

OPERATING MANUAL

FALPRO – Multi-Purpose Bridge



FreeFalcon GmbH

Johanniterstraße 50
72160 Horb am Neckar
Germany

Phone: +49 7451 6240276
Fax: +49 7451 6240277
E-Mail: info@freefalcon.de

Contents

Cover sheet	Page	1
Table of contents / General information	Page	2
Responsibilities	Page	3
Key to the signs	Page	4 / 5
Product description and use	Page	5
Main component	Page	6
Operating bans	Page	7
Views	Page	8
Technical data	Page	9
Storage and transport	Page	10
Stacking	Page	11
Moving by crane	Page	12
Cover sheet	Page	13
Preparing the multi-purpose bridge for use	Page	14
Erecting the fall protection	Page	14
Assembly of several multipurpose bridge modules	Page	15
Support loads	Page	16
Deflection behaviour	Page	17
Installation and removal	Page	18

General

This document is the English translation of the original description. All information contained therein is written in English.

The Falpro – multi-purpose bridge must always be provided with a description in the language of the corresponding country in which it is:

- made available for the first time; or
- is used as intended for the first time.

If the description is not available in the language of the country of use, the person who introduces or operates the platform in the respective language area must provide a corresponding translation into the language of that country.

In order to ensure use in accordance with the intended purpose, all legal safety regulations and the safety instructions in this description must be observed.

The manufacturer accepts no liability whatsoever for damage caused by improper use or incorrect handling.

Regarding all objects combined with the Falpro – multi-purpose bridge, only the regulations and specifications of the corresponding component manufacturer apply.

Display representation

The graphics used in these instructions may be incomplete for better visualisation. Components or assemblies can be shown in different views in different scales.

Unless expressly stated otherwise, the graphics describing the system apply to all sizes and model variants of Falpro – multi-purpose bridge.

Validity of the documentation

Rev.	Reason	Valid starting from
R0	First Edition	23.11.2023

Qualification and responsibility

During the planning phase, clearly define who is responsible for the following activities in connection with the Falpro – multi-purpose bridge for the activities listed below.

- **the operator(s)**
- **the person(s) responsible for health and safety coordination**
- **the competent personnel**
- **the instructed personnel**

Area of responsibility of the operator

- The operator or his authorised representative is obliged to comply with all legal regulations and safety and safety regulations applicable at the place of use and to monitor them.
- The operator or his authorised representative is obliged to train the relevant personnel at regular to train and (or) instruct the relevant personnel at regular intervals (at least once a year).
- The operator or its authorised representative is obliged to check the level of knowledge of the personnel.
- The operator or its authorised representative is obliged to document the training / instruction. document the training/instruction.
- The operator or his authorised representative is obliged to check whether the personnel works in a safety-conscious and hazard-conscious manner and observes the operating instructions.

Area of responsibility of the assigned safety coordinator

- Promptly recognising and assessing potential hazards.
- Developing suitable measures and plans to protect against hazards and health.
- Monitoring compliance with and application of existing protective measures.
- Coordination in terms of hazards and health between all persons or institutions concerned.

Qualified personnel

- Qualified personnel are appointed by the operator.
- Qualified personnel must be comprehensively trained in the use of Falpro – multi-purpose bridge by the operator or their authorized representative.
- Qualified personnel are fully entrusted with the contents of the instructions for Falpro – multi-purpose bridge and are able to apply this knowledge and, if necessary, pass it on to third parties (through instruction).
- Qualified personnel have further expertise in dealing with the required measuring or test equipment, as well as sufficient knowledge of the applicable regulations and laws.
- Qualified personnel are authorized to independently carry out and document the work and inspections assigned to them, using their specialist training, professional experience and knowledge of the relevant regulations.

Instructed person

An instructed person is a person who is professionally qualified for the tasks assigned to them and who has received comprehensive instructions from the operator or their authorized representative on the following key topics:

- Possible danger to third parties due to objects falling from the Falpro – multi-purpose bridge.
- Effects on safety in a wide range of weather conditions
- knowledge of the maximum permissible loads (traffic load / surface load and wheel load)
- negative weather-related effects on the permissible traffic load
- precise knowledge of the procedures to be used when setting up and dismantling a Falpro – multi-purpose bridge
- precise knowledge of the procedures to be used when moving a Falpro – multi-purpose bridge
- precise knowledge of the procedures to be used when storing and transporting a Falpro – multi-purpose bridge
- procedure in the event of faults or potential hazard points caused by the influence of third parties
- visual inspection points to be carried out daily

Symbols and explanation of signs in these instructions

In this description, the text sections relevant to safety are classified according to their danger level and highlighted with corresponding symbols in accordance with ASR A1.3/ISO 7010.

DANGER	
	<p>Indicates an imminent danger.</p> <p>Failure to observe the instruction may result in death, disability or serious physical injury.</p>
WARNING	
	<p>Indicates a possible imminent danger.</p> <p>Failure to observe the instruction may result in death, disability or serious physical injury.</p>
CAUTION	
	<p>Indicates a possible imminent danger.</p> <p>Failure to do so could result in minor to moderate physical injury and damage to property.</p>
NOTICE	
	<p>Indicates useful information within this description.</p>

Product description

The Falpro – multi-purpose bridge provides a safe crossing for many obstacles that are otherwise difficult to cross. It is suitable for pedestrians and wheelchair users.

The Falpro – multi-purpose bridge can be used wherever a temporary safe crossing is required, e.g. on construction sites, in the event of disasters (such as floods, landslides, etc.), various road works, concerts, exhibitions and many other applications.

As a single module, the Falpro – multi-purpose bridge can span an obstacle of approx. 2.00 metres. Thanks to the modular connection option, several Falpro – multi-purpose bridges can be joined together to form a longer multi-purpose bridge.

It is possible to use up to four modules unsupported (without aluminium profile girders). With a span of ten metres, obstacles of up to nine metres can be overcome. More than four modules can be assembled by supporting an aluminium profile girder or steel profile girder.

The guardrails can be folded down for space-saving storage or transport by lorry. By moving the two transport supports, up to five Falpro – multi-purpose bridges can be stacked safely and evenly on top of each other.

Intended use

The Falpro – multi-purpose bridge is used to safely cross obstacles such as ditches, bodies of water or in the event of a disaster (flooding, landslides).

The Falpro – multi-purpose bridge has a base frame (item 1) that spans obstacles. A slip-resistant step grid (item 2), which can optionally be covered with a closed cover plate (item 12), ensures safe crossing of the Falpro – multi-purpose bridge.

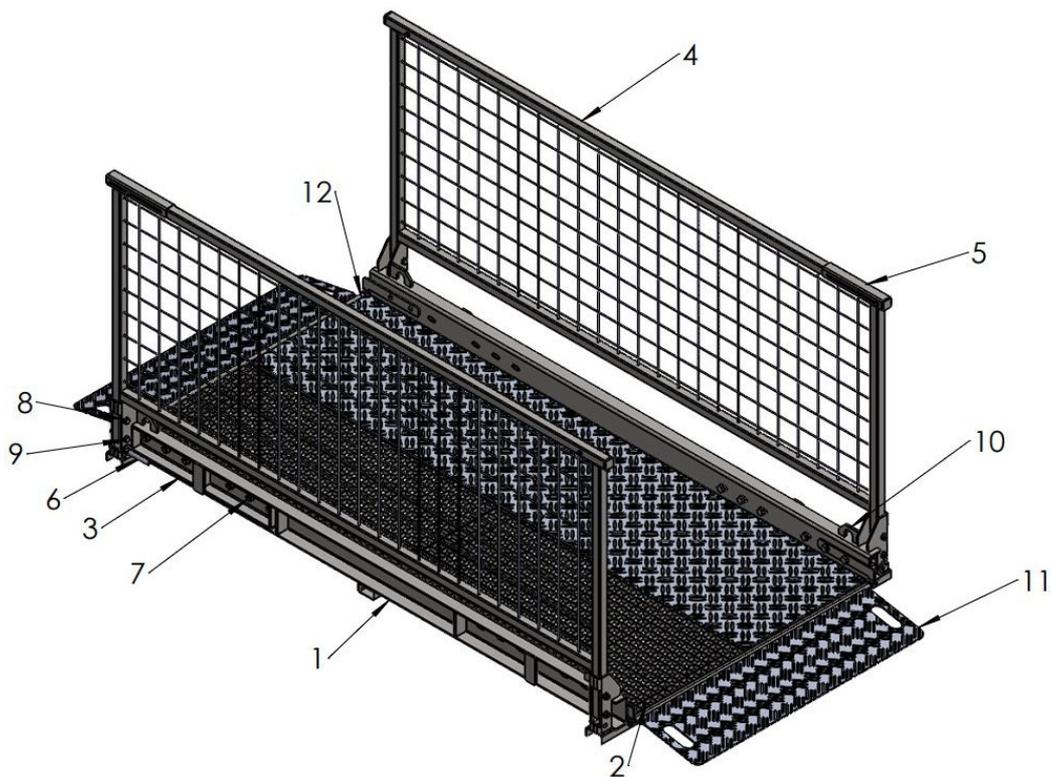
Several Falpro – multi-purpose bridge modules can be attached to each other using the base frame connecting element (item 3). The locking screw (pos. 6) and the fixing screws (pos. 7) can be used to connect up to four cantilevered modules.

The guardrails can be folded up using the swivel joint (pos. 8). If there are several modules, these are connected to each other using the connecting elements for guardrails (pos. 5).

The Falpro – multi-purpose bridge can be lifted into position using the lifting eyes (Pos. 10). Several connected modules can also be transported in this way.

The use of a Falpro – multi-purpose bridge is only authorised for crossing obstacles

Overview of the main components



- 1 Base frame
- 2 Step grid
- 3 Connecting element base frame
- 4 Guardrails
- 5 Connecting element guardrail
- 6 Locking screw
- 7 Fixing screw
- 8 Swivel joint
- 9 Safety screw for guardrail
- 10 Crane eye
- 11 Drag plate (optional)
- 12 Cover plate (optional)

Operating bans

DANGER



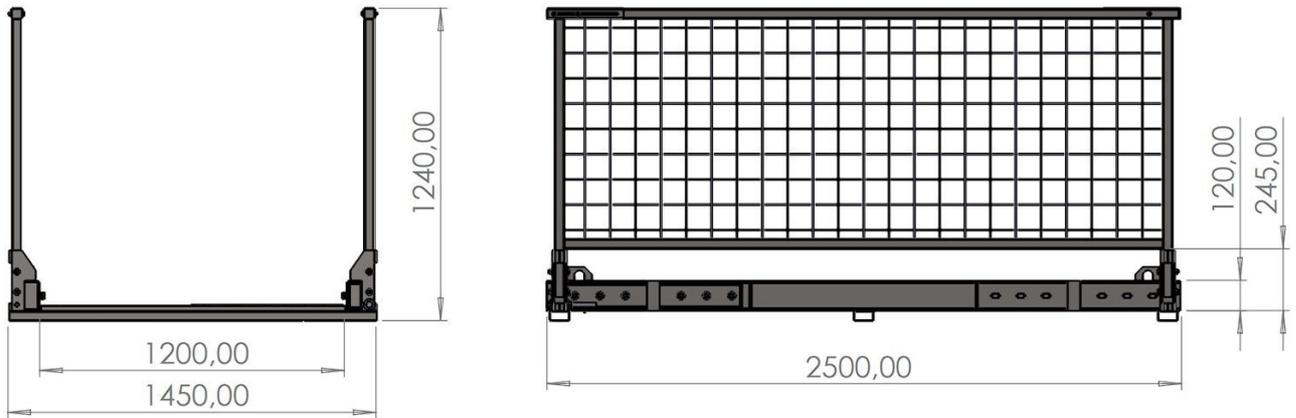
- Exceeding the permissible live load (V) is prohibited.
- Exceeding the surface load (p1) is prohibited.
- It is forbidden to walk on a damaged or untested Falpro – multi-purpose bridge.
- It is forbidden to walk on a Falpro – multi-purpose bridge without Guardrail (item 4).
- It is forbidden to walk on a Falpro – multi-purpose bridge without the Safety screw for guardrail (item 9).
- It is forbidden for persons or objects to remain on a Falpro – multi-purpose bridge while it is being removed or installed.
- The presence of persons or the storage of objects on a Falpro – multi-purpose bridge during relocation by crane or other lifting equipment is prohibited.
- Climbing onto or over the guardrails (item 4) of a Falpro – multi-purpose bridge is prohibited.

WARNING

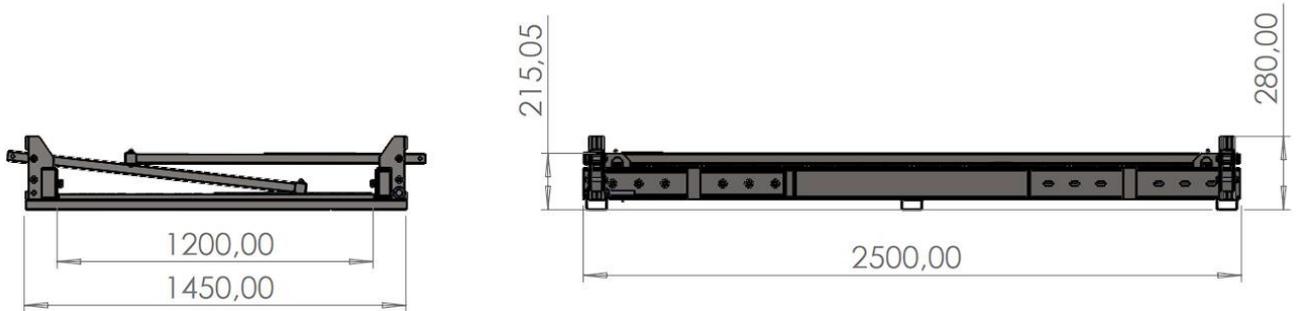


- Use without a risk assessment carried out in advance is not permitted.
- Deviations from safety-relevant procedures within these instructions are not permitted.
- The removal and installation of a Falpro – multi-purpose bridge is not permitted without assembly instructions drawn up by the operator or his authorised representative.
- Travelling on a Falpro – multi-purpose bridge with self-propelled industrial trucks is not permitted.
- The removal and installation of a Falpro – multi-purpose bridge by technically unsuitable personnel is not permitted.
- The removal and installation of Falpro – multi-purpose bridges and their use by personnel under the influence of drugs, alcohol or medication is not permitted.
- The removal and installation of Falpro – multi-purpose bridges by unqualified personnel is not permitted.
- The use of ladders or comparable work equipment on Falpro – multi-purpose bridges is prohibited.
- Leaning objects against guardrails (item 4) is prohibited.
- Subsequent welding work or drilling is prohibited.
- Combination with components from other manufacturers without prior authorisation from the manufacturer or the operator is prohibited.

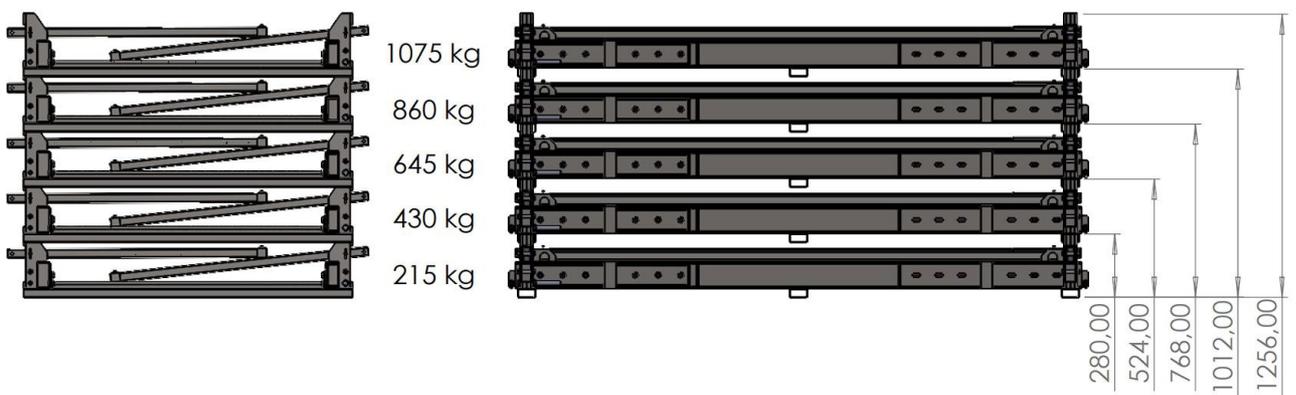
View in configuration for use



View in configuration for storage



View of maximum stacking block



Technical data

Type	71001 Falpro – multi-purpose bridge		
Dead weight	215,00 kg		
Traffic load (V)	max. 600,00 kg	(with 4 modules)	
Surface load (p1)	max. 400,00 kg / m²	(corresponding to load class 4)	
Bridge area	max. 1,24 m x 2,50 m	(ca. 3,00 m ²)	

Technical data – accessories

Type	71003 Drag plate
Dead weight	16,50 kg
Length	1,30 m
Width	0,30 m
Type	71004 Cover plate
Dead weight	8,00 kg
Length	2,49 m
Width	0,50 m

Hazard assessment

The operator or their authorized representative must prepare a hazard assessment and installation instructions for each user situation.

In particular, the following must be taken into account:

- **Contents of these instructions**
- **Measures prescribed by law**
- **Suitability and conditions of the structure**
- **Personal protective equipment for personnel**

WARNING



The operational safety of a Falpro – multi-purpose bridge can only be guaranteed if the general legal safety regulations and the safety precautions in these instructions are observed.

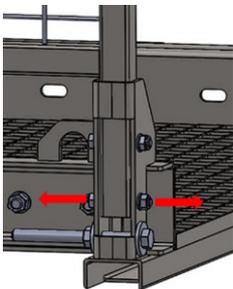
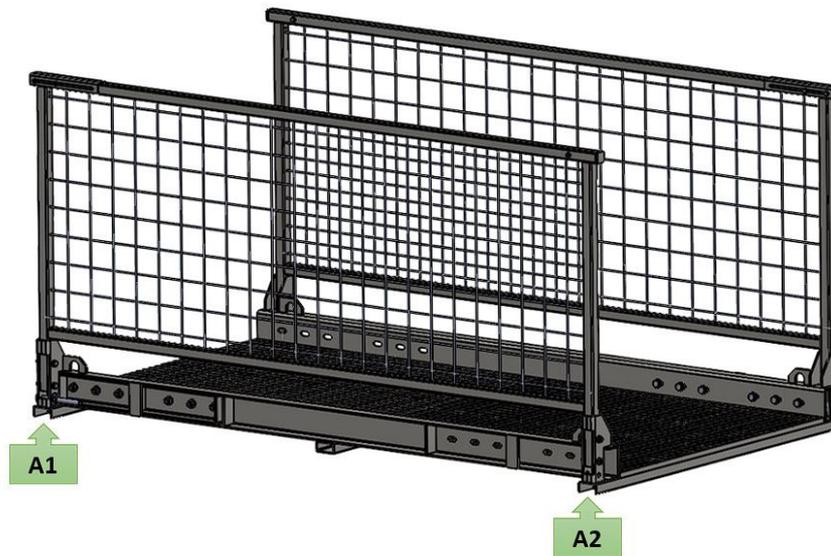
The manufacturer accepts no liability whatsoever for damage caused by improper use or incorrect handling.

The Falpro – multi-purpose bridge is intended exclusively for commercial use. Depending on the user situation, only suitable or trained personnel may be deployed for such use.

Storage and Transport

For storage or transport purposes, the guard rails of the Falpro – multi-purpose bridge (overview, Pos. 4) can be folded down.

The dead weight or the total stacking weight (max. 5 multi-purpose bridges) is distributed over the support points A1 and A2.

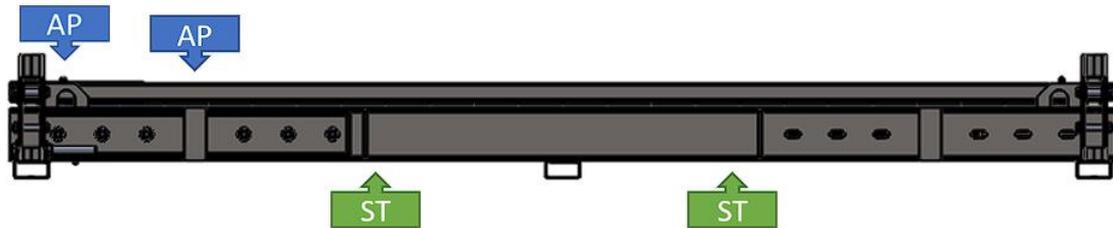


In the storage configuration, it is possible to stack up to 5 Falpro – multi-purpose bridges on top of each other.

Before stacking, make sure that the guardrails are in the storage configuration.

In order to reach the storage configuration, the two safety screw of each guardrails (overview, item 9) must be removed. Once the guardrails have been folded down, the safety screws can be reinserted into the holes provided.

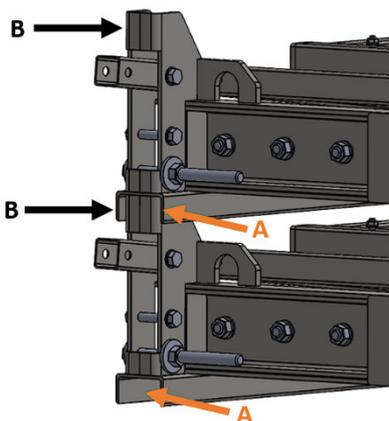
Stacking



For stacking or moving, the Falpro – multi-purpose bridge can be picked up from the side with a forklift truck in the designated area (ST).

The centre of gravity reference plane is in the middle of the Falpro – multi-purpose bridge.

When stacked, it must be ensured that the stacking supports (item A) of the lower Falpro – multi-purpose bridge protrude sufficiently into the recesses (item B) of the Falpro – multi-purpose bridge above.



For transport, each Falpro – multi-purpose bridge must be individually tensioned downwards at at least 4 points using suitable straps.

The reinforcement ribs or the crane eyes (AP) can be used to fasten the bracing.

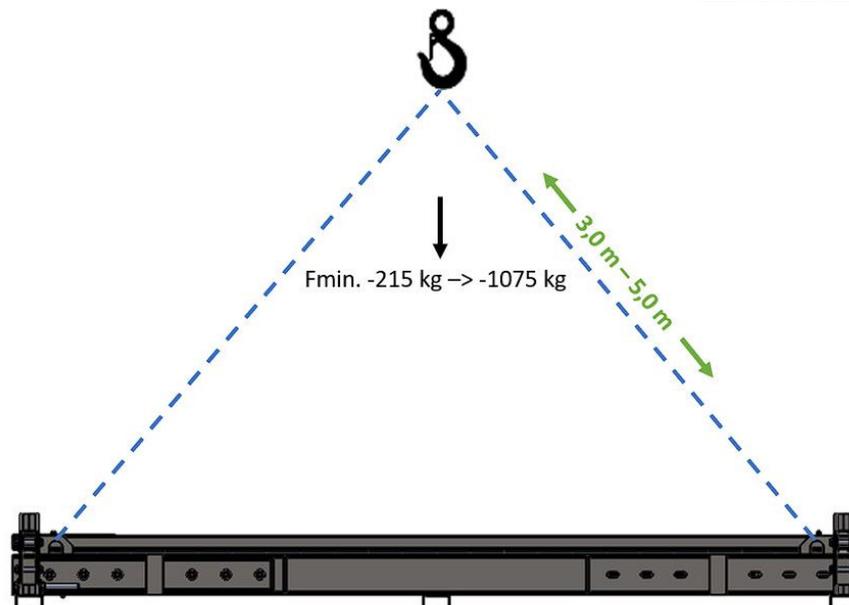
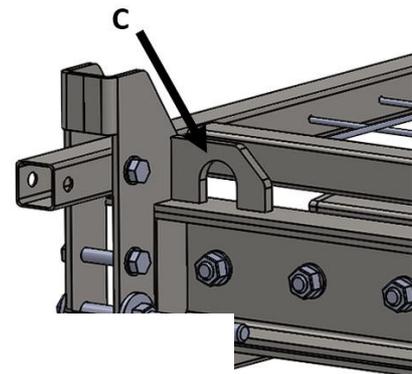
WARNUNG



- Transport or escape routes must not be blocked.
- Only suitable and authorised lifting gear may be used for the intended purpose.
- The regulations on load securing must be observed during transport.
- All slinging and tensioning equipment must be approved and in proper condition.
- Due to the risk of cutting, direct slinging with straps is prohibited.
- No persons may be under the lifted load.
- No persons or objects may be on the Falpro – multi-purpose bridge during the transfer.
- The surface to be travelled on when moving must be level and sufficiently firm.
- Moving more than one Falpro – multi-purpose bridge at a time (stacking block) is prohibited.
- It must be ensured that the surface intended for storage is level and can permanently withstand the loads in the area (A1 / A2).
- Moving by forklift on surfaces with a slope of more than 3° is prohibited.

Moving with crane

For moving or stacking the Falpro – multi-purpose bridges on the four lifting lugs on the base frame (overview, item 1) the loading hooks (Pos. C) of a four-legged hanger can be attached.



It is possible to move the bridge with the guardrails fully raised and secured by means of four-strand round sling harness. To do this, the four-strand round sling harness must be guided on the inside of the guardrails.

WARNING



- The total length of the individual hanger strands must not be less than the length specified above.
- The hanger used must be in proper condition.
- Lifting with less than 4 strands attached is prohibited.
- When lifting, a sufficient safety distance must be maintained between persons or objects and the Falpro multipurpose bridge.
- It is prohibited to attach hangers with a lower load capacity than the dead weight of the Falpro – multi-purpose bridge.
- Due to the risk of cutting, direct slinging with straps is prohibited.
- When slinging with straps, shackles with sufficient load capacity must be used.
- No persons or objects may be on the Falpro – multi-purpose bridge while it is being moved.
- The individual suspension strands must not be twisted.

Preparing the multi-purpose bridge for use

HINWEIS



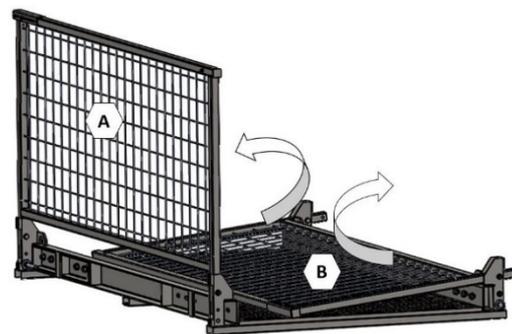
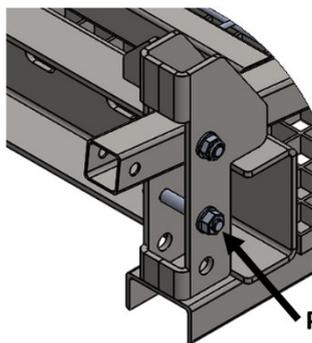
- A Falpro – multi-purpose bridge must always be prepared accordingly before use.
- Due to the size of the Falpro – multi-purpose bridge (especially with several modules) and the heavy weight of individual components, at least two trained persons must be used for preparation.
- A Falpro – multi-purpose bridge must be checked for proper condition after each preparation.

WARNING



- A Falpro – multi-purpose bridge must be checked by a trained person after each relocation to ensure that it is in proper condition and secured.
- It is forbidden to use improperly assembled Falpro – multi-purpose bridges. Especially when extending the Falpro – multi-purpose bridge with several modules.

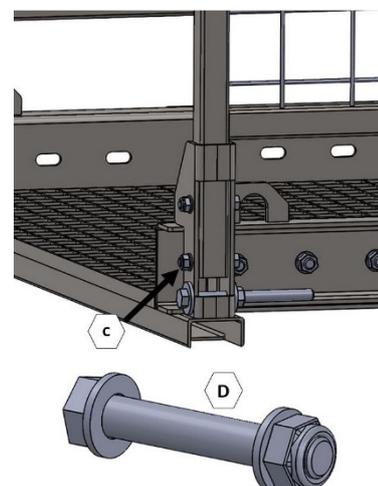
Erecting the guardrails



To raise the guardrails, first remove the safety screws (overview, item 9) from all the guardrail mounts.

Then fold the side guardrails (overview, item 4) all the way up one after the other. As shown in (A), then bring the second guardrail (B) into position (A).

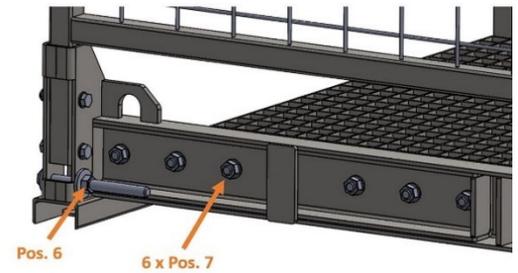
Then reinsert the safety screws into the holes (C) and screw them hand-tight.



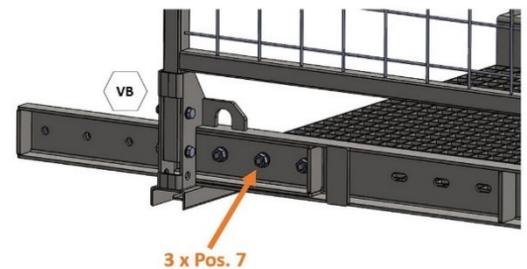
Make sure to use the entire safety screw set (D).

Assembly of several multi-purpose bridge modules

The span of the Falpro – multi-purpose bridge can be increased by connecting several Falpro – multi-purpose bridge modules. To do this, the connecting elements of the base frame (overview, item 3) are brought into the correct position and the six fixing screws (overview, item 7) and the locking screw (overview, item 6) are loosened.



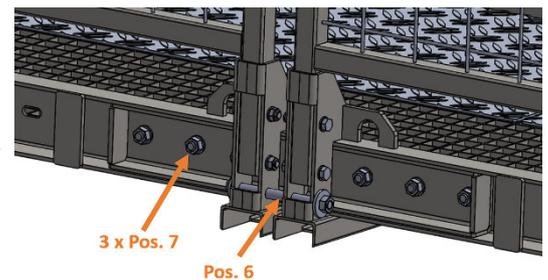
The connecting element is then brought into the connection position (VB) and screwed together (hand-tight) with three fixing screws (overview, item 7).



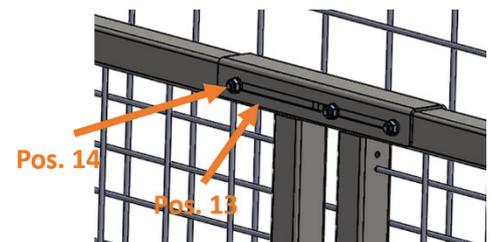
This step must be repeated for the module to be attached so that the modules are fixed on both sides.

Position another prepared module of the Falpro – multi-purpose bridge, insert it into the connecting elements and fix it in place with three fixing screws (hand-tight) (overview, item 7).

Once all the screws are in position, tighten the locking screw (overview, item 6). Then tighten the six fixing screws.



Then slide the guardrail connector (item 13) over the guardrail of the next module and secure it with the existing screw (item 14).



Up to four multipurpose bridge modules can be connected to each other using these steps.

NOTE



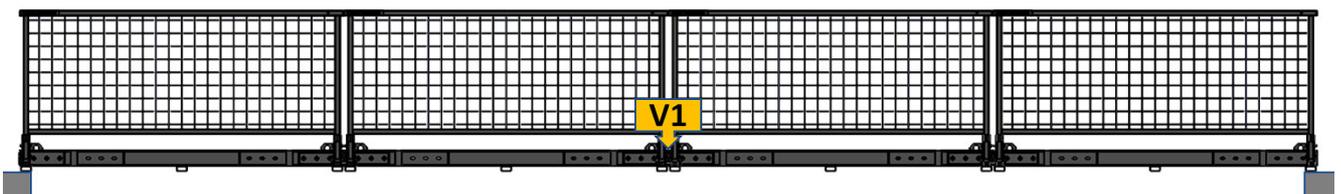
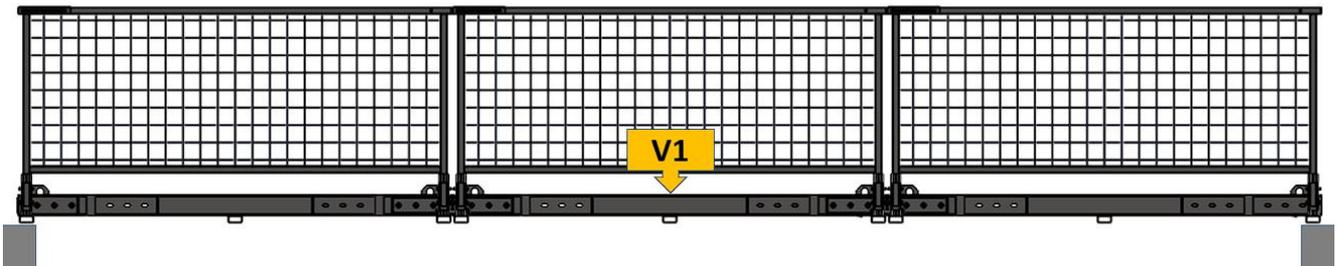
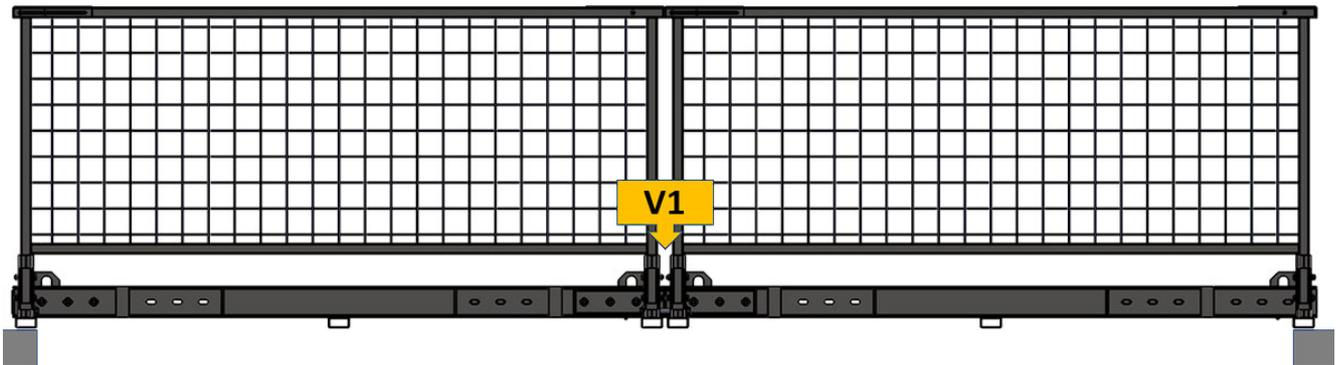
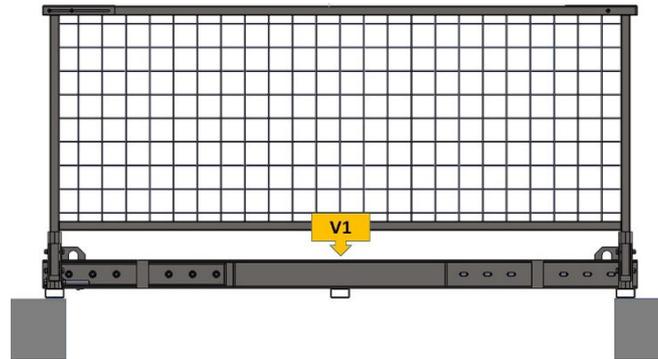
- Use a lifting iron to align the Falpro – multi-purpose bridge modules to each other and then, after alignment, insert the screws to fix them in place.
- For easy installation, use a flat and level surface

WARNING



- All screw sets must always be used during installation. It is forbidden to use fewer screw sets than intended.

Support loads



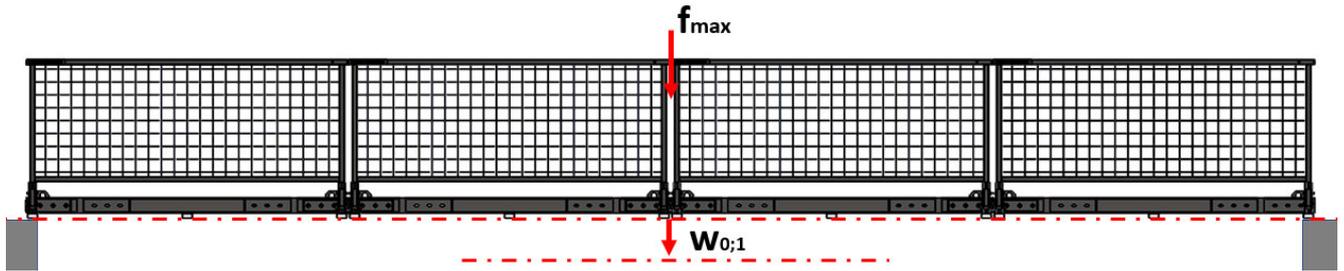
Traffic loads (V)		1 Module	2 Modules	3 Modules	4 Modules
Support load to be taken up	V1	8 kN	7 kN	6,5 kN	6 kN
Load to be supported per m2	V0	4 kN	4 kN	4 kN	4 kN

WARNING



- Use without a risk assessment carried out in advance is not permitted.
- The removal and installation of a Falpro – multi-purpose bridge is not permitted without assembly instructions drawn up by the operator or his authorised representative.
- The removal and installation of a Falpro – multi-purpose bridge by unqualified personnel is not permitted.

Deflection behaviour



Deflection (w)		1 Module	2 Modules	3 Modules	4 Modules
Deflection without load	w_0	0 mm	2 mm	4 mm	5 mm
Deflection with load (6kN)	w_1	1 mm	4 mm	8 mm	10 mm

Deflection of the Falpro – multi-purpose bridge can also be observed without load. This is due to the dead weight and manufacturing and assembly tolerances.

To reduce the deflection behaviour, the free span must be reduced. This can be achieved by using an IPE beam or by attaching supports.



WARNING



- Deflection of the Falpro – multi-purpose bridge is also possible without loads.
- No more than four modules may be used unsupported.
- The choice of support points is not permitted without a risk assessment carried out in advance.
- The Falpro multipurpose bridge can swing open if the load distribution is poor. If the Falpro – multi-purpose bridge swings open, this may exceed the permissible load limit and must be prevented.

Installation and removal of the Falpro – multi-purpose bridge

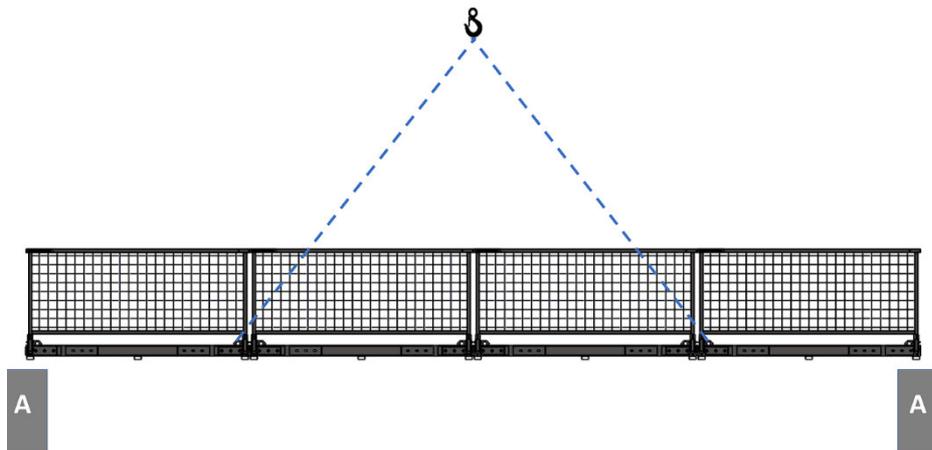
WARNING



- When assembling or disassembling a Falpro – multi-purpose bridge, make sure that it is adequately secured.
- When lifting (unloading) a Falpro – multi-purpose bridge, unexpected changes in position can occur, therefore a sufficient safety distance must be maintained when lifting.
- When lifting, the crane hook must be positioned as precisely as possible above the centre of gravity of the bridge.

Before installation on structures, the support points must be checked for suitability and condition.

- A The contact surface on the floor must not have any unusual unevenness or elevations.



In order to correctly position the Falpro – multi-purpose bridge with one or more modules, the Falpro – multi-purpose bridge must be attached to a crane in accordance with the centre of gravity. Care must be taken to ensure that there are no uncontrollable vibrations. If necessary, safety ropes must be attached to control the Falpro – multi-purpose bridge.

The Falpro – multi-purpose bridge is then moved to its final position and carefully set down on the supports. The supports must first be inspected for suitability by trained personnel. Once the Falpro – multi-purpose bridge is safely set down and in position, the Falpro – multi-purpose bridge can be detached from the crane.

NOTE



The bridge is dismantled in the reverse order to installation.

DANGER



- **Incorrect attachment to a crane can lead to uncontrollable movements of the Falpro – multi-purpose bridge.**
- **It is prohibited to detach the Falpro – multi-purpose bridge from the crane without proper support and inspection.**
- **It is forbidden to stand on or under the Falpro – multi-purpose bridge during assembly or disassembly.**

If you have any further questions, please contact us.

FreeFalcon GmbH
Johanniterstrasse 50
72160 Horb am Neckar
Germany

Phone.: +49 7451 6240276
E-Mail: info@freefalcon.de