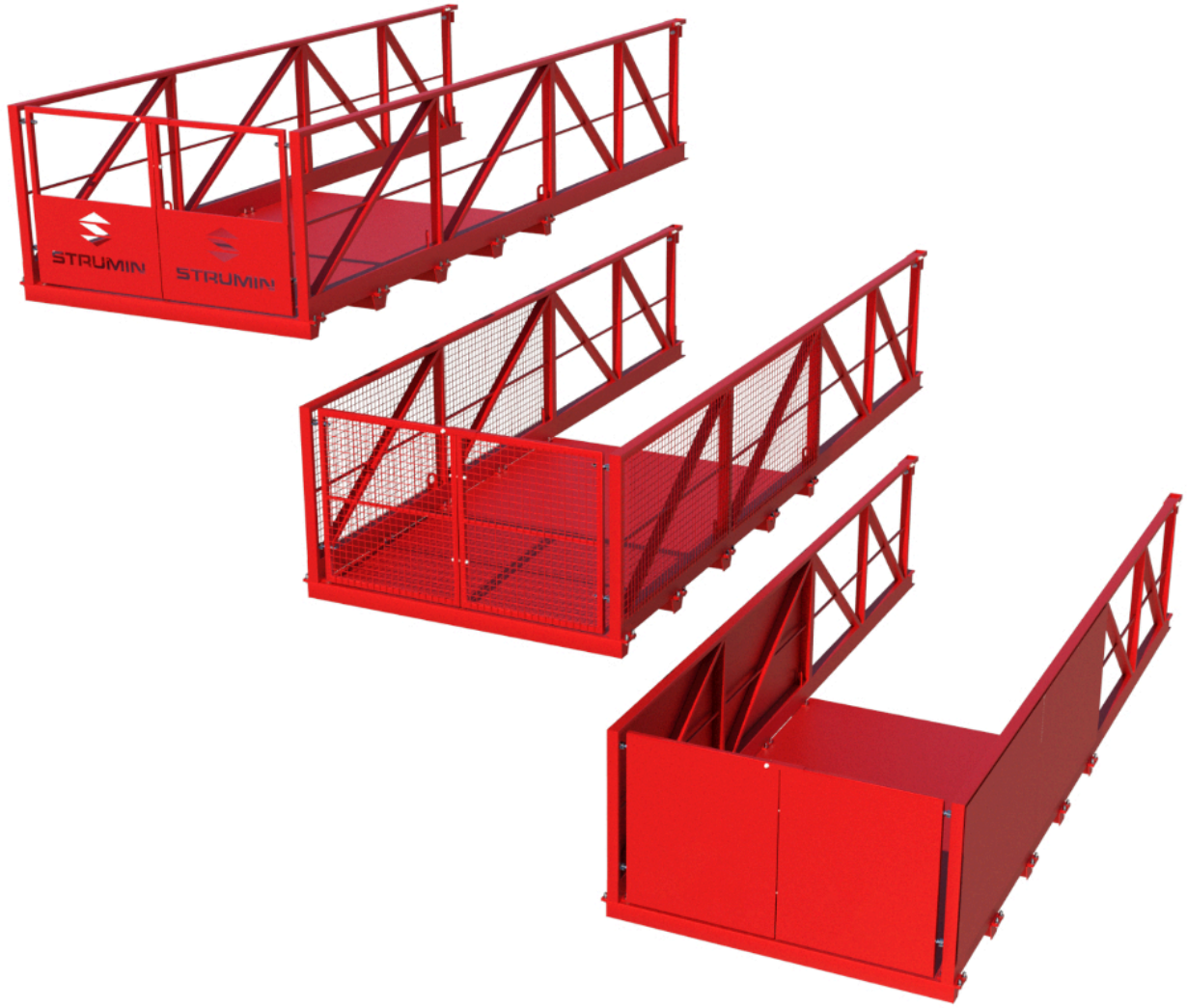
# ANCILLARY EQUIPMENT:
# **UNLOADING PLATFORM**

## (EXTENSION)

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# TECHNICAL DOCUMENTATION

ATTENTION !

BEFORE EVERY USE OF THE PRODUCT, THE USER SHALL READ THIS TECHNICAL DOCUMENTATION AND ALWAYS STRICTLY FOLLOW THE RULES DESCRIBED HEREIN. THESE INSTRUCTIONS WERE PREPARED FOR ALL WORKERS AND PEOPLE THAT WILL WORK ON TRANSPORTING, UNLOADING, ASSEMBLING, DISASSEMBLING, STORING, CHECKING AND ANY OTHER WORKS CONNECTED TO THE DEVICE.
EVERY USER IS OBLIGED TO READ AND GET FAMILIAR WITH THE SYSTEM'S TECHNICAL DOCUMENTATION!

CONTENTS:

## INTRODUCTION

This technical documentation contains the guidelines concerning the proper use of the unloading platform. Workers and other people using the platform shall always observe the guidelines contained herein. In case of any events not described in this document, occupational safety and health regulations and other regulations, appropriate to the specific situation, shall be observed.
It is forbidden to modify the system in any other way than described in the technical documentation. The manufacturer is not liable for any modifications in the system in a way that is not described in the Technical Documentation.

## 1. MANUFACTURING BASIS

The basis for manufacturing the unloading platform is the design concept of a technical device supporting the transport and unloading of building materials between different levels where works are performed. The device is also aimed at increasing the safety of works performed at heights.
The project of the device was prepared in accordance with the current laws and technical standards:

| | |
|---|---|
| PN-EN 1090 | – Technical requirements for the execution of steel and aluminium structures. |
| PN-EN 1991-1 | – Actions on structures – Part 1-1: General actions: densities, self-weight and imposed loads, |
| PN-82/B-02001 | – Loads on structures Permanent loads. |
| PN-82/B-02003 | – Loads on structures Technical variable loads. Basic technical and assembly loads |

## 2.0 USER MANUAL

### 2.1 TERTERMINOLOGY AND

### DEFINITIONS

Unloading platform:
Steel construction consisting of an underframe, a working platform, a barrier and a double-leaf gate. The construction is a technical device that is bracket-mounted between the floor and the ceiling of any level of a building. The mounting is performed with the use of two regulated construction props with the maximum load capacity of 30 kN.

Underframe:
Constructional elements creating an underframe that is aimed at carrying the loads from the platform to the floor and ceiling with the use of construction props.

Working platform:
A constructional element in the form of a steel riffled sheet metal that works as a platform on which transported materials are stored. The working platform is also a non-slip surface for operating the unloading platform.

Barriers:
Constructional elements that are both the part of an underframe and the construction of a barrier. The construction of a barrier allows to carry the load from the platform to the floor and ceiling with the use of construction props. The barrier was designed as a two-dimensional, symmetrical grid.

Platform's gate:
An element that can be opened, providing protection for the forefront part of the platform. It allows to load/transport long elements.

Protective anchoring points:
The barrier is equipped with two A-type anchoring points, used to secure workers that are standing on the platform.

Transport brackets:
Constructional elements consisting a part of the underframe and used to attach sling hooks.

Ceiling puncture strength
Reaction strength in mounting points of the construction props.
Ceiling puncture strength is 40 kN

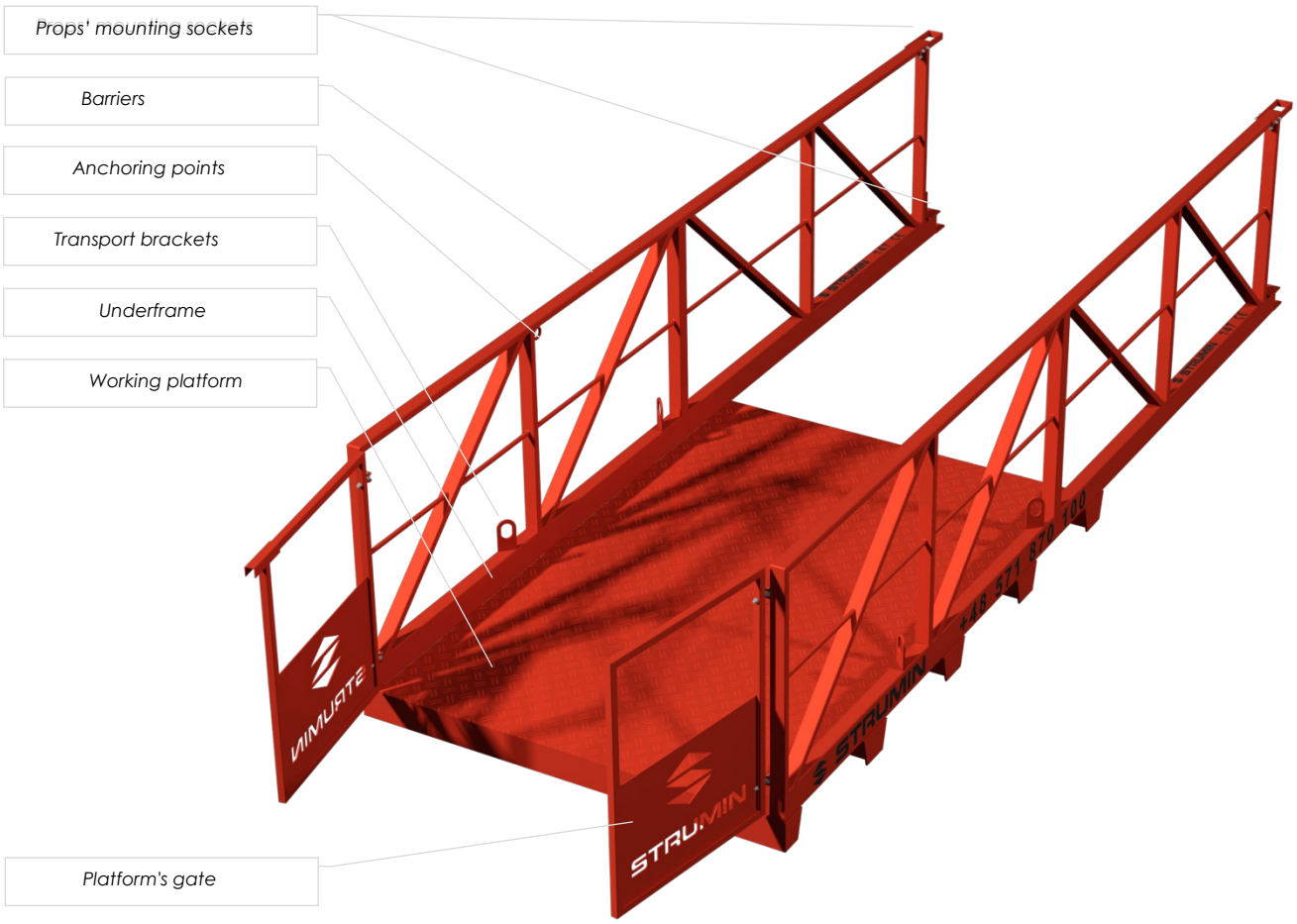
Regulated props.
Constructional elements used to temporarily support ceiling and wall elements.

## 2.2 PURPOSE AND SCOPE OF USAGE

Unloading platform is used to transport materials and equipment at a construction site. It allows to quickly reload materials between a construction site and any level of a building. The platform may be used as a temporary bridge on which palletized materials can be stored (their weight may not exceed 4000 kg).
The platform's dimensions and load capacity allow to place on it building materials, equipment and devices, e.g. containers, boxes, transport baskets, skip containers and many other devices used at construction sites. The platform's gate allows to extend its capacities when it comes to transporting/reloading long elements. Any material stored on the platform shall be secured against sudden fall or bump.
The transport of materials to the platform can be performed only with the use of a crane or from the ground level – with a pallet truck.

Using the unloading platform is allowed only in strict compliance with the Technical Documentation and proper national provisions concerning the occupational safety and health.

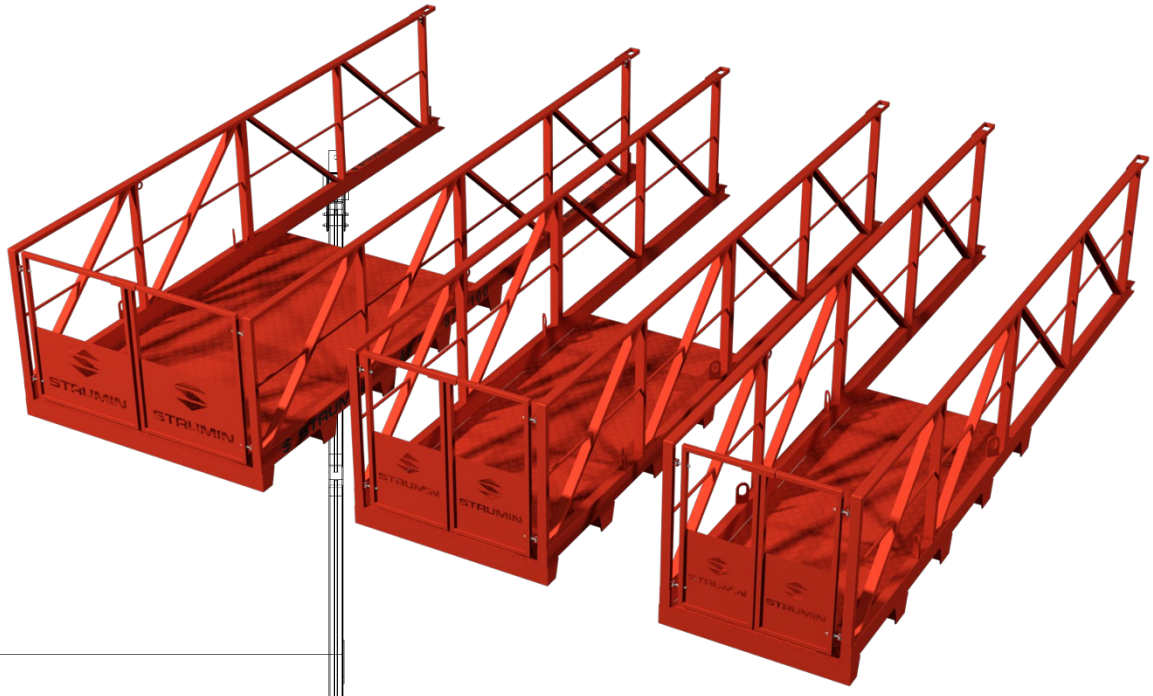
## 2.3 TECHNICAL CHARACTERISTICS AND CONSTRUCTION OF THE PLATFORM

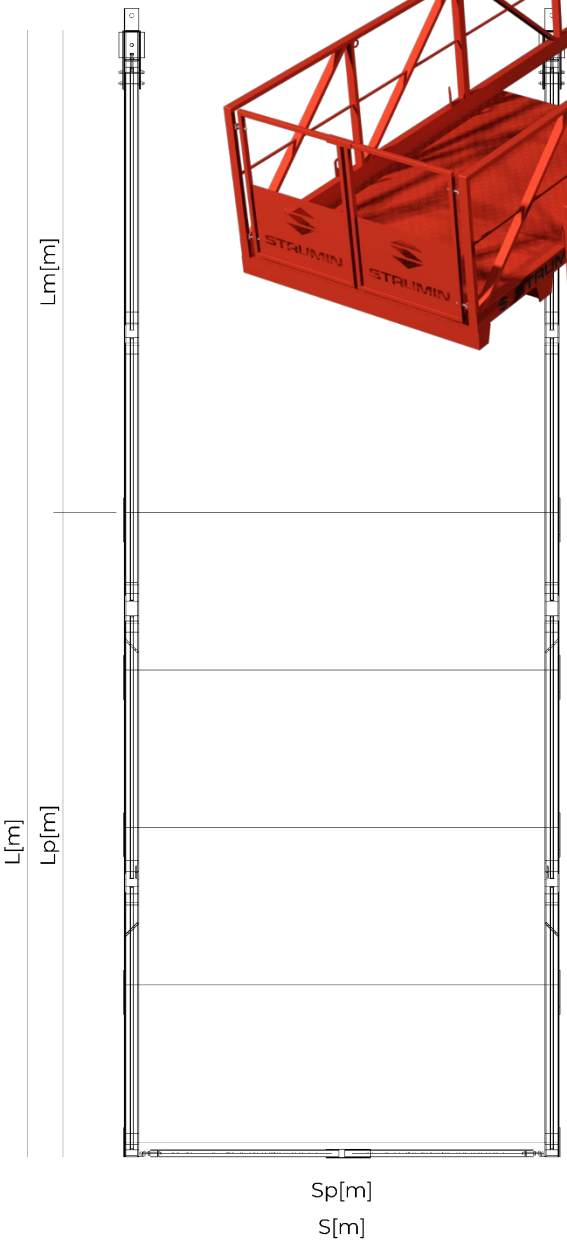


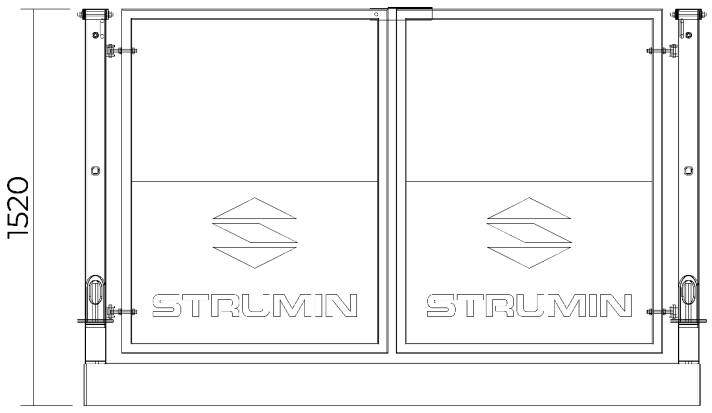

The unloading platform was designed and manufactured from steel constructional elements (listed above) that create one, joined unit. The design of the platform was prepared on the basis of guidance described in „Manufacturing basis" – see point 1, as well as the regulations concerning occupational safety and health. Different elements meet the official requirements concerning e.g. barriers constructions, as well as other appropriate regulations (e.g. anti-slip working platform).
In the light of these regulations, the platform is equipped with e.g. toe boards protecting small elements from accidental falling. The barrier contains indirect protection (horizontal profile in the middle of the barrier's height).
The construction is protected by anti-corrosion coating and polyurethane varnish.
The construction is installed in a niche in a support system. The platform is installed with regulated constructions props (maximum load capacity of 30 kN). The construction props are placed in sockets and locked with clamps.

## 2.4 DIMENSIONS, THREE VERSIONS OF WELDED PLATFORMS

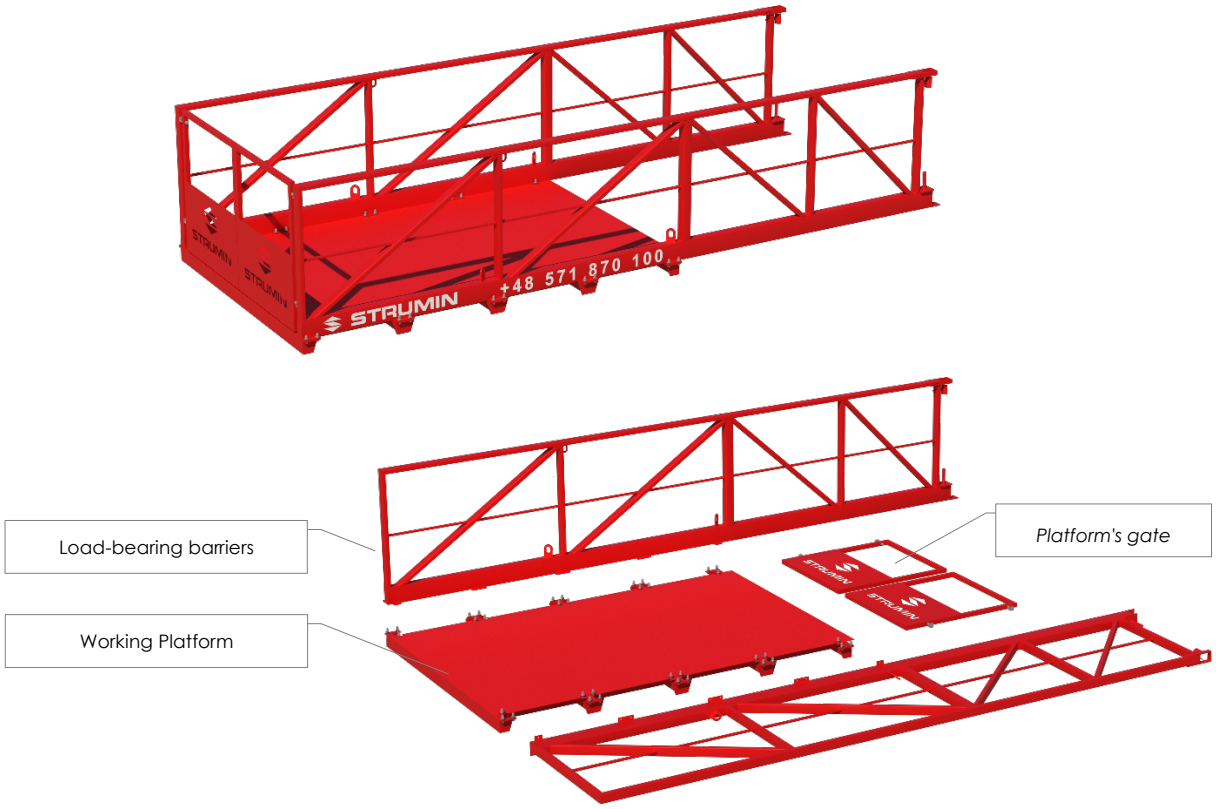
| Art. No. | Name | L/Lp [m] | S/Sp [m] | H [m] | Lm [m] | Weight |
|---|---|---|---|---|---|---|
| 1130 | WIDE PLATFORM | 6.12/3.5 | 2.36/2.2 | 1.36 | 2.74 | 850 |
| 1120 | MEDIUM PLATFORM | 6.12/3.5 | 1.68/1.51 | 1.36 | 2.74 | 720 |
| 1110 | NARROW PLATFORM | 6.12/3.5 | 1.46/1.27 | 1.36 | 2.74 | 650 |





## 2.5 STRUCTURE OF THE PLATFORM IN THE FOLDING VERSION




The unloading platform is also available in a foldable version. This solution was created to optimize the storage of devices on the warehouse yard, to optimize transport (e.g. sea transport, etc.).
The foldable platform consists of four elements: Work platform, Load-bearing barriers and Closing gates.
The connection of the load-bearing elements (barriers) with the Work platform is carried out using 36 pieces of M12 screws with a double nut, class 8.8.


## OVERALL DIMENSIONS AND WEIGHT OF THE BASIC FOLDABLE PLATFORM ELEMENTS

WIDE PLATFORM [ART. NO. 1160/B]

| Art. No. | Name | L [m] | S [m] | H [m] | quantity | Weight |
|---|---|---|---|---|---|---|
| 1163 [C:] | Working Platform | 3.42 | 2.44 | 0.16 | 1 | 423 |
| 1161 [A:] - right<br>1162 [B:]- left | Load-bearing barriers | 6.10 | 1.24 | 0.12 | 2 | 440 |
| 1164 [D:] - right<br>1165 [E:] - left | Platform's gate | 1.22 | 1.04 | 0.04 | 2 | 66,6 |
| | | | | | Total: | 929 |

MEDIUM PLATFORM [ART. NO. 1150/B]

| Art. No. | Name | L [m] | S [m] | H [m] | quantity | Weight |
|---|---|---|---|---|---|---|
| 1153 [C:] | Working Platform | 3.42 | 1.75 | 0.16 | 1 | 302 |
| 1151 [A:] - right<br>1152 [B:] - left | Load-bearing barriers | 6.10 | 1.24 | 0.12 | 2 | 440 |
| 1154 [D:] - right<br>1155 [E:] - left | Platform's gate | 1.22 | 0.68 | 0.04 | 2 | 40 |
| | | | | | Total: | 782 |

NARROW PLATFORM [ART. NO. 1140/B]

| Art. No. | Name | L [m] | S [m] | H [m] | quantity | Weight |
|---|---|---|---|---|---|---|
| 1143 [C:] | Working Platform | 3.42 | 1.53 | 0.16 | 1 | 269 |
| 1141 [A:] - right<br>1142 [B:] - left | Load-bearing barriers | 6.10 | 1.24 | 0.12 | 2 | 440 |
| 1154 [D:] - right<br>1155 [E:] - left | Platform's gate | 1.22 | 0.57 | 0.04 | 2 | 36 |
| | | | | | Total: | 745 |

## OVERALL DIMENSIONS AND WEIGHT OF THE ELEMENTS OF THE FOLDABLE PLATFORM HOUSED WITH STEEL PANELS

WIDE PLATFORM [ART. NO. 1160/SP]

| Art. No. | Name | L [m] | S [m] | H [m] | quantity | Weight |
|---|---|---|---|---|---|---|
| 1163 [C:] | Working Platform | 3.42 | 2.44 | 0.16 | 1 | 423 |
| 1161/SP [A:] - right<br>1162/SP [B:]- left | Load-bearing barriers | 6.10 | 1.24 | 0.12 | 2 | 500 |
| 1164/SP [D:] - right<br>1165/SP [E:] - left | Platform's gate | 1.22 | 1.04 | 0.04 | 2 | 95 |
| | | | | | Total: | 1018 |

MEDIUM PLATFORM [ART. NO. 1150/SP]

| Art. No. | Name | L [m] | S [m] | H [m] | quantity | Weight |
|---|---|---|---|---|---|---|
| 1153 [C:] | Working Platform | 3.42 | 1.75 | 0.16 | 1 | 302 |
| 1151/SP [A:] - right<br>1152/SP [B:] - left | Load-bearing barriers | 6.10 | 1.24 | 0.12 | 2 | 500 |
| 1154/SP [D:] - right<br>1155/SP [E:] - left | Platform's gate | 1.22 | 0.68 | 0.04 | 2 | 57 |
| | | | | | Total: | 859 |

NARROW PLATFORM [ART. NO. 1140/SP]

| Art. No. | Name | L [m] | S [m] | H [m] | quantity | Weight |
|---|---|---|---|---|---|---|
| 1143 [C:] | Working Platform | 3.42 | 1.53 | 0.16 | 1 | 269 |
| 1141/SP [A:] - right<br>1142/SP [B:] - left | Load-bearing barriers | 6.10 | 1.24 | 0.12 | 2 | 500 |
| 1154/SP [D:] - right<br>1155/SP [E:] - left | Platform's gate | 1.22 | 0.57 | 0.04 | 2 | 52 |
| | | | | | Total: | 821 |

## OVERALL DIMENSIONS AND WEIGHT OF THE ELEMENTS OF THE FOLDABLE PLATFORM HOUSED WITH MESH PANELS

WIDE PLATFORM [ART. NO. 1160/MP]

| Art. No. | Name | L [m] | S [m] | H [m] | quantity | Weight |
|---|---|---|---|---|---|---|
| 1163 [C:] | Working Platform | 3.42 | 2.44 | 0.16 | 1 | 423 |
| 1161/MP [A:] - right<br>1162/MP [B:]- left | Load-bearing barriers | 6.10 | 1.24 | 0.12 | 2 | 480 |
| 1164/MP [D:] - right<br>1165/MP [E:] - left | Platform's gate | 1.22 | 1.04 | 0.04 | 2 | 54,3 |
| | | | | | Total: | 958 |

MEDIUM PLATFORM [ART. NO. 1160/MP]

| Art. No. | Name | L [m] | S [m] | H [m] | quantity | Weight |
|---|---|---|---|---|---|---|
| 1153 [C:] | Working Platform | 3.42 | 1.75 | 0.16 | 1 | 302 |
| 1151/MP [A:] - right<br>1152/MP [B:] - left | Load-bearing barriers | 6.10 | 1.24 | 0.12 | 2 | 480 |
| 1154/MP [D:] - right<br>1155/MP [E:] - left | Platform's gate | 1.22 | 0.68 | 0.04 | 2 | 30 |
| | | | | | Total: | 812 |

NARROW PLATFORM [ART. NO. 1160/MP]

| Art. No. | Name | L [m] | S [m] | H [m] | quantity | Weight |
|---|---|---|---|---|---|---|
| 1143 [C:] | Working Platform | 3.42 | 1.53 | 0.16 | 1 | 269 |
| 1141/MP [A:] - right<br>1142/MP [B:] - left | Load-bearing barriers | 6.10 | 1.24 | 0.12 | 2 | 480 |
| 1154/MP [D:] - right<br>1155/MP [E:] - left | Platform's gate | 1.22 | 0.57 | 0.04 | 2 | 28 |
| | | | | | Total: | 777 |

## 2.6 ALLOWED WORKING PARAMETERS OF THE UNLOADING PLATFORM

The unloading platform is a system of elements cooperating within a constructional device that allows to safely transport and unload materials between different working areas.
Knowledge of its functioning and awareness of limitations in relation to the usage of the device is necessary for its safe operation.
Due to the fact that mechanical transport, within the working area (where installation, dismantling and demolition works are performed), demands the use of slings, such processes are deemed to be highly dangerous.
The first and foremost condition to start and perform any works with the use of slings is adhering to the Instructions of Safe Work (ISW), prepared on the basis of risk assessment for a given task.
Only people holding required qualifications and experience, as well as those who finished a training for hook whistleblowers, are allowed to operate and use the unloading platform, slings and a crane's hook.
Only certified, operational and containing manufacturer's instruction slings are allowed to be used. The slings must be clearly marked and their technical condition must be controlled in the scope and dates described in the Technical Documentation.

The platform shall be transported with a crane and suspended until its full installation.
If workers standing on the platform are not secured (not attached to fall-arrest anchoring points), the gates of the platform must always be closed.

## 2.7 USAGE OF THE UNLOADING PLATFORM

The unloading platform must be used only in accordance with its purpose and all occupational safety and health regulations.
During the transport of the platform with a crane no people or materials may be present on the platform.
The front barrier must be closed during the transport of the platform.
Workers standing on the platform when the gate is opened must be attached to anchoring points (fall-arrest). The protective measures must be configured (the length of the safety line) to prevent a worker from crossing the edges of the platform. The safety line cannot be longer than 2 m – does not apply in case of the use of a self-locking device.
After properly securing employees (attaching them do the PPE), the gates may be opened.
The platform may be used as a temporary bridge, on which palletized materials can be stored (their weight may not exceed 4000 kg with maximum 2 workers operating the platform).

The number of workers operating the unloading/reloading of materials stored on the platform may be increased on condition that:

1. The allowed maximum load of the platform will be decreased by the weight of additional workers,
2. The gates will be closed,
3. Special attention will be paid while more than two workers stand on the platform.

### ACTIONS TO BE PERFORMED BEFORE OPERATING THE PLATFORM

Before operating the platform all workers must:

1. Read the Technical Documentation,
2. Check all elements of the platform in terms of damages, meeting all conditions of safe operation and the platform's completeness,
3. Check if workers and people using the platform finished all necessary trainings for working at heights in terms of occupational safety and health and hold necessary qualifications described below.

### USERS' QUALIFICATIONS

Workers operating the platform should:

1. Read the whole Technical Documentation of the unloading platform – the training must be confirmed in a written form,
2. Finish a training on the occupational safety and health and a training which provides qualifications for performing dangerous works,
3. Learn how the work is shared, what is the order of performing the tasks and what are the occupational safety and health rules,
4. Undergo a training about using the personal and collective protective equipment,
5. Check if the operators of a crane and other machines used for transporting materials on the platform hold qualifications, have read the Technical Documentation of the platform and familiarised themselves with the share and order of performing the tasks.

CONNECTING THE PLATFORM WITH A SLING

Connecting the platform with a sling can be performed only by a qualified person (as described above), holding the permissions for hook whistleblowers. The sling of a crane should be mounted only to the transport brackets.
The platform contains four such brackets and its transport is allowed only in case of mounting all four sling hooks to four transport brackets. The platform should be transported using four equal slings to ensure the platform load is distributed evenly. Using different lengths may cause deformation and damage to the platform.

While mounting the slings to the transport brackets the worker shall check if:

1. Slings are certified,
2. They do not contain any visible defects,
3. They may be used for transporting the platform,
4. Flexible connectors are not twisted or tied up,
5. The bond between the slings and a transport bracket is firm,
6. The crane's hook is complete.

Connection of the slings MUST NOT be performed with the use of loops around transport brackets, parts of the underframe or barriers. The only proper way is connecting the sling's hook into all four transport brackets.

## 2.8 ASSEMBLING OF THE UNLOADING PLATFORM

Assembling of the platform shall be performed by an assembler who have read the Technical Documentation of the platform. The placement of the platform and checking the floor puncture strength lies within the responsibility of the sit manager.
The assembly shall only be performed with the use of the props provided with the platform that are characterized by proper technical parameters.
The platform can shall be mounted for a niche's height of 2 to 4 m.
Before the assembly it shall be checked if the platform is complete and has no visible signs of damage.
Before the assembly it shall be checked if all conditions described in 2.6 herein are met.

| |
|---|
| Ceiling puncture strength<br>Reaction strength in mounting points of the construction props. |

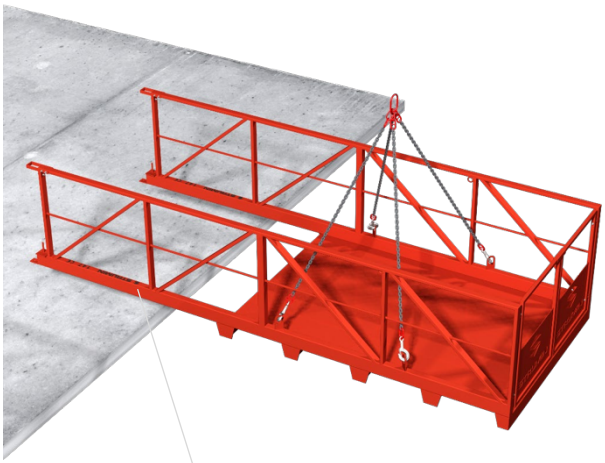
The platform shall be transported vertically with a crane, according to the rules described in 2.6 herein.
The platform, after lifting, shall be in a horizontal position (+/- 15 degrees). The platform's level shall be regulated with the length of slings.

| |
|---|
| During the transport of the platform with a crane no people or materials may be present on the platform.<br>During the transport of the platform its gates must be closed. |

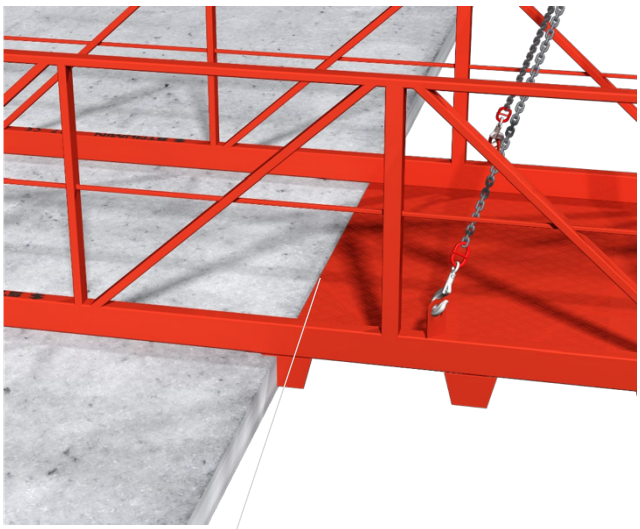
During the assembly and disassembly workers shall use personal protective equipment, protecting them from fall. PPE shall be attached to a fixed anchoring point, mounted to a floor or a wall (pole) on which/near to which the platform is situated.

ASSEMBLY PROCEDURE

The platform, elevated to a given height above the working surface shall be supported against a floor (its back part Lm) in the place designated by an appropriate person.
Before assembling the platform (with the use of props) it shall be placed on a solid and stable surface. Throughout the whole assembly procedure, the platform shall be held with transport brackets by a crane in a horizontal position.
The platform shall be moved to the edge of the floor, so that the platform is placed as close as possible.



*The platform… shall be supported against a ceiling (its back part Lm)*

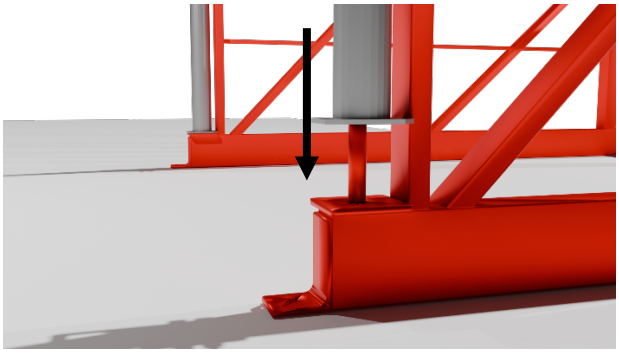


*… shall be moved to the edge of the floor, so that the platform is placed as close as possible.*

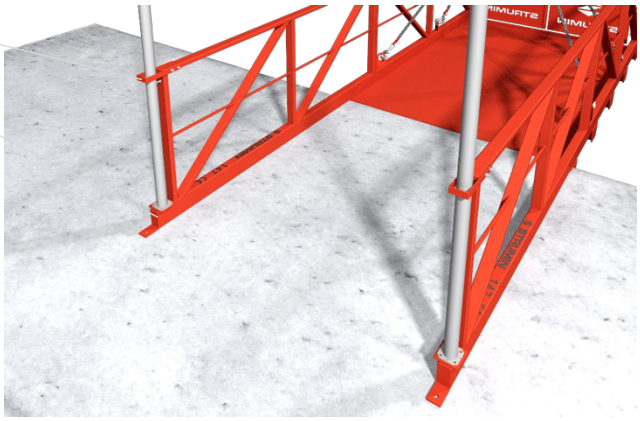
Before assembling the platform with props, the worker shall check if its properly placed against the ceiling. It is necessary to place the underframe parallelly to the ceiling. In case of the lack of parallelism (the platform is inclined), the worker shall correct its position (with a crane).


While keeping the platform on a crane's hook, it shall be connected to props regulated according the below procedure:

1. Assembly the two clamps of mounting sockets on both sides (left and right) of the platform,
2. Place the construction props in the mounting sockets (the bottom foot of the support shall adhere to the platform's foot,
3. Put clamps and attach them with screws,
4. The construction props shall be mounted to the platform in order to make it not possible to flick the support out of the mounting socket's clamp,
5. Place the supports in vertical position with no deviations (check with a level).

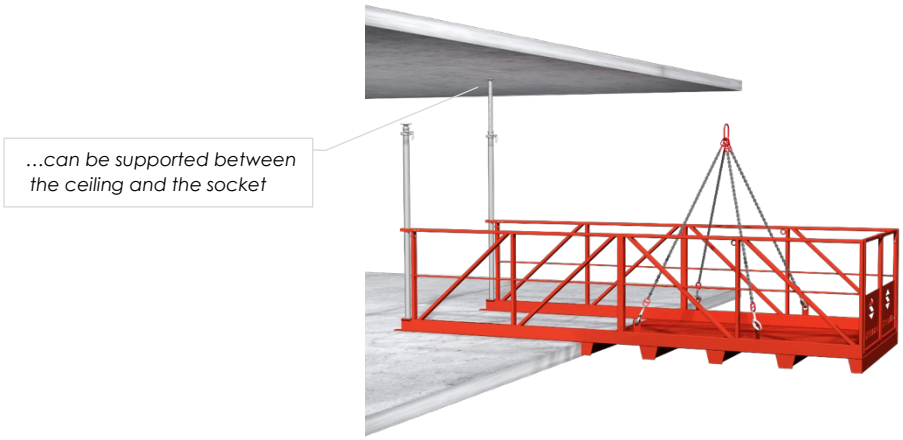


Assembling a prop to the socket's clamp




Assembling a prop to the platform

After assembling props to the platform they can be supported between the ceiling and the mounting socket. The minimum bolt torque of a prop is 50 Nm.



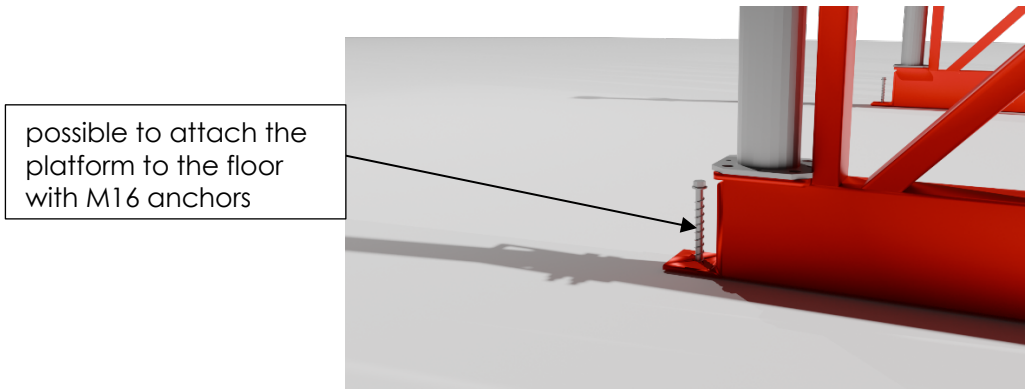

supporting the prop

In practice, the props are mounted to the platform before starting the transport to a given place. In this configuration the props are pushed down, allowing manoeuvring in working niches.

ADDITIONAL PRTECTION FOR THE ASSEMBLY

In order to provide additional protection from slip, it is possible to attach the platform to the floor with M16 anchors.
Props can be mounted with M8 anchors (at the top – to the ceiling).

Additional protection for the assembly – anchoring does not replace props and shall not be used separately.



ASSEMBLY CHECK AND ACCEPTANCE PROTOCOL

After mounting the support, the assembly of the platform shall be carefully checked:

1. Reliability of fixings (rigid with no backlash),
2. Completeness of all mounting and connecting parts,
3. No damages while performing assembly operations.

After verifying the platform assembly correctness, slings may be loosened by lowering a crane's hook Then they can be unhooked.

Acceptance protocol of the platform's assembly can be signed by the site manager or any person designated by the manager or any other authorized person (holding authorization to perform independent technical functions in construction and building industry).

## 2.9 DISASSEMBLING OF THE UNLOADING PLATFORM

During the disassembly of the platform workers shall keep all security measures and comply with the same regulations as during the assembly process.
During the disassembly people are forbidden to stay on the platform and no materials shall be placed on it.

1. Connecting the platform to crane's transport slings – according to 2.6 (Connecting the platform with a sling)
2. Slings' tension – slow lifting with a crane
3. Disassembly of securing anchors
4. Parallel loosening of props
5. Flicking out the platform with a slow and smooth move outside the building contour.
6. Transport to the next working area or the place of storing

## 2.10 RULES FOR SAFE OPERATION

During the operation of the UNLOADING PLATFORM workers shall bear in mind the safety of its users, any personnel or people that may be affected by the operation of the device.

The ULOADING PLATFORM is intended solely for the purposes described in this manual. Any operation not in compliance with the manual is forbidden by the producer.
The UNLOADING PLATFORM shall work as a temporary bridge. The maximum load of the device is 4000 kg. The maximum point load of the platform is 500 kg.
It cannot be used as a storage and any transported materials shall be removed (from the platform).
Before using the equipment workers shall read this manual. It should be all the time available to read.
Improper use of the equipment poses a risk for the user as well as other people near the user.

Before the operation of the UNLOADING PLATFROM workers shall read the manual. Each user working with this equipment shall undergo a training concerning the use of personal protective equipment providing protection from falling.

| GENERAL RULES<br><br>EACH USER OF THE SYSTEM: |
|---|
| Shall not stay close to the platform during its transport |
| Shall wear proper personal protective equipment |
| During the assembly and disassembly of the platform, shall use PPE attached to a fixed anchoring point on the floor or the wall<br>(pole) on which/near to which the platform is situated. |
| While working on the platform (in case of an open gate), the workers shall wear PPE anchored to the anchoring points of a barrier. |
| All elements (not needed for the operation of the equipment)<br>that may pose danger for users (cables, hoses, unnecessary material) shall be removed. |
| The device is not intended for permanent storing of materials. It was not designed for such purposes. |
| It is forbidden to support transported materials against the barriers of the platform. |
| The loading of materials on the platform shall be performed smoothly and any impact or sudden drops of the material (even from low height) shall be avoided. |

| |
|---|
| Elements not delivered with the complete unloading platform shall not be attached to the equipment. It may have a negative impact on mechanical parameters and affect the operational safety. |
| During the transport, workers shall act carefully in order to avoid possible impact to the constructional elements. In case of damaging any elements the device shall be immediately withdrawn from operation. |
| The assembly shall be performed with caution and in the case of damaging any part it shall be immediately replaced or checked by a trained person. |
| During the transport of the platform with a crane, workers shall pay special attention to any movements of a crane and keep safe distance from it. |
| Introducing any changes and complementing the equipment/system demands a written consent from the manufacturer. Any repairs of the constructional elements must be performed in accordance with the procedures declared by the system's manufacturer. |
| In case of selling the unloading platform abroad (to a different country than the country where it was intended to be used in), the seller shall provide the user manual, maintenance and periodical inspection instructions in the language of a country where the equipment is to be used. |
| After 12 months of operation, the platform must be withdrawn from operation and undergo a periodical inspection (see below). In case of any factors that influence the condition of the device, e.g. harsh working conditions or a very high operation frequency, the periodical inspection shall be performed more often. The periodical inspection must be performed by a qualified person, responsible for protective measures and equipment in a company, according to the procedures described by the producer. The inspection may also be performed by a producer or a certified representative. |
| The unloading platform shall be used for 5 years. After that time, a detailed inspection shall be performed at a producer's facility. Such inspection may be performed only at a producer's facility or a facility of its certified representative. |
| During the loading, transport and assembly of the platform and materials, a crane's operation danger area shall be determined.<br>Moreover, nobody can be present under the platform during its operation. |
| If there is a possibility that the platform may impact other machines or devices, workers shall stop those devices while performing any works with the platform. |
| It is allowed only to transport the platform with a crane. It is forbidden to pull and push the platform on a surface. |
| During the transport of the platform, its movements shall be stabilised with ropes. |

## DETAILED RULES

### PPE

1. If a self-locking device is to be used, it has to be checked for holding appropriate certification
2. Personal protective equipment that protects from falling used in connection with the platform must be marked with the CE mark and certified in the country in which it is intended to be used
3. Personal protective equipment used as a part of the system protecting form falling shall be equipped with a device that limits the strength impacting the operator to no more than 6 kN
4. It is not advised to use the fall-arrest device in case of people suffering from cardiovascular diseases, under the influence of alcohol or drugs or in any other health condition that may impact the worker's mental or physical capabilities

### CRANE

1. Was controlled before the transport
2. Has sufficient load capacity and range
3. Was placed on a proper surface
4. Is operated by a person with proper permissions and qualifications
5. Is equipped with automatic brake in case of losing the power supply, the lifting limiter and mechanical lowering of the load
6. Has a protection for a lifting hook's throat
7. Allows to smoothly operate (with not shakes or sudden breaks) and provides speed restrictions while lifting and lowering the load (max. 0.5 m/s)

### SLINGS

1. Are four-armed devices
2. Have sufficient carrying capacity
3. Are compatible with the platform
4. Are not twisted or tied up

### TRANSPORT

1. Make sure that there are no materials on the surface or tools that may increase the weight of the platform or fall during transport
2. The transport of the platform and materials shall be performed only in favourable weather conditions
3. Connecting the platform with a crane may only be performed by a worker holding the permissions for hook whistleblowers

## OPERATOR AND RIGGER

1. Decide on the technical possibility to transport the platform
2. Shall take care of the transport of the platform and materials that shall be performed smoothly (no shakes, impacts etc.)
3. Shall maintain a visual contact with each other while operating the platform (they shall use reflective clothing)

## PERSONNEL

1. Shall read the platform's Technical Documentation
2. Shall verify if the platform was w properly placed and assembled
3. The number of people standing on the platform shall be reduced to max. 2 (see point 2.6 – increased number of people)
4. Shall wear proper personal protective equipment
5. Shall always use PPE protecting from fall when a gate is opened during work
6. Shall not stand on the platform when the load is being lowered on its surface or when it is picked up from the surface.
7. Shall not stand on the toe board, barriers or gates
8. Shall not throw away or allow any tools/load to fall from the platform
9. Shall take care of symmetrical placement of the load on the platform
10. Shall remove from the platform any elements not connected to the given work which may pose a threat (cables, hoses, unnecessary material)

## 3.0 SYSTEM'S CHECK

### QUICK CHECK

Before each use of the equipment, its technical condition shall be checked in terms of:

1. Completeness of components,
2. Completeness of screws, connectors,
3. No damages to any welds,
4. Check if there are any bent, broken, cut or otherwise damaged elements,
5. Check if all assembly holes are unobstructed,
6. Verify the product's markings, its readability, lack of damages (i.e. they are not wiped, broken etc.),
7. Completeness of barriers with a constant height of min. 1.1 m on the whole surface of the platform,
8. Verify if the surface of the platform protects from slips, is not covered with any substances that may cause workers to slip,
9. Verify if construction props used to assembly the platform meet all requirements described in the Technical Documentation.

In case any of these requirements are not met, the user shall stop using the equipment and inform the manufacturer about the need to perform a detailed check.

### DETAILED CHECK

The detailed check of the unloading platform shall be performed by the manufacturer or any appropriate entity:

1. Always before delivering the equipment to a construction site,
2. After 12 months of using,
3. Always when the equipment has not been used form longer than 3 months,
4. After every information from the user about the need to perform the detailed check. For the detailed check, performed at the request of a user, shall be charged a fee.

### PERIODICAL CHECK

In order to provide proper operation and safety of the unloading platform, the periodical check of the equipment shall be performed at least once every 12 months (each element that is included in the system).
The check must be performed by a competent person holding proper authorizations.

PERIODICAL CHECK EXPIRATION DATE

The periodical check expiration date is clearly marked on the outer edge of the check label – term (year and month) of the next check.


## 3.1 MAINTENANCE

The elements of the unloading platform are protected with lacquer. While cleaning and performing maintenance of the elements, always shall be used substances that do not react with lacquer.
In case of any chips, they shall be filled with proper lacquer coating.

## 4.0 DEVICE'S REGISTER

| DEVICE'S REGISTER | | | | |
|---|---|---|---|---|
| Name of the product: | | | | |
| Model and type / identification: | | Trade name: | | ID No.: |
| Producer: | | Address: | | Phone, e-mail, web page: |
| Date of production / Date of expiry | | Date of purchase: | | Date of the first use: |
| Other important information (e.g. document No.): | | | | |
| PERIODICAL CHECKS AND HISTORY OF REPAIRS | | | | |
| Date: | Reason (periodical check or repair): | Defects found, repairs performed and other relevant information: | Name and signature of a competent person: | Periodical check – Next term: |
| | | | | |
| | | | | |

| PERIODICAL CHECKS AND HISTORY OF REPAIRS | | | | |
|---|---|---|---|---|
| Date: | Reason (periodical check or repair): | Defects found, repairs performed and other relevant information: | Name and signature of a competent person: | Periodical check – Next term: |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## 5.0 RATING PLATE

STRUMIN

ANCILLARY EQUIPMENT

| | |
|---|---|
| Name / Type: | UNLOADING PLATFORM |
| Serial number: | ..... |
| Year of production: | 2023 |
| Weight: | ..... kg |

EN 1090, EN 1991-1

P.P.H.U STRUMIN
32-084 MORAWICA 191


*Maximum load*

*Read the safety instruction / User manual*

*Use personal protective equipment (PPE)*

*Use personal protective equipment (PPE)*

- The information contained on a rating plate allow to precisely identify each device based on its ID/Serial No.
- All documents attached to the device, such as the device's register after check or the user manual, are related to the ID / serial No. written on the device in order to avoid any mistakes.
- The warning field on the rating plate informs, with the use of text and symbols, about possible dangers when the device is working.

Dangers

- Act accordingly to the safety instructions and use personal protective equipment (PPE)

## 6.0 TABLE: DANGER → RISK → PROTECTION

| No. | DANGER | RISK | RISK ASSESSMENT | PROTECTION MEASURES |
|---|---|---|---|---|
| 1 | NOT SUFFICIENT MECHANICAL DURABILITY. | Using a damaged or destroyed platform | Fall of the construction. Danger to health and life | Check, control and properly store the equipment |
| | | Damaging or destroying the platform due to overloading | Fall of the construction. Danger to health and life | Do not exceed max. allowed load capacity of the platform. Use in accordance with the User manual, point 2.2 |
| | | Damaging or destroying the platform due to improper assembly on a sling | Fall of the construction. Danger to health and life | A Chain sling with four flexible connectors and a link Assembling a sling on a crane's hook by an authorised person. Use in accordance with point 2.6 |
| | | Damaging or destroying the platform due to not sufficient lifting power of a crane | Fall of the construction. Danger to health and life | Transport the platform only with a crane of sufficient lifting power |
| 2 | Smashing, squashing | Sticking any limbs or other body parts out of the platform's contour while lifting, positioning and lowering the load | Smashing, cutting, skinning or pressing any limbs or other body parts by a nearby object or surface. Danger to health and life | Barriers, toe board. Do not stick out of the platform's contour while lifting, positioning or lowering the load. Wear proper personal protective equipment |
| | | Putting or placing a foot, hand or other body part under the platform while its lowering and assembling | Cutting off, smashing, cutting, injuring or scraping any part of the body Danger to health and life | Limiters. Stand in a safe distance from the platform while its lowering and assembling. Wear proper personal protective equipment |
| | | Moving the platform through holes and gates | Smashing or bunging of the platform. Danger to health and life | Take necessary measures before moving the platform through narrow holes |
| | | Overturn of the wrongly placed platform on a surface or a construction | Smashing, squeezing, injuring. Danger to health and life | Place the platform on an even and stable surface or assembly it to the support structure |

| | | | | |
|---|---|---|---|---|
| 3 | HITTING | Standing and working on a toe board or the barriers while lifting, positioning, lowering and placing the platform | Hitting the construction or other working surface with one's head / other body parts.<br>Danger to health and life | Barriers, toe board. Do not stick out of the platform's contour while lifting, positioning or lowering the load.<br>Work only from the level of the platform. Wear proper personal protective equipment |
| | | Improper entering and leaving the platform | Hitting the construction with one's head / other body parts.<br>Danger to health and life | Enter and leave the platform directly to the floor |
| | | Too high lifting speed and the speed of moving the platform by a crane | Hitting the load with one's head / other body parts.<br>Danger to health and life | Automatic crane's speed limiter while moving the platform (speed shall not exceed 1.0 m/s) and performing operations smoothly by a crane's operator.<br>Wear proper personal protective equipment |
| | | Shakes or vibrations of the platforms.<br>Dynamic loads of the platform | Hitting the construction with one's head / other body parts.<br>Danger to health and life | Proper, smooth control of a crane's movement by its operator. Checking flexible connectors of a sling.<br>Proper stretch of flexible connectors.<br>Wear proper personal protective equipment |
| 4 | IMPROPER POSTURE, WEARING A SAFETY HARNESS | Improper wearing of a safety harness or a self-locking device.<br>Detachment from the device, falling or slipping on the surface | Musculoskeletal disorders.<br>Hitting, breaking or injuring any part of the body.<br>Danger to health and life | Wear proper personal protective equipment, in accordance with this User Manual |
| | | Improper posture.<br>Falling from the platform, tripping or slipping on the platform while lifting, lowering or placing the load | Musculoskeletal disorders.<br>Hitting, breaking or injuring any part of the body.<br>Danger to health and life | Proper dimensions, toe board and barriers of the platform. Workers shall refrain from any instant movements while lifting, lowering or placing the load on the platform.<br>Wear proper personal protective equipment |
| 5 | CONTACT WITH MOVING PARTS | Unnecessary load on the platform | Overloading and fall of the platform. Danger to health and life | Do not exceed max. allowed load capacity of the platform. Use in accordance with the Technical Documentation |
| | | Moving and falling equipment (tools and materials) from the platform | Hitting, breaking, injuring limbs or other body parts.<br>Danger to health and life | Toe board. Secure tools and materials from moving and falling.<br>Wear proper personal protective equipment |

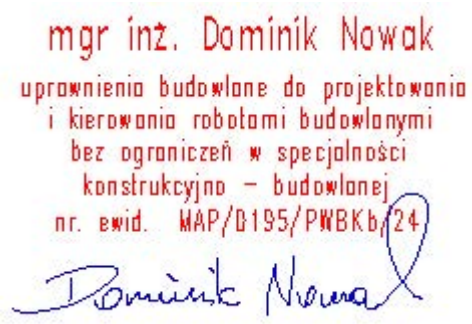
| | | | | |
|---|---|---|---|---|
| 6 | NOT USING THE PERSONAL PROTECTIVE EQUIPMENT | Not attaching to anchoring points, not using PPE protecting from fall | Falling from the ceiling or the platform. Danger to health and life | Anchoring points. Attaching to anchoring points proper PPE protecting form fall |
| | | Not using proper PPE | Hitting, injuring, slipping, burning, electrocuting, poor visibility. Danger to health and life | Wear personal protective equipment, proper for a given work. Define the safe work's system |
| 7 | FALLING OR THROWN AWAY OBJECTS | Improper securing of the objects around the workspace | Hitting, breaking, injuring or burning any part of the body. Danger to health and life | Wear proper personal protective equipment. Define the safe work's system |
| | | Throwing away any equipment while working on the platform | Hitting, breaking or injuring any part of the body. Danger to health and life | Do not throw away any equipment (tools, materials) while working on the platform. Do not stay under the platform, where it is assembled, and during transport |
| 8 | SLIPPING, TRIPPING AND FALLING | Covering the platform with any substances that may cause workers to slip. Too much water and overflowing drainage holes of the platform | Hitting, breaking or injuring any part of the body. Danger to health and life | The platform's surface made of anti-slip sheet of metal. The platform must be clean and not pose a danger of slipping. Wear proper personal protective equipment |
| 9 | COLLISION OF MORE THAN ONE MACHINE | Hitting other machines or obstacles with the platform | Hitting the platform's construction, other machine or surface. Danger to health and life | Stopping other machines that may pose a risk of a collision. Obligatory presence of the operator while transporting with a crane Drawing up the Instructions of safe operation |
| 10 | WELDING WORKS | Electrical breakdown | Electrocuting, burning. Danger to health and life | Provide earthing of the platform and hoisting crane, protect brackets of the electrodes from contact with the platform and other metal elements. Wear proper personal protective equipment |
| 11 | CHEMICAL | Using aggressive cleaning agents for cleaning the platform | Possibility to burn any part of the body and pollute the environment | Do not use aggressive cleaning agents that may cause: burning, destroying painted layers, steel corrosion and pollution of the environment |

| | | | | |
|---|---|---|---|---|
| 12 | ENVIRONMENTSAL CONDITIONS | Hitting by a lightning | Electrocuting, burning. Danger to health and life | Do not use the platform during storms |
| | | Wind | Falling out of the platform. Danger to health and life | Do not use the platform when the wind speed exceeds 7 m/s |
| | | Icing, rainfall, snow or other adverse weather conditions | Limitation of visibility, Slipping on the surface of the platform. Danger to health and life | Do not use the platform during adverse weather conditions |
| | | Temperature | Possible discomfort while moving. Danger to health and life | Use the platform in temperatures form -10 to +40°C. Wear proper personal protective equipment |
| 13 | FALLING OF WORKERS FROM THE PLATFORM | Number of people standing on the platform exceeding the limit | Falling out of the platform due to limited space. Danger to health and life | No more than 2 people may stand on the platform. Use in accordance with the Technical Documentation |
| | | Exceeding the maximum load of the platform. Uneven placement of the load | Falling out of the platform due to its leaning. Danger to health and life | Do not exceed the allowed load capacity of the platform. The load on the platform shall be placed evenly form the centre |
| | | Standing and working on a toe board or barriers of the platform and doing it while lifting, positioning, lowering and placing the platform on a surface or other construction | Falling out of the platform. Danger to health and life | Do not stand on a toe board or barriers while lifting, positioning and lowering the platform. Work on the platform only after it has been assembled |
| | | Fainting during work | Falling out of the platform. Danger to health and life | Toe board, anchoring points. Wear proper personal protective equipment. Perform a rescue operation |
| | | Not assembling the platform to the supporting structure | The risk of falling from the platform. Danger to health and life | Properly assemble the platform. Wear proper personal protective equipment |
| | | Hitting the platform with the load | Falling out of the platform. Danger to health and life | Limit the speed of moving the load. Apply proper procedures |

## 6.0 DESIGNER'S STATEMENT

According to art. 20(4) of the "Building Code" I hereby declare that this project documentation
For the constructional part of the fall arrest system – the unloading platform

was drawn in accordance *with the provisions of the code, rules and guidelines of the technical knowledge (art. 20 point 4 of the 16 April 2004 Act, amending the 7 July 1994 Act – "Building Code" Journal of Laws no. 6, pos. 41/2004),* binding technical and building provisions, as well as Polish and European Standards, and was handed in full to serve its purpose.




*designer's readable signature and seal*

# EU DECLARATION OF CONFORMITY

1. Construction site device (ancillary equipment) - UNLOADING PLATFORM

   (Art. No. [1140/B], [1140/SP], [1140/MP], [1150/B], [1150/SP], [1150/MP], [1160/B], [1160/SP], [1160/MP])

2. Name and address of the manufacturer:
   STRUMIN EQUIPMENT SP. Z O.O., 32-084 MORAWICA
   Morawica 191, NIP: 944-22-78-659,

3. This declaration was issued for the sole responsibility of the manufacturer:
   STRUMIN EQUIPMENT SP. Z O.O,

4. Object of the declaration: Unloading platform as described in the Technical Documentation in the appendix no. 1 to this declaration:
   "TECHNICAL DOCUMENTATION
   PLATFORM USER MANUAL.docx"

5. The object of this declaration described in 4 herein complies with the provisions of the EU's standards

6. References to the standards describing the declared compliance:

   The project of the unloading platform was prepared in accordance with the current laws and technical standards:

   | | |
   |---|---|
   | PN-EN 1090 structures. | – Technical requirements for the execution of steel and aluminium |
   | PN-EN 1991-1 | – Actions on structures – Part 1-1: General actions: densities, self-weight and imposed loads, |
   | PN-82/B-02001 | – Loads on structures Permanent loads. |
   | PN-82/B-02003 | – Loads on structures Technical variable loads. Basic technical and assembly loads. |

7. The object of this declaration, described in Point 4., complies with the type, in accordance with the Company's production inspection system No. ZKP/STRUMIN/01 and the rules of the supervised product inspections in random time intervals).

Signing on behalf of: Kamil Strumiński, STRUMIN EQUIPMENT

STRUMIN EQUIPMENT Sp. z o.o.
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(place and date of issuing):
MORAWICA
03-11-2025