



► Industrial Security

Because safety is what matters

PILZ
THE SPIRIT OF SAFETY

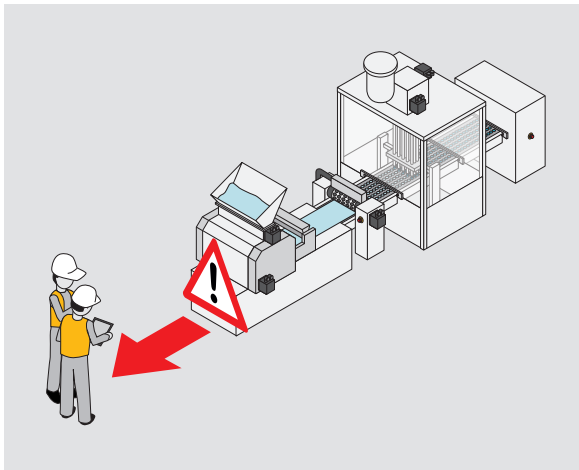


► Machinery Safety and Industrial Security

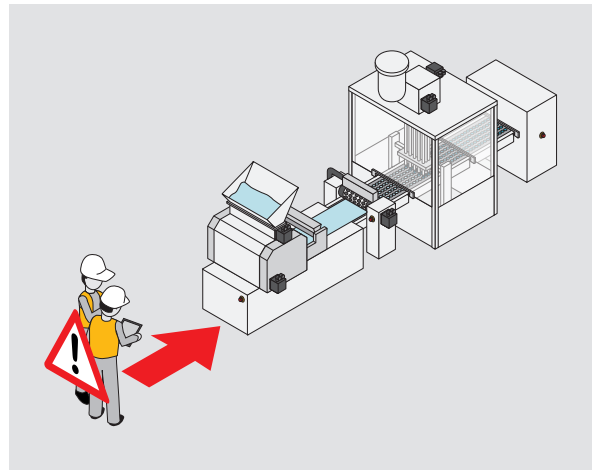
An important relationship with far-reaching consequences

In addition to Machinery Safety, Industrial Security is also becoming increasingly important. The focus is no longer only on protecting employees from hazardous machinery, but also on protecting machinery from manipulation, for example through cyber attacks. Digitisation and networking lead to new vulnerabilities that can cause economic and physical harm.

Areas in plant and machinery particularly in need of protection must be secured to prevent unwanted access to the control network. Security loopholes can lead to accident risks, loss of quality or production downtimes. Both aspects – Safety and Security – are necessary for the safe handling of machinery in production.



Safety: protection against machinery



Security: protection for machinery



Safety and Security – a holistic approach

Thanks to our many years of experience in Machinery Safety, we know exactly how to combine safety and industrial security into a powerful, seamless concept. A comprehensive understanding of a machine's safety functions is essential for defining the right protective measures. Complete machine protection can only be achieved when both perspectives work together harmoniously. Safety and security should therefore always be considered together.

Good to know:

Pilz verifies compliance with standards in both safety and security – for every piece of machinery and in every environment.



Find out more
about our approach!

www.pilz.com/safety-security

► Industrial Security – right from the start

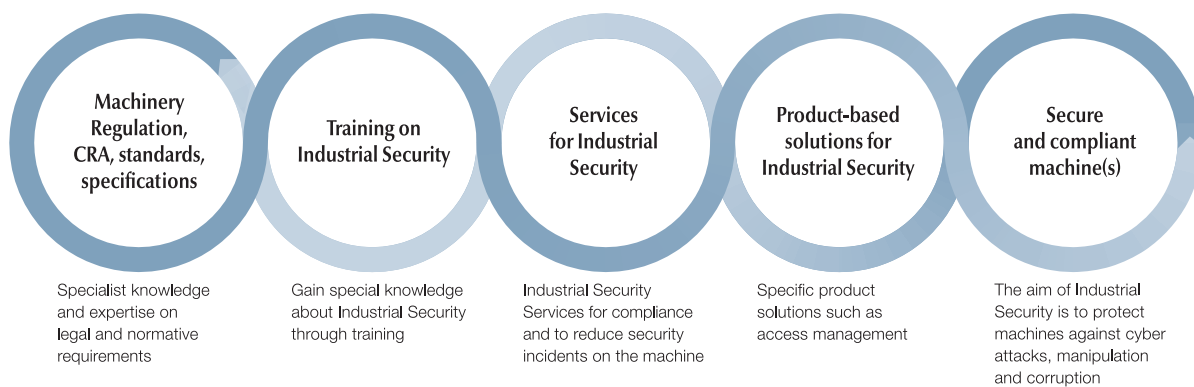
Industrial Security plays a crucial role in guaranteeing reliable machinery safety and efficient production. Identifying vulnerabilities at an early stage helps to prevent unauthorised access to or tampering with machinery.

To minimise risks from the outset, Industrial Security should be integrated into the overall design of the machinery as early as the planning and design phase.

It also plays a key role for the operating personnel and helps to ensure safety, as well as uninterrupted and sustainable plant operations every day.

Protect your machinery against tampering!

At Pilz, we support you with bespoke solutions at every stage of your Industrial Security implementation – ensuring protection, reliability and long-term success.



Good to know: Industrial Security is set to become mandatory in Europe

In Europe, safety and security have been closely linked by new regulations such as the NIS 2 Directive, the EU Machinery Regulation and the Cyber Resilience Act (CRA). This makes an Industrial Security risk assessment mandatory for companies, machinery and products that incorporate digital elements. From 2027, machinery that does not comply with these requirements may no longer be placed on the market in the EU. You can find relevant training courses at www.pilz.com/trainings.

Further information:



Everything you need to know about the EU Machinery Regulation:
www.pilz.com/mr



Important information regarding standards and guidelines in the field of Industrial Security:
www.pilz.com/security

► Fundamentals of Industrial Security

Knowledge protects! Build up your security expertise. For greater Safety.



Fundamental



Are you ready? Step into the world of Industrial Security:

Cyber-attacks, OT security, new requirements – right now is the time to be smart and plan ahead:

Learn the essentials in the training “Fundamentals of Industrial Security” from Pilz now and protect yourself and your machines from manipulation and cyber-attacks at the machine production level.

Digitisation, networking of machinery and digital elements in automation require Industrial Security to be considered in order to protect machinery. The aim of this training is to build up basic knowledge of Industrial Cyber Security: Basic terminology, concepts and regulatory requirements enable participants to access the subject through clear, practical examples, and communicate basic specialist knowledge of cyber security in the machinery sector.

Your benefits at a glance

- Quick introduction to the subject of Industrial Security
- Compact knowledge-building on terminology and requirements
- Understand cyber-security in the context of machinery and network security
- Best practices for understanding cybersecurity risks in in-house production

This Industrial Cyber Security Training provides an optimum basis for acquiring the knowledge needed to improve the security of your own industrial plant and machinery.

Further information on Industrial Security training courses can be found on our website at:
www.pilz.com/security-trainings

Fundamentals of Industrial Security

Training Details

Duration of the training

1 day online or on-site format

Contents

- ▶ Introduction to Industrial Security
 - Differences between Operational Technology (OT) and Information Technology (IT)
 - Defence in Depth
 - Overview of assets
 - Machinery Safety and Industrial Security
 - Different attacker groups
 - Malware in general
- ▶ Fundamentals of network security
 - Types of networks, devices and industrial protocols
 - Network segmentation
 - Difference between secure and unsecure communications
- ▶ Threats, protective measures and best practice
 - Possible threat scenarios and best practices
 - Cyber Kill Chain framework
 - General weaknesses and specific vulnerabilities
- ▶ Legislation and standards
 - EU Machinery Regulation
 - Cyber Resilience Act (CRA)
 - NIS 2 Directive
 - Relevant legislations from outside EU
 - Overview of Industrial Security standards
 - Foundations of IEC 62443
 - Introduction to EN 50742
 - Introduction to ISO 27000
- ▶ Impact of cyber-attacks on OT systems
- ▶ Basics of security risk assessment

Target Groups

This training is aimed at all employees of machine manufacturers, integrators and operators who are looking for an introduction to the subject of Industrial Security. The training is particularly suitable for those who are responsible for Machinery Safety in day-to-day operations, such as:

- ▶ Design engineers
- ▶ Project managers
- ▶ Planners
- ▶ System integrators
- ▶ Safety officers
- ▶ Production managers/those responsible for production
- ▶ Those responsible for upgrades and maintenance of plant and machinery
- ▶ Technical purchasers

Sign up now –
because knowledge
protects!



Online information
at [www.pilz.com/
security-trainings](http://www.pilz.com/security-trainings)



► CESA – Certified Expert for Security in Automation

Empowerment for Industrial Security in Automation



Threats in the form of cyber attacks on the industrial environment of businesses are constantly on the rise, presenting a major challenge for so-called Industrial Security. This describes the protection of the machine from people, e.g. through cyber attacks, manipulation or even incorrect operation. It is becoming more and more important to not only take into account the Safety but also the Security of plants and machinery. It was specifically for these challenges that we designed the “CESA – Certified Expert for Security in Automation” qualification.

Your benefits at a glance

- The qualification teaches comprehensive specialist knowledge of normative requirements, the basics of risk assessment and technical and organisational security measures in the industrial environment.
- You will learn the correct application and implementation of the standard IEC 62443 and which requirements machinery must fulfil to meet modern Industrial Security standards.
- We'll show you how you can assess and optimise your machinery in terms of cyber security.
- Deepen your knowledge of the management of security risks arising from the networking and application of IT and industrial machinery in the production hall.
- The compact design of the course and content built on prior knowledge enables certification within just two days.
- When you pass the test, you will receive the globally recognised TUV NORD “CESA – Certified Expert for Security in Automation” certificate that verifies your qualification.

TÜVNORD

CESA – Certified Expert for Security in Automation

Training Details

Duration of the training

2 days online or on-site format

Contents

- ▶ Introduction
 - Introduction to Industrial Security
- ▶ Legislation
 - Overview of International Legislation
 - Machinery Regulation (MR)
 - Cyber Resilience Act (CRA)
 - NIS 2
- ▶ Standards
 - Overview of International Security Standards.
 - Basics of IEC 62443 as the central framework for Industrial Security (IACS Lifecycle, Responsibilities/Conformity)
- ▶ Roles and responsibilities of Operator, Integrator and Manufacturer in the context of IEC 62443 and regulatory requirements
 - Operator related standards for OT security management, governance and continuous risk management:
 - ISO 27000
 - IEC 62443-2-1, -2-2
 - Manufacturer related standards for secure product development, technical security requirements and protection against corruption:
 - IEC 62443-3-3, -4-1, -4-2
 - EN 50742
 - Integrator related standards: Security Program requirements and methodology for Service Providers:
 - IEC 62443-2-4, -6-1
- ▶ Risk Assessment (detailed review)
 - Security Risk Assessment requirements from Legislations (NIS 2, CRA, MR)
 - Different types of Security Risk Assessments in accordance with Standards
 - Security Risk Assessment based on IEC 62443-3-2

Target Groups

The CESA certification is aimed in particular at manufacturers, integrators and users of industrial automation systems, as well as at:

- ▶ Plant engineers
- ▶ Construction engineers
- ▶ Design engineers
- ▶ Project engineers
- ▶ System integrators
- ▶ Production managers/those responsible for production
- ▶ Those responsible for upgrades and maintenance of plant and machinery
- ▶ Development managers
- ▶ Chief Information Security Officers (CISO)

Sign up now and become a CESA – Certified Expert for Security in Automation



Online information at www.pilz.com/cesa



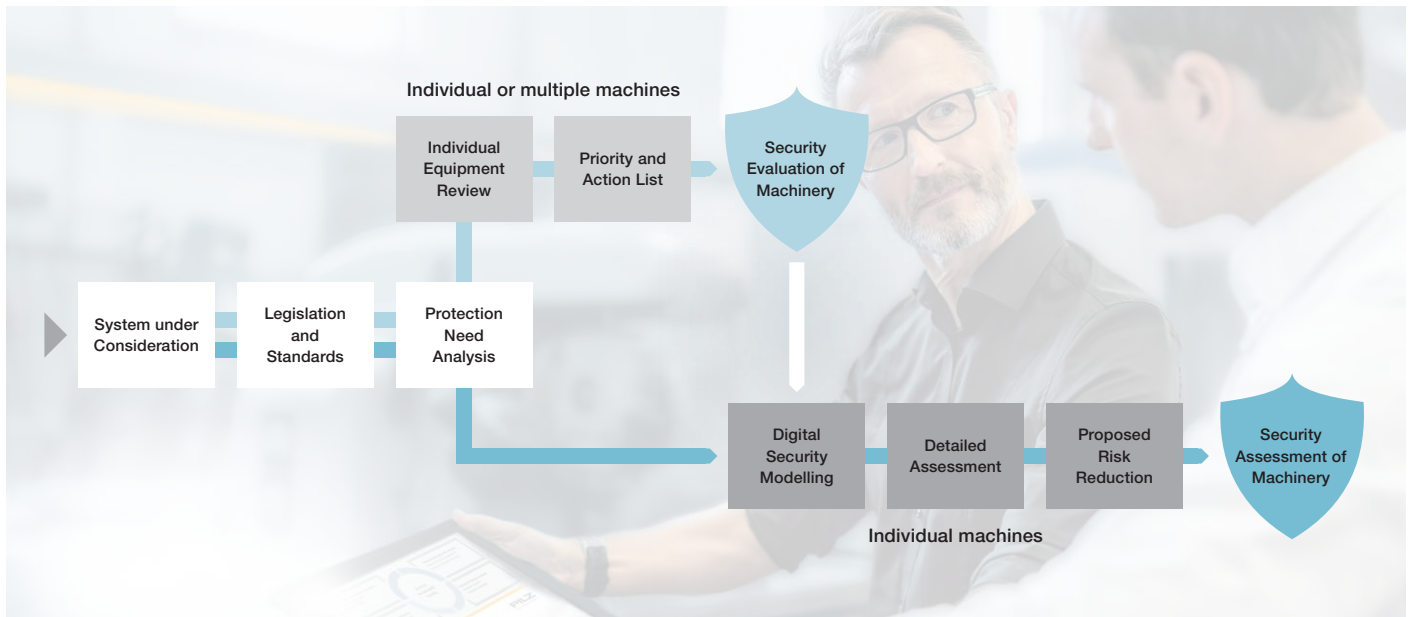
Your particular benefit: CESA was designed in cooperation with TÜV NORD

After successfully completing the test, you receive the globally recognised certificate that is issued by TÜV NORD as proof of your personal certification.

- ▶ The certificate is valid for four years and then can be extended for another four years by taking part in recertification training.
- ▶ The certification allows you to use the title “CESA – Certified Expert for Security in Automation”.

► Industrial Security Services

Be aware of the risks. Strengthen security. Protect what matters.
Your machinery. Our competence. Your guide to Industrial Security for machinery.



Pilz offers specialist Industrial Security services at various technical levels, helping manufacturers and end users identify, prioritise and assess threats and vulnerabilities – from individual pieces of machinery right through to the entire production facility. The main objectives are to ensure machinery safety and to comply fully with all relevant Industrial Security regulations.

Find out
more now!



Online
information at
www.pilz.com/iscs

Your benefits at a glance

- Protecting machinery safety against corruption and manipulation
- Greater efficiency thanks to improved protection against cyber attacks and incidents that disrupt production
- Safeguarding product integrity and data confidentiality
- Compliance with statutory and standard Industrial Security requirements
- Support for mandatory compliance with the EU Declaration of Conformity

► Security Evaluation of Machinery and Security Assessment of Machinery

Two services. Individually or as a powerful duo.



Security Evaluation of Machinery

Typical application scenarios:

Overview of the security status of existing machinery or when purchasing new machinery.

- Evaluation of the machinery's security status and identification of existing vulnerabilities
- Identification of critical components and evaluation of the associated safety risk based on impact and probability of occurrence
- Identification of significant safety gaps, including recommended risk reduction measures
- A concise, actionable report on the current security status
- Assessment of the need for action: are initial measures sufficient, or is a more in-depth security risk assessment required?

Security Assessment of Machinery

Typical application scenarios:

Highly networked machinery with a significant impact on safety and business continuity.

- In-depth, structured security analysis in accordance with IEC 62443
- Efficient process achieved using existing evaluation data (where available)
- Detailed examination of the machine to identify vulnerabilities and evaluate their impacts
- Precise deduction of targeted risk reduction measures through a detailed breakdown
- Providing concrete risk reduction strategies to protect machinery against cyber manipulation and strengthen Industrial Security

► Pilz Safety Solutions

Develop suitable safety strategies for your machines with Pilz. Our experienced safety experts will support you in optimising the safety of your machines and increasing the availability of your plants.



Safety for every phase of the machine life cycle

- Consulting and Engineering Services for building, operating and improving of machines
- Sensor and control technology – the safe complete solution for your machines
- Pilz training courses for expertise in your company
- MYZEL Lifecycle Platform for the management of your personnel and machine data



Talk to your
Pilz safety expert today!

www.pilz.com/safety-security

► Identification and Access Management – I.A.M.

From user authentication to operating mode selection or data and network security to access management.
We offer Safety and Security in one system!



Our Safety and Security product solutions

Discover our integrated Safety and Security solutions from the Identification and Access Management portfolio – I.A.M.! With tailored offers for employee protection, liability protection, maximum productivity and the protection of your data.

Learn more about I.A.M.



Online information at www.pilz.com/iam

