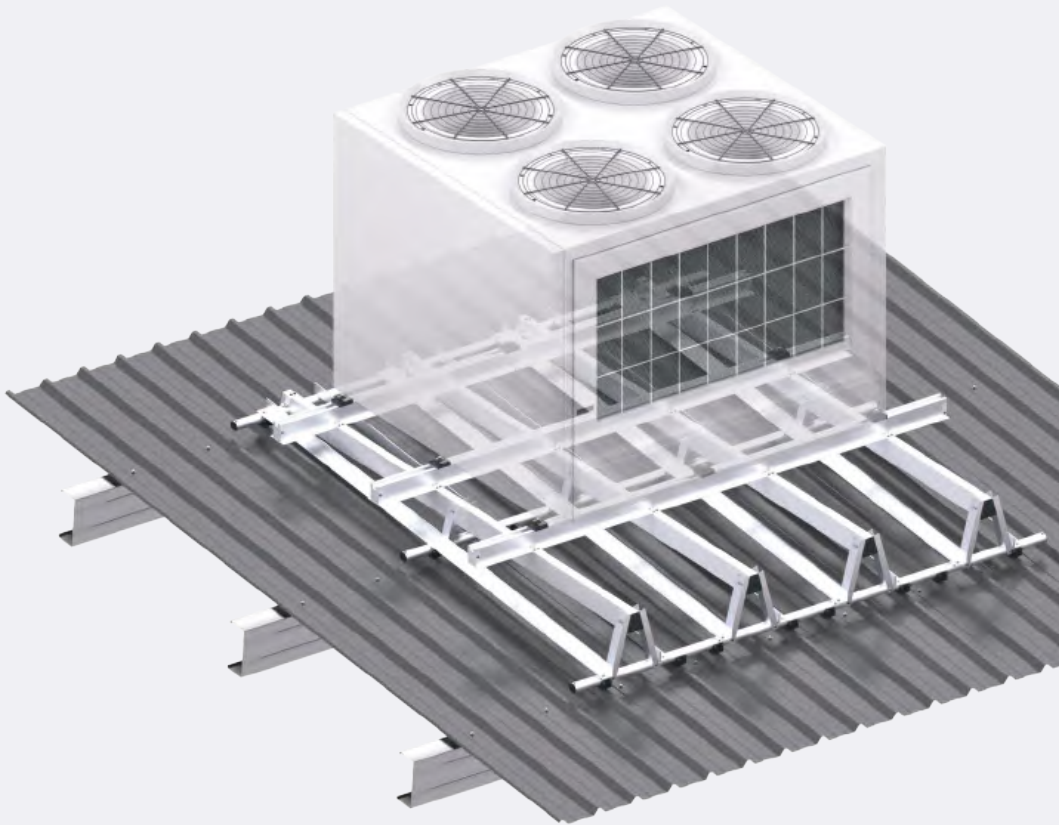


INSTALLATION MANUAL

Monkeytoe Condenser Roof Mounts

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video

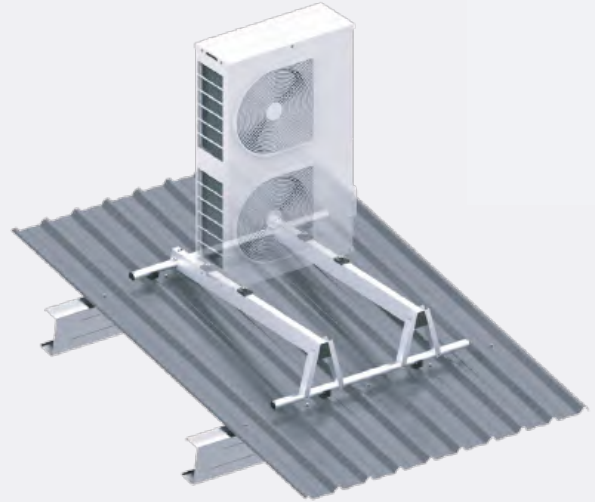


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video



CONDENSER MOUNTS

Monkeytoe Condenser Roof Mounts



PRODUCT DESCRIPTION

Adjustable aluminium roof mounting product for HVACR units

TYPICAL USES / APPLICATIONS

- Roof top mounting for air conditioning & refrigeration condenser units
- Hot water unit mounting
- Telecommunication equipment mounting
- Supports for cable trays and pipes
- Fans and flues
- Air Handling Units
- Package Units

CHARACTERISTICS / ADVANTAGES

- Support for equipment up to 1000kg
- Suits a wide range of HVAC+R units
- Proprietary pre-engineered system
- Fully engineered & certified with supporting documentation
- Utilises the unique Monkeytoe RC02 roofing clip
- Adjustable up to 28 degrees to suit roof pitch
- Can mount through most steel roof sheeting profiles
- Kit set construction ensures easy on-site assembly
- Weight is transferred to building structure

TECHNICAL DATA / MATERIALS

Loading Capacity:

- CM01 - 0-120kg up to 2400mm purlin spacing's
- CM02 - 0-200kg up to 2400mm purlin spacing's
- CM03 - 0-300kg up to 2400mm purlin spacing's
- CM05 - 0-500kg up to 2400mm purlin spacing's
- CM10 - 0-1000kg 1200 & 1500 purlin spacing's
- Extrusions: high tensile structural marine grade aluminium
- Fixings: Dacromat coated Stainless Steel TEK Screws
- Roof Connections: HD 30% Glass filled Nylon, UV resistant RC02 Roof Clip
- Dacromat Coated Combi Stud
- BRANZ Tested Neoprene Sealing Washers
- UV Stabilised TPE Rubber Anti Vibration Mounts - 50% reduction in vibration and full galvanic isolation

TESTS

APPROVALS / STANDARDS

- NZBC B1 - Structure
- AS/NZS 1170 - Structural Design Actions, (Including Wind & Seismic)
- AS/NZ 1664.1 - Aluminium Structures, Limit State Design

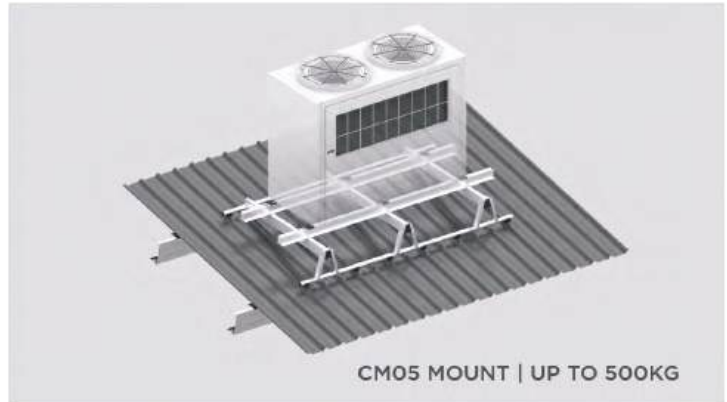
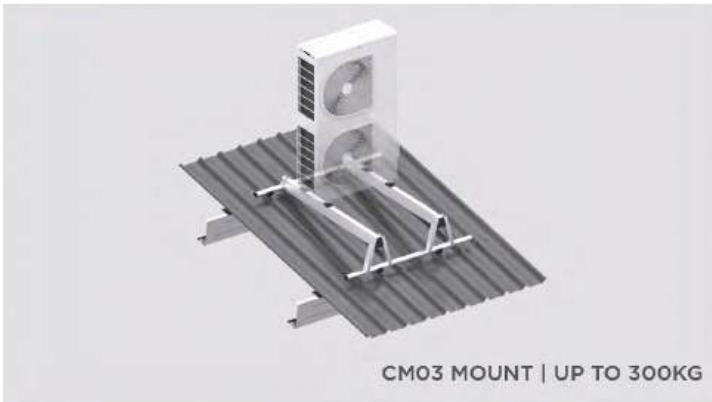
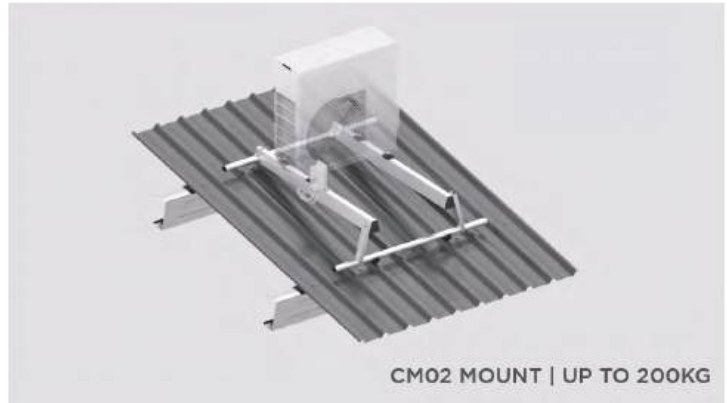
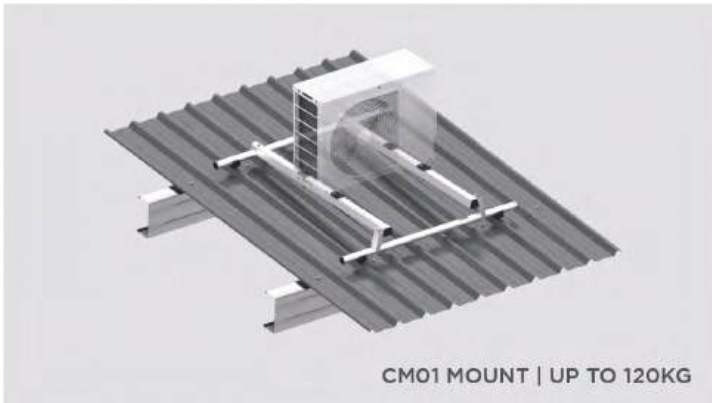
WARRANTY

- 25 year Warranty

MAINTENANCE

- Visual inspection for any damage or loose fixings must be done periodically and prior to use.
- No certified maintenance required.
- Basic wear and tear preventative maintenance is recommended, as per manufacturer's specifications and recommendations.

PRODUCT IMAGES





Impact Driver



Cordless Drill



12mm Drill Bit



14 Gauge Tek Driver Bit



5mm Hex Head Bit
- included in kit



Tape Measure



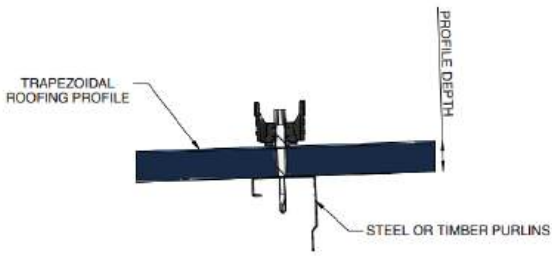
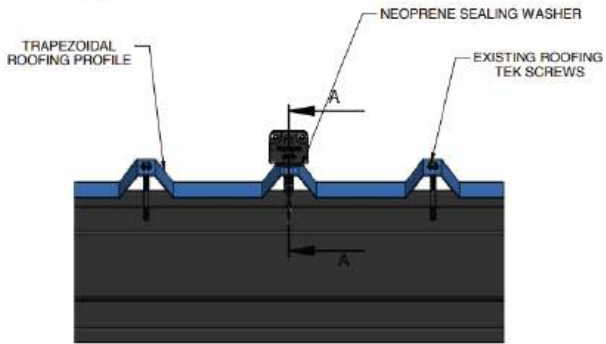
Level



Marker Pen

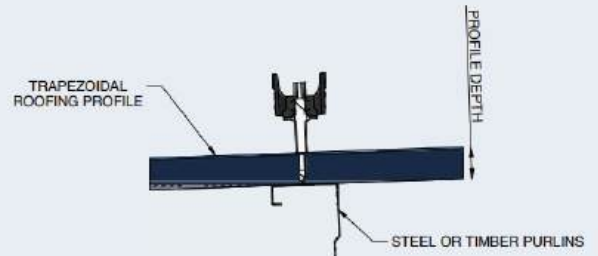
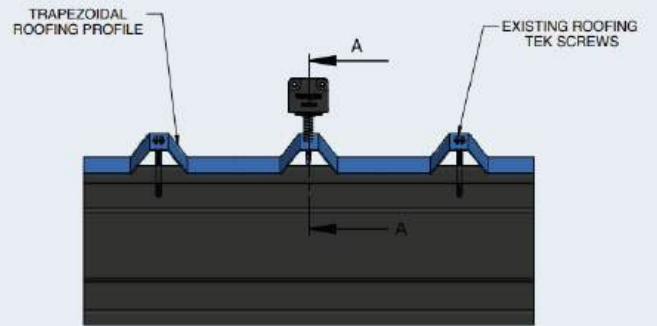
CORRECT & INCORRECT INSTALLATION

✓ CORRECT INSTALLATION



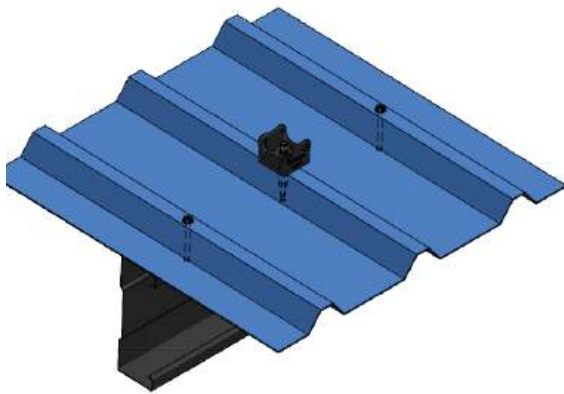
SECTION A-A

✗ INCORRECT INSTALLATION

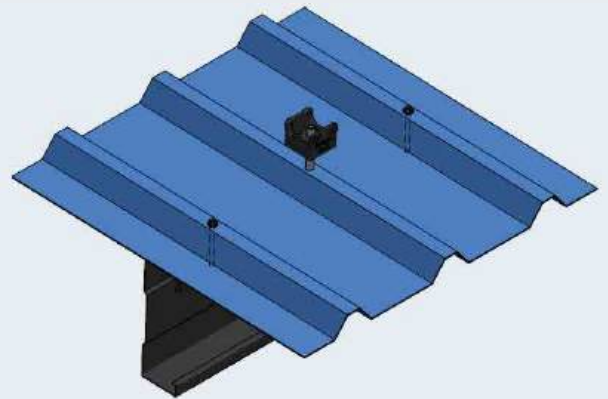


SECTION A-A

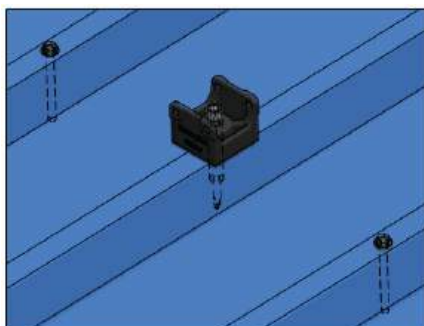
✓ CORRECT INSTALLATION



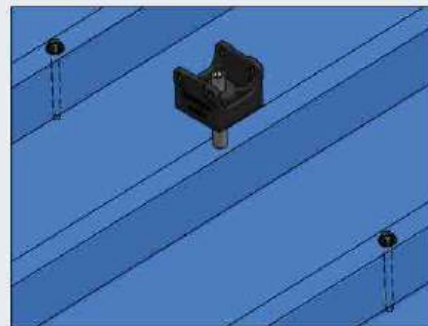
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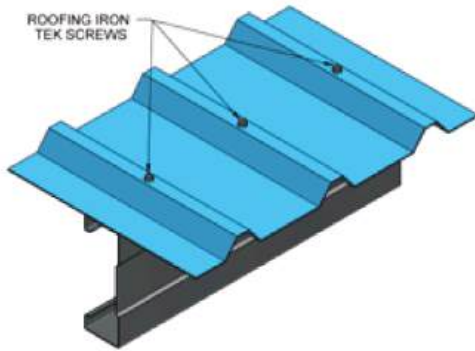
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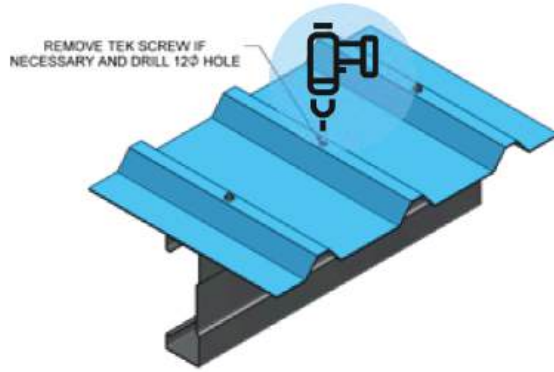
✗ INCORRECT INSTALLATION



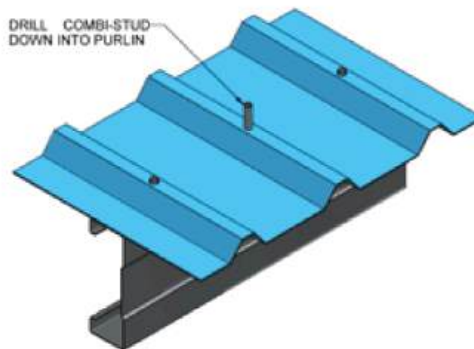
RC02 TOP FIX INSTALLATION PROCEDURE



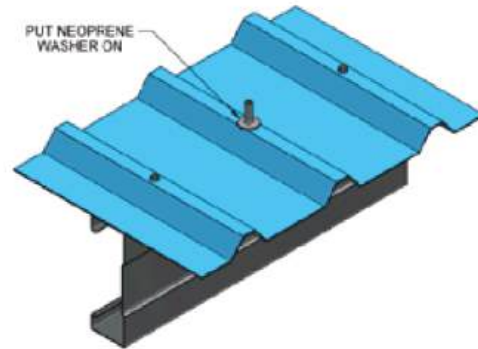
Step 1. Locate roof purlins, often indicated by a line of roofing screws.



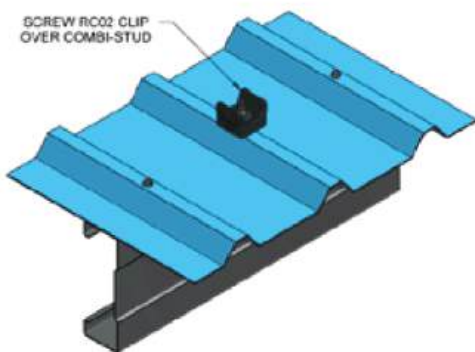
Step 2. Remove existing roofing screws where Condenser Mount fixings are required. Re-drill hole/s in roof sheeting using a 12mm diameter drill bit to widen the hole to accommodate the combistud. (if hidden fixed type roof profile, feel out purlins and drill 12mm holes on top of the roofing ridge/s)



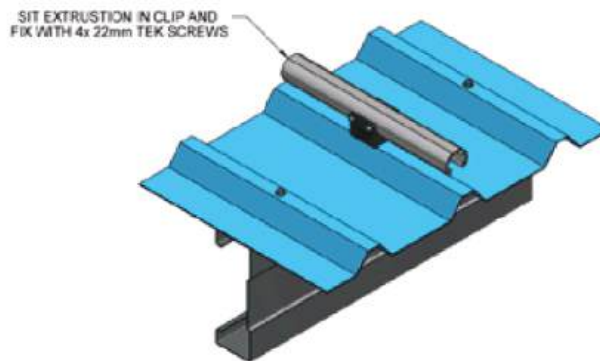
Step 3. Locate the supplied MKT combi-stud and driver bit, secure into purlin ensuring combistud is square to the roofing profile. This will help ensure a weather tight seal.



Step 4: Locate the supplied neoprene washer and place on the combi-stud.

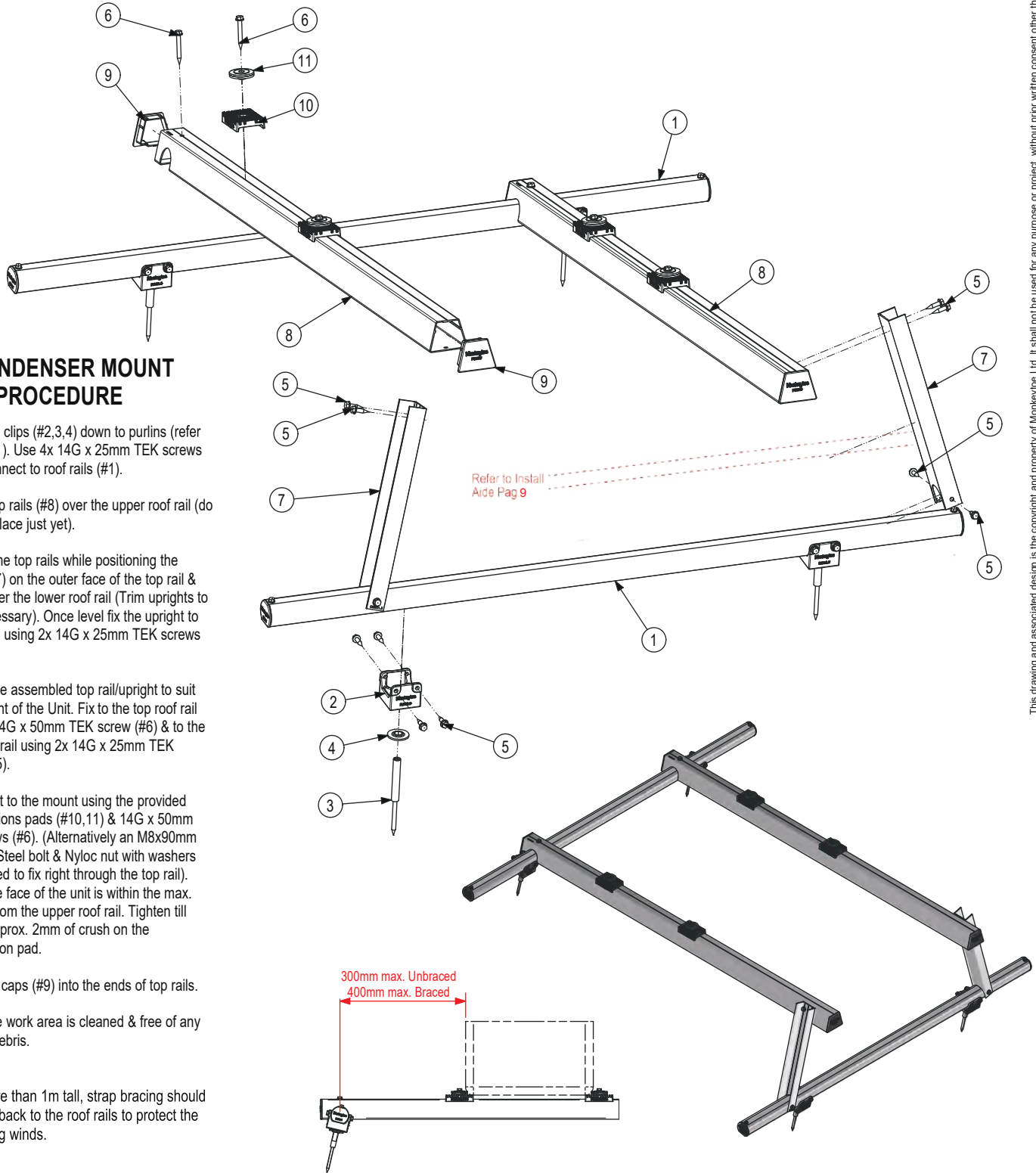


Step 5: Wind on and hand tighten the supplied polyethylene roofing clip until the sealing washer has compressed flat.



Step 6: Once installed, the extrusion simply sits in the clip and tek screw in place.

ITEM	CODE	DESCRIPTION	ITEM QTY
1	PM01.*	STANDARD ROOF RAIL WITH END CAPS & TEKS	2
2	RC02.3	MKT ROOF CLIP (FOR PM01)	4
3	RC05C.75	M12 x 75mm COMBISTUD	4
4	FWN35.12	Ø35 x 12mm NEOPRENE SEALING WASHER	4
5	FTS14.25	14g x 25mm Dacromet Coated S/S Self Drilling Tek	24
6	FTS14.50	14g x 50mm Dacromet Coated S/S Self Drilling Tek	6
7	CM001.*	CONDENSER MOUNT UPRIGHT - 150/300/600mm LONG	2
8	CM002.*	STD CONDENSER MOUNT TOP RAIL - 1300/1900/2500mm LONG	2
9	PEC30	STD CONDENSER MOUNT TOP RAIL END CAP	4
10	CM.AVP.2.B	ANTI-VIBRATION PAD	4
11	CM.AVW.2	ANTI-VIBRATION WASHER ASSY	4



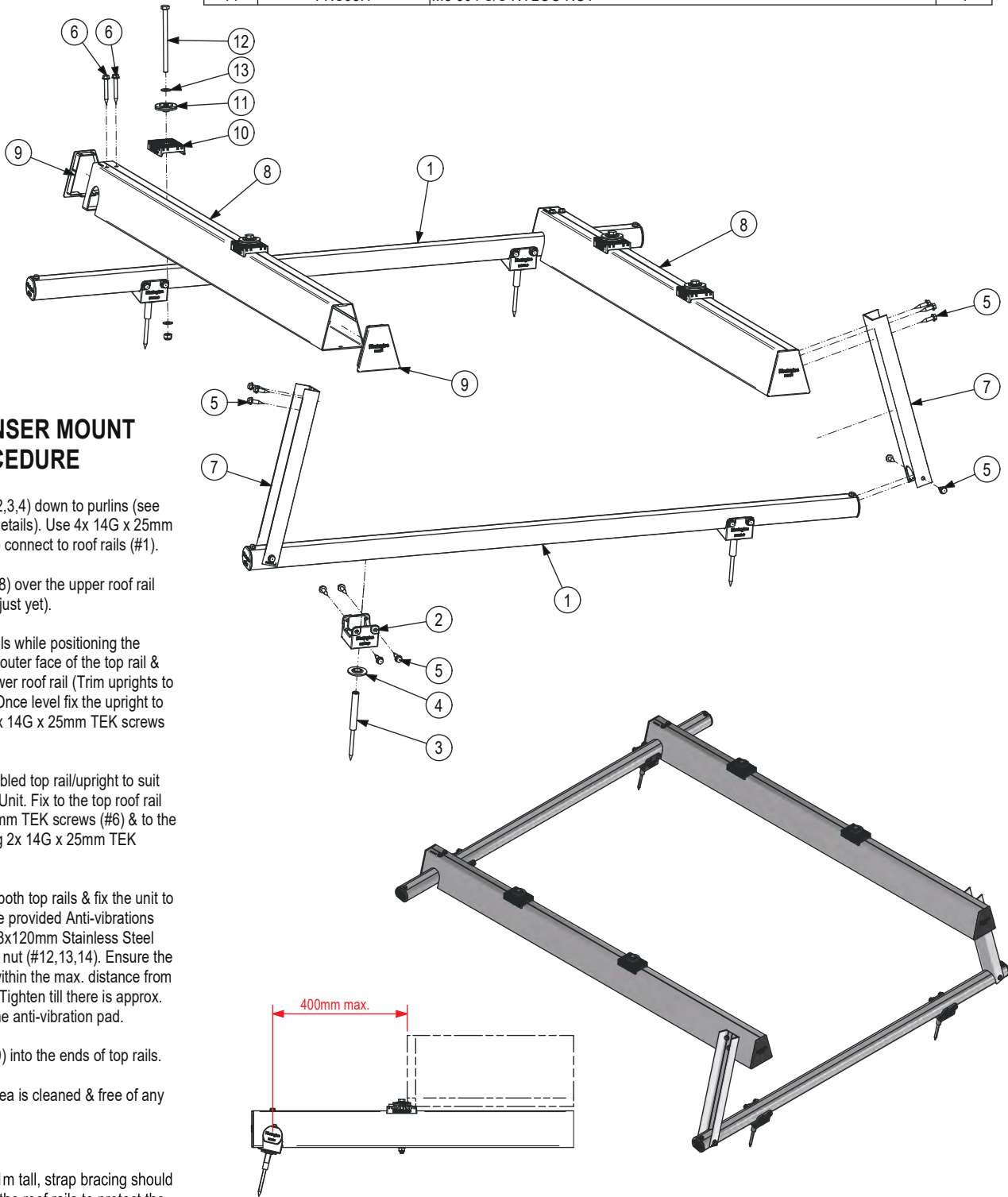
120kg CONDENSER MOUNT INSTALL PROCEDURE

1. Fix roofing clips (#2,3,4) down to purlins (refer to Page 6). Use 4x 14G x 25mm TEK screws (#5) to connect to roof rails (#1).
2. Slot the top rails (#8) over the upper roof rail (do not fix in place just yet).
3. Level up the top rails while positioning the upright (#7) on the outer face of the top rail & slotting over the lower roof rail (Trim uprights to suit if necessary). Once level fix the upright to the top rail using 2x 14G x 25mm TEK screws (#5).
4. Position the assembled top rail/upright to suit the footprint of the Unit. Fix to the top roof rail using 1x 14G x 50mm TEK screw (#6) & to the lower roof rail using 2x 14G x 25mm TEK screws (#5).
5. Fix the unit to the mount using the provided Anti-vibrations pads (#10,11) & 14G x 50mm TEK screws (#6). (Alternatively an M8x90mm Stainless Steel bolt & Nyloc nut with washers can be used to fix right through the top rail). Ensure the face of the unit is within the max. distance from the upper roof rail. Tighten till there is approx. 2mm of crush on the anti-vibration pad.
6. Insert end caps (#9) into the ends of top rails.
7. Ensure the work area is cleaned & free of any filings or debris.

NOTE:
If this unit is more than 1m tall, strap bracing should be used & fixed back to the roof rails to protect the unit during strong winds.

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DIMENSIONS IN MILLIMETERS		

ITEM	CODE	DESCRIPTION	ITEM QTY
1	PM01.*	STANDARD ROOF RAIL WITH END CAPS & TEKS	2
2	RC02.3	MKT ROOF CLIP (FOR PM01)	4
3	RC05C.75	M12 x 75mm COMBISTUD	4
4	FWN35.12	Ø35 x 12mm NEOPRENE SEALING WASHER	4
5	FTS14.25	14g x 25mm Dacromet Coated S/S Self Drilling Tek	26
6	FTS14.50	14g x 50mm Dacromet Coated S/S Self Drilling Tek	4
7	CM001.*	CONDENSER MOUNT UPRIGHT - 150/300/600mm LONG	2
8	CM003.*	H/D CONDENSER MOUNT TOP RAIL - 1300/1900/2500mm LONG	2
9	PEC31	PM31 EXTRUSION END CAP	4
10	CM.AVP.2.B	ANTI-VIBRATION PAD	4
11	CM.AVV.2	ANTI-VIBRATION WASHER ASSY	4
12	FBS08.120	M8 x 120mm S/S HEX BOLT	4
13	FWS08.1	M8 x 17 x 1.2mm, 304 S/S FLAT WASHER	8
14	FNS08.1	M8 304 S/S NYLOC NUT	4




200kg CONDENSER MOUNT INSTALL PROCEDURE

- Fix roofing clips (#2,3,4) down to purlins (see page 6 for further details). Use 4x 14G x 25mm TEK screws (#5) to connect to roof rails (#1).
- Slot the top rails (#8) over the upper roof rail (do not fix in place just yet).
- Level up the top rails while positioning the upright (#7) on the outer face of the top rail & slotting over the lower roof rail (Trim uprights to suit if necessary). Once level fix the upright to the top rail using 3x 14G x 25mm TEK screws (#5).
- Position the assembled top rail/upright to suit the footprint of the Unit. Fix to the top roof rail using 2x 14G x 50mm TEK screws (#6) & to the lower roof rail using 2x 14G x 25mm TEK screws (#5).
- Drill Ø9 holes thru both top rails & fix the unit to the mount using the provided Anti-vibrations pads (#10,11) & M8x120mm Stainless Steel bolt/washers/Nyloc nut (#12,13,14). Ensure the face of the unit is within the max. distance from the upper roof rail. Tighten till there is approx. 2mm of crush on the anti-vibration pad.
- Insert end caps (#9) into the ends of top rails.
- Ensure the work area is cleaned & free of any filings or debris.

NOTE:

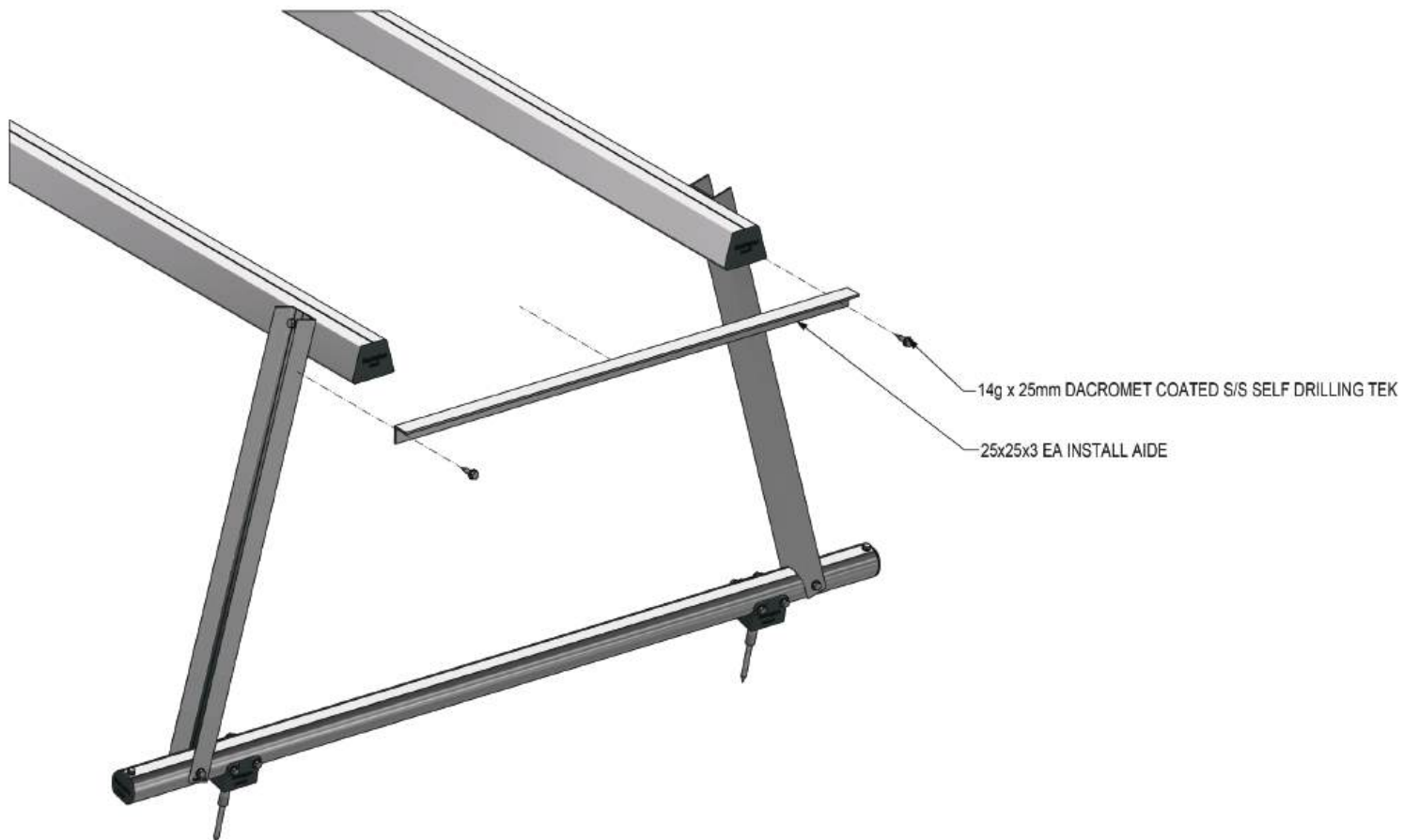
If this unit is more than 1m tall, strap bracing should be used & fixed back to the roof rails to protect the unit during strong winds.

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DIMENSIONS IN MILLIMETERS		

CM01 & CM02

INSTALL AIDE

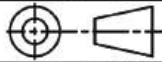


PRIOR TO THE FINAL FITMENT OF THE SUPPORTED UNIT FOR CM01 & CM02 (SINGLE UPRIGHT PER RAIL) MOUNTS, PARTICULARLY WITH LARGER PURLIN SPACING & TALLER UPRIGHTS, SOME INWARD MOVEMENT OF THE TOP RAILS CAN BE EXPERIENCED. WHILE THIS IS NOT A STRUCTURAL CONCERN FOR A COMPLETED MOUNT, THIS CAN AT TIMES CAUSE DIFFICULTY FOR THE INSTALLATION OF THE SUPPORTED UNIT.

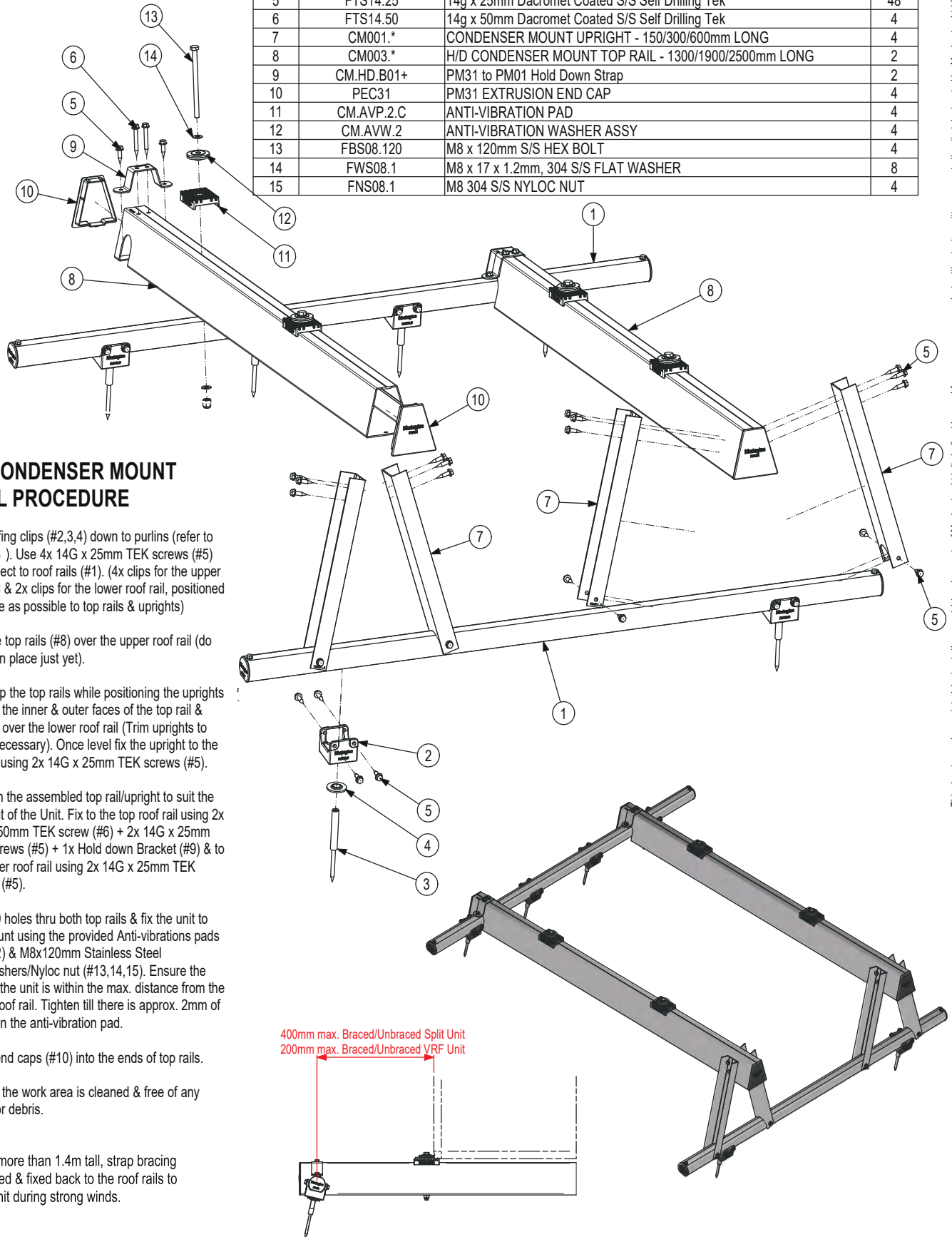
FOR THESE INSTANCES WE HAVE SUPPLIED A LIGHT ANGLE TO BE USED AS AN INSTALLATION AIDE. THIS CAN BE FIXED TO THE UPRIGHTS, OR DIRECT TO THE TOP RAILS IF PREFERRED USING 1x 14Gx25mm TEK SCREW EACH END.

AS THIS AIDE IS NOT A STRUCTURAL REQUIREMENT IT CAN BE REMOVED COMPLETELY FOLLOWING THE FINAL FITMENT OF THE UNIT. IF THE AIDE IS TO BE PERMANENTLY LEFT FITTED, MONKEYTOE RECOMMEND TRIMMING THIS TO A NEAT FIT.



CM01 & CM02 INSTALL AIDE	
MONKEYTOE GROUP	
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	REV:1
	DIMENSIONS IN MILLIMETERS

ITEM	CODE	DESCRIPTION	ITEM QTY
1	PM01.*	STANDARD ROOF RAIL WITH END CAPS & TEKS	2
2	RC02.3	MKT ROOF CLIP (FOR PM01)	6
3	RC05C.75	M12 x 75mm COMBISTUD	6
4	FWN35.12	Ø35 x 12mm NEOPRENE SEALING WASHER	6
5	FTS14.25	14g x 25mm Dacromet Coated S/S Self Drilling Tek	48
6	FTS14.50	14g x 50mm Dacromet Coated S/S Self Drilling Tek	4
7	CM001.*	CONDENSER MOUNT UPRIGHT - 150/300/600mm LONG	4
8	CM003.*	H/D CONDENSER MOUNT TOP RAIL - 1300/1900/2500mm LONG	2
9	CM.HD.B01+	PM31 to PM01 Hold Down Strap	2
10	PEC31	PM31 EXTRUSION END CAP	4
11	CM.AVP.2.C	ANTI-VIBRATION PAD	4
12	CM.AVW.2	ANTI-VIBRATION WASHER ASSY	4
13	FBS08.120	M8 x 120mm S/S HEX BOLT	4
14	FWS08.1	M8 x 17 x 1.2mm, 304 S/S FLAT WASHER	8
15	FNS08.1	M8 304 S/S NYLOC NUT	4



300kg CONDENSER MOUNT INSTALL PROCEDURE

- Fix roofing clips (#2,3,4) down to purlins (refer to Page 6). Use 4x 14G x 25mm TEK screws (#5) to connect to roof rails (#1). (4x clips for the upper roof rail & 2x clips for the lower roof rail, positioned as close as possible to top rails & uprights)
- Slot the top rails (#8) over the upper roof rail (do not fix in place just yet).
- Level up the top rails while positioning the uprights (#7) on the inner & outer faces of the top rail & slotting over the lower roof rail (Trim uprights to suit if necessary). Once level fix the upright to the top rail using 2x 14G x 25mm TEK screws (#5).
- Position the assembled top rail/upright to suit the footprint of the Unit. Fix to the top roof rail using 2x 14G x 50mm TEK screw (#6) + 2x 14G x 25mm TEK screws (#5) + 1x Hold down Bracket (#9) & to the lower roof rail using 2x 14G x 25mm TEK screws (#5).
- Drill Ø9 holes thru both top rails & fix the unit to the mount using the provided Anti-vibrations pads (#11,12) & M8x120mm Stainless Steel bolt/washers/Nyloc nut (#13,14,15). Ensure the face of the unit is within the max. distance from the upper roof rail. Tighten till there is approx. 2mm of crush on the anti-vibration pad.
- Insert end caps (#10) into the ends of top rails.
- Ensure the work area is cleaned & free of any filings or debris.

NOTE:

If this unit is more than 1.4m tall, strap bracing should be used & fixed back to the roof rails to protect the unit during strong winds.

400mm max. Braced/Unbraced Split Unit
200mm max. Braced/Unbraced VRF Unit

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DIMENSIONS IN MILLIMETERS		

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ITEM	CODE	DESCRIPTION	ITEM QTY
1	PM01.24	2400mm LONG PM01, COMPLETE WITH END CAPS & TEKS	2
2	RC02.3	MKT ROOF CLIP (FOR PM01)	12
3	RC05C.75	M12 x 75mm COMBISTUD	12
4	FWN35.12	Ø35 x 12mm NEOPRENE SEALING WASHER	12
5	FTS14.25	14g x 25mm Dacromet Coated S/S Self Drilling Tek	108
6	FTS14.50	14g x 50mm Dacromet Coated S/S Self Drilling Tek	6
7	CM001.*	CONDENSER MOUNT UPRIGHT - 150/300/600mm LONG	6
8	CM003.*	H/D CONDENSER MOUNT TOP RAIL - 1300/1900/2500mm LONG	3
9	CM005.24	PM36 TOP RAIL WITH END CAPS & TEKS - 2400mm LONG	2
10	CM.HD.B01+	PM31 to PM01 Hold Down Strap	3
11	PEC31	PM31 EXTRUSION END CAP	6
12	CM.AVP.1.C	ANTI-VIBRATION PAD	6
13	CM.AVV.1	ANTI-VIBRATION WASHER ASSY	6
14	FBS10.50	M10 x 25mm S/S HEX SET SCREW	6
15	FWS10.1	M10 x 21 x 1.6mm, 304 S/S FLAT WASHER	6
16	FNS10.2	M10 Stainless Steel Spring Nut	6

500kg CONDENSER MOUNT INSTALL PROCEDURE

- Fix roofing clips (#2,3,4) down to purlins (refer to Page 6). Use 4x 14G x 25mm TEK screws (#5) to connect to roof rails (#1). (6x clips each rail, positioned as close as possible to top rails & uprights)
- Slot the top rails (#8) over the upper roof rail (do not fix in place just yet).
- Level up the top rails while positioning the uprights (#7) on the inner & outer faces of the top rail & slotting over the lower roof rail (Trim uprights to suit if necessary). Once level fix the upright to the top rail using 3x 14G x 25mm TEK screws (#5).
- Repeat steps 3 & 4 for all (#8) rails, (3off for 1200 & 1800mm purlins, 4off for 2400mm purlins)
- Position the assembled (#8) top rail/upright to spread the load over the full length of the 2400mm roof rails (#1). (Typically 1000mm ctrs for 3x (#8) rails, 660mm ctrs for 4 rails) Fix to the top roof rail using 2x 14G x 50mm TEK screw (#6) + 2x 14G x 25mm TEK screws (#5) + 1x Hold down Bracket (#10) & to the lower roof rail using 2x 14G x 25mm TEK screws (#5).
- Insert end caps (#11) into the ends of top rails
- Position the additional PM36 top rails (#9) to suit the unit mounting ctrs, and equally loading the lower rails. Fix in place at each intersection with 4x 14G x 25mm TEK screws (#5)
- Fix the unit to the mount using the provided Anti-vibrations pads (#12,13) if suitable & M10x50mm Stainless Steel bolt/washers/Spring nut (#14,15,16). Ensure the face of the unit is within the max. distance from the upper roof rail. Tighten till there is approx. 2mm of crush on the anti-vibration pad.
- Ensure the work area is cleaned & free of any filings or debris.

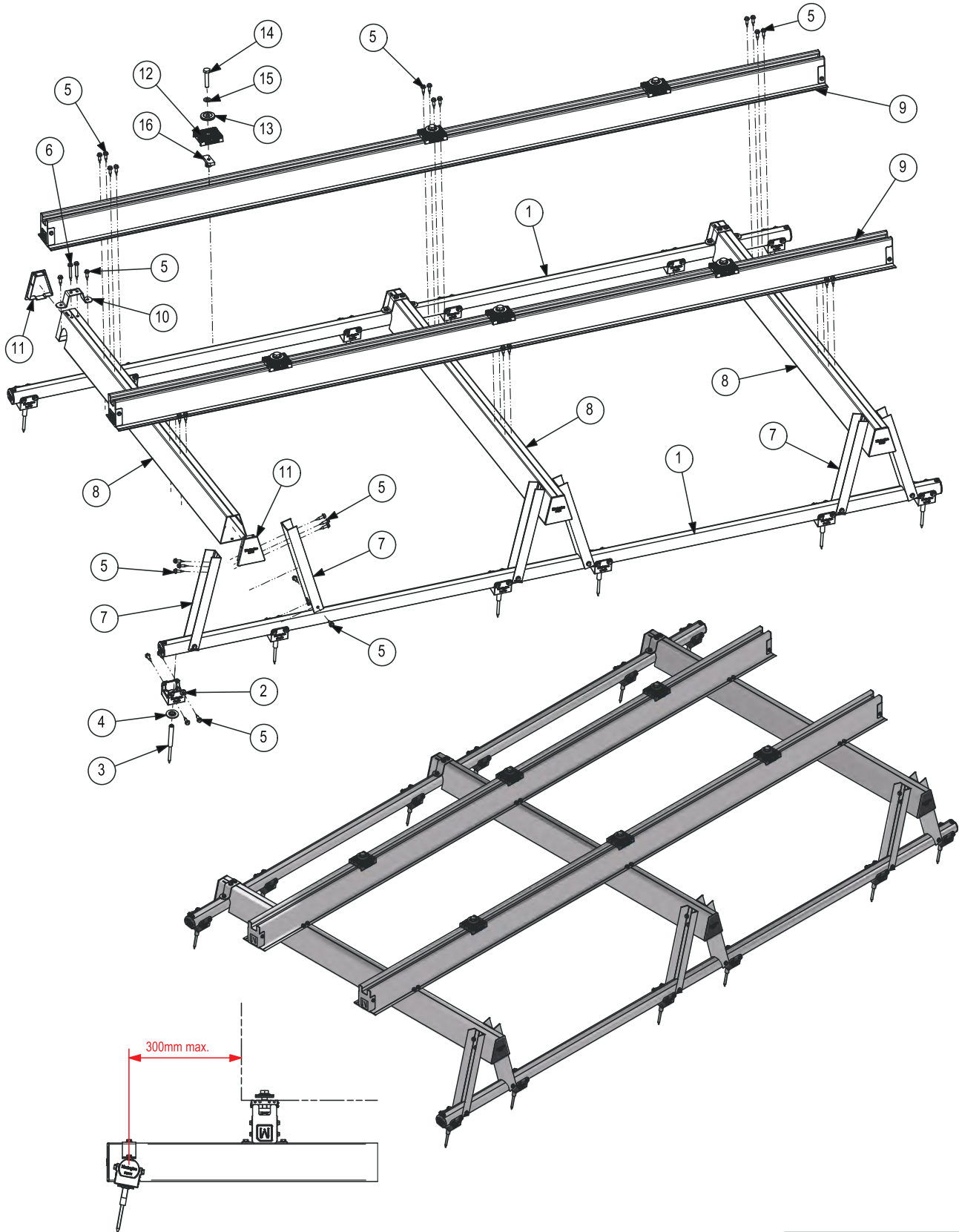
NOTE:

If this unit is more than 1.4m tall, strap bracing should be used & fixed back to the roof rails to protect the unit during strong winds.

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DO NOT SCALE	DIMENSIONS IN MILLIMETERS	



ITEM	CODE	DESCRIPTION	ITEM QTY
1	PM01.24	2400mm LONG PM01, COMPLETE WITH END CAPS & TEKS	3
2	RC02.3	MKT ROOF CLIP (FOR PM01)	24
3	RC05C.75	M12 x 75mm COMBISTUD	24
4	FWN35.12	Ø35 x 12mm NEOPRENE SEALING WASHER	24
5	FTS14.25	14g x 25mm Dacromet Coated S/S Self Drilling Tek	256
6	FTS14.50	14g x 50mm Dacromet Coated S/S Self Drilling Tek	8
7	CM001.*	CONDENSER MOUNT UPRIGHT - 150/300/600mm LONG	8
8	CM001.*	CONDENSER MOUNT UPRIGHT - 150/300mm LONG	8
9	CM003.31	PM31 H/D CONDENSER MOUNT TOP RAIL - 3100mm LONG	4
10	CM005.24	PM36 TOP RAIL WITH END CAPS & TEKS - 2400mm LONG	3
11	CM.HD.B01+	PM31 to PM01 Hold Down Strap	4
12	PEC31	PM31 EXTRUSION END CAP	8
13	CM.AVP.1.C	ANTI-VIBRATION PAD	9
14	CM.AVV.1	ANTI-VIBRATION WASHER ASSY	9
15	FBS10.50	M10 x 25mm S/S HEX SET SCREW	9
16	FWS10.1	M10 x 21 x 1.6mm, 304 S/S FLAT WASHER	9
17	FNS10.2	M10 Stainless Steel Spring Nut	9
18	PM16.31	NOTCHED 50x3 EA - 3100mm LONG	8

1000kg CONDENSER MOUNT INSTALL PROCEDURE

- Fix roofing clips (#2,3,4) down to purlins (refer to Page 6). Use 4x 14G x 25mm TEK screws (#5) to connect to roof rails (#1). (8x clips each rail, positioned as close as possible to top rails & uprights)
- Slot the top rails (#9) over the upper roof rail (do not fix in place just yet).
- Level up the top rails while positioning the uprights (#7,8) on the inner & outer faces of the top rail & slotting over the mid & lower roof rails (Trim uprights to suit if necessary). Once level fix the upright to the top rail using 3x 14G x 25mm TEK screws (#5).
- Repeat step 3 for all (#9) rails.
- Position the assembled (#9) top rail/upright to spread the load over the full length of the 2400mm roof rails (#1). (Typically 660mm ctrs for 4 rails) Fix to the top roof rail using 2x 14G x 50mm TEK screw (#6) + 2x 14G x 25mm TEK screws (#5) + 1x Hold down Bracket (#11) & to the mid & lower roof rails using 2x 14G x 25mm TEK screws (#5).
- Insert end caps (#12) into the ends of top rails
- Install notched 50x3 Equal Angle 'EA' (#18) to both sides of each top rail, fixing into roof rails (#1) with 1x 14G x 25mm TEK screw at each intersection.
- Position the additional PM36 top rails (#10) to suit the unit mounting ctrs, and equally loading the lower rails. Fix in place at each intersection with 4x 14G x 25mm TEK screws (#5)
- Fix the unit to the mount using the provided Anti-vibrations pads (#13,14) if suitable & M10x50mm Stainless Steel bolt/washers/Spring nut (#15,16,17). Ensure the face of the unit is within the max. distance from the upper roof rail. Tighten till there is approx. 2mm of crush on the anti-vibration pad.
- Ensure the work area is cleaned & free of any filings or debris.

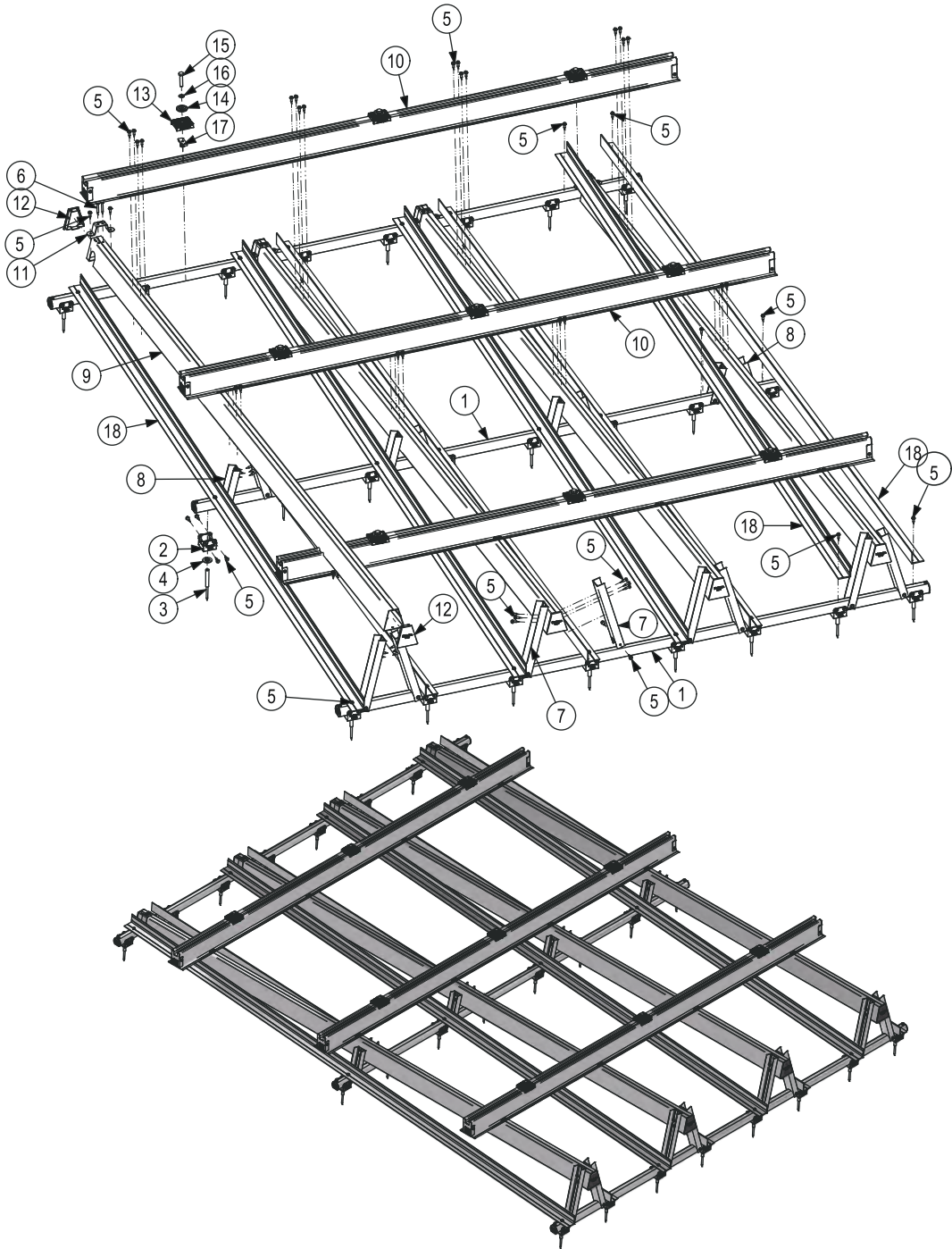
NOTE:

For tall slender units, strap bracing should be used & fixed back to the roof rails to protect the unit during strong winds.

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