INSTALLATION GUIDE FOR VPM 600-3200

1. Clearance requirements

   Future servicing and maintenance needs should be considered when installing the units. The following minimum clearances are required in front of the system:

Model VPM	Clearance [mm]
600-1500	800
2200-3200	1100

   For length, height and depth, see product data sheet. You must also allow space for the condensation drain, i.e. minimum 88 mm under the drain spout. If your system is fitted with foundations and water traps made by Nilan, these are designed to fit the system and no additional clearance is required.

2. Erection

   This is a quiet, low vibration system. However, the fact that vibrations may be transmitted to the building fabric should be taken into account, as vibrations can cause irritating noise. To create a barrier between the system and its surroundings, fit flexible connections to all inputs and outputs. Locate the system on a foundation with vibration dampers. If you do not use a foundation and sylomer vibration dampers manufactured by Nilan, you must build a similar foundation with vibration dampers. The foundation and vibration dampers are accessories and should be ordered separately.
   NB: To ensure that the condensation drain functions correctly, the system should always be level.
   For detailed installation data, see the end of this section.
   NB: VPM 600 has a built-in foundation. No other foundation is required.

3. Water trap for condensation drain

   We recommend that you install a Nilan water trap (item no.: 7749). If you do not, you should install a similar function.
   Install a condensation drain with an even slope of minimum 1 cm per meter.
   The drain should be frost-free and lead to the nearest drain. For frost-free operation, you will often need to insulate the parts of the drain and/or its electrical trace which are outside the building envelope. See water trap drawing at the end of this section.

5. Check boiler plate labelling before connecting to the power supply.

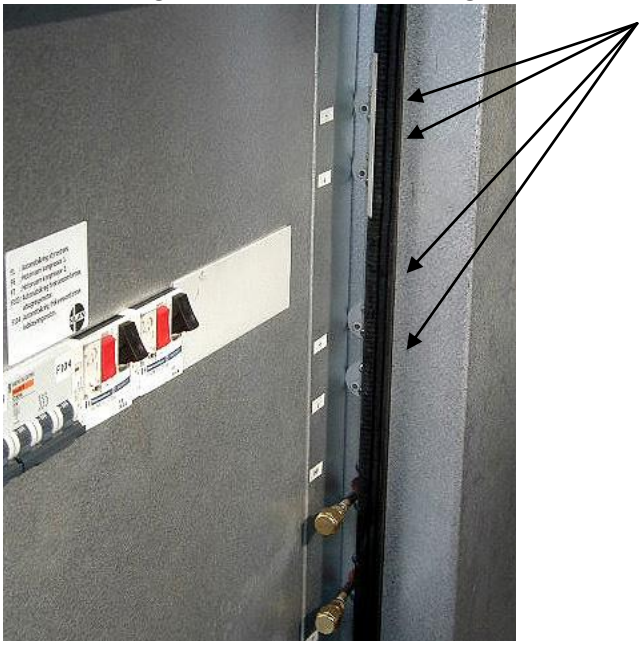
6. Remove loose items before commissioning the system.

7. ***Important: Remove compressor transport brackets before commissioning the system!***
   The compressor mount is designed to dampen compressor vibrations. If you fail to remove the transport brackets, the compressor mounting will not function as intended.

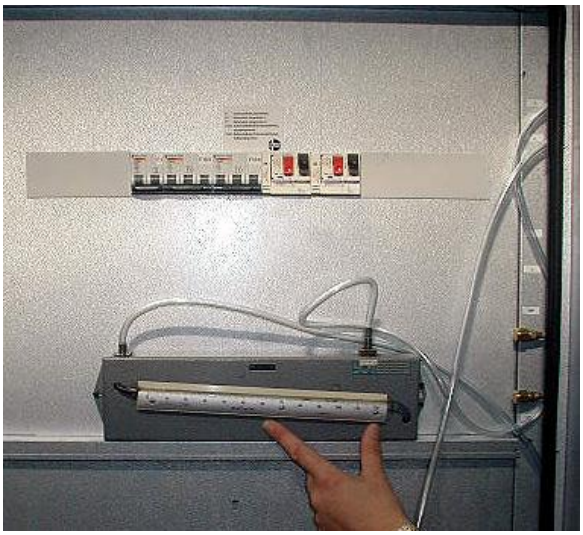
8. Before fitting a water heating element, clean the pipe system. If you fail to clean the pipe system, dust and other impurities may impair the heating element valve seal. See separate instructions for mixing loop.

9. Check fan circulation direction. Fan circulation and mixing loop **must** be fitted correctly!
   If fan circulation direction is incorrect, the system will not function as intended.

10. Once the valves are regulated, measure primary air volumes. Adjust to required air volume if required.
    All VPM models are simple to adjust. Measure pressure loss over the spigots, which are to the far right on the post behind the electrical panel door.
    Measure with a dry evaporator using the "ventilation only" setting. Don't forget to return the system to the normal operational setting: Press far left button on CTS 5000 panel twice until the automatic button lights up.
    Using the pressure loss measurement, read off air volumes on the enclosed pressure loss graphs. To measure pressure loss, use an inclined tube manometer or similar measuring instrument. See images:



The spigots are positioned in pairs. The upper output measures pressure loss over the condensator/evaporator on the air intake side. while the lower output measures pressure loss over the condensator/evaporator on the extract air



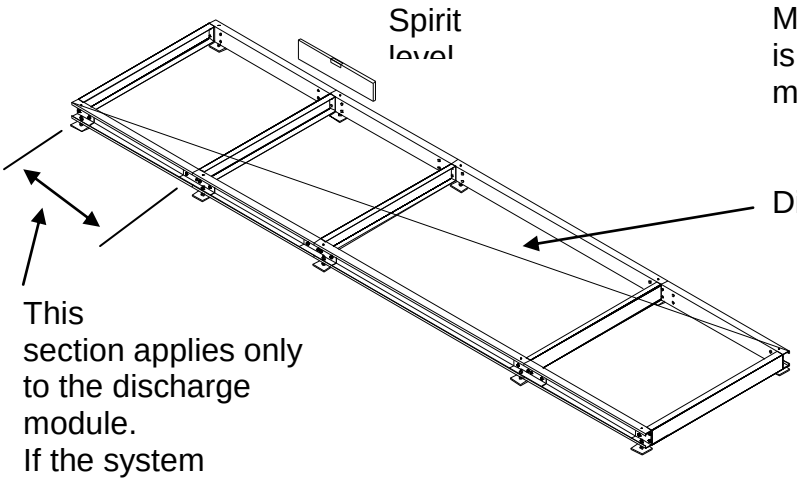
Attach the measuring instruments to the spigots and read off the pressure difference.

11. Measure fan motor power consumption. This must not exceed the power consumption
value (see label).

Erection

Erection shown here is for a system with a discharge module. If the system delivered has no discharge module, disregard step 9.

Step 1.



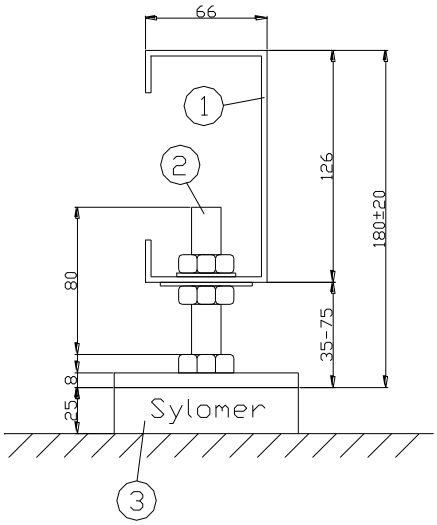
Make sure the foundation is level. Make diagonal measurements.

Diagonal measurement

This section applies only to the discharge module.
If the system delivered has no discharge module.

Step 2.

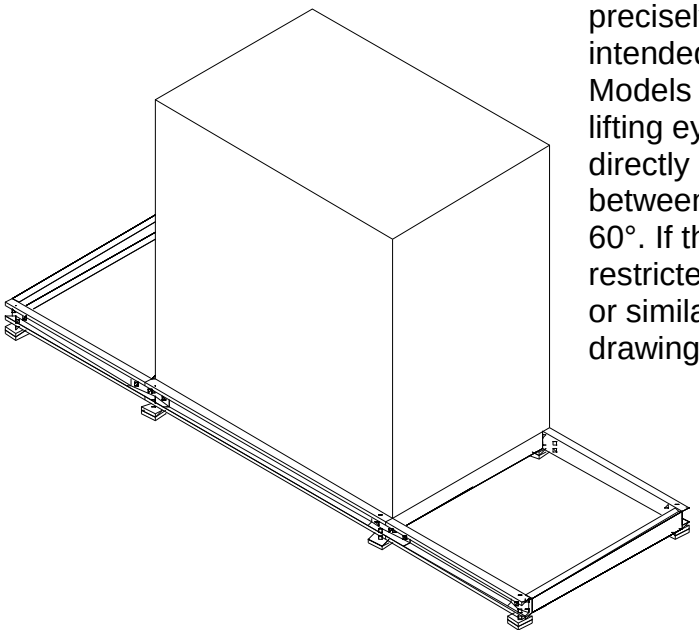
Mount sylomer vibration dampers.
How to select the correct type of sylomer vibration dampers, see separate instructions.
Sylomer vibration damper fitting instructions



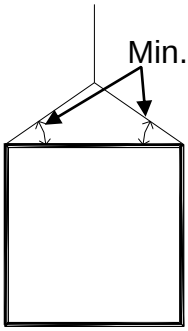
Fit the sylomer vibration dampers under the adjusting screws.

1. Nilan foundation
2. Adjusting screws
3. Sylomer vibration dampers

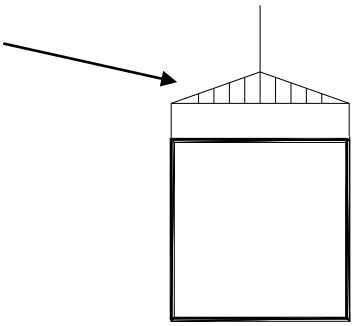
Step 3.



Position the middle section precisely at the centre of the space intended for the foundation. Models larger than VPM 600 have lifting eyes. If using chains or belts directly in the fittings, the angle between them must not exceed 60°. If this is not possible in a restricted space, use a lifting beam or similar equipment. See drawings (right):



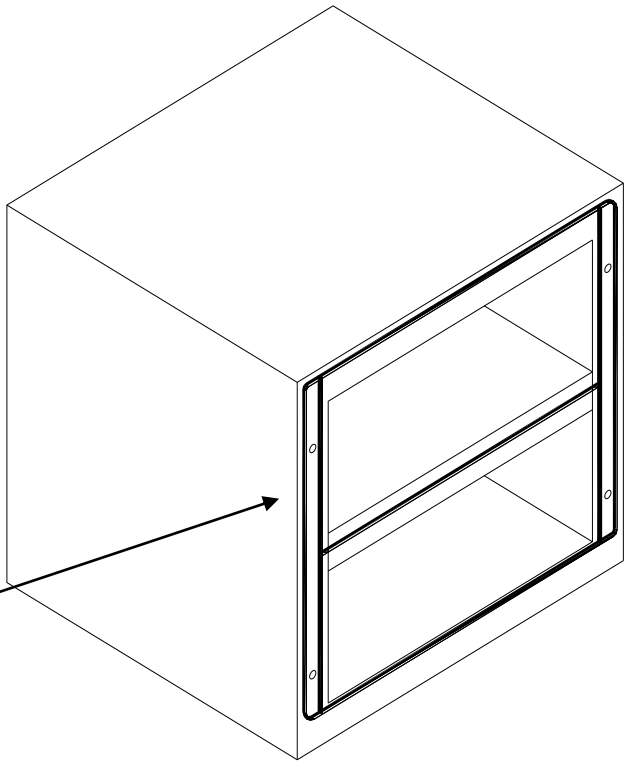
Lifting beam



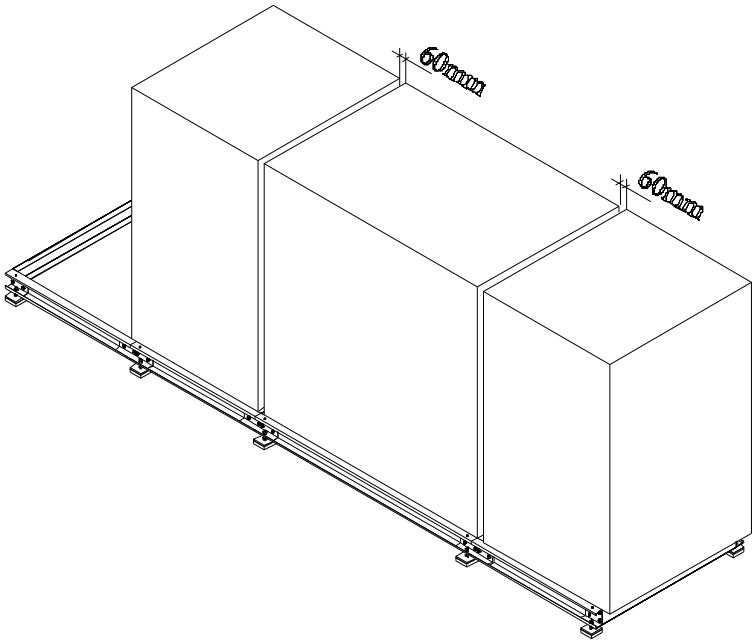
Step 4.

Remove protective paper and affix sealing tape (supplied) to both ends:
If the system has a discharge module, affix sealing tape to the discharge module and filter/fan sections

Sealing tape

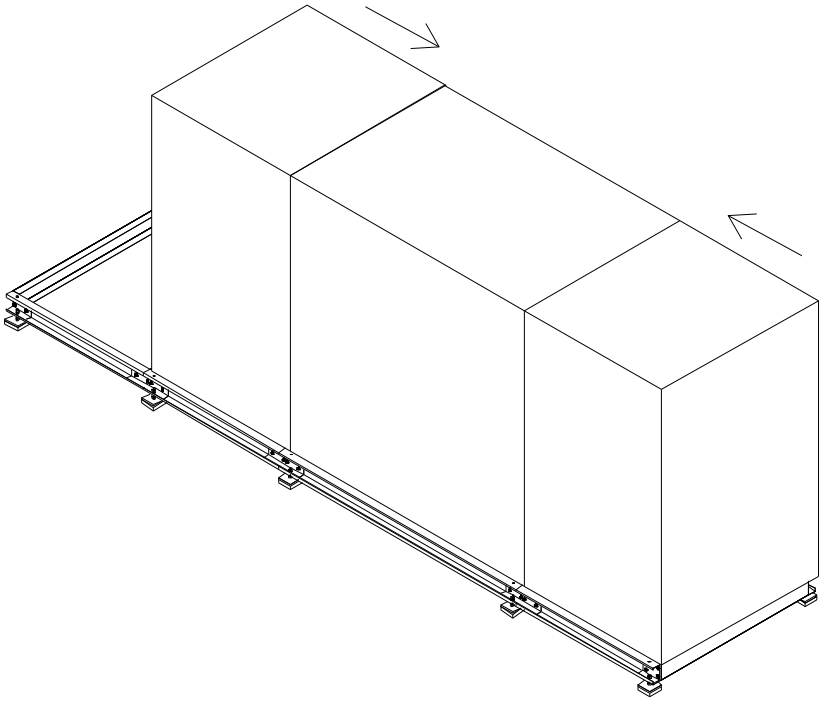


Step 5.

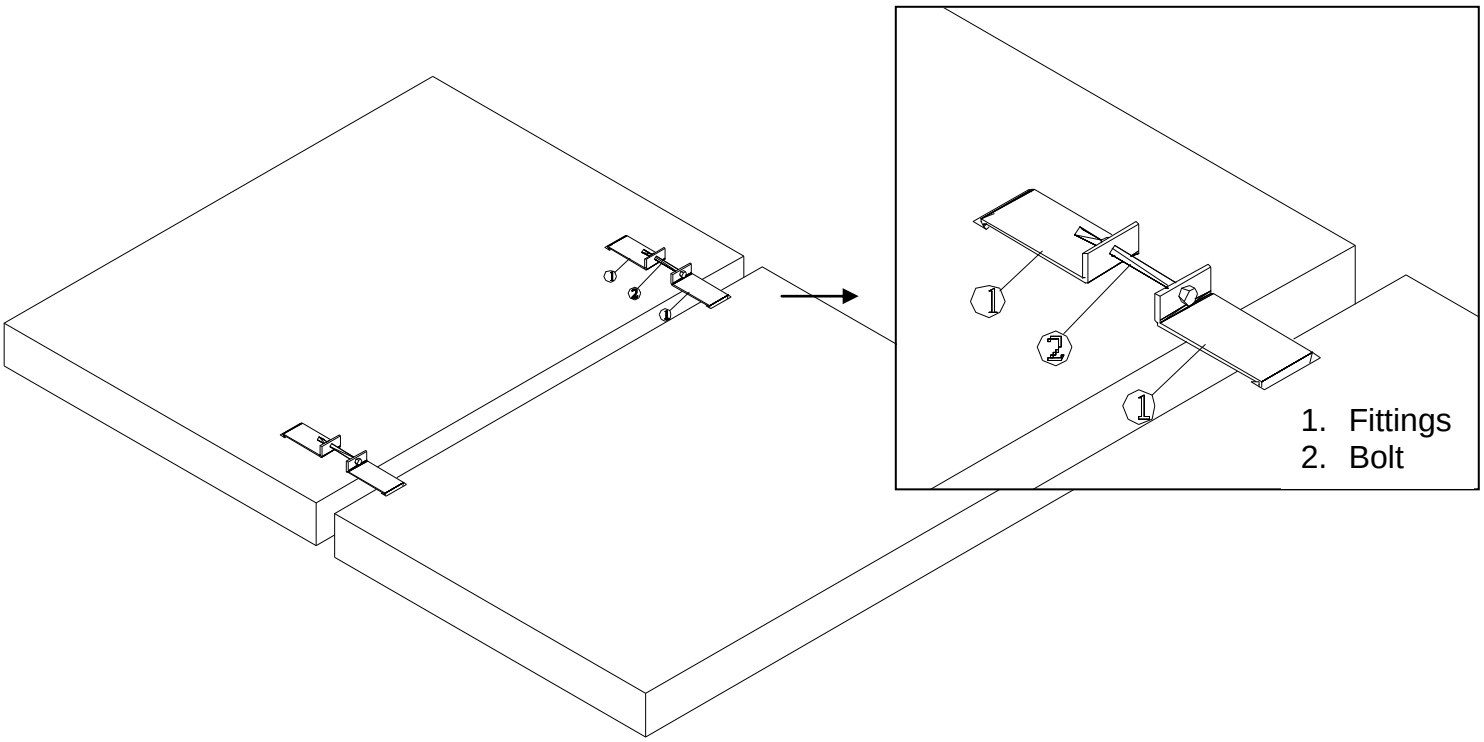


Position the filter/fan sections about 60 mm from the middle section.

Step 6.

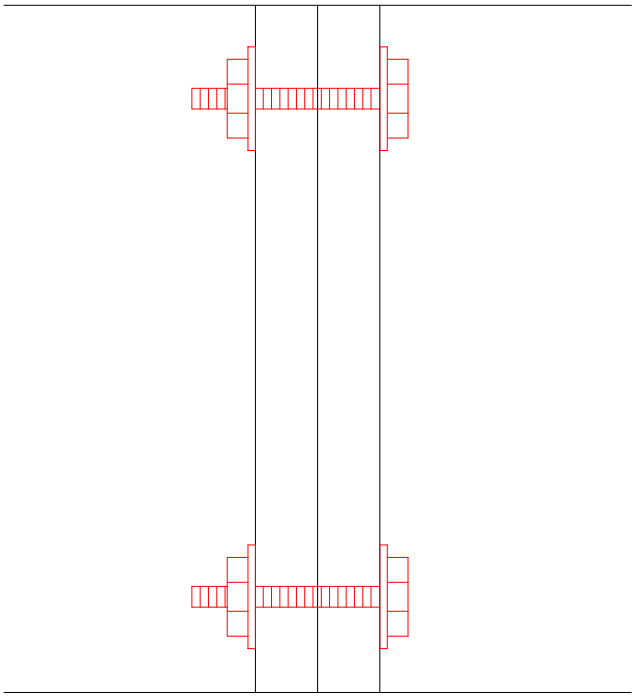


Pull the filter/fan sections into place using the enclosed fittings/bolts, with the middle section. Mount the fittings in the rectangular track at the bottom of the sections. Tighten bolts and pull the sections together. See next page.

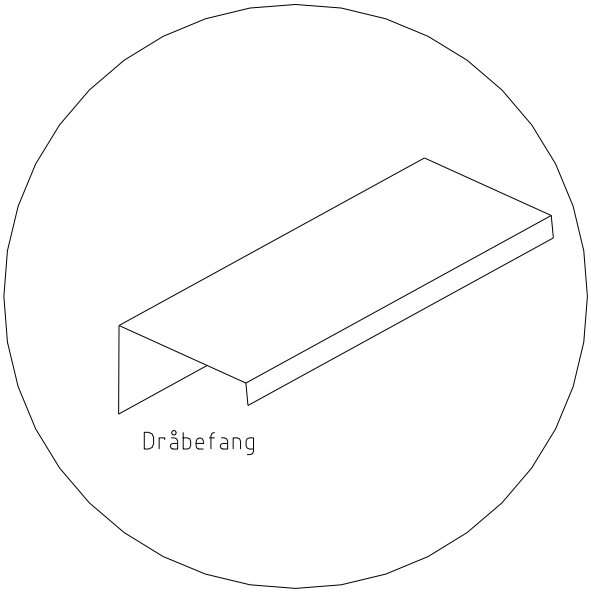


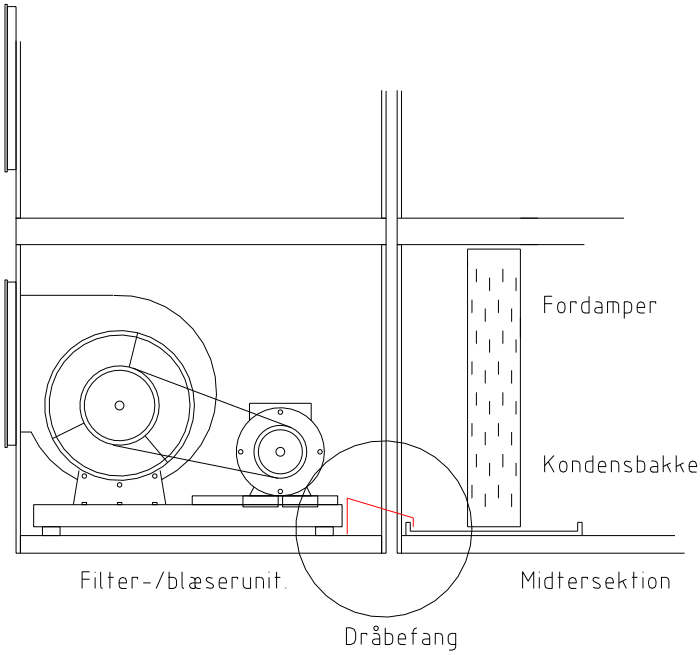
After fitting, fill rectangular track with silicone.

Step 7.
Screw the modules together using galvanized screws 10 x 130 mm
At each end of the sections, there are 4 holes, 2 in each post, for this purpose. (Exception: VPM 3200 has 6 holes in each end).

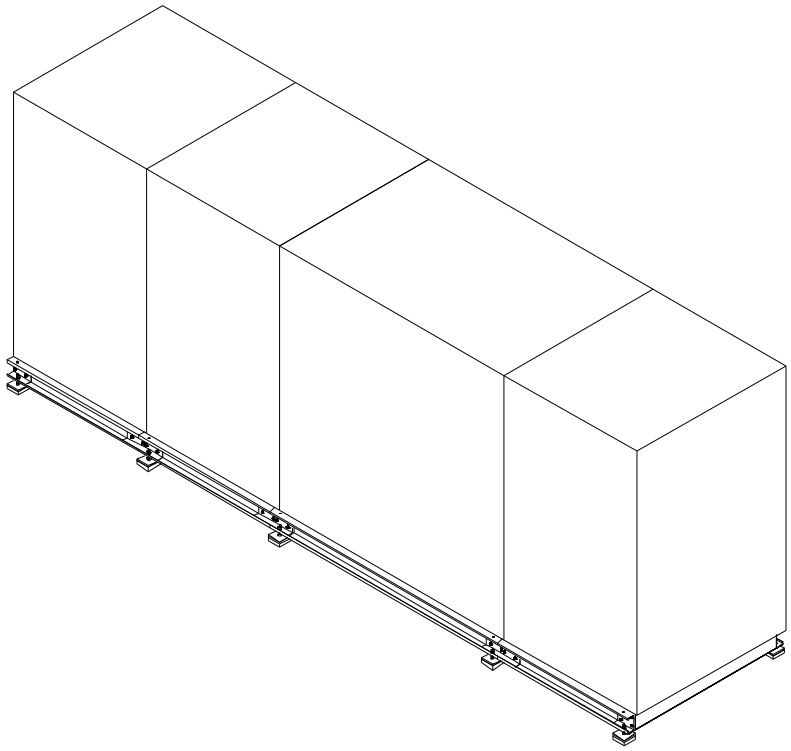


Step 8.
Fit the droplet separator to the VPM module.



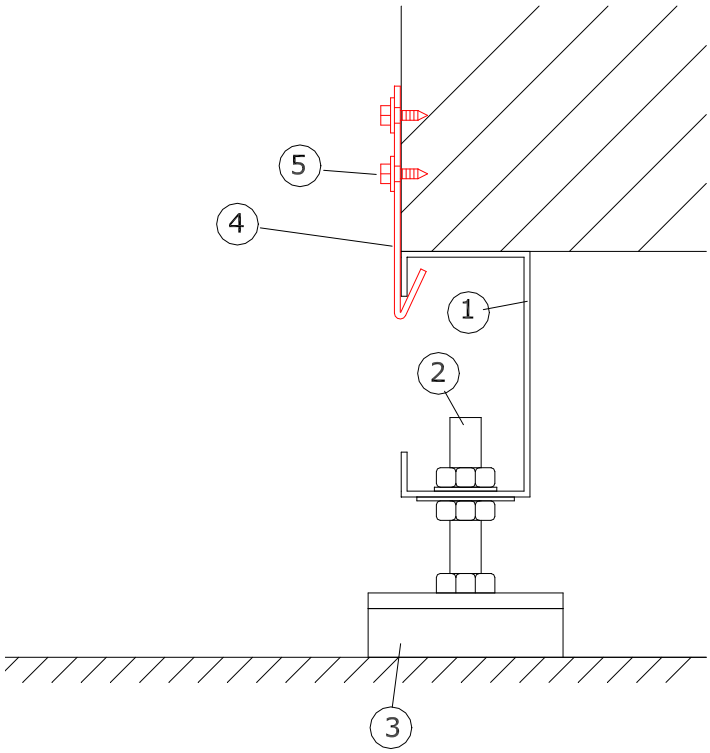


Step 9.
If the system is supplied with a discharge module, repeat steps 3,4,5,6 and 7 for the discharge module.

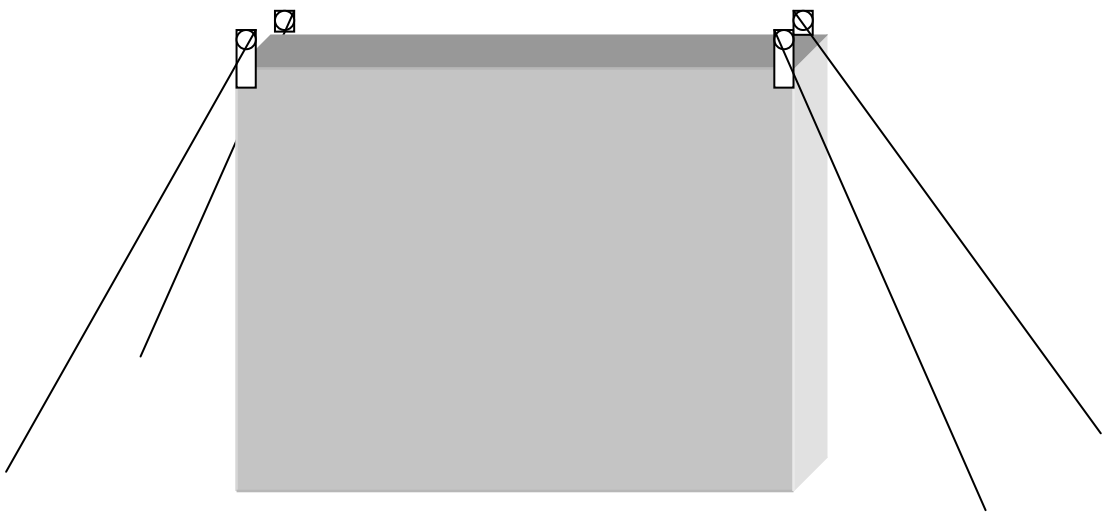


Safety
If the system is erected outdoors, it must be secured firmly to the underlay. Storm fittings are available from Nilan (item no, 77223). The fittings secure the system to its foundation. See drawing (below).

1. Nilan foundation
2. Adjusting screws
3. Sylomer vibration dampers
4. Storm fittings
5. Self-tapping screws (6.3 x 19) and washer.
   Drill holes with 4.5 mm drill head

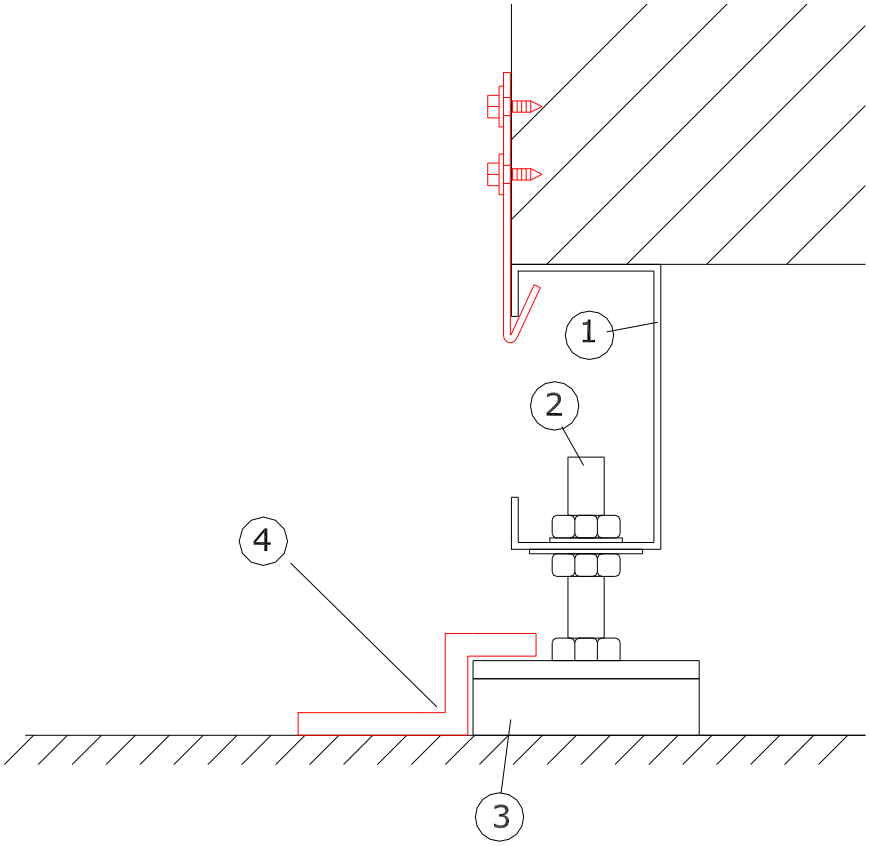


The system can be secured in different ways. The safety measures should depend on how exposed the system is. The installer is liable to ensure that the system is adequately secured.
Please find the following two examples showing how the system can be secured.
Some modules have lifting eyes, to which guide ropes can be fitted and secured to the underlay (see drawing).



You can also fit fittings to the feet with sylomer vibration dampers. See drawing.

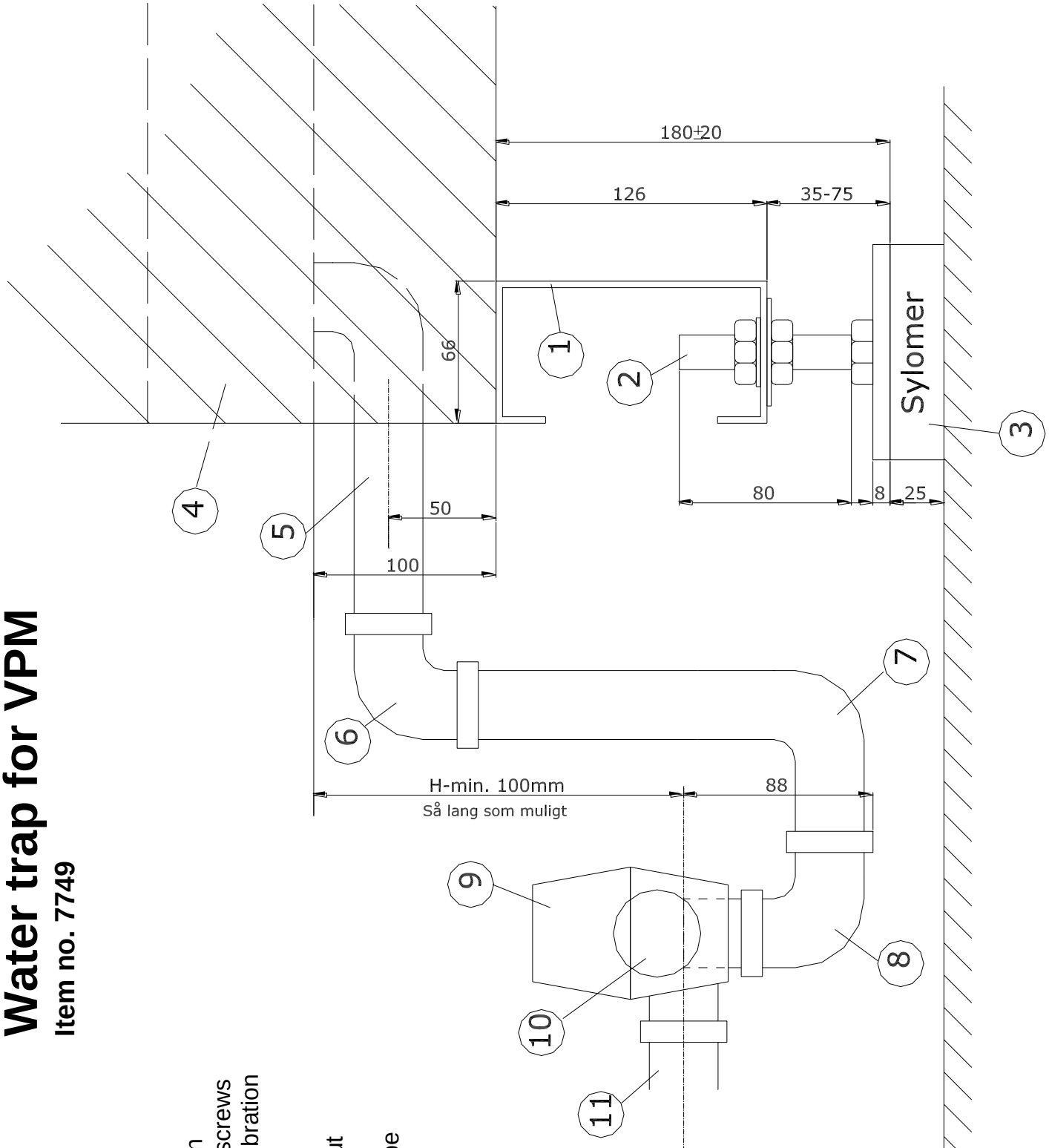
1. Foundation
2. Adjusting screws
3. Sylomer vibration damp
4. Fittings



Please note that there must be space between the fitting and the feet/sylomer vibration dampers. If this is NOT the case the sylomer vibration dampers' dampening function will be impaired.

Water trap for VPM

Item no. 7749



1. Foundation
2. Adjusting screws
3. Sylomer vibration dampers
4. Base tray
5. Drain spout
6. Angle
7. Angled pipe
8. Angle
9. Bottle trap
10. Ballcock