

## FIVE REASONS WHY YOUR WAREHOUSE NEEDS ADVANCED FIRE DETECTION NOW



In recent months, the online retail market has experienced triple-digit growth in most regions, with countries including Belgium, Poland, and Mexico registering a record 200% surge compared to 2019. This spectacular growth has kept warehouses around the world incredibly busy. As logistics operators strive to fulfill an ever-growing number of time-critical deliveries, minimizing disruption from fire has become a top priority. Here are four reasons why very-early-warning, advanced fire detection is a must have.

## FIRES DO HAPPEN

1.

From furniture through to rubber tyres and textiles, large quantities of vertically-stored, flammable goods, are commonplace in warehouses. These add to packing materials such as cardboard as well as wooden pallets and crates, which create the perfect conditions for fast-spreading fires. Not only that. Warehouses are often large, undivided open spaces where fires can spread easily. This risk is indirectly exacerbated by the location of many large distribution centers outside major urban areas, where access to reliable water supply (for fire suppression systems) may be an issue.

## FIRES DON'T COME CHEAP

2.

The consequences of a warehouse fire can be dire and include damaged buildings and goods as well as downtime, injuries, insurance claims, and reputational damage. For example, property losses due to warehouse fires in the USA amounted to \$833 million in 2018 while preventable warehouse fires cost the UK economy an estimated £1 billion and the loss of 5,000 full-time jobs between 2009 and 2014. The environmental consequences of warehouse fires, including soot, toxic fumes, and runaway contaminated water, can also be profound and pose a threat to buildings, infrastructure, and the public in the surrounding areas.

## SMOKE DOESN'T LIKE TO BE SEEN

3.

Warehouses come in all shapes and sizes but tend to share similar structural and environmental features that can make fire detection tricky. Open spaces and high ceilings, for example, can lead smoke to dilute easily and become difficult to detect. Remember: the higher the ceiling the greater the size of the fire by the time sprinklers activate, which is why detecting smoke early is paramount. In addition, mechanical HVAC systems or natural ventilation can divert smoke away from detection points while anything from racks to conveyors, and autonomous vehicles can obstruct it.

## IF YOU CAN'T REACH IT, YOU CAN'T CHECK IT

4.

Commissioning and regular testing of smoke detectors are vital. But if their locations are hard to reach (e.g. high ceilings and high racks), accessing them for maintenance can be risky, and end up disrupting time-critical warehousing operations. This may put some warehouse operators off installing smoke detectors altogether, with nearly 6 in 10 US warehouses suffering a fire having neither smoke detectors nor sprinklers installed at the time of the incident.

## EARLY ISN'T EARLY ENOUGH

5.

Ultimately, the type of fire protection system you choose will determine how promptly you'll be able to detect and suppress a fire threat. The device's sensitivity is a key consideration here and can vary quite substantially from one technology to another. For example, a very-early-warning aspirating smoke detection system can activate in less than 1.5 minutes against nearly four minutes required by a standard optical spot detector, at which point the fire will be roughly six times bigger than when it was first detected by a very-early-warning detector. If you rely on sprinklers for protection, the difference will be even starker.

To find out more about how very-early-warning aspirating smoke detection can help optimize fire safety and facilitate easy maintenance and installation across warehousing facilities, download [The Ultimate Guide to Advanced Fire Detection in Warehouses: Risks, Requirements, Detection Options](#) here.

<sup>1</sup> <https://ccinsight.org/#global-outlook>

<sup>2</sup> <https://www.firesafe.org.uk/fire-safety-in-factories-and-warehouses/>

<sup>3</sup> <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/US-Fire-Problem/osFireLoss.pdf>

<sup>4</sup> <https://cebr.com/reports/economic-impact-of-warehouse-fires/>

<sup>5</sup> Source: D.T. Gottuk and J. Dinaburg, "Fire Detection in Warehouse Facilities", Hughes Associates Inc. Jan. 2012, Report for The Fire Protection Research Foundation

<sup>6</sup> <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Building-and-life-safety/OSWarehouseFires0615.ashx>

<sup>7</sup> Xtralis, "Benefits of Very Early Warning Fire Detection in Warehouses", 2017 (Doc 32795\_00). Source: [https://xtralis.com/library?search\\_number=32795&msg=login\\_success](https://xtralis.com/library?search_number=32795&msg=login_success).