TerraSmart Rail Paving System

Installation Guide

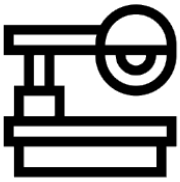
Version 1.25

RYNO®
FINISH STRONG

www.rynosystems.com

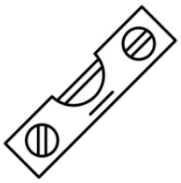
Equipment

Porcelain bridge saw



Tape measure

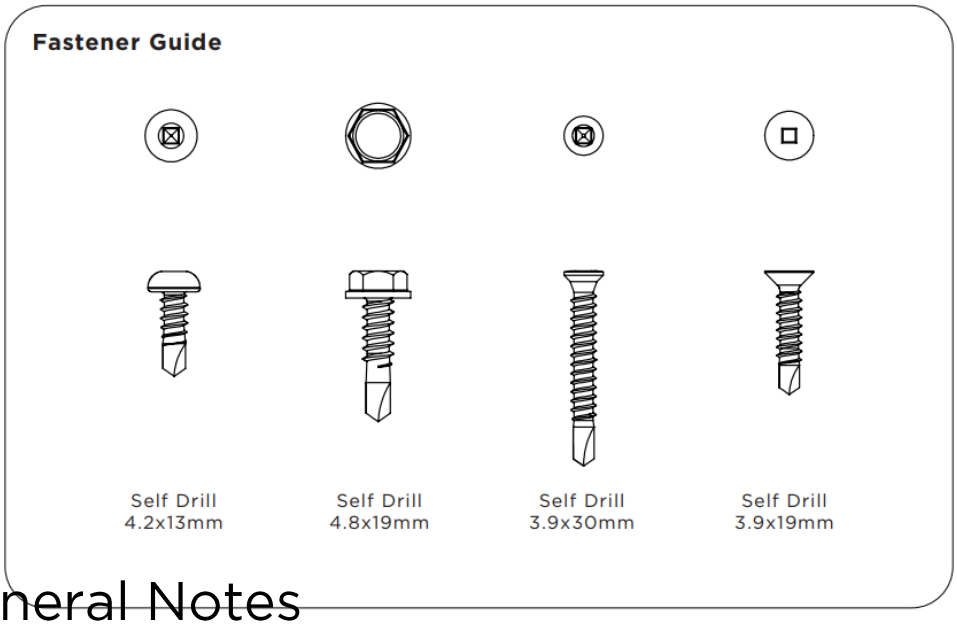
Level



Cordless screwdriver

Mitre saw with aluminium blade

Site PPE



General Notes

- On delivery, all products should be inspected. If there are any issues, please report them immediately and do not commence installation
- Around the perimeter of the area, a 10-12mm gap should be maintained to facilitate good drainage in accordance with BS 8579:2020
- Safe working practise should be observed at all times during the installation process and all necessary
- Cutting porcelain should be carried out using a water and dust suppressed diamond tipped power saw
- Where joists are to be butted end-on-end, ensure there is a support under the join connecting the two joists
- Always use appropriate torque setting on cordless screwdriver for screws
- Use offcuts of material wherever possible to minimise waste
- Always use the correct PPE throughout installation

Installation Guidance

1. Determine the direction of the primary joists and top rails.
    a. If square paving is being used and the area is rectangular, it's best to lay the primary joists in the long direction.
    b. If rectangular paving is being used, the direction of the paving will need to be established and the primary joists laid in the opposite direction to this so that the top rail runs in the same direction.

2. Lay the primary joists at required centres (RST27 has a clear span capability of 550mm – so the primary joists would be 600mm centres) Fig A.

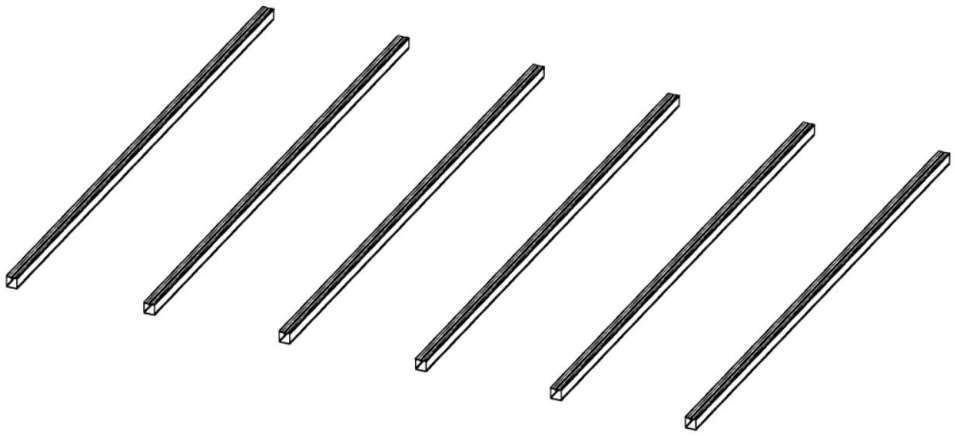


Fig A

3. Place the primary joists onto supports (one at each end) and level up using a laser level to the required height (FFL minus top rail and surface thickness). It's very important that care is taken at this stage to ensure that the primary joists are all 'in-plane' to avoid any rocking paving. Fig B.

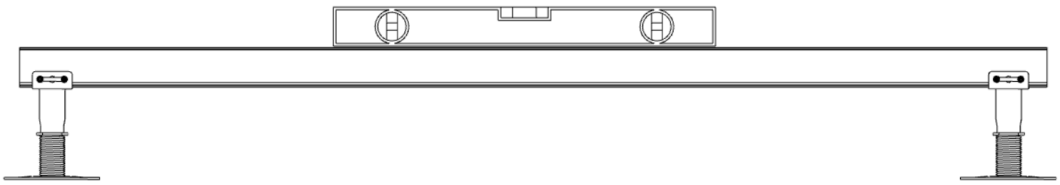


Fig B

4. Where primary joists are butted end-to-end, place support under the join to connect the joists. **Fig C**

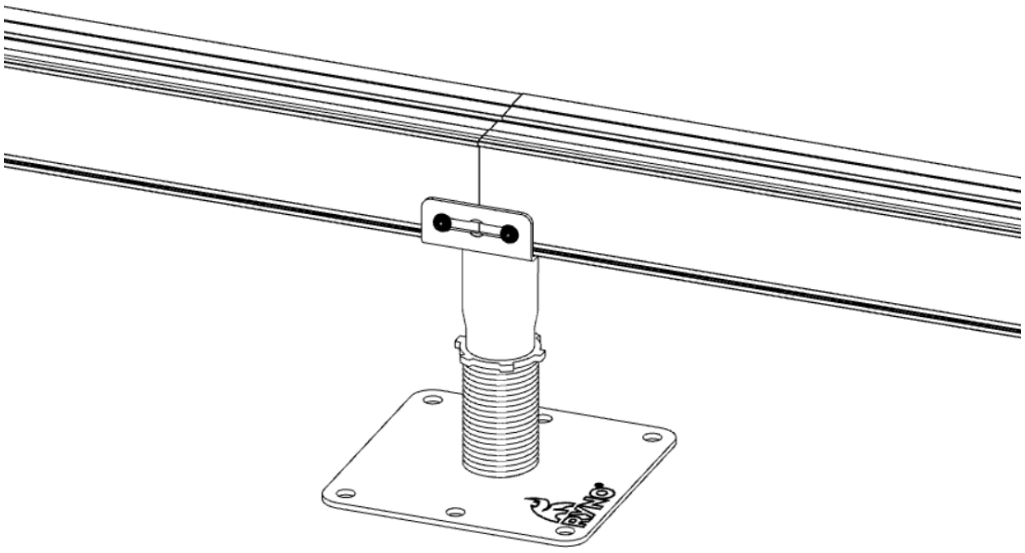


Fig C

5a. If using adjustable pedestal supports, fasten the joist to the pedestal head using 13mm self-drill screws and tighten the locking nut on the pedestal to secure it at the required height. Fig D

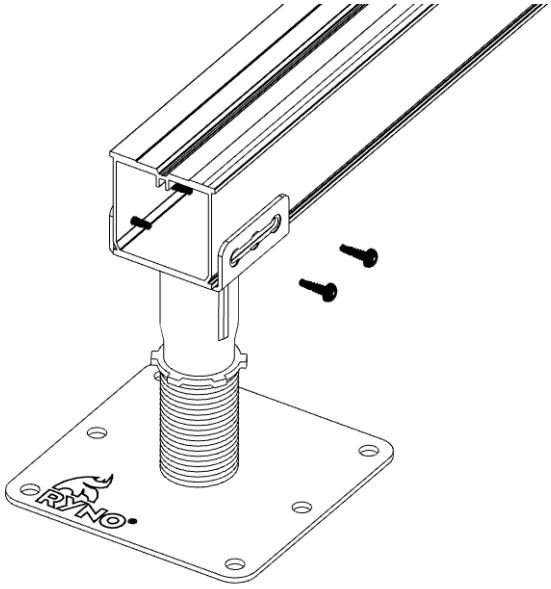


Fig D

5b. OR; if you're using cleat supports, use the 4.8x19mm hex head self-drill screws to secure the joist at the required height. Note: in some scenarios, using packers to build up to the required height can be helpful. If the packers are not non-combustible, remove them after the screws have been installed. Fig E.

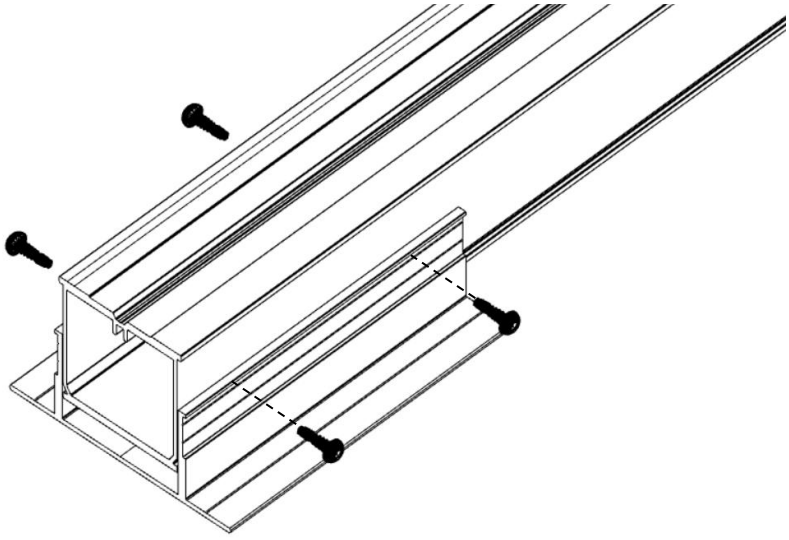


Fig E

6. Add intermediate supports at the required intervals along the primary joists (see DS Aluminium Joist datasheet). **Fig F.**

Fig F

7. Once all the primary joists are all fully supported at the correct level, fit PSB Side Stop brackets to your top rail along the edge to catch the edge of the paving. One bracket can be used to restrain the corner of two tiles. (Note: if installing the Wind Uplift variant, Wind Uplift Side Stops should be installed, these feature an extended upright and 'hook' that will restrain the perimeter tiles.) **Fig. G**

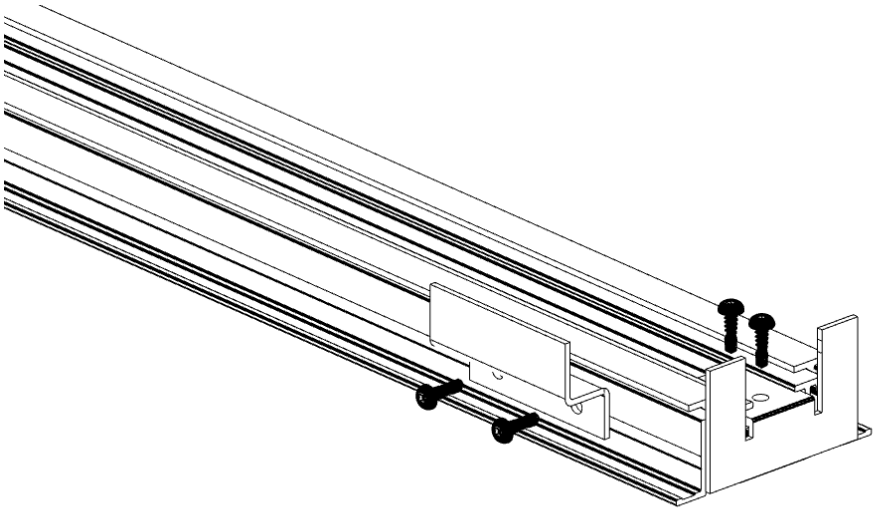


Fig G

8. Lay the first 2 rows of top rails at 90 degrees to the primary joists, ensuring that they are perfectly in line. Fix the edge rail with the 13mm self-drill screws, but leave the second rail unfixed until the next step to ensure accurate spacing. Ensure a 10-12mm perimeter gap is maintained against any facade or abutment to facilitate good drainage. **Fig H**

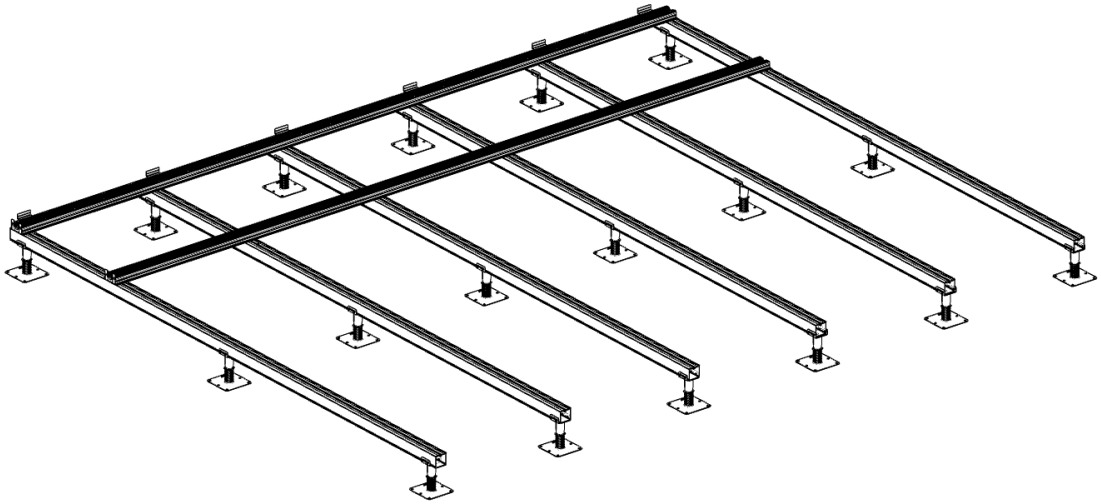


Fig H

9a. If installing Lattice Frame system **(no wind uplift restraint):** Place the first row of paving along the first two rails and against the PSB Side Stop brackets, adding the paving spacers between each tile. Check that slabs are fully supported by the rails and they don't rock at all. Inserting the spacers will locate the second top rail, which can then be fixed using the 13mm self-drill screws. **Fig J.**

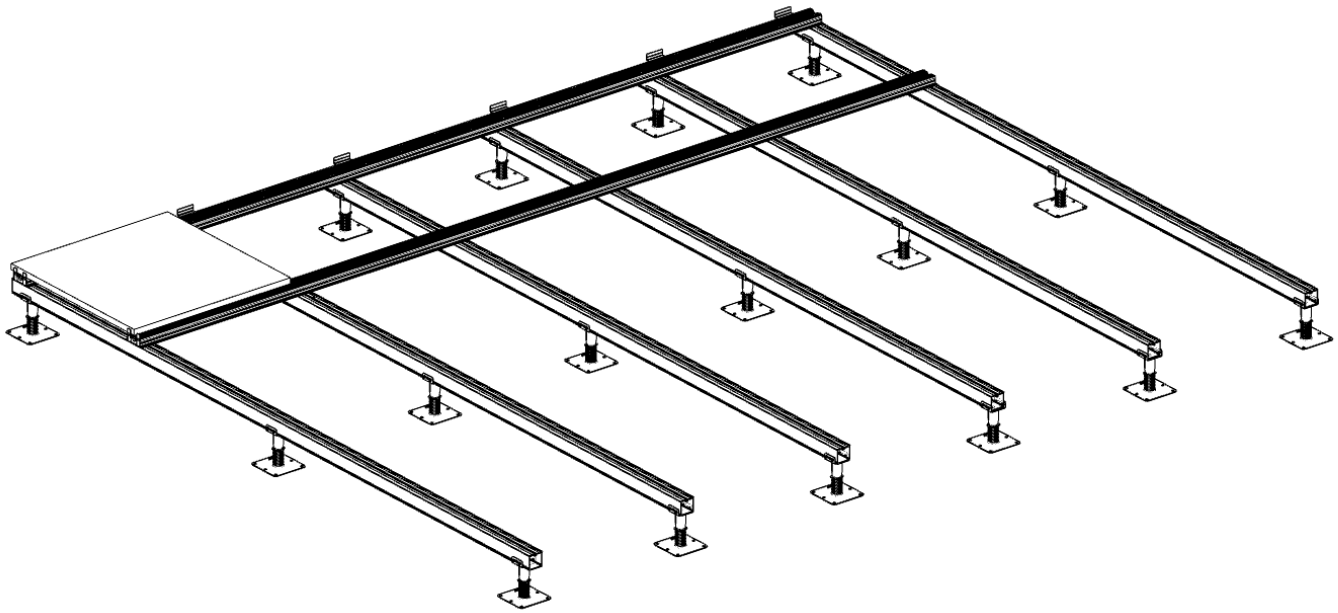


Fig J

9b. If installing the Hidden or Visual Wind Uplift System Fixings: The Rail Paving Spacers can be inserted into the RST top rail, with the Wind Uplift Fixing assembly also inserted into the top rail between each paving spacer. The first row of paving can then be laid against the Wind Uplift Side Stops.

- Note, if using Hidden Fixings, tiles are kerfed (grooved) on 2 sides. Ensure the kerf is running in the same direction as the RST top rail) **Fig K**

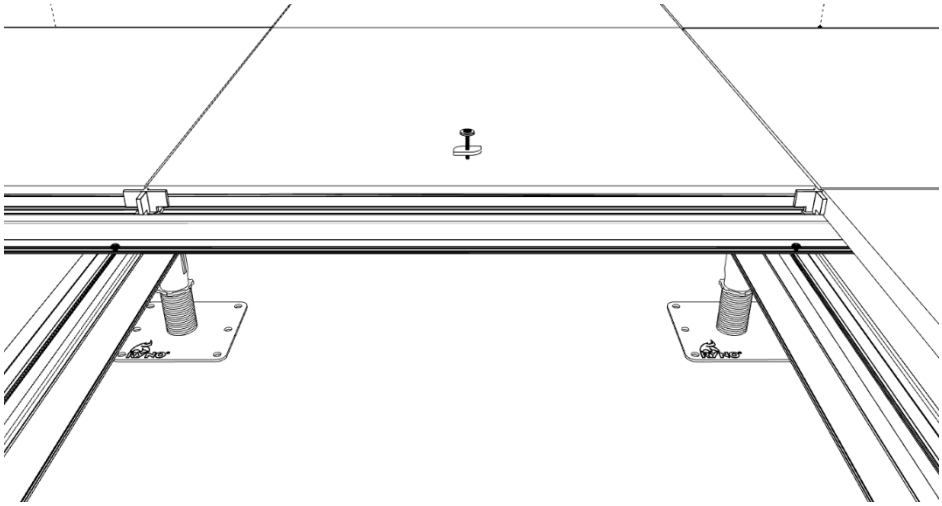


Fig K

10. PSB End Stop brackets can be fitted at each end to hold the first and last slabs in place. Note: if the wall is curved/angled relative to the paving edge, the End Stop can be projected from the rail, and affixed using just the front screw locator and adjusted to the angle as shown in **Fig L**.

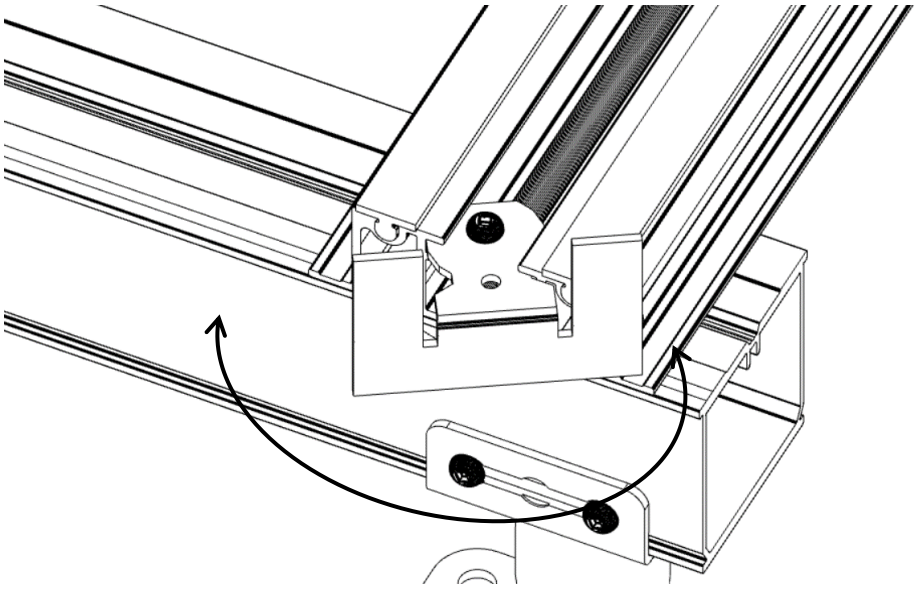
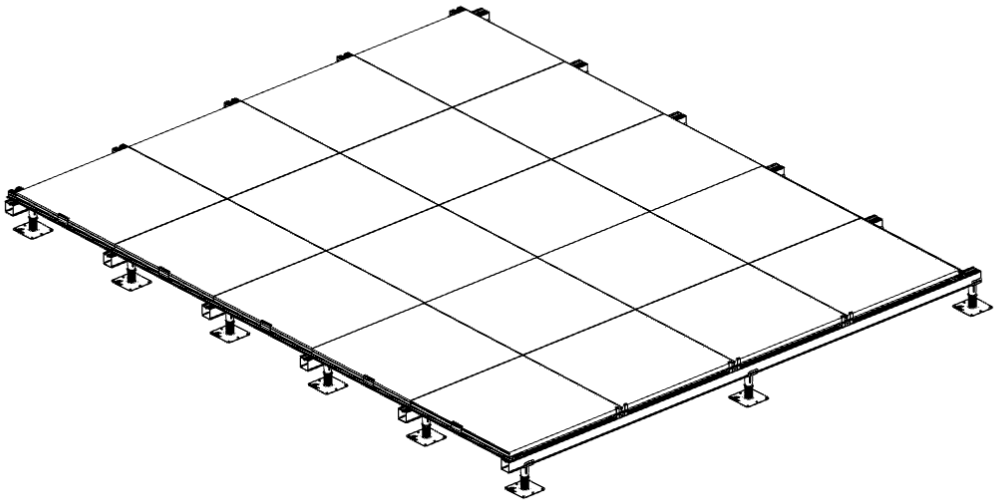


Fig L

12. Steps 8-10 can now be repeated for subsequent rows of paving. Once the final row of paving has been laid, the final row of PSB Side Stop brackets can be fitted to restrain them. Your TerraSmart Rail System is now complete.



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