

KING STREET WHARF

CASE STUDY

CLIENT: King Street Wharf,
Sydney, Australia

SECTOR: Commercial Offices

PROJECT: SmokeStop™ Smoke Curtain
Barriers Installation

APPLICATION: Atriums and Lobbies
and Compartmentation



coopers

EST. 1983

LEADING THE WAY IN FIRE PROTECTION

COOPER'S SMOKESTOP™ A VITAL COMPONENT OF KING STREET WHARF'S FIRE STRATEGY

WHAT FIRE PROTECTION WAS THE CLIENT LOOKING FOR?

King Street Wharf, occupying approximately five hectares, is Australia's newest and most prestigious commercial and mixed use development. Located within Sydney's famous Darling Harbour, 1 Shelly Street is King Street Wharf's iconic, "A" grade commercial tower.

Awarded the Office Design "V2" Rating, 1 Shelly Street fully embraces the principle of a modern, open plan working environment with its 10 floors of commercial office space resonating from a single vast atrium. However, fire and smoke modelling of the building identified the need for a modern alternative to traditional smoke and air management systems to provide the high level of smoke control necessary to meet fire regulations that would allow for the 3000 occupants to evacuate the building safely.

HOW DID COOPERS HELP?

Coopers solution was to install a bespoke system of SmokeStop™ smoke curtain barriers specifically developed to contain and manage smoke entering the building's large atrium, and protecting the emergency escape routes from smoke to provide tenable conditions.

Working closely with the fire engineers, Arup, Coopers installed the SmokeStop™ smoke curtain barriers with side guides to prevent the laterally migration of spreading smoke, as well as providing a bespoke control system to give the building a sophisticated level of smoke management which can be manually controlled by the fire brigade in the event of an emergency.

“ Coopers developed, manufactured and installed a complex system of SmokeStop™ smoke curtain barriers that ensured the building's unique, architectural designs weren't compromised ”
Clinton Greene, Coopers Pty Ltd (Australia)

Furthermore, the unique architectural design of the building's feature pods and link bridges that traverse the atrium, called for a dedicated smoke control system that would allow for local access. Meeting the challenging design strategy, Coopers installed the smoke curtain barriers with custom retract functions that would provide access on either side of the link bridges.

BENEFITS

From concept to full commission, Coopers worked closely with the project's main contractor Brookfield Multiplex and fire engineers Arup to guarantee that the building's unique architectural, open plan design remained compliant with stringent fire regulations.

Additional to the SmokeStop™ smoke curtain system, Coopers also overcame the challenge of the buildings' three standalone automated alarm settings by incorporating a bespoke custom built, fireman's override panel. This function allowed for the cascading deployment of the smoke curtain barriers across the multiple levels as well as the option for safe retraction on a fire affected floor. This proved to be a key objective highlighted in the fire engineer's design.

KEY BENEFITS

- Enabled an open plan atrium, link bridges and pod designs to comply with stringent fire regulations
- CE Marked
- Approval under an Independent Third Party Certification scheme
- Installed to remain hidden until required months less than what was originally expected



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Coopers Fire Ltd has a policy of continuous product improvement.

As such we reserve the right to change design and specifications without prior notice.

Please check our website for the latest information