



STORM WATER MANAGEMENT

FLEXIBLE STRUCTURE
MULTIPURPOSE USE
HIGH VOID RATE
QUICK AND CONVENIENT ENGINEERING CONSTRUCTION
HIGH BEARING STRENGTH
WATER QUALITY CONSERVATION
RECYCLE AND REUSE
FACILITATED TRANSPORT
CONTINUOUS INNOVATION

PP MODULE WATER STORAGE TANK



02

Features

01

PP module water storage tank

Made up of several single unit, the PP module water storage tank is assembled at site, with seepage-proofing wrapping material, it can be used as underground Reservoir. Single module is formed by PP injection molding. According to the rainwater collection volume and customer requirement, the module can be assembled into various shapes and sizes, and various options of module type can be made according to different loading capacities at different places.

With the advantages of fast construction, flexible layout, anti-aging, algae breeding preventiveness, good seismic performance, anti-leaking, removable for reuse of different reconstruction, etc., It can be applied with integrated drainage & integration system and road surface water seepage plate products to replace hardening road surface, improve road surface waterlogging condition and relieve urban inland inundation.



1 Flexible structure Multi-layer and single-layer combinations are available, and can be installed according to terrain characteristic to make full use of floor space.

2 Multi-purpose use Wrapped with seepage-proofing material, it can be used as rain water storage tank; wrapped with permeable geotextile, it can be used as infiltration pool to recharge underground water. It can also be used as drainage blind ditch, flowing back of ecological tree pool, reducing structural loading and others.

3 High void rate High strength with a void rate of more than 95% by special structure design.

4 Quick and convenient engineering construction The single cell is light and can be installed with clamping buckle and socket, no large machinery required.

5 High bearing strength Bearing capacity is from 150KN/m² to 550KN/m², can be used under greenbelt, underground of traffic areas and parking lot; SLMK-IV can be applied in place with buried depth of 6m at municipal waterlogging points as regulating & storage pool.

6 water quality conservation Stabilized PP material and injection molding process are adopted to ensure smooth lining structure and prevent algae breeding, thus rain water quality can be maintained.

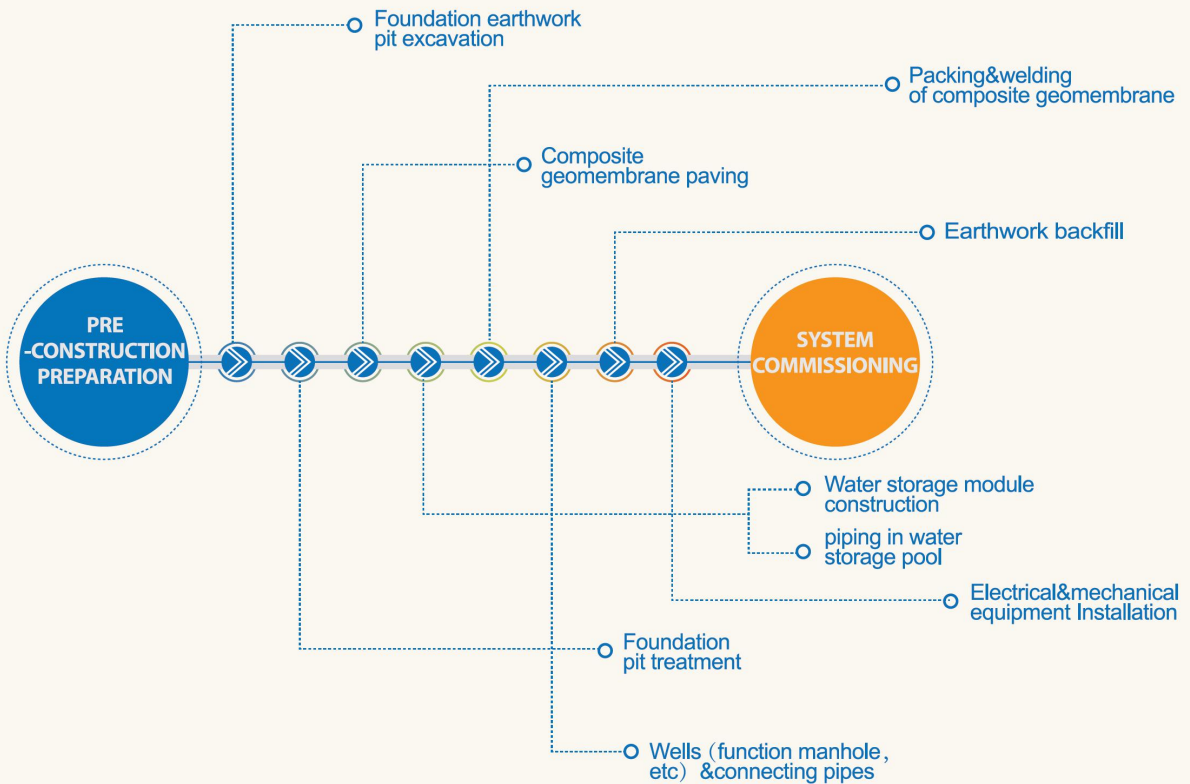
7 Recycle and reuse PP injection molding has the advantages of energy conservation, environmental protection, reduced land use and ease of construction, it can be reused when dismantling or reconstruction, and free from construction waste.

8 facilitated transport The transport volume of SKML-III, SKML-IV is 1/8, 1/5 respectively compared with volume after assembly.

9 Continuous Innovation SLK- IV :with biological stuffing, it can be used for landfill leachate collection and treatment in the refuse landfill area, parking lot for collection of rainwater with oil, biochemical degradation to reduce non-point source pollution.

03

Construction guidance



1 Excavation of foundation pit Commencement of works should be reasonably arranged according to position, elevation and size of the site to avoid wrong digging or overdigging. When digging foundation pit slot and pipe ditch where underground water exists, measures should be taken according to engineering geological data to lower underground water level. Selection of earthen work machine should be made on basis of giving overall consideration of topographic & engineering condition, soil type and thickness and total work quantity and time limit for project. Engineering procedure should be prepared to give full play to the efficiency of construction machinery.

2 Foundation treatment Foundation pit bottom should be reconditioned after excavation, and the allowable deviation is $\pm 20\text{mm}$

3 Under layer, baseboard grouting foundation bed Land-leveling operation should be prepared according to soil type. As to general project, lay 50mm medium-coarse sand screed-coat. When buried depth is greater and other specific loading is required, concrete cushion should be made. Apply C30 reinforcing steel bar concrete cushion layer, where thickness should be no less than 150mm.

4 Welding of anti-infiltration geo-textile Welding of anti-infiltration geo-textile should be according to specified size in drawing, faying surfaces should be $\geq 10\text{cm}$; attention should be paid to straightness after welding.

5 Installation of anti-infiltration geo-textile After welding, Mechanical lifting should be used to transfer it to installation site and during the process, attention should be paid to avoid breaking or cutting.

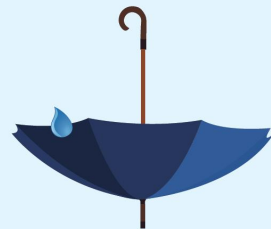
6 Sludge tank installation (inlet pipe) Sludge tank at the bottom of water storage pool will be 400mm lower than the pool bottom level. Rainwater will enter the storage pool via sludge tank, and rainwater inlet pipe should be installed simultaneously.

7 Water storage module at the bottom and Back flush pipe installation The module at the bottom and their surface plate should be installed in the way to ensure horizontal silting effect. Back flush pipe should be installed at the same time, the back flush pipe will be 50mm higher than bottom level.

8 Module installation The module at the bottom and their surface plate should be installed in the way to ensure horizontal silting effect. Back flush pipe should be installed at the same time, the back flush pipe will be 50mm higher than bottom level.

9 Inspection well, vent pipe installation After the installation of module, inspection well and vent pipe should be installed at top of storage pool.

10 Wrapping of anti-infiltration geo-textile After All fittings are installed, wrapping of anti-infiltration geo-textile should be started from bottom to top of the storage pool to encasing the pool as a whole, and PE impermeable membrane shall be welded on the top of pool to form a watertight pool.



11 Medium-coarse sand covering layer

Before earthwork backfilling, 100mm thickness medium-coarse sand covering layer should be paved at the top and side of storage pool to prevent the anti-infiltration geo-textile form being damaged.

12 Earthwork backfilling

Backing filling surround the pool should be done first and tamp in layers, then top back filling should be done, Medium-coarse sand of thickness of 0.1m should be paved first on top of anti-infiltration geo-textile within 0.5m above top of the pool, and the medium-coarse sand, gravel dust and good original soil can still be used for pavement after that, Each of the two layers shall be no more than 0.2m.

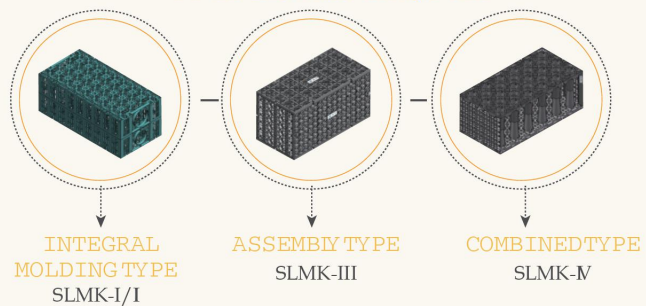
13 Electrical and mechanical equipment installation

Installation of water pump processing equipment and other electronic control equipment.

04 Specification

► **P**P module water storage tank can be applied to different projects at different place, the continuous upgrad and Innovation of the storage tank enabled the tank to be adaptive to various environment.

PP module water storage tank



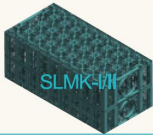
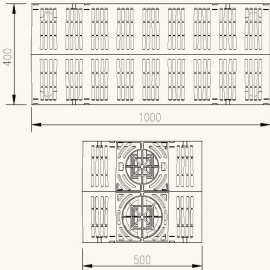



Technological parameters

Type	longitudinal compression	Voidage	Maximum depth	Product features	connection	Application
SLMK-I	400KN/ m ²	95.5%	4.0m	Stable structure, high pressure-bearing capacity ,quick installation , large effective storage volume.	Horizontal : clamp vertical : circular tube	Village road, Under parking lot, used under the ground with general bearing capacity, used as rain storage pool and infiltration pool
SLMK-II	400KN/ m ²	95.5%	4.0m		Horizontal : X-shaped clamp vertical : circular tube	
SLMK-III	150KN/ m ²	94.3%	2.5m	small transportation volume, convenient installation, can be used as drinking water & fresh water reservoirs	Horizontal : X-shaped clamp; vertical : board connection	Special agricultural green belts, Islands with low bearing capacity, new material made module are used as drinking water cellar in Yunnan and Guizhou provinces in China.
SLMK-IV	550KN/ m ²	95.5%	6.0m	high pressure-bearing capacity, small transportation volume, good filtering performance (50mm diameter particle is allowable) , equipped with finished water inlet & outlet product and mud channels.	Horizontal : clamp vertical : circular tube	Under road , under large parking lot as rainwater infiltration pool or storage pool

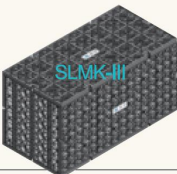

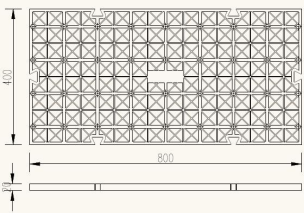

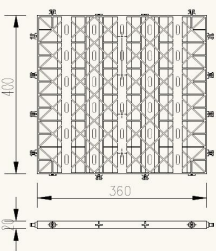

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Products information

SLMK-I/II

	SLMK-I/II adopts integral molding	Dimension 1000×500×400mm	Weight 9.0Kg	Product code 10802001
		Dimension 1000×500×400mm	Weight 9.0Kg	Product code 10802001
 connecting part	For vertical connection		Weight 0.01 Kg	Product code 10802007
 connecting part	For Horizontal connection		Weight 0.001 Kg	Product code 10802008
 X-shaped connecting part	For connecting of same layer		Weight 0.007 Kg	Product code 10802009

SLMK-III

	SLMK-III by middle and middle assembly according to different places, the middle plate can be 3,5,7,9 in number. Standard is 5.	Dimension 800×400×440mm	Weight 7.63Kg	Product code
 SLMK-III middle plate		Dimension 500×400×20mm	Weight 1.07 Kg	Product code 10802014
 SLMK-III side plate		Dimension 360×400×20mm	Weight 0.67 Kg	Product code 10802013
 X-shaped connecting part	For connecting of same layer		Weight 0.007 Kg	Product code 10802009

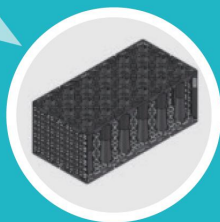
SLMK-IV

SLMK-IV is made of basic unit,
side protection board,
waterinlet&outlet connection,-
seal-capping

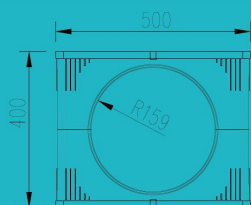
Dimension 1000×500×400mm

Weight 9.0Kg

Product code 10802041



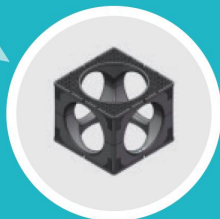
SLMK-IV water inlet & outlet connection



Dimension
500×400×500mm

Weight 4.41 Kg

Product code 10802043



SLMK-IV seal-capping

For upper layer ø100Round
hole sealing

Dimension
500×400×500mm

Weight 0.01 Kg

Product code 10802042

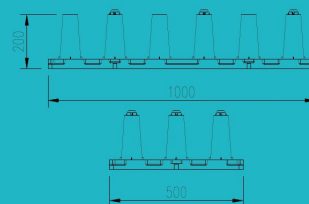


connecting part

For vertical layer connection

Weight 0.01 Kg

Product code 10802007

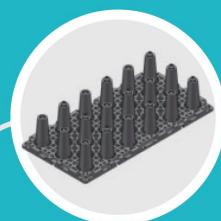


SLMK-IV basic unit

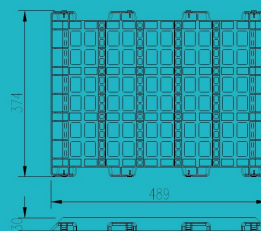
Dimension
1000×500×200mm

Weight 4.5 Kg

Product code
10802040



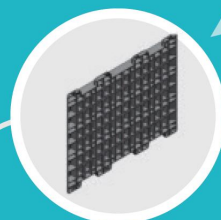
SLMK-IV side protection board



Dimension
489×374×30mm

Weight 0.78 Kg

Product code 10802041



X-shaped connecting part

For connecting of same layer

Weight 0.007 Kg

Product code 10802009

