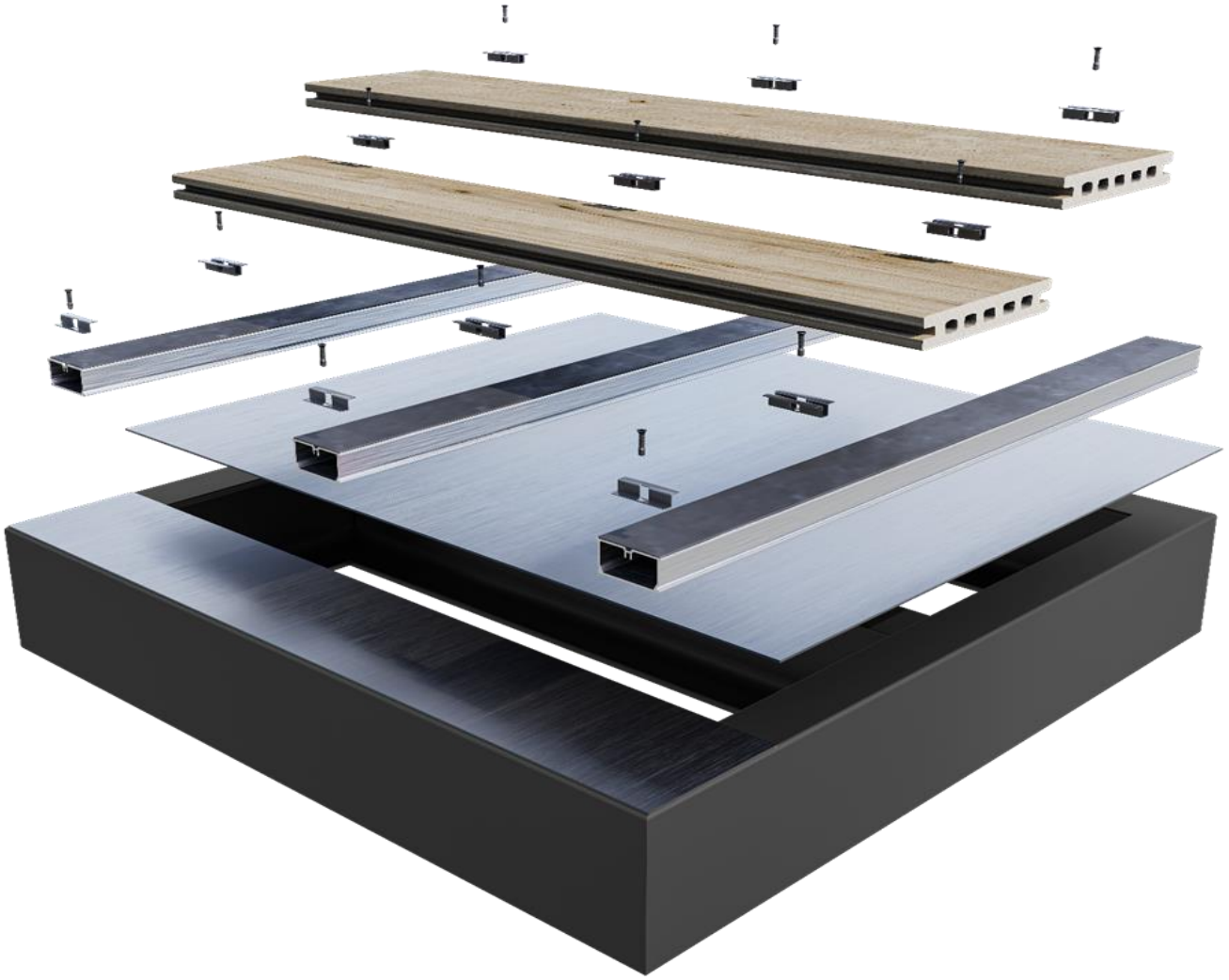
# BalcaSmart Vitrified Composite Decking

Installation Guide



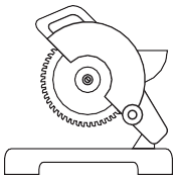
RYNO®
FINISH STRONG

rynosystems.com

# Equipment

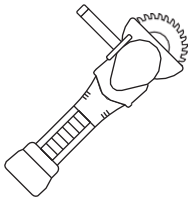
**Mitre saw**

Equipped with a suitable blade for cutting  aluminum



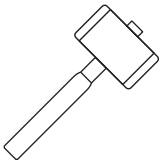
**Angle Grinder**

Best for accurate cuts, but a circular saw will work



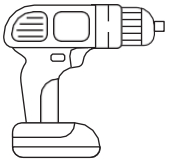
**Rubber Mallet**

However a standard hammer is fine



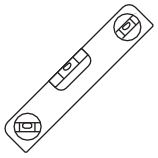
**Cordless Drill**

With appropriate attachments and bits



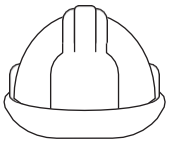
**Levels**

Rotating laser level plus a standard level is recommended



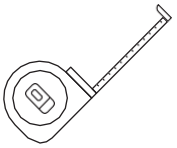
**Site PPE**

Adhere to all relevant site regulations

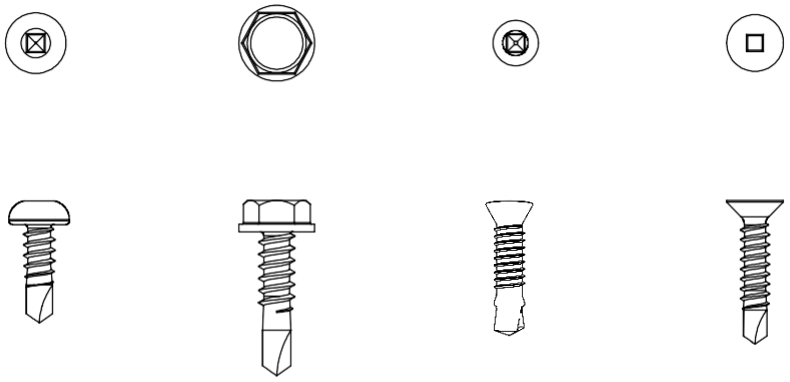


**Tape Measure**

Measure twice cut once and repeat



## Fastener Guide



Self Drill
4.8x13mm

Self Drill
4.8x19mm

Self Drill
3.9x15mm

Self Drill
3.9x19mm

General notes:

- Gaps between board ends are optional and depend on the desired look – there is no expansion gap required.

- Note; NHBC schemes require a 10mm gap around perimeter edge of area for drainage; the VC starter clip provides this on clipped sides of your area, but keep this in mind when setting out your substructure.

- Due to the specialist manufacturing process if Vitrified Composite, there may be slight variations in the shape from board to board including slight curvature along the length. A laser guide tool or similar is essential to keep each row of boards aligned throughout the installation. This means you may need to adjust the gap width +/- 1.5mm (7mm nominal) between the boards slightly to ensure the boards are aligned.

- Use offcuts of material where possible, to minimise waste

- Where joists are to be butted end-on-end, ensure the join is over a balcony steel supporting the two joists

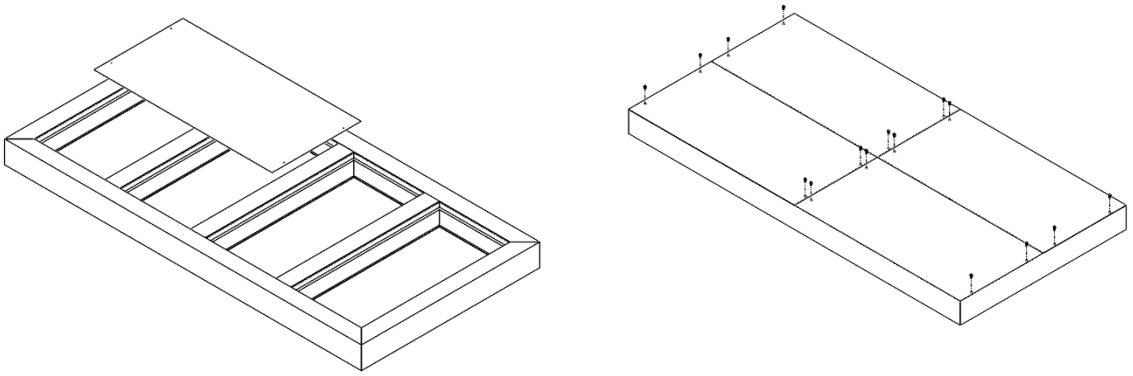
- Always use appropriate torque setting on cordless screwdriver to reduce possibility of overtightening.

- Always use correct PPE throughout installation

Install guidance:

1. Lay the Fall Restraint Sheet (FRS): starting in a corner, lay the sheets at 90deg to the direction of the steelwork. Fix the FRS to the steelwork using self-drilling screws suited to the size of steelwork, leaving a 2-4mm gap between each FRS for water drainage. **[Fig A]** *Note; do not insert fixings in positions where you need to lay the joists.*

Fig A

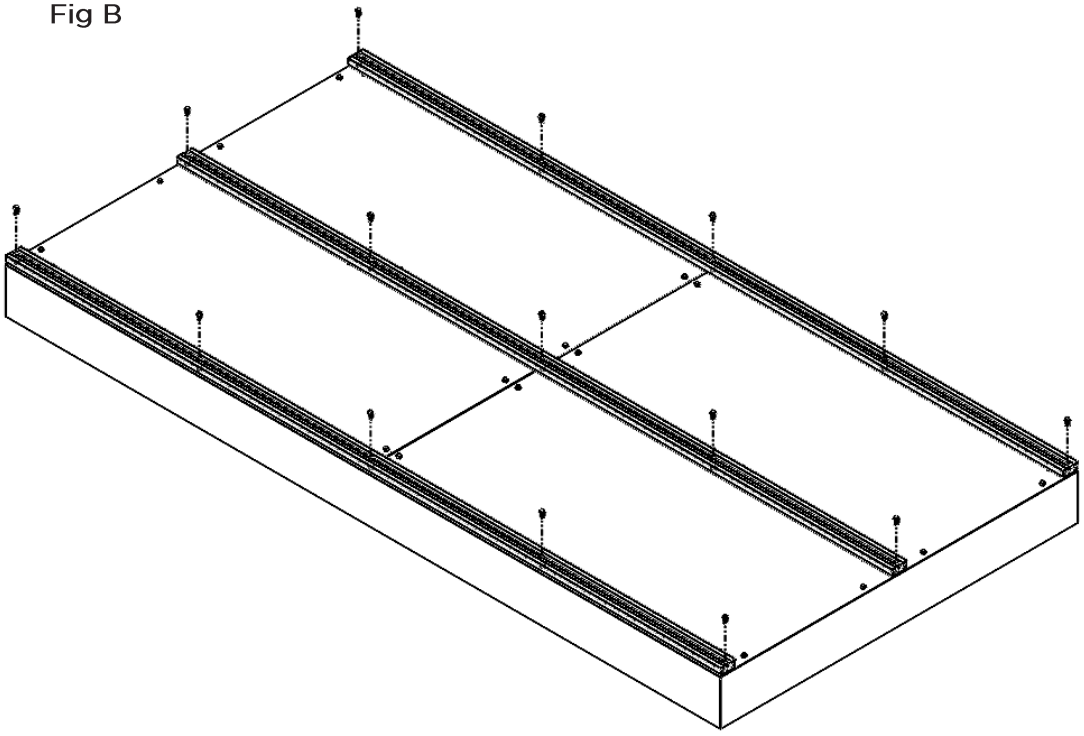


2. Determine decking direction.

3. Measure the joist lengths and cut to size. *Note; the joists will be running perpendicular to the decking direction.*

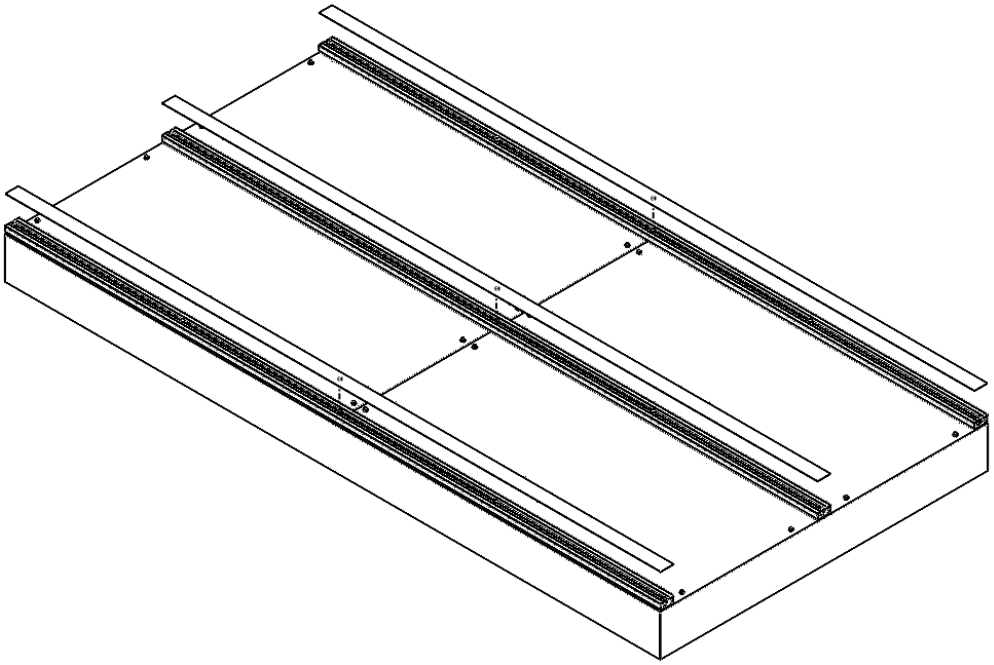
4. Drill pilot holes through the joists to align with the steelwork you are fixing to. Note; the spacing between steels must not exceed the maximum span for the joist profile being used (see product datasheet for span information). Widen the pilot hole on the top surface of the joist to allow both the head of the self-drilling screw and its installation driver to pass through. **[Fig B]**

Fig B



5. Lay the joists out on the substrate perpendicular to the decking direction, at the 305mm centres (as per board span, see datasheet), fixing down to the steel work through the pilot holes created in step 4. Apply the self-adhesive backed EPDM strip to the top surface of the joists. [Fig C]

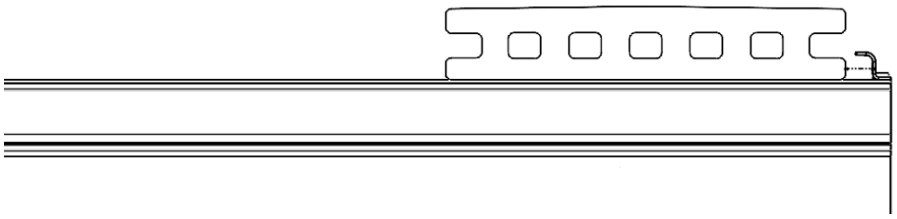
Fig C



6. Once all joists are fixed down and fully supported, establish where the first board will be laid, and install the VC Starter/End Clip along the ends of the joist ready for the first row of boards.

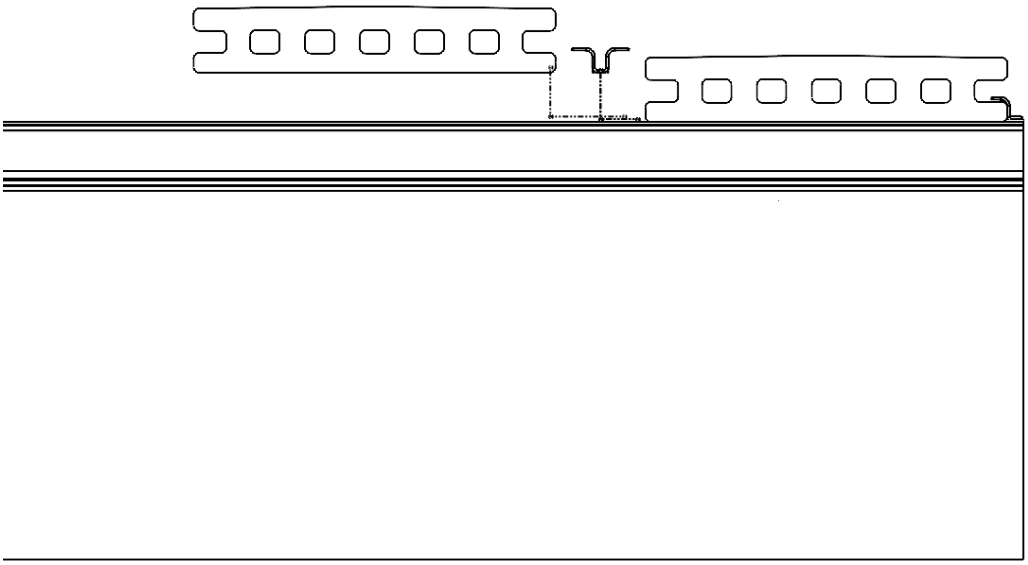
7. Push the first row of decking boards into the starter/end clips [Fig D]

Fig D



8. Apply the VC T-clips along inside edge of the first row of decking, above each joist. [Fig E]

Fig E

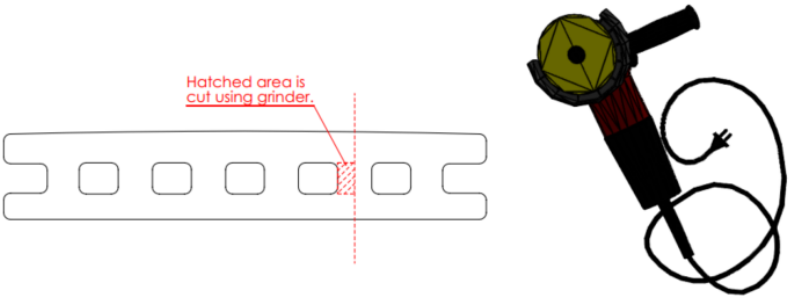


9. Slide the second row of decking boards into place, ensuring the overall length of board run is aligned with your laser guide to keep board runs straight. Once aligned, fasten down VC T clips.
   ***Important Note* - Due to the specialist manufacturing process if vitrified composite, there may be slight variations in the shape from board to board including slight curvature along the length. A laser guide tool or similar is essential to keep each row of boards aligned throughout the installation. This means you may need to adjust the gap width +/- 1mm (7mm nominal) between the boards slightly to ensure the boards are aligned.

10. Repeat step 8 one board row at a time, until you reach the second-to-last board.

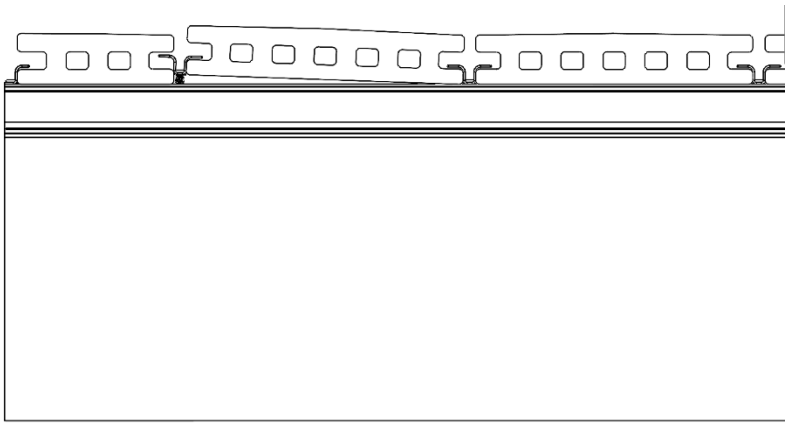
11. Fitting the last board:
    a. Loose-lay the second last board run and measure the remaining space, remembering to account for the width of the VC-T clip and Starter/End clip
       i. If a full board width fits perfectly, go straight to step 10.b. and continue from there.
       ii. If the last gap is smaller than the board width, you will need to cut the board down to required width. Note that once width is cut down, this removes the fixing channel, so you may need to modify the cut side of the board using a grinder to receive the VC starter/end clip. [Fig F]

Fig F



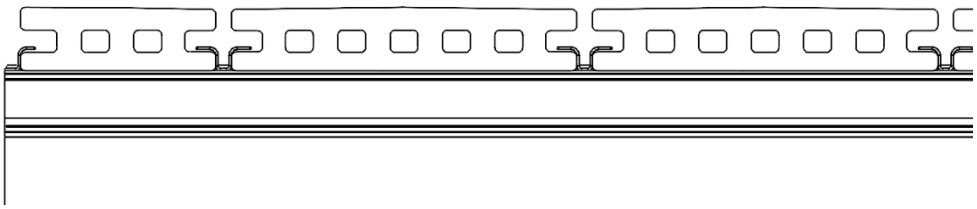

b. Affix VC Starter/End clip to the outside end of the joists
c. Place the last row of boards on the joists and push firmly onto the VC starter/end clip
d. Lift the second last board up at a slight angle, to enable you to slide a VC T-clip into the fixing grooves. [Fig G]

Fig G



e. Still holding this board up at an angle, use a screwdriver or your cordless drill to slide the VC T clip along the groove until it's over the joist, repeating until there is a clip over each joist. When released, the board should be held up at a slight angle by the clips (if not, your board gap will be larger than planned).
f. Use gentle pressure to pivot the raised board down onto the joists; it should 'click' into place as it pushes the clips in tight. [Fig H]

Fig H



12. Fasten the clips down using the screws provided, stand back and admire!

# Contact

**Head Office**
Castlepoint
Castle Way
Ellon
AB41 9RG

**The Studio**
2 Sutton Lane
Off Clerkenwell Road
London
EC1M 5PU

**Telephone:**
+44 (0)203 9673500

**Email:**
enquiries@rynosystems.com

Ryno Ltd
Registered no: 09623250
VAT no: GB 214 3190 46

Registered address: Europa House,
Alford Road, Cranleigh, GU6 8NQ