

Machinery Safety for Industries

Ensuring and improving the safety of machines is an integral part of sustainable operations.

Safe machinery protects workers from accidents and illness, reduces absenteeism and costs, and improves productivity. Taking care of the safety and compliance of the machines can also reduce insurance premiums and possible legal costs.

With the help of AFRY's machinery safety experts, the client ensures that new, modernised machines already in use are safe to use and meet the requirements. AFRY provides machine safety services to, among others, machine builders and designers, production facilities and employers. We help to identify the hazards associated with machines and to find suitable safety solutions for both new and existing machines.

Our experienced machinery safety experts know the machinery safety responsibilities associated with industrial plant projects and use their expertise to ensure that the necessary measures are taken in accordance with the requirements and on time. With the help of functional safety services, the contribution of the safety-related control systems to risk reduction as part of the overall safety of the machine can be guaranteed.



Machinery safety in projects

Examples of our machine safety services:

- Machinery safety management during the project and support to the project organisation
- Procurement of machinery - AFRY's experts help to identify the obligations arising from the procurement of machinery to the client, to prepare documentation related to the procurement to ensure the safety of machinery and the division of responsibilities and to assist in the procurement of machinery
- Services related to the CE marking of machinery and assemblies of machinery
- Risk assessments of machinery and/or assemblies of machinery, e.g. risk assessment according to standard ISO 12100
- Risk assessments in accordance with the occupational health and safety laws and regulations
- Training for machine operators and other personnel

Machinery safety in workplaces

- The employer is responsible for the safety of the machines in use. With the help of AFRY's machinery safety experts, the client is ensured that the machines meet the requirements and, if necessary, receive solutions to improve the level of safety.
- Risk assessments for machines and the work environment in which the machines are used
- Independent machinery safety audits
- Assessing the safety level of the machinery and recommending protective measures
- Training for machine operators and other personnel
- Consultancy services for the purchase of machines and machine lines



Machinery safety and Machinery safety modifications

Assessing the risk of the machinery and ensuring compliance is an essential part of modernizing or modifying the machine and is a prerequisite for the safe operation of the machine after modernization and renewal

- Machinery safety management during the project and support to the project organization
- Assessing the need for CE marking, e.g. substantial change
- Assessing the safety level of the machinery and recommending protective measures
- Machinery risk assessments during the project, e.g. risk assessment according to standard ISO 12100
- Final inspection of the machine to ensure safety
- Training for machine operators and other personnel

Functional safety of machinery

Safety-related control systems for machinery perform safety functions specified in the risk assessment in order to reduce risks. Hazardous movements can be protected, for example, by an interlocking guard, which sends a stop command if the guard is opened during the operation of hazardous movements. AFRY helps to ensure the suitability of safety functions and that functional safety processes comply with relevant standards.

Examples of AFRY's functional safety services:

- Review of functional safety processes
- Design of safety functions from component selection to the control logic of safety functions
- Creating safety function specification documents
- SISTEMA calculations
- Validation activities such as creating an analysis and test plan
- Training for machinery designers and other personnel

AFRY Machinery Safety Management Plan

AFRY Machinery Safety Management Plan is a comprehensive service that helps you achieve the machinery safety objective of ensuring that your machinery is safe to use and operate and compliant with all the applicable laws, standards and other requirements. In addition, the plan provides guidance on how to manage the machinery safety compliance and CE marking process in a structured way, and how the risks associated with machinery shall be identified and mitigated.

Only identified responsibilities can be managed

AFRY Machinery Safety Management Plan defines the organisation and responsibilities of the project team members involved in machinery safety, and the related regulatory legislation that sets the requirements for safety and health in the workplace.

Our process industry technology experts will prepare the AFRY Machinery Safety Management Plan and carry out the determination of responsibilities regarding machinery safety, compliance and CE marking. This plan can be used from the concept study to the project implementation phase. With AFRY's Machinery Safety Management Plan, you can rest assured that your machinery will be safe and compliant throughout the project life cycle.

Read more about [AFRY Machinery Safety Management Plan](#)



AFRY is a European leader in engineering, design, and advisory services, with a global reach. We will accelerate the transition towards a more sustainable society. We are 18,000 devoted experts in digitalisation and the fields of infrastructure, industry and energy, creating sustainable solutions for generations to come.

Contact us

Anna Savunen
anna.savunen@afry.com

www.afry.com

