

SINTEF confirms that

## JRG Sanipex pipe in tube system

has been found to be fit for use in Norway and to meet the provisions regarding product documentation given in the regulation relating to the marketing of products for construction works (DOK) and regulations on technical requirements for building works (TEK), with the properties, fields of application and conditions for use as stated in this document

### 1. Holder of the approval

Georg Fischer JRG AG  
 Hauptstrasse 130,  
 4450 Sissach,  
 Switzerland

### 2. Product description

JRG Sanipex pipe in tube system is a system for distribution of cold and hot water inside buildings; see Fig. 1-3. Table 1 shows JRG Sanipex pipe in tube system's main components.

### 3. Fields of application

The approval concerns cold and hot water distribution inside buildings.

### 4. Properties

#### *PEX-pipes*

The use of PEX-pipes has the following limitations:

- Maximum allowed pressure is 1,0 MPa (10 bar)
- Maximum allowed temperature for a short period of time is 95 °C
- Maximum continuous operating temperature is 70 °C

#### *Watertightness*

The pipe in tube system has passed type testing for watertightness in accordance with NT VVS 129 *Pipe in tube systems* for PEX-pipes with dimensions 12 x 1.7 mm and 16 x 2.2 mm. PEX-pipes and fittings are certified in accordance with current product standards.

#### *Exchangeability*

PEX-pipe dimensions 12 x 1.7 mm (18 mm protection tube) and 16 x 2.2 mm (25 mm protection tube) are documented to be exchangeable for up to 10 meters length, included three bends plus wall box. See Chapter 6 regarding dimensioning. PEX-pipe dimension 20 x 2.8 mm (29 mm protection tube) is not documented with regard to exchangeability.

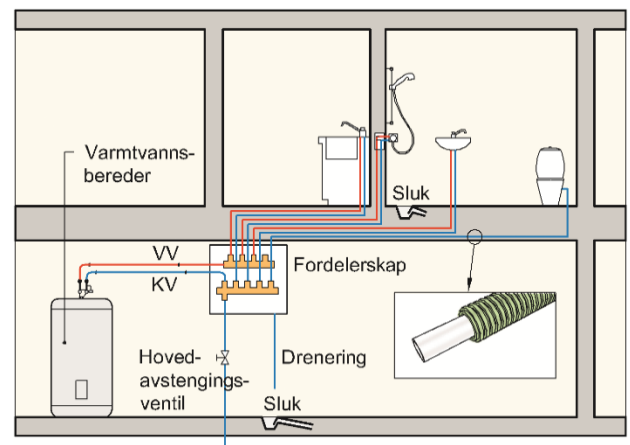


Fig.1  
Principle sketch of a pipe in tube system

#### *Acoustic characteristics*

The pipe in tube systems acoustic characteristics depends on how it is installed, noise levels of taps, water hammer levels etc. The noise levels from technical installations shall be in accordance with limit values given in TEK and NS 8175, Class C.