



18000, 24000, 39000

EN Operating instructions

FR Notice d'emploi

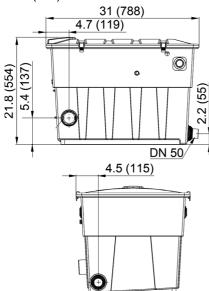
ES Instrucciones de uso

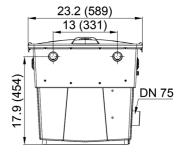
ΕN

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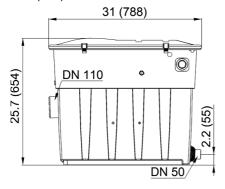
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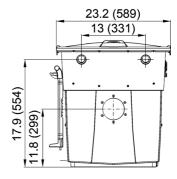
## inch (mm)

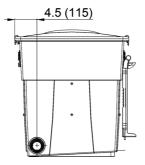


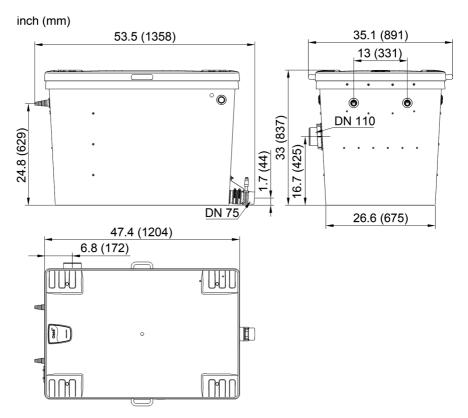


# inch (mm)









inch (mm)

Original operating manual. This operating manual belongs with the unit and must always be handed over together with the unit.

## **A** WARNING

- ▶ Disconnect all electrical units in the water from the power supply before reaching into the water. Otherwise there is a risk of injuries or death by electrocution.
- ▶ This unit can be used by children aged 8 and above and by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they are supervised or have been instructed on how to use the unit in a safe way and they understand the hazards involved. Do not allow children to play with the unit. Only allow children to carry out cleaning and user maintenance under supervision.

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# Questions, problems, missing parts?

Before returning the unit to your dealer, call us at 330-274-8317, Monday-Friday, or email us at customerservice@atlantic-oase.com.

# Safety information

### **Electrical connection**

- Special regulations apply to electrical installation in outdoor areas. Only allow a qualified electrician to perform the electrical installation.
  - The qualified electrician has the required professional training, knowledge and skills to perform electrical installations in outdoor areas. The qualified electrician can detect potential risks and adheres to regional and national standards, regulations and directives.
  - For your own safety, please consult a qualified electrician.
- Only connect the unit if the electrical data of the unit and the power supply match.
- Only connect the device to a correctly installed socket.
- The device is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.
- Extension cables and power distributors (e.g. outlet strips) must be suitable for outdoor use (splash-proof).
- Protect open plugs and sockets from moisture.

### Safe operation

- The container cover contains a magnet with a strong magnetic field that may affect the operation of pacemakers or implantable cardioverter defibrillators (ICDs). Always keep magnets at least 20 cm away from implanted devices.
- Never operate the unit if the casing is defective!
- Never operate the unit if an electrical cable is defective!
- Do not carry or pull the unit by its power cable.
- Route lines so that they are protected from damage and nobody can trip over them.
- Never make technical modifications to the unit.
- Only carry out work on the unit that is described in this manual.
- Only use original spare parts and accessories.
- Disconnect the unit from the mains during thunderstorms to avoid damage to the electronics.
- Overvoltage in the mains could lead to operating malfunctions of the unit. For information, please refer to chapter "Remedy of faults". (→ Troubleshooting)
- Should problems occur, please contact the authorized customer service or OASE.

Intended use EN

Only use the product described in this manual as follows:

- For cleaning garden ponds.
- In compliance with the technical specifications. (→ Unit data)
- Only subject to adherence to the permissible water quality values. (→ Permissible water values)

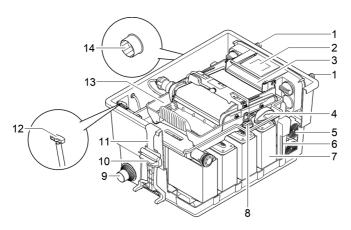
The following restrictions apply to the unit:

- Never use the unit with fluids other than water.
- Do not use for commercial or industrial purposes.
- Not suitable for salt water.
- $\bullet \ \ \mbox{Do not use in conjunction with chemicals, foodstuff, easily flammable or explosive substances.}$

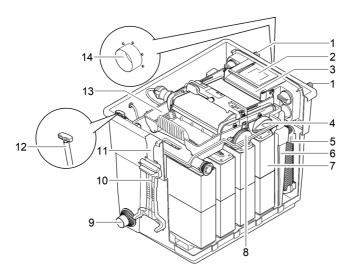
# **Product description**

# Unit configuration

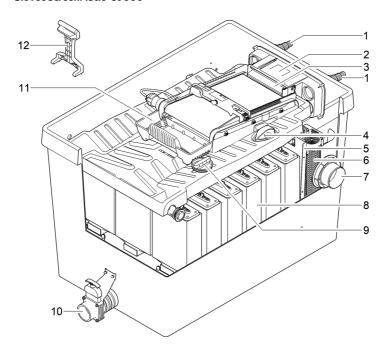
# BioTec ScreenMatic<sup>2</sup> 18000



1	Inlets, 2 x
2	Water distributor
3	Distributor extension
4	Brush for regularly cleaning the ScreenMatic screen
5	Substrate tube, 3×
6	Separating plate, can be removed for maintenance purposes
7	Foam filter, 8×
8	<ul> <li>Plug for closing the outlet (14)</li> <li>Closing the outlet before cleaning the foam filters prevents dirty water from flowing back into the pond.</li> </ul>
9	Dirt outlet
10	Foam cleaning device
11	Holder for the foam cleaning device
12	Dirt outlet slide valve
13	Debris tray
14	Outlet

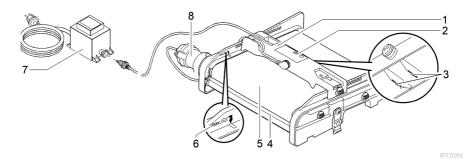


1	Inlets, 2 x
2	Water distributor
3	Distributor extension
4	Brush for regularly cleaning the ScreenMatic screen
5	Substrate tube, 4 x
6	Separating plate, can be removed for maintenance purposes
7	Foam filter , 16 x
8	<ul> <li>Plug for closing the outlet (14)</li> <li>Closing the outlet before cleaning the foam filters prevents dirty water from flowing back into the pond.</li> </ul>
9	Dirt outlet
10	Foam cleaning device
11	Holder for the foam cleaning device
12	Dirt outlet slide valve
13	Debris tray
14	Outlet



1	Inlets, 2 x
2	Water distributor
3	Distributor extension
4	Brush for regularly cleaning the ScreenMatic screen
5	Separating plate
6	Substrate tube, 12 x
7	Outlet
8	Foam filter, 18 x
9	<ul> <li>Plug for closing the outlet (14)</li> <li>Closing the outlet before cleaning the foam filters prevents dirty water from flowing back into the pond.</li> </ul>
10	Dirt outlet
11	Debris tray
12	Foam cleaning device

### ScreenMatic rotating screen unit



Control device

#### Operating panel

- 3 Sensor underneath the control device
  - When the sensor comes into contact with the water on the ScreenMatic screen, an automatic cleaning process is triggered.
- 4 Stripper

2

- Scrapes the debris from the ScreenMatic screen and conveys it into the debris tray.
- 5 ScreenMatic screen
- 6 "Max. water jet" mark
  - Debris may be washed out of the debris collection tray if the water jet from the water distributor
    exceeds this mark.
- 7 Transformer
  - Voltage supply for the control device and motor
- 8 Motor
  - Drive of the ScreenMatic rotating screen unit

# **Properties**

- High performance flow-through filter for ponds up to 40 m<sup>3</sup>, 60 m<sup>3</sup>, 90 m<sup>3</sup> or 140 m<sup>3</sup>.
- Electrically driven ScreenMatic rotating screen for automatic removal of coarse debris.
- Low-maintenance filter due to the automatic removal of coarse debris.
- Bottom drain with slide valve for removal of dirt from the filter system.
- Convenient cleaning of the foam filters directly inside the filter.
- Foam cleaning device and holder for fastening the foam cleaning device to the container.
- Perfectly tailored to the OASE AquaMax Eco filter pumps.
- Direct connection of the OASE UVC clarifiers of the Vitronic 18W/24W/36W, Bitron C and Bitron Eco series possible.
- Use of different filter medium types to ensure optimum colonization of bacteria for biological filtration.

# Technical data

## Unit data

Beschreibung		BioTec ScreenMatic <sup>2</sup>				
	-			24000	39000	
Power pack	Primary rated voltage	V AC	120	120	120	
	Mains frequency	Hz	60	60	60	
	Secondary rated voltage	V DC	12	12	12	
	Permissible ambient tem-	°F	14 95	14 95	14 95	
	perature	°C	-10 +35	-10 +35	-10 +35	
Control device	Power consumption	W	5	5	5	
	Permissible ambient tem-	°F	14 95	14 95	14 95	
	perature	°C	-10 +35	-10 +35	-10 +35	
Cable length	Power pack	ft	7.0	7.0	7.0	
	•	m	2.1	2.1	2.1	
	Power pack	ft	16.4	16.4	16.4	
	•	m	5.0	5.0	5.0	
Foam filter	Number of blue foam fil- ters	pcs.	2	4	4	
	Number of red foam fil- ters	pcs.	3	6	7	
	Number of purple foam filters	pcs.	3	6	7	
Special filter pellets		lbs	7.7	11.0	31.9	
	•	kg	3.5	5.0	14.5	
Removal of coarse di	irt particles	μm	300	300	300	
Permissible water temperature		°F	39 95	39 95	39 95	
	•	°C	+4 +35	+4 +35	+4 +35	
nlet	Quantity	pcs.	2	2	2	
	Connection, stepped hose	mm	25, 32, 38	25, 32, 38, 50	25, 32, 38, 5	
	adapter	inch	1, 1¼, 1½	1, 1¼, 1½, 2	1, 1¼, 1½, 2	
	Connection, UVC clarifier		Bitron C 55 W, Bitron C 110 W Vitronic 18 W, Vitronic 36 W			
Outlet	Quantity	pcs.	1	1	1	
	Connection		DN 75	DN110	DN 110	
Dirt outlet	Quantity	pcs.	1	1	1	
	Connection		DN 50	DN50	DN 75	
Circulation capacity	Min.	gal/h	1580	2100	2110	
	•	I/h	6000	8000	8000	
	Min.	gal/h	2900	3300	4620	
	•	l/h	11000	12500	17500	

Beschreibung			Bi	oTec ScreenMat	cic <sup>2</sup>
			18000	24000	39000
Maximum pond vol-	Without fish population	gal	18000	24000	39000
ume		m³	68	90	145
	With fish population	gal	9000	12000	19000
		m³	34	45	72
	Including koi carp	gal	4500	6000	9500
		m³	17	22.5	36
Dimensions	Length	inch	31.2	31	53.5
		mm	788	788	1360
	Width	inch	23.2	23.2	35
		mm	590	590	890
	Height	inch	21.8	25.75	33
		mm	554	654	840
Weight	Without water	lbs	55	66.1	253.5
		ka	25	30	115

## Permissible water values

Туре		Fresh water	Pool water	Salt water
pH value		6.8 8.5	7.2 8.3	7.5 8.5
Hardness	ppm	0.45 0.84	0.45 0.84	1.12 1.68
	DH	8 15	8 15	20 30
Free chlorine	moz/gal	<0.04	<0.08	<0.04
	mg/l	<0.3	<0.6	<0.3
Chloride content	moz/gal	<33.4	<33.4	<29392
	mg/l	<250	<250	<22000
Salt content	%	<0.4	<0.4	<4
Overall dry residue	moz/gal	<6.67	<6.67	<6.67
	mg/l	<50	<50	<50
Temperature	°F	+39 +95	+39 +86	+39 +82
	°C	+4 +35	+4 +30	+4 +28

### Installation and connection

#### Access to the unit

- Remove the container cover: Access to the control device.
- Hinge up the screen holder: Access to the foam filters, substrate tubes, separating plate and outlet.

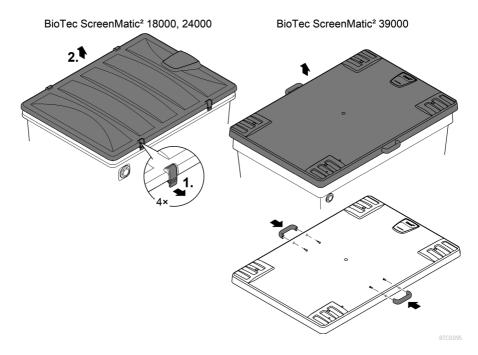
#### Remove the container cover

BioTec ScreenMatic<sup>2</sup> 18000, 24000

• Release the two locking clips, lift the cover and remove it.

BioTec ScreenMatic<sup>2</sup> 39000

- Lift the cover by the handles and remove it.
- The handles are not fitted on delivery.
  - Screw the handles onto the cover.



### Hinging the screen holder up/down

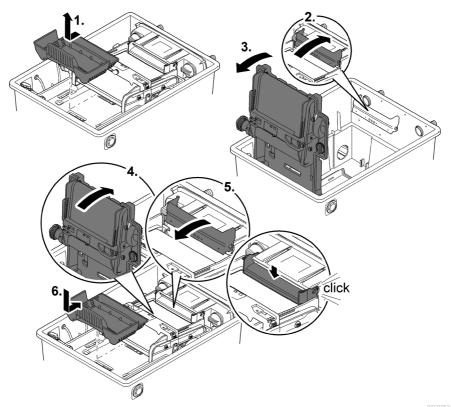
How to proceed:

Hinge up/open

- 1. Remove the debris tray.
- 2. Hinge up the distributor extension.
- 3. Hinge up the screen holder with the ScreenMatic rotating screen unit.

### Hinge down/close

- 4. Carefully hinge down the screen holder.
- 5. Push the distribution extension down until it audibly engages.
- 6. Insert the debris tray.



BICUU:

### Installation planning

### **A** WARNING

Serious injury or death from electric shock is possible.

Protective measures for swimming ponds:

- $\blacktriangleright$  Only use electrical units or installations with a rated voltage of U  $\le$  12 V in the water.
- ► Electrical installations with a rated voltage of U > 12 V must be located at a distance of at least 2 m from the water.

## **A** WARNING

Due to the high weight of the unit, spinal injuries or crushing of limbs is possible when carrying the unit. The unit weighs more than 25 kg.

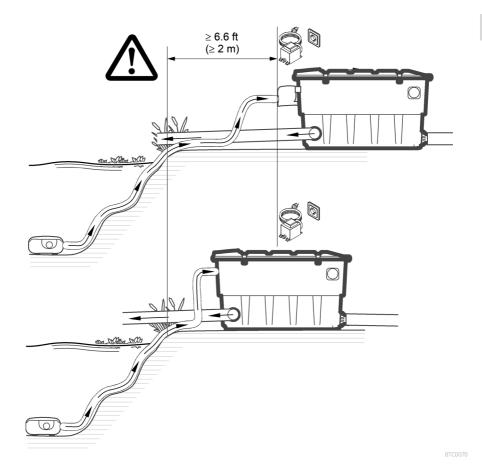
- ▶ Have a minimum of four people carry the container on the handles to avoid spinal injuries.
- ▶ Protect your limbs from crushing injuries.
- ▶ Do not transport the container while it is filled with water.

Electrical components of the filter system operate with a rated voltage of  $U_{DC}$  = 12 V. The supply voltage is supplied via an external transformer connected to the mains.

- Filter system with UVC clarifier fitted:
  - The filter system and transformer must be located at a distance of at least 2 m from the water.
- Filter system without UVC clarifier fitted:
  - The filter system can be installed directly next to the water. The transformer must be located at a distance of at least 2 m from the water.

Optimum operating results can be obtained with careful planning, taking the ambient conditions into account.

- As the filter is very heavy when filled, it must be placed on a suitable base (at least on slabs, but preferably on a poured concrete base) to prevent it from subsiding.
- Align the base slab horizontally.
- Ensure sufficient room for movement for carrying out cleaning and maintenance work.
- Allow the dirty water to drain out into a drain or far enough away from the pond to ensure that it cannot flow back into the pond.
- Do not position the inlet into the pond higher than the outlet of the filter system (e.g. above a water course or waterfall).
- (i) A water course or waterfall guarantees optimum water return to the pond.
  - In this way, the filtered pond water is enriched with oxygen before it is returned to the pond.



#### Inlets

The filter system has two inlets with stepped hose adapters.

- Connection of a filter pump.
- Connection of a UVC clarifier. (→ Connecting a UVC clarifier)
- If an inlet is not used, fit a closed stepped hose adapter.
  - The stepped hose adapters are delivered closed.

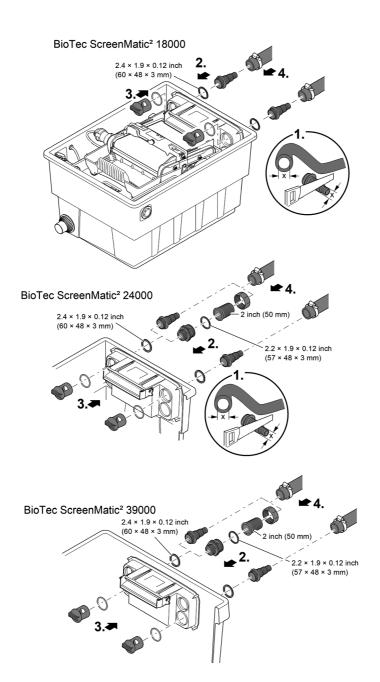
#### Prerequisite:

- The container is open. (→ Remove the container cover)
- The screen holder is hinged up. (→ Hinging the screen holder up/down)

#### Connecting the filter pump

#### How to proceed:

- 1. Shorten the stepped hose adapter to the diameter of the hose used.
  - This reduces pressure losses.
- 2. Insert the stepped hose adapter with flat seal into the inlet opening.
- 3. Screw the distributor nut with O ring onto the stepped hose adapter and hand tighten.
  - BioTec ScreenMatic<sup>2</sup> 145000: Alternatively you can fit a 50 mm hose sleeve.
- 4. Slip the hose clip over the hose, fit the hose onto the hose connector and secure it with the hose clip.



#### Connecting a UVC clarifier

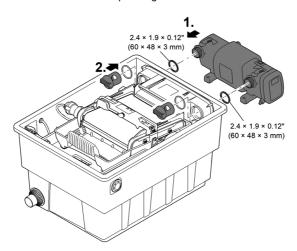
### Fitting the outlet

#### Prerequisite:

- The container is open. (→ Remove the container cover)
- The screen holder is hinged up. (→ Hinging the screen holder up/down)

#### How to proceed:

- 1. Fit the UVC clarifier with flat seal into the inlet opening.
- 2. Screw the distributor nut with O ring onto the stepped hose adapter and hand tighten.
  - Read the UVC clarifier operating instructions.



BTC010

#### **Outlets**

- Use suitable pipes.
- Do not use any right-angled bends. Bends with a maximum angle of 45° are very efficient.
- Standing water in pipes can freeze when there is severe frost and cause pipes to burst. For this
  reason, lay the pipes and hoses with a gradient (50 mm/m) to ensure that they can run empty.
- Pipe dimensions: (→ Unit data)
- ① Support the connected pipes. This increases the stability of pipe constructions and prevents them from sagging.

Fitting the outlet

ΕN

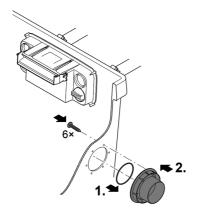
BioTec ScreenMatic<sup>2</sup> 39000: The outlet is not fitted on delivery.

#### Prerequisite:

• The container is open. (→ Remove the container cover)

#### How to proceed:

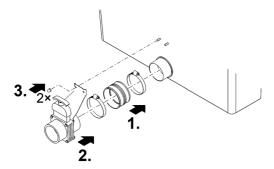
- 1. Push the O-ring onto the outlet.
- 2. Position the outlet in the container wall from the outside.
  - Ensure that the marking points up and is aligned with the holes in the container wall.
- 3. Use three oval head screws to screw the outlet to the container wall from the inside.
  - Tighten the screws diagonally to ensure that the seal is uniformly applied.
  - If you are using a cordless screwdriver: Do not set the screwdriver to "drill" to prevent damage to the self-tapped thread. Then re-tighten the screws with a Torx screwdriver.



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### Fitting the dirt outlet

BioTec ScreenMatic<sup>2</sup> 39000: The outlet is not fitted on delivery.



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### Connecting the dirt outlet

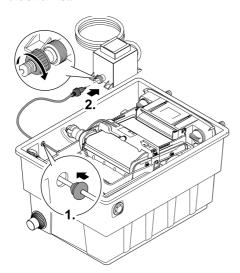
The water in the container can be drained via the DN 75 dirt outlet with slide valve at the bottom of the container if required (for cleaning, repair, overwintering).

- Connect a suitable DN 75 pipe and drain the dirty water into the sewer system.
- Pipe dimensions: (→ Unit data)

## Carry out the electrical connection

How to proceed:

- 1. Thread the connection cable through the opening in the container wall and seal off the opening using the sealing plug.
  - Ensure that the connection cable inside the container is sufficiently long so that it is not subjected to tension when the ScreenMatic rotating screen unit is hinged up.
  - Avoid tangled cables inside the container.
- 2. Connect the plug of the connection cable to the socket on the transformer and hand-tighten the union nut.



# Commissioning/start-up

- Remove the protective film from the substrate tubes and insert the substrate tubes into the container. (→ Cleaning/replacing the substrate tubes)
  - The substrate tubes are sealed in protective film on delivery.

Thoroughly clean the pond before starting up the filter system for the first time to ensure that the filter system is not overloaded by excessively soiled water. OASE recommends using the pond vacuum cleaner for cleaning the pond. PondoVac

• This cleaning measure is normally not necessary for newly installed ponds.

### **Biological filter starter**

The foam filters take several weeks to reach their full biological cleaning effect. We recommend using the OASE filter starter Biokick to ensure fast growth of bacterial populations. Micro-organisms colonize the filter system, multiply and ensure an enhanced quality of the pond water by the decomposition of excess nutrients.

- (i) Leave the UVC clarifier switched off for at least 36 hours if you are using filter starters, medications or pond care products.
  - This increases the operating life of the agents.

## Sequence of steps during starting up

How to proceed:

- 1. Close the slide valve of the dirt outlet.
- 2. Check that the filter system (pipes and hoses) is complete.
- 3. Remove the container cover.
- 4. Connect the transformer for the control device to the power supply.
- 5. Switch on the filter pump and, if necessary, the UVC clarifier.
  - Ensure that the water is returned to the pond via the return pipe.
- 6. Check all pipes, hoses and their connections for leaks.
  - Expansion seals may leak initially until they have fully expanded on contact with water.
- 7. Adjust the control device to the flow rate if necessary. (-- Aligning the control device)
- 8. Check the function of the ScreenMatic rotating screen unit. (→ Operation)
- 9. Fit the container cover.
- (i) Only operate the unit with the container cover in place.
- ① For permanent installation of the pump, use flexible compression-proof hoses to connect it to the pipe network to reduce the noise of the pump.
- The substrate tubes should remain completely under water to ensure maximum effectiveness.
  - If, due to the system configuration, the water level in the container is too low for this, place the top substrate tube directly into the pond, at a well-flowed place.

### Aligning the control device

#### Do not align the control device until after the running-in period

- Lowering the pump into the pond may swirl up so much debris that starting up the filter system straight away could cause the ScreenMatic screen to overflow.
- The filter system requires a running-in period of 2 to 3 hours. After this, the control device can be aligned if necessary.
- Align the control device such that the sensor only switches when a well-formed line of debris
  has formed on the screen.
  - A well-formed line of debris can be optimally removed by the stripper and conveyed into the debris tray.
  - The stripper brush under the ScreenMatic screen collects the fine debris, which falls into the debris tray.

#### How to proceed:

- 1. Remove the screw from the control device and take out the control device.
- 2. Insert the control device into the determined position, insert the screw and hand tighten.

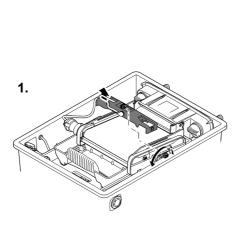
#### Aligning the control device depending on the degree of soiling of the pond

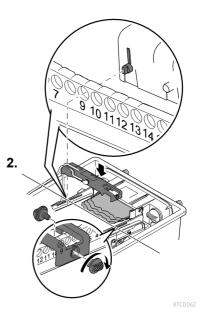
In order to prevent premature soiling of the foam filters, ensure that the dirty water does not flow beyond the "Max. water jet" mark directly into the debris tray.

 Do not change the position of the control device unless the water flows as far as or beyond the "Max. water jet" mark, even when the ScreenMatic screen has been cleaned (with the enclosed brush). (→ ScreenMatic screen)

## Typical position of the control device

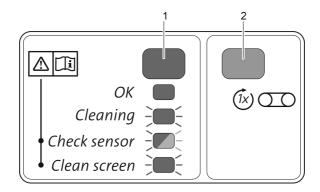
BioTec ScreenMatic <sup>2</sup> 1800	Matic <sup>2</sup> 18000 BioTec ScreenMatic <sup>2</sup> 24000			enMatic <sup>2</sup> 18000 BioTec ScreenMatic <sup>2</sup> 24000 BioTec ScreenMatic <sup>2</sup> 39000			
<2110 gal/h (<8000 l/h)	<9	<2400 gal/h (<9000 l/h)	<10	<3170 gal/h (<12000 l/h)	<18		
>2380 gal/h (>9000 l/h)	>9	>2900 gal/h (>11000 l/h)	>10	>4000 gal/h (>15000 l/h)	>18		
Delivery state	9	Delivery state	10	Delivery state	18		





# Operation

# Operating panel



1	LED	, 2	co	lors
---	-----	-----	----	------

Lights green	The ScreenMatic rotating screen unit is operational
Flashes green	Cleaning active
Flashes green/red	Malfunction (→ System messages)
Flashes red	Malfunction (→ System messages)
Button start/ston manual cleaning	( Manual cleaning)

2 Button, start/stop manual cleaning (→ Manual cleaning)

# Manual cleaning

Proceed as follows	Description
Press for 1s.	The ScreenMatic screen is rotated by 1 revolution.  • Press the button again for 1s: The rotational movement stops prematurely.

### **Automatic cleaning**

Due to the build-up of debris the water level on the ScreenMatic screen also rises. When the sensor in the control device comes into contact with the water, it triggers the rotational movement of the ScreenMatic screen.

By briefly moving the ScreenMatic screen back several times a larger line of debris is formed, which can be better removed by the stripper.

Sequence of an automatic cleaning cycle		Rotational movement of the ScreenMatic	
		screen	
No	rmal soiling		
1.	Contact of the sensor with water	Brief movement backward	
2.	Contact of the sensor with water	Brief movement backward	
3.	Contact of the sensor with water	Brief movement backward	
4.	Contact of the sensor with water	One rotation forward  The debris is conveyed into the debris tray.	
	avy soiling or incorrectly aligned control device (per- anently high water level on the ScreenMatic screen)		
1.	Contact of the sensor with water	Brief movement backward, then one rotation forward  The debris is conveyed into the debris tray.	

## Time-dependent cleaning

The ScreenMatic rotating screen unit executes a cleaning cycle after a set interval depending on the ambient temperature. This ensures cleaning at regular intervals

- if the sensor is soiled or defective,
- if there is very little soiling on the screen and/or low flow rates (e.g. when the SFC of the filter pump is activated).

Ambient temperature	Interval	Rotational movement of the ScreenMatic screen	
≤50 °F (≤10 °C)	6 hours	One rotation forward	
50 °F 68 °F (10 °C 20 °C)	4 hours	The debris is conveyed into the debris tray.	
≥68 °F (≥20 °C)	3 hours		
Ambient temperature	Interval	Rotational movement of the ScreenMatic screen	
≤10 °C	6 hours	• The debris is conveyed into the debris t	
10 °C 20 °C	4 hours		
≥20 °C	3 hours		

# System messages

LED	Malfunction	Possible cause	Remedy	Resetting the system message
Flashes green/red	No automatic clean- ing cycle within 48 hours	Sensor soiled	<ul><li>Clean the sensor.</li><li>Descale the sensor.</li></ul>	Automatic reset after remedy of mal-
		No dirty water, cleaning is not necessary	-	-function
	No flow of water	Filter pump is not operating	Start up the filter pump.	_
	No water detected by the sensor	Control device incor- rectly positioned	Correctly position the control device	-
		Control device defective	Replace the control device.	_
		Insufficient conductivity of the water	Increase the water hard- ness with OptiPond	_
		Insufficient pump capacity	Adjust the pump capacity accordingly	
Flashes red	20 automatic cleaning cycles in succession		Start manual cleaning and use a brush to clean the ScreenMatic screen on the side of the water distributor (→ Manual cleaning)     Clean the ScreenMatic screen from the inside if the mesh is clogged by a biofilm (→ ScreenMatic screen)	Automatic reset after remedy of malfunction
		Sensor soiled	Clean the sensor.	_
		Control device incor- rectly positioned	Correctly position the control device	_
		Pump capacity too high	Adjust the pump capacity accordingly	_
Flashes green	ScreenMatic screen not rotating alt- hough manual cleaning was trig-	Motor cable plug not connected or incor- rectly connected to the control device	Connect the plug, check that it is correctly seated.	_
	gered.	Motor defective	Replace motor	_

LED	Malfunction	Possible cause	Remedy	Resetting the sys- tem message
Off	ScreenMatic screen not rotating alt- hough manual cleaning was trig-	. •	Connect the plug, check that it is correctly seated.	-
	gered.	Transformer not con- nected to the mains voltage	Connect the transformer to the mains voltage.	
		Transformer defective	Replace transformer	_
		Control device defective	Replace the control device.	_

# Maintenance and cleaning

### **A** WARNING

Serious injury or death from electric shock is possible.

- ▶ Disconnect all electrical devices in the water from the power supply before reaching into the water.
- ▶ Disconnect the device from the power supply before starting work on the unit.
- Do not use aggressive cleaning agents or chemical solutions as they could damage the housing or impair the function of the unit.
- Recommended cleaning agent for removing stubborn limescale deposits:
  - Vinegar- and chlorine-free household cleaning agent.
- After cleaning, thoroughly rinse all parts in clean water.

# Regular cleaning work

- Empty the debris tray:
  - The cleaning cycle is dependent on the degree of soiling of the pond.
  - Remove the debris tray: (→ Hinging the screen holder up/down)
- Clean the ScreenMatic screen:
  - If the ScreenMatic screen becomes clogged, clean the ScreenMatic screen downstream of the water distributor using the brush. For this, manually activate the SceenMatic screen.
    - (→ Manual cleaning)
  - Carry out intensive cleaning with the pump cleaning agent PumpClean from OASE.
     (→ ScreenMatic screen)

#### Clean foam filters

- It is necessary to clean the foam filters as soon as the water exceeds the 100% mark on the separating plate.
- Do not use chemical cleaning agents, as these will kill the filter bacteria.

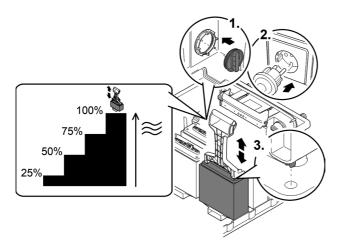
#### Prerequisite:

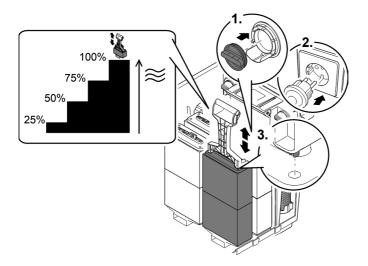
- The filter pump is switched off.
- The container is open. (→ Remove the container cover)
- The screen holder is hinged up. (→ Hinging the screen holder up/down)
- BioTec ScreenMatic<sup>2</sup> 24000: Separating plate has been pulled out and the substrate tubes have been removed. (— Cleaning/replacing the substrate tubes)
- The water level in the container has lowered to the height of the outlet or below.

#### BioTec ScreenMatic<sup>2</sup> 18000, 24000

How to proceed:

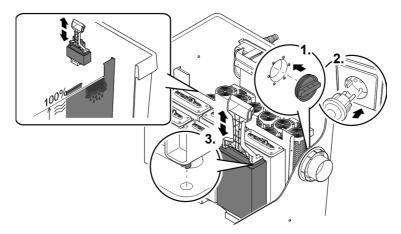
- 1. Insert the plug into the outlet from the inside to close off the outlet.
  - Remove the separating plate to facilitate access if applicable.
- 2. Switch on the filter pump until the foam filters are covered with water, then switch off the filter pump.
- 3. Compress all foam filters several times with the foam cleaning device.
- 4. Allow the dirty water to drain away.
  - Open the dirt outlet slide valve and close it again when the container is empty.
- 5. Repeat steps 2 ... 4 as required.
- 6. Rinse the container with clear water to remove any loosened dirt particles. To do this, first carry out step 2, then step 4.
- 7. Remove the plug from the inside of the outlet.
- 8. Close the dirt outlet slide valve.
- 9. Hinge down the screen holder (— Hinging the screen holder up/down), insert the debris tray and switch on the filter pump.





How to proceed:

- 1. Insert the plug into the outlet from the inside to close off the outlet.
- 2. Switch on the filter pump until the foam filters are covered with water, then switch off the filter pump.
- 3. Compress all foam filters several times with the foam cleaning device.
- 4. Allow the dirty water to drain away.
  - Open the dirt outlet slide valve and close it again when the container is empty.
- 5. Repeat steps 2 ... 4 as required.
- 6. Rinse the container with clear water to remove any loosened dirt particles. To do this, first carry out step 2, then step 4.
- 7. Remove the plug from the inside of the outlet.
- 8. Close the dirt outlet slide valve.
- 9. Hinge down the screen holder (— Hinging the screen holder up/down), insert the debris tray and switch on the filter pump.



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# Cleaning/replacing the substrate tubes

The substrate tubes are filled with zeolite on delivery. OASE recommends replacing the zeolite with Phosless when the bacteria are established and the foam filters are fully effective.

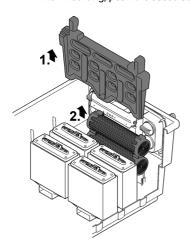
#### Prerequisite:

- The filter pump is switched off.
- The container is open. (→ Remove the container cover)
- The screen holder is hinged up. (→ Hinging the screen holder up/down)

#### BioTec ScreenMatic<sup>2</sup> 18000

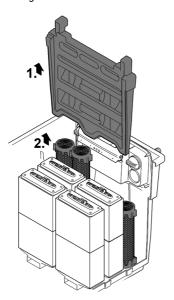
#### How to proceed:

- 1. Remove the separating plate.
- 2. Remove the substrate tubes and clean them or replace their contents.
  - BioTec ScreenMatic<sup>2</sup> 18000: Three substrate tubes
  - When inserting, push the substrate tubes against the wall opposite to the outlet.



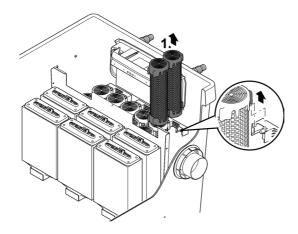
How to proceed:

- 1. Remove the separating plate.
- 2. Remove the substrate tubes and clean them or replace their contents.
  - BioTec ScreenMatic<sup>2</sup> 24000: Four substrate tubes
  - Two substrate tubes each to the left of the outlet and two substrate tubes each to the right of the outlet.



How to proceed:

- Remove the substrate tubes individually and clean them or replace their contents.
  - BioTec ScreenMatic<sup>2</sup> 39000: Twelve substrate tubes



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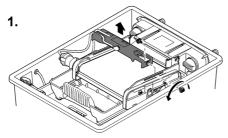
## Cleaning/replacing the ScreenMatic screen

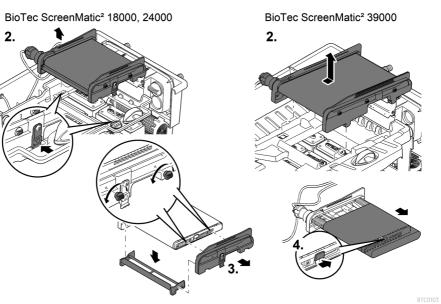
#### Prerequisite:

- The filter pump is switched off.
- The container is open. (→ Remove the container cover)
- The debris tray is removed. (→ Hinging the screen holder up/down)

#### How to proceed:

- Remove the screw for fastening the control device, remove the control device and place it carefully to the side.
  - If necessary, disconnect the motor cable plug from the control device.
  - Mark the position of the control device on a side section for reassembly.
- 2. Take the ScreenMatic rotating screen unit out of the screen holder.
  - Biotec ScreenMatic<sup>2</sup> 18000: Press the locking clips on both sides and remove the Screen-Matic rotating screen unit.
  - Biotec ScreenMatic<sup>2</sup> 39000: Press the ScreenMatic rotating screen unit in the direction of the water distributor and remove.
- 3. Undo the nuts on the side section, and remove the side section and stripper.
- 4. Release the clamping lever and remove the ScreenMatic screen.
  - Thoroughly clean the stripper.
  - Thoroughly clean both sides of the ScreenMatic screen. Replace the ScreenMatic screen if necessary.
  - For cleaning you can use vinegar cleaner.
- Reassemble the ScreenMatic rotating screen unit in the reverse order and place it into the screen holder.
  - When tensioning the ScreenMatic screen, ensure that the clamping lever engages.





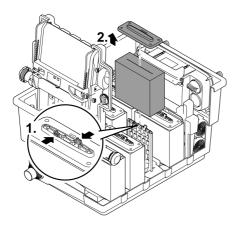
### Replace the foam filters

#### Prerequisite:

- The filter pump is switched off.
- The container is open. (→ Remove the container cover)
- The screen holder is hinged up. (→ Hinging the screen holder up/down)

#### How to proceed:

- 1. Press both locking clips on the foam holder.
- 2. Remove the foam holder plate and foam filter.
- 3. Push a new foam filter onto the foam holder, fit the foam holder plate and push down until the two locking clips engage in the foam holder plate.
- (i) Recommendation regarding the replacement of foam filters:
  - Only partially replace the foam filters at intervals of at least a week so as not to impair the biological cleaning action too much.
  - Never replace more than 50 % of the foam filters at any one time.



# Storage/overwintering

#### The unit is protected from freezing temperatures (e.g. stored in a garage or other enclosure)

The unit can be operated as long as the water temperature does not drop below 39 °F (+4 °C).

The deeper areas of the pond have a water temperature of approx. +4 °C in winter and are essential for the fish. Take the following measures to reduce the cooling effect on the water during circulation by the filter system:

- Position the pump closer to the surface of the water so that only colder water closer to the surface of the pond enters the pump.
- Insulate the return pipes from the filter system into the pond.
- Do not allow water to flow into the pond via a water course.

#### The unit is not protected from freezing temperatures (e.g. outdoor installation)

Shut down the unit at water temperatures below 46° F (+8 °C) or, at the latest, when freezing temperatures are expected.

- Drain the water remaining in the unit, in the hoses, pipes and connections as much as possible
- Open all slide valves to prevent water from pooling.
- Cover the container to prevent rain water from entering.
- Protect any lines and slide valves from which you cannot drain the water against freezing.

# Troubleshooting

Malfunction	Possible cause	Remedy
No flow of water	Filter pump not switched on	Switch on the filter pump, con- nect the power plug
	Supply to filter system or return to pond blocked	Clean the supply and/or return
Water flow insufficient	Hose kinked or clogged	Check, clean or replace the hose if necessary.
	Excessive loss in the hoses due to friction	Reduce hose length to reduce frictional loss
	Insufficient pump capacity	Adjust the pump capacity accordingly
Water remains cloudy	Insufficient circulation of the water	Adjust the pump capacity ac- cordingly
	The water is extremely soiled.	Optimise the circulation of the water in the pond. Remove algae and leaves from the pond. Change the water. If the water is particularly contaminated, change 30% of the water to avoid damage to the fish.
	Too many pond animals	Reduce number of pond animals Guide value: approx. 2 ft (600 mm) fish length per 265 gal (1 m³) pond water
	ScreenMatic screen is clogged	Clean or replace the ScreenMatic screen.
	Foam filters soiled	Clean foam filters
No water at the pond inlet	Pond inlet blocked	Clean the pond inlet.
	Filter pump is not operating.	Start up the filter pump.
Water level in the container too low, foam filters are not completely immersed in water.	The water level is initially lower when new foam filters are fitted as they have not yet been colonised by bacteria.	It takes several weeks for the bacteria to become established and the foam filters to become fully effective.      Use OASE filter starter Biokick to speed up the colonisation of bacteria.
	The separating plate is missing. (Only BioTec ScreenMatic² 18000, 24000)	Insert the separating plate.
Increased noise	Noise of water at the outlet due to insufficient aeration	Insert a T-piece into the discharge pipe with the opening pointing up for aeration.

# Wear parts

- Foam filters
- Substrate tubes
- ScreenMatic screen

# **Disposal**

# NOTE

Do not dispose of this unit with domestic waste.

- ▶ Dispose of the unit by using the return system provided for this purpose.
- ► Should you have questions, please contact your local disposal company. They will give you instructions on how to dispose of your unit properly.
- ▶ Disable the unit by cutting off the cables.