

Stravifloor Jackup-R

Installation Manual

Installation Tools and Components

- Stanley knife
- Ink marker
- Marking spray
- Pocket tape measure
- Cross line laser (optional)
- Impact wrench
- Screwdriver
- Adhesive spray and tape (if the perimeter isolation is done with a material different than the self-adhesive CDM Stravitec's Perimeter Strip)
- Adhesive tape
- Grease
- Manual cartridge gun (+ elastic sealant)
- Personal protective equipment

1 / Supporting Floor & System Components

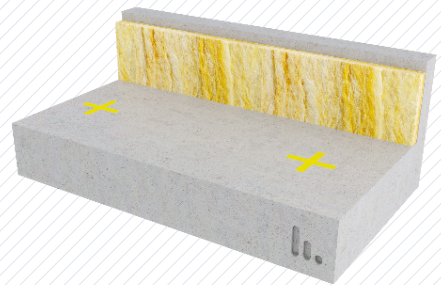
Prior to installation the area should be watertight and the supporting floor clean and dry. The flatness of the supporting floor should be a maximum of 1/8" (3 mm) over 10' (3 m) and 1/16" (1.5 mm) over 24" (60 cm) (according to ASTM E1155-14, ACI 302) to ensure a successful installation.

If the supporting floor is not completely flat and level use a fast drying, self levelling compound across the whole floor.

2 / Box Location & Perimeter Isolation

Using the installation plans supplied, mark out the location of the centre of each box across the whole floor.

All walls, columns and service penetrations through the floating floor should be isolated using strips of perimeter isolation. The height of this isolation should be the distance between the supporting floor and the finished level of the floating floor.



3 / Absorption Layer (optional)

Technical note: to avoid a standing wave in the air void (which may cause noise breakthrough at high frequencies) the use of a mineral wool absorption layer in between the boxes is recommended.

At the locations where the boxes will be installed make a cut out the size of the base plate in the mineral wool.

If mineral wool is specified for the system the height of the boxes should be adjusted (by the same thickness as the mineral wool) by mounting them onto a layer of Fibrecement or equivalent, or by installing a frame between the boxes frame and the bottom plate.

Both types of overheight can be used for reasons other than the need to add an absorption layer, such as the need to adjust the floating slab thickness.

4 / Protection Layer

A protective layer of building grade polythene sheeting should be installed over the whole floor and continued up the wall to cover the perimeter isolation strip.

All overlaps should be a minimum of 4" (100 mm) and then sealed using a 2" (50 mm) (minimum) wide industrial grade self-adhesive tape.

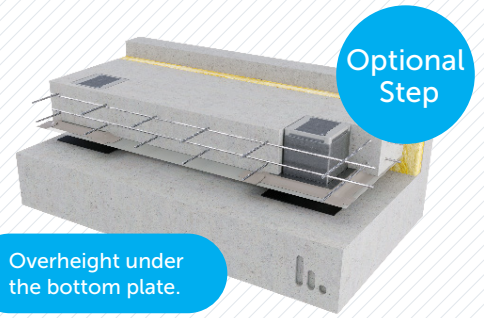
Ensure the polythene is fitted neatly into the corner areas of the floor to avoid any pocketing which could result in a reduction of slab thickness in these areas.

5 / Installing the Bottom Plates

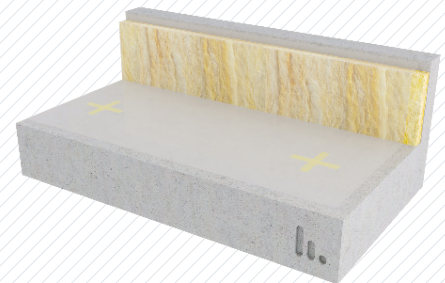
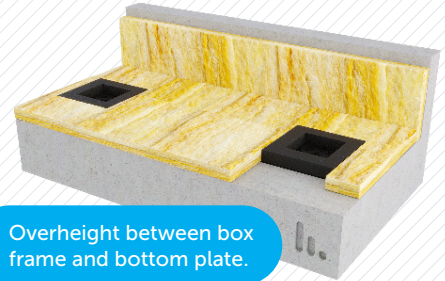
Make a cut out in the polythene the size of the bottom plate.



There are two types of bottom plates depending on the type of resilient support used: springs or elastomeric pads.



Overheight under the bottom plate.



6 / Installing the Boxes

Place the boxes on the bottom plates and tape the polythene sheeting securely to the wings of the box frame ensuring making sure there are no gaps where leakage could occur.

The distance between the center of each box and the edge of the floor should be a maximum of $19\frac{11}{16}$ (500 mm) to limit the cantilever effect and a minimum of $7\frac{7}{8}$ (200 mm) to allow concrete pouring, unless otherwise stated in the shop drawings (and validated by the CDM Stravitec technical team or the structural engineer).



The box frame, plastic and metal lids, and a sticker with the CDM Stravitec logo arrive pre-assembled on site. Do not remove the sticker nor open the box until after the concrete pour.



When using rectangular pads, make sure that the pad positioner (indentation in the bottom plate), is positioned parallel to the opening in the top of the box. For your convenience, the sticker with the CDM Stravitec logo is placed in the same direction as the pad positioner.

7 / Reinforcement Grid

Install the appropriate grade of reinforcement mesh (the grade will be predetermined by the project structural engineer).

If any accidental tears occur in the polythene sheeting they must be securely repaired using additional polythene sections and industrial grade self-adhesive tape.

8 / Concrete Pour

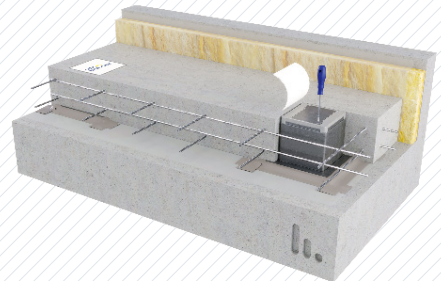
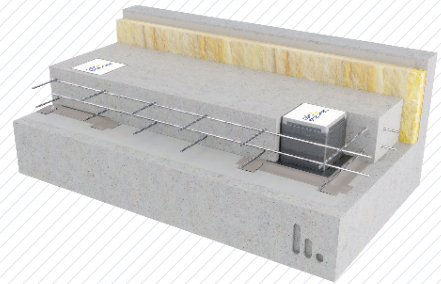
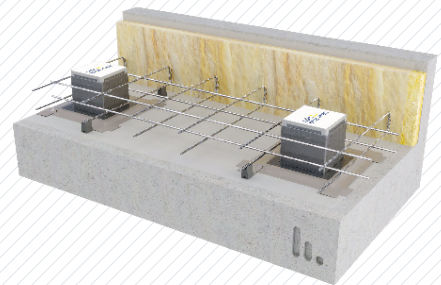
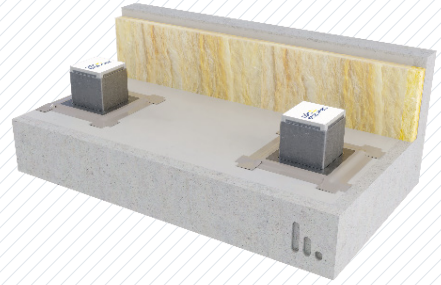
Once you have ensured that all boxes are adequately closed and sealed the concrete can be poured to the required height.



Attention: be careful when pouring the concrete so that none of it leaks into the boxes as this will damage the product and create an acoustical bridge.

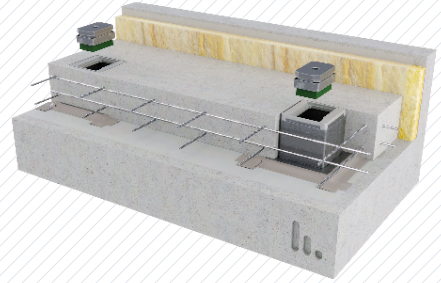
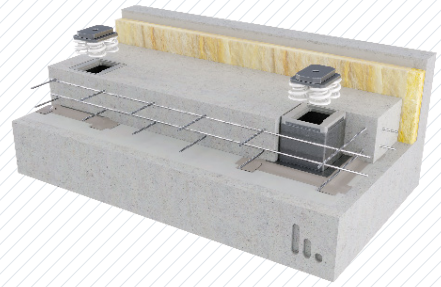
9 / Opening the Boxes

When the concrete has cured to the required strength – 14 and 28 day concrete cube tests are recommended to determine the strength – remove the stickers and open the top lid by removing the two screws holding it in place.



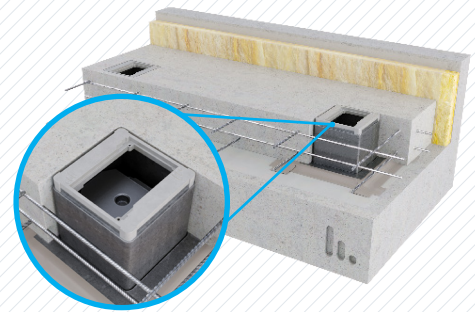
10 / Inserting the Bearings

Insert the elastomeric or spring bearings as indicated on the plan. Position the bearings on the bottom plate. The bearing(s) should rest within the indentation in the bottom plate (pad positioner). Place the bearing plate (springs or pads) and adjustment plate on top of the isolator(s).



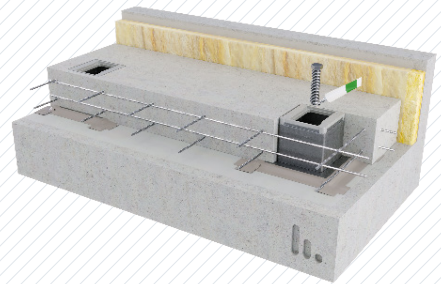
11 / Rotate the Adjustment Plate

Rotate the adjustment plate to be perpendicular to the opening of the box.



12 / Insert the Bolt

Before introducing the bolt it's recommended to lubricate it, using the provided grease.



13 / Jack Up the Floor

Always start the jacking up process in a corner of the floor and gradually move line by line across the floor (in a zigzag pattern).

For more complex room geometries, CDM Stravitec should be consulted about the order of the jack-up boxes. This info will then be added to the shop drawings.

Apply a small amount of grease to the bolt inside the box and run the bolt until you feel resistance change (it means that the adjustment plate reached the top of the box). Start jacking up the floor in phases – no more than two rotations at a time for each phase. If the required height is not reached in the first phase repeat the process again following the same sequence. Note that the minimum jack-up height is 3/4" (20 mm).

During the jacking up process ensure that no unnecessary loads are placed on the floor.



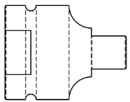
Note: following any other procedure for lifting the floating slab may damage the concrete or the support (housing and isolator). Jacking up the floor slab by more than 2 turns at a time must first be approved by the manufacturer.

Use an impact wrench with a torque ≥ 800 N.m (e.g. Bosch GDS 30 Professional, Makita TW1000) to lift the slab.

Depending on the toll reception, different adaptors can be necessary.

Tool with bit holder of 1" external square

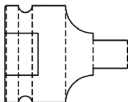
Transition part
1" - 3/4"



Example:
Stahwille ref.
G0542.000.866

Tool with bit holder of 3/4" external square

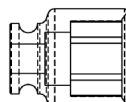
Transition part
3/4" - 1/2"



Example:
Stahwille ref.
G0542.000.568

Tool with bit holder of 1/2" external square

Transition part
1/2" - 6-point

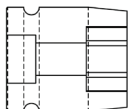


Example:
Action ref.
DO2012-0-030

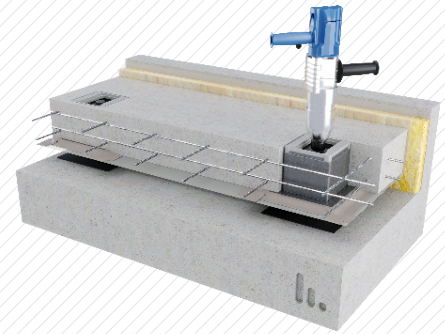
OR

Tool with bit holder of 1" external square

Transition part
1" - 6-point



Example:
Action ref.
DO4010-0-030



14 / Closing the Boxes

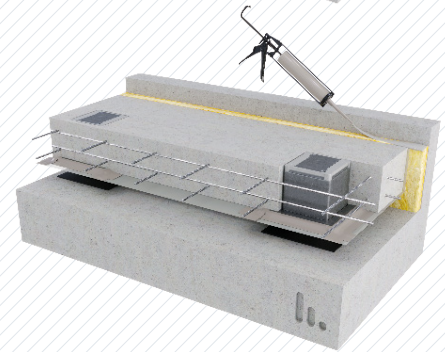
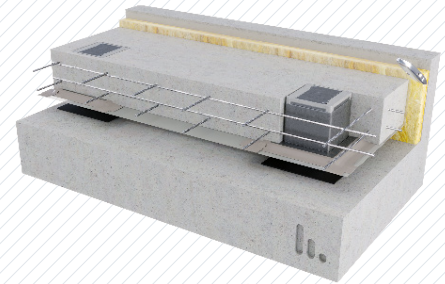
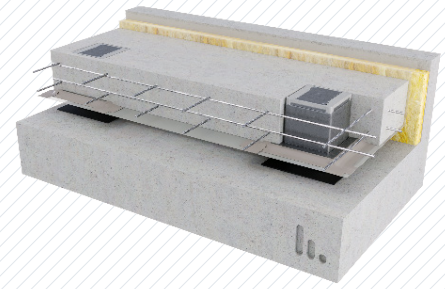
Rotate the adjustment plate to be perpendicular to the opening of the box.

15 / Trim & Caulk the Perimeter

Trim the perimeter isolation to the finished floor height.

Seal the perimeter with a suitable elastic caulk.

The floor is now ready for use.



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