Primescape Products

MONA PLANT SYSTEM

TECHNICAL GUIDE

Guidelines for planning and installing MPS Links

800-872-4361
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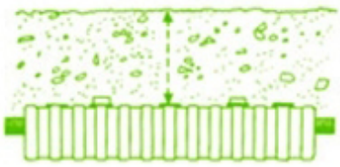
1. Planning of installations with a uniform depth

Choosing the size of the link

The choice of MPS Link is normally determined by the planting depth as show below - however, other sizes may be used if they are more practical from an installation point of view.



When calculating the planting depth possible layers of drainage should be excluded from the overall depth.

PLANTING DEPTH	CHOICE OF MPS LINK
< 9.8 in	MPS Link 3
<13.6 in	MPS Link 7
>13.6 in	MPS Link 24

Estimating the number of MPS Links per sq. yd

MPS Flexilink 77

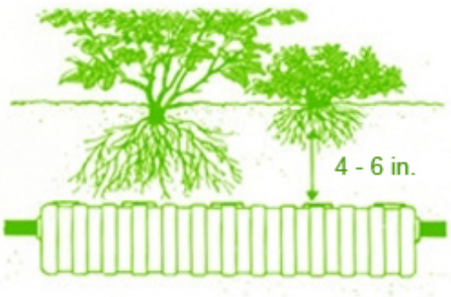
PLANTING DEPTH	MPS LINK 3		MPS LINK 7		MPS LINK 24	
	A	B	A	B	A	B
< 9.8 in	6-7	4-5	3-4	2-3	-	-
<13.6 in	-	6-7	4-5	3-4	1	1
>13.6 in	-	-	5-6	4-5	1	1
>19.6 in	-	-	5-6	4-5	1-2	1

A - refers to purpose-built planters without immediate ground contact; interior or exterior.

B - refers to exterior planters with good ground contact.

Distance between MPS Link and root system

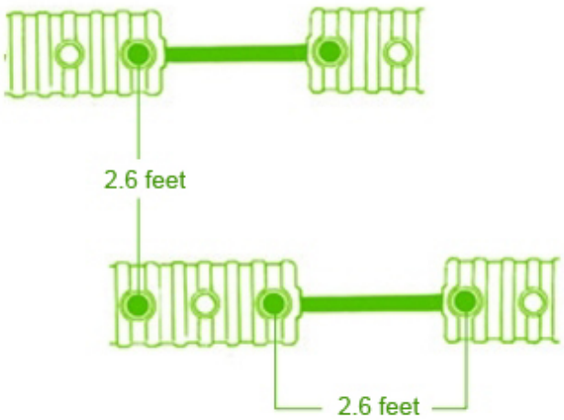
The vertical distance from the top of the MPS Link to the bottom of the rootball should not exceed **6 in.**



Distance between links

In order to achieve an even irrigation of the entire planting area the distance between the capillary legs of the links should not exceed **2.6 feet**

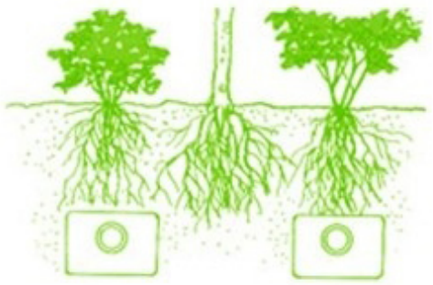
When MPS Links are installed in parallel series, rows of links may be staggered to provide optimum distribution of moisture.



2. Mixed planting with different depths

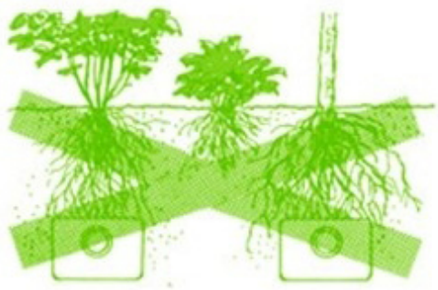
Relatively small variations in root volume

As a rule relatively large and small plants can be planted together without problems. By planting the larger plants between the links a joint planting can work despite variations in root volume.



Warning

Ensure that the small plants are planted so that they are not in a 'moisture shadow' of larger plant material.



Greater variations in root volume

If the planting bed is to include a combination of trees, bushes and low groundcover materials with varying rootball sizes, an additional upper level of MPS Links will ensure that the smaller plants also recieve a consistent supply of water and nutrients.

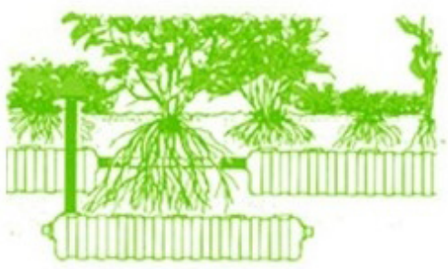
If desired, one planting area may be separated from another by a plastic liner. This ensures the smaller plant material receives a regular and reliable supply of moisture.

Example

Linear irrigation of shrubs in combination with irrigation of ground cover.

Two lines of irrigation

Linear irrigation of ground cover in combination with solitary irrigation of trees or bushes.



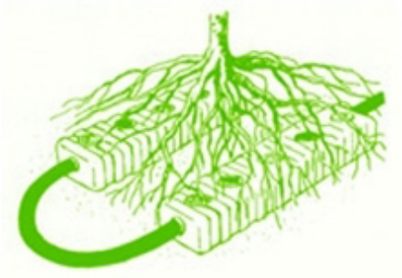
One line of linked irrigation tanks together with individual irrigation of larger plant material

Also see example of tree planting

3. Tree Planting and roof gardening

Tree planting - interior

In most cases it is sufficient to install two links per tree - however, very tall trees may require a larger water capacity provided by more links.



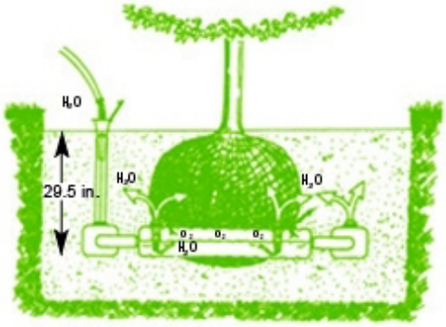
Tree planting - exterior

In purpose-built planters with no ground contact at least three links should be used.

When planting direct into the ground with young trees two links should be enough. The purpose of the links is primarily to assist the trees to acclimatise and stimulate the development of the root growth downwards to the natural soil moisture.

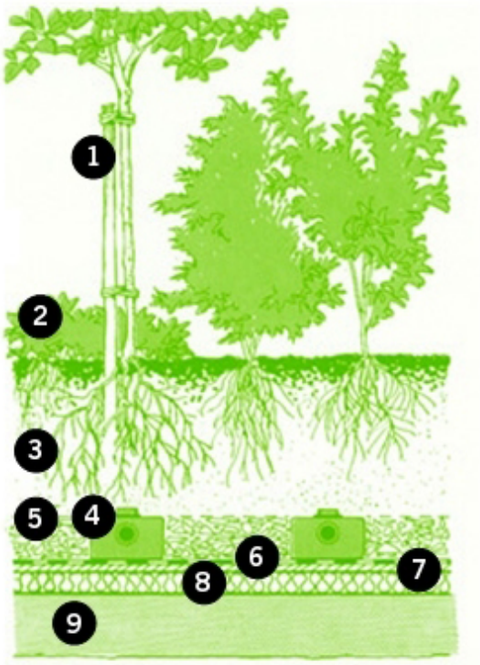
Tree planting – MPS Rings

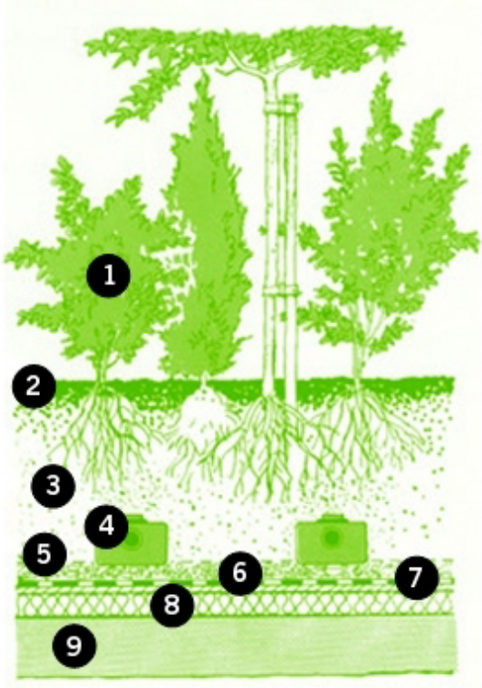
MPS Ring 24 and MPS Ring 77 are complete solutions specifically tailored to tree planting. Use MPS Ring 77 for planting holes with diameter of **51.2 in - 55.1 in.** For planting holes with diameter of over **55.1 in.**, use MPS Ring 24. The planting hole should have a depth of at least **31.5 in.**



Roof gardens

1. Plants
2. Top dressing
3. Planting medium
4. Mona irrigation system
5. Capillary matting
6. Drainage layer
7. Liner or grp lining
8. Insulation layer
9. Roofing material

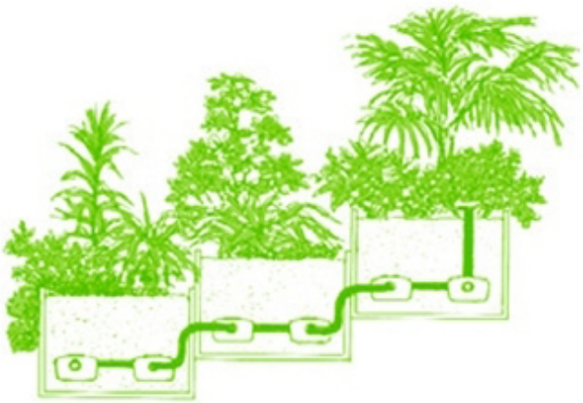




4. Planting on slopes, larger planters and beds

The MPS Link system is suitable for planting on slopes. It should be noted that there is a reduction in water capacity.

The positioning of the MPS Link system depends on the gradient of the slope. For the irrigation of steeper slopes the links should be installed parallel to the slope.



Examples of an installation in adjoining or staggered planters.

In circular beds or areas with several slopes the filling point should be at the highest placed link. The water level indicator should be mounted on the link nearest to the filling point.

Positioning of MPS Links in narrow planting spaces or on gentle slopes.

5. Some simple guidelines

Previous pages have shown how MPS Links may be used to form different interconnected systems. Below is a list of components and accessories needed to install the complete system. The calculation is based per link and the maximum number of links per interconnected system should be no more than 50.

Number of links in the installation ____ pieces

Multiply by:

36 in. flexible pipes (1 pipe is needed for every 2 tanks) (M-CT6)
0.5 = ____ pieces

O-rings (M-CTO) x 2 = ____ pieces

Air-pipe & water level indicator (minimum one air-pipe) (M-FT_). 0.2 = ____ pieces

Coupler to attach air pipe (M-FTR) 0.2 = ____ pieces

In addition you need:

End-stop (M-ES6) 1 piece

Flip top cap for filler tube (M-CC6) 1 piece

Capillary leg 9 in. for filler tube (to be used as a sieve) (M-CL3) 1 piece

Filler tube (M-CT6) 1 piece
(same as the flexible pipe above)

Notes

The length of the filler tube and water level indicator is dependent upon the actual soil depth. You may need to cut them down to the correct length.

The 36" flexible pipe should be cut in half when connecting links. Only 18" of actual pipe is needed to conncet two links (unless you are creating a U-turn.

Estimated time for installations

Installing MPS Link in previously prepared planting areas both interior and exterior, in tree pits, planters and beds takes approximately 3 minutes per link.

Estimates

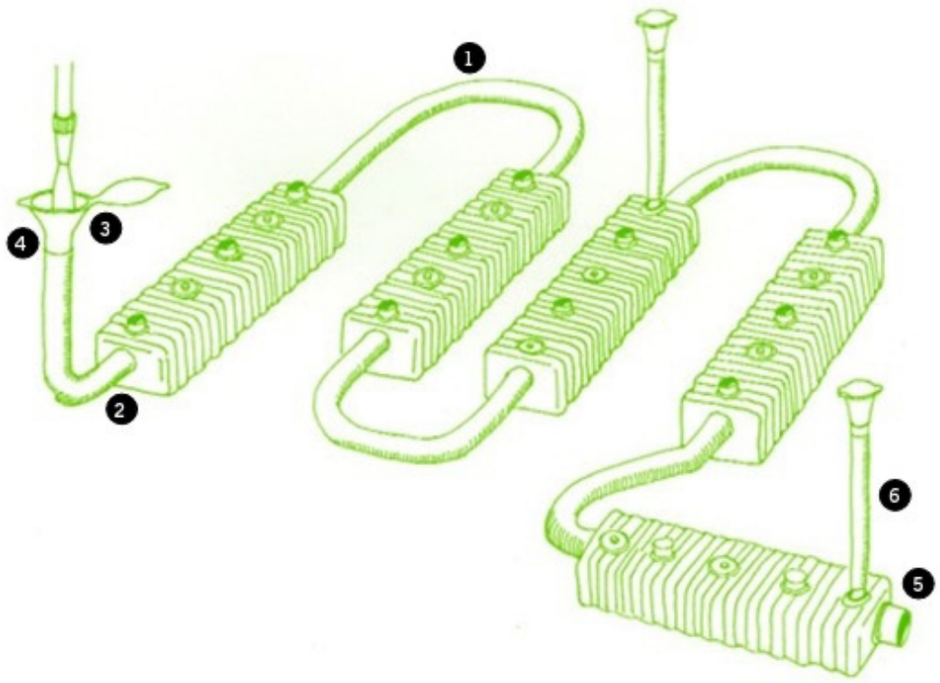
Linked MPS systems

Reference

PRODUCT CODE	PRODUCT	QUANTITY
M-24LL6	MPS Link 24	
M-07LL6	MPS Link 7	
M-03LL6	MPS Link 3	
M-FL77	MPS Flexilink 77	
M-CT6	Flexible pipe 36 in x 60mm	
M-CTO	O-rings	
M-CC6	Flip top cap	
M-CL3	Capillary leg (sieve) for filler tube	
	End-stop	
	Air Pipe - Water Level Indicator	
M-FT9	9 in.	
M-FT12	12 in.	
M-FT17	18.5 in.	
M-FT20	22 in.	
M-FTR	Coupler to attach air pipe	

Glossary

1. Flexible pipes. For connecting links and also used as filler pipes. Normally half the length of the pipe is used, but it can be cut to any length required.
2. O-rings. Are used to seal the joints between links and connecting pipes.
3. Cover cap. Is used as a funnel and mounted on the filler tube. (Flexible pipe (1) above)
4. Capillary leg. Is mounted in the filler tube together with the cover cap to stop soil and litter from entering and clogging the system.
5. End-stop. Is mounted on the last link in the series to form a watertight seal to the system.
6. Air-pipe with water level indicator. Is mounted on every fifth link. Acts as an excess air vent when filling; improves oxygen flow to the rootballs; and indicates the water level at various points in the irrigation system. Available in four standard lengths.



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