

The Gniezno Sports and Recreation Centre, Poland



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Project Outline

Contractor	D+H Polska
Location	Gniezno, Poland
Sector	Leisure
Disciplines Covered	Fire Alarm Aspirating Detection

Project Overview

The Gniezno Sports and Recreation Centre is a leisure complex located in Gniezno, Poland. The facility offers multiple pitches for volleyball, basketball, handball and more. The main stadium space is home to 1200 seats with an additional 300-fold out seats if required, meaning a substantial activity space.

The building offers a gym, cafeteria, modular conference room, squash courts, and eight cloakrooms outside the main stadium area. In addition to the public community space, the construction also benefits from several offices for administration purposes.

The Challenge

Fire protection regulations in Poland ensure sports facilities are protected with a fire detection system. The sports and entertainment hall in Gniezno was no different. The principal investor decided to use a Protec 6000 series fire alarm as their life safety solution.

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The challenge was to provide a fire alarm system that considers the possible damage to fire alarm devices. Sports halls are an environment where damage to equipment is a distinct possibility. Items like stray basketballs or footballs can prove troublesome for fire alarm systems as a ball could hit a detector and damage it, causing a fault on the fire alarm system. Therefore, when choosing the suitable detection for the environment, you must consider the possibility of damage to detectors and how to prevent it.

The Solution

The Gniezno sports and recreation centre benefited from a complete fire alarm solution manufactured by Protec Fire Detection PLC. It was installed by our network partner D+H Polska who initiated this successfully with ease and to an exceptional standard.

Fire Alarm – The building benefited from a compliant fire alarm system meeting the country fire regulations and client's system requirements. The fire alarm system features Protec 6000PLUS series automatic smoke detection, manual call points and alarm devices throughout the leisure complex.

Aspirating Detection - The project boasts several Protec ProPoint PLUS aspiration smoke detectors. The ProPoint PLUS utilises aspirating detection technology, ensuring early warnings of a fire condition. The two-channel detector offers a combination of both optical and CO detection. In a sports hall setting, the optical channel proves most beneficial. The ProPoint PLUS uses a Scatter Chamber Detector (SCD) method. The air is drawn into the detector continuously; these air particles are then analysed in the optical sensing chamber. The detector software then determines if the air sample contains any smoke particles and, if so, signals to the fire alarm system to raise the alarm.

The advantage of using aspirating detection in the sports hall is twofold. The first is that an aspirating detector utilises lengths of ABS plastic pipes mounted on the ceiling, with all the detection element of the system located in a safe area. It means detection is less likely to be affected by stray balls hitting the pipe work unlike a stray ball hitting a beam detector which could cause problems for the beam detectors transmission path.

The second is that maintenance service teams do not require high-level access equipment to maintain the system. The detection pipes are mounted high above the stadium, while the ProPoint PLUS detector units are mounted at a serviceable height, making the system more efficient.

In addition to the ease of serviceability, The ProPoint PLUS benefits from a LCD with minimal buttons. The simple easy to use menu system helps engineers interrogate and control the aspirating detector. The ability to display multiple languages ensures the ProPoint PLUS offers an all-around positive user experience no matter the country.

The Standards Met

All Protec Fire Detection PLC equipment in the Gniezno sports and recreation centre are certified to EN 54 and carry the European standard CE mark. Holding various worldwide accreditations across our product range ensures that Protec equipment is an ideal life safety solution for projects across Europe.