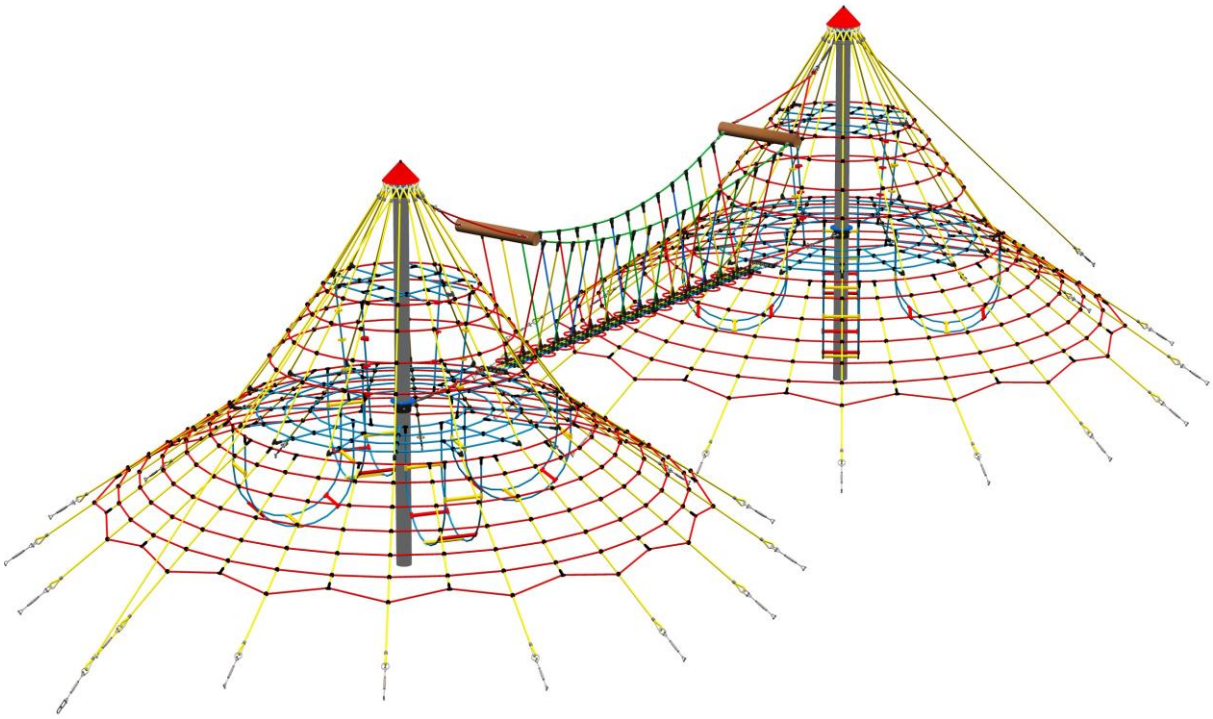
A Assembly instructions
Cheops Combination, Midi
Art. 4643-2B-10



Operator: _____

Location:_____

Revision history
Revision 0 – 2011-03-30

The first allowed version

Assembly instructions

Revision 3 – 2015-06-12 Aufbau Netzwerk FH

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1 Introduction Assembling

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).

Please consider that the installation has to be carried out only on even terrain (max.slope up to 3%).

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

Please do not hesitate to call your supplier if you have any problems during installation or in case of any other questions.

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.

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.

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.

2 Datasheet Cheops Combination, Midi Art. 4643-2B-10

1. Space requirement: 9,60m x 20,60m including safety zone, height of fall 1.70m

   The Images (individual drawings) are not to scale !!

2. Required safety surface:

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

3. Name and overall dimension of the largest component:
   Steel posts (2 pieces) length 5,0m, ø 159 mm

4. Name and weight of the heaviest component:
   Steel posts (2 pieces), approx. 212 kg

5. Intended age group: 6 years and over

6. **Please note that this equipment is set in concrete.**
   Concrete: C25/30
   Required concrete: 13.0 m^3
   Required Gravel for Drainage layer

7. Foundations/area to be excavated:
   2 x 0.80 m long x 0.80 m wide, total depth 1.10 m including 10 cm drainage
   24 x 0.70 m long x 0.70 m wide, total depth 1.10 m including 10 cm drainage
   4 x 0.70 m long x 1.40 m wide, total depth 1.10 m including 10 cm drainage
   2 x 0.80 m long x 0.80 m wide, total depth 1.10 m including 10 cm drainage
   Top edge of concrete 30 cm below ground level

   Attention!

   Round off foundation edges (min.R = 100 mm)! Sizes of fundations 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%!

8. Assembly time, once foundations completed: 8 hours. Required assistants: 4 persons.
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.**

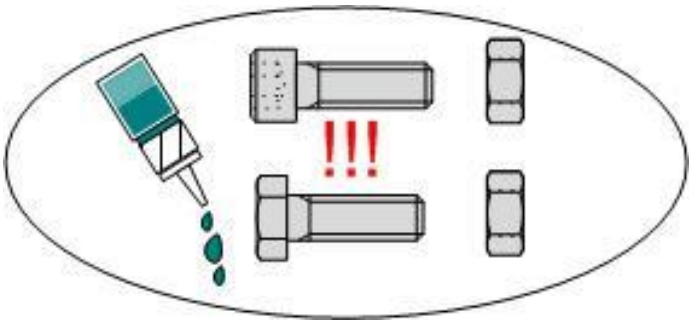
3 Delivery contents (parts list with part numbers)

3.1 In words

Table 3-1: Delivery contents, in words

Pos.	Quantity	Element / Description	Size	O.K.	Missing
1	2	Steel posts	Ø 159 mmx 5,00 m		
2	2	Cheops Net Towers			
3	2	Lower Connection Rings	For Ø 159 mm		
4	2	Upper Connection Rings	For Ø 159 mm		
5	2	Mast/Net Platte	Ø 360 mm x 12 mm		
6	1	Bridge			
7	2	Tention Ropes			
100	4	Threaded bolt with 2 x Acorn nuts	M12 x 190mm		
101	8	Bolts	M12 x 30		
102	8	Lock washers	For M12		
103	32	Bolts	M16 x 30mm		
104	32	Lock washers	For M16		
105	2	Threaded bolt	M16 x165mm		
106	2	Nuts	M16		
107	2	Post caps	Ø360mm		
108	2	Washers	For M16		
109	2	Nyloc nut	M16		
110	2	Nut caps	For M16		
111	34	Turnbuckles	M16		
112	34	Anker chains	10mm x 1.30 m		
113	34	Shackle	M10		
114	34	Ground pegs			
115	4	Loctite	M16x40mm		
116	2	Ring nuts for lifting the masts			
117	2	anchor plate	500 x 500		
	2	**Pipes for Mast foundations /provided by the customer!**	approx. Ø300 x 750 mm.		
10		Brush	**on request**		
11		Paint	**on request**		

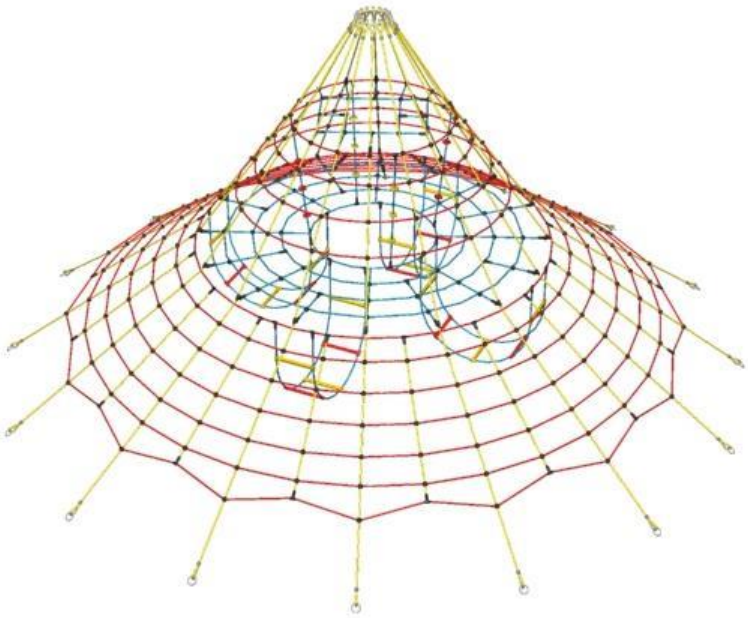
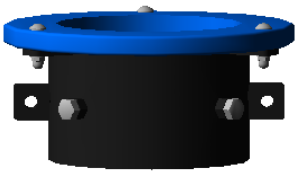
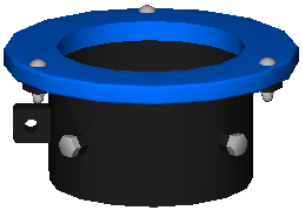
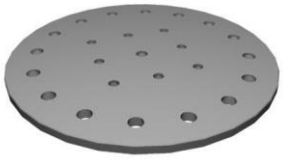
Loctite-Thread locking adhesive !!!

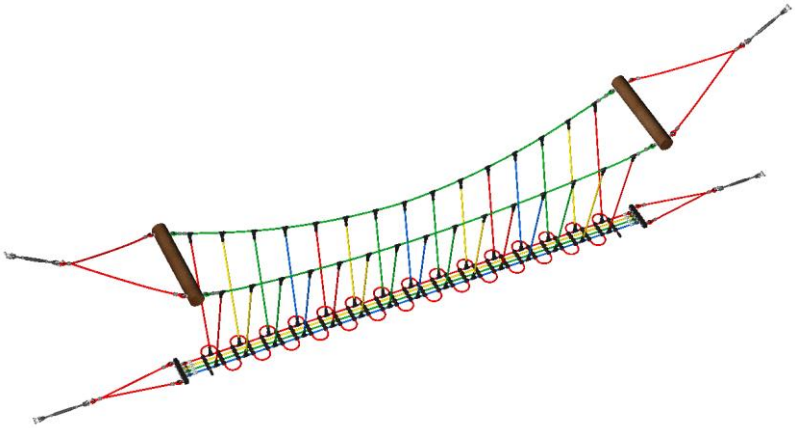


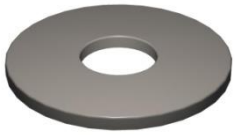
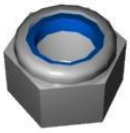
Glue all screws, nuts and sleeves with loctite.
(not less than 5 drops !)
(except for lock nuts)

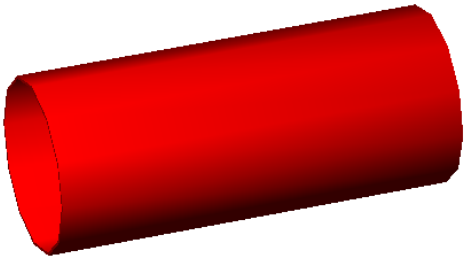
In symbols

Table 3-2: Delivery contents, in symbols

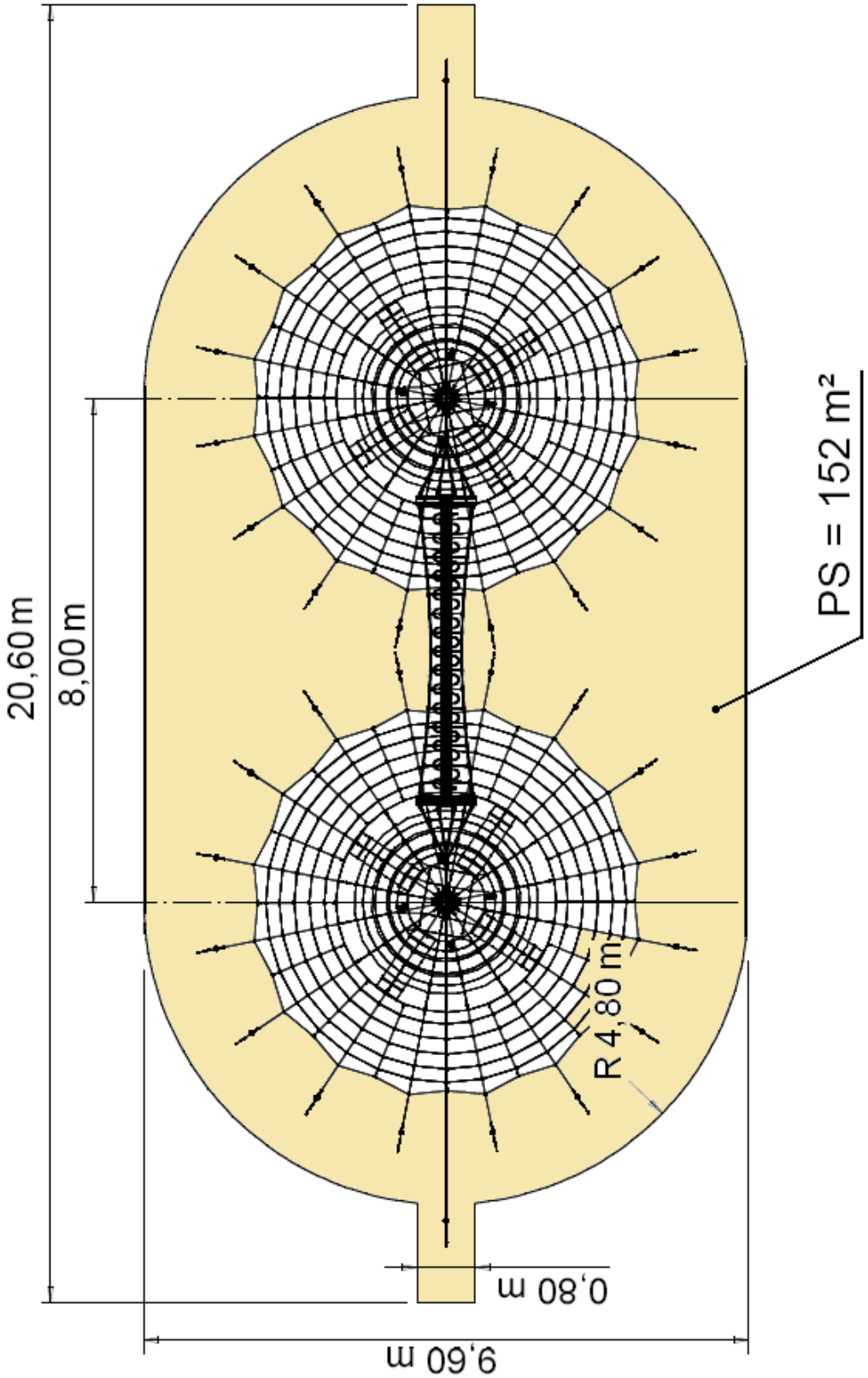
Pos.	Quantity	Symbol
1	2	Ø 159 mm; 5,00 m lg.
2	2	
3	2	
4	2	
5	2	

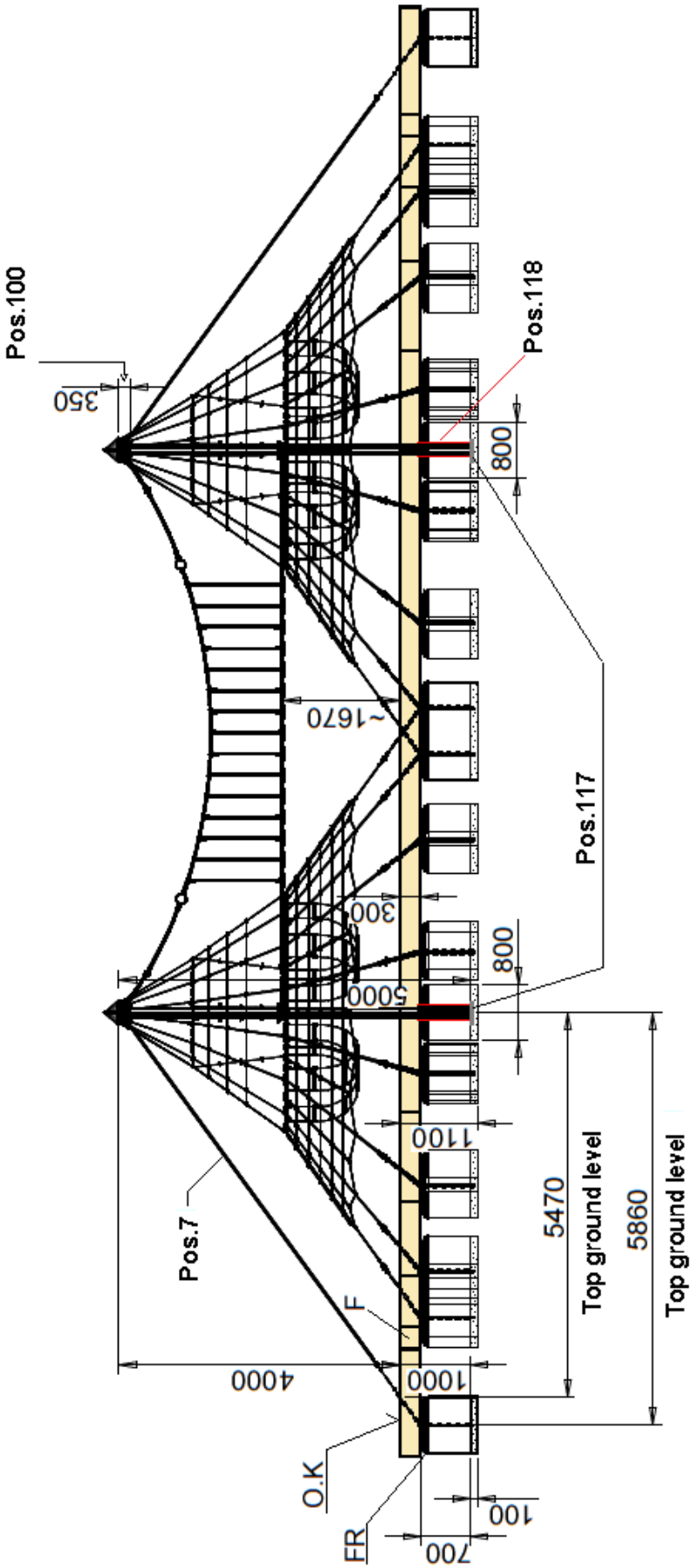
Pos.	Quantity	Symbol
6	1	
7	2	
100	4	
101	8	M12 x 30
102	8	M12
103	32	M16
104	32	M16
105	2	M16 x 165 mm
106	2	M16

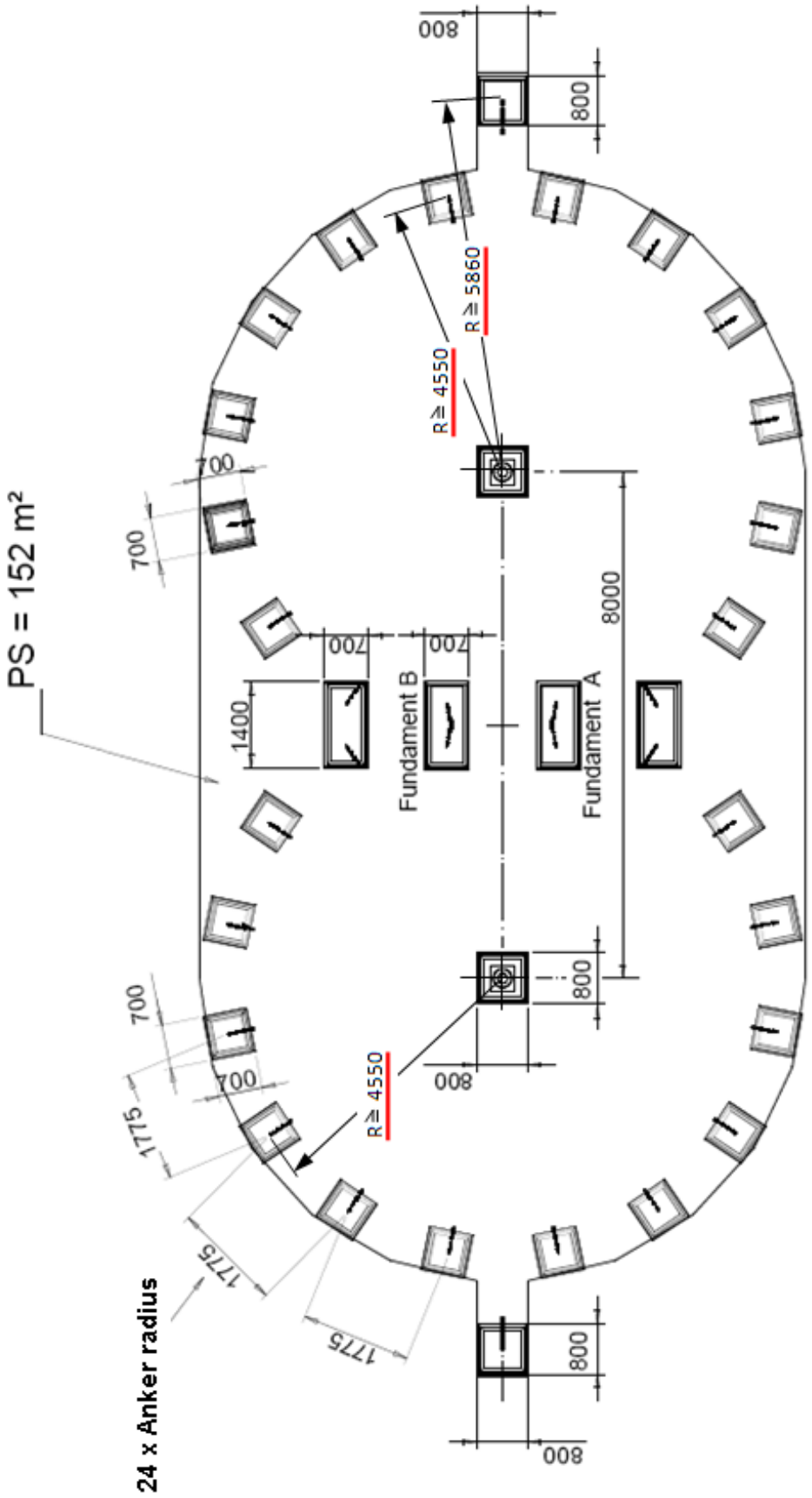
Pos.	Quantity	Symbol
107	2	
108	2	 17 DIN 9021 VA
109	2	 M16 VA
110	2	für M16
111	34	M16 hot dip galvanized
112	34	
113	34	
114	34	300 mm long galvanized
115	4	Loctite
116	2	M16 galvanized

Pos.	Quantity	Symbol
117	2	anchor plate 500 x 500
	2	 approx. Ø300 x ~750mm **provided by the customer!**
10	2	**on request**
20	2	**on request**

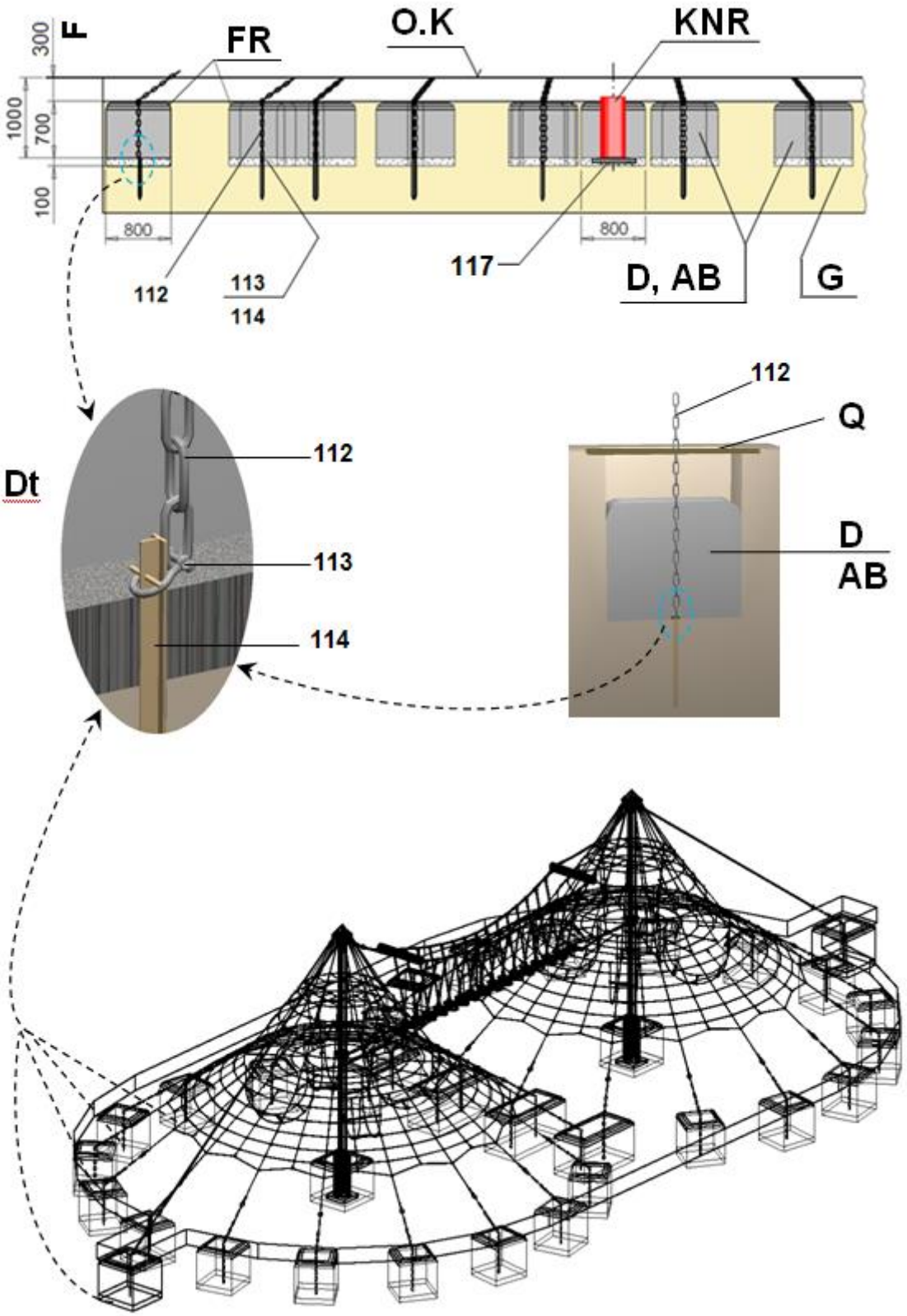
4 Erection instructions

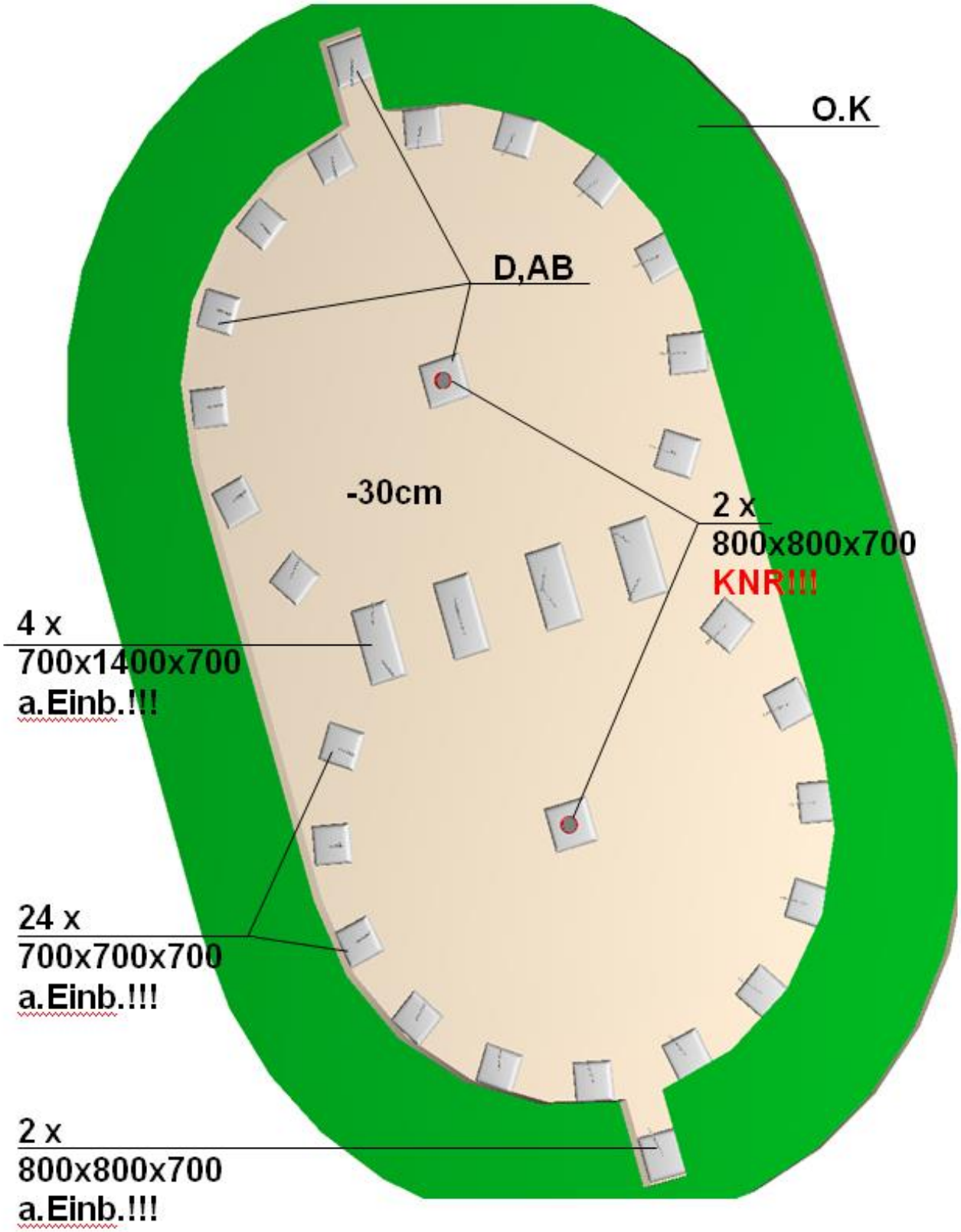


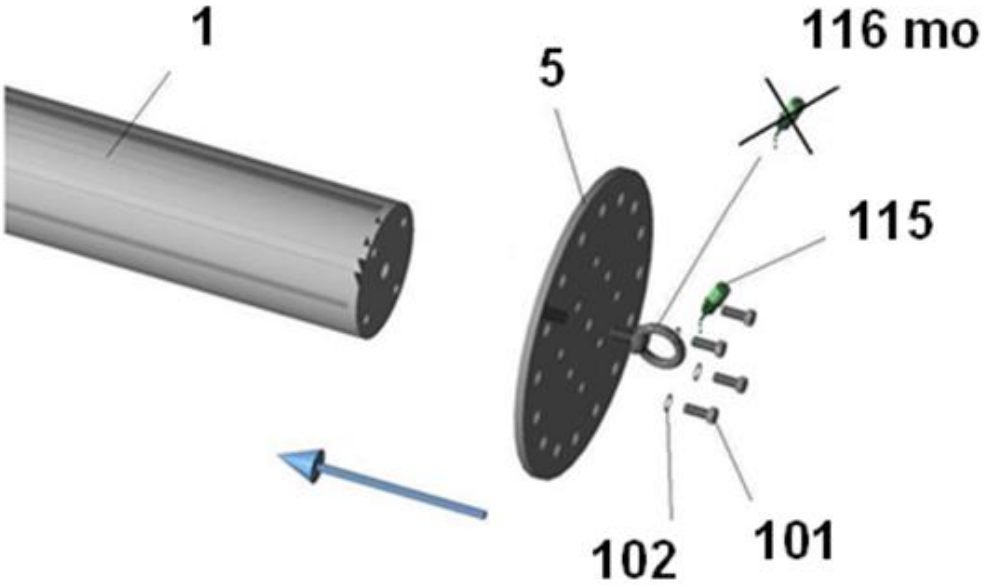

Pos.100
350
Pos.118
800
~1670
Pos.117
300
5000
800
1100
Pos.7
5470
Top ground level
5860
Top ground level
F
4000
1000
O.K
FR
100
700

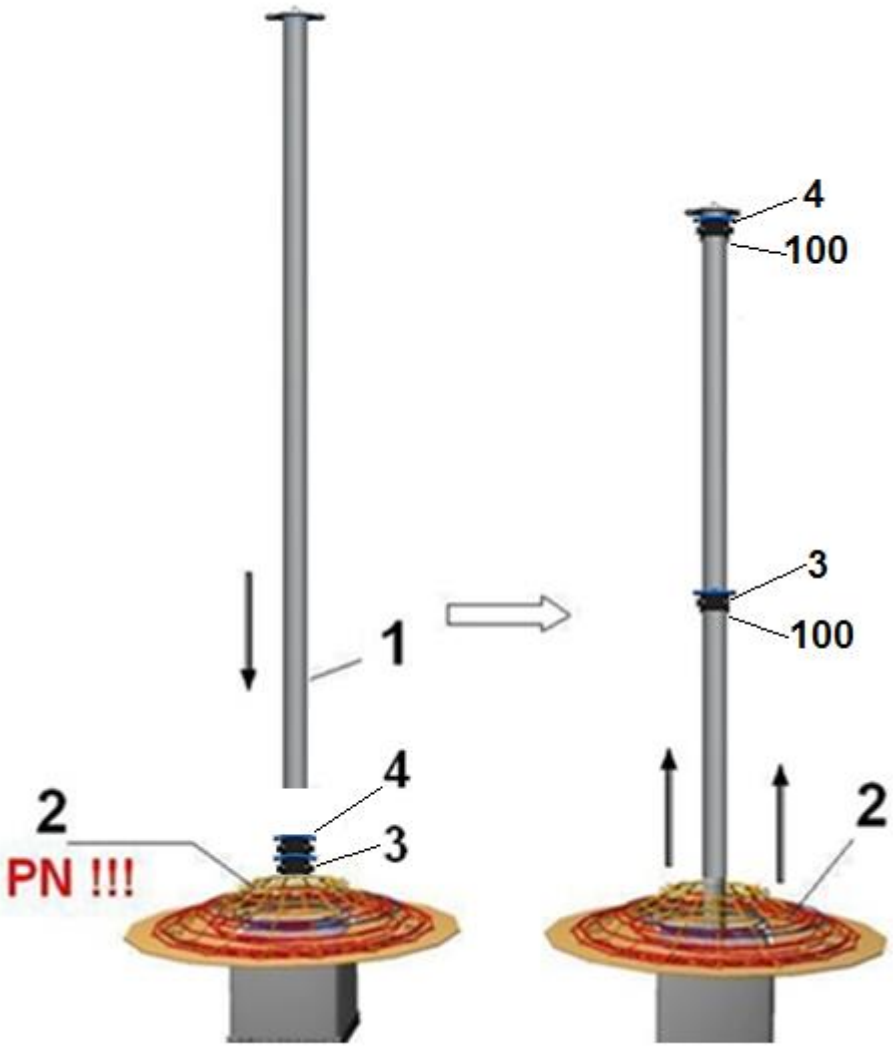


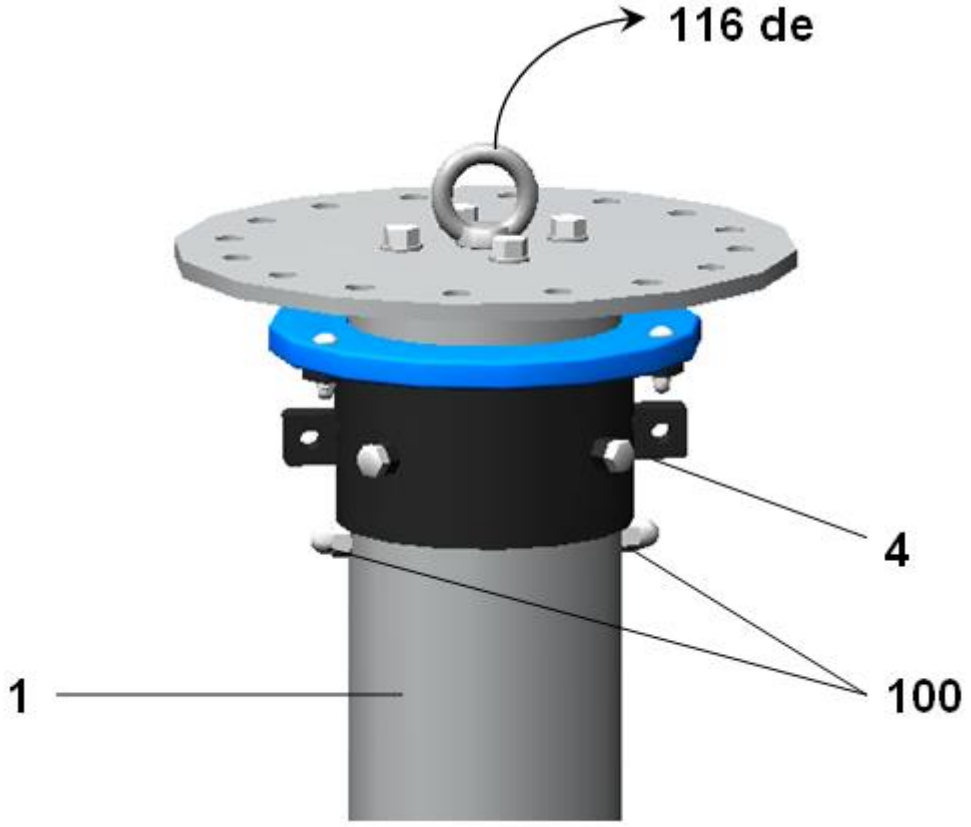
Pos.2 has Identity tags for Foundations A and B

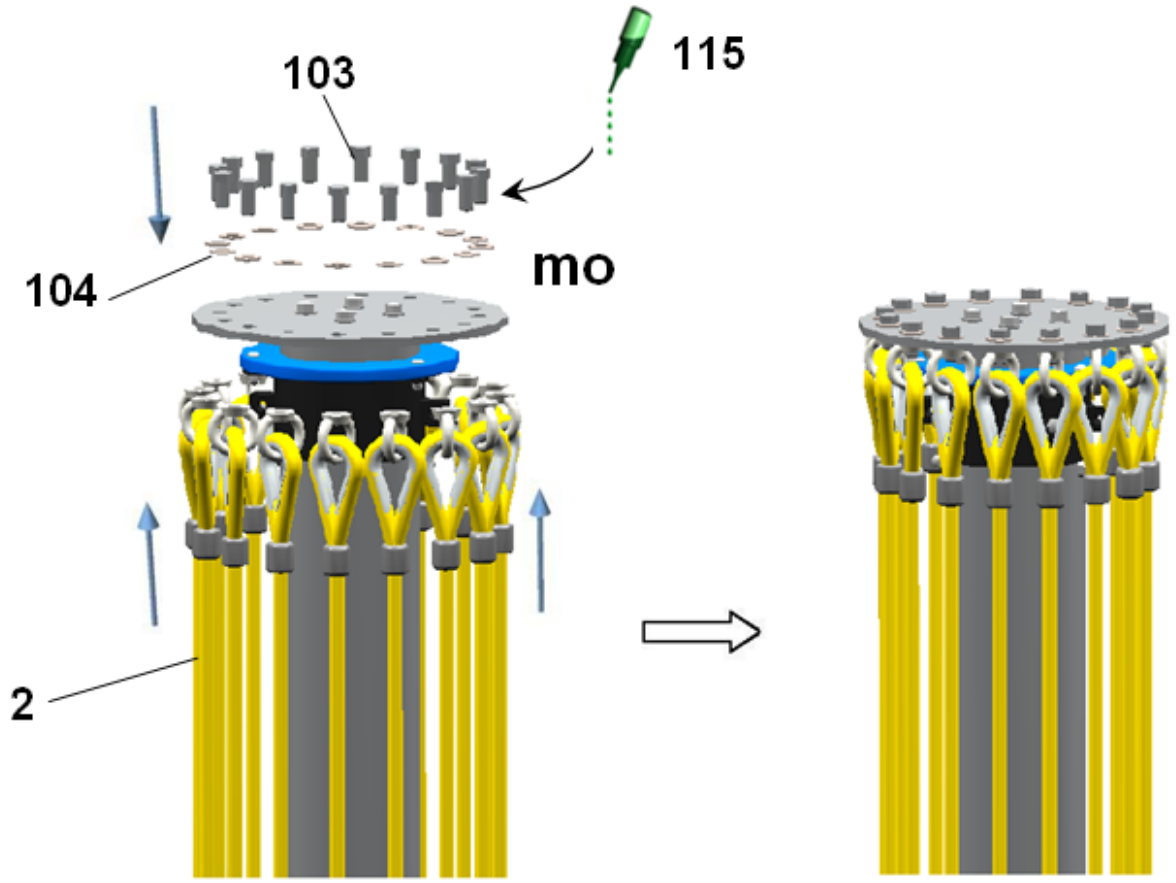

300
F
FR
O.K
KNR
1000
700
100
800
800
112
113
114
117
D, AB
G
Dt
112
113
114
112
Q
D
AB

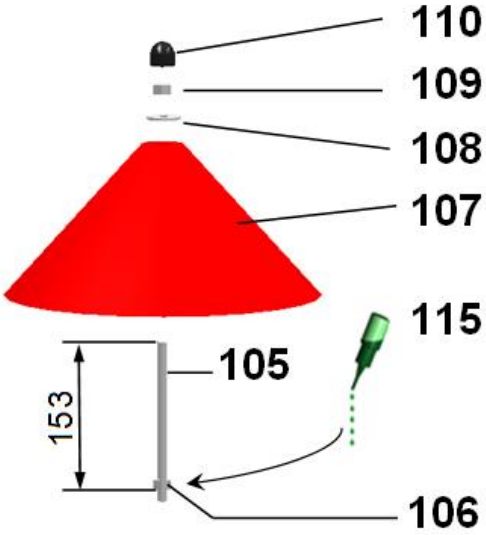

O.K
D,AB
-30cm
2 x
800x800x700
KNR!!!
4 x
700x1400x700
a.Einb.!!!
24 x
700x700x700
a.Einb.!!!
2 x
800x800x700
a.Einb.!!!

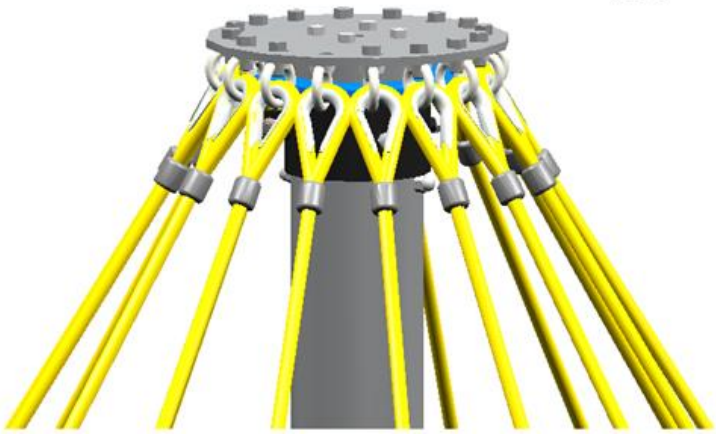

1
5
116 mo
115
102
101

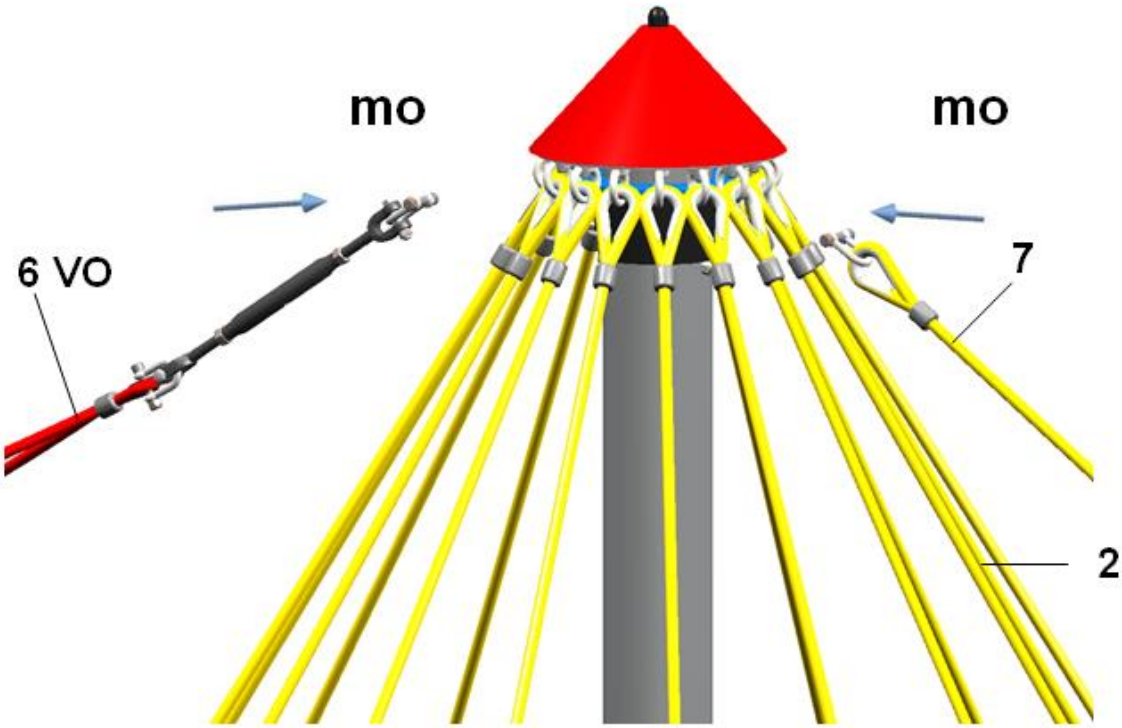

4
100
3
100
1
4
2
3
PN !!!
2

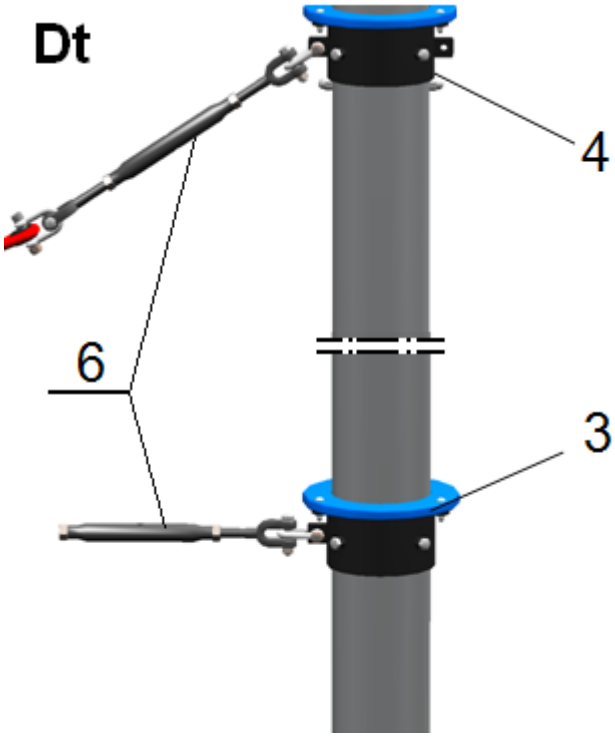

116 de
4
1
100

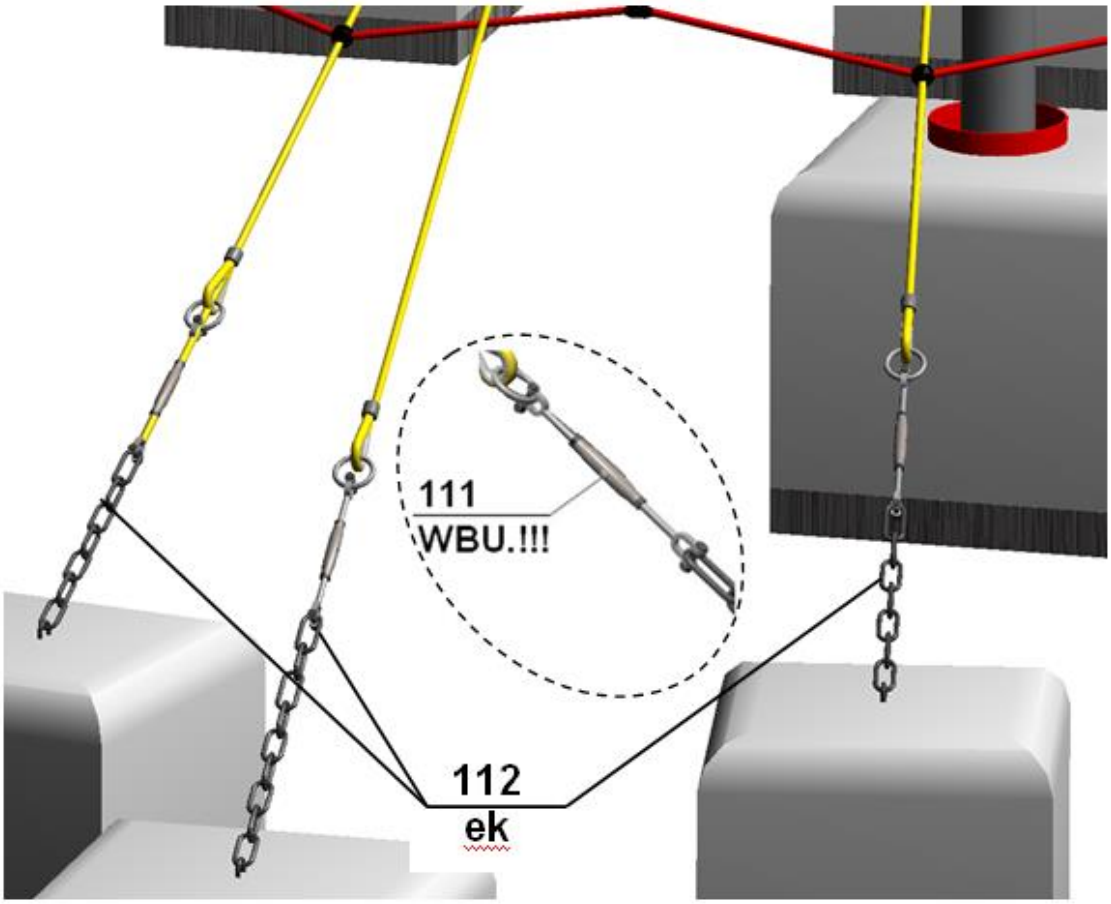

103
115
104
mo
2

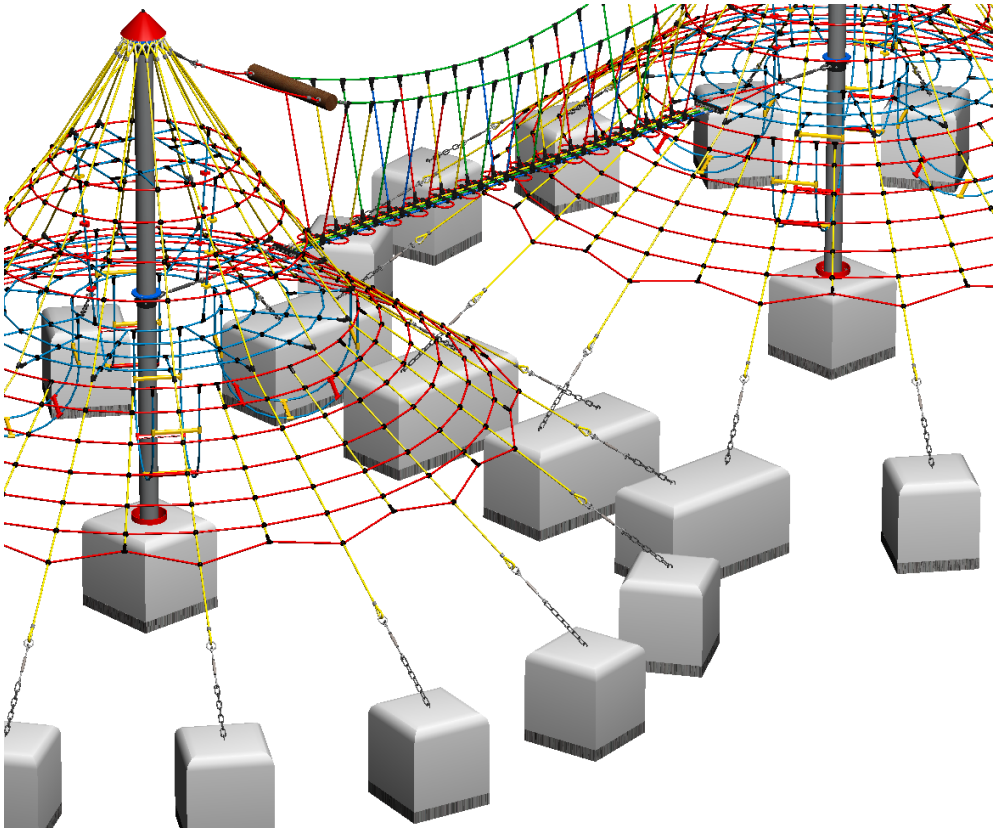

110
109
108
107
115
105
153
106

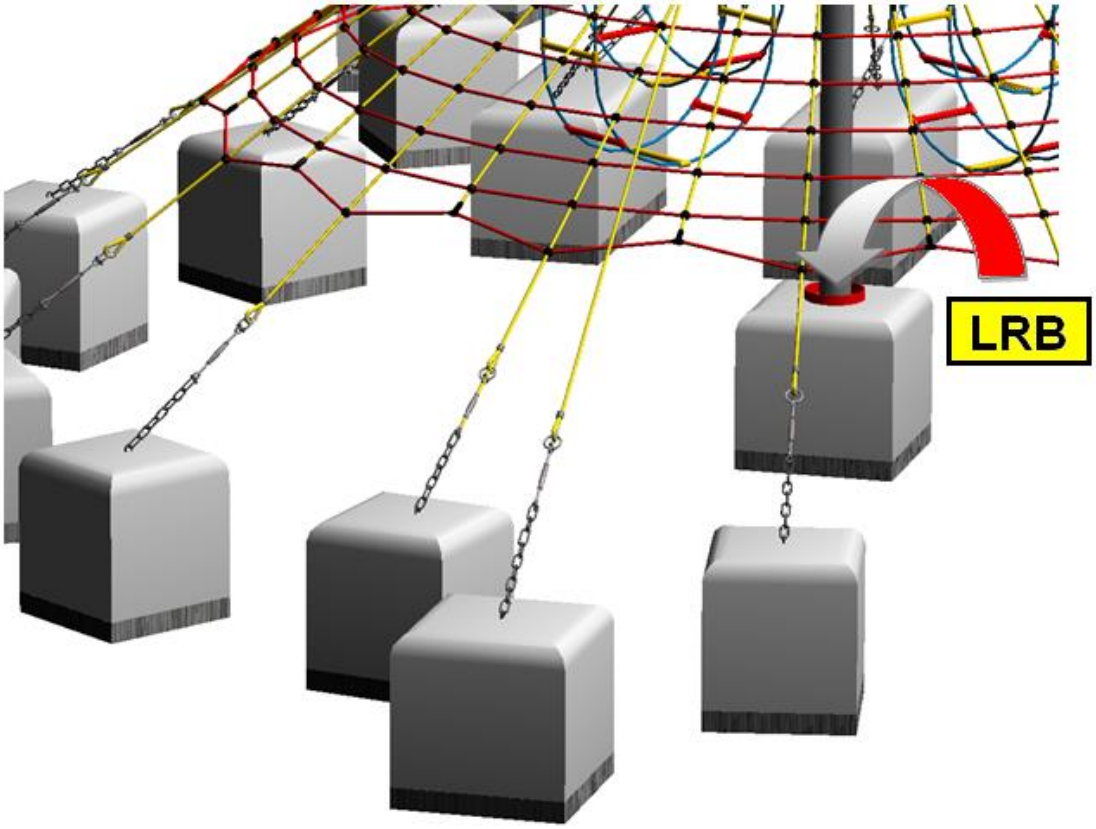


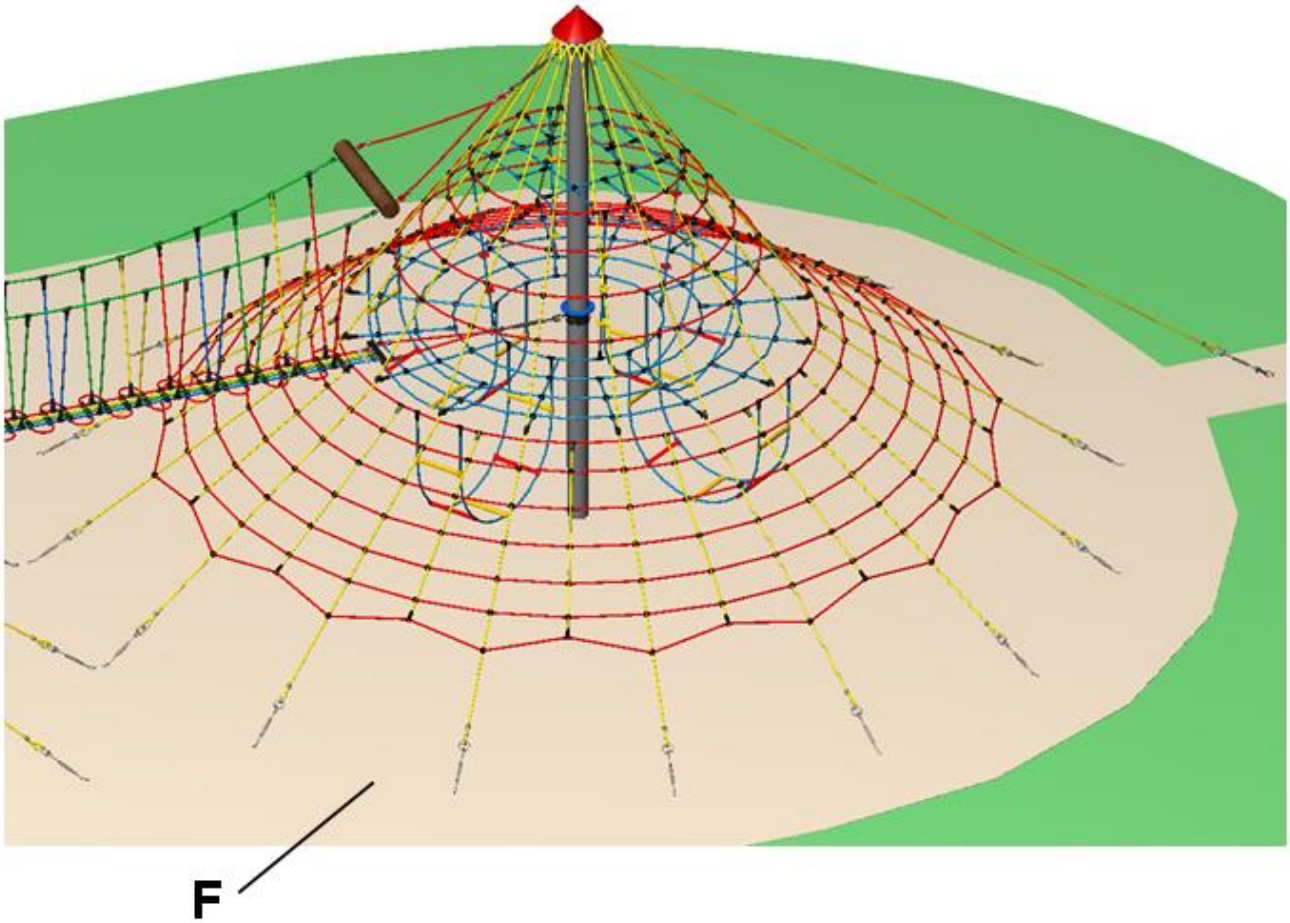

mo
mo
6 VO
7
2

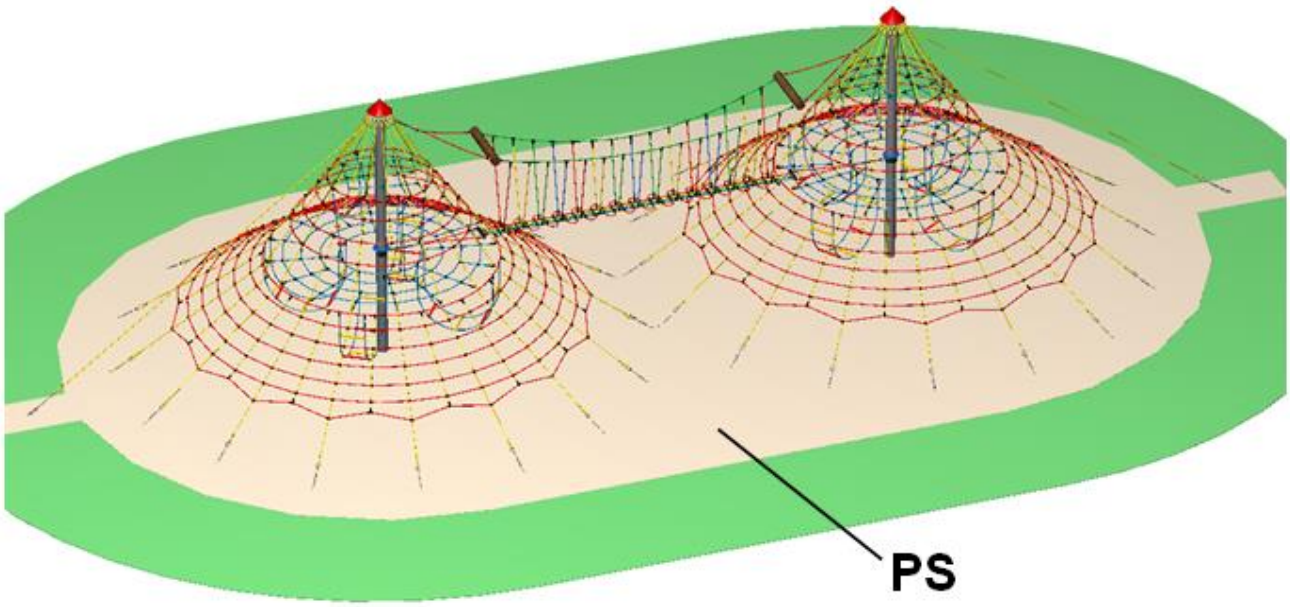

Dt
4
6
3


111
WBU.!!!
112
ek




LRB


F


PS

	Abreviations
AB	Let foundations harden for 7 to 8 days
AE	Fixat ankerchains with shackle and peg
a.Einb	Ankerchains in foundations
D	Concrete
de	Disconnect
ek	Shorten ankerchains if necessary
F	Fall protection
FR	Foundation round-off radius at least 10 cm
G	Drainage
KNR	PVC Pipe or simular **(Provided by the customer)**!
LRB	Fill empty space after instalment with concrete
ML	Mast length above ground level
mo	Connect
O.K	Upper edge of playing level
PN	Place bottom side of net pack over the mast foundation
PS	Safety area
R	Radius
VO	Prefitted
Wbu	Cover hole in turnbuckles after installment
Attention!	**Round off foundation edges (min.R = 100 mm)! Sizes of fundations are designed for soils class “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%!**

See drawings for details of shortcuts

5 Post installation checks

Notice

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:

- Installation of equipment 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 carried out.

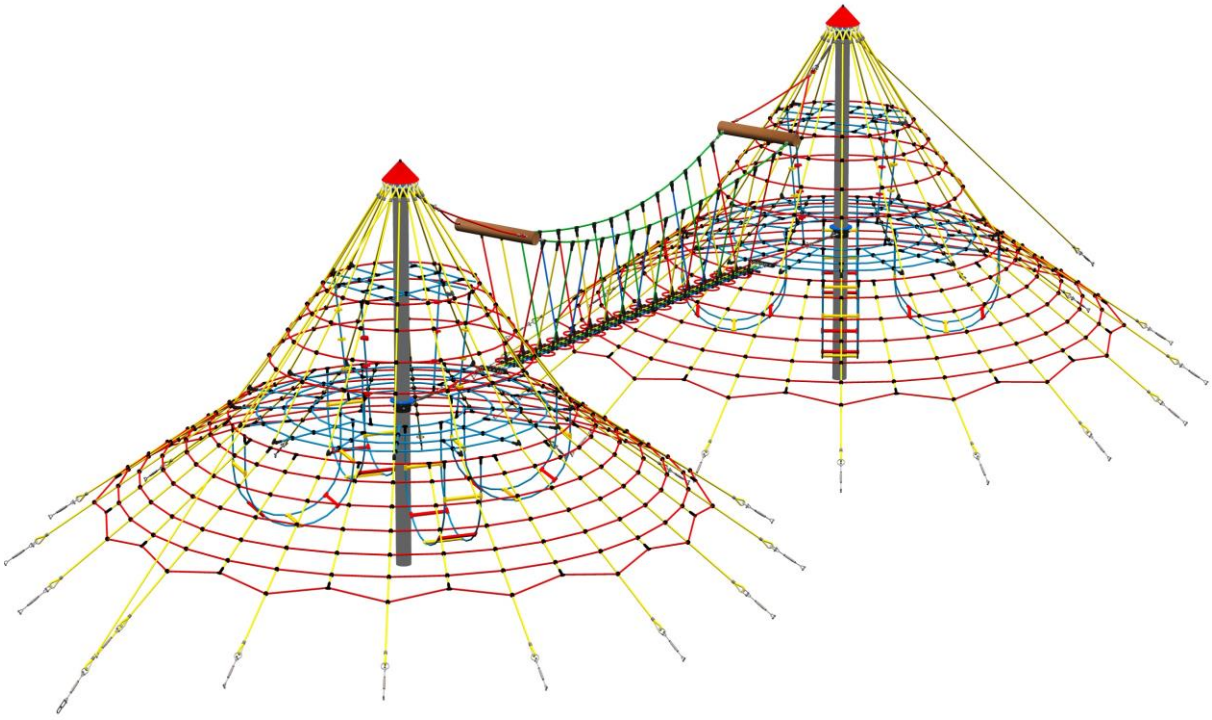
5.4 Information about inspection of the equipment before it is used for the first time

- 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 Cheops-Kombination „Midi“ Art.-Nr. 4643-2B-10



Revision 0 – 2011-03-30

The first allowed version

Maiantanance instructions

Revision 3 - 2015-06-12 Aufbau Netzwerk FH

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6 Introduction Maintenance

6.1 General informations

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

Notice

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.

Attention

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.

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

Damages must be repaired as soon as they are detected. If serious defects that affect the safetyness cannot be repaired straight away, the playground item must be blocked 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.

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 poles)

Steel posts and footings are covered by our guarantee if refular maintenance is carried out and recorded in writing.

Our general terms and conditions apply. Maintenance of steel poles first takes place after 3 years. The steel posts must be excavated down to the concrete foundations and checked for corrosion.

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

Check ropes for abrasion, replace ropes where coating is damaged down the Steel inlet.

8 Maintenance timetable

8.1 Special advices

8.1.1 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.

8.1.2 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.

8.1.3 Faults that compromise safety

Notice

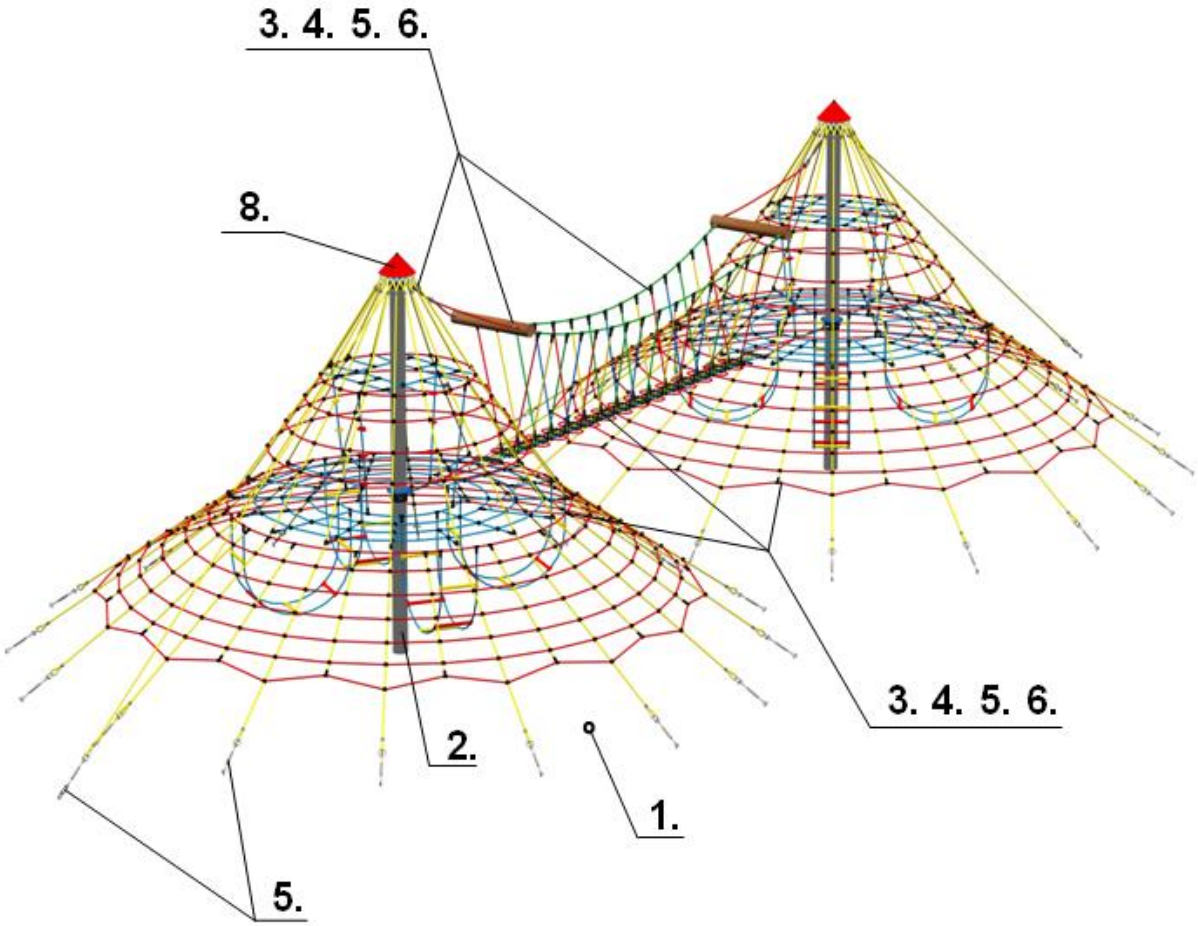
In the event of a fault that compromises safety, quick action must be taken. This may involve repairing it immediately or shutting down and dismantling the equipment.

8.1.4 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.

9 Regular maintenance



10 Monthly maintenance

10.1 Check the spaces between the equipment and the ground (clearance and height of fall).

10.2 Check the ground surface of fall protection for hard objects and loose foundations.

10.3 Check all connecting elements and fittings for wear and tear and tighten if necessary. Replace damaged or missing parts.

10.4 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.

10.5 Check all attachments such as chains, ropes, nets, etc. for damage and replace if necessary.

10.6 Check rubber parts, sleeves, etc. for wear and tear or damage and replace if necessary.

10.7 If necessary, remove excess padding material from the post footings due to danger of rotting.

10.8 Check the surface of wooden parts for damage caused by the weather or external influences and mould. Repair or replace if necessary.

10.9 Check the surface of plastic and metal parts, e.g. slides, for damage and replace if necessary.

11 Quarterly maintenance

11.1 Detailed inspection of the operation and stability of the equipment paying particular attention to any wear and tear.

11.2 Tighten all forms of attachment.

11.3 Repaint and retreat surfaces.

11.4 Maintenance of fall protection surfaces.

11.5 Lubrication of joints.

11.6 Check height of fall protection material and top up with loose filler if necessary. If the posts are labelled, top up to the mark.

11.7 Retighten all bolts.

12 Half yearly maintenance

12.1 The stability of supporting posts, supports, foundations etc. has to be checked. The safety level of the entire system has to be checked after repairs have been carried out or additional system components have been installed or replaced.

Annual Maintenance

13 Annual maintenance

13.1 Ascertaining that the equipment, foundations and surfaces are safe for operation.

13.2 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.

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

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

14 Maintenance printout

Name of item: Cheops Combination Midi _____ / Art. No. 4643-2B-10_____

Location: _____

Customer or operator: _____
(Town, Town council, Kindergarten)

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

Please copy and return once a year after main inspection has been carried out to the manufacturer by Telefax +49(0)6443/ 83 11 79!
Place the confirmation form in the play equipment files.

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.: 4643-2B-10

Type of item: Cheops Combination Midi

Serial number: _____

Customer or operator (Town, Town council, Kindergarten, etc.):

_____

_____

Competent person in charge:

_____

_____

Installation company (address):

_____

_____

Responsible assistant (assembler):

_____

_____

Received the complete assembly instructions, maintenance instructions and maintenance printout .

_____

(Signature of operator) (Signature of installation company)
(Stamp)

Date: _____