



**FILTRATION**





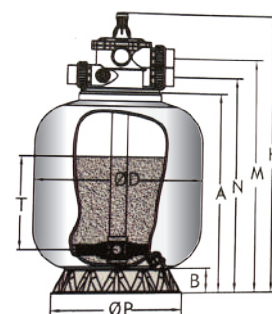
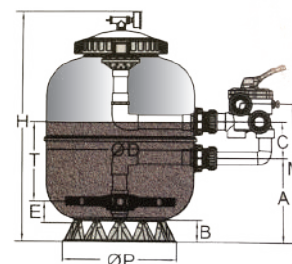
# FILTRATION

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## ► Whale Laminated Sand Filters

Filtration



Clear Top Lid

### Technical Specification

Code	Diameter mm	Flow Rate m <sup>3</sup> /h	Connection	Filtration Area m <sup>2</sup>	Sand kg	H mm	A mm	C mm	M mm	B mm	Weight kg	Volume m <sup>3</sup>
Side Mounted Filters												
00521450	450	7	1.5"	0.16	50	660	260	125	444	434	8.5	0.16
00521500	500	10	1.5"	0.20	100	745	280	125	464	471	12	0.21
00521650	650	15	1.5"	0.30	175	805	310	125	494	484	13	0.33
00521750	750	22	2"	0.37	225	885	360	125	534	544	20	0.44
00521800	800	25	2"	0.50	400	1020	385	220	680	695	41.5	0.70
00521900	900	32	2"	0.64	500	1120	430	220	725	745	48.5	0.95
Top Mounted Filters												
00531400	400	5.5	1.5"	0.13	45	750	500	609	550	430	6	0.11
00531450	450	7	1.5"	0.16	75	815	620	674	615	434	8	0.16
00531500	500	10	1.5"	0.20	105	870	870	620	729	471	9.8	0.21
00531650	650	15	1.5"	0.30	175	875	625	775	676	484	13	0.33
00531750	750	22	2"	0.37	225	980	725	835	776	544	18.5	0.43
00531800	800	25	2"	0.50	400	1145	845	988	908	695	41	0.71
00531900	900	32	2"	0.64	500	1270	970	1122	1032	745	48	0.95

### Description

PROTEAM Europa High Quality Laminated Sand Filter specially Designed for Swimming Pools, Spa and Water Features . Totally Non- Corrosive Fiberglass | Durable in all Weather conditions | UV Resistant surface Finish Provides Protection to Harmful Exposure From Sunlight | Special Designed Finger Laterals with Side Slot to Maximum Flow Rate. Smooth and High Brightness Appearance | 6 Way Multiport Valve | Sight Glass for Inspection of Filtered Water. Easy Maintenance, Easy Cleaning | Maximum Working Pressure 2.5kg/cm<sup>2</sup>. Maximum temperature 50°C. Eco friendly filtration media. Testing Pressure 4kg/cm<sup>2</sup>.

\*Flow rate are calculated at velocity of 50m<sup>3</sup> /h m<sup>2</sup>

\*Sand granulometry 0.5 - 1mm



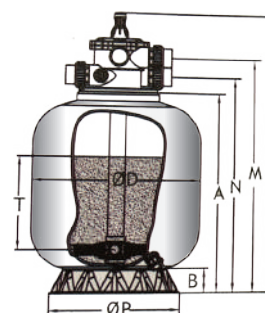
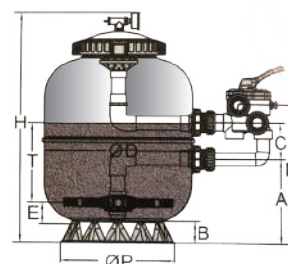
# Filtration



## ► Dora Laminated Sand Filters



Clear Top Lid



### Technical Specification

Code	Diameter mm	Flow Rate m <sup>3</sup> /h	Connection	Filtration Area m <sup>2</sup>	Sand kg	H mm	A mm	C mm	M mm	B mm	Weight kg	Volume m <sup>3</sup>
Side Mounted Filters												
00522450	450	7	1.5"	0.16	50	660	260	125	444	434	8.5	0.16
00522500	500	10	1.5"	0.20	100	745	280	125	464	471	12	0.21
00522650	650	15	1.5"	0.30	175	805	310	125	494	484	13	0.33
00522750	750	22	2"	0.37	225	885	360	125	534	544	20	0.44
00522800	800	25	2"	0.50	400	1020	385	220	680	695	41.5	0.70
00522900	900	32	2"	0.64	500	1120	430	220	725	745	48.5	0.95
Top Mounted Filters												
00533400	400	5.5	1.5"	0.13	45	750	500	609	550	430	6	0.11
00533450	450	7	1.5"	0.16	75	815	620	674	615	434	8	0.16
00533500	500	10	1.5"	0.20	105	870	870	620	729	471	9.8	0.21
00533650	650	15	1.5"	0.30	175	875	625	775	676	484	13	0.33
00533750	750	22	2"	0.37	225	980	725	835	776	544	18.5	0.43
00533800	800	25	2"	0.50	400	1145	845	988	908	695	41	0.71
00533900	900	32	2"	0.64	500	1270	970	1122	1032	745	48	0.95

### Description

PROTEAM Europa High Quality Laminated Sand Filter specially Designed for Swimming Pools, Spa and Water Features. Totally Non-Corrosive Fiberglass | Durable in all Weather conditions | UV Resistant surface Finish Provides Protection to Harmful Exposure From Sunlight | Special Designed Finger Laterals with Side Slot to Maximum Flow Rate | Smooth and High Brightness Appearance | 6 Way Multiport Valve | Sight Glass for Inspection of Filtered Water | Easy Maintenance, Easy Cleaning | Maximum Working Pressure 2.5kg/cm<sup>2</sup>. Testing Pressure 4kg/cm<sup>2</sup> | Maximum Temperature 50°C

\*Flow rate are calculated at velocity of 50m<sup>3</sup> /h m<sup>2</sup>

\*Sand granulometry 0.5 - 1mm



# Filtration



## ► Oyster & Pearl Laminated Sand Filters

Filtration



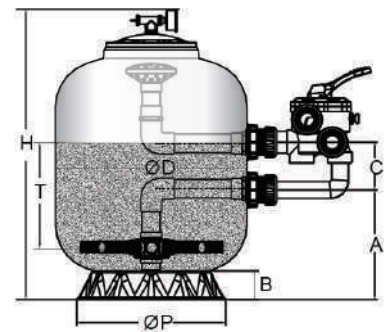
Pearl



Oyster



Clear Top Lid



### Technical Specification

Code	Diameter mm	Flow Rate m <sup>3</sup> /h	Connection	Filtration Area m <sup>2</sup>	Sand kg	H mm	A mm	C mm	M mm	B mm	Weight kg	Volume m <sup>3</sup>
Oyster Side Mounted Filters												
00532450	450	7	1.5"	0.16	50	660	260	125	444	434	8.5	
00532500	500	10	1.5"	0.20	100	745	280	125	464	471	12	0.16
00532650	650	15	1.5"	0.30	175	805	310	125	494	484	13	0.21
00532750	750	22	2"	0.37	225	885	360	125	534	544	20	0.33
00532800	800	25	2"	0.50	400	1020	385	220	680	695	41.5	0.44
00532900	900	32	2"	0.64	500	1120	430	220	725	745	48.5	0.70
Pearl Side Mounted Filters												
00534450	450	7	1.5"	0.16	50	660	260	125	444	434	8.5	0.95
00534500	500	10	1.5"	0.20	100	745	280	125	464	471	12	0.16
00534650	650	15	1.5"	0.30	175	805	310	125	494	484	13	0.21
00534750	750	22	2"	0.37	225	885	360	125	534	544	20	0.33
00534800	800	25	2"	0.50	400	1020	385	220	680	695	41.5	0.44
00534900	900	32	2"	0.64	500	1120	430	220	725	745	48.5	0.70
Description												

PROTEAM Europa High Quality Laminated Sand Filter specially Designed for Swimming Pools, Spa and Water Features. Totally Non- Corrosive Fiberglass | Durable in all Weather conditions | UV Resistant surface Finish Provides Protection to Harmful Exposure From Sunlight | Special Designed Finger Laterals with Side Slot to Maximum Flow Rate. Smooth and High Brightness Apperance | 6 Way Multiport Valve | Sight Glass for Inspection of Filtered Water. Easy Maintenance, Easy Cleaning | Maximum Working Pressure 2.5kg/cm<sup>2</sup> | Testing Pressure 4kg/cm<sup>2</sup>. | Maximum Temperature 50°C | Eco Friendly Filtration Media.

\*Flow rate are calculated at velocity of 50m<sup>3</sup> /h m<sup>2</sup>

\*Sand granulometry 0.5 - 1mm



# Filtration



Filtration

## ► Dolphin Bobbin Wound Sand Filters



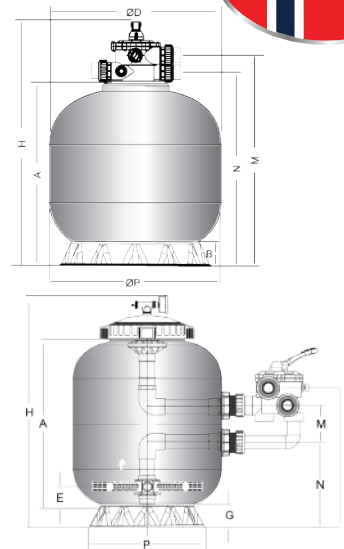
Side Mounted



Transparent Top Lid



Top Mounted



### Technical Specification

Code	Diameter mm	Flow Rate m <sup>3</sup> /h	Connection	Filtration Area m <sup>2</sup>	Sand kg	H mm	A mm	N mm	M mm	B mm	Weight kg	Volume m <sup>3</sup>
Top Mounted Dolphin Filters												
00310400	400	5.5	1 1/2"	0.11	28	720	482	535	595	-	9.5	0.082
00310450	450	7.0	1 1/2"	0.14	50	780	552	605	664	-	10.5	0.104
00310500	500	10	1 1/2"	0.20	80	830	592	645	704	-	14	0.168
00310650	650	15	1 1/2"	0.30	160	950	712	765	825	-	18	0.265
00310750	750	22	2"	0.37	220	1010	772	825	884	-	22	0.383
00310800	800	25	2"	0.50	370	1220	985	1038	1029	-	40	0.583
00310900	900	32	2"	0.64	447	1340	1037	1103	1182	-	42	0.784
03101000	1000	39.5	2"	0.79	700	1400	1097	1163	1242	-	44	1.273
03101100	1100	49	2"	0.98	960	1500	1197	1263	1342	-	57	1.623
03101200	1200	56.5	2"	1.13	1200	1600	1297	1363	1442	-	68	2.029
Side Mounted Dolphin Filters												
00410450	450	7.0	1.5"	0.14	56	660	480	250	125	434	13	0.125
00410500	500	10	1.5"	0.20	90	745	530	287	125	471	15.3	0.166
00410650	650	15	1.5"	0.30	170	805	600	300	125	484	25	0.295
00410750	750	22	2"	0.37	225	885	660	360	125	544	27	0.406
00410800	800	25	2"	0.50	380	1020	700	400	220	695	41	0.614
00410900	900	32	2"	0.64	453	1110	750	450	220	745	50	0.832
04101000	1000	39.5	2"	0.79	712	1140	835	500	220	795	64	2.029
04101200	1200	56.5	2"	1.13	1220	1385	1035	595	220	890	76.5	2.246
Description												

Totally Non-Corrosive Fiberglass and Polyester Resin | 100% resistant to corrosion unlike conventional steel filters. | Durable in all weather conditions. | UV resistant surface finish provides protection to harmful exposure from sunlight. | Specially designed finger-laterals with side slots to maximize flow rate. | Supplied with pressure gauge, manual air vent, water purge and multiport valve. | Maximum filtration velocity: 50m<sup>3</sup>/h/m<sup>2</sup>. | Maximum working pressure: 2.5 kg/cm<sup>2</sup>. | Testing Pressure: 4kg/cm<sup>2</sup>. Operating Water Temperature: 50°C. | Eco friendly filtration media.

#### Top Mounted

Equipped with 6-way top mounted multiport valve, thread type.

#### Side Mounted

Equipped with 6-way side mounted multiport valve, clear lid and treaded ring lock in ABS.

\*Flow rate are calculated at velocity of 50m<sup>3</sup> /h m<sup>2</sup>

\*Sand granulometry 0.5 - 1mm

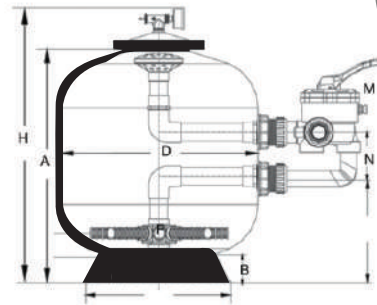


# Filtration



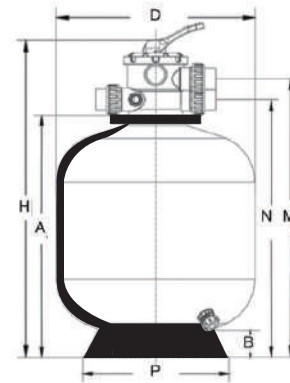
## ► Blue dolphin Bobbin Wound with side clamp

Filtration



Transparent Lid

Top Mounted



### Technical Specification



Code	Diameter mm	Flow Rate m <sup>3</sup> /h	Connection	Filtration Area m <sup>2</sup>	Sand kg	H mm	A mm	N mm	M mm	B mm	P mm	Weight kg	Volume m <sup>3</sup>
Side Mounted Blue Dolphin Filters													
00520400	400	5.5	1.5"	0.11	34	720	482	535	594	75	390	9.4	0.10
00520450	450	7.0	1.5"	0.14	43	790	552	605	664	75	390	12.6	0.12
00520500	500	10.0	1.5"	0.20	83	830	592	645	704	75	390	13.4	0.20
00520650	650	15	1.5"	0.30	142	950	712	765	825	95	565	18.6	0.32
00520700	700	18.5	2"	0.37	212	1010	772	825	884	95	565	22.6	0.43
Side Mounted Red Dolphin Filters													
00530450	450	7.0	1.5"	0.11	34	720	482	535	594	75	390	9.4	0.10
00530550	500	10.0	1.5"	0.14	43	790	552	605	664	75	390	12.6	0.12
00530650	650	15.0	1.5"	0.20	83	830	592	645	704	75	390	13.4	0.20
00530700	700	18.5	2	0.30	142	950	712	765	825	95	565	18.6	0.32

### Description

Totally Non-Corrosive Fiberglass and Polyester Resin | 100% resistant to corrosion unlike conventional steel filters. | Durable in all weather conditions. | UV resistant surface finish provides protection to harmful exposure from sunlight. | Specially designed finger-laterals with side slots to maximize flow rate. | Supplied with pressure gauge, manual air vent, water purge and multiport valve. | Maximum filtration velocity 50m<sup>3</sup>/h/m<sup>2</sup>. | Maximum working pressure 2.5 kg/cm<sup>2</sup>. | Testing Pressure: 4kg/cm<sup>2</sup>. Operating Water Temperature 50°C. | Eco friendly filtration media

#### Top Mounted

Equipped with 6-Way Top Mounted Multiport Valve, Clamp Locked Type.

#### Side Mounted

Equipped with 6-Way Side Mounted Multiport Valve, Closed lid, Clamp Locked Type.

\*Flow rate are calculated at velocity of 50m<sup>3</sup> /h m<sup>2</sup>

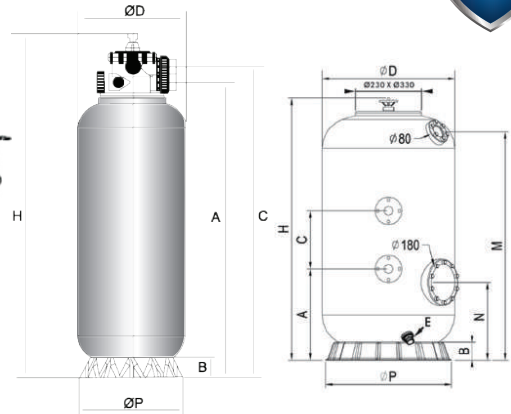
\*Sand granulometry 0.5 - 1mm



# Filtration



## ► Belma bobbin wound deep bed sand filter



Filtration

Belma Wide

Belma Deep



### Technical Specification

Code	Diameter mm	Flow Rate m <sup>3</sup> /h	Connection	Filtration Area m <sup>2</sup>	Sand kg	Gravel kg	H mm	A mm	C mm	P mm	Weight kg	Volume m <sup>3</sup>
Belma Deep												
00540400	400	5.5	1.5"	0.13	112	-	1300	1115	1171	390	18.5	0.173
00540450	450	6.5	1.5"	0.16	143	-	1300	1115	1171	390	24.0	0.217
00540500	500	8	1.5"	0.20	172	-	1300	1115	1171	390	27.0	0.289
00540600	600	11.2	1.5"	0.28	230	-	1300	1115	1171	565	28.0	0.421
00540750	750	15.2	2"	0.38	325	-	1300	1115	1145	565	30.5	0.519
00550400	400	5.2	1.5"	0.13	141	-	1500	1315	1374	390	21.0	0.218
00550450	450	6.4	1.5"	0.16	165	-	1500	1315	1374	390	27.5	0.275
00550500	500	8.0	1.5"	0.20	220	-	1500	1315	1374	390	33.0	0.365
00550600	600	11.2	1.5"	0.28	307	-	1500	1315	1374	565	34.5	0.532
00550750	750	15.2	2"	0.38	430	-	1500	1315	1374	565	36.5	0.655

### Description

#### Belma Deep Bed High Performance Filters

Improvement of flow ability provided ultra-pure water filtration Ideal for Water treatment application operating at maximum working pressure of 4kg/cm<sup>2</sup> Fiberglass Winding Allows the Filter to Have extra strength resistance to chemical and corrosives supplied with 6-way 1.5" Top Multiport Valve. with Self Sealing Barrel Unions. Filtration Bed 0.9-1.2m | Maximum Working Pressure 4kg/cm<sup>2</sup> | Opening water Temperature 50°C.

Additional media depth ensures better water clarity. Reinforced polyster with fiber glass. Completely anti-corrosive. High mechanical, chemical and thermal resistance. Height of filtering layer initiates tapping of dirt at various levels for easy removal of finer particles. Different heights available for the same size for industrial application Ideal for public pools, aquariums, fish ponds and water treatment plants Filtration Bed: 1.2m. Flanged connection varying from 2"-3". Eco friendly filtration media.

\*Flow rate are calculated at velocity of 50m<sup>3</sup> /h m<sup>2</sup>

\*Sand granulometry 0.5 - 1mm

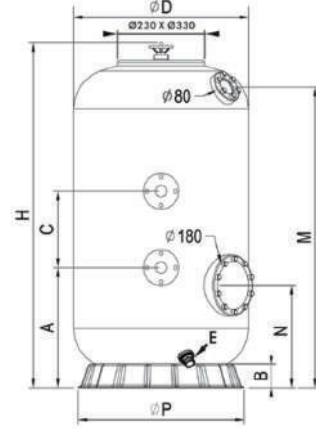


# Filtration



## ► Belma wide high performance commercial vertical filter

Filtration



### Technical Specification

Code	Diameter mm	Flow Rate m <sup>3</sup> /h	Connection	Filtration Area m <sup>2</sup>	Sand kg	Gravel kg	H mm	A mm	C mm	P mm	Weight kg	Volume m <sup>3</sup>
Belma Wide												
00550800	800	20.0	2"	0.50	470	200	1600	550	350	690	74.5	1.231
00550900	900	25.6	2"	0.64	590	255	1600	550	350	760	78.6	1.539
00551000	1000	31.6	2"	0.79	729	301	1600	550	350	830	90	2.257
00551200	1200	45.2	2"	1.13	840	490	1600	650	350	980	104	3.112
00550801	800	20.0	2"	0.50	840	200	2100	550	350	690	102	1.591
00550901	900	25.6	2"	0.64	1035	255	2100	550	350	760	110	1.989
00551001	1000	31.6	2"	0.79	1280	301	2100	550	350	830	124.5	2.917
00551201	1200	45.2	2"	1.13	1634	490	2100	650	350	980	147	4.022

### Description

#### Belma Wide High Performance Commercial Vertical Filter

Improvement of flow ability provided ultra-pure water filtration Ideal for Water treatment application operating at maximum working pressure of 4kg/cm<sup>2</sup> Fiberglass Winding Allows the Filter to Have extra strength resistance to chemical and corrosives supplied with 6-way 1.5" Top Multiport Valve. with Self Sealing Barrel Unions. Filtration Bed 0.9-1.2m | Maximum Working Pressure 4kg/cm<sup>2</sup> | Opening water Temperature 50°C.

Additional media depth ensures better water clarity. Reinforced polyester with fiber glass. Completely anti-corrosive. High mechanical, chemical and thermal resistance. Height of filtering layer initiates tapping of dirt at various levels for easy removal of finer particles. Different heights available for the same size for industrial application Ideal for public pools, aquariums, fish ponds and water treatment plants Filtration Bed: 1.2m. Flanged connection varying from 2"-3". Eco friendly filtration media.

#### Options

Sight manholes

Sight glass and air relief valve and nozzle plate distributor. Maximum working pressure: 4kg/cm<sup>2</sup>. Operating water temperature: 50°C

\*Flow rate are calculated at velocity of 50m<sup>3</sup> / h m<sup>2</sup>

\*Sand granulometry 0.5 - 1mm



# Filtration



## ► Pyramid Commercial Bobbin wound fiberglass sand filter

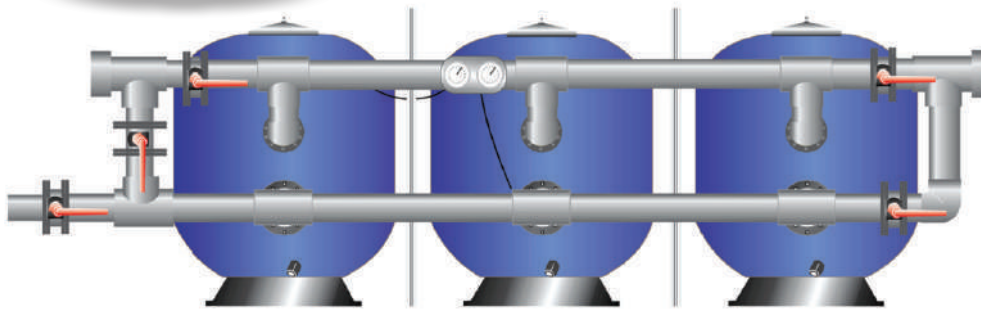
Filtration



Sight Glass



Manhole



### Filter Diameters Range From 1200-3000mm

Proteam Europa Commercial Filter Developed to meet the most demanding installation for Olympic pools, Semi-Olympic pools, Aquatic Park and Water Treatment. Extensive Construction with Polyester and Fiberglass Winding High Resistance and High Quality of Water Filtration Spiral Cover System Supports The Operation Of Opening and Closing Filters. Supplied With Flange Connection From 3" to 8" For Connection to a Battery of 4/5 Butterfly Valves. For Ozone Applications, Filters can be Lined with Vinyl-ester on Demand Standard Internal Distribution System Collector Arms, 400 mm Top Cover. The Distance Between The Upper Part of the Sand Layer and the Diffuser Head is Increased to Ensure Greater Distribution of Water in the Filtration Phase and Avoid Sand Split Into Laterals During Backwashing.

### Features

Filtration Bed 0.1-1.2m | Valve Manifold Front Piping or Butterfly Valve Assembly to be ordered Separately. | Maximum Working Pressure 2.5 kg/cm<sup>2</sup> | Testing Pressure 4kg/cm<sup>2</sup> | Operating Water Temperature 50°C | Eco Friendly Filtration Media.

### Options

Sight Manholes | Sight Glass | Air Relief Valve | Nozzle Plate Distributor | Filters with 4 and 6kg /cm<sup>2</sup> Can be Manufactured. | Connection of Multiple Filters to the Same PVC Battery Completely Mounted is a Available | Specifically Used at Velocities 20-25 m<sup>3</sup>/h/m<sup>2</sup>

\*On demand filters with special heights can be produced. \*Filters with diameters greater than 2350 may require special transportation

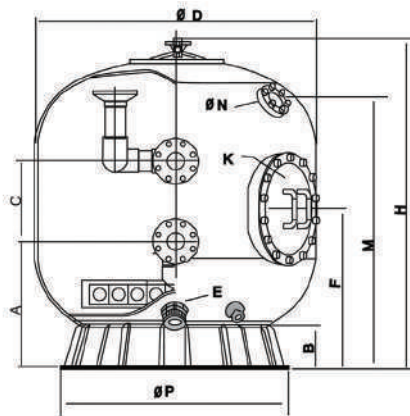


# Filtration



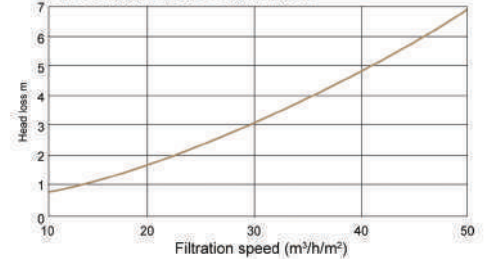
## ► PYRAMID Commercial Bobbin wound fiberglass sand filter

Filtration



Pressure Drop Graph

Ø1050mm to Ø2000 mm Filters



Collectors Arms Internal Distribution System



Nozzle Plate Internal Distribution System

### Technical Specification

Code	Diameter mm	Velocity (m³/h/m²)	Flow Rate m³/h	Connection Inches	Filtration Area m³	Sand kg	Gravel kg	Weight kg
Pyramid								
05601200	1200	30/40	34/45	D90/80 3"	1.13	1250	300	3000
05601400	1400	30/40	46/62	D110/100 4"	1.54	1760	500	4300
05601600	1600	30/40	60/80	D110/100 4"	2.01	2450	750	5800
05601800	1800	30/40	76/102	D160/150 6"	2.54	3100	750	7300
05602000	2000	30/40	94/126	D160/150 6"	3.14	3800	1150	9000
05602350	2350	30/40	130/174	D225/200 8"	4.34	5275	1600	13750
05602500	2500	30/40	147/196	D225/200 8"	4.90	5950	5950	14850
05603000	3000	30/40	212/282	D225/200 8"	7.07	8600	3300	21650

### Description

\*Maximum working pressure 2.5kg/cm². 4 and 6kg/cm² on demand.

\*Sand granulometry 0.5-1mm. Gravel 1-2 mm.

Code	Diameter mm	H mm	A mm	B mm	C mm	P mm	F mm	M mm	K mm	N mm	E mm	Vol Ltr	Weight Kg	Volume Package m²
05601200	1200	1400	560	190	340	980	740	1150	400x300	80	60	1300	125	2.7
05601400	1400	1600	600	190	450	1215	800	1250	400x300	80	60	1900	145	3.7
05601600	1600	1750	680	240	450	1450	875	1450	400x300	80	60	2600	200	5.0
05601800	1800	1950	730	240	550	1610	910	1650	450x350	107	60	3400	315	6.4
05602000	2000	2100	800	240	550	1800	1050	1700	450x350	107	60	4400	385	8.7
05602350	2350	2400	940	280	600	2010	1070	1800	450x350	107	60	8045	537	14.8
05602500	2500	2450	960	280	600	2010	1100	1900	450x350	107	60	9050	780	19.5
05603000	3000	2650	1110	350	600	2650	1130	2150	450x350	107	60	12800	1350	29.0

\*On demand filters with special hights can be produced.

\*Filters with diameters grater than 2350 may required special transportation



# Filtration



## ► BETA Commercial Bobbin wound horizontal sand filters

Filtration



**BETA Commercial Sand Filter**



**Standard Internal Distribution System**



**Filter diameter ranges from 1200-2000 mm in the following length 1900, 2500, 3000, 3500, 4000, and 4500 mm.**

### Specification

Proteam Europa commercial filter developed to meet the most demanding installation for olympic pools, semi-olympic pools, aquatic parks and water treatment. Extensive construction with polyester and glass fiber winding high resistance and high quality of water filtration Spiral cover system supports the operations of opening and closing Filters supplied with flange connection from 3" to 8" for connection to a battery of 4/5 butterfly valves. For ozone applications, filters can be lined with vinyl-ester on demand Standard internal distribution system collector arms, 400 mm top cover.

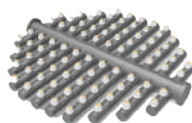
Horizontal sand filters gives the maximum filtration area and are preferred if space is limited. Connection of multiple filters to the same PVC battery completely mounted is available. Specifically used at low velocities. Selection of filtration pumps as per the head loss. Greater diameter of collector arms reduces the head loss. Valve manifold not included.

### Features

Supplied with 400 mm lateral manholes. | Lateral collectors. | Airbleed system. | Drain for sand and water. Inlets and outlets with flanges. | Construction Fiberglass reinforced polyester. | Totally anti-corrosive. High mechanical, thermal and chemical resistance. | Internal components in PVC. PP laterals with 0.3 mm slots, supplied with seals and gaskets. | Fitted with pressure gauge. Manual air relief valve and water purge. | Filtration bed: 0.6-1.2m. | Eco friendly filtration media. Hydraulic pressure test 1.5 times the maximum pressure. | Available Maximum working pressure: 2.5 kg/cm<sup>2</sup> and 4kg/cm<sup>2</sup>. | Filters with 6 kg/cm<sup>2</sup> can be manufactured on demand.



**Sight Glass**



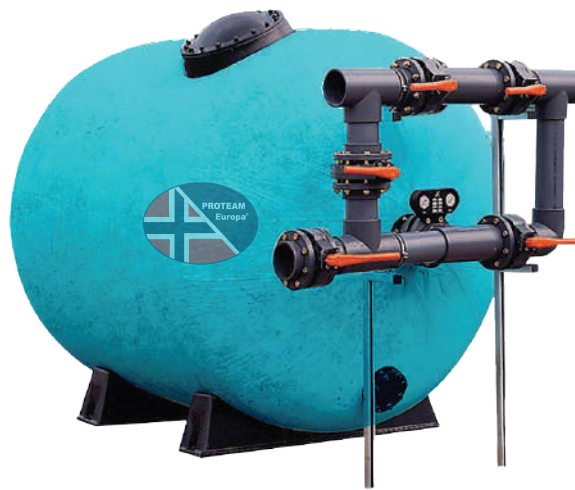
**Nozzle Plate Internal Distribution System**



**Drain**



## ► BETA Commercial Bobbin wound horizontal sand filters



Filtration

### Technical Specification

**Filter diameter ranges 1200-2000 mm**  
**Filter length 1900, 2500, 3000, 3500, 4000, and 4500 mm.**

Code	Length	Velocity	Flow Rate	Dia N mm@	Outlet Dia	Filtration	Sand	Gravel	Weight	
2.5 Bar	4 Bar	(m <sup>3</sup> /h/m <sup>2</sup> )	m <sup>3</sup> /h Velc.30/40	Vl.30/40	mm@Vl.30/40	Area m <sup>2</sup>	kg	kg	kg	
Beta Filters @ Dia 1200mm										
05702050	05702051	1900	30/40	59/79	DN 110/125	125/140	1.96	1100	425	0.6
05702450	05702451	2300	30/40	73/97	DN 125/150	140/160	2.42	1425	550	0.6
05702650	05702651	2500	30/40	79/106	DN 125/150	140/160	2.65	1750	700	0.6
05702850	05702851	2700	30/40	86/115	DN 125/150	140/160	2.87	2075	825	0.6
05703150	05703151	3000	30/40	96/129	DN 125/150	140/160	3.21	2325	925	0.6
Beta Filters @ Dia 1400mm										
05712150	05712151	1900	30/40	67/89	DN 110/125	125/140	2.23	2100	575	0.8
05712650	0572651	2500	30/40	91/121	DN 125/150	140/160	3.02	2825	800	0.8
05713150	05713151	3000	30/40	110/147	DN 150/175	160/200	3.67	3450	1000	0.8
Beta Filters @ Dia 1600mm										
05722100	05722101	1900	30/40	74/99	DN 125/150	140/160	2.47	2850	600	0.8
05722700	05722701	2500	30/40	101/134	DN 150/175	140/160	3.36	3875	850	0.8
05723200	05723201	3000	30/40	123/164	DN 175/200	160/200	4.10	4750	1050	0.8
Beta Filters @ Dia 1800mm										
05732700	05732701	2500	30/40	112/150	DN 150/175	160/200	3.74	4850	975	1.0
05733200	05733201	3000	30/40	137/183	DN 150/175	160/200	4.58	5925	1225	1.0
05733700	05733701	3500	30/40	162/126	DN 150/200	200/225	5.41	7000	1475	1.0
Beta Filters @ Dia 2000mm										
05742730	05742731	2500	30/40	130/174	DN 160/200	160/200	4.34	6575	1050	1-1.2
05743230	05743231	3000	30/40	159/212	DN 160/200	160/200	5.3	8025	1300	1-1.2
05743730	05743731	3500	30/40	187/250	DN 200/225	200/225	6.25	9475	1550	1-1.2
05744230	05744231	4000	30/40	216/288	DN 200/225	200/225	7.21	10925	1800	1-1.2
05744730	05744730	4500	30/40	245/326	DN 225/250	225/250	8.16	12375	2075	1-1.2

Available Maximum working pressure: 2.5 kg/cm<sup>2</sup> and 4kg/cm<sup>2</sup>. | Filters with 6 kg/cm<sup>2</sup> can be manufactured on demand.

\*Sand granulometry 0.5 - 1mm \*Gravel 1- 2mm

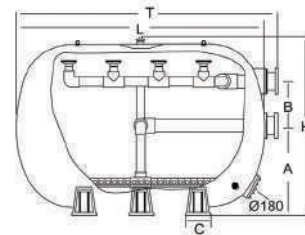
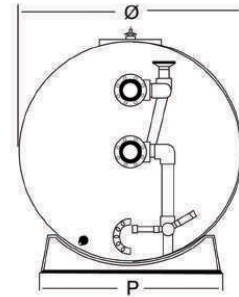
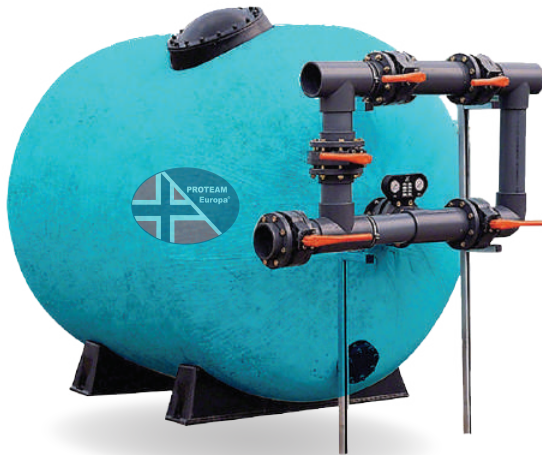


# Filtration



Filtration

## ► BETA Commercial Bobbin wound horizontal sand filters



### Technical Specification

Filter diameter ranges 1200-2000 mm  
Filter length 1900, 2500, 3000, 3500, 4000, and 4500 mm.

Code	Code	H mm	A mm	B mm	C mm	T mm	P mm	Vol mm	Weight		Volume Package m <sup>3</sup>	Total Weight In Operation kg
									2.5 Bar	4 Bar		
Beta Filters @ Dia 1200mm												
05702050	05702051	1390	725	340	200	2050	900	1900	270	310	3.08	3220
05702050	05702451	1390	725	340	200	2450	900	2350	330	375	3.73	3960
05702050	05702651	1390	725	340	200	2650	900	2580	360	410	4.05	4320
05702050	05702851	1390	725	340	200	2850	900	2800	390	440	4.38	4690
05702050	005703151	1390	725	340	200	3150	900	3140	435	480	4.86	5240
Beta Filters @ Dia 1400mm												
05712150	05712151	1600	810	400	210	2150	960	2530	340	385	4.84	4250
05712650	05712651	1600	810	400	210	2650	960	3460	435	485	6.23	5740
05713150	05713151	1600	810	400	210	3150	960	4230	530	585	7.44	6990
Beta Filters @ Dia 1600mm												
057022100	05722101	1830	925	450	240	2100	1230	3220	400	450	5.49	5420
057022101	05722701	1830	925	450	240	2700	1230	4430	520	570	7.18	7400
057023200	05723201	1830	925	450	240	3200	1230	5430	620	686	8.6	9020
Beta Filters @ Dia 1800mm												
05732700	05732701	2050	1040	450	240	2700	1380	5530	585	680	10.4	9170
05733200	05733201	2050	1040	450	240	3200	1380	3800	700	805	12.25	11230
05733700	05733701	2050	1040	450	240	3700	1380	8070	875	930	14.2	13290
Beta Filters @ Dia 2000mm												
05742730	05742731	2220	1090	550	300	2730	1500	6900	650	795	13.2	11300
05743230	05743231	2220	1090	550	300	3230	1500	8470	775	945	15.65	13790
05743730	05743731	2220	1090	550	300	3730	1500	10040	900	1100	18.1	16280
05744230	05744231	2220	1090	550	300	4230	1500	11600	1025	1260	20.55	18780
05744730	05744731	2220	1090	550	300	4730	1500	13180	1150	1420	23	21380

Available Maximum working pressure: 2.5 kg/cm<sup>2</sup> and 4kg/cm<sup>2</sup>. | Filters with 6 kg/cm<sup>2</sup> can be manufactured on demand.

\*Sand granulometry 0.5 - 1mm \*Gravel 1- 2mm



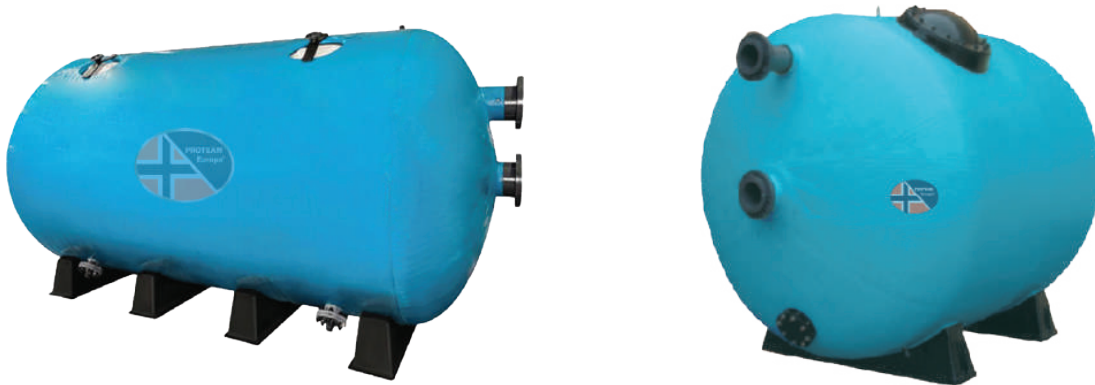
# Filtration



## ► BETA Commercial Bobbin wound horizontal sand filters

Filter diameter ranges 2350-2500 - 3000 mm  
Filter length 4000 - 4500 - 5000 - 6000 - 7000 - 8000 mm.

Filtration



### Technical Specification

Code	Length mm	Velocity (m <sup>3</sup> /h/m <sup>2</sup> )	Flow Rate m <sup>3</sup> /h V	Outlet Dia mm	Filtration Area m <sup>2</sup>	Sand kg 0.5-0.8(mm)	Gravel kg 1-2 (mm)	Filtration Bed (m)	
2.5 Bar	4 Bar								
Beta Filters @ Dia 3000mm									
5744740	05744741	5000	30/40	397/530	250/315	13.24	26300	6875	1-1.2
5744742	05744743	6000	30/40	482/643	315/315	16.08	31920	8450	1-1.2
5744744	05744745	7000	30/40	568/756	315/315	18.92	37545	10025	1-1.2
5744746	05744747	8000	30/40	653/870	315/355	21.76	43170	11600	1-1.2
Beta Filters @ Dia 2500mm									
05744748	05744749	4000	30/40	258/345	200/250	8.62	13500	3725	1-1.2
05744750	05744751	4500	30/40	294/392	250/250	9.8	15350	4300	1-1.2
05744752	05744753	5000	30/40	329/439	250/315	10.98	17200	4850	1-1.2
05744754	05744755	6000	30/40	400/533	250/315	13.34	20900	5975	1-1.2
05744756	05744757	7000	30/40	471/628	315/315	15.7	24600	7100	1-1.2
Beta Filters @ Dia 2350mm									
0574458	05744759	4000	30/40	245/327	200/250	8.17	12800	3650	1-1.2
0574460	05744761	4500	30/40	279/371	250/250	9.28	14525	4200	1-1.2
0574462	05744763	5000	30/40	312/416	250/250	10.4	16250	4750	1-1.2
0574464	05744765	6000	30/40	379/505	250/250	12.63	19700	5850	1-1.2
0574466	05744767	7000	30/40	446/594	315/315	14.86	23150	6950	1-1.2

Maximum working pressure : 2.5kg/cm<sup>2</sup>. 4 and 6kg/cm<sup>2</sup> on demand. | Sand Granulometry 0.4-0.8 mm. Gravel 1-2 mm.

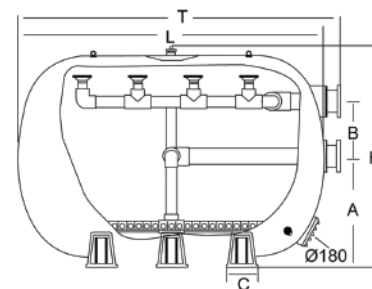
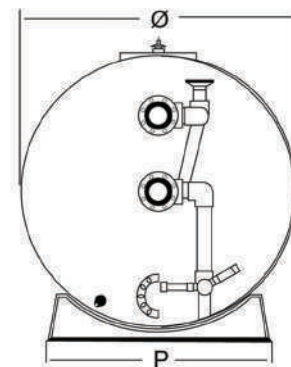


# Filtration



## ► BETA Commercial Bobbin wound horizontal sand filters

Filter diameter ranges 2350-2500 - 3000 mm  
Filter length 4000 - 4500 - 5000 - 6000 - 7000 - 8000 mm.



Filtration



### Technical Specification

Code		Length mm	H mm	A mm	B mm	C mm	K mm	P mm	L2 mm	T mm	W mm
2.5 Bar	4 Bar										
Beta Filters @ Dia 3000mm											
05744740	05744741	5000	3230	900	510	1500	160	2310	5110	1000-1200	550
05744742	05744743	6000	3230	900	510	1500	160	2310	6110	1000-1200	550
05744744	05744745	7000	3230	900	510	1500	160	2310	7110	1000-1200	550
05744746	05744747	8000	3230	900	510	1500	160	2310	8110	1000-1200	550
Beta Filters @ Dia 2500mm											
05744748	05744749	4000	2710	1360	450	710	160	1900	4380	1000-1200	500
05744750	05744751	4500	2710	1360	450	710	160	1900	4940	1000-1200	500
05744752	05744753	5000	2710	1360	450	710	160	1900	5440	1000-1200	500
05744754	05744755	6000	2710	625	450	1400	160	1900	6110	1000-1200	500
05744756	05744757	7000	2710	625	450	1400	160	1900	7110	1000-1200	500
Beta Filters @ Dia 2350mm											
05744758	05744759	4000	2560	1270	300	710	160	1750	4380	1000-1200	500
05744760	05744761	4500	2560	1270	300	710	160	1750	4880	1000-1200	500
05744762	05744763	5000	2560	1270	300	710	160	1750	5440	1000-1200	500
05744764	05744765	6000	2560	720	300	1350	160	1750	6110	1000-1200	500
05744766	05744767	7000	2560	720	300	1350	160	1750	7110	1000-1200	500

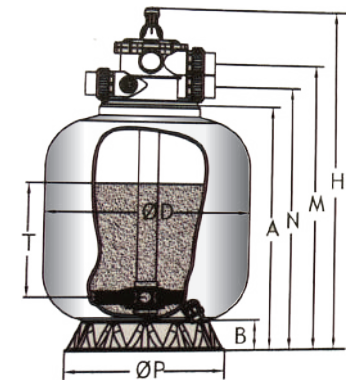
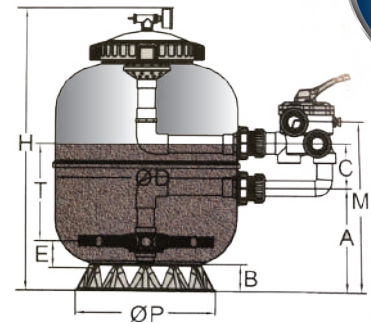
Maximum working pressure : 2.5kg/cm<sup>2</sup>. 4 and 6kg/cm<sup>2</sup> on demand. | Sand Granulometry 0.4-0.8 mm. Gravel 1-2 mm.





## ► Rodo Residential Stainless Steel Sand Filters

Filtration



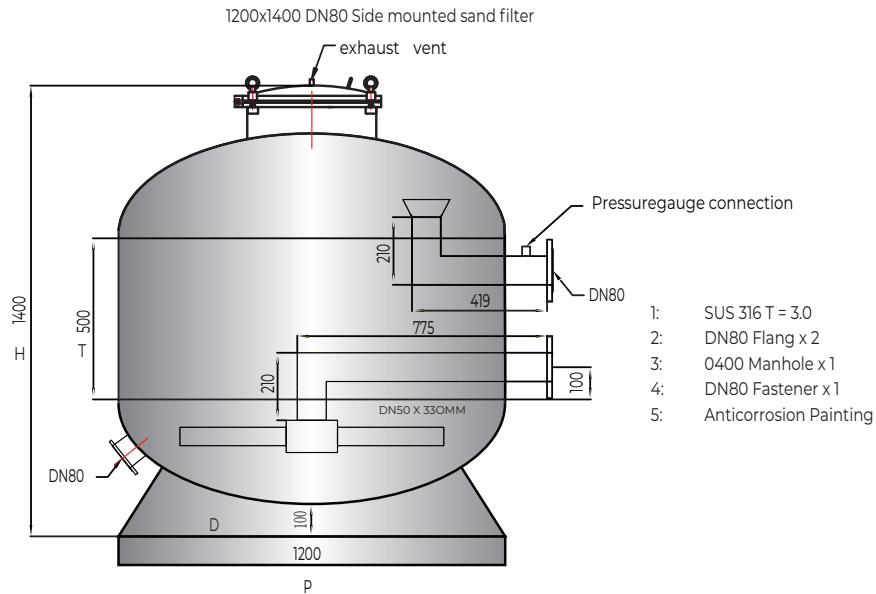
### Technical Specification

Code	Diameter	Height(mm)	Flow (m <sup>3</sup> /h)	Filtration Area (m <sup>3</sup> )	Connection (mm)
Top Mounted filter					
00584400	400	740	7	0.13	48/50
00584500	500	840	10	0.22	48/50
00584600	600	960	15	0.33	48/50
00584700	700	1025	22	0.38	48/50
00584800	800	1200	25	0.50	48/50
00584900	900	1180	32	0.64	60/63
00584100	1000	1220	39	0.79	60/63
00584120	1200	1410	45	1.13	60/63
Code	Diameter	Height (mm)	Flow (m <sup>3</sup> /h)	Filtration Area (m <sup>3</sup> )	Connection (mm)
Side Mounted Filter					
00585500	500	770	10	0.22	48/50
00585600	600	850	15	0.33	48/50
00585700	700	960	22	0.38	48/50
00585800	800	1015	25	0.50	60/63
00585900	900	1180	32	0.64	60/63
00585100	1000	1220	39	0.79	60/63
Description					

Proteam Europa filter made of reliable and resistant AISI 304 / 316 stainless steel. High performance for UV and corrosion resistant. Customized different size according to client need. Heat resistance can be more than 300 degree and working life can be up to 50 years. Maximum working pressure 2.5kg/cm<sup>2</sup>, | Testing pressure 4kg/cm<sup>2</sup> | Filter with 6 to 17 kg/cm<sup>2</sup> can be manufactured. | Size of silica sand 0.5 to 1mm.



## ► Rodo Residential Stainless Steel Sand Filters



### Top Mounted filter Dimensions

Code	00584400	00584500	00584600	00584700	00584800	00584900	00584100	00584120
D	400	500	600	700	800	900	1000	1200
H	740	840	960	1025	1200	1180	1220	1410
A	500	620	870	625	725	845	970	970
B	75	75	75	95	95	120	120	120
C	609	674	620	775	835	988	1122	1122
M	550	615	729	676	776	908	1032	1032
P	390	390	390	565	565	790	790	790
T	160	220	260	370	450	500	550	550

### Side Mounted filter Dimensions

Code	00585500	00585600	00585700	00585800	00585900	00585100
D	500	600	700	800	900	1000
H	770	850	960	1015	1180	1220
A	260	280	310	360	385	430
B	75	75	95	95	115	115
C	125	125	125	125	220	220
M	444	464	494	534	680	725
P	390	390	565	565	790	790
T	250	280	300	350	420	480

### Description

Proteam Europa filter made of reliable and resistant AISI 304 / 316 stainless steel. High performance for UV and corrosion resistant. Customized different size according to client need. Heat resistance can be more than 300 degree and working life can be up to 50 years. Maximum working pressure 2.5kg/cm<sup>2</sup>, | Testing pressure 4kg/cm<sup>2</sup> | Filter with 6 to 17 kg/cm<sup>2</sup> can be manufactured. | Size of silica sand 0.5 to 1mm.





## ► Boro Commercial Stainless Steel Sand Filter

Filtration



**Vertical sand filter**



**Horizontal sand filter**



### Technical Specification for vertical sand filter

Code	Dia	Velocity	Flow(m <sup>3</sup> /h)	Connection	Filter area	Sand Loading(kg)
05871200	1200	30/40	34/45	90/80	1.13	1150
05871400	1400	30/40	46/62	110/100	1.54	1850
05871600	1600	30/40	60/80	110/100	2.01	2300
05871800	1800	30/40	76/102	160/150	2.54	2900
05872000	2000	30/40	94/126	160/150	3.14	4600
05872300	2300	30/40	130/174	225/200	4.34	5950
05872500	2500	30/40	147/196	225/200	4.90	6650

### Filter Dimensions

Code	Dia	H	P
05871200	1200	1400	980
05871400	1400	1600	1215
05871600	1600	1800	1450
05871800	1800	2000	1610
05872000	2000	2200	1800
05872300	2300	2300	2010
05872500	2500	2400	2010

### Description

Proteam Europa commercial stainless steel sand filter made in AISI 304/316, tank diameter available from 1000mm to 2500mm. The filter is mainly used for large filtering system. High performance for UV and corrosion resistant. Customized different size according to client need. Heat resistance can be more than 300 degree and working life can be up to 50 years. Maximum working pressure 2.5kg/cm<sup>2</sup> | Testing pressure 4kg/cm<sup>2</sup> | Filter with 6 to 17 kg/cm<sup>2</sup> can be manufactured.

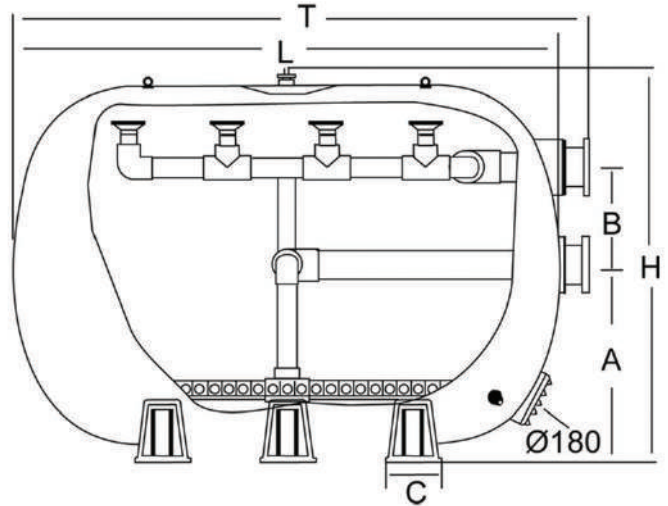
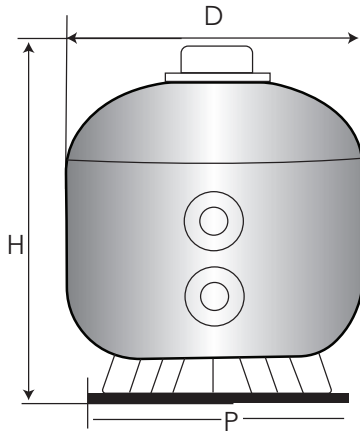


# Filtration



Filtration

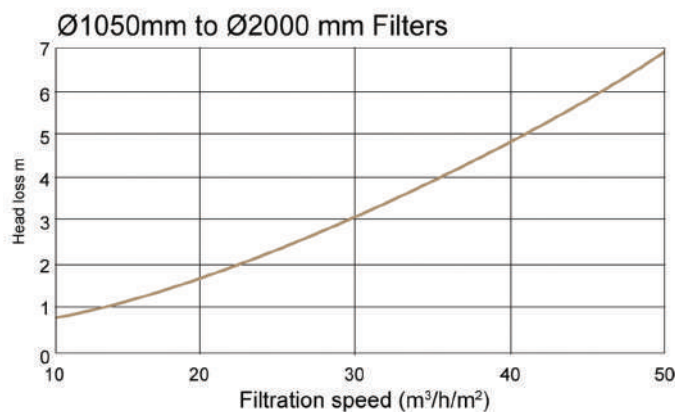
## ► Boro Residential Stainless Steel Sand Filter



### Technical Specification for horizontal filter

Code	Length mm	Dia	Velocity	Flow(m <sup>3</sup> /h)	Connection mm	Filter area m <sup>2</sup>	Sand (kg)
05881400	3000	1400	30/40	110/147	110/100	3.68	4500
05881401	4000	1400	30/40	125/170	110/100	4.90	5500
05881402	5000	1400	30/40	140/185	110/100	6.12	6800
05881600	3000	1600	30/40	123/164	160/150	4.11	5800
05881601	4000	1600	30/40	145/180	160/150	5.47	6900
05881602	5000	1600	30/40	155/200	160/150	6.84	7800
05881800	3000	1800	30/40	137/183	160/150	4.59	1800
05881801	4000	1800	30/40	187/250	160/150	6.11	7200
05881802	5000	1800	30/40	200/280	160/150	7.64	9750
05882000	3000	2000	30/40	159/212	225/200	5.31	9375
05882001	4000	2000	30/40	216/288	225/200	7.07	11900
05882002	5000	2000	30/40	260/355	225/200	8.84	14500

### Pressure Drop Graph



## ► Multiport Valves for Residential Filters

Filtration



**Side Multiport Valves**



**Top Multiport Valves**



**Top Multiport Valves**



**Top Multiport Valves Clamp**



**Top Multiport Valves Clamp**

### Six Way Multiport Valve

Different Function in a Hydraulic Circuit | Filtration | Draining | Backwashing | Circulation | Rinsing | Shut Off.

Housing cover and handle are made of ABS gasketed in EPDM and metallic components in S.S. and distributor in PPE multiport valves (MPV) are available in two different configurations. Top and side multiport valves. Top multiport valves has two connections. 1.5" and 2". side multiport valves has three connections. 1.5 , 2" and 2.5" . The design offers a wide range of possibilities to any installation, assuring perfect water- tightness and comfortable handling. With an innovation design, ease of handling and maximum reliability, These multiport valves are a basic elements in achieving the perfect condition of your pool.

### Six Way Multiport Valve Function

Filter	Normal Filtration and vacuuming
Backwash	Cleaning Filter by Reversing Water Flow
Rinse	Used After Backwash to Flush Dirt From Valve and Pipes
Waste	Filter by-pass option to discharge dirt from vacuuming to waste or lower water level
Recirculate	Filter by-pass option to circulate water back to pool directly
Close	Stop all flow to filter or pool





Filtration

## ► Multiport Valves

### Side Multiport Valve - Dolphin Filters

Code	Dimension mm	Dimension Inch	Color	Weight	Volume
005400015	50	1.5	Black	3.8	0.02
005400020	63	2	Black	5.0	0.04
005400025	75	2.5	Black	9.5	0.06

### Side Multiport Valve - Parasol

Code	Dimension mm	Dimension Inch	Color	Weight	Volume
00510015	50	1.5	White	3.8	0.02
00510020	63	2	White	5.0	0.04
00510025	75	2.5	White	9.5	0.06

### Top Multiport Valve - Dolphin / Belma Deep

Code	Dimension mm	Dimension Inch	Color	Weight	Volume
00300015	50	1.5	White	3.8	0.02
00300020	63	2	White	5.0	0.028

### Side Multiport Valve - Blue Dolphin

Code	Dimension mm	Dimension Inch	Color	Weight	Volume
05300015	50	1.5	Black	3.8	0.02

### Top Multiport Valve - Blue Dolphin

Code	Dimension mm	Dimension Inch	Color	Weight	Volume
05300015	50	1.5	Black	3.8	0.028

### Top Multiport Valve - Dolphin / Belma Deep

Code	Dimension mm	Dimension Inch	Color	Weight	Volume
00400015	50	1.5	White	3.8	0.02
00400020	63	2	White	5.0	0.04



## ► Automatic Multiport Valves

Filtration



**Eurotronic - 10**



**Eurotronic - 20**

### Features

#### Filtration

Starts up when it receives the instruction from the timer installed in the control panel or any external programmed instruction.

#### Wash

Starts up automatically on receiving a signal from either the pressure switch on the timer - but least once a week.

#### Rinse

Begins automatically after each rinse cycle.

#### Empty

Push-button operated, which positions the valve. This must be confirmed via the control box. This element prevents accidental emptying of pool.

### Technical Data

Nominal voltage 1/N/PE 230/50Hz | Backwash pump switching capacity | 1,1kW AC3 230V Actuating drive 230V

Pressure switch 12V Protection rating IP 54 | Static hydraulic pressure Max. 0.3 bar |

Housing size 245 x 140 x 110 mm

#### Eurotronic 10

Backwash control with microprocessor technology with foil keyboard and LCD display with plain text display. Our protected quick coupling allows fitting to 1 1/2" and 2" backwash valves made by various manufacturers. The valve can be moved to the "closed" position by pressing a button. All 4 valve position are scanned without being touched. Connection are available for backwash pump, pressure switch and valve.

Code	Description	Connection	Weight	Volume	U
00602015	Eurotronic 10	1.5" Side Mount	7kg	0.03	1
00602016	Eurotronic 10	1.5" Top Mount	7kg	0.03	1
00602017	Eurotronic 10	2" Side Mount	8kg	0.05	1
00602018	Eurotronic 10	2" Top Mount	8kg	0.05	1

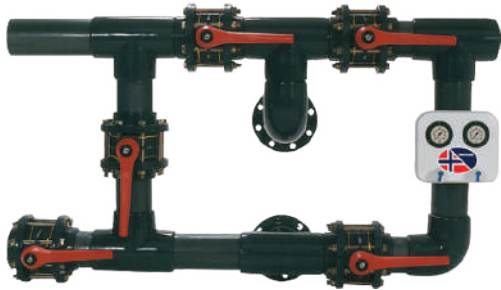
#### Eurotronic 20

This backwash control is essentially identical to the Eurotronic-20 MPV. However, it has additionally a run-time control for a 230V filter pump. The filter run-times can be programmed directly on the operating panel. Furthermore, the filter pump can be manually switched on and off. The integrated timeswitch or the appropriate key on the film keyboard can be used to switch a 230v filter pump (max.1.1kw) on and off.

Code	Description	Connection	Weight	Volume	U
00603015	Eurotronic 20	1.5" Side Mount	7kg	0.03	1
00603016	Eurotronic 20	1.5" Top Mount	7kg	0.03	1
00603017	Eurotronic 20	2" Side Mount	8kg	0.05	1
00603018	Eurotronic 20	2" Top Mount	8kg	0.05	1



## ► Manual and Automatic Backwash



Manual Manifold Valve



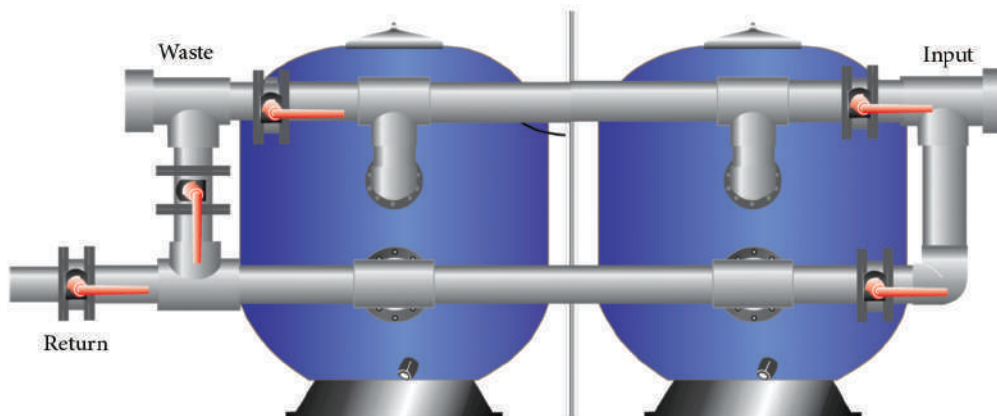
Automatic Backwash

### Manual Manifold Valve

Manual Valve Battery for Commercial Filter Applications, Fitted with PVC Pipes and Fittings. Comes with Double glass pressure gauge. All manual or automatically driven valve manifolds are made with flanges for connections to filters as per DIN - 2501 standard.

### Automatic Battery Valve 4 & 5 with pneumatic or electric actuator

Automatic Valve Battery Sets are Delivered Completely Assembled Including a Manometer Panel with Testing Valves and the Pipe Supports (Pipe Supports are only Supplied for Filters with Connections Larger than 90 mm) They can be Supplied with Automatic PVC Butterfly Valves and Automatic Valve Battery Sets with Electric or Pneumatic Actuator. PP (polypropylene) Valves upon Request. Fully Automatic Valve Battery for Horizontal and Vertical Filters, Driven Either by Electric Power or Pneumatically Activated. Capable of Performing Filtration, Backwash, rinse and shut down operations of the filter. Each valve battery consists of 5 butterfly valves, but can be supplied, according to the needs and requirements of each installation upon request, for 1,2 or more filters, with more or less number of valves, connections in different positions, different heights, etc. In certain cases, it can be helpful to use a full equipped automatic valve battery set, mounted and ready to work. We can offer an automatic valve battery set with pneumatic/electric actuators installed in the same battery with an electronic control box and its manometer panel. With all connected equipments and after the installations of the battery to the filter, only with the regulation on the control box, the filtration equipment will be ready to work.



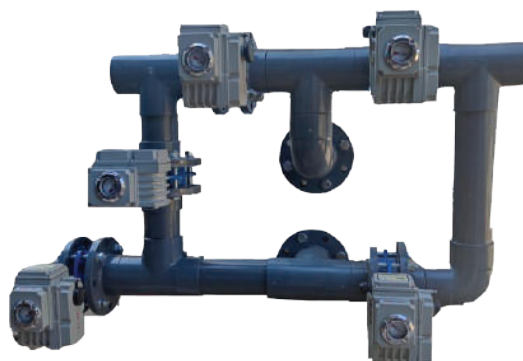
## ► Manual and Automatic Backwash

Filtration



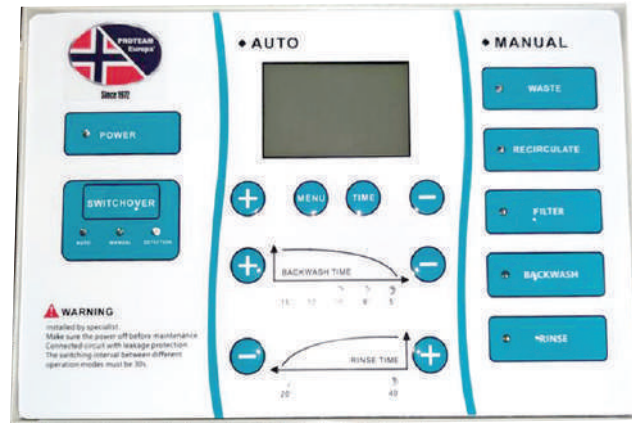
### Technical Specification

Code (Manual)	Code (Automatic) (Electric)	Code (Pneumatic)	Discription	Connections mm	Inch
05604003	05651030	05652030	4 - Valve Battery	D90	3"
05604004	05651040	05652040	4 - Valve Battery	D110	4"
05604005	05651050	05652050	4 - Valve Battery	D140	5"
05604006	05651060	05652060	4 - Valve Battery	D160	6"
05604008	05651080	05652080	4 - Valve Battery	D225	8"
05604009	05651090	05652090	4 - Valve Battery	D250	10"
05604010	05651091	05652091	4 - Valve Battery	D315	12"
05604011	05651092	05652092	4 - Valve Battery	D355	14"
05650030	05653003	05654003	5 - Valve Battery	D90	3"
05650040	05653004	05654004	5 - Valve Battery	D110	4"
05650060	05653006	05654006	5 - Valve Battery	D160	6"
05650080	05653008	05654008	5 - Valve Battery	D225	8"
05650090	05653009	05654009	5 - Valve Battery	D250	10"
05650010	05653010	05654010	5 - Valve Battery	D315	12"
05650011	05653011	05654011	5 - Valve Battery	D355	14"





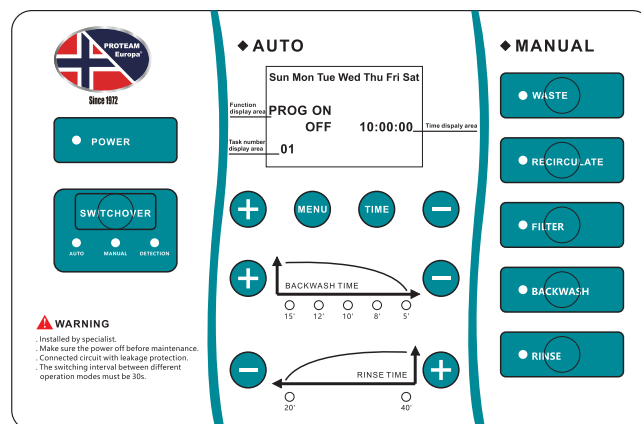
## ► Control Panel - Backwash system



Filtration

### Features

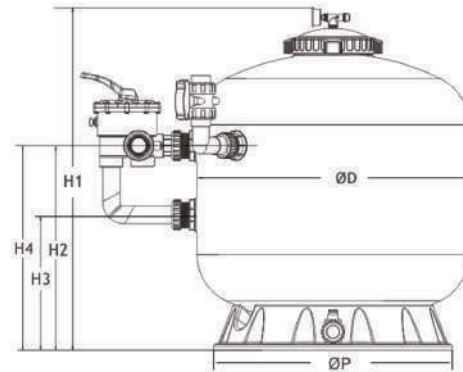
Control panel for electrically or pneumatically actuated manifolds of 4 or 5 valves. For automatic filtration, backwashing, rinsing and shut-down operations, control panel with automatic Programming enables the execution of all the required operations and can be customized. Electric - or pneumatic driven butterfly valve assembly with 4 - butterfly valves for performing similar functions as 5 valve except rinse operation. Fitted with PVC pipes and fittings and double glass pressure gauge. NOTE Overhead PVC pressure pipe installations should be mounted on supports. The SS304 Butterfly valve assembly supports are not part of standard assembly kit and must be ordered separately. It is highly recommended to support the butterfly valve assembly in order to avoid load stress on the flange connections. It is possible to connect more than one filter to a single assembly of 5 butterfly valves as shown above. However, ensure that the pump capacity is oversized to take care of the additional head loss during the backwash operation. This kind of assembly is generally used in filter plants operating at velocity: 20-25m<sup>3</sup>/hr/m<sup>2</sup>.





## ► Biological Filter - Boga

Filtration



### Biological Filter-Boga

Life Support Unit Proteam Europa BOGA Model Biological Filter Specially Designed for Pond and Aquarium. Biological Filter are Closed Pressure Filter Containing Food Grade Polyethylene Granules or Beads. The Foam and Size of the Beads Create a Large Surface on Which Bacteria and Suspended Solid Can Life Attached it. It Provides Mechanical and Biological Filtration at a Single Unit Which Complete With Bobbin Wound Filter, Multiport Valve, Piping Circulation Pump, Air Blower, Control Box and Base. It has been Engineed Uniquely for Pond and Aquarium.

### Technical Specification

Code (Manual)	Diameter	Flow Rate (m <sup>3</sup> /h)	Pond Size m <sup>3</sup>	Fish Load Kg	Food Pr
00594500	450	7	6	20	200
00594500	500	10	10	35	350
00594650	650	5	30	78	780
00594750	750	22	34	94	940
00594800	800	25	52	124	1240
00594900	900	32	73	172	1720
00594120	1200	56	148	310	3100

### Dimensions

ØD(mm)	450	500	650	700	800	900	1200
H1	661	731	792	887	1022	1113	1352
H2	386	406	436	521	606	651	821
H3	261	281	311	301	386	431	601
H4	386	406	436	481	601	651	821
P	391	391	566	506	791	791	1011

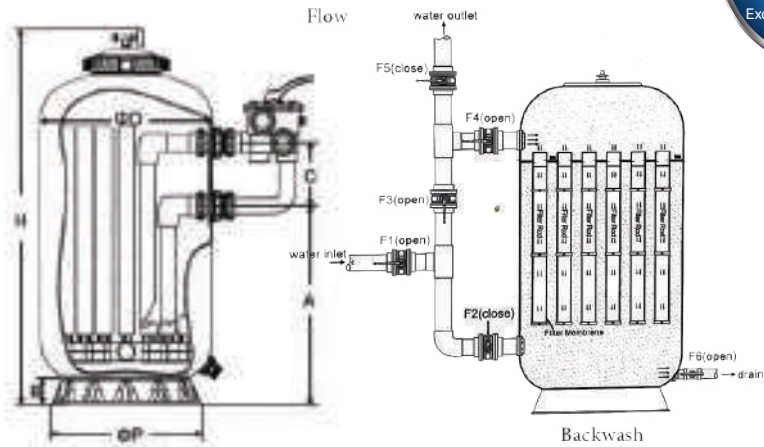


# Filtration



Filtration

## ► Diatomaceous earth fiberglass filters

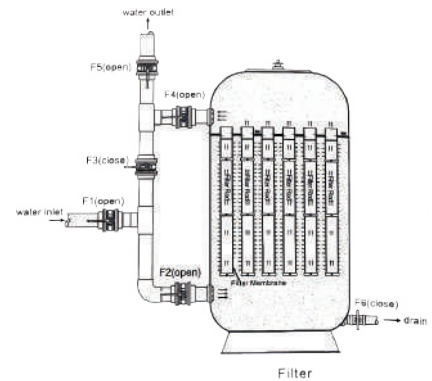


### Specification

Proteam Europa Diatomaceous earth filter specially designed for pools. Performance of the diatomaceous earth media in the world safest and easiest to operate. D.E is historically the media of choice for the designers of some of the largest and most beautiful pools in the world, it is now more practical for all backyard pools as well. It brings you the proven performance of diatomaceous earth media in the world 's safest and easiest to operate filter. the greater cycle times and minimized maintenance of the filter, coupled with superior grid system, gives you the finest D.E filter available.

### Features

- Good and crude media for filtration - Diatomaceous (DE)
- High filter precision, can reach 2—3µm
- Shorter time to backwash, save water and energy source
- Deep bed designed, save area
- Standard maximum working pressure 2.5bar
- Optical maximum Working pressure 4.0bar
- Maximum temperature 50°C



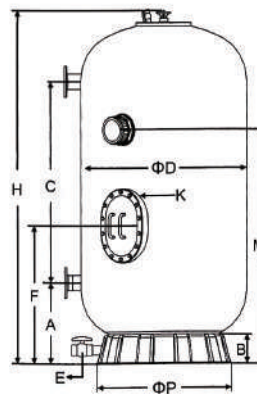
### Technical Specification

Code	Diameter mm	Size mm	Filtration Area m <sup>2</sup>	Flow m <sup>3</sup> / h	D.E Kg
00596650	650	60/63	3.64	18	2
00596700	700	60/63	5.07	25	3
00596800	800	80	9.4	47	5
00596900	900	80	11	55	6
00596100	1000	100	15	75	8
00596120	1200	100	23.4	117	13
00596140	1400	150	32.6	163	19
00596160	1600	150	40.6	203	22
00596180	1800	200	53.4	267	30



## ► Diatomaceous earth fiberglass filters

Filtration



### Diatomaceous Earth Fiberglass Filters

Good and crude media for filtration - Diatomaceous (DE) | High filter precision, can reach 2~ 3  $\mu$ m. Shorter time to backwash, save water and energy source. | Deep bed designed, save area. Standard maximum working pressure 2.5bar. | Optical maximum Working pressure 4.0bar. Maximum temperature 50°C

### Dimensions

D(mm)	650	700	800	900	1000
H	1310	1340	2100	2100	2100
A	700	730	400	400	400
B	95	95	115	115	140
C	220	220	1300	1300	1300
E			50	50	50
F			900	900	900
K			400x300	400x300	400x300
M			1350	1350	1350
P	565	565	690	760	830

D(mm)	1200	1400	1600	1800
H	2300	2350	2350	2450
A	500	600	600	650
B	165	165	215	215
E	50	63	63	63
F	900	900	900	1000
K	400x300	400x300	400x300	400x300
M	1400	1400	1400	1450
P	980	1215	1450	1610



# Filtration



## ► Wall Hanging filtration unit



Filtration

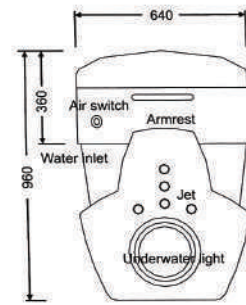
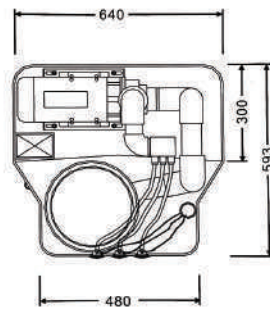
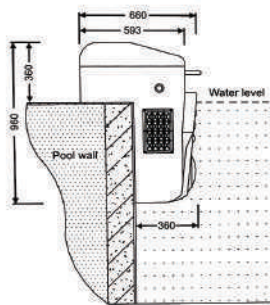


### Description

PROTEAM Europa wall hanging filter housing is made of high quality acrylic, the unit is easy for installation and assembles all the equipment of filtration, circulation, disinfection, drainage and lighting in one compact unit. It is also equipped with multifunctional jet which not only makes the pool water circulate, but also has functions of swimming training massage and fun in water. Extra fit for children pools.

### Technical Specification

Code	Pump	Voltage	Flow Rate	Filter Precision	Filtration Area	Noise	Size
00899120	1.2HP	220V	10-12m <sup>3</sup> /h	5µ	0.25m <sup>2</sup>	40db	640x660x960mm



### Installation Details





## ► Wall Hanging Filtration Unit

Filtration



### Technical Specification

Code	Pump	Voltage	Flow rate	Filter precision	Filtration Area	Noise	Outer Size
00899121	2.0HP	220V	25m3/h	5μ	0.39m2	40db	1120x684x1080mm
00899122	2.0HP	220V	22m3/h	5μ	0.35m2	50db	1725x1112x684mm

### Features

Place the unit in a proper position according to the installation detail drawing. Adjust with a level to make sure the tolerance is less than 2mm. Use the filler pieces to pack the unit level, fix the packing pieces, then fill in the vacant area with grout. Clear away any debris from the installation area, and make a datum mark before installation. Connect drain pipe and cable pipe as shown in the installation detail drawing. The control box must be damp-proofed, Electrical installation and testing must be done by a licensed or certified electrician. Fill in the joint between the unit and pool wall with grout when installing, and seal it with sealant. After installation, fill with sand around the unit board. Spread stones on the side of proof to match the pool structure. Record the installation notes.



PROTEAM Europa wall hanging filter made of high quality acrylic housing, the unit is to install and contain all the equipment for filtration, Circulation, disinfection, drainage and lighting in one compact unit. It is also equipped with a multifunctional jet which not only makes the pool water circulate, but also has function for swimming training, massage and fun in the water.



# Filtration

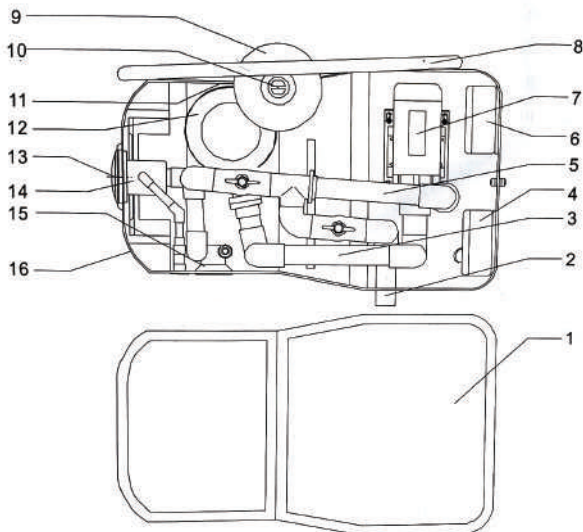


Filtration

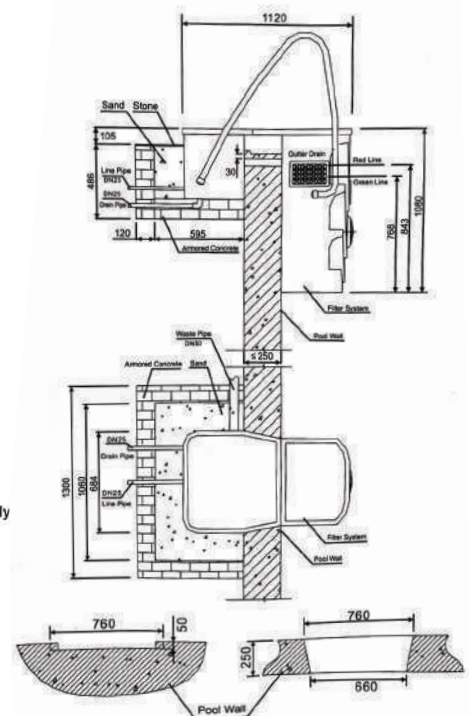
## ► Wall Hanging Filtration Unit Diagram



### Installation Details



- 1) Cover
- 2) Drain Pipe
- 3) Water Inlets
- 4) Ozone Generator
- 5) Water Outlets
- 6) Junction Box
- 7) Pump
- 8) Stainless Steel Armrest
- 9) Vacuum System
- 10) Vacuum Point
- 11) Inlet
- 12) Filter
- 13) Underwater Light
- 14) Swim Jet
- 15) Air and Water Hydro Jet Assembly
- 16) Housing





## ► Wall Hanging Compact Filtration

Filtration



### Features

- Elegant Acrylic body
- No water-leaking problem
- High-efficiency ozone disinfection
- Fully-automatic electronic control
- No piping and no plant room
- Swim jets with air control
- Energy saving LED light
- Easy installation and maintenance
- Vacuum point included
- Waterproof RF remote controller



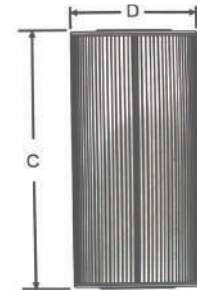
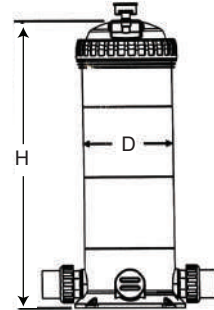
### Technical Specification

Code 06062050 - Specifications	Code 00606125 - Specifications
230V/50Hz, 230V/60Hz or 115V/60Hz	230V/50Hz, 230V/60Hz or 115 V60Hz
Power consumption ~3.1kw	Power consumption ~ 1.6kw
Material of body: High-dense pure acryl (PMMA)	Body material: High-dencse Pure acrylic (PMMA)
Digital Controller x 1 pcs	Digital controller x 1pcs
2HP circulation pump x 2pcs	2HP circulation pump x 1 pcs
Ozone generator (500mg/h) x 1pcs	Ozone generator (500mg/h) x 1 pcs
Underwater LED Light (18W/12V) x 1pcs	Underwater LED light (18W/12V) x 1 pcs
Swim jet x 2 pcs	Swim jet x 2 pcs
Chemical feeder x 2pcs	Chemical feeder x 2pcs
Filter bag x 2pcs	Filter bag x 2 pcs
Optional items	Optional item
R F waterproof remote controller is available	R F waterproof remote controller is available.
Flow rate: Max. 50m3/h	Flow rate: Max. 25m3/h
Filtration grade of filtration bag: <5u microns	Filtration grade of filtration bag:<5u microns
color for acrylic body: white	color for Acrylic body: white
Dimension: L1470 x W780 x H1030	Dimensions: L1450 x W640 x H1130mm
Packing size: L1470 x W780 x H1130	Packing size: L1470 x W660 x H1130mm
Gross weight: 95kgs	Gross weight: 85kgs





## ► Cartridge Filters - Volta



Filtration



### VOLTA Cartridge Filter

Proteam Europa cartridge filters offer added quality, value and convenience in cartridge filtration. With filter tanks constructed of fiber glass material, they are the good choice for the most demanding applications and environmental conditions. Proteam Europa cartridge filters have greater effective filtration area. Single Piece injection-modified base provides added strength for reliable, corrosion-free performance. Stainless steel clamp securely fastens head to filter tank. Durable filter head may be rotated to conveniently position pressure gauge and manual air relief. Extra-large cartridge element provides extra-strength and maximum flow 1½" or 2" FIP, 2" SKT connections for plumbing versatility.

### Features

UV Resistant Tank | Heavy duty top lid allows easy cleaning and replacement of the cartridge element. Compact and lite weight | Screw type air bleeder for easy removal of trapped air inside the filter tank. High quality oil filled pressure gauge for easy inspection of the operation pressure. | The Maximum working pressure 2.5 bar | Maximum temperature 40°C

### Technical specification

Code	Dia (mm)	Height (mm)	Flow (m3/h)	Area (m2)	Size (Inch)	Micron (µm)
00590250	225	368	6	2	1.5"	15
00590500	225	548	12	5	1.5"	15
00590550	225	728	16	7	1.5"	15
00590600	225	908	23	10	2"	15
00590650	225	1088	34	13	2"	16
00590700	225	1268	40	17	2"	15

Code	Elements
00590250	59-250-01
00590500	59-500-02
00590550	59-550-03
00590600	59-600-04
00590650	59-650-05
00590700	59-700-06

### Dimensions

Code	00590250	00590500	00590550	00590600	00590650
H(mm)	368	548	728	908	1088
D	225	225	225	225	225
A	184.50	364.50	544.50	724.50	904.50
B	183	183	183	183	183



## ► Portable Filtration Kit

Filtration



**Filtration Kit with sand filter**



**Filtration Kit with Cartridge filter**



### Portable Filtration Kit with sand Filter

PROTEAM Europa compact filtration kit with trolley. The integrated circulation, filtration, and sterilization unit is assembled with bobbin wound sand filters, Circulation pump and chemical feeder. The unit is a multifunctional system assembled with precision, simple to operate, easy to install. It's optimal choice for filtering movable and inflated pools.

#### Features

Compact design for easy carriage and quick to install. | Contains all the function of filtration and ready to use. The base uses singular forming which makes the base strong and durable. | The operation of the unit is stable and reliable. | The circulation pump has superior performance and extremely quite during operation. The filter bobbin wound top mounted. | Eco -friendly and anti - corrosive. | Cable length will be 15 m with control switch. | The whole unit is accurately assembled, it is easy to install and maintain, it is suitable for moving pools and private pools.

#### Technical Specification Sand Filter

Code	Filter dia (mm)	Pump (HP)	CL Feeder	Connection	Pool size	Phase	Cable length (m)
00595811	400	0.75	4kg	1.5"	30	1	10
00595812	500	1	4kg	1.5"	40	1	10
00595813	650	1.5	4kg	1.5"	50	1	10

#### Technical Specification Cartridge Filter

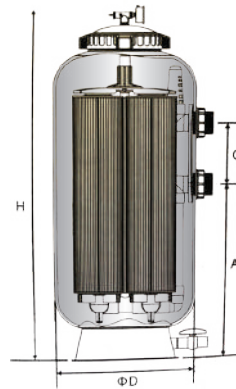
Code	Cartridge Filter Flow (mm)	Pump (HP)	CL Feeder	Connection	Pool size	Phase	Cable length (m)
00595814	6	0.75	4kg	1.5"	30	1	15
00595815	12	1	4kg	1.5"	40	1	15
00595816	16	1.5	4kg	1.5"	50	1	15
00595817	23	2	4kg	2"	60	1	15
00595818	34	2	4kg	2"	70	1	15



# Filtration



## ► Cartridge Filters Convertable



Filtration

### Description

PROTEAM Europa convertible filters specially designed for pool and ponds. Made of bobbin wound fiberglass tank with large clear lock ring sealed lid for easy to viewing filtration inside the filter. Large clear lock ring sealed lid for easy interior viewing and media installation and removal. | UV inhibited filament wound structural fiberglass tanks. | 2" or 63mm inlet /outlet PVC unions. | Either 6 way multiport or push -pull valve available for DE models. | Easy removal or installation of cartridges or DE elements. Cartridges in 20.9 ,23.2 ,35.3 , 41.8 Sq.m2 sizes , fully convertible to DE. | DE elements in 3.25 ,4.18 ,6.97 , 8.39Sq.m2 sizes , fully convertible to cartridge. | Exclusive integral inlet and outlet manifold eliminates conventional bulkhead fittings. | Hose drain valve allows removal of tank debris away from mechanical area.

### Technical Features for Cartridge Filters

Code	Diameter		Connection		Filtration area		Flow	
	mm	inches	mm	inches	m <sup>2</sup>	Ft <sup>2</sup>	m <sup>3</sup> /h	GPM
00593105	400	20	63	2	20.9	225	19.08	84
00593106	450	20	63	2	23.2	250	21.35	94
00593107	550	20	63	2	35.3	380	32.3	142
00593108	650	20	63	2	41.8	450	34.07	150
00593109	700	20	63	2	44.8	482	36.5	161

### Technical Features for Cartridge Filters DE Filters

Code	Diameter		Connection		Filtration area		Flow	
	mm	inches	mm	inches	m <sup>2</sup>	Ft <sup>2</sup>	m <sup>3</sup> /h	GPM
00593110	400	20	63	2	3.25	35	15.9	70
00593111	450	20	63	2	4.18	45	20.44	90
00593112	550	20	63	2	6.97	75	34.07	150
00593113	650	20	63	2	8.36	90	34.07	150

#### Cartridge Element Dimension

Code	0059110	0059115	0059120	0059125	0059130
D(mm)	400	450	550	650	700
H	1160	1160	1160	1160	1160
A	660	660	660	660	660
B	125	125	125	125	125
C	220	220	220	220	220

#### De Element Dimension

Code	0059211	0059212	0059213	0059214
D(mm)	400	450	550	650
H	1160	1160	1160	1160
A	660	660	660	660
B	125	125	125	125
C	220	220	220	220





## ► Inground Filtration Unit

Filtration



### Description

Proteam Europa inground Filtration unit is one of the best choices for swimming pool. It is in good appearance, easy to operate long time use. Different models could be chosen according to different size of swimming pools actual demand.

### Features

Easy to operate , no need any equipment room and special maintenance. | Adopts high precious of sand. With good performace pump. | More Economical because of simple disinfecting equipment - chemical feeder.

### Technical Specification

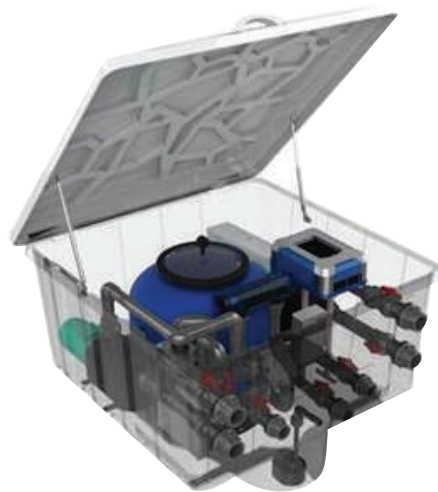
Code	HP	Voltage (V)	Flow Rate m <sup>3</sup> /hr	Filtration Area m <sup>2</sup> /hr	Pool Volume	Cabin Size
00595910	0.75	220-230	8	0.17	65	1320*1340*985
00595911	1	220-230	12	0.24	95	1320*1340*985
00595912	1.5	220-230	16	0.33	130	1320*1340*985
00595913	2	220-230	20	0.56	170	1550*1560*1135
00595914	2	220-230	25	0.67	200	1550*1560*1135

Code	Products
00595910	450 sand filter +.75HP pump +chemical feeder
00595911	500 sand filter +1HP pump +chemical feeder
00595912	650 sand filter +1.5HP pump +chemical feeder
00595913	700 sand filter +2HP pump +chemical feeder
00595914	800 sand filter +2HP pump +chemical feeder





## ► Inground Filtration Unit



### Description

PROTEAM Europa Inground filtration unit including salt chlorinator for salt water. The progressive filtration unit adopts professional sand filter, high efficiency pump and salt chlorine generator, 3HP massage pump and submersible pump 3HP massage pump makes the filtration unit more powerful. Equipped with submersible pump, avoiding the security risk that caused by accumulated water in tank. Equipped with salt - chlorine generator, the most effective and high -tech equipment.

### Technical Specification

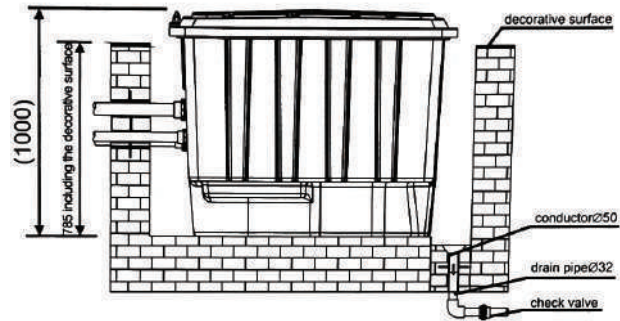
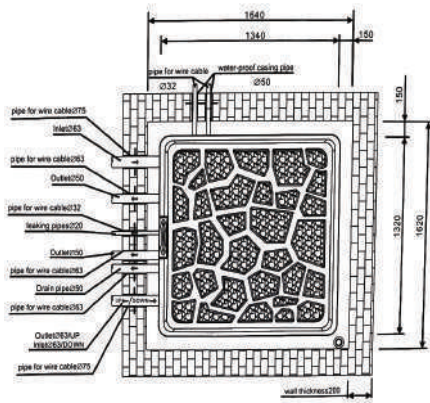
Code	Pump HP	Voltage (V)	Flow rate m <sup>3</sup> /hr	Filtration Area m <sup>2</sup> /hr	Pool Volume	Cabin size
00595921	0.75	220-230	8	0.17	65	1320*1340*985
00595922	1	220-230	12	0.24	100	1320*1340*985
00595923	1.5	220-230	16	0.33	130	1320*1340*985
00595924	2	220-230	20	0.56	175	1550*1560*1135
00595925	2	220-230	25	0.67	200	1550*1560*1135

Code	Products
00595921	450 sand filter +0.75hp circulation pump +3hp massage pump +submersible pump+8g/hr salt chlorine generator
00595922	500 sand filter +1hp circulation pump +3hp massage pump +submersible pump+12g/hr salt chlorine generator
00595923	650sand filter +1.5hp circulation pump +3hp massage pump +submersible pump+16g/hr salt chlorine generator
00595924	700 sand filter +2hp circulation pump +3hp massage pump +submersible pump+25g/hr salt chlorine generator
00595925	800 sand filter +2hp circulation pump +3hp massage pump +submersible pump+33g/hr salt chlorine generator



## ► Inground Filtration Unit

Filtration



### Technical Specification

Code	Pump HP	Voltage (V)	Flow rate m <sup>3</sup> /hr	Filtration Area m <sup>2</sup> /hr	Pool Volume	Cabin size
00595915	1.5	220-230	8	0.17	65	1320*1340*985
00595916	1.5	220-230	12	0.24	100	1320*1340*985
00595917	1.5	220-230	16	0.33	130	1320*1340*985
00595918	2	220-230	20	0.56	175	1550*1560*1135
00595919	2	220-230	25	0.67	200	1550*1560*1135

Code	Products
00595915	450 sand filter +1.5hp circulation pump +3hp massage pump +8g/hr salt chlorine generator + UV 28W+Submersible Pump
00595916	500 sand filter +1.5hp circulation pump +3hp massage pump +12g/hr salt chlorine + UV 28W+Submersible Pump
00595917	650 sand filter +1.5hp circulation pump +3hp massage pump +16g/hr salt chlorine + UV 28W+Submersible Pump
00595918	700 sand filter +2hp circulation pump +3hp massage pump +25g/hr salt chlorine generator + UV 28W+Submersible Pump
00595919	800 sand filter +2hp circulation pump +3hp massage pump +33g/hr salt chlorine generator + UV 28W+Submersible Pump





## ► Protein Skimmer



### Protein Skimmer - Life Support System

PROTEAM Europa Protein skimmer specially designed for recirculating aquaculture and aquarium. Made of corrosion resistant durable and premium grade environmental friendly material.

#### Features

Energy saving and environmental protection.

Powerfull bubbles generating effect and they are uniform in size and density.

Circulate predictably and rise slowly. Internal baffle plate for uniform fluid flow.

Remove suspended solids while increasing dissolved oxygen in the water.

Effectively and efficiently remove harmful gases, residual feeds, feces and other organic compounds, can reduce the burden of biological filter system and stabilize water's ph value.

Trouble-free design, free of maintenace, long service life, with collecting tank, easy for disassembling and cleaning.

Discharge the foam directly, without collecting tank, no need cleaning, more water-saving, practical and environmental.

#### Technical Specification

Code	Diameter (mm)	Height (mm)	Flow rate (m3/h)	Process Time (min)	In/Out (mm)	Waste (mm)	Venturi QTY (pcs)	Pump (kw)
00597400	400	2500	10/7.5	1.5-2	63/90	50	1	0.75
00597401	600	2700	22/16	1.5-2	90/110	50	1	1.5
00597402	800	3100	45/34	1.5-2	90/110	50	1	1.5
00597403	900	3100	55/42	1.5-2	90/140	50	2	3
00597404	1000	3600	85/65	1.5-2	110/160	63	2	3
00597405	1200	3600	120/94	1.5-2	160/200	63	3	4.5
00597406	1400	3800	180/130	1.5-2	200/250	75	2	4.5
00597407	1600	3800	240/180	1.5-2	250/300	75	3	2.2x3
00597408	1800	4000	320/240	1.5-2	250/300	90	2	7.5x2
00597409	2000	4000	400/300	1.5-2	250/300	90	3	7.5x3



# Filtration



## ► Filtration Glass Media

Filtration



### What is Glass Media?

It is a latest generation filter media based on virgin recycled glass, designed exclusively for water filtration. Just by changing your current filter media and you will maximize every standard filter's performance.

### What advantages does it achieve?

You will find noticeable advantages in



Performance



Durability



Purity



Safety



Savings



## ► Filtration Glass Media



### Energy savings

The Anti-compaction Technology has been designed to keep the micro channels that form in the filtering mass open. When they are kept unblocked, the pressure in the filter stays at its minimum level and the clogging capacity stays at its maximum level, resulting in the following savings:

Up to 60% of the pump consumption\*

Up to 10% of the heating consumption\*



### Water saving

At the same time as we save energy, due to keeping the micro channels open, we also manage to save water as we reduce backwashing. This means:

Up to 35% in water consumption when backwashing\*



### Reduction of the use of Chemical products

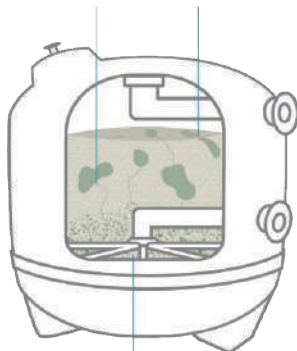
Most of the chemicals used for the maintenance of the water are aimed at eliminating biofilm. The certified absence of this gives us:

Up to 30% saving in the cost of chemical products\*

### Advantages of Glass media over silica sand

#### Advantages of Glass media

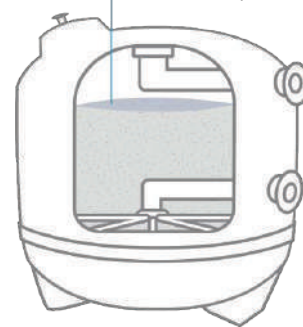
Channelings Biofilm



Compacted silica sand

#### Over silica sand

Absence of biofilm  
All microchannels remain open  
Anti-Compactacion Technology

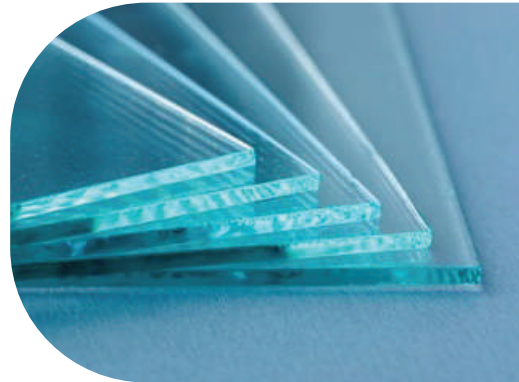








## ► Filtration Glass Media

Filtration

### Advantages of Glass media

- ✔ Absence of Free Silica (Bureau Veritas Certified)
- ✔ Accredited Absence of Biofilm
- ✔ Maximum durability
- ✔ Minimum energy, chemicals and water consumptions
- ✔ High filtration quality: hygiene and transparency
- ✔ Minimum pump pressure



	Advantages of Nature works	Over other glasses
	<b>Glass media</b> Anti-Compaction Technology	<b>Other glasses</b> Used as filter media
 PERFORMANCE	<ul style="list-style-type: none"> <li>• Maximum transparency of the water</li> <li>• Accredited absence of glass media</li> <li>• Reduction of the levels of chloramines and THMs</li> <li>• Fresh Water Treatments BV certified</li> </ul>	<ul style="list-style-type: none"> <li>• Different results</li> <li>• No accreditation of biofilm absence</li> <li>• Absence of certification for Fresh Water Treatments</li> </ul>
 SAVINGS AND EFFICIENCY	Significant reduction in the consumption of <ul style="list-style-type: none"> <li>• Water</li> <li>• Energy</li> <li>• Chemical products</li> </ul>	<ul style="list-style-type: none"> <li>• Less saving in all fields</li> </ul>
 SAFETY	<ul style="list-style-type: none"> <li>• Micro-polished particle free of sharp edges and pores</li> <li>• Completely safe to handle</li> </ul>	<ul style="list-style-type: none"> <li>• Hazardous edges when it comes to handling, especially during installation and removal</li> </ul>
 DURABILITY	<ul style="list-style-type: none"> <li>• The Anti-Compaction Technology allows an unlimited lifespan and being able to use a single layer makes it possible to be re-used indefinitely</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple layers needed, limiting its lifespan in the case of having to fix the filter</li> <li>• Not reusable</li> </ul>
 PURITY	<ul style="list-style-type: none"> <li>• Guaranteed Bacteria &amp; Contaminant free</li> </ul>	<ul style="list-style-type: none"> <li>• Expected presence of bacteria and other contaminant</li> </ul>
 PACKAGING	<ul style="list-style-type: none"> <li>• Glass media has a purity level of 99,999% or higher, certified by bureau veritas</li> <li>• Environmentally friendly recyclable packaging. Made from paper with FSC certificate.</li> </ul>	<ul style="list-style-type: none"> <li>• Absence of purity degree certification of any kind</li> <li>• Plastic packaging</li> </ul>



# Filtration



Filtration

## ► Filtration Media



Glass Media



Filtration Sand Media



### Glass Filtration Media

Glass filter media is the environmentally friendly filter media and a viable alternative to silica sand made from glass recycled. It doesn't involve intrusive mining and the use of scarce resources. It has green credentials, with its superior performance and also cost effective against sand.

#### Glass Media

Code	Granulometry	Units	Weight (Kg)	Volume Package(m <sup>3</sup> )
00101010	0.8 - 4 mm	1	20	0.667
00101030	3.0 - 1 mm	1	20	0.667
00101070	7.0 - 3 mm	1	20	0.667

#### Filtration Sand

Code	Granulometry	Units	Weight (Kg)	Volume Package(m <sup>3</sup> )
00104080	0.4 - 0.8 mm	1	25	0.700
00104081	0.5 - 1 mm	1	25	0.700

#### Gravel

Code	Granulometry	Units	Weight (Kg)	Volume Package(m <sup>3</sup> )
00101020	1 - 2 mm	1	25	0.667
00103050	3 - 5 mm	1	25	0.667

#### Diatomaceous Earth Celatom

Code	Granulometry	Units	Weight (Kg)	Volume Package(m <sup>3</sup> )
00604010	1 - 2 mm	1	25	0.600

#### Zeolite

Code	Granulometry	Units	Weight (Kg)	Volume Package(m <sup>3</sup> )
00645010	0.5 - 1 mm	1	25	0.667
00645030	1 - 3 mm	1	25	0.710
00645070	3 - 7 mm	1	25	0.710

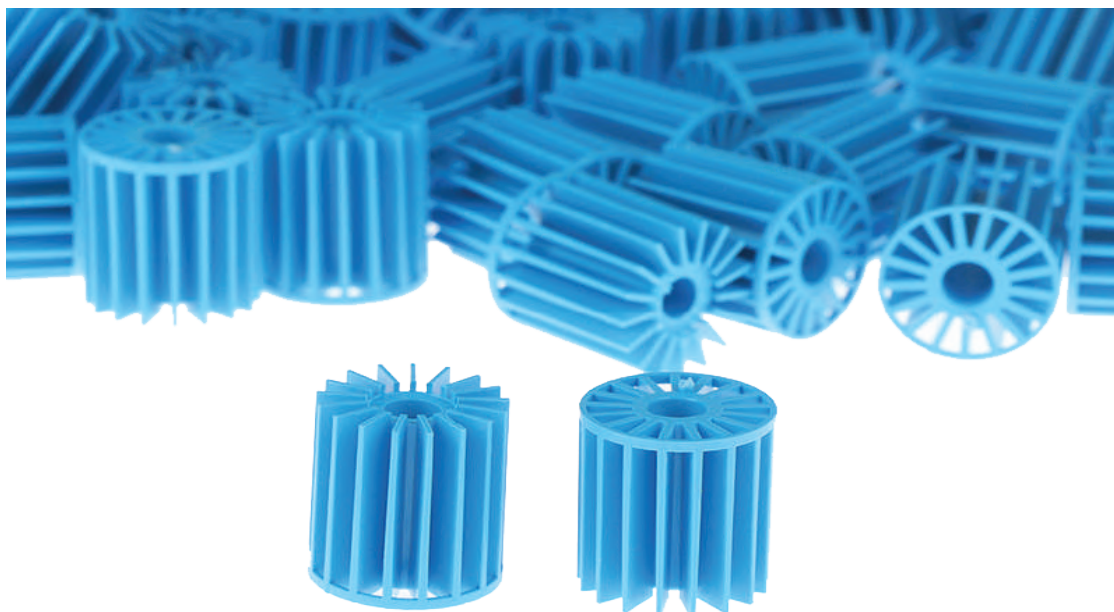
#### Anthracite

Code	Granulometry	Units	Weight (Kg)	Volume Package(m <sup>3</sup> )
00644020	0.8 - 1.6 mm	1	25	0.800



## ► Bio Balls Filtration Media

Filtration



### Quality Filtration

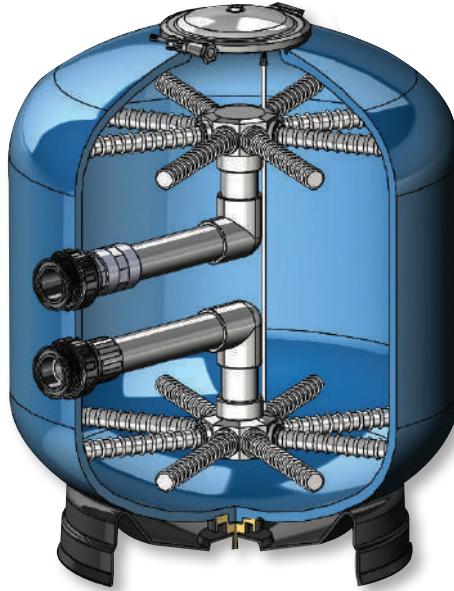
Bio balls has been proven to efficiently reduce the turbidity of pool water and retain particulate without increasing the pressure within the filter or reducing the flow. The debris capacity of Bio balls is more than 20 times that of sand or glass. Bio balls removes 81% of 10 micron particles in a single pass and can remove particles as small as one micron without flocculation or coagulation.

### Light weight

Bio balls is lightweight so easy to handle and transport. This is a huge advantage in terms of manual handling requirements, ease of installation and logistics. Bio balls is supplied in 50 litre bags that each weigh approximately 9kg and have the equivalent volume of three 25kg bags of sand.



## ► Bio Balls Filtration Media



### Features

Excellent copolymer materials, soaking in waste water for a long time will not degrade, and will not have side effect on micro organisms. The structure is reasonable. The hollow packing structure is three layers of hollow circulw inside and outside. Each circle has one rib inside and 36 ribs outside. Secondary molding. The specific surface area is large, the specific surface area of ordinary micro organisms is 180-90, and the specific surface area of hollow packing can reach 600, double specific area if it reaches more than 860, due to the large specific surface area, the biomass per unit volume is high, and the hydraulic retention time can be achieved. Short purpose. The activity of micro organisms is high. The microbial film growing on the surface of the packing is due to the fluidized collision of the packing. Aeration and scour make micro organisms in the logarithmic growth period of high activity, the processing efficiency is high. The hollow packing is floating type, easy to replace and long service life. Strong ability to denitrify and decompose organic matter, to achieve the purpose of removing ammonia nitrogen.

### Technical Features

Model	P1	P2
Diameter	Φ 10mm X 10mm	Φ 25mm X 10mm
Material	HDPE	HDPE
Surface area	> 1200m <sup>2</sup> / m <sup>3</sup>	> 800m <sup>2</sup> / m <sup>3</sup>
Porosity	> 85%	> 90%
Doing Ritio	15-70%	15-65%
Stacked weight	130kg/m <sup>3</sup>	110kg/m <sup>3</sup>
Applicable temperature	5-60°C	5-60°C
Life time	> 10 years	> 10 years





## ► Bio Balls Filtration Media

Filtration

### Technical Specification

Status	Sand Media	Bio balls	Comments
Operational Flow	Same	Same	Turnover unchanged
Pump Speed	50Hz	42Hz	Saving Approximately 70,000kw
Backwash Volume	1,400,000 Ltr Per Yr	360,000 Ltr Per Yr	Saving Over 1,000,000 Ltr treated /heated water per yr
Operational flow	51 M <sup>3</sup> /Hr	64 M <sup>3</sup> /Hr	Increased Flow By 20 %
Backwash Frequency	Once per week	Once per month	Backwash frequency reduced
Backwash volume	4,500 Ltr	2,300 Ltr	Save over 200,000 Ltr of water per Yr
Temperature loss over backwash	15.5°C (28°F)	2.2°C (4°F)	Temperature loss reduced per backwash limiting downtime





# REGENERATIVE MEDIA FILTERS



Residencial and

Commercial Pools

## ► Regenerative Media Filter



### Filtration of Extremely Small Particles as small as 1 Micron

Proteam Regenerative Media Filter is a more efficient alternative to sand or D.E. filtration. It's capable of filtering out materials as small as the 1 to 5 micron size range, while traditional sand filters can only remove particles in the 15 to 20 micron range. A micron is one millionth of a millimeter. A human hair is about 50 microns in diameter. Regenerative Media Filter is the only category of swimming pool filter that may capture viruses since viruses are too small to be effectively captured by more traditional sand filtration it can remove parasites such as cryptosporidium (crypto) most of these harmful bacteria will be captured and removed from the pool water. Traditional sand filters will rarely capture these tiny microorganisms (crypto is on the order of 3 to 5 microns in size). The ultra fine filtration of the Regenerative Media Filter will produce safer and cleaner water in your swimming pool. This can be observed visually and in testing we have observed a measured value of 0.02 NTU. Most standards around the world are 0.2 NTU meaning the Regenerative Media Filter is cleaning the water of suspended solids 10 times above the standards required.

### High Level of Water Conservation

Proteam Regenerative Media Filters have high level of water conservation, only water loss associated with the Regenerative Media Filter is twice the volume of the filter tank itself usually once a month with a correctly sized filter. usually once a month with a correctly sized filter. When it is time to replace the perlite material in the tank, after several regenerative cycle the volume of an entire tank is wasted to removal of all dirty perlite. The Regenerative Media Filter cleaning will use approximately a tanks volume to clean the tubes of any remaining perlite and debris. This water loss is magnitudes less than with a traditional sand filter that requires a backwash rate generally 1.5 times the filter flow rate for a period of 3 to 5 minutes at least once a week. With a sand filter this must occur every time the filter needs to be backwashed. Water savings are more than 90% compared to equivalent sand filters.

### Energy saving and Spaces & Construction saving

Proteam Regenerative Media Filter operates at lower head pressure throughout the filter cycle reducing power demand. And the elimination of backwash waste associated with sand filtration provides significant wastewater treatment savings. Compare with traditional sand filters, Regenerative Media Filter has more effective filter area. In the same filter area, Regenerative Media Filter takes up 1/4 to 1/6 of the space required by an equivalently sized sand system. This saves both space and construction costs.





## ► Regenerative Media Filter

### Proteam Regenerative Media Filter Model - FS Series

Model	Tank Size mm	4Hr Turnover @3m <sup>3</sup> /m <sup>2</sup> /hr	Perlite Kg	Filter Area m <sup>2</sup>	Flow m <sup>3</sup> /hr	Influent Efluent Size
FS-450	450	66	2.1	6	17	DN50
FS-500	500	85	2.7	7	21	DN80
FS-550	550	107	3.4	9	27	DN80
FS-600	600	130	4.2	11	33	DN80
FS-660	660	156	5.0	13	39	DN100
FS-710	710	185	5.9	15	46	DN100
FS-760	760	215	6.9	18	54	DN100
FS-810	810	249	8.0	21	62	DN150

Filtration

### Regenerative Media Filter Model - FM Series

Model	Tank Size mm	4Hr Turnover @3m <sup>3</sup> /m <sup>2</sup> /hr	Perlite Kg	Filter Area m <sup>2</sup>	Flow m <sup>3</sup> /hr	Influent Efluent Size
FM - 660	φ 660	221	7.1	18	55	DN100
FM - 710	φ 710	261	8.4	22	65	DN150
FM - 760	φ 760	305	9.8	25	76	DN150
FM - 810	φ 810	352	11.3	29	88	DN150
FM - 860	φ 860	403	12.9	34	101	DN150
FM - 920	φ 920	456	14.6	38	114	DN200
FM - 970	φ 970	514	16.4	43	128	DN200
FM-1020	φ 1020	574	18.4	48	144	DN200

### Regenerative Media Filter Model - FT Series

Model	Tank Size mm	4Hr Turnover @3m <sup>3</sup> /m <sup>2</sup> /hr	Perlite Kg	Filter Area m <sup>2</sup>	Flow m <sup>3</sup> /hr	Influent Efluent Size
FT - 810	φ 810	559	17.9	47	140	DN200
FT - 860	φ 860	639	20.5	53	160	DN200
FT - 920	φ 920	725	23.2	60	181	DN200
FT - 970	φ 970	816	26.1	68	204	DN200
FT-1020	φ 1020	912	29.2	76	228	DN250
FT-1070	φ 1070	1013	32.4	84	253	DN250
FT - 1120	φ 1120	1119	35.8	93	280	DN250
FT-1180	φ 1180	1231	39.4	103	308	DN250



## Regenerative Media Filter Model - FT Series

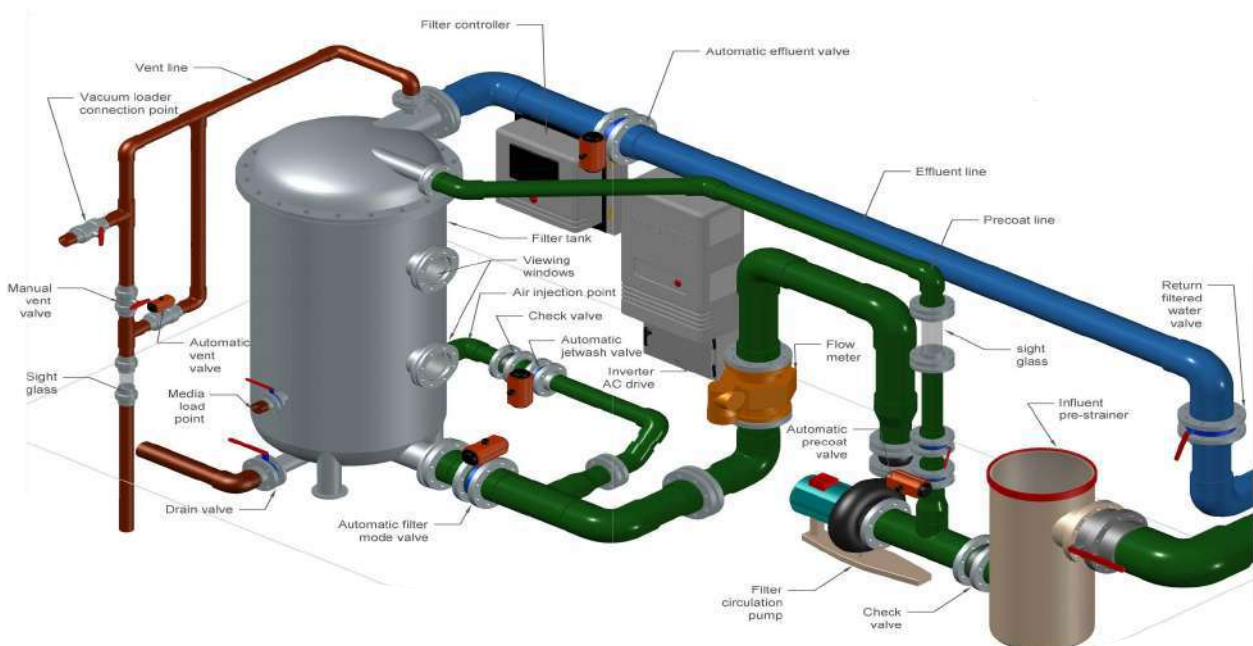
Filtration

Model	Tank Size mm	4Hr Turnover @3m <sup>3</sup> /m <sup>2</sup> /hr	Perlite Kg	Filter Area m <sup>2</sup>	Flow m <sup>3</sup> /hr	Influent Effluent Size
FT-1230	φ 1230	1348	43.2	112.4	337.1	DN250
FT-1280	φ 1280	1471	47.1	123	368	DN250
FT-1330	φ 1330	1601	51.3	133	400	DN250
FT-1380	φ 1380	1735	55.6	145	434	DN300
FT-1440	φ 1440	1874	60.0	156	469	DN300
FT-1490	φ 1490	2018	64.6	168	505	DN300

### Features

Stainless Steel 304 or optional 316L Filter shell and internals. Designed for reduce height installations. Tallest filter in the range is only 2500mm when installed. Air scour perlite removal and no moving parts. Precoat line has independent flanged connection to the filter. System allow operators to clean the tubes during media replacement. Filters can be custom made to suit the installation. Flange connections and windows can be moved in the design phase. Two windows to better see what is happening inside the filter. Windows are glass. May be shipped and moved laying down. This simplifies shipping and work site movement. Packed in ply wood box to protect during shipping. Automatic air purge in the vent system. Large range of sizes from 16.5 to 307.7 m<sup>3</sup>/hour. There is a filter size for every installation.

### Schematic Regeneration Media Filter



## ► Regenerative Media Filter



### Automatic Controller with Remote Access Ability

Proteam Regeneration media filter comes with automatic control system which using a 10" high resolution LCD touch screen control panel with on screen menus to make operation quick and easy. Automatic control system provides a platform for data collection like filter pressures, water flow rates, events and faults that is stored both locally within each units and in I- cloud based servers for later analysis. with information and control. You can achieve the most efficient operations, saving energy, chemicals and labor.

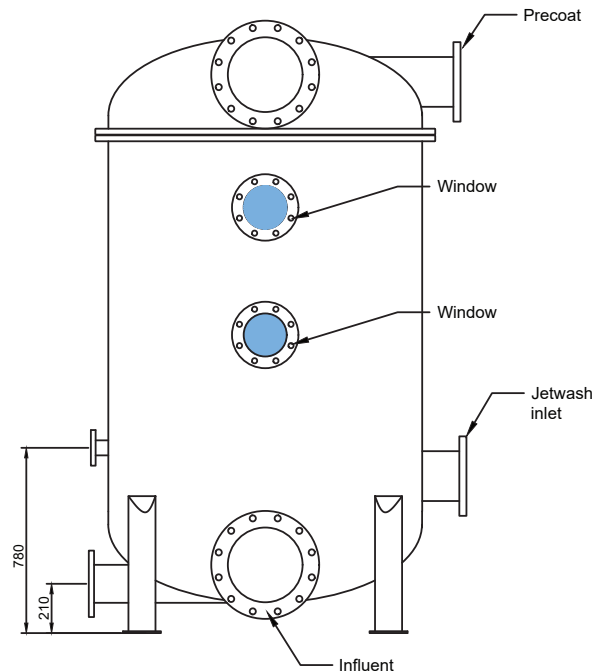
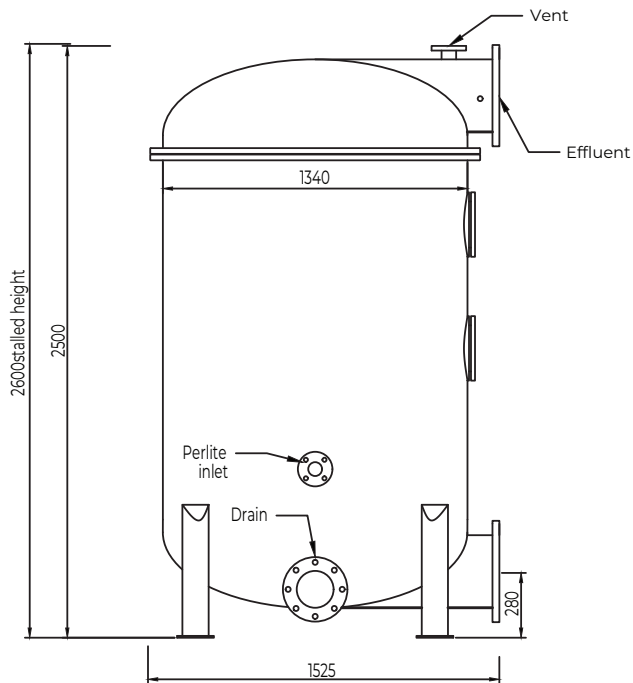
### Features

10 inch industrial touch screen. | View all installed components from a single screen. | Flow switch inputs. Integrated with our inverter pump controllers. | Pneumatic valve position feedback. | 1 or 2 pump controls for filter. | Duty cycle system is built in for filter circulation pumps. | Pump control for chemical circulation circuit. | Dry contact enable signal for chemical systems | pump control for heat circulation circuit. Optional inverter control for large installations. | Dry contact enable signal for heating systems. | Integrated flow meter. | Water temperature monitoring which can control heater circulation to setpoint. | Phase failure monitoring. | Air pressure monitoring. | Filter pressure monitoring. | Balance tank level and water makeup. Timed lighting control outputs. | Power saving mode by time of day to reduce filter flow. | Peak/Off peak input to control heating systems.

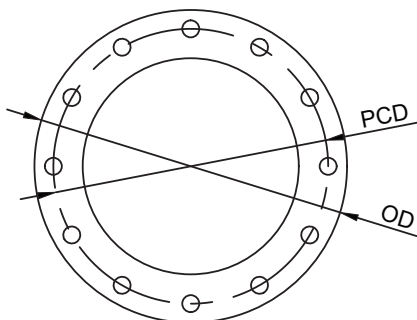


## ► Regenerative Media Filter

Filtration



**FT-1330**



FT1330	
Flow rate	162.6 to 399.8 m <sup>3</sup> / hr
Area	133.3 m <sup>2</sup>
Tank volume	2640 litres
Filter Dry Weight	990 kg
Perlite load	51.2 kg

Flanges				
Number Holes	Size	OD	PCD	
Influent	DN300	455	406	12
Effluent	DN300	455	406	12
AT System	DN200	335	292	8
Precoat	DN200	335	292	8
Drain	DN150	280	235	8
Perlite Inlet	DN50	150	114	4
Vent	DN50	150	114	4

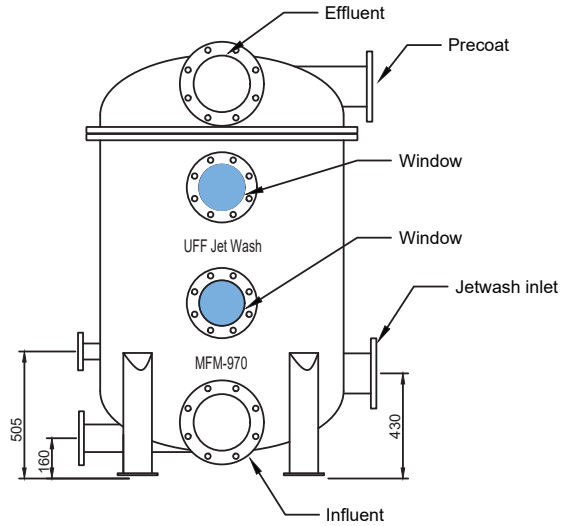
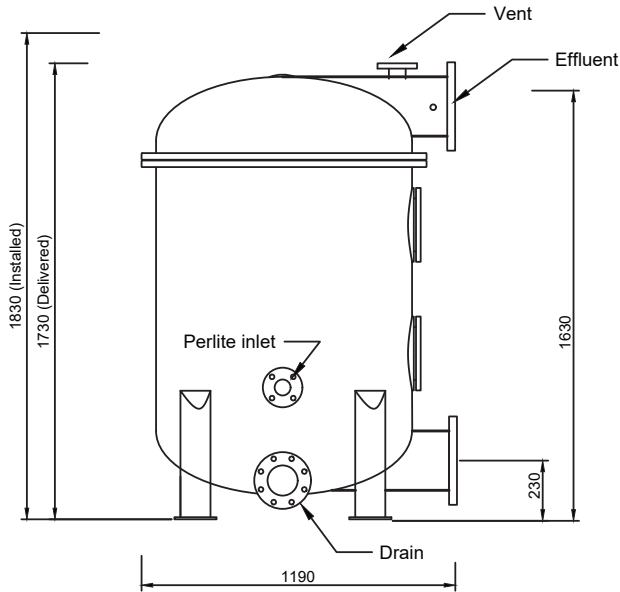


# Filtration

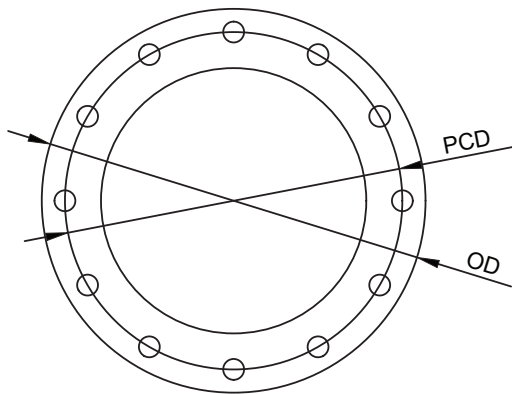


## ► Regenerative Media Filter

Filtration



FM-970



### FM970

Flow rate	52.2 to 128.4 m <sup>3</sup> /hr
Area	42.8 m <sup>2</sup>
Tank volume	1035 litres
Perlite load	16.4 kg
Influent Effluent flanges	DN200
Precoat Jetwash flanges	DN150
Drain flange	DN80
Vent flange	DN50

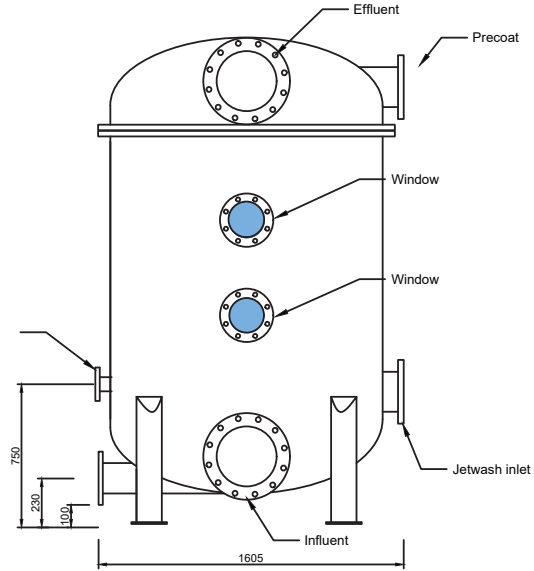
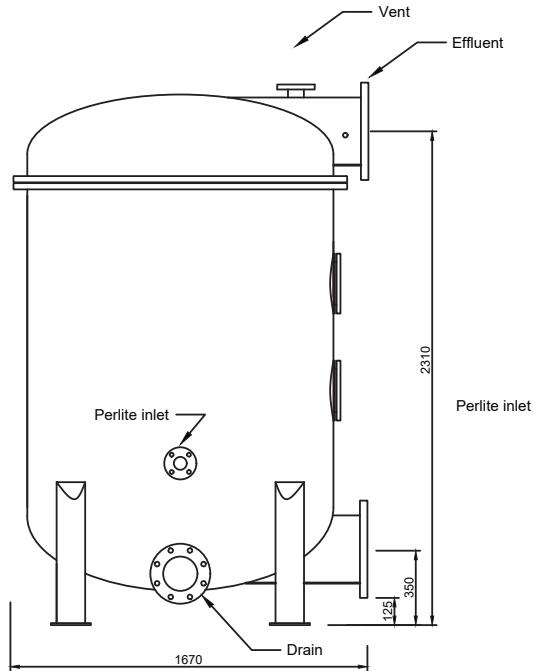
### Flanges

	Size	OD	PCD	Number Holes
Influent	DN200	335	292	8
Effluent	DN200	335	292	8
AT System	DN150	280	235	8
Precoat	DN150	280	235	8
Drain	DN150	280	235	8
Perlite Inlet	DN50	150	114	4
Vent	DN50	150	114	4

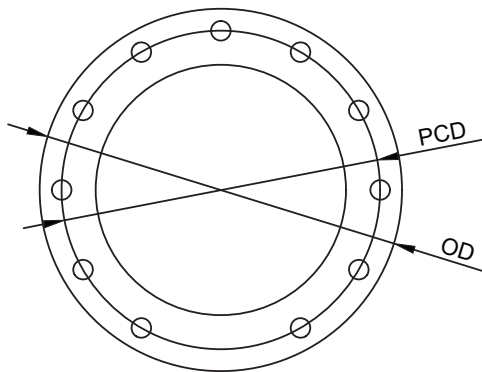


## ► Regenerative Media Filter

Filtration



**FT-1440**



FT-1440	
Flow rate	190.6 to 468.6 m <sup>3</sup> /hr
Area	156.2 m <sup>2</sup>
Tank volume	3094 litres
Perlite load	60 kg

Flanges				
	Size	OD	PCD	Number Holes
Influent	DN300	455	406	12
Effluent	DN300	455	406	12
At System	DN200	335	292	8
Precoat	DN200	335	292	8
Drain	DN150	280	235	8
Perlite Inlet	DN50	150	114	4
Vent	DN50	150	114	4



