

Installation Instructions

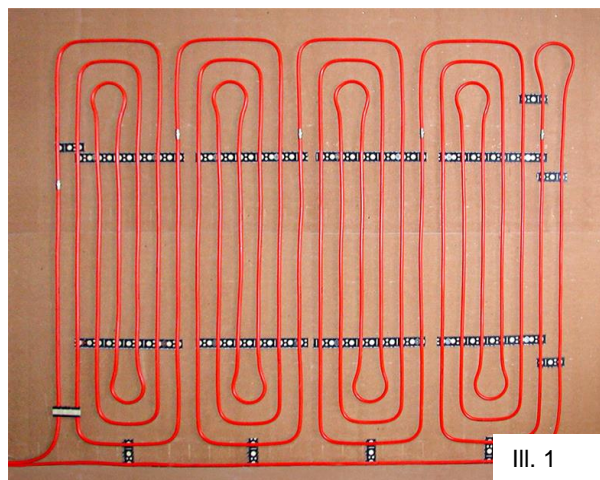
WEM Wet Construction System (Climate Grid and Climate Pipe System)

General notes We will only warrant for the trouble-free functioning of the installed system if original WEM connection pipes and press fittings are used. For connections to other systems, use press-fit screw fittings.

Storage and transport Protect the components against mechanical damage and avoid any deflections.

Prerequisites The wall surfaces to install the pipe system should have sufficient strength to accommodate the WEM Climate Grid and the plaster coat and should comply with the corresponding structural requirements.
 The wall surfaces must provide for sufficient adhesion of the plaster.
 The thermal protection of the building should be checked for compliance with the German Energy Saving Ordinance EnEV in its currently applicable version. For reasons of energy conservation, it is not recommended fitting a wall heating to exterior walls with a U-value > 0.5 W/m²·K without additional thermal insulation measures.
 WEM Climate Grids and WEM Climate Pipes should not be installed at temperatures below 5 °C.

Fitting of the Climate Grids Calibrate the pipe and deburr the pipe ends of the first WEM Climate Grid and fasten it to the wall surface using the provided toothed rails. Shorten the second WEM Climate Grid to the appropriate length, if required, calibrate the pipe and fasten the grid next to the first one. Connect it to the first grid using a press fitting.



Fix additional WEM Climate Grids and connect them as required. Lay connecting pipes from the water supply of the first grid and from the return flow of the last grid to the heating manifold and connect them. The wall heating is now ready for flushing and pressure testing.

When fitting the pipes, observe a minimum bending radius of 80 mm, when bending them by hand, and of 64 mm, when using a spiral spring!

Connect not more than six WEM Climate Grids in series!



Flächenheizung und -kühlung

Installation of the WEM Climate Pipe System

Fasten the toothed rails to the respective wall sections perpendicular to the pipe run. The fastening points on the toothed rails should have a max. distance of 100 cm to each other. Lead the WEM Composite Pipe from the manifold into the room, lay it according to the calculated length distributed over the wall surface and fasten it to the toothed rails. Use a pipe decoiler to prevent twisting of the pipe when unwinding it.



The spacing of the installed pipes should be 15 cm at least (every third pipe clip on the rail). Depending on the available surface area, you can install the pipe with a greater spacing.



When fitting the pipes, observe a minimum bending radius of 80 mm, when bending them by hand, and of 64 mm, when using a spiral spring!

The pipe length in one heating circuit must not exceed 90 metres!

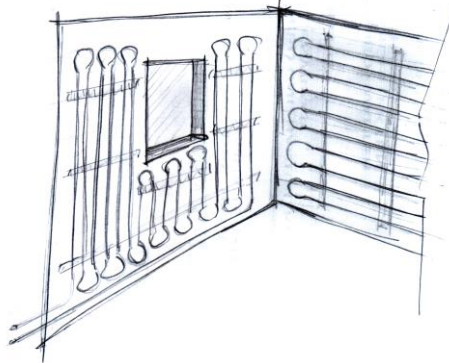
At the end of the heating circuit, lead the pipe back to the manifold and connect it with a screw fitting.

The WEM Wall Heating is now ready for flushing and pressure testing.



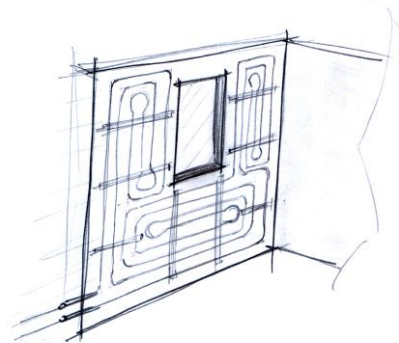
Frequently used layout patterns

Serpentine



III. 5

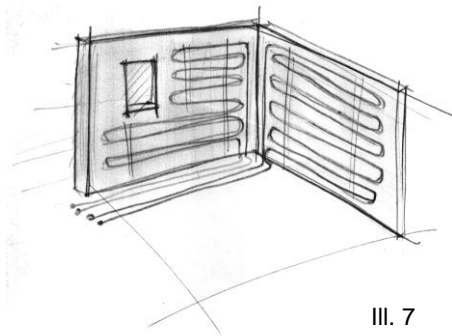
Spiral



III. 6

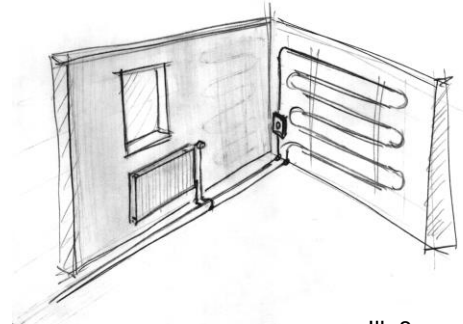
System variants

WEM Wall Heating or WEM Wall Cooling



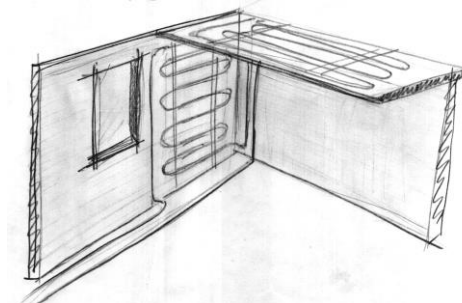
III. 7

WEM Wall Heating combined with conventional radiators



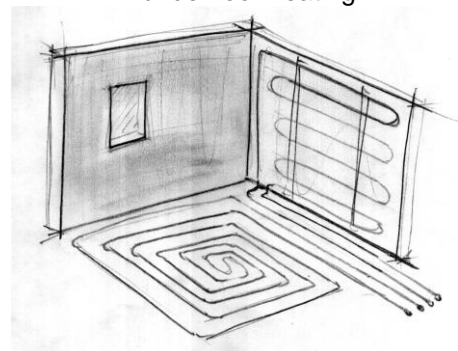
III. 8

WEM Wall Heating/Cooling combined with WEM Ceiling Heating/Cooling



III. 9

WEM Wall Heating combined with underfloor heating



III. 10

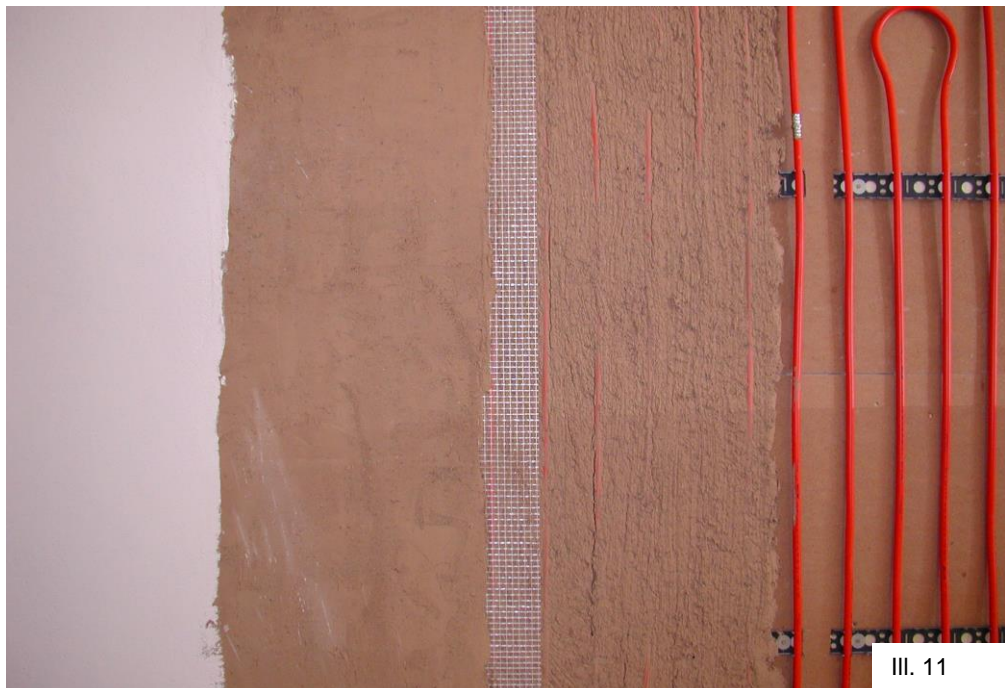
Plastering

For plaster work, the specifications of the plaster manufacturer and the generally acknowledged rules of engineering should be observed.

To achieve the specified heating power, you should use WEM Clay or Lime Plaster. We cannot specify values for products of other manufacturers.

The plaster base must have a sufficient load-bearing capacity!

In splash water areas and on surfaces that will be covered with tiles a suitable plaster should be used!



Depending on the substrate, apply one or several coats of WEM Universal Clay or Lime Plaster and skim it over the pipe surfaces. Let the plaster dry completely. Apply subsequently another coat of plaster and lay a reinforcing fabric into the moist plaster (wet the surface beforehand, if required).

Overlap the fabric mats at the joints by 10 cm at least. At transitions to unheated surfaces, apply fabric over a width of at least 25 cm beyond the heated surface.

Only clay plasters may be dried with the radiant heating!

Let the plaster dry thoroughly and finish the entire wall surface with WEM Fine Finish Clay or Lime Plaster. You can apply a paint coat subsequently. To preserve the positive properties of the clay we recommend WEM FarbTon Clay Paint for finishing.