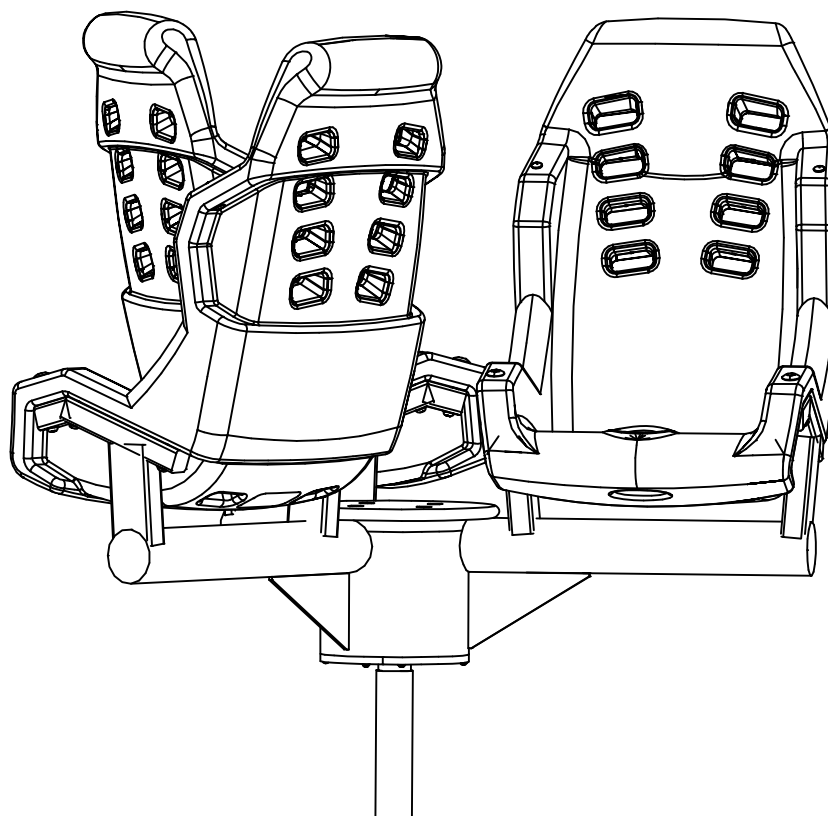
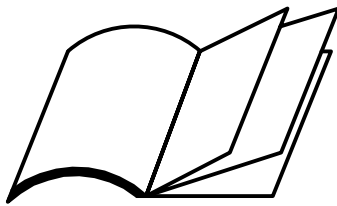




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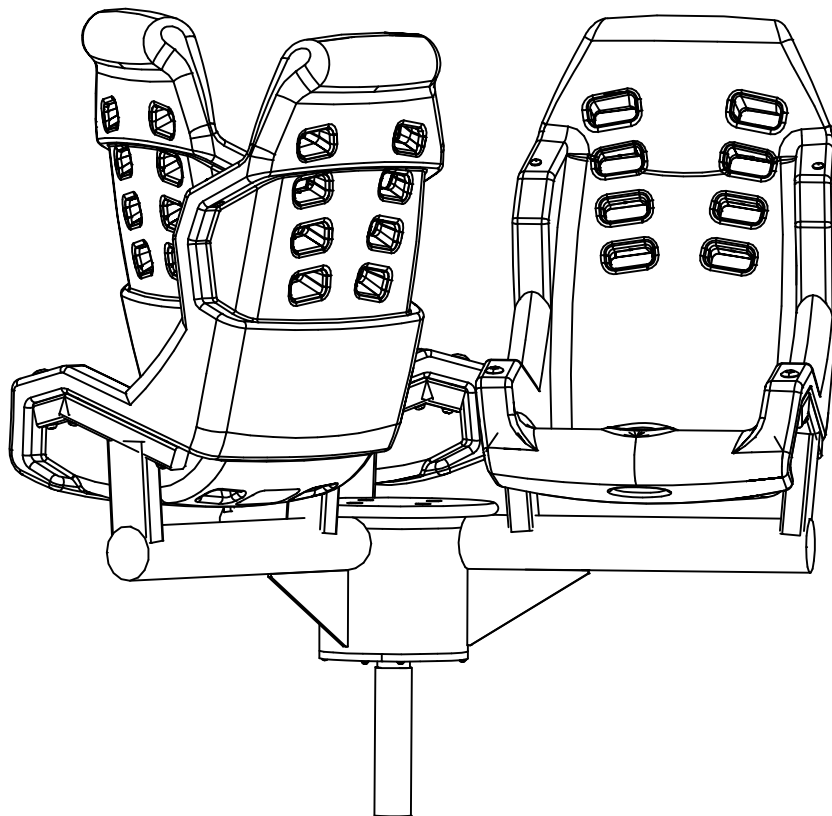
**INSTALLATION INSTRUCTIONS
MIRAGE REVOLUTION
CAR-MIR**

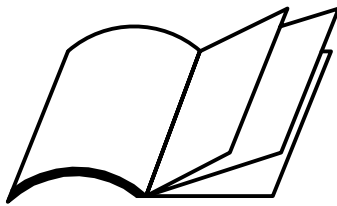


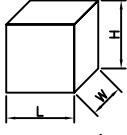
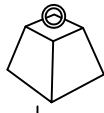

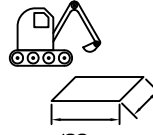
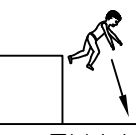



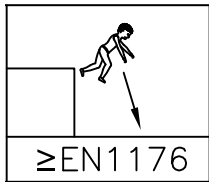
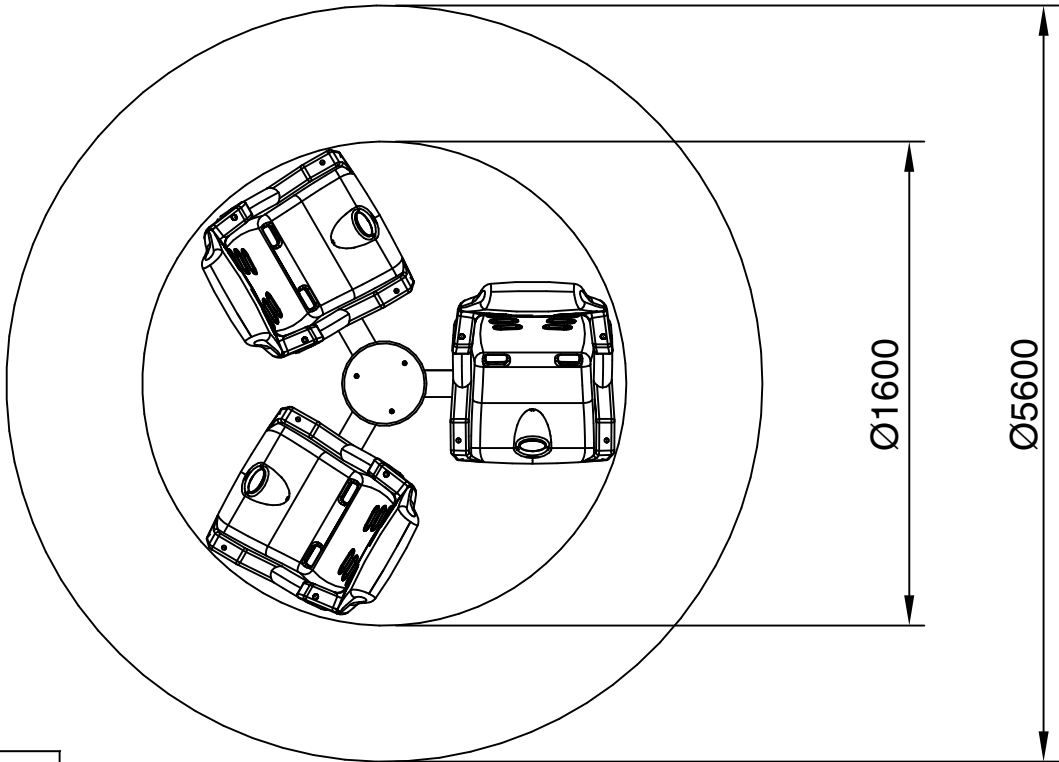
HAGS

MIRAGE REVOLUTION CAR-MIR

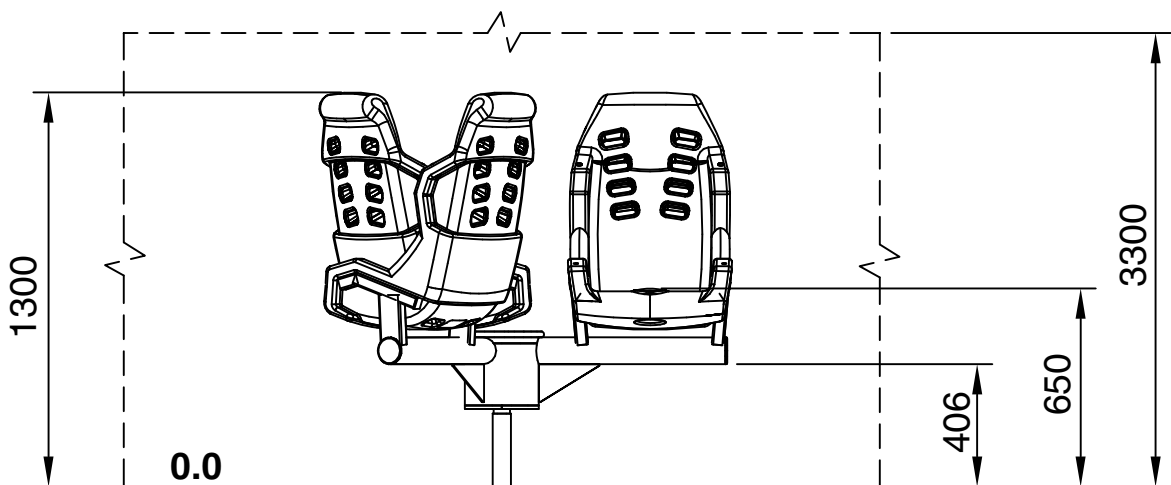


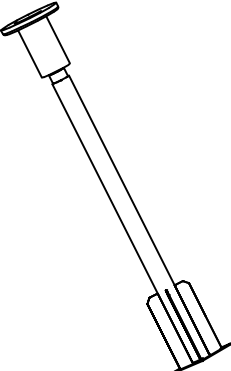
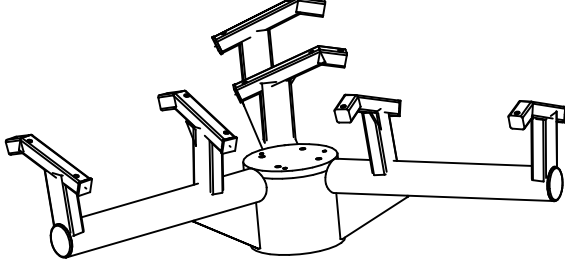


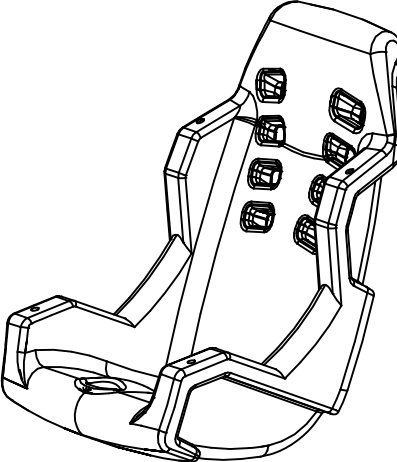
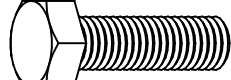
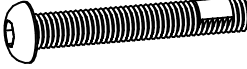


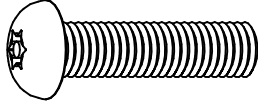
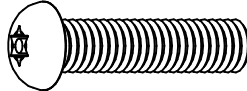
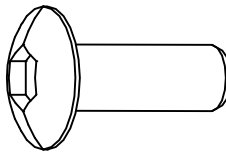
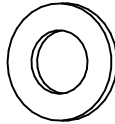
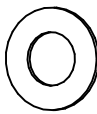
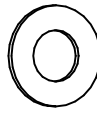
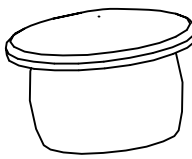
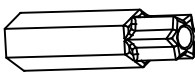
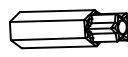
	 LxWxH (m)	 kg	 m ³	 m	 ≥EN1176	 x 3 = T T = 5
CAR-MIR	Ø1.6 x 1.3	122.00	0.86	3 x 3	1.0m	T = 5

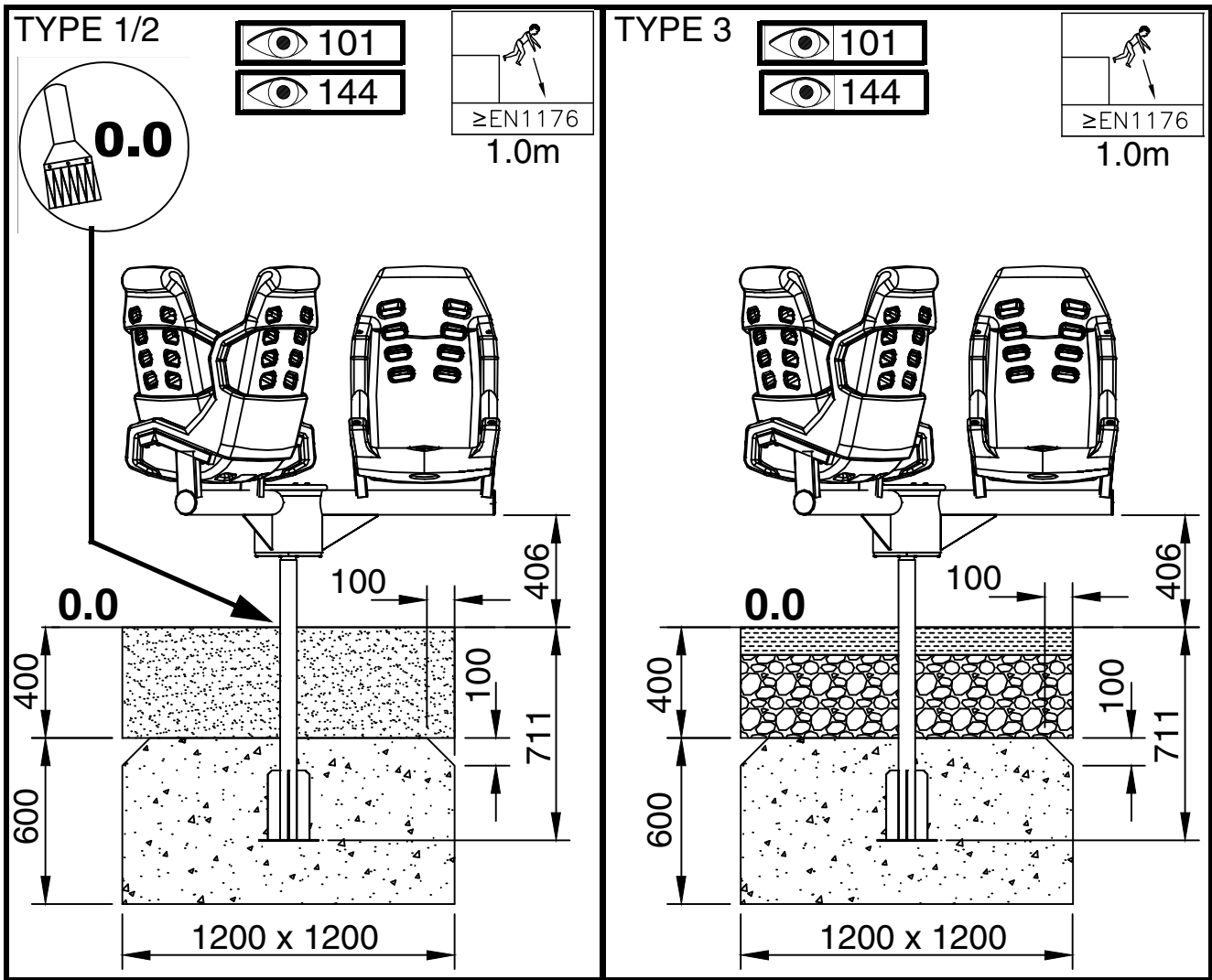


1.0m

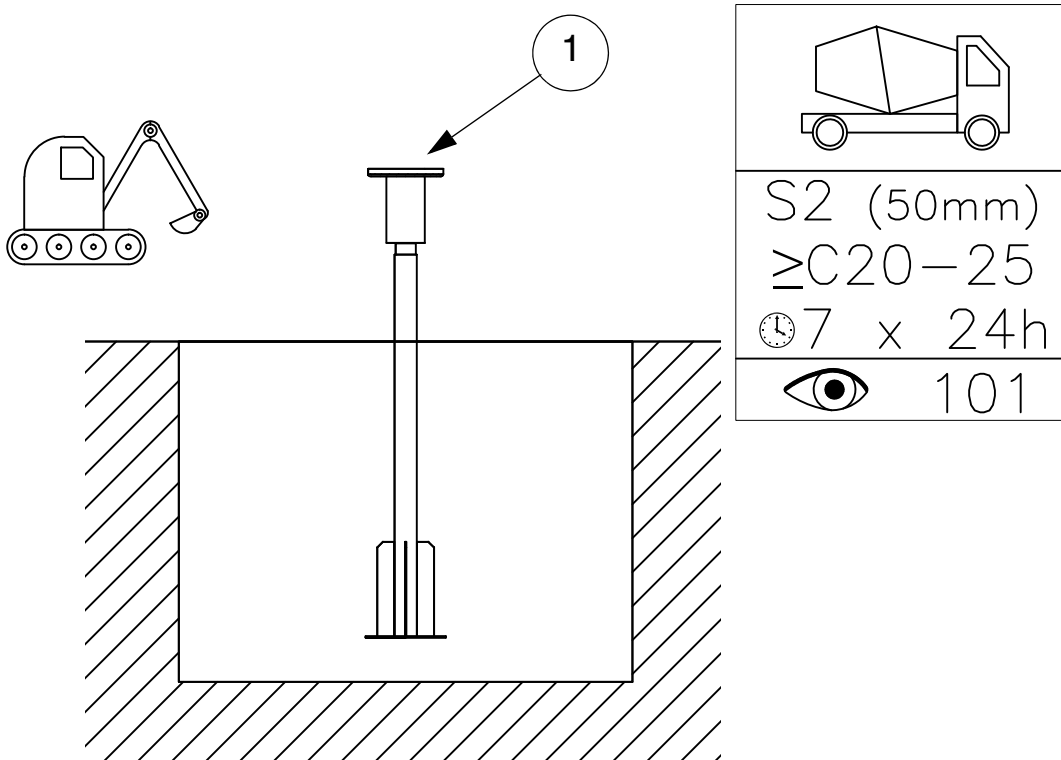


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1	37009201		1	39.12
2	71100100		1	58.90
3	71100500		1	1.20
4	71100510		2	0.27
5	88020901		3	6.70
6	10251240	 M12 X 40	4	0.047
7	10121065	 M10 X 65	18	0.050

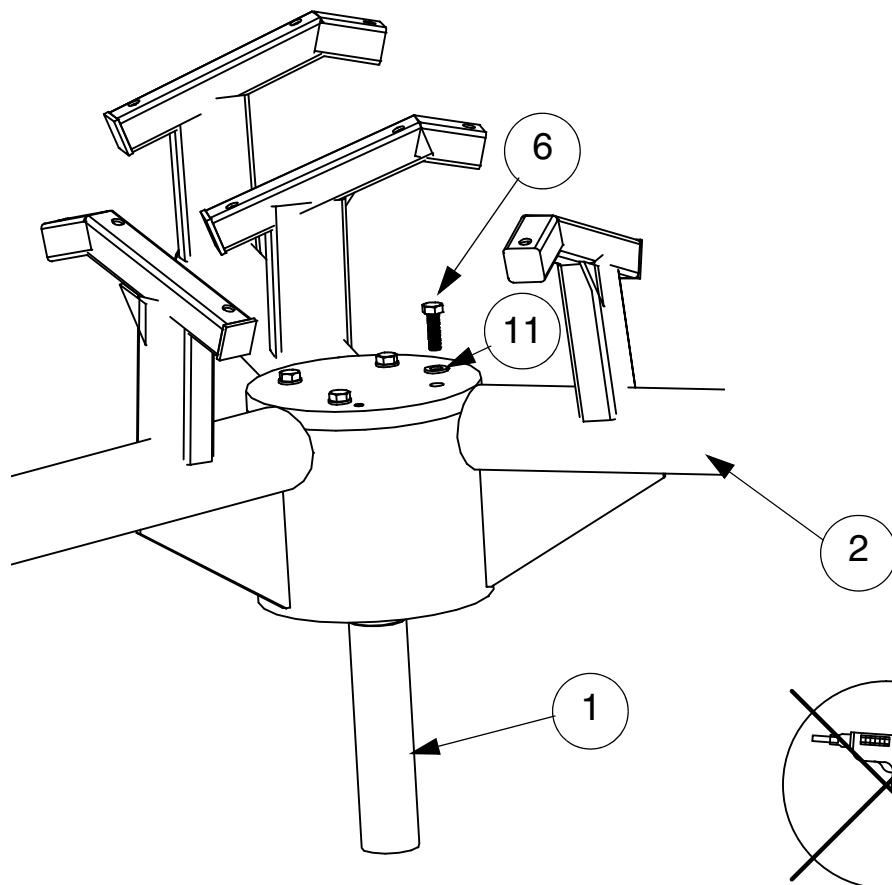
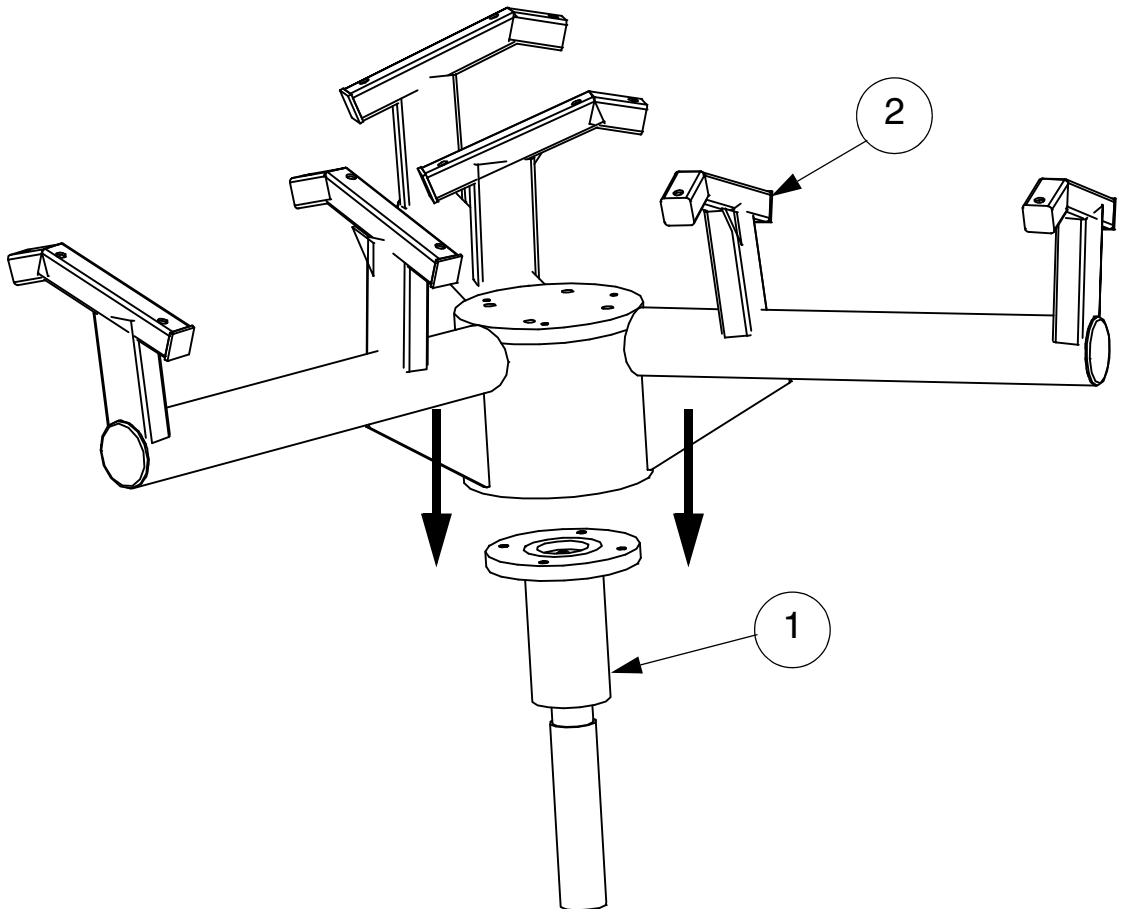
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8	10121040	 M10 X 40	3	0.037
9	10120625	 M6 X 25	6	0.011
10	88020902		6	0.054
11	10291200	 M12 13X24X2.5	4	0.006
12	10291000	 M10 11X21X1	21	0.002
13	10290600	 M6 6.4X12.6X1	6	0.001
14	19055060		12	0.001
15	10121000	 T45 M10	1	-
16	10120600	 T30 M6	1	-



STEP 1

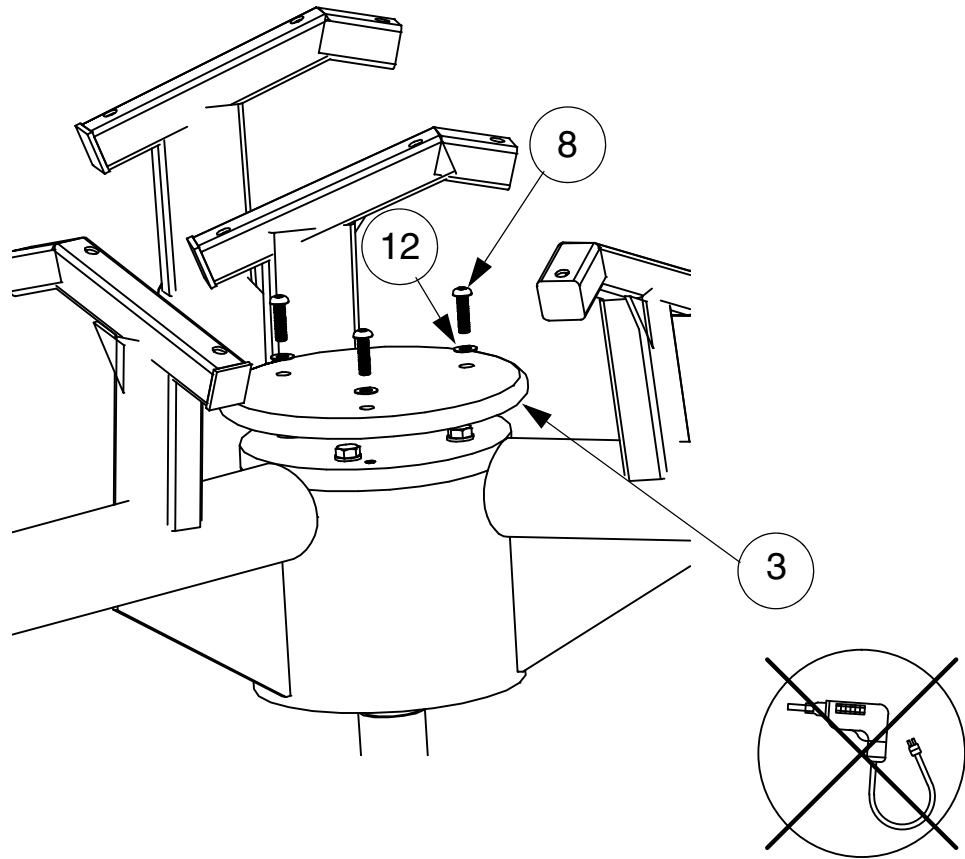


STEP 2

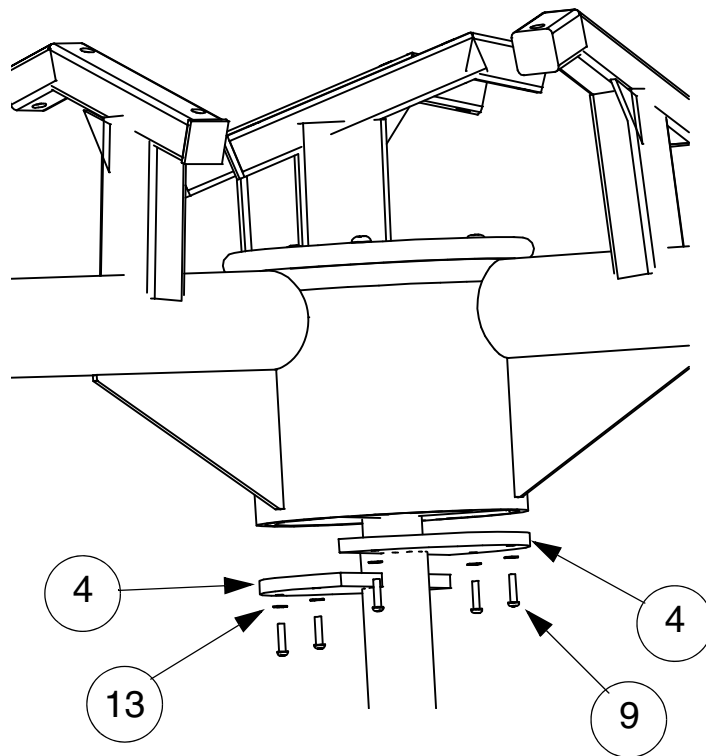


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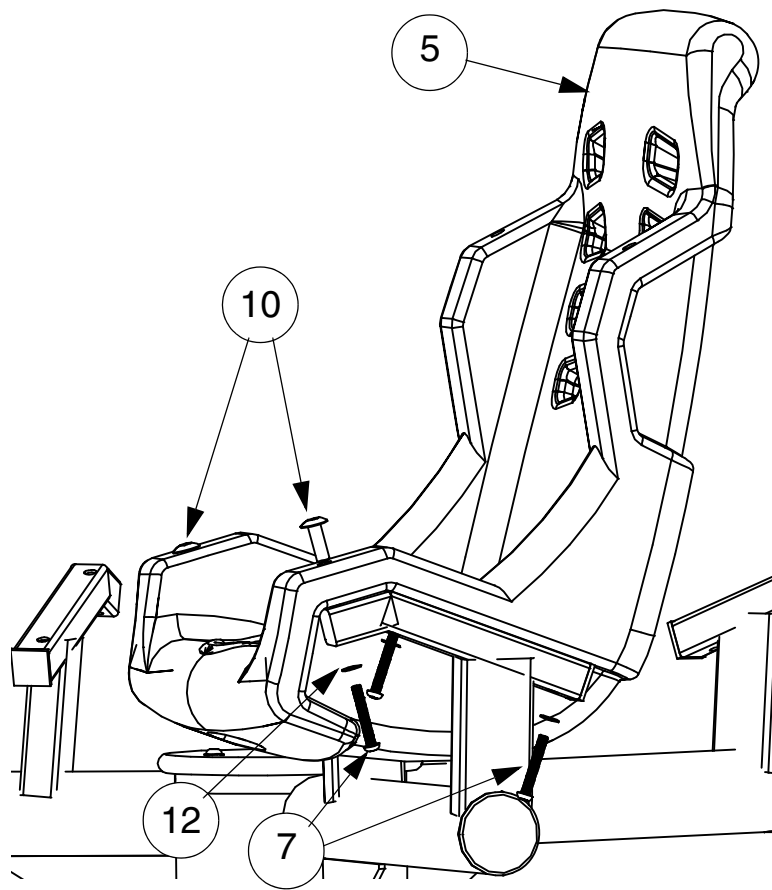
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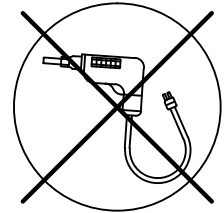
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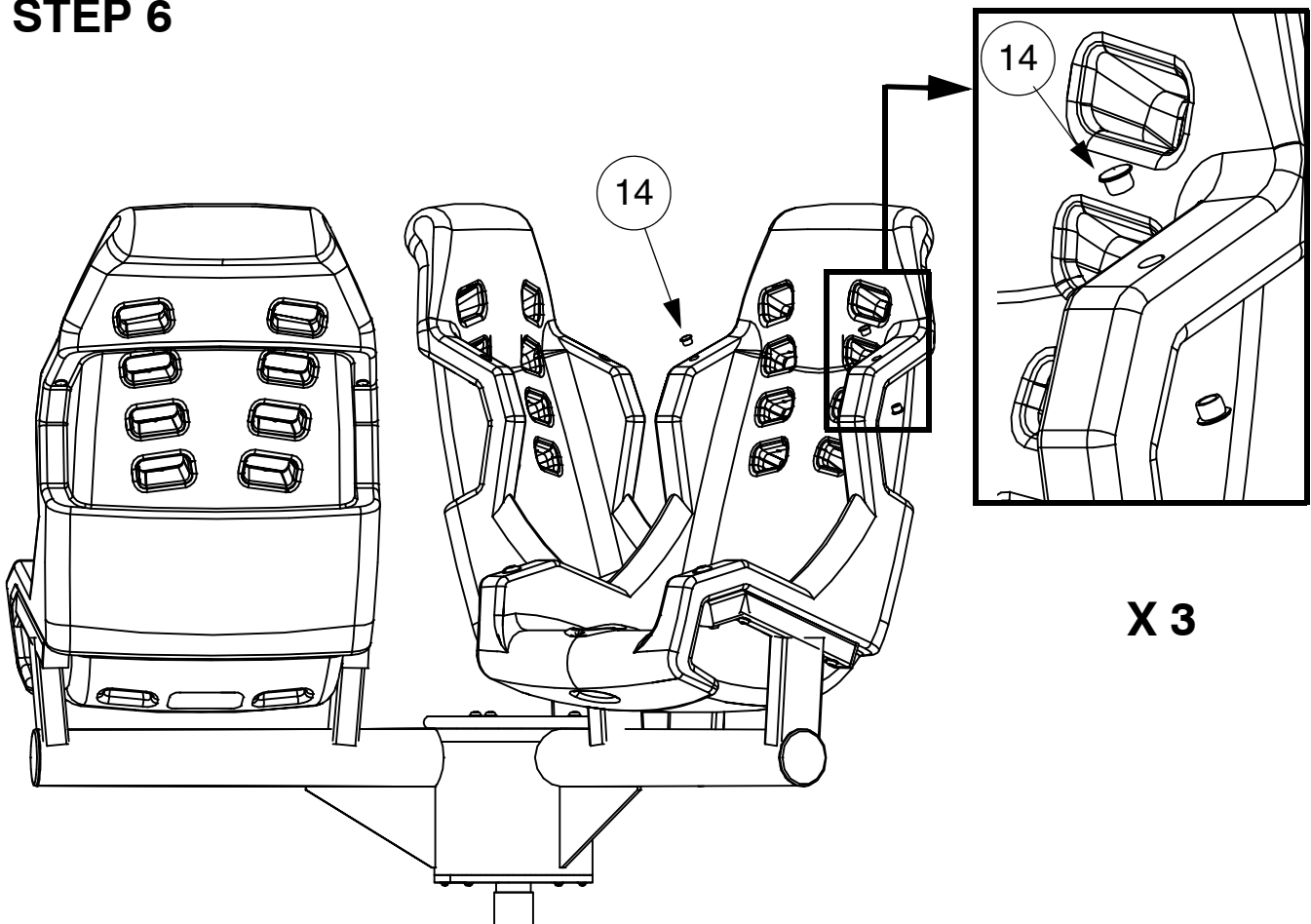
STEP 5



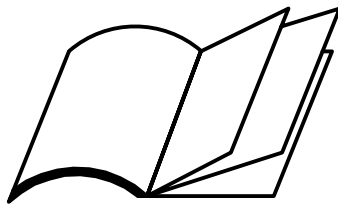
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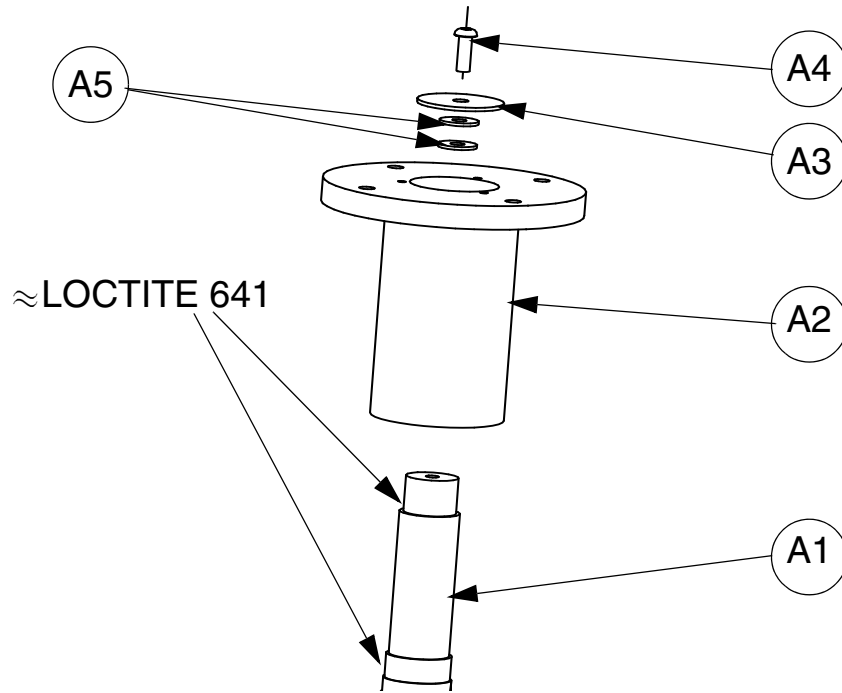
STEP 6

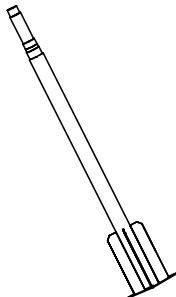
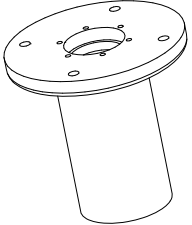
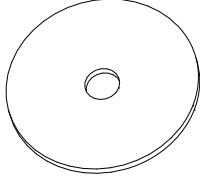
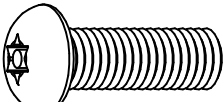
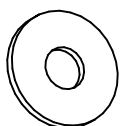


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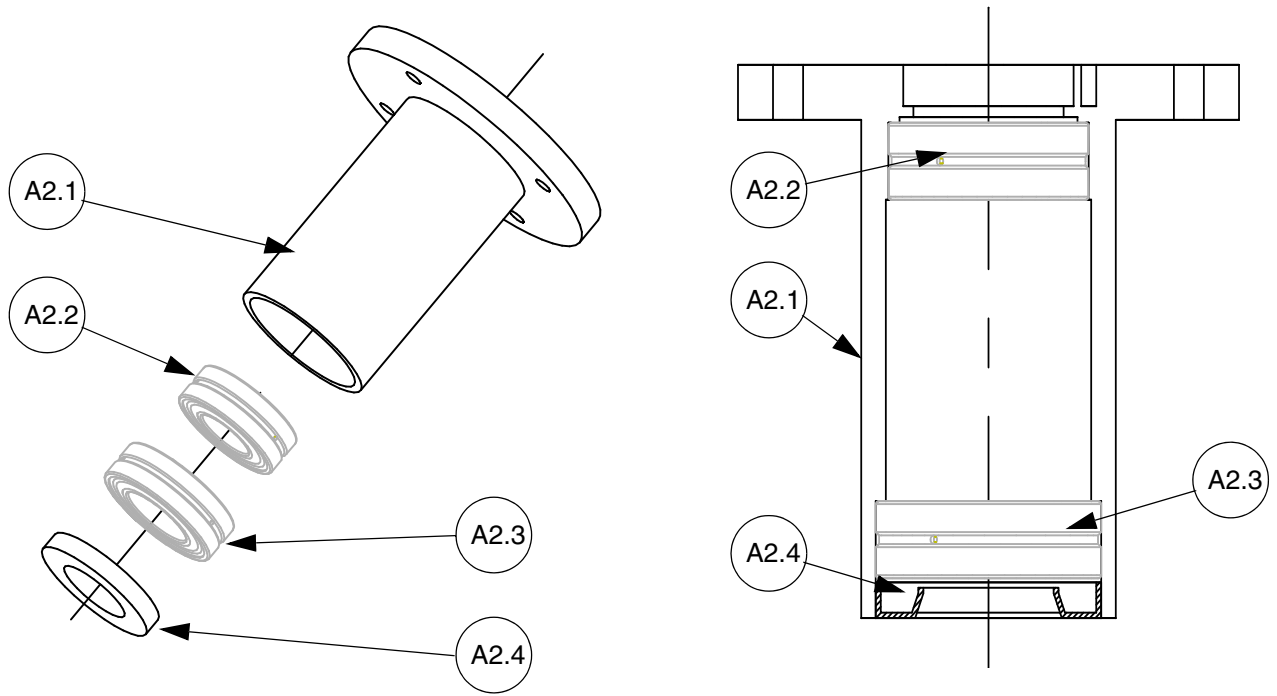


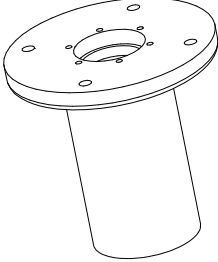

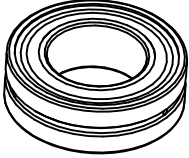
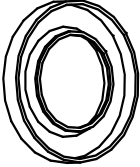
Appendix A:
REF 37009201



ITEM	REF		QTY.	kg
A1	37009202		1	28.00
A2	38004001		1	11.000
A3	71000109		1	0.080
A4	10121030	 M10 X 30	1	0.030
A5	10309999	 M10 11X30X2.5	2	0.011

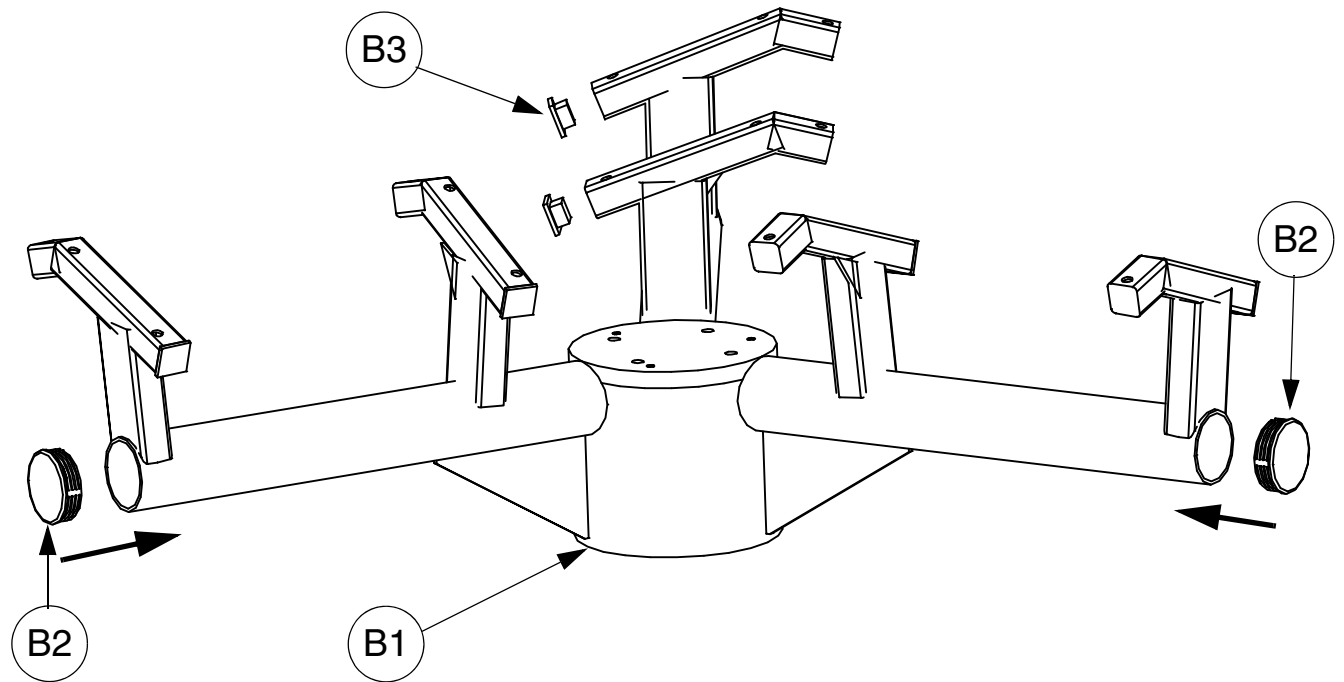
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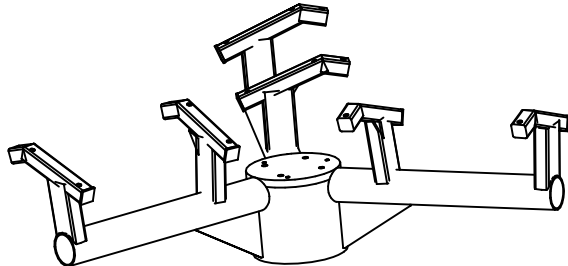

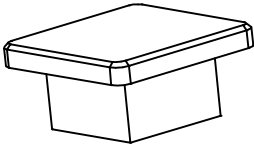


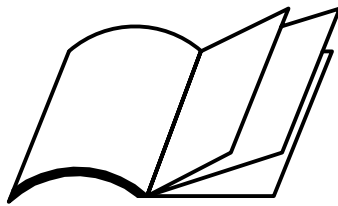
ITEM	REF		QTY.	kg
A2.1	38004012		1	10.100
A2.2	71022208		1	0.50
A2.3	71022210		1	0.70
A2.4	71000110		1	0.015

Appendix B:

REF 71100100

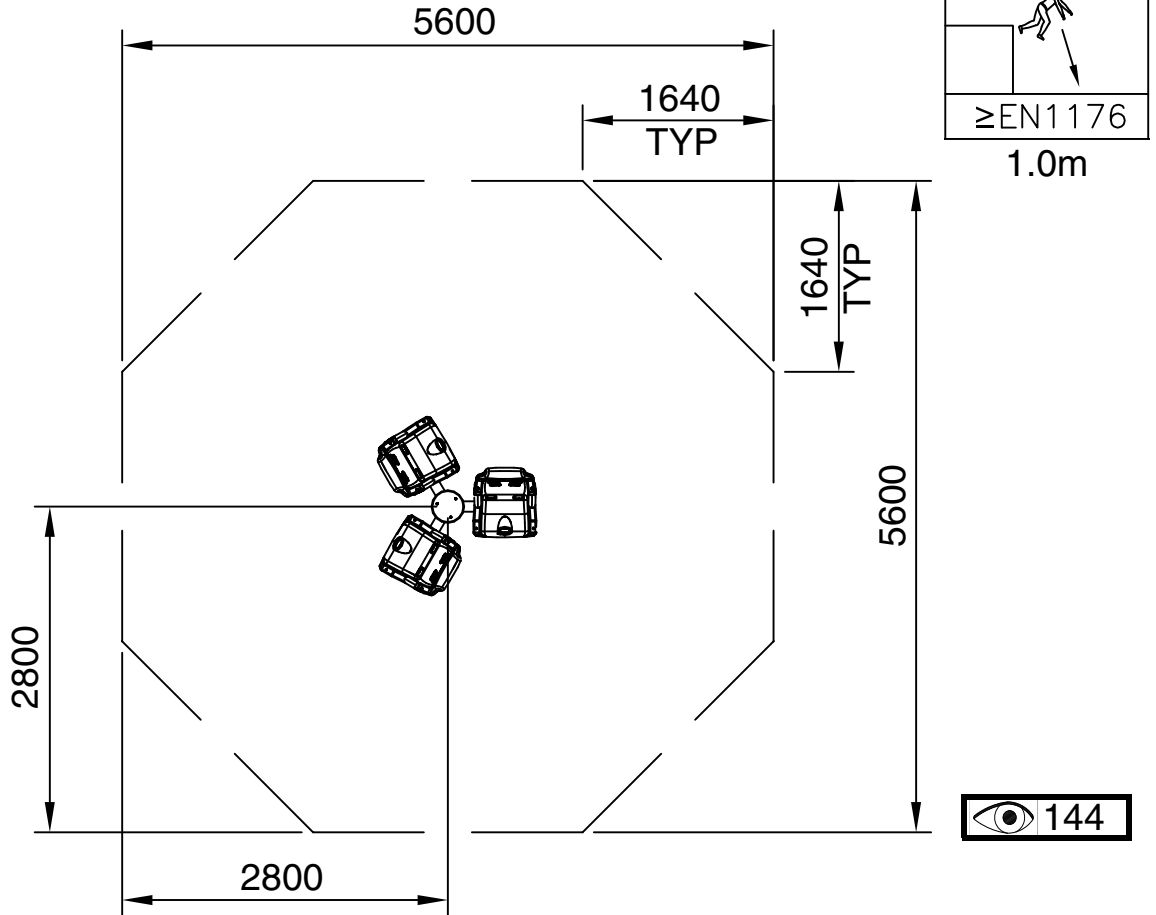


ITEM	REF		QTY.	kg
B1	71100300		1	58.90
B2	19055070		3	0.033
B3	19055010		6	0.010

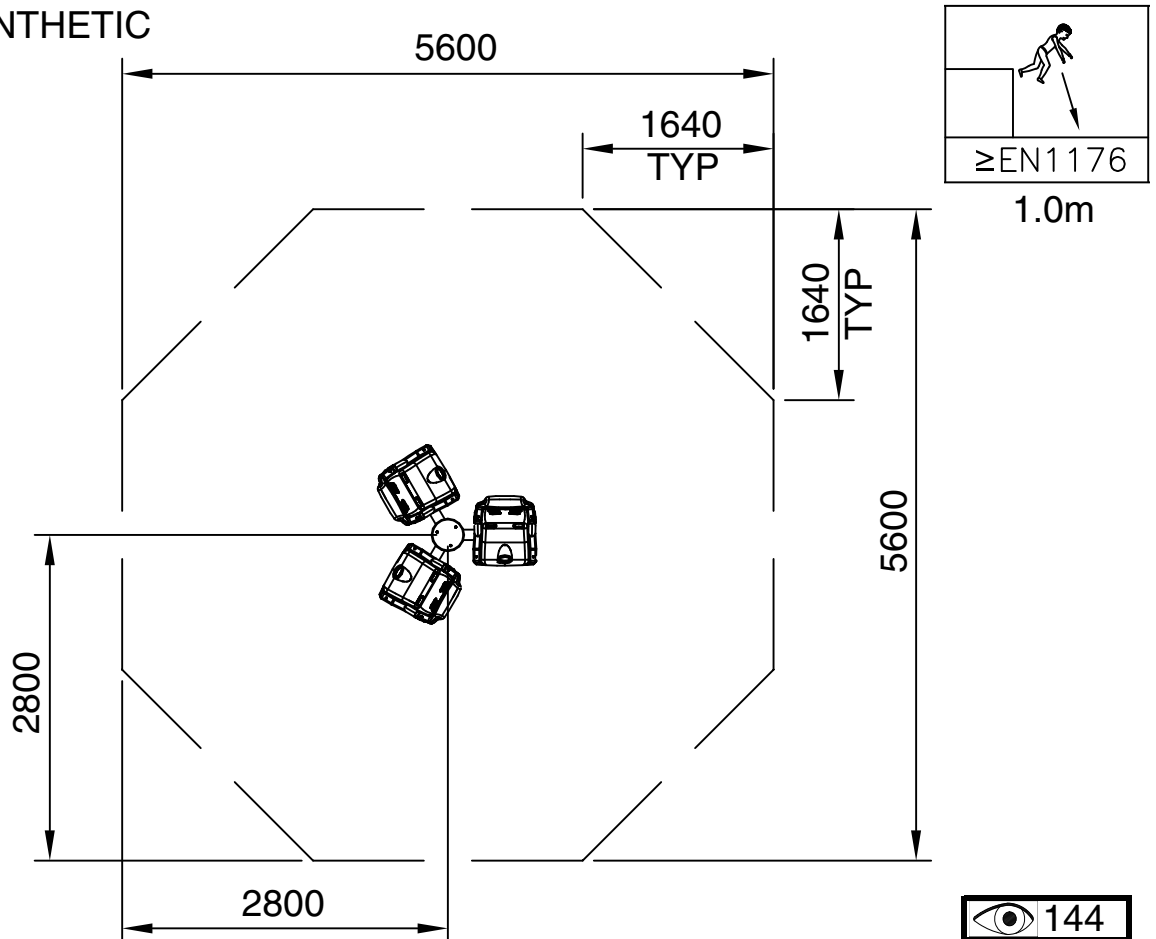


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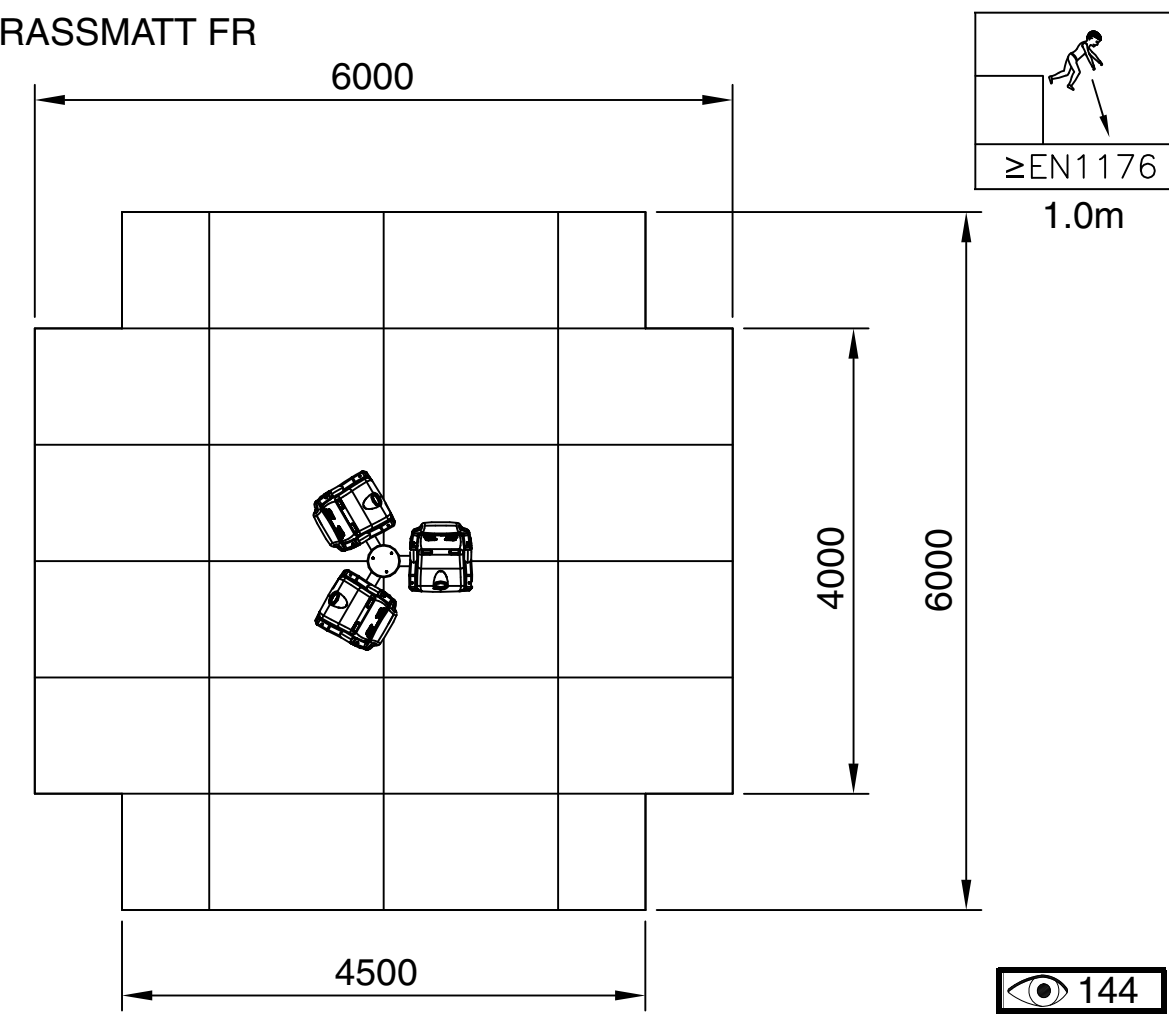
TYPE 1/2 LOOSEFILL



TYPE 3 SYNTHETIC



TYPE 5 GRASSMATT FR



1 SAFE WORKING PRACTISE

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.

1.1 RISKS:

- i) Large parts which could be difficult to lift or handle.
- ii) Structure unstable until concrete footings have fully cured.
- iii) Parts at height that may require working overhead.

1.2 CONTROL MEASURES:

- i) Warn the public of the risk of injury, by placing signs and fencing the surrounding area, before commencing installation.
- ii) All staff working on installation to wear suitable PPE including Toe Protective Shoes, Hard hat and Gloves.
- iii) Any staff or other persons on site, not working directly on the installation, to be kept away from the installation.
- iv) Ensure adequate personal and equipment are on site to handle and support the structure whilst it is being assembled.

2 SPECIFICATIONS

SMP Playgrounds Ltd recommends an effective *Impact Absorbing Surface tested to EN1177 & BS7188* beneath this 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.

Constructional Space is the approximate working area required to lay out and assemble the equipment.

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

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

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.

Care should be taken when siting this equipment in order to discourage users in the surrounding area from unintentionally coming into contact with the equipment. This can be achieved, for example by placing the equipment at the perimeter of the play area.

3 PREPARATION

All equipment assembly and fixing must conform to EN1176.

Tools / ancillary equipment: 10m tape measure, Spirit level, M10 Torx tool (Supplied with unit), Torque wrench, Plumline, 19mm A/F Socket, Extension bar. Loose fill: Masking tape, Paint brush, Black paint,

3.1 ESTABLISH ORIENTATION

- i) See Specifications for equipments 'Minimum space'.
- ii) Measure out the site to ensure the space required fits into the allotted area, it is horizontal and free from trip points or other obstructions.
- iii) Ensure the equipment is to be provided with an effective Impact Absorbing Surface which has a tested critical fall height rating greater than the maximum freefall height of the equipment.

3.2 MARK OUT HOLES

Consult SMP layout drawing for structure position on site.

See **page 6** for concrete foundation size.

NOTE: This is a minimum guide only.

3.3 ESTABLISH DATUM LEVEL

- i) If a rubber tiled Impact Absorbing surface is to be laid, see separate instructions (base may incorporate up to 2% falls etc).
- ii) If equipment is to sit in loose fill or wet pour rubber surfaces allowances will need to be made for its recommended thickness. Generally it is recommended that loose fill surfaces are installed to a minimum depth of 400mm, however, with certain loose fill materials a greater depth may be required. This will need to be determined by allowing 100mm for the dispersal in addition to the thickness required for the particular Free Fall Height. The foundation illustrated will allow for a thickness up to 400mm.

PRE-INSTALLATION INSPECTION

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.

4 INSTALLATION & ASSY PROCEDURES

- i) Refer to site layout for position and orientation of product, then, mark the outline of the position of the footings with e.g. spray or chalk etc. Excavate the holes. **See page 6.**
- ii) Position Shaft & Bearing Assembly (item 1) into excavation, pack up to height, level and plumb. **(STEP 1)**
- iii) Shim and brace Shaft & Bearing Assembly into position.

NOTE: Check that the Shaft and Bearing Assembly has been positioned in the correct place and that it is plumb and square. Also ensure that the assembly is propped safely so that it may be left for the concrete foundations to cure.

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)

- iv) Fill the hole with concrete to the required level, taking into account any Impact Absorbing Surfacing requirements. Ensure that the 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. **PAGE 6.**
- v) Keep installation off limits to the public until the concrete has completely cured.
(Recommended initial curing time is 48 hours).
- vi) Place the Seat Frame Assembly (item 2) onto the Shaft & Bearing Assembly (item 1). Secure the Frame to the bearing housing flange using 4 off M12 x 40 Hex Head Bolts (item 6) and M12 Washers (item 11). Fully tighten to 50-60 Nm. **(STEP 2)**

NOTE: Item 2 is heavy and should be lifted by a minimum of three people.

- vii) Place Top Cover (item 3) over M12 x 40 Hex Head Bolts on the centre of the Seat Frame Assembly (item 2) and secure in place using 3 off M10 x 40 Resistorx Bolts (item 8) and M10 Washers (item 12). Fully tighten bolts to a maximum torque setting of 20-25Nm. **(STEP 3)**
- viii) Place on the bottom of the Seat Frame Assembly (item 2) upon either side of the Bearing Shaft (item1) use 2 off Bottom Cover Segments (item 4), securing in place using 6 off M6 x 25 Resistorx Bolts (item 9) and M6 Washers (item 13). **(STEP 4)**
- ix) Attach the three Mirage Swing Seats (item 5) to the arms of the Seat Frame Assembly (item 2) using 6 off M10 Threaded Fixing Sleeve (item 10), 18 off M10 x 65 Resistorx Bolts (item 7) and M10 Washers (item 12). **(STEP 5)**
- x) In all fixings positions on the Mirage Seats (item 5) that have not been utilised, insert Plastic Plug (item 14) in both sides of hole and knock home with a soft hammer. **(STEP 6)**

5 POST INSTALLATION INSPECTION

CHECK	CHECK	✓
1 The unit is installed at the correct height - See Page 3.	<input type="checkbox"/>	<input type="checkbox"/>
2 All fixings are tightened to the correct torque and have no protruding sharp edges.	<input type="checkbox"/>	<input type="checkbox"/>
3 Paint work is not damaged (Any making good should be carried out using the procedure in the Inspection and Maintenance instructions).	<input type="checkbox"/>	<input type="checkbox"/>
4 The frame rotates freely.	<input type="checkbox"/>	<input type="checkbox"/>
5 Concrete foundations are secure.	<input type="checkbox"/>	<input type="checkbox"/>
6 Concrete has a water shed away from leg.	<input type="checkbox"/>	<input type="checkbox"/>
7 Adequate provision of Impact Absorbing Surfacing with no obstructions or other hazards within the equipments minimum space.	<input type="checkbox"/>	<input type="checkbox"/>
8 Site is clear of all tools and rubbish.	<input type="checkbox"/>	<input type="checkbox"/>
9 Remove any warning signs.	<input type="checkbox"/>	<input type="checkbox"/>

