CUSTOMER SUCCESS STORY

LG DISPLAY WITH VESDA-E

The Customer: LG Display

LG Display is a global display company that produces and sells innovative displays and related products through differentiated technologies such as OLED and IPS. In order to target major markets such as China, Europe, and North America more closely, LGD has established and operated production bases, sales corporations, and branches all over the world. In addition, LGD is continuously developing innovative new technologies such as Cinematic Sound OLED, 8K OLED, and Flexible OLED in various display products such as TV, mobile, IT and auto, and commercial display products.

The Challenge

Many LG Display production areas are in clean room environments which are highly sensitive to any smoke, foreign particles and chemical releases.

There are many factors to consider when protecting a clean room from fire. In the event of a possible fire, smoke can be easily diluted as the air moves at a speed of 5 to 12 m/sec, making smoke detection difficult and challenging. In addition, there is the presence of highly flammable liquids and gases, adding to the fire risk. These manufacturing sites have zero tolerance for fire due to their high value production facilities and the prohibitive cost of contamination and production downtime. Therefore, the main approach was to design and install a reliable very early warning system such as Aspirating Smoke Detection (ASD).

PROJECT:
LG Display

END USER/LOCATION:
LG Display, South Korea

INDUSTRY:
Clean Room/ Display Manufacturing Plant

PARTNER:
The Win Tech Co., Ltd

SOLUTION:
VESDA-E Series

VESDA-E is the leader in providing early-warning fire and smoke detection with its active sampling, interruption-free operation and best-in-class connectivity. Its sensitivity, flexibility, reliability, programmability, and expandability provide customers with superior performance and protection, while lowering the total cost of ownership (TCO).
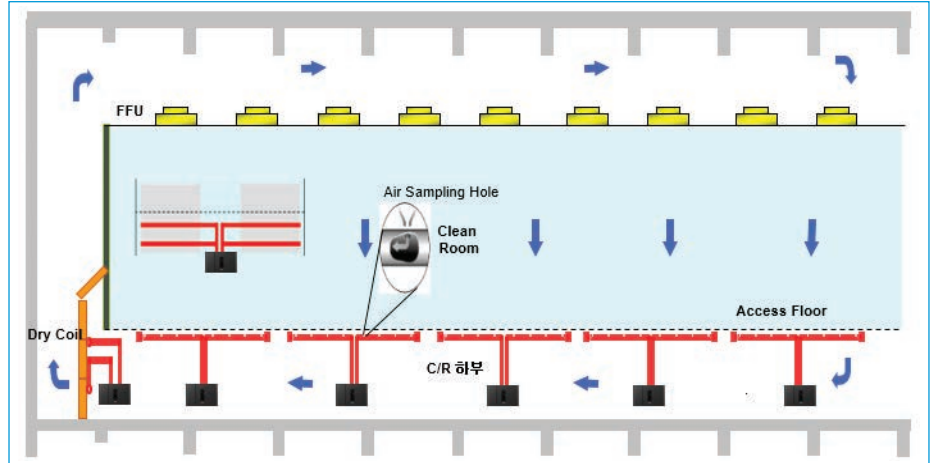
The Solution & Outcome

Early smoke detection and control is essential to maintaining the integrity of a clean room in the event of a fire. One of the most effective ways to minimize pollution in a clean room is to immediately detect even the slightest concentration of smoke and remove it accordingly. Conventional photoelectric and ionizing smoke detectors are not sensitive enough for cleanroom use and the proposed solution is a VESDA ASD system by Xtralis.

The Win Tech was selected to design, supply, and install the latest VESDA-E ASD system for the entire site in LG Display to detect the slightest smoke in case of a fire event.

VESDA-E detectors are installed in the Dry Cooling Coil (DCC) areas to monitor the condition of the clean room and detect smoke at the earliest stage before air is filtered. More VESDA-E detectors are also installed in the under-floor voids and cable trays where there is potential fire hazard.

To maintain customer satisfaction and improve project continuity, The Win Tech developed patented sampling pipe fittings specially for LG Display clean rooms application. In conventional pipe fittings bonding process, harmful substances specified in the Material Safety Data Sheet (MSDS) are generated using general adhesives. The patented fittings eliminate the use of adhesives, saving time and improving work process and site environmental quality.

Today LG Display has insisted on deploying VESDA early warning

smoke detection solutions in all its critical facilities to mitigate fire risks, protecting its people, business and assets from fire.

Upper Floor

Under Floor
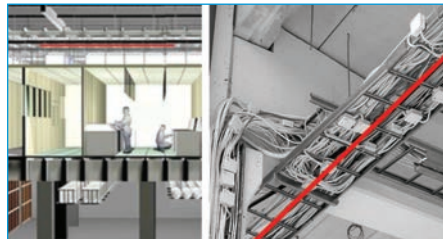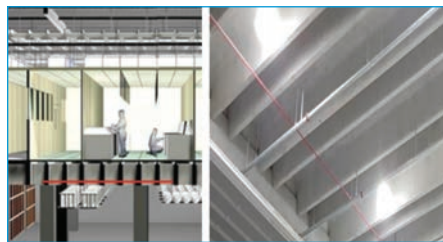

Dry Cooling Coil

About Installer

The Win Tech Co., Ltd. is an authorized distributor of Xtralis in South Korea, with experienced engineers who are experts in ASD design and South Korean fire safety requirements.

The Win Tech's main business areas are displays, semiconductors, warehouses, data centers, power plants and ESS. They provide VESDA total solution services including design, supply, installation, and follow-up maintenance and management.

For more information, please visit The Win Tech homepage: www.the-wintech.com.

LEARN MORE: XTRALIS.COM