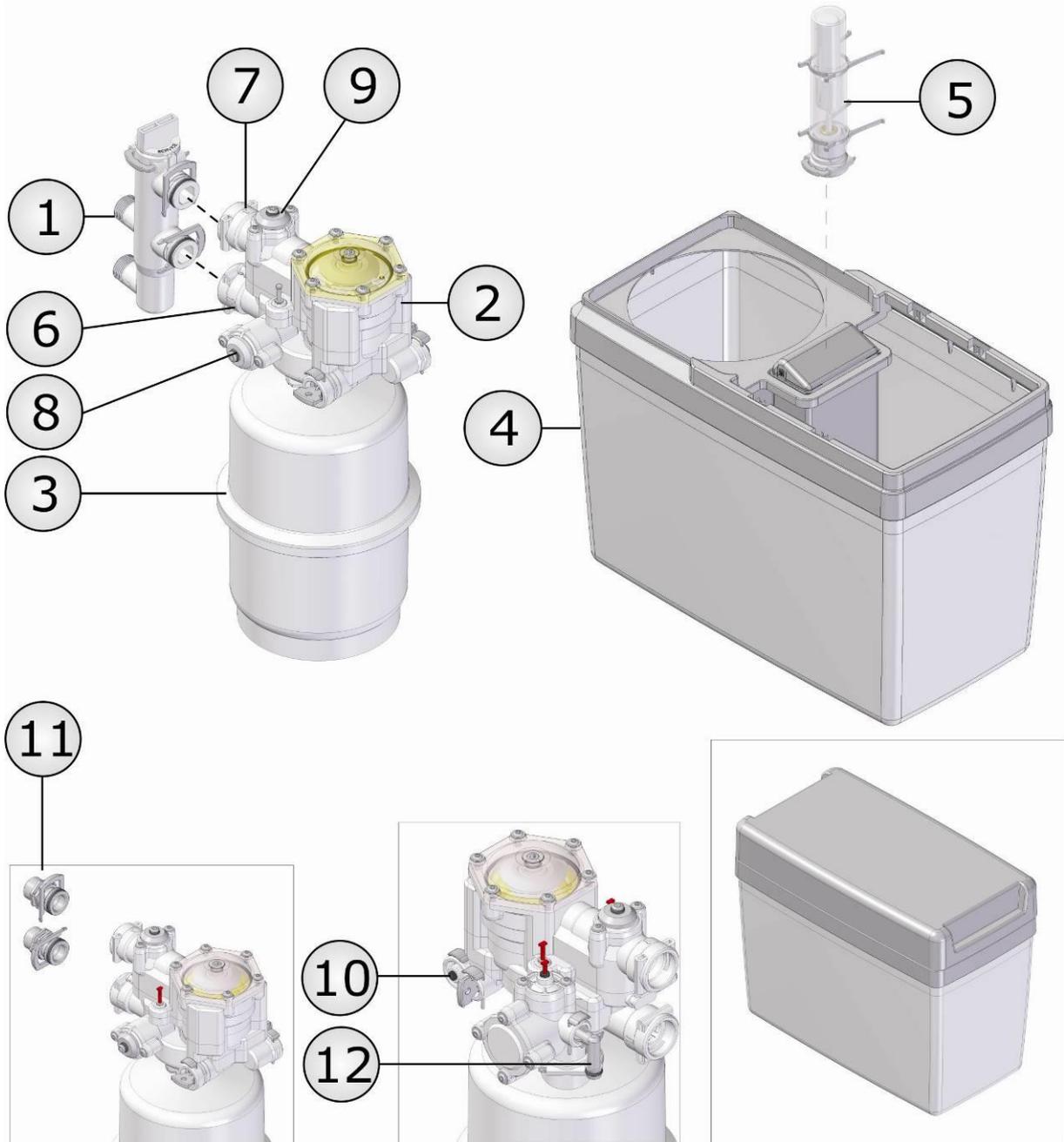


INSTALLATION GUIDE SIMPLEX EXTERNAL

1. Parts:



| | | | |
|-----------|----------------------------------|------------|-------------------------------------|
| 1. | BYPASS | 7. | WATER OUTLET |
| 2. | VALVE HOUSING | 8. | BLENDING REGULATOR |
| 3. | RESIN TANK | 9. | HARDNESS REGULATOR |
| 4. | SALT BIN | 10. | TO BRINE VALVE |
| 5. | BRINE VALVE (floater) | 11. | CONNECTIONS (1/2", 3/4", 1") |
| 6. | WATER INLET | 12. | TO DRAIN |



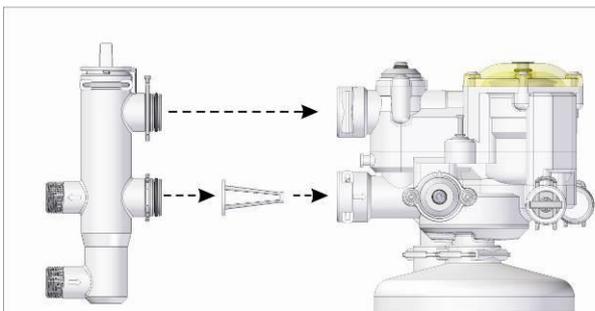
2. Precautions:

- Make sure you have all necessary tools on hand before you begin with the installation.
- Follow all local legal regulations.
- **Read this manual carefully.** If you have any questions or remarks, please contact your Delta supplier.
- Check incoming pressure: minimum 1 bar (dynamic), maximum 8 bar (static) (15 PSI- 116 PSI). If necessary reduce incoming pressure.
- Do not install the Delta Softener close to a heating source (environment temperature must be below 50°C).
- Protect softener and drain (12) against frost.
- Make sure you have the latest installation manual at hand. Check with your Delta supplier.

3. Installation:

- 3.1** Close main valve and make sure pressure is released from piping. This can be done by opening at least one tap.
- 3.2** Cut open main water supply in order to install direct connections to the Delta Softener or to install the Delta Bypass (recommended). Follow the arrows on both Bypass and softener for water inlet and outlet.
- Pay attention that the inlet filter doesn't fall out.**

3.2.1

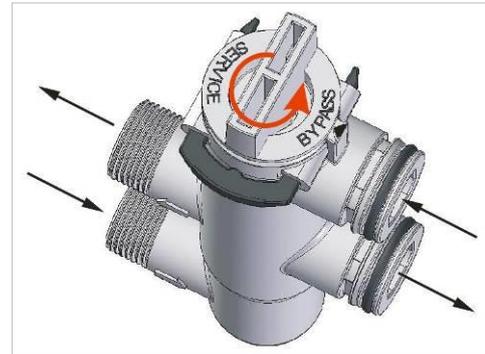


with Delta Bypass

The Delta Bypass has a 3/4" connection.



Caution: before installing the softener, set the Bypass in "bypass" mode, **not** in "service".



3.2.2

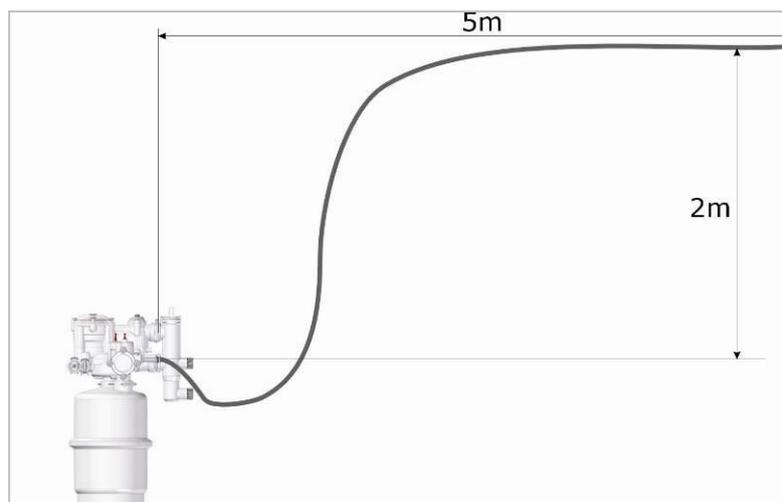
Connect elbow or straight outlet (#12) to a local drain by means of a 13mm flexible drain pipe as supplied by your local supplier. In order to guarantee that the device will keep on functioning perfectly in the future, this drain pipe should be spirally reinforced to avoid later blocking and/or kinks. Please protect the drain against frost and heat (min. temp. 5°C, max. temp. 50°C).



with elbow outlet



with straight outlet

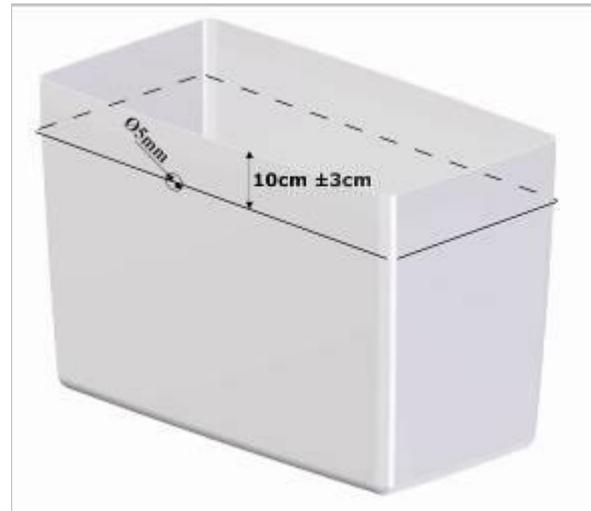


maximum height and distance of flexible drain hose

CAUTION: For the installation of the flexible drain hose to the fixed piping, please follow local legislation.

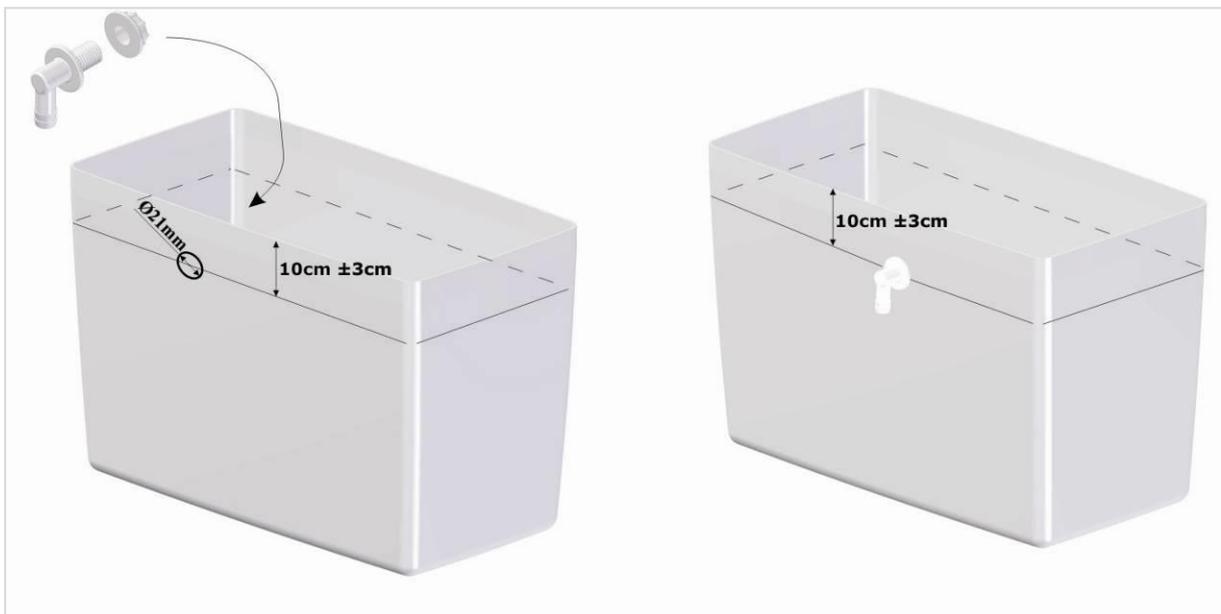
3.2.3

Pierce a hole ($\text{\O}5\text{mm}$) in the side wall of the salt bin for the brine tube. The hole should be located approx. 10cm down from the top edge of the salt bin. After drilling the hole, remove all bits of plastic that have fallen into the salt bin.



3.2.4

Make sure to install the supplied overflow tap. First, pierce a hole ($\text{\O}21\text{mm}$) in the side wall of the salt bin. The location of the hole is not important, make sure however that it is approx. 10cm down from the top edge of the salt bin. Once the hole has been drilled, mount the overflow tap and secure it with the supplied nut. After drilling, remove all bits of plastic that have fallen into the salt bin. A separate instruction leaflet with detailed information has been added to the device. **Please note that the hole for the overflow tap must be situated BELOW the hole for the brine tube.**

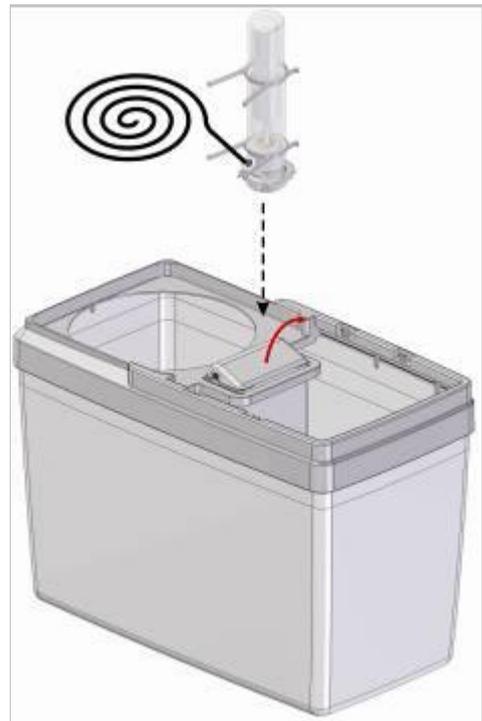


3.2.5

Connect the brine tube ($\varnothing 4\text{mm}$) to the quick-release coupling of the brine valve.

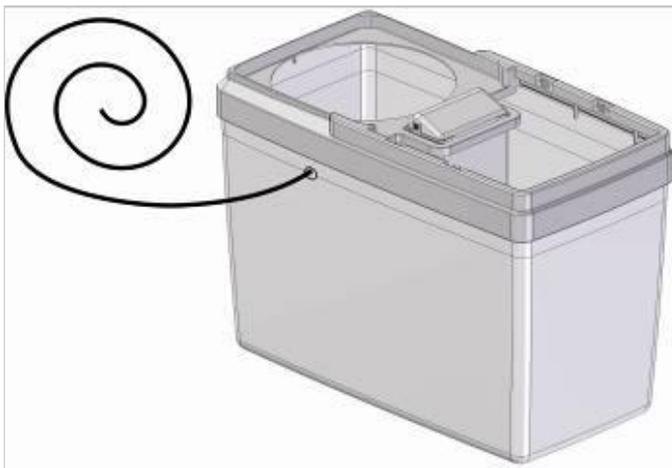
Push the tube in as far as possible. To install the brine valve, open the cover by pressing it gently at both sides. Now put the brine valve in position, with the top side up.

Make sure the valve goes all the way down to the bottom of the salt bin. Close the cover.



3.2.6

Insert the Brine tube into the salt bin using the 5 mm hole, and connect it to the quick-release coupling on the valve housing of the softener (which has either been mounted on a support against a wall or installed otherwise). Make sure not to squeeze the tube; avoid kinks.



4. Settings:

4.1 Hardness regulator:

=part number 9 on the illustration on page 1

Measure the hardness of incoming water by means of a hardness test kit (not supplied by Delta). Delta uses ppm settings of CaCO_3 . (10 ppm CaCO_3 = 1°fh) (1°dh = 1,78°fh)

Adjust the hardness regulator to the measured value. This requires a hex key number 5.



4.2 Blending regulator:

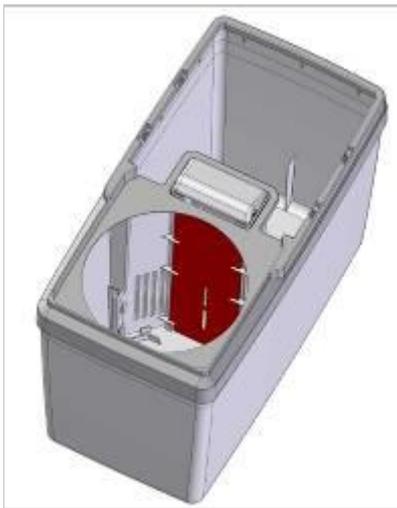
= part number 8 on the illustration on page 1

With the blending regulator, you can determine the outgoing hardness. Depending on the desired residual hardness, set outgoing hardness with a hex key number 5. The setting is proportional, i.e. 1/10 – 1/5 – 1/... of total incoming hardness.

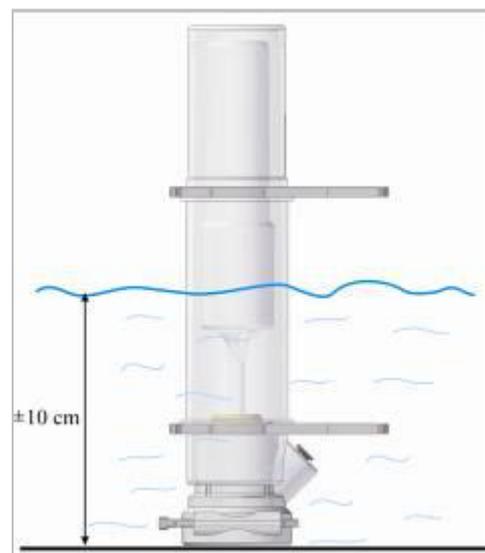


5. Start up:

- 5.1.** Leave Bypass in "bypass" mode, open main valve and flush for several minutes in order to avoid impurities from entering the softener. When you do not use a Bypass, open the main valve slowly as described in **5.4**.
- 5.2.** Before filling the salt container with salt, check that the partition wall is correctly in place (between the small brackets, and all the way down to the bottom of the salt bin). Please refer to the drawing below, where it has been coloured in red to make it clearly visible. Fill the salt bin on both sides of the partition wall. **Use only specific salt tablets that are suitable for softeners.**



- 5.3.** Add water in the salt bin until the water level is approx. 10cm (4") high. (the floater on the brine valve must be afloat)



- 5.4.** Turn the bypass slowly to “service” mode. Open the main valve when you do not use a Bypass.

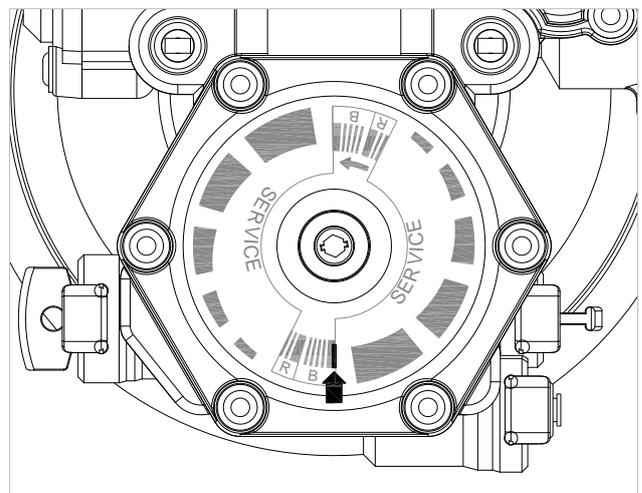


- 5.5.** Open a tap behind the softener so a flow runs through it. Some air may flow from the tap; this comes from the softener. This will happen only once; at start-up. Once only water flows from the tap, and no more air, close the tap.

- 5.6.** Perform a manual regeneration.

5.6.1.

Use a hex key number 5 to turn the program disk (PRG) manually.



Turn PRG counter clockwise until it is in above position. When the arrow and the small line on the transparent cover reach the area marked by “B” (brining), the regeneration will start. Immediately, the PRG will drop down a little (you will be able to see and hear this). “R” stands for refill (refilling the container with water at the end of the regeneration stage). To make sure the softener is in regeneration, there should be a small water flow to the drain, and the water level in the container should drop.

5.6.2.

Let regeneration perform until it stops automatically. The estimated time is approx. 12 minutes. When regeneration has stopped, no more water flows to the drain. This is a clear indication that the regeneration stage is over.

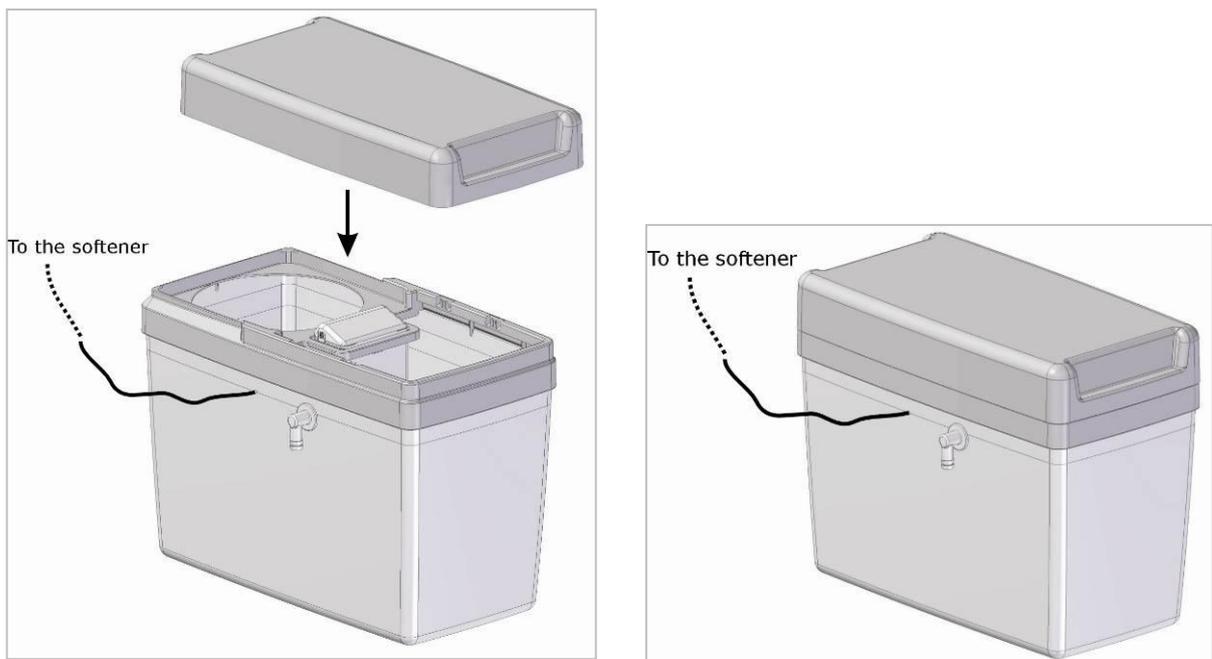
5.6.3.

Open a tap behind the softener for several minutes to allow residual water to be flushed from the tubing.

5.6.4.

Check outgoing hardness with a "hardness test kit" (not supplied by Delta). Adjust blending if necessary.

5.7. Place the lid on the salt bin.



Connect the overflow tap to the drain.

REMARKS:

It is recommended that a water softener is installed by a professional. Although the DELTA softener is probably the easiest and safest softener on the market, it is imperative that all necessary precautions are taken and **local legislation is followed**. This installation guide is written to help the professional installer keeping in mind that this person has essential knowledge about hydraulic softeners and domestic plumbing.

Proper working of the softener will be determined by proper installation.

An annual control of your Delta softener will guarantee optimal functioning and a long operating life.

The DELTA WATER ENGINEERING team is proud of its achievement in having provided in what we believe to be the best softener available today. Moreover, we are proud to have you as a customer. We will do our utmost to deserve your trust.



DELTA WATER ENGINEERING

Waesdonckstraat 1

2640 Mortsel

Tel: +32(0)32195070

Fax: +32(0)32899320

BTW: BE 863.958.709

info@deltawatersystems.com

sales@deltawatersystems.com



DELTA WATER ENGINEERING

V05/2009/P10