References

Clayton Hotel

Uponor involvement

- 4,000m x 16mm and 3,000m x 20mm of hygienic MLC pipework | pre-insulated with a 13mm BL-S2-D0 rated insulation
- Collaboration for designs to help reduce costs and increase efficiencies | Demand planning and stock delivery scheduling | Bespoke, on-site, certificated training program | Onsite support including regular observation reports and tool inspections.

Uponor deliver pipework for new £60m Manchester hotel

Uponor supplies industry-leading multi-layered plumbing systems for the offsite construction of bathroom PODs for a £60m Clayton Hotel development in Manchester city centre.
Uponor has supplied high performance multi-layered composite (MLC) piping to offsite building solutions specialist, Elements Europe, as part of the manufacture of 329-bathroom pods for the new Manchester city centre £60m Clayton Hotel development.

The four-star hotel has replaced a 50-year-old office block and will be operated by the Dalata Hotel Group, Ireland's largest hotel group which is currently expanding its presence into the UK. The new Clayton Hotel in Manchester is part of its healthy development pipeline principally in the UK which will bring Dalata Hotel Group's hotel count to 55 across the UK and Ireland.

Situated in the prime location of Portland Street in the centre of Manchester, the hotel is ideally placed for both business and leisure guests alike, and provides easy access to amenities, shops, offices and transport links. The luxurious 17-storey, 329-bed hotel includes a ground floor bar, mezzanine restaurant as well as a business centre and meeting rooms. Since its opening in January 2022, Dalata is now operating the hotel on a 35-year operating lease.

Uponor has worked with Elements Europe, an innovative modular and bathroom pod manufacturer, for the past 10 years. This strong, decade-long relationship meant that Elements was confident that Uponor's team would provide all of the technical support required to ensure the smooth running of the project and once the pods were installed, all aspects of Uponor's pipework and plumbing systems would work to maximum efficiency.

Project Facts:

Location	Completion	
Manchester, United Kingdom	2022	
Building Type	**Product systems**	**Number of floors**
Hotels	Multilayer Pipe Systems, Flexible Pipe Systems	17
Project Type		
New building		

Partners

- Client: Property Alliance Group
- Architect: Stephenson Hamilton Risley STUDIO and Leach Rhodes Walker
- Contractor: Russell WBHO
- Consultant: Regent Partners LLP
- Subcontractor: Elements Europe

Key points

- Uponor supplied 4,000m x 16mm and 3,000m x 20mm of hygienic MLC pipework, pre-insulated with a 13mm BL-S2-D0 rated insulation to provide improved safety in the event of a fire and to also offer high performance thermal protection for both the hot and cold water.
- Working closely with Elements Europe's designers, Uponor helped to specify a high performance, space conscious pipe design for each bathroom POD.
- Uponor and Elements Europe have developed a 10-year trusted relationship providing a highly reliable finished bathroom product which has so far has resulted in zero faults being reported on any of the plumbing systems.

Products and services supplied

- Uponor increased fire safety, pre-insulated Multi-layer composite pipe. Total length: 7,000m.
- Collaboration for designs to help reduce costs and increase efficiencies.
- Demand planning and stock delivery scheduling.
- Bespoke, on-site, certificated training program.
- Onsite support including regular observation reports and tool inspections.

Design and specification
With a successful working relationship spanning 10 years, Uponor's MLC is an essential part of the Elements Europe specification for the prestigious Clayton Hotel project which was based in the city centre of Manchester. Uponor worked

closely with the Elements Europe's M&E manager and design team to engineer a solution that required fewer fittings than a traditional system, maximising efficiencies by saving on both cost and installation time.

In addition to a reduction in the number of fittings, the MLC pipe systems also offer numerous operational and installation benefits that were crucial for the construction of a hotel of this scale. The Multi-layer Composite (MLC) pipe consists of an aluminium core which is then coated inside and outside with a layer of hygienic, temperature resistant Polyethylene. All layers are permanently bonded together by intermediate adhesive layers which means MLC pipes offer the best performance features of a metal pipe, such as strength and form stability when bent, combined with the best performance features of modern plastic polymers, such as corrosion resistance and flexibility.

By using flexible coils, which can be cut to almost any length, the number of fittings needed can be reduced and when combined with the smooth inner bore of the pipes, the lowest pressure loses can be achieved ensuring an efficient flow of water to each outlet. Additionally, Uponor's unique Seamless pipe construction means that the Uponor system is the most flexible Multi-layer pipe available and also offers the tightest bending radii too. The flexibility of the pipe means that bends can easily be formed by hand, removing the need for elbow joints or additional fittings. By requiring minimal fittings and joints, MLC pipe helps to eliminate the risk of connection failures and leaks, which improves the integrity of the system. Adequate water pressure, as well as minimised risk of connection failures, are critically important for a taller, more extensive, structure such as a hotel, which has more demanding water requirements.

Fire safety is also improved by using the Uponor pre-insulated system that is rated to BL-S2-D0. This special class of insulation has a reaction to fire which exceeds the requirement to be considered equivalent to British National Class 0 types of insulation.

Installation

Manufacturing the pods offsite meant that the main phases of the hotel could be built in just 12 weeks, which would not have been possible using traditional onsite construction methods. As the site was adjacent to an existing construction project in a busy area of Manchester, the delivery of materials would have been a major challenge due to confined space both on, and around, the site. However, using offsite methods meant that materials could be delivered to Elements Europe's 200,000 sq. ft manufacturing facility in Telford, which enabled a more flexible delivery schedule to be implemented, ensuring that logistics ran smoothly.

Factory assembly in a controlled environment also meant that it was easier for Elements Europe to maintain hygiene and Covid-safe social distancing in comparison to onsite methods, as it reduced the number of people travelling to and working onsite, which was a significant advantage when operating during a pandemic.

Specifying MLC pipework also saved labour time. As the pipes are pre-insulated, they do not require lagging, which freed labour up to work on other areas of the installation process and minimised the amount of material to be delivered to the facility, further increasing the speed of the installation. The use of offsite methods also increased productivity as the onsite team was able to complete the extent of the onsite build before the modules arrived. This enabled all 329-bathroom pods to be completed within the service level agreement deadlines for the hotel development.

Installation of the MLC pipes is very quick and easy. However, to ensure that the work was carried out professionally and that high levels of quality were maintained, Uponor provided full support and free, on-site, certificated training to the installation team at Elements Europe. In addition to the bespoke training, the company visited the site to conduct observation reports, provide advice and continually help to increase efficiencies and advise on improvement opportunities that could arise. This process allowed each of the modules to be manufactured under factory-controlled conditions by fully-trained specialist teams, who were then able to air-test the pipework before the pods left the facility. Once assembled the pods, complete with fixtures and fittings, were transported to site and craned into position.

Overall, the strong partnership between Elements Europe and Uponor, combined with the meticulous offsite construction process, meant that installation ran smoothly and the high design and quality standards expected of the Clayton Hotel brand were maintained.

Benefits

- By using Uponor MLC pipes the team were able to design a system that required fewer fittings than a traditional system. This removed the potential for leaks and provided a more efficient, cost saving solution.
- The reduction in fittings also helped to minimise installation times, which enabled Elements Europe to complete the bathroom pods quickly and on time.
- MLC pipes have a smooth internal surface which improves flow rates and maintains water pressure, ensuring a better standard of water supply for the hotel's guests and visitors.

Uponor involvement

- Uponor has a long-standing partnership with Elements Europe spanning ten years. During this time there have been no reports of faults or leaks as a result of using Uponor products.
- The level of service provided by the team at Uponor, including design, training and onsite advice and support led to the project being completed on time, on budget and without any issues.
- Uponor's pre-insulated MLC pipework was specified for the project as it provides increased safety in the event of a fire, excellent flexibility, a reliable watertight connection and is quick and easy to install.
- Elements Europe was confident that the professional service and superior product performance offered by Uponor would allow them to meet the high standards required for the Clayton Hotel brand.

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