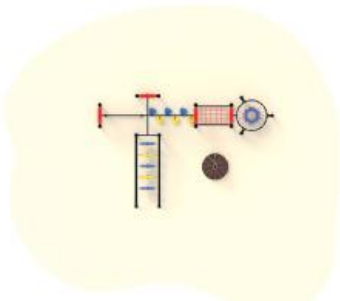




# PS-02




**Age range**  
3+




**Free Fall Height**  
2,20 m



**Assemble Area**  
12 m<sup>2</sup>



**Sitting Area**  
3,38m\*3,46m



**Safety Area**  
6,88m\*6,46m

## **Load-bearing Construction**

- Tower, slide, roof, ladder, railing, etc. The main columns that will carry the playgroup elements are manufactured from industrial pipes with a diameter of 114 mm and a wall thickness of min. 2 mm.
- The open top parts of the 114 mm diameter industrial pipes are closed and riveted with self-colored plastic pipe plugs shaped with injection molds in the form of a hemisphere with a wall thickness of 4-6 mm, detailed to prevent corrosion caused by water and moisture.

## **Polyethylene Products**

- The raw material of polyethylene materials to be used in playgrounds is low density linear polyethylene.
- Original raw materials that do not contain any chemicals that may harm children's health and that have EN 1176-1.3 certificate are used.
- In order to prevent electrification, an anti-static agent is added to the polyethylene.
- There is no zinc in the paints used in the polyethylene raw material and the light sensitivity is between 6-8 scales.
- In polyethylene materials, the thickness is at least 5 mm in areas where there is friction and pressure.

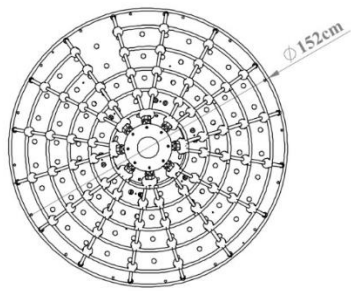
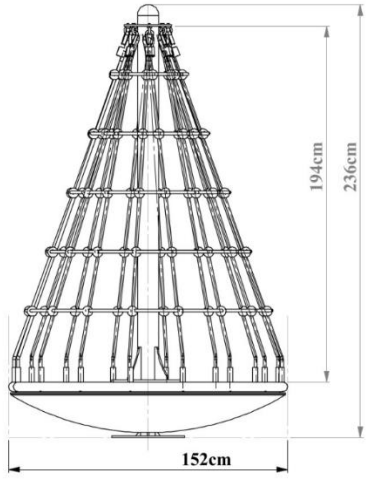
## **Electrostatic Paint**

- After all metal parts are manufactured, they are immersed in an iron phosphate bath with 1% concentration at 50 degrees for 15 minutes after rinsing in the dust and degreasing bath with 5% concentration at 70 degrees for 10 minutes.
- Afterward, it is rinsed with clean water again and drying processes are carried out.
- Before the static paint process, sanding is applied in a way to prevent rusting, which may be caused by dust and particles that can settle on the metal parts as a result of air circulation during the drying phase during the resting period.
- After this stage, the material is covered with polyester-based powder paint with a thickness of 60-80 microns, which prevents heating (color fading) in the sun, and then it is heated in an oven at a temperature of at least 200-220 degrees for 10 minutes, and the painting process is completed.

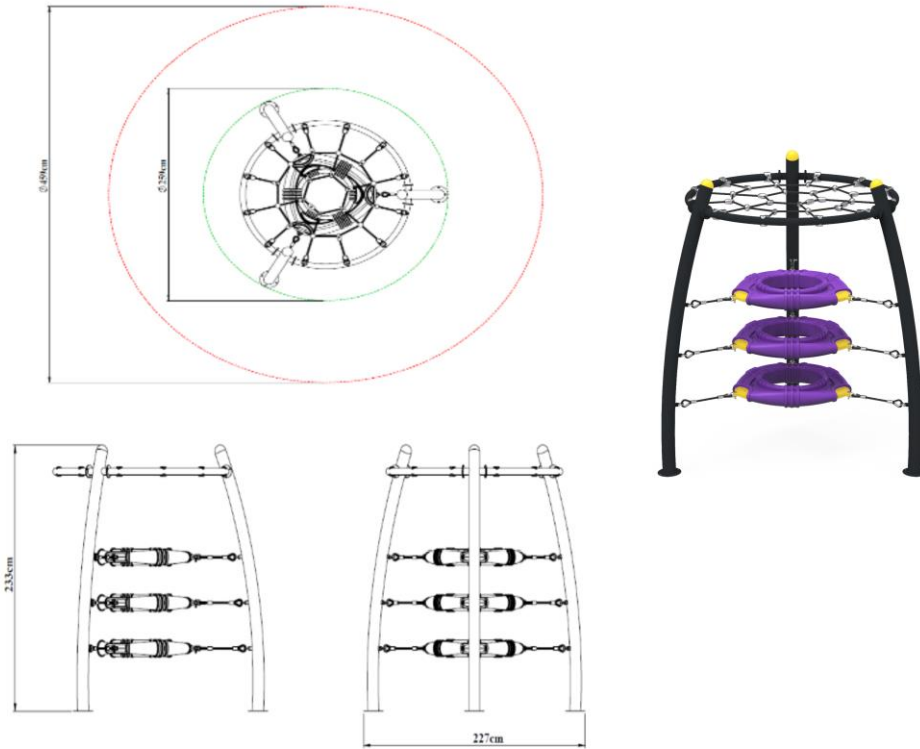
## **Sandblasting Method**

- In order for the sandblasting process to occur as desired, specially made steel grids between S – 330 and S – 660 are cleaned by punctuating every part of the products suspended inside the machine by means of a special pressurized technological machine by means of a Deceleration method. In order to ensure complete cleanliness, the products are placed in the suspension system in such a way that each point is sandblasted. The speed of the hanger system should be adjusted from 3 cycles / minute to 10 cycles / minute and the hanger rotates 360 degrees to ensure sandblasting.
- The granules to be used in sandblasting are round. Other angular granules increase the deformation of the product rather than taking the layer on the product, and will reduce the metal specification of the product. Angular grit material will not be used. Steel round granules, which are the sand type with the least dusting and the best sandblasting power used in sandblasting, should be used according to the thickness of the material. Thick granules used in a metal material that is thin will reduce the service life of the material. In order for the micron points left by the pressure effect of the granules used to be at the desired level, the granules must be renewed frequently.
- If it is not renewed, the oil remaining on the product during painting will come to the surface due to the fact that the oil, dirt and rust removal process will not be complete, as the granules will shrink with the impact of pressure. In this case, it will affect the paint is not good. After the sandblasting process is completed, the metal materials are directed to the dust removal boilers. Here, the products are washed and made ready for electrostatic powder coating.

- The rotating platform is made of at least 3mm thick sheet metal with a diameter of 175cm±10cm, it is manufactured with a wall thickness of min. 2 mm.
- In order to prevent water and dirt accumulation on the surface of the rotating platform and to strengthen the bonding of liquid rubber on the upper and lower surfaces, holes with a maximum diameter of 8 mm are placed in a series that will add an aesthetic appearance to the landing
- There are no sharp or sharp edges, corners or points and open-section profiles, elevations that could risk safety on the vertical Rotating platform
- In order to prevent injuries that may occur as a result of falling, the upper, lower and side surfaces of the rotating platform are coated by baking at 200 ° C using a 60 shore and at least 2 mm wall thickness, phthalate-free immersion liquid rubber material.
- In order to increase the ground strength, the chassis is formed under the platform with 40x5mm deletions.
- The core and shaft assembly are manufactured by turning from steel shafts and tensile steel pipes of the appropriate diameter.
- Rotational movement is provided by using 2 tapered roller bearings and 1 fixed roller bearing in the hub.
- On the bottom surface of the rotating platform, there is a dome made of self-colored polyethylene LLDPE (Linear Low Density Polyethylene) with a height of 320mm ±10mm and a length of 1470mm ±10mm with a double wall by rotation molding method.
- In the pyramid Ferris wheel; 1 piece of 139mm ± 5mm diameter, 3mm wall thickness, 250cm ±5cm long pipe is used.
- 57 m steel structured rope is used in the Pyramid Ferris wheel.
- The mesh rope has a diameter of at least Ø16 mm.
- Each rope consists of 6 steel rope coils consisting of 7 steel threads around the center made of polyamide raw material fiber.
- The steel cored rope consists of a total of 42 reinforced steel ropes.
- In addition, it does not contain toxic substances in its contents and paint.
- The outside of the rope is knitted with polyamide ropes.
- The steel wires are manufactured in such a way that they remain in the center of the polyamide ropes so that they do not touch the user.
- In the Pyramid Ferris wheel, 1 piece of 114 mm diameter hat plug made of polyteline plastic material with double walls is used.



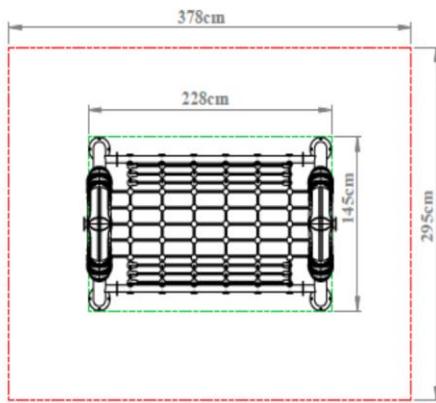
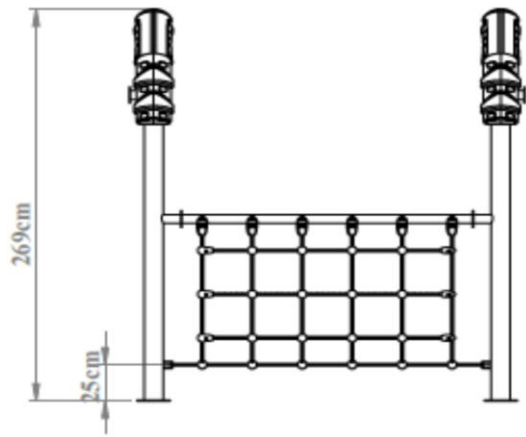
- The game element consists of 3 pieces of Ø 114 SDM inclined main pipes with a wall thickness of min 2 mm, assembling fire rings and a circular game element with rope.
- The pipes are coated with polyester-based electrostatic powder paint and are baked in a 200°C oven for 20 minutes.
- The connection points of the pipes with the concrete floor are joined by the sheet flange welding method.
- Main pipes are closed with cap plugs.
- The height of the playground is 233 cm from the ground.
- Circular string game element; min. Braided ropes are mounted on Ø 60 SDM pipe with 2 mm wall thickness with clamp system.
- Steel structured rope is used in the circular rope game element.
- Braided rope is at least Ø16 mm in diameter.
- Each rope consists of 6 steel rope helixes, consisting of 7 steel yarns, around the center made of polyamide raw material fiber.
- Steel core rope consists of 42 reinforced steel ropes in total.
- It does not contain toxic substances in its content and paint.
- The outside of the rope is knitted with polyamide threads.
- Steel wires are manufactured in such a way that they remain in the center of the polyamide ropes so that they do not touch the user.
- It is resistant to UV lights and is designed not to harm the user.
- It is used as a passage in rope systems.
- The ring of fire weighs 10 kg.



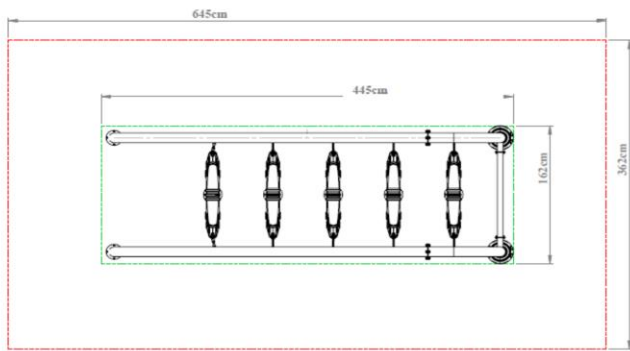
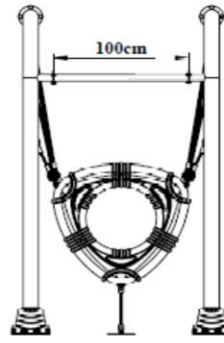
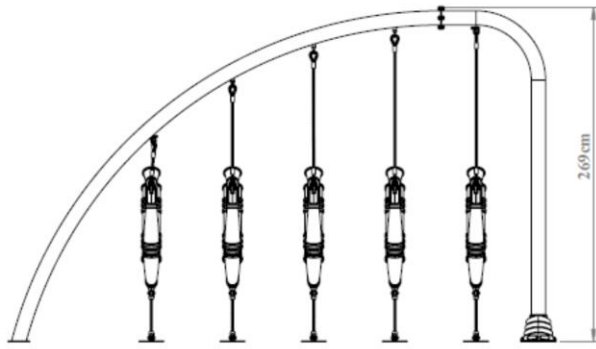
- The game element is formed by mounting 4 pieces of Ø 114 SDM inclined main pipe with a wall thickness of min 2 mm and 3 pieces of drawstring game elements.
- The pipes are baked for 20 minutes in a 200°C oven by performing polyester-based electrostatic powder coating process.
- The pipes are baked for 20 minutes in a 200°C oven by performing polyester-based electrostatic powder coating process.
- The connection points of the pipes with the concrete floor are connected by the sheet flange welding method.
- The main pipes are mounted to each other with a 2-pipe kinetic double connection.
- It is resistant to UV lights and designed in such a way that it does not harm the user.
- Kinetic double coupling; It weighs 6 kg.
- Roped game elements; min. the mesh ropes are mounted to the Ø 60 SDM pipe with a wall thickness of 2 mm with a clamp system.

- 2 pieces of rope system climbing, 1 piece of rope system is manufactured to be walking on the ground.
- Steel structured rope is used in the roped game element.
- The mesh rope has a diameter of at least Ø16 mm.
- Each rope consists of 6 steel rope coils consisting of 7 steel threads around the center made of polyamide raw material fiber.
- Steel cored rope consists of 42 reinforced steel ropes in total.
- It does not contain toxic substances in its contents and paint.
- The outside of the rope is knitted with polyamide ropes.
- Steel wires are manufactured in such a way that they remain in the center of the polyamide ropes so as not to contact the user.
- The ground height of the playgroup is 269 cm.

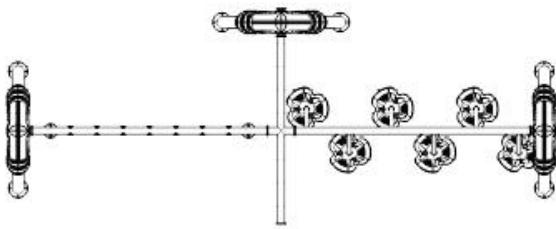
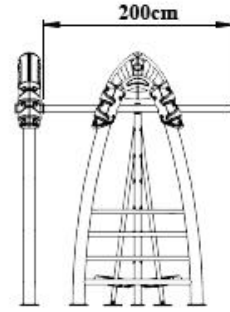
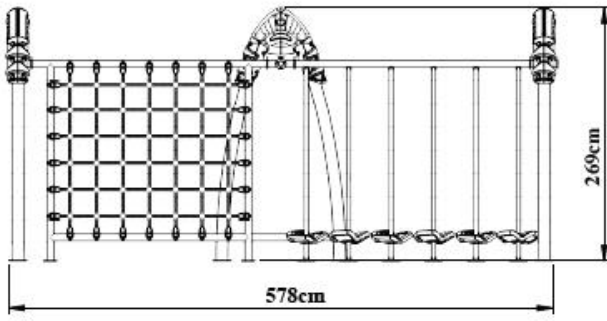




- Ø114 in diameter it is obtained by mounting SDM pipes with a wall thickness of min. 2 mm and 4 mm to each other.
- Interconnection is made with Ø 60 SDM pipe.
- Pipes are painted by baking with polyester-based electrostatic powder oven paint
- Drawstring game elements; It is mounted with Ø 114 SDM pipe.
- It is manufactured in such a way that there are 5 fire ring passages connected to 5 rope systems.
- Steel structured rope is used in the roped game element.
- The mesh rope has a diameter of at least Ø16 mm.
- Each rope consists of 6 steel rope coils consisting of 7 steel threads around the center made of polyamide raw material fiber.
- Steel cored rope consists of 42 reinforced steel ropes in total.
- It does not contain toxic substances in its contents and paint.
- The outside of the rope is knitted with polyamide ropes.
- Steel wires are manufactured in such a way that they remain in the center of the polyamide ropes so as not to contact the user.
- Fire rings are mounted on the floor with a braided rope and flange.
- Ø 114 SDM vertical pipes are mounted on the ground with flange and anchor cover.
- The ground height of the playgroup is 274 cm.



- Game element; it consists of 2 parts, namely 4 pieces of Ø 114 main pipe with a wall thickness of min. 2 mm, climbing on a mesh rope system connected to a horizontal pipe over Ø 60 and a mushroom hopscotch walking platform.
- Ø 32 4-step ladder is mounted between Ø 114 pipes.
- Game element; The cutting points of the vertical pipes from Ø 114 SDM pipes are connected with doetail metal clamps with a wall thickness of at least 3 mm so that they form a right angle to each other.
- The upper open parts of the Ø 114 mm diameter SDM pipes are mounted together in a kinetic double connection.
- It is resistant to UV rays and designed not to harm the user.
- Kinetic double connection; weighs 6 kg.
- After the clamp connection is made, there are no protrusions, sharp corners that can cause injury anywhere
- Installation is provided by attaching a cork hopscotch to pipes with diameters of Ø 32 mm and Ø 60 mm.
- Pipes are painted by baking with polyester based electrostatic powder baking paint.
- mushroom hopscotch mushroom figure made of LLDPE (Linear Low Density Polyethylene) made of 6 pieces of self-colored polyethylene plastic material is used.
- Climbing rope net; the diameter of the net rope is at least Ø16 mm.
- Each rope consists of 6 coils of steel rope, the middle of which consists of 7 steel threads made of polyamide raw material fiber.
- Steel cored rope consists of a total of 42 reinforced steel ropes.
- It does not contain toxic substances in its contents and paint.
- The outside of the rope is knitted with polyamide ropes.
- Steel wires are manufactured in such a way that they remain in the center of the polyamide ropes so as not to contact the user.
- Ø 114 SDM vertical pipes are mounted on the floor with flange.



## Spare Parts

### Mushroom Figure

- The mushroom figure is used to add visuality to playgroups.
- It is produced from polyethylene material suitable for indoor and outdoor use in accordance with 114 mm pipe.
- It is resistant to UV lights and is designed not to harm the user.
- The mushroom figure weighs 2 kg.



### Mushroom Figure

- The mushroom figure is used to add visuality to playgroups.
- It is produced from polyethylene material suitable for indoor and outdoor use in accordance with 114 mm pipe.
- It is resistant to UV lights and is designed not to harm the user.
- The mushroom figure weighs 2 kg.



## Ring Of Fire

- The hat figure is produced from polyethylene material for indoor and outdoor use.
- It is resistant to UV lights and is designed not to harm the user.
- The ring of fire weighs 10 kg.
- Ring of fire; used as a gate in rope systems.



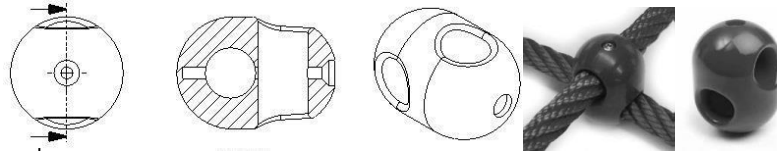
## Kinetic Binary Connection

- Kinetic double connection; It is made of polyethylene material suitable for indoor and outdoor use.
- It is resistant to UV rays and designed not to harm the user.
- Kinetic double connection; weighs 6 kg.



## X Connector

- X connector is made of polyamide or aluminum material.
- It is used at the points where two ropes with a diameter of 16mm or 18mm cross each other and both ropes do not terminate.
- The product is fixed to the rope material by tightening 1 4.2x45mm torque screw.

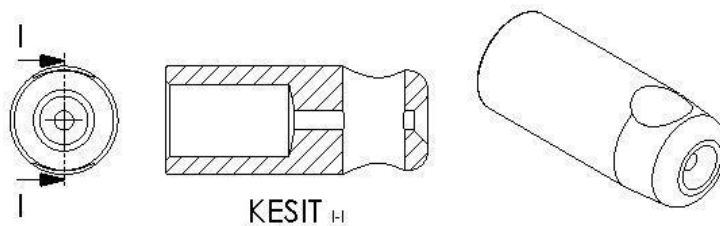


## Parallel Connector

- Parallel connector is made of polyamide or aluminum material.
- It is used at the points where two ropes with a diameter of 16mm or 18mm cross each other and both ropes do not terminate.
- The product is fixed to the rope material by tightening 1 4.2x45mm torque screw.

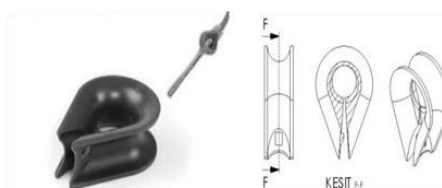
## T Connector

- T connector is made of aluminum material.
- It is used at the points where two 16mm diameter ropes cut each other and one of the ropes ends and the other does not.
- The product is tightened with 1 x 4.2x25mm torque screw and the rope is fixed.



## Radansa

- Radansa is made of polyamide material.
- It is used by passing through the eye of a single eye bolt so that the rope is not damaged by rubbing against the metal.





# Aluminum Sphere

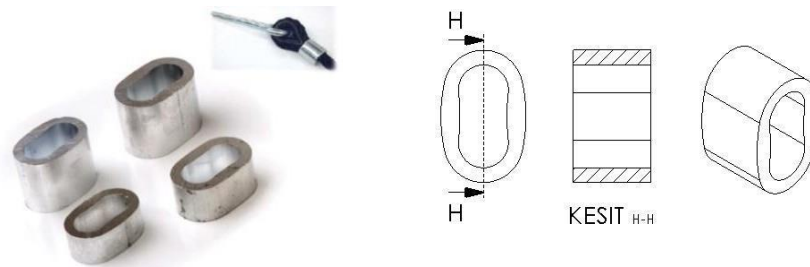
## One Eye Bolt

- It is manufactured by hot forging to connect the rope systems to the pipe.
- Geomet coated M10 single eye bolts are used.
- The rope is passed through the ring with the help of the radansa and its rotation is provided.



## Aluminum Connections

- All rope joints are formed by using extruded aluminum fittings suitable for cold forming.
- For the termination of the rope attached to the radiant, the connection is made by tightening the aluminum ring with suitable molds in a 150-ton press.



## Ø16 mm Steel Structured Rope

- Braided rope is at least Ø 16 mm in diameter.
- Each rope consists of 6 steel rope helixes, consisting of 7 steel yarns, around the center made of polyamide raw material fiber.
- Steel core rope consists of 42 reinforced steel ropes in total.
- It does not contain toxic substances in its content and paint.
- The outside of the rope is knitted with polyamide threads.
- Steel wires are manufactured in such a way that they remain in the center of the polyamide ropes so that they do not touch the user.

## **Aluminum Sphere**

- It is made of aluminum in accordance with the diameters of the pipes used in rope climbing.
- Screw and nut locations are hidden.
- It is used for assembling the pipes together.



## **Aluminum Clamp**

- It is mounted on Ø 60 pipes.
- It is used in rope and pipe connection points in rope systems.
- It is used at the connection point of HDPE panels with pipes.



