

# FRP SEPTIC TANK

**WASTEWATER TREATMENT SYSTEMS** 



# **Wastewater Treatment**



ISOMETRIC VIEW PROCESS FLOW

Wastewater treatment always calls for sense of responsibilities toward the environment and public health. The FRP Bio -Filter Wastewater Treatment Sys-tem answer this call of the industry as well as building owners. Designed with the local cinditions in mind, FRP Bio-Filter suits all local environment, includ-ing coastal and high water-table areas. Manufactures under stringent quality cotrol, strong, durable materials septic tanks operate efficiently even under harshest conditions.



### WHY US?

FRP Bio-Filter are leakproof and resistant to rush as well as most chemicals contained in soil and sewerage.FRP Bio -Filter Wastewater Treatment System features an effective anaerobic up-flow filtration system using Plastic as biomedia. Even fine particles and dissolved matter are strained and removed to give wastewater a totol treatment. As a result, effluent from FRP Bio-Filter is virtually harmless and odourless and fit for dis-charge into a public drain. Available in different models, the FRP Bio-Filter Wastewater Treatment System is economical and ideal for use in all types of housing units, shop house, light industrial factories and other buildings.

#### Easy Handling, Transportation and Installation

Being a light and compact tank, the FRP Bio-Filter Wastewater Treatment System is easy to handle, transport and install even with a limited working space. It facilities easy inspection as well.

#### **Easy De-Sludging**

Easy de-sludging is made possible through an isalated, direct access to the setting zone of the FRP Bio-Filter as well as a large outlet facilitating attachment of the descludging pipe.

#### Maintenance-free

Free of any moving parts or lift pump whatsoever, the FRP Bio -Filter is a non-mecahnical system requiring virtually zero maintenance. Besides, the up-flow filtration system by nature, non-clogging and thus trouble-free.

#### **Special Features And Advantages:**

FRP Bio-Filter is designed for a high flexural strength capability to withstand a harsh environment :

- (1) Wide range of type & models to suit various needs in the sewerage industry.
- (2) Cheaper treatment system and cost effectiveness.
- (3) High Quality due to stringent Quality Control & quality materials.

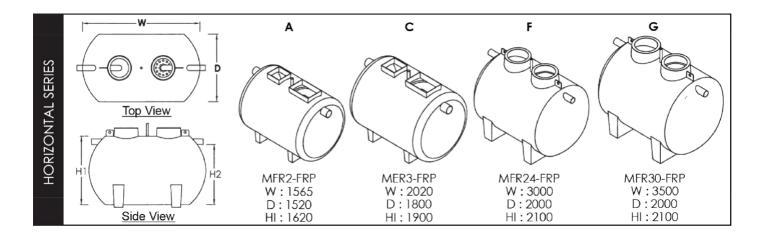
### **Quality Standard and approval:**

All FRP Bio-Filter manufacture to Malaysian Sewerage Industry Guidelines Volume V-Septic Tanks by :

- -National Water Services commission (SPAN)
- -Manufactured accordance to MS 1228: 1991 Code of Practice for Design and Installation.
- -Product Certification by SIRIM QAS (International) Sdn Bhd.

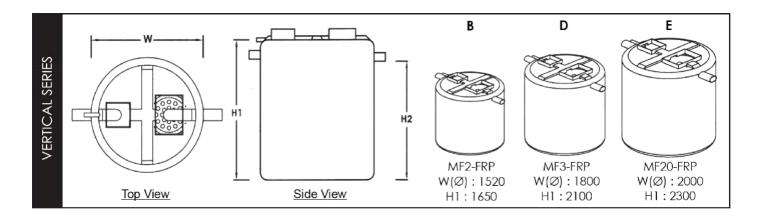
(Standard: CAN/CSA-B66-05)





		MODEL					
		А	С	F	G		
Properties	UNITS	MFR2-FRP	MFR3-FRP	MFR24-FRP	MFR30-FRP		
Septic Tank Type		Horizontal					
Process		Upflow Anaerobic Filtration (Bio-Media)					
Type of waste		Domestic					
Population Equivalent		8	15	28	30		
Length (L)	mm	1565	2020	3000	3500		
Diameter (D)	mm	1520	1800	2000	2000		
Height (H1)	mm	1620	1900	2100	2100		
Water Level (H2)	mm	1220	1500	1700	1700		
Inlet and Outlet Pipe	mm	150	150	150	150		
Market Price		1,670	7465	10894	13394		

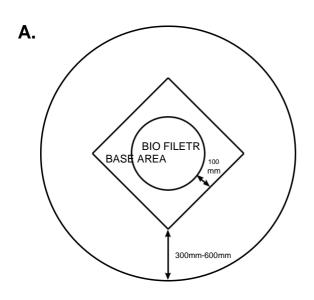




		MODEL				
		В	D	Е		
Properties	UNITS	MF2-FRP	MF3-FRP	MF20-FRP		
Septic Tank Type		Vertical				
Process		Upflow Anaerobic Filtration (Bio-Media)				
Type of waste		Domestic				
Population Equivalent		8	15	20		
Diameter (D)	mm	Ø 1520	Ø 1800	Ø 2000		
Length (L)	mm	N/A	N/A	N/A		
Height (H1)	mm	1650	2100	2300		
Water Level (H2)	mm	1350	1800	2000		
Inlet and Outlet Pipe	mm	150	150	150		
Market Price		1,670	6,876	9,430		

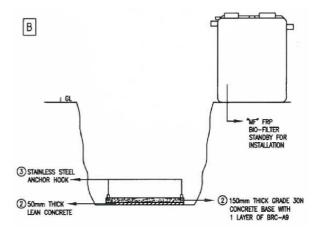


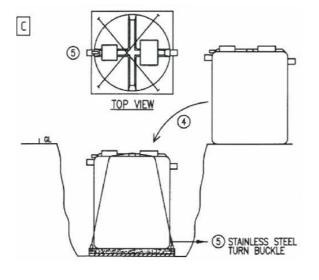
## INSTALLATION INSTRUCTION



1. Allow for working space of 300mm to 600mm all round the "MF" FRP Bio Filter when excavating the pit.

- Construct a 150mm thick grade 30 N concrete base reinforced with one
  (1) layer of BRC-A9, wire mesh on top of a 50mm thick lean concrete.
- 3. Four (4) nos. of stainless steel anchor hook Ø12mm coasted in concrete base.

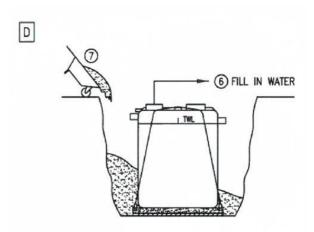


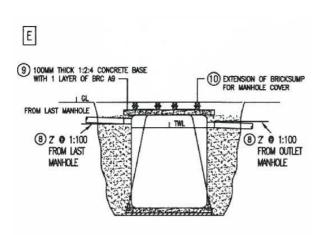


- 4. Unload the "MF" FRP Bio-Filter on a well leveled and cured 150mm thick Grade 30N Concrete base reinforced with one (1) layer of BRC-A9 wire mesh.
- 5. Tie the Ø20mm stainless steel (SS 304) anchor strap over "MF" FRP Bio-Filter and tighten using stainless steel turnbuckle.



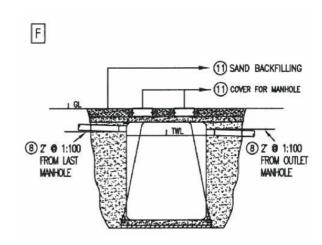
- 6. Fill in "MF" FRP Bio-Filter with water up to top water level.
- Back fill the space around the "MF" FRP Bio-Filter with sand compacted in 150mm layers, up to the opening lid/rim.





- 8. Make sure the backfills at the inlet and outlet are well compacted and allow for a drop gradient of two(2) degree @ 1:100 for both the inlet and outlet pipes.
- 9. Lay over the "MF" FRP Bio Filter with 100mm thick slab, with manhole openings of 1:2:4 concrete rein-forced with one layer of BRC-A9 wire mesh.
- 10. Construct the manhole neck connections with bricks sump up to the specified design platform level.
- 11. Backfill with sand up to the designed platform level and install the manhole cover.
- 12. Fill the "MF" FRP Bio-Filter with water to full capacity.

Note: Also do so every time after desludging later on. Please refer to the relevent drawings for the proper way of installation.



#### **WARRANTY TERMS & CONDITIONS FOR P.E. Bio-Filter**

All FRP Bio-Filter are warranty strictly against manufacturing defects for a period of 5 years. Which covers only product workmanship and does not include damage due to improper usage and installation which not according to our installation which nit according to our installation manual and guideline.



## MARKETING OFFICE

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