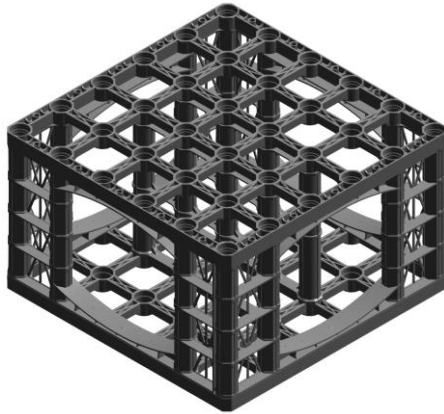
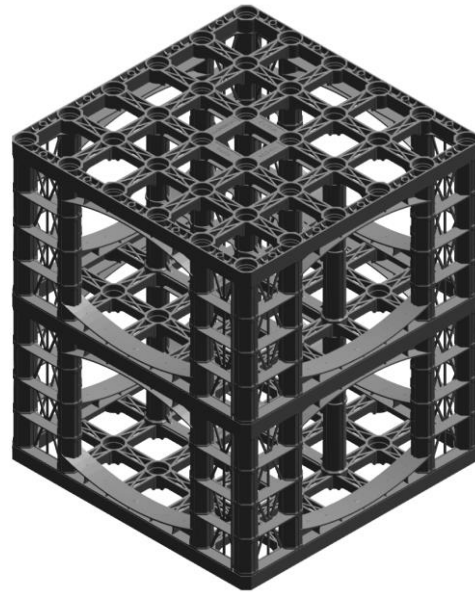


mastaVault™ MegaTree MODULE SPECIFICATION SHEET



mastaVault™ Single Unit.



mastaVault™ Double Unit.

mastaVault™ MegaTree Module

mastaVault Modules are modular units that assemble to form a skeletal matrix that supports relevant pavement loads while providing large volumes of un-compacted soil within the structure for free root growth.

The open, skeletal matrix provides a maximum growth zone for tree roots. More than 95% of the Internal Void volume is available for un-compacted soil and root growth.

Traditionally rock and soil mix use to provide support for pavement, while permitting some root growth within the pavement. MastaVault System have moved this principle forward by entirely replacing the rock (80% of the total volume). The engineered modules provide the structural strength for pavement loads whilst providing free un-compacted root zone for trees.

mastaVault™ MegaTree Module Dimensions:

Module (Unit)	Width (mm)	Width (inches)	Length (mm)	Length (inches)	Height (mm)	Height (inches)
Single (1)	600	23.62	600	23.62	360	14.72
Double (2)	600	23.62	600	23.62	690	27.16
Triple (3)	600	23.62	600	23.62	1020	40.15
Quad (4)	600	23.62	600	23.62	1350	53.15

Soil Storage Volume:

Module (Unit)	Module Volume (L)	Module Volume (cf)	Module Volume (gal)	Soil Storage Volume (l)	Soil Storage Volume (cf)	Soil Storage Volume (gal)
Single (1)	129.60	4.57	34.23	123.12	4.35	32.52
Double (2)	248.40	8.77	65.62	235.98	8.33	62.34

Triple (3)	367.20	12.96	97.00	348.84	12.31	92.15
Quad (4)	486.00	17.16	128.38	461.70	16.30	121.97

mastaVault™ *MegaTree* Module

Item	Description	Value	Unit
Void Area	Area available for uncompacted soil storage vrs that made up of plastic	> 95	%
Surface Void Area	Open area where roots may grow in or out of the units	> 95	%
Rib Thickness	Minimum thickness of the load bearing members to full depth of the plate	4.3-4.4 (0.16 -0.17)	mm (inches)
Product Plate Details	The Soil module must be of a vertical coulomb supports for maximum load bearing	**	**
Product Weight Details	Each single module must have a minimum of 7.00 Kgs or raw material weight, as light weight products are not suitable to handle constant Dead weight load over a period of time.	**	**
Product Structural Design	Structural Design shall be based on sound structural calculations and must be designed as structural components, using structural design theory in accordance with CIRIA C680 Report. Material Factor of Safety to be used as 2.75. All calculations shall be submitted to engineer for approval prior to any works commencing	**	**
Service Temperature	Operating temperature where the units can be expected to perform adequately	-10 to 75°C (-14 to 167°F)	°C (°F)
Recycled Content	85% Selected Recycled Polypropylene + 15% proprietary mix	85% + 15%	%
Biological & Chemical Resistance	Unaffected by moulds, algae, Soil Bourne Chemical, <i>bacteria and bitumen</i> , polypropylene is very inert	**	**
Ultimate unconfined VERTICAL Crush Strength	Using a full -size plate that completely covers the top of the unit determines the pressure required to crush the entire unit	65 (92.45)	ton/sqm (PSI)
Ultimate unconfined Lateral Load Crush Strength on side	Using a full -size plate that completely covers the top of the unit determines the pressure required to crush the entire unit	7.5 (10.66)	ton/sqm (PSI)
Short Term Deflection	Vertical Deflection	42.00kN/ m ²	Per mm
	Lateral Deflection	2.8kN/m ²	Per mm
Long Term Deflection	Estimated long term deflection (vertical creep) projected 50 yrs ** <i>applied test load of 95 kN / m²</i>	1.08% 3.88mm	95Kn/m ²
	Estimated long term deflection (lateral creep) projected 50 yrs ** <i>applied test load of 15 kN/m²</i>	1.41% 8.46mm	15kN/m ²

* All compressive strength at yield, maximum recommended safe design value, safety factors to be incorporated.

**Derived from long term Extrapolated Creep testing data, 516 day minimum.

**Heavy Duty Modules upto 85t/sqm for high load bearing capacity are also available.

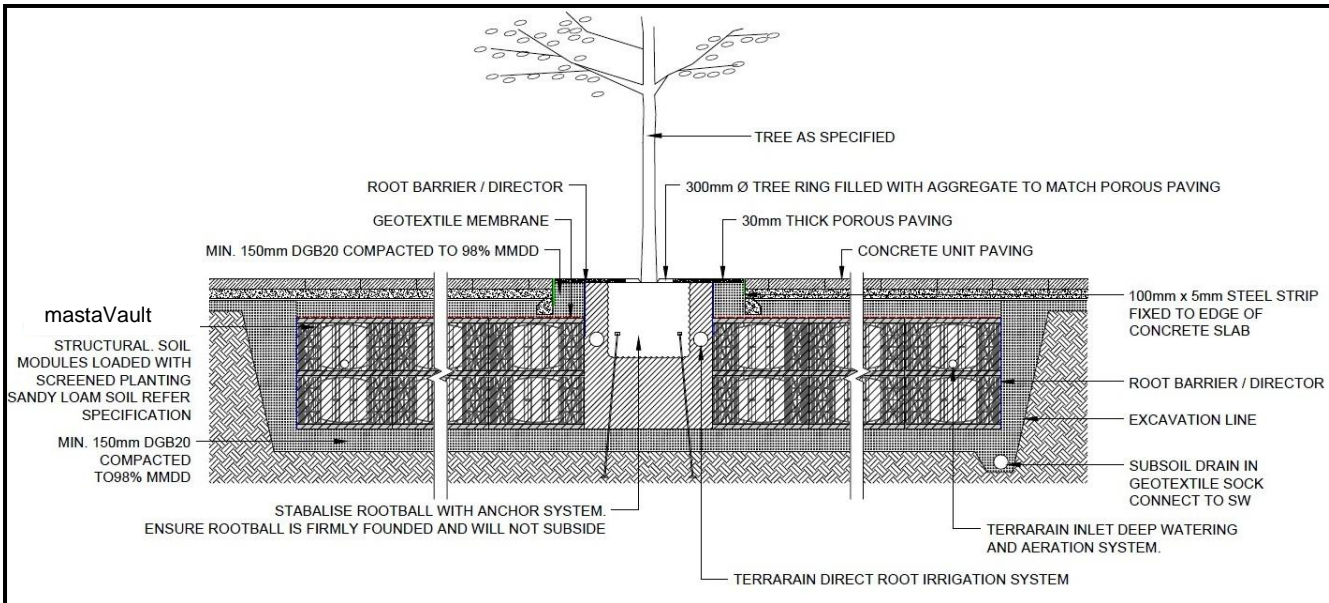
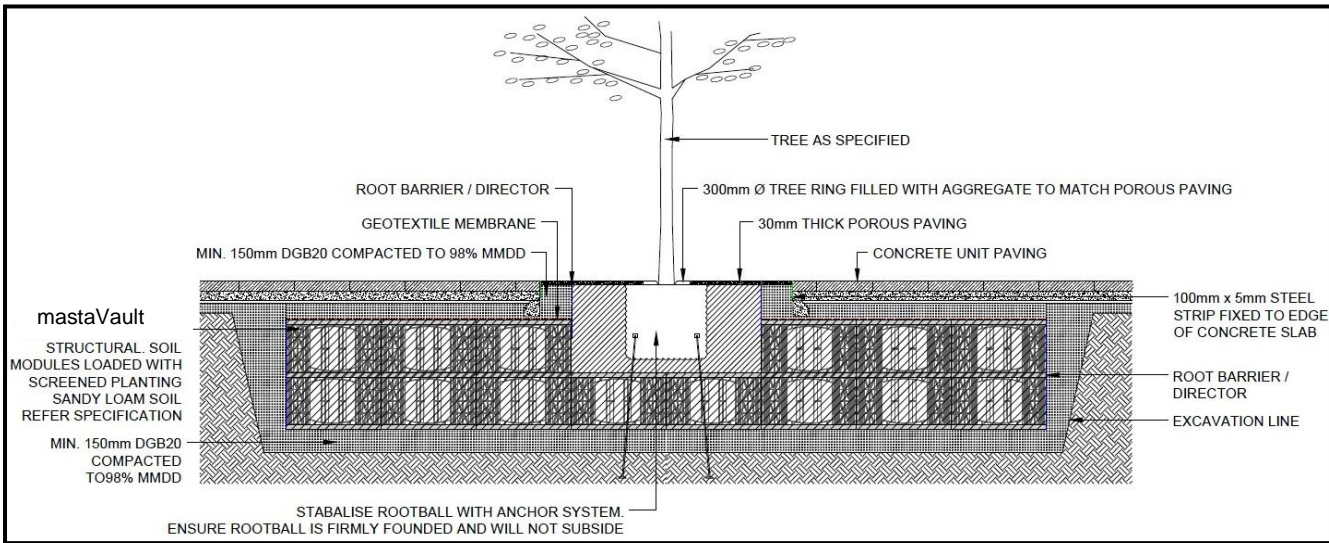
NOTE: All Products and Systems are DESIGN REGISTERED.

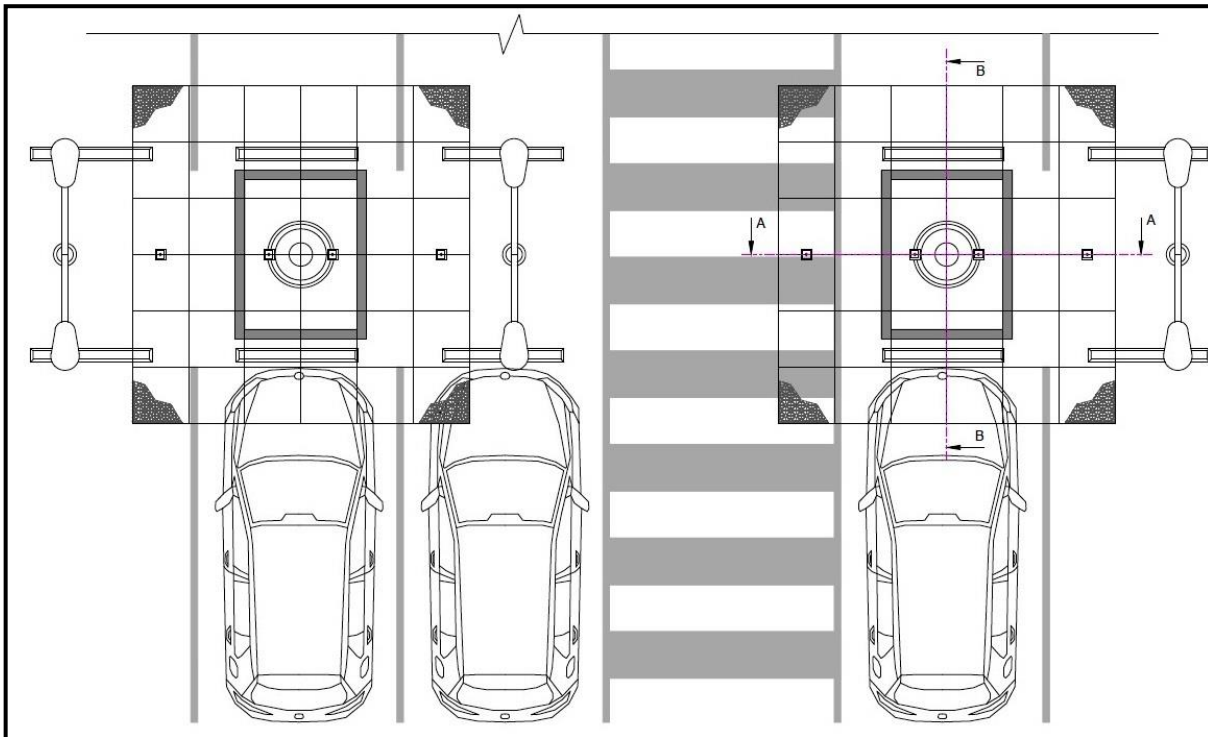
Safety Factors: Engineers, designers and geotechnical engineers should design and calculate safety factors to a serviceable limited state to suit specific project. In case of doubt, consult your nearest distributor or representative.

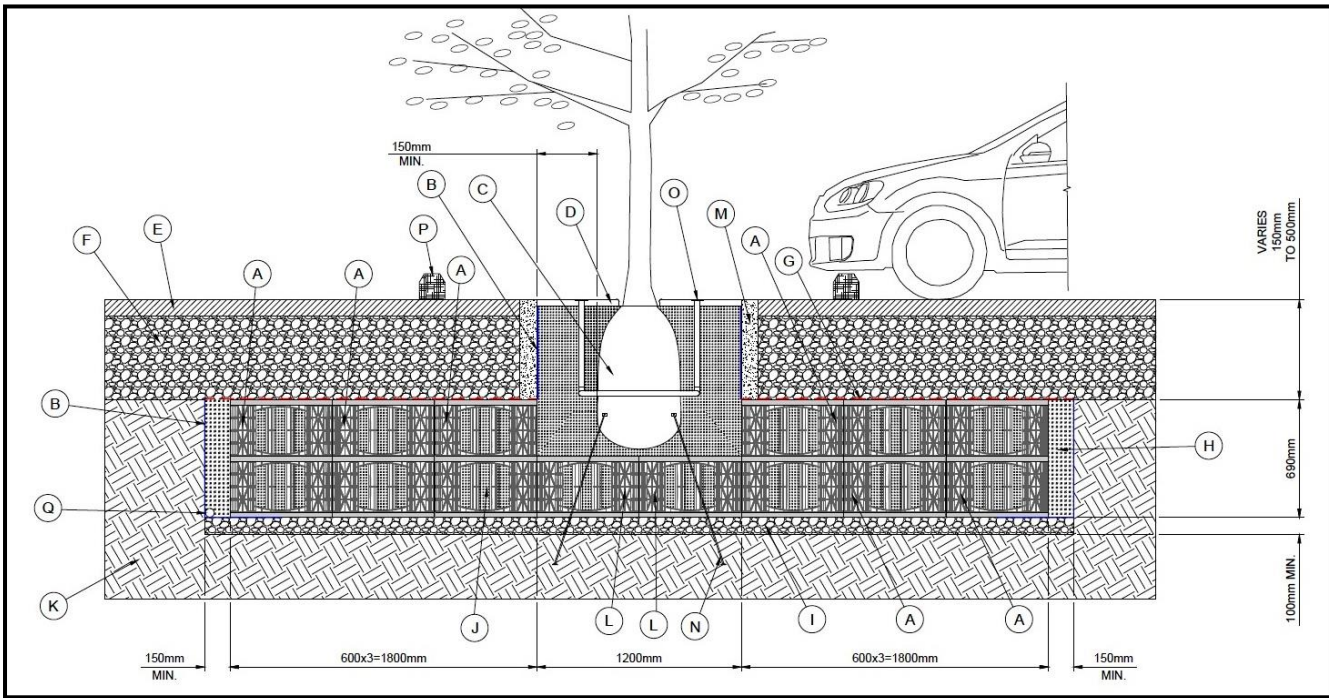
Disclaimer: All information provided in this publication is correct to the best knowledge of the company and is given out in good faith. This information is intended only as a general guide, no responsibility can be accepted for any errors, omissions or incorrect assumptions. As each project is unique, and as manufacturers, its distributors and agents worldwide have no direct control over the methods employed by the user in specifying, installing or supervising of its products, hence no responsibility is accepted by the Jaybro Group. and its distributors and agents worldwide. Users should satisfy themselves as to the suitability of the product for their purpose.

MastaVault™ System Advantages at Glance:

- ✓ **Heavy Load bearing capacity.**
MastaVault Modules have a high load bearing capacity of up to 65 t/sqm. UNCONFINED
- ✓ **Uniform Load bearing Capacity**
Each unit is self-supported and is a load bearing structure, unlike other products which use spacers.
- ✓ **Modular Structure provides Design Flexibility**
Modular Nature of the system helps designers to create any shape, any size and fits tight spot.
- ✓ **Use Strength with Flexibility.**
Reduce or Increase the number of internal support plates to use achieves Required load rating whilst keep costs low.
- ✓ **High Internal Void Ratio.**
MastaVault Modules have 95% internal void Ratio, meaning more space for un-compacted soil and roots and water management. Allowing healthy root and plant growth.
- ✓ **High Surface void Ratio.**
Up to 95% surface void ratio providing free un-obstructed root growth and movement in the un-compacted soils.
- ✓ **Quick & Lightweight Easy to install.**
MastaVault Modules are light weight and easy to install by unskilled labor, without the need of any heavy Machinery
- ✓ **Available in Kit form.**
Supplied in kit form its easy delivery and handling and reduces transport costs.
- ✓ **Easy to Infill and Top Up.**
Unlike other systems, this is a single component module which is easy to infill and lock in place. Reduces installation time and costs.
- ✓ **Environmentally Friendly.**
Made from Recycled Polypropylene, the mastaVault Modules are Green Label Certified.
- ✓ **High Lateral load Capacity**
The MastaVault Modules have a high lateral load carrying capacity of > 7.5 t/sqm. Internal plate layout ensures uniform load distribution and load capacity. Lateral forces must also be considered for engineering design of tree pits, when in proximity of traffic areas.
- ✓ **Interlocks**
MastaVault units lock together vertically and laterally if required to form a single structure with excellent modular strength, both vertically and laterally.
- ✓ **Enhances and Recycles Stormwater.**
There are many WSUD methodologies to capture and utilize valuable rainfall using the mastaVault system and other products to enhance growth of trees in an Urban Environment.













PRODUCT CONFORMANCE TO SPECIFICATION

We certify that product to be supplied conforms to Specifications.

Yours Sincerely,



Polyfabrics Australasia