



**DESSALATOR<sup>®</sup>**  
Watermakers - dessalinisateurs



## MEMBRANE REPLACEMENT INSTRUCTIONS

**Dessalator<sup>®</sup>**

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## Legal Notice

### **Dessalator®**

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## Disassembly of the membrane block

**Remove the membrane block from its location:**



With a flat wrench n°17, unscrew the Serto fitting to remove the blue hose ø10mm.

Do not lose the compression ferrule in the union nut.



With a flat wrench n°19, unscrew the fittings of the 2 high-pressure pipes.



Using a screwdriver, unscrew the 8 fixing screws of the membrane block

## Access the membranes :



With the flat wrench n°17, unscrew the 2 Serto connections for fresh water production. Do not lose the compression ferrule in the union nut.

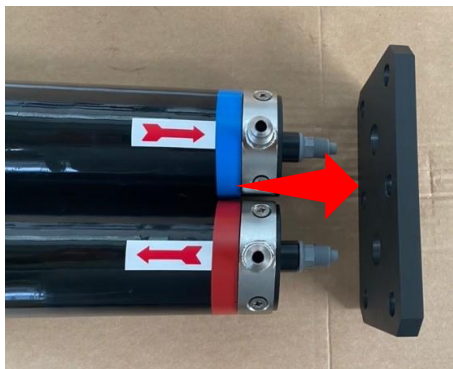


With a small flat screwdriver, remove the nut aps on each side of the 2 flanges.

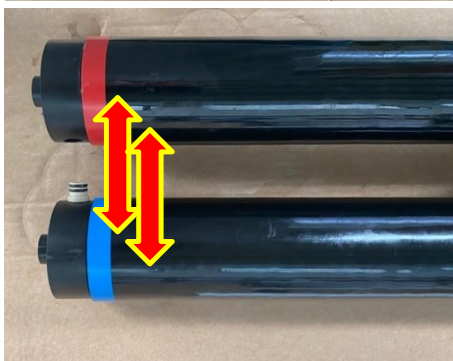
With two pipe wrenches or flat n°17, unscrew the nuts on each side to remove the tie rods that hold the 2 flanges.







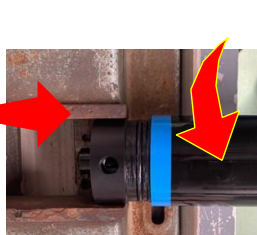
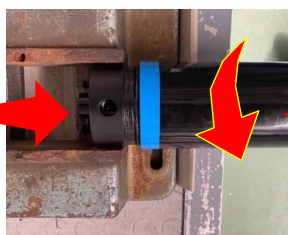
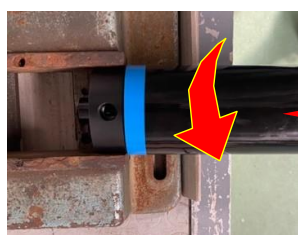
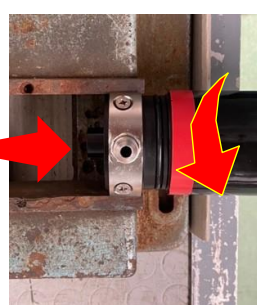
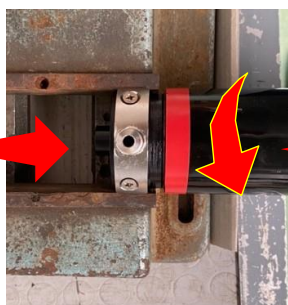
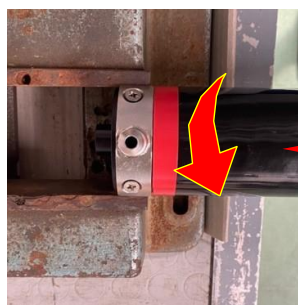
Remove the flanges on each side of the membranes.



Separate the membranes to remove the inter-connector(s), be careful not to damage the O-rings.



Using a vice or vice grips, block the membrane heads and by hand, unscrew while pulling on the membrane tube to dissociate the head and the membrane tube.



Once the membrane heads have been removed, you can push the membrane on the side of the blue mark, so that the membrane comes out on the side of the red mark on the tube.

Be careful, push on the sides of the membrane but not on the nipple.

## The replacement of the membrane(s)

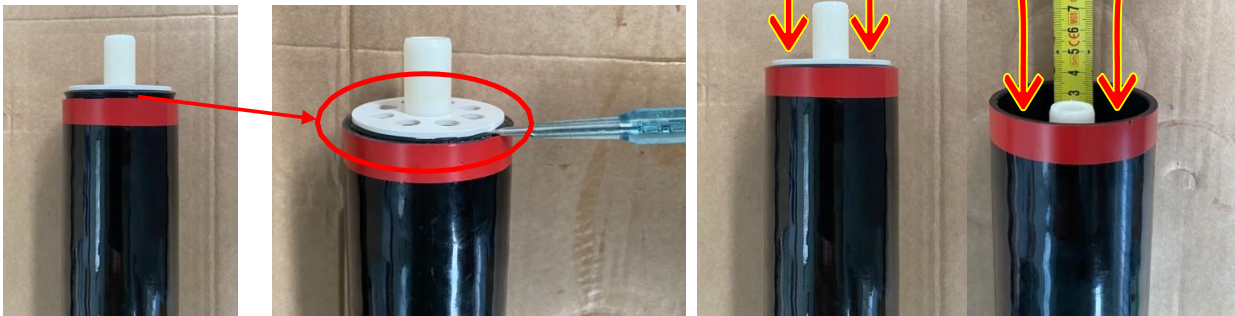


On the new membrane, it is necessary to put a little grease on the lip joint with a brush without overflowing.

Insert the new membrane into the membrane tube **imperatively** on the side of the red mark.

Once the lip seal is against the tube, using a small flat screwdriver push on the top of the joint to make it gradually fit into the tube taking care not to damage it.

Now you can, by hand, push the 3.5cm membrane inside the tube. Be careful, push on the sides of the membrane but not on the nipple.



## Reassembly of the membrane block



Once the membrane is in place in the tube, you can put the membrane heads back in place.

If they are too dry, grease the 2 O-rings that are on the membrane heads .

We will also put a little grease on the 4 O-rings of the inter-connector. Put the inter-connector back in place on each membrane head, taking care that the O-rings do not come out of their groove.

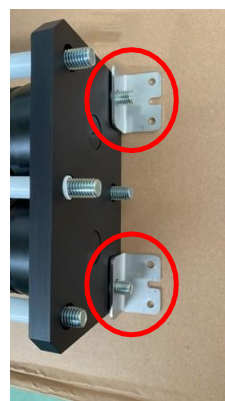


Replace the flanges on each side of the membranes.

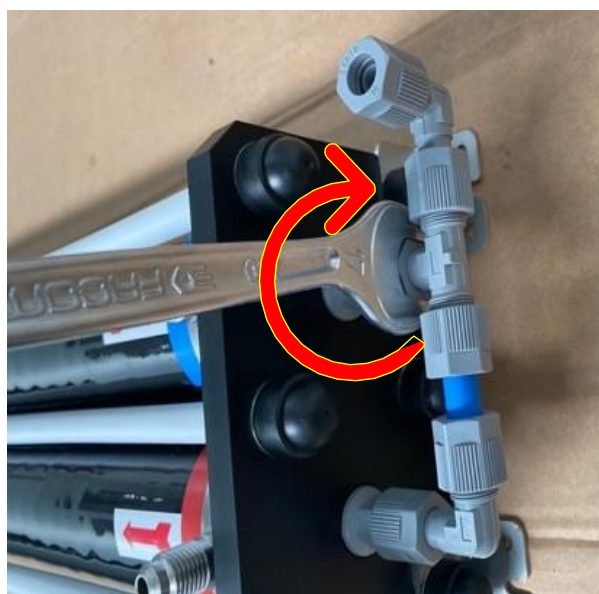




Replace the tie rods that hold the 2 flanges.  
Don't forget to replace the mounting brackets.  
Replace the washers and nuts at the end of the tie rods.



With two pipe wrenches or flat n°17, Screw the nuts on each side to tighten the tie rods that hold the 2 flanges.  
The clamping force is 2kg (20Nm).



After replacing the nut caps on each side of the 2 flanges.

With the spanner no. 17, screw the 2 Serto fittings for the production of fresh water.

Check that the compression ferrules are in the union nuts.







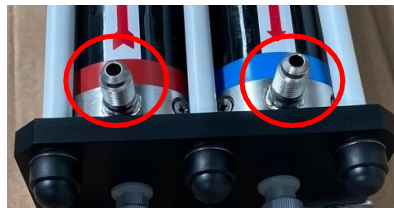
Return the membrane block to its original place and using a screwdriver, screw the 8 fixing screws of the membrane block back



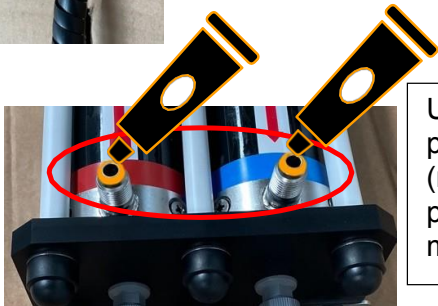
Put the blue hose  $\varnothing 10\text{mm}$  back into the Serto fitting and with a flat wrench n°17, screw the fitting back in.



Check that the compression ferrule is in the union nut.



Before reassembling the high-pressure fittings, glue residues must be removed from the male and female fittings.

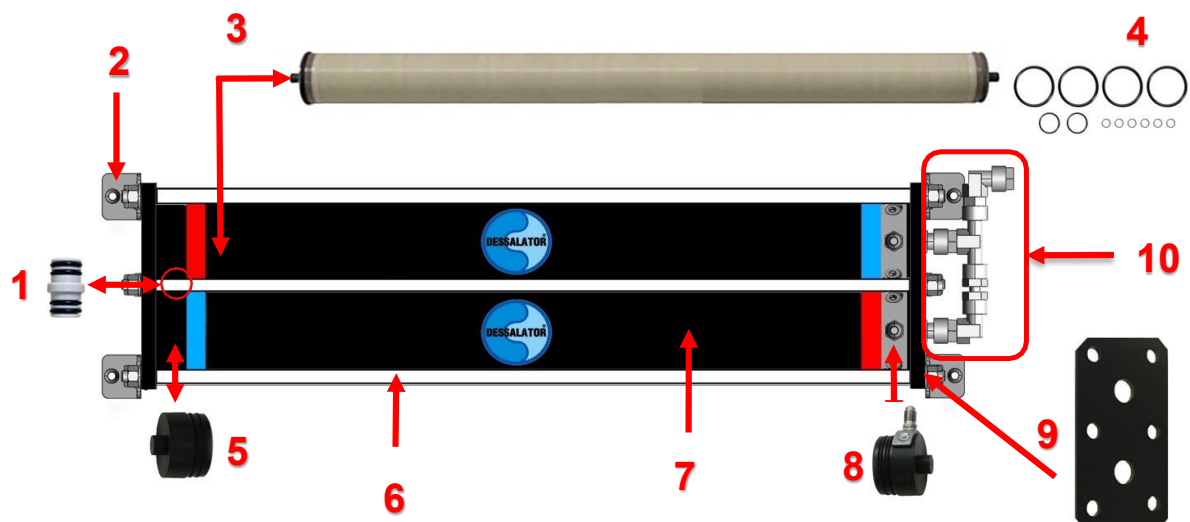


Use threadlocker such as Loctite 542 liquid or 577 paste only on the lip of the 2 males connectors (membrane block side) before assembling the high pressure pipe connectors on those of the membrane block.



With a flat wrench n°19, screw the connections of the 2 high-pressure pipes back to those of the membrane block.

## Exploded view of a membrane block:



|    | Designations                                  | 30, 60 and 100 liters/hour                                                                                | 90, 160, 200 and 300 liters/hour |
|----|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------|
| 1  | Inter-connector                               | Reference : 102581                                                                                        |                                  |
| 2  | Stainless steel fastening bracket             | Reference : 102582                                                                                        |                                  |
| 3  | Bare membrane                                 | Reference 2521 : 100015                                                                                   | Reference 2540 : 100337          |
| 4  | Membrane seal kit                             | Reference : 101941                                                                                        |                                  |
| 5  | Tapped membrane head                          | Reference : 102580                                                                                        |                                  |
|    | Untapped membrane head                        | Reference : 102579                                                                                        |                                  |
| 6  | Pull with threaded tip                        | Reference (small): 100445                                                                                 | Reference (large) : 10046        |
| 7  | Membrane Tube                                 | Reference 2521 : 102758                                                                                   | Reference 2540 : 100339          |
| 8  | Tapped membrane head with fitting half-moon   | Reference : 101438                                                                                        |                                  |
|    | Untapped membrane head with half-moon fitting | Reference : 102314                                                                                        |                                  |
| 9  | Flange                                        | Ref: 30 & 90 l/h: 100560Ref : 60 & 160 l/h: 100003<br>Ref : 100 & 200 l/h : 100068 Ref : 300 l/h : 100069 |                                  |
| 10 | Serto low pressure fitting tip kit            | Reference : 101402                                                                                        |                                  |
|    | 1 Elbow 1/4" male Serto                       | Reference : 100121                                                                                        |                                  |
|    | 1 Elbow 3/8" Male Serto                       | Reference : 100122                                                                                        |                                  |
|    | 1 Elbow 10A10 adjustable Serto                | Reference : 100016                                                                                        |                                  |
|    | 1 Right tip 3/8" male Serto                   | Reference : 100123                                                                                        |                                  |
|    | 2 Tips 1/4" ø10mm male Serto                  | Reference : 100014 (x2)                                                                                   |                                  |
|    | 1 Tea ø10mm Serto                             | Reference : 100005                                                                                        |                                  |
|    | 1 Tee 1/4" male Serto                         | Reference : 100124                                                                                        |                                  |

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