

Wavin Stormwater Management



CONNECT TO BETTER

Wavin Stormwater Management

Project Details

Project Name AquaCell Project

Produced By Admin 3

Client Name Wavin

Site Address Parsonage Way, Chippenham, SN15 5PN

Date

Modular Units and Tank Details - Calculation for a Soakaway

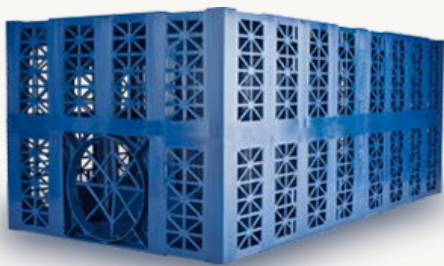
Unit configuration

The following information provides an approximate calculation and some assumptions. If more accurate information is required, please contact our technical team.

Length	10m	10 units
Width	5m	10 units
Depth	0.4m	1 units
Total Number of Units	100 units	

Recommended Unit

Wavin recommend using the following unit for your installation.



AquaCell Core

Product Number: 6LB100

AquaCell Core has been designed for use in deep applications, subject to both regular and heavy traffic loadings, such as cars and HGV's (for vehicles up to 44 tonnes).

Calculations

Site Details

Area	1000m ²	Traffic Loading	Trafficked
Soil Type	Sand		
Groundwater Present	No		

Modular Units and Tank Details – Calculation for an Attenuation - Storage Unknown

Length	10m	10 units	Void	95%
Width	11m	22 units	Cover Depth	0.5m
Depth	0.4m	1 units	Installation Depth	0.9m
Total Number of Units	220 units			

Recommended Unit

Wavin recommend using the following unit for your installation.



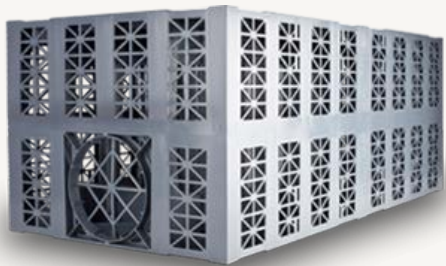
AquaCell Eco

Product Number: 6LB025

AquaCell Eco is manufactured from specially reformulated, recycled material and has been designed for shallow, non-trafficked, landscaped applications.

Other Unit(s)

The following unit(s) can also be used with, or in place of the recommended unit.



AquaCell Prime

Product Number: 6LB075

AquaCell Prime is manufactured from specially reformulated, recycled material. It is ideal for use in both shallow and deep applications, subject to either regular traffic loading – such as car parks (for vehicles up to 12 tonnes) – or for landscaped areas.



AquaCell Plus

Product Number: 6LB200

AquaCell Plus has been designed primarily for use in applications where inspectability is required, and is suitable for use in all applications from landscaped areas to heavily trafficked areas (for vehicles up to 44 tonnes). If your tank needs to be inspectable, you can use one row of AquaCell Plus in your tank. If your unit depth is to be greater than 2metres AquaCell plus must be used on the deeper layers.



AquaCell Core

Product Number: 6LB100

AquaCell Core has been designed for use in deep applications, subject to both regular and heavy traffic loadings, such as cars and HGV's (for vehicles up to 44 tonnes).

Drainage Details

Area	1000m ²	Allowable Discharge	1 ltr/sec
Catchment Type	Roof + Hardstanding	Climate Change	40%
Area Reduction Factor	0.9	Effective Area	1260m ²
Soil Type	Sand	Factor of Safety	1

Rainfall Data

R Value	0.40	Storm Return Period	1 in 30 years
M5-60	20.4	County	Wiltshire

Time	Z1 Value	y mm	Z2 Value	p mm	Inflow	Outflow	Storage Height
5min	0.38	7.752	1.44	11.16	14.07	0.3	13.77
10min	0.52	10.608	1.47	15.59	19.65	0.6	19.05
15min	0.63	12.852	1.47	18.89	23.8	0.9	22.9
30min	0.8	16.32	1.51	24.64	31.05	1.8	29.25
1hr	1	20.4	1.52	31.01	39.07	3.6	35.47
2hr	1.19	24.276	1.52	36.9	46.49	7.2	39.29
4hr	1.44	29.376	1.51	44.36	55.89	14.4	41.49
6hr	1.59	32.436	1.49	48.33	60.9	21.6	39.3
10hr	1.81	36.924	1.49	55.02	69.32	36	33.32
24hr	2.35	47.94	1.45	69.51	87.59	86.4	1.19
48hr	2.69	54.876	1.41	77.38	97.49	172.8	-75.31

Critical storm duration (hrs)	4hr
Required Storage Height	41.49m
Volume from Dimensions	41.8m ³

Modular Units and Tank Details – Calculation for an Attenuation - Storage Known

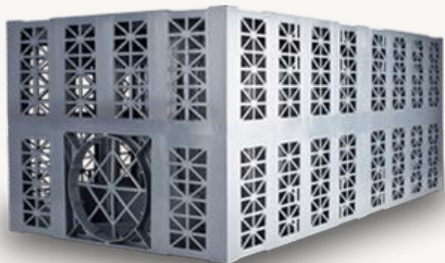
Length	40m	40 units	Void	95%
Width	66m	132 units	Cover Depth	1m
Depth	0.4m	1 units	Installation Depth	1.4m

Total Number of Units

5280 units

Recommended Unit

Wavin recommend using the following unit for your installation.



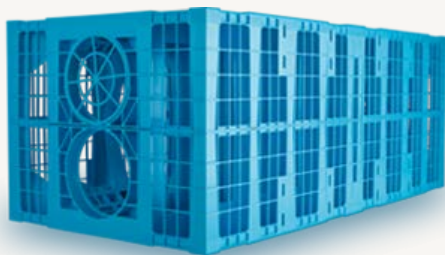
AquaCell Prime

Product Number: 6LB075

AquaCell Prime is manufactured from specially reformulated, recycled material. It is ideal for use in both shallow and deep applications, subject to either regular traffic loading – such as car parks (for vehicles up to 12 tonnes) – or for landscaped areas.

Other Unit(s)

The following unit(s) can also be used with, or in place of the recommended unit.



AquaCell Plus

Product Number: 6LB200

AquaCell Plus has been designed primarily for use in applications where inspectability is required, and is suitable for use in all applications from landscaped areas to heavily trafficked areas (for vehicles up to 44 tonnes). If your tank needs to be inspectable, you can use one row of AquaCell Plus in your tank. If your unit depth is to be greater than 2metres AquaCell plus must be used on the deeper layers.



AquaCell Core

Product Number: 6LB100

AquaCell Core has been designed for use in deep applications, subject to both regular and heavy traffic loadings, such as cars and HGV's (for vehicles up to 44 tonnes).

Area Sales Manager

If you would like to find out how to purchase AquaCell Units, please contact your Area Sales Manager

Name	Wayne Boswell
Phone Number	07833 568546

Aquacell Disclaimer

- All information generated by this tool is supplied in good faith and without charge to enable reasonable assessment of the practical performance of Wavin products.
- Wavin offers a program of continuous improvement and reserves the right to modify the specification of products without notice.
- All information in this publication is believed to be correct at time of preparation. However, no responsibility can be accepted for any errors or omissions. Final determination of the suitability of information or material for the use contemplated and the manner of the use is the sole responsibility of the user
- Calculations are based upon relevant industry standards in accordance with the Wallingford Procedure, and should be verified by a qualified engineer.