



DELIVERY CAPACITY
ON ICE



DELIVERY
CAPACITY WITH
GUARANTEED
PROTECTION

FIRE PROTECTION IN SUB-ZERO TEMPERATURES

OxyReduct®

Active fire prevention system
for deep freeze storages and
cold storage warehouses

WAGNER® 

Minimize risks successfully

INNOVATIVE FIRE PROTECTION SOLUTIONS.



Preferred Freezer Services, Richland/USA



"Thanks to WAGNER, we have a fire prevention system that protects us optimally from the consequences of fire. We were particularly impressed by the active fire prevention concept. Sprinkler systems commonly used in the USA only react when fire has already broken out – but by then, it's usually too late! The OxyReduct® system from WAGNER ensures that fire can't break out and spread at all at our site."

Burnie Taylor, General Manager Preferred Freezer



"We built the largest fully automated high-bay cold storage warehouse in Germany. The protection objective was very comprehensive. The resulting solution speaks for itself: In our high-bay cold storage warehouse, nothing can burn thanks to active fire prevention with oxygen reduction from WAGNER. Thanks to the high energy efficiency of the VPSA technology installed, we not only score points in term of safety, we also keep operation costs down."

Georg Grewe, Managing Director of KLM Logistik



KLM Logistik, Rheine/Germany



EDNA, Brehna/Germany



"Our products and logistics processes are reliably protected with the active fire prevention. The new VPSA technology also saves operating costs – while still maintaining a high safety standard."

Norbert Meitinger, Managing Director



Dr. Oetker, London (Ontario)/Canada, other projects in Germany (Wittenburg, Wittlich, Bielefeld and Moers) and Poland (Lebcz)



La Lorraine, Kladno/Czech Republic, additional project in Poland (Nowy Dwór Mazowiecki)

The challenge

FIRE PROTECTION UNDER EXTREME CONDITIONS.

Nowadays all over the world frozen and fresh food must be available around the clock. It is therefore essential that the delivery chain is not interrupted at any point. Deep freeze storages and warehouses are built and operated based on profitability while also taking into account issues of sustainability and globalisation. Central and fully automated logistics centres are gaining in importance resulting in increased demand for active fire protection that prevents the risk of fire. Even smoke, soot or extinguishing water contaminated with antifreeze agents cause time-critical interruptions in operation, loss of goods and technical damage.

Modern warehouse construction, high risk of fire

Full capacity utilization, large storage volumes, watertight building envelopes

Rack heights of up to 40 m, narrow spacings and lack of fire sections result in an unhindered, rapid spread of fire. In the event of a fire, fire extinguishing with sprinklers or by fire fighters is made more difficult because of the long distances that need to be covered to reach the source of the fire.

High level of automation

The risk of fire increases because typical causes of fire are faults on pickers, in switch cabinets or on cooling units and defrosters.

Sub-zero temperatures

In deep-freeze atmospheres, there is no humidity – the extremely dry air facilitates the spread of fire.

Rising fumes ignite goods stored on higher levels

Just a few minutes is all it takes for the fire to spread right up to the roof of the warehouse.

More promotionally effective and protective packaging materials

Cardboard packaging and special films made from polypropylene are highly flammable. Polypropylene behaves like a flammable liquid in a fire resulting in the raining down of burning droplets.

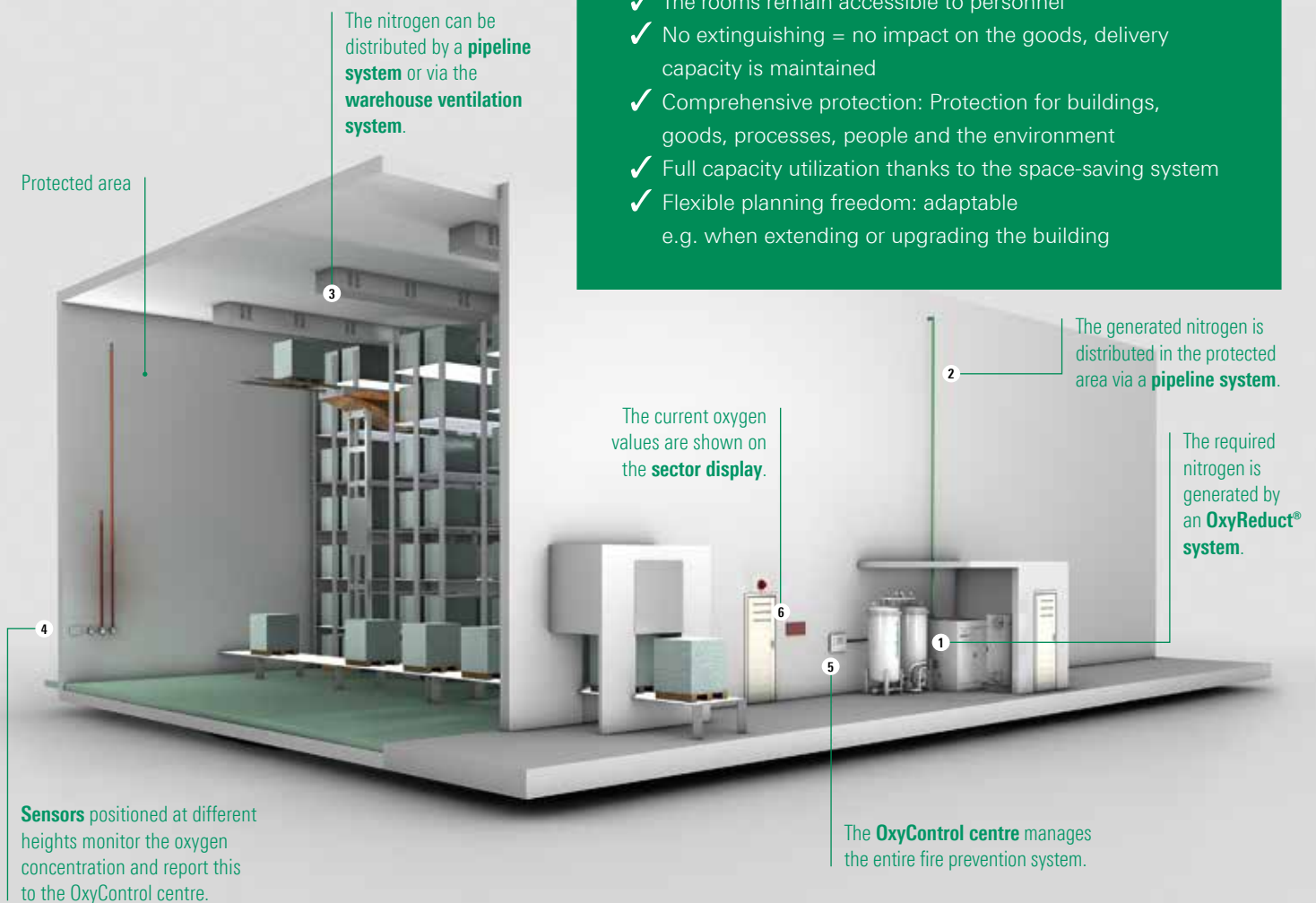


The solution

ACTIVE FIRE PREVENTION – AS SIMPLE AS IT IS INGENUOUS.

The OxyReduct® active fire prevention system eliminates from the outset the risk of fire breaking out or spreading. The system reduces the oxygen content in the air in the protected area to a level where the risk of fire is minimized significantly, but the protected area can still be accessed by personnel. The benefits for you: OxyReduct® not only protects your goods, your technical systems and your personnel from the consequences of fire, but also from the damage caused by water and other extinguishing agents.

Sample system



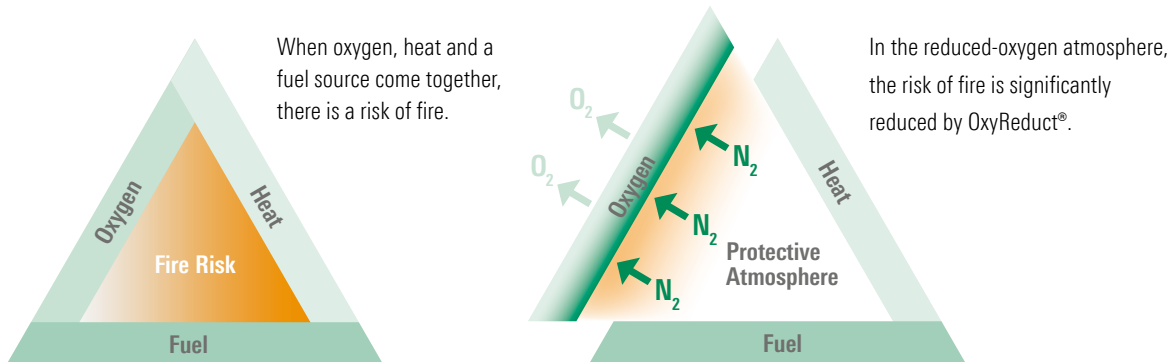
THE BENEFITS FOR YOU

- ✓ Preventive fire protection instead of loss adjustment after conventional extinguishing
- ✓ Active system = low risk of fire
- ✓ The rooms remain accessible to personnel
- ✓ No extinguishing = no impact on the goods, delivery capacity is maintained
- ✓ Comprehensive protection: Protection for buildings, goods, processes, people and the environment
- ✓ Full capacity utilization thanks to the space-saving system
- ✓ Flexible planning freedom: adaptable e.g. when extending or upgrading the building

The OxyReduct® principle

LESS OXYGEN, MORE SAFETY.

Releasing nitrogen permanently into the protected area lowers the oxygen concentration to a level clearly below the specified ignition threshold for the materials present. OxyReduct® thus creates a protective atmosphere where the risk of a fire breaking out can almost be ruled out completely.



Oxygen reduction via nitrogen

Using nitrogen as an inert gas has significant benefits:

- With 78.09 vol%, nitrogen is the main component of our normal ambient air.
- It can be generated on-site as required and does not need to be stored.
- Generation of nitrogen by a purely physical process.
- Because nitrogen is non-toxic and free from pollutants, the protected area can be accessed by personnel.
- The physical properties of nitrogen guarantee a homogeneous distribution in the protected area.



**Officially recognised solution,
proven hundreds of times over**
Ensuring fires can't start at your premises: the active fire prevention system OxyReduct®.



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WAGNER sets standards in fire protection – with innovative and comprehensive solutions

Fire detection units

Very early fire detection systems (TITANUS®)

Active fire prevention (OxyReduct®)

Fire extinguishing (FirExting®)

Hazard management (VisuLAN®)

BETTER SOLUTIONS IN FIRE PROTECTION

WAGNER®