

PeakForm Suspension Systems Installation Details

Armstrong®
CEILING SOLUTIONS

PEAKFORM SUSPENSION



Armstrong Suspended Ceiling Systems

Installation Guide

The ceiling system is made up of Armstrong panels which are supported by Armstrong suspension system (main bars, cross tees and hangers) and wall angle.

The integrity of the entire suspended ceiling depends on the hangers – commonly 5mm gal rod is used, with some contractors using 2.5mm wire (Both types meet Australian Standards AS/NZS 2785:2020) which are used to support the main bars.

The main bars are spliced together and are connected by cross runners. The ends of the main bars and cross runners rest on the wall angle which runs around the perimeter of the space.

1. Before You Start

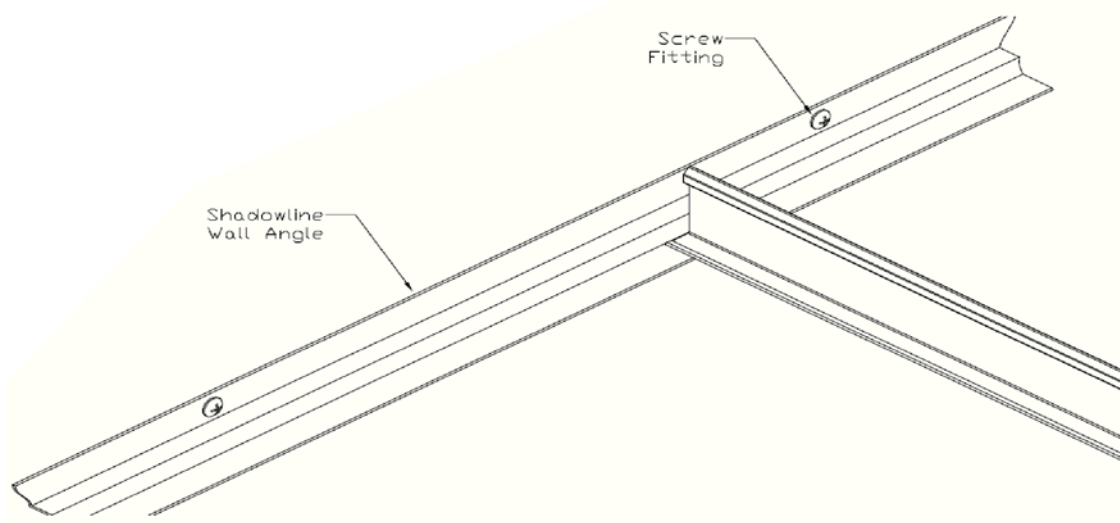
- All material delivered to site should be checked for damage, unopened and original packages.
- At this stage if you are unsure of the suitability of material for this project, ask questions, as it is very expensive to remove materials that have been installed.
- All materials to be kept dry and protected from the elements.

2. Determine Panel Direction

- It is important at this stage to determine the direction the ceiling panel is to be installed.
- The drawing supplied by the builder will show the panel direction required.
- Main Bars must be oriented perpendicular to the joists.

3. Installation of Wall Angle

- Wall angle type is to be determined and installed at the ceiling height as described on the construction drawing.
- Mark the desired height of the wall molding. Use a chalk line or laser to mark all walls at the same height.
- Wall angles to be fixed up to a maximum of 600mm centers to the building structure;
- The type of fixings to be used will be determined by the type of building base material used.
- Ensure all butt joints are tight and miters in corners are also neat and tight.



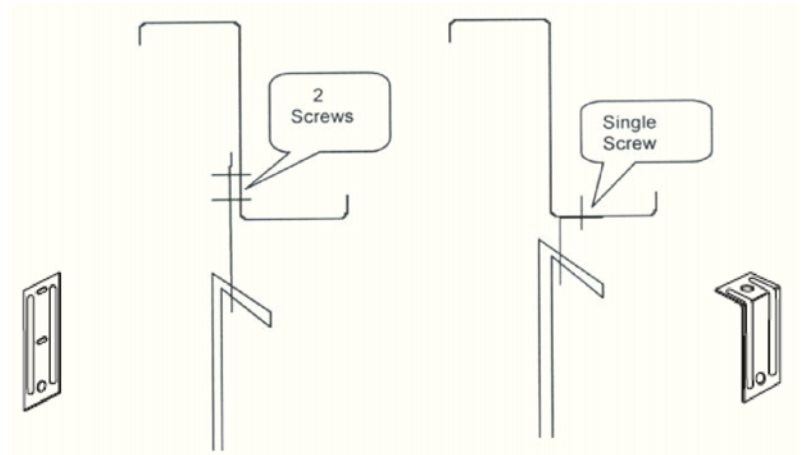
For Seismic Design support please contact your local Armstrong Ceilings office.

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4. Installation of Suspension Brackets to Purlins

It is an Industry recommendation to hang services/ suspended ceilings from the web or in the bottom flange close to the web, As per AS2785. 4.4.

- The use of purlin clips is not allowed.
- When installing a flat suspension bracket to the vertical Web it is recommended that 2 self drilling screws are installed, by installing 2 screws this will then stop any possible chance of the bracket pivoting.
- If installing a right angle suspension bracket to the underside of the purlin, it must be screwed as close to the vertical web as possible, 1 screw will be sufficient.
- Screw type to be specified by fastening supplier.
- The screw must be capable to hold a minimum load capacity of 50kgs.
- The system requires suspension brackets to be fixed to the building soffit/ purlins. Purlins to be at a max of 1200mm centres (If purlins are greater than 1200mm spacing refer to paragraph 6).
- The suspension brackets are typically spaced @1200mm along the grid line/ purlin; they are used to locate the suspension rods or wires.

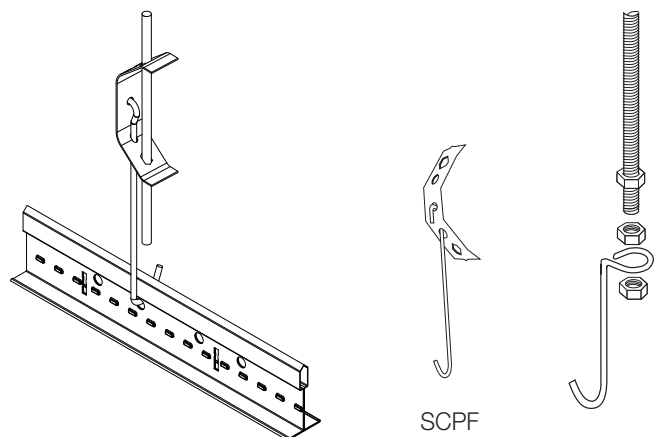


5. Installation of Suspension Brackets concrete Slab

- The use of a masonry anchor with an eyelet end to accept the bent 5mm rod or wire is recommended.
- Installation will be at 1200mm centres allow the length of Main Bar.

6. Installation of Suspension Rod

- The 5mm Gal rod shall to be cut to pre-determined lengths, and a hook bent to 30° on one end (must be a sharp bend, so the suspension bracket will fit into the bend without the rod straightening)
- Fit the suspension clip to the rod at this stage.
- Main Bars to run at right angles to purlins/ trusses.
- The main bars are to be installed at 1200mm centers, with suspension hangers installed at 1200 centers along the length of the main bar.
- The first suspension point to be no greater than 600mm from perimeter.
- Ensure all suspension rods are vertical.
- If using 2.5mm wire bend the wire around the suspension bracket and wrap it around itself 3 times.
- Sometimes threaded rod with TR clips and m6 nuts may be specified in Lieu of spring hooks.
- Ensure all hooks on the suspension clip are installed in the same direction; this will help to limit any potential damage to ceiling panels.



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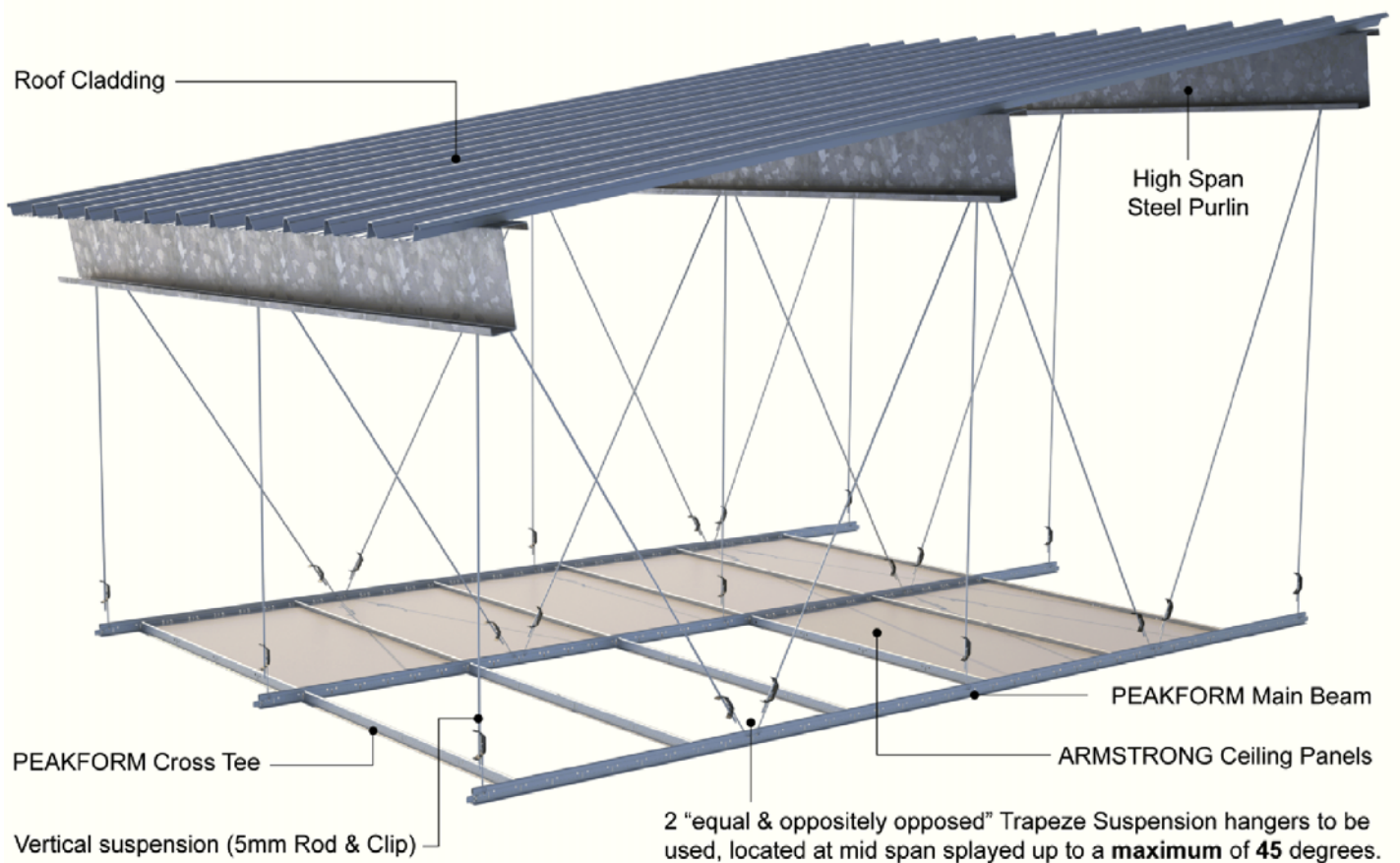
7. Suspension Points Greater than 1200mm

- When purlins are installed at centers greater than 1200mm the following is recommended.
- Suspension points on the main bar must remain at a maximum of 1200mm centers.
- Where a hanger is splayed up to a maximum of 45° to the vertical, they should always have an equally applied hanger in the opposite direction (this means 2 hangers).
- The vertical drop of the rods will need to be greater in length than the allowable span.
- The splayed rods must pick up the midpoint of the span.

TRAPEZE SUSPENSION

PEAKFORM Main Beam must be suspended at no greater than 1200mm.

Trapeze Suspension is required when vertical suspension points exceed 1200mm (measured along PEAKFORM Main Beam)



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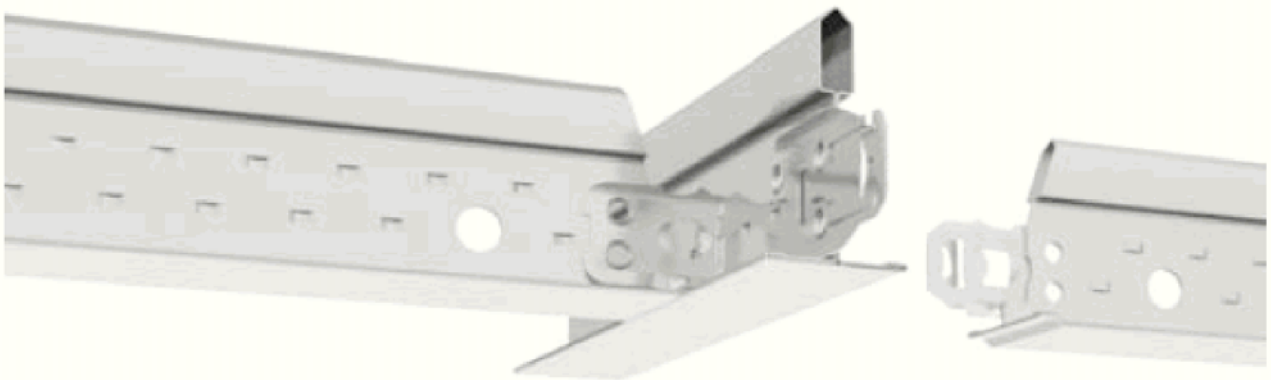
8. Main Bar Installation

- Install the first section of main bar. (Cut the end so that a cross tee rout hole is on module)
- You must line up all routs in the Main Bar to ensure that the installation of the grid is square.
- The use of a string line can be used to keep components square.
- Hook the suspension clips through the holes in the main bar ensuring they are at 1200 centers.
- If using 2.5mm wire insert it through the hole in the main bar, bend the wire up and wrap it around itself 3 times.
- The suspension rod must be perpendicular to the main bar.
- The first suspension point on the main bar is to be no greater than 600mm from perimeter.
- Push the end of the main bar into the next main bar, when the joint has engaged you will hear an audible click this will indicate the joint is correctly engaged.
- It is recommended that main bar joins should be staggered to increase the strength of the system and also provide a visibly better job.



9. Cross Runner Installation

- The Main Bar has routs at 100mm centers, so ensure you select the correct rout to suit tile size.
- Insert the cross runners into Main Bar and repeat the process.
- Check the drawing for lighting and services lay-out and install additional cross runners where required.



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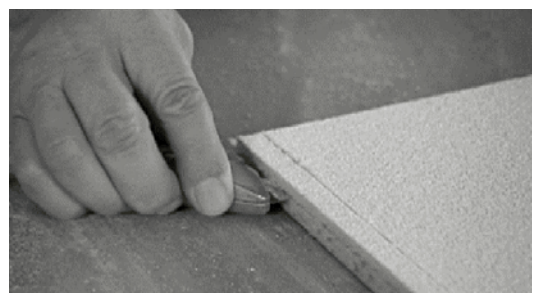
10. Square the Grid, Bracing Requirements and Leveling

- Measure across the diagonals of the 1200 x 600 opening. The measurements will be the same if the grid is square.
- Depending on the size of the ceiling and design details there could be a requirement for bracing to hold the grid square and to stop grid movement during installation.
- The amount of bracing required is to determined onsite by the installer.
- The ceiling system can be leveled by adjusting the suspension clip up and down with the use of a laser.



11. Ceiling Panel Installation

- The ceiling grid is now ready for ceiling panels.
- Slightly tilt panels, lift above grid and then gently down, to rest on tee bar and main bars edges.
- Measure and cut boarder tiles individually, cut panels face up with a very sharp knife.
- Cut edges for tegular tiles should be colour matched with Armstrong SuperCoat ceiling tile touch up paint.



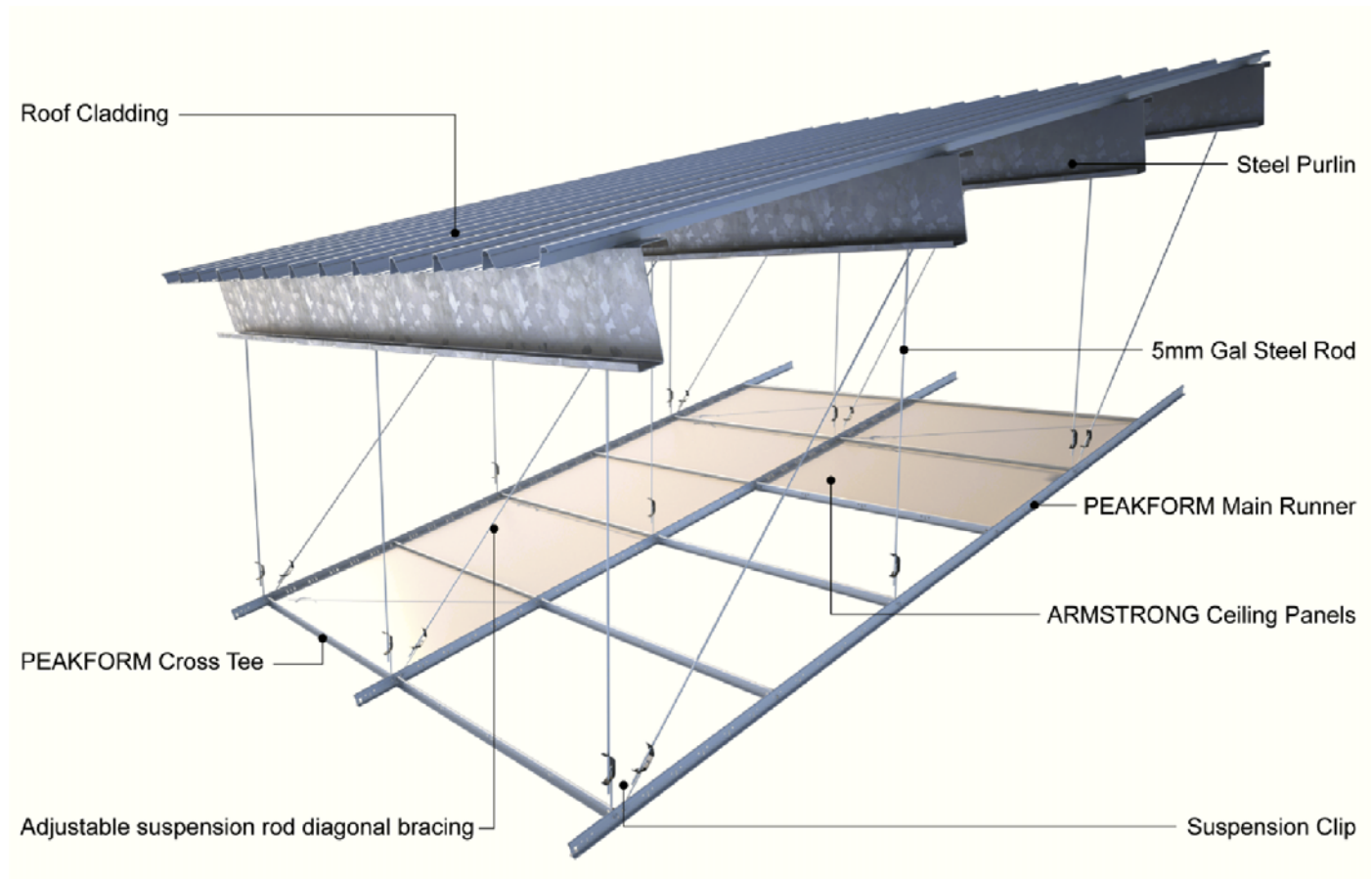
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12. Light Fixtures and Services

- Lights fittings to be supported by the head of the main bar.
- If the light fitting is supported by the cross runner there is a significant reduction in load capability.
- (Please refer to PeakForm brochure for load tables.)
- The flange of the grid will not support services (heavy loads on the flange will cause the grid to rotate).
- Acoustic ceiling tiles will not support any services, backing plates for down lights etc are required, and should be sorted out before project proceeds.
- Depending on the size and weight of the fixtures, extra hangers may be required.
- Please consult an Armstrong Representative with reference to loadings on grid systems.

13. Inclined Ceiling/ Raked Ceiling, Installation

- When installing a raked ceiling it is important that the main bars are installed in the direction of the slope.
- Install Suspension hangers at 1200mm centres as normal practice and then you must brace each Main Bar back to the purlins to stop any movement.





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