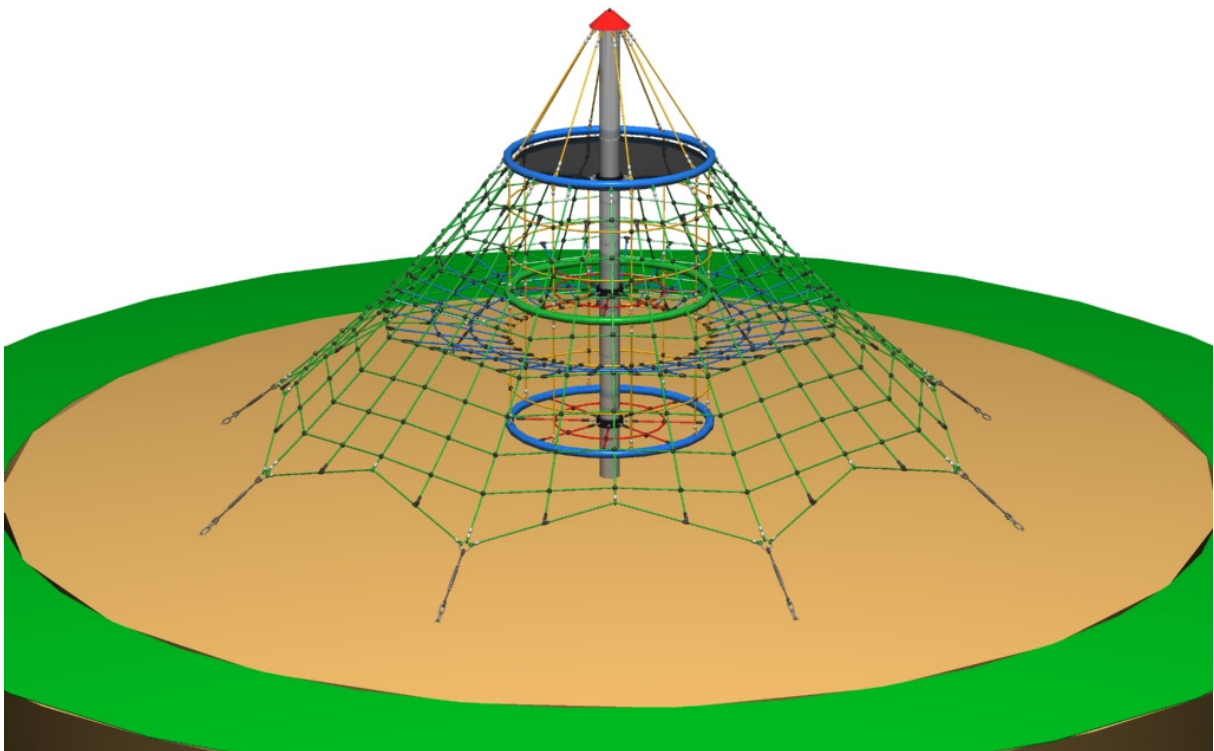


A Assembly Instructions

Dino 2, Rope Net Pyramid
Art. 10.02.100 (Set into Concrete)



Revision history

Revision 0 – 2007-11-01

The first allowed version

Assembly instructions

Revision 7 – 2012-06-19

R4000 O.K FH

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1 Introduction Assembly

1.1 General Information

This equipment should be installed, inspected, maintained and operated in accordance with EN1176-7 guidelines.

Before installation work commences, please check that you have all of the equipment and fixation components in the parts list provided (see Tables 3-1 and 3-2).

Any spare parts that may be required can be obtained directly from your supplier.

**Attention**

Following installation, complete assembly instructions, maintenance instructions and a maintenance record must be sent to the operator who must confirm receipt in writing. See the last page of this document.

**Attention**

All nuts and bolts are hot-dip galvanised or stainless steel.

One of the characteristics of stainless steel is that uncontrolled cold welding may occur when the nuts are tightened. To prevent this, it is necessary to spray the nuts and bolts with Teflon spray or another similar lubricant.

We hereby confirm that this play equipment has been tested and certified in accordance with the play equipment standard EN 1176.

2 Datasheet

1. Space requirement: \varnothing 8.00m and \varnothing 10.00m including safety zone, height of fall 1.50m
2. Required Safety Surface:

Surface material	Description mm	Minimum thickness of layer mm	Maximum height of fall mm
Topsoil grass			\leq 1000*
Chipped bark	20 – 80 grain size	300	\leq 2000
		400	\leq 3000
Wood chippings	5 – 30 grain size	300	\leq 2000
		400	\leq 3000
Sand	0.2 – 2 grain size	300	\leq 2000
		400	\leq 3000
Gravel	2 – 8 grain size	300	\leq 2000
		400	\leq 3000
Other ground materials	As recommended by manufacturer		

3. Name and overall dimension of the largest component:
 steel post (1 item) length 5.30m, \varnothing 193,7mm
4. Name and weight of the heaviest component:
 steel pole (1 piece) approx. 138 kg
5. Intended age group: 6 years and over
6. **Please note that this equipment is set in concrete.**
 Concrete: C25/30
 Required concrete: 4.50 m³
 Foundations/area to be excavated:
1 x 1.20m long x 1.20m wide, total depth 1.10m including 10cm drainage
8 x 0.80m long x 0.80m wide, total depth 1.10m including 10cm drainage

**Attention!**

Round off foundation edges (min.R = 100 mm)! Sizes of foundations are “4-5” (natural ground).

Soil class 4: soft to medium plasticity, interleave bound, with minor portion of stone (portion < 30% with bigger diameter of 63 mm grain size).

Soil class 5: ground with soil class 3 and 4 with big portion of stones (portion > 30% with bigger diameter of 63 mm grain size).

In case of sandy and soft soils, the surface measure of foundations have to be enlarged for about 50%!

7. Tools required: wheeled excavator with a lift of approx. 4 m or similar lifting equipment, approx. 4 m-long ladder, ground compactor, spirit level, various spanners, water-level gauge, or level.
8. Assembly time, once foundations complete: 5 - 6 hours.
Required assistance: 2 - 3 people.
9. Any spare parts which may be required can be obtained directly from your supplier
10. **We hereby confirm that this item of play equipment has been tested and certified in accordance with the play equipment standard EN 1176.**

Drawings / Views

All optical drawings are showing only the measurements/dimensions and are no mandatory technical views of the complete item.

We reserve the right to change technical details of our articles which are serving for the further development of our articles and are reasonable for the customer.

Measurement tolerances

Because of the properties and characteristics of the components, minor measurement tolerances compared to the indication on the sketches are possible.

This concerns all shown measurements except the foundation measurements resp. measurements below upper edge ground level/play area.

3 Delivery Contents (parts list with part numbers)


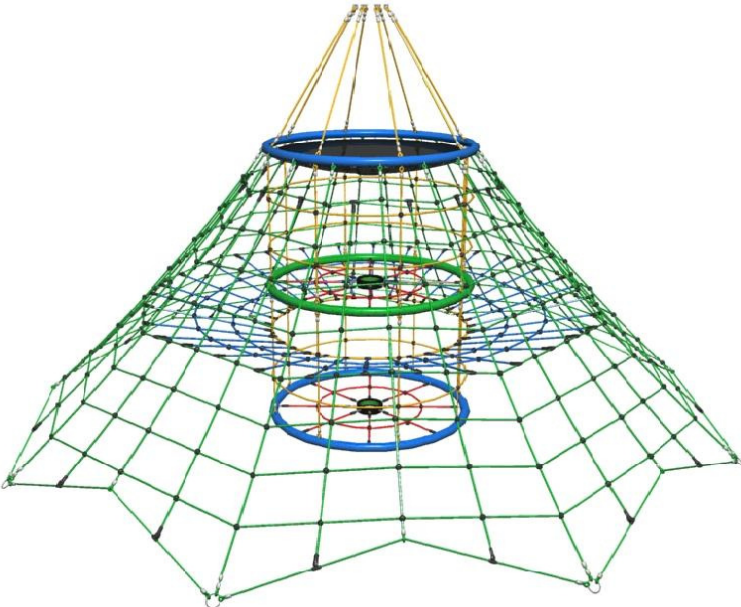
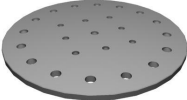

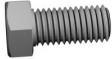
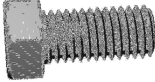



3.1 In words














Table 3.1: Delivery Contents, in words

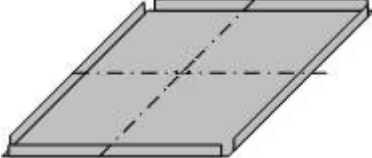
Pos.	Quantity	Element / Description	Size	O.K.	Missing
1	1	Steel post	Ø 193.7mm – L. 5.30m		
2	1	Play part (pre-assembled)			
3	1	Top plate (hot-dip galvanised)			
100	4	Hexagonal screws with	M12 x 30 mm		
	4	Tooth washers (for Pos.1) (galvanised)	for M12		
101	8	Hexagonal screws (galvanised)	M16 x 30 mm		
102	8	Tooth washers (galvanised)	M16		
103	8	Turnbuckles (galvanised)	M16		
104	8	Anchor chains	Type-13 chain		
105	5 sets (10 pcs)	2-piece clamp protection rings			
106	33	Wood screws	4.5 x 60 mm		
107	1	Cap	Ø 375 mm		
108	1	Threaded rod	M16		
109	8	Curved shackles (for items 104 and 111), galvanised			
110	2	Loctite			
111	8	Ground pegs			
113	1	Brush			
114	2	Hexagonal nuts	M16		
115	1	Black cap	for M16		
116	1	Washer	for M16		
Gew.pl.	1	Steel Anker plate			
	1	Drainpipe (to be provided by customer)	Aprox. Ø 400 mm x 1000 mm long		

3.2 In symbols

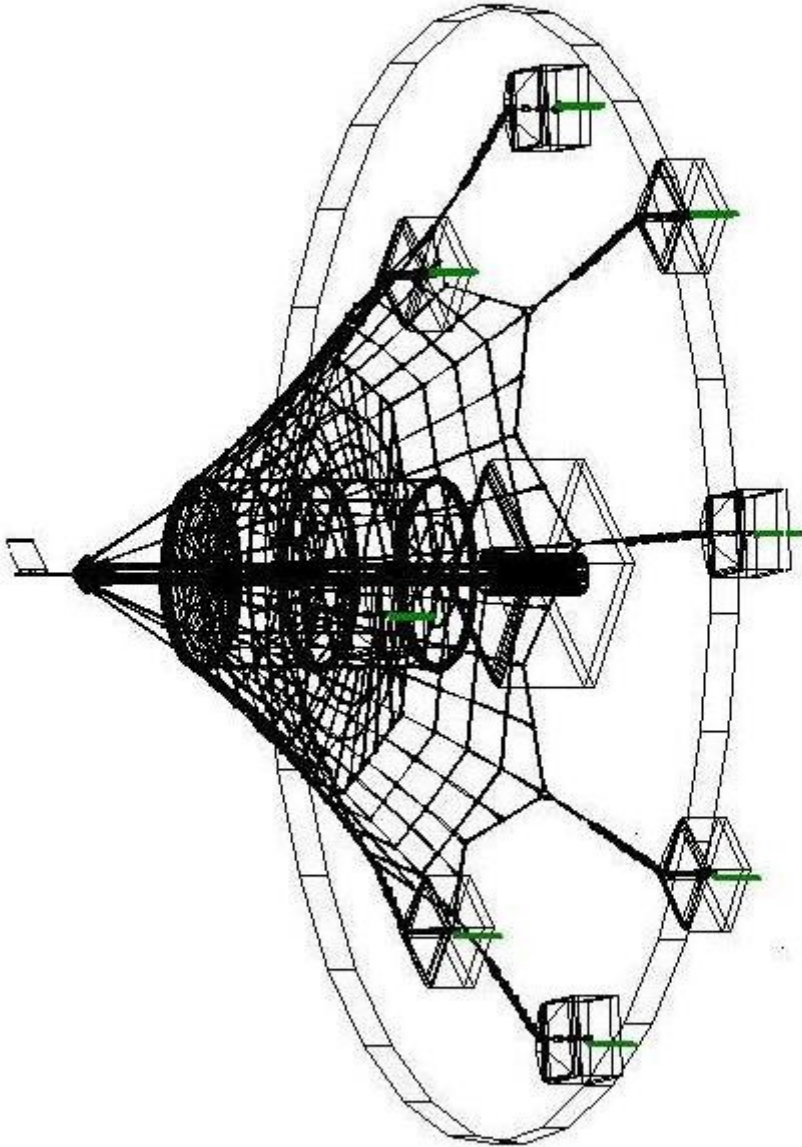
Table 3-2: Delivery contents, in symbols

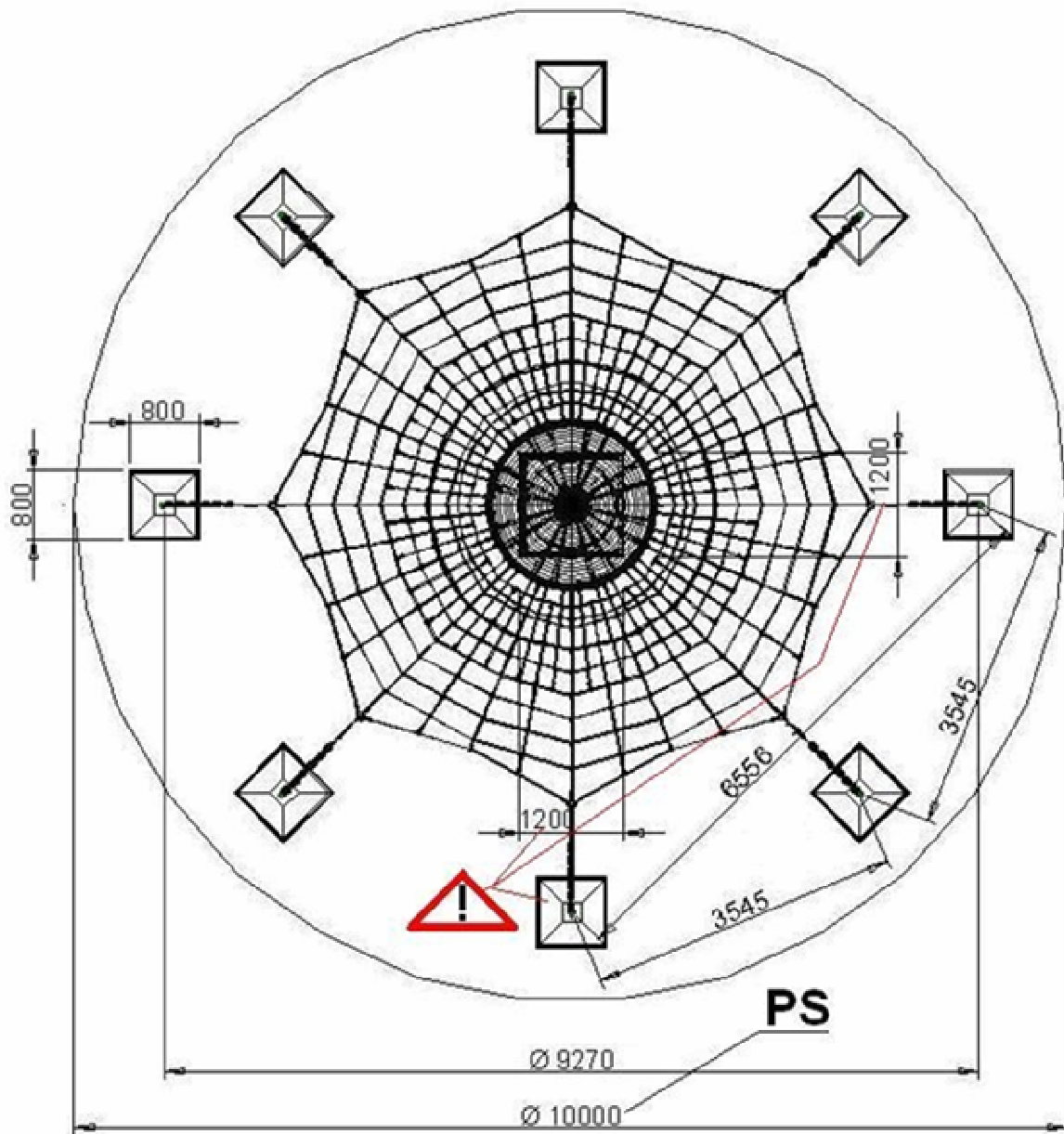
Pos.	Quantity	Symbol
1	1	 Ø 193.7 mm x 5.30 m long
2	1	 VO
3	1	 Ø 360 mm
100	je 4x	 für M12  M12 x 30 mm
101	8	 M16 x 30 mm lang
102	8	 für M16
103	8	 M16
104	8	

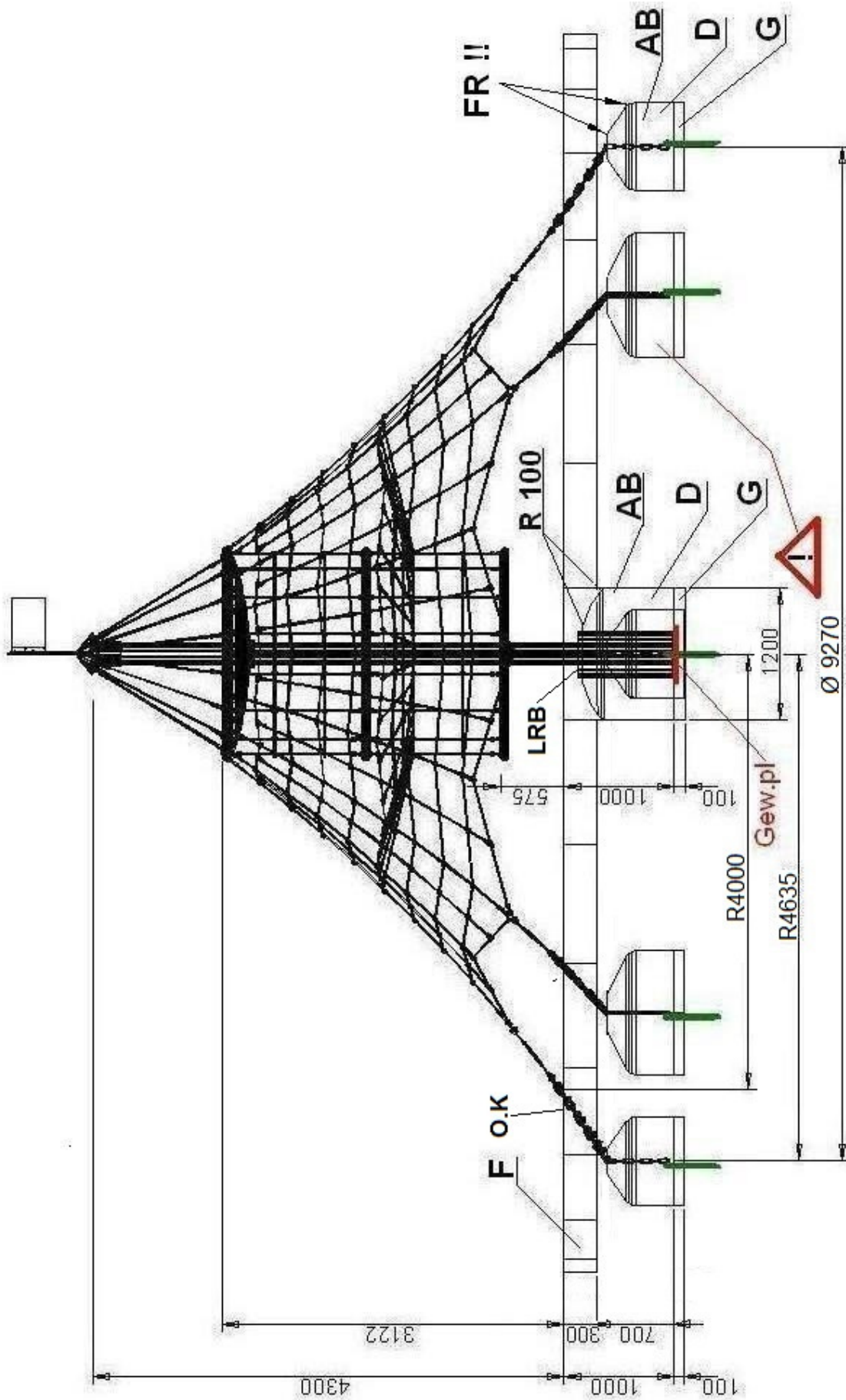
Pos.	Quantity	Symbol
105	5 sets (10 pcs)	
106	33	
107	1	 Ø 375 mm
108	1	 M16 x 165 mm
109	8	
110	2	
111	8	
112	1	 ?
113	1	
114	1	 M16
114a	1	 M16
115	1	 for M16
116	1	 for M16

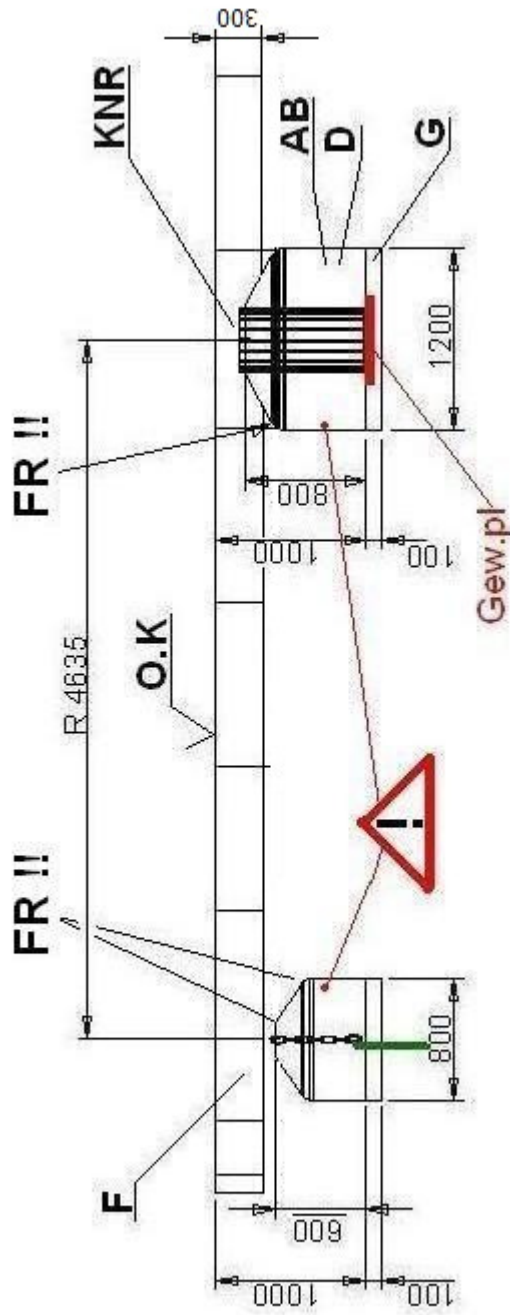
Pos.	Quantity	Symbol
Gew.pl.	1	

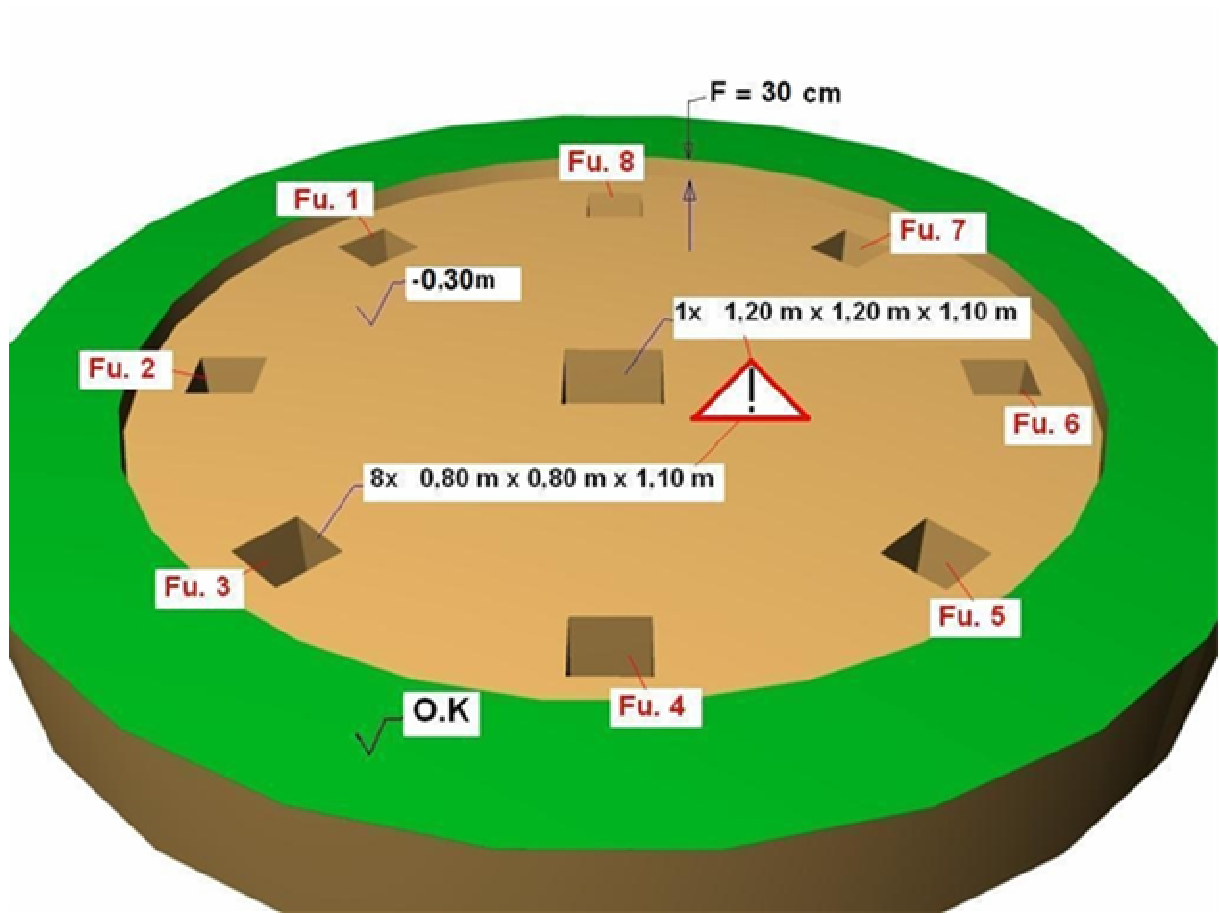
4 Erection Instructions

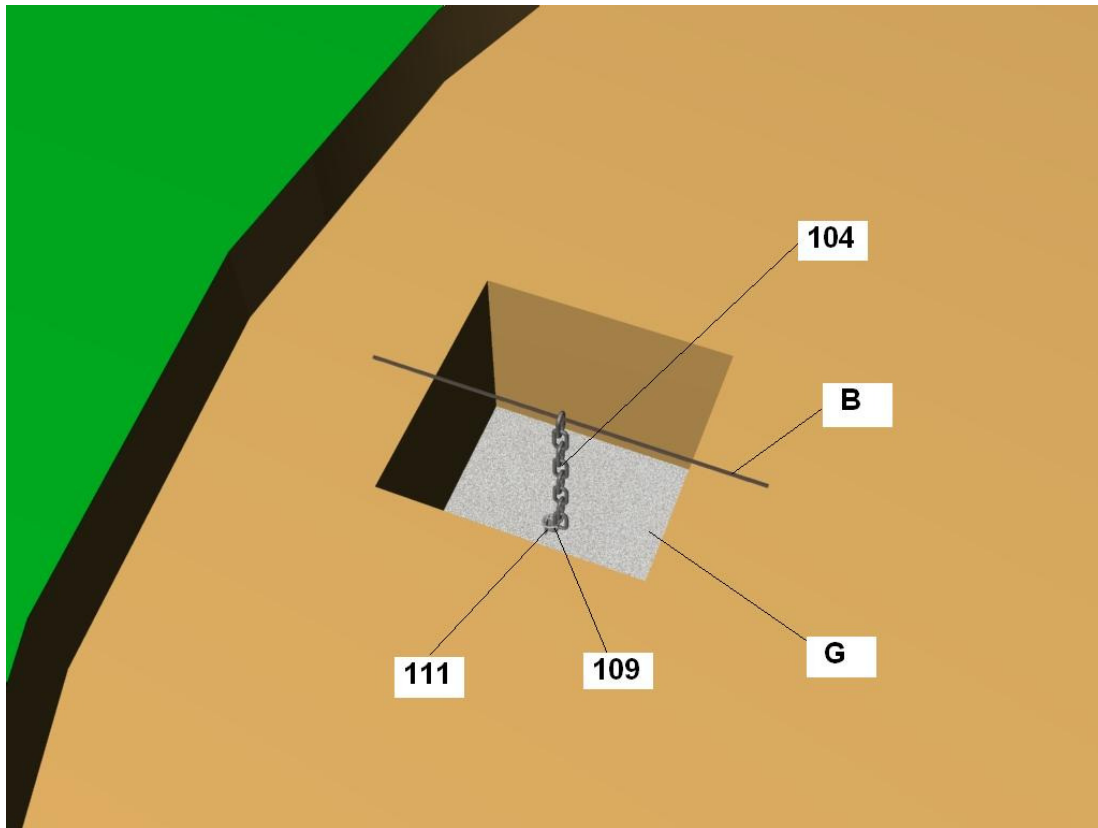
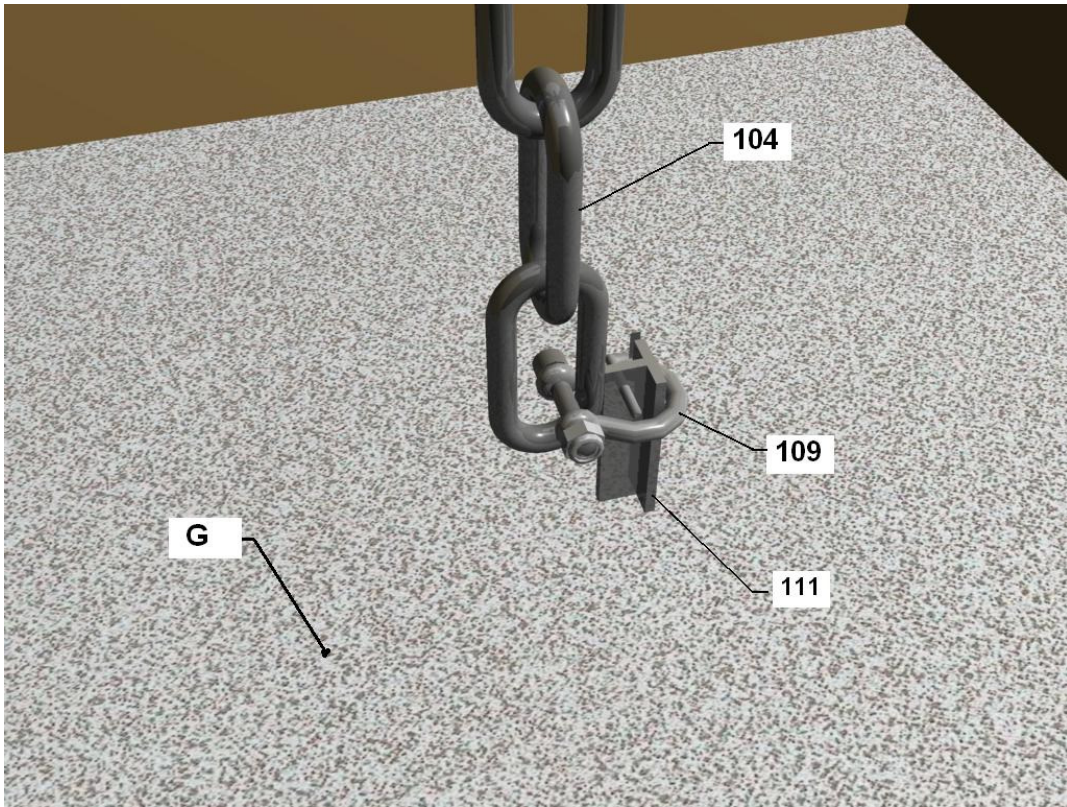


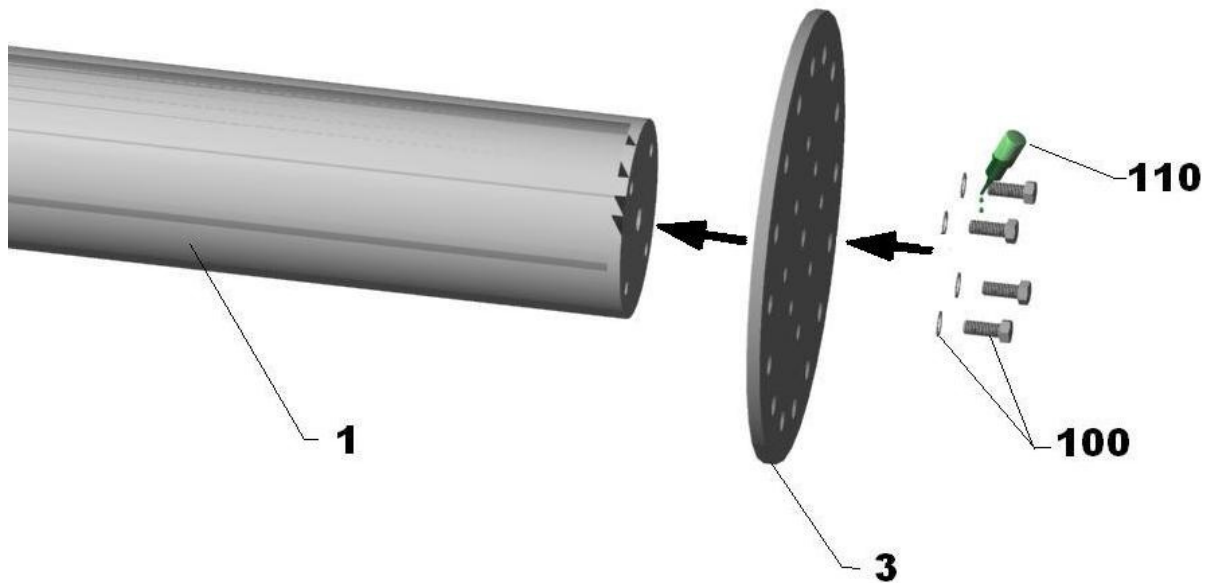
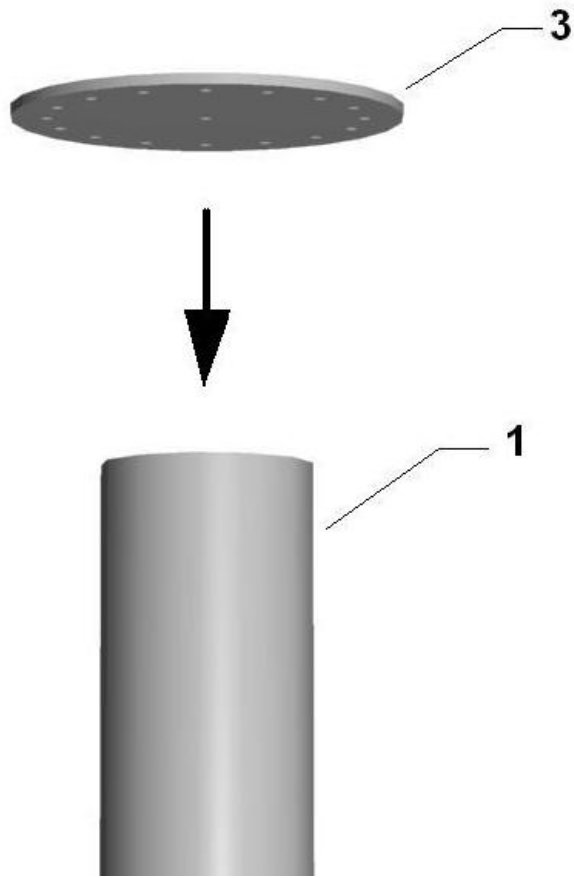


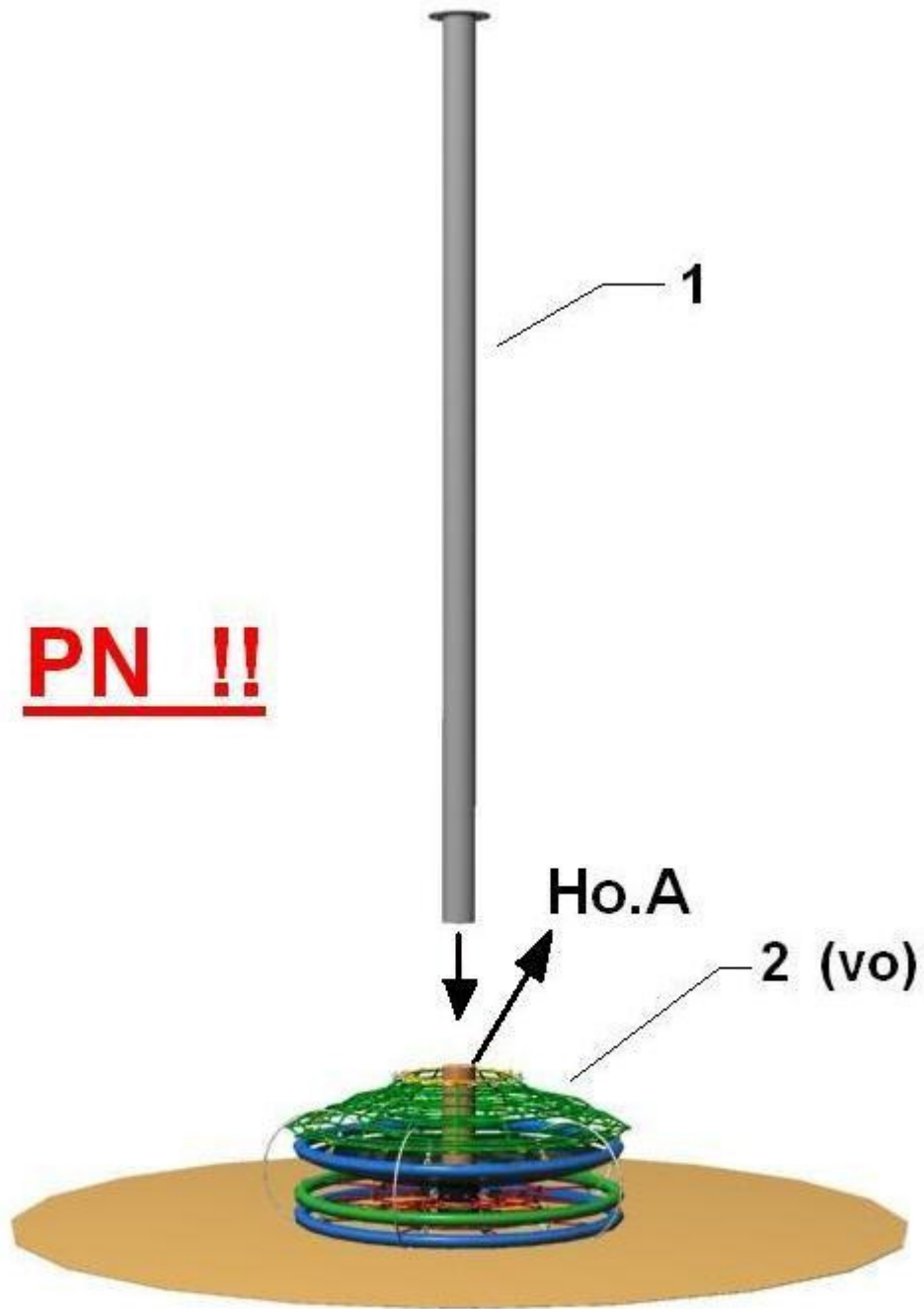


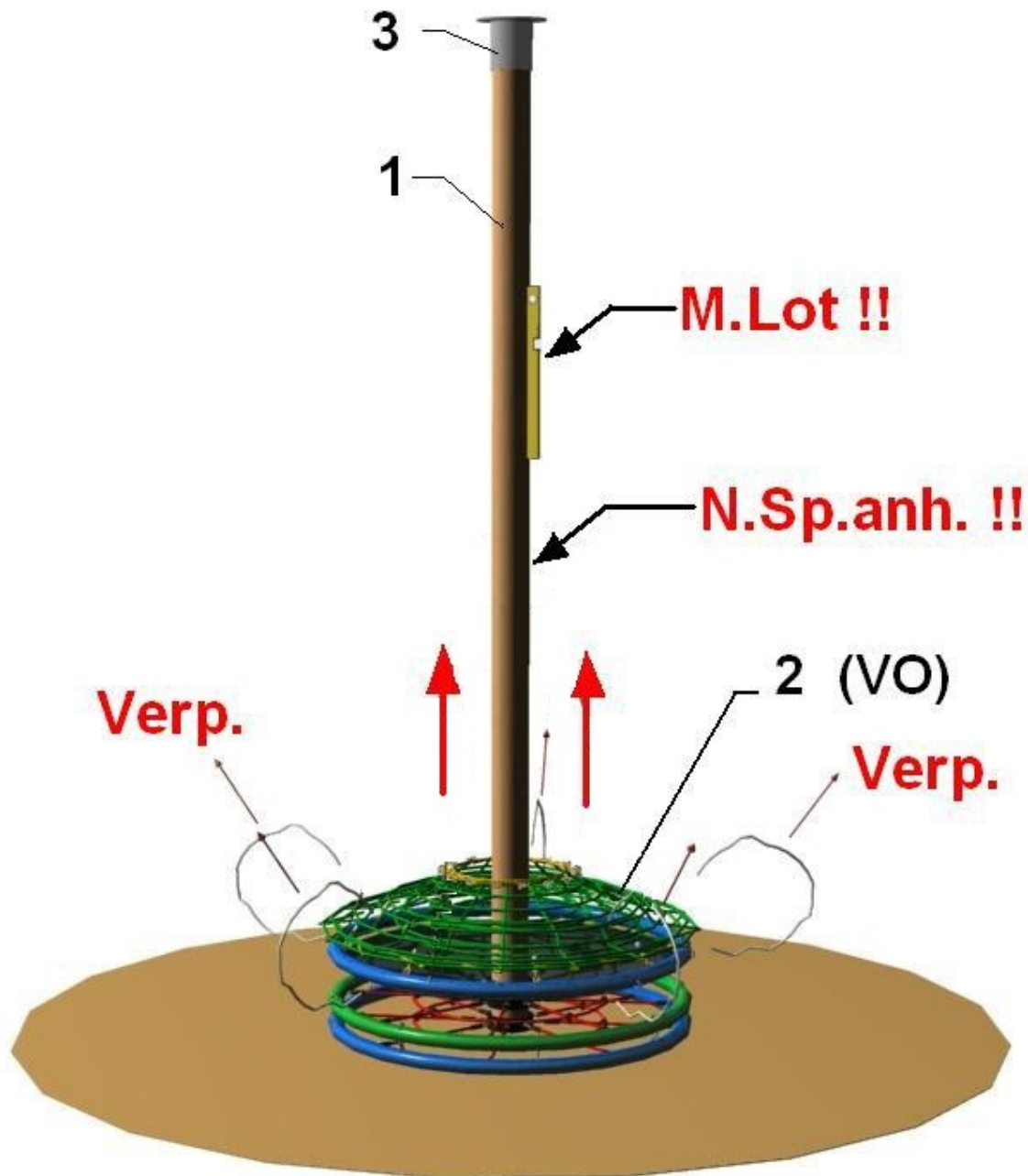


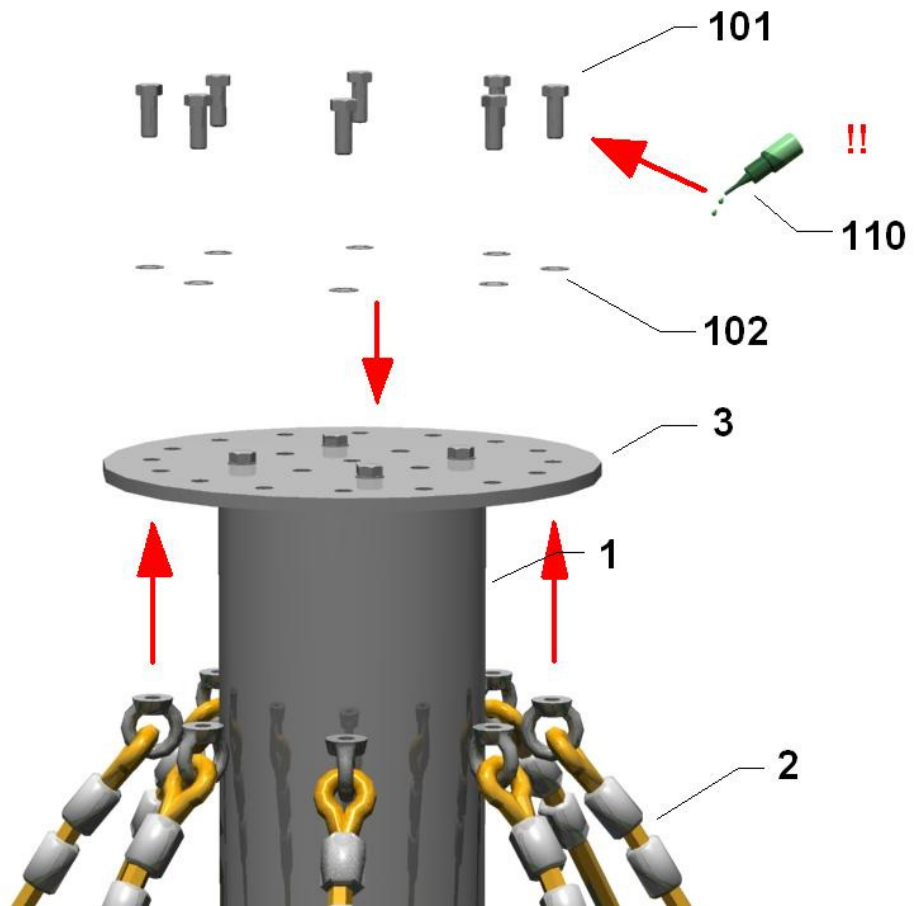


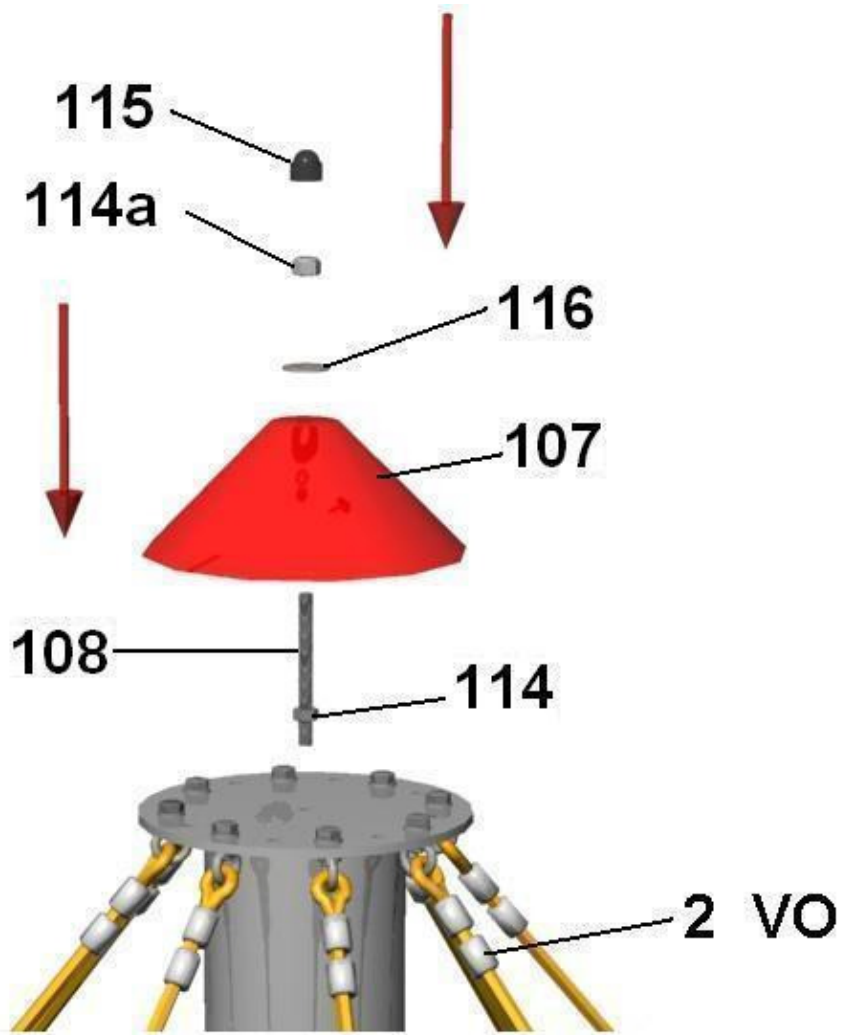


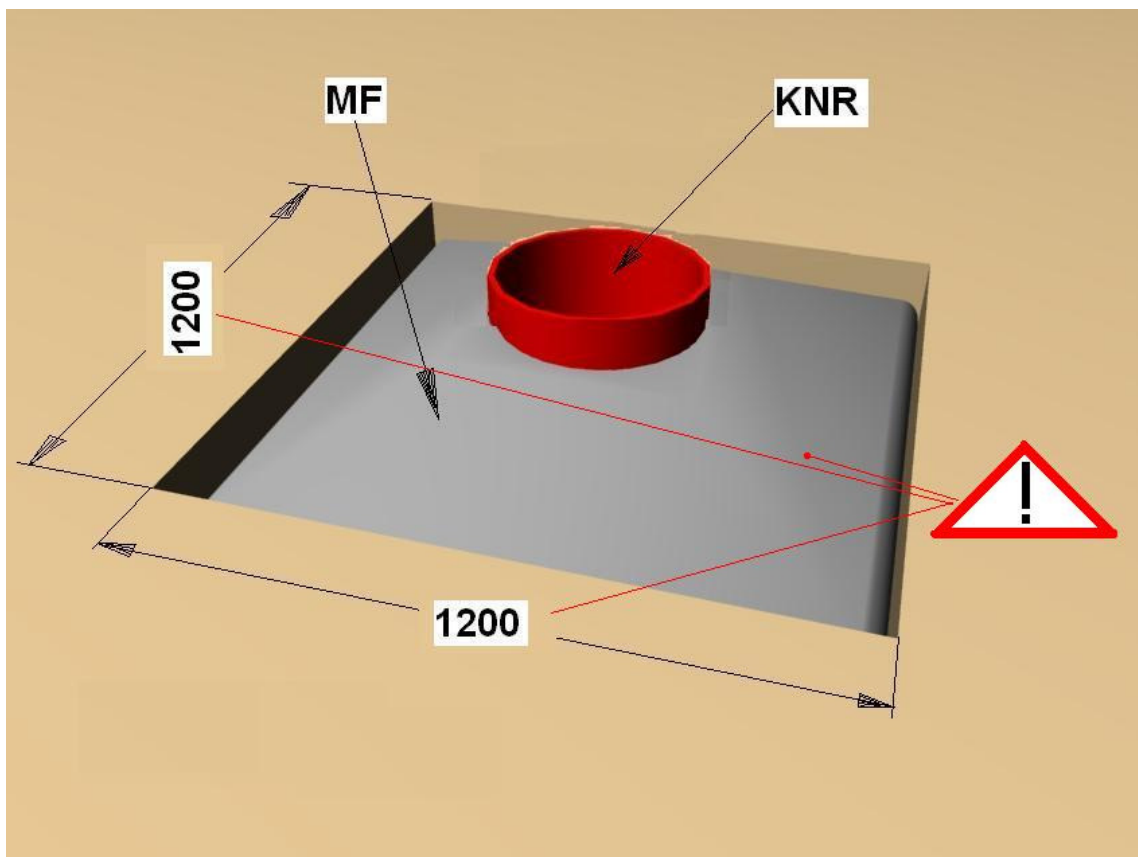
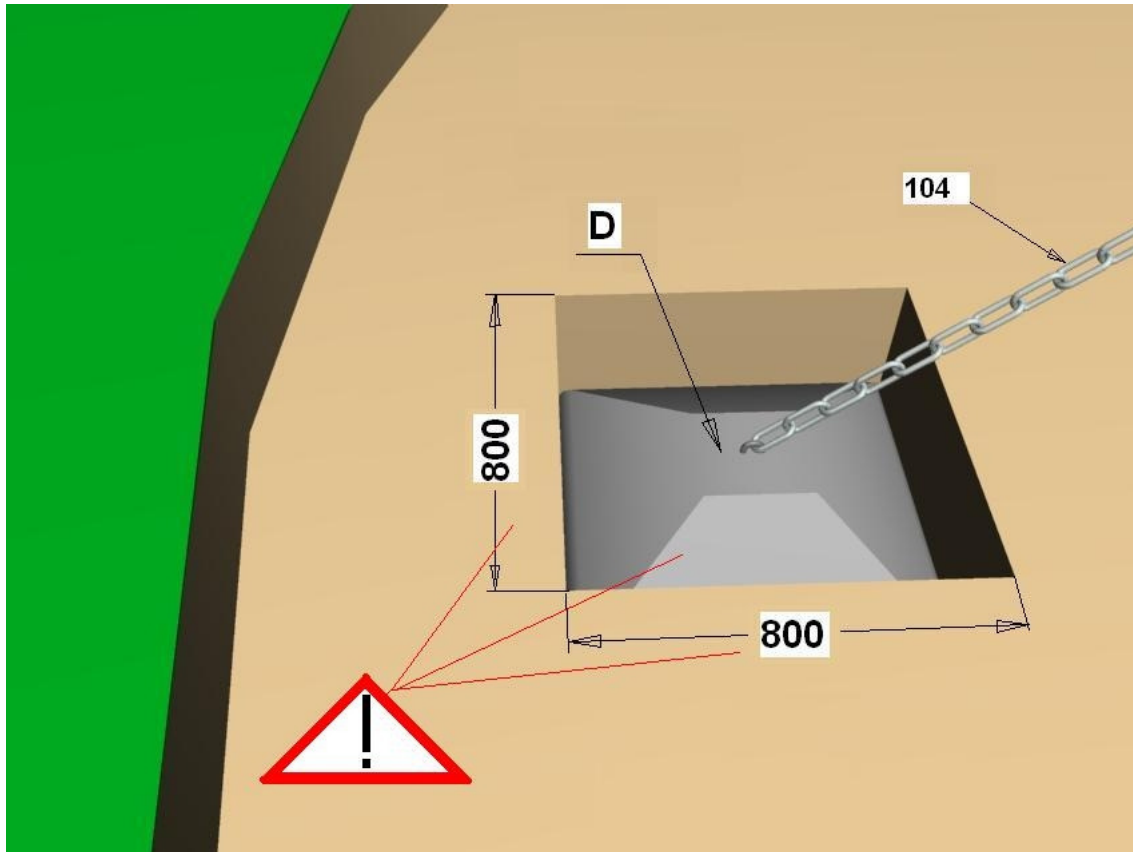


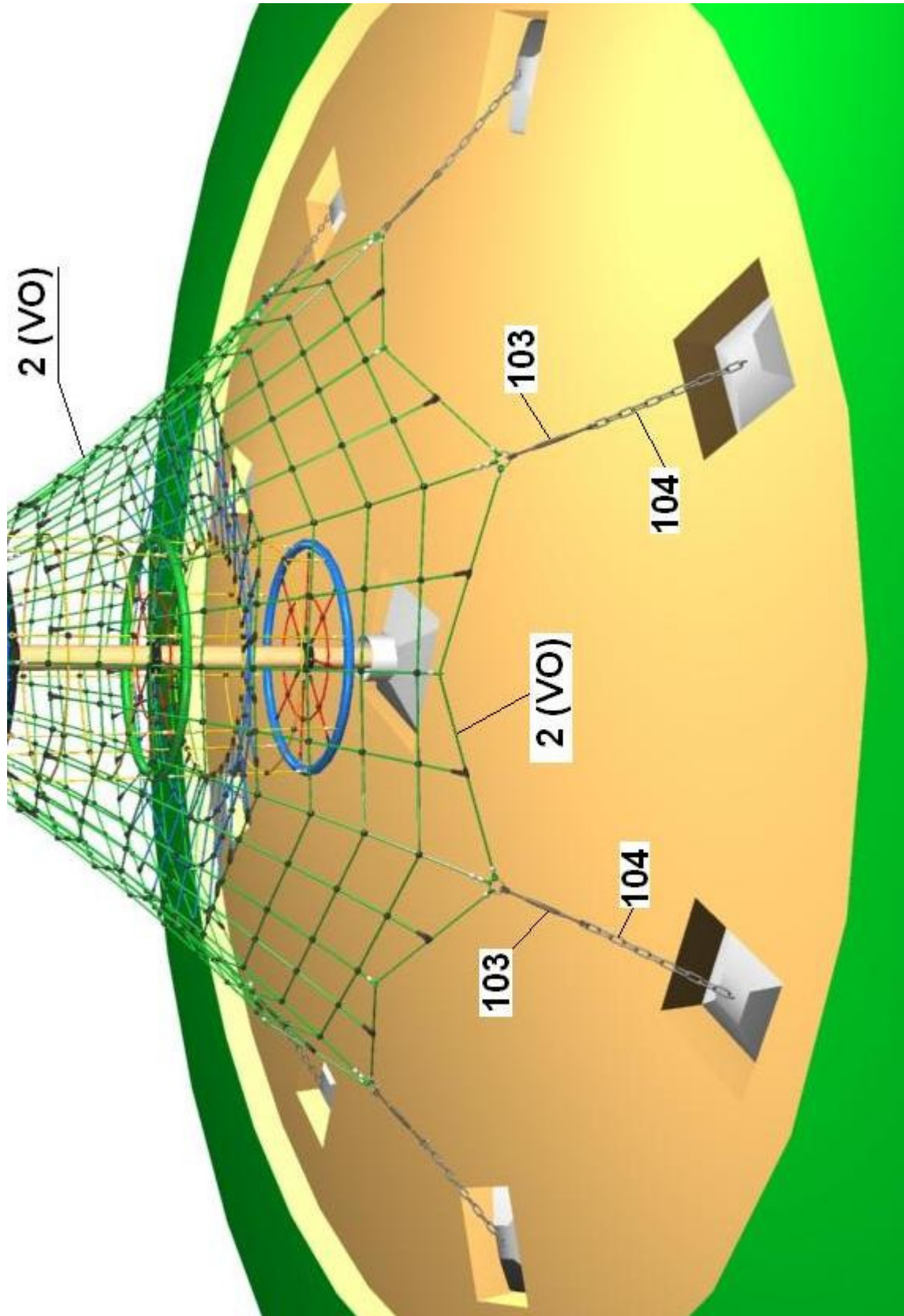


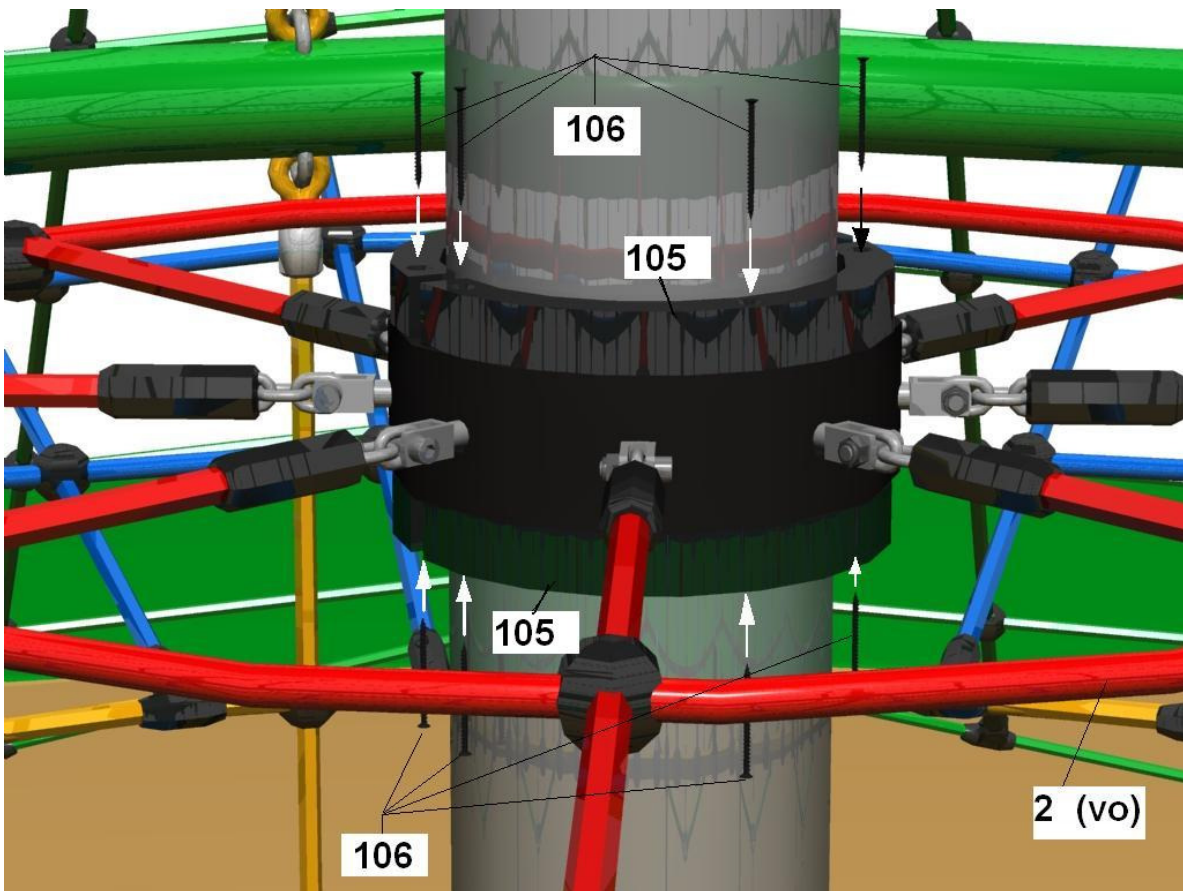
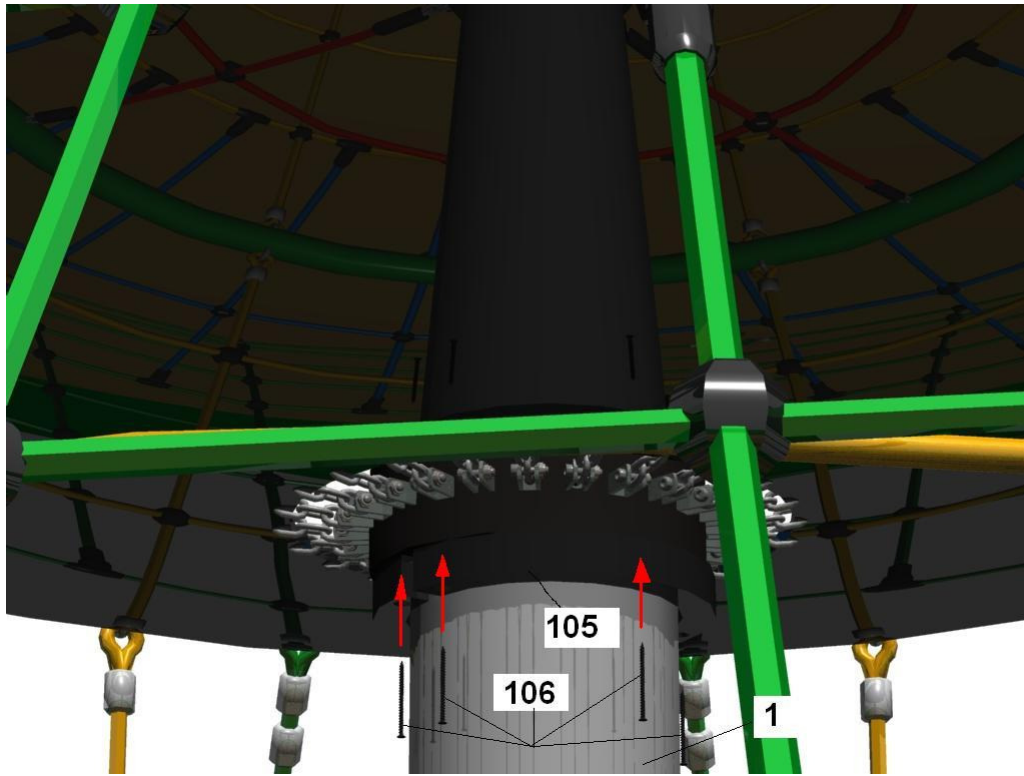


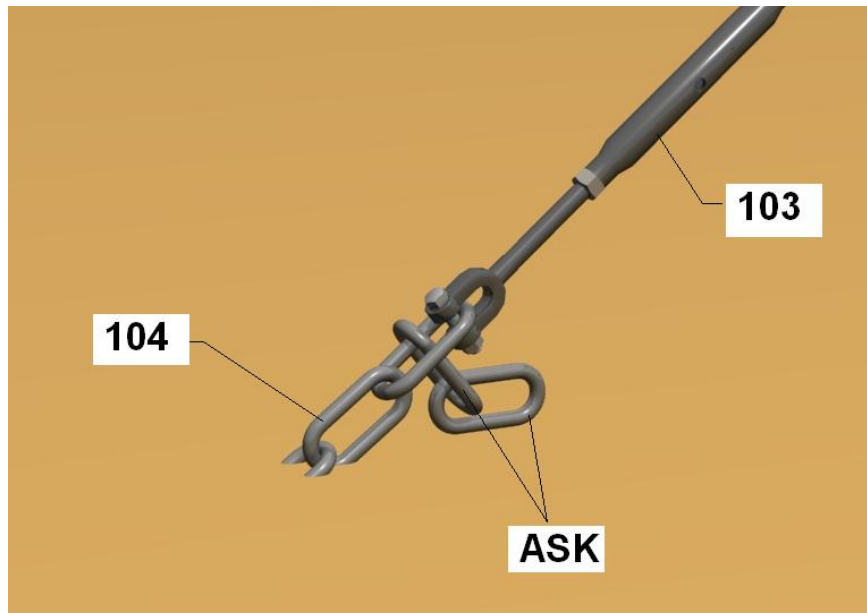
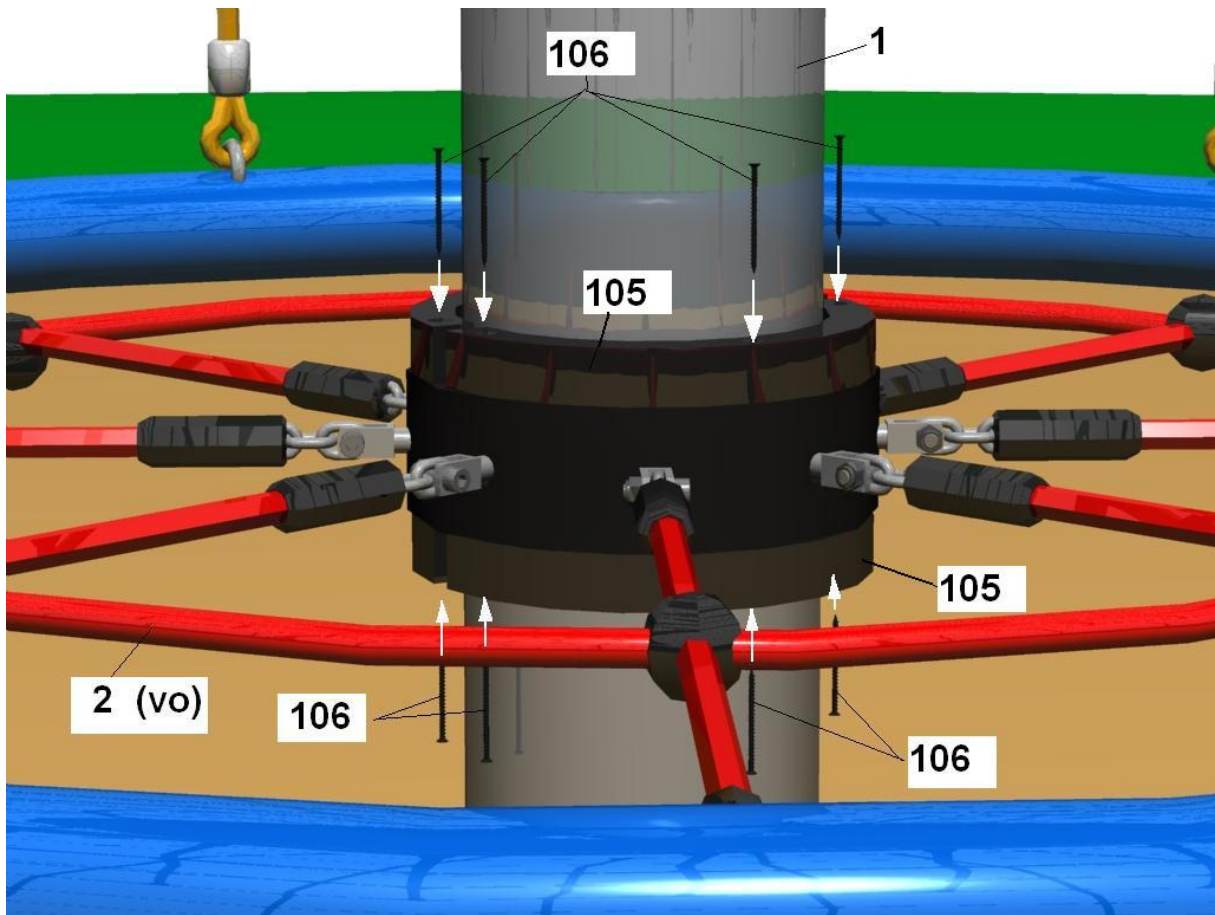













	Abbreviations:
AB	Setting time 7-8 days
ASK	Anchor chains
A.R.	Place the ring nut in this position
D	C25/30 concrete
F	Fall protection
Gew.pl	Steel Anker plate
G	Drainage layer
Ho.A	Wood adaptor in netting (see also PN)
O.K	Top surface of playing area
LRB	Fill space between pipe and steel post with liquid concrete.
PN !!	Lay netting part "packet" (secured with wood adapter Ho.A) centrally over the drainage tube, carefully remove wood adapter and then stand the mast (item 1) in the middle of the drainage tube.
Verp.	Open packing ties
N.Sp.anh.!!	Raise pre-assembled netting/play part for installation with large enough lifting equipment (e.g. excavator)
PS	Space required incl. safety area (78,5 m ²)
STM !!	Pay attention to positioning of ring nut
ML	Pole length above play height
MF	Central foundation
VO	Pre-assembled
WH	Important notice
Inkl. F	Excavated soil including fall protection
KNR	Drainpipe (e.g. concrete or PVC duct, Ø 400 mm / L. 1.00 m <u>on site</u>)
M.Lot !!	Post <u>must</u> be set up perpendicularly
	Round off edges of concrete foundations! Important – All sizes of foundations are valid for soil class 3 – 4 (standard soil).In case of sandy and soft soil we strictly recommend to enlarge the foundation dimensions.

See drawings

5 Post Installation Checks



If the equipment has not been installed safely, you must ensure that the public is prevented from using it.

5.1 Marking Filler Depth

- Labelling the posts to show the depth of material provided as fall protection (i.e. loose filler).

5.2 The Equipment has not been Installed Safely in the Following Cases:

- Safe equipment installation is not complete.
- The protective surface has not been installed yet.
- Appropriate maintenance work cannot guarantee operational safety.

5.3 Removal of all assembly aids

- Please make sure that all assembly aids have been removed from the playing area. The equipment must not be approved for use until this check has been made.

5.4 Information about Inspection of the Equipment before it is used for the first time

- There are no special inspection requirements to be met before the equipment is used for the first time.

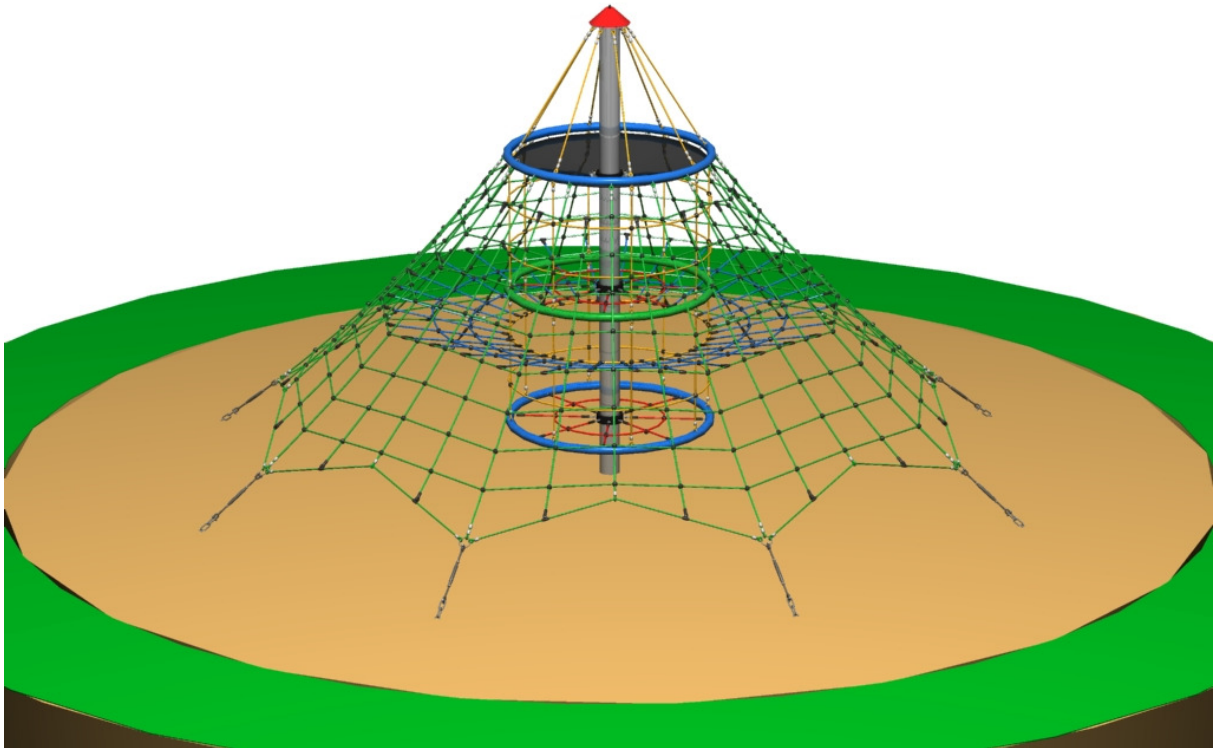
5.5 Retighten bolts

- After one week of play, please retighten all bolts again. Later upon respective maintenance.

B Maintenance Instructions

Dino 2, Rope Net Pyramid

Art. 10.02.100 (Set into Concrete)



Revision history

Revision 0 – 2007-11-01

The first allowed version

Maintenance instructions

Revision 7 – 2012-06-19

R4000 O.K FH

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6 Introduction Maintenance

6.1 General Information

This equipment should be installed, inspected, maintained and operated in accordance with EN 1176-7 guidelines.



Please note: Providing any necessary repairs are carried out, a piece of play equipment that is inspected regularly cannot become so damaged that it is dangerous.

Any spare parts which may be required can be obtained directly from your supplier.



This equipment should only be assembled, maintained and repaired by **persons with the necessary expertise**.
A copy of the inspection record should be given to the operator, who must confirm receipt.

**This maintenance instruction is based on the standard
“EN 1176-1:2008”.**

7 General maintenance Information

7.1 Maintenance Intervals

Maintenance intervals are based on average use. Please note that more frequent inspections and/or maintenance are required if the play equipment is subject to intensive use.

7.2 Inspection Frequency

The frequency of inspections must be based on actual use. Factors that affect frequency include vandalism, location (e.g. coastal proximity), air pollution and the age of the equipment.

7.3 Maintenance Products and Procedures

All nuts and bolts are hot-dip galvanised or stainless steel. One of the characteristics of stainless steel is that uncontrolled cold welding may occur when the nuts are tightened. To prevent this, it is necessary to spray the nuts and bolts with Teflon spray or another similar lubricant.

7.4 Spare Parts

All spare parts must conform to the manufacturer's specifications.

7.5 Identifying Spare Parts

All spare parts are listed in the parts list. The parts list follows the installation requirements.

7.6 Special Instructions for the Disposal of Individual Equipment Components

No special instructions are necessary for the disposal of individual equipment components.

7.7 Special Measures during the Break-In Period

No later than 2 weeks after assembly, all screwed connections should be checked and tightened if necessary.

7.8 Maintenance of Protective Surfaces

Surfaces providing fall protection must also be maintained regularly. It is particularly important to maintain the correct level of loose surface material and add more if necessary.

7.9 Faults



Faults must be repaired as soon as they are detected. If serious defects that compromise safety cannot be repaired straight away, the public must be prevented from using the equipment with immediate effect.

7.10 Loose Screws



Loose screws always cause quality problems and put safety at risk. Therefore, loose screws should always be tightened and checks carried out to ensure that there are no missing screws (e.g. look out for holes you can see through).

7.11 Preventing Equipment Use

Use of the equipment should be prevented in the event of incomplete installation, disassembly, maintenance, repairs and faults.

7.12 Claims/liability for Faults

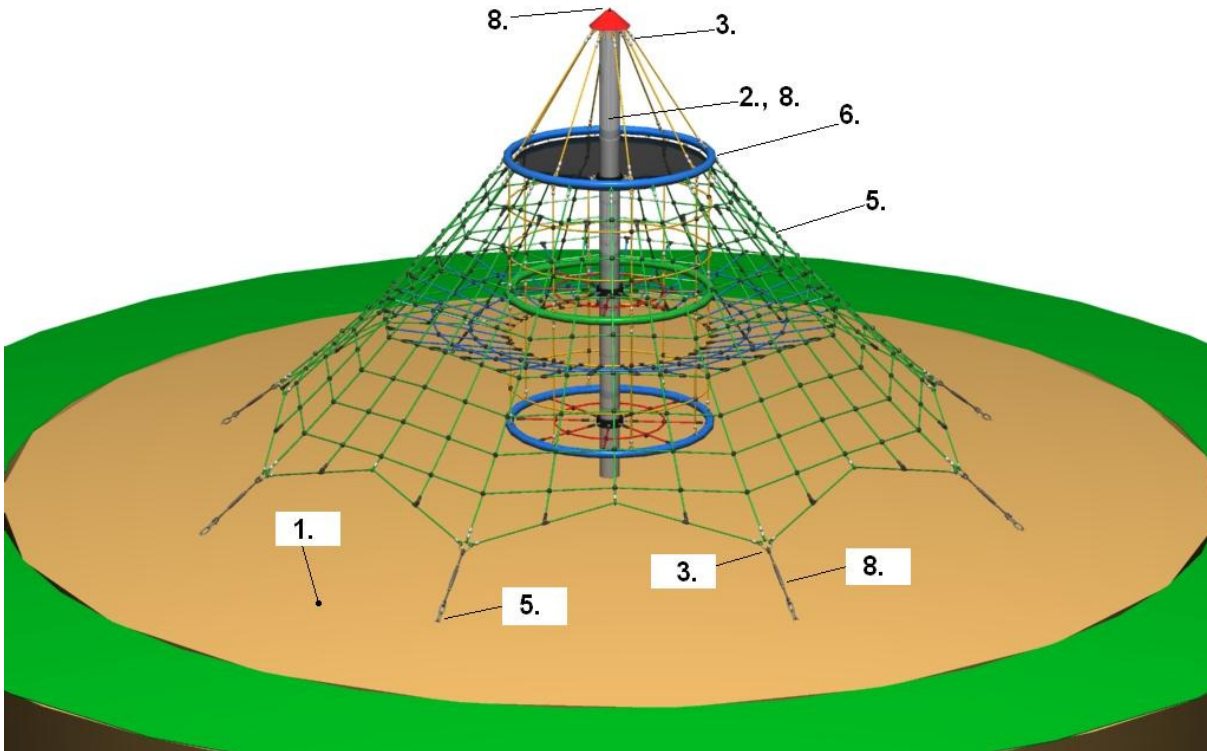
Steel posts and footings are guaranteed if regular maintenance is carried out and recorded in writing. Our general terms and conditions apply. Maintenance first takes place after 3 years. The steel posts must be excavated as far as the concrete foundations and checked for corrosion.

Zinc paint should be applied to any corroded areas and scratches.

Check ropes for abrasion. Retreat any that are very worn.

8 Regular Maintenance

8.1 (Image)



8.2 Regular Maintenance

M = monthly Y = 1/4 quarterly Y = 1/2 yearly

	M	1/4 Y	1/2 Y
1. Check ground in fall and protection area for hard objects and loose foundations.	X		
2. Check stability (supporting posts, springs, supports, foundations etc.).			X
3. Check all connecting elements and fittings for wear and tear and where necessary retighten. Replace damaged components.	X		
4. Check that moveable metal components (joints, springs etc) move smoothly and are not worn and where necessary replace. It is not necessary to lubricate joints as we only use maintenance-free metal roller bearings.	X		
5. Check all attachments such as chains, ropes, nets, etc. for damage and replace if necessary	X		
6. Check rubber parts, sleeves, rings etc. for wear and tear or damage and replace if necessary.	X		
7. Check the surface of wooden parts for damage caused by the weather or external influences. Repair (Paint with glaze) or replace if necessary.	X		
8. Check the surface of plastic and metal parts, e.g. slides, for damage and replace if necessary.	X		

It is recommended to carry out the **inspection and maintenance work** out in the specified time-frames, since wear and tear can occur through play, weathering influences or intentional damage, which compromises safety and function levels.

Defects, which compromise safety, must be treated promptly, either by immediately repairing or dismantling or closing down the equipment!

Defects, which compromise function, reduce the play value of the equipment and encourage vandalism, which may compromise safety levels. Damage should also be immediately repaired in this case.

Maintenance and servicing is to be carried only out by professionals.

General: Play equipment which is regularly checked may not be damaged in such a way that it becomes dangerous. However it is essential that where necessary repairs are followed up after regular checks.

9 Maintenance Timetable

9.1 Special Advices

9.2 Maintenance Interval

We strongly advise you to carry out inspections and maintenance work within the specified periods as use of the equipment, the weather and malicious vandalism cause wear and tear that compromises the safety and function of the equipment.

9.3 Maintenance Intervals in the Event of Intensive Use

Please note that more frequent inspections and/or maintenance are required if the play equipment is subject to intensive use.

9.4 Faults that Compromise Safety



Notice

In the event of a fault that compromises safety, quick action must be taken. This may involve repairing it immediately or shutting down and dismantling the equipment.

9.5 Faults that Compromise Function



Notice

Faults that compromise function should also be repaired immediately. Such faults lower the value of the equipment to the user and encourage malicious vandalism, which may render the equipment less safe. Any damage should also be repaired immediately.

10 Monthly Maintenance

- Check the spaces between the equipment and the ground (clearance and height of fall).
- Check the ground surface in the area with fall protection for hard objects and loose foundations.
- Check all connecting elements and fittings for wear and tear and tighten if necessary. Replace damaged or missing parts.
- Check that moving metal parts (joints, springs, etc.) move smoothly and are not worn. Replace if necessary. It is not necessary to lubricate joints as we only use maintenance-free metal roller bearings.
- Check all attachments such as chains, ropes, nets, etc. for damage and replace if necessary.
- Check rubber parts, sleeves, etc. for wear and tear or damage and replace if necessary.
- If necessary, remove excess padding material from the post footings due to danger of rotting.
- Check the surface of wooden parts for damage caused by the weather or external influences and mould. Repair or replace if necessary.
- Check the surface of plastic and metal parts, e.g. slides, for damage and replace if necessary.

11 Quarterly Maintenance

- Detailed inspection of the operation and stability of the equipment paying particular attention to any wear and tear.
- Tighten all forms of attachment.
- Repaint and retreat surfaces.
- Maintenance of fall protection surfaces.
- Lubrication of joints.
- Check the height of the fall and top up with loose filler if necessary. If the posts are labelled, top up as far as the mark.
- Retighten all bolts
-

12 Half Yearly Maintenance

- Stability (check posts, bracing, foundations, etc.).



Annual Maintenance

13 Annual Maintenance

- Ascertaining that the equipment, foundations and surfaces are safe for operation.
- In particular, the equipment should be checked for decay and corrosion. It may be necessary to dig out or excavate certain components in order to do so. Zinc paint should be applied to corroded areas and scratches.
- Ascertaining whether there are any changes in equipment safety as a result of repairs that have been carried out or components that have been added or replaced.



The equipment must be inspected by someone **with the necessary expertise** in strict compliance with the instructions issued by the manufacturer.

A copy of the inspection record should be given to the operator, who must confirm receipt.

14 Maintenance Printout

Name of Item: Dino 2, Rope Net Pyramid _____ / Art. No. 10.02.100 _____

Location: _____

Customer or operator: _____
(Local Authority, Town Council, School, etc.)

Date of inspection	Inspector	O.K.	Accessible	Barriered	Defects	Repaired by	Date

15 Hand Over Document



After the installation of the equipment pass the installation and maintenance documents to the operator. The operator has to receive the hand over documents. The complete filled and signed hand over document should be sent to the supplier.

Art.-No.: 10.02.100

Name of Item: Dino 2 (Set into Concrete)

Serial Number: _____

Customer or Operator (Local Authority, Town Council, School, etc.):

Competent Person in Charge:

Installation Company (Address):

Responsible Assistant (Assembler):

Received the complete assembly instructions, maintenance instructions and maintenance printout

(Signature of Operator)
(Stamp)

(Signature of Installation Company)

Date: _____