

Module 1

- Construct Horizontal Cylindrical Steel Tank (referred as module 1 in this TOR) using 4mm sheets steel material.
- The Cylinder is 3 m long with a 2 m diameter and divided in 3 compartments with respective width as follows:
- 1.10 m for the 1st compartment
- 0.95 m for the 2nd compartment
- 0.95 m for the 3rd compartment
- All the 4" openings in this module are at the same level: the distance between the bottom of any opening and the ground is 1.70 m (this will be the water level).
- When several 4" openings are present next to each other, the distance between the centres of the openings is 40 cm.
- The 4" openings should be made according to the exact external diameter of the 4" pipes that will be used. The 4" pipe pieces are 20 cm long and should be well fixed in the 4" openings with a rubber gasket to well adhere and to avoid any micro-leakage, no tolerance in this regard.
- 2 superposed openings (90 x 90 cm) are present to access the chambers of the module. Each opening is centered between 2 compartments with an elevated cover as shown in the drawing.
- The 2 lateral side covers must be bended to the long side to prevent any weaknesses in the welding as shown in the picture-example.
- Coating Materials:
- 1- Inside Tank Surface: All inside surface must be well prepared and cleaned from any steel debris and painted at first by an epoxy primer and after coated by special epoxy anti-acid and anti-scratching specialized for waste water.
- 2- Outside Tank Surface: all surface should be painted by a primer and bituminous waterproof paint to protect the lateral surface from the moisture and water infiltration.











Pipes and fittings should be assembled as per the drawing: 90 x 90 cm steel cover 90 x 90 cm steel cover



ELEVATION VIEW







Module 1	Section Front	Circular Wall 1	Section AA	Section BB	Circular Wall 2	Section CC	Section DD	Circular Wall 3	Section EE	Section FF	Circular Wall 4	Section Back	Unit	TOTAL
4" UPVC-pipe OD 110 mm		0.2	1.3	0.6	0.6	4.8	0.6	0.6	4.8	0.6	0.6		М	14.7
4" UPVC Connector	1											3	Pcs	4
4" UPVC 90 degree Elbow			1										Pcs	1
4" UPVC Tee				3		3	3		3	3			Pcs	15

The assembled module should be delivered to the site inside the underground pit and fill with clear water to verify impermeability during back filling – conduct any needed steel reparations on-site before hand-over of the module.



Module 2

- Construct Horizontal Cylindrical Steel Tank (referred as module 2 in this TOR) using 4mm sheets steel material.
- The Cylinder is 3 m long with a 2 m diameter and divided in 3 compartments with respective width as follows:
- 0.95 m for the 1st compartment
- 0.95 m for the 2nd compartment
- 1.10 m for the 3rd compartment
- All the 4" openings in this module are at the same level: the distance between the bottom of any opening and the ground is 1.70 m (this will be the water level).
- When several 4" openings are present next to each other, the distance between the centres of the openings is 40 cm.
- The 4" openings should be made according to the exact external diameter of the 4" pipes that will be used. The 4" pipe pieces are 20 cm long and should be well fixed in the 4" openings with a rubber gasket to well adhere and to avoid any micro-leakage, no tolerance in this regard.
- 2 superposed openings (90 x 90 cm) are present to access the chambers of the module. Each opening is centered between 2 compartments with an elevated cover as shown in the drawing.
- The 2 lateral side covers must be bended to the long side to prevent any weaknesses in the welding as shown in the picture-example.
- A perforated sheet with 1.1 m x 1.6 m dimensions should be placed at the bottom of the third compartment to support the filter media as shown in the drawing.
- Coating Materials:
 - 1- Inside Tank Surface: All inside surface must be well prepared and cleaned from any steel debris and painted at first by an epoxy primer and after coated by special epoxy anti-acid and anti-scratching specialized for waste water.

2- Outside Tank Surface: all surface should be painted by a primer and bituminous waterproof paint to protect the lateral surface from the moisture and water infiltration.





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T.O.R – Horizontal Cylindrical Steel Modules



PLAN VIEW









Pipes and fittings should be assembled as per the drawing



Module 2	Section Front	Circular Wall 1	Section AA	Section BB	Circular Wall 2	Section CC	Section DD	Circular Wall 3	Section EE	Section FF	Circular Wall 4	Section Back	Unit	TOTAL
4" UPVC-pipe OD 110 mm		0.6	4.8	0.6	0.6	4.8	0.6	0.6	4.8	0.2	0.2		М	17.8
4" UPVC Connector	3											1	Pcs	4
4" UPVC 90 degree Elbow										1			Pcs	1
4" UPVC Tee			3	3		3	3		3				Pcs	15

The assembled module should be delivered to the site inside the underground pit and fill with clear water to verify impermeability during back filling – conduct any needed steel reparations on-site before hand-over of the module.



Tipping Bucket

The Tipping Bucket is an external accessory to be constructed from 4mm steel sheets and coated with special epoxy for wastewater.

It consists of two V shape compartments that can collect a volume of 8 Litres of water each before basculation around steel axis as shown in the drawing:

