



FITOUT

SD Series Product Manual

September, 2012 v5



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Product Overview:

The SD series is designed to let people work out outdoors. The purpose is to give people the feeling of an indoor fitness center outdoors. It is a good supplement to any running or similar exercise.

This product is not designed for children under 14 years of age. It is imperative that the SD series is installed away from playgrounds. This distance should be sufficient enough so that it is obvious to children that the fitness units are not a part of the playground. If this is not possible, one must divide the playground with a barrier such as a fence.

The height of the SD series is always standard. To accommodate for the different surfacing depths we use extra pieces. This makes production standard and results in lower lead times for our customers. For loose fill surfaces, we use what we call a loose fill surface adaptor. For synthetic surfaces, we use synthetic surface plates. It is imperative that when you order you let us know what kind of a surfacing is required and that you order any loose fill adaptors or synthetic surface plates.

In this product manual you will find all the necessary information about the SD series as well as the information to install and maintain the product. Please read the entire document carefully and follow the instructions. Please contact us if you need any other information.

Please note that the type of surfacing used requires that we modify what is shipped. So it is imperative that you let us know the type of surfacing to be used during ordering so that we ship the appropriate items.

This manual covers the following products:

-S
D 01 Oblique Station
-S
D 02 Stepper Bike Station
-S
D 03 Tri Fitness Station
-S
D 04 Dual Hip Station
-S
D 05 Shoulder Station



-S
D 06 Dual Leg Press Station
-S
D 07 Dual Adductor Station
-S
D 08 Ab Station
-S
D 09 Dual Air Walker
-S
D 10 Air Walker

Technical Overview:

- ❖ Metal Structure:
 - Main Pipes: 165 mm diameter, 4 mm thickness
 - Rest of the pipes: Various diameters, 3 mm thickness
- ❖ Plastic Parts:
 - All plastic parts are Polyethylene with thickness 3-4 mm
- ❖ Rubber Parts:
 - All rubber parts are 3 mm sheet metal covered with 2-5 mm rubber
- ❖ Corrosion:
 - All main body parts are hot dip galvanized, except the anchor
 - Torsion pieces are painted only
 - All metal parts are painted
- ❖ Metal Paint:
 - All Metals, except the anchor, are painted with a two layer (primer and a second layer) metallic paint.
- ❖ Torsion Pieces:
 - Most products have a torsion system that is sourced from a third party. More information is given in later pages.
- ❖ Weights of the Equipment:
 - Weights of all equipment are given in individual products' page.



Information on the Torsion System:

The SD series comes installed with a torsion system. The torsion system involves a separate part that is sourced from a third party which consists of certain rubber parts. These rubber parts dampen any movement. As the angle of rotation increases, the torque required increases. This increases the damping effect.

The damped movement prevents moving parts from rotating freely. This makes sure that moving parts do not hit anyone around the equipment. The damped movement also acts as a resistance to the user, increasing the effort required to complete the movements.

Not all activities make use of the torsion system. List of activities and products that do have the system is listed in the products' page.



Raw Materials Used:

Below is a list of raw materials used in the SD series.

Material List For the SD series			
Material	Parts Where the Material is Used	Color(s)	Tests done
Polyethylene	All injection molded parts, bolt covers, caps etc.	Red, Green	PAH, Lead
Rubber	All seats, grips, foot pedals etc.	Black	PAH, Lead
Metal Paint	All metal parts	Metallic Grey	PAH, Lead

Test reports can be sent upon request. We do make periodical tests to ensure compliance.



Guarantee:

5 Year warranty on all rubber parts

2 year warranty on all plastic parts

1 year warranty on all torsion pieces

2 year warranty on all ball bearings

10 year no rust warranty on all hot dip galvanized parts from inside to outside

2 year warranty on paint

Important information on the guarantees:

This guarantee is only valid when the maintenance plan and installation plan instructions are followed. Vandalism, improper use (use that is outside of the scope of instructions for use), mishandling during installation and transportation, improper storage voids the warranty. Natural wear and tear are not covered with this warranty.

The no rust and paint warranty does not cover any rust resulting from dents, scratches, bumps with foreign objects, effect of biological or chemical fluids, natural wear and tear. Any areas close to the seashore where the equipment will be subject to salt voids the rust warranty.

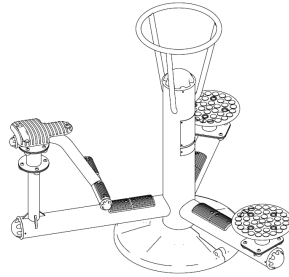
It is advisable to repair any areas where paint has come off with touch up paint. Any rusting should be informed to Flopark with pictures in order to take corrective action right away.

The guarantee does not cover color fading of plastic parts.

All guarantees cover a replacement part to be delivered to the seller, free of charge including transportation. The guarantee does not cover installation costs. Based on the conditions that are stated above, Flopark has the right to limit or entirely lift the warranty.

Individual Product Pages:

SD 01 Oblique Station:



General Information:

Length:	1250 mm
Width:	1500 mm
Height:	1345 mm
Weight:	75 KGS
Required Safety Zone:	4500 mm by 4300 mm
Fall Height:	< 600 mm
Maximum User Weight:	120 KGS
Number of Users:	3 Persons
Activities:	Sitting Oblique Station (1 Station) Standing Oblique Station (2 Stations)
Torsion System:	All Activities Have the Torsion System with a stopper at 30 degrees
Muscles Exercised:	Abdominal Muscle Groups

Instructions for use:

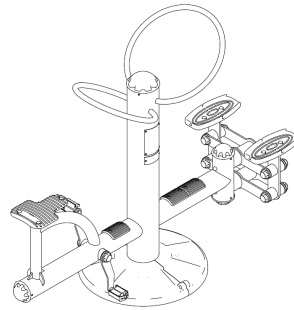
This machine can be used independently or in tandem with partners.

- Begin in the seated position facing the center post.
- Grip support and twist from side to side for repetitions.



- Next, position yourself on one of the two discs gripping the center support for balance.
- Twist from side to side for repetitions

SD 02 Stepper Bike Station:



General Information:

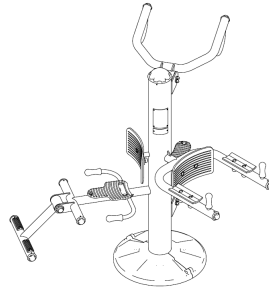
Length:	1860 mm
Width:	595 mm
Height:	1430 mm
Weight:	65 KGS
Required Safety Zone:	3570 by 4850 mm
Fall Height:	<600 mm
Maximum User Weight:	120 KGS
Number of Users:	2 Persons
Activities:	Stepper Station Bike Station
Torsion System:	Stepper Station has the Torsion System with a stopper at 30 degrees
Muscles Exercised:	Leg and Hip Muscle Groups

Instructions for use:

This machine can be used independently or in tandem with a partner.

- Begin with the seated bike station facing the center post.
- Grip support and begin pedaling.
- Next, position yourself on foot supports while gripping the center support for balance.
- Step from side to side for repetitions.

SD 03 Tri Fitness Station:

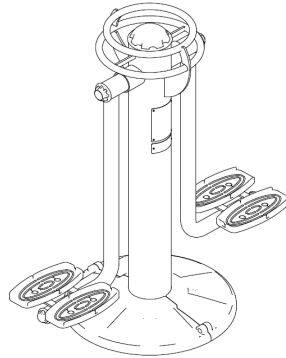


General Information:

Length:	1650 mm
Width:	1880 mm
Height:	1700 mm
Weight:	110 KGS
Required Safety Zone:	4410 mm by 4540 mm
Fall Height:	<600 mm
Maximum User Weight:	120 KGS
Number of Users:	3
Activities:	Pull Down Station Leg Extension Station Abdominal Station
Torsion System:	Pull Down Station and Leg Extension Station have the Torsion System with a stopper at 30 degrees
Muscles Exercised:	Shoulder, Back, Abdominal Muscles, Upper Thighs
Instructions for use:	This machine can be used independently or in tandem with partners.

- Begin with the pull down station by positioning yourself on the seat facing away from center post.
- Place feet on bar and pull on the overhead bars for repetitions.
- Next, position yourself on leg extension station and extend legs for repetitions
- Finally, position yourself on the abdominal station with back and arms positioned on rests.
- Lift legs for repetitions to work abdominal muscles.

SD 04 Dual Hip Station:



General Information:

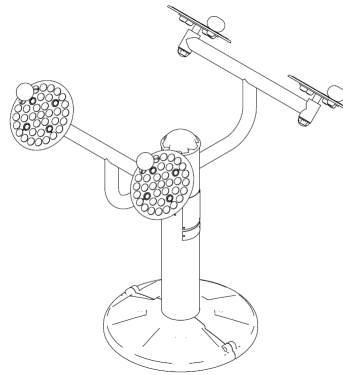
Length:	1265 mm
Width:	450 mm
Height:	1400 mm
Weight:	60 KGS
Required Safety Zone:	4265 by 3450 mm
Fall Height:	<600 mm
Maximum User Weight:	120 KGS
Number of Users:	2
Activities:	Hip Station (2 Stations)
Torsion System:	Hip Station has the Torsion System with a stopper at 30 degrees
Muscles Exercised:	Adductor Muscle Groups

Instructions for use:

This machine can be used independently or with a partner.

- Begin by gripping center support and positioning feet on supports
- Shift hips from side to side for repetitions.

SD 05 Shoulder Station:



General Information:

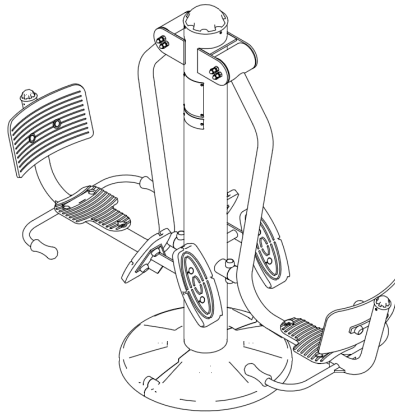
Length:	1210 mm
Width:	1070 mm
Height:	1315 mm
Weight:	60 KGS
Required Safety Zone:	4200 by 4070 mm
Fall Height:	<600 mm
Maximum User Weight:	120 KGS
Number of Users:	2
Activities:	Shoulder Station (2 Stations)
Torsion System:	None
Muscles Exercised:	Shoulder Muscles

Instructions for use:

This machine can be used independently or with a partner.

- Begin by gripping both hands on each grip on the disc.
- Lean towards the equipment
- Rotate the discs slowly

SD 06 Dual Leg Press Station:



General Information:

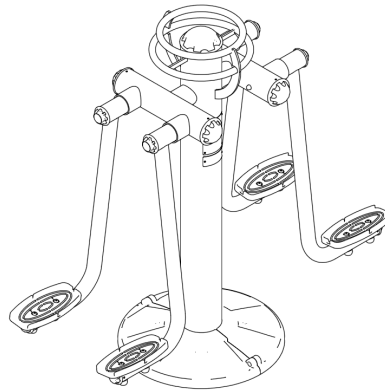
Length:	2050 mm
Width:	660 mm
Height:	1700 mm
Weight:	85 KGS
Required Safety Zone:	3660 by 5050 mm
Fall Height:	<600 mm
Maximum User Weight:	120 KGS
Number of Users:	2
Activities:	Leg Press Station (2 Stations)
Torsion System:	Leg Press Station has the Torsion System
Muscles Exercised:	Upper Legs

Instructions for use:

This machine can be used independently or with a partner.

- Position yourself on the seat while placing your feet on the supports.
- Hold side handles for balance.
- Begin exercise by extending legs for repetitions.
- Ensure you bring the seat back to its original position before exiting the station

SD 07 Dual Abductor Station:



General Information:

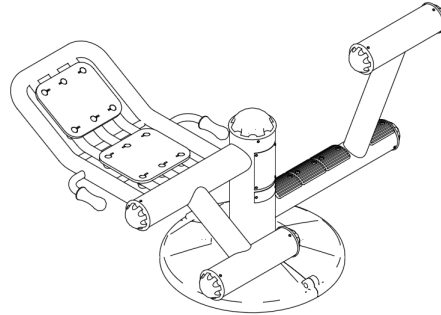
Length:	1635 mm
Width:	660 mm
Height:	1550 mm
Weight:	70 KGS
Required Safety Zone:	4435 by 3660 mm
Fall Height:	<600 mm
Maximum User Weight:	120 KGS
Number of Users:	2
Activities:	Adductor Station (2 Stations)
Torsion System:	Adductor Station has the Torsion System with a stopper at minus 7 degrees and plus 30 degrees
Muscles Exercised:	Adductor Muscles

Instructions for use:

This machine can be used independently or with a partner.

- Begin by gripping center support and positioning feet on supports
- Extend legs apart and together for repetitions

SD 08 Ab Station:



General Information:

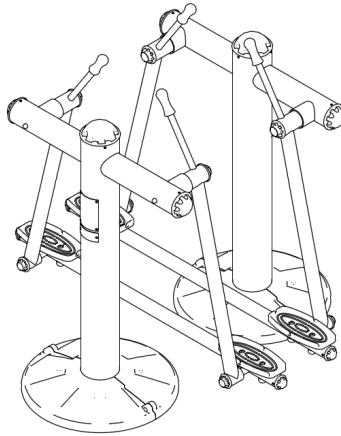
Length:	1410 mm
Width:	1120 mm
Height:	900 mm
Weight:	70 KGS
Required Safety Zone:	4410 by 4120 mm
Fall Height:	<600 mm
Maximum User Weight:	120 KGS
Number of Users:	2
Activities:	Sit Up Station Back Extension
Torsion System:	None
Muscles Exercised:	Abdominal and Gluteus Muscle Groups

Instructions for use:

This machine can be used independently or with a partner.

- Begin by positioning your body in the Sit Up Station or the Back Extension Station.
- Use a slow, controlled motion for repetitions to work abdominal and gluteus muscle groups.

SD 09 Dual Air Walker:



General Information:

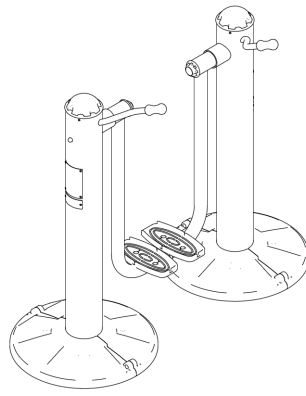
Length:	1565 mm
Width:	1350 mm
Height:	1560 mm
Weight:	150 KGS
Required Safety Zone:	4350 by 4565 mm
Fall Height:	<600 mm
Maximum User Weight:	120 KGS
Number of Users:	2
Activities:	Air Walker (2 Stations)
Torsion System:	Air Walkers have the Torsion System with a stopper at 30 degrees
Muscles Exercised:	Shoulders, Back, Arms and Leg Muscles

Instructions for use:

This machine can be used independently or with a partner.

- Position your feet on plates and grip handles.
- Begin exercise by sliding feet in tandem with arms

SD 10 Air Walker:



General Information:

Length:	1450 mm
Width:	600 mm
Height:	1475 mm
Weight:	100 KGS
Required Safety Zone:	3600 mm by 4450 mm
Fall Height:	<600 mm
Maximum User Weight:	120 KGS
Number of Users:	1
Activities:	Air Walker (One Station)
Torsion System:	Air Walker has the Torsion System with a stopper at 30 degrees
Muscles Exercised:	Lower Legs
Instructions for use:	<ul style="list-style-type: none">• Grip handles and place feet on pedals• Begin exercise by swinging legs in a running motion



Spare Parts:

In order to make ordering spare parts easier, all parts have been given a code. A detailed list with drawings to make ordering easier will be shared with you. You can order the spare parts using the codes provided.



Important Notice about Signage:

According to DIN 79000 part 7,1, the following information needs to be printed on a sign at the entrance of the fitness area.

- Only for use by persons 14 years and older
- Consult a physician before you begin this, or any workout routine
- If equipment should become unstable, immediately discontinue use and report to authorised personnel
- Inappropriate use of the equipment could result in personal injury. Please follow recommended use and stop if exercise should become painful
- Wear appropriate clothing and footwear and remove all jewellery before using equipment
- For your safety, please use handgrips during exercise and when entering and exiting equipment.

Product Markings:

Each product will come with a product marking on it. The markings include important safety information. It is imperative that the product markings are on the products and that they are visible. Please contact us in case you need extra markings and replace lost or damaged markings as soon as possible.



Safety Surfacing Requirements:

According to DIN 79000 part 4.3.14, any product that has a foot support and a grip can have its fall height reduced by 400 mm. Using this exception SD01-SD10 have a fall height of less than 600 mm. According to DIN 79000, any fall height below 600 mm does not require and safety surfacing. It is still advisable to have at least some sort of surfacing such as a thin rubber covering or even grass to prevent any accidents. A safety surfacing company would be able to consult you in this regard. Any surfacing that is applied should be according to EN 1176.

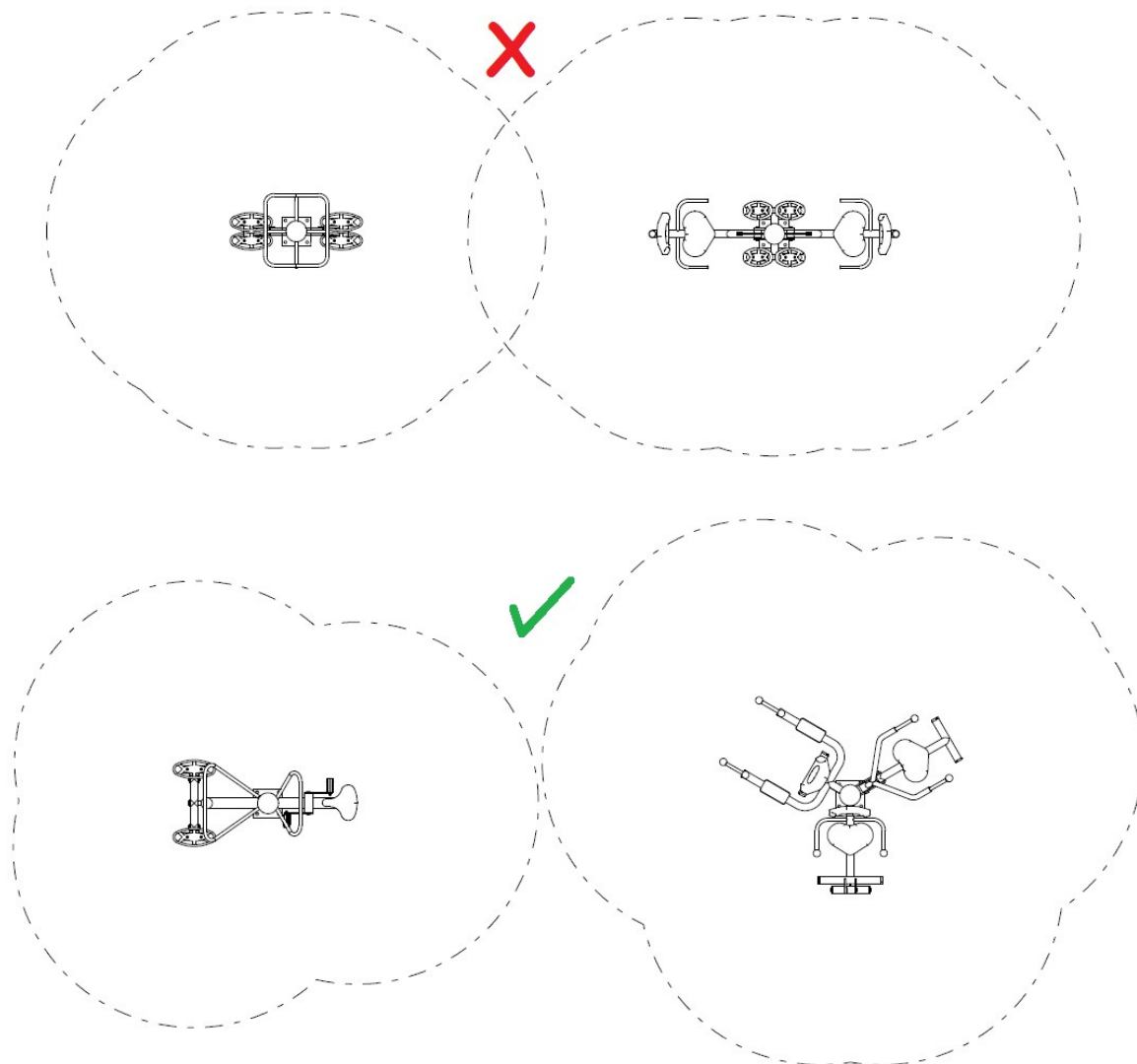
Please keep in mind that for loose surfacing, the surface level is always the bottom of the plate that is welded to the central post.

Please note that the type of surfacing used requires that we modify what is shipped. So it is imperative that you let us know the type of surfacing to be used during ordering so that we ship the appropriate items.

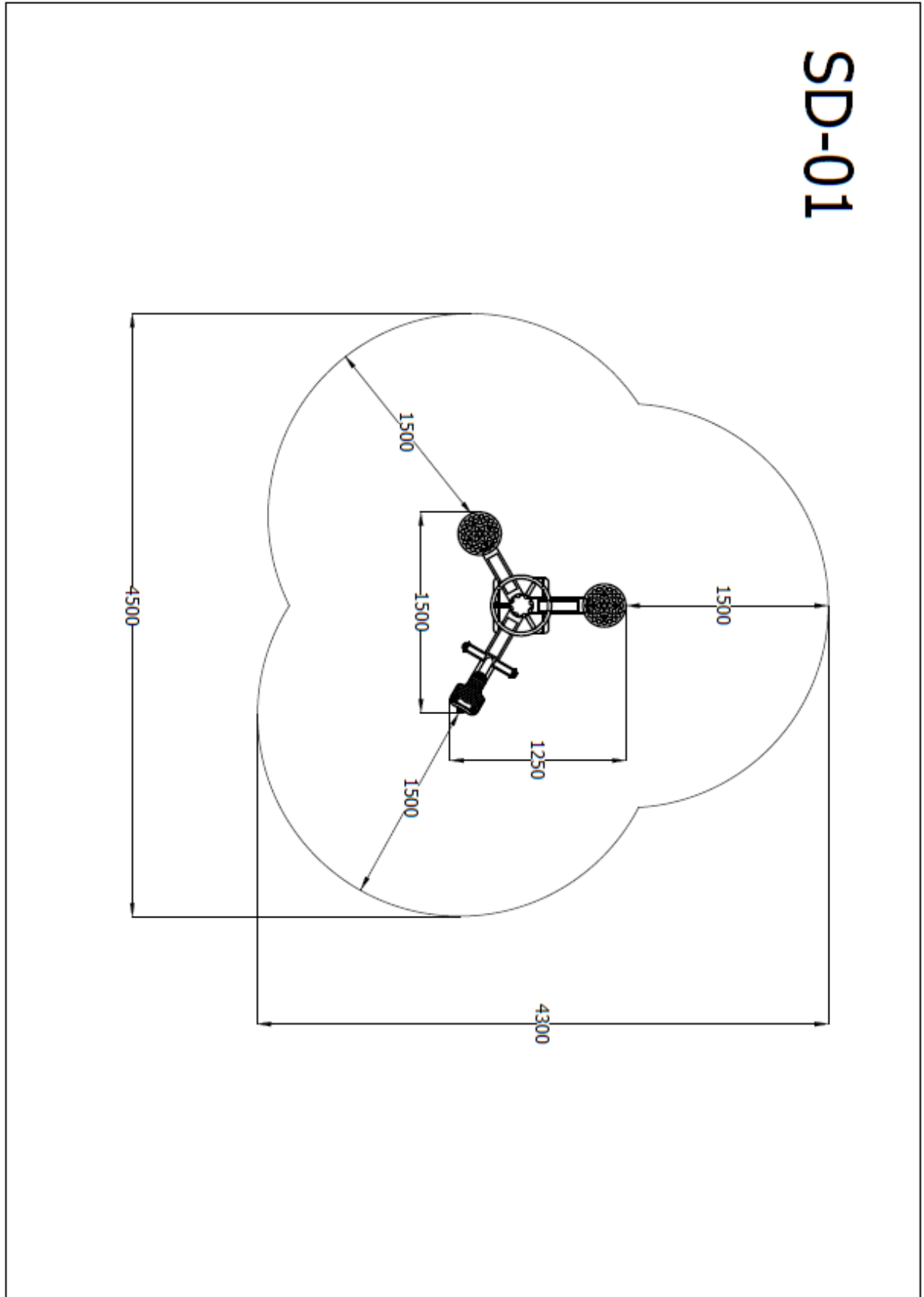
Please contact us for any questions.

Safety Zones:

Safety zones of all products are given in the following pages. Please note that the products should be assembled in such a manner that safety zones of the products should not intersect. The illustrations given below try to explain this point.

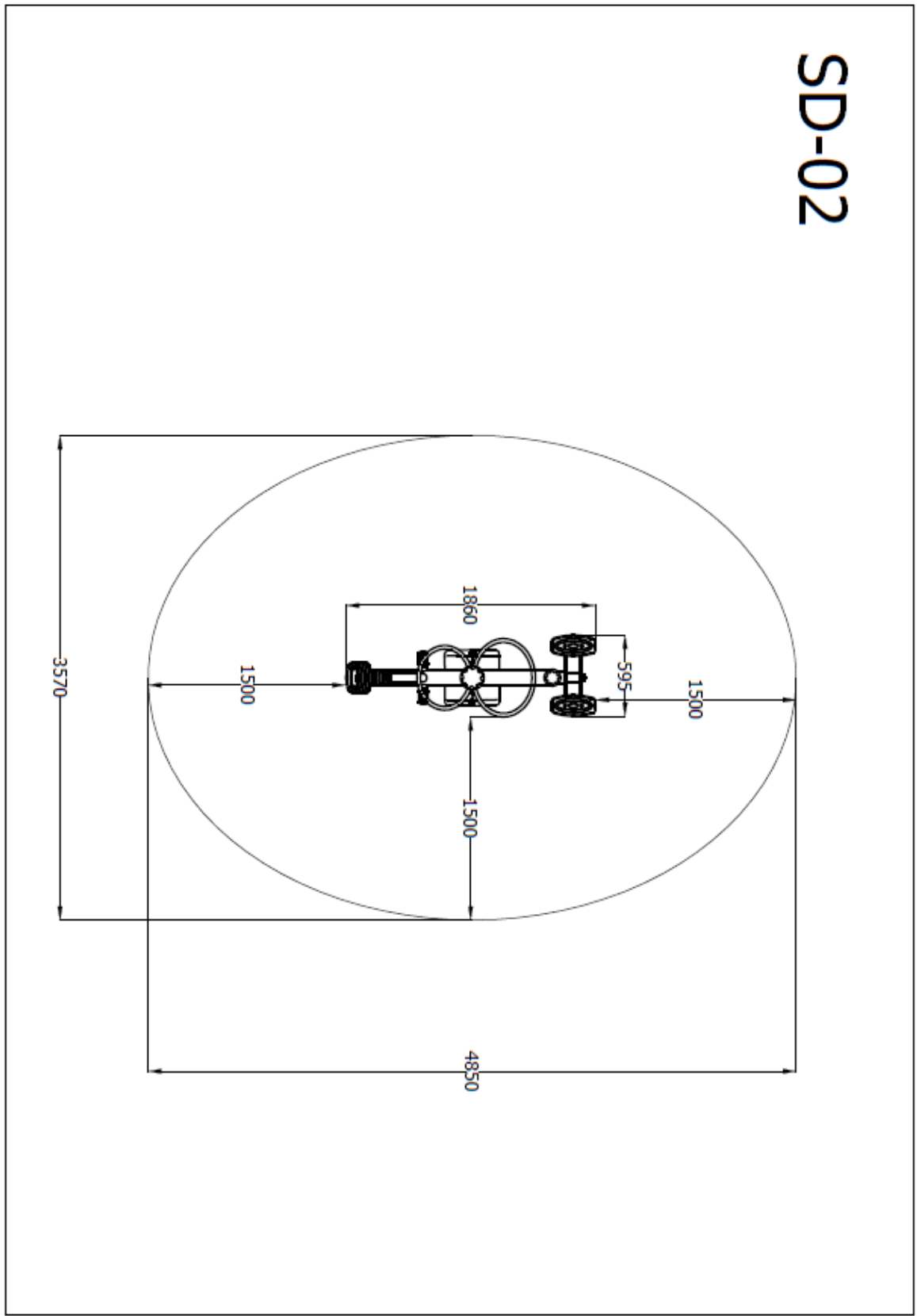


Safety Zone for SD 01:



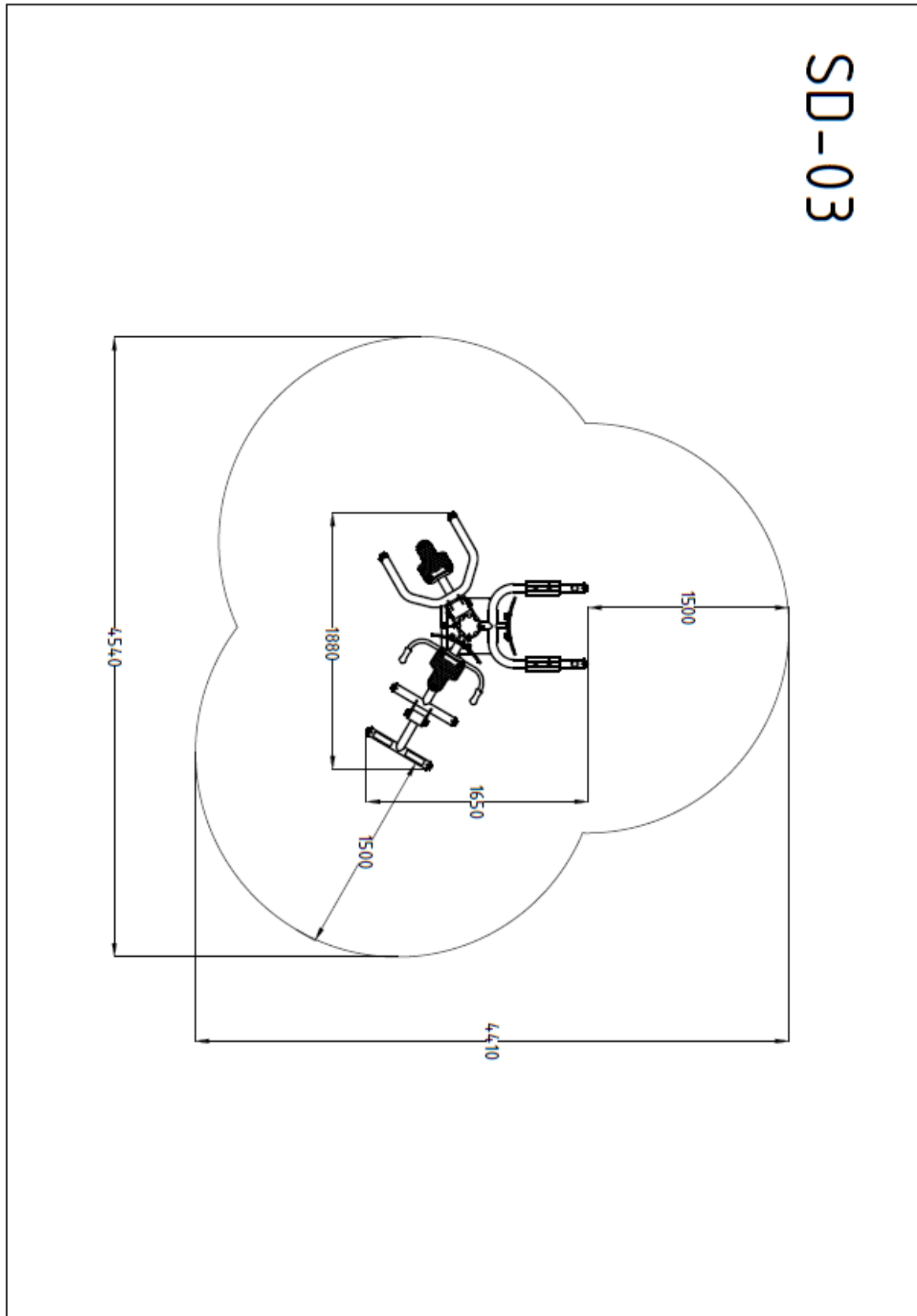


Safety Zone for SD 02

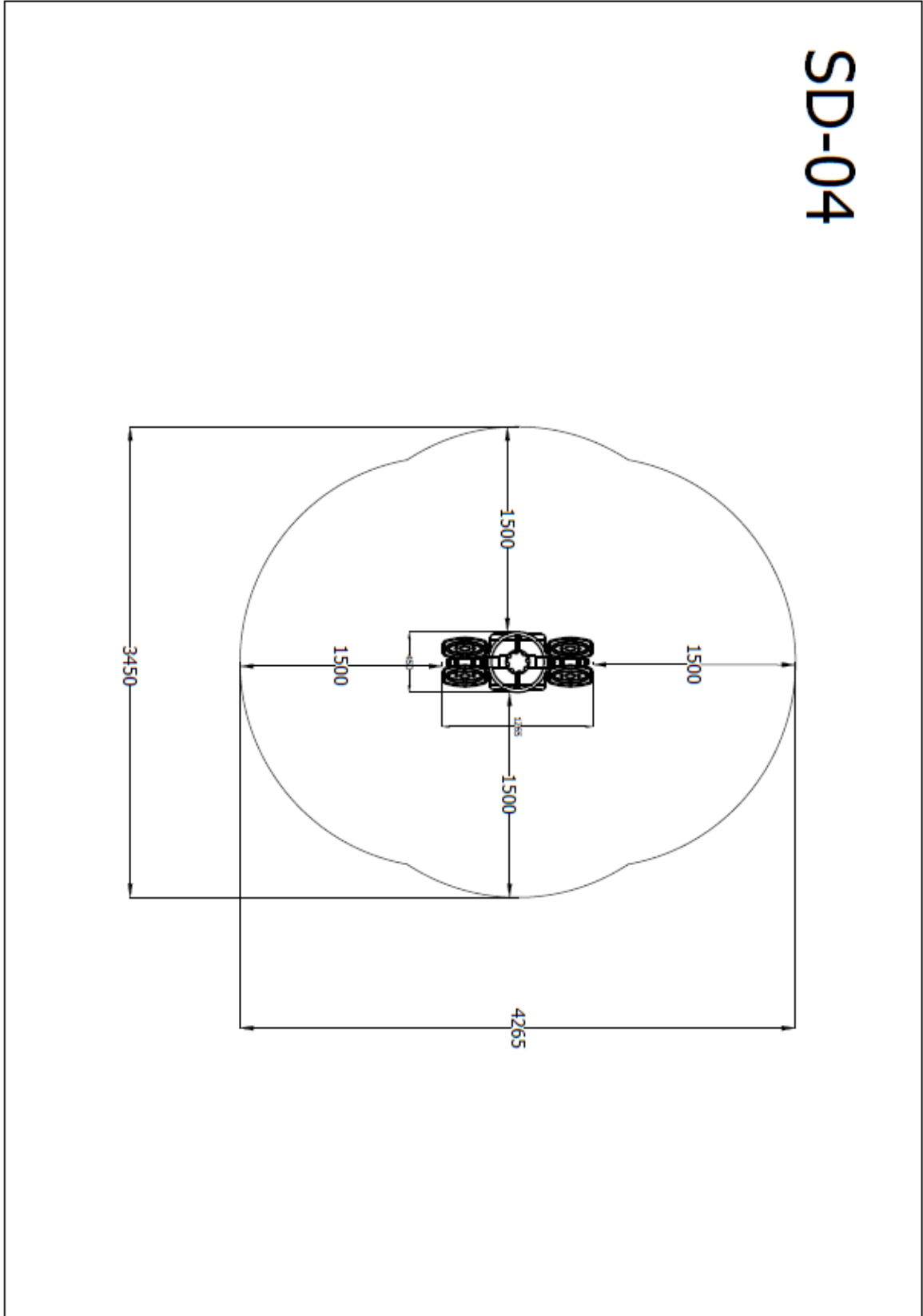




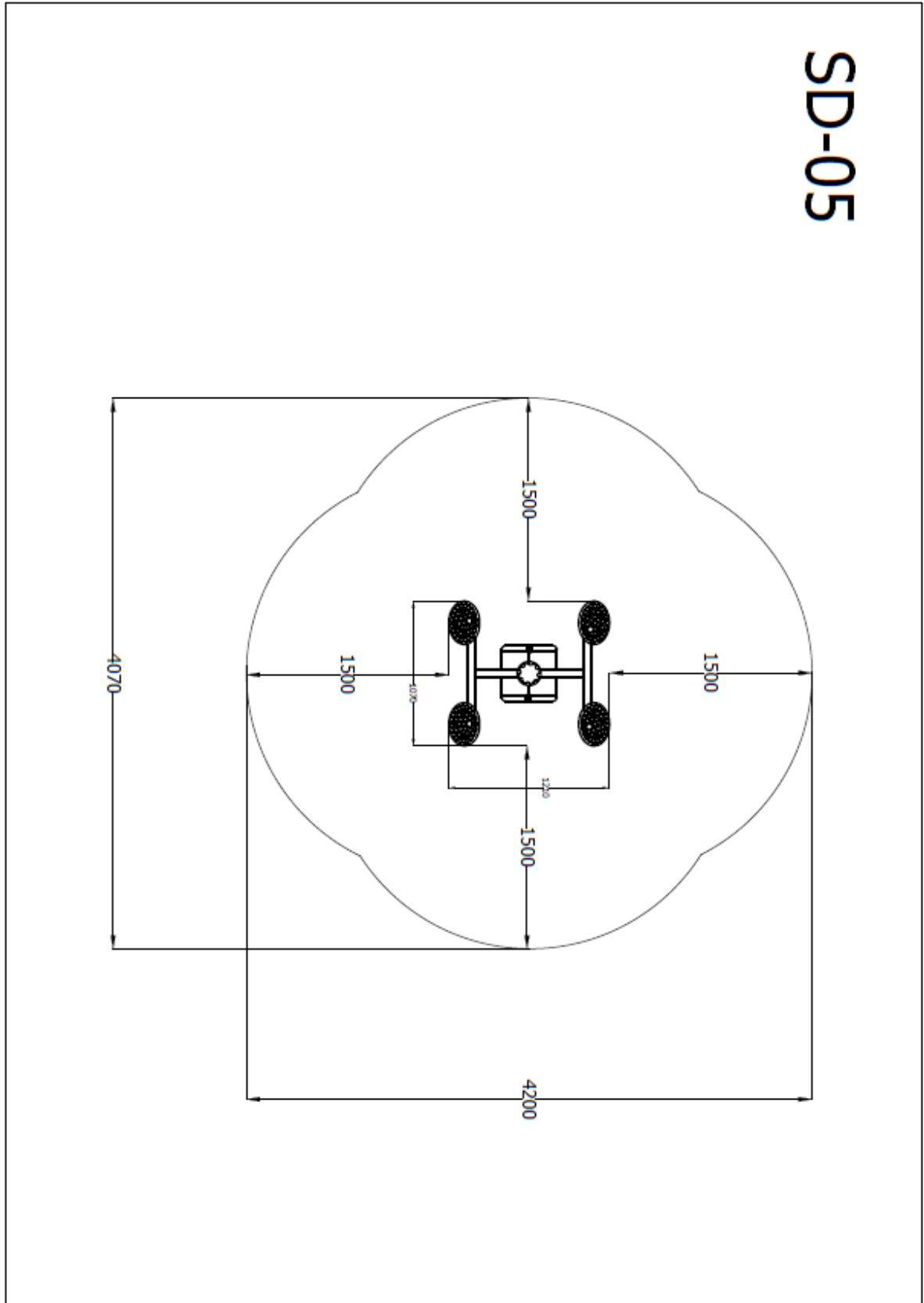
Safety Zone for SD 03



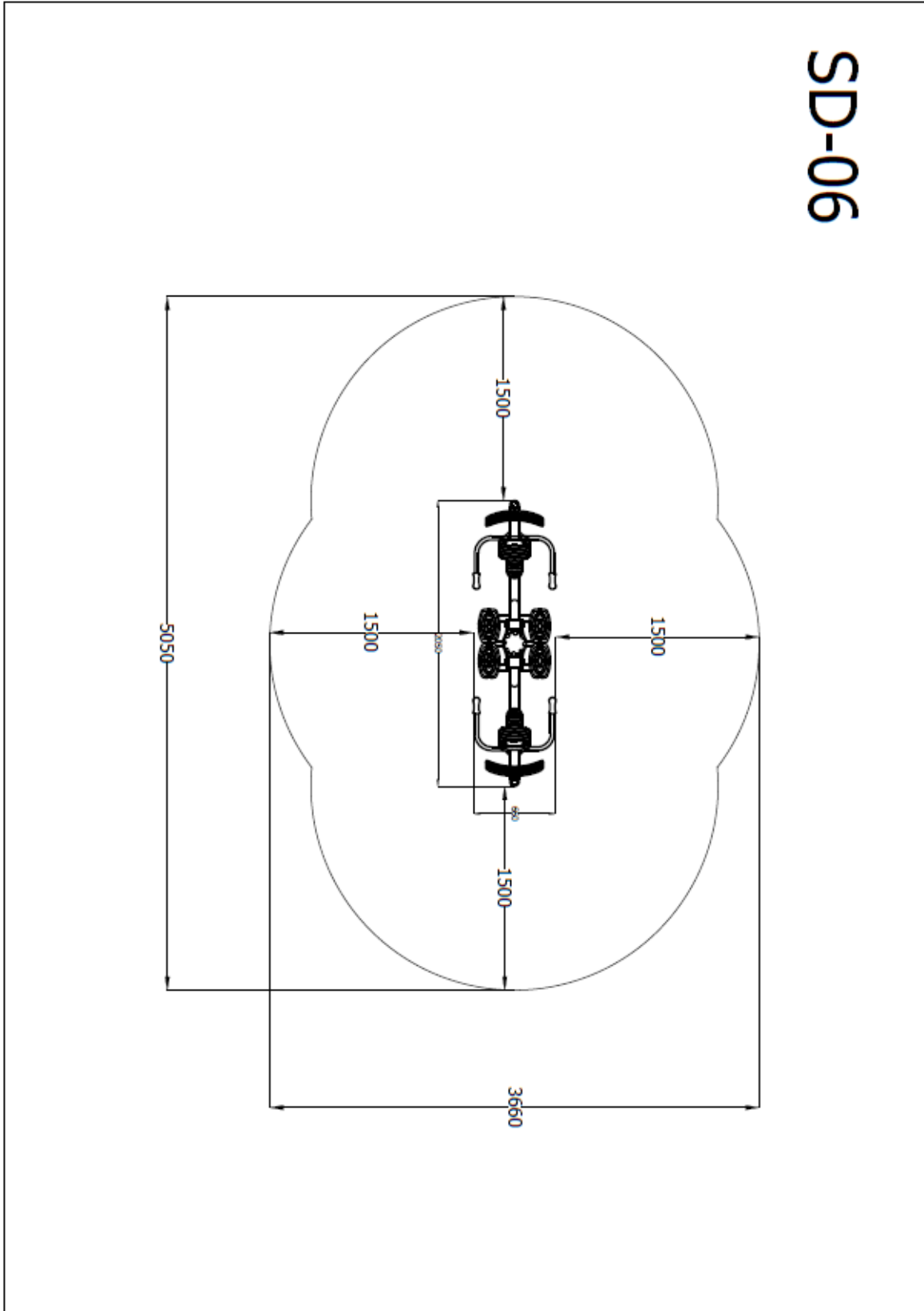
Safety Zone for SD 04



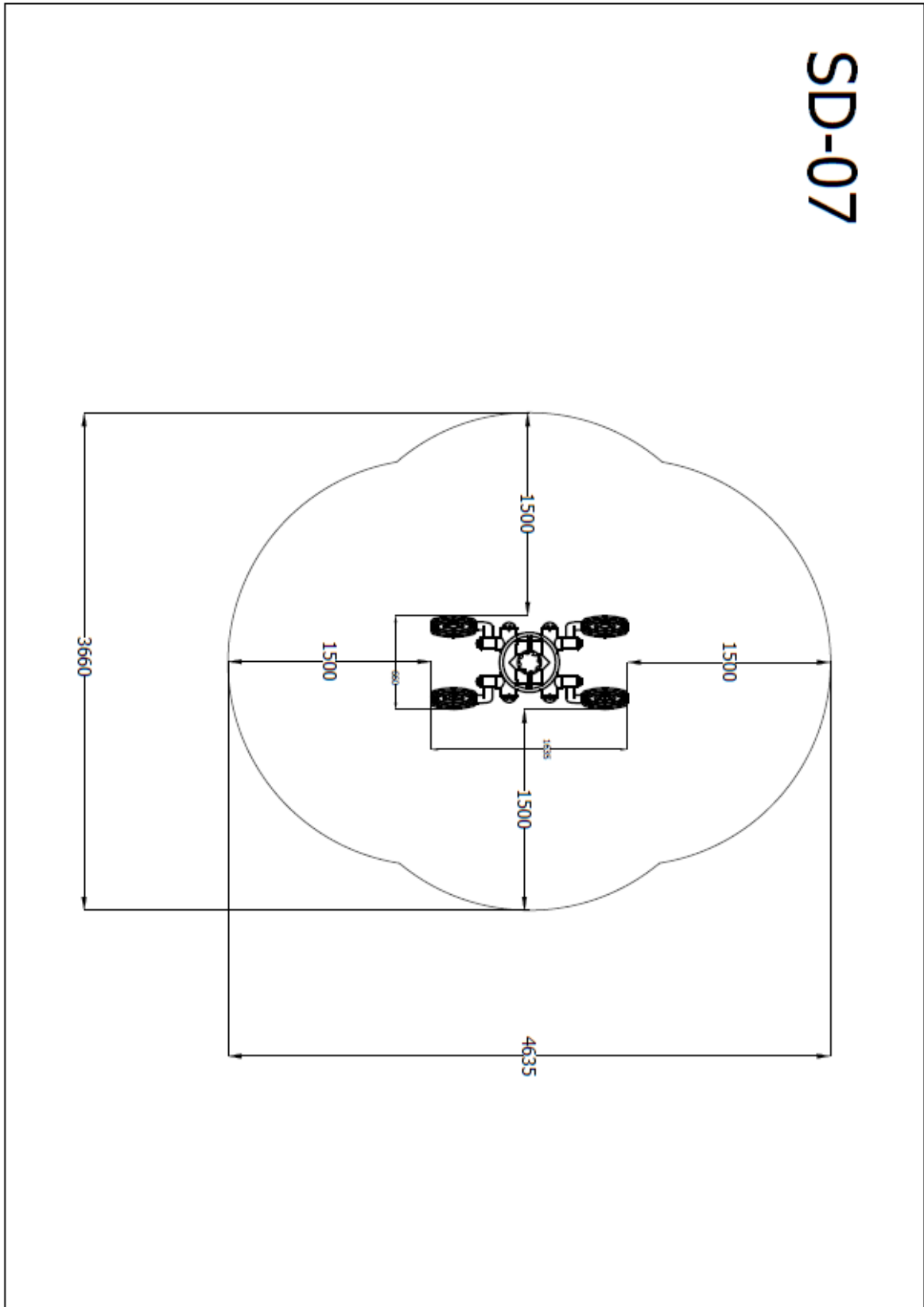
Safety Zone for SD 05



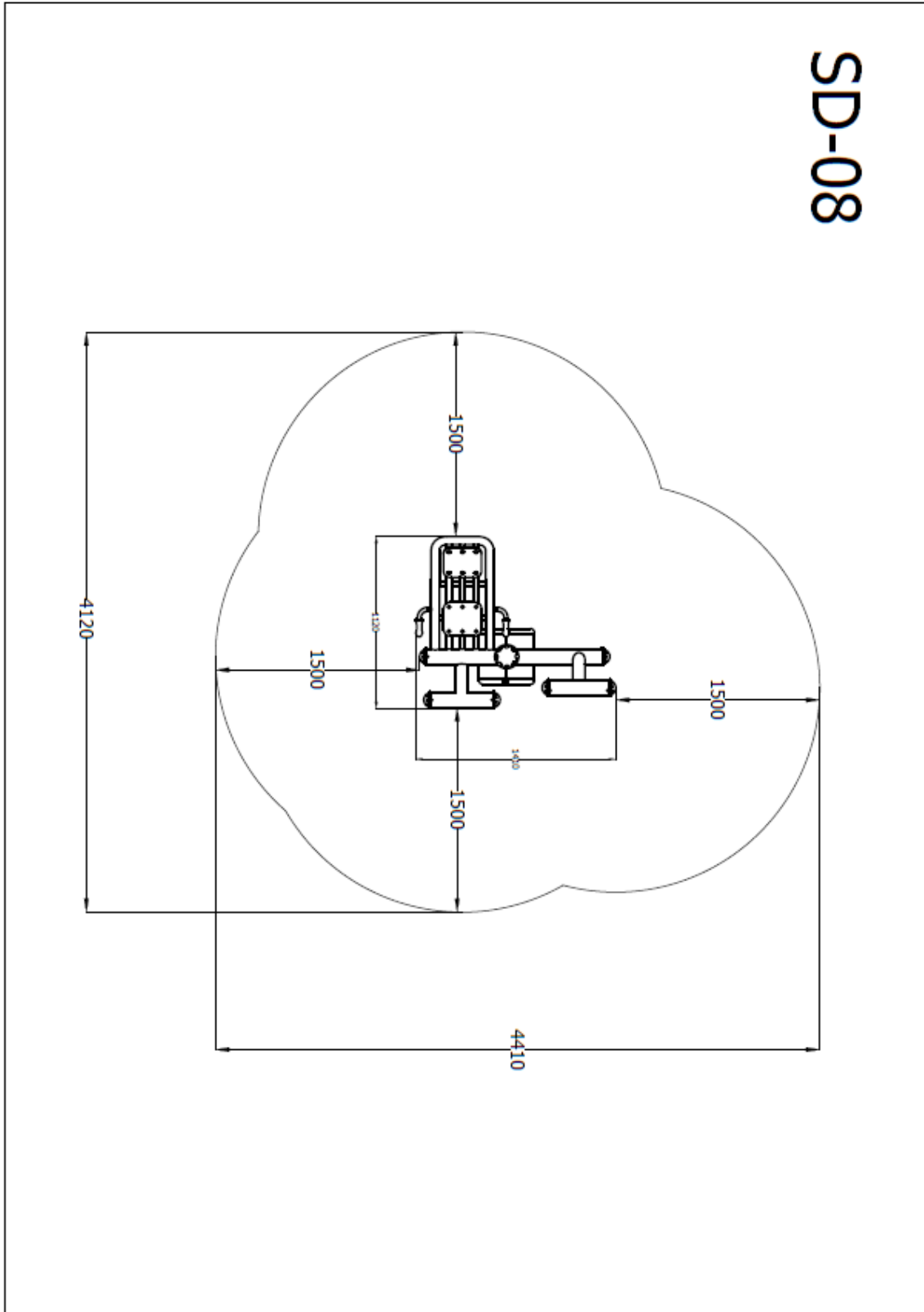
Safety Zone for SD 06



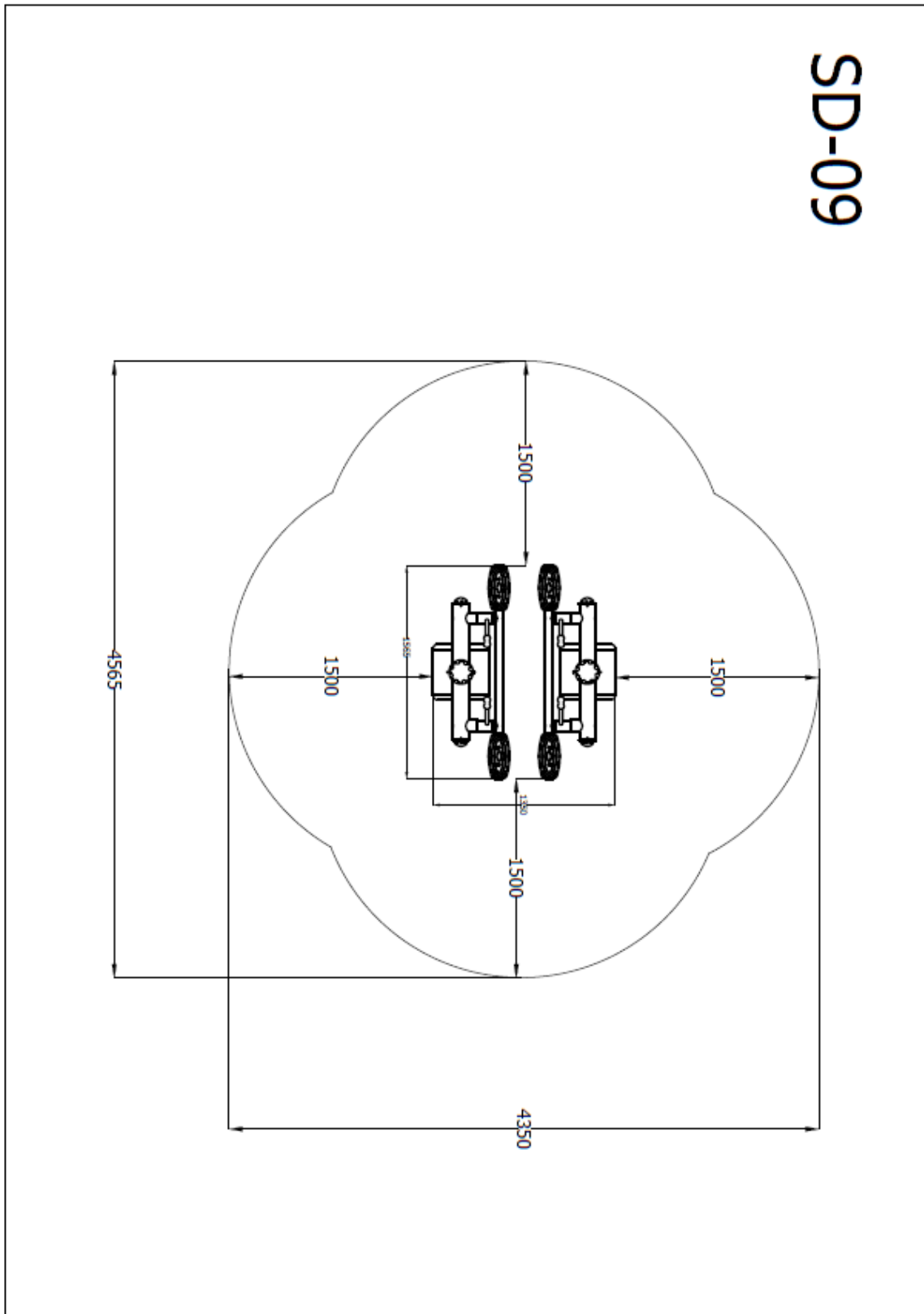
Safety Zone for SD 07



Safety Zone for SD 08

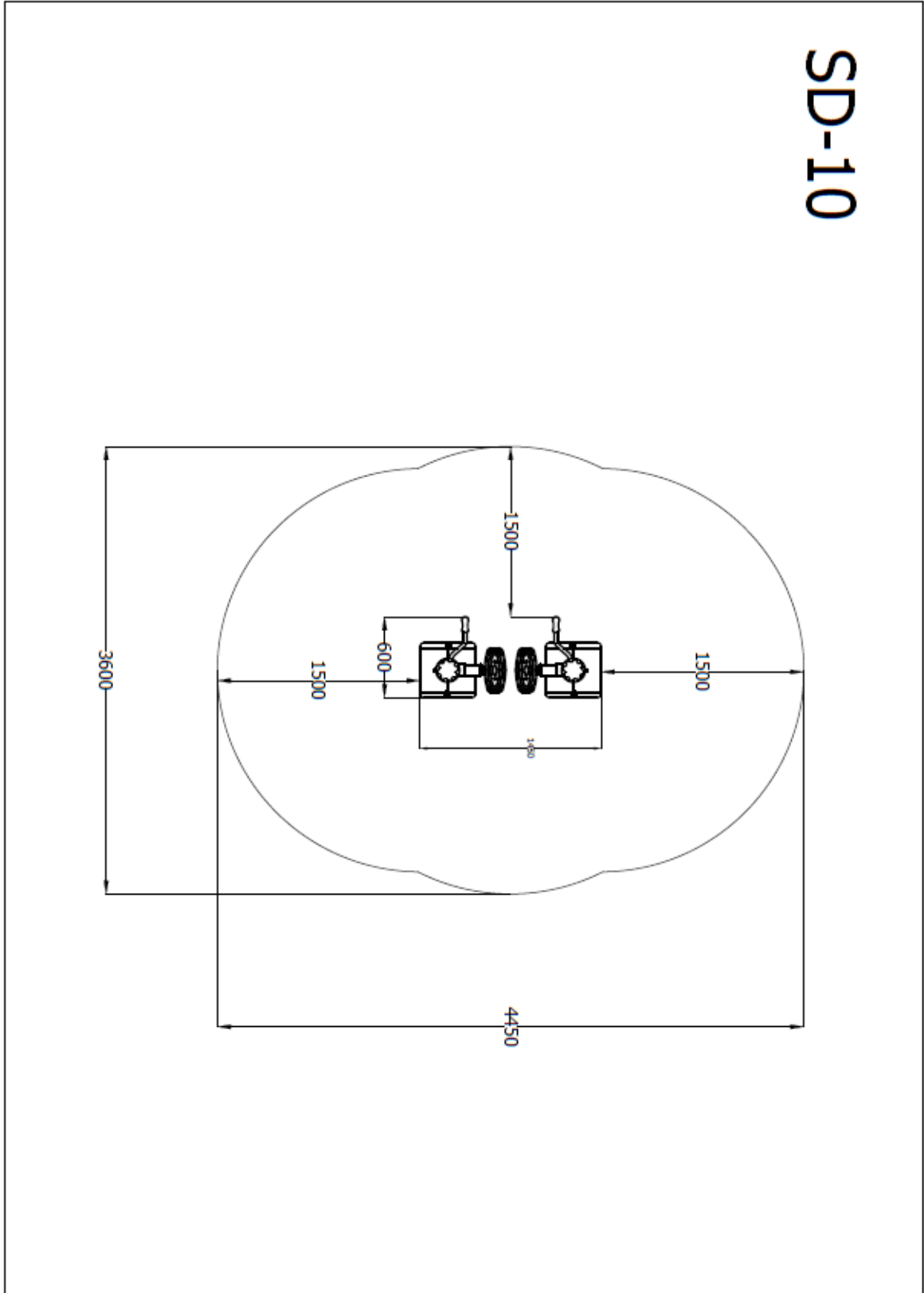


Safety Zone for SD 09



SD-09

Safety Zone for SD 10



Foundation Plan:

To come up with the correct size of the foundation we have done the following static calculation. This calculation considers the worst case scenario, where the stability given by the soil and the weight of the products are ignored.

Maximum user weight: 480 kgs (with safety factor of 4, two times for dynamic load, two as a safety factor)

Arm length: 0,8 meters

Size of concrete: 0,8 m * 0,8 m * 0,8 m

Weight of concrete: $0,8 \text{ m} * 0,8 \text{ m} * 0,8 \text{ m} * 2200 \text{ kg/m}^3 = 1126 \text{ kgs}$

Torque at the top created by the user: $0,8 \text{ m} * 480 \text{ kgs} = 384 \text{ kgs}$

Torque at the bottom created by the concrete: $754 * 0,4 = 450 \text{ kgs}$
 $450 \text{ kgs} > 384 \text{ kgs}$

Drawings are given below. As it is difficult to dig a hole with exact dimensions, as long as the dimensions given are used as a minimum and at least $0,5 \text{ m}^3$ of concrete is used (1 m^3 for SD 09 and SD 10), similar concrete sizes will be ok.

The concrete that is used for the foundation should be minimum C25 grade.

A ground anchor that is provided with the equipment is to be left in the concrete.

It is imperative that:

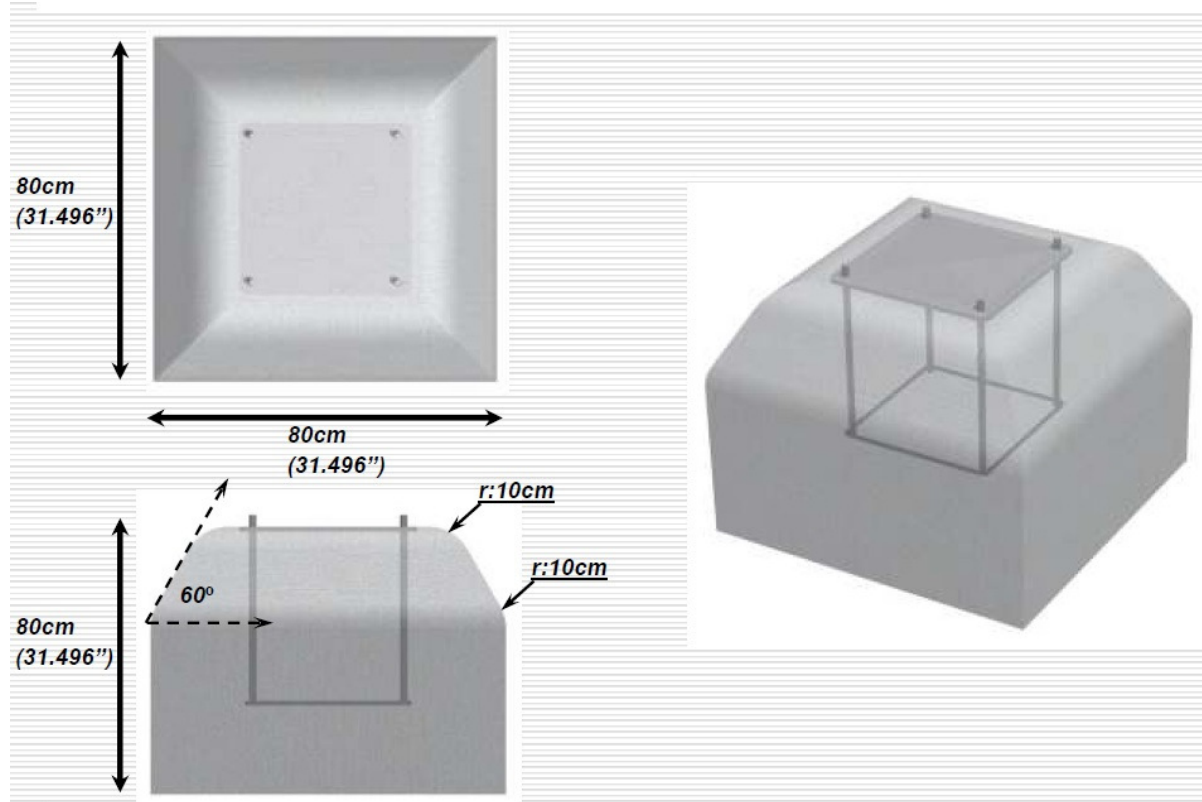
- A. The ground anchor is level with the ground, only the bolts protruding as shown in the drawings
- B. The ground anchor is flat and centers the concrete
- C. The bolts of the ground anchor is free of any concrete
- D. The assembly is not done until the concrete fully cures

SD 01-08 have only one central post, thus only one anchor per product. SD 09 and SD 10 have two central posts and a double anchor (also provided). Therefore SD 09 and SD 10 have a larger foundation. Even though SD 09 and 10 both have a double foundation, the distances between the foundations are not the same. So the anchors are also different and should be ordered separately.

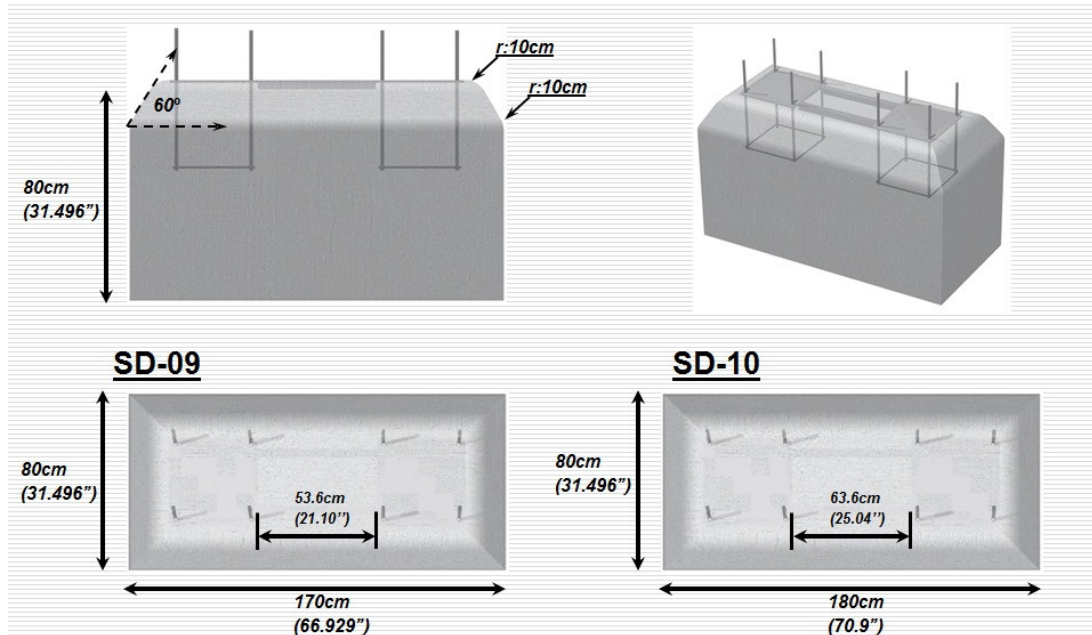
There are three types of installations that can be done depending on the surfacing. Please note that the type of surfacing used requires that we modify what is shipped. So it is imperative that you let us know the type of surfacing to be used during ordering so that we ship the appropriate items.

1. No surfacing (possible when product fall heights are <600 mm)
2. Synthetic Surfacing
3. Loose fill surfacing

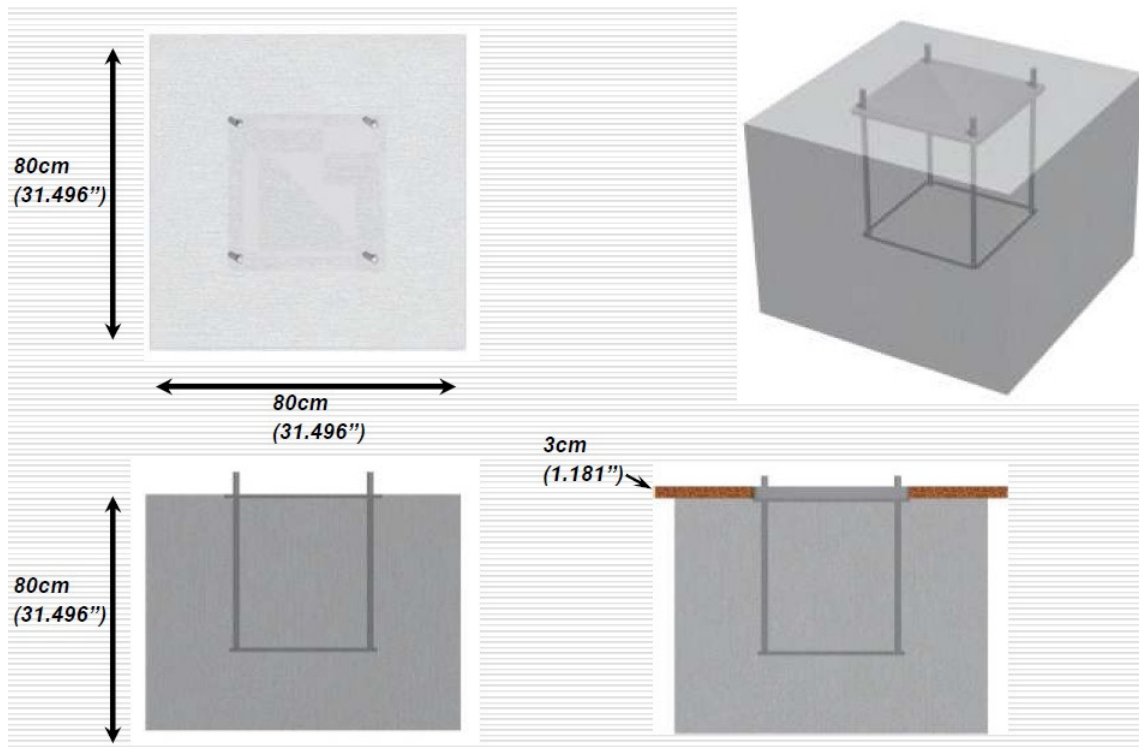
Foundation Plan for no surfacing SD 01-08:



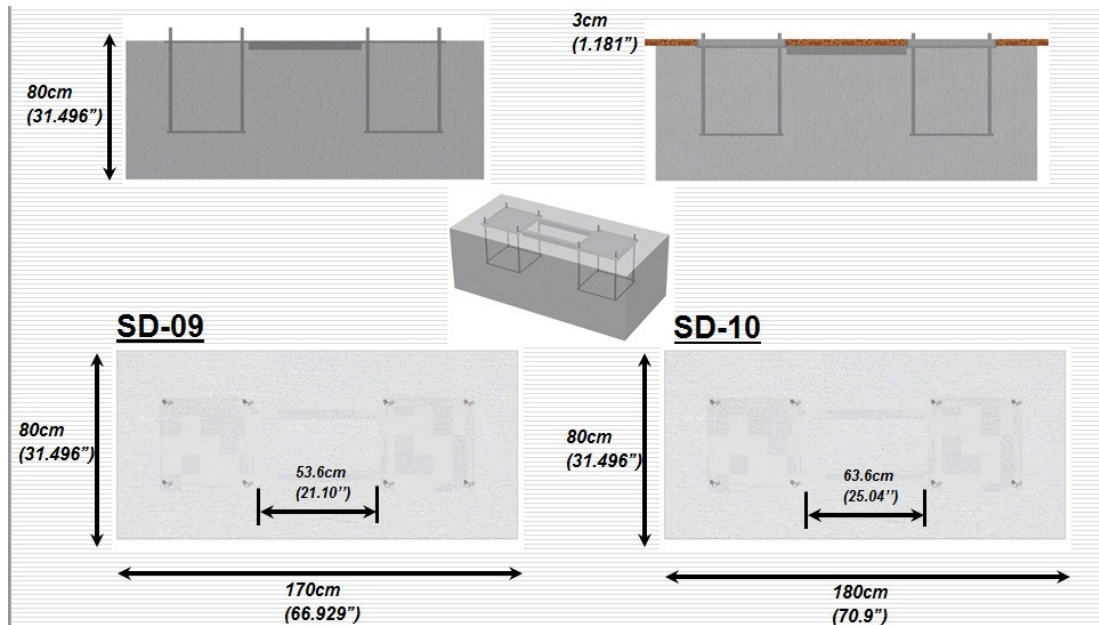
Foundation Plan for no surfacing SD 09-10:



Foundation Plan for Synthetic Surfacing SD 01-08

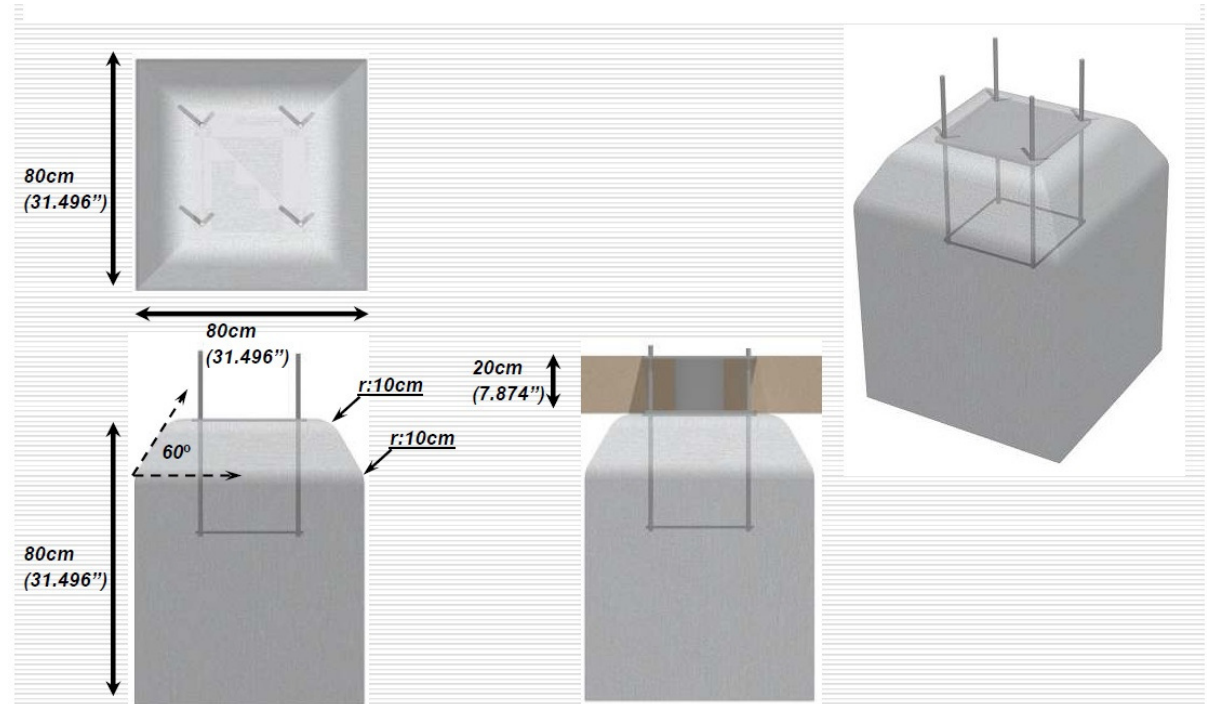


Foundation Plan for Synthetic Surfacing SD 09-10

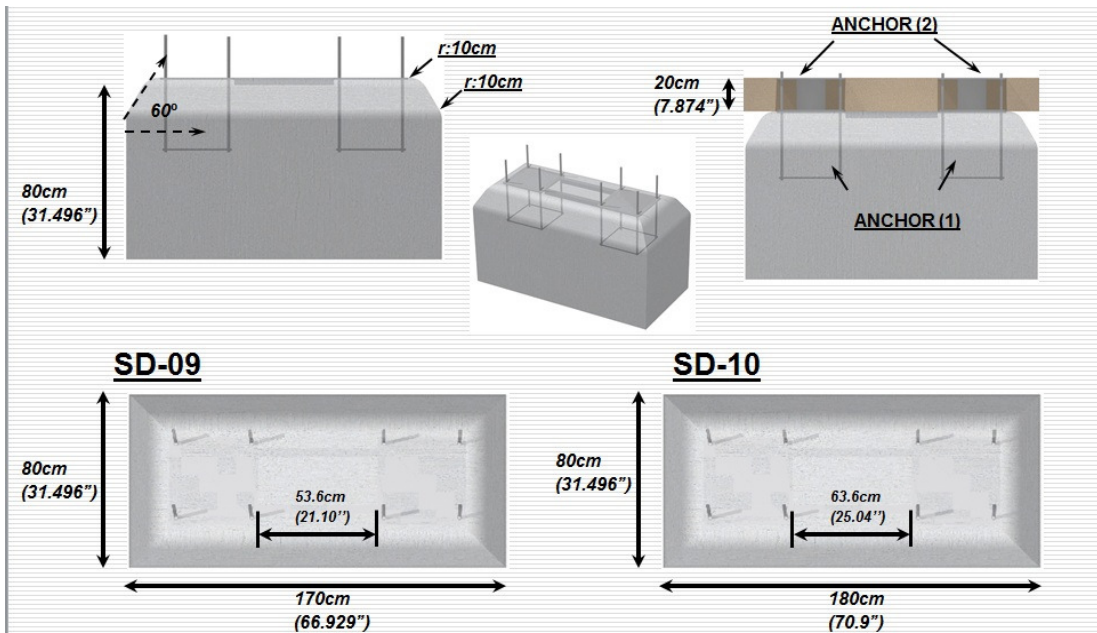


Please note: 3 cm synthetic surfacing depth is given as an example.

Foundation Plan for Loose Fill Surfacing SD 01-08



Foundation Plan for Loose Fill Surfacing SD 09-10



Please Note: 20 cm loose fill height is given as an example.

Assembly Plans:

The assembly of the SD series is very easy, as the product is shipped mostly pre-assembled. The below information will help you in installing the SD series. With a program called Publisher it is possible to view the assembly as a video and watch it on our Iphone-Ipad or Android phone. A guide on how to do this is provided.

All the weights of the products are given in the product pages and in the brochures. Even though we feel that all products can be carried by two adults, individual conditions may vary. It is best to check the weights of the equipment and the assembly site and decide if you need any additional help or equipment to lift the goods.

To repeat what is said in the beginning: The height of the SD series is always standard. To accommodate for the different surfacing depths we use extra pieces. This makes production standard and results in lower lead times for our customers. For loose fill surfaces, we use what we call a loose fill surface adaptor. For synthetic surfaces, we use synthetic surface plates.

Assembly plan when a synthetic surface is used:

1. On the anchor, place the required number of synthetic surface plates. The required number depends on the depth of the synthetic surface. For every 10 mm of synthetic surface, you need one plate. So, for example, for a 30 mm synthetic surface, you need 3 plates.
2. For synthetic surfacing more than 50 mm, it may be a good idea to place a loose fill surface adaptor. Please contact us for information.
3. Apply the surfacing.
4. Continue as you would when installing without safety surfacing (A)

Assembly plan when a loose fill surface is used:

- I. On the anchor, place the loose fill surface adaptor.
- II. Fill the surfacing.
- III. Continue as you would when installing without safety surfacing (A)

Assembly plan when there is no safety surface:

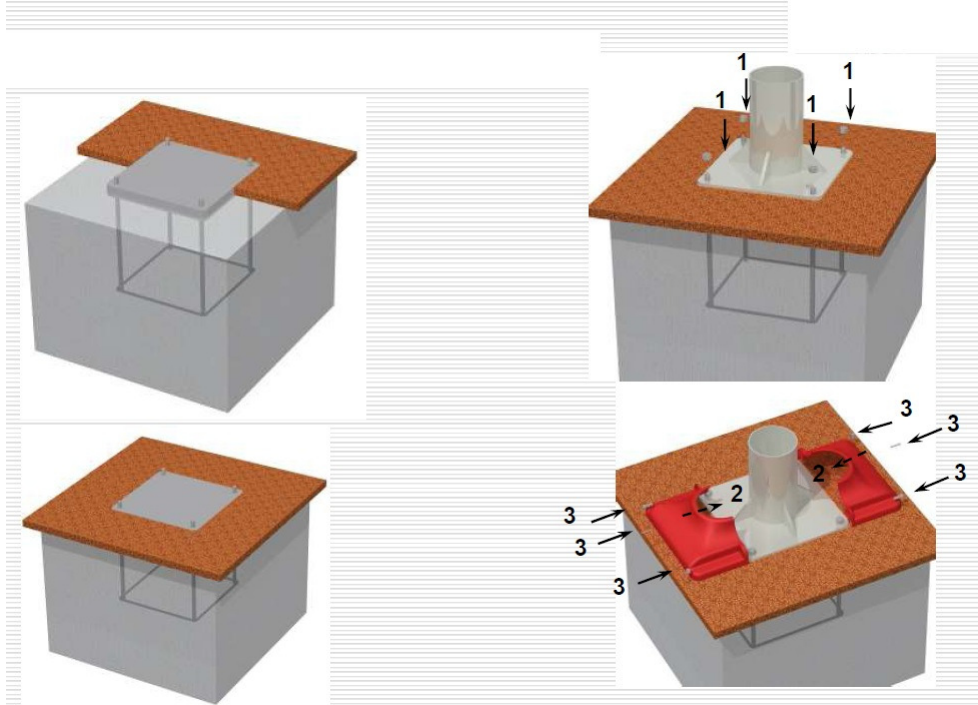
- A. Place the unit on the bolts of the anchor.
- B. Tighten all bolts.
- C. Place the ground covers on the products.
- D. Secure the ground covers using bolts provided. Make sure the ground cover is secured to the central post also.
- E. Remove all packaging.

SD 01-08 involves only one central post, whereas SD 09 and 10 involve two. The only difference during assembly is that SD 09 and 10 requires both central posts to be assembled.

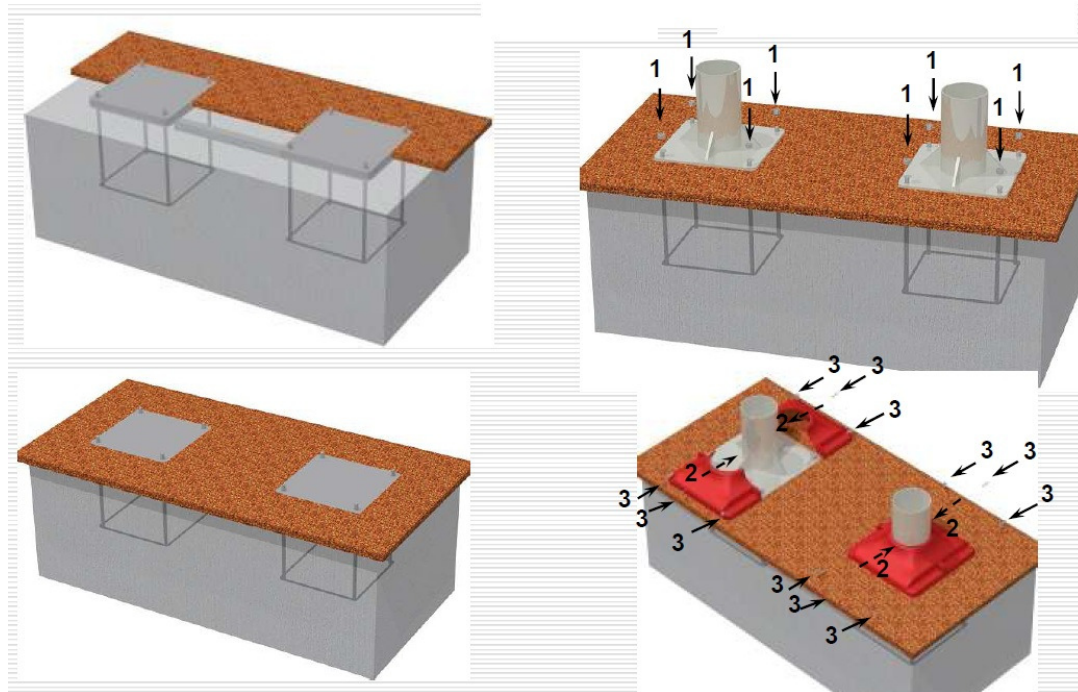
After all this is done, assemble the labels. It is vital that all labels are assembled. A drawing has been added to the end of the assembly section to help you do this.

Assembly Plan Drawings for Synthetic Surface:

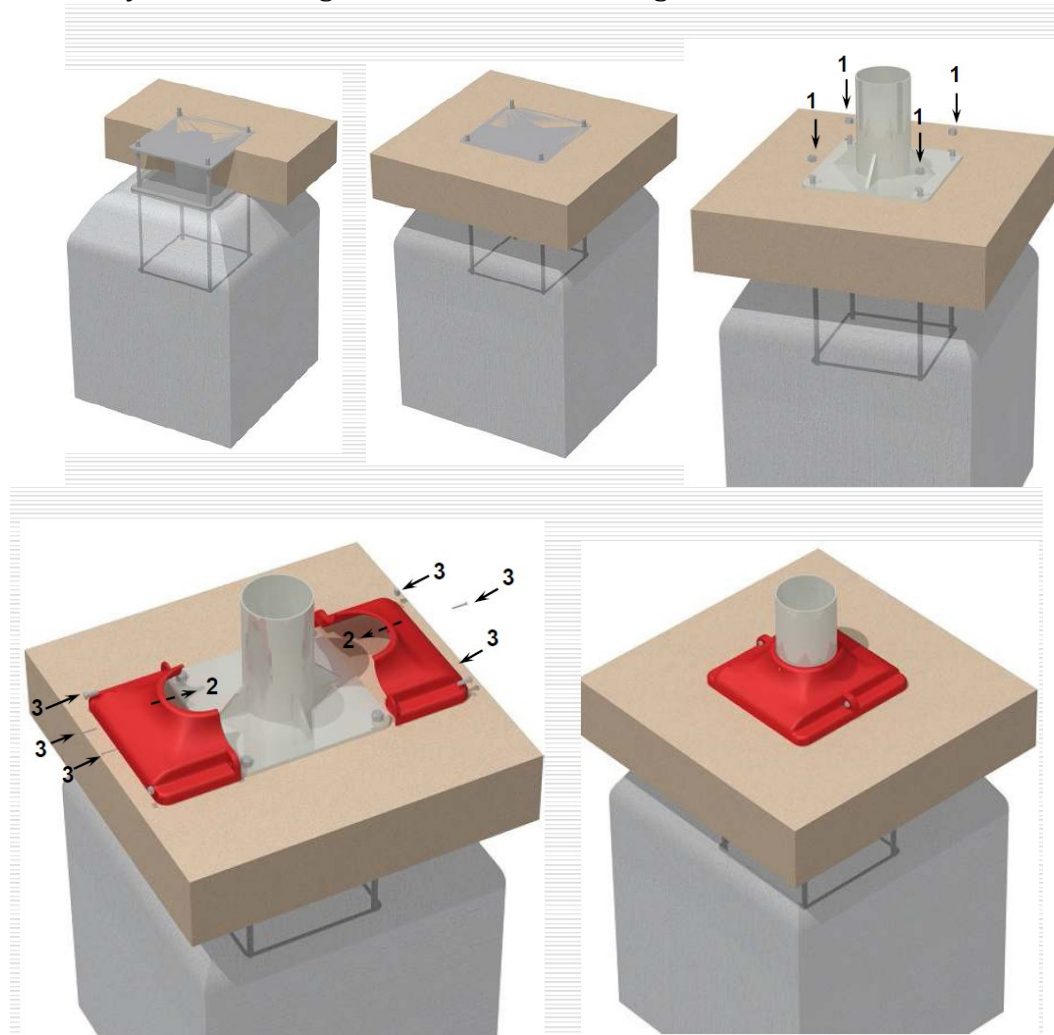
SD 01-08:



SD 09-10:

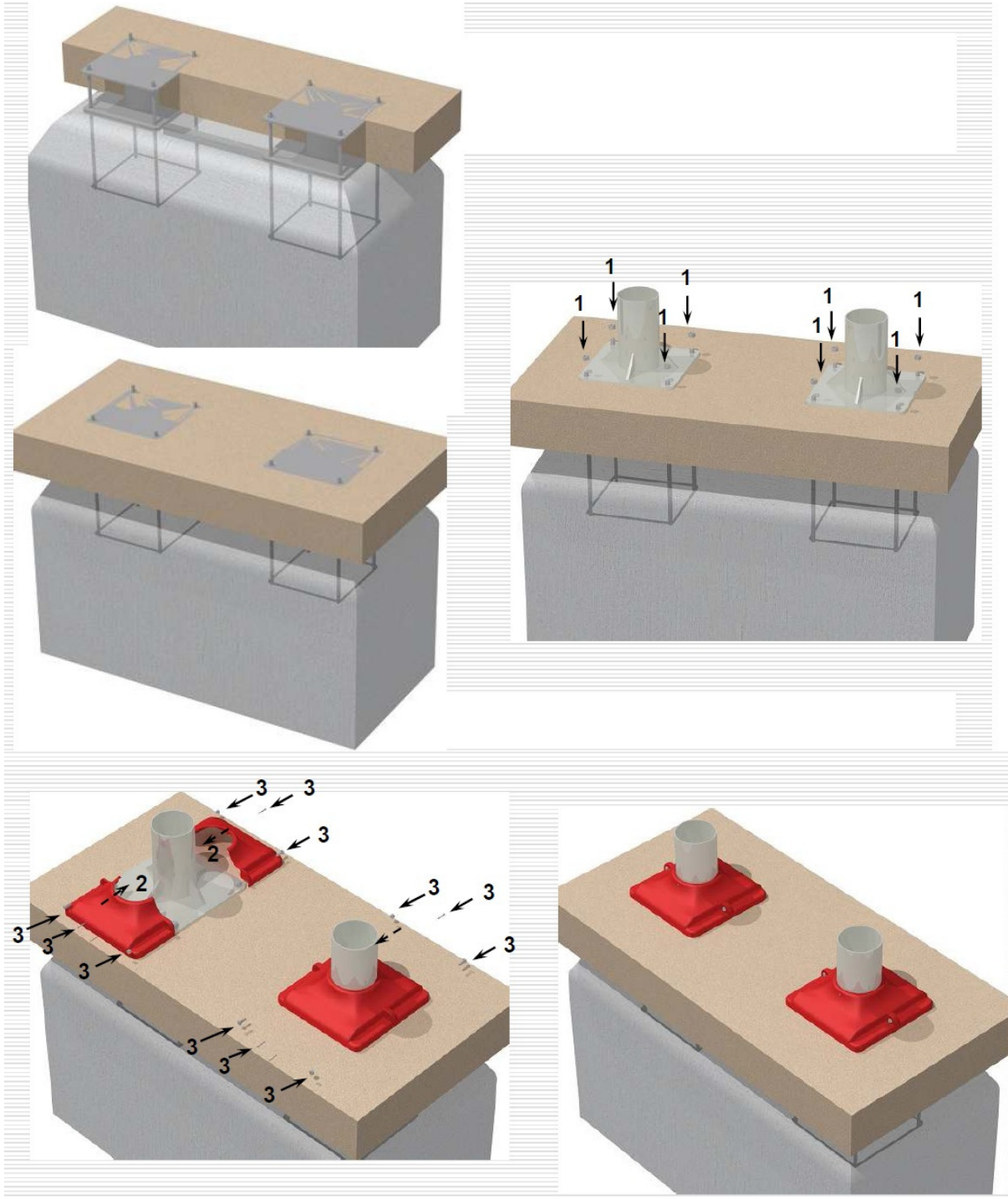


Assembly Plan Drawings for Loose Fill Surfacing SD 01-08:

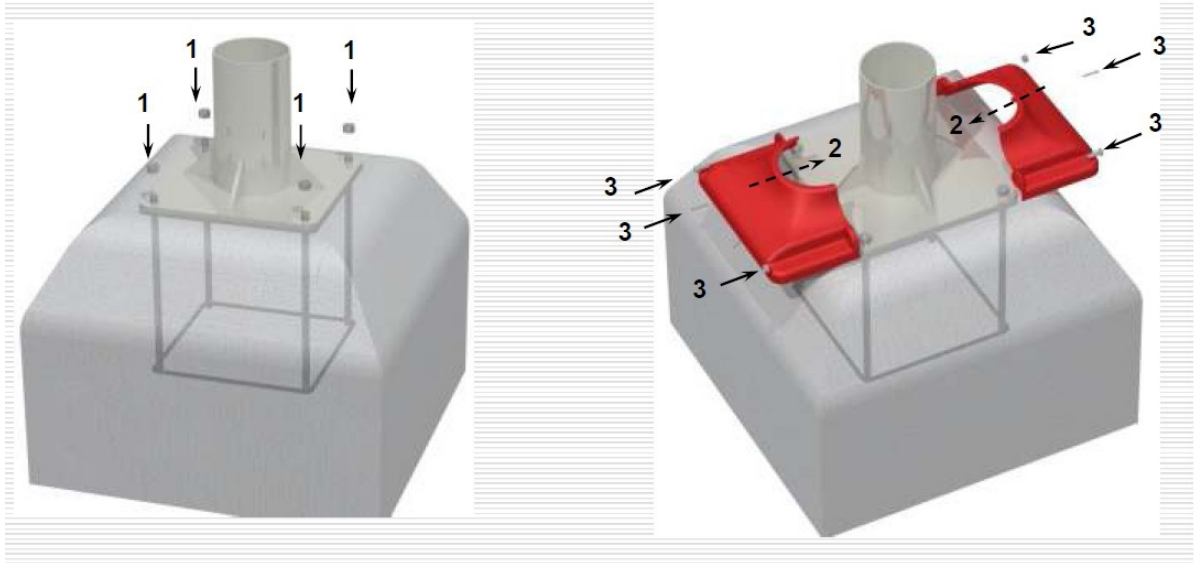




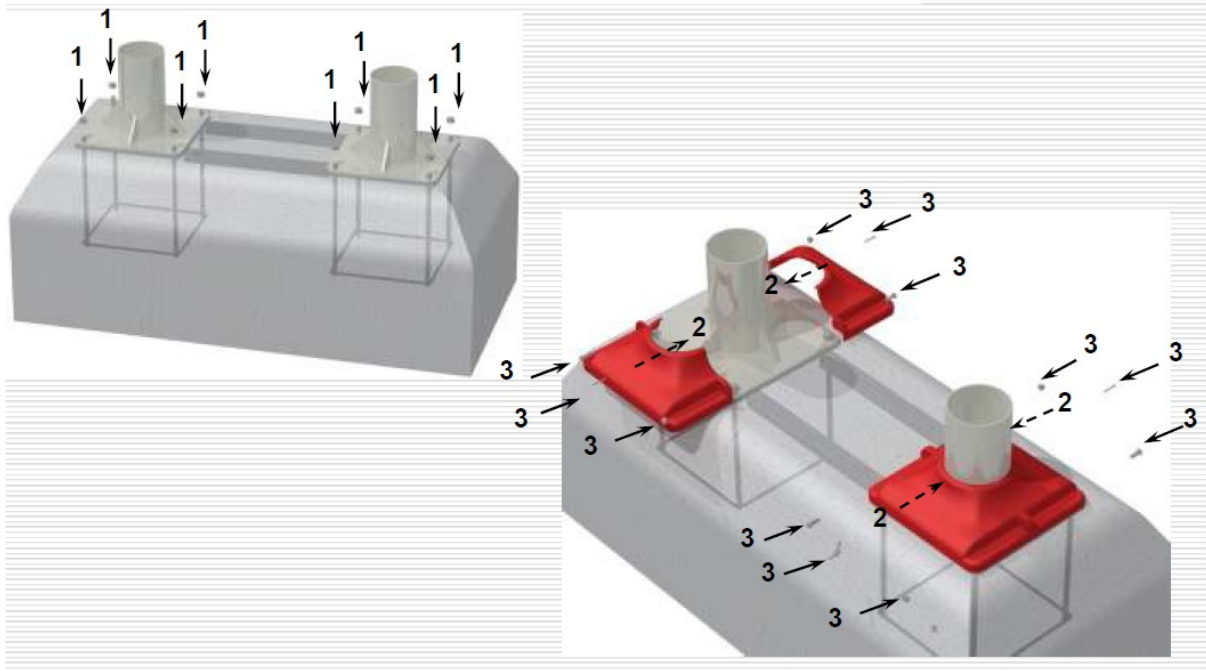
Assembly Plan Drawings for Loose Fill Surfacing SD 09-10



Assembly Plan Drawings for No Surfacing SD 01-08:

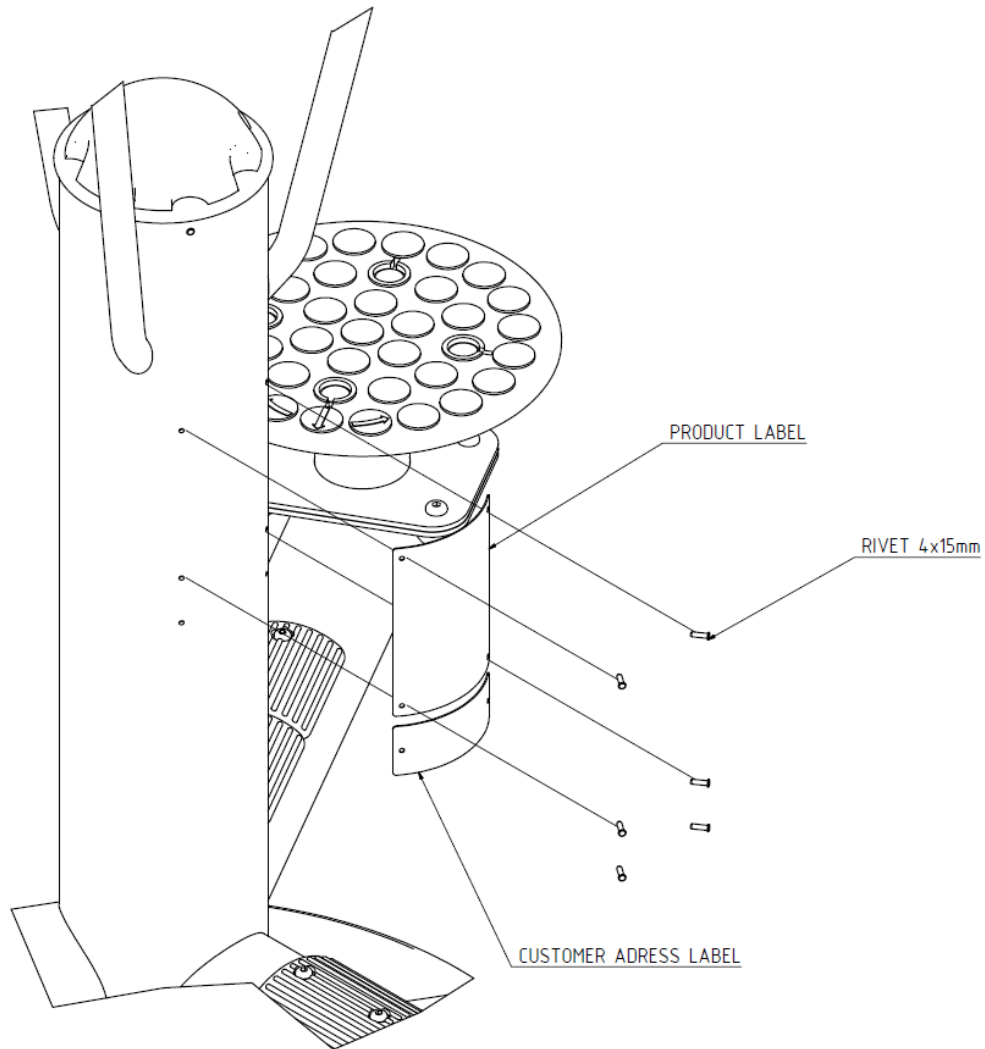


Assembly Plan Drawings for Loose Fill Surfacing SD 09-10:



Assembly of the Labels:

Please note that there are two labels. One of them gives information about the product. The other one gives the name of the producer and the exporter. Both have to be installed.



Maintenance Plan:

The following maintenance plan is according to DIN 79000. According to DIN 79000, it is the duty of the customer to comply with the following plan and document all inspections. The person performing the inspection should be competent to do so. Any failure may result in the product not being according to DIN 79000 and may void warranties. Also adhering to the maintenance plan will make your products last longer. Please contact us in case you need any assistance.

The inspection is divided into three parts depending on the frequency of the inspection; weekly routine, monthly operational and annual inspection. The frequency of the inspections should be increased in areas where there is more frequent use, where there is more vandalism and areas that are close to the sea. For example it may be a good idea to do a daily inspection instead of a weekly inspection in a heavily used area such as a school.

To prevent any accidents and damages, defects that are detected should be repaired immediately. It may be a good idea to close the product to public use before necessary repairs are done. Please contact Flopark for any help or any spare parts requirements.

Weekly routine inspection:

- Check for obvious signs of damage, such as broken parts, missing parts, sharp edges.
- Check for loose bolts.
- Make sure the foundation is not exposed.
- Check moving parts to make sure they are in good condition and that the movement is smooth.
- Check safety surfacing to ensure that it is not damaged.
- Check for any dents or scratches and use touch up paint to cover them. This is to prevent rusting.
- Check the safety zone around the products to make sure that it is free from any other objects and that the surface is clean and free from debris, broken glass etc.
- Check the product markings. If removed, or if they cannot be read, ask for replacements.

Monthly operational inspection:

- Repeat the steps for the weekly routine inspection.
- Repeat all the moves in the products. Make sure the torsion system works properly.
- Check for any excessive wear. Check all fixations.
- Check for any signs of corrosion.
- Check all bolts to see if any are loose. Retighten if necessary.
- Make sure all seats, grips, foot pedals etc. are secure.

- If necessary grease bearings.
- For SD 05 rotate the discs. If you do not feel resistance to the rotation, tighten the screw behind the rubber discs. A drawing showing how to do this has been added below.

Annual Inspection:

- Perform monthly operational inspection.
- Make sure the products are fixed to the foundations. It may be a good idea to remove the post covers and retighten the bolts that fix the structure to the foundation.
- Check the central post for any wear. Check all welds.

SD 05 Increasing Resistance:

