
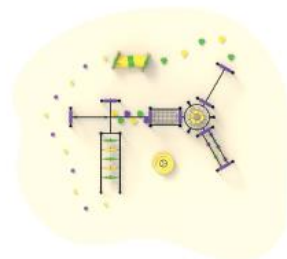




# PS-01




**Age range**  
3+




**Free Fall Height**  
2,20 m



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



**Sitting Area**  
7,82m\*8,67m



**Safety Area**  
11,32m\*11,67m

## **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.

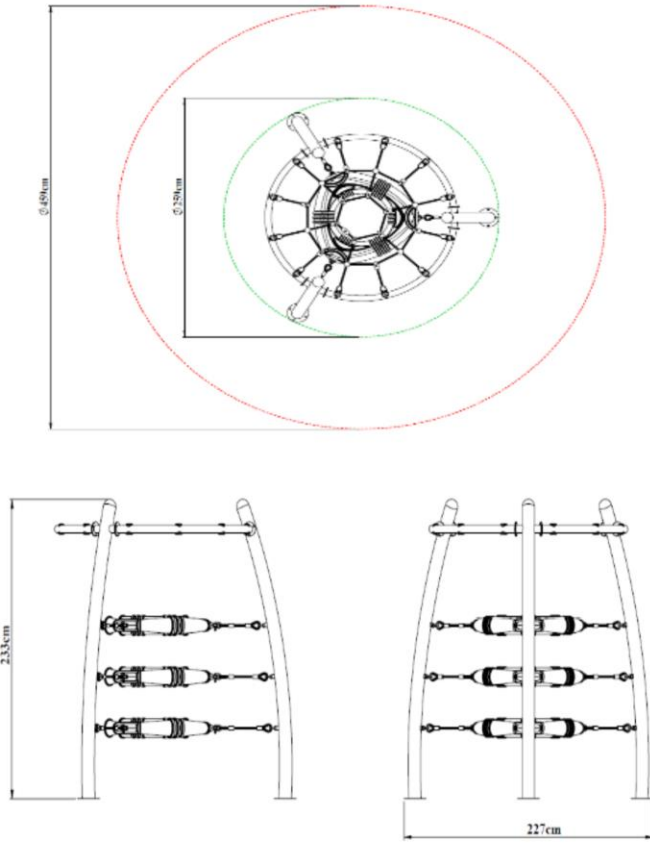
## **Electrostatic Paint**

- 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.

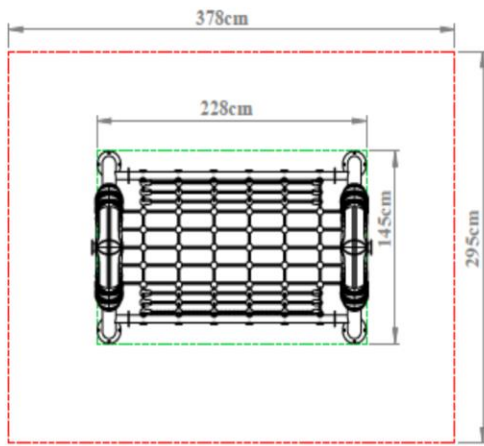
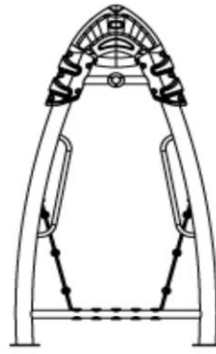
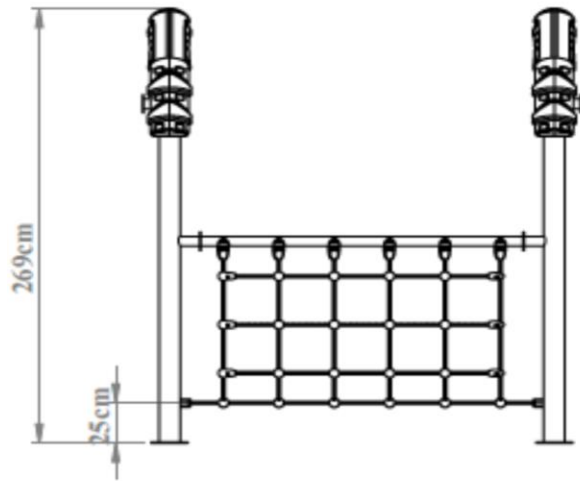
## **Sandblasting Method**

- 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 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 helices, 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.

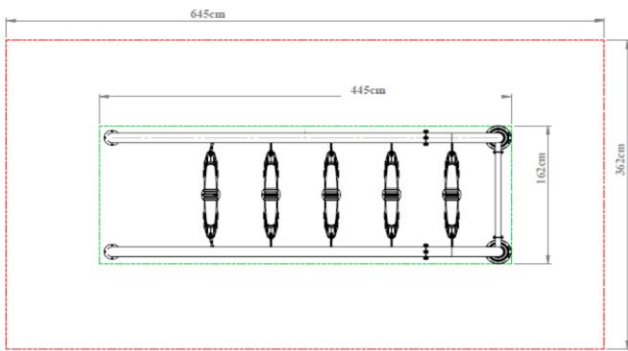
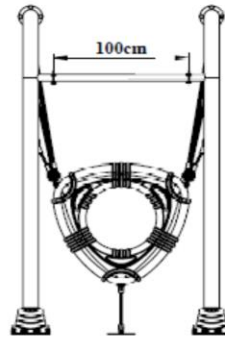
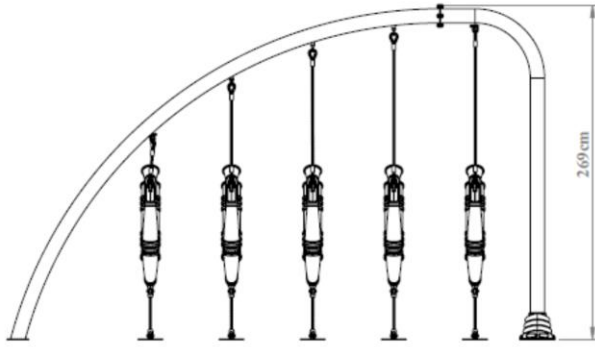


- The game element is formed by mounting 4 pieces of Ø 114 SDM inclined main pipe with a wall thickness of min 2 mm and 3 pieces of drawstring game elements.
- The pipes are baked for 20 minutes in a 200°C oven by performing polyester-based electrostatic powder coating process.
- The connection points 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.
- Kinetic double connection; It is produced from polyethylene material in accordance with indoor and outdoor use.
- It is resistant to UV lights and designed in such a way that it does not harm the user.
- Kinetic double coupling; It is 6 kg of organ.
- 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 pcs 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.

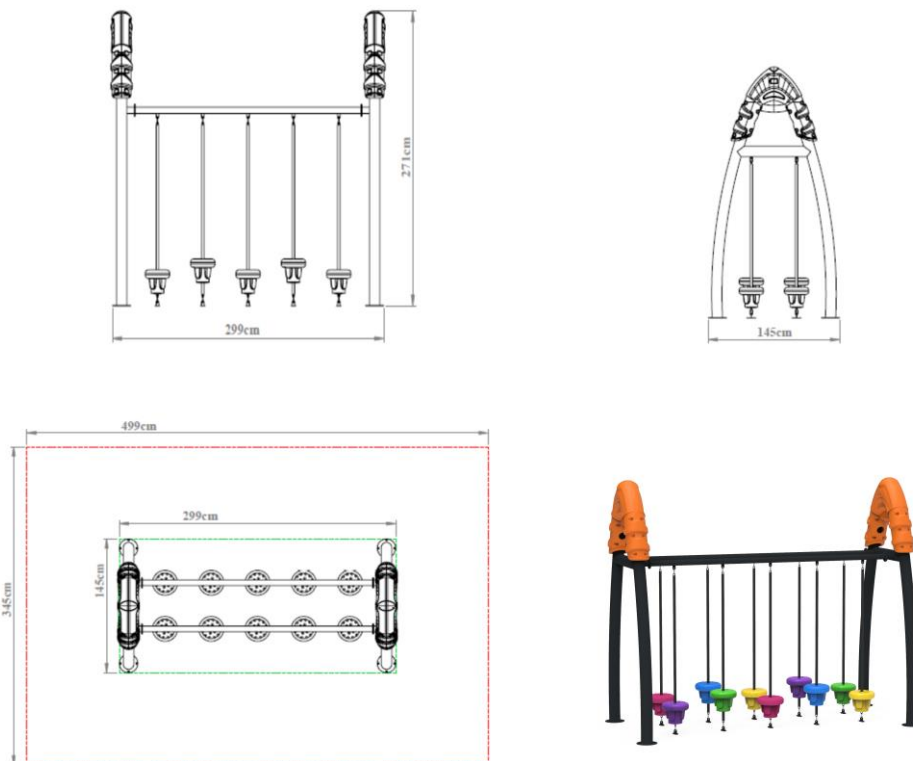


- Ø114 in diameter it is obtained by mounting SDM pipes with a wall thickness of min. 2 mm and 4 mm to each other.
- Interconnected with Ø 60 SDM pipe
- Pipes are painted by baking with polyester-based electrostatic powder oven paint
- Drawstring game elements; It is mounted with Ø 114 SDM pipe.
- It 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.

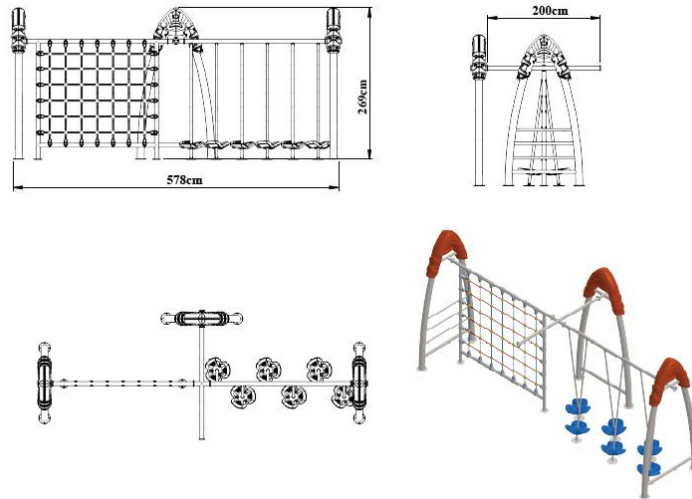




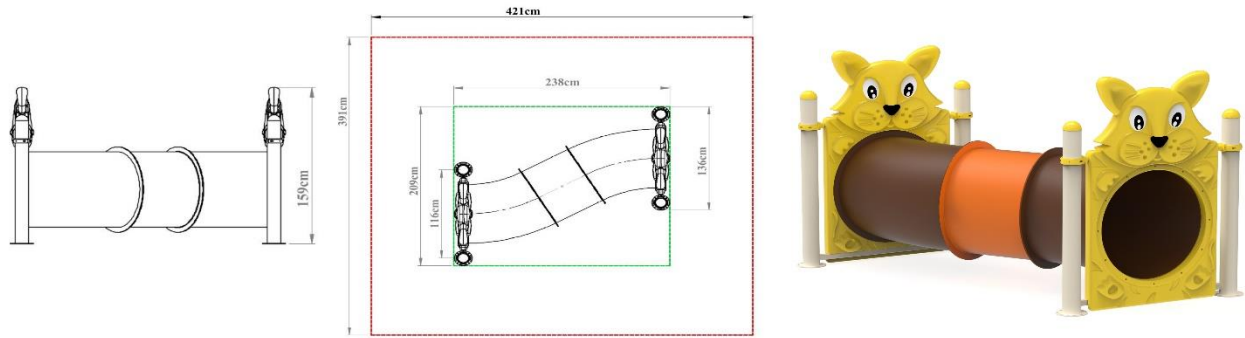
- Game element;. It is made of  $\varnothing$  114 SDM pipe with a wall thickness of min 2 mm, and the cutting points of the horizontal and vertical pipes are connected to each other with dovetail metal clamps with a wall thickness of at least 3 mm.
- Open top parts of  $\varnothing$  114 mm diameter SDM pipes are mounted to each other with kinetic double connection.
- It is resistant to UV lights and is designed not to harm the user.
- Kinetic double coupling; It weighs 6 kg.
- After the clamp connection, there are no protrusions or sharp corners that may cause injury anywhere.
- Mushroom figures are mounted by  $\varnothing$  32 mm pipes and  $\varnothing$  60 mm pipes.
- Pipes are painted with polyester-based electrostatic powder oven paint by baking.
- In mushroom walking, 10 mushroom figures made of self-colored polyethylene plastic material LLDPE (Linear Low Density Polyethylene) are used.
- $\varnothing$  114 SDM vertical pipes are flange mounted to the floor.



- 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.
- Pipes with a diameter of Ø 114 are mounted with a ladder with 4 pcs Ø 32 steps.
- 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.

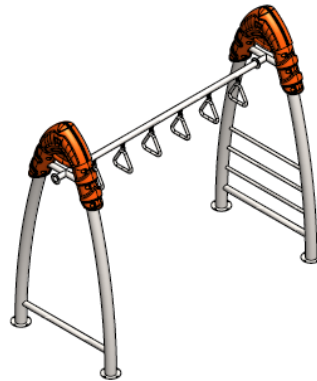
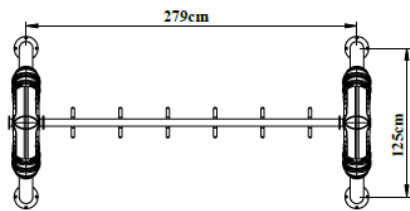
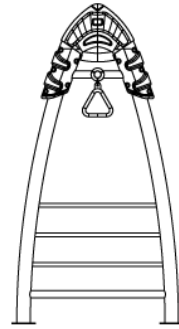
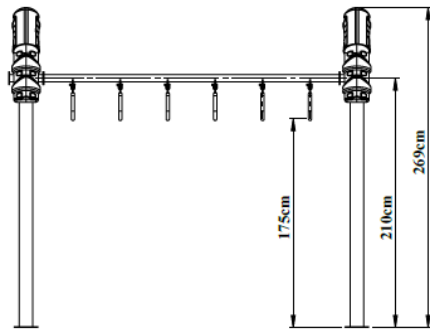


- H:260 cm inclined transparent tube passage with a minimum length of 2,60 m, designed to allow passage between two platforms; It is manufactured from 5 parts, 2 pcs tube inlet, 2 pcs 35 degree elbow tube, 1 pcs 60 cm tube, and self-colored polyethylene plastic material LLDPE (Linear Low Density Polyethylene) rotation molding method.
- Plastic clamps and vertical mouth connection apparatuses are attached to the ends of  $\varnothing 27$  inner pipes attached to the tube passages, and 114 towers are fixed to the pipes and screwed from the parts of the panels that sit on the platform.
- The product produced as disassembled; It is made a whole by assembling the given tube parts to each other according to the given angles.
- In order for the product surface to be smooth; Sandblasting is applied to the surface of the mold made of aluminum or its equivalent material, and it is produced by passing the Teflon coating process for surface brightness.



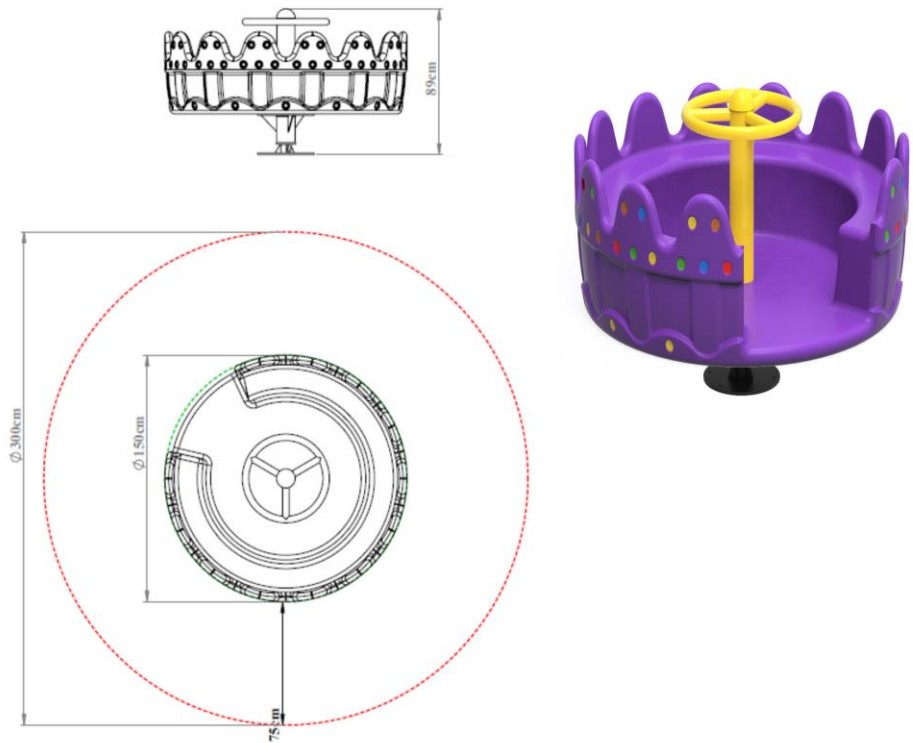
|                   |                      |        |
|-------------------|----------------------|--------|
| <b>Dimensions</b> | Tube Passage Length  | 238 cm |
|                   | Panel Entry Diameter | 75 cm  |
| <b>Features</b>   | Min. Slide Weight    | 74 kg  |
|                   | Raw material         | LLDPE  |

- The cutting points of the horizontal and vertical pipes from the Ø 114 diameter SDM pipe 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 parts of the SDM pipes with a diameter of Ø 114 mm 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.
- Commando climbing consists of 4 ladder steps made of Ø 32 mm SDM pipe connected to 2 pcs Ø 114 pipes.
- Commando climbing is manufactured with 8 triangular twisted pipes from Ø 32 pipes connected to 1 pipe at the top to reach the platform.
- After the clamp connection is made, there are no protrusions or sharp corners that can cause injury anywhere.
- The parts are painted by baking with polyester based electrostatic powder oven paint.



## Plastic Merry Go Round

- $\varnothing$  114 pipes located in the center of rotation are installed with a diameter of  $\varnothing$  32 mm, which will be used as a holding element.
- In order to increase the ground strength, metal with a thickness of  $\varnothing$ 400 \* 10 mm was used under the platform.
- 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.
- Pipes with a diameter of 32 mm, which will be used as a holding element, are installed on the  $\varnothing$  114 pipe located in the center of rotation.
- It is made of LLDPE (Linear Low Density Polyethylene) self-colored polyethylene plastic material in one piece with rotation.
- The product must be ergonomically designed so that the user can sit comfortably.
- The product is designed in such a way that there are no sharp edges, corners or any roughness that may cause injury.



|                   |                       |        |
|-------------------|-----------------------|--------|
| <b>Dimensions</b> | Merry-Go-Round Length | 150 cm |
|                   | Merry-Go-Round Height | 89 cm  |
| <b>Features</b>   | Raw materials         | LLDPE  |

## 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.



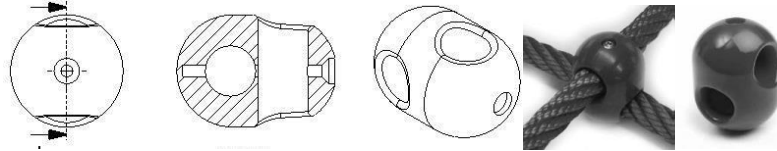
## Kinetic Binary Connection

- 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.

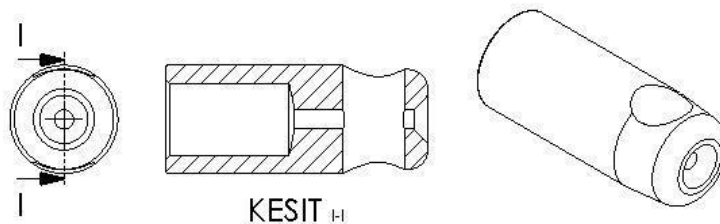


## Parallel Connector

- 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.

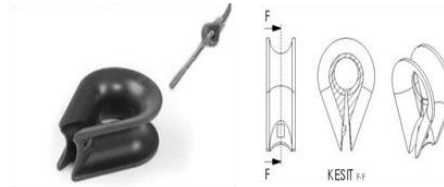
## T Connector

- 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

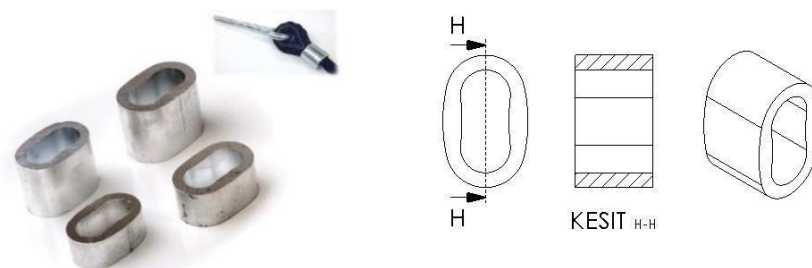
## One Eye Bolt

- 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 thimble 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 thimble, 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.

