CASE STUDY
YANFENG PLASTIC OMNIUM SOUTH AFRICA

YANFENG PLASTIC OMNIUM – ROSSLYN

OVERVIEW

Yanfeng Plastic Omnium South Africa (YFPO) is a joint venture between Plastic Omnium and Yanfeng. YFPO specialises in manufacturing automotive components and trims and is a crucial supplier to BMW's manufacturing plant in Rosslyn, South Africa. Its newly established facility, valued at over R600 million, marks its first investment outside mainland China.

THE CHALLENGES

Ensuring a top-notch fire detection and alarm system was a pivotal aspect of the facility's operations due to the presence of specialised equipment and various critical areas requiring protection. The installation faced several significant challenges –

Strict Restrictions on Drilling Structures – The facility's very specific restrictions on drilling into structures complicated the installation process.

Language Barriers – Language differences hindered communication between local and Chinese project managers.

Fast-Paced Project Environment – Numerous other contractors and subcontractors on-site further challenged the rapid pace of the project.

Fire protection solution company **Fire Brand Group** partnered with Technoswitch, a leading fire detection and suppression system supplier.. This collaboration was instrumental in providing a comprehensive fire safety solution tailored to this facility's unique needs.

INDUSTRY

- Automotive Manufacturing

PRODUCT INFORMATION

- Advanced Intelligent Fire Panels
- Advanced Extinguishing Fire Control Panels
- TC800 Teletek Conventional Fire Panels
- Apollo XP95 & S65 Heat & Smoke Point Detection
- Apollo Orbis Intrinsically Safe Equipment
- Protectowire Linear Heat Detection
- Flame Detectors
- Warning Devices
- Power Supplies

CASE STUDY
YANFENG PLASTIC OMNIUM SOUTH AFRICA

The fire protection system comprise of –

Linear Heat Detection Cables – Protect the robotics floor, interlocking, and conveyors.

Flame Detection and Heat Detectors – Installed in spray booths with linear heat detection cables.

Advanced Series 5000 Panels – Deployed to monitor valves in valve chambers and detection throughout the plant.

TC3001 Extinguishing Panels with IS Devices – In intrinsically safe areas and server rooms using Pyroshield gas suppression.

Pyroshield Gas Suppression System – Monitored by the TC3001 gas panel for spray booth protection.

IMPLEMENTATION & OUTCOME

The implementation process was divided into strategic phases:

Assessment and Planning – Firebrand and Technoswitch conducted a thorough site assessment to identify high-risk areas and optimal locations for fire detection equipment.

Installation – The teams worked diligently, adhering to the restrictions and effectively managing communication barriers. The fire detection systems were installed without disrupting the ongoing construction and operations.

Training and Handover – Comprehensive training was provided to YFPO staff to ensure they were well-equipped to operate and maintain the new fire detection systems.

Technoswitch's support with stock availability and technical enquiries significantly eased the installation process. Firebrand found the Advanced 5000 series fire panel particularly effective for the complex commissioning methodologies the project requires.

The collaboration between YFPO, Technoswitch, and Firebrand resulted in successfully implementing a high-quality fire detection and alarm system at the Rosslyn facility. Key outcomes included –

Enhanced Fire Detection and Protection – The facility now has advanced fire detection systems, including linear heat detection cables, flame detectors, and gas suppression systems.

Improved Safety and Compliance – The new systems ensured compliance with stringent safety regulations and significantly enhanced the facility's overall safety.

Operational Efficiency – The phased implementation approach and effective communication strategies minimised disruptions, ensuring the project stayed on track.

Advanced's TC3001 gas control panels were implemented to manage sprinkler system values and monitor foam triggers within the chambers, consistently demonstrating reliability and quality in these critical applications. Additionally, we deployed linear heat cable systems to monitor machine control equipment, enabling swift responses to alarm activations by shutting down production in affected areas for investigation and resolution.

CONCLUSION

Technoswitch and Firebrand's combined expertise and support resulted in a robust and reliable fire detection system, ensuring a safer working environment and compliance with regulatory standards.

This case study highlights the importance of strategic partnerships and advanced technology in achieving optimal safety outcomes for complex industrial projects.

HEAD OFFICE — JOHANNESBURG
Cussonia Park, 3 Ridge Road, Laser Park, Johannesburg **T** +27 (0)11 794 9144 **E** info@technoswitch.co.za
CAPE TOWN **T** +27 (0)21 948 4575 ■ **DURBAN** **T** +27 (0)31 266 8843

www.technoswitch.co.za