

**„Haiger“ Rope Assault Course, part no. 4591**

**Version: Steel post**



**Operator:** \_\_\_\_\_

**Location:** \_\_\_\_\_

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## 1 Introduction installation

### 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%).**



Following installation, complete assembly instructions, maintenance instructions and a maintenance record must be sent to the operator who must confirm receipt in writing. (See 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 (for example HTS plus Teflon no. 893128, can be purchased from the company Würth) or another similar lubricant.

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### **Drawings / views**

All optical illustrations simply demonstrate the proportions/dimensions to be followed, but are not binding, technical equipment images.

Technical modifications supporting the advancement of our articles are subject to change.

### **Measurement tolerances / dimensions**

Due to the quality and characteristics of equipment parts, minor dimensional tolerances over drawings data are possible.

This regards all visible dimensions, except for foundation dimensions respectively dimensions below OK ground surface/play surface.

## 2 Data sheet “Haiger” Rope Assault Course part no. 4591

- Space required: 3.60 x 0,80 m resp. depending on the play equipment (see top views)  
3.80 x 5,72 m resp. 6.10 m x 3.10 m – 3.90 m including safety distance,  
Maximum height of fall: 1,00 m.

**Attention: For several play equipments the installation angle needs to be at least 90°,- larger angle will be even better !!!! (see sheet no. 14)**

**Important! For play equipment part 4591-1 (swing seats) it has to be considered to mount adjoining parts in one row (not at angle)!**

**Images (individual drawings) are not true to scale!!**

- Required surface:

Ground surface material	Description mm	Minimum thickness of layer mm	Maximum height of fall mm
Lawn/top soil			<= 1000*
Chipped bark	Grain size 20 – 80	300/400	<= 2000/3000
Wood chippings	Grain size 5 – 30	300/400	<= 2000/3000
Sand	Grain size 0,2 – 2	300/400	<= 2000/3000
Gravel	Grain size 2 – 8	300/400	<= 2000/3000
Other ground surface materials	Like tested according to HIC		

**\*In Germany, lawn is a sufficient ground surface in the safety zone for heights of up to 1,50 m.**

- Name and complete dimension of the largest part of the equipment:  
11 steel posts Ø 102 mm, 2,00 m long
- Intended age group: 2 years and up

**Attention! Equipment to be embedded in concrete**

Concrete: C25/30

Concrete requirement: ~ 1.60 m<sup>3</sup>

Size of excavation and foundation :

**11 x 0,60 m long x 0,60 m wide, total depth 0,80 m incl. 10 cm percolation layer.**

**11 x 0,60 m long x 0,60 m wide x 0,40 m high, upper edges of concrete are rounded.**



**Upper edges of concrete are rounded! Foundation sizes apply for regular soil classification 4-5 (grown surface).**

**Soil classification 4: Light up to medium plasticity, interlaced, with little sediment (proportion < 30 % larger than 63 mm grain size in diameter)**

**Soil classification 5: Grounds of soil classification 3 and 4 with more sediment (proportion > 30 % larger than 63 mm grain size in diameter)**

**For safety reasons, foundations of sandy, soft grounds should be layered with a larger surface of at least 50%.**

5. Assembly time once steel masts are embedded in concrete:  
Appr. 7.5 hours. Number of persons required: 2.

**Scope of supply does not include:** Sidewalk slab  
(concrete slab ~ 250 x 250 x 40 mm)

**Accessories required:** Small excavator, standard tools like for example water balance, various wrenches (e.g. Allen wrench) etc.

6. We herewith confirm that this play equipment is tested and certified according to the new play equipment norm EN 1176.

### 3 Scope of supply, parts list with part numbers








#### 3.1 in letters

Table 3-1: Scope of supply, parts list with part numbers

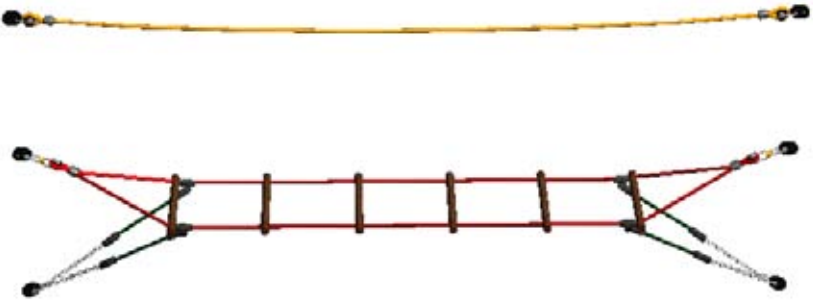
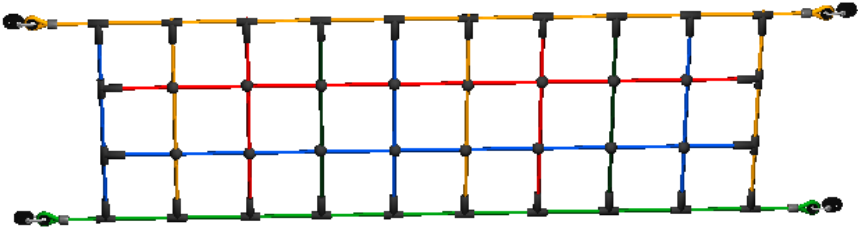
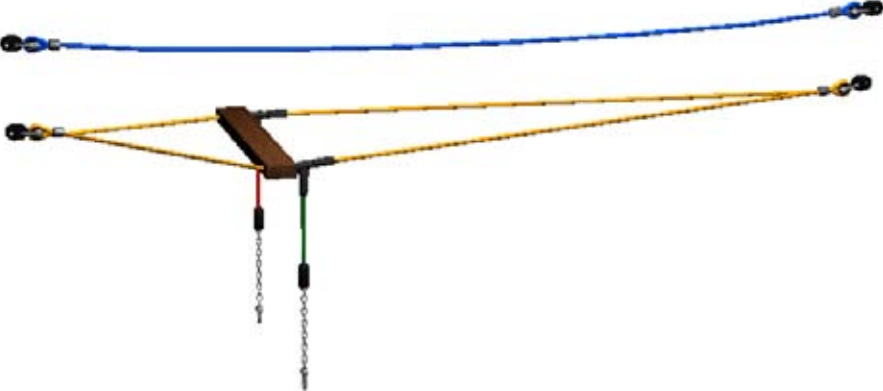
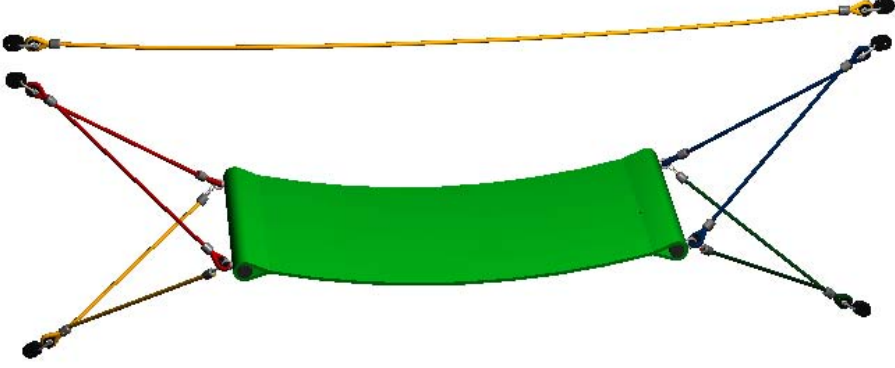

Pos.	Quantity	Element / description	Size	OK	Missing
1	11	Steel posts (4591-0)	Ø 102 mm, 2,00 m long (hot-dip galvanized)		
2	11	Tube clamps with threaded bolt M10 x 150 mm + 2 nuts			
3	38	Tube clamps with coach bolts and stop screw nuts	M10 x 40 mm lg.		
4	11	Red plastic cap covers	for Ø 102 mm		
5	33	Self-cutting screws	5,5 x 25 (galvanized)		
6	1	<u>Play equipment part (10 versions)</u> <b>4591-1</b> swing seat <b>4591-2</b> rope ladder (handrail rope) <b>4591-3</b> climbing net <b>4591-4</b> balancing rope (handrail rope) <b>4591-5</b> rubber hammock (handrail rope) <b>4591-6</b> rope ladder rungs <b>4591-7</b> bow rope <b>4591-8</b> hanging rope (walking rope) <b>4591-9</b> bouncing beam (handrail rope) <b>4591-10</b> tyres			
7	3	Screw pile <u>Only for play equipment:</u> 4591-4 balancing rope (2x) 4591-10 tyres (1x)	Appr. 0.50 m long (hot-dip galvanized)		
8	2.5 ltrs.	Red paint + 2 paint brush			
	11	<b>Sidewalk slabs (on-site)</b>	Appr. 250 x 250 x 40 mm		


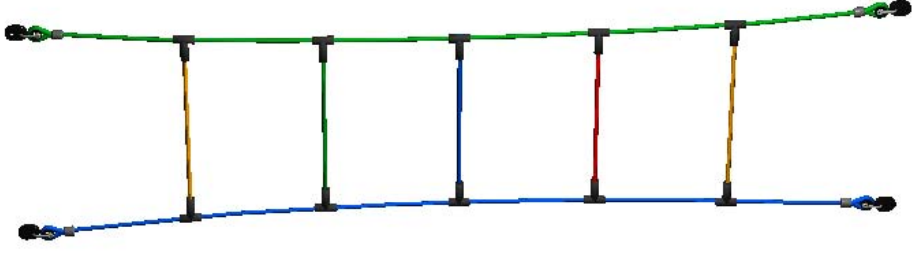
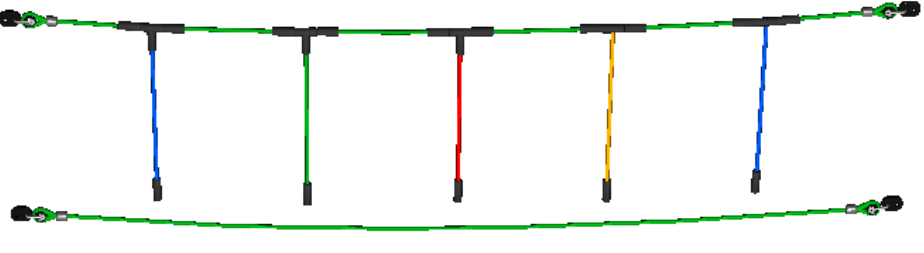
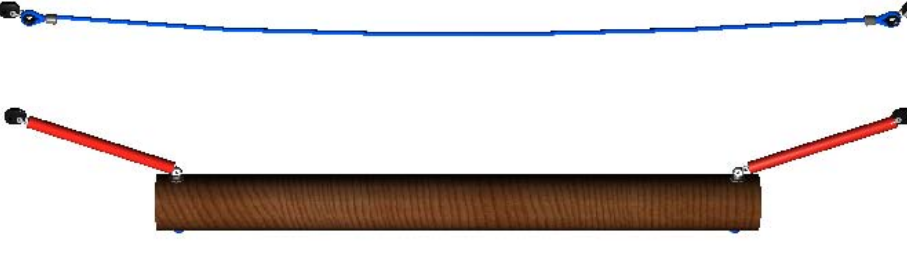

### 3.2 in symbols

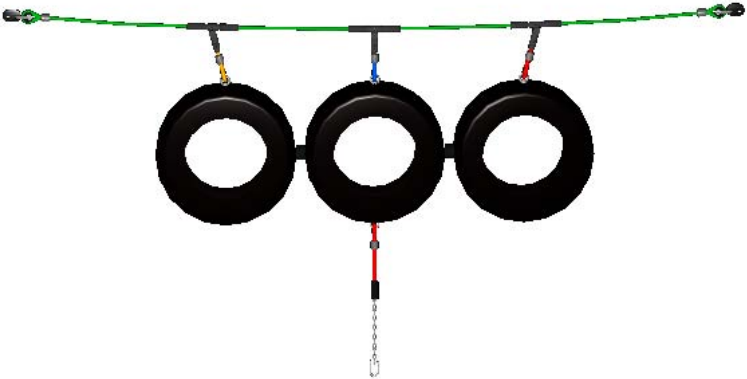




Table 3-2: Scope of supply, parts list with part numbers

Pos.	Quantity	Symbol
1	11	 Ø 102 mm, 2,00 m long (hot-dip galvanized)
2	11	 clamps with threaded bolt M10 x 150 mm + 2 nuts
3	38	 for tube-Ø 102 mm, screw: M10 x 40 mm lg
4	11	 for Ø 102 mm
5	33	 5,5 x 25, (galvanized)
(6)	1	4591-1 swing seat 
(6)	1	4591-2 rope ladder 



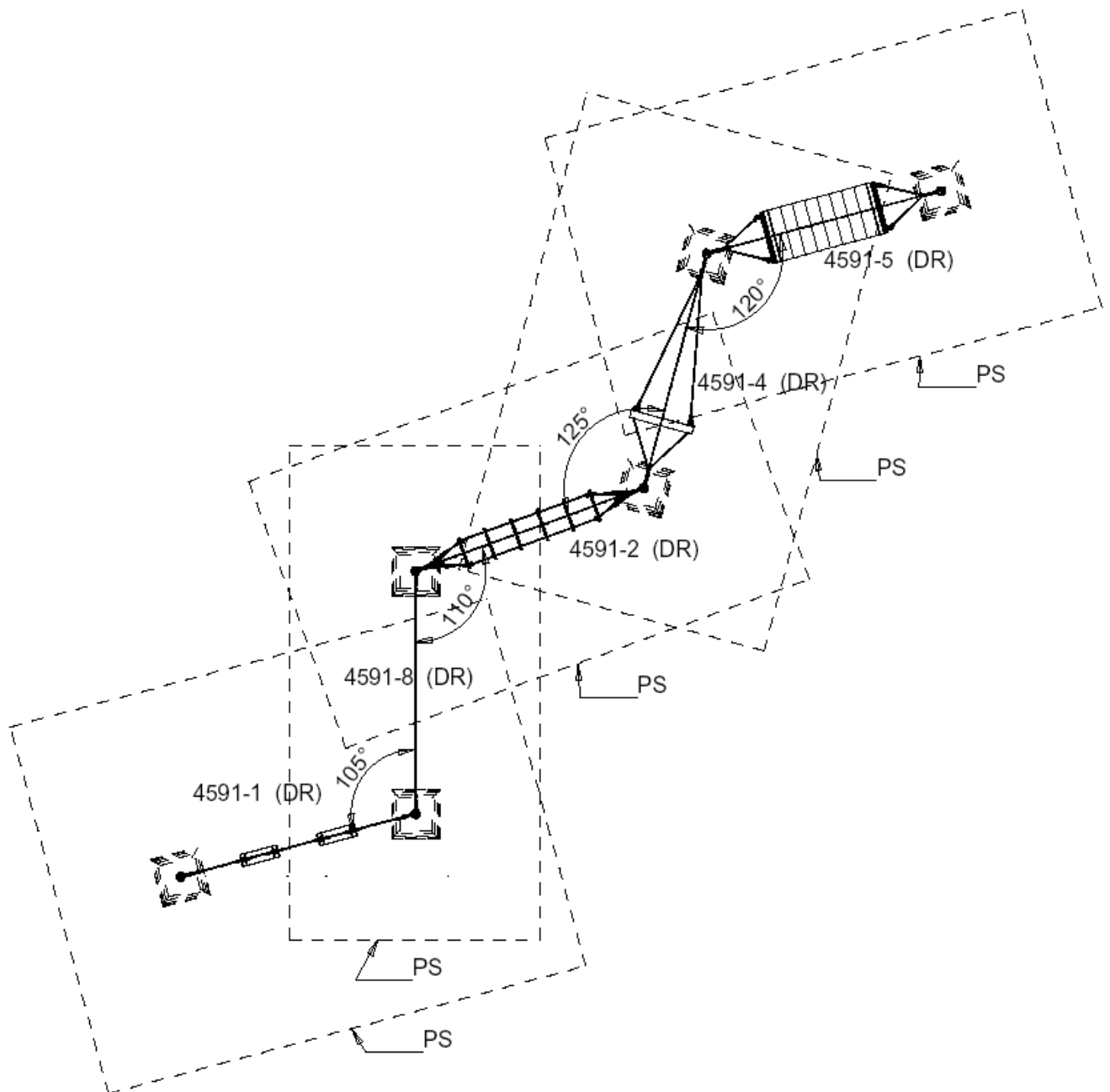
		
(6)	1	4591-3 climbing net 
(6)	1	4591-4 balancing rope 
(6)	1	4591-5 rubber hammock 
(6)	1	4591-6 rope ladder rungs 

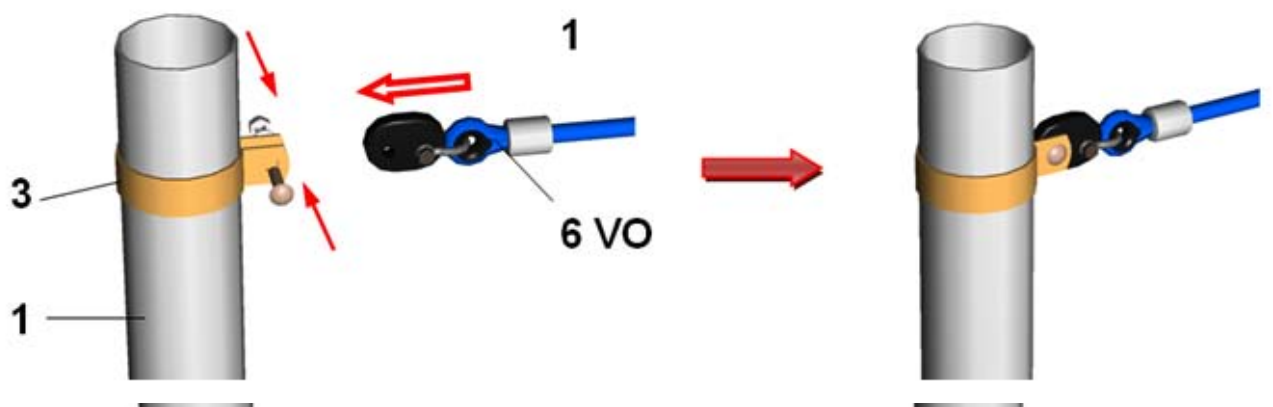
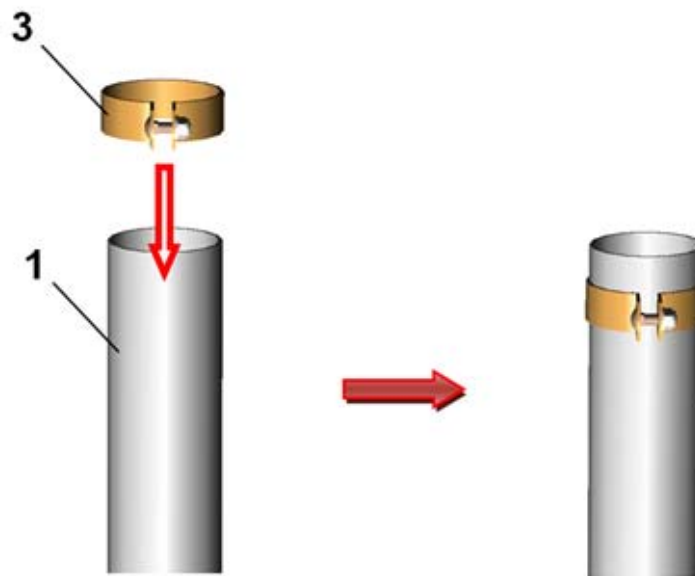
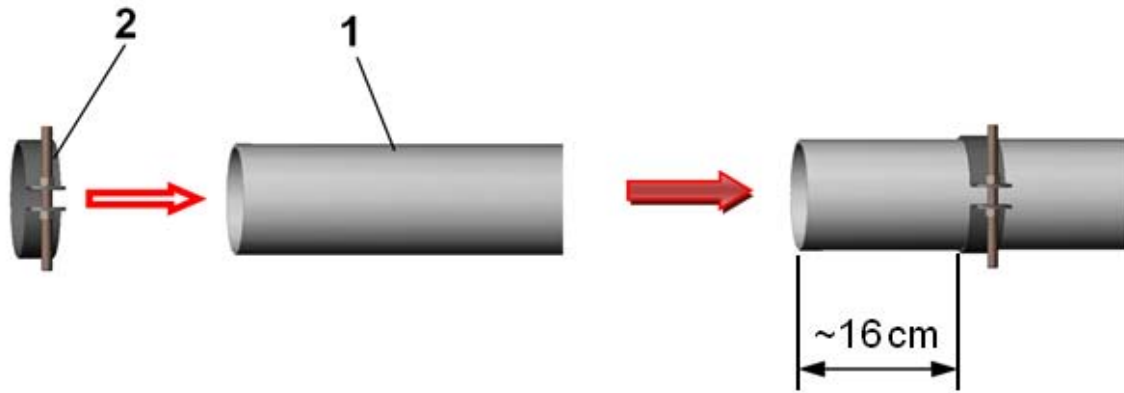
		
(6)	1	4591-7 bow rope 
(6)	1	4591-8 hanging rope 
(6)	1	4591-9 bouncing beam 
(6)	1	4591-10 tyres 

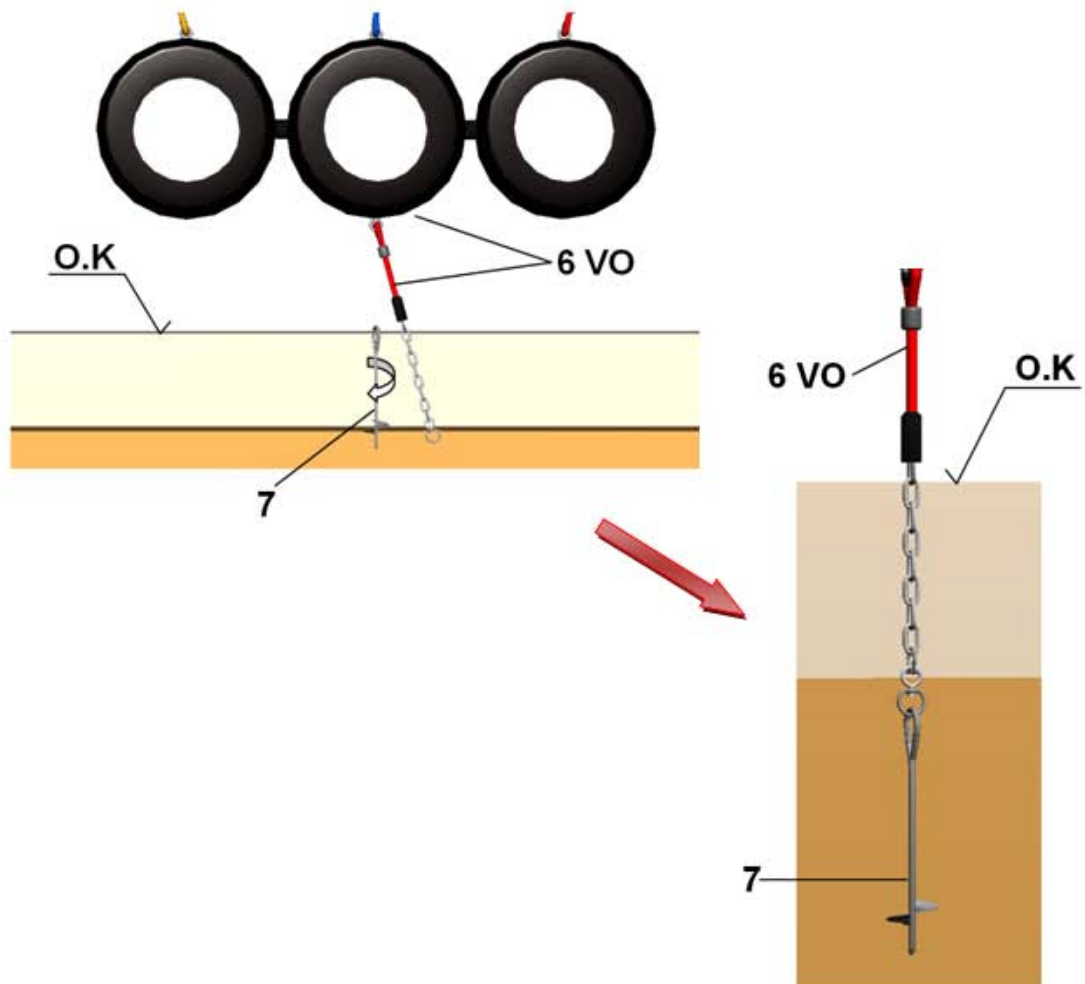
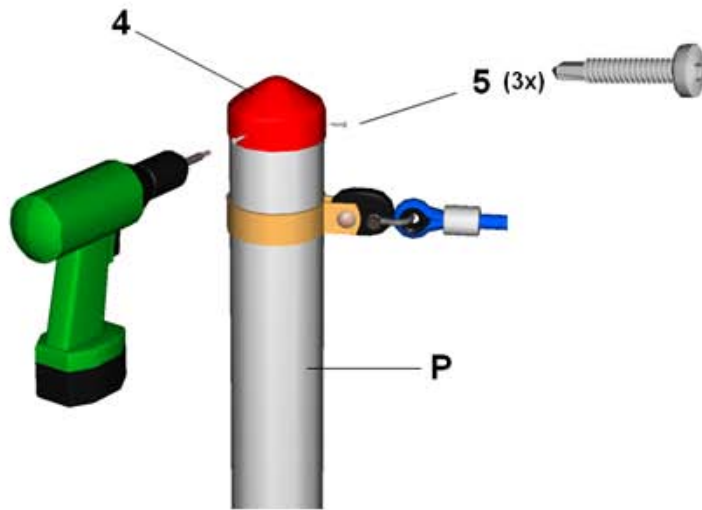
			
7	3	 <p>approx. 50 cm</p>	
8	2,5 ltrs.	 <p>Red paint</p>	 <p>+ 2 paint brush</p>
	11	 <p>Sidewalk slab 250 x 250 x 40 mm <b>(on-site)</b></p>	

#### 4 Assembly instruction

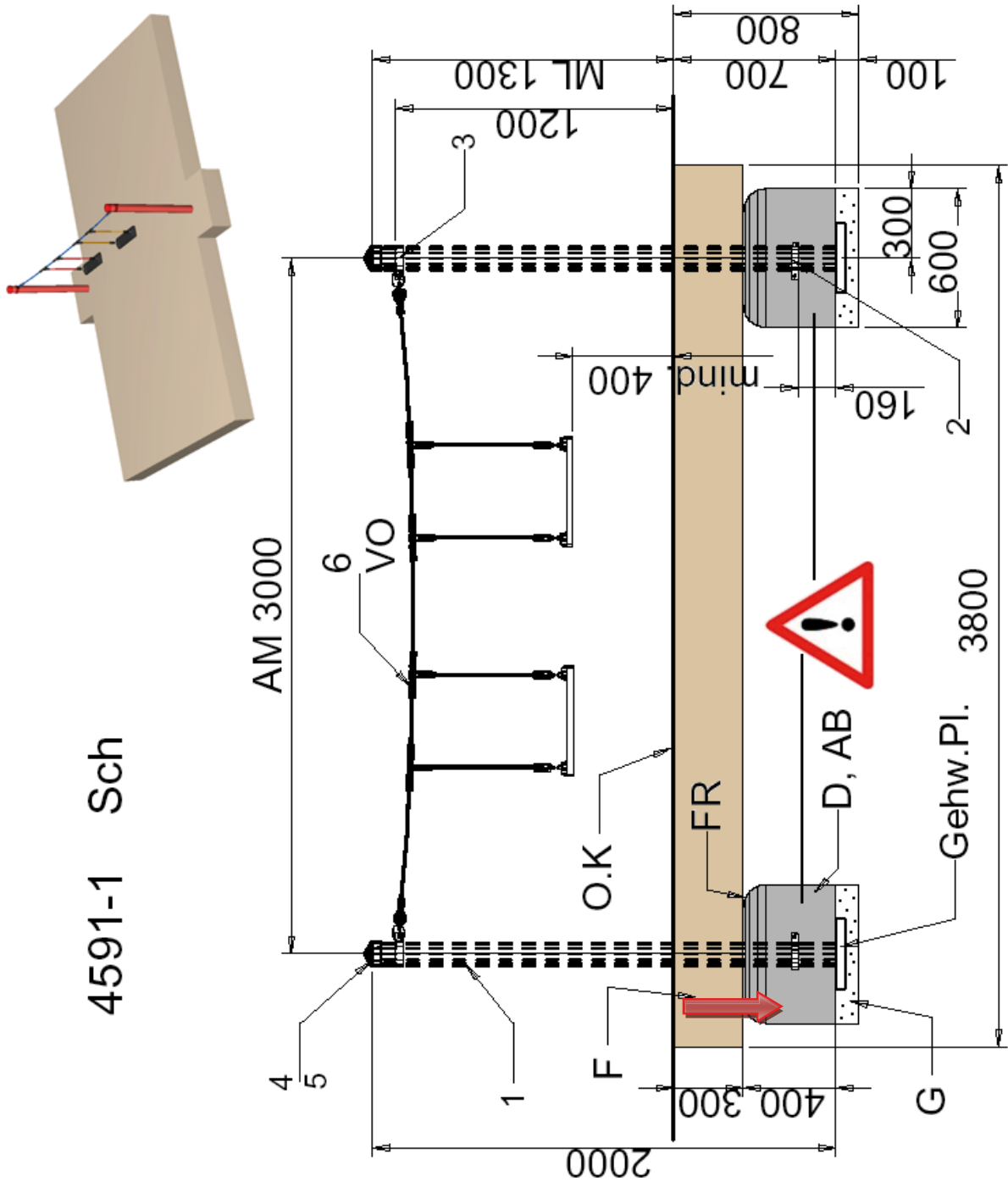
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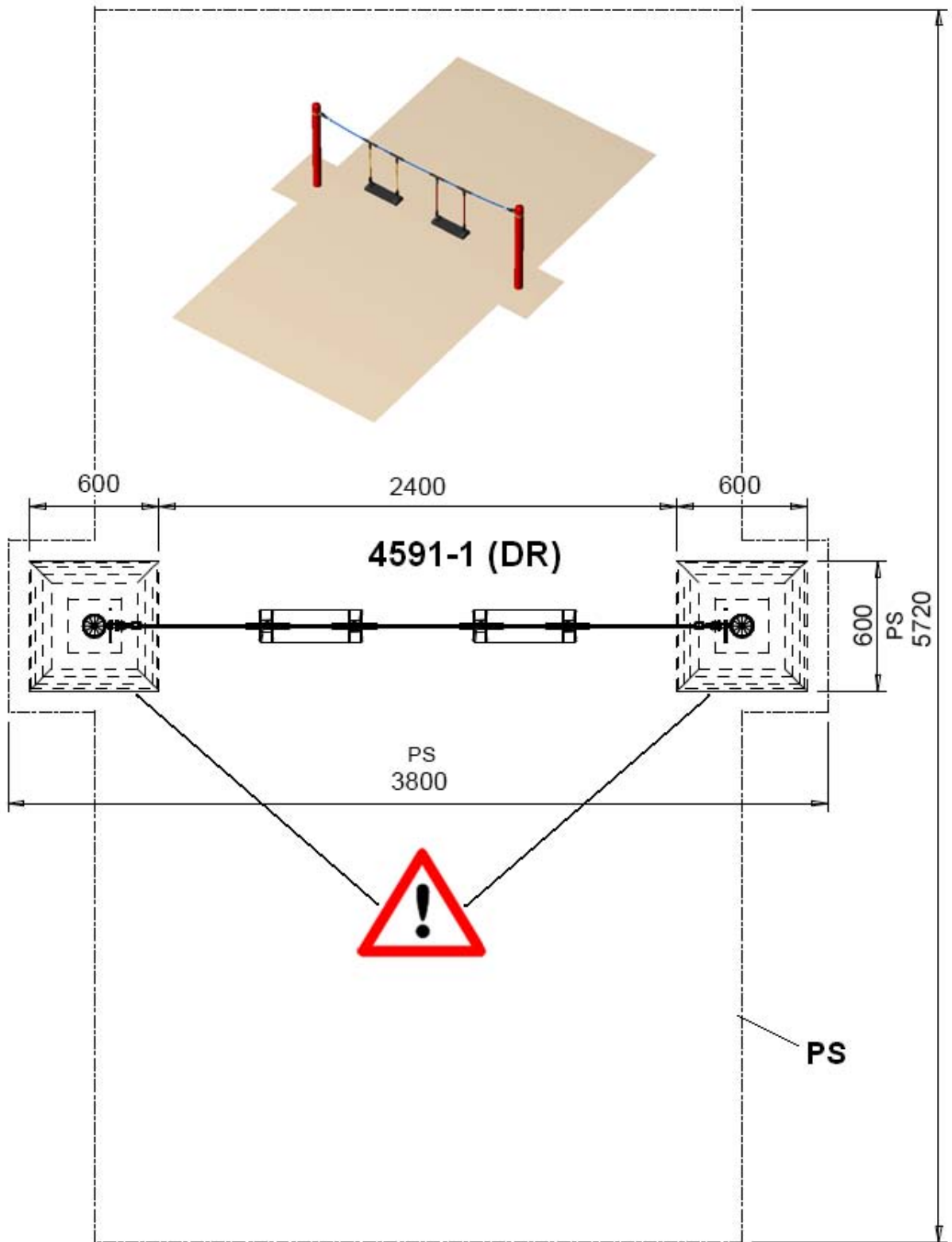






# 4591-1 Sch

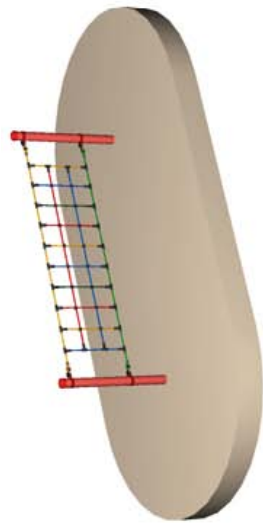




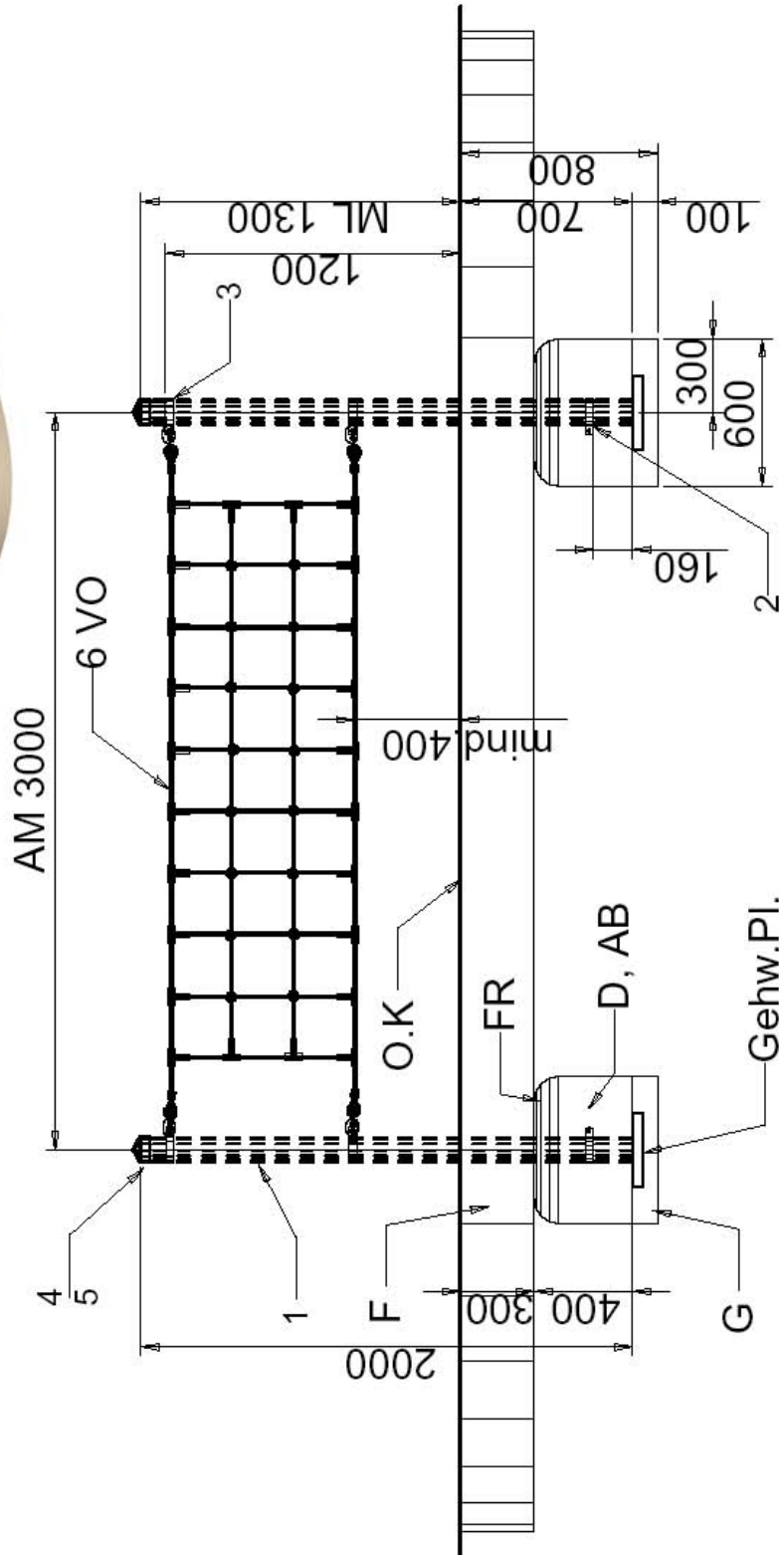


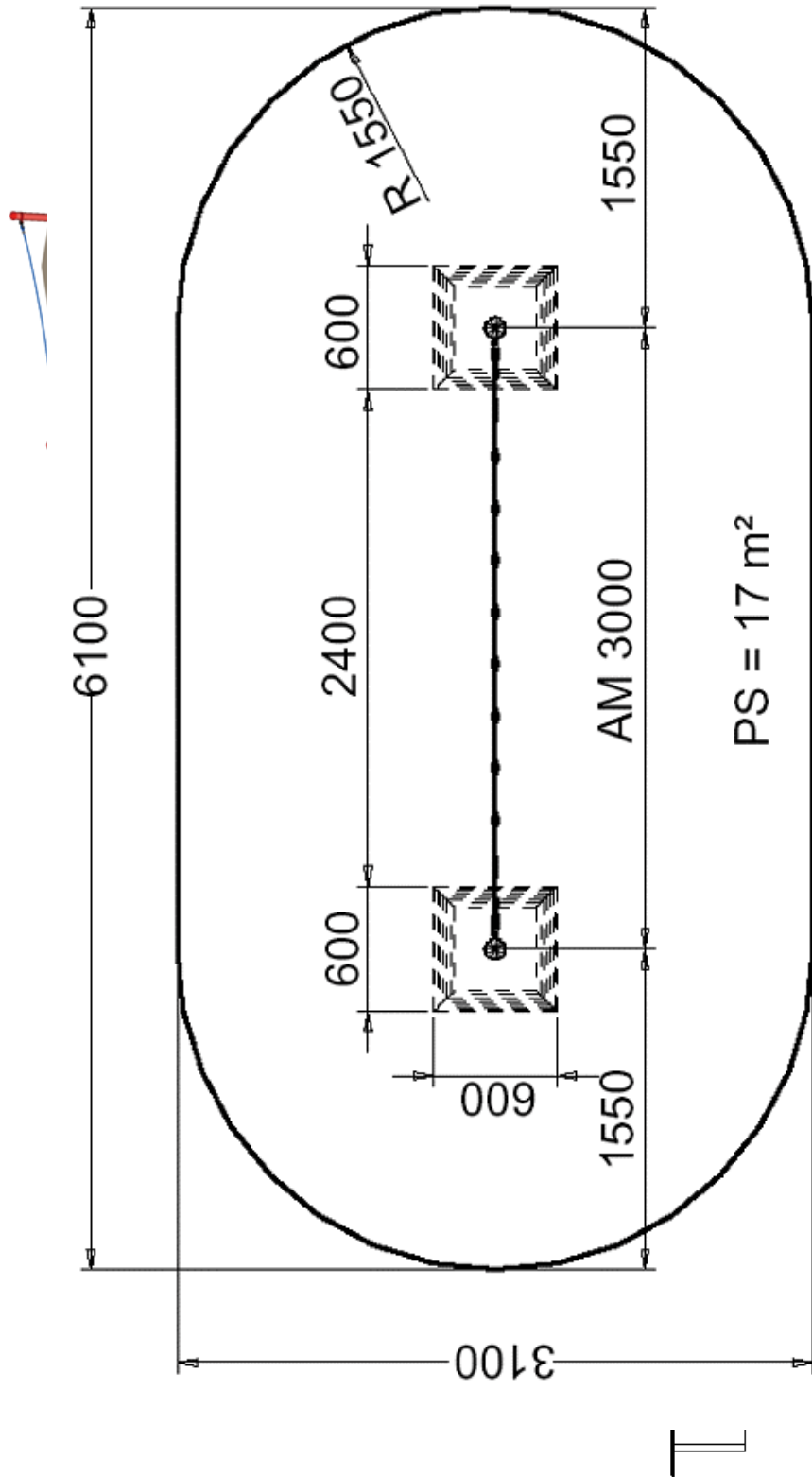






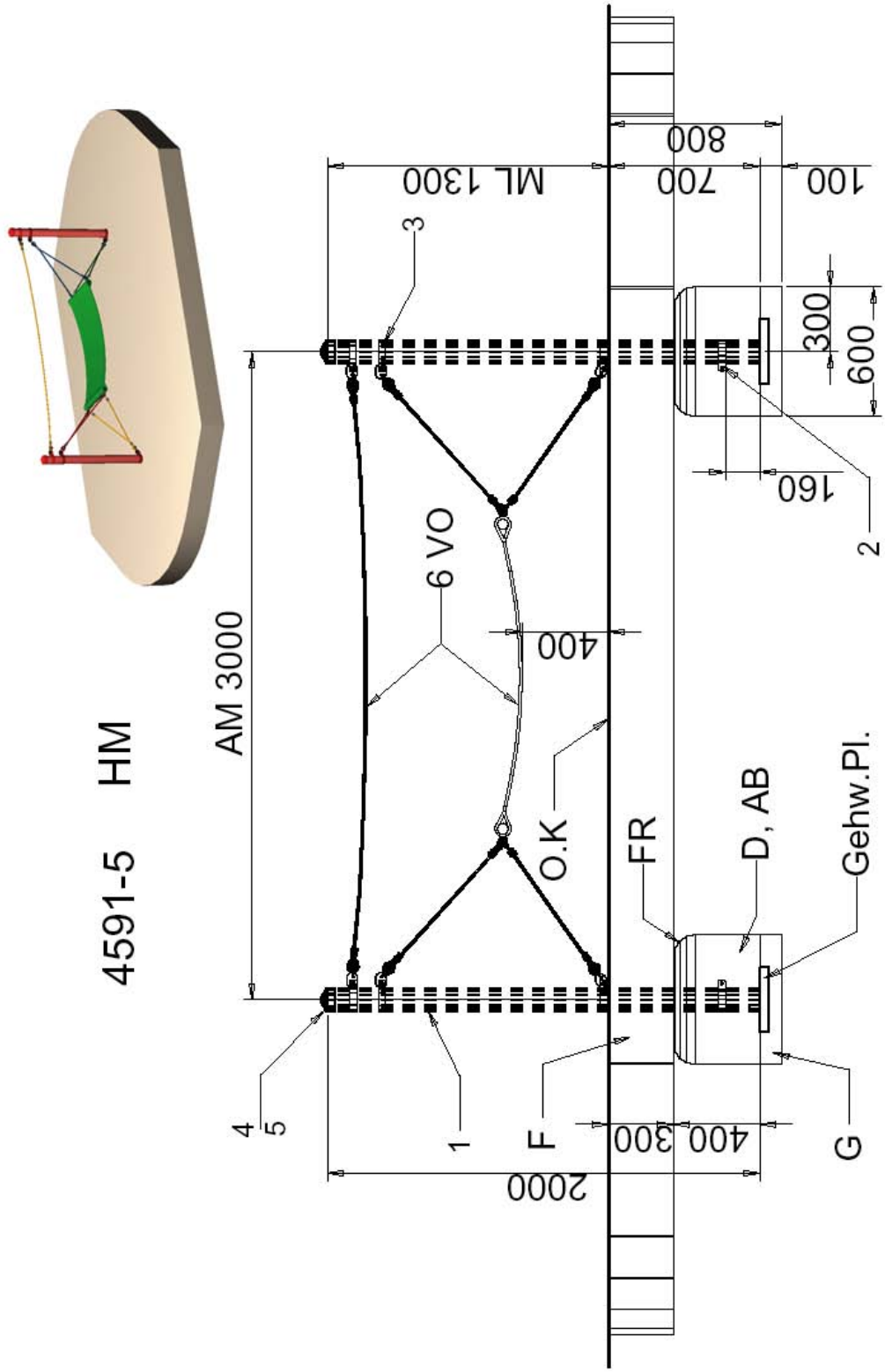
4591-3 KN 25/25



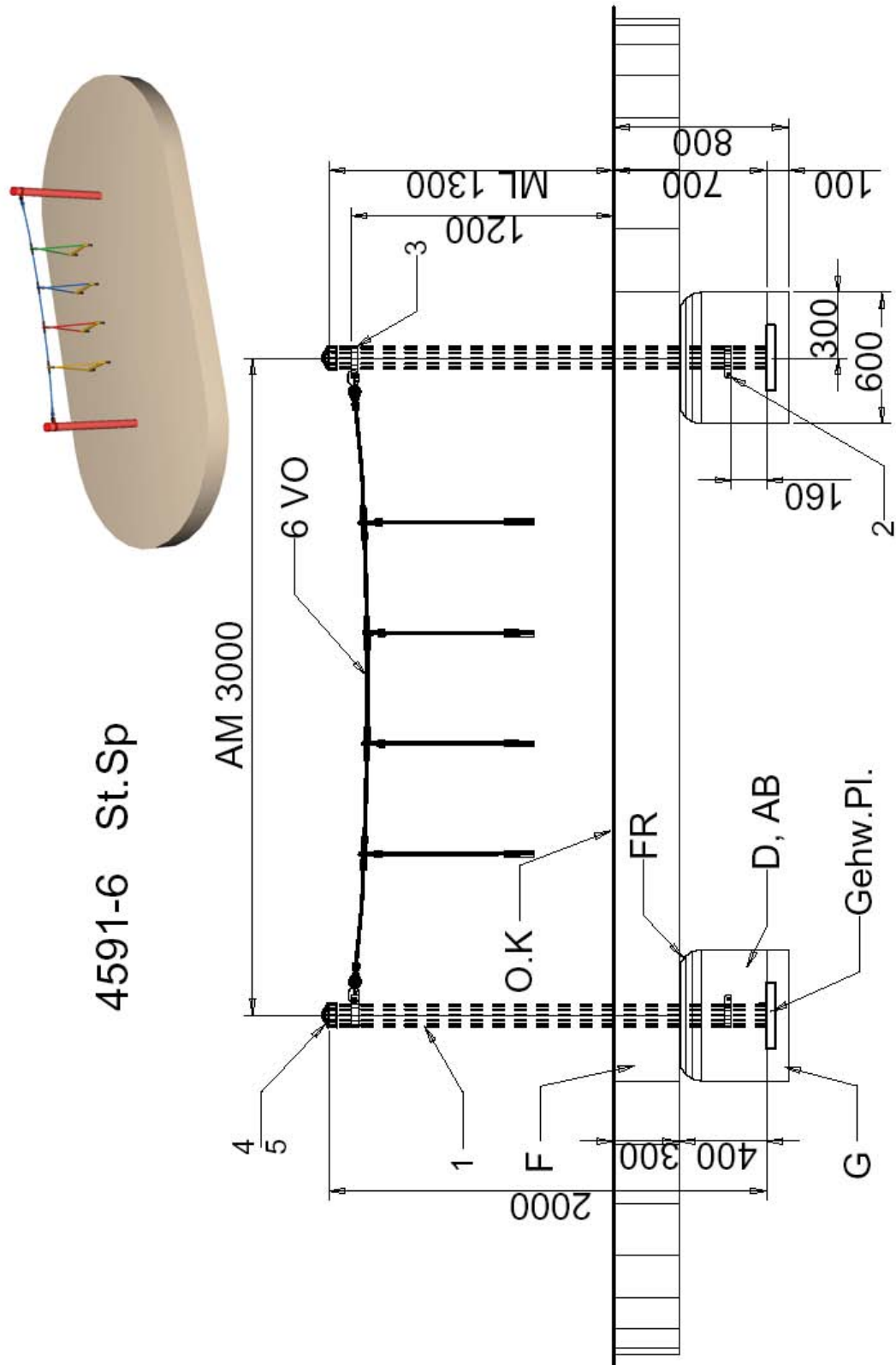


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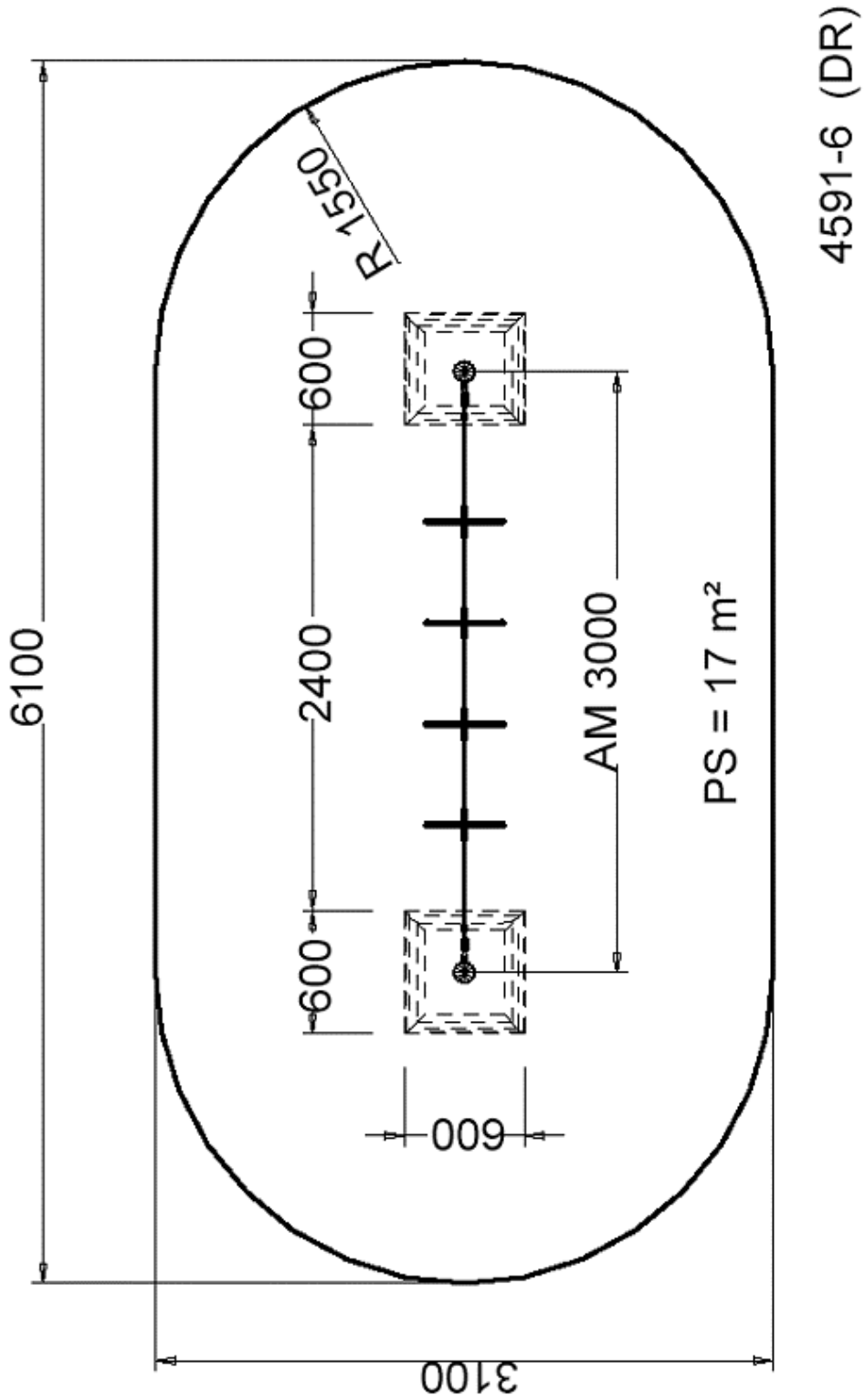


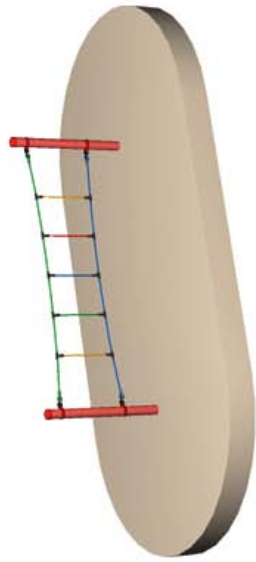




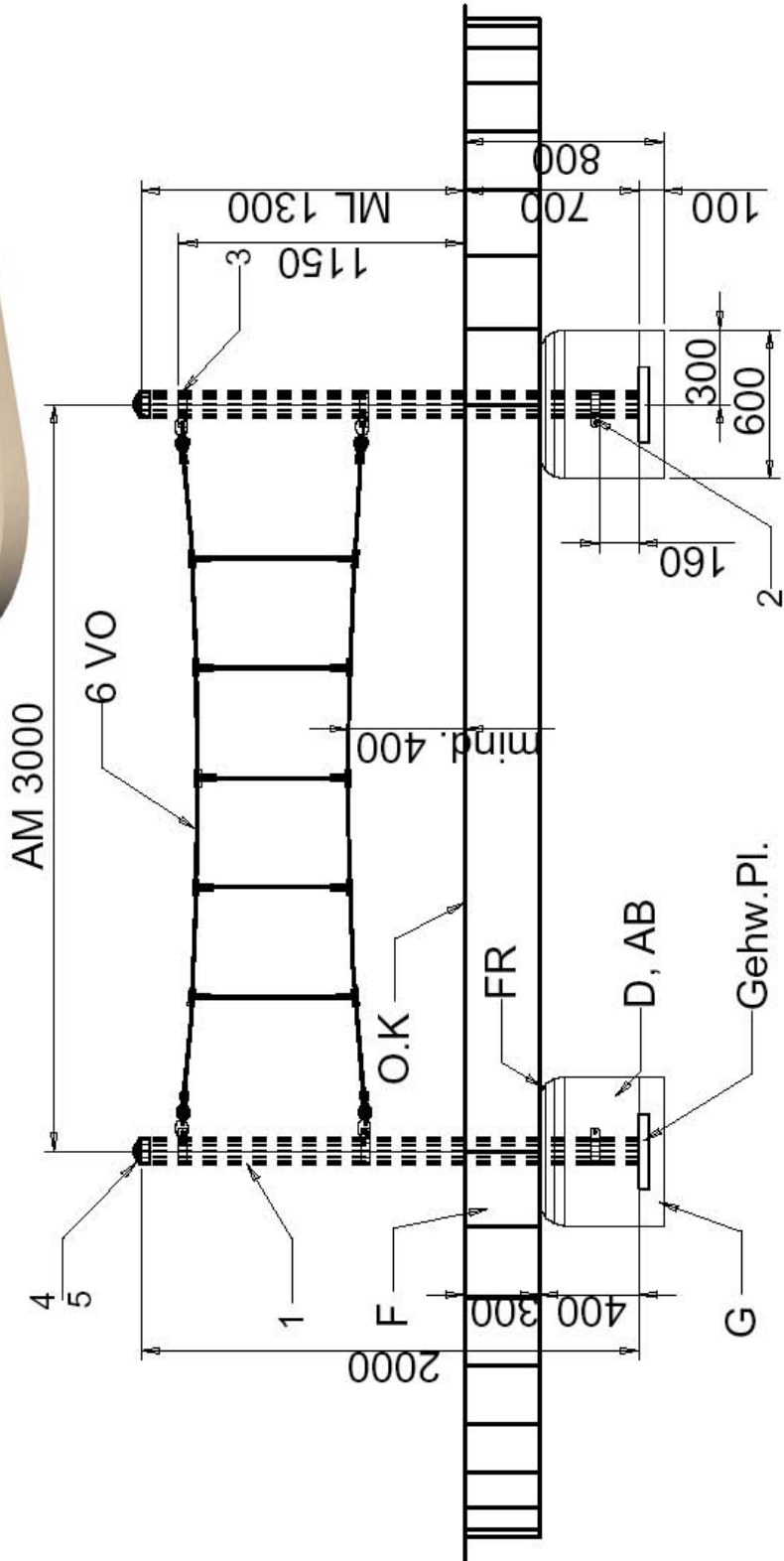




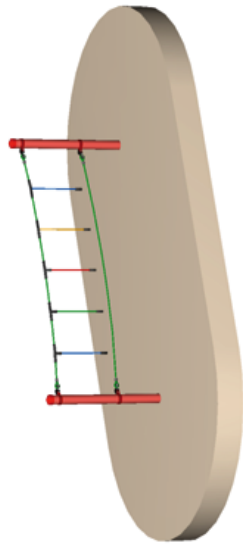




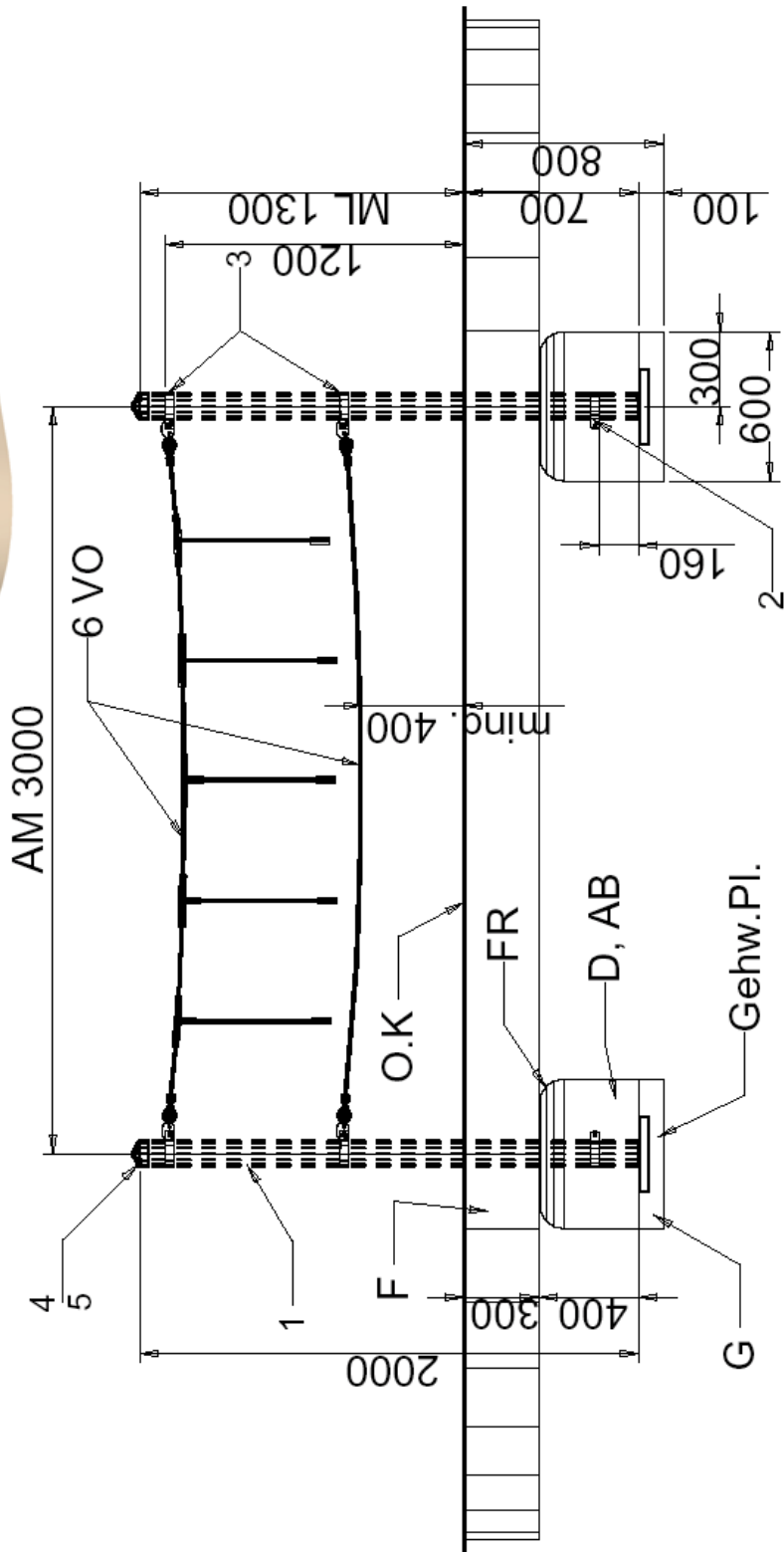
4591-7 Bog.S

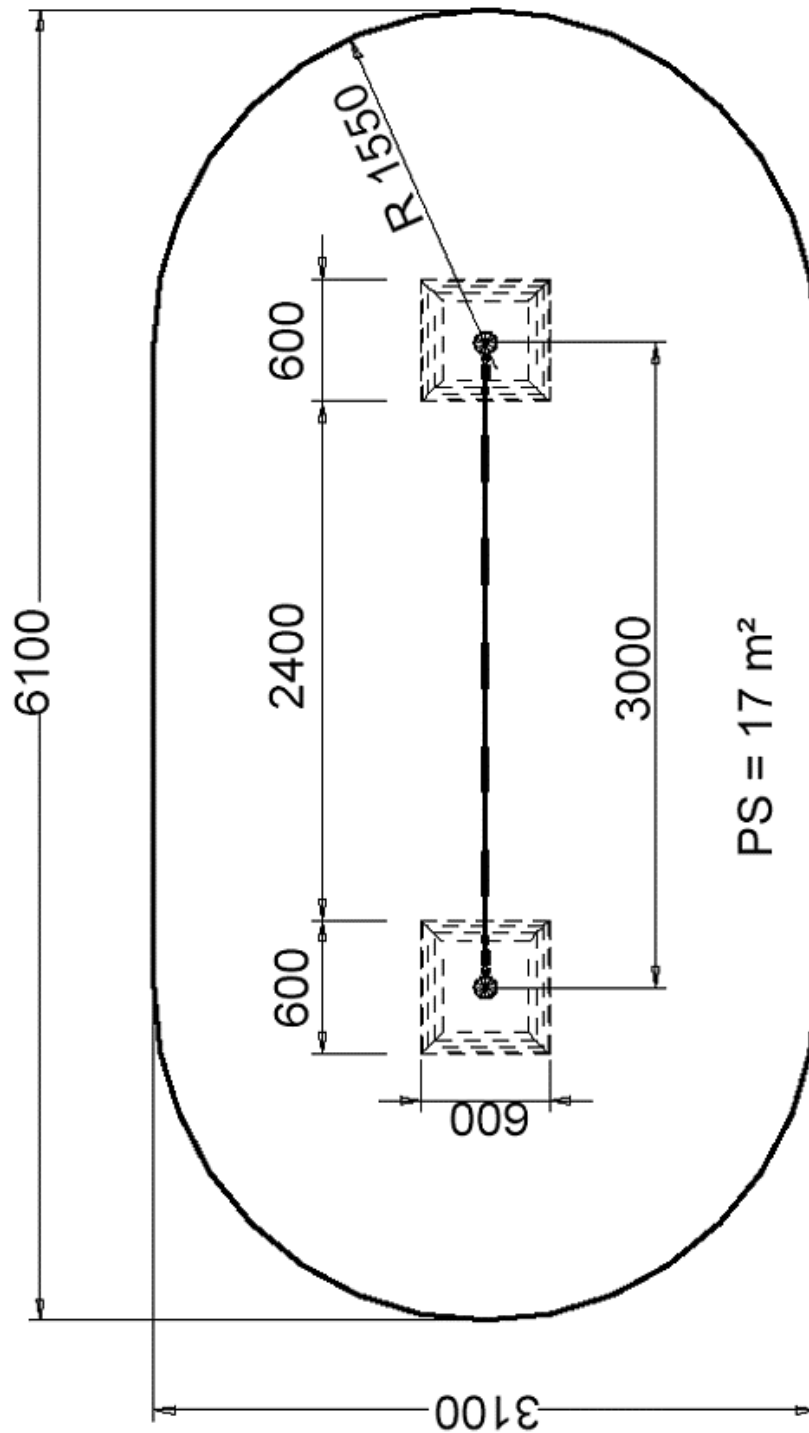




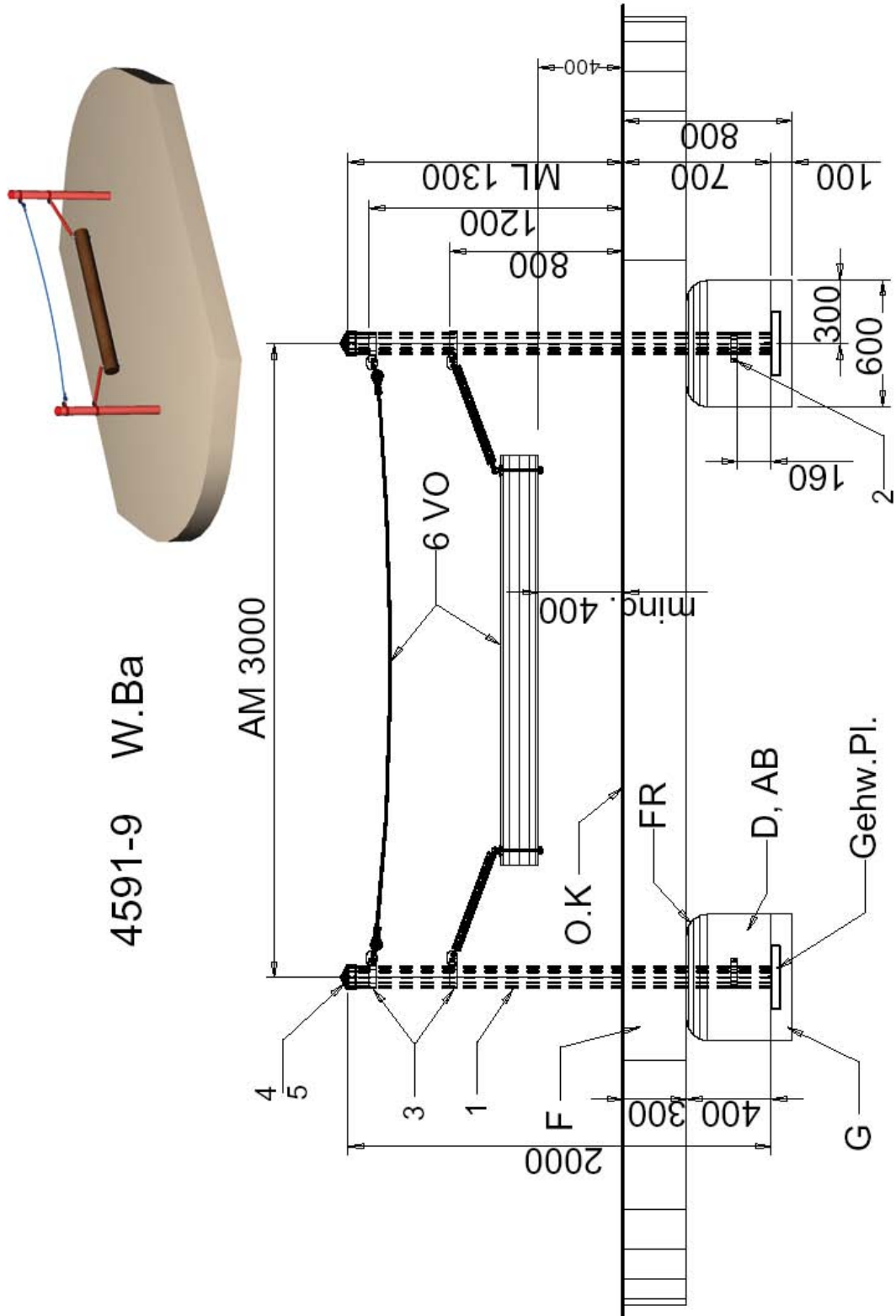


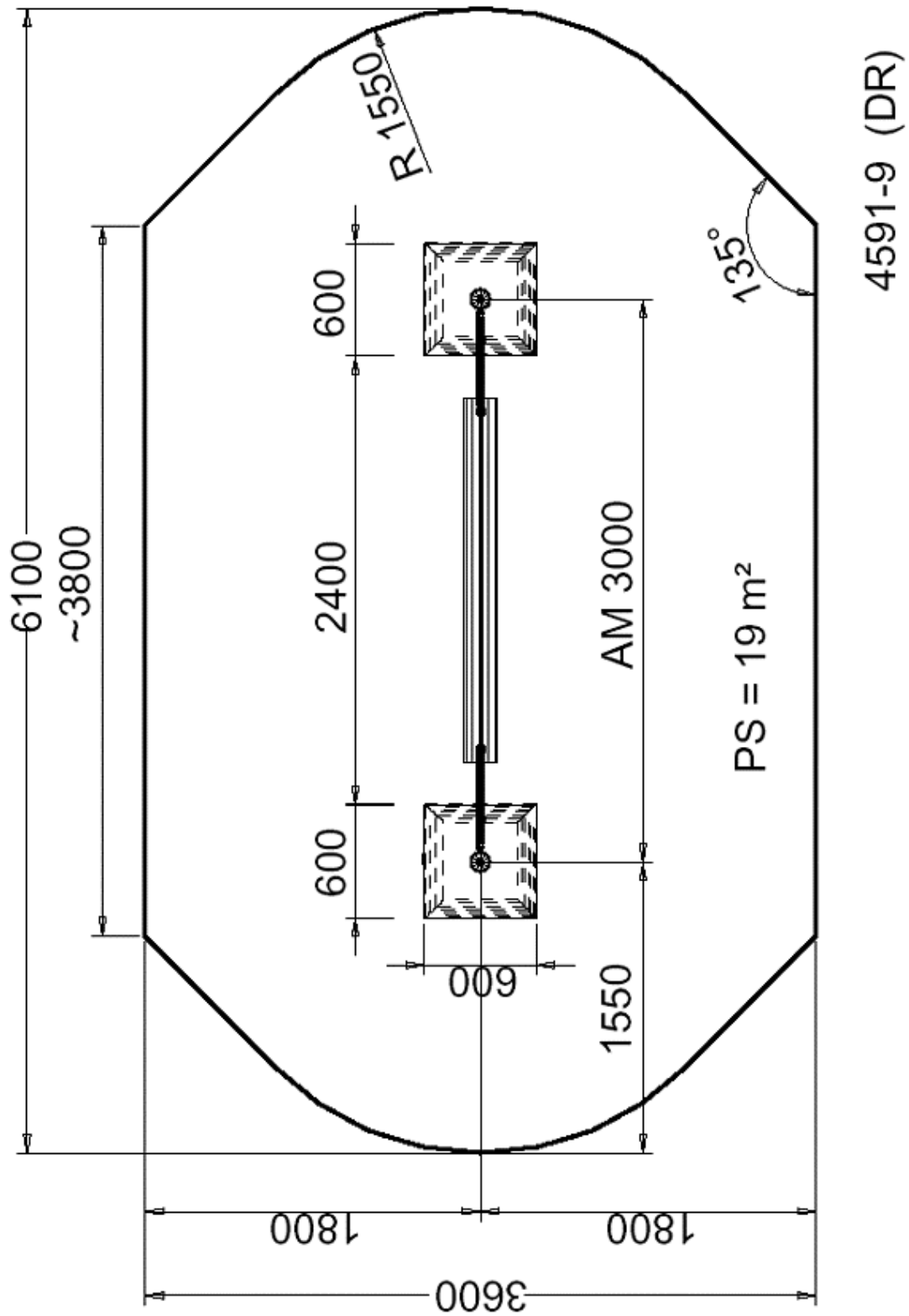
4591-8 HS,L

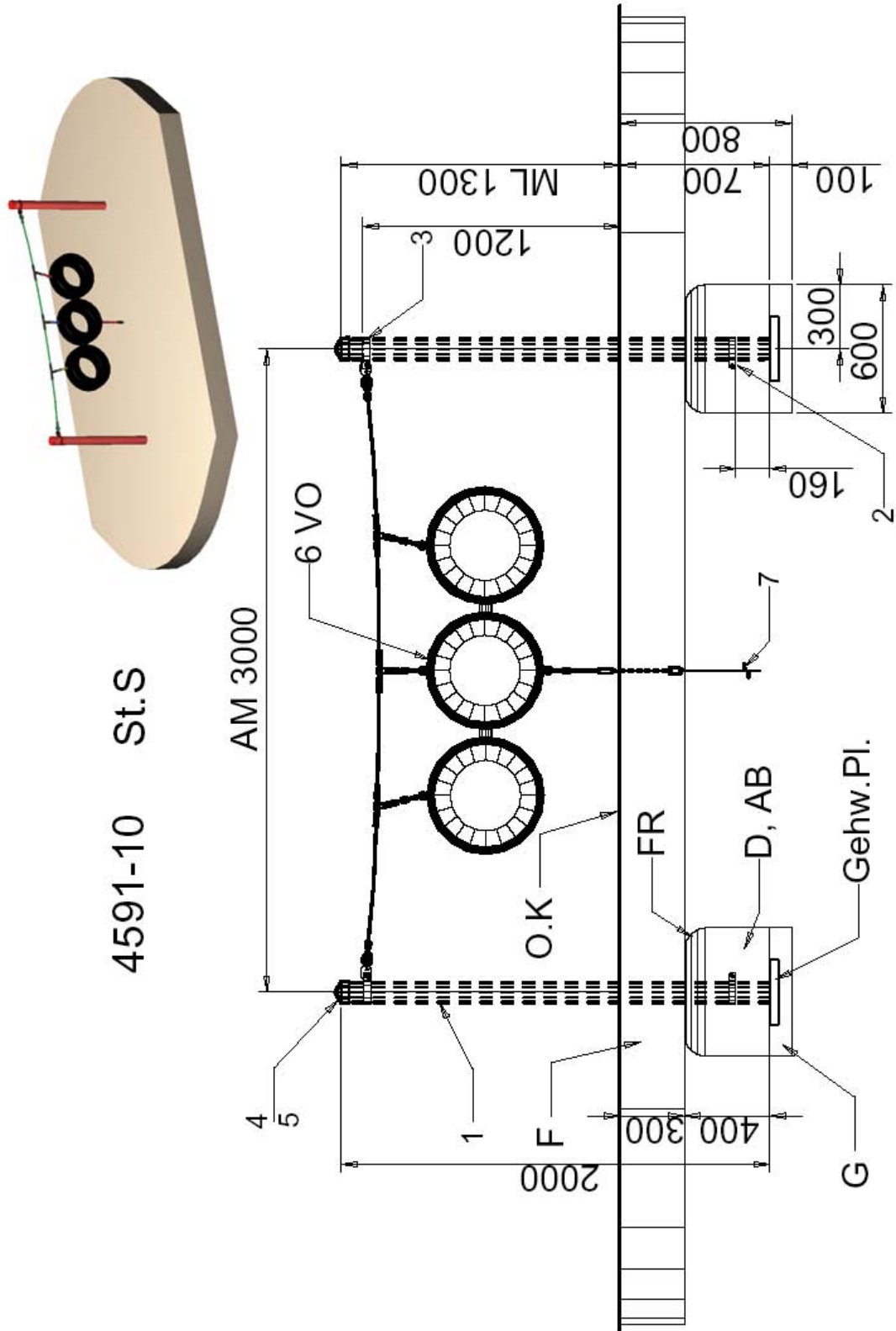




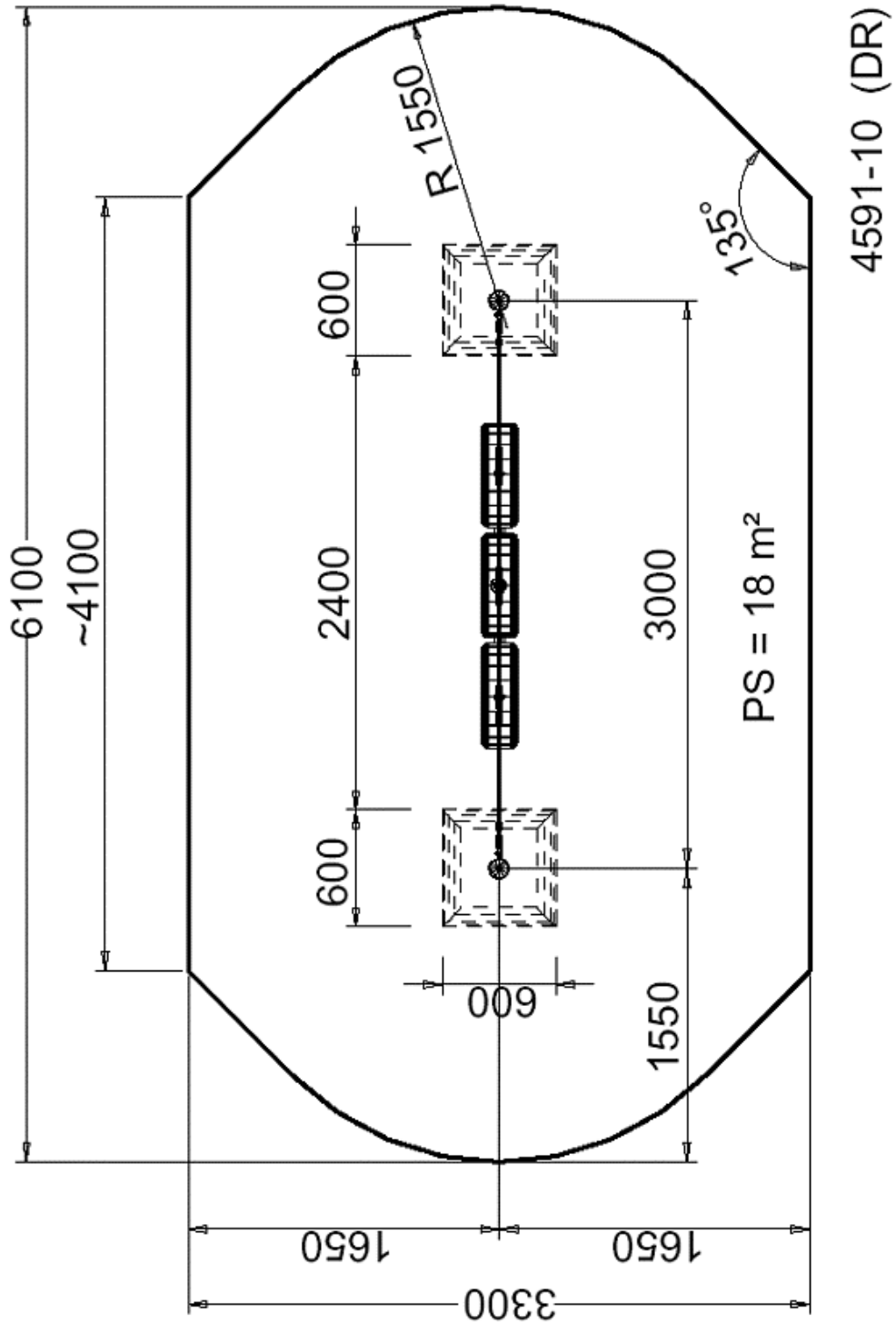
4591-8 (DR)












	<b><u>Abbreviations and signs:</u></b>
<b>AB</b>	Setting time for concrete C25/30 at least 7-8 days
<b>AM</b>	Dimension between axes
<b>Bog.S</b>	Bow rope
<b>D</b>	Concrete C25/30 (for foundation)
<b>DR</b>	Top view
<b>EE</b>	Screw pile
<b>F</b>	Fall protection
<b>FR !!</b>	<b><u>Round off foundation top edges Radius at least 10 cm !!</u></b>
<b>G</b>	Percolation layer 10 cm
<b>Gehw.PI.</b>	Sidewalk slab approx.250 x 250 x 40 mm <b>(on-site)</b>
<b>HL</b>	Hand rail
<b>HM</b>	Rubber hammock
<b>HS,L</b>	Hanging ropes with walking rope
<b>KN</b>	Climbing net
<b>L.Se</b>	Walking rope
<b>ML</b>	Mastlänge über Spielniveau
<b>O.K</b>	O.K. play level
<b>P</b>	Post
<b>PS</b>	Space required including safety area
<b>R</b>	Radius
<b>RN.S</b>	Play equipment part „tyres“
<b>SCH</b>	Swing seats
<b>Sp.S</b>	Balancing rope
<b>St.S</b>	Rope ladder rungs (wood)
<b>St.Sp</b>	Rope ladder rungs (plastic)
<b>VO</b>	Pre-fitted
<b>W.Ba</b>	Bouncing beam
	<p><b><u>Upper edges of concrete are rounded! Foundation sizes apply for regular soil classification 4-5 (grown surface).</u></b>  <b><u>Soil classification 4: Light up to medium plasticity, interlaced, with little sediment (proportion &lt; 30 % larger than 63 mm grain size in diameter).</u></b>  <b><u>Soil classification 5: Grounds of soil classification 3 and 4 with more sediment (proportion &gt; 30 % larger than 63 mm grain size in diameter)</u></b>  <b><u>For safety reasons, foundations of sandy, soft grounds should be layered with a larger surface of at least 50%.</u></b></p>

See drawings

## 5 Examination after installation

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Notice

If the equipment is not installed in a secure manner you must ensure that access is closed to the public!

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### 5.1 Marking the filling level

- Markings on the equipment to indicate filling levels of fall protection material (for example of loose filling material).

### 5.2 In the following cases the equipment is not yet safely installed:

- safe installation of the equipment is not fully completed
- impact absorbing surface is not installed yet
- the upkeep of occupational safety through appropriate maintenance can not be guaranteed.

### 5.3 Removing assembly accessories

- Please make sure that all accessories, which were used for the installation of the equipment, are removed from the play area! Only then the equipment can be declared open.

### 5.4 Details concerning inspection of the equipment prior to the first use

- No acceptance test specifications apply prior to first use.

### 5.5 Retighten bolts

- Please retighten all bolts after one week of initial use. Later, it is sufficient to retighten the bolts upon respective maintenance.

**A Maintenance instruction**  
**„Haiger“ Rope Assault Course part no. 4591**  
**Version: Steel posts**



Introduction maintenance

### 5.6 General information

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



Attention

This equipment should only be assembled, maintained and repaired by **persons with the necessary expertise.**

A copy of the inspection record is to be handed over to the operator, who must confirm receipt.

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

## 6 General Maintenance information

### 6.1 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!

### 6.2 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!

### 6.3 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 (for example HTS plus Teflon no. 893128, can be purchased from the company Würth) or another similar lubricant.

### 6.4 Spare parts

All spare parts must comply with the manufacturer's specifications!

### 6.5 Identifying spare parts

All spare parts are listed in the parts list. You find the parts list in chapter 3.

### 6.6 Special instructions for the disposal of individual equipment components

No special instructions are necessary.

### 6.7 Special measures in the starting time

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

### 6.8 Drainage

All drainages must be kept free.

### 6.9 Maintenance of fall protection 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.

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### 6.10    **Faults**

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Damages must be repaired as soon as they are detected! If serious defects that affect the safety cannot be repaired straight away, the playground equipment must be closed to the public with immediate effect.

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### 6.11    **Loose screws**

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

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### 6.12    **Preventing equipment use**

The use of the equipment should be prevented: in case of incomplete installation, disassembly, maintenance, repairs and faults.

### 6.13    **Guarantee resp. warranty**

Steel posts and post shoes are covered by our guarantee if regular 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. Ropes are to be re-impregnated once intensive abrasion occurs.

## 7 Maintenance timetable

### 7.1 Special advices

#### 7.1.1 Maintenance interval

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

#### 7.1.2 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!!!

#### 7.1.3 Faults that compromise safety



Notice

In the event of a fault that compromises safety, quick action must be taken: The equipment has to be closed immediately and repaired or dismantled.

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#### 7.1.4 Faults that compromise function



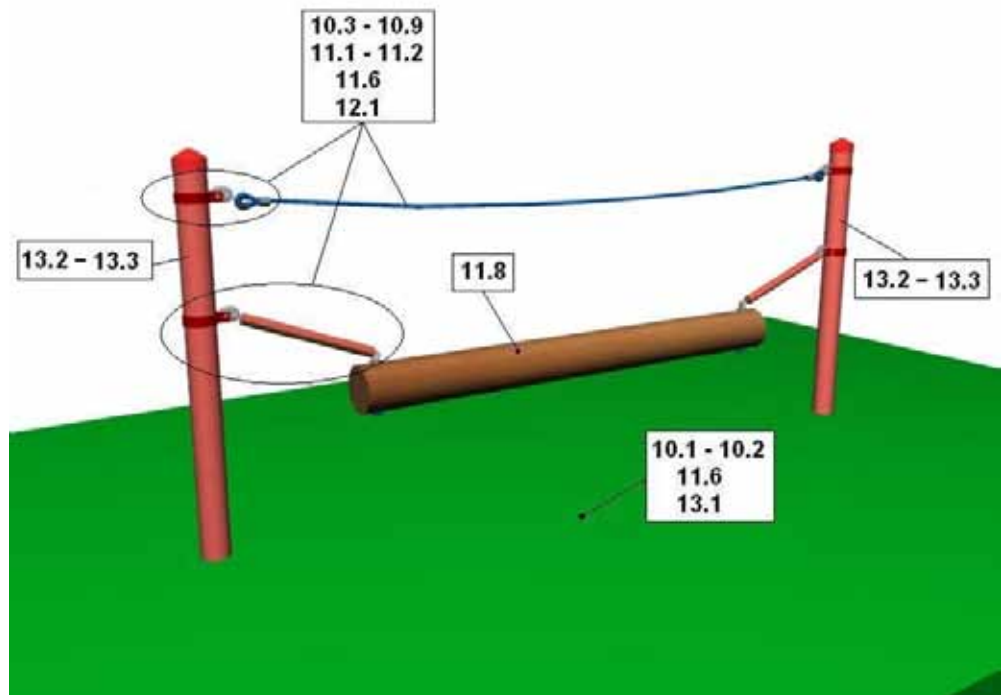
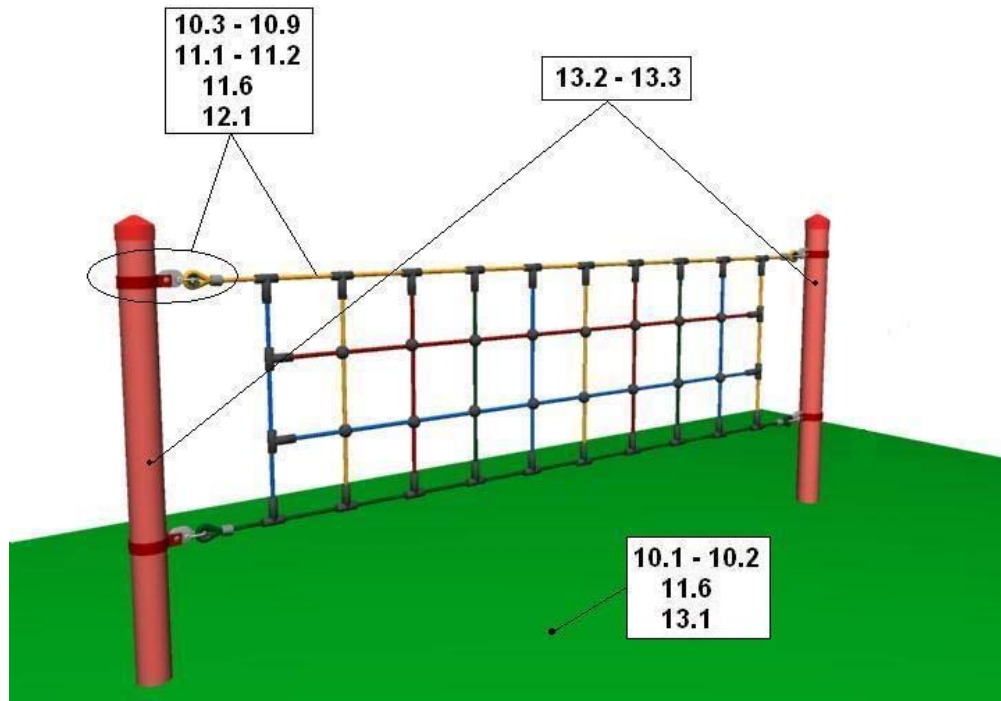
Notice

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 damages should be repaired immediately.

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8 Regular maintenance (images)



## **9 Monthly maintenance (text)**

- 9.1** Check the spaces between the equipment and the ground (clearance and height of fall).
- 9.2** Check the ground surface of fall protection for hard objects and loose foundations.
- 9.3** Check all connecting elements and fittings for wear and tear and tighten if necessary. Replace damaged or missing parts.
- 9.4** 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 use maintenance-free roller bearings.
- 9.5** Check all attachments such as chains, ropes, nets, etc. for damage and replace if necessary.
- 9.6** Check rubber parts, sleeves, etc. for wear and tear or damage and replace if necessary.
- 9.7** Check the surface of wooden parts for damage caused by the weather or external influences and mould. Repair or replace if necessary.
- 9.8** Check the surface of plastic and metal parts, e.g. slides, for damage and replace if necessary.

## **10 Quarterly maintenance (text)**

- 10.1** Detailed inspection of the operation and stability of the equipment paying particular attention to any wear and tear.
- 10.2** Tighten all types of fastenings.
- 10.3** Repaint and retreat surfaces.
- 10.4** Maintenance of fall protection surfaces.
- 10.5** Check height of fall protection material and fill up with loose filling material if necessary! If the posts are marked, fill up correspondingly. Überprüfen der Fallhöhe.
- 10.6** Retighten bolts.

## **11 Half-yearly maintenance (text)**

- 11.1** The stability of supporting posts, braces, foundations etc. has to be checked. Once repair respectively replacement is completed, the entire equipment has to be verified.

## 12 Annual main inspection (text)

- 12.1** The complete equipment as well as the foundations and the surfaces are to be checked if they are generally safe.
- 12.2** The equipment is to be verified according to rotting and corrosion. For that, some parts might have to be excavated. Here also brush against wood grain direction in order to also have natural cracks, which can appear after factory treatment, thoroughly soaked with varnish to effectively prevent ingress of water. All wooden posts need to be excavated around at least head beam is to be treated with varnish thoroughly. Until completely dried up, the equipment should be closed to the public. At steel posts, Zinc paint should be applied to any corroded areas and scratches!
- 12.3** Any changes that might affect safety of the equipment are to be detected which occur from repair works or parts, which have been built in additionally or replaced.



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 is to be given to the operator, who must confirm receipt!**

### 13 Maintenance printout

Name of equipment: „Haiger“ Rope Assault Course \_\_\_ / Part no. 4591 \_\_\_\_\_

Location: \_\_\_\_\_

Customer or operator: \_\_\_\_\_  
 (Town, municipal, kindergarden)

Date of inspection	Inspector	OK	Accessible	Closed	Defects	Repaired by	Date

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

## 14 Hand-over document



**Attention**

After the installation of the equipment, the installation and maintenance documents are to be handed over to the operator. The operator has to have the documents signed. The complete filled and signed hand over documents are to be sent back to the supplier Huck Seiltechnik GmbH via fax +49 (0)6443 / 83 11 79!

Part no.: 4591

Type of equipment: \_\_\_\_\_ „Haiger“ Rope Assault Course

Serial number: \_\_\_\_\_

**Customer or operator (town, municipal, kindergarden, etc.):**

\_\_\_\_\_  
\_\_\_\_\_

Person in charge:

\_\_\_\_\_  
\_\_\_\_\_

**Installation company (address):**

\_\_\_\_\_  
\_\_\_\_\_

Assistant in charge (assembler):

\_\_\_\_\_  
\_\_\_\_\_

Complete assembly instruction, maintenance instruction and maintenance printout received,

\_\_\_\_\_  
(Signature operator)  
(Stamp)

\_\_\_\_\_  
(Signature installation company)

Date: \_\_\_\_\_