Stravifloor Channel (Concrete)
Installation Manual

stravifloor by CDM Stravitec

Installation Tools and Components

- Stanley knife
- Ink marker
- Pocket tape measure
- Cross line laser (optional)
- Chalk line with gear ratio
- Leverage sheet metal snips
- Hand-held circular saw and/or jigsaw
- Battery powered screwdriver (+ screws) or nail gun
- Adhesive spray and tape (if the perimeter isolation is done with a material different than the self-adhesive CDM Stravitec's Perimeter Strip)
- Staple gun (optional) (to fix PE film to formwork)
- Manual transpallet (optional)
- Personal protective equipment (PPE)

1 / Supporting Floor & System Components

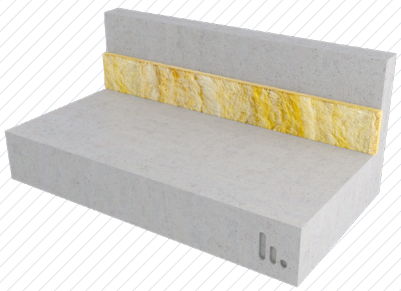
Check that the supporting floor has a tolerance of 0,1% or 1 mm/m for gradient and a maximum of 2 mm for smoothness. Ensure the installation area is watertight and the supporting floor dry and clean prior to installation.

Unpack and unroll the various components and allow them to acclimate to their environment for 24 hours or more before installation.

2 / Perimeter Isolation

All walls, columns and service penetrations through the floating floor should be isolated using Perimeter Strip self-adhesive backed isolation 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.



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3 / Channel Installation

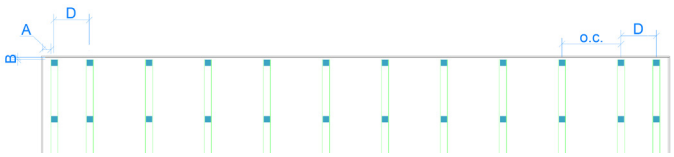
The types of steel channels can be loose laid without the use of mechanical fixings or adhesive.

To achieve a flat and level finished floating floor ensure that the steel channels are levelled using either plywood or metal spacers (shims) which should be placed directly under the CDM Stravitec elastomer pads to achieve the required height.

Install the first steel channel parallel to the wall with a gap of ≤ total thickness of the floating floor (screed or concrete floating floor) unless specified otherwise on the drawings provided.

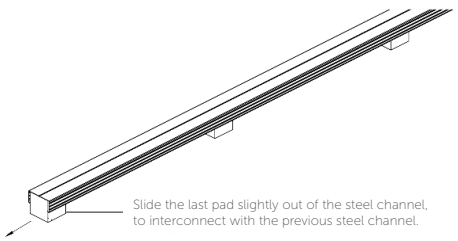
The distance between the steel channel end and the walls should be ≤ 20 mm to prevent the steel channel from puncturing the lateral isolation and making contact with the wall; thereby creating an acoustic bridge.

The distance between the first two steel channels closest to the wall must be the same at both ends of the room (see illustration below).

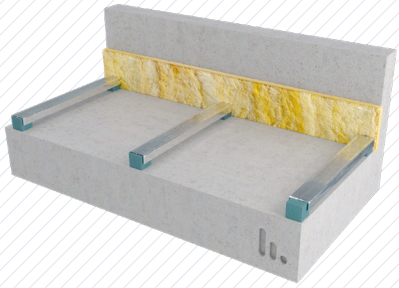


A. A ≤ total thickness of the floating floor (screed or concrete floating floor)
B. 20 mm ≤ B < total floating floor thickness
C. D > o.c./2

! Connecting steel channels must always be supported by an elastomer pad to prevent deformation of unsupported steel channels under load. Isolated channels are delivered with an elastomer pad already inserted at the end of each steel channel. Slide the pad half out of the steel channel so that you can install the previous rail onto the protruding pad. Turn the very first steel channel with the fully supported end towards the wall. The other side will come to rest on the protruding pad of the next steel channel.



The use of a steel channel around the perimeter of the room is not necessary unless it is known that there will be significant loads in this area i.e. dumbbell racks or other heavy equipment.



Note – Overheight or Shim Configurations

When additional height is needed to level the system or create the required airspace, it is essential to select an appropriate material (e.g., wood, metal, or concrete) that meets project requirements - including resistance to moisture, mould, autochthonous parasites, or other harmful agents.

Overheight:
Use continuous, beam-like materials that can be mechanically fixed on top of the metal channels. The beam width must be equal to or greater than the channel width.

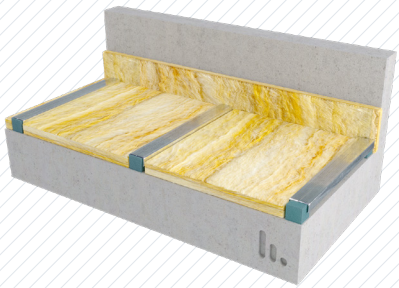
Shims:
Position shims beneath the bearings, ensuring they extend at least 25 mm (1 in) beyond the bearing footprint in both directions.

Guidelines:
Continuous overheight elements are generally the preferred and simpler solution unless numerous service crossings run perpendicular to the channels - in such cases, additional clearance below the channels is required to prevent acoustic bridges. Shims of varying thickness may also be used when the subfloor is highly uneven to achieve proper leveling.
In both cases, mechanical fixation may be required to ensure structural stability in taller setups. This can include fixation (by gluing) between shims and pads, or connecting beam-like overheight elements using cross beams, with spans defined according to project conditions.

4 / Absorption Layer

Ensure that the thickness of the mineral wool is a few mm thinner than the depth of the void – it is worth remembering that the void will decrease once the floor is in use and fully loaded.

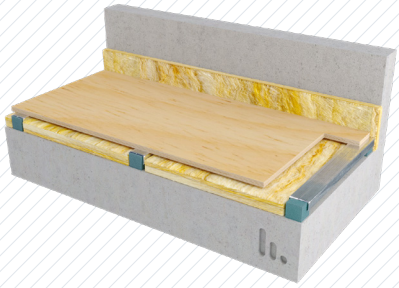
Install the mineral wool in between the steel channels and note that it should never be installed under the steel channels.



5 / Lost Formwork

Loose lay the lost formwork (such as OSB, plywood or steel plate) over the pad/batt system.

Panel joints should be supported by CDM Stravitec pads at least 25 mm into the panel and should be mechanically joined together using tie plates or sheathing clips to limit lateral movement. The length of the fixings used to install the joining mechanism must not exceed the thickness of the formwork; otherwise it may puncture one of the pads.

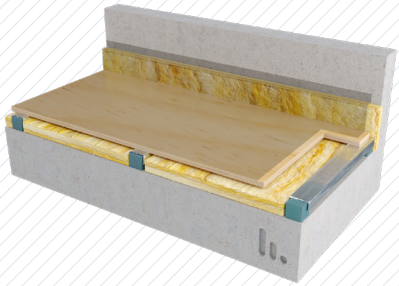


6 / Polyethylene Sheeting Protection Layer

Building grade polythene plastic sheeting should be installed over the entire area and continued up the wall to cover the perimeter isolation strip and then be secured to the wall using a 50 mm wide industrial grade self-adhesive tape.

All overlaps should be a minimum of 100 mm and then sealed using the same tape.

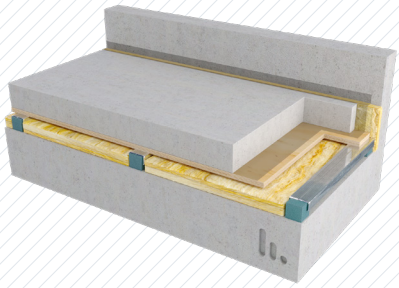
Ensure the polythene is fitted neatly into the corner areas of the floor to avoid any pocketing which could result in a reduction of slab thickness in these areas.



7 / Concrete Pour

Install the reinforcement mesh ensuring that the protection layer does not get punctured – any punctures should be repaired with sections of polythene and taped securely into place.

Concrete can now be poured to the required thickness.



! If the Stravifloor Channel floating floor system is a different height to the surrounding structure an edge profile will be required. If a rigid edge profile is used ensure that the height of it is less than the height of the total floor system so that it does not make contact with the supporting floor. After deflection [(floor system height - edge profile height) > (deflection + creep)].

9 / Trim & Caulk Perimeter

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

Seal the gap with elastic caulking.