

Deltec®

Skimmer 600ⁱ / 1000ⁱ / 1500ⁱ
Skimmer 600^{ix} / 1000^{ix}



Operating instructions

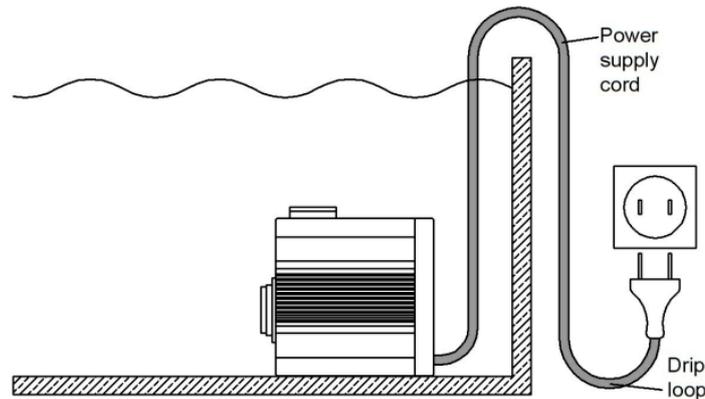
IMPORTANT SAFETY INSTRUCTIONS

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) For added safety, all electric devices must be connected to a RCD (Residual Current Device).
 - c) 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 Skimmer Series

Deltec Skimmers I and IX Series are designed to operate only in external filter sumps.

Installation

For best performance the water level in the filter sump (picture 1) should be between 150 and 250 mm. A prerequisite for continuous efficient performance is a constant water level in which the skimmer operates. Ideally, a water level top up system should be used such as the Deltec Aquastat 1001 or better still a separate skimmer compartment in the sump (picture 2) with a water depth of between 150 and 250mm. The water level in the skimmer compartment should be higher than in the rest of the sump, but within the levels recommended for the skimmer model.

This compartment can be supplied with water from a bypass of the aquarium overflow.

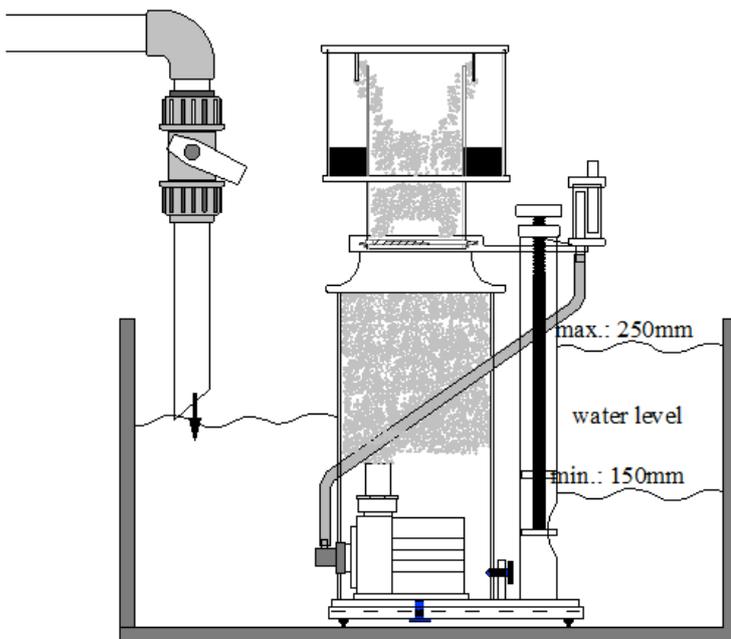


Bild 1 / Picture 1

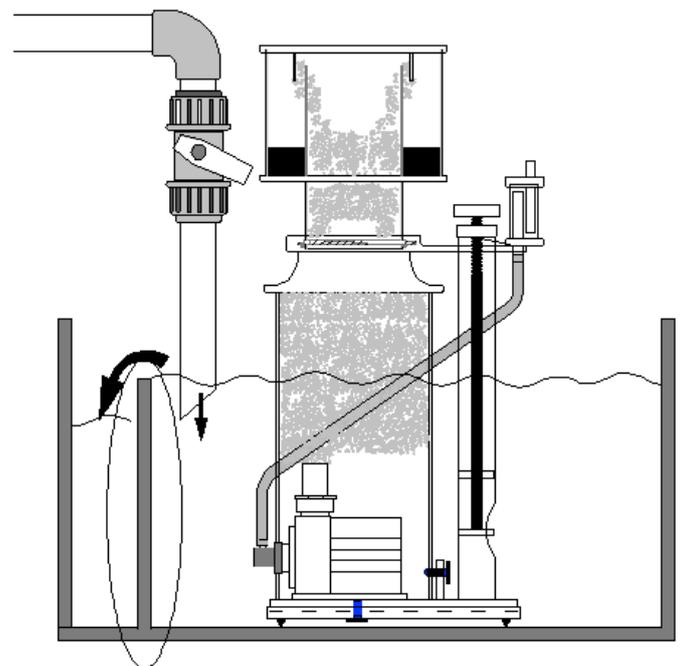


Bild 2 / Picture 2

Safety Overflow

Skimmers of the i and ix series have an safety overflow and a regulator tube. These are not glued to the footplate and can be interchanged as required (pictures 3,4 and 5). I

t must be ensured that the outlet of the regulator tube points inwards towards the skimmer body , as if the skimmer is removed too quickly from the filter chamber for cleaning etc, water can be forced over the edge of the filter sump if the tube is pointing outwards.

If the safety overflow system is not desired, the emergency overflow pipe can be removed and the opening can be closed with the supplied plug, (picture6).

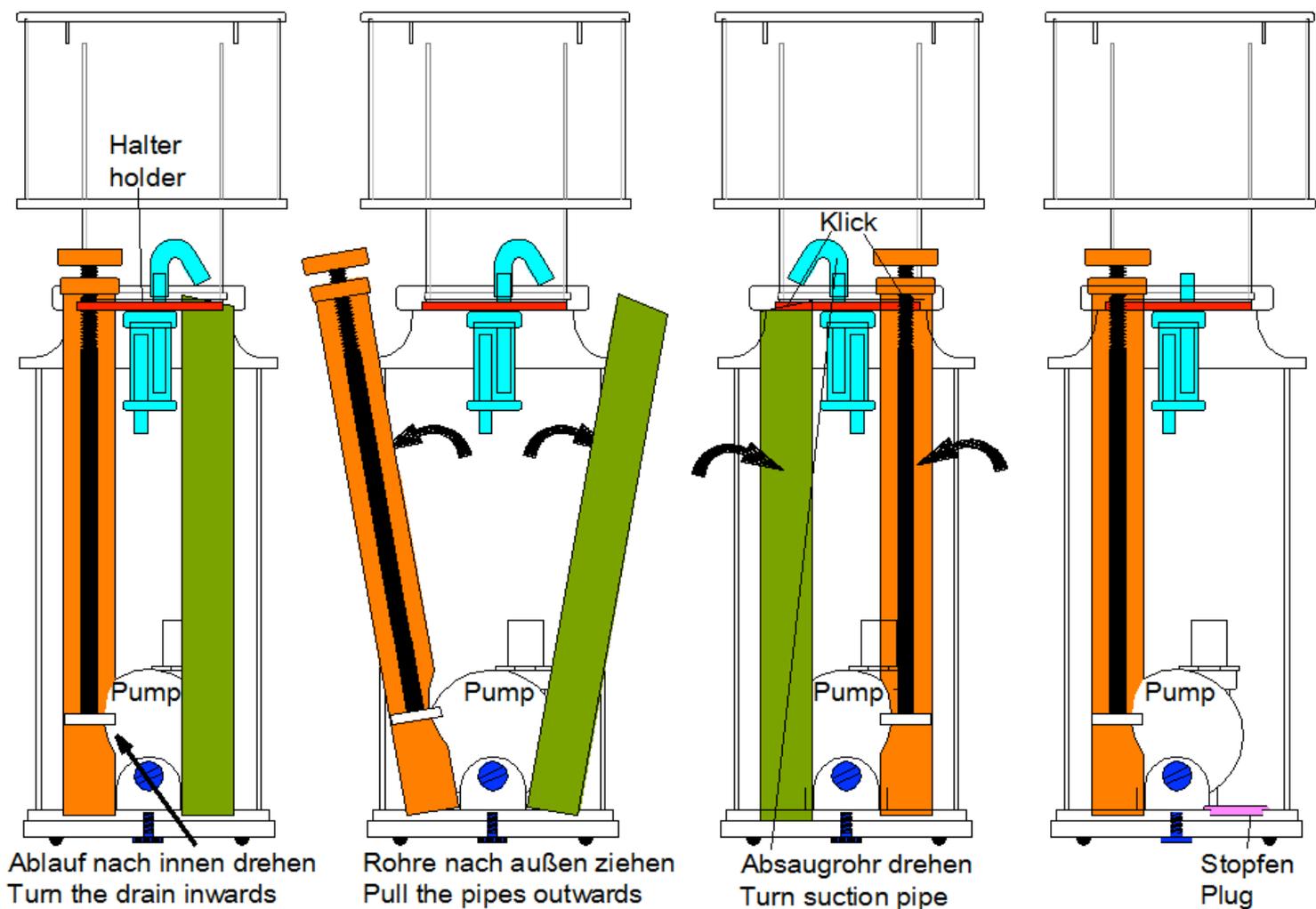


Bild 3 / Picture 3

Bild 4 / Picture 4

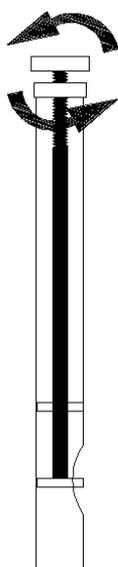
Bild 5 / Picture 5

Bild 6 / Picture 6

Starting the skimmer

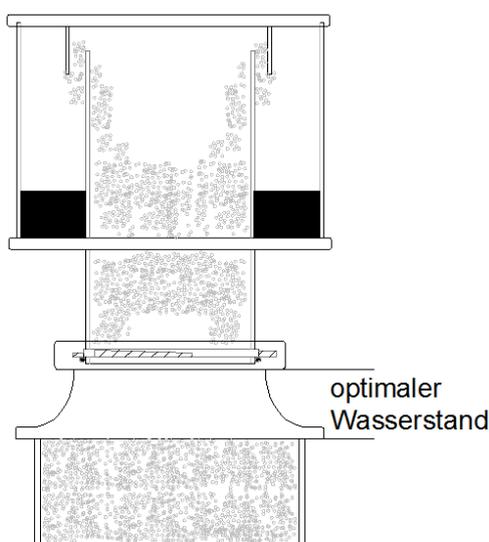
- Position the skimmer in the sump
- Remove the suction pipe above the safety overflow or turn it to the side (picture 5).
- Feed water into the skimmer compartment (if applicable)
- Open the water level adjuster (picture 7) fully by turning it anti-clockwise
- Start the skimmer pump
- **Only for 600i, 1000i and 1500i:** Set the pump controller to the lowest level.
- Close the water level adjuster until fine bubbles are visible between the bayonet and the bottom of the skimmer cup (picture 8)
- Initially keep the foam level in the skimmer cup low to avoid over skimming and possible flooding of the cup.
- Wait a minimum of 48 hours before the final adjustment, only then adjust the controller up and down as required.
- The specified run levels are shown on the safety overflow pipe as min and max. During the initial start up phase the skimmer maybe run outside these levels until the skimmer has settled.
- **Only for 600i, 1000i and 1500i:** After the start-up phase, set the controller to level 3 (600i), level 4 (1000i) or level 6 (1500i), optimal for most aquariums.
- Turn the water level adjuster in or out until the fine air bubbles start bursting approximately half way up the cups riser tube
- Set the water level between min. and max at the Water level adjustment tube.
- Position the suction pipe above the safety overflow pipe.
- If the safety overflow pipe is not used, adjust the water level to the lower edge of the bayonet (picture. 8). The suction tube can be removed.
- For dry foam turn the water level adjuster anti-clockwise, for wet foam clockwise
- **Important:** Never allow the pump to run dry.

Only for 600i, 1000i and 1500i: When pressing the feed timer button on the controller, the pump will stop for 10 minutes and will resume automatically.



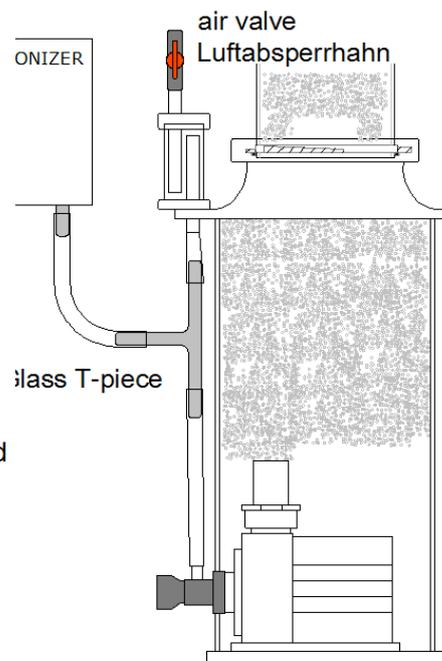
Picture 7

Water level adjuster



Picture 8

Skimmer cup



Picture 9

Ozonizer

Operation with ozone

Ozone is an extremely aggressive gas which - if not used properly - can damage one's health. For this reason, ozone should never be breathed in directly.

In addition, at high doses ozone can damage the skimmer.

The dosing of ozone must be set so that no free ozone can be detected at the skimmer lid. Deltac skimmers can be operated with 50 mg/h of ozone per pump. An ozone-resistant T-piece (Glass) should be fitted in the air hose above the skimmer pump. The free end of the T-piece is connected to the ozonizer by means of an ozone-resistant hose.

In addition, if necessary (depending on the skimmer) an air valve must be installed on the open end of the T piece. It must be throttled until air is passively sucked through the ozonizer. The Skimmer can be operated with ozone up to max. 50 mg/h per pump. The 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.

Safety information:

- The maximum ozone quantity of 50mg/hour per pump must not be exceeded.
- The air passage can be reduced as a result of dust deposits in the ozonizer. This can result in an increase in the water level in the skimmer, which - in extreme cases - can overflow. To avoid this, check the ozonizer regularly to make sure that there are no deposits of dust. If necessary, clean it.
- Never breathe in free ozone.
- The ozonizer may not be directly connected to the air valve.
- In order to avoid water damage, the ozonizer must be placed high enough to ensure that no water can penetrate it when the skimmer pump is switched off.

Fresh salt water

If the skimmer is used with new water or a new aquarium it is common to observe an excessive quantity of small bubbles and often the skimmer cup will overflow 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.

Disassembly of the Skimmer

See page 35-37

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. 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. Soak 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.

Please observe: The water level adjuster must be checked at regular intervals (at least once a week) for accumulation of dirt or other substances with may inhibit or interfere with its proper function. If required please clean. For this purpose the water level adjuster can be simply removed by pulling it upwards. After reinstallation of the water level adjuster please make sure it is correctly set. Any foreign bodies, limescale build up ect. can cause the skimmer water level to raise, in extreme cases the skimmer may get flooded.

Technical data

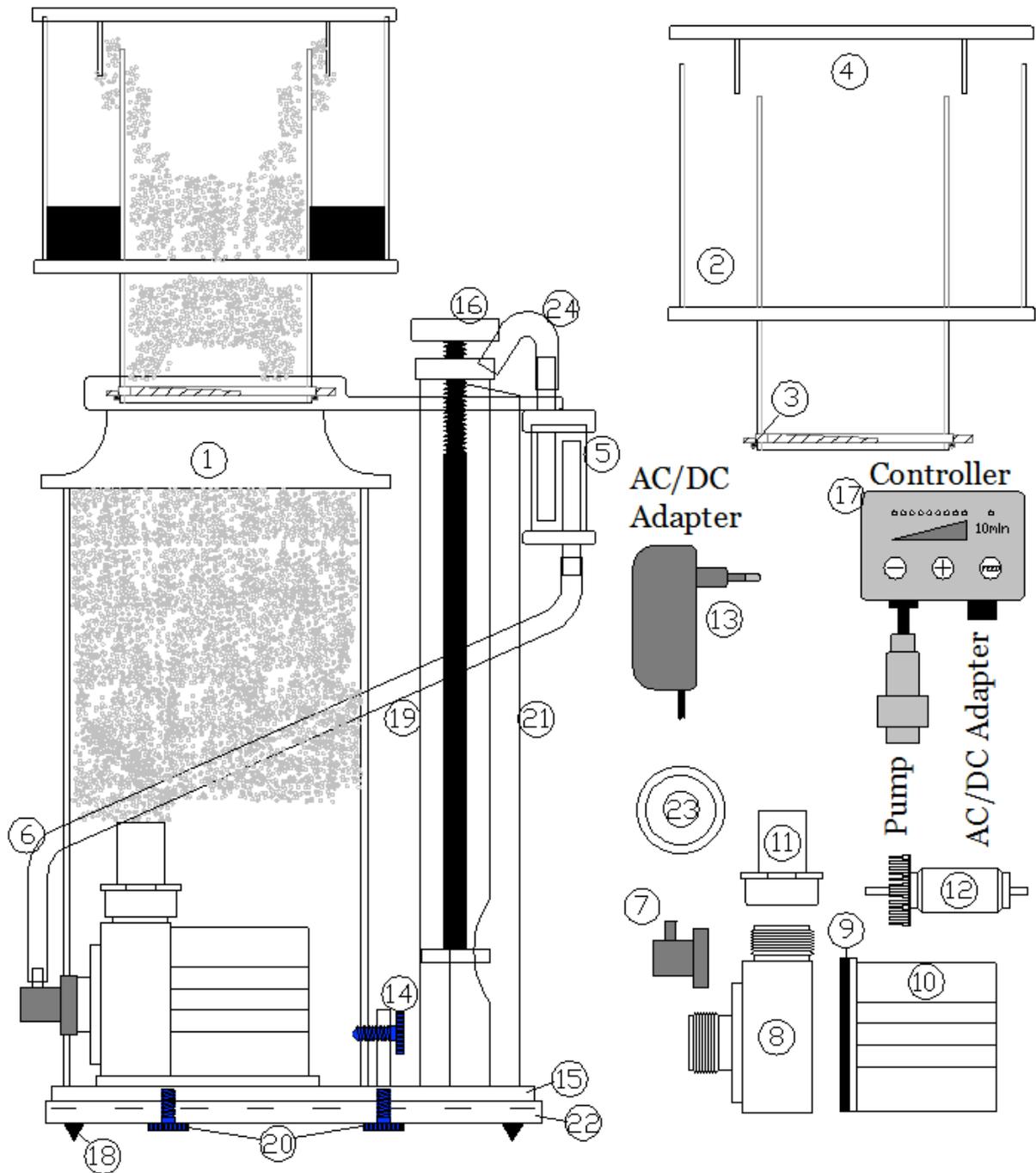
Technical data	Dimensions mm		Aquarium size litre		Water level mm		Power consumption Watt	Air litre/h	Connections Ø mm outlet
	footprint	height	high stocking	Normal stocking	min.	max.			
Skimmer 600i	220x140	510*	200	600	150	250	11	500	32
Skimmer 600ix	220x140	510*	200	600	150	250	9	450	32
Skimmer 1000i	220x155	520*	600	1000	150	250	13	650	32
Skimmer 1000ix	220x155	520*	600	1000	150	250	11	600	32
Skimmer 1500i	265x180	565*	1000	1500	160	250	23	1100	32

*+15 mm to remove the cup

Fault finding

malfunction	cause	remedy
Pump produces insufficient air	airline or venturi blocked	clean
	airline kinked	remove kink
	ozonizer blocked	clean
excessive air bubbles in aquarium water	caused by additives in certain sea salts and water conditioners	Use different salt or feed heavily for a period, empty skimmer cup frequently. This condition may last for several weeks.
Pump does not start	Bearing of the impeller stuck. When the pump (after having been used in marine water) has been stored dry for a period of time, the bearing can "dry out".	Remove impeller and loosen the bearing by moving the bearing plate around and along the ceramic shaft in tap water.
	Impeller incorrectly fitted	See service hints

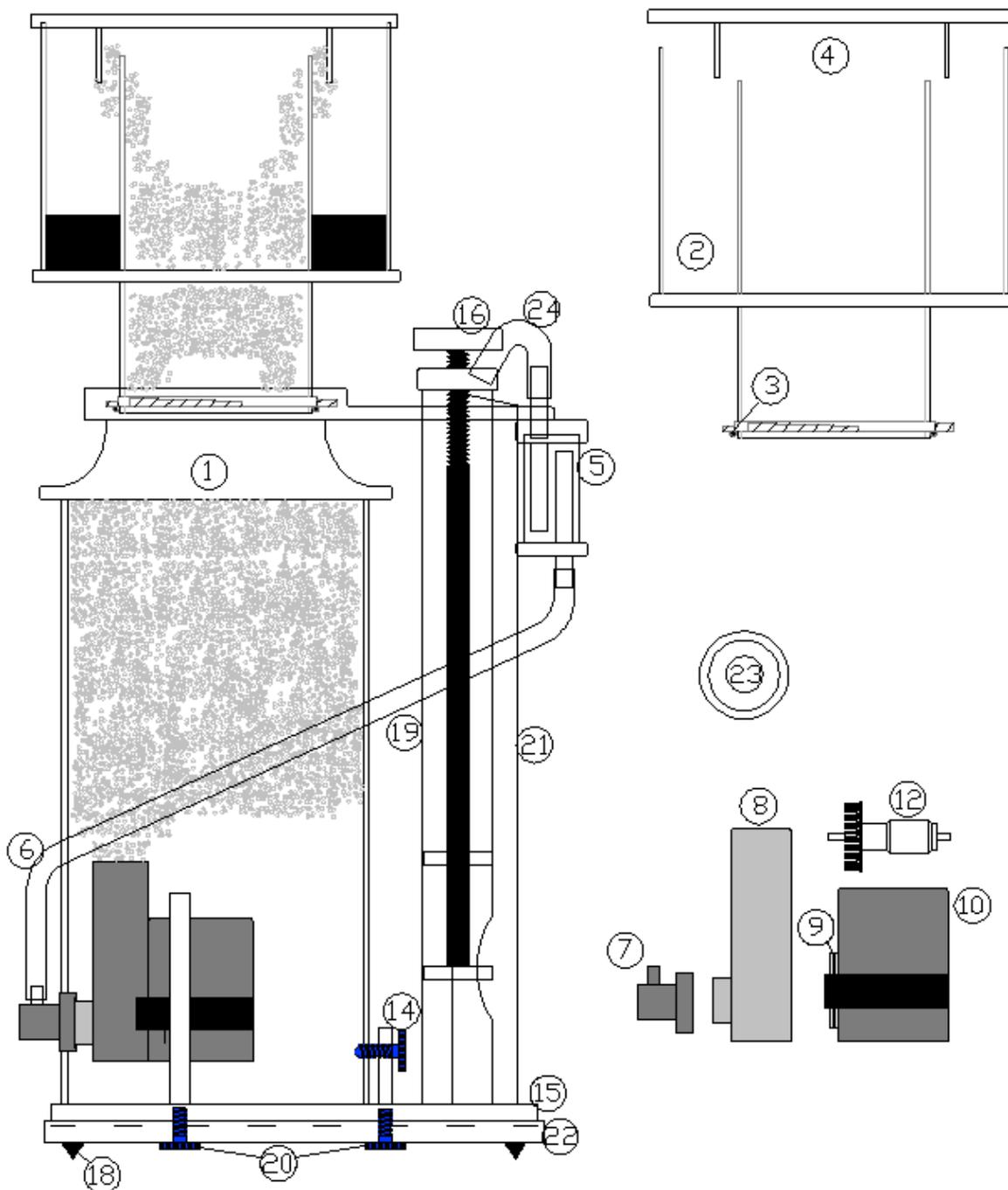
Spare part list Skimmer 600ⁱ



No	Art. No. Skimmer 600i	Description
1	81135100	Body only
2	81130200	Skimmer cup
3	80500075	O-Ring Skimmer cup
4	81130300	Lid skimmer cup
5	81160500	Silencer
6	61758000	Silicone hose white 5/8
7	81135700	Air inlet adapter
8	29084000	Pump housing
9	26084100	O-Ring Pump DCC2
10	26084000	Stator DCC2
11	81132900	Adapter
12	27084000	Impeller DCC2
13	29012000	Ballast 1,5A

No	Art. No. Skimmer 600i	Description
14	12359100	Knurled head screw long
15	81135200	Foot plate top
16	81135500	Water level adjuster
17	29002000	Controller DCC2
18	61701000	Silikone foot
19	81135110	Regulator tube
20	12359200	Knurled head screw long
21	81135120	Safety overflow tube
22	81135210	Foot plate bottom
23	81135140	Plug for safety overflow
24	81135130	Suction tube safety overflow

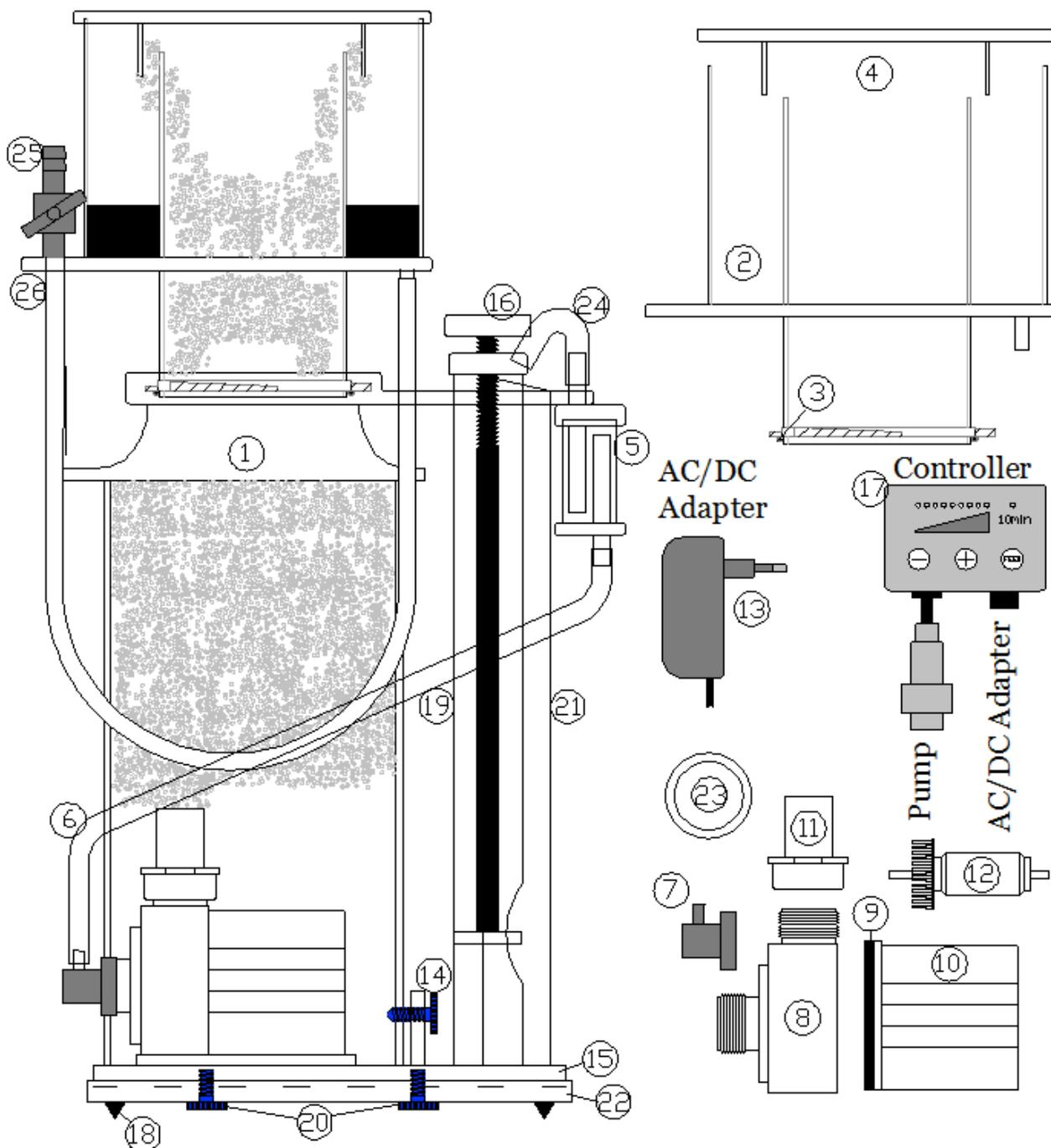
Spare part list Skimmer 600^{ix}



No	Art. No. Skimmer 600ix	Description
1	81135100	Body only
2	81130200	Skimmer cup
3	80500075	O-Ring Skimmer cup
4	81130300	Lid skimmer cup
5	81160500	Silencer
6	61758000	Silicone hose white 5/8
7	81136700	Air inlet adapter
8	81140400	Pump housing DCS 400
9	69511000	O-Ring pump DCS 400
10	26017000	Stator DCS 400
11		
12	27017000	Impeller DCS 400
13		

No	Art. No. Skimmer 600ix	Description
14	12359100	Knurled head screw long
15	81135200	Foot plate top
16	81135500	Water level adjuster
17		
18	61701000	Silikone foot
19	81135110	Regulator tube
20	12359200	Knurled head screw long
21	81135120	Safety overflow tube
22	81135210	Foot plate bottom
23	81135140	Plug for safety overflow
24	81135130	Suction tube safety overflow

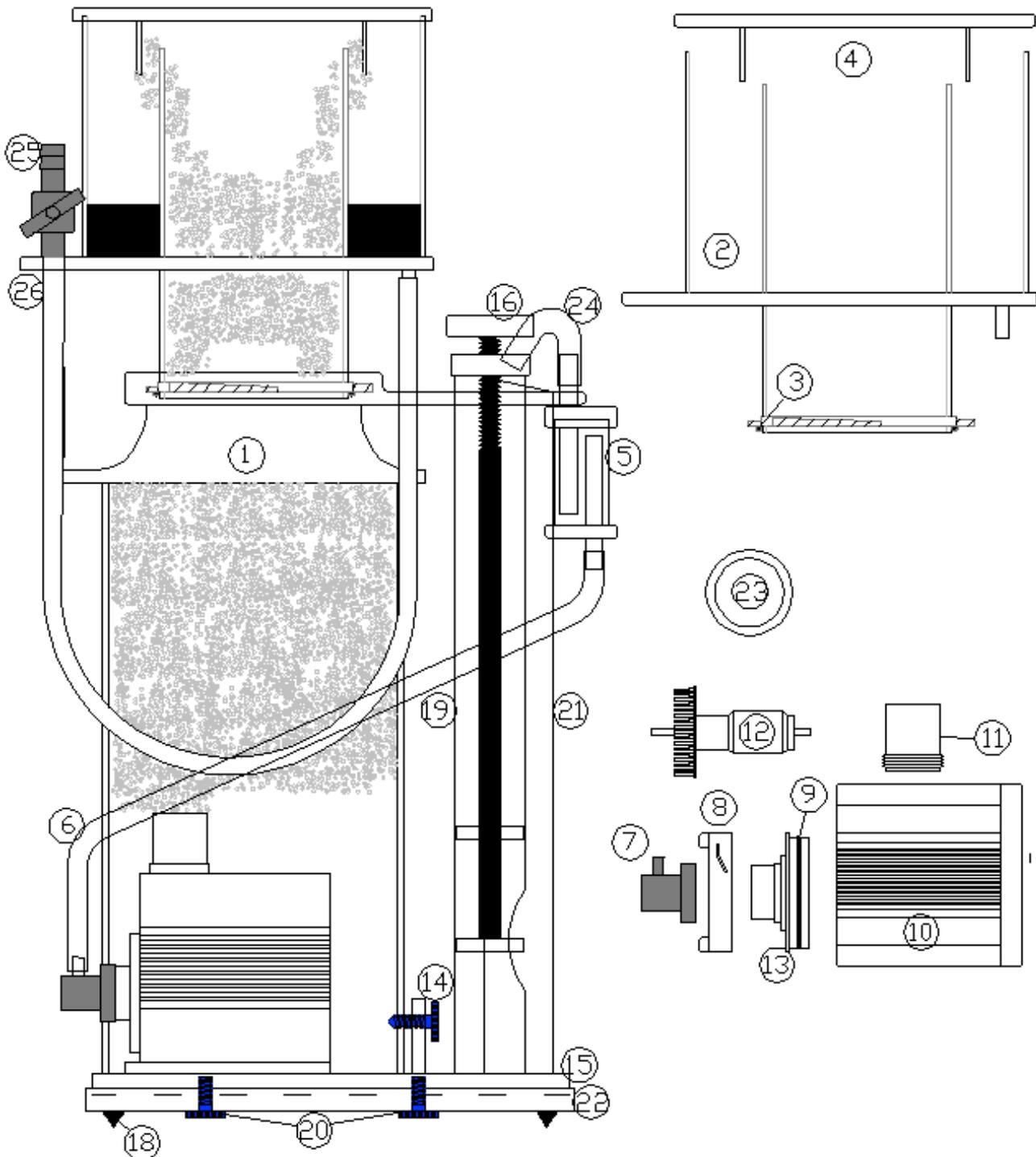
Spare part list Skimmer 1000ⁱ



No	Art. N ^o . Skimmer 1000i	Description
1	81145100	Body only
2	88020200	Skimmer cup
3	80500090	O-Ring Skimmer cup
4	88020300	Lid skimmer cup
5	81160500	Silencer
6	61758000	Silicone hose white 5/8
7	81135700	Air inlet adapter
8	29084000	Pump housing
9	26084100	O-Ring Pump DCC2
10	26084000	Stator DCC2
11	81132900	Adapter
12	27084000	Impeller DCC2
13	29012000	Ballast 1,5A

No	Art. No. Skimmer 1000i	Description
14	12359100	Knurled head screw long
15	81145200	Foot plate top
16	81135500	Water level adjuster
17	29002000	Controller DCC2
18	61701000	Silikone foot
19	81135110	Regulator tube
20	12359200	Knurled head screw long
21	81135120	Safety overflow tube
22	81145210	Foot plate bottom
23	81135140	Plug for safety overflow
24	81135130	Suction tube safety overflow
25	93419000	Shut-off-valve
26	61760000	Silicone hose white 7/10

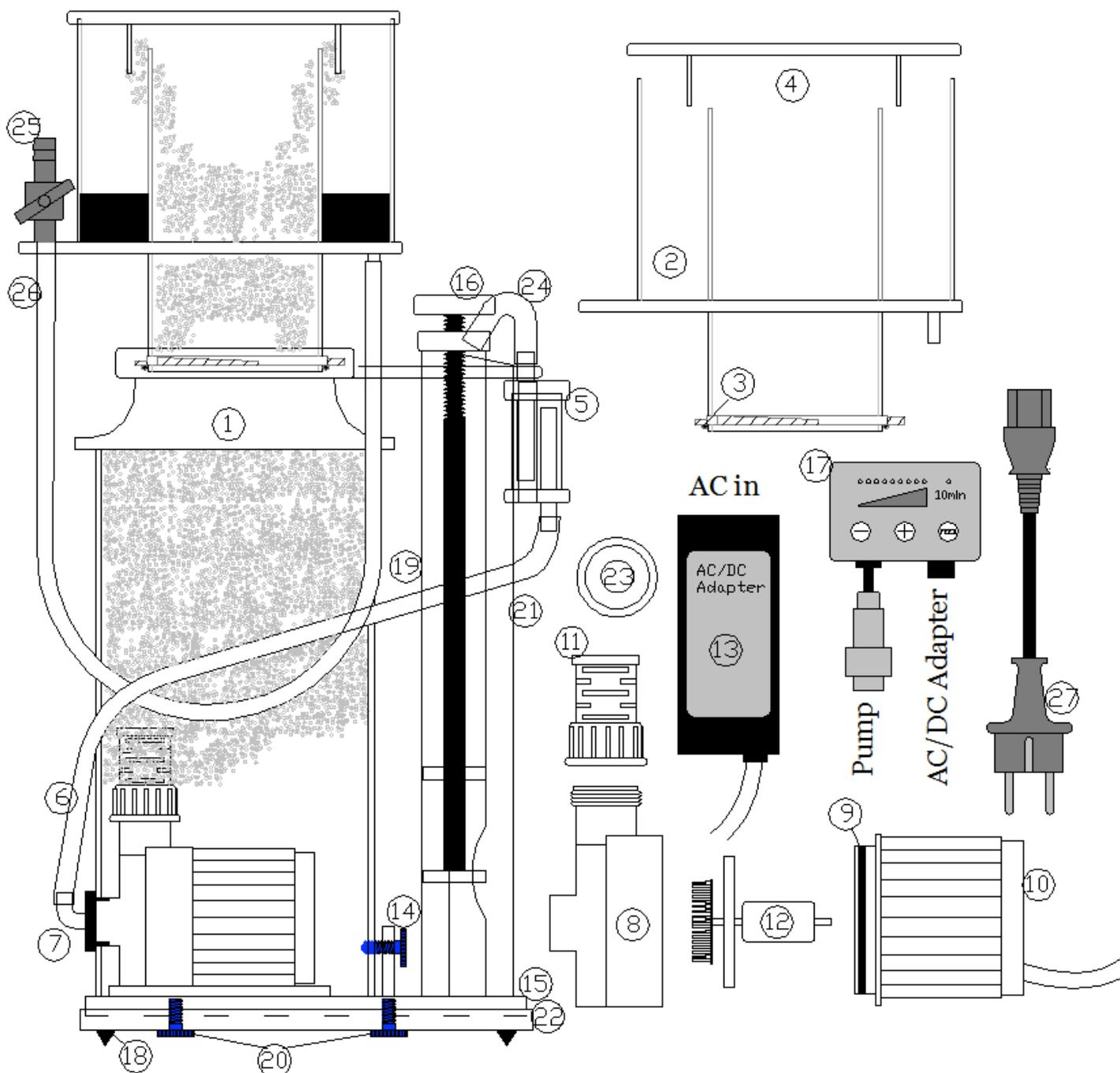
Spare part list Skimmer 1000^{ix}



No	Art. No. Skimmer 1000ix	Description
1	81145100	Body only
2	88020200	Skimmer cup
3	80500090	O-Ring Skimmer cup
4	88020300	Lid skimmer cup
5	81160500	Silencer
6	61758000	Silicone hose white 5/8
7	81140700	Air inlet adapter
8	10100480	Bajonete DCS 600
9	10100520	O-Ring bearing plate
10	26083000	Stator DCS 600
11	69303525	Adapter
12	27083000	Impeller DCS 600
13	25094000	Bearing plate DCS 600

No	Art. No. Skimmer 1000ix	Description
14	12359100	Knurled head screw long
15	81146200	Foot plate top
16	81135500	Water level adjuster
17		
18	61701000	Silikone foot
19	81135110	Regulator tube
20	12359200	Knurled head screw long
21	81135120	Safety overflow tube
22	81146210	Foot plate bottom
23	81135140	Plug for safety overflow
24	81135130	Suction tube safety overflow
25	93419000	Shut-off-valve
26	61760000	Silicone hose white 7/10

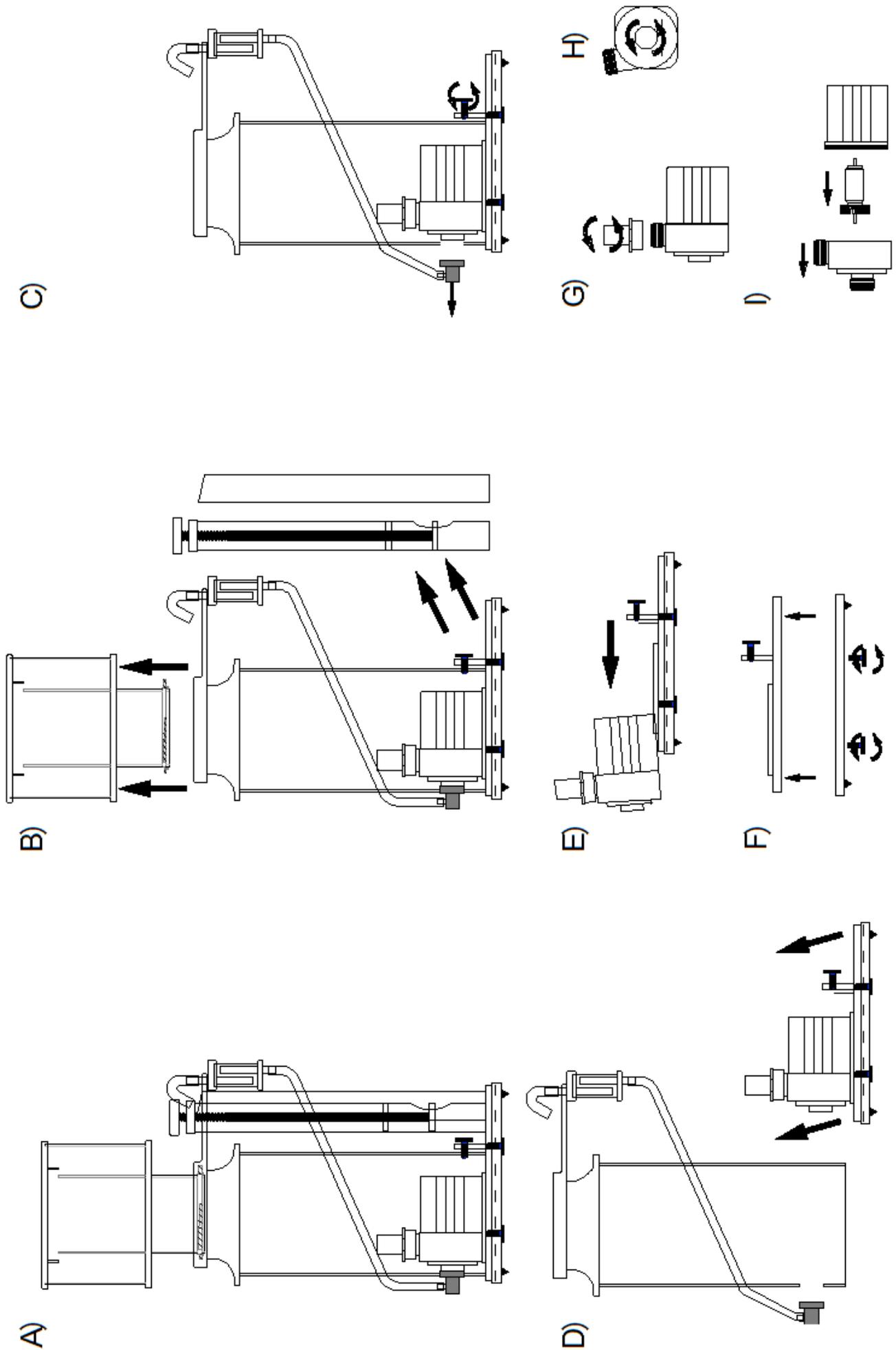
Spare part list Skimmer 1500ⁱ



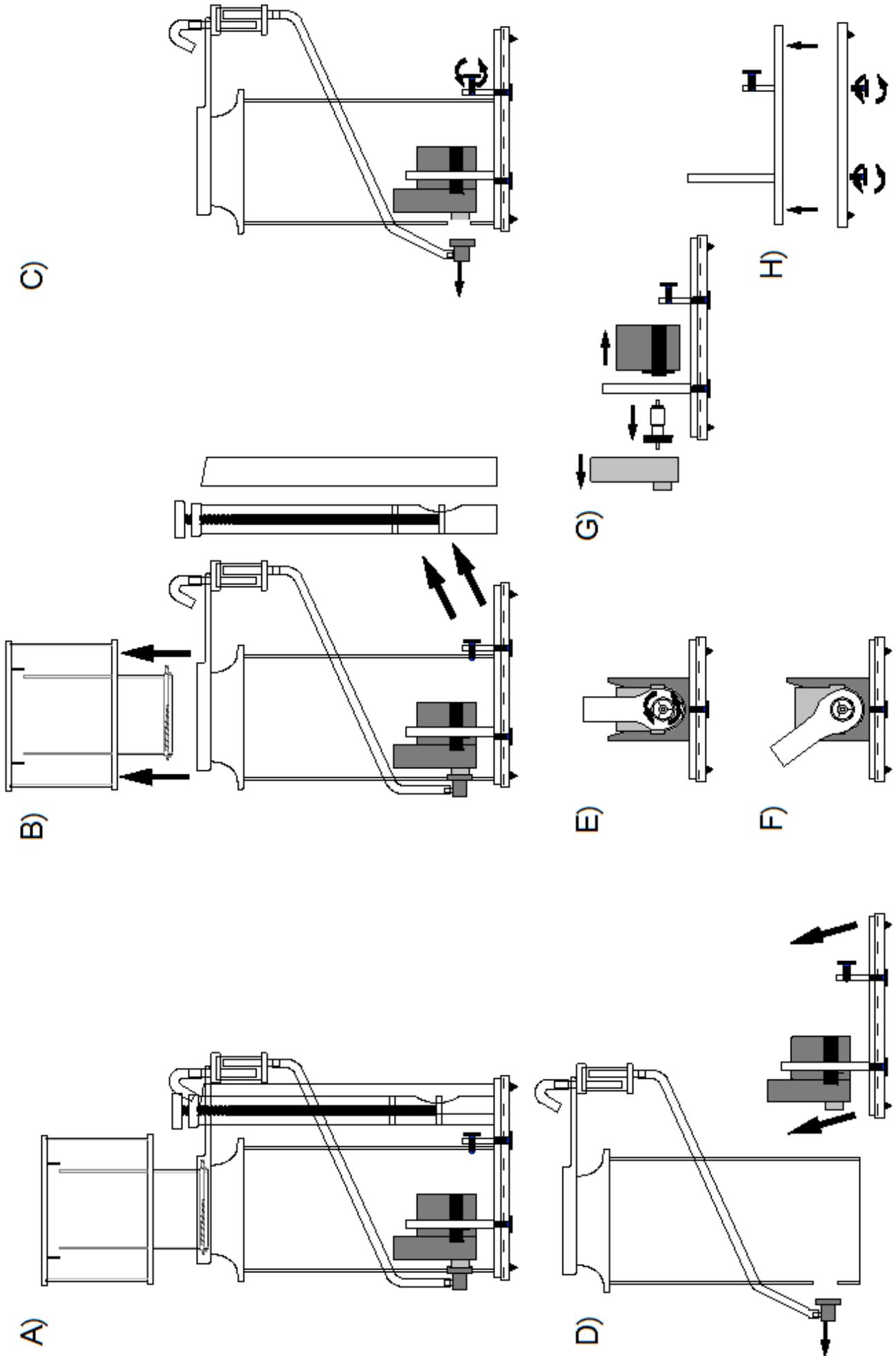
No	Art. N ^o . Skimmer 1000i	Description
1	81165100	Body only
2	81160300	Skimmer cup
3	80500110	O-Ring Skimmer cup
4	81160400	Lid skimmer cup
5	81160500	Silencer
6	61760000	Silicone hose white 5/8
7	81160700	Air inlet adapter
8	29087000	Pump housing
9	26088100	O-Ring Pump DCC3
10	26088000	Stator DCC3
11	81208000	Adapter
12	27088000	Impeller DCC3
13	29020000	Netzteil 2,5A
14	12359100	Knurled head screw long

No	Art. No. Skimmer 1000i	Description
15	81165200	Foot plate top
16	81165500	Water level adjuster
17	29003000	Controller DCC2
18	61701000	Silikone foot
19	81165110	Regulator tube
20	12359200	Knurled head screw short
21	81165120	Safety overflow tube
22	81165210	Foot plate bottom
23	81135140	Plug for safety overflow
24	81135130	Suction tube safety overflow
25	93419000	Shut-off-valve
26	61760000	Silicone hose white 7/10
27	29062000	Connection cable

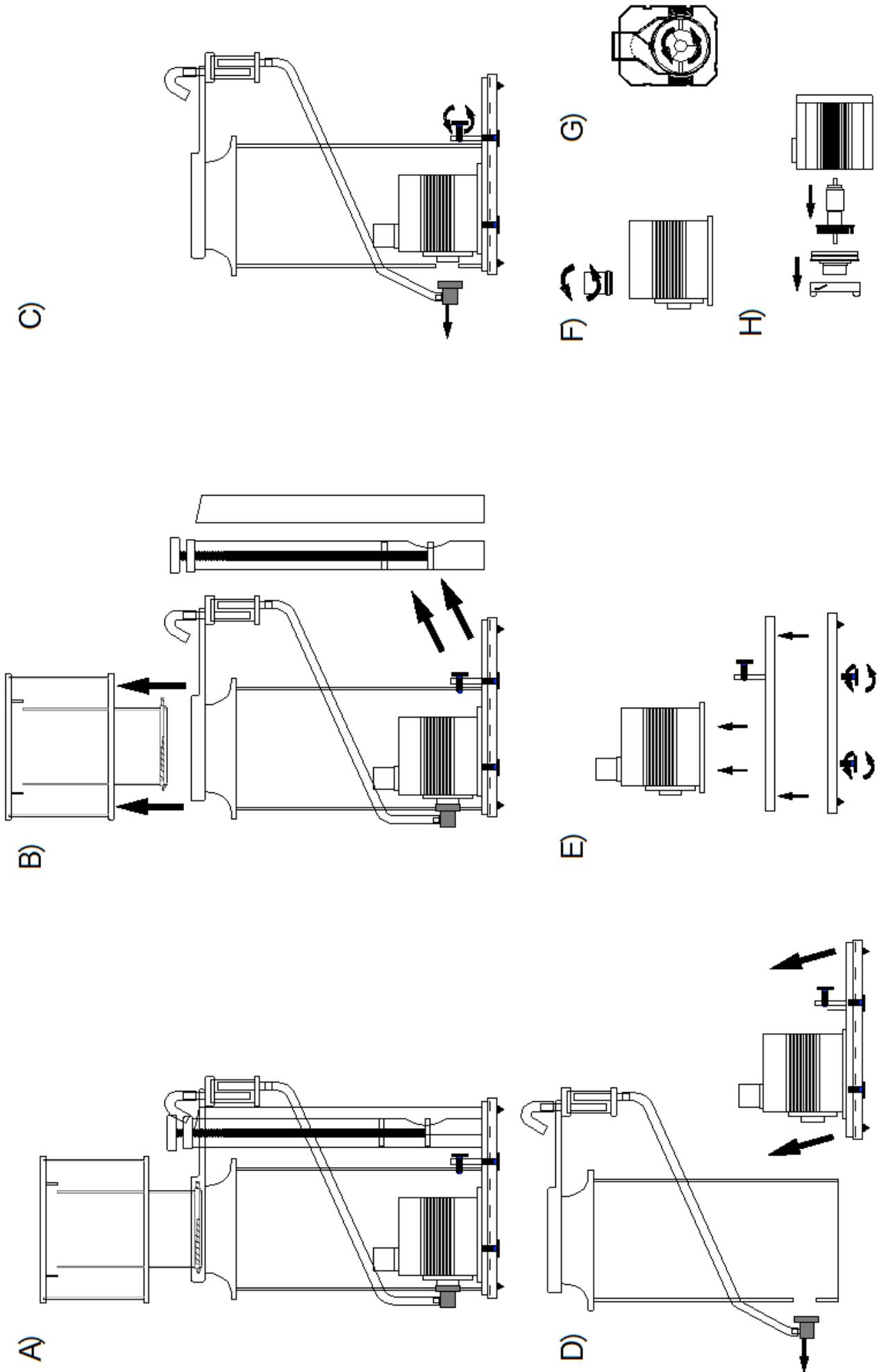
Disassembly 600ⁱ, 1000ⁱ, 1500ⁱ



Disassembly 600^{ix}



Disassembly 1000^{ix}



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Deltec GmbH 11/2017