

Lindab **Systemsolutions**

Assembly instructions for suspended ceiling

Suspended ceiling

Before you start

A suspended ceiling can be used to conceal installations, to provide acoustic insulation or simply lower a ceiling to give the room better functional properties.

The system

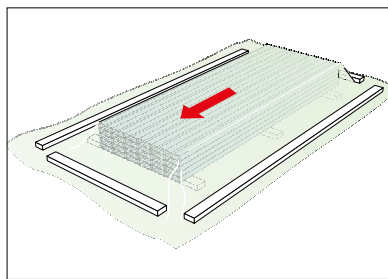
The system is ergonomic and easy to use. The products in the system reduce the time required for assembly.

Fixing

The suspended ceiling mainly uses click-lock solutions. Screws for fixing onto an existing ceiling and joining are not included. Use self-drilling screws for profiles with over 1 mm thick material.

Storage

The pallet carrying the steel profiles should be stored slightly at an angle for better water run-off. Protect the profiles from dust and dirt.



Cutting

The steel profiles can be cut with a profile shear or a pair of metal shears. To simplify the assembly, the studs should be ordered in pre-cut lengths.

Fire

Steel is unaffected up to 350 ° C and at 550 ° C the steel has lost 50% of its load capacity and therefore its safety marginal before collapsing. The time to achieve these temperatures in a fire depends on how the steel is exposed. To build against fire, isolate the products of the suspended ceiling system and build the surface layers with fire-insulating materials. Build tight to prevent spreading to the steel products and build with materials that have a documented fire resistance. If insulation is used under the surface layer, it must be installed so that it is prevented to fall down if the surface material is burned off.

Fire rating EI 30

- 1 layer plasterboard 13 mm
- 1 layer fire protected plaster board 15mm

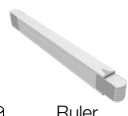
Fire rating EI 60

- 2 layers fire protected plaster boards 15mm

Tools



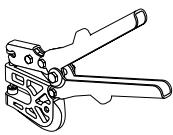
Spirit level



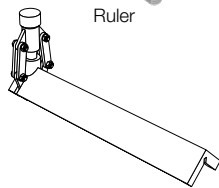
Ruler



Pencil



Fixing tool FIXT



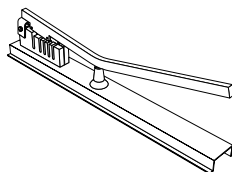
Fixing tool



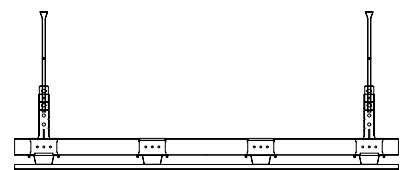
Metal shears



Power screwdriver



Profile shear PSAX



Example of protection against fire from below

Product overview

Components

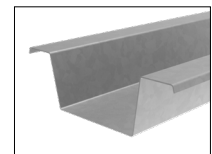
P

Primary channel for suspended ceiling.



S 25

Hat profile for secondary grid or as roof batten.
Available in 25/45 mm height and 0.5/0.7 thickness.



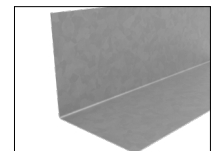
PSBE

Connection clip for P and S25 profiles.



LP

L-profile for connection between wall and ceiling.



PSTAG

Breakable suspender in three different lengths:
295, 445 and 1045 mm.



PSFP

Suspension bracket with spring lock. Suspender length is determined by PSTAG

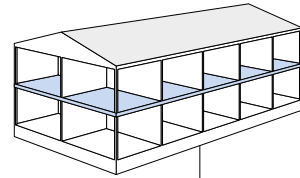


PSFD

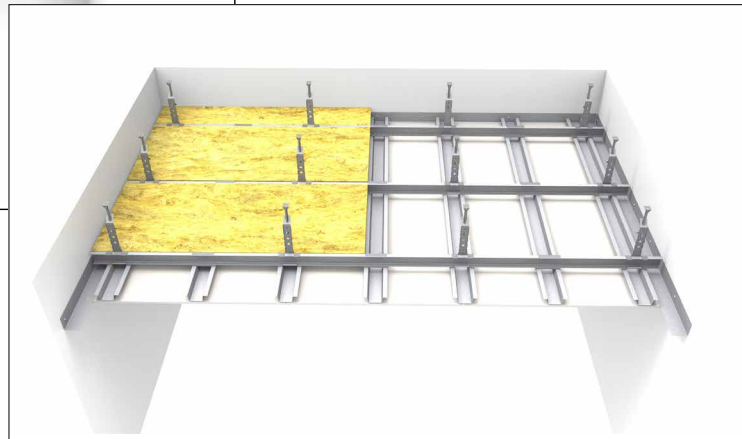
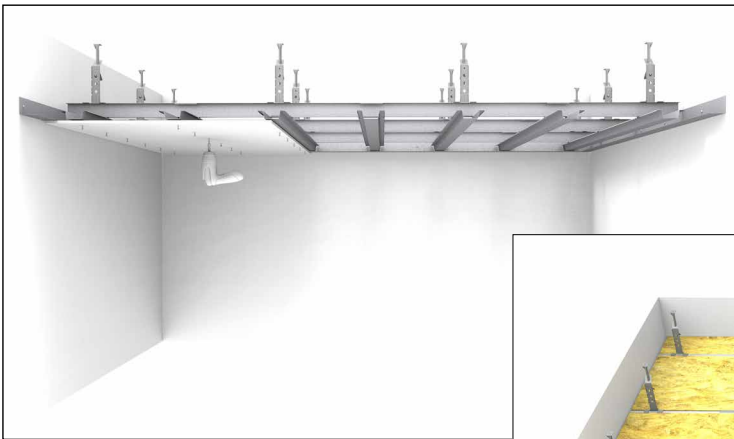
Direct brackets with fixed dimensions 100, 125 and 150 mm from ceiling to back of S25.



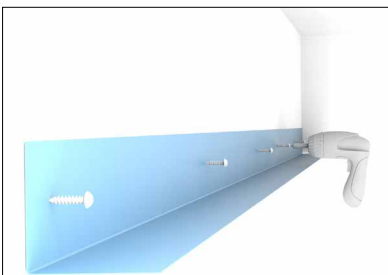
Assembly – Suspended ceiling



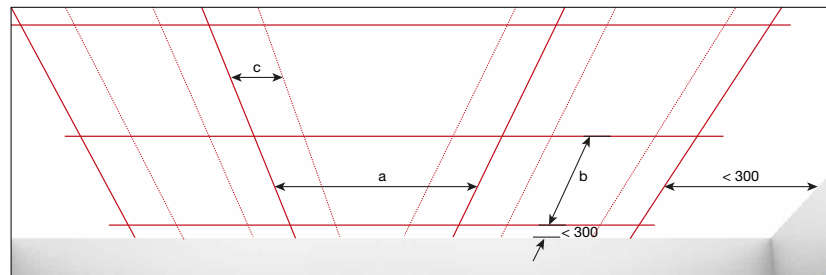
Assembly with suspension bracket with 240 to 1150 mm suspension



LP, PSTAG, PSFD, PSBE, P



Fixed LP in wall with CC 600 mm.



Measure out the position of suspension brackets from table below (a and b dimensions).

Suspension spacing and dead load

| Recommended board widths (plaster 13 mm) | Number of board layers | a spacing sus-pender (PSTAG) [mm] | b spacing primary grid (P) [mm] | c spacing secondary grid (S25) [mm] | Dead load incl. underlay [kg/m ²] |
|--|------------------------|-----------------------------------|---------------------------------|-------------------------------------|---|
| 600/900/1200 | 1 | 900 | 1200 | Rec: 300 Max: 600 | 12 |
| | 2 | 900 | 1200 | Rec: 300 Max: 600 | 22 |
| | 3 | 900 | 900 | Rec: 300 Max: 450 | 31* |

* S25 are replaced with S725 to meet the requirements.

NB

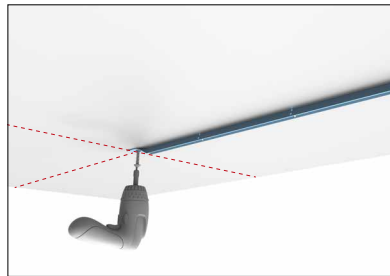
- The PSFP + PSTAG is dimensioned for 25 kg per unit
- The connection from either PSFP or PSBE to a S25 is dimensioned for 16 kg per unit
- Note that PSFP + PSTAG should support all the weight from the suspended ceiling to the screw fixing
- The screw fixing is dimensioned depending on the underlay

Fulfils requirements for SS-EN 13964:2014

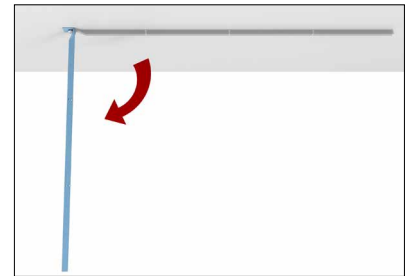
Assembly – Suspended ceiling



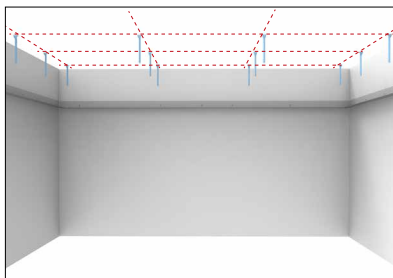
PSTAG can easily be broken off to a suitable length at the perforations. Available in three standard lengths.



Fix PSTAG in the cross between a and b. Use fasteners adapted to ceiling type as well as the load for the complete installation. Use washer with a diameter of 14 mm.



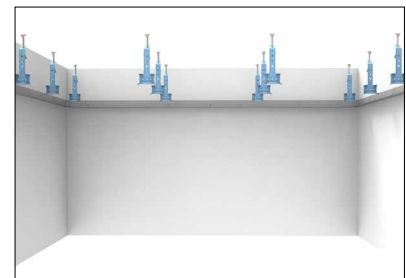
When PSTAG is fixed it can easily be bent down into a vertical position.



Assemble all PSTAGs as in table on previous page.



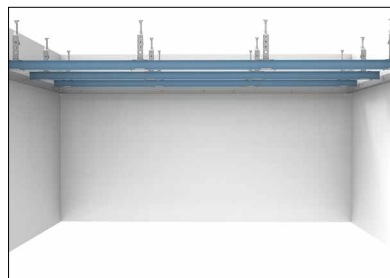
Squeeze the spring lock on PSFD and fit onto PSTAG. PSFD is attached when the spring lock is released.



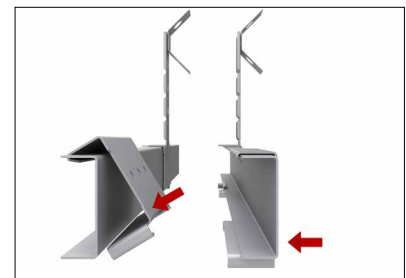
Assembling all PSTAGs and PSFDs.



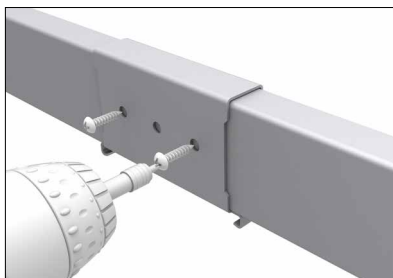
Screw P firmly into PSFD.



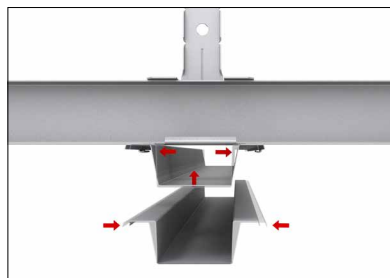
Fit P through all PSFPs. It is important that the P stud does not rest against LP.



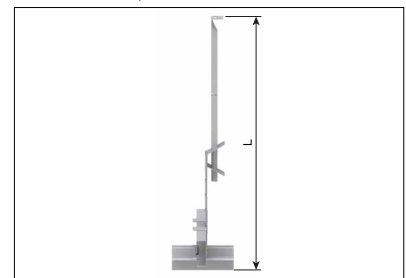
Put PSBE between each PSFD. PSBE is locked in the upper edge, while PSFD is locked in the lower edge. Together, they ensure that P cannot be twisted free, and it is therefore not necessary to screw P into place.



Where P needs to be joined, fix it with two screws through PSBE or PSFD.

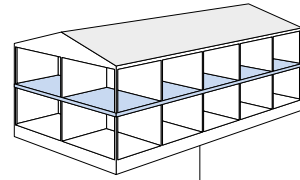


Press S25 together and draw it upwards into PSBE and/or PSFD. S25 should also rest (not be fixed) in the LP profile.

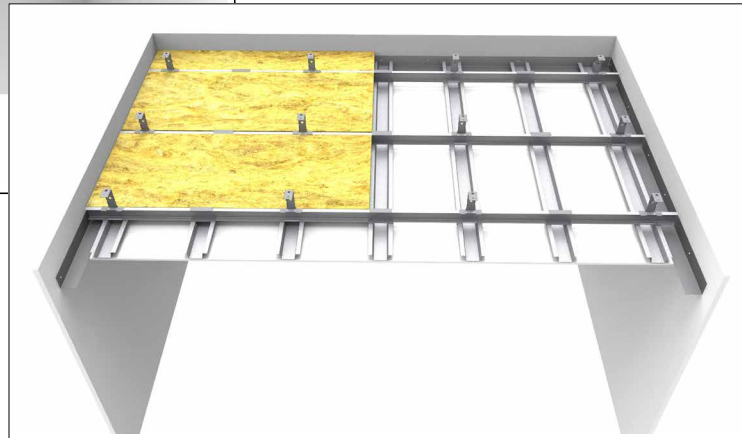
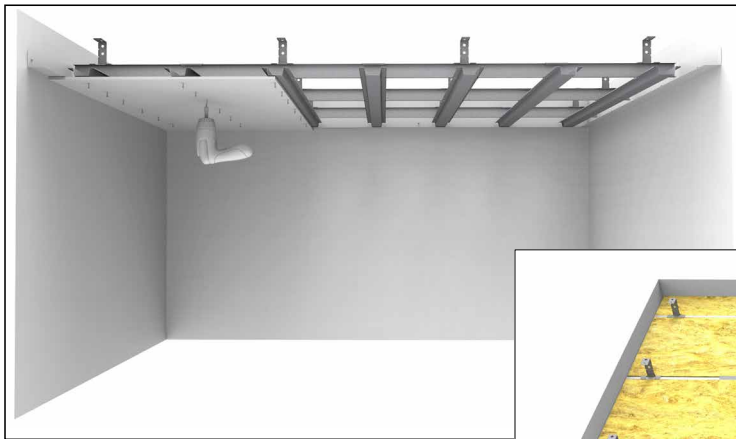


| PSTAG | L Suspension lengths [mm] |
|-------|------------------------------|
| 295 | 240-400 |
| 445 | 240-550 |
| 1045 | 240-1150 |

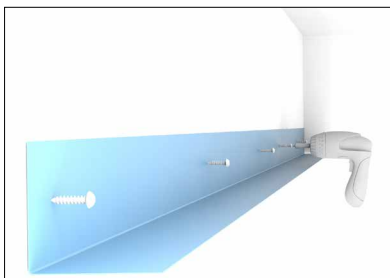
Assembly – Suspended ceiling



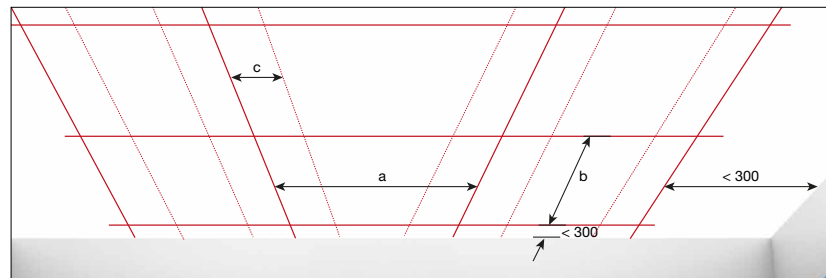
Assembly with direct bracket with 100-150 mm suspension



LP, PSFD, P, PSBE, S25



Fixed LP in wall with CC 600 mm.



Measure out the position of suspension brackets from table below (a and b dimensions).

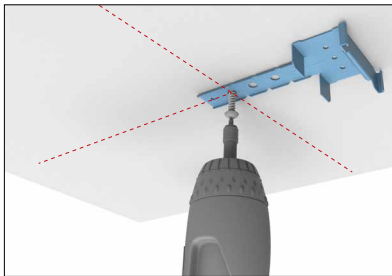
Suspension spacing and dead load

| Recommended board widths (plaster 13 mm) | Number of board layers | a spacing sus-pender (PSTAG) [mm] | b spacing primary grid (P) [mm] | c spacing secondary grid (S25) [mm] | Dead load incl. underlay [kg/m ²] |
|--|------------------------|-----------------------------------|---------------------------------|-------------------------------------|---|
| 600/900/1200 | 1 | 900 | 900 | Rec: 300 Max: 600 | 12 |
| | 2 | 900 | 900 | Rec: 300 Max: 600 | 22 |

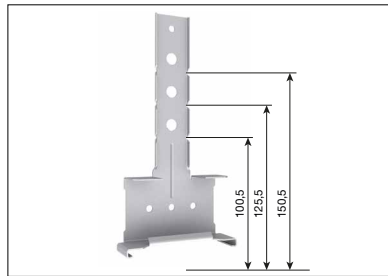
NB

- Each PSFD is dimensioned for 18 kg per unit
- The connection from either PSFP or PSBE to a S25 is dimensioned for 16 kg per unit
- The screw fixing is dimensioned depending on the underlay

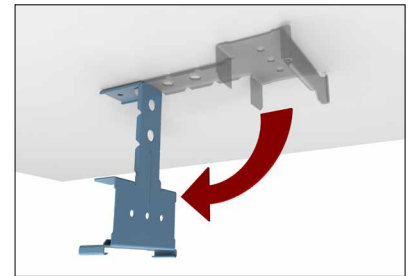
Assembly – Suspended ceiling



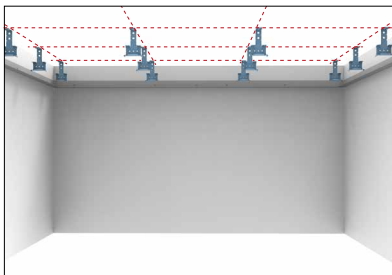
Fix PSFD in the cross. Choose screw holes depending on suspension length. Use fasteners adapted to ceiling type as well as the load for the complete installation. Use Washer with a diameter of 14 mm.



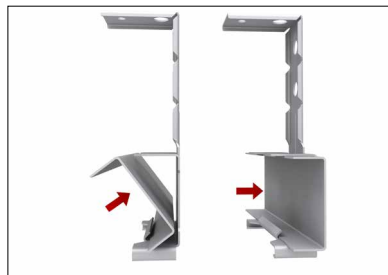
PSFD suspension lengths for different screw holes.



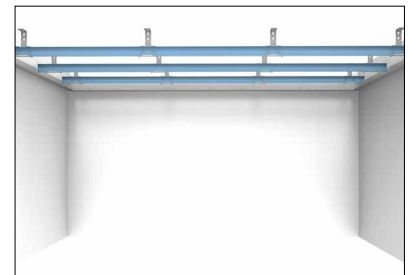
When PSFD is fixed it can easily be bent down into a vertical position.



Fit all PSFDs as in table on previous page.



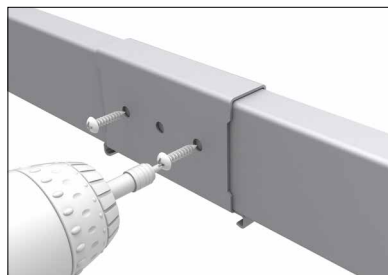
Screw P firmly into PSFD.



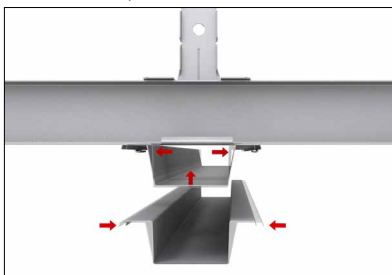
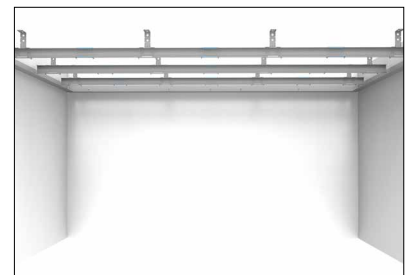
Fit P through all PSFPs. It is important that the P stud does not rest against LP.



Put PSBE between each PSFD. PSBE is locked in the upper edge, while PSFD is locked in the lower edge. Together, they ensure that P cannot be twisted free, and it is therefore not necessary to screw P into place.



Where P needs to be joined, fix it with two screws through PSBE or PSFD.



Press S25 together and draw it upwards into PSBE and/or PSFD. S25 should also rest (not be fixed) in the LP profile.



Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

[Lindab](#) | For a better climate