

# NewLine Reverse Osmosis System

installation manual



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## introduction

Thank you for choosing our Bluefilters® NewLine Reverse Osmosis Water System. You now own a superb water filtration system that is highly effective at reducing just about all contaminants in your water, including organic and inorganic compounds as well as unwanted tastes and odours.

This system uses household water pressure to reverse a natural physical process called osmosis. Water, under pressure, is forced through a semi-permeable membrane where minerals and impurities are filtered out. Clean drinking water goes to the faucet or storage tank, while the impurities are sent to the drain. These impurities are measured in water as Total Dissolved Solids (TDS).

The system includes innovative and patented NewLine® replaceable prefilters which are using German edge technologies and convenient post filter cartridges. The NewLine® prefilters remove sediment and chlorine from the water supply before they can enter the RO membrane. The postfilter removes any taste or odours that may remain in the water after passing through the RO membrane, and just before going to the RO faucet. To prevent water waste, an automatic shut-off valve closes when the RO faucet is closed and the storage tank is full.

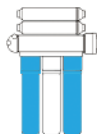
This reverse osmosis system will provide you with a continuous supply of sparkling clear, delicious water for drinking, cooking and other uses. Foods will look and taste better too. Having high quality RO water at hand eliminates the need to buy bottled water. The storage tank holds up RO water for your needs.

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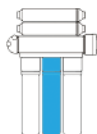
**Bluefilters Group - only the best is good enough**  
Bluefilters is a leader in production of water filtration systems.  
The highest quality of our systems are based on patented innovative German technology solutions.  
Bluefilters PL oo 22010

## how your RO System works



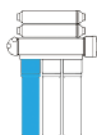
### **NewLine® PP-NL sediment cartridge**

Water from the cold water supply pipe enters the RO assembly sediment filter first. NewLine® PP-NL sediment is the best solution to remove mechanical impurities such as: sand, silt and other sediments that you may or may not be able to see in your water.



### **NewLine® SC-NL sediment-carbon cartridge**

NewLine® SC-NL sediment-carbon cartridge is a sediment combined with activated carbon type filter which removes any remaining tastes or odours from the product water. Taste-free, odour-free, clean, pure, high quality water is always available for use!



### **NewLine® GAC-NL carbon cartridge** (only where available)

NewLine® GAC-NL carbon cartridge uses the advantages of granulated activated carbon absorption abilities. It removes even smaller sediments (invisible to human eye) as well as chlorine and other organic particles. Sediment and / or chlorine can destroy the RO membrane and this filter provides polished, filtered, chlorine-free water to the RO membrane. It brilliantly improves taste, colour and odour of water.

### **NewLine® GAC-MIN-NL remineralising-carbon cartridge** (only where available)

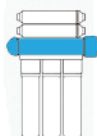
NewLine® GAC-MIN-NL carbon cartridge uses the advantages of granulated activated carbon absorption abilities. It removes even smaller sediments (invisible to human eye) as well as chlorine and other organic particles. Additionally, it remineralises water after RO membrane, adding beneficial minerals to it. It brilliantly improves taste, colour and odour of water.

### **NewLine® H-NL hollow fibre cartridge** (only where available)

NewLine® H-NL hollow fibre cartridge removes turbidity, colloidal material, substantially reduces amount of bigger cysts and bacteria. It filters the source water to 0,01 microns, leaves beneficial minerals while removing contaminants.

### **NewLine® G-NL softening cartridge** (only where available)

NewLine® G-NL softening cartridge uses the advantages of ion exchange resin abilities. It improves taste and flavour of water. Reduces calcium and magnesium ions and softens water. Removes mechanical pollution at gradation over 10 microns



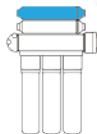
### **Reverse Osmosis membrane**

The RO membrane is a tightly wound special membrane. The membrane removes the dissolved solids such as calcium carbonate, chlorides, nitrates etc. and organic matter when the water is forced through the cartridge. High quality product water exits the RO cartridge and goes to the storage tank, or to the post-filter and RO faucet. Rejected water, with the dissolved solids and organic matter is routed through the flow control valve and to the drain.



### **Postfilter Inline IL-GAC carbon cartridge**

It is made of high quality activated carbon which enhances the flavor and taste of the water. Activated carbon post-filter removes any remaining tastes or odors from the product water.



### **Postfilter Inline IL-MIN mineralising cartridge** (only where available)

Mineralising cartridge contains different kind of minerals. The size reduction of minerals enables their dissolution and saturating of osmotic water with mineral salts. It reduces mechanical impurities and organic chemicals and saturates water with mineral salts' ions.

### **Postfilter Inline IL-BIO bioceramic cartridge** (only where available)

The core of the cartridge contains ceramic particles sealed hermetically in a glass tube. Ceramic particles of tourmaline emit FIR (Far Infrared Rays) radiation, which invokes resonance among water and organic molecules. Water molecule and the length of the FIR wave start to resonate causing an increase of the amplitude of molecules' vibration.

## how your RO System works



### **Storage tank**

The storage tank will hold pure water. A diaphragm inside the tank keeps the water pressurized to about 30psi, when the tank is full. This pressure provides a fast flow to the RO faucet. The tank, when empty, is pressurized to 5-7psi.

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### **Automatic shut-off valve assembly**

To conserve water, this drinking water system has an automatic shut-off valve system. When the storage tank is filled to capacity and the RO faucet is closed, pressure closes the shut-off valve to stop the flow to drain. Pressure in the storage tank is about half of the water supply pressure. After drinking water is used, and pressure in the system drops, the shut-off valve opens to allow water to flow again.

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### **Permeate Pump** (only where available)

Type of water pump which is used to increase efficiency of RO system. It reduces the amount of water used in purification process by limiting the amount of sewage. Permeate pump balances relation between the amount of purified water and water released into drain. This type of pump does not require electricity or any other power source.

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## before you install the RO System



**CAUTION:** A refrigerator icemaker may not operate properly when connected to RO system that has been installed on a water system which operates outside of the specified pressures listed on page 15.



**CHECK YOUR WATER SUPPLY:** The COLD water supply to the RO system must be within certain quality limits. See the specifications on page 15. If the supply water is not within the limits defined, the RO system will not make product water as it should and substantially reduced filter and membrane life will result.



**CAUTION:** Chlorine in water will destroy the RO membrane. Most cities add chlorine to water supply to kill bacteria. The prefilters will remove the chlorine up to the limits shown in the specifications on page 15 before it enters the RO membrane. It is important to replace the prefilter cartridges at the recommended time intervals. See System Care and Maintenance starting on page 12.



**CAUTION:** Before consuming any water from the RO system you must PURGE the RO membrane cartridge. The RO cartridge contains a food grade preservative that should be removed before consuming the water from the system. This procedure is explained on page 11.

Read all steps and guides carefully before installing and using your reverse osmosis system. Follow all steps exactly to correctly install. Reading this manual will also help you get all the benefits from your RO system.

**DO NOT** attempt to use this product to make safe drinking water from non-potable water sources. Do not use the system on microbiologically unsafe water, or water of unknown quality without adequate disinfection before or after the system. This system is suitable for cyst reduction and may be used on disinfected water that may contain filterable cysts.

Check with your local public works department for plumbing and sanitation codes. You must follow their guides as you install the system. Follow your local codes if they differ with guides in this manual.

This reverse osmosis system works on water pressure of 2,2 bar (32 psi) (minimum) to 6 bar (87 psi) (maximum). You must install a pressure reducing valve in the water supply pipe to the reverse osmosis system if the water pressure exceeds 6 bar (87 psi).

**DO NOT** install this reverse osmosis system outdoors or in extreme hot or cold environments. Temperature of the feed water supply to the RO system must be between 4° C and 45° C. **Do not install on hot water.**

The reverse osmosis membrane contains a food grade preservative for storage and shipment. Be sure to purge it according to the instructions on page 11.

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## before you install the RO System

This RO system is designed for installation under the sink, usually in the kitchen or bathroom. The RO system can be mounted on a wall surface or can lie on the cabinet floor next to the storage tank. The RO faucet installs on the sink, into the counter next to the sink or in the special bracket on the wall.

You can also install the system in any remote location from the faucet, observing the safety guides on page 7. You will need a nearby water supply and drain point.

**Water supply:** To provide supply water to the RO system, use the included feed supply fittings as described on page 8.

**Drain Point:** A suitable drain point is needed for the reject water from the RO membrane. A floor drain, laundry tub, standpipe, sump, etc., is preferred for remote installations. A saddle drain adapter is included to install the system under the sink where codes permit, as an optional drain point.



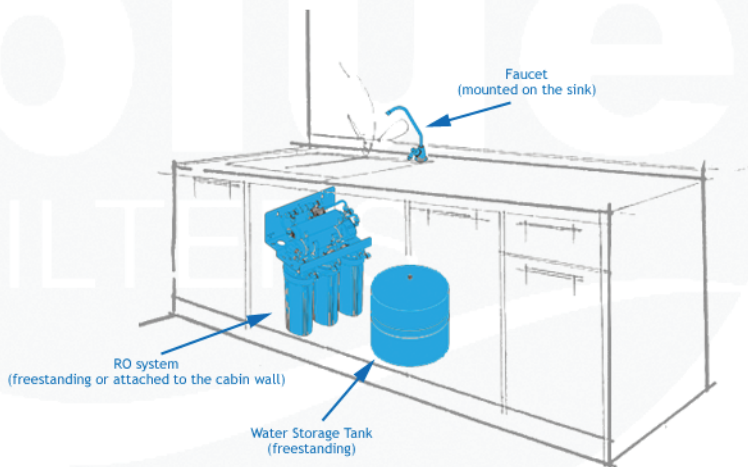
**NOTE:** Tubing lengths supplied with the system allow for the easy moving of the filter assembly for servicing. If tubing lengths are shortened for a neater appearance, it may be necessary to keep the filter assembly in its installed location for service. Please keep connecting tubes as long as possible for convenient usage.

### CHECK LIST:

1. Reverse Osmosis Unit
2. Water storage tank
3. Four coloured tubing lengths or one piece tubing
4. Installation kit
5. Tank ball valve
6. Drain saddle valve
7. Brass water feeder with valve
8. Faucet with assembly kit
9. Installation manual

### TOOLS AND MATERIALS NEEDED:

- Variable speed drill
- Ø 4, 6, 10 or 13 drill bit
- 17, 24, 32 open-end wrench, or adjustable wrench, pliers
- Screwdriver
- Utility knife, or scissor
- Teflon tape



Pic.1 - visual RO System draft

## important installation notes

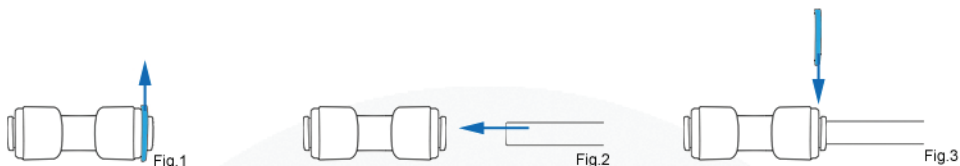
The RO System uses Quick Connection type style fittings. These fittings only require you to simply push the tubing firmly into each fitting.

### Connecting standard Quick Connection type push-in fittings

**Step 1:** Remove locking clip from the fitting as presented on Fig.1

**Step 2:** Push the pipe into the fitting, to the pipe stop (Fig.2). The collet (gripper) has stainless steel teeth which hold the pipe firmly in position whilst the 'O' Ring provides a permanent leak-proof seal. Pull on the pipe to check whether it is secured. It is a good practice to test the system prior to leaving the site and/or before use.

**Step 3:** Place the locking clip back (Fig.3) to lock the pipe and prevent it from accidental slip-out.

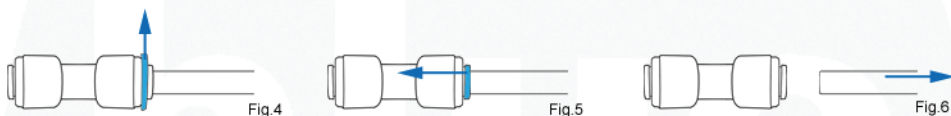


### Disconnecting standard Quick Connection type push-in fittings

**Make sure that the system is depressurized before removing fittings.**

**Step 1:** If present, remove locking clip from the fitting as presented on Fig.4

**Step 2:** Push in the collet against the face of the fitting (Fig.5). With the collet held in this position the pipe can be removed (Fig.6). The fitting can then be re-used.





# system installation

## Step 1: Tapping into cold water supply

There are a number of ways to connect the system to the water mains. RO systems, depending on the local connection standards, is equipped with 3/8", 1/2" or 3/4" Brass Water Feeder. Choose between two methods of installation of Brass Water Feeder to your water supply piping given below.



**CAUTION:** The water supply to your RO unit **MUST** be from a **COLD** water line. Hot water will severely damage your RO system.

### METHOD 1

#### Brass Water Feeder 3/4" - Faucet connection:

1. Locate hot and cold water shut off valve under the sink and turn it off. Open hot and cold water faucet to release the pressure, and make sure there is no water running.
2. Untighten compression nut and remove the faucet. Then put supplied gasket and install connector elements remembering that the one with the hole must go to cold water supply pipe. Tighten firmly.
3. Take the ball valve and mount it on the cold water connector element.
4. Connect the faucet back to the connector elements. Turn the ball valve handle to close position, open hot and cold water shut off valve and check for any leakages.
5. Use the Teflon tape for sealing the threaded ends.
6. Connect ball valve with the RO system with 1/4" elastic tube, which is part of the RO system installation kit. Please refer to connection schemes at the end of this manual for appropriate connection.

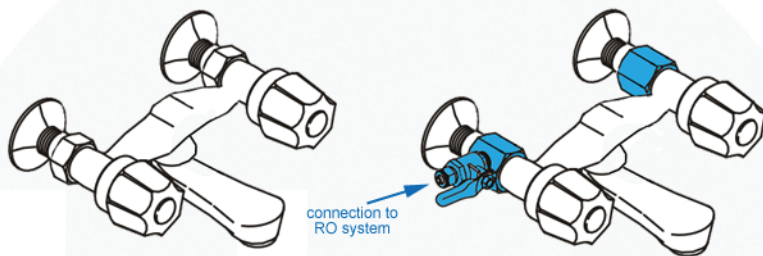


Fig.7 - brass water feeder 3/4" faucet connection method

### METHOD 2

#### Brass Water Feeder 3/8" or 1/2" - Water supply connection:

1. Locate cold water shut off valve under the sink (if the feeder is installed after this valve) or main shut off valve (if the feeder is installed before under sink shut off valve, as shown on scheme) and turn it off. Open cold water faucet to release the pressure, and make sure there is no water running.
2. Untighten compression nut or under sink shut off valve. Then put supplied gasket and install connector element. Tighten firmly.
3. Take the ball valve and mount it on the connector element.
4. Finally connect the supplied line or under sink shut off valve back to the Connector Element. Turn the ball valve handle to close position, open main or cold water shut off valve and check for any leakages.
5. Use the Teflon tape for sealing the threaded ends.
6. Connect ball valve with the RO system with 1/4" elastic tube, which is a part of the RO system installation kit. Please refer to connection schemes at the end of this manual for appropriate connection.

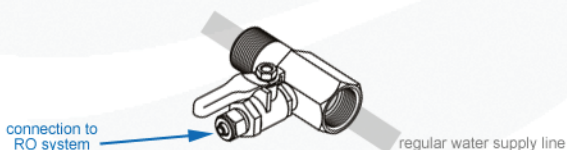


Fig.8 - brass water feeder 3/8" or 1/2" connection method

# system installation

## Step 2: Installing the dispensing faucet

The faucet should be positioned with aesthetics, function and convenience in mind. A sample flat surface is required for the faucet base so that it can be installed firmly. Also, check the under sink area of the desired location to see if there is enough space to complete the faucet installation.

If the space is not available on the upper sink area, the faucet could be positioned on the counter top at the edge of the sink. Be sure to watch for obstructions below, i.e., drawers, cabinet walls, support braces, etc. If the counter top is made of ceramic tile, the method for drilling the hole should be the same as for porcelain sink.



**NOTE:** The sink drilling process, although not complicated, requires a certain amount of caution and forethought. A porcelain sink can crack if care is not exercised.

### DRILLING

#### Porcelain enamel sink / stainless steel sink / aluminum sink

A  $\varnothing$  13 mm hole is required for the faucet. It is recommended that you obtain a special ceramic drill bit for a porcelain and/or tile sink/counter. When drilling the faucet hole for the sink/counter, you should wear eye protection and exercise caution by following the below steps carefully.

1. Place a piece of masking tape or duct tape on the determined location where the hole is to be drilled.
2. Use a variable speed drill at slow speed with  $\varnothing$  6 mm drill bit, and drill a centering hole in the center of the desired faucet location. Use lubricating oil to keep the drill bit cool while drilling.
3. Enlarge the hole using a  $\varnothing$  10 mm drill bit.
4. Enlarge the hole using  $\varnothing$  13 mm drill bit. Keep bit well oiled and cool, then drill slowly.
5. File or clean the surrounding area and then remove the masking or duct tape. (**NOTE:** the metal chips on porcelain will stain very fast).
6. Pass the chrome cover plate and rubber washer according to the Fig.9 through the threaded mounting tube at the base of the faucet
7. From under the sink, install the white plastic locating washer, small metal washer, and screw on the nut until it is tight against the underside of the sink/counter.
8. With all fittings in place, thread the Tube Fastening Nut and Collet, insert the tubing into the faucet inlet and tighten the nut.
9. Connect the other free end of the 1/4" tubing to the Stage 5 postfilter. Please refer to connection schemes at the end of this manual for appropriate connection.

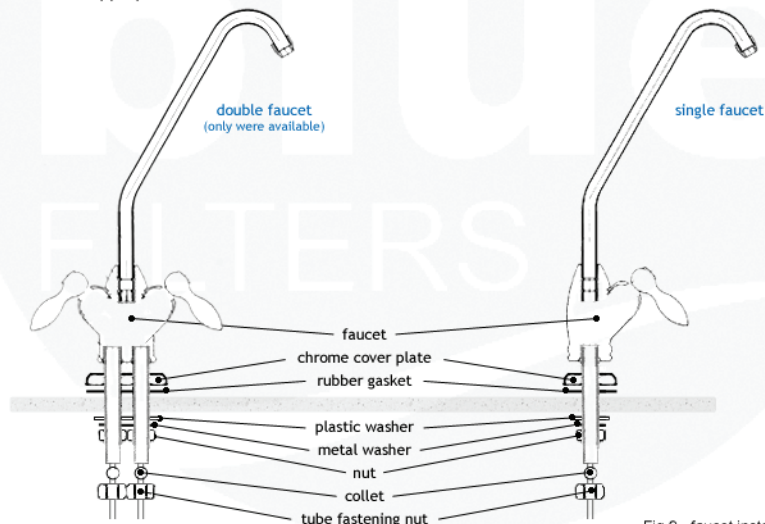


Fig 9 - faucet installation elements

## system installation

### Step 3: Mounting the tank ball valve



**NOTE:** Do not tamper with the air valve on the lower side of the storage tank. It has been preset to 0,3-0,5 bar (5-7psi) at the factory.

1. Unplug the plastic cap on top of the tank if present.
2. Put the Teflon tape around the thread.
3. Connect the ball valve to the thread. **Hand-tighten only. Do not use a wrench or overtighten it.**
4. Connect the other free end of the 1/4" white tubing to the stage 5 or 6 postfilter.



**CAUTION:** Be careful not to damage plastic thread of the tank ball valve.

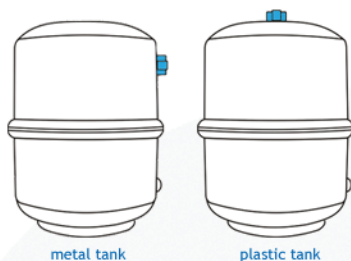


Fig.10 - tank ball valve connection options

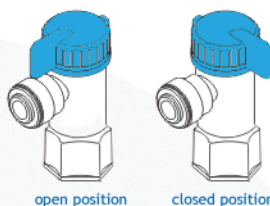


Fig.11 - tank ball valve usage positions

### Step 4: Mounting the drain saddle valve

1. The drain saddle valve will fit most  $\varnothing$  50 mm standard plastic drain pipe. It should be installed above the trap and on the vertical or horizontal pipe under the sink drain.
2. Remove the nuts and bolts from the front half of the Saddle Valve and position and hold it in the desired location on the drain pipe above the trap and water line and mark the spot for drilling with a  $\varnothing$  4 mm drill bit or awl through the hole in the clamp. Do not mount the Saddle Valve next to a garbage disposal, as this may cause the drain line to clog. You should carefully consider the route and available space for the 1/4" poly drain line tubing, before you drill the 1/4" hole.
3. Where you marked the location in step 1, Drill a  $\varnothing$  6 mm hole into the drain pipe and clean the surface of the pipe.
4. Align the drilled hole in the drain pipe with the front half of the Saddle Valve using the  $\varnothing$  4 mm drill bit or a narrow screwdriver. Now locate the complementary piece of the Saddle Valve Assembly Clamp and join them together with the two bolts. Tighten the two bolts evenly.
5. Connect 1/4" tubing to drain saddle valve and the other free end to the flow restrictor valve. Please refer to connection schemes at the end of this manual for appropriate connection.

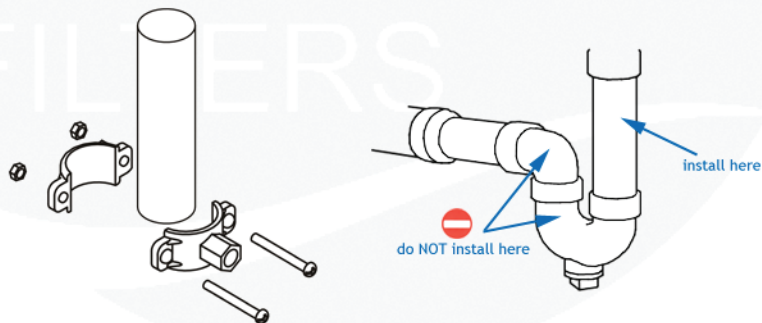


Fig.12 - drain saddle connection scheme

## system installation

### Step 5: Pressure testing and purging

1. Check all tubing to be sure there are no kinks or obstructions.
2. Turn the Storage Tank Valve to OFF position.
3. Turn RO faucet lever to continuous flow ON position (handle pointed up).
4. Turn the cold water supply main valve on slowly. When the system is pressurized, check for leaks.
5. You will hear the air purging from the system and within 5 minutes, the water should start dripping from the RO faucet. Once the water starts to drip, allow 20 more minutes for the water to flow through the system and purge all the air trapped inside the system.
6. After 10 minutes, turn the Storage Tank Valve to the ON position (handle is parallel to the tubing)
7. Turn the RO faucet handle to the OFF position. Now the purified water will start going into the storage tank.



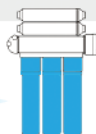
**CAUTION:** You must purge the first two tanks of water from the system prior to consumption of the product water. **Do not drink the first 2 tanks** of water produced by the system!

8. Allow the storage tank to fill for 2 hours. Then open the faucet until the tank is empty and the flow just drips from the faucet.
9. Close the faucet and allow the storage tank to fill again for 2 hours. Then open the RO faucet and empty the tank again. After discharging the contents of the Storage Tank twice, you can start enjoying the pure water.



**NOTE:** Check for leaks daily for the first week after installation

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### Prefilters change (lifetime: 3-6 months)

To change the NewLine® filters, follow these instructions:



**CAUTION:** Any Replacement filters or membranes not recommended by the producer can cause severe damage to the system and void all warranties.

1. Shut off the feed water supply to the system by turning the saddle valve or cold water faucet valve on the water supply clockwise until it stops.
2. Close the storage tank ball valve by turning the handle perpendicularly to the valve body.
3. Press down on the faucet handle to release pressure.
4. Allow 3-5 minutes for pressure in the system to drop.
5. Turn the cartridge counterclockwise to loosen it and remove the cartridge from the head (cap). Be careful as the cartridges are filled with water.
6. Unpack new cartridges from any protection foil and line up the new cartridge with the center of the head.
7. Turn the cartridge clockwise to tighten it.



**CAUTION:** Rinse the new cartridge for about 5 minutes before usage.

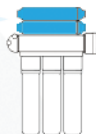


**CAUTION:** A higher frequency of filter changes may be necessary, dependent upon your feed water quality. You should inspect the filters periodically and maintain a service record to establish a maintenance schedule that is unique to your water conditions.

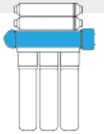
### Postfilters change (lifetime: 6 months)

To change the postfilter, follow these instructions:

1. Shut off the feed water supply to the system by turning the saddle valve or cold water faucet valve on the water supply clockwise until it stops.
2. Close the storage tank ball valve by turning the handle perpendicular to the valve body.
3. Press down on the faucet handle to release pressure.
4. Allow 3-5 minutes for pressure in the system to drop.
5. Remove the 1/4" tubing from the ends of the postfilter you want to change by following the instructions on page 7 of this manual (see: Disconnecting Quick Connection type Push-in Fittings)
6. Now, using an adjustable wrench, remove the male adapter and tee on each end of the post filter and dispose of the filter properly.
7. Unpack new postfilter from any protection foil.
8. Wrap the threaded end of each fitting with teflon tape (male adapter and tee) and use an adjustable wrench to screw them into the new postfilter.
9. Reattach the 1/4" faucet line to the male adapter on the left end of the post filter. Reattach the 1/4" tank line to the tee on the right end of the filter. Lastly, reattach the 1/4" tubing auto shut-off line to the tee. Snap the filter back onto the membrane clips. Please refer to the system scheme at the end of this manual for appropriate connection.



# FILTERS



## Membrane change (lifetime: 2-5 years)

### Regular type membrane change:

To change the membrane, follow these instructions:

1. Shut off the feed water supply to the system by turning the water feeder ball valve or cold water faucet valve on the water supply clockwise until it stops.
2. Close the storage tank ball valve by turning the handle perpendicularly to the valve body.
3. Press down on the faucet handle to release pressure.
4. Allow 3-5 minutes for pressure in the system to drop.
5. Remove the 1/4" tubing from the cap end of the membrane housing by following the instructions on page 7 of this manual (see: Disconnecting Quick Connection type Push-in Fittings)
6. Unscrew the membrane cap by turning it counter clockwise until it is completely removed. Be sure that the O-ring remains properly seated on the collar of the housing.
7. Unpack the membrane from any protection foil.



**CAUTION:** Use vaseline for membrane sealings before membrane installation!

8. With a pair of pliers, gently grab the membrane plastic end tube and pull it out. This procedure may require a little back and forth twisting and pulling motion, as the membrane is press-fitted into the housing. Be careful not to damage the inside walls of the membrane housing.
9. Insert the new membrane into the membrane housing and use your thumbs to apply pressure to the membrane in the direction shown making sure the brine seal and permeate o-rings seat into the housing completely.

If your RO System is equipped with a 2 in 1 closed membrane, you should exchange the 2 in 1 closed membrane by disconnecting the fittings following above steps from 1 up to 5, insert new 2 in 1 closed membrane in the direction shown and connect the fittings with the housings.

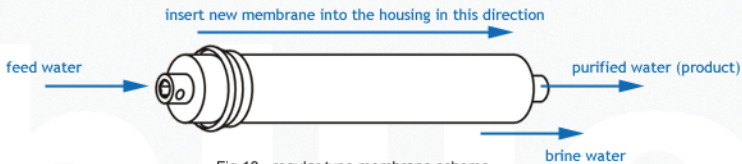


Fig.13 - regular type membrane scheme

### 2 in 1 type closed membrane change: (only where available)

To change 2 in 1 membrane, follow these instructions:

1. Shut off the feed water supply to the system by turning the water feeder ball valve or cold water faucet valve, on the water supply clockwise, until it stops.
2. Close the storage tank ball valve by turning the handle perpendicularly to the valve body.
3. Open the RO faucet to release pressure.
4. Allow 3-5 minutes for pressure in the system to drop.
5. Remove fittings on both sides of the housing, following the instructions on page 7 of this manual (see: Disconnecting Quick Connection type Push-in Fittings).
6. Using 2 in 1 closed membrane there is no need to unscrew/open the membrane housings and change the RO membrane. You simply replace housing and RO membrane in the same time.
7. Insert new 2 in 1 closed membrane.
8. Connect the membrane housing with the quick change fittings by following the instructions on page 6 of this manual (see: Disconnecting QC type Push-in Fittings).
9. Close RO faucet, open the storage tank ball valve and turn on the feed water to the system.



Fig.14 - 2 in 1 type closed membrane scheme

## troubleshooting

### Filter lifetimes:

- NewLine® prefilters - 3-6 months
- Inline postfilters - 6 months
- RO membrane - 2-5 years



**NOTE:** Regularly (eg. once per month) check your TDS\* level of feed water and purified water. Results will keep you updated about the filtration efficiency and the filters condition. RO membrane should lower TDS value of the feed water by around 90%. If the TDS level of purified water is out of range prefilters, postfilters and/or membrane should be exchanged.

\* TDS (Total Dissolved Solids) - total content of substances dissolved in water measured in ppm (parts per million = mg/l)

Please check selected cases for general solution ideas:

#### **problem: Taste and/or smell of chlorine in clean water**

**cause:** Concentration of chlorine in feed water is above the limit, which damaged the membrane. Prefilter does not work – does not remove chlorine from feed water.

**solution:** If the concentration of chlorine in feed water is above 2.0 ppm an additional prefiltration should be used. Exchange the pre- and postfilters; membrane and flow restrictor.

#### **problem: Changed smell and taste of clean water**

**cause:** Used postfilters. Used membrane. Clean water in storage tank is contaminated.

**solution:** Exchange the postfilter. If the changed smell and taste lingers, exchange the membrane and flow restrictor. Disinfect the whole system and storage tank.

#### **problem: Low system capacity**

**cause:** Prefilters or membrane are clogged with sediments. Feed water does not comply with the standard requirements.

**solution:** Exchange the prefilters. If the capacity does not improve, exchange the postfilters, membrane and flow restrictor. Increase water pressure, carry out additional filtration etc. before doing the service.

#### **problem: Filtration speed is lower than usual**

**cause:** Water pressure in the storage tank is below 5-7 psi

**solution:** Open the faucet valve and empty the tank completely. Check the pressure in the storage tank (keeping the faucet valve open). If the pressure is low, then increase it up to 0,4 bar (6 psi). Close the faucet in order to fill in the tank.

#### **problem: High TDS value of clean water**

**cause:** Feed water does not comply with the standard requirements. Used membrane.

**solution:** Increase water pressure, carry out additional filtration etc. Exchange the prefilters, membrane and flow restrictor.

#### **problem: Constant water flow to the drain**

**cause:** Shut-off valve is clogged.

**solution:** Clean or exchange, if necessary.

## system specification

|                                      |  |
|--------------------------------------|--|
| Feed water pressure limits           | 2.2 - 6.0 bar  |
| Feed water temperature limits        | 4 - 45°C   |
| Maximum total dissolved solids (TDS) | 1500 ppm <sup>(*)</sup>                                  |
| Maximum chlorine content             | 2.0 ppm  |
| Feed water pH limits                 | 2 – 11   |
| Efficiency                           | 50, 75 or 100 GPD (194, 291 or 388 dm <sup>3</sup> /24h) |
| Rejection of TDS (new membrane) in % | 90 – 95%   |
| Storage tank capacity                | 12L or 18L   |
| Voltage <sup>(**)</sup>              | ~230V  |
| Power frequency <sup>(**)</sup>      | 50 Hz  |
| Protection level <sup>(**)</sup>     | IP54   |

(\*) maximum levels:

|                |                          |
|----------------|--------------------------|
| water hardness | <17 mg CaCO <sub>3</sub> |
| turbidity      | <1 NTU                   |
| SDI index      | <5                       |
| Fe             | <0,01 mg/l               |
| Mn             | <0,05 mg/l               |
| Si             | <25 mg/l                 |

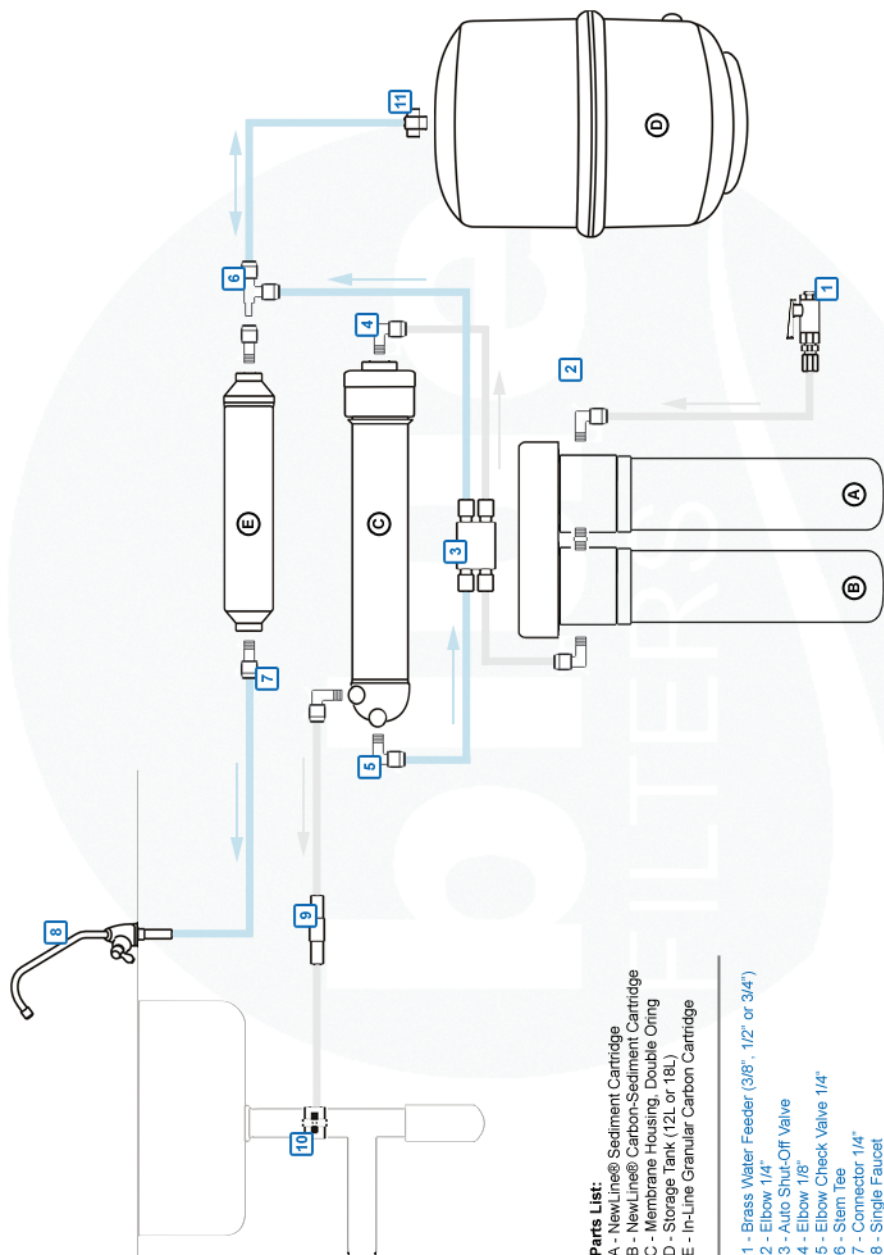
(\*\*) - only for RO System equipped with booster pump

The logo for Blue Filters is a large, light blue circle containing the word "blue" in a lowercase, sans-serif font. Below "blue", the word "FILTERS" is written in a smaller, uppercase, sans-serif font. A white, wavy line resembling a water surface or a filter membrane is positioned at the bottom of the circle.

blue  
FILTERS



## RO4 NewLine - connection scheme

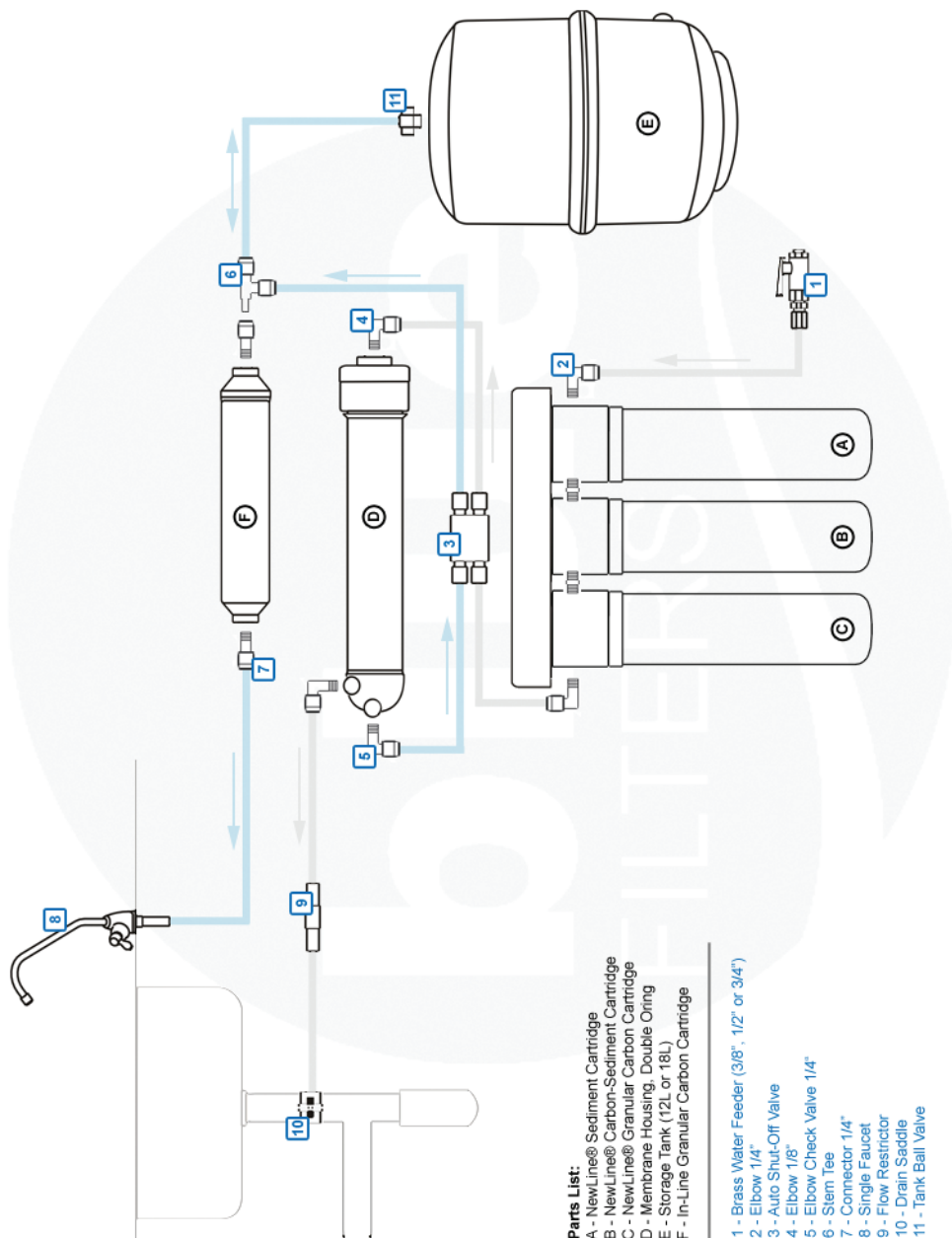


### Parts List:

- A - NewLine® Sediment Cartridge
- B - NewLine® Carbon-Sediment Cartridge
- C - Membrane Housing, Double Oring
- D - Storage Tank (12L or 18L)
- E - In-Line Granular Carbon Cartridge

- 1 - Brass Water Feeder (3/8", 1/2" or 3/4")
- 2 - Elbow 1/4"
- 3 - Auto Shut-Off Valve
- 4 - Elbow 1/8"
- 5 - Elbow Check Valve 1/4"
- 6 - Stem Tee
- 7 - Connector 1/4"
- 8 - Single Faucet
- 9 - Flow Restrictor
- 10 - Drain Saddle
- 11 - Tank Ball Valve

## RO5 NewLine - connection scheme

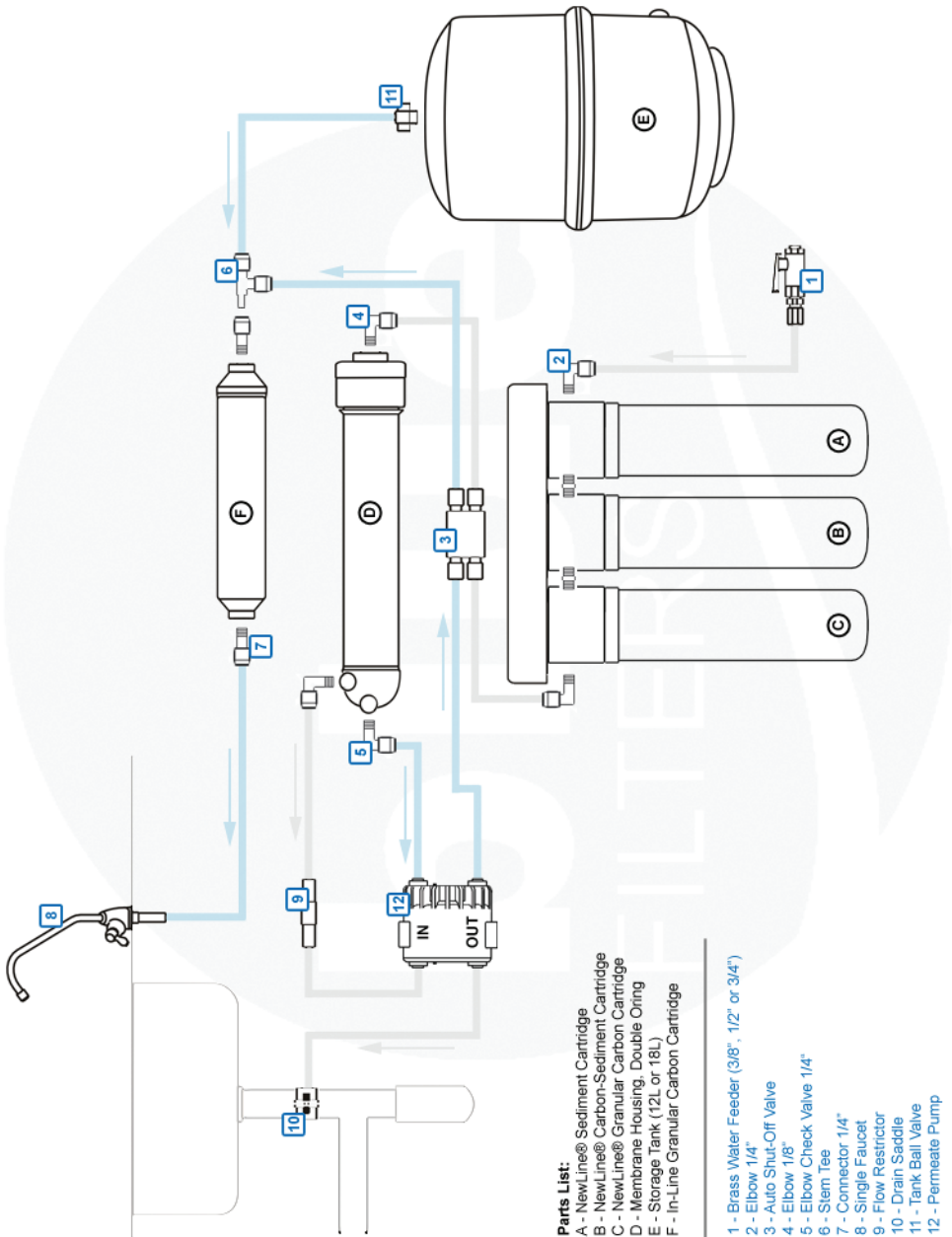


### Parts List:

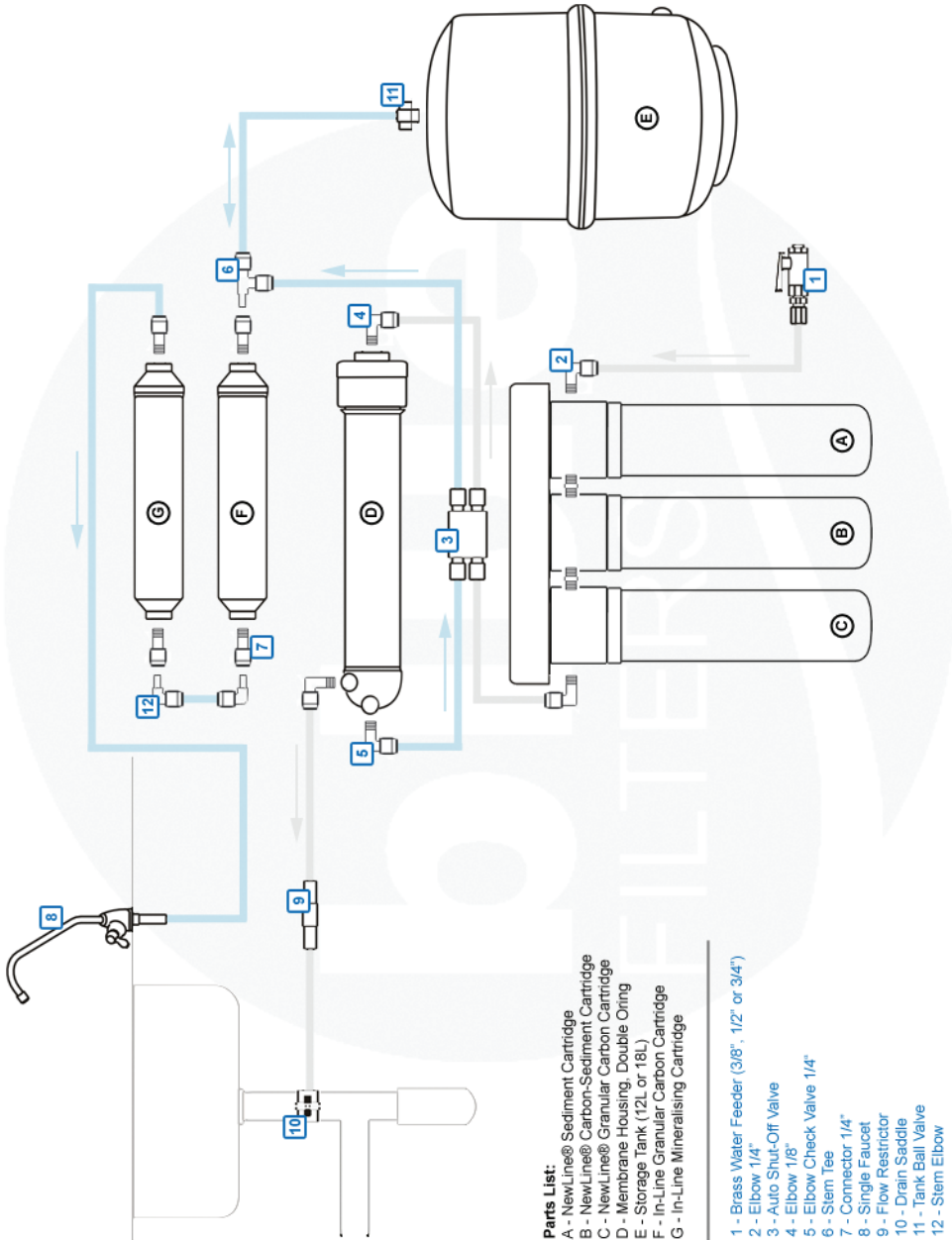
- A - NewLine® Sediment Cartridge
- B - NewLine® Carbon-Sediment Cartridge
- C - NewLine® Granular Carbon Cartridge
- D - Membrane Housing, Double O-ring
- E - Storage Tank (12L or 18L)
- F - In-Line Granular Carbon Cartridge

- 1 - Brass Water Feeder (3/8", 1/2" or 3/4")
- 2 - Elbow 1/4"
- 3 - Auto Shut-Off Valve
- 4 - Elbow 1/8"
- 5 - Elbow Check Valve 1/4"
- 6 - Stem Tee
- 7 - Connector 1/4"
- 8 - Single Faucet
- 9 - Flow Restrictor
- 10 - Drain Saddle
- 11 - Tank Ball Valve

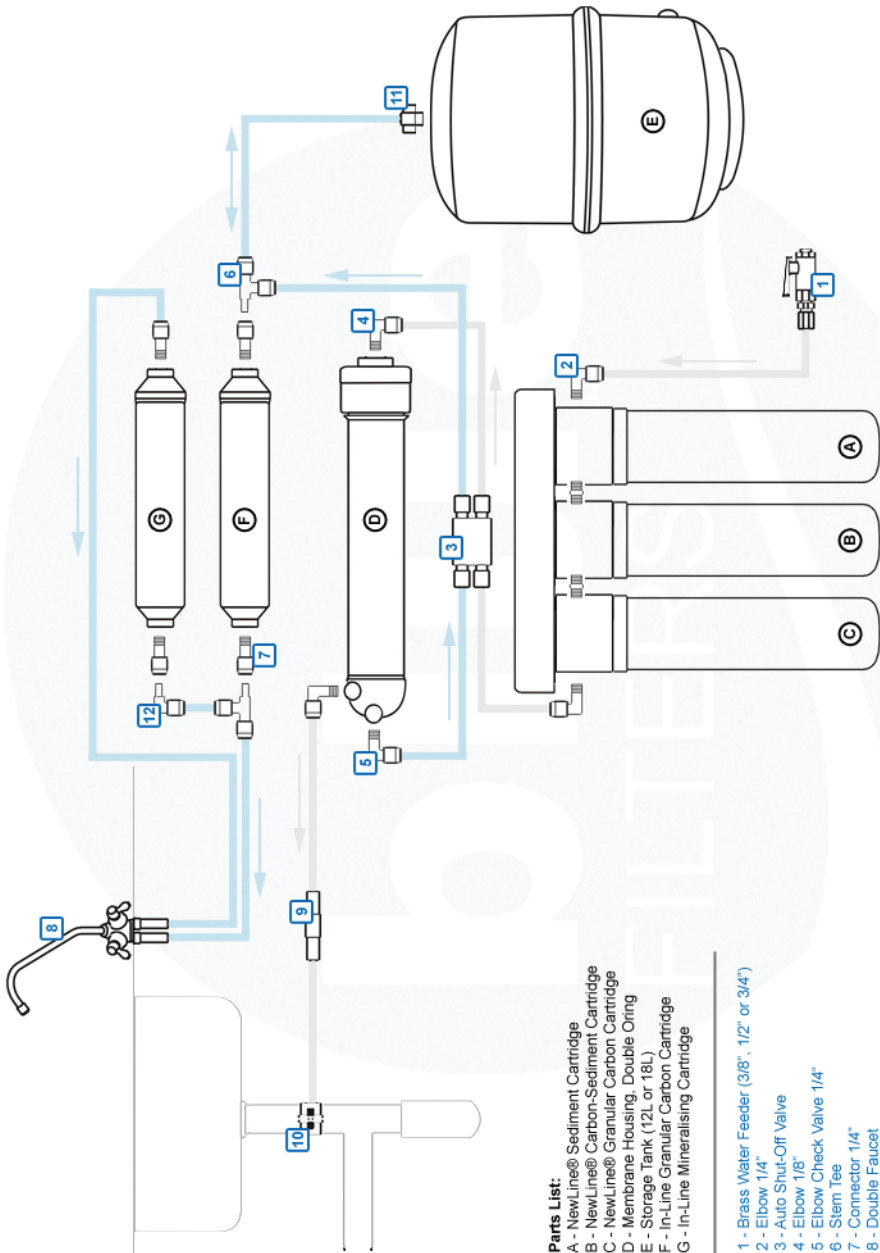
# RO5PP NewLine with Permeate Pump - connection scheme



# RO6 NewLine with single faucet - connection scheme



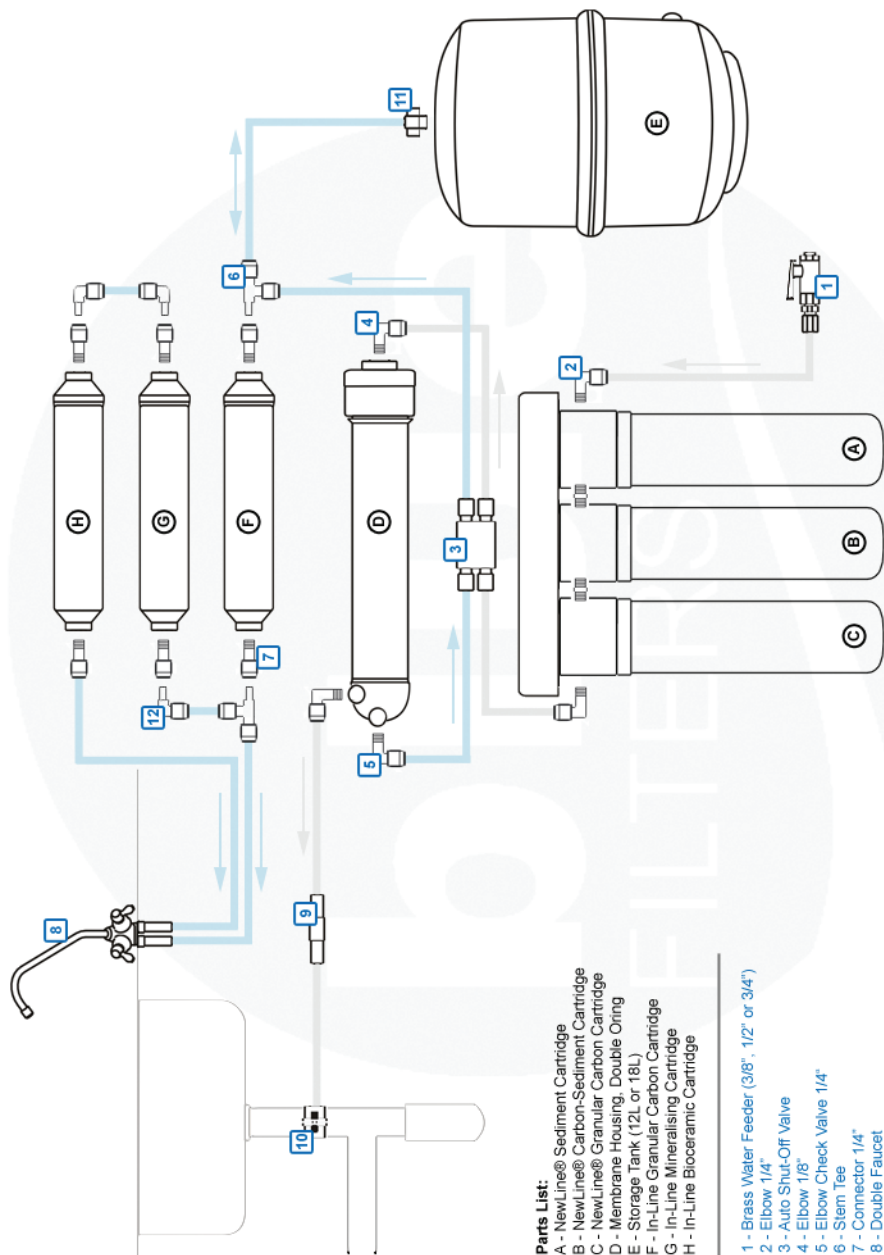
# RO6 NewLine with double faucet - connection scheme



## Parts List:

- A - NewLine® Sediment Cartridge
  - B - NewLine® Carbon-Sediment Cartridge
  - C - NewLine® Granular Carbon Cartridge
  - D - Membrane Housing, Double O-ring
  - E - Storage Tank (12L or 18L)
  - F - In-Line Granular Carbon Cartridge
  - G - In-Line Mineralising Cartridge
- 
- 1 - Brass Water Feeder (3/8", 1/2" or 3/4")
  - 2 - Elbow 1/4"
  - 3 - Auto Shut-Off Valve
  - 4 - Elbow 1/8"
  - 5 - Elbow Check Valve 1/4"
  - 6 - Stem Tee
  - 7 - Connector 1/4"
  - 8 - Double Faucet
  - 9 - Flow Restrictor
  - 10 - Drain Saddle
  - 11 - Tank Ball Valve
  - 12 - Stem Elbow

# RO7 NewLine with double faucet - connection scheme

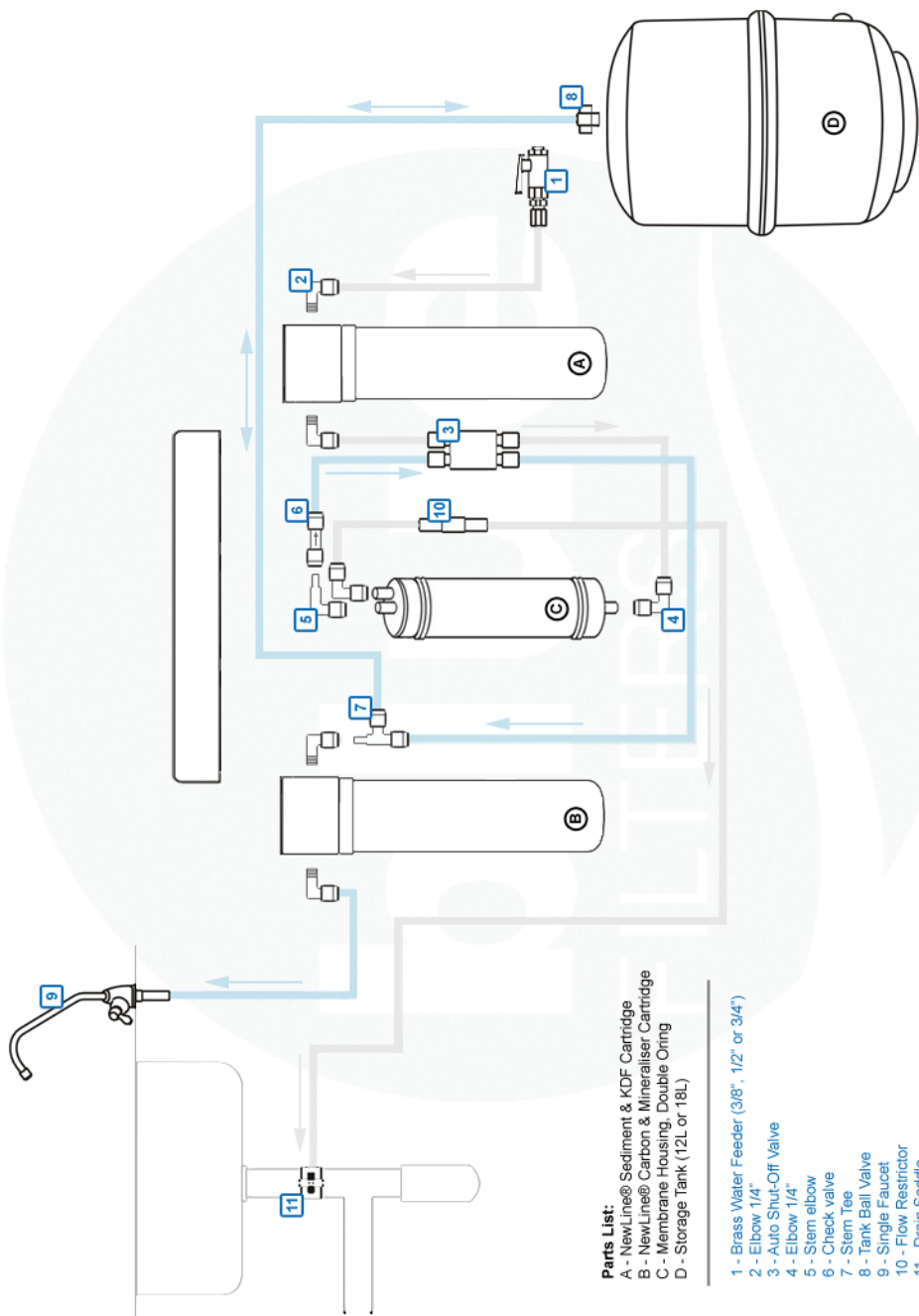


**Parts List:**

- A - NewLine® Sediment Cartridge
- B - NewLine® Carbon-Sediment Cartridge
- C - NewLine® Granular Carbon Cartridge
- D - Membrane Housing, Double O-ring
- E - Storage Tank (12L or 18L)
- F - In-Line Granular Carbon Cartridge
- G - In-Line Mineralising Cartridge
- H - In-Line Bioceramic Cartridge

- 1 - Brass Water Feeder (3/8", 1/2" or 3/4")
- 2 - Elbow 1/4"
- 3 - Auto Shut-Off Valve
- 4 - Elbow 1/8"
- 5 - Elbow Check Valve 1/4"
- 6 - Stem Tee
- 7 - Connector 1/4"
- 8 - Double Faucet
- 9 - Flow Restrictor
- 10 - Drain Saddle
- 11 - Tank Ball Valve
- 12 - Stem Elbow

# RO-EUD NewLine with single faucet - connection scheme



**Parts List:**

- A - NewLine® Sediment & KDF Cartridge
  - B - NewLine® Carbon & Mineraliser Cartridge
  - C - Membrane Housing, Double O-ring
  - D - Storage Tank (12L or 18L)
- 
- 1 - Brass Water Feeder (3/8", 1/2" or 3/4")
  - 2 - Elbow 1/4"
  - 3 - Auto Shut-Off Valve
  - 4 - Elbow 1/4"
  - 5 - Stem elbow
  - 6 - Check valve
  - 7 - Tank Ball Valve
  - 8 - Tank Ball Valve
  - 9 - Single Faucet
  - 10 - Flow Restrictor
  - 11 - Drain Saddle