

BIO MATERIAL FILTER

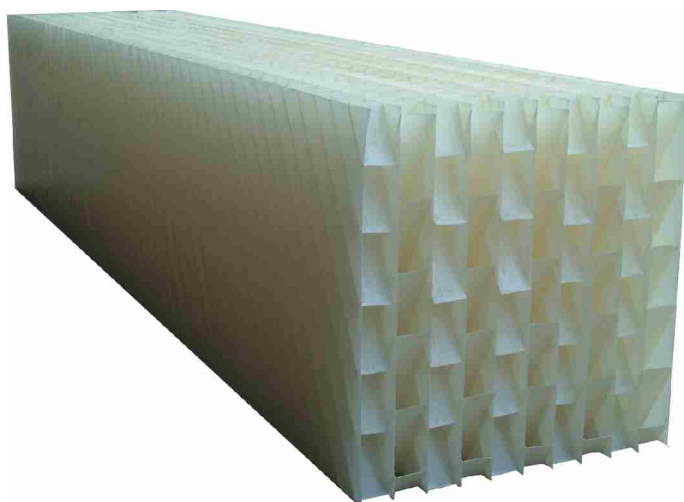


APEC PUMP

APEC PUMP ENTERPRISE CORP.

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SLANTING PIPES



FEATURES

- For the slanting pipes, the slanting pipes of the single housing should be put in the precipitation pond to achieve its function. The housing of the slanting pipes is aimed to connect the slanting pipe at an angle of 60 degrees and from a reversed slanting arrangement of crisscross structure with the adjoining pipes. The shape of the housing becomes the standard of rectangle with a diameter of 50 mm.
- The "rectification" and "dual concrete effect" can truly catch the emulsion not easily precipitated. The quality of water can be said to be excellent in a variety of precipitating facilities subject to the treatment in the slanting pipes. The consumption of concrete agent can be saved.
- Although ABS structure at the thickness of 1mm is used. It should be strong and can bear a weight of over 500kg because of being a complex frame.
- The installation is easy. Just put it on the frame at the time of installation.
- There is only one layer of the slanting pipes. Structurally, there is no bending. So that it is very convenient.
- There is no barrier such as girdle different from the slanting board so that it is easy to look at the quality of water from the surface of the precipitate pond. The appearance is good.
- There is no barrier at the bottom of the pond so that you can freely choose several ways to collect the mud, such as collecting mud machines, water mud excavating machines, and chain conveyance belts for installation. The space below the housing of the slanting pipes is wide and large so hat it is easy to check and maintain it.
- Precipitation is conducted within slanting pipes so that it is no subject to the external factors such as dense current. The slanting pipes are in the water so that there is no barrier.
- Horizontal precipitation pond, figures, rectangular precipitation ponds, and precipitation ponds of any shape can be installed.

Unit:mm

Specification Model ↓	Diameter of Pipes	A	B	I	W	H	L	Pipe sets	Thickness of boards	Materials
ACA-52	50	50	50	600	500	520	2500	10	0.6/0.8/1.0	ABS
ACA-75	50	50	50	860	500	750	2500	10	0.8/1.0	ABS

WAVED CRISS CROSS CONTACT FILTER



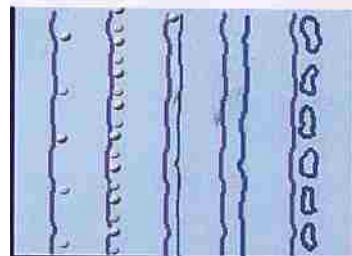
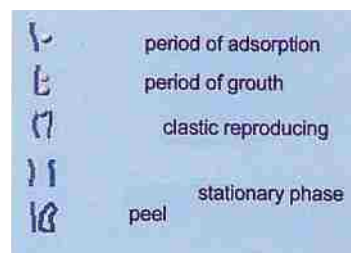
This contact filter is made with honeycombed criss cross structure. It is made of acid-proof and alkali-proof PVC material with foggy surface coating so that microbes are easy to be parasitic on.

FEATURES

1. Larger surface with high treatment function.
 2. PVC material used, great mechanical strength, can be installed with great safety, not easy to get broken or damaged, long consuming life.
 3. Wide space between filters, not easy to get blocked.
 4. Great water circulation rate.
 5. High function rate of catching planktons.
 6. The contact surface is designed with the functions for organisms to get cohered and to get flaked off.
 7. Easy to be installed, low price with good quality.
- To be applied to contact gas explosion system: To immerse the filters in gas explosion pond with sufficient gas supply to produce sufficient circulation for the flowing disposal sewage to touch the filters. After a period of time, the organic mud (microbes) will grow and be attached to the surface of filters and turn to be bio-membrane. Then the bio-membrane will absorb and oxidize the organic matter.
 - To be applied to drop-filtration system: Prop the filtering materials on the disposal sewage; use the circulation pump to drop down the disposal sewage evenly and periodically. When the disposal sewage has been dropping through the filtering material for a period of time, there will be a colloid of bio-membrane on the surface of the filtering material.

APPLICATIONS:

1. Sanitary sewer and daily sewage treatment.
2. Disposal sewage with large or small quantity.
3. Third grade treatment.
4. Low density of disposal sewage treatment.
5. Treatment for disposal sewage with substance that is difficult to be decomposed.
6. To treat planktons that are not easy to get colloid coating or that have light colloid Coating.
7. This treatment is good for resolving the difficult parts of disposal mud like water quality and quantity, and can reduce the mud quantity.



Specification Model ↓	Dimension (mm)	Aperture	Leaking rate (%)	Thickness (mm)	Materials	Effective surface area (m ² /m ³)	Strength (kg/m ²)
ACM-60	LxWxH 1200X600X600	58	98.7	PVC	0.4~0.45	135	1500

BIOLOGICAL FIXED CONTACT MATERIALS

Specification of Contact Materials

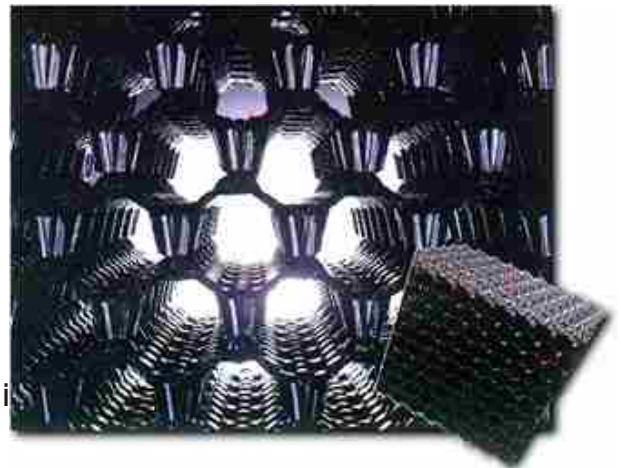
Model	Aperture m/m	Surface Area m ² /m ³	Vacant space %	Thickness m/m	Flexible Strength kg/m ²	Materials	Dimension m/m
ASA-40	40	147	99	0.30~0.45	1000~1500 ↑	PVC or ABS	L x W x H 500
ASA-56	56	110	99.2	0.35~0.50	1000~1200 ↑		1000 x ∫ x1000
ASA-80	80	56	99.4	0.4~0.6	1000 ↑		1000

• FEATURE:

Easy to install and easy to pack for exporting to overseas.

• INTRODUCTION :

Biological Contact Material is a moving biological growth packing media that used in biological contact aeration and anaerobe aeration tank. Due to its design, APEC provide more specific surface area for bio-film attach than tradition packing media. APEC can offer high oxygen transfer rate and contact frequency by the material rotation and flow in water. The contact material can random flow to avoid clog in the water. Installation is convenient since the contact material is separation lightweight and free support frame.



BIOS Moving-Bed Specification



Name	A-100	A-125	A-150
Material	P.P	P.P	P.P
Diameter	100 ^{mm} ϕ	125 ^{mm} ϕ	150 ^{mm} ϕ
Specific Gravity	0.92	0.92	0.92
Surface Area	70m ² /m ³	60m ² /m ³	50m ² /m ³
Vacant space	95%	96%	97%
Number	1400/m ³	800/m ³	500/m ³

Comparison table

WWT method	Active Sludge	Contact Material	Trickling Filter	RBC
1. BOD removal	85—90 %	85—90 %	50—70 %	85—95 %
2. Stability of Loading	Low, we must keep higher sludge conc. to run	High, we can tolerate suitable variation	Middle, increase recycle wastewater	High, change high speed
3. sludge inflation	Small	None	None	None
4. sludge circle rate	Yes, keep SCR 50—200 %	None	None	None, step by step
5. maintain difficult	Difficult	Easy	Easy, depend on climate	Easy
6. running cost	High	Middle	Low, middle	Low
7. Space	Large	Small	Middle, Small	Middle
8. preliminary cost	Low	Middle	Middle	High

Advantage

Features :

- Excellent Biological Growth Packing Media.
- Suspending Distributions.
- Convenient Installations.
- Non-clog design.
- Durable Various Materials.

Typical Applications :

- Biological contact aeration.
- Package of domestic wastewater unit.
- Biological Anaerobe aeration.
- Advanced treatment.

OCTAGONAL SEWAGE WELL

FEATURES

- Complex plastics are sued: great strength. Its resistance to pressure is tested to reach 39 tons by the Department of Civil Engineeromg of the National Chung Hsing University.
- The octagonal design has 4"*and 8"*bearings on all its sides so that the housing can vertically be connected to the water pipes on all of its sides and the connecting pipes do not need to bent or processed.
- The bearing of the connecting pipes are equipped with EPDM ejection-proof plastics for the sealing of well and to prevent the habitual use of pre-cast concrete well from easily leaking and polluting the environment. There is the set-up for shockproof set-up and minute displacement prevention.
- Materials are plastics and assembled so that they are light and easily transported and assembled. They are convenient and do not need any cranes. It is not subject to the restriction of narrow fireproof lane at the time of construction and can effectively save time and costs.
- The housing uses sus304 stainless steel screw with high durability.
- It is made of plastics so that the housing is not conductive.



SPECIFICATIONS: Diameter 600m/m
(assembled and height increased at your will)

Unit:mm

Model	Cover of Frame	Adjustable Layer	Adjustable Layer	4" φ	8" φ	Base
AO	150	150	50	300	300	55

APPLICATIONS:

- Municipal Sewage treatment
- Recirculation fresh water and Marine Aquaculture farming
- Industrial waste water treatment

FEATURES AND BENEFIT:

- Polypropylene fibers entangled rope design, allowing bio-film loading up to 75Kg/M
- Fast build-up of bio-film
- Combined aerobic and anaerobic action, less sludge produced
- No clogging of the filter bed
- Specific surface /m³ of filter bed can be adapted easily
- Light Weight, easy to install.
- Rope structure, flexible in packing and reduced transportation costs
- Adjusts to every shape of filter



Model	Material	Diameter	Specific Area	Weight	Tension strength	Free volume
AL-45	Polypropylene	45mm	170 m ² /m ³	28g/m	> 74kgs	> 98%
AL-50		50mm	210 m ² /m ³	34g/m		

