



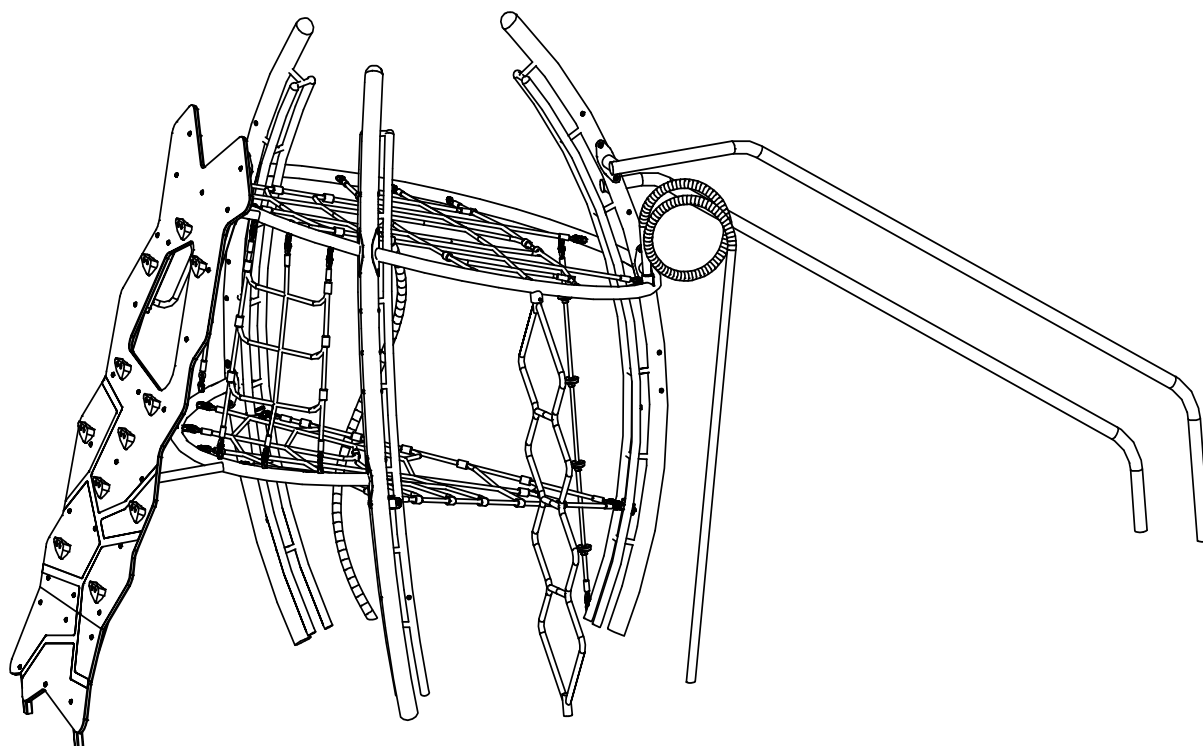
Bringing together leading brands in the play industry

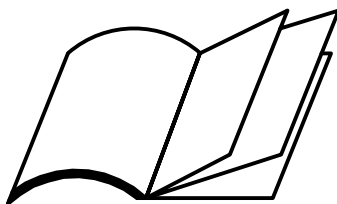
INSTALLATION INSTRUCTIONS

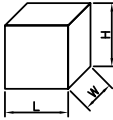


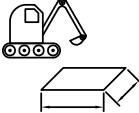
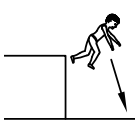

NEXUS

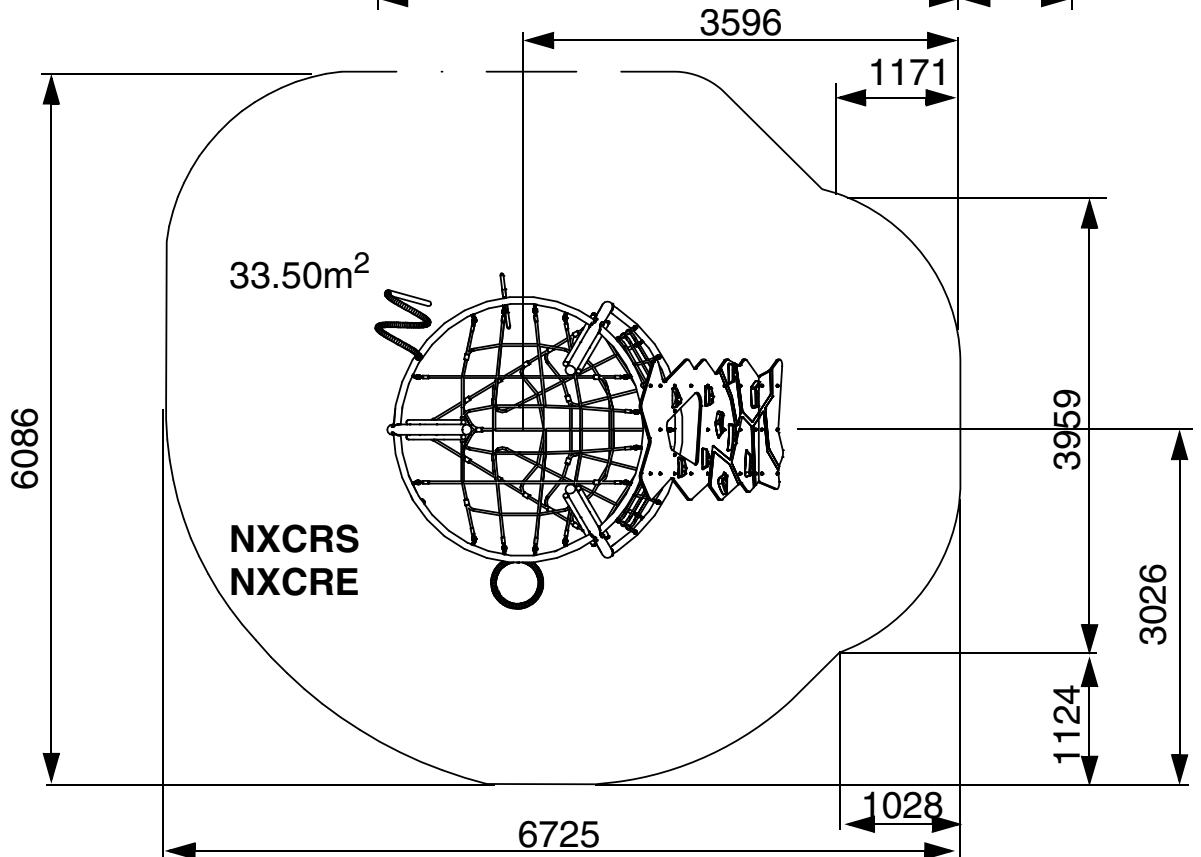
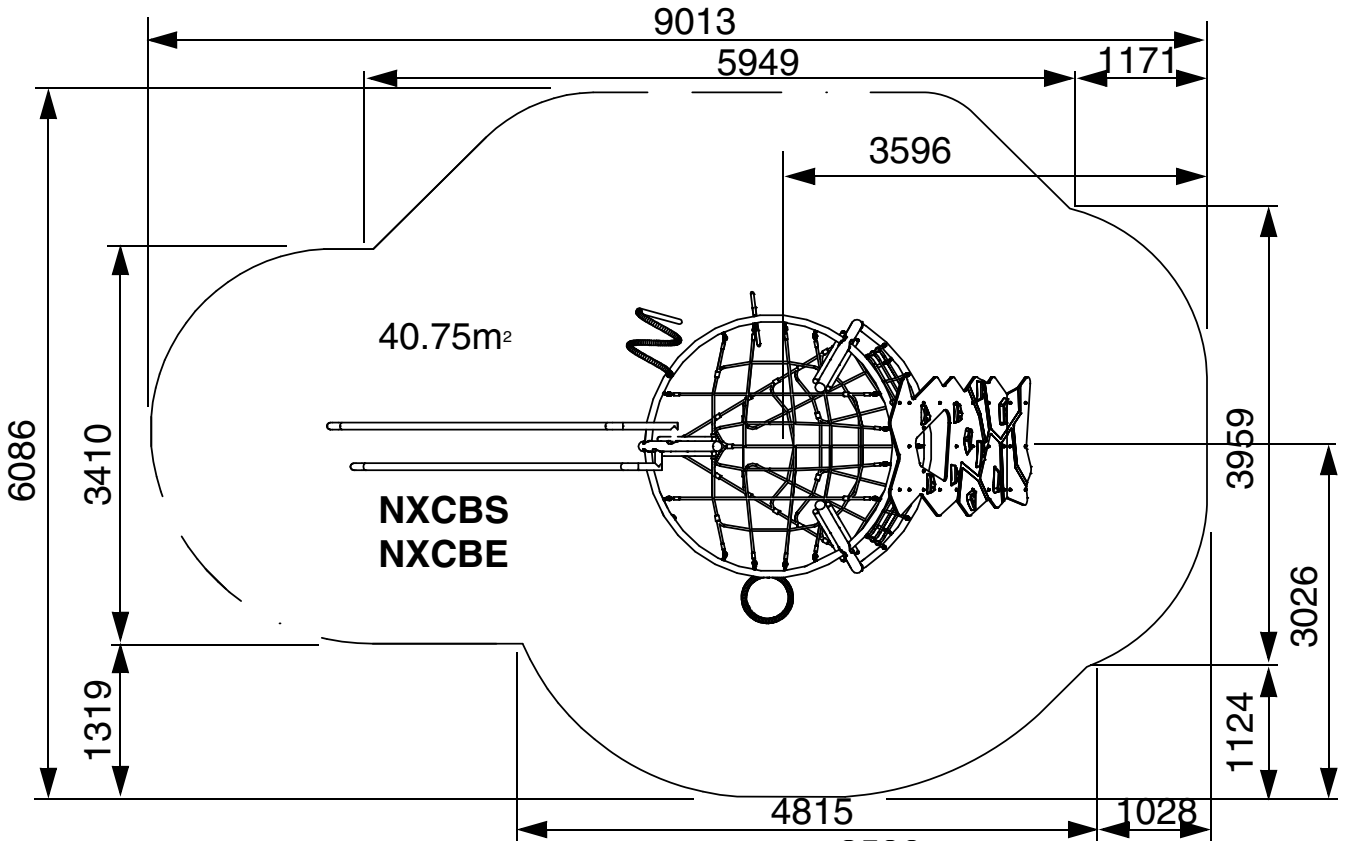
THE CORE

NXCBS NXCBE NXCRS NXCRE

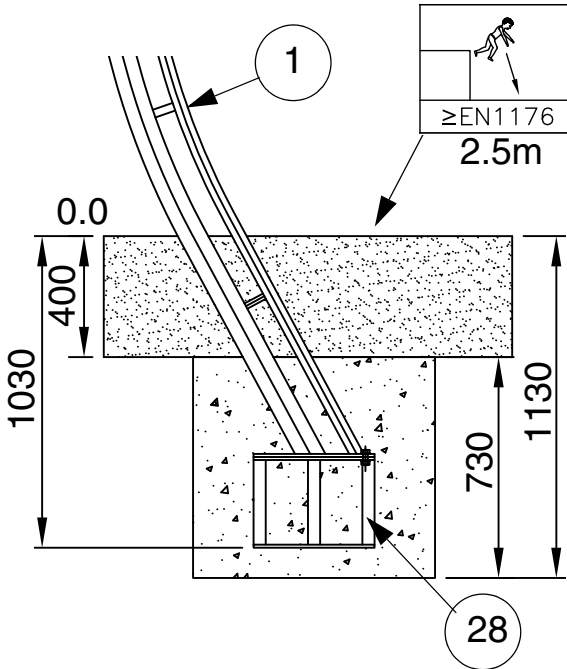




	 LxWxH (m)	 kg	 m ³	 m	 ≥EN1176	 x 3= T
NXCB*	6.01 x 2.87 x 3.0	537.0	1.52	10.00 x 7.00	2.5m	T=48h
NXCR*	3.46 x 2.87 x 3.0	501.0	1.43	8.00 x 7.00		

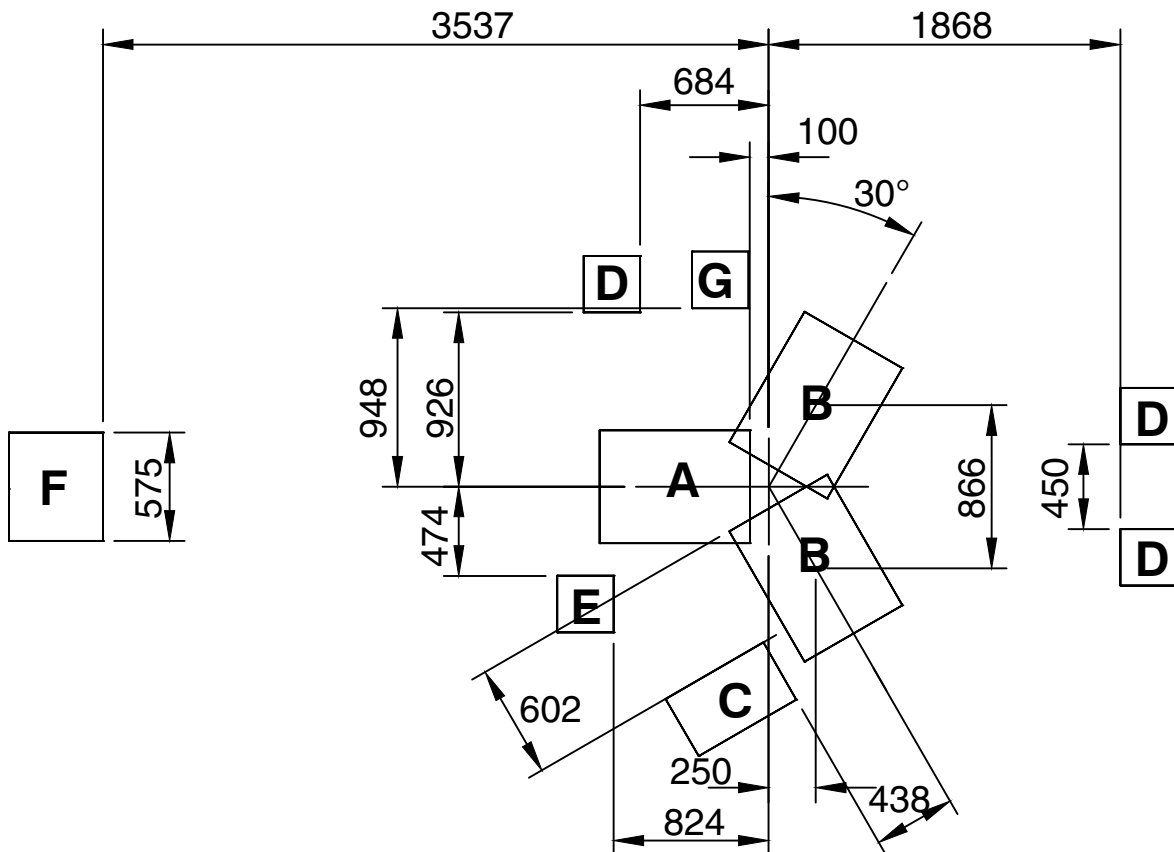
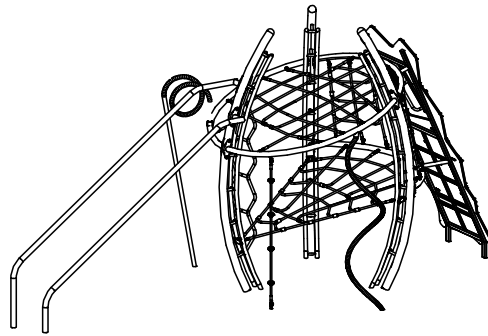


NXCBE

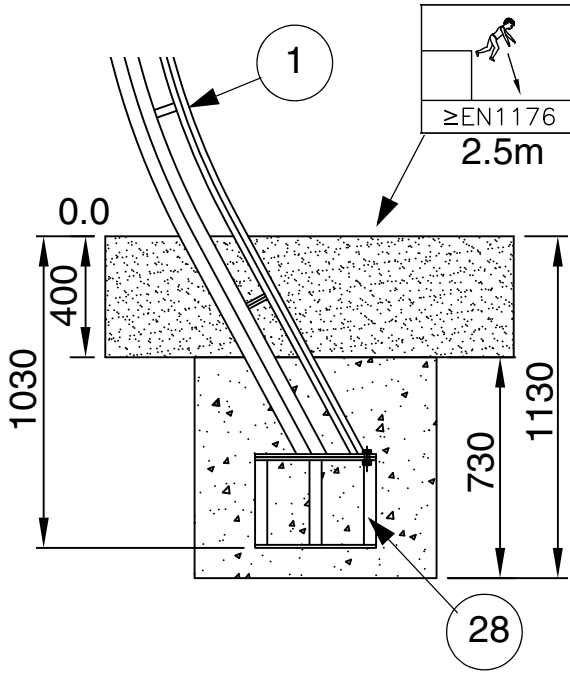


		NXCBE L x W x D (m)
'A'	m	0.80 x 0.60 x 1.13
'B'	m	0.80 x 0.60 x 1.13
'C'	m	0.35 x 0.60 x 0.90
'D'	m	0.30 x 0.30 x 0.90
'E'	m	0.30 x 0.30 x 0.73
'F'	m	0.50 x 0.575 x 0.9
'G'	m	0.30 x 0.30 x 1.02

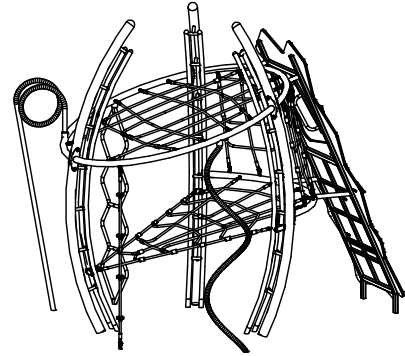
TYPE 1/2  **101/144**



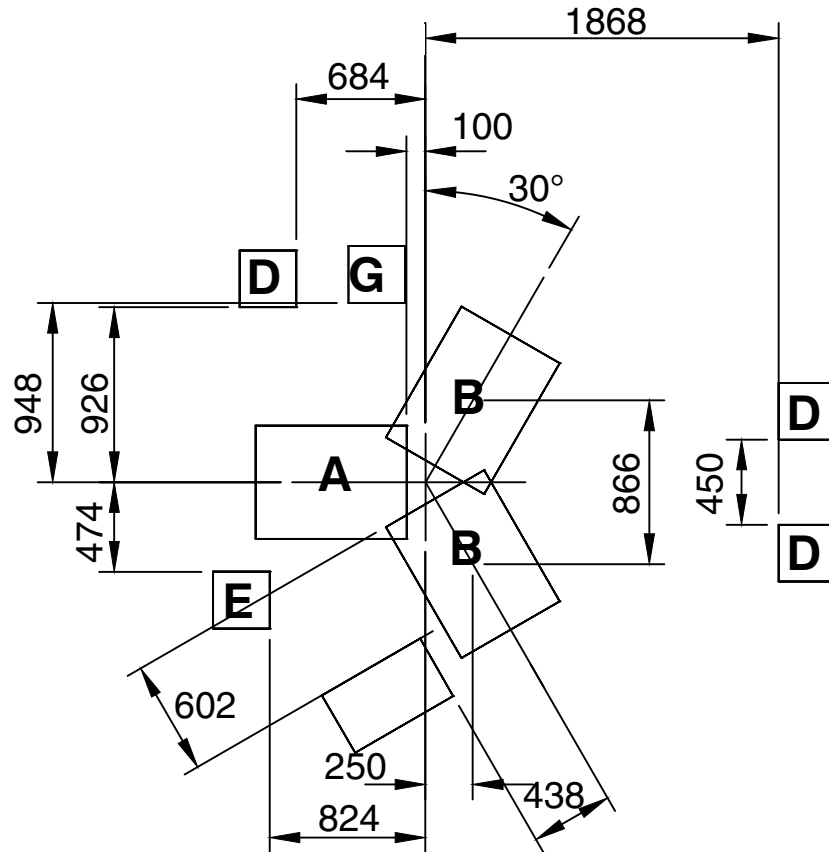
NXCRE



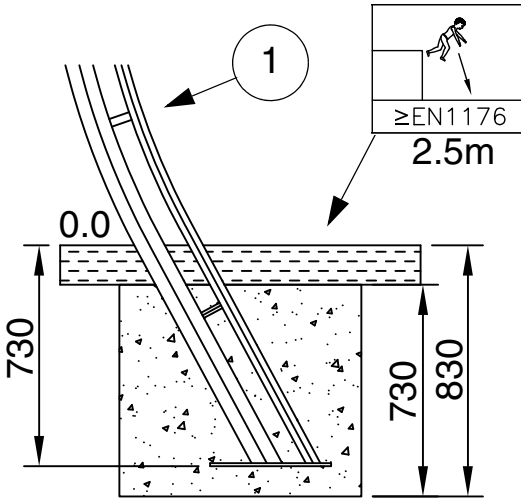
		NXCRE L x W x D (m)
'A'	m	0.80 x 0.60 x 1.13
'B'	m	0.80 x 0.60 x 1.13
'C'	m	0.35 x 0.60 x 0.90
'D'	m	0.30 x 0.30 x 0.90
'E'	m	0.30 x 0.30 x 0.73
'G'	m	0.30 x 0.30 x 1.02



TYPE 1/2  **101/144**

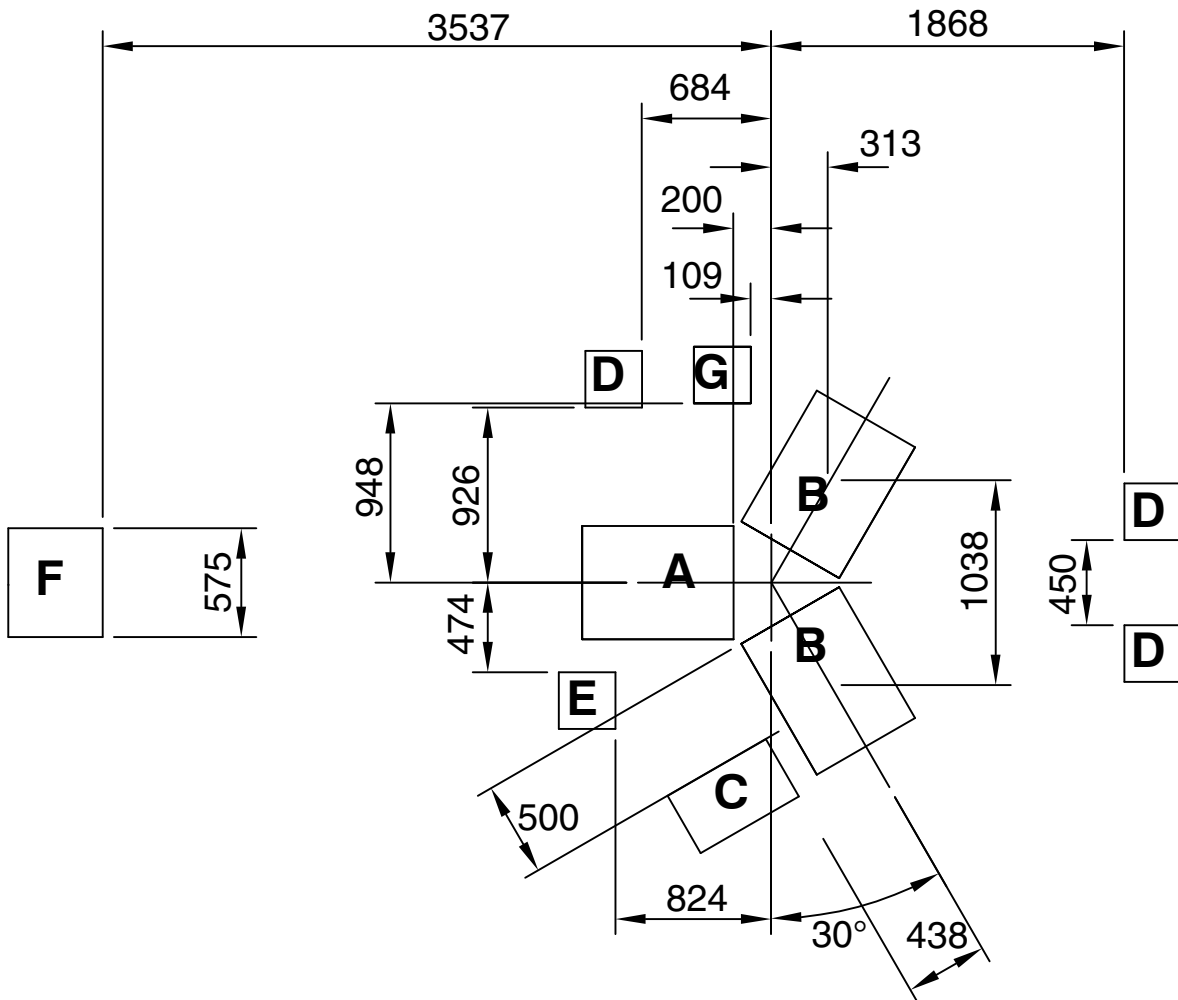
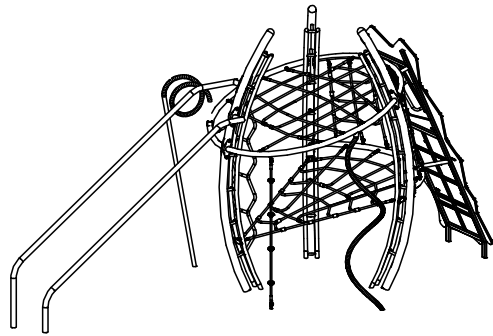


NXCBS

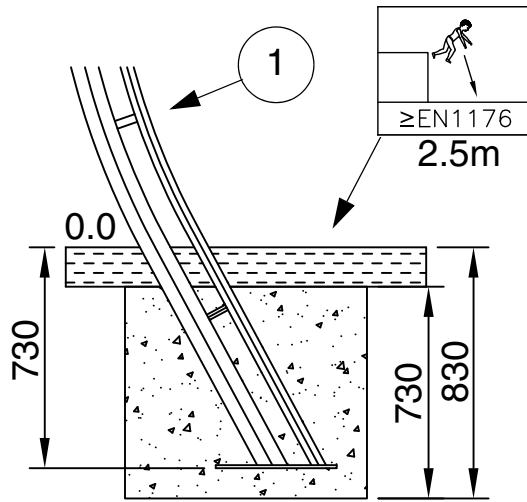


		NXCBS L x W x D (m)
'A'	m	0.80 x 0.60 x 0.83
'B'	m	0.80 x 0.60 x 0.83
'C'	m	0.35 x 0.60 x 0.60
'D'	m	0.30 x 0.30 x 0.60
'E'	m	0.30 x 0.30 x 0.43
'F'	m	0.50 x 0.575 x 0.60
'G'	m	0.30 x 0.30 x 1.02

TYPE 3  **101/144**

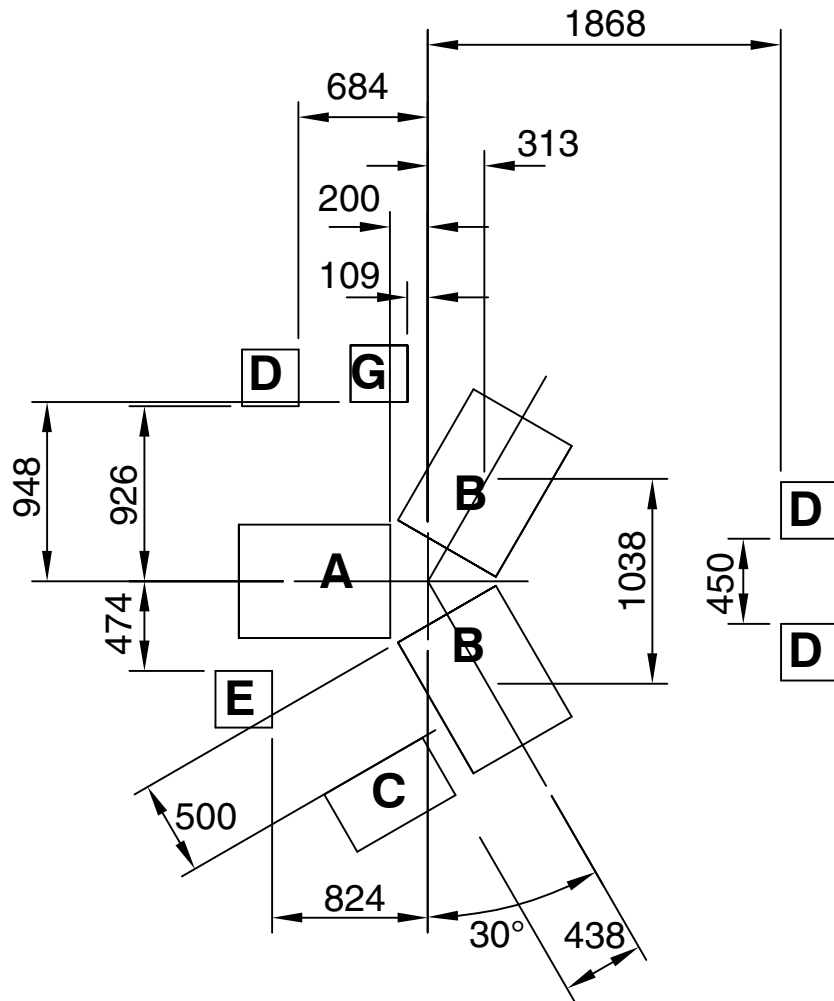
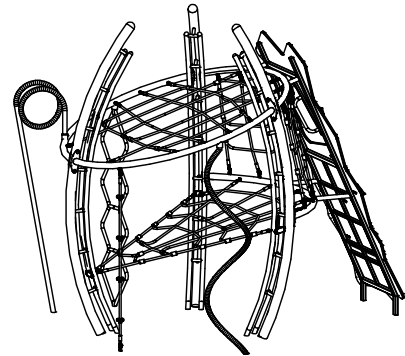


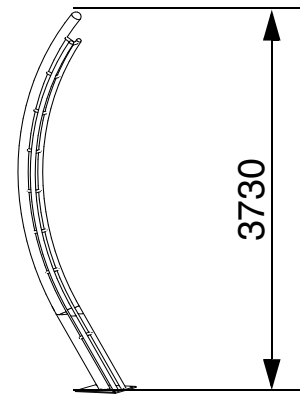
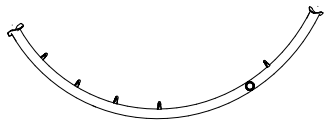
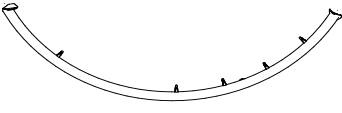
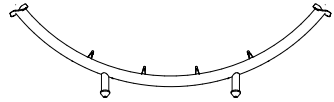
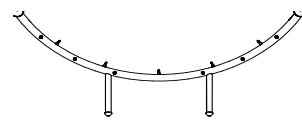
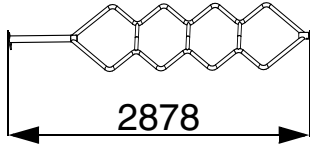
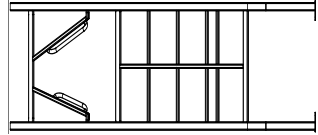
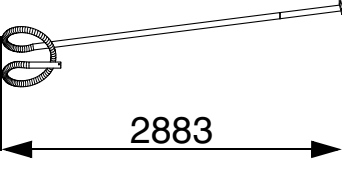
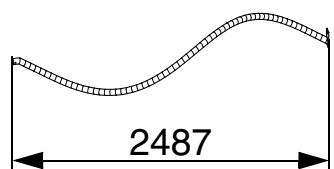
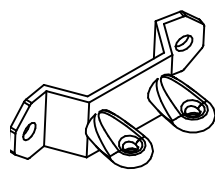
NXCRS

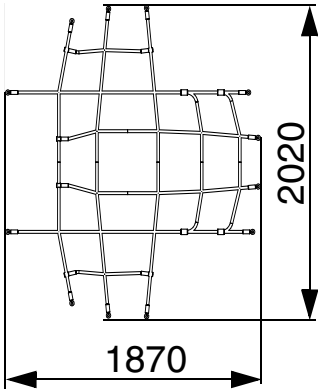
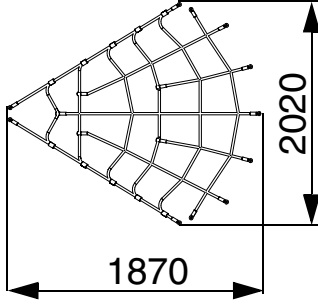
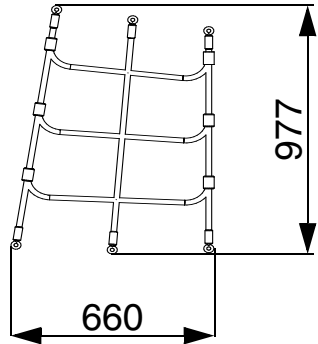
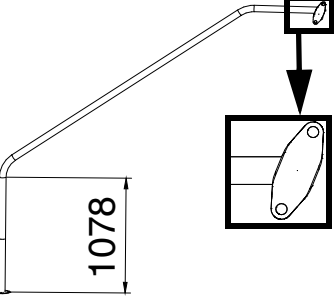
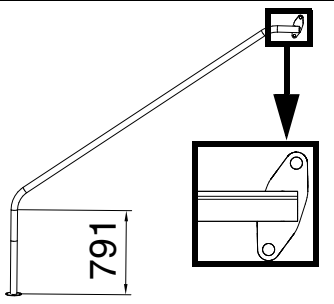
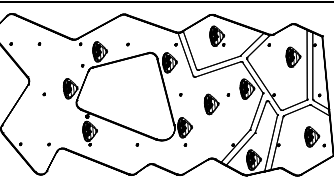


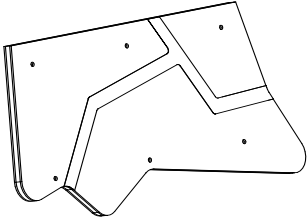
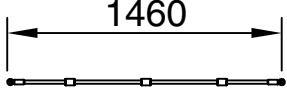
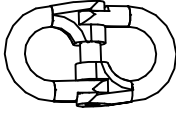
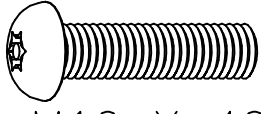
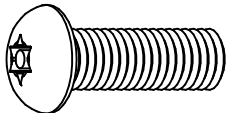
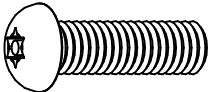
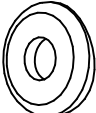
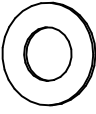
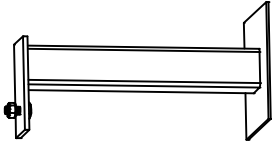
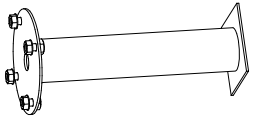
		NXCBS L x W x D (m)
'A'	m	0.80 x 0.60 x 0.83
'B'	m	0.80 x 0.60 x 0.83
'C'	m	0.35 x 0.60 x 0.60
'D'	m	0.30 x 0.30 x 0.60
'E'	m	0.30 x 0.30 x 0.43
'G'	m	0.30 x 0.30 x 1.02

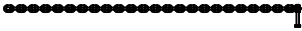
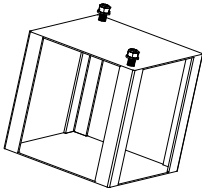
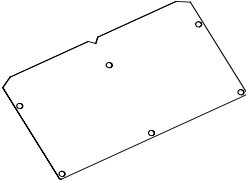
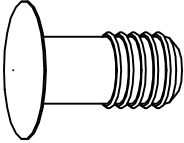

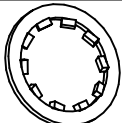
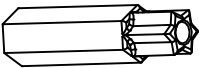
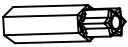
TYPE 3  **101/144**

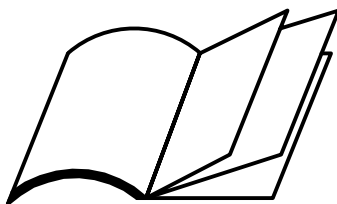


ITEM	REF.		NXCBS	NXCRS	NXCBE	NXCRE	kg
1	38000001				3		66.000
2	38001010				1		12.000
3	38001030				1		12.000
4	38001020				1		11.000
5	38001070				1		14.000
6	38002010				1		13.500
7	38002030				1		44.000
8	38002050				1		17.500
9	38002060				1		12.500
10	38008021				3		1.000

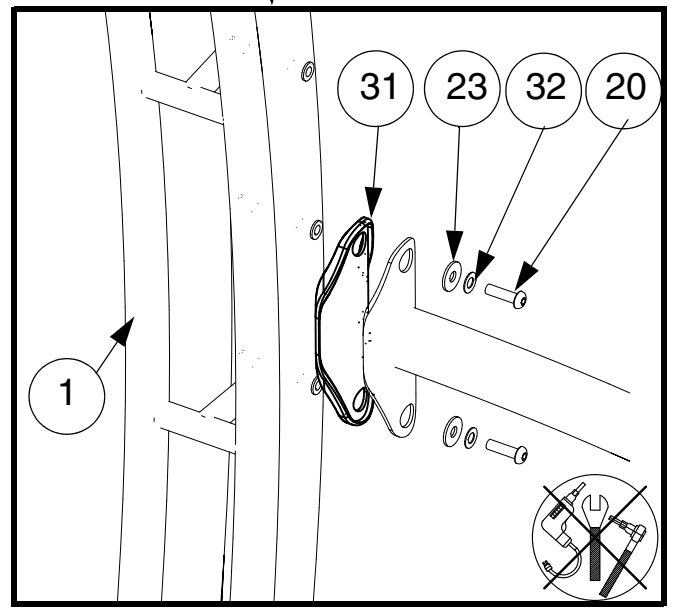
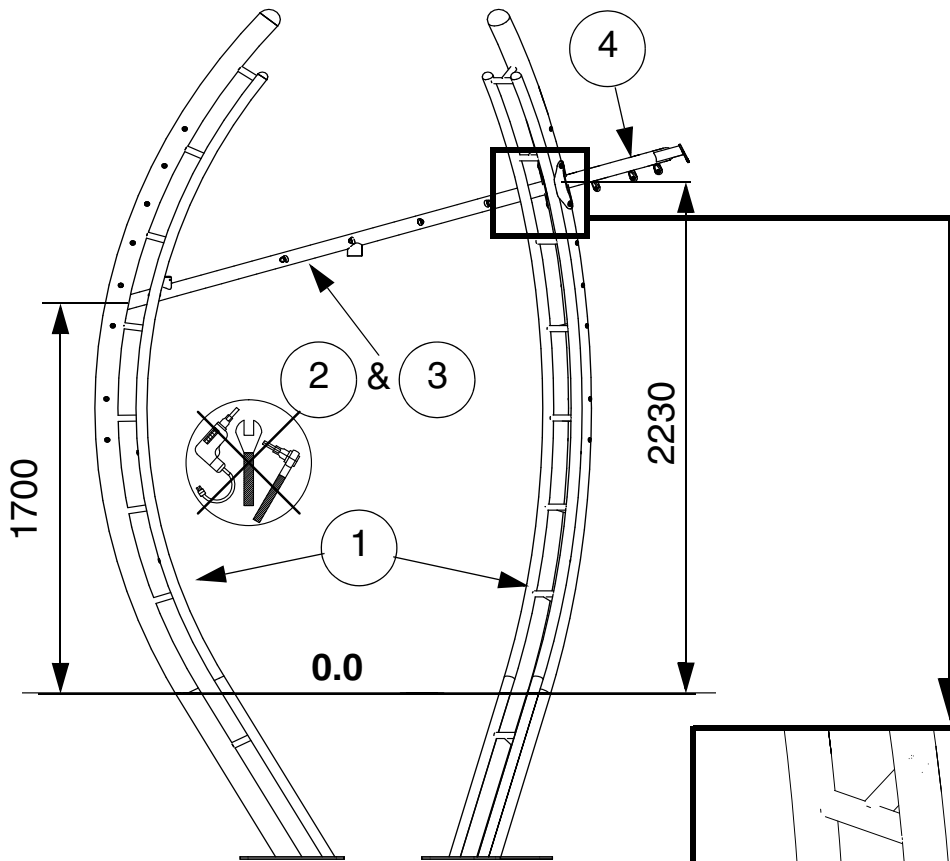
ITEM	REF.		NXCBS	NXCRS	NXCBE	NXCRE	kg
11	38008010			1			11.000
12	38008020			1			12.000
13	38008040			2			4.000
14	38002070		1		1		19.000
15	38002080		1		1		17.500
16	38009010			1			47.00

ITEM	REF.		NXCBS	NXCRS	NXCBE	NXCRE	kg
17	38009020				1		8.500
18	38008060				1		1.000
19	15715000				37		0.100
20	10121040	 M10 X 40	49	45	49	45	0.037
21	10121030	 M10 X 30			11		0.028
22	10120620	 M6 X 20			2		0.009
23	38001019	 M10 12X32X6.5	20	16	20	16	0.002
24	10291000	 M10 11X21X1			10		0.002
25	SSGIL					4	2.200
26	EPLUG				2		3.000

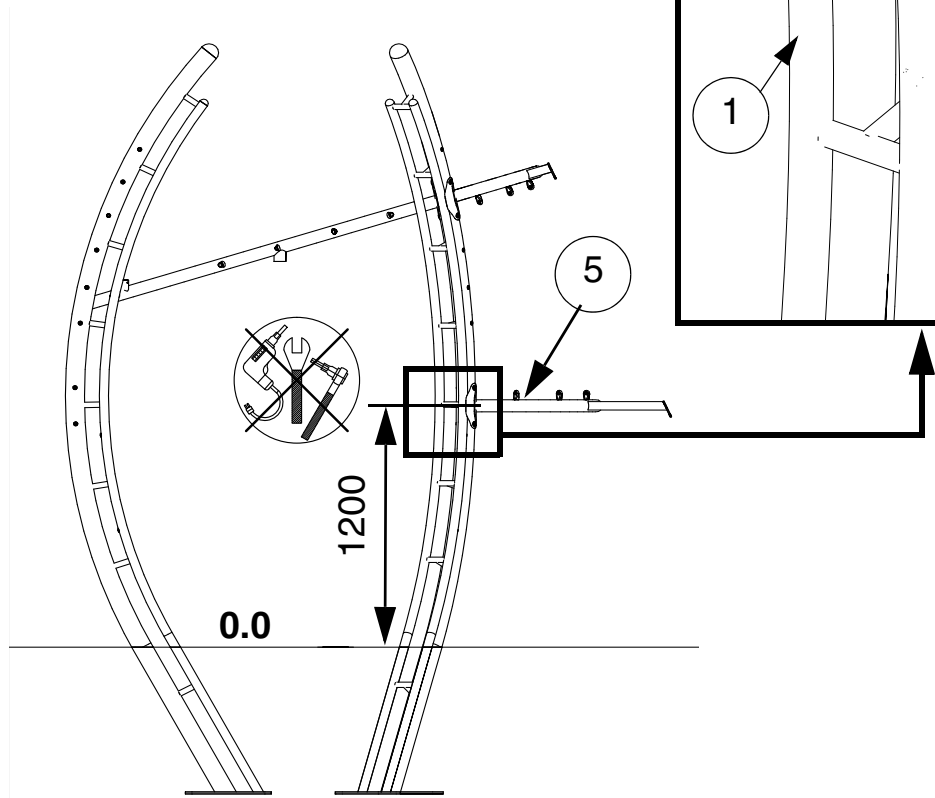
ITEM	REF.		NXCBS	NXCRS	NXCBE	NXCRE	kg
27	38008027				1		1.500
28	38000002					3	26.000
29	38002031				1		3.000
30	19024501		36	40	36	40	0.001
31	19023801		10	8	10	8	0.080
32	10301000	 M10 12X18X1	60	56	60	56	0.002
33	10121000	 T45 M10			4		-
34	10120600	 T30 M6			1		-

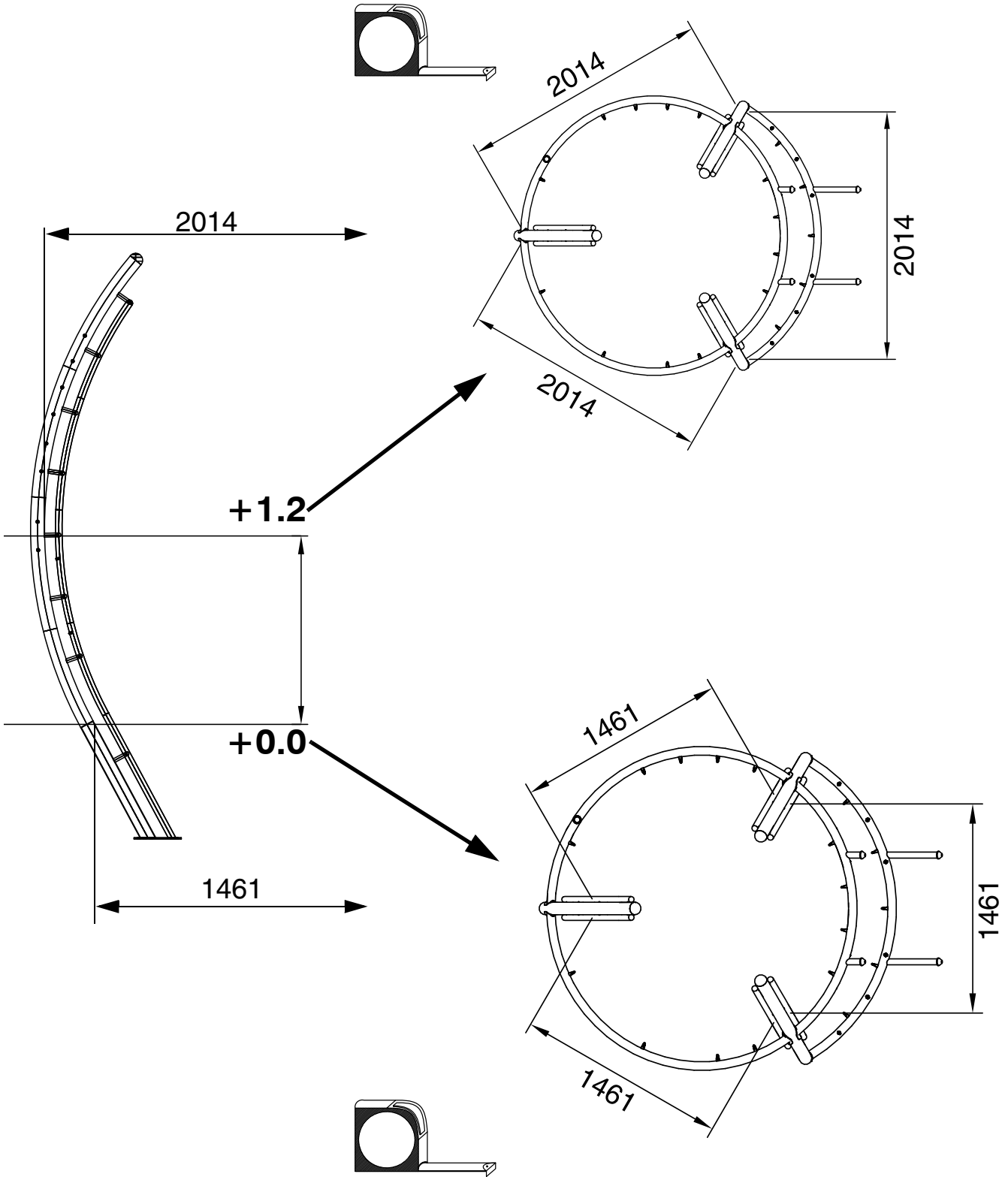


STEP 1

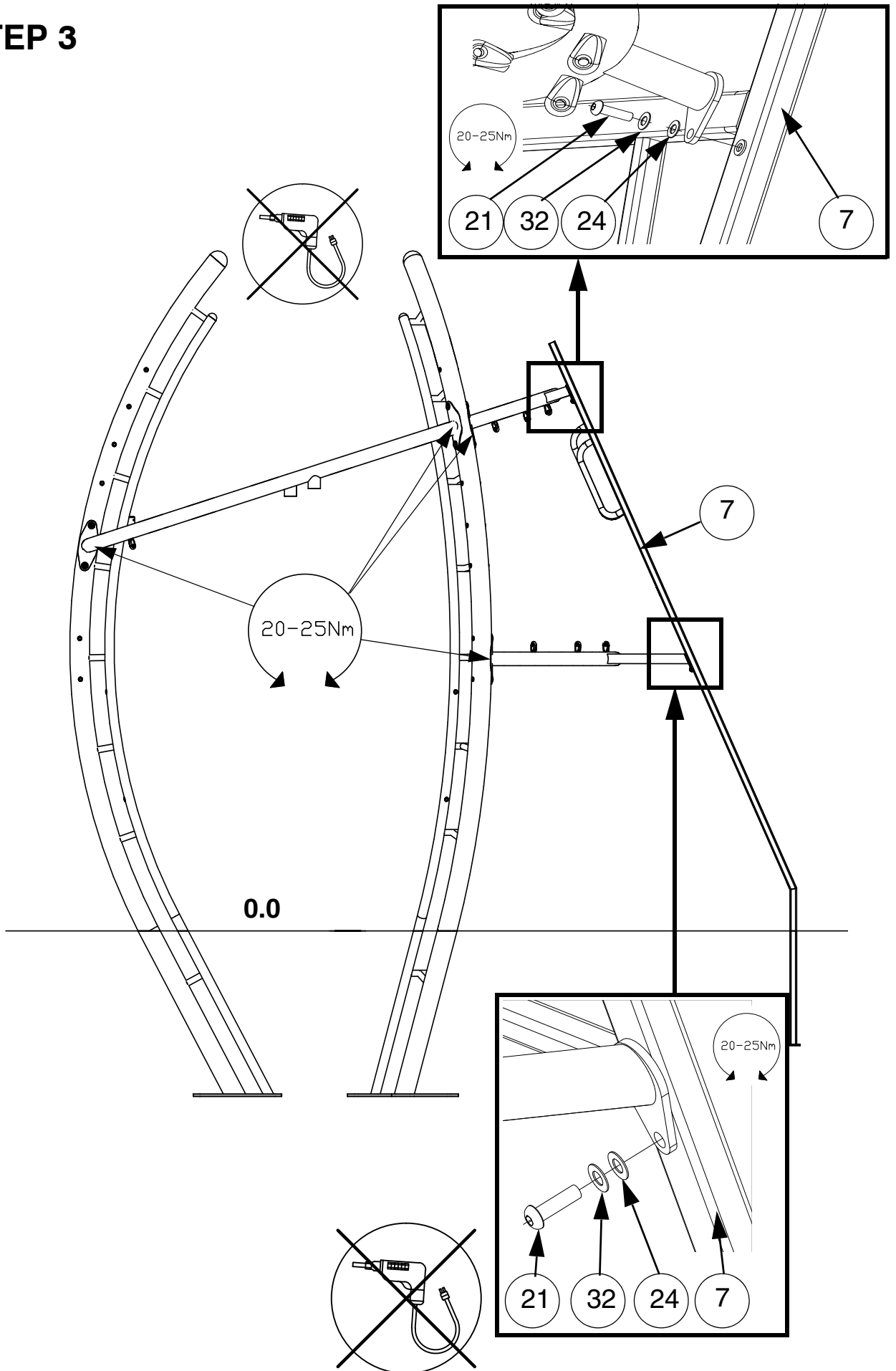


STEP 2

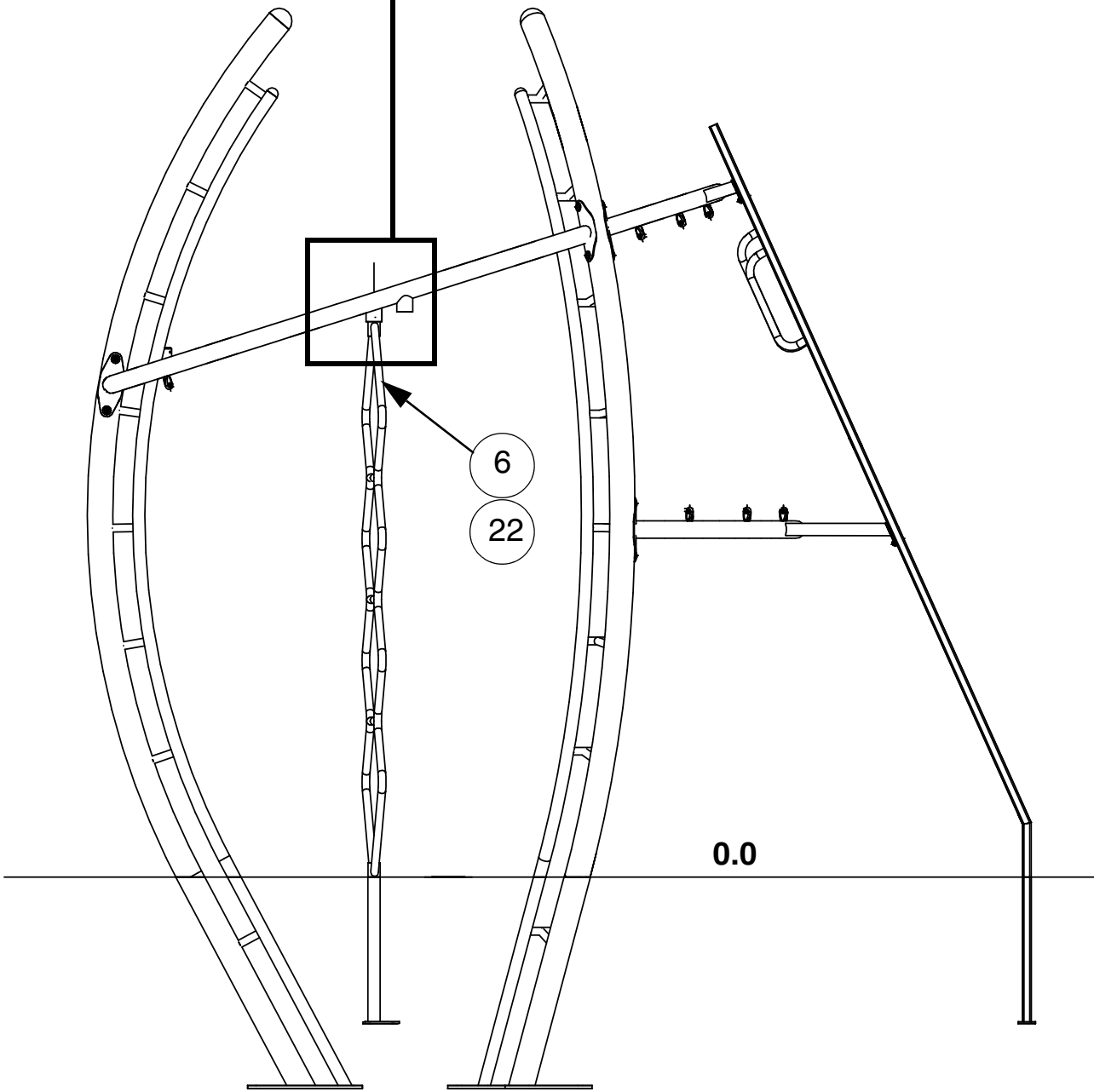
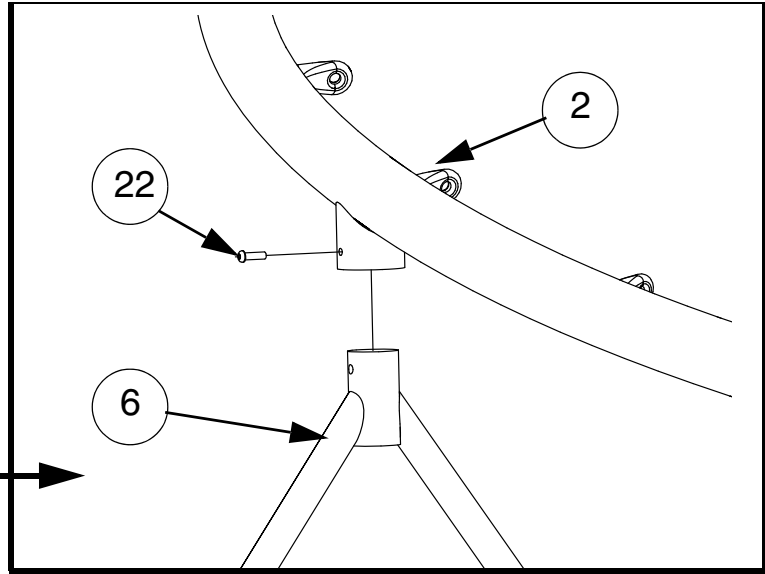




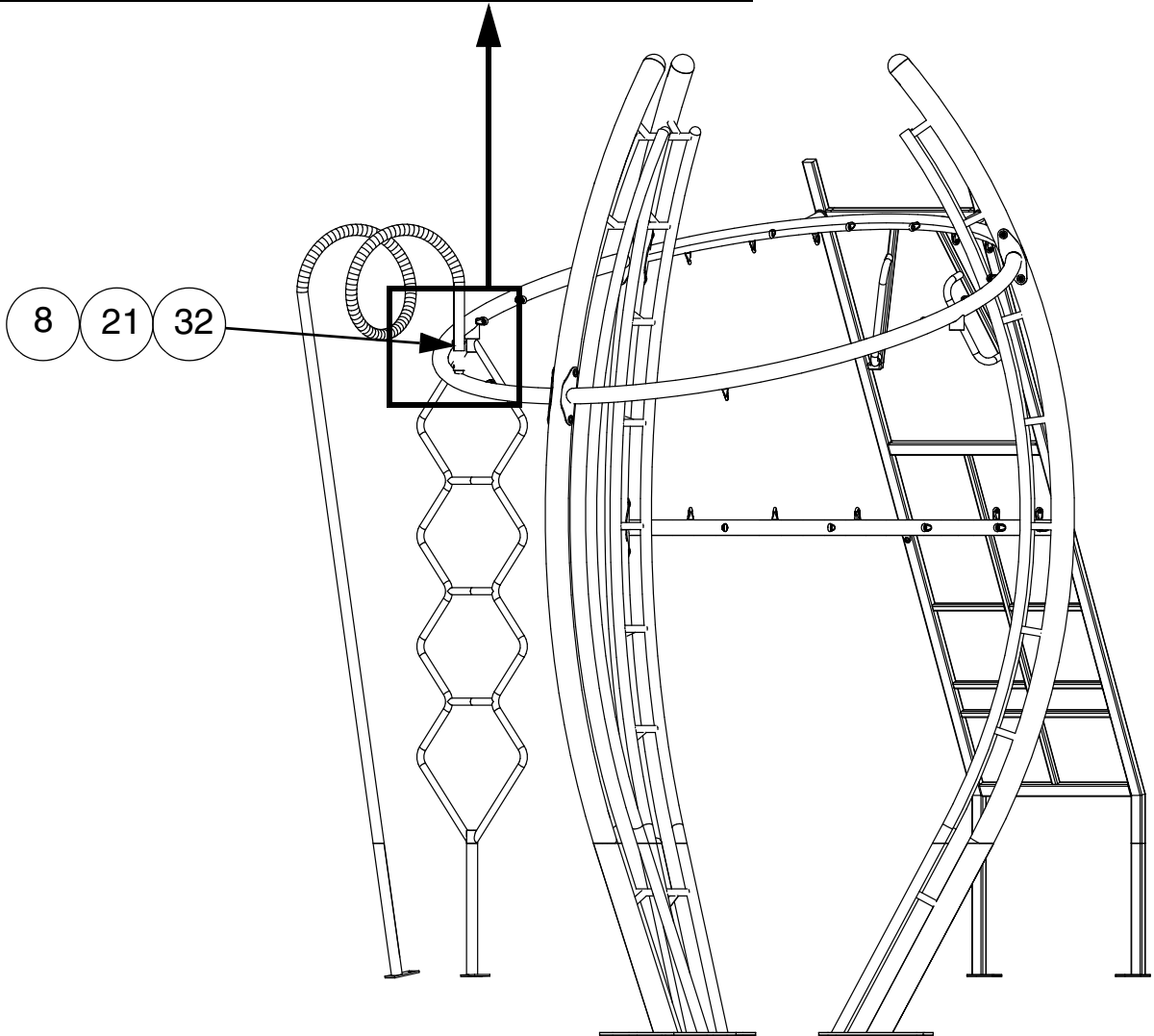
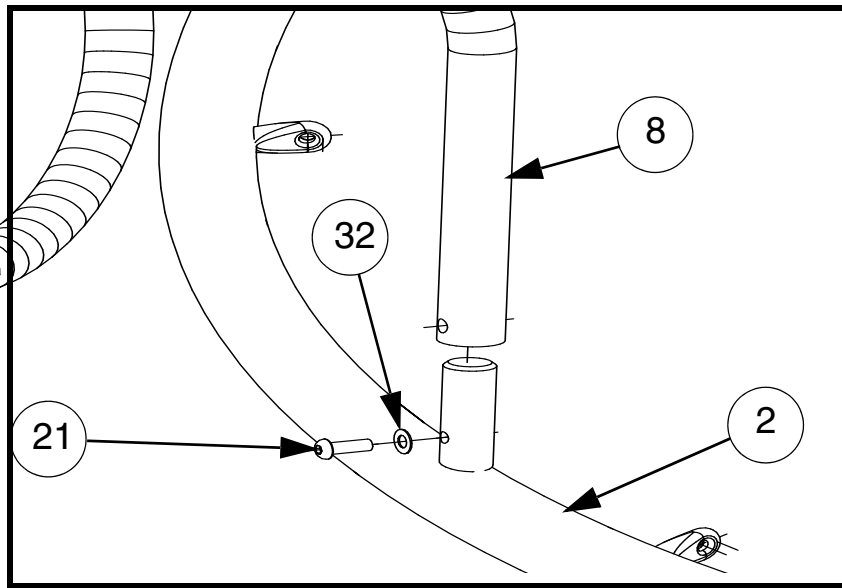
STEP 3



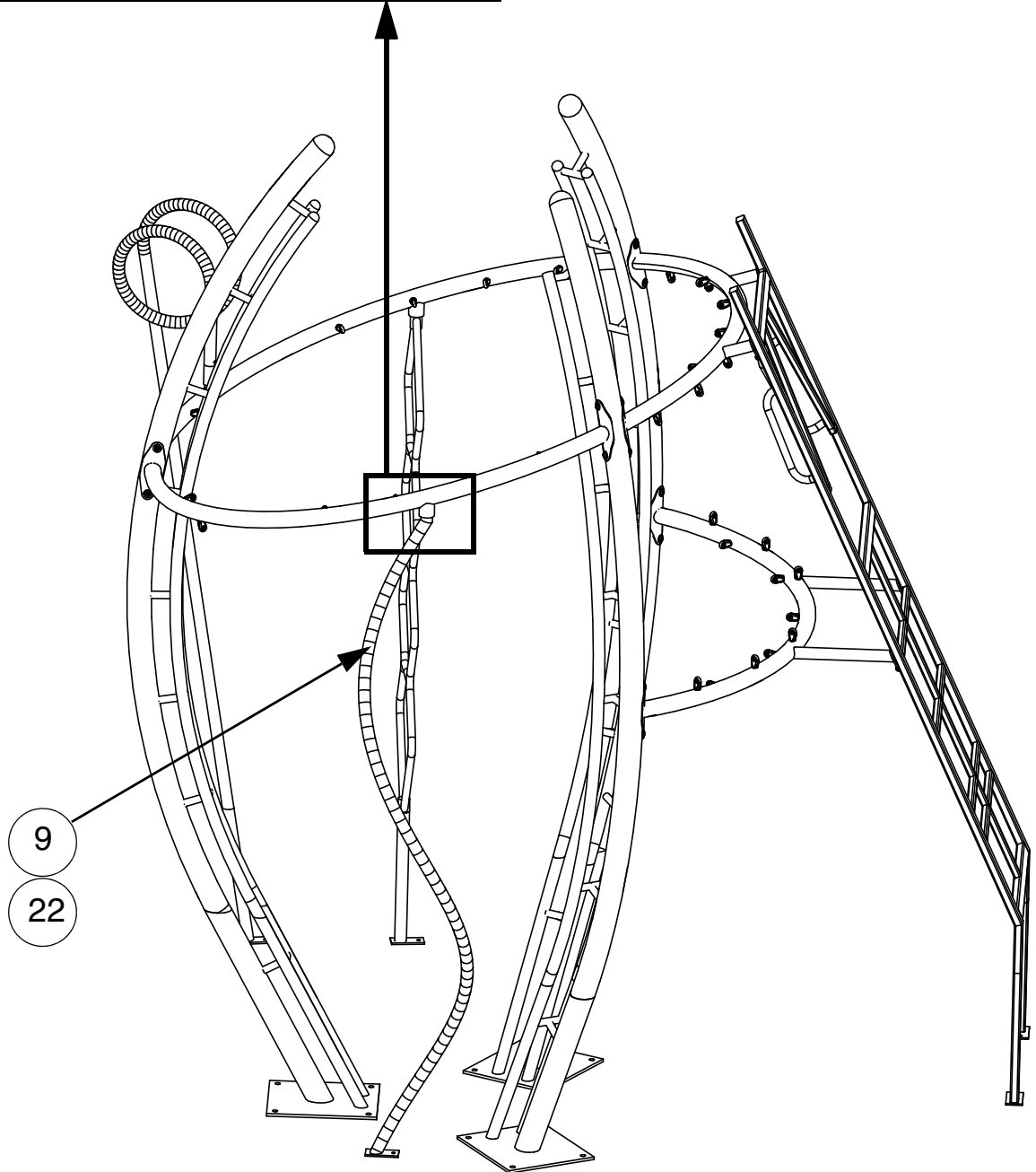
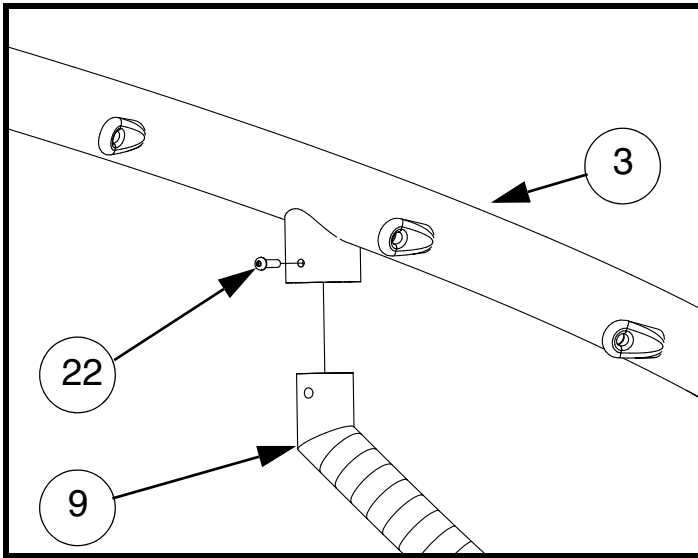
STEP 4



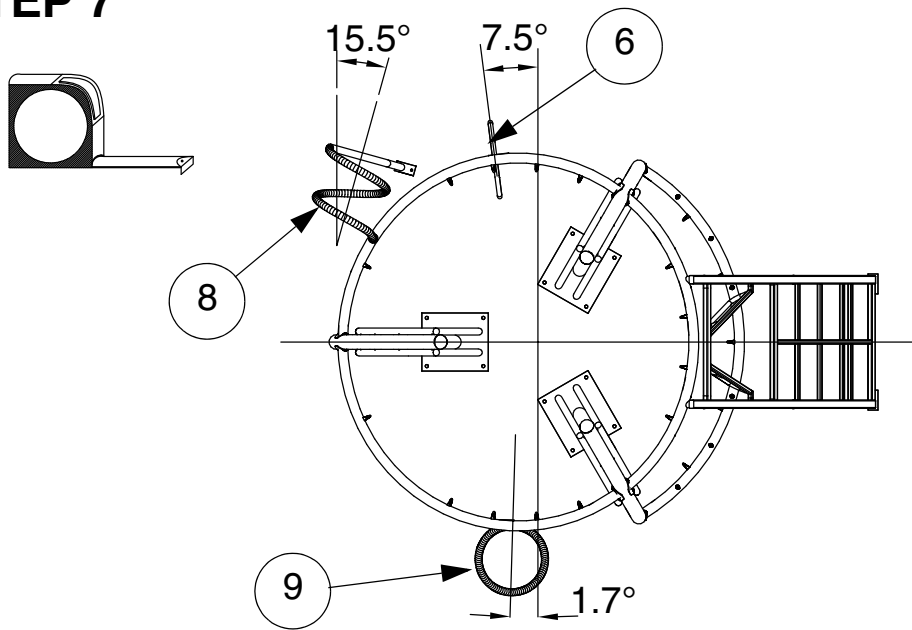
STEP 5



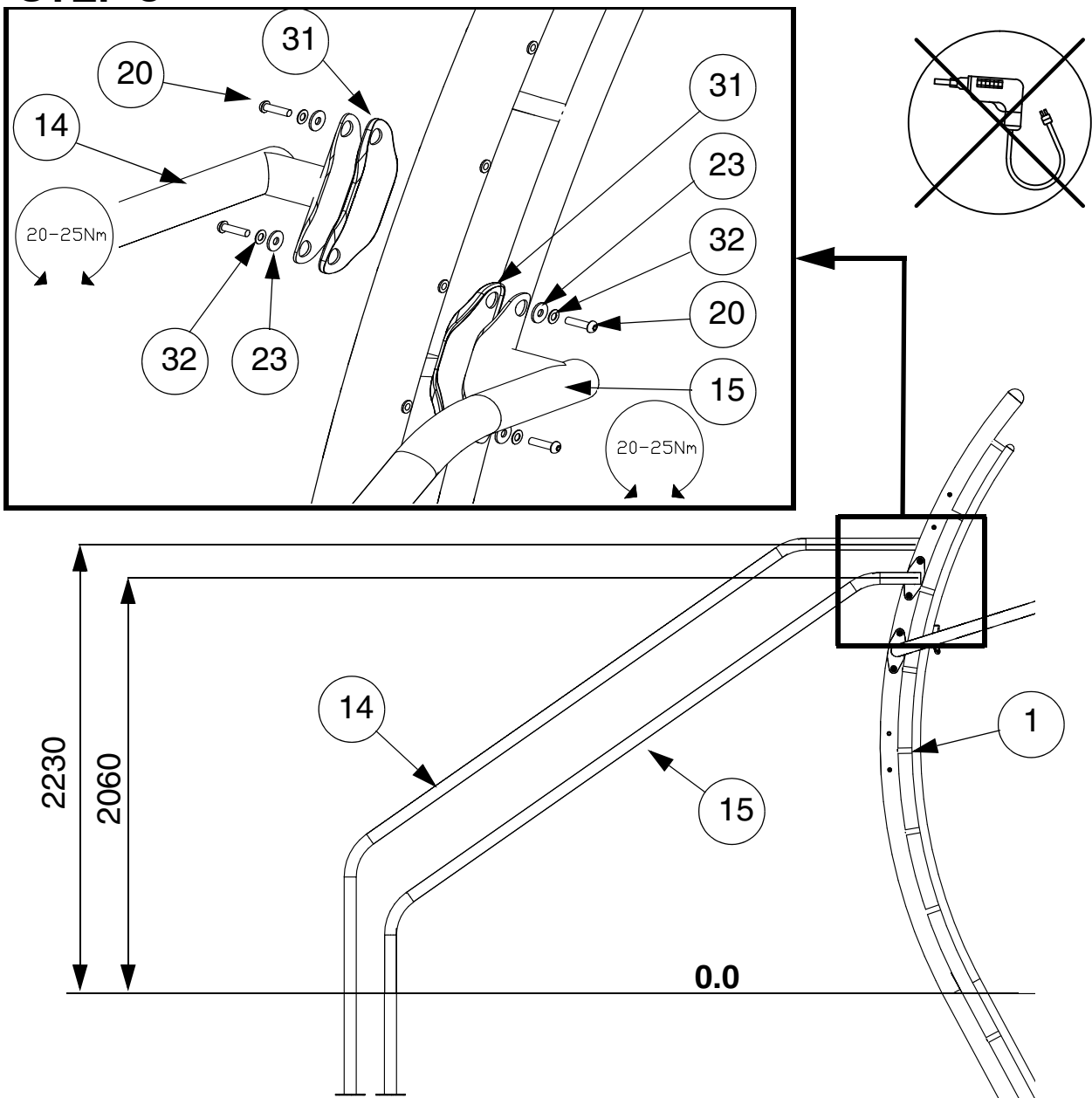
STEP 6



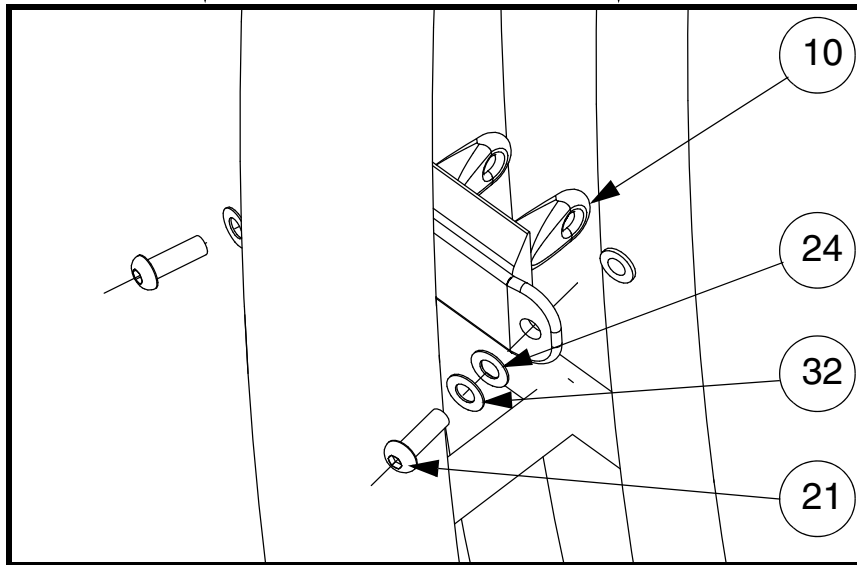
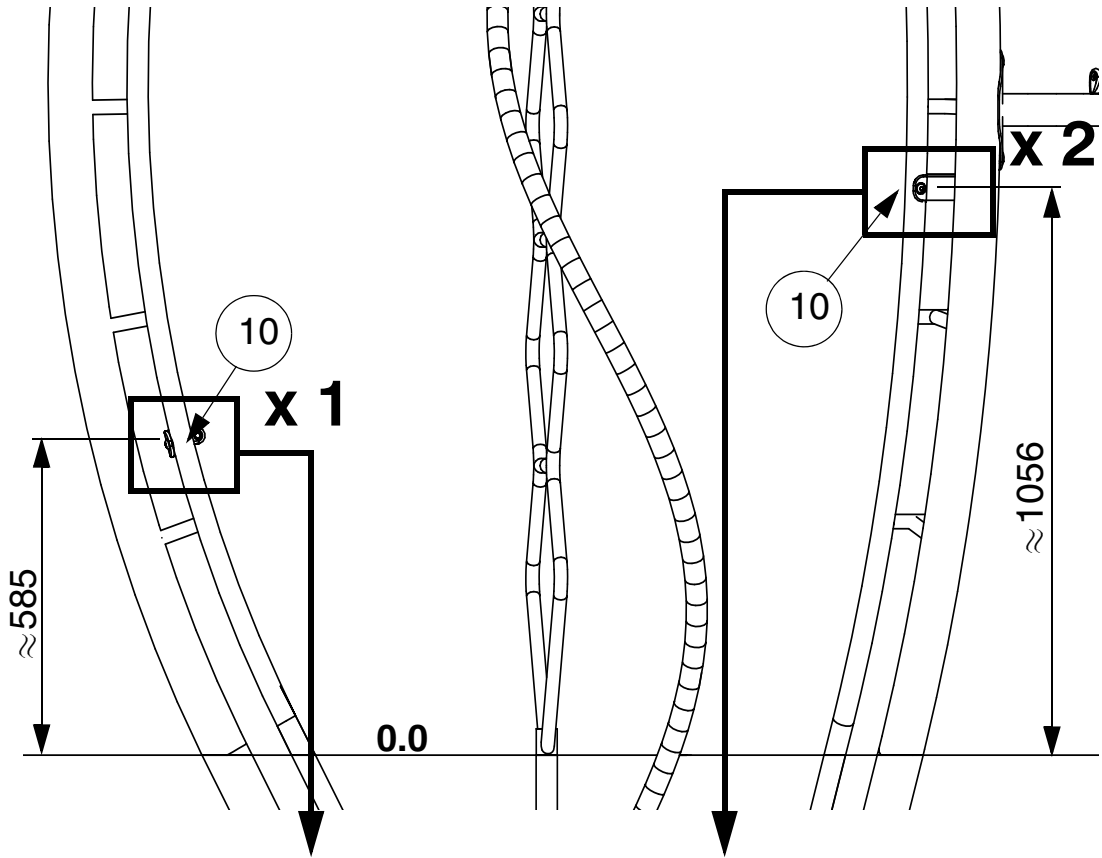
STEP 7



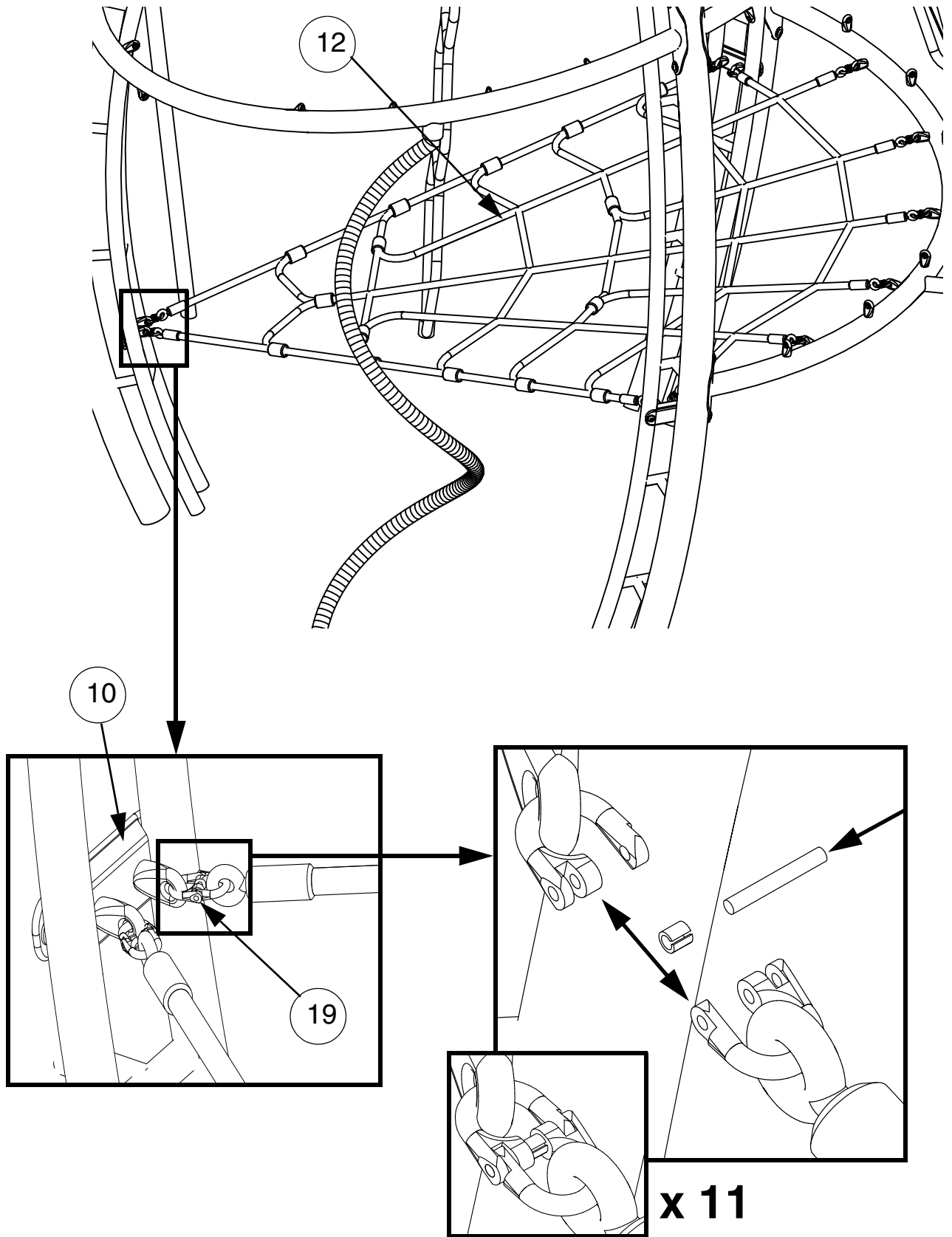
STEP 8



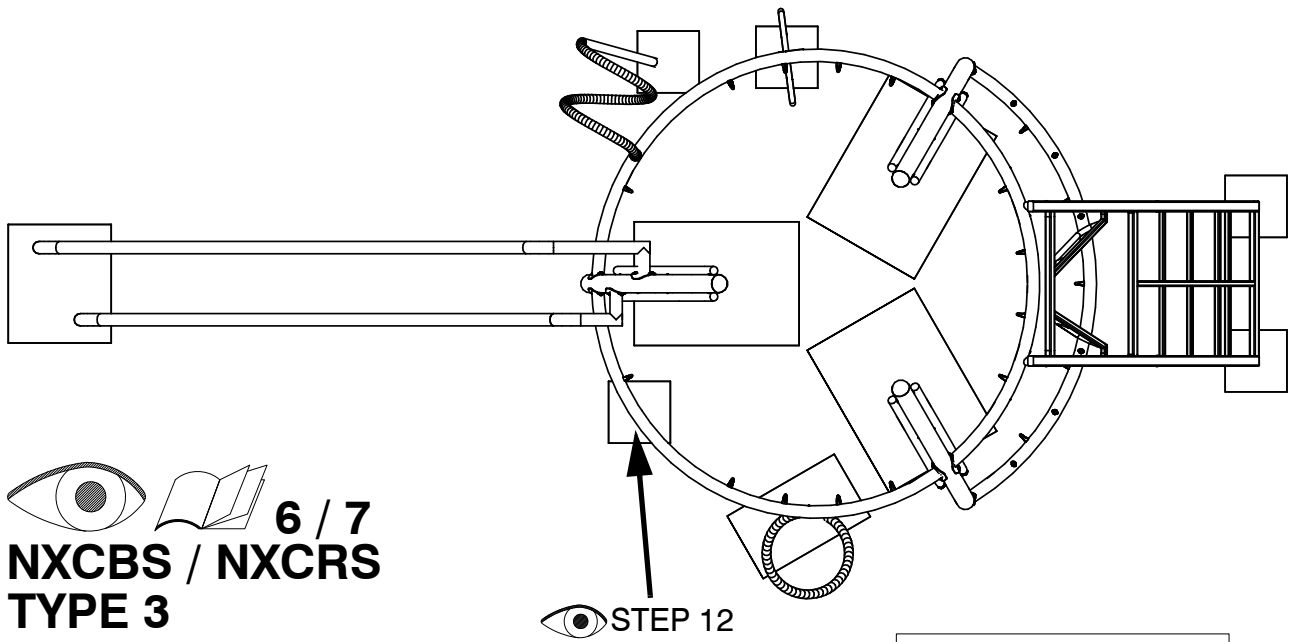
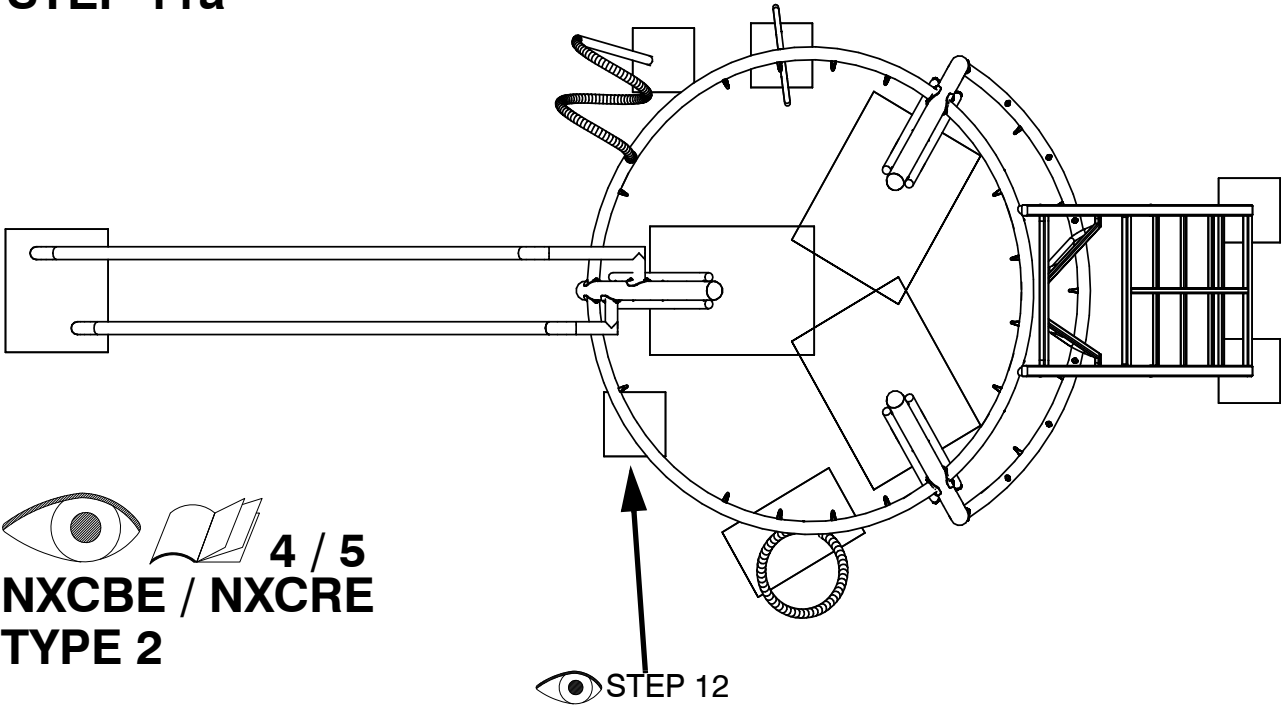
STEP 9

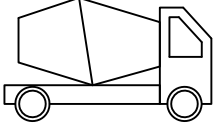




STEP 10

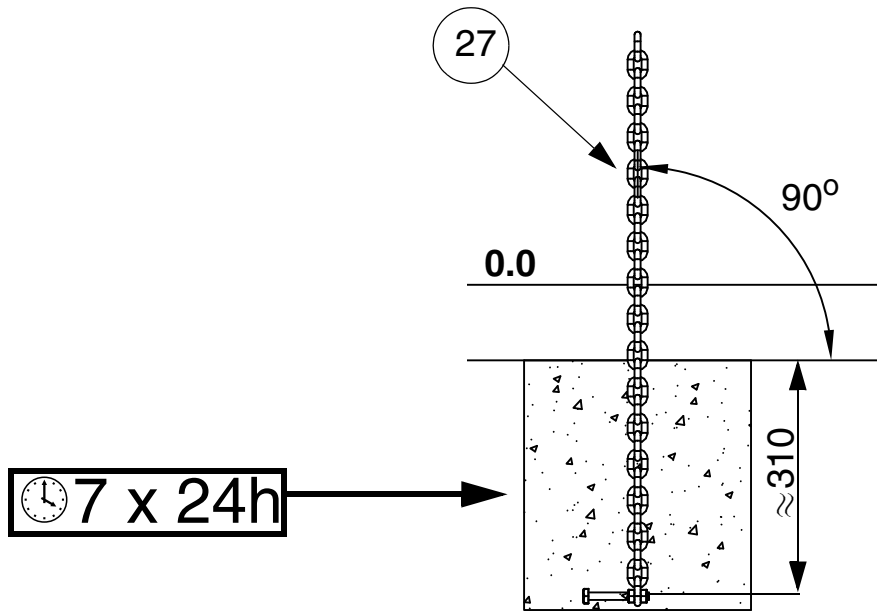


STEP 11a

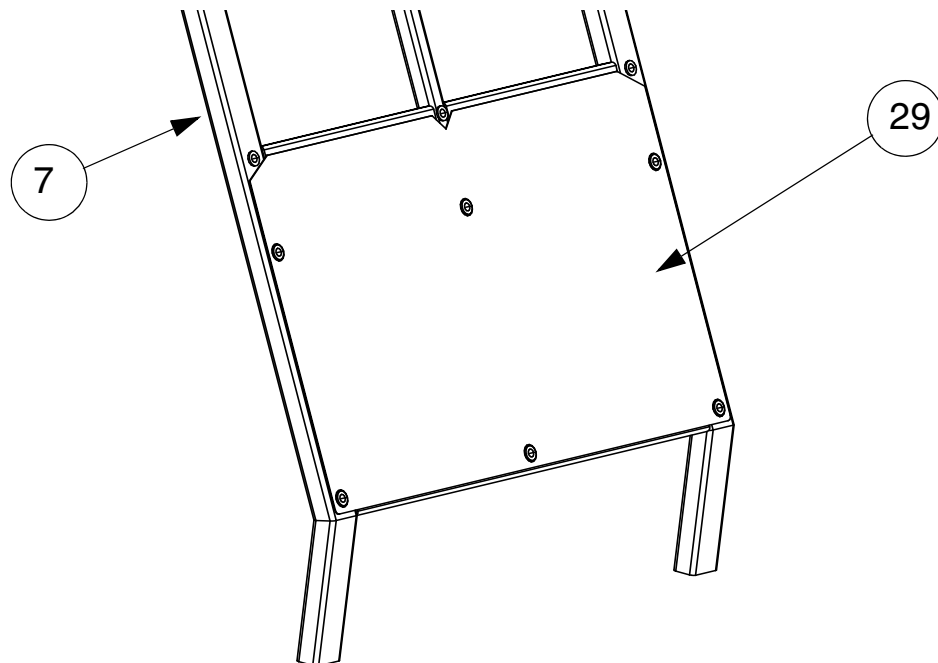


	
S2 (50mm)	
≥C20-25	
	7 x 24h
	101

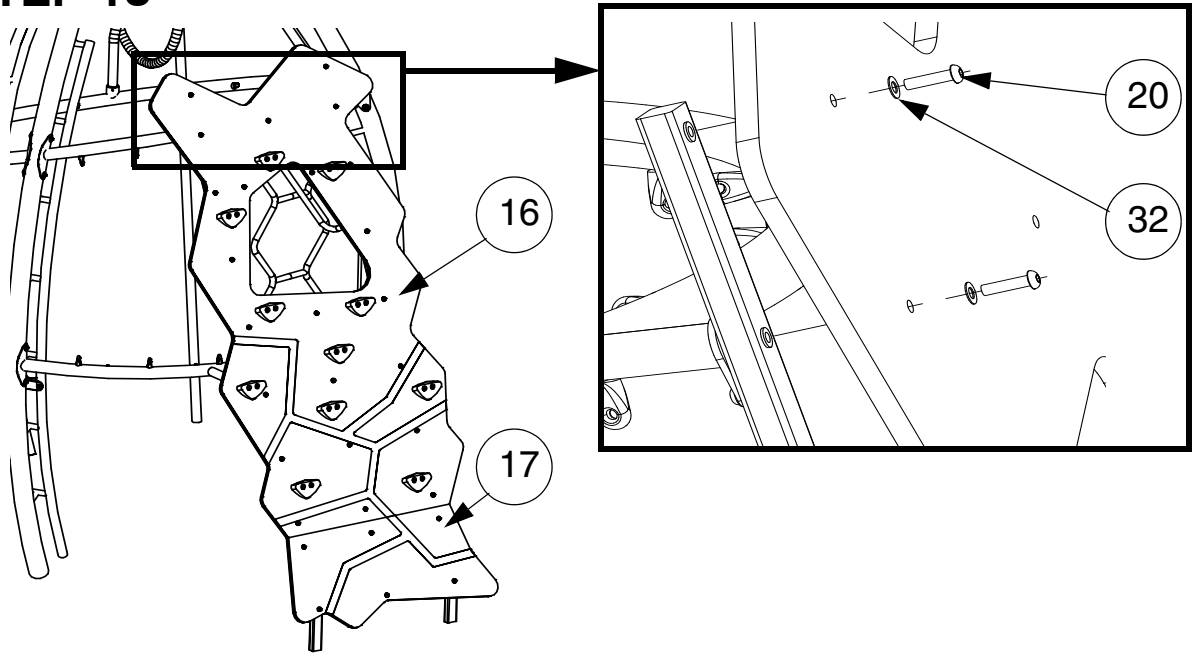
STEP 11b



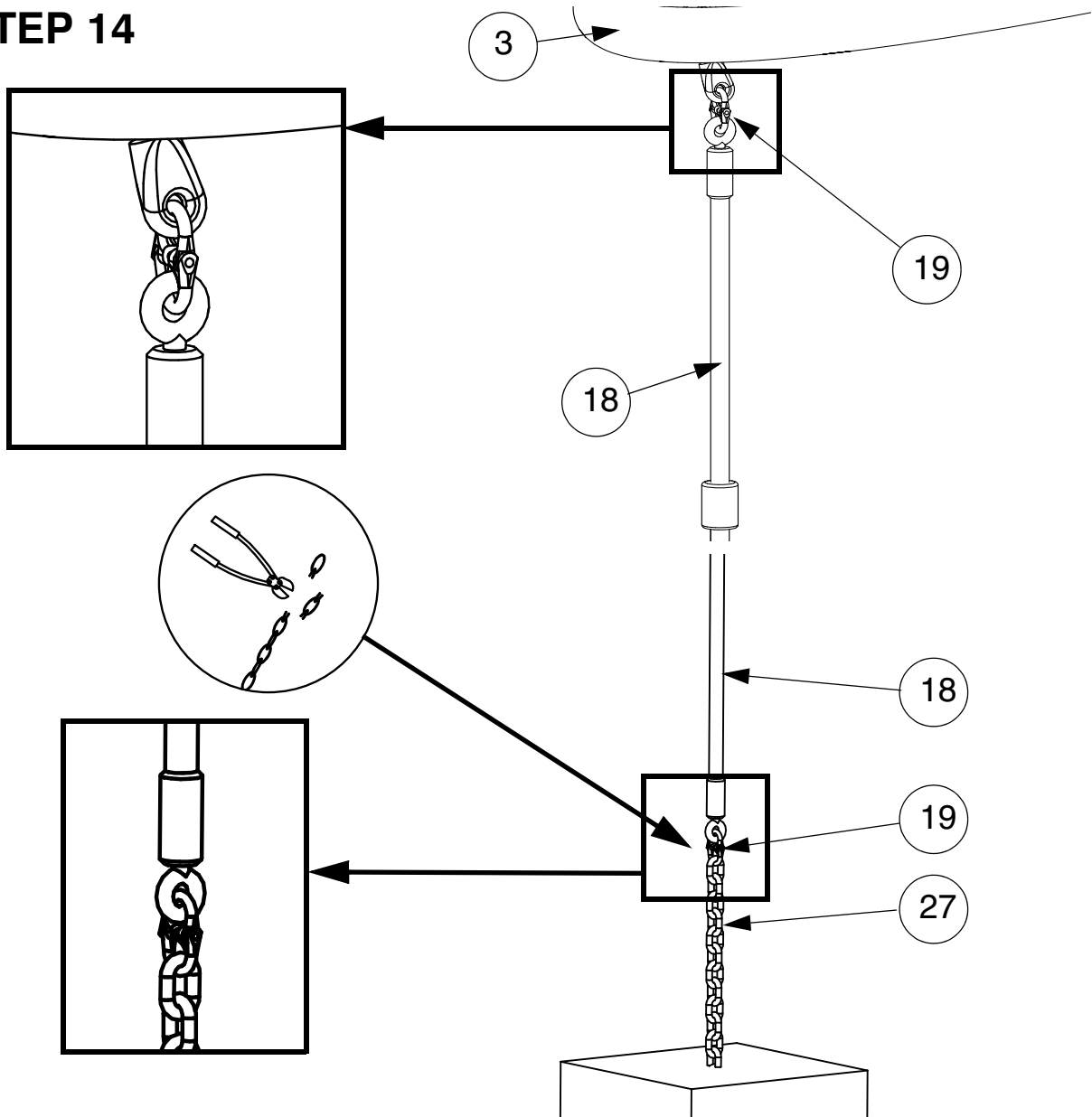
STEP 12



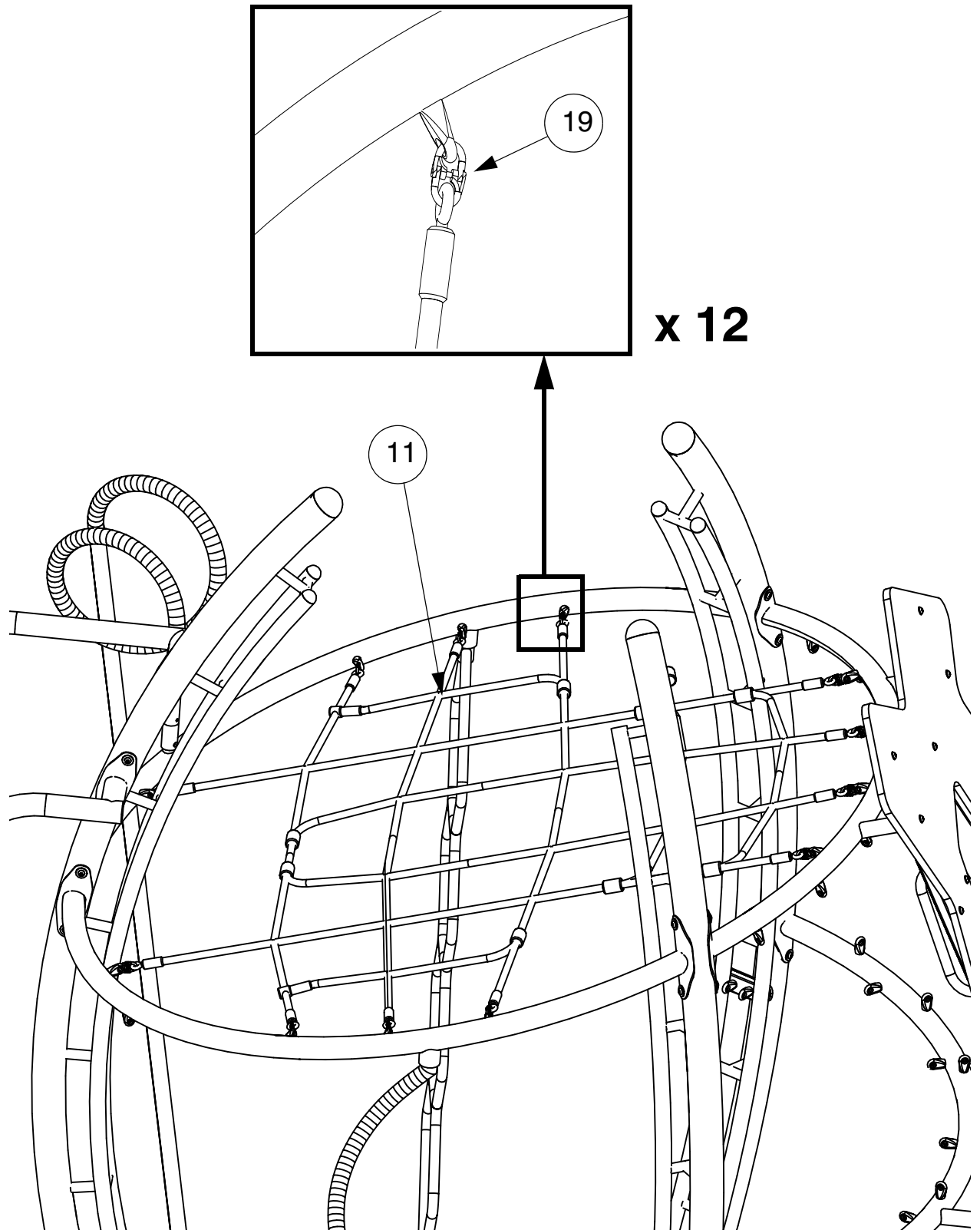
STEP 13



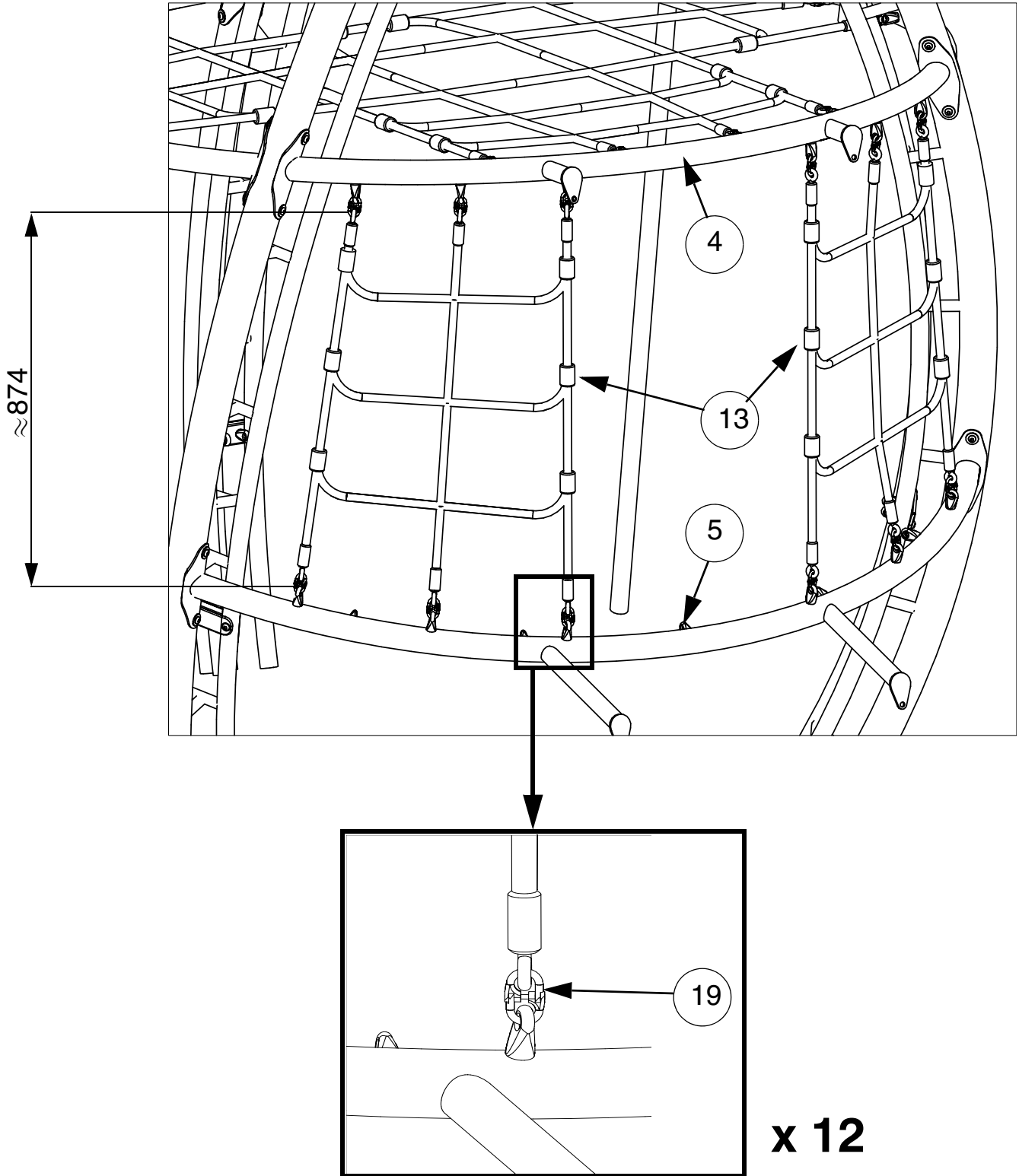
STEP 14



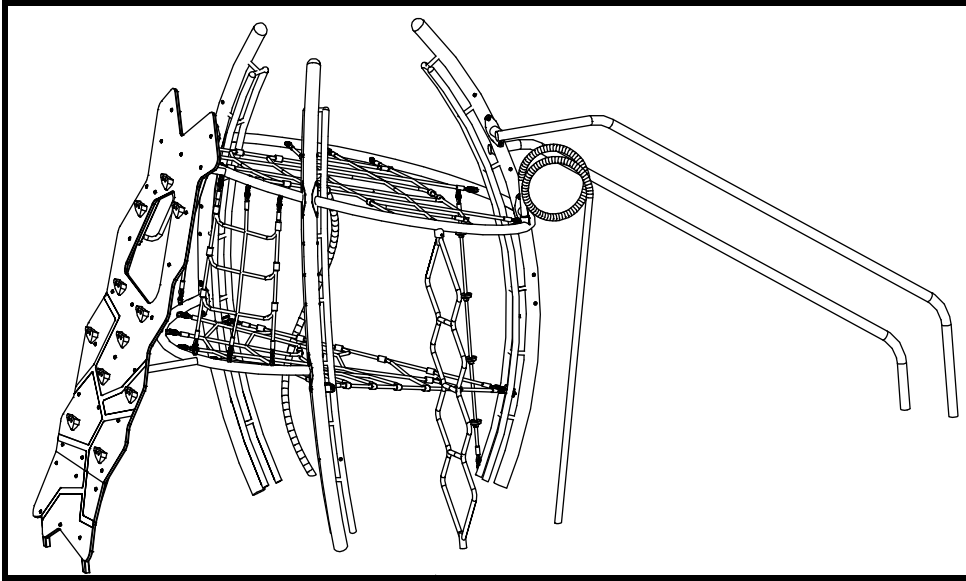
STEP 15



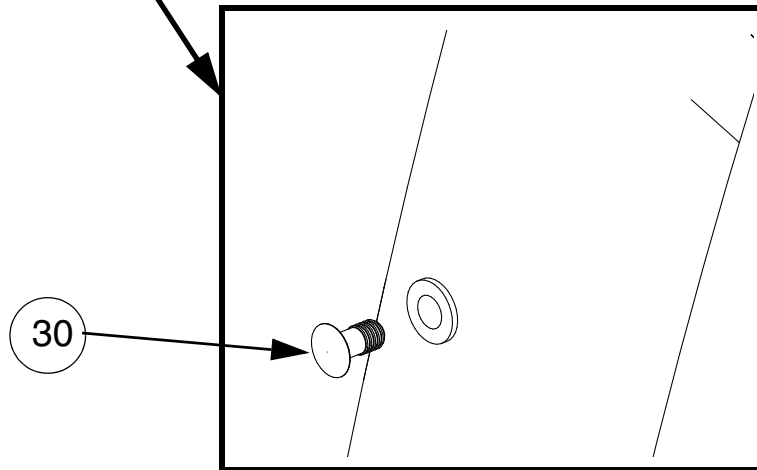
STEP 16

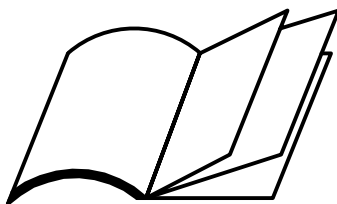


STEP 17

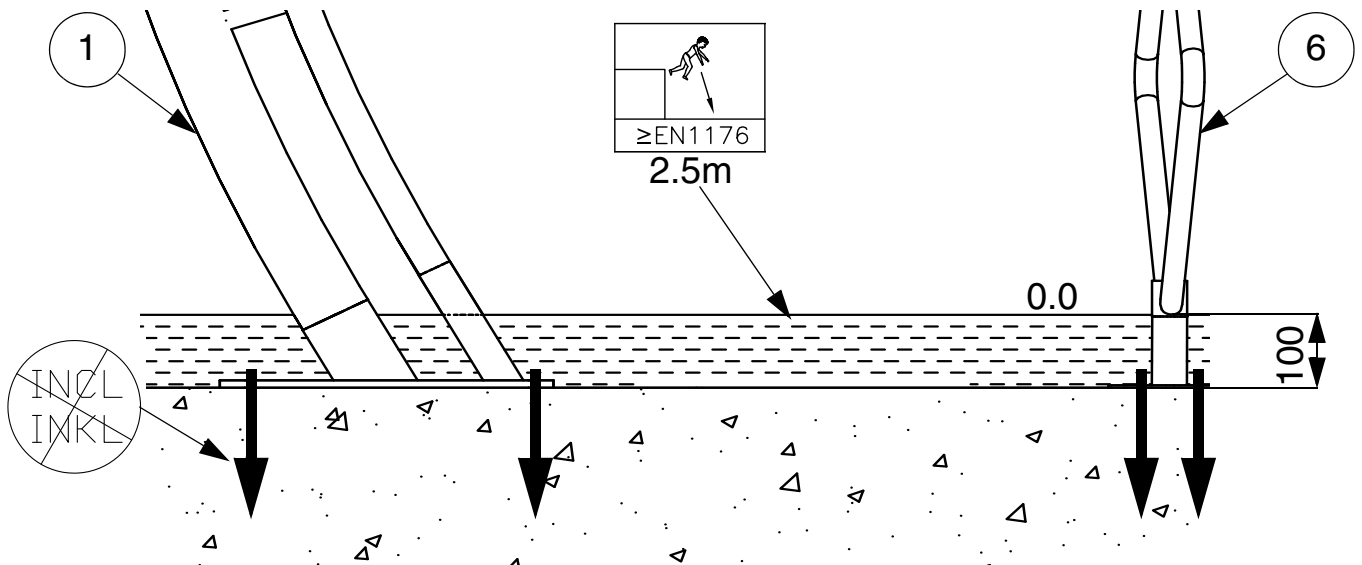


NXCB* x36
NXCR* x40

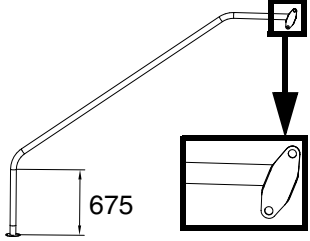
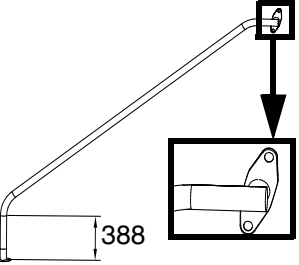




Appendix A: NXCBD / NXCRD

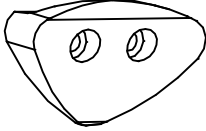
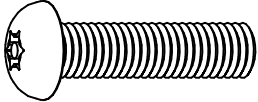
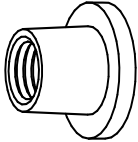
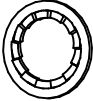
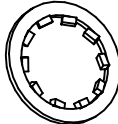


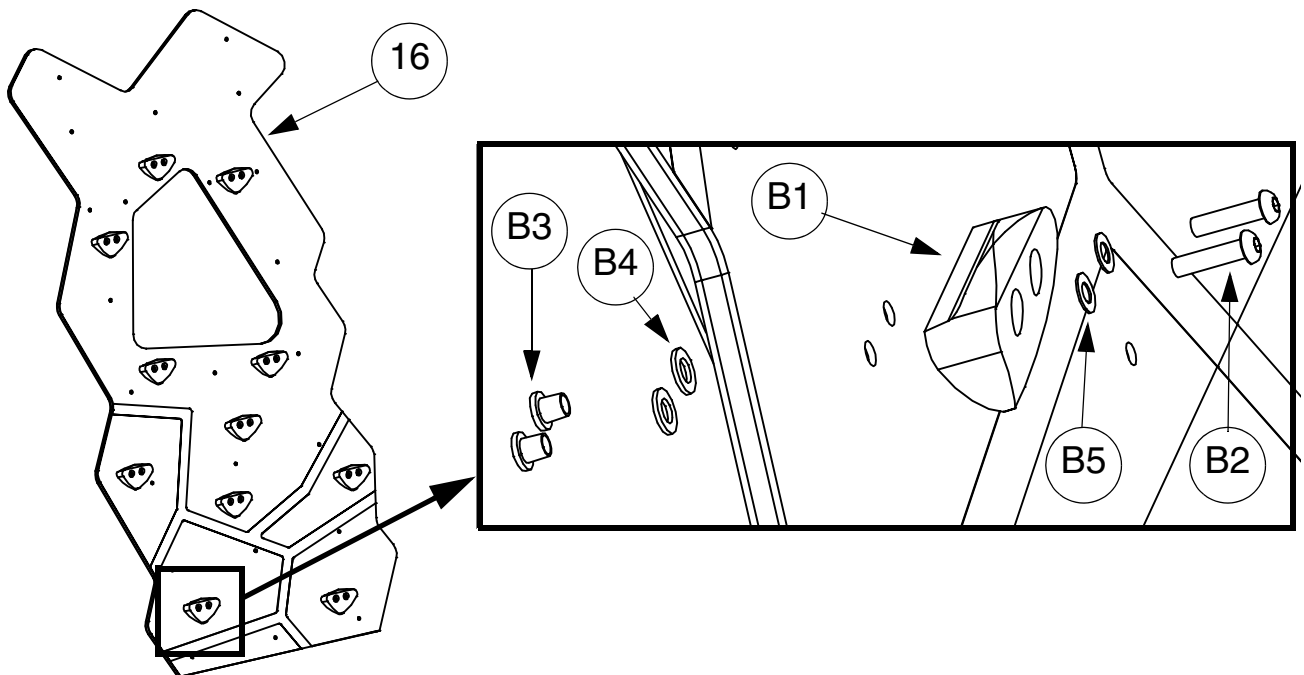
ITEM	REF.		NX CBD	NX CRD	kg
1	38000005		3		66.000
6	38002015		1		12.000
7	38002035		1		12.000
8	38002055		1		11.000
9	38002065		1		14.000

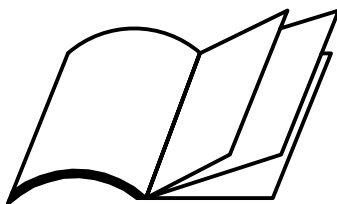
<p>14</p>	<p>38002075</p>		<p>1</p>	<p style="background-color: #cccccc;"></p>	<p>13.500</p>
<p>15</p>	<p>38002085</p>		<p>1</p>	<p style="background-color: #cccccc;"></p>	<p>12.000</p>

Appendix B:

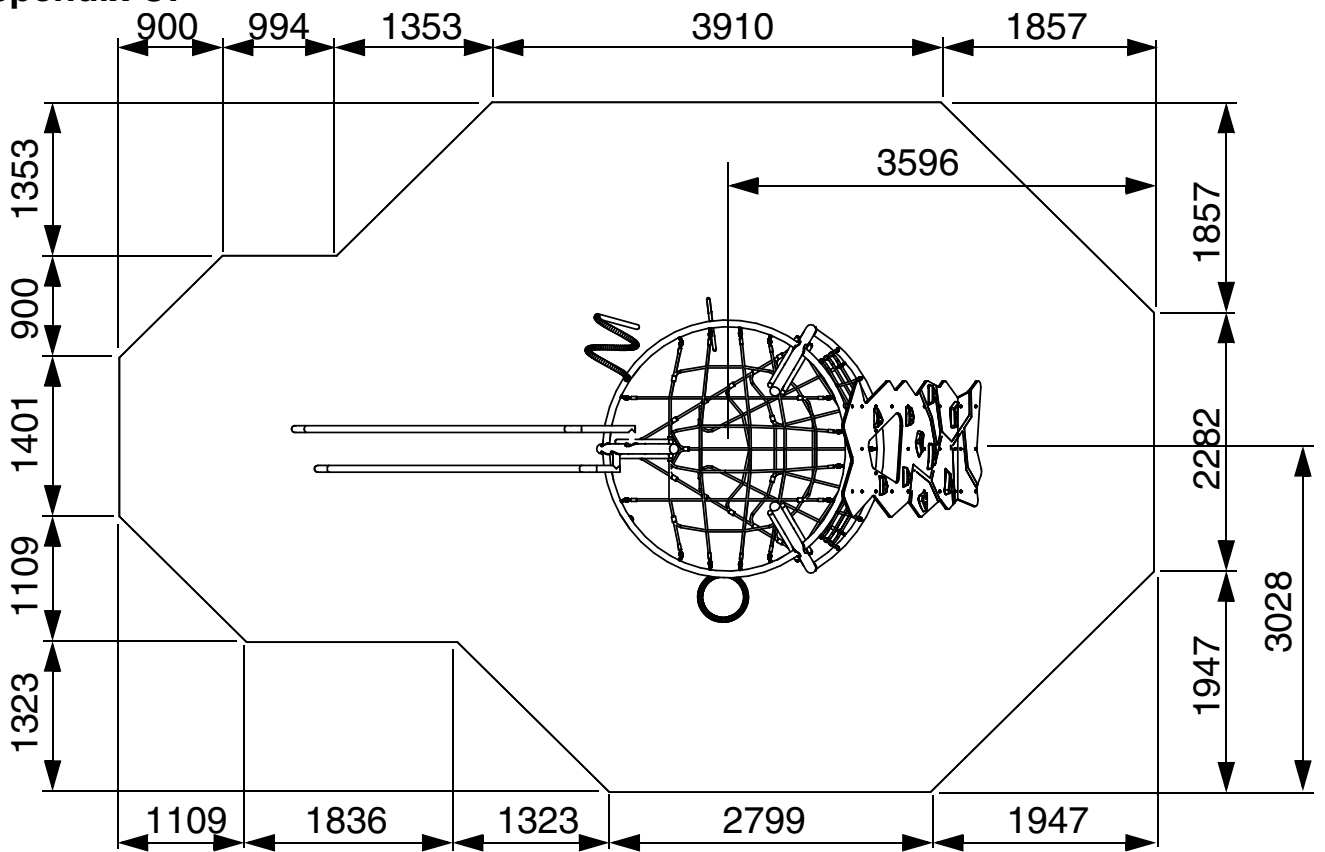
38009010

ITEM	REF		QTY.	kg
B1	91070241		11	0.42
B2	10121040	 M10 X 40	22	0.037
B3	10931000	 M10	22	0.020
B4	10301200	 M12 13X20X1	22	0.002
B5	10301000	 M10 12X18X1	22	0.002

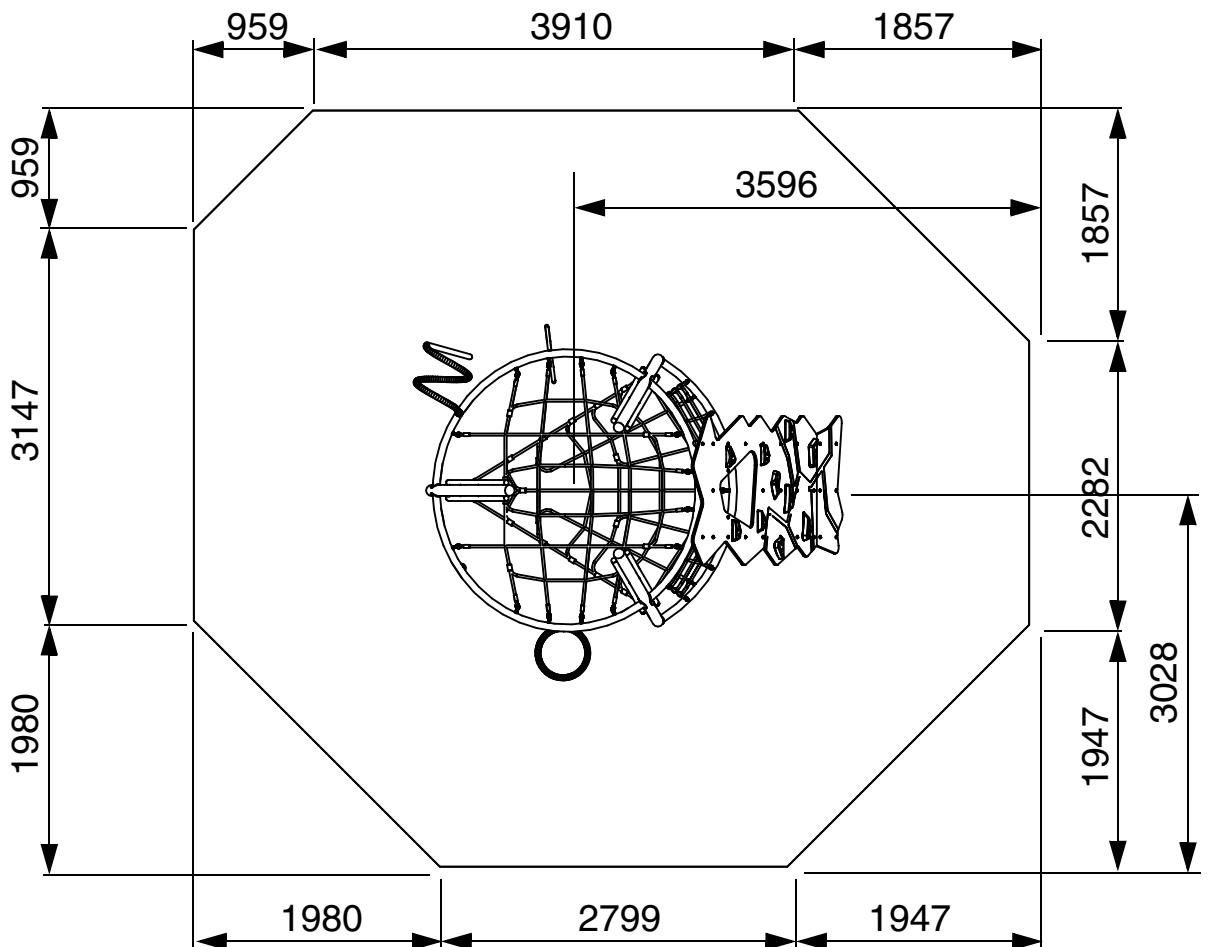




Appendix C:

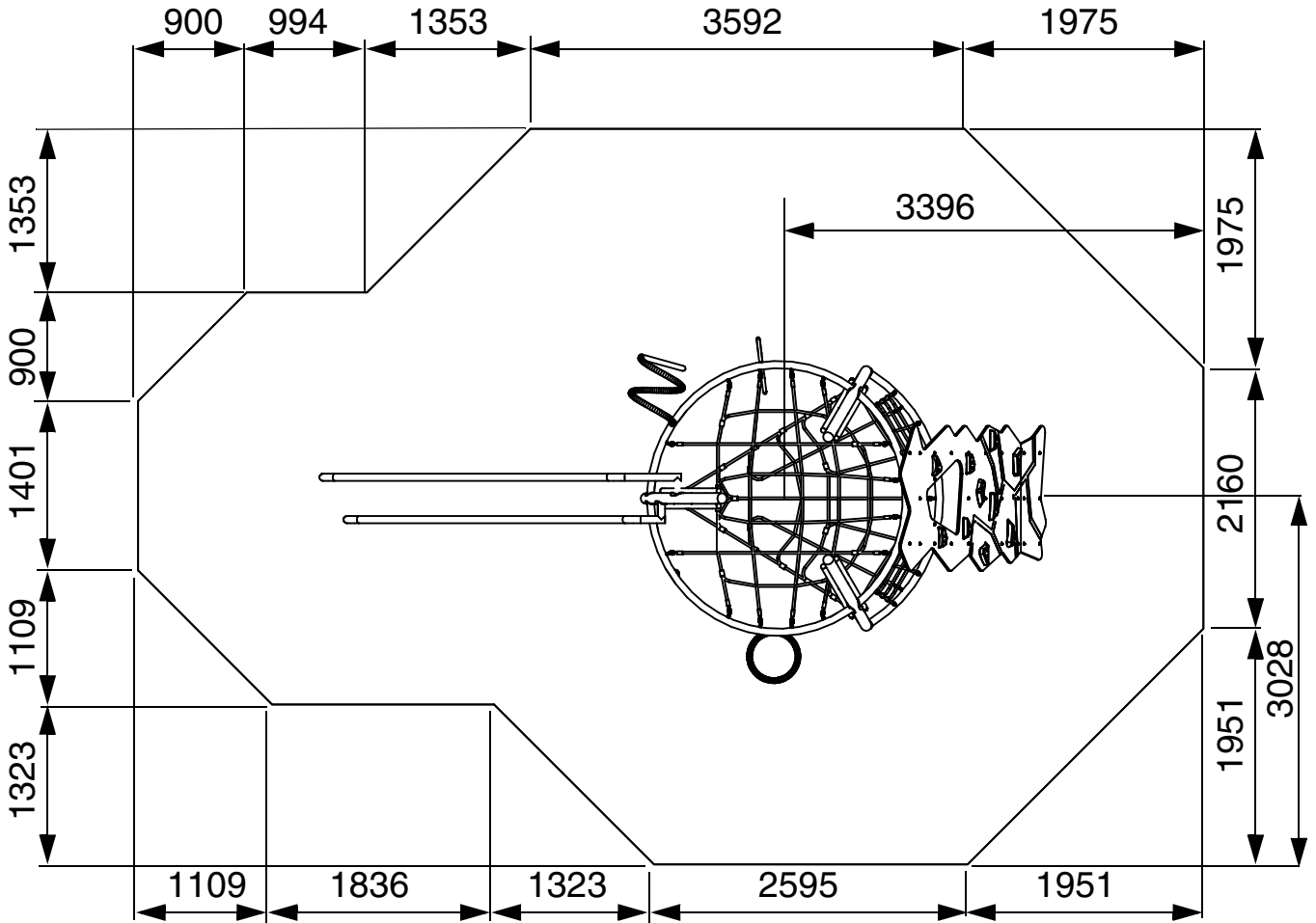


NXCBE TYPE 1/2 LOOSEFILL

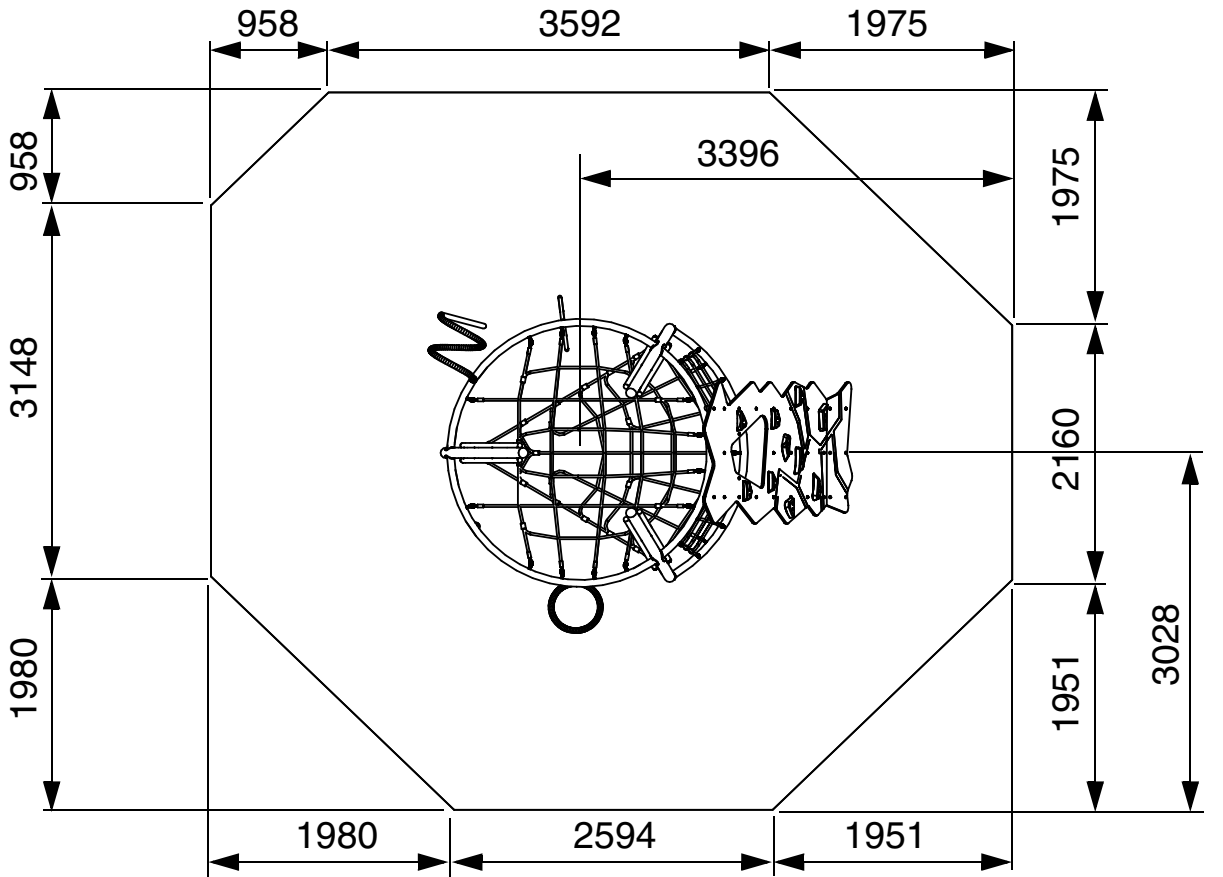


NXCRE TYPE 1/2 LOOSEFILL





NXCBS TYPE 3 WETPOUR



NXCRS TYPE 3 WETPOUR



INSTALLATION & ASSY PROCEDURES

SMP Playgrounds Ltd recommends an effective *Impact Absorbing Surface tested to EN1177 & BS7188* beneath **all** play equipment. Refer to manufacturers instructions for details of installation. The surface should have a Critical Fall Height greater than the Maximum Freefall Height of the equipment.

For the safe operation of this equipment it must be installed on horizontal ground with the required minimum space.

Constructional Space **PAGE 3** is the approximate working area required to layout and assemble the equipment.

If a loose fill surface is selected for this item it will require a very high level of maintenance to ensure a sufficient thickness is in place at all times to provide 'critical fall height' protection.

The concrete foundations indicated are for average ground. Care should be taken concerning abnormal conditions

1 SAFE WORKING PRACTICE:

A full risk assessment should be carried out prior to commencing the installation, which will be specific to the site selected. The major risks associated with purely the assembly of this product are highlighted below, which can form part of this overall assessment.

2 RISKS:

- i) Large parts which could be difficult to lift or handle.
- ii) Lifting parts overhead.
- iii) Structure unstable until concrete footings have fully cured.

3 CONTROL MEASURES:

- i) All staff working on installation to wear suitable PPE including Hard Hat, Toe Protective Shoes and Gloves.
- ii) Any staff or other persons on site, not working directly on the installation, to be kept away from the installation.
- iii) Mechanical help to be utilised for any awkward lifting that may be required.
- iv) Ensure adequate personal and equipment are on site to support the structure whilst it is being assembled.

4 PRE - INSTALLATION INSPECTION:

- i) Inspect all parts for damage (that may have occurred during transportation & storage). Finish Coatings, if found to be damaged these should be made good before erection (Refer to maintenance instructions). Any damaged or missing parts must be replaced.
- ii) Warn the public of the risk of injury, by placing signs and fencing the surrounding area, before commencing installation.

5 INSTALLATION

- i) Refer to site layout for position and orientation of product, then, mark the outline of the position of the footings with eg. spray or chalk etc. Excavate the holes. **See Pages 4-7**

NOTE: If loose fill is specified SMP will supply extensions to all the equipment to allow for the loose fill thickness of 400mm, ensuring that all the steelwork has adequate penetration into the concrete footings. With certain loose fill materials, a greater thickness than 400mm may be required. This will need to be determined by allowing 100mm for dispersal in addition to the thickness required for the freefall height of the particular Nexus layout. All component extensions for loose fill type surfaces are itemised in the following sections and should be bolted in place where applicable before the general assembly proceeds.

- ii) Position a post (item 1) into the excavation in position foundation 'A'. Referring to the site layout, shim as required and check its position and orientation. Ensure the post is plumb and square. **See Pages 4-7.**
- iii) Position a second post (item 1) into foundation 'B' and suspend between the two posts the Top Ring Section LHS (item 2) using 2 off Gaskets (item 31), 4 off M10 x 40 Resistorx bolts (item 20), Saddle washers (item 23) and Shockproof washers (item 32). Fixing point on 1st post is 2nd set of holes from ground level and 4th set of holes on 2nd post. Shim as required and check its position and orientation. Ensure the post is plumb and square. **(STEP 1) Do not tighten fasteners.**
- iv) Repeat the above procedure to position the Top Ring Section RHS (item 3) to the first post and the third post positioned in the other foundation 'B'.
- v) Position the Top Ring Section Centre (item 4) between the 2nd & 3rd posts to complete the circle and retain using 2 off Gaskets (item 31), 4 off M10 x 40 Resistorx bolts (item 20), Saddle washers (item 23) and Shockproof washers (item 32). **Do not tighten fasteners. (STEP 1)**
- vi) Secure Bottom Ring (item 5) into position between posts at lower position using 2 off Gaskets (item 31), 4 off M10 x 40 Resistorx bolts (item 20), Saddle washers (item 23) and Shockproof washers (item 32). **(STEP 2).**

NOTE: It is very important to check that the legs are in correct relative position to ensure the correct assembly of the bottom net at a later time. Measure between the inside of the legs main tube diameter at a height of 1200mm above finished surface level, this dimension should be 2014mm, and at 0.0 this dimension should be 1461mm, see Page 14

- vii) Position the Climbing Wall Frame (item 7) in foundation 'D' and secure to the Top Ring Section Centre (item 4) and the Bottom Ring (item 5) using 4 off M10 x 30 Resistorx bolts (item 21), Shockproof washers (item 32) and M10 washers (item 24) to a maximum torque setting of 20-25Nm. **(STEP3)**
- viii) Ensure all ring fixings are now tightened to a to a maximum torque setting of 20-25Nm
- ix) Position the Vertical Climber (item 6) in foundation 'G' and socket on the underside of the Top Ring Section LHS (item 2). Shim at base as required to ensure Vertical Climber is set in the vertical plane and retain in position using 1 off M6 x 20 Resistorx bolt (item 22) which is screwed through the retaining socket into the clearance hole at the top of Vertical Climber. **(STEP 4).**

NOTE: The Vertical Climber is set at a rotated angle of approx. 7.5° from the datum see (STEP 7 Page 19) This is to ensure that EN1176 free space requirement of 500mm is maintained. This dimension should be double checked on site.

- x) Position the Spiral Pole (item 8) in foundation 'D' and over shaft on the top side of the Top Ring Section LHS (item 2). Shim at base as required to ensure the section of the Spiral Pole fitting over shaft is set in the vertical plane and retain in position using 1 off M10 x 30 Resistorx bolt (item 21) which is screwed into the tapped hole in the shaft by passing through the clearance hole at the end of the Spirol Pole vertical section, and Shockproof washer (item 32). **(STEP 5).**

NOTE: The Spiral Pole is set at a rotated angle of approx. 15.5° from the datum see (STEP 7 Page 19). This is to ensure that EN1176 free space requirement of 500mm is maintained. This dimension should be double checked on site.

- xi) Position the Elongated Spiral Pole (item 9) in foundation 'C' and socket on the underside of the Top Ring Section RHS (item 3). Shim at base as required to ensure section of the Elongated Spiral Pole fitting into socket is set in the vertical plane and retain in position using 1 off M6 x 20 Resistorx bolt (item 22) which is screwed through the retaining socket into the clearance hole at the top of the Elongated Spiral Pole vertical section. **(STEP 6)**

NOTE: The Elongated Spiral Pole is set at a rotated angle of approx. 1.7° from the datum see (STEP 7 Page 19). This is to ensure that EN1176 free space requirement of 500mm is maintained. This dimension should be double checked on site.

- xii) Position Bannister Top Rail (item 14) in foundation 'F' and attach to the first post (item 1) in position using 1 off Gasket (item 31), 2 off M10 x 40 Resistorx bolts (item 20), Saddle washers (item 23) and Shockproof washers (item 32). Shim rail in foundation as required to maintain a vertical entry into the ground and tighten to a maximum torque setting of 20-25Nm **(STEP 8)**
- xiii) Repeat the above process for the Bannister Bottom rail (item 15) but attach to the first post at the lower level.

NOTE: Check that the completed structure has been positioned in the correct place, that it is plumb and square.

- xiv) Secure the Rope Fixing Bracket (item 10) into position on the first post (item 1) at the lowest set of fixing holes located on the outside smaller tubes of the post using 2 off M10 x 30 Resistorx bolts (item 21), Shockproof washers (item 32) and M10 washer (item 24). Fully tighten bolts to a maximum torque setting of 20-25Nm. **(STEP 9)**.
- xv) Repeat the above process for the Rope Fixing Brackets that fix to the other two posts, but these are fixed to highest set of fixing holes located on the outside smaller tubes of the post.

NOTE: It is very important that the relevant leg positions are correct before the concrete is poured to ensure correct assembly of bottom net. Re-check dimension on legs in conjunction with Page 14. Also a trial fixing of the bottom net in position at this stage will confirm correct leg positions (STEP 10). Remove bottom net before concreting. Final quantity of concrete is dependant on the exact surface selected.

Concrete mix is recommended at:
 1 part cement;
 2 parts sand;
 4 parts aggregate;
 by volume with 20mm aggregate
 (20 N/mm² min compressive strength)

- xvi) Fill the holes with concrete to the required level, taking into account any Impact Absorbing Surfacing requirements. Ensure that a full volume of concrete is used. The top of the concrete should gradually (1:100) slope down & outwards locally from the equipment upstand to the required level to form a watershed. **See Pages 4-7.(STEP 11a)**
- xvii) Suspend the Ground Fixing Chain Assembly (item 27) from the eye fixing on the underside of the Top Ring Section RHS (item 3) vertically over the foundation hole. Ensure that at least 13 chain links are encased in the concrete to provide a secure fixing, with the Hex. Bolt at the bottom of the hole.**(STEP 11b)**
- xviii) Keep installation off limits to the public until the concrete has completely cured. (Recommended initial curing time is 48 hours).
- xix) Lay Backing Sheet (item 29) onto lower part of Climbing Wall Frame (item 7), ensuring that it lays over fixing inserts and flat on frame face. **(STEP 12)**
- xx) Attach the Top & Bottom Climbing Wall Panels (items 16 &17) to the Climbing Wall Frame (item7) over Backing Sheet (item 29) using 29 off M10 x 40 Resistorx bolts (item 20) and Shockproof washers (item 32). **(STEP 13)**.
- xxi) Attach the Vertical Climb Rope (item 18) to the eye fixing on the underside of the Top Ring Section RHS (item 3) using 1-off Coupling Link (item 19). **(STEP 14)**.
- xxii) Tension the Vertical Climb Rope (item 18) by connecting to the Ground Fixing Chain Assembly (item 27) with Coupling Link (item 19). Remove all excess links before connecting. **(STEP 14)**.
- xxiii) Attach the Top Net (item 11) to eye fixings located on the inside of the Top Ring (items 2, 3 & 4) using 12 off coupling link (item 19). **(STEP 15)**.
- xxiv) Re-Attach the Bottom Net (item 12) to eye fixings located on the inside of the Bottom Ring (item 5) and the Rope Fixing Brackets (item 10) attached to the posts using 11 off coupling link (item 19).**See Step 10**
- xxv) Attach Side Nets (item 13) to eye fixings located on the underside of the Top Ring Section Centre (item 4) and on the top side of the Bottom Ring (item 5) using 12 off coupling link (item 19). **(STEP 16)**.

NOTE: Shortest vertical leg of nets to be fitted to eye fixings nearest to the Posts.

- xxvi) In all fixing positions on the steel work that have not been utilised, the protective plug should be removed and the permanent black protective plug (item 30) inserted and knocked home with a soft hammer. This also includes holes in top of Tee post smaller tubes. **(STEP 17)**

6 POST INSTALLATION INSPECTION**CHECK****CHECK**

- 1 All fixings are tightened to a maximum torque setting of 20-25Nm and have no protruding sharp edges.
- 2 Paint work and polyethylene panels are not damaged (Any making good should be carried out using the procedure in the Inspection and Maintenance instructions).
- 3 Ensure all unused fixing holes in steel work have correct black plastic plug fitted.
- 4 Concrete foundations are secure.
- 5 Concrete has a water shed away from legs.
- 6 Adequate provision of impact absorbing surfacing and no trip points within the minimum space.
- 7 Site is clear of all tools and rubbish.
- 8 Remove any warning signs.