Stravifloor Deck
Installation Manual

Installation Tools and Components

- Utility knife
- Pen or marker
- Tape measure
- Cross line laser (optional)
- Chalk line
- Angle grinder or metal chop saw
- Circular saw with sheet metal blade
- Screwdriver and self-tapping screws
- Adhesive spray
- Industrial grade self-adhesive tape
- Personal protective equipment (PPE)

1 / Subfloor & System Components Preparation

The structural floor should be clean, flat and levelled (F_F25 as minimum – meaning a single ¼" (6 mm) defect across 10-feet (3 m). The subfloor should be dry and clean of any debris (dust, dirt, grease and foreign materials) prior to installation. Unpack and unroll the various components and allow them to acclimate to their environment for 24 hours or more before installation.

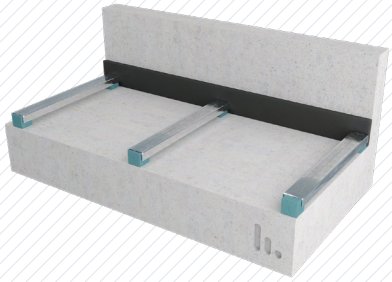
2 / Perimeter Strip

All walls, columns and service penetrations through the floating floor should be isolated using Perimeter Strip or strips of mineral wool.

The height of this isolation should be the distance between the supporting floor and the finished level of the floating floor.

3 / Stravifloor Channel

Install pads and channels per the shop drawings.



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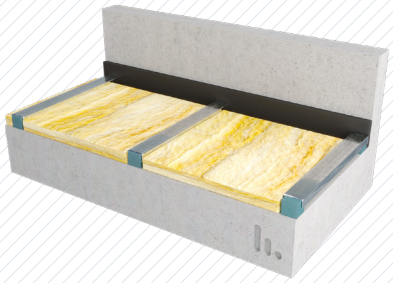
4 / Absorption Layer

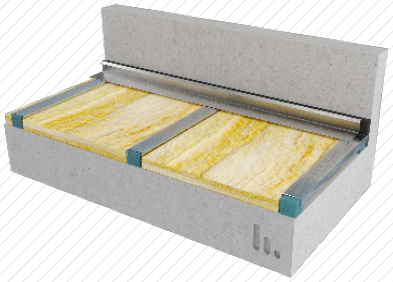
Lay down CDM Stravitec provided batt insulation in between the isolated channels. The thickness of the absorption layer should be smaller than the void after elastomer deflection. Make sure not to place mineral wool under the channels.



5 / Metal Edge Profiles

Install metal edge profiles around the perimeter (pour stop). The profiles will be used as side formwork and thus should cover the entire lateral section of the future concrete or screed floor.

More flexible lateral formwork can be used if the wall and other vertical elements are not straight.



6 / Dovetailed Metal Decking

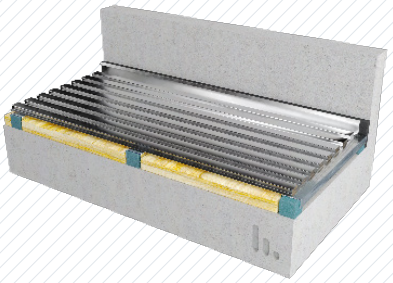
Safety warning: the metal edges of the decking sheets are sharp. Always wear protective gloves and safety shoes.

The standard procedure is to lay the first row of sheets lengthwise with flutes perpendicular to the channels. Place the first sheet with the print facing downwards, the following sheet with the print facing upwards.

The adjacent row starts with a sheet with the print facing upwards.

The decking sheets can also be laid in stretcher bond. They must be laid at right angles across the isolated channels, meaning that the profiled section of the decking sheets must be perpendicular to the isolated channels.

At the overlap, the bottom panels must be fully supported by isolated channels and isolators. The center of the isolated channels is 2" (50 mm) removed from the short end of the bottom panel. Follow CDM Stravitec construction drawings for more information.



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Crosscut overlaps

Crosscut overlaps are made by "clicking" the sheets into each other alternately (orange sticker downwards, then upwards) with a minimum overlap of 4" (100 mm). Crosscut overlaps can be adjusted by simply sliding the sheets into or apart from each other once "clicked" into place. It is easier to first click the sheets together on a hard and stable surface.

Lenghtwise Overlaps

Preferably, overlaps are not limited to the side flanges. In order to make the floating floor less vulnerable to construction traffic, it is necessary to include part of the profile itself in the overlap. Therefore, slide the side flanges as far as possible over the first profile. The upright part of the first profile will butt against the upright part of the first profile of the adjacent sheet.

Shortening and cut-outs

Use a carborundum disk to cut the decking sheets to size, both widthwise and lengthwise.
Cutouts can be made with the same tool or with a jigsaw. Holes through a completed floating floor can be made with a core drill (for acoustical reasons, holes and rigid elements piercing the floor system must be avoided but if it is absolutely necessary to do so, a perimeter strip must be installed against the rigid element).

Connection/gap between decking sheets and the edge perimeter profile

To prevent infiltration of concrete or screed that will be poured in situ on the decking sheets, the joints must be filled with an elastic sealer or a polyurethane foam. Pay attention to the final thickness so as not to compromise the floor stability.

Connection between decking sheets and isolated channels

Decking sheets should be fixed (do not compress the profile) with round wire nails or self-drilling screws into the upper flange of the isolated channels. Use nails or screws of limited length as not to make contact with the structural floor after deflection of the system.

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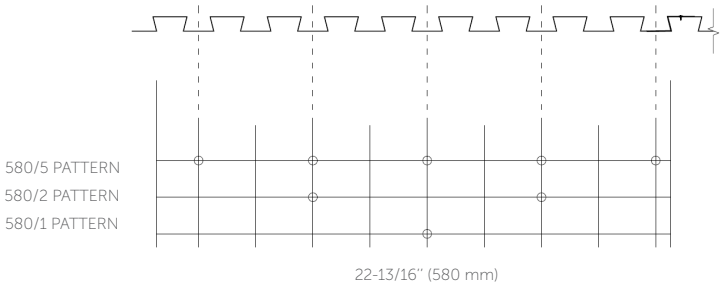


Fastener pattern (recommended):

a. End support (crosscut) = 580/5 screw pattern with approved screws

b. Intermediate support = 580/2 screw pattern with approved screws

c. Sidelap (lengthwise) = max. 24" (610 mm) o.c.

Notes:

a. At end and intermediate support, screw fasten deck to support channels (avoiding isolators)

b. At sidelap, screw fasten at top of flute. Do not fasten to channels.

c. Never weld u.n.o.

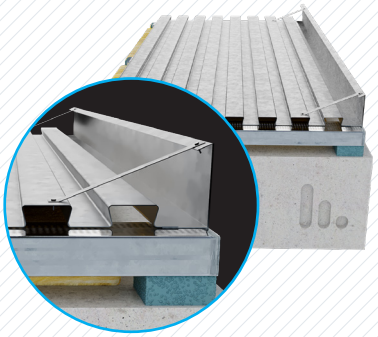
d. Sealant should be used at end supports where gaps exist

e. Typical details provided are not engineered with the diaphragm capacity of the floating slab considered. If diaphragm capacity design is required, then this needs to be coordinated by the design team with CDM Stravitec.

Restraint straps

When floor edge closure isn't against a hard perimeter (i.e. an upstand/ perimeter wall) or around a penetration in the floor, the pour stop can be fixed to the deck sheet by restraint straps, every 20" (500 mm).

Notice that to allow the fixation of restraint straps, the edge closure profile needs to have a return lip.



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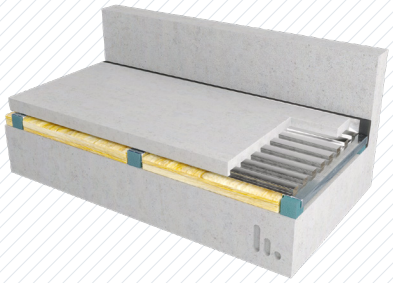
7 / Concrete Composition/General Application

Concrete mix shall meet local building codes and shall be specified by the SEOR.

When installing the decking sheets, bear in mind that this initially serves only to support the concrete and will only start functioning as reinforcement after the concrete has set. Install reinforcements, if applicable, and pour concrete as per concrete floor design.

If concrete curling is a concern due to the apparent climate or large size/dimensions of the concrete pour, Stravifloor Deck panels must be temporarily fixed by using Parker screws that are screwed through wedge-shaped wooden flutes. After the concrete has cured sufficiently, remove the Parker screws and flutes and fill in the holes with mortar. Alternatively, Stravifloor Deck can be pushed down from the ceiling by using studs or other temporary supports. Uneven drying can be avoided by covering the freshly poured concrete with a polyethylene film.

The uneven curing and setting of the concrete is related with climate conditions such as air humidity, temperatures and wind exposure but also with the concrete formulation (especially formulation water level). Concrete manufacturer recommendations must be required.



8 / Floor Covering & Other Finishing Details

Trim any excess perimeter isolation material to the finished floor height and seal around the perimeter with a suitable elastic caulk.

Clean any concrete that may have bridged over the perimeter isolation board.

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