Installation Instructions

WEM Underfloor Heating

Article no. 30020-60

General notes

Use only original WEM connection pipes and press-fit fittings, otherwise you will lose your guarantee for the system. For connections to other systems, use press-fit screw fittings.

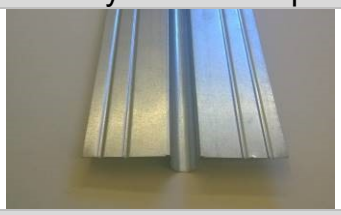
Storage

Store in dry location and protect against weathering.

Preparation

The substrate must be clean, dry and even. Level uneven sub bases with levelling fill.
The thermal protection of the building should be checked for compliance with the German Ordinance on Energy Saving (EnEV) in its currently applicable version.
WEM Underfloor Heating should not be installed at temperatures below 5°C.

Components

Wood-fibre board	Levelling board
	
Profiled wood batten	Thermally conductive plate
	
Multi-ply composite pipe	Edge insulating strip
	
Levelling fill	CREATON floor pavement tile
	

Fitting the edge insulating strip

The edge insulating strips are placed against the walls in upright position (Ill. 1).
If necessary, fix them with adhesive at several points to prevent displacement during the installation of the underfloor heating.

Ill. 1

Laying the wood-fibre boards and wooden planks

The wood-fibre boards are laid out on the floor. The board edges perpendicular to the milled pipe grooves should have a distance of at least 25 cm to the wall (Ill. 2).

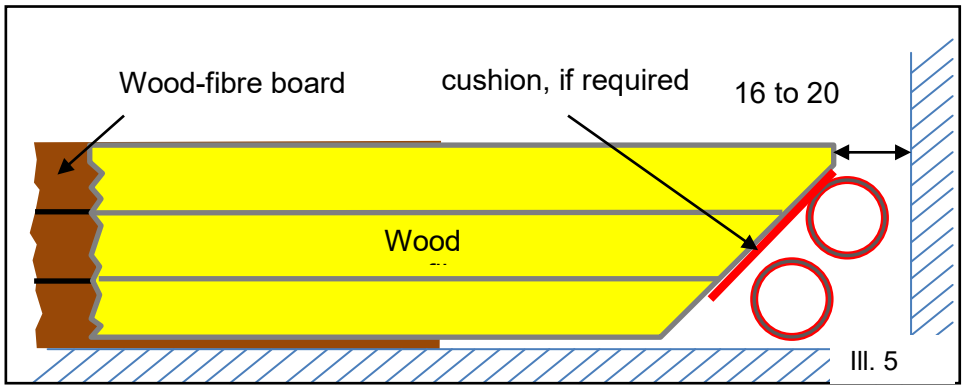
Ill. 2

Cut the wood-fibre boards with a piercing saw, a circular saw or other woodworking machines (Ill. 3).

Ill. 3

Lay profiled wood battens between the wood-fibre boards to accommodate the planks. Due to the groove-and-tongue joints, the wood battens fit flush to the surface of the wood-fibre boards.
The front and rear ends of the profiled battens should have a distance of 16 mm to 20 mm to the wall (Ill. 4 and 5) to ensure that the pipe can be pushed through the gap and laid underneath the profile. The profiled battens do not rest on the pipe because the groove-and-tongue joints ensure a spacing of some millimetres. This gap provides for impact sound decoupling, on the one hand, and ensures that the timber floor is in direct contact to the thermally conductive plates, on the other hand. This very important for heat transmission.

Ill. 4



Ill. 5

The wood profiles are slanted at the front and rear faces, to ensure that the pipes can be laid between the wall and the profile.

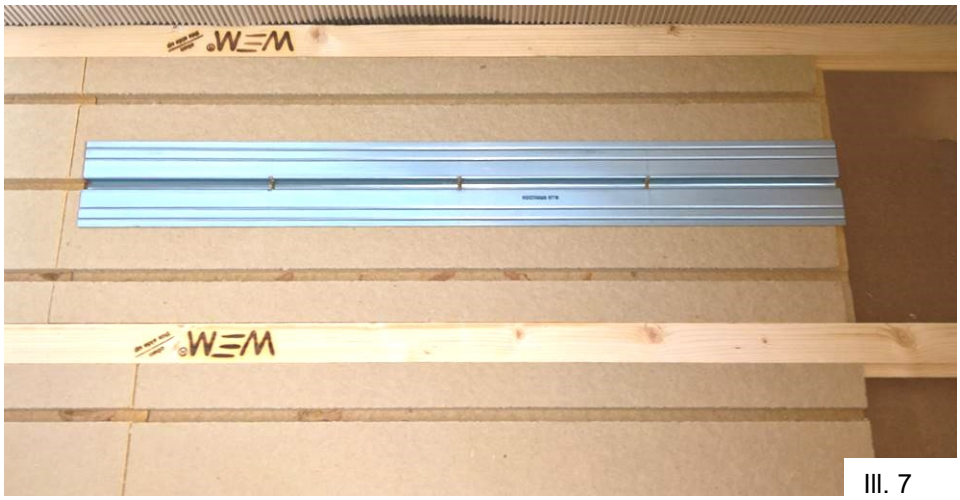
Note: If the pipe is in close contact with the wood batten, noise may be heard during heating up. Cushion the contact point with a piece of insulating strip (Article no. 30035) or protection hose (Article no. 17101).

If a tile flooring (or similar) will be laid, the wood profiles are not installed (Ill. 6).


Ill. 6

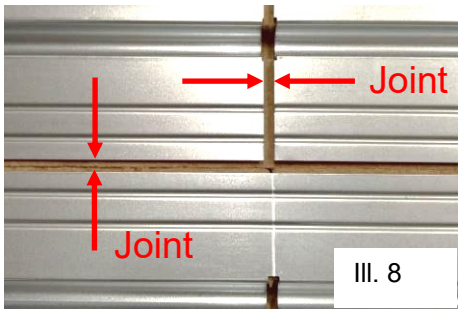
Laying the thermally conductive plates

The thermally conductive plates are laid on the wood-fibre boards with the grooves fitting in (Ill. 7).

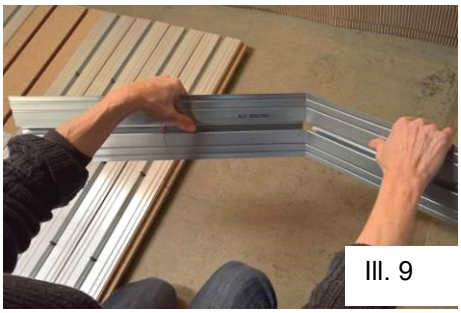


Ill. 7

They must not touch or overlap at the joints (Ill. 8). Provide a tear seam every 25 cm to support the separation of the plates (Ill. 9).



Ill. 8



Ill. 9

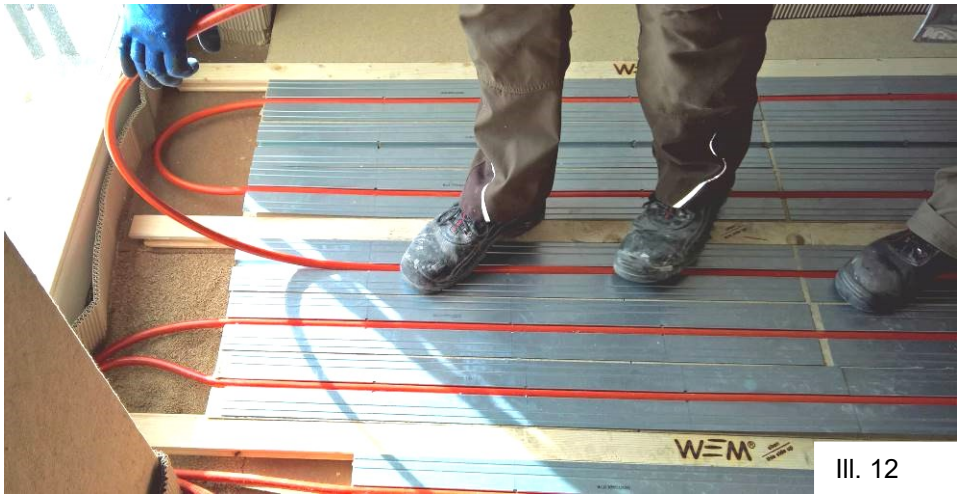
Laying the pipes

Use a pipe decoiler when laying the multi-ply composite pipe (Ill. 10).

Ill. 10

On the way into the room, lay the pipe into every second groove (Ill. 11), on the way back to the manifold cross the pipes at every bend (Ill. 12). Make sure that the bends do not project over the level of the thermally conductive plates by bending them slightly down (Ill. 13).

Ill. 11



Ill. 12

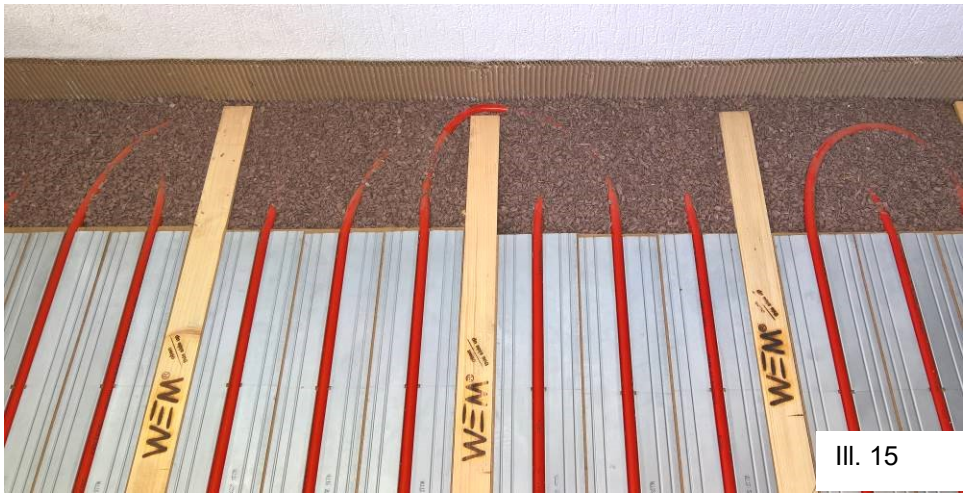
Ill. 13

Raising remaining area

The areas of the floor next to the underfloor hearting are filled with levelling boards, which you can cut size as desired (Ill. 14).

Ill. 14

The areas of the pipe bends are filled with compressive-resistant levelling fill up to the level of the thermally conductive plates (compact the fill if required) (Ill. 15).



Ill. 15

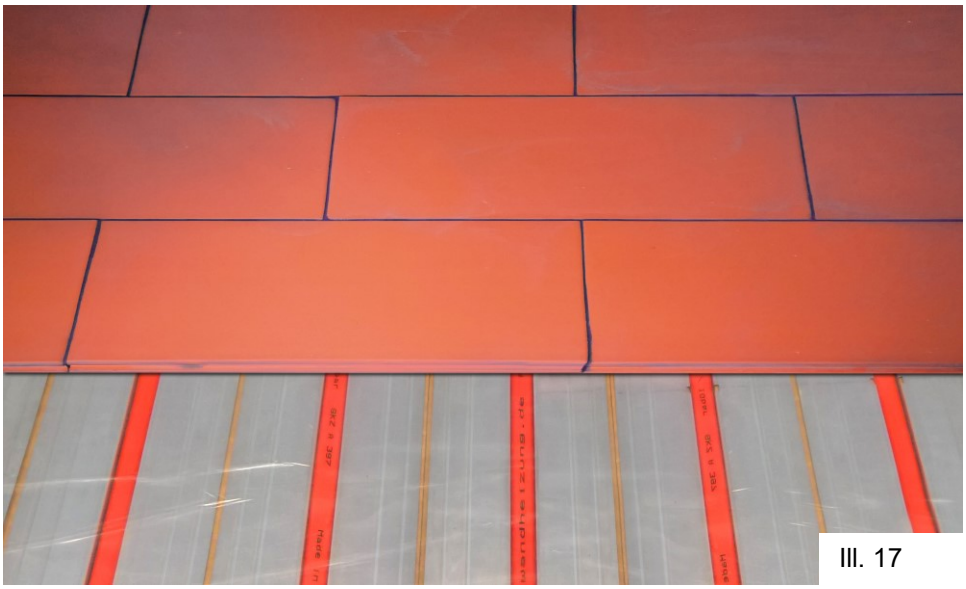
Laying the flooring

The planks are screwed to the wood profiles (Ill. 16). The fixing screws of the first and the last plank must have a distance of at least 50 mm to the wall to ensure that the pipe is not damaged by a screw.

Ill. 16

Tiling

If a tile flooring (or similar) will be installed, create first a load-bearing sub base (e.g. with CREATON floor pavement tiles) (Ill. 17). Lay construction foil between the dry screed and the thermally conductive plates (e.g. PE foil, thickness of 200 µm approx.)



Ill. 17