



APF 800

*Operating instruction
&
Spare part list*



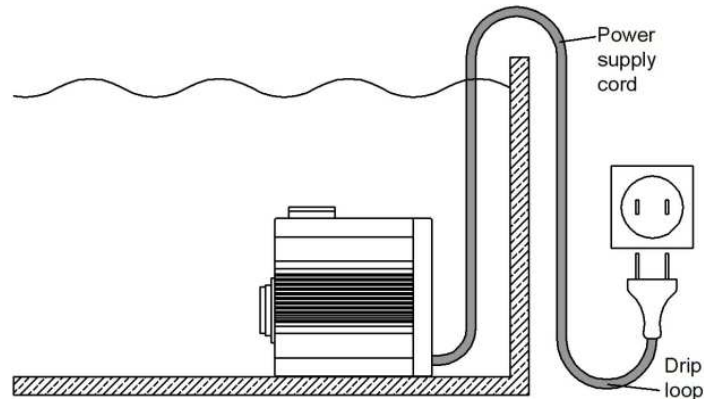
IMPORTANT SAFETY INSTRUCTIONS

WARNING To guard against injury, basic safety precautions should be observed, including the following.

- 1) READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
- 2) DANGER – To avoid possible electric shock, special care should be taken since water is employed in the use of aquarium equipment. For each of the following situations, do not attempt repairs by yourself; return the appliance to an authorized service facility for service or discard the appliance.
 - a) Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or has been dropped or damaged in any manner.
 - b) To avoid the possibility of the appliance plug or receptacle getting wet, position aquarium stand and tank to one side of a wall-mounted receptacle to prevent water from dripping onto the receptacle or plug.

A "drip-loop", shown in the figure below, should be arranged by the user for each cord connecting an aquarium appliance to a receptacle. The "drip-loop" is that part of the cord below the level of the receptacle, or the connector if an extension cord is used, to prevent water travelling along the cord and coming in contact with the receptacle.

If the plug or socket does get wet, **DON'T** unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the appliance. Then unplug and examine for presence of water in the receptacle



- 3) Close supervision is necessary when any appliance is used by or near children.
- 4) Do not use an appliance for other than intended use. The use of attachments not recommended or sold by the appliance manufacturer may cause an unsafe condition.
- 5) Make sure an appliance mounted on a tank is securely installed before operating it.
- 6) Read and observe all the important notices on the appliance.
- 7) If an extension cord is necessary, a cord with a proper rating should be used. A cord rated for less amperes or watts than the appliance rating may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
- 8) This appliance has a polarized plug (one blade is wider than the other). As safety feature, this plug will fit in a polarized outlet only one way. If the plug does not fit, contact a qualified electrician. Never use with an extension cord unless plug can be fully inserted. Do not attempt to defeat this safety feature.

Exception: This instruction may be omitted for an appliance that is not provided with a polarized attachment plug.

Removing of the plug invalidates the warranty!

SAVE THESE INSTRUCTIONS

Deltec **Protein Skimmer APF 800**

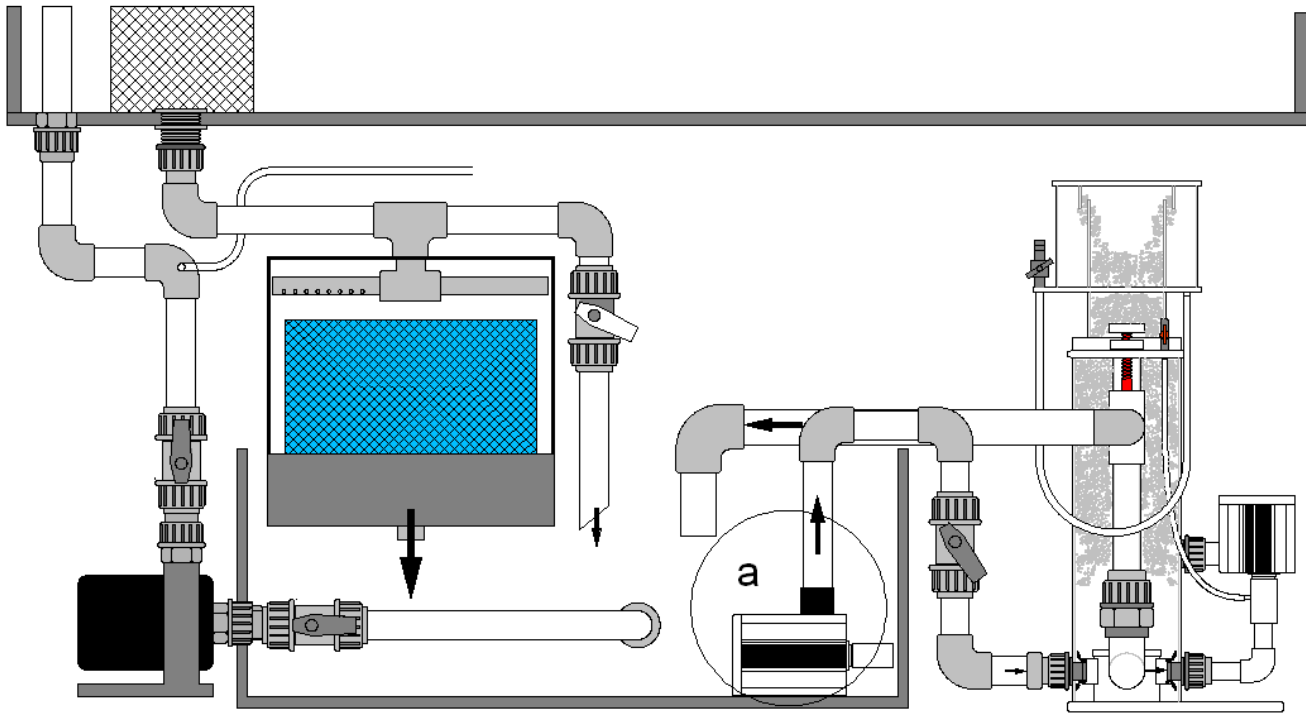
Deltec APF 800 protein skimmer are very compact, highly efficient and are fitted with a special low energy skimmer pump.

Features: Precision water level adjuster, remote skimmer cup drain.

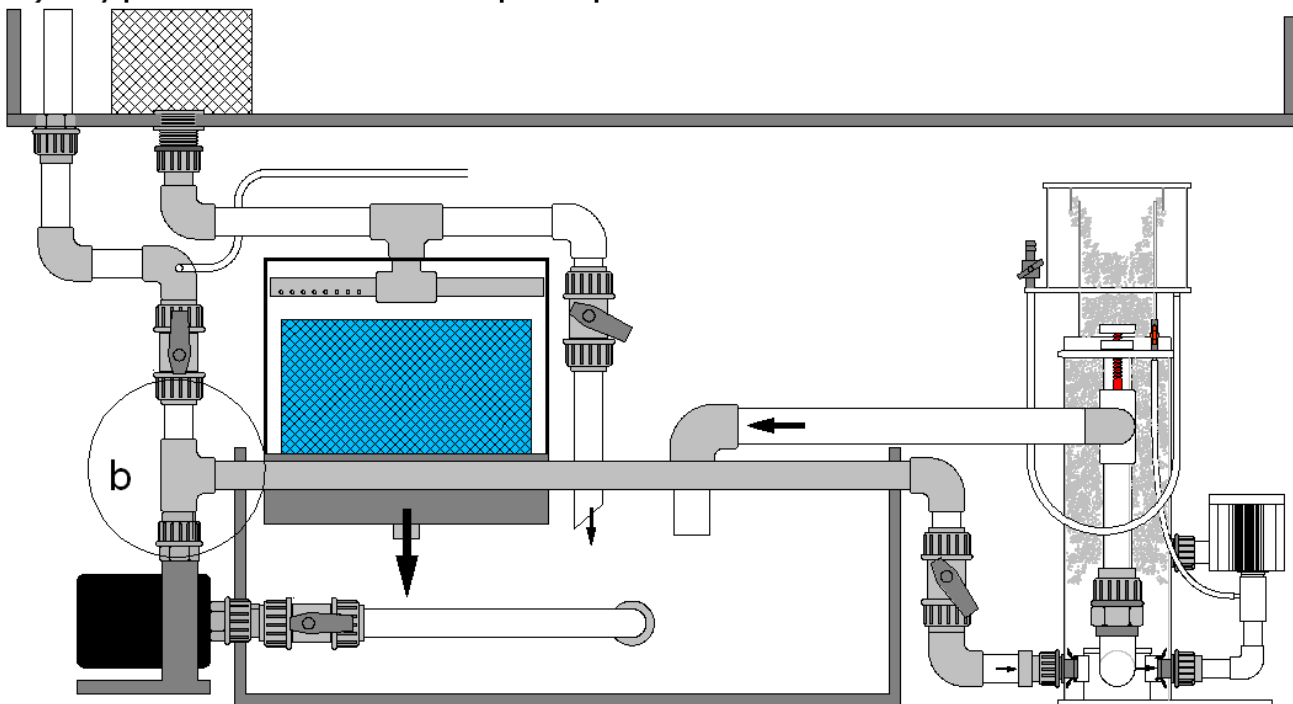
Installation

APF 800 protein skimmer are mainly used in combination with an external filter. The skimmer is normally fitted outside the filter sump; if space permits it can be fitted also inside the sump. Please remember that the sump's capacity to accept water when the main aquarium pump is stopped, will be reduced.

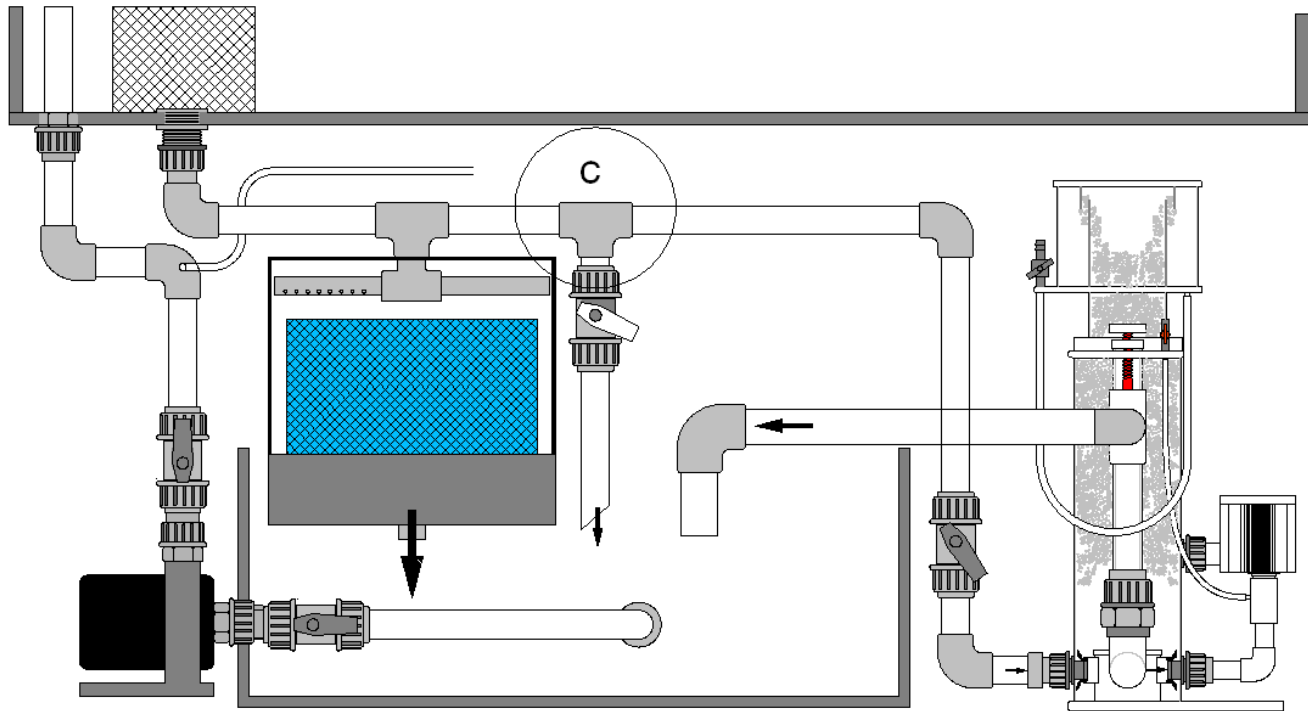
a) separate fees pump



b) Bypass from return pump



c) Bypass from overflow

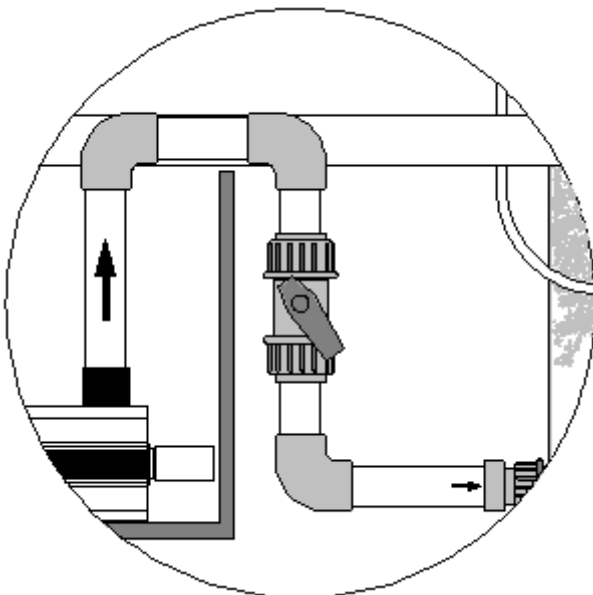


Feed line

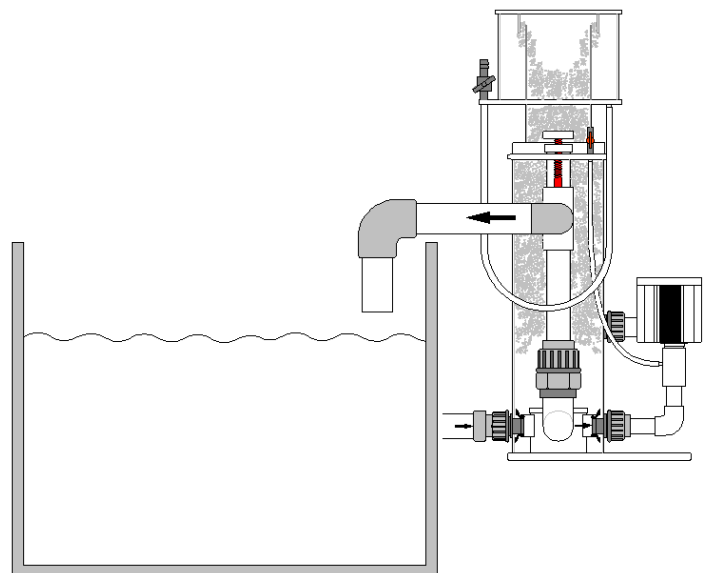
In order to achieve best results it is important to fit a shut off cock into the water feed line. This allows exact regulation of the water flow to compensate variations of existing salinity and water pollution. The diameter of the feed line should not be smaller than the skimmer inlet. When choosing a pump to supply the skimmer, the capacity should be somewhat higher than the recommended maximum flow through the skimmer (see technical data). The optimum flow through the skimmer can then be adjusted with the shut-off valve in the feed line (Diagram d).

Outlet

The skimmer must be installed in such a way, that the cleaned water can flow unrestricted back into the sump (or aquarium). Never fit an outlet pipe higher or smaller in diameter than existing on the skimmer. When installing the skimmer directly to the aquarium, the skimmer outlet must be positioned higher than the top rim of the aquarium (Diagram e). A degassing set can be supplied to reduce air bubbles entering the aquarium from the outlet pipe.



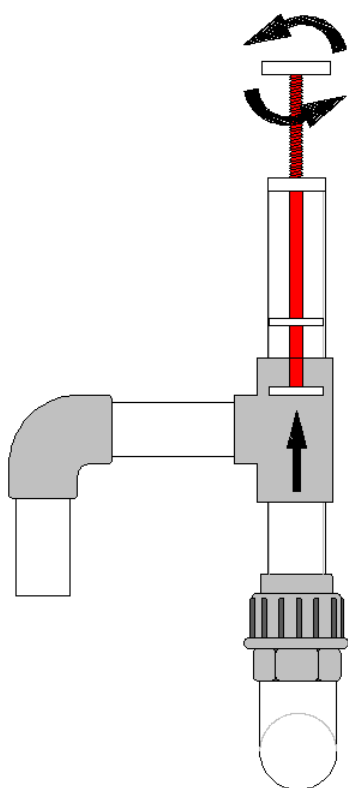
d) Shut off valve inlet



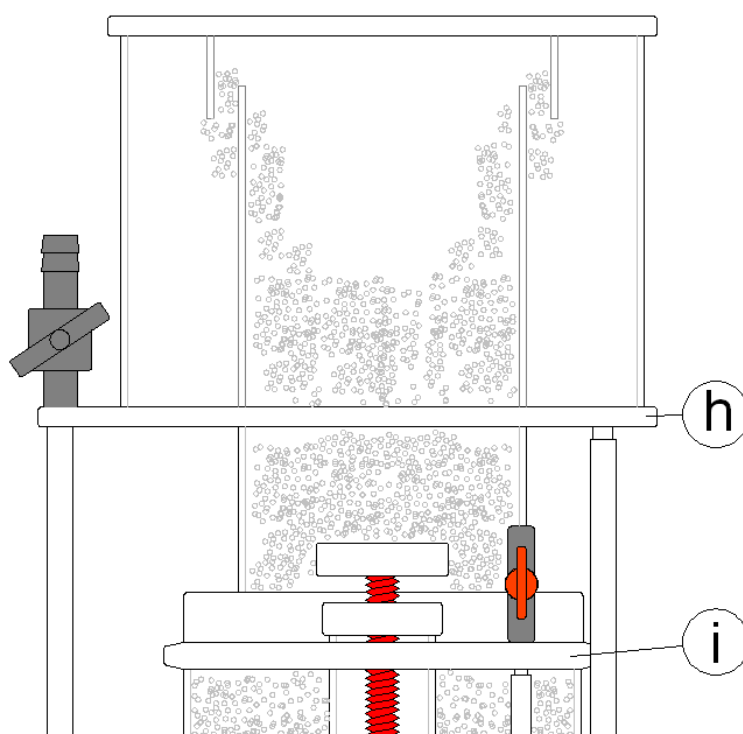
e) Skimmer directly to the aquarium

Starting the skimmer

- open the water level adjuster (WLA) fully by turning it anti-clockwise (Diagram f)
- switch on water supply through skimmer
- adjust the water level inside the skimmer with the feed line shut-off cock and the WAL to just below the skimmer cup bayonet (i), see (Diagram g)
- check the skimmer for possible damage and check the whole skimmer installation for leaks.
- switch on the skimmer pump
- to prevent initial over foaming and flooding of the skimmer cup, adjust the fine foam level in the cup's riser tube to the bottom plate of the skimmer cup (h). This is achieved by turning the WAL
- wait a minimum of 24 hours for the final adjustment. Turn the WAL so that the fine bubbles start bursting approx. half way up the cup's riser tube.
- for dry foam turn the (WLA) anti clockwise, for wet foam clockwise.
- **Important:** Never allow the pump to run dry.



f) Water level adjuster (WAL)



g) Skimmer cup

Operation with Ozone

The Skimmer can be operated with ozone up to max. 50 mg/h per pump. One air connection of the ozoniser should be connected via a suitable silicon hose to the protein skimmer pump. The air is automatically sucked in the ozoniser by the skimmer pump. Should the skimmer performance deteriorate please check the ozoniser for blockage.

Fresh salt water

If the skimmer is used with new water on an aquarium it is common to find an excessive quantity of small bubbles produced and often the skimmer cup fills with a clear liquid. This is due to the high surface tension of the new water which prevents the bubbles from bursting. Once the water matures this effect will go away but can take up to 2-3 weeks. The effect is different on different salt brands and is often dependant on levels of conditioning agents added to the salt. Once these are skimmed out then the skimmer will act normally. Heavier feeding in the initial stages will give the chemically pure water something to react with and allow it to mature into proper aquarium salt water rather than the initial chemical soup which is new salt water.

Fault finding

Malfunction	cause	remedy
Pump produces insufficient air	tap, airline or venturi blocked	clean
	airline kinked	remove kink
	ozonizer blocked	clean
	Pump flap blocked	Clean (see 10a)
excessive air bubbles in aquarium water	caused by additives in certain sea salts and water conditions	use different salt or feed heavily for a period, empty skimmer cup frequently, open air tap fully. This condition may last for several weeks.
	air tap closed to far	open air tap

Maintenance

The Deltec skimmer range should need very little adjustment and maintenance once set correctly however due to the high levels of calcium in marine aquariums it is common for deposits to build up on moving parts requiring periodical cleaning. Deltec pumps are fitted with little flaps inside the outlet of the pump and inside the housing, which flip from one side to the other depending on the direction of rotation thus ensuring that the pump always operates at full duty. It is recommended every 6 months, or when required, that the pumps are removed from the skimmer having first drained the body of Water.

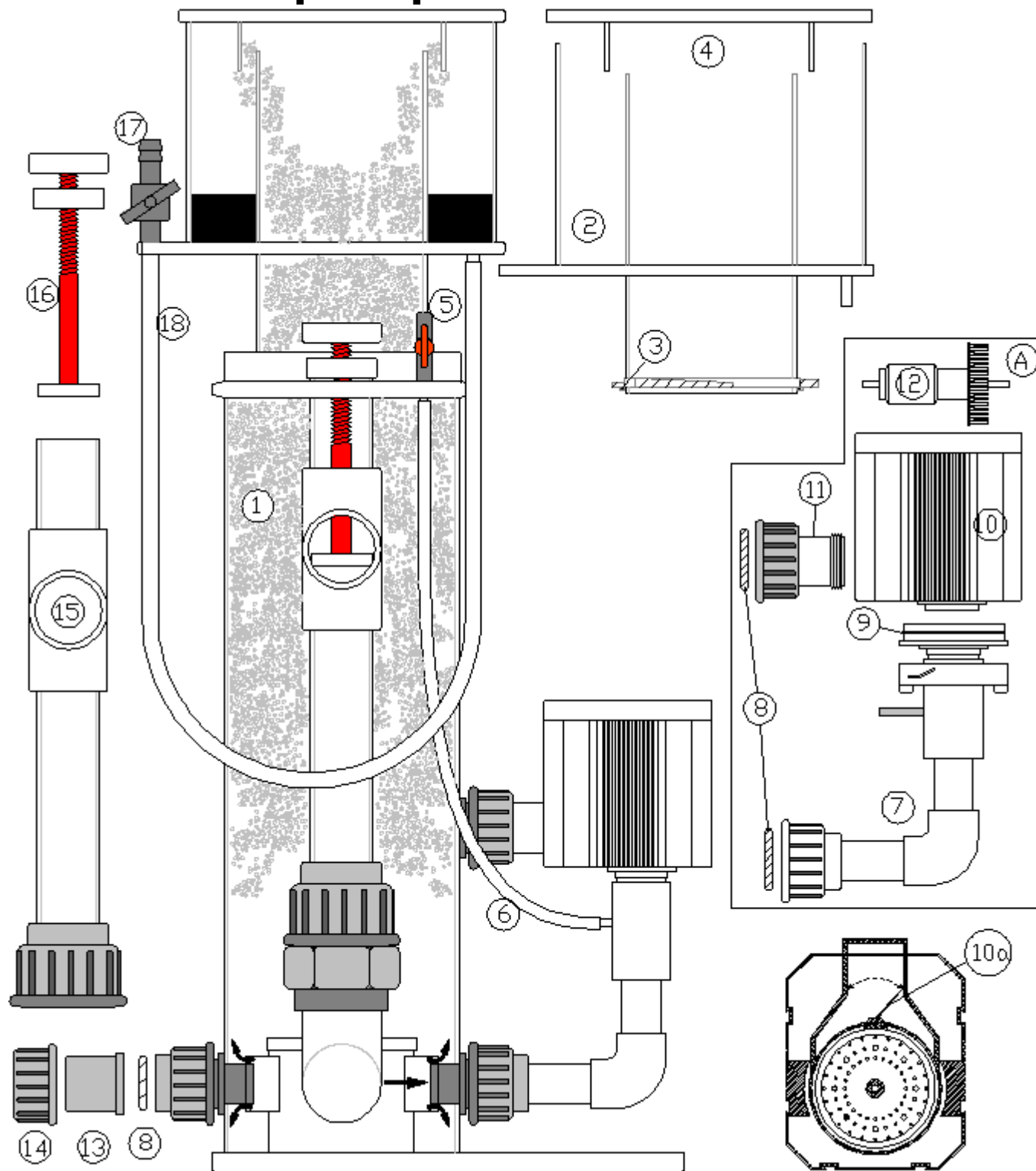
Check and clean the impellor of debris. Ensure that the direction flap moves easily and if necessary soak the neck of the pump housing in white vinegar or lime scale remover to dissolve any calcium carbonate deposits. A build up of calcium, dust and salt can restrict or block the venturi inlet on the connecting pipe work and reduce the skimming efficiency. This should be checked and carefully cleaned with a toothpick or fine drill rotated between the fingertips.

It is advisable to stop the pump for approximately 15 minutes once every week in order to dissolve any dust or salt crystals that may have collected in the venture tube.

Technical Data

technical data	Dimensions mm			Aquarium size litre		Water flow rate litre/h		Power consumption	Air litre/h	Connections Ø mm	
	Footprint	height	Height under outlet pipe	normal stocking	light stocking	min.	max.	Watt	max.	Feed line	Outlet
APF 800	350x215	550	243	1000	800	700	1300	12	600	20	32

Spare part list APF 800



Number	Art. No.	Description
	88020000	APF 800
A	28015000	Pump DCS 600 + piping
1	88020100	Body only
2	88020200	Skimmer cup
3	80500090	O-Ring skimmer cup
4	88020300	Skimmer cup lid
5	93010010	Tap
6	61758000	Silicone hose white 5/8
7	28016000	Suction line DCS 600

Number	Art. No.	Description
8	93041400	O-Ring coupling 20mm
9	10100520	O-Ring Pump
10	26083000	Stator DCS 600
11	88000500	Adapter
12	27083000	Needle wheel DCS 600
13	93041100	Cap nut coupling 20mm
14	93041200	Collar 20mm
15	88020400	Outlet pipe
16	88020500	Water level adjuster
17	93419000	Shut-off-valve
18	61760000	Silicone hose white 7/10