FIXNORDIC.DK

Installation Guide
Unimount Platform

FIXNORDIC
proof enough.

UniMount Package Contents

UniMount Roof Platform

#2770 UniMount Roof Platform (FN-H1)

#2771 UniMount Roof Platform (FN-H2)

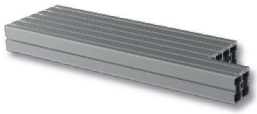
Included Boxes

#270016 UniMount Box C (Misc. Brackets)

#270017 UniMount Box D (Misc. Brackets)

#270034 UniMount Box A (UniMount - and Heat Pump Brackets)

#270035 UniMount Box B (Fix Point Brackets)



UniMount Profiles

Heat Pump Bracket

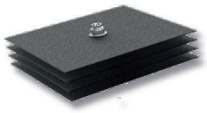
#270037 Heat Pump Bracket Light (for 2770)

#270039 Heat Pump Bracket (for 2771)

UniMount Roof Consoles

#2770-05234-109-2 UniMount Roof Consoles (Bitumen 2 Layer)

#2770-05234-299 UniMount Roof Consoles (Single Ply)



Included Parts

Roof Consoles and anchors for:

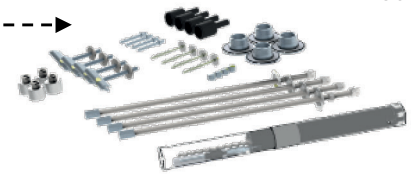
Cold Roof

Rafter and Plywood

Warm Roof

Trapez steel

Concrete



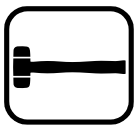
Tools and symbol overview

Measuring Tape

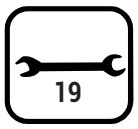
Leveling device
Water pas

Impact wrench (13 mm socket)
Capacity: (100 - 120 Nm)

13 mm Socket incl. 1/4" adapter
Article number: #250090



Soft hammer



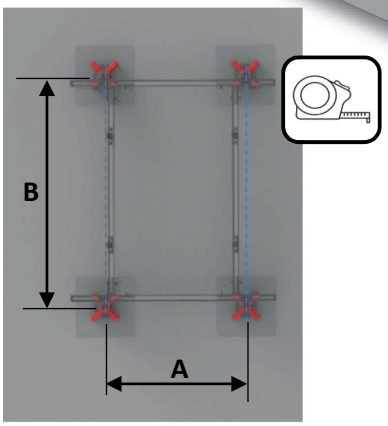
Wrench (19 mm)

Hex key (10 mm)

Manuel operation

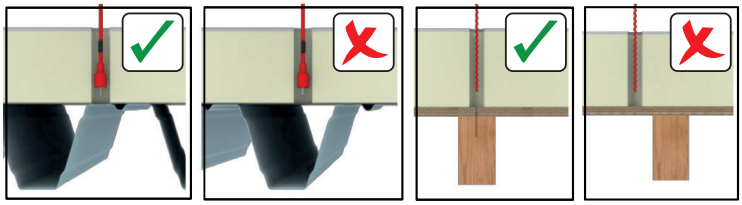
1. Positioning of Roof Consoles

The FIXNORDIC UniMount frame size 1 and 2 have been designed for various types of roof constructions and with a great installaion flexibility which enable a relatively rough positioning of the roof consoles.



The Roof Consoles must be positioned while paying attention to the following dimension table.
Before marking the console position points it will in many cases be benificial to consider the roof construction details like, the direction of cms corrugation or the orientation of rafters.

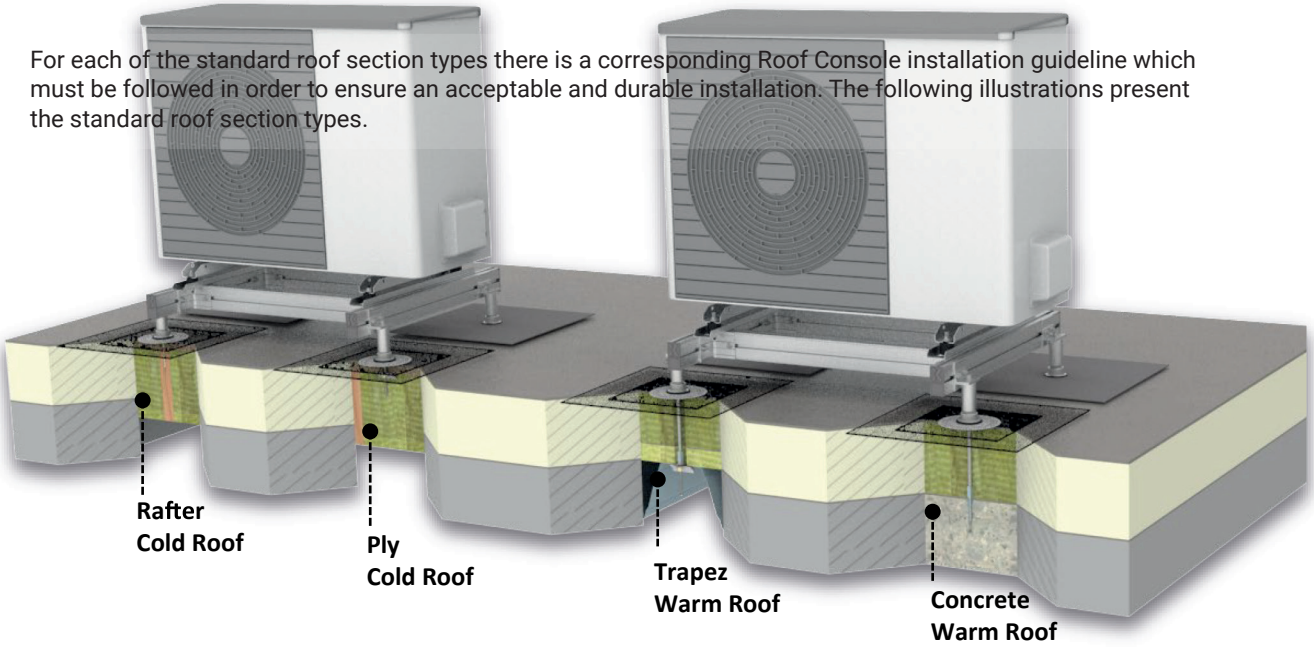
UniMount Type	Dimensions A [mm]	B [mm] min. or max	
2770	600±100	819±10	926±10
2771	600±200	1219±10	1475±10



The roof cross sections for warm trapez -and wood to the left descripe necessary considerations for anchor installations. For Plywood and Concrete roof deck types this specific approach is not required.

2. Roof Console installation

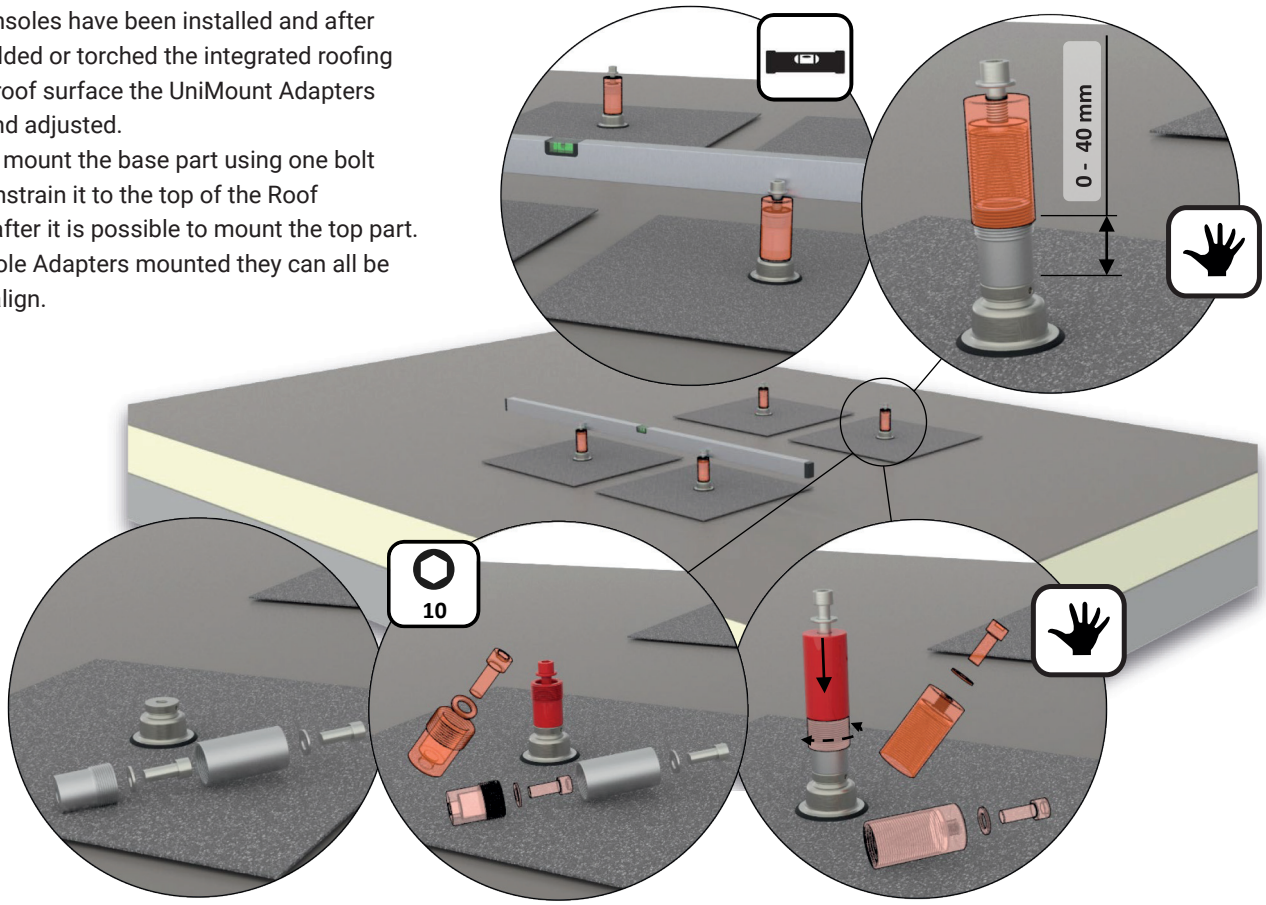
For each of the standard roof section types there is a corresponding Roof Console installation guideline which must be followed in order to ensure an acceptable and durable installation. The following illustrations present the standard roof section types.



The Roof Consoles come with an integrated piece of roofing membrane and in case of special project requirements for eg. bitumen or single ply membrane types the correct membrane must be specified in collaboration with FIXNORDIC A/S or an autorized agent.

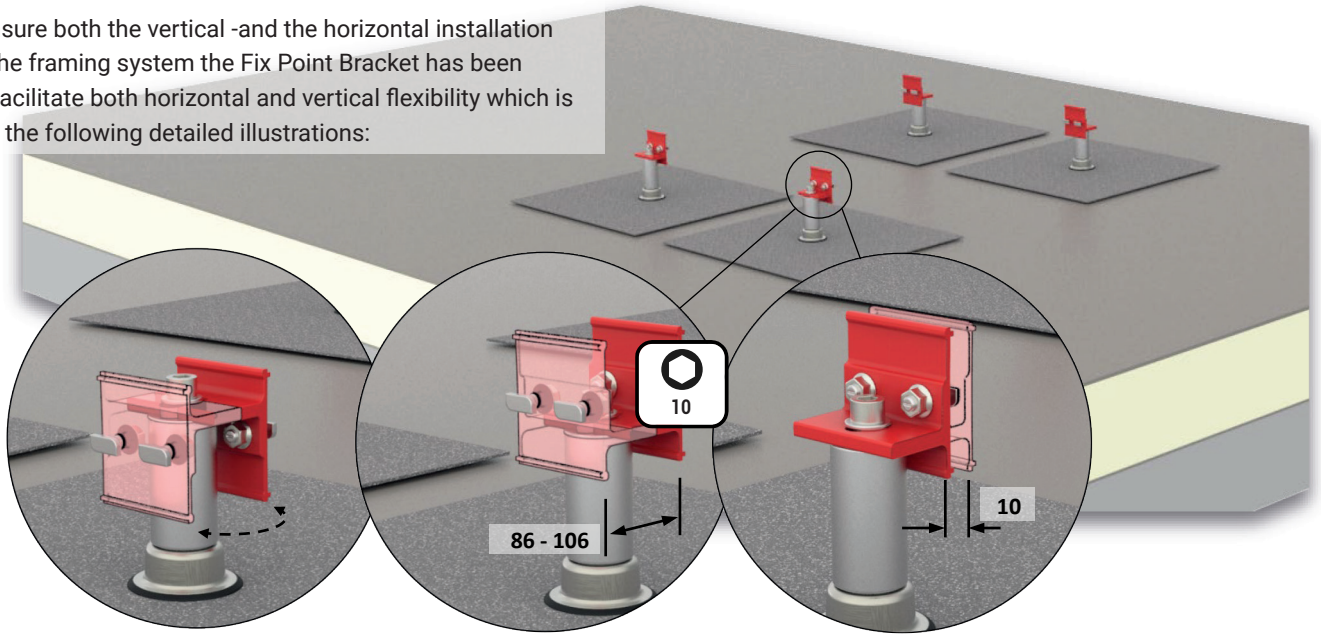
3. Rigid leveling of the UniMount Frame

Once the Roof Consoles have been installed and after the Roofer has welded or torched the integrated roofing membrane to the roof surface the UniMount Adapters can be installed and adjusted.
The first step is to mount the base part using one bolt with washer to constrain it to the top of the Roof Console and hereafter it is possible to mount the top part. With all four Console Adapters mounted they can all be leveled until they align.



4. Fix Point Bracket flexibility and installation

In order to ensure both the vertical -and the horizontal installation flexibility of the framing system the Fix Point Bracket has been designed to facilitate both horizontal and vertical flexibility which is illustrated on the following detailed illustrations:

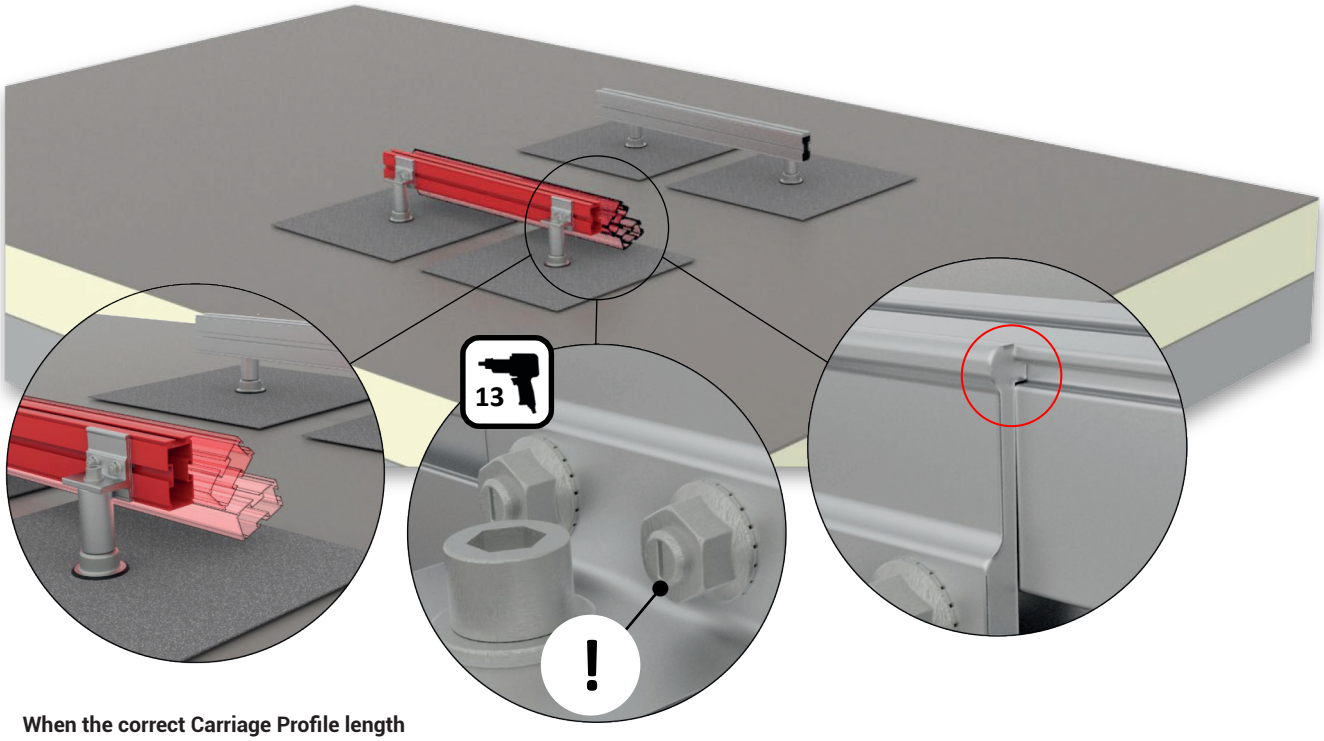


The Fix Point Bracket can be rotated and horizontally offset until the right height and position is reached.

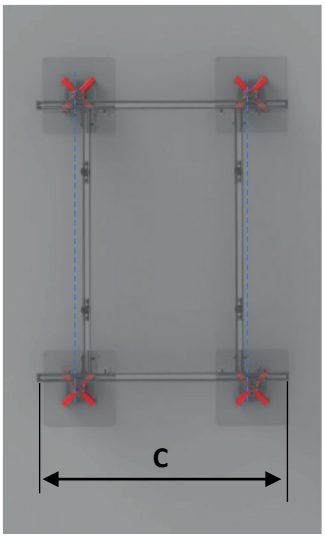
The long hole in the Fix Point Bracket helps to provide horizontal flexibility

5. Installation of Carriage Profiles

With the Fix Point Brackets installed and leveled in their intended positions the next step is to install the first set of Carriage Profiles. The table below present the correct dimensions for the length of the profiles.



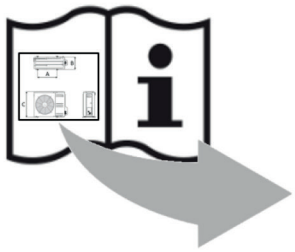
When the correct Carriage Profile length has been chosen the profiles must be coupled to the corresponding Fix Point Brackets. The illustrations above present this process and the detailed close ups show how the directional tracks in each Profile must be aligned with the two reinforcement rips on the Fix Point Brackets and finally how the Hammerhead bolts must be constrained with a cross oriented position mark.

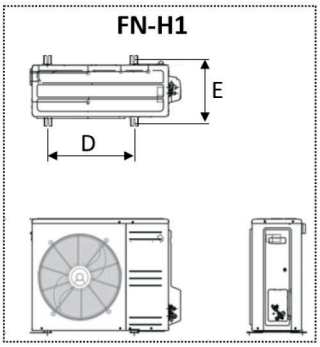


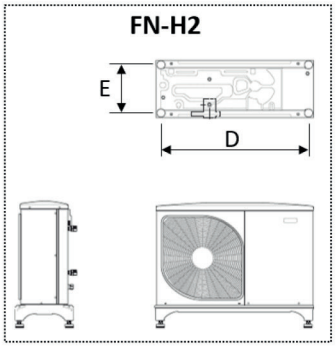
UniMount Type	C [mm] Dimension
FN-H1	780
FN-H2	900

6. Installation of Carriage Profiles (Dimensions)

For the installation of the Intermediate Carriage Profiles the respective heat pump installation guide line must be checked in order to define the current anchoring positions and subsequently determine the center distance between the two Intermediate Carriage Profiles. The following table set the reference between the heat pump dimensions and the UniMount.



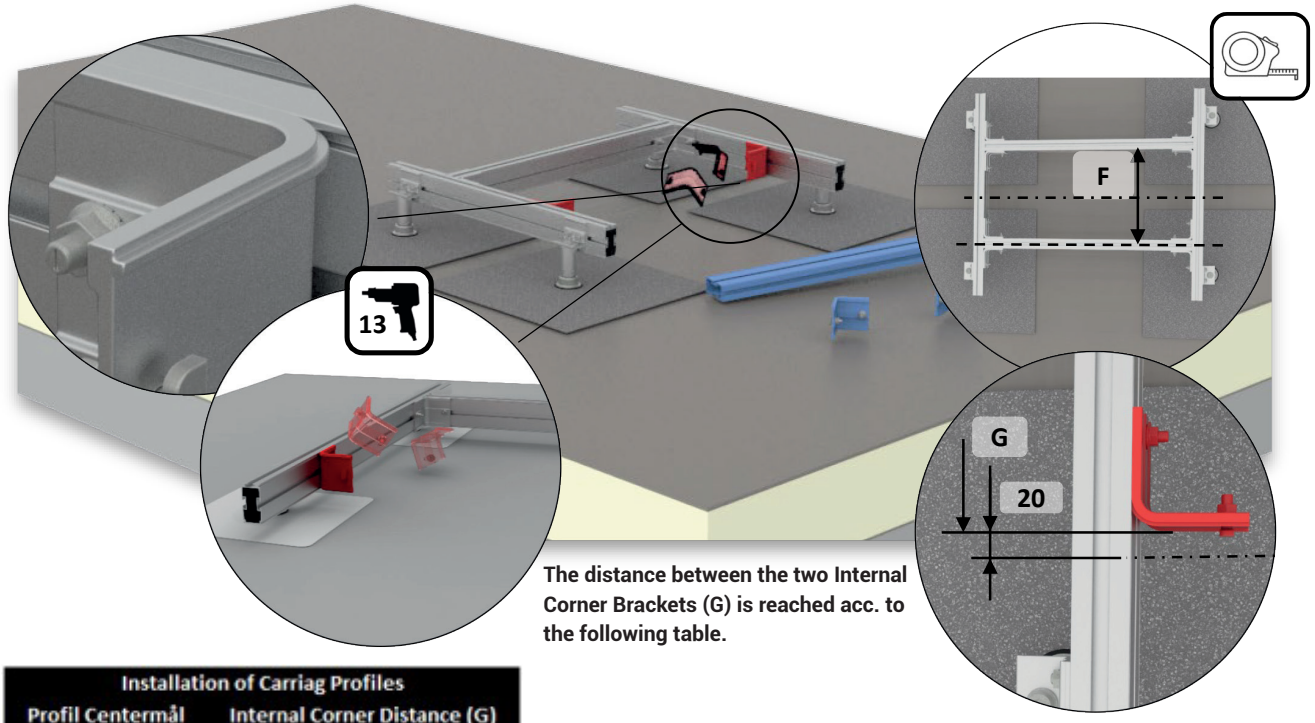




The illustration present the dimensions which can be found in the data sheet from the equipment manufacturer and where the dimension (E) is relevant for the positioning of the Intermediate Carriage Profiles.

UniMount	Heat Pump	UniMount	
	Unit Depth	Profile C - C (F)	Heat Pump Adapter C-C (D)
FN-H1	E	E -73	D
FN-H2	E	E + 50	D

7. Installation of Carriage Profiles (Internal Corner Bracket)



The distance between the two Internal Corner Brackets (G) is reached acc. to the following table.

Installation of Carriag Profiles	
Profil Centermål [mm]	Internal Corner Distance (G) [mm]
F	F - 2 x 20 mm

The installation of the Carriage Profiles is done on to the Cross Beam Profiles by applying 4 Internal Corner Brackets per Cross Beam. The Internal Corner Bracket does as the Fix Point Bracket and Assembly Bracket include the reinforcement rips which must be aligned with the corresponding tracks in the Carriage Profile. The following illustrations show the requirments for instaling the Internal Corner Bracket as well as the Carriage Profiles.

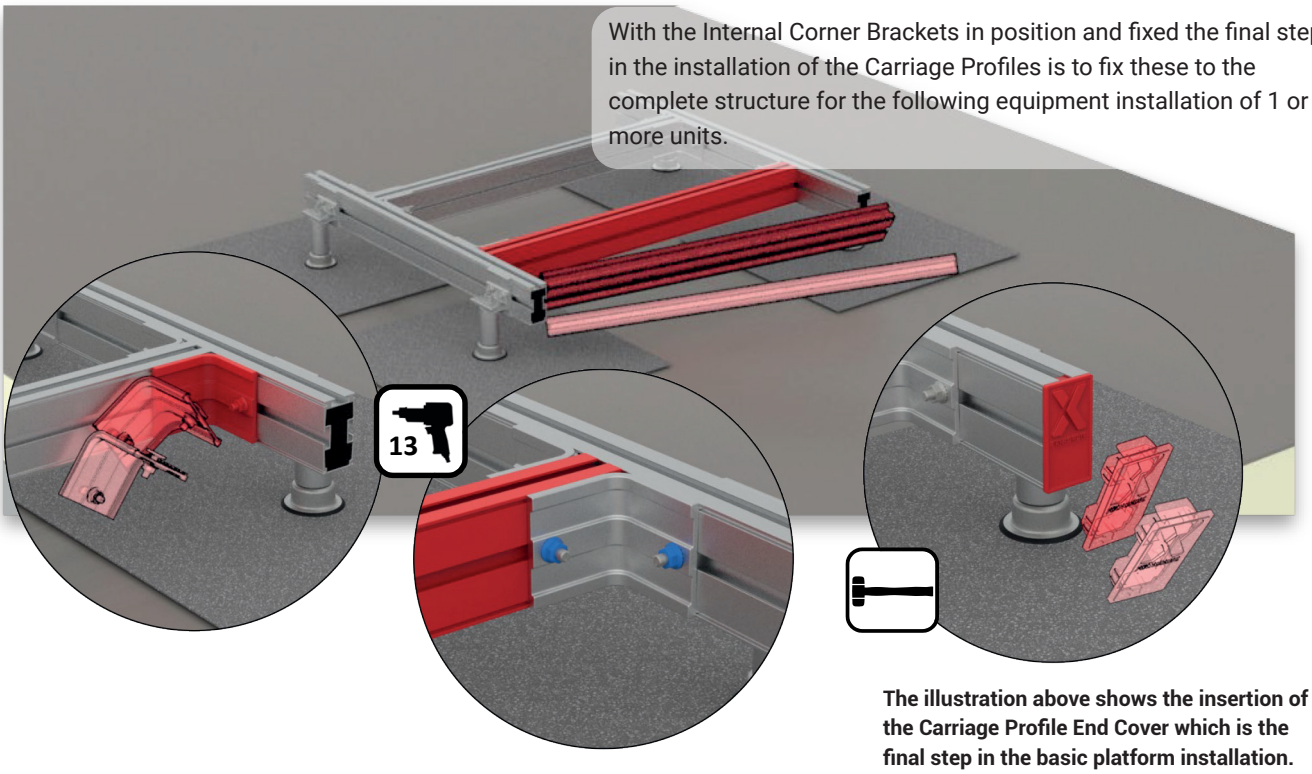
For both frame sizes the two Carriage Profiles must be positioned symmetric relative to the installated Cross Beams as illustrated above where the dimension (F) corresponds to the dimension (E).

Specific Installation steps for frame type FN-H1

The two types of standard UniMount frames have been designed to offer both an easy and flexible interface towards the two most known industri standards for Heat Pump mounting feet on the Market. The following pages describe the specific installation steps for the two types.

8. Installation of Carriage Profiles (Fixation)

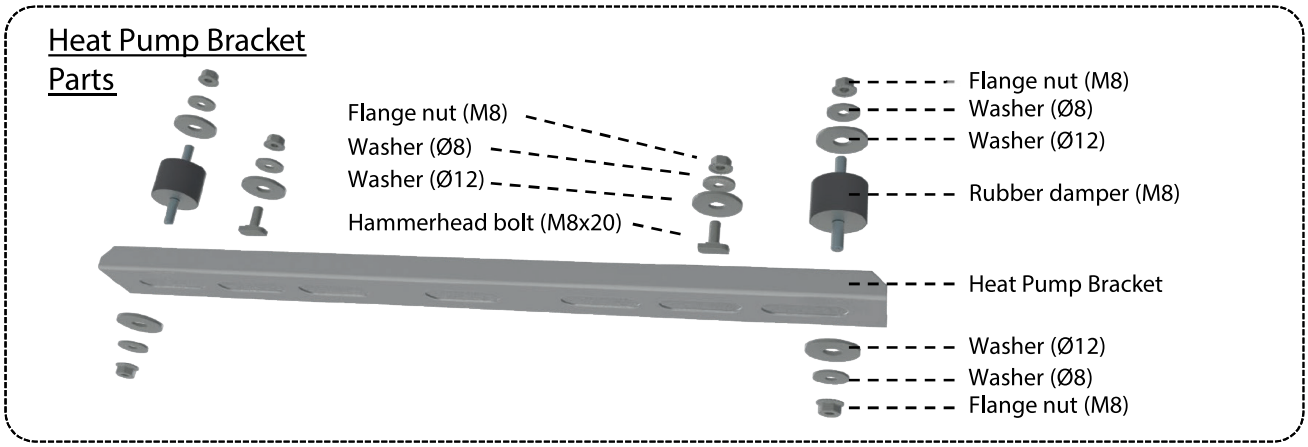
With the Internal Corner Brackets in position and fixed the final step in the installation of the Carriage Profiles is to fix these to the complete structure for the following equipment installation of 1 or more units.



The Carriage Profile is fixed to the Installed Internal Corners by constraining the Hammer-head bolt while assuring that the position mark is oriented correctly. The final fixation is to apply the missing two Internal Corners 1 piece per profile end.

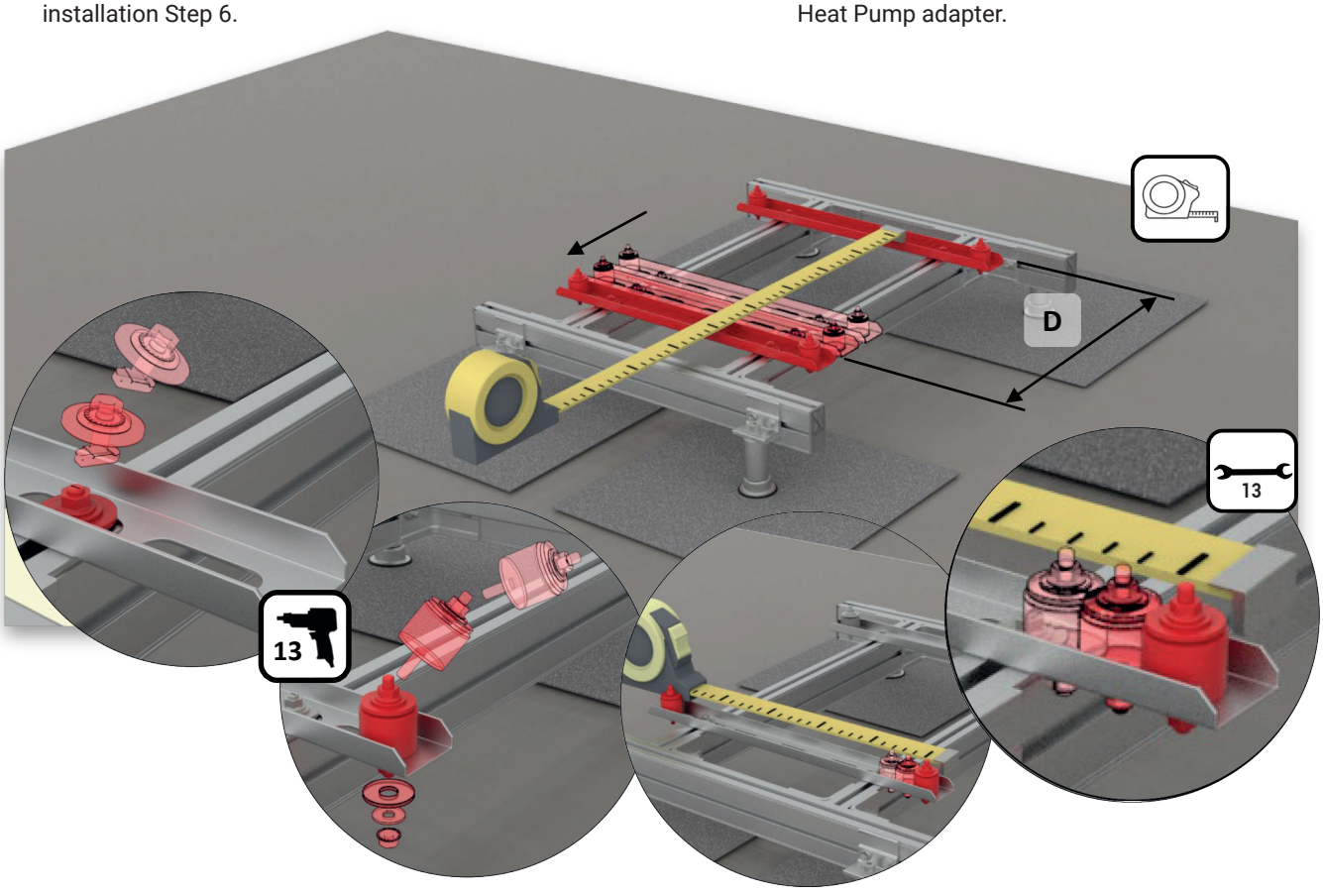
The illustration above shows the insertion of the Carriage Profile End Cover which is the final step in the basic platform installation.

9. Heat Pump Bracket Installation (FN-H1)



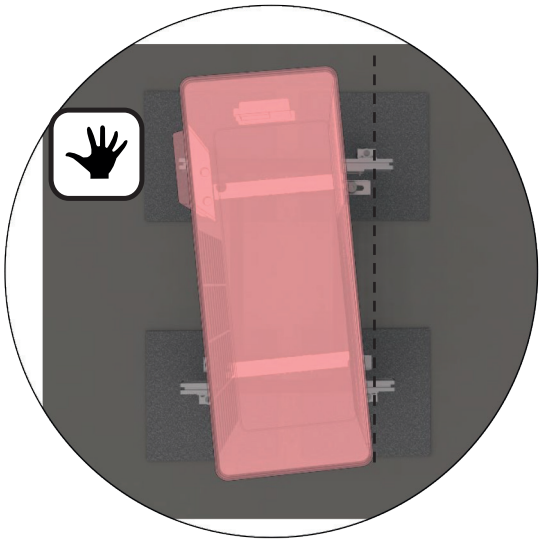
The two Heat Pump Brackets must be positioned with center distance which corresonds to the dimension (D) defined in the installation Step 6.

When the Heat Pump Brackets are fixed the rubber dampers for the heat pump must be installed onto the Heat Pump adapter.



10. Heat Pump Installation (FN-H1)

The last step in the UniMount installation is to install the Heat Pump it self and this stage this is easily done by attaching the rubber damber interface to the mounting feet of the Heat Pump.



Align the Heat Pump with the UniMount Frame before tigthning the bolts.

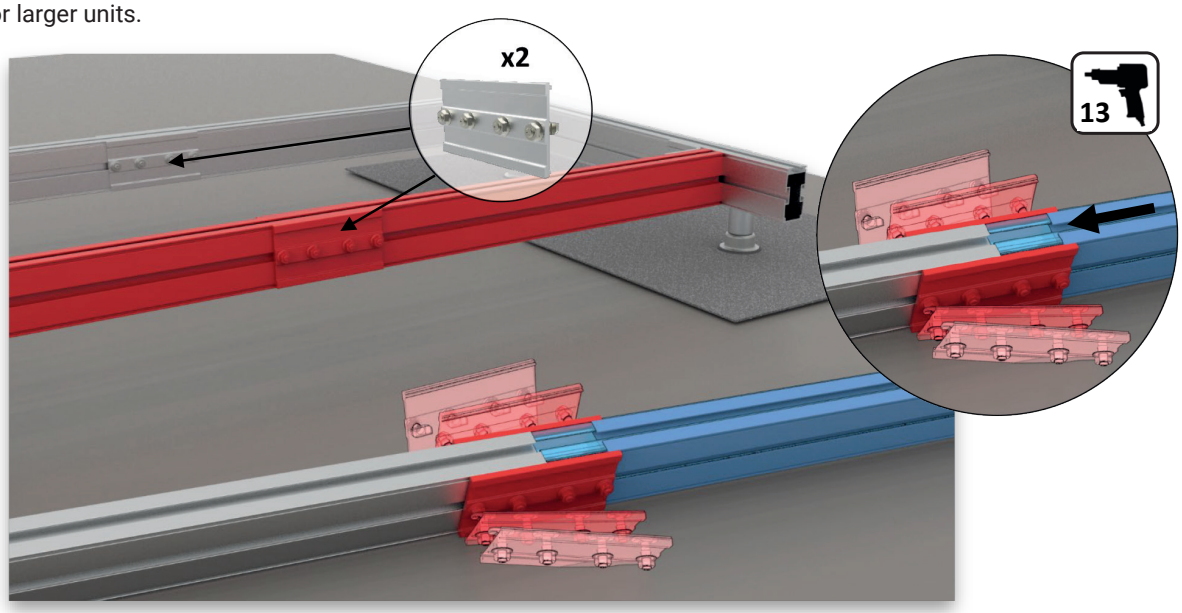
Before the Heat Pump is brought into position the nut and washers must be removed.

When the Heat Pump is brought to the final installation position the washers are brought into postion and the retaining nut is constrained.

Specific Installation steps for frame type FN-H2

11. Installation of Carriage Profiles (Assembly)

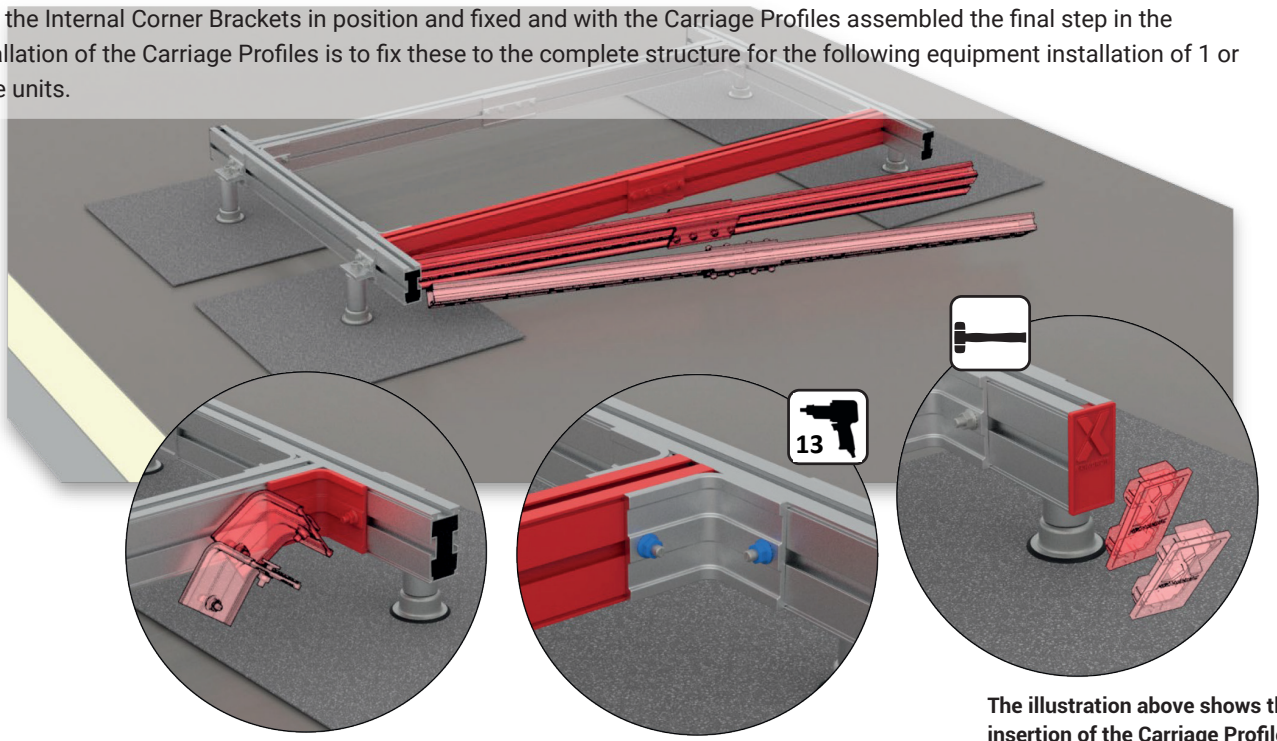
The following installation step describe the installation for Heat Pumps with the installation interface typical for larger units.



Before the Carriage Profiles can be assembled with the mounted structure the profiles must be assembled by mounting 2 pieces of the Assembly Bracket to each of the two joints.

12. Installation of Carriage Profiles (Fixation)

With the Internal Corner Brackets in position and fixed and with the Carriage Profiles assembled the final step in the installation of the Carriage Profiles is to fix these to the complete structure for the following equipment installation of 1 or more units.

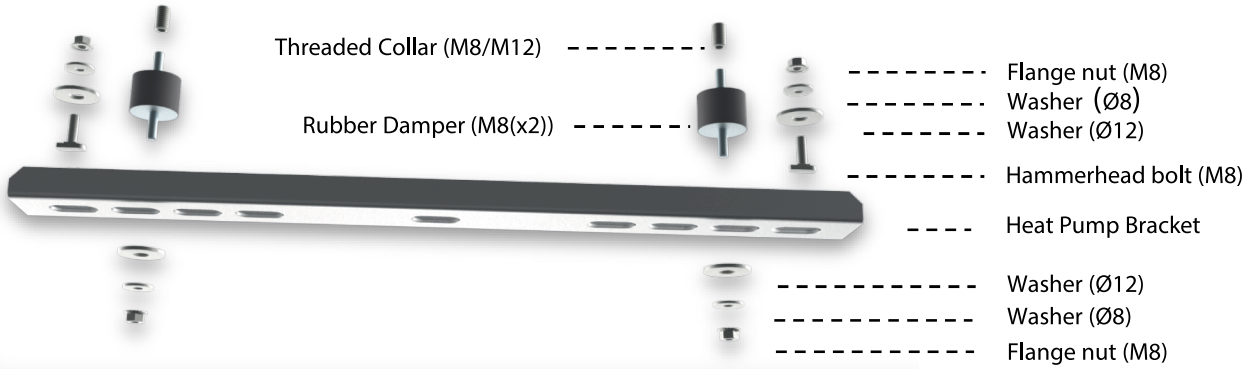


The Carriage Profile is fixed to the Installed Internal Corners by constraining the Hammer-head bolt while assuring that the position mark is oriented correctly. The final fixation is to apply the missing two Internal Corners 1 piece per profile end.

The illustration above shows the insertion of the Carriage Profile End Cover which is the final step in the basic platform installation.

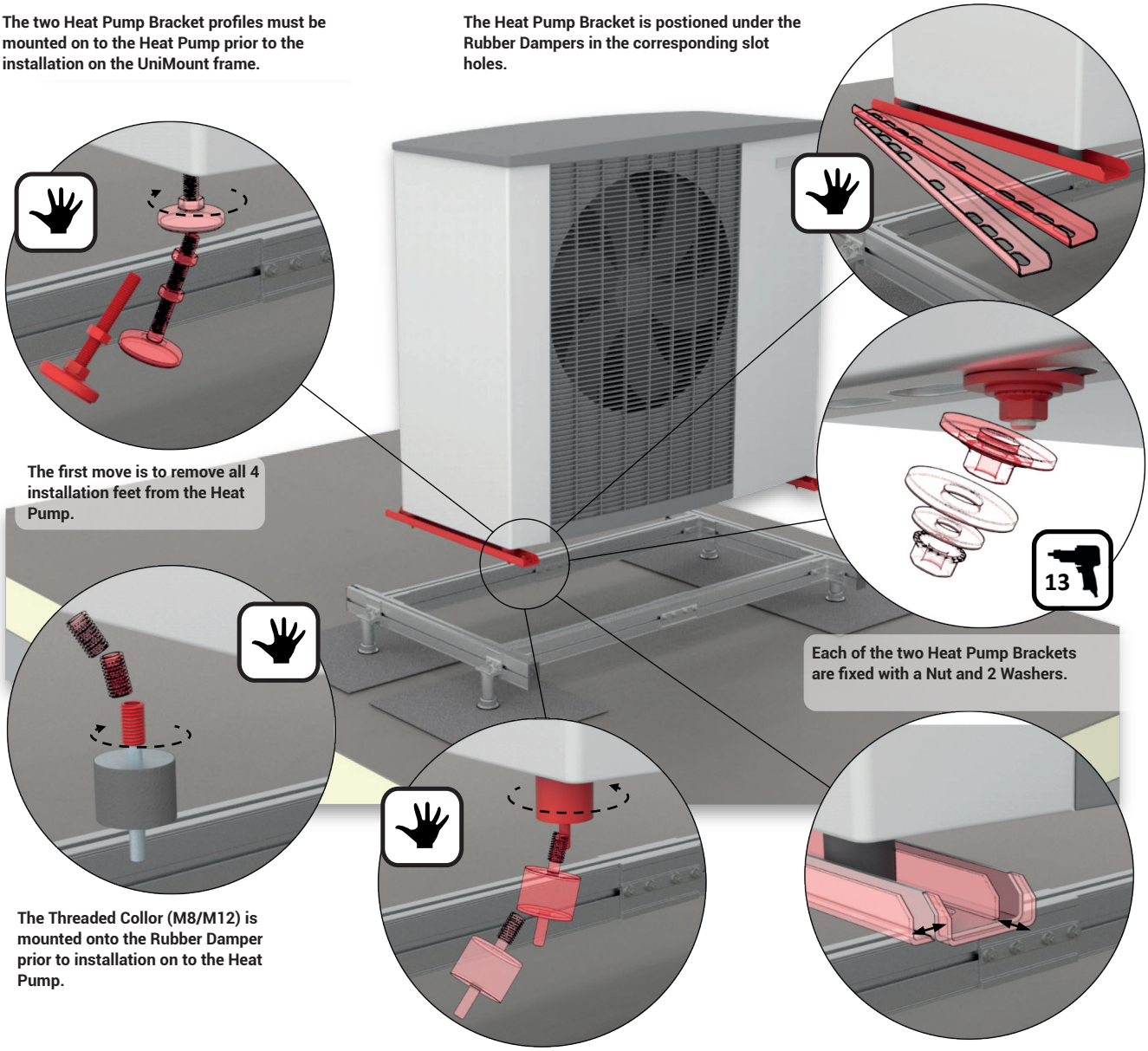
13. Heat Pump Bracket Installation (FN-H2)

Heat Pump Bracket Parts



The two Heat Pump Bracket profiles must be mounted on to the Heat Pump prior to the installation on the UniMount frame.

The Heat Pump Bracket is postioned under the Rubber Dampers in the corresponding slot holes.



The first move is to remove all 4 installation feet from the Heat Pump.

Each of the two Heat Pump Brackets are fixed with a Nut and 2 Washers.

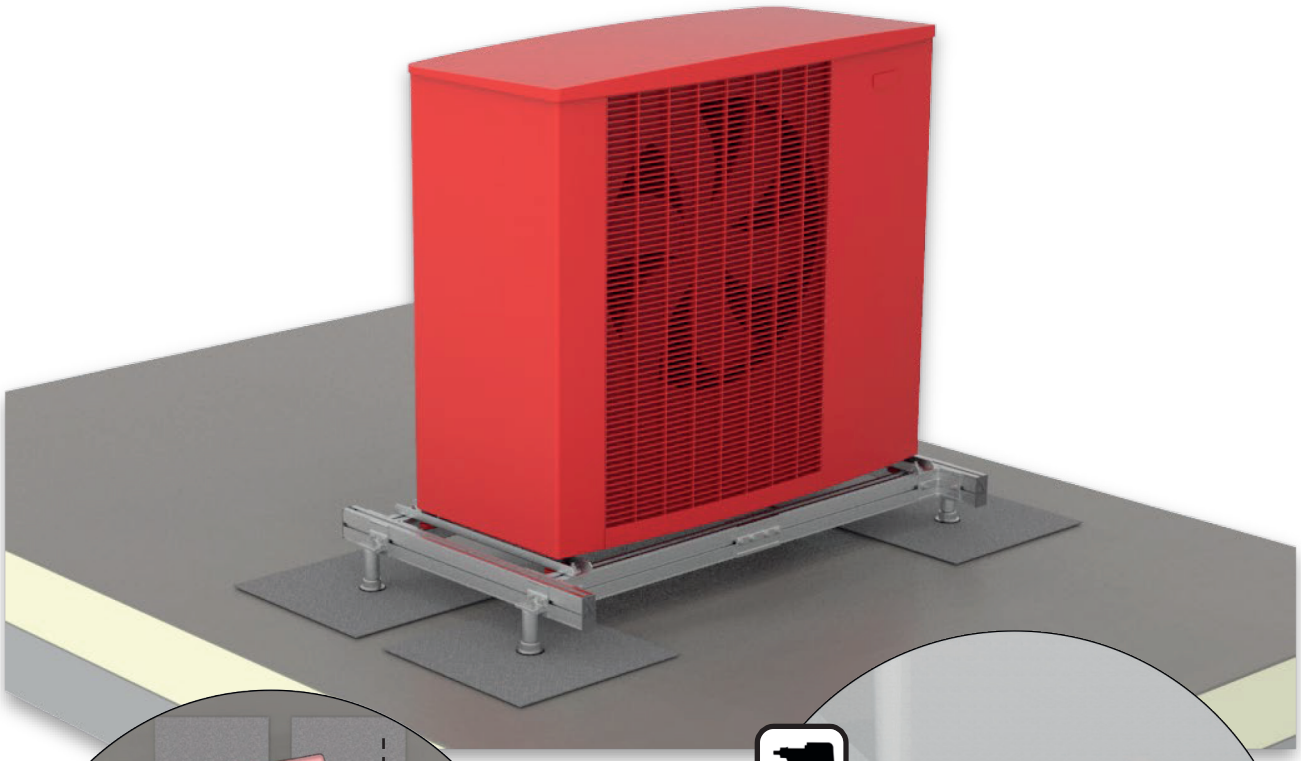
The Threaded Collor (M8/M12) is mounted onto the Rubber Damper prior to installation on to the Heat Pump.

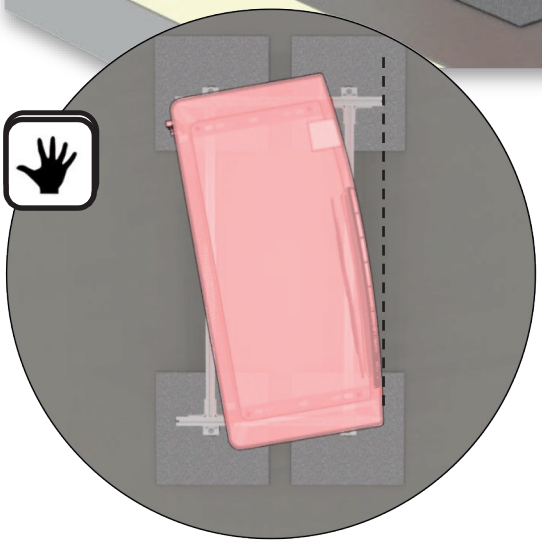
With the demounted equipment feet the rubber damper can be fixed into the M12 holes of the equipment.

The postion of the Heat Pump Bracket can be adjusted using the play from the size of the slotted holes.

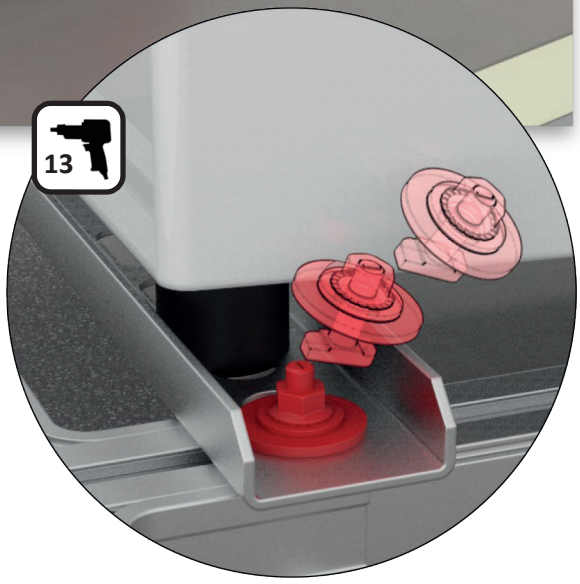
14. Heat Pump Installation (FN-H2)

With the both of the Heat Pump Bracket firmly fixed to the Heat Pump it can be finally fixed to the UniMount Frame.





Align the Heat Pump with the UniMount Frame before final constrainment.



When the Heat Pump is brought to the final installation position the Hammerhead bolt, washers and nut are inserted into the Carriage Profile through the slotted hole of the Heat Pump Bracket.