WAGNER® = mpulse

The WAGNER Group GmbH customer magazine

LEAD ARTICLE

Protecting goods and valuables

To only observe standards may not suffice

SAFE STORAGE FOR THE UK'S WRITTEN TREASURES

Nitrogen protects millions of books and newspapers in the British Library

SPECIALIST EXPERTISE IS BEING EXPORTED: A NEW FIRE PREVENTION SYSTEM FOR THE CANADIAN MARKET

Dr. Oetker frozen pizza optimally protected against fire

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EDITORIAL



Sophisticated solutions in global use

As a professional system manufacturer in the field of fire prevention with decades of experience, there is one thing that we understand clearly: corporate interests and specific safety requirements for logistics centres and data centres are essentially the same all over the world. The principle of active fire prevention is therefore a solution that impresses our international customers as well as companies that want to expand with their products and place the protection of their goods in tried-and-tested reliable hands such as WAGNER's.

Our 'made in Germany' fire prevention solutions enable optimum safety. They fulfil the strict German guidelines and regulations and are tailored to the conditions in other countries – from construction regulations in the UK through directives in Canada to PAVUS approval in the Czech Republic.

We work with our customers to jointly analyse their individual fire risks, establish an appropriate protective target and use intelligent fire protection solutions to achieve this.

ABOUT US

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Dear Business Friends and Readers,

Company management teams must constantly deal with the topic of safety and security within the scope of risk reports. However, the companies' safety and security requirements often go far beyond the measures required by law.

The topic of safety and security, from EDP security and protection against sabotage and espionage to fire prevention is existential for all companies. This is because safety or security-related incidents often have a major impact on their financial wellbeing. The guidelines on technical fire prevention, like Building Regulations and Constitutional Law with its requirement for integrity are therefore primarily intended to ensure the protection of people and the environment. Companies frequently misinterpret the fulfilment of the fire prevention requirements to mean that they have achieved comprehensive protection. As a result, buildings, equipment, goods and operational processes are not considered in the protection scheme. WAGNER offers advanced solutions that go above and beyond the necessary minimum fire prevention requirements in order to actively minimise fire risks and protect the systems, goods and data in areas of great value.

This issue of WAGNER Impulse offers articles about real-life fire prevention solutions in the fields of warehousing & logistics. Read on to discover which protection schemes international logistics companies have chosen.

Sincerely yours

Torsten Wagner

Werner Wagner

Managing Directors of the WAGNER Group GmbH





Protecting goods and valuables

To only observe standards may not suffice

All businesspeople must deal with the general concern that a fire could theoretically break out at any time. This makes it particularly important to look at the potential consequences ahead of time. An optimally tailored fire prevention concept can reduce the risks.

In Germany, the fire brigade responds to a fire on average every 52 seconds. According to the shocking view presented by fire prevention expert Jens-Christian Voss within the scope of his lectures and courses on fire prevention, statistically, this means that all companies

are affected by fire just less than once every three years. Fires are a business risk, but one that is calculable and can therefore be preventatively handled.

Major fires caused by technical defects

"Everything is covered in soot. We cannot yet tell you anything and must first now create emergency plans." These were the first words spoken to the local press by the Nordfrost COO Uwe Riesenbeck after the 10,000 m² deep-freeze warehouse in the Hamburg district of Hollenstedt burned down on 22/06/2013. The cause: a

technical defect in a door frame heater in the ramp area.

At the same time, just under 600 km away in Ludwigshafen, the 9,500 m² warehouse of a BASF supplier also caught fire. The warehouse and 4,800 tonnes of materials went up in flames. After almost six months of investigation, the cause was finally determined to have been a defect with a photovoltaic system.

A similar scenario also occurred almost a year later on 11/06/2014 in Böblingen: two warehouses of a plumbing whole-



saler burned down to their foundations. The cost of the damage was again in the millions. Fortunately for the company owner Helmut Reisser, he had not only insured his warehouse but also any interruptions to business.

Fire leads to insolvency

In most cases, insurance companies cover material damage caused by a fire. In the industrial sector, the amount paid out annually by fire insurance companies alone is over 500 million euros - a third of which is accounted for by warehouses. The consequences range from an interruption to business to a damaged reputation, and the companies affected often have to deal with these on their own - which is often simply not possible. According to the insurance company FM Global, almost a third of all companies are forced to file for insolvency within three years of a major fire.

Advanced solutions for greater safety and lower risks

When planning a new warehouse, a lot of energy is often spent on choosing the latest technologies in order to make the logistics processes even faster and more efficient. When it comes to fire prevention, operators think that they are safe as long as they have complied with all legal requirements. However, these are designed to protect personnel and buildings. Standard primary extinguishing systems go to

work when a fire is detected as a stopgap solution for the period until the fire brigade arrives. An intelligent, comprehensive fire prevention concept can do far more than this and also includes the protection of the goods stored and logistics processes, ensuring that they will be available in the event of a fire.

Established and future-oriented fire prevention concepts

Different fire prevention systems have been designed for the broadest range of uses, allowing you to take maximum advantage of their benefits. However, whether they use water, gas, powder or foam, all fire extinguishing systems generally follow the same principle: they are used in combination with fire detectors and only activated if a fire has already broken out. Furthermore,

the extinguishing agent itself can also cause further, not insubstantial consequential damage.

In the event of a fire, even small amounts of smoke particles or corrosive fire gases can interfere with sensitive warehouse technology. The earliest possible fire detection and systems for active fire prevention by reducing oxygen levels can help protect warehouse areas and the high concentration of valuable objects found there from the consequences of a fire. The high-bay and deepfreeze warehouse projects in this issue show how these solutions are implemented in practice.



▲ Two warehouses go up in flames in Böblingen on 11/06/2014. How the fire started remains a mystery

The 'act - don't just react' fire prevention concept

WAGNER protects Phoenix Mecano's

new high-bay warehouse in Kecskemét, Hungary

Hungarian high-bay warehouse opts for 'made in Germany' safety

The Hungarian company Phoenix Mecano Kecskemét Kft. produces a broad range of products and components for areas such as building technology, input systems, drive technology and system protection. Founded in 1993 as a subsidiary of the Swiss-based multinational group of companies Phoenix Mecano AG, the company now has more than 1,000 employees.

In order to meet the ever higher demand for its products, the company constructed a new high-bay warehouse for raw and finished goods in the Hungarian city of Kecskemét in 2013. Covering an area of 2,155 m² and with a height of 26.5 m, the new high-bay warehouse provides enough space for the host of different goods and components.

Fire risk in the high-bay warehouse

The great number of electrical systems such as electrical storage and retrieval

machinery and battery-operated shelf shuttles increases the fire hazard in the automated high-bay warehouse. Fires originating directly in the stored goods are rare. According to VdS data sheet VdS2837, the risk instead comes from technical defects. In addition to the goods stored, the properties of the high-bay warehouse often have an unfavourable effect on the development of fire. In the case of Phoenix Mecano, at 26.5 m, the height of the warehouse would amplify the vertical spread of the fire as a result of the 'chimney effect'.

Disadvantages of conventional extinguishing technology

For a sprinkler system to be triggered, a fire must already have reached a certain stage of development and have generated sufficient heat. In the time until the extinguishing system is triggered, even goods not directly affected by the fire will be damaged by smoke and soot. The extinguishing water causes

secondary damage. Goods damaged this way cannot be sold and must be destroyed. This results in financial losses and supply shortages with severe impact on the reputation of the company. Phoenix Mecano's corporate philosophy is based on avoiding defects rather than remedying them. This should also be reflected in its choice of a suitable fire prevention concept.

Leave nothing to chance

An effective yet economical prevention solution had to be found for the newly built 57,054 m³ high-bay warehouse. This needed to ensure that, in the event of an emergency, supply obligations to customers were not jeopardised and financial losses were kept to a minimum. Any environmental impact also had to be avoided to the greatest possible extent.

The solution

To keep the direct and indirect fire risks as low as possible and combat a potential fire during the incipient phase,



Phoenix Mecano decided to use active fire prevention. The OxyReduct® fire prevention system with particularly energy-efficient VPSA (vacuum pressure swing adsorption) technology was selected.

Active fire prevention via oxygen reduction

A customised fire prevention concept tailored to the conditions on site reduces the risk of the outbreak of fire and prevents any fires that do occur from spreading. To this end, the oxygen concentration in the protected area is carefully reduced by introducing a specific amount of nitrogen based on the ignition thresholds of the goods stored, thus removing the required oxygen from the fire. Despite these measures, the warehouse areas still remain fully accessible to authorised personnel.

At Phoenix Mecano, the oxygen content of the air is constantly reduced from the original 20.9% vol. to 15.2% vol. for optimal protection. In order to determine the individual ignition thresholds of the goods stored, detailed Phoenix Mecano warehouse and parts lists were compared with values obtained in existing fire test results.

Environmentally conscious and cost efficient

The nitrogen generators with VPSA technology are highly energy efficient and consume up to 80% less energy than conventional membrane technology when used under optimum conditions.

Benefits of the OxyReduct® solution:

Compact and efficient nitrogen generation

- Active protection of goods, investments and buildings
- Fire protection planning and design complies with all local guidelines and standards
- Environmentally-friendly fire prevention concept: fulfils the company's guiding principles, which commit it to protecting the environment from pollution

Read on >



▲ Not only the products manufactured in Kecskemét are delivered to European customers from the new logistics centre, but also goods from the Romanian plant and the Asia-Pacific region.

Sustainable fire protection solution

Sustainable fire protection solutions are always based on active fire prevention. After all, the smoke particles, soot particles and pollutants given off in a fire not only pose a risk to people and companies, but also pollute the environment and can cause long-term damage.

Cost-benefit ratio

A further benefit of using an oxygen reduction system for fire prevention purposes can be seen in the design of a warehouse: there is no need to plan additional static structures ('fixed loads') and more storage space is available per cubic metre.



 \blacktriangle OxyReduct $^\circ$ VPSA protects the high-bay warehouse and goods stored from the effects of fire

INTERVIEW



The WAGNER Impulse editorial team spoke to Christoph Porde, Managing Director of Phoenix Mecano Kecskemét Kft.

Mr Porde, why did you decide to use an active fire prevention solution?

Our company philosophy is based on avoiding defects rather than remedying them. Our customers and business partners are used to us offering them consistently high product quality and on-time deliveries. We want to avoid the negative effects of fire and have therefore opted for active fire prevention in order to reliably protect our

warehouse and therefore our delivery obligations.

Why did you choose a fire prevention solution from WAGNER?

We wanted to put our warehouse's safety in hands that we can trust. WAGNER has been known for its fire prevention expertise for decades and has already equipped many warehouses all over the world with active fire prevention solutions. The company places great demands on itself and its fire prevention solutions and was therefore a partner on an equal footing to us.

What benefits does active fire prevention with OxyReduct® offer you?

We wanted to avoid the use of a sprinkler system in our warehouse at all costs. You can imagine that water does not mix particularly well with the electrical drives that we manufacture. OxyReduct® enables us to

reduce the fire risk to almost zero from the outset by creating a protective atmosphere. At the selected residual oxygen level of 15.2% vol., the warehouse area still remains accessible for our personnel.

The fact that OxyReduct® is particularly energy efficient and environmentally friendly was also particularly important to us. The nitrogen is obtained on-site from the ambient air – and the solution is far more effective than conventional systems for generating nitrogen thanks to the new VPSA technology. As such, we not only reduce environmental pollution but also keep our operating costs down.

Mr Porde, thank you very much for the interview.

Development of frozen goods logistics in Germany

VDKL

Verband Deutscher Kühlhäuser & Kühllogistikunternehmen e.V.

A BRIEF PROFILE



Jan Peilnsteiner has been the Managing Director of VDKL since 2000. After completing his studies, the qualified lawyer began his career at a law firm in Rostock, Germany, before later moving to the German Mining Industry Association in Bonn. In his current position at VDKL, he also offers the members legal support in sector-specific matters.

Over the last 15 years, sales of frozen food have continually risen to the current rate of over 3.3 million tonnes/year. This increasing demand also has a positive effect on the entire temperature-controlled food logistics industry. In Germany, the logistics service providers of the Verband Deutscher Kühlhäuser und Kühllogistikunternehmen e.V. (VDKL) offer total refrigerated and frozen food capacities of approx. 16 million cubic metres.

The amount of temperature-controlled storage space is continuously increasing at an impressive rate. It is notable that no major cold storage warehouses have been shut down in the last few years. This shows that there is a rising demand for professional refrigeration logistics, in parallel to the increasing sales volumes in the frozen food industry.

In the deep-freeze sector alone (-18°C and below), the average monthly storage volume in VDKL cold storage warehouses in 2013 was 1.3 million euro pallets (or over 6 million m³). In the 1st half of 2014, capacity utilisation was 77% and therefore at the same satisfactory level as in the previous years. The field of temperaturecontrolled transport is also impressive. In Germany, almost 100.000 lorries and trailers have automatic

refrigeration to ensure the seamless distribution of refrigerated and frozen food. The load capacity of these units is almost 1.2 million tonnes.

Fire protection requirements for refrigerated and frozen goods

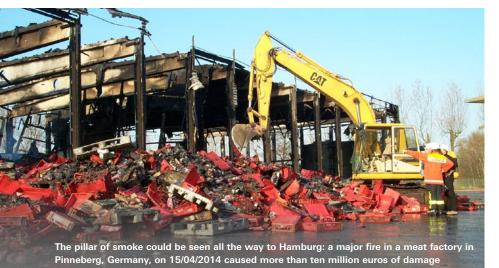
Although this may initially seem illogical, it is not possible to entirely exclude the risk of fire in cold storage warehouses. There are several reasons for this: the extreme temperatures of as low as -28°C cause the humidity content of the air to be far lower than at higher temperatures, which can help fires to break out. Most goods in cold storage warehouses are stored on wooden pallets. In combination with the aforementioned very dry air, these become even more flammable than usual. Forklift trucks with powerful motors and batteries, as well as an array of electrical drives on

Association profile

The VDKL is the leading industry association for food companies with regard to temperature-controlled logistics for frozen and fresh food. Members include logistics service providers, industrial enterprises, retail companies and supplier companies. VDKL offers these members numerous services, including the latest and reliable information about sector-specific national and European developments as well as the creation and preparation of statistics and market data and the creation of guidelines on practical topics. The VDKL is member of ECSLA, the **European Cold Storage and Logistics** Association.

the refrigeration and conveyor systems, which run around the clock, can increase the risk of an electrical fire. Furthermore. cold and frozen storage warehouses are being designed on an ever larger scale. Large central warehouses and fully-automated high-bay warehouses with more than 300,000 m³ storage space are no longer a rarity. In such conditions, a minor fire can quickly spread to become a major one. The structural fire protection in deep freeze warehouses therefore involves measures such as structural division using fire break walls. Depending on the size of the fire sections in deep freeze warehouses, active fire prevention systems need to be used, for example air sampling smoke detectors. By continuously drawing air samples, fires can be detected at an early stage.

In summary: even through fires in frozen food warehouses are rare, if they do break out, they are generally difficult to extinguish as the building complex is often extremely compact and difficult to access. Prevention and highly intelligent fire protection systems are therefore increasingly important in the field of logistics for refrigerated and frozen foods.



Specialist expertise is being exported: new fire prevention system for the Canadian market

Ideal fire protection for Dr. Oetker frozen pizza



In the Canadian city of London, Ontario, a new automated warehouse for frozen pizza has been built for the North American market. With an area of 2,105 m² and a volume of 61,000 m³, Dr. Oetker will use the site to store and dispatch its frozen products. The pizzas are produced in the neighbouring factory. WAGNER is supplying the appropriate fire prevention concept under special circumstances: it is its first fire prevention system in North America.

Dr. Oetker has been a WAGNER customer for many years. The plant in Wittlich, Germany, a production hub near Trier, has been protected by an OxyReduct® membrane system since 2008. Even in the early planning phase of the new warehouse construction project, the positive experiences in Germany made it clear that the successful fire prevention solution was to be exported to Canada.

VPSA becomes Canadian

The fire prevention principle was approved but the OxyReduct® VPSA technology still had to be adapted to meet Canadian directives and the special requirements established by local authorities in London. The use of a local 'professional engineer' to conduct a technical

evaluation of the OxyReduct® system and approve the installation on behalf of the city authorities was one of the conditions.

A strict schedule had to be upheld in the run-up to the required delivery in autumn 2014. The factory acceptance



▲ The Dr. Oetker deep-freeze high-bay warehouse during construction phase

test (FAT) took place in Langenhagen before the OxyReduct® system was sent. To this end, WAGNER built a power generator that was rather unusual for the European power grid, but simulated the supply voltage and frequency of the Canadian one. At the start of 2015, the warehouse went into operation with Canada's first OxyReduct® system.

OxyReduct® system with two compressors

The automated deep-freeze high-bay warehouse has an area of 61,000 m³ and 3,500 goods in and out movements every day. Temperatures of as low as –27°C apply. For the active fire prevention system to function seamlessly, it was necessary to consider several parameters, such as the air permeability of the room and air lock systems. Instead of the air curtains typical of warehouses, Dr. Oetker has therefore installed a door concept with air locks, which is optimally tailored to

the way in which the OxyReduct® system works.

The OxyReduct® system uses a controlled nitrogen feed to sustainably reduce the oxygen levels in the protected area from the normal level of 20.9 vol% to 17.2 vol% The residual oxygen level was calculated based on the results of fire tests plus the Canadian specifications of a level of over 17.0 vol% for areas accessible for personnel.

The nitrogen required to reduce the oxygen level is generated using energy-efficient vacuum pressure swing adsorption (VPSA) technology. The potential for saving energy was important to Dr. Oetker so that it could obtain an effective yet also low cost fire prevention solution. One thing that makes the system special is that it has two VPSA compressors for redundant operation and therefore complies with the requirement established by the

Canadian authorities. In an emergency, it is possible to switch between the two compressors. If one of the compressors fails due to a fault, the production of nitrogen for active fire prevention is not interrupted.

Summary

From August to October 2014, Project Engineer Lena Niederstuke from the WAGNER International System Construction department assisted the customer on site with construction of the system. The VPSA system went into operation in November and has protected the frozen pizzas in the Canadian city of London since January 2015 until they set off on their journey to wholesalers and retailers throughout North America.

66 One of the biggest challenges was observing the local guidelines so as to provide the Safety Authority inspectors and the customer with a functioning and standard-compliant system. The result was the approval of the first OxyReduct® system on the North American market! 22

WAGNER Project Engineer Lena Niederstuke



▲ The *OXY·SENS*® oxygen sensors are connected to the air sampling duct network



▲ The WAGNER system constructors had around six months to design and set up the VPSA system specifically for the Canadian market



Safe storage for the UK's written treasures

Nitrogen protects millions of books and newspapers in the British Library

The British Library is one of the largest and most extensive libraries in the world. Its stock includes more than 150 million copies of books, magazines, newspapers, maps, drawings and music sheets in over 400 languages. These include the Magna Charta, Leonardo da Vinci's notebook and one of the Gutenberg bibles. Around three million new volumes are added every year.

As a result of the ever growing storage requirement, in addition to the main building complex in the St. Pancras area of London, the document storage centre in Boston Spa, West Yorkshire, has also been created and now stores more than seven million works. Furthermore, the entire international lending department is also based in the complex. Even back in 2008, the British Library decided on the principle of fire

prevention to protect its Additional Storage Program (ASP warehouse).

The UK's written treasures in the ASP warehouse

The ASP in Boston Spa stores the UK's written treasures on rows of shelves,

which cumulatively stretch over 100 km. Books, magazines and the like are stored in 140,000 barcoded plastic containers. Only the workstations where books are added to or removed from storage are actually staffed. The archive works in a similar way to a fully automat-



▲ Four OxyReduct® VPSA systems are installed in the Newspaper Storage Building. These generate nitrogen to reduce the oxygen content of the air within the warehouse



ed high-bay warehouse. The installed OxyReduct® system creates an extremely fire-retardant atmosphere in order to minimise the risk of fire developing and spreading.

New-build to expand storage capacities

To expand the storage capacities, the 45,000 m³ Newspaper Storage Building (NSB) was built in 2014. The active fire prevention system was again selected for fire prevention purposes. "Having had good experiences of OxyReduct®, we chose this system again", stated Patrick Dixon, Head of Engineering and



▲ Patrick Dixon, Head of Construction and Technology at the British Library

Construction at the British Library in explanation of the decision. The newspapers (664,000 bound volumes on 32 km of shelves) are stored in bundles on trays and moved into the high-bay warehouse with the aid of automated storage and retrieval systems.

Close cooperation between the British Library and WAGNER

The basic concept of the fire prevention solution is the same for both warehouses: a controlled introduction of nitrogen is used to reduce the oxygen content of the air from 20.9% vol. to between 14.8 and 15% vol. within the automated areas. The target concentration for the oxygen reduction is based on guidelines and the results of fire tests.

To optimise both the storage activities and the fire prevention system, the temperature and relative humidity are kept at a constant level: 16°C and 52% humidity in the ASP and 12 – 14°C and 35 – 40% humidity in the NSB. Unlike the ASP, the NSB was tailored to the fire prevention concept right from the start of the construction work. The air permeability of the building and the air conditioning have therefore been designed in line with specifications provided by WAGNER experts.

The OxyReduct® system with VPSA (vacuum pressure swing adsorption) technology therefore operates under optimum conditions, which also positively affect the operating costs.

In addition to the nitrogen generator, TITANUS *PRO-SENS*® air sampling smoke detectors test the air in the rooms for pyrolysis particles in order to detect the outbreak of fire at an early stage. The fire detection and prevention data are consolidated in the VisuLAN® risk management system so that measures can be introduced if necessary. The system stores all information and actions so that these can later be used to conduct cause analyses. This combination offers maximum protection for the UK's written treasures.

Passionate about fire prevention

Active fire prevention for Czech frozen bakery produce

"A passion to share" - this is the motto that guides the La Lorraine Bakery Group (LLBG). The Belgian group has a passion for one thing above all: bread, rolls and all kinds of pastries. Every day, La Lorraine supplies over 1,500 supermarkets with freshly baked goods as well as retailers and catering businesses with deeply frozen products. The company is constantly growing. LLBG is expanding in 25 countries and operates 11 production facilities, four of which are in Europe, in Belgium, Luxembourg, Poland and the Czech Republic.

Greater safety in the newly built warehouse

With an area of 4,337 m² and a height of 38.25 m, the number one safety target for the new warehouse for frozen readymade baked goods in the Czech city of Kladno is to prevent the outbreak and spreading of fire in order to reliably meet all daily delivery obligations. The fire prevention concept provided by the architects who designed the warehouse therefore proposed the use of an oxygen reduction system for active fire prevention. This had to comply with the directives applicable for the site and have a permit for use in the Czech Republic, issued by the Prague-based accredited test body for fire prevention products PAVUS, a.s.

The combination of air sampling smoke detectors and fire prevention solutions actively protects the new-build and its frozen baked goods against fire risks ▶

Reliable fire prevention

The company opted for the OxyReduct® active fire prevention system from WAGNER - the only oxygen reduction system approved in the Czech Republic by PAVUS, a.s. The oxygen content of the air in the large, 165,892 m³ warehouse is reduced to 15.2 vol% through the controlled introduction of nitrogen. The concentration of remaining oxygen was determined based on conducted fire tests as well as on the requirements of the insurance underwriter. The active fire prevention system is supported by a TITANUS® air sampling smoke detector system for very early fire detection.

Localising fire sources while the fire is only in an early stage

The storage area with a prevailing temperature of -25°C and the loading areas are monitored by TITANUS *PRO·SENS*® ASD units. This system enables highly sensitive and extremely false-alarm-proof early fire detection. The air sampling smoke detectors actively take samples from the air in the room via ducts.

The technology recognises even the slightest traces of pyrolysis particles by means of the 'high power light source' optical detection process. This makes the TITANUS® up to 2,000 times more sensitive than conventional point-type detectors. The robust version for deep-freeze environments is designed for use in difficult areas, e.g. at extreme minus temperatures of as low as -40°C.

Summary

The customised fire prevention concept offers La Lorraine optimum protection for its newly constructed deep-freeze high-bay warehouse. When a serious fire broke out in a neighbouring older unprotected production plant on 31 January, 2014, resulting in weeks of disruption to production, the operators were certain: They had made the right decision in choosing the fire prevention concept for the new warehouse.





A closer look at safety

The latest trends and statistics from the world of fire protection

The safety of their own company is one of the most important topics that business people and managing directors have to constantly deal with. Peter Hohl, Managing Director of the publishing house SecuMedia Verlag and publisher of the specialist magazine WIK, takes a closer look at the safety industry and highlights the latest trends and statistics from the world of fire protection.

Keeping data flows moving



The data centre of the company DARZ GmbH founded in 2010 is located in the former vault building of the Hessian State Bank and has what is likely to be the highest on-site safety and security level of any data centre in Germany: this resulted in particular challenges when planning the optimum fire prevention solution for the various protected areas.



Technologies for combatting false alarms

According to VdS experts, false alarms in industrial areas have become increasingly rare in recent years. Where there was previously no adequate fire detection, fires are now often detected at a very early stage – almost without any false alarms. More information about air sampling smoke detectors will be provided in issue 2/2015.

How can the world's largest deep-freeze warehouse be protected against fire risks?



In the next issue, read about how protection is provided for the largest automated deep-freeze warehouse for chips with three protected areas with a total volume of 1,050,000 m³.

BOOK TIP

Handbuch Brandschutzatlas, 3rd edition 2014 Principles – Planning – Execution

Authors: Josef Mayr and Lutz Battran, 1,336 pages (in German)

The "Handbuch Brandschutzatlas" provides an overview of fire prevention basics. The manual contains the most important chapters of the standard work "Brandschutzatlas", which enables the development of fire protection concepts. It has been updated and expanded to reflect the loose-leaf-collection. Recognised experts explain planning regulations easily understandable and demonstrate functional technical designs with the

help of numerous illustrations. The book also contains technical commentaries, which have evolved into general standards.



FeuerTrutz Verlag ISBN: 978-3-86235-234-0

On a Lighter Note

Christoph Kainz, currently a consultant for WAGNER, can report on a case of particularly great customer interest in the Russian market.

One morning, during a Russian rail trade fair in Moscow, a potential new customer came to the WAGNER stand. He headed purposefully over to Christoph Kainz and greeted him with the words "WAGNER Company?". Kainz confirmed that he was exhibiting fire prevention solutions for rail vehicles. This was not a topic of interest to the visitor, but he was interested in the OxyReduct® fire prevention system, which he had heard a great deal about. The prospective customer had gone online and seen that WAGNER was an exhibitor without realising that OxyReduct® would not be exhibited at a rail trade fair.

Kainz suggested a consultation in Moscow with a visit to OxyReduct® systems that have already been installed together with the Managing Director of WAGNER Russia, Vladimir Afanasiev. He thought that this was a good plan until he found out that the prospective customer had come from Kiev, 850 km away and spent all night in his car simply to find out about OxyReduct®. He was flabbergasted and spontaneously invited the knowledge-thirsty and far-travelled visitor from Kiev to breakfast so that he could take his time to explain OxyReduct® to him. The prospective customer found that the journey was definitely worthwhile and was visibly enthused by the 'made in Germany' technology.

Now, you would presumably expect the prospective Ukrainian customer to have then spent a relaxed day at the trade fair. But you could not be more wrong. He bid farewell to Christoph Kainz and Vladimir Afanasiev with the words "I am driving back to Kiev now". If they had not already realised this, it suddenly became very clear to the two men that they had a truly brilliant product in their range.

_{Київ} (Kiev) 850km

WAGNER Impulse | 1/2015

See fire prevention solutions from WAGNER for yourself!

16/06/2015 - 18/06/2015

FIREX International, London (UK)

22/06/2015 - 25/06/2015

NFPA, Chicago (USA)

02/09/2015 - 05/09/2015

EXPO 1520, Moscow (Russia)

15/09/2015 - 16/09/2015

Braunschweiger Brandschutztage / Brunswick Fire Prevention Days (Germany)

22/09/2015 - 25/09/2015

TRAKO International Railway Fair, Danzig (Poland)

29/09/2015 - 01/10/2015

Fire & Disaster Asia, Singapore

21/10/2015

Ostwestfälischer Brandschutztag / East-Westphalian Fire Prevention Day, Bad Salzuflen (Germany)

10/11/2015 - 11/11/2015

Data Centre World 2015, Frankfurt/Main (Germany)

10/11/2015 - 13/11/2015

Sicherheit 2015, Zurich (Switzerland)

16/11/2015

Fire protection conference for fuel depots and hazardous chemicals storage, Essen (Germany)

WAGNER World

You are always very welcome!

Visit us in our training and exhibition facilities in Langenhagen, Germany.

A

Experience live fire tests!

Further event dates and details of how to contact WAGNER directly can be found at www.wagner.eu

