## **Instruction Manual**

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# Pump & Sand Filter Assembly / Installation



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#### **INTRODUCTION**

#### 1. READ THE INSTRUCTIONS

#### Read all instructions completely before you begin.

These instructions explain how to assembly your pump and sand filter set. Simply follow the step by step directions specified in these instructions.

**Note:** The images shown here may not correspond exactly to your pump and sand filter set. They are designed to be read in conjunction with the manuals provided by the manufacture of the pump and/or sand filter to assist the assembly. Please use this manual as aid to the original manuals supplied.

#### 2. PREPARE THE NECESSARY TOOLS AND EQUIPMENT

Before starting assembly, please prepare the necessary tools. You will need:

- A roll(s) of PTFE sealant tape.
- A crosshead screwdriver
- A flathead screwdriver
- · Adjustable spanner
- Worm drive (jubilee clips).

**Note:** we would recommend that you layout and identify that you have all the assembly components and tools before you begin.

#### 3. CHOOSE A SUITABLE LOCATION FOR ASSEMBLY

We would recommend that you choose a suitable working height surface to assemble the pump and sand filter set. Ideally a bench top work surface. If you have to work outdoors near to the pool work on a dry day and lay a working surface sheet so as not to lose smaller components.

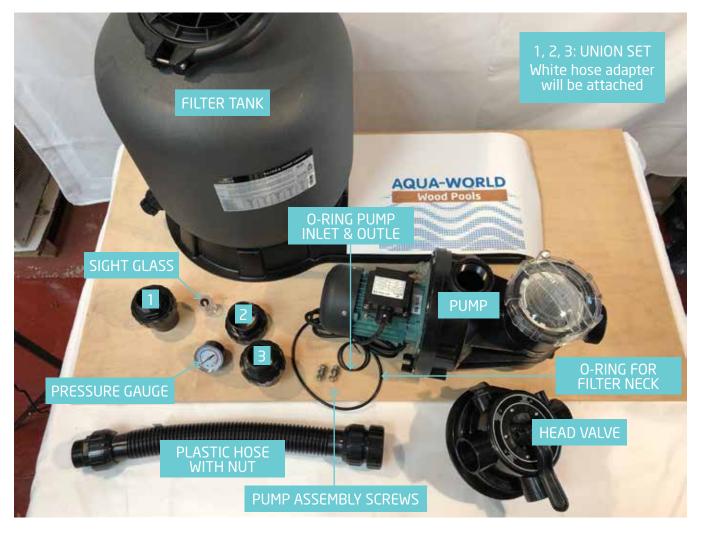
#### 4. REPLACEMENT PARTS

Please inform us immediately if you have any missing or damaged components.

#### 5. WARRANTY

Terms and Conditions are provided by the manufacturer.

#### **COMPONENT OVERVIEW**



Component overview for the pump and sand filter set Please review and check that you have all items Note: The unions (items 1,2, & 3) may have white hose tails already connected to them.

#### **SPIDER LEG ASSEMBLY**

SOME FILTER TANKS COME WITH THEIR SPIDER LEGS ASSEMBLED. IF YOURS DOES, THEN LEAVE IT, IF NOT, THEN FOLLOW THESE STEPS



**2.1** Centre fill pipe, spider legs and centralising plat



**2.2** Screw the spider legs into the threaded fittings on the centre fill pipe of the sand filter

Note: This image is for indication only DO NOT connect legs outside the filter barrel.



**2.3** Hold the centre fill pipe in the barrel and attach each of the legs inside the barrel

#### **ADDING FILTER MEDIA**



**3.1** Centre the vertical pipe with the spider legs attached using the centraliser





**3.2** With the centraliser still attached, fill the filter tank with the filter media to approximately  $\frac{3}{4}$  full

## **3.3** Remove the centraliser when the filter tank has the required amount of filter media

Note: The filter media can be removed for washing and can be easily re-used. We would normally recommend this is done every season, maybe more often depending upon the cleanliness of your pool.

#### FITTING THE VALVE HEAD



neck of the filter tank



**4.3** Line the valve head up with the neck of the filter tank. Ensure the vertical pipe fits nicely into the valve head



**4.2** Take the valve head and check that it has an 'O' ring on the underside



**4.4** Make sure that the valve head is flush to the neck of the filter tank. Match the orientation with the photo

**VERY IMPORTANT** Take the valve head and check on the underside that it has an o-ring where the centre fill pipe will sit. Line the clamp neck lock with the next of the filter barrel and base of the head valve' Note: you will need to loosen at least one of the nut/bolts to open up the clamp for it to fit.

#### FITTING THE VALVE HEAD



**4.5** Line the clamp lock and the nut and bolt up with the head valve and neck of the filter tank

Note: you will need to loosen at least one of the nut/bolts to open up the clamp for it to fit.



**4.6** Ensure that the nut slides into its slot and is tight. Double check the collar is in correct position around the neck of the barrel and on the head valve.

Note: You may need to re-tighten when the barrel is filled and under pressure later.

## **ATTACHING THE FILTER PUMP**



**5.1** Line your pump up with the holes on the base plate



# **5.2** Attach the pump to the base using the nuts and bolts provided

Note: The base plate is designed to accommodate different sized pumps so there will be spare bolt holes

#### **PUMP INLET CONNECTION**



**6.1** Wrap the inlet thread to the pump with the PTFE tape





**6.2** Place 'O' ring into groove in the inlet of the pump

**6.3 Attach Union** The white pipe is a tapered hose tail which will allow the inlet connection of flexible hose from the pool skimmer box

Note: The white pipe is a tapered hose tail which will allow the inlet connection of flexible hose from the pool skimmer box

## **'ELEPHANT TRUNK' HOSE CONNECTION**



**7.1** Place 'O' ring into the groove in the pumps outlet



**7.2** Wrap some PTFE tape around the thread of the outlet to the pump



**7.3** Take apart one side of the plastic hose with nut



**7.4** Screw the adapter which you removed from the 'plastic hose with nut' to the outlet of the pump

## **'ELEPHANT TRUNK' HOSE CONNECTION**



**7.5** Wrap the one side of the 'plastic hose with nut' without the hose adapter with PTFE tape



**7.6** Screw the one side of the 'plastic hose with nut' into the sand filter



**7.7** Screw the 'plastic hose with nut' back into the adapter which is attached to the pump outlet



**7.8** Completed hose connection

#### **SAND FILTER OUT**



**8.1** Wrap one of the union set with the plastic hose adapter on it, with PTFE tape



## **8.2** Screw the union set into the outlet as shown

Note: The inlet, outlet & waste are engraved into the plastic on the valve head. Please identify them before attaching the union set. The outlet is typically 90 degrees to the inlet from the pump inlet where you have attached the 'Elephant Trunk' hose

#### **SIGHT GLASS**



**9.1** Remove the washer inside the sight glass



**9.2** Place the washer into the groove in the sight glass hole



**9.3** Wrap the thread of the sight glass in PTFE tape



**9.4** Screw sight glass into hole with washer in it Note: The sight glass allows you to view the clarity of the water flow when the filter set is in backwash or waste mode

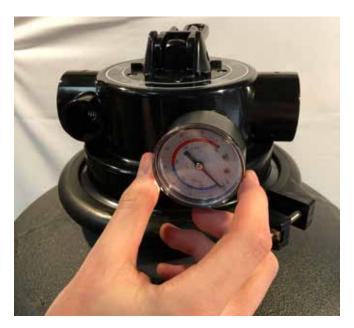
#### **PRESSURE GAUGE**



**9.5** Wrap PTFE tape around the thread of the pressure gauge



**9.6** On the sand filter valve, unscrew the stopper as shown



**9.7** Screw the pressure gauge into the threaded hole revealed by removing the stopper Note: The pressure gauge is an indicator as to the back pressure in the filter barrel. If the indicator climbs into the red section you should backwash your filter or replace the filter media. Always check the indicator gauge before attempting to disconnect any hoses from the barrel.

#### **FILTER OUT**



#### **WASTE**



9.8

## **HOSE COMPLETE**



Images 9.8-10.1 indicate the valve locations as well as the completed assemble for the Inlet, Outlet and 'Elephant Trunk' hose.

Please check the orientation of your filter assembly to ensure your piping is all correct.

#### **VALVE SETTING**



**11.1** Ensure pump is switched OFF before use. Flip the valve handle over and ensure you can see the word 'select' engraved into the handle. This means the handle is free to rotate and change settings



**11.2** Rotate the handle to line up the notch with the setting you require. Either:

1. Filter 2. Backwash 3. Rinse 4. Closed



**11.3** Once you have aligned with your chosen setting 'flip' the handle over into the LOCK position



**11.4** Check that you can see the words LOCKED engraved on the handle. Your are now OK to switch the PUMP ON

#### **PRIMING THE PUMP**



**12.1** You may need to slightly unscrew the clear inspection hatch on the pump before starting your system and prime with water. On most occasions this will fill under gravity from via the pump inlet pump from your pool skimmer box. If this is the case.

You may only need to gently, BUT NOT fully unscrew the hatch to let trapped air bleed out

#### **HEAT PUMP CONNECTIONS**



**13.1** Remove blue nut and take black olive out off the bottom INLET connection to the heat pump



13.2 Fit black olive to white fitting provided

#### **HEAT PUMP CONNECTIONS**



**13.3** Push hose assembly with olive into the heat pump INLET taking care not to foul the rubber olive on the pipe - hand tighten the blue nut



**13.4** Repeat process for the heat pump OUTLET at the top Note: When the system begins to run you may need to tighten the nuts further.

#### **SAND FILTER OUT / HEATER OUT**



**13.5** Run a piece of hose off the outlet of the head valve

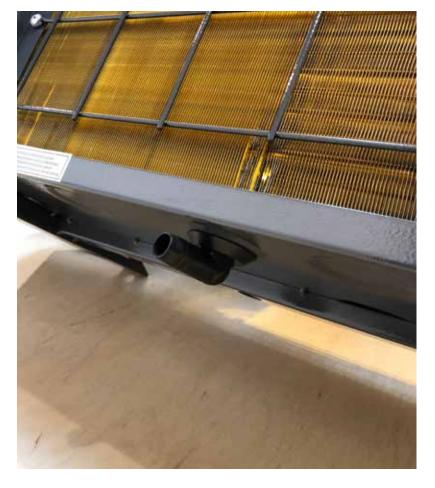


**13.6** Connect piece of hose to inlet of heater. Take a piece of hose from outlet of heater to the swimming pool return nozzle

#### **AIR SOURCE HEAT PUMP DRAIN**

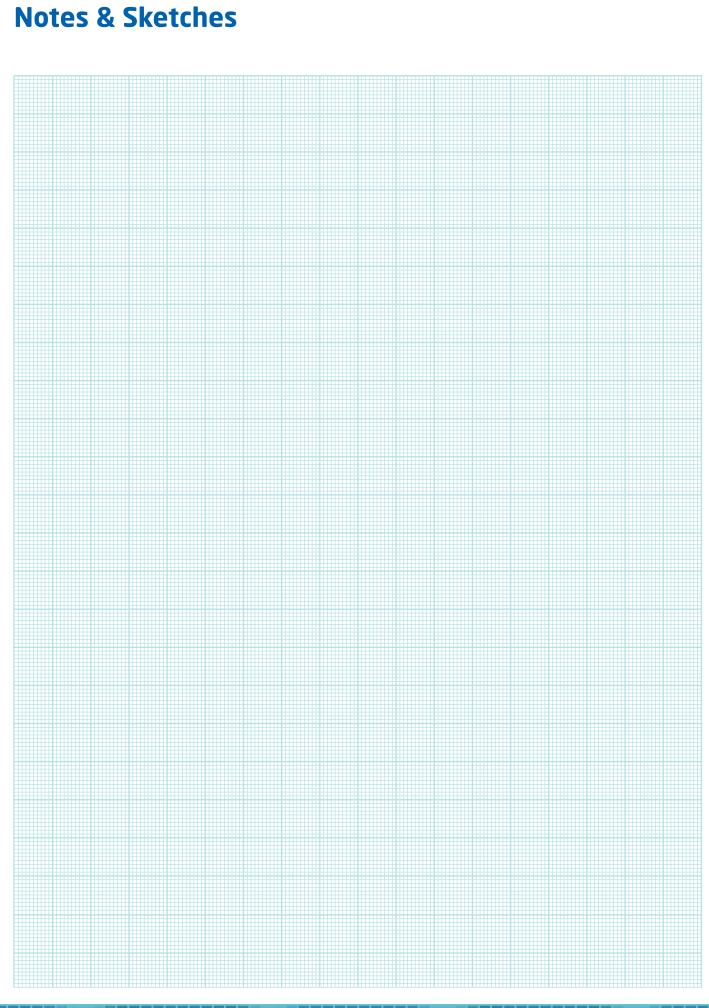


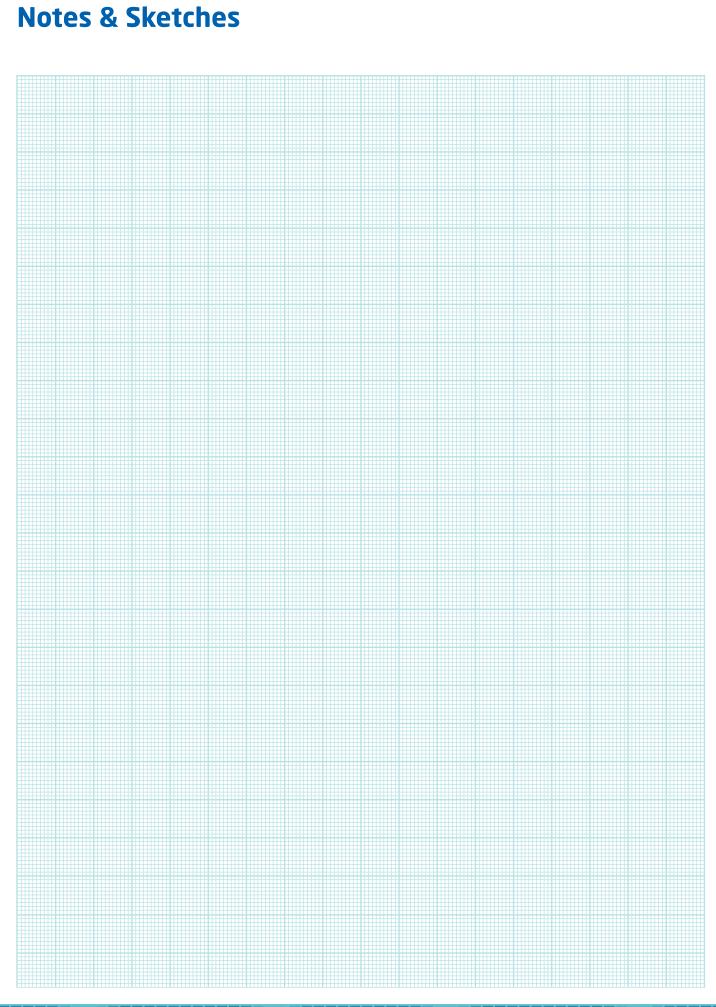
**13.7** This is the drain plug that attaches to the base of the air source heat pump. It clips into place Note: take care when tipping the heat pump to attach the plug.

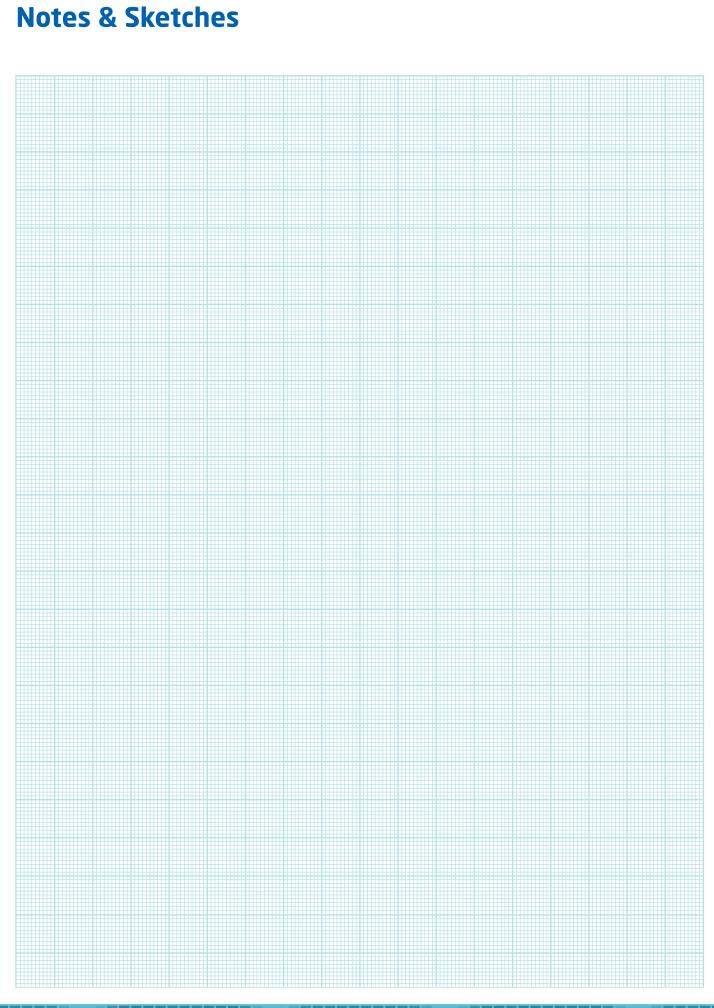


# **13.8** You can attach a piece of hose to the drain plug to allow the condensate to drain away from the unit

Note: On a humid day the Heat Pump can discharge several litres of condensate water. If you do not attach the drain plug and hose you may see a wet patch appear under the unit. It does NOT mean that you unit is leaking or damaged.









Approved dealer:

www.aqua-world.co.uk