

EHEIM *professionel*

2227 / 2229

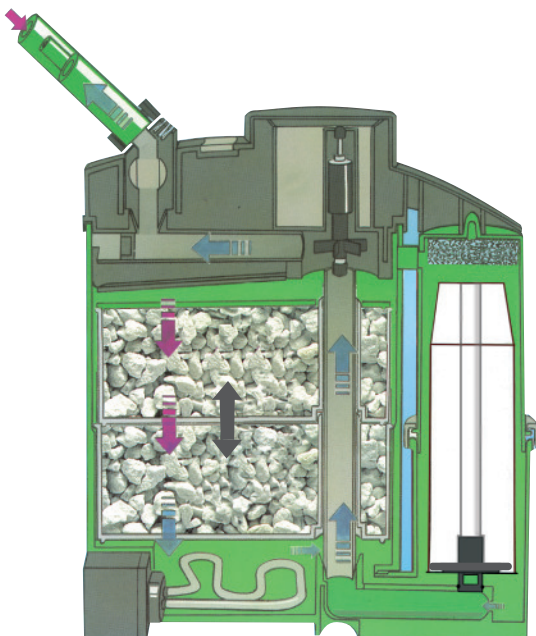
Intervallfilter
Wet/dry canister filter
Filtre sec/humide
Intervallfilter
Filtro asciutto/bagnato
Intervallfilter
Filtro seco/mojado
Intervallfiltre
Märkä/kuiva-suodattimet
Utvendig intervallfilter
Filtro seco/húmido

2327 / 2329

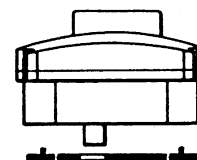
Intervall-Thermofilter
Wet/dry Thermofilter
Thermofiltre sec/humide
Interval-Thermofilter
Termofiltro asciutto/bagnato
Termointervallfilter
Termofiltro seco/mojado
Interval-termofiltre
Märkä/kuiva-lämpösuodattimet
Intervall-termofilter
Termofiltro seco/húmido



Filtermassen
Filter media
Masses filtrantes
Filtermassa's
Materiali filtranti
Filtermassa
Masas filtrantes
Filtermasser
Suodatinmassat
Filtermasser
Massas filtrantes



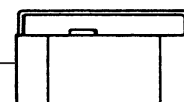
2227/
2327



SUBSTRAT
pro

2x 2510051 (1 l)
 oder / or / ou
 1x 2510101 (2 l)

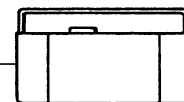
2.1 ltr.



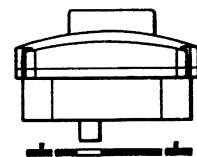
SUBSTRAT
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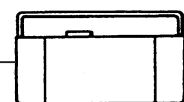
2229/
2329



SUBSTRAT
pro

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 oder / or / ou
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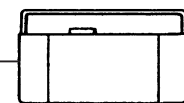
2.1 ltr.



SUBSTRAT
pro

2x 2510051 (1 l)
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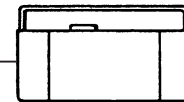
2.1 ltr.



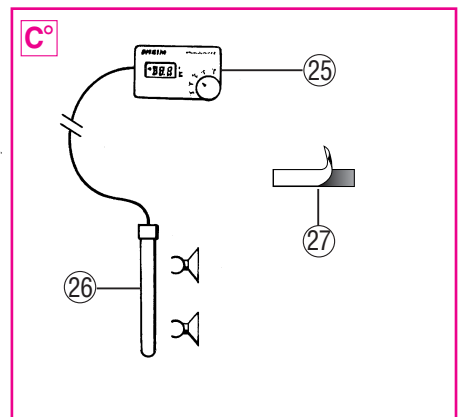
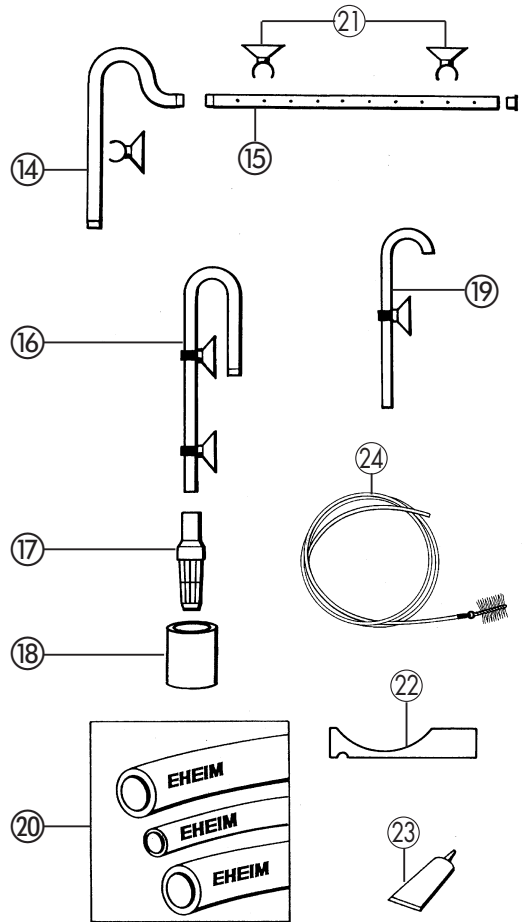
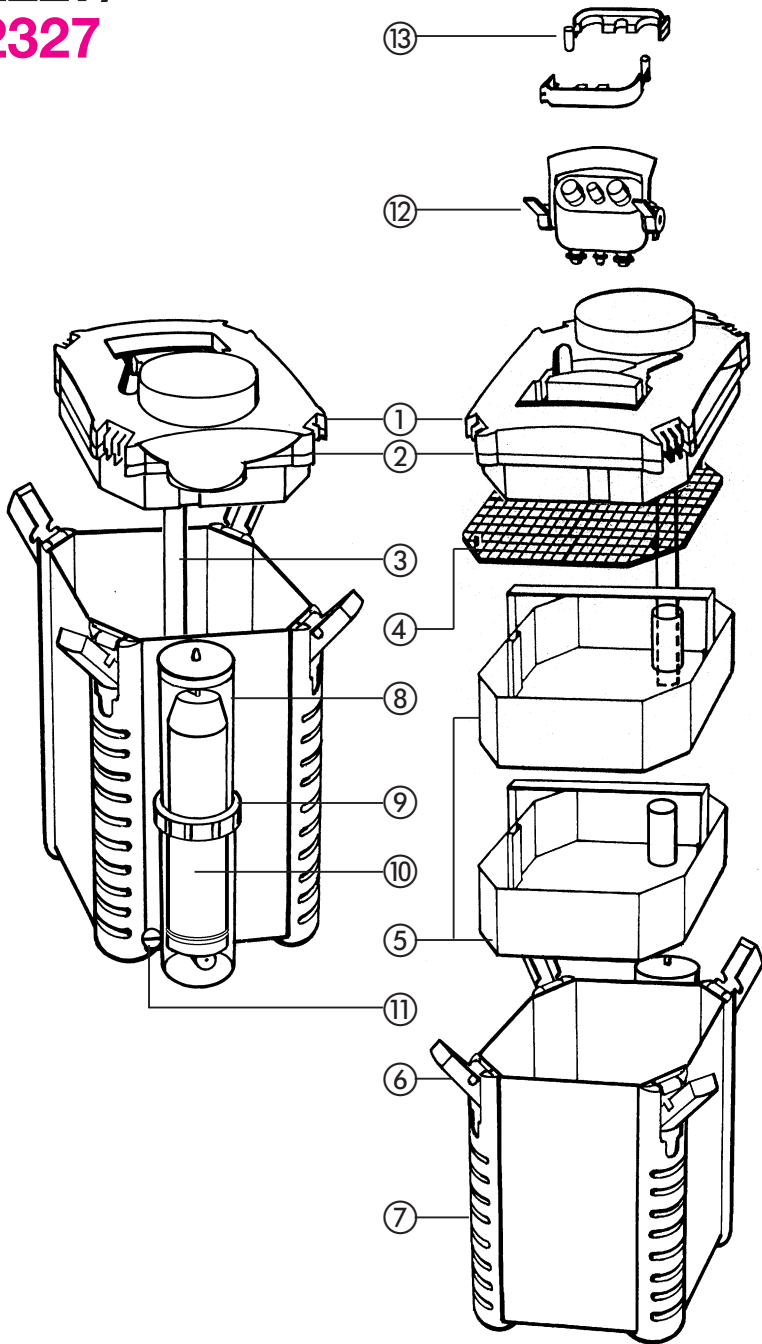
SUBSTRAT
pro

2x 2510051 (1 l)
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 1x 2510101 (2 l)

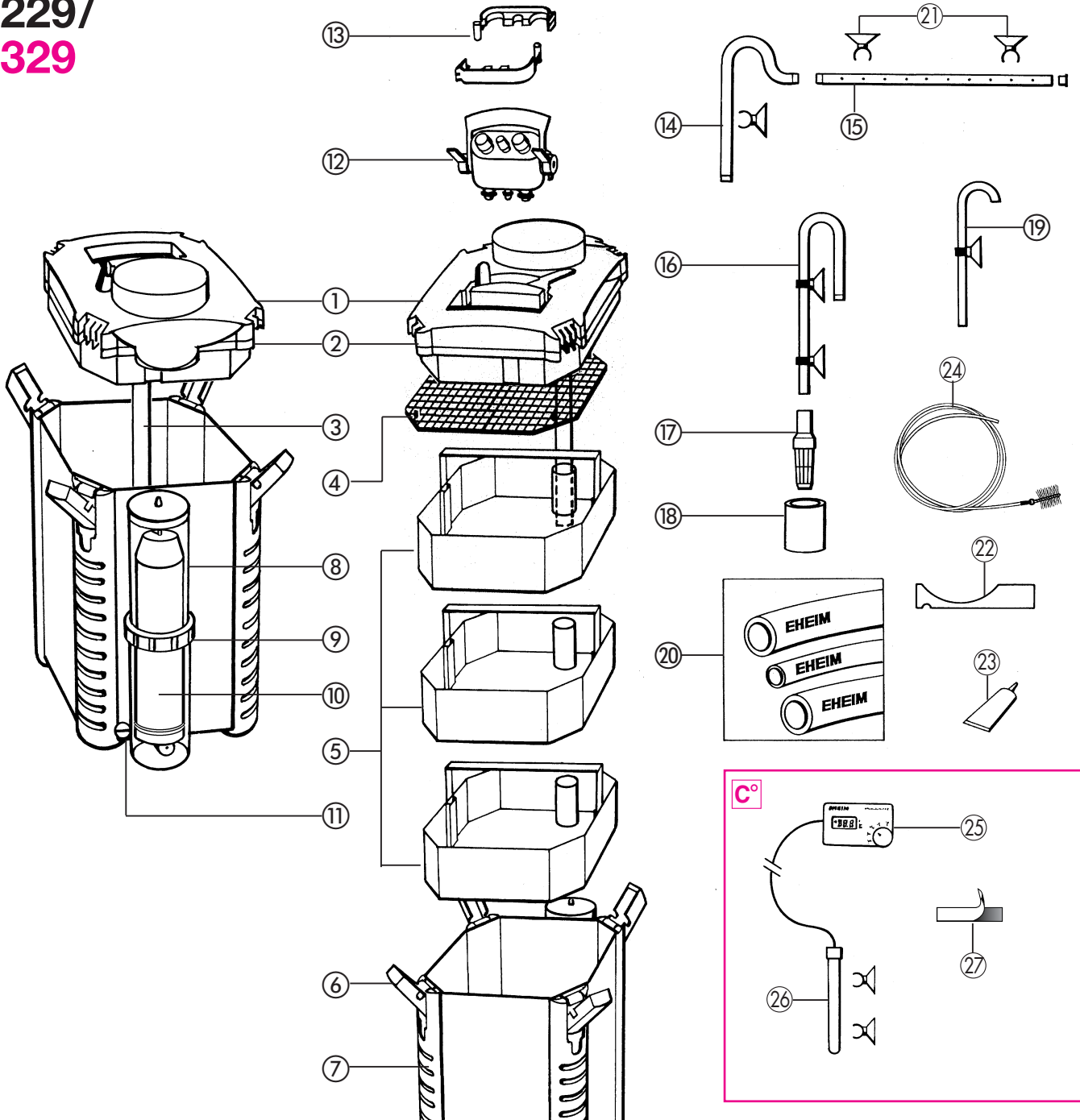
2.1 ltr.



**2227/
2327**



2229/
2329



Intervallfilter 2227 und 2229

Thermo-Intervallfilter 2327 und 2329

① Filteroberteil ② Profildichtung ③ Verbindungsrohr ④ Abdeckgitter ⑤ Filtereinsätze ⑥ Verschluss-Klipp ⑦ Filterbehälter ⑧ Intervall-Steuerung ⑨ Verschlussring ⑩ Schwimmer ⑪ Verriegelungen ⑫ Adapter mit Absperrhähnen ⑬ Schlauchhalter ⑭ Auslaufbogen ⑮ Düsenrohr mit Verschluss-Stopfen ⑯ Ansaugrohr ⑰ Filterkorb ⑱ Schaumstoff-Vorfilter ⑲ Entlüftungsrohr ⑳ Schläuche ㉑ Klemmbügel mit Sauger ㉒ Verriegelungsschlüssel ㉓ Vaseline ㉔ Schlauchreinigungsbürste.

Thermofilter: ㉕ Bedienteil ㉖ Temperaturfühler ㉗ Klettband

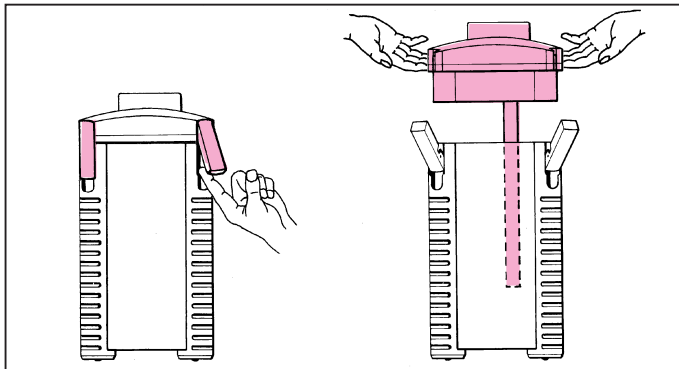
Achtung: Thermofilter 2327 und 2329 sind nur für Süßwasser geeignet.

Bitte beim Auspacken prüfen, ob alle Teile vorhanden sind.

Montage

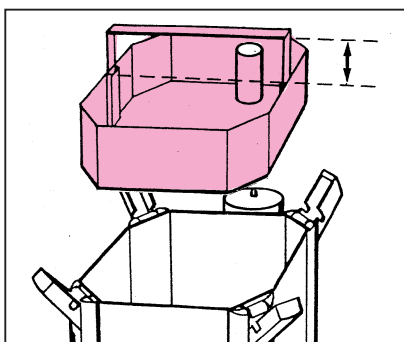
Achtung: Um die abgestimmte Funktion des Intervall-Filters zu gewährleisten, verwenden Sie nur die beiliegenden Originalteile. Änderungen im Ansaug- und Auslaufbereich dürfen nicht erfolgen.

Alle vier Verschluss-Klipps am Filterbehälter herauskippen und nach oben schieben. Mit Hilfe der beiden Griffmulden lässt sich das Filteroberteil bequem abheben.



Abdeckgitter und die einzelnen Filtereinsätze nacheinander herausnehmen.

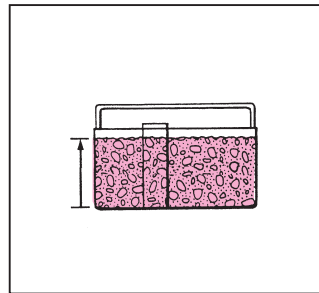
Die versenkten Griffbügel der Filtereinsätze lassen sich nach oben ausziehen. Anschließend Einsätze mit Filtermassen befüllen.



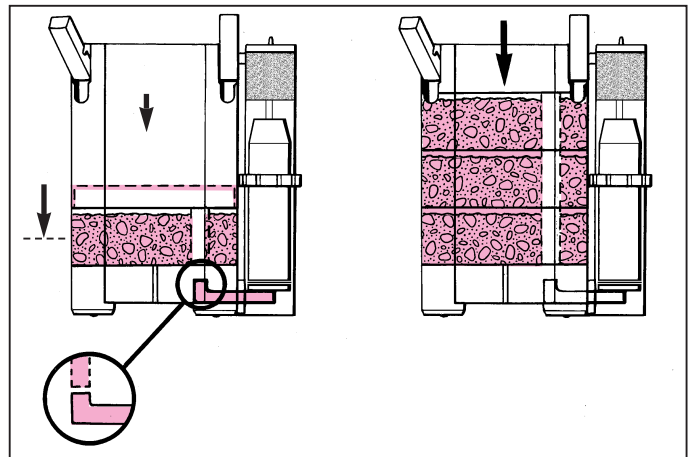
Alle Filtereinsätze bis knapp unter den Rand mit der biologischen Filtermasse SUBSTRATpro oder EHFISUBSTRAT füllen.

Achtung: Nicht überfüllen, Rohrdurchführung nicht verstopfen. Für alle Filtereinsätze nur Filtermassen SUBSTRATpro oder EHFISUBSTRAT verwenden!

Anschließend Filtermasse im Korb unter fließendem Wasser gründlich durchspülen, bis keine Wassertrübung mehr sichtbar ist.



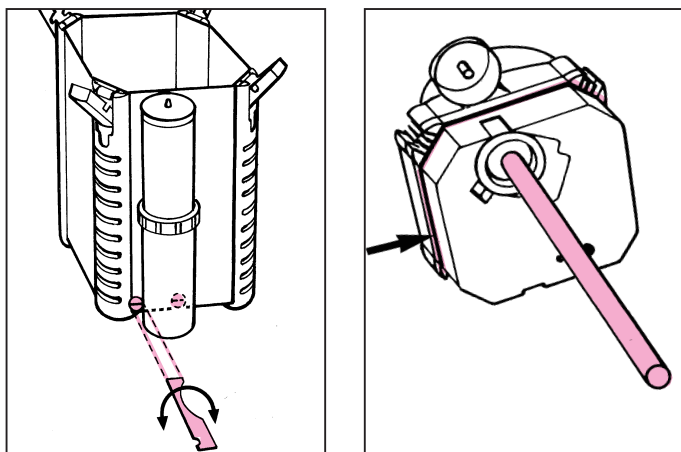
Nachdem Sie geprüft haben, dass der Intervall-Anschluss-Stutzen nicht verunreinigt ist, setzen Sie den ersten Filtereinsatz wieder in den Filterbehälter ein. Dabei ist zu beachten, dass die Rohrdurchführung über dem Intervall-Anschluss-Stutzen sitzt. Drücken Sie den Einsatz kräftig nach unten, bis er auf den Auflagestegen aufliegt. Damit ist eine sichere Abdichtung zwischen Filtereinsatz und Behälter gewährleistet.



Den zweiten (und dritten) Filtereinsatz ebenfalls einschieben, wobei die Rohrdurchführungen übereinander liegen müssen. Griffbügel jeweils wieder versenken und darauf achten, dass alle Filtereinsätze bündig aufeinander liegen. Abdeckgitter auflegen.

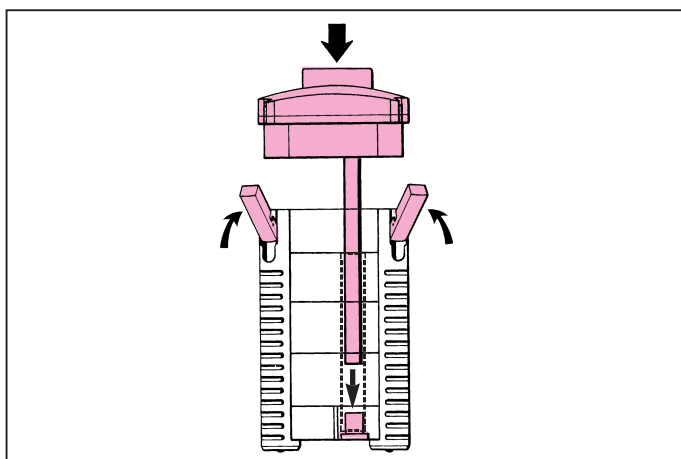
Überprüfen Sie die Intervall-Steuerung auf sichere Befestigung am Filterbehälter: Der obere Anschluss muss fest am Behälter stecken; die beiden unteren Verriegelungen müssen geschlossen sein, so dass die Schlitze jeweils waagrecht stehen.

Mit dem beiliegenden Verriegelungsschlüssel sind die Verriegelungen leicht zugänglich.

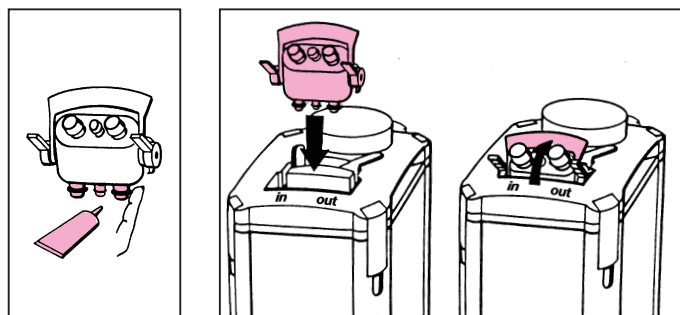


Dichtungsring vom Verbindungsrohr leicht einfetten und fest in den Pumpendeckel stecken. Profildichtung am Filteroberteil auf Sauberkeit und korrekten Sitz prüfen.

Filteroberteil auf den Behälter setzen, wobei das Verbindungsrohr durch die Öffnungen der Filtereinsätze geführt wird und korrekt in dem Intervall-Anschluss-Stutzen sitzen muss. Alle vier Verschluss-Klippen schließen.

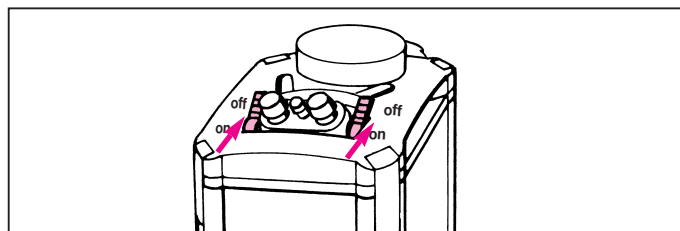


ACHTUNG: Bevor der Adapter für die Schlauchanschlüsse im Filteroberteil eingesetzt wird, alle 3 Dichtungsringe auf Beschädigungen und richtigen Sitz prüfen. Die Dichtringe zur Montageerleichterung mit etwas Vaseline leicht einfetten. Adapter mit hochstehendem Verriegelungsbügel in die vorgesehene Öffnung am Filteroberteil satt einstecken und unter gleichzeitigem Druck auf den Adapter-Verriegelungsbügel nach hinten bis zum Einrasten schließen.



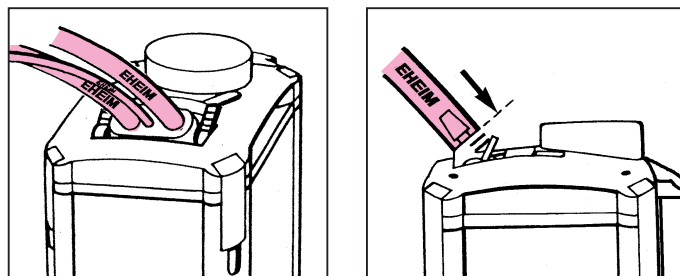
Schlauchinstallation

Um die Absperrhähne zu schließen, werden die beiden seitlichen Hebelgriffe des Adapters auf Stellung OFF umgelegt.

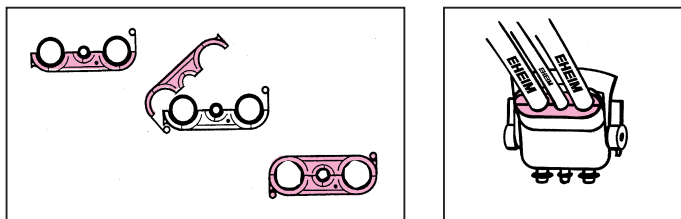


Die beiliegenden drei Schläuche nun bis zum Anschlag auf die entsprechenden Schlauchstutzen am Adapter aufschieben, wobei mit dem kleinen Schlauchdurchmesser begonnen wird. Falls das Aufschieben schwergängig ist, die Schläuche in warmem Wasser geschmeidig machen.

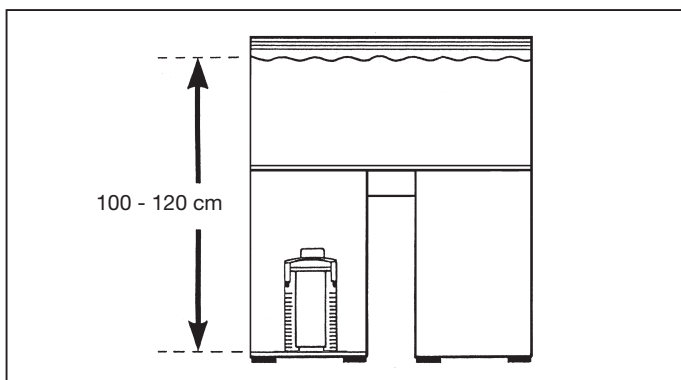
Grundsätzlich nur EHEIM-Originalschläuche verwenden



Der zweiteilige Schlauchhalter wird um die montierten Schläuche gelegt, seitlich eingehängt und fest zusammengeklippt.

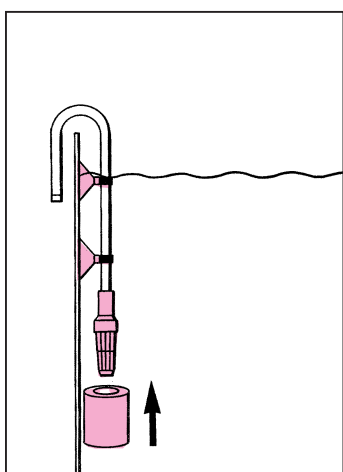


Stellen Sie den komplett vorbereiteten Filter im Unterschrank auf und achten Sie dabei unbedingt auf die vorgeschriebene Aufstellhöhe: Zwischen Wasseroberfläche und Filterboden müssen **100 - 120 cm** liegen. Diese Aufstellhöhe ist entscheidend für die einwandfreie Wechselfunktion des Intervall-Filters.



Stecken Sie den Filterkorb auf das Ansaugrohr und befestigen Sie es mit zwei Klemmbügeln und Saugern an der Innenwand des Aquariums.

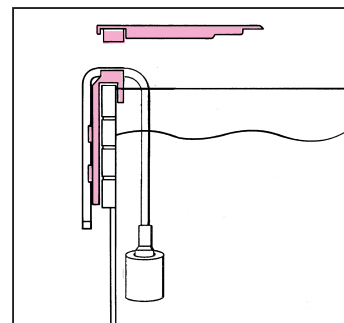
Schaumstoff-Vorfilter über den Filterkorb aufziehen.



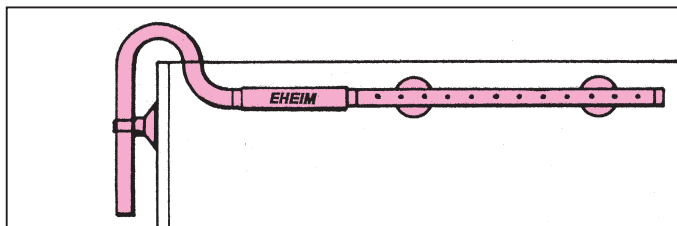
Achtung: Der Schaumstoff-Vorfilter ist nur während der Einlaufzeit, ca. 6 - 8 Wochen, zu verwenden. Danach übernimmt der in der Filtermasse entstandene Bakterienrasen die biologische und mechanische Filterung. Der Schaumstoff-Vorfilter sollte dann entfernt werden.

Hinweis:

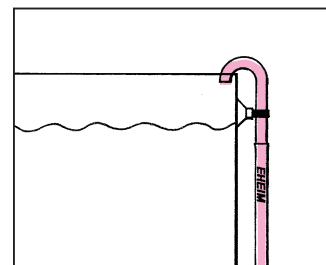
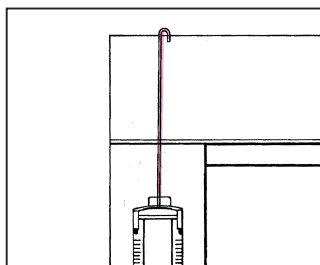
Bei Verwendung der EHEIM *professional* Außenfilter-Schnittstelle 7656450 wird das Ansaugrohr nur eingeklippt.



Auslaufbogen und Düsenrohr mit einem kurzen Schlauchstück verbinden und mit Hilfe der Klemmbügel und Saugern im Aquarium montieren. Die offene Seite des Düsenrohres mit dem beiliegenden Verschluss-Stopfen schließen.



Führen Sie nun alle drei Schläuche vom Filter aus durch die Öffnung der Schrankrückwand und verlegen Sie als erstes den Luftschlauch (9/12 mm) ohne Knicke und Durchhang zum Aquarium. Luftschlauch auf die erforderliche Länge kürzen, mit dem Entlüftungsrohr verbinden und mit dem Klemmbügel und Sauger so an der Aquarienwand befestigen, dass die Rohröffnung oberhalb der Wasserfläche endet.

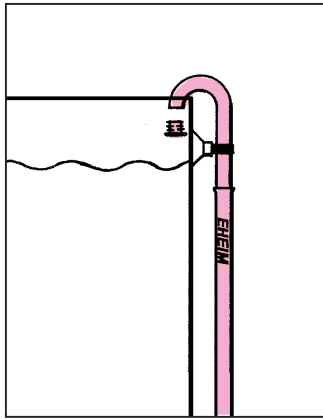


Wichtiger Hinweis:

Sie können Ihren Intervall-Filter auch als Durchlauffilter kurzfristig zur Medikamentenbehandlung betreiben.

Den Filter wie bei der Erstbetriebnahme mit Wasser füllen, das Entlüftungsröhr mit einem Verschluss-Stopfen (Best.-Nr. 7272350) verschließen und das Gerät in Betrieb nehmen.

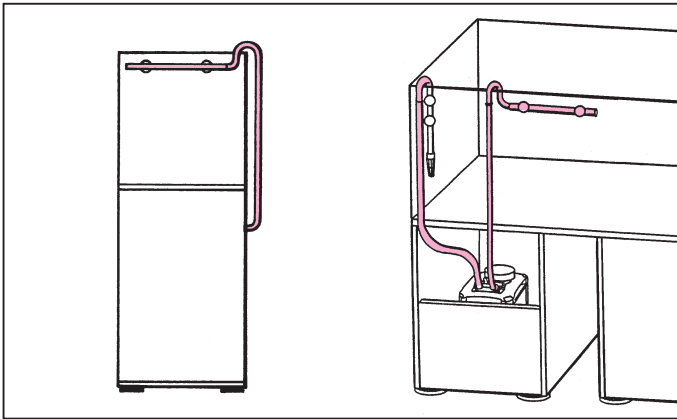
Während der Medikamentenbehandlung nur über EHFISYNTH oder Wattevlies filtern. Nach Abschluss der Behandlung erfolgt die Filterung ca. 4 - 6 Tage ausschließlich über Filterkohle (EHFIAKTIV).



Anschließend verbinden Sie das vormontierte Ansaugrohr und das Düsenrohr mit den jeweiligen Schläuchen.

Korrekte Schlauchlänge beachten:

Um die einwandfreie Funktion des Intervall-Filters zu gewährleisten, dürfen die beiden Schläuche für den Ansaugbereich und den Druckbereich nur auf die gleiche Länge gekürzt werden! Achten Sie darauf, dass die Schläuche glatt verlegt sind und keine Knicke haben.

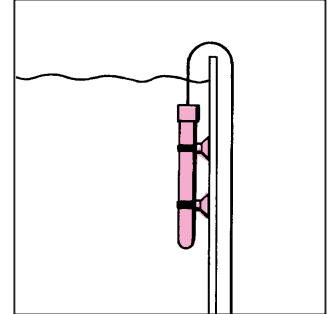


TIPP: Wenn Sie die Schläuche zuvor einige Zeit in warmes Wasser legen, werden sie geschmeidig und eventuelle Knicke lassen sich leicht herausdrücken.

°C Thermofilter

Heizer-Installation

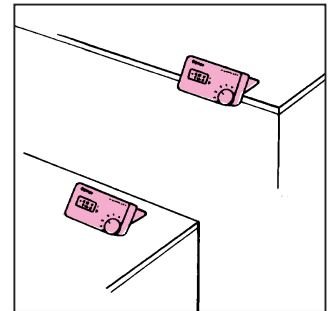
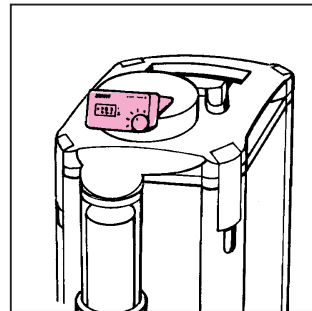
Temperaturfühler des Bedienteils mit 2 Klemmbügel und Saugern so im Aquarium befestigen, dass er **immer unterhalb der Wasseroberfläche** positioniert ist.



Nicht in der Nähe des Filterauslaufs installieren.

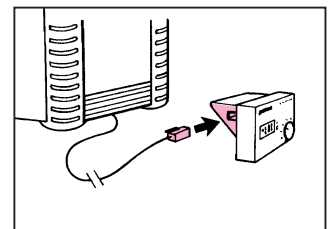
Das Bedienteil kann aufgestellt oder mit dem beiliegenden Klettband sowohl an der Aquarienabdeckung als auch auf dem Filteroberteil befestigt werden.

Vor Spritzwasser schützen.



Anschließend die Steuerleitung vom Filterbehälter aus zum Bedienteil führen und das Steckelement anschließen, bis dieses hörbar einrastet.

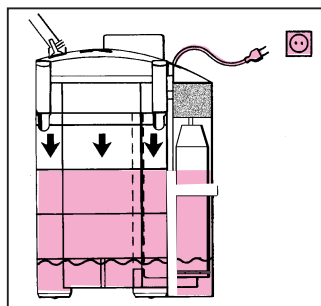
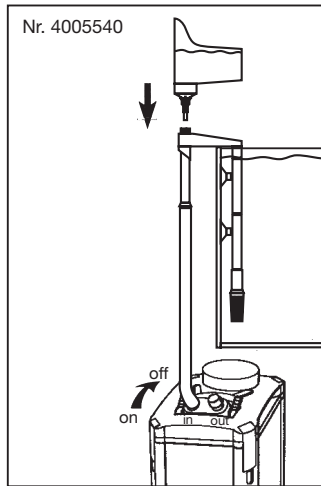
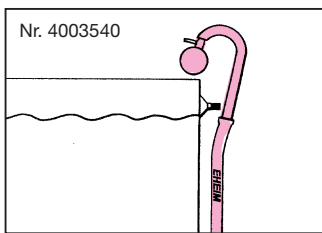
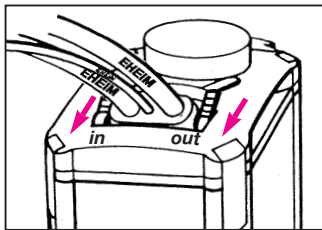
Die Netzleitung noch nicht einstecken!



Inbetriebnahme

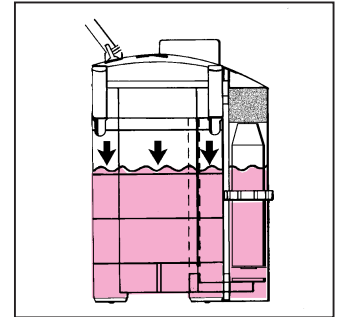
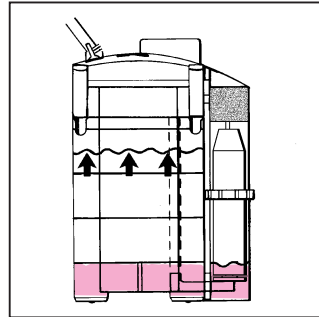
ACHTUNG: Das Aquarium darf nicht bis zur maximalen Höhe befüllt sein, da sich der Wasserspiegel durch den jeweils wechselnden Wasserstand im Filter verändert.

Öffnen Sie nun den Absperrhahn der Saugseite (**IN**) und stellen Sie den Wasserkreislauf her. Am besten mit dem EHEIM Ansauger (Best.-Nr. 4003540) am Entlüftungsrohr ansaugen oder mit der praktischen EHEIM Ansaughilfe (Best.-Nr. 4005540, 16 mm ø). Der Filter füllt sich dann mit Wasser. Danach Absperrhahn der Druckseite (**OUT**) öffnen.



Filter durch Anschluss der Netzleitung in Betrieb nehmen. Sobald die Pumpe angelaufen ist, muss der Wasserstand im Filterbehälter bis zum unteren Schaltpunkt absinken.

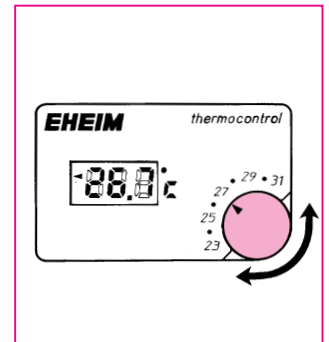
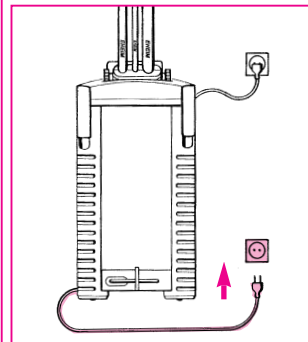
Ist dieser Punkt erreicht, verschließt der Schwimmer automatisch den Intervall-Anschluss-Stutzen und der Filterbehälter füllt sich wieder mit Wasser. Gleichzeitig wird über die Bypassöffnung eine kleinere, kontinuierlich gefilterte Wassermenge ins Becken zurück geführt. Der Wasserspiegel steigt in der Intervall-Steuerung nicht mit. Erst wenn im Filterbehälter der obere Korb geflutet ist, wird durch die Bohrung im Schwimmer die Intervall-Steuerung mit Wasser gefüllt; jetzt öffnet der Schwimmer den Saugstutzen und der Filter entleert sich erneut.



°C Thermofilter

ACHTUNG: Erst wenn der Filter gleichmäßig arbeitet wird der Heizer über sein separates Netzkabel an der Steckdose angeschlossen.

Heizer niemals trocken betreiben.



Das Display am Bedienteil zeigt die tatsächliche Wassertemperatur im Aquarium an. Wählen Sie jetzt über den Stellknopf die von Ihnen gewünschte Temperatur vor (z.B. 27 °C). Ein Symbol (◀) zeigt an, wenn der Heizer arbeitet. Erlischt das Zeichen, ist die eingestellte Temperatur erreicht und die Heizung wird automatisch abgeschaltet. Sinkt die Temperatur im Aquarium unter den eingestellten Wert ab, schaltet sich die Heizung selbsttätig wieder zu. Durch leichtes drehen des Stellknopfes kann die Feineinstellung erfolgen.

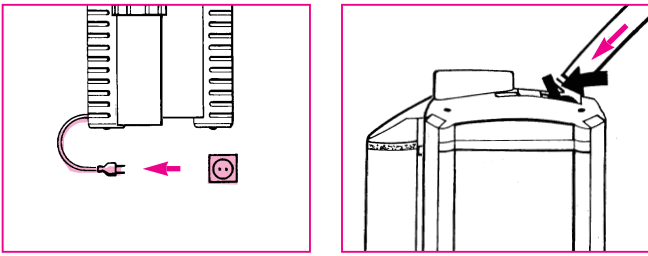
Hinweis: Bedingt durch Umgebungstemperatur, Einstellmodus und Toleranzwerte, zeigt das Display die tatsächliche Temperatur u.U. erst nach mehreren Stunden an.

Bei Störungen über die Netzleitung ändert sich die Anzeige und die Heizung schaltet ab. Nach der Störung arbeitet der Heizer normal weiter.

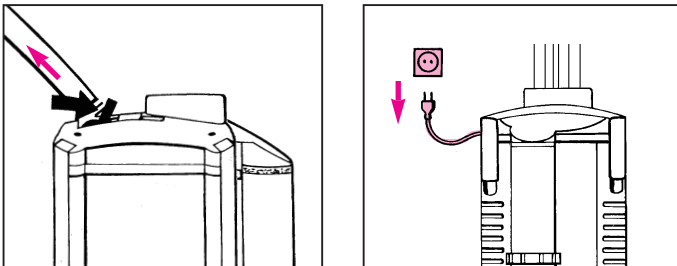
Wartung und Pflege

C° Thermofilter

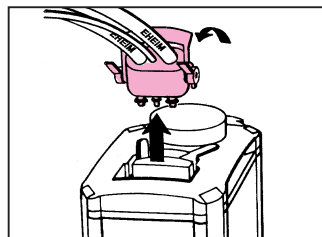
Zuerst **Netzstecker der Heizung ziehen**. Absperrhebel an der **Zulaufseite (IN)** des Adapters schließen, damit sich der Filter entleert.



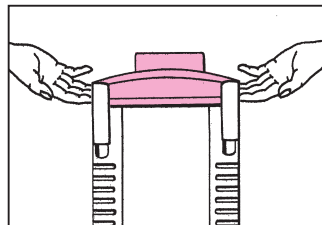
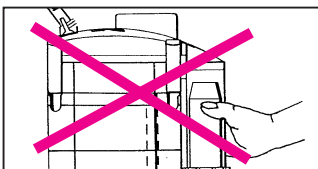
Sobald die Pumpe geräuschvoll Luft saugt, Absperrhebel der **Druckseite (OUT)** am Adapter schließen und **Netzstecker der Pumpe ziehen**.



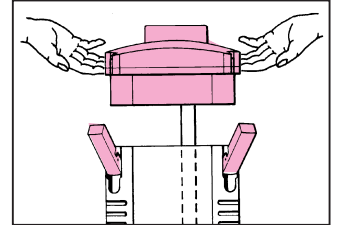
Verriegelungsbügel nach oben schwenken und den Adapter aus dem Filterober- teil lösen. Außenfilter an den Griffmulden aus dem Schrank nehmen.



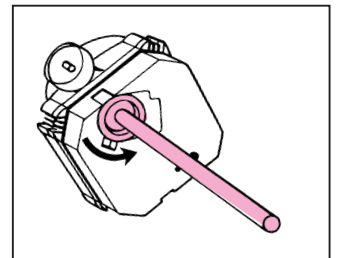
Achtung:
Nicht an der Intervall-
Steuerung ziehen.



Alle Verschluss-Klipps öffnen und Filterober- teil abnehmen.

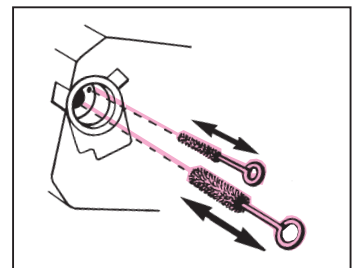
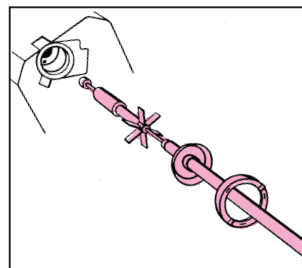


Zur Reinigung des Pumpen-
raums öffnen Sie den Ver-
schlussring am Boden des
Filterober- teils durch eine
Links- drehung.

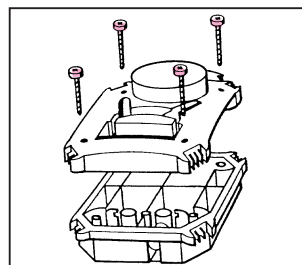


Entnehmen Sie dann Pumpendeckel mit Rohr, Läufer mit Flügelrad und Achse.

Pumpenteile und Schmierkanal mit EHEIM Reinigungs-Set (Best.-Nr. 4009580) gründlich säubern. Achse vorsichtig abspülen (Bruchgefahr!) und anschließend Läufer wieder zusammenstecken und einsetzen.



Bei der Montage auf richtigen Sitz von Achsstü- len, Pumpen- deckel und Dichtring achten. Anschließend Pumpendeckel mit Verschlussring wieder arretieren.



TIPP: Sollte bei der Reini-
gung Wasser in die Abdeck-
haube des Filterober- teils
gelangt sein, lässt sich die
Haube abschrauben und mit
einem Lappen trocken-
wischen.

Filtermassen:

Entnehmen Sie Abdeckgitter und Filtereinsätze aus dem Filterbehälter.

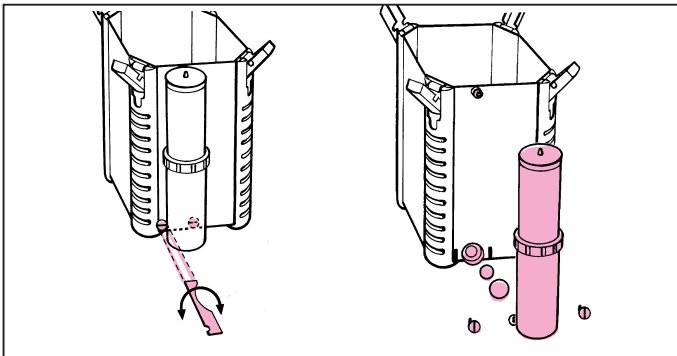
Spülen Sie die Filtermassen mit lauwarmem Wasser gründlich aus – so lange, bis keine Trübung mehr erkennbar ist.

TIPP:

Bei Neueinsatz von **SUBSTRATpro** oder **EHFISUBSTRAT** jeweils ca. 1/3 der gebrauchten Filtermasse mit dem neuen Material mischen, damit sich die Bakterienkulturen schneller vermehren.

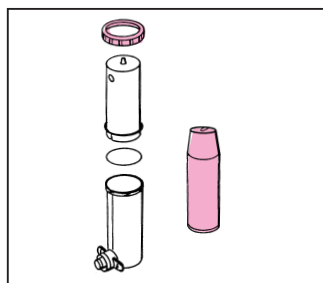
Demontieren Sie jetzt die Intervall-Steuerung, indem Sie mit dem Verriegelungsschlüssel die beiden Verriegelungen öffnen, so dass die Schlitze senkrecht stehen.

Intervall-Steuerung abnehmen, Dichtflächen und Dichtringe säubern.



Verschlussring der Intervall-Steuerung in der angegebenen Drehrichtung öffnen, Schwimmer entnehmen und vorsichtig mit einem weichen Schwamm reinigen.

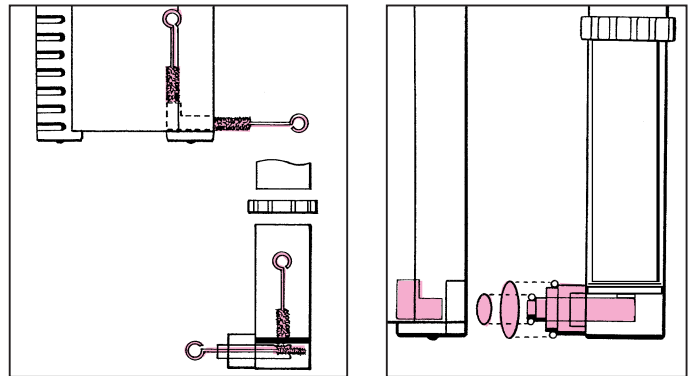
Alle Teile säubern und Filterbehälter auswaschen.



° Thermofilter

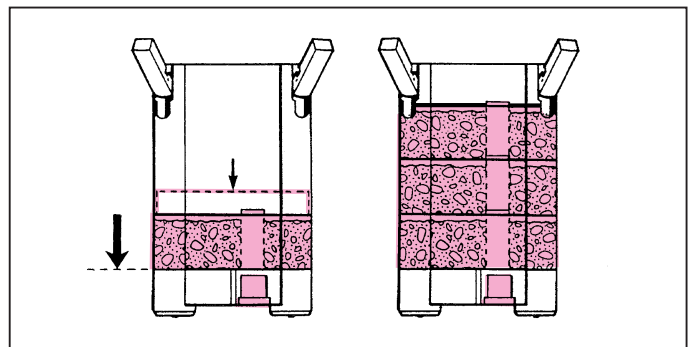
Filterbehälter auswaschen. Heizwendel ab und zu von Mulmablagerungen säubern. Heizwendel nicht verbiegen! Filterbehälter nicht unter Wasser tauchen. Heizungselektronik vor Spritzwasser schützen.

Anschluss-Stutzen an Behälter und Steuerung – einschließlich der Bypassöffnung – mit Bürste reinigen. Intervall-Steuerung wieder zusammensetzen und am Filterbehälter montieren. Achten Sie dabei auf den korrekten Sitz der Dichtringe.

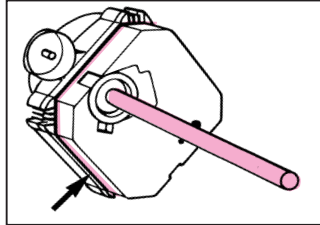


Den untersten Einsatz so in den Behälter einschieben, dass die Rohrdurchführung über dem Anschluss-Stutzen der Intervall-Steuerung sitzt. Einsatz fest bis an die Auflagestege drücken, um eine gute Abdichtung zum Filterbehälter sicherzustellen.

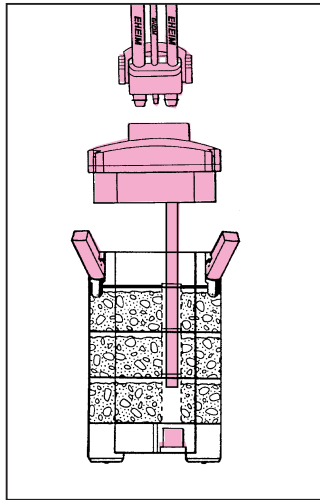
Anschließend den zweiten (und dritten) Filtereinsatz einschieben, wobei die Rohrdurchführungen übereinander liegen müssen. Auf bündigen Sitz der Filtereinsätze achten. Abdeckgitter auflegen.



Verbindungsrohr am Filteroberteil auf festen Sitz im Pumpendeckel prüfen und Profildichtung auf korrekte Lage und Sauberkeit kontrollieren.

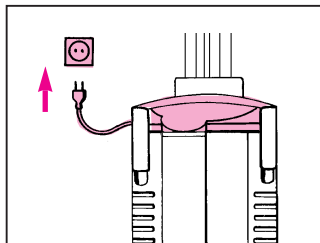


Dichtring am Filteroberteil leicht mit Vaseline einfetten. Filteroberteil auf den Filterbehälter aufsetzen. Die Verschluss-Klipps schließen, Filter im Unterschrank aufstellen.



Alle 3 Dichtringe am Adapter auf Beschädigungen und richtigen Sitz prüfen und mit Vaseline leicht einfetten. Adapter einsetzen und verriegeln. Nachdem beide Absperrhebel am Adapter wieder geöffnet sind (Stellung **ON**), füllt sich der Filter selbsttätig mit Wasser und ist dann betriebsbereit.

Filter über den **Netzstecker des Filteroberteils** in Betrieb nehmen.

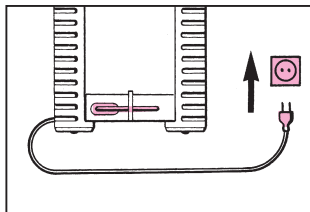



Hinweis: Die kompletten Schlauchverbindungen in regelmäßigen Abständen auf korrekten Sitz prüfen.

Thermofilter

ACHTUNG: Netzstecker der Heizung erst einstecken, wenn der Filter gleichmäßig arbeitet.

Heizer niemals trocken betreiben.



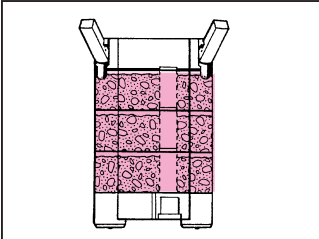
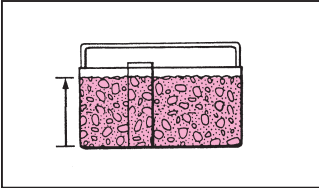
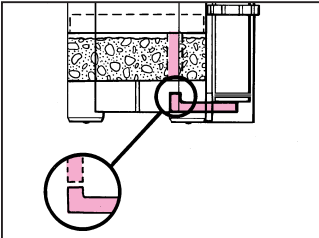
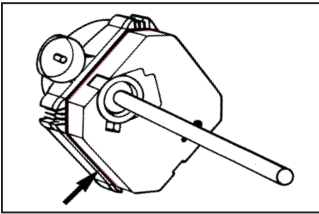
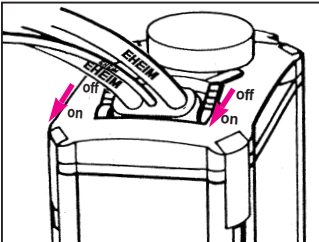
 Nur zur Verwendung in Räumen. Bevor man mit der Hand ins Aquarienwasser eintaucht, alle im Wasser befindlichen Elektrogeräte vom Netz trennen. Bei Thermofiltern immer zuerst den Netzstecker der Heizung trennen.

2227/2229: Die Anschlussleitungen dieser Geräte können nicht ersetzt werden; bei Beschädigung des Kabels darf das Gerät nicht mehr benutzt werden.

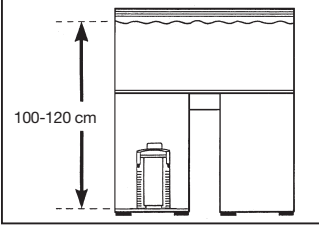
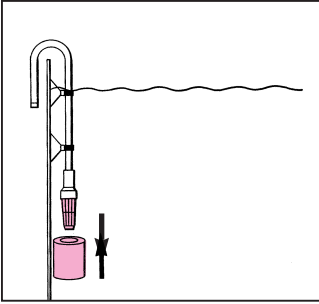
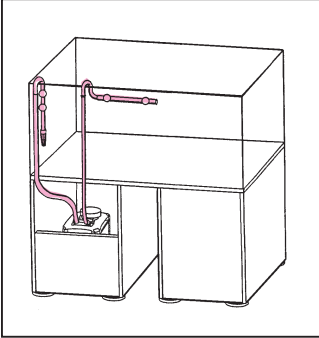
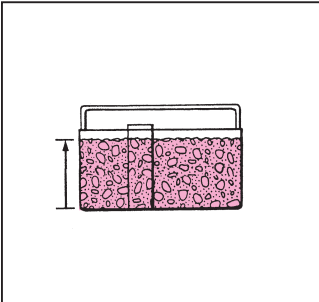
2327/2329: Nur autorisiertes Fachpersonal darf das Gerät öffnen oder Anschlussleitungen austauschen. Wenden Sie sich an Ihren Fachhändler oder Ihre EHEIM Service-Stelle. Betrieb nur an Steckdosen mit Schutzkontakt zulässig.

Filter grundsätzlich nur aufrecht stehend betreiben

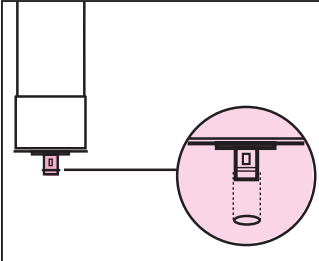
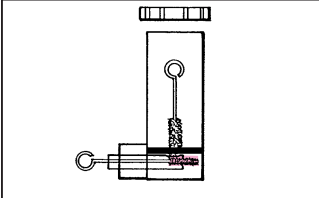
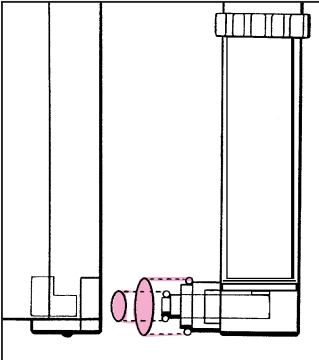
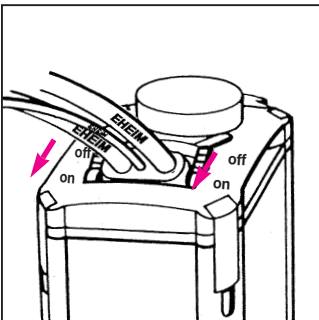
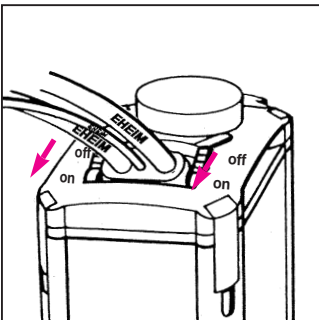
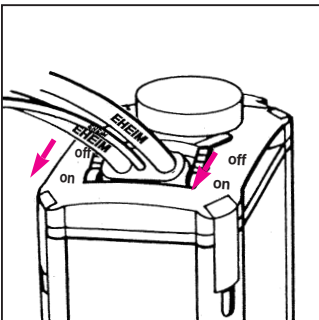
Was tun, wenn ...

Störung	Ursache	Behebung	
Filteroberteil lässt sich nicht verschließen	Falsche Einbaulage der Filtereinsätze	Filtereinsätze so einschieben, dass die Rohrdurchführungen übereinander liegen.	
	Filtereinsätze überfüllt	Als Filtermasse ausschließlich SUBSTRATpro oder EHFISUBSTRAT verwenden , Filtereinsätze nicht überfüllen. Eventuell die aufeinanderstoßenden Flächen der Einsätze reinigen.	
	Rohrführung im Filterbehälter verschmutzt	Rohrführung reinigen	
	Profildichtung nicht richtig montiert	Dichtung korrekt in die vorgesehene Nut einsetzen	
Filter füllt sich nicht, keine Intervallfunktion	Zulaufhahn im Adapter ist noch geschlossen oder nicht ganz geöffnet	Zulaufhahn bis zum Anschlag öffnen	
	Zulaufschlauch abgeknickt oder verschmutzt	Schlauch ohne Knicke verlegen, Schlauch reinigen.	

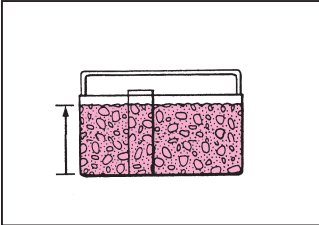
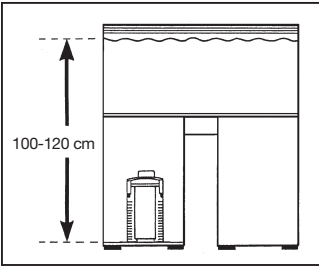
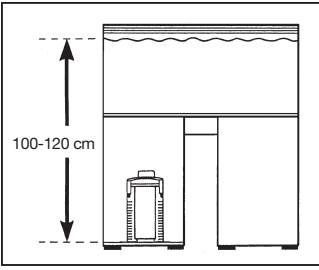
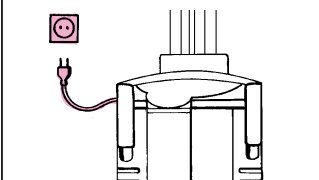
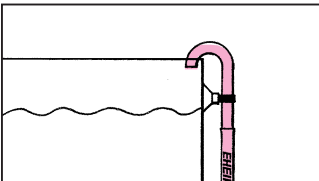
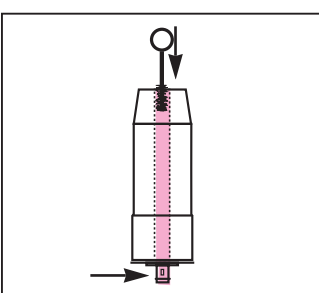
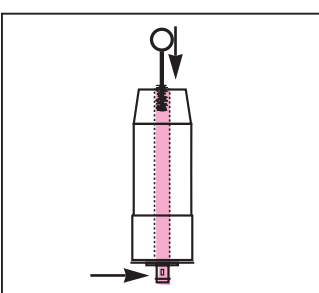
Was tun, wenn ...

Störung	Ursache	Behebung	
Filter füllt sich nicht, keine Intervallfunktion	Aufstellhöhe zu gering	Die Aufstellhöhe muss zwischen 100 und 120 cm betragen	
	Filterkorb verschmutzt	Filterkorb reinigen	
	Schaumstoffvorfilter verschmutzt	Schaumstoffvorfilter reinigen. Nach Einlaufzeit des Filters entfernen (6 - 8 Wochen).	
	Schlauchlänge falsch, eventuell falsches Zubehör angeschlossen	Ausschließlich EHEIM Originalschläuche in gleichmäßiger Länge verwenden! Kein zusätzliches Zubehör einsetzen!	
	Falsche Filtermasse eingefüllt	Ausschließlich SUBSTRATpro oder EHFISUBSTRAT verwenden , Filtereinsätze nicht überfüllen, keine Filterwatte oder Grobfilterkissen verwenden!	

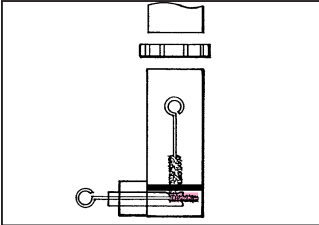
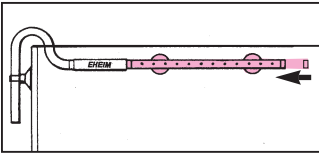
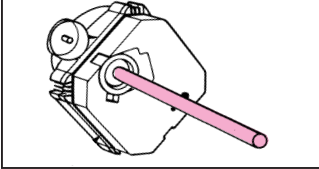
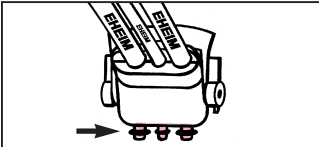
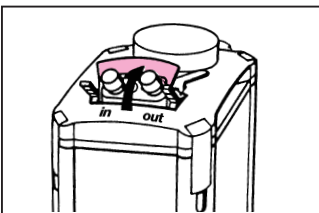
Was tun, wenn ...

Störung	Ursache	Behebung	
Filter füllt sich nicht, keine Intervallfunktion	Dichtring am Schwimmer fehlt, verschlissen oder falsch montiert	Dichtring richtig montieren, gegebenenfalls erneuern.	
	Manschette und Scheibe am Schwimmer verschmutzt	Manschette und Scheibe reinigen	
	Bypassbohrung in der Intervallsteuerung verschmutzt	Bypass reinigen	
	Dichtring am kleinen Stutzen der Intervallsteuerung verschlissen, nicht oder nicht richtig montiert.	Dichtring richtig montieren, gegebenenfalls erneuern.	
Filter steht schräg	Filter senkrecht aufstellen		
Filter entleert sich nicht, keine Intervallfunktion	Ablaufhahn im Adapter ist geschlossen oder nicht ganz geöffnet	Ablaufhahn bis zum Anschlag öffnen	
	Ablaufschlauch ist geknickt oder verschmutzt	Schlauch ohne Knicke verlegen Schlauch reinigen	

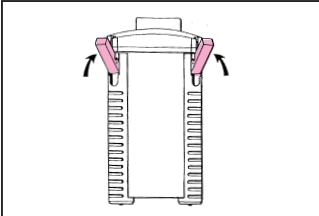
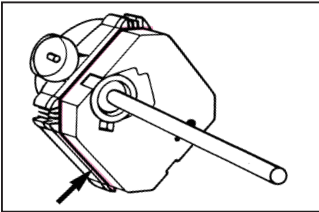
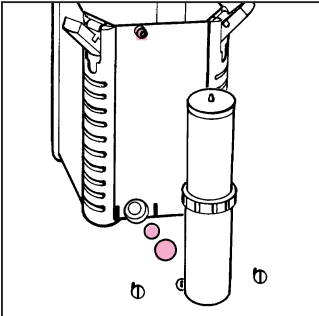
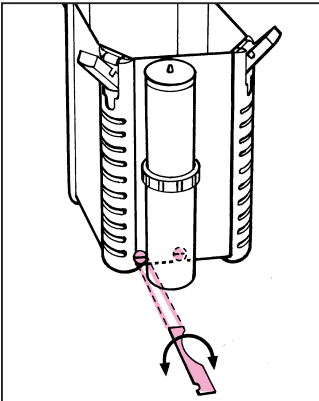
Was tun, wenn ...

Störung	Ursache	Behebung	
Filter entleert sich nicht, keine Intervallfunktion	Schlauchlänge falsch, eventuell falsches Zubehör angeschlossen.	Ausschließlich EHEIM Originalschläuche in gleichmäßiger Länge verwenden! Kein zusätzliches Zubehör einsetzen!	
	Falsche Filtermasse eingefüllt	Ausschließlich SUBSTRATpro oder EHFISUBSTRAT verwenden , Filtereinsätze nicht überfüllen, keine Filterwatte oder Grobfilterkissen verwenden!	
	Aufstellhöhe ist zu groß	Aufstellhöhe muss zwischen 100 und 120 cm betragen	
	Luft in der Pumpenkammer	Zu- und Ablaufhahn öffnen, Netzstecker ziehen und ca. 1 min. warten, bis sich die Pumpenkammer mit Wasser gefüllt hat. Netzstecker wieder einstecken.	
	Lüftungsschlauch abgknickt oder verschmutzt	Schläuche ohne Knicke verlegen bzw. reinigen	
	Öffnung des Entlüftungsröhres ist unterhalb der Wasseroberfläche	Entlüftungsröhr richtig installieren	
	Bohrung bzw. Steigrohr am Schwimmer verschmutzt	Steigrohr bzw. Bohrung reinigen	

Was tun, wenn ...

Störung	Ursache	Behebung	
Filter entleert sich nicht, keine Intervallfunktion	Bypassbohrung in der Intervallsteuerung verschmutzt	Bypass reinigen	
	Filter steht schräg	Filter senkrecht aufstellen	
	Düsenrohr verschmutzt	Düsenrohr reinigen	
	Verschluss-Stopfen am Düsenrohr fehlt	Verschluss-Stopfen einsetzen	
	Verbindungsrohr im Pumpendeckel sitzt nicht korrekt	Verbindungsrohr richtig montieren	
O-Ring am Verbindungsrohr ist beschädigt oder sitzt nicht korrekt	O-Ring gegebenenfalls austauschen (Art.-Nr. 7342238)		
Filter am Adapter undicht	Dichtfläche der Dichtringe verschmutzt	Dichtfläche reinigen	
	Dichtringe nicht montiert oder beschädigt	Dichtringe korrekt montieren bzw. erneuern	
	Verriegelungshebel nicht ganz geschlossen	Verriegelungshebel bis Anschlag verschließen	
	Anschluss-Schläuche nicht ordnungsgemäß angeschlossen	Anschluss-Schläuche bis zum Anschlag aufschieben und mit dem Schlauchhalter sichern	

Was tun, wenn ...

Störung	Ursache	Behebung	
Filter am Filteroberteil undicht	Verschluss-Klipps nicht alle geschlossen	Alle Verschluss-Klipps richtig schließen	
	Dichtflächen oder Profildichtung verschmutzt Dichtung nicht montiert, falsch eingelegt oder beschädigt.	Dichtfläche reinigen Dichtung korrekt einsetzen bzw. erneuern	
Filter an der Intervallsteuerung undicht	Dichtflächen der Dichtringe verschmutzt	Dichtflächen reinigen	
	Dichtringe nicht oder nicht richtig eingesetzt	Dichtringe richtig montieren	
	Verschlussring der Intervall-Elemente nicht bis zum Anschlag geschlossen	Verschlussring der Intervallsteuerung in der angegebenen Drehrichtung bis zum Anschlag verschließen	
Verriegelungen nicht geschlossen	Verriegelungen mit Verriegelungsschlüssel schließen, so dass die Schlitze waagrecht stehen.		

IMPORTANT SAFETY INSTRUCTIONS

USA

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

a) **READ AND FOLLOW ALL SAFETY INSTRUCTIONS.**

b) **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.

1) 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)

2) If the appliance shows any sign of abnormal water leakage, immediately unplug it from the power source. (Immersible equipment only).

3) Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.

4) 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.

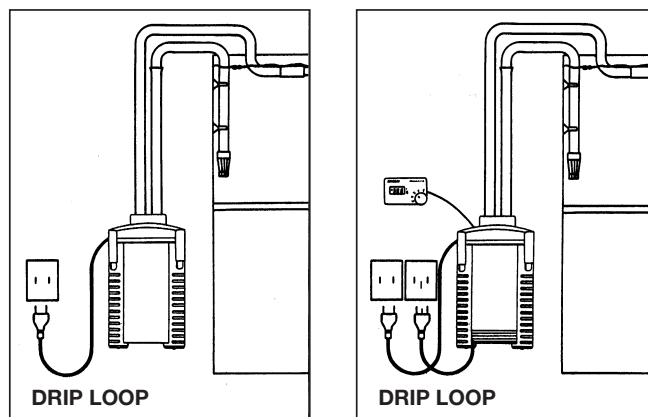
5) To avoid the possibility of the appliance plug or receptacle getting wet, position aquarium stand and tank to one side of a wall-mounted receptacle to prevent water from dripping onto the receptacle or plug.

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 traveling 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.

c) Close supervision is necessary when any appliance is used by or near children.

d) To avoid injury, do not contact moving parts or hot parts such as heaters, reflectors, lamp bulbs, and the like.



- e) 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.
- f) 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.
- g) Do not install or store the appliances where it will be exposed to the weather or to temperatures below freezing.
- h) Make sure an appliance mounted on a tank is securely installed before operating it.
- i) Read and observe all the important notices on the appliance.
- j) 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.
- k) This appliance has a polarized plug (one blade is wider than the other). As a safety feature, this plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still 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.

l) **"SAVE THESE INSTRUCTIONS".**

EHEIM professional wet/dry canister filter 2227 and 2229
EHEIM professional wet/dry thermofilter 2327 and 2329

- ① Pump head ② Sealing gasket ③ Output pipe ④ Lattice screen ⑤ Media containers ⑥ EZ clips ⑦ Filter canister
- ⑧ Wet/dry floater compartment ⑨ Sealing ring ⑩ Wet/dry floating control valve ⑪ Locking pins ⑫ Integrated double tap connector ⑬ Hose clamp ⑭ Security outlet pipe ⑮ Spray bar and end cap ⑯ Intake pipe ⑰ Intake strainer ⑱ Foam prefilter ⑲ Intake/outtake for breather tube ⑳ Tubing ㉑ Suction cups with clips ㉒ Key for locking pins ㉓ Vaseline ㉔ Cleaning brush **Thermofilter:** ㉕ Thermostat ㉖ Temperature sensor ㉗ Velcro tape

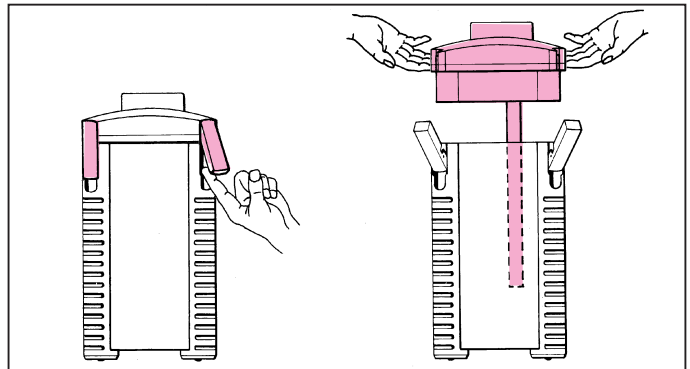
Attention: 2327 and 2329 thermofilters should only be used for freshwater.

When unpacking, please check to make sure that all parts have been included.

Assembly

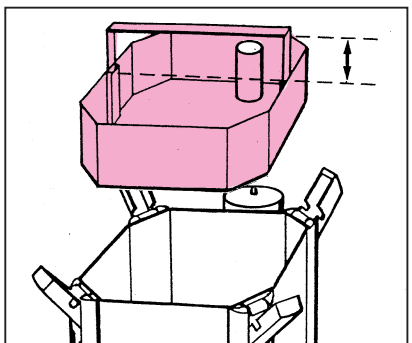
Attention: In order to guarantee the synchronized functioning of the wet/dry filter, use only the enclosed original parts. Changes should not be made in the intake or output areas.

Flip out all four EZ clips and push upwards. With the help of the two recessed lid handles, the pump head of the filter can be easily removed.



Take out the lattice screen as well as the individual media containers one at a time.

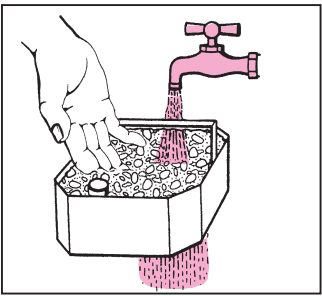
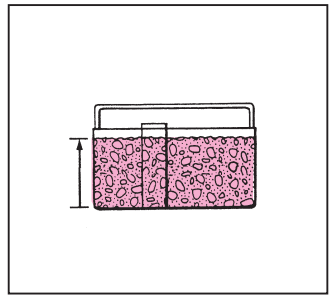
The retractable handles of the media containers can be pulled out in an upward direction.



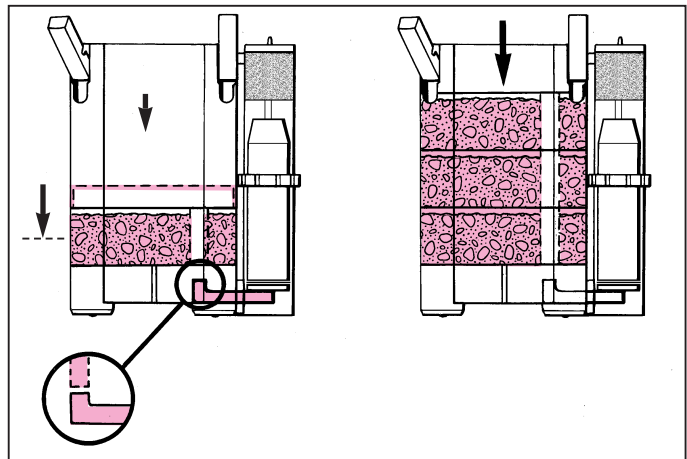
Now fill the media containers to just below the edge, ONLY with original SUBSTRATpro or EHFISUBSTRAT filter media.

Attention: Do not overfill. Do not clog flow-through pipe. In all media containers only use SUBSTRATpro or EHFISUBSTRAT.

Then, thoroughly rinse filter media under running water until all cloudiness has disappeared.



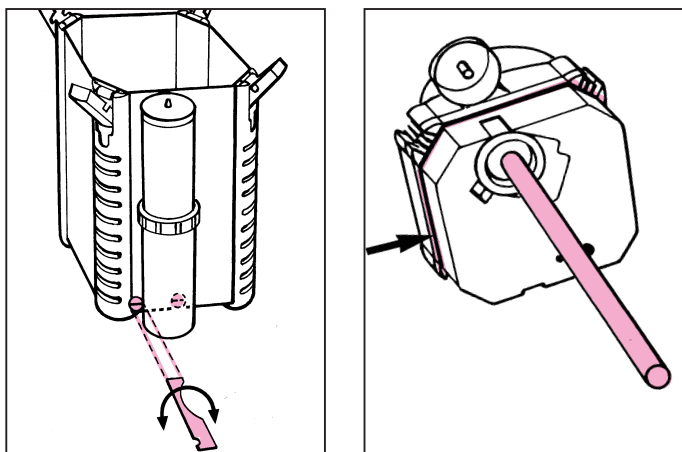
After you have checked to be sure that the wet/dry connection supports are not soiled, put the first media container back into the filter canister. When doing so, be sure that the flow-through opening sits above the wet/dry connection supports. Firmly press the media container downwards until it rests on the support frames. This guarantees a secure seal between media container and filter canister.



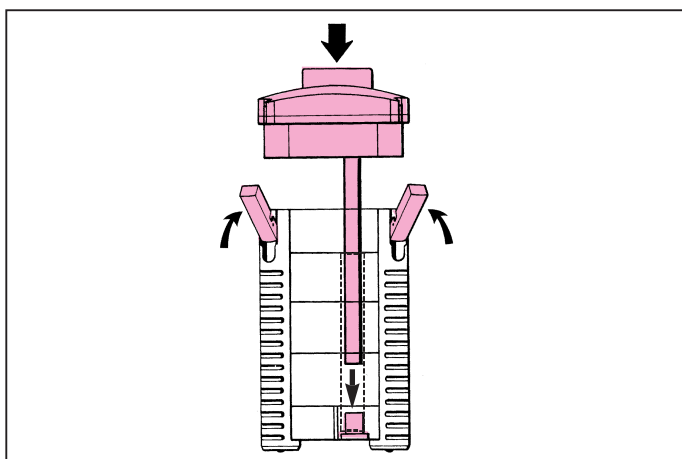
Push in the second (and third) media container in the same manner, so that the pipe openings lie on top of each other. Again lower the retractable handles for each of them and be sure that all of the media containers lie flush on top of each other. Place lattice screen.

Examine the wet/dry floater compartment to make sure it is securely attached to the filter canister: the upper connection must be firmly inserted into the canister; the two lower locking pins must be closed so that the slots are each in a horizontal position (horizontal = closed, vertical = open).

Easy access to the locking pins is provided by the enclosed locking key.

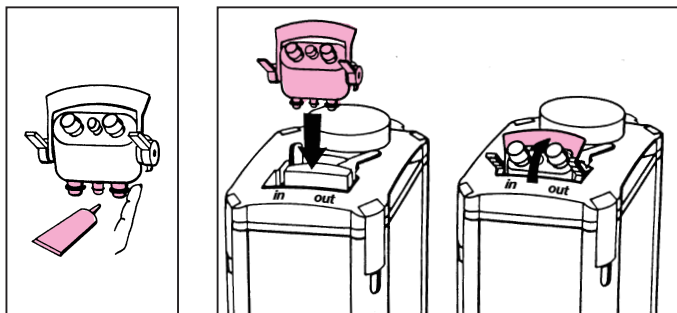


Slightly lubricate the o-ring of the output pipe and insert it firmly into the pump cover. Examine the sealing gasket on the pump head of the filter for cleanliness and proper fit. With the output pipe inserted into the intake of the impeller lid, place the pump head onto the filter canister, so that the output pipe is guided through the openings of the media containers and fits correctly into the wet/dry connection at the bottom of the canister. Close all four EZ clips.



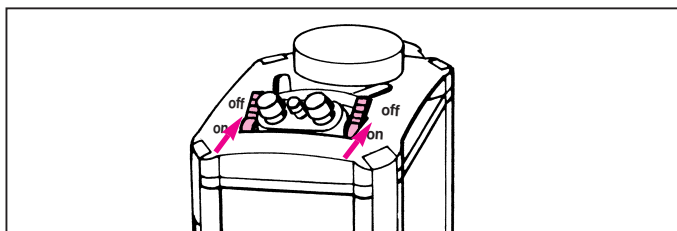
ATTENTION: Before the integrated double tap connector is inserted into the pump head of the filter, examine all three o-rings for damage and correct fitting. Lightly grease the o-rings with Vaseline to help installation.

Fully insert the integrated double tap connector, with the locking clamp in an upright position, into the opening on the pump head. To fasten the locking clamp into its sealed position, push the handle downwards.



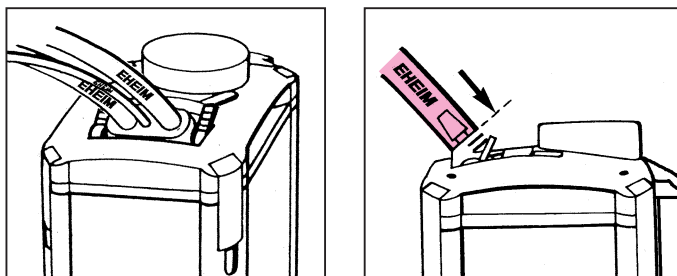
Tubing Installation

Shut off the integrated double tap connector by shifting the two levers to the **OFF** position.

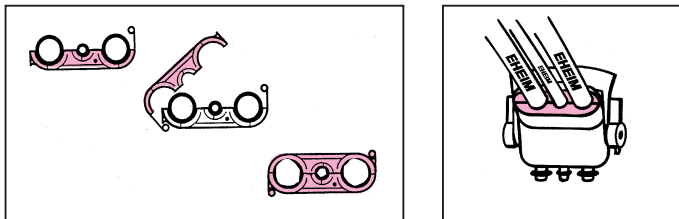


Push the enclosed tubing onto the corresponding tubing openings of the adaptor as far as they will go, starting with the smallest tube diameter. If this is difficult to do, soak the hoses in warm water beforehand to make them softer.

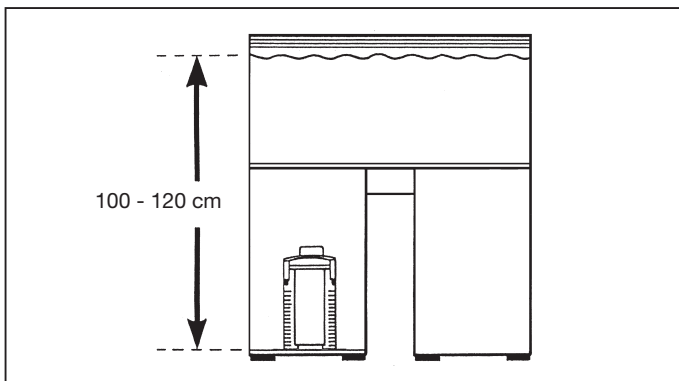
It is very important to use original EHEIM hoses only.



Attach the two-part tubing clamp around the installed tubing, hang into the proper position and clip into place.

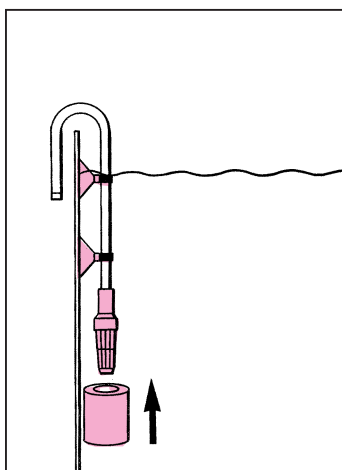


Place the ready to use filter into the lower cabinet and observe the prescribed installation height: The distance between the water surface and the bottom of the filter must be within **100 - 120 cm (3'3" - 3'11")**. This installation height is absolutely vital to guarantee the correct rhythmic functioning of the wet/dry filter.



Fix the intake strainer onto the intake pipe and attach the pipe onto the interior glass of the tank with 2 clips and suction cups.

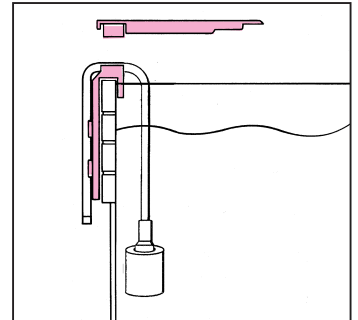
Place the foam prefilter over the intake strainer.



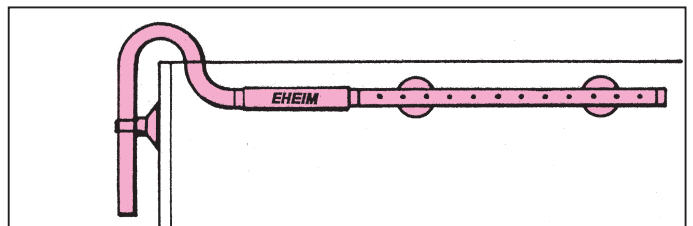
Attention: The foam prefilter is only to be used during the running-in period, approx. 6 - 8 weeks. Afterwards the bacteria strains in the filter media take over the biological and mechanical filtration. The foam prefilter should then be removed.

Note:

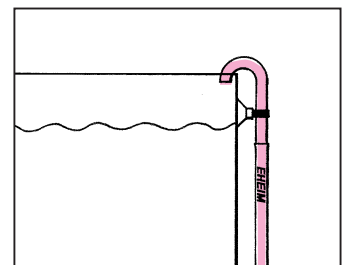
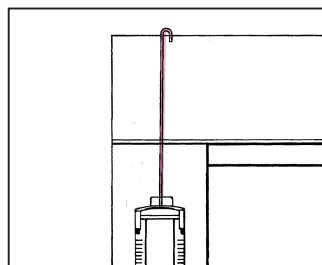
When using with an EHEIM professional hood, the intake pipe is simply clipped into place and you don't need the suction cups.



Connect the security outlet pipe and spray bar with a short piece of tubing and install in the aquarium with the help of the clip and suction cup. Close the open side of the spray bar with the enclosed end cap.

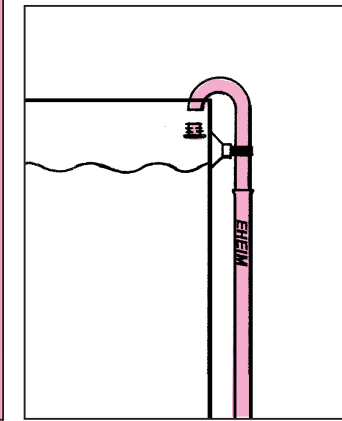


Now direct all three tubes, starting from the filter, through the back wall of the cabinet. First connect the installed breathing tube (9/12 mm), without kinks and slack. Shorten the breathing tube to the required length, connect to the breather pipe and attach to the aquarium wall with the clip and suction cup. Avoid placing the pipe opening too close to the water's surface.



Important note: You may use your wet/dry filter as a continuous-flow filter for the short-term treatment with medication and its consequent removal. Extract filter media from the canister and store it in a basin with tank water, and fill the filter entirely with EH-FISYNTH or filter wadding.

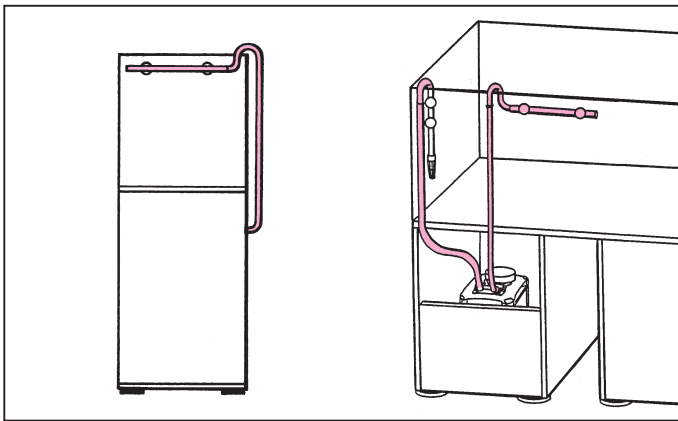
Close the breather pipe with a pipe cap (no. 7272350). Following medication treatment, filter with carbon (EHFIKTIV) for 4 - 6 days to remove medicaments, then revert to using SUBSTRAT^{pro} or EHFISUBSTRAT, remembering to remove the cap from the breather pipe.



Connect the installed intake pipe and spray bar to the respective hoses.

Attention:

In order to guarantee the flawless functioning of the wet/dry filter, the two tubes for the intake and output must only be shortened to the same length! Be sure that the tubes are laid out smoothly and that there are no kinks in them.

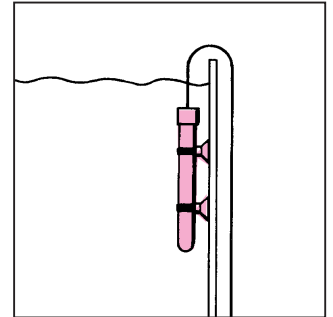


TIP: If you place the tubing into warm water for some time beforehand, they will become soft and possible kinks can be easily squeezed out.

C° Thermofilter

Heater Installation

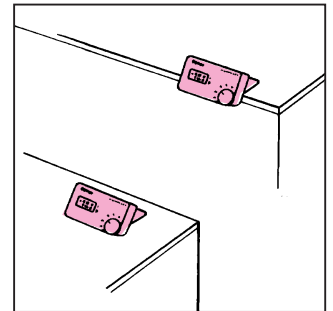
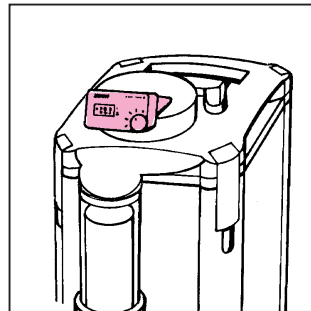
Attach the temperature sensor with 2 clips and suction cups into the tank in such a manner that it is positioned beneath the surface of the water.



Do not install the temperature sensor near the filter outflow.

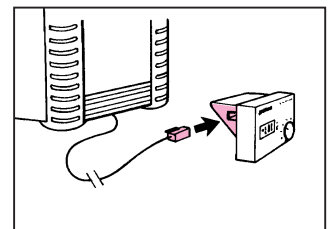
The thermostat can be placed on the aquarium hood or attached with the enclosed Velcro tape to either the aquarium hood or the pump head of the filter.

Protect against splashing water.



Direct the control cable from the filter canister to the thermostat. Connect the plug – you should hear it snap into place.

Do not yet connect the heater's mains plug to the wall socket.

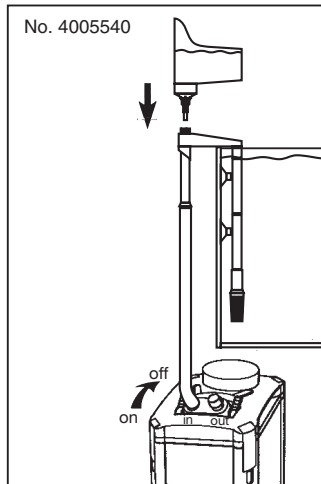
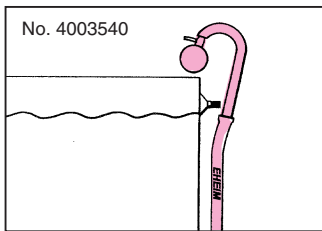
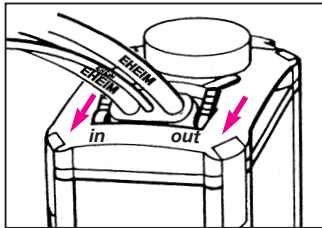


Setting into operation

Attention: Do not fill the aquarium to its maximum height since the water level varies through the change of water level in the filter.

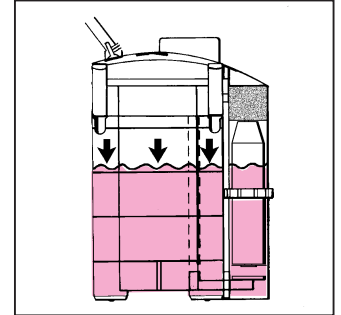
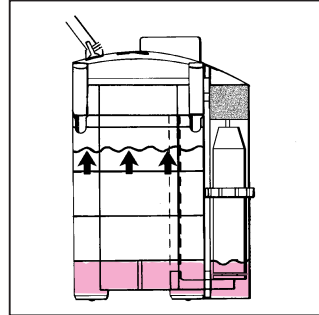
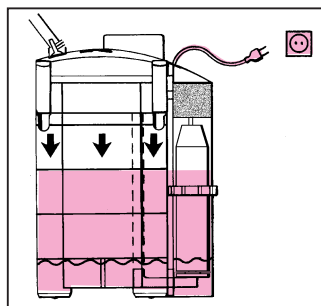
Open the tap connector of the intake pipe (**IN**) and establish the syphon. Alternatively use the EHEIM suction device (order no. 4003540) or the priming aid (order no. 4005540, \varnothing 16 mm).

The filter will then fill up with water. After that, open the tap connector of the outlet pipe (**OUT**).



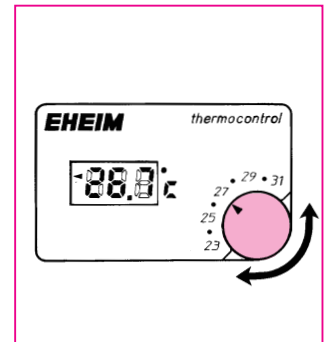
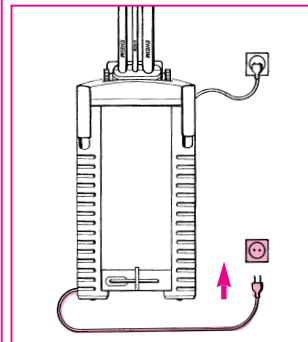
Set the filter into operation by plugging in the mains socket. As soon as the pump has started up, the water level in the filter canister must sink down to the lower switch point.

Once this point has been reached, the floating control valve will automatically close the suction intake, and the filter canister will fill up again with water. Meanwhile, a small, continuously filtered amount of water will be directed back into the aquarium through the bypass opening, so as to keep the impeller lubricated. The water level inside the floater compartment does not rise. Only when the upper filter media container is filled with water, does the floater compartment get filled with water through a slit in the floating control valve; now the latter will open the suction intake and the filter empties again.



Thermostat

Attention: Only when the filter is working smoothly should the heater's mains plug be connected to the wall socket. Never operate the heater when dry.



The display on the thermostat shows the actual water temperature in the aquarium. Use the adjusting knob to select the temperature you desire (e.g. 27°C). A symbol (◀) indicates when the heater is in operation. If the symbol goes off, the set temperature has been reached and the heater is automatically switched off. If the temperature in the tank sinks below the set temperature, the heater automatically turns itself on again. By slightly turning the adjusting knob, a precise adjustment can be achieved.

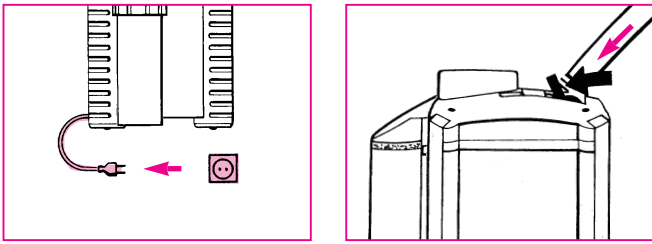
Attention: When first installing the filter or readjusting the temperature, the temperature shown in the display will take some time to reach the required value. The ambient temperature is also significant for time delays.

Should the power supply be cut off, the value indicated on the display changes and the heater stops working. When the power is restored the heater works normally.

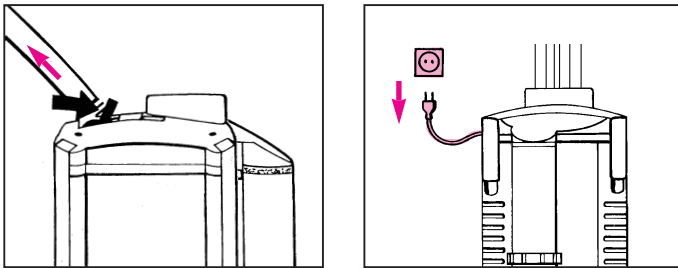
Maintenance and Servicing

C° Thermofilter

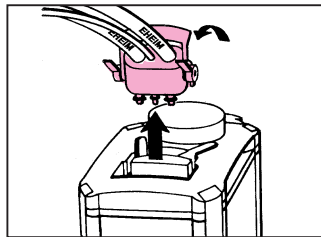
First pull out the heater's mains plug. Close the tap lever on the **intake side (IN)** of the integrated double tap connector, so that the filter empties itself.



As soon as the pump loudly sucks in air, close the tap lever on the **output side (OUT)** of the integrated double tap connector and **pull the mains plug out of the socket.**

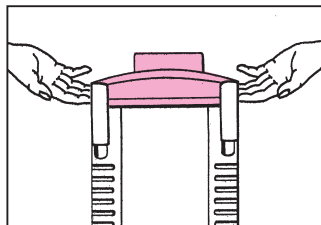
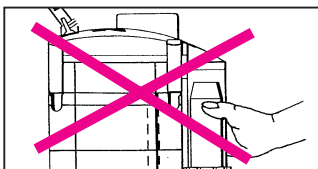


Swing the locking clamp upwards and then remove the double tap connector from the pump head. Extract the filter out of the cabinet by using the recessed handles.

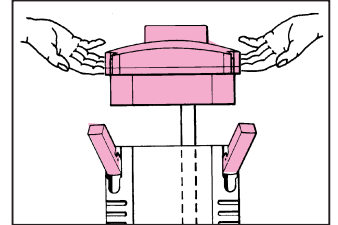


Attention:

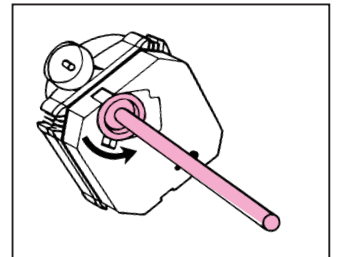
Do not pull on the wet/dry floater compartment.



Open all four EZ clips and remove the pump head from the filter.



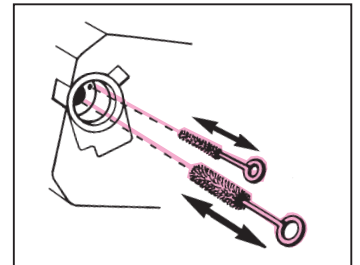
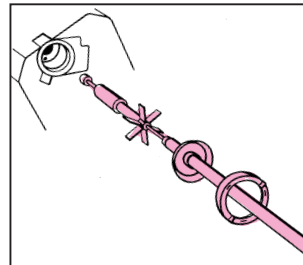
In order to clean the pump chamber, open the sealing ring of the pump head by turning it anticlockwise.



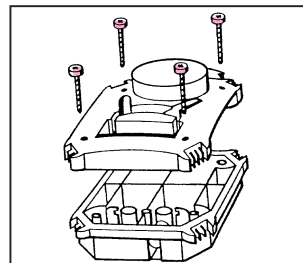
Take off the pump cover and then remove the impeller and shaft.

Thoroughly clean pump parts, impeller chamber and lubrication channel with the EHEIM cleaning set (order no. 4009580.)

Carefully rinse off the shaft (risk of breakage!), then put the impeller back together again and insert into proper position.



Pay attention to the proper fit of the shaft bushings, pump cover and sealing ring. Then lock the pump with the sealing ring.



TIP:

If cleaning water should get into the cover of the filter's pump head, the cover can be unscrewed and wiped dry with a cloth.

Filter media:

Remove the lattice screen as well as the filter media containers from the filter canister.

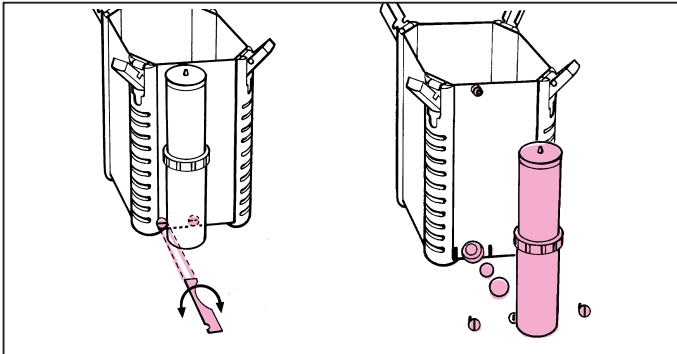
Thoroughly wash out the SUBSTRAT_{pro} or EHFISUBSTRAT filter media with used aquarium water – until no more clouding can be seen.

TIP:

When renewing SUBSTRAT_{pro} or EHFISUBSTRAT (the fine pores get clogged up with time), retain at least 1/3 of used filter medium and mix with new material, to speed-up bacteria recolonization.

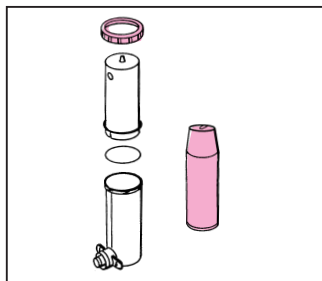
Now remove the wet/dry floater compartment by opening the two locking pins with the locking key, so that the slots are in a vertical position.

Remove the wet/dry floater compartment and clean the inlet aperture and both o-rings.



Open the locking ring of the wet/dry floater compartment in the direction indicated, remove floating control valve and carefully clean with a soft sponge.

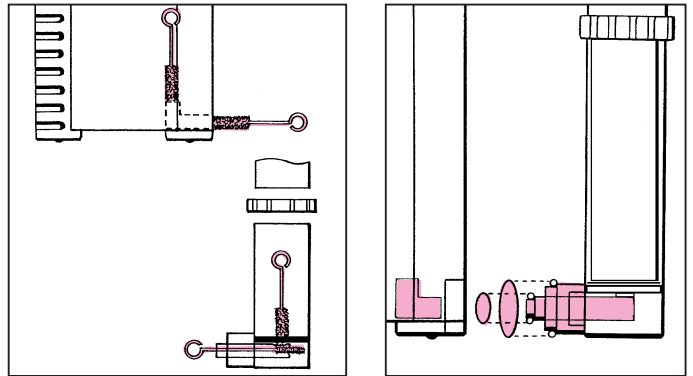
Clean all parts and wash out the filter canister.



°C Thermofilter

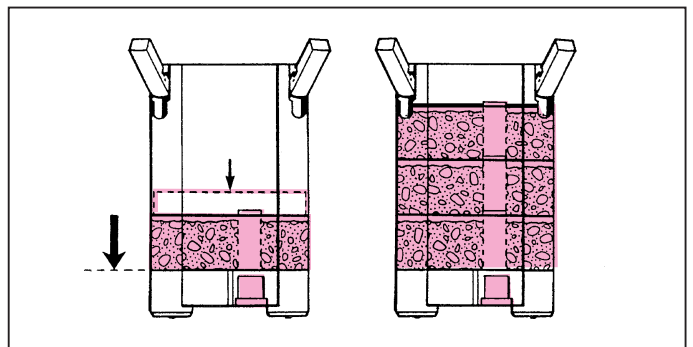
Wash out the filter canister. Periodically clean the heating element from sludge. Do not bend the heating element! Do not submerge filter canister underwater. Protect the heater's electrics from splashing water.

Clean the connecting supports on the container and the floater compartment (including the bypass opening) with a brush. Reassemble the wet/dry floater compartment and attach it to the filter canister. Take care that the sealing rings are correctly positioned.

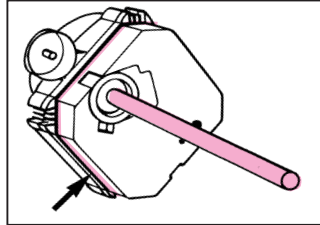


Place the first media container back into the canister in such a manner that the flow-through opening sits above the connection outlet which communicates with the wet/dry floater compartment. Press the container down to the support frame in order to guarantee a good seal with the filter canister.

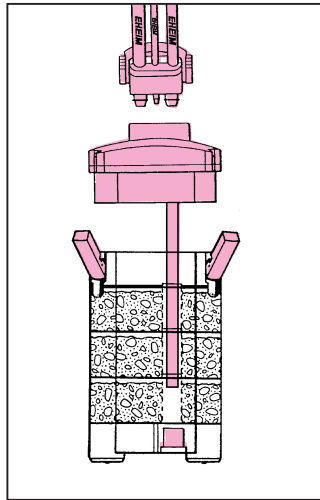
Then push in the second (and third) media container. The flow-through openings must lie on top of each other. Be sure that the media containers have a flush fit. Place the lattice screen.



Make sure that the output pipe is inserted into the intake of the impeller lid, and that the o-ring is clean and correctly fitted.

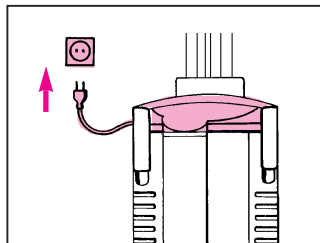


Lightly lubricate the sealing gasket on the pump head of the filter and the o-ring of the double tap with vaseline - then place the pump head on the filter canister, close the clips and put the filter into the cabinet.



Examine all three o-rings on the double tap connector for damage and correct fitting and lightly grease them with Vaseline; insert and lock in place. After both levers of the integrated double tap connector have been placed in the open position (**ON** position) the filter will automatically fill up with water and be ready for operation.

Set the filter into operation by connecting the **mains plug of the pump head to the wall socket.**

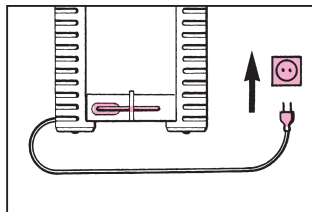


Note: All hose connections must be checked at regular intervals for correct fitting.

C° Thermofilter

ATTENTION:

Only plug in the heater's mains plug when the filter is working smoothly. Never operate the heater when dry.



Only for indoor use.

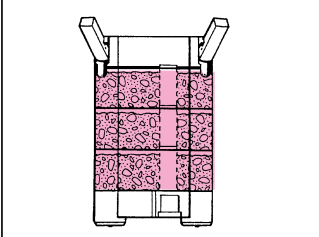
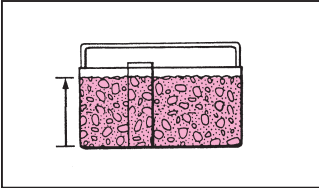
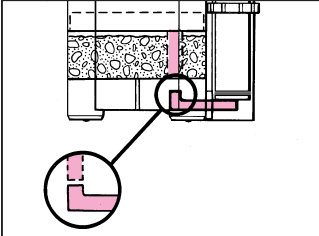
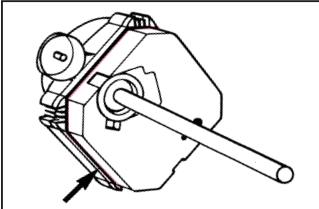
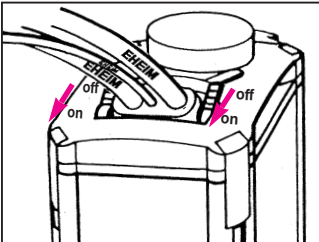
Before placing your hands in the aquarium, ensure that all electrical appliances have been switched off at the mains. By thermofilters always disconnect the heater plug first.

2227/2229: The mains cable cannot be replaced; if the cable is damaged, the device should no longer be used.

2327/2329: The device can only be serviced by authorized personnel. Contact your nearest pet shop or EHEIM service centre. Use only permitted with an earthed socket outlet.

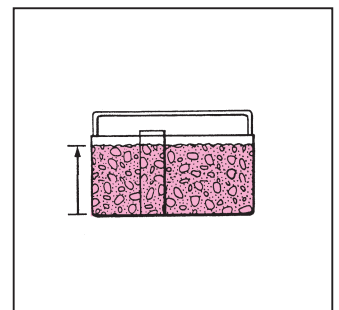
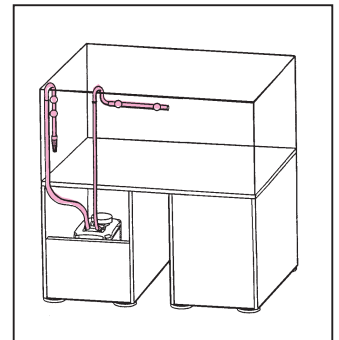
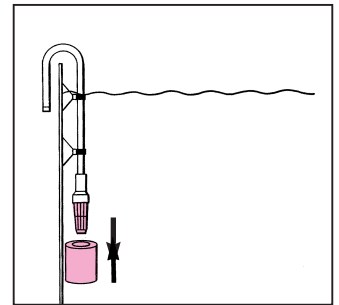
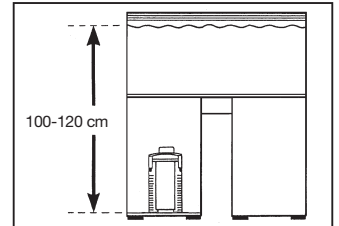
Filter must always be operated in an upright position only.

What to do when ...

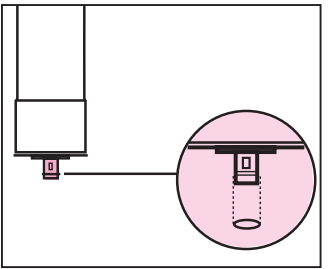
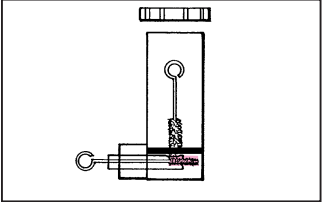
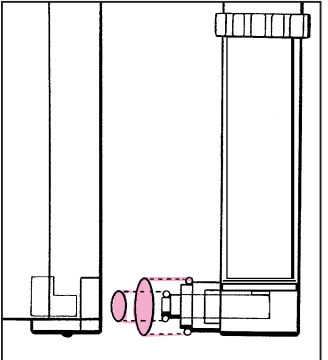
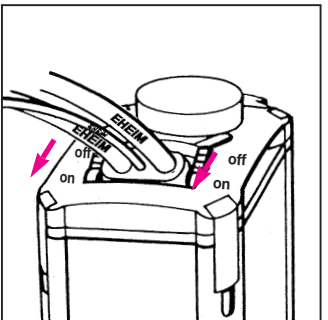
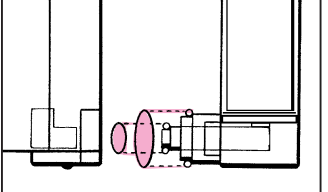
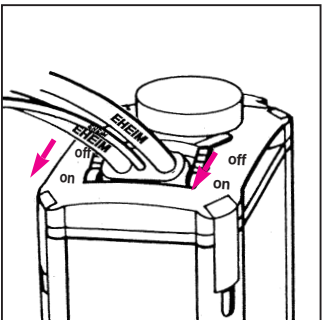
Problem	Cause	Remedy	
Filter cannot be closed	Improper installation of media containers.	Slide in media containers so that the flow-through openings are positioned on top of each other.	
	Media containers overfilled.	Use only SUBSTRAT ^{pro} or EHFISUBSTRAT as filter media and do not overfill media containers. Check the adjoining surfaces of the containers for soiling.	
	Flow-through pipe in filter canister soiled.	Clean flow-through pipe.	
	Sealing gasket not properly installed.	Insert sealing gasket into the groove provided.	
Filter does not fill up, no wet/dry function	Intake tap on integrated double tap connector is still closed or not completely open.	Open intake tap as far as it will go.	
	Intake tube bent or dirty.	Lay out tube without kinks. Clean tubes.	

What to do when ...

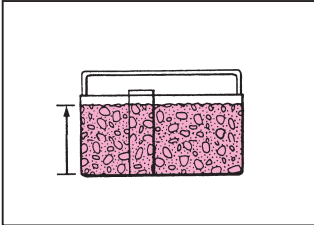
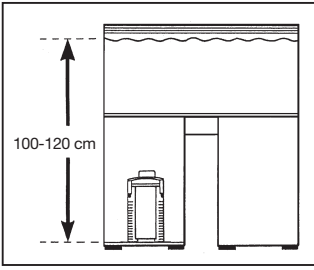
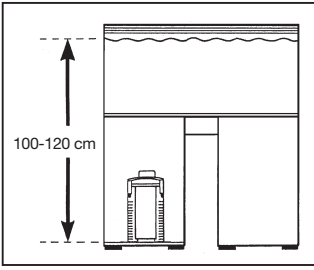
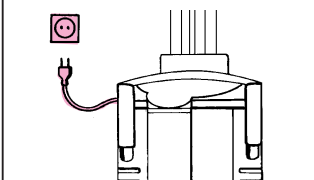
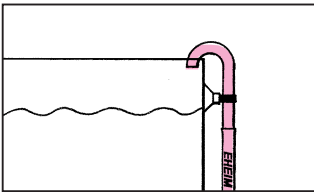
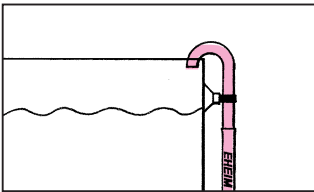
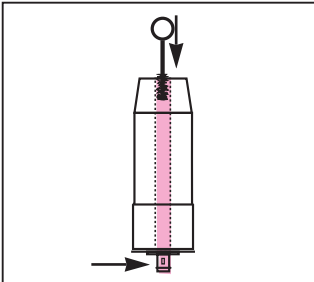
Problem	Cause	Remedy
Filter does not fill up, no wet/dry function	Installation height insufficient.	Installation height must be between 100 and 120 cm (3' 3" and 3' 11").
	Intake strainer soiled.	Clean intake strainer.
	Foam prefilter soiled.	Clean foam prefilter. Remove after filter running-in period (6 - 8 weeks).
	Wrong hoses length, wrong accessories attached.	Only use original EHEIM hoses in even lengths! Do not attach any additional accessories to the provided hoses.
Wrong filter media.	Wrong filter media.	Only use SUBSTRAT ^{pro} or EHFISUBSTRAT as filter media. Do not overfill media containers. Do not use filter cotton wadding, filter pads, plastic media, ceramic, lava, or peat only use carbon for short-term specific filtration.



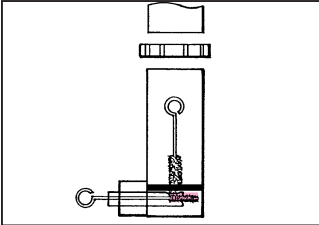
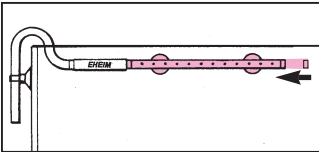
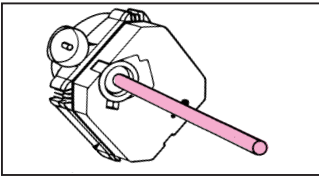
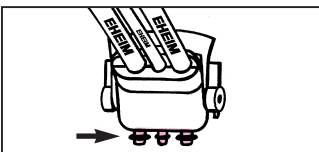
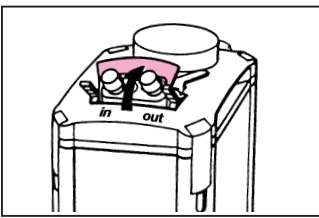
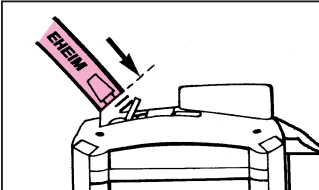
What to do when ...

Problem	Cause	Remedy	
Filter does not fill up, no wet/dry function	Worn out or wrongly installed o-ring on floating control valve.	Properly install o-ring, replace if necessary.	
	Collar and disk on floating control valve soiled.	Clean collar and disk.	
	Bypass aperture in wet/dry control mechanism soiled.	Clean bypass.	
	O-ring on small support worn out, not installed or improperly installed.	Properly install o-ring, replace if necessary.	
	Filter in slanted position.	Place filter in vertical position.	
Filter does not empty, no wet/dry function	Output tap on integrated double tap connector is closed or not completely open.	Open output tap completely.	
	Outlet tube is bent or soiled.	Lay out tube without kinks. Clean tubing.	

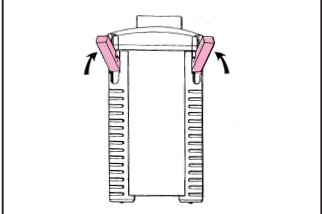
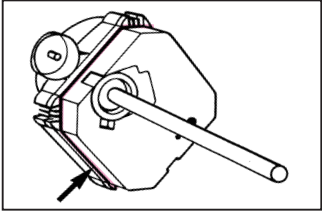
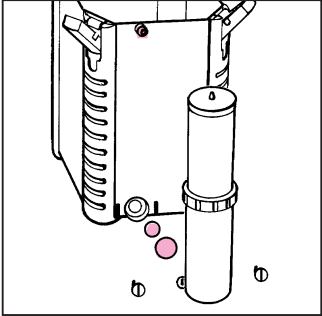
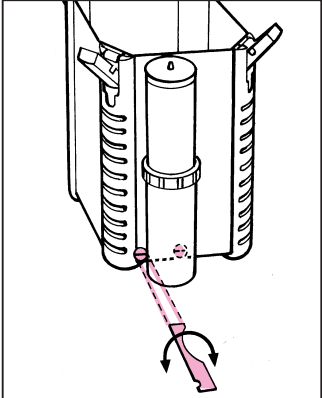
What to do when ...

Problem	Cause	Remedy	
Filter does not empty, no wet/dry function	Wrong hose length, wrong accessories attached.	Only use original EHEIM hoses in even lengths! Do not attach any additional accessories to the provided hoses.	
	Wrong filter media filled.	Only use SUBSTRAT _{pro} or EHFISUBSTRAT as filter media. Do not overfill media containers. Do not use filter cotton wadding, filter pads, plastic media, ceramic, lava, or peat only use carbon for short-term specific filtration.	
	Installation height excessive.	Installation height must be between 100 and 120 cm (3' 3" and 3' 11").	
	Air in the pump chamber.	Open intake and output taps, pull out mains plug and wait approx. 1 min., until the pump chamber has filled with water. Plug in mains plug again.	
	Aeration and breather tube bent or soiled.	Lay out hoses without kinks or clean them.	
	Opening of breather pipe is too near or below water surface.	Place well above water level.	
	Hole and/or rising pipe on the floating control valve soiled.	Clean hole and/or rising pipe.	

What to do when ...

Problem	Cause	Remedy		
Filter does not empty, no wet/dry function	Bypass hole in wet/dry control mechanism soiled.	Clean bypass.		
	Filter in slanted position.	Place filter in vertical position.		
	Spray bar soiled.	Clean spray bar.		
	End cap on spray bar missing.	Insert end cap.		
Filter leaks at adaptor	Outlet pipe in pump lid does not fit correctly.	Properly install outlet pipe.		
	O-ring on outlet tube is broken.	Replace with new o-ring (order no. 7342238).		
	Cleaning plug in pump head is missing.	If misplaced, fit a new one (order no. 7343400).		
Filter leaks at adaptor	Sealing surface or o-rings soiled.	Clean sealing surface and/or o-rings.		
	O-rings not installed or damaged.	Correctly install or replace o-rings.		
	Locking lever not completely closed.	Close locking lever as far as it will go.		
	Hoses not correctly connected.	Push connection hoses as far as they will go and secure with hose clamp.		

What to do when ...

Problem	Cause	Remedy	
Filter leaks at pump head of filter	Not all EZ clips are closed.	Properly close all EZ clips.	
	Sealing surfaces or sealing gasket is soiled.	Clean sealing surfaces.	
Filter leaks at wet/dry control	Sealing surfaces of o-rings soiled.	Clean sealing surfaces.	
	O-rings not installed or improperly installed.	Properly install o-rings.	
	O-rings of wet/dry floater compartment missing, damaged or soiled.	Clean or replace o-rings.	
	Locking pin not closed.	Close locking pin with locking key so that the slots are in a horizontal position.	

Filtres extérieurs »sec/humide« EHEIM professionnel 2227 et 2229

Thermo-filtres »sec/humide« EHEIM professionnel 2327 et 2329

① Partie supérieure du filtre avec câble de raccordement ② Logement du joint ③ Tube de raccordement ④ Grille ⑤ Paniers de filtration ⑥ Clip de fermeture ⑦ Cuve du filtre ⑧ Commande à intervalles ⑨ Bague de verrouillage ⑩ Flotteur ⑪ Verrouillages ⑫ Connexion avec robinets d'arrêt ⑬ Fixation pour tuyau ⑭ Embout coudé ⑮ Tube de rejet avec bouchon ⑯ Canne d'aspiration ⑰ Crépine ⑱ Préfiltre en mousse ⑲ Tube d'aération ⑳ Tuyaux ㉑ Ventouses à crochets ㉒ Clé de verrouillage ㉓ Vaseline ㉔ Brosse de nettoyage

Thermo-filtre: ㉕ Thermostat ㉖ Sonde thermique ㉗ Bande auto-collante

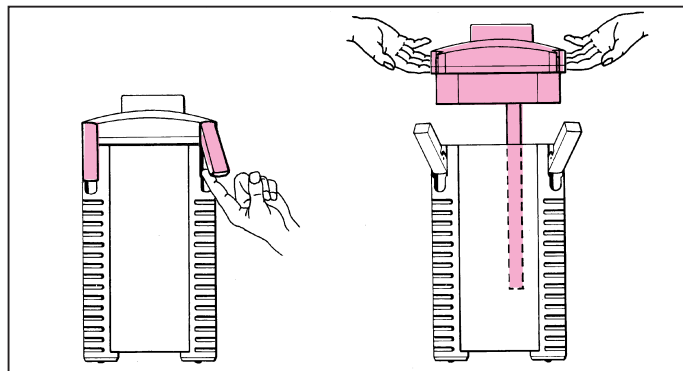
Attention: Thermo-filtres 2327 et 2329 ne peuvent être utilisés qu'en eau douce.

En déballant, prière de vérifier si aucune pièce ne manque.

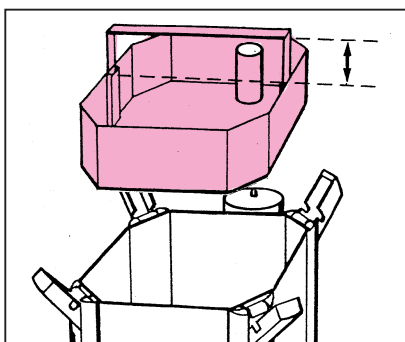
Montage

Attention: Afin d'assurer un parfait fonctionnement coordonné du filtre »sec/humide«, utiliser uniquement les pièces d'origine ci-jointes. Il n'est pas permis de procéder à des modifications dans la zone d'aspiration et de rejet.

Faire basculer les quatre clips de fermeture vers l'extérieur et les pousser vers le haut. A l'aide des deux poignées encastrées, il est facile de soulever la partie supérieure du filtre.



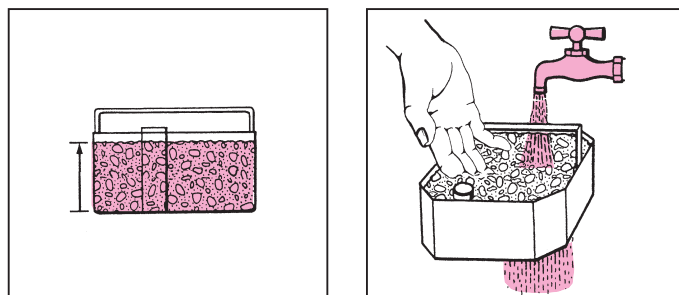
Retirer la grille et les paniers de filtration les uns après les autres, vers le haut, grâce aux poignées escamotables.



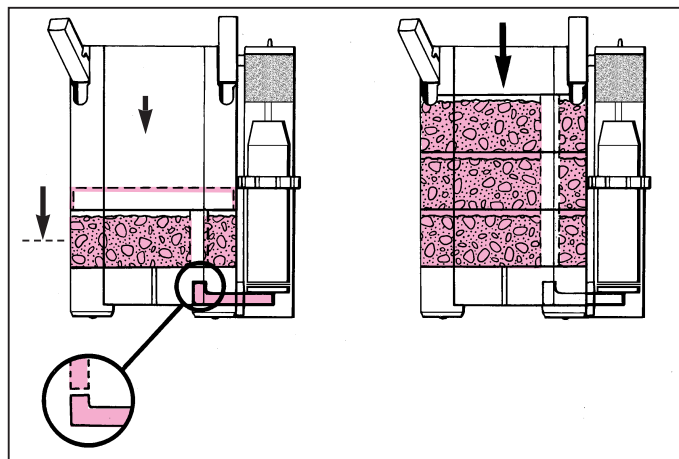
Remplir maintenant les paniers presque jusqu'au-dessous du bord avec la masse filtrante SUBSTRATpro ou EHFISUBSTRAT.

Attention: Ne pas trop remplir, ne pas obstruer le conduit tubulaire. Pour tous les paniers utiliser uniquement la masse filtrante SUBSTRATpro ou EHFISUBSTRAT!

Ensuite, rincer soigneusement à l'eau courante la masse filtrante, jusqu'à ce qu'on ne voit plus du tout d'eau trouble.



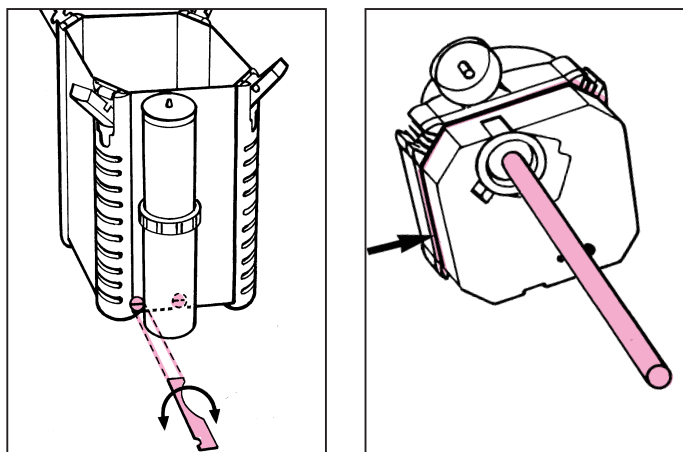
Après avoir contrôlé si le raccord à intervalles n'est pas encrassé, remettre en place le premier panier dans la cuve du filtre. Ce faisant, veiller à ce que le conduit tubulaire se trouve au-dessus du raccord à intervalles. Enfoncer, vers le bas, le premier panier jusqu'à ce qu'il soit posé sur les barrettes d'appui. Ceci permet de garantir une étanchéité parfaite entre le panier et la cuve.



Enfoncer également le deuxième (et le troisième) panier, les conduits tubulaires devant impérativement être les uns au dessus des autres. Rabaisser les poignées escamotables et veiller à ce que tous les paniers reposent bien les uns sur les autres. Positionner la grille.

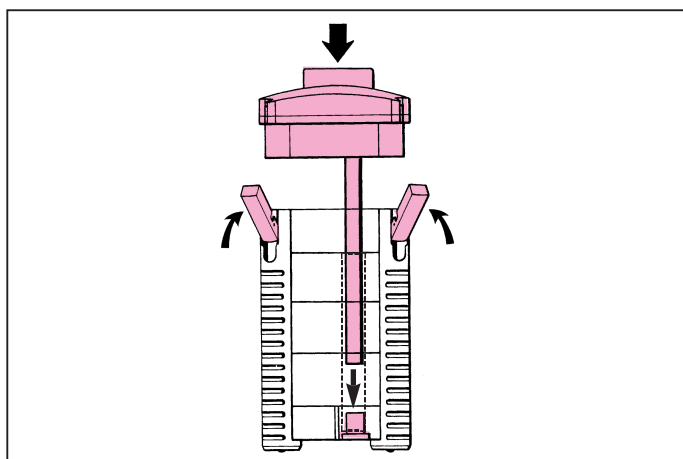
Contrôler si la commande à intervalles est bien fixée sur la cuve du filtre: Le raccord supérieur doit être enfoncé de manière stable dans la cuve; les deux verrouillages inférieurs doivent être fermés de manière à ce que les fentes soient à l'horizontale.

Les verrouillages sont faciles d'accès grâce à la clé de verrouillage ci-jointe.



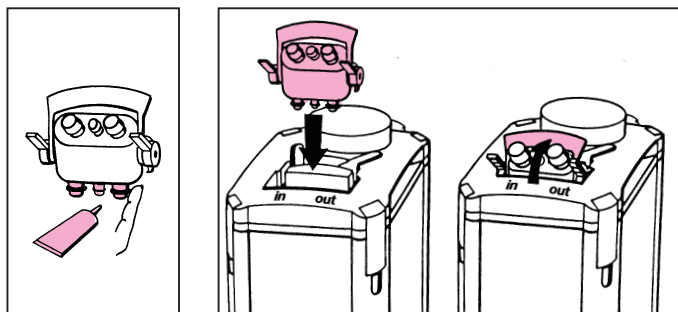
Graisser légèrement le joint du tube de raccordement et enfoncer le fermement dans le couvercle. Contrôler si le logement du joint de la partie supérieure du filtre est propre et ce dernier correctement mis en place.

Poser la partie supérieure du filtre sur la cuve, le tube de raccordement devant passer par les conduits des paniers et être placé correctement dans les raccords à intervalles. Fermer les quatre clips de fermeture.

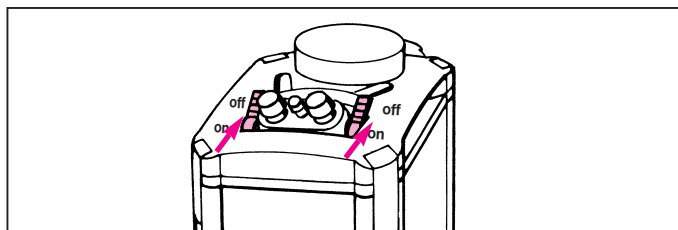


Attention: Avant d'insérer la connexion avec robinets doubles intégrés dans la tête motrice, examinez les trois joints à la base de la pièce et assurez-vous qu'ils soient bien en place et en bon état, graissez les légèrement avec de la vaseline pour faciliter l'installation.

Enfoncer complètement la connexion, l'étrier de verrouillage vers le haut, dans l'orifice prévu à cet effet situé sur la partie supérieure du filtre et fermer l'étrier de verrouillage vers l'arrière en appuyant simultanément sur la connexion jusqu'à enclenchement.

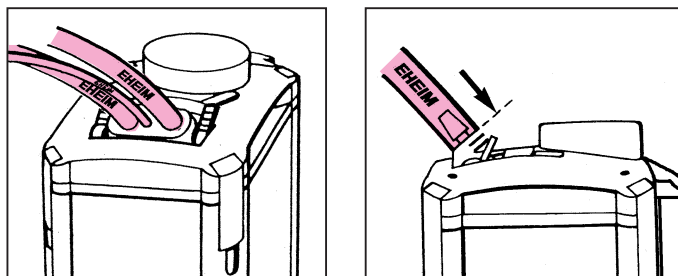


Installation des tuyaux: Pour fermer les robinets d'arrêt, pousser les deux manettes latérales de la connexion (position **OFF**). N'utiliser systématiquement que les tuyaux d'origine EHEIM.

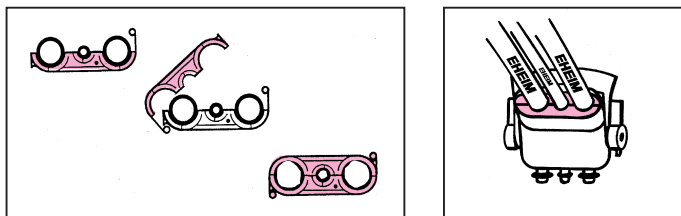


Maintenant, faire glisser les trois tuyaux ci-joints jusqu'à la butée sur les tubulures correspondantes de la connexion, en commençant par le diamètre du tuyau le plus petit. S'il est difficile de les enfiler, assouplir les tuyaux dans de l'eau chaude.

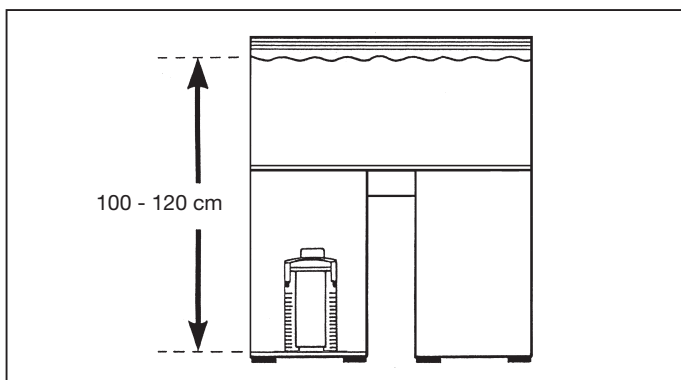
N'utiliser systématiquement que les tuyaux d'origine EHEIM.



Placer la fixation de tuyau en deux parties autour des tuyaux montés. Accrocher latéralement et clipser. Veiller à ce que la dimension du diamètre du tuyau soit exacte.

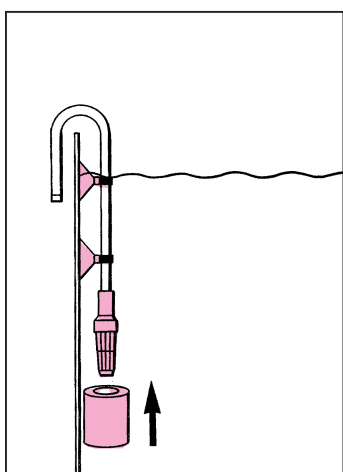


Une fois cette opération effectuée, placer le filtre dans le meuble et respecter impérativement la hauteur de mise en place prescrite: Il faut qu'il y ait **100 - 120 cm** entre la surface de l'eau et le fond du filtre. Cette hauteur de mise en place est capitale pour un parfait fonctionnement alternatif du filtre »sec/humide«.



Introduire la crépine dans la canne d'aspiration et fixer cette dernière à l'aide des deux ventouses à crochets contre la paroi intérieure de l'aquarium.

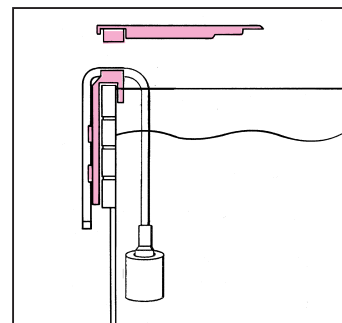
Enfiler le préfiltre en mousse autour de la crépine.



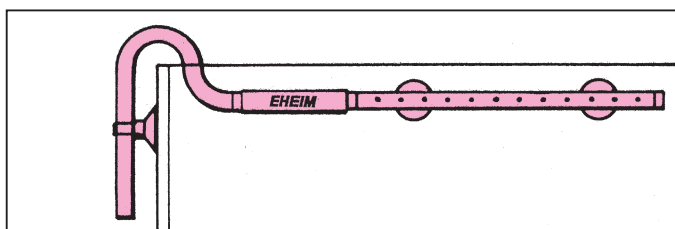
Attention: Le préfiltre en mousse ne doit être utilisé que pendant la période de démarrage, env. 6 - 8 semaines. Ensuite, ce sont les cultures bactériennes qui se sont développées qui prennent en charge la filtration biologique et mécanique. Alors, il faudra enlever le préfiltre en mousse.

Remarque:

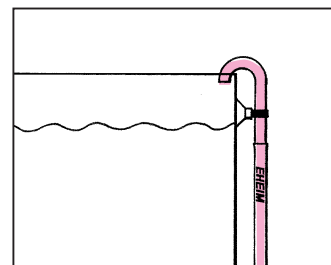
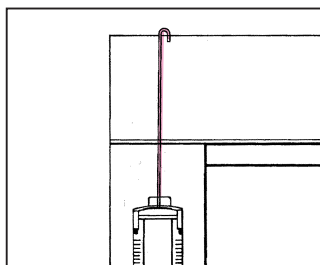
Lorsqu'on utilise le module EHEIM *professional* 7656450 pour filtre extérieur, on se contente de fixer la canne d'aspiration avec des clips.



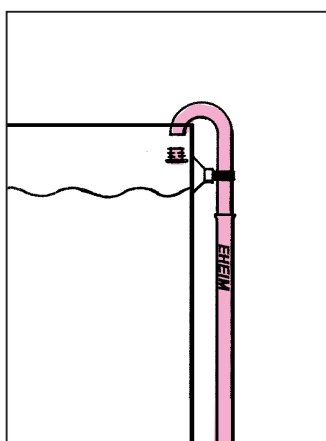
Raccorder l'embout coudé et le tube de rejet avec un petit morceau de tuyau et les positionner dans l'aquarium à l'aide des ventouses à crochets. Fermer le côté ouvert du tube avec le bouchon qui est joint.



A présent, faire passer les trois tuyaux en partant du filtre par la paroi arrière du meuble et placer en premier le tuyau d'air (9/12 mm) sans coude et sans le laisser pendre par rapport à l'aquarium. Raccourcir le tuyau d'air pour obtenir la longueur nécessaire, le raccorder avec le tube d'aération et le fixer à la paroi de l'aquarium à l'aide de la ventouse à crochets de manière à ce que l'orifice du tube soit au-dessus de la surface de l'eau.

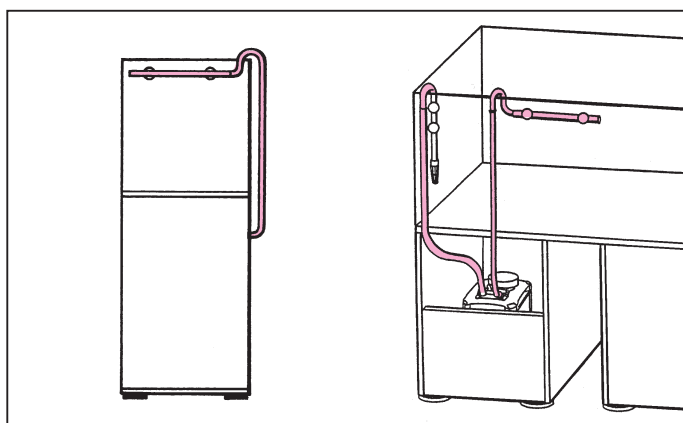


Remarque importante: Vous pouvez utiliser ponctuellement les filtres sec/humides suivant un mode traditionnel lorsque vous effectuez un traitement ou par la suite avec du charbon pour retirer les restes de médicament. Pour ce faire retirez la masse filtrante de la cuve et mettez le dans un récipient avec de l'eau de l'aquarium (si possible brassez l'eau avec une pompe à eau ou à air). Remplissez la cuve d'EHFISYNTH ou de coussins de filtration. Bouchez le tuyau d'aération du filtre avec un bouchon (Réf. 7272350): Réalisez votre traitement médicamenteux puis filtrez avec du charbon très actif (EHFIAKTIV) durant 4-6 jours afin de retirer les restes des produits utilisés. Jetez le charbon puis après avoir rincé la cuve, vous pouvez réintroduire SUBSTRAT^{pro} ou EHFISUBSTRAT, à ce moment pensez à retirer le bouchon du tube d'air.



Ensuite, raccorder la canne d'aspiration montée et l'embout coupé en fonction du diamètre de tuyau correspondant.

Attention: Pour garantir le fonctionnement parfait du filtre »sec/humide«, il faut que les tuyaux de l'aspiration et du refoulement soient de la même longueur (ou les raccourcir). Veiller à ce que les tuyaux soient installés bien droit et ne soient pas coudés.

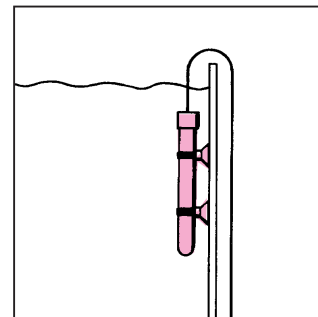


Conseil: Si vous faites tremper auparavant les tuyaux quelques temps dans l'eau chaude, ils deviennent plus souples et d'éventuels coudes peuvent se redresser facilement.

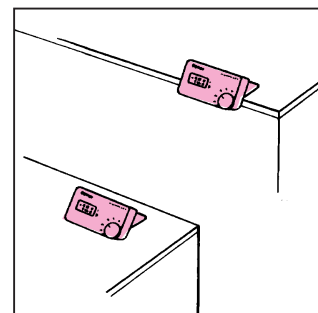
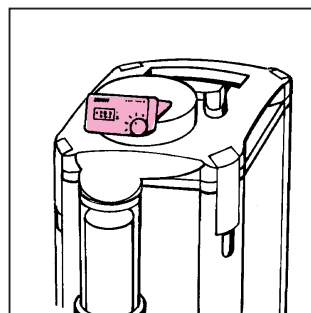
C° Thermo-filtre

Installation du chauffage

Fixer dans l'aquarium la sonde thermique du thermostat à l'aide des deux ventouses à crochets de manière à ce qu'elle soit **toujours positionnée en dessous de la surface de l'eau.**

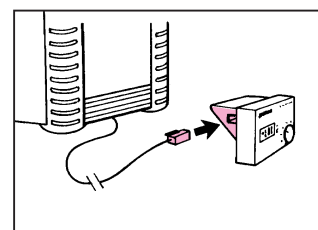


Le thermostat peut être posé ou être fixé soit sur la galerie de l'aquarium, soit sur la partie supérieure du filtre, à l'aide de la bande autocollante qui est jointe.



Ensuite faire passer le câble de raccordement situé au bas de la cuve au thermostat et connecter la fiche jusqu'à ce que cette dernière s'enclenche de manière audible.

Ne pas encore brancher la fiche du chauffage sur la prise de terre!

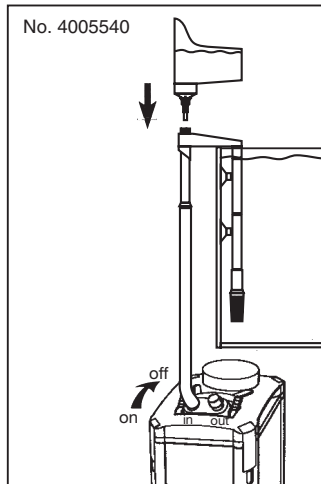
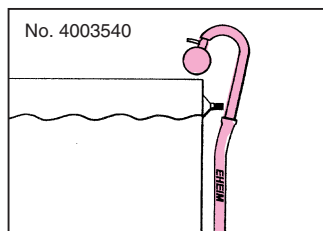
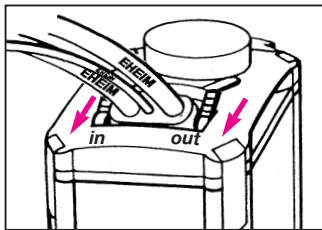


Mise en marche

Attention:

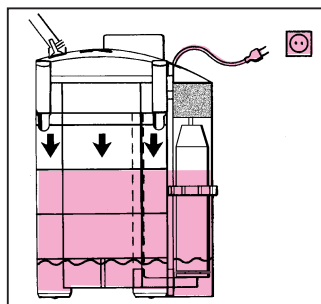
De ne pas remplir l'aquarium jusqu'au bord car le volume d'eau varie avec le filtre.

Ouvrir le robinet de l'interface relié à l'aspiration (**IN**) et amorcer le filtre en aspirant par le tuyau d'eau. Si vous le souhaitez, vous pouvez utiliser la poire d'amorçage 4003540 ou l'accessoire d'amorçage 4005540, \varnothing 16 mm, vendus en option qui vous faciliteront l'opération. Le filtre se remplit automatiquement d'eau. Ensuite ouvrir le robinet côté refoulement (**OUT**).

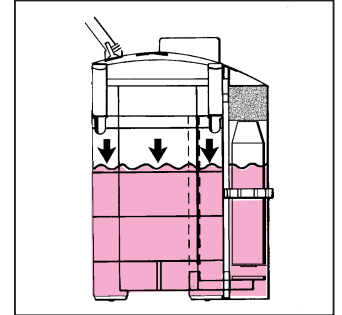
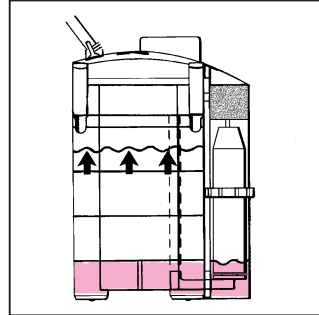


Mettre le filtre en marche en branchant la prise au secteur. Dès que la pompe s'est mise en marche, le niveau d'eau à l'intérieur de la cuve du filtre diminue jusqu'à la base de la commande à intervalles.

Lorsque l'eau est à ce niveau, le flotteur ferme automatiquement la buse d'aspiration et le filtre se remplit de nouveau d'eau. Simultanément et en continu, une faible quantité d'eau filtrée est renvoyée dans l'aquarium en passant par l'ouverture du by-pass.



Le niveau d'eau ne monte pas progressivement dans la commande à intervalles. Elle ne sera pleine d'eau que lorsque le dernier panier le sera, le flotteur ouvrira alors la buse d'aspiration ce qui permettra au filtre de se vider.

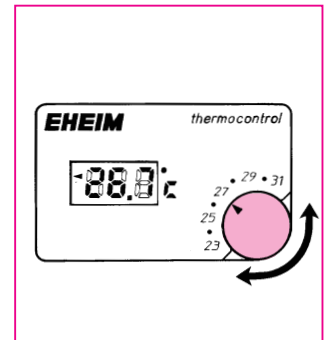
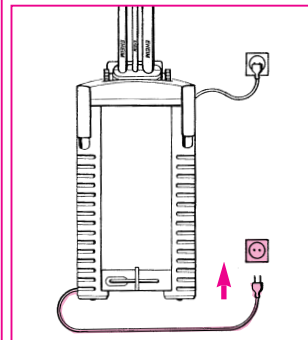


Thermo-filtre

Attention:

Lorsque le filtre fonctionne correctement brancher le chauffage au secteur.

Ne jamais utiliser le chauffage sans l'eau.



L'affichage du thermostat indique la température effective de l'eau de l'aquarium. Sélectionnez à l'aide du bouton de réglage la température que vous désirez (p. ex. 27°C). Le symbole (◀) signale que le chauffage fonctionne. Si le signal s'éteint, la température souhaitée est atteinte et le chauffage se coupe automatiquement. Si la température de l'eau descend en dessous de la valeur réglée, le chauffage se remet automatiquement en route. En tournant légèrement le bouton de commande, on peut procéder à un réglage très précis.

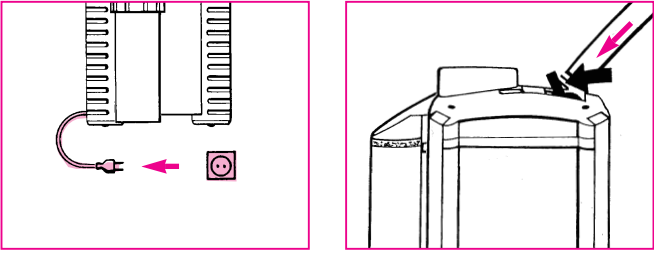
Attention: Lors d'une première installation du filtre ou quand la température sera réajustée, la température montrée sur le témoin visuel s'approche lentement à la température souhaitée. Ce processus est également influencé par la température ambiante.

En cas de coupure de courant, les valeurs indiquées sur l'écran changent et le chauffage cesse de fonctionner. Lorsque le courant est rétabli le chauffage marche à nouveau normalement.

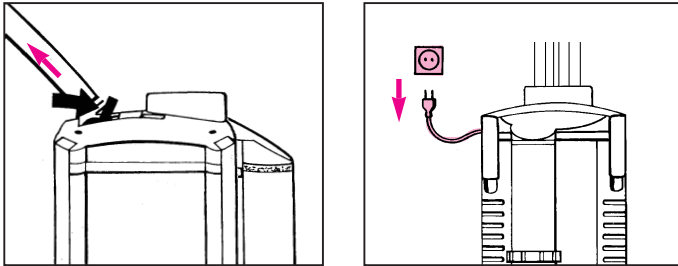
Entretien et soin

C° Thermo-filtre

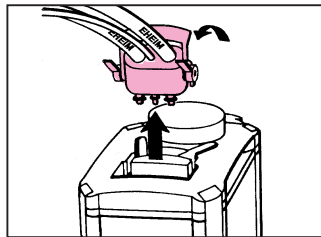
Retirer d'abord la prise au secteur du chauffage. Fermer le levier d'arrêt du côté de l'aspiration (IN) de la connexion afin que le filtre se vide.



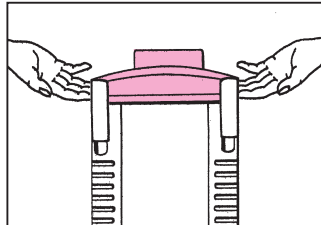
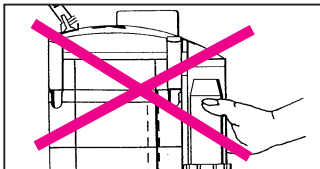
Dès que la pompe aspire l'air bruyamment, fermer le levier d'arrêt côté refoulement (OUT) de la connexion et retirer la prise au secteur de la pompe.



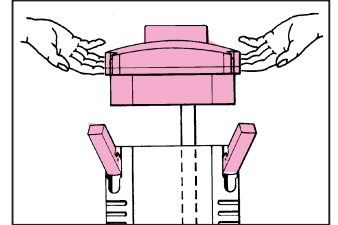
Faire basculer l'étrier de verrouillage vers le haut et dégager la connexion de la partie supérieure du filtre. Enlever le filtre extérieur du meuble en le prenant par les poignées encadrées.



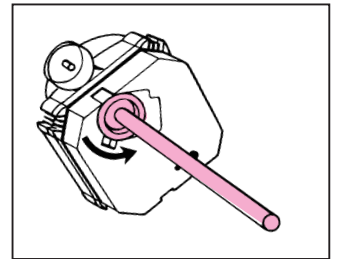
Attention:
Ne pas tirer sur la commande à intervalles.



Ouvrir tous les clips de fermeture et enlever la partie supérieure du filtre.

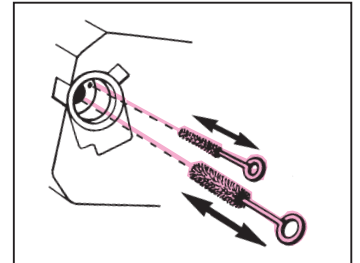
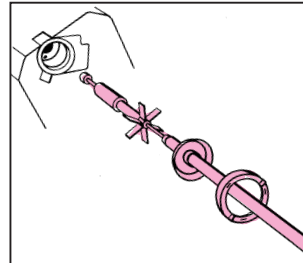


Pour nettoyer la chambre de la pompe, déverrouiller la bague de fermeture situé sur la partie interne de la tête motrice du filtre en la faisant tourner vers la gauche.

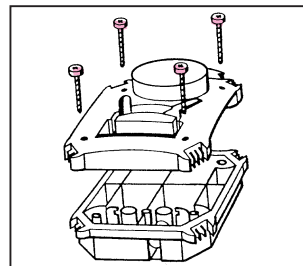


Enlever ensuite le couvercle de la pompe avec le tube, la turbine et l'axe.

Nettoyer soigneusement les pièces de la pompe et le canal de refroidissement à l'aide du jeu de nettoyage EHEIM, no. de commande 4009580. Rincer l'axe avec précaution (fragile: céramique!) et, ensuite, réassembler et remettre en place l'ensemble.



Au cours du montage, veiller à ce que les coussinets de l'axe, le couvercle de la pompe et le joint d'étanchéité soient mis en place correctement. Ensuite, verrouiller à nouveau la pompe avec la bague de fermeture.



CONSEIL:

Si, au cours du nettoyage, de l'eau pénètre dans le couvercle de la partie supérieure, on peut le dévisser et le sécher avec un chiffon.

Masses filtrantes:

Retirer la grille et les paniers de filtration de la cuve du filtre.

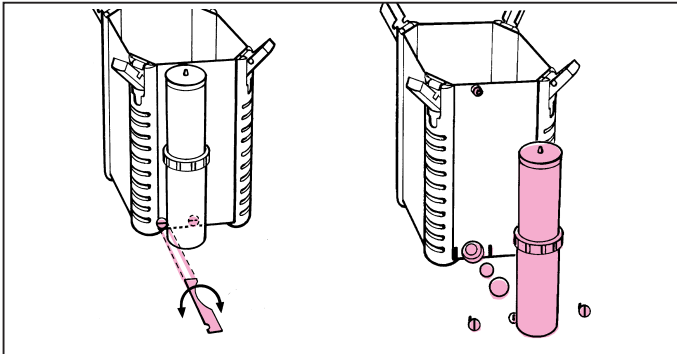
Rincer soigneusement à l'eau tiède la masse filtrante – jusqu'à ce qu'on ne voit plus du tout d'eau trouble.

CONSEIL:

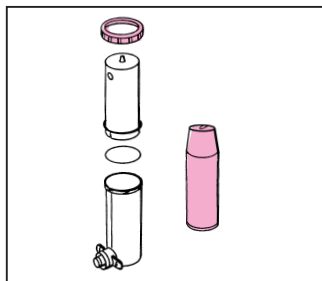
Lorsqu'on remet la masse filtrante **SUBSTRAT^{pro}** ou **EHFI-SUBSTRAT** neuf, mélanger env. 1/3 d'ancienne masse filtrante avec le matériau neuf. En effet, les cultures de bactéries se développent plus rapidement dans la nouvelle masse filtrante.

A présent, démonter la commande à intervalles en ouvrant les deux verrouillages à l'aide de la clé de verrouillage de manière à ce que les fentes soient à la verticale.

Enlever la commande à intervalles, nettoyer les surfaces et les joints d'étanchéité.



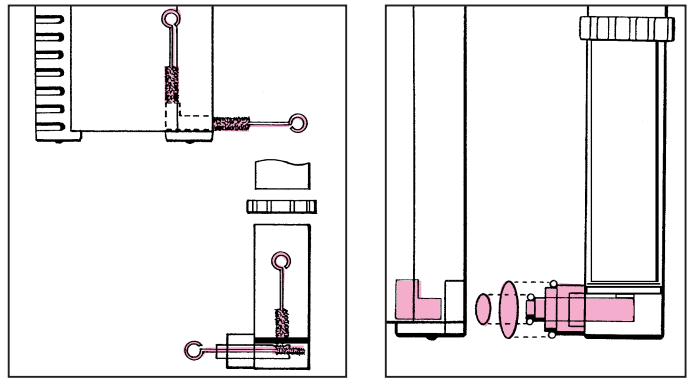
Déverrouiller la bague de fermeture de la commande à intervalles dans le sens de rotation indiqué, enlever le flotteur et nettoyer le avec précaution à l'aide d'une éponge douce. Nettoyer toutes les pièces de la commande et laver la cuve du filtre.



Thermo-filtre

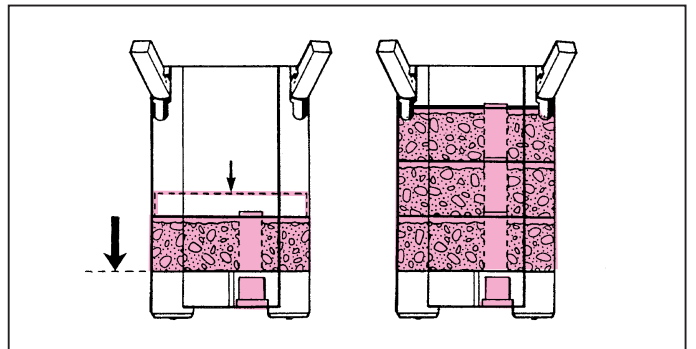
Laver la cuve du filtre. Nettoyer la spirale du chauffage de temps en temps de la vase. Ne pas tordre la spirale du chauffage! Ne pas plonger la cuve du filtre dans l'eau. Protéger le chauffage électronique de l'eau projetée.

Nettoyer avec une brosse les raccords de la cuve et de la commande – sans oublier l'ouverture by-pass. Réassembler la commande à intervalles et la monter à la cuve du filtre. Veiller à ce que les joints d'étanchéité soient placés correctement.

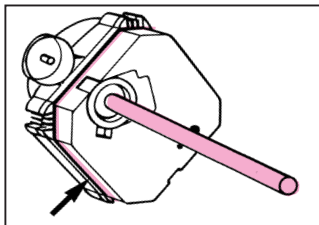


Placer le premier panier dans la cuve de manière à ce que le conduit tubulaire soit placé au-dessus du raccord de la commande à intervalles. Appuyer fortement sur le panier jusqu'à ce qu'il se trouve sur les barrettes d'appui afin d'assurer une bonne étanchéité par rapport à la cuve du filtre.

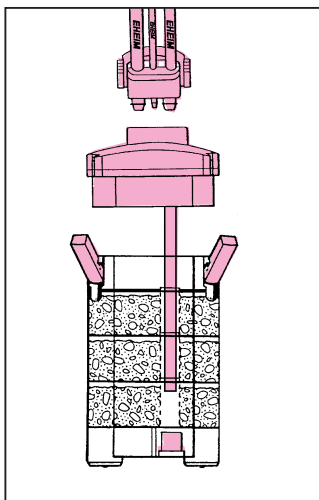
Ensuite, enfoncer le deuxième (et le troisième pour la version 2229/2329) panier, les conduits tubulaires devant être placés les uns au-dessus des autres. Veiller à ce que les paniers cadrent en hauteur.



Contrôler si le tube de raccordement est solidement placé dans le couvercle de la pompe et si le logement du joint est propre et ce dernier en position correcte.

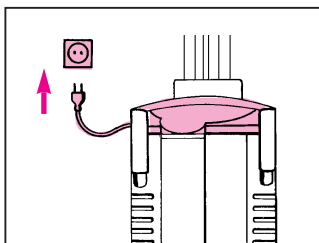


Graisser légèrement le joint d'étanchéité de la tête motrice du filtre avec de la vaseline. Mettre en place la partie supérieure du filtre, fermer les clips de fermeture et placer le filtre dans le meuble.



Examinez les trois joints à la base de la pièce et assurez-vous qu'ils soient bien en place et en bon état, graissez les légèrement avec de la vaseline; mettre en place et verrouiller la connexion.

Une fois que les deux manettes de la connexion sont de nouveau ouvertes (position **ON**), le filtre se remplit automatiquement d'eau et il est prêt à fonctionner.



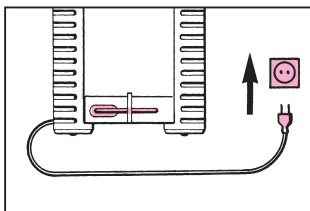
Mettre le filtre en marche en branchant la prise de la partie supérieure au secteur.

Conseil: Toutes les jonctions de tuyaux doivent être vérifiées à intervalles réguliers pour un assemblage parfait.

C° Thermo-filtre

Attention: Ne pas brancher la prise du chauffage tant que le filtre ne fonctionne pas régulièrement.

Ne jamais faire fonctionner le chauffage à sec.



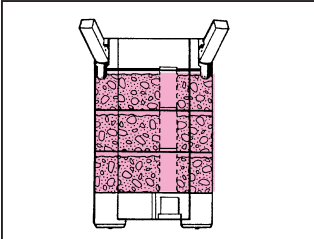
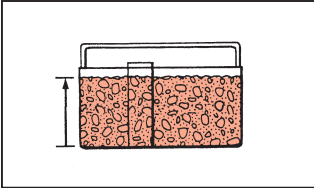
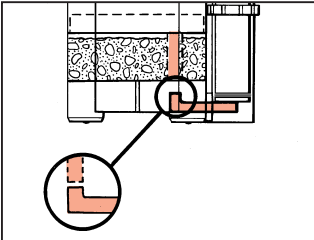
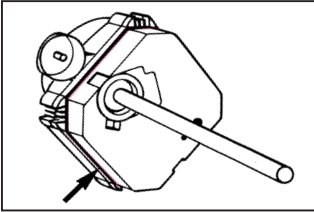
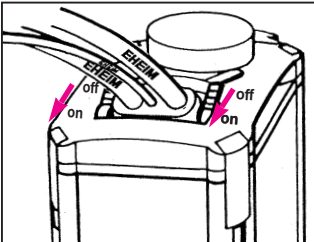
Utiliser exclusivement à l'intérieur. Avant de plonger la main dans l'eau de l'aquarium, couper du secteur tous les appareils électriques. Pour les thermofiltres, commencer toujours par retirer la fiche du chauffage.

2227/2229: Le remplacement des câbles de raccordement de ces appareils n'est pas possible. Les appareils dont le câble est coupé ne sont plus garantis. Dès que le câble est endommagé, il est interdit d'utiliser l'appareil.

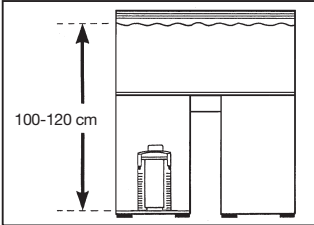
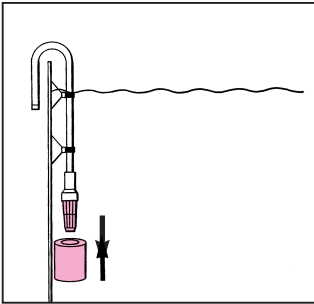
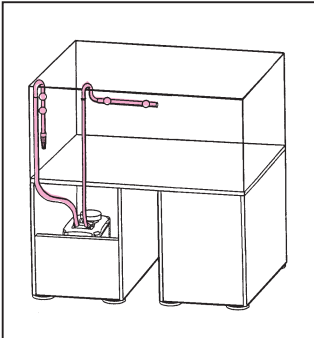
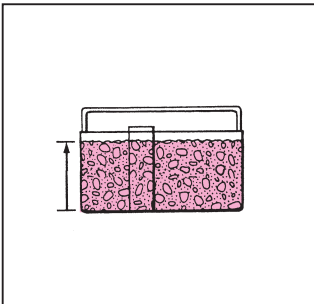
2327/2329: L'appareil ne peut être démonté et ouvert que par une personne qualifiée autorisée qui peut seule procéder au remplacement des câbles de raccordement. Consulter votre commerçant spécialisé ou votre service-client EHEIM compétent. Ne sont autorisées à l'emploi que les prises dotées d'un contact de mise à la terre.

Faire systématiquement marcher le filtre en position verticale

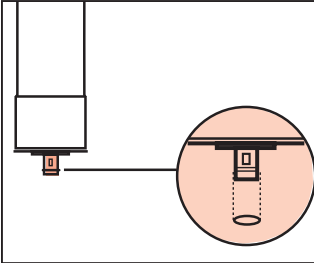
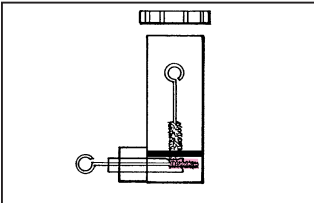
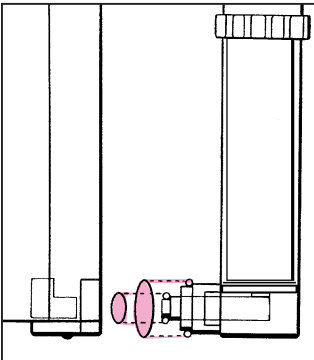
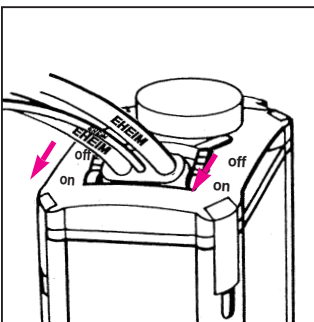
Que faire, si ...

Défaut	Cause	Solution	
On ne peut pas fermer la partie supérieure du filtre	Paniers de filtration montés en mauvaise position.	Enfoncer les paniers de filtration de manière à ce que les embouts de raccordement soient l'un au-dessus de l'autre.	
	Paniers de filtration trop pleins. Veiller à ce que les paniers de filtration s'emboîtent bien les uns dans les autres.	Utiliser uniquement la masse filtrante SUBSTRAT ^{pro} ou EHFISUBSTRAT, ne pas trop remplir les paniers de filtration. Nettoyer éventuellement les surfaces superposées des paniers.	
	Conduit encrassé à l'intérieur de la cuve du filtre.	Nettoyer le conduit.	
	Joint d'étanchéité mal monté.	Mettre en place correctement le joint dans son logement.	
Le filtre ne se remplit pas, absence de fonctionnement du système »sec/humide«	Robinet d'aspiration fermé ou pas complètement ouvert.	Ouvrir le robinet d'aspiration jusqu'à la butée (position ON).	
	Tuyau d'aspiration coudé ou encrassé.	Installer le tuyau droit, sans coude, nettoyer le tuyau.	

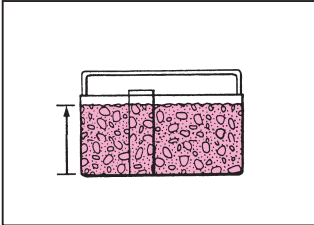
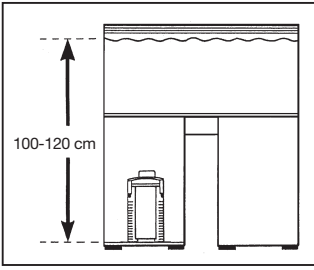
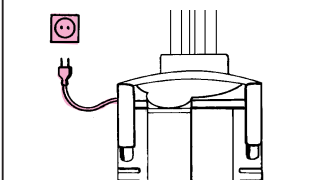
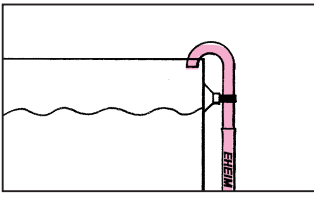
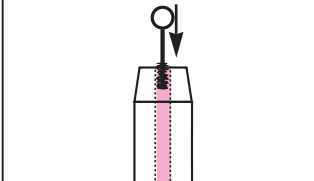
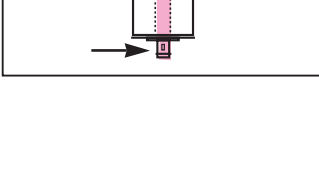

Que faire, si ...

Défaut	Cause	Solution	
Le filtre ne se remplit pas, absence de fonctionnement du système »sec/humide«	La hauteur de mise en place est insuffisante.	La hauteur de mise en place doit impérativement être entre 100 et 120 cm.	
	La crépine est encrassée.	Nettoyer la crépine.	
	Le préfiltre en mousse est encrassé.	Nettoyer le préfiltre en mousse. L'enlever après la période de démarrage du filtre (6 - 8 semaines).	
	Longueur de tuyau incorrecte, utilisation incorrecte d'accessoires.	Utiliser uniquement les tuyaux d'origine EHEIM de longueur égale! Ne pas mettre en place d'accessoires supplémentaires!	
Utilisation de mauvaises masses filtrantes.	Utiliser uniquement la masse filtrante SUBSTRAT ^{pro} ou EHFISUBSTRAT, ne pas trop remplir les paniers filtrants, ne pas utiliser d'ouate filtrante ni de coussin pré-filtrant!		

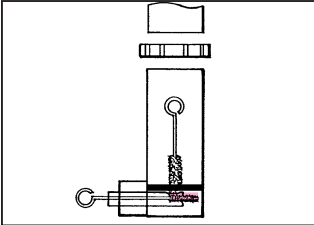
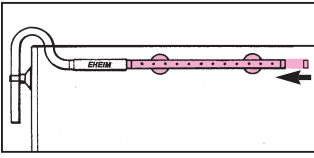
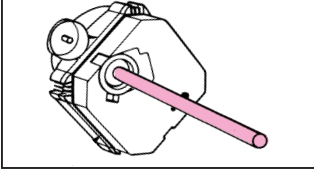
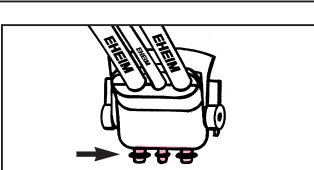
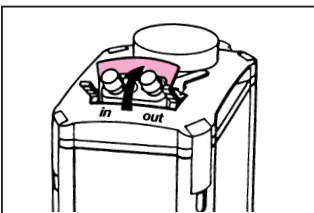
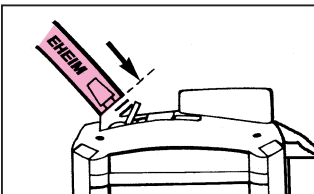


Que faire, si ...

Défaut	Cause	Solution	
Le filtre ne se remplit pas, absence de fonctionnement du système »sec/humide«	Le joint d'étanchéité du flotteur manque ou est mal installé.	Installer correctement le joint d'étanchéité, le renouveler le cas échéant.	
	Manchette et disque du flotteur encrassés.	Nettoyer manchette et disque.	
	L'orifice by-pass de la partie flotteur est encrassé.	Nettoyer le by-pass.	
	Les joints d'étanchéité du raccord à intervalles sont usés, endommagés, non installés ou mal positionnés	Installer correctement les joints d'étanchéité, les renouveler le cas échéant.	
Le filtre est de travers.	Mettre le filtre en place à la verticale bien à plat.		
Le filtre ne se vide pas, absence de fonctionnement du système »sec/humide«	Le robinet de rejet est fermé ou pas complètement ouvert.	Ouvrir le robinet de rejet jusqu'à la butée.	
	Le tuyau de rejet est coudé ou encrassé.	Installer le tuyau droit, sans coude, nettoyer le tuyau.	

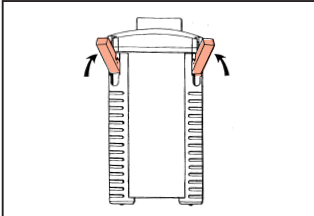
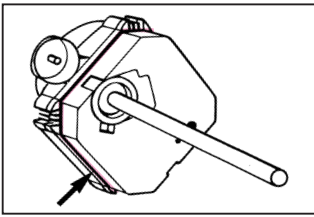
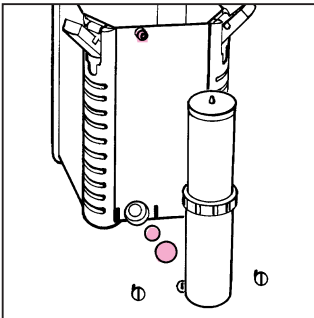
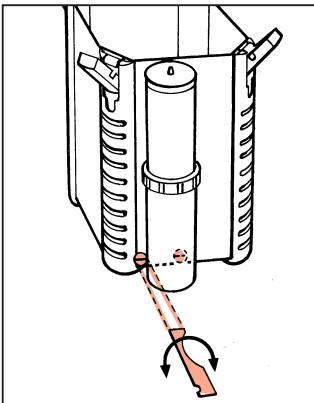
Que faire, si ...

Défaut	Cause	Solution	
Le filtre ne se vide pas, absence de fonctionnement du système »sec/humide«	Longueur de tuyau incorrecte, utilisation incorrecte d'accessoires.	Utiliser uniquement les tuyaux d'origine de longueur égale! Ne pas mettre en place d'accessoires supplémentaires!	
	Utilisation de mauvaises masses filtrantes.	Utiliser uniquement la masse filtrante SUBSTRAT ^{pro} ou EHFISUB-STRAT, ne pas trop remplir les paniers de filtration, ne pas utiliser d'ouate filtrante ni de coussin préfiltrant!	
	Hauteur de mise en place trop haute.	La hauteur de mise en place doit impérativement être entre 100 et 120 cm.	
	Air dans la chambre de la pompe.	Ouvrir le robinet d'aspiration et de rejet, retirer la prise au secteur et attendre pendant 1 min. environ jusqu'à ce que la chambre de la pompe se soit remplie d'eau. Rebrancher la prise au secteur.	
	Tuyau d'aération coudé ou encrassé.	Installer le tuyau sans coude ou le nettoyer.	
	L'orifice du tube d'aération est en dessous du niveau d'eau.	Installer le tube d'aération correctement au dessus du niveau d'eau.	
	Trou et/ou tube de refoulement encrassé.	Nettoyer le trou et/ou le tube de refoulement.	

Que faire, si ...

Défaut	Cause	Solution	
Le filtre ne se vide pas, absence de fonctionnement du système »sec/humide«	L'orifice du by-pass du système à intervalles est encrassé.	Nettoyer le by-pass.	
	Le filtre est de travers.	Mettre le filtre en place à la verticale bien à plat.	
	Le tube de la canne de rejet est encrassé.	Nettoyer le tube de la canne de rejet.	
	Le bouchon du tube de rejet manque.	Mettre le bouchon en place.	
La connexion centrale avec robinets d'arrêt n'est pas étanche.	Le tube de raccordement n'est pas mis en place correctement dans la tête de pompe.	Installer correctement le tube de raccordement.	
	Les surfaces d'étanchéité et les joints de la connexion sont encrassés. Joints mal installés, usés, ou endommagés.	Nettoyer les surfaces d'étanchéité et les joints. Installer les joints d'étanchéité correctement, ou les changer.	
	Manette de verrouillage pas fermée complètement.	Fermer la manette de verrouillage jusqu'à la butée.	
	Tuyaux pas raccordés correctement.	Faire glisser les tuyaux jusqu'à la butée et les fixer à l'aide de la fixation pour tuyau.	

Que faire, si ...

Défaut	Cause	Solution	
La partie entre la tête de pompe et la cuve n'est pas étanche	On n'a pas fermé tous les clips de fermeture.	Fermer correctement tous les clips de fermeture.	
	Les surfaces d'étanchéité ou joints sont encrassés. Tube de raccordement et joint thorique non installés, mal placés ou endommagés.	Les nettoyer. Monter correctement le tube et joint, ou renouveler le joint.	
Le système «sec/humide» n'est pas étanche.	Les surfaces des joints d'étanchéité sont encrassées.	Nettoyer les surfaces d'étanchéité.	
	Joint d'étanchéité non installés ou mal installés.	Mettre ou installer les joints d'étanchéité correctement.	
	La bague de fermeture des éléments du système à intervalles n'est pas fermée correctement jusqu'à la butée.	Fermer la bague de fermeture de la commande à intervalles jusqu'à la butée dans le sens de rotation indiqué.	
Verrouillages non fermés.	Fermer les verrouillages à l'aide de la clé de verrouillage de manière à ce que les fentes soient à l'horizontale.		

EHEIM professional interval-buitenfilter 2227 en 2229
EHEIM professional interval-thermofilter 2327 en 2329

① Filterkop met aansluitkabel ② profielafdichting ③ verbindingsbuis ④ afdekzeef ⑤ filterinzetstukken ⑥ sluitclips ⑦ filterpot ⑧ interval-besturing ⑨ afsluitring ⑩ vlotter ⑪ vergrendelingen ⑫ adapter met kranen ⑬ slanghouder ⑭ verloopbocht ⑮ sproeierbuis met afsluitdop ⑯ aanzuigbuis ⑰ filterkorf ⑱ schuimstof-voorfilter ⑲ ontluchtingsbuis ⑳ slangen ㉑ zuiger met klembeugel ㉒ vergrendelings sleutel ㉓ vaseline ㉔ borstel. **Thermofilter:** ㉕ bedieningsdeel ㉖ temperatuurvoeler ㉗ klittenband.

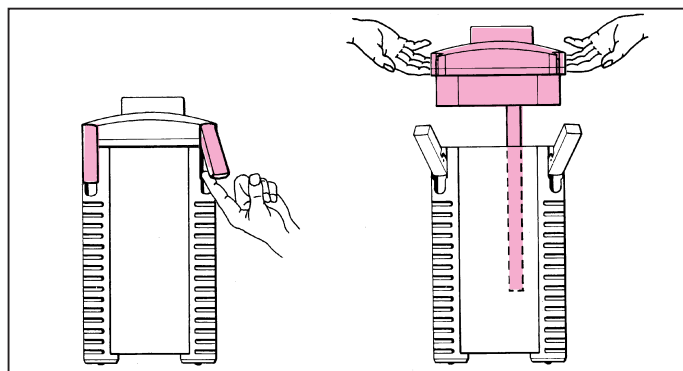
Let op: Thermofilters 2327 en 2329 zijn alleen geschikt voor zoetwater!

Gelieve bij het uitpakken te controleren of alle onderdelen aanwezig zijn.

Montage

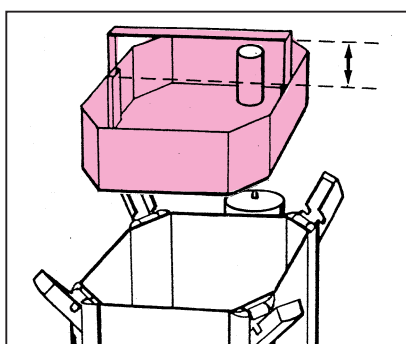
Opgelet: Om de functie van de intervalfilter te waarborgen, alleen de bijliggende onderdelen gebruiken. Veranderingen m.b.t. de aanzuig en uitloop mogen niet plaats vinden.

Alle vier sluitclips van de filterpot uitklappen en naar boven schuiven. Met behulp van de beide handgrepen kan de filterkop gemakkelijk afgenomen worden.



De zeef en de verschillende inzetstukken er na elkaar uithalen.

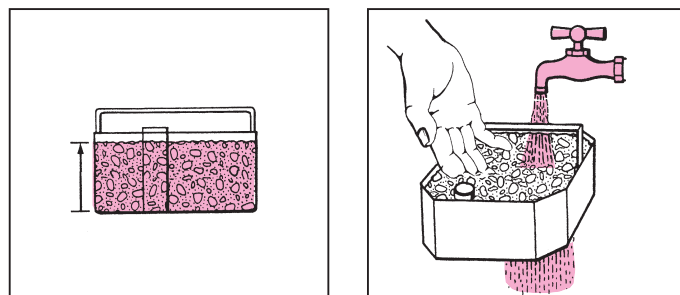
De verzonken beugels van de filterinzetstukken kunnen naar boven getrokken worden.



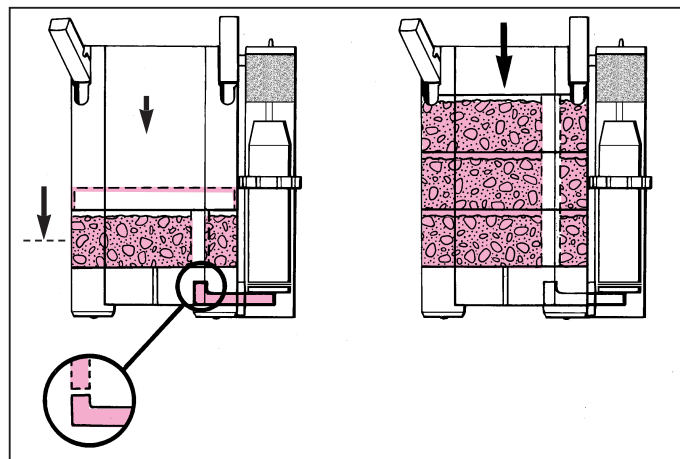
Vul nu de filterinzetstukken tot dicht onder de rand met SUBSTRAT_{pro} of EHFISUBSTRAT.

Let op: Niet te vol doen en de buisdoorvoer niet verstoppen. In alle filterinzetstukken uitsluitend filtermassa SUBSTRAT_{pro} of EHFISUBSTRAT gebruiken.

Vervolgens de filtermassa onder stromend water grondig uitspoelen totdat er geen watervertroebeling meer zichtbaar is.



Nadat U gecontroleerd hebt of het interval-aansluitstuk niet vervuild is, plaatst U het eerste filterinzetstuk weer in de filterpot. Daarbij moet erop gelet worden, dat de buisopening boven het interval-aansluitstuk zit. Druk het inzetstuk krachtig naar beneden totdat deze op het steunvlak ligt. Hierdoor wordt een goede afdichting tussen filterinzetstuk en filterpot gewaarborgd.

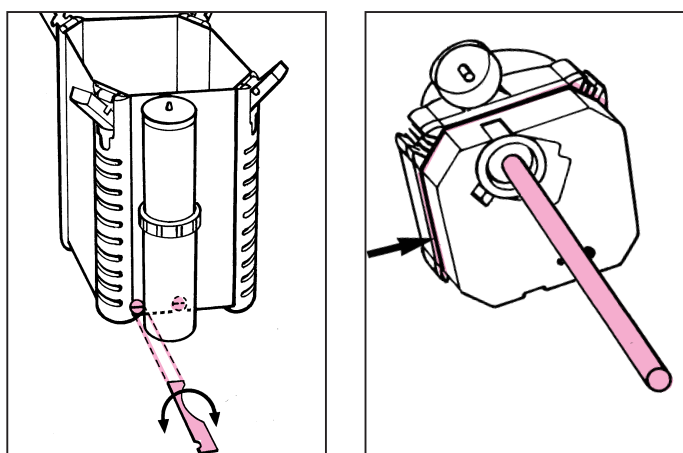


Het tweede (en derde) filterinzetstuk eveneens inschuiven, waarbij de buisopening(en) boven elkaar moeten liggen.

Greepbeugels weer laten zakken en erop letten, dat alle filterinzetstukken goed op elkaar liggen. Afdekzeef plaatsen.

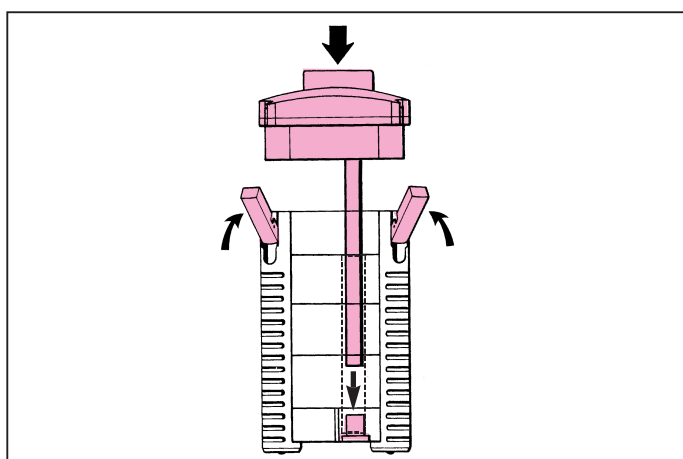
Nagaan of de interval-besturing goed aan de filterpot bevestigd is. De bovenste aansluiting moet vast aan de pot zitten; de beide onderste vergrendelingen moeten gesloten zijn; de gleuven staan dan horizontaal.

Met de bijgevoegde vergrendelings sleutel zijn de vergrendelingen gemakkelijk bereikbaar.



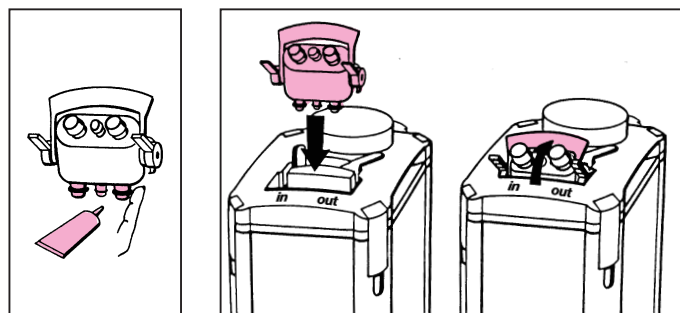
De dichtingsring van de verbindingbuis licht invetten en goed in de pompdeksel vastdrukken. Controleren of de profieldichting van de filterkop schoon en goed geplaatst is.

Filterkop op de pot plaatsen, waarbij de verbindingbuis door de openingen van de filterinzetstukken gestoken wordt en goed in het interval-aansluitstuk moet zitten. Alle vier sluitclips vergrendelen.



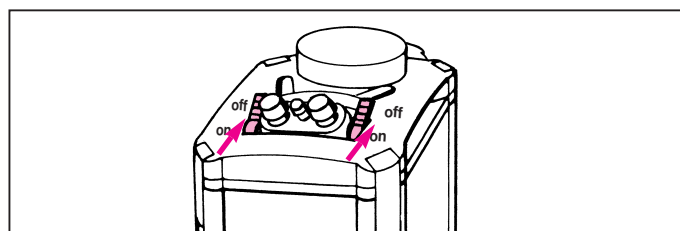
Let op: Voordat U de adapter voor de slangaansluitingen in de filterkop steekt, controleren of de 3 dichtingsringen niet beschadigd en goed geplaatst zijn. Om de montage te vergemakkelijken de dichtingsringen met een beetje vaseline insmeren.

Adapter met vergrendelingsbeugel naar boven in de daarvoor gemaakte opening van de filterkop diep insteken en de beugel onder gelijktijdige druk op de adapter goed sluiten.



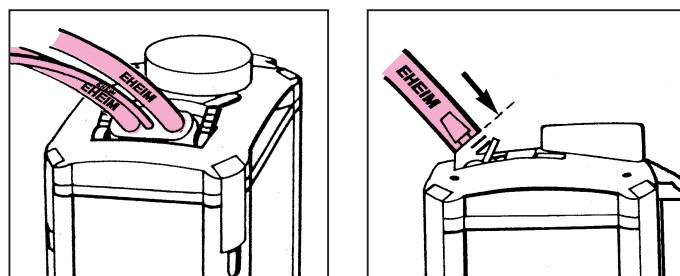
Installatie slang

Om de kranen te sluiten worden de beide hefboomarmpjes van de adapter in de positie **OFF** gezet.

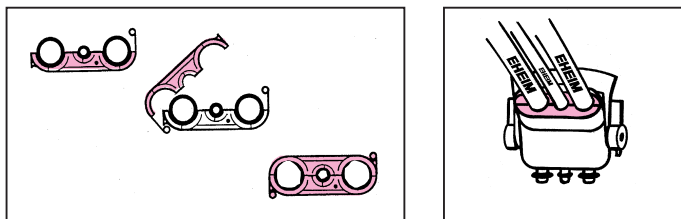


De bijgevoegde drie slangen nu tot de aanslag op de daarbij behorende slangaansluitstukken van de adapter schuiven, waarbij met de slang met de kleine diameter begonnen wordt. In geval dit opschuiven moeilijk is de slangen in warm water soepel maken.

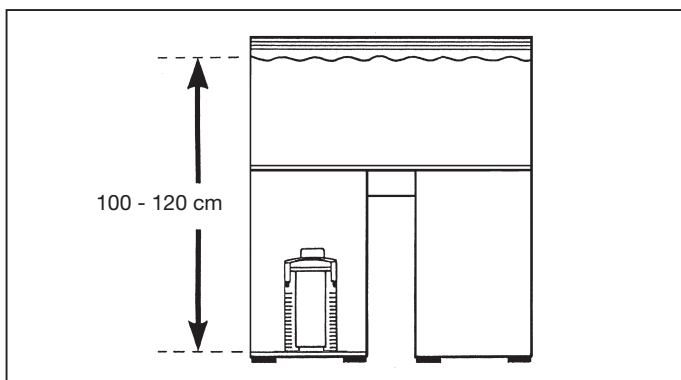
In principe alleen originele EHEIM-slangen gebruiken.



De tweedelige slanghouder wordt om de gemonteerde slangen gelegd, zijdelings ingehangen en samengeclipst.

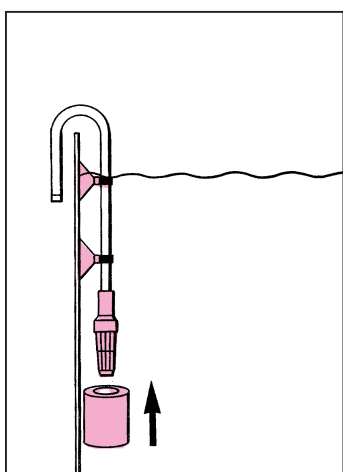


Plaats nu de compleet voorbereide filter in de onderkast en let daarbij beslist op de voorgeschreven opstelhoogte: Tussen wateroppervlak en bodem van de filter moet de afstand **100-120 cm** zijn. Deze opstelhoogte is van beslissend belang voor een goede wisselfunctie van de intervalfilter.



Steek de filterkorf op de aanzuigbuis en bevestig die met twee zuigers met klembeugel aan de binnenwand van het aquarium.

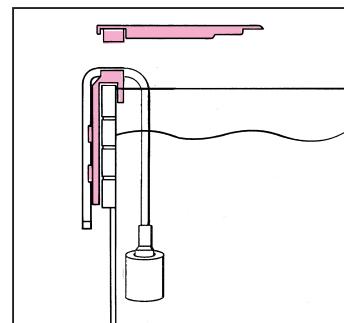
Schuimstof-voorfilter over de filterkorf trekken.



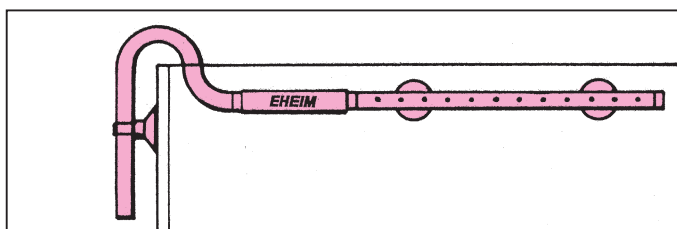
Opgelet: De schuimstofvoorfilter alleen gedurende de inlooptijd, ca. 6-8 weken, gebruiken. Daarna neemt de in de filtermassa ontstane bacteriecultuur de biologische en mechanische filtratie over. De schuimstofvoorfilter moet dan verwijderd worden.

Opmerking:

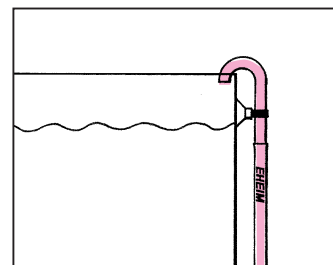
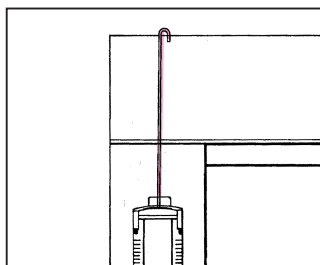
Bij toepassing van het EHEIM *professionel* buitenfilter-moduul 7656450 wordt de aanzuigbuis alleen vastgeclipst.



Verloopbocht en sproeierbuis met een kort stuk slang verbinden en met behulp van zuigers met klembeugel in het aquarium monteren. De open kant van de sproeierbuis met de bijgevoegde stop afsluiten.



Nu alle drie slangen van de filter door de achterkant van de kast naar buiten leiden en leg als eerste de luchtslang (9/12 mm) glad en zonder knikken naar het aquarium. Luchtslang tot de vereiste lengte inkorten, met de ontluchtungsbus verbinden en met de zuiger met klembeugel zo aan de aquariumwand bevestigen, dat de buisopening boven het wateroppervlak eindigt.

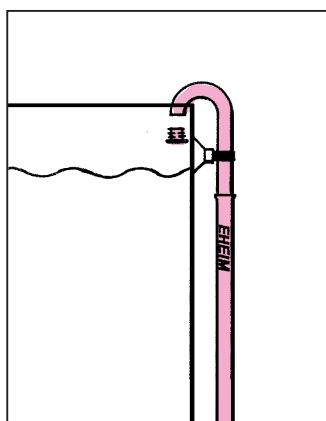


Belangrijke aanwijzing:

U kunt Uw intervalfilter ook als doorloopfilter voor een kortdurende behandeling met medicamenten gebruiken.

De filter net zoals bij de eerste ingebruikname met water vullen, de ontluchtingsbuis met het afsluitstopje (best.nr. 7272350) sluiten en het apparaat in werking stellen.

Gedurende de behandeling met medicamenten alleen over EHFISYNTH of watenvlies filtreren. Na afloop van de behandeling ca. 4 - 6 dagen uitsluitend over filterkool (EHFIAKTIV) filtreren.

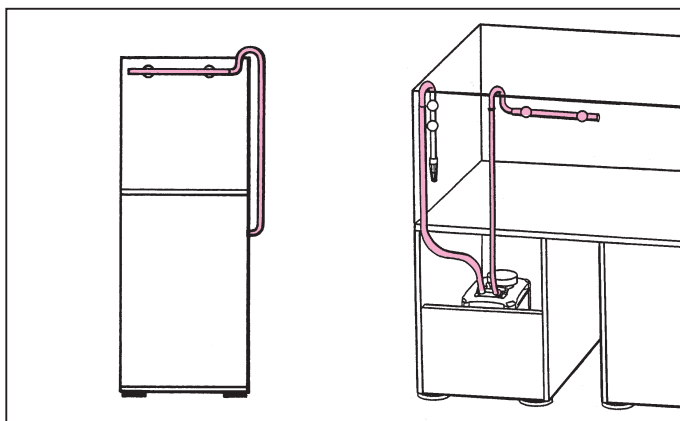


Aansluitend de gemonteerde aanzuigbuis en de verloopbocht verbinden.

Let op:

Om een goede functie van de intervalfilter te garanderen mogen de aanzuigslang en de drukslang alleen tot een gelijke lengte ingekort worden!

Let er daarbij op, dat de slangen glad gelegd zijn en geen knikken hebben.

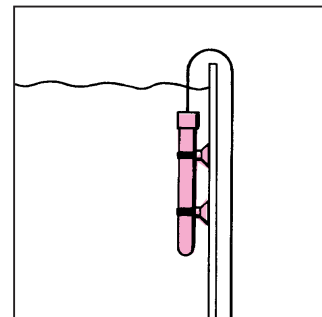


TIP: Indien U de slangen enige tijd in warm water legt dan worden ze soepel en kunnen eventuele knikken er gemakkelijk uitgedrukt worden.

C° Thermofilter

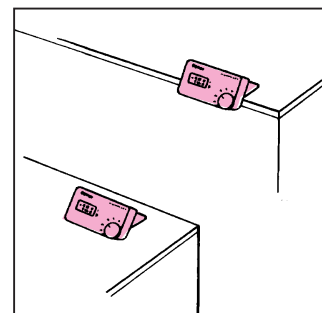
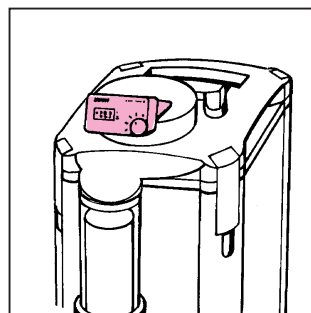
Installatie verwarmer

Temperatuurvoeler van het bedieningsdeel met 2 zuigers en klembeugel zo in het aquarium bevestigen, dat deze zich **onder het water-oppevlak bevindt**.



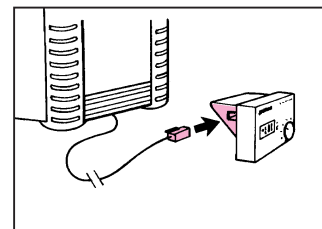
Het bedieningsdeel ergens plaatsen of met het bijgaande klittenband aan de aquariumafdekkap of op de filterpot bevestigen.

Tegen drupwater beschermen



Aansluitend de bedienings-kabel uit de filterpot naar het bedieningsdeel leiden en de stekker zo aansluiten, dat deze hoorbaar pakt.

Electriciteitskabel nog niet in het stopcontact stekken!

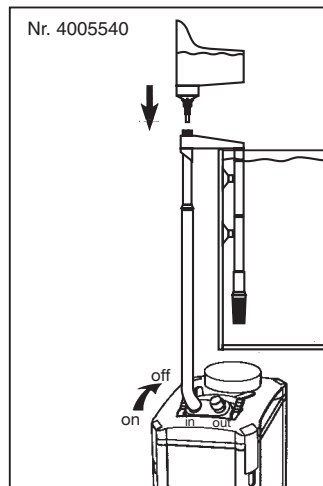
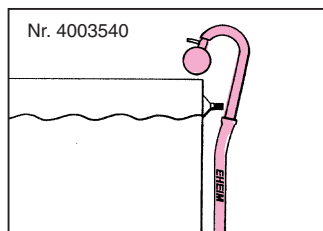
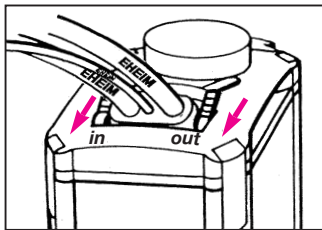


Inbedrijfneming

Let op: Het aquarium mag niet tot de maximale hoogte gevuld zijn, daar de waterspiegel door de telkens wisselende waterstand in de filter verandert.

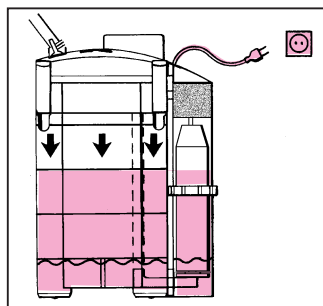
Open de kraan aan de zuigzijde (**IN**) en breng de waterkringloop tot stand. U kunt hierbij eventueel gebruik maken van de aanzuiger (bestelnr. 4003540) of de aanzuighulp (bestelnr. 4005540, ø 16 mm).

De filter vult zich dan met water. Daarna kraan aan de drukzijde (**OUT**) openen.

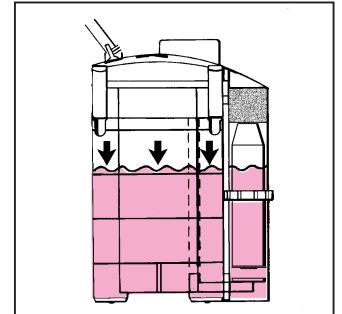
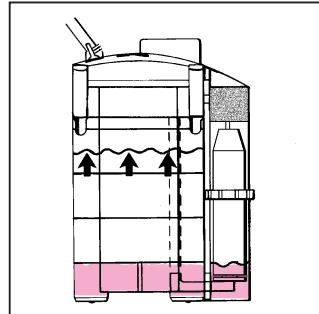


Filter via de netstekker in bedrijf nemen. Zodra de pomp is aangelopen, moet de waterstand in de filterpot tot het onderste schakelpunt dalen.

Is dit punt bereikt dan sluit de vlotter automatisch het interval-aansluitstuk en de filterpot vult zich weer met water.

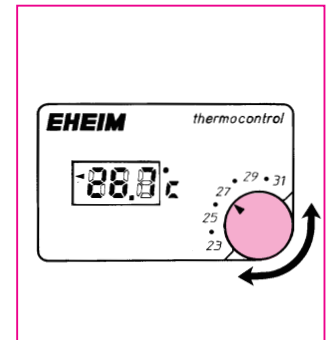
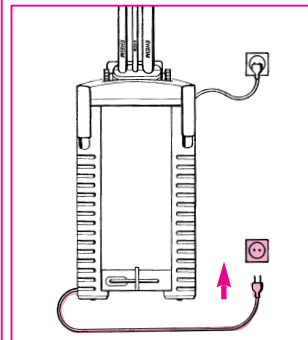


Tegelijkertijd wordt via de bypass-opening een kleinere hoeveelheid gefilterd water terug de bak in gevoerd. De waterspiegel stijgt in de interval-besturing niet mee. Eerst als in de filterpot de bovenste korf gevuld is wordt door een opening in de vlotter de interval-besturing met water gevuld; nu opent de vlotter het aanzuigstuk en de filter wordt opnieuw gelegd.



°C Thermofilter

Opgelet: Eerst als de filter gelijkmatig werkt de stekker van de verwarmers in het stopcontact steken. Verwarmer nooit droog in bedrijf nemen.



Het display van het bedieningsdeel geeft de actuele watertemperatuur in het aquarium aan. Kies nu via de stelknop de door U gewenste temperatuur (b. v. 27 °C). Een symbool (◀) geeft aan, wanneer de verwarmers werkt. Dooft dat teken dan is de ingestelde temperatuur bereikt en wordt de verwarmers automatisch uitgeschakeld. Daalt de temperatuur in het aquarium beneden de ingestelde waarde dan schakelt de verwarming automatisch weer in. Door de stelknop licht te draaien kan een nauwkeurig afstellen plaats vinden.

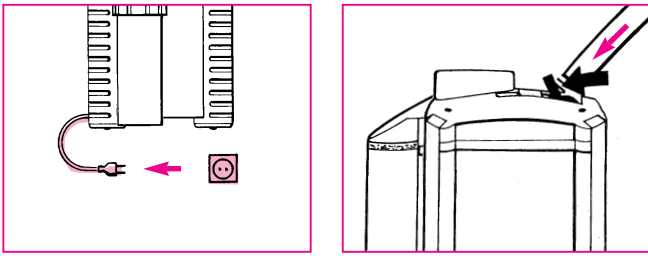
Opmerking: Afhankelijk van de omgevingstemperatuur, instelmodus en tolerantiewaarden, geeft het display de werkelijke temperatuur eerst na enkele uren aan.

Als de stroom wegvalt dan verandert de aangegeven waarde op het display en stopt de verwarmers met functioneren. Als de stroom weer wordt ingeschakeld werkt de verwarmers weer normaal.

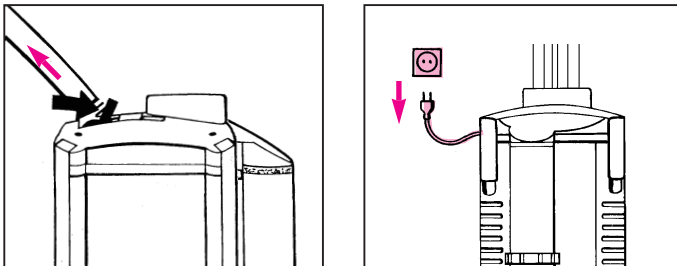
Onderhoud

C° Thermofilter

Eerst de netstekker van de verwarmers uittrekken. Afsluithefboompje aan de **toevoerkant (IN)** van de adapter sluiten, zodat de filter leegloopt.



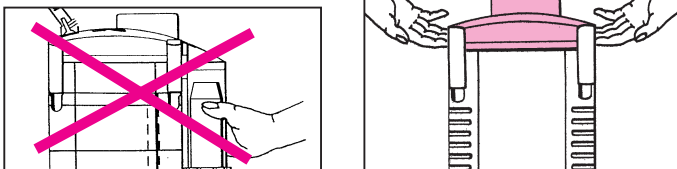
Zodra de pomp met veel geruis lucht aanzuigt het afsluithefboompje aan de **drukszijde (OUT)** van de adapter afsluiten en de **netstekker uit het stopcontact halen**.



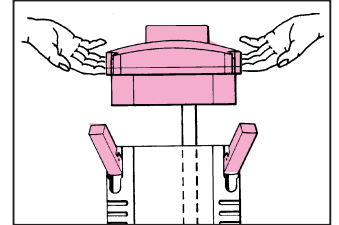
Vergrendelingsbeugel naar boven klappen en de adapter uit de filterkop trekken.

Buitenfilter aan de handgrepen uit de kast nemen.

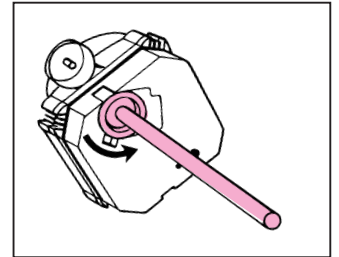
Opgelet:
Niet aan de intervalbesturing trekken.



Alle sluitclips openen en filterkop afnemen.

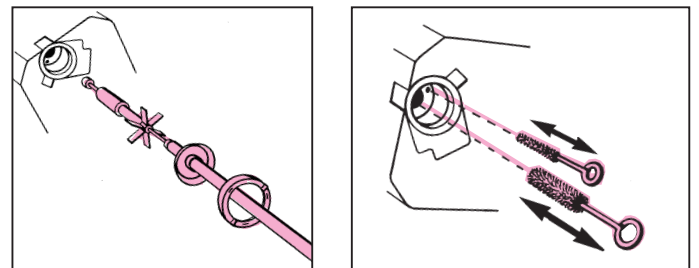


Voor het schoonmaken van de pompkamer opent U de afsluitring aan de bodem van de filterkop door naar links te draaien.

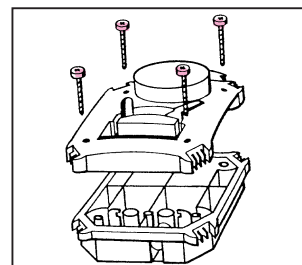


Dan de pompdeksel met buis, rotor met pomprad en as verwijderen.

Pompdelen en smeerkanaal met EHEIM-reinigingsset (best. nr. 4009580) grondig schoonmaken. As voorzichtig afspoelen (gevaar voor breuk!) en aansluitend rotor weer in elkaar zetten en plaatsen. Slangen met de bijgeleverde reinigingsborstel schoonmaken.



Bij de montage op het goed zitten van ashouders, pompdeksel en dichtingsring letten. Vervolgens pomp met sluitring weer vastzetten.



TIP:

Indien bij het schoonmaken water in de afdekkap van de filterkop gekomen is, kan de kap afgeschroefd en met een doek drooggemaakt worden.

Filtermassa's:

Verwijder de zeef en de filterinzetstukken uit de filterpot.

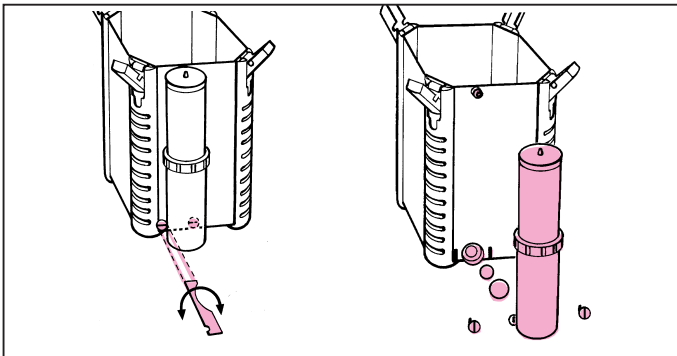
Spoel de filtermassa met lauwwarm water grondig uit – zolang tot geen vertroebeling meer zichtbaar is.

TIP:

Bij het inzetten van nieuw SUBSTRAT^{pro} of EHFI-SUBSTRAT telkens ca. 1/3 van de gebruikte filtermassa met het nieuwe materiaal mengen, zodat de bacterieculturen zich sneller vermeerderen.

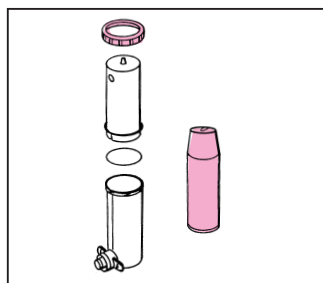
Demonteer nu de interval-besturing door met de vergrendelingsleutel de beide vergrendelingen te openen, zodat de gleuven loodrecht staan.

Interval-besturing afnemen, dichtvlak en dichtingsring schoonmaken.



Sluitring van de intervalbesturing in de aangegeven draairichting openen, vlotter uitnemen en voorzichtig met een zachte spons reinigen.

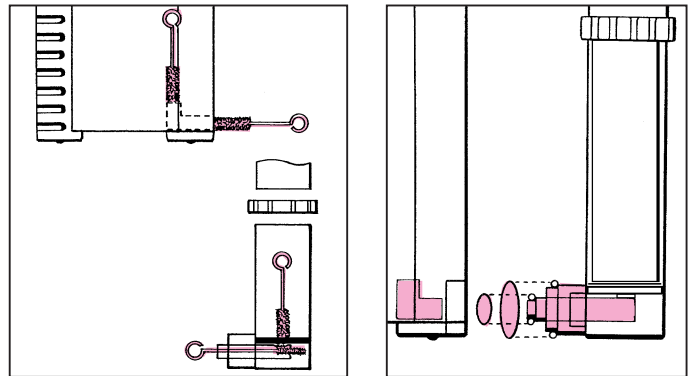
Alle delen van de besturing eveneens schoonmaken. Filterpot uitspoelen.



°C Thermofilter

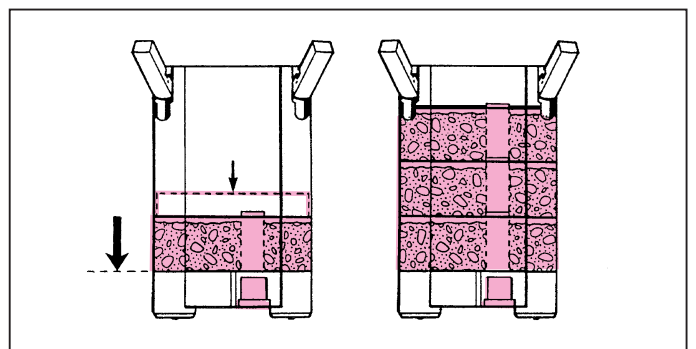
Filterpot uitspoelen. Af en toe het vuil van de verwarmingsspiraal verwijderen. Verwarmingsspiraal niet verbuigen. Filterpot niet onder water dompelen! Verwarmingselectronica tegen drupwater beschermen.

Aansluitstukken van de pot en besturing – inclusief de bypass-opening – met borstel reinigen. Interval-besturing weer in elkaar zetten en aan de filterpot monteren. Let daarbij op het goed zitten van de dichtingsringen.

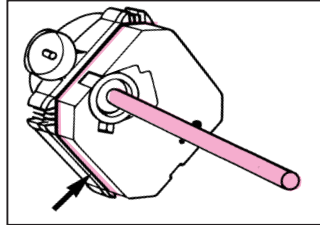


Het onderste filterinzetstuk zo in de pot doen, dat de buisdoorvoer boven het aansluitstuk van de intervalbesturing zit. Inzetstuk vast tot op het steunvlak aandrukken teneinde een goede afdichting van de filterpot te garanderen.

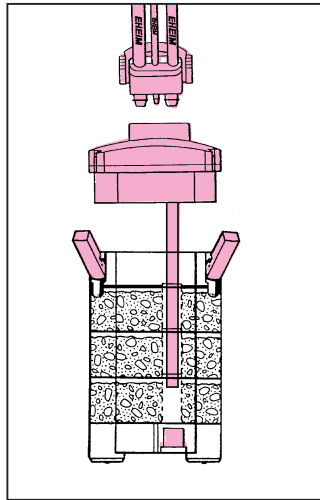
Aansluitend het tweede (en derde) filterinzetstuk inschuiven, waarbij de buisopeningen boven elkaar moeten liggen. Op een goed zitten van de filterinzetstukken letten. Afdekzeef plaatsen.



Nagaan of de verbinding-
buis van de filterkop stevig
in het pompdeksel zit en
controleren of de profiel-
dichting goed zit en schoon
is.

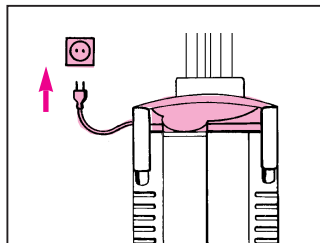


Dichtingsring van de filter-
kop licht met vaseline in-
vetten. Filterkop op de filter-
pot plaatsen. Clips sluiten
en de filter in de onderkast
plaatsen.



Controleren of de 3 dich-
tingsringen van de adapter
niet beschadigd en goed
geplaatst zijn en er een beet-
je vaseline opsmeren; adap-
ter inzetten en vergrendelen.

Nadat de beide kranen op de
adapter weer geopend zijn
(positie **ON**), wordt de filter
automatisch met water ge-

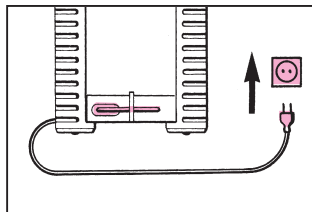


Filter met de netstekker **van**
de filterkop in bedrijf stellen.

Opmerking: Regelmatig controleren of alle slangverbin-
dingen nog goed zitten.

C° Thermofilter

Opgelet:
Netstekker van de ver-
warmer pas instekken,
wanneer de filter gelijk-
matig werkt. Verwarmer
nooit droog in bedrijf
nemen.



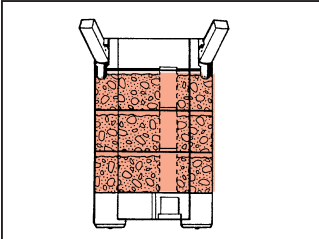
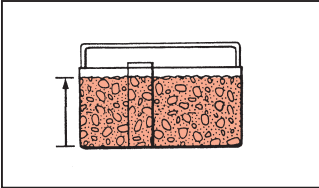
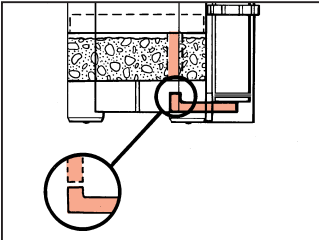
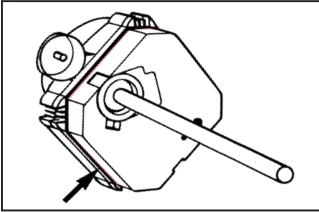
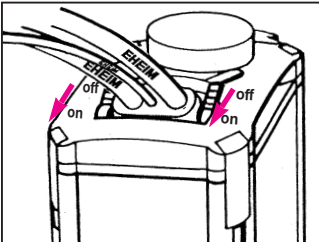
**Alleen voor gebruik binnenshuis. Voor U Uw handen in
het aquariumwater steekt, alle zich in het water bevin-
dende elektrische apparaten uit het stopcontact halen.
Bij thermofilters altijd eerst de stekker van de verwarm-
er uit het stopcontact nemen.**

2227/2229: De aansluitkabels van deze apparaten kunnen
niet vervangen worden; bij beschadiging van de kabel mag
het apparaat niet meer gebruikt worden.

2327/2329: Alleen bevoegd personeel mag het apparaat
openen en snoeren vervangen. Zendt het apparaat aan Uw
detaillist of een EHEIM-servicedienst. Mag alleen op een
geaard stopcontact aangesloten worden.

Filter mag in principe alleen rechtopstaand functioneren.

Wat te doen, indien ...

Storing	Oorzaak	Oplossing	
Filterkop kan niet gesloten worden	Filterinzetstukken niet goed geplaatst.	Filterinzetstukken zo plaatsen , dat de buisdoorvoeren boven elkaar liggen.	
	Filterinzetstukken te vol gedaan.	Alleen SUBSTRATpro of EHFISUBSTRAT als filtermassa gebruiken , filterinzetstukken niet te vol doen. Eventueel de op elkaar rustende vlakken van de inzetstukken reinigen.	
	Buisdoorvoer in de filterpot is vervuild.	Buisdoorvoer reinigen.	
	Profieldichting niet goed gemonteerd.	Dichting goed in de daarvoor bedoelde sponning plaatsen.	
Filter vult zich niet, geen intervalfunctie	Toevoerkraan van de adapter is nog gesloten of niet geheel geopend.	Toevoerkraan tot de aanslag openen.	
	Toevoerslang geknikt of vervuild.	Slang zonder knikken plaatsen, slang reinigen.	

Wat te doen, indien ...

Storing

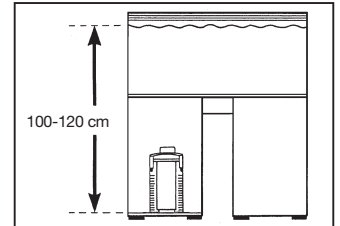
Oorzaak

Oplossing

Filter vult zich niet, geen intervalfunctie

Opstelhoogte te gering.

De opstelhoogte moet tussen 100 en 120 cm bedragen.

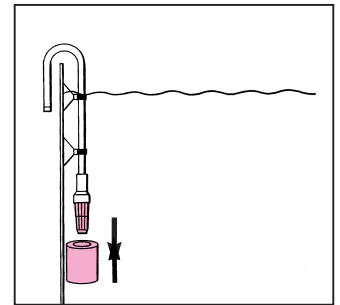


Filterkorf vuil.

Filterkorf reinigen.

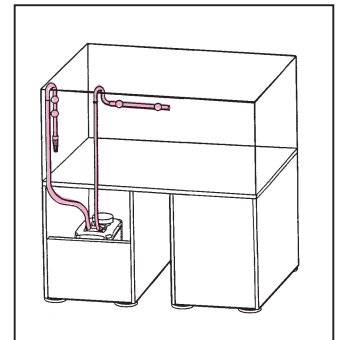
Schuimstofvoorfilter vuil.

Schuimstofvoorfilter reinigen. Na filterinlooptijd verwijderen (6 – 8 weken).



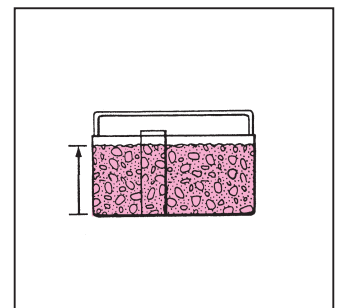
Verkeerde slanglengte, verkeerde accessoires aangesloten.

Uitsluitend originele EHEIM-slangen van gelijke lengte gebruiken! Geen extra accessoires gebruiken.

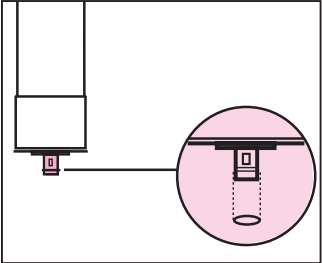
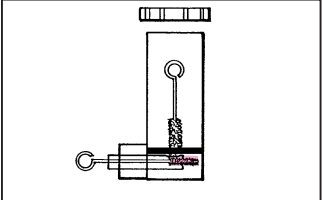
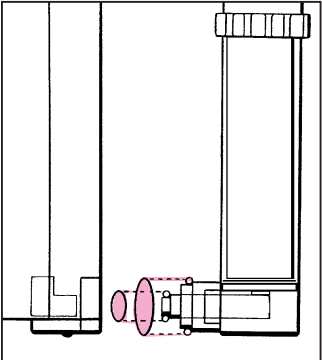
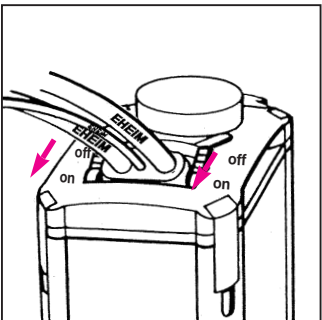
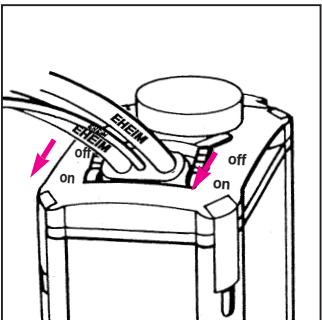


Verkeerde filtermassa gebruikt.

Uitsluitend SUBSTRATpro of EHFISUBSTRAT als filtermassa gebruiken, filterinzetstukken niet te vol doen, geen filterwatten of groffilterkussen gebruiken!



Wat te doen, indien ...

Storing	Oorzaak	Oplossing	
Filter vult zich niet, geen intervalfunctie	Dichtingsring aan de vlotter ontbreekt of is niet goed gemonteerd.	Dichtingsring goed monteren.	
	Dichtingsring van de vlotter is vuil of versleten.	Dichtingsring reinigen of indien nodig vernieuwen.	
	Bypass-boring in de intervalbesturing is vervuild.	Bypass reinigen.	
	Dichtingsring aan het kleine aansluitstuk van de intervalbesturing versleten, niet of niet goed gemonteerd.	Dichtingsring goed monteren of indien nodig vernieuwen.	
Filter loopt niet leeg, geen intervalfunctie	Filter staat scheef.	Filter loodrecht plaatsen.	
	Terugvoer kraan van de adapter is gesloten of niet geheel geopend. Terugvoerslang is geknikt of vervuild.	Terugvoer kraan tot de aanslag openen. Slang zonder knikken plaatsen, slang reinigen.	

Wat te doen, indien ...

Storing

Oorzaak

Oplossing

Filter loopt niet leeg, geen intervalfunctie

Slanglengte niet goed, verkeerde accessoires aangesloten.

Verkeerde filtermassa geplaatst.

Opstelhoogte is te groot.

Lucht in de pompkamer.

Be- en ontluchtings slang geknikt of vervuild.

Opening van de ontluchtingsbuis is onder het wateroppervlak geplaatst.

Boring resp. stijgbuis van de vlotter vervuild.

Uitsluitend originele EHEIM-slangen van gelijke lengte gebruiken! Geen extra accessoires gebruiken!

Uitsluitend SUBSTRAT^{pro} of EHFISUBSTRAT als filtermassa gebruiken. Filterinzetstukken niet te vol doen, geen filterwatten of groffilterkussen gebruiken!

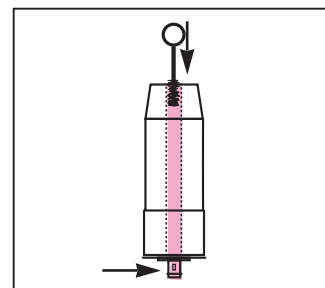
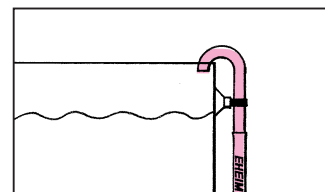
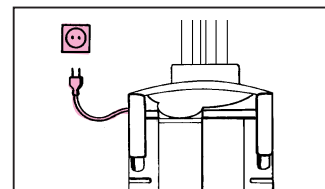
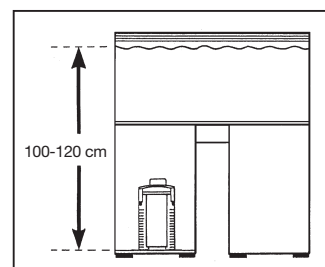
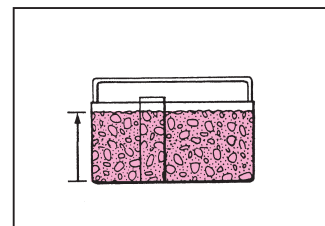
Opstelhoogte moet tussen de 100 en 120 cm bedragen.

Toe- en afvoerkranen openen, stekker uit stopcontact halen en ca. 1 min. wachten tot de pompkamer zich met water gevuld heeft. Stekker weer in stopcontact doen.

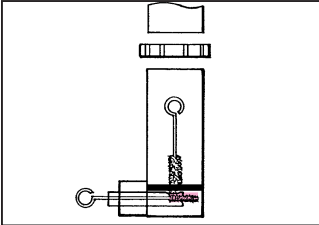
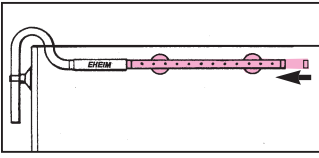
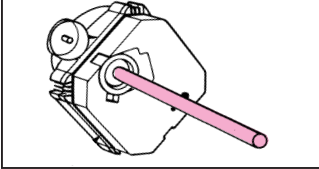
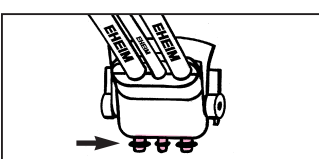
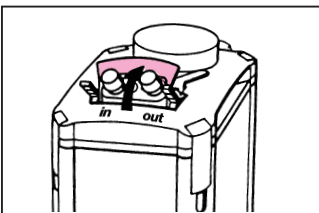
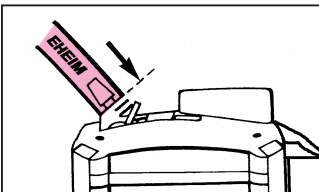


Slangen zonder knikken plaatsen resp. reinigen.

Ontluchtingsbuis goed installeren.

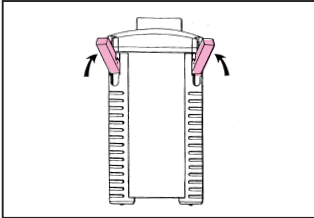
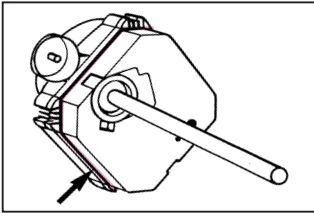
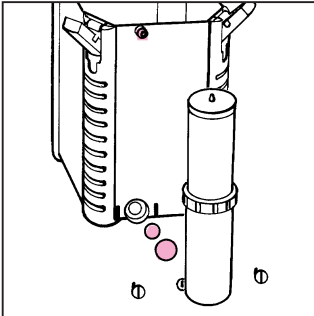
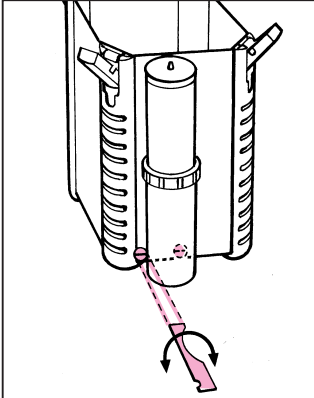
Boring resp. stijgbuis schoonmaken.



Wat te doen, indien ...

Storing	Oorzaak	Oplossing	
Filter loopt niet leeg, geen intervalfunctie	Bypass-boring in de intervalbesturing vervuild.	Bypass reinigen.	
	Filter staat scheef.	Filter loodrecht plaatsen.	
	Sproeierbuis is vuil.	Sproeierbuis reinigen.	
	Sluitstop van de sproeierbuis ontbreekt.	Sluitstop plaatsen.	
	Verbindingsbuis aan de pompdeksel niet correct geplaatst.	Verbindingsbuis goed monteren.	
Filter lekt bij de adapter	De met de dichtingsringen af te sluiten oppervlakken zijn vuil.	Dichtoppervlakken reinigen.	
	Dichtingsringen niet gemonteerd of beschadigd.	Dichtingsringen goed plaatsen resp. vernieuwen.	
	Vergrendelingsbeugel niet geheel gesloten.	Vergrendelingsbeugel tot de aanslag sluiten.	
	Aansluitslangen niet volgens de instructies aangesloten.	Aansluitslangen tot de aanslag opschuiven en met de slanghouder vastzetten.	

Wat te doen, indien ...

Storing	Oorzaak	Oplossing	
Filter lekt bij filterkop	Niet alle afsluitclips zijn gesloten.	Alle afsluitclips goed sluiten.	
	Dichtingsoppervlak of profieldichting vervuild. Dichting niet gemonteerd, fout gemonteerd of beschadigd.	Dichtingsoppervlak reinigen. Dichting goed plaatsen resp. vernieuwen.	
Filter lekt bij de intervalbesturing	Dichtingsoppervlakken van de dichtingsringen vervuild.	Dichtingsoppervlakken reinigen.	
	Dichtingsringen niet of niet goed geplaatst.	Dichtingsringen goed monteren.	
	Afsluitring van de interval-elementen niet tot de aanslag gesloten.	Afsluitring van de intervalbesturing in de aangegeven draairichting tot de aanslag sluiten.	
Vergrendelingen niet gesloten.	Vergrendelingen met de vergrendelings sleutel sluiten, zo dat de gleuven horizontaal staan.		

EHEIM professional filtro esterno asciutto/bagnato 2227 e 2229

EHEIM professional termofiltro asciutto/bagnato 2327 e 2329

① Testata/corpo pompa ② Guarnizione di tenuta ③ Tubo di raccordo
④ Griglia di copertura ⑤ Cestelli estraibili per i materiali filtranti ⑥ Clips di bloccaggio ⑦ Contenitore esterno ⑧ Cilindro meccanismo asciutto/bagnato ⑨ Anello di bloccaggio ⑩ Galleggiante ⑪ Dispositivi di fissaggio ⑫ Blocco di raccordo a rubinetti doppi ⑬ Morsetto stringitubi ⑭ Tubo di mandata ad arco ⑮ Diffusore a spruzzo con tappo ermetico ⑯ Tubo di aspirazione ⑰ Gabbietta di aspirazione ⑱ Cartuccia prefiltro ⑲ Sfiatatoio ⑳ Tubi flessibili ㉑ Ventose a clips ㉒ Chiave per i dispositivi di fissaggio ㉓ Vaseline ㉔ Spazzola. **Termofiltro:** ㉕ Unità di controllo ㉖ Sensore temperatura ㉗ Velcro adesivo.

Attenzione: I termofiltri 2327 e 2329 sono solo adatti per l'uso in acqua dolce.

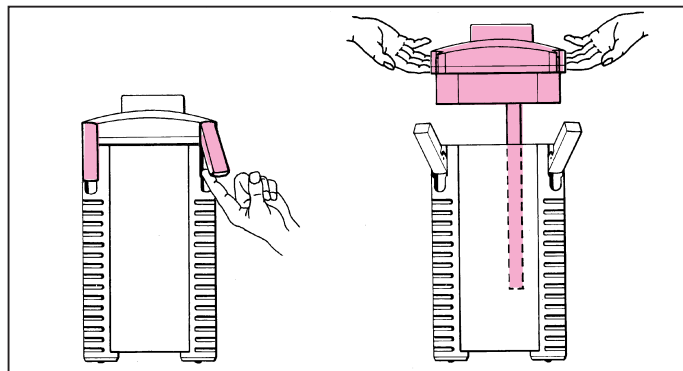
Dopo aver aperto la confezione, controllare immediatamente che vi siano contenuti tutti i pezzi.

Montaggio

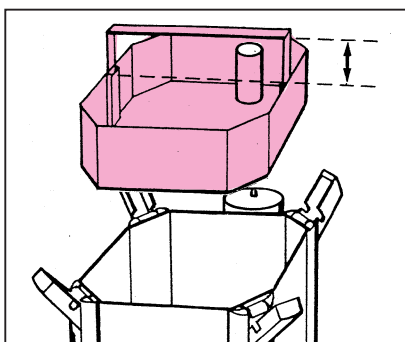
Attenzione:

Per garantire la funzione sincronizzata del filtro asciutto/bagnato, utilizzare soltanto i pezzi originali contenuti nella confezione. Non apportare modifiche alle zone di aspirazione e di mandata.

Solleverare le quattro clips di bloccaggio del contenitore e spingerle verso l'alto. Il corpo pompa può essere facilmente sollevato con l'aiuto delle apposite incavature ricavate nella testata.



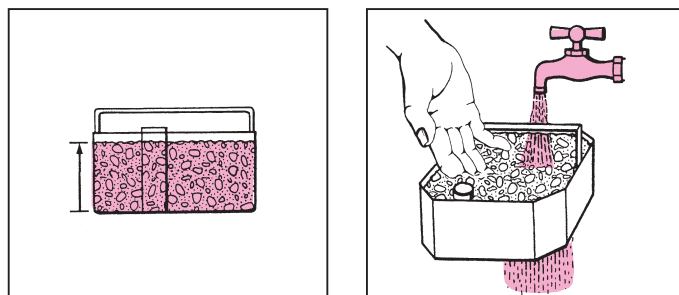
Estrarre la griglia di copertura ed i cestelli per i materiali filtranti uno dopo l'altro. Per facilitare l'operazione, afferrare e sollevare le maniglie retrattili.



Riempire i cestelli solo con il materiale filtrante SUBSTRATpro o EHFISUBSTRAT, lasciando un poco di spazio con il bordo superiore.

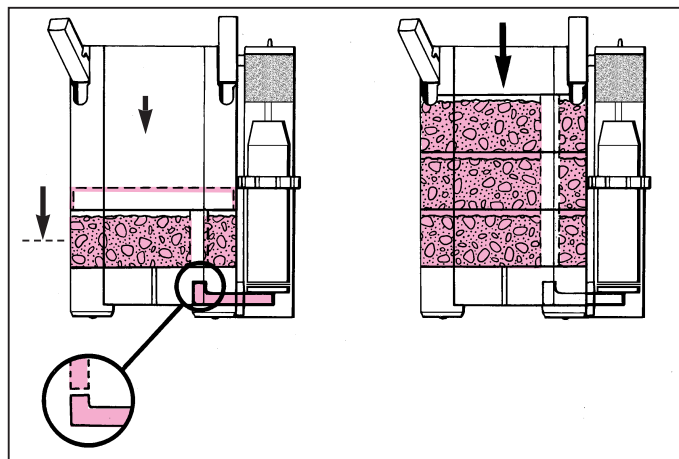
Attenzione: Non riempire esageratamente per non intasare l'apertura del tubo di raccordo. Caricare tutti i cestelli esclusivamente con SUBSTRATpro o EHFISUBSTRAT.

Sciquare a fondo sotto il rubinetto il materiale filtrante contenuto nei cestelli, finché l'acqua non sia completamente limpida.



Dopo essersi accertati che i raccordi del sistema asciutto/bagnato sono puliti, reinserire il primo cestello nel contenitore.

Assicurarsi che il tubo di raccordo appoggi direttamente sul raccordo che collega al cilindro asciutto/bagnato, e premere il cestello verso il basso finché non sia fermamente posizionato sui bordi di supporto, in modo di garantire una tenuta ermetica tra cestello e contenitore.



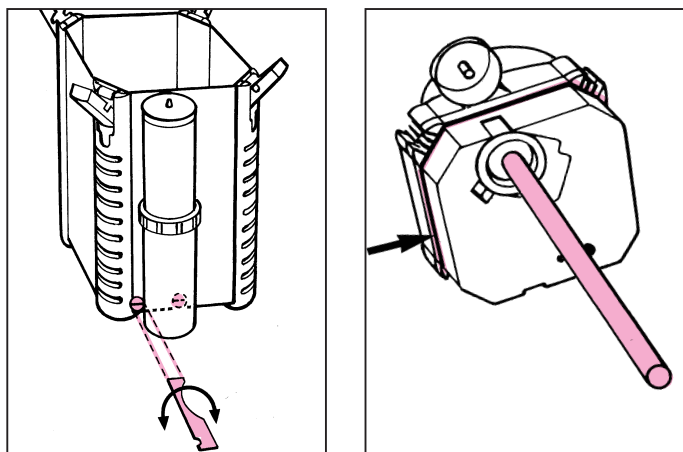
Inserire allo stesso modo il secondo (e terzo) cestello, assicurandosi che le guide del tubo di raccordo coincidano.

Abbassare nuovamente la maniglia di ciascun cestello, in modo che tutti i cestelli siano ben sistemati uno sopra l'altro. Collocare la griglia.

Controllare che il cilindro asciutto/bagnato sia ben fissato al contenitore esterno: l'ugello superiore deve incastrarsi nel raccordo in alto del contenitore, e i due dispositivi inferiori di fissaggio devono essere girati in modo che gli intagli siano orizzontali.

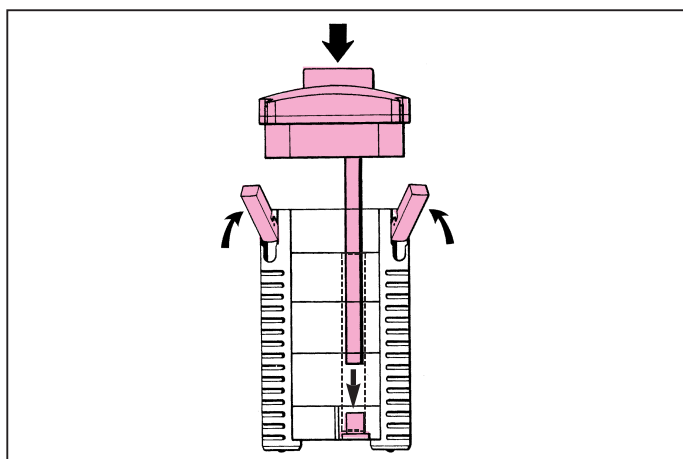
Per girare i dispositivi di fissaggio, utilizzare l'apposita chiave inclusa nella confezione.

Attenzione: rimuovere la spugna che protegge il galleggiante nel trasporto.



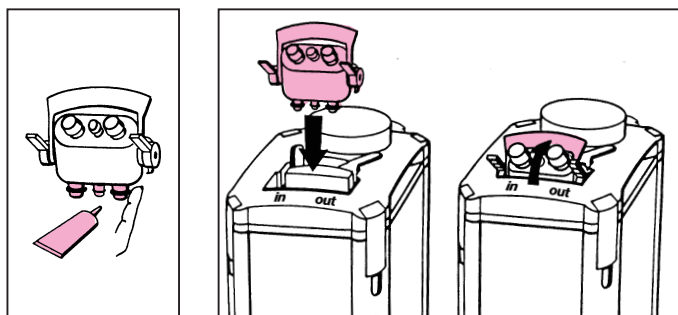
Ingrassare leggermente la guarnizione del tubo di raccordo e fissare alla base del coperchio coprigirante nella testata della pompa. Controllare che la guarnizione di tenuta nella testata della pompa non sia sporca, e che sia ben posizionata nell'incavo apposito.

Posizionare il corpo pompa sul contenitore esterno, in modo che il tubo di raccordo della testata entri nelle guide di raccordo dei cestelli estraibili, e assicurarsi che sia collocato esattamente sul raccordo che collega al cilindro asciutto/bagnato. Chiudere le quattro clips di bloccaggio.



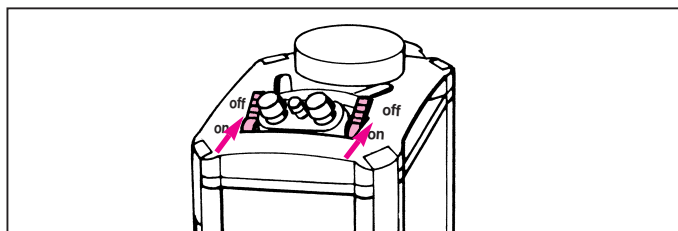
Attenzione: Prima di inserire sul corpo pompa il gruppo rubinetti, controllare che le tre guarnizioni siano integre e perfettamente in sede. Ingrassare le guarnizioni con un poco di vasellina per facilitarne il montaggio.

Inserire il blocco di raccordo nell'apertura prevista sulla testata della pompa, con la maniglia in posizione alzata. Per fissare il blocco di raccordo al corpo pompa, abbassare la maniglia fino allo scatto.



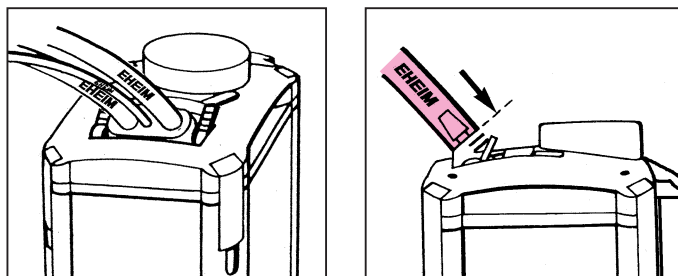
Installazione dei tubi flessibili

Per chiudere i rubinetti doppi d'arresto, spostare le due levette in posizione chiusa (OFF).

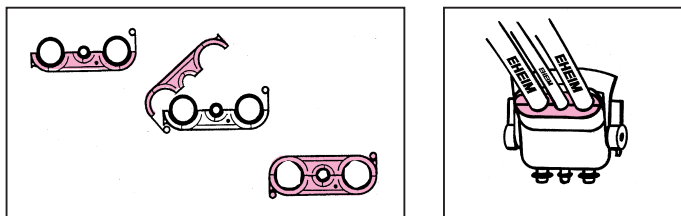


Incominciando con il tubo flessibile dal diametro minore, collocare i tre tubi flessibili contenuti nella confezione nelle rispettive aperture situate sul blocco di raccordo, finché i tubi non siano a contatto con il materiale plastico. Qualora ci fossero difficoltà, prima dell'operazione lasciare per qualche minuto i tubi in acqua calda per renderli più soffici.

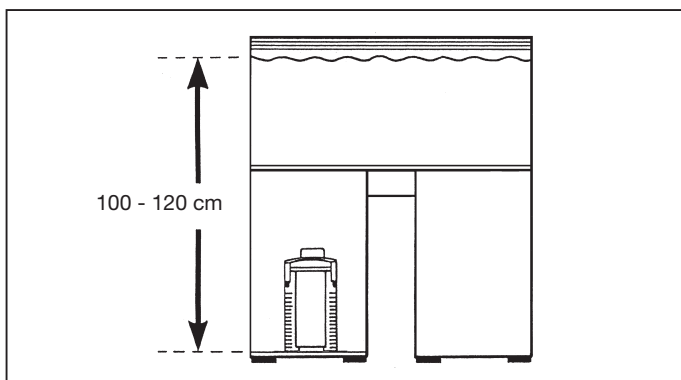
Utilizzare esclusivamente tubi flessibili originali EHEIM.



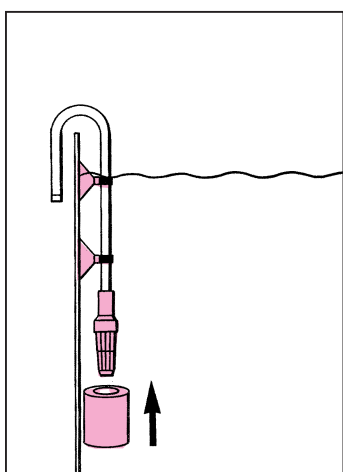
Il morsetto stringitubi, in due pezzi, va posto lateralmente attorno ai tubi montati, e chiuso premendo simultaneamente sui due elementi.



Mettere il filtro così preparato nell'armadietto, controllando l'altezza prescritta per il montaggio: fra la superficie dell'acqua e la base del filtro devono esserci **100 - 120 cm**. Questa distanza deve essere rigorosamente osservata al fine di garantire un perfetto funzionamento del filtro asciutto/bagnato.



Installare la gabbietta di aspirazione al tubo di aspirazione e fissare il tubo con le due ventose a clips alla parete interna dell'acquario.



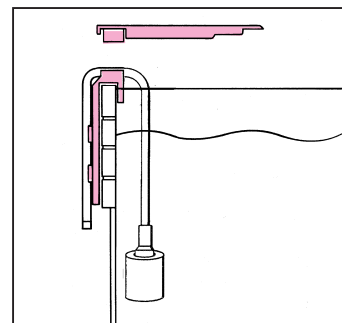
Coprire la gabbietta di aspirazione con la cartuccia prefiltro.

Attenzione:

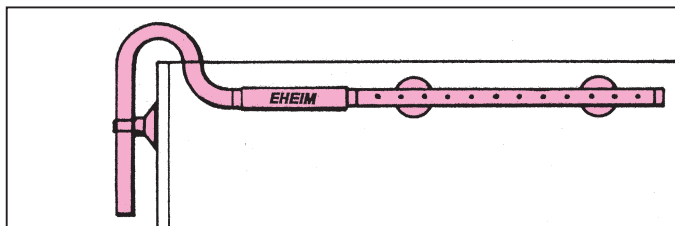
La cartuccia prefiltro va utilizzata solo durante le prime 6 - 8 settimane. Dopo questo periodo iniziale saranno le colonie batteriche della massa filtrante a svolgere la funzione di filtraggio biologico e meccanico. Dopo questo la cartuccia prefiltro deve pertanto essere rimossa.

Consiglio:

Se utilizzate l'interfaccia (n° ordine 7656450) del filtro esterno EHEIM *professional*, il tubo di aspirazione va solo agganciato.

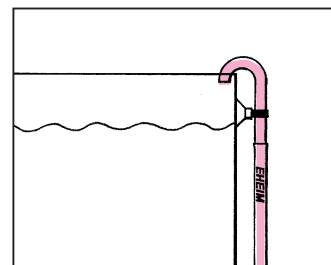
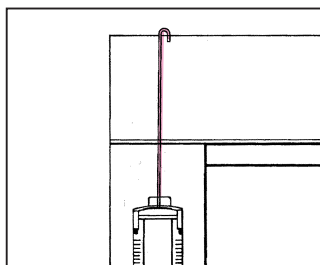


Collegare il tubo di mandata ad arco con il diffusore a spruzzo tramite un piccolo raccordo di tubo flessibile, e montare nell'acquario con l'aiuto delle ventose a clips. A seconda dei spazi disponibili, posizionare sulla parete posteriore o su una parete laterale. Chiudere la parte aperta del diffusore a spruzzo con il tappo ermetico incluso nella confezione.



Far passare i tre tubi flessibili che escono dal filtro lungo la parete posteriore del mobile, e collegare per primo il tubo dell'aria (quello piccolo con Ø 9/12 mm), assicurandosi che sia teso e che non ci siano pieghe.

Accorciare, se necessario, il tubo dell'aria, collegare con lo sfiatoio, e fissare all'acquario con le ventose a clips, in modo che l'apertura del tubo flessibile sia al di sopra della superficie dell'acqua.



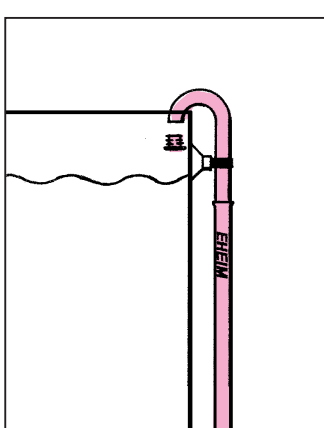
Importante:

Per il trattamento con medicinali e la loro susseguente rimozione, il filtro può essere utilizzato come filtro a flusso continuo.

Estrarre il materiale filtrante e mantenerlo in una bacinella con acqua d'acquario, e riempire il filtro solo con EHFISYNTH o perlon.

Chiudere il tubo dell'aria con un tappo (n° ordine 7272350) e mettere il filtro in funzione.

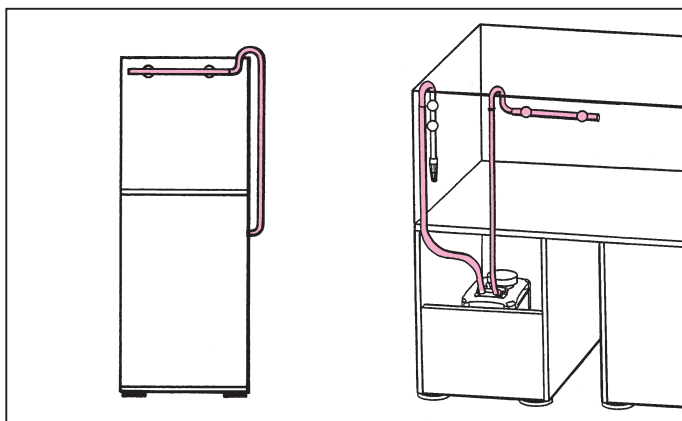
A trattamento terminato, filtrare con carbone (EHFIKTIV) per 4 - 6 giorni per eliminare i medicinali. Dopo di che rimuovere il tappo dal tubo dell'aria e filtrare solo con SUBSTRAT^{pro} o EHFI-SUBSTRAT.



Collegare il tubo di aspirazione con quello di mandata ad arco, in base ai diametri dei tubi flessibili corrispondenti.

Attenzione:

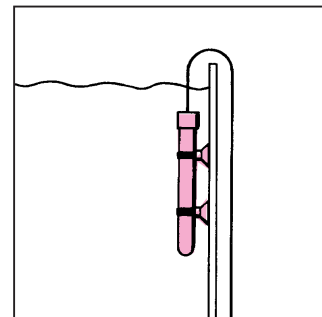
Al fine di garantire un perfetto funzionamento del filtro asciutto/bagnato, assicurarsi che i tubi di aspirazione e di mandata siano tesi e che non formino pieghe. Se necessario, accorciarli della stessa lunghezza.



Suggerimento: Se prima lasciate i tubi flessibili nell'acqua calda per qualche minuto, diventeranno più morbidi e possibili pieghe potranno essere facilmente raddrizzate.

C° Termofiltro**Installazione**

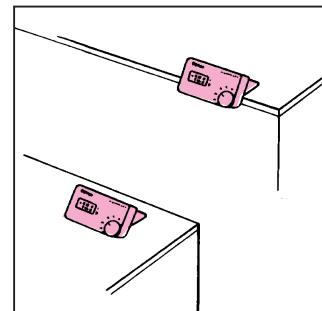
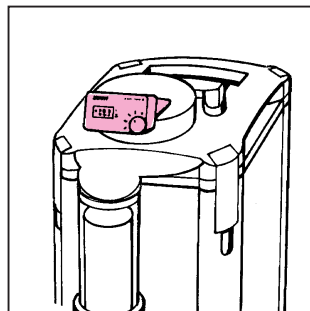
Fissare il termosensore, con l'aiuto delle ventose a clips, nell'acquario, in modo che sia sempre **al di sotto della superficie dell'acqua**.



Evitare il posizionamento vicino al tubo di mandata del filtro.

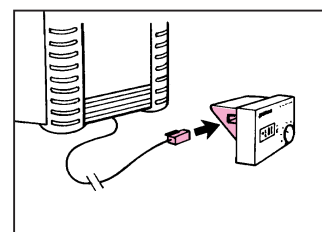
Il termostato può essere posizionato a piacere o sulla plancia, o sul corpo pompa del filtro mediante il velcro adesivo incluso.

Proteggere da spruzzi d'acqua.



Collegare il cavetto che parte dal filtro all'unità di controllo.

Non collegare la spina alla presa di corrente elettrica!

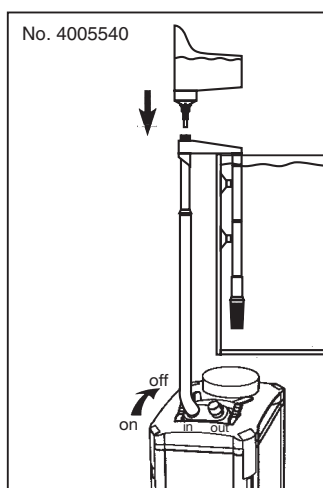
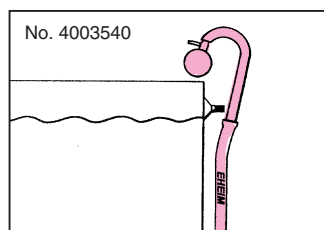
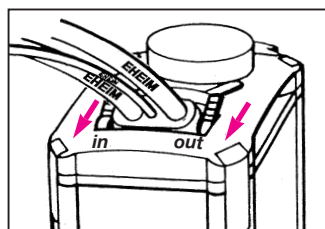


Messa in esercizio

Attenzione: Non riempire l'acquario fino al livello massimo, poiché il livello dell'acqua cambia costantemente in base alla quantità d'acqua presente nel filtro.

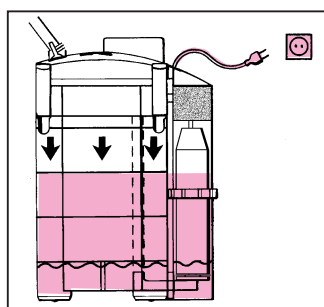
Aprire il connettore a rubinetto del tubo di entrata (**IN**) e innescare il sifone. Usare in alternativa il dispositivo EHEIM di aspirazione (n° ordine 4003540) o il Set sifone (n° ordine 4005540, ø 16 mm).

Quando il filtro è pieno d'acqua, aprire il rubinetto di arresto del lato di mandata (**OUT**).

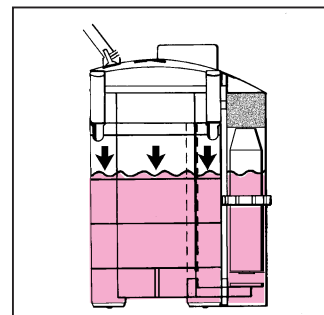
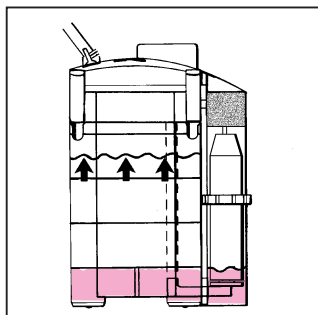


Mettere il filtro in operazione attaccando la spina. Non appena la pompa si mette a girare, il livello dell'acqua presente nel contenitore deve scendere fino al punto di scambio inferiore.

A questo punto il galleggiante chiude automaticamente il raccordo di aspirazione, ed il filtro si riempie di nuovo d'acqua. Contemporaneamente una quantità minore d'acqua filtrata viene rispedita nell'acquario attraverso un'apertura by-pass, garantendo una lubrificazione ottimale della turbina.

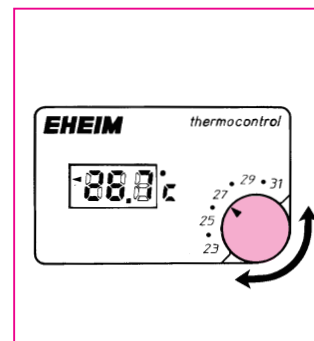
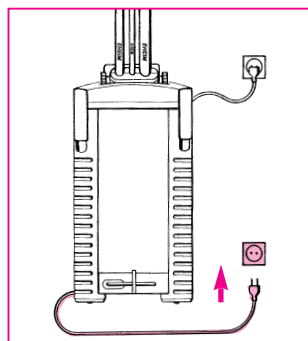


Il livello dell'acqua non sale all'interno del cilindro asciutto/bagnato. Soltanto quando il contenitore si è riempito, coprendo d'acqua il cestello superiore, l'acqua entra nel cilindro attraverso l'apertura nel galleggiante. Il galleggiante quindi apre il raccordo di aspirazione e fa fuoriuscire l'acqua, ed il filtro si svuota.



Termofiltro

Attenzione: Attaccare la spina del riscaldatore solo dopo essersi accertati che il filtro funzioni regolarmente. Non collegare mai il riscaldatore in assenza d'acqua.



Il display sul comando del termostato indica la temperatura attuale dell'acqua nell'acquario. Selezionare la temperatura desiderata tramite la manopola (ad es. 27° C). La presenza del simbolo (◀) indica che il riscaldatore è in funzione. Quando il simbolo si spegne significa che la temperatura desiderata è stata raggiunta e che il riscaldatore si è spento automaticamente. Se la temperatura dell'acquario scende al di sotto del valore prestabilito, il riscaldatore rientra in funzione automaticamente. Girando leggermente la manopola si possono ottenere valori intermedi.

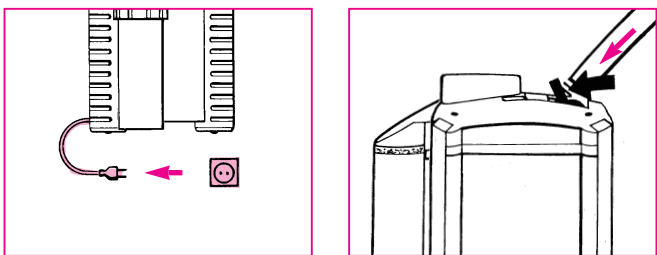
Attenzione: a seconda della temperatura ambientale, temperatura scelta e tolleranze, può succedere che la temperatura attuale appaia sul display solo dopo alcune ore.

In caso di interruzione di corrente, il valore indicato sul display cambia ed il riscaldatore smette di funzionare. Quando la corrente viene ripristinata, il riscaldatore riprende il funzionamento regolare.

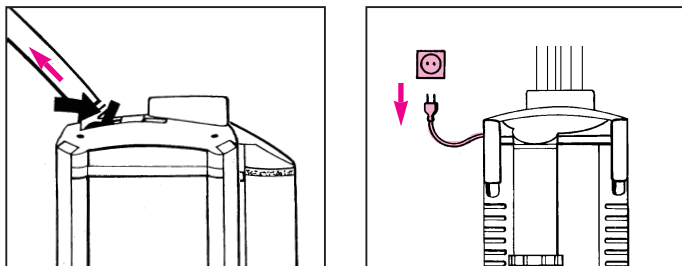
Cura e manutenzione

C° Termofiltro

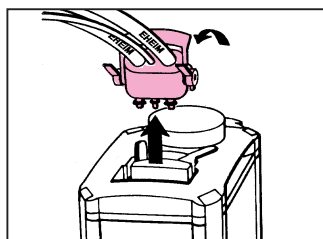
Staccare prima la spina del riscaldatore. Poi chiudere la leva di arresto del lato di **aspirazione (IN)** del blocco di raccordo in modo che il filtro possa svuotarsi.



Non appena la pompa comincia ad aspirare aria in modo rumoroso, chiudere la leva del lato di **mandata (OUT)** del blocco di raccordo ed **estrarre la spina del corpo pompa**.

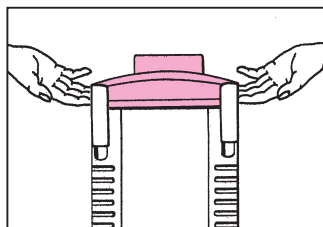
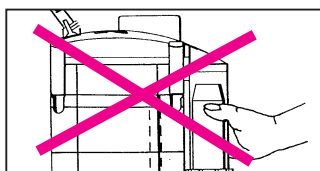


Tirare verso l'alto la maniglia e rimuovere il blocco di raccordo dal corpo pompa. Estrarre il filtro esterno dall'armadietto afferrandolo per le apposite incavature.

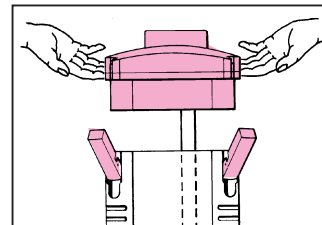


Attenzione:

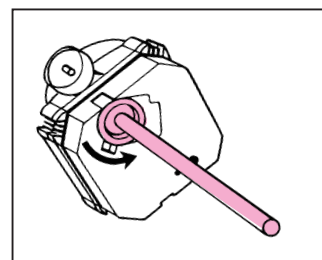
Non tirare il cilindro del meccanismo asciutto/bagnato.



Aprire le quattro clips di bloccaggio e togliere il corpo pompa.

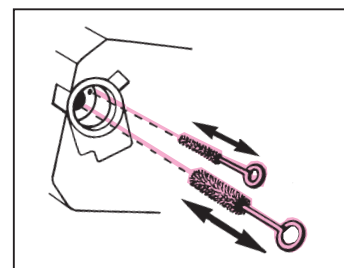
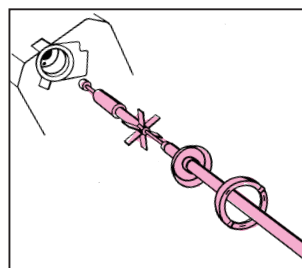


Per pulire il vano pompa, aprire l'anello di bloccaggio situato sotto il corpo pompa, girandolo in senso antiorario. Estrarre quindi il coperchio coprigirante, e la girante completa di asse e boccole.

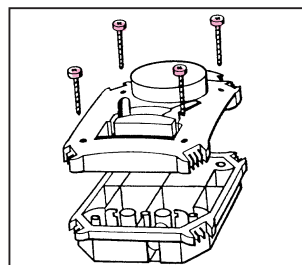


Pulire a fondo tutte le componenti della pompa, incluso il condotto della precamera, con il set di pulizia EHEIM (n° ordine 4009580).

Pulire l'asse con precauzione (pericolo di rottura!), riassemblare la girante e reinserirla nella precamera.



Durante l'assemblaggio fare attenzione al montaggio delle due boccole, del coperchio (con guarnizione) e dell'anello di bloccaggio. Serare quindi l'anello di bloccaggio girandolo in senso orario.



Suggerimento:

Se durante la pulizia dovesse entrare dell'acqua nella calotta del coperchio del corpo pompa, togliere le viti di fissaggio ed asciugare con uno straccio.

Materiali filtranti:

Togliere la griglia di copertura ed estrarre i cestelli con il materiale filtrante dal contenitore.

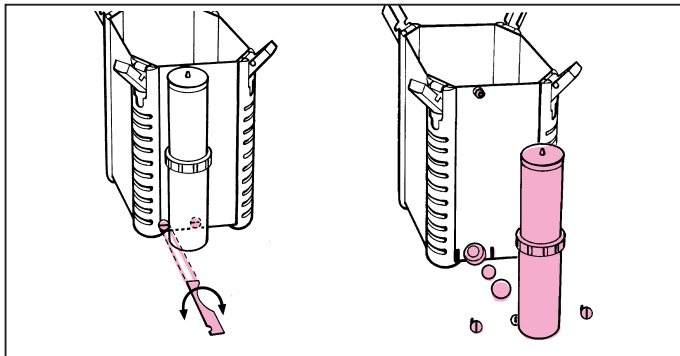
Sciacquare abbondantemente il materiale filtrante SUBSTRAT_{pro} o EHFISUBSTRAT con acqua dell'acquario, finché l'acqua non sia completamente limpida.

Suggerimento:

Quando si utilizza una nuova cartuccia di materiale filtrante SUBSTRAT_{pro} o EHFISUBSTRAT, mescolare il nuovo materiale con circa 1/3 della massa filtrante esistente, cosicché la colonia di batteri possa rigenerarsi più velocemente nella nuova massa filtrante.

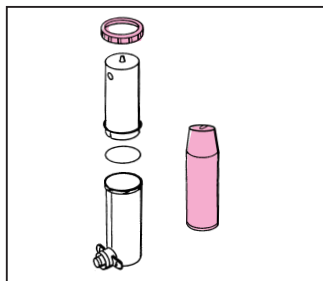
Smontare il cilindro del meccanismo asciutto/bagnato aprendo con la chiave apposita i due dispositivi di fissaggio, in modo che gli intagli siano in posizione verticale.

Rimuovere il cilindro asciutto/bagnato e pulire l'ugello di entrata ed ambedue le guarnizioni.



Aprire l'anello di bloccaggio sul cilindro nella posizione indicata, togliere il galleggiante e pulire con cautela con una spugna morbida.

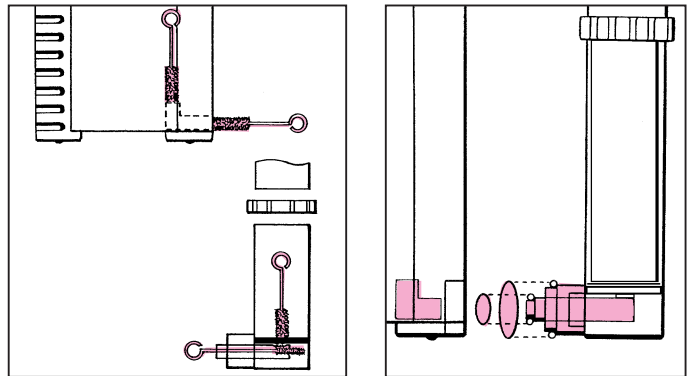
Pulire analogamente tutte le parti del meccanismo asciutto/bagnato. Lavare il contenitore ed il cilindro.



Termofiltro

Sciacquare il contenitore. Pulire l'elemento riscaldante periodicamente da eventuali incrostazioni. Non piegare l'elemento riscaldante. Non porre il contenitore esterno sott'acqua. Proteggere l'elettronica del riscaldatore da spruzzi d'acqua.

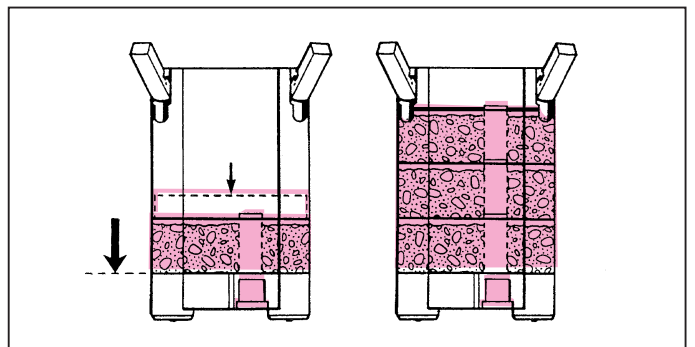
Pulire tutte le parti del meccanismo asciutto/bagnato, e lavare il contenitore ed il cilindro. Pulire con una spazzola i raccordi del contenitore e del cilindro, inclusa l'apertura by-pass. Riasssemblare il cilindro asciutto/bagnato e fissarlo al filtro.



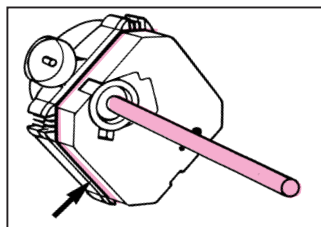
Controllare che le guarnizioni siano ben posizionate e che siano pulite.

Inserire il primo cestello nel contenitore in modo che il tubo di collegamento sia sopra il raccordo che collega al cilindro asciutto/bagnato. Premere il primo cestello verso il basso finché non sia fermamente posizionato sui bordi di supporto, ed assicurarsi che gli altri cestelli formino una tenuta ermetica l'uno con l'altro.

Fare naturalmente in modo che le guide del tubo di raccordo coincidano. Collocare la griglia.

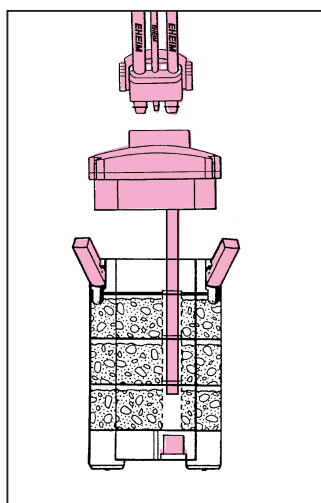


Inserire il tubo di raccordo nel coperchio coprigirante della testata della pompa. Controllare che la guarnizione di tenuta del corpo pompa sia ben posizionata e che sia pulita.



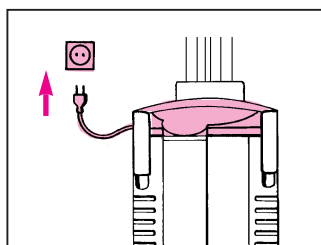
Controllare che le tre guarnizioni del gruppo rubinetti siano integre e perfettamente in sede. Ingrassare le guarnizioni con un poco di vasellina per facilitarne il montaggio.

Posizionare il corpo pompa sul contenitore esterno, chiudere le quattro clips di bloccaggio, e collocare il filtro nell'armadietto. Inserire il blocco di raccordo a rubinetti doppi nella testata e abbassare la maniglia fino allo scatto.



Dopo aver aperto le due levette di aspirazione e di mandata sul blocco di raccordo (posizione **ON**), il filtro si riempirà automaticamente d'acqua ed è pronto all'uso.

Porre il filtro in operazione collegando la spina che esce dalla testata della pompa.

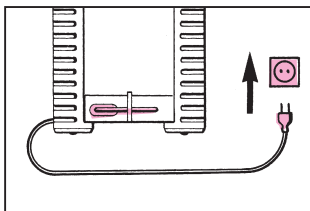


Avvertenza: Controllare periodicamente il corretto fissaggio dei tubi flessibili.

C° Termofiltro

Attenzione:

Collegare la spina del riscaldatore soltanto dopo essersi accertati che il filtro funzioni regolarmente. Non utilizzare mai a secco.



Solo per uso in ambienti chiusi.

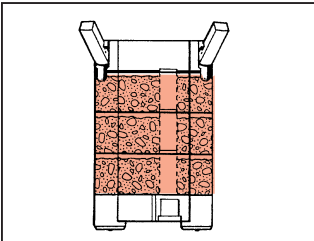
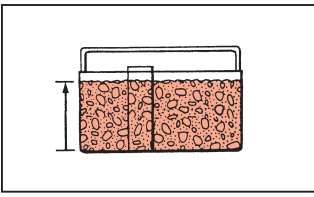
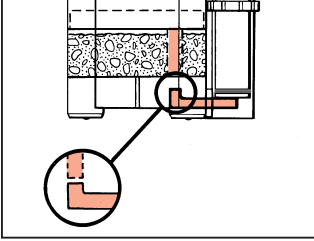
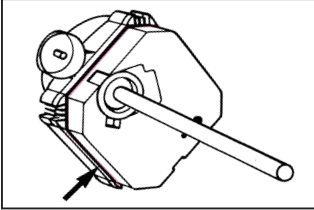
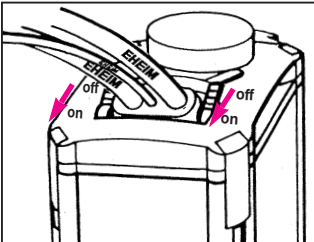
Prima di mettere le mani nell'acquario, assicurarsi che tutti gli apparecchi elettrici che si trovano nell'acquario siano staccati dalla corrente. Per i termofiltri staccare dalla spina prima il riscaldatore, poi la pompa.

2227/2229: Il cavo elettrico non può essere sostituito. In caso di guasto, l'apparecchio non può più essere utilizzato.

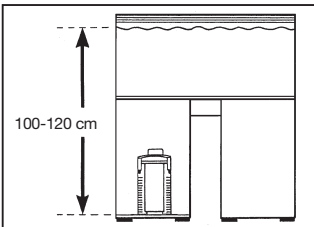
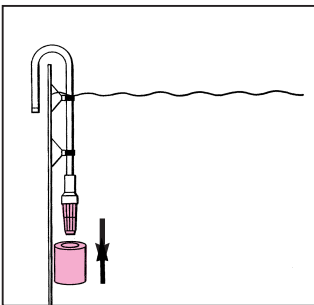
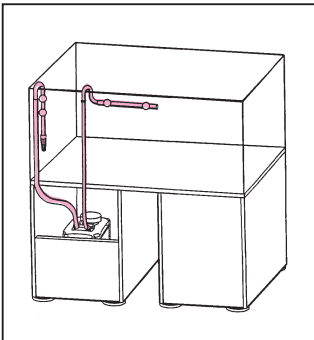
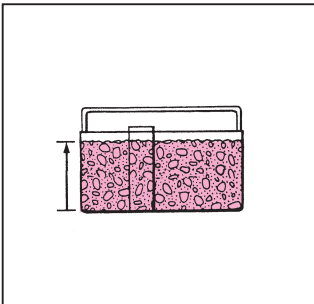
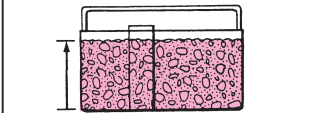
2327/2329: Soltanto un rivenditore specializzato o il servizio di assistenza EHEIM possono aprire l'apparecchio o sostituire il cavo elettrico.

Il filtro deve funzionare esclusivamente in posizione verticale!

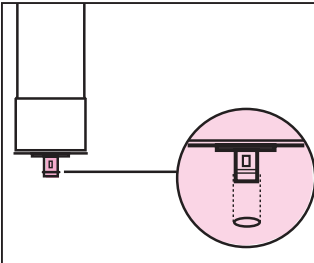
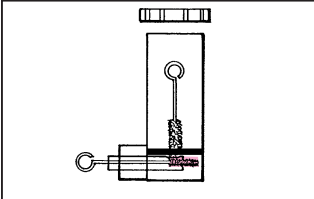
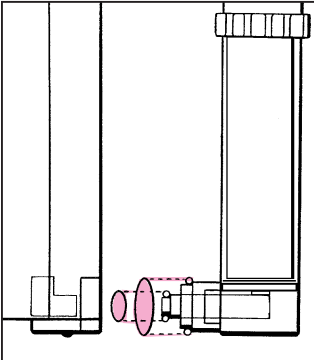
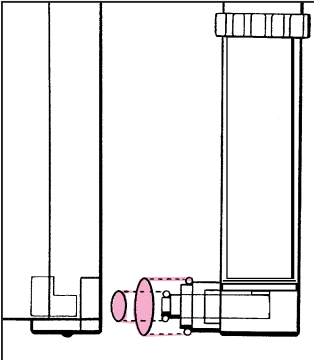
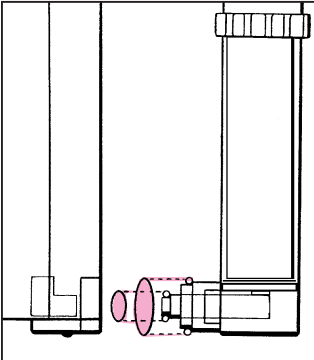
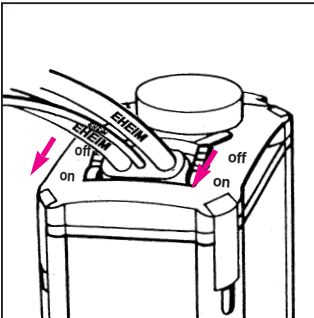
Che cosa fare se . . .

Problema	Causa	Rimedio	
Non si riesce a chiudere il corpo pompa	I cestelli estraibili sono installati male.	Inserire i cestelli in modo che le guide del tubo di raccordo coincidono.	
	I cestelli sono troppo pieni.	Utilizzare esclusivamente SUBSTRAT ^{pro} o EHF-SUBSTRAT come materiale filtrante, e non esagerare con il dosaggio. Eventualmente pulire la superficie di contatto dei cestelli.	
	Le guide del tubo di raccordo nel contenitore sono sporche.	Pulire le guide del tubo.	
	La guarnizione di tenuta non è installata in modo corretto.	Installare correttamente la guarnizione nella scanalatura prevista.	
Il filtro non si riempie, il sistema asciutto/bagnato non funziona	Il rubinetto di aspirazione sul blocco di raccordo è ancora chiuso o non è completamente aperto.	Spostare la levetta del rubinetto di aspirazione in posizione completamente aperta (ON).	
	Il tubo flessibile d'aspirazione è piegato o è sporco.	Disporre il tubo in modo che non ci siano pieghe; pulire il tubo.	

Che cosa fare se . . .

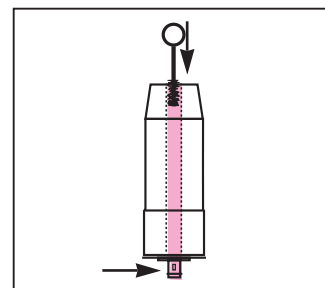
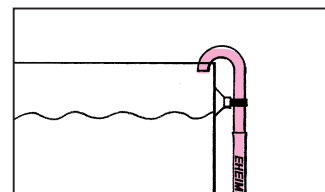
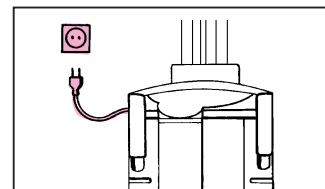
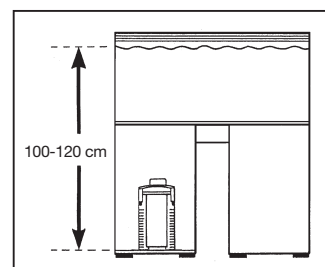
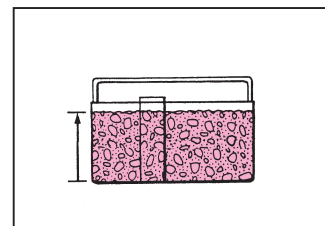
Problema	Causa	Rimedio	
Il filtro non si riempie, il sistema asciutto/bagnato non funziona	Installazione del filtro troppo bassa.	L'altezza dell'installazione deve essere di 100 - 120 cm.	
	La gabbietta di aspirazione è sporca.	Pulire la gabbietta.	
	La cartuccia prefiltro è sporca.	Pulire la cartuccia prefiltro. Dopo le prime 6 - 8 settimane di utilizzo, rimuovere la cartuccia.	
	Lunghezza errata dei tubi, uso di accessori non idonei.	Utilizzare solo tubi originali EHEIM di lunghezza uniforme. Non utilizzare accessori addizionali.	
	Uso di materiale filtrante sbagliato.	Utilizzare esclusivamente SUBSTRAT ^{pro} o EHF1-SUBSTRAT come massa filtrante; non riempire esageratamente i cestelli; non utilizzare lo strato di ovatta o la massa di filtraggio grossolano.	

Che cosa fare se . . .

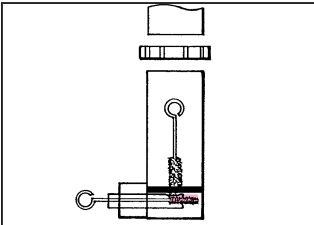
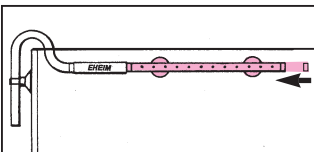
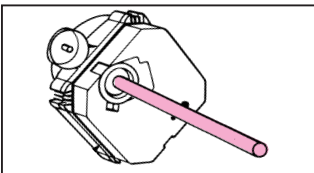
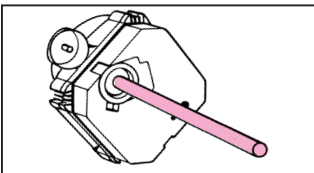
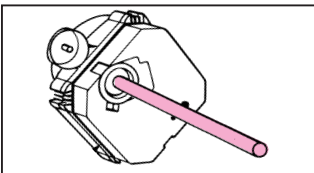
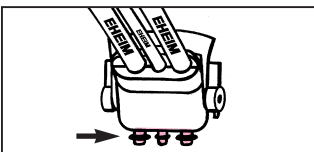
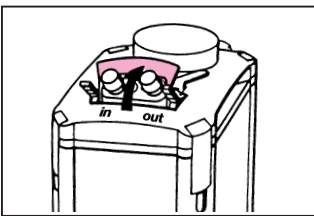
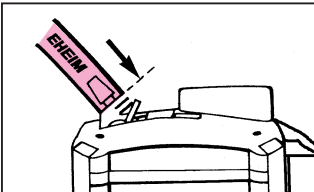
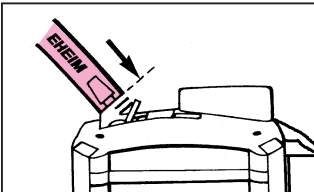
Problema	Causa	Rimedio	
Il filtro non si riempie, il sistema asciutto/bagnato non funziona	Manca la guarnizione del galleggiante, o è stata montata erroneamente.	Montare la guarnizione in modo corretto, se necessario sostituirla.	
	La guarnizione del galleggiante è sporca o è consumata.	Pulire la guarnizione, se necessario sostituirla.	
	L'apertura by-pass è sporca.	Pulire il by-pass.	
	La guarnizione del piccolo raccordo al cilindro è consumata, non è o non è correttamente montata.	Montare la guarnizione in modo corretto, se necessario sostituirla.	
	Il filtro è in posizione obliqua.	Mettere il filtro in posizione verticale.	
Il filtro non si svuota, il sistema asciutto/bagnato non funziona	Il rubinetto di mandata sul blocco di raccordo è chiuso, o non è completamente aperto.	Spostare la levetta del rubinetto di mandata in posizione completamente aperta (ON).	
	Il tubo di mandata è piegato o è sporco.	Disporre il tubo in modo che non ci siano pieghe, pulire i tubi.	

Che cosa fare se . . .

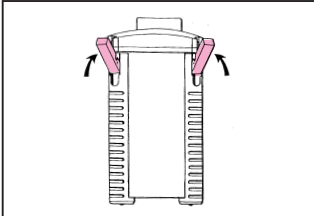
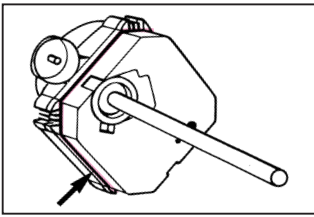
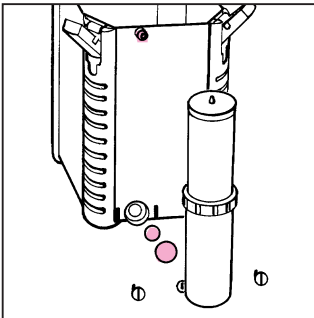
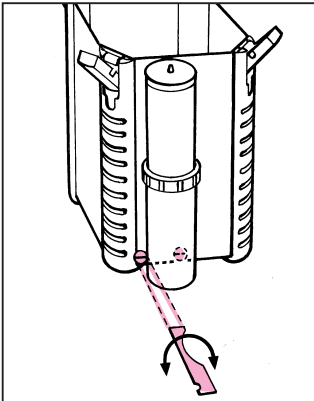
Problema	Causa	Rimedio
Il filtro non si svuota, il sistema asciutto/bagnato non funziona	Lunghezza errata dei tubi, uso di accessori non idonei.	Utilizzare solo tubi originali di lunghezza uniforme. Non utilizzare accessori addizionali.
	Uso di materiale filtrante sbagliato.	Utilizzare esclusivamente SUBSTRAT ^{pro} o EHFI-SUBSTRAT come massa filtrante, non riempire esageratamente i cestelli; non utilizzare lo strato di ovatta o la massa di filtraggio grossolano.
	Installazione del filtro troppo alta.	L'altezza dell'installazione deve essere di 100 - 120 cm.
	C'è presenza di aria nel compartimento pompa.	Aprire ambedue i rubinetti sul blocco di raccordo, togliere la spina e attendere ca. 1 min., finché il compartimento pompa non si sia riempito d'acqua. Riattaccare la spina.
	Lo sfiatatoio è piegato o sporco.	Disporre il tubo in modo che non si siano pieghe, pulire il tubo.
	L'apertura dello sfiatatoio è sotto il livello dell'acqua.	Installare il tubo correttamente.
	Manca la guarnizione del galleggiante, od è stata montata erroneamente.	Montare la guarnizione in modo corretto
	La guarnizione del galleggiante è sporca o è consumata.	Pulire la guarnizione, se necessario sostituirla.



Che cosa fare se . . .

Problema	Causa	Rimedio	
Il filtro non si svuota, il sistema asciutto/bagnato non funziona	Il raccordo by-pass è sporco.	Pulire il by-pass.	
	Il filtro è in posizione obliqua.	Mettere il filtro in posizione verticale.	
	Il diffusore a spruzzo è sporco.	Pulire il diffusore a spruzzo.	
	Manca il tappo ermetico del diffusore a spruzzo.	Inserire il tappo ermetico.	
Il tubo di raccordo nel corpo pompa non è ben installato.	Installare il tubo correttamente.		
Il filtro perde acqua in prossimità del blocco di raccordo	Gli incavi apposti o le guarnizioni stesse sono sporchi.	Pulire gli incavi e le guarnizioni.	
	Le guarnizioni non sono installate o sono danneggiate.	Installare o sostituire le guarnizioni.	
	Le levette dei rubinetti doppi non sono perfettamente chiuse.	Chiudere completamente le levette (posizione OFF).	
	I tubi flessibili non sono ben connessi.	Spingere i tubi fino al contatto con la superficie del blocco di raccordo, e chiudere con il morsetto stringitubi.	

Che cosa fare se . . .

Problema	Causa	Rimedio	
Il filtro perde acqua dalla testata della pompa	Le quattro clips di bloccaggio non sono perfettamente chiuse.	Chiudere bene le 4 clips.	
	Gli incavi appositi o le guarnizioni sono sporchi.	Pulire gli incavi e le guarnizioni.	
	Le guarnizioni non sono montate, sono montate male, o sono danneggiate.	Installare correttamente le guarnizioni, o sostituirle.	
Il filtro perde acqua dal cilindro asciutto/bagnato	Gli incavi per le guarnizioni sono sporchi	Pulire gli incavi.	
	Le guarnizioni non sono installate o lo sono in modo sbagliato.	Installare le guarnizioni in modo corretto.	
	L'anello di bloccaggio del cilindro asciutto/bagnato non è serrato bene.	Girare l'anello nella direzione indicata, fino allo scatto.	
	I dispositivi di bloccaggio in basso al cilindro asciutto/bagnato non sono chiusi bene.	Chiudere i dispositivi di bloccaggio con la chiave apposita, in modo che gli intagli siano in posizione verticale.	

EHEIM professionel Intervallfilter 2227 och 2229

EHEIM professionel Termointervallfilter 2327 och 2329

① Filteröverdel ② Tätningsring ③ Förbindelserör ④ Galler ⑤ Filterinsatser ⑥ Snäpplås ⑦ Filterbehållare ⑧ Intervallstyrenhet ⑨ Låsring ⑩ Flottör ⑪ Låsstift ⑫ Adapter med avstängningskranar ⑬ Slanghållare ⑭ Utblåsrör ⑮ Utströmmarrör med ändpropp ⑯ Insugningsrör ⑰ Silmunstycke ⑱ Förfilterpatron ⑲ Avluftningsrör ⑳ Slangar ㉑ Sugkoppar med clips ㉒ Låsnyckel ㉓ Vaseline ㉔ Rengöringsborste.

Termofilter: ㉕ Manöverdel ㉖ Temperaturgivare ㉗ Kardborrband.

OBSERVERA: 2327 och 2329 termofilter får endast användas till sötvatten.

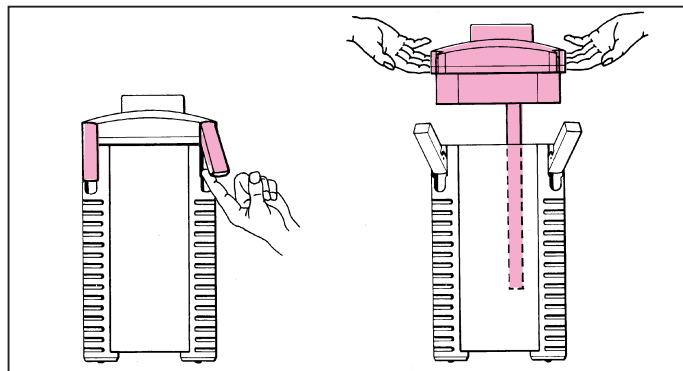
Kontrollera att alla delar finns med när du packar upp filtret.

Montering

Observera:

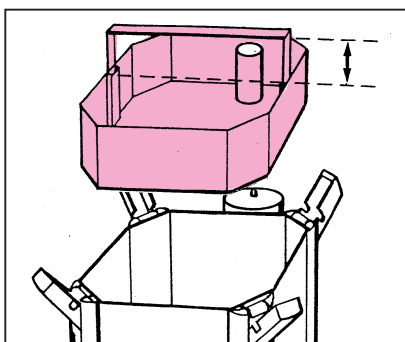
För att säkerställa att intervallfiltret fungerar optimalt får endast bifogade originaldelar användas. Inga förändringar får göras på insug och utblås.

Fäll upp alla fyra snäpplåsen på filterbehållaren och skjut dem uppåt. De båda urtagen gör det lätt att få grepp för att lyfta bort överdelen.



Tag ut de olika filterinsatserna en efter en.

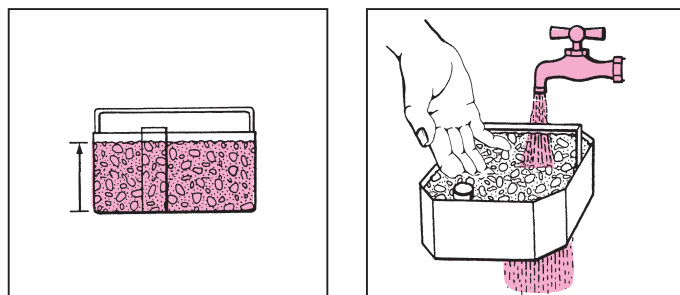
Drag ut de nedsänkta handtagen på filterinsatserna för bättre grepp.



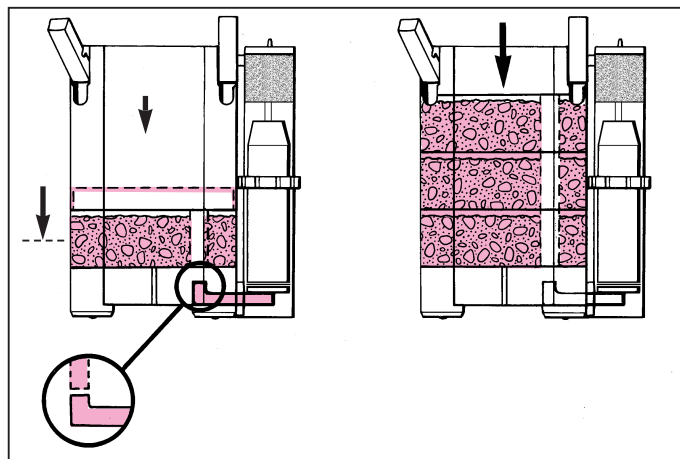
Fyll filterinsatserna med SUBSTRATpro eller EHFISUBSTRAT nästan upp till kanten.

OBS! Fyll inte i för mycket. Se till att öppningen för förbindelseröret inte täpps till. **Använd endast SUBSTRATpro eller EHFISUBSTRAT i samtliga filterkorgar.**

Spola noggrant rent filtermaterialet i insatsen under rinnande ljummet vatten tills vattnet blir klart.



Kontrollera att anslutningen till intervallstyrenheten inte är nedsmutsad. Sätt tillbaka den första filterinsatsen i filterbehållaren och se till att öppningen för förbindelseröret ligger ovanför anslutningen till intervallstyrenheten. Tryck ned insatsen ordentligt tills den sitter riktigt på sina stödytor. Då är det helt tätt mellan filterinsatsen och behållaren.

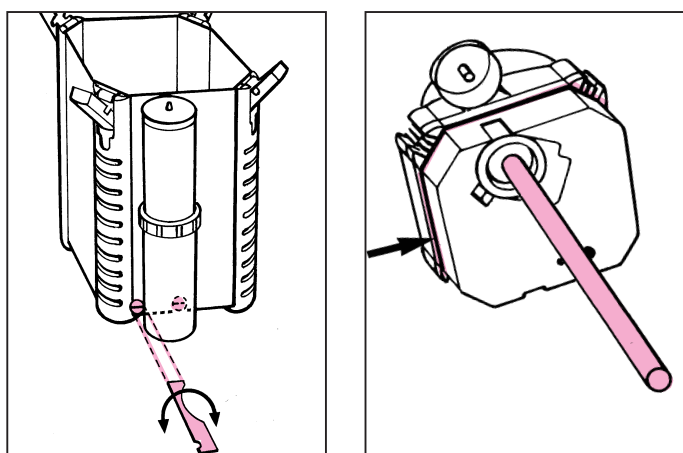


Sätt ned även den andra (och tredje) filterinsatsen. Se till att öppningarna för förbindelseröret ligger över varandra.

Skjut ned handtagen igen och se till att alla filterinsatserna sitter jämnt och rakt ovanför varandra. Placera gallerrastret.

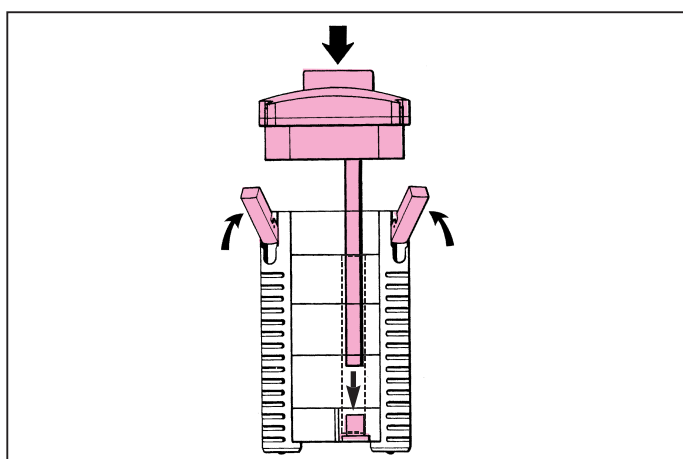
Kontrollera att intervallstyrenheten är säkert fäst vid filterbehållaren: Den övre anslutningen måste sitta ordentligt fast vid behållaren; de bägge undre låsstiften måste vara låsta: skårorna står då vågrätt.

Med hjälp av den bifogade låsnyckeln är det lätt att komma åt låsstiften.



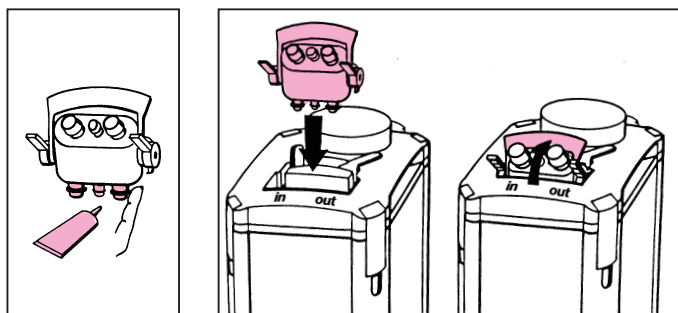
Smörj lätt tätningringen till utloppsröret och fäst detta ordentligt i pumphjulslocket. Kontrollera att tätningringen på filtrets överdel är ren och sitter korrekt.

Sätt filteröverdelen på filterbehållaren, varvid förbindelse-röret skall föras igenom öppningarna i filterinsatserna och sitta korrekt i anslutningsmuffen för intervallstyrenheten. Tillslut alla fyra snäpplåsen.



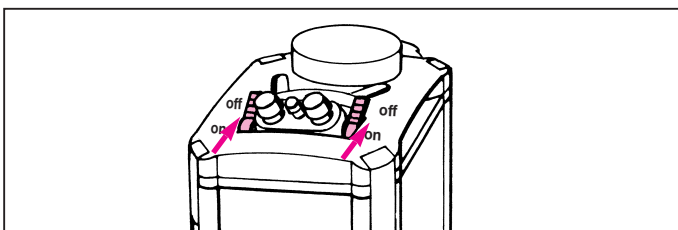
Observera: Innan den integrerade dubbla krananslutningen placeras i filtrets pumphuvud, måste de tre O-ringarna kontrolleras beträffande skador och korrekt passning. Smörj O-ringarna lätt med vaselin för att underlätta installationen.

Sätt in adaptern med uppåtppekande låsbygel i öppningen i filtrets överdel och skjut in den ordentligt. Tryck på adaptern och fäll samtidigt ned låsbygeln bakåt tills den snäpper i.



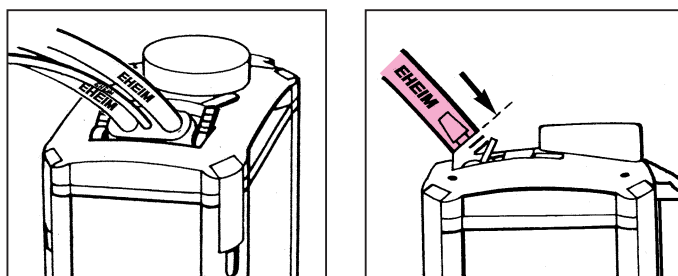
Slanginstallation

Stäng avstängningskranarna genom att fälla ned de båda spakarna på adaptern till läge **OFF**.

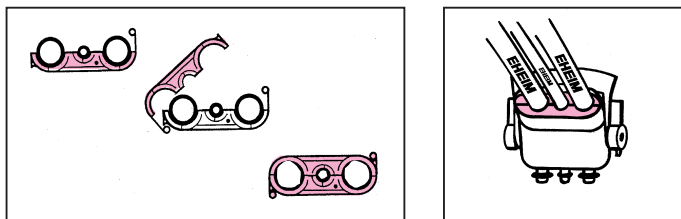


Skjut på de tre bifogade slangarna på adapterns respektive slanganslutningar så långt det går. Börja med den smala slangen. Om det går trögt kan slangarna göras mjukare och flexiblare i varmt vatten.

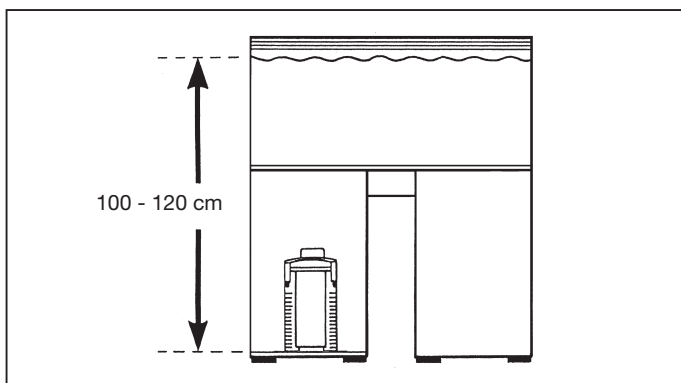
Det är mycket viktigt att man enbart använder originalslingar från EHEIM



Den tvådelade slanghållaren läggs runt de monterade slangarna, hakas tillsammans vid sidan och snäpps ihop.

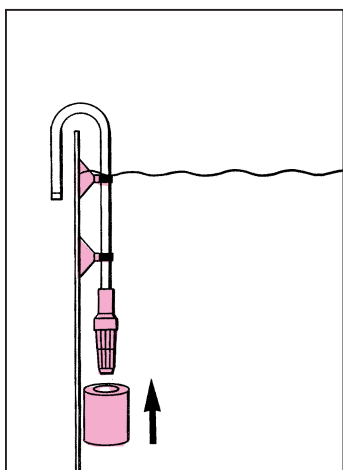


Placera det komplett förberedda filtret i underskåpet. Se till att det föreskrivna höjdvståndet mellan filtrets botten och vattenytan stämmer; avståndet måste ligga mellan **100 - 120 cm**. Detta höjdvstånd är avgörande för att växlingarna i intervallfiltret skall fungera felfritt.



Skjut på silmunstycket på insugningsröret och fäst det med sugkoppar och clips på insidan av akvarierutan.

Drag förfilterpatronen över silmunstycket.

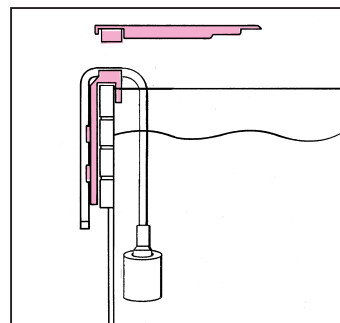


OBS!

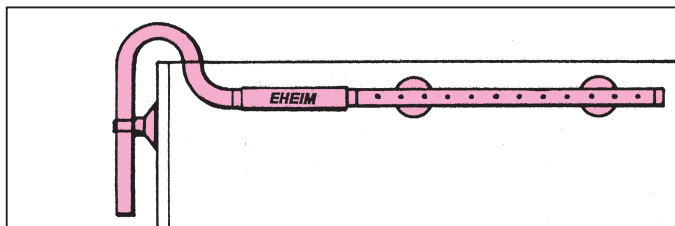
Förfilterpatronen används endast under inkörningsperioden, ca 6 - 8 veckor. Därefter övertas den biologiska och kemiska filtreringen av bakteriemattan som uppstått i filtermaterialet och förfilterpatronen tas bort.

OBS:

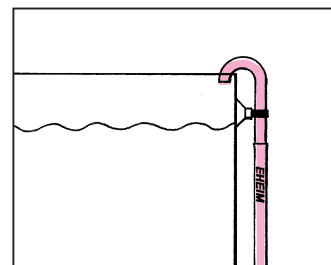
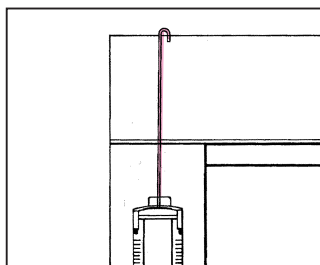
Används ytterfilteranslutningsenheten 7656450 till EHEIM *professionel* akvariearmatur behöver insugningsröret endast snäppas fast.



Koppla ihop utblåsröret och utströmmarröret med en kort slangbit och montera dem i akvariet med hjälp av sugkoppar och clips. Tillslut den öppna sidan på utströmmarröret med den bifogade änddroppen.



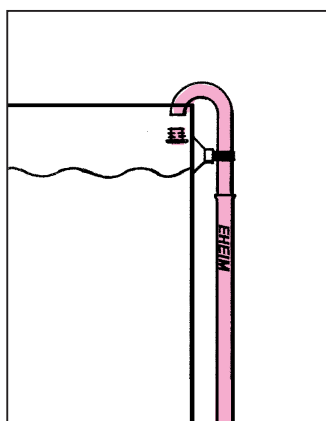
Led nu ut alla tre slangarna från filtret genom skåpets bakvägg. Läg först luftslangen (9/12 mm) till akvariet utan veck. Korta ned luftslangen till erforderlig längd, koppla ihop den med avluftsörret och montera den på akvarierutan med sugkopp och clips så att avluftsörrets öppning ligger ovanför vattenytan.



Viktig anmärkning: Man kan använda intervallfiltret som ett vanligt filter under en kortare period av medicinering. Tag bort filtermassan från behållaren och förvara den i en skål med akvarievatten. Fyll filtret med enbart EHFISYNTH eller filtervadd.

Stäng avluftningsröret med en rörpropp (art.nr. 7272350) och starta filtret.

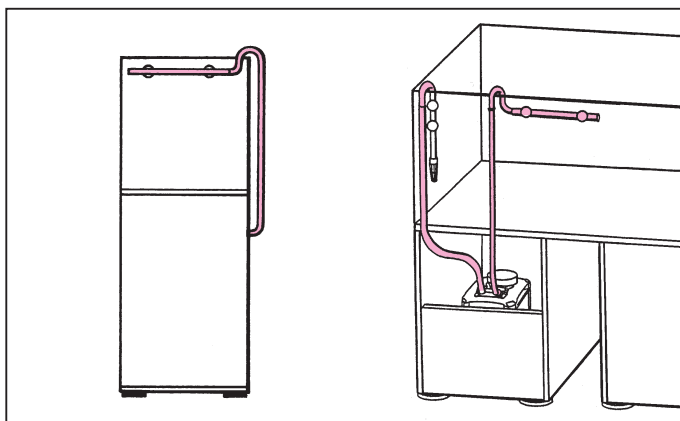
Efter avslutad medicinering filtrerar man med kol (EH-FAKTIV) 4 - 6 dagar för att få bort medicinavfall. Återgå därefter till SUBSTRAT_{pro} eller EHFISUBSTRAT. Kom ihåg att ta bort proppen från avluftningsröret.



Koppla sedan ihop det monterade insugningsröret och utblåsröret med slangarna.

OBS!

För att säkerställa att intervallfiltret fungerar felfritt måste sugslangen och tryckslangen kortas ned till samma längd! Se till att slangarna ligger jämnt och inte uppvisar några veck.



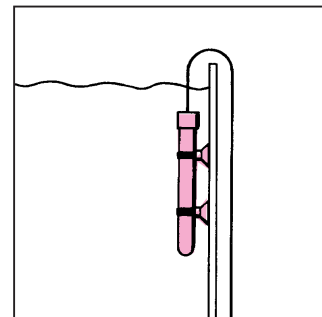
TIPS:

Lägger man slangarna i varmt vatten en stund blir de mjukare och eventuella veck är lätta att rätta ut.

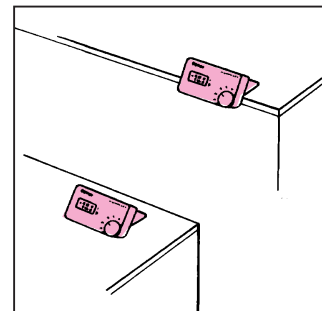
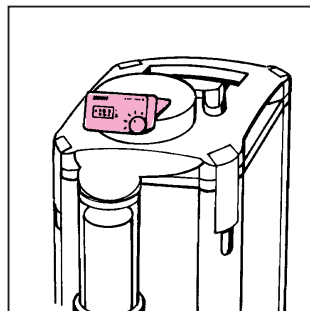
C° Termofilter

Installation av termostadvärmaren

Montera temperaturgivaren med 2 sugkoppar och clips i akvariet så att den **alltid** befinner sig **under vattenytan**.

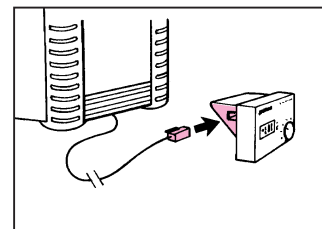


Manöverdelen kan placeras antingen ovanpå akvariearmaturen eller på filteröverdelen, eventuellt med hjälp av det bifogade kardborrbandet.



Lägg sedan styrkabeln från filterbehållaren till manöverdelen och anslut stickkontakten (det hörs ett ljud när den snäpper i).

Vänta med att ansluta värmarens huvudkontakt.



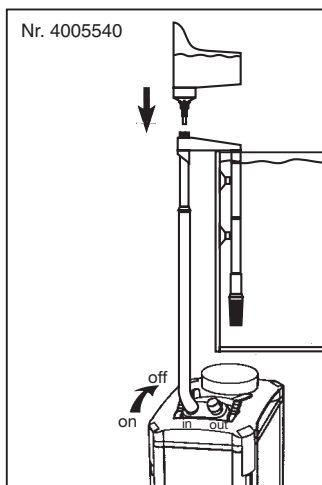
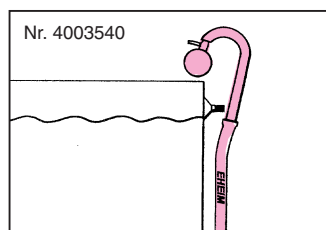
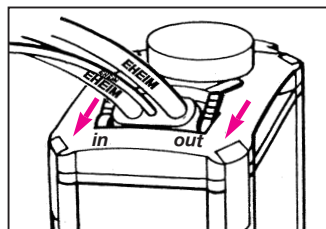
Igångsättning

Observera:

Akvariet får inte fyllas till maxnivå eftersom vattennivån i akvariet växlar när vattennivån i filtret förändras.

Öppna avstängningskranen för insugningsröret (**IN**) och anslut syphon setet enligt bilden. Alternativt använd EHEIM sugstarter (artikelnr. 4003540) eller med påfyllnadsdelen (artikelnr. 4005540, \varnothing 16 mm).

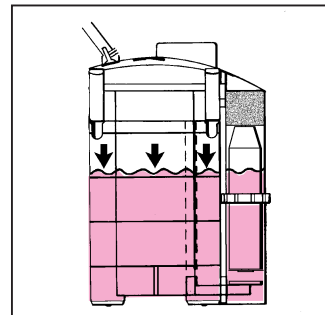
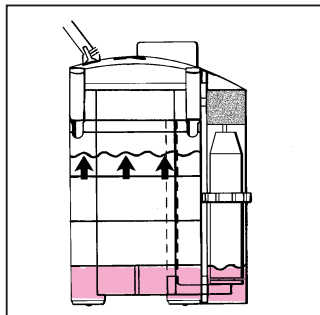
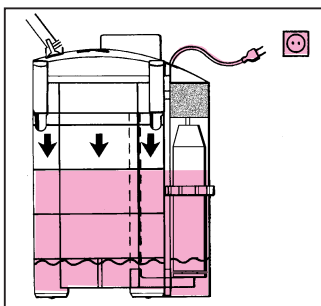
Filtret fylls sedan upp med vatten. När detta är klart, öppna avstängningskranen för det utgående röret (**OUT**).



Starta filtret genom att ansluta stickkontakten till elnätet. Så snart pumpen startat skall vattennivån i filtret sjunka ned till den undre vändpunkten.

Vid denna punkt tillsluter flottören insuget automatiskt och filtret fylls med vatten igen. Samtidigt återförs en mindre mängd kontinuerligt filtrerat vatten till akvariet via en bypassöppning, för att smöja rotern. Vattennivån inne i flottörbehållaren stiger inte. Först när den övre filterbehållaren är fylld med vatten fylls flottörbehållaren med vatten genom en springa i flottören.

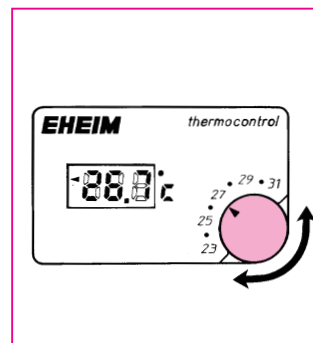
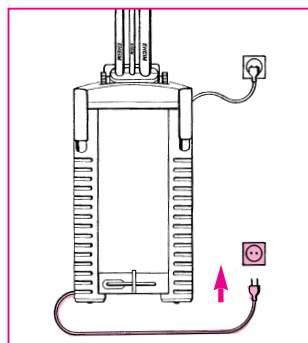
Vid den övre vändpunkten öppnar flottören insuget och filtret töms på nytt.



°C Termofilter

Observera:

Termostatvärmaren får inte anslutas till elnätet förrän filtret arbetar regelbundet. Termostatvärmaren skall alltid vara täckt med vatten när den är igång.



Den aktuella temperaturen i akvariet kan avläsas på displayen. Välj önskad temperatur (t ex 27° C) med temperaturratten. En svart triangel (◄) på displayen visar att termostatvärmaren är igång. Slocknar symbolen har den förinställda temperaturen uppnåtts och uppvärmningen av vattnet stängs av automatiskt. Sjunker temperaturen i akvariet under det förinställda värdet startas termostatvärmaren igen automatiskt. Finjustera temperaturen genom att vrida ratten en aning.

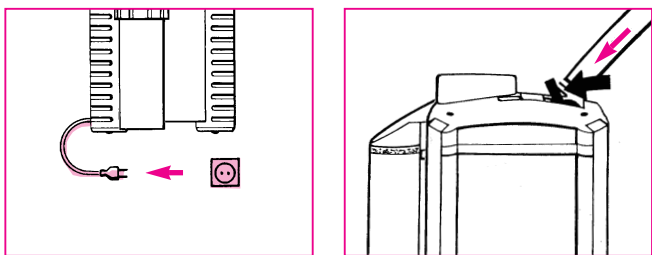
Varning: När man installerar filtret för första gången eller justerar temperaturen, dröjer det ett tag innan den temperatur, som anges på displayen, är nådd. Rumstemperaturen påverkar också tiden.

Om strömmen skulle avbrytas, ändras värdet på displayen och värmaren slutar att fungera. När strömmen åter kopplas på fungerar värmaren normalt.

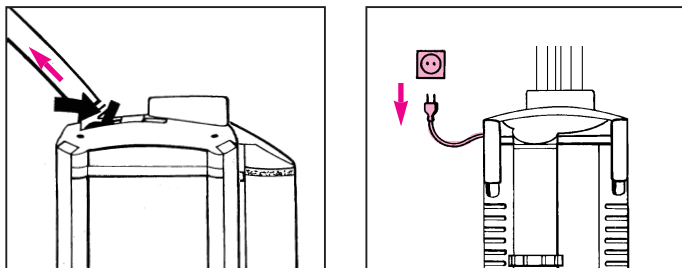
Skötsel och underhåll

C° Termofilter

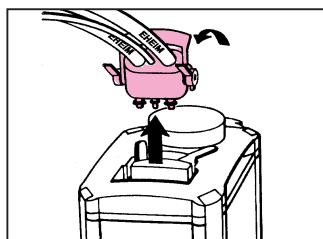
Drag först ur stickkontakten till termostavärmaren. Stäng avstängningskranen för **insuget (IN)** på adaptern så att filtret töms.



Stäng avstängningskranen på adaptrens **trycksida (OUT)** så snart som pumpen suger luft så att det hörs. **Drag ur pumpens stickkontakt.**

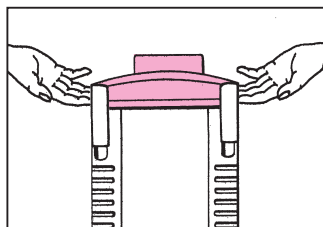
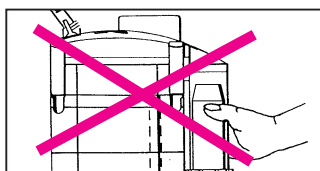


Öppna låsbygeln och tag ut adaptern ur filtrets överdel. Lyft ut ytterfiltret ur skåpet genom att gripa i urtagen.

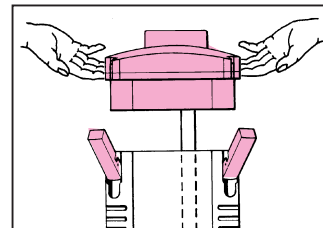


Observera:

Drag inte i intervallstyrenheten.

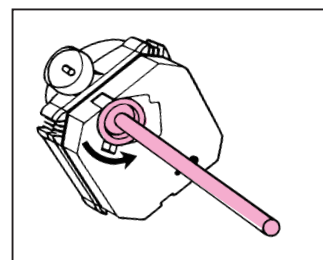


Öppna alla snäpplåsen och lyft av filteröverdelen.



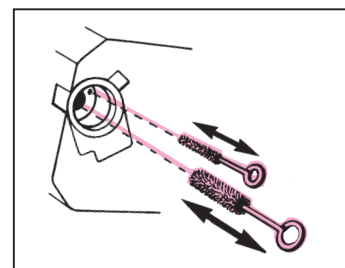
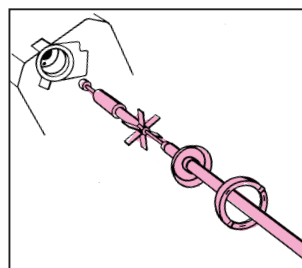
För rengöring av pumphuset öppnas låsringen på filteröverdelens botten genom att ringen vrids åt vänster.

Tag ut pumphjulslocket, pumphjulet och axeln.

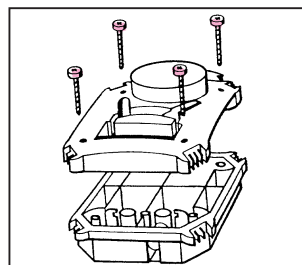


Rengör pumpdelarna och kylkanalen noggrant med EHEIM rengöringsborstar, art-nr 4009580.

Spola försiktigt axeln ren (brottrisk!). Sätt sedan ihop pumphjulet igen och montera det. Gör ren slangarna med bifogade rengöringsborste.



Se vid monteringen till att axellager, pumphjulslock och tätningssring sitter rätt. Förslut sedan pumpen med låsringen.



TIPS:

Om det under rengöringen skulle komma in vatten i filteröverdelens lock, kan locket skruvas av och torkas torrt med en trasa.

Filtermaterial:

Tag ut gallret och filterkorgarna från filterbehållaren.

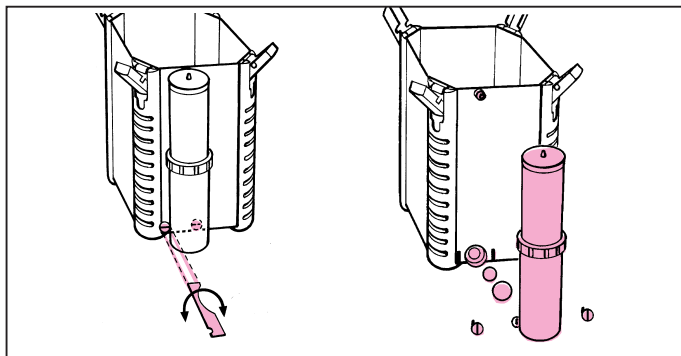
Tvätta noggrant rent SUBSTRATpro eller EHFISUBSTRAT filtermaterialet med akvarievatten så att detta blir rent.

TIPS:

Vill man fylla i nytt SUBSTRATpro eller EHFISUBSTRAT, blandas det nya materialet med ca 1/3 av det använda filtermaterialet. Bakteriekulturerna förökas då snabbare i det nya filtermaterialet.

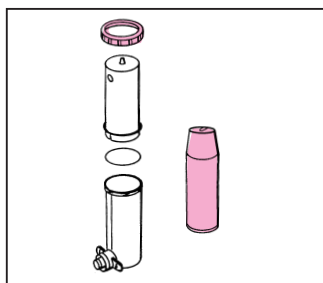
Demontera nu intervallstyrenheten genom att vrida de båda låsstiften med hjälp av låsnyckeln så att springorna står lodrätt.

Lyft bort intervallstyrenheten, rengör tätningsytor och tätningssringar.



Öppna låsringen till intervallstyrenheten genom att vrida som pilarna visar, tag ut flottören och rengör den försiktigt med en mjuk svamp.

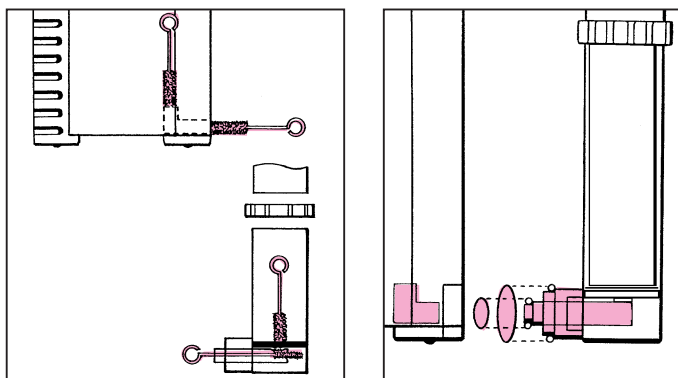
Rengör alla delarna i intervallstyrenheten och skölj ur filterbehållaren.



°C Termofilter

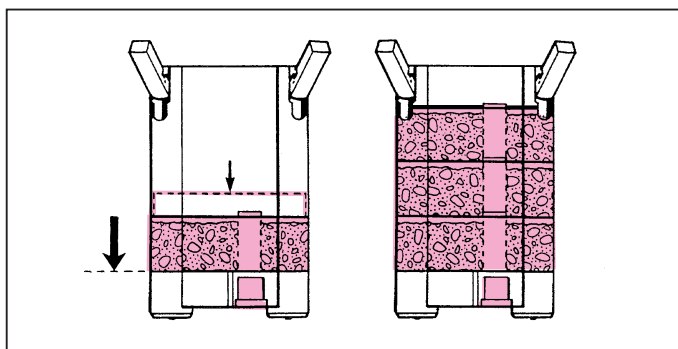
Se till att värmespiralen inte kröks. Rengör med jämna mellanrum värmeslingan från slam. Doppa inte ned filterbehållaren i vatten. Skydda värmarens yttre, elektriska delar från vatten.

Rengör slanganslutningarna på behållaren och styrenheten – inklusive bypassöppningen – med rengöringsborste. Sätt ihop intervallstyrenheten igen och montera den vid filterbehållaren. Se till att tätningssringarna sitter korrekt.

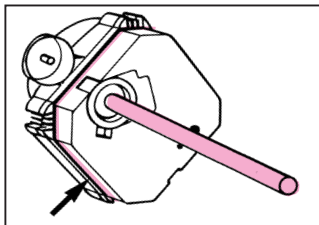


Sätt in den första filterinsatsen i behållaren igen så att öppningen för förbindelseröret ligger över anslutningen till intervallstyrenheten. Tryck ned insatsen ordentligt på sina stöd-tyr så att insatsen sluter tätt med filterbehållaren.

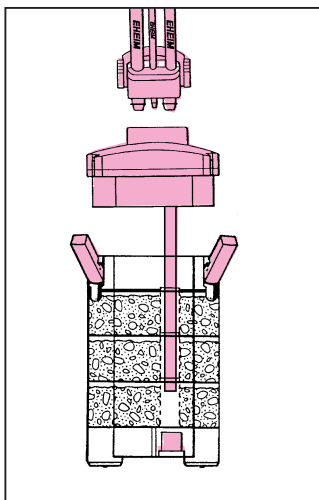
Sätt sedan in den andra (och den tredje) filterinsatsen. Filterinsatsernas röröppningar måste ligga över varandra. Se till att insatserna sitter jämnt och rakt ovanför varandra. Placera gallrastret.



Kontrollera att förbindelse-
röret i filteröverdelen sitter
fast i pumphjulslocket och
att tätningringen i filteröver-
delen är ren och sitter rätt.

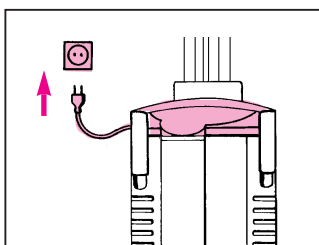


Smörj in filteröverdelens tät-
ningsring med en aning
vaselin. Sätt tillbaka fil-
teröverdelen på behållaren,
tillslut snäpplåsen och ställ
in filtret i underskåpet.



Undersök alla tre O-ringarna
på den dubbla krananslutnin-
gen beträffande skador och
korrekt passning och smörj
dem lätt med vaselin; sätt in
adaptorn och stäng låsby-
geln.

När båda avstängnings-
kranarna öppnas (**ON**), fylls
filtret automatiskt med
vatten och är klart för drift.



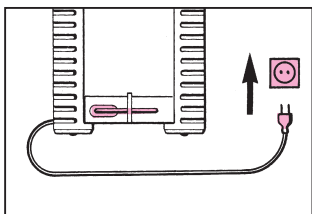
Starta sedan filtret genom att
ansluta stickkontakten till
elnätet.

Hänvisning: Alla slanganslutningar måste kontrolleras regelbundet beträffande korrekt montering.

C° Termofilter

OBSERVERA:

Termostatvärmaren får inte anslutas till elnätet förrän filtret arbetar regelbundet. Låt aldrig värmaren vara igång, när den är torr.



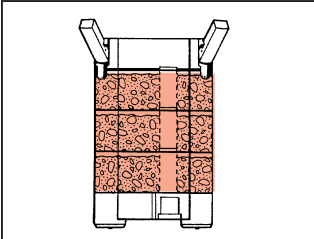
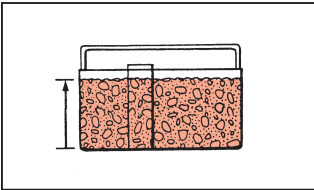
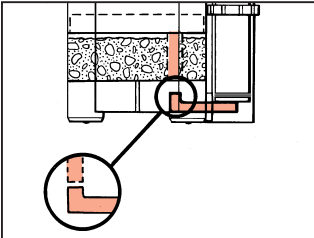
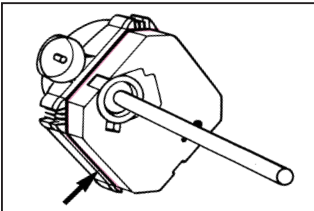
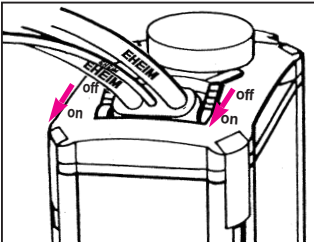
🏠 Får endast användas inomhus. Innan man doppar händerna i vattnet, skall all elektrisk utrustning kopplas ur. Hos termofiltren drar man alltid först ut kontakten till värmaren.

2227/2229: Huvudsladden kan inte bytas ut; om sladden skadas får apparaten inte längre användas.

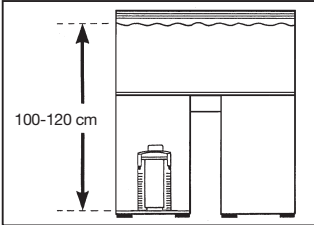
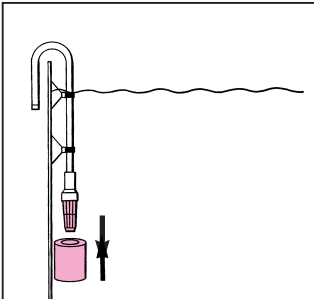
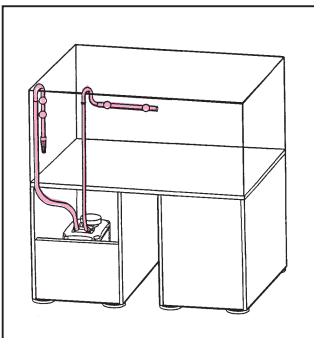
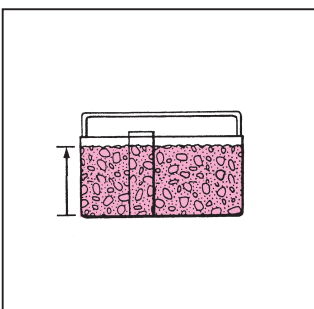

2327/2329: Apparaten får endast servas av auktoriserade personer. Kontakta Din närmaste fackhandlare eller EHEIM service center. Använd endast jordat elektriskt uttag.

Filtret måste alltid stå upprätt när det är igång.

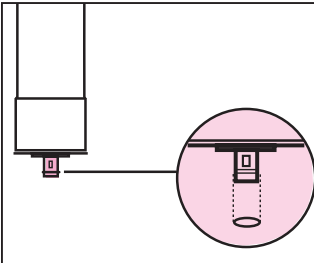
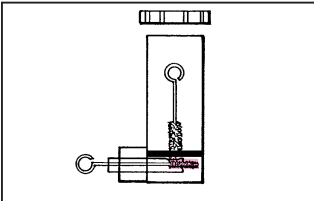
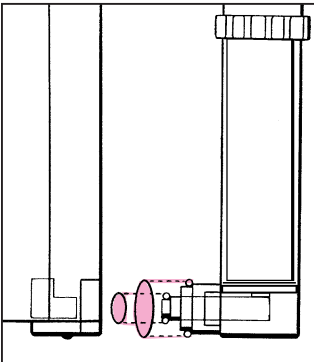
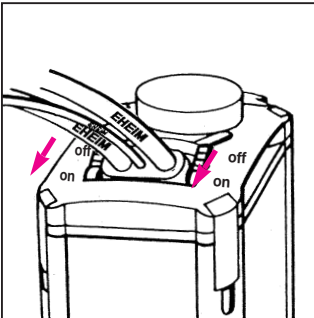
Felsökningsschema

Problem	Orsak	Åtgärd	
Filteröverdelen kan inte stängas	Filterinsatserna sitter inte riktigt	Sätt in filterinsatserna så att öppningarna för förbindelseröret ligger över varandra.	
	Filterinsatserna är överfulla	Använd endast SUBSTRAT ^{pro} eller EHFISUBSTRAT som filtermaterial. Överfyll inte filterinsatserna. Rengör de ytor på insatserna som berör varandra om så behövs.	
	Kontaktytan mellan förbindelseröret och anslutningsmuffen till intervallstyrenheten är nedsmutsad	Rengör denna kontaktyta.	
	Filteröverdelens tätningsring är felmonterad	Se till att tätningsringen sitter korrekt i den här för avsedda falsen.	
Filtret fylls inte, ingen intervallfunktion	Avstängningskranen för insuget på adaptorn är stängd eller inte helt öppen	Öppna avstängningskranen helt.	
	Insugsslangen har ett veck eller är nedsmutsad	Lägg slangen utan veck, rengör slangen.	

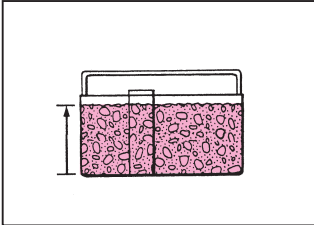
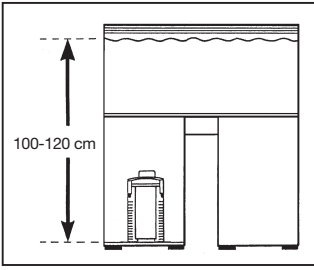
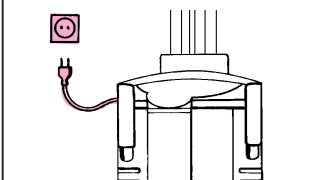
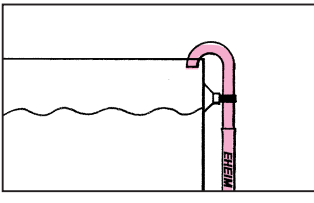
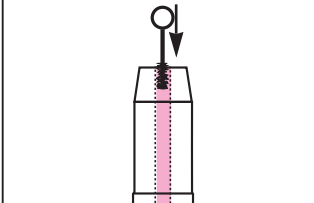
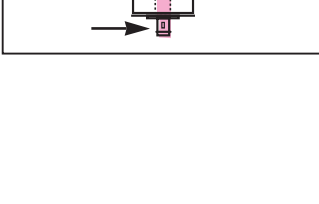


Felsökningsschema

Problem	Orsak	Åtgärd	
Filtret fylls inte, ingen intervallfunktion	Höjdavståndet mellan filtret och vattennivån är för litet	Höjdavståndet måste ligga mellan 100 och 120 cm.	
	Silmunstycket är igensatt	Rengör silmunstycket.	
	Förfilterpatronen är alltför nedsmutsad	Rengör förfilterpatronen. Tag bort förfilterpatronen sedan filtret körts in (6-8 veckor).	
	Fel slanglängd, fel tillbehör anslutet	Använd endast original EHEIM slangar med samma längd! Använd inget annat extra tillbehör än det som medföljer förpackningen!	
	Fel filtermaterial i filterinsatserna	Använd endast SUB-STRAT ^{pro} eller EHFISUB-STRAT som filtermaterial, överfyll inte filterinsatserna, använd inte filtervadd eller grovfilterkuddar!	

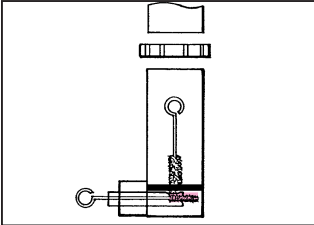
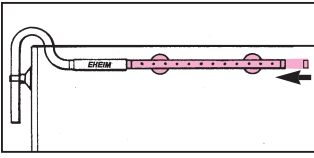
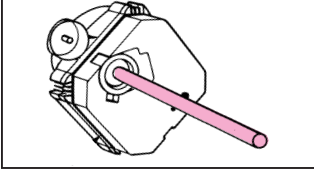
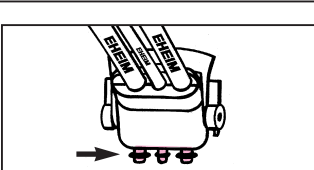
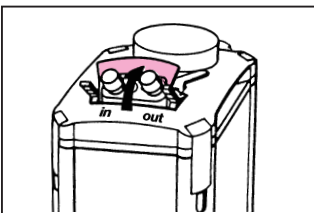
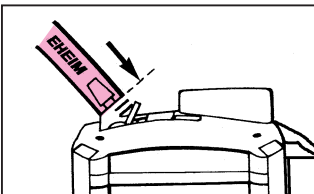


Felsökningsschema

Problem	Orsak	Åtgärd	
Filtret fylls inte, ingen intervallfunktion	Flottörens tättningsring är utsliten eller felmonterad	Montera tättningsringen korrekt. Byt ut den, om det är nödvändigt.	
	Flottör och tättningsring nedsmutsade	Rengör ring och flottör.	
	Bypassöppningen i intervallstyrenheten är nedsmutsad	Rengör bypasset.	
	Tättningsringen på den lilla slanganslutningen i intervallstyrenheten är sliten, felmonterad eller fattas	Montera tättningsringen korrekt, byt ut om så behövs.	
	Filtret står snett	Ställ filtret lodrätt.	
Filtret töms inte, ingen intervallfunktion	Avstängningskranen för utblåset på adaptern är stängd eller inte helt öppen	Öppna avstängningskranen helt.	
	Utblåsningen har ett veck eller är nedsmutsad	Räta ut slangen, rengör slangen.	

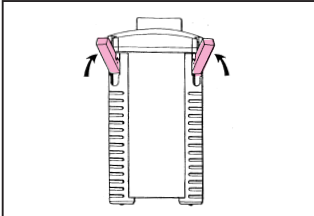
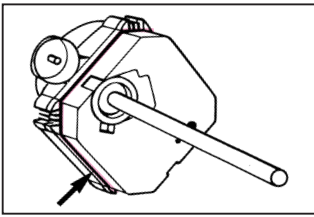
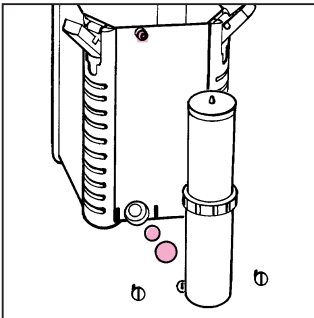
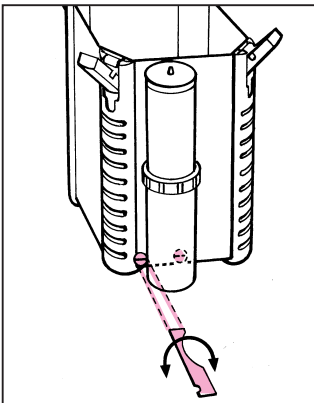
Felsökningsschema

Problem	Orsak	Åtgärd	
Filtret töms inte, ingen intervallfunktion	Fel slanglängd, fel tillbehör anslutet	Använd endast originalslangar med samma längd! Använd inget annat extra tillbehör än det som medföljer förpackningen!	
	Fel filtermaterial i filterinsatserna	Använd endast SUB-STRAT ^{pro} eller EHFISUB-STRAT som filtermaterial, överfyll inte filterinsatserna, använd inte filtervadd eller grovfilterkuddar!	
	Höjdavståndet mellan filtret och vattennivån är för stort	Höjdavståndet måste ligga mellan 100 och 120 cm.	
	Luft i pumphuset	Öppna båda avstängningskranarna, drag ur stickkontakten och vänta ca 1 minut tills pumphuset har fyllts med vatten. Anslut stickkontakten igen.	
	Luftslangen har ett veck eller är igensatt	Lägg slangen utan veck resp rengör.	
	Avluftningsrörets öppning ligger under vattenytan	Installera avluftningsröret korrekt.	
	Flottörens tätningring fattas eller är felmonterad	Montera tätningringen korrekt.	
Flottörens tätningring är nedsmutsad eller sliten	Rengör tätningringen, byt ut om så behövs.		

Felsökningschema

Problem	Orsak	Åtgärd	
Filtret töms inte, ingen intervallfunktion	Bypassöppningen i intervallstyrenheten är nedsmutsad	Rengör bypasset.	
	Filtret står snett	Ställ filtret lodrätt.	
	Utströmmarröret är igensatt	Rengör utströmmarröret.	
	Ändproppen fattas på utströmmarröret	Montera ändproppen.	
	Förbindelseröret sitter inte korrekt i pumphjulslocket	Montera förbindelseröret korrekt.	
Filtret är otätt vid adaptern	Tätningssytan vid tätningsringarna är nedsmutsad	Rengör tätningssytorna.	
	Tätningssringarna fattas eller är skadade	Montera tätningssringarna korrekt eller byt ut.	
	Avstängningskranarna är inte helt stängda	Stäng avstängningskranarna ordentligt.	
	Slangarna är inte korrekt anslutna till adaptern	Skjut på slangarna ordentligt på adaptern och säkra dem med slanghållaren.	

Felsökningsschema

Problem	Orsak	Åtgärd	
Filtret är otätt vid överdelen	Alla snäpplåsen är inte stängda	Stäng alla snäpplåsen riktigt.	
	Tätningstorna eller tätningsskivan är nedsmutsade	Rengör tätningstorna.	
	Tätningsskivan fattas, är felmonterad eller skadad	Montera tätningsskivan korrekt eller byt ut.	
Filtret är otätt vid intervallstyrenheten	Tätningsskivans tätningstorn är nedsmutsade	Rengör tätningstorna.	
	Tätningsskivorna fattas eller är felmonterade	Montera tätningsskivorna korrekt.	
	Låsringen på intervallstyrenheten är inte ordentligt stängd	Vrid låsringen på intervallstyrenheten åt det markerade hållet så långt det går.	
Låsstiften är inte åtdragna	Drag åt låsstiften med låsnyckeln så att springorna står lodräta.		

Filtro interválico externo EHEIM profesional 2227 y 2229

Termofiltro interválico EHEIM profesional 2327 y 2329

① Cabezal del filtro ② Junta plana ③ Tubo de conexión ④ Rejilla
⑤ Cartuchos filtrantes ⑥ Clips de cierre ⑦ Vaso del filtro ⑧ Sistema de control interválico ⑨ Anillo de cierre ⑩ Flotador ⑪ Piezas de bloqueo ⑫ Conector con llaves de paso ⑬ Pinza de seguridad para tubos flexibles ⑭ Tubo de salida de seguridad ⑮ Tubo perforado de salida con tapón de cierre ⑯ Tubo de aspiración ⑰ Alcachofa ⑱ Esponja prefiltro ⑲ Tubo de ventilación ⑳ Tubos flexibles ㉑ Ventosas con clips ㉒ Llave para piezas de bloqueo ㉓ Vaselina ㉔ Cepillo de limpieza. **Termofiltro:** ㉕ Termostato ㉖ Sensor de temperatura ㉗ Cinta de Velcro.

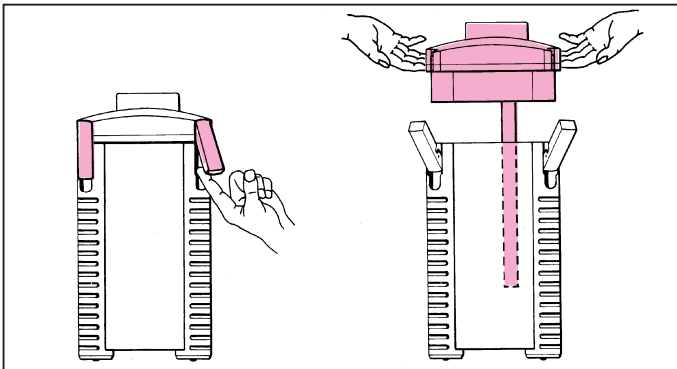
Atención: Los termofiltros 2327 y 2329 sólo funcionan en agua dulce.

Por favor cuando desembale, compruebe si están incluidas todas las piezas.

Montaje

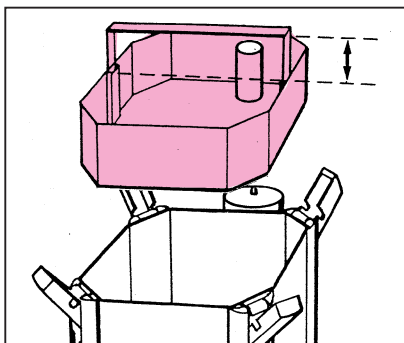
Atención: Para que la función sincronizada del sistema seco/mojado esté garantizada, utilice solo las piezas originales incluidas. No se deben hacer cambios en la entrada ni en la salida del agua.

Estirar de los cuatro clips de cierre del recipiente del filtro y deslizarlos hacia arriba. Con la ayuda de las dos empuñaduras empujadas se puede sacar fácilmente el cabezal del filtro.



Extraer la rejilla así como los diferentes cartuchos del filtro de uno en uno.

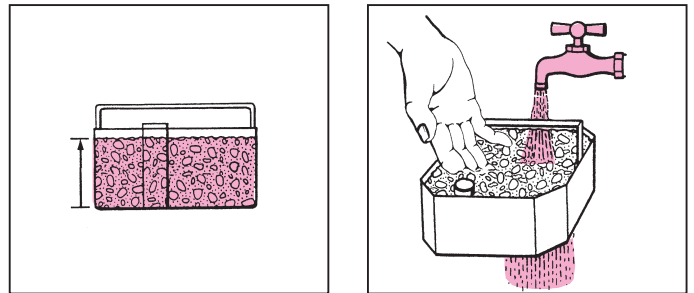
Los asideros retráctiles de los cartuchos filtrantes pueden ser deslizados hacia arriba.



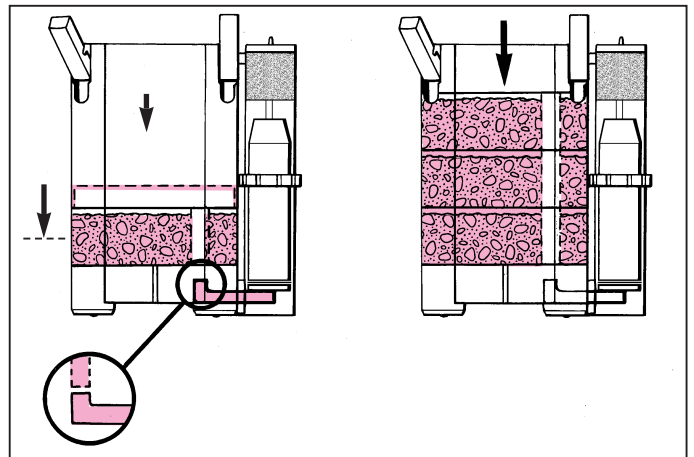
Rellene ahora los cartuchos del filtro con material filtrante hasta justo debajo del borde. **Únicamente** utilice SUBSTRATpro o EHFI-SUBSTRAT como material filtrante.

Atención: No sobrecargue. Tenga cuidado de no taponar los tubos de circulación. Sólo utilice SUBSTRATpro o EHFI-SUBSTRAT en todos los cartuchos filtrantes.

Lavar a continuación el material filtrante a fondo, manteniendo la bandeja debajo del agua hasta que ya no salga más agua sucia.

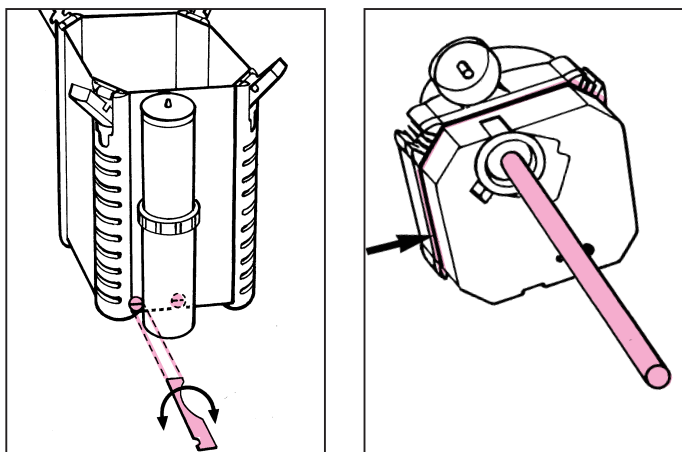


Después de comprobar que el manguito de empalme del sistema interválico no contiene suciedad, volver a insertar el primer cartucho filtrante en el recipiente del filtro. Para ello debe procurarse que el tubo de paso esté situado por encima del manguito de empalme del sistema interválico. Presionar el cartucho firmemente hacia abajo hasta que esté colocado sobre los carriles de soporte. De esta manera se asegura la estanqueidad entre el cartucho del filtro y el recipiente.



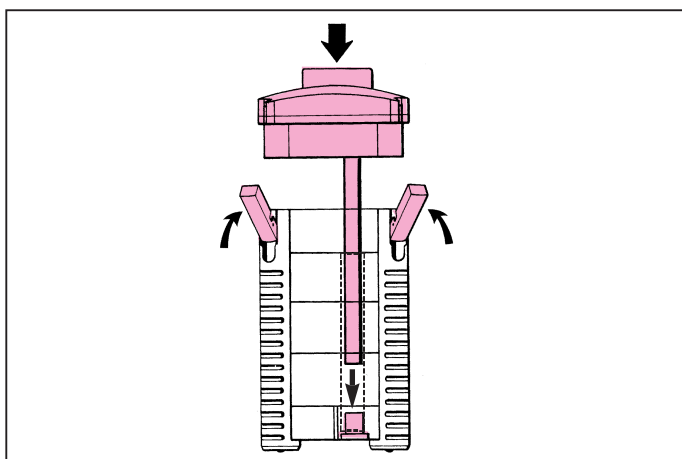
Insertar de la misma manera el segundo (y el tercer) cartucho filtrante, para lo cual las aberturas de los tubos deben quedar situadas una encima de la otra. Volver a bajar los asideros y procurar que todos los cartuchos filtrantes están colocados uno encima del otro sin dejar huecos. Colocar la rejilla.

Volver a bajar los asideros y procurar que todos los cartuchos filtrantes estén colocados uno encima del otro sin dejar huecos. Colocar la rejilla. Compruebe que el sistema de control interválico esté fijamente montado sobre el recipiente del filtro. La conexión superior debe estar insertada firmemente en el recipiente. Los dos bloqueos inferiores deben estar cerrados, de forma que las puntas estén en posición horizontal. Con la llave de bloqueo suministrada se puede acceder fácilmente a los bloqueos.

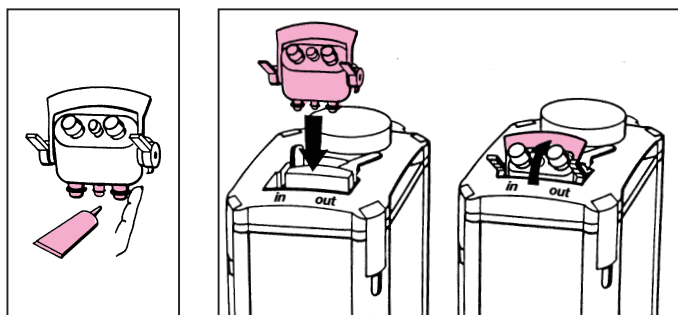


El tubo de conexión debe estar firmemente conectado a la tapa de la bomba. Comprobar que la junta plana del cabezal del filtro esté limpia y que esté correctamente asentada.

Colocar el cabezal del filtro sobre el recipiente, pasando para ello el tubo de conexión a través de las aberturas de los cartuchos del filtro, y procurar que esté correctamente colocado en el manguito de empalme. Cerrar los cuatro clips.

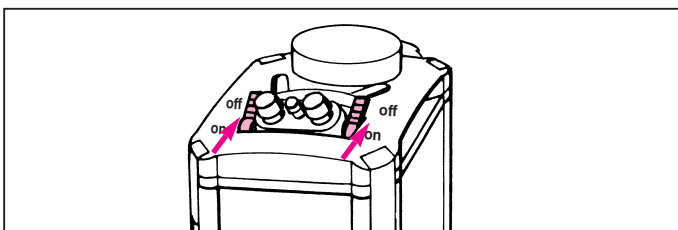


Atención: Antes de colocar el adaptador para las tomas de manguera en la parte superior del filtro, comprobar que las tres arandelas se hallen en buen estado y estén bien colocadas. Engrasarlas ligeramente con un poco de vaselina para facilitar su montaje. Insertar el adaptador completamente, con el estribo de enclavamiento levantado, en la abertura prevista para ello situada en el cabezal del filtro y cerrar los estribos de bloqueo, presionándolos al mismo tiempo hacia atrás sobre el adaptador.



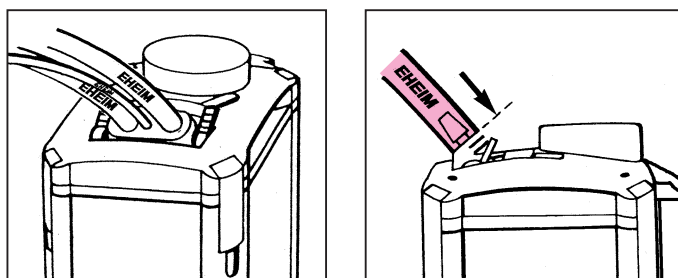
Instalación de los tubos flexibles

Cierre el conector integrado girando las dos manetas hasta que queden en posición **OFF**.

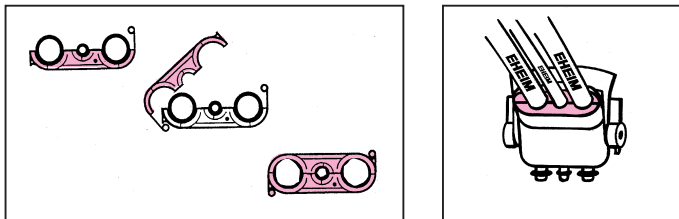


Colocar los tres tubos flexibles suministrados hasta el tope sobre los manguitos correspondientes del adaptador, para lo cual se debe empezar con el manguito más pequeño. Si los tubos flexibles fueran difíciles de colocar, ablandarlos en agua caliente.

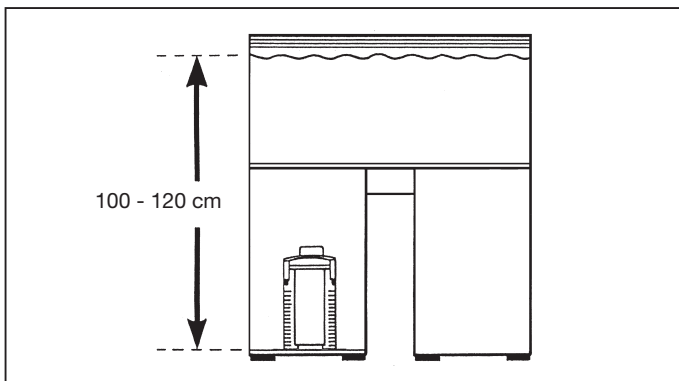
Es muy importante utilizar solamente tubos originales EHEIM.



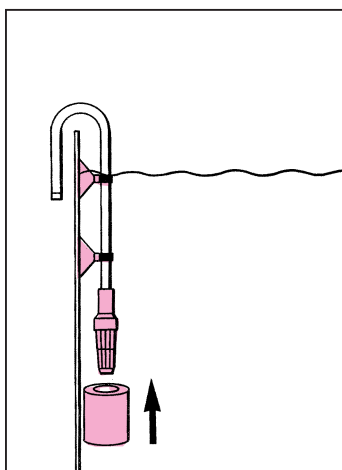
Ahora se colocan las dos partes del soporte para tubos flexibles alrededor de éstos, se cuelga el soporte lateralmente y se cierra.



Colocar el filtro totalmente montado en el armario inferior y observar sobre todo la altura prescrita de montaje. Entre la superficie del agua y el suelo del filtro debe haber una distancia de **100-120 cm**. Esta altura de montaje es decisiva para que el filtro interválico funcione correctamente.



Colocar la alcachofa del filtro en el tubo de aspiración y fijarlo con los 2 clips de sujeción y las ventosas en la pared interna del acuario.

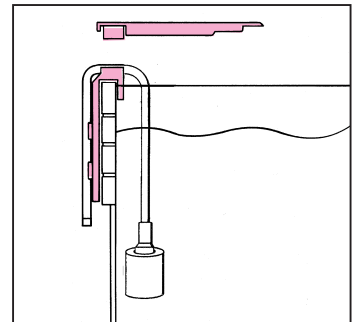


Colocar el prefiltro de espuma sintética sobre la alcachofa del filtro.

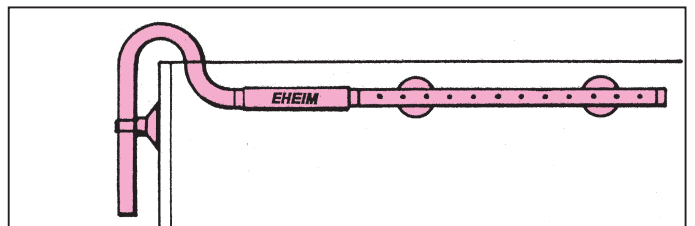
Atención: El prefiltro de espuma sintética sólo debe utilizarse durante el período inicial de aprox. 6-8 semanas. A continuación los cultivos bacteriales crecidos en el material filtrante se encargan del filtraje biológico y mecánico. Después de este período se debería eliminar el prefiltro de espuma sintética.

Aviso:

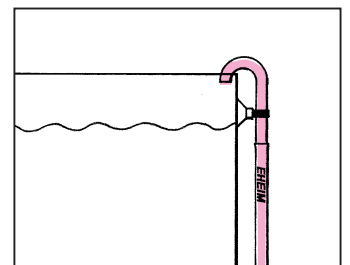
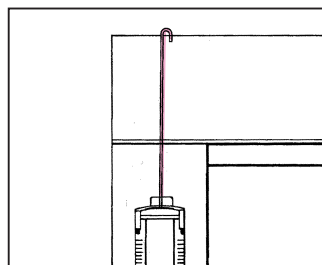
Si utiliza la pantalla *profesional* EHEIM, sólo es necesario fijar el tubo de aspiración al módulo, no necesitará ventosas.



Conectar el tubo de salida de seguridad y el tubo perforado de salida con tubo flexible corto y montarlos en el acuario con la ayuda de los clips y las ventosas. Cerrar la parte abierta del tubo perforado con el tapón de cierre suministrado.



Passar ahora los tres tubos flexibles desde el filtro a través de la pared trasera del armario y tender primero el tubo de aire (9/12 mm) hasta el acuario sin torcerlo ni dejarlo colgado. Acortar el tubo de aire a la longitud necesaria, conectarlo con el tubo de ventilación y fijarlo con los clips y las ventosas de tal forma que se pegue en la pared del acuario y que la abertura del tubo termine por encima de la superficie del agua.

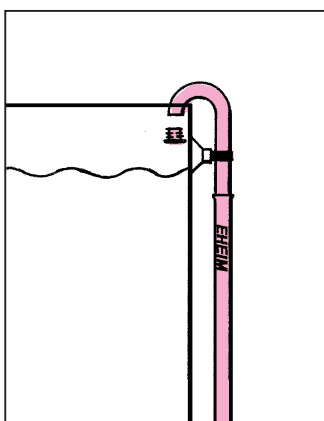


Importante aviso:

El filtro se puede utilizar a corto plazo como filtro de flujo continuo para el tratamiento del agua con medicamentos.

Sacar el material filtrante y guardarlo en agua de acuario. Rellenar el filtro sólo con EHF1-SYNTH o perlón. Cerrar el tubo de aire con un tapón (nº de pedido 7272350) y poner el filtro en función.

A tratamiento terminado, filtrar con carbón (EHFIKATIV) durante 4 - 6 días para eliminar los medicamentos, luego volver a filtrar sólo con SUBSTRATpro o EHFISUBSTRAT, eliminando el tapón del tubo de aire.

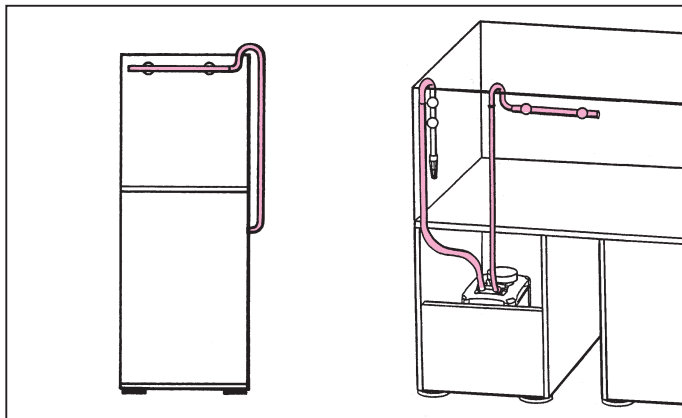


A continuación se conecta el tubo de aspiración y el tubo perforado con sus respectivos tubos.

Atención:

Para garantizar que el filtro interválico funcione perfectamente, los dos tubos flexibles deben ser cortados a la misma longitud.

Procurar que al colocar los tubos, éstos queden totalmente derechos y no queden estrangulados en su recorrido.



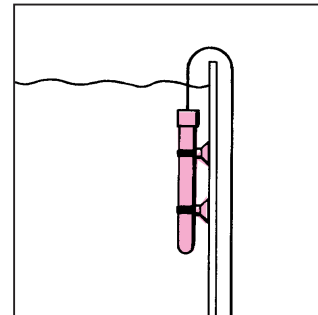
Consejo:

Si se colocan los tubos un rato en agua caliente, se volverán blandos y podrá eliminar posibles dobleces.

Cº Termofiltro

Instalación del calentador

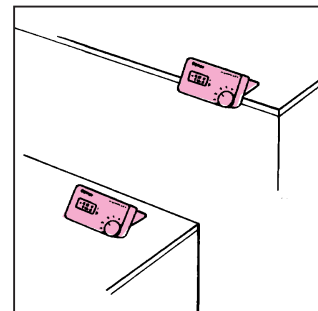
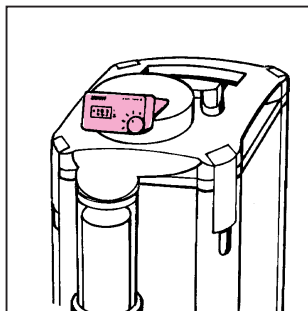
Sujete el sensor de temperatura con los dos clips y las ventosas dentro del acuario de manera que quede por debajo de la superficie del agua.



No instale el sensor de temperatura cerca de la salida del filtro.

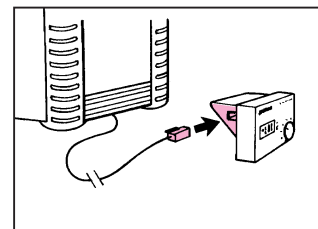
El termostato puede ser colocado en la pantalla del acuario, o pegado con la cinta de Velcro incluida, a cualquier parte de la pantalla o a el cabezal del filtro.

Protéjalo de las salpicaduras de agua.



Conecte el cable del vaso del filtro con el termostato. El enchufe debe de hacer un pequeño ruido para que esté bien conectado.

No conecte el enchufe del calentador todavía a la red.

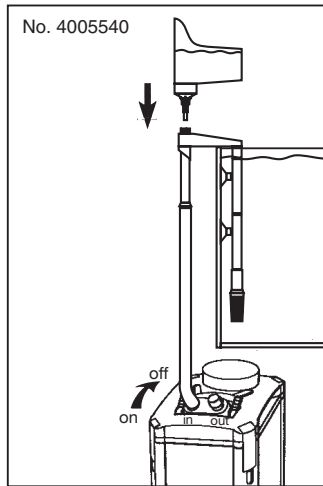
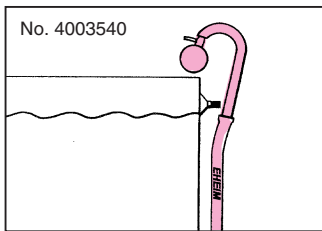
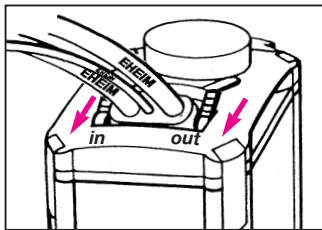


Puesta en servicio

Atención: El acuario no debe quedar lleno del todo, ya que el nivel de agua del acuario cambia debido a las variaciones del nivel del agua del filtro.

Abra la llave del tubo de entrada (**IN**) y establezca el sifón. Como alternativa, utilice el aspirador de EHEIM (n° de pedido 4003540) o el dispositivo auxiliar (n° de pedido 4005540), ø 16 mm.

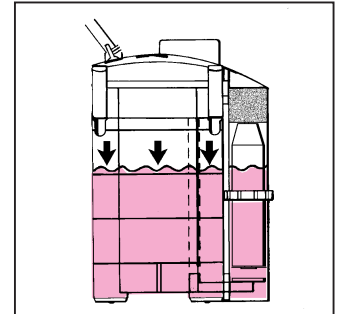
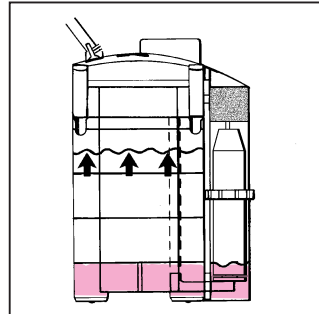
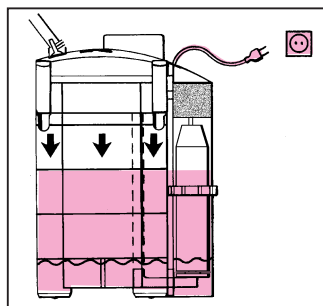
El filtro se llenará automáticamente con agua. A continuación se abre la llave del lado de salida (**OUT**).



Poner en marcha el filtro enchufándolo a la red. Tan pronto como la bomba haya arrancado, el nivel de agua del recipiente del filtro debe bajar hasta alcanzar el punto inferior más bajo.

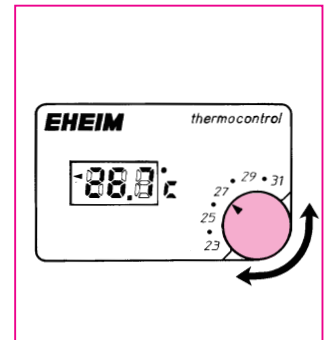
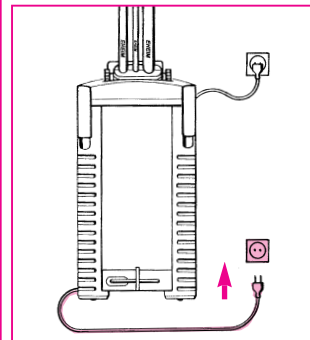
Después de alcanzar este punto, el flotador cierra automáticamente el tubo de aspiración y el filtro se vuelve a llenar con agua. Al mismo tiempo se dirige al acuario un pequeño volumen de agua a través de una pequeña derivación, la cual lubrica la turbina. El nivel de agua dentro del compartimento del flotador no sube.

Solo cuando el cartucho filtrante superior del filtro se llena con agua, hace que el compartimento del flotador se llene con agua mediante un corte en la válvula flotante de control; ahora la parte posterior abre la toma de succión y el filtro vacía nuevamente.



C° Termofiltro

Atención: Sólo cuando el filtro funcione suavemente deberá enchufar el cable del calentador a la red. Nunca debe funcionar en vacío.



La pantalla del termostato marca la temperatura actual del agua del acuario. Utilice el botón de ajuste para seleccionar la temperatura deseada (por ejemplo 27°C). El símbolo (◀) indica cuando el calentador está funcionando. Si el símbolo está apagado, la temperatura establecida se ha alcanzado y el calentador se apaga automáticamente. Si la temperatura del acuario baja por debajo de la temperatura establecida, el calentador se pondrá en marcha automáticamente otra vez. Moviendo el botón de ajuste ligeramente, se puede conseguir un ajuste preciso.

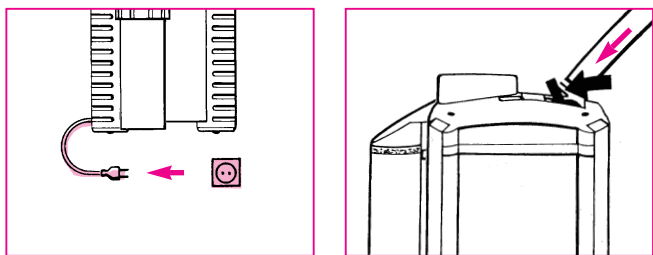
Atención: Cuando instale por primera vez el filtro o reajuste la temperatura, la temperatura mostrada en la pantalla tardará un tiempo en alcanzar la temperatura deseada. La temperatura del ambiente es también significativa para el tiempo de espera.

Si se corta la corriente, el valor indicado en la pantalla cambia y el calentador deja de funcionar. Cuando se restaura la corriente, el calentador funciona normalmente.

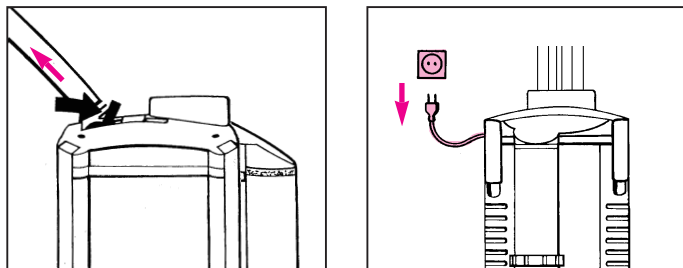
Mantenimiento y servicio

C° Termofiltro

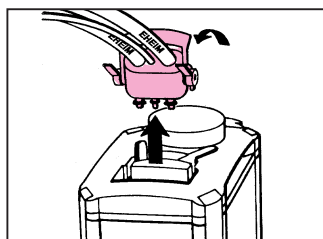
Primero **desenchufe el cable del calentador**. Cierre la llave del **lado de entrada de agua (IN)** del conector integrado con doble llave, para que el filtro se vacíe por sí solo.



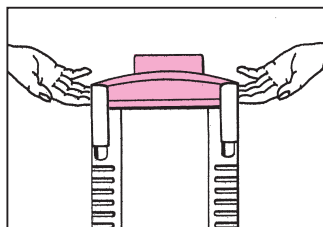
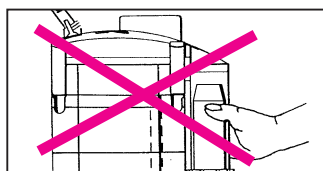
Tan pronto como la bomba empiece a coger aire, cierre **la llave de salida (OUT)** del conector integrado con doble llave y **desenchufe el cable del filtro de la red**.



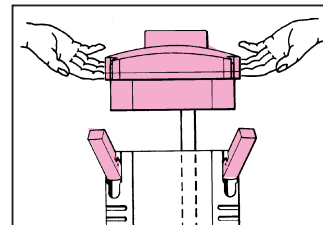
Estire de la pinza de bloqueo y quite el conector con las llaves del cabezal del filtro. Extraiga el filtro del mueble cogiéndolo de las asas integradas en el cabezal del filtro.



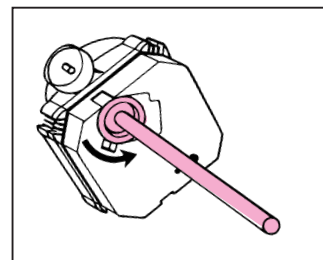
Atención:
No estire del compartimento del flotador del sistema seco/mojado.



Abra los cuatros EZ clips y retire el cabezal del filtro.



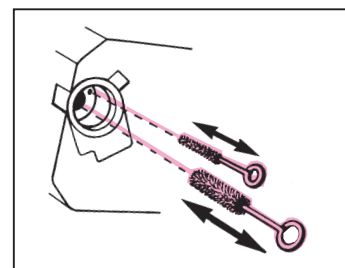
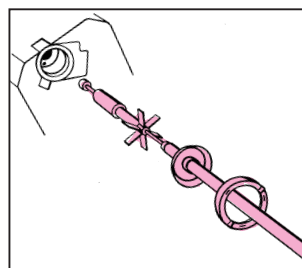
A fin de limpiar el cárter de la bomba, abrir el anillo de la tapa de turbina girando en sentido contrario a las agujas del reloj.



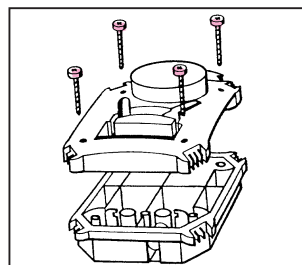
Retire la tapa de turbina y entonces quite la turbina y el eje.

Extraer seguidamente la tapa de la bomba con el tubo, el rotor con la rueda de aletas y el eje.

Limpie completamente las partes de la bomba, cárter de la turbina y canal de lubricación con el set de limpieza EHEIM (n° de pedido 4009580). Enjuague cuidadosamente el eje (riesgo de rotura), entonces vuelva a poner el eje dentro de la turbina y colóquelo otra vez dentro del cabezal del filtro.



Ponga atención en colocar los cojinetes del eje correctamente, el anillo y la tapa de turbina. Entonces bloquee la tapa de la bomba girando el anillo de la tapa de turbina.



Consejo:

Si durante la limpieza penetrase agua en la tapa cobertora del cabezal del filtro, puede desatornillar la tapa para secarla con un paño.

Materiales filtrantes:

Retire la rejilla, así como los cartuchos filtrantes del vaso del filtro.

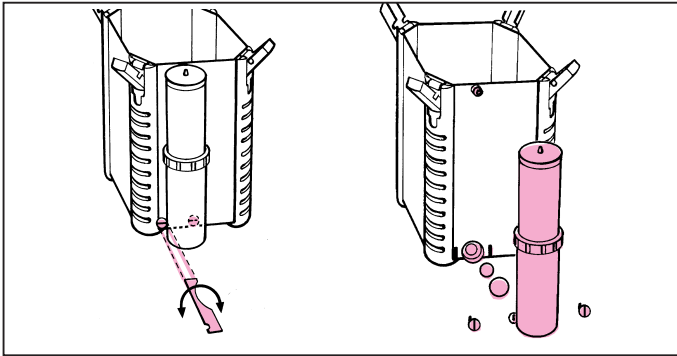
Limpie completamente el material filtrante SUBSTRAT_{pro} o EHFISUBSTRAT con agua usada del acuario – hasta que no vea mas suciedad.

Consejo:

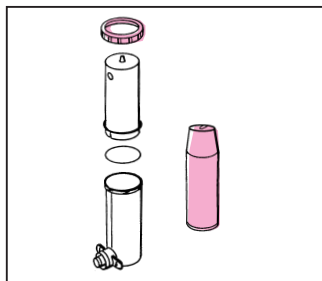
Quando renueve SUBSTRAT_{pro} o EHFISUBSTRAT (los finos poros se saturan después de un tiempo), mantenga 1/3 del material filtrante usado y mézclelo con el material nuevo, para acelerar la recolonización bacterial.

Desmontar ahora el compartimento del flotador, abriendo las dos piezas de bloqueo con la llave, hasta que éstas estén en posición vertical.

Quite el compartimento del flotador y limpie las aberturas y todas las juntas tóricas.



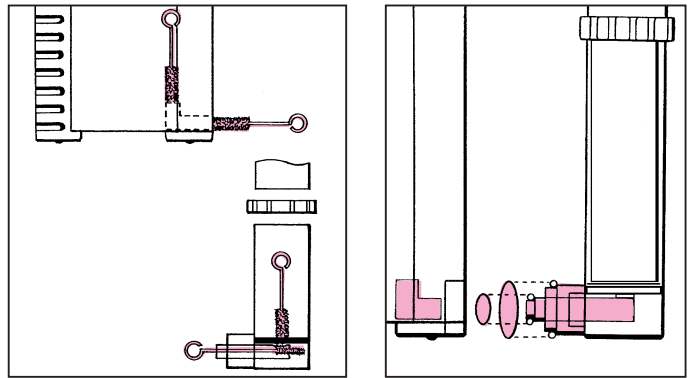
Abra el anillo de bloqueo del sistema de control seco / mojado en la dirección indicada, quite el flotador y límpielo con una esponja suave.



C° Termofiltro

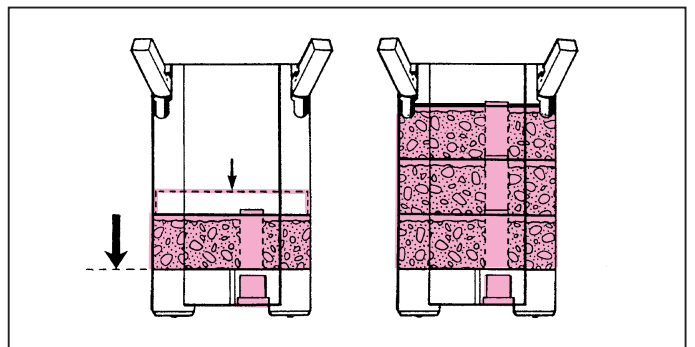
Periódicamente limpie el elemento calentador de fango. No doble el elemento calentador! No sumerja el bajo del filtro bajo el agua. Proteja las partes eléctricas del calentador de salpicaduras de agua.

Limpie con un cepillo los manguitos de conexión del recipiente y el sistema de control (inclusive la abertura de la derivación). Volver a montar el sistema de control interválico y montarlo en el recipiente del filtro. Procurar que las juntas tóricas estén correctamente colocadas.

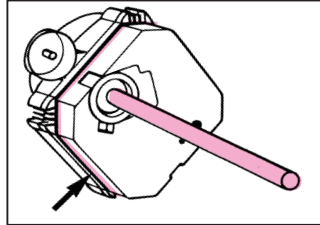


Colocar el primer cartucho filtrante en el vaso del filtro, de tal forma que el paso tubular esté colocado por encima del manguito conector del sistema de control interválico. Presionar el cartucho filtrante firmemente para que quede perfectamente colocado y que se puede garantizar que el cartucho quede bien sellado con el vaso del filtro.

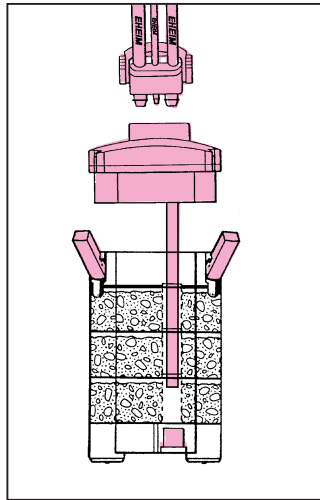
A continuación coloque el segundo (y tercer) cartucho filtrante, procurando que los tubos interiores de los cartuchos queden uno encima del otro y que estén firmemente astenados. Colocar la rejilla.



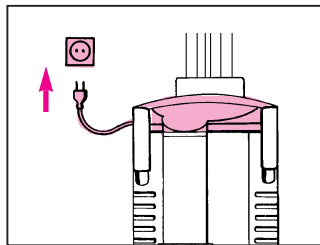
Comprobar que el tubo conector del cabezal del filtro esté firmemente colocado en la tapa de la bomba y vigilar que la junta tórica esté limpia y correctamente colocada.



Engrasar la junta plana del cabezal del filtro y las juntas tóricas del conector de los tubos del conector de los tubos con un poco de vaselina, después colocar el cabezal del filtro en el vaso, cerrar los clips y colocar el filtro dentro del mueble.



Comprobar que las tres arandelas del adaptador se hallen en buen estado y estén bien colocadas, y engrasarlas ligeramente con vaselina. Insertar el conector con llaves dobles en el cabezal del filtro y bloquearlo en su sitio. Después colocar las dos llaves en la posición abierta (**ON**) el filtro se llenará de agua por sí mismo y quedará listo para funcionar.



Enchufar seguidamente el filtro a la red para que este empiece a funcionar.

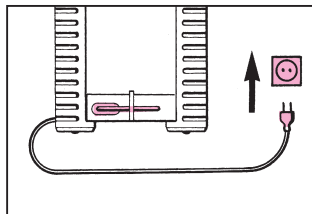
Aviso: Controlar las conexiones de las mangueras durante períodos de tiempo regulares.

C° Termofiltro

Atención:

Solo enchufe el cable del calentador cuando el filtro funcione normalmente.

El calentador nunca debe funcionar en vacío.



 Sólo adecuado para aplicaciones internas.

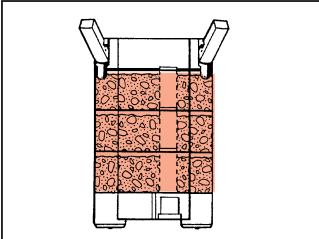
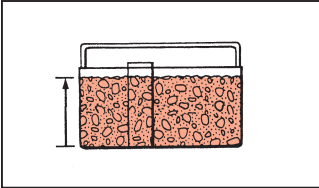
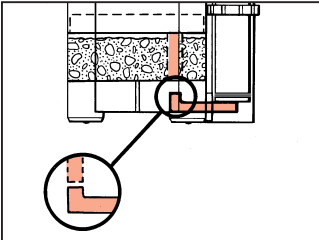
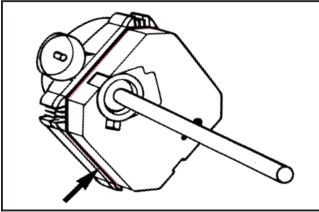
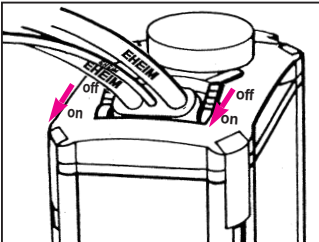
Antes de meter sus manos dentro del acuario, asegúrese de que todos los aparatos eléctricos están desenchufados. En los termofiltros, desconectar siempre primero el cable del calentador.

2227/2229: El cable no puede ser reemplazado; si el cable se daña no debe seguir utilizándose este aparato.

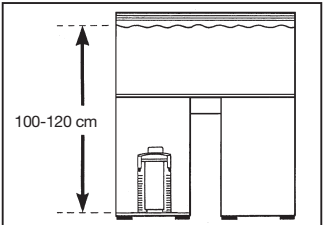
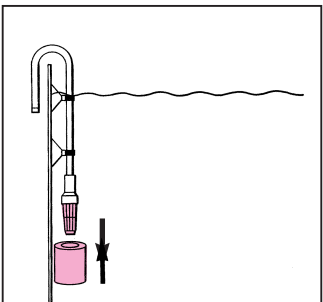
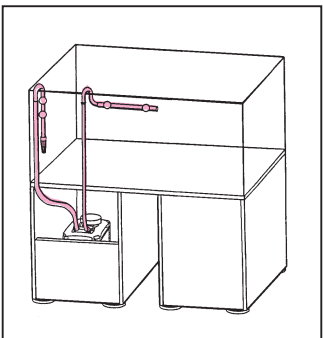
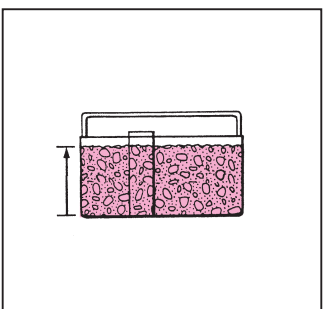
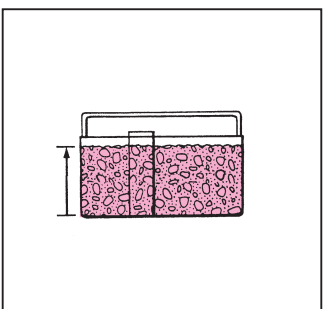
2327/2329: El aparato sólo puede ser reparado por personal autorizado. Contacte con su tienda especializada más cercana o concesionario EHEIM. Solo está permitido el uso con toma de tierra en el enchufe.

Atención: El filtro solo debe funcionar en posición vertical.

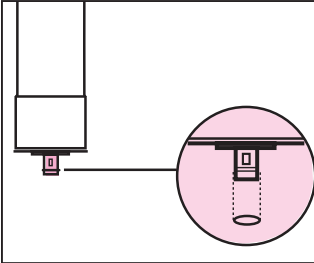
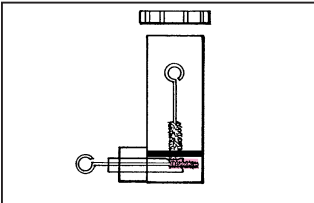
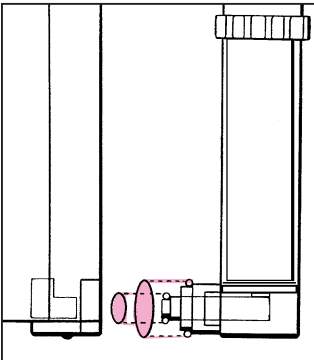
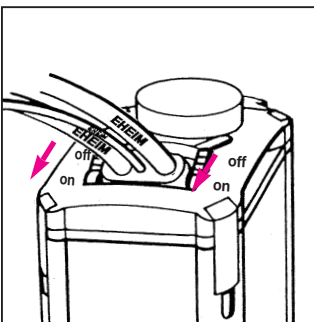
Qué hacer cuando ...

Fallo	Causa	Remedio	
El filtro no puede ser cerrado.	Los cartuchos no se han instalado correctamente.	Inserte los cartuchos de forma que los tubos interiores encajen perfectamente.	
	Los cartuchos del filtro están demasiado llenos.	Utilizar exclusivamente SUBSTRAT ^{pro} o EHFI-SUBSTRAT como material filtrante y no llenar en exceso los cartuchos filtrante. Limpiar las superficies de contacto con los cartuchos.	
	Las conexiones de los cartuchos están taponados.	Desatascar los tubos.	
	La junta plana no ha sido montada correctamente.	Insertar la junta plana correctamente en la ranura prevista para ello.	
No se llena el filtro, no funciona el sistema interválico.	La llave de paso del adaptador todavía está cerrada o no abierta del todo.	Abrir la llave de entrada a tope.	
	El tubo de entrada está torcido o sucio.	Estirar el tubo o limpiarlo.	

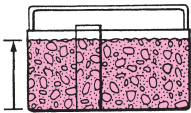
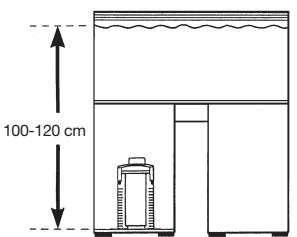
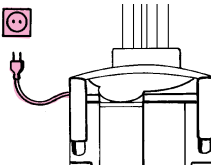
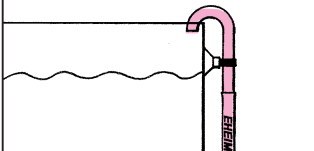
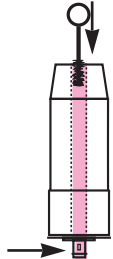
Qué hacer cuando ...

Fallo	Causa	Remedio	
El filtro no se llena, no funciona el sistema inter-válico.	La altura de montaje es demasiado pequeña.	La altura de montaje debe ser entre 100 y 120 cm.	
	La alcahofa del filtro está sucia.	Limpiar la alcahofa.	
	El prefiltro de espuma sintética está sucio.	Limpiar el prefiltro de espuma sintética y extraerlo después del período de adaptación del filtro (de 6 a 8 semanas).	
	El tubo flexible no tiene la longitud adecuada o se han conectado accesorios no adecuados.	Utilizar exclusivamente tubos flexibles originales de longitudes regulares. No utilizar accesorios adicionales.	
	Se ha rellenado de material filtrante equivocado.	Utilizar exclusivamente material filtrante SUBSTRAT ^{pro} o EHFISUBSTRAT. No llenar los cartuchos en exceso. No utilizar almohadillas de algodón, materiales plásticos, cerámica, lava, turba, etc. Solo utilice carbón para filtraciones específicas de corto espacio de tiempo.	

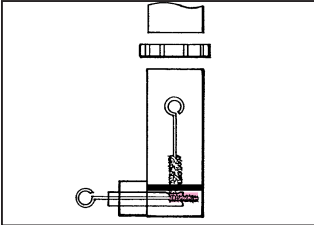
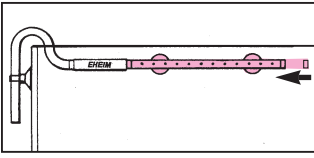
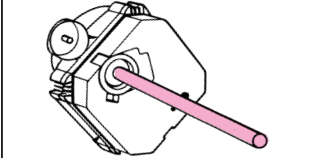
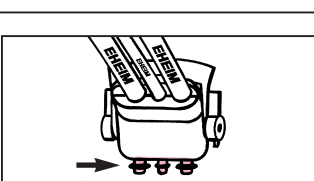
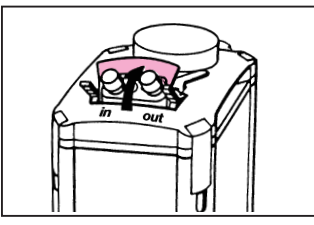
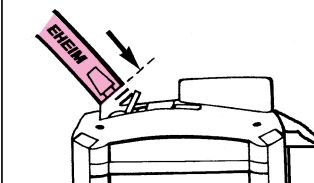
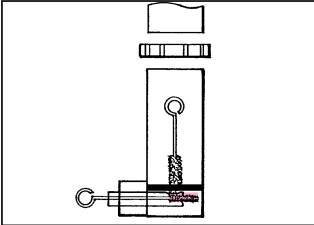
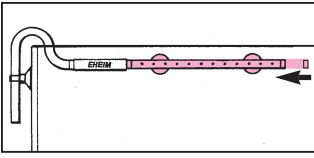
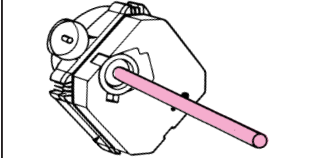
Qué hacer cuando ...

Fallo	Causa	Remedio	
El filtro no se llena, no funciona el sistema seco/mojado.	Falta o se ha colocado mal la junta tórica del flotador.	Coloque el anillo de forma adecuada, reemplácelo si fuera necesario.	
	El collar y el disco del flotador de la válvula de control están sucios.	Limpié el disco y la válvula.	
	La apertura bypass del mecanismo de control seco/mojado está sucia.	Limpié el bypass.	
	La junta tórica de la boquilla pequeña del sistema interválico está desgastada o no está colocada correctamente.	Instale la junta tórica correctamente o cámbiela.	
	El filtro está inclinado.	Coloque el filtro en posición vertical.	
El filtro no se vacía, no funciona el sistema interválico.	La llave de salida del adaptador está cerrada o no está abierta completamente.	Abrir la llave de salida a tope.	
	El tubo flexible de salida está torcido o sucio.	Estirar el tubo de forma que quede derecho y límpielo si estuviera sucio.	

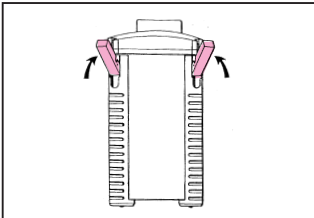
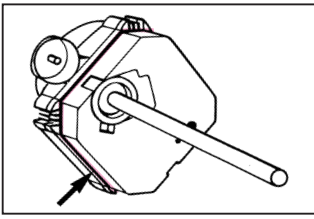
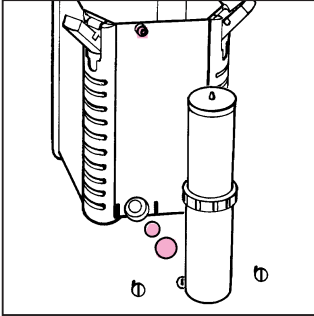
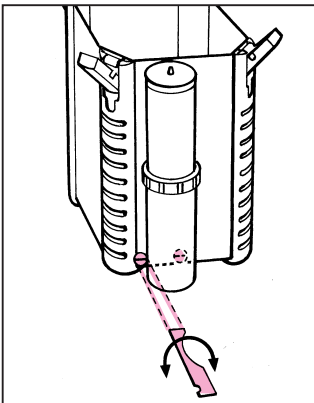
Qué hacer cuando ...

Fallo	Causa	Remedio	
<p>El filtro no se vacía, no funciona el sistema inter-válico.</p>	<p>La longitud de los tubos flexibles no es correcta, se han conectado accesorios no adecuados.</p>	<p>Utilizar exclusivamente tubos flexibles originales de una longitud correcta. No utilizar accesorios adicionales.</p>	
	<p>Se ha rellenado de material filtrante equivocado.</p>	<p>Utilizar exclusivamente material filtrante SUBSTRAT^{pro} o EHFISUBSTRAT. No llenar los cartuchos filtrantes en exceso. No utilizar almohadillas de algodón, materiales plásticos, cerámica, lava, turba, etc. Solo utilice carbón para filtraciones específicas de corto espacio de tiempo.</p>	
	<p>La altura de montaje es demasiado grande.</p>	<p>La altura de montaje debe ser entre 100 y 120 cm.</p>	
	<p>El cárter de la bomba tiene aire.</p>	<p>Abra las llaves de entrada de salida. Quite el enchufe de la red y espere aprox. 1 min. hasta que el cárter de la bomba se haya llenado con agua. Seguidamente, volver a enchufar el aparato a la red.</p>	
	<p>El tubo flexible de ventilación está torcido o sucio.</p>	<p>Tender los tubos sin que queden torcidos y lavarlos si estuvieran sucios.</p>	
	<p>La abertura del tubo de ventilación se encuentra debajo de la superficie del agua.</p>	<p>Colocar el tubo por encima del nivel de agua.</p>	
<p>El agujero y/o el canal de drenaje del flotador está sucio.</p>	<p>Limpiar el agujero y/o canal de drenaje.</p>		

Qué hacer cuando ...

Fallo	Causa	Remedio	
El filtro no se vacía, no funciona el sistema inter-válico.	El tubo bypass del mecanismo de control seco/mojado está sucio.	Limpiar el bypass.	
	El filtro está colocado en posición inclinada.	Colocar el filtro en posición vertical.	
	La flauta de salida está sucia.	Limpiar la flauta.	
	El tapón de la flauta de salida se ha perdido	Coloque el tapón.	
	El tubo de salida de la bomba no está colocado correctamente.	Colocar correctamente el tubo de salida.	
La junta tórica del tubo de salida está rota.	Reemplácela por una junta nueva.		
El conector de los tubos no es estanco.	Las juntas tóricas y/o las superficies de sellado están sucias. Las juntas tóricas están dañadas o no están colocadas.	Limpiar las juntas tóricas o las superficies de sellado o cambiar las juntas por unas nuevas. Colocar las juntas tóricas o cambiarlas en su caso.	
	La palanca de bloqueo no está totalmente cerrada.	Cerrar la palanca de bloqueo completamente.	
	Los tubos de conexión no están correctamente conectados.	Apretar los tubos de conexión hasta el final y asegurarlos con la pinza de seguridad.	

Qué hacer cuando ...

Fallo	Causa	Remedio	
El cabezal del filtro no es estanco.	No se han cerrado todos los clips de cierre.	Cerrar correctamente todos los clips de cierre.	
	Las juntas o su canal están sucias.	Limpiar el canal o las juntas.	
El filtro del sistema de control interválico no es estanco.	Las juntas tóricas del compartimento del flotador se han perdido, dañado o están sucias.	Limpie o reemplace las juntas tóricas.	
	Las piezas de bloqueo no están cerradas.	Cierre las piezas de bloqueo con la llave de bloqueo, de forma que las ranuras se encuentren en posición horizontal.	

EHEIM professional intervalfiltre 2227 og 2229

EHEIM professional interval-termofiltre 2327 og 2329

① Filteroverdel ② Profiltætning ③ Forbindelsesrør ④ Tildækningsgitter ⑤ Filterindsatser ⑥ Låseklips ⑦ Filterbeholder ⑧ Interval-styring ⑨ Låsering ⑩ Svømmer ⑪ Låse ⑫ Adapter med lukkehaner ⑬ Slangeholder ⑭ Udløbsrørbøjning ⑮ Dyserør med lukkeprop ⑯ Tilsugningsrør ⑰ Filtersi ⑱ Skumgummi-forfilter ⑲ Udluftningsrør ⑳ Slanger ㉑ Klembojle med suger ㉒ Låsenøgle ㉓ Vaseline ㉔ Rensebørste. **Termofiltre:** ㉕ Betjeningsdel ㉖ Temperaturføler ㉗ Burrebånd.

Bemærk: Termofiltre 2327 og 2329 er kun egnet for ferskvand!

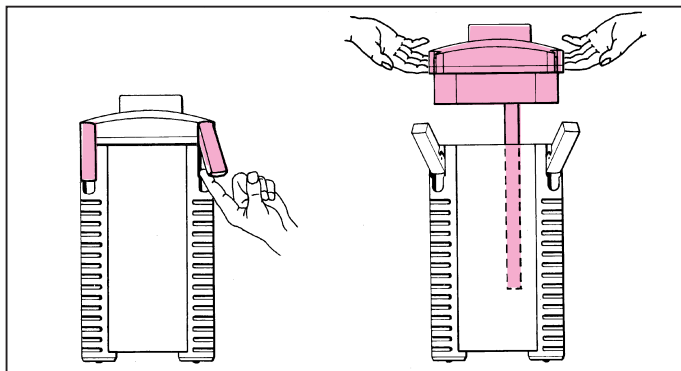
Kontroller venligst ved udpakningen, at alle dele er der.

Montage

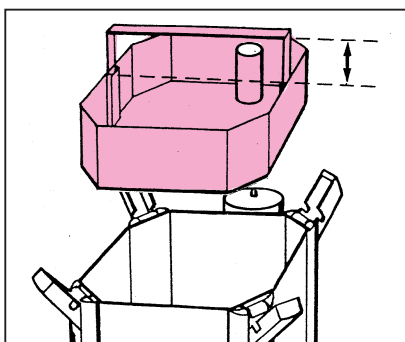
Bemærk:

For at sikre, at intervalfiltret fungerer korrekt, må man kun anvende de vedlagte originale dele. Der må ikke foretages ændringer i indsugnings- og udløbsområdet.

Alle fire lukkeklips på filterbeholderen vippes ud og skubbes op. Ved hjælp af to gribefordybninger kan overdelen let løftes af.



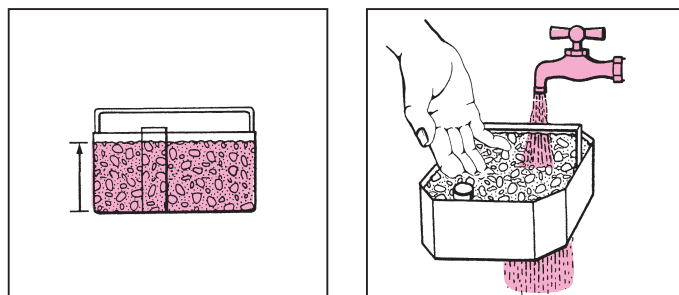
Tag afdækningsgitter og de enkelte filterindsatser ud én efter én. Filterindsatsernes nedsænkede grebsbøjler kan trækkes ud opad.



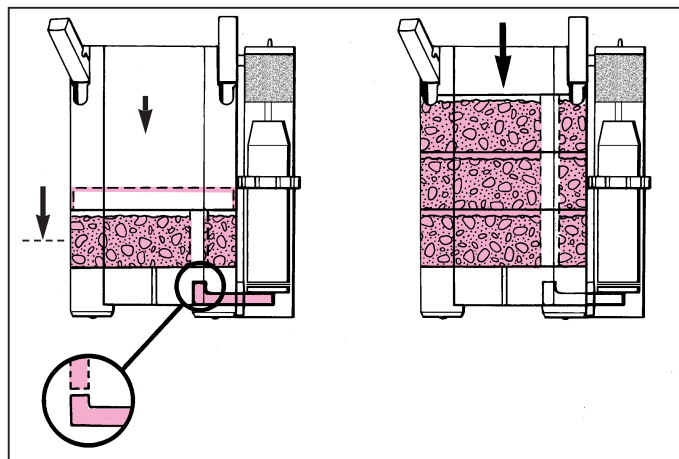
Fyld nu filterindsatserne med EHEIM filtermasser SUBSTRATpro eller EHFISUBSTRAT til lige under randen.

Bemærk: Fyld ikke for meget på; røråbningen må ikke blive tilstoppet. Anvend kun SUBSTRATpro eller EHFISUBSTRAT-filtermasse i alle filterindsatserne.

Derefter skylles filtermassen i sien grundigt igennem under rindende vand, til vandet ser klart ud.



Når De har kontrolleret, at interval-tilslutningsstudsene ikke er tilsmudset, sætter De den første filterindsats ind i filterbeholderen igen. Derved skal man være opmærksom på, at røråbningen sidder over interval-tilslutningsstudsene. Tryk indsatsen kraftigt ned, til den ligger på holderen. Derved sikres det, at filterindsatsen og beholderen slutter tæt.

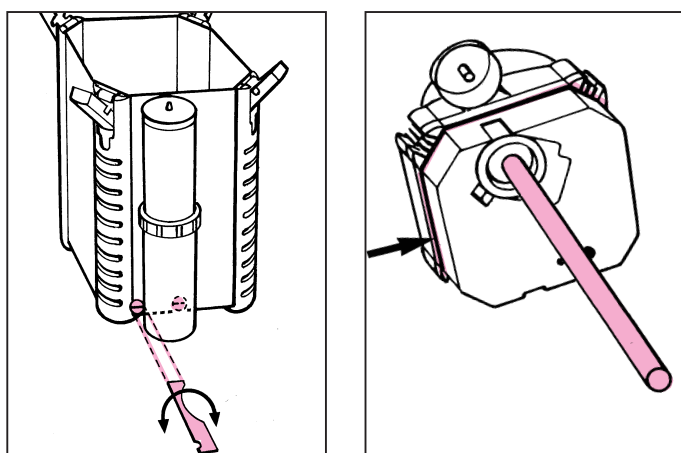


Den anden hhv. tredje filterindsats skubbes ligeledes ned; herved skal røråbningerne ligge over hinanden.

Grebsbøjlerne skubbes ned; sørg for, at alle filterindsatser ligger tæt over hinanden. Gitter lægges på.

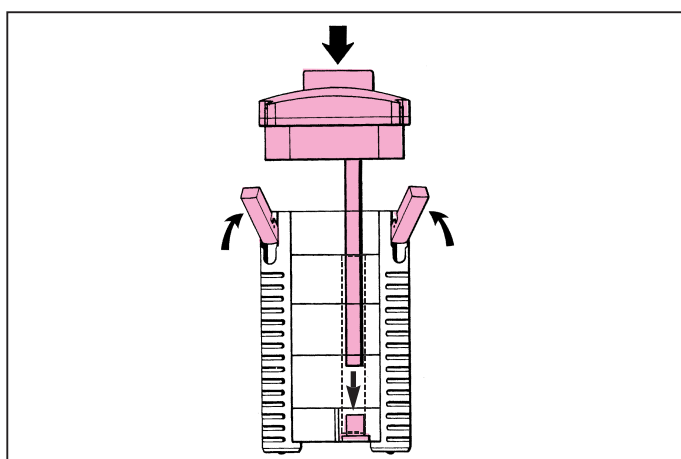
Kontroller at interval-styringen sidder godt fast på filter-beholderen. Den øverste tilslutning skal sidde fast på be-holderen; de to underste blokeringer skal være låst, så slidserne står vandret.

Med den vedlagte låsenøgle er låsene let tilgængelige.



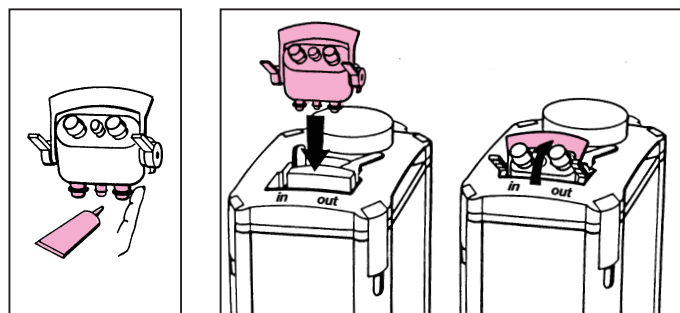
Forbindelsesrørets tætningsring indfedtes let og sættes fast i pumpedækslet. Kontroller, at profiltætningen på filterover-delen ikke er tilsmudset, og at den sidder rigtigt.

Filteroverdelen sættes på beholderen; herved skal forbin-delsesrøret føres gennem filterindsatsernes åbninger og sættes rigtigt ind i interval-tilslutningsstudsene. Luk alle fire låseklips.



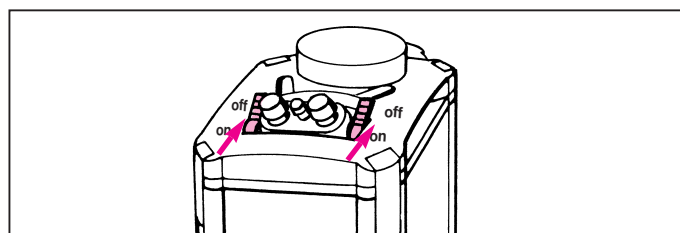
Bemærk: Før slangetilslutningernes adapter insættes i filteroverdelen skal alle 3 tætningsringe kontrolleres for ska-der og rigtig placering. For at lette monteringen indfedtes tætningsringene med en smule vaseline.

Adapteren stikkes – med låsebøjlen stående opad – or-dentligt ind i den dertil beregnede åbning på filterover-delen, og mens man samtidig trykker på adapteren, lukkes låsebøjlen, til den går i hak.



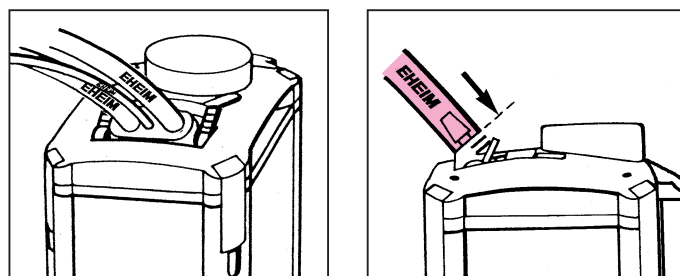
Slangeinstallation

For at lukke afspærringshanerne skal begge adapterens greb på siden drejes til position **OFF**.

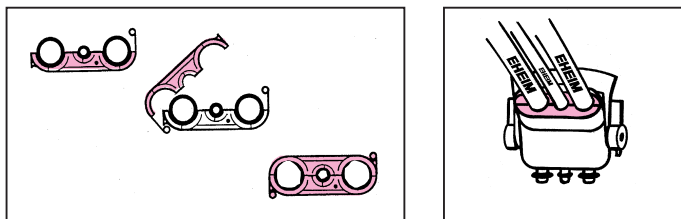


De vedlagte tre slanger skubbes på slangestudserne på adapteren til stoppet; herved begynder man med den mind-ste slangediameter. Hvis det er svært at skubbe dem på, kan slangerne gøres smidige i varmt vand.

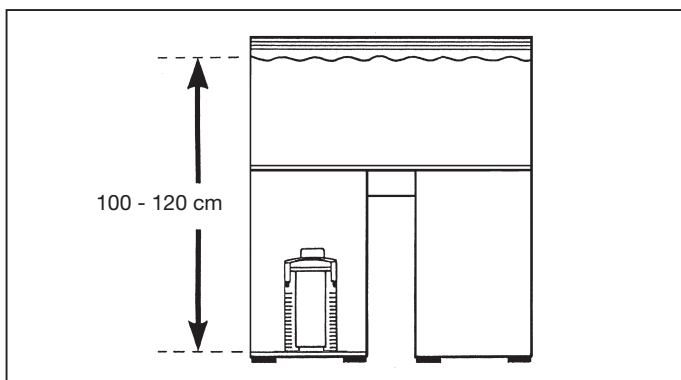
Principielt bør kun anvendes originale EHEIM-slanger



Den todelte slangeholder lægges omkring de monterede slanger, sættes sammen i siden og klipses sammen.

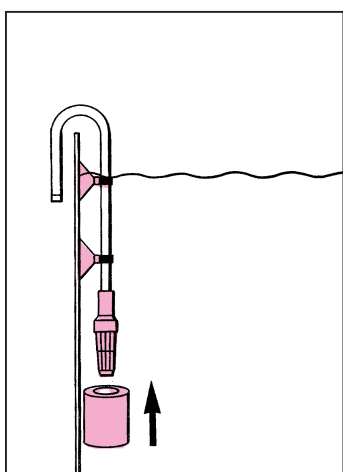


Anbring det færdigt forberedte filter i underskabet og vær ubetinget opmærksom på den foreskrevne opstillingshøjde: Mellem vandoverfladen og filtrets bund skal der være **100 - 120 cm**. Denne afstand er afgørende for, om interval-filtrets vekselfunktion arbejder korrekt.



Stik filtersien på indsugningsrøret og fastgør det med 2 klembøjler og sugere på akvariets indervæg.

Skumgummi-forfiltret trækkes over filtersien.

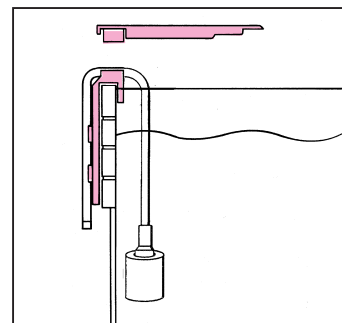


Henvisning:

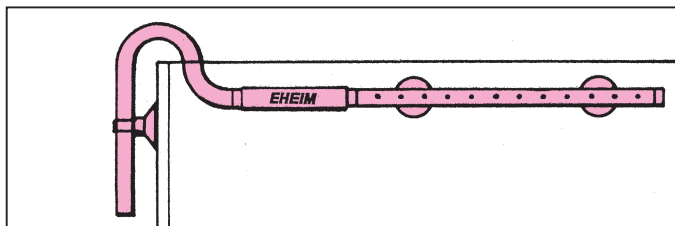
Skumgummi-forfiltret skal kun bruges i begyndelsen, ca. 6 - 8 uger. Derefter overtager den bakteriekultur, som har dannet sig, den biologiske og mekaniske filtrering. Derefter skal skumgummi-forfiltret tages af.

Henvisning:

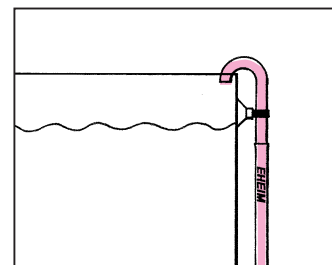
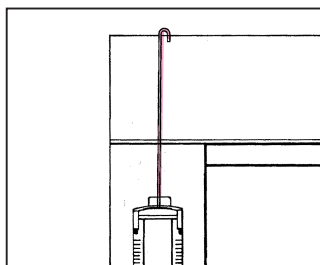
Ved brug af EHEIM *professionel* udvendigt filterinterface best.-nr. 7656450 bliver indsugningrøret blot klipset fast.



Udløbsrørbøjningen og dyserøret forbindes med et kort stykke slange og monteres i akvariet ved hjælp af klembøjle og suger. Den åbne ende af dyserøret lukkes med den vedlagte lukkeprop.



Før nu slangerne fra filtret ud gennem åbningen i skabets bagvæg og forbind først luftslangen (9/12 mm) uden knæk og nedhæng med akvariet. Luftslangen afkortes til den nødvendige længde, forbindes med udløsningsrøret og fastgøres ved hjælp af klembøjlen og sugeren på akvariets væg, så røråbningen ender over vandets overflade.



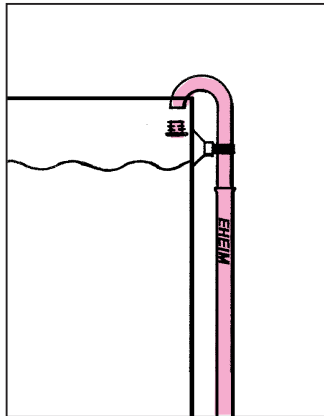
Vigtig henvisning:

Under behandling med medicin kan et intervalfilter også bruges som gennemløbsfilter i en kort periode.

Filtret fyldes med vand, som ved almindelig opstart. Udluftningsrøret lukkes med proppen (best.-nr. 7272350), og filtret tages i brug.

Under medicinbehandling skal der kun filtreres over EHFISYNTH eller almindelig filtervat.

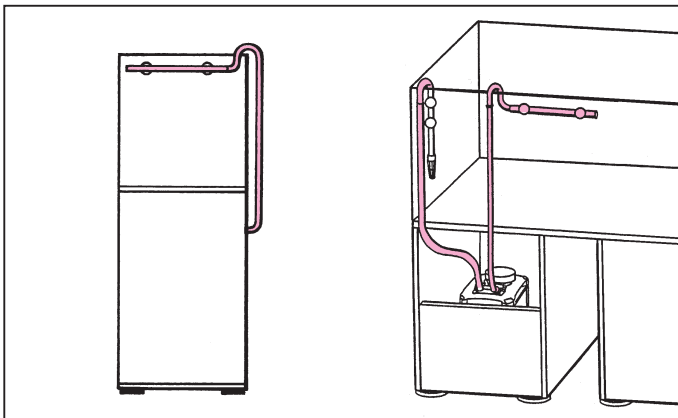
Efter behandlingens afslutning filtreres ca. 4 - 6 dage udelukkende over filterkul (EHFIKTIV).



Derpå forbinder De det monterede indsugningsrør og udløbsrørbøjningen med de slanger med passende diameter.

Vær opmærksom på den korrekte slangelængde:

For at interval-filtret skal fungere korrekt, må begge slangerne til indsugningsområdet og trykområdet kun afkortes til **samme længde!** Desuden skal man være opmærksom på, at slangerne skal ligge glat, de må ikke have knæk; det ville forhindre den rigtige gennemstrømning.



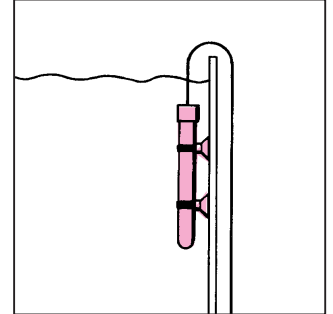
TIP:

Hvis slangerne forinden lægges i varmt vand nogen tid, bliver de smidige, og eventuelle knæk kan lettere trykkes ud.

C° Termofiltre

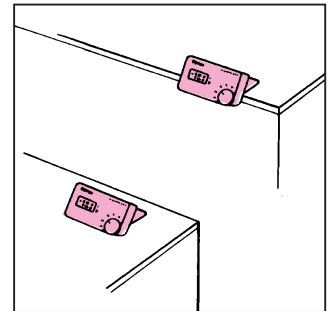
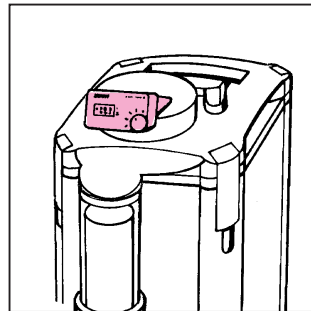
Installation af varmeren

Betjeningsdelens temperaturføler fastgøres med 2x klembøjler og sugere i akvariet, så den **altid sidder under vandoverfladen.**



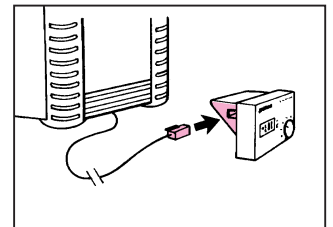
Betjeningsdelen kan stilles op eller fastgøres med det vedlagte burrebånd enten på akvarietildækningen eller på filteroverdelen.

Beskyttes mod vandsprøjt.



Derpå føres styreledningen ud fra filterbeholderen til betjeningsdelen, og stikelementet tilsluttes, så man kan høre, det går i hak.

EI-stikket skal ikke tilsluttes endnu!

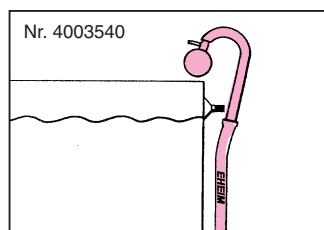
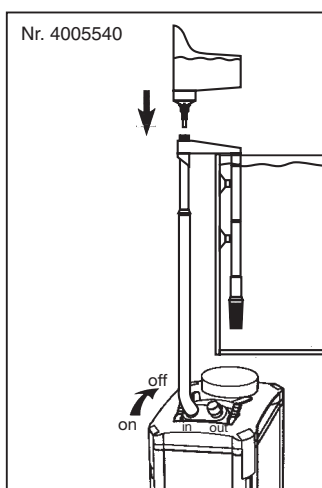
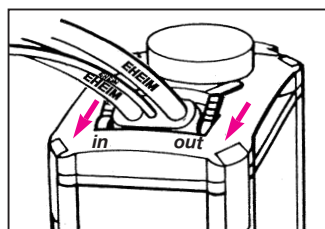


Idrifttagning

Bemærk: Akvariet må ikke være fyldt op til maksimal højde, da vandniveauet ændres på grund af den skiftende vandstand i filtret.

Åbn hanen på adapterens indløbsside (**IN**) og påsæt hæverten. Alternativt benyttes en EHEIM Ansuger (Best. nr. 4003540) eller EHEIM Filterstarter (Best.nr. 4005540, ø 16 mm).

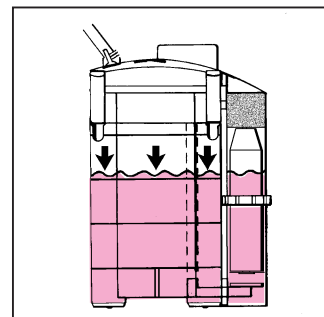
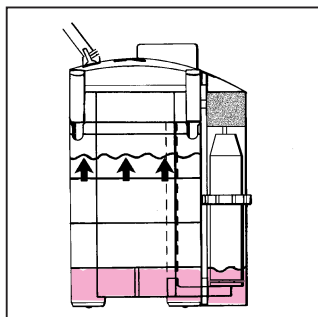
Derved fyldes filtret med vand. Så åbnes afspærrings-hanen på tryksiden (**OUT**).



Filtret tages i drift ved at tilslutte netledningen. Så snart pumpen er startet, skal vandstanden i filterbeholderen synke ned til nederste koblingspunkt.

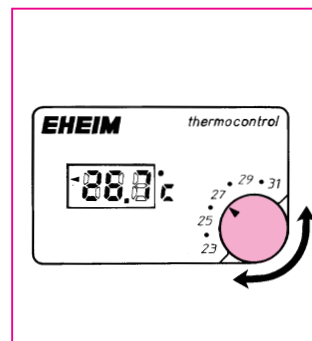
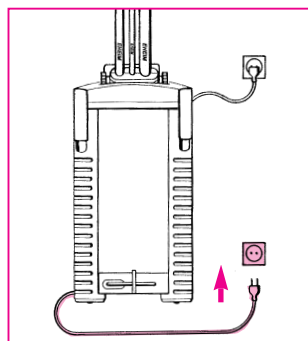
Når dette punkt er nået, lukker svømmeren automatisk interval-sugestudsden og filterbeholderen fyldes atter med vand. Samtidig bliver en mindre, kontinuerligt filtreret vandmængde ført tilbage til akvariet gennem bypass-åbningen.

Vandspejlet stiger ikke med i interval-styringen. Først når den øverste kurv i filterbeholderen oversvømmes, fyldes interval-styringen med vand gennem hullet i svømmeren; nu åbner svømmeren sugestudsden og filtret tømmer sig på ny.



°C Termofiltre

Bemærk: Først når filtret arbejder regelmæssigt, tilsluttes nettilslutningen fra varmeren til stikkontakten. Varmeren må aldrig blive tør.



Displayet på betjeningsdelen viser den faktiske vandtemperatur i akvariet. Vælg nu den temperatur, De ønsker, over indstillingsknappen (f. eks. 27° C). Symbolet (◀) viser, hvornår varmeren arbejder. Når tegnet slukkes, er den indstillede temperatur nået, og varmeren kobles automatisk fra. Hvis temperaturen i akvariet synker ned under den indstillede værdi, indkobles varmeren automatisk igen. Ved at dreje indstillingsknappen lidt kan man foretage finindstillingen.

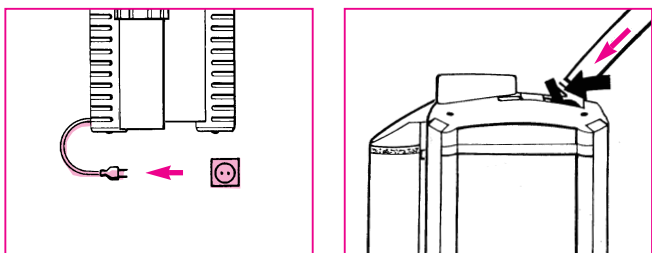
Henvisning: Afhængigt af omgivelsestemperatur, indstillingsmåde og toleranceværdier, viser displayet først den faktiske temperatur efter flere timers brug.

Hvis elforsyningen svigter, skifter værdien i displayet, og varmeren holder op med at arbejde. Når elforsyningen igen er etableret, vil varmeren igen arbejde normalt.

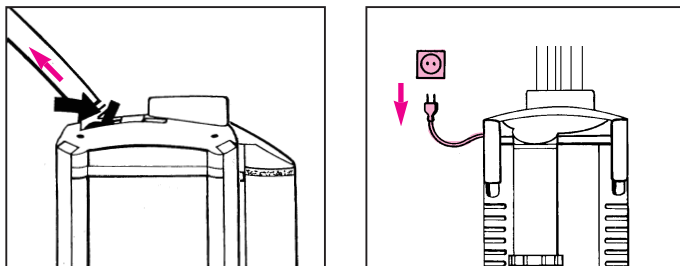
Vedligeholdelse og pleje

C° Termofiltre

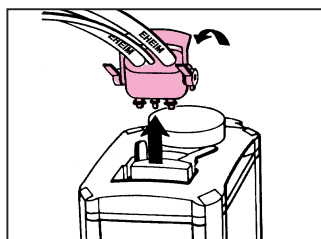
Træk først stikket fra varmeren ud af stikkontakten. Luk afspærringsgrebet på adapterens **indløbsside (IN)**, så filtret tømmes.



Så snart man kan høre, at pumpen suger luft, lukkes afspærringsgrebet på **tryksiden (OUT)** på adapteren, og **stikket fra pumpen trækkes ud af stikkontakten.**

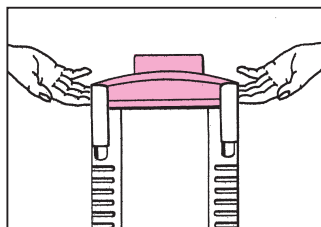
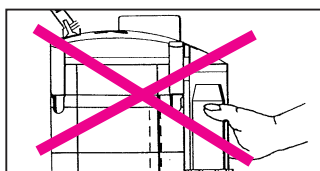


Låsebøjlen svinges opad, og adapteren løsnes fra filteroverdelen. Det udvendige filter tages ud af skabet ved de to gribefordybninger.

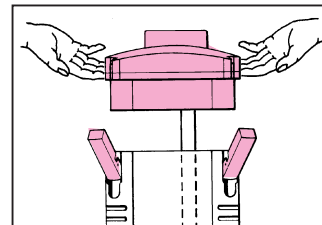


Bemærk:

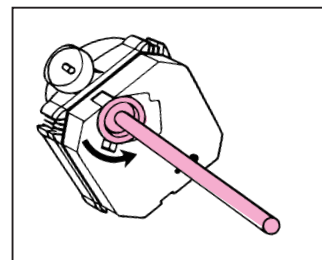
Træk ikke i intervalstyringen.



Alle lukkeklips åbnes, og filteroverdelen tages af.

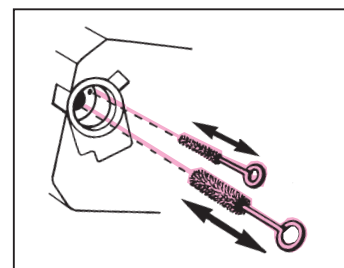
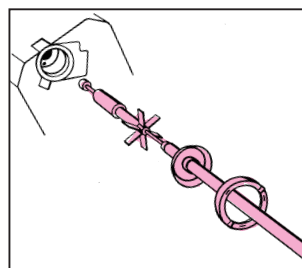


Til rensning af pumperummet åbnes låseringen i bunden af filteroverdelen ved at dreje mod venstre.

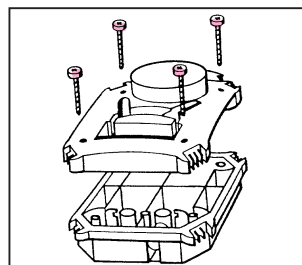


Tag pumpedækslet ud sammen med røret og rotoren og akslen.

Pumpedelene og smørekanalen renses grundigt med EHEIM rense-sæt, best.-nr. 4009580. Akslen skylles forsigtigt af (fare for brud!); derefter sættes rotoren sammen igen og sættes ind.



Ved montagen skal man sørge for, at aksellejet, pumpedækslet og tætningsringen sidder korrekt. Derpå låses pumpehjulet fast igen med låseringen.



TIP:

Hvis der skulle være kommet vand ind i filteroverdelens tildækningshætte, kan hættens skruer af og tørres med en klud.

Filtermasser:

Tag afdækningsgitter og filterindsatser ud af filterbeholderen.

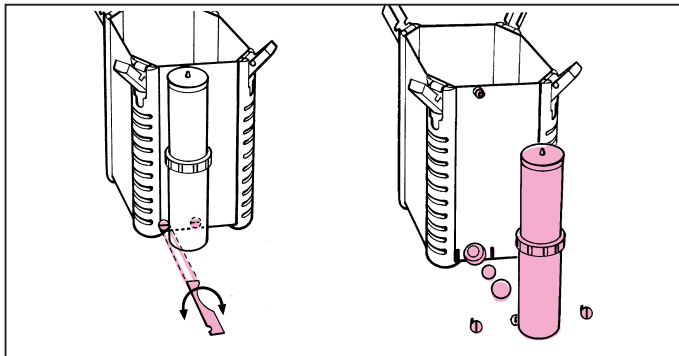
Skyl filtermassen grundigt igennem med lunkent vand – indtil vandet ser klart ud.

TIP:

Når der fyldes nyt SUBSTRAT^{pro} eller EHFISUBSTRAT på, blander man ca. 1/3 af den brugte filtermasse med den nye. Baktekulturene formerer sig så hurtigt i det nye filtermateriale.

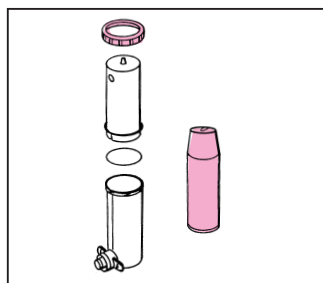
Nu afmonteres interval-styringen. Med låsenøglen åbnes begge låse, så slidserne står lodret.

Interval-styringen tages af, tætningsfladerne og tætningsringene renses.



Interval-styringens låsering åbnes i den angivne drejerektion, svømmeren tages ud og renses forsigtigt med en blød svamp.

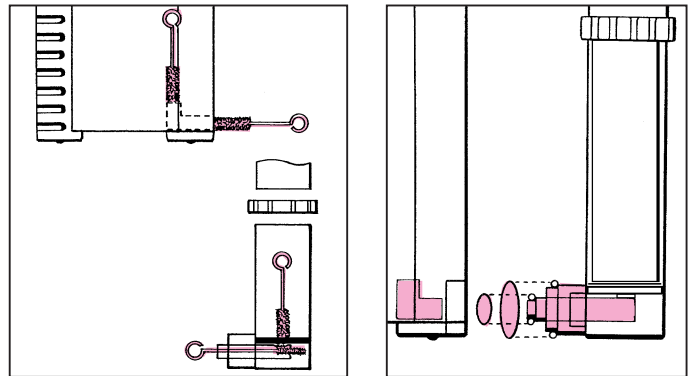
Alle styringens dele og filterbeholderen vaskes ud.



Termofiltre

Varmespiralen rengøres af og til for slamaflejring. Pas på ikke at bøje varmespiralen! Dyp ikke filterbeholderen ned under vandet. Varmerens elektroniske betjeningsdel beskyttes mod vandsprøjt.

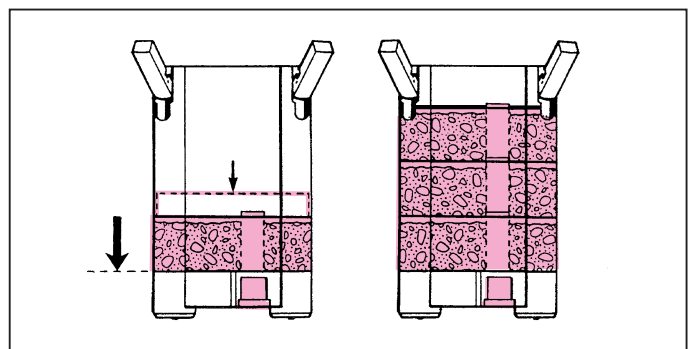
Tilslutningsstudserne på beholder og styring – også by-pass-åbningen – renses med en børste. Interval-styringen sættes sammen igen og monteres på filterbeholderen. Sørg for, at tætningsringene sidder rigtigt.



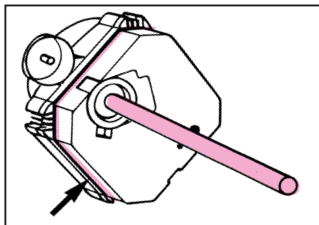
Den første filterindsats skubbes ind i beholderen, så røråbningen sidder over interval-styringens tilslutningsstuds. Sørg for, at indsatsen trykkes helt ned til holderen for at være sikker på en god tætning mod filterbeholderen.

Derpå skubbes den anden (og tredje) filterindsats ind; røråbningerne skal ligge over hinanden.

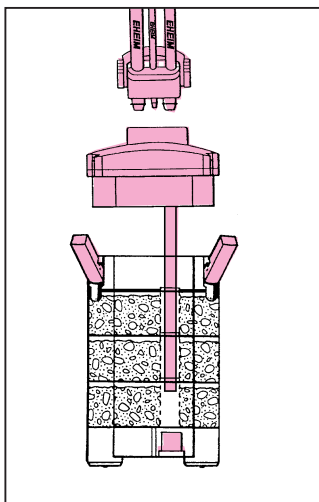
Sørg for, at filterindsatserne sidder lige på mod hinanden.



Kontroller, at forbindelsesrøret på filteroverdelen sidder rigtigt i pumpedækslet, at profiltætningen sidder rigtigt, og at den er ren.



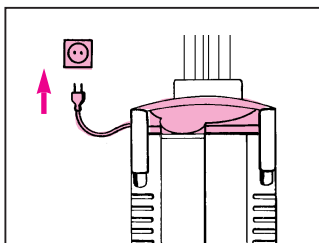
Derpå smøres tætningsringen fra filteroverdelen med lidt vaseline. Filteroverdelen sættes på filterbeholderen, lukkeklipsene lukkes, og filtret anbringes i underskabet.



Alle 3 tætningsringe på adapteren indfedtes med en smule vaseline og kontrolleres for beskadigelse og rigtig placering.; adapteren sættes ind og låses fast.

Når begge grebene på adapteren er åbnet (position **ON**), fyldes filtret automatisk med vand, så det er parat til brug.

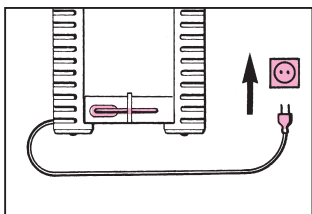
Derpå tages filtret i brug over filteroverdelens netstik.



Bemærk: Alle slangeforbindelser skal kontrolleres regelmæssigt for at sikre korrekt placering.

C° Termofiltre

Bemærk: Først når filtret arbejder regelmæssigt, tilsluttes nettilslutningen fra varmeren til stikkontakten. Varmeren må aldrig anvendes "tør".



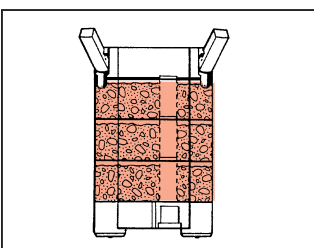
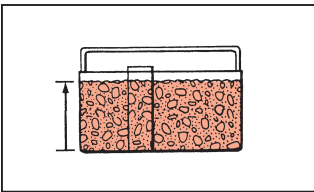
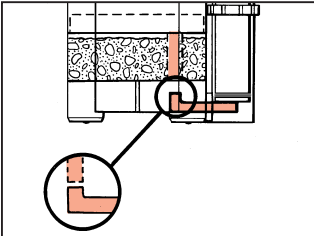
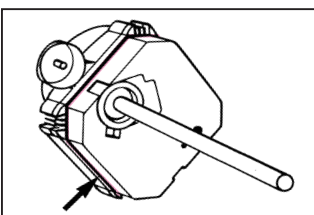
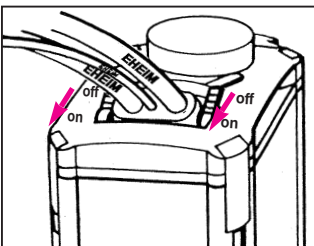
Kun til anvendelse indendørs. Før man stikker hånden ned i akvarievandet, skal elstikkene til alle elektriske apparater, som befinder sig i vandet, trækkes ud af kontakten. På termofiltre skal netstikket til varmeren altid fjernes først.

2227/2229: Netledningen på disse apparater kan ikke udskiftes. Ved beskadigelse af ledningen må apparatet ikke mere benyttes.

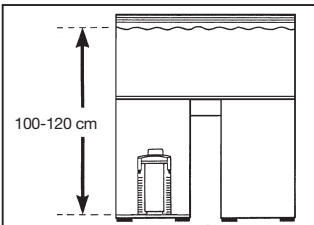
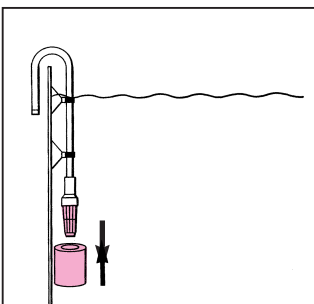
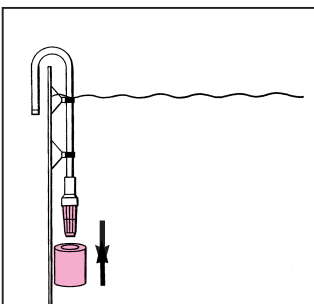
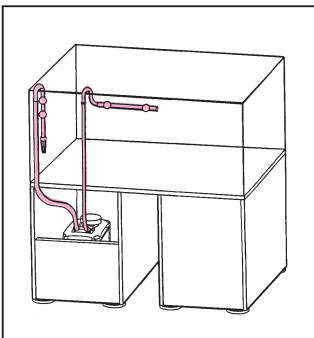
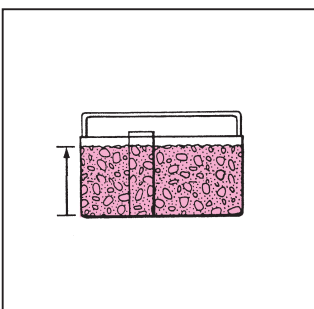
2327/2329: Kun autoriserede fagfolk må åbne apparatet eller udskifte ledningstilslutningen. Henvendelse sker til faghandleren eller et EHEIM-serviceværksted. Tilslutning må kun ske over stikdåser med jordledning.

Filtret skal altid stå oprejst under brugen.

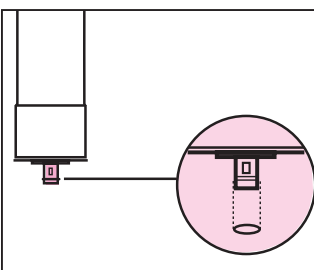
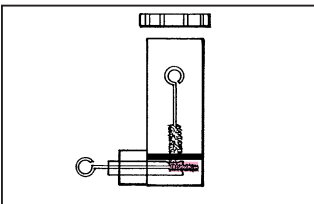
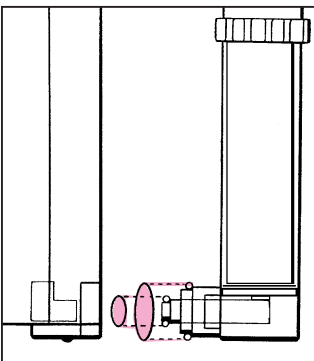
Hvad skal man gøre, hvis . . .

Fejl	Årsag	Afhjælpning	
Filterverdelen lader sig ikke lukke	Filterindsatserne er forkert indbygget	Skub filterindsatserne ind, så røråbningerne ligger over hinanden.	
	Filterindsatserne er for fulde	Benyt altid SUBSTRAT ^{pro} eller EHFISUBSTRAT som filtermasse, undlad at fylde filterindsatserne for meget. Rens eventuelt de indsatsflader, som støder mod hinanden.	
	Røråbningen i filterbeholderen er tilsmudset	Rens røråbningen.	
	Profiltætningen er monteret forkert	Indsæt tætningen rigtigt i den dertil beregnede not.	
Filtret bliver ikke fyldt, ingen interval-funktion	Indløbshanen i adapteren er stadig lukket eller ikke helt åben	Åbn indløbshanen til stoppet	
	Indløbsslangen har knæk eller er tilsmudset	Læg slangen uden knæk, rens slangen	

Hvad skal man gøre, hvis...

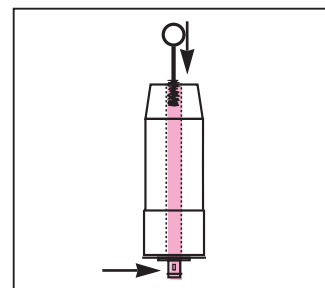
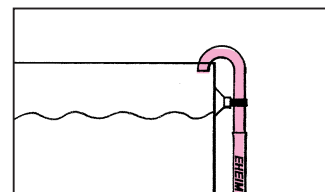
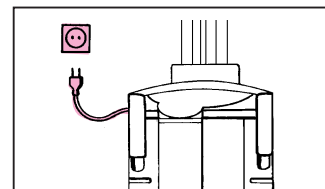
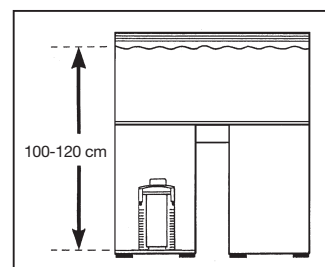
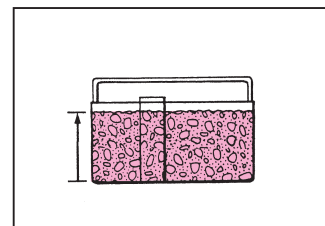
Fejl	Årsag	Afhjælpning	
Filtret bliver ikke fyldt, ingen interval-funktion	Opstillingshøjden er for lille	Opstillingshøjden skal være mellem 100 og 120 cm.	
	Filtersien er tilsmudset	Rens filtersien.	
	Skumgummi-forfiltret er tilsmudset	Rens skumgummi-forfiltret. Fjern det, når filtret har kørt i 6 - 8 uger.	
	Slangens længde er forkert, der er tilsluttet forkert tilbehør	Benyt altid originale EHEIM slanger i ens længde! Undlad at indsætte yderligere tilbehør!	
	Der er fyldt forkert filtermasse på	Benyt udelukkende SUB-STRAT ^{pro} eller EHFISUB-STRAT som filtermasse, fyld ikke filterindsatserne for meget, benyt ingen filtervat eller grovfilterpuder!	

Hvad skal man gøre, hvis...

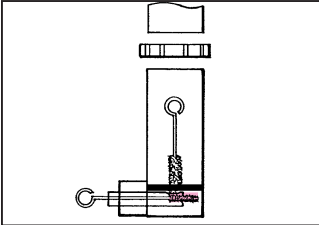
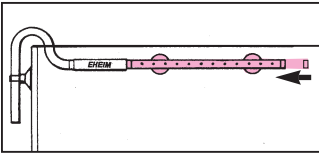
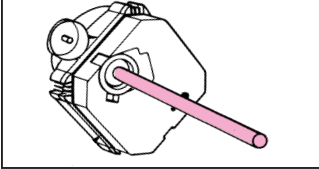
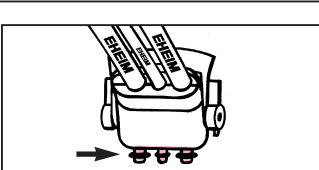
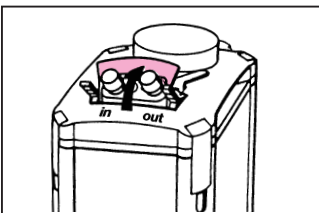
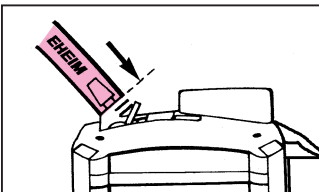


Fejl	Årsag	Afhjælpning	
Filtret bliver ikke fyldt, ingen interval-funktion	Tætningsring på svømme- ren mangler eller er forkert monteret	Sæt tætningsringen rigtigt på.	
	Tætningsring på svømme- ren er tilsmudset eller slidt	Rens tætningsringen, udskift den i givet fald.	
	Bypass-boringen i interval- styringen er tilsmudset	Rens den.	
	Tætningsringen på interval- styrings lille studs er slidt, mangler eller er forkert monteret	Monter tætningsringen rig- tigt, udskift i givet fald.	
Filtret står skråt	Filtret står skråt	Stil filtret lodret.	
	Filtret tømmes ikke, ingen interval-funktion	Udløbshanen i adapteren er lukket eller ikke helt åben	
Udløbsslangen har knæk eller er tilsmudset		Læg slangen uden knæk, rens slangen.	

Hvad skal man gøre, hvis...

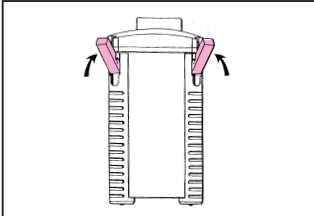
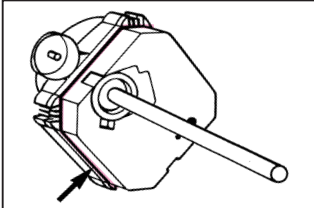
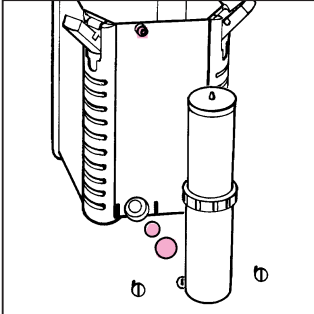
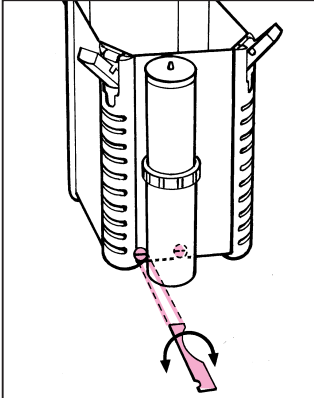
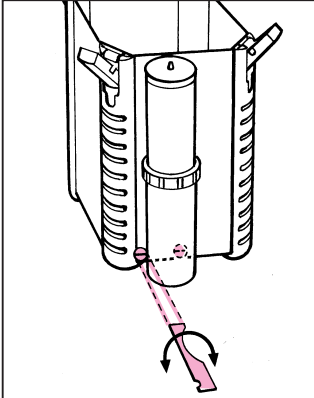
Fejl	Årsag	Afhjælpning
Filtret tømmes ikke, ingen interval-funktion	Slangelængden er forkert, der er tilsluttet forkert tilbehør	Benyt altid originale slanger i ens længde! Undlad at indsætte yderligere tilbehør!
	Der er fyldt forkert filtermasse på	Benyt udelukkende SUB-STRAT ^{pro} eller EHFISUB-STRAT som filtermasse, fyld ikke filterindsatserne for meget, benyt ingen filtervat eller grovfilterpuder!
	Opstillingshøjden er for stor	Opstillingshøjden skal være mellem 100 og 120 cm.
	Der er luft i pumpekammeret	Åbn ind- og udløbshanen, træk stikket ud af stikkontakten og vent ca. 1 min., til pumpekammeret er blevet fyldt med vand. Stik stikket i stikkontakten igen.
	Slangen til ind- eller udluftning har knæk eller er tilsmudset	Læg slangerne uden knæk hhv. rens dem.
	Udluftningsrørets åbning ligger under vandoverfladen	Installer udluftningsrøret rigtigt.
	Tætningsringen på svømmeren mangler eller er forkert monteret	Monter tætningsringen rigtigt.
	Tætningsringen på svømmeren er tilsmudset eller slidt	Rens tætningsringen og udskift den i givet fald.



Hvad skal man gøre, hvis...

Fejl	Årsag	Afhjælpning	
Filtret tømmes ikke, ingen interval-funktion	Bypass-boringen i intervalstyringen er tilsmudset	Rens den.	
	Filtret står skråt	Stil filtret lodret.	
	Dyserøret er tilsmudset	Rens det.	
	Proppen på dyserøret mangler	Indsæt proppen.	
Filtret på adapteren er utæt	Forbindelsesrøret i pumpe-dækslet sidder ikke rigtigt	Montér forbindelsesrøret rigtigt.	
	Tætningsringens tætningsflader er tilsmudset	Rens tætningsfladerne.	
	Tætningsringene er forkert monteret eller beskadiget	Montér tætningsringene rigtigt hhv. udskift dem.	
	Låsegrebet er ikke lukket helt	Luk låsegrebet til stoppet.	
	Tilslutningsslangerne er ikke tilsluttet korrekt	Skub dem på til stoppet; de skal sikres med slangeholderen.	

Hvad skal man gøre, hvis ...

Fejl	Årsag	Afhjælpning	
Filtret på filteroverdelen er utæt	Lukkeklipsene er ikke alle lukket	Luk alle lukkeklips rigtigt.	
	Tætningsfladerne eller profiltætningen er tilsmudset Tætningen mangler, er lagt forkert ind eller er beskadiget	Rens tætningsfladerne. Indsæt tætningen korrekt hhv. udskift den.	
Filtret på interval-styringen er utæt	Tætningsringenes tætningsflader er tilsmudset	Rens tætningsfladerne.	
	Tætningsringene mangler eller er ikke indsat rigtigt	Indsæt tætningsringene rigtigt.	
	Interval-elementernes låsering er ikke lukket helt til stoppet Låsen er ikke lukket	Luk interval-styringens låsering til stoppet i den angivne drejeretning. Luk låsen med låsenøglen, så sliderne står vandret.	

EHEIM professional märkä/kuiva-suodattimet 2227 ja 2229
EHEIM professional märkä/kuiva-lämpösuodattimet 2327/29

① Suodattimen yläosa ② profiilitiiviste ③ liitosputki ④ peiteristikko ⑤ suodatinpanokset ⑥ kiinnike ⑦ suodatinsäiliö ⑧ märkä/kuiva säätömekanismi ⑨ sulkurengas ⑩ märkä/kuiva säätökelluke ⑪ sulkimet ⑫ adapteri ja sulkuhanat ⑬ letkun pidike ⑭ poistokaari ⑮ suihkuputki ja suljinnasta ⑯ imuputki ⑰ imusiivilä ⑱ vaahtomuoviesisuodatin ⑲ tuuletusputki ⑳ letkuja ㉑ imukupit ja pidikkeet ㉒ sulkuavain ㉓ vaseliinia ㉔ puhdistusharjat. **Lämpösuodattimet:** ㉕ hoitotaulu ㉖ lämpöanturi ㉗ tarranauha.

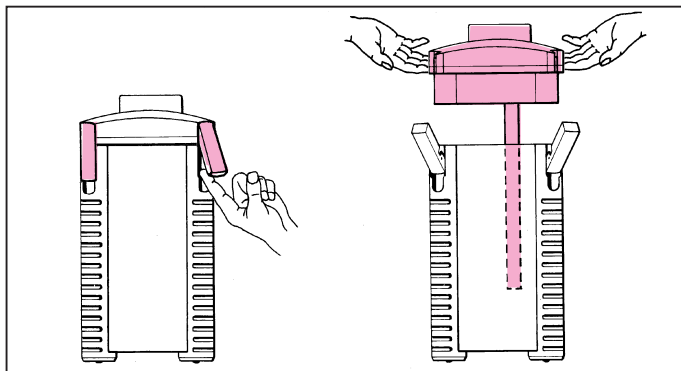
Huomio: 2327 ja 2329 lämpösuodattimia voidaan käyttää ainoastaan makeassa vedessä.

Tarkista avatessa, ovatko kaikki osat mukana.

Asennus

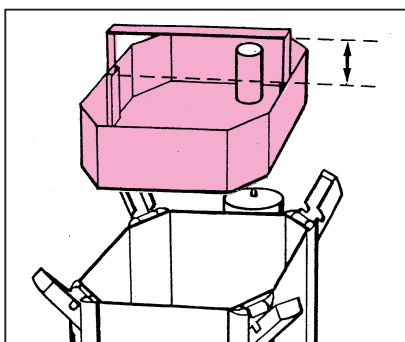
Huomio: Käytä vain alkuperäisosa, jotta intervallisuodatin toimisi asianmukaisesti. Imu- ja poistopuolella ei saa tehdä muutoksia.

Vedä kaikki neljä suodatinsäiliön kiinnikettä ulos ja työnnä ylös. Suodattimen yläosa voidaan nostaa vaivattomasti ylös upotettuja kahvoja käyttäen.



Nosta pois peiteritilä sekä suodatinkorit yksitellen.

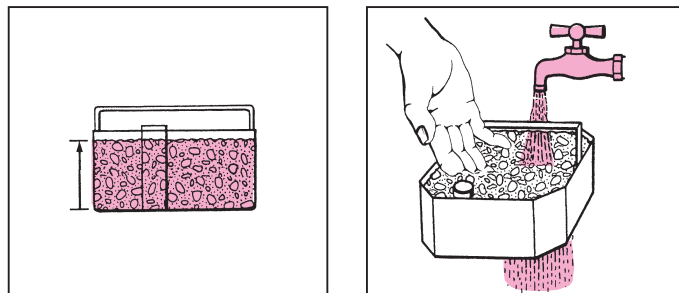
Ota suodatinpanokset yksitellen ulos. Upotetut kahvat suodatinpanoksissa voidaan vetää ulos.



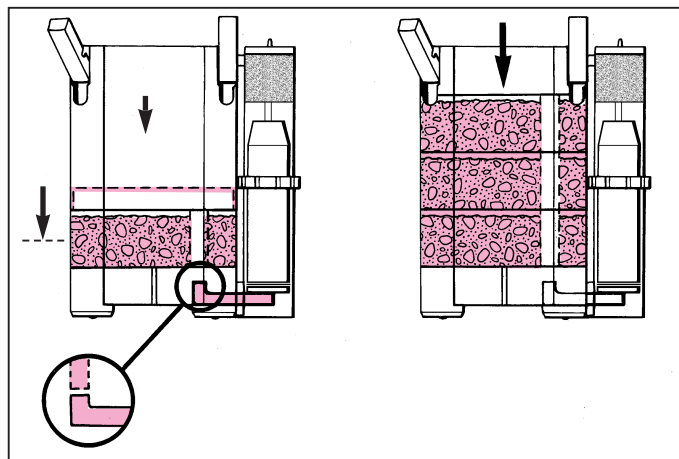
Täytä nyt massakorit siten, että suodatusmassa eiylitä korin yläreunaa. Käytä ainoastaan alkuperäistä SUBSTRAT^{pro} tai EHFISUBSTRAT suodatusmassaa.

Huom: Älä täytä yli reunojen. Älä tuki läpivirtausputkea. Käytä kaikissa massakoreissa vain SUBSTRAT^{pro} tai EHFISUBSTRAT suodatusmassaa.

Huuhto senjälkeen suodatinmassaa korissa hyvin juoksevan veden alla kunnes vesi ei enää ole sameaa.



Kun olet varmistanut, ettei märkä/kuiva-säiliön liitosmuhvi ole likainen, aseta ensimmäinen suodatinpanos jälleen suodatinsäiliöön. On huomattava, että putken läpivientiaukko on intervalli-liitosmuhvin yläpuolella. Paina suodatinpanosta alas kunnes se on tiukasti pidikkeiden päällä. Siten saadaan aikaan varma tiiviyys suodatinpanoksen ja säiliön välillä.

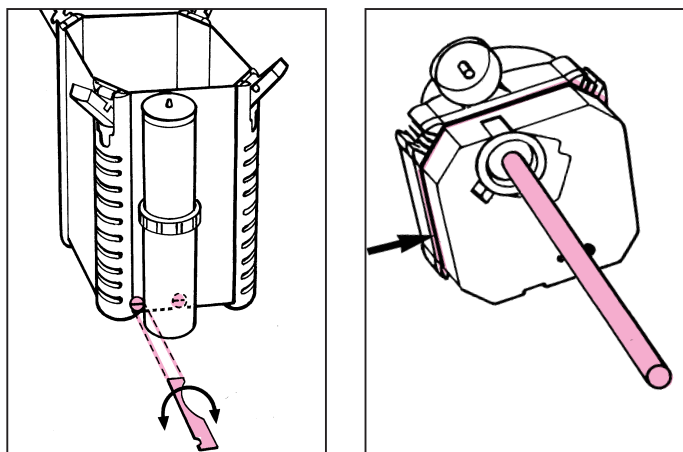


Aseta samoin toinen (ja kolmas) suodatinpanos paikoilleen, jolloin putkien aukkojen on oltava päällekkäin.

Kahvat upotetaan ja varmistetaan, että kaikki panokset ovat tiiviisti päällekkäin. Aseta ritilä paikoilleen.

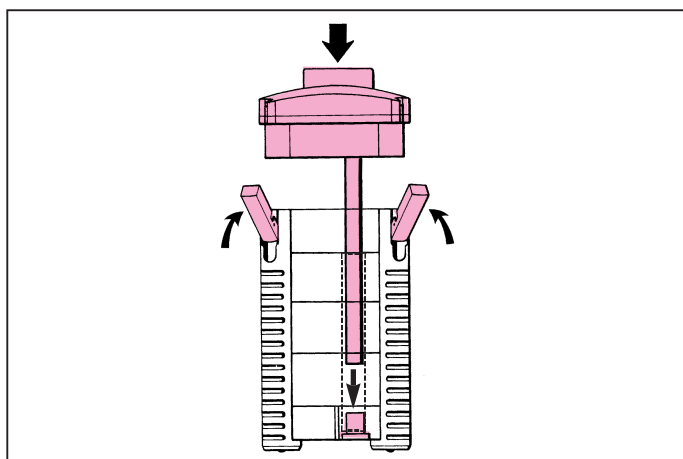
Varmista, että märkä/kuiva-säiliö on varmasti kiinni suodattinsäiliössä. Ylemmän liitännän on oltava tiukasti säiliössä kiinni; molempien alempien sulkimien täytyy olla kiinni siten, että urat ovat vaakasuorassa.

Sulkimet voidaan helposti sulkea oheisella avaimella.



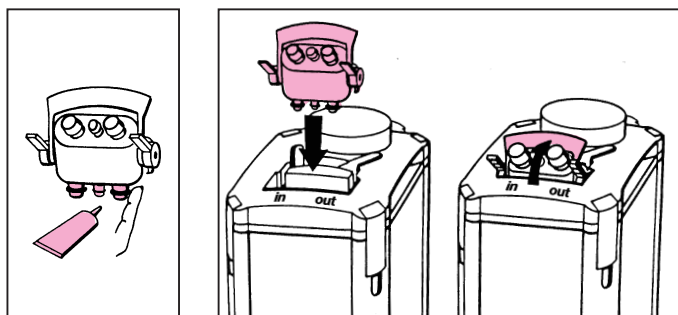
Liitosputken on oltava tiiviisti kiinni pumpun kannessa. Varmista, että profiilitiiviste suodattimen yläosassa on puhdas ja oikein asennettu.

Aseta suodattinsäiliön yläosa paikoilleen, jolloin suodattimen yläosan liitosputki on pantava suodatinpanosten aukkojen läpi ja sen on oltava kunnolla märkä/kuiva-säiliön liitosmuhvissa. Kaikki neljä kiinnikettä suljetaan.



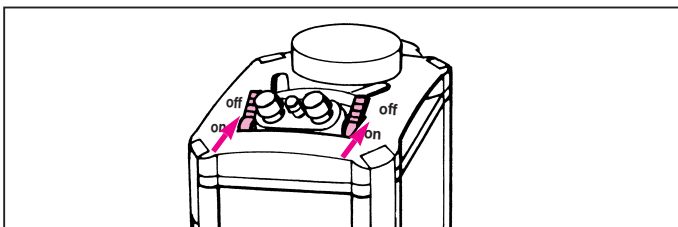
Huomio: Ennenkuin painat kaksoishanayksikön paikalleen, tarkista että kaikki kolme o-rengasta ovat ehjät ja oikein paikoillaan. Asennuksen helpottamiseksi voitele o-renkaat kevyesti vaseliinilla.

Adapteri asetetaan ulkonevan sulkusangan avulla sille tarkoitettuun aukkoon ja lukitaan sulkusanka painamalla samanaikaisesti adapteria.



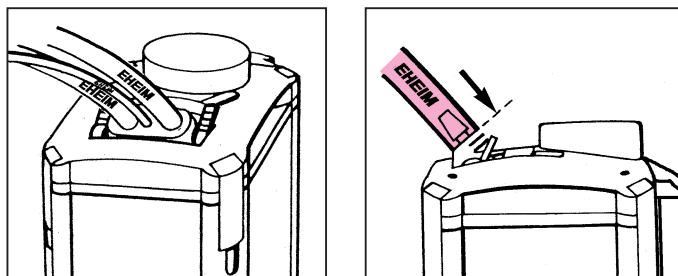
Letkujen asennus.

Hanojen sulkemiseksi käännä adapterin molemmilla puolilla olevat vipukahvat **OFF** asentoon.

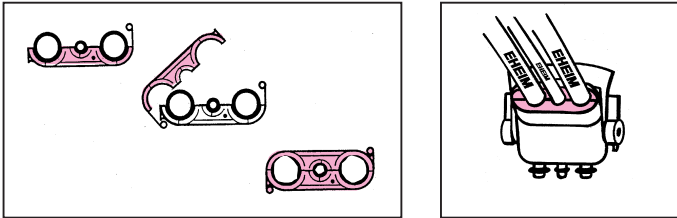


Oheiset letkut työnnetään rajoittimeen saakka adapterin letkumuhviin ohuimmasta letkusta alkaen. Mikäli se on vaikeaa, pehmentetään letkut ensin lämpimässä vedessä.

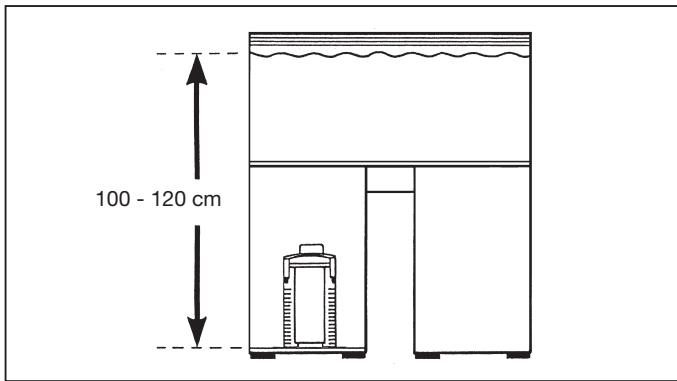
On hyvin tärkeää käyttää vain EHEIMin alkuperäisletkuja.



Aseta kaksiosainen letkunpidike asennettujen letkujen ympäri, asenna sivuilta ja lukitse.

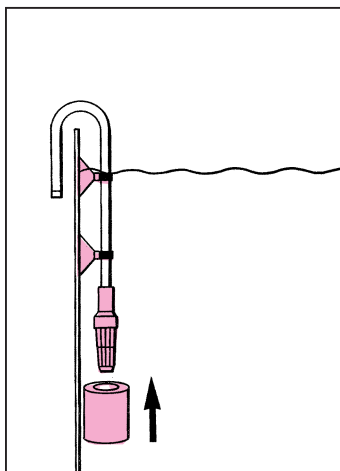


Aseta täydellisesti koottu suodatin alakaappiin ja huomioi määrätty asennuskorkeus: vedenpinnan ja suodattimen pohjan väliä on oltava 100-120 cm. Tämä asennuskorkeus on ratkaiseva intervalli-suodattimen toiminnan.



Aseta imusiivilä imuputkeen ja kiinnitä imuputki pidikeellisellä imukupilla akvaarion sisäpuolelle.

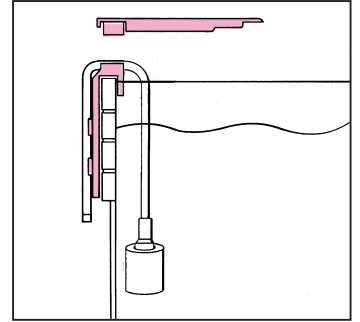
Vedä vaahтомуovi-esisuodatin imusiivilän päälle.



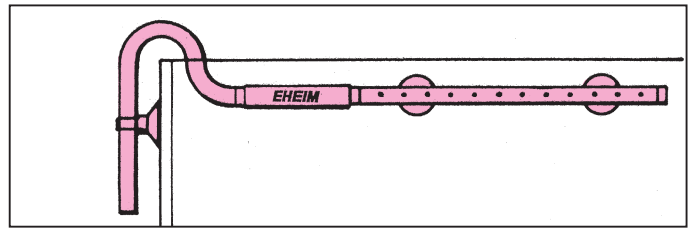
Huomio: Vaahтомуovi-esisuodatinta käytetään vain 6 - 8 viikon esikäyttöajalla. Sen jälkeen suodatinmassassa syntynyt bakteerikasvusto suorittaa biologisen ja mekaanisen suodatuksen.

Huomio:

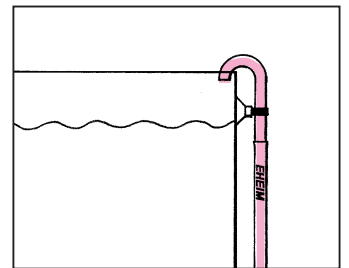
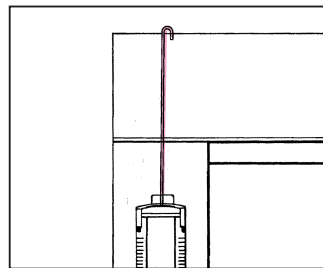
Käytettäessä EHEIM *professionel* ulkosuodattimien letku- ja johtokotelo 7656450 kiinnitetään imuputki vain kotelossa olevaan pidikkeeseen.



Poistokaari ja suihkuputki yhdistetään letkunpätkällä ja asennetaan akvaarioon pidikkeellisillä imukupeilla. Suihkuputken pää suljetaan oheistetulla suljinnastalla.

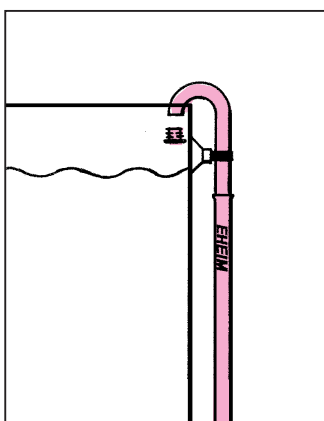


Ohjaa kaikki kolme suodattimen letkua kaapin takaseinän läpi ja asenna ensin ilmaletku (ø 9/12 mm) ilman taitteita ja suorana akvaarioon. Lyhennä ilmaletkua tarvittaessa, yhdistä tuuletusletkuun ja kiinnitä pidikkeellisillä imukupeilla niin akvaarion seinään, että putken pää loppuu vedenpinnan yläpuolella.



Tärkeä huomio: Voit käyttää märkä/kuiva suodatinta myös normaalina jatkuvan virtauksen suodattimena esim. lääkinnän ja lääkejäämien poistamisen yhteydessä.

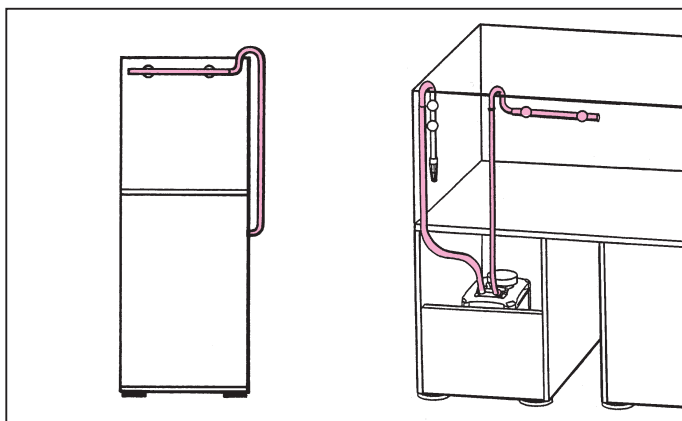
Poista SUBSTRAT^{pro} tai EHFISUBSTRAT suodatusmassa ja säilytä sitä akvaariovedessä ja täytä suodatin EHFISYNTH vanulla. Sulje ilmanottoputki tulpalla (tuoteno. 7272350). Lääkinnän jälkeen suodata aktiivihieillä (EHFIAKTIV) 4-6 päivää lääkejäämien poistamiseksi. Sen jälkeen voit käyttää jälleen SUBSTRAT^{pro} tai EHFISUBSTRAT suodatusmassoja, muista poistaa tulppa ilmanottoputkesta.



Liitä senjälkeen asennettu imuputki ja poistokaari sopivien letkujen läpimittojen mukaisesti.

Huomio:

Jotta intervalli-suodatin toimisi moitteettomasti, pitää imupuolen ja painepuolen molempien letkujen olla samanpituiset! Lisäksi on huomattava, että kaikki letkut on asennettava tasaisesti eikä niissä saa olla mutkia moitteettoman läpikulun takaamiseksi.

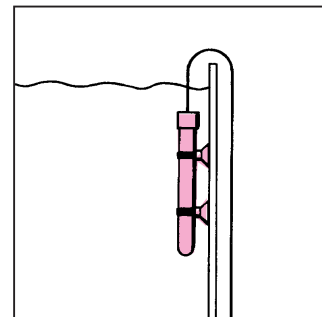


Ohje: Letkut tulevat notkeiksi ja mahdolliset mutkat voidaan helpommin poistaa, jos letkuja pidetään jonkin aikaa lämpimässä vedessä.

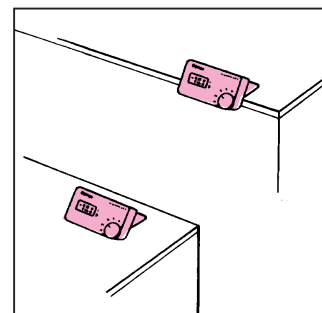
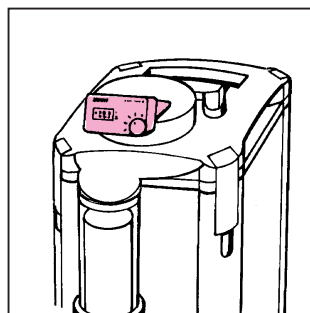
C° Lämpösuodattimet

Lämmityslaitteen asennus

Lämmönsäädintaulun lämpöpöanturi kiinnitetään kahdella kiinnityssangalla ja imulaitteella akvaarioon niin, että se on vedenpinnan alapuolella.

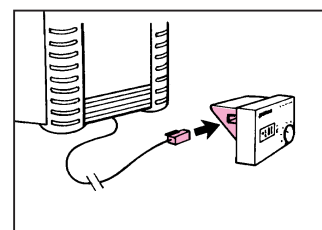


Hoitotaulu voidaan asettaa pystyyn tai kiinnittää oheisella tarranauhalla joko akvaarion kanteen tai suodattimen yläosaan.



Senjälkeen viedään ohjausjohto suodatinsäiliöstä käsin lämmönsäädintauluun ja liitetään liitoselementti, kunnes se kuuluvasti lukkiutuu.

Älä vielä yhdistä lämmittimen johtoa pistorasiaan.

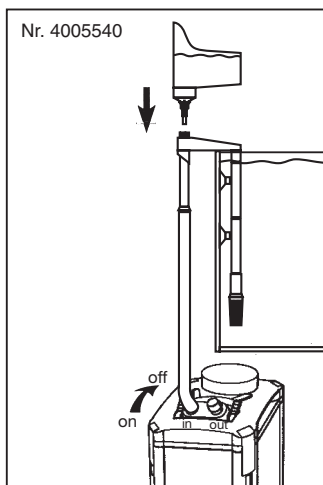
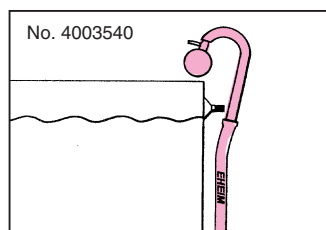
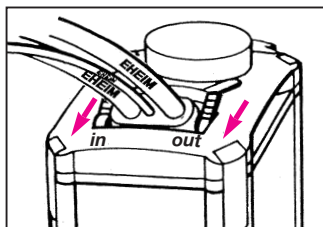


Käyttöönotto

Huomio: Akvaariota ei saa täyttää aivan täyteen, koska vedenpinnan korkeus muuttuu suodattimessa vaihtelevan vesimäärä vuoksi.

Avaa imuletkun sulkuhana (**IN**) ja asenna imuputki paikalleen. Voit käyttää joko EHEIM imuria (til.no. 4003540) tai lapposarjaa (til.no. 4005540, ø 16 mm).

Suodatin täytty silloin vedellä. Avaa tämän jälkeen poistuletkun sulkuhana (**OUT**).

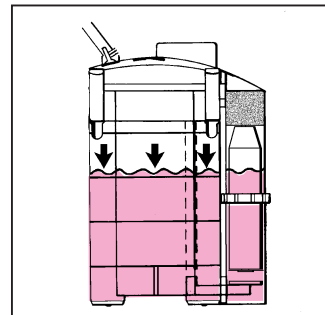
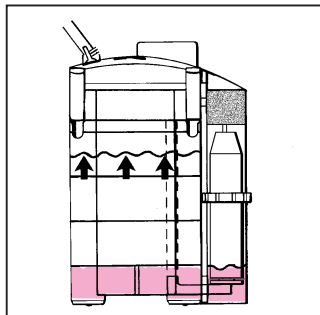
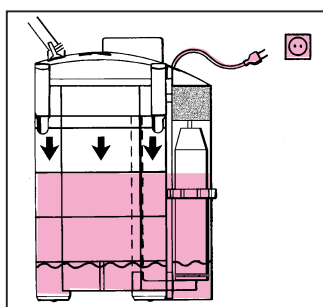


Käynnistä suodatin liittämällä sähköverkkoon.

Kun pumppu käynnistyy, täytyy suodatinsäiliön vedenpinnan laskea alamerkkiin asti.

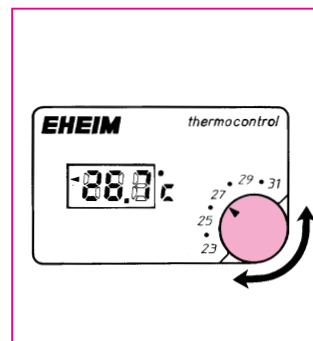
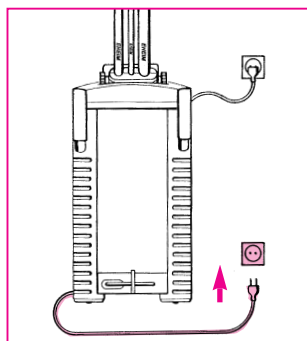
Tällöin kelluke sulkee automaattisesti imuistukan ja suodatin täytty jälleen vedellä. Samanaikaisesti pumppautuu ohitusaukon kautta vähäinen määrä suodatettua vettä takaisin akvaarioon juoksupyörän voitelemiseksi. Veden korkeus kellukesäiliössä ei nouse. Vasta kun ylin suodatinkori on täyttynyt vedellä, kellukesäiliö alkaa täyttyä vedellä kellukkeessa olevan raon kautta.

Ylämerkin kohdalla kelluke avaa imuistukan ja suodatin tyhjenee uudelleen.



°C Lämpösuodattimet

Huomio: Vasta kun suodatin toimii tasaisesti, kytketään lämmityslaite pistorasiaan. Lämmityslaitetta ei saa koskaan käyttää kuivana.



Käyttötaulun näyttöruutu osoittaa akvaarion veden todellisen lämpötilan. Valitse nyt säätönapulasta haluamasi lämpötila (esim. 27° C). Tunnuskuva (◀) osoittaa, mikäli hehkutin toimii. Jos merkki sammuu, on säädetty lämpötila saavutettu ja lämmityslaitteen toiminta katkeaa. Mikäli akvaarion lämpötila laskee säädetyn arvon alapuolelle, käynnistyy lämmityslaite jälleen itsestään. Hieman säätönapulaa kääntämällä voidaan tehdä hienosäätö.

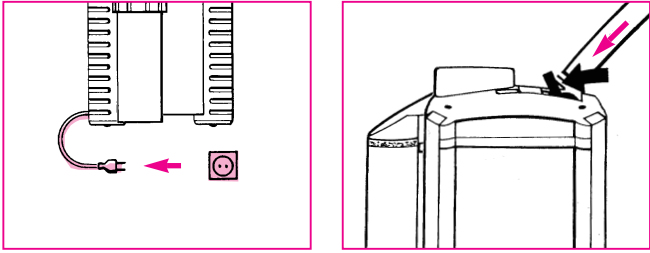
Huomio: Kun asennat suodattimen tai säädät uudelleen lämpötilan, haluttu lämpötila-arvo näkyy näytöllä vasta jonkin ajan kuluttua. Myös ympäristön lämpötilan muuttuminen vie aikaa.

Jos sähkövirta katkeaa, näytöllä oleva lukuarvo muuttuu ja sammuu. Kun virta kytkeytyy päälle, lämmitin jatkaa toimintaansa normaalisti.

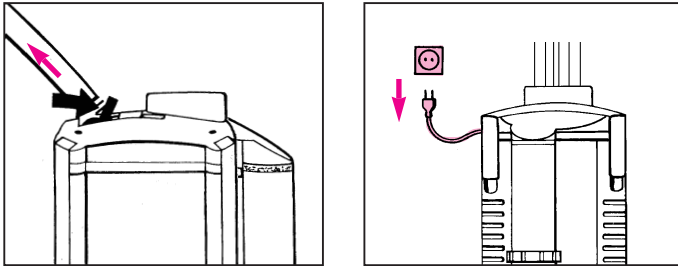
Huolto ja hoito

C° Lämpösuodattimet

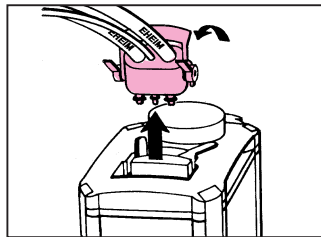
Vedä ensin lämmityslaitteen pistoke pistorasiasta. Sulje adapterin tulopuolella oleva sulkuvipu (**IN**), jotta suodatin tyhjenee.



Heti, kun pumppu imee kuuluvasti ilmaa, sulje painepuolen sulkuvipu adapterissa (**OUT**) ja vedä pumpun pistorasia pois.

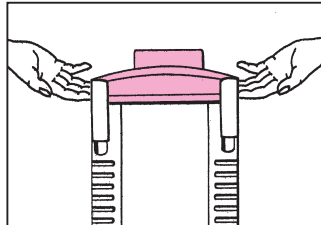
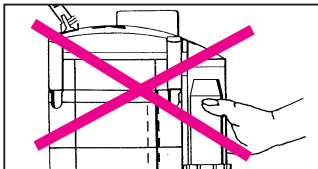


Vedä kiinnityssanka ylös ja irrota adapteri suodattimen yläosasta. Nosta ulkosuodattin kahvasyvennyksiä käyttäen kaapista ulos.

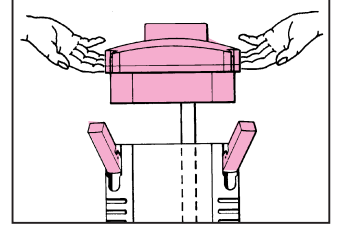


Huomio:

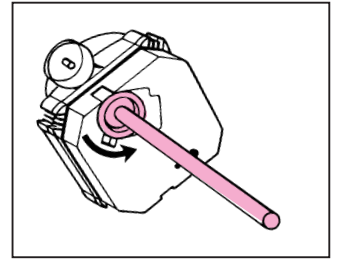
älä vedä märkä/kuiva-säiliöstä.



Avaa kaikki kiinnikkeet ja nosta suodattimen yläosa pois.



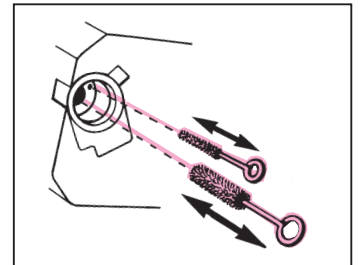
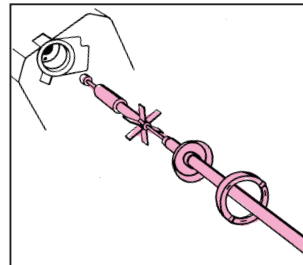
Osien puhdistusta varten avaa moottorin pohjalla oleva kiinnitysrenkas kääntämällä sitä vasemmalle.



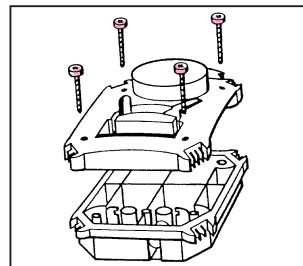
Irrota sitten pumpun kansi, roottori ja akseli.

Puhdista sitten osat ja roottorin kammio perusteellisesti EHEIM-puhdistusharjoja-til. nr. 4009580-käyttäen.

Huuhtele akseli varovasti (murtumisvaara!) ja kokoa roottori aseta paikoilleen.



Asennuksessa tarkistettava, että akselin holkit, pumpun kansi ja tiivisterengas ovat kunnolla paikoillaan. Sen jälkeen pumppu kiinnitetään jälleen sulkurenkaalla.



Ohje:

Jos puhdistettaessa on sattunut menemään vettä suodattimen yläosan suojukseen, voidaan suojus ruuvata irti ja kuivata rievulla.

Suodatinmassa:

Nosta pois peiteritilä sekä suodatinkorit yksitellen suodatinsäiliöstä.

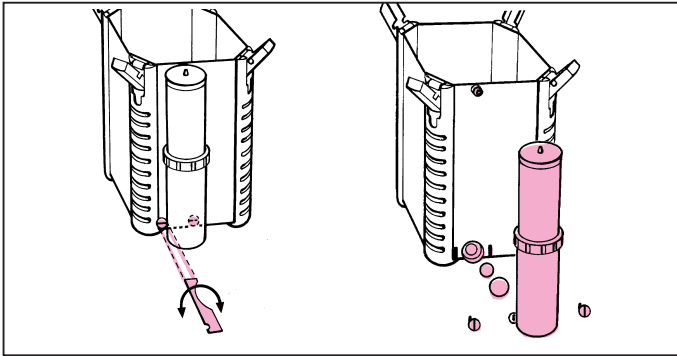
Pese SUBSTRATpro tai EHFISUBSTRAT suodatusmassa huolellisesti akvaariovedellä kunnes vesi ei samennu.

VINKKI:

Kun uudistat SUBSTRATpro tai EHFISUBSTRAT suodatusmassoja (huokoset tukkiutuvat ajan myötä), sekoita 1/3 vanhaa suodatusmassaa uuden sekaan, jotta bakteeritoiminta alkaa.

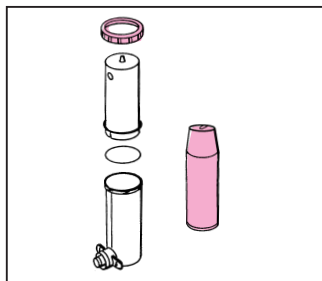
Irrota nyt märkä/kuiva-säiliö avaamalla avaimella molemmat sulkimet, niin että urat ovat pystysuorassa.

Irrota intervalli-ohjus, puhdista tiivistepinnat ja renkaat.



Avaa intervalli-ohjuksen sulkekirengas osoitettuun suuntaan kääntäen, ota kelluke pois ja puhdista varovasti pehmeällä pesusienellä.

Puhdista kaikki ohjuksen osat ja pese suodatinsäiliö.



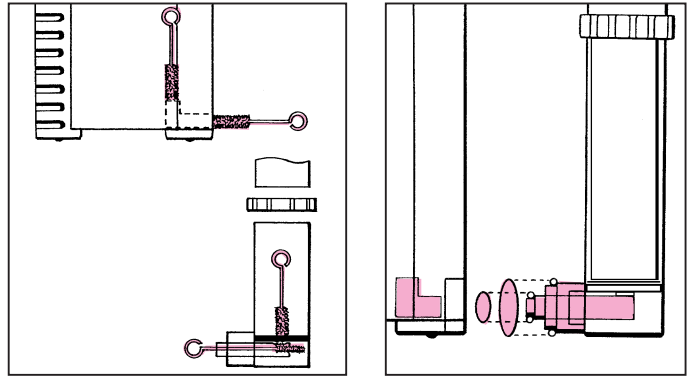
° Lämpösuodattimet

Älä väännä kuumennuskierukkaa! Puhdista aika ajoin lämpöelementti lietteestä.

Suojaa lämmittimen sähköosat roiskevedeltä.

Puhdista harjalla säiliön ja ohjuksen liittosuhvit – myös ohi-tusaukko. Kokoa intervalli-ohjus jälleen ja asenna suodatinsäiliöön.

Tarkista tiivisterenkaiden asento.

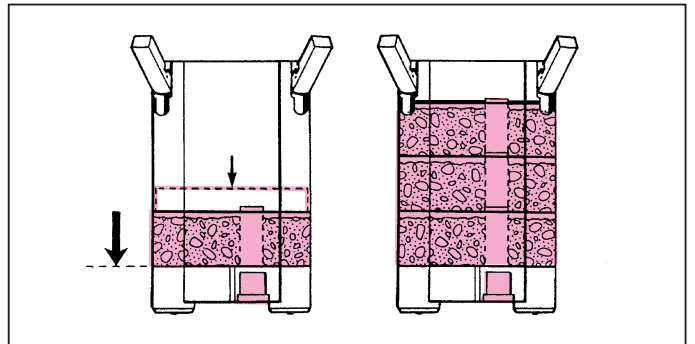


Työnnä ensimmäinen suodatinpanos säiliöön siten, että putken läpivientiaukko on intervalli-ohjuksen liittosuhvin yläpuolella.

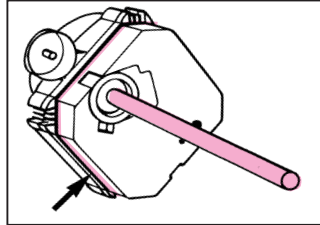
Paina panos tiiviisti alustalle, jotta säiliön väli tiivistyy.

Aseta senjälkeen toinen (ja kolmas) suodatinpanos paikoilleen, putkien läpivienti aukkojen on oltava päällekkäin.

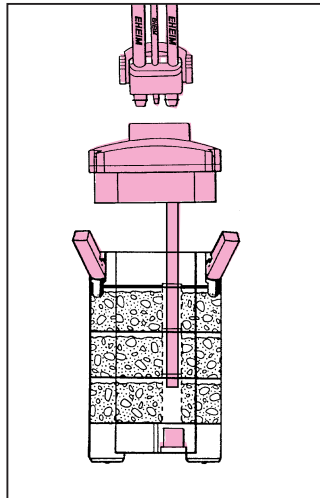
Tarkista, että kaikki panokset ovat tiiviisti paikoillaan.



Tarkista, että suodattimen yläosassa oleva liitosputki on tukevasti kiinni pumpun kannessa ja että profiilitiiviste on kunnolla paikoillaan ja puhdas.

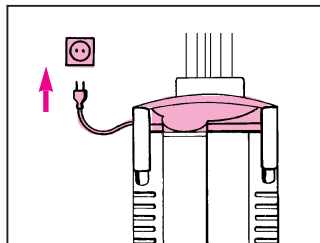


Voitele suodattimen yläosan tiivisterengas vaseliinilla. Aseta suodattimen yläosa paikoilleen, sulje kiinnikkeet ja aseta suodatin alakaappiin.



Tarkista, että kaikki kolme o-rengasta ovat ehjät ja oikein paikoillaan ja voitele ne kevyesti vaseliinilla; aseta adapteri paikoilleen ja lukitse.

Kun molemmat nostokahvat adapterissa on avattu (ON), täyttyy suodatin jälleen itsestään vedellä ja on siten käyttövalmis.



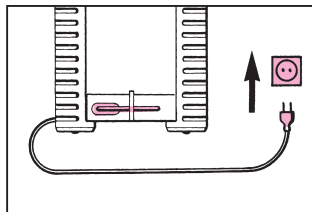
Suodatin käynnistetään laittamalla sähköpistoke pistorasiaan.

Lämmittimen pistokkeen saa laittaa ainoastaan maadoitettuun pistorasiaan.

Huomaa: Kaikki letkujen ja putkien liitoskohdat tulee tarkastaa säännöllisin väliajoin.

C° Lämpösuodattimet

HUOMIO: Lämmityslaitteen pistoke yhdistetään vasta, kun suodatin toimii säännöllisesti. Älä koskaan pidä lämmitintä päällä kuivana.



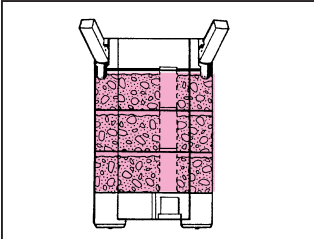
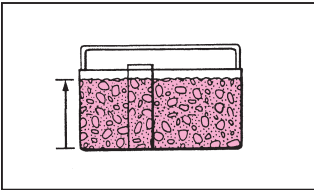
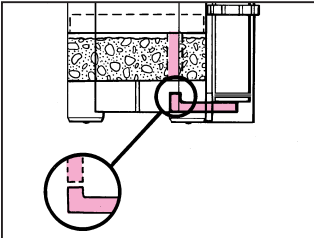
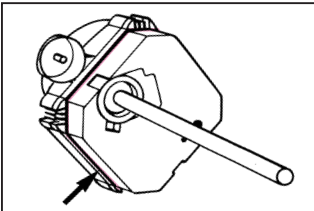
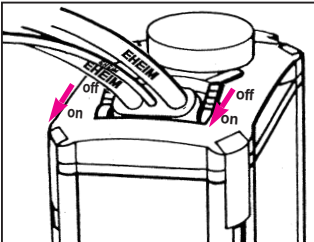
Vain sisäkäyttöön. Ennen kuin panet kädet akvaarion, irrota kaikki sähkölaitteet sähköverkosta. Irrota lämmittimen johto aina ensin lämpösuodattimista.

2227/2229: Liitäntäjohtoa ei voi uusida; jos johto vioittuu, laitetta ei saa enää käyttää.

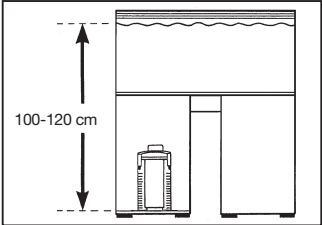
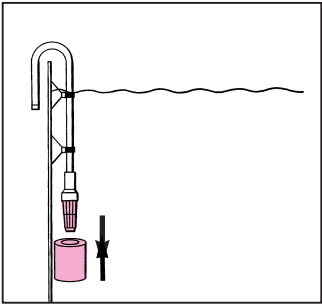
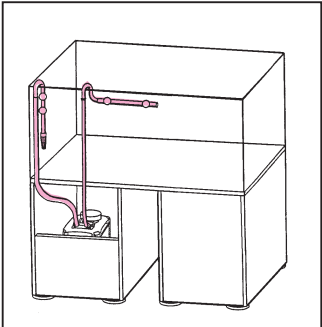
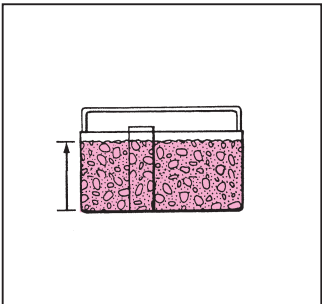

2327/2329: Laitteen saa korjata vain valtuutettu huoltaja. Ota yhteys lähimpään akvaarioliikkeeseen tai EHEIM huoltoon. Käyttö sallittu vain maadoitetulla pistokkeella.

Suodatinta käytetään ainoastaan pystyasennossa.

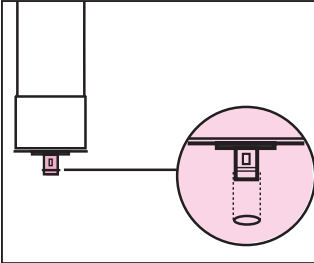
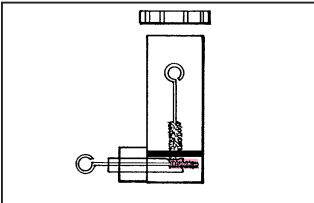
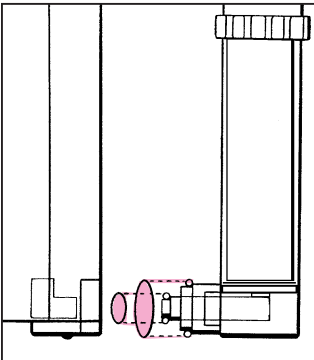
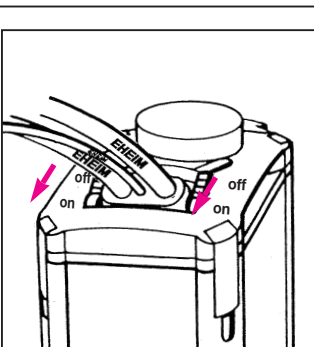
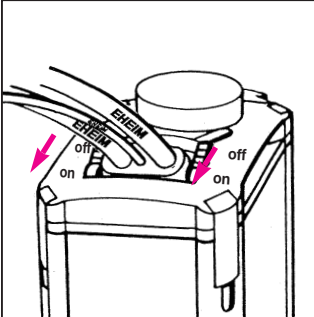
Mitä tehdä jos . . .

Häiriö	Syy	Korjaus	
Suodattimen yläosaa ei voida sulkea.	Suodatinpanokset on asetettu väärin	Suodatinpanokset on ladottava niin, että putkien läpivientiaukot ovat päällekkäin	
	Suodatinpanokset liian täynnä	Käytä ainoastaan SUBSTRAT ^{pro} tai EHFISUBSTRAT suodatusmassoja. Älä täytä massakoreja yläreunan yli. Tarkista, että massakorien liitospinnat eivät ole likaisia.	
	Putken läpivientiaukko suodatinsäiliössä on likainen	Puhdista putkien läpivientiaukko	
	Profiilitiiviste on asennettu väärin	Tarkista tiivisteiden asento	
Suodatin ei täyty, märkä/kuiva-suodatus ei toimi	Adapterin tulohana on vielä kiinni tai ei ihan auki	Avaa tulohana kokonaan	
	Tuloletkussa on taite tai se on likainen	Oikaise letkun taite, puhdista se	

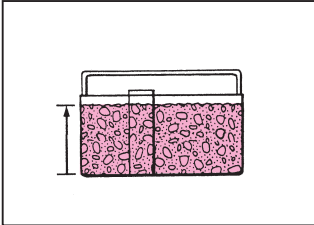
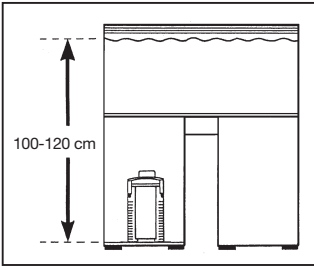
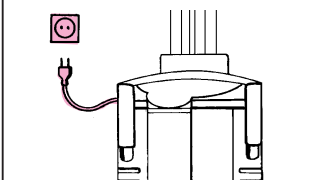
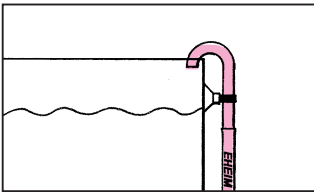
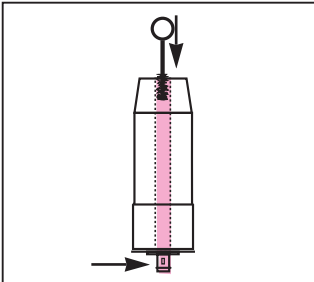
Mitä tehdä jos . . .

Häiriö	Syy	Korjaus	
Suodatin ei täyty, märkä/kuiva-suodatus ei toimi	Liian matala asennus	Asennuskorkeuden on oltava 100-120 cm	
	Imusiivilä on likainen	Puhdista imusiivilä	
	Vaahtomuovinen esisuodatin likainen	Puhdista vaahtomuovinen esisuodatin. Poista esikäytöajan jälkeen (6-8 viikkoa)	
	Väärä letkun pituus, asennettu sopimattomia osia	Käytä ainoastaan samanpituisia EHEIM letkuja! Ei ylimääräisiä lisäosia!	
Täytetty väärää suodatinmassaa	Käytä ainoastaan SUBSTRAT ^{pro} tai EHFISUBSTRAT suodatusmassoja. Älä käytä suodatusvanua, vaahtomuovipatruunoita, muovi-,keramiikka-,laava- tai turvemassoja. Käytä aktiivihieiltä ainoastaan lyhytaikaiseen suodatukseen yllä olevan ohjeen mukaan.		

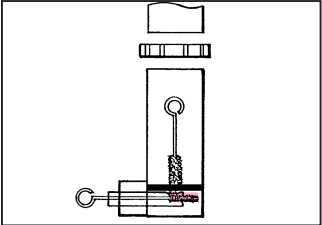
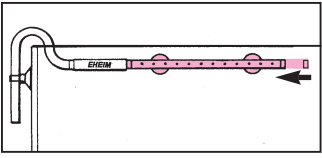
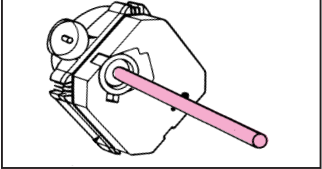
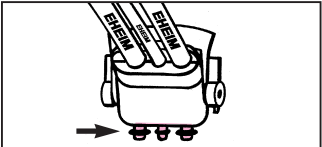
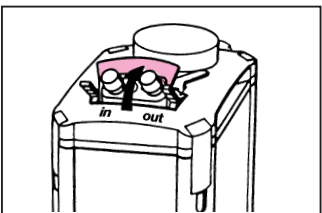
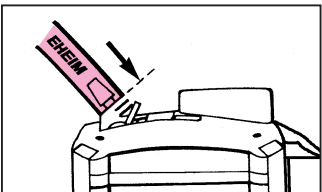
Mitä tehdä jos . . .

Häiriö	Syy	Korjaus	
Suodatin ei täyty, märkä/kuiva-suodatus ei toimi	Kellukkeen o-rengas on kulunut tai väärin asennettu	Asenna o-rengas oikein, vaihda tarvittaessa	
	Kelluttimen tiivisterengas on likainen tai kulunut	Puhdista tiivisterengas, uusi tarvittaessa	
	Märkä/kuiva-säiliön läpivirtausaukko on likainen	Puhdista läpivirtausaukko	
	Tiivisterengas märkä/kuiva-säiliön pienessä suuttimessa on kulunut, se puuttuu tai se on väärin asennettu	Asenna tiivisterengas oikein, uusi tarvittaessa	
	Suodatin on vinossa	Aseta suodatin suoraan	
Suodatin ei tyhjene, märkä/kuiva-suodatus ei toimi	Adapterin poistohana on kiinni tai ei aivan auki Poistoletkussa on taite tai se on likainen	Avaa poistohana aivan auki Oikaise letku, puhdista letku	

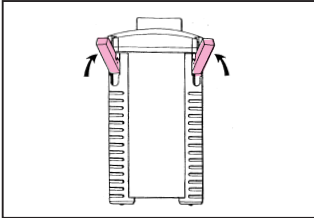
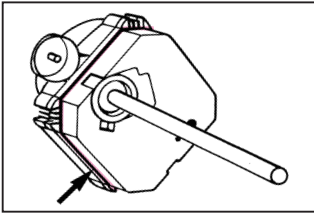
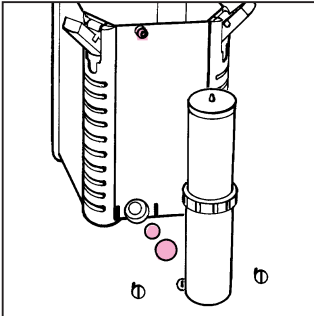
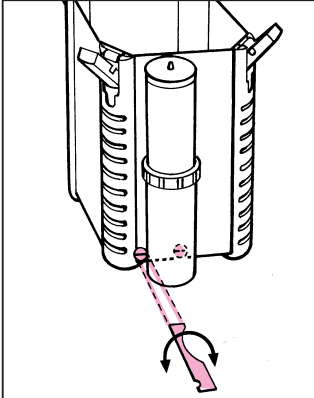
Mitä tehdä jos . . .

Häiriö	Syy	Korjaus	
Suodatin ei tyhjene, märkä/kuiva-suodatus ei toimi	Väärä letkun pituus, asennettu väärä osia	Käytä ainoastaan samantaisia alkuperäisletkuja! Älä asenna lisäosia!	
	Täytetty väärällä suodatinmassalla	Käytä ainoastaan SUBSTRAT ^{pro} tai EHFISUBSTRAT suodatusmassoja.	
	Asennuskorkeus liian korkea	Älä käytä suodatusvanua, vahtomuovipatruunoita, muovi-,keramiikka-,laava- tai turvemassoja. Käytä aktiivihiihtä ainoastaan lyhytaikaiseen suodatukseen yllä olevan ohjeen mukaan.	
	Pumppukammiossa ilmaa	Avaa tulo- ja poistohanat, irrota pistoke ja odota n. 1 min., kunnes pumppukammio on täytynyt vedellä. Pane pistoke pistorasiaan.	
	Tuuletusletkussa on taite tai se on likainen	Suorista letkun taitteet tai puhdista ne	
	Tuuletusputken aukko on vedenpinnan alapuolella	Asenna tuuletusputki oikein	
	Kelluttimen tiivisterengas puuttuu tai on asennettu väärin	Asenna tiivisterengas oikein	
	Kelluttimen tiivisterengas on likainen tai kulunut	Puhdista tiivisterengas, uusi tarvittaessa	

Mitä tehdä jos . . .

Häiriö	Syy	Korjaus	
Suodatin ei tyhjene, märkä/kuiva-suodatus ei toimi	Märkä/kuiva-säiliön läpivirtausaukko on likainen	Puhdista ohitus	
	Suodatin on vinossa	Suorista suodatin	
	Suihkuputki on likainen	Puhdista suihkuputki	
	Suihkuputken suljinnasta puuttuu	Asenna sulikutulppa	
	Pumpun kannen yhdyspotki ei ole paikoillaan	Asenna suljinnasta	
Adapterin suodatin vuotaa liitososasta	Tiivisterenkaiden pinta on likainen	Puhdista tiivisteiden pinta	
	Tiivisterenkaita ei ole asennettu tai ne ovat vialliset	Asenna tiivisterenkaat oikein tai uusi ne	
	Sulkuvipu ei ole kiinni	Sulje paina sulkusanka täysin kiinni	
	Liitosletkuja ei ole kunnolla yhdistetty	Työnnä liitosletkut vastaiseen saakka ja varmista letku pidikkeellä.	

Mitä tehdä jos . . .

Häiriö	Syy	Korjaus	
Suodattimen yläosan suodatin vuotaa moottoriosan ja soudatinsäiliön liitoskohdasta	Kaikki sulkimet eivät ole kiinni	Sulje kaikki sulkimet kunnolla	
	Tiivistepinnat tai profiilitiivisteet ovat likaiset Tiivistettä ei ole asennettu, se on asennettu väärin tai se on viallinen	Puhdista tiivistepinta Aseta tiiviste kunnolla paikalleen tai uusi se	
märkä/kuiva-säiliön tiiviste vuotaa	Tiivisterenkaiden pinnat ovat likaiset	Puhdista tiivistepinnat	
	Tiivisterenkaat puuttuvat tai ne on väärin asennettu	Asenna tiivisterenkaat oikein	
	Märkä/kuiva-säiliön kierreltiin ei ole täysin kiinni	Sulje märkä/kuiva-säiliön kierreltiin pidäkkeeseen saakka.	
Sulkimet eivät ole kiinni	Sulje sulkimet avaimella niin, että urat ovat vaakasuorassa		

EHEIM professional utvendig intervallfilter 2227 og 2229
EHEIM professional intervall-termofilter 2327 og 2329

① Filteroverdel ② Profilpakning ③ Forbindelsesrør ④ Til-
 dekningsgitter ⑤ Filterinnsatser ⑥ Låseklips ⑦ Filterbe-
 holder ⑧ Intervallstyring ⑨ Lukkering ⑩ Flottør ⑪ Låse-
 anordninger ⑫ Adapter med stoppekraner ⑬ Slangehol-
 der ⑭ Utløpsbue ⑮ Dyserør med lukkepropp ⑯ Inn-
 sugingsrør ⑰ Filterkurv ⑱ Skumstoff-forfilter ⑲ Utluftings-
 rør ⑳ Slanger ㉑ Klemmebøyle med suger ㉒ Låsenøkkel
 ㉓ Vaseline ㉔ Rensebørste.

Termofiltre: ㉕ Betjeningsdel ㉖ Temperaturføler ㉗ Bor-
 relåsbånd.

Merk: 2327 og 2329 kan kun benyttes i ferskvann.

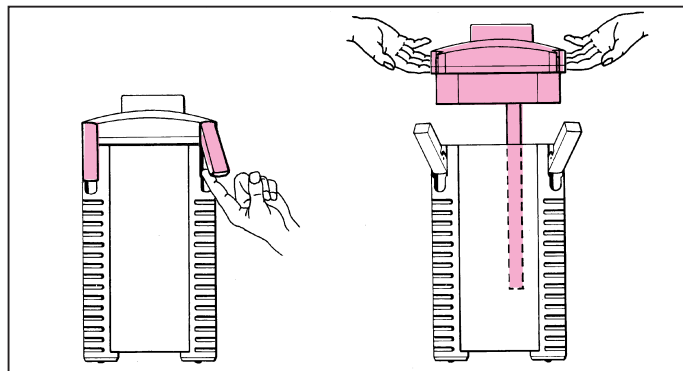
Sjekk ved utpakking at alle deler er til stede.

Montage

NB:

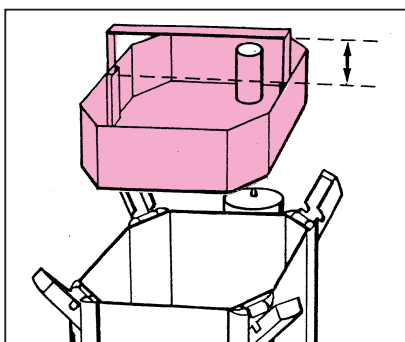
For å sikre intervallfilterets funksjon, må utelukkende
 originaldeler anvendes. Endringer i innsugings- og ut-
 løpsområde må ikke foretas.

Alle fire låseklips på filterbeholderen vippes ut og skyves
 oppover. Ved hjelp av to gripefordypninger kan filterover-
 delen lett løftes av.



Ta ut gitterfilter og
 kurver en og en av
 gangen.

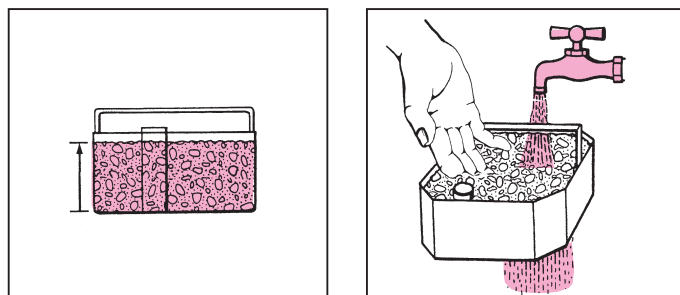
De enkelte filterinn-
 satser tas ut én etter
 én. De nedsenkede
 gripebøylene på filte-
 rinnsatsene kan trek-
 kes ut oppover.



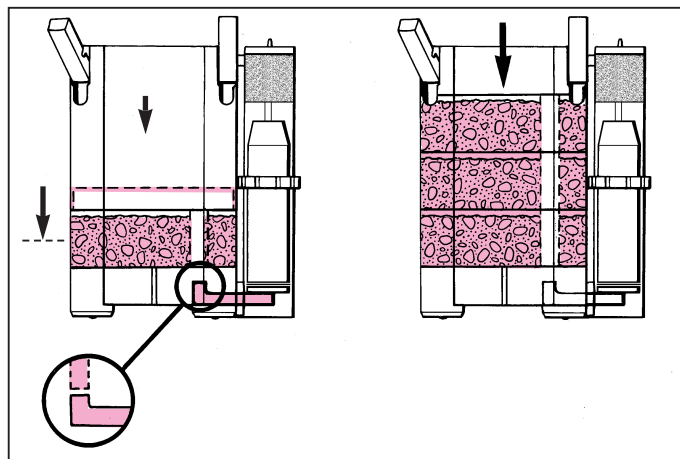
Fyll nå filterinnsatsene til like under randen med SUB-
 STRATpro eller EHFISUBSTRAT.

NB: Overfill ikke. Dekk ikke til rørgjennomføringen.
**Bruk kun SUBSTRATpro eller EHFISUBSTRAT i samt-
 lige kurver.**

Deretter gjennomspyles filtermassen grundig under rennen-
 de vann inntil vannet er klart.



Etter at man har sjekket at intervall-tilkoblingsstussen ikke er
 forurenset, settes den første filterinnsats så igjen inn i filter-
 beholderen. Det må da sørges for at rørgjennomføringen sit-
 ter over intervall-tilkoblingsstussen. Innsatsen trykkes kraftig
 nedover inntil den sitter på underlagsstykkene. Dette garan-
 terer en sikker tetting mellom filterinnsats og beholder.

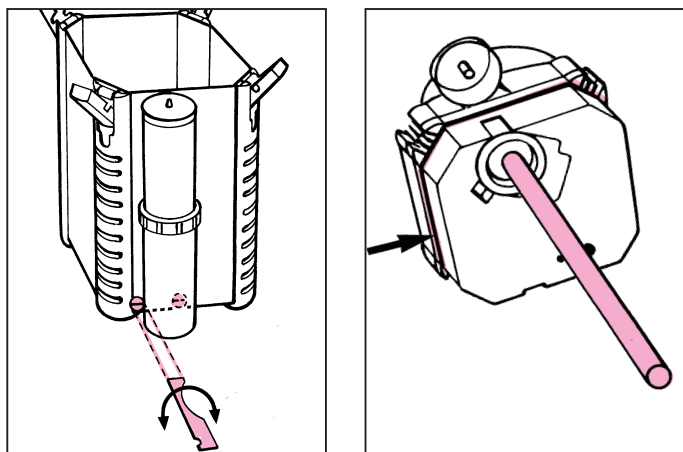


Den andre (og tredje) filterinnsats skyves likeledes inn. Rør-
 åpningene må ligge over hverandre.

Gripebøylene senkes så igjen. Sørg for at alle filterinnsatser
 ligger plant på hverandre. Legg på gitteret.

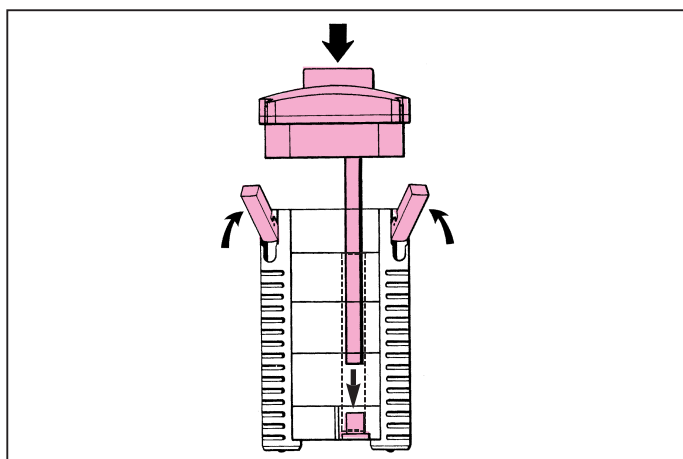
Sjekk at intervallstyringen er sikkert festet på filterbeholderen. Den øvre tilkobling må sitte fast på beholderen; de to nedre låseanordninger må være lukket slik at spaltene står vannrett.

Låseanordningene er lett tilgjengelige ved hjelp av den medfølgende låsenøkkel.



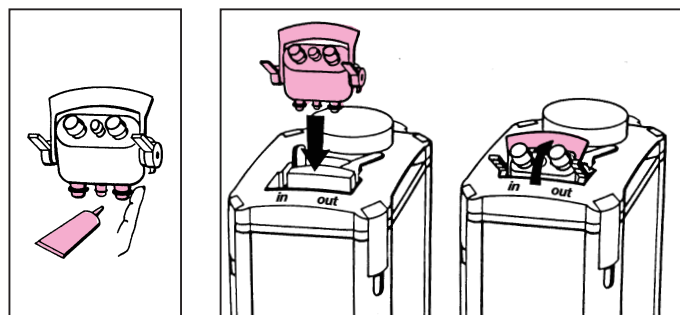
O-ringen smøres med litt vaselin og føres forsiktig tilbake i filterkammeret. Forbindelsesrøret må sitte fast i pumpedekselet. Profilpakningen på filteroverdelen må kontrolleres med henblikk på renhet og korrekt posisjon.

Filteroverdelen settes på beholderen. Forbindelsesrøret føres gjennom åpningene i filterinnsatsen og må sitte korrekt i intervall-tilkoblingsstussen. Alle fire låseklips lukkes.



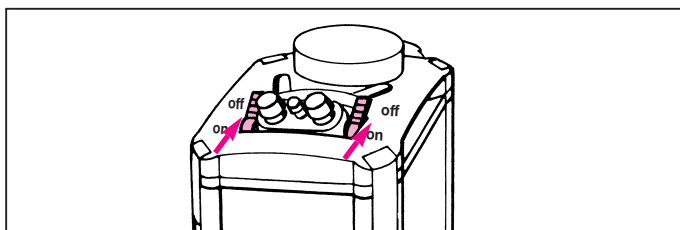
Merk: Før den innebyggede doble krankoblingen settes på plass i filterets pumpehode, må alle tre o-ringene kontrolleres for skade og korrekt tilpasning. Smør o-ringene med et tynt lag Vaseline for å lette monteringen.

Adapteret med den oppadstående låsebøyle stikkes godt inn i åpningen på filteroverdelen og låsebøylene lukkes bak-over samtidig som man trykker på adapteret til det sitter fast.



Montering av slange

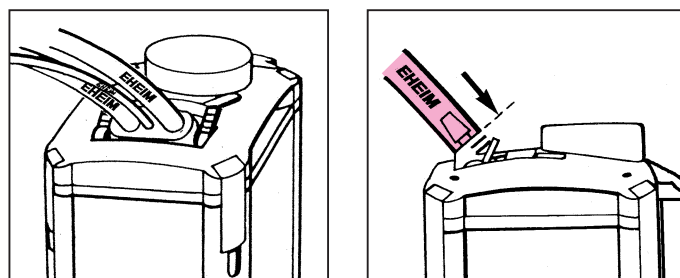
For å lukke stoppekranene legges de to hevearmene på adapterets håndtak om i posisjon **(OFF)**.



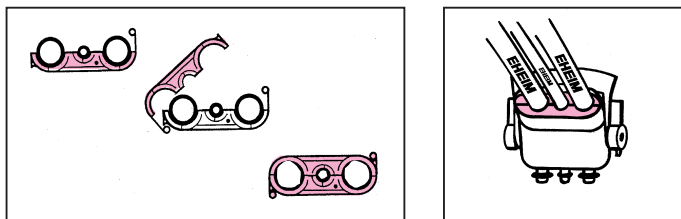
De medfølgende tre slanger skyves på de tilhørende slange-stusser på adapteret **inntil de støter mot stopperen**.

Start med minste slangediameter. Dersom påskyvingen går tregt, gjøres slangene smidige i varmt vann.

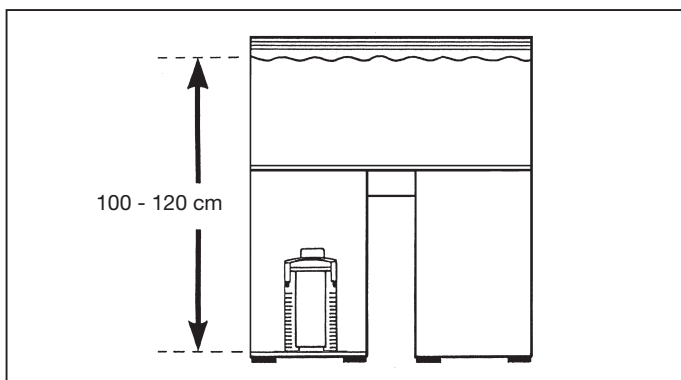
Benytt kun EHEIM's originale slanger.



Slangeholderen, som er i to deler, monteres rundt slangene og klipses sammen.

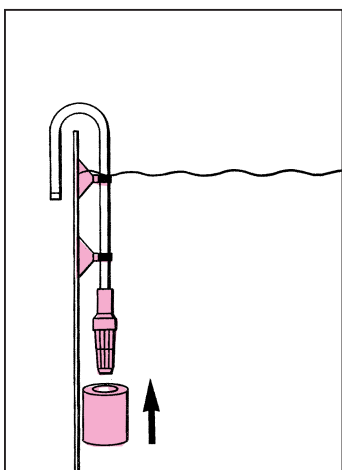


Anbring det klargjorte filteret i underskapet og pass på forskriftsmessig oppstillingshøyde: Mellom vann-overflate og filterbunn må det være **100 - 120 cm**. Denne oppstillingshøyden er avgjørende for intervallfilterets optimale veksel-funksjon.



Stikk filterkurven på inn-sugingsrøret og fest dette med 2 klemmebøyler og sugere på akvariets inner-vegg.

Skumstoff-forfilter trekkes på over filterkurven.

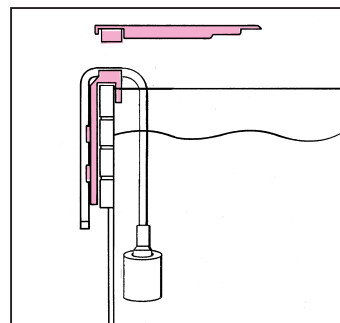


NB:

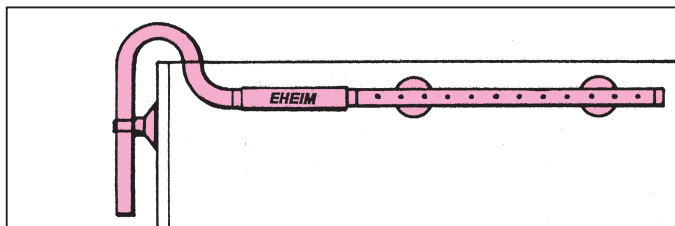
Skumstoff-forfilteret skal bare anvendes i innkjøringstiden, ca. 6 - 8 uker. Deretter overtar de bakterier som er oppstått i filtermassen den biologiske og mekaniske filtrering. Skumstoff-forfilteret skal da fjernes.

Henvising:

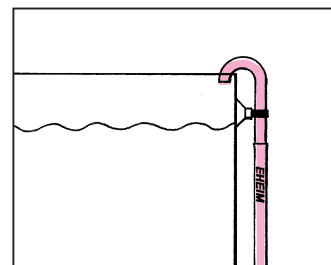
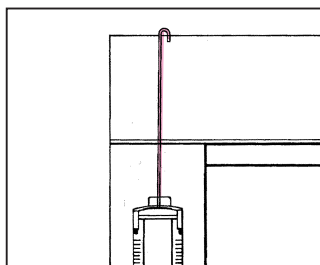
Ved anvendelse av EHEIM koblingsanordning bestil-lingsnr. 7656450 klipses inn-sugingsrøret ganske enkelt på plass.



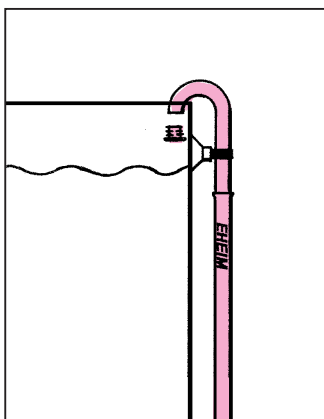
Utløpsbue og dyserør forbindes med et kort slangestykke og monteres i akvariet ved hjelp av klemmebøylen og sugeren. Den åpne side av dyserøret lukkes med den medfølgende lukkepropp.



Alle tre slanger føres deretter fra filteret gjennom skapets bakvegg. Legg først ut luftslangen (9/12 mm) uten knekker og gjennomgang til akvariet. Luftslangen forkortes til nød-vendig lengde og forbindes med utluftingsrøret og festes med klemmebøyle og sugekopper på akvarieveggen slik at røråpningen ender over vannflaten.



Viktig henvisning: Du kan anvende ditt intervallfilter som et standard gjennomstrømningsfilter, uten intervallfunksjonen, for kort tids medisiner og påfølgende fjerning av medisinrester. Tøm filterbeholderen for filtermassen, og oppbevar dette inntil videre i en beholder med akvarievann. Fyll filteret helt med filtervatt – EHFISYNTH. Steng filterets pusterør med et rørlokk (best. nr. 7272350). Etter fullført medisiner, fyll filteret med aktivt kull (EHFIAKTIV) og filtrer 4 - 6 dager for å fjerne medisinrester. Sett så SUBSTRAT^{pro} eller EHFISUBSTRAT tilbake i filteret. Husk å fjerne lokket fra usterøret!

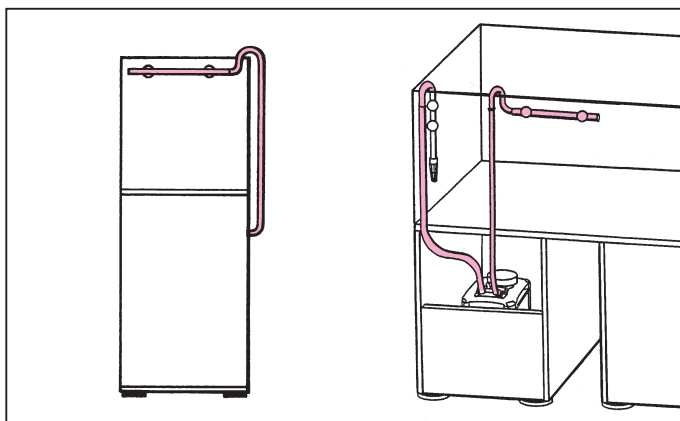


Deretter forbindes det monterte innsugingsrøret og utløpsbuen i henhold til passende slangediameterer.

Sørg for korrekt slangelengde:

For å sikre en optimal funksjon av intervallfilteret, må slanger for innsugsområdet og for trykkområdet bare forkortes til **samme lengde**.

Dessuten må det sørges for at slangene ligger plant og ikke har knekker, for å sikre en god gjennomstrømming.



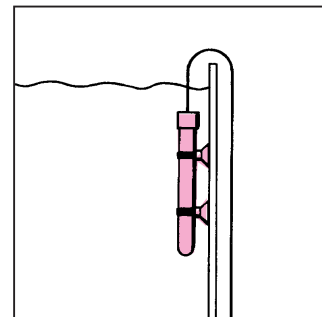
Tips:

Dersom slangene på forhånd legges i varmt vann en stund, blir de smidige og eventuelle knekker kan lett rettes ut.

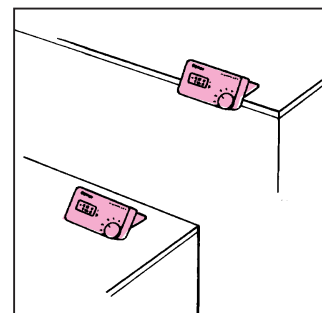
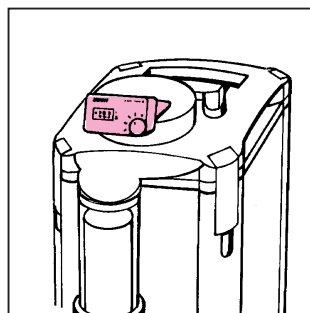
C° Termofilter

Installering av varmeelement.

Betjeningsdelens temperaturføler festes i akvariet med 2x klemmebøyle og sugeropper på en slik måte at den alltid blir liggende under vannspeilet.

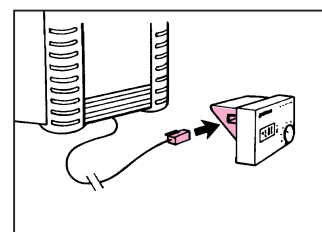


Betjeningsdelen kan stilles opp eller festes med det medfølgende borrelåsbånd, såvel på akvariedekselet som på filteroverdelen.



Deretter føres styreledningen fra filterbeholderen til betjeningsdelen og støpselementet tilkobles slik at innrasting høres.

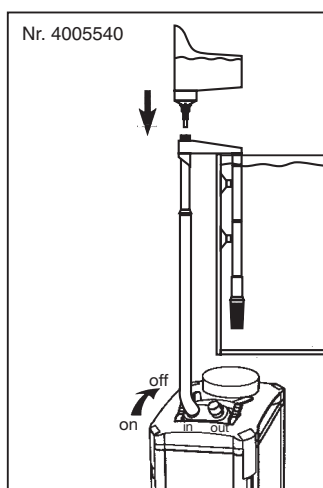
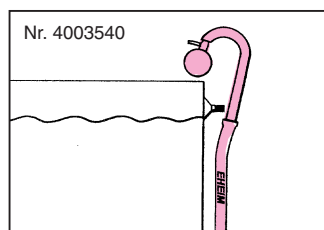
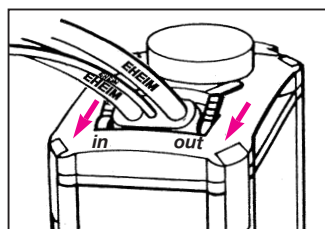
Strøm skal ennå ikke tilkobles varmeelementet.



Oppstarting

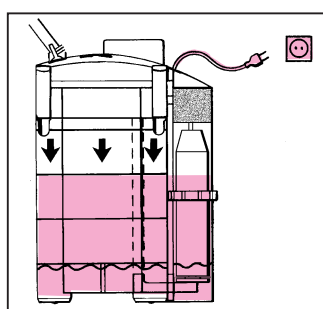
NB: Akvariet må ikke fylles opp til maksimalt nivå, fordi vannoverflaten endrer seg på grunn av vekslende vannstand i filteret.

Åpne stoppekranen for inntaksslangen (**IN**) og start hevert-suget gjennom denne. Du kan alternativt anvende enten EHEIM startpumpe (ordre nr. 4003540) eller oppstartshjelperen (ordre nr. 4005540, ø 16 mm). Filteret fylles da med vann. Deretter åpnes stoppekranen på trykksiden (**OUT**).



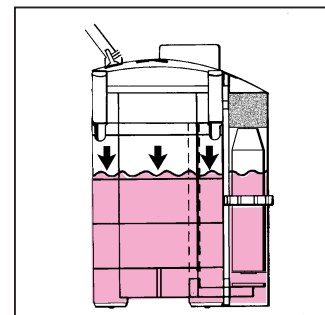
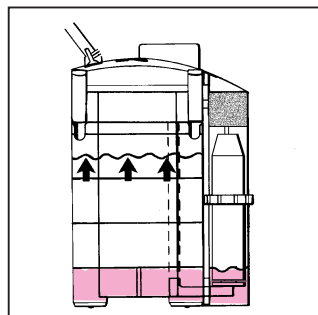
Filteret settes i drift ved at nettleidingen kobles til. Straks pumpen er kommet i gang må vannstanden i filterbeholderen synke til det nedre koblingspunkt.

Når dette punkt er nådd, lukker flottøren automatisk sugestussen og filteret fyller seg igjen med vann.



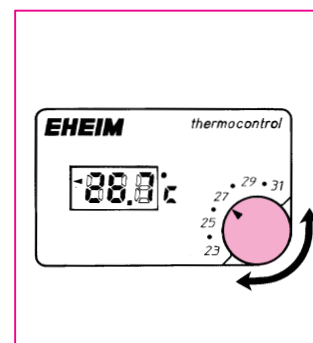
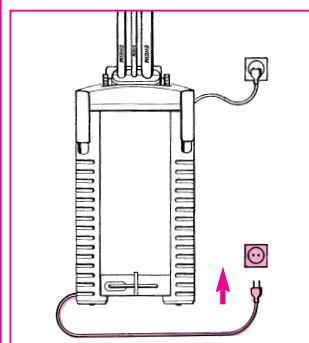
Samtidig vil noe filtrert vann passere » bypass « åpningen i motoren for så å bli pumpet tilbake til akvariet. Vann-nivået i motorkammeret hever seg imidlertid ikke.

Bare når den øvre filtermediakurven er fylt med vann fylles motorkammeret med vann gjennom en liten slisse i motoren. Flottøren vil nå åpne for suginntaket slik at filteret igjen tømmes.



°C Termofilter

NB: Først når filteret arbeider jevnt, stikkes varmelementets nettstøpsel i kontakten. Varmeelementet må aldri være på i tørr tilstand.



Displayet på betjeningsdelen viser den virkelige vann-temperatur i akvariet. Den ønskede temperatur velges ved hjelp av innstillingsknappen (f. eks. 27° C). Symbol (◀) viser når varmeelementet arbeider. Når dette symbol slukkes, er den innstilte temperatur nådd og apparatet slås automatisk av. Dersom temperaturen i akvariet synker til under den innstilte verdi, slås varmeelementet automatisk på. Ved å dreie innstillingsknappen forsiktig kan fininnstilling gjennomføres.

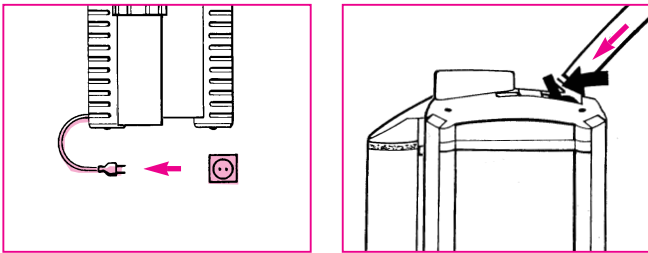
NB: Ved første gang installering av filteret eller ved endring av ønsket temperatur vil det ta noe tid før »displayet« viser riktig temperatur.

Dersom strømtilførselen skulle bli brutt, vil verdien som vises på displayet endre seg, og varmeelementet slutter å virke. Når strømmen kommer tilbake vil elementet igjen arbeide normalt.

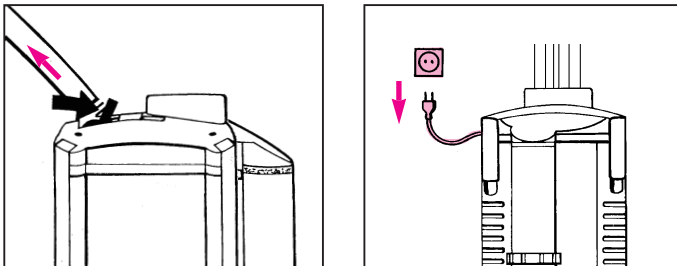
Vedlikehold og pleie

C° Termofilter

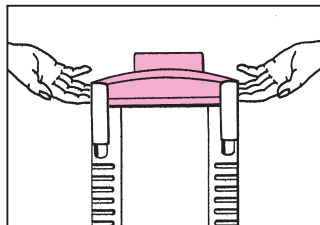
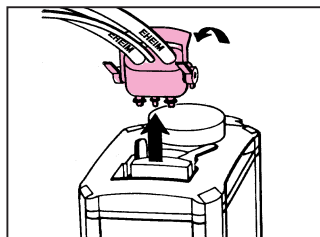
Først trekkes varmeelementets nettstøpsel ut. Sperrehåndtaket på inntakssiden (IN) av adapteret lukkes, slik at filteret tømmer seg.



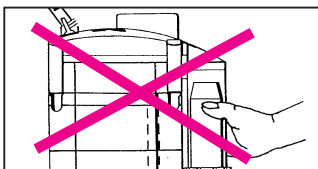
Straks pumpen på støyende måte suger luft, lukkes sperrehåndtaket på adapterets trykkside (OUT) og pumpens nettstøpsel trekkes ut.



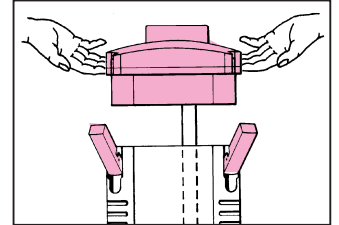
Låsebøylen svinges oppover og adapteret løses fra filteroverdelen. Filterbeholderen tas ut av skapet ved at man griper det i de to gripefordypninger.



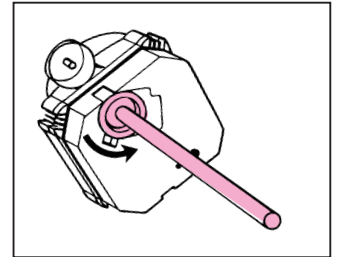
NB:
Ikke trekk i intervallstyringen.



Alle låseklips åpnes og filteroverdelen tas av.

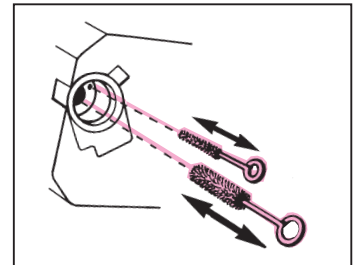
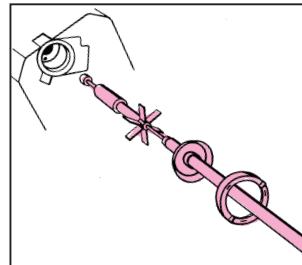


For rengjøring av pumpe rommet åpnes låseringen i filteroverdelens bunn ved at det dreies til venstre.

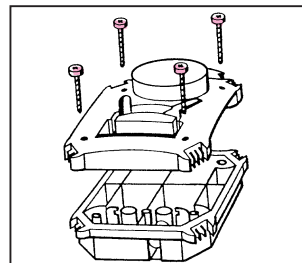


Pumpedeksel med rør, rotor med vingehjul og aksel tas så ut.

Pumpedeler og smørekanal rengjøres grundig med EHEIM rengjøringssett, bestillingsnr. 4009580. Akselen skylles forsiktig (bruddfare!). Deretter settes rotoren igjen sammen og settes på plass.



Ved montering må det sørges for at akselrør, pumpedeksel og tettingsring sitter riktig. Deretter låses pumpen igjen med lukkeringen.



Tips:

Dersom det under rengjøring skulle komme vann inn i filteroverdelens tildeknings-hette, kan hetten skrues av og gnis tørr med et tøy-stykke.

Filtermedia:

Fjern filterrist og filtermedia-kurvene fra beholderen.

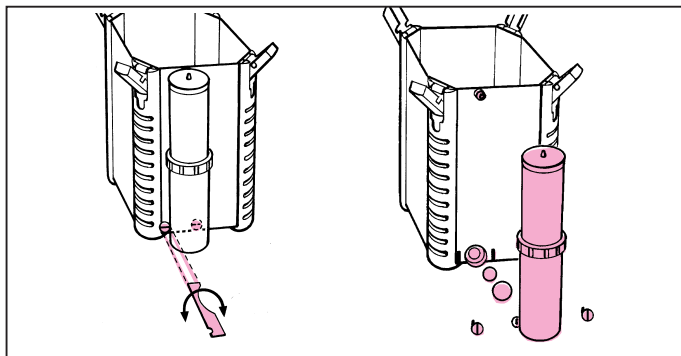
Skyll kurvene med SUBSTRAT_{pro} eller EHFISUBSTRAT med vann fra akvariet til avløpsvannet er klart.

Tips:

Hver gang nytt SUBSTRAT_{pro} eller EHFISUBSTRAT tas i bruk, blandes ca. 1/3 av den brukte filtermasse med det nye materiale. Bakteriekulturene formerer seg da hurtig i det nye filtermateriale.

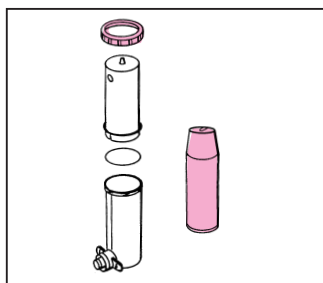
Deretter demonteres intervallstyringen. De to låseinnretningene åpnes med låsenøkkelen, slik at begge spalter står loddrett.

Intervallstyringen tas av og tettingsflatene og tettingsringene gjøres rene.



Intervallstyringens lukkering åpnes i den angitte dreieretning. Flottøren tas av og rengjøres forsiktig med en myk svamp.

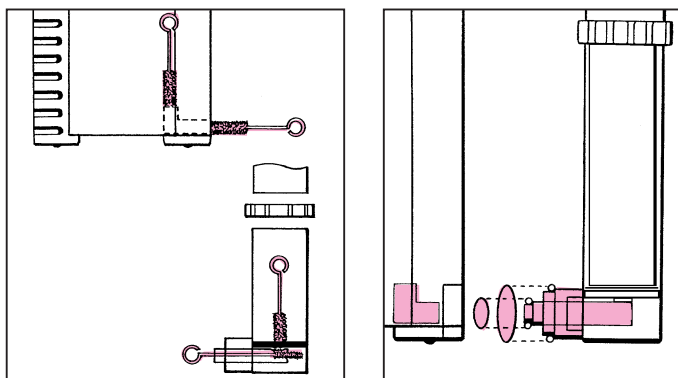
Alle deler i styringen rengjøres og filterbeholderen vaskes.



Termofilter

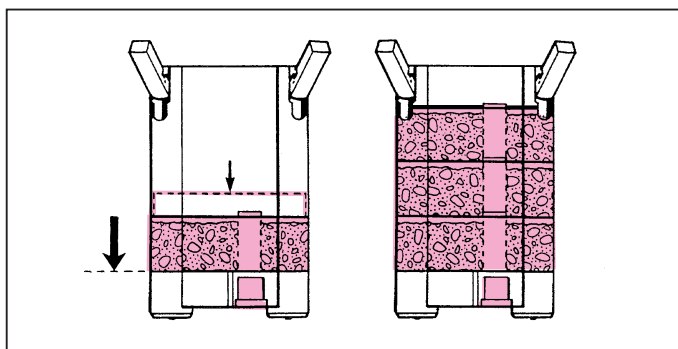
Varmespiralen må ikke bøyes til en annen stilling. Varmeelementet rengjøres etter behov. Filterbeholderen må ikke dykkes under vann. Varmeelementets elektroniske deler må beskyttes mot vannsprut.

Tilkoblingsstussene på beholderen og styringen – inkludert omføringsåpningen – rengjøres med børste. Intervallstyringen settes igjen sammen og monteres på filterbeholderen. Sørg for at tettingsringene sitter korrekt.

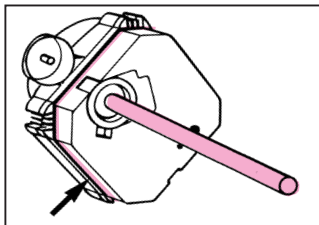


Den første filterinnsatsen settes inn i beholderen på en slik måte at rørgjennomføringen sitter over intervallstyringens tilkoblingsstuss. Innsatsen trykkes kraftig ned mot underlagsstykkene for å sikre god tetting mot filterbeholderen.

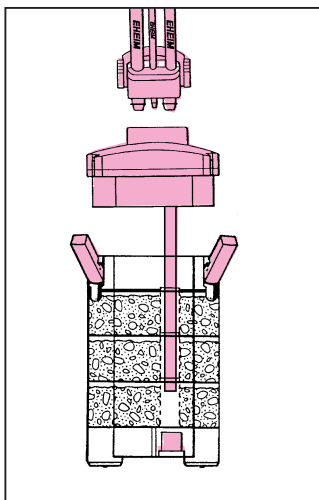
Deretter skyves den andre (og tredje) filterinnsats inn, idet rørgjennomføringene må ligge over hverandre. Sørg for at filterinnsatsene ligger plant mot hverandre.



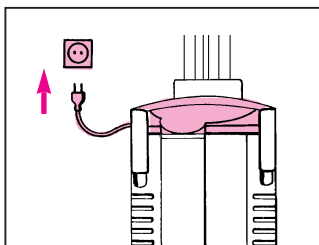
Forbindelsesrøret på filteroverdelen kontrolleres med henblikk på at det sitter godt fast i pumpedekselet. Profilpakningen kontrolleres med henblikk på riktig posisjon og renhet.



Pakningen på filteroverdelen settes inn med et tynt sjikt vaselin. Filteroverdelen settes deretter på, låseklipsene lukkes og filteret plasseres i underskapet.



Tettingsringene på adapteret settes inn med litt vaselin. Kontroller alle tre o-ringene på den doble krankoblingen for skade og korrekt tilpasning og smør dem med et tynt lag Vaselin; adapteret presses inn og låses. Etter at begge hevearmene på adapteret igjen er åpnet (**ON**), fyller filteret seg selv med vann og er så driftsklart.

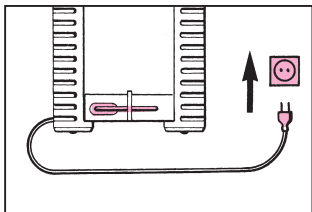


Filteret settes deretter i drift ved hjelp av filteroverdelens nettstøpsel.

Merk: Alle slangekoblinger må kontrolleres regelmessig for korrekt tilpasning og feste.

C° Termofilter

Først når filteret arbeider jevnt, stikkes varmeelementets nettstøpsel i kontakten. Varmeelementet må ikke tilkobles strøm i tørr tilstand.



Bare for innendørs bruk.

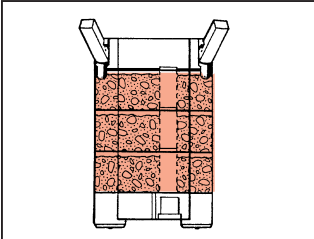
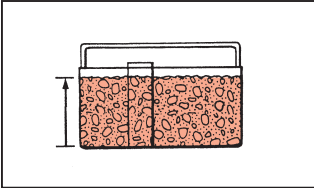
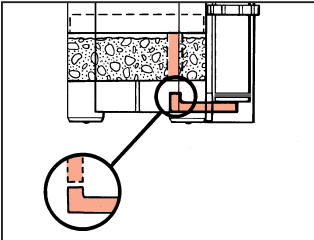
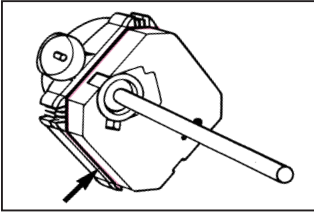
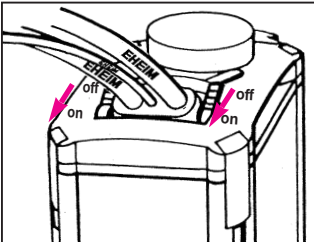
All strømtilkobling må kobles fra før eventuelle arbeider i akvariet starter. Benyttes termofilter skal nettstøpslet for varmeelementet trekkes ut først.

2227/2229: Strømkabelen kan ikke skiftes. Blir kabelen skadet må filteret ikke brukes.

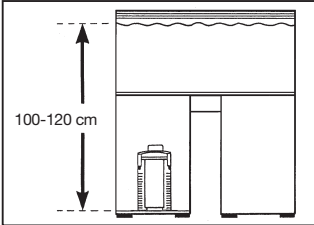
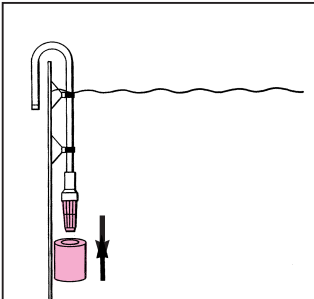
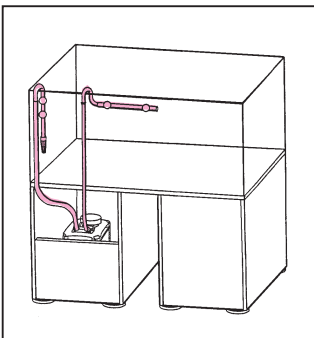
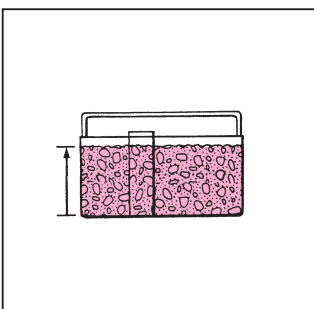

2327/2329: Service kan kun utføres av autorisert verksted. Kontakt nærmeste EHEIM-forhandler. Må kun benyttes i jordet kontakt.

Filteret må under drift alltid stå loddrett.

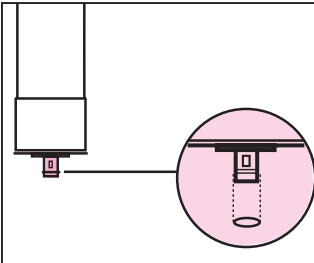
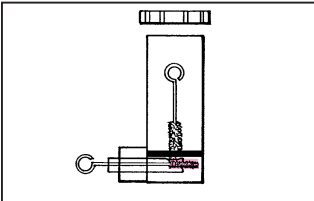
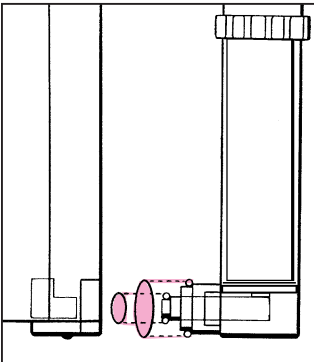
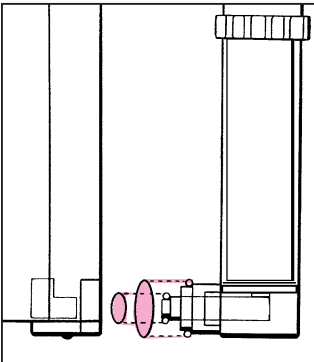
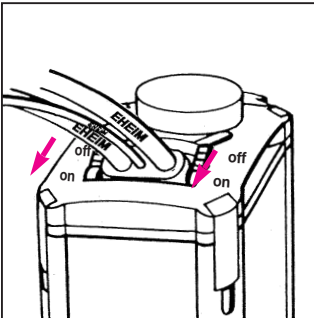
Hva skal gjøres dersom...

Problem	Årsak	Tiltak	
Filteroverdelen lar seg ikke lukke	Filtersinnsatsene er satt inn i gal stilling	Filtersettene skyves inn på en slik måte at rørgjennomføringene ligger over hverandre.	
	Filtersinnsatsene er overfylt	Anvend utelukkende SUBSTRAT ^{pro} eller EHFISUBSTRAT som filtermasse, overfyll ikke filterinnsatsene. De av innsatsenes flater som støter mot hverandre rengjøres.	
	Rørføringen på filterbeholderne er tilsmusset	Rørføringen rengjøres.	
	Profilpakningen er ikke riktig montert	Pakningen settes på korrekt måte inn i det spor den skal være.	
Filteret fyller seg ikke, ingen intervallfunksjon	Innløpskranen på adapteren er ennå lukket eller ikke helt åpen	Innløpskranen åpnes helt.	
	Innløpsslangen har en knekk eller er tilsmusset	Slangen legges slik at den ikke har knekker; slangen renses.	

Hva skal gjøres dersom...

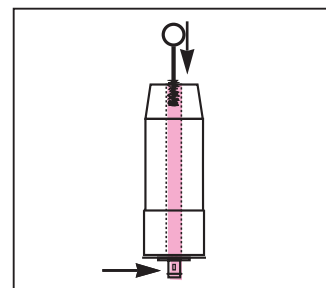
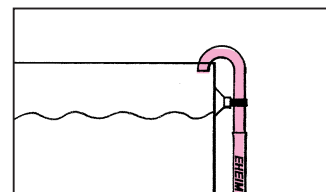
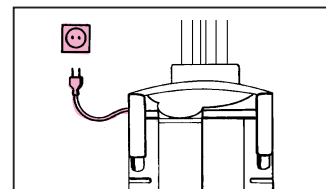
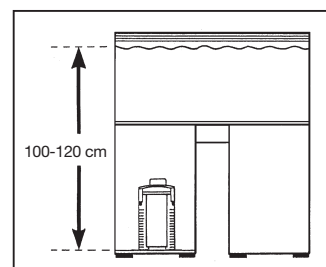
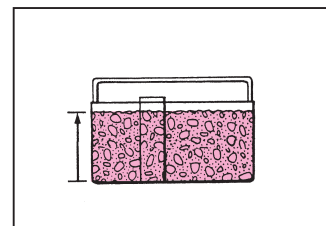
Problem	Årsak	Tiltak	
Filteret fyller seg ikke, ingen intervallfunksjon	For lav oppstillingshøyde	Oppstillingshøyden må være mellom 100 og 120 cm.	
	Filterkurven er tilsmusset	Filterkurven rengjøres.	
	Skumstoff-forfilteret er tilsmusset	Skumstoff-forfilteret rengjøres. Fjernes etter filterets innkjøringstid (4 - 6 uker).	
	Slangelengden er gal, galt tilbehør er tilkoblet	Anvend utelukkende originalslinger med lik lengde! Anvend ikke noe ytterligere tilbehør.	
	Det er fylt inn gal filtermasse	Anvend utelukkende SUBSTRAT _{pro} eller EHFISUBSTRAT som filtermasse; anvend ikke filtervatt eller grovfilterpute.	

Hva skal gjøres dersom ...

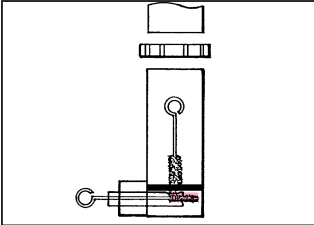
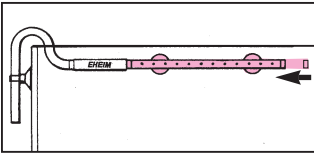
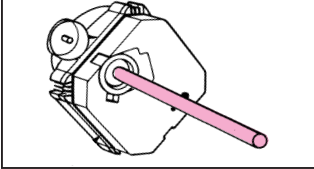
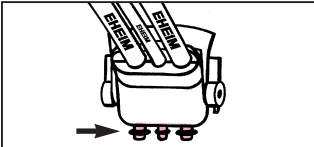
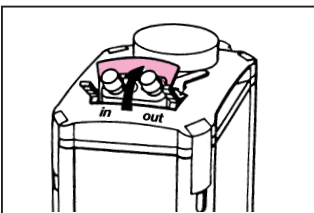
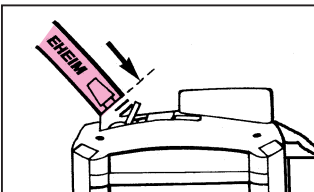
Problem	Årsak	Tiltak	
Filteret fyller seg ikke, ingen intervallfunksjon	Utskitt eller feil installert O-ring på flyteelementet	O-ring monteres korrekt, skiftes om nødvendig.	
	Krage og skive på flotør tilsmusset	Krage og skive rengjøres.	
	Omføringsåpningen i intervallstyringen er tilsmusset	Omføringen rengjøres.	
	Tettingsring på intervallstyrings stuss er slitt eller ikke riktig montert	Tettingsringen monteres riktig, eventuelt fornyes.	
	Filteret står skrått	Filteret stilles loddrett.	
Filteret tømmer seg ikke, ingen intervallfunksjon	Utløpskranen i adapteren er lukket eller ikke helt åpnet	Utløpskranen åpnes helt.	
	Utløpsslangen har en knekk eller er tilsmusset	Slangen legges uten knekker; slangen rengjøres.	

Hva skal gjøres dersom ...

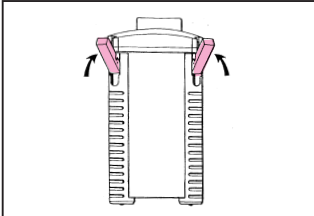
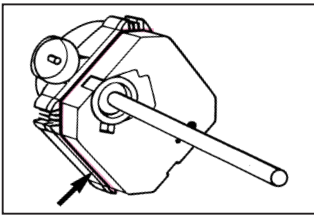
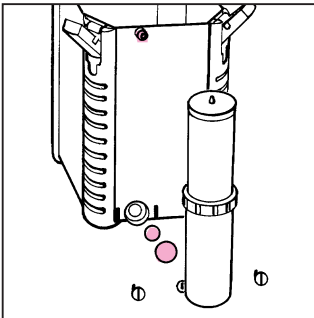
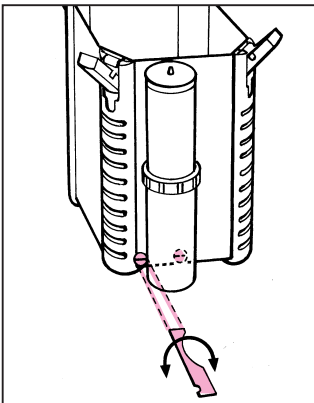
Problem	Årsak	Tiltak
Filteret tømmer seg ikke, ingen intervallfunksjon	Gal slangelengde, galt tilbehør tilkoblet	Anvend utelukkende originalslanger med lik lengde! Anvend ikke ytterligere tilbehør!
	Gal filtermasse er påfylt	Anvend utelukkende SUBSTRAT ^{pro} eller EHFISUBSTRAT som filtermasse, overfyll ikke filterinnsatsene, anvend ingen filtervatt eller grovfilterpute.
	Oppstillingshøyden er for høy	Oppstillingshøyden må være mellom 100 og 120 cm.
	Luft i pumpekammeret	Innløps- og utløpskranen åpnes, nettstøpelet trekkes ut og det ventes ca. 1 minutt inntil pumpekammeret har fylt seg med vann. Nettstøpelet stikkes igjen inn.
	Luftings- og utluftingsslangen er knekket eller tilsmusset	Legg slangene uten knekker, gjør dem eventuelt rene.
	Utluftingsrørets åpning er under vannoverflaten	Utluftingsrøret installeres riktig.
	Tettingsringen på flottøren mangler eller er galt montert	Tettingsringen monteres riktig.
	Tettingsringen på flottøren er tilsmusset eller slitt	Tettingsringen rengjøres, eventuelt fornyes.



Hva skal gjøres dersom ...

Problem	Årsak	Tiltak	
Filteret tømmer seg ikke, ingen intervallfunksjon	Omføringsåpningen i intervallstyringen er tilsmusset	Omføringsåpningen rengjøres.	
	Filteret står skrått	Filteret stilles loddrett.	
	Dyserøret er tilsmusset	Dyserøret rengjøres.	
	Lukkeproppen på dyserøret mangler	Lukkeproppen settes i.	
	Forbindelsesrøret i pumpe-dekslet sitter ikke riktig	Forbindelsesrøret monteres riktig.	
Filteret er ikke tett ved adapteren	Tettingsringenes tettingsflate er tilsmusset	Tettingsflaten rengjøres.	
	Tettingsringer er ikke montert eller de er skadet	Tettingsringene må monteres riktig, eventuelt fornyes.	
	Låsehåndtaket er ikke helt tillukket	Låsehåndtaket lukkes helt.	
	Tilkoblingsslangene er ikke tilkoblet på riktig måte	Tilkoblingsslangene skyves på til de stopper og sikres med slangeholderen.	

Hva skal gjøres dersom ...

Problem	Årsak	Tiltak	
Filteret er utett ved filteroverdelen	Alle låseklips er ikke lukket	Alle lukkeklips må lukkes helt.	
	Tettingsflater eller profilpakning er tilsmusset Pakning er ikke montert, galt innlagt eller beskadiget	Tettingsflaten rengjøres. Pakningen settes korrekt på plass eller fornyes.	
Filteret er utett ved intervallstyringen	Tettingsringenes tettingsflater er tilsmusset	Tettingsflatene rengjøres.	
	Tettingsringer er ikke satt inn eller satt inn på gal måte	Tettingsringene monteres riktig.	
	Intervallelementenes låsering er ikke lukket mot stopper Låseanordningene er ikke lukket	Intervallstyringens lukkering dreies i den angitte dreieretning inntil den stopper. Låseanordningene lukkes med låsenøkkel slik at spaltene står vannrett.	

Filtros exteriores seco/húmido EHEIM professional 2227 e 2229
Termofiltros seco/húmido EHEIM professional 2327 e 2329

① Cabeça do filtro ② Cavidade da junta vedante ③ Tubo de ajustamento ④ Grelha ⑤ Cesto de filtração ⑥ Fechos ⑦ Cuba do filtro ⑧ Mecanismo de controle »seco/húmido« ⑨ Anel de fecho ⑩ Flutuador ⑪ Mecanismo de bloqueio ⑫ Ligação com torneiras ⑬ Fixação dos tubos ⑭ Tubo curvo de ligação ⑮ Tubo de descarga com tampão ⑯ Tubo de aspiração ⑰ Crivo ⑱ Pré-filtro de esponja ⑲ Tubos plásticos ⑳ Tubos ㉑ Ventosas ㉒ Chave de bloqueio ㉓ Vaselina ㉔ Escovilhão de limpeza. **Termofiltro:** ㉕ Termostato ㉖ Sensor de temperatura ㉗ Fita adesiva.

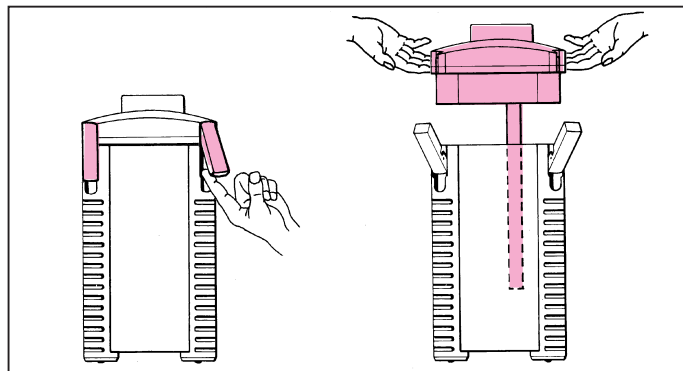
Atenção:
Os termofiltros só podem ser utilizados em água doce.

Por favor, certifique-se na desembalagem de que todas as peças foram fornecidas.

Montagem

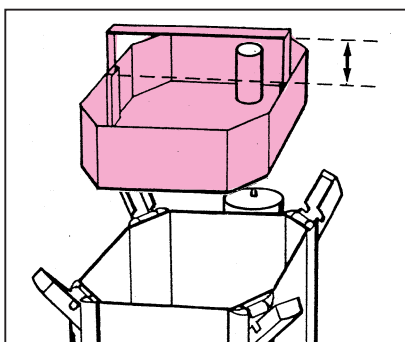
Atenção: A fim de assegurar o funcionamento sincronizado do filtro seco/húmido com o conjunto, utilize exclusivamente as peças originais fornecidas. Não deverão ser realizadas modificações nos componentes de carga e descarga.

Puxar as 4 molas rápidas no recipiente do filtro para fora e empurrá-las para cima. A cabeça do filtro pode ser facilmente levantada, por meio das duas pegas de manuseamento.



Retirar a grelha, assim como os cestos de filtração.

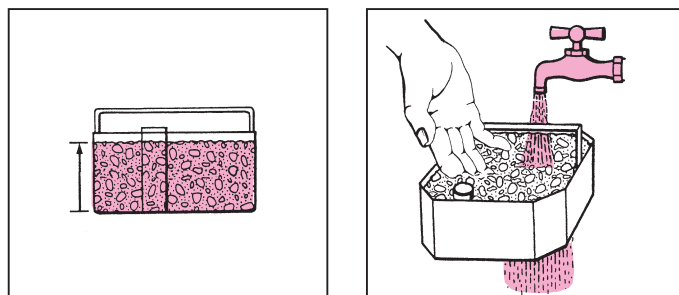
As pegas encastradas dos cestos de filtração podem ser levantadas.



Abasteça agora os cestos até um pouco abaixo da margem com SUBSTRATpro ou EHFISUBSTRAT.

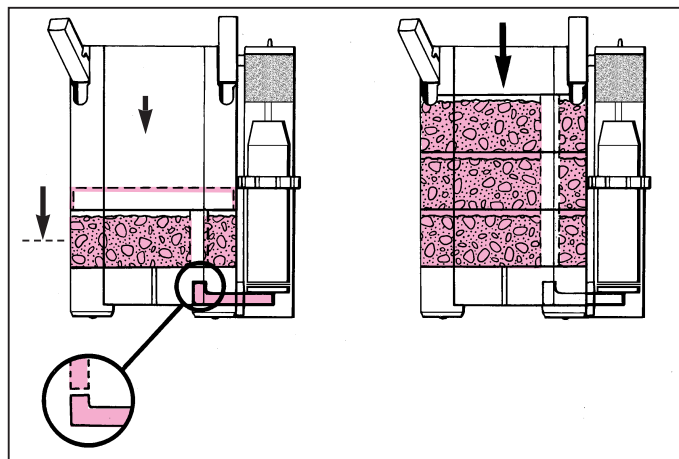
Atenção: Não encher demasiado, não entupir a passagem do tubo. Em todos os cestos usar apenas SUBSTRATpro ou EHFISUBSTRAT.

Enxaguar exaustivamente as massas filtrantes no cesto, com água corrente, até desaparecer a turvação.



Após ter verificado que os tubos de intervalo não se encontram sujos, introduzir o primeiro cesto na cuba do filtro.

Deve ter em conta que a passagem do tubo coincida com o tubo de intervalo. Empurre o cesto com força para baixo, até que encoste nos suportes de apoio. Assim, garante-se uma vedação segura entre o cesto e o recipiente.

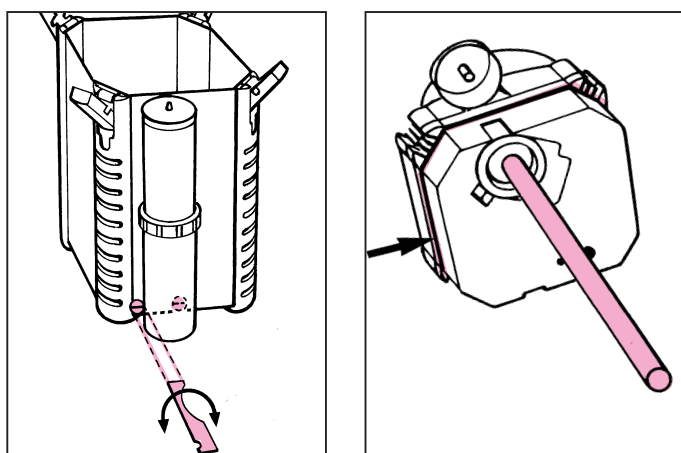


Inserir também o segundo e terceiro cestos assegurando que as aberturas para os tubos coincidam.

Baixe a pega móvel e certifique-se que os cestos estão bem ajustados uns nos outros. Seguidamente, coloque a grelha.

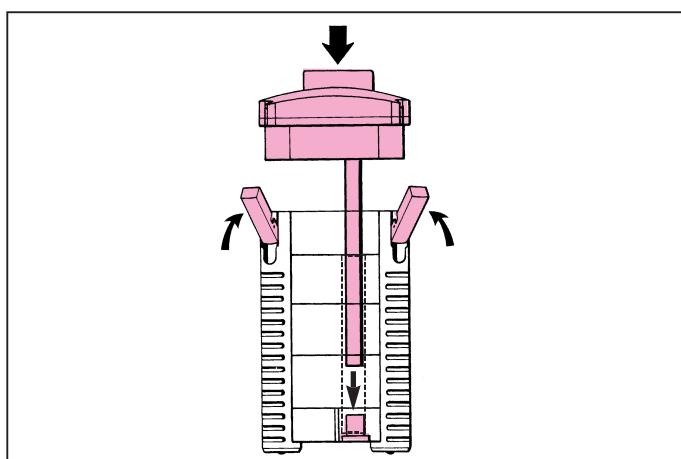
Verifique a fixação correcta do comando de intervalo no recipiente do filtro: a parte superior deve estar fixa firmemente no recipiente; os dois tampões inferiores devem estar fechados, de modo que as fendas estejam na posição fechado.

Os tampões podem girar facilmente, por meio da chave fornecida.



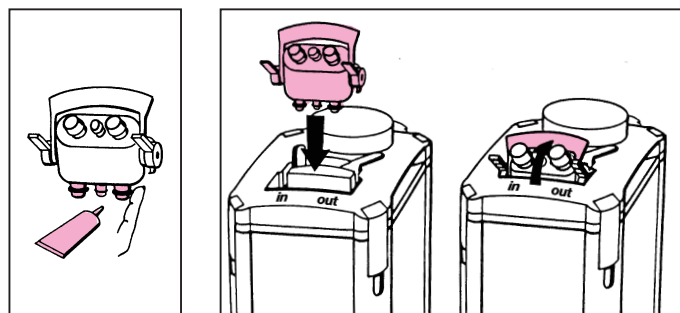
Lubrificar o tubo de união, devendo este estar firmemente inserido na tampa da bomba. Verificar se a anilha de vedação na cabeça do filtro não está suja e se está perfeitamente acondicionada na sua ranhura.

Colocar a cabeça no recipiente do filtro, passando o tubo de união pelas aberturas dos cestos de filtragem, devendo assentar correctamente no tubo de intervalo. Apertar as 4 molas.



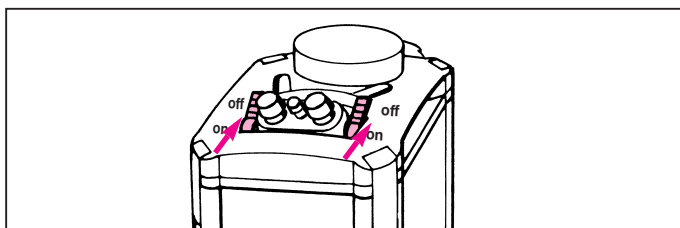
Conselho: Antes de colocar o dispositivo de integração para ligar a mangueira à cabeça do filtro, é necessário verificar se os três anéis de vedação estão intactos e colocados correctamente. A aplicação de um pequena quantidade de vaselina facilitará a montagem dos anéis de vedação.

Introduzir o adaptador bem firme na abertura prevista na cabeça do filtro, com a pega de travamento para cima, fechando-a até engatar, com o aperto simultâneo contra o adaptador.



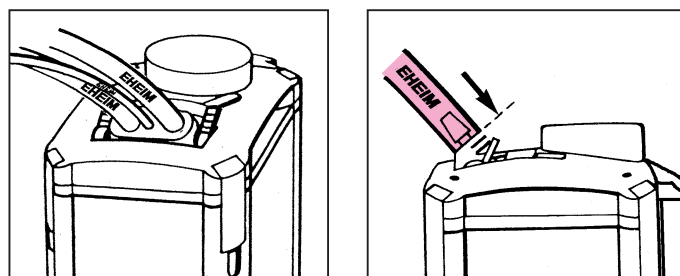
Instalação da mangueira

Para fechar as torneiras, comutam-se as duas pegas laterais do adaptador para a posição (OFF).

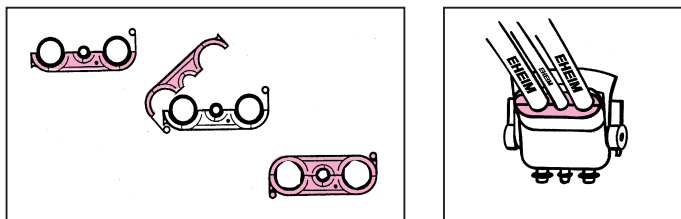


Passar as três mangueiras anexas até ao tubo correspondente do adaptador, começando pelo diâmetro menor. Uma vez que esta montagem pode ser bastante difícil, recomenda-se colocar as pontas das mangueiras em água quente para um manuseio mais fácil.

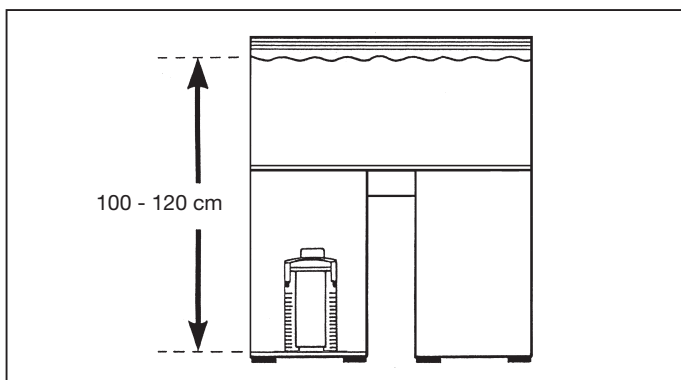
É extremamente importante usar apenas tubos EHEIM.



O porta-mangueira bipartido é colocado sobre as mangueiras montadas, enganchado lateralmente e unido.

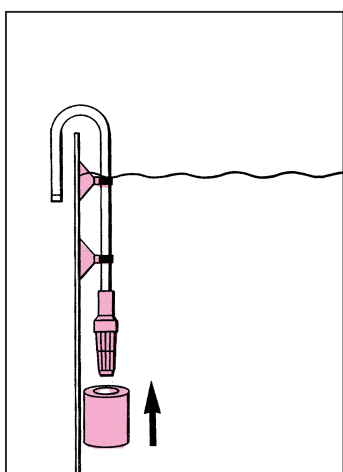


Coloque o filtro completamente preparado no recipiente de baixo e tome atenção ao desnível: entre a superfície da água e o fundo do filtro deve haver um desnível de **100 a 120 cm**. Esta altura de posicionamento é determinante para a perfeita acção recíproca do filtro seco/húmido.



Introduza o raro do filtro no tubo de sucção e fixe o último com 2 presilhas e ventosas no vidro interior do aquário.

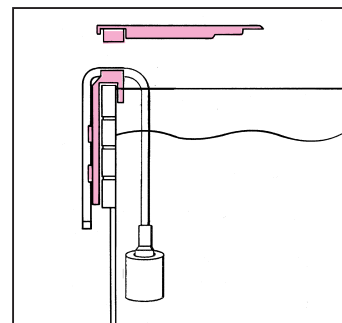
Puxar o pré-filtro de espuma sintética sobre o raro do filtro.



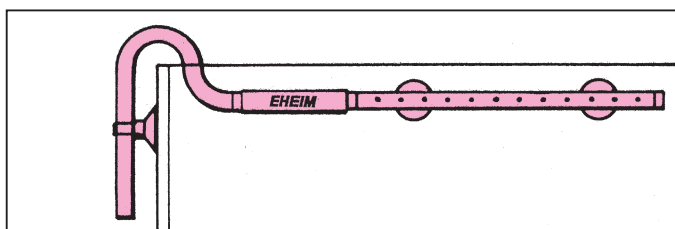
Atenção: O pré-filtro de espuma sintética deverá ser utilizado somente durante o período inicial, de aprox. 6 a 8 semanas. Depois, o filtro de bactérias, formada na massa filtrante, assume a filtragem biológica e mecânica. Portanto, o pré-filtro de espuma sintética deve ser retirado, após o período mencionado.

Nota:

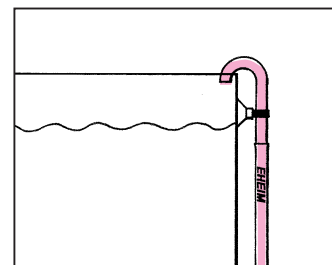
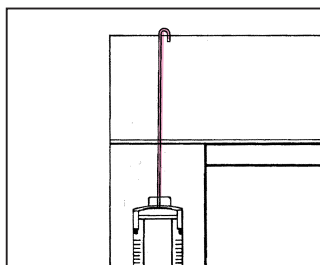
Na utilização do interface de filtro exterior ref. 7656450 no EHEIM *profissional*, engata-se o tubo de sucção.



Unir a curva de descarga e o tubo de bico com um pedaço curto de mangueira e montá-los por meio de presilhas e ventosas no aquário. Fechar a extremidade aberta do tubo de bico com o tampão fornecido.



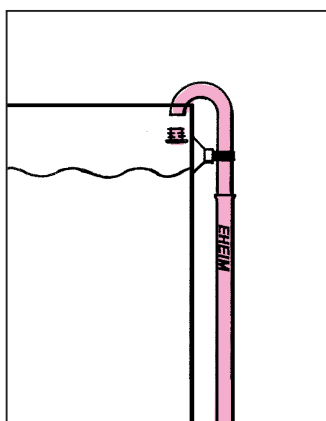
Conduza agora as três mangueiras a partir do filtro, passando-as pelo lado de trás do armário e instale primeiro a mangueira de ar (9/12 mm) sem dobras acentuadas nem curvas. Encurtar a mangueira do ar ao comprimento necessário e fixa-la ao tubo de ventilação. Este deve ser fixado por meio de presilhas e ventosas no vidro do aquário, de modo que a abertura do tubo esteja posicionada acima do nível da água.



Aviso importante:

O filtro pode utilizar-se a curto prazo como filtro de fluxo contínuo, para o tratamento de água com medicamentos.

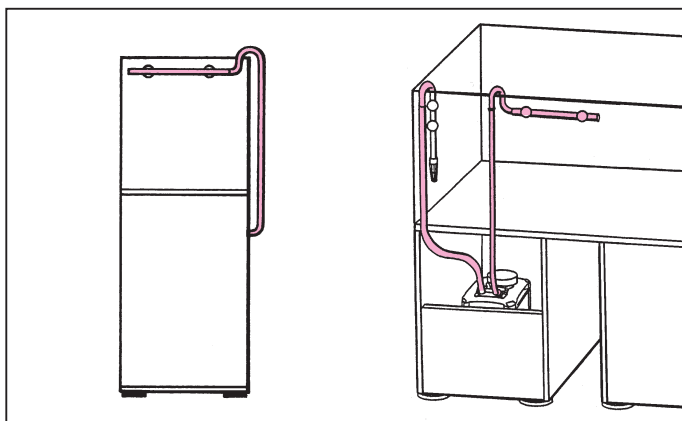
Tire SUBSTRAT_{pro} ou EHFI-SUBSTRAT da cuba do filtro e guarde-o na água do aquário, encha totalmente o filtro com EHFISYNTH ou almofadas filtrantes. Feche o tubo de ar com um tampão (Peça nº 7272350). Depois de acabar o tratamento, filtre com carvão (EHFIATIV) durante 4 a 6 dias para remover os medicamentos. Depois volte a filtrar com SUBSTRAT_{pro} ou EHFISUBSTRAT, eliminando o tampão do filtro de ar.



Em seguida une-se o tubo de carga montado e a curva de descarga com os respectivos diâmetros correctos das mangueiras.

Ter em conta o comprimento correcto das mangueiras:

A fim de garantir o funcionamento perfeito do filtro de intervalo, as duas mangueiras para a área de carga e para a de descarga devem ser encurtadas de modo a ficarem com o mesmo comprimento! Além disso, deve ser assegurado que as mangueiras estejam instaladas sem folgas e sem dobras acentuadas, a fim de garantir um fluxo perfeito.



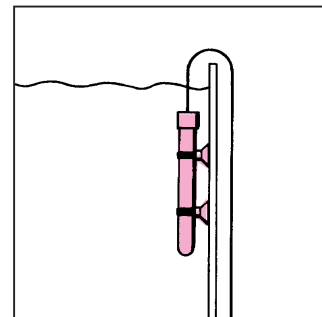
Conselho:

Recomenda-se colocar as mangueiras em água quente, o que permite torná-las mais flexíveis e eliminar eventuais dobras.

C° Termofiltro

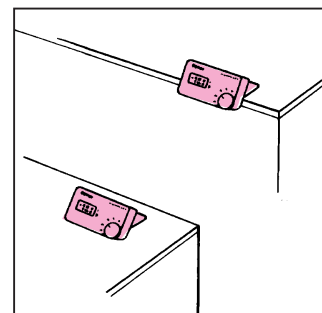
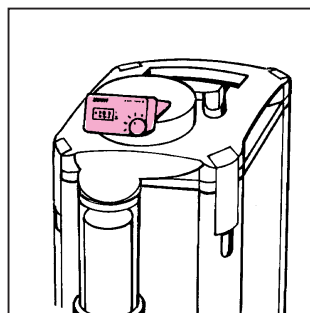
Instalação do aquecimento

Coloque o sensor de temperatura com os dois clips e as ventosas dentro do aquário de forma a que **este se encontre abaixo do nível da água. Não coloque o sensor junto da saída da água.**



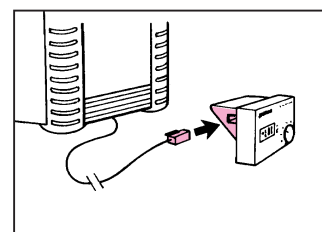
O termostato pode ser colocado na tampa do aquário ou fixado com a fita quer na tampa do aquário quer na cabeça do filtro.

Proteger contra os salpicos de água.



Dirija o cabo de controlo da cuba do filtro para o termostato. Faça a ligação – deve ouvir um pequeno estalido.

Não ligue à corrente eléctrica.

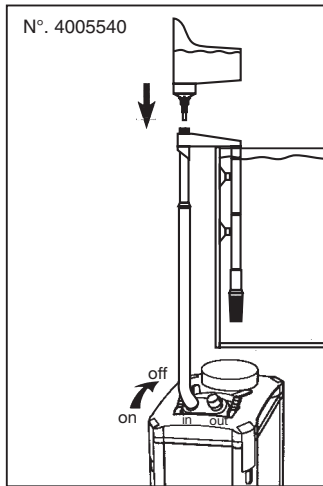
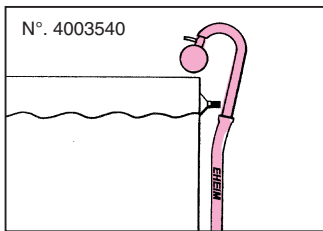
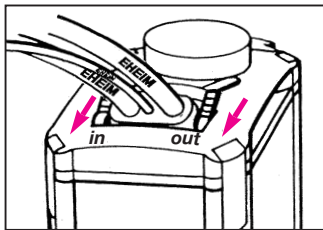


Colocação em funcionamento

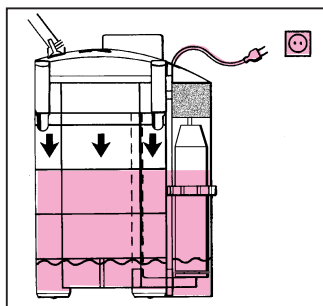
Atenção: O aquário não deve ser abastecido até à altura máxima, dado que o nível da água se altera, em função do nível variável da água no filtro.

Abra a ligação da torneira do tubo de aspiração (IN) e ligue o sifão. Como alternativa, use o aparelho de sucção EHEIM (ordem n.º 4003540) ou o de primeira ajuda (ordem n.º 4005540, ø 16 mm).

O filtro enche-se agora com água. Em seguida abrir a torneira no lado de descarga (OUT).

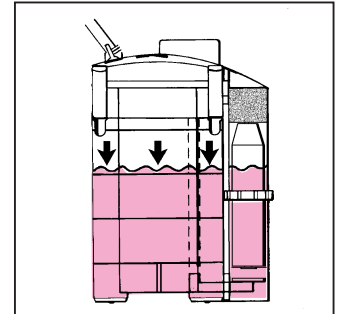
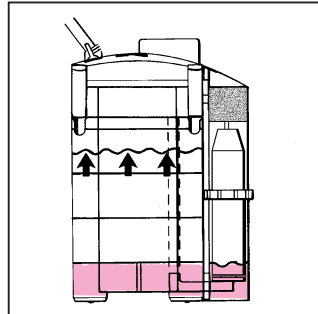


Pôr o filtro em funcionamento, introduzindo a ficha na tomada. Logo que a bomba comece a funcionar, o nível da água no recipiente do filtro deve baixar até o ponto de comando inferior.



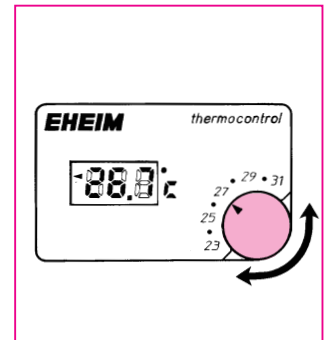
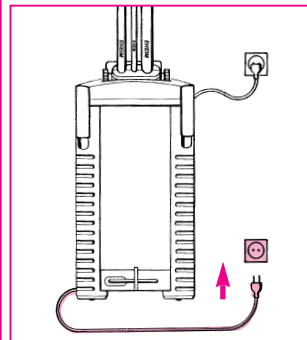
Atingido este ponto, a bóia fecha automaticamente o tubo de aspiração e o filtro reabastece-se com água. Simultaneamente é reconduzido, através de uma abertura "by-pass", um menor volume de água, continuamente filtrada, para o aquário.

O flutuador não fica cheio de água. Quando o cesto de filtragem está cheio de água o flutuador enche-se de água através de uma ranhura na válvula de controlo do flutuador; esta irá abrir o lado de aspiração e o filtro esvaziar-se-á.



Termofiltro

Atenção: Só quando o filtro está a trabalhar com regularidade é que se deve ligar a resistência à corrente. Nunca ligue a resistência em seco.



O dispositivo no termostato mostra a temperatura actual da água do aquário. Utilize o botão de ajustamento para obter a temperatura desejada (ex: 27°C). O símbolo (◀) indica que a resistência está em funcionamento. Se o símbolo desaparecer significa que a temperatura desejada foi atingida e o aquecimento desliga automaticamente. Se a temperatura do aquário for inferior à temperatura desejada a resistência liga automaticamente. Através de um ligeiro rodar do botão de ajustamento a temperatura desejada é atingida com precisão.

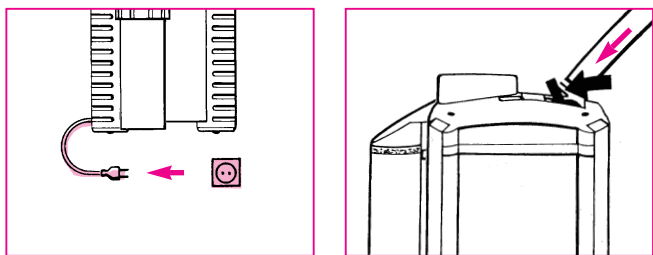
Atenção: Quando instala o filtro pela primeira vez ou quando há um novo ajustamento, a temperatura levará algum tempo a ser atingida. A temperatura ambiente influencia o tempo de obtenção da temperatura desejada.

Se o fornecimento de energia for interrompido, o valor que aparece no mostrador muda e a resistência deixa de funcionar. Quando houver novamente energia, a resistência recomeça a funcionar normalmente.

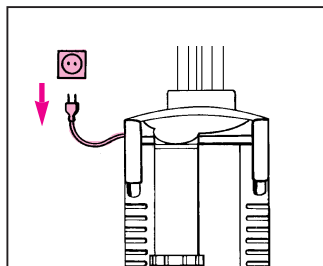
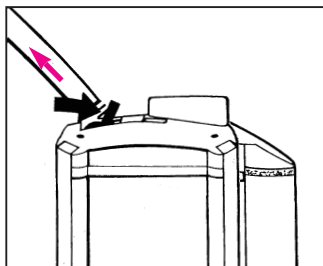
Cuidados e manutenção

C° Termofiltro

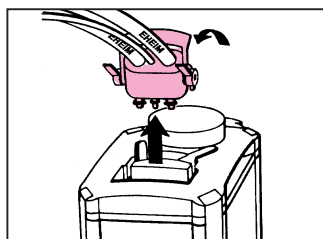
Em primeiro lugar desligue a resistência da corrente eléctrica. Feche a alavanca da torneira do lado de aspiração (**IN**) do dispositivo de torneiras. Desta forma, o filtro esvaziar-se-á.



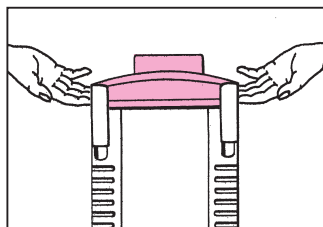
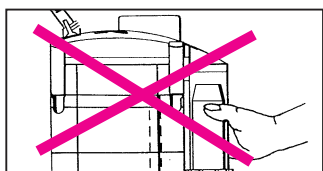
Assim que a bomba aspire ar, com um ruído característico, fechar a torneira do **lado da descarga (OUT)** e **desligar a ficha da bomba**.



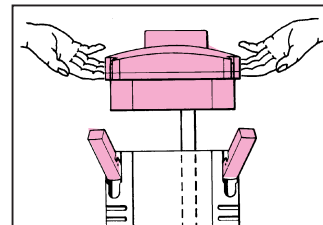
Girar os arcos da alavanca para cima e tirar o adaptador da cabeça do filtro. Retirar o filtro do móvel, pegando nas duas pegas de manuseamento.



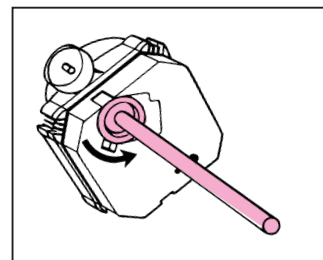
Atenção:
Não puxar no comando de intervalo.



Abrir todas as molas e retirar a cabeça do filtro.

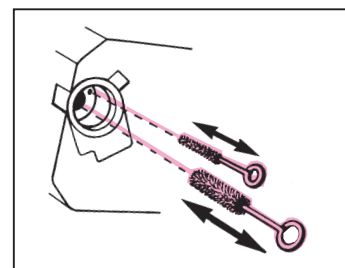
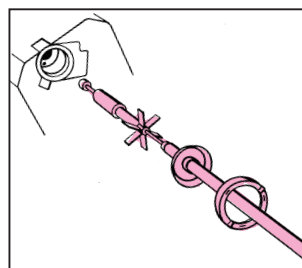


Para limpar o espaço da bomba, abre-se a anilha no fundo da cabeça do filtro, girando-a para a esquerda.

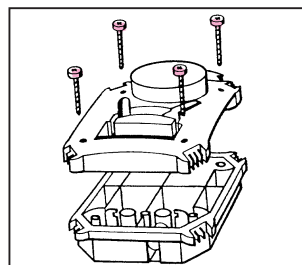


Depois, tire a tampa da bomba, o rotor com a roda de palhetas e o eixo.

Limpar bem os componentes da bomba e o canal de lubrificação, utilizando o jogo de limpeza EHEIM, ref. 4009580. Lavar o eixo cuidadosamente (risco de partir!) e, em seguida, juntá-lo ao rotor e reintroduzir.



Na montagem, verificar a correcta colocação das buchas de eixo, da tampa da bomba e das anilhas. Em seguida, fixar a bomba com fechos respectivos.



Conselho:

Se durante a limpeza penetrou água na cobertura da cabeça do filtro, ela pode ser desparafusada e enxugada com um pano.

Matéria filtrante:

Retire da cuba do filtro a grelha assim como os cestos de filtragem.

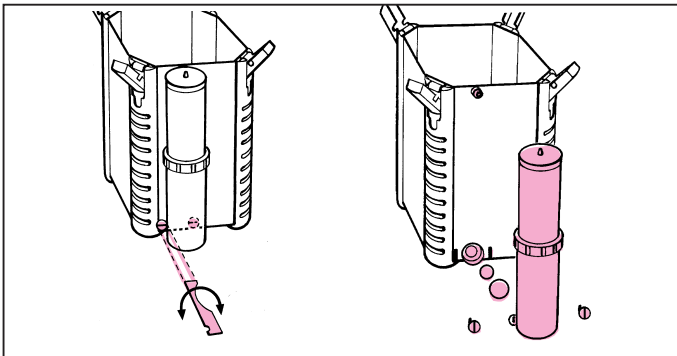
Lave cuidadosamente a matéria filtrante SUBSTRAT^{pro} ou EHFISUBSTRAT com água retirada do aquário – até que a água saia perfeitamente cristalina.

Conselho:

Na aplicação nova de SUBSTRAT^{pro} ou EHFISUBSTRAT, misturar cada vez aprox. 1/3 da massa filtrante usada com material novo, favorecendo assim a formação das culturas de bactérias.

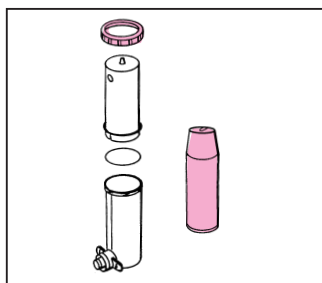
Agora, desmontar o comando de intervalo, abrindo os dois tampões, por meio da respectiva chave, de modo que as fendas se encontrem na posição vertical.

Retirar o comando de intervalo, limpar os assentos e as anilhas de vedação.



Girar os fechos do comando de intervalo no sentido mencionado, tirar a bóia e limpá-la cuidadosamente com uma esponja.

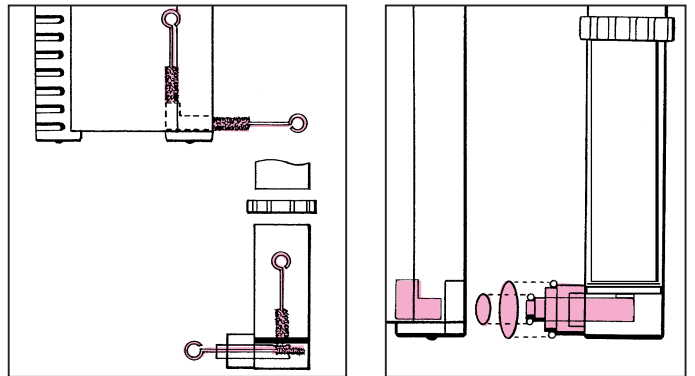
Limpar todos os componentes do comando e lavar o recipiente do filtro.



Termofiltro

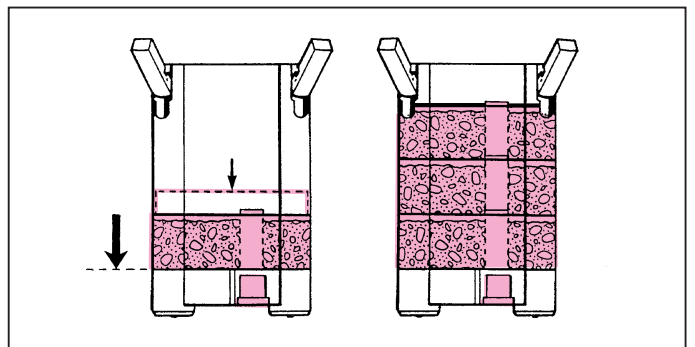
Lavar a cuba do filtro. Limpar periodicamente a resistência. Não dobrar os elementos de aquecimento! Não submergir a cuba do filtro com água. Proteger os elementos eléctricos de aquecimento de salpicos de água.

Limpar o tubo no recipiente e no comando, inclusivé a válvula “by-pass“, com uma escova. Remontar o comando de intervalo e colocá-lo no recipiente do filtro. Assegure-se que as anilhas de vedação estão colocados correctamente.

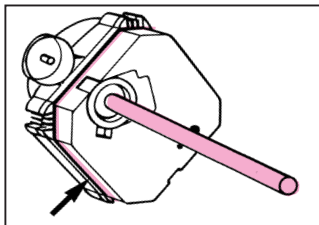


Reintroduzir o primeiro cesto de filtragem tendo em atenção que a passagem para o tubo fique sobre o tubo do comando de intervalos. Premir o cesto de filtragem bem firme contra os suportes de apoio. Assegurar a colocação correcta sobre o recipiente do filtro.

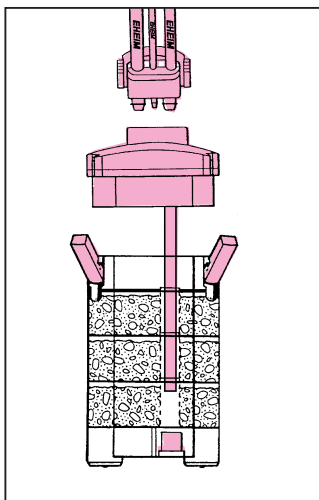
Em seguida, inserir o segundo e terceiro cestos de filtragem, assegurando-se de que as aberturas para os tubos coincidam. Ter em conta que todos os cestos de filtragem sejam perfeitamente encostados uns aos outros.



Verificar a boa fixação do tubo de união na cabeça do filtro com a tampa da bomba, bem como a posição correcta e a limpeza da junta.

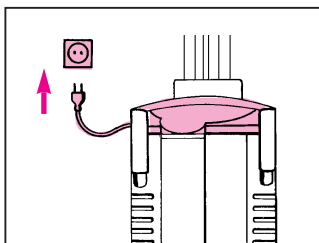


Em seguida, passar um pouco de vaselina na anilha na cabeça do filtro. Colocar a cabeça do filtro no recipiente, apertar os fechos e colocar o filtro no móvel de baixo.



Verificar se os três anéis de vedação no dispositivo de integração estão intactos e colocados correctamente. Aplicar uma pequena quantidade de vaselina.

Após ter aberto as duas torneiras no adaptador, o filtro enche-se automaticamente com água e encontra-se pronto para entrar em funcionamento.



Ligar o filtro, introduzindo a **ficha da cabeça do filtro** na tomada.

Importante:

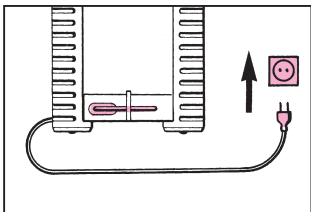
Colocar a ficha do aquecedor unicamente numa tomada com terra.

Aviso: Todas as ligações de mangueira deverão ser revistas regularmente, de modo a preservar uma perfeita união.

C° Termofiltro

Atenção:

Só depois do filtro estar a trabalhar com regularidade é que pode ligar a resistência à corrente. Nunca ligue a resistência em seco.



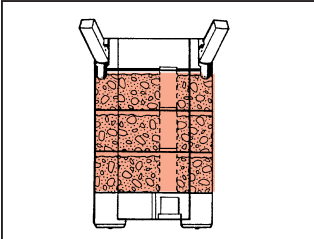
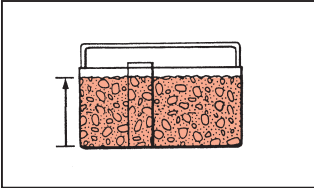
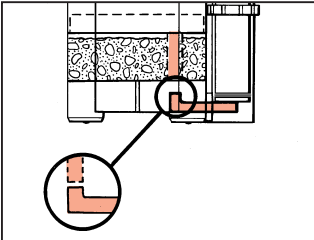
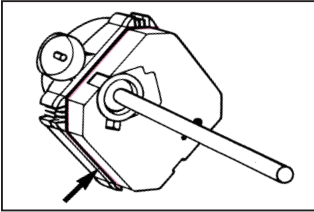
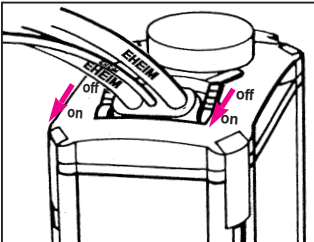
Utilizar apenas em espaços interiores. Antes de colocar as mãos no aquário verifique que desligou todos os aparelhos eléctricos. Nos termofiltros desligar sempre em primeiro lugar o aquecimento.

2227/2229: O cabo não pode ser substituído. Se o cabo for danificado o aparelho não deve ser usado.

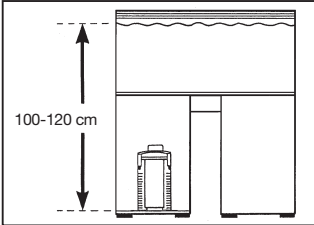
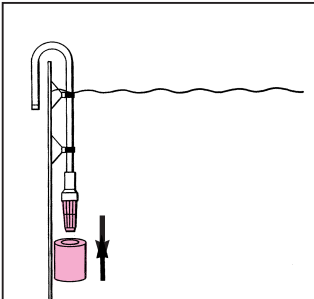
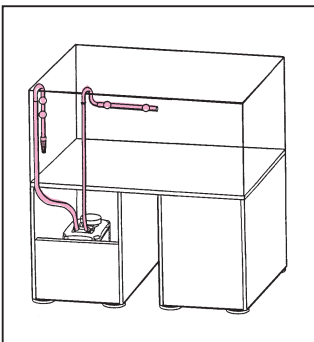
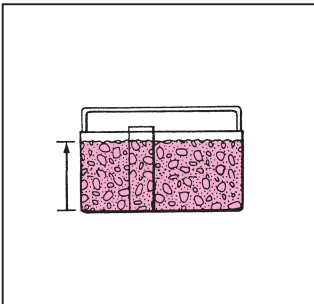
2327/2329: O aparelho só pode ser reparado por um agente autorizado. Contacte a loja da especialidade mais próxima ou o centro de atendimento da EHEIM. Usar apenas tomadas com fio de terra.

O filtro deve ser utilizado somente na posição vertical.

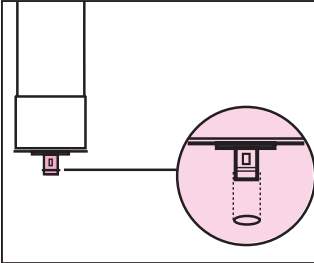
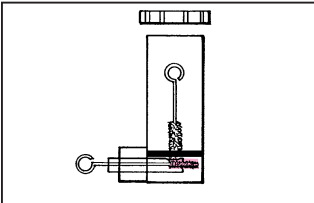
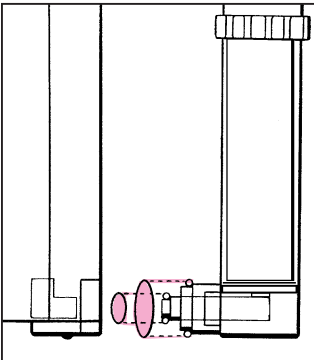
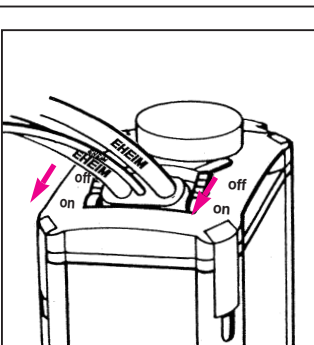
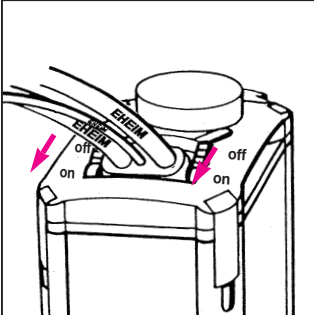
Que fazer, se...

Defeito	Causa	Solução	
Não consegue fechar a cabeça do filtro	Cestos de filtragem montados defeituosamente.	Colocar os cestos de filtragem de modo a que as abas se ajustem umas nas outras.	
	Cestos de filtragem demasiado cheios.	Utilizar apenas SUB-STRAT ^{pro} ou EHFISUB-STRAT como massa filtrante, não enchendo em demasia os cestos. Eventualmente limpar as abas dos cestos.	
	Conduta engordurada no interior da cuba do filtro.	Limpar a conduta.	
	Junta de estanqueidade mal montada.	Colocar correctamente a junta na cavidade.	
O filtro não enche, ausência de funcionamento do sistema «seco-húmido»	Torneira de aspiração ou fechada ou deficientemente aberta.	Abrir a torneira de aspiração até à chumaceira (posição ON).	
	Tubo de aspiração ou dobrado ou engordurado.	Colocar o tubo direito, sem cotovêlos, limpar o tubo.	

Que fazer, se...

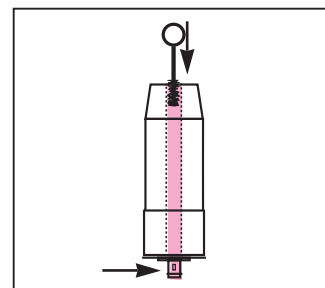
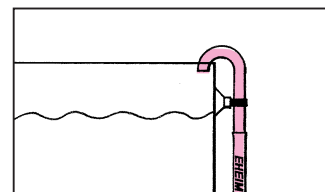
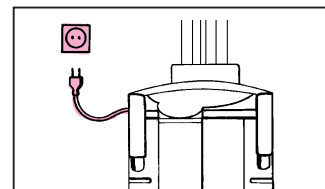
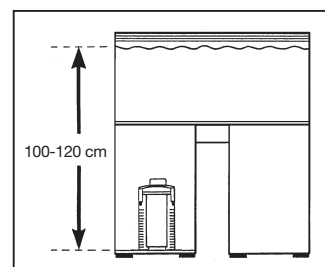
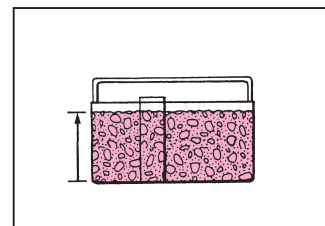
Defeito	Causa	Solução	
O filtro não enche, ausência de funcionamento do sistema «seco-húmido»	A altura da superfície da água do aquário à base do filtro, é insuficiente.	A altura da superfície da água do aquário à base do filtro deverá ser entre 100 e 120 cm.	
	O crivo está entupido.	Limpar o crivo.	
	O pré-filtro de esponja está entupido.	Limpar o pré-filtro de esponja. Retirá-lo 6 a 8 semanas após a montagem inicial do aquário.	
	Comprimento incorrecto do tubo, utilização incorrecta de acessórios.	Utilizar apenas os tubos de origem, de comprimento igual! Não utilizar acessórios suplementares!	
Utilização de massas filtrantes de má qualidade.	Utilizar apenas SUBSTRAT ^{pro} ou EHFISUBSTRAT como massa filtrante, não encher em demasia, os cestos, não utilizar algodão nem almofadas pré-filtrantes!		

Que fazer, se...

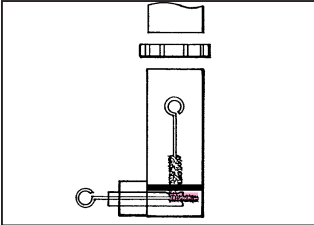
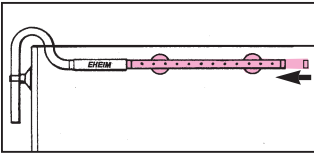
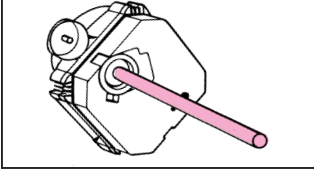
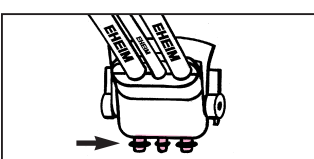
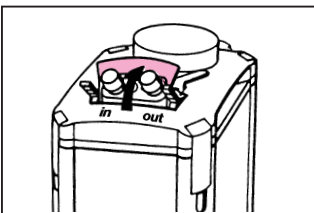
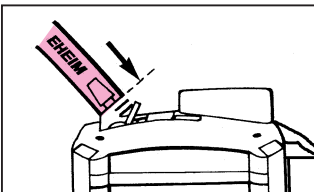


Defeito	Causa	Solução	
O filtro não enche, ausência de funcionamento do sistema «seco-húmido»	A junta de estanqueidade do flutuador ou está mal colocada ou falta.	Colocar ou instalar correctamente a junta de estanqueidade.	
	A junta de estanqueidade do flutuador está suja, velha, ou deteriorada.	Limpar a junta de estanqueidade, ou substituí-la sendo caso disso.	
	O orifício bypass do flutuador está sujo.	Limpar o bypass.	
	As juntas de estanqueidade do mecanismo «seco-húmido» estão velhas, danificadas, não foram colocadas ou estão mal colocadas.	Instalar correctamente as juntas de estanqueidade, ou substituí-las se fôr caso disso.	
	O filtro está de esquelha.	Colocar o filtro na vertical.	
O filtro não se esvazia, ausência de funcionamento do sistema «seco-húmido»	A torneira de descarga está fechada ou deficientemente aberta.	Abrir a torneira de descarga até a chumaceira (posição ON).	
	O tubo de descarga está dobrado ou sujo.	Colocar o tubo direito, sem dobras, limpar o tubo.	

Que fazer, se...

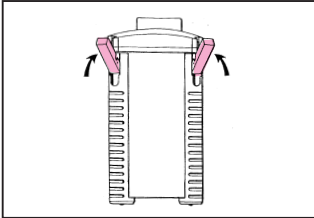
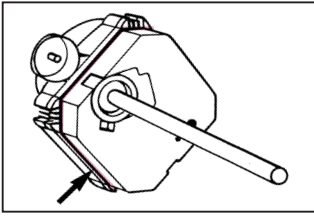
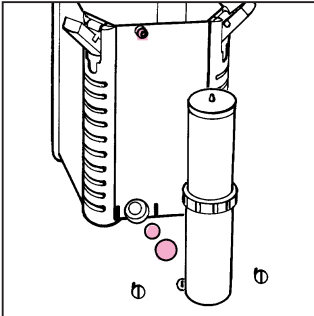
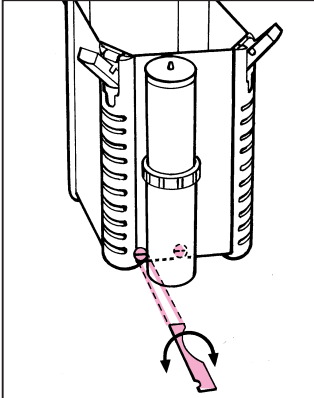
Defeito	Causa	Solução
O filtro não se esvazia, ausência de funcionamento do sistema «seco-húmido»	Comprimento incorrecto do tubo, ou utilização incorrecta dos acessórios.	Utilizar apenas tubos de origem de tamanho igual! Não utilizar acessórios suplementares!
	Utilização de massas filtrantes de má qualidade.	Utilizar apenas SUBSTRAT ^{pro} ou EHFISUBSTRAT como massa filtrante, não encher demasiado os cestos, não utilizar algodão nem almofadas pré-filtrantes!
	Altura exagerada da base do filtro à superfície da água do aquário.	A altura da base do filtro à superfície da água do aquário, deverá ser rigorosamente entre 100 e 120 cm.
	Ar na câmara da bomba.	Abrir a torneira de aspiração e descarga, retirar a tomada e esperar cerca de 1 min. até que a câmara da bomba se encha de água. Ligue novamente a tomada.
	Tubo de arejamento dobrado ou sujo.	Instalar o tubo sem dobras ou limpá-lo.
	O orifício do tubo de arejamento está abaixo do nível da água.	Instalar o tubo de arejamento correctamente acima do nível da água.
	Junta de estanqueidade do flutuador mal instalada ou inexistente.	Colocar a junta correctamente, ou instalá-la.
	Junta de estanqueidade do flutuador suja, velha, ou danificada.	Limpar a junta de estanqueidade, ou substituí-la se fôr caso disso.





Que fazer, se...

Defeito	Causa	Solução	
O filtro não se esvazia, ausência de funcionamento do sistema «seco-húmido»	O orifício do bypass do sistema «seco-húmido» está sujo.	Limpar o bypass.	
	O filtro está de esguelha.	Colocar o filtro na vertical.	
	O tubo da cana de descarga está sujo.	Limpar o tubo de descarga.	
	Falta o tampão do tubo de descarga.	Colocar o respectivo tampão.	
A ligação central com torneiras de fecho não é estanque	O tubo de ajustamento não está correctamente colocado na cabeça do filtro.	Instalar correctamente o tubo de ajustamento.	
	As superfícies de estanqueidade e as juntas de ligação estão sujas.	Limpar as superfícies de estanqueidade e as juntas. Instalar as juntas de estanqueidade correctamente ou substituí-las.	
	Juntas mal colocadas, velhas, ou deterioradas.	Fechar as respectivas manetes.	
	Manetes de fecho não completamente fechados.	Ajustar correctamente os tubos.	
	Tubos mal ajustados.		

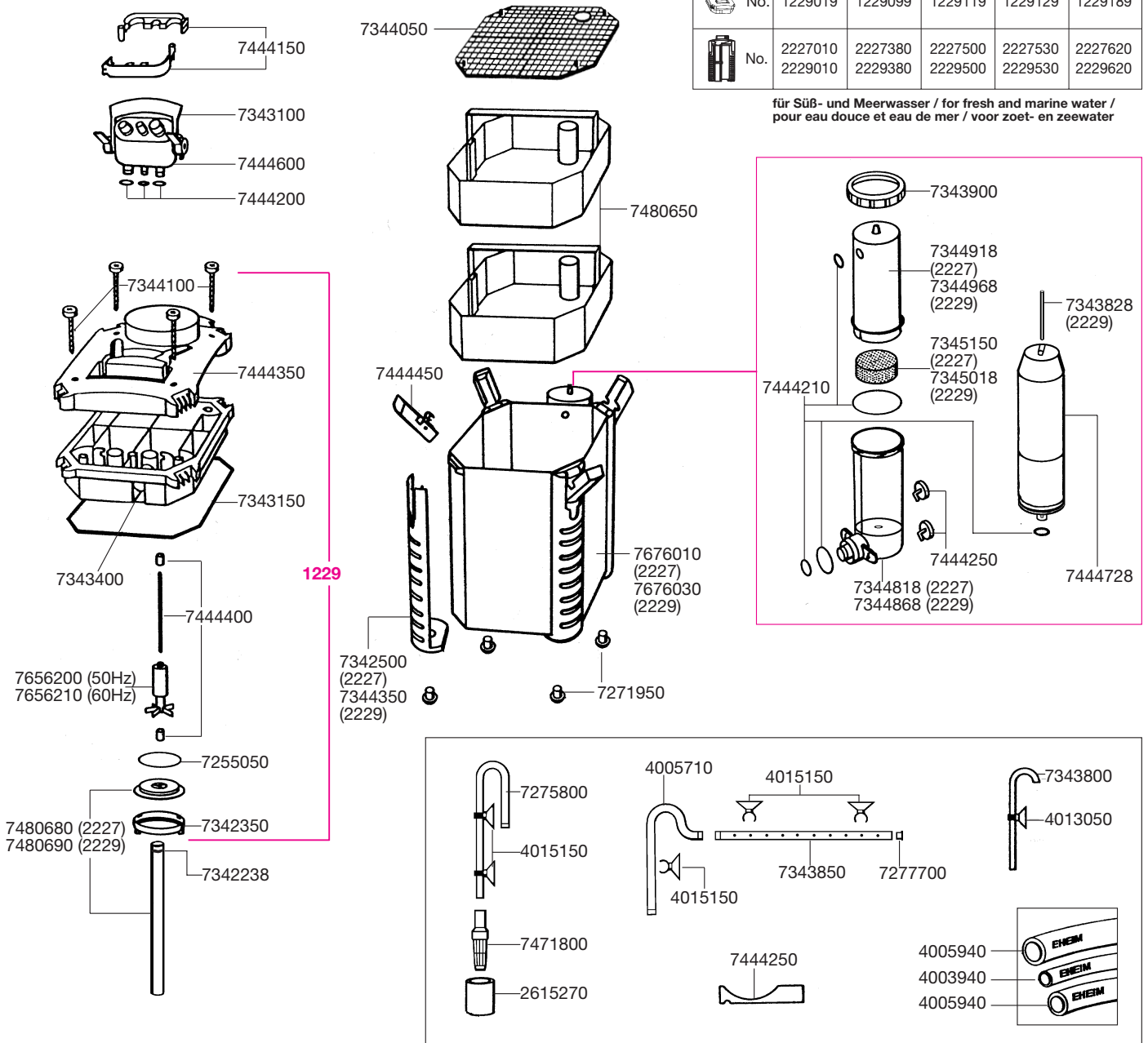
Que fazer, se...

Defeito	Causa	Solução	
A ligação entre a bomba e a cuba não está estanque	Não foram fechados todos os fechos.	Fechar correctamente todos os fechos.	
	As superfícies de estanqueidade ou juntas estão sujas. Tubo de ajustamento e juntas não instaladas, mal colocadas ou danificadas.	Limpar as superfícies de estanqueidade ou as juntas. Montar correctamente o tubo de ajustamento e juntas, ou substituí-los.	
O sistema «seco-húmido» não está estanque	As superfícies das juntas de estanqueidade estão sujas.	Limpar as superfícies de estanqueidade.	
	Juntas de estanqueidade não instaladas ou mal colocadas.	Instalar ou colocar correctamente as juntas de estanqueidade.	
	O anel de fecho dos elementos do sistema «seco-húmido» não está devidamente fechado. Bloqueios não fechados.	Fechar o anel do sistema «seco-húmido» no sentido indicado. Fechar os bloqueios com a ajuda da respectiva chave, de modo a que as fendas estejam na horizontal.	

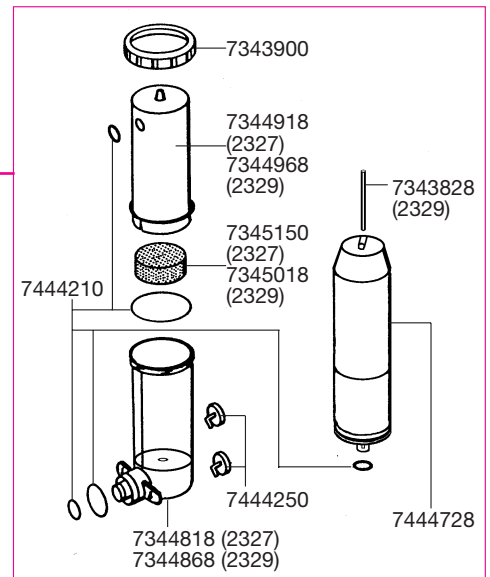
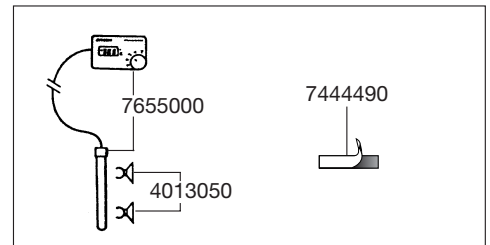
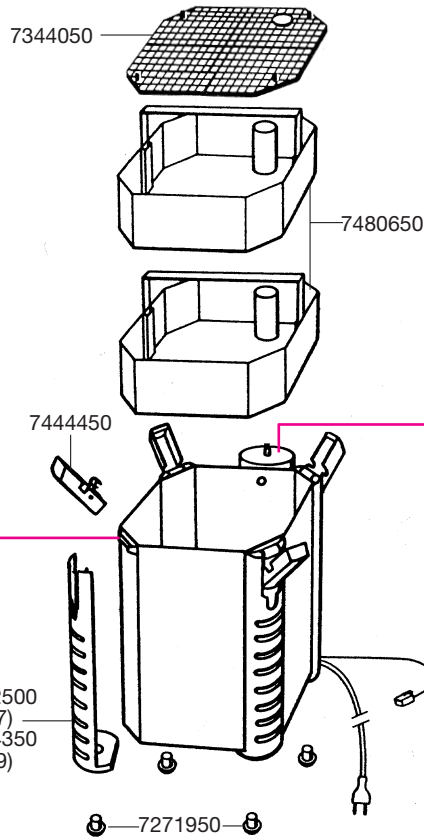
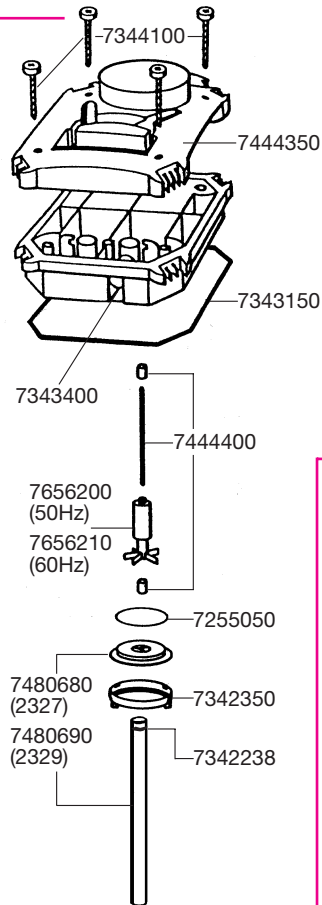
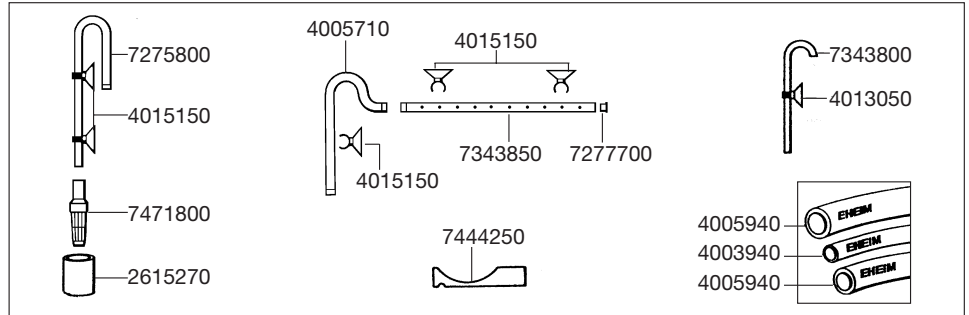
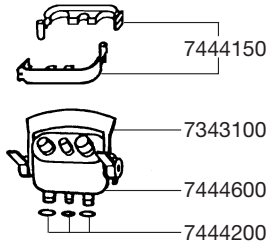
2227/2229

	230 V 50 Hz	120 V 60 Hz	240 V 50 Hz GB	240 V 50 Hz AUS	220 V 60 Hz
 No.	1229019	1229099	1229119	1229129	1229189
 No.	2227010 2229010	2227380 2229380	2227500 2229500	2227530 2229530	2227620 2229620

für Süß- und Meerwasser / for fresh and marine water /
pour eau douce et eau de mer / voor zoet- en zeeewater



2327/2329



Spannung / Voltage / Spannung	230 V / 50 Hz				120 V / 60 Hz		240 V / 50 Hz		220 V / 60 Hz			
Land / Country / Pays / Land	EUROPA		CH	USA / CAN	GB	AUS						
Filter Best.-Nr. / Filter Order no.	2327010	2329010	2327130	2329130	2327380	2329380	2327500	2329500	2327530	2329530	2327620	2329620
Filtre No. de réf. / Filter bestelnr.	2327800	2329800	-	-	2327830	2329830	2327850	2329850	2327860	2329860	-	-
Pumpe Best.-Nr. / Pump Order no.	1229019		1229019		1229099		1229119		1229129		1229189	
Pompe No. de réf. / Pomp bestelnr.	1229019		1229019		1229099		1229119		1229129		1229189	
Behälter mit Heizer / Canister with heater	7676500	7676700	7676510	7676710	7676520	7676720	7676530	7676730	7676540	7676740	7676550	7676750
Cuve avec chauffage / Pot met verwarmmer	7675038	7675118	-	-	7675048	7675128	7675058	7675138	7675068	7675148	-	-

nur für Süßwasser / for fresh water only / seulement pour eau douce / alleen voor zoetwater

für Meerwasser / for marine water / pour eau de mer / voor zeeewater

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