FIRE SAFETY EXPERTS

Company Profile Brochure

1989-2016
THE THIRTY-YEAR EXPERIENCE

SV is a manufacturer of Fire & Gas detection and extinguishing systems, which provides services and solutions technologically advanced for the automatic control of fire protection equipment. On the basis of the thirty-year experience in the field of Oil&Gas around the world, the company has become one of the main competitors on both national and international markets.

SV Sistemi di Sicurezza provides a continuous update about the evolution of the standards, we send newsletters every month with updates on the fire protection standards, either NFPA or EN 54.

We participate in the most important national and international events, from the Fire Prevention Forum to Hannover Interschutz, one of the most important safety exhibitions.

SV cooperates with worldwide partners, since we are included in the most important italian and foreign vendor lists; SV is also a manufacturer of modular fire alarm control panels and power supplies, software for the remote and local supervision, and provides commissioning services, workshops and on-site training.

SV organizes training courses on EXFIRE360 control panel and fire and gas initiating devices (including Det-Tronics).

EXFIRE360 control panel is the core business of our company and it is approved according to EN54-2, EN54-4, EN12094-1, EN60079, GOST, EAC, IEC 61508 (pending), UL 864, Lloyd's Register, MED, for applications at high risk of fire. In addition to the design and production we offer a consulting service and operability in the fire protection and prevention.

EXFIRE360 is a made-in-Italy product. The modular architecture of EXFIRE 360 is the result of a long path of research oriented on two aspects of the fire protection:

1. The satisfying of the most strict design and construction standards;
2. The attention to the technological requirements requested in the most complex industrial applications.

EXFIRE360 is particularly suitable for these applications by virtue of the adoption of some fundamental technological solutions, such as the use of the CAN protocol, the internal redundancy of the components, the substitution of the light indicators with touch-screen graphic interfaces, the intelligent functioning of the cards. All of this has introduced some innovations which distinguish EXFIRE360 from the other fire panels: the real-time control of systems with an high number of points, the remote I/O management, the redundancy of the communications, the crossed control of the I/O modules, the automatic addressing, the availability of the spare driver, the advanced diagnostic of the fault conditions, etc.

EXFIRE has been developed entirely in the SV Sistemi di Sicurezza S.r.l laboratories (which owns the patent for the EXFIRE360 system). The long experience of the company gave birth to a Made in Italy fire panel, innovative, in continuous evolution and competitive with the most advanced fire&gas systems.

THE SAFETY EXPERTS

Further to these basic provisions, EXFIRE360 adds the compliance with the compatibility requirements of the EN 54-13 standard (networked/ hierarchical systems) and IEC standards for the flammable gas detection, which make become the fire panel completely usable in all detection and automatic extinguishing applications.

Contextually, the increasing introduction of the fire&gas systems connected to the safety, brought to the certification of the fire station according to EN60079-29-1, standard for the gas detection, Russian GOST and the standards IEC 61508 functional safety for three different safety functions.
About the standard aspects, the control panel complies with the requirements of the standards EN 54-2, EN 54-4 (Detection systems and power supply 24Vcc) and EN 12094-1 (extinguishing systems), but it is certified to carry out some optional functions considered by the same standards and commonly requested in the industrial firefighting systems: consider, as example, the availability of an input and output standardized interface for the bidirectional communication from the panel to the third party systems, or the command of fire protection systems, or the control of the reserve groups of gas suppression systems and the supervision of the pressure switches (high/low).

AUTAN

STRATEGIC PARTNERSHIP WITH DETECTOR ELECTRONICS CORPORATION **DET-TRONICS**

SV Sistemi di Sicurezza reached an agreement with one of the most prestigious producer of fire & gas equipment: Det-Tronics. The strategic alliance which SV Sistemi di Sicurezza signed with Detector Electronics Corporation (Minneapolis, Minnesota, USA) is a significant goal for our company.

The distribution agreement signed with the American company, in fact, reinforce the record of Det-Tronics on the global market of the technologies for the incipient fire detection and the specialization of SV in the system of control of these technologies.

The EXFIRE360 panel, entirely developed by SV, is fully compatible with the equipment produced by Det-Tronics, giving the chance to SV to introduce itself among the Italian and European manufacturers for the firefighting applications in high risk industrial environments.

Among them, there are airport hangars. automotive sector, chemical and petrochemical plants, flammable liquid deposits, LNG terminals, offshore platforms, gas compression stations, logistics societies, iron and steel industries, turbines and plants for the energy production, etc.

In these contexts, SV will be able to provide engineering services, control panels, the filed devices and the relevant services (maintenance, servicing, spare parts, etc.).
The partnership with Det-Tronics also gives the possibility to increase the range of available product certifications.

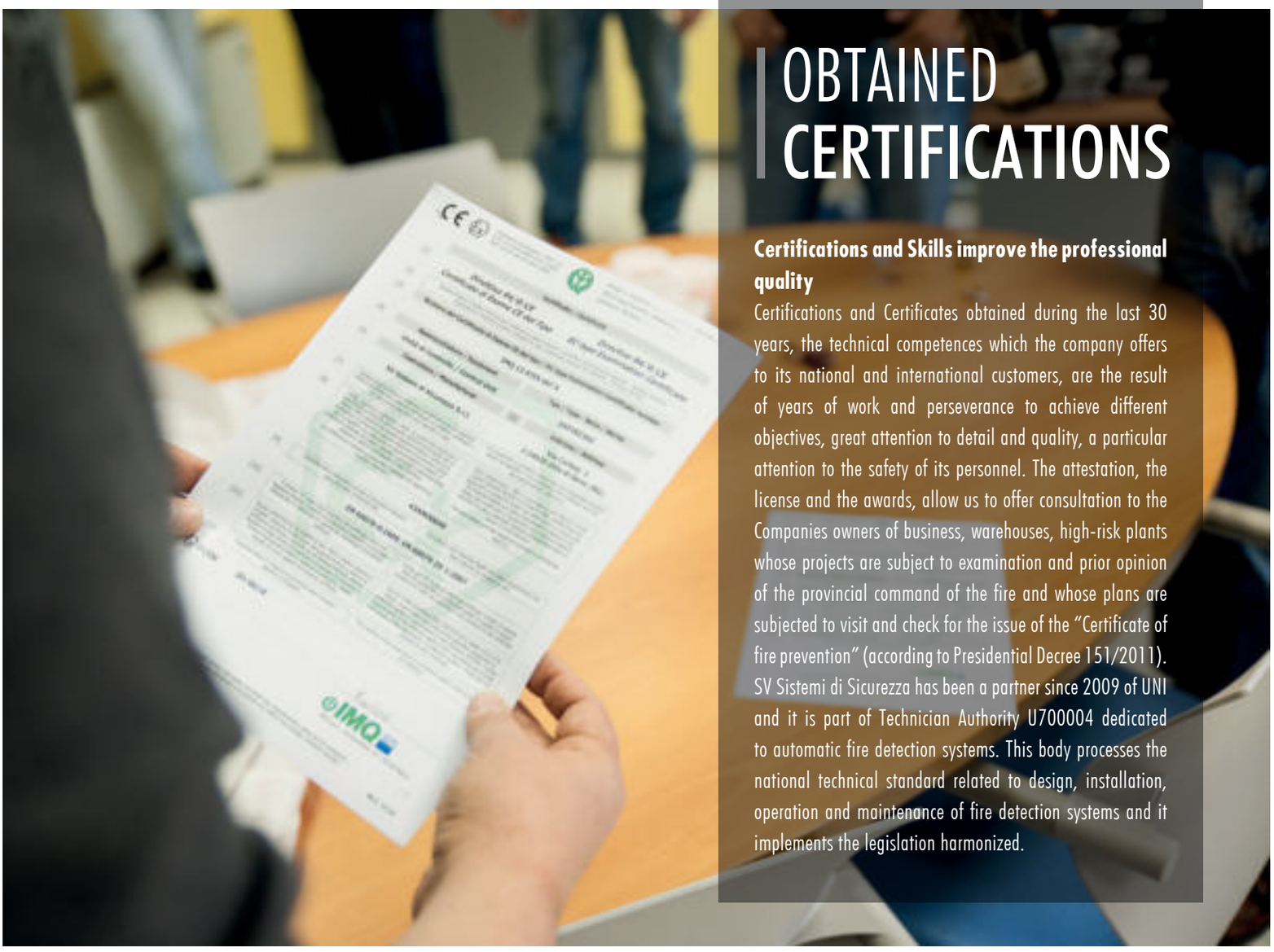
The significant investment in the product certification has been accompanied by the research of technological solutions which could meet the needs of the industrial sector, typically associated with the protection of critical systems (turbines, oil&gas plants), detection in hazardous areas, the automatic operation of extinguishing systems (for example, carbon dioxide systems) and the control of systems distributed in different buildings.

SV Sistemi di Sicurezza is present in Italy and in the rest of the world, working with their staff in various countries, for the commissioning of power plants and certified fire systems. Our clients include Italian Ansaldo, Eni, Snam, Marcegaglia, Selex, while abroad include contracts in Germany, Holland, Spain's and Turkey and other countries outside the European Union as Jordan, Taiwan, Algeria, Egypt, Korea , the Dominican Republic, Nigeria, Angola, Saudi Arabia, Egypt, Kuwait, Kazakhstan, Russia, Mexico and Japan.

THE THIRTY-YEAR OF FIRE & GAS ACTIVITIES

EXFIRE360 control panel has been designed with the specific goal of being able to monitor its modular units taking advantage of its advanced diagnostics developed to meet the requirements of functional safety. In this context, the research & development of SV has set two new goals: the certification of a new power supply 20 A redundant "EXPSU20" and a compact control panel ("miniEXFIRE"). This prototype will be inserted in the Fire & Gas systems as remote satellite of the Master panel or placed as an independent panel; a redundant power supply 20 A may be installed in the field as a stand-alone unit or on the EXFIREMINI panel and communicating with it in CANBUS.

Throughout the years, the company policy has always been strict for the internal training of the staff. Our team tests the Fire & Gas control panels and systems integrated in industrial facilities; continuous training of the staff, various certificates received for having carried out specific training courses, have allowed access to special structures such as offshore platforms, military vessels, petrochemicals environments, refineries, etc. The documented experiences of our specialists permits to optimize the project management and carry out the correct commissioning of the systems.



OBTAINED CERTIFICATIONS

Certifications and Skills improve the professional quality

Certifications and Certificates obtained during the last 30 years, the technical competences which the company offers to its national and international customers, are the result of years of work and perseverance to achieve different objectives, great attention to detail and quality, a particular attention to the safety of its personnel. The attestation, the license and the awards, allow us to offer consultation to the Companies owners of business, warehouses, high-risk plants whose projects are subject to examination and prior opinion of the provincial command of the fire and whose plans are subjected to visit and check for the issue of the "Certificate of fire prevention" (according to Presidential Decree 151/2011). SV Sistemi di Sicurezza has been a partner since 2009 of UNI and it is part of Technician Authority U700004 dedicated to automatic fire detection systems. This body processes the national technical standard related to design, installation, operation and maintenance of fire detection systems and it implements the legislation harmonized.

CSI CERT

Certificato n°: / *Certificate n.:* SQ062494/A

Settore EA: / *EA Sector:* 28 - 19

Si certifica che il sistema di gestione per la qualità di / *we hereby certify that the quality management system operated by*

SV SISTEMI DI SICUREZZA Srl

Sede legale / *Registered office*

Via Cortesi, 1 - 24020 Villa di Serio (BG) - ITALIA

Unità operativa di / *Place of business*

Via Cortesi, 1 - 24020 Villa di Serio (BG) - ITALIA

E conforme alla norma / *Is compliance with the standard:*

UNI EN ISO 9001:2008

Valutato secondo le prescrizioni del Doc. SINCERT RT-05 / *(Evaluated according to doc. SINCERT RT05 prescriptions)*

Per i seguenti servizi / processi / prodotti – *Concerning the following services / processes / products*

Progettazione, installazione e manutenzione di impianti di: rilevazione fumi-gas-fiamma, spegnimento incendi, antintrusione e controllo accessi, TVCC. Progettazione, produzione, configurazione start up assistenza centrali antincendio e di sicurezza.

I requisiti definiti nel doc RTIS SINCERT, si applicano unicamente alle attività che afferiscono al settore EA 28
Requirements of doc. SINCERT RTIS, applies only to activity within EA28 sector

Il presente certificato è soggetto al rispetto del regolamento di CSICERT per la certificazione dei sistemi di gestione per la qualità della organizzazione.
Riferirsi al manuale qualità per i dettagli delle eventuali esclusioni dei requisiti della UNI EN ISO 9001:2008
Per informazioni puntuali e aggiornate circa eventuali variazioni intervenute nello stato di validità della certificazione di cui al presente certificato, si prega di contattare CSI S.p.A.
La presente certificazione si intende riferita agli aspetti gestionali dell' impresa nel suo complesso ed è utilizzabile ai fini della qualificazione della impresa di costruzione ai sensi dell' articolo 8 della legge 11 febbraio 1994 e successive modificazioni e del DPR 25 gennaio 2000 n°34.

This certificate is subject to the compliance with CSICERT regulation for the organization of quality management system certification.
Refer to the quality manual for details on UNI EN ISO 9001:2008 requirements exclusions.
For updated information related to validity status of the certification within this certificate, please take in contact CSI spa.

02/02/2007	12/01/2010	13/02/2011	11/01/2013
Rilascio / *Issued*	Rinnovo / *Renewal*	Aggiornamento / *Update*	Scadenza / *Expiry*

1 di 1

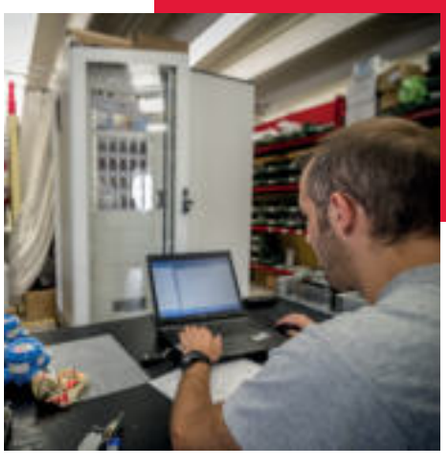
HOCHIKI ESI COMPATIBLE

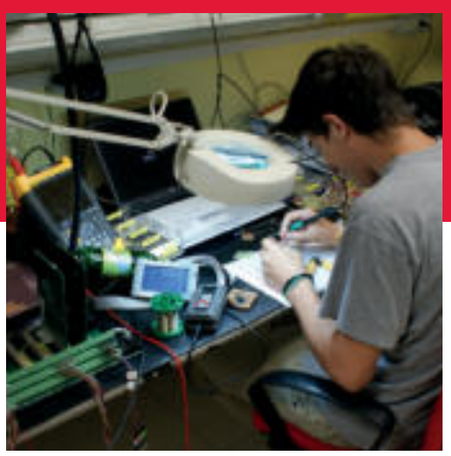
SOCIO UNI

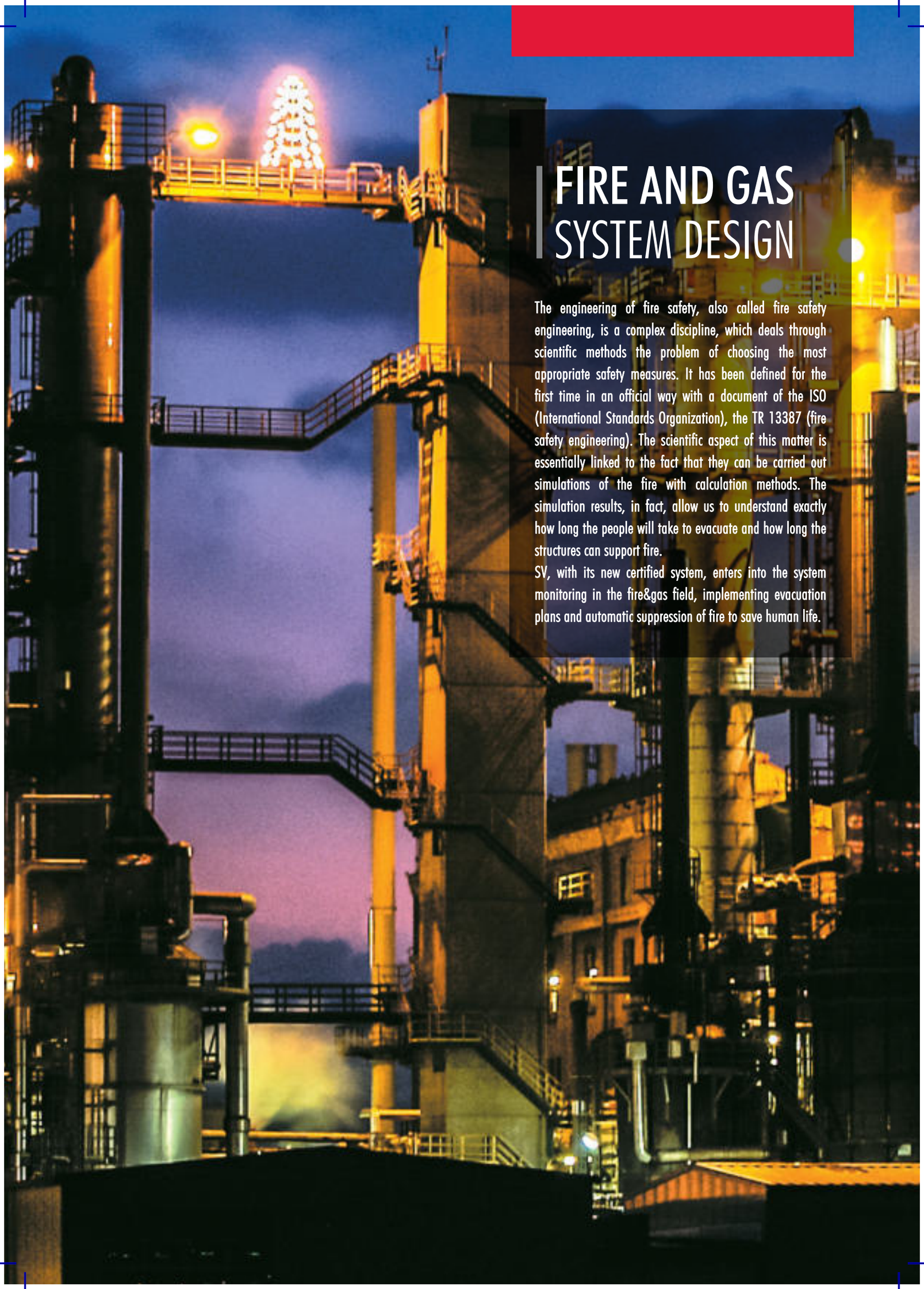
RESEARCH
AND DEVELOPMENT

In 2009 SV Sistemi di Sicurezza created a new department of Research & Development in the Fire & Gas field. This group was created to develop both hardware and software of EXFIRE360 panel, while providing troubleshooting and interfacing with the notified bodies.

SV's R&D has recently developed an independent power supply unit of non-integrated type. This equipment provides four 5 A outputs and battery charging and monitoring facilities.
EXFIRE360 station of last generation born. The initial specifications of the Station for its construction have been recovered and written after a long experience in national and international fields, of application of systems with several stations of different brands. SV has made a virtue of necessity, developing Research & Development in the Fire Safety sector in the construction and manufacture of control panels for Smoke, Gas, Flame, fire extinguishing detection series designing the EXFIRE360 model. In 2012 the prototype EXFIRE360 born in the Fire & Gas R & D department became a reality, it made his first outing in the national and international field in June 2012, a long and complex work, but the goals were achieved, presenting the first power plant in the world with CanBus technology and touch screen, thanking all the technical staff for have been reached the certifications EN 54-2, EN54-4, EN12094-1, EN60079-29-1 Atex, Gost Russian certificate Hochki protocol and to end the patenting of the same, a record of certifications, considering that it will soon be certified IEC 61508 SIL 3, UL 864.







FIRE AND GAS SYSTEM DESIGN

The engineering of fire safety, also called fire safety engineering, is a complex discipline, which deals through scientific methods the problem of choosing the most appropriate safety measures. It has been defined for the first time in an official way with a document of the ISO (International Standards Organization), the TR 13387 (fire safety engineering). The scientific aspect of this matter is essentially linked to the fact that they can be carried out simulations of the fire with calculation methods. The simulation results, in fact, allow us to understand exactly how long the people will take to evacuate and how long the structures can support fire.

SV, with its new certified system, enters into the system monitoring in the fire&gas field, implementing evacuation plans and automatic suppression of fire to save human life.

HAZARDOUS AREAS CLASSIFICATION

SV is capable of providing a complete assessment of the potentially explosive atmospheres, whether due to the presence of gas or dust, through the study of the emission sources, the conditions of ventilation and all other factors as dictated by the requirements of the ATEX Directive. After defining the entity and the extension of the areas, we are able to adopt the most suitable protection methods for the typology of the requested service. The design of certified for fire&gas systems, suitable for industrial environments (classified areas), gives us the possibility to alert us in case of gas leakage, while performing a predetermined logic dedicated to the implementation of a safety function. The IEC 61508 standards introduce the PFD values (probability of failure on demand) to systems that implement the gas detection as a safety function.

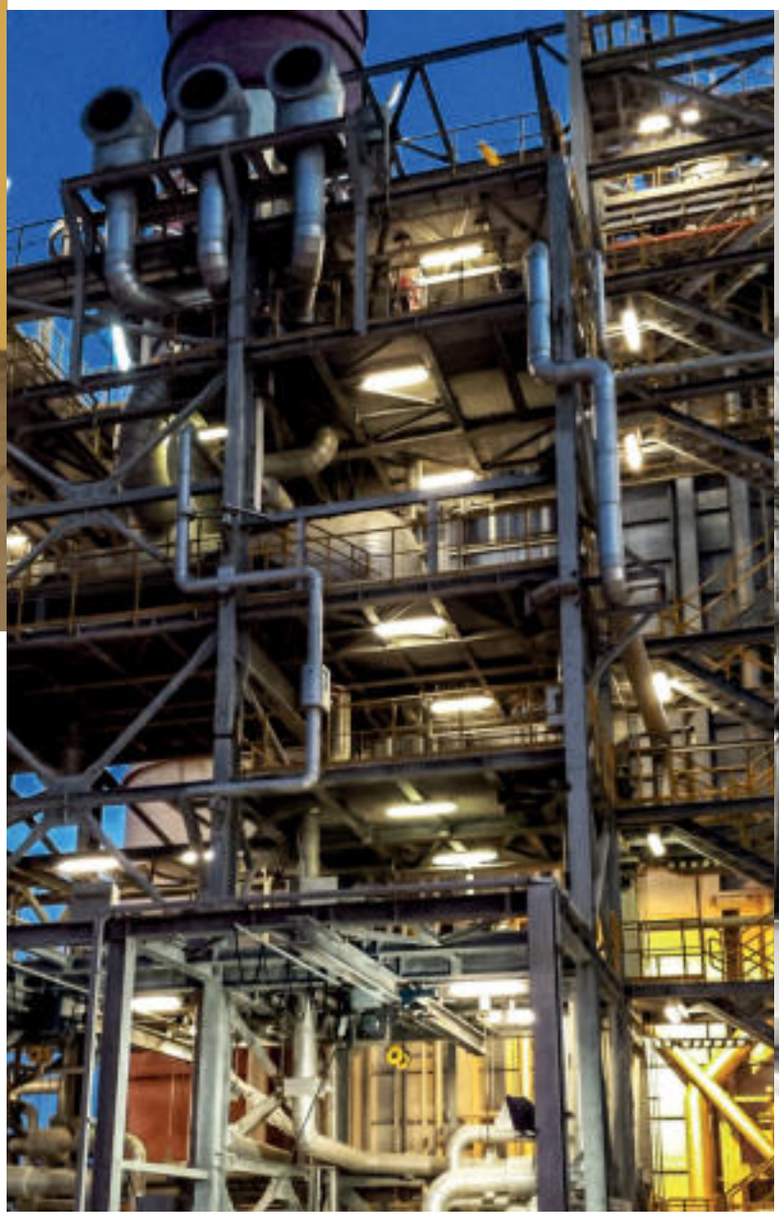
FIRE TEST ROOM

The experience, the constant research and improvement in the extinguishment of fires, has suggested to set up a dedicated test area for real fire simulations. The test area is used for the testing of new products, such as flame or gas detectors or fire extinguishing agents. The test room is available to all customers that require a full-scale test. The test room is equipped with flammable gas, oxygen, and CO2 detectors, temperature and humidity probes, with the specific purpose of analyzing the air before and after the agent discharge.

The purpose of the tests is to verify the effectiveness and the response of the products, while ascertaining the effects on people and goods. To perform the tests, SV Test Room provides CCTV facilities to record the agent release (e.g. in case of fire in an office area). Examples of pictures related to fire suppression performed with aerosol generators are shown in the following pictures..

SERVICE
AND COMMISSIONING

Our team provides inspection, testing and maintenance of fire & gas systems both nationally and internationally. The documented experiences of our specialists ensures a professional service to all of our Clients.
SV's personnel has good knowledge of english and french languages, thus allowing our company to work in most of the Countries. Our competence in both electronics and mechanical systems allows us to face any type of installation both on-shore and off-shore, while our flexibility helps us to seek the best approach aimed at the commissioning of the systems.



ONLINE INTEGRATED SERVICES FOR **REMOTE CONTROL**

The WEB-FIRE remote supervising room is designed with the specific goal of being able to monitor the EXFIRE360 panels and ensure advanced diagnostics to meet the needs of functional safety in all aspects of hardware and software, as well as monitor the status of the detection and extinguishing systems. The technical team of SV Sistemi di Sicurezza Team provides a series of remote control services that support in the resolution of faults without having to arrange a site inspection.

In the dynamic market of fire protection, clients demand innovative solutions that increase business continuity, optimize productivity and achieve sustainability objectives, all while reducing the total cost of ownership. To effectively compete in this global market, it is necessary to define the value beyond the cost of the equipment and improve business performances. SV Sistemi di Sicurezza can help to improve your performances with solutions and services to reduce the total cost and meet the needs of your customers.

TRAINING

Among the various steps required to deliver a fire protection system, training plays an important role. Over the years SV Sistemi di Sicurezza has gained considerable experience in the training of the personnel who is in charge of the operation of the fire safety systems. Technical/operational training are arranged on the following subjects:

1.use and programming of EXFIRE360 control panels;

2.overview of the concepts related to the functional safety according to IEC 61508/61511;

3.NFPA 70 and 72;

4.EN54-2, EN54-4, EN54-13, EN 60079-29-1, EN12094-1 European Standards

SV Sistemi di Sicurezza hosts courses kept by CTAI Srl, a course provider recognized as part of the TÜV Rheinland Functional Safety Program. The courses are kept in Italian language by Eng. Carlo Tarantola, qualified TÜV Rheinland Functional Safety Trainer with ID No. 137/08.

ON SITE TRAINING

The course presents an overview of the concepts related to the functional safety according to IEC 61508/61511. It is intended for all people involved at any stage of the life cycle of the safety of SIS (Safety Instrumented Systems), and provides the bases for what concerns the management of functional safety, with particular reference to the design of Safety Instrumented Systems and devices used in them. The course also consists of a final exam, for the which passing, requires a minimum score of 75%. Those who meet the following requirements:

pass the exam, and

have at least 3 year experience in Functional Safety, and hold a degree in technical disciplines

receive an ID number and qualification of TÜV Rheinland Functional Safety Engineer.

SIL
IEC 61508

MAINTENANCE
AND PERIODIC TESTING

The experience gained over the years has allowed us to focus on the testing and maintenance services of fire gas and extinguishing systems manufactured in Italy or abroad by various manufacturers. A constant technical and IT support guarantees the customer, which might request us to intervene on site to perform testing and maintenance on fire&gas electronic/ mechanical systems, whether they have been developed and manufactured by our company, or to verify and check what has been designed and/or constructed by others.
In certain applications, the checks are carried out according to customer specifications and/or local requirements, while the standard guidelines are those set forth in NFPA 72.

RECORDS

The verification of the system logic shall be compatible with the provisions of the project documents, while ensuring that the effects of the tests do not cause a dangerous situations or unwanted activations. Tests and checks shall be recorded by filling the appropriate check lists. A copy of the checklists shall be handed over to the system owner. The documents that constitute the formal record of the checks shall be signed, as minimum, by the technician who carried out the tests and by the maintenance manager.

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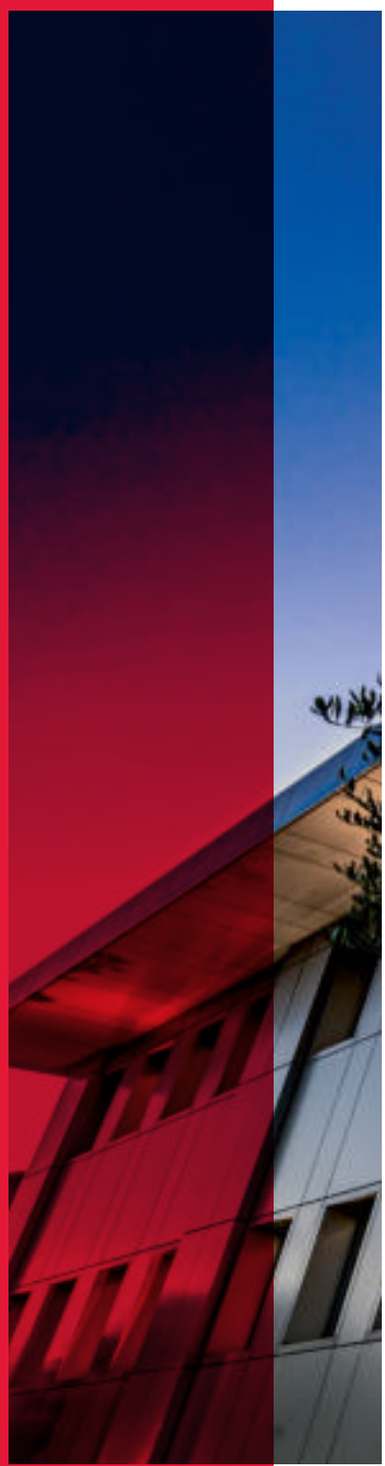

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