# Installation Instructions 



## Vario Spider Web

Model No. 4591-30-8R with Robinia Posts

Revision History
Initial Release: 11/8/2022
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NetPlay
3-D Adventure Play \& Innovation

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Please read through the entire installation instructions upon receipt to ensure that all parts have been received and that all customer-supplied materials are procured prior to the start of installation.

## Introduction

Thank you for purchasing the Vario Spider Web! Before we begin, please take some time to familiarize yourself with the components, tools, and installation steps to ensure adequate preparation for a smooth installation.

## General Information

This equipment should be installed, inspected, maintained, and operated in accordance with ASTM F1487-17 or CSA-Z614 guidelines.

The installation site shall have a flat and level surface with a maximum slope of $3 \%$.
For product support, including questions regarding installation, or to obtain replacement parts, please contact your equipment dealer.

Following installation, the complete assembly instructions, maintenance instructions, and maintenance records must be sent to the operator who must confirm receipt in writing. See the last page of this document.

## Drawings/Views

The manufacturer reserves the right to make reasonable changes to technical details of our products for enhanced safety and assurance for users and operators.

## Measurement Tolerances

Due to the properties and characteristics of the components above surfacing level, actual measurements may vary from those indicated in the diagrams. The manufacturer has established safe tolerances for these components.

## Specifications

Assembly Time

$\qquad$
0.5 hours(after posts and concrete are set)
Personnel Required .....  2
Equipment
Height ..... 94.5 in ( 2400 mm )
Footprint $6.0 \times 92.5$ in ( $150 \times 2350 \mathrm{~mm}$ )
Use Zone $152.0 \times 240.5$ in ( $3860 \times 6108 \mathrm{~mm}$ )
Fall Height ..... 82.75 in ( 2100 mm )
Age Group ..... 5 to 12 years
Capacity ..... 5
Foundations
Concrete Mix ..... C25/C30
Required Concrete: $1.7 \mathrm{yd}^{3}$ (1.3 m${ }^{3}$ ) both foundations
Foundation Dimensions. $35.50 \times 35.50 \times 31.5$ in$(900 \times 900 \times 800 \mathrm{~mm}$ )
Required (provided by customer):
Drainage Stone (total) ..... $5.75 \mathrm{ft}^{3}\left(0.17 \mathrm{~m}^{3}\right)$
(4 inches of stone required beneath each foundation)
Concrete Slab ..... approx. $12 \times 12$ in
(1 for each post) ..... ( $300 \times 300 \mathrm{~mm}$ )

In the case of sandy and soft soils, the footprint of the foundation must be enlarged by $50 \%$.

## Parts List



|  |  | Qty |  |
| :---: | :--- | :---: | :---: |
| Description | Ship |  | Rec |
| A | Spider Web Net Assembly | 1 |  |
| B | Robinia Post | 2 |  |
| C | Tension Plate - Crossed | 6 |  |
| D | Tension Plate - Slotted | 6 |  |
| E | Torx Screw - 0.75 in | 24 |  |
| F | Torx Screw - 1.65 in | 6 |  |
| G | Compliance Stickers | 2 |  |
| H | Concrete Slab 12 $\times 12$ in <br> $(2$ required - provided by customer) | - | - |

B


D

E


G

## Installation

## Part A: Site Prep and Use Zone

Be sure that the chosen site is well drained and level, with a $3 \%$ maximum slope.
A clear path and adequate protective surfacing are required at least 72 inches ( $1,829 \mathrm{~mm}$ ) from the outer edge of each element as shown below.


## Installation

## Part B: Foundation and Posts

- Two concrete post foundations are required for the Vario Spider Web. The finished foundations and posts must be 88.58 in ( 2250 mm ) apart on center.
- Dig all foundation holes to the following dimensions. Account for a required 16 inches ( 400 mm ) of material (subgrade + surfacing) over the foundations and 4 inches ( 100 mm ) for drainage stone under the concrete.

Foundations: $35.5 \times 35.5 \times 31.5$ in ( $900 \times 900 \times 800 \mathrm{~mm}$ )
Overall depth with surfacing and drainage stone: 43.3 inches ( $1,100 \mathrm{~mm}$ )


The required material depth (subgrade + surfacing) of 16 inches ( 400 mm ) is critical to meet the manufacturer's specifications for safe use and compliance.

Please refer to ASTM F1292, ASTM F1951, ADA, and ABA standards when choosing the type and thickness of surfacing material.


- Place 4 inches ( 100 mm ) of drainage stone evenly on the bottom of each foundation hole.
- Place the concrete slabs flat down onto the drainage stone in each foundation hole and nestle them into the drainage stone so that the top of the slab is flush with the top of the stone. Between each foundation of connecting elements, adjust the slabs until they are 88.58 in ( 2250 mm ) apart on center.
- Stand each post on-end onto the center of the flat concrete slab in each foundation.
- Using a level, check that each post is straight. If needed, adjust the concrete slab on the stone, until the post sits straight.

- Using a tape measure, check that the dimension between the center of each connecting post is exactly 88.58 in ( 2250 mm ). Shift the posts on the concrete slabs until the correct measurement is achieved.


The 88.58 in ( 2250 mm ) dimension between posts is critical for the fit of the Spider Web. If the dimension is off, the Spider Web may not install properly.


- With measurements checked, and all posts in place, straight and level, pour the concrete foundations. Check the post measurements again after pouring each foundation and ensure that they will not move while the concrete is setting.
- Round the top edges of the foundations to a 4 in $(100 \mathrm{~mm})$ radius.
- Allow to set for the concrete manufacturer's recommended time before proceeding to the next step.



## Installation

## Part C: Installing the Spider Web

- Use the Critical Dimensions diagram on page 11 to find the height of each chain connection. Mark those exact points on the inner side of the posts (side facing where the net element will be installed).
- Use a $1 / 4$ inch $\times 12$-inch-long drill bit to drill a hole at mark straight and level through the post. Holes in corresponding posts of a connecting element must be aligned to each other.
- Switch to the 2-3/8 in Forstner bit to countersink the holes on both sides of the post to a depth of approximately $0.375 \mathrm{in}(10 \mathrm{~mm})$.
- Using the $7 / 8$ in drill bit, drill a hole through the post, following the $1 / 4$ inch hole made in the second step.

- Install a cross tension plate (C) to the inner side holes of each connection (toward Spider Web) using two 3/4 in Torx screws (E) each as shown.

- Find the top connection of one side and pass the chain through its corresponding crossed tension plate, through the post and out the other side. Work the chain through until there are a few links on the outer side.
- Slide a slotted tension plate (D) onto the chain on the outer side, behind the link closest to the post, to lock the chain in place. Do not screw the plate in yet.

- Repeat the last two steps for the top connection on the other side of the Spider Web and corresponding post, then again with the lower connections.
- Tension the Spider Web evenly by pulling excess chain through the post on all connections with reasonable force until you cannot take in another link, then refit the slotted tension plate onto the chain as close to the post as possible.
- Adjust the chains as needed until the Spider Web is tensioned and sits evenly between the posts.
- Once properly tensioned, use bolt cutters to cut the excess chain so that there is one full link on the outside of the slotted tension plate.
- Fasten the slotted plate to the post with two $3 / 4$ inch Torx screws (E).
- Fold the link over flat against the slot and drive a 1-5/8 in Torx screw (F) through the link and slot, into the post until the link is tightened against the plate.



## Critical Dimensions



## Finishing

- Add and grade 16 in ( 400 mm ) surfacing per ASTM F1292 to the use zone.
- With surfacing, the final height of the posts should be about 94.5 inches $(2,400 \mathrm{~mm})$. Please see the Critical Dimensions diagram for specific measurements.
- If using loose fill surfacing material, mark the posts at the final level of the surfacing so that the proper level can be maintained.
- Place a compliance sticker on the inner-facing side of each post.
- Clean up the area and remove all tools, extra materials, or other assembly aids before opening the equipment for use.


## Final Checklist

$\square$ The Vario Spider Web was installed according to the instructions without modification, except if instructed by the equipment supplier.
$\square$ Check foundation stability.
$\square$ Proper surfacing has been added and fall heights checked.
$\square$ Compliance stickers have been adhered and are visible.
$\square$ Recheck all measurements for ASTM F1487 or CSA-Z614 conformity.

## Maintenance

To maintain safety, the operator must ensure that proper inspection and maintenance is carried out by a competent person in accordance with ASTM F1487-17 or CSA-Z614, and the following manufacturer recommendations.


Damage which may compromise safety must be repaired immediately. If repairs cannot be immediately carried out, the operator must close the equipment to prevent use.

## Replacement Parts

Replacement parts may be obtained through your equipment dealer. Parts not obtained through a dealer must conform to the manufacturer's specifications.

## Break-in Period

Between 1-2 weeks after installation (equipment break-in period), check all threaded connections and tighten if necessary.

## Inspection Frequency

We strongly advise you to carry out inspections and maintenance work within the specified periods as use of the equipment, the weather and malicious vandalism cause wear and tear that compromises the safety and function of the equipment.

With average use and environmental conditions, check the following at or before the recommended frequency. If the equipment is exposed to high-use or harsh environments, the inspections should be performed at a shorter frequency. Inspections should also be completed per ASTM 1487-17 or CSA-Z614 guidelines.

## Monthly

- Check all connecting elements and fittings for wear and tear and tighten if necessary. Repair or replace damaged or missing parts.
- Check ropes for excessive wear. If ropes are worn through to the steel wire core, the equipment should be closed to prevent use until the rope is repaired or replaced.
- Check surfacing for adequate depth and fill in as necessary.
- Check the ground surface of fall protection for hard objects and loose foundations.
- Check that moving metal parts (joints, springs, etc.) move smoothly and are not worn. Repair or replace if necessary. It is not necessary to lubricate joints as we only use maintenance-free metal roller bearings.
- Check all attachments such as chains, ropes, nets, etc. for damage and repair or replace if necessary.


## Quarterly

- Detailed inspection of the operation and stability of the equipment paying particular attention to any wear and tear.
- Check the stability of the foundations and posts.
- Tighten all forms of attachment.


## Yearly

- Check for corrosion on metal components. It may be necessary to dig out subterranean components to inspect them. Apply zinc paint to any corroded or scratched areas.
Copy and return to the owner/operator annually following initial inspection.





## Date of Inspection

Model Name: Vario Spider Web
Model Number: 4591-30-8R
Serial Number: $\qquad$

## Operator



Name of operator (town, school, business, etc.): $\qquad$
Street: $\qquad$ City:
State:
Zip:

Representative in charge: $\qquad$

## Installer

Name of installation company:
Street: $\qquad$ City: $\qquad$ State: $\qquad$ Zip: $\qquad$
Representative in charge: $\qquad$

Installer Checklist:Adequate concrete foundation poured per instructions.
$\square$ Structure assembled per the instructions without modification (unless approved by the manufacturer.)
$\square$ Final inspection conducted and passed per instructions.

Operator received the complete assembly instructions, inspection \& maintenance instructions, and maintenance log. Installer completed work to the manufacturer's specifications.

Operator Signature: $\qquad$ Date: $\qquad$
Installer Signature: $\qquad$ Date: $\qquad$

