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References

## Luxury family log house

#### Uponor involvement

Underfloor heating pipes ca. 3.5 km, composite and PEX pipes ca. 900 m plus fittings and accessories

### Kapanen's dream home is a fine place to live

Sami Kapanen's dream home was built in 2012 on the shore of Lake Kallavesi near Kuopio. The log house is one of the largest private detached houses in Finland. The house required almost four times as much building services material as a normal detached houses.

More than one kilometre of pipes and advanced control technology is required to ensure that the dream house remains comfortable regardless of the conditions. The family home of ice hockey star Sami Kapanen is both comfortable and easy to use.

#### **Project Facts:**

| Location           | Completion                            |
|--------------------|---------------------------------------|
| Kuopio, Finland    | 2012                                  |
|                    |                                       |
| Building Type      | Product systems                       |
| Single family home | Radiant Heating & Cooling, Multilayer |
|                    | Pipe Systems, PEX Pipe Systems,       |
|                    | Ventilation, Sewer, waste water       |
|                    | treatment, Sewer, Indoor (Soil &      |
|                    | Waste)                                |
|                    |                                       |

Project Type

New building

Former NHL stars are entitled to expect high standards and modern solutions. Sami Kapanen's log house on the shore of Lake Kallavesi emphatically delivers on these expectations. However, the best features are hidden away, even from the residents. The goal is that the advanced building services in the house work without being noticed.

Kapanen's Honka log house is one of the largest private detached houses to be built in Finland. The three-storey house has almost 600 square metres of floor space. Including the cellars, it has more than 1,000 square metres. The North American influence on the house is clear but the four children and the main owner of the Kalpa Hockey Oy ice hockey team will certainly make the most of the space, including the formal reception areas.

#### Like a small apartment building

Large houses require suitably large HVAC systems. An important factor in the design was to ensure that the building services are easy to use. The house is heated and cooled using geothermal heat pumps. The house has a total of seven separate piping systems: the ventilation and heating system, the underfloor heating for the wet areas, the air conditioning system, the underfloor heating and cooling system, the domestic water system, the sewer and wastewater system and the central vacuum cleaning system. – The house required four times as much material as a normal detached house, according to Sami Merasto, Regional Sales Manager for Eastern Finland.

There is well over one kilometre of pipes and ducts in the house, estimates Juho Mustonen from Savon LVI-Talo Oy, who was also responsible for HVAC work management during the construction phase. Several of the pipes and ducts are larger than those in a normal detached house. According to Mustonen, the building is actually a small apartment block.

Ventilation is handled by a total of four machines. The plastic ventilation ducts that were installed would be enough to cater for several normal detached houses. The ventilation ducts are mostly insulated Uponor plastic pipes. Heat is distributed throughout the house by water-based underfloor heating. One of the two underfloor heating loops in the house can also provide cooling when required. The underfloor heating and cooling pipes are supplied by Uponor's DEM control system.

Kapanen's house has five toilets, a large sauna and a bathroom. The house's domestic water system was implemented using Uponor's PEX and composite pipes.

### Kapanen's dream home is a fine place to live







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