FORPARK
AUSTRALIA

ORBIT CHALLENGE & STAINLESS

INSTALLATION MANUAL

Congratulations on selecting Forpark Australia equipment for your playground.
This manual provides you with easy-to-follow instructions that will enable you to install the equipment correctly. Installing your own playground can be a simple and rewarding task and it is satisfying to be able to stand back when the job is finished and say "we did that!"

As a quality assured company our equipment complies with the following standards for play equipment as a minimum, to ensure the safety of your children.

- AS 4685:2021, Parts 1 – 6, Playground equipment (Safety requirements and test methods)
- AS 4422:2016 Playground surfacing – Specifications, requirements and test method
- AS 4685.0.2017 Playgrounds and playground equipment – Part 1: Development, slide installation, inspection, maintenance and operation

You may be interested to know that Forpark Australia is a family-owned Australian company and that we are the largest in-house manufacturer of playground equipment in Australia.

We have been manufacturing playground equipment since 1979 and provide you with the benefit of the knowledge and experience that we have developed over these years.

This installation manual should be kept for future reference and to help you with your maintenance program. A recommended maintenance schedule is provided at the rear of this manual.

Good luck with your installation.

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CONTENTS

PREPARE THE SITE

Before any installation you should be familiar with the requirements of AS 4685 (Parts 1-6) – 2021 "Playground equipment – safety requirements and test methods" (particularly relating to fall zone requirements), AS/NZS 4422:2016 "Playground surfacing – specifications, requirements and test method" (relating to the type and depth of your soft-fall surfacing), and AS/NZS 4685.0:2017 "Playgrounds and playground equipment – development, installation, maintenance and operation" (dealing with your site requirements and ongoing maintenance).

1. Playground equipment is normally designed for installation on a flat level surface so you should ensure that your play area is prepared correctly.
2. Check that the site is clear of underground power and services before you commence digging.
3. Measure the site to ensure that it is large enough to allow for the correct fall zones between the equipment and the outside of the soft-fall surface, and correct distances between various items of equipment. If you are unsure of these requirements you should check with your Forpark representative.
4. For ease of installation, do not put the soft-fall surfacing in until after the equipment has been installed. Ensure that you allow for the required soft-fall depth when excavating the site. Any excavation should take place before commencing installation of the equipment.

EQUIPMENT REQUIRED FOR INSTALLATION

1. Ratchet (or socket set) with ½" driver
2. Ratchet (or socket set) with 3/8" driver
3. Cordless drill
4. Shovel for digging holes (preferably long-handled)
5. If digging in hard ground you may need a 300mm auger and a crowbar
6. Spirit level
7. 'G' clamps (for holding items in place before bolting)
8. A string line or laser level
9. Wheelbarrow
10. An axe (for cutting tree roots if they are in the way)
11. Concrete for footings
12. Bricks/pavers/blocks of wood (one per upright) (to provide stability below ground where required)
13. A basic first aid kit for emergencies
14. 'Occupational Health and Safety' plan and procedures if applicable

CHECK THE CONTENTS OF THE CRATE

In addition to the equipment itself, you should have the following:-

1. Plans of the play structure
2. Materials or packing list
3. Tri-lobe driver (driver with a rounded triangular head which fits onto your ½" socket)
4. Post-Torx Driver (driver with a star-shaped head that fits into the ¼ inch socket)
5. Tech Screw Driver
6. Nuts and bolts, etc
7. Touch up paint
8. Loctite

SECURING THE SITE WHILE WORK IS IN PROGRESS

You should ensure that the worksite is clearly defined by some sort of barrier or a temporary fence to ensure that children or onlookers are not in danger of injury while you work. The concrete footings will need at least 24 hours to set, so a barrier or fence will keep people off the equipment until it is ready to be used and until adequate soft-fall surfacing has been installed.

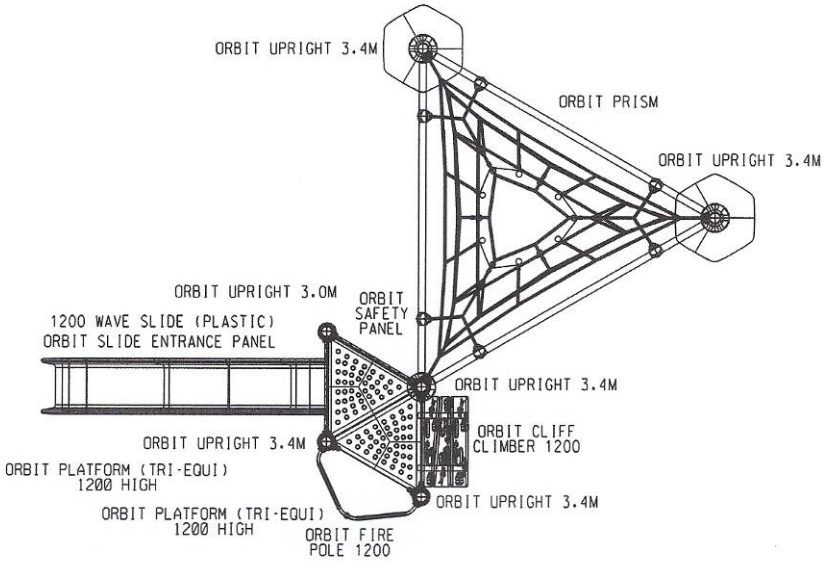
PREPARATION FOR INSTALLATION

1. Before you commence installation you should familiarise yourself with the general instructions of this manual.
2. Once ready to commence installation you should lay out the equipment and ensure that you have all items detailed on the materials or packing list. (Some items listed on the packing list, such as caps, may already be attached to other components.)
3. Group the number uprights, in order of height. These will be either 3.4m or 3.8m in length and will be shown on the plan. (see "reading the plans" below)
4. Lay the equipment out roughly on the ground to ensure that it fits within the prepared area and that all required fall zones are met.
5. Determine the proposed finished surface level and use a string line to set this level. This will help in ensuring that the platforms and other items are set at their correct height above ground level.

READING THE PLANS

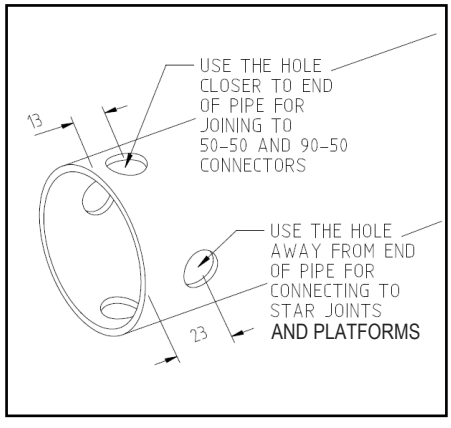
You have been supplied with a plan showing the actual layout of the equipment.
The plan has been marked to show which uprights lengths should be placed in which position. This plan also shows the position of each of the components in the structure (see diagram).
You have also been supplied with a set of drawings which indicate the position of the clamps on the upright and positioning of each item.

Equipment Layout (as though looking down from above)



INSTALLING UPRIGHTS

Uprights should be installed to a depth of 800mm below the finished surface level (ground level). Make sure that you allow for the safety surfacing when digging your holes, ie, if the upright needs to be buried 800mm in the ground, and you have already excavated 300mm for soft-fall, the holes only need to be another 500mm deep. (Note: If the ground is soft or likely to be subject to settling it is best to dig the holes in an additional 100mm deep and lay a 100mm thick footing using rapid set concrete before inserting the uprights.)
Lay the platform sections and rails out on the ground in the same positioning as shown in the plan. Mark the hole positions on the ground and dig holes to the required depth. Before commencing the installation ensure that you have allowed for the correct fall zone between the equipment and the edge of the soft-fall surface. Place either a block of wood or a brick/paver at the bottom of the hole onto which to rest the upright, and using a string line or a laser level, level all upright holes.
To obtain the exact positioning of each upright, use the dimensions provided on the plans and the rails (used as spacers). When using a rail the part of the clamp should be connected to each rail to provide exact distances. (Ensure that the hole in the rail used is the hole furthest from the end of the rail.)
Concrete the uprights (see "concrete footings" below) once the structure is assembled, then compact the footings and ensure that the structure is level before allowing the concrete to set.

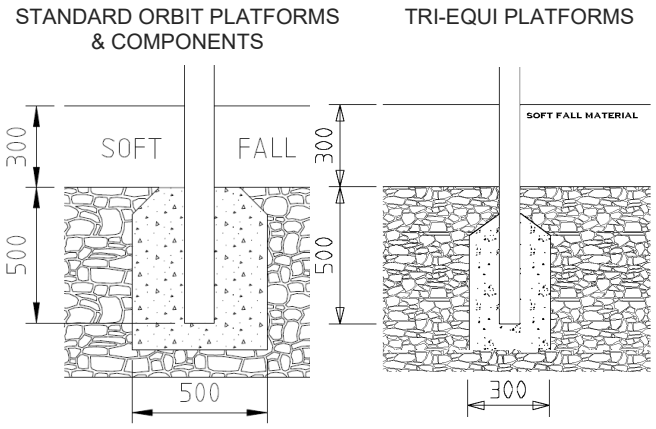


FOOTINGS

Concrete should be used on all items in the ground as per the diagram. Generally, the footing should be 500mm x 500mm x 500mm (deep) with a tapered tip so that water won't pool around the upright. Where Tri-equi platforms are used (with 3 uprights per platform) a smaller footing of 300mm x 300mm x 500mm (deep) can be used.

Where loose-fill surfacing is used ensure that the concrete is at least 300mm below the finished surface level or that the footing is effectively covered by items of equipment in such a way that they do not present a hazard.

Note: If the ground is soft or likely to be subject to settling it is best to use an additional 100mm of concrete on the footing below the upright. This may need to set before placing the upright in place.



Forpark recommends General Purpose Concrete. This is a concrete with a compressive strength of 20MPa (at 28 days) or higher.

The concrete used in playground footings should only be mixed and/or worked by a suitably experienced person following supplier/manufacturer's instructions.

LOCTITE

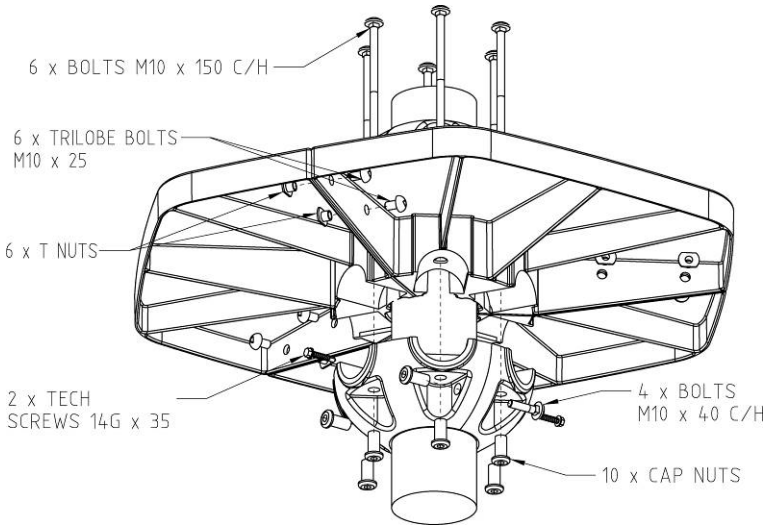
'Loctite' is provided in each bolt pack. This should be used on the thread of all bolts before fastening. Only one to two drops need be applied to the thread of the bolt, immediately before inserting into the nut and tightening.

INSTALLING PLATFORMS

ORBIT PLATFORM

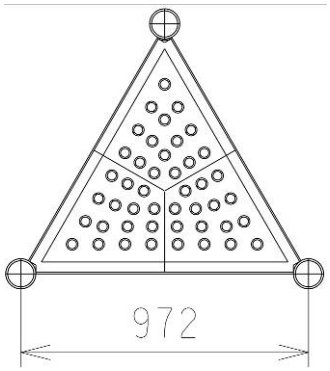
Assemble the Orbit Platform around the upright as shown, ensuring that the top of the platform is 400mm above finished surface level (ground level). Where rails are to be fitted the top section of the clamp and platform should not be secured until the rails are in place.

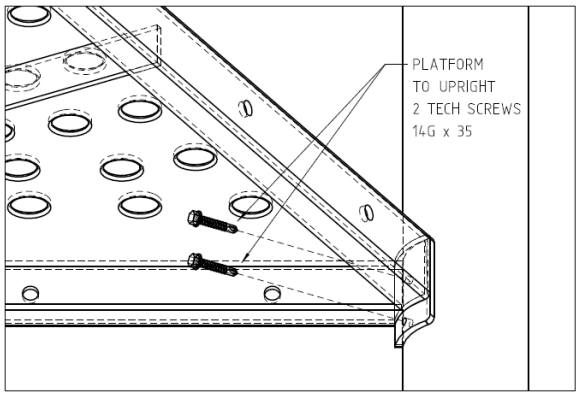
PLATFORM ASSEMBLY



TRI-EQUI PLATFORM

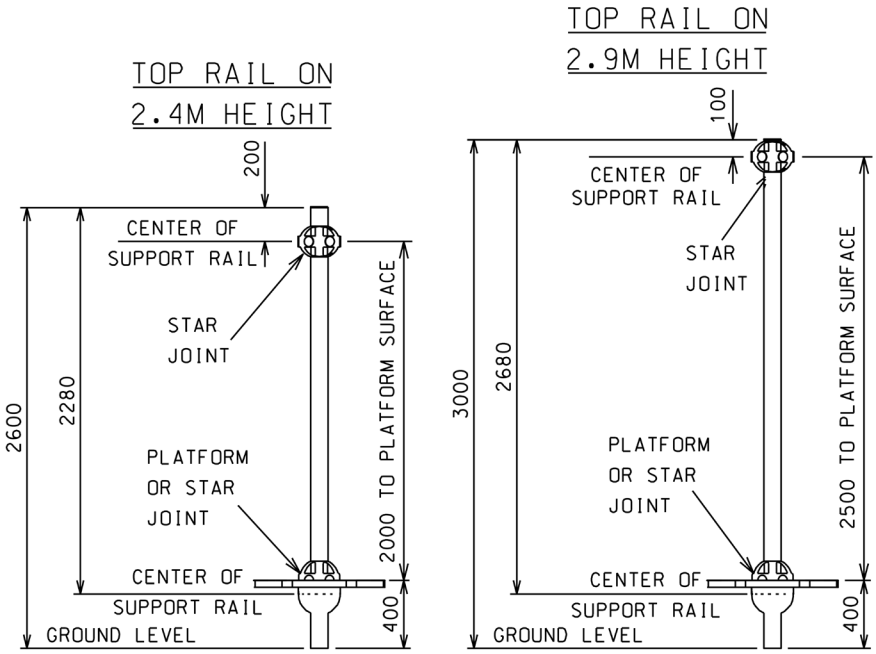
Position platform with the top of the platform at the height shown on the plan, ensuring it is level, then fasten to the uprights using 2 tech screws in each corner as shown.



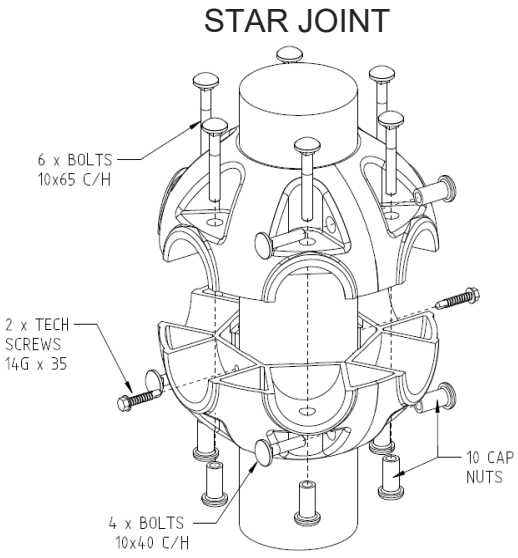


INSTALLING CLAMPS AND COMPONENTS

Measure and mark the positions for the bottom star joint on each upright. Apply the two bottom sections to the upright at the marked level then bolt together using two cap nuts and two 40mm tri-lobes, tightening until they clamp onto the upright (see diagram for star clamp assembly on next page). Do the same for each upright. Rotate the clamps gently until all the bottom rails can be dropped into place.
Each star joint section has one hole on the inside for a tech screw which will be used to secure to the upright.
Endeavour to rotate the clamp so that the tech screw holes are orientated to a position where there will be no rails. (This is for ease of insertion later. Tech screws will be inserted last once the structure is completely level and square.)

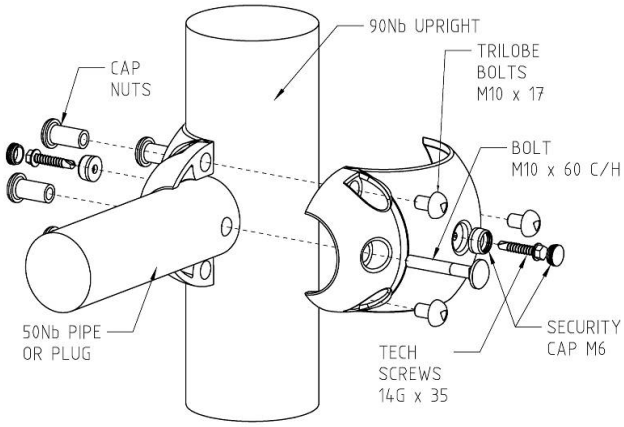


Once all the bottom rails are in place, drop platform sections on top of the bottom joint (see diagram) followed by the top star joints and tighten. Use 150mm cup head bolts and cap nuts through the platform. If there are no platforms on an upright just use the top sections of the star joint to secure using 65mm cup head bolts and cap nuts.
Repeat the same process at the top of the upright and secure top rails, using the heights shown on the drawings.
Once all star joints and rails are secure, ensure all horizontal rails are level, then using a cordless drill, insert a tech screw through each of the lower clamp halves (see diagram). Plug all open holes in the star joints with caps provided.

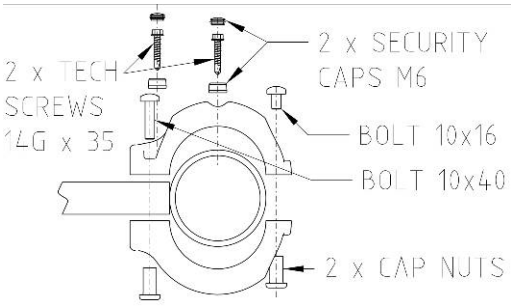


Once the uprights and horizontal rails are in place, attach the large clamps (50-90) onto the uprights and the smaller clamps (50-50) onto the rails as per the diagram for each component, using three cap nuts and three 17mm tri-lobes. Each clamp is then secured in place by inserting a tech screw through the small hole on each side and into the post or rail. A security cap should be used with each tech screw as shown, fitting the base to the screw before fastening. The tech screw is inserted using a power drill and the tech screwdriver supplied. Once secure, the top of the security cap should be securely fastened.
Items secured with gym clamps are positioned at heights according to the plan and secured to uprights as shown. When two items with Gym Clamps are positioned on the same level, place one clamp upside down, so the rails are positioned at the same height.

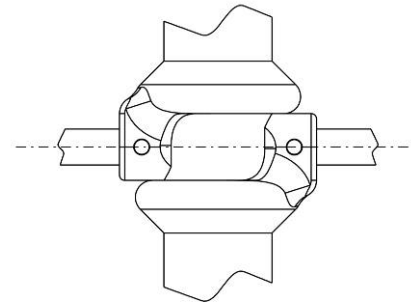
CLAMP 50-90



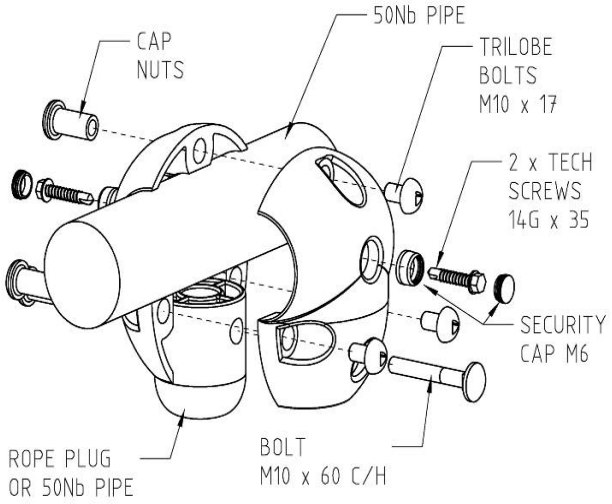
GYM CLAMP - TOP VIEW



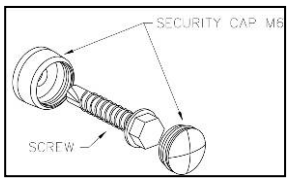
GYM CLAMP - SIDE VIEW



CLAMP 50-50

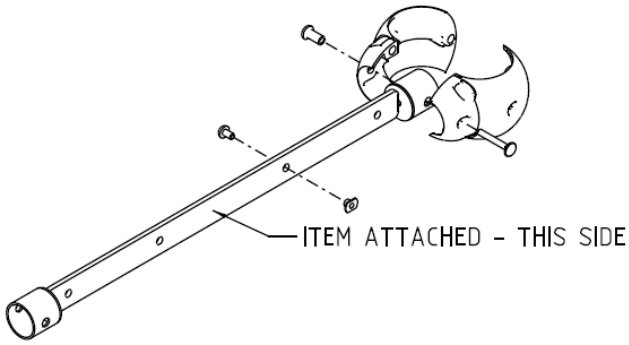


SECURITY CAP FOR TECH SCREW



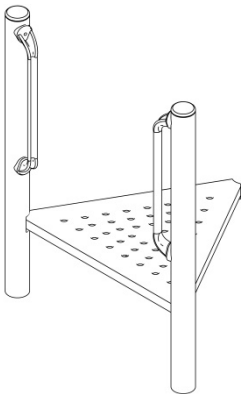
END FRAME JOINER

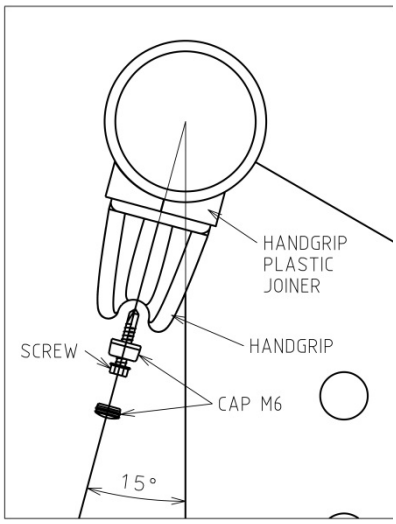
Use a standard attachment to uprights with 50-90 clamps (keep bolts loose and not screwed to uprights). First, attach to item with T Nuts on item side and tri-lobes, then screw clamps to uprights.

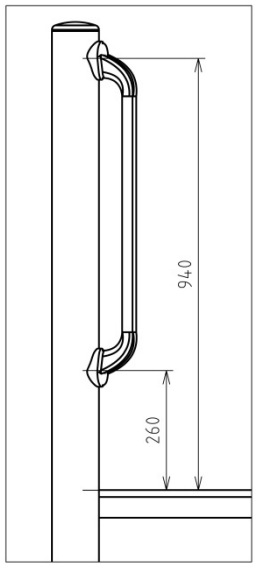


HANDGRIPS

Mark the right position of the handgrip, above the platform and on 15deg from platform face as shown. Secure to upright with tech screws and caps as shown.

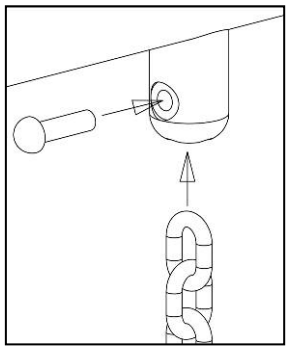






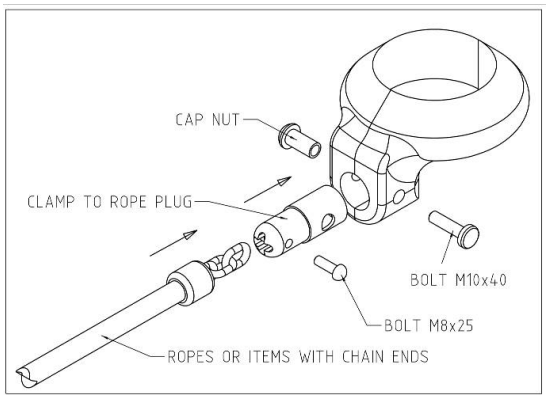
CHAIN HOUSING CONNECTIONS

Several items have chains that attach to a top bar or rail. In these cases, the top bar or rail has chain housings connected. The chain should be inserted into the housing as far as it will go. An 8mm Torx bolt is then inserted into the hole in the housing, through the end link of the chain, securing the chain in place. Make sure a small amount of 'Loctite' is applied to the thread before tightening.



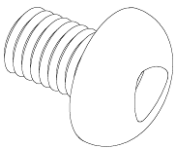
FITTING OF ROPES AND OTHER COMPONENTS

Once the concrete footings have set, fit the nets and other components as detailed in the following instructions for individual items. They are secured by sliding the plugs into the hole at the end of each clamp and fastening using 40mm cup head bolts and cap nuts. Tension the ropes as required by gently sliding the clamps slightly along the rails and then secure in place using a tech screw on both sides of each clamp into the rail or upright.

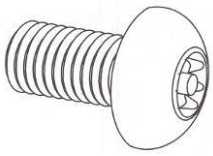


FASTENERS

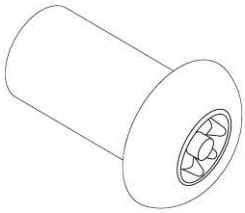
Tri-lobe bolt



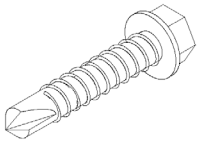
Torx Bolt



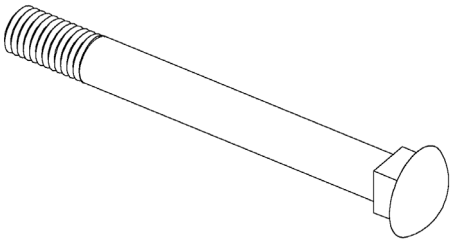
Cap Nut



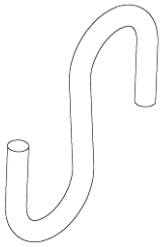
Stainless Tech Screw



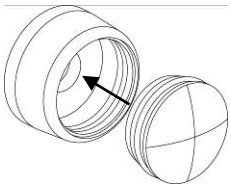
Cup Head Bolt



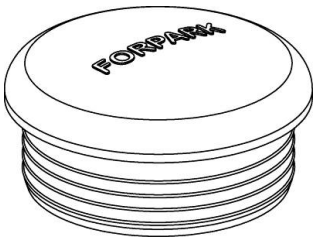
S Hook



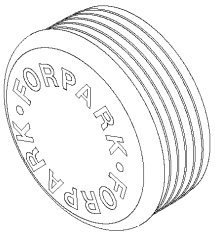
Security Cap M6



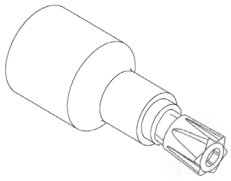
Upright Cap



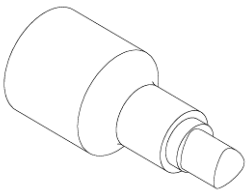
Star Joint Cap



Torx Driver



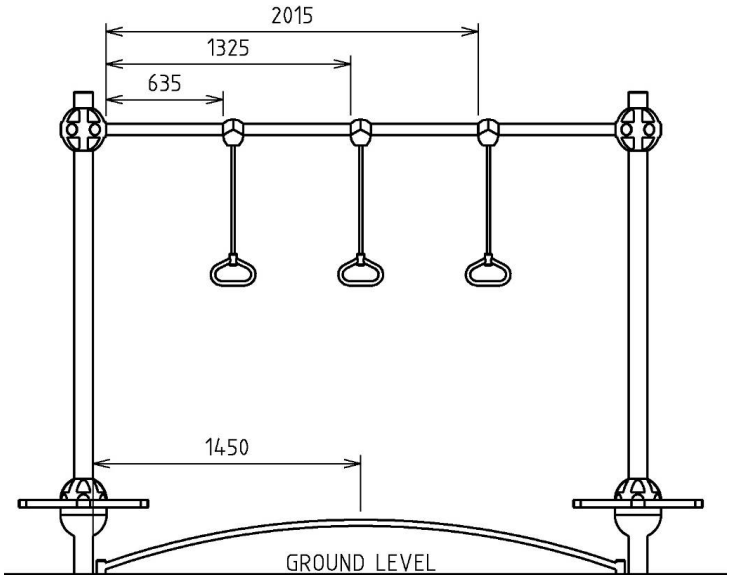
Tri-lobe Driver

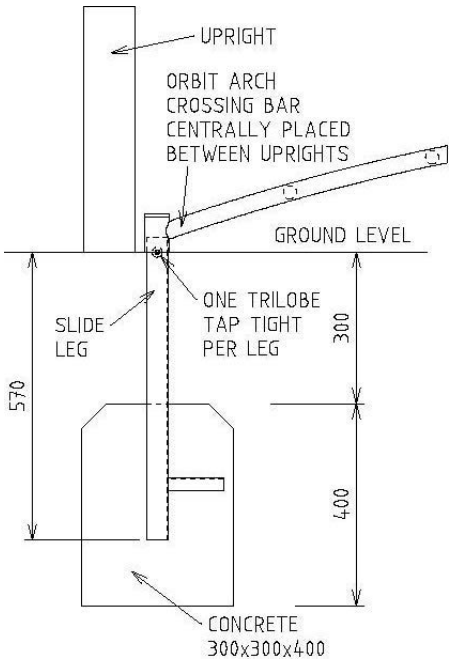


INSTALLATION – COMPONENTS - ORBIT PLATFORM

ARCH CROSSING

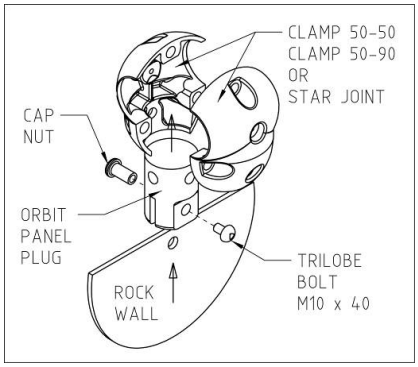
Once the top rail is in place, connect the handle ropes to the clamps as shown. Place the Orbit Arch Crossing Bar on the ground, centrally between the uprights, to determine the hole positions for the legs. Dig the holes, attach the legs to the arch crossing and insert to the correct depth.

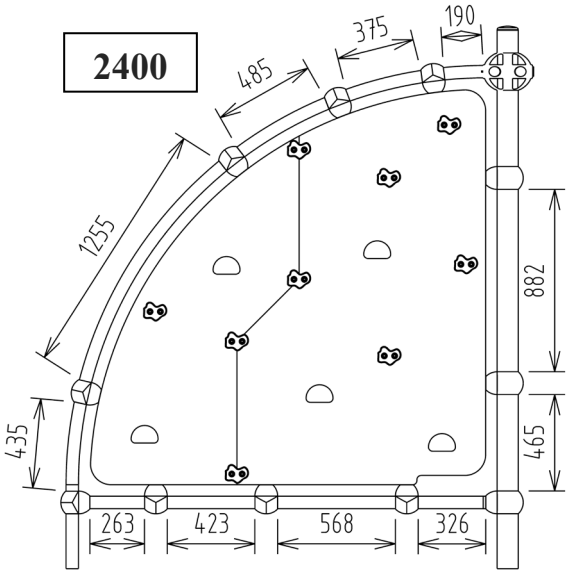


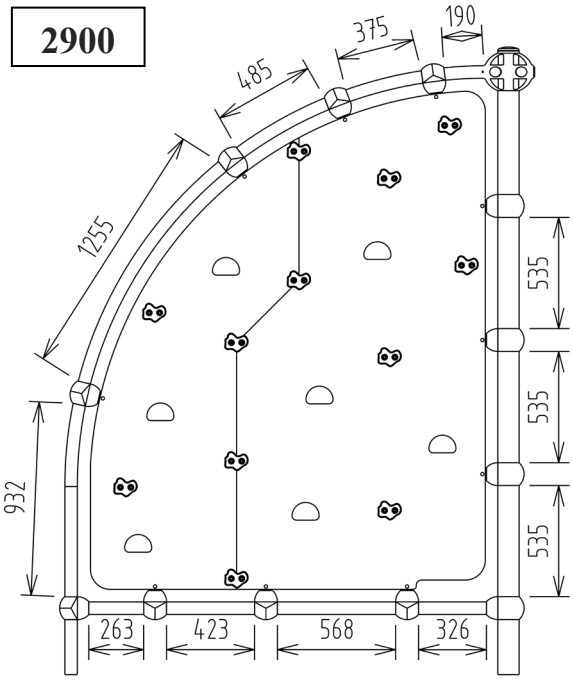


ARCHED ROCK WALL

Once all rails are in place, connect the panels to the clamps using Orbit Panel Plugs as shown. Once both panels are in place, connect the two using rock grips, with one bolt on either panel. Apply Loctite to threads before tightening.
Note: Do not over-tighten bolts as the nuts may pull through the plastic.



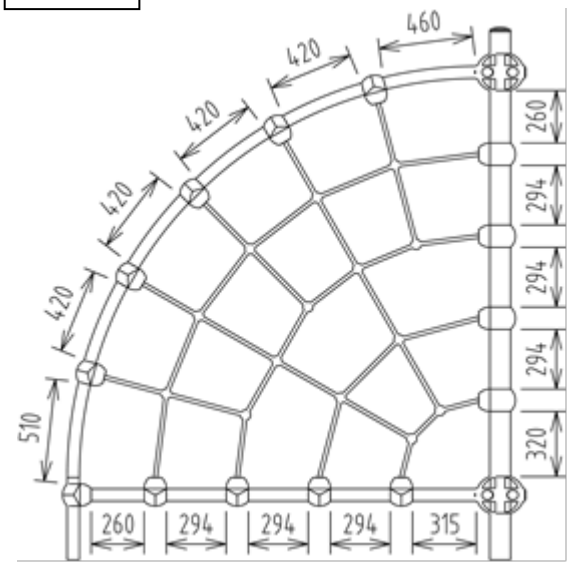




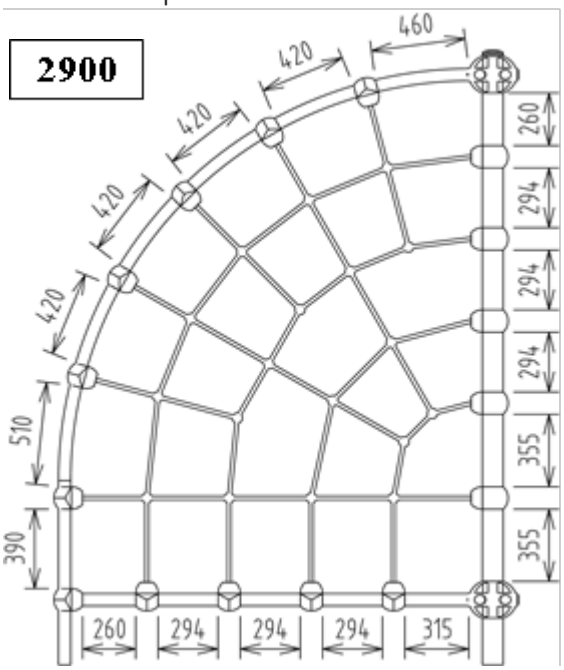
ARCHED WEB

Once all rails are in place, connect the rope net to the clamps as shown.

2400



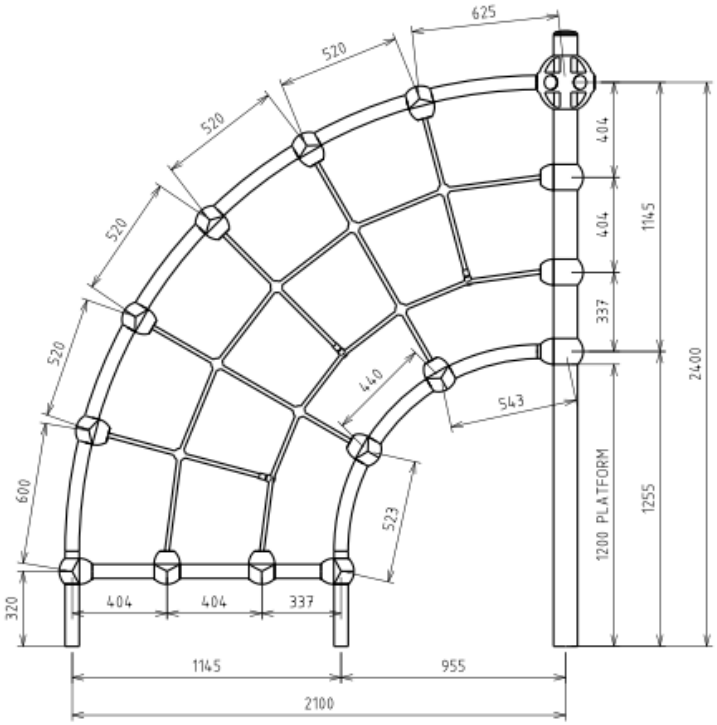
2900



HALF ARCHED WEB

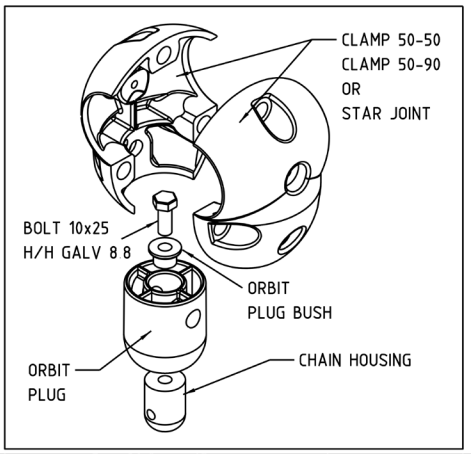
Once all rails are in place, connect the rope net to the clamps as shown.

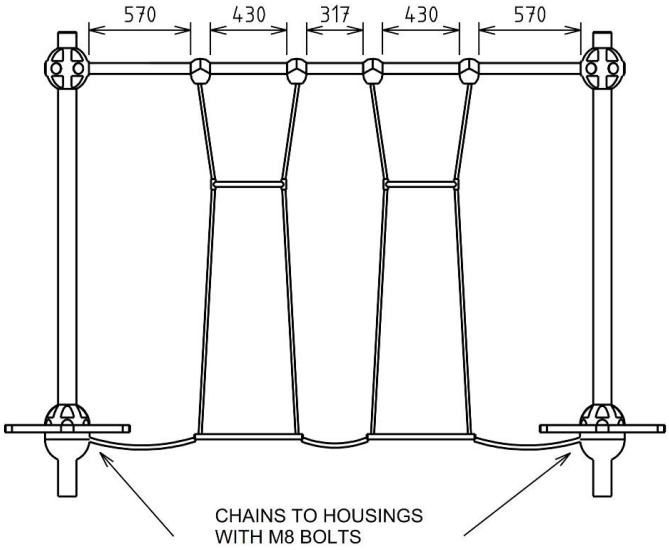
2400



COMMANDO CROSSING

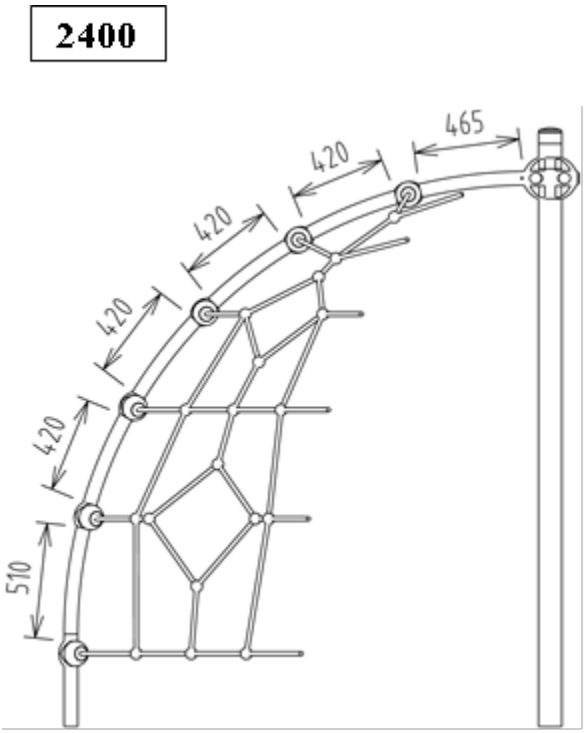
Once the top rail is in place, connect the vertical ropes to the clamps as shown. Connect the lower chain to the Orbit plugs as shown. Connect the Plugs to the star joints.

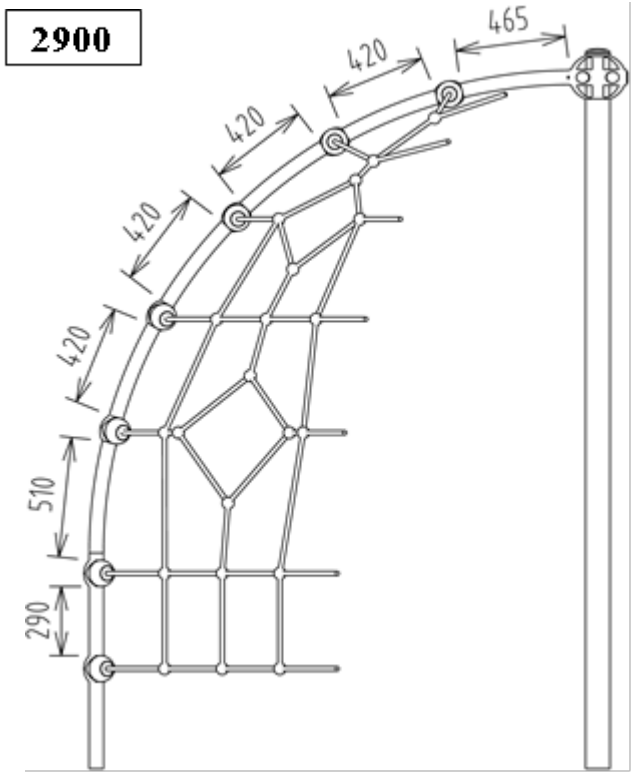




CRESCENT WEB

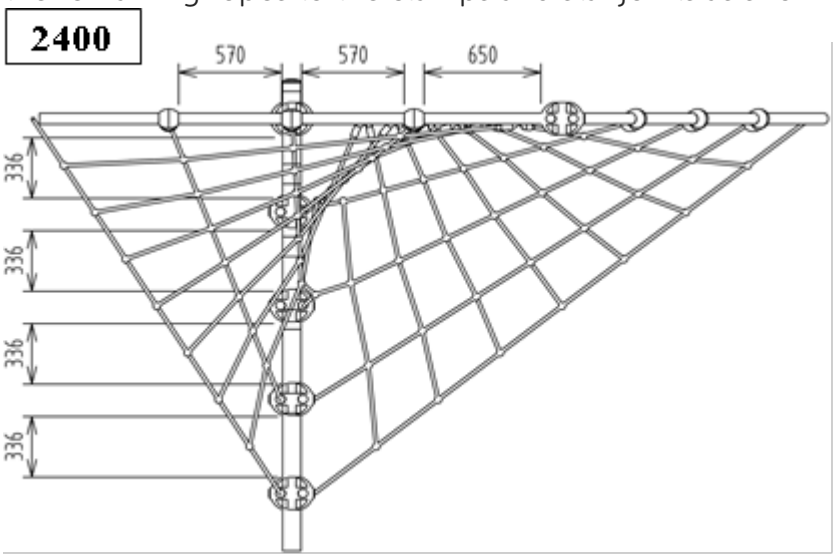
Make sure that the distance between both rails at finished ground level is 2040mm and that the rails are vertical. Once all rails are in place, connect the rope net to the clamps as shown.

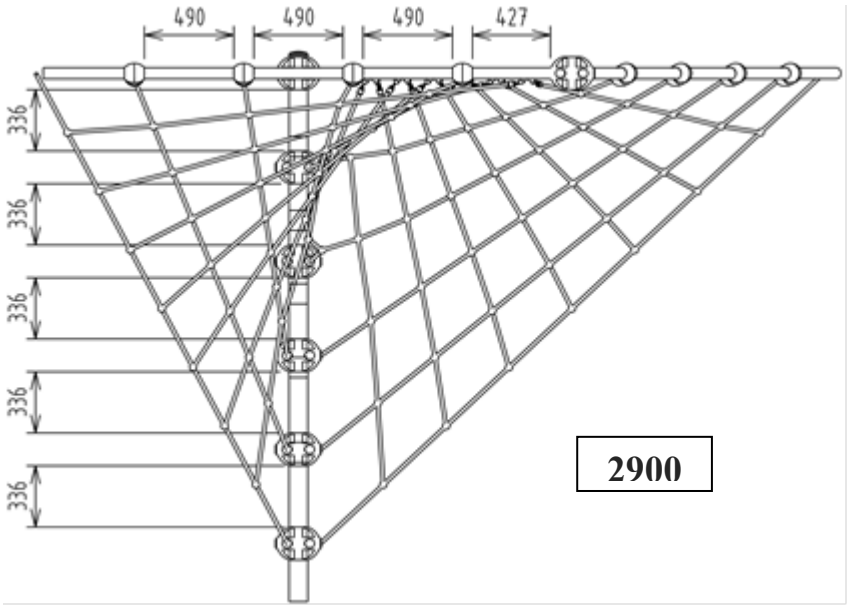




HELIX

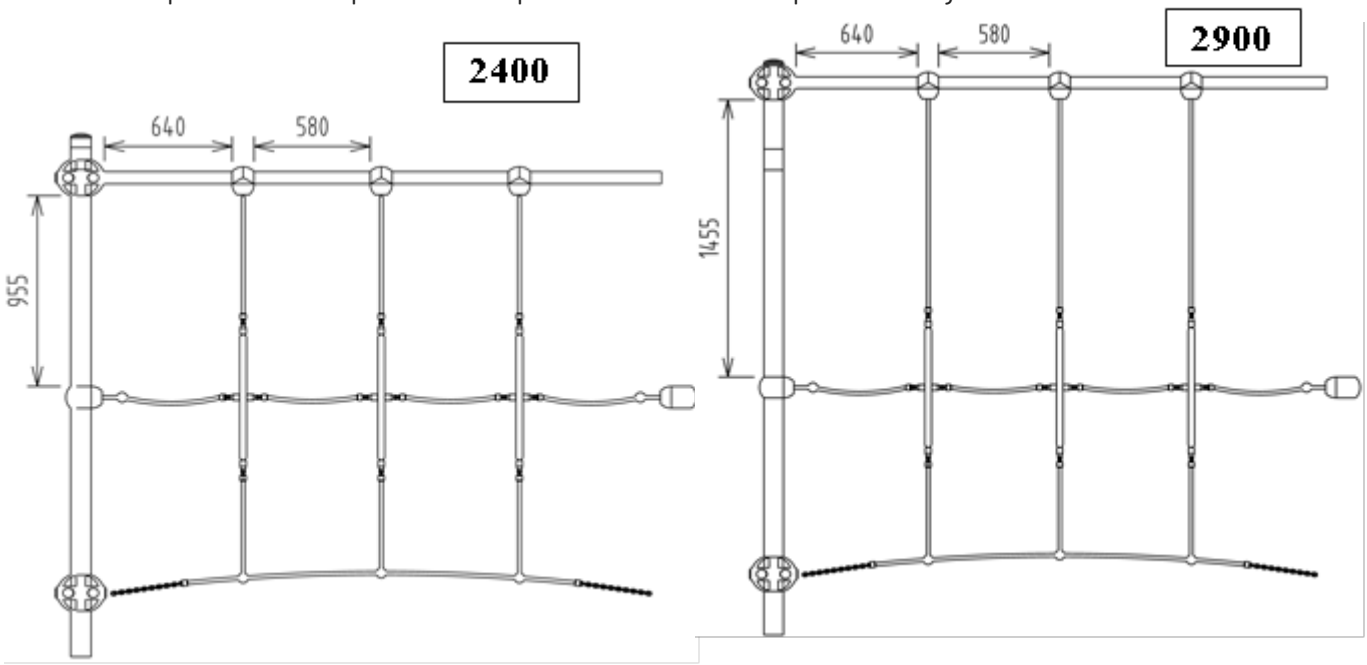
Once all rails are in place, connect the rope nets to the Orbit Helix Rail (overhead with lugs) using S-hooks. (Ensure the S-hooks are fully closed using vice-grips with the small end of the S-hook attaching to the chain link and the large end connecting to the lug on the rail.) Connect the remaining ropes to the clamps and star joints as shown.

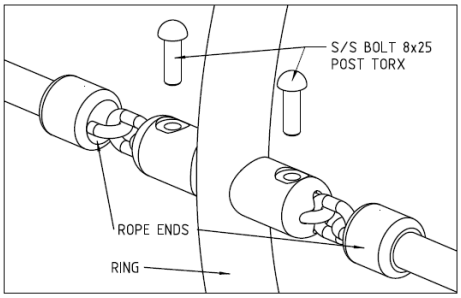


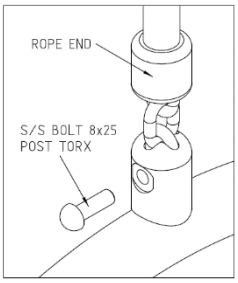


HOOP CHALLENGE

Attach all rope ends with bolts to rings as shown below.
Connect top and side ropes to clamps and the lower ropes to star joints as shown.

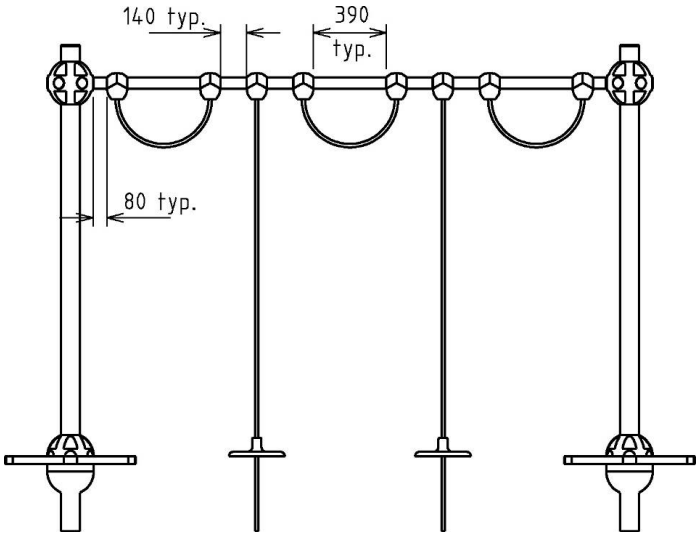


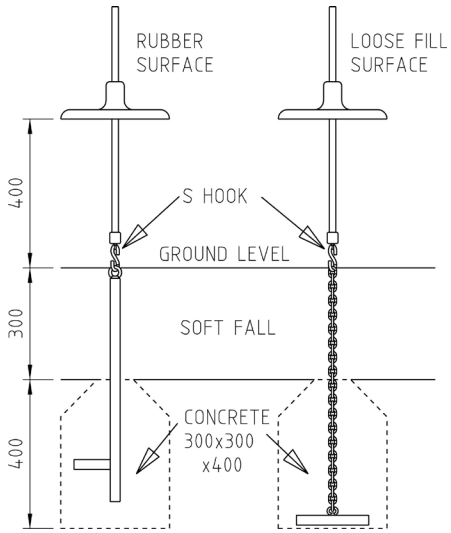




JUNGLE GYM

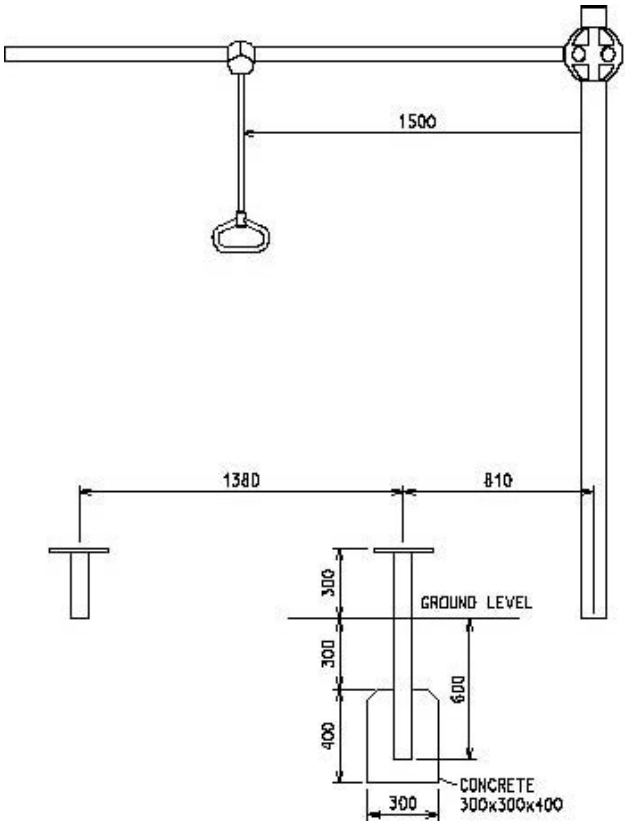
Once the top rail is in place, connect the ropes to the clamps as shown.
Dig holes below the pommel steps allowing them to hang taught, then the concrete base of pommels into the ground.





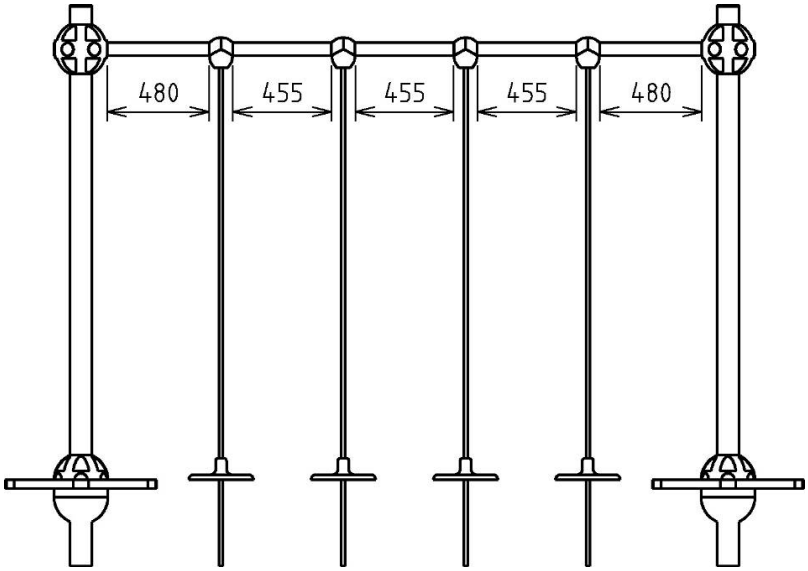
LEAP CROSSING

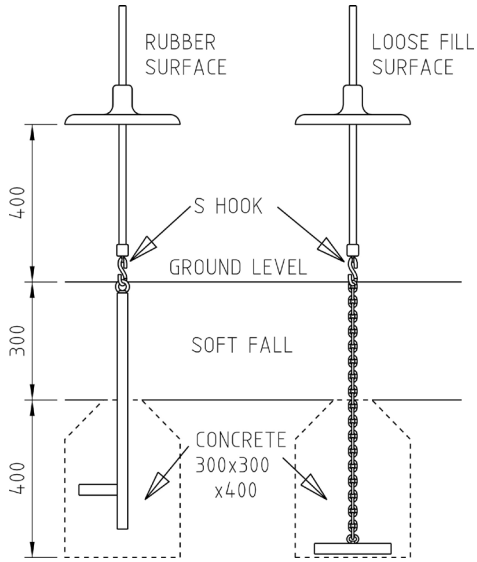
Once all rails are in place, connect the handle rope to the clamp as shown.
Dig holes for the steppers and install in position and to the depth as shown, enduring that they are level and vertical.



POMMEL WALKER

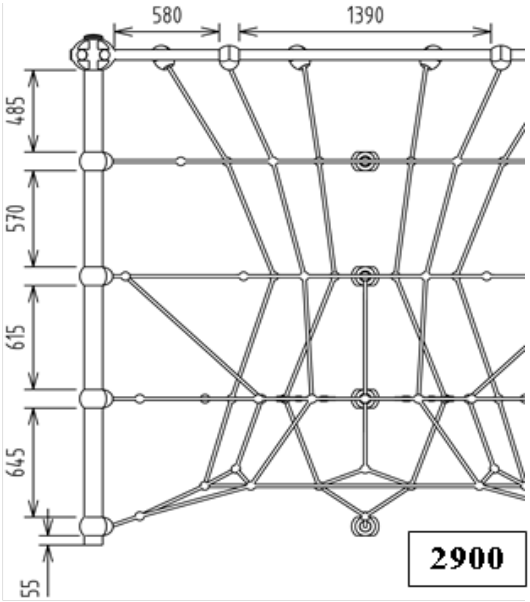
Once the top rail is in place, connect the ropes to the clamps as shown.
Dig holes below the pommel steps allowing them to hang taught, then concrete the base of pommels into the ground.

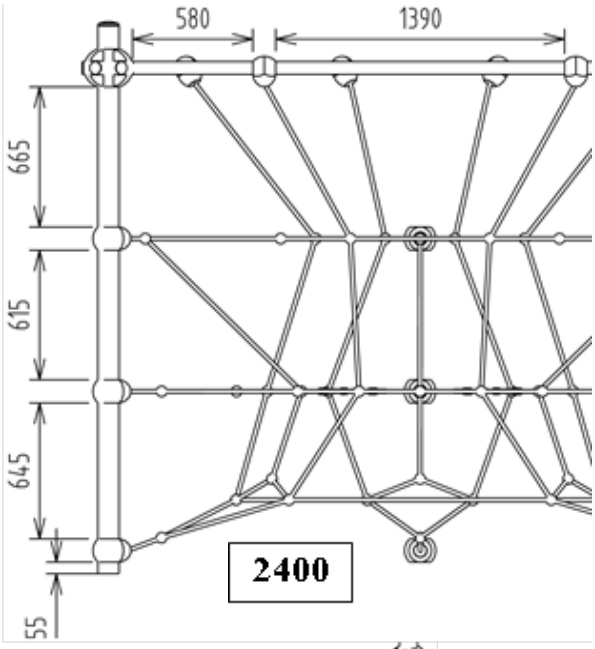


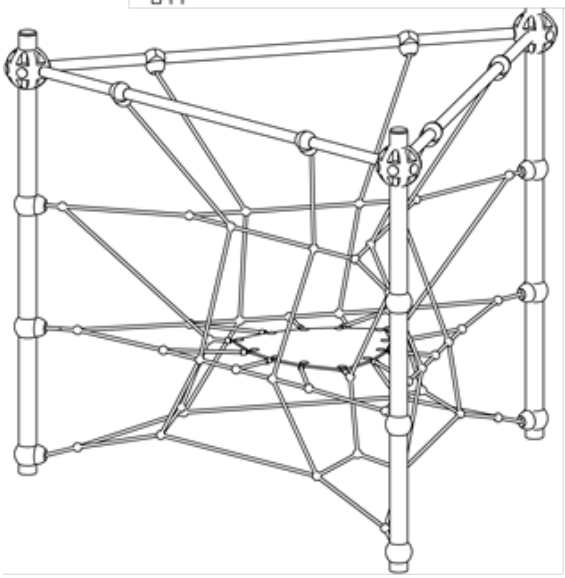


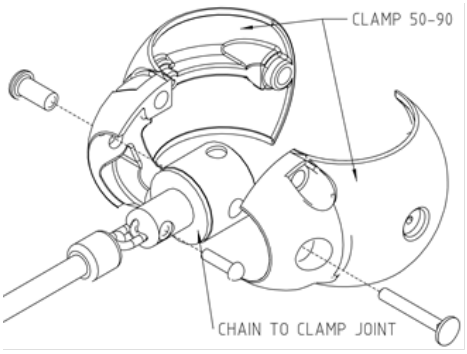
PRISM

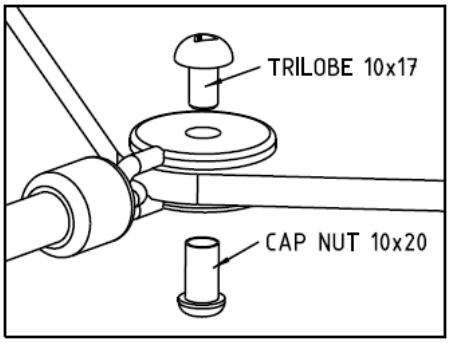
Once top rails are in place, connect ropes to the clamps as shown. Begin at the top ropes and work down, using the lower clamps to apply tension. All ropes should be equally tensioned.





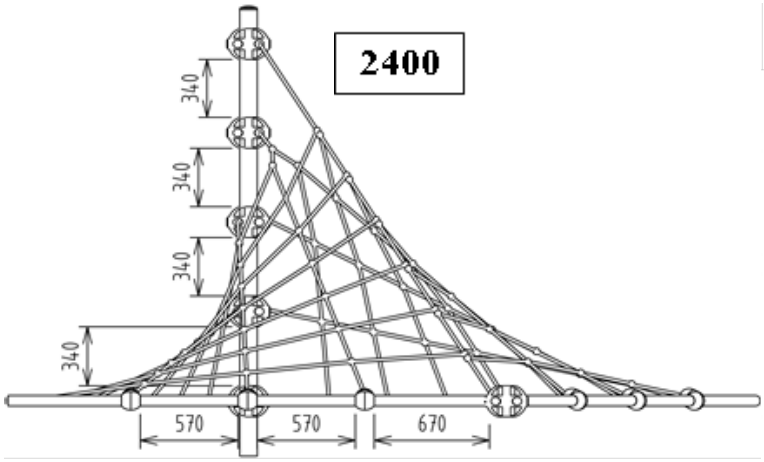


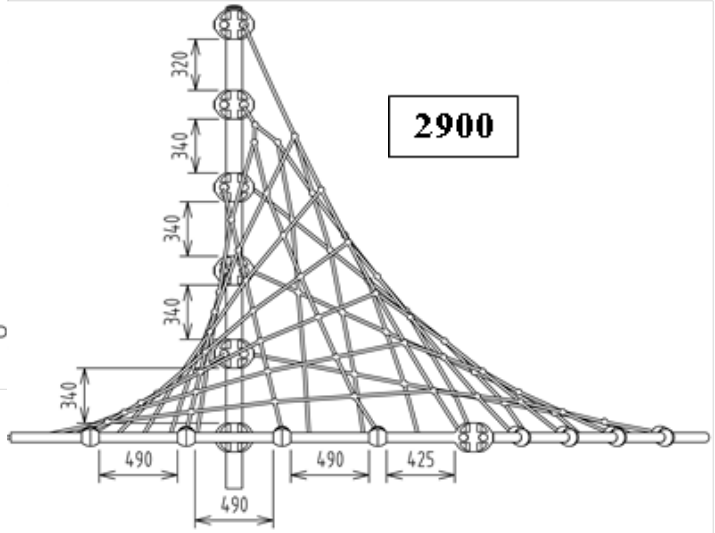




REVERSE HELIX

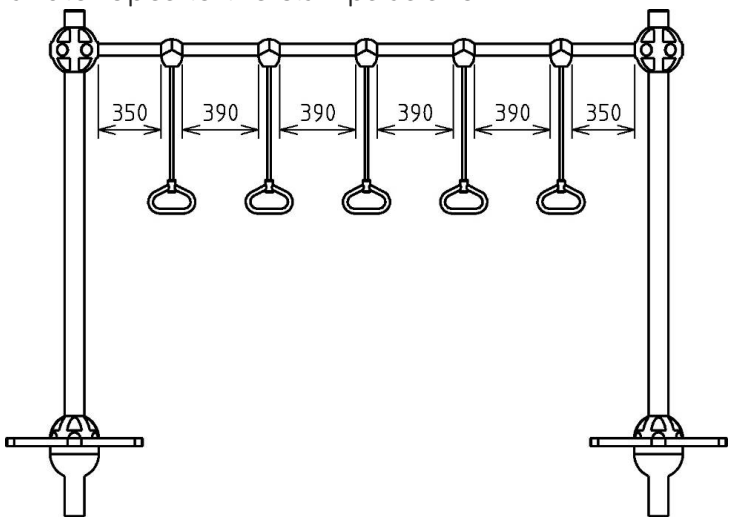
Once all rails are in place, first attach the two outer-lower ropes and then connect all of the lower ropes without fitting the Tek Screw into the 50/50 clamps. Next work up from the bottom of the main post until you get to the top. On the center rope, adjust the tension by altering the length of the chain. Any of the plastic clamps can be moved up to 20mm from the dimensions shown to tighten or loosen the net as necessary (when finished the net should be uniformly tight). When the correct tension is received, fit all Tek Screws and security caps. If the net will not fit, please contact your Forpark representative for tips and advice.
Note: Ensure net is the right way up with the horizontal ropes crossing underneath the vertical ropes which connect to the clamps





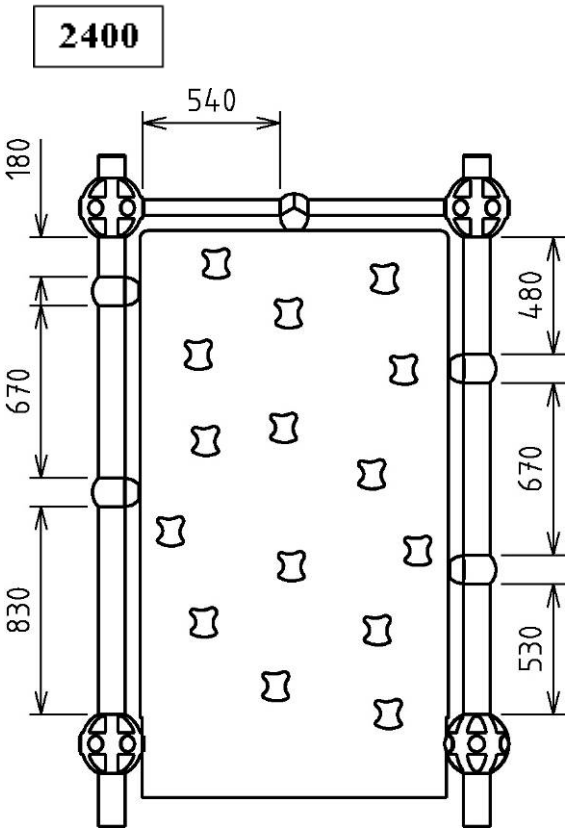
RING CHALLENGE

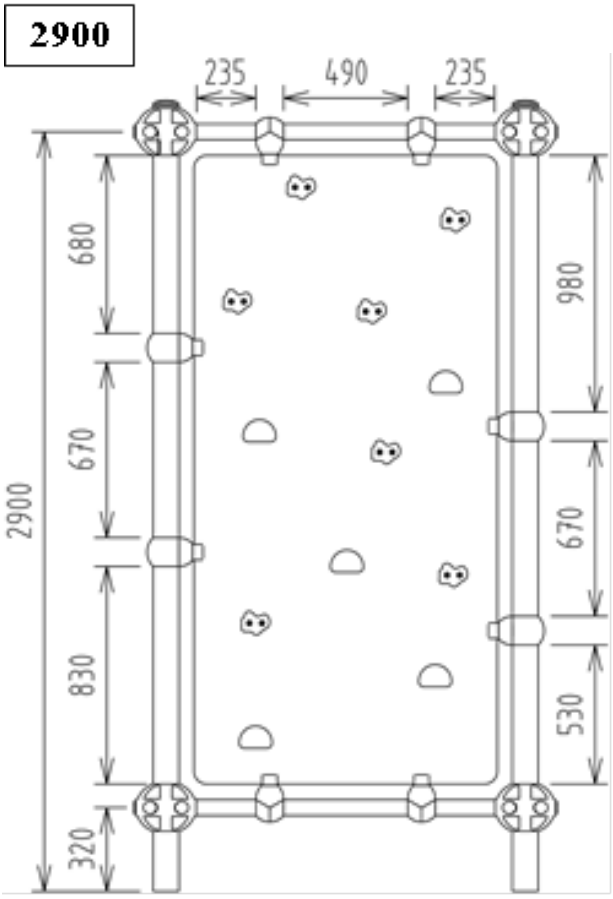
Once the top rail is in place, connect the handle ropes to the clamps as shown.

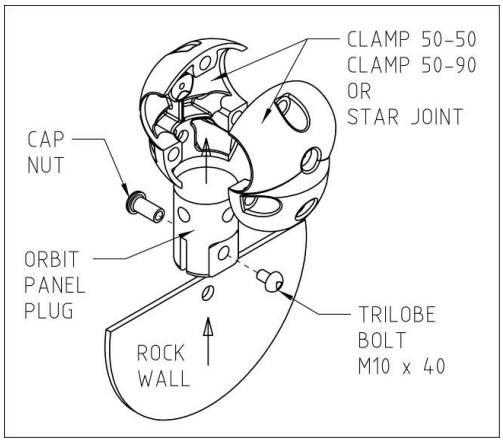


ROCK WALL

Once the top rail is in place, connect the panels to the clamps using Orbit Panel Plugs as shown.

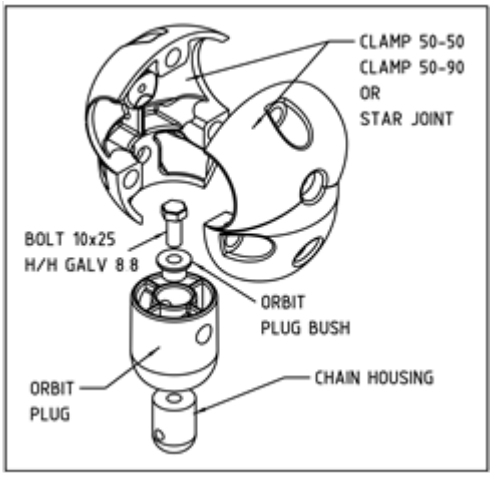


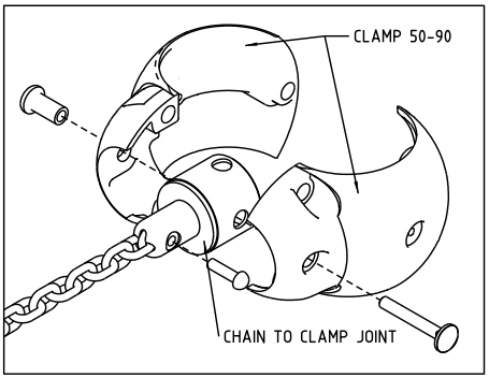


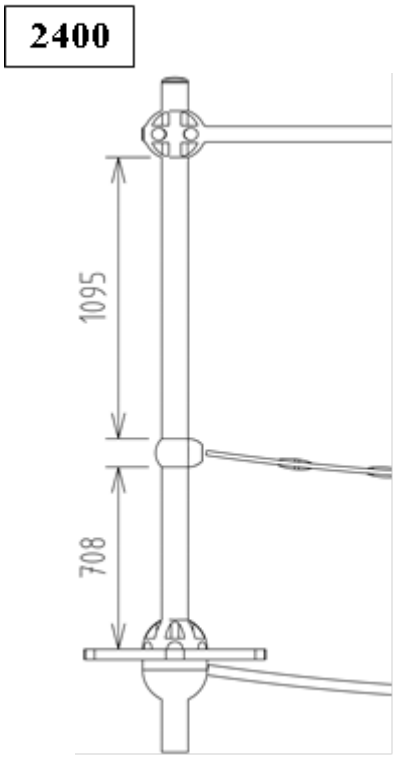


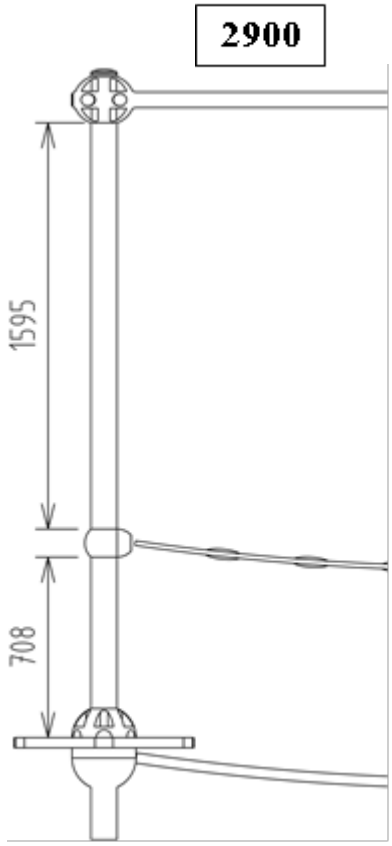
ROPE BRIDGE

Once the top rail is in place, connect the middle rope to the clamps as shown. Connect the lower chains to the Plugs as shown. Connect the Plugs to the star joints.



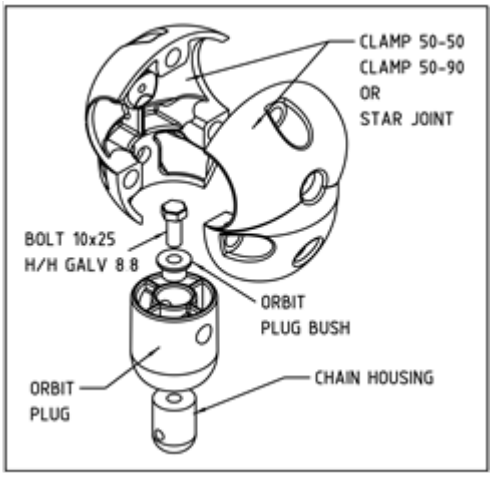


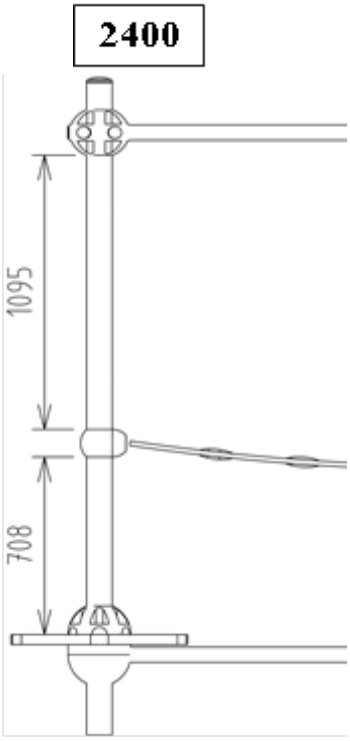


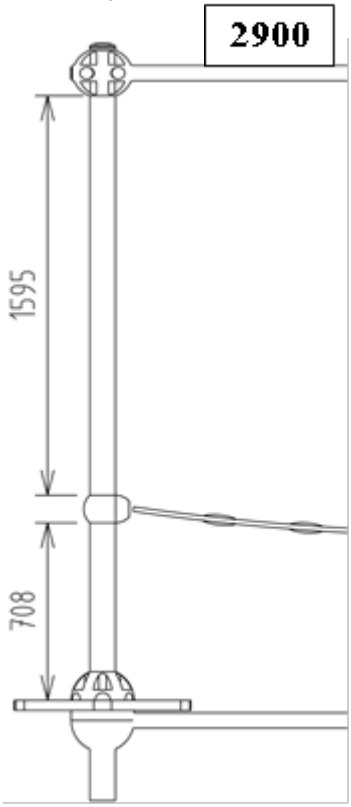


ROPE TRAVERSE

Once the top and bottom rails are in place, connect the rope to the clamps as shown.

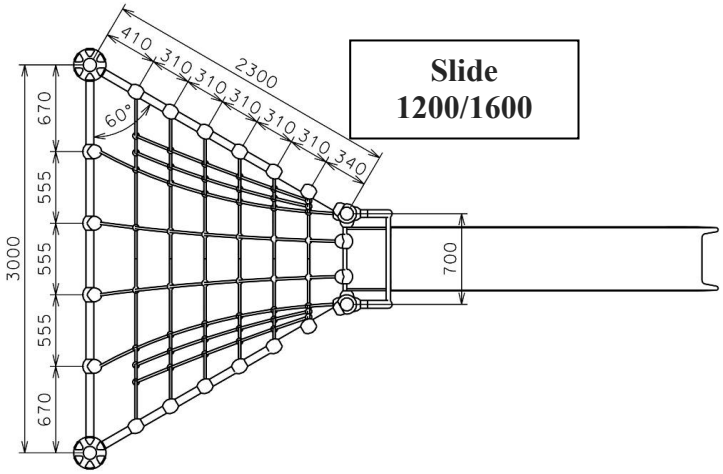




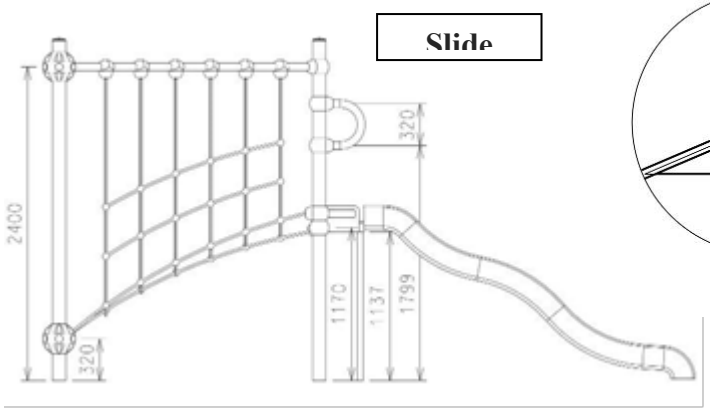


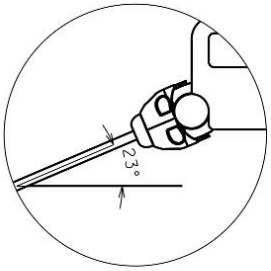
SLIDE ACCESS

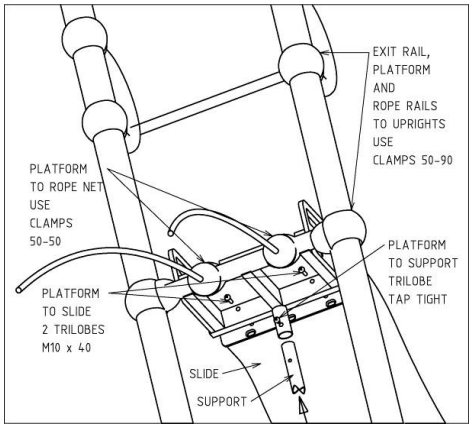
Use the Orbit Slide Rails (2165mm long) and Exit Rail to determine the correct position for uprights. With the uprights loosely in place connect all rails then concrete uprights after ensuring they are level. Determine the correct position for the slide support leg then dig the hole. Connect the platform to the uprights with clamps and attach the support leg (this needs to be concreted into the ground). After ensuring the platform is level, connect the slide. Attach the slide leg to the underside of the base of the slide using 17mm tri-lobes.

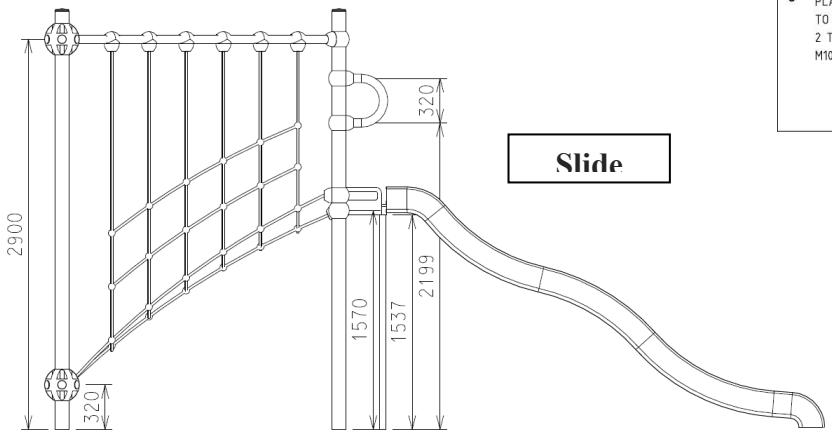


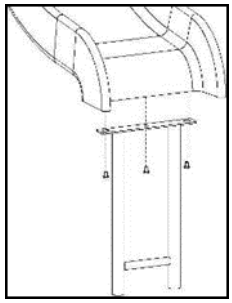
Once the slide and rails are in place, connect the rope net to the clamps as shown.





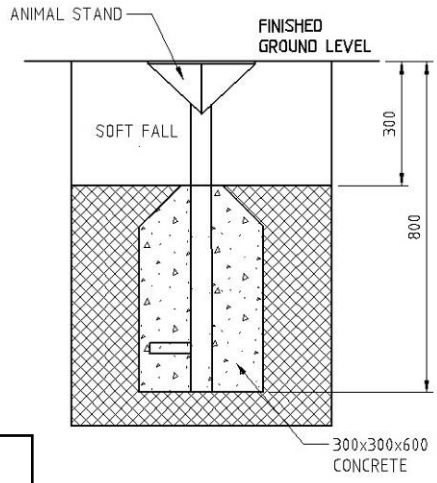


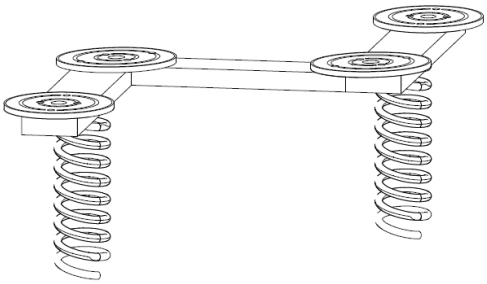


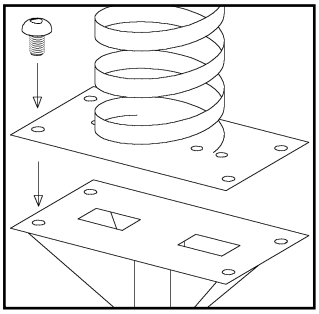


SPRING BALANCE

Dig two holes for footings (use the underside of the Spring Balance rail as a template to locate holes). Insert the stands (cases) into these holes, ensuring that the top of the stands are at finished ground level (they will protrude above concrete footing before the addition of soft-fall, as shown).
Leave the concrete to set for at least 24 hours before bolting the spring onto the stands using 'tap tight' tri-lobes, and the top beam rail onto springs using 25mm tri-lobes.

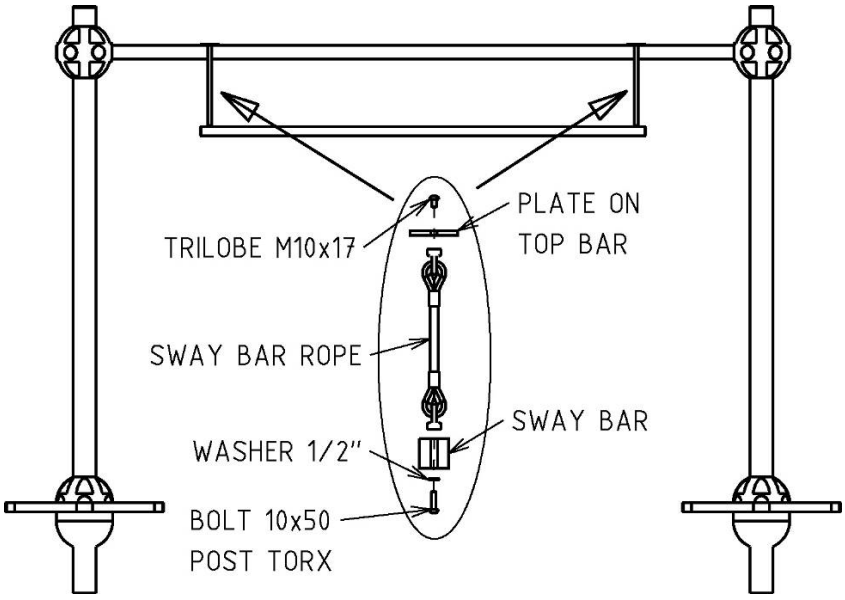






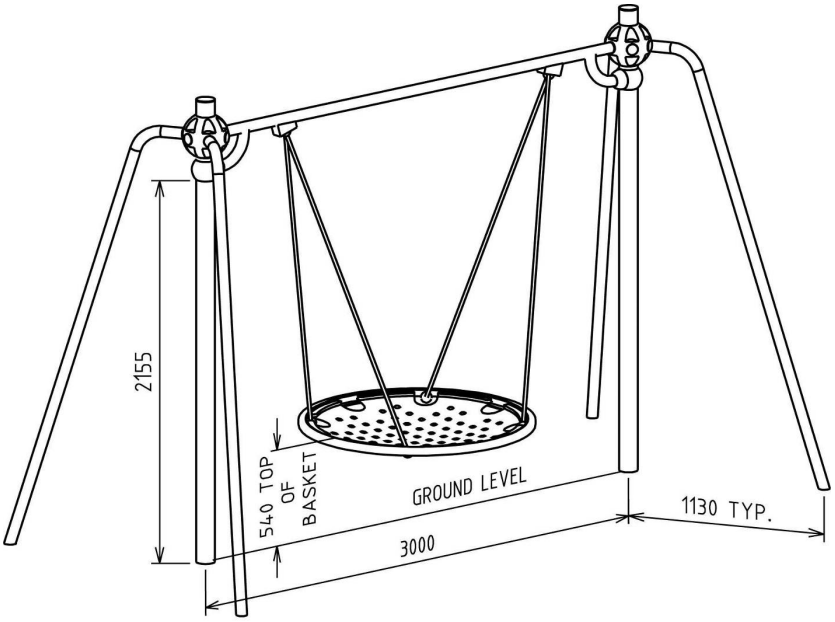
SWAY BARS

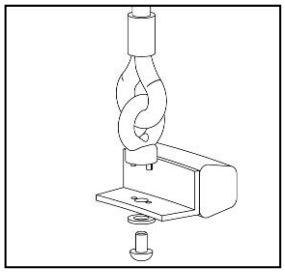
Once the top rail is in place, connect the sway bar ropes to the top bar and the sway bars as shown.



SWING-A-WAY

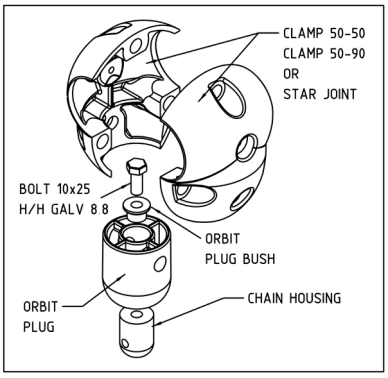
Once the frame is assembled and installed, leave the concrete to set for at least 24 hours before attaching the basket to the ropes using 25mm tri-lobes and washers, ensuring that the pins on eye-nuts are correctly placed in the basket frame.

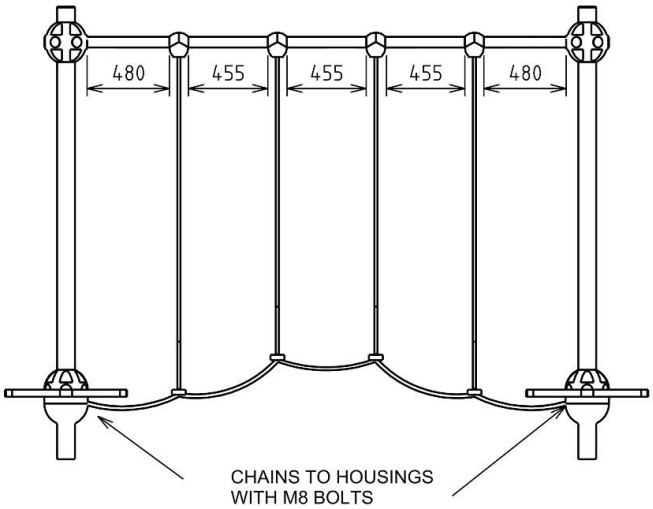




SWING BRIDGE

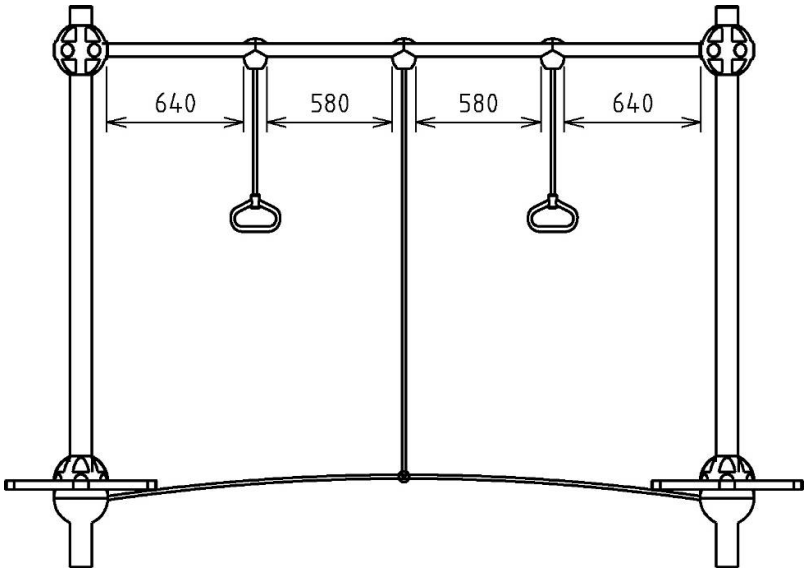
Once the top rail is in place, connect the vertical ropes to the clamps as shown. Connect one of the lower chains to the other chain using S-hooks then to the Plug as shown. Connect the Plugs to the star joints. (Ensure the S-hooks are fully closed using vice-grips.)





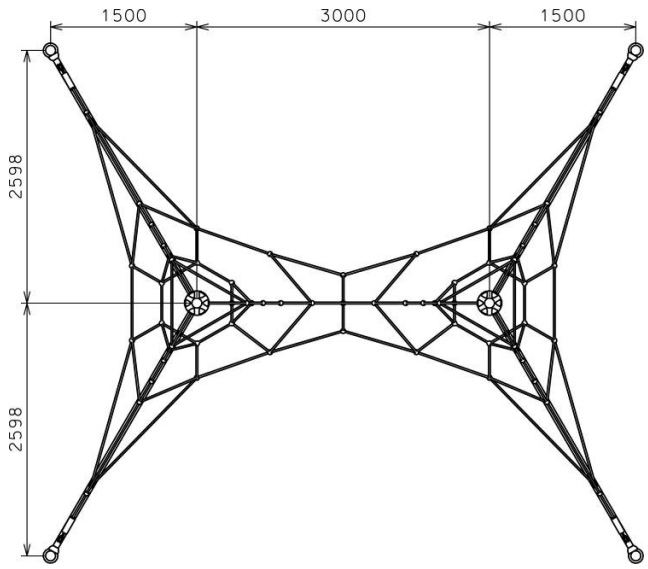
TIGHT ROPE

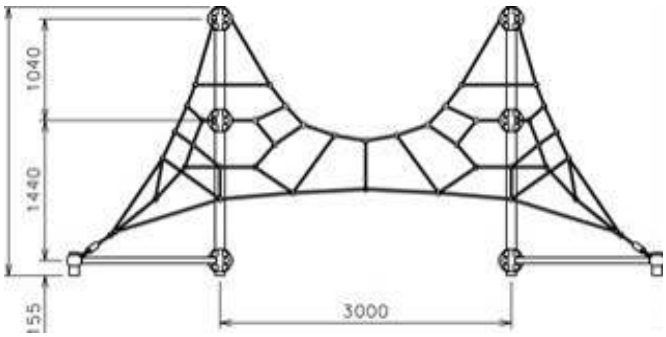
Once the top rail is in place, connect the vertical rope and the handle ropes to the clamps as shown.
Connect the lower ropes to star joints as shown.

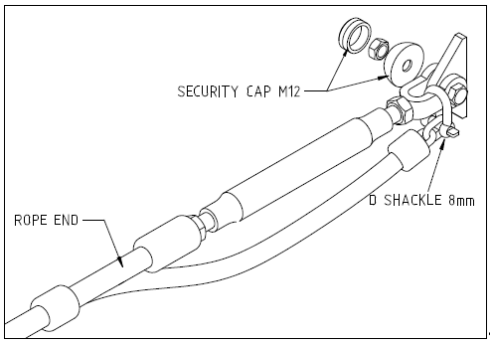


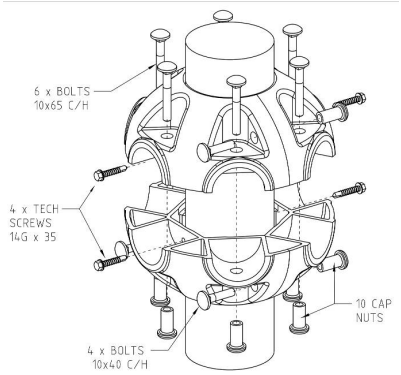
TWIN PEAKS

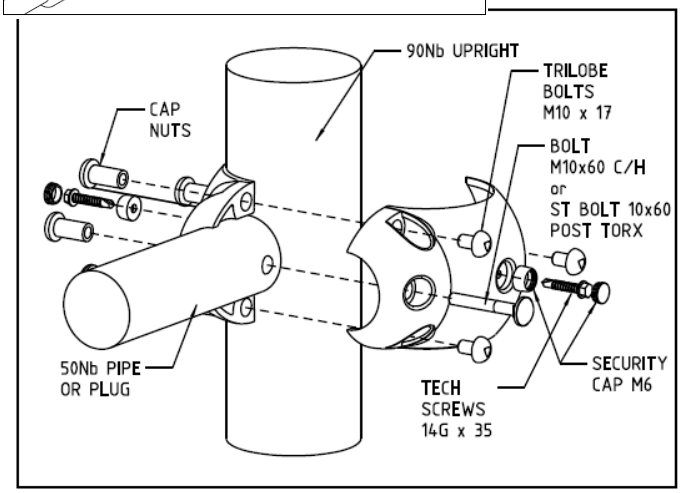
Once rails are in place with welded tags on corners facing up, attach the Twin Peaks Rope Net to the top joint and slide the joint up to the position as shown. Position middle joint and connect to ropes. Connect the turnbuckles to the brackets using security caps (M12 – blue) and nuts as shown. Applying equal tension on all 4 corners, tighten the ropes using all the turnbuckles.
Attach D-shackles with chains as shown. Cut the tags on the D-shackles and file any sharp corners.



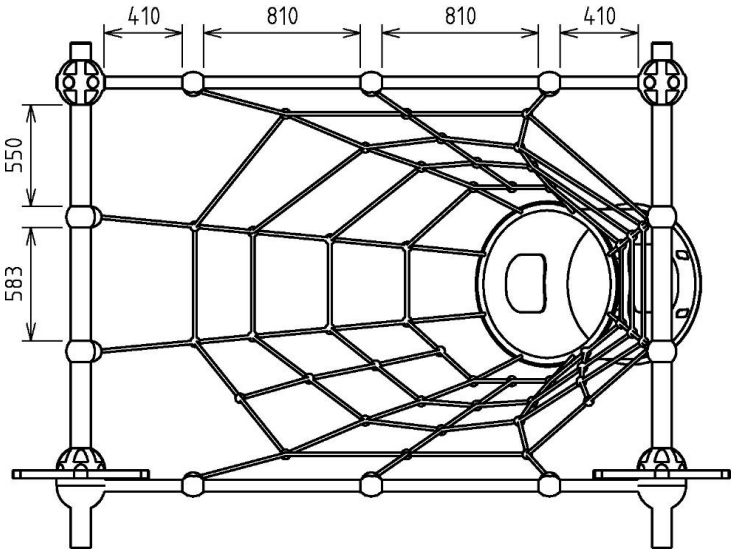




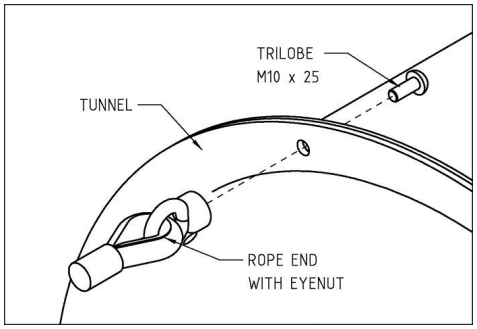




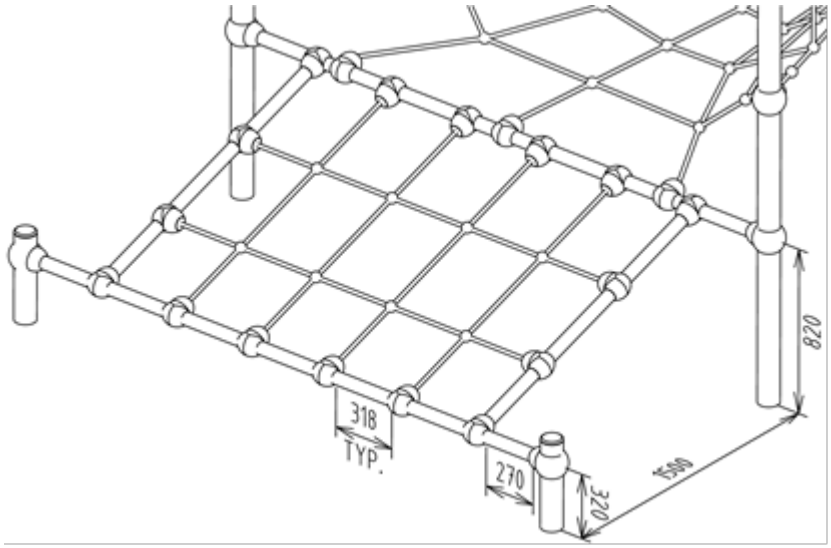
TUNNEL WEB

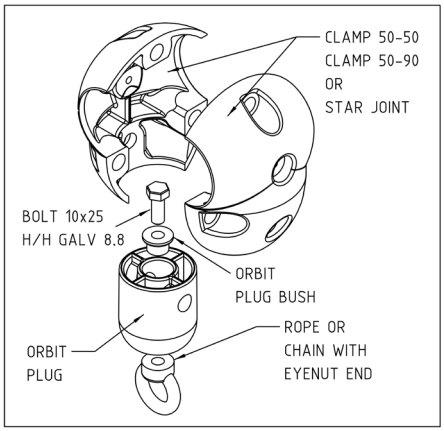


Connect the ends of the ropes on the narrow end of the opening to the tunnel as shown. Ensure that the orientation of the tunnel is such that the windows will be on the sides when installed as shown. (The shortest ropes connect to one side of the tunnel, with the longest ropes on the opposite side.)
Note: Ensure that the ropes forming the rings are on the inside of the ropes connecting the tunnel to the clamps on the rails.
Once the tunnel is connected to the ropes on both sides, connect the outside ropes to the Eyenut Plug as shown. Connect the Eyenut Plugs to the star joints and clamps.



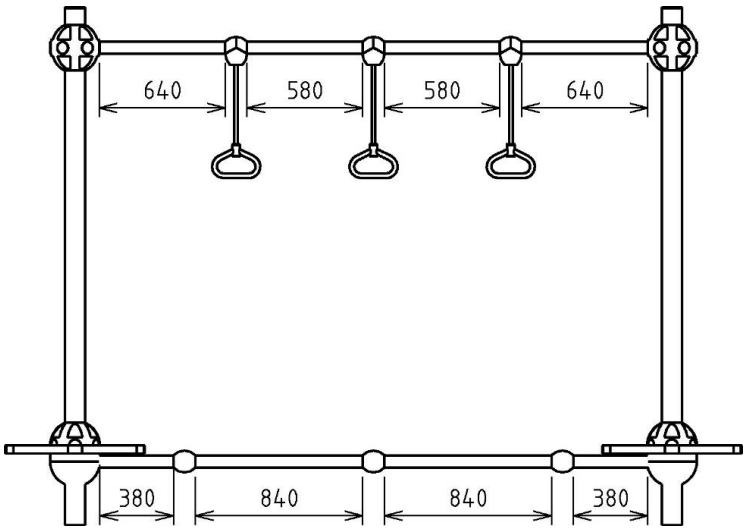
Tunnel Web 2900 Access Net

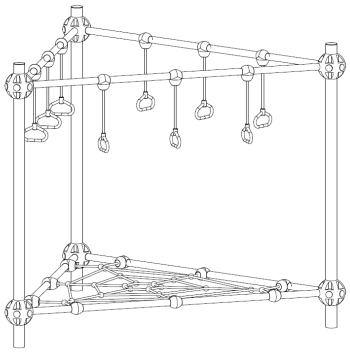




VORTEX

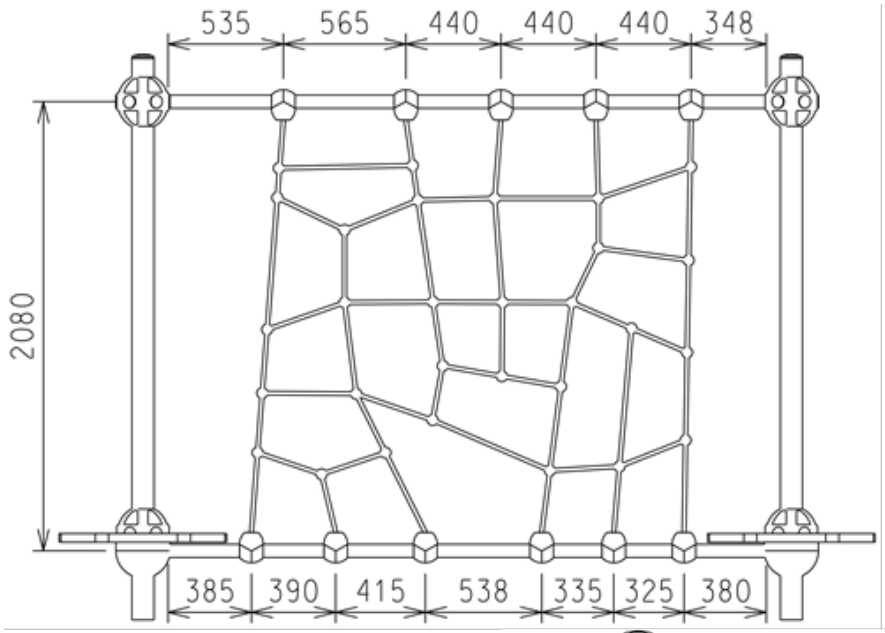
Once the top and bottom rails are in place, connect handle ropes to the clamps on the top rails and the lower net to the clamps on the bottom rails as shown.





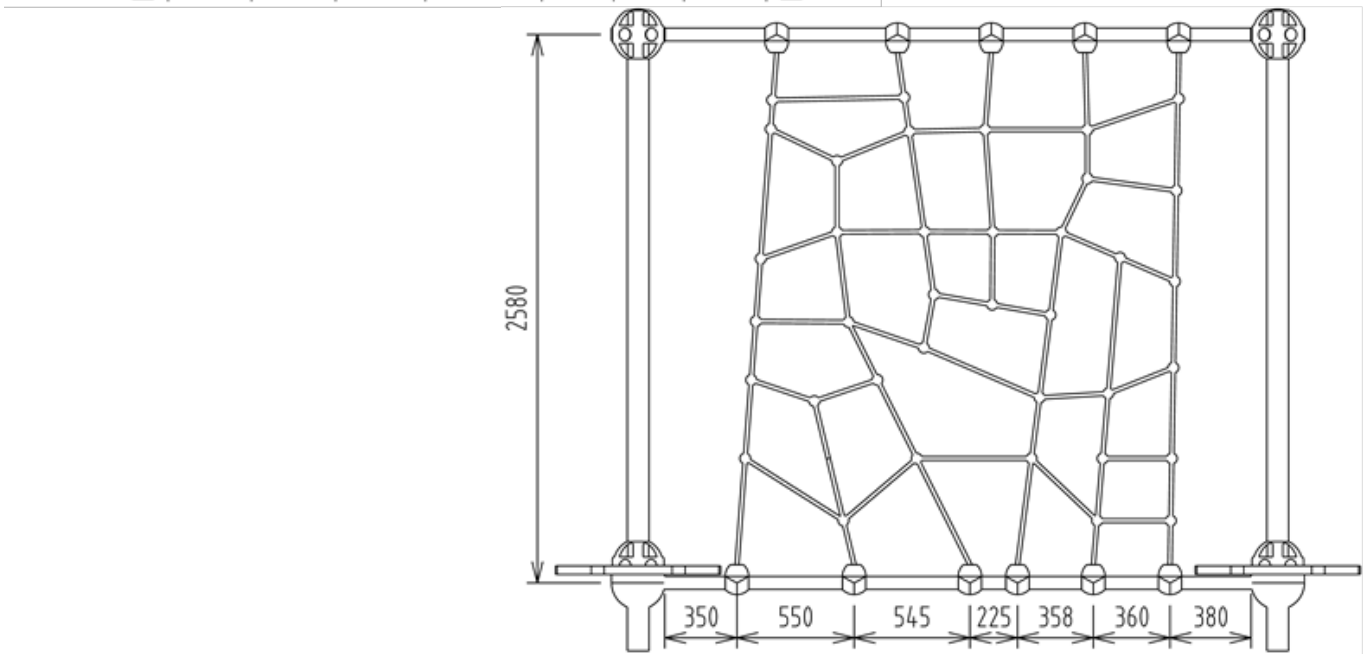
WEB WALL

Once rails are in place, connect the vertical ropes to the clamps as shown. If the structure allows the top bar can be pushed up for tightening the ropes.



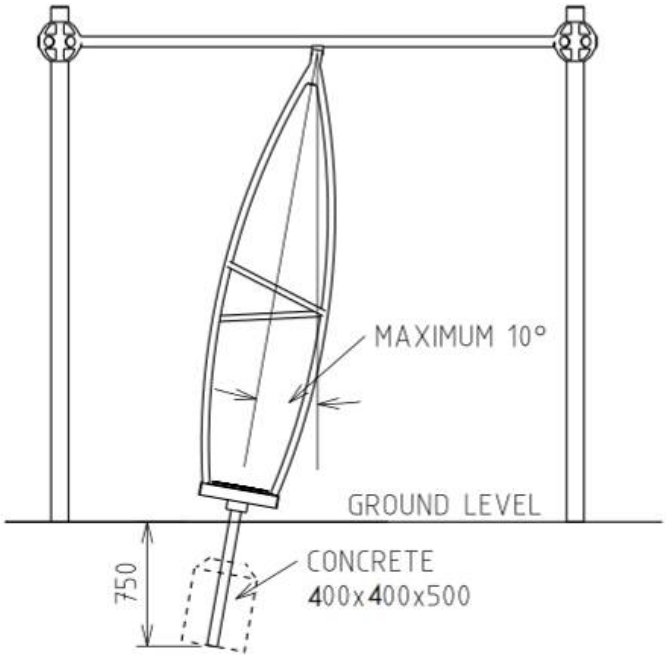
2400

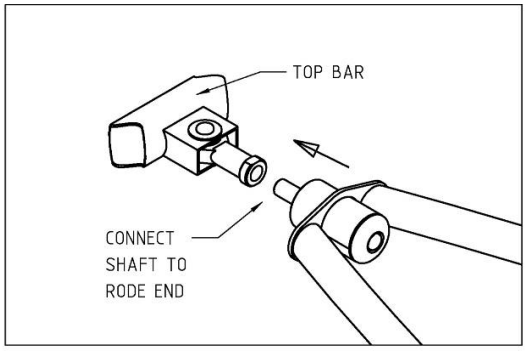
2900

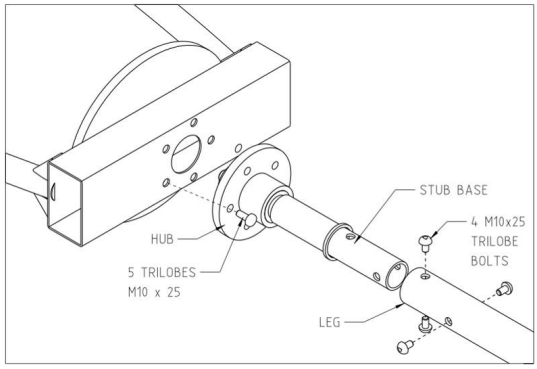


WHIRL

Attach the hub and base leg to the base of the Whirl as shown.
Once the top rail is in place, attach the Whirl to the top rail as shown, ensuring that the angle between the top and the bottom of the Whirl is within 10 degrees of vertical.
Dig hole 400x400, 750mm deep, compact bottom, insert leg and support it with brick or timber. Pour concrete size as shown and allow 24 hours for the concrete to set, before the item can be used.
All dimensions are taken from the centre of the pipes. During installation, the centre of the bolt on the clamps can be used as the pipes middle line.

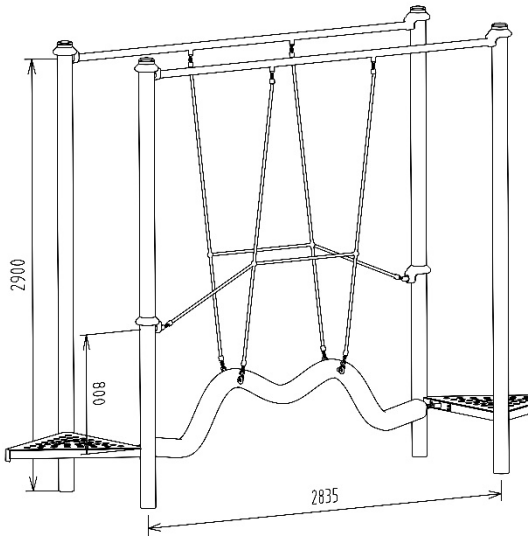






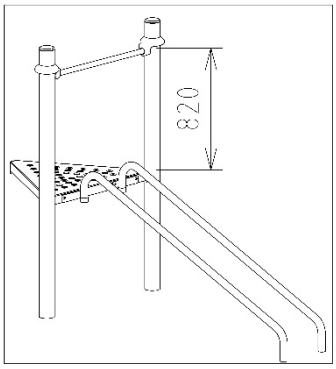
INSTALLATION – COMPONENTS - TRI EQUI PLATFORM

ARGONAUT JOINER

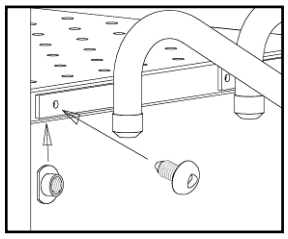


Position the overhead item on the ground with the first end level with the uprights it will connect to. Mark the spot for the next two uprights. Dig holes and install the uprights and platforms. Attach the overhead item to the uprights using clamps. The specified height for all overhead items is from centre of hand support to finished ground level (not to clamps on uprights). Attach the rope end's chain links to the top bar and flanges using bolts M8x25 Post Torx. Attach low rope ends to eye-nuts of big rope with S hooks. Two short 100mm chains are attached to ends of the big rope and brackets with bolts M8x25 Post Torx. Brackets are joined to platforms with tri-lobes 20mm from the bracket side and T nuts from platform side. After ensuring that the bolts are tightened and the uprights vertical, concrete the uprights.

BANISTER SLIDE

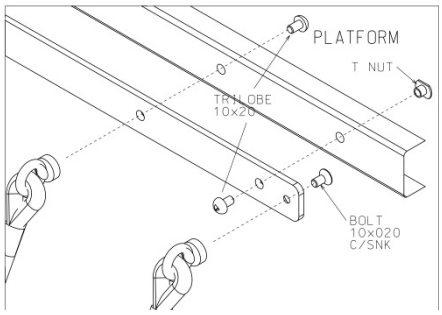


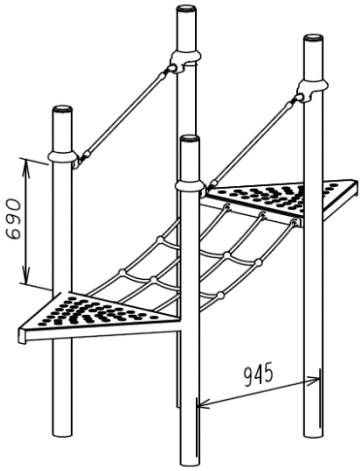
The rails of the banister slide come in pairs. The rails are positioned so that the longest end of each flange attaches to the outside edge of the platform, causing the rails to be closer together. Use the banister slide to determine the location of the holes for the legs. Dig the holes and attach the top of the flanges of each rail to the platform using 17mm tri-lobes and T-nuts (the T-nut being on the underside of the platform). It is advisable to place a brick or a block of wood below each leg to provide additional stability. (Banister slides attaching to a 1600mm platform will have detachable legs which are fastened using a 'tap tight' tri-lobe.) Concrete the legs into the ground. Attach the handrail 820mm above the platform using the same way as for Orbit Rung.



CARGO ROPE NET

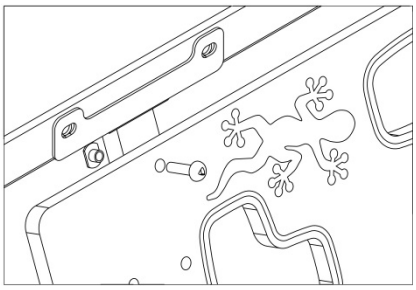
Determine the distance from one platform to the next, dig holes, insert the uprights and connect the platforms.
Attach the rope rails to the clamps and then the clamps to the uprights.
Attach the brackets on either end of the rope cargo net to the platforms using fittings as shown.

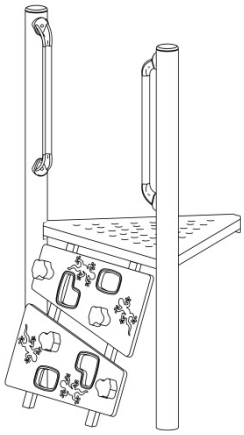




CLIFF CLIMBER

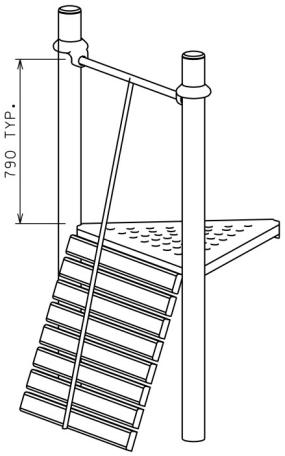
Use the frame to locate the correct position to dig holes and attach the frame to the platform using 17mm tri-lobes and T-nuts with the T-nut being on the underside of the platform. Attach the boards to the frame using 40mm tri-lobes through the front of the boards and T-nuts on the underside of the frame. Attach handgrips above the platform.



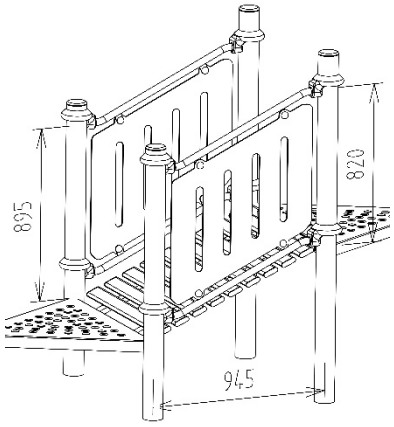


COMBAT CLIMBER

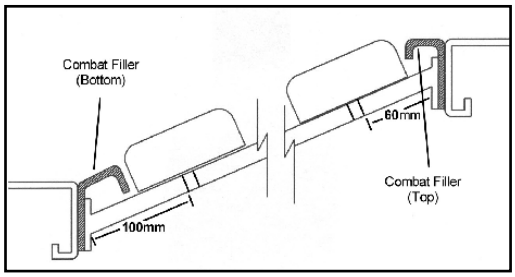
Use the frame to locate the correct position to dig holes and attach the frame to the platform using 17mm tri-lobes and T-nuts with the T-nut being on the underside of the platform. Attach the boards to the frame with the shorter board positioned at the top, adjacent to the platform. Boards are fastened with a 40mm tri-lobe from the underside of the support beam. Connect the chain to the chain connector on the top rail and the bottom rail with an 'S' hook. Ensure the 'S' hook is closed fully using vice-grips. Attach the top rail to the uprights using gym clamps.



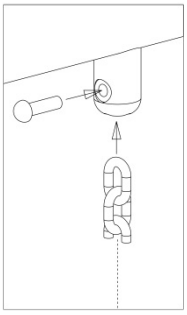
COMBAT JOINER 1M 400

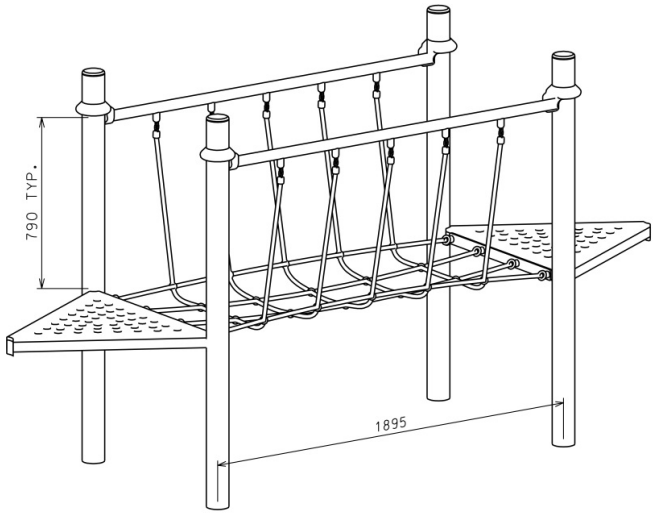


Attach support beams to platforms with Tri-lobes 25 from the plate side and T Nuts from platform side. Combat fillers are inserted top and bottom between the support beams and platform as shown in the diagram below.
Once the support beams are in place attach the bridge boards to the top of the beams. The 2 shorter boards are positioned adjacent to the platforms. Boards are fastened by a 40mm tri-lobe from the underside of the support beam. Make sure the boards are evenly spaced then tighten all bolts.
Join side panels to rails using Tri-lobes 25, nuts and security caps.
Attach rails to uprights on the shown height.



CONGO NET

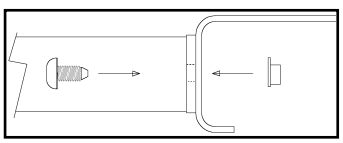


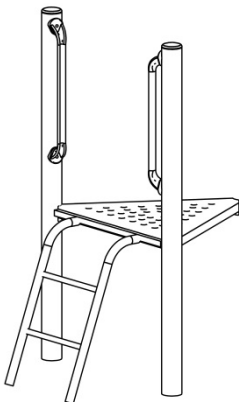


Use the handrails to determine the distance between uprights. Dig holes and install the uprights and platforms. Attach the rails to the uprights. Attach the Congo Net to the chain connectors on the rails.
Connect the ends of ropes (where they will join the platforms) to chain housings and the chain housings to platforms with 17mm tri-lobes (with the bolts entering from the underside of the platform).
Note: The net should be fitted so that the vertical ropes are on the inside of the net.

LADDER

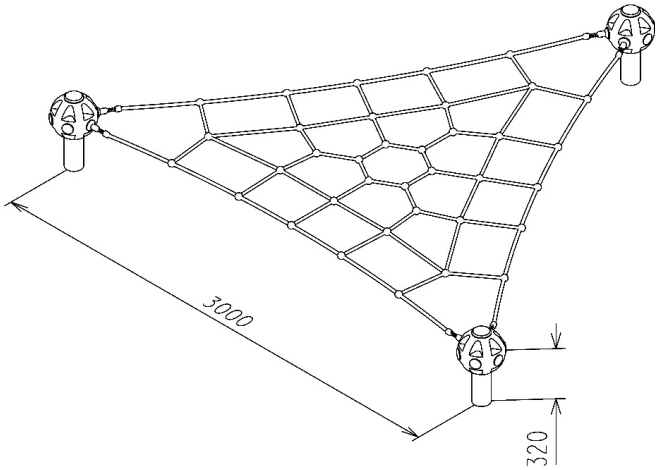
Use the ladder to determine the location of the holes for the legs. Dig the holes, insert the ladder to the correct height and attach to the platform using 17mm tri-lobes and T-nuts. Attach handgrips above the platform.





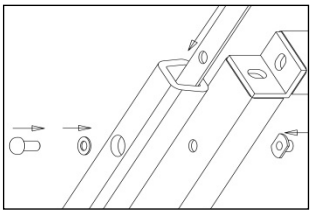
NET LOW

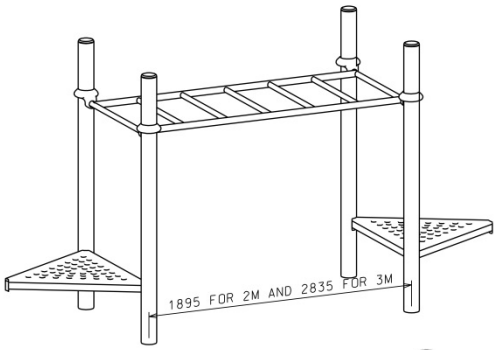
Be sure the distance between uprights is right for equally tensioned ropes.
Attach the rope end's chain links to flanges using bolts M8x25 Post Torx.

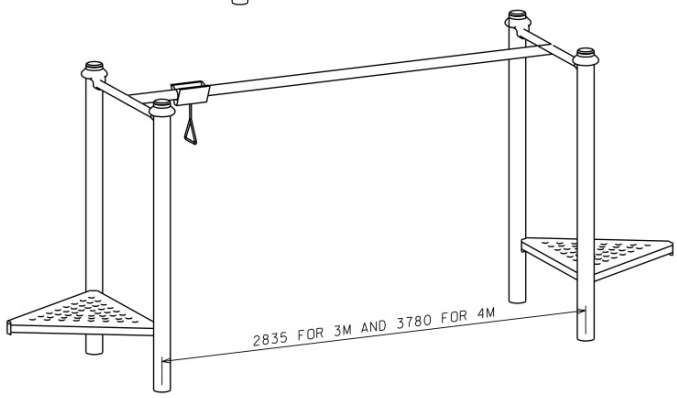


OVERHEAD ITEMS (MONKEY BARS AND HANG 'N' GLIDES)

Position the overhead item on the ground with the first end level with the uprights it will connect to. Mark the spot for the next two uprights. Dig holes and install the uprights and platforms. Attach the overhead item to the uprights using clamps
The specified height for all overhead items is from centre of hand support to finished ground level (not to clamps on uprights).
Hang 'n' Glides also require a platform buffer on the leading edge of both opposing platforms. Fasten the buffer to the platform face. Insert the platform buffer plate inside the rubber buffer, lining up the holes in the plate with the holes in the outside face of the buffer. Insert a 20mm tri-lobe and washer into each of the 4 holes as shown then fasten to the platform face with a T-nut on the inside of the platform.

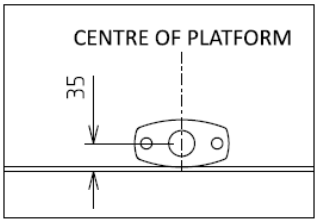


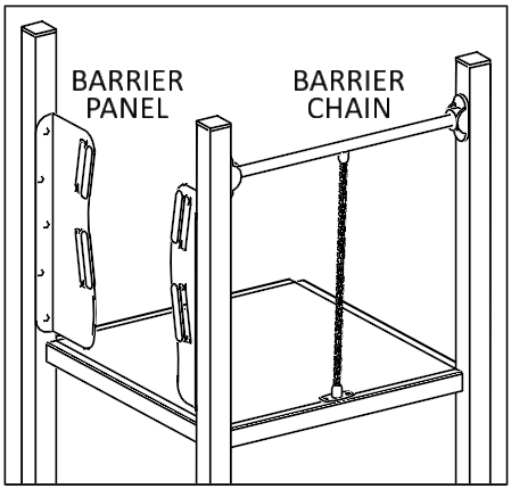




BARRIER PANEL AND BARRIER CHAIN

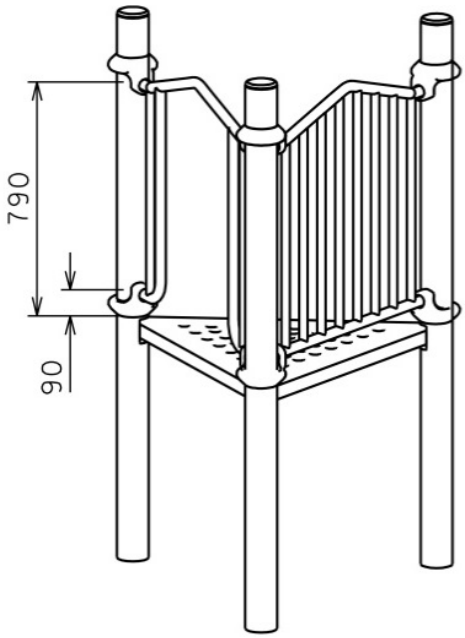
The 2 parts of the Barrier Panels are attached to uprights with Trilobes 10x17.
For the Barrier Chain, place the flange on the platform as shown, mark and drill 10mm holes, then attach with 17mm trilobes and T nuts. Remove chain links to have the chain tight.





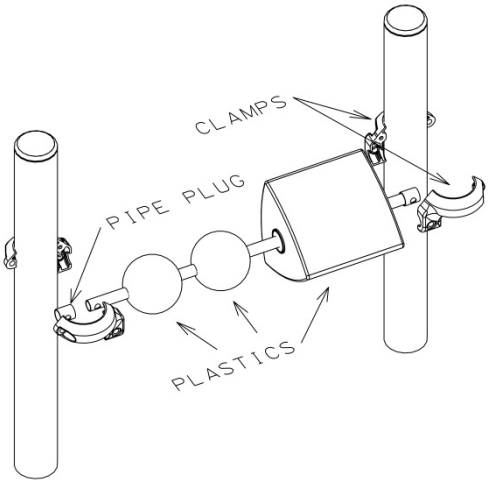
PANELS (SAFETY AND SLIDE ENTRANCE)

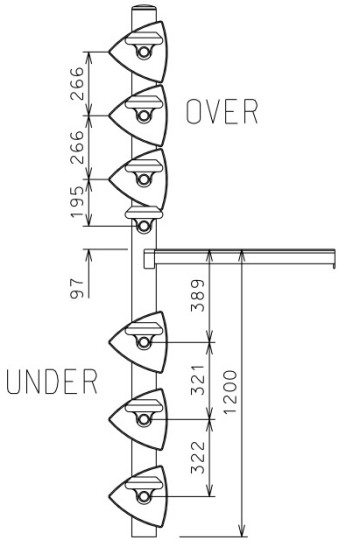
Attach the panels to the using gym clamps. Ensure the panel is positioned according to the distances shown in the image, with the measurements taken from the top of the platform to the centre of the rails (or the opening in the clamp). When attaching to uprights, be sure the gap between the platform and bottom rail is less than 89mm.

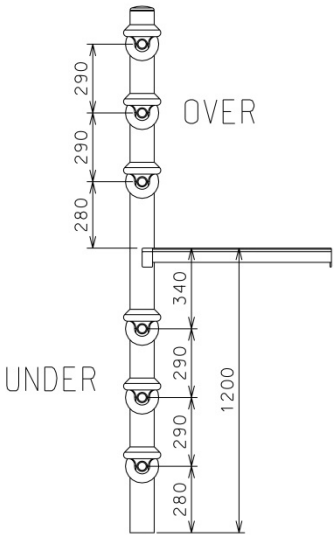


PANELS (O&X, WORD AND COUNTING)

Insert plastic parts in rails (colours of balls and letters per plan). Insert pipe plugs at the ends of rails. Join rails to clamps and clamps to uprights (standard clamp connection). Position rails on right heights and secure to uprights.

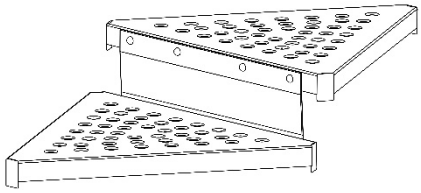




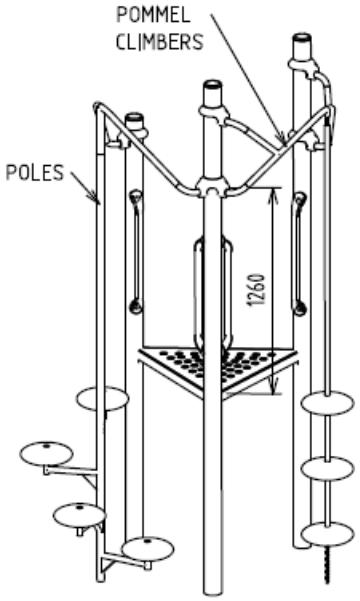


PLATFORM INFILL 200/400

Attach infill panel to join platforms with S/S Bolts 16 Post Torx from infill side and T nuts from platform side.



POLES (FIRE POLE AND STEP UP)

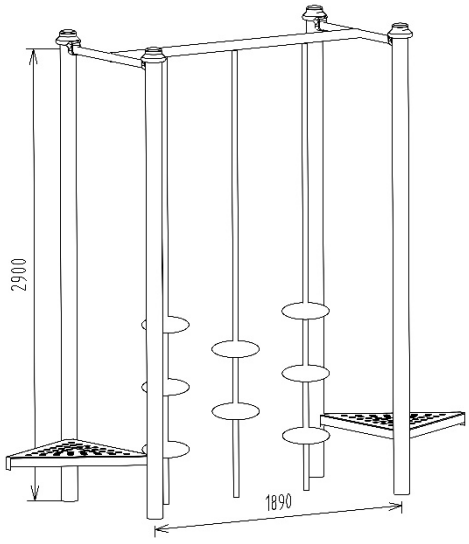


Attach the poles top to the fire pole or step-up pole using a 'tap tight' tri-lobe. Lift the pole into its approximate place to determine the position of the hole in the ground. (The dimension is taken from the top of the platform to the centre of pipes on clamps). Dig a hole approximately 600mm below finished ground level) and place the pole into position. Attach the pole to the uprights using gym clamps. It is advisable to place a brick or a block of wood below the pole to provide additional stability. Attach handgrips above the platform.

The plastic steps on the Step Up Pole should be attached to each rail using 17mm tri-lobes.

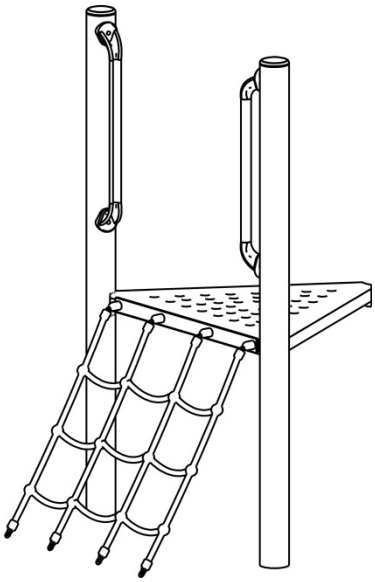
For Pommel Climbers, attach the lower clamp same as poles. Dig a hole approximately 800mm below finished ground level) directly below the connection point on the top. Connect the pommel climber chain to the top using 8mm Torx bolt. Allow the chain to hang into the hole. (If rubber surfacing is to be used, a pommel/chain anchor is supplied. The chain should be cut just above finished ground level and the anchor connected using an 'S' hook.) Ensure the chain is taut and vertical then concrete into the ground.

POMMEL JOINER 2M

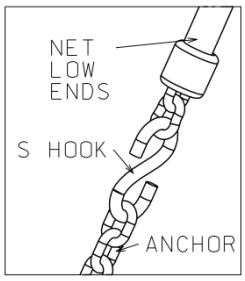


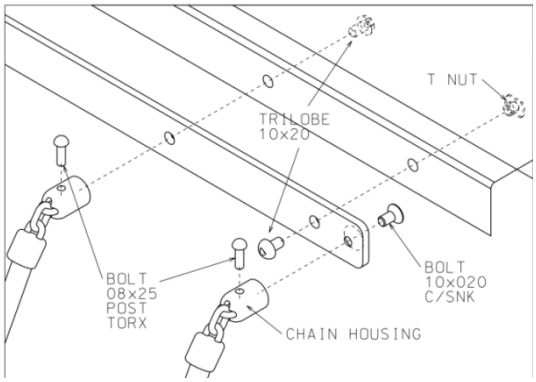
Position the overhead item on the ground with the first end level with the uprights it will connect to. Mark the spot for the next two uprights. Dig holes and install the uprights and platforms. Attach the overhead item to the uprights using clamps. The specified height for all overhead items is from centre of hand support to finished ground level (not to clamps on uprights).
Attach the top of each chain links to the top bar using bolts M8x25 Post Torx. Dig a hole directly below each suspended chain and pommel. Allow the chains to hang into the holes, ensuring that they are taut. (If rubber surfacing is to be used, a pommel/chain anchor is supplied. The chain should be cut just above finished ground level and the anchor connected using an 'S' hook.) After ensuring that the bolts are tightened and the uprights vertical, concrete the uprights and the lower end of the chains into the ground.

ROPE NET CLIMBER

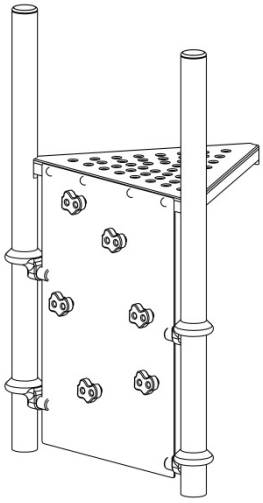


Attach the rope net to the bracket using 20mm counter sunk bolts into the chain housing as shown, then connect the bracket to the platform using 20mm tri-lobes and T-nuts.
Pay attention to attach nets with the longer ends to the platform. Attach low ends of the net to anchor using 'S' Hooks as shown. Pull the rope net away from the platform (800 height on 500mm, 1200 on 970mm and 1600 on 760mm). The rope ends should terminate just above finished ground level. Dig a trench wide enough to allow the chain anchor at the base of the net to continue into the ground on the same angle. Place the anchor in the trench to a depth of approximately 500mm then concrete. Attach handgrips above the platform.





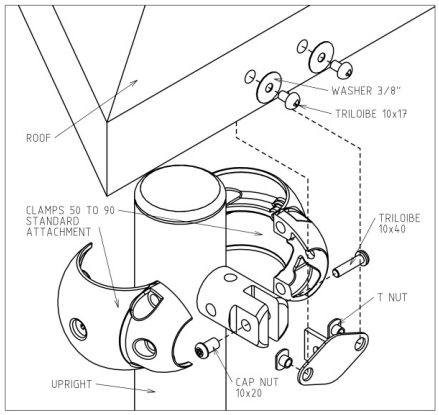
ROCK WALL UNDER (1200, 1600 OR 2000)

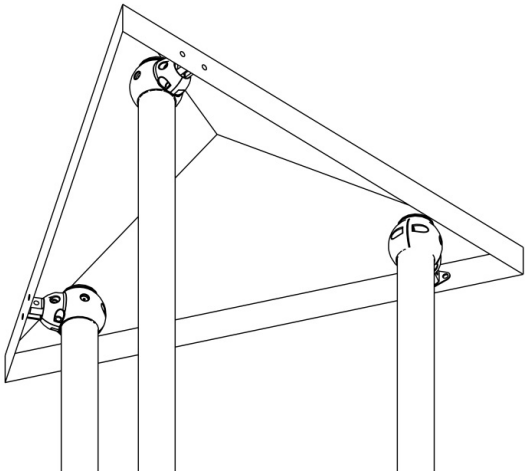


Attach the Rock Wall to platform with Tri-lobes 10x25 bolts with plastic caps on Rock Wall side and T Nuts on platform side (insert washers 1/4x3/4 in caps). Position Gym clamps 25Nb with plugs on level to the panel holes and secure with cap nuts and tri-lobes 10x25.

ROOF

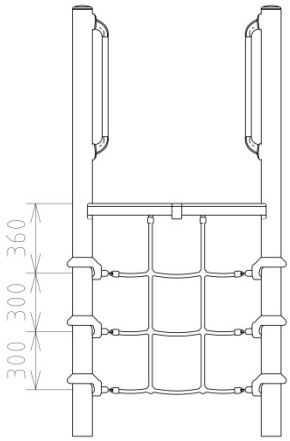
Attach all clamps, plugs and brackets to the roof and keep all fittings loose.
Rise roof over the uprights and insert clamps. Keep roof horizontal and screw clamps to uprights (one screw per two clamps).
Tighten all fittings.

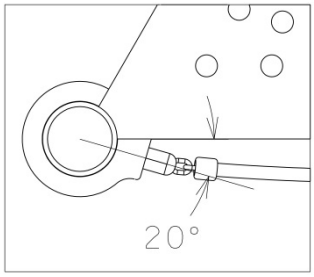




ROPE WALL

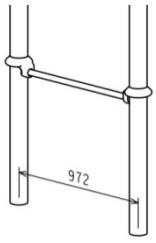
Attach the horizontal rope end to the clamps and then the clamps to the uprights. Attach top rope end eyelet to platform using 17mm tri-lobes and 3/8" washer from the back of the platform. Turn clamps on 20deg as shown before screwing to uprights. Use standard handgrip attachments.





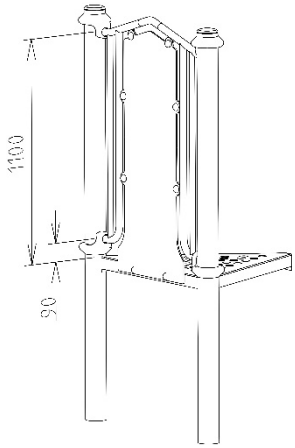
RUNG

Attach rungs to the uprights using gym clamps.



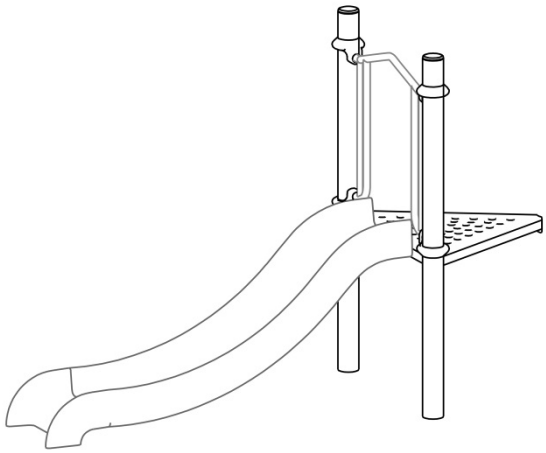
SAFETY PANEL SOLID +400

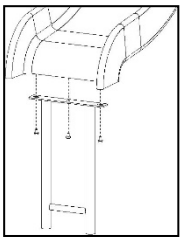
Attach the frame to the uprights using gym clamps. Ensure the panel is positioned according to the distances shown in the image, with the measurements taken from the top of the platform to the centre of the rails (or the opening in the clamp).
Use security caps to attach panel to frame and platform.

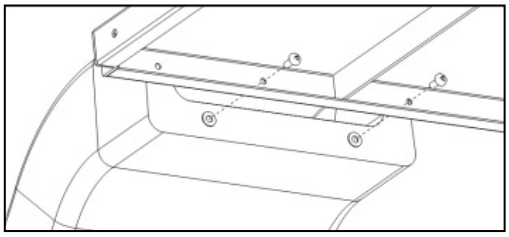


SLIDE – STRAIGHT, WAVE AND CURVED

Locate the slide in its approximate position to determine the position of the holes for slide support legs and dig the holes. (All slides have 2 legs at the base. Curved slides and plastic 1600mm slides also have a support leg half way up the slide.) Attach the slide leg(s) to the underside of the base of the slide using 17mm tri-lobes. It is advisable to place a brick or a block of wood below each leg to provide additional stability. Concrete the legs into the ground. Attach the slide entrance panel as described under "Panels".
Attach the slide to the platform using 40mm tri-lobes entering from the underside of the platform into the slide. (If the back of the slide has a metal plate in place, 17mm tri-lobes should be used instead.)

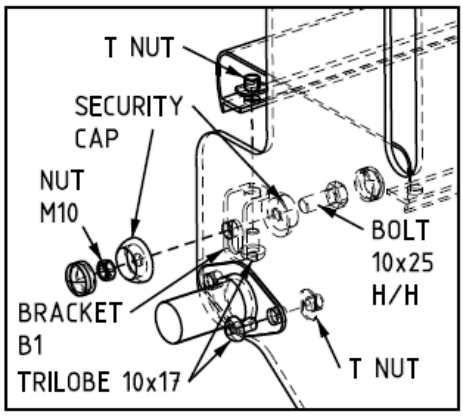


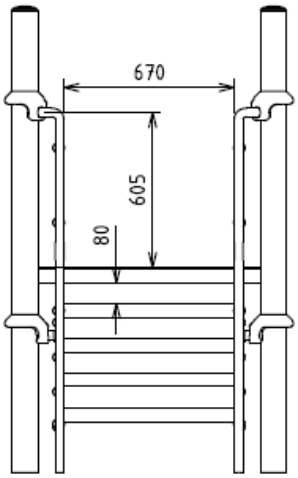


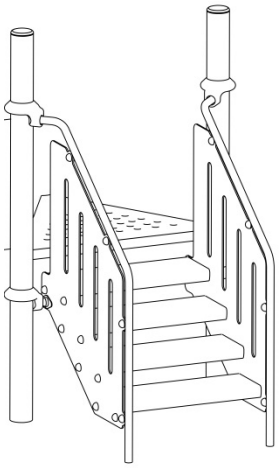


STAIRS ALY (S/S RAILS)

Join side panels to rails using security caps. Attach rails to uprights on the shown height. Use the rails to determine the location of the holes for the legs.
Dig the holes.
Assemble steps using security caps and brackets. Attach lower gym clamps to stairs and uprights.
Concrete rails to ground.

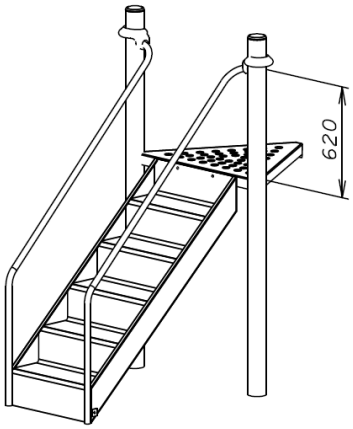






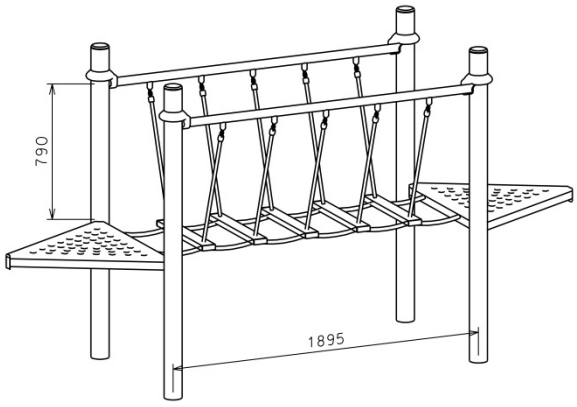
STEEL STAIRS 1200

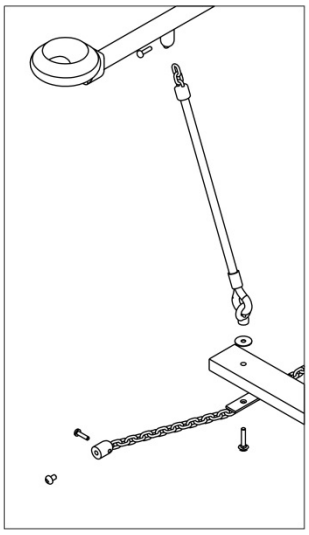
Attach handrails to uprights on the shown height. Use the handrails to determine the location of the holes for the legs. Dig the holes, insert the stairs and attach to platform and handrails using 17mm tri-lobes and T-nuts.



STEP CROSSING

Use the handrails to determine the distance between uprights. Dig holes and install the uprights and platforms. Attach the rails to the uprights.
Attach the ropes on the step crossing to the chain connectors on the rails. Attach the bottom 2 ropes to the platforms using 17mm tri-lobes.
Connect the ropes, boards and support chains as shown using 50mm torx bolts entering the plates welded on the chain from underneath and a 3/8" washer between the eye-nut and the board. Connect the ends of chains (where they will join the platforms) to chain housings and the chain housings to platforms with 17mm tri-lobes as shown (with the tri-lobe entering from the underside of the platform).





BEFORE LEAVING THE SITE

- ☐ Check that all bolts are tightened.
- ☐ Check that all concrete footings are 300mm below the finished surface level where loose-fill material is used.
- ☐ Check that the structure is solid with all uprights secure in the ground.
- ☐ Check your softfall, ensuring that your fall zones and the depth of the softfall are correct.
- ☐ Touch up any scratches on the paintwork.
- ☐ Remove all rubbish and packaging from the site.

SAFETY AND MAINTENANCE INSPECTIONS

To ensure that your equipment remains in a safe condition, we recommend that you establish a schedule of safety and maintenance inspections and record the details of your inspections in a logbook. In this manner, any minor repairs are done as soon as they are required, and your equipment will remain in safe condition. In the event of an accident occurring on your play equipment, your records of these inspections are proof that your 'duty of care' has been maintained.

We recommend that your play equipment be inspected with varying degrees of detail on a frequency basis as outlined on the following page.

Any spare parts that may be required for your play equipment will be available through your local Forpark Australia branch, and our sales staff will be able to help you with any queries you may have regarding your equipment.

Please remember! Play equipment that is well maintained remains safe, and will last for many years.

ROUTINE VISUAL INSPECTION

Frequency – At least weekly. Daily inspections may be required where loose fill surfacing is used or in cases where the equipment is subject to heavy use or vandalism.

Surfacing

- ☐ Check that the soft-fall surfacing area is free of debris and contamination.
- ☐ Check that displacement of your loose fill surfacing material has not resulted in areas becoming shallower than the recommended depth, particularly below items of equipment where falls are likely. Such areas should be levelled or filled to ensure that the recommended depth is maintained.

Equipment

- ☐ Check for vandalism, and for any damaged or missing parts. In the event of any damage or missing parts, isolate the play equipment until repairs have been carried out.

OPERATIONAL INSPECTION

Frequency – Every one (1) to three (3) months, depending on the level of use. Equipment subject to heavy use or vandalism may need to be inspected more frequently. Any problems identified should be addressed on a priority basis taking into account any safety implications.

Surfacing & Surrounds

- ☐ Check that the soft-fall surfacing area is free of debris and contamination.
- ☐ Check that a loose fill soft-fall surfacing is at the recommended depth, and top up if necessary.
- ☐ Check that a synthetic surface is in good condition and securely in place to provide impact absorption.
- ☐ Check that any soft-fall surfacing borders are secure in the ground, do not constitute trip points, and have no rough or sharp edges.
- ☐ Check the area for overgrown bushes or hazards that may have intruded into the play area over time.

Equipment

- ☐ Check all fasteners and tighten and replace any that are missing.
- ☐ Check that all uprights and components are secure in the ground, and that no footings are showing through the soft-fall.
- ☐ Check steel play equipment for rust or corrosion. (All metal play equipment will show some signs of breakdown over time, and this may be exacerbated by a marine environment.) Replace any badly corroded parts.
- ☐ Check timber equipment for splintering and warping; and coat with Sikkens Cetol if required. Replace any damaged items.
- ☐ Check all moving parts for excessive wear, and replace any worn items.
- ☐ Check all chain links for wear and replace any damaged items.
- ☐ Check for any bending or cracking of steel components and replace where necessary.
- ☐ Check all paint-work, and touch up any areas that are worn or chipped.
- ☐ Large rope net structures with tensioning aids (e.g. turn buckles) need to be checked for sufficient tension and re-tensioned if necessary.
- ☐ In highly corrosive environments it is strongly recommended that all equipment is regularly washed with clean water to prevent any build-up of rust causing minerals. This is particularly important where the equipment is positioned under a permanent shade structure and cannot be naturally washed by rain.
- ☐ Check for any grease points and apply Molycoat Long Term grease to all grease nipples.

COMPREHENSIVE INSPECTION

Frequency – Annually. On a yearly basis it is advisable to have your equipment checked by someone who is qualified in playground equipment maintenance, or by an engineer.

Surfacing & Equipment

- ☐ In addition to a detailed inspection of all areas covered in an “Operational Inspection”, the following checks should be made.
- ☐ Check the structural integrity of equipment subject to corrosion or rotting.
- ☐ Check for any changes in the safety of the equipment resulting from repairs made, or added or replaced components.

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