

SHANGHAI LOGISTIC WAREHOUSES



PROTECT WAREHOUSE CONTENTS
FROM SMOKE, FIRE AND WATER
DAMAGE.

DOES YOUR FACILITY MEET CODE REQUIREMENT?

A plastics warehouse burnt to the ground in Wilton, UK, resulting in US\$14 million in stock loss. The probable cause? A fluorescent light fitting failed and dripped molten acrylic onto storage.

SHANGHAI WAREHOUSE DETECTION CODE

The new Shanghai code mandates Very Early Warning Aspirated Smoke Detection systems to be used within large logistic warehouses in Shanghai.

The code affects all consumer and commercial logistic warehouse ranging from fresh, frozen and packaged foods through to industrial products such as automotive parts, paint, paper, textiles and information technology equipment are some examples of high value and often highly flammable stock that occupy logistic warehouses.

THE RISK

Business continuity must be protected because products going in and out with high value and fast turnover results in high value and occupancy of products. With expected turnaround and the consequential loss caused by downtime very high, an interruption will not only effect the logistic supply chain but your business reputation. Telling your customers that their goods have gone up in smoke or that you can't supply them for several months could be the end of your business.

Even if your warehouse does not contain flammable goods, the risk is still large. Packing materials such as plastics, cardboard, wooden crates and pallets are common in warehouses. The possible ignition source such as smoking, electrical lighting and equipment, heaters and the storage of hazardous goods creates a risk that must be managed.

Fire will interrupt the operation and the supply chain. Even a small fire will contaminate the environment with smoke and turned stored goods into scrap.

THE VESDA ADVANTAGE

VESDA - the world's leading aspirating smoke detection system - provides the optimum protection against fire by reliably detecting the presence of smoke at the earliest possible stage (refer to Figure 1).

Despite the key environmental challenges of a warehouse environment, VESDA's advanced smoke detection technology overcomes the difficulties associated with conventional detection systems.

VESDA's early warning, aspirating smoke detection cumulatively samples air via multiple sampling holes in a pipe network and transports the air sample to a centrally located detector for accurate analysis (refer to Figure 2).

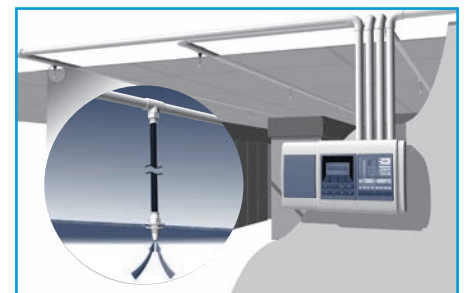


Figure 2 - VESDA Pipe Network

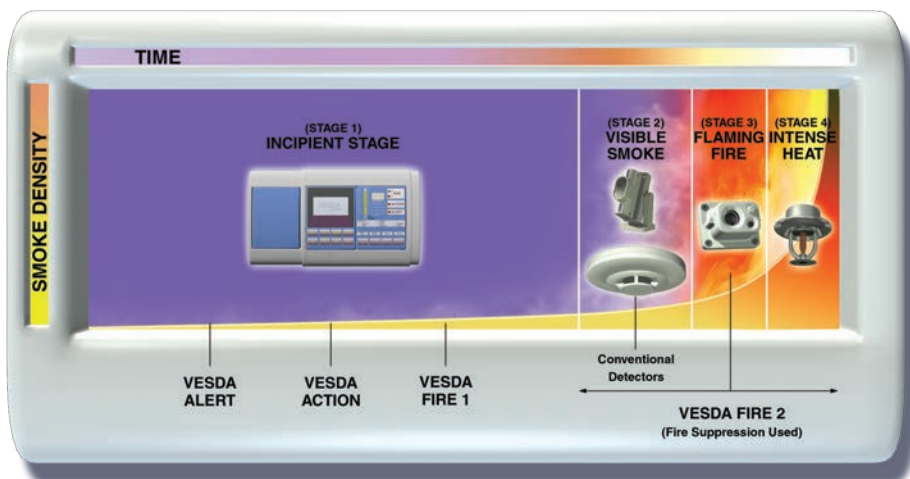


Figure 1 - Fire Growth Curve

The progression of fire growth over time. A VESDA detector can reliably detect a warehouse fire at the incipient stage and avoid the incidence of damage and loss. The detector can be configured to generate multiple alarms during the earliest stage of a fire.

WHY DO WAREHOUSES NEED A DIFFERENT APPROACH TO SMOKE DETECTION?

Since large logistics warehouses with high ceilings pose a challenge to fire safety system design, a performance-based fire safety design approach is adopted to ensure that all protection requirements will be met. The key benefits of the VESDA system are:

- High sensitivity - warehouses contain large volumes of air and smoke is easily diluted making it difficult to detect.
- Reliability - lower on-going maintenance and replacement costs.
- Very early fire detection - meeting fire safety design objectives.
- Cost-effective system design - value-engineered and fit-for-purpose.
- Flexibility - accommodating future floor plan changes.

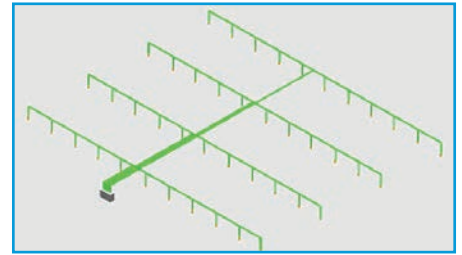
DESIGN FLEXIBILITY TO SUIT ALL WAREHOUSES

VESDA can be used to detect smoke on the ceiling and within the storage racks for facilities with high ceilings.

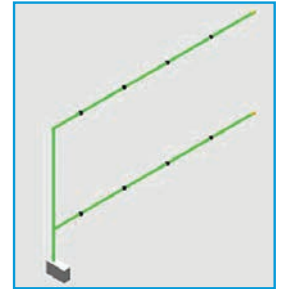
The detector can be positioned in an easily accessible location where programming and maintenance of the detector can be performed without disrupting warehouse operation.

Using a pipe network with multiple sampling holes and multi-level sampling overcomes the issue of smoke stratification by using drop pipes or sampling out specific locations of the warehouse.

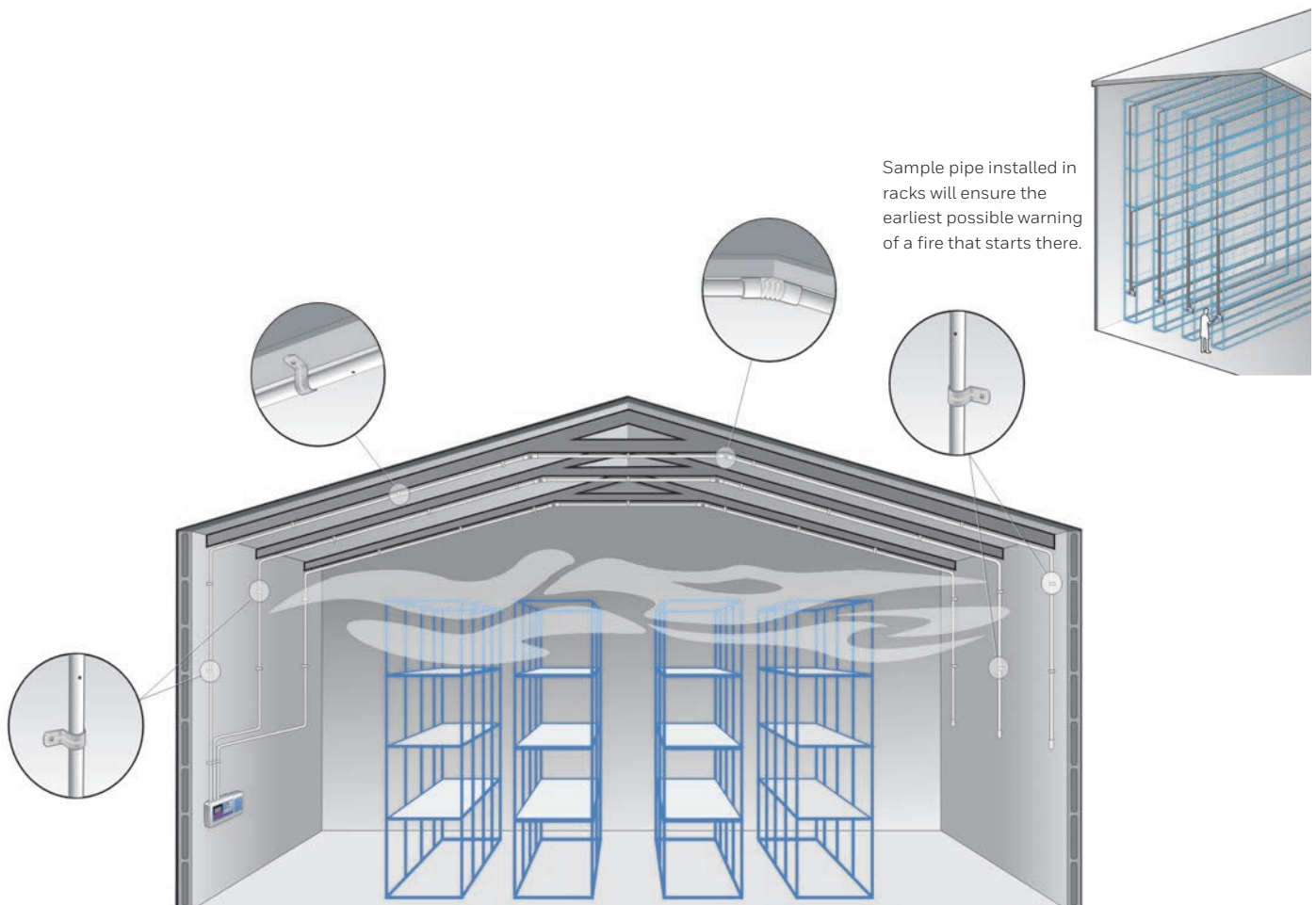
On Ceiling Detection



In-Rack Sampling



For warehouses that contain high-bay racking, sampling pipe can be located within the racking to overcome stratification or detection of small fires. VESDA detectors can also be installed in-rack for pre-action sprinkler actuation.



XTRALIS'S GLOBAL NETWORK OF OFFICES AND REPRESENTATIVES MEANS THAT HELP IS SOON AT HAND

WHY USE A VESDA SYSTEM?

When selecting an aspirating smoke detection system for a warehouse, consider:

Look for	Why?	What VESDA Offers
The best sensitivity	To get the earliest possible warning of a fire	VESDA can alarm at 0.005 % (obs/m)
A wide sensitivity range	So that detection levels can be set to suit the environment, avoiding false alarms	VESDA detectors have a sensitivity range of 0.005 - 20% obs/m
A redundant peer-to-peer communications network	To give you flexibility in positioning and programming detectors and display modules	The VESDAnet communication network allows you complete installation flexibility
Nuisance alarm rejection	For reliable performance in the presence of dust and other nuisance alarm sources	VESDA detectors have a filtration system to remove particulate matter that could cause false alarms
Multiple programmable alarm thresholds	So that the response can be appropriate for the stage of the fire, from 'Investigate' at the first alarm through to 'Start the sprinklers' at the fourth alarm level	VESDA has 4 programmable alarm levels, allowing a response appropriate for the threat.
Event log and reporting	A forensic tool for investigating faults, alarms, user actions and smoke trends	Each VESDA detector has an event log that stores the last 18000 events
A wide product range	You can choose the product that is right for the area size you wish to protect	VESDA has the widest product range on the market
Absolute calibration	Ensures repeatable and reliable detection of very slow growth incipient fires	VESDA is the only aspirating smoke detector with Absolute calibration
An accredited global distribution and support network	So you get the right technical advice when you need it	All distributors of VESDA products are factory-accredited

SOME OF THE WAREHOUSES THAT ARE PROTECTED BY VESDA IN CHINA

- Air China Warehouse
- IKEA (Shanghai & Chengdu)
- Shijiazhuang Shineway Pharmaceutical Group Co., Ltd.
- Huahui International Transportation Service Co., Ltd. (Beijing & Shanghai)
- Kerry Logistics
- Shandong Bausch Lomb Freda Pharmaceutical Co., Ltd.
- Shanghai Pharmaceutical Group Co., Ltd.

GLOBAL APPROVALS



ABOUT XTRALIS



Xtralis is a leading global provider of powerful solutions for the very early & reliable detection of smoke, fire, and gas threats. Our technologies prevent disasters by giving users time to respond before life, critical infrastructure or business continuity is compromised.

We protect highly-valued and irreplaceable assets and infrastructure belonging to the world's top governments and businesses.

To learn more, please visit us at www.xtralis.com