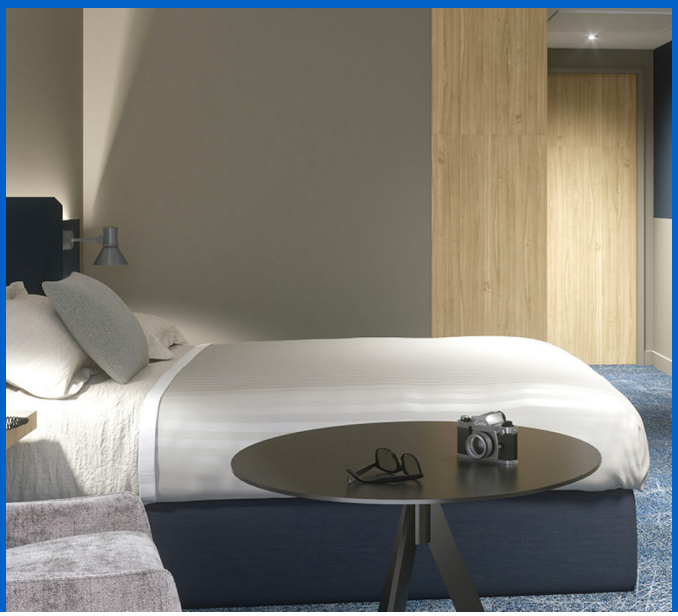
References

Leonardo Hotel, Bristol, UK



Uponor involvement

TABS

Leonardo Hotel, Bristol, UK

Uponor provides water solutions for Leonardo Hotels' new 200-bed Bristol resort

Project Facts:

Location
Bristol, United Kingdom

Completion
2020

Building Type
Hotels

Product systems
Local Heat Distribution, Multilayer Pipe Systems

Project Type
Renovation

Partners

Client
Jury's Inn Group
Sub-contractor
Cameron Cooling
M&E Contractor
Totus Engineering

Specification and installation

Initially copper pipes were specified for the project, but after having recently experienced some issues when using copper press systems on a previous project, the main contractor requested that Totus use an alternative pipe solution that would confidently provide a one hundred per cent secure system.

Totus turned to Uponor for the project, as its multi-layer composite (MLC) pipe system represents a reliable alternative to copper that not only provides the peace of mind that comes from knowing the system is completely secure, but it also offers a number of other installation and operational benefits. One of the key advantages is that Uponor's MLC connections have a joint inspection window so that completed joints can be reviewed, eliminating the risk of connection failures.

Uponor have a long history of working on projects like this and Totus were reassured of the benefits that could be gained by using Uponor's multi-layer system. Totus had in fact specified Uponor's products on previous projects, including the historic, Grade I listed 12th century nunnery Cannington Court. This experience meant that the M&E contractor was confident Uponor would be able to meet the challenges of the Jurys Inn project, the M&E work for which was estimated to cost £5.3m.

In addition to its solutions, Uponor would be able to deliver a high level of support and added value to Totus thanks to its experienced design and estimating team. A particular specialist service that Uponor provided was to work closely with Totus' Revit team to switch the design from copper to the Uponor MLC solution. This involved changing all the pipework sizes in the Building Information Modeling (BIM) design from copper to MLC pipe sizes as well value engineering the project to take out all the fittings that are required for copper installations but which aren't necessary for MLC. Uponor's ability to utilise BIM modelling allowed it to reduce design and estimating lead times, improve the project's efficiency with accurate designs and quickly create a quote and bill-of-materials.

Steve Peckham, Contracts Manager at Totus Engineering, said: ''This new specification was attractive to us for a number of reasons, including the fact that the pipes were quicker and easier to install and that it reduced the project's labour costs. The larger MLC pipe size fittings were an especially cost-effective option when compared to the original copper specification. Reducing the amount of copper onsite would also lower the risk of theft during the construction phase.''

The new design required MLC pipework and fittings to be supplied in a wide range of sizes, from 16mm up to 90mm. These would be used to distribute hot and cold domestic water throughout service risers and ceiling voids, supplying all water outlets in the hotel's rooms as well as for public WC facilities and a commercial kitchen in the basement.

The Uponor space saving Modular Riser system made the installation quick and easy while keeping the necessary on-site inventory of stock low at a relatively small number of fittings.

Uponor also supplied all the pipework to the hybrid variable refrigerant flow (HVRF) air conditioning units in each of the rooms, which were installed by a sub-contract to Totus, Cameron Cooling.

Stuart Cameron, Director at Cameron Cooling, said: ''Jurys Inn chose to have HVRF air conditioning units due to the enhanced safety levels they provide. The new hybrid HVRF units use water as the heat transfer medium as opposed to a traditional VRF system, which uses a refrigerant gas. These gases can be dangerous if they leak into a room, as they can cause harm to occupants. Because of this, hotels with traditional VRF air conditioning units need to have leak detection systems to monitor the rooms at all times.

''In contrast, the hybrid HVRF system uses both water and refrigerated gas. The pipe sections that are in the occupied areas of the hotel only transport water, leaving the refrigerated gas lines to only be used in areas where leaks won't cause any harm to the hotel's guests. This means that the hotel environment is safer and that the hotel doesn't need gas leak detection in each room, lowering on-going maintenance costs for the owners.''

These HVRF units require a particularly efficient pipe system to ensure a minimum pressure loss. The Uponor MLC system is perfect for providing this high level of performance with low pressure losses.

These pipes were installed using Uponor's fire-resistant, pre-insulated pipe coils. Provided in both red and blue coloured coils, these pipes are covered in a 13mm fire resistant insulation to help maintain the perfect temperature within the system. Using the Uponor pre-insulated pipes for the domestic services was a cost-saving solution for Totus, as it sped up the installation and removed the need for another specialist insulation contractor to be employed on-site.

Stuart Cameron added: "This was the first time we used this system but Uponor provided a lot of support throughout the project, helping us to identify the right product to use, how it would fit into the design and then how it is installed. The 25mm Uponor pipe that we used was easy to work with and because it was supplied as a coil and already pre-insulated, this meant that we could simply roll it out and install it really quickly with hardly any connections."

Before any of the system was installed, Uponor delivered on-site training for all the engineers from both Totus and Cameron Cooling. This certificated training session demonstrates the correct installation procedure for the Uponor system and provides instructions on the safe use of the hydraulic press tooling. Ongoing visits by the Uponor team provided regular reviews of the system and also developed a close working relationship with the whole project team.

Benefits

Uponor's ability to utilise BIM modelling meant that it was able to help Totus Engineering reduce design and estimating lead times, improve the project's efficiency with accurate designs and quickly create a quote and bill-of-materials.

The durability and reliability of Uponor's MLC pipes reassured the client that the pipe system would not fail. Due to the system's flexibility, the MLC pipes were able to be installed at a faster rate than copper alternatives, as they can be fitted in a continuous run around corners and obstacles. This means fewer connections are required. MLC pipes also have a smoother internal surface compared to copper, ensuring a better standard of water supply for the building's users by improving flow rates and maintaining the water pressure.

The MLC system also comes complete with a 25-year guarantee and is proven to supply hygienically safe drinking water.

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