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RECOMMANDATIONS

Please note:

Always follow paving manufacturer recommendations to ensure the suitability of paving products for use with riser pedestals and the number of risers per m² to use. Qualification of compulsory "SELF-SUPPORTING" slabs, of class T7, T11 according to standard EN 1339:2004-02.

Quantity riser/m2: Depending on slab manufacturers'advice, please add one riser in the middle of the slab, or under widerlengths.

> DIRECTION OF LAYING

From an aesthetic perspective, it is better to lay cut slabs against walls (whole slabs on the outside).

- > LAYING ON A ROOF TOP.
- ON A CONCRETE BASE OR ONTO THE GROUND, A SLIGHT INCLINE OF 1% IS RECOMMENDED FOR DRAINAGE.
- > WHY DOES THE GROUND SURFACE NEED TO BE PREPARED FOR BUILDING A TERRACE ON RISER PEDESTALS?

The surface on which the terrace will be built must be prepared before work can begin.

Unprepared ground (e.g. unprepared soil or lawn) may change over time and can be subject to movement, depending on the weight it is required to bear and the weather conditions to which it will be subject (dry periods, heavy rainfall, etc.). For these reasons, it is important to stabilise the ground beneath the terrace to ensure its long-term stability.

> REALISATION OF A TERRACE WITH CLEMAN® SELF-LEVELING RISERS :

We recommend the installation of a row of Cleman® standard risers on the facade instead of self-levelling risers in order to stabilise the slabs at the thresholds of doors and patio doors.

If and only if the side finishing of the terrace is not planned or impossible, we also recommend the installation of a row of Cleman® standard risers on the edge to stabilise the slabs.

When lateral covering is possible, the slabs glued to the side finishing plate and the lateral riser support provide the necessary support to block the riser head.

Safety first!
Use protective glasses and safety
gloves





Minimal tools required:

- A level



Advices from the Pros

Also recommended:

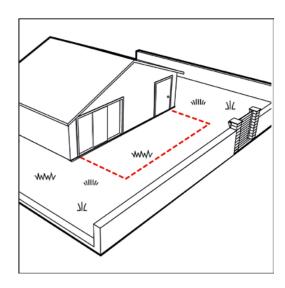
- Masonry ruler
- Chalk or line marking spray
- A slab grad
- A wet saw
- A laser
- A vibrating plate

1 DEFINE THE AREA

Firstly, define the area for the installation of the terrace.

Pro Tip

> Before starting check your pattern : tiles cuts, spacing ...



SITE PREPARATION

2 possibilities:

Pro Tip

> Ensure area is clean and the ground stabilized. (Sweep the ground removing stones)

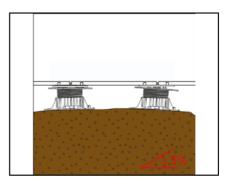
Onto the ground:

- Excavate 15 cm of soil.
-) Lay a geotextile on the subbase.
- Lay a base layer of 0/31.5 grade aggregate.
- Compact with a vibrating plate.

Pro tip

-) Depending on the nature of the soil, a draining foundation layer can be laid upstream by depositing a layer of 30/60 or 40/80 crushed stone.
-) If the resulting surface is still uneven, we recommend laying a bed of quarry sand or 0/4 crushed sand. This will made it easier to install low riser pedestals.
- We recommend using the vibrating plate compactor between each layer.

NB : There is no need to level uneven or sloping ground (up to 5%) . Use <u>self-levelling riser pedestals</u> to compensate for the slope to create a level surface.







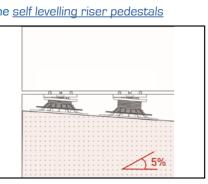
On a concrete base :

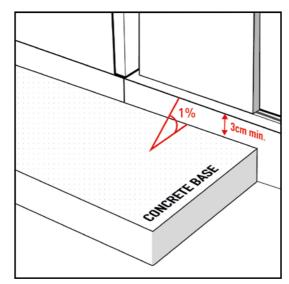
- > Check the available heights at the door or window sills.
- Allow a minimum of 3 cm. (When using self-levelling riser pedestals, ensure a minimum height of 4.5 cm beneath the paving. Riser pedestal height (min. 40 mm for a self-levelling pedestal) + acoustic damper = 4.3 cm)

Pro tip

On smooth concrete base, add an isolation mat underneath the risers.

NB: If the concrete base is slightly sloping, the <u>self levelling riser pedestals</u> will overcome slope of up to 5%.





DIRECTIONS FOR USE



TILES, SLABS...INSTALLATION

) Lay the tiles, slabs . Use the spacers to position them.

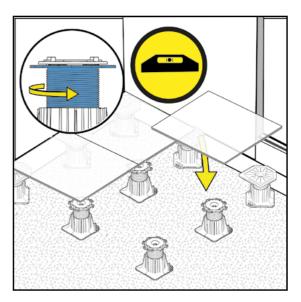
Pro tip

- > For a staggered tile installation, split the spacers that you do not need.
-) Use a laser to check the height.



HEIGHT ADJUSTMENT

) Use the nut on the pedestal to simply adjust to the desired height.



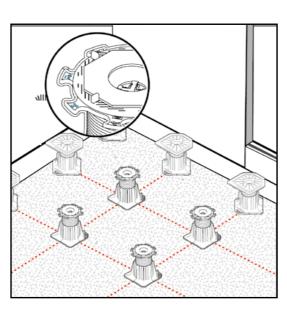
3

RISER POSITION

) Lay directly the riser onto the surface according to the pattern layout.

Pro tip

- Risers may be pre-adjusted.
- A chalk or line marking spray can be used.



6

TERRACE EDGE FINISHING

For finished paving heights greater than 100 mm, we recommend bonding to a ceramic plinth with a cut tile, using the <u>paved side finishing plate</u> in association with the lareral riser support.

1. EDGE FINISHING USING CUT TILES

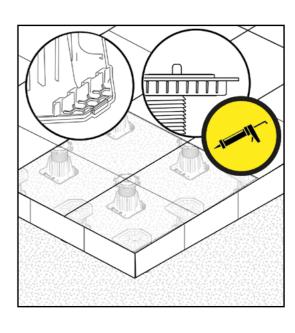
- $\,{}^{\rangle}$ Place the risers around the perimeter of the terrace, making sure that the lateral supports riser are pointing towards the outside.
- Clip the side finishing plate onto the top of the riser. Then place an isolation pad on each side finishing plate around the perimeter (optional).

N.B.: The isolation pad raises the finished height by 3 mm.

-) Apply PU glue to the «glue trap» points on the tab of the lateral riser support and on the side finishing plate.
-) Place the side plate in the vertical position against the lateral riser support, pressing firmly at the points where the glue has been applied.

For a 100% invisible finish, the tab of the lateral riser support can be snapped off.

) Lay the tiles against the spacers.

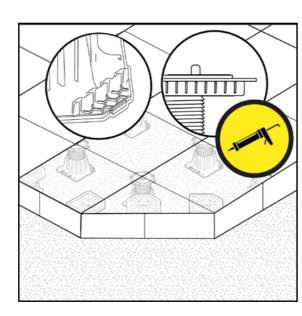


SPECIFIC FINISHING: 45° ANGLE

-) Place the paving pedestals so that the lateral riser supports can be used.
- > Set the side finishing plates on the riser pedestal.
- > Set an intermediary pedestal to support the plinths at the junction point.
- Apply drops of glue to the finishing plate glue traps and the riser supports. Press down on the plinths so they come into contact with the glue and hold for several seconds. As it dries, the glue will provide a mechanical grip that will permanently hold the plinths in place.

Pro tip

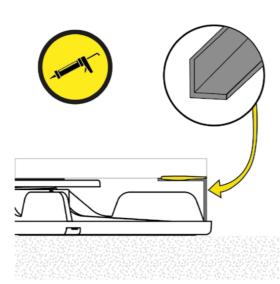
-) For the corners, plan to cut at 45° for plinths at the endpoints in contact with the other plinths at an angle.
- > For an aesthetic finish, cut the plinths to equal dimensions.



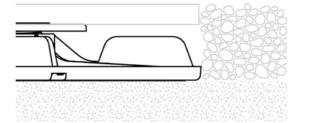
TERRACE FINISHING WITH LOW HEIGHT RISERS: CLEMAN® 28/40

The height of the risers is too low for terrace finishing with a cut ceramic plinth. Others solutions are possible:

) Using a PU glue, glue an L-shaped aluminium profile under the slabs on the sides to hide the risers.

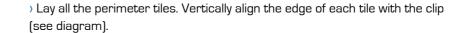


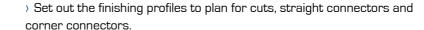
) Or create a gravel bed around the terrace.



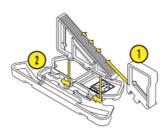
2. CLIP-ON FINISH USING THE FINISHING PROFILE

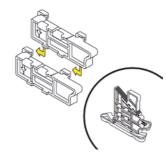
-) Before attaching the paved side finishing plates to all the perimeter riser pedestals, locate 1 securing clip in the glue trap of each paved side finishing plate (see diagram).
-) Clip the paved side finishing plates onto the riser pedestal heads with the clips facing outwards. Then place a square isolation pad on each paved side finishing plate around the perimeter.



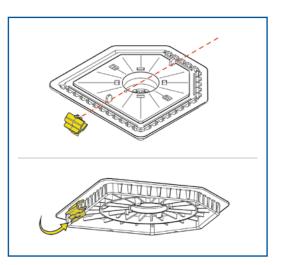


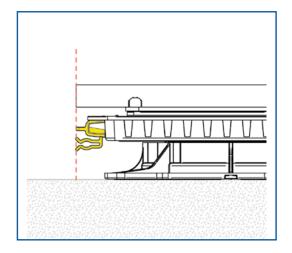
) To provide additional support and prevent tipping of terrace-edge or wall-edge paving, you have the option to use the <u>paved side finishing plate</u> <u>support kit</u> to secure the assembly (<u>extensions</u> are available for finishing plate support heights greater than 65 mm). Assemble all the components before fitting to the riser pedestal.

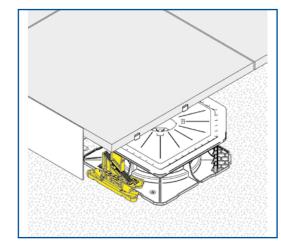


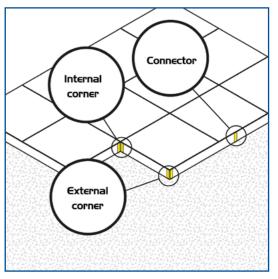


-) Begin at a corner.
- › Before using connectors and/or corners, it is best to partially remove the protective film at the point where they will be attached.



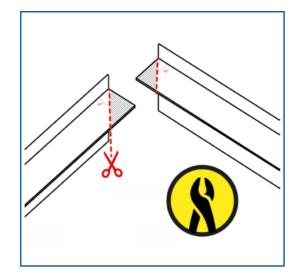




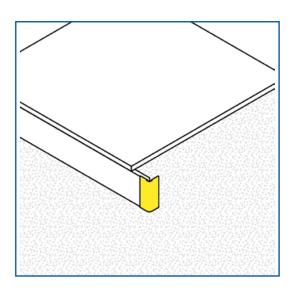


CREATING AN EXTERNAL CORNER

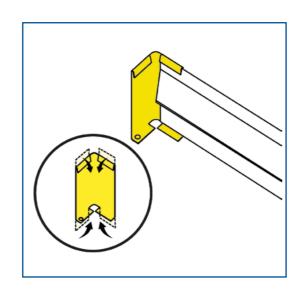
Cut the tab of each profile fixing tab at 45°.



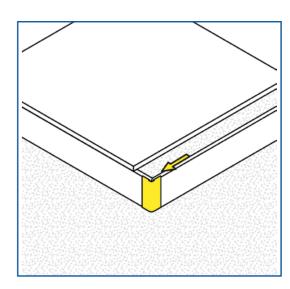
) Pull it slightly forward to make it easier to fit the 2nd profile.



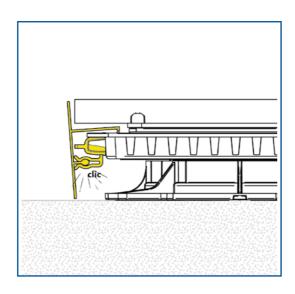
 \rangle Attach the corner fitting to the profile. Lightly pre-fold the corner securing tabs.



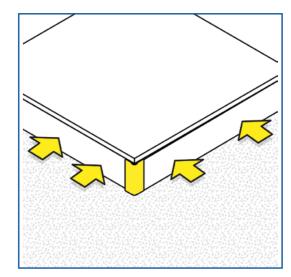
) Insert the 2nd profile into the external corner connector.



Tilt the profile forward slightly to locate it in the clip.



Finish by clipping the entire system firmly in place.



USING STRAIGHT CONNECTORS

) N.B.: Using straight connectors is optional. Their purpose is aesthetic, rather than structural.

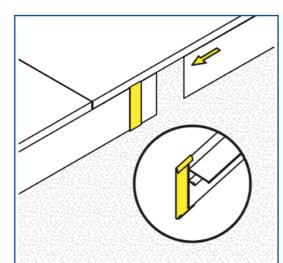
Profiles can therefore be joined with or without a straight connector.

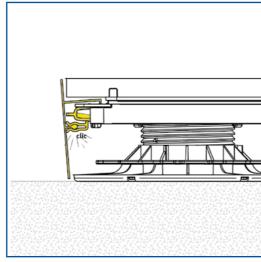
) When joining 2 profiles, add a 2^{nd} clip to the paved side finishing plate to hold the ends of the 2 profiles tightly together.

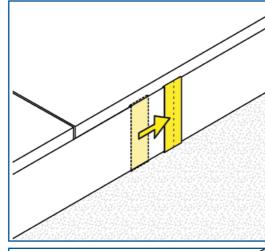
Tilt the profile forward slightly to locate it in the clip, and clip it into place.

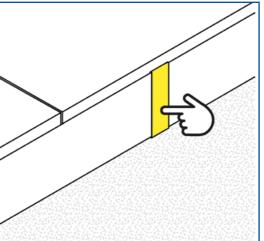
Clip on the 2nd profile and slide the end into the straight connector.

> Finish by clipping the entire system firmly in place.







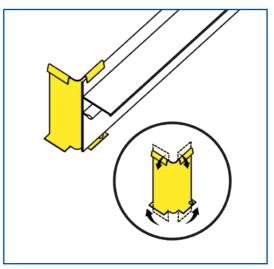


DIRECTIONS FOR USE

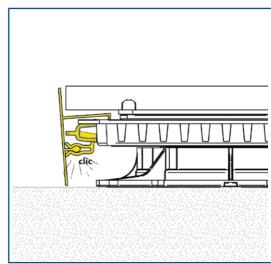
CREATING AN INTERNAL CORNER

) N.B.: Using internal corners is optional. Their purpose is aesthetic, rather than structural. So 2 profiles can be joined to create an internal corner with or without the internal corner connector.

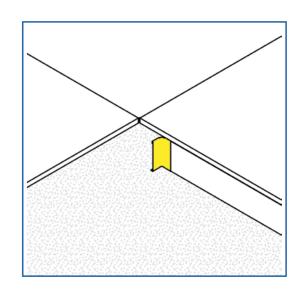
Attach the corner fitting to the profile. Lightly pre-fold the corner securing tabs



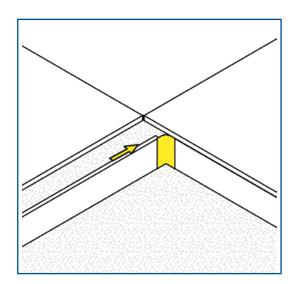
Tilt the profile forward slightly to locate it in the clip.



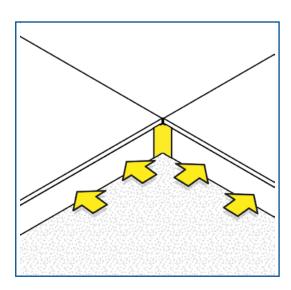
) Pull it slightly forward to make it easier to fit the 2nd profile.



) Insert the 2^{nd} profile into the internal corner connector.



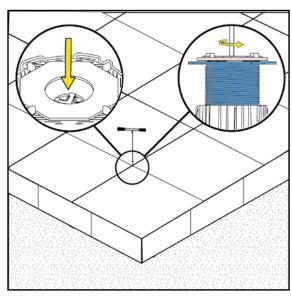
Finish by clipping the entire system firmly in place.



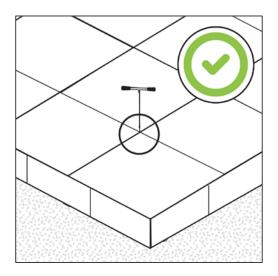
7 END OF THE SITE

-) Once the slabs are positioned, the final adjustments may be made using the <u>Cleman® adjusting key.</u>
-) Insert the wrench where the slabs intersect and adjust by turning counterclockwise to raise the height of the installation or clockwise to lower it.
-) Once the finished surface has been laid, the adjustment key can be used to correct up to 1 mm of misalignment (equivalent to a quarter turn).

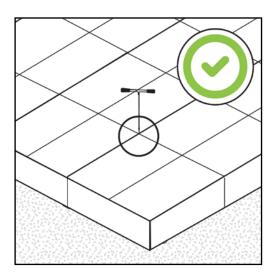




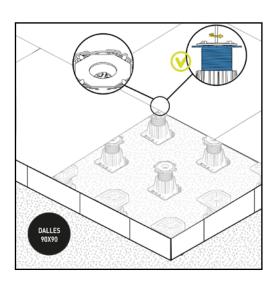
Vertical tile installation - square tiles



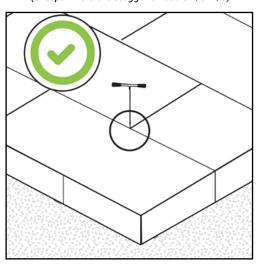
Vertical tile installation - rectangular tiles



Can be used with square paving laid in a staggered pattern (except where the stagger offset is 2/3 -1/3)

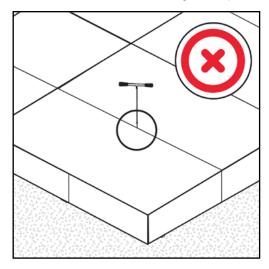


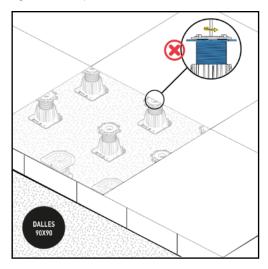
Can be used with rectangular paving laid in a staggered pattern (except where the stagger offset is 2/3 -1/3)



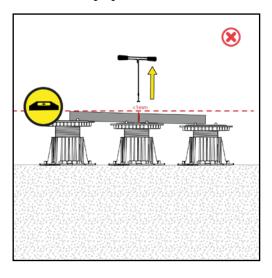
The key cannot be used with riser pedestals located on the long edge of rectangular paving.

Rectangular or square format paving requiring a longitudinal riser pedestal.

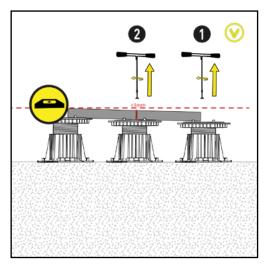




If there is still a slight gradient after the finished surface has been laid, the height can still be adjusted, beginning with the lowest riser







In this instance, adjust the height using the middle riser pedestal.

