



PROJECT
Abertillery School

LOCATION
Abertillery, Wales

INDUSTRY SECTOR
Education

THE CHALLENGE

The Abertillery School project involved a new build school to replace 2 ageing schools which it was deemed it was uneconomic to repair/maintain. The new school was located over ground and first floor levels which were angled to generally follow the slope of the hill side. The building was constructed using a steel frame enclosed by traditional brick/block construction with flat roof over throughout. The school was a primary/junior school and required an Ordinary Hazard Group 1 property protection sprinkler system to protect it. Sadly, the risk of fire on a school is mainly from deliberate arson with malicious intent. On the vast majority of school sprinkler systems flush plate/concealed sprinklers are used. This type of sprinkler reduces to almost zero any chance of malicious tampering with a view to setting the sprinkler system off as all that is seen below ceiling level is a white cover plate which fits flush to the ceiling level.

THE SOLUTION

The sprinkler system is required by Technical Bulletin 221: 2013: 1 and BS EN 12845 2015 to be a 'wet' sprinkler system - which means the pipework is charged with water at all times.

“providing a safe and secure environment for our children to learn in”



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This is to provide the fastest possible water discharge response time to give the sprinkler system the best chance of suppressing a fire. The sprinkler system on this project was designed to meet the Ordinary Hazard Group 1 classification for a school which requires a discharge density of 5mm/min/m² over a maximum involvement area of 72m² for a 30 minutes duration. This results in a tank that can provide a minimum effective capacity of 27,500lts and a single electric fire pump rated at a flow of between 375/540lts/min. Due to the sloping site, on this project the rectangular GRP tank and fire pump were positioned internally in a dedicated sprinkler plant room as no external space was available. This resulted in a double challenge when it came to installing the tank as at the time the tank was installed, the tank room could only be accessed from the rear of the school which meant our installers had to manoeuvre the individual tank panels up the slope and around the school to reach the plant room. The space available in the plant room was very restricted and the assembly of the tank proved very challenging. On this project 485 brass finish standard response pendant sprinklers were installed in plant rooms and ceiling voids and 443 flush plate concealed white sprinklers were installed in the suspended ceiling areas. The installation took 11 weeks, was completed on time and tested/commissioned/signed off to the satisfaction of all parties.

THE OUTCOME

Vipond Fire Protection Ltd are committed to the ongoing protecting our schools to both reduce the risk of injury/damage from fire and provide a safe and secure environment for our children to learn in.



COMPANY PROFILE

Vipond Fire Protection Ltd has its roots going back to 1969, when it was started as a small family owned business. In 1998 it was acquired by Vipond Inc of Canada. The company has since expanded and grown and now has 5 offices covering the whole of the UK and Ireland. Vipond Fire Protection Ltd is ultimately owned by API Group Inc.

APi Group Inc. is a multi-billion-dollar parent company for 38 independently managed construction companies in more than 200 locations worldwide. APi Group combines the personal attention of small-to-medium sized construction companies with the strength of a global industry leader to build a safer environment, develop leaders and bring innovation to the construction and fire protection and suppression industry. Since 1926, APi Group has grown by acquisition to become the stellar multi-billion-dollar company it is today.

The secret? Our subsidiaries maintain who they are. They keep the identity, reputation, customer relationships and culture they've worked hard to establish.

APi Group's subsidiaries have collectively served customers on all continents, including Antarctica.

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