



INSTRUCTION AND MAINTENANCE MANUAL

MODELS

OCEAN INDUSTRIAL

BARI

BALTICO

INDICO



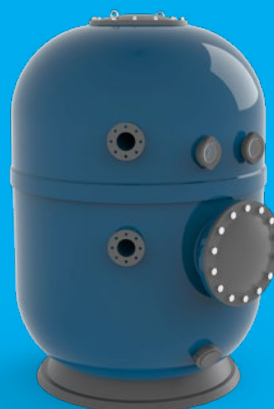
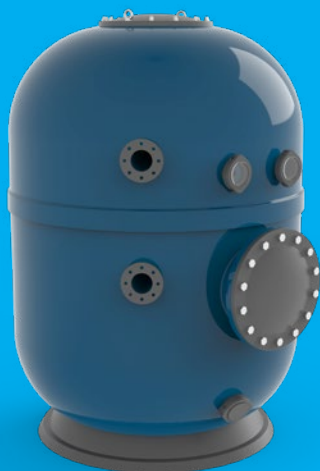
BARI



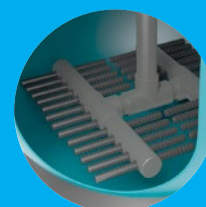
OCEAN
INDUSTRIAL



BALTICO



INDICO





INSTRUCTION AND MAINTENANCE MANUAL

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OCEAN INDUSTRIAL

SPECIFICATIONS

Filter for a public pool, manufactured to industrial standards, reinforced fiberglass tank. UV ray resistant. Fitted as standard with a pressure relief valve.

- Filter bed: 1 metre.
- Upper cap diameter of 400mm in reinforced fiberglass.
- Emptying of the filter aid via a 3" drain and 1" cap.
- PVC connection flanges.
- Filter with special ozone-resistant treatment available upon request.
- Optional 5-valve manifold with flanges.

BARI

SPECIFICATIONS

Commercial filters for public pools, made with industrial standards, reinforced fibreglass tank, UV resistant. Overpressure safety valve included. With nozzles bottom plate. Side man hole included. Top lid and side lid of 400mm made in reinforced fibreglass. Equipped as standard with overpressure safety valve and Side Man Hole.

- Filter bed: 1 m.
- OPTIONAL: 5 valves battery with PVC connections.
- Emptying the filter aid via a 75mm drain and 1" cap.
- PVC connection flanges.

BALTICO

SPECIFICATIONS

Commercial filters for public pools, made with industrial standards, reinforced fibreglass tank, UV resistant. Bottom with nozzle plate. Side manhole. Top lid and side lid of 400mm made in reinforced fibreglass. Equipped as standard with overpressure safety valve.

- Bed depth: 1,2 meter.
- Drain set dia 75mm. plug 1".
- PVC connection flanges.
- Filter with special ozone-resistant treatment available upon request.
- Optional 5 valves battery with PVC connections.



INDICO

SPECIFICATIONS

Commercial filters for public pools, made with industrial standards, reinforced fibreglass tank, UV resistant. Bottom with nozzle plate. Side manhole. Top lid and side lid of 400mm made in reinforced fibreglass. Equipped as standard with overpressure safety valve.

- Bed depth: 1,2 meter.
- Drain set dia 75mm. plug 1".
- PVC connection flanges.
- Filter with special ozone-resistant treatment available upon request.
- Optional 5 valves battery with PVC connections.



OCEAN INDUSTRIAL

MODEL	Ø	CONNECTION	FILTERING SURFACE	SPEED	FLOW	DIMENSIONS (mm)				GRAVEL (1-2mm)	SAND (0.4-0.8mm)
	mm	mm	m²	m³/h/m²	m³/h	A	B	C	D	(Kg)	(Kg)
OC1050.20	1050	63	0.87	20	17	1755	1050	685	520	200	1100
OC1050.34	1050	75	0.87	30-40	26-34	1755	1050	685	520	200	1100
OC1050.50	1050	90	0.87	50	43	1755	1050	685	520	200	1100
OC1200.23	1200	75	1.13	20-30	23-34	1755	1200	685	520	250	1450
OC1200.45	1200	90	1.13	40-50	45-56	1755	1200	685	520	250	1450
OC1400.20	1400	75	1.54	20	31	1755	1400	685	520	375	2050
OC1400.30	1400	90	1.54	30	46	1755	1400	685	520	375	2050
OC1400.45	1400	110	1.54	40-50	62-77	1755	1400	685	520	375	2050
OC1600.20	1600	90	2.01	20	40	1755	1600	685	520	500	2350
OC1600.34	1600	110	2.01	30-40	60-80	1755	1600	685	520	500	2350
OC1600.50	1600	125	2.01	50	100	1755	1600	685	520	500	2350
OC1800.20	1800	90	2.54	20	51	1980	1800	700	720	750	3350
OC1800.30	1800	110	2.54	30	76	1980	1800	700	720	750	3350
OC1800.40	1800	125	2.54	40	102	1980	1800	700	720	750	3350
OC1800.50	1800	140	2.54	50	125	1980	1800	700	720	750	3350
OC2000.20	2000	110	3.14	20	63	1980	2000	700	720	1000	4300
OC2000.30	2000	125	3.14	30	94	1980	2000	700	720	1000	4300
OC2000.40	2000	140	3.14	40	126	1980	2000	700	720	1000	4300
OC2000.50	2000	160	3.14	50	157	1980	2000	700	720	1000	4300

TECHNICAL DATA

WORKING PRESSURE 0.6 -2 kg/cm²

MAXIMUM PRESSURE 2.5 kg/cm²

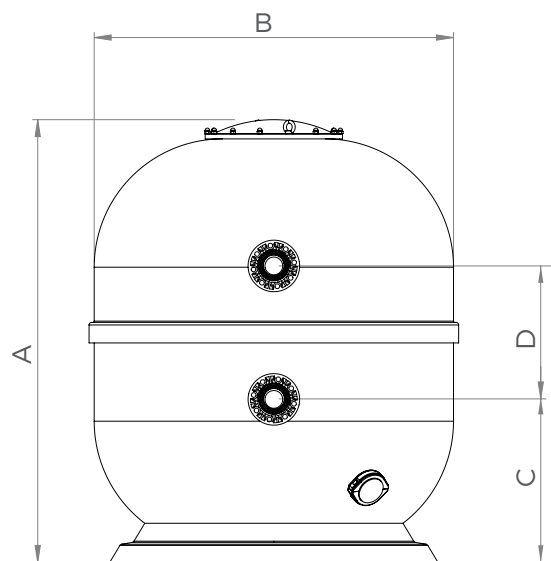
TESTING PRESSURE 3.75 kg/cm²

OPERATING TEMP 1° - 40°C

TOP HOLE Ø 400 mm

DRAIN: WATER/SAND 1" / 3 "

BED DEPTH 1 m



MODELO MODEL MODÈLE	Ø	CONEXIÓN CONNECTION CONNEXION	SUP. FILTRANTE FILTERING SURFACE SURFACE FILTRANTE	VELOCIDAD SPEED VITESSE	CAUDAL FLOW DEBIT	DIMENSIONES / DIMENSIONS / DIMENSIONS (mm)					GRAVA / GRAVEL / GRAVIER (1-2mm)	ARENA / SAND / SABLE (0,4-0,8mm)
	mm	mm	m²	m³/h/m²	m³/h	A	B	C	D	E	(Kg)	(Kg)
BARI1050.20	1050	63	0,87	20	17	1755	1050	685	1205	831	200	1100
BARI1050.34	1050	75	0,87	30-40	26-34	1755	1050	685	1205	831	200	1100
BARI1050.50	1050	90	0,87	50	43	1755	1050	685	1205	831	200	1100
BARI1200.23	1200	75	1,13	20-30	23-34	1755	1200	685	1205	831	250	1450
BARI1200.45	1200	90	1,13	40-50	45-56	1755	1200	685	1205	831	250	1450
BARI1400.20	1400	75	1,54	20	31	1755	1400	685	1205	831	375	2050
BARI1400.30	1400	90	1,54	30	46	1755	1400	685	1205	831	375	2050
BARI1400.45	1400	110	1,54	40-50	62-77	1755	1400	685	1205	831	375	2050
BARI1600.20	1600	90	2,01	20	40	1755	1600	685	1205	831	500	2350
BARI1600.34	1600	110	2,01	30-40	60-80	1755	1600	685	1205	831	500	2350
BARI1600.50	1600	125	2,01	50	100	1755	1600	685	1205	831	500	2350
BARI1800.20	1800	90	2,54	20	51	1980	1800	700	1420	956	750	3350
BARI1800.30	1800	110	2,54	30	76	1980	1800	700	1420	956	750	3350
BARI1800.40	1800	125	2,54	40	102	1980	1800	700	1420	956	750	3350
BARI1800.50	1800	140	2,54	50	125	1980	1800	700	1420	956	750	3350
BARI2000.20	2000	110	3,14	20	63	1980	2000	700	1420	956	1000	4300
BARI2000.30	2000	125	3,14	30	94	1980	2000	700	1420	956	1000	4300
BARI2000.40	2000	140	3,14	40	126	1980	2000	700	1420	956	1000	4300
BARI2000.50	2000	160	3,14	50	157	1980	2000	700	1420	956	1000	4300

DATOS TÉCNICOS TECHNICAL DATA DONNÉES TECHNIQUES

PRESIÓN DE TRABAJO
WORKING PRESSURE
PRESSION DE TRAVAIL

2,5 kg/cm²

PRESIÓN DE PRUEBA
TESTING PRESSURE
PRESSION PREUVE

3,75 kg/cm²

TEMPERATURA TRABAJO
OPERATING TEMP
TEMP. DE FONCTION

1° - 40°C

BOCA DE HOMBRE SUPERIOR
TOP MAN HOLE
BOUCHE DE HOMME SUPERIEURE

Ø 400 mm

DESAGÜE: AGUA/ARENA
DRAIN: WATER/SAND
DRAINAGE: EAU/SABLE

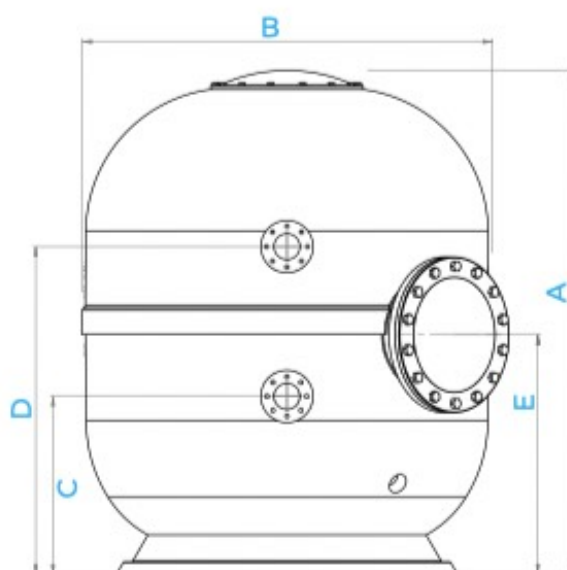
1" / 75 mm

LECHO FILTRANTE
BED DEPTH
LIT FILTRANT

1000 mm

BOCA HOMBRE LATERAL
SIDE MAN HOLE
BOUCHE DE HOMME LATERAL

Ø 400 mm



BALTICO

MODELO MODEL MODÈLE	Ø	CONEXIÓN CONNECTION CONNEXION	SUP. FILTRANTE FILTERING SURFACE SURFACE FILTRANTE	VELOCIDAD SPEED VITESSE	CAUDAL FLOW DEBIT	DIMENSIONES / DIMENSIONS / DIMENSIONS					GRAVA / GRAVEL / GRAVIER (1-2mm)	ARENA / SAND / SABLE (0,4-0,8mm)
						A	B	C	D	E		
	mm	mm	m²	m³/h/m²	m³/h						(Kg)	(Kg)
BTC1050.20	1050	63	0,87	20	17	2037	1050	917	1437	861	200	1320
BTC1050.34	1050	75	0,87	30-40	26-34	2037	1050	917	1437	861	200	1320
BTC1050.50	1050	90	0,87	50	43	2037	1050	917	1437	861	200	1320
BTC1200.23	1200	75	1,13	20-30	23-34	2037	1200	917	1437	861	250	1740
BTC1200.45	1200	90	1,13	40-50	45-56	2037	1200	917	1437	861	250	1740
BTC1400.20	1400	75	1,54	20	31	2037	1400	917	1437	861	375	2460
BTC1400.30	1400	90	1,54	30	46	2037	1400	917	1437	861	375	2460
BTC1400.45	1400	110	1,54	40-50	62-77	2037	1400	917	1437	861	375	2460
BTC1600.20	1600	90	2,01	20	40	2037	1600	917	1437	861	500	2820
BTC1600.34	1600	110	2,01	30-40	60-80	2037	1600	917	1437	861	500	2820
BTC1600.50	1600	125	2,01	50	100	2037	1600	917	1437	861	500	2820
BTC1800.20	1800	90	2,54	20	51	2262	1800	932	1652	861	750	4020
BTC1800.30	1800	110	2,54	30	76	2262	1800	700	1652	861	750	4020
BTC1800.40	1800	125	2,54	40	102	2262	1800	700	1652	861	750	4020
BTC1800.50	1800	140	2,54	50	125	2262	1800	700	1652	861	750	4020
BTC2000.20	2000	110	3,14	20	63	2262	2000	700	1652	861	1000	5160
BTC2000.30	2000	125	3,14	30	94	2262	2000	700	1652	861	1000	5160
BTC2000.40	2000	140	3,14	40	126	2262	2000	700	1652	861	1000	5160
BTC2000.50	2000	160	3,14	50	157	2262	2000	700	1652	861	1000	5160

DATOS TÉCNICOS TECHNICAL DATA DONNÉES TECHNIQUES

PRESIÓN DE TRABAJO
WORKING PRESSURE
PRESSION TRAVAIL

0,6 - 2 kg/cm²

PRESIÓN MÁXIMA
MAXIMUM PRESSURE
PRESSION MAXIMALE

2,5 kg/cm²

PRESIÓN DE PRUEBA
TESTING PRESSURE
PRESSION PREUVE

3,75 kg/cm²

TEMPERATURA TRABAJO
OPERATING TEMP
TEMP. DE FONCTIONNE

1° - 40°C

BOCA SUPERIOR
TOP HOLE
OUVERTURE SUPÉRIEURE

Ø 400 mm

DESAGÜE: AGUA/ARENA
DRAIN: WATER/SAND
DRAINAGE: EAU/SABLE

1" / 3"

ALTURA DEL LECHO FILTRANTE
BED DEPTH
LID FILTRANT

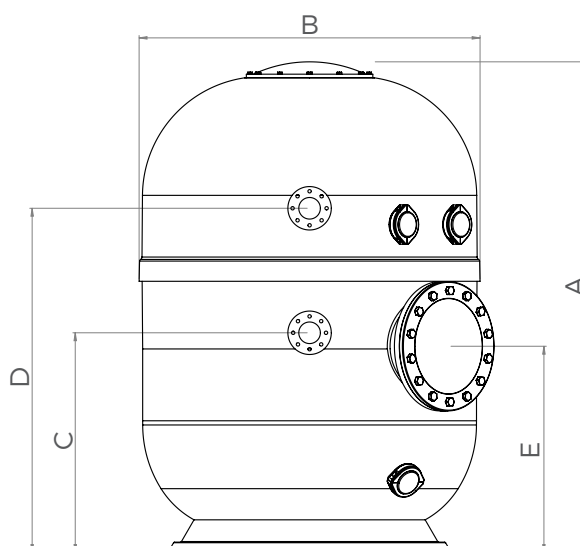
1200 mm

BOCA HOMBRE LATERAL
SIDE MAN HOLE
BOUCHE DE HOMME LATERAL

Ø 400 mm

DOS VISORES TRANSPARENTES - OPCIONAL
TWO SIGHTGLASSES - OPTIONAL
DEUX VISEURS TRANSPARENTES - OPTIONNEL

Ø 90 mm



MODELO MODEL MODÈLE	Ø	CONEXIÓN CONNECTION CONNEXION	SUP. FILTRANTE FILTERING SURFACE SURFACE FILTRANTE	VELOCIDAD SPEED VITESSE	CAUDAL FLOW DEBIT	DIMENSIONES / DIMENSIONS / DIMENSIONS (mm)					GRAVA / GRAVEL / GRAVIER (1-2mm)	ARENA / SAND / SABLE (0,4-0,8mm)
	mm	mm	m²	m³/h/m²	m³/h	A	B	C	D	E	(Kg)	(Kg)
IN1050.20	1050	63	0,87	20	17	2037	1050	917	1437	861	200	1320
IN1050.34	1050	75	0,87	30-40	26-34	2037	1050	917	1437	861	200	1320
IN1050.50	1050	90	0,87	50	43	2037	1050	917	1437	861	200	1320
IN1200.23	1200	75	1,13	20-30	23-34	2037	1200	917	1437	861	250	1740
IN1200.45	1200	90	1,13	40-50	45-56	2037	1200	917	1437	861	250	1740
IN1400.20	1400	75	1,54	20	31	2037	1400	917	1437	861	375	2460
IN1400.30	1400	90	1,54	30	46	2037	1400	917	1437	861	375	2460
IN1400.45	1400	110	1,54	40-50	62-77	2037	1400	917	1437	861	375	2460
IN1600.20	1600	90	2,01	20	40	2037	1600	917	1437	861	500	2820
IN1600.34	1600	110	2,01	30-40	60-80	2037	1600	917	1437	861	500	2820
IN1600.50	1600	125	2,01	50	100	2037	1600	917	1437	861	500	2820
IN1800.20	1800	90	2,54	20	51	2262	1800	932	1652	861	750	4020
IN1800.30	1800	110	2,54	30	76	2262	1800	700	1652	861	750	4020
IN1800.40	1800	125	2,54	40	102	2262	1800	700	1652	861	750	4020
IN1800.50	1800	140	2,54	50	125	2262	1800	700	1652	861	750	4020
IN2000.20	2000	110	3,14	20	63	2262	2000	700	1652	861	1000	5160
IN2000.30	2000	125	3,14	30	94	2262	2000	700	1652	861	1000	5160
IN2000.40	2000	140	3,14	40	126	2262	2000	700	1652	861	1000	5160
IN2000.50	2000	160	3,14	50	157	2262	2000	700	1652	861	1000	5160

DATOS TÉCNICOS TECHNICAL DATA DONNÉES TECHNIQUES

PRESIÓN DE TRABAJO
WORKING PRESSURE
PRESSION TRAVAIL

0,6 - 2 kg/cm²

PRESIÓN MÁXIMA
MAXIMUM PRESSURE
PRESSION MAXIMALE

2,5 kg/cm²

PRESIÓN DE PRUEBA
TESTING PRESSURE
PRESSION PREUVE

3,75 kg/cm²

TEMPERATURA TRABAJO
OPERATING TEMP
TEMP. DE FONCTIONE

1° - 40°C

BOCA SUPERIOR
TOP HOLE
OUVERTURE SUPÉRIEURE

Ø 400 mm

DESAGÜE: AGUA/ARENA
DRAIN: WATER/SAND
DRAINAGE: EAU/SABLE

1" / 3"

ALTURA DEL LECHO FILTRANTE
BED DEPTH
LID FILTRANT

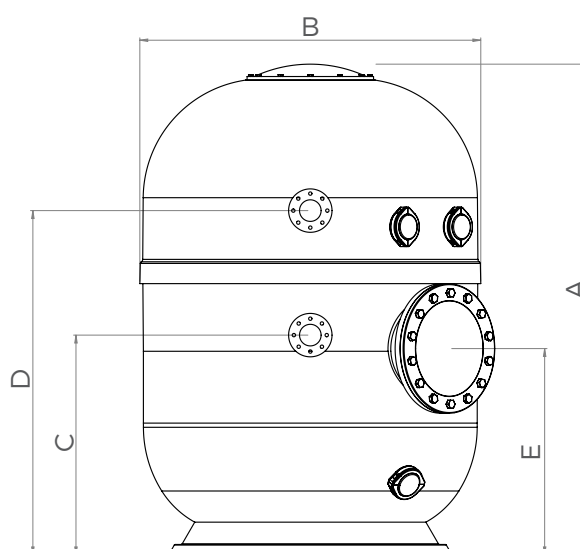
1200 mm

BOCA HOMBRE LATERAL
SIDE MAN HOLE
BOUCHE DE HOMME LATERAL

Ø 400 mm

DOS VISORES TRANSPARENTES - OPCIONAL
TWO SIGHTGLASSES - OPTIONAL
DEUX VISEURS TRANSPARENTES - OPTIONNEL

Ø 90 mm



1. HANDLING

1.1. PACKAGING

The filters are delivered on wooden pallets suited to the size of the filter, and in a vertical position as standard. They are wrapped in a protective film.

1.2. STORAGE

If a filter is not going to be installed immediately, it must be kept in its original packaging and stored under cover, protected from the sun and inclement weather.

1.3. HOW TO MOVE THEM

- Use a forklift truck or crane to load, unload and move the filters.
- Use the lifting eyebolts of the filters to lift and transport them to the desired location. Use a cable or sling appropriate to the weight of the filter. The filter must always be empty of sand and water when being moved or handled.
- Never roll the filter to move it.
- When moving the filter, never hold it by the inlet or outlet connections, the top hole or sight glasses.
- Never attach a hook to the inside of the filter to lift or pull it.
- The filters are made to resist internal pressure, but they are very vulnerable to side-on impact. Avoid knocking the filters.
- When placing the filter in its final location, ensure that the surface of the ground is perfectly flat and clean. It is therefore necessary to leave enough space around the filter to allow for checks and maintenance operations to be carried out.

2. INSTALLATION

2.1. ENGINE ROOM

The engine room must have a large enough surface area to allow for installation according to the size of the filters, and to facilitate installation and handling of the valve manifolds, as well as proper maintenance.

There must be a drainage system to prevent flooding in the case of accidental leakage of water from the pipes, filters and pumps, as well as good ventilation.

2.2. INSTALLATION OF VALVE MANIFOLDS

Install the valve manifold before loading the filter with the filter aid. The valve manifold brackets will support the weight of the valves, the pipes and the water inside them, and will reduce the effort that the filter connections will need to withstand. It is necessary to install these brackets on a sufficiently resistant surface and adjust their height correctly.

2.3. HYDRAULIC TEST

Test the filters with water by running the system before filling them with filter aid. This hydraulic test will detect any problems with water tightness that may have arisen with the filter or the set up.

2.4. FILLING THE FILTER

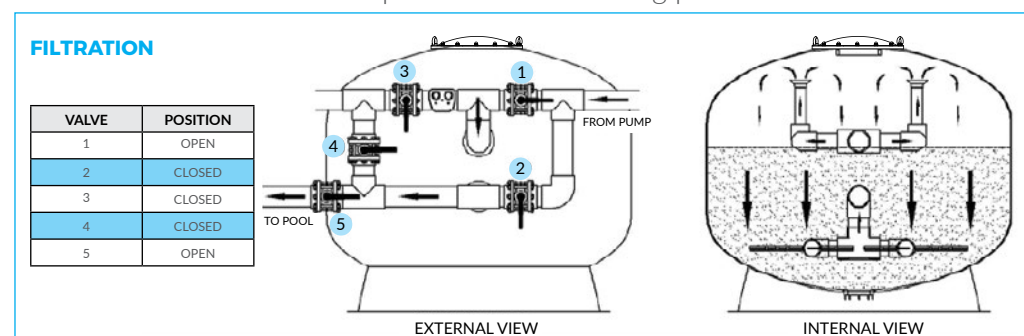
- Remove the upper cap of the filter and the side cover (if applicable).
- Check the condition of the internal parts before starting to load the filter aid into the filter. The diffuser and collector must be in perfect condition, and the nozzles must be in their correct place and fully tightened.
- Before loading the filter aid into the filter, fill it approximately halfway with water. If it is a model with a side hole, fill it up to the level of the side hole. This will prevent damage to the nozzles or collector arms while the filter is being loaded with the filter aid.
- Use a filter aid that is recommended according to the technical information supplied in the filter specifications.
- The first layer of gravel should cover the collector and reach to about 10cm above it and be spread evenly across the whole surface. Care should be taken when carrying out this procedure so as not to damage the collector.
- Load the following layers of sand following the same procedure, until the maximum recommended height is reached.
- Once the height of the side hole has been reached, replace the cap to continue filling the filter.
- Carefully clean the neck of the filter, the cap and the cap seal, removing any remaining traces of filter aid. Finally replace the seal and then replace and tighten the cap.
- Once the filter is full and correctly closed, it must be cleaned.

3. OPERATION

Before opening or closing the valve manifolds, it is essential to always turn off the pump and ensure that there is no water flowing inside the pipes.

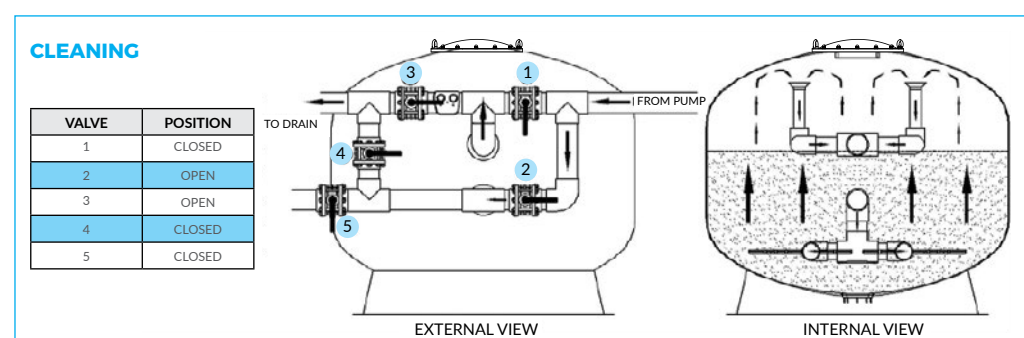
3.1. FILTRATION

The valve manifolds must be placed in the following position:



Periodically check the pressure differential between the inlet and outlet connections. When this reaches 0.8 - 1.0 bar, the filter will need to be cleaned.

3.2. CLEANING



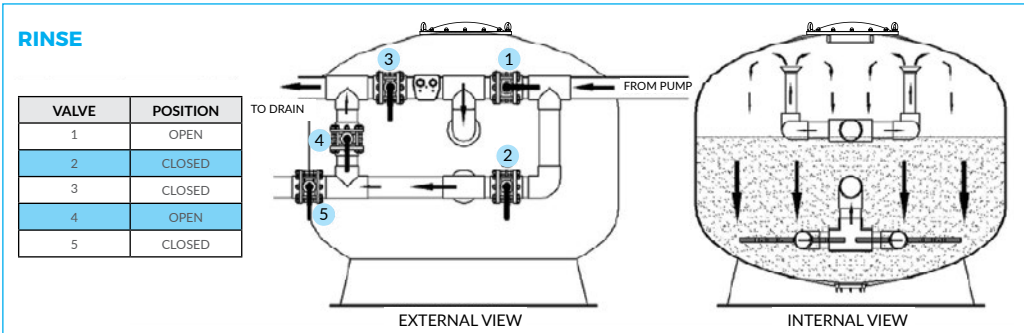
In order to properly clean the filter, a flow of 40-50 m³/h/m² is recommended for filters equipped with collector arms, and up to 60 m³/h/m² for filters with a nozzle plate.

The maximum flow for cleaning is limited by the speed of the maximum flow allowed through the pipes of the valve manifold, depending on the diameter. Filters equipped with a nozzle plate can be cleaned with air as well as water. The

air is used to loosen and fluff up the sand bed, to achieve more efficient cleaning. This saves on the amount of water used during cleaning.

3.3. RINSE

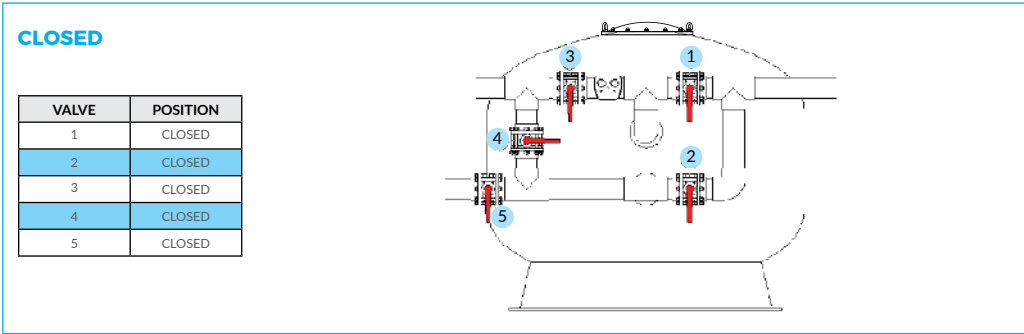
The valve manifolds must be placed in the following position:



Carry out this operation after cleaning, to eliminate any remaining traces of dirt that may have been able to get into the collectors during cleaning. Operation time: 3 minutes.

3.4. CLOSED

The valve manifolds must be placed in the following position:



During all maintenance operations, all of the valves must be closed.



3.5. REMOVING THE SAND FROM THE FILTER

- Empty the filter by opening the drain situated on the bottom of the filters.
- Remove the upper cap to remove the sand.
- One person should help to remove the sand from the filter from the inside.

A side hole (optional) is very useful for helping to remove the sand, and for maintenance tasks.

IMPORTANT CONSIDERATIONS

Pressure filters must only be operated by qualified personnel. Operators must have received training in the tasks involved in operating the filter, and be informed of the dangers and harm that it can entail.

- Use a pressure gauge panel to control the filter pressure.
- The operating pressure of the filter must never exceed the maximum pressures recommended in the technical data.
- Pressurised containers cannot withstand negative internal pressures, therefore the appropriate measures must be taken when installing them to avoid this situation.
- It is recommended to use equipment with a maximum allowable pressure 20% higher than the maximum pressure that the equipment will need to operate under.
- Never connect the filter directly to the water supply, as the pressure from the mains always exceeds the maximum pressure tolerated by the filter.
- Always bleed the air from the inside of the filter before starting the cycle.
- The pressure differential between the inlet and outlet connections must never exceed 1.0 bar. A higher difference in pressure than that could damage the collector or the nozzle plate.
- The cleaning process should never exceed the maximum operating pressure of the filter.
- When using air for cleaning, the internal pressure must not exceed 1.0 bar. Use a blower, and never a compressor, to inject air into the filter.
- The operating temperature range must be kept to at all times. The minimum operating temperature for all of the filters is 1°C. The maximum operating temperature is 40°C.
- In filters that have been treated for contact with ozone (O₃), the maximum concentration of O₃ must never exceed 2ppm. The standard filters are not suitable for contact with ozone.
- The filters must be installed in a way that allows maintenance, repair and testing tasks to be carried out easily and correctly. Install the filter with the identification label visible, and keep this identification.



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