Plantvare

Floor Heating ral Heating: entr

Design of Floor Heating Systems and Mixing Loops for Floor Heating:

- Floor Heating as sole heating source
- Floor Heating combined with radiators/convectors.

For the latter, the Floor Heating is controlled via temperature sensor casted into the concrete.

The Floor Heating System will be design with self-optimization capability:

- Main Control Valve is regulating the temperature aiming at keeping all Loop Control Valves
 @ 70% opening.
- Pump Operation (Pressure Controlled) is aiming at keeping the Main Control Valve @ 70 opening.

This way the mixing loop will have built in self-optimization optimizing both forward temperature and pump operation.

P-Engineering design all pipe work, support steel and sizes all valves and pumps. The output is shop drawings for prefabrication.

P-Engineering uses e.g.

- <u>AVEVA PDMS</u> Software for 3D design
- <u>CONVAL</u>® for Control Valve Design
- PIPE-FLO® Pump Sizing and Pressure Loss

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P-Engineering Gyden 6, DK-5970 Ærøskøbing www.p-engineering.dk Pictures of 5 off mixing Loops for Floor Heating delivered prefabricated as one unit. These mixing Loops were also precabled for fast mounting and erection work.



Traditional Floor Heating Tubes.