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Why is Passive Fire Protection Important?

Passive fire protection measures help limit the spread of smoke and fire in buildings, potentially saving lives.

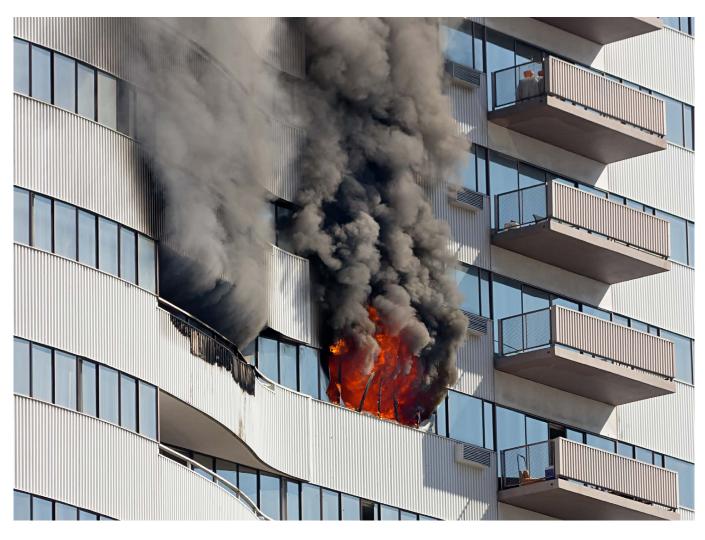
If a fire starts, passive fire protection measures will help contain the fire and smoke within the originating fire compartment of the building. Containing the fire at its point of origin will allow occupants to safely evacuate the area. Passive fire protection slows down the spread of fire giving occupants more time to evacuate and preserves a building's integrity, making fire-fighting easier and safer.

Structural fire protection and compartmentation are the cornerstones of passive fire protection. Incorporating passive fire containment measures into the fabric of the building will limit the spread and possible damaging effects from the fire.

Periodic inspections and maintenance of your passive fire protection systems ensures proper performance when required. Maintenance procedures are outlined in the Australian Standard, AS 1851 – 2012 Routine service of fire protection systems and equipment.

Through the correct installation of passive fire protection systems you:

- Increase the safety of the occupants
- Limit the spread of fire
- Protect building structure
- Protect assets
- Meet legal regulations





About Bowsers

Established over 100 years ago and working in the Passive Fire Protection industry since 1968, Bowsers is a leading passive fire rating contractor operating nationally in the building, industrial, infrastructure and bushfire protection sectors. Bowsers offers comprehensive services and delivery of Passive Fire Protection Services across various sectors.

INSTALLATION

- Fire and Smoke Dampers
- Intumescent Coatings
- Fire Seals
- Blast Walls
- Lightweight Construction
- Bushfire Protection

CONSULTING & SERVICES

- Audits
- Certification of Installed Systems
- Compliance Reports
- Fire Safety Statements
- Installation of New Passive Fire Protection Systems
- Rectification of Existing Passive Fire Protection Systems
- Technical Advice

BOWSERS ACCREDITATION & LICENCES

- FPAS Fire Protection Association Accreditation Scheme
- QBCC Queensland Building and Construction Commission
- Greencap CM3
- Range of Fire Rated Products used in the industry















Why use Bowsers?

- Bowsers is accredited with the Fire Protection Accreditation Scheme (FPAS) and the Queensland Building and Construction Commission (QBCC) and is an accredited installer of a range of approved products to the relevant Australian Standards
- Bowsers is independently risk accredited by Greencap Cm3
- Bowsers is an accredited applicator for a range of fire rated products used in the industry



50+ years in the Passive Fire Protection industry 25+ Employees with 10 years average service 90% Repeat Clients

100% of our work is certified to the relevant Building Codes and Standards 1500+ projects and audits successfully completed annually

Our Culture. Our DNA.

The common thread that links everything Bowsers do is ...

owsers are Passive Fire Protection Leaders and are committed to a higher standard of service.

ur People are highly qualified professionals with substantial industry experience.

e guarantee our work is certified to the relevant Building Codes and Standards...every time.

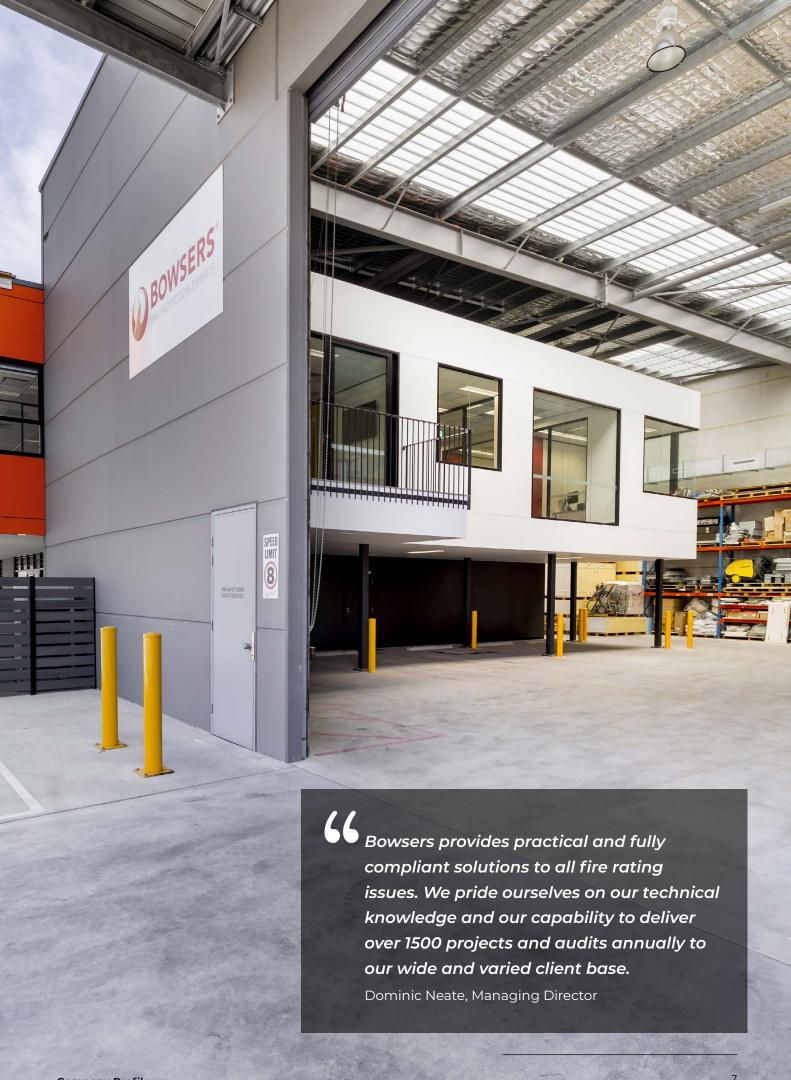
et the standard high in terms of customer service, quality of products, systems we use and project outcomes.

stablished and experienced, committed, honest and dependable is our team mantra.

eassurance for our clients is knowing our work is certified to the relevant Building Codes and Standards.

uccess comes from solving our clients' issues on time and within budget.







Our People

Dominic Neate, Managing Director

Bachelor of Engineering (Civil)

Dominic joined Bowsers in 2002 as Managing Director and has since broadened the company's passive fire protection services. Since his appointment, he has overseen Bowsers' growth from a purely contracting business to an integrated consulting and contracting business that has become the market leader in passive fire protection services throughout Australia. Dominic oversees the management of all Bowsers offices and ensures that the consistency of a professional and high quality service is delivered.

Paul Roseworn, Director

Bachelor of Engineering (Mechanical), Graduate Diploma in Building Fire Safety and Risk Engineering, Master of Business Administration (Technology Management)

Paul joined Bowsers in 2002 and oversees the technical components of the business. He is renowned as an industry expert and is active in giving presentations to industry bodies such construction groups and building owners.

Paul ensures that all clients, both local and national, receive up to date, cost effective solutions to their fire rating issues. He is an Accredited Practitioner, Fire Safety under the Fire Protection Accreditation Scheme and specifically in Queensland with the Queensland Building and Construction Commission, and specialises in the interpretation and implementation of Fire Engineering Solutions to existing and new buildings.

James Greig, Director

Bachelor of Engineering (Civil)

James joined Bowsers in 2005 and is responsible for managing people and processes required to successfully deliver Bowsers' service across all market sectors and through all phases of asset life throughout Australia.

James has strong technical and operational skills and is experienced in all parts of the business. He is an Accredited Practitioner (Fire Safety) possessing all the necessary knowledge for installation and certification of key passive fire protection systems.

Other key staff such as Project Managers, Auditors and Site Supervisors are also tertiary educated and fully accredited.



Consulting

Technical Advice:

Bowsers can provide specialist advice in the early stages of design to clients. This includes technical advice, buildability, costing and programming advice to enable optimal compliant solutions to be developed for builders and building services work as well as building owners. We work closely with Building Certifiers and Fire Engineers in order to optimise strategies for all types of assets.

Fire Safety Statements and Certification:

Annual Fire Safety inspections are required for multi-unit residential developments, commercial or industrial buildings. These statements need to be submitted to Councils or relevant fire authorities. They ensure the fire safety systems are maintained correctly and will operate as intended. Bowsers is one of the few companies in Australia with a dedicated team of highly trained and experienced passive fire auditors.

Compliance Audits:

Bowsers specialises in the annual maintenance inspection and assessment of passive fire systems. Clients benefit from the development of passive fire maintenance registers that can be used for maintenance planning and asset management.

Current service agreements cover the following sectors:

- Building
- Industrial
- Infrastructure





Installation of Fire and Smoke Dampers

Whenever an air conditioning duct passes through a fire (or smoke) barrier, it must have a device installed at the point of penetration to prevent the passage of fire (or smoke) through the duct from one side to the other. These devices are called fire (or smoke) dampers. They are essentially "gates" within the ductwork that are left open during the normal operation of the air conditioning system.

However, upon activation, in the event of a fire, the damper closes to prevent the passage of fire and smoke between compartments. Like any fire protection measure, these devices should be installed and maintained by specialist passive fire protection contractors. Their initial installation must be certified to comply with the National Construction Code (formerly the Building Code of Australia) and various Australian Standards.

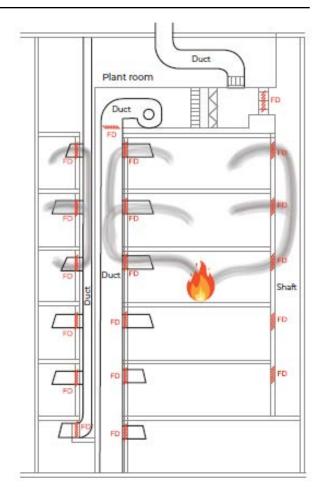
This certification is vital as it forms part of the documentation required to enable the building to be occupied. The installation of the fire / smoke dampers requires co-ordination between the contractors installing the ductwork and the ones building the barrier.

The penetration through which the ductwork passes, must be constructed in a very specific manner. The damper must be correctly affixed within that penetration. Then the ductwork must be correctly connected to the damper using a special "breakaway joint". This joint is a special connection that permits the ductwork to collapse in the event of a fire, without pulling the fire damper out of the penetration.

Once the fire damper is correctly installed, access must be provided to enable it to be routinely inspected and serviced. Typically, an access panel is installed within the ductwork to enable this.

Fire and smoke dampers must be serviced to ensure their correct operation in the event of a fire.

In Australia, the current standard prescribing the maintenance procedure is AS 1851-2012.

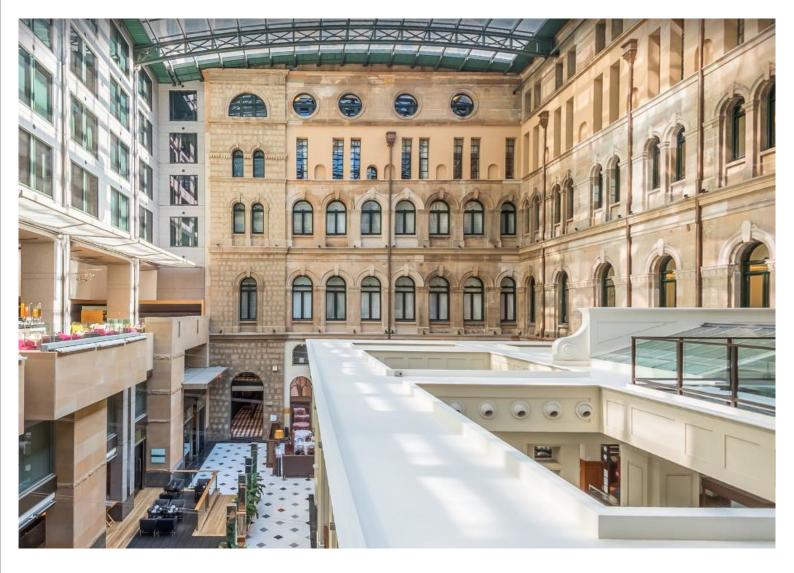




Routine service of fire protection systems and equipment

The maintenance procedure assesses the installation of the fire damper, ensures there is suitable access to maintain it and confirms that it has not been damaged or deteriorated to a point where it cannot function.

As a minimum, 20% of a building's fire (and smoke) dampers must be inspected annually so that over the course of 5 years, they have all been assessed. It is vital this annual maintenance inspection be conducted by an experienced contractor able to interpret all the requirements of the National Construction Code, Australian Standards and product manufacturer's guidelines.



Case Study: No.1 Martin Place Sydney Fire Damper Repairs

SECTOR:

Building (Commercial)

CLIENT:

Charter Hall / CBRA

PROJECT COMPLETION:

April 2020

VALUE:

\$250,000+

ADDRESS:

1 Martin Place, Sydney

PROJECT OVERVIEW:

No. 1 Martin Place is a prestigious commercial building in the heart of Sydney's CBD. Australia's leading fully integrated property group, Charter Hall and property manager, CBRE; engaged Bowsers to repair the building's many fire dampers in order to be compliant with the relevant Building Codes and Australian Standards.

SERVICES OFFERED:

Bowsers conducted Fire Damper Repairs.

With tenancy occupation at 100% and operating 24/7, it was critical to the project's success that Bowsers' repair work did not impede on the daily operations of the tenants. Additionally, noise had to be kept to a minimum for the comfort of the Westin Hotel guests that shared the building space.

By staging regular client consultations and with the Bowsers' team showing a flexible attitude and modifying their schedule to perform works on weekends, enabled the successful completion of the repair works.

With Bowsers regular and constant client communication, as well as their experience and familiarity of working in partially and fully functionally commercial buildings, ensured a successful project result and very happy client.

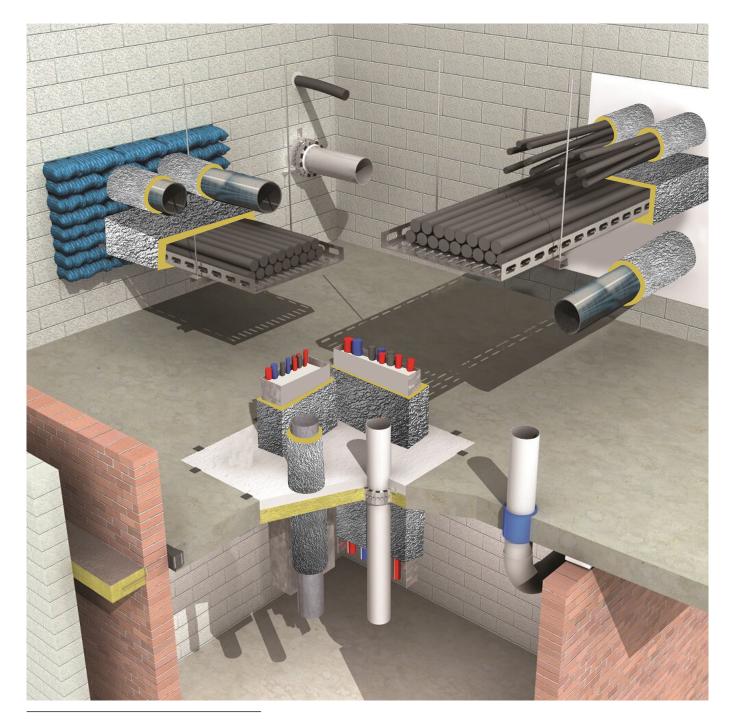
Fire Seals

Fire seals are used to protect openings in fireresisting components of buildings and are extremely important in restricting the spread of fire throughout the property.

Fire seals are best defined as systems installed to openings that prevent fire, smoke and heat from passing through the building. Their main goal is to protect building occupants and can also be used to protect the structure of the property, preserve its infrastructure and safeguard adjacent properties.

Bowsers specialises in the fire sealing of services which penetrate fire rated elements. These include hydraulic and electrical services. Risk occurs when these services pass through the fire rated elements without adequate fire protection, potentially exposing the building to the spread of fire between fire compartments.

Building compliance and certification is only valid when the choice of passive fire sealing system matches the tested prototype.





Case Study: Crown Sydney Fire Seals

SECTOR:

Building (Casino)

CLIENT:

Star Electrical

PROJECT COMPLETION:

May 2021

VALUE:

\$550,000

ADDRESS:

1 Barangaroo Avenue, Sydney

PROJECT OVERVIEW:

When Crown Sydney opened its doors in August 2022, they redefined luxury, entertainment and safety for their guests. Aiding in the safety, Bowsers was engaged by Star Electrical to fire rate over 1000 electrical penetrations in the Hotel, Apartments and Villas, ensuring compliance with all Australian Standards.

SERVICES OFFERED:

Bowsers provided fire seals where electrical cables penetrated compartment walls and ceilings, helping to prevent the spread of fire and smoke for a minimum of two hours. Bowsers was meticulous in providing installation certification and a photographic report applicable for every level where the fire rating work was conducted.

This project was of such magnitude and was being built at such a rapid rate, resulting in continuous and interim deadlines that had to be met.

It was critical to the project's success that Bowsers had a constant presence on site. This resulted in prompt prioritisation, and a works schedule that met the recurring deadlines. By staging regular client meetings, Bowsers was able to adapt quickly and ensure services were installed to correct Standards and in a timely manner. The highly experienced Bowsers team was methodical in providing all relevant certification documentation corresponding to the large volume of electrical penetrations.

As a result of the exceptional workmanship and service Bowsers demonstrated during this project, Star Electrical (Crown Casino's electrical maintenance provider) appointed Bowsers to provide ongoing Passive Fire Protection services to Crown Casino.

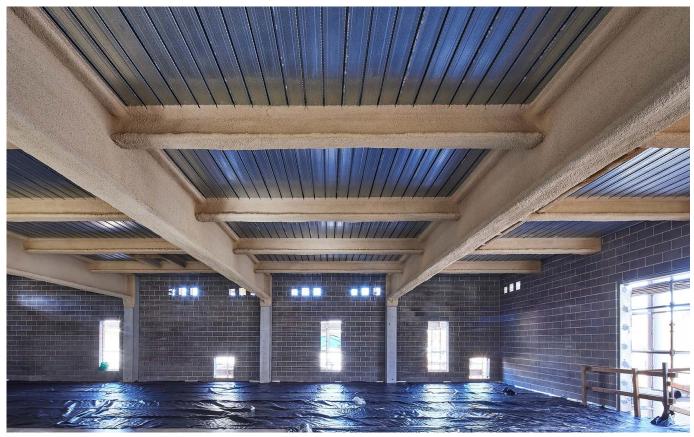
Vermiculite Fire Spray

Bowsers specialises in the application of fire spray to structural steel and ductwork. Fire spray is a mineral based, industrial coating that is applied by specialist applicators and equipment. It is designed to insulate the steel or ductwork to prevent it from yielding (softening) under the extreme heat conditions of a fire. Vermiculite fire spray can also be used to create a physical barrier between fire compartments.

This is a highly specialised skill and Bowsers' fire spray managers and teams are extremely experienced in this process. We can offer the most appropriate solutions for all your needs in this area. All works are guaranteed and certified.









Case Study: Water Recycling Plant Upgrade Vermiculite Fire Spray

SECTOR:

Infrastructure (Water Recycling)

CLIENT:

Tallai Project Management

PROJECT COMPLETION:

May 2023

ADDRESS:

West Camden, NSW

PROJECT OVERVIEW:

Sydney Water is currently upgrading the West Camden Water Recycling Plant (WRP) to double its treatment capacity and to service 176,000 people in the catchment. Part of the upgrade includes constructing four Membrane Bioreactors (MBRs) to treat the wastewater to a very high quality. Bowsers was engaged by Tallai Project Management to deliver the application of Vermiculite Fire Spray across 2 stages, supporting the upgrade.

SERVICES OFFERED:

Bowsers' highly specialised team methodically applied Vermiculite Fire Spray to structural steel beams, across 2 stages. Each stage needed to be completed within a 7-day period, starting with the ground floor, and followed closely with Level 1. Vermiculite Fire Spray was the preferred material as it is designed to insulate the steel and prevent it from yielding under extreme heat and providing a 4-hour fire rating (240/-/- FRL).

Key challenges included ensuring each stage was completed within the client's 7-day mandate, inclusive of 2-3 days site preparation, which included the protection to the walls and floor and straight edge masking to the underside of the slab. Additionally, the site did not have any access to power.

Careful planning and preparation by Bowsers ensured we were able to schedule the work in accordance with the client's stringent schedule. Bowsers were proactive to organise additional provisions, including a power generator. By being methodical in their planning, the team successfully prepared the site and applied the correct coverage of Vermiculite Fire Spray in a timely manner and most importantly ensured compliance with Australian Standards.

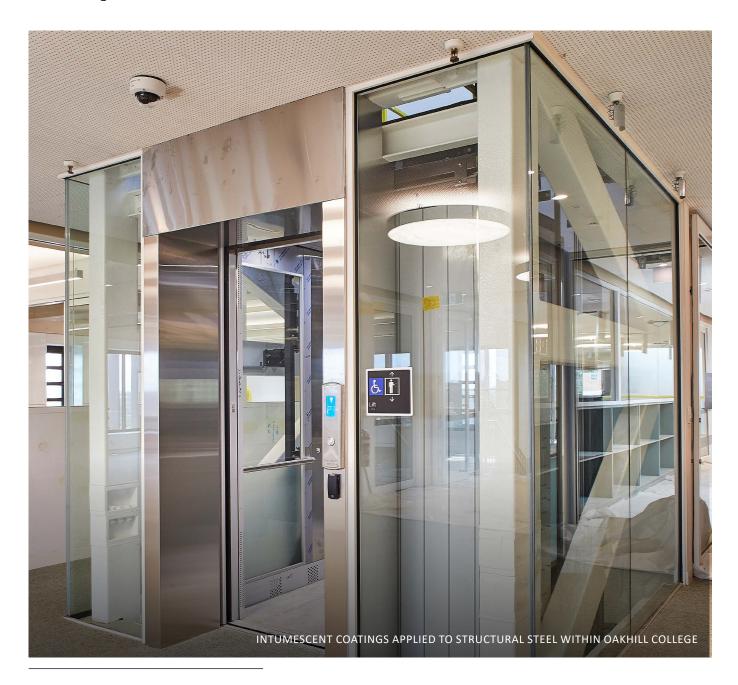
The client has been very pleased by the efficiency and professionalism of the Bowsers team, who completed the project on time and within budget. Careful planning ensured a seamless process, and the spray application was impeccable resulting in a clean finish. The site was left in a tidy manner with no over spray on surrounding surfaces.

Intumescent Coatings

Bowsers is a specialist applicator of Intumescent Coatings. Intumescent Coatings are commonly applied to the steel elements of a building, such as beams and columns to preserve the structure's stability and prevent its collapse in the event of a fire. This coating can provide protection up to 120 minutes, providing time for the safe evacuation of the building's occupants and for fire fighters to save the building. This product is a good solution to achieve an attractive surface finish and is typically used to easily cover complex shapes, giving a finish that can be integrated into the architectural fabric of a building.

Intumescent Coatings for structural steel are a superior, long lasting and environmentally friendly method of providing fire rating. They are cost effective and can be rapidly applied in situ onsite whilst other trades are completing their work. The application of Intumescent Coatings can be seamlessly incorporated into a construction program leading to efficient integration of activities on site.

Bowsers provides certification for the application of intumescent coating products with fire ratings from 30 to 120 mins.





Case Study: Oakhill College Intumescent Coatings

SECTOR:

Building (Education)

CLIENT:

FDC Construction

PROJECT COMPLETION:

October 2022

VALUE:

\$112,255

ADDRESS:

Old Northern Road, Castle Hill

PROJECT OVERVIEW:

As one of the biggest high schools in The Hills Shire, Oakhill College caters to over 1700 students and commenced a major upgrade starting back in 2019. Bowsers was engaged to fire rate the structural steel supporting a central bespoke glass lift within the school's newly constructed building block.

SERVICES OFFERED:

Bowsers applied Intumescent Coatings to the structural steel ensuring a superior finish.

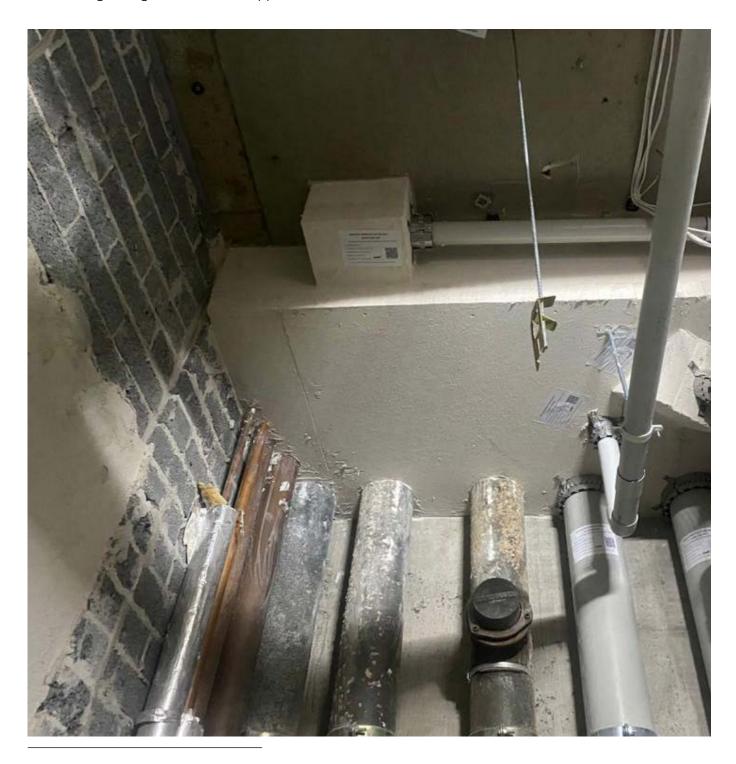
As the school wanted the lift structure to be a hero piece, showcasing the mechanics to its students, the structural steel exposed behind protective glass needed to be aesthetically pleasing. Given the sensitivities of a live and operating school environment, it was critical Bowsers' applicators, and the materials handling did not impede the daily activities of the students and staff. Extra effort went into preplanning and ensuring accurate and precise product application, resulting in a premium, commercial grade finish. Bowsers' experience in a variety of different intumescent coating options ensured the final finish was unrivaled. With years of experience, Bowsers has accrued a vast array of knowledge across many Intumescent Coating products, aiding in a superior application process and premium finish. By working closely with the client and adopting strong communication, the school incurred minimal disruption. Bowsers' extensive experience with sensitive education facilities which needed to remain operational resulted in the successful fire rating of the structural steel. The client was thrilled by the quality high-grade finish, which accentuates the overall design.

Lightweight Construction

Lightweight construction is used to describe the application of intumescent coatings, fire spray or the construction of fire rated bulkheads and enclosures. It can also be used to describe fire rated walls and ceilings constructed from plasterboard or similar materials.

Bowsers uses fire rated boards specially designed for use in lightweight construction applications.

Typically, we construct fire rated enclosures around services. There are many products suitable for this use and Bowsers' expert knowledge ensures a fully compliant and certified system is installed.





Case Study: Gosford Hospital Lightweight Construction

SECTOR:

Building (Health)

CLIENT:

Lendlease

PROJECT COMPLETION:

November 2017

VALUE:

120,000+

ADDRESS:

Holden Street, Gosford, NSW

PROJECT OVERVIEW:

In 2016, Lendlease commenced significant upgrade works to Gosford Hospital and commissioned Bowsers to complete much of the passive fire rating on site; including many latent defects found in the existing building.

SERVICES OFFERED:

Fire rating works were conducted on the construction site and included; Fireseals protecting openings in fire resisting components of the building; Lightweight construction (fire spray to ductwork and structural steel); Fire damper installation and repairs.

With the construction site 100km from Bowsers' head office and warehouse, additional logistics for scheduling staff on site and planning for materials handling was required. Additionally, Bowsers had to meet the demands and project timelines that come with a Tier 1 builder.

Bowsers is highly experienced in hospital environments and was able to complete a thorough audit of passive fire rating works in the existing building within a timely manner. Bowsers provided project continuity by overseeing repairs by other trades and completing repairs themselves on the existing site and new construction.

Ensuring adequate planning and careful coordination meant the job was well resourced and met the client's needs. The project was successfully completed on time and Lendlease were extremely impressed by the attention to detail, professionalism and constant client communication during the project.

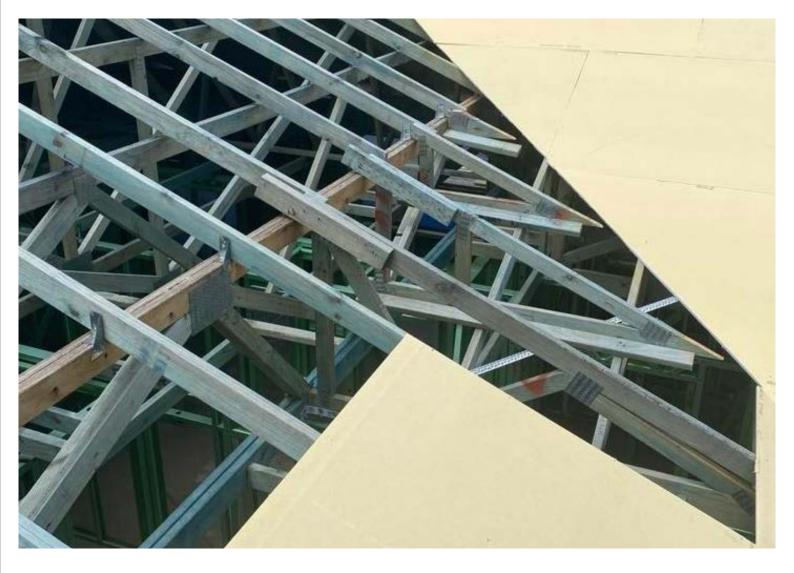
Bushfire Protection

Bowsers provides bushfire protection systems for homes and other structures located in bushfire zones classified as "Flame Zone" areas.

Following the devastating Victorian Black Saturday bushfire fires in 2009 and the subsequent Victorian Royal Commission, the new Australian Standard AS3959 -2009 was created to effect changes to planning regimes for greater bushfire protection.

Bowsers, being the exclusive distributer of Promat's Bushfire Roof and Wall Systems in NSW, has successfully worked with home owners, roofing contractors, and builders over the past 10 years to provide BAL-FZ (flame zone) compliant solutions. These solutions are tested to AS1530.8.2 (2007) and meet the requirements of the Rural Fire Service to protect property against the direct impact of a bushfire.





Case Study: Clarendon Homes Bushfire Protection

SECTOR:

Bushfire Protection

CLIENT:

Clarendon Homes

PROJECT COMPLETION:

Ongoing

VALUE:

100,000+

ADDRESS:

Various

PROJECT OVERVIEW:

Since 2012, Bowsers has supported Clarendon Homes through the supply of products used to make homes BAL-FZ compliant to bushfire attack. Additionally, Bowsers has installed bushfire protection systems to Clarendon's homes.

SERVICES OFFERED:

Bowsers is the exclusive distributor of Promat's exclusive bushfire roof and wall protection systems in NSW. As such, Bowsers has supplied and delivered the required materials to various Clarendon Homes and certified the installation.

The major challenges with installing compliant BAL-FZ bushfire protection systems is ensuring the client understands the need to choose the correct system. It is a costly venture to undertake and many alternative and cheaper systems claim to be compliant to BAL-FZ requirements, but when closely examined, they are not. Promat's systems have been fully tested to the Australian Standards for bushfire protection, AS1530.8.1-2007 and AS 1530.8.2 -2007 and are guaranteed to provide the required protection. As the exclusive distributer of Promat's bushfire roof and wall systems, Bowsers offers the best system on the market to protect homes subject to bushfire "flame zone" risk.

Bowsers can supply the product, install the product and certify the product - or any combination of these. Their flexible approach to this system has meant they have supported Clarendon Homes in the area of Bushfire Protection construction since 2012 and continue to do so.

Blast Walls

Bowsers is a recognised approved installer of DURASTEEL® systems in Australia. DURASTEEL® offers blast protection of up to 200 kPa and Fire Resistance Levels (FRLs) of up to 4 hours. It is suitable for use in hydrocarbon fire applications as well as typical cellulosic (building) fire applications; combining, strength, impact resistance and durability with exceptional fire resistance. Installed as mechanical ventilation ductwork, walls, or ceilings, DURASTEEL® systems have been successfully used on rail and metro projects.

Other uses include military facilities, commercial buildings, substations, pharmaceutical and petrochemical plants.









Case Study: Oil Fuel Terminal Blast Wall

SECTOR:

Industrial (Petroleum Refinery)

PROJECT COMPLETION:

March 2023

VALUE:

\$74,800

ADDRESS:

Banksmeadow, Sydney

PROJECT OVERVIEW:

As a leading blast wall solutions provider, Bowsers was engaged to engineer, and install a temporary blast wall to protect an existing Electrical transformer during the construction of a neighbouring Substation. Electrical transformers are susceptible to overheating resulting in transformer failure and a temporary blast wall protection solution meeting a Blast Rating of 0.5 Bar was critical.

SERVICES OFFERED:

Bowsers created a blast wall spanning 10.2metres long x 2.7metres high and incorporating 11 insulated Durasteel® partitions adhered to a steel frame. Durasteel® is noncombustible and extremely effective against blasts and explosions due to its energy absorption, impact and heat resistant qualities.

The Bowsers team worked within a very tight timeframe which included a 5-person team to install the blast wall in just one week. Strict procedures and rules to prevent dangerous discharge of static electricity had to be adhered too. All hot works including wielding were performed offsite.

The level of pre-planning and extensive communication and coordination was critical to overall project success. Bowsers worked closely with a local steel fabricator to prefabricate nine partitions of framing. This enabled finished frames to be safely positioned in place with a 6-tonne crane. This prefabricated construction approach significantly reduced the onsite installation.

In business, they say referrals are the highest form of professional compliment, with the new client being referred to Bowsers by the Durasteel® manufacturers. Bowsers have over 12 years' experience, engineering, and installing blast walls. The new client was incredibly impressed by the quality of finish of the blast wall and the professionalism shown by the entire Bowsers team.





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