

## The service flue solution speeded up the construction of a block of flats in Lahti



### Uponor involvement



Service flues in 108 flats

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Two blocks of flats equipped with service flues have been built in the Mukkula district in Lahti. Uponor's service flues are industrially manufactured, modular flue structures for the efficient routing of HVAC systems. The Uponor service flue modules can be used to route water, sewer and ventilation systems to flats as preassembled and coupleable packages.

### Project Facts:

#### Location

Lahti, Finland

#### Completion

2015

#### Building Type

Multi family homes

#### Product systems

Port

#### Project Type

New building

### Partners

#### Contractor:

Salpausselän Rakentajat Oy

#### Installer:

Asennuspalvelu RST Oy

– Service flues are suitable for both new construction and renovations. There are no restrictions on the use of routing elements as their openability makes them suitable for all kinds of construction. All building services are fully routed. Flue elements can be used to build water, sewer, power, heating, cooling and ventilation risers, says Uponor's project development manager Toni Wahlfors.

#### Efficient routing technology for new construction

Two seven-storey blocks of flats were completed in the Mukkula district in Lahti in late autumn 2015. Service flues were installed in a total of 108 flats at Asunto Oy Lahden Timonkadun Helmi on Timonkatu.

– At the site, a product with wastewater, radon and rainwater risers was needed to replace the Elpo element. A requirement for the solution was that installations should not disrupt other construction during the frame erection phase, says Wahlfors.

Site manager Pasi Mattila from Salpausselän Rakentajat Oy is satisfied with the solution.

– Uponor installed the service flues on the agreed day. The flues do not need to be lifted by crane, which is a big advantage. The use of flues had a concrete impact on construction as it allowed to save about a week.

Wahlfors confirms that using service flues frees up time for other tasks at the site.

– Unlike in-wall flues or concrete flue elements, service flues do not have any impact on the construction schedule in new construction. This frees up time for other work during the frame erection phase. On-site installation did not cause any problems to other construction work. There is no doubt that the flexibility of the installation was the main reason why Uponor was selected as partner for the Timonkatu site.

The routing went so smoothly that service flues will most likely be used at construction sites also in the future.

– We are going to use service flues also in the future, says Mattila.

#### Benefits for planners and installers

In addition to speeding up work, the service flue solution makes it easier to plan and install routing elements.

– The flues can be equipped with hose fittings and connections to the sewer system, which facilitates and speeds up the installation of fittings. As the pipes no longer need installing, the fitters only have to couple the fittings, states Wahlfors.

The solution assists architects and HVAC planners in determining the need for space and placing the elements.

– Planning becomes systematic with drawing templates, and the fittings are easier to connect. Technical flues speed up order planning. The architect can easily see how much space the building services take up in the flues, and the HVAC planner can place the elements so that their layout and coupling to consumption points are optimal.

#### Plenty of potential also in renovations

Uponor's service flues have only been used in new construction so far. However, according to Wahlfors, the highest benefits of the solution are related to line renovation of type houses. The solution saves space, which is a big advantage, for example, when renovating bathrooms to make them unobstructed and easily accessible.

– Space savings are significant compared to in-wall flues. Service flues free up space in the bathroom and bring additional square metres, states Wahlfors.

The modular repair method with coupleable HVAC flue structures is a highly efficient way to improve flats. – Construction efficiency and quality control improve when it is possible to make larger series. Forecasting becomes easier, and logistics and schedules are kept under better control. Faster on-site construction saves money and the residents can go back to their flats sooner, says Wahlfors.

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