

# FreeFalcon

Art. n° 583034000

## Original Operating Instructions

Please retain for future reference



There are FreeFalcon models with different operating pressures on the market:

- 80 - 110 bar  
(up to and including serial number DFF-0578)
- 110 - 130 bar (serial number DFF-0579 onward)

**! NOTICE**

Take the operating pressure for the individual fall protection mast into account when setting up the mast and when performing the daily check.

## Fall arrester FreeFalcon

A manufacturer's modification to the Fall arrester FreeFalcon 6.00m has effects on functionality in relation to the Free Falcon. Freedom of movement is significantly restricted on account of faster triggering.

All Fall arresters FreeFalcon 6.00m already in the field or to be supplied by Doka can be used in safety and without being subject to restriction. Subsequently, the Fall arrester FreeFalcon 9.00m will be the only new-type fall arrester available and deployable.

Suitable fall arresters:

- Fall arrester FreeFalcon 9.00m
- Fall arrester FreeFalcon 6.00m (old generation - the new-generation fall arresters will not be supplied by Doka)



01/07/2024

# OPERATING MANUAL

Mobile Fall Protection Anchor for PPE V21-1

Anchoring device type E according to EN 795:2012



## FreeFalcon GmbH

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Germany

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## Operating manual

### 1.0 General

#### 1.1 This operating manual is valid for

Definition	Type designation	Version	Article no.:
Mobile Fall Protection Anchor for attaching tested, personal protective equipment (PPE) Anchoring device type E according to EN 795:2012	FreeFalcon – Mobile Fall Protection Anchor	V21-1	10001

#### 1.2 Validity of the documentation

Version no.:	Rev.	Reason	Valid starting from	ID starting from
B-208-17-02	R0	First edition	11/01/2018	
B-208-00-EN	R1	0 Revised pages A2 / A7 / D2 / D12 / F7 Additional pages D2a / D2b / F7a / F7b	01/02/2018	No. 2110
B-208-00-EN	R1	1 Revised pages B2 / B4 / F6	01/02/2018	No. 2110
B-208-00-EN	R2	2 Revised page A2	20/03/2018	No. 2110
B-208-00-EN	R2	0 Additional page A2b	12/11/2018	No. 2110
B-208-00-EN	R2	2 Page A3 Declaration of Conformity updated	12/11/2018	No. 2470
B-208-00-EN	R2	2 Pages B2 / B2b warning and Anchor-point added	15/11/2018	No. 2110
B-208-00-EN	R2	2 Page B8 Description of Area of responsibility changed	15/11/2018	No. 2110
B-208-00-EN	R2	2 Page D8 revised Danger information	15/11/2018	No. 2110
B-208-00-EN	R2	2 Page D14 Definition of Authorised individuals	15/11/2018	No. 2110
B-208-00-EN	R2	2 Page F5 revised standards connectors	15/11/2018	No. 2470
B-208-00-EN	R2	2 Page F6 revised combination of Danger and Warning	15/11/2018	No. 2470
B-208-00-EN	R2	0 Additional page A6	24/11/2018	No. 2470
B-208-00-EN	R2	1 Pages A4 / A5 EU-Type Examination Certificate updated	05/12/2018	No. 2470
B-208-00-EN	R2	1 Pages D5 / D15 updated	15/02/2019	No. 2499
B-208-00-EN	R3	Change of design and deletion	15/09/2020	
B-208-00-EN	R3	1 Pages A2 / B3 / B6 / D3 – D5 / F1 / F2 updated	01/07/2024	

The operational safety and reliable functioning of the FreeFalcon – Mobile Fall Protection Anchor V21-1 for PPE against falling can only be guaranteed if the statutory general safety regulations and the safety instructions in these operating instructions are observed.

The manufacturer assumes no liability whatsoever for damage resulting from improper use or incorrect handling.



## Operating manual

### NOTE



This operating manual is regarded as a English translation of the original German operating manual as of 01.02.2018 which has the number 208-00-D.

Each device must have an Instruction Manual provided in the language of the country in which the device is being used.

- **Upon delivery**
- **When used for the first time**

If the Instruction Manual not in the language of a country where the device is being used, it is the responsibility of the person who distributed the device or distribution partner who distributed the device to that country to provide a copy of the Instruction Manual in the language of that country.

For technical reasons, with regard to FreeFalcon – Mobile Fall Protection Anchor V21-1, it is recommended that it will be referred to as "device" for the rest of this manual.

### DANGER



This instruction manual is an integral part of the device and it serves to ensure optimum operation and performance and it must be ensured that all individuals working with this device have read and fully understood these instructions.

This instruction manual must be stored in a secure place and must be accessible at all times. An incomplete or invalid version of the instruction manual loses with immediate effect its validity and must be replaced immediately.



## **Operating manual**

### **1.3 EU Declaration of conformity**

in accordance with the PPE Directive

The manufacturer

**FreeFalcon GmbH**  
Johanniterstrasse 50  
72160 Horb am Neckar  
Germany

hereby declares that the device

**FreeFalcon – Mobile Fall Protection Anchor for attachment of PPE**

with the type designation

**FreeFalcon – Mobile Fall Protection Anchor V21-1**

complies with the fundamental safety requirements of the PPE Regulation (EU) 2016/425.

The device also complies with the relevant

EU Regulation:	(PPE Regulation)	(EU) 2016/425
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Applied standards:	(CEN)	DIN EN 795:2012 – 10 Type E anchoring device
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The notified body DEKRA Testing and Certification GmbH, identification number 0158, has issued the EU type-examination certificate (ZP/B312/18).

The PPE is subject to the following conformity procedure: Conformity to type based on internal production control plus supervised product checks at random intervals (module C2).

The technical documentation of this device has been prepared in accordance with DIN EN 795:2012-10 and DIN EN 365:2004-12. The manufacturer agrees to submit technical documentation to national authorities if and when required.

Authorised representative for the compilation of the technical documentation:

**Horb am Neckar**  
January 2018

Mesut Saygivar  
Managing director  
FreeFalcon GmbH

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## Operating manual

### TRANSLATION

## (1) EU-Type Examination Certificate

according to Module B Paragraph 6.1 of PPE Regulation (EU) 2016/425

- (2) Regulation of the European Parliament and of the Council of 9 March 2016 relating to personal protective equipment (PPE) - Regulation (EU) 2016/425
- (3) No. of EU-Type Examination Certificate: **ZP/B099/18** replaces ZP/B183/17
- (4) Product: Anchor device type E  
Type: FreeFalcon V21-1
- (5) Manufacturer: FreeFalcon GmbH
- (6) Address: Johanniterstr. 50, 72160 Horb am Neckar, Germany
- (7) Risk category: III
- (8) The design and construction of this personal protective equipment and any acceptable variation thereto are specified in the appendix to this EU type-examination certificate.
- (9) The certification body of DEKRA EXAM GmbH, Notified Body No. 0158 according to Chapter V of Regulation (EU) 2016/425 of 9 March 2016, certifies that this personal protective equipment has been found to comply with the essential Health and Safety Requirements given in Annex II to the Regulation. The evaluation results are recorded in report PB 18-093.  
Other possibly applicable Union legislations applicable to the specified personal protective equipment have not been taken into account in this EU-type examination certificate.
- (10) The essential Health and Safety Requirements are assured in consideration of

### DIN EN 795:2012

- (11) This EU type-examination certificate relates only to the design, examination and tests of the specified personal protective equipment in accordance to Regulation (EU) 2016/425.  
For category III personal protective equipment, this EU type-examination certificate may only be used in conjunction with one of the conformity assessment procedures referred to Article 19 (c).
- (12) When applying the CE Marking according to Article 16 and 17 of Regulation (EU) 2016/425 to the products that conform to the types examined, the client is obliged to add, in accordance with the attached pattern, the identification number of the Notified Body engaged in the conformity assessment according to Module C2 or D.  
Furthermore, the manufacturer is obliged to issue an EU declaration of conformity in accordance with Article 15 of Regulation (EU) 2016/425 and to enclose it with the personal protective equipment, or to indicate the Internet address in the manual and in the instructions in Annex II, point 1.4., at which the EU declaration of conformity can be accessed.
- (13) This EU-Type Examination Certificate is valid until 2023-09-17

DEKRA EXAM GmbH  
Bochum, 2018-09-18

Signed: Wiegand \_\_\_\_\_  
Certification body

Signed: Mühlensbruch \_\_\_\_\_  
Special services unit

We confirm the correctness of the translation from the German original.  
In the case of arbitration only the German wording shall be valid and binding.

Wiegand  
Certification body

Mühlensbruch  
Special services unit

Page 1 of 2 of ZP/B099/18  
This certificate may only be published in its entirety and without any change.  
DEKRA EXAM GmbH, Dinnendahistrasse 9, 44809 Bochum, Germany  
Telephone +49 234 3696-105, Fax +49 234 3696-110, zs-exam@dekra.com



## Operating manual



### TRANSLATION

- (14) Appendix to
- (15) EU-Type Examination Certificate ZP/B099/18
- (16) 16.1 Subject and type  
Anchor device type E  
Type: FreeFalcon V21-1

#### 16.2 Description

The anchor device type FreeFalcon V21-1 (Fig. 1) is used to protect one person against falls from a height. The device is used on plane surfaces of sufficient strength and with a maximum inclination of 5°.

The corrosion-resistant anchor device is made of a base pedestal with a pivoted swivelling arm. Four transport eyelets are screw-fastened to the pedestal; these eyelets are used to transport the anchor device to its intended place of use. In addition, the base pedestal has a recess for industrial trucks. The bottom of the base pedestal is equipped with anti-slip plates.

Prior to the use, the swivelling arm is erected by means of an integrated hydraulic cylinder and the lifting rod intended for that purpose, applying a pressure of 90 up to 110 bar against a pressure spring. To do so, a pressure gauge is provided at the pressure chamber. At the top end of the swivelling arm, there is a swaged wire-rope eyelet with a thimble. The wire-rope eyelet is the anchor point to which the user connects his PPE to protect himself against falls from a height.

In the case a fall from a height occurs or a tensile load of more than >100 kg is exerted on the anchor point, the safety valve of the hydraulic unit is triggered; this causes the pivoted swivelling arm to retract, pulling the anchor point towards it. Moreover, a locking mechanism engages which prevents the swivelling arm from rotating freely.

The anchor device has a weight of 450 kg.



Fig. 1: Anchor device, type: FreeFalcon V21-1

- (17) Test Report

PB 18-093, 2018-09-18



Page 2 of 2 of ZP/B099/18  
This certificate may only be published in its entirety and without any change.  
DEKRA EXAM GmbH, Dinnendahlstrasse 9, 44809 Bochum, Germany  
Telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com



## **Operating manual**

## Notes



## Operating manual

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## Operating manual

## 2.0 Safety instructions

### 2.1 Symbols and legends in this manual

In this operating manual, safety-relevant sections of text are classified according to their danger level and designated with corresponding symbols according to ASR A1.3 / ISO 7010. It is important that you read these descriptions thoroughly and fully understand the contents.

#### DANGER



Indicates an imminent danger

Failure to comply will result in death, disability or serious injury

#### WARNING



Indicates a potential danger

Failure to comply may result in death, disability or serious injury

#### CAUTION



Indicates a potential danger

Failure to comply could result in minor or moderate personal injury or property damage

#### NOTE



Indicates useful information considered important but not hazard related



## Operating manual

### 2.2 Basic safety instructions

The safety instructions in this operating manual serve as a basis for the safe use of the device (the FreeFalcon – Mobile Fall Protection Anchor V21-1).

In addition, to avoid accidents, all applicable statutory regulations, rules and standards must be observed at the place of use.

This operating manual and the inspection logbook must be available at all times to ensure accessibility when needed.

All persons who are instructed to use this device must confirm in the inspection logbook that they have carefully read and understood this instruction manual.

#### DANGER



- The FreeFalcon – Mobile Fall Protection Anchor V21-1 is only designed to protect one person.
- Using it to protect more than one person is prohibited.

#### WARNUNG



The device and its entire equipment is subject to wear and damage due to the various operating conditions.

In order to ensure safe operational readiness, it is mandatory that the device and its entire equipment be kept in the required good condition.

When in use under extreme conditions e.g. temperature, humidity or when the device is extremely dirty, the mandatory intervals must be reduced and safety inspections must be carried out as stated in **chapter 4.6**.



## Operating manual

### 2.3 Intended use

The FreeFalcon – Mobile Fall Protection Anchor V21-1 is a device specifically designed for overhead anchorage of CE approved PPE fall arresters with a maximum cable length of up to 9 metres.

On flat surfaces with an angle less than 5°, the design of the device allows the operator to individually determine the position of their anchor.

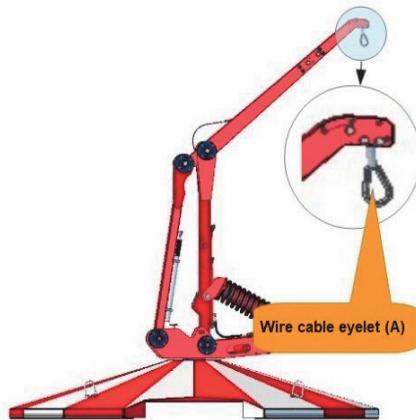
The FreeFalcon – Mobile Fall Protection Anchor V21-1 can be moved on flat surfaces using a standard hand pallet truck.

The attachment of approved loading straps or 4-rod harness for relocation with a crane is made possible by the four load attachment points on the base plate.

### Anchor point

The FreeFalcon – Mobile Fall Protection Anchor V21-1 has a wire cable eyelet (**A**) for the attachment of fall arrest system in accordance with EN 360 / FPrEN 360:2022.

Only connectors with EN 362-B are permitted (carabiner hooks).



### DANGER



The attachment of a fall arrester with prohibited connector elements or to anything other than the wire cable eyelet (A) is strictly prohibited.



## Operating manual

### 2.4 Prohibitions on operation

#### DANGER



- Operation of the device on surfaces with an angle of more than 5° is prohibited.
- The installation surface and transport surface must have a specific load capacity of at least 120 kg/m<sup>2</sup>.
- The installation surface must be level and free from coarse dirt, sand and formwork release agents.
- Use on snowy or icy surfaces is prohibited.
- The use of the device on surfaces where water has accumulated is prohibited.
- The proper condition of the device and the installation surface must be checked by the user after each relocation.
- The device must only be used on surfaces in accordance with the table below. Use on other surfaces is prohibited.

Permitted on the following surfaces	Use
Wooden formwork panels	Permissible
Concrete with a coarse surface	Permissible
Tarmac	Permissible
Bituminous welded sheeting	Permissible



## Operating manual

### Prohibitions on operation

#### DANGER



- The FreeFalcon – Mobile Fall Protection Anchor V21-1 is designed to protect one person.
- Using it to protect more than one person is prohibited.
- Only approved PPE fall arresters may be attached.
- Technical changes or the removal or deactivation of components on the device are prohibited.
- The device may only be used as personal protective equipment (PPE), under **NO** circumstances may the device be used as lifting equipment or as a recovery device.
- Any use for purposes other than those specified in **chapter 2.3** (Intended use) are prohibited.
- Relocation with a person secured on the device to be relocated is prohibited.
- It is forbidden to stand on or place objects on the base plate.



## Operating manual

### WARNING



- The safety lifeline between the anchor and the person to be secured must always be taut.
- Operation of the device in the activated safety position is prohibited.
- When moving the device with a crane, sufficient safety distances to persons and objects must be observed.
- Devices with an expired accident prevention regulation inspection must be removed from service.
- Except for cleaning and care work, repairs and maintenance work are only permitted by persons authorised by the manufacturer.
- The FreeFalcon – Mobile Fall Protection Anchor V21-1 must not be used near combustion sources.
- The FreeFalcon – Mobile Fall Protection Anchor V21-1 must not be used at temperatures below -25 or above +50 °C.
- The FreeFalcon – Mobile Fall Protection Anchor V21-1 may not be used in the vicinity of live cables.
- The FreeFalcon – Mobile Fall Protection Anchor V21-1 should not be used during thunderstorms (lightning hazard).
- The operator must be at least 18 years old. Apprentices may only use the device if they are at least 16 years of age and under constant supervision.
- The operator must be familiar with the contents of the manual and have fully understood them.
- The operator must not be under the influence of alcohol, drugs, medications or other substances that could impair their perception.
- In order to avoid injuries caused by a swing fall, the provisions specified in **chapter 4.5.4** (Swing fall) must be observed.
- Before using the device, a rescue plan must be prepared for the event of a fall. The rescue plan must be available at all times and must comply with the national statutory regulations.



## Operating manual

### CAUTION



- The nameplate and the safety instructions on the device must not be removed or covered.
- When moving the device, appropriate protective clothing must be worn (safety shoes, gloves, safety helmet - PPE).
- The device may only be relocated and transported using suitable and permitted means of transport.
- When walking on the bevelled base plate for service or maintenance work required, a considerable risk of slipping must be expected.

### NOTE



- Proper maintenance and cleaning, as described in **chapter 5.1 / 5.2**, not only has a positive effect on the service life of the device, it also ensures safe operation.
- Due to its weight of 450 kg, the device may damage or scratch sensitive surfaces such as marble, parquet or tiles during storage or transport.
- Storage for long periods in humid atmospheres increases the risk of corrosion, which can be avoided by covering with a protective cover (such as a truck tarpaulin).
- Storage for longer periods in direct sunlight or places with direct UV radiation reduces the service life of all components on the device that contain rubber or plastic; this can be avoided by covering with a protective cover (such as a truck tarpaulin).



## Operating manual

### 2.5 General safety instructions

All persons involved in the assembly, commissioning, operation and maintenance of the device must:

- **Have the necessary qualifications**
- **Comply strictly with these operating instructions**

#### WARNING



- The device may only be put into operation in a condition that complies with applicable regulations.
- The device must not be used if it is determined that safety-relevant components are faulty, damaged or disassembled.
- Equipment that is not in proper condition must be removed from the work area and marked with a "**Defect**" sign on the Fall Protection Anchor.
- The decommissioning of the device must be documented immediately in the inspection logbook.
- Re-commissioning of the device is only permitted once the device has been restored to its default state by qualified technician and documented in the inspection logbook.

### 2.6 Qualifications and responsibilities

Before commissioning the device, clearly determine who is responsible for the three activities listed below.

- **Operating company**
- **Operators**
- **Personnel for maintenance, servicing (qualified technician)**



## Operating manual

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### 2.6.1 Area of responsibility of the operating company

- The operating company is obliged to comply with and monitor all applicable statutory regulations and safety regulations at the place of use.
- To train the personnel.
- To instruct the personnel at regular intervals about all safety regulations concerning the device (at least once a year).
- To check the level of knowledge of the personnel.
- To document the training/instruction.
- To confirm participation in the training/instruction with signatures.
- To check whether the staff works in a safe- and hazard-conscious manner and observes the operating instructions.

### 2.6.2 Operators

- Operators are persons who have received instruction from a **qualified instructor** or **training instructor** about the tasks assigned to them and possible dangers.
- Confirm in writing that they have read and understood the operating manual.

**Operators are entitled:**

- To use the device within margin of their instruction
- Perform configuration changes
- Carry out inspections within margin of their instructions
- Remove a damaged or faulty device or its equipment from the work area

### 2.6.3 Personnel for maintenance, servicing (qualified technician)

- Qualified technicians are persons who have acquired in-depth knowledge of the functioning and safety equipment as a result of training from the manufacturer and have received a registered certificate.
- Qualified technicians are entitled, on the basis of their technical training and their knowledge of the relevant regulations, to independently perform and document the work and inspections assigned to them.



## Operating manual

### 3.0 Device description

#### 3.1 General

The FreeFalcon – Mobile Fall Protection Anchor V21-1 is a device specifically designed and tested for the overhead anchorage of CE approved PPE fall arresters with a maximum cable length of 9 metres.

In its default position, the anchor point is 2.35 meters above the installation surface.

To increase safety, the safety device is activated even before the maximum load is exceeded. This independently results in a slight shift of the anchor whilst simultaneously securing the anchor against rotation.

In this configuration, persons secured with a PPE fall arrester according to DIN EN 795:2012 can be safely caught from a distance of up to 9 m.

The safety concept consists of an exclusive geometrical formed device, the automatic activation of the safety device and the base plate equipped with anti-slip mats.

The applied test procedures comply with the standard DIN **EN 795:2012 – 10**.

#### 3.2 Technical specifications

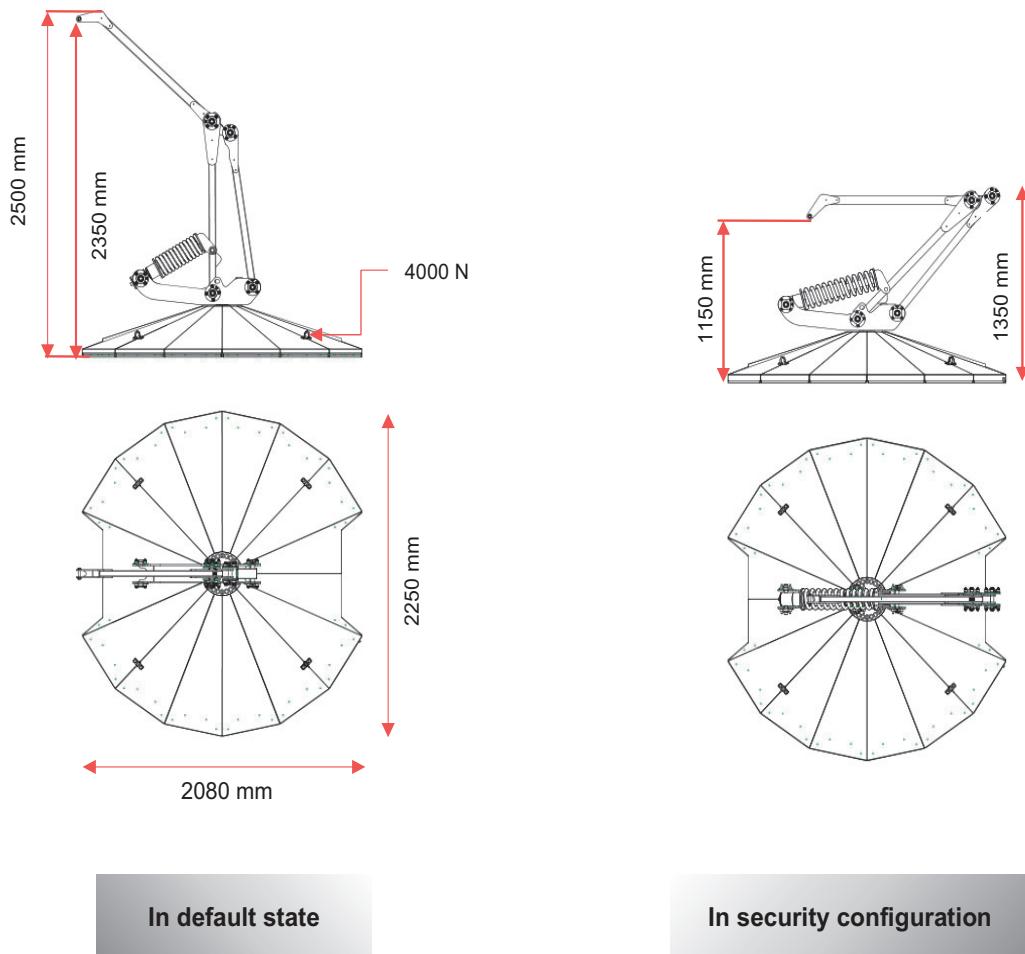
<b>Definition</b>		
Device weight	<i>Min. 450 kg</i>	
Anchor point height in the default state	<i>2350 mm</i>	
Anchor point height in safety position	<i>1150 mm</i>	
Lowest base diameter	<i>2080 mm</i>	
Largest base diameter	<i>2250 mm</i>	
Anti-slip segments	<i>12 pieces</i>	
Sliding friction $\mu$	<i>0.65 <math>\mu</math></i>	<i>+/- 5%</i>
Pressure force of the safety unit	<i>Min. 29050 N</i>	<i>Max. 30327 N</i>
Triggering time of safety unit	<i>Min 1.5 sec.</i>	<i>Max 2.0 sec.</i>
Corrosion protection primer, base	<i>Epoxy resin</i>	<i>Min. 60<math>\mu</math>m</i>
Topcoat RAL (standard)	<i>3001 signal red</i>	<i>9003 signal white</i>
Lashing rings	<i>4 pieces</i>	<i>4000 N each</i>
Trigger force of the safety device	<i>1.1-1.5 kN</i>	<i>Exceeding</i>
Hydraulic oil	<i>HLP-46</i>	



## Operating manual

### 3.3 Dimensions

The graphics below show the external dimensions of the device in its two configuration types (default state and security configuration position). The basic mass of the device corresponds to **450 kg** with a central centre of gravity.





## Operating manual

### 3.4 Label identification

In the danger zones of the device, additional warnings are attached. These directly indicate a possible danger with a suitable text or with self-explanatory symbols.

#### CAUTION



- The nameplate and the safety instructions on the device must not be removed or covered.
- Particular care should be taken in the designated danger area.
- The posted instructions must be obeyed.

#### 3.4.1 Nameplate



- The information on the nameplate allows each device to be clearly identified by its ID-no. / serial-no.
- All documents included with the device, such as the inspection logbook and the operating manual, refer to the ID-no. / Serial-no. noted on the device in order to avoid confusion.

Typ:	V21-1
Serien-Nr. / Serial no.	2470
Baujahr / Year	2018
Gewicht / Weight	460 kg
DIN EN 795 : 2012 - 10 Typ E	
<b>CE</b> 0158	
FreeFalcon GmbH Johanniterstr. 50 D-72160 Horb	



## Operating manual

### 3.4.2 Validity period of the accident prevention regulations inspection

WARNING		
	<p>Month next calibration    <b>nächste Prüfung</b>  <b>next calibration</b>  Year next calibration  Example: Accident prevention regulations valid until 07/2018</p>	<ul style="list-style-type: none"> <li>The accident prevention regulations inspection plate clearly shows which guidelines have been used.</li> <li>The validity of the accident prevention regulations inspection is made clearly visible by the stamped areas (month/year) on the outer ring of the label.</li> </ul>

WARNING	
	<ul style="list-style-type: none"> <li>Devices without a valid accident prevention regulations inspection must be removed immediately from the work area and marked with a "Defect" sign on the Fall Protection Anchor.</li> <li>The decommissioning of the device must be documented immediately in the inspection logbook.</li> <li>Re-commissioning of the device is only permitted after the device has been restored to its default state by qualified personnel and must also be documented in the inspection logbook.</li> </ul>



## Operating manual

### 3.4.3 Warning field

<b>WARNING</b>		<p><b>The FreeFalcon – Mobile Fall Protection Anchor V21-1 is for 1 Person only.</b></p> <ul style="list-style-type: none"> <li>• A warning field uses plain text and clear symbols to warn of possible sources of danger during operation of the device.</li> </ul> <p><b>Danger</b></p> <ul style="list-style-type: none"> <li>• It is forbidden to stand on or place objects on the base plate. Keep a Safe Distance from the base plate and the safety lifeline.</li> <li>• Observe the safety instructions and wear personal protective equipment (PPE).</li> </ul> <p><b>Warning</b></p> <ul style="list-style-type: none"> <li>• Trip hazard and automatic activation possible.</li> </ul>
Image	Description	

### 3.4.4 Warnings related to the base plate

<b>WARNING</b>		<ul style="list-style-type: none"> <li>• Walking on the base plate is prohibited.</li> </ul>
Image	Description	
	<p>Load attachment points only for relocation with crane systems</p> <p><b>Not an anchor point</b></p>	
		<ul style="list-style-type: none"> <li>• Depositing objects on the base plate may obstruct the end position of the security configuration and is prohibited.</li> </ul>
		<ul style="list-style-type: none"> <li>• Increased risk of tripping (maintain sufficient safety distance).</li> </ul>
		<ul style="list-style-type: none"> <li>• Danger due to automatic activation of the safety device (maintain a sufficient safety distance).</li> </ul>

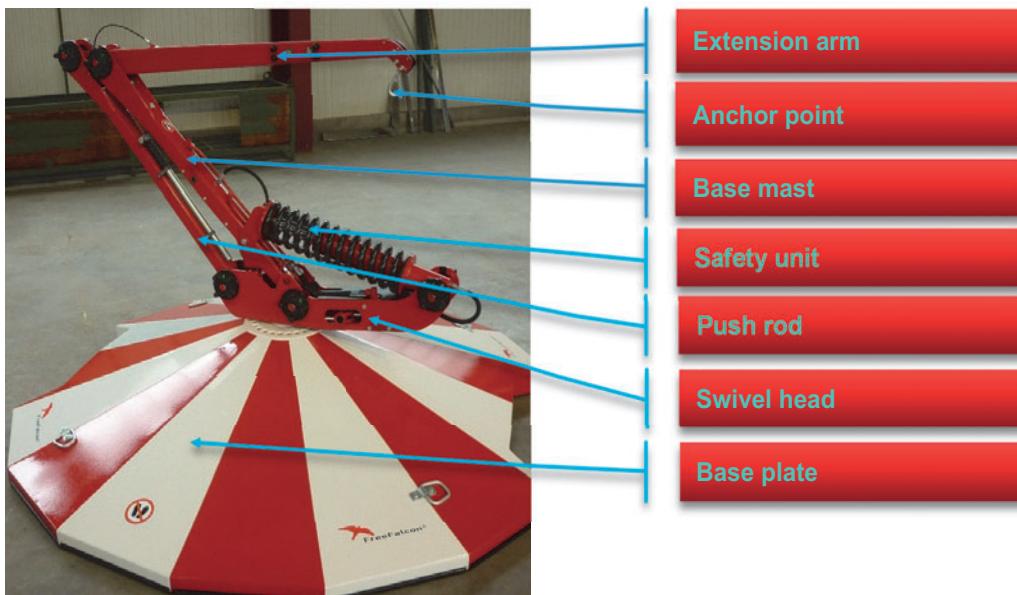


## Operating manual

### 3.4.5 Extension arm warning sign

WARNING		
		<ul style="list-style-type: none"> <li>When automatically activated, the extension arm (<b>A</b>) moves at high speed and with extreme force in the direction of the base plate.</li> <li>Being present (also during cleaning or maintenance work) below the extension arm is strictly forbidden.</li> <li>Automatic activation of the safety function may occur under certain conditions at any time.</li> </ul>

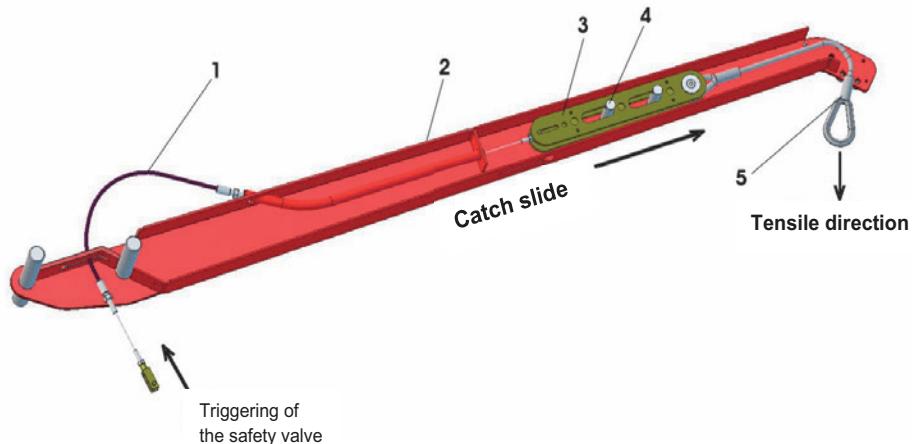
### 3.5 Assembly description





## Operating manual

### 3.5.1 Extension arm and anchor point



The extension arm serves as a support and protection for the integrated fall indicator. It also increases the height of the anchor point at the end of the safety line **item 5**.

In the event that a person falls while secured to the anchor with PPE, the design will absorb some of the resulting impact forces due to dynamic deformation and activation of the safety function.

In the case of a fall, the force acting in the tensile direction on the safety line increases greatly. This force is transmitted unhindered via the guided safety line to the catch slide **item 3**.

The catch slide is frictionally engaged in its normal position with a blocking force of min. 100 kg to max. 150 kg by spring-loaded pressure pads in its position in the carrier of the catch boom **item 2**.

With an increase of more than 150 kg of the force transmitted by the safety line on the catch slide, it is moved to the stop of the guide pin **item 4** and form-fit locked with the extension arm.

As a result of this displacement, the trigger cable **item 1** connected to the catch slide is actuated, and a valve in the base load activates the safety function.

#### DANGER

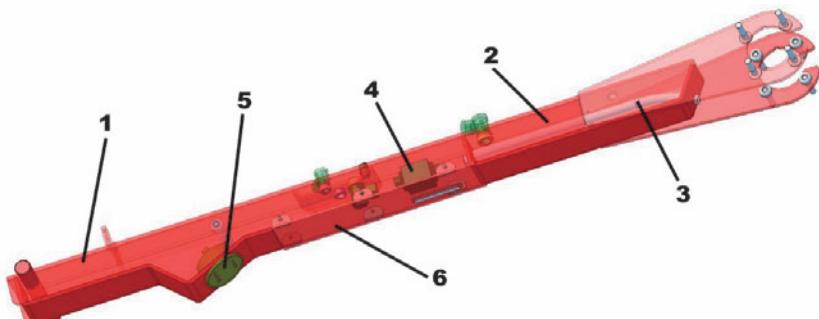


- Failure or damage of components of the extension arm assembly no. 32300 may result in death or serious injury.
- Adjustment and maintenance work may only be performed by specialist personnel trained by the manufacturer.



## Operating manual

### 3.5.2 The base mast



The most relevant assembly of the device for safety is the base mast **item 1**.

Thanks to its design, it provides several characteristics required for the function of the device.

The upper part of the base mast **item 2** serves as a reservoir for the hydraulic oil needed for the safety unit. The trigger cable connected to the catch slide leads through the tube **item 3** and is connected with the activation valve for the safety function **item 4**.

If the safety function is activated, it assumes the control function between safety unit, push rod, extension arm and swivel head.

The angled protrusion **item 5** serves as a push rod for the locking pin of the rotation lock and as a receptacle for the pressure monitoring indicator.

#### DANGER

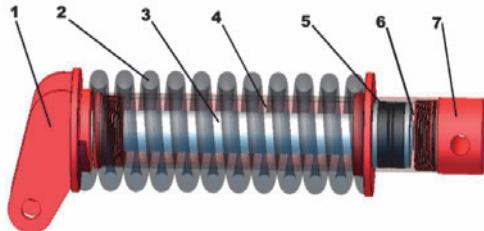


- All hoses and tubes inside and outside the base mast are constantly under high pressure.
- In the event of damage or improper loosening of tubes or lines, there is a risk of self-triggering of the safety function.
- Improper handling of the activation valve will lead to self-triggering of the safety function.
- Maintenance and removal of the cover (item 6) may only be performed by specialized personnel trained by the manufacturer.



## Operating manual

### 3.5.3 The safety unit



- |               |                           |
|---------------|---------------------------|
| <b>Item 1</b> | Release half on base mast |
| <b>Item 2</b> | Compression spring        |
| <b>Item 3</b> | Cylinder rod              |
| <b>Item 4</b> | Pressure oil side         |
| <b>Item 5</b> | Separation piston         |
| <b>Item 6</b> | Suction oil side          |
| <b>Item 7</b> | Fixed half on swivel head |

The safety unit serves as an actuator and energy storage to perform the safety function.

Via the connection of the release half on the base mast **item 1** to the fixed half on the swivel head **item 7**, the device is kept in the base state.

In the default state, using hydraulic pressure on the pressure oil side **item 4**, the pre-loaded spring **item 2** is contracted and held in place (see hydraulic diagram in the appendix).

By opening the trigger valve in the base mast, the oil on the pressure side **item 4** flows through the hydraulic system and through the reservoir in the base mast to the suction side **item 6** of the safety unit.

In this process, by relaxing the compression spring **item 2**, the base mast is pushed back and the device moves down into the safety configuration.

#### DANGER



- In the event of damage or improper loosening of pipes or lines, there is a risk of self-triggering of the safety unit.
- Improper handling of the safety unit can lead to automatic activation.
- Maintenance work and disassembly may only be performed by specialist personnel trained by the manufacturer.



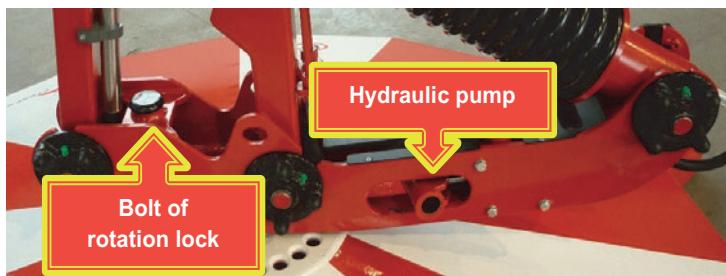
## Operating manual

### 3.5.4 The push rod



- Together with the base mast, the push rod ensures a structurally specified movement in the event of activation of the safety function.
- Through the push rod, a large portion of the impact force is diverted onto the anchor point to the swivel head.
- Due to its geometrical form, under load the push rod supports the anchor mast to move into the safety configuration.
- The outside of the push rod serves as a mounting surface for the nameplate and the warnings.

### 3.5.5 The swivel head



- The swivel head serves as a rotating interface between the base plate and device structure.
- The guide of the locking pin of the rotation lock is firmly integrated into the swivel head.
- The swivel head also serves as a mount for the hydraulic pump required for tensioning the safety unit.

#### DANGER

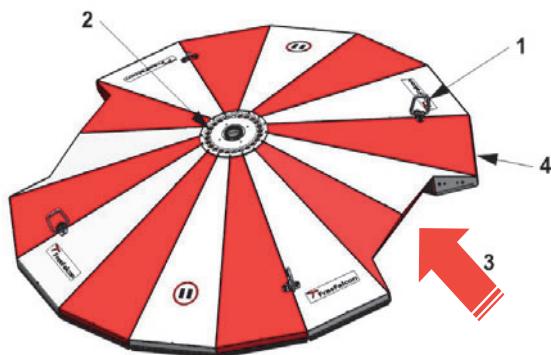


- In the event of damage or improper loosening of pipes or lines, there is a risk of the automatic activation of the safety unit.
- Maintenance work and disassembly may only be performed by specialist personnel trained by the manufacturer.



## Operating manual

### 3.5.6 The base plate



The base plate is used to hold the complete safety-device structure.

Its shape and weight ensure that the forces occurring in the event of a fall can be evenly distributed over the surface of the unit via the device structure.

To prevent displacement of the base plate in the event of a fall, it is additionally equipped with twelve anti-slip segments on the outer edge of the underside **item 4**.

In the safety configuration, the holes **item 2** arranged around the centre of the base plate serve as a receptacle for the locking pin of the swivel head.

The recess **item 3** on the underside of the base plate is used to move the device with suitable industrial trucks.

For relocation using crane systems, the base plate **item 1** is fitted with suitable load anchor points.

#### DANGER



- Death or serious injury may result from using damaged or insufficiently dimensioned lifting gear and sling equipment.
- Death or serious injury may result from the device overturning due to the use of unsuitable forklifts or transport vehicles.



## Operating manual

# 4.0 Operation

## 4.1 General safety information

### WARNING



The device may only be put into operation if the following conditions are met:

- The device is in proper and tested condition
- All information in the operating manual is observed
- Applicable statutory regulations are complied with
- The device is used as intended
- Personnel have the necessary qualifications
- The place of use has the required surface load and properties
- The location of the equipment and the type of work to be performed shall be such that, in the event of a fall, the free fall is kept to a minimum
- The daily checks were carried out and documented
- It is only operated in conjunction with tested and approved PPE equipment
- A rescue plan tailored to the location has been prepared
- Before each use, it must be ensured that, in the event of a fall, it is not possible to impact the ground or an obstacle  
(for the calculation of the minimum clearance, refer to [chapter 4.1.1](#))
- Operation of the device is strictly prohibited if the minimum clearance below the operator is not sufficient

### DANGER



- Severe to fatal injuries due to non-compliance with the minimum clearance below the edge of the fall.
- There must be no persons or objects (such as machines, tools, building materials, etc.) in the area of the minimum clearance.
- No objects such as beams or projections may protrude into the minimum clearance.



## Operating manual

### 4.1.1 Calculation of minimum clearance

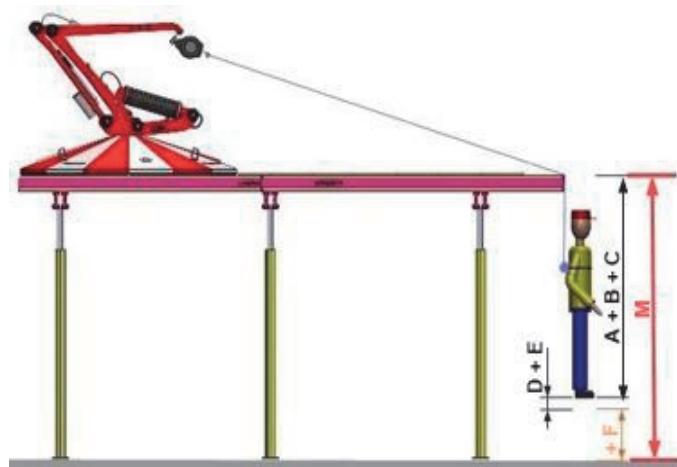
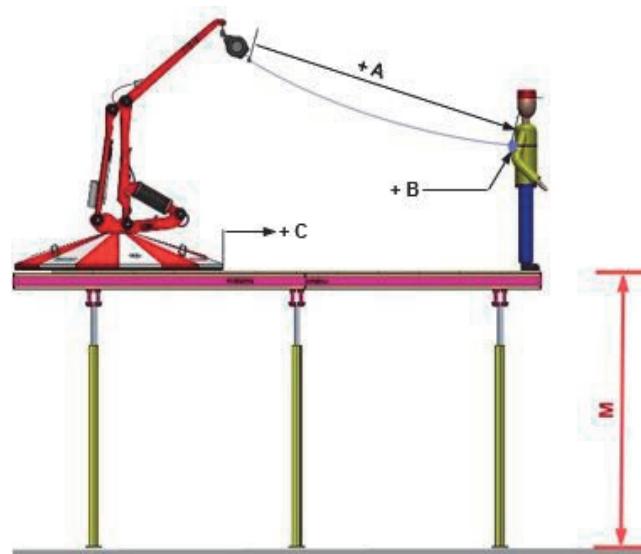
To calculate the minimum clearance, the following factors **A** to **F** must be added together, taking into account the corresponding application situation, and/or with the individual components combined on the device (see table on page D3 – D4).

#### **WARNING**



For the calculation of the minimum clearance, the relevant values of the manufacturer of the individual components A to F to be combined shall be applied.

#### Factors to be taken into account for the minimum clearance calculation (Horizontal use)





## Operating manual

<b>A</b>	<b>Resulting free-fall distance</b> , dependent on the tightening of the connection equipment and the reaction time of the fall arrester between the device and the fall edge				
Manufacturer of the fall arrestor system	Type and designation of the fall arrestor system		Reachable distance from the center of the device to the fall edge: (depending on the extension length of the fall arrestor system)		
			4 m	7 m	10 m
IKAR	Fall arrestor 9.00 m Type: HWS 9	EN 360:2002 FprEN 360:2022	1,10 m	1,20 m	1,50 m

<b>B</b>	<b>Additional free fall distance</b> , depends on the tightening of a properly positioned safety harness				
Manufacturer of the safety harness	Type and designation of the safety harness			Value to be added between loosely (max.) or tightly (min.) applied body restraint device	
			Loose	Tight	
IKAR	Safety harness with belt extension Type: IK G 20 B / B 38 D	EN 361	0,35 m	0,20 m	

<b>C</b>	<b>Distance to be added</b> , depends on the displacement of the device towards the fall edge (determined by drop tests in accordance with national standards)			
Manufacturer	Type/designation	Applied standards		Maximum value to be added
FreeFalcon	V21-1	EN 795:2012-10 Typ E		0,10 m

<b>D</b>	Minor influence of the user's body size on the minimum clearance to be calculated		
	Minimum body size		Value to be added
1,4 m	1,8 m		0,00 m
1,8 m	2,1 m		0,06 m

<b>E</b>	Extension of the free-fall distance due to any personal protection equipment PPE, fall arrester additionally combined with the device (see manufacturer requirements)		
Manufacturer	Type/designation	Applied standards	Value to be added

**Operating manual**

F	Recommended or legally required additional safety distance		
Manufacturer	Type/designation	Applied standards	Maximum value to be added
FreeFalcon	V21-1	DGUV	1,00 m
		EN 795:2012-10 type E	0,00 m

**Table for calculation of the minimum clearance**

A	Resulting free-fall distance	According to Table A	
B	Additional free-fall distance	According to Table B	
C	Distance to be added	According to Table C	
D	Influence of user body size	According to Table D	
E	Consideration of further personal protection equipment against falling	According to Table E	
F	Additional safety distance	According to Table F	
M	Minimum clearance to be maintained		

**NOTE**

The fall arresting device IKAR type HWS 9 has been successfully tested for horizontal application and a fall over the edge simulated from this. Based on this test, the fall arresting device IKAR type HWS 9 is suitable for use over edges with a radius of  $r \geq 0.5$  mm according to EN and of  $r \geq 0.13$  mm according to ANSI and are typically present on rolled steel, concrete and wooden beams or panels.



When fitting the safety harness IKAR type IK G 20 B / B 38 D, users must ensure:

- That all webbing and straps must lie flat against the body with no twists or turns
- The leg loops are adjusted in length so that they fit snug into the groin (do the two finger test)
- All buckles are connected correctly



## Operating manual

### WARNING



- The use or combination of the FreeFalcon – Mobile Fall Protection Anchor V21-1 with components from manufacturers other than those listed under A to E can lead to much higher values or unforeseeable deviations in the minimum clearance calculation.
- When using or combining the FreeFalcon – Mobile Fall Protection Anchor V21-1 with components other than those listed under A to E, their manufacturer or the operator must provide proof of suitability and effects on minimum clearance.
- All information about the minimum clearance is based on a free fall from a standing position. Falls under different conditions such as swinging falls, jumping or rolling over the edge or falling backwards can lead to an increase in the required minimum free space and must be kept to a minimum.
- The Connectors from manufacturers other than those listed under A to E must be limited to a maximum of 6 kN.

### GEFAHR



The use or combination of the FreeFalcon – Mobile Fall Protection Anchor V21-1 with fall-absorbing connectors (EN355) from manufacturers other than those listed under A to E can lead to much higher values or unforeseeable deviations in the minimum clearance calculation.



## Operating manual

### 4.2 Delivery condition

The standard delivery of a new device includes:

- A completely assembled and tested device in safety configuration with a valid accident prevention regulation CE Label
- Tool required for erecting the Fall Protection Anchor
- Valid operating instructions for the device
- Valid device logbook
- Valid inspection logbook with an initial certificate for accident prevention regulation examination
- Current spare parts list

### 4.3 Configuration states



Position in safety configuration



Default state

The position in the safety configuration allows the device to be transported and stored at a lower height and with a lower centre of gravity.

In normal operation, the device may be returned to its base state by a instructed operator or qualified technician by using the integrated pumping device (see [chapter 4.3.2](#)).

#### DANGER



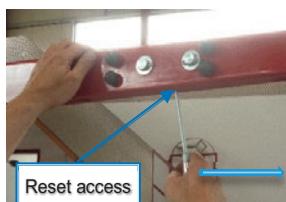
- Erecting and resetting after a fall is only permitted by qualified personnel and must be documented in the inspection logbook.
- Intended configuration changes from the basic state to the safety configuration may be performed by qualified technician trained by the manufacturer who are recorded in the inspection logbook.
- After an intended configuration change without a fall, the device must be checked as described in the [chapter 4.6.3](#).



## Operating manual

### 4.3.1 Resetting the safety trigger

After triggering the safety function, the safety valve located in the base mast must be closed and the catch slide must be pushed back to its original position.



Insert the supplied tool, at an angle of approx. 45°, through the hole of the reset access on the underside of the extension arm to the catch slide.

By levering forward with the tool, the catch slide is pushed back. The engagement of the catch slide is indicated by a clear click on the extension arm.



Pushing the lever upwards closes the trigger valve.  
Make sure that the lever is completely in the base mast after closing the valve and cannot be pulled back.



After the reset, check the mechanical connection of the safety catch with the safety valve by pulling lightly on the Bowden cable sheath. It must not be possible to pull the sheath of the Bowden cable out of the guide sleeve.

#### DANGER



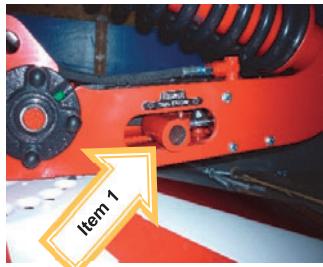
- Devices that have moved into the position of the safety configuration after a fall must be immediately removed from the work area and marked with the “Defect” sign on the Fall Protection Anchor.
- Triggering of the safety function must always be noted immediately in the inspection logbook.
- After the safety function is triggered due to a fall, the device may only be reset and re-erected by qualified technician.
- After being erected after a fall, the device must undergo a full accident prevention regulations inspection.



## Operating manual

### 4.3.2 Erecting the Fall Protection Anchor

The erection of the Fall Protection Anchor can be carried out by hydraulically tensioning the safety unit using an integrated pump in the swivel head.



To do this, remove the supplied pump tube on the inside of the push rod.

Insert the pump tube as far as possible into the opening of pumping lever **item 1**.

Pump the fall protection anchor up slowly with full pump strokes.



As the anchor point height increases, so does the effort required for the pump strokes.

Observe the system pressure rising on the pressure gauge at **item 2**.

The complete erection of the Fall Protection Anchor is achieved at a pressure of **110 to 130 bar**.

**After erecting, the device must be checked as described in the chapter Inspections 4.6.3.**

#### CAUTION



When the mechanical end position of the safety unit is reached, the pressure in the hydraulic system and the required pumping force increase suddenly.

Irreparable damage of the device will result if the operator increases the pressure starting at 150 bar.



## Operating manual

### 4.3.3 Releasing the rotation lock

#### DANGER



The safety configuration is the result of the rotation lock being activated.

In order to ensure that the resulting forces can be absorbed correctly by the device in the event of a fall, it is imperative that the rotation lock is released after the erection procedure is completed.



Raise the locking pin of the rotation lock to the top stop with the delivered tool.

Check whether the swivel head can rotate freely.

### 4.3.4 Lowering the Fall Protection Anchor

For the purpose of transportation or maintenance, it is possible to move the unit into the safety configuration (lowering the Fall Protection Anchor).



The lowering of the Fall Protection Anchor can be forced by a strong and fast tug on the safety lifeline, even when there is no actual fall.

In contrast to the Fall Protection Anchor being lowered in the event of a fall (automatic activation) lower mechanical forces are generated on the device during forced lowering.



**Do not step behind or under the device components**



## Operating manual

### 4.4 Relocating the device

#### WARNING



Death or serious injury can result in using damaged or insufficient dimensioned lifting gear and sling equipment.



Sling equipment and lifting gear should be checked for an adequate load-bearing capacity and proper condition before use.

The accident prevention regulations of the relevant national and supervisory authorities must be observed.

Walking under loads is strictly prohibited.

#### 4.4.1 Relocation using a crane

#### NOTE



The base plate has four sufficiently dimensioned load attachment points with a tensile load of at least 4000 N per eye.

To lift the device, a permissible four-strand round sling harness with sufficient load capacity and length must be used.

Make sure that no strands of the harness can come into contact with components of the unit structure (base mast, push rod, extension arm) when lifting the load.



#### Load attachment points



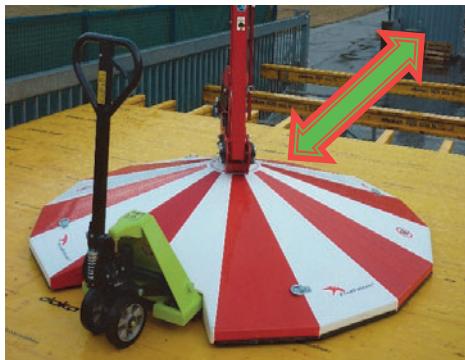
Load attachment points only  
for relocation with crane  
systems

**Not an anchor point for  
PPE**



## Operating manual

### 4.4.2 Relocation using an industrial truck



The device has a recess in the base plate specially designed for relocation using an industrial truck (such as a forklift, or hand-operated pallet truck).

The shape of the recess is matched to the dimensions of a commercial lift truck.

#### DANGER



When relocating using industrial trucks e.g. pallet trucks, these are to be completely removed from the base plate.

It is strictly prohibited to use the device in a raised position.

#### WARNING



The accident prevention regulations of the relevant national and supervisory authorities must be observed.



Walking under loads is prohibited.

Maintain a safe distance from the transporting load.

When transporting on slab-formwork, a minimum load capacity of 120kg/m<sup>2</sup> is required.

#### CAUTION



When transporting via a pallet truck, pay attention to the condition of the surface travelled on.

Deformation or damage may occur due to incorrect distribution of weight on to an industrial truck.

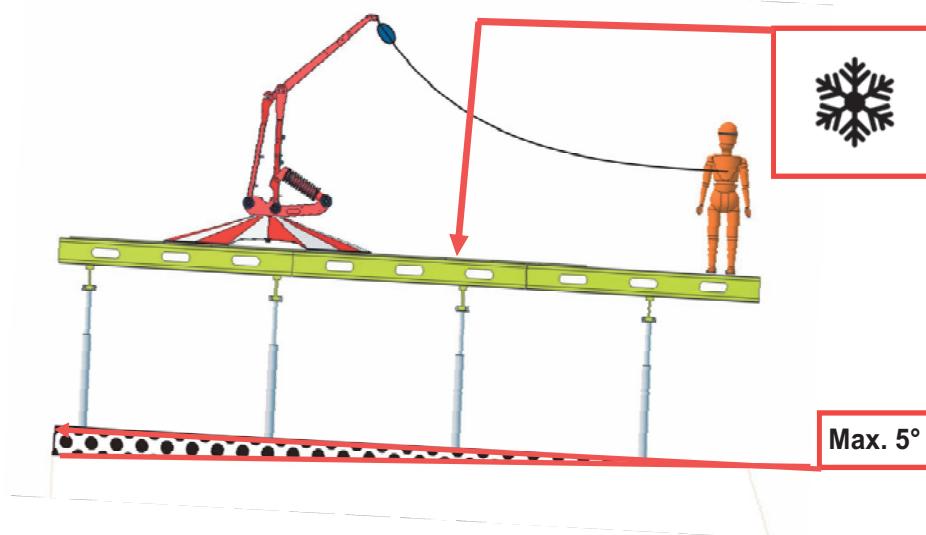


## Operating manual

### 4.5 Device location

Ensuring the operational safety of the device is also dependent on the properties of the device location during use.

#### 4.5.1 Installation surface



##### WARNING



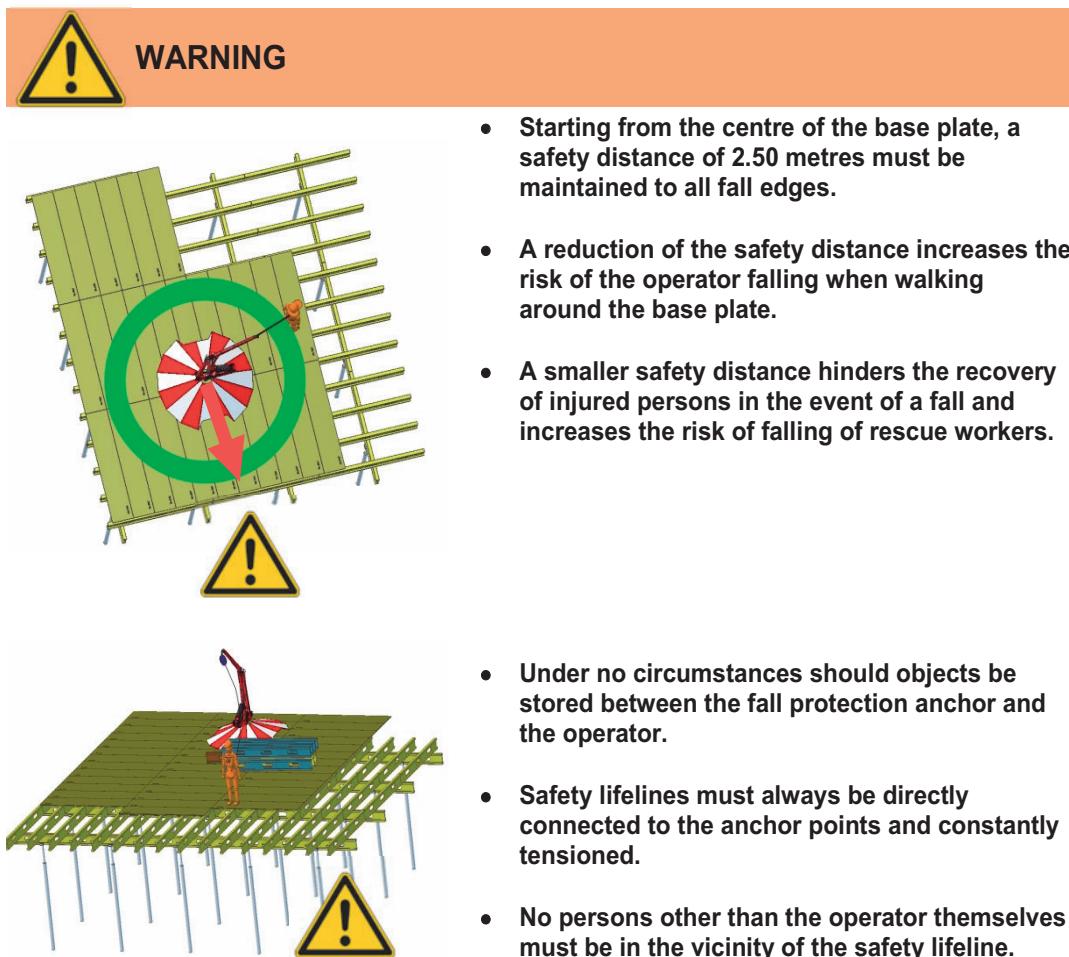
- The installation surface must not be covered with snow or ice.
- There must be no formwork release agents, sand, gravel or similar between the device and the installation surface.
- The load capacity of the installation surface must be at least  $120 \text{ kg}^2$ .
- The angle of the installation surface must not exceed  $5^\circ$ .
- There must not be any corrosive or other hazardous substances present on the installation surface.
- Possible fall areas must be freely accessible to rescue workers.



## Operating manual

### 4.5.2 Safety distance

In order to ensure safe operation of the device and proper safety for the operator, a sufficient safety distance must be maintained from the device to possible fall edges or objects.



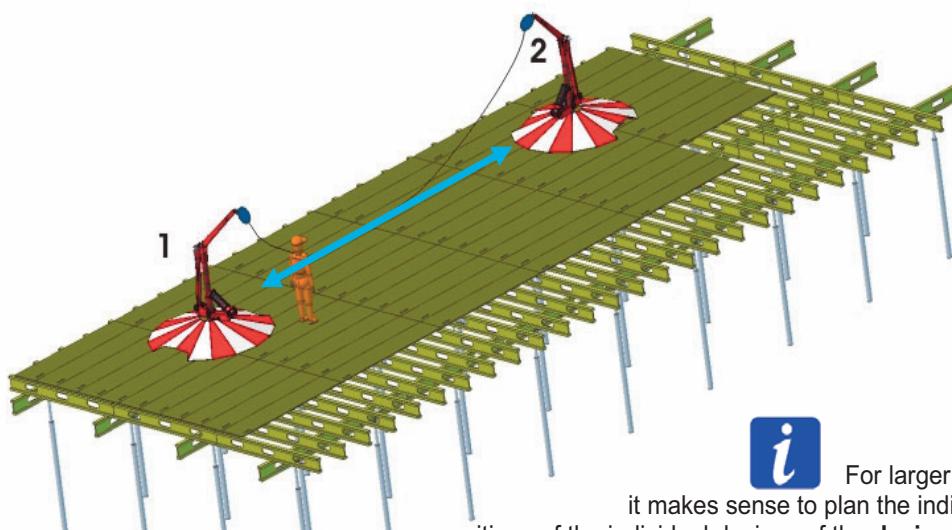


## Operating manual

### 4.5.3 Device relocation during operation

By using two devices, it is possible to secure the operator to a second device and then move the first device.

By using two or more devices (**device chain**), the operating radius of the operator can be increased severalfold, depending on the length of the lifeline of the PPE equipment (max. 9 metres), without moving the individual devices.



For larger areas  
it makes sense to plan the individual  
positions of the individual devices of the **device chain**  
in detail before the start of construction.

#### Examples – changing the Fall Protection Anchor:

1. The operator is secured with **device 2** and goes to **device 1**
2. The operator now secures themselves to **device 1** and releases their connection to **device 2**
3. The operator then carries the released carabiner back to the fall arrester block on **device 2**
4. Depending on the length of the PPE equipment, the operator can now move freely in the radius of **device 1** or extend **device 2** accordingly

#### DANGER



- The operator must always be secured when changing from one fall protection anchor to another fall protection anchor.
- The relocation of devices used for your own or other operators security during the relocation is strictly prohibited.
- The operator must never be secured to two or more fall protection anchor at the same time while performing work.



## Operating manual

### 4.5.4 Formworking (slab formwork)

Before each use, the intended position of the equipment must be precisely planned according to the required tasks and surface conditions as well as the options for rescue or recovery.

It is advisable to carry out and document a detailed risk analysis.

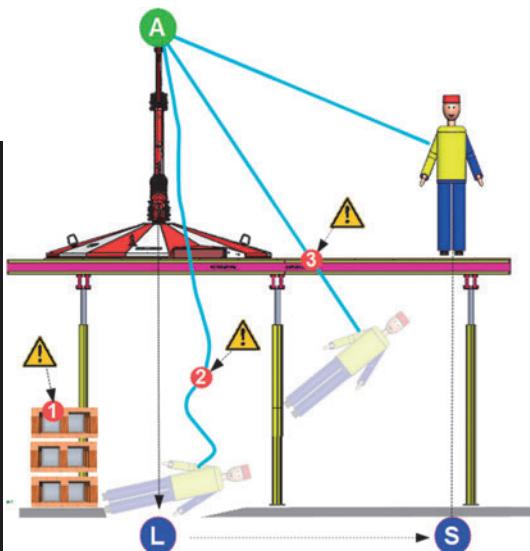
#### Swing falls

In addition to the usual known risks of a free, unhindered fall, there is also the risk of a sideways swing fall when covering slab formwork.

In this situation the user is not directly below the attachment point (**A**), but to the side (**S**).

A person who falls from this position will swing unhindered towards the perpendicular axis (**L**) of the anchor point.

<b>DANGER</b>	
	<ol style="list-style-type: none"> <li>1. A swing fall increases the risk of hitting an obstacle from the side.</li> <li>2. A swing fall increases the required minimum clearance.</li> <li>3. Abrasion at the edge caused by a swing fall can cause the lanyard to tear.</li> </ol>



<b>WARNING</b>	
	<ul style="list-style-type: none"> <li>• During planning, avoid creating walkways with an increased risk of swing falls.</li> <li>• Distances where there is an increased risk of swing falls must always be limited to no more than 1.5 meters (distance between the axes <b>L</b> and <b>S</b>)</li> </ul>



## Operating manual

### 4.5.5 Example use

	<p>Before work starts, plan the quantity of tools and materials that will probably be needed.</p> <p>Plan the positioning of the device(s) to be used before work starts.</p> <p>Avoid creating additional hazards by inappropriate or unnecessary storage of tools or building material in the work area.</p>
--	--

### The right system

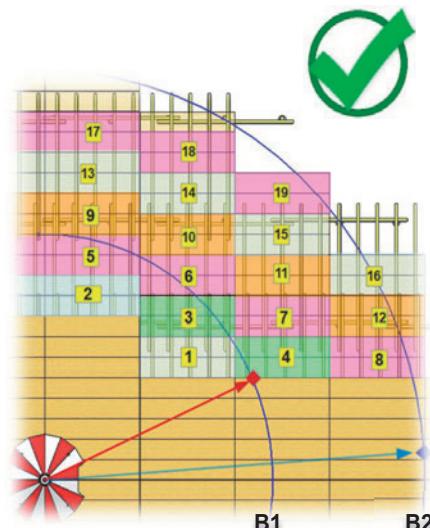
To minimize the risk of swing falls, covering should start from the center of the base plate and proceed forward in a semicircular direction.

#### An example is shown on the right:

The formwork sections are always laid two at a time forwards in a semi-circle starting at position 1 in sequence up to position 19.

This method of covering creates enough corners to limit swing falls.

The risk of swing falls can also be further reduced by moving the device early enough and/or by using fall arresters with shorter ropes.



### CAUTION



The illustrations only show half of the covering procedure and the numbering refers to a lanyard with a 9 m extension length (working radius B2)

- B1 Working radius of fall arrester with 6 m lanyard
- B2 Working radius of fall arrester with 9 m lanyard

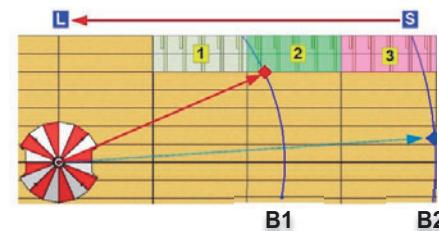
### The wrong system

#### An example is shown on the right:

In covering procedure shown here, the formwork sections were laid in a line from position 1 to position 3.

This creates a gangway with a high risk of swing falls along the edge from **L** to **S**.

Anyone falling from position **S** would swing unhindered to position **L**, resulting in irreversible or fatal injury.





## Operating manual

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### 4.6 Safety inspections

In order to ensure the operational readiness and the safe operation of the device, inspections must be carried out and documented at various intervals or after configuration changes.

Unchecked or damaged devices must be removed from the place of use immediately and marked with a "Defect" sign.

Re-commissioning after a fall is only permitted after a thorough inspection by a qualified person authorised by the manufacturer and as specified in the maintenance manual.

#### 4.6.1 Group of persons authorised to perform inspections

##### Operators are entitled:

- To carry out inspections within margin of their instructions
- Remove a damaged or faulty device or its equipment from the work area
- Document daily inspections in the logbook

##### Qualified technicians are entitled:

- To carry out and document all mandatory inspections
- Remove a damaged or faulty device or its equipment from the work area



## Operating manual

### 4.6.2 Daily inspection

Group of persons authorised to perform inspections	Inspection logbook entry	Inspection interval	Inspection method
Operator and qualified technician	Required	Daily	
<b>The operator must ensure that:</b>			
	<ul style="list-style-type: none"> <li>• The device is fundamentally ready for use on the basis of the inspection logbook</li> <li>• The accident prevention regulations inspection is still valid</li> <li>• The inspection logbook and the operating instructions are complete and accessible at all times</li> </ul>	Check = _____	
	<ul style="list-style-type: none"> <li>• The markings are present on the device and easy to read</li> <li>• The anti-slip plates are complete and functional</li> <li>• The system pressure is at least 110 bar</li> <li>• No hydraulic leaks are visible</li> <li>• No components are loose, damaged or removed</li> <li>• The swivel head is unlocked and easily rotatable</li> <li>• No welds have break points</li> <li>• No components have visible deformations</li> <li>• The Fall Protection Anchor is clear and in the correct condition</li> <li>• The four load attachment points are checked for tight fit and deformation</li> <li>• The PPE equipment and harness specified for the application are acceptable, suitable and in good condition</li> <li>• No objects or contamination prevent the safety configuration</li> </ul>	Visual inspection = _____	
	<ul style="list-style-type: none"> <li>• In case of defects or complaints, the device is taken out of service</li> <li>• The test result is recorded in the inspection logbook</li> </ul>	Action Entry	



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### 4.6.3 Special inspection after configuration change

Group of persons authorised to perform inspections	Inspection logbook entry	Inspection interval	Inspection method
Operator and qualified technician	Required	If necessary	
After a configuration change, in addition to the conditions of the daily inspections according to <a href="#">chapter 4.6.2</a> , the operator must ensure that:			
<ul style="list-style-type: none"> <li>• The lowering procedure according to <a href="#">chapter 4.3.4</a> was carried out unhindered and slowly</li> <li>• The safety valve was properly closed after the lowering process</li> <li>• No components of the safety valve have been loosened or damaged</li> <li>• The release cable on the safety valve is free and has not been damaged</li> <li>• The turn lock, as described in <a href="#">chapter 4.3.3</a>, has been unlocked</li> <li>• The system pressure has not been exceeded</li> <li>• No hydraulic components were damaged</li> </ul>			Visual inspection
<ul style="list-style-type: none"> <li>• In case of defects or complaints, the device is taken out of service</li> <li>• The test results are recorded in the inspection logbook</li> </ul>			= = =
			Action
			Entry



## Operating manual

### 4.6.4 Inspection by qualified technician

#### NOTE



Qualified technicians are persons who have achieved a fundamental knowledge of the functioning and safety equipment through training from the manufacturer.

Qualified technicians are entitled, on the basis of their technical training and their knowledge of the relevant regulations, to independently perform and document the work and inspections assigned to them.

Qualified technicians must be entered in the inspection logbook and clearly designated.

- 4.6.4. (a) Annual accident prevention regulations inspection
- (b) Need-based inspection after a fall
- (c) Need-based inspection after maintenance or defect

Group of persons authorised to perform inspections	Inspection logbook entry	Inspection interval	Inspection method
Qualified technician	Required	(a) (b/c)	Annually As needed
<b>The activities of an inspection by a qualified technician include:</b>			
<ul style="list-style-type: none"> <li>• Performance of daily inspection according to <b>4.6.2</b></li> <li>• Performance of accident prevention regulation inspections and maintenance according to the instructions in the maintenance manual</li> <li>• Disassembly and inspection of the extension arm and anchor point</li> <li>• Comprehensive inspection and maintenance of the base mast, safety unit, swivel head and base plate assemblies</li> <li>• Regular replacement of safety-relevant components</li> <li>• Recording of the test result in the inspection logbook</li> <li>• Labelling of the device with a valid accident prevention regulation CE Label</li> </ul>			(a/b) Action (b) Action (b) Action (a/b) Action (a/b) Action Entry Action



## Operating manual

## 5.0 Service and maintenance

### 5.1 Cleaning and lubrication

The maintenance and service work of the operator is limited to the cleaning of the device and lubrication of the ten spherical bearings if necessary.

#### NOTE



- When cleaning, avoid the use of high pressure cleaners or steam pressure cleaners.
- We recommend cleaning the device by hand, using water and commercial cleaning agents for machines.
- When cleaning the device, make sure that the Bowden cables, hose lines and warnings are not damaged.
- Cleaning work must always be carried out in the safety configuration.

### 5.2 Maintenance and repair

Any required maintenance or repairs may only be performed by qualified technicians.

Qualified technicians are persons who have achieved a fundamental knowledge of the functioning and safety equipment through training from the manufacturer (registered certificate).

- Maintenance work must be carried out every twelve months in conjunction with the safety inspection and in accordance with the maintenance manual.
- Repair or mandatory replacement of faulty components shall be in accordance with the maintenance manual.
- Maintenance, repair and tests must be documented in the inspection logbook.



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### 5.3 Maintaining the inspection logbook

The operating company is obliged to maintain a complete inspection logbook.

The information listed in the inspection logbook provides fundamental information about the operating status of the device.

**The inspection logbook must document in principle:**

- Report and date of accident prevention regulations inspection
- A shutdown after a fall
- A shutdown due to a defect
- Inspection and restart after a fall
- Check after configuration changes
- Confirmation of the daily inspection

#### **WARNING**



The inspection logbook must be accessible to every person who is responsible for the operation of the device.

Entries must be made by the authorised group immediately.

### 5.4 Decommissioning the device

All persons are entitled to shut down the device if there are reasonable doubts about the operational safety of the device.

Authorised persons must remove the decommissioned equipment from the place of use immediately and mark it with a "**Defect**" sign.

The shutting down of a device must be immediately reported to the operating company for further action and noted in the inspection logbook.

Re-commissioning is only permitted after an appropriate inspection by a qualified technician.



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### 5.5 Disposal

The main components of the device are made of steel and can be disposed of completely or in part via the usual disposal procedure for steel scrap.

Special attention during disposal must be paid to the hydraulic system and the safety unit.

#### DANGER



- Before disposal of the safety unit, it must be dismantled by a qualified technician according to the instructions in the maintenance manual.
- In the assembled state, improper handling may result in a serious injury during disposal due to the tensioned spring.

#### NOTE



- Grease, drained oils and hose lines must be disposed of separately in accordance with the applicable regulations.
- Cleaned pumps and hydraulic pipes can be disposed of together with steel scrap.



## Operating manual

# 6.0 Appendix

## 6.1 Safety systems

The anchor device type: FreeFalcon – Mobile Fall Protection Anchor V21-1 is used to secure a person against falling. The wire cable eyelet (see [chapter 2.3](#)) is an approved anchor point on the upper end of the extension arm. The purpose of the anchor point is to attach the personal protective equipment (PPE) fall arrester of the user. To create a complete safety system, depending on the application, the device must be combined with the following equipment:

### 1. Use as a restraint system:

The user is secured to the FreeFalcon – Mobile Fall Protection Anchor V21-1, their range of motion is limited enough that they cannot reach the fall edge(s) under any circumstances.

In this case, the user must combine the following with the FreeFalcon – Mobile Fall Protection Anchor V21-1:

- (Sufficiently short) connection equipment according to EN 354
- Safety harness according to EN 361
- Connectors in accordance with EN 362 B

### 2. Use as fall arrest system:

The user is secured to the FreeFalcon – Mobile Fall Protection Anchor V21-1, their range of motion is large enough that they can reach the fall edge(s). In this case, the user must combine the following with the FreeFalcon – Mobile Fall Protection Anchor V21-1:

#### with retractable fall arrester according to EN 360 / FPrEN 360:2022

- Fall arrester according to EN 360 / FPrEN 360:2022
- Safety harness according to EN 361
- Connectors in accordance with EN 362 B

## DANGER



The use of the FreeFalcon – Mobile Fall Protection Anchor V21-1 as a fall protecting system without a retractable fall arrest system is strictly prohibited.



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### 3. Other use

#### WARNING



The use of the FreeFalcon – Mobile Fall Protection Anchor V21-1 as

- Workplace positioning system is not allowed
- Rescue system is under NO circumstances allowed
- Rope-assisted access system is not allowed

Connectors in accordance with EN 362 B must be used when the device is in use.

The manufacturers instructions are to be followed when combining the FreeFalcon – Mobile Fall Protection Anchor V21-1 with individual elements and equipment.

### 6.2 Tested combination options from different manufacturers

Fall arrester according to EN360 / FPrEN 360:2022	Full body belt system according to EN361	Connecting equipment EN 354	Note
IKAR / FreeFalcon	FreeFalcon		



The use of optional equipment **not** listed in the table or changing the system variants means that the device (FreeFalcon – Mobile Fall Protection Anchor V21-1) loses its conformity with European directives and standards (CE).



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### 6.3 Manufacturer specifications and service

Designation	Address	Contact	Note
Manufacturer	FreeFalcon GmbH Johanniterstrasse 50 72160 Horb am Neckar Germany	E-mail: <a href="mailto:info@freefalcon.de">info@freefalcon.de</a> Tel.: +49 7451 6240276	
Patent	FreeFalcon GmbH Johanniterstrasse 50 72160 Horb am Neckar Germany	E-mail: <a href="mailto:info@freefalcon.de">info@freefalcon.de</a> Tel.: +49 7451 6240276	
Qualified training and accident prevention regulation tests	FreeFalcon GmbH Johanniterstrasse 50 72160 Horb am Neckar Germany	E-mail: <a href="mailto:info@freefalcon.de">info@freefalcon.de</a> Tel.: +49 7451 6240276	
Examining body EC-type examination	<b>CE 0158</b> DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany		
Construction / Technical Documentation	FreeFalcon GmbH Johanniterstrasse 50 72160 Horb am Neckar Germany	E-mail: <a href="mailto:info@freefalcon.de">info@freefalcon.de</a> Tel.: +49 7451 6240276	

	<p>If you have any questions about the safe use of the FreeFalcon – Mobile Fall Protection Anchor V21-1, please contact us.</p> <p><b>FreeFalcon GmbH</b>  <b>Johanniterstrasse 50</b>  <b>72160 Horb am Neckar</b>  <b>Germany</b></p>	<p>Tel.: +49 7451 6240276</p> <p>E-mail: <a href="mailto:info@freefalcon.de">info@freefalcon.de</a></p>
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