



# FirePASS®



Company Profile.

## **Saiffee Engineering**

&

## **Contracting Services {SECS}.**



# FirePASS®

## *Pictures of Major Fire Incidents.*



*Saint John Oil Refinery*



*Massachusetts Gas Explosions.*



*Chemical Plant Blast.*



*Building collapses.*



*Process Safety incidents.*

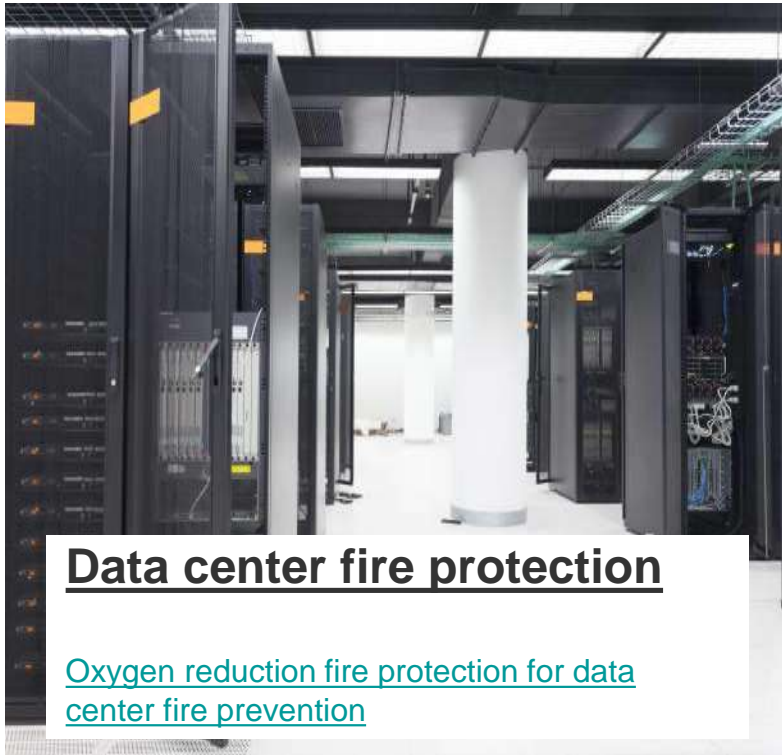


*Oil Rig disaster.*



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## Applications







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## Applications



### Substation fire prevention

Complete and reliable fire prevention for switch rooms in substations.



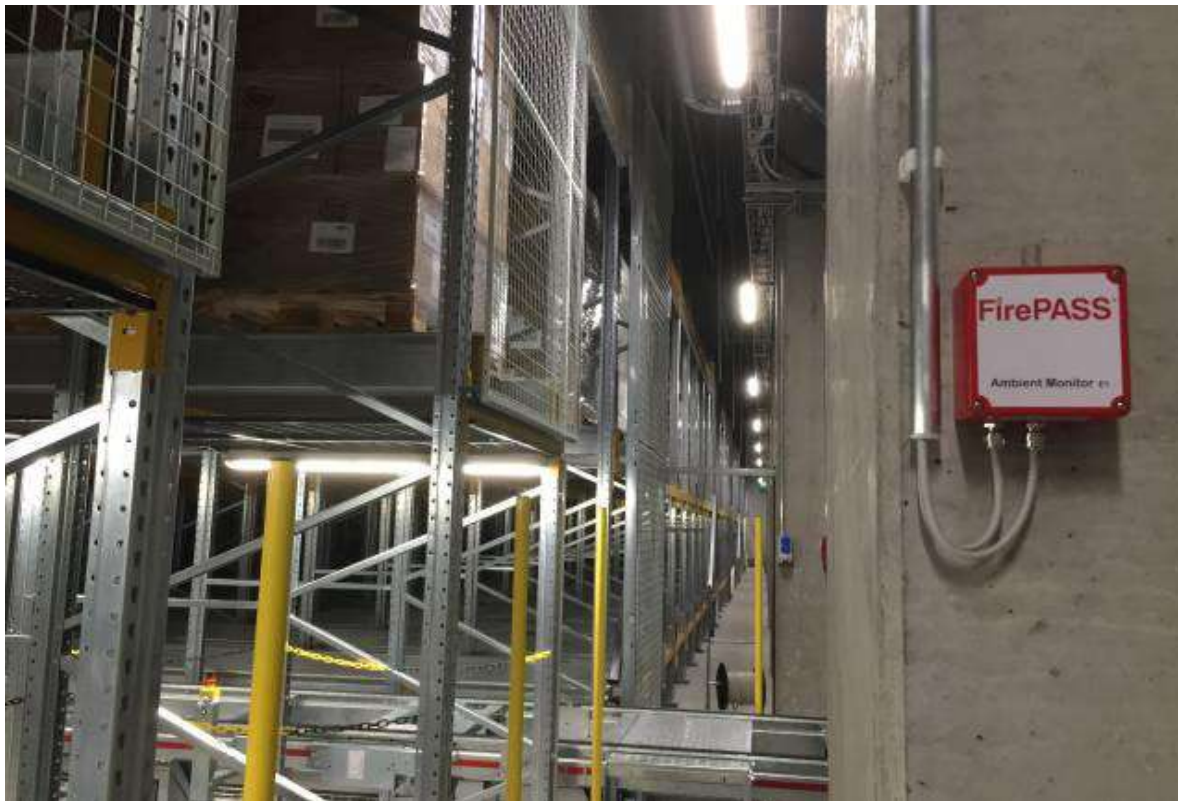
### Tall buildings fire protection

Oxygen reduction fire protection for tall buildings fire protection



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## Applications



### Warehouse fire protection

[Fire prevention technology for large automatic storage facilities, High Bay Warehouses and Freezers](#)



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## Applications

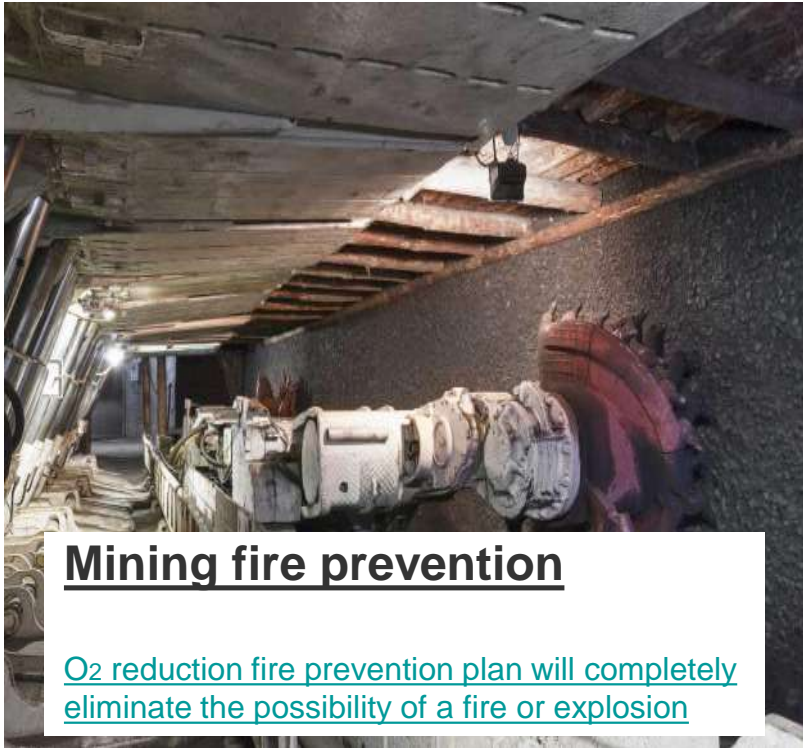






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## Applications



### Mining fire prevention

O<sub>2</sub> reduction fire prevention plan will completely eliminate the possibility of a fire or explosion



### Nuclear Facilities fire prevention

Oxygen reduction reduces the risk of a catastrophic fire accident in a nuclear station dramatically



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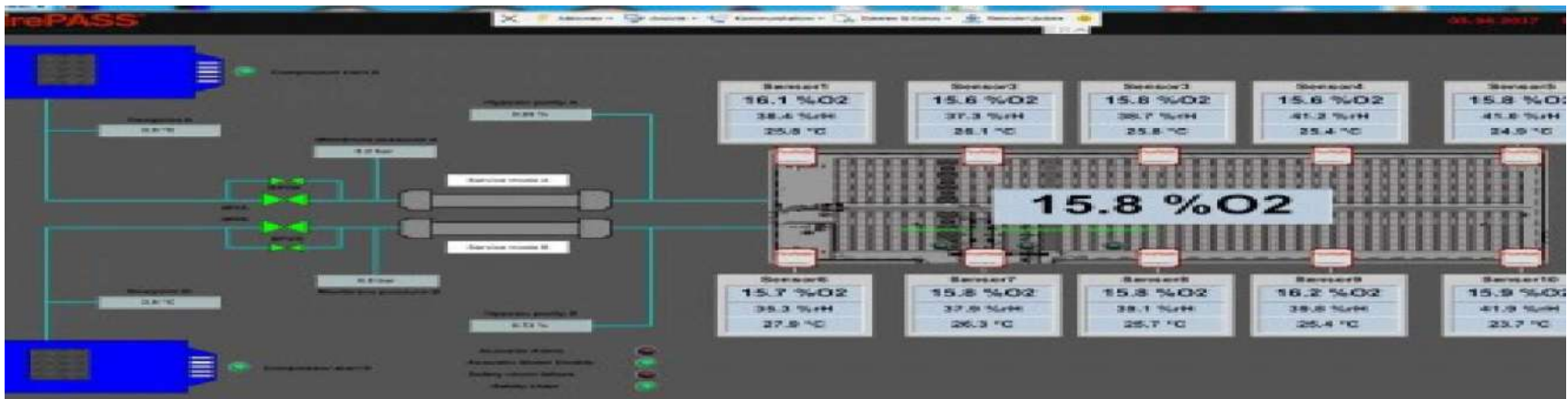
## **Case Studies.**





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## Oxygen reduction system for protection of large High Bay Robotic Warehouses.



FirePASS announces the completion of the oxygen reduction system for protection of a High Bay Robotic Warehouse in Finland. Our patented fire prevention technology is proven to be the best fit for large automatic storage facilities. The FirePASS hypoxic air ventilation concept is far more superior to the nitrogen dilution based systems because of its unprecedented safety and reliability. The FirePASS Oxygen Reduction System fights fires before they can even start. There is no need for distribution piping and nozzles since FirePASS generators are able to create homogenous hypoxic environment without dangerous nitrogen pockets. FirePASS is the safest solution for these types of large automatic environments.

FirePASS is currently working on a few projects for protecting High Bay warehouses and Cold Storage facilities having volumes up to 240.000 m3.



# FirePASS®

**FirePASS proudly presents the world's first rack mounted fire prevention system.**



The 19" Rack Mounted Fire Prevention System allows to completely prevent ignition and fire by creating oxygen reduction (hypoxic) atmosphere inside a server enclosure.

Protect your valuable data & hardware components from fire risk, with a Fire Prevention Generator from FirePASS®. Using a build-in compressor or supplied with compressed air, these units create a low oxygen (hypoxic) atmosphere within internally cooled\* server cabinets, making fire and the ignition of substances within the cabinet impossible.

FirePASS® is the only manufacturer of 19" Rack Mounted Fire Prevention Systems in the world. For more information about our 19" Rack Mounted Prevention System, please [contact us](#).



# FirePASS<sup>®</sup>

***Confidence & Trust in FirePASS Technology by the World's Giants.***

***BOEING Company & Honeywell International – Licensees of FirePASS Technology.  
Year 2010.***

***License to the German company WAGNER Group GmbH in 2014.***





# FirePASS®

## Warehouse fire protection

FirePASS's patented fire prevention technology is proven to be the best fit for large automatic storage facilities, High Bay warehouses and Freezers.

### Oxygen Reduction System prevents fires

The FirePASS hypoxic air ventilation concept is far more superior to the nitrogen dilution based systems because of its unprecedented safety and reliability.

The FirePASS Oxygen Reduction System prevents fires before they can even start and will protect your goods from potential water damage.

Below, you will find more information on the fire hazards that can occur in your ASRS, cold storage or high-bay warehouses and why FirePASS's fire protection technology may just be the best solution for you.



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## ASRS Warehouse Fire Protection

With the automatization of modern warehouses and rise of so-called ASRS Warehouses (Automated Storage / Retrieval System), the risk of potential fire increases.

Automatization means more electricity will be utilized in the general structuring of your warehouse as well as in the actual moving parts that do the heavy lifting.

While today, most (if not all) warehouses are fitted with sprinkler systems, this may not be enough for ASRS warehouses. Thus the importance of preventing fires before they even start. The containers in which the goods are stored play a big role here. Whether the containers are made of metal, cardboard or plastic, makes all the difference since some materials burn more severely than others.

Since robots are more agile than forklifts, automated warehouses tend to optimize storage space. This is often done by reducing the size of the aisles and minimizing the space between container loads. And while this may make the warehouse more efficient, it will also allow fire to spread more easily and disrupt the water flow from the sprinkler system.

With FirePASS's patented fire prevention technology, you are able to make sure your modern warehouse is as safe as it can be, by preventing fires before they even start.





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## Cold Storage fire prevention

Cold Storage warehouses, distribution centers and other refrigerated storage areas often require special fire protection.

Cooled storages can house a wide variety of potential fire hazards that need to be taken into account. This makes it extra important to make sure fire doesn't break out in the first place. With FirePASS's patented fire prevention technology, you most certainly can.

To store goods that require refrigeration, cold storage warehouses are filled with cold air that should not be able to escape. To achieve this, materials such as rubber, polyurethane and polystyrene foam are used to prevent draft and maintain the temperature of the room.

These materials are highly flammable. Products that are generally kept in these cold storage warehouses also have a tendency to be flammable: from frozen foods themselves to their (now dried out) packaging.

Using sprinkler systems in these kinds of conditions can also prove to be difficult. Water supplies and the sprinklers themselves may freeze upon activation. By implementing FirePASS's fire prevention technology this can be prevented since it is based on oxygen reduction. Your warehouses and products can be properly protected by choosing FirePASS's oxygen reduction fire prevention system.





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## High-Bay warehouse fire protection

High-bay warehouses store a high quantity of stacked goods in a tight space. Both the typical structural design of high-bay warehouses and the high density of goods stored contribute to potential fire outbreaks. In warehouses like these, this will result in enormous losses.

Since High-Bay warehouses have such high ceilings, a so-called 'chimney-effect' can occur during a fire. This will cause the fire to spread rapidly into higher areas. It will also increase the rate at which the fire spreads. The size of these warehouses make it difficult for sprinklers to cover every inch and suppressing the flames becomes near impossible.

Even if a sprinkler system is triggered, the water used to extinguish the flames will most likely not reach the source of the fire because of the densely packed products and high racks. Sprinklers are also often seen as unsatisfactory solutions because of the water damage it causes to the stored products.

By using FirePASS's fire prevention technology, which is based on oxygen reduction, you're protecting your goods to the best of your ability. Both fire- and water damage can be prevented.

Also read: [Oxygen reduction system for protection of large High Bay Robotic Warehouses](#)



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