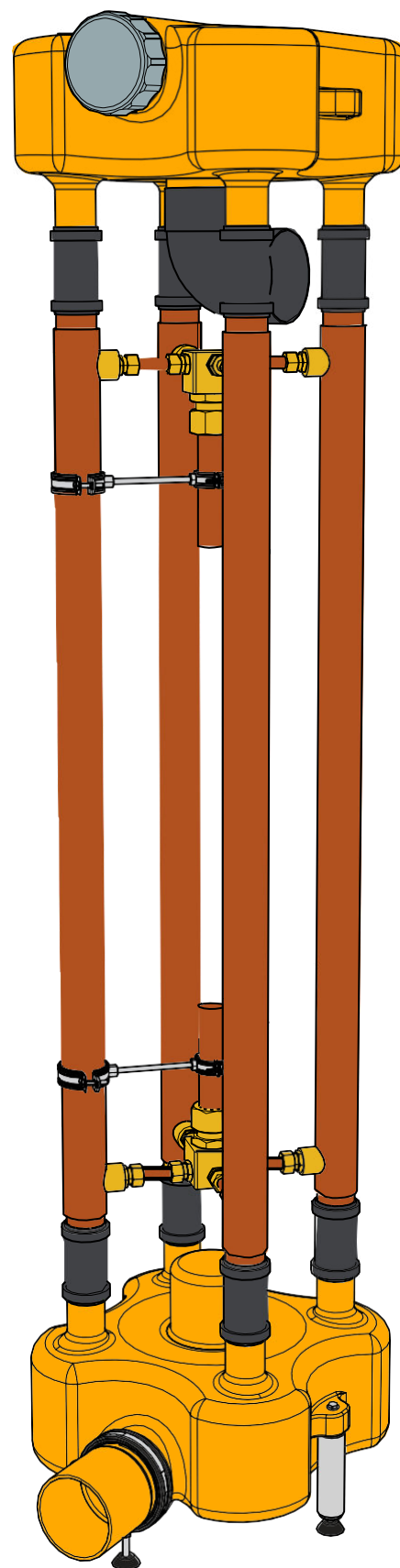




Installation manual

Showersave[®] Multi II

by Q-Blue BV



NE 2021 v1.0

Version 1.0

© 2021 Q-Blue B.V.

All rights reserved.

This manual is written in the English language. This is the original installation manual.

This document is copyrighted and any reproduction of all or part of this document is strictly prohibited without prior written permission of Q-Blue B.V. The contents of this document are subject to change without notice. All technical information in this document is for reference purposes only. Q-Blue will not be liable for any errors, omissions, damage or loss that might result from the use of this document.

The illustrations in this manual may vary slightly from the products supplied. All drawings and diagrams are for illustrative purposes only.

© 2021 Q-Blue B.V.

Willem Barentszstraat 5, 7825 VZ Emmen

+31 (0) 591 374570

info@q-blue.nl

www.q-blue.nl

Preface

These installation instructions refer to the Showersave® Multi II. It provides an overview of all the steps which must be followed for a correct installation of the Multi II. We strongly recommend that you read this manual carefully before installing the Multi II. Keep it for future reference.

This manual has been prepared exclusively for use by technically qualified personnel who observe local safety and installation regulations. These are persons who are technically competent through education and training and who are familiar with the possible dangers and risks which may arise during installation.

Structure of the assembly instructions

- An overview of the necessary tools
- The steps to take when installing the Multi II; each step is described using the following structure:
 - Warnings and safety advice
 - The parts needed (sub-assemblies)
 - The actions to perform the step

USED SYMBOLS

In this assembly manual, to draw attention to certain topics or actions, the following marking conventions are used.



General danger



General commandment



Sharp edges



Crushing hazard for hands

Multi II

The Multi II was developed to recover heat from used shower water from multiple showers. For example in apartment buildings, hotels, hospitals, sports clubs or the shower water from swimming pools.

The heat recovery takes place by means of the countercurrent principle. The Multi II consists of four interconnected Showersave® heat exchangers with central distribution units for wastewater and for domestic hot water. These are constructed in such a way that the Showersave® heat exchangers have an optimal flow for both the fresh water and the sanitary water. The Showersave® heat exchangers have a double barrier according to NEN-EN 1717.

The Showersave® heat exchangers have a double barrier according to NEN-EN 1717.

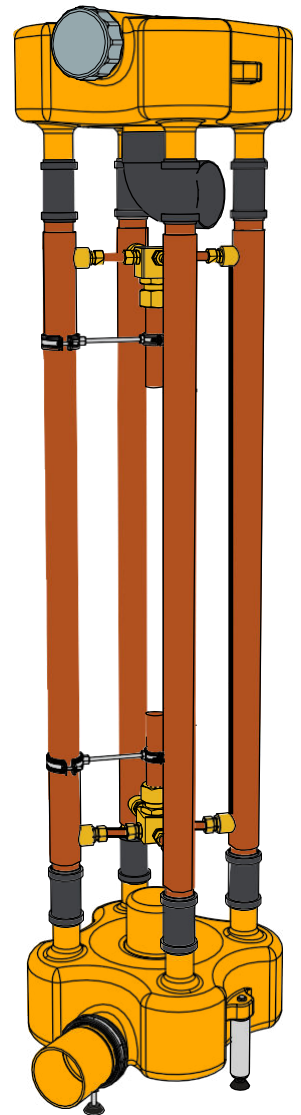
The MultVert II is available with Showersave® heat exchangers in three different lengths.

3 different lengths. For larger flow volumes, multiple Multi II units can be connected together. For occasional peak flows a bypass is available.

Other applications

In other applications where also a lot of hot wastewater enters the sewer, the Multi II can often be used as well. However, there must be a simultaneous removal of waste water and supply of fresh water. This may be the case for example in rinse kitchens, laundrettes, rinse water refreshment or cooling of waste water.

Because the heat exchangers are made of copper, the composition of the wastewater must first be examined to ensure that it does not affect the copper. If that is the case, there is the option of making the wastewater circuit in stainless



Versions

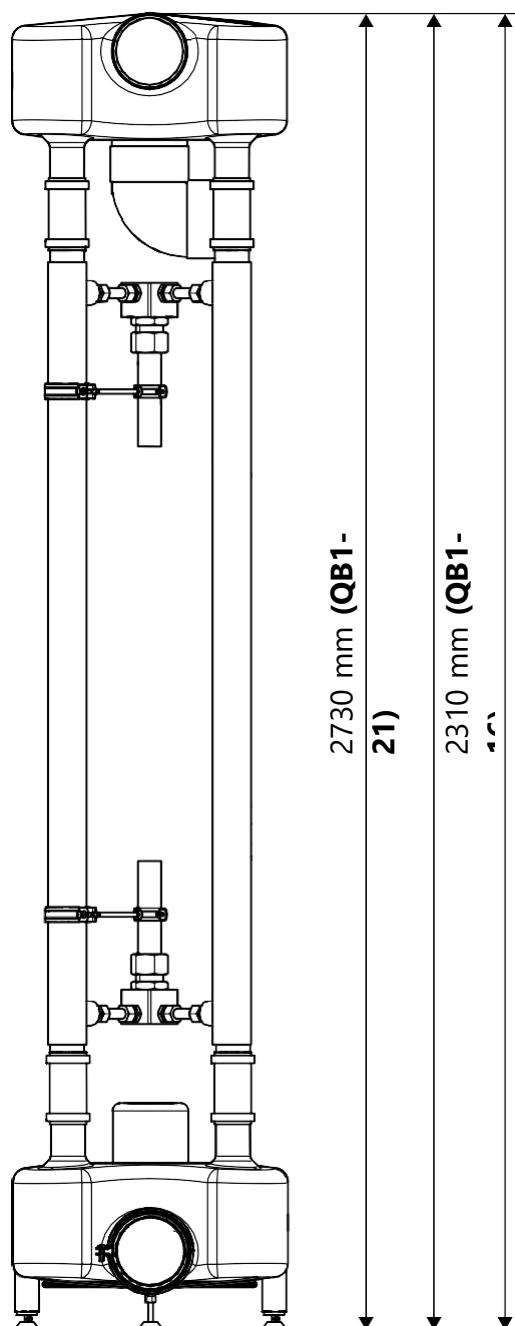
The MultVert II is available with Showersave® heat exchangers in 3 different lengths.

MVII-21: 2730 mm

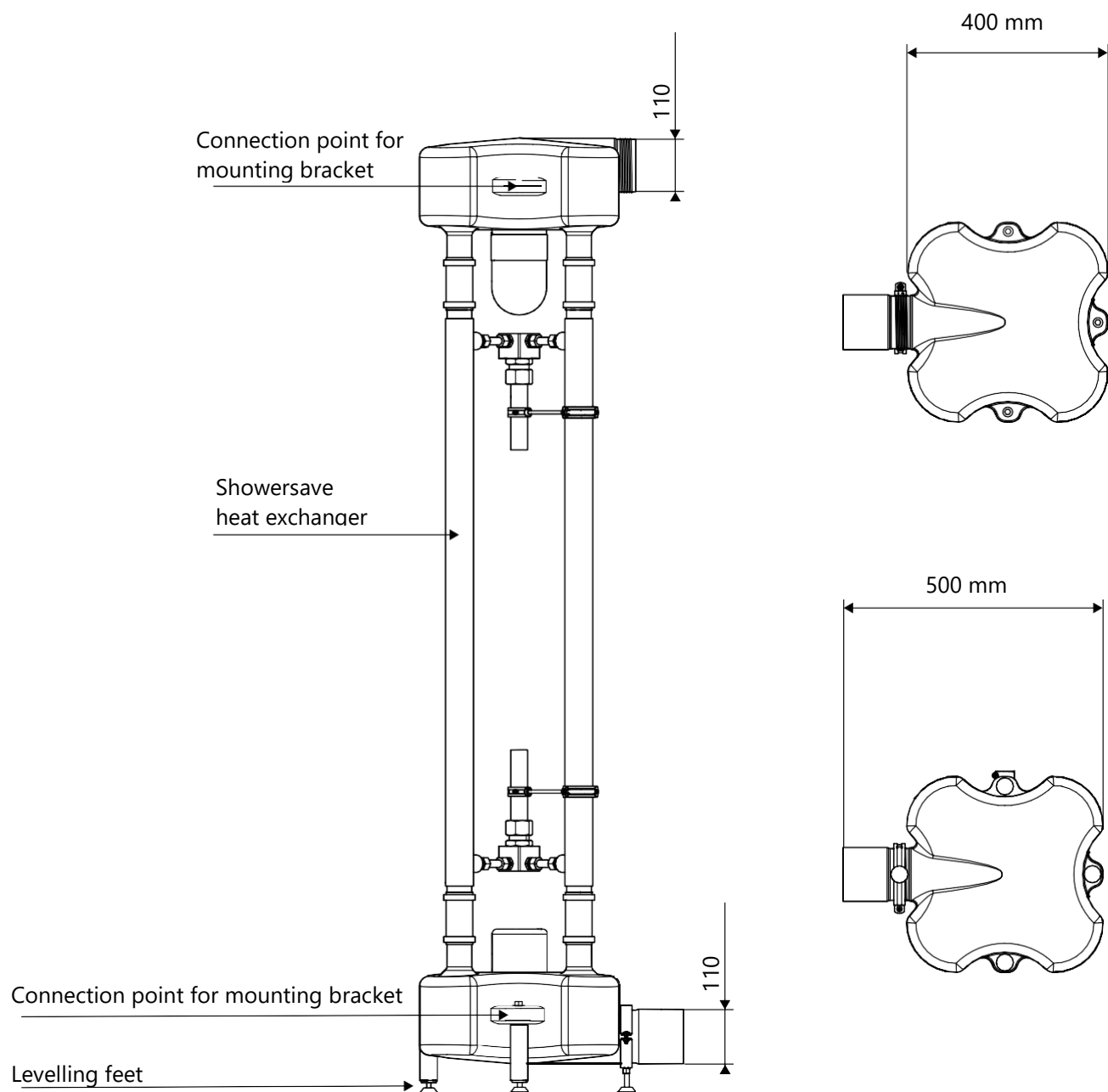
MVII-16: 2310 mm

MVII-12: 1900 mm

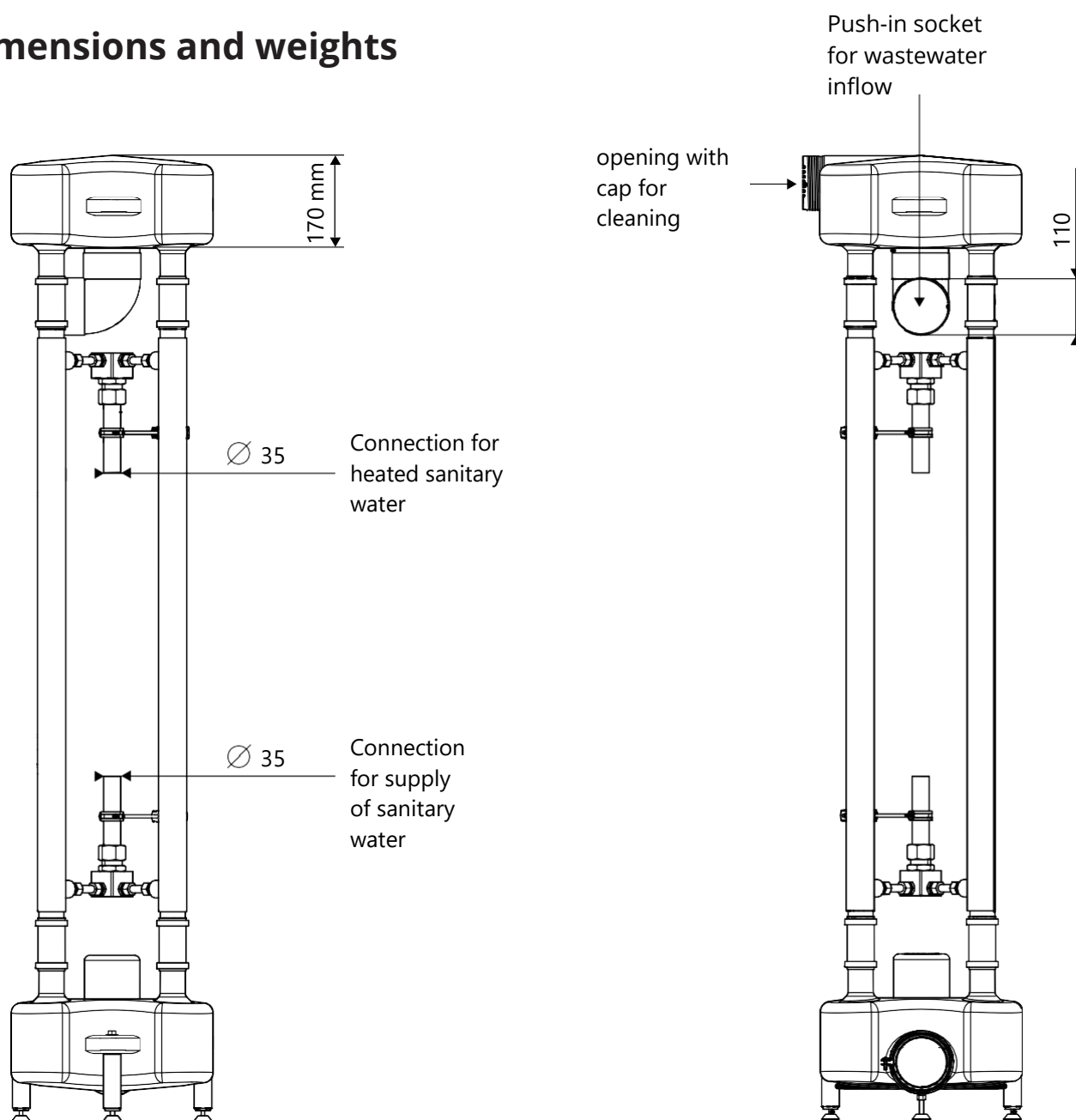
For larger flow volumes, multiple Multi II units can be connected together. For occasional peak flows in sanitary water, the Multi II can be equipped with a bypass.



Technical specifications Multi II



Dimensions and weights



Multi II	Hoogte	Breedte	Diepte (incl. montagebeugel)	Gewicht (leeg)	Diameter
Showersave® QB1-12	1900 mm	400 mm	600 tot 900 mm	36 kg	
Showersave® QB1-16	2310 mm	400 mm	600 tot 900 mm	40 kg	
Showersave® QB1-21	2730 mm	400 mm	600 tot 900 mm	44 kg	
Connection sanitary water					35 mm
Connection waste water					110 mm



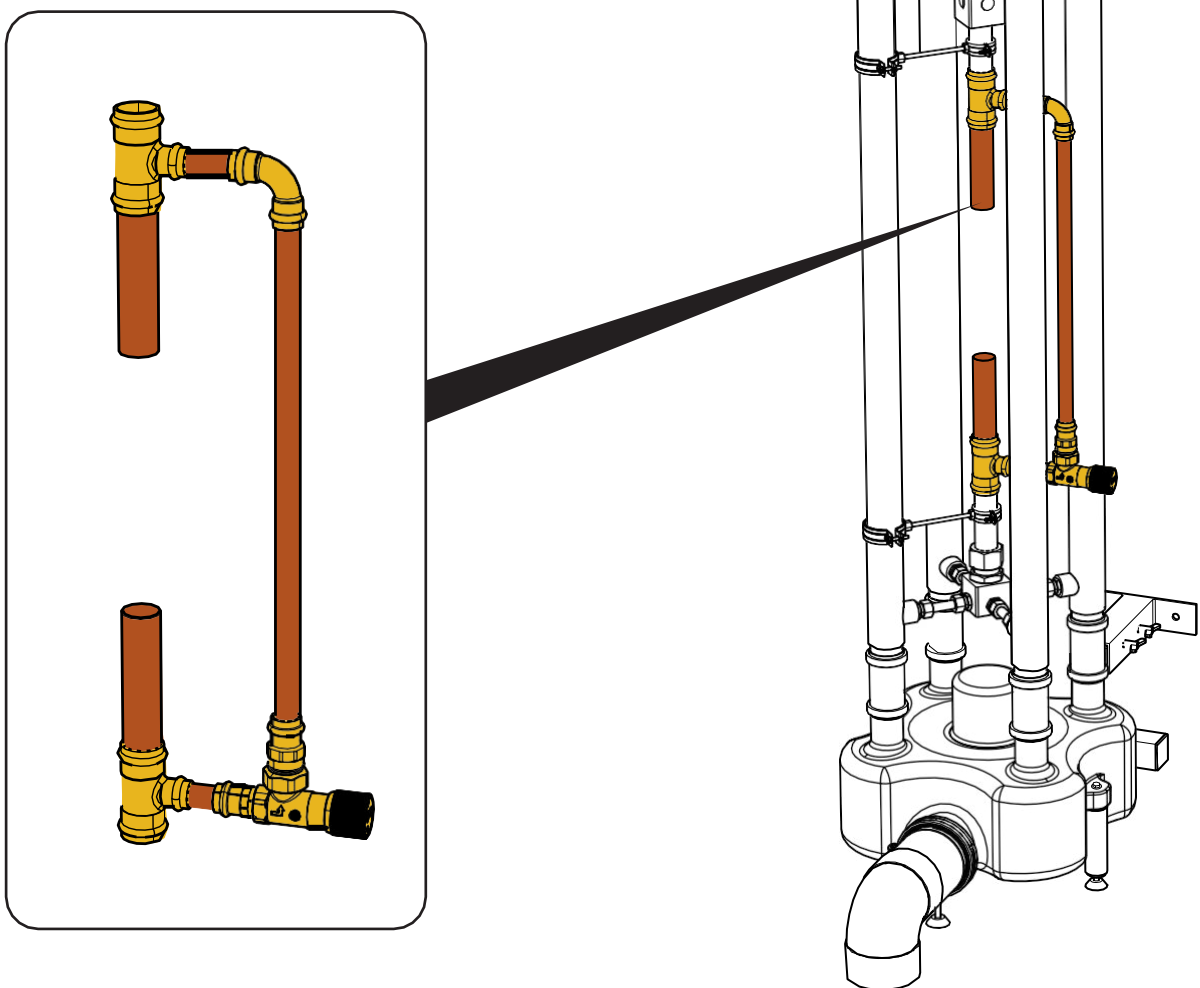
When designing the technical room, take into account that there is sufficient space for maintenance and service of the Showersave® Multi II.

Bypass-system

Your Multi II can be equipped with a bypass system as an option. The bypass valve is factory set to open at a pressure difference of 0.6 Bar.

This is sufficient in almost all cases. If necessary, you can set the valve to open at a lower pressure difference by turning the control knob.

We recommend that you do not adjust the valve at first installation.

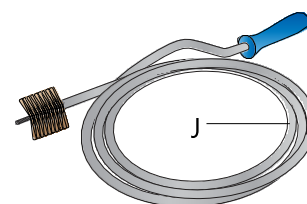
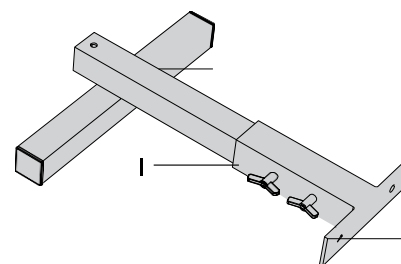
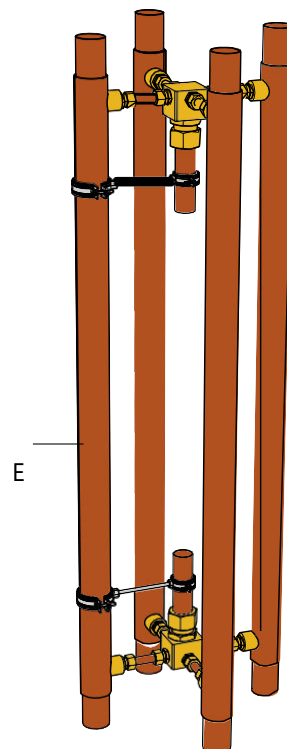
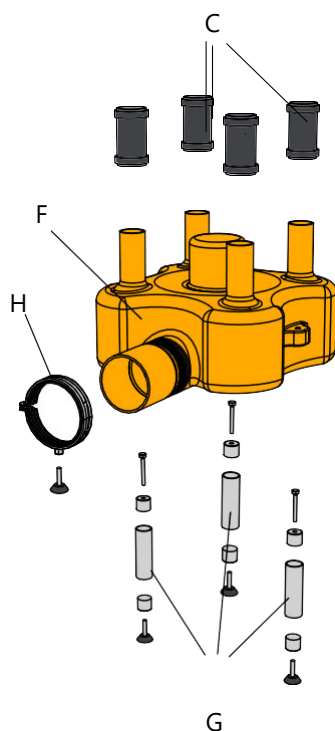
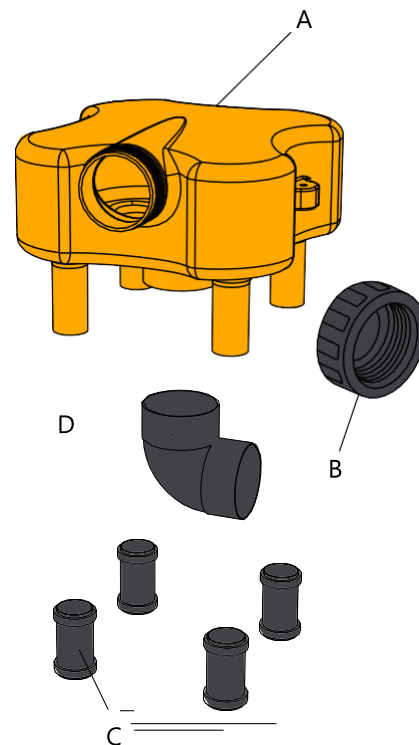


Components checklist Multi II

The Multi II is delivered in a package with parts.

Depending on the version, some parts may still need to be assembled. Check that all parts are included in the package.

Multi II	Number	Letter
Distributor	1	A
Sealing cap	1	B
sleeve	8	C
90 degree bend	1	D
Pre-assembled Showersave unit	1	E
Drain unit	1	F
Adjustable leg	3	G
Adjustable leg with bracket	1	H
Mounting bracket	2	I
MV-brush	1	J



Safety

The Multi II has been designed with the utmost care. Any changes in design or the use of non-original parts may lead to a safety risk or disfunction of the Multi II. If warnings and safety instructions are not followed, this may mean danger to people, water damage or damage to the Multi II.



Read the instructions that accompany the warning and command symbols before following the installation steps of the Multi II!

Q-Blue B.V. is not liable for unsafe situations, accidents and damages, resulting from:

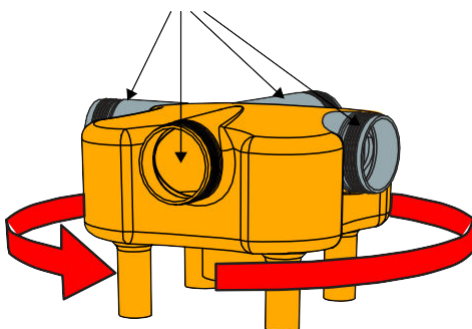
1. *Incorrect assembly and/or maintenance of the Multi II.*
2. *Failure to follow warnings or regulations as shown on the machine or in the installation manual.*
3. *Using the machine or parts for purposes other than those described in this manual.*
4. *Poor installation or modifications by the customer or third parties. This includes the use of non-original replacement parts.*
5. *Incompetence of the mechanic, improper use of the parts.*

Assembly of the Multi II

Determining the position of the wastewater inlet and outlet (before installation)

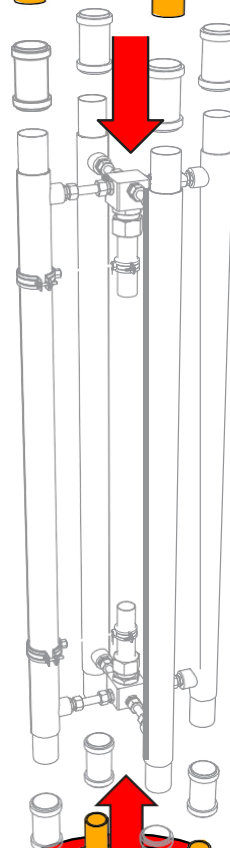
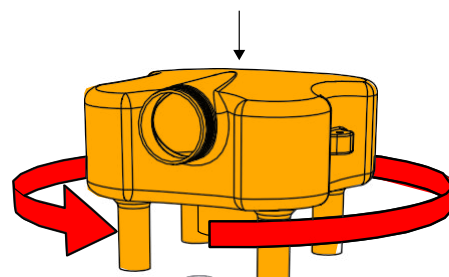
The central distribution unit and the central drain unit can be mounted in 4 different positions (see picture below). Bepaling positie afvalwater in- en uitstroom (vóór montage).

Service opening 4 positions



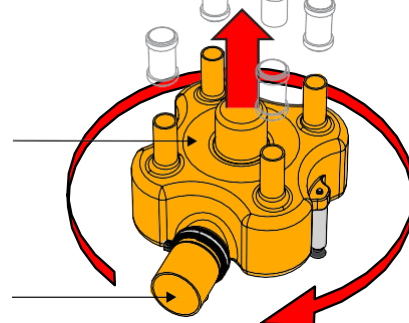
Before starting to dismantle the Multi II, decide where you want the service opening of the distribution unit to be and where you want the drain connection of the drain unit to be!

Centrale verdeel unit



Drain unit

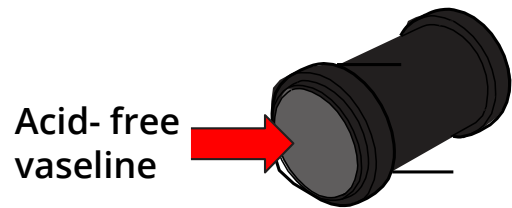
Drain connection



Assembly steps

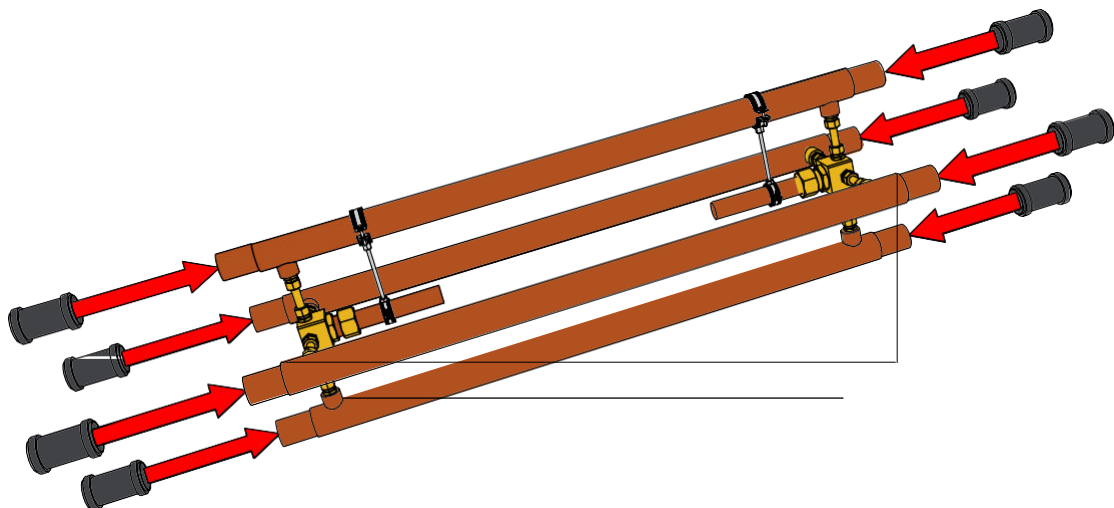
Step 1

Lubricate the rubbers on the inside of the sliding sockets on both sides with a little acid-free vaseline.



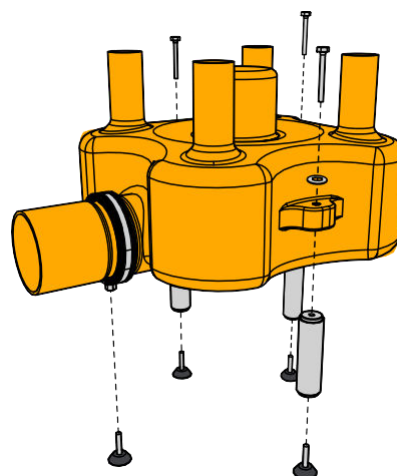
Step 2

Place the Showersave® unit on a workbench, taking care not to dent or damage the copper tubes, and slide the sliding sleeves halfway onto the Showersave® tubes on both sides.



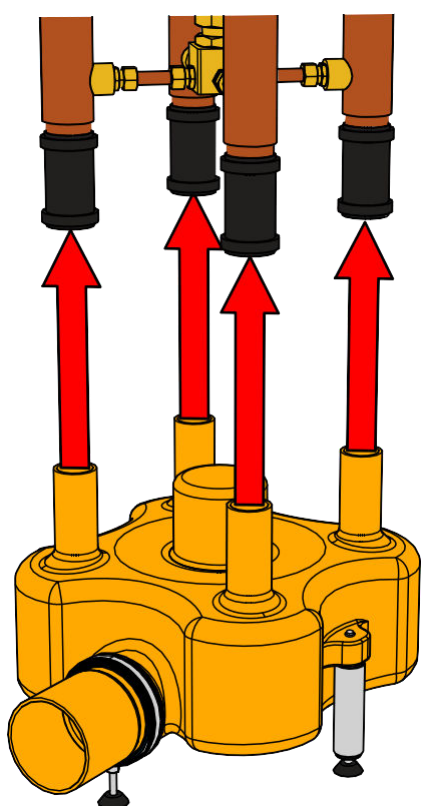
Step 3

Mount the support legs to the drain unit.



Step 4

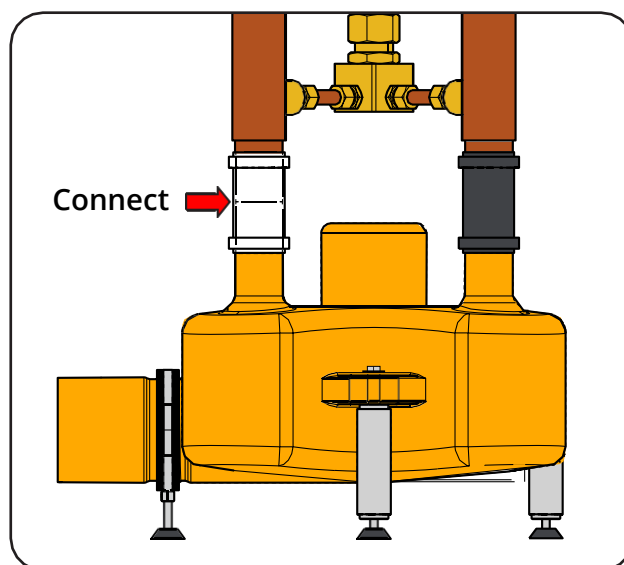
Hold the drain unit in the position so that the tubes of the preassembled Showersave® unit are exactly in front of the connections on the drain unit. Move the sliding socks of the tubes of the Showersave® unit onto the connection (A) (and of the drain unit, so that the tubes of the Showersave® unit touch the orange connections. Now move the sliding socks so that they are half on the drain unit and half on the preassembled Showersave® unit (B).



A



Crushing hazard during assembly!



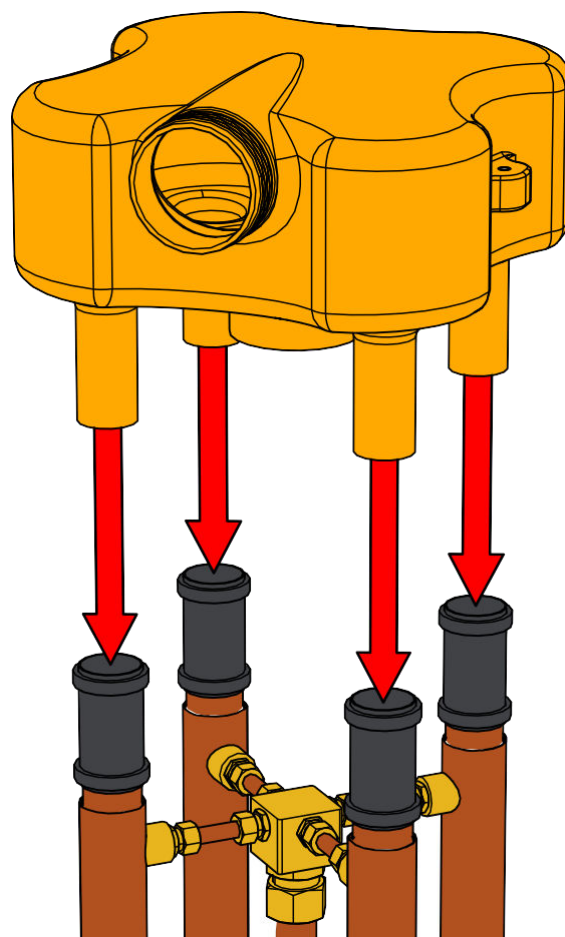
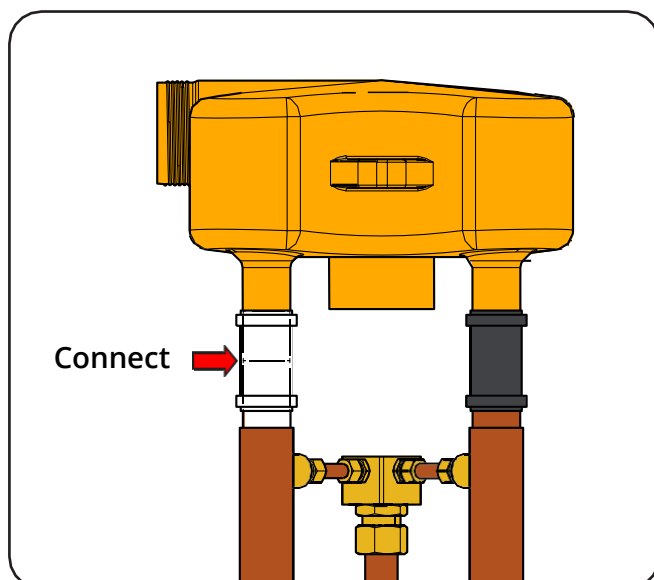
B

Step 5

In the same way, mount the distributor on the pre-assembled Showersave® unit.

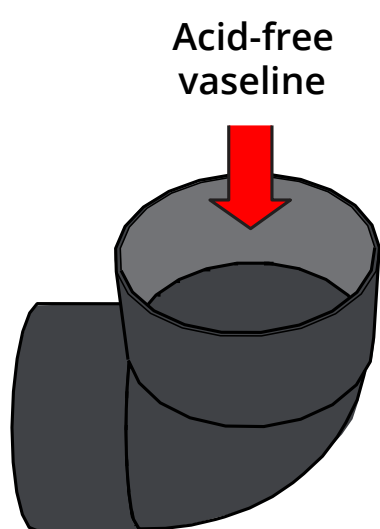


Crushing hazard during assembly!

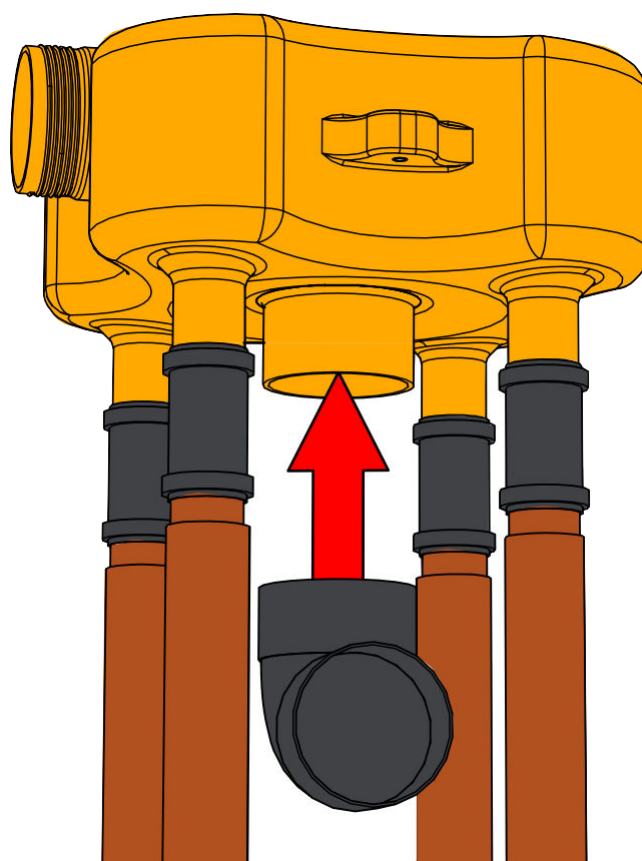


Step 6

Coat the rubbers of 90 grade PP bend with a little acid free vaseline (A) and slide it as far as it can go on the connection at the bottom of the manifold (B).



A



B

Step 7

The Multi II can now be set upright.



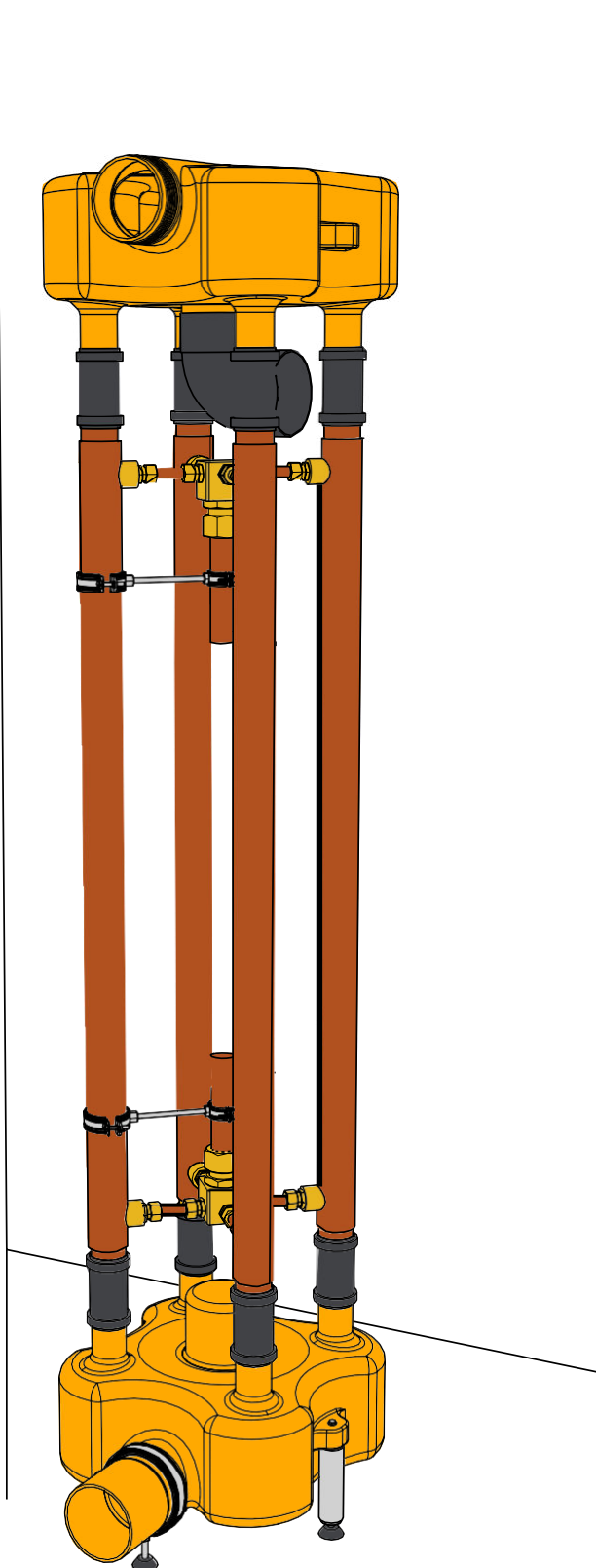
*crushing hazard
when moving!*



Sharp edges!



*De Multi II is heavy
and difficult to move!*

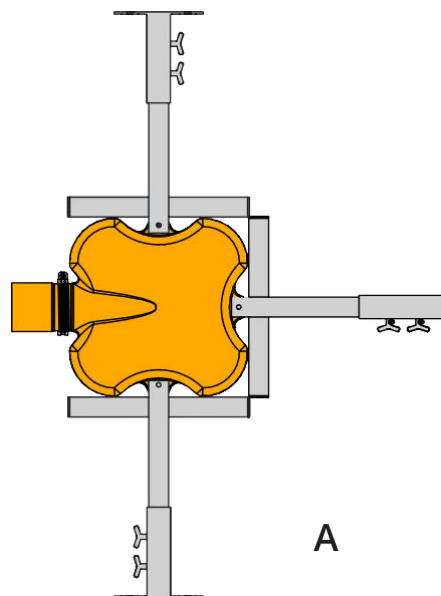
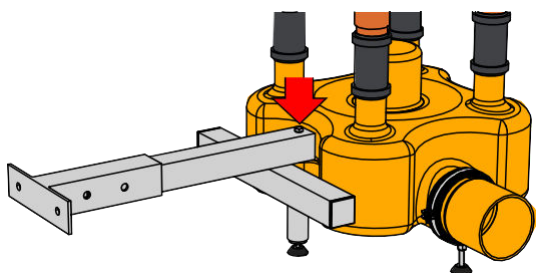


Step 8

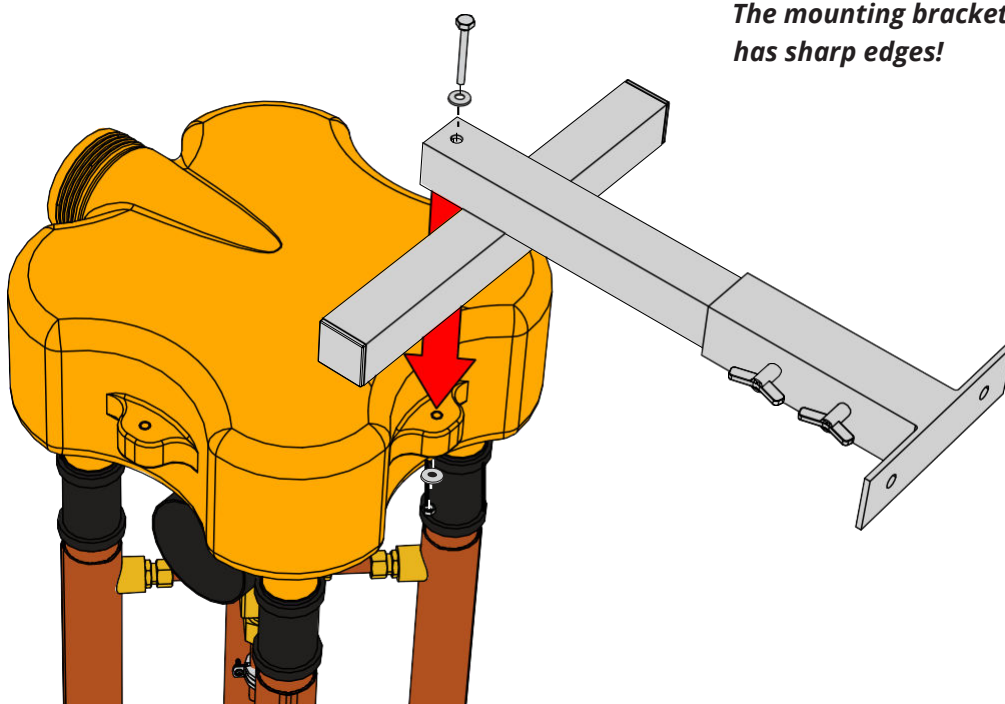
Mount the supplied brackets to the Multi II. They can be mounted at different positions (A) on both the distribution unit and the drain unit.



When connecting down at the drain unit, note that a longer bolt must be used.



The mounting bracket has sharp edges!

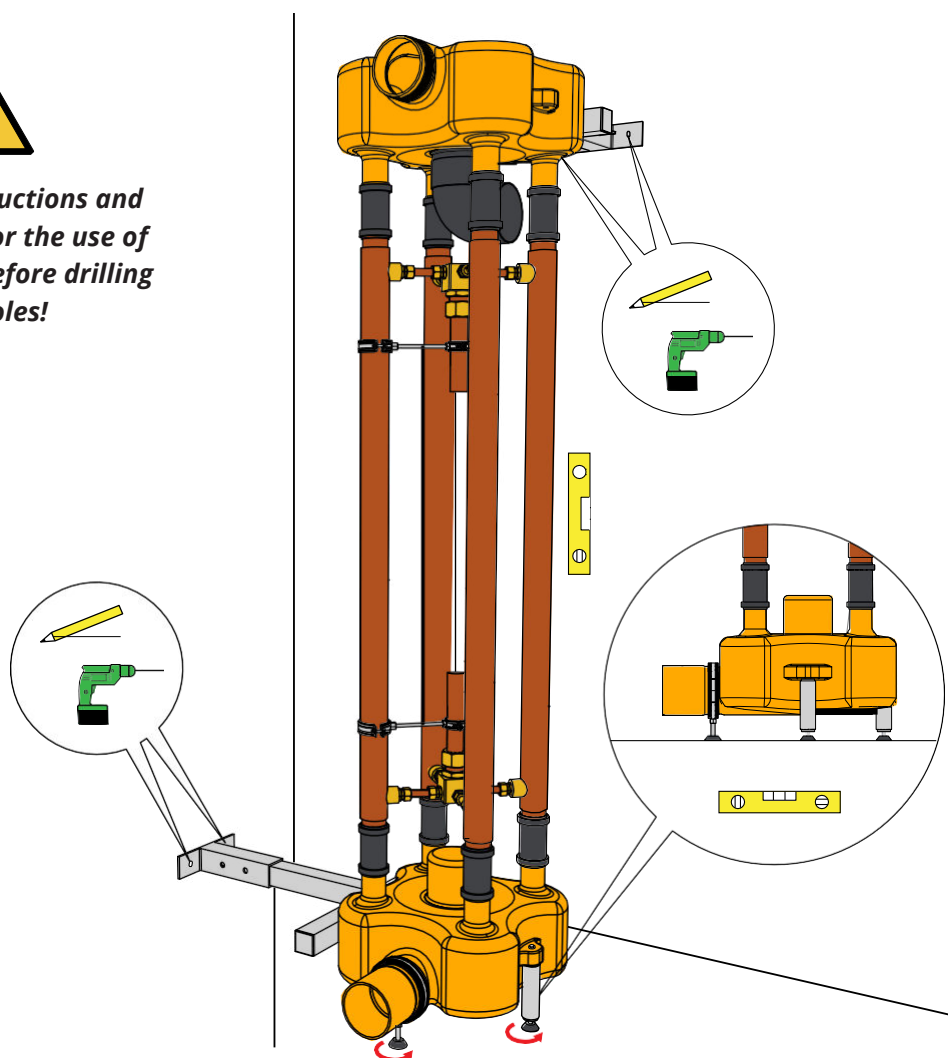


Step 9

Place the Multi II where it is to be positioned, level it with the leveling feet (i.e. Showersave unit must be level) and carefully place the Multi II against the structural framework. Mark the mounting points on the framework and drill the holes.

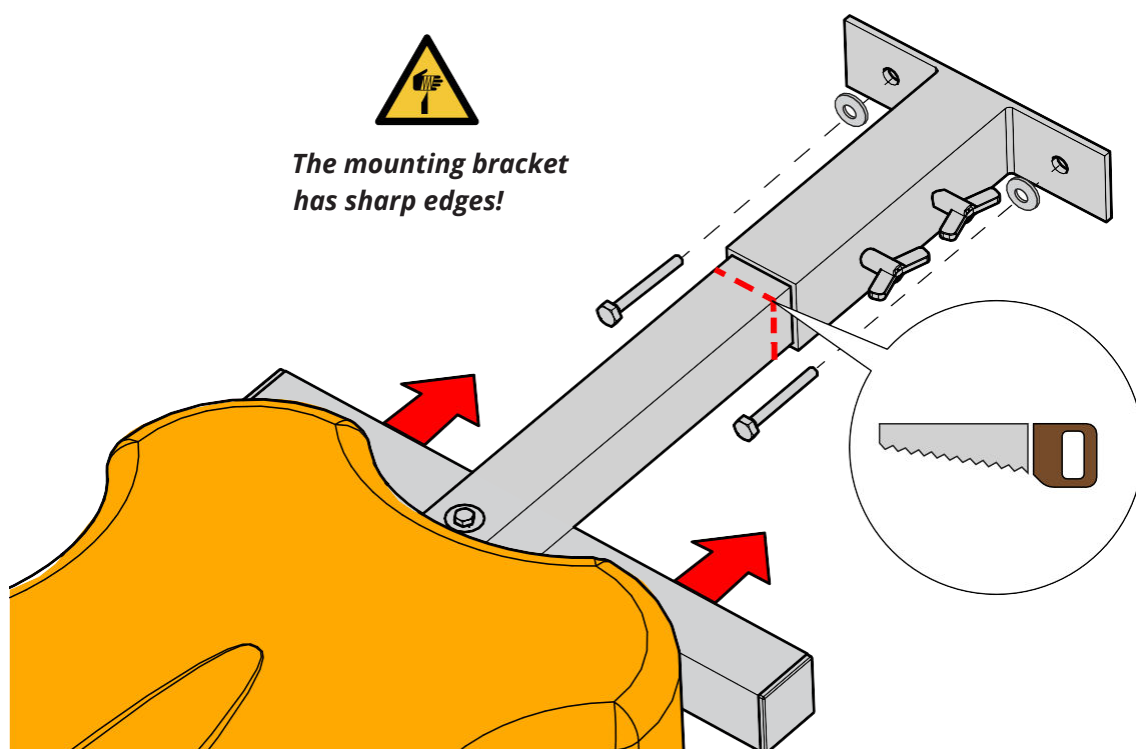


Read all instructions and safety rules for the use of power tools before drilling the holes!



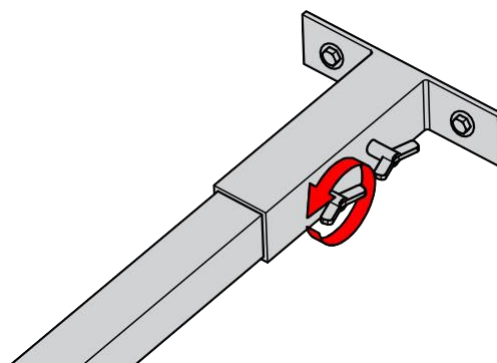
Step 10

Adjust the mounting brackets to the desired distance from the structural frame. You can shorten the legs with a hacksaw if necessary. Secure the mounting brackets to the architectural frame with concrete anchors.



Step 11

Place the Multi II in the correct position, make sure it is level, adjust the swivel feet at the bottom if necessary and tighten the brackets with the wing nuts.

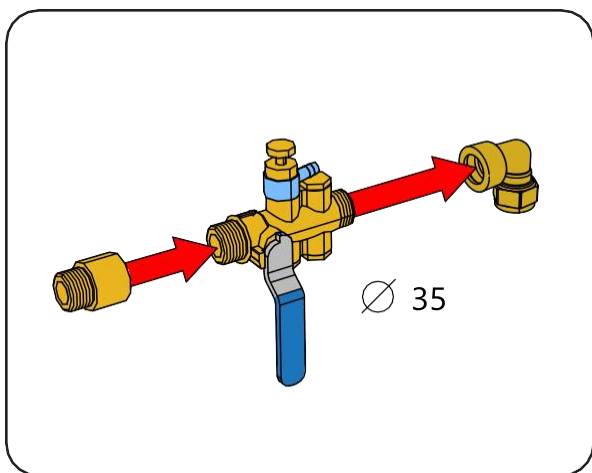


Step 12

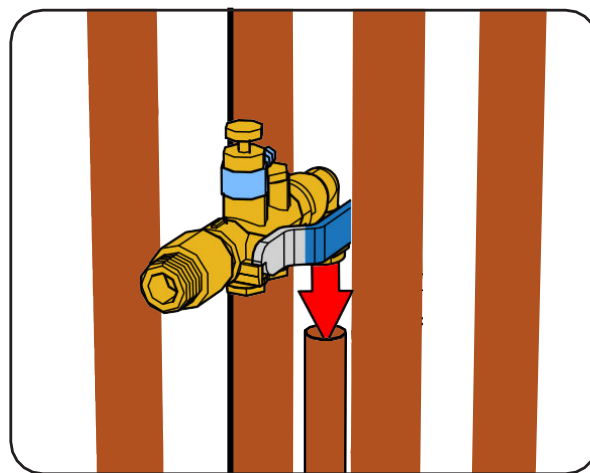
On the connection side of the sanitary water supply, install a shut-off valve with controllable non-return valve (EA protection*).



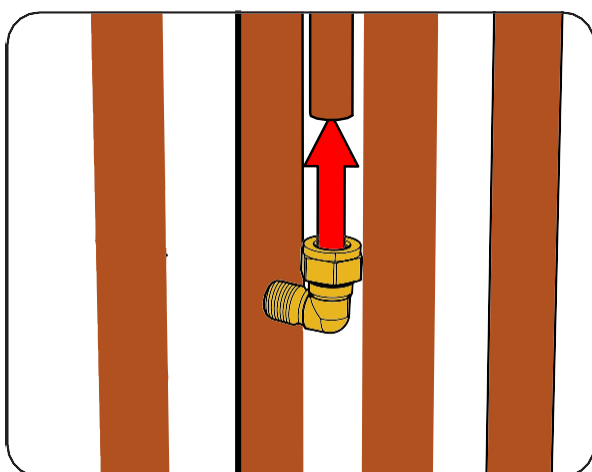
The connections have sharp edges!



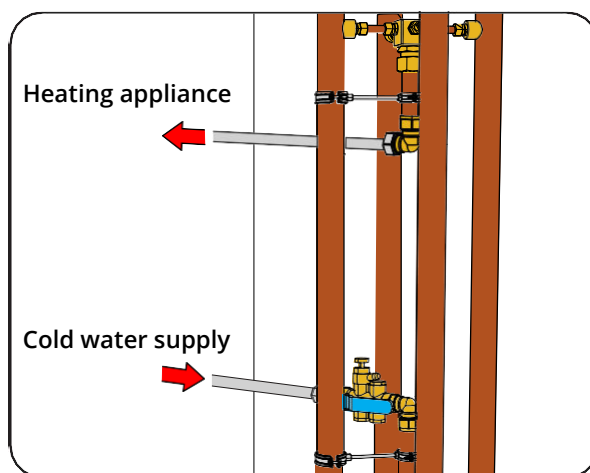
A. Install the compression fitting* on the check valve*



B. Install the check valve on the sanitary water inlet connection



C. Install a compression fitting* at the preheated domestic water connection



Connect Multi II to the cold water supply and a heating appliance

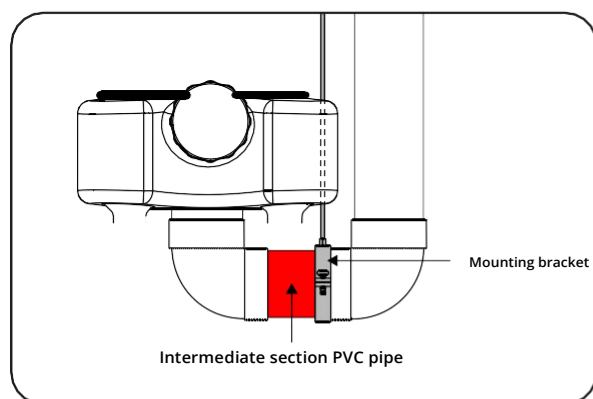
*Not included!

Step 13

Connect the Multi II to the shower drain and the sewer system.



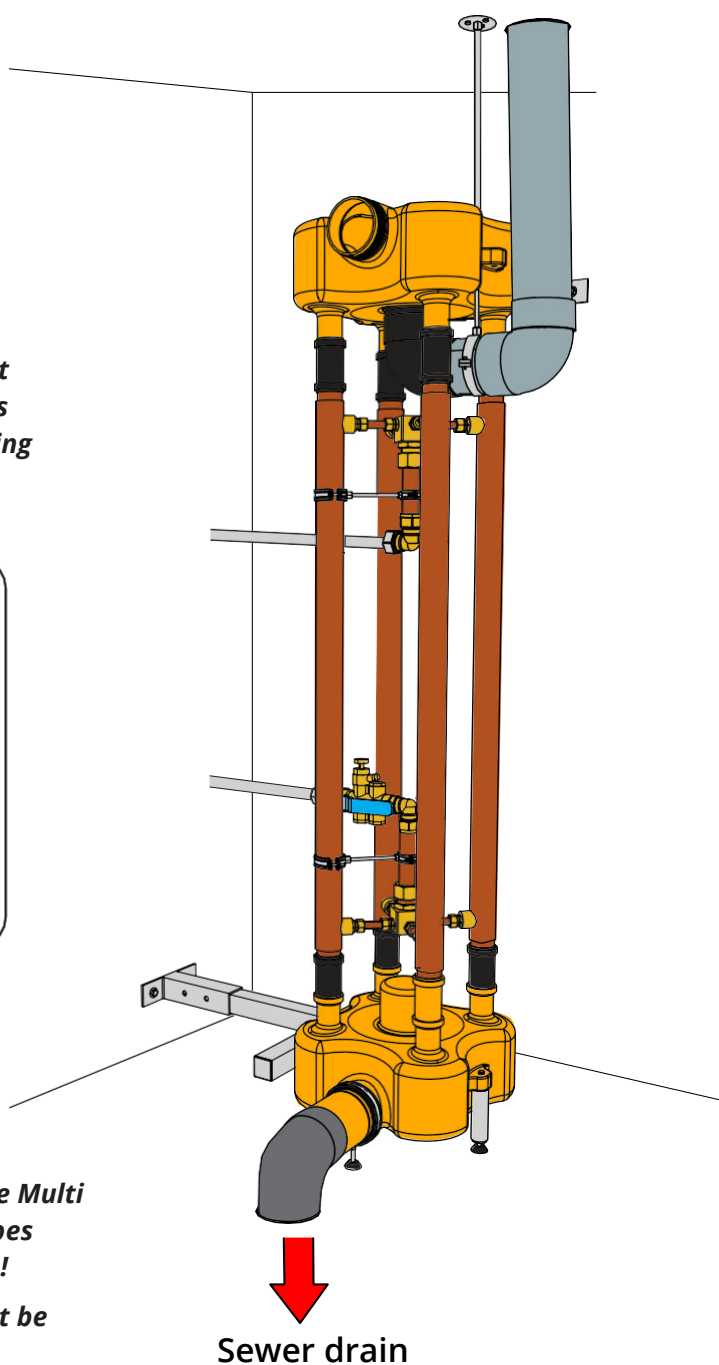
The connection to the push-in socket of the wastewater inflow must be installed without tension. The intermediate piece should be as short as possible and support it with a mounting bracket!



Caution! Nothing must be hung or mounted on the Multi II itself. Waste water pipes and sanitary water pipes must be connected to the Multi II without tension!

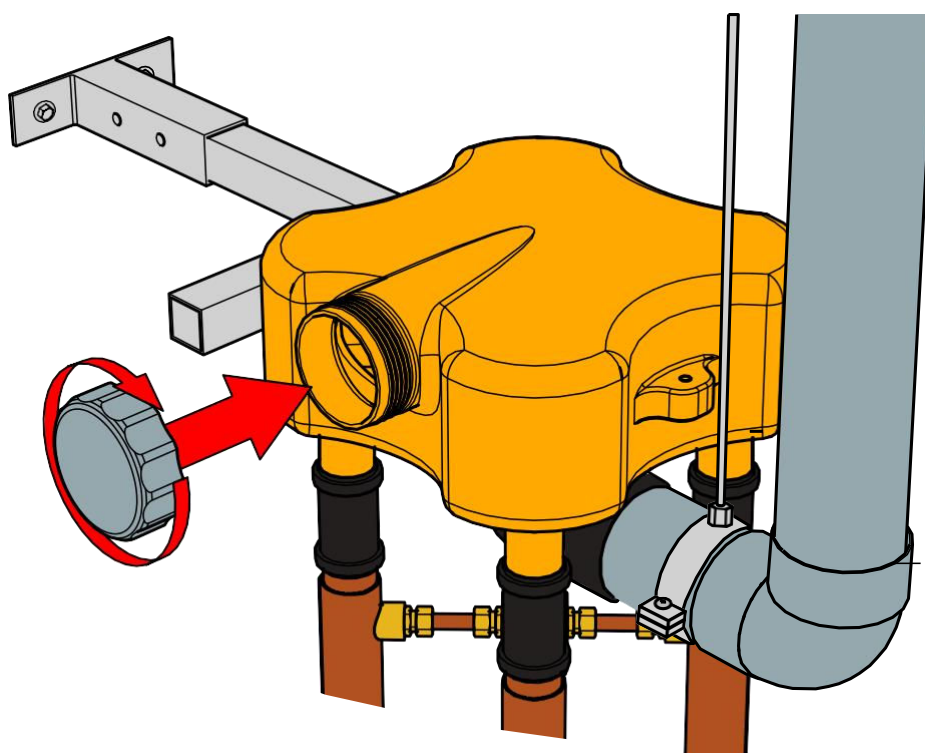
Drainage and sanitary water pipes must be connected to the Multi II without any tension!

Waste water showers

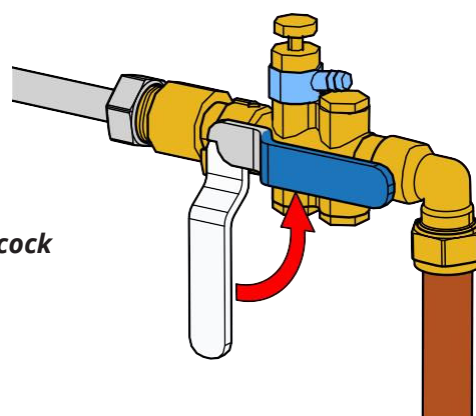


Step 14

After everything is connected, the sealing cap can be mounted.



After the connection cap has been tightened, the stopcock of the non-return valve can be opened!



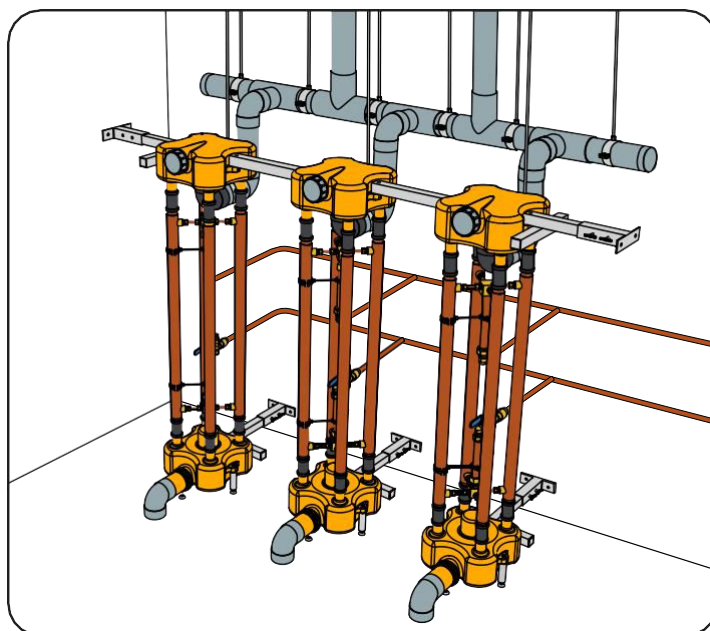
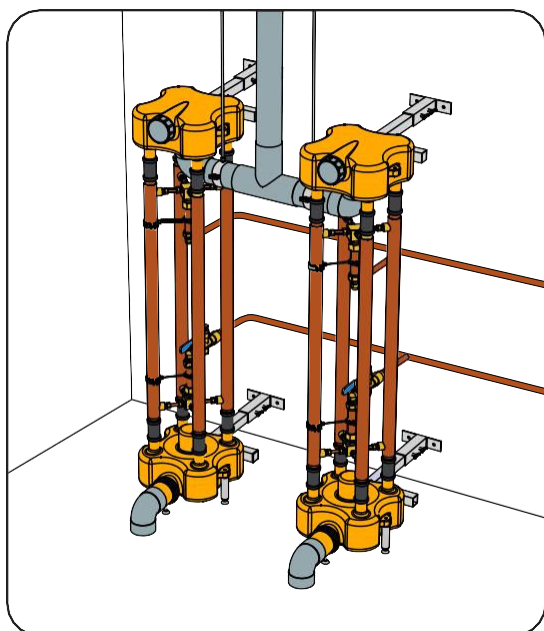
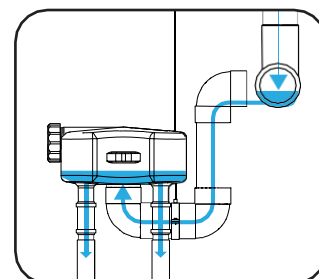
Multiple Multi II-units

If, due to high domestic hot water demand, one Multi II is not sufficient, several Multi II units can be connected together. The Multi II units can then be connected to each other using PVC outlet fittings as shown below.

Caution! Water supply and drainage must **never** be suspended from Multi II units. They must be mounted in a completely tension-free way! Failure to do so may result in water damage or the Multi II may be irreparably damaged.



The drain fittings must be mounted on the side of the drain pipe so that the water flows into the Multi II at the same time (see illustration on the right)!



N.B. When connecting several Multi II units, the diameter of the sanitary water supply must be dimensioned to the desired flow!

Inspection and maintenance

General

The Q-Blue Multi II should be seen as a device and has the function of transferring the heat from the warm return water to the cold supply water. This only works optimally if the Multi II is clean. If it is dirty, the efficiency of the heat exchange is reduced. Therefore inspection and maintenance are necessary.

Prevention of contamination

Although the Multi II is self-cleaning to a considerable extent, care should be taken to ensure that the unit does not become unnecessarily dirty. The standard dirt filters in the shower traps themselves will normally be sufficient. If there is insufficient filtration of hairs or other debris, the Multi II may have to be cleaned more frequently. If there is a problem of coarse grains, sand, grease or other excessive dirt, a filter should be installed in front of the Multi II, for instance a grease filter.

Aan te houden frequentie van inspectie onderhoud

Normally, one inspection turn and one cleaning per year is sufficient.

Q-Blue recommends that one month after putting the Multi II into operation an inspection is carried out as described below. If all questions are answered "no", carry out another inspection after two months. If, after two months, the answer to all questions is again "no", carry out another inspection four months later. If all the questions are again answered with "no", then you can proceed to the normal maintenance cycle, i.e. one inspection and one maintenance session per year.

Inspection of the Multi II

Inspection of the Multi II is easy. There are seven points to inspect.

1. Are the plumbing water connections tight?
2. Is the sanitary water connection connected to the Multi II without tension?
3. Are the waste water connections tight and pushed far enough onto the connections?
4. Are the waste water connections connected to the Multi II without tension?
5. Is the Multi II stable and level?

6. Are there any visible signs of leakage on or around the Multi II?
7. Can the wastewater in the distributor drain easily and freely through the tubes of the showersave® unit? This can be visually inspected by unscrewing the cap from the service opening.

If one or more of these points are answered "no", these points must be put in order immediately.

Maintenance of the Multi II

Maintenance of the Multi II consists of an inspection as described above and then performing a cleaning.



Wear rubber or plastic gloves when cleaning the Multi II!

The Multi II can be easily cleaned by unscrewing the cap from the distributor unit and using a dish brush or another brush that is not too hard to clean the inside of the distributor bowl. The dirt that has come loose can be flushed away through the tubes of the Multi II.

Next, the inside of the tubes of the Showersave® unit can be cleaned. To do this, with your hand and the special MV brush (included), go through the cap opening and push the brush all the way down into a tube with your hand. Then pull the brush completely upwards. Per tube you repeat this 3 times until you have had all four tubes. It is recommended to rinse well with water between brushes and after cleaning. The cap of the distribution unit can now be reinstalled. Tighten but not so tight that it cannot be unscrewed later.

The MV brush must be cleaned and hung at the Multi II. The storage location should be such that the iron of the MV brush does not come into permanent contact with the copper Showersave® unit.



After cleaning, wash your hands and forearms thoroughly with soap



© 2021 Q-Blue B.V.

Willem Barentszstraat 5, 7825 VZ Emmen

+31 (0) 591 374570

info@q-blue.nl

www.q-blue.nl