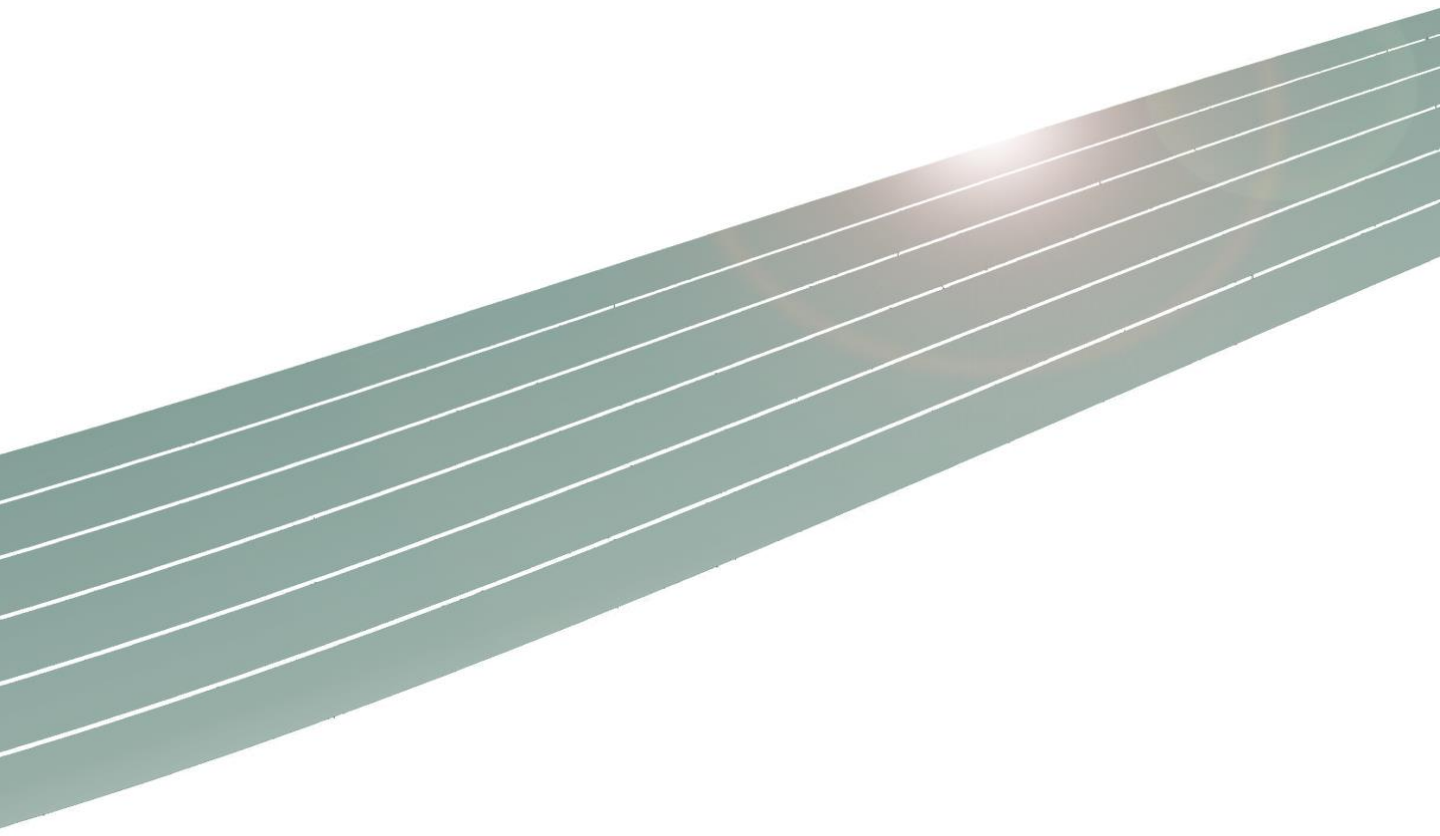
TRUST IN AUTOMATION

PRISMA®

Impianti



→ *Focus on Functional Safety*

Focus on Functional Safety

Safety is a must, not an option. We can find Functional Safety at the core of several EU Directives related to Machinery / ATEX / PED / Low Voltage / EMC.

Functional Safety means to conceive, design, build, install, maintain and dismiss a machine /system/plant, so that it always operates correctly in response to the variable inputs, including the safe management of likely operator errors, hardware failures and environmental changes.

Designing the Functional Safety of a new machine/ plant/system requires a wide array of technical knowledge and specific skills to balance safety standards and production needs. On top of that, working for the modernization and revamping of old machines/systems/plants requires people skilled not only in technical matters but also able to interact with the client and suggest new ways of doing things.

PRISMA Impianti expertise has been developed taking globally into account all aspects involved in Functional Safety.

Risk Analysis

Risk assessment according to EN ISO 12100 methods and pertinent type B/C norms) includes:

- Hazard identification
- Risk assessment (probability and magnitude of the event)
- Planning of the mitigation action
- Re- assessment of the risks

Accurate and detailed risk analysis is the starting point of any Functional Safety application. It is a must in the design phase for any new machine/plant as well as in any revamping/improvement of existing machines and production lines.

Safety Design & Implementation

Starting from the Risk Analysis, PRISMA Impianti design and implement a plan to reach the required safety level, both in terms of hardware as well as software.

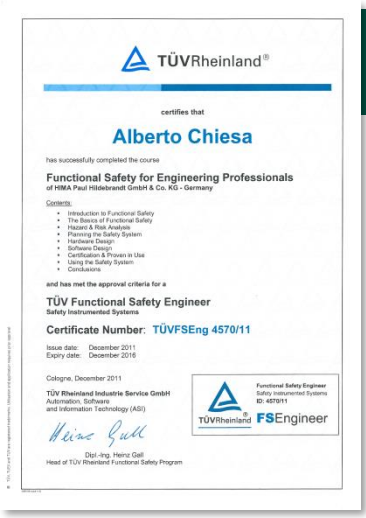
- Design of the Safety Functions according to EN 13849 (PL) or IEC/EN 62061 (SIL)
- Procurement of the required components from the main safety suppliers
- Execution of all the works in all the main disciplines (mechanical, instrumentation, electrical, software)

Validation & Integration

- Safety Functions Test and Validation
- Issuing/Check of Technical Files
- Issuing/Check of Manuals (User, Maintenance Operational)
- Operators Training
- CE Marking
- Follow-up with the pertinent Authorities.

PRISMA Impianti has all the skills and expertise to validate what is implemented (check if the original requirements are met and satisfied). Additionally, PRISMA Impianti can act as an integrator and coordinator for all those complex projects, where the safety design and implementation is shared form several actors.

Qualifications


TÜVRheinland®

certifies that

Alberto Chiesa

has successfully completed the course

Functional Safety for Engineering Professionals
of HIMA Paul Hildebrandt GmbH & Co. KG - Germany

Contents:

- Introduction to Functional Safety
- The Basics of Functional Safety
- Hazard & Risk Analysis
- Planning the Safety System
- Hardware Design
- Software Design
- Certification & Proven in Use
- Using the Safety System
- Conclusions

and has met the approval criteria for a

TÜV Functional Safety Engineer
Safety Instrumented Systems

Certificate Number: TÜVFSEng 4570/11

Issue date: December 2011
Expiry date: December 2016

Cologne, December 2011

TÜV Rheinland Industrie Service GmbH
Automation, Software
and Information Technology (ASI)

Dipl.-Ing. Heinz Gall
Head of TÜV Rheinland Functional Safety Program

Functional Safety Engineer
Safety Instrumented Systems
ID: 4570/11
TÜVRheinland® FSEngineer


Certificate

FS Eng (TÜV Rheinland)
Functional Safety Engineer (TÜV Rheinland)

Application Area	Safety Instrumented Systems
ID-No.	# 8334/ 14
Certificate Owner	Enrico Biglieri
	Italy
Course Provider	CTAI s.r.l. - Italy
Training Contents	Process Safety Risk / Layers of Protection International Safety Standards, Regulations, Enforcement Safety Integrity Level (SIL) Assignment Methodologies Safety Requirement Specifications (SRS) Development Safety Integrity Level (SIL) Verification Methodologies Management of Functional Safety SIS Design and Good Engineering Practices
Issue Date	April 2014
Expiry Date	April 2019
Validity	This certificate is valid for 5 years.

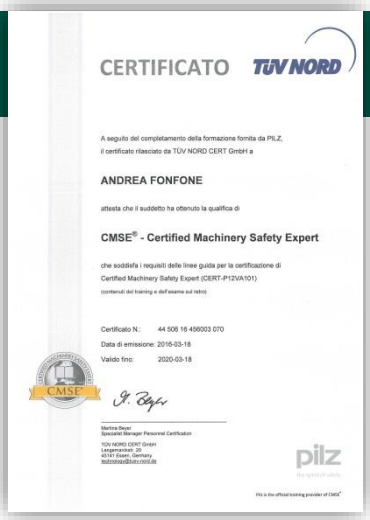
Cologne, April 2014 — Dipl.-Ing. Heinz Gall

TÜV Rheinland
Industrie Service GmbH
Automation and Functional Safety
Am Grauen Stein
51105 Cologne - Germany

Head of TÜV Rheinland Functional Safety Program

www.tuvasi.com

TÜVRheinland® Precisely Right.


CERTIFICATO TÜV NORD

A seguito del completamento della formazione fornita da PILZ,
il certificato rilasciato da TÜV NORD CERT GmbH a

ANDREA FONFONE

attesta che il suddetto ha ottenuto la qualifica di

CMSE® - Certified Machinery Safety Expert

che soddisfa i requisiti delle linee guida per la certificazione di
Certified Machinery Safety Expert (CERT-P12VA101)
(contenuti del training e dell'esame sul retro)

Certificato N.: 44 506 16 456003 070
Data di emissione: 2016-03-18
Valido fino: 2020-03-18

CMSE

Martina Beyer
Specialist Manager Personnel Certification
TÜV NORD CERT GmbH
Langemarckstr. 20
45141 Essen, Germany

pilz

This is the official training provider of CMSE®

PRISMA Impianti rigorous approach to safety relies on the Integrated Quality, Environment Health and Safety Management System according to ISO 9001, ISO 14001, BS OHSAS 18001.

PRISMA Impianti follows an approach of a continuous improvement process. Our engineers are trained and experienced in Machinery/ATEX/PED(Low Voltage/EMC directives application) and we schedule a yearly calendar of courses and workshops with the main safety players (e.g. TÜV, Siemens, Pilz, Pepperl + Fuchs, the Italian School for Radiation Protection) in ordere to assure the best knowledge of the legislative/normative and technologies.

TÜV Rheinland, widely recognized as certification body, certifies the expertise of our personnel.

Functional Safety according to one of the fathers of modern Industry

PRISMA Impianti fully endorses the wise words form Werner von Siemens, 1880:

"*The prevention of accidents should not be understood as a prescription of the law, but as an imperative dictated by moral and economic logic obligations.*"

Functional Safety offered by PRISMA Impianti is an important tool to help our customers achieve their goals of greater efficiency, greater productivity, optimizing the duration of corporate assets and improving internal satisfaction.

Functional Safety PRISMA IMPIANTI
in the Steel Industry and for non-Ferrous Metals

- Implementation of the Functional Safety of n. 3 hot dip galvanizing lines for the factory ILVA in Taranto and Genoa.
- The safety of n. 4 cutting lines for the factory ILVA in Novi Ligure (review of risk analysis of third parties, implementation of mitigation actions, staff training, final validation of the work by our internal body "Quality, Environment and Safety").
- Risk analysis and the issue of the Safety Concept for the output of the traverse line Temper80 and packaging coils line for the factory ILVA in Novi Ligure.
- Risk analysis, implementation of functional safety according to EN 746 and CE marking as a manufacturer for the modernization of a continuous annealing steel line AHSS for the factory SSAB. The safety functions handle the safe combustion and emissions of n. 233 internal-recovery burners.
- Risk Analysis, implementation of functional safety according to EN 746 and CE marking as a manufacturer for a new annealing line for high-resistance sheet metal for Trametal.
- Preliminary study for the safety of a pickling line for the factory ARVEDI in Cremona.
- Analysis review of third party risks and implementation of the Functional Safety n. 5 for a new paint line, n. 1 cleaning line and n. 1 for a coil coater of Aluminium and Carbon Steel mounted in Italy (c / o ARVEDI), Serbia, Belgium, Greece, Oman and Turkey.
- Analysis review of third party risks and implementation of Functional Safety for a new tension leveller in the exit section of the annealing line for ARCELOR MITTAL in Belgium.
- Risk Analysis, Implementation of Safety Functions, Validation and CE Marking as a manufacturer of the new locomotives system, unattended "man-less" hot area, for the factory ILVA in Taranto.
- Risk Analysis and issuing of the Safety Concept, validation of work performed by third parties and CE Marking as a "representative" of the client of n. 2 cranes for slag granulation c /o hot area for the factory ILVA in Taranto and chamfering unit for pipes /o pipe mill ILVA Taranto.
- Risk Analysis, implementation of mitigation measures and CE Marking as a manufacturer of the new Wet Rolls system, Heating furnace ZIN1 and the new section of cleaning input ZIN2 for the factory MARCEGAGLIA CARBON STEEL in Ravenna.

Functional Safety PRISMA Impianti for the Oil & Gas Applications

- Realization of a SIL 3 safety system for water injection wells for a mining camp in Iraq. The system is based on a SIL 3 ICSS controller and is equipped with a superior system for the monitoring of the conditions of all rotary machines.
- Implementation of a Leak-Break Detection System for the detection of leaks on the pipeline and the partitioning of segments affected by activating interception valves. The LBDS is mounted inside a heavy-duty conditioned shelter, powered by solar panels and equipped with anti-intrusion systems.
- Implementation of an Emergency Shut-Down System for a gas tanker LNG Portovenere.

Functional Safety PRISMA Impianti in the Chemical and Process Industry

- Revision and implementation of SIF (Safety Instrumented Functions) for securing the plants HF, Algofrene and Azeotropes, for an Italian factory of the world's leading company in the production of fluorinated polymers.
- Risk analysis, design and implementation of the Functional Safety of a new coagulation reactor for the production of fluorinated polymers. PRISMA Impianti has also provided the CE marking of the reactor as a "representative" of the manufacturer.

Functional Safety PRISMA Impianti in the "Mass Transportation" field

- Participation in the RAMS Analysis team (Reliability, Availability, Maintainability, Safety) according to EN 50126 for the underground of Copenhagen.
- Execution and implementation of RAMS analysis according to EN 50126 for diagnostics of the light rail line Zhuhai (PRC).
- Implementation of fire safety and anti-intrusion scenarios for the new Metro line C Rome.

Functional Safety PRISMA Impianti in the aeronautical field

- Analysis review of third party risks and implementation of Functional Safety n. 12, tests for aeronautical engines and other avionics components for one of the world's leading companies in the industry.
- Analysis review of third party risks and implementation of Functional Safety for chromate magnesium alloys lines and copper removal for aeronautic components.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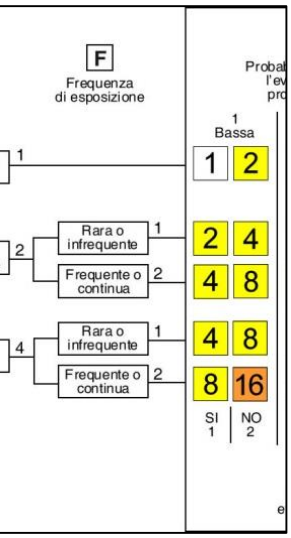
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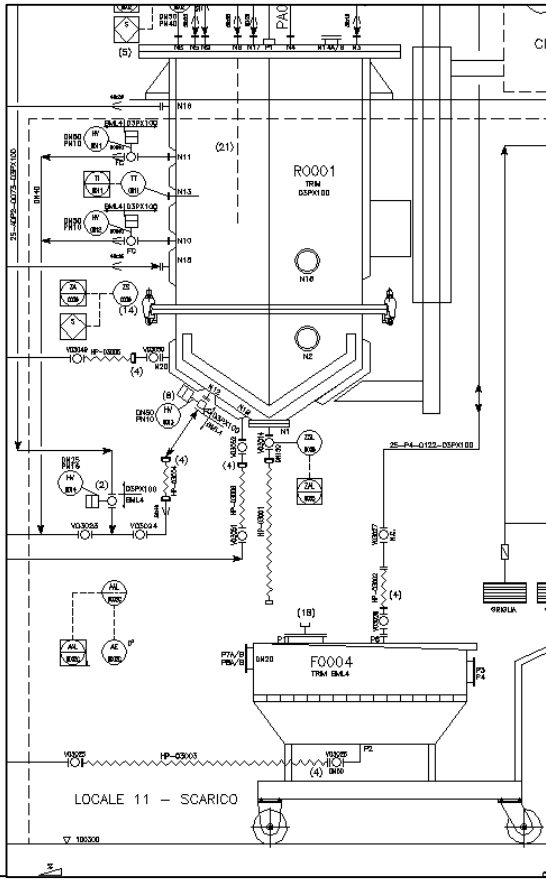
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LOCALE 11 – SCARICO

TRUST IN AUTOMATION

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