Assembly instructions

WEM Underfloor heating system 30

Art. 30010-81

General information

Please only use original WEM connecting pipes and press fittings, otherwise the system warranty will be void. Transitions to other systems must be made using screw-press transitions. WEM underfloor heating should not be installed at temperatures below 5°C.

Storage

Trocken lagern und vor Witterungseinflüssen schützen.

Head plate System 30

Laying plate System 30

Heat sink

Multilayer composite pipe

Edge insulation strip

Optional:
Base cover plate

Optional
Compensation payment

Scope of application

Areas of application	Category*	Description	Single load [kN]	Area load [kN]/m²
1	A2/ A3	Residential buildings; hotel rooms including associated kitchens and bathrooms	1,0	1,5/2,0
2	B1	Office buildings, doctors' surgeries; common rooms including their corridors	2,0	2,0
	D1	Sales areas with a floor space of up to 50 m² in residential, office and similar buildings	2,0	2,0
3	B2/ C1	Corridors in hotels, retirement homes, boarding schools; kitchens; treatment rooms, including operating theatres without heavy equipment; classrooms, cafés, restaurants, dining rooms, reading rooms and reception rooms	3,0	3,0/4,0

* Categories based on DIN EN 1991-1-1/NA:2012-12

The WEM Floor Heating System 30 is approved for the following areas of application with the following structures/coverings:

Floor covering:	Application class	Category*
Tiles on a dry screed slab with a thickness of 20 mm or more. The manufacturer's specifications for the dry screed slabs are decisive for the tile sizes and installation.	1	A2 A3
Parquet (thickness: max. 15 mm due to the heating output) and click flooring on a dry screed slab with a thickness of 20 mm or more.	1	B1 D1
ESB board 15 mm with or without sheet material (2 mm), e.g. linoleum, cork, etc.	2	B1 D1

* Categories based on DIN EN 1991-1-1/NA:2012-12

Subsoil
The substrate must be clean, dry and level. Uneven substrates can be levelled with levelling fill and then covered with the wood fibre base cover plate (thickness 20 mm) as a clean layer.

Connecting lines
The laying of the supply lines from the distributor to the individual heating circuits must be well planned in advance. When laying larger areas or several rooms, it is advisable to lay the connecting pipes in a substructure made of fill or insulation board and to lead them to the point where the respective supply and return of the heating circuit is connected. Other options for laying the connecting pipes are either across the wall surfaces (in which case the pipes may need to be covered) or across the ceiling surfaces (e.g. in the case of suspended ceilings).

Attach edge insulation strips
The edge insulation strips are placed against the walls (Fig. 3) and fixed in place if necessary so that they do not slip during installation.

Fig. 3

Laying boards
The panels are cut to size using a jigsaw, circular saw or other woodworking machines (Fig. 4).

Fig. 4

Step 1: Laying the paving slabs

Laying begins in one corner of the room with an end panel (Fig. 5). To connect to the long side, 12.5 cm wide strips are cut from the laying panel and used to lay out the first row (Fig. 6). The entire area is then laid out. The end panels are laid on both short sides of the room (Fig. 7 + Fig. 8).

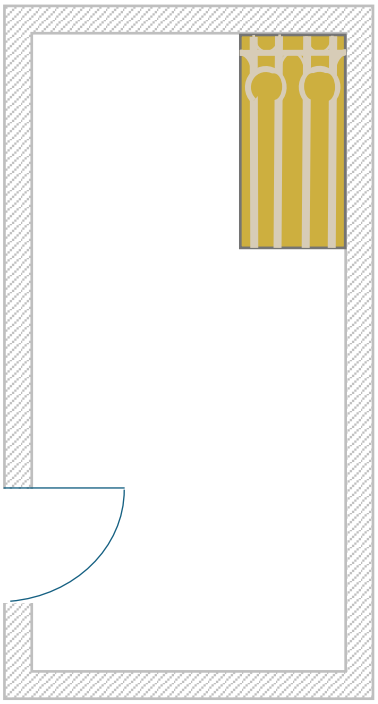


Fig. 5

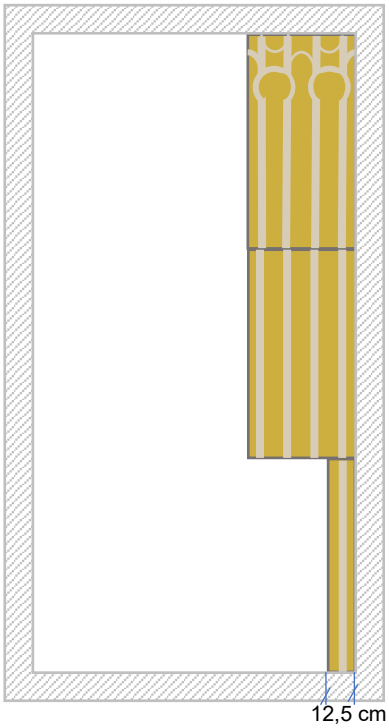
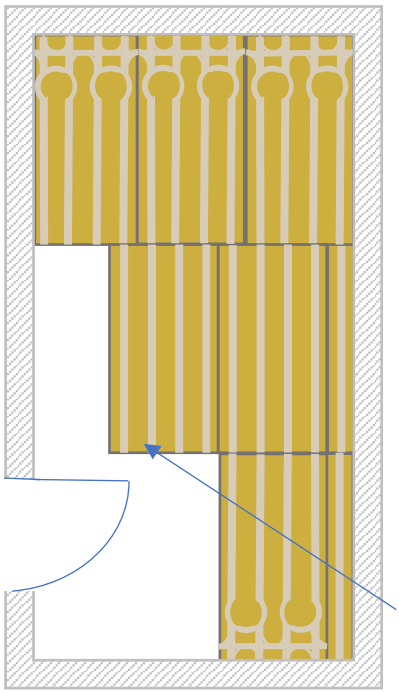


Fig.6

Ideally, the room lengths should be shortened using the last laying panel (Fig. 7).



If necessary, cut the panels to fit the length of the room.

Fig. 7

Fig. 8

Step 2: Insert heat sink plates

The heat conduction plates are inserted into the laying plates (Fig. 8). They must not touch or overlap each other (Fig. 9).

The plates are marked with predetermined breaking points every 25 cm for cutting (Fig. 10).

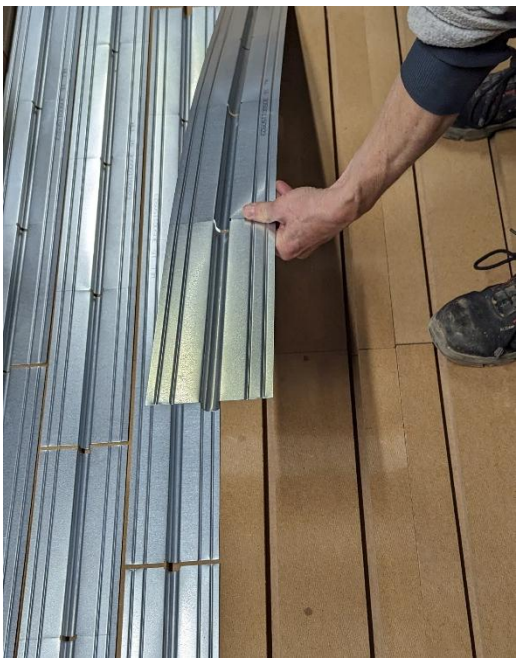


Fig. 8

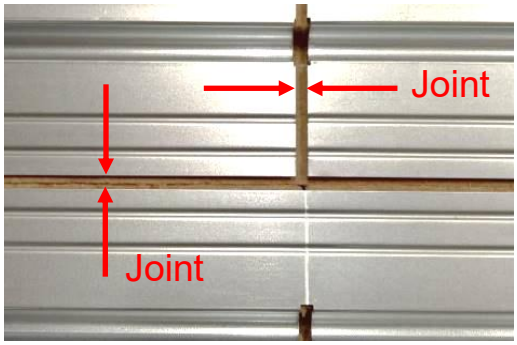


Fig. 9

Fig. 10

The heat conduction plates are also inserted into the groove running transversely at the end of the room (Fig. 11). The return pipe for the heating system can be routed along this groove.

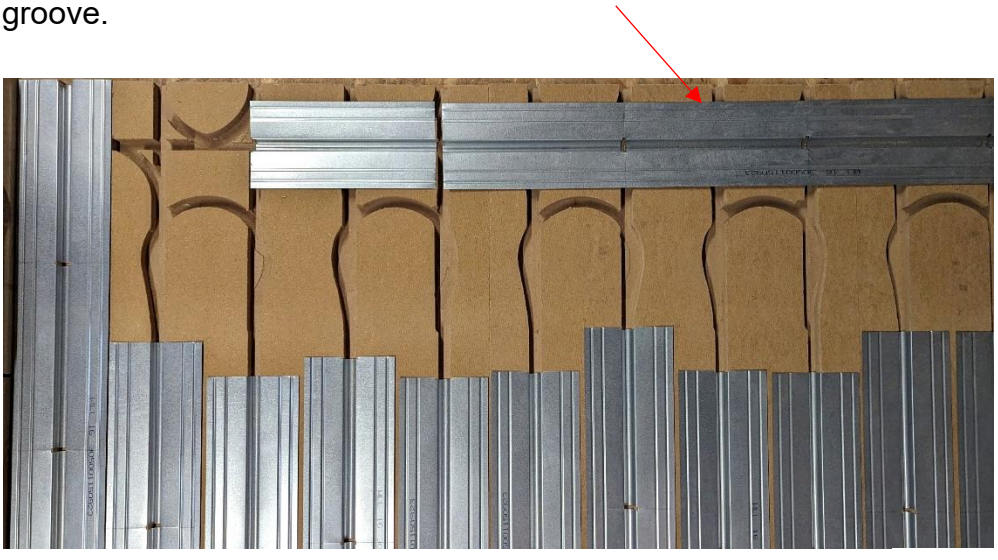


Fig. 11

Step 3: Laying the pipe

The metal composite pipe is laid using the roll-off reel. The bending aid (Figs. 12+13) or a bending spring can be used for the pipe bends.

Fig. 12

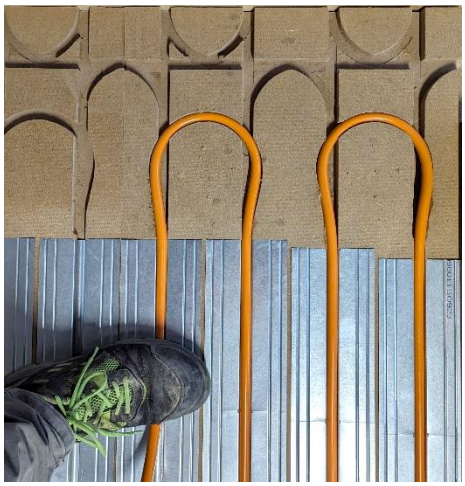


Fig. 13

The pipe is laid in a meandering pattern according to the following diagram (Fig. 14). Ideally, laying should begin at the point where the 12.5 cm strips are cut to size.

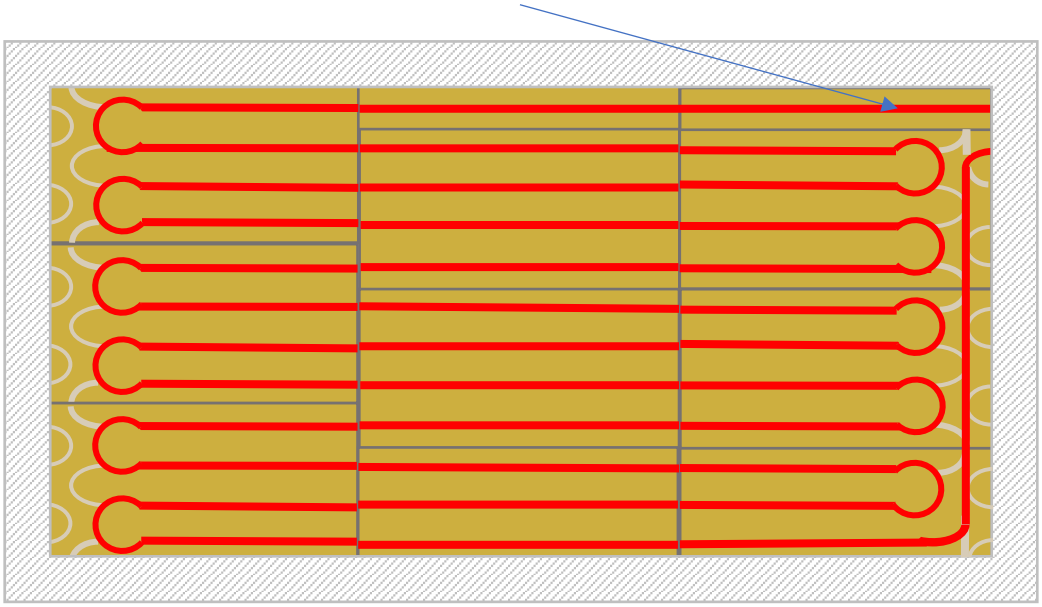


Fig. 14

The curved milling of the head plates allows the return flow to be led out of the surface at the optimum point.

Structure 2 A: Preparation for tiling

Laying dry screed boards

A dry screed board can be used as a substrate for bonding the tiles (Fig. 28).

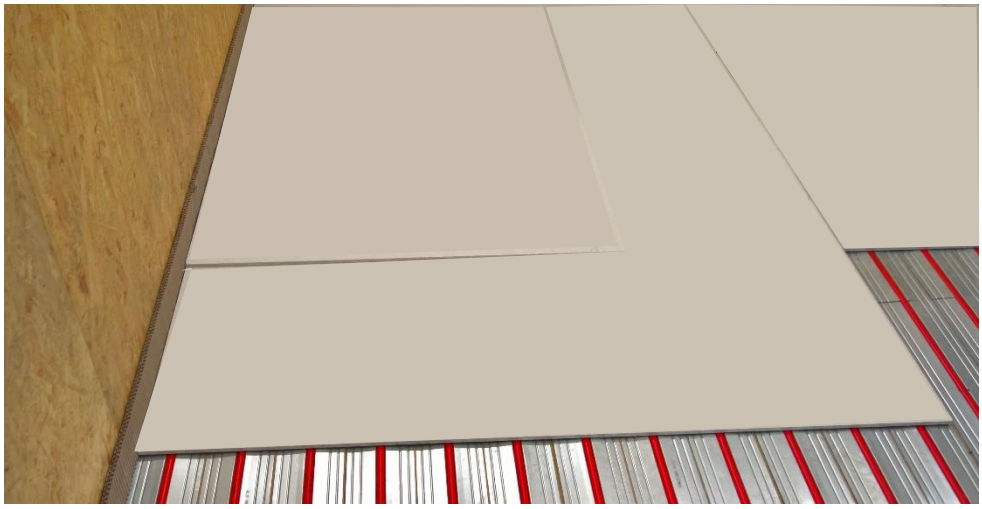


Fig. 28