



ENVIRO  
BUILD



INSTALLATION GUIDE

**MESA**®

S U P P O R T



[ENVIROBUILD.COM](http://ENVIROBUILD.COM)



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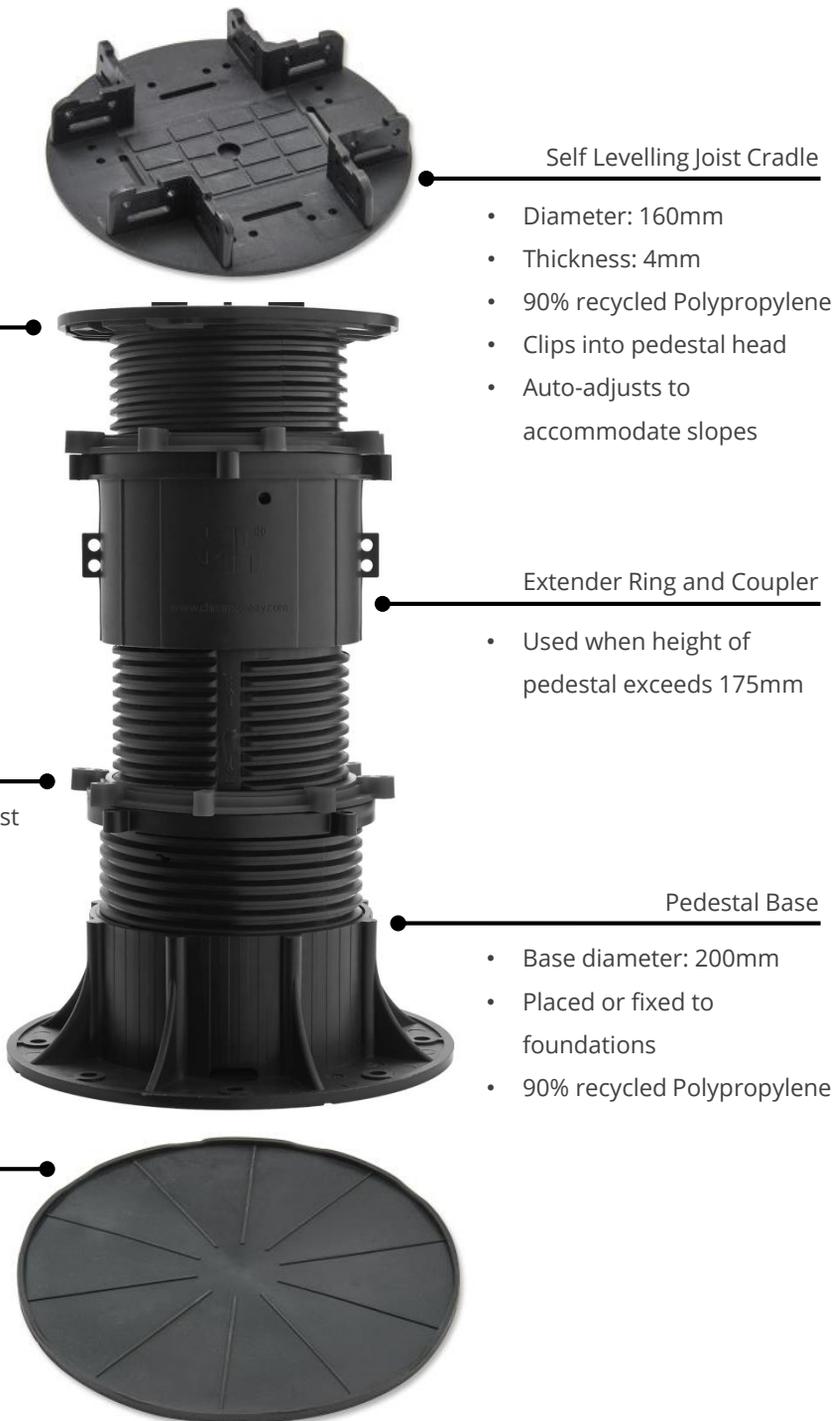
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# DECKING PEDESTAL OVERVIEW

MESA Support pedestals are the most robust, intelligent and sustainable supports in the market. They can support loads of up to 1000KG and come with a 20 year limited warranty. With adjustable heights ranging from 10mm-740mm they give you complete control of the height of the area



### Self Levelling Joist Cradle

- Diameter: 160mm
- Thickness: 4mm
- 90% recycled Polypropylene
- Clips into pedestal head
- Auto-adjusts to accommodate slopes

### Pedestal Head

- Head diameter: 150mm
- 90% recycled Polypropylene
- Can be used by itself or with the attachable joist cradle

### Extender Ring and Coupler

- Used when height of pedestal exceeds 175mm

### Fixing Collar Ring

- Locks height adjustment against vibration or shock movement
- 90% recycled Polypropylene

### Pedestal Base

- Base diameter: 200mm
- Placed or fixed to foundations
- 90% recycled Polypropylene

### Rubber Matt

- Base diameter: 200mm
- Ideal for roof terraces
- Recycled rubber

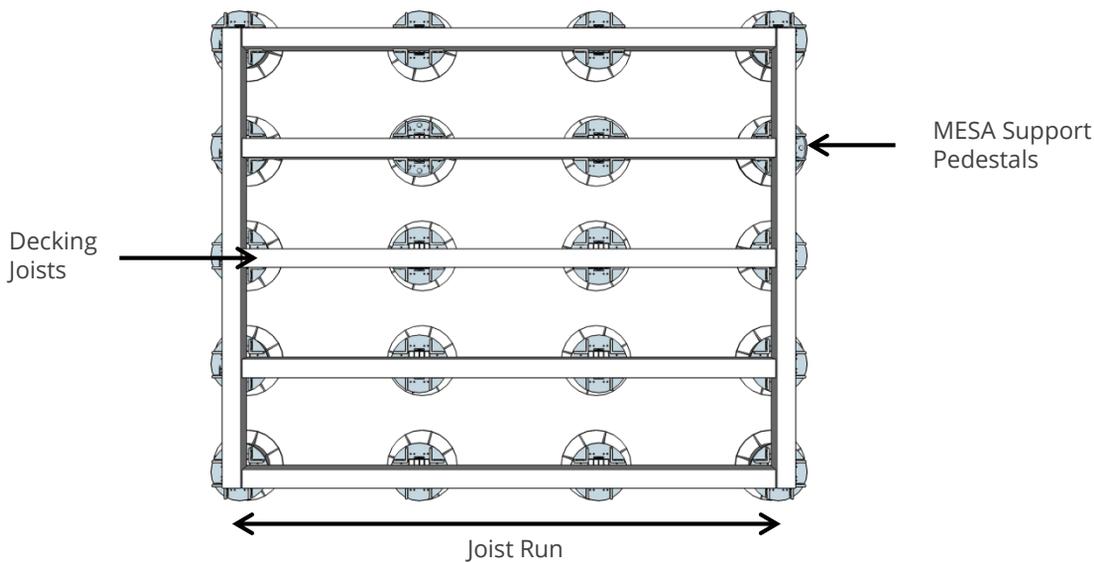




# CALCULATING MATERIALS - DECKING PEDESTALS

To determine how many MESA decking pedestals you will require, you can either use detailed plans or follow the method below. Alternatively, feel free to use our [online calculator](#) or call one of our sales team for assistance by calling 0208 088 4888

fig.1



1 Firstly calculate the amount of joist runs that require supporting (**fig.1**). The range of decking you use will determine the joist centres used for the project. If you are using Hyperion composite decking, ensure widths between joist centres are no greater than below table (**fig.2**) :

fig.2

Hyperion Range	Max. Support Span	Diagonal Support Span
Pioneer	300mm	250mm
Frontier	400mm	300mm

The following example will use a decking area that is:

- 3m wide x 6m long
- Using 4m Pioneer decking boards laid lengthways
- Using 50 X 150mm Manticore plastic lumber for the substructure

Firstly divide the length of the deck by the maximum support span, as per fig.2

**6m deck length / 0.3m max. joist centres = 20 spacing's**

2 Add 1 (one) to the above total for the amount of joist runs required

**20 + 1 = 21 joist runs (3m joist lengths required for deck width)**



## CALCULATING MATERIALS - DECKING PEDESTALS

- 3 The dimensions of the bearer you plan to use will determine how often they need to be supported. For Manticore plastic joists ensure widths between joist supports are no greater than below table:

fig.3

Bearer Profile	Max. Support Span	Approx. Pedestals Per m2
50 X 50mm	500mm	8.0
50 X 100mm	750mm	5.5
50 X 150mm	1500mm	3.5

In this example the deck is supported by 50 X 150mm Manticore plastic joists. Divide the width of the deck by the maximum support span (as per fig.3)

$$3\text{m} / 1.5\text{m} = 2 \text{ spacing's}$$

- 4 Add 1 (one) to the above total for the amount of pedestals per joist required

$$2 + 1 = 3 \text{ Pedestals per joist run}$$

- 5 Multiply the amount of joist runs by the calculated pedestals per joist

$$3 \text{ Pedestals per joist} \times 21 \text{ Joist runs} = 63 \text{ Total decking pedestals required}$$

### Calculation Recommendations

- It is recommended to add 5% overage to the total amount of material for unforeseen circumstances
- A drawing to scale may help you determine how many materials you will need
- Always round UP the number of pedestals required
- For multiple decking areas, follow the steps for each above and sum the quantities together
- Ensure not to overload the pedestals. The maximum loading weight can be found on **p.10**
- If the deck frame is planned to sit onto of a flat roof, it will also be important to have the correct amount of protective rubber mats for each support in order not to damage the roof membrane





## LAYING DECKING PEDESTALS

### Laying The Pedestals

- 1 Once your foundation area is free from all debris, lay out the pedestals from the deck edge, adjusting them to your required height (**fig.4**)
  - The joist size will affect the pedestal spacing
  - In corners or along edges where the top of the pedestal cannot fully support the joist, you can simply turn the pedestal upside down
- 2 For roof terraces it is recommended to use the rubber base mats to provide an extra layer of protection to the roof membrane
- 3 Use a spirit level to check the level of the pedestals
- 4 To take account of a slope in the foundations, joist cradles can be used that can correct for the incline

### Laying The Joists

- 5 After laying out the pedestals (**fig.4**), starting from the edge of your sub-frame, place the bearers on top of the pedestal centres
- 6 Ensure that each bearer/ joist is supported in a min. of 3 places, to their max. recommended support span. The decking range used will also determine the joist centres (**fig.2**)
- 7 If you have a joist butt joint, joists can be laid end to end when supported on a pedestal. Ensure to leave a 20mm expansion gap between joists ends (**fig.5**)
- 8 A full joist width must be used under each deck board end, thus you must ensure to have a double joist structure for deck board butt joints (**fig.6**)

fig.4

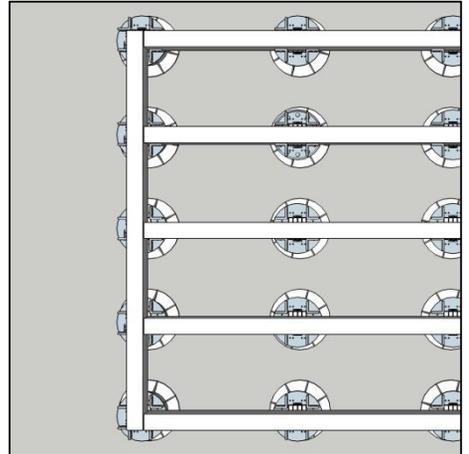


fig.5

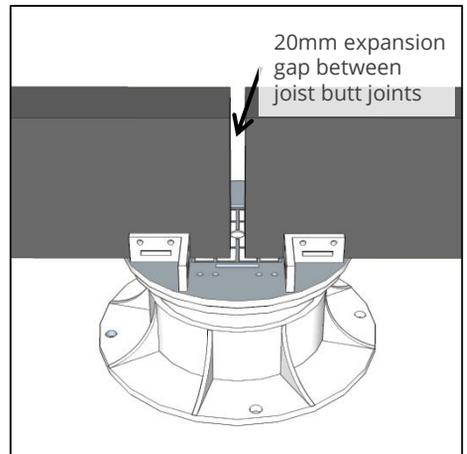
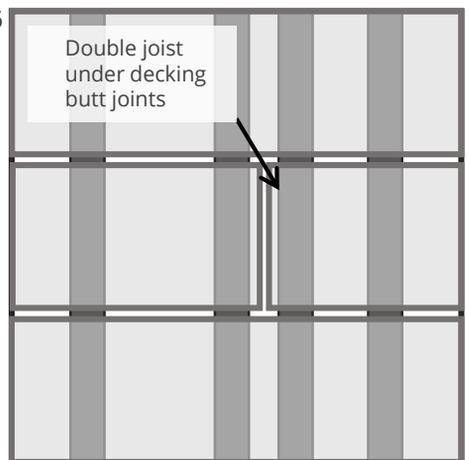


fig.6





# USING 10-40 DECKING RISERS

## 10 – 40mm Adjustable Decking Risers

- The 10 – 40mm Decking Risers can be adjusted by turning the outer ring in an anti-clockwise motion (**fig.7**). This will increase the height of the joist cradle.
- The Decking Risers also have a built in rubber base which makes them safe to install onto roof and other soft membranes.

fig.7



### 1) Laying out 10 – 40mm Decking Risers

Once your foundation area is free from all debris, lay out the pedestals from the deck edge, adjusting them to your required height (**fig.7**).

- The 10-40s should only be used with joists that have a width of 50mm.
- 10-40s should be placed a maximum distance of 500mm apart along the length of the joist (**fig. 8**)

fig.8



### 2

After laying out the pedestals (**fig.8**), starting from the edge of your sub-frame, place the bearers on top of the pedestal centres

### 3

Ensure that each bearer/ joist is supported in a min. of 3 places, to their max. recommended support span. The decking range used will also determine the joist centres (**fig.8**)

### 4

If you have a joist butt joint, joists can be laid end to end. Each end should be supported by pedestal. Ensure to leave a 20mm expansion gap between joists ends (**fig.9**)

fig.9



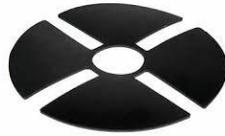


# PAVING PEDESTAL OVERVIEW

MESA pedestals are the most robust, intelligent and sustainable supports in the market. They can support loads of up to 1000KG and come with a 20 year limited warranty. With adjustable heights ranging from 10mm-740mm they give you complete control of the height of your decking.

### Rubber Shim

- Rubber spacing shims for fine tune levelling
- 1 or 2mm thickness
- Improved noise dampening
- 100% recycled rubber



### Paving Spacer & Spacing Tabs

- Individual tiling spacer tabs for polygon tiling. See **p.7**
- 2mm, 3.5mm and 5mm spacing options
- Easy clip in system
- 90% recycled Polypropylene
- Quick & simple to install, saving you time over traditional supports

### Pedestal Head

- Head diameter: 150mm
- 90% recycled polypropylene



### Fixing Collar Ring

- Locks the height adjustment against vibration or shock movement
- 90% recycled polypropylene

### Extender Ring and Coupler

- Used when the height of the pedestal exceeds 175mm

### Rubber Matt

- Base diameter: 200mm
- Ideal for roof terraces
- Recycled rubber



### Pedestal Base

- Base diameter: 200mm
- Placed or fixed to the foundations
- 90% recycled polypropylene

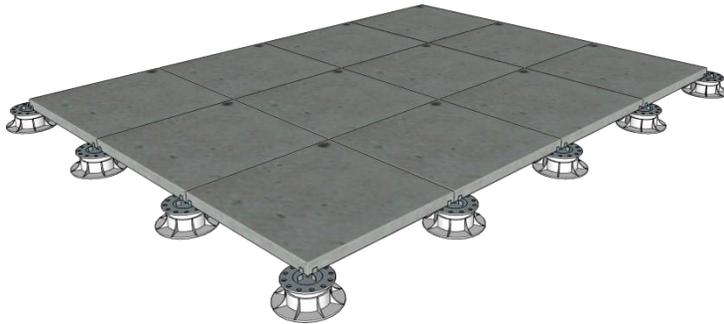




## CALCULATING MATERIALS - PAVING PEDESTALS

To determine how MESA paving pedestals you will require, you can either use detailed plans or follow the method below. Alternatively, feel free to use our [online calculator](#) or call one of our technical experts for assistance by calling 0208 088 4888

fig.10



Below is a calculation to help estimate the amount of paving pedestals you will need for your project. The number of supports will vary according to:

- The size and weight of slabs - heavier slabs may require an additional central pedestal per slab
- The total number of slabs used
- The shape of the area to be covered - more complex designs may require more supports

1 Start off by measuring the width and length of your proposed paving area(s)

**The following example will use a paving area of 3m wide x 6m long using 300 X 300mm slabs**

2 Divide the width of the area by the width of the slab, then add 1 (one) to this figure

$$6\text{m} / 0.3\text{m (width of one slab)} = 20 \text{ Paving slabs wide}$$

$$20 + 1 = 21 \text{ Paving pedestals (required for the width)}$$

3 Divide the length of the area by the length of the slab, add 1 (one) to this figure

$$3\text{m} / 0.3\text{m (length of one slab)} = 10 \text{ Paving slabs wide}$$

$$10 + 1 = 11 \text{ Paving pedestals (required for the length)}$$

4 Multiply the two numbers together

$$21 \times 11 = 231 \text{ Total paving pedestals required}$$





# CALCULATING MATERIALS - PAVING PEDESTALS

## Calculation Recommendations

- It is recommended to add 5% overage to the total amount of material for unforeseen circumstances
- A drawing to scale may help you determine how many materials you will need
- Always round UP the number of pedestals required
- For multiple paving areas, follow the steps for each above and sum the quantities together
- Ensure not to overload the pedestals. The maximum loading weight can be found on **p.11**
- If your paving is planned to sit onto of a flat roof, it will be important to have the correct amount of protective rubber mats for each support in order not to damage the waterproof membrane

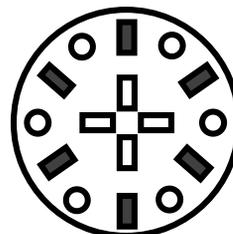
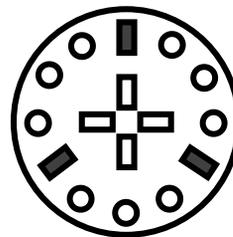
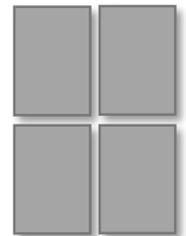
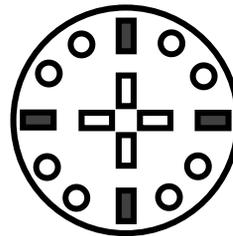
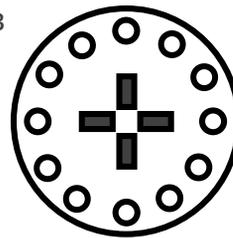
fig.11



fig.12



fig.13



## Spacers And Spacing Tabs

- For more complex paving designs you may need to calculate the amount of pedestals spacer tabs required. Regular rectangular or square paving designs you require 1 (one) four notch spacer per pedestal (**fig.11**)
- Independent 2mm and 5mm spacer tabs (**fig.12**) can alternatively be plugged into the head of the pedestals to allow you to create a number of designs (**fig.13**). Spacer tabs come in packs of 4





## LAYING PAVING PEDESTALS

### Laying The Pedestals

- 1 Once your foundation area is free from all debris, lay out pedestals along 1 edge of the paving area, adjusting to the required height (**fig.14**)
  - In corners or along edges where the top of the pedestal cannot fully support the joist, you can simply turn the pedestal upside down
  - For roof terraces it is recommended to lay the pedestals on 3mm rubber mats to provide an extra layer of protection to the roof membrane
- 2 Clip the appropriate paving spacers into the pedestal head (**p.8**)
  - Spacing tabs may not work in corners and edges
- 3 Place 1 pedestal down on the second row (**fig.14**)

### Laying The Paving Slabs

- 4 Taking the first paving slab, lay the slab onto the corner 3 pedestals (**fig.15**)
- 5 Using a spirit level ensure the paving slab is at the desired gradient on the 3 pedestals
- 6 Once level, gently slide the 4th pedestal underneath the final corner (**fig.16**)
- 7 Rotate the head of the 4th pedestal, winding up the pedestal up until it supports the slab
- 8 Ensure that you do not overload the maximum weight of the pedestal. The maximum loading weight can be found on **p.11**

fig.14

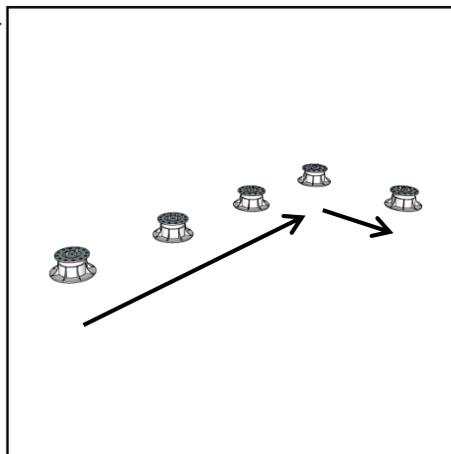


fig.15

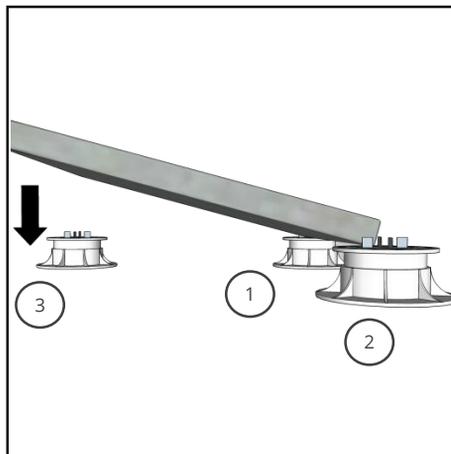
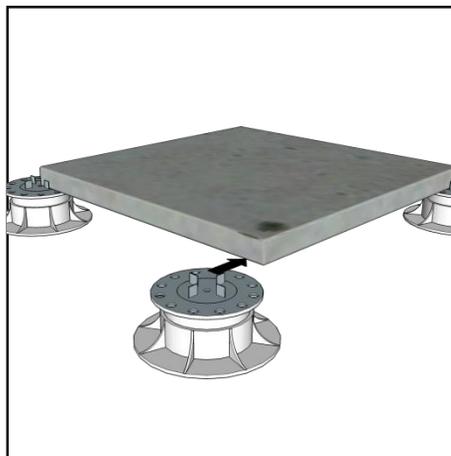


fig.16





## FULL SIZE RANGE

Pedestals between 10 – 77mm will arrive pre-assembled. Pedestals 78mm and above will need to be assembled upon delivery. A full list of components per pedestal can be found in the table below.



Head + Fixing Collar



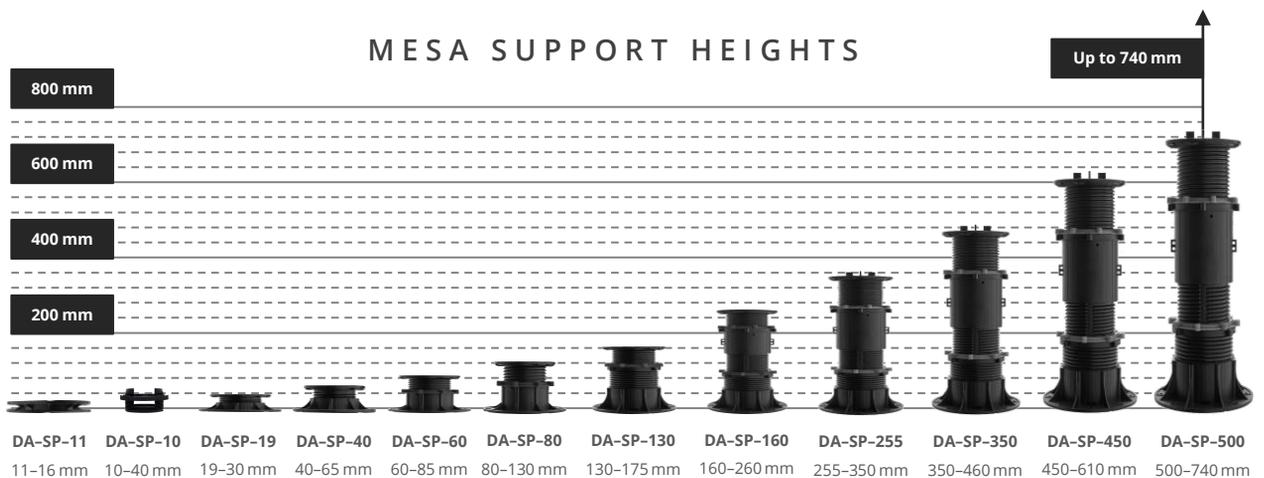
Extender and Fixing Collar



Base

SKU	HEIGHT RANGE (MM)	COMPONENTS FOR ASSEMBLY					
		78 mm Head + Fixing Collar	123 mm Head + Fixing Collar	179 mm Head + Fixing Collar	Extender and Fixing Collar	65 mm Base	149 mm Base
DA-SP-80	80 - 130	1	-	-	-	1	-
DA-SP-130	130 - 175	-	1	-	-	1	-
DA-SP-160	160 - 260	-	1	-	-	-	1
DA-SP-255	255 - 350	1	-	-	1	-	1
DA-SP-350	350 - 460	-	-	1	1	-	1
DA-SP-450	450 - 610	-	-	1	2	-	1
DA-SP-500	500 - 740	-	-	1	3	-	1

## MESA SUPPORT HEIGHTS





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