

Landmark Manchester tower benefits from Polypipe approach to drainage

Polypipe Building Services, the UK's leading manufacturer and specialist in building services solutions, devised an above ground drainage system for the small footprint of a tall building in the centre of Manchester.

Tall building project benefits from Polypipe space-saving solution



Polypipe supplied its Terrain P.A.P.A.® (Positive Air Pressure Attenuation) and Pleura air admittance and control systems for use on the 28 storey Axis Tower, situated near the city's popular Deansgate Locks, and the pioneering Beetham Tower. The building is positioned between a canal and locks, a critical city centre junction between Whitworth Street and Lower Moseley Street, as well as the tram tracks serving Deansgate Castlefield station – meaning it has a tight footprint. The development is 93 metres high and is currently the 12th highest building

in a city which is currently experiencing a dramatic growth of tall building developments. The development site has a footprint of just 3,200 square feet, as the base of the building is small, but the structure cantilevers out to the upper floors of the building. This provided a challenge in managing water from the top of the building, through the bottom of the structure, without relying on an extensive network of pipes. The design of the system also required a reduction in additional secondary stack pipework.

Gary Gardner, Head of Building Services at Russell WHBO said:

"Polypipe's early involvement in this project ensured we could deliver a high quality above ground drainage system and water supply system. "We managed the project from design to inception so it was important we worked with a drainage specialist that could meet and exceed the demands of this project with its unique structural requirements."

CASE STUDY

Project

Axis Tower

Client

Al Turki Enterprises

Application

Tall building waste water drainage system

Main Contractor

Russell WHBO

Products

Terrain P.A.P.A.® and Pleura air admittance and control systems

“Working with Russell WHBO and Quartzelec, the Polypipe team was able to devise a water management solution that worked within the constraints of the project footprint, negotiated the challenge of gravity management, and met all building specification and regulations.”

**Jonathan Greenwood,
Strategic Project
Manager, Polypipe
Building Services.**



Polypipe Building Services worked with primary contractor Russell WHBO and Quartzelec to develop the system and advised the use of the Terrain P.A.P.A.® and the Terrain Pleura air admittance valves to supply a complete drainage ventilation system. The positive pressure reduction device is used to mitigate the effects of positive air fluctuations in the drainage pipework system, such as when a toilet is flushed on an upper floor.

The use of Terrain P.A.P.A.® system allowed for the use of less pipework, while maximising the use of the available floor space within the building structure.

The application of the Terrain Pleura Regulators balances negative air pressure fluctuations within the drainage system. The regulators are also easy to install allowing for efficient management of on-site skilled labour, which is essential during projects relying on meeting strict deadlines.

