

# F-A Pro M

## Installation Manual

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## 1. Warnings



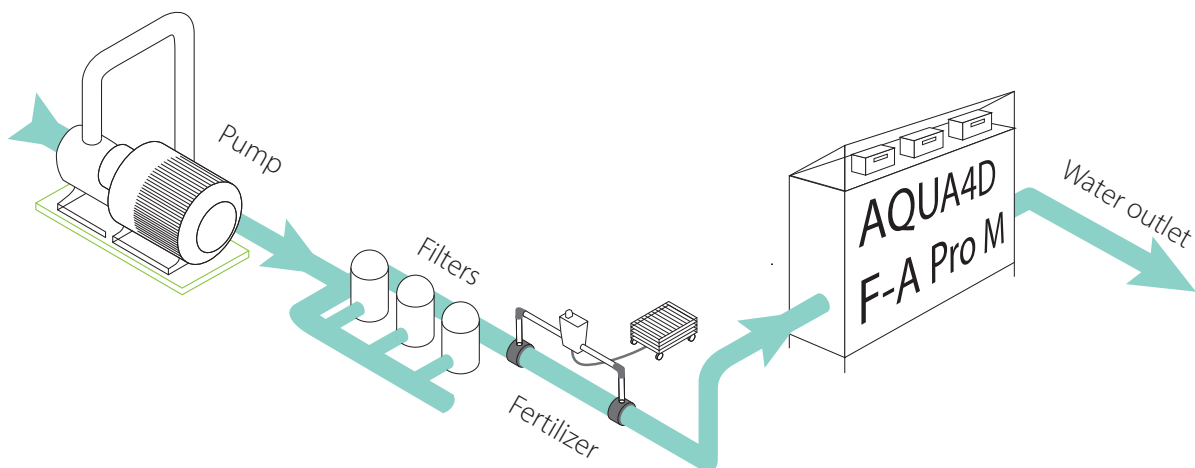
- A water grounding device is recommended to maximize the efficiency of the system.
- Pay attention to the maximum torque values when tightening bolts and screws.
- Avoid any mechanical stress to the structure. Too much force on the system may cause parts to break.
- Ensure that the water input and output pipes connected to the F-A Pro M are aligned to avoid any mechanical stress.
- The system must be placed on a hard and flat surface, such as a concrete slab.
- The system must not be holding the weight of the inlet and outlet pipes. There must be supports on these pipes with that purpose.
- Ensure that the following distances between the treated water pipes or the AQUA4D Treatment Units are respected (EMF disturbances) :
  - a) 3 meters from large electric pump motors
  - b) 2 meters downstream and away from small pumps, transformers and electromagnetic flow meters
  - c) 1 meter from unshielded power cables that carry high current draw such as for the pumps

## 2. Introduction

This document will guide you on the best way to start using your new *AQUA4D F-A Pro M*. Please follow the instructions carefully to ensure the system is safely installed and launched.

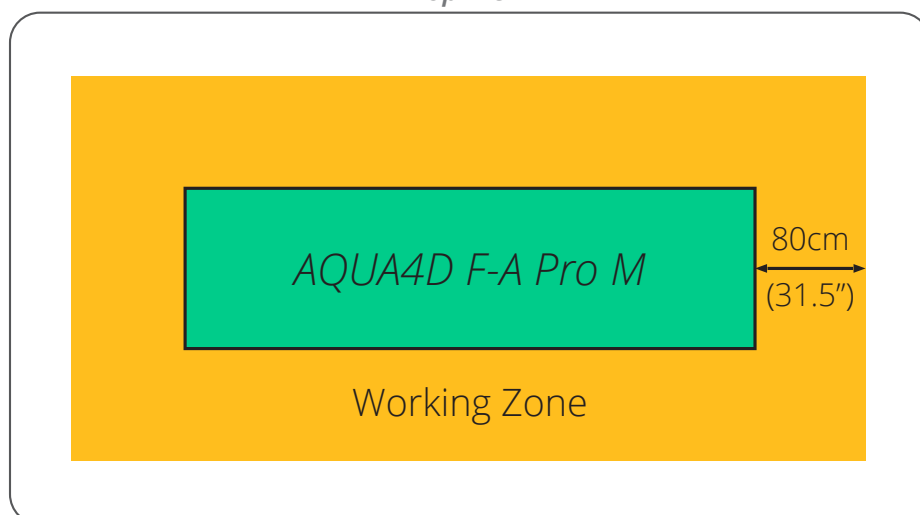
## 3. Installation location

The *F-A Pro M* should be placed in the water network after the pumps, fertilizer and filters; the closer it is to the crops without interference, the better.



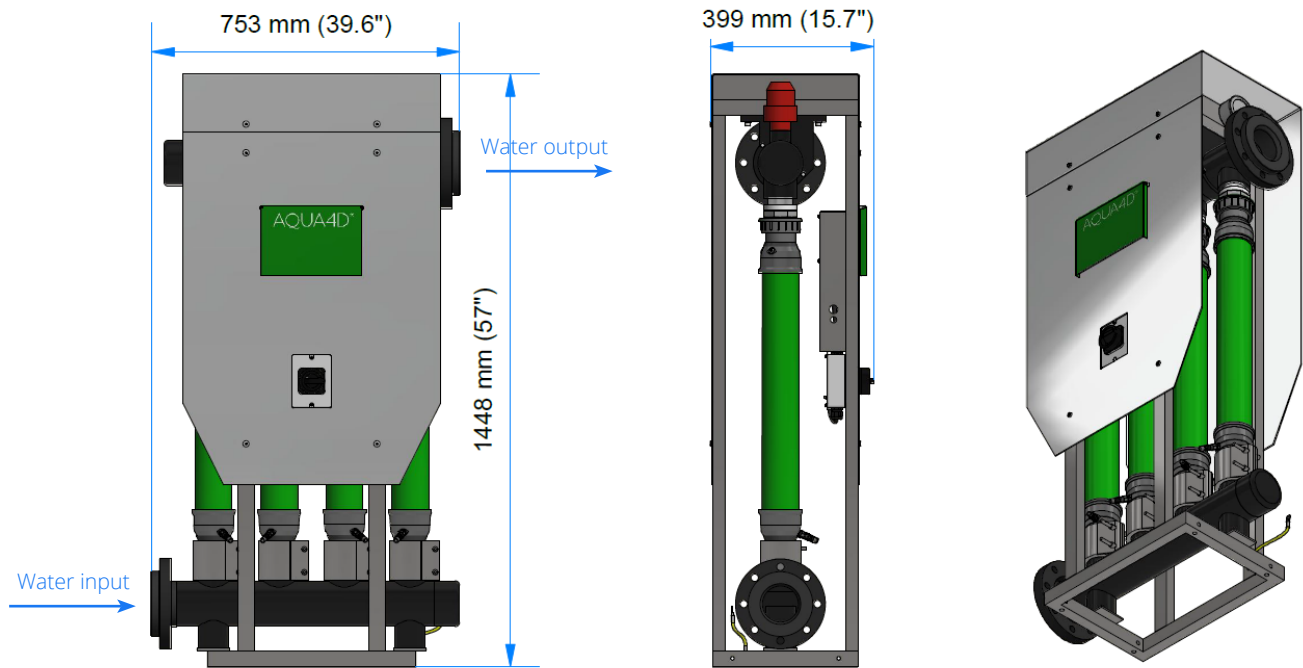
When choosing a location for the system, pay attention to the required area. Allow at least an 80cm (31.5") zone around the system to be able to work on it.

Top View

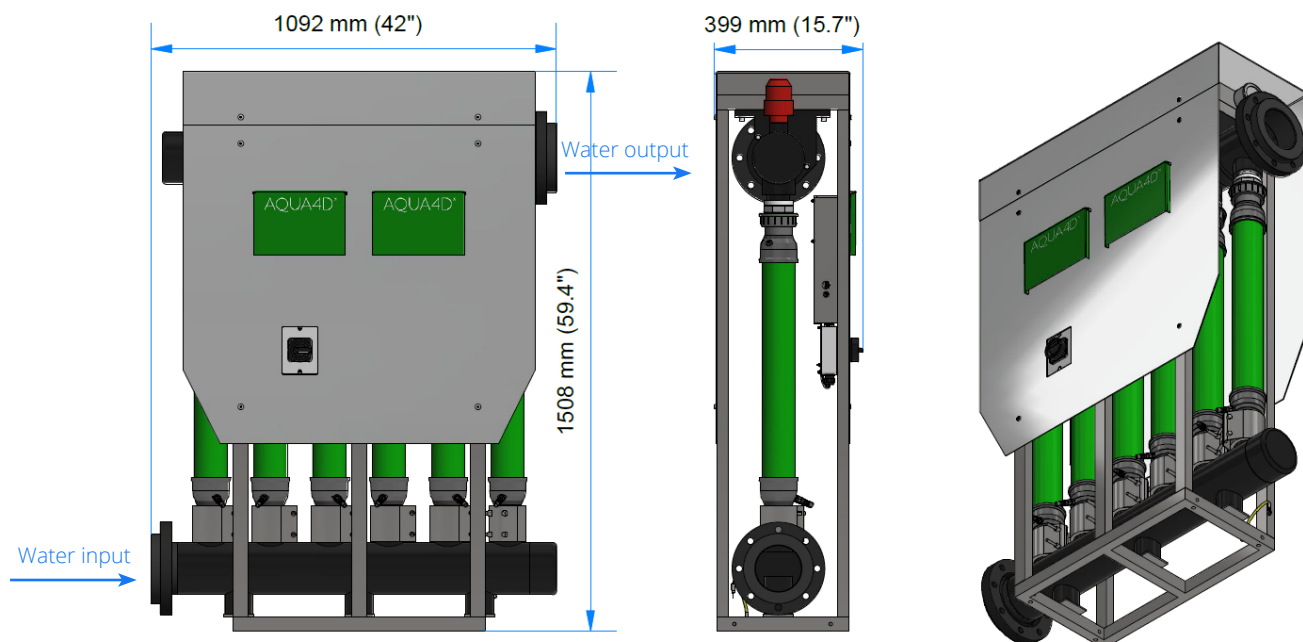


## 4. Dimensional drawings

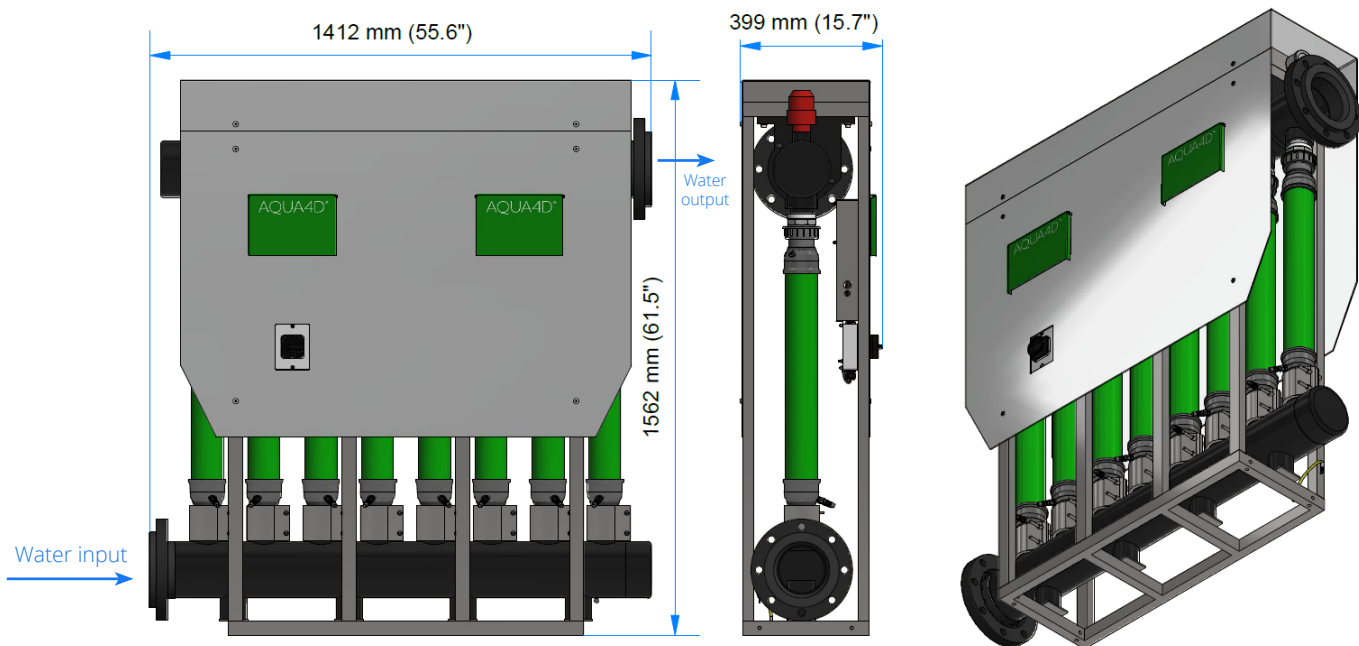
**F-A Pro 30-M and F-A Pro 40-M**



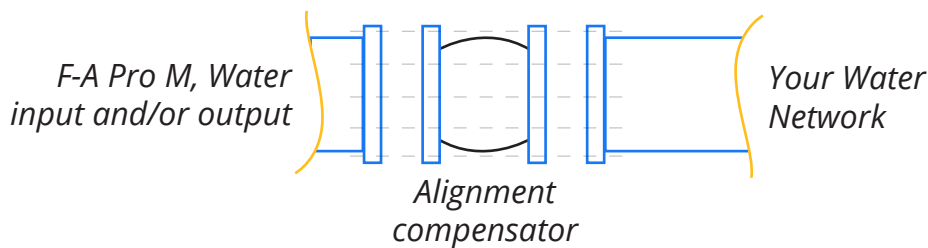
**F-A Pro 50-M and F-A Pro 60-M**



## F-A Pro 70-M and F-A Pro 80-M



Your *F-A Pro M* will come with two alignment compensators, you can find the datasheet for the compensators in their package and at the end of this document. Don't forget to take into account the **extra space** that this parts will add to the length of the structure.

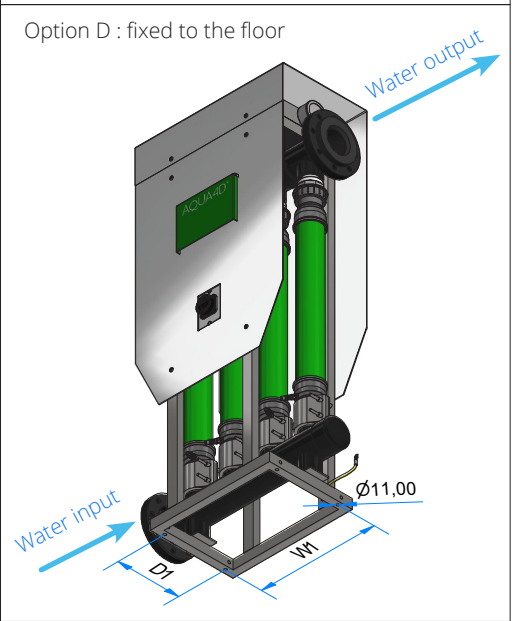
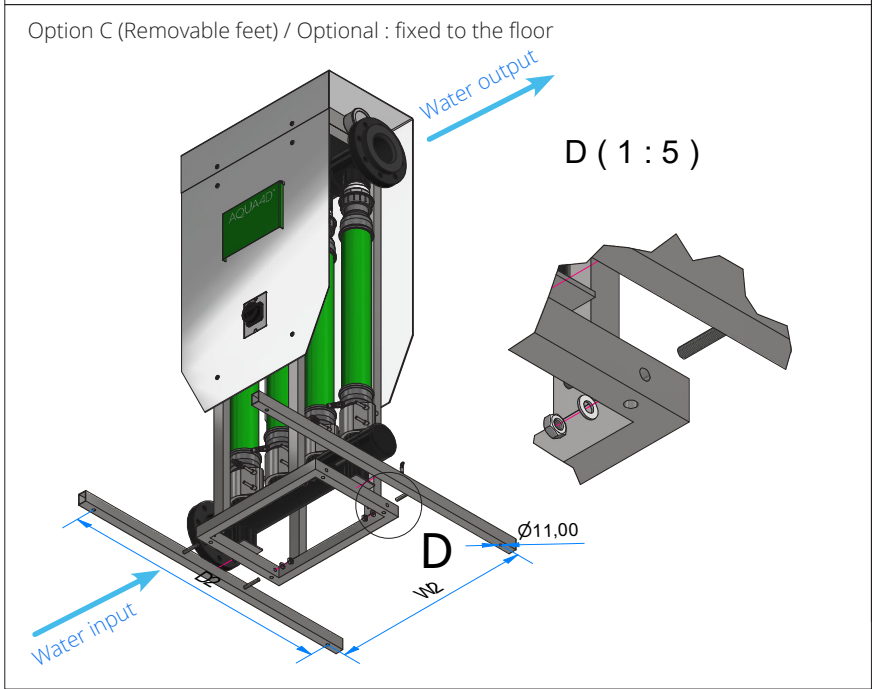
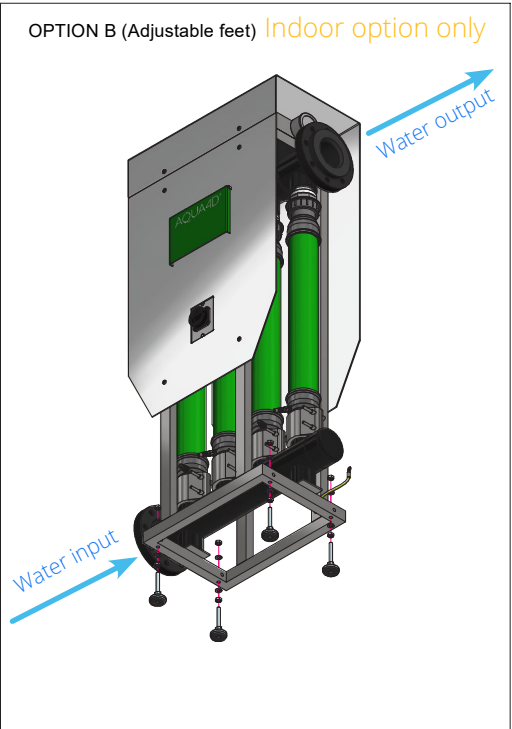
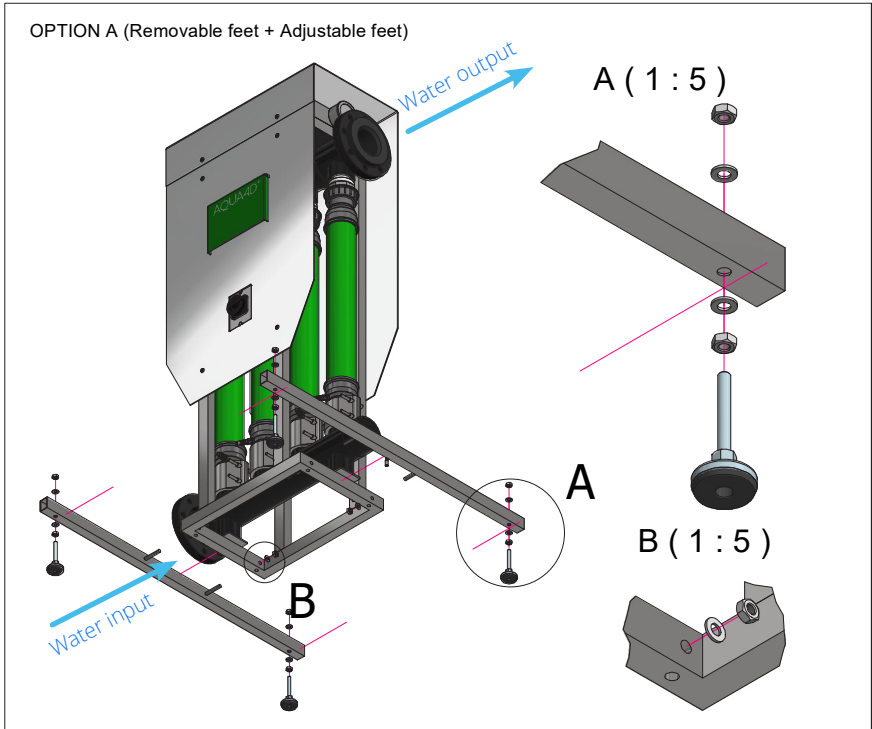


## 5. Installation process

Once you choose the location where the *F-A Pro M* will be, there are 4 options to put or fix on the floor to ensure that it will be stable and secured. Please choose one of the solutions presented on the next page that will best suit your selected location.

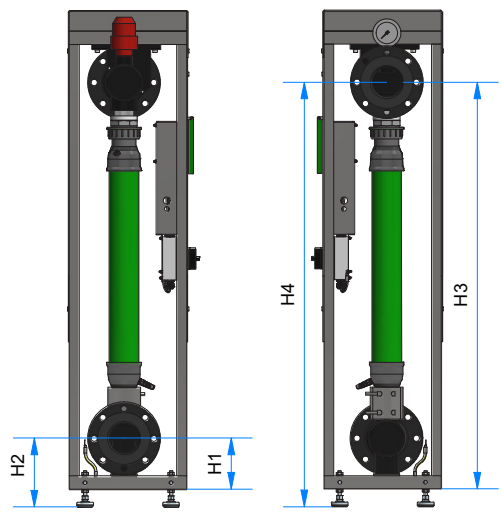
Some assembly is required to equip the removable and adjustable feet.

The installation must be made on a **concrete slab** or equivalent.



TABLE

Pro M type	30-M / 40-M	50-M / 60-M	70-M / 80-M
D1	260 (10.24")	260 (10.24")	260 (10.24")
W1	480 (18.9")	650 (25.59")	970 (38.19")
D2	1000 (39.37")	1000 (39.37")	1000 (39.37")
W2	540 (21.26")	710 (27.95")	1030 (40.55")
H1	155 (6.1")	170 (6.69")	185 (7.28")
H2	198-213 (7.8-8.4")	231-246 (9.1-9.7")	228-243 (9-9.6")
H3	1230 (48.43")	1275 (50.2")	1310 (51.57")
H4	1275-1290 (50.2-50.8")	1320-1335 (52-52.6")	1355-1370 (53.3-53.9")



## 6. Hydraulic connection

The hydraulic input and output of the *F-A Pro M* will require compatible flanges. Make sure to follow the table below to avoid any mechanical damage during the connecting process.

The alignment compensator must be inserted between the *F-A Pro M* and your water network pipe.

Max Torque **60Nm**

E ( 1 :5 )

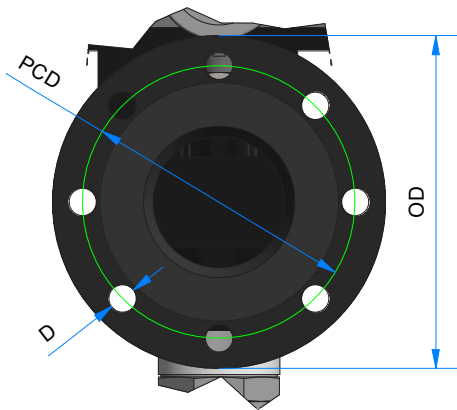
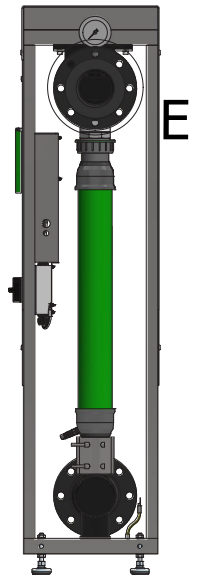


TABLE			
Pro M type	30-M / 40-M	50-M / 60-M	70-M / 80-M
Flange	4"	5"	6"
Standards	ISO 7005 (DIN)	ISO 7005 (DIN)	ISO 7005 (DIN)
D	18	18	22 (7/8")
PCD	180	210	240 (9" 1/2)
OD	220	250	285 (11.2")

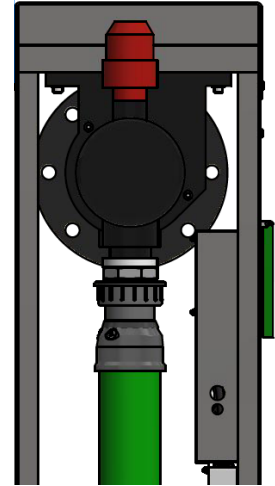


## 7. Pressure test

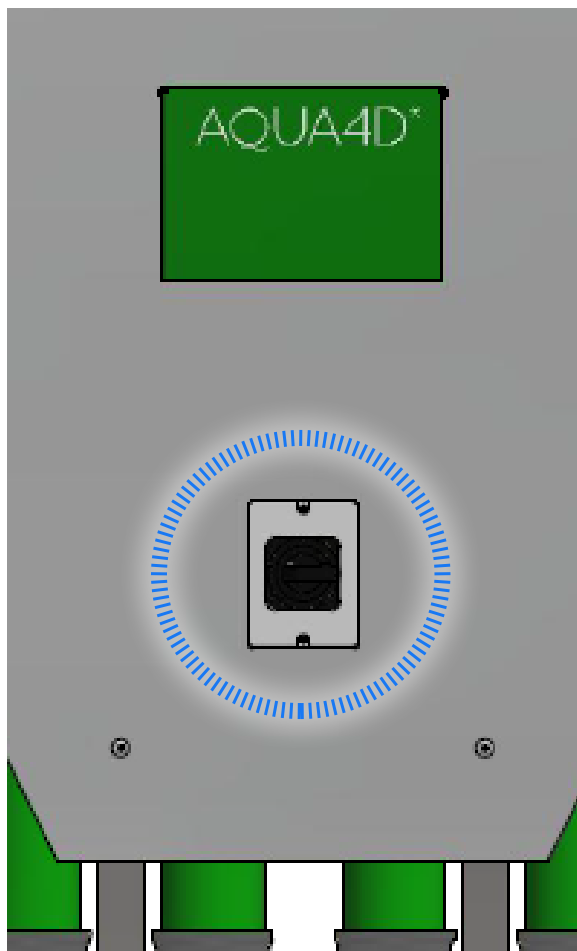
Once the hydraulic connection has been made on both sides, you need to conduct a pressure test with water to ensure that the system is correctly sealed.

It's very important to increase the pressure **progressively** to avoid any unnecessary mechanical stress and to let the air get away through the red venting valve. It's possible that a little bit of water goes through the valve at first, this is normal.

If you notice any water leaks on the system, stop the process. If the leak is on the input/output flanges, try to tighten all the bolts a little bit more.



## 8. Electrical connection

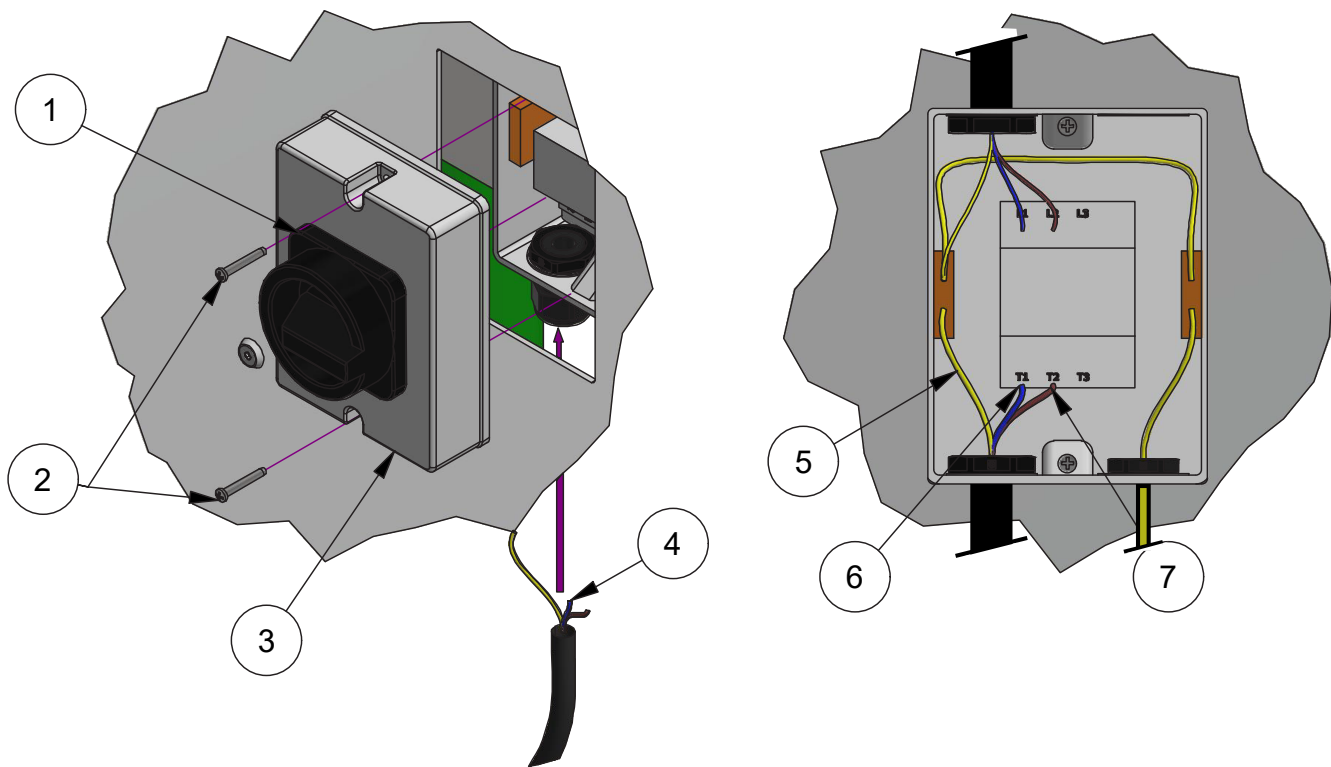


To connect the power cord that will provide the electricity to the system, you will need to work on the **main switch**.

The *AQUA4D F-A Pro M* must be connected to a power line in the voltage range: **110V to 230VAC / 50 to 60 Hz**

Please go to the next page for a diagram and instructions.



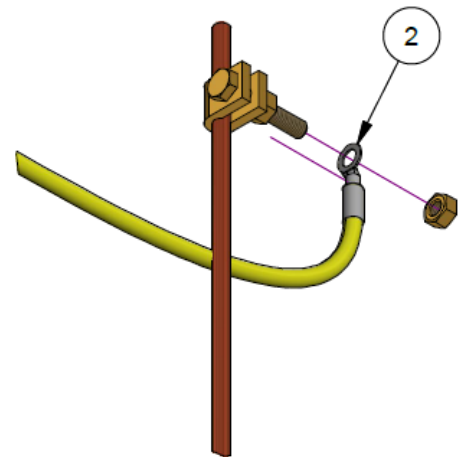
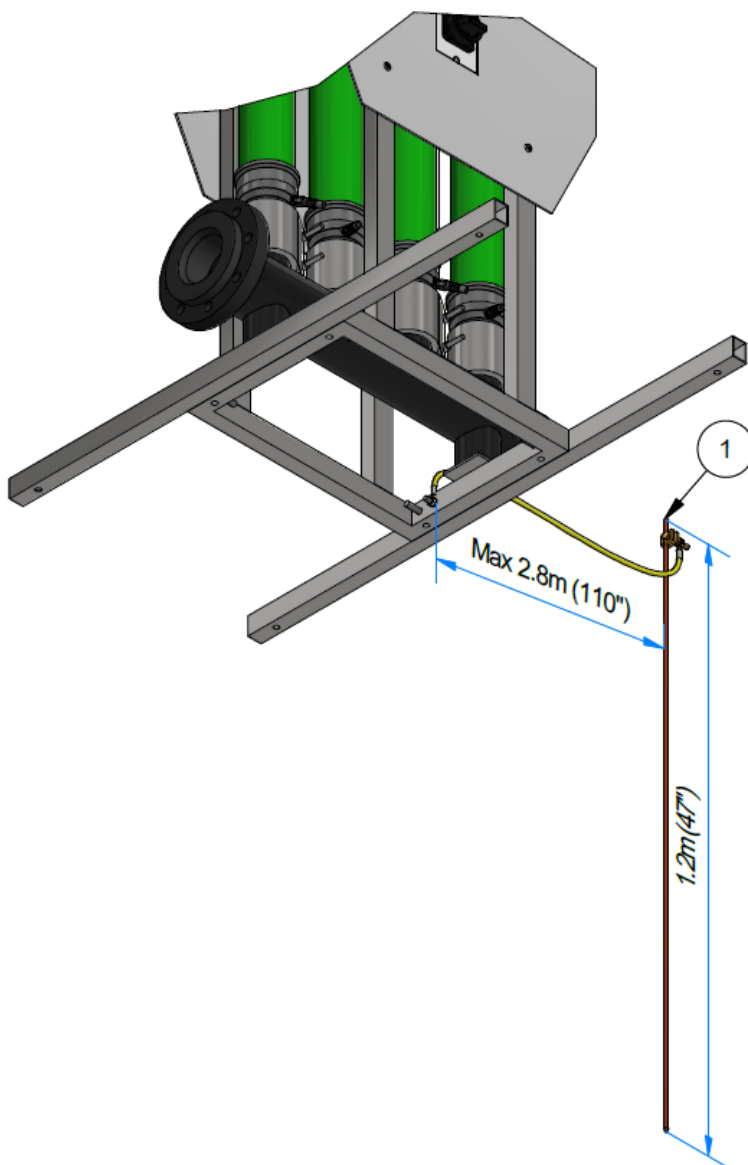


1. Main switch to "OFF" position
2. Remove the 2 screws from the front cover of the switch
3. Remove the front cover of the switch
4. Insert your power cord through the bottom cable gland:
  - Outer diameter of the power cord must be between 6 and 13 mm (0.23" and 0.51")
  - Type of cord: 3 wires of minimum 1 mm<sup>2</sup> (AWG 17)
5. Connect the GROUND wire to the ground terminal, on the side.
6. Connect the NEUTRAL wire to the T1 terminal of the block
7. Connect the LINE wire to the T2 terminal of the block
8. Put the front cover back in place and secure it with the 2 screws (diagram: n°2)  
Tighten the cable gland.

## 9. Ground rod installation

A ground rod is provided with the *F-A Pro M*, it needs to be installed and connected.

Depending on the type and depth of soil, the method for inserting the ground rod may vary and you will have to use the appropriate tools to ensure that only a little part of the rod stays above the ground, around 15 cm (5.9 ").



- 1) Stick the earth rod in the Ground
- 2) Connect the cable to the earth rod

## 10. Startup process

Turn on the power by turning the main switch to the ON position

Lift the green lid so you can see the Control Unit (CU).

The CU will start up and after a few seconds you should have a display similar to the one below, indicating the number of connected Treatment Units (TU).

The system is now fully installed and treating the water going through it.

The *F-A Pro M* must be turned on at all times, 24/7.



## 11. Troubleshooting

Should you encounter any problems during the installation of the *F-A Pro M*, please contact your distributor or the AQUA4D after-sales service at the following address: [info@aqua4d.com](mailto:info@aqua4d.com)

If any errors occur on the *Command F Pro*, please consult its User Manual for more information.

## 12. Rubber expansion joints specifications

### Connect F-A Pro 30 / 40 M to

Pipe Size	Flange	Part N°	L [mm]		OD [mm]		PCD [mm]	
DN100	DN100, DIN PN16	<b>30000</b>	150	5.91"	220	8.7"	180	7.1"
DN125	DN125, DIN PN16	<b>30001</b>	200	7.87"	250	9.8"	210	8.3"
DN150	DN150, DIN PN16	<b>30002</b>	200	7.87"	285	11.2"	240	9.4"
DN200	DN200, DIN PN16	<b>30003</b>	200	7.87"	340	13.4"	295	11.6"
4"	4", ANSI LB 150	<b>30100 *</b>	150	5.91"	230	9"	191	7" 1/2
5"	5", ANSI LB 150	<b>30101 *</b>	200	7.87"	255	10"	216	8" 1/2

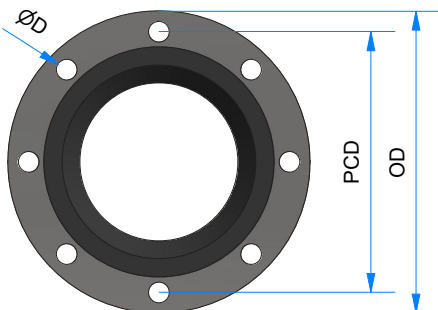
### Connect F-A Pro 50 / 60 M to

Pipe Size	Flange	Part N°	L [mm]		OD [mm]		PCD [mm]	
DN125	DN125, DIN PN16	<b>30011</b>	165	6.5"	250	9.8"	210	8.3"
DN150	DN150, DIN PN16	<b>30012</b>	200	7.87"	285	11.2"	240	9.4"
DN200	DN200, DIN PN16	<b>30013</b>	200	7.87"	340	13.4"	295	11.6"
5"	5", ANSI LB 150	<b>30111 *</b>	165	6.5"	255	10"	216	8" 1/2
6"	6", ANSI LB 150	<b>30112 *</b>	200	7.87"	280	11"	241.3	9" 1/2

### Connect F-A Pro 70 / 80 M to

Pipe Size	Flange	Part N°	L [mm]		OD [mm]		PCD [mm]	
DN150	DN150, DIN PN16	<b>30022</b>	180	7.09"	285	11.2"	240	9.4"
DN200	DN200, DIN PN16	<b>30023</b>	200	7.87"	340	13.4"	295	11.6"
DN250	DN250, DIN PN16	<b>30024</b>	220	8.66"	395	15.6"	350	13.8"
6"	6", ANSI LB 150	<b>30122 *</b>	180	7.09"	280	11"	241.3	9" 1/2
8"	8", ANSI LB 150	<b>30123 *</b>	200	7.87"	345	13" 1/2	298.5	11" 3/4

\* US Market only



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ENG-20-001-DOC-010-04-EN

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