser guards and motorised or pneumatically actuated safety doors;
- Procurement and supply of electrical safety components, such as sensors, interlocking devices, photoelectric barriers, laser scanners and safety devices;
- Construction of electrical safety cabinets and control panels;
- Integration of safety components on electrical, pneumatic and hydraulic systems;
- Mechanical installations carried out by teams of specialist fitters;
- Installation of command, control and automation systems;
- Programming and integration of control systems and safety PLCs;
- Start-up and functional testing of the system;
- Training of machine operators and maintenance personnel;
- Preparation and delivery of project documentation.

NOTE: The intervention is managed by a dedicated Accessafe Project Manager and planned via a Gantt chart for maximum control of timescales, reduction of machine downtime and cost optimisation.



WHAT WE DELIVER

- The safety system implemented and integrated on machinery in accordance with the Detailed Engineering Project;
- The plant started up and functionally tested;
- Updated project documentation delivered to the client;
- Operational training for machine operators and maintenance personnel.

MECHANICAL EQUIPMENT UPGRADE

GUARDS, PROTECTIVE DEVICES AND MECHANICAL SAFETY INTERVENTIONS ON MACHINERY

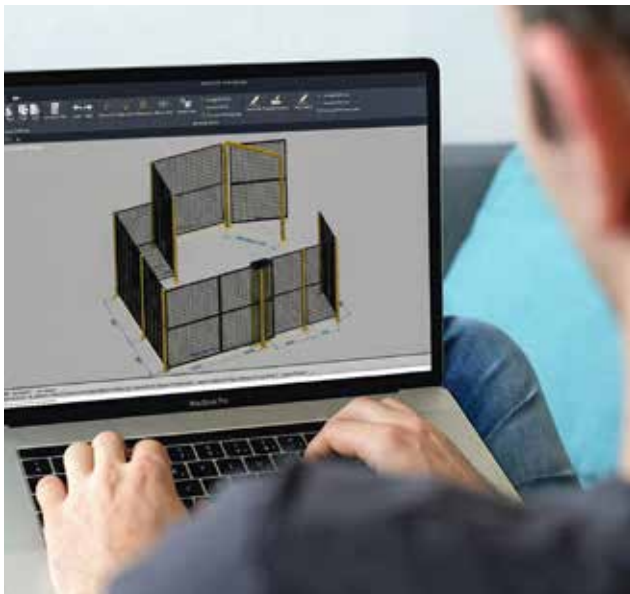
In existing industrial machinery, modification, revamping or update interventions may require the upgrade of guards and mechanical safety elements. Guards, closures and access systems must be consistent with the actual operating conditions of the machine and correctly integrate with existing safety devices. The service enables targeted interventions on safety guards and structures, ensuring operational continuity and consistency with the defined technical solutions.



SITUATIONS WHERE THIS IS REQUIRED

The service is indicated when:

- It is necessary to upgrade guards and mechanical protective devices on existing machines;
- Interventions are required on plant subject to revamping or functional modifications;
- New protective devices must be integrated with existing safety systems;
- Mechanical interventions are required, carried out safely and to a professional standard.



HOW THE ACTIVITY IS CONDUCTED

The activity comprises structured mechanical interventions, including:

- **Manufacture and installation of safety guards**
Design and manufacture of fixed and movable guards at the machine, perimeter guards in steel, stainless steel or aluminium, soundproofed enclosures and laser guards, consistent with the plant's operating conditions.
- **Installation of access systems and safety closures**
Installation of motorised horizontal or vertical sliding or roller-shutter doors, with motorised or pneumatic actuation, integrated with the machine's safety systems.
- **Specialist mechanical installations**
Execution of mechanical installations by teams of specialist fitters, with integration of guards into existing systems and coordination with electrical and automation activities.

Any mechanical adjustment changes the exposure



WHAT WE DELIVER

- Mechanical guards and protective devices installed and integrated on the machinery;
- Access and safety closure systems in correct working order;
- Mechanical interventions carried out to a professional standard and consistent with the technical project;
- CE Declaration for the product as a safety component

ELECTRICAL EQUIPMENT UPGRADE

SAFETY CONTROL PANELS AND CABINETS: UPGRADE, VERIFICATION AND SCHEME UPDATES

Upgrading electrical equipment is an essential activity to ensure that electrical cabinets and safety control panels of machines are consistent with applicable safety requirements and the actual status of the plant. Through design, manufacture and upgrade of control panels, electrical safety testing and updated scheme surveys, we ensure regulatory compliance, operational reliability and full technical traceability over time.



SITUATIONS WHERE THIS IS REQUIRED

The service is indicated when:

- It is necessary to manufacture or upgrade electrical cabinets and safety control panels following modifications, revamping or safety interventions;
- Conformity of machine electrical equipment with applicable regulatory requirements must be verified;
- Verification of equipotential circuits and stopping times of safety devices is required;
- Existing electrical documentation is incomplete, obsolete or not aligned with the actual status of the plant;
- It is necessary to restore order and traceability in support of maintenance, technical audits or future upgrade interventions.



HOW THE ACTIVITY IS CONDUCTED

The activity is structured in distinct technical services, which may be activated individually or as part of an integrated intervention:

- **Manufacture and upgrade of safety electrical panels**
Design, manufacture and upgrade of electrical panels and safety control systems based on Safety PLC architectures and certified logic, complete with installation, testing and commissioning. Revamping interventions and hardware and software updates are included.
- **Verification of equipotential circuits and stopping times**
Execution of electrical tests provided for by IEC/EN 60204-1 and IEC/EN 61439-1/-2 using certified instrumentation, with validation of protection circuit continuity, dielectric strength and protection against indirect contact, and preparation of the technical test report.
- **Survey and preparation of electrical diagrams**
Field survey and design of functional, circuit and interconnection diagrams, compliant with IEC/EN 60204-1, IEC/EN 61439-1/-2 and EN ISO 13849-1/-2 guidelines, in support of maintenance, audits and future interventions.

“**Electrical reliability affects safety**”



WHAT WE DELIVER

- Safety electrical panels and control systems upgraded, installed and tested;
- Electrical tests carried out and validated in accordance with applicable standards;
- Technical test report with test results and indication of any non-conformities;
- Updated electrical diagrams and complete documentation for maintenance, audits and future interventions.

SAFETY SOFTWARE DEVELOPMENT AND INTEGRATION

SAFETY PLC PROGRAMMING AND SAFETY LOGIC FOR MACHINES AND INDUSTRIAL LINES

In automatic machines and industrial production lines, safety functions must be implemented coherently with the control architecture and applicable regulatory requirements. Incomplete, non-integrated or incorrectly structured logic can compromise the reliability of the plant and the manageability of safety over time. The safety software development and integration service translates design requirements into safety-oriented control logic, correctly integrated into the machine's automation systems.



SITUATIONS WHERE THIS IS REQUIRED

The activity is indicated when:

- It is necessary to develop or update safety logic on Safety PLCs;
- Interventions are required on new, modified or revamped machines or lines;
- Safety functions must be integrated into existing control architectures;
- Coherence between defined safety requirements and software implementation is required.



HOW THE ACTIVITY IS CONDUCTED

The safety software development activity comprises:

- **System analysis and architecture**
Analysis of required safety functions and definition of the Safety control system architecture, consistent with design and regulatory requirements.
- **Safety PLC software development**
Programming of safety logic on PLCs and certified systems, with a safety-oriented approach and correct integration into the machine and plant architecture.
- **Integration, testing support and commissioning**
Support for technical documentation, verification of correct behaviour of safety functions and assistance during the system testing and start-up phases.

NOTE: The development activity is carried out in continuity with safety requirements defined at design level, maintaining a clear separation between analysis, implementation and verification.



WHAT WE DELIVER

- Safety PLC software developed and integrated into the control system;
- Safety logic consistent with applicable design and regulatory requirements;
- Technical support during testing and commissioning phases;
- Technical documentation in support of the safety software.

SAFETY SOFTWARE VALIDATION

FUNCTIONAL AND REGULATORY VERIFICATION OF SAFETY FUNCTIONS ON PLCs AND PROGRAMMABLE SYSTEMS

In industrial automation systems, the development of safety software is not sufficient to guarantee that safety functions operate correctly under actual conditions of use. Implementation errors, inconsistencies between requirements and programmed logic, or lack of traceability can compromise regulatory compliance and the overall reliability of the system.

Safety software validation allows structured verification that safety functions are designed, implemented and tested in conformity with applicable standards.



SITUATIONS WHERE THIS IS REQUIRED

The activity is indicated when:

- Safety functions managed by PLCs or safety relays are present;
- Compliance with EN ISO 13849, EN IEC 62061 or IEC 61508 is required;
- Coherence between risk analysis, specifications and implemented software must be verified;
- Objective evidence is required for conformity, audit or CE marking purposes.



HOW THE ACTIVITY IS CONDUCTED

Validation is carried out in accordance with a structured methodological approach based on the V-model, and comprises the following phases:

• Analysis of safety requirements

Review of the functional requirements of safety functions, identification of required levels (PLr or SIL) and verification of traceability between risk analysis, specifications and software implementation.

• Preliminary software review

Analysis of programmed logic (Ladder, FBD, ST), verification of correct parameterisation of safety hardware, review of the use of certified libraries and correct implementation of prescribed safety functions.

• Software life cycle management review

Verification of version management, traceability of modifications and alignment of the software life cycle with the practices and requirements stipulated by applicable standards.

• Tests, simulations and functional trials

Execution of functional tests on site, verification of installation of safety devices, testing of interlocking logic, verification of stopping times and robustness tests, including correct management of faults and restarts.



WHAT WE DELIVER

- Preliminary review report indicating any modifications required prior to on-site tests;
- Full validation report, comprising regulatory checklists and test records;
- Documented evidence of any non-conformities and recommendations for their resolution.





INTEGRATED MAINTENANCE AND TRACEABILITY SERVICE

ONGOING MANAGEMENT OF SAFETY SYSTEMS AND TECHNICAL DOCUMENTATION

The integrated maintenance and traceability service enables the safety systems installed on industrial machines and plant to be managed over time, maintaining their efficiency, reliability and regulatory compliance throughout the entire life cycle. Maintenance activities are accompanied by a structured documentary management system via the dedicated SECURE safe portal, which allows the client to collect, organise and keep up to date the technical information associated with each machine.

With this integrated approach, maintenance becomes a tool for the continuous governance of safety, in conformity with machinery safety regulations including **Machinery Directive 2006/42/EC**, EN ISO 13849-1/-2, IEC 60204-1 and related functional safety standards.



SITUATIONS WHERE THIS IS REQUIRED

The service is indicated when:

- It is necessary to ensure the efficiency and reliability of safety systems installed on machines and plant over time;
- It is desired to maintain constant regulatory compliance, avoiding purely reactive or undocumented interventions;
- Periodic inspection of mechanical, electrical and fluid safety components is required;
- Timely identification of anomalies, wear or critical components subject to replacement is necessary;
- Safety technical documentation is scattered, not up to date or difficult to locate;
- Complete traceability of maintenance activities is required, useful in the event of audits, inspection checks or incidents.



HOW THE ACTIVITY IS CONDUCTED

The service provides for inspection and functional verification of the main safety components installed on each machine

Activities include:

- Visual inspections of safety devices;
- Instrumental measurements;
- Operational tests on safety systems;
- Identification of anomalies, wear phenomena and critical components subject to replacement.

NOTE: At the conclusion of each intervention, a detailed technical report is prepared documenting the checks carried out, highlighting any non-conformities found and providing operational guidance for corrective interventions or component replacement.



WHAT WE DELIVER

- Safety maintenance technical reports with evidence of checks carried out and results found;
- Operational guidance for corrective interventions or replacement of safety components;
- Complete traceability of maintenance activities performed.



Activation of the service includes access to the SECURE **safe** software portal, for the centralised management and archiving of technical documentation associated with each machine, including: Declarations of Conformity, operating and maintenance manuals, operational procedures and safety instructions, maintenance schedules and deadline records, and personnel training certificates.

ACCESSAFE ACADEMY AND PERSONALISED TRAINING

COMPETENCE, METHOD AND RESPONSIBILITY IN THE SAFETY OF MACHINERY AND PLANT

The safety of machinery is a system that is built over time. It works when technical solutions, processes and the competence of people are aligned and clearly governed. Training is an integral part of this system and forms part of the Accessafe method as a tool for disseminating operational expertise, shared decision-making criteria and technical responsibilities within the organisation. Accessafe Academy was created to support companies, designers and end users in the concrete application of the regulatory and technical requirements relating to the safety of machinery and industrial plant.

A STRUCTURED AND UPDATED TRAINING OFFERING

The Academy offers a catalogue of courses dedicated to the principal areas of industrial safety, with particular attention to applicable regulations and their developments.

Courses cover topics such as:

- The **New Machinery Regulation (EU) 2023/1230**;
- Functional safety in accordance with EN ISO 13849-1;
- Validation processes compliant with EN ISO 13849-1 and EN ISO 13849-2;
- Other technical references relevant to the design, use and maintenance of machinery.

TRAINING FOR DIFFERENT ROLES AND CONTEXTS

Courses are aimed at:

- Machine and industrial plant designers;
- End users and plant managers;
- Maintenance personnel, technical managers and HSE professionals.

NOTE: Content is calibrated according to role, level of responsibility and operational context, to ensure genuinely applicable learning for day-to-day activities.

“**Staff training is an integral part of safety**”



PERSONALISED AND OPERATIONALLY FOCUSED TRAINING

In addition to catalogue courses, Accessafe Academy develops personalised training pathways tailored to the client's operational requirements. Content is calibrated to the sector, machines and company processes, and may integrate design and analysis activities, maintaining continuity between training and safety management.

EXPERT LECTURERS AND PRACTICAL APPROACH

Training is delivered by professionals who work daily in the design, verification and management of machinery safety.

The approach directly connects regulatory requirements, design decisions and actual plant use, with attention to technical decisions that affect operational performance.

TÜV RHEINLAND QUALIFICATION IN INDUSTRIAL SAFETY



Industrial Safety Professional®
Certified Qualification

CERTIFIED INDUSTRIAL SAFETY PROFESSIONAL® COURSE

The Industrial Safety Professional® programme is an intensive one-day course that concentrates the fundamental knowledge for the management of safety in the industrial context, offering a cross-cutting and structured overview of the principal application areas.

The programme covers key topics in road and pedestrian safety, industrial machinery, lifts, energy plant and ATEX environments, providing participants with an integrated understanding of risks and prevention measures.

INTENDED AUDIENCE

The course is designed for professionals working in complex industrial contexts, including:

- HSE managers;
- Technicians and maintenance personnel;
- Designers and consultants;
- Co-ordination and management figures in the area of safety.

NOTE: It is suitable for those who require a comprehensive and up-to-date overview of industrial safety, useful for guiding technical and organisational decisions.

APPROACH AND CONTENT

The programme provides clear and concrete guidance for:

- Understanding the applicable regulatory framework;
- Recognising the principal critical issues affecting plant and working environments;
- Correctly interpreting risks across different industrial areas;
- Establishing coherent and sustainable safety improvement strategies.

NOTE: The approach is practical and focused on operational reality, with examples and case studies that facilitate application of concepts in day-to-day safety management.



TÜV Rheinland Certification

The Industrial Safety Professional® qualification is certified by TÜV Rheinland, an internationally recognised certification body. The certification represents a formal and qualifying reference for the professional development of participants.



PARTNER FOR INTEGRATED SERVICES FOR MACHINE AND PLANT SAFETY

We support companies in managing **the safety of machinery** and production lines throughout every phase of the life cycle.

We work with machine builders and end users, **integrating regulatory, engineering and operational expertise to ensure compliance, production continuity and safe, sustainable working environments.** Every intervention is designed taking into account the actual context of use, production processes and the organisational requirements of the client.

WE BUILD SAFETY

ACCESS SRL

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