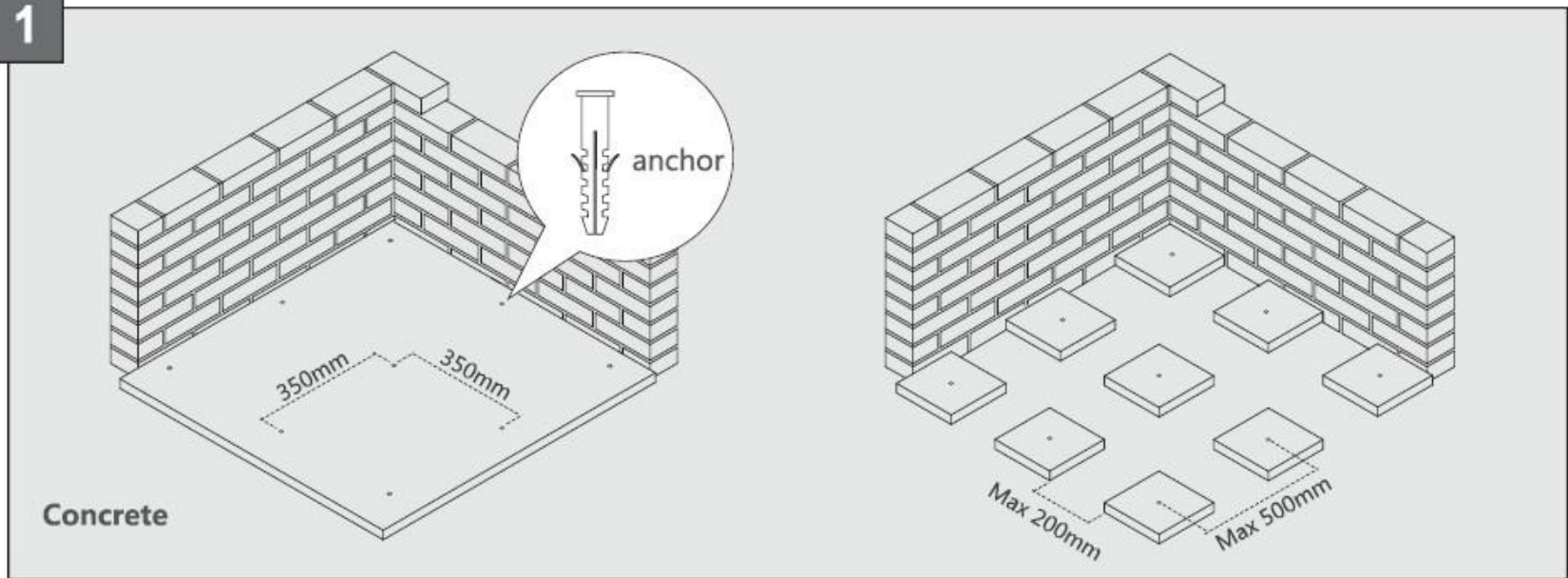


**INSTALLATION GUIDE**  
**for**  
**DECKING**

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1

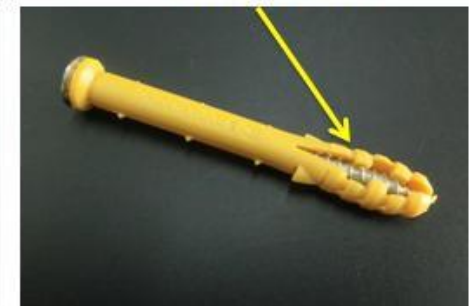


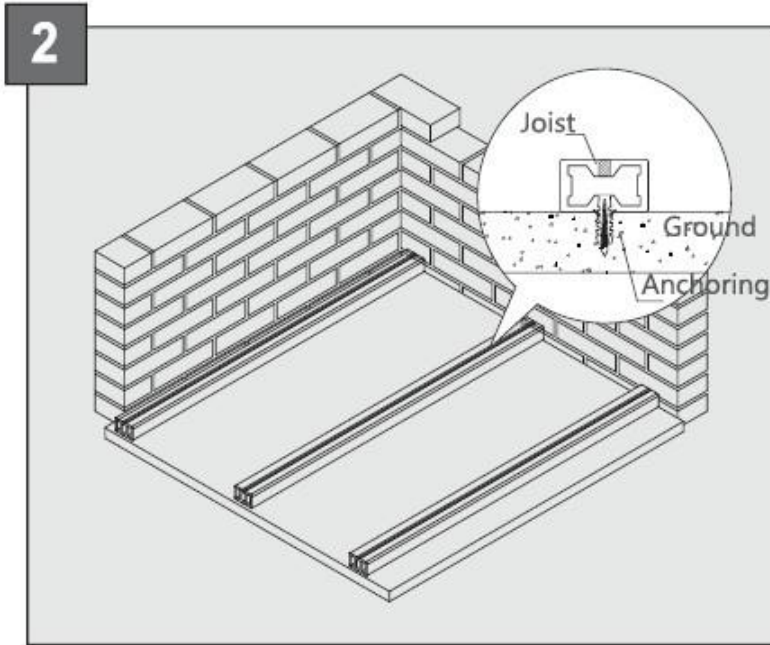
Punching holes  $\varnothing 8 \times 80$  in the installation area with impact drill. Recommended width way and length ways distance between two holes is 300-350mm, and no more than 400mm. Knock the plastic expansion tube  $\varnothing 8 \times 80$  into the holes and make sure it's tight enough and will not expose.

Before screwing

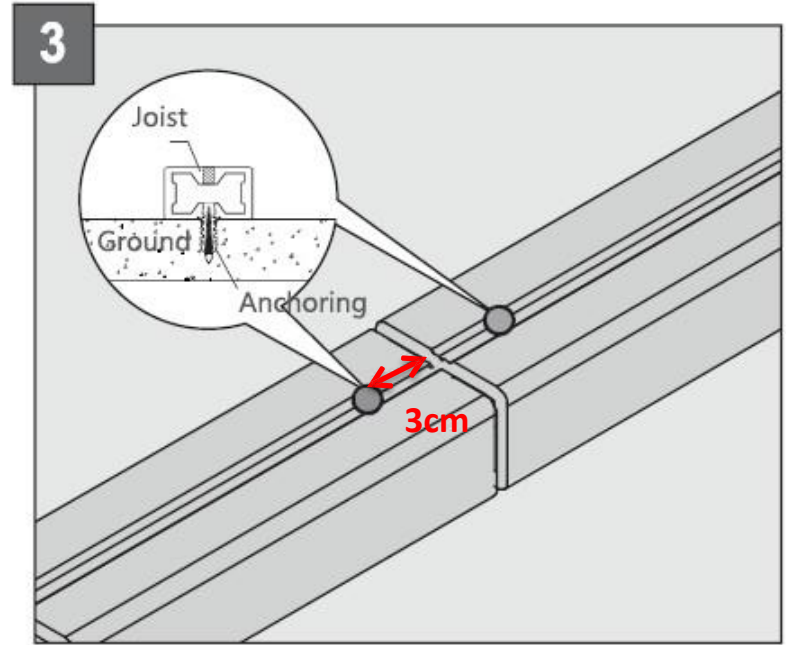


After screwing  
The tube expanded

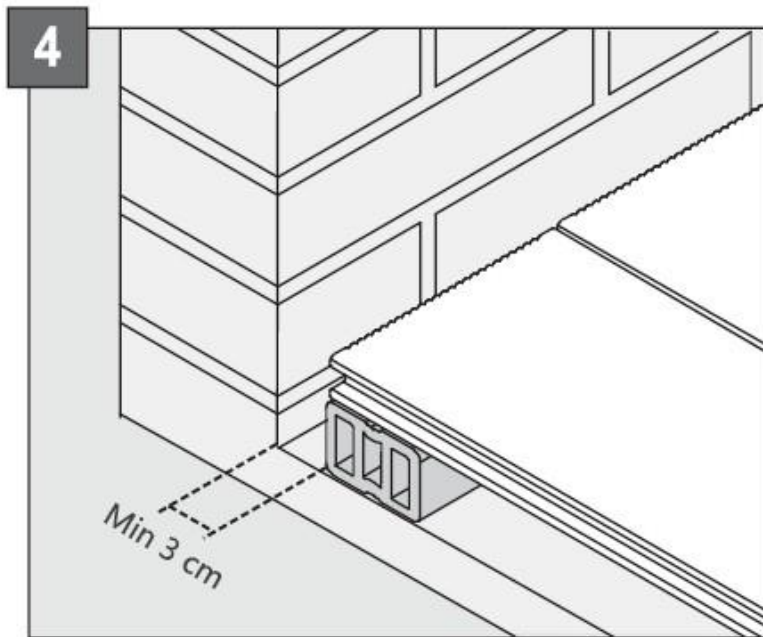




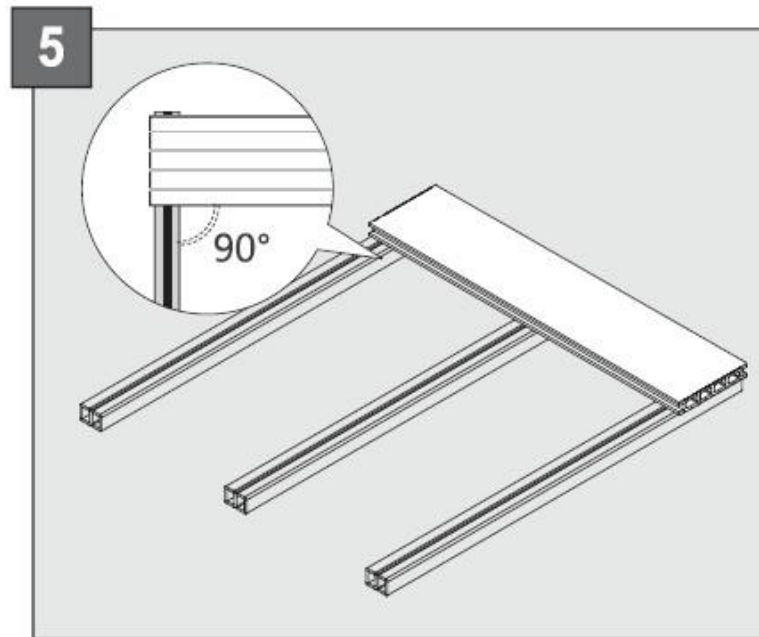
Take expansion tube as centre line and lay the joists ( cut if necessary) on line . Drill corresponding holes in the joists through and fix screws into the expansion tube. So that the joists are fixed to the ground.



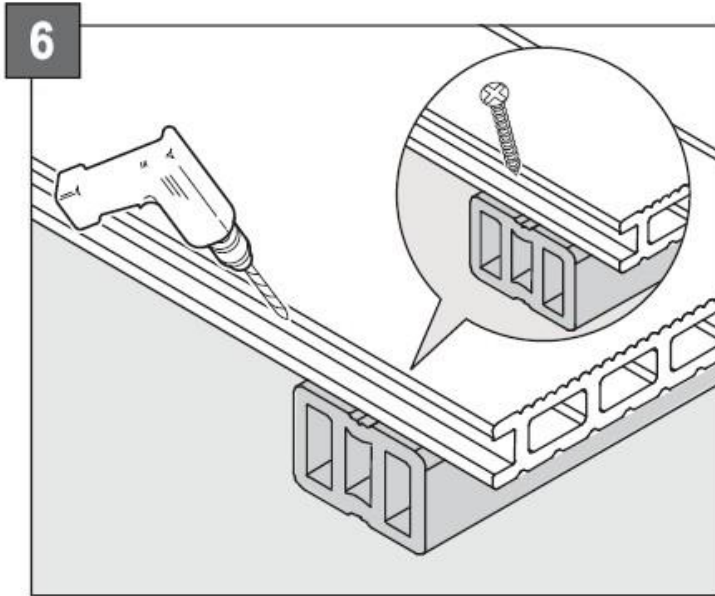
Extra fixing of expansion tubes are necessary on both joists near juncture. The fixing points should be at least 3cm away from the end of joists.



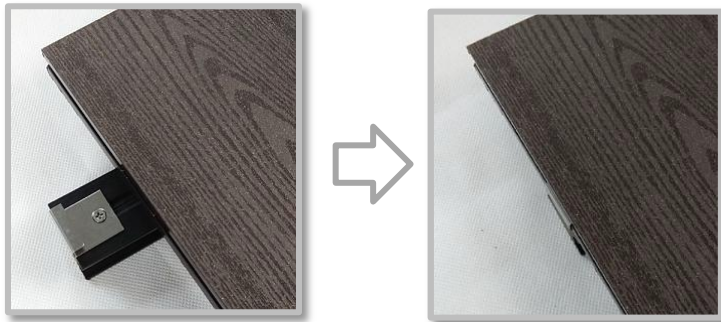
Allowing for the expansion and maintenance, sufficient distance around your terrace and by obstructions such as walls, fences, trees etc., should be at least 3cm.



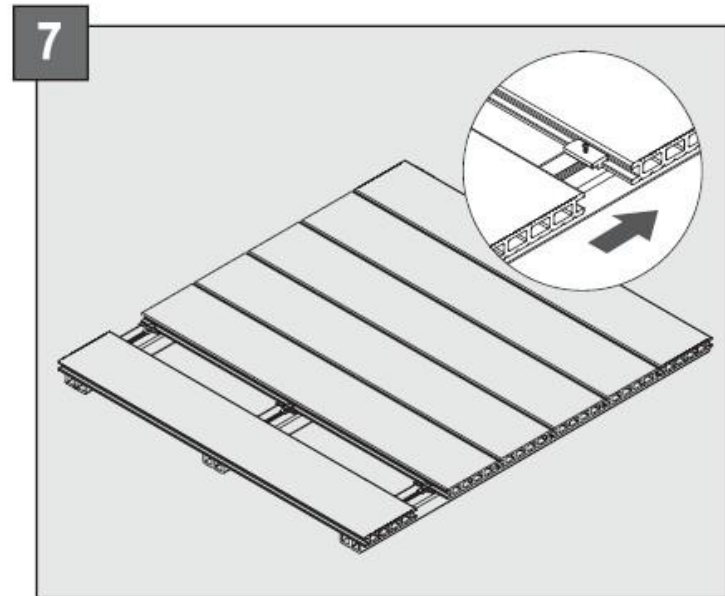
Put first decking planks on vertical way of joists, mark the position of planks to make sure the position and direction is accurately guaranteed to be the reference for the following planks.



Fix the first planks by 'screw' or 'starting clips' ( see below) ..



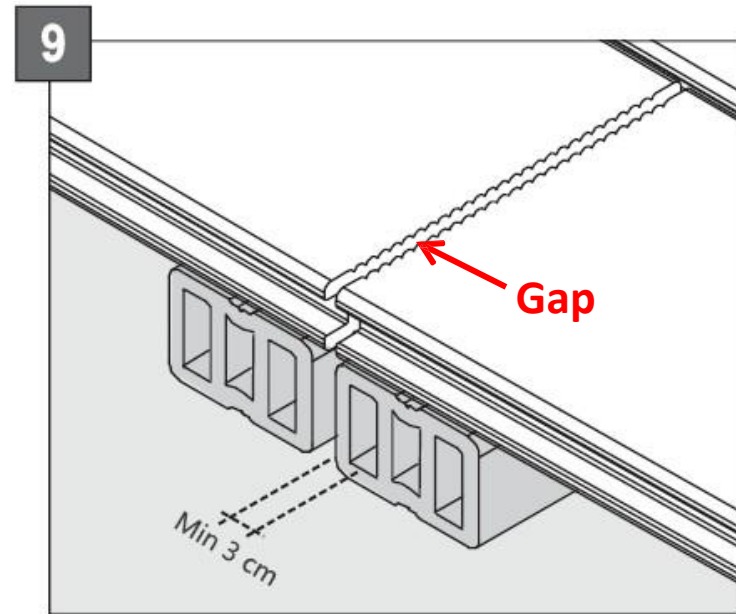
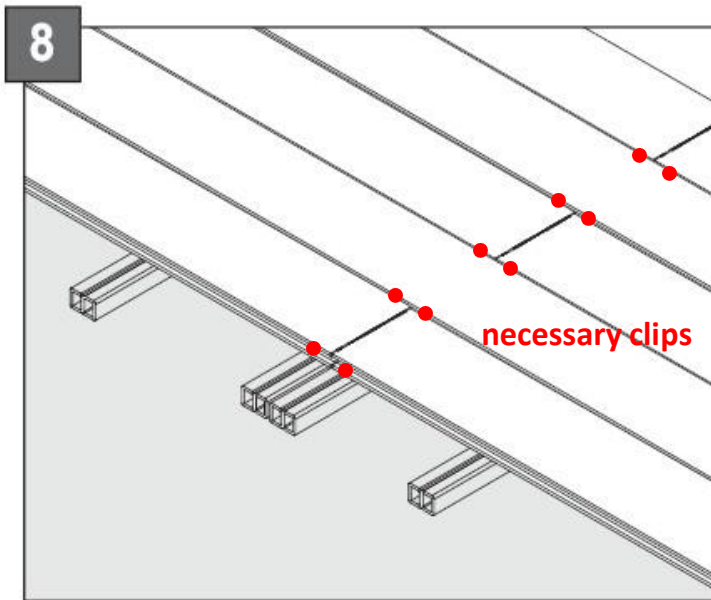
Put the starting clip at right position and pre-drill, fix the starting clip by M4x18 screw, then push the first plank into the channel .



Place the clips in the other side of the plank then screw to fix .

**Pre drill** before screw.

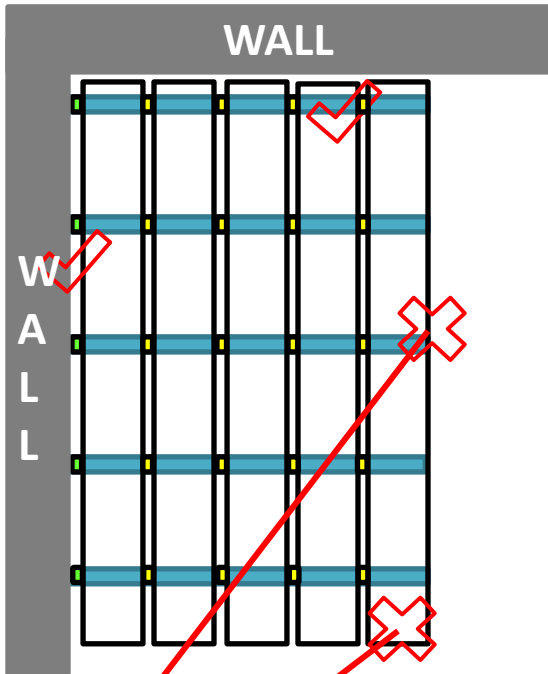
Push next plank into the channel of clips then fix clips again in the other side then repeat this process.



Extra joists and clips are necessary for each plank at the jointure points.

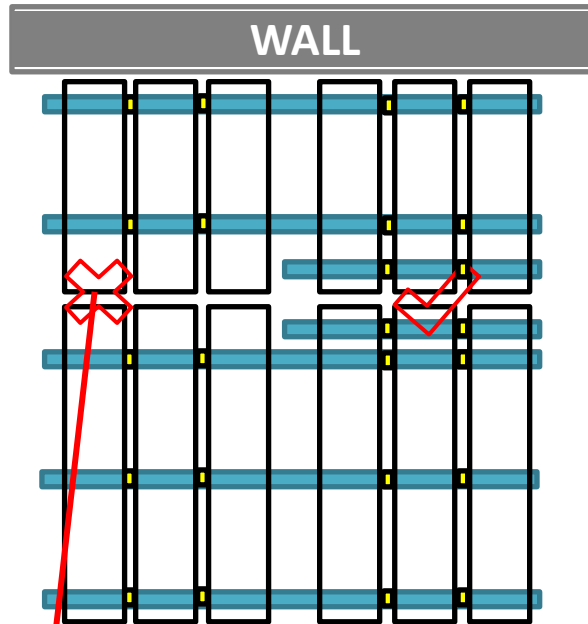
Keep certain distance between two joists at jointure points ( suggested at 3-5cm) but not too long.

The extension part of decking planks out of joists should be controlled within 5cm in case of deformation and creep of decking.

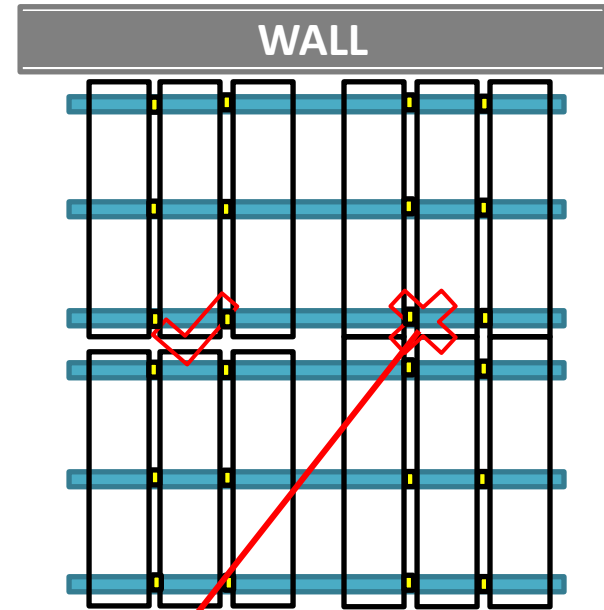


• No starting clips to fix.

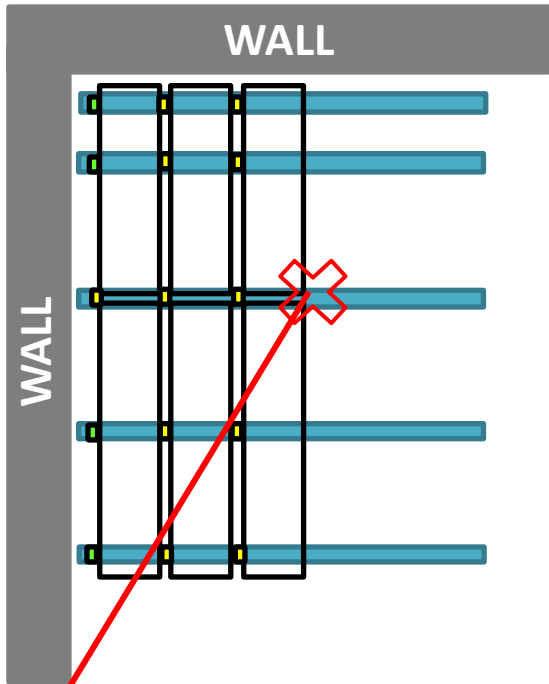
• The extension part is too long.



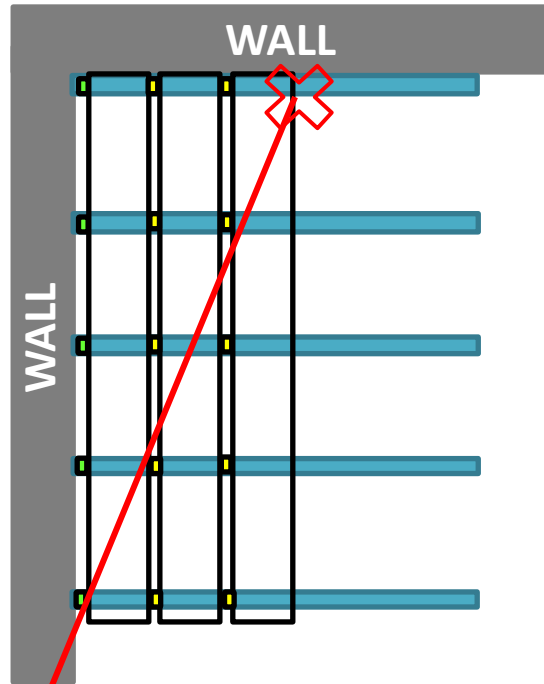
\* No extra joists / clips at jointure points.



• No gap between two boards at long direction.

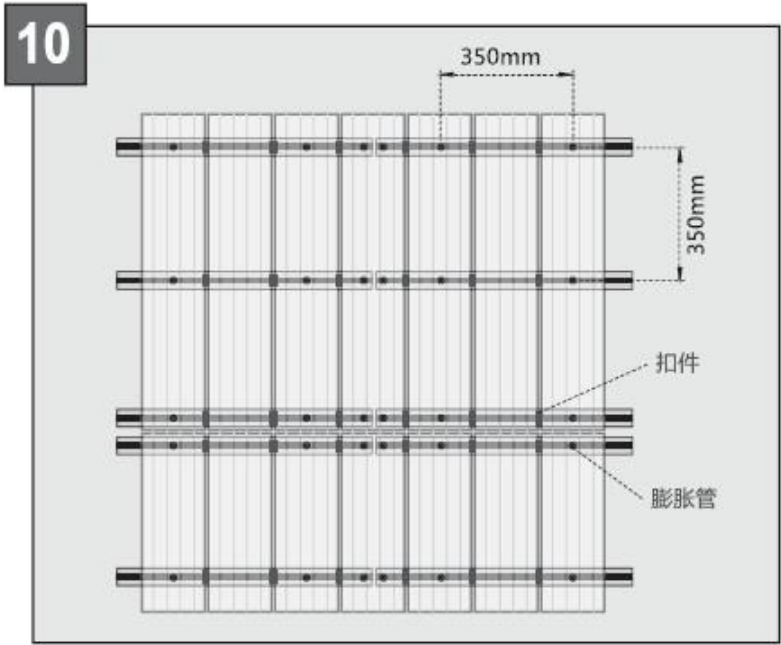


• Extra joists are needed in the connection part of two plank.

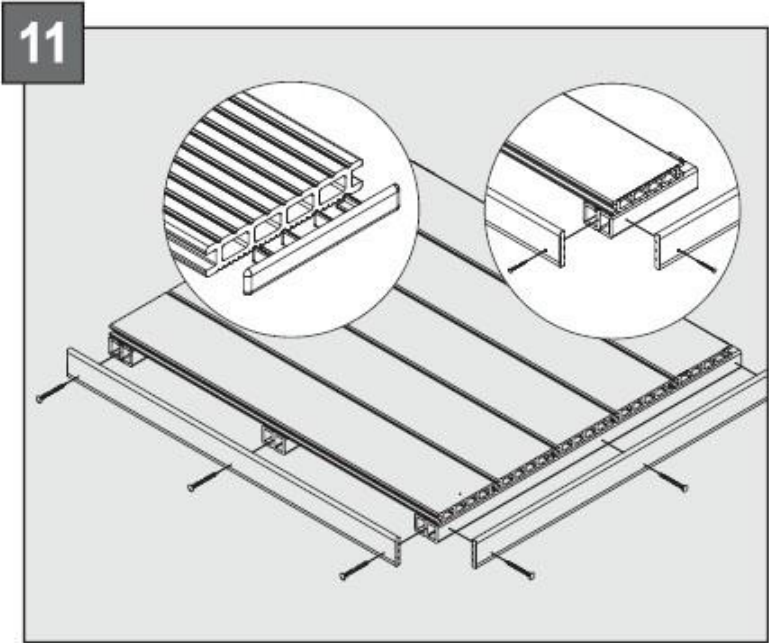


\* No space between decking and wall.





Joist's Spacing must be 350mm Max



Fasten the external side of the last decking the same way as first one , with starting clips or direct screws.

Install end cover to make the sides of decking planks hidden.

**Pre drill** before screw!

Always keep in mind that WPC like other materials, will expand and shrink with temperature change, that means WPC planks are longer in summer and shorter in winter ( or longer in middle of day and shorter in the morning).

So certain gaps between planks in length direction is important and necessary.

### •How much will decking expand / shrink ?

This is very important question to answer and understand before installation.

The coefficient is **3.45/100000**

If we have a decking plank 2.2M, let's see how much will it change with temperature change by 10C.

$2200 * 3.45 / 100000 * 10 = 0.8\text{mm}$ .

If temperature change by 50C, then the length will change 4.0mm and if change by 70C. then the length change 5.6mm..

Please understand that 70C of temperature change is normal for most area in the world as in hottest time in summer, the temperature of decking on surface arrive 60C.

This is just theoretical calculation and we need considering the coefficient as 3.45/100000 so we can refer to the expansion sheet as below :

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	10C	20C	30C	40C	50C	60C	70C	80C
<b>1.0M</b>	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
<b>2.0M</b>	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
<b>2.2M</b>	1.1	2.2	3.3	4.4	5.5	6.6	7.7	8.8
<b>2.9M</b>	1.5	2.9	4.4	5.8	7.3	8.7	10.2	11.6
<b>4.0M</b>	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0
<b>5.0M</b>	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0
<b>5.8M</b>	2.9	5.8	8.7	11.6	14.5	17.4	20.3	23.2

- This blank shows how much boards of certain length will change with temperature change. Note that the first line means 'temperature change' not 'temperature'.
- We suggest that change length not change more than 10mm under limited weather condition ( hottest in summer and coldest in winter).

From this blank we can get information:

- 1/ If we install a long plank, then it will change a lot between summer and winter, so we suggest the planks be within 2.9M as most area in the world will have more than 50C difference in summer and winter .
  - 2/ **We need to leave more gap when we installed in winter and less gap when installed in summer .**
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# Additional Notes

All sub bases should be hard surfaces.

CWC hold no responsibility for installations that are not carried out to instructions provided or inferior installations.

Installation diagrams show installation method using Composite subframe which is available from CWC, however timber battens can also be used but must be **C16 Grade ( 4" x 2" or 6" x 2")**

