Autex Acoustics® ™

US Patent 10,113,312 | AU Patent 2016250499 | GB Patent 2,545,789 | NZ Patent app 725770
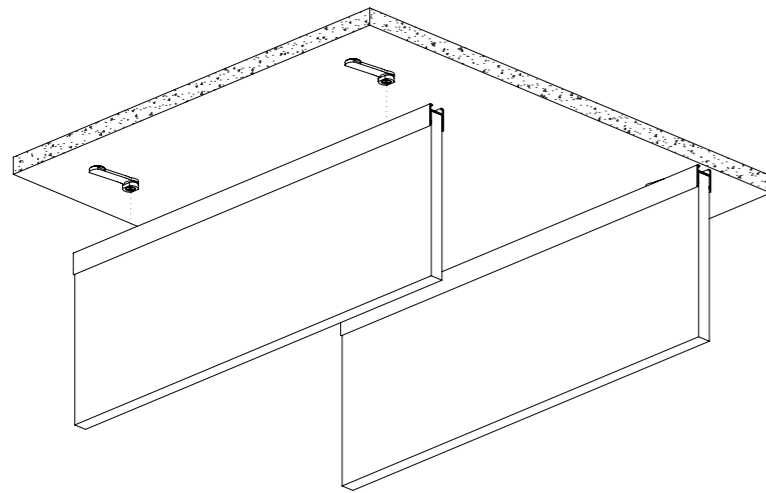
THE FIRST CONSIDERATION TO MAKE WHEN SPECIFYING A FRONTIER SYSTEM IS THE INSTALLATION METHOD.
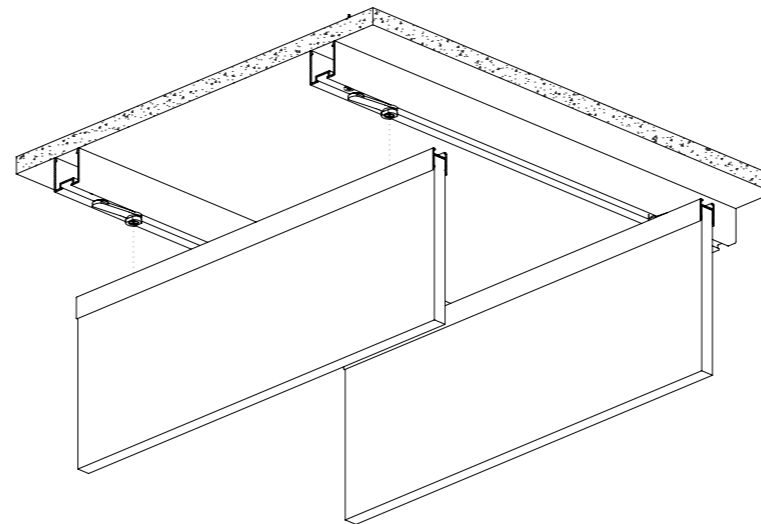
1. DIRECT FIXED TO CEILING

SEE PAGE 2

PACK INCLUDES
Autex Mounting Clips
Autex Frontier Extrusions
Autex Frontier Fins/Rafts

NOT SUPPLIED
Fasteners (to substrate)

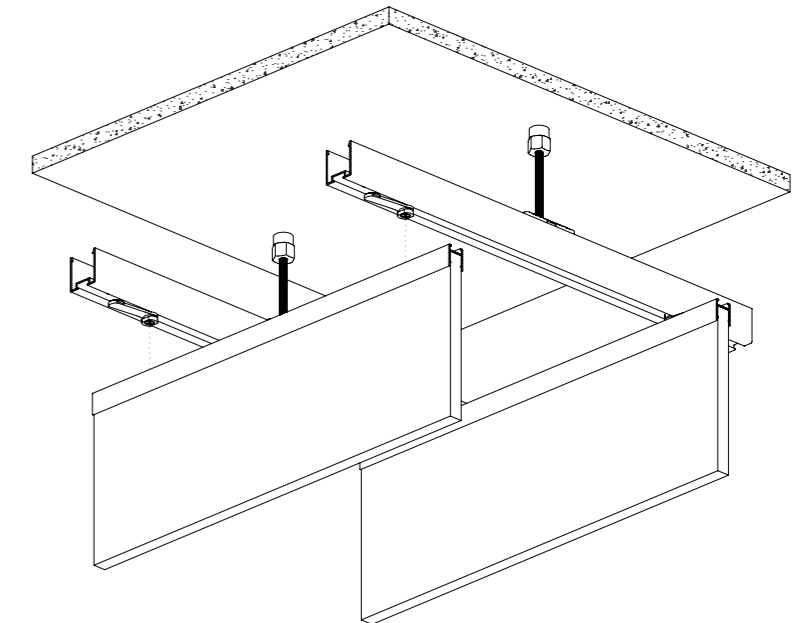### 2. DIRECT FIXED TO RAILS

SEE PAGE 3

PACK INCLUDES
Autex Mounting Clips
Autex Frontier Extrusions
Autex Frontier Fins/Rafts

ADDITIONAL COMPONENTS REQUIRED
Autex Frontier Cross Rails x2

NOT SUPPLIED
Fasteners (to substrate)

3. SUSPENDED FROM RAILS

SEE PAGE 4

PACK INCLUDES
Autex Mounting Clips
Autex Frontier Extrusions
Autex Frontier Fins/Rafts

ADDITIONAL COMPONENTS REQUIRED
Autex Frontier Cross Rails x2
Autex W-Clips

NOT SUPPLIED
Fasteners (to substrate)
M6 Threaded Rod
M6 Back Plates to ceiling

For suspended installations it is strongly recommended to consult a building engineer for seismic considerations. See Pages 23-29 for suggested details.
For all installations in sprinklered buildings, consult a fire engineer to ensure the intended position of the Frontier Fins/Rafts meet sprinkler and alarm standards.
Further detail on the fire standards can be found in the supplemental document "Fire Considerations for Autex Frontier Acoustic Fins".

Autex Acoustics®

1.

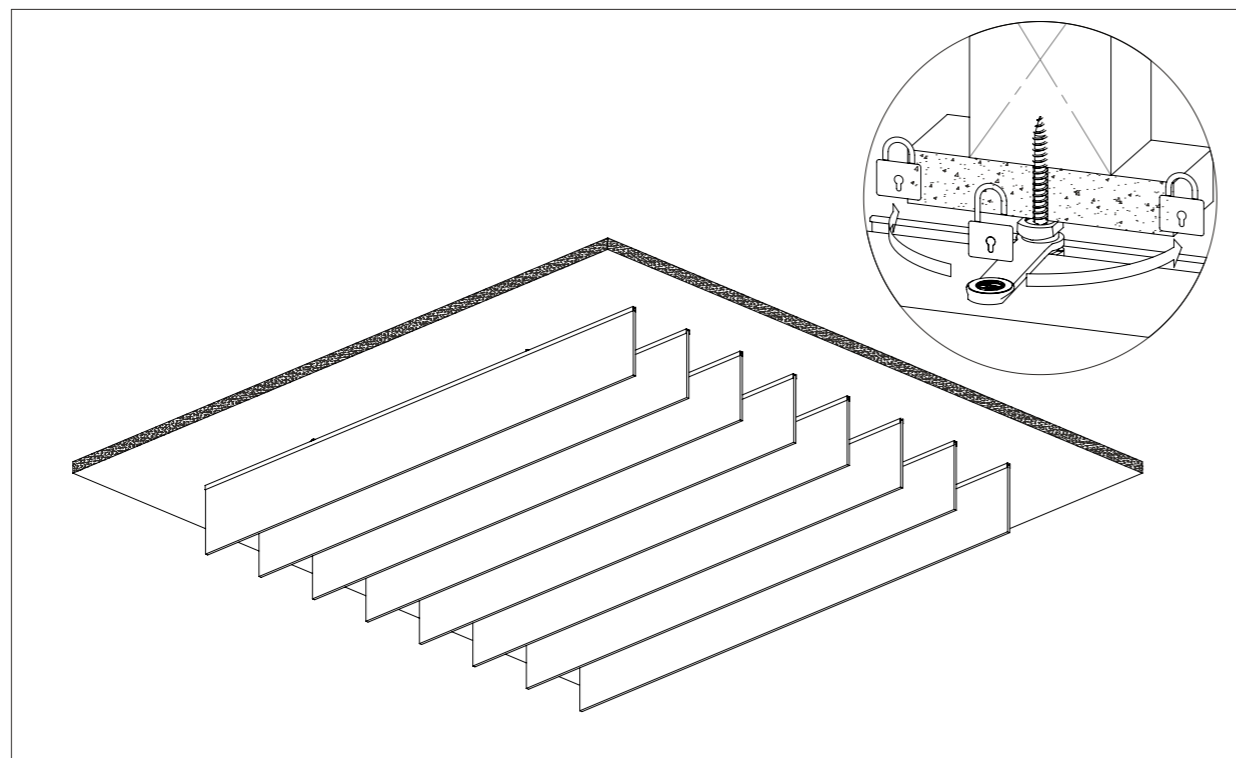Counter sunk screw with max head diameter of 8mm

1200mm

X/2 X X X/2
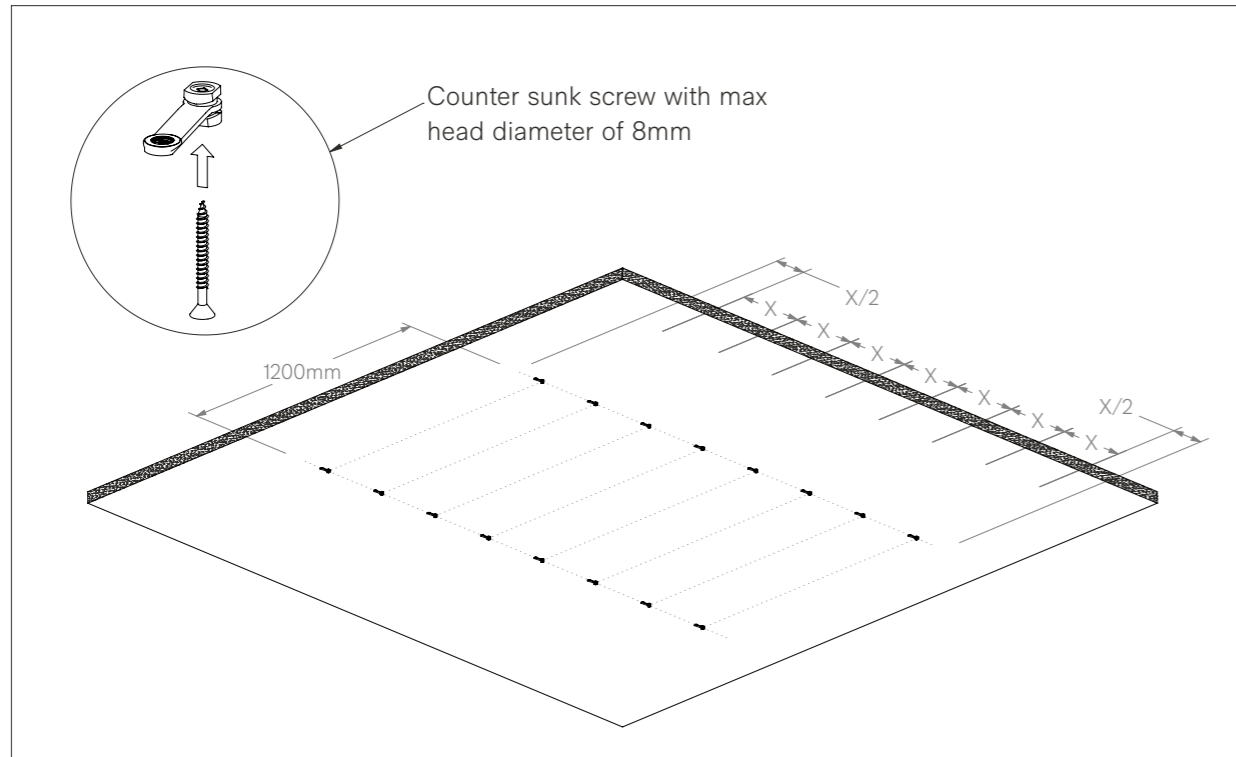
Mark out your ceiling at the recommended spacing for your chosen product (refer to table on page 5 for details). Screw the Autex Mounting Clips into the ceiling using screws suitable for the substrate (not supplied).
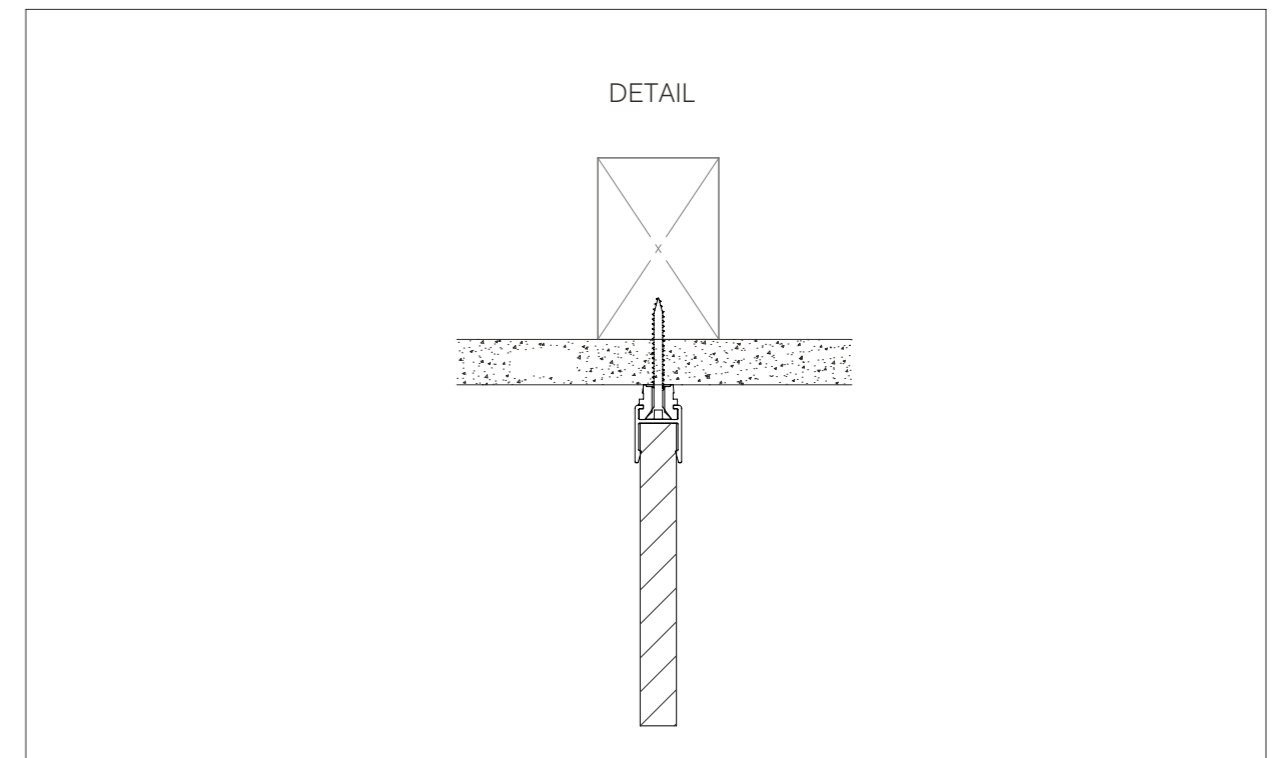
2.
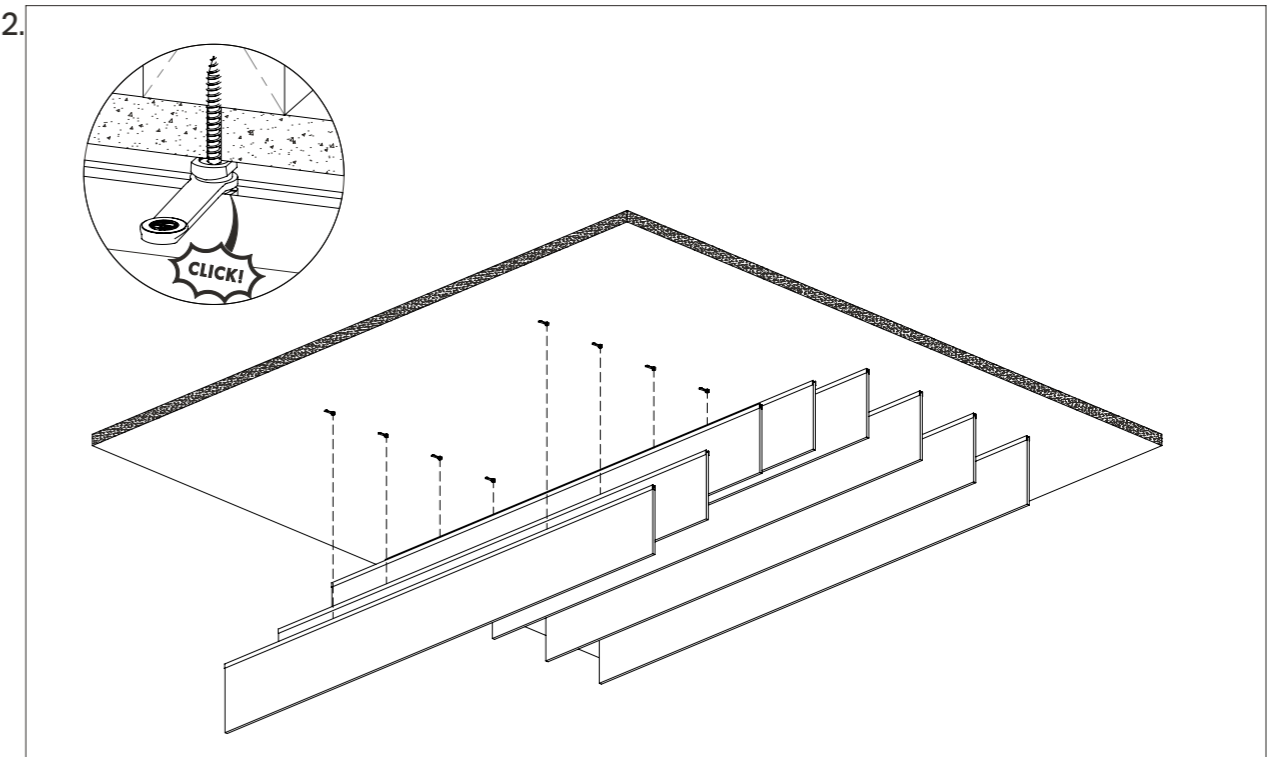
CLICK!

Lift the assembled Fins/Rafts into place and click them onto the Autex Mounting Clips. Turn the clips 45 Deg to temporarily hold the Fin/Raft in place while allowing adjustment along the length.

3.

When you are satisfied with the alignment of the Fins/Rafts turn the clips 90 degrees so they clip into the channel and lock in place.
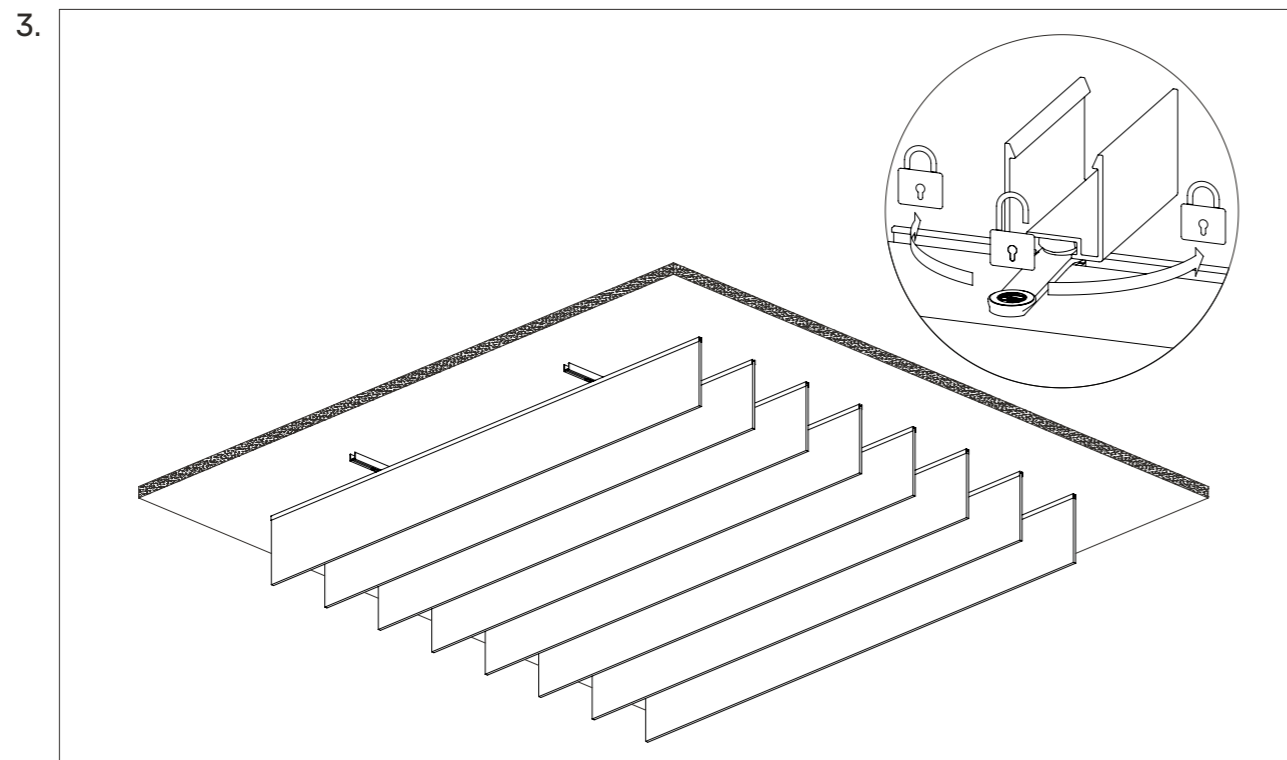
DETAIL

Ensure suitable fastener for the clip and substrate is used (not supplied).
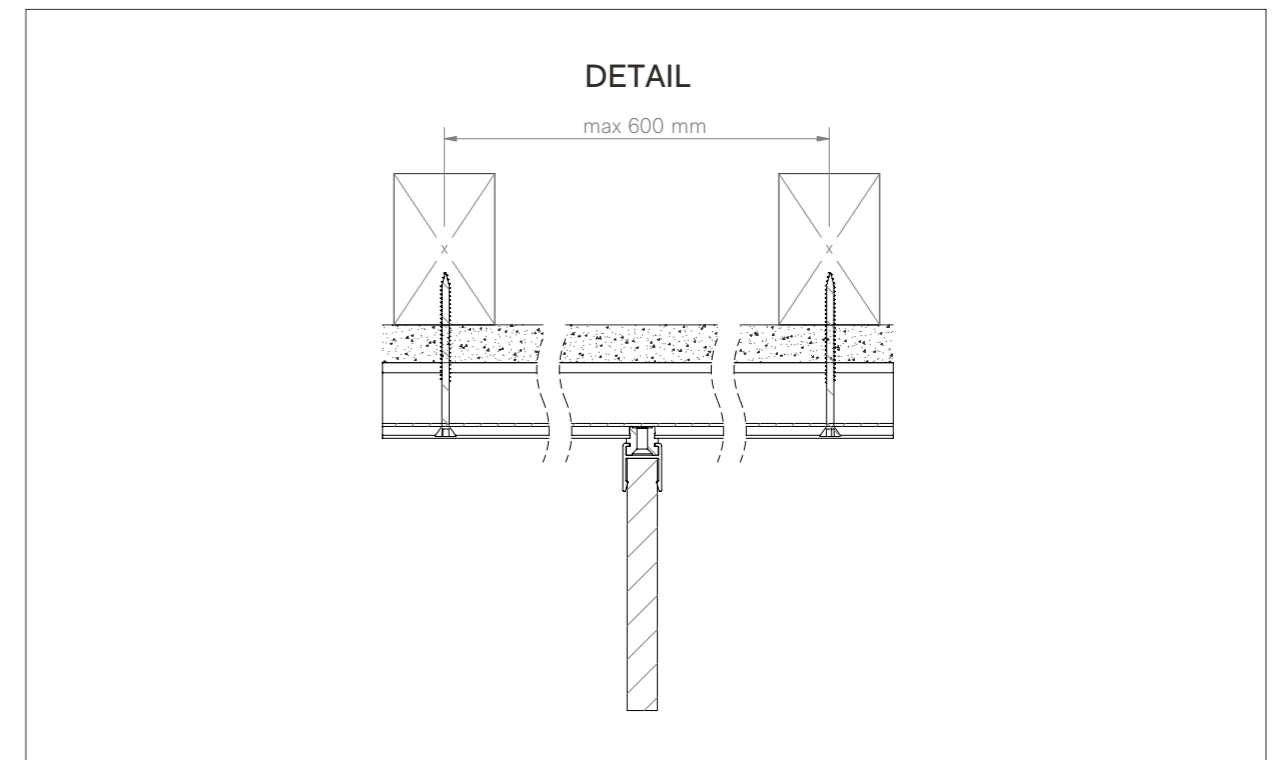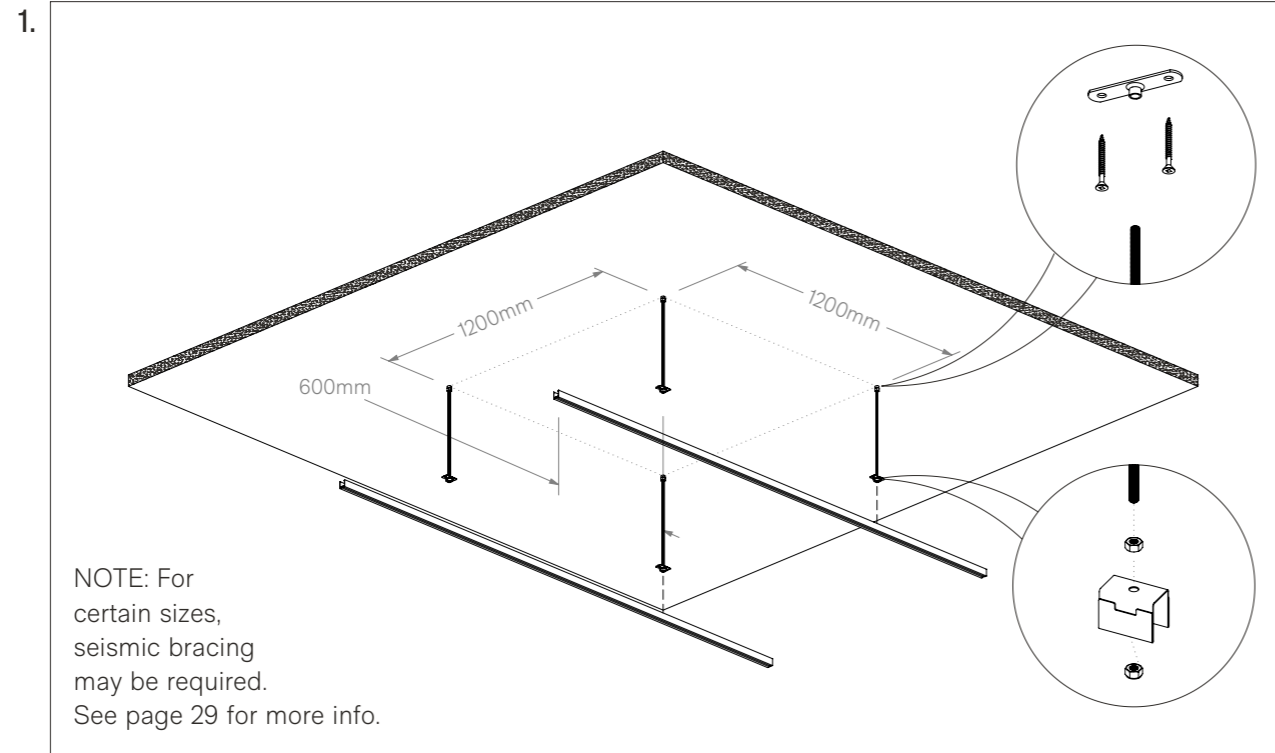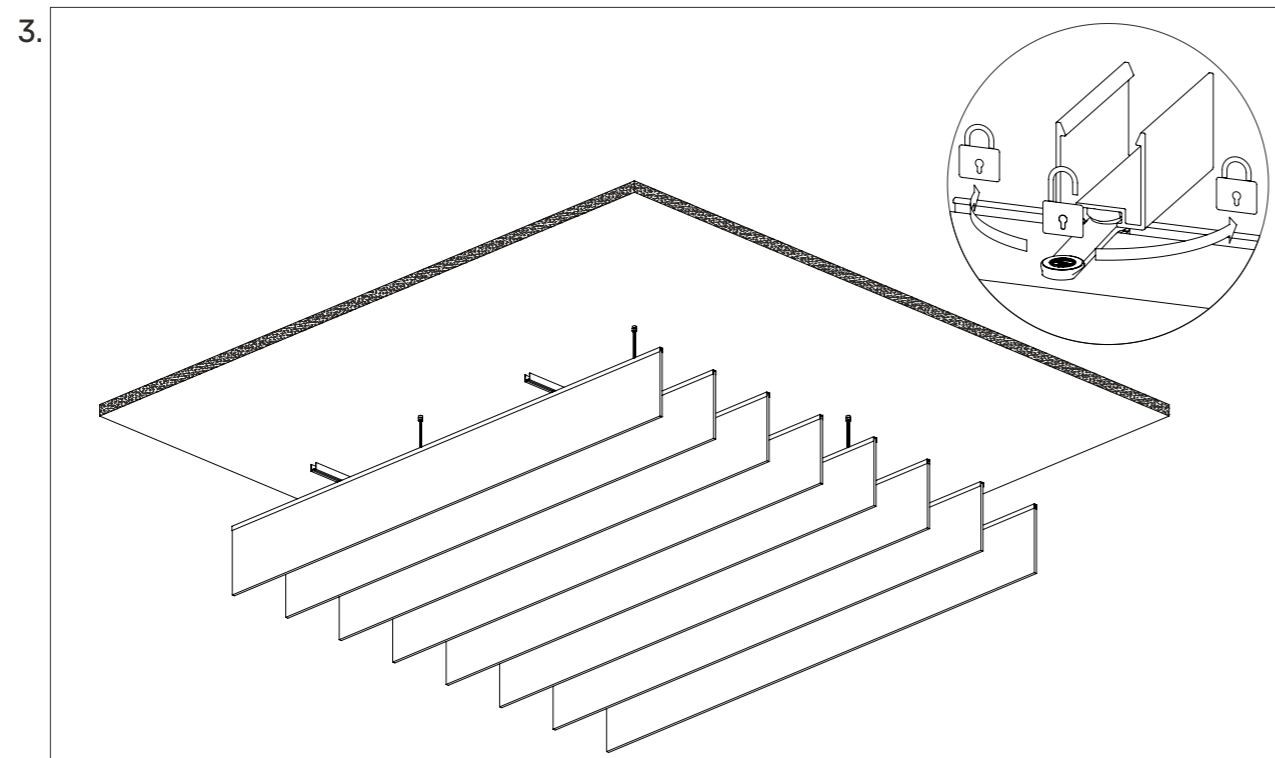
1.
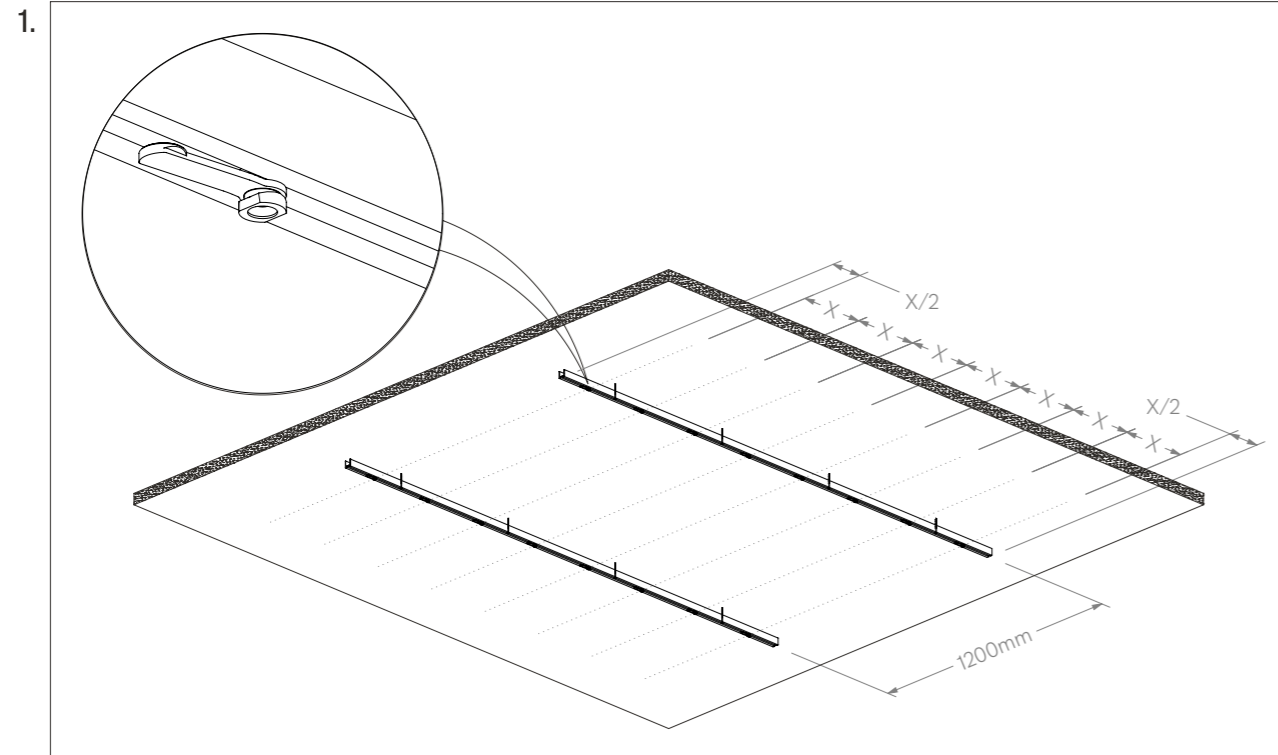
Mark out the ceiling and screw in 2x cross rails at 1200 mm centres using screws suitable for the substrate (not supplied) at max centres of 600 mm. Insert the Autex Mounting Clips at the desired fin spacing. Fin spacing can be marked on the cross rails prior to installation. (Refer to table on page 5 for details).
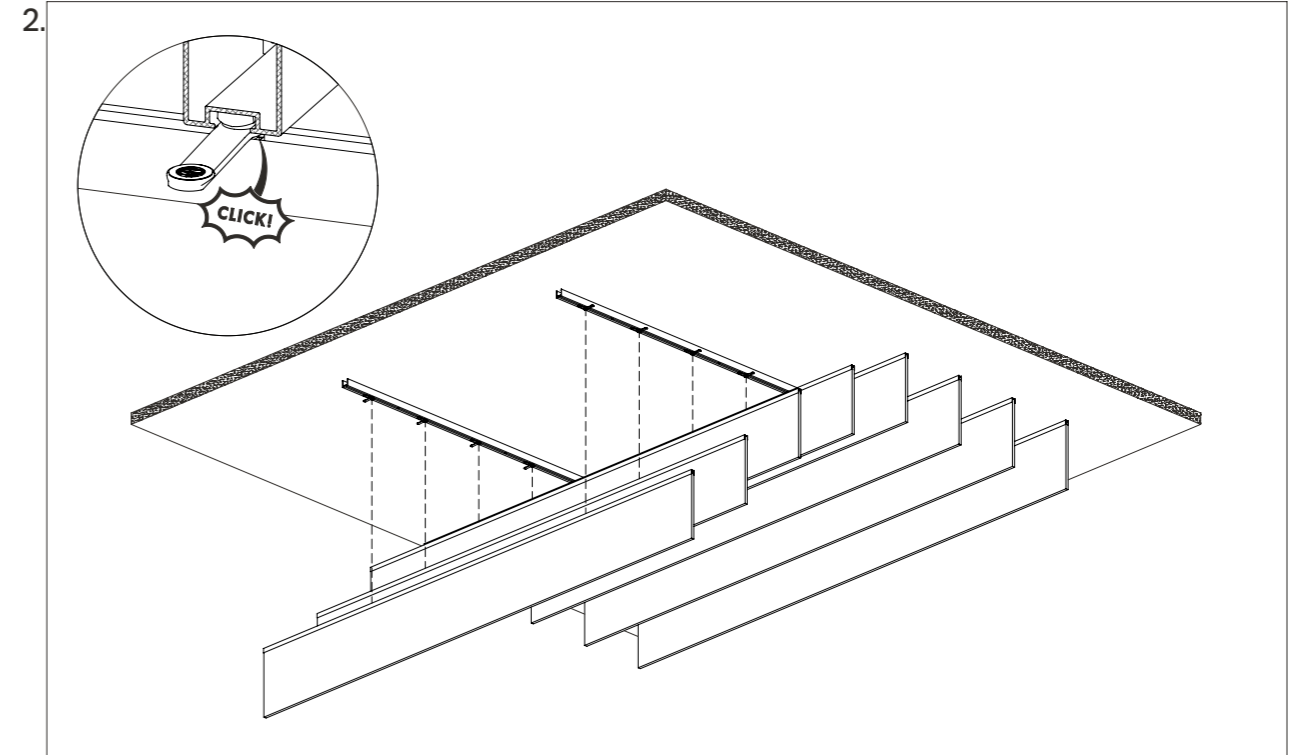
2.

Lift the assembled Fins/Rafts into place and click them onto the Autex Mounting Clips. Turn the clips 45 Deg to temporarily hold the Fin/Raft in place while allowing adjustment along the length.

3.

When you are satisfied with the alignment of the Fins/Rafts turn the clips 90 degrees so they clip into the channel and lock in place.

DETAIL

max 600 mm

Ensure suitable fastener for the clip, rail and substrate is used. For additional security, the Autex Mounting Clips can be screwed into the cross rail.

1.

NOTE: For certain sizes, seismic bracing may be required. See page 29 for more info.
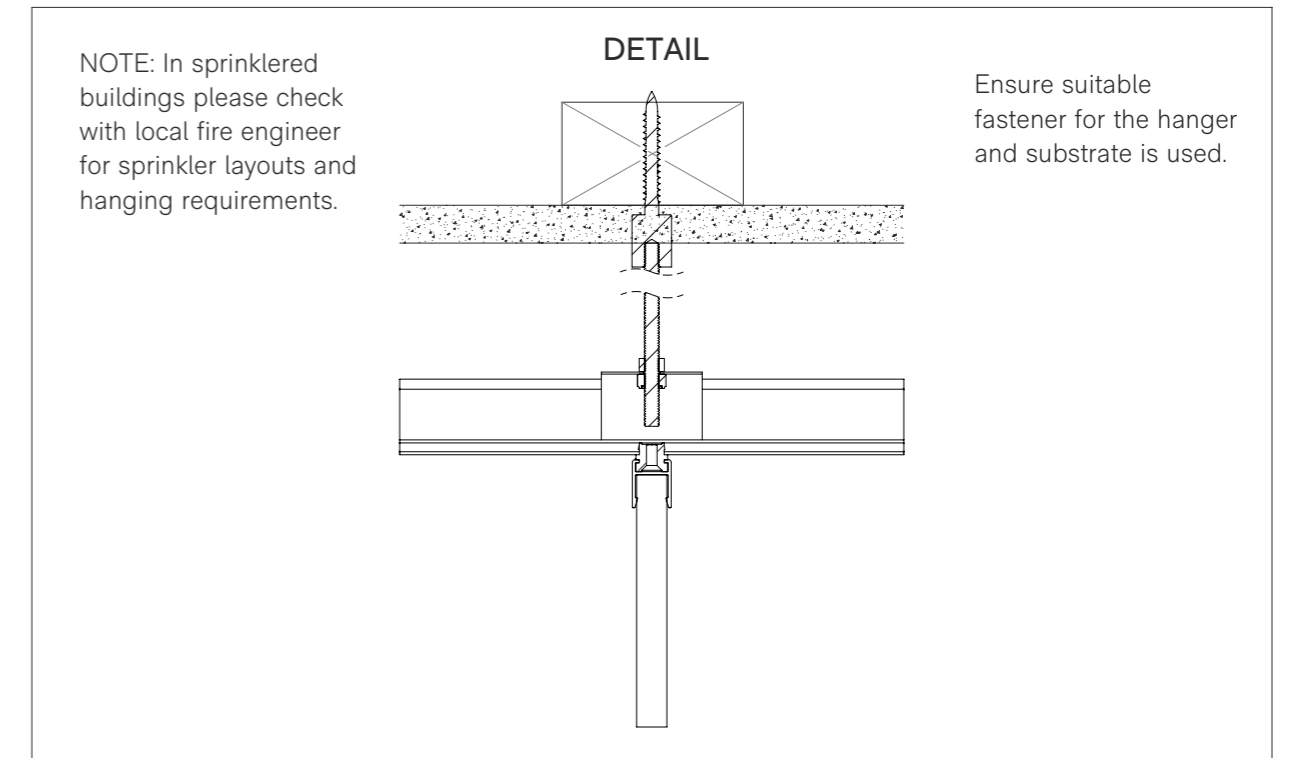
Mark out the ceiling and screw in 4x backing plates suitable for M6 threaded rod in a 1200 mm x 1200 mm square using screws suitable for the substrate (not supplied). Fin spacing can be marked on the cross rails prior to being clipped onto the Removable W-Clips. (Refer to table on page 5 for details).
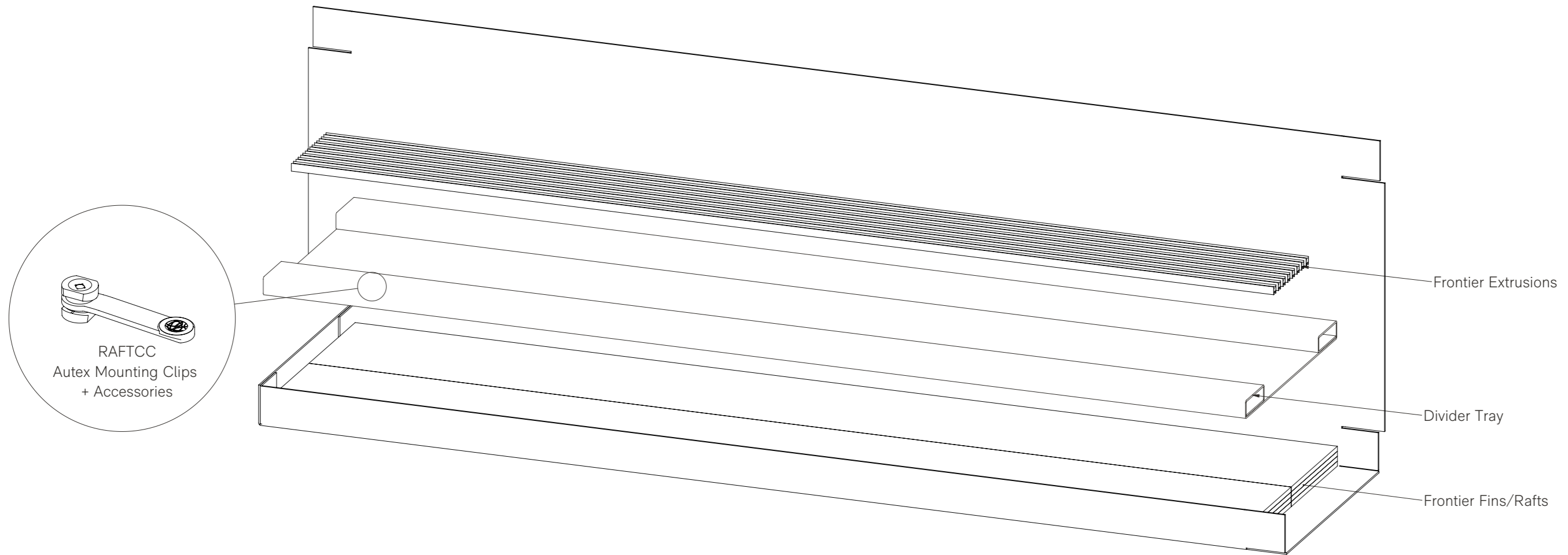
2.

Handle down
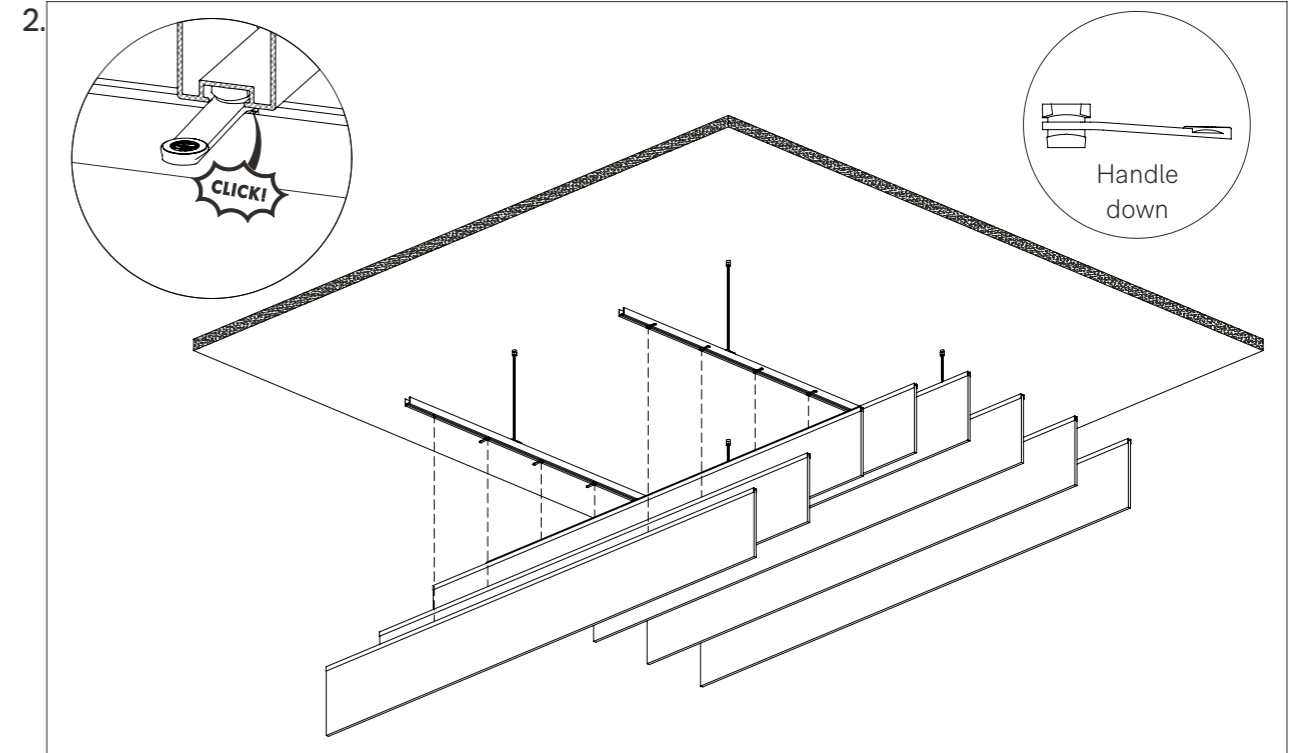
CLICK!

Insert the Autex Mounting Clips at the desired fin spacing on the cross rails with the handle tilted towards the floor. Lift the assembled Fins/Rafts into place and click them onto the Autex Mounting Clips. Turn the clips 45 Deg to temporarily hold the Fin/Raft in place while allowing adjustment along the length.

3.

When you are satisfied with the alignment of the Fins/Rafts turn the clips 90º so they clip into the channel and lock in place.

DETAIL

NOTE: In sprinklered buildings please check with local fire engineer for sprinkler layouts and hanging requirements.

Ensure suitable fastener for the hanger and substrate is used.

PLEASE NOTE, the threaded rod and backing plate suspension method is the default option for large installations. As these parts are supplied by a third party, please see your account manager for preferred supplier in your territory. For smaller installations, adjustable cable hangers are available from Autex.

Autex Acoustics®

RAFTCC
Autex Mounting Clips
+ Accessories

Frontier Extrusions

Divider Tray

Frontier Fins/Rafts

STYLE	FIN LENGTH (mm)	FIN THICKNESS (mm)	FIN DEPTH** (mm)	FIN SPACING (mm)	FINS PER PACK	MOUNTING CLIPS	AREA PER PACK (m²)
TUNDRA	2400	12	100	100	24	48	5.76
	2400	12	150	150	16	32	5.76
	2400	12	200	200	12	24	5.76
	2400	12	300	300	8	16	5.76
	2400	24	100	100	12	24	2.88
	2400	24	150	150	8	16	2.88
	2400	24	200	200	6	12	2.88
	2400	24	300	300	4	8	2.88
DUNE/SIERRA/TALUS	2400	12	300*	300	8	16	5.76
	2400	24	300*	300	4	8	2.88
AXIS	2400	12	150	300	16	16	5.76

RAFT STYLE	RAFT LENGTH (mm)	RAFT WIDTH (mm)	RAFT DEPTH** (mm)	RAFT SPACING (mm)	RAFTS PER PACK	MOUNTING CLIPS	AREA PER PACK (m²)
BEAM 100	2400	70	87	150	8	16	2.88
BEAM 250	2400	70	227	300	4	8	2.88
BLADE	2400	70	247	300	4	8	2.88
TRAPEZOID	2400	200	137	300	4	8	2.88

*The Fin Depth of DUNE/SIERRA/TALUS fins vary but average out to 300mm   **Fin Depth/Raft Depth is inclusive of extrusion

DIRECT FIX TO CEILING
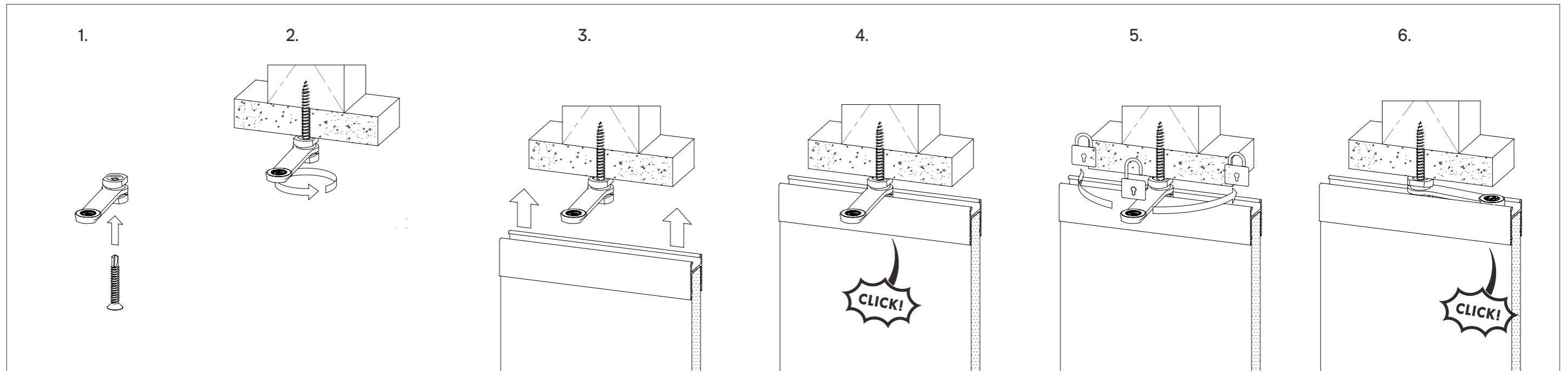
12mm Frontier Fin shown in example. Repeat the same process for Frontier 24mm Fin and Frontier Raft

DIRECT FIX TO RAIL/SUSPENDED FROM RAIL
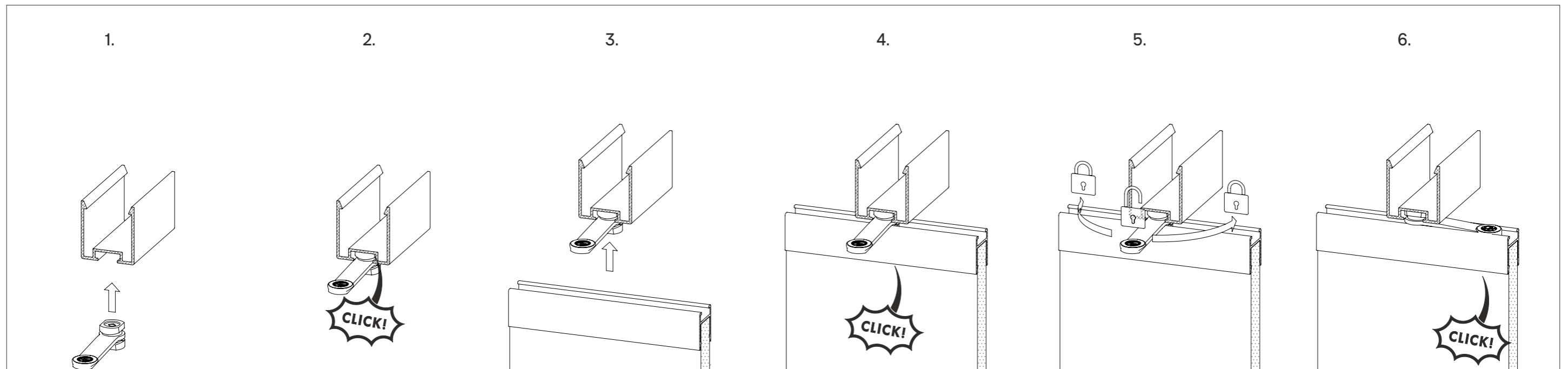
12mm Frontier Fin shown in example. Repeat the same process for Frontier 24mm Fin and Frontier Raft

Autex Acoustics®
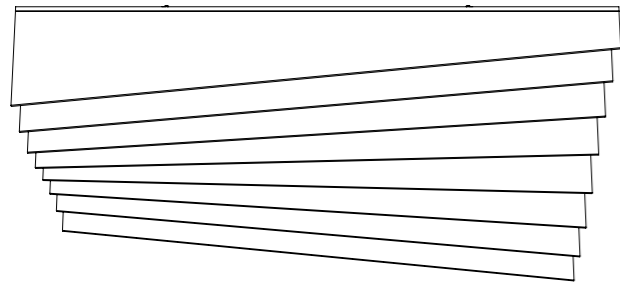
SIERRA
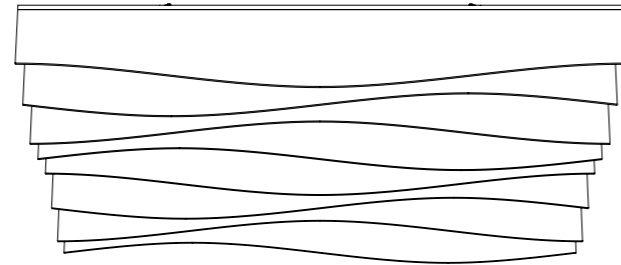
TALUS
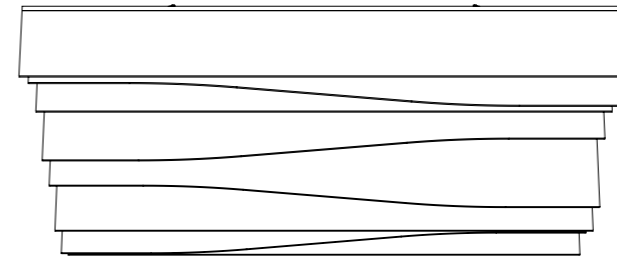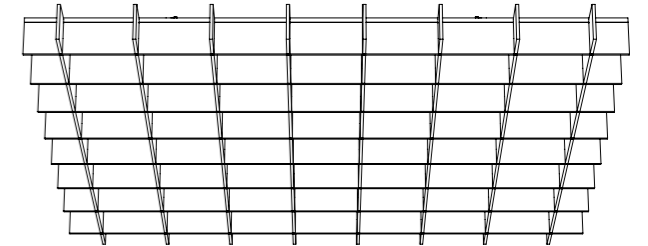
DUNE

AXIS
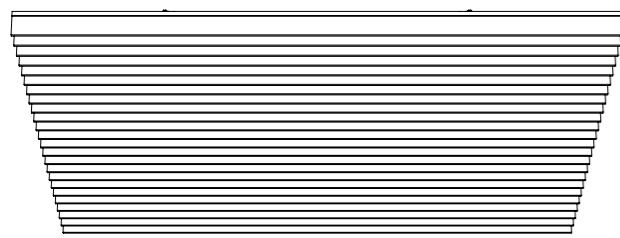
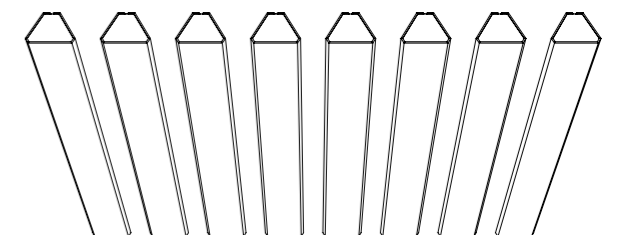TUNDRA 100
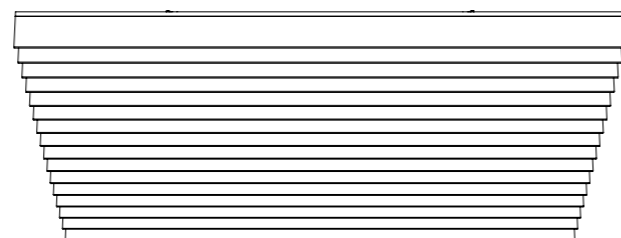
TUNDRA 150
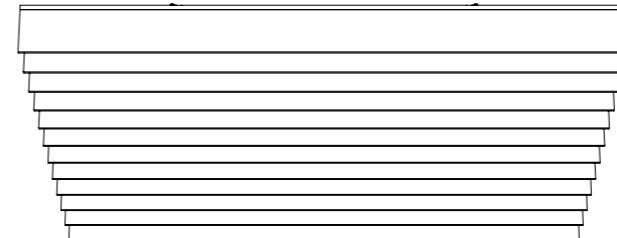
TUNDRA 200
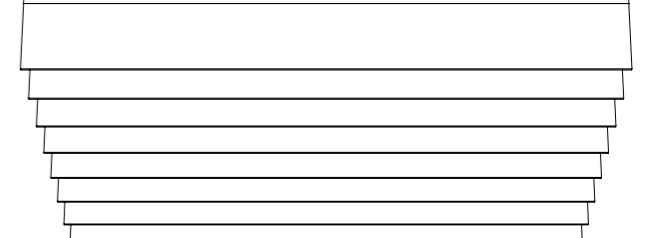
TUNDRA 300
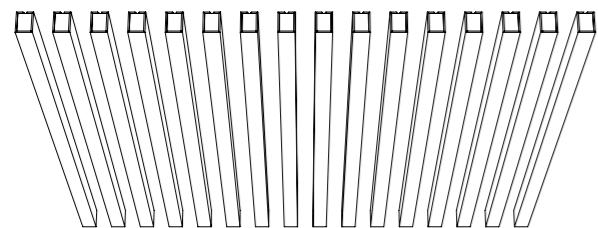
RAFT BEAM 100
2X PACKS SHOWN
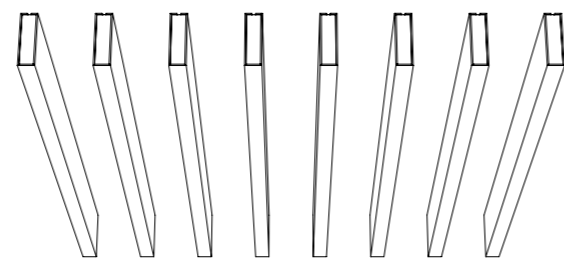
RAFT BEAM 250
2X PACKS SHOWN
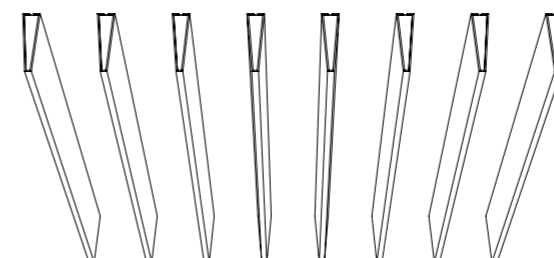
RAFT BLADE
2X PACKS SHOWN

RAFT TRAPEZOID
2X PACKS SHOWN

DUNE
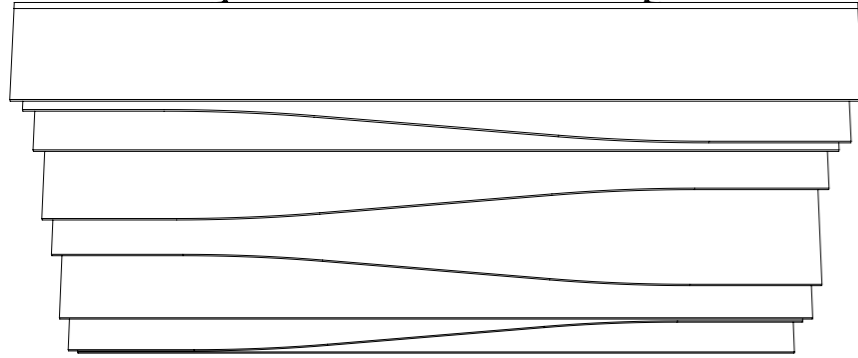
Install sequence pattern as shown above
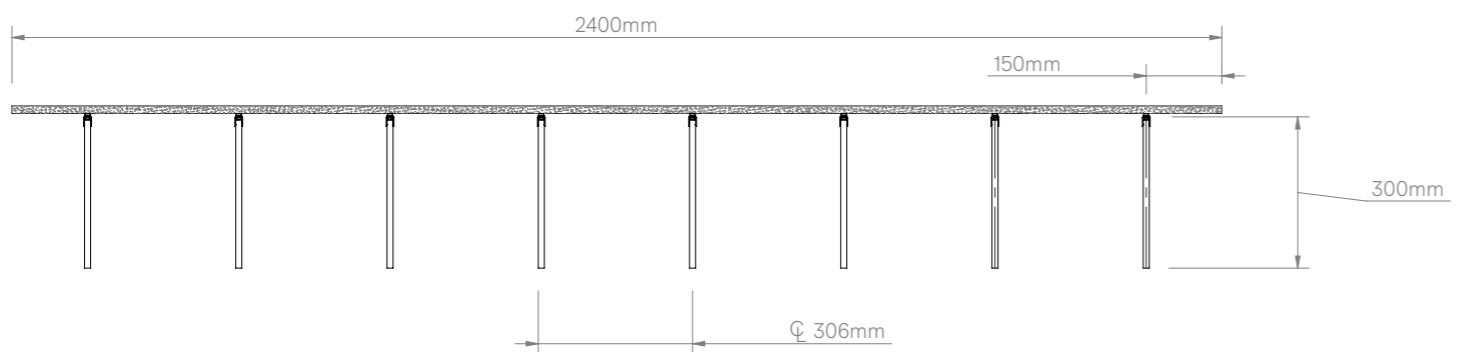A,C,D,C*,B,E,B*,A

Box layout as shown below.
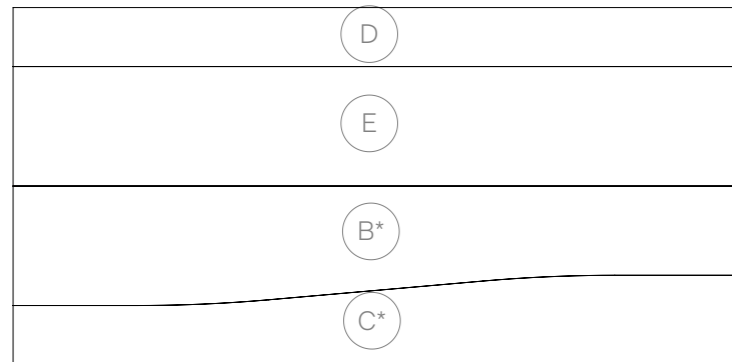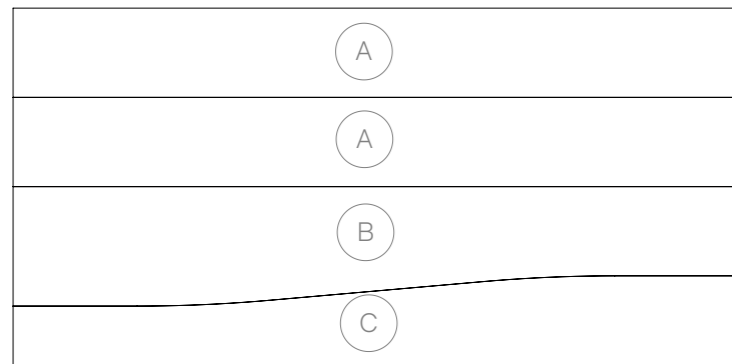
SIERRA
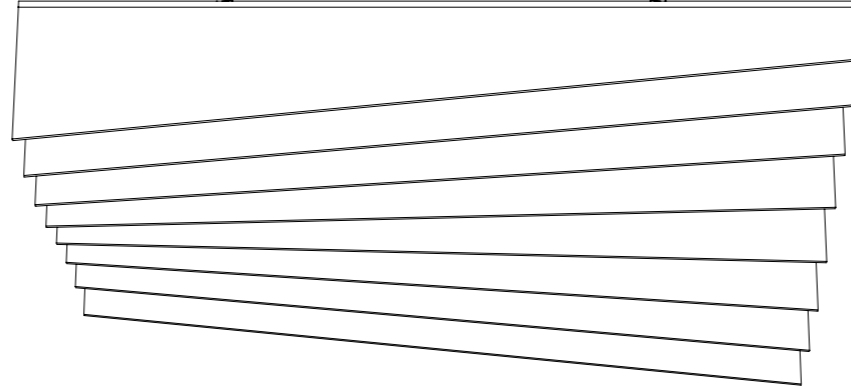
Installation sequence pattern as shown above
D,C,B,A,A*,B*,C*,D*...
To continue the pattern, the following set of 8 fins will be in the REVERSE order

Box layout as shown below.
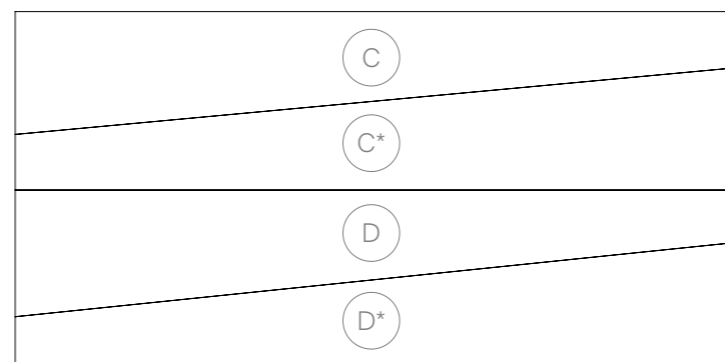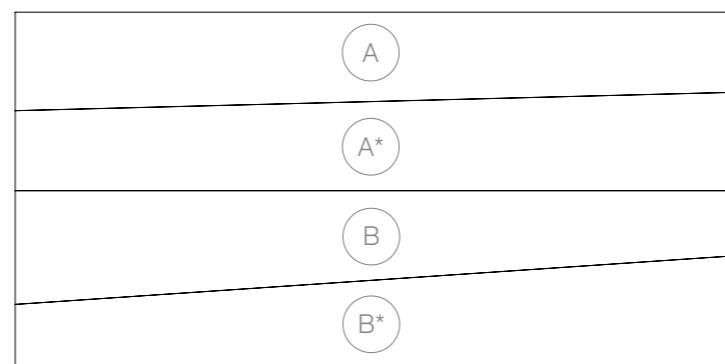
TALUS
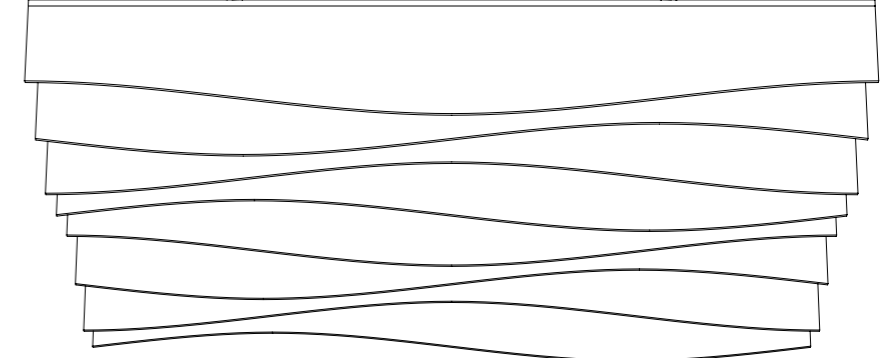
Installation sequence pattern as shown above
A,C,B,C*,A,C,B,C*...
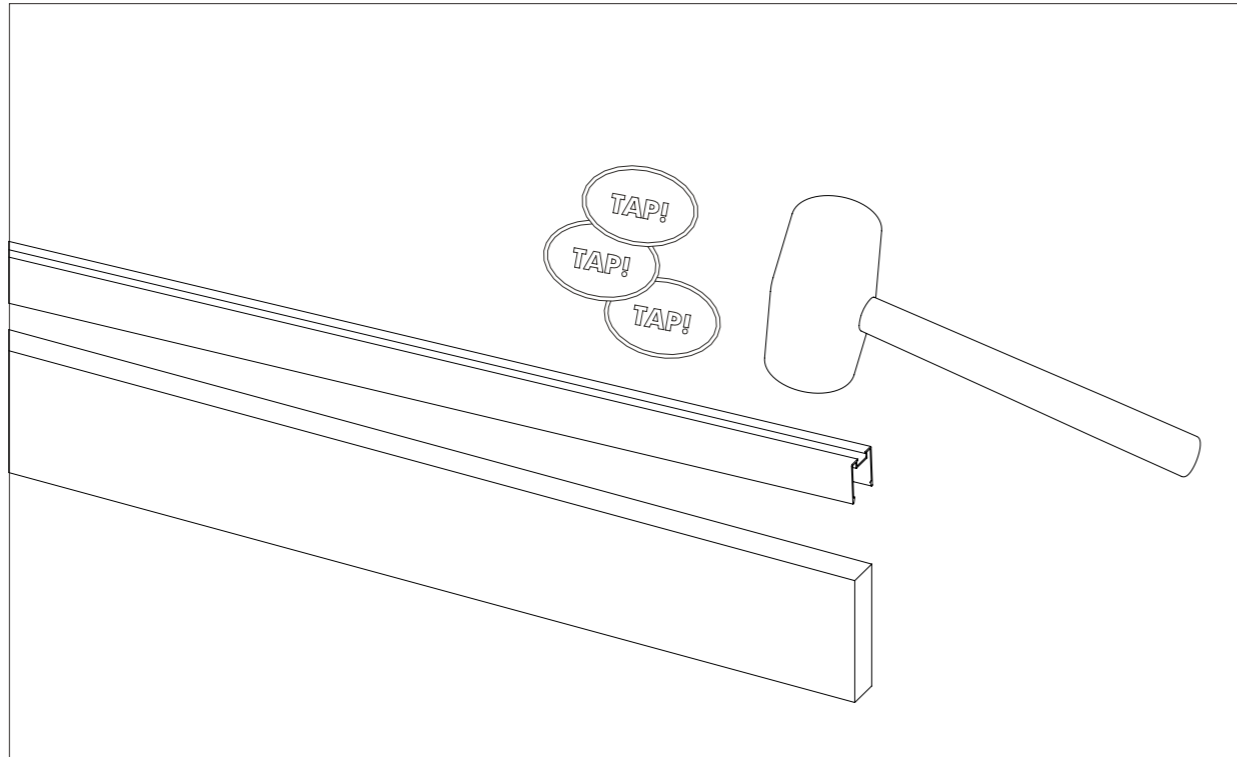
Box layout as shown below.

Autex Acoustics®
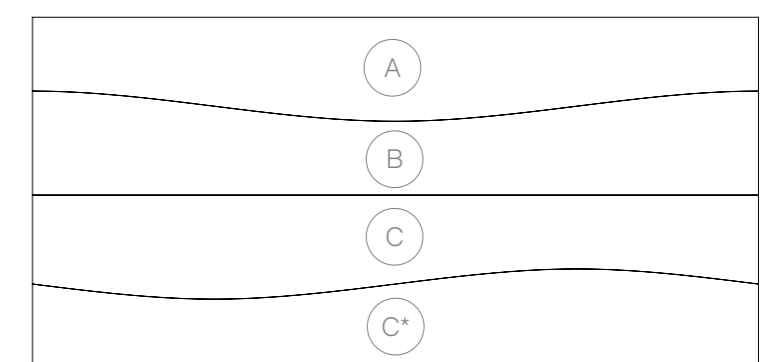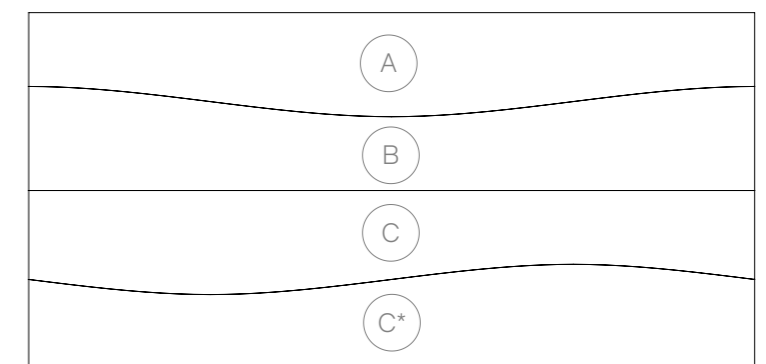
DUNE
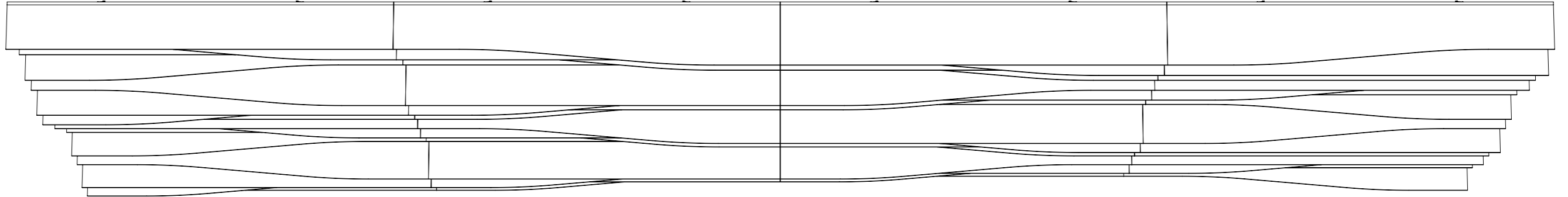
SIERRA
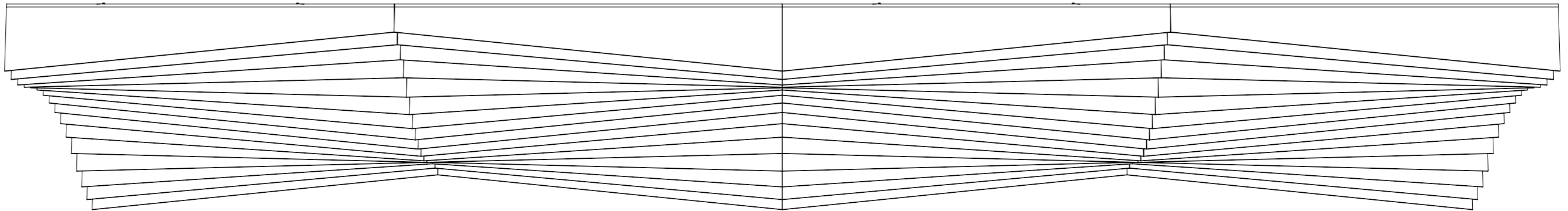
TALUS
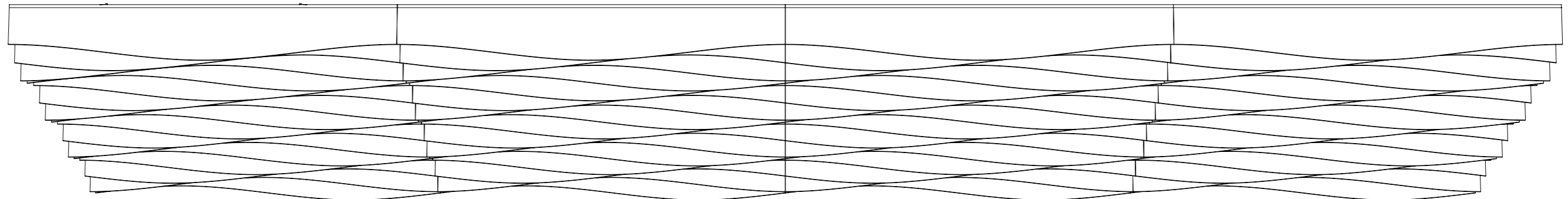
NOTES

- Recommended guide for listed ceiling coverage is for the fin spacing to be equal to the fin height.

FIN SPACING = FIN HEIGHT

- Fin height is inclusive of the Autex Frontier Extrusion

Fin Height

6mm

2400mm

50mm

℄ 100mm

100mm

2400mm

75mm

℄ 150mm

150mm

2400mm

100mm

℄ 200mm

200mm

2400mm

150mm

℄ 306mm

300mm

1x Pack of 12 mm Fins = 5.76 m²

2400mm

2400mm

1200mm

1x Pack of 24 mm Fins = 2.88 m²

1200mm

2400mm

1200mm

Autex
Acoustics®
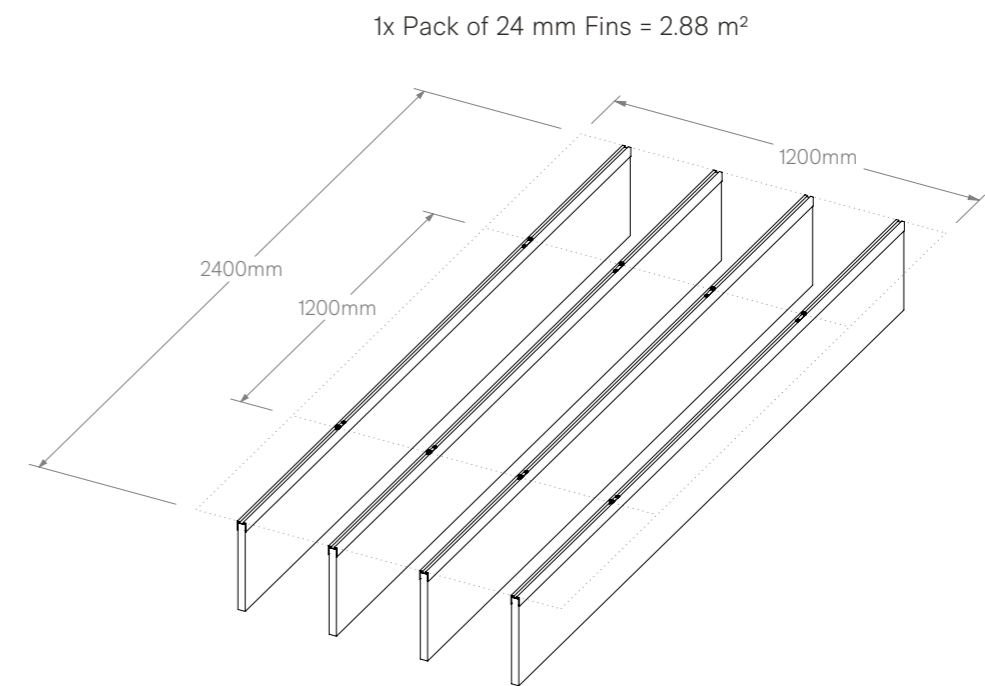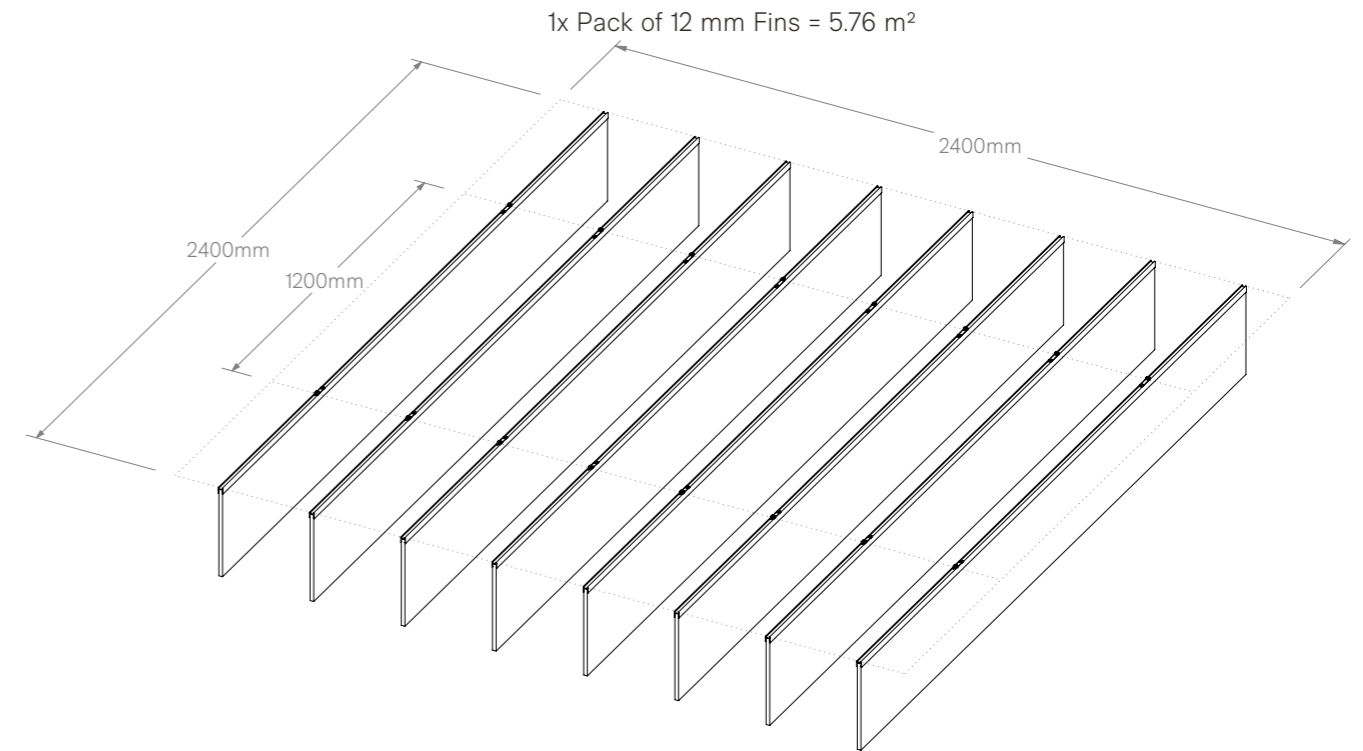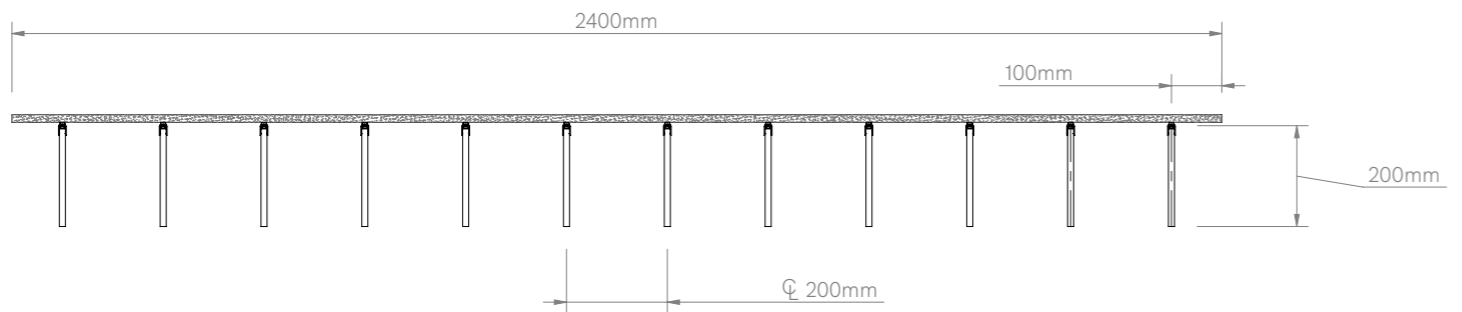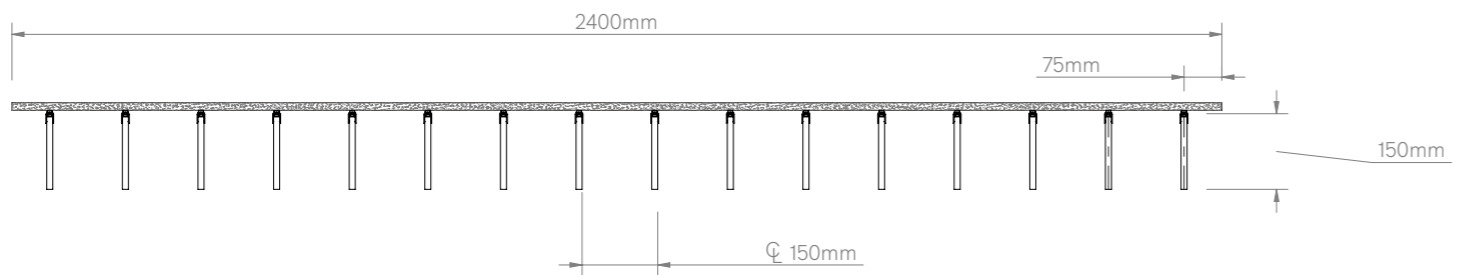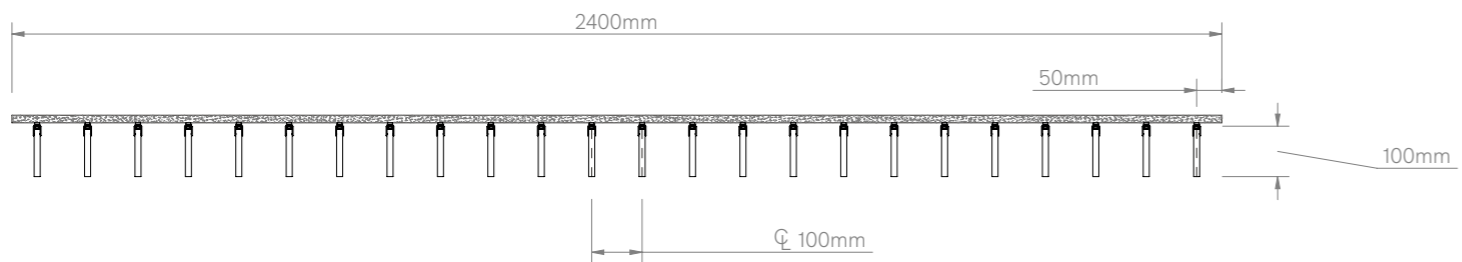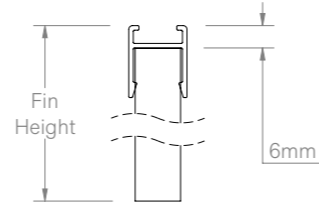
1.

Using a rubber mallet, seat the channel onto the fin.

2.
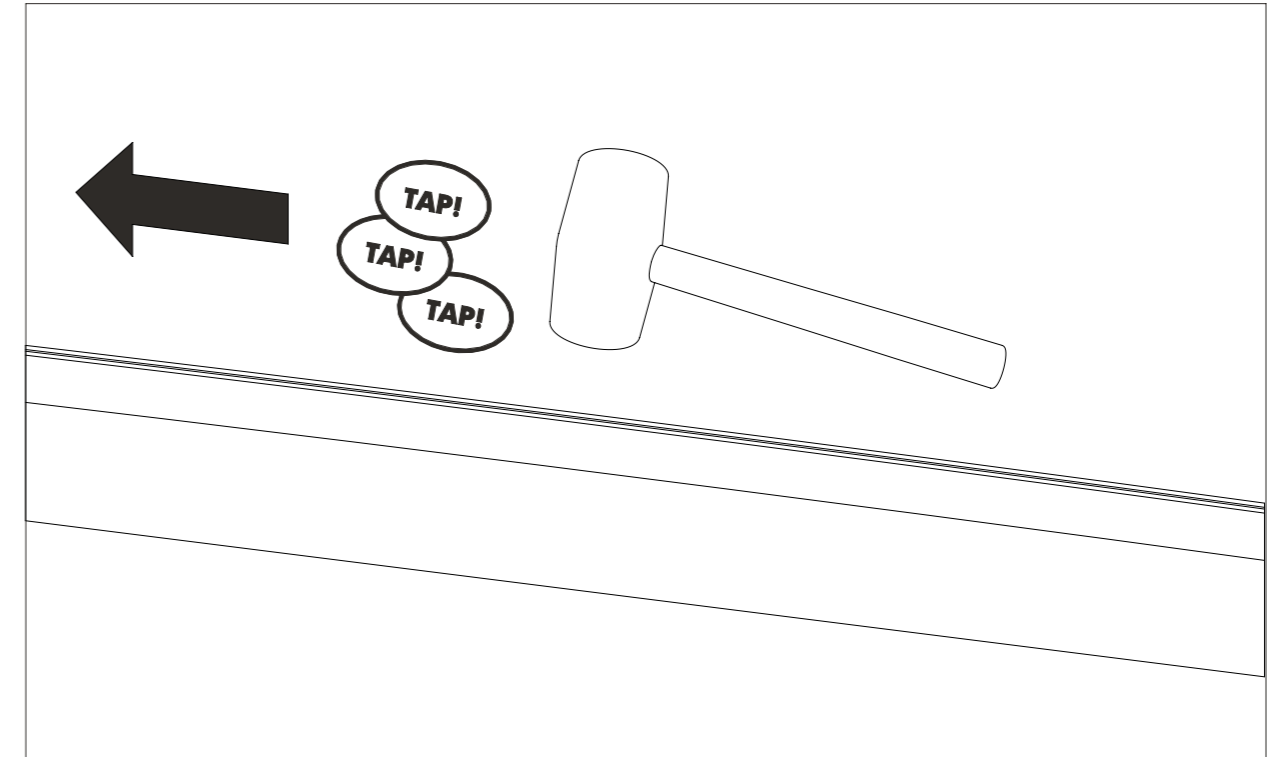
Starting at one end and using the mallet, tap along the length of the channel to ensure there is no bowing in the centre and the channel is seated correctly.
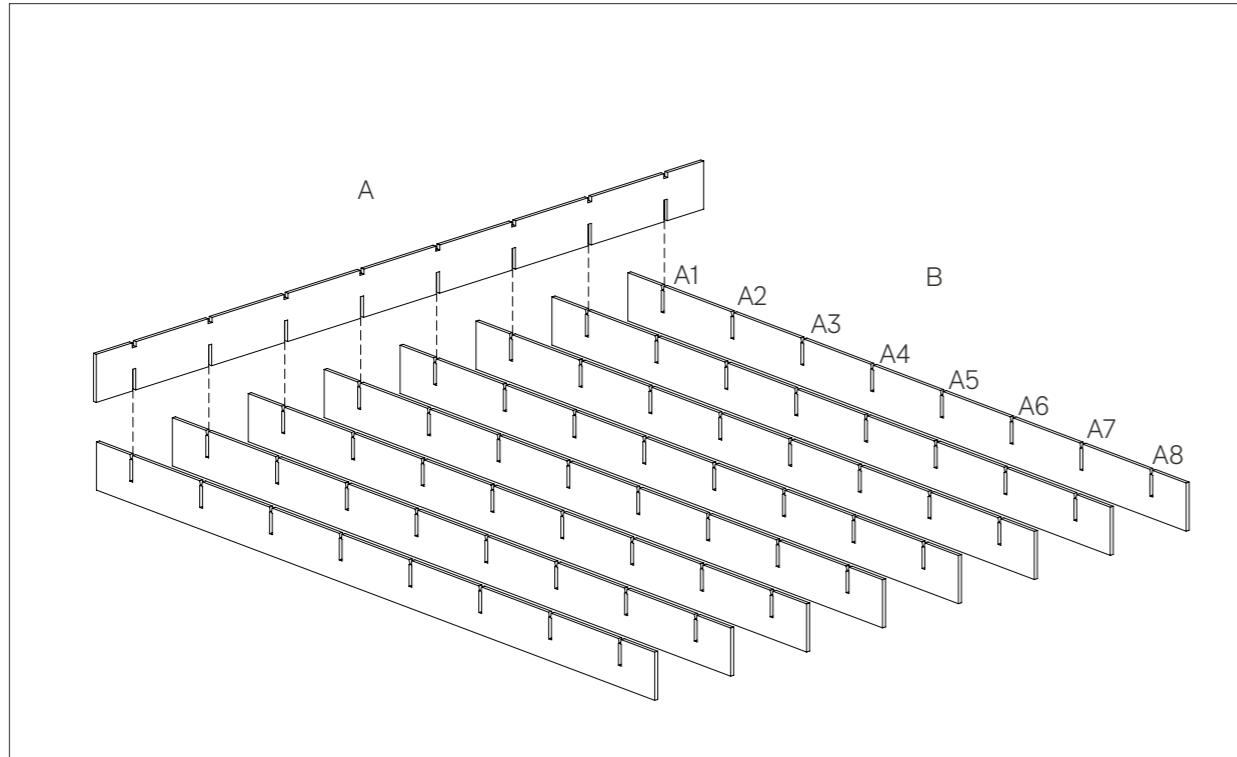
3.
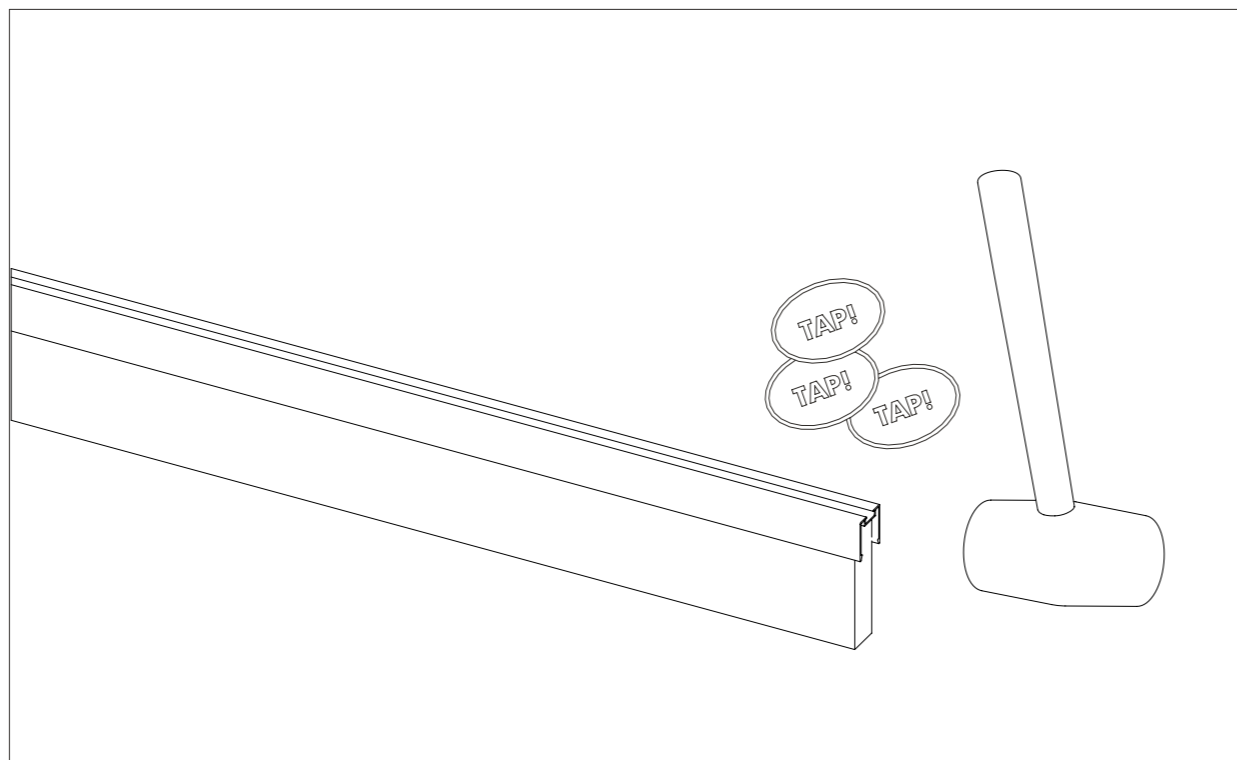
Ensure the end of the channel is aligned with the Frontier Fin by tapping the overhanging end of the extrusion.
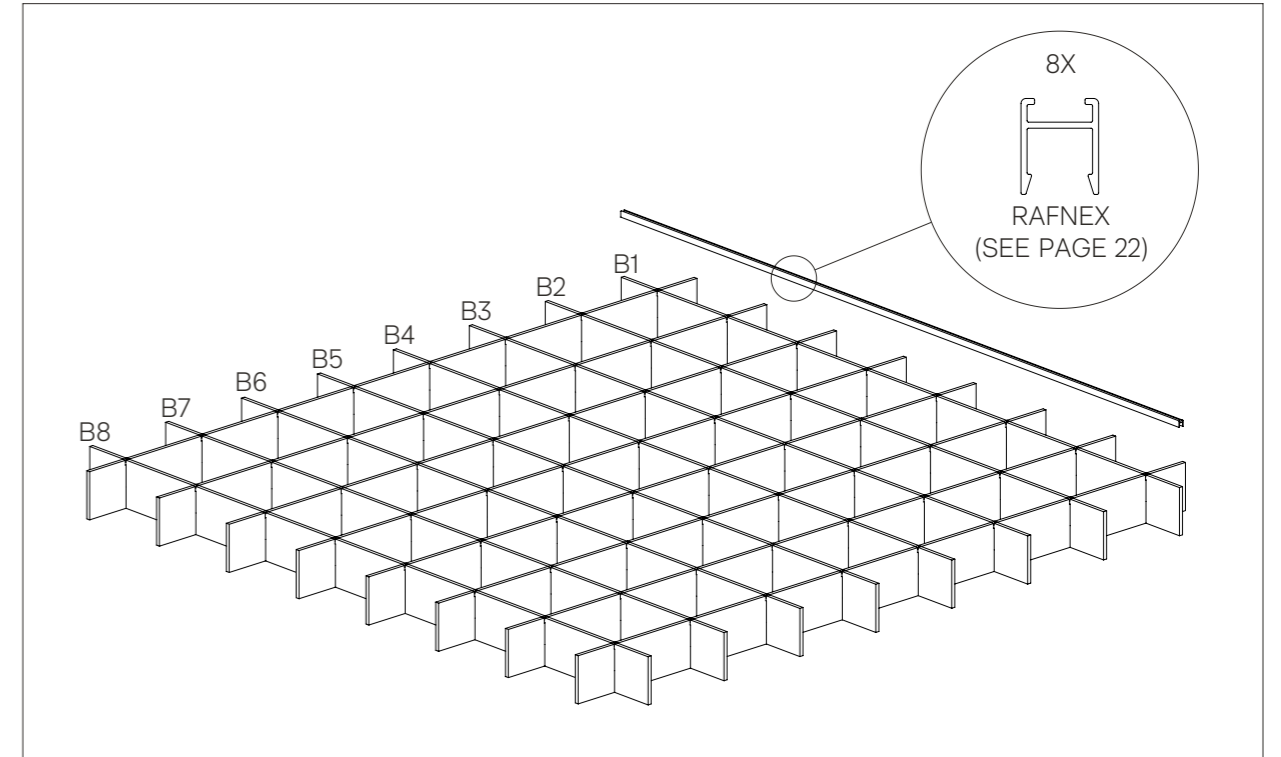
4.
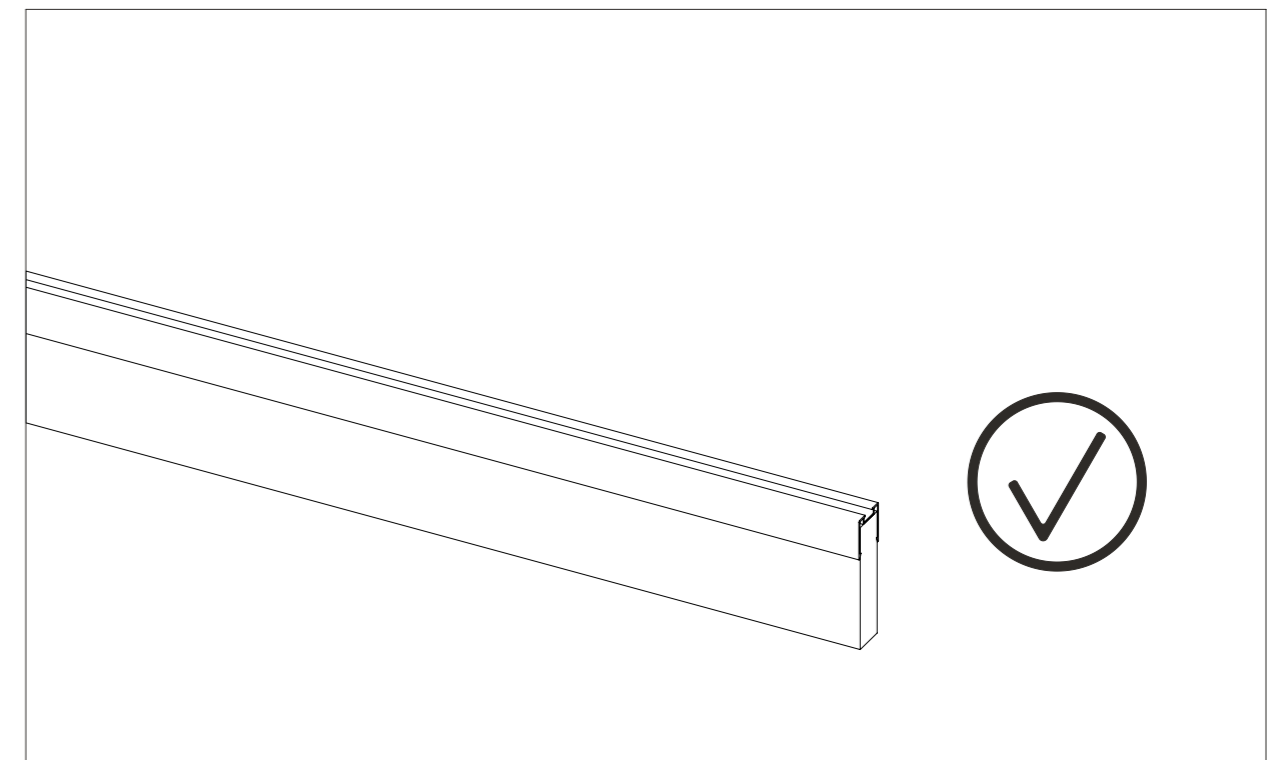
The Frontier Fin is now ready for installation to the ceiling.

1.

In the Frontier Axis pack there are two types of Fin (A & B). Part A has two notches and the small notch should be facing up when inserted into Part B.

2.

8X

RAFNEX
(SEE PAGE 22)

Using a rubber mallet, attach the 8x Rafnex channels along the lengths of the 'B' fins to lock the Axis Fins together in a grid.

3.


2x

RAFNEX24
(SEE PAGE 22)

16x

RAFTCC
(SEE PAGE 22)

1500mm mm
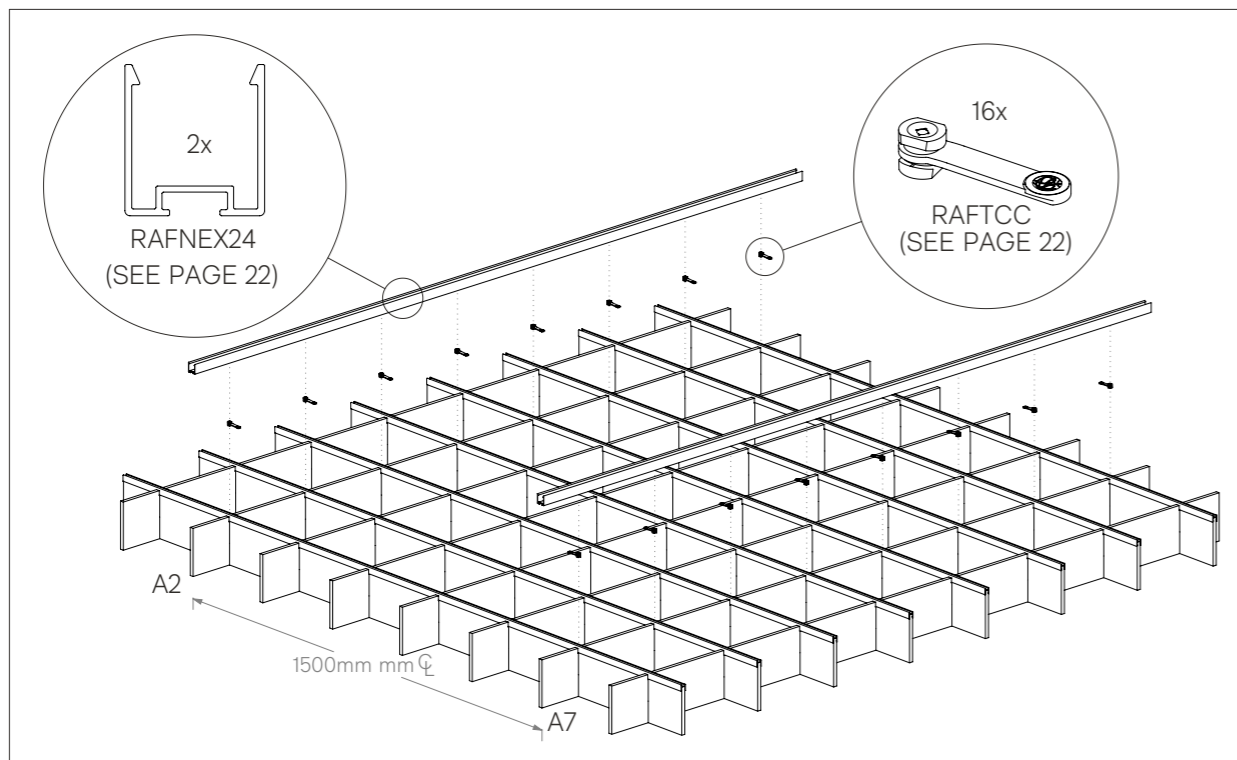
To attach the included 2x RAFNEX24 cross rails, first clip the 16x Autex Mounting Clips at the intersection points along the A2 & A7 Rails. Press the Crossrail onto the clips so they click into place.

4.

16x
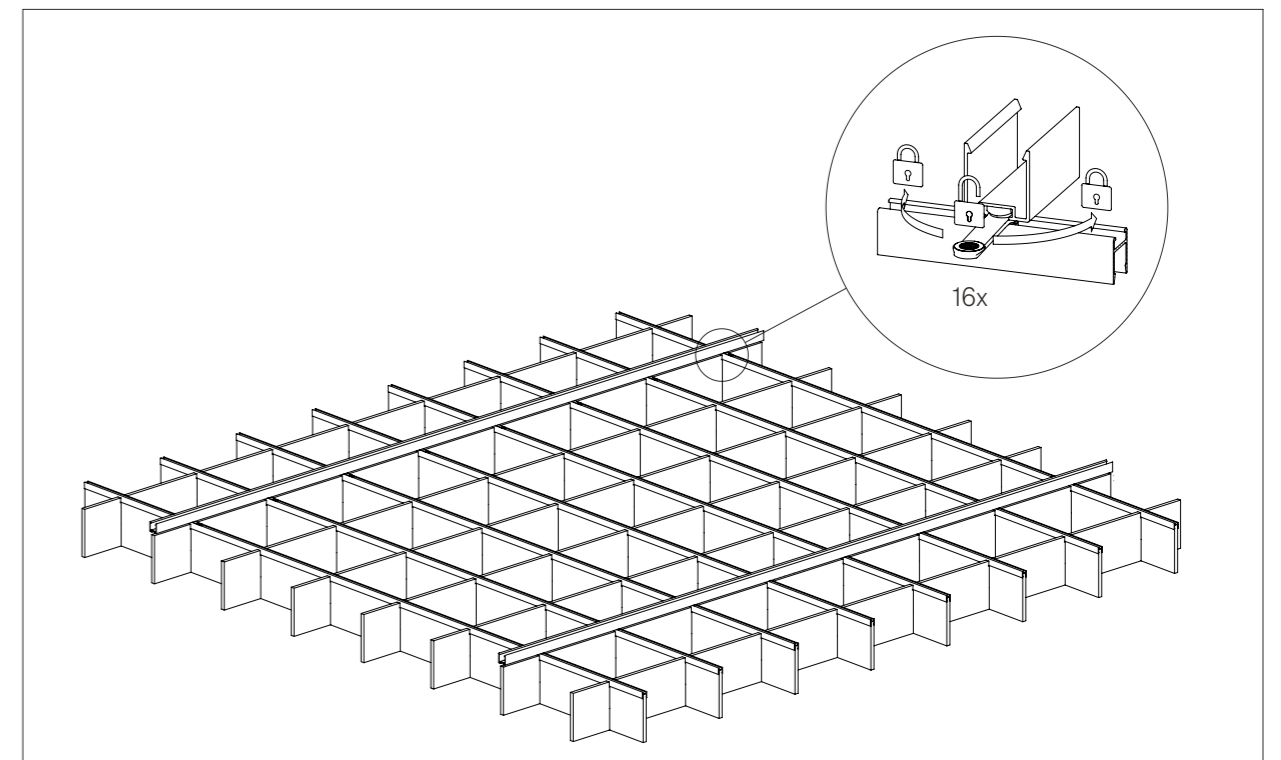
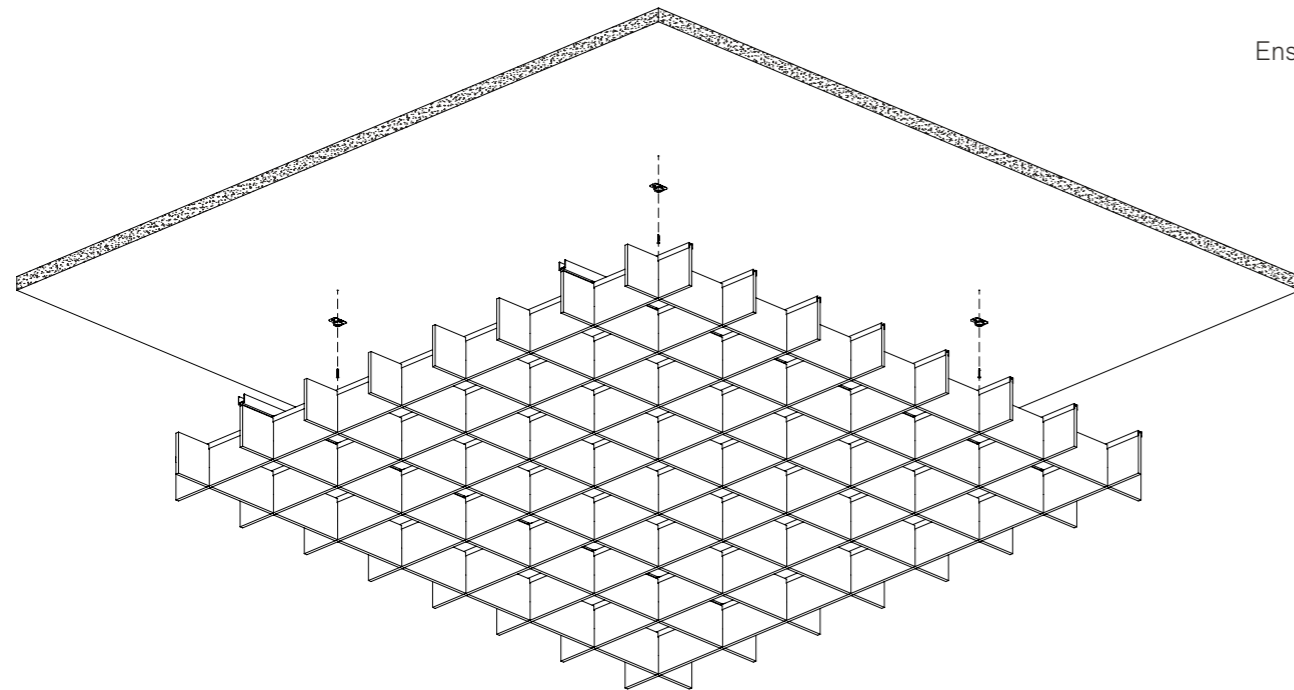Twist the Autex Mounting Clips 90deg to lock them off. The Frontier Axis Grid is now ready for installation to the ceiling.

CEILING SETOUT

1500mm

1500mm
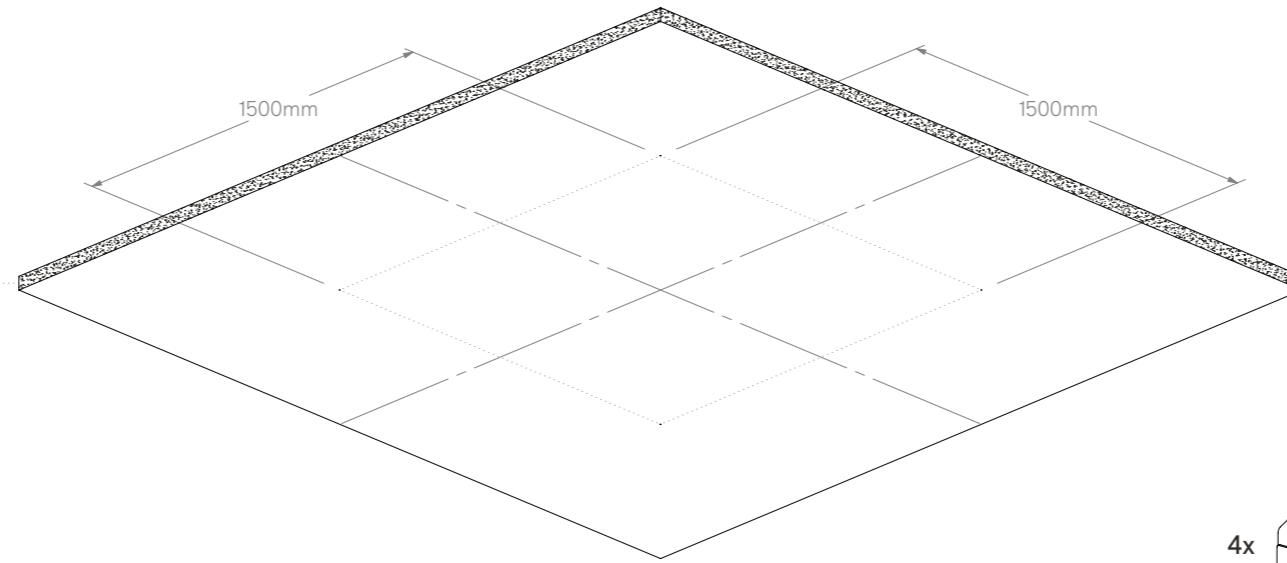
*Can be replaced by a rigid suspension set if required. See pages 23-28 for suggested details

4x

RAFWCP
(SEE PAGE 22)

4x

RAFWCP
(SEE PAGE 22)
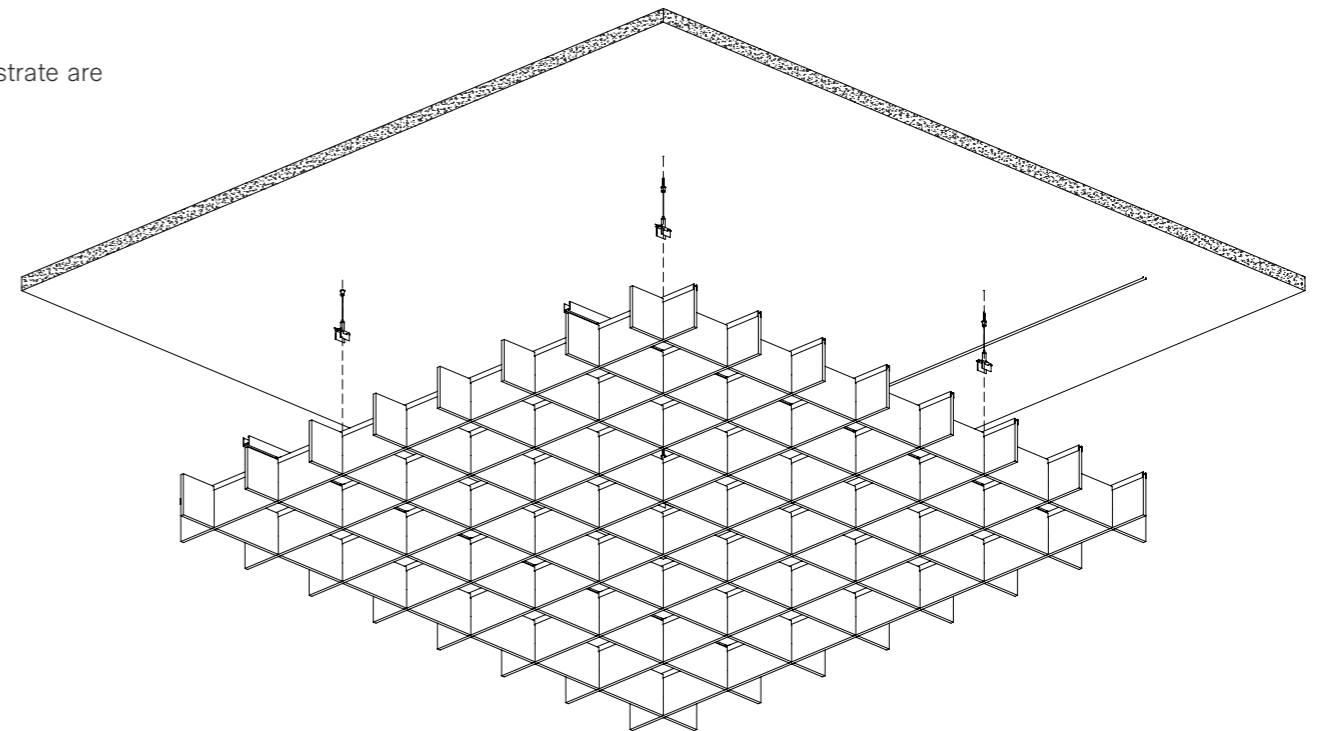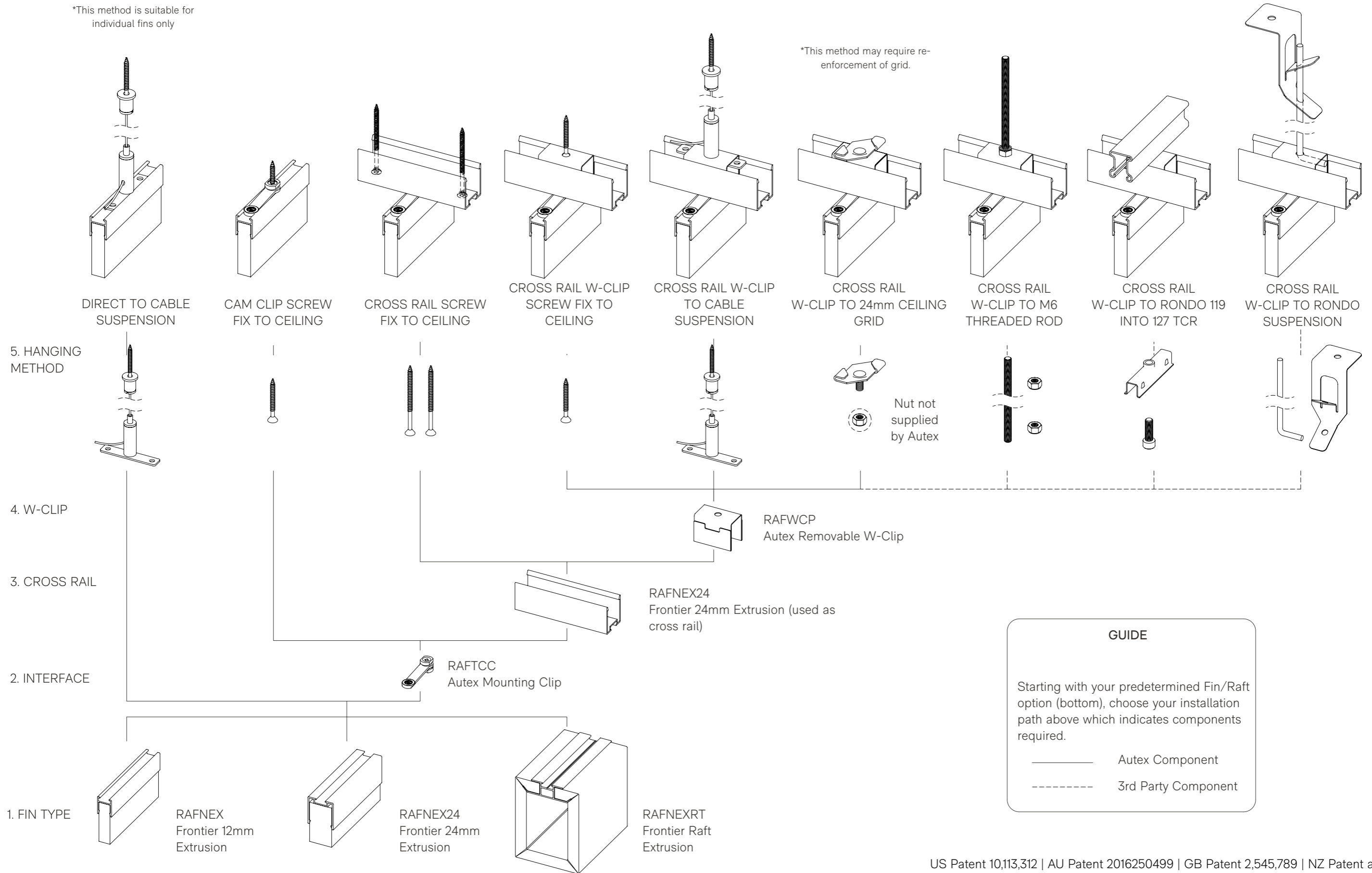
+

2X SETS

RAHVAS*
(SEE PAGE 22)
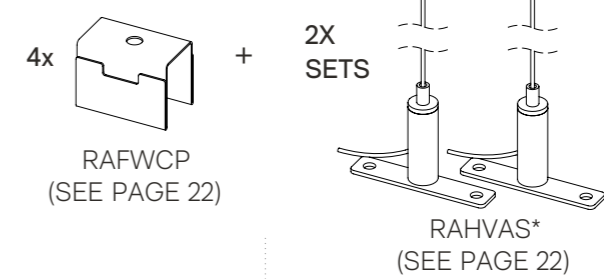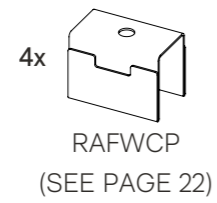
DIRECT FIX TO CEILING

Ensure suitable fasteners for substrate are used
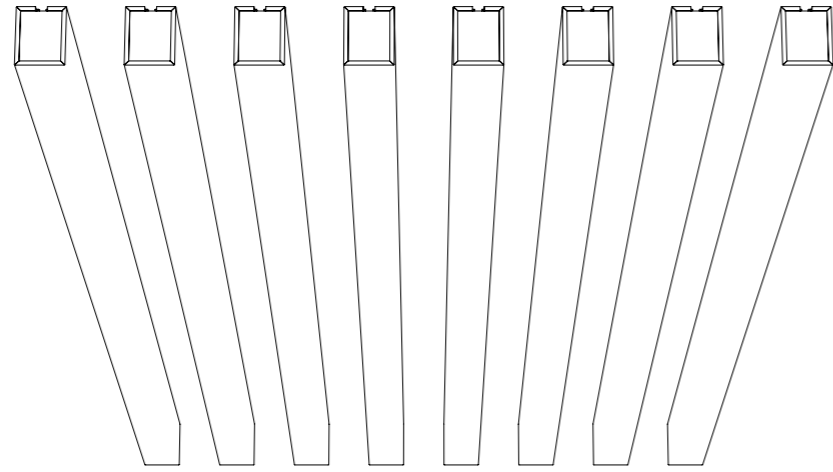(NOT SUPPLIED)

SUSPENDED FROM CEILING

Autex Acoustics®

*This method is suitable for individual fins only

*This method may require re-enforcement of grid.

DIRECT TO CABLE SUSPENSION

CAM CLIP SCREW FIX TO CEILING

CROSS RAIL SCREW FIX TO CEILING

CROSS RAIL W-CLIP SCREW FIX TO CEILING

CROSS RAIL W-CLIP TO CABLE SUSPENSION

CROSS RAIL W-CLIP TO 24mm CEILING GRID

CROSS RAIL W-CLIP TO M6 THREADED ROD

CROSS RAIL W-CLIP TO RONDO 119 INTO 127 TCR

CROSS RAIL W-CLIP TO RONDO SUSPENSION

5. HANGING METHOD

Nut not supplied by Autex

4. W-CLIP

RAFWCP
Autex Removable W-Clip

3. CROSS RAIL

RAFNEX24
Frontier 24mm Extrusion (used as cross rail)

2. INTERFACE

RAFTCC
Autex Mounting Clip

1. FIN TYPE

RAFNEX
Frontier 12mm Extrusion

RAFNEX24
Frontier 24mm Extrusion

RAFNEXRT
Frontier Raft Extrusion

GUIDE

Starting with your predetermined Fin/Raft option (bottom), choose your installation path above which indicates components required.

——————— Autex Component

- - - - - - - - - 3rd Party Component

US Patent 10,113,312 | AU Patent 2016250499 | GB Patent 2,545,789 | NZ Patent app 725770

RAFT BEAM 100
1X PACK SHOWN

RAFT BLADE
1X PACK SHOWN
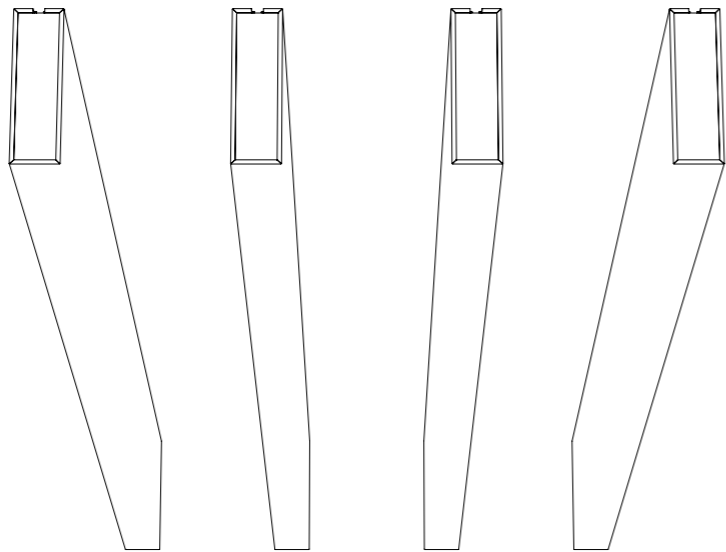
RAFT BEAM 250
1X PACK SHOWN

RAFT TRAPEZOID
1X PACK SHOWN

Autex
Acoustics®

BEAM 100

87mm
70 mm

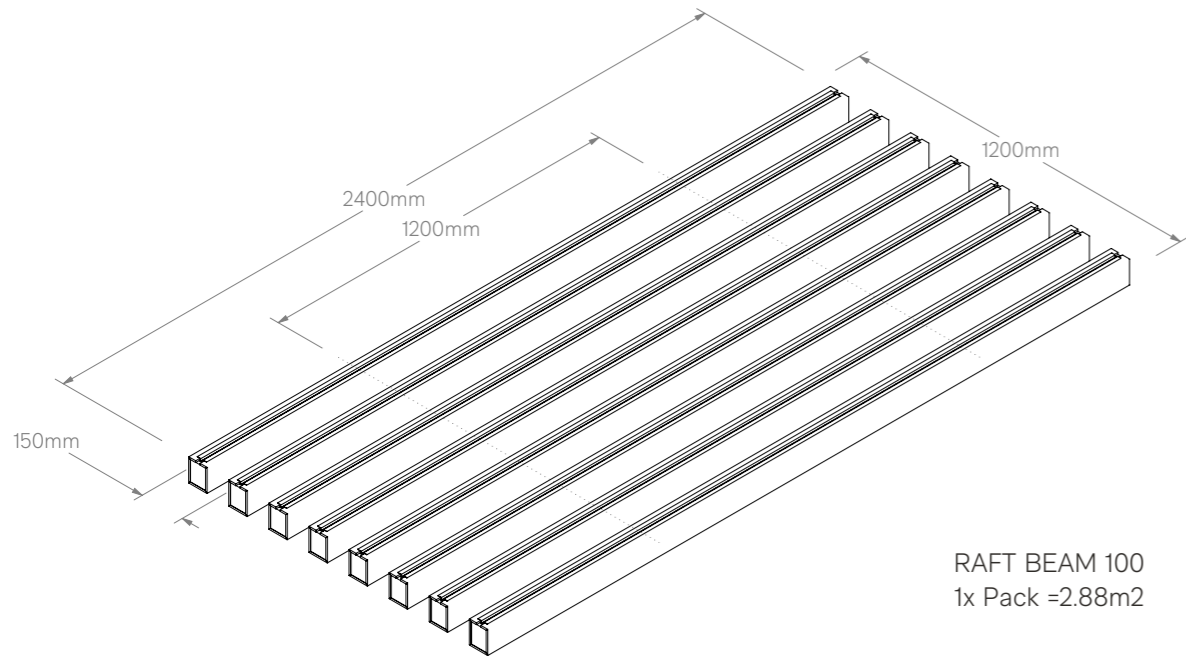BEAM 250

227mm
70 mm

BLADE

247mm
70mm

TRAPEZOID

137mm
200 mm
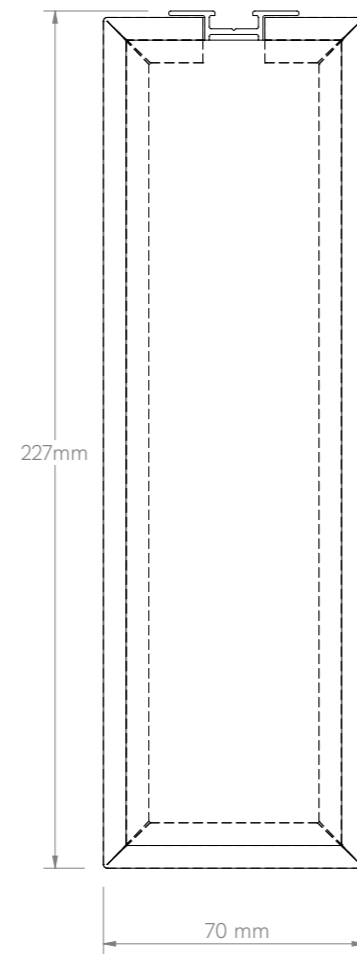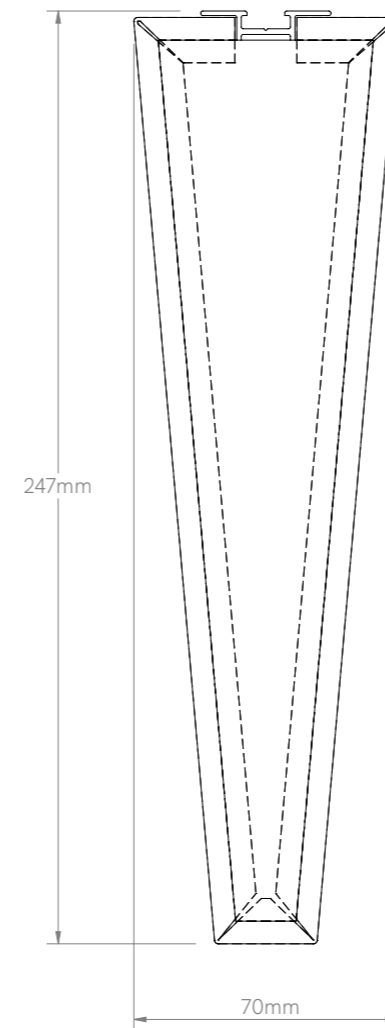
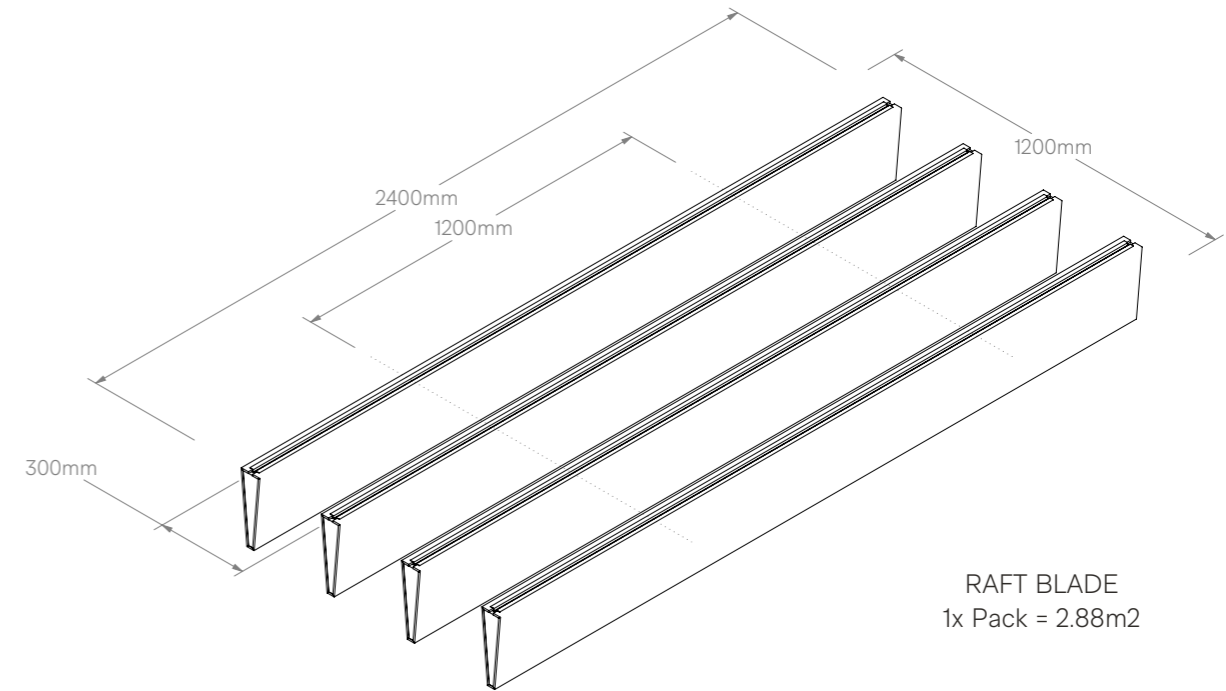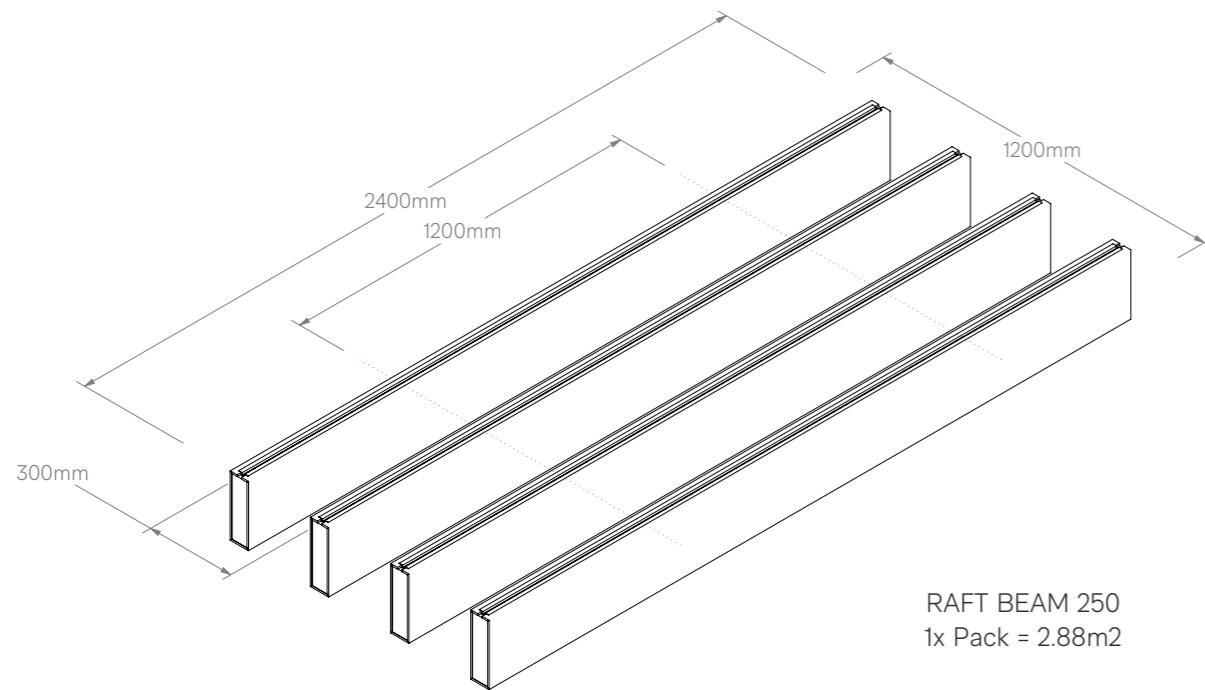**NOTES**
- Raft height is inclusive of the Autex frontier Raft Extrusion
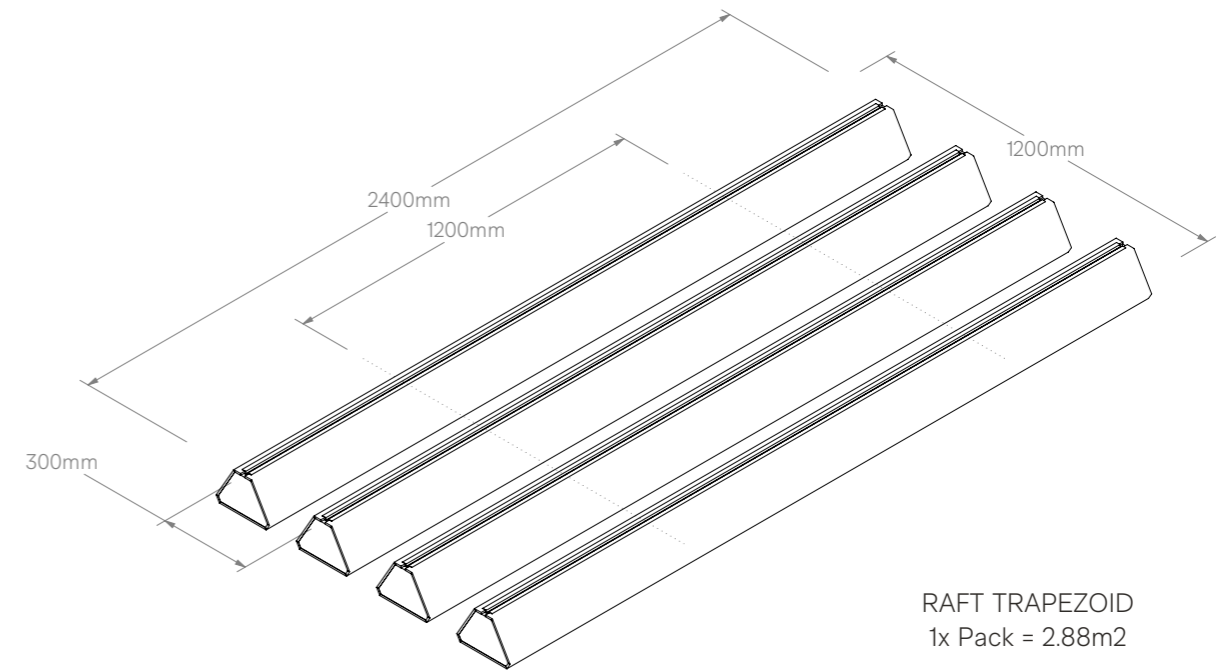- Refer to page 19 for recommended Raft spacing (X).

Autex
Acoustics®

1200mm
2400mm
1200mm
150mm

RAFT BEAM 100
1x Pack =2.88m2

1200mm
2400mm
1200mm
300mm

RAFT BLADE
1x Pack = 2.88m2

1200mm
2400mm
1200mm
300mm

RAFT BEAM 250
1x Pack = 2.88m2

1200mm
2400mm
1200mm
300mm

RAFT TRAPEZOID
1x Pack = 2.88m2

BEAM 100

75mm | 150mm | 150mm | 150mm | 150mm | 150mm | 150mm | 150mm | 75mm

BEAM 250

150mm | 300mm | 300mm | 300mm | 150mm

BLADE

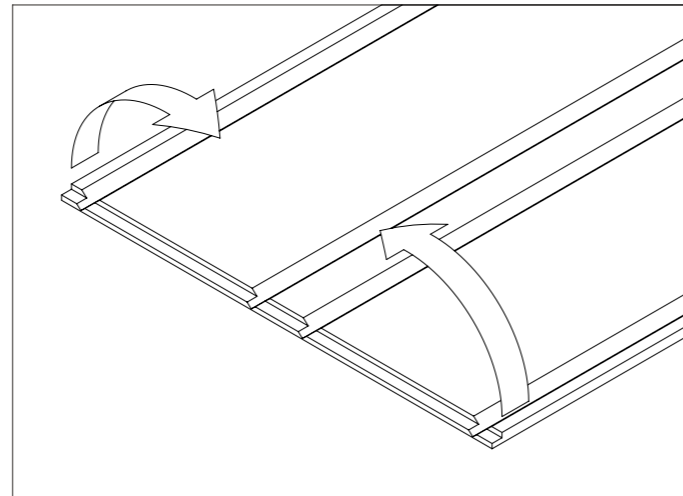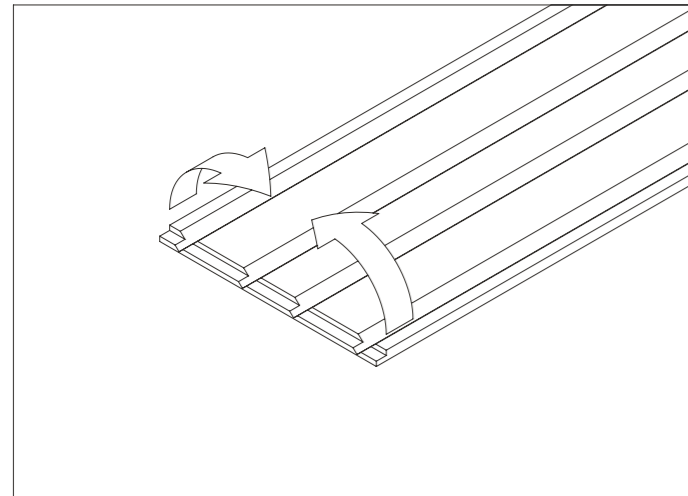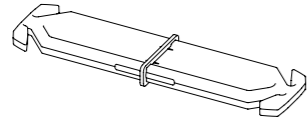150mm | 300mm | 300mm | 300mm | 150mm

TRAPEZOID

150mm | 300mm | 300mm | 300mm | 150mm
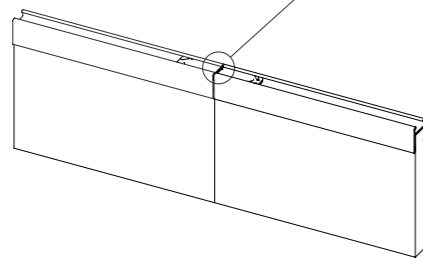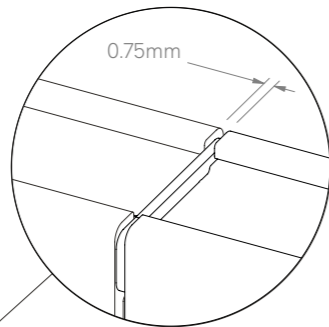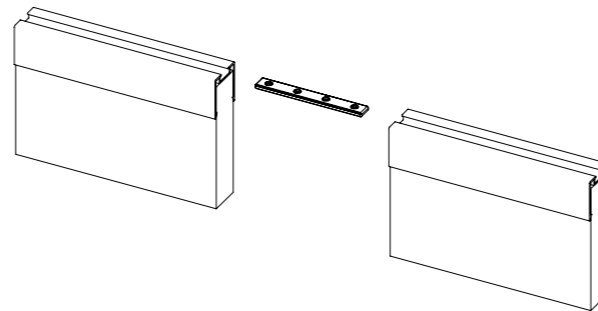
Autex
Acoustics®
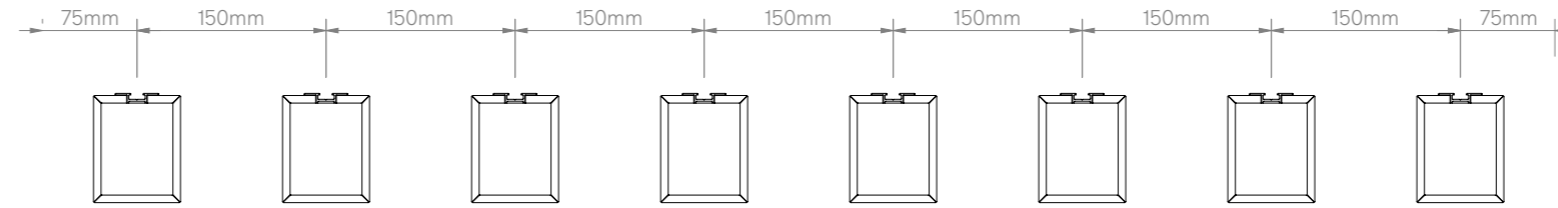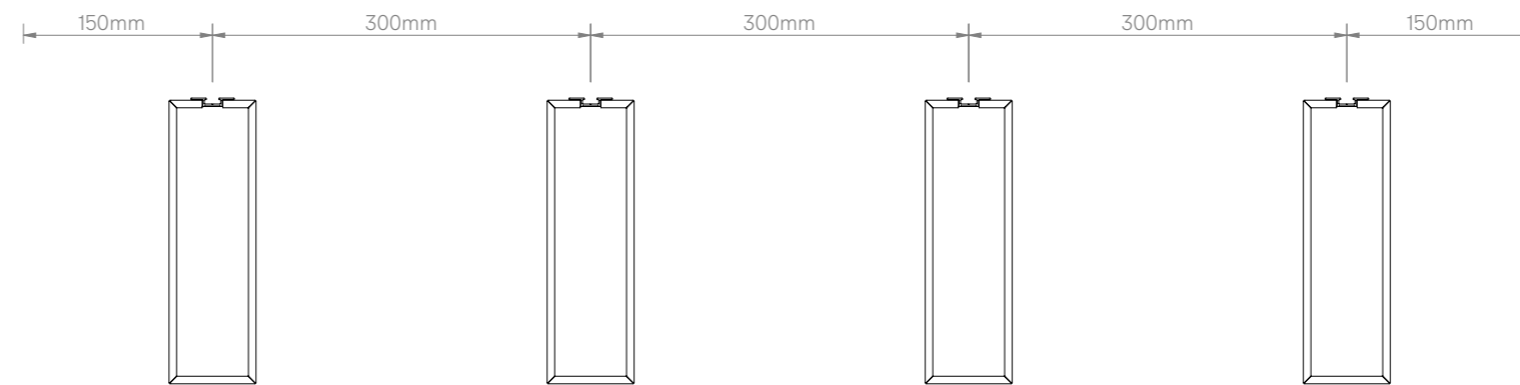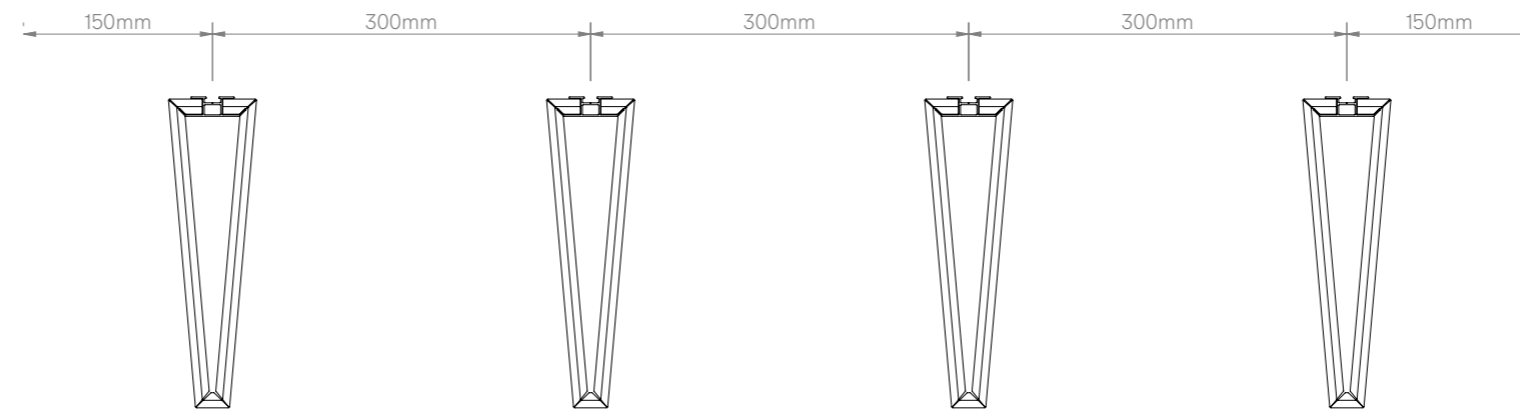
BEAM 100

BEAM 250

BLADE

TRAPEZOID
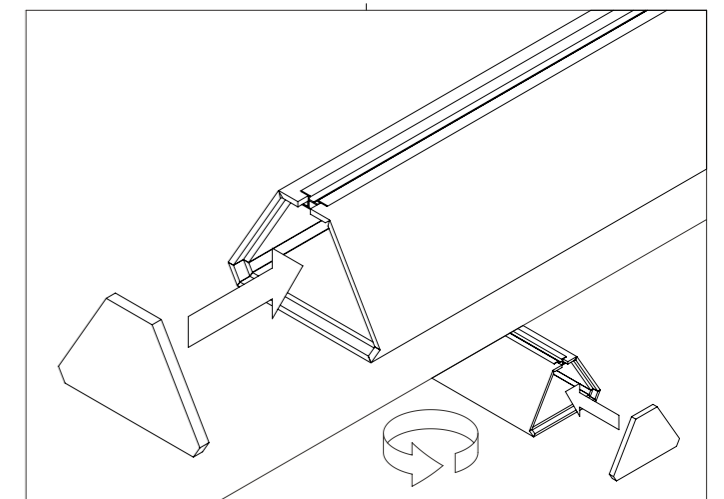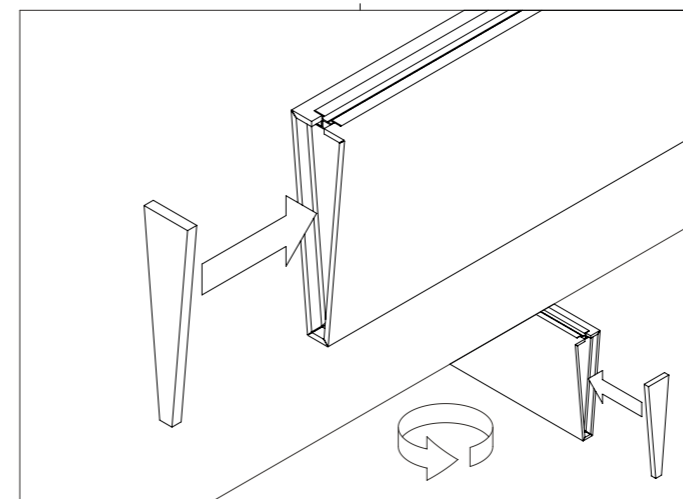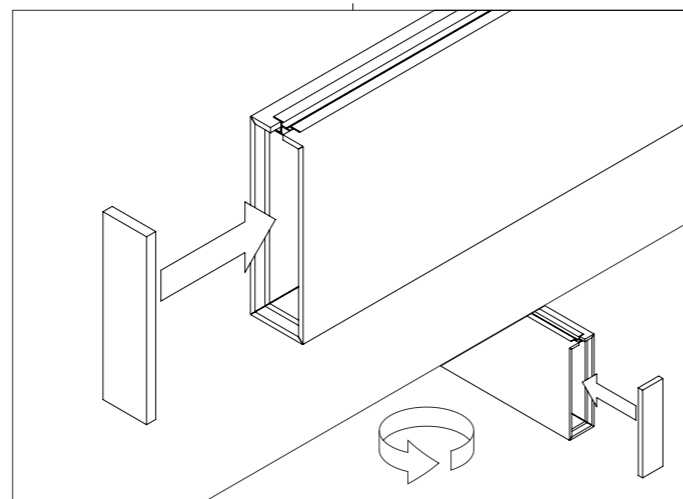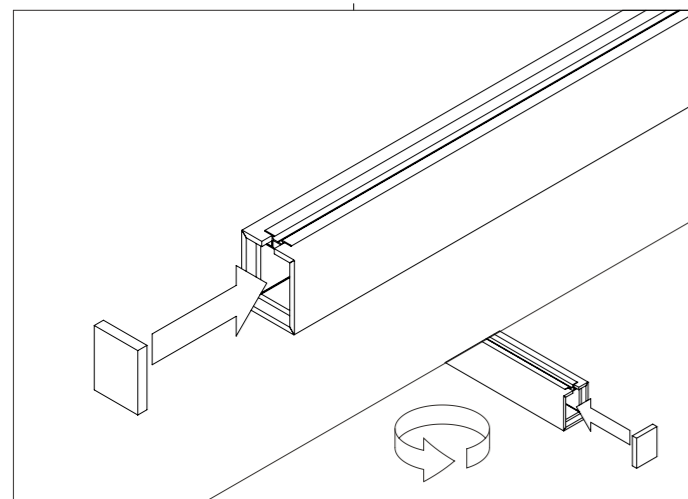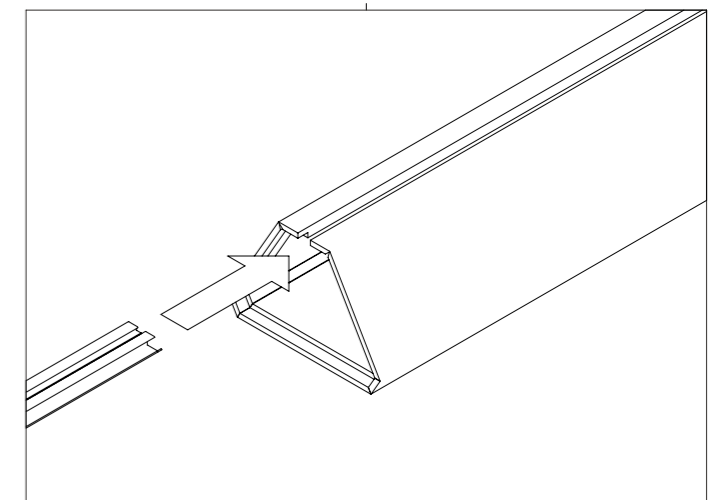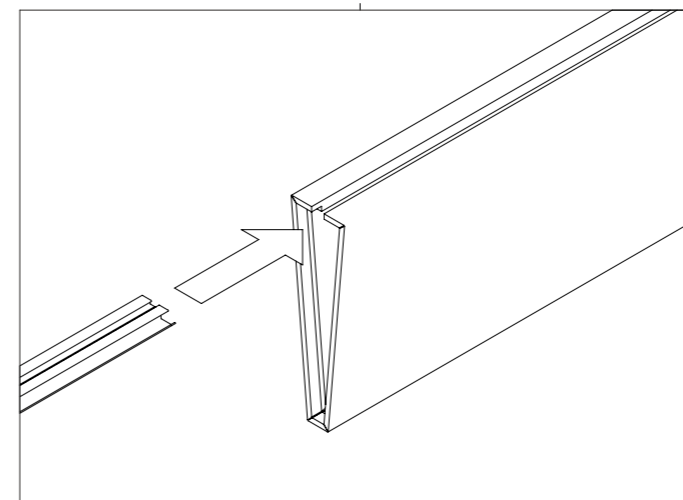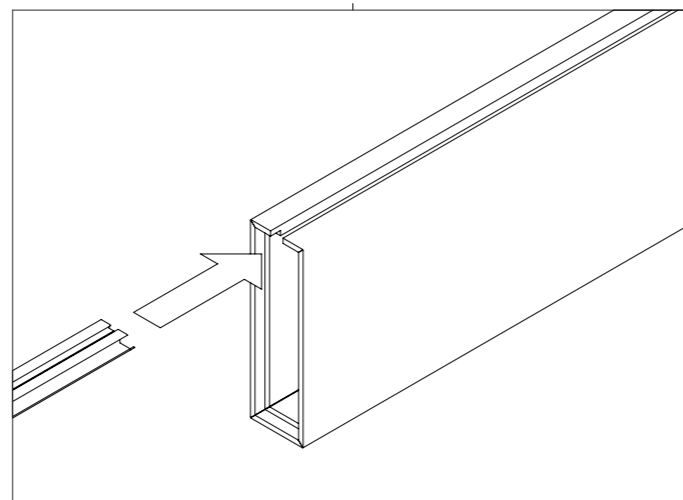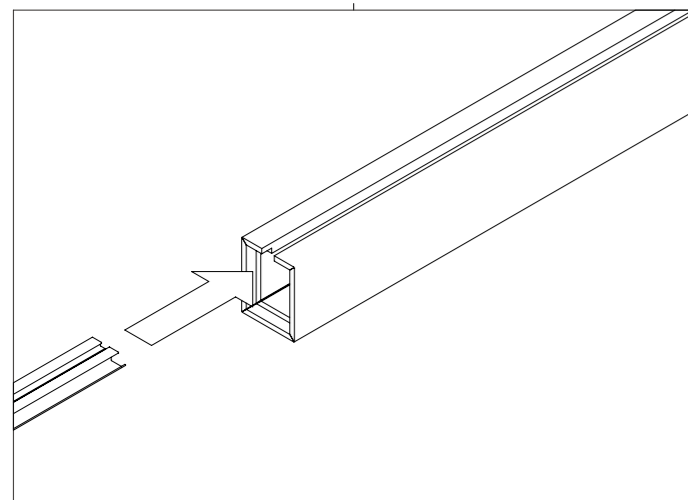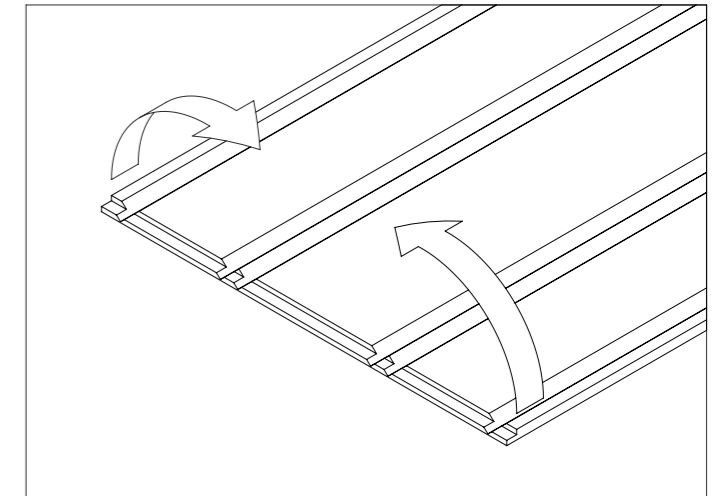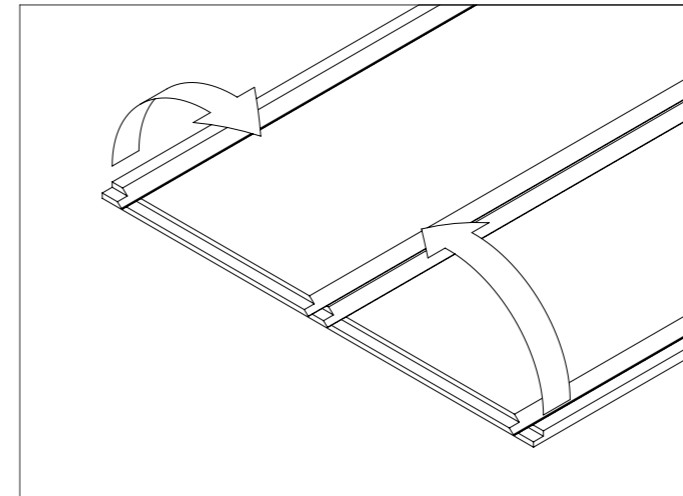
RAFCCT

Light duty plastic connector used to join direct fixed rails.

Both joiners are compatible with all extrusion sizes
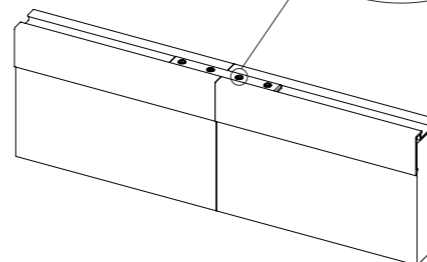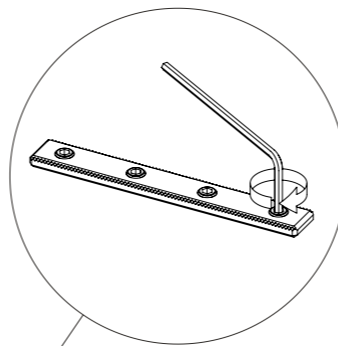
RAFHDCC

Heavy duty diecast connector with 4x grub screws used to join cross rails and/or suspended rails.

NOTE: A gap smaller than 1 mm will be present between the extrusions.
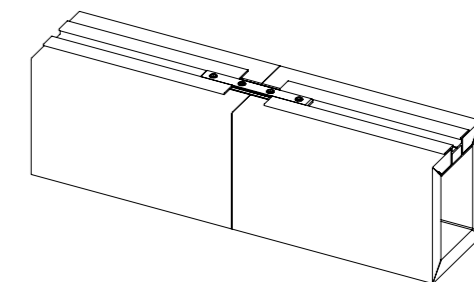
0.75mm

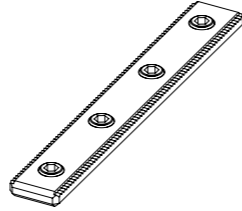NOTE: Grub screws to be tightened to secure joiner in place.
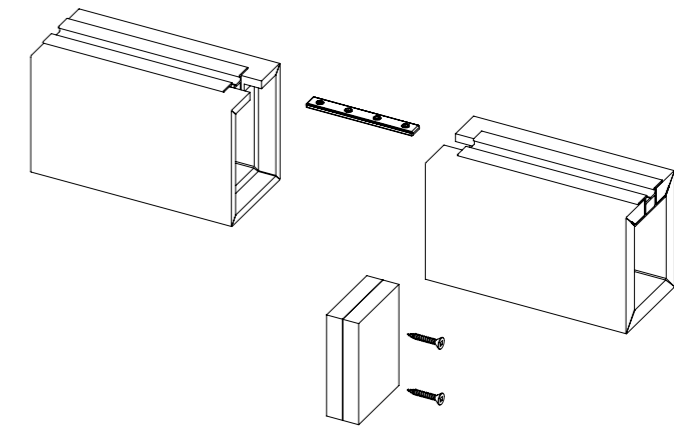
NOTE: In addition to joiner, screw the end caps together to create a cleaner join
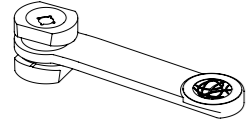
RAFTCC
Autex Mounting Clip

RAFHDCC
Autex Heavy Duty Frontier
Channel Connector with
4x M5 Grub Screws

RAHVAS
Autex Adjustable
Suspension Set 1000 mm
cable - Channel Connection
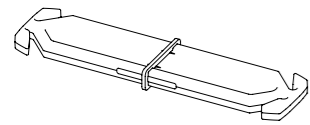
RAFCCT
Autex Frontier Channel Connector
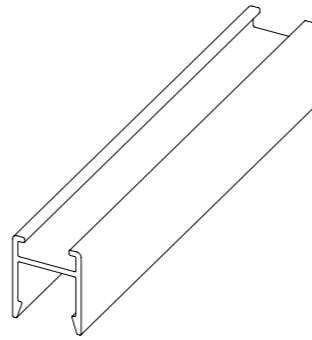
RAFNEX
Frontier 12mm Extrusion
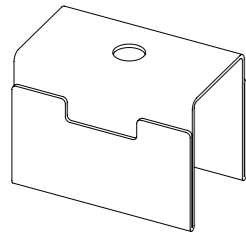
RAFWCP
Autex Removable W-Clip

RAFNEX24
Frontier 24mm Extrusion

RAH3MBE
3m Steel Cable with
Ball End

RAFM6GC
24mm Ceiling Grid Connector with
M6 Thread
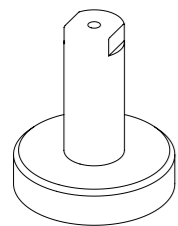
RAFM6MP
Magnet Pot with M6 Thread and Cable
Adaptor

RAFNEXRT
Frontier Raft Extrusion
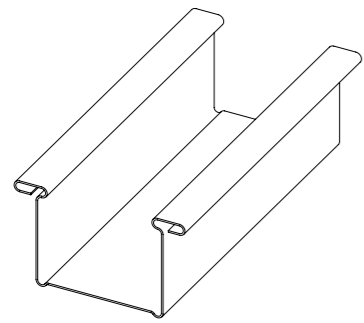
RONDO 129
28mm Furring Channel
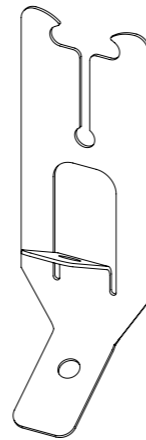
RONDO 2534
Top Cross Rail
Suspension Clip
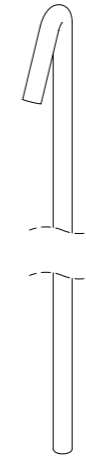
RONDO 121
5mm Soft Galvanised Suspension
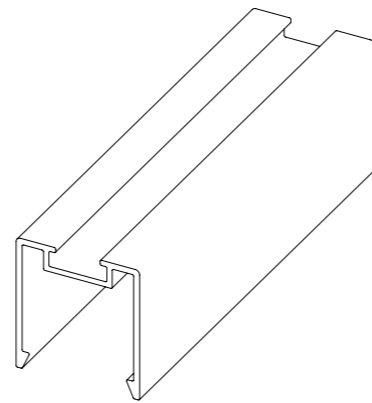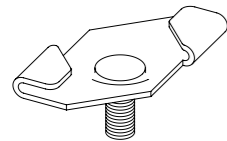Rod

RONDO 719
Adjustable
Suspension Clip
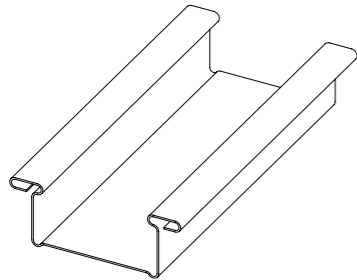
RONDO 308
16mm Furring Channel
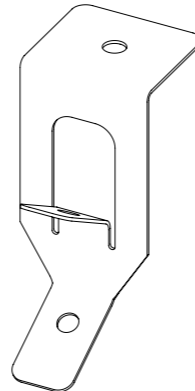
RONDO 547
Adjustable Suspension Hanger
(Concrete)
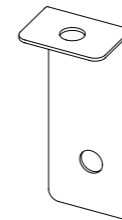
RONDO 247
121 to Concrete
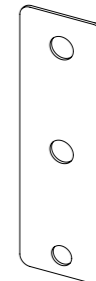
RONDO 274
121 to Timber
/Steel Joist
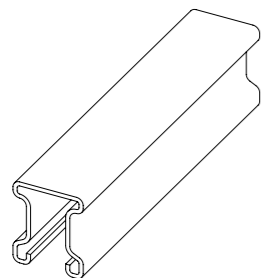
RONDO TCR 127
25mm Top Cross Rail
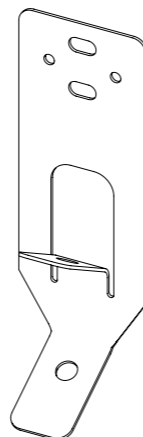
RONDO 534
Adjustable Suspension Hanger
(Purlins)
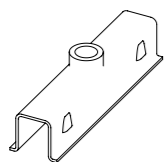
RONDO 119
U Clip

NOTE

Rondo components are supplied by a 3rd party
and may not be available in all territories.

Other brands may have comparable
components. Check with your account
manager.

Autex Acoustics®

Suggested Ceiling Fixing Detail		
Substrate	Fixing	Minimum Embedment
Concrete	Hilti-HUS3-HR6	40 mm
Steel	Stainless Steel 8G Tek Screw	0.55 mm
Timber	Stainless Steel 8G Wood Screw	30 mm

SCREW FIXING
Suitable for Substrate (NOT SUPPLIED)

RAHVAS
Autex Adjustable
Suspension Set - Channel

RAFWCP
Autex Removable W-Clip

RAFNEX24
Autex Frontier 24 mm
Extrusion

RAFTCC
Autex Mounting Clip

RAFNEX
Autex Frontier 12 mm Extrusion +
Fin
- or -
RAFNEX24
Autex Frontier
24 mm Extrusion + Fin
- or -
RAFNEXRT
Autex Frontier Raft Extrusion +
Raft

NOTE: This suspension method is suitable for small installations only.
For larger installations refer to pages 25-29

Autex
Acoustics®

Suggested Ceiling Fixing Detail		
Substrate	Fixing	Minimum Embedment
Concrete	Hilti-HUS3-HR6	40 mm
Steel	Stainless Steel 8G Tek Screw	0.55 mm
Timber	Stainless Steel 8G Wood Screw	30 mm

SCREW FIXING
Suitable for Substrate (NOT
SUPPLIED)

RAHVAS
Autex Adjustable
Suspension Set - Channel

RAFNEX
Autex Frontier 12 mm Extrusion +
Fin
- or -
RAFNEX24
Autex Frontier
24 mm Extrusion + Fin
- or -
RAFNEXRT
Autex Frontier Raft Extrusion +
Raft

NOTE: This suspension method is
suitable for individual fins only.
Requires 1x RAHVAS set per fin.
For larger installations refer to pages 25-29

Autex Acoustics®

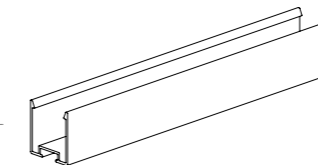| Suggested Ceiling Fixing Detail		
Substrate	Fixing	Minimum Embedment
Concrete	Hilti-HUS3-HR6	40 mm
Steel	Stainless Steel 8G Tek Screw	0.55 mm
Timber	Stainless Steel 8G Wood Screw	30 mm
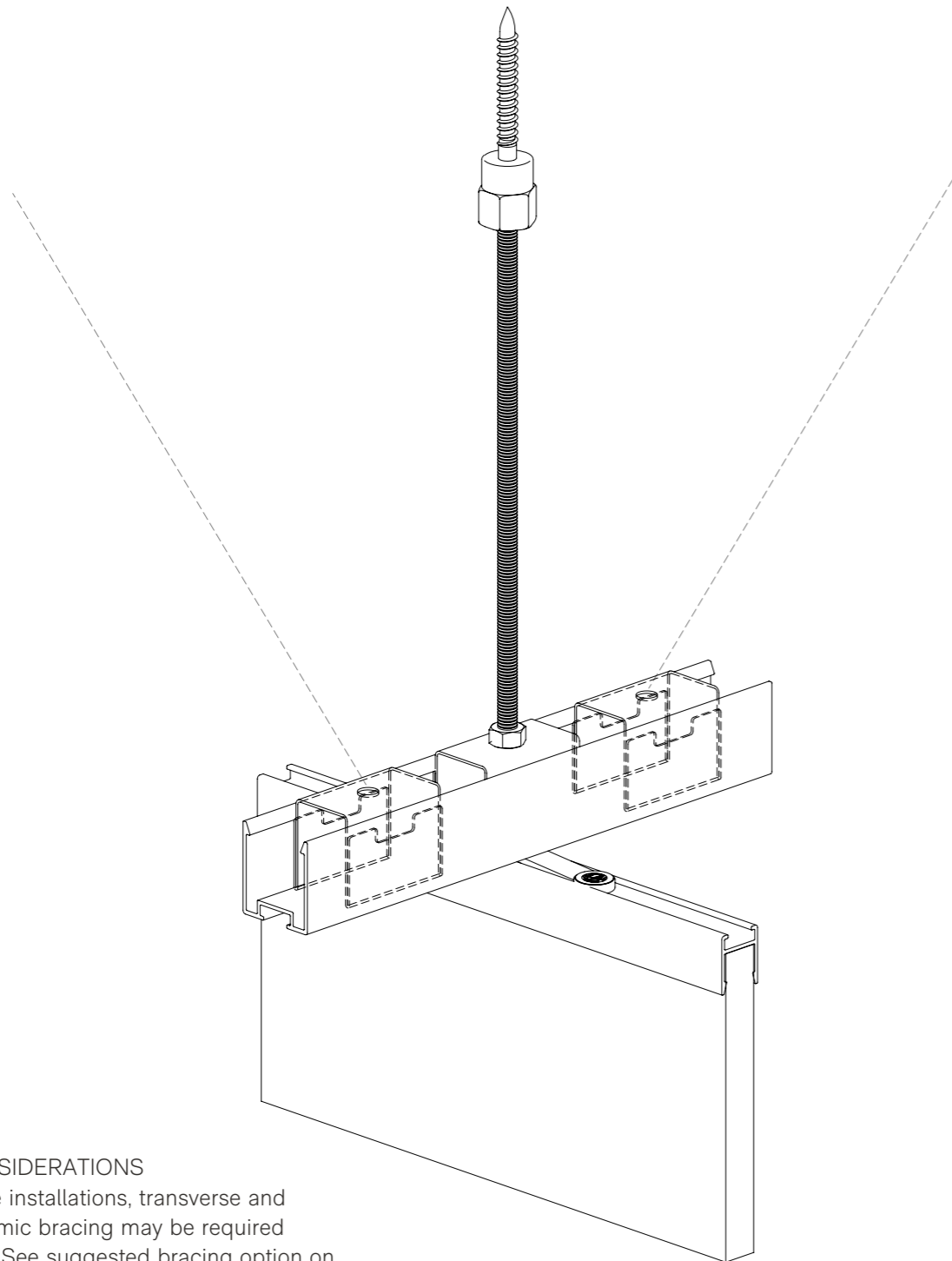
M6 BACK PLATE
(NOT SUPPLIED)

SCREW FIXINGS
Suitable for Substrate (NOT SUPPLIED)

M6 THREADED ROD
(NOT SUPPLIED)

M6 NUT
(NOT SUPPLIED)

RAFWCP
Autex Removable W-Clip

M6 NYLOC NUT
(NOT SUPPLIED)

RAFNEX24
Autex Frontier 24 mm Extrusion

RAFTCC
Autex Mounting Clip

RAFNEX
Autex Frontier 12 mm Extrusion + Fin
- or -
RAFNEX24
Autex Frontier 24 mm Extrusion + Fin
- or -
RAFNEXRT
Autex Frontier Raft extrusion + Raft

SEISMIC CONSIDERATIONS
For certain size installations, transverse and longitudal seismic bracing may be required (dashed lines). See suggested bracing option on page 29.

Suggested Ceiling Fixing Detail

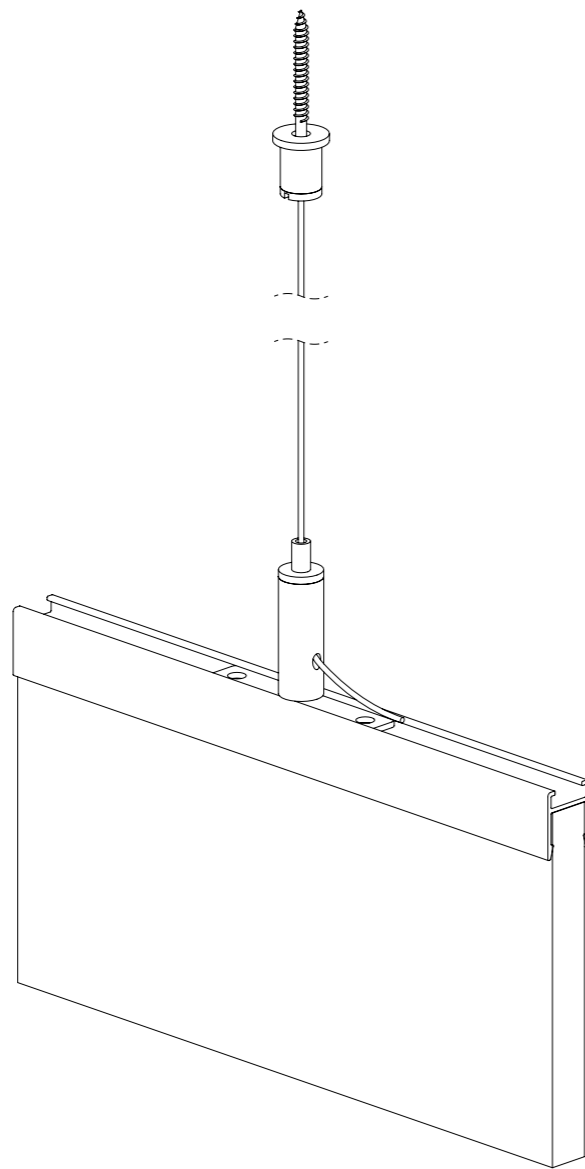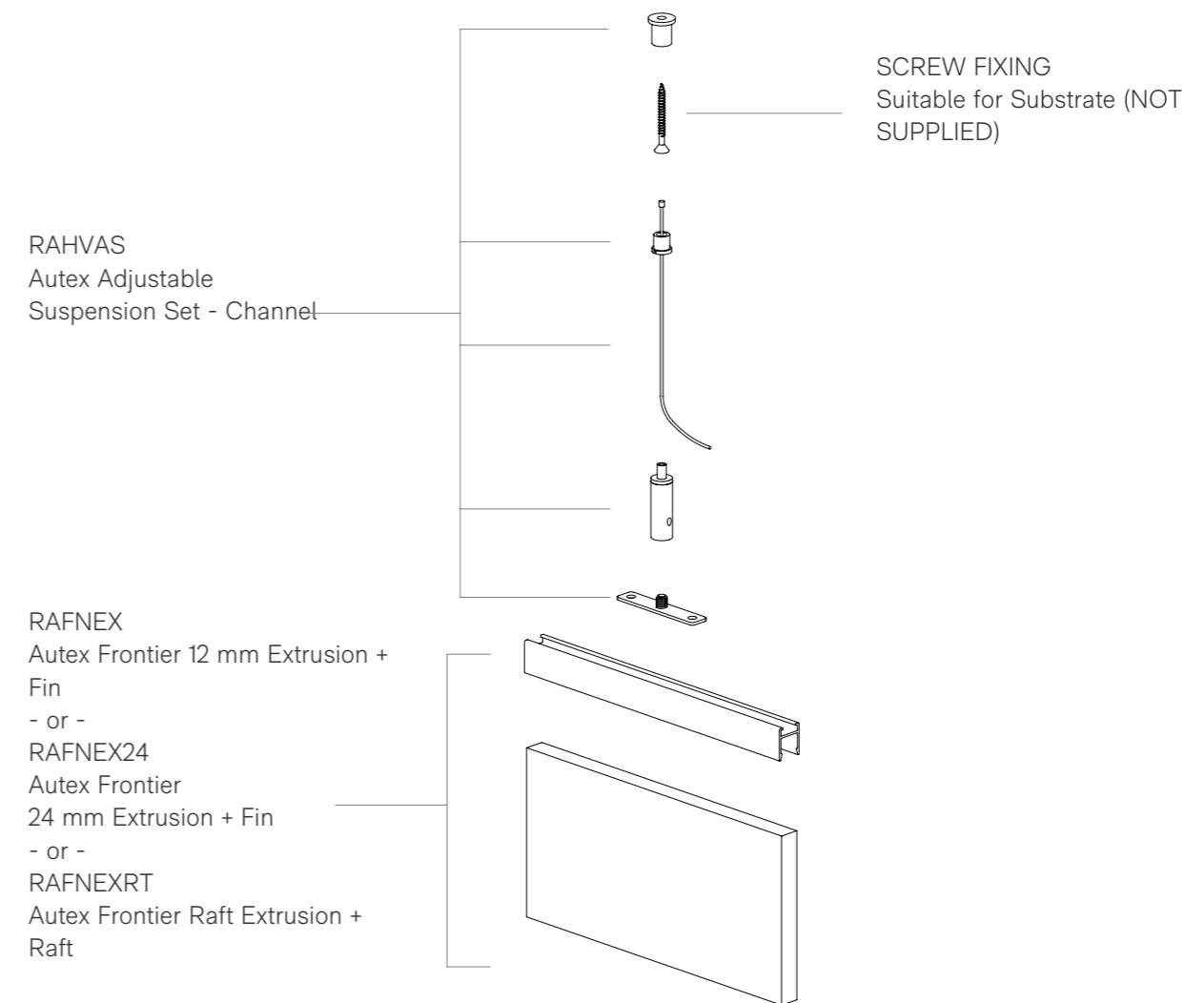| Substrate	Fixing	Minimum Embedment
Concrete	Hilti-HUS3-HR6	40 mm
Steel	Stainless Steel 8G Tek Screw	0.55 mm
Timber	Stainless Steel 8G Wood Screw	30 mm

RONDO 547
Adjustable Suspension Hanger

RONDO 121
5 mm Soft Galvanised Suspension Rod

RAFWCP
Autex Removable W-Clip

RAFNEX24
Autex Frontier 24 mm Extrusion
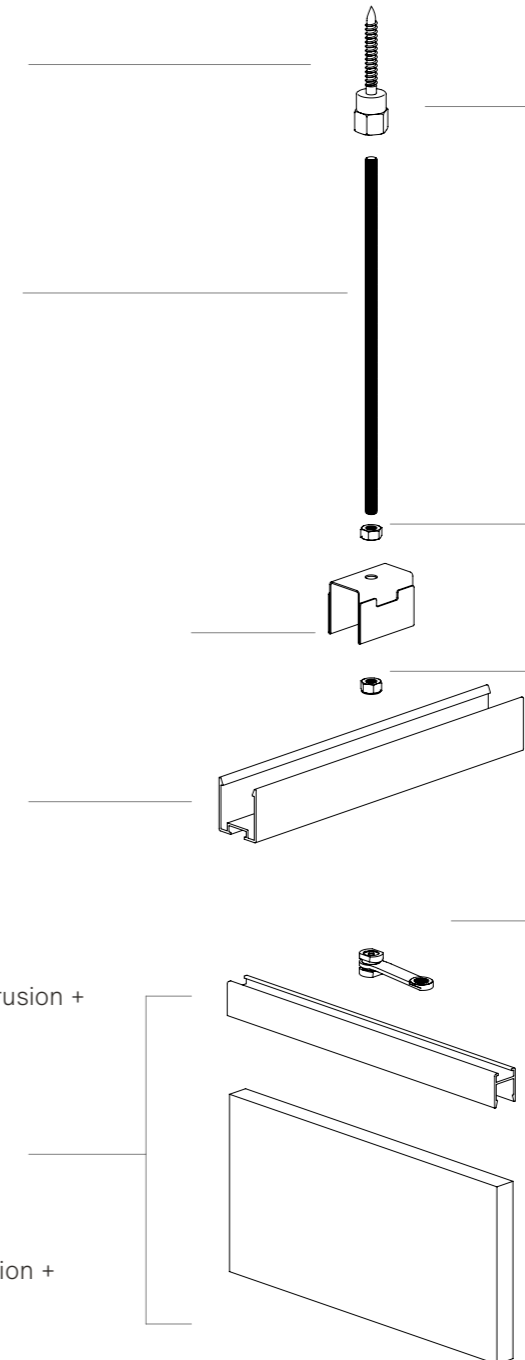
RAFTCC
Autex Mounting Clip

RAFNEX
Autex Frontier
12 mm Extrusion + Fin
- or -
RAFNEX24
Autex Frontier
24 mm Extrusion + Fin
- or -
RAFNEXRT
Autex Frontier Raft Extrusion + Raft

SEISMIC CONSIDERATIONS
For certain size installations, transverse and longitudal seismic bracing may be required (dashed lines). See suggested bracing option on page 29.
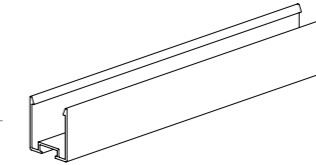
Suggested Ceiling Fixing Detail		
Substrate	Fixing	Minimum Embedment
Concrete	Hilti-HUS3-HR6	40 mm
Steel	Stainless Steel 8G Tek Screw	0.55 mm
Timber	Stainless Steel 8G Wood Screw	30 mm

RONDO 121
5 mm Soft Galvanised
Suspension Rod

RONDO 2534
Top Cross Rail Suspension
Clip

RONDO TCR 127
25 mm Top Cross Rail

RONDO 119
U Clip

RAFWCP
Autex Removable
W-Clip

M6 X 20 SOCKET HEAD
CAP SCREW (NOT
SUPPLIED)

RAFNEX24
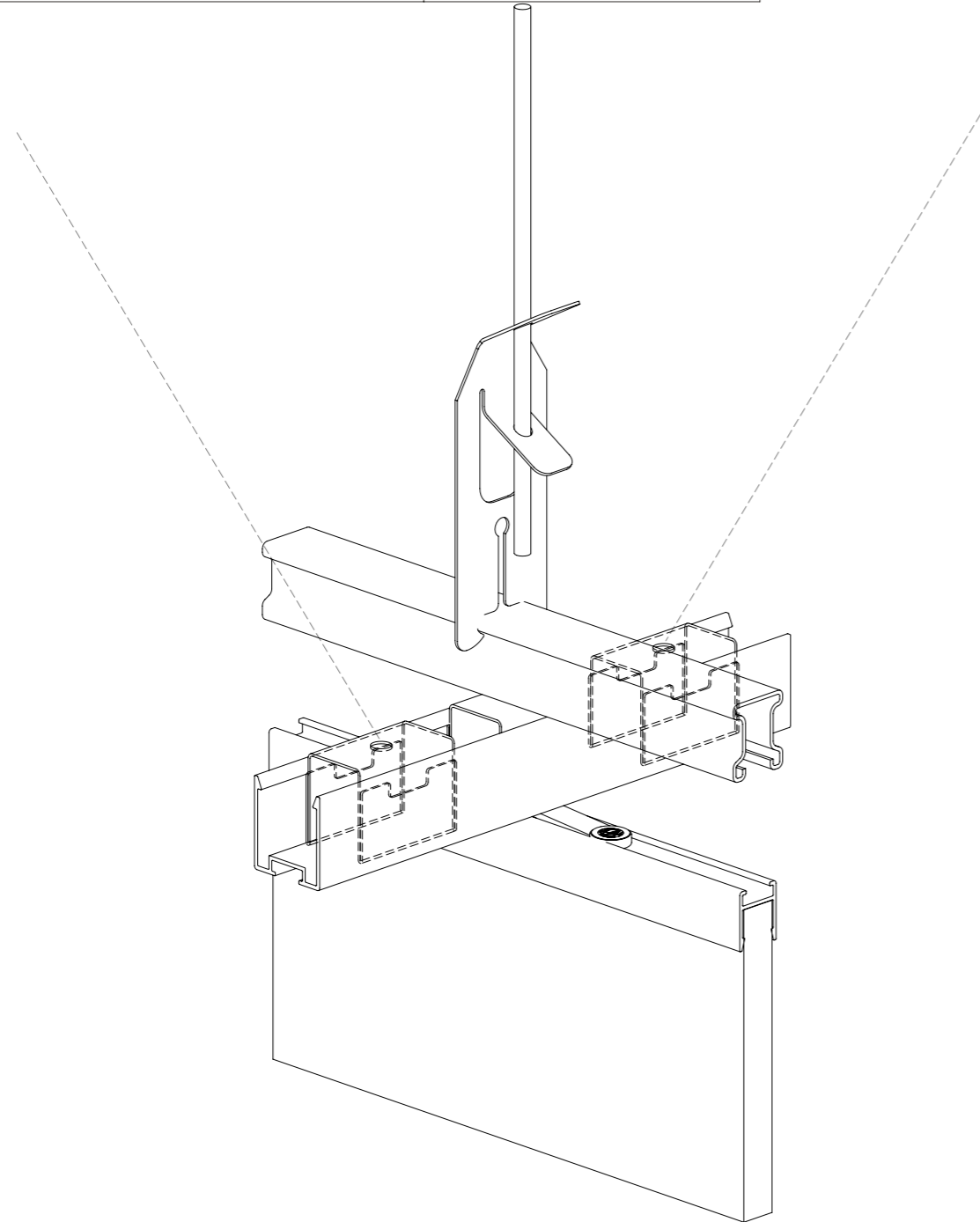Autex Frontier 24 mm
Extrusion

RAFTCC
Autex Mounting Clip

RAFNEX
Autex Frontier
12 mm Extrusion + Fin
- or -
RAFNEX24
Autex Frontier
24 mm Extrusion + Fin
- or -
RAFNEXRT
Autex Frontier Raft Extrusion +
Raft
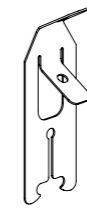
SEISMIC CONSIDERATIONS
For certain size installations, transverse and
longitudal seismic bracing may be required (dashed
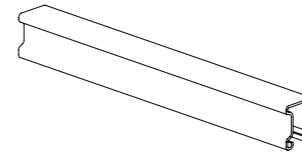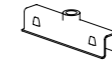lines). See suggested bracing option on page 29.

Autex Acoustics®

Suggested Ceiling Fixing Detail		
Substrate	Fixing	Minimum Embedment
Concrete	Hilti-HUS3-HR6	40 mm
Steel	Stainless Steel 8G Tek Screw	0.55 mm
Timber	Stainless Steel 8G Wood Screw	30 mm

RONDO 121
5 mm Soft Galvanised
Suspension Rod

M6 NYLOCK NUT (NOT SUPPLIED)

RONDO 547
Adjustable Suspension
Hanger
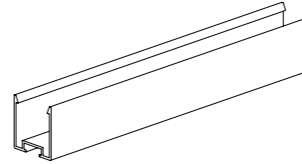
RAFWCP
Autex Removable W-Clip
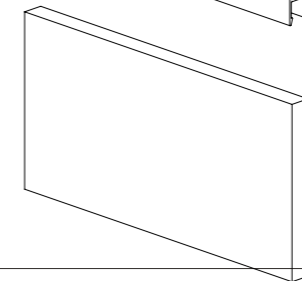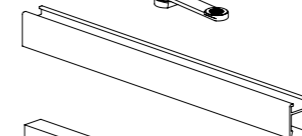
M6 X 20 SOCKET HEAD CAP
SCREW
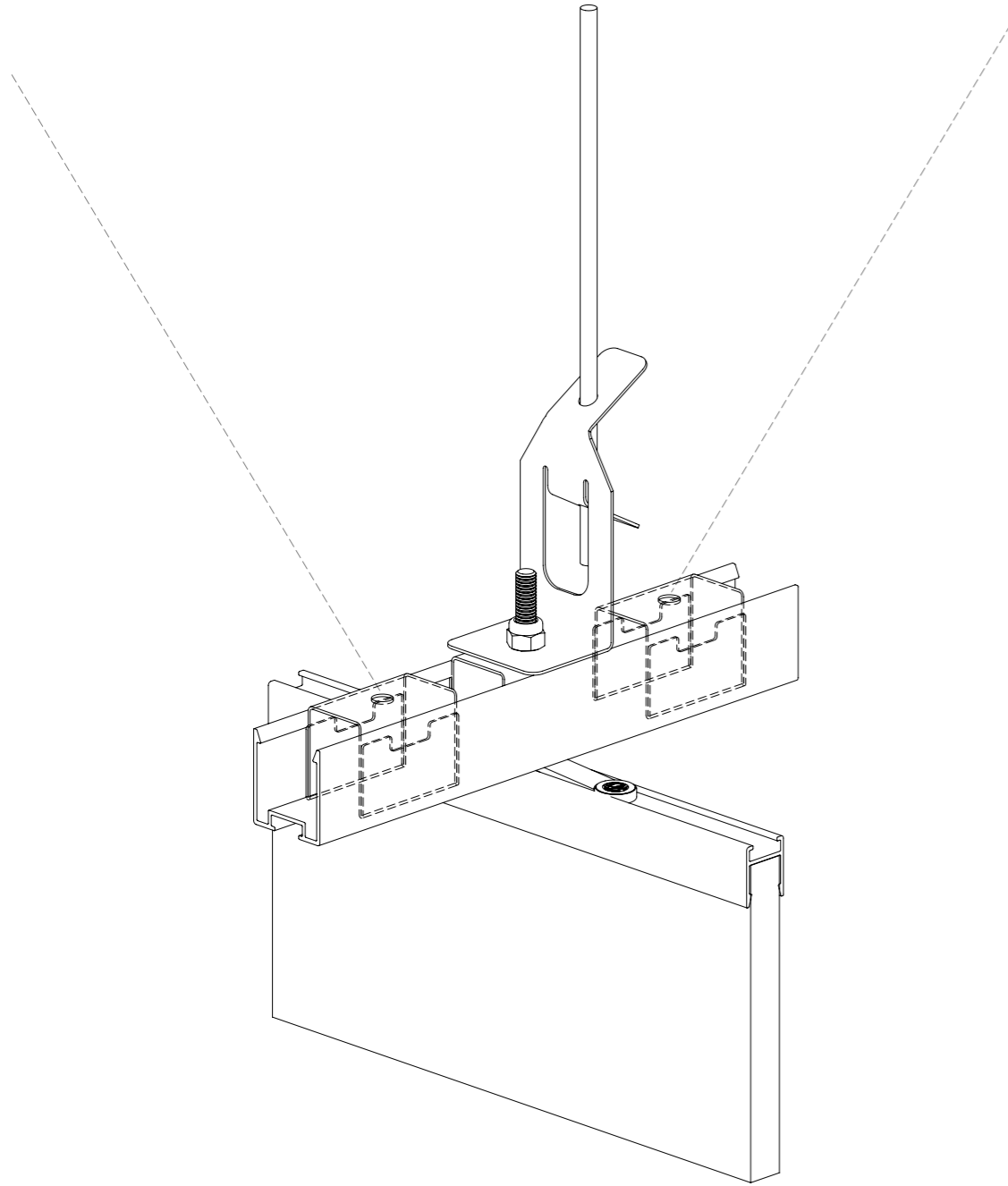(NOT SUPPLIED)

RAFNEX24
Autex Frontier 24 mm
Extrusion

RAFTCC
Autex Mounting Clip

RAFNEX
Autex Frontier 12 mm Extrusion +
Fin
- or -
RAFNEX24
Autex Frontier
24 mm Extrusion + Fin
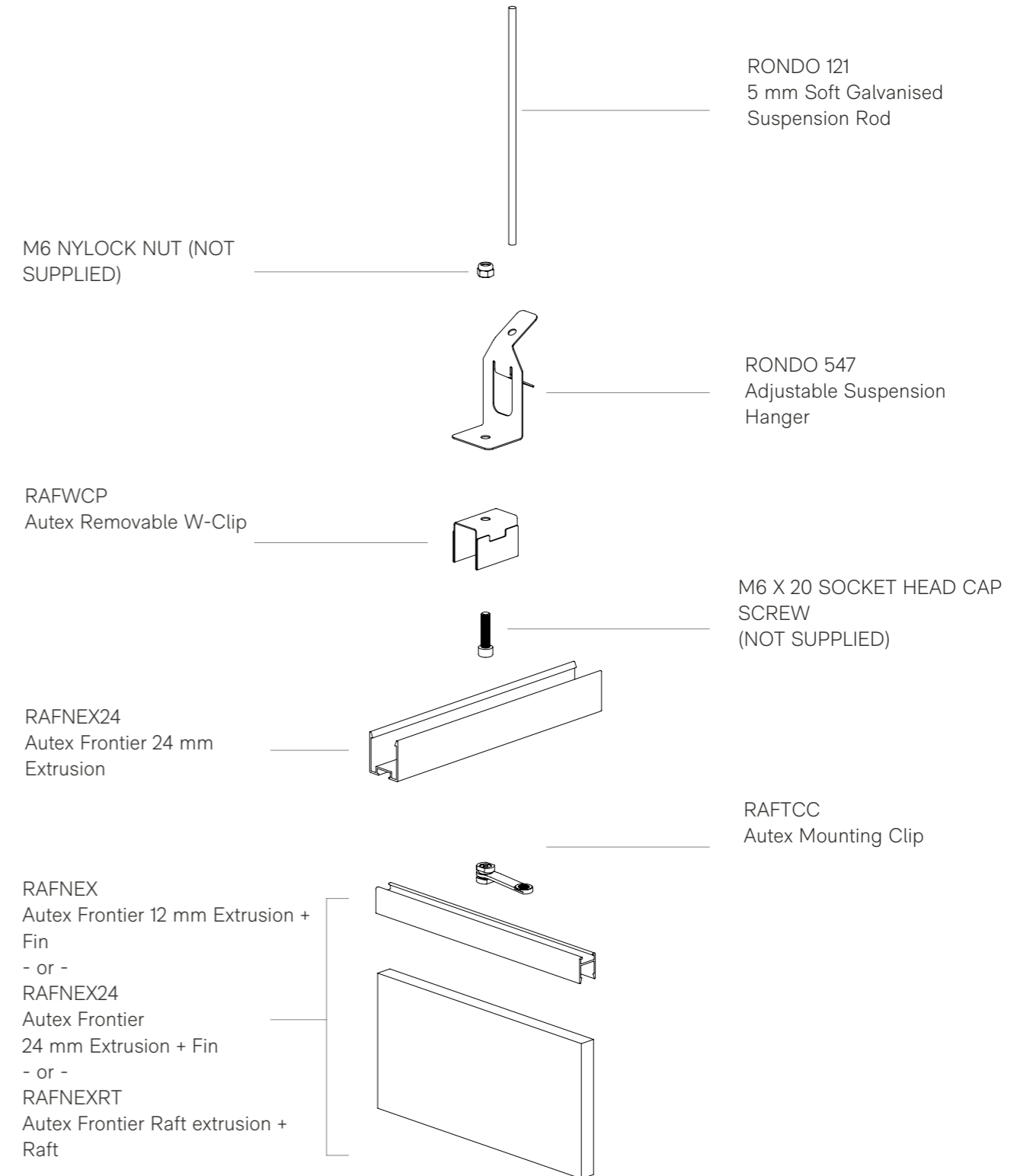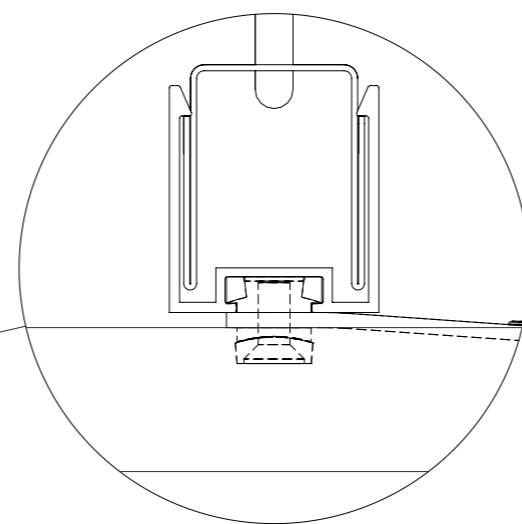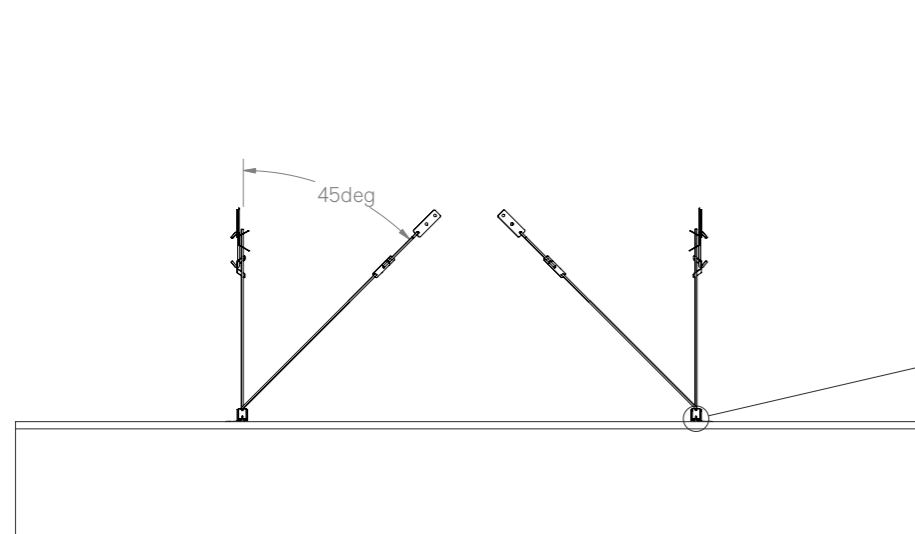- or -
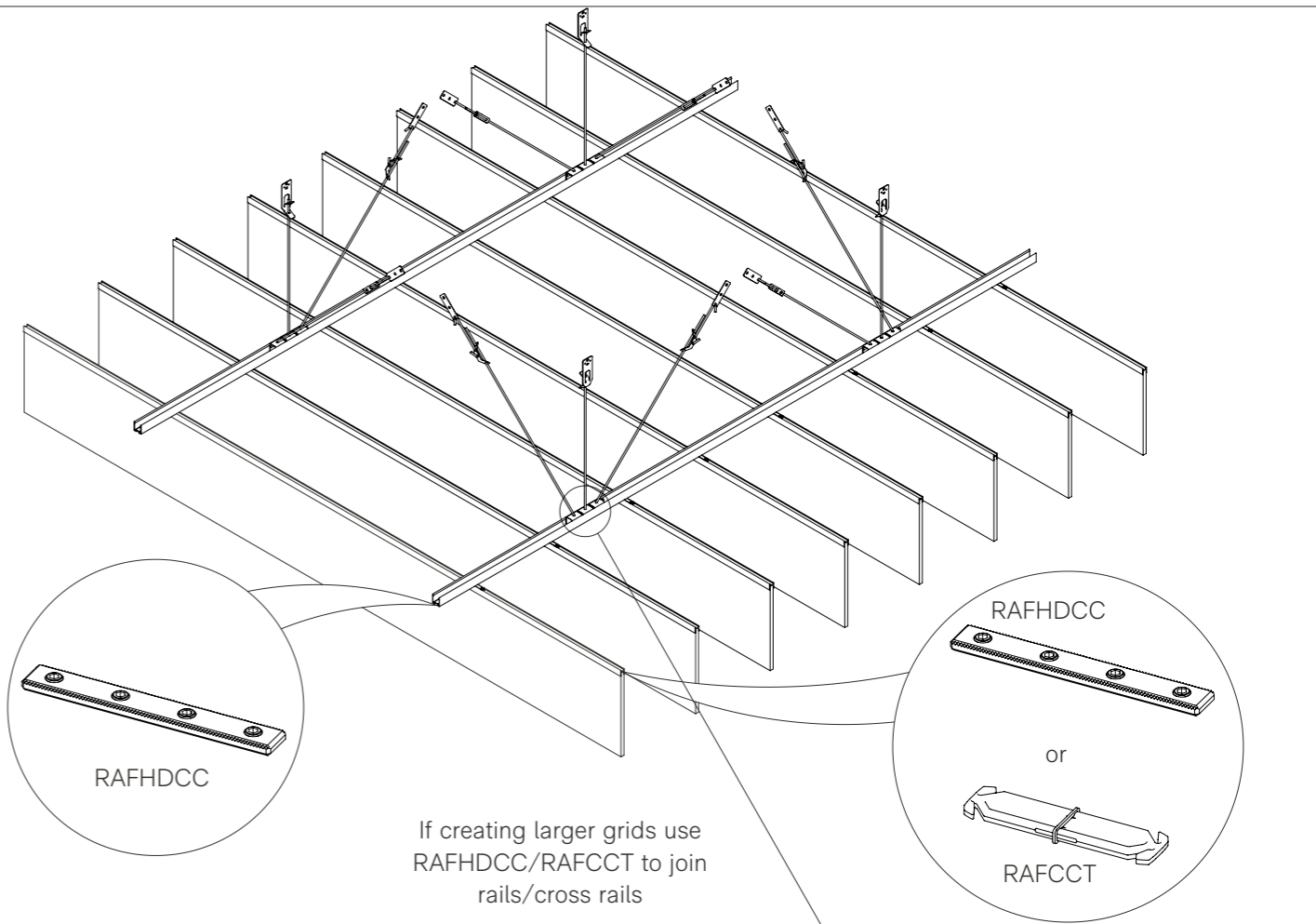RAFNEXRT
Autex Frontier Raft extrusion +
Raft

SEISMIC CONSIDERATIONS
For certain size installations, transverse and longitudal
seismic bracing may be required (dashed lines). See
suggested bracing option on page 29.

1200mm

1200.0mm   2400mm

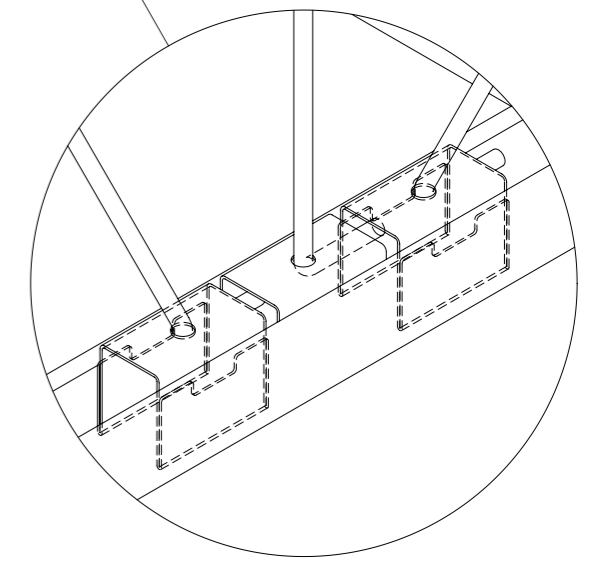
RAFHDCC

RAFHDCC

or

RAFCCT

If creating larger grids use
RAFHDCC/RAFCCT to join
rails/cross rails

45deg

RAFWCP
Autex Removable W-Clip

RAFNEX24 (used as crossrail)
Autex Frontier 24 mm Extrusion

RAFTCC
Autex Mounting Clip

RAFNEX
Autex Frontier 12 mm Extrusion
- or -
RAFNEX24
Autex Frontier 24 mm Extrusion
- or -
RAFNEXRT
Autex Frontier Raft Extrusion

Additional Autex W Clips act as
interface between bracing and channel