

# MCE 300



Operating instruction  
and Spare parts list

# IMPORTANT SAFETY INSTRUCTIONS

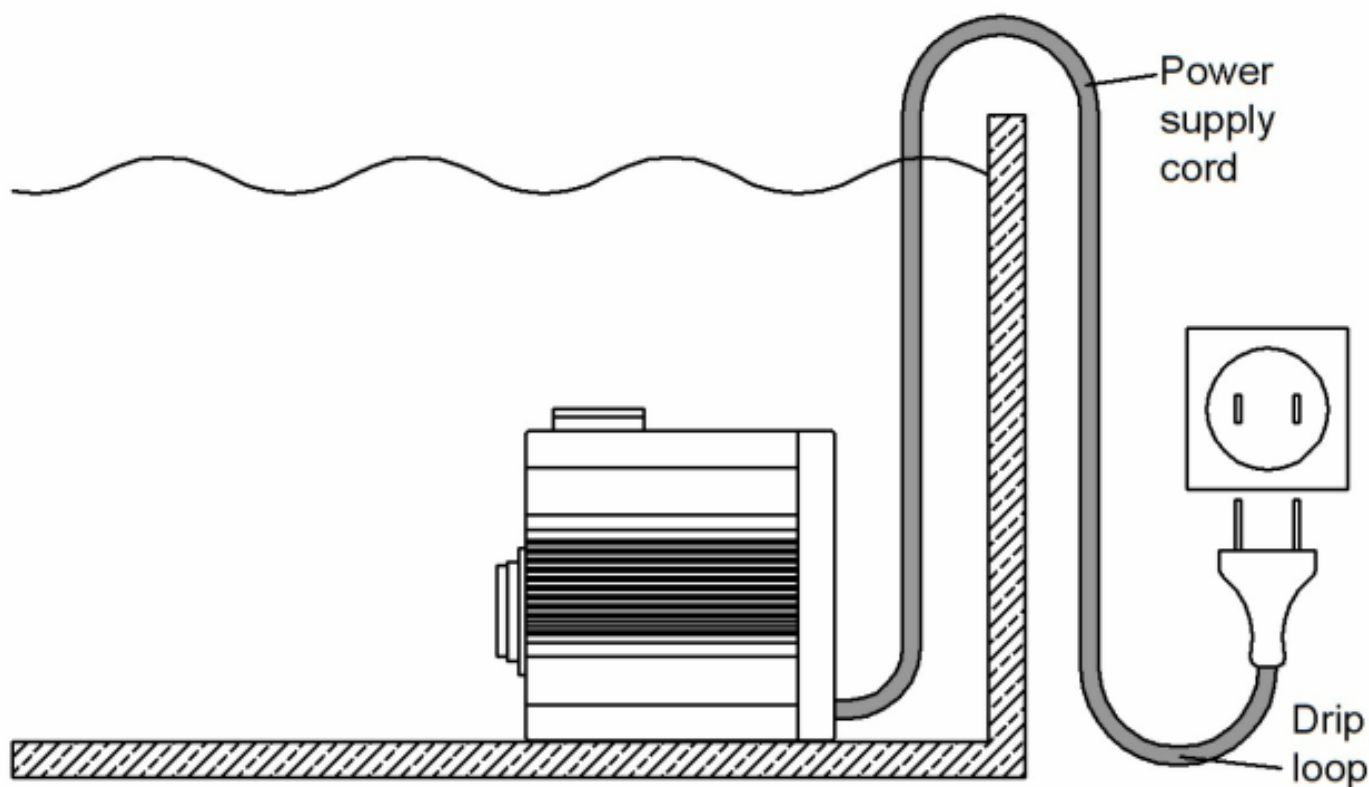
## WARNING

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) If the appliance falls into the water **DON'T** reach for it! First unplug it and then retrieve it. If electrical components of the appliance get wet, unplug the appliance immediately. (Non-immersible equipment only)
  - b) If the appliance shows any sign of abnormal water leakage, immediately unplug it from the power source. (Immersible equipment only)
  - c) Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
  - d) 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.
  - e) 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) Always unplug an appliance from an outlet when not in use, before putting on or taking off parts, and before cleaning. Never yank cord to pull plug from outlet. Grasp the plug and pull to disconnect.
- 5) 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.
- 6) Make sure an appliance mounted on a tank is securely installed before operating it.
- 7) Read and observe all the important notices on the appliance.
- 8) 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.
- 9) 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.*

# “SAVE THESE INSTRUCTIONS”

## De'Longhi *External Protein Skimmer MCE 300*

The Multi Compact External skimmer is ideal for 'hang on' installation directly onto the outside of the aquarium or sump and requires no further supply pump for highly efficient operation. The MCE 300 is suitable for aquariums of up to 320 litre (70 UK gallons / 84 US gallons) for light stocking levels or 250 litre (55 UK gallons / 66 US gallons) for normal stocking levels.

### Assembly

The skimmer has been packed in a partially disassembled state to prevent damage in transit. Study the diagram overleaf to reassemble. Do not switch on the recirculation pump however unless the pump is immersed or flooded with water.

### Important

Before you install the unit in position fill the body with fresh water from the mains supply to ensure that there has not been any damage in transit.

### Installation

Hang the skimmer body on the outside of the aquarium or filter sump in a suitable position. The skimmer is placed on the support bracket where the inlet and outlet pipes are located and is held in place by the clear retaining clamp (14).

- Push the outlet pipe (17) into the skimmer body's outlet adaptor. Secure the pipe (17) with nylon a screw (23A). If required use only non aggressive grease fluids like silicone grease on the O-Ring.
- Push the clamp (14) over the outlet pipe (17) with the extended bottom plate of the clamp against the inside of the aquarium or sump. Secure the clamp onto the pipe (17) with the nylon screw (22).
- Insert degassing plate (21) onto outlet pipe (17) as illustrated.
- Fill the skimmer with aquarium water until it exits the skimmer.
- Fit strainer (20) to suction pipe (19).
- Insert the suction pipe into the skimmer body and push the open end over the air intake adaptor (15)
- Feed the air hose through the 8mm hole in the side of the skimmer body.
- Fit the orange air tap (2) to the hose.
- Place the lid (11) on top of the skimmer body so that the wall fits into the groove of the lid.
- Push the lid of the foam cup against the stops into the foam cup (5).
- Insert the foam cup into the contact tube (12).

### Please note

The horizontal part of the suction pipe (19) is removable on one side. If desired, it can be shortened and pushed back into the elbow.

### Starting the skimmer

The skimmer is now ready for operation, however the suction line is still partially filled with air which needs to be bled. To bleed the suction line **it is important to strictly adhere to the following procedure.**

- Ensure that the skimmer body is filled with water **before** connecting the suction pipe.
- Ensure that the strainer is below the water level of the aquarium.
- **Close** the air tap (2).
- Start the pump

The pump will now remove the air out of the suction line and the water will slowly flow from the aquarium into the skimmer. Keep the air tap closed until all air bubbles are removed from the suction line and the pump produces a full flow. Now open the air tap (2) as described under "Operation and settings"

This bleeding process may take a while. Switching the pump on and off several times will speed up the process.

### **Operation and settings**

After a short while, the contact tube (12) should be filled with fine air bubbles, forming a dense foam which is finally pushed into the skimmer cup. Allow the skimmer to settle down for a day or so before fine adjustment.

It is recommended that the skimmer cup is emptied every 2-4 days or as required. The cup and the top of the contact tube (12) should be wiped clean of any fatty deposits as build up of this waste product will greatly reduce the performance. Whilst cleaning leave the pump switched off, for 10 minutes to allow any salt deposits in the venturi tube to dissolve.

By pulling the skimmer cup lid (4) out of the cup (5) somewhat, the foam will be wetter; by pushing it against the stop it will be dryer. It is recommended to operate the skimmer with the lid pushed against the stop.

### **Adjusting the air volume**

suction line has been bled with the air tap (2) closed, the air tap must be opened slowly from the closed position to app. a quarter past 2° clock position. This setting will produce the best performance and the highest air volume. If the air tap is opened too much, the air volume drops. Do not close the tap from the open position to the quarter past 2° clock position.

Every time the pump has been stopped and restarted; the air tap (2) should be closed for a short while in order to remove any air from the suction line.

### **Use with ozone**

Deltac skimmers are suitable for use with ozone and will automatically suck the gas through the venturi hose. A maximum volume of 25 mg/h should be used on tank volumes that are suitable for this skimmer. Do not use excessive ozone, as it is dangerous and can cause severe headaches.

### **Maintenance**

The Deltac 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. It is recommended every 3 months, or when required, that the pump is removed from the skimmer.

Check and clean the impeller of debris. Make sure that the impeller rotates freely on the shaft. If not submerge in lime scale remover.

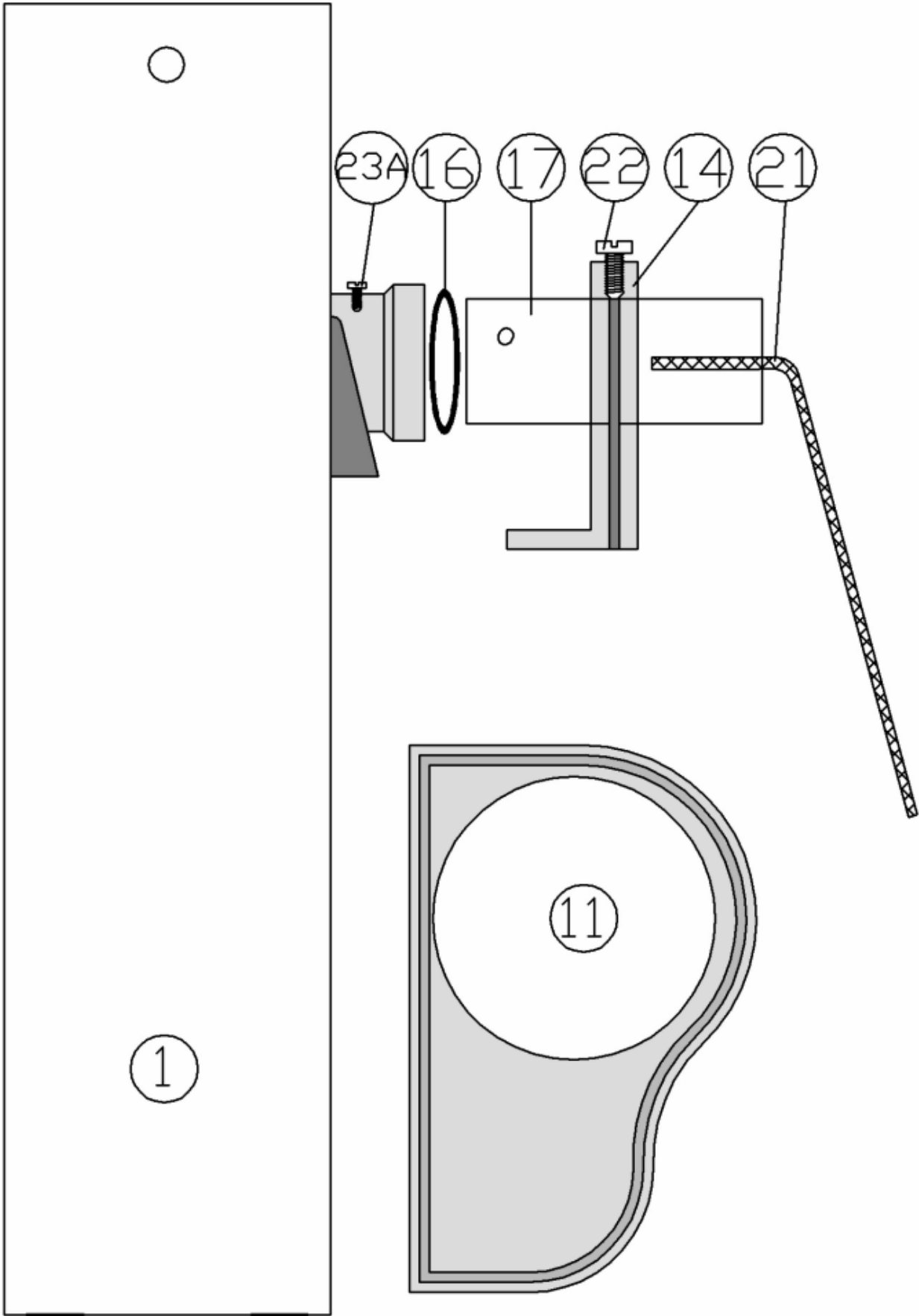
A build up of calcium, dust and salt can restrict or block the air inlet (15) and reduce the skimming efficiency. This should be checked and carefully cleaned with a toothpick or fine drill rotated between the fingertips.

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 air inlet.

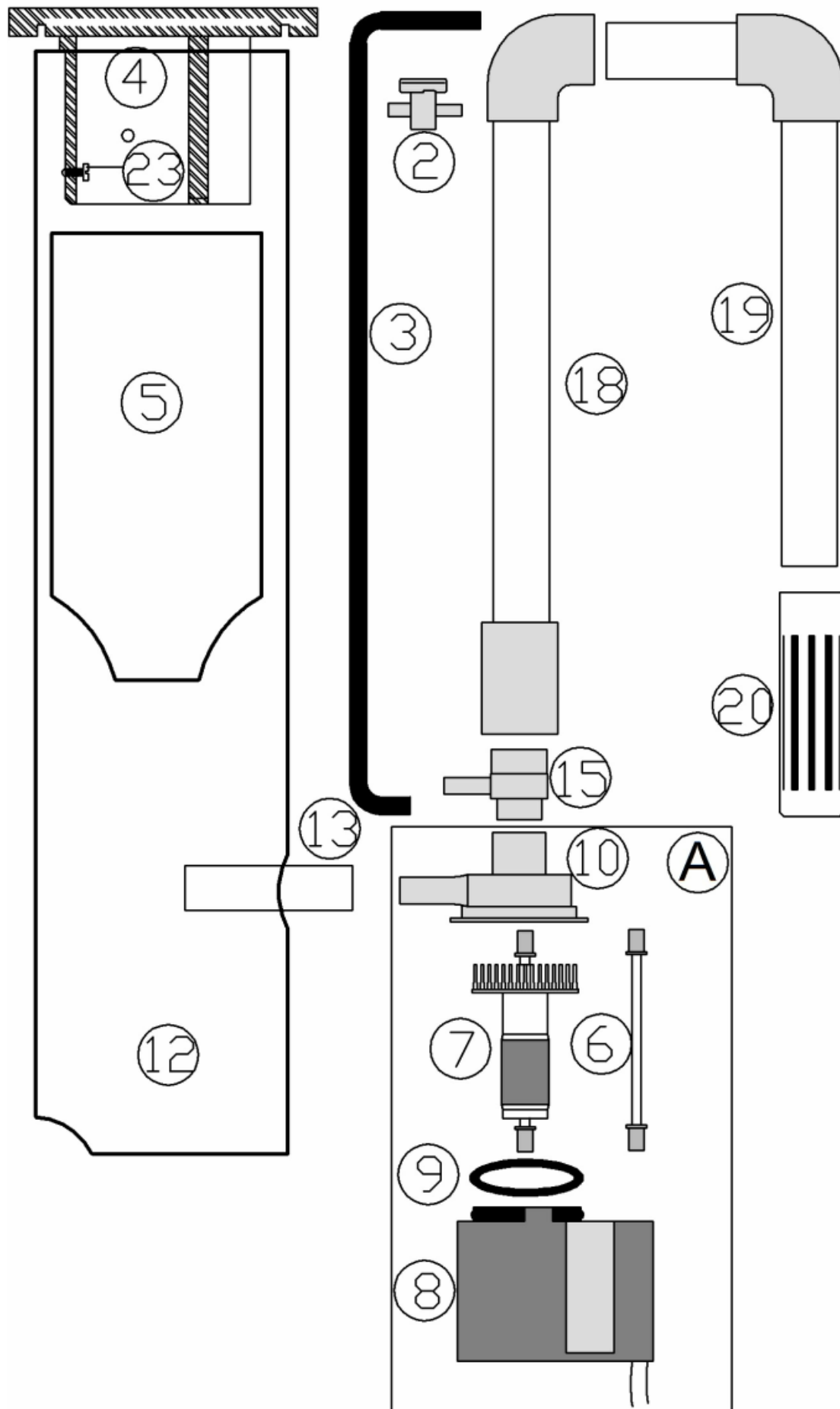
## Fault finding

Malfunction		cause		remedy		
Pump produces insufficient air		tap, airline or venturi blocked		clean		
		airline kinked		remove kink		
		ozonizer blocked		clean		
		Air in suction line		bleed		
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		
Pump is noisy		shaft (6) is blocked in rotor (7)		clean in lime scale remover; free the shaft by tapping it lightly on is end. Replace bearing		
technical data	dimensions (l/w/h) app.	power consumption	air flow Up to app.	min. water level for sump Installation	aquarium size normal stocking	aquarium size light stocking
MCE 300	260x175x445mm	9,5 Watt	120 litre	240 mm	250 litre	320 litre
MCE 300 UK	260x175x445mm	9,5 Watt	120 litre	240 mm	55 gallons	70 gallons
MCE 300 US	260x175x445mm	12 Watt	150 litre	240 mm	66 gallons	84 gallons

Housing with outlet and lid

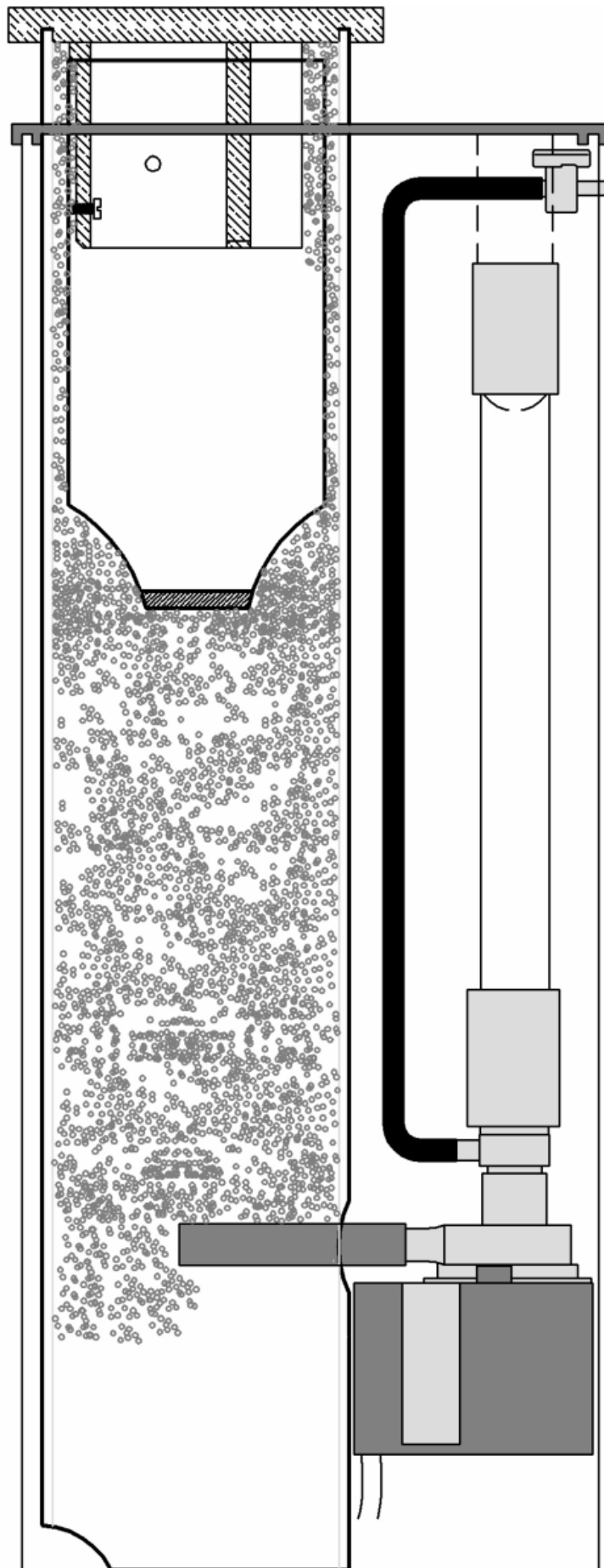


# Neck tube with pump and suction line

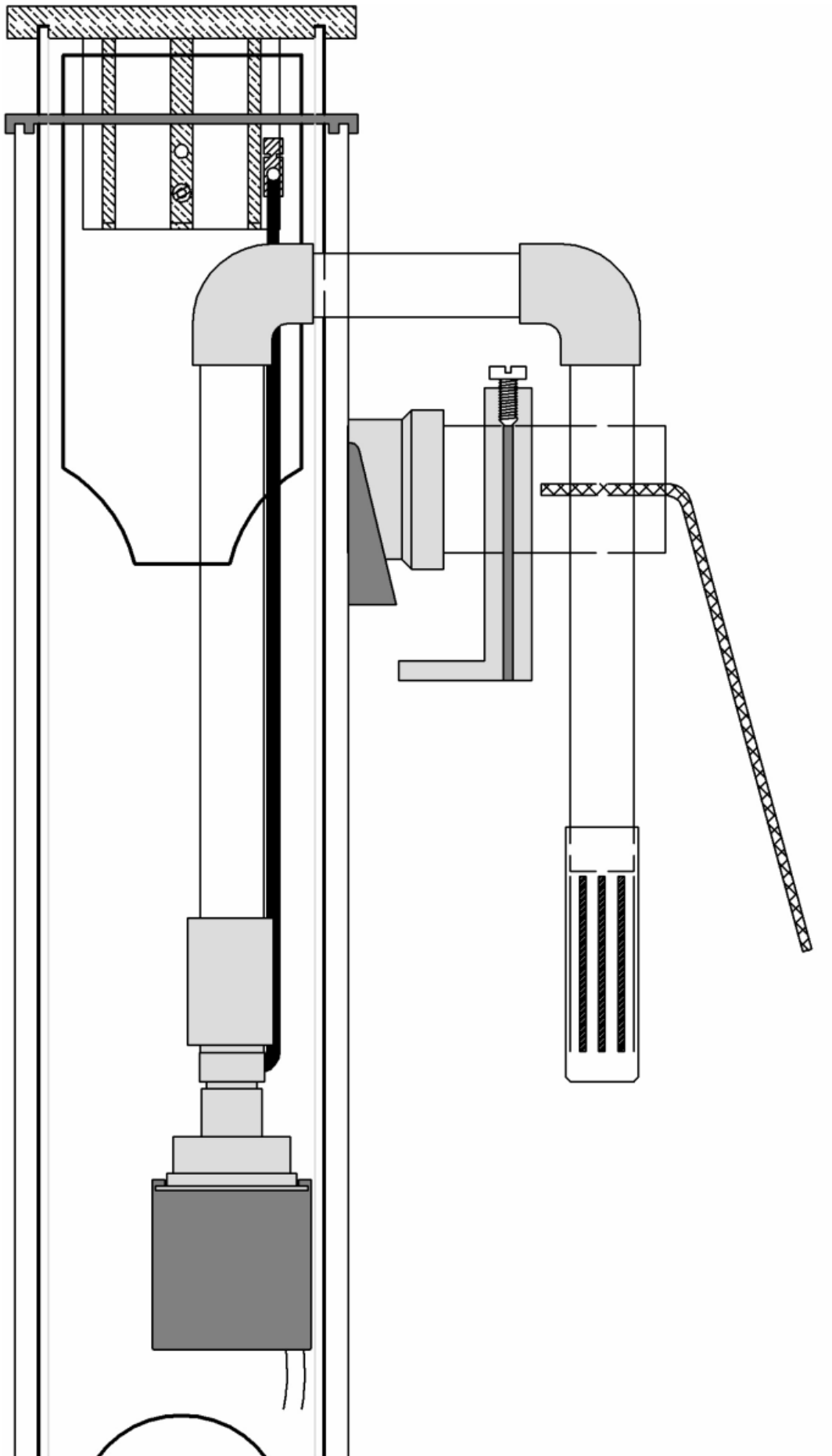




Front view



Side view



# Spare parts

No.	Art. No.	Art. No. UK plug	Art. No. USA plug	Description
	31115000	E 31115	US 31115	MCE 300
A	88165000	E 88165	US 88165	Skimmer pump Maxi-Jet
1	31115100			Skimmer body only
2	93010010			Tap
3	61751075			Silicone hose 5/8mm
4	31115300			Lid Skimmer cup
5	31115200			Skimmer cup
6	88163000			Shaft incl. bearing Maxi-Jet 1000
7	88161000	E 88161	US 88161	Needle wheel Maxi-Jet 1000
8	68160000	E 68160	US 68160	Stator Maxi-Jet 1000
9	88164000			O-Ring Maxi-Jet 1000
10	88162000			Pump housing
11	31115400			Lid
12	31115500			Neck tube
13	31115600			Pipe
14	31119740			Holder
15	31115700			Air inlet adapter
16	10400570			O-Ring 40mm
17	31115800			Outlet pipe
18	31115900			Suction pipe I
19	31115910			Suction pipe II
20	10100460			Strainer
21	31117970			Water return and degassing plate
22	12350000			Screw M6
23	12351000			Screw M4