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## Installation & Product Guide

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Layout and Design

Square/Rectangular Design - An easy design to install. The main advantage is the vertical and horizontal spacings can vary and the design still looks great.

Diamond Design - A more difficult design to install. All spacings, both vertically and horizontally, must be even through the whole design to achieve a diamond shape.

Straight Run Design - An easy design to install. The main advantage is that less fittings are used.
Measurements & Spacings

Determining your measurements?

When installing either a Rectangle/Square or Straight Run Design you can be quite flexible with the spacings. Vertical spacings can vary from Horizontal, and likewise the wall coverage can vary to your wall shape/size.

Determining your measurements for a diamond design is more complex due to the need for exact spacing throughout the design to achieve symmetrical diamonds. If for instance your wall is 4000 x 2500 depending on your wall spacings full coverage of the wall won’t be achieved i.e. if the spacings are 600mm you could cover the wall 3600 (6 spaces) x 2400 (4 spaces). Our wired garden wall calculator can modify your horizontal and vertical dimensions to see what coverage you can achieve.

What is your plants Growth Rate?

Creeping plant species widely vary in growth rates with some creepers being quite vigorous while slower plants take longer to achieve an optimal level of wall coverage. It’s a bit of a balance between purchasing a slow maturing plant with little maintenance versus a vigorous growing plant with extensive maintenance. Whilst we are far from experts in the nursery field, after speaking to a few landscapers and doing a little research we have some comprised a table on wire, however please consult your local nursery who can give you better advice on the growth of the plant species depending on your local environment and a suggested wire spacing.

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CONSULATEGENTLIST YOUR LOCAL NURSERY FOR ADVICE

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Wall Mounted Hubs or Cross Clamps?

Relevant for **TENSIONED AND COMMERCIAL SYSTEMS ONLY:**
For the intersecting wires in the internal area of the design, you must consider whether to use mounted hubs, cross clamps or a combination of both.

1. **Hubs with internal cross clamps**
   When designs are less than 4m horizontally and 3m vertically, it is ideal to fasten mounted hubs to the wall around the outside of the design and use cross clamps on the intersecting wires.

2. **Mounted Hubs only**
   When designs are up to 3m in length and height it is ok to fasten mounted hubs to the wall for the whole design.

3. **Hubs with a combination of internal cross clamps and hubs**
   When designs are more than 4m horizontally and 3m vertically, it is ideal to fasten some centre hubs to the wall and use cross clamps on the remaining intersecting wires. This combination increases the strength of the overall design.

**WARNING!** When installing large designs, a combination of hubs and cross clamps are required to reduce the pressure on the outside hubs. Hubs mounted to the wall reduce the middle of the structure moving away from the wall and the cross clamps spread the load across the whole design.
Tensioned System

The Wired Garden Tensioned System is a quick and easy wire trellis and espalier system for creeping plants. Simply fasten the hubs to the wall, crimp the tensioners to the end of the wire and tighten the nuts (see our detailed installation guide attached). The installation of the image to the right was done in 2 hours by one of our DIYer staff members. Check out our WALL SPACING CALCULATOR online to calculate the fittings required for your wall.

✓ 3.2mm or 4mm Wire Rope ✓ DIY/Trade
✓ Hydraulically Swaged ✓ Commercial Range Available
✓ Timber or Masonry Walls ✓ Quick and Easy to Install

Wire Run Set Up

Wire can also be set up in a Diamond design

Fittings in this system include

SS316 HUBS
- 68mm Mounted Hub
- 68mm Hub with Eye
- 122mm Mounted Hub
- Cross Clamps
- 3.2mm Stud Tensioner
- 4mm Stud Tensioner

SS316 WALL FIXINGS
- M8 Double Thread Screw 8x50mm
- M8 Double Thread Screw 8x65mm
- M8 Double Thread Screw & 10mm Masonry Plug
- M8 Wedge Anchor

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PRODUCT GUIDE

Tensioned System

Products Required

- Measuring Tape
- Pencil
- 1x19 3.2mm Stainless Wire
- 6mm Drill Bit (Timber Walls)
- Rigging Spanner
- 4mm Hex Key or Driver Bit
- Wire Cutters
- Hydraulic Swaging Tool
- Drill
- Masonry Drill Bit (Masonry/Brick Walls)
- Level
- 3mm Hex Key or Driver Bit (for Cross Clamps)

WARNING: READ IN FULL BEFORE COMMENCING PROJECT

Step By Step Instructions

Step 1

Using a pencil, tape measure and level, mark out your design on the wall. Do not rush this process!

Step 2

On all DIAMOND designs a must = b. All Diamond design layouts require identical spacings to achieve a Diamond shape. a must equal b. Otherwise, you need to change your layout.

Step 3

Timber Walls

Where installation of Hubs is required. Pre-drill the Double Threaded Screw with a 6mm drill bit (6.5mm bit may be required for Hardwood).

Step 3a

Masonry Walls

Where installation of Hubs is required. Pre-drill the wall plugs with a 10mm masonry or drill bit. If using wedge anchors use a 8mm drill bit.

Step 4

Ensure only the M8 thread section is protruding from the wall.

Using a 4mm Hex Driver Bit or Hex Key screw the double thread screw into the wall/wallplug. For Wedge Anchors hammer them in.

Step 5

Screw your hubs onto the studs.

Step 6

Measure distance between the centers of the two outside hubs and subtract 95mm to obtain your wire length.

Step 7

Using wire cutters cut the wire to the calculated length and feed into the opening of the swage stud as far as it goes.

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Tensioned System

Step By Step Instructions

**Step 8**
Using a hydraulic crimping tool, crimp the fitting twice with two evenly spaced crimps along the fitting or once with a hydraulic press.

**Step 9**
Turn the nut all the way to the end of the swage end of the swage stud. Then feed the metal thread end through the hub and loosely attach the spare hex nut.

**Step 10**
Feed the wire through any intermediate hubs.

**Step 11**
Feed the wire into the swage stud and crimp.

**Step 12**
Turn the nut all the way to the end of the swage end of the swage stud. Then feed the metal thread end through the hub and loosely attach the spare hex nut.

**Step 13**
Create tension on the wire by using the 10mm Spanner and rigging screw spanner to tighten the external nuts, leaving a 5-10mm thread exposed for the dome nut.

**Step 14**
Once tension is created lock the nuts by fastening the internal nut and external nut against the hub.

**Step 15**
Attach the dome nut to complete the run.

**Step 16**
If you are using cross clamps, undo the grub screws with a 3mm hex key or driver bit to separate the two moulds.

**Step 17**
Place the cross clamp over the wire rope where the rope intersects and fasten the moulds back together with the hex key or bit.

**Step 18**
WARNING! DO NOT install runs greater than 4 meters vertically and 8 meters horizontally. If your wall measurements are longer or higher than 4 meters, split the runs in halves or thirds like image attached.

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Non Tensioned System

The Wired Garden Non Tensioned System is an extremely quick and DIY friendly trellis and espalier system for creeping plants. Simply, fasten the hubs to the wall, insert the wire, fasten the central screw and pop on the end caps (see our detailed installation guide attached). The installation of the wall to the right was done in 1.5 hours by one of our DIYer staff members. Check out our WALL SPACING CALCULATOR online to calculate the fittings required for your wall.

✓ 3.2mm Wire Rope ✓ DIY/Trade
✓ Only Basic Tools Required ✓ Complete Novice friendly
✓ Timber or Masonry Walls ✓ Quick and Easy to Install

Wire Run Set Up

*Wire can also be set up in a Diamond design, although it is more difficult to install.

Fittings in this system include

- 42mm Hub
- 100mm Hub
- End Cap
- Masonry Wall Plug

Tools & additional products required

- Measuring Tape
- Pencil
- 7x7 3.2mm Stainless Wire
- 4mm Drill Bit (Timber Walls)
- 6mm Hex Key or Driver Bit
- Phillips Driver Bit No2 (long)
- Masonry Drill Bit (Masonry/Brick Walls)
- Wire Cutters
- Level
- Drill

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**Non Tensioned System**

**WARNING: READ IN FULL BEFORE COMMENCING PROJECT**

**Step By Step Instructions**

**Step 1**
Using a pencil, tape measure and level, mark out your design on the wall. **Don’t rush this process!**

**Step 2**
All Diamond design layouts require identical spacings to achieve a Diamond shape. **a must equal b**, otherwise you need to change your layout.

**Step 3**
Timber Walls
Where installation of Hubs is required. Pre-drill the screw with a 4mm drill bit.

**Step 3a**
Masonry Walls
Drill the wall with a 6mm masonry drill bit and insert the wall plug.

**Step 4**
Using a 6mm Hex Driver Bit or Hex Key unscrew the central screw from the hub.

**Step 5**
Screw the self tapping screw into the predrilled hole or plug (for masonry) and loosely screw the central screw back on.

**Step 6**
Measure distance between the centers of the two outside hubs and add 40mm to obtain your wire length.

**Step 7**
Using wire cutters cut the wire to the calculated length.

**Step 8**
Insert the wire through the hubs starting with the horizontal lengths and leave them in place without tightening.

**Step 9**
Once all the horizontal wires are loosely in place, insert the vertical wires starting with the outside wires.

**Step 10**
Leave the wire about 20mm extended past the hubs, leaving enough room for the end caps.

**Step 11**
Hand tighten the outside hubs once the vertical and horizontal wires are in place.

**Step 12**
Once all your wires are in the correct position and hand tight, you can start tightening the central screw with a hex key/driver bit. Start with the external areas first.

**Step 13**
Once the hubs are all tightened, you can put the nylon end plugs in place. First expand the tip of the end cap with a pencil, like shown.

**Step 14**
Slide the end cap over the end of the wire.
Commercial Tensioned System

The Wired Garden Commercial Tensioned System is a quick and easy wire trellis and espalier system for creeping plants. Simply fasten the hubs to the wall, crimp the tensioners to the end of the wire and tighten the nuts (see our detailed installation guide attached). The installation of the wall to the right was done in 2 hours by one of our DIYer staff members. Check out our WALL SPACING CALCULATOR online to calculate the fittings required for your wall.

✓ 3.2mm or 4mm Wire Rope ✓ Commercial
✓ Hydraulically Swaged ✓ Quick and Easy to Install
✓ Timber or Masonry Walls ✓ SS316 Marine Grade

Wire Run Set Up

[Diagram showing wire run setup]

Wire can also be set up in a Diamond design

Fittings in this system include

**SS316 HUBS**
- 68mm Mounted Hub
- 68mm Hub with Eye
- 122mm Mounted Hub
- Cross Clamps

**SS316 TENSIONERS**
- 3.2mm Stud Tensioner
- 4mm Stud Tensioner

**SS316 WALL FIXINGS**
- M8 Double Thread Screw 8x50mm
- M8 Double Thread Screw 8x65mm
- M8 Double Thread Screw & 10mm Masonry Plug
- M8 Wedge Anchor

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Commercial Tensioned System

Products Required

- Measuring Tape
- Pencil
- 1x19 3.2mm Stainless Wire
- 6mm Drill Bit (Timber Walls)
- Rigging Spanner
- 4mm Hex Key or Driver Bit
- Wire Cutters
- Hydraulic Swaging Tool
- Drill
- Masonry Drill Bit (Masonry/Brick Walls)
- Level
- 3mm Hex Key or Driver Bit (for Cross Clamps)

**WARNING:** READ IN FULL BEFORE COMMENCING PROJECT

Step By Step Instructions

**Step 1**
Using a pencil, tape measure and level, mark out your design on the wall. **Don't rush this process!**

**Step 2**
All Diamond design layouts require identical spacings to achieve a Diamond shape. a must equal b, otherwise you need to change your layout.

**Step 3**
Timber Walls
Where Installation of Hubs is required. Pre-drill the Double Threaded Screw with a 6mm drill bit (6.5mm bit may be required for Hardwood).

**Step 3a**
Masonry Walls
Where installation of Hubs is required. Pre-drill the wall plugs with a 10mm masonry or drill bit. If using wedge anchors use a 8mm drill bit.

**Step 4**
Ensure only the M8 thread section is protruding from the wall.
Using a 4mm Hex Driver Bit or Hex Key screw the double thread screw into the wall/wallplug. For Wedge Anchors hammer them in.

**Step 5**
Screw your hubs onto the studs.

**Step 6**
Measure distance between the centers of the two outside hubs and subtract 95mm to obtain your wire length

**Step 7**
Using wire cutters cut the wire to the calculated length and feed into the opening of the swage stud as far as it goes.
Commercial Tensioned System

Step By Step Instructions

Step 8
Using a hydraulic crimping tool, crimp the fitting twice with two evenly spaced crimps along the fitting or once with a hydraulic press.

Step 9
Turn the nut all the way to the end of the swage end of the swage stud. Then feed the metal thread end through the hub and loosely attach the spare hex nut.

Step 10
Feed the wire through any intermediate hubs.

Step 11
Feed the wire into the swage stud and crimp.

Step 12
Turn the nut all the way to the end of the swage end of the swage stud. Then feed the metal thread end through the hub and loosely attach the spare hex nut.

Step 13
Create tension on the wire by using the 10mm Spanner and rigging screw spanner to tighten the external nuts, leaving a 5-10mm thread exposed for the dome nut.

Step 14
Once tension is created lock the nuts by fastening the internal nut and external nut against the hub.

Step 15
Attach the dome nut to complete the run.

Step 16
If you are using cross clamps, undo the grub screws with a 3mm hex key or driver bit to separate the two moulds.

Step 17
Place the cross clamp over the wire rope where the rope intersects and fasten the moulds back together with the hex key or bit.

Step 18
WARNING! DO NOT install runs greater than 4 meters vertically and 8 meters horizontally. If your wall measurements are longer or higher than 4 meters, split the runs in halves or thirds like image attached.

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