

LAMINATED FILTERS

FILTROS LAMINADOS

LAMINE FILTRES



EN

INSTALLATION AND MAINTENANCE MANUAL

ES

MANUAL DE INSTALACION Y MANTENIMIENTO

FR

MANUEL D' INSTALLATION ET D' ENTRETIEN

ENGLISH INSTRUCTION MANUAL FILTER

SAFETY NOTICE, PLEASE READ THEM CAREFULLY

- All electrical connections should follow the European Standard regulation
NF C15-100
NF EN 60-335-2-41
Which refers to «construction of electrical installations», both in outdoor as in indoor pools, or similar regulations specific of each area or country.
- Electric installation should be performed by a professional qualified for electric installations.
- When filling the tank with sand, sand should not exceed 2/3 of the tank height.
- Do not start the device before it has been previously primed.
- When handling the filter or valve, always disconnect it from the electricity supply.
- Do not allow children or unauthorized adults to manipulate the filter.

1. PACKAGING COMPONENTS

The filter you just purchased has been specially designed for pools. Thanks to its design and functionality you have all necessary elements to clean and filtrate the water of your pool. This packaging contains the filter body and the valve. Main components of this filter are the following:

<i>Fig.</i>	<i>Pos.</i>	<i>Denomination</i>
1	1	Cover
1	2	Filter body
1	3	Out filter
1	4	Filter base
2	1	Manometer
2	2	Air relief valve

2. BEFORE CONNECTING THE FILTER

Location: The filter must be installed as close to the pool as possible, preferably within 50 meters of the surface of the pool. Be sure there is a drainpipe in the spot where the filter will be located. This drainpipe must be adequately sized to the installation flow.

Be sure the surface area where the filter is installed is horizontal, stable, resistant to the weight of the filter, and is completely clean.

There must be enough space in the area around the filter so that the required inspections and maintenance throughout the life of the pool can be carried out.

Installation: Once the filter has been placed in the right location proceed as follows:

- a. Make the three connections needed for the selector valve:
 - pump tubing to the valve,
 - valve to the waste drain
 - and from the valve to pool returnEach of the three outputs is identified on the valve. See figure no. 3.
- b. Install the selector valve in the filter, ensuring that the gaskets between the valve and the filter are correctly positioned and none of the gasket has dropped inside the filter tank. Place the bag to avoid sand getting into the pipe. .
- c. Fill the filter with water up to the half way point. Pour the necessary quantity of sand into the filter. It must be filled with silica sand with a particle size from 0.4 to 0.8 mm. with the quantity indicated in the table of characteristics. Silica sand should be only replaced in case of sand loses. See figure no. 4
- d. Clean the area around the cover seal and remove the bag..
- e. The nuts of the cover must be strongly tightened.
- f. Once the filter is filled with sand it is necessary to carry out a wash cycle. Proceed as described in the paragraph 4.2.

3. SELECTOR VALVE

The selector valve has a handle of 6 positions that selects any of the necessary operations to obtain the maximum efficiency from the filter: filter, backwash, recirculation, waste, rinse and closed. These 6 positions are identified on the label on the top of the valve.

Manometer assembly

For the assembly of the manometer is not necessary the use of tools or Teflon tape; use the o-rings and fix it by tightening it with your hands (see figure no. 2).

Change of valve handle function (see figure no. 5)

⚠️ IMPORTANT: The pump should be switched off when the position of the selector valve handle is being changed

- Press softly the valve handle until freeing the rib from its housing (1º)
- Proceed to turn the handle to its desired position until the rib fits in the housing in front of the function (2º)
- Release the handle softly, checking that the rib is perfectly coupled in the housing

4. FILTRATION –

This filter is based on the silica sand inside the tank, capable of retaining any dirt coming from the pool. The water is drawn in from the bottom of the pool and is carried through the pump to the filter. The silica sand load through which the water circulates in a descending motion, retains the debris suspended in the pool and send clear water back to the pool.

Trees, insect, bath frequency, weather conditions determine the dirt degree of the water, as well as the frequency of cleaning the sand filter (see paragraph 4.2.).

Filtration is only one part of maintaining clean swimming pool water, and it is inseparable from the chemical treatment; one without the other will not achieve the desired result.

**NEVER PLACE THE CHEMICAL PRODUCT IN THE BASKET OR
THROUGH THE FILTER. IT COULD DAMAGE THE COMPONENTS OF
THIS DEVICE AND REDUCE ITS EFFICIENCY.**

Priming of the filter

The filter should be at all times correctly primed. Not being properly primed means that an air chamber has appeared inside the filter tank, thus preventing the proper circulation of the water, and, consequently, the proper functioning of the filter.

How to prime the filter?

- Place the valve handle in the Filter position. Slightly loosen the drain screw placed by the manometer. This will allow the air kept inside the filter body to escape the tank.
- Once ONLY water is coming out the drain (between 10 and 20 seconds), tighten again the drain screw.

NEVER MANIPULATE THE VALVE WITHOUT SWITCHING OFF THE PUMP

4.1. Filtration

- Filtration is only one part of maintaining a clean swimming pool, and it is inseparable from the chemical treatment; through the filter the water is physically cleaned, retaining the debris particles in the water. In fact the purification process consists of a perfect combination of the two treatments: chemical and physical.
- With the pump switched off, move the selector valve handle to “ FILTRATION ” .
- Turn on the pump.
- While it is operating, it is best to periodically observe the pressure gauge, where the filter saturation degree is indicated.

Before using the filter for the first time, the sand should be backwashed (see paragraph 4.2.).

When it is necessary to wash the filter sand?

Each load of sand forms thousands of channels which pick up all the material contained and caught up in the filtering process, the number of free channels allowing the water to pass is continually decreasing.

This is why the pressure rises progressively until it reaches the saturation level At this pressure, yellow or red area of the manometer, the filtering sand is unable to collect any more impurities and must be cleaned.

If you observe a decrease of the return water flow, check also the filter pressure.

4.2. WASH

With the valve in the Backwash position, the sand inside the filter will be cleaned by reversing the water flow direction. Proceed as follows:

- Switch off the pump. **Never manipulate the valve handle before switching off the pump.**
- Press the valve handle until freeing the rib from its housing, figure 5.
- Turn on the handle until the BACKWASH position, figure 5.
- Switch on the pump and let it run for 2 minutes. Carry out this process until you can see transparent water running past the valve viewfinder.
- Switch off the pump
- Turn on the valve handle to the RINSE position. Switch on the pump again and let it run for 1 minute.
- Switch off the pump and turn the handle to the FILTER position
- Switch on the pump and proceed with the filtration process.

4.3. RINSE

After the carrying out the “ BACKWASH” operation on the filter and placing the installation in the “ FILTER” position, the water flowing into the swimming pool will be cloudy for a few seconds, so to prevent it from reaching the swimming pool there is a “ RINSE” position for the selector valve which is operated as follows:

- immediately after the “ BACKWASH” switched off the pump
- Turn the valve handle to the “ RINSE” position, figure 5.
Switch on the pump and let it run for 1 minute.This position ensures that the filtered water goes directly to the drain.
- Switch off the pump and turn the handle to the FILTER position
- Switch on the pump and proceed with the filtration process

4.4. CLOSED

As its name indicates, this position is for closing off the water from the filter to the pump and it is used for opening the collector prefiltre of the pump.

4.5. RECIRCULATION

In this position, the selector valve allows the water coming from the pump to go directly to the swimming pool without passing through the inside of the filter.

4.6. WASTE

If the swimming pool needs to be completely drained, this can be done using the filter pump. In order to do this, the selector valve should be placed in the " WASTE" position. The motor should run with the main drain valve fully open, for the pump to have sufficient suction. For the pump to suction, keep the main drain pipes full of water. Before drainage, make sure that the skimmer valves and the bottom cleaner valves are closed. Keep in mind that the pool water will not be 100% removed, some centimeters will always be left. Once the pump does not suction any more water, switched it off.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
The filter only provides a small volume of the filtered water.	Valve handle is not correctly placed in the FILTER position Filter is above the water level and it is not correctly primed	Switch off the pump and place the handle in the correct position Place the filter in a correct location and prime it
Vacuum heads have poor suction.	Pool suction valves are closed Suction lid or skimmer lid are not removed	Open the pool suction valves Remove the skimmer or suction lid
Intermittent functioning	Skimmer water level too low Filter is not correctly primed	Fill up the pool with water and prime the filter Proceed to prime the filter
Poor filter flow	Filter is dirty Filter is not correctly primed	Perform BACKWASH operation Prime the filter
Water appears in the filter mouth	Union between cover and filter body is dirty Cover is not tightened	Clean the remaining sand from the filter mouth, place the o/ring in the cover and tightened the cover strongly
Filter valve drops by the waste terminal	o/ring damaged by incorrect usage of the chemical product Valve lid broken due to wrong usage or excessively tightening	Change the upper valve lid Do not place chemical product inside the skimmer basket Change the vale lid, do not tighten excessively.

ESPAÑOL INSTRUCCIONES DEL FILTRO

INDICACIONES DE SEGURIDAD, LEALAS ATENTAMENTE

- En todo lo referente a la instalacion electrica debe seguirse la normativa
NF C15-100
NF EN 60-335-2-41
que hace referencia «a la construccion de instalaciones eléctricas, tanto en piscinas cubiertas como en piscinas al aire libre o la normativa analoga vigente en cada zona o pais.
- La instalación eléctrica debe ser hecha por personal profesional cualificado en instalaciones eléctricas.
- La altura de la arena no debe sobrepasar los 2/3 de la altura del depósito.
- No haga funcionar el aparato sin estar correctamente cebado.
- Siempre que deba manipular el filtro o la válvula DESCONECTE LA BOMBA DE AGUA.

1. COMPONENTES EMBALAJE

El filtro que acaba usted de adquirir es un aparato especialmente concebido y diseñado para piscinas, con un innovador diseño y una gran funcionalidad. Dispone usted de los diferentes elementos necesarios para filtrar el agua: Filtro y válvula selectora en un mismo aparato. Los principales componentes de este filtro son:

<i>Fig.</i>	<i>Pos.</i>	<i>Denominacion</i>
1	1	Tapa
1	2	Cuerpo filtro
1	3	Salida filtro
1	4	Base
2	1	Manómetro
2	2	Tapon purga aire

2. ANTES DE CONECTAR EL FILTRO

Situacion: Colocar el filtro en su posición, asegurándose de que este bien nivelado.
NO USE ARENA PARA NIVELAR LOS FILTROS.

Cumpla con las normativas nacionales y las directivas locales de cada país. Se debe proporcionar espacio y luz suficiente al equipo para el correcto mantenimiento posterior.

Es recomendable situar el filtro a 0,50 mts. por debajo de la superficie de la piscina para evitar que en el circuito de depuración entre aire y el filtro se descebe. Es conveniente resguardar el filtro del sol y la lluvia, y mantenerlo con una ventilación suficiente durante su funcionamiento.

Montaje: Una vez situado el filtro, proceder como sigue:

- a. Realizar las tres conexiones pertinentes de la válvula selectora.
 - Conexión de la bomba a la válvula.
 - Conexión de la valvula al retorno de la piscina
 - Conexión al desague.Todas ellas identificadas en la valvula selectora. Ver Fig.3.
- b. Comprobar que los colectores están correctamente colocados y no se ha caído ninguno en el interior del filtro. y colocar una bolsa para que la arena no entre en el tubo.
- c. Llenar el filtro con agua mas o menos hasta la mitad del mismo e introducir en el interior del filtro la arena de silicio con una granulometría de 0,5 a 0,8mm. La cantidad de arena dependera de la placa de características del filtro. La arena de sílex tiene una duración ilimitada. Sólo debe reponerse en caso de pérdida.Ver Fig.4
- d. Eliminar los restos de arena de la boca del filtro y retirar la bolsa.
- e. Apretar fuertemente los tornillos de la tapa.
- f. Una vez instalado, deberemos efectuar un primer ciclo de lavado del filtro, para ello seguiremos lo descrito en el apartado 4.2

3. VÁLVULA SELECTORA

La válvula selectora del filtro es la encargada de seleccionar las 6 diferentes funciones del filtro: filtración (filter), lavado (backwash),recirculación (RECIRCULATE), vaciado (waste), enjuague (rinse) y cerrado (closed). Estas seis funciones están identificadas encima de la valvula selectora.

Montaje del manometro

Para montar el manometro no es necesario utilizar ni herramientas ni cinta de teflón ya que con las juntas y apretando con las manos ya es suficiente. *Fig.2*

Para variar la posición de la válvula selectora, proceder como sigue : Fig.5.

 **IMPORTANTE:** Efectuar siempre los cambios de posición de la válvula selectora, con la bomba parada.

- Presionar firmemente el mando superior de la válvula selectora desencajando del nervio delantero de su alojamiento (1º), hasta que nos permita girar sobre sí mismo.
- Girar suavemente el mando hasta alinear el nervio delantero con el alojamiento de la operación deseada (2º).
- Soltar el mando sin brusquedad, comprobando que el nervio delantero queda bien encajado en su alojamiento.

FILTRACION

El funcionamiento de este filtro se basa en la capacidad de filtrado de la arena de sílex que hay en su interior. El agua de la piscina es impulsada por la bomba del filtro y forzada a pasar a través de la arena de sílex, quedando retenidas las impurezas del agua en el arena que actúa de elemento filtrante. El ambiente, árboles, polen, insectos y frecuencia de baños, son entre otros, son los factores que determinan la suciedad del agua de la piscina, se deberá limpiar la arena de sílex del filtro con mayor o menor frecuencia, para lavar el filtro. (ver apartado 4.2).

Para mantener en buen estado el agua de la piscina debemos además utilizar los productos químicos aconsejados por el fabricante (cloro, antialgas, floculante, etc.).

EN NINGUN CASO EL PRODUCTO QUIMICO DEBE PONERSE EN EL CESTO O A TRAVES DEL FILTRO, ELLO DETERIORARIA LOS MATERIALES DEL APARATO Y LIMITARIA SU EFICACIA.

Cebado del filtro

Es imprescindible que el filtro se encuentre en todo momento correctamente cebado. Que el filtro no esté cebado significa que en su interior se ha creado una cámara de aire que provoca una circulación defectuosa del agua, hecho este que impide el correcto funcionamiento.

¿Cómo cobar el filtro?

- Con la válvula en posición de filtrado (filter), aflojar ligeramente la tuerca de purga que se encuentra junto al manómetro para que permita salir el aire acumulado en el interior del filtro.
- Cuando se observe que solo sale agua (entre 10 y 20 segundos), cerrar de nuevo la tuerca de purga.

NO MANIPULAR EN NINGUN CASO LA VALVULA CON EL MOTOR EN MARCHA

4.1 Filtración

- La filtración, es sólo una parte del trabajo a realizar para mantener limpia una piscina y además inseparable del tratamiento químico, ya que la una sin la otra por sí solas no consiguen el fin buscado. Con esto queremos indicar que sólo con el filtro no se conseguirá nada si no va acompañado de un buen tratamiento químico.
- Con la bomba apagada, mover la maneta de la válvula selectora a la posición de FILTRADO
- Poner en marcha la bomba
- Durante el funcionamiento es conveniente observar periódicamente el manómetro, el cual nos indica el grado de saturación del filtro

Previo a la primera vez que se usa el filtro se debe realizar un lavado de la arena. (Apartado 4.2)

¿Cuándo debemos hacer un lavado del filtro?

Durante el funcionamiento es conveniente observar periódicamente el manómetro, el cual nos indica el grado de saturación del filtro. Cuando la presión llega a la zona amarilla o roja, se realizará un lavado. Si usted observa una disminución de caudal en el retorno compruebe la presión del filtro.

4.2 Lavado

Con el proceso de autolavado procedemos a limpiar la arena de sílex del interior del filtro, para ello se invierte el sentido de circulación del agua mediante la válvula selectora.

Para el lavado de la arena deberemos proceder como sigue:

- Desconectar la bomba de la toma de corriente. **No mover nunca la válvula selectora con el motor en marcha.**
- Presionar firmemente el maneta superior de la válvula desencajando el nervio delantero de su alojamiento que nos permite girar sobre sí mismo Fig.5
- Girar suavemente el mando hasta alinear el nervio delantero con el alojamiento de la operación de lavado (backwash) Fig.5.
- Poner en marcha la bomba durante 2 min. aproximadamente, hasta que dejen de salir impurezas con el agua visualizando esto por el visor de desague.
- Parar la bomba.
- Colocar la válvula en posición de enjuague (rinse) y conectar la bomba durante unos segundos.
- Parar la bomba, pasar a la posición deseada de filtrado (filter).
- Conectar la bomba y empezar proceso de filtrado

4.3 Enjuague

Después de hacer un lavado de filtro y antes de poner la instalación en posición de filtración se tiene que realizar un enjuague durante unos segundos.

Para el enjuague del filtro proceder como sigue:

- Desconectar la bomba de la toma de corriente. **No mover nunca la válvula selectora con el motor en marcha.**
- Presionar firmemente la maneta superior de la válvula desencajando el nervio delantero de su alojamiento que nos permite girar sobre sí mismo Fig.5.
- Colocar la válvula en posición de enjuague (rinse) y conectar la bomba durante unos segundos.
- Parar la bomba, pasar a la posición deseada de filtrado (filter).
- Conectar la bomba y proceder al proceso de filtrado.

4.4 Cerrado

Como su nombre indica se utiliza para cerrar el paso del agua del filtro a la bomba, se utiliza para poder abrir el cesto recoge-cabellos (prefiltro) de la bomba

4.5 Recirculación

En esta posición la válvula selectora efectúa el paso del agua procedente de la bomba directamente a la piscina, sin pasar por el interior del filtro.

Vaciado

En el caso de que la piscina no pueda desaguar directamente al alcantarillado, por no existir desague a nivel del fondo de la piscina el vaciado puede realizarse por medio de la bomba del filtro. Para efectuar esta operación se deberá situar la válvula selectora en posición de " VACIADO" (waste). Con la válvula de sumidero abierta se conectará el motor. Para que la bomba aspire, tienen que mantenerse llenos de agua el prefiltrado y toda la conducción de agua del sumidero.

Antes de conectar el vaciado se asegurará que las válvulas de skimmers y limpiafondos están cerradas.

Recuerde que con la ayuda del filtro no se vaciará totalmente la piscina, cuando queden algunos CMS de agua, y la bomba ya no aspire deberá apagarla.

SOLUCION DE AVERIAS

PROBLEMA	CAUSA	SOLUCIÓN
Una vez puesto en marcha el filtro , no da caudal en la boquilla de retorno	La válvula no está en la posición de filtrado(filter) El filtro está por encima del nivel del agua descebado Las válvulas de la piscina están cerradas La tapa de aspiración o el tapón del skimmer están puestos	Desconectar el filtro y situar la válvula en la posición correcta Situar el filtro en una posición correcta y cebarlo Abrir las válvulas de la piscina Quitar la tapa de aspiración o el tapón del skimmer
Funcionamiento intermitente	Nivel del agua en skimmer bajo El filtro está descebado	Llenar la piscina y cebar el filtro Proceder al cebado del filtro
El filtro de poco caudal	A causa de su uso el filtro está sucio El filtro está descebado	Efectuar un autolavado Proceder al cebado del filtro
Sale agua por la boca del filtro	La zona de unión entre la tapa y el filtro está sucia La tapa está floja	Limpie la arena de la boca, coloque correctamente la junta en la tapa y apriete fuertemente los tornillos.
La válvula del filtro gotea por el terminal de desague(WASTE)	Junta interior dañada por uso incorrecto del producto químico Válvula cabezal rota por uso incorrecto (apriete excesivo)	Proceder al cambio de la tapa superior de la válvula No poner el producto químico en el cesto prefiltrado del skimmer Cambiar válvula cabezal, no apretar excesivamente

FRANÇAIS MANUEL D' INSTALLATION FILTRE

AVIS DE SÉCURITÉ, S'IL VOUS PLAÎT LIRE ATTENTIVEMENT

- Tous les branchements électriques doivent suivre la réglementation de la norme européenne
 - NF C15-100
 - NF EN 60-335-2-41
- Qui se réfère à «la construction d'installations électriques», tant outdoors comme dans les piscines intérieures, ou des règlements similaires, spécifiques de chaque région ou pays.
- Installation électrique doit être effectuée par un professionnel qualifié pour installations électriques.
- Lors du remplissage du réservoir avec du sable, du sable ne devrait pas excéder les 2 / 3 de la hauteur du réservoir.
- Ne commencez pas l'appareil avant qu'il n'ait été préalablement amorcé.

1. Les composantes d'emballage

Le filtre que vous venez d'acheter a été spécialement conçu pour piscines. Merci à son design et les fonctionnalités que vous avez tous les éléments nécessaires pour nettoyer et filtrer l'eau de votre piscine. Cet emballage contient le corps de filtre et la vanne. Les principales composantes de ce filtre sont les suivants:

<i>Fig.</i>	<i>Pos.</i>	<i>Designation</i>
1	1	Couvercle
1	2	Cuve du filtre
1	3	Sortie filtre
1	4	Socle filtre
2	1	Manomètre
2	2	Bouchon de purge d' air

2. AVANT DE CONNECTER LE FILTRE

Emplacement:

Le filtre devra être installé le plus près possible de la piscine, de préférence à un niveau de

0,5m sous la surface de l' eau de la piscine. Prévoir une sortie d' eau pour le local dans lequel se trouve le filtre. La dimension de cette sortie d' eau doit être proportionnelle au débit de l' installation.

Veillez à ce que la surface d' installation du filtre soit plane, stable, résistante au poids du filtre indiqué dans la table des caractéristiques et libre de toute impureté. Veillez à ce qu' il y ait suffisamment d' espace autour du filtre pour procéder aux inspections et maintenances requises pendant la durée d' utilisation de celui-ci.

Installation: Une fois le filtre a été placé dans le bon emplacement, procédez comme suit

- a. Réaliser les trois connexions de la vanne multivoie:
 - tuyauterie de la pompe à la vanne,
 - de la vanne à l'égout,
 - et de la vanne au retour de la piscine.

Sur la vanne, chaque sortie est dûment identifiée
- b. Installer la vanne multivoies sur le filtre, en veillant à ce que les joints entre la vanne et le filtre restent positionnés correctement, et aucun des joint a chuté dans l' intérieur de la cuve filtre. Placez le couvercle de protection en plastique pour éviter le sable d'entrer dans le tuyau. Voir la figure no. 4
- c. Pour obtenir le rendement maximum de ce filtre, il faut le remplir de sable de silice d' une granulométrie de 0,4 à 0,8 mm., avec la quantité indiquée dans le tableau de caractéristiques. Sable de silice doit être remplacé uniquement dans le cas de sable perdu.
- d. Nettoyer l' emplacement du joint du couvercle et retirez le couvercle de protection en plastique
- e. Serrez fermement les vis du le couvercle.
- f. Une fois le filtre chargé avec du sable, il est nécessaire de procéder au lavage de celui-ci; Procédez comme décrit dans le paragraphe 4.2

3. VANNE MULTIVOIES

La vanne multivoie possède une manette à 6 positions qui permette selectionner les opérations nécessaires pour le bon fonctionnement du filtre: filter, backwash, recirculation, waste, rinse and closed. Ces 6 opérations sont identifiés sur l'étiquette sur le dessus de la vanne

Montage du manometre

Il n'est pas nécessaire l'utilisation de Téflon, car l'étanchéité est garantie par le joint. Ne pas serrer le Té manomètre avec l'aide d'un outil, car il suffit avec les mains (voir la figure no. 2).

Changement de position de la manette de la vanne multivoie (voir la figure no. 5)

 **IMPORTANT:** Tout changement de position de la manette de la vanne multivoie doit se faire avec la pompe arrêtée.

- Appuyez doucement le robinet de poignée jusqu'à libérer la nervure de son logement (1 °)
- Procéder à tourner la poignée à la position désirée jusqu'à la nervure s'inscrit dans le logement en face de la fonction (2 °)
- Relâchez la poignée doucement, en vérifiant que la côte est parfaitement couplés dans le logement.

4. FILTRATION

Le filtre proprement dit est composé par la charge de sable de silice au travers de laquelle circule l'eau dans un sens descendant, retenant les particules en suspension de l'eau à filtrer. Les arbres, les insectes, la fréquence de bain, les conditions météorologiques déterminent le degré de saleté de l'eau, ainsi que la fréquence de nettoyage du filtre à sable (voir le paragraphe 4.2.).

La filtration n'est qu'une partie du travail à réaliser pour maintenir une piscine propre. C'est d'ailleurs un processus indissociable du traitement chimique, étant donné qu'il est impossible d'obtenir le résultat recherché si ces opérations ne s'effectuent pas ensemble. En fait, le filtre seul ne permet d'arriver à rien s'il n'est pas accompagné d'un traitement chimique approprié.

NE PLACEZ JAMAIS L' PRODUIT CHIMIQUE DANS LE PANIER OU A TRAVERS LE FILTRE. IL POURRAIT ENDOMMAGER LES COMPOSANTS DE CET APPAREIL ET REDUIRE SON EFFICACITE

Amorçage du filtre

Le filtre doit être à tout moment correctement amorcées. Ne pas être bien amorcée signifie qu'une chambre à air est apparue à l'intérieur du réservoir du filtre, empêchant la bonne circulation de l'eau, et, par conséquent, le bon fonctionnement si le filtre.

Comment amorcer le filtre?

- Placez la manette de la valve dans la position de FILTER. Desserrez légèrement la vis de vidange fermé au manomètre. Cela permettra à l'air gardé à l'intérieur du corps de filtre échapper à la cuve.
- Une fois SEULEMENT de l'eau sort par ce purge (entre 10 et 20 secondes), serrez à nouveau la vis de vidange.

Ne manipulez jamais la vanne sans arrêter la pompe

4.1. Filtration

- La filtration n'est qu'une partie du travail à réaliser pour maintenir une piscine propre, et elle est inséparable du traitement chimique; à travers le filtre l'eau est nettoyé, en conservant les particules de débris dans l'eau. Par ailleurs, l'épuration consiste en une combinaison parfaite des deux traitements : chimique et physique
- Avec la pompe à l'arrêt, placer la vanne multivoies sur sur « FILTRATION
- Mettre la pompe en marche.

- Pendant le fonctionnement, il est recommandé d' observer périodiquement le manomètre, qui nous indique le degré de saturation du filtre.

Avant d'utiliser le filtre pour la première fois, le sable devrait être lavé (voir le paragraphe 4.2.).

Quand il est nécessaire de rincer le filtre?.

Chaque charge de sable forme des milliers de canaux de passage qui récupèrent toutes les particules contenues dans le sable filtrant et qui y sont retenues. Peu à peu, le nombre de canaux libres diminue progressivement, réduisant ainsi le passage de l' eau. C' est la raison pour laquelle la pression s' élève progressivement jusqu' à atteindre le niveau de saturation marquée par la zone jaune ou rouge du manomètre. Cela indique que le sable filtrant ne peut admettre davantage d' impuretés et que son nettoyage est nécessaire

4.2. LAVAGE

Avec la vanne dans la position Backwash, le sable dans le filtre doit être nettoyé en inversant le sens d'écoulement de l'eau. Procédez comme suit:

- Arrêter la pompe. Ne manipulez jamais la vanne sans arrêter la pompe
- Appuyez sur la valve poignée jusqu'à libérer la nervure du son logement, figure 5
- Placez la vanne dans la position DE " LAVAGE" (wash)
- Mettre la pompe en marche. Effectuer cette manoeuvre pendant 2 minutes. Cette opération permet de verser toute la saleté qui obstruait le filtre sans l' égout.
- Arrêter la pompe
- Placer la vanne en position " RINÇAGE" et faire marcher la pompe pendant une minute.
- Puis arrêter la pompe et placer la vanne en position " FILTRATION".

4.3. RINÇAGE

Après avoir procédé au " LAVAGE" du filtre, mettre en position " FILTRATION". Pendant quelques secondes, l' eau qui arrive à la piscine est trouble. Pour éviter cela, il existe une position "RINÇAGE". Procéder comme suit :

- Arrêter la pompe. Ne manipulez jamais la vanne sans arrêter la pompe
- Appuyez sur la valve poignée jusqu'à libérer la nervure du son logement, figure 5
- Immédiatement après de "LAVAGE", placer la vanne en position " RINÇAGE" (voir figure 5)
- Faire marcher la pompe pendant une minute. Cette position envoie l' eau sale directement à l' égout.
- Puis arrêter la pompe et placer la vanne en position " FILTRATION".

4.4. FERMETURE

Comme le nom l' indique, cette position s' utilise pour fermer le passage de l' eau du filtre à la pompe. Elle permet d' ouvrir le préfiltre de la pompe

4.5. RECIRCULATION

Dans cette position, la vanne multivoies effectue le passage de l' eau provenant de la pompe directement à la piscine sans passer par l' intérieur du filter.

4.6. VIDANGE

Dans le cas où il n' existe pas de vidange au fond de la piscine allant directement à l' égout, la vidange peut se faire à l' aide la pompe. Pour cette opération, placer la vanne multivoies en position de " VIDANGE " . Démarrer la pompe avec la vanne de la bonde de fond ouverte. Pour que la pompe aspire, il faut que les conduits d' eau de la bonde et le préfiltre soient pleins d' eau. Avant de commencer la vidange, vérifier que les vannes des skimmers et de la bouche prise balai soient bien fermées.

L'eau de la piscine ne sera pas 100% enlevé, quelques centimètres sera toujours à gauche. Une fois que la pompe ne doit pas aspirer plus d'eau, arrêtez la pompe

PANNES LES PLUS FRÉQUENTES

EFFET	POSSIBLE CAUSE	SOLUTION
Le filtre a un faible débit d' eau filtrée.	Poignée de la valve n'est pas correctement placée dans la position du filtre Filtre est au-dessus du niveau de l'eau et il n'est pas correctement amorcé Bonde d'aspiration piscine sont fermés	Arrêtez la pompe et placere la poignée dans la position correcte Placez le filtre dans un emplacement correct et l'amorcer Ouvrez les bondes d'aspiration à la piscine
Débit de l' aspiration insuffisant..	Couvercle d'aspiration ou couvercle du skimmer ne sont pas supprimés	Retirez le couvercle du skimmer ou/et de la bonde d' aspiration
Fonctionnement intermittent	Niveau d'eau du skimmer trop faible Filtre n'est pas correctement amorcé	Remplissez la piscine avec de l'eau et Amorcer le filtre Procéder à amorcer le filtre
Débit d' eau faible	Filtre est sale Filtre n'est pas correctement amorcé	Effectuer l'opération LAVAGE Amorcer le filtre
Eau apparaît dans l'ouverture du filtre	Union entre la couvercle et du corps de filtre est sale Couvercle n'est pas serrée	Nettoyez le sable reste de l'embouchure du filtre, placer le o-ring dans la couvercle et resserré le vise du couvercle fortement
Gouttes d'eau à travers la vanne de filtre par le terminal de vidange	o-ring endommagé par un usage incorrect des produits chimiques Couvercle de la vanne brisé raison d'une utilisation incorrecte ou excessive de serrage	Changer le couvercle de valve supérieure Ne placez pas de produits chimiques à l'intérieur du panier de skimmer Changer le couvercle de la vanne, ne serrez pas excessivement..

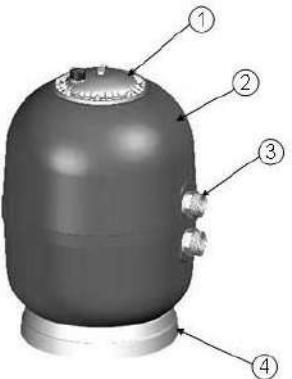


Fig.1

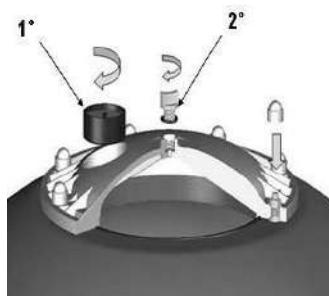


Fig.2

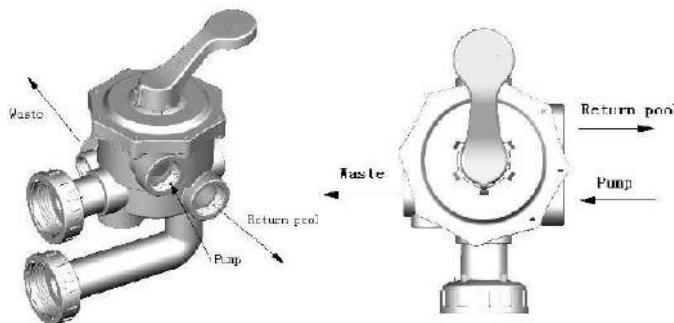


Fig.3



Fig.4

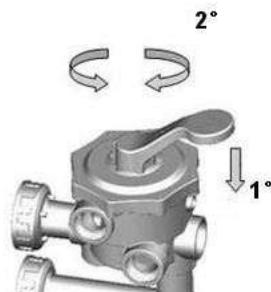
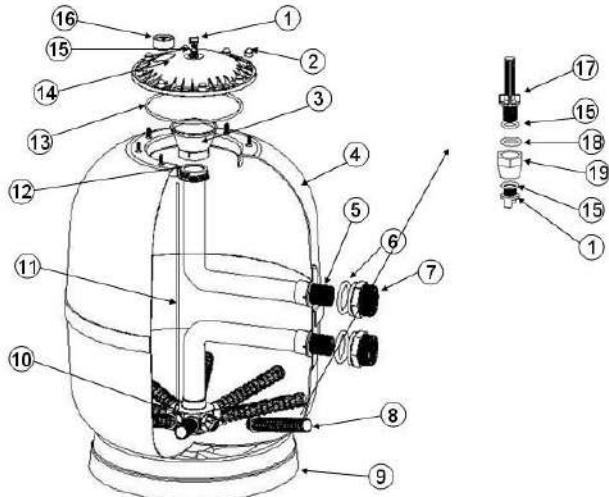


Fig.5



REFERENCIA	DENOMINATION	DENOMINACIÓN	DESIGNATION
1 Z-01003	Tampon purge 1/4"	Tapon Purga 1/4"	Bouchon de purge 1/4"
2 Z01002	Plastic plug M8	Tapon plastico M8	Bouchon en plastique M8
3 Z-01017	Diffuser $\frac{1}{2}$ " 50	Difusor $\frac{1}{2}$ " 50	Diffuseur $\frac{1}{2}$ " 50
4	Filter Body	Cuerpo de filtro	Cuve du filter
5 Z-01013/Z-01014	Terminal 1 1/2" and 2"	Terminal 1 1/2" y 2"	Terminal 1 1/2" and 2"
6 807505	O-ring $\frac{1}{2}$ " 5*	Junta purga $\frac{1}{2}$ " 5*	O-ring $\frac{1}{2}$ " 5*
7 Z-01005/Z-01006	Filter exit 1 1/2" and 2"	Salida filtro 1 1/2" y 2"	Sortie filtre 1 1/2" y 2"
8 Z-01009/Z-01010/Z-01011	Arm collector 110,205,245mm	Brazo colector 110,205,245mm	Collecteur brass 110,205,245mm
9 P01/P02/P03	Filter foot	Pie de filtro	.Base de filtre
10 Z-01012	Collector 8 arms	Colector 8 brazos	Collecteur 8 bras
11 T-06750	Pipe * $\frac{1}{2}$ " 6	Tubo * $\frac{1}{2}$ " 6	Pipe $\frac{1}{2}$ " 6
12 Z-01018	Support diffuser $\frac{1}{2}$ " 50	Difusor soporte $\frac{1}{2}"$ 50	Diffuseur $\frac{1}{2}"$ 50
13 802306	O-ring $\frac{1}{2}$ " 230*5, 7 epdm 65	Junta purga $\frac{1}{2}$ " 230*5, 7 epdm 65	O-ring $\frac{1}{2}$ " 230*5, 7 epdm 65
14 Z01001	Top cover	Tapa	Couvercle
15 801702	O-ring $\frac{1}{2}$ " 17*2	Junta purga $\frac{1}{2}$ " 17*2	O-ring $\frac{1}{2}$ " 17*2
16 Z-01004	Pressure gauge 1/8" 3kg D50	Manometro 1/8" 3kg D50	Manometre 1/8" 3kg D50
17 Z-01008	Purge 3/8"	Purga 3/8"	Purge 3/8"
18 802204	O-ring $\frac{1}{2}$ " 22*4	Junta purga $\frac{1}{2}$ " 22*4	O-ring $\frac{1}{2}$ " 22*4
19 Z-01007	Purge holder	Tuerca purga	Purge holder

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OWNER'S MANUAL

INSTALLATION, OPERATION & PARTS



WARNING

This equipment must be installed and serviced by a qualified technician in accordance with all applicable codes and ordinances. Improper installation can create hazards which could result in property damage, serious injury or death. Improper installation will void the warranty.

The **NOTICE** label indicates special instructions that are important but not related to hazards.



Notice to Installer

This manual contains important information about the installation, operation and safe use of this product. Once installation is complete, this manual must be given to the owner/ operator of this equipment.

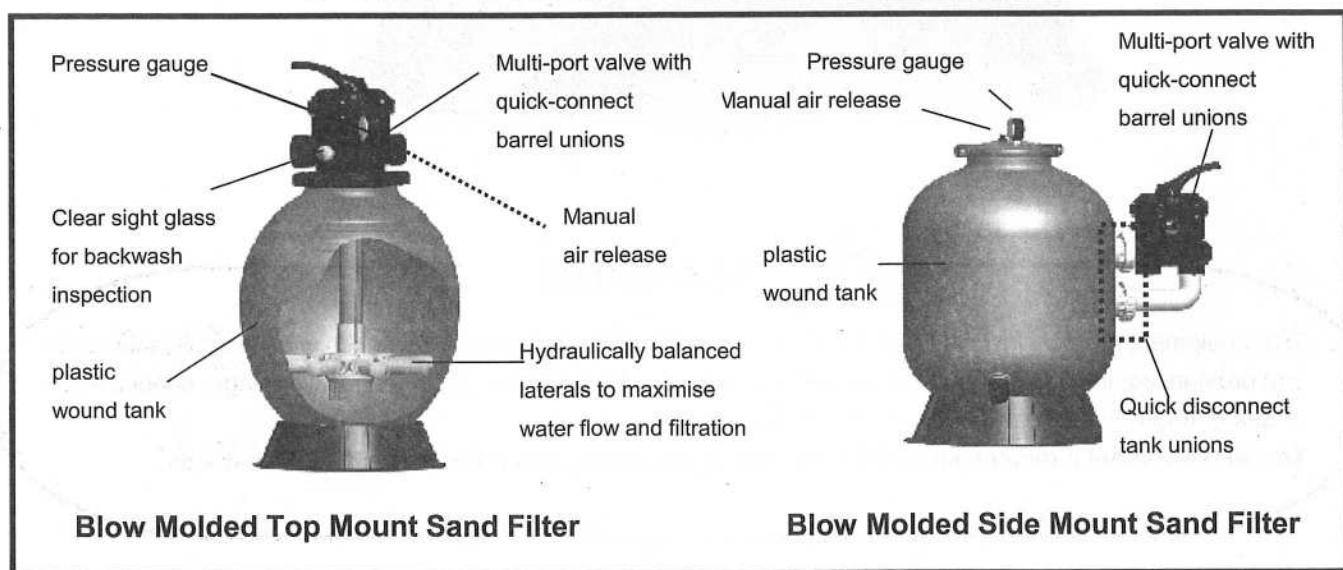
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SAFETY INFORMATION

1. Blow molded Sand Filters are designed to work with water at a temperature > than 0° C and < than 45° C.
The filter should never be operated outside of these temperatures or damage may occur.
2. The installation should be carried out in accordance to the safety instructions of swimming pools and the specific instructions for each facility.
3. The user should make sure that the installation is carried out by qualified authorized persons and that these persons have first carefully read the following instructions.
4. The operating safety of the filter is only guaranteed if the installation and operation instructions are correctly followed.
5. To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
6. Incorrectly installed equipment may fail, causing severe injury or property damage.
7. Chemical spills and fumes can weaken Swimming Pool/ Spa. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage. Do not store pool chemicals near your equipment.
8. Any modification of the filter requires the prior consent from the supplier's original replacement parts and accessories authorized by the manufacturer ensure a high level of safety. The supplier assumes no liability for the damage and injuries caused by unauthorized replacement parts and accessories.
9. In the event of defective operation or fault, contact the supplier or its nearest authorized service agent

BLOW MOLDED SAND FILTER



Blow Molded Top Mount Sand Filter

Blow Molded Side Mount Sand Filter

Sand Filtration

Incoming water from the piping system is automatically directed by the Multiport Valve to the top of the filter bed. As the water is pumped through the filter sand, dirt and debris are trapped by the filter bed, and filtered out. The filtered water is returned from the bottom of the filter tank, through the Multiport Valve and back through the piping system

INSTALLATION

1. Position the filter as close to the Swimming Pool/ Spa as possible.
2. Position the filter so that it is free from flooding, away from sumps, guttering, garden hollows, etc.
3. Position the filter so that the piping connections, Multiport Valve and winter drain is convenient and accessible for operation, servicing and winterizing.
4. Ensure that the compliance label is facing the front to allow easy identification in the case of service difficulties.
5. The filter should be placed on a level concrete slab, very firm ground, or equivalent. Ensure that the ground will not subside, preventing any strain from the attached plumbing.
6. Ensure that there is no movement of the filter during operation of the Multiport Valve.

Filling the Filter Media

1. Before filling the filter media into the filter vessel, do a visual check of the laterals. Look for broken or loose laterals. Replace if necessary.
2. To eliminate stress on the laterals, fill the filter vessel with enough water to provide a cushioning effect when the filter sand is poured in.

3. (a) Top Mount Sand Filters - Top Mount sand filters are supplied with a perforated plastic locator, which centers the stem and prevents media from entering the stem pipe. Place the perforated plastic locator on the centre stem of the filter and carefully pour in the filter media via the perforated holes of the plastic locator. Remove the plastic locator once completed.

NOTE: If a template is not provided or is lost you must center the stem and cover the stem opening to prevent non-alignment and media entering the stem pipe.

(b) Side Mount Sand Filters (SM650) – Remove the top diffuser from the internal diffuser pipe and place the flexible air relief tube to the side, out of the way, inside the filter vessel. Cap the internal diffuser pipe with the sand shield provided to prevent sand from entering it. DO NOT MOVE DIFFUSER PIPE as this can affect the integrity of the bulkhead seal.

NOTE: The above instructions do not apply to Side Mount Filters larger than SM650 filters. Any filter media entering the diffusers will be removed during normal operation.

4. Wash all the filter media and debris away from the threads of the filter vessel.
5. Lubricate the o-ring or gasket (bolt down type) MPV and thread to the filter. Lubricant should be silicon based and not petrochemical based lubes.
6. Thread the Multiport Valve or Top Cap onto the filter tank.

Plumbing

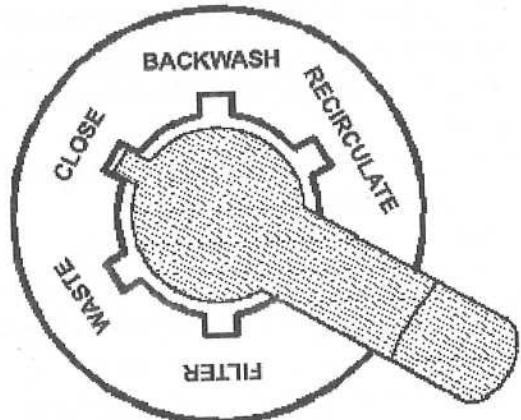
1. Check that the incoming water pressure is within the filter's recommended working pressure and ensure that a pressure limiting valve is installed if using mains water or a high pressure pump.
2. Ensure that a foot valve (non return valve) is installed if the pump is installed 500mm above the water level.
3. If the sand filter is installed below the water level or connected to mains water, isolation valves should be installed before the filter and after the valve. This will prevent water flow during any routine maintenance that may be required.
4. Minimize the length of pipe and the number of fittings to minimize friction loss to ensure maximum efficiency.
5. Connect all plumbing to the Multiport Valve taking care that all joints are glued or tightened securely to prevent leaking.
6. To prevent breakage and damage to the pump and Multiport Valve, use only pipe sealants specifically formulated for plastics.
7. Ensure solvents are not excessively applied to fittings as this could run into O'rings and create sealing problems.
8. Do not over tighten fittings or adapters.

Installation of the Multiport Valve

Top Mount Sand Filters are supplied with a screw down Multiport Valve. Supplied with the Multiport Valve are Flange clamp, screws and O-ring.

1. Screw the barrel unions onto the threaded ports on the Multiport Valve.
2. When rotating the Multiport Valve into position on a Top Mount Filter, leave some leeway for better alignment of plumbing.
3. Once the Multiport Valve is in position and the plumbing is aligned apply the thread tape to the barrel union thread.
4. Using the roll of Teflon tape wrap the Teflon tape around the thread (tail) of the barrel union in a clock wise direction.
5. Screw the barrel union into the thread of the Multiport Valve and hand tighten. The barrel union should be firmly threaded into the Multiport Valve and there should be no play between the thread.
6. Once you have done this tighten the barrel union with an appropriate tool until it is tight.
7. Repeat steps until all barrel unions are firmly onto the Multiport Valve.
8. Glue the plumbing to the Barrel unions and Allow 24 hours for glue (solvent) to set before starting the filter.
9. Test the filter and check for leaks around the threads. If leaking occurs disconnect plumbing and repeat the steps 2 to 6 until the leak has stopped.

MULTIPORT (4 & 6 Way) VALVE OPERATION



1. Filter - Position for filtering the body of water.

Incoming water from the piping system is automatically directed by the Multiport Valve to the top of the filter bed. As the water is pumped through the filter sand, dirt and debris are trapped by the filter bed, and filtered out. The filtered water is returned from the bottom of the filter tank, through the Multiport Valve and back through the piping system.

2. Backwash - Position for cleaning the filter media.

Water flow is reversed by the Multiport Valve through the filter bed so that water flow is directed to the bottom of the tank and up through the filter bed, flushing the previously trapped dirt and debris out the waste line.

3. Rinse - Position for flushing the filter system.

The water flow is directed by the Multiport Valve through the filter bed and out the waste line. This process settles the filter media bed into place and ensures any dirt or debris is rinsed out of the filter, preventing possible return to the Swimming Pool/ Spa.

4. Waste - Position for bypassing the filter bed to Waste.

The water flow is directed by the Multiport Valve straight to the backwash outlet, bypassing the entire filter bed. This Multiport Valve position is used lower the water level or for vacuuming water with high dirt loads.

NOTE: This position is not available on 4-Way Multiport Valves.

5. Re-circulate - Position for bypassing the filter bed to the Swimming Pool/ Spa.

The Multiport valve recirculates water flow directly back to the Swimming Pool/ Spa, bypassing the filter.

NOTE: This position is not available on 4-Way Multiport Valves.

6. Closed – Position for closing all flow to the filter.

This position is not to be used with the pump operating.

NOTE: This position is not available on 4-Way Multiport Valves.

NOTE: This position is not available on 4-Way Multiport Valves.

CAUTION: Operation of the Multiport Valve or mode selection is to be always done with the pump switched off.

INITIAL STARTUP OF FILTER

Be sure correct amount of filter sand media is in tank and that all connections have been made and are secure.

1. Depress Multiport Valve handle and rotate to the BACKWASH position.

NOTE: To prevent damage to control valve seal, always depress handle before turning.

2. Switch on the Pump/ Open the Inlet Valve allowing the filter tank to fill with water.

CAUTION: All suction and discharge valves must be open when starting the pump.

Failure to do so could cause severe personal injury and/or property damage.

NOTE: If a pump is installed, switch the pump on and off, instead of closing and opening the Inlet Valve.

3. Once water flow is steady out the waste line, run the pump for at least 1 minute. The initial backwashing of the filter is recommended to remove any impurities or fine sand particles in the sand media.

4. Turn the pump off, Multiport Valve to the RINSE position. Switch on the Pump/ Open the Inlet Valve until water in sight glass is clear — approximately 10 to 15 seconds.

5. Switch off the Pump/ Close the Inlet Valve, set the Multiport Valve to the FILTER position and Switch on the Pump/ Open the Inlet. Your filter is now operating in the normal filter mode.

6. Adjust pool suction and return valves to achieve desired flow. Check the plumbing and filter for water leaks and tighten connections, bolts, and nuts, as required.

NOTE: During initial clean-up of the pool water, it may be necessary to backwash frequently due to the unusually heavy initial dirt load in the water.

7. Record the pressure gauge reading (start up pressure) during initial operation. After a period of time, the accumulated dirt and debris in the filter causes a resistance to flow, and the flow diminishes. The pressure will start to rise and the flow of water will start diminishing. When the pressure gauge reading is 50 kPa(7.2 psi) higher than the initial "Start up" pressure, it is time to backwash (clean) the filter (see Backwashing).

NOTE: If the filter is connected to mains water, it is not necessary to record the "Start up" pressure, as mains pressure tends to fluctuate.

BACKWASHING

The function of backwashing is to separate the deposited particles from filter media grains and flush them from the filter bed. Backwashing is achieved by reversing the flow of water through the filter bed at a fairly high flow rate. This high flow rate expands the filter bed and the water collects the debris taking it to waste.

Conditions for Backwashing:-

Time for backwashing is determined by the following conditions:

1. The flow rate through the filter bed decreases until it is insufficient to meet the demand.
2. The removal efficiency of the filter bed decreases to the point where the effluent quality deteriorates and is no longer acceptable.
3. When the pressure gauge reading is 50 kPa (7.2 psi) higher than the start up pressure.
4. If the filter is connected to mains water, pressure rise is not an accurate indicator as mains pressure tends to fluctuate. It is best to rely on the actual flow rate.

NOTE: We recommends that you backwash a swimming pool sand filter in a residential installation at least once a month.

Importance of Backwashing

The importance of backwashing cannot be overstated. Dense filter media can become "packed" without proper and frequent enough backwashing. Debris will remain trapped and create channeling within the filter bed. This will result in the filter bed exhausting early. Moreover, if debris is not flushed from the media grains, the filter bed will become dirtier and dirtier as time goes on until the filter operation fails.

Backwashing Instructions:-

Switch off the Pump/ Close the Inlet Valve.

NOTE: If a pump is installed, switch the pump on and off, instead of closing and opening the Inlet Valve.

2. Release the filter's pressure by loosening Pressure Release Valve until the Pressure Gauge needle drops to zero <0>.
3. Retighten Pressure Release Valve.
4. Depress and turn Handle 180° to the BACKWASH position. In the BACKWASH position, the water flow is automatically reversed through the filter so that it is directed to the bottom of the filter vessel, up through the sand, flushing the previously trapped dirt and debris out the waste line.
5. Switch on the Pump/ Open the Inlet Valve. Backwash water will flow out through drain pipe.
6. When the backwash water in the sight glass appears clear,

Switch off the Pump/ Close the Inlet Valve.

7. Depress and turn the handle to the RINSE position. In the RINSE water flow is directed through the filter bed and out of the filter through the backwash outlet.

This process settles the filter media bed into place and ensures any dirt or debris is rinsed out of the filter, preventing possible return to the pool.

8. Switch on the Pump/ Open the Inlet Valve. Rinse water will flow out through the drain pipe.

9. When the rinse water in the sight glass appears clear.

Switch off the Pump/ Close the Inlet Valve.

10. Depress and turn the handle to the Filter position and Switch on the Pump/ Open the Inlet Valve for normal operation.

MAINTENANCE

The filter media will only require replacement once it has reached the limits of its designated life. Refer to the product information of the particular filter media used.

To ensure the maximum life of the selected filter media, please follow the procedures below:

1. Backwash the filter regularly according to the instructions set under "Backwashing".
2. Refer to the specifications of the filter media used and implement regeneration procedures accordingly.
3. Maintain a correct chemical balance your pool/spa water. The chemical balance of water is a relationship between its Ph, total alkalinity, calcium hardness and water temperature. The water must be maintained at all times to the following:
PH LEVEL: BETWEEN 7.2 & 7.8.
TOTAL ALKALINITY: BETWEEN 80 & 150ppm.
CALCIUM HARDNESS: BETWEEN 150 & 300ppm.
And within these tolerances be balanced to the Langelier Saturation Index within a range of -0.2 to +0.2.
- NOTE: Testing kits are available to test the water yourself or alternately bring a sample of the water to a professional pool and spa shop.**
4. Mains water and rural water supplies need to be monitored. Saturation (life) in mains water or bore (rural) will vary depending on water quality.
5. To prevent damage to the pump and filter and for proper operation of the system, clean pump strainer and skimmer baskets regularly.
6. Replace the pressure gauge if faulty readings are observed.

SPECIFICATIONS

MODEL NUMBER	DESIGN FLOW RATE		MAXIMUM WORKING PRESSURE		FILTER AREA		MEDIA REQUIRED		
	GPM	M ³ /H	PSI	BAR	ft ²	m ²	TYPE	AMOUNT	
							FILTERSAND	LBS	KG
73025	20	4.5	50	3.5	0.53	0.05	0.45-0.56mm (0.018-0.022in)	30	13.6
73031	30	7			0.76	0.07		45	20.4
73038	35	7.9			1.16	0.107		80	36
73035	30	7			1.04	0.1		60	27
73040	35	7.9			1.25	0.12		100	45
73047	40	9			1.8	0.16		110	50
73050	40	9			2.0	0.19		175	75
73054	45	10			2.69	0.25		285	130
73057	45	10			2.74	0.255		285	130
73060	49	11			2.8	0.26		300	135
73041	35	7.9			1.25	0.12		100	45
73051	40	9			2.0	0.19		175	75
73061	49	11			2.8	0.26		300	135
73045	40	9			1.8	0.16		110	50
73055	45	10			2.5	0.23		220	100
73065	53	12			3.6	0.34		350	160
73030	26	6			0.78	0.07		42	19
73046	40	9			1.8	0.16		110	50
73056	45	10			2.5	0.23		220	100
73066	53	12			3.6	0.34		350	160
73080	98	22.2			4.9	0.45		500	227
73090	130	29.5			6.5	0.6		700	317

TROUBLE SHOOTING

Above normal or excessive force to operate the Multiport Valve	Scoring or jamming with foreign matter or debris. If this condition persists after rinsing, disassemble the valve to clear. Continued operation of the valve may result in a non-sealing condition (damage to spider gasket). This will lead to water loss to the backwash line or to inefficient filtration.	Filter Media in the backwash	1. Excessive quantity of media in the filter. 2. Excessive water flow. 3. Incorrect sized or grade of filter media.
Dirty Water	1. Insufficient filtration time. 2. Heavy contaminants or dirt load. 3. Dirty filter, requires backwashing. 4. Air leaking on suction (influent line). 5. Pump impeller vanes blocked. 6. In sufficient water supply (water level low, blockage). 7. Pump not primed. 8. In correct water chemistry. 9. Excessive flow of water for filter size. Foreign matter or debris forced through filter bed and through the under drain. 10. Other restrictions including (pool suction cleaners) resistance from other inline equipment such as strainers. Operating the filter on recirculate will determine if the restriction is in the filter. 11. Clogged or channeled filter media. Perform backwash or regeneration. Refer to maintenance section.	Filter Media returning to Swimming Pool/ Spa	1. Filter is on recirculate. 2. Verify it is the filter media and not from another source. 3. Damage to the under-drain laterals. 4. Damage or incorrect fit of Multiport Valve are correct. 5. Incorrect or mixed grades of media in the filter.
		Short filtration cycles	1. Presence of algae or a scale builds up. 2. Check water chemistry. 3. Excessive water flow, check pump size, mains water flow. 4. Filter blocked through calcium etc. clean filter media.

TROUBLE SHOOTING

Above normal or excessive force to operate the Multiport Valve	Scoring or jamming with foreign matter or debris. If this condition persists after rinsing, disassemble the valve to clear. Continued operation of the valve may result in a non-sealing condition (damage to spider gasket). This will lead to water loss to the backwash line or to inefficient filtration.	Filter Media in the backwash	1. Excessive quantity of media in the filter. 2. Excessive water flow. 3. Incorrect sized or grade of filter media.
Dirty Water	1. Insufficient filtration time. 2. Heavy contaminants or dirt load. 3. Dirty filter, requires backwashing. 4. Air leaking on suction (influent line). 5. Pump impeller vanes blocked. 6. In sufficient water supply (water level low, blockage). 7. Pump not primed. 8. In correct water chemistry. 9. Excessive flow of water for filter size. Foreign matter or debris forced through filter bed and through the under drain. 10. Other restrictions including (pool suction cleaners) resistance from other inline equipment such as strainers. Operating the filter on recirculate will determine if the restriction is in the filter. 11. Clogged or channeled filter media. Perform backwash or regeneration. Refer to maintenance section.	Filter Media returning to Swimming Pool/ Spa	1. Filter is on recirculate. 2. Verify it is the filter media and not from another source. 3. Damage to the under-drain laterals. 4. Damage or incorrect fit of Multiport Valve are correct. 5. Incorrect or mixed grades of media in the filter.
		Short filtration cycles	1. Presence of algae or a scale builds up. 2. Check water chemistry. 3. Excessive water flow, check pump size, mains water flow. 4. Filter blocked through calcium etc. clean filter media.