

CASE STUDY- Part 1 FORMA & CONTRA BY BUILDFORM FyreBOX Slab-Mount

In response to the increasing prevalence of passive fire defects in high-rise residential and commercial buildings, Trafalgar's FyreBOX Slab-Mount has emerged as a crucial solution for efficient and compliant fire-stopping. With its unique features and advantages, the FyreBOX Slab-Mount addresses the challenges encountered during the construction of FORMA & CONTRA, providing enhanced safety and compliance.

Project Description

FORMA & CONTRA is a remarkable residential development in Roselands, NSW, comprising 100 thoughtfully designed apartments and terraces. The project also offers 153 dedicated car spaces, ensuring ample parking capacity for residents and guests. The project, designed by renowned architects Turner Studio, incorporates a mix of one-to-three-bedroom units and also includes a vibrant retail tenancy spanning an area of 700m², adding convenience and vibrancy to the project. The apartments and terraces are intelligently designed to maximize solar aspect, ensuring an abundance of natural light.

Why FyreBOX Slab-Mount?

The FyreBOX Slab-Mount system offers a comprehensive solution for efficient installation and fire-stopping of various services. **By utilizing the Trafalgar FyreBOX Slab-Mount, the need for individual penetrations and separate fire-stopping measures for each service is eliminated.** The versatility and ability to accommodate multiple services through a single penetration have proven instrumental in ensuring the efficiency and compliance of the following services, which were successfully installed through the FyreBOX Slab-Mount:

TRADE	SERVICE	TYPE
	Electrical	Power cables and conduits
		Communication cables and conduits
	Hydraulic	PEX Cold/Hot Water & Gas pipes
	HVAC&R	AC insulated pipework
	Fire	Sprinkler Pipes
		Dry Fire communication cable



Challenge:

A challenge arose from a shortage of Hebel, a key construction material crucial for the project's development. The scarcity of Hebel PowerPanels posed a significant threat, potentially causing delays and disruptions to the overall progress of the project. **Inclusion of the FyreBOX Slab-Mount proved to be a game-changer, offering remarkable advantages that were not previously anticipated.** Using the FyreBOX Slab-Mount allowed the project to circumvent the scarcity of Hebel PowerPanels by enabling the installation of services to proceed independently of the construction of walls. This breakthrough eliminated the need to wait for the walls to be constructed before commencing the installation of essential services such as plumbing, electrical wiring, and HVAC systems. By leveraging the FyreBOX Slab-Mount, the construction team could expedite the project timeline significantly.



Product
FyreBOX Slab-Mount 350



Project Size
100 Multi-Storey Apartments +
700m² Commercial and Retail Spaces

Advantages of the Trafalgar FyreBOX Slab-Mount:

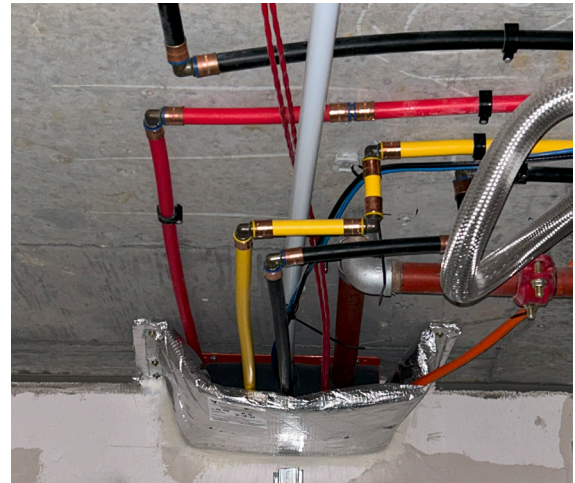
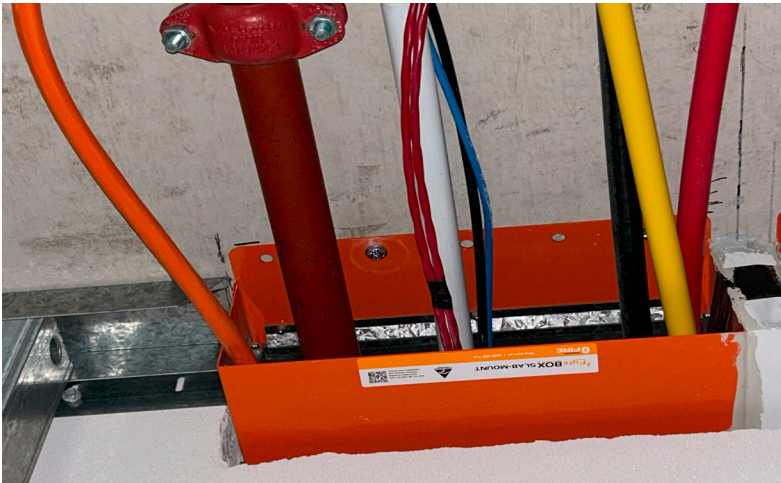
The FyreBOX Slab-Mount offers several compelling advantages:

- 1.Fire-Stopping Installation:** The FyreBOX Slab-Mount enables fire-stopping to be installed before the walls are constructed, ensuring compliance with fire safety regulations, and minimizing the risk of passive fire defects.
- 2.Streamlined Penetration Management:** With the FyreBOX Slab-Mount, multiple and mixed services can pass through a single penetration in any quantity or configuration. This eliminates the need for multiple penetrations and the requirement for minimum fill ratios. Moreover, the FyreBOX Slab-Mount eliminates the necessity for a 200mm separation between adjacent services, optimizing space utilization and simplifying the installation process.
- 3.Thorough Testing and Certification:** The FyreBOX Slab-Mount has undergone rigorous fire testing to AS1530.4-2014 standards at independent laboratories. It has been thoroughly tested for residential and commercial wall types, ensuring reliability and compliance. Additionally, the system achieves an acoustic performance rating of Rw50, contributing to superior sound insulation.
- 4.Comprehensive Support and Technical Assistance:** Trafalgar Fire provides dedicated support and technical assistance throughout the project's lifecycle. A Trafalgar representative collaborates with all stakeholders, including trades like electricians, plumbers, HVAC technicians, and active fire professionals, to ensure seamless installation and compliance before and during installation. Trafalgar also offers BIM models, test reports, system manuals, and installation guidelines on the website, facilitating easy access to essential resources on demand, in the office before the build or during the installation on site.



Trafalgar FyreBOX System Specialist- Aaron Bell going over installation process on site, at Roselands with all teams involved-

Builder: **Buildform**, Electrician: **EE Group**, Plumber: **PlumbGroup** and Active Fire: **Velocity Fire**



The above images depict installation as per previous test reports. As of November 2022, we have obtained updated test approvals that no longer require wrap for -/60/60 applications. With the new approvals, to achieve FRL's of -/90/90 and -/120/120 we recommend the use of T-WRAP. [Click here for the Full Test Report](#)

Conclusion:

The utilization of Trafalgar's FyreBOX Slab-Mount in the FORMA & CONTRA project exemplifies its effectiveness in overcoming challenges and streamlining construction processes. With its ability to facilitate early fire-stopping installation, manage multiple service penetrations, and provide extensive support and technical assistance, the FyreBOX Slab-Mount offers a comprehensive solution for efficient and compliant fire-stopping. This project's successful implementation of the FyreBOX Slab-Mount is a testament to its value and reliability in ensuring fire safety in high-rise residential and commercial buildings.



"Working with the Trafalgar team has been an excellent experience. Their technical team were always available and responsive. For all our upcoming projects, the FyreBOX will consistently be our selection as it streamlines our building operations."

The key benefit of the Slab-Mount is that it permitted us to set up the box and then run services prior to the construction of the walls. This was beneficial during a period when Hebel supply was lacking, which allowed us to maintain efficiency while keeping delays to the project schedule to a minimum."

Charlie Jabbour

Construction Manager at Buildform