

CONCRETING KIT

A tool for the quick preparation of a floor for concreting and achieving a precise concrete plane

Important notices:

- When performing the installation and concreting on your own, it is necessary to observe all the principles of work safety, especially the use of protective equipment /goggles, gloves, helmet .../ compliance of OHS when working at heights, etc.
- The system must only be used for the purpose for which it was designed and only in accordance with the instructions for use.
- Due to the aggressive environment - lime, sand - the surface layer of the parts may be damaged, this is not a defect and does not reduce the utility value of the system /not subject to warranty claim/

Creating hanger grid:

- Hangers need to be installed on a concrete surface to create a regular grid of hangers, where the hangers are spaced at regular intervals.
- In the longitudinal direction /i.e. in the direction in which the guiding tubes are to be laid/, the spacing of the individual hangers must be such as to provide sufficient support to the guiding tubes on at least three points. For a tube of 170cm length, we recommend a distance of the hanger in the longitudinal direction of 75cm (the tube will be exceeded by 10 cm on each side).
- In the transverse direction (i.e. in the direction of the guiding pulling lath), we recommend a distance such that the concrete can be easily pulled and the pulling lath is not deflected, e.g. 1.2 - 1.5m.
- The edge rows of hangers are not installed directly next to the wall, but at a reasonable distance, e.g. 20-30 cm.
- Hangers in the longitudinal row must be exactly aligned so that the guiding tubes can be moved by the U-profile of the hangers. This is achieved with a string stretched between the first and last hanger of the row. A laser can also be used for this purpose.
- **Attention!!!:** If the hangers are installed above the already installed waterproofing layers, they may be perforated. The waterproofing layer must never be damaged. This means that the drilling depth must be less than the depth of the waterproofing layer. The consequences of perforation of other insulation layers (e.g. when anchoring in concrete above which there is wadding / polystyrene) should be verified with the insulation manufacturer / specialist.

- In the place of the installation (use a 6.4mm drill bit for 8mm diameter screws) the drilling depth must always be slightly greater than the length of the thread to be screwed in - but always at least 5 cm (for stability). The hole must be drilled perpendicular to the horizontal plane!!! Screw the hanger or unscrew it with a suitable screwdriver (cordless screwdriver). Before screwing in the hanger, it is necessary to vacuum the hole well with a vacuum cleaner with a suitable extension or blow it with a compressor!!! Without this, the screw cannot be screwed in correctly.
- The minimum concrete height is 5 cm (i.e. when the hanger is screwed in completely).
- For regular (rectangular or square) surfaces, it is recommended to first place corner hanger at the corners of these surfaces (with a recommended distance from the wall of 20-30 cm), these are the corners of the hanger grid. With a string stretched between the corner hangers (or laser) we determine the line of the perimeter lines of the grid. Fill the peripheral rows with hangers at recommended longitudinal and transverse spacing. By tightening the string (laser) between two opposite hangers of the transverse rows, we define the line of the longitudinal rows of the hanger grid. We then install hangers in the recommended longitudinal spacing.
- For uneven surfaces, we recommend creating a rectangular /square grid using the shortest wall/ side of the concrete surface. From the two hangers installed at the beginning and the end of the wall (forming the 2 corners of the grid) we lead perpendicular to the wall. The length of the perpendiculars is chosen according to the possibilities of the surface so that the square / rectangle fills as much of the surface as possible. At the end of perpendiculars we install the remaining 2 corner hangers of the grid. Install the hangers into the rectangle as described in the previous paragraph. With the help of a string or a laser, we will stretch the lines of the individual installed rows where the remaining space needs to be filled with hangers. Install the remaining hangers at recommended intervals.

Alignment of hanger grid:

By measuring the concreted area (e.g. with a sufficiently long spirit level or using a self-levelling laser), we find the highest point of the concreted area. Adjust the hanger closest to this point (the so-called control hanger) so that the height measured from this point to the top edge of the tube placed in the nearest hanger is the desired concrete height. This ensures that the concrete layer is not smaller on the rest of the concreted area. The other hangers (no tube) will need to be aligned to the top of this control hanger.

Using a spirit level and a string

Using a water level device we transfer the height of the control hanger to the perimeter hangers /in the longitudinal line is enough/ and connect the opposite hangers with a string. We adjust the height of the remaining hangers according to this string in each line.

Using a laser

- Set the plane of the self-levelling laser approximately 10cm above the control hanger base. Take a sufficiently long screwdriver or an adapter for the cordless screwdriver / drill and put it in the control hanger screw head. Then we will visibly draw on the extension along line marked by laser. Tighten / loosen the bolts of the other hangers by aligning the line with the beam and laser, thus aligning the entire grid of hangers.
- After horizontal levelling we verify that the locking nuts of hangers are tightened to the profile, which is firm and does not turn.

Concreting

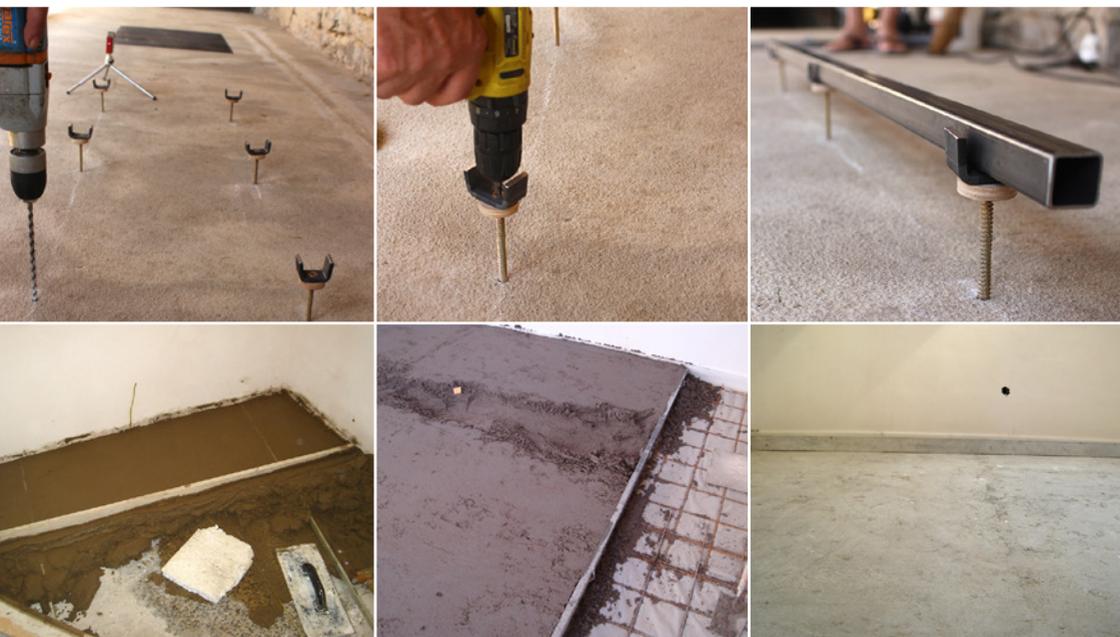
The concreting can be done after levelling the hanger grid. Insert the guiding tubes into the u profiles. We tear down the concrete by means of the appropriate pulling lath perpendicular to the guiding tubes. Depending on the ongoing concreting, we always move the tubes so that they are supported by three points as mentioned above.

Dismantling hangers

We dismantle the hangers continuously as they come loose as the guiding tubes move

Maintenance instructions:

- After unscrewing the individual hangers it is always necessary to clean any residual impurities from these hangers properly. In case of the completion of concreting /or a delay in concreting/ it is necessary to preserve the hangers gently with oil.
- The same applies to the guiding tubes.



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