

Bracket platform M

User Information

Instructions for assembly and use (Method statement)



9723-208-01

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Introduction

Elementary safety warnings

User target groups

- This booklet is aimed at all persons who will be working with the Doka product or system that it describes. It contains information on the standard design for setting up this system, and on correct, compliant utilisation of the system.
- All persons working with the product described herein must be familiar with the contents of this booklet and with all the safety instructions it contains.
- Persons who are incapable of reading and understanding this booklet, or who can do so only with difficulty, must be instructed and trained by the customer.
- The customer is to ensure that the information materials provided by Doka (e.g. User Information booklets, Instructions for Assembly and Use, Operating Instruction manuals, plans etc.) are up to date and available to all users, and that they have been made aware of them and have easy access to them at the usage location.
- In the relevant technical documentation and form-work utilisation plans, Doka shows the workplace safety precautions that are necessary in order to use the Doka products safely in the usage situations shown.
In all cases, users are obliged to ensure compliance with national laws, standards and regulations throughout the entire project and to take appropriate additional or alternative workplace safety precautions where necessary.

Hazard assessment

- The customer is responsible for drawing up, documenting, implementing and continually updating a hazard assessment at every job-site.
This booklet serves as the basis for the site-specific hazard assessment, and for the instructions given to users on how to prepare and utilise the system. It does not substitute for these, however.

Remarks on this booklet

- This document can be used as general Instructions for Assembly and Use (Method Statement) or be incorporated into site-specific Instructions for Assembly and Use (Method Statement).
- **The graphics, animations and videos in this document or app sometimes depict partially assembled assemblies and may require additional safety equipment and/or measures to comply with safety regulations.**
The customer must ensure all applicable regulations are complied with, even if they are not shown or implied in the graphics, animations and videos provided.
- **Individual sections contain further safety instructions and/or special warnings as applicable.**

Planning

- Provide safe workplaces for those using the form-work (e.g. for when it is being erected/dismantled, modified or repositioned etc). It must be possible to get to and from these workplaces via safe access routes!
- **If you are considering any deviation from the details and instructions given in this booklet, or any application which goes beyond those described in the booklet, then revised static calculations must be produced for checking, as well as supplementary assembly instructions.**

Regulations; industrial safety

- All laws, Standards, industrial safety regulations and other safety rules applying to the utilisation of our products in the country and/or region in which you are operating must be observed at all times.
- If a person or object falls against, or into, the side-guard component and/or any of its accessories, the component affected may only continue in use after it has been inspected and passed by an expert.

Rules applying during all phases of the assignment

- The customer must ensure that this product is erected and dismantled, reset and generally used for its intended purpose in accordance with the applicable laws, standards and rules, under the direction and supervision of suitably skilled persons. These persons' mental and physical capacity must not in any way be impaired by alcohol, medicines or drugs.
- Doka products are technical working appliances which are intended for industrial / commercial use only, always in accordance with the respective Doka User Information booklets or other technical documentation authored by Doka.
- The stability and load-bearing capacity of all components and units must be ensured during all phases of the construction work!
- Do not step on or apply strain to cantilevers, closures, etc. until suitable measures to ensure their stability have been correctly implemented (e.g. by tie-backs).
- Strict attention to and compliance with the functional instructions, safety instructions and load specifications are required. Non-compliance can cause accidents and severe injury (risk of fatality) and considerable damage to property.
- Sources of fire in the vicinity of the formwork are prohibited. Heaters are permissible only when used correctly and situated at a correspondingly safe distance from the formwork.
- Customer must give due consideration to any and all effects of the weather on the equipment and regards both its use and storage (e.g. slippery surfaces, risk of slipping, effects of the wind, etc.) and implement appropriate precautionary measures to secure the equipment and surrounding areas and to protect workers.
- All connections must be checked at regular intervals to ensure that they are secure and in full working order.
In particular threaded connections and wedged connections have to be checked and retightened as necessary in accordance with activity on the jobsite and especially after out-of-the-ordinary occurrences (e.g. after a storm).
- It is strictly forbidden to weld Doka products – in particular anchoring/tying components, suspension components, connector components and castings etc. – or otherwise subject them to heating.
Welding causes serious change in the microstructure of the materials from which these components are made. This leads to a dramatic drop in the failure load, representing a very great risk to safety.
It is permissible to cut individual tie rods to length with metal cutting discs (introduction of heat at the end of the rod only), but it is important to ensure that flying sparks do not heat and thus damage other tie rods.
The only articles which are allowed to be welded are those for which the Doka literature expressly points out that welding is permitted.

Assembly

- The equipment/system must be inspected by the customer before use, to ensure that it is in an acceptable condition. Steps must be taken to exclude components that are damaged, deformed, or weakened due to wear, corrosion or rot (e.g. fungal decay).
- Using our safety and formwork systems together with those of other manufacturers can create risks that may lead to injury and damage to property. This requires separate verification by the user.
- The equipment/system must be assembled and erected in accordance with the applicable laws, standards and rules by trained customer personnel whilst maintaining any applicable safety inspections that may be required.
- It is not permitted to modify Doka products; such modifications constitute a safety risk.

Closing the formwork

- Doka products and systems must be set up so that all loads acting upon them are safely transferred!

Pouring

- Do not exceed the permitted fresh-concrete pressures. Over-high pouring rates overload the formwork, cause greater deflection and risk breakage.

Stripping the formwork

- Do not strip out the formwork until the concrete has reached sufficient strength and the person in charge has given the order for the formwork to be stripped out!
- When stripping out the formwork, never use the crane to break concrete cohesion. Use suitable tools such as timber wedges, special pry-bars or system features such as Framax stripping corners.
- When stripping out the formwork, do not endanger the stability of any part of the structure, or of any scaffolding, platforms or formwork that is still in place!

Transporting, stacking and storing

- Observe all country-specific regulations applying to the handling of formwork and scaffolding. For system formwork the Doka slinging means stated in this booklet must be used – this is a mandatory requirement.
If the type of sling is not specified in this document, the customer must use slinging means that are suitable for the application envisaged and that comply with the regulations.
- When lifting, always make sure that the unit to be lifted and its individual parts can absorb the forces that occur.
- Remove loose parts or secure them so that they cannot slip out of position and drop.
- When lifting formwork or formwork accessories with a crane, no persons must be carried along, e.g. on working platforms or in multi-trip packaging.
- All components must be stored safely, following all the special Doka instructions given in the relevant sections of this document!

Maintenance

- Only original Doka components may be used as spare parts. Repairs may only be carried out by the manufacturer or authorised facilities.

Miscellaneous

The weights as stated are averages for new material; actual weights can differ, depending on material tolerances. Dirt accretions, moisture saturation, etc. can also affect weight.

We reserve the right to make alterations in the interests of technical progress.

Eurocodes at Doka

The permissible values stated in Doka documents (e.g. $F_{perm} = 70 \text{ kN}$) are not design values (e.g. $F_{Rd} = 105 \text{ kN}$), unless specified!

- It is essential to avoid confusing permissible values with design values!
- Doka documents will continue to state the permissible values.

Allowance has been made for the following partial factors:

- $\gamma_F = 1.5$
- $\gamma_{M, \text{timber}} = 1.3$
- $\gamma_{M, \text{steel}} = 1.1$
- $k_{mod} = 0.9$

Consequently, all the design values for an EC design calculation can be determined from the permissible values.

Symbols used

The following symbols are used in this document:



DANGER

This is a notifier drawing attention to an extremely dangerous situation in which non-compliance with this notifier will lead to death or severe, irreversible injury.



WARNING

This is a notifier drawing attention to a dangerous situation in which non-compliance with this notifier can lead to death or severe, irreversible injury.



CAUTION

This is a notifier drawing attention to a dangerous situation in which non-compliance with this notifier can lead to slight, reversible injury.



NOTICE

This is a notifier drawing attention to a situation in which non-compliance with this notifier can lead to malfunctions or damage to property.



Instruction

Indicates that actions have to be performed by the user.



Sight-check

Indicates that you need to do a sight-check to make sure that necessary actions have been carried out.



Tip

Points out useful practical tips.



Reference

Cross-references other documents.

System description

For greater safety in masonry and pre-cast construction

The Bracket platform M is a site-ready, lightweight working and protection platform that gives a big safety boost for the masonry and precast construction sectors.

The winner of an EU award, the Bracket platform M fulfils the criteria of:

- EN 12811-1 compliant working platforms
- DIN 4420-1 and ÖNORM B 4007 compliant protection platforms

The Bracket platform M puts an end to the time-consuming and risky business of improvising protection platforms from separate brackets and planks.

The system also provides solutions for corner configurations.

Standardised system solutions are available for bridging storey-high openings and extending railings etc.

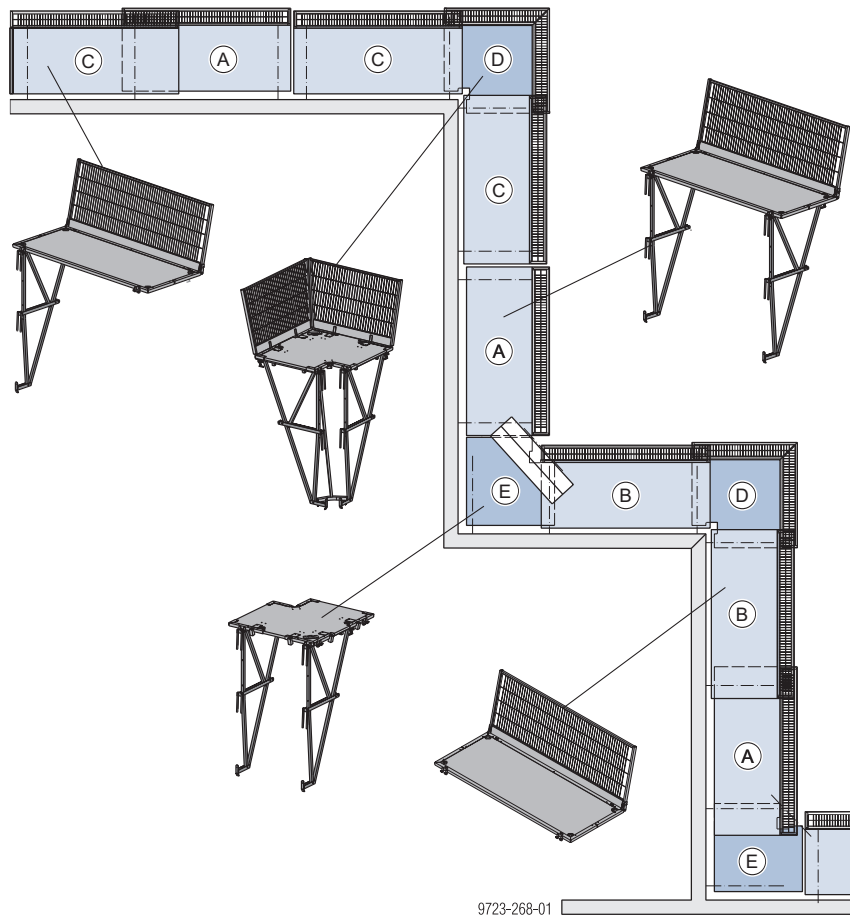
Among the many advantages of the Doka bracket platform M:

- Is readied for operation in just a few simple steps.
 - Tilt up the railings.
 - Fix the brackets.
 - Hang the platform into place.
 - Done.
- The 1.55 m working width and 3.00 m platform length provide a safe working environment
- Safe, close-meshed lattice railings
- The wide (2.50 m) centre-distance of the brackets means fewer suspension points
- Long brackets for bridging window gaps down as far as parapet height
- Good bridging of wall and window openings
- A second drop-in rod on each bracket allows the platform height to be adjusted by 1.00 m
- No protruding parts: The retractable crane lifting points leave an even, safe work-deck.

Further advantages:

- Very little space required for storage and transport
- Pallet for platform brackets M, for holding up to 18 brackets
- Low bracket weight of only 32 kg
- Captive, unlosable parts
- Long service life thanks to its sturdy design, varnished decking and galvanised steel construction

Easy utilisation planning



- A** Bracket platform M
- B** Platform decking M 3.00m
- C** Platform decking M 3.00m with one Platform bracket M
- D** Corner platform decking as outside corner
- E** Corner platform decking as inside corner

Layout of Bracket platforms M

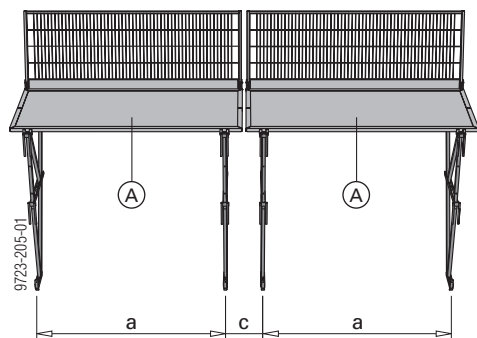
Variable combinations of platform decking and brackets make for optimum adaptation to the structure.

Permitted service load: 3.0 kN/m² (300 kg/m²)

Load Class 4 to EN 12811-1:2003

(depends on the type of suspension point)

Standard layout



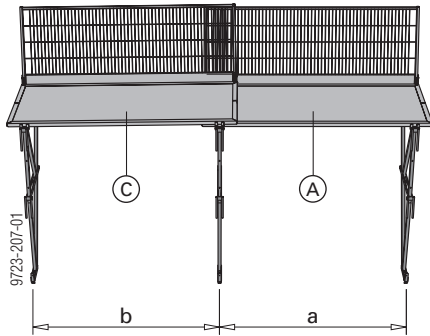
a ... 250.0 cm

c ... 50.0 cm

A Bracket platform M

Adapting with overlapping platform

Minimum overlap 25 cm



a ... 250.0 cm

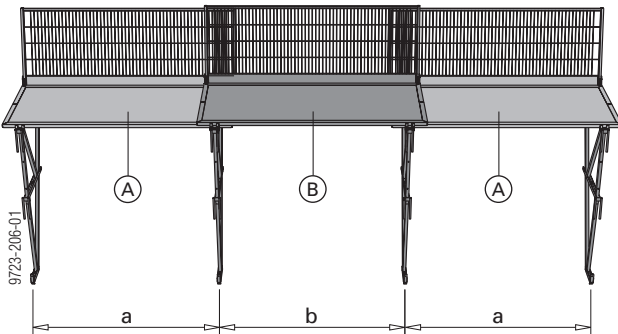
b ... Variable up to 250.0 cm

A Bracket platform M

C Platform decking M 3.00m with one Platform bracket M

Adapting with Platform decking M 3.00 m for gap-bridging

Minimum overlap 25 cm



a ... 250.0 cm

b ... Variable up to 250.0 cm

A Bracket platform M

B Platform decking M 3.00m

Due to the long drop-in rods, in most cases no extra safeguards are needed to protect against accidental lift-out of the platforms.

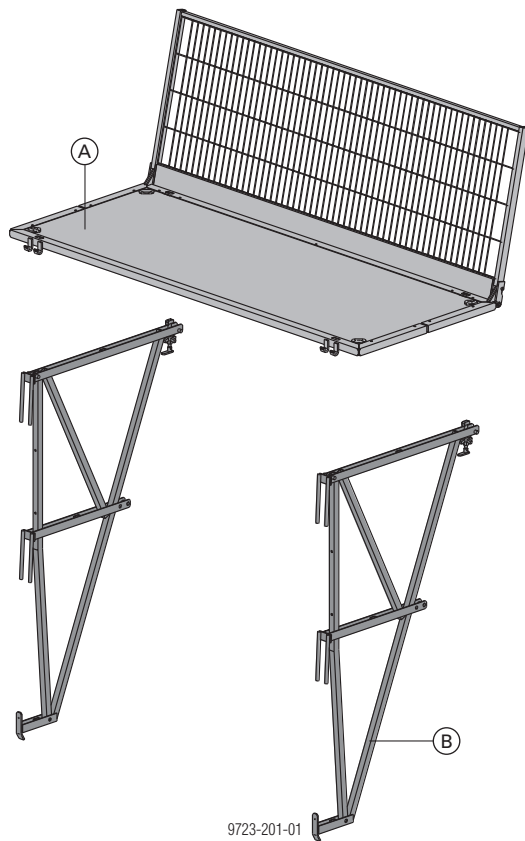


NOTICE

When platforms are installed in exposed locations (e.g. on tall buildings with closed facades where the platforms are installed near the top of the building and a storm warning has been issued), extra precautions must be taken to prevent lift-out of the platforms, platform decking and loose planks.

(e.g. use Quick-locking straps 55cm to tie the platform railings together.)

The Bracket platform M in detail

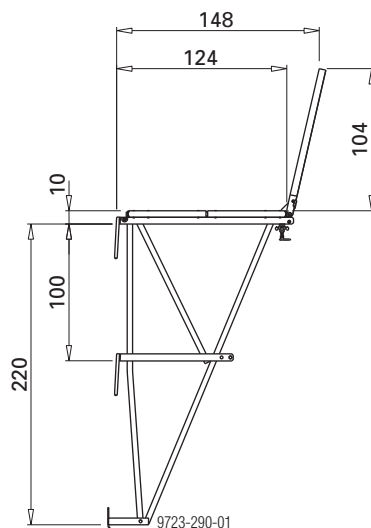


A Platform decking M 3.00m

B Platform bracket M

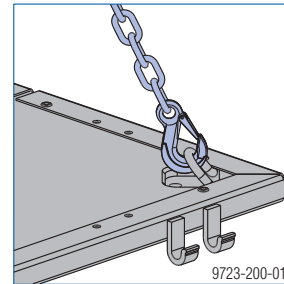
The Platform decking M 3.00m (**A**) can also be used for bridging openings and for closures, without having to be modified first.

System dimensions:



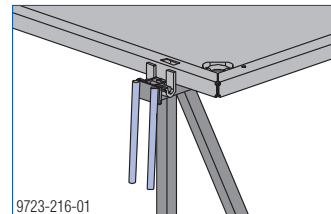
Crane hoisting points

No projecting parts: The retractable crane hoisting points leave an even, safe work-deck.

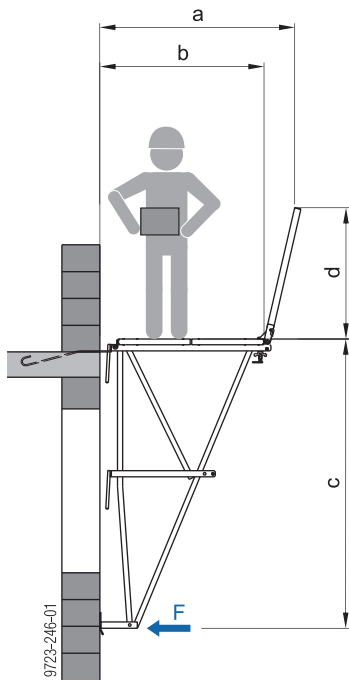


Drop-in rod

Thanks to the long drop-in rods, in most cases no extra safeguards are needed to protect against accidental lift-out of the platforms.



Working platform



a ... 155.0 cm
 b ... 130.0 cm
 c ... 229.0 cm
 d ... 104.0 cm

Max. compressive load actually occurring:

- $F_k = 3.3 \text{ kN}$ ($F_d = 4.9 \text{ kN}$) normal position
- $F_k = 6.6 \text{ kN}$ ($F_d = 9.9 \text{ kN}$) platform raised

Protection platform

- Protection platforms must conform to Load Class 2 or higher.
- For the types of suspension point and closures, refer to the specifications given for working platforms without formwork.
- Bracket platform M has been tested as a fall barrier for a maximum fall height of 3.00 m. Observe the national regulations for permitted falling heights!

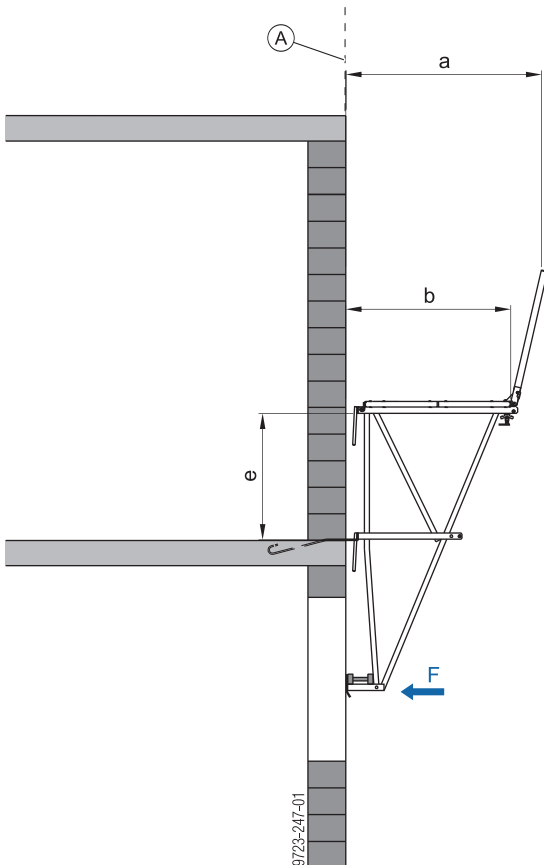


NOTICE

Regarding the use of our products in safety relevant applications, it is essential that all latest applicable industrial safety laws, regulations and standards as issued or amended by any country or state, where they are to be used, are strictly complied with.

In accordance with the applicable regulations, guard rails are the first measure to be taken.

Fall-stop scaffold



- a ... 155.0 cm
- b ... 130.0 cm
- e ... 100 cm

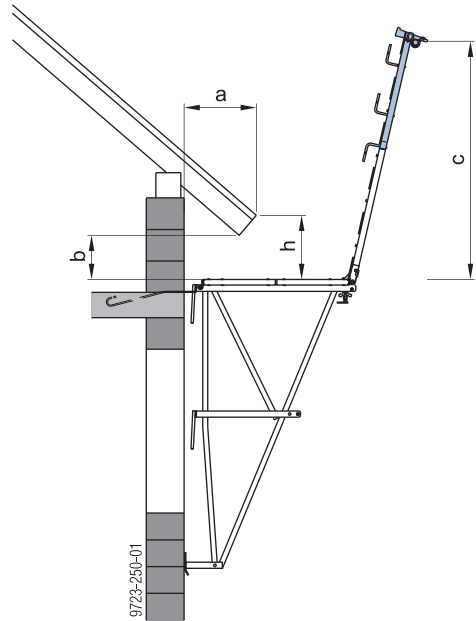
A Guard rails

Max. compressive load actually occurring:

- $F_k = 3.3 \text{ kN}$ ($F_d = 4.9 \text{ kN}$) normal position
- $F_k = 6.6 \text{ kN}$ ($F_d = 9.9 \text{ kN}$) platform raised

Sloping-rooftop fall barrier

as per DIN 4420



- a ... eaves depth
- b ... minimum lift-out distance 15 cm
- c ... 1.90 m
- h ... max. 1.50 m

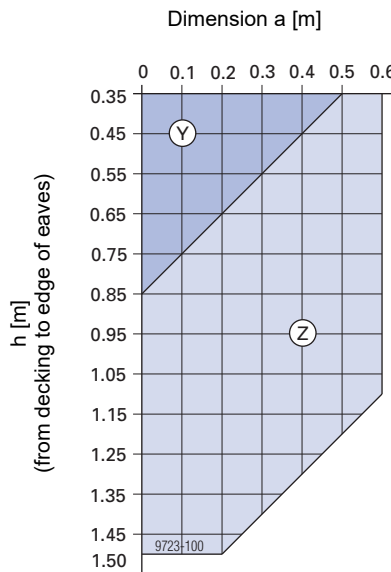
A Universal handrail extension M



NOTICE

- When using the Universal handrail extension M – max. influence width: 3.00 m
- Allow for the min. lift-out distance (b) of 35 cm!

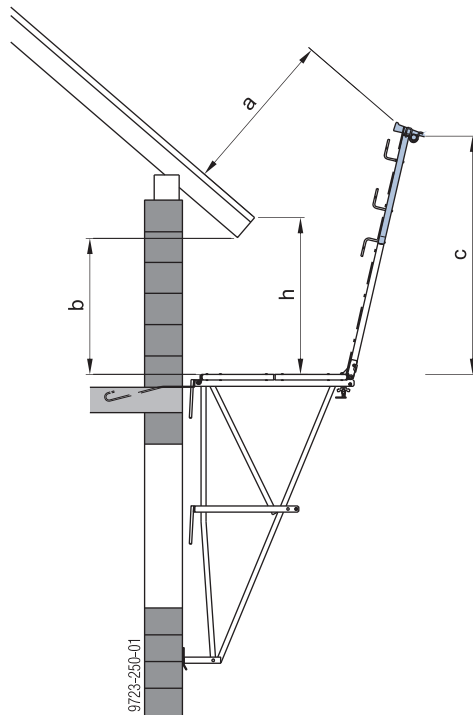
Areas of use



Y Bracket platform M (standard configuration)

Z Bracket platform M with handrail extension

As per ÖNORM B 4007

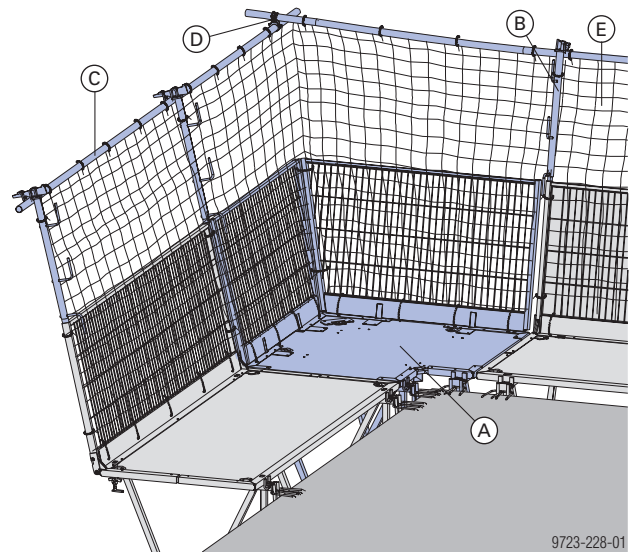


- a ... min. 60 cm
 b ... Minimum lift-out distance 15 cm
 c ... 1.90 m
 h ... max. 1.50 m

**NOTICE**

- When using the Universal handrail extension M – max. influence width: 3.00 m
- Allow for the min. lift-out distance (b) of 35 cm!

Handrail extension with Universal handrail extension M

Corner platform decking M

Overall height of railings 1.90 m

A Corner platform decking M (as the outside corner)

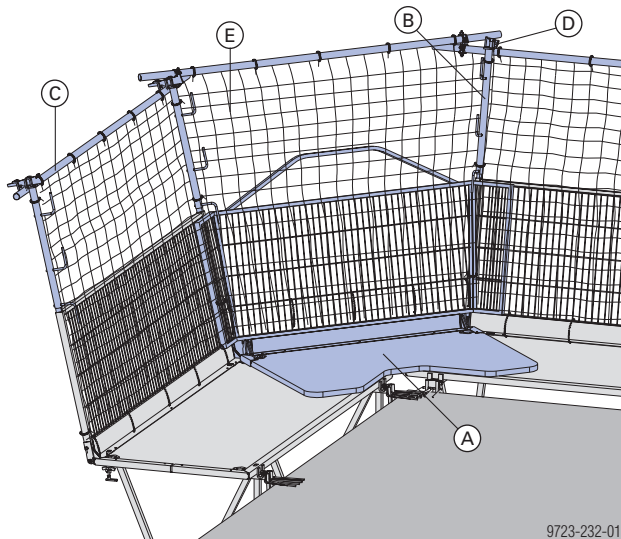
B Universal handrail extension M

C Scaffold tube 48.3mm

D Swivel coupler 48mm

E Safety net

- Push a Universal handrail extension M all the way into the handrail post of each of the adjoining platform decking units.
- Insert scaffold tubes into the quick-acting couplings of the Universal handrail extension M. Wedge in place firmly.
- Connect the scaffold tubes at the corner with a Swivel coupler 48.3 mm.
- Fix the safety nets in place.

Corner transition M 1.80m

Overall height of railings 1.90 m

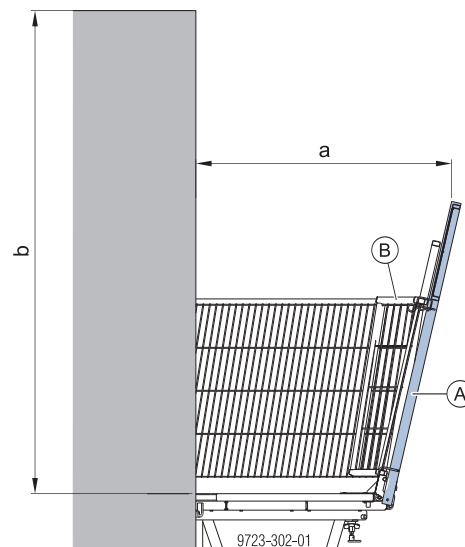
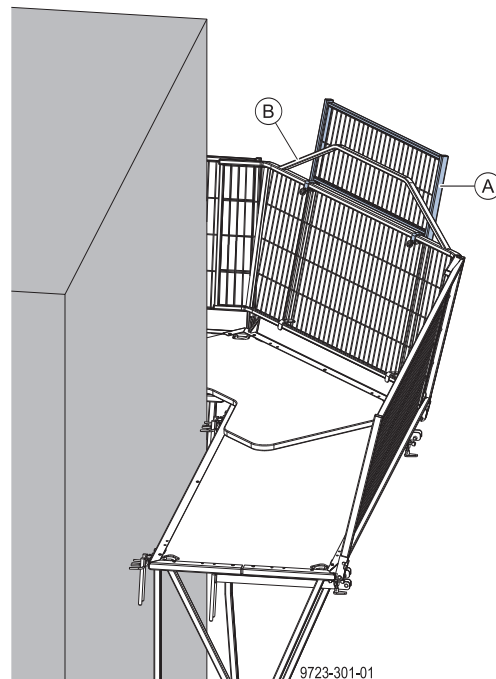
- A** Corner transition M 1.80m
- B** Universal handrail extension M
- C** Scaffold tube 48.3mm
- D** Swivel coupler 48mm
- E** Safety net

- ▶ Tilt up the railings of the Corner transition M 1.80m: These automatically slot in when they reach the stop.
- ▶ Pull out both lifting bows from their recesses and attach the lifting chains.
- ▶ Place the decking of the corner transition down onto the two bracket platforms on either side of the corner, so that it covers an equal length of each platform. (Apart from this, no other fixing is needed.)
- ▶ Push a Universal handrail extension M all the way into the handrail post of each of the adjoining platform decking units.
- ▶ Insert scaffold tubes into the quick-acting couplings of the Universal handrail extension M. Wedge in place firmly.
- ▶ Link the scaffold tubes at the corners with Swivel couplers 48.3mm.
- ▶ Fix the safety nets in place.

Handrail extension Corner transition M 1.80m

When using the Bracket platform M as a **fall barrier**, the **Handrail extension Corner transition M 1.80m** must be installed at the Corner transition M 1.80m.

This creates a distance of 1.30 m between the edge of the building and the top edge of the railing.



- a ... min. 1.30 m
- b ... falling height 2.00 - 3.00 m

- A** Handrail extension Corner transition M 1.80m
- B** Corner transition M 1.80m

**NOTICE**

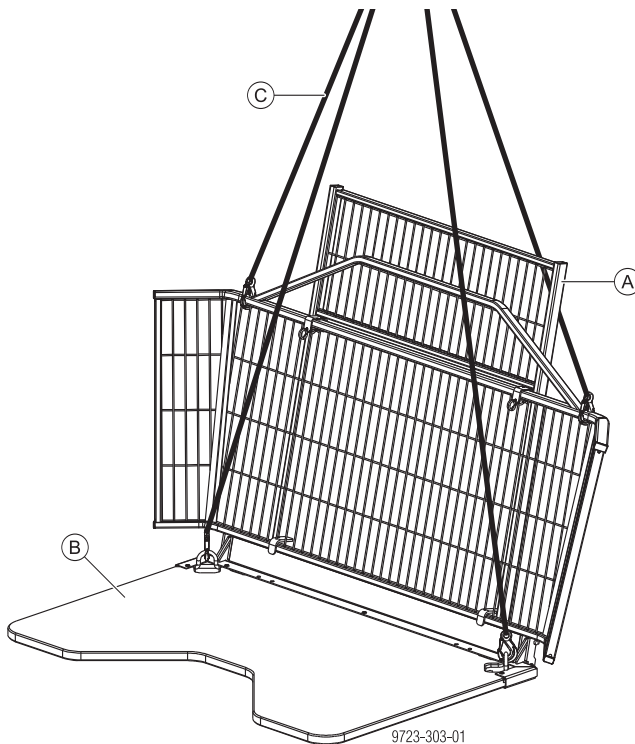
- When a handrail extension is mounted on the corner transition, there is a risk of it tipping over because of the higher centre-of-gravity.
- Secure it so that it cannot tip over while being mounted.
- Temporary storage of the handrail extension + corner transition is only allowed if the two components are dismantled, or folded closed.

- ▶ Working on the ground, mount the handrail extension to the outside of the corner transition.
- ▶ Secure the handrail extension to the corner transition with spring cotters.

**NOTICE**

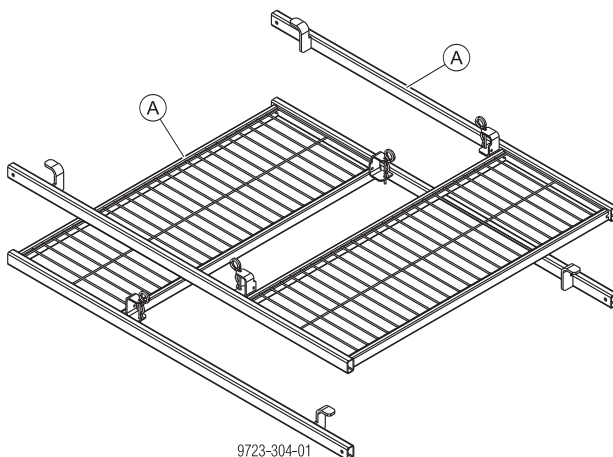
Higher centre of gravity!

- ▶ Shorten the 4-part lifting chain so that the corner transition with handrail extension is not angled.
- ▶ Pull out both lifting bows from their recesses, and attach the lifting chains.
- ▶ Place the corner transition on the two bracket platforms positioned at the corner so that it has an equal protruding length on both sides and secure to prevent overturning.



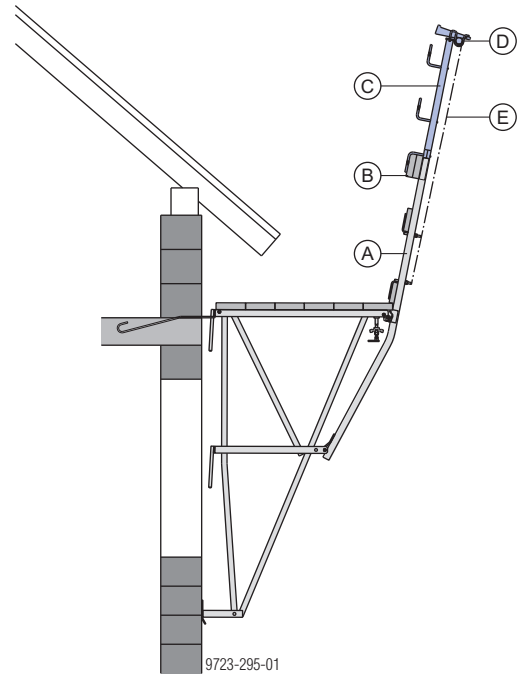
- A** Handrail extension Corner transition M 1.80m
- B** Corner transition M 1.80m
- C** 4-part lifting chain (e.g. Doka 4-part chain 3.20m)

The Handrail extension Corner transition M 1.80m can be stacked by turning it at 180° to the previous unit.



- A** Handrail extension Corner transition M 1.80m

Handrail extension with Bracket railing post M



- A** Bracket railing post M
- B** Guardrail board min. 15/3 cm (site-provided)
- C** Universal handrail extension M
- D** Scaffold tube 48.3mm
- E** Safety net

- ▶ Take off the fixing plate from the top of the Bracket railing post M.
This makes it possible to push the Universal handrail extension M all the way in.
- ▶ Push a Universal handrail extension M all the way into each of the Bracket railing posts M.
- ▶ Attach guardrail boards at foot and chest height, and for fixing the net to.
- ▶ Insert scaffold tubes into the quick-acting couplings of the Universal handrail extension M. Wedge in place firmly.
- ▶ Fix the safety nets in place.
- ▶ Take off the fixing plate from the top of the Bracket railing post M.
This makes it possible to push the Universal handrail extension M all the way in.
- ▶ Push a Universal handrail extension M all the way into each of the Bracket railing posts M.
- ▶ Attach guard-rail boards at foot and chest height, and for fixing the net to.
- ▶ Insert scaffold tubes into the quick-acting couplings of the Universal handrail extension M. Wedge in place firmly.
- ▶ Fix the safety nets in place.

Anchoring on the structure

Overview of suspension methods

Reaction forces when subjected to a load corresponding to Load Class 4 EN 12811-1 (300 kg/m²)

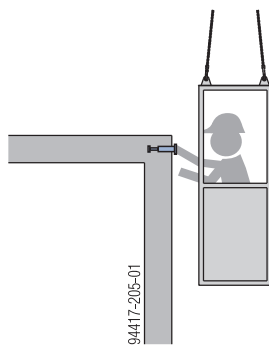
Permitted horizontal force: 8.6 kN

Permitted vertical force: 10.7 kN



NOTICE



- Carry out installation and dismantling of the suspension from a safe workplace, e.g. aerial work platform, crane cage, etc.!



NOTICE


- Only tested and approved original Doka parts may be used for the suspension points of the Bracket platform M!
- Any plastic, steel or aluminium sleeves and angles available on the market have not been tested by Doka in combination with the Bracket platform M and constitute a high safety risk!

Suspension point post drilled in the concrete

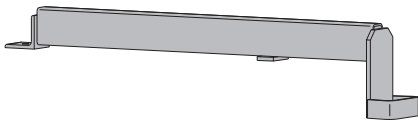
Re-usable part	
Suspension shoe M	Dowel
	
1 of each, for each bracket	

Suspension points subsequently fixed onto the concrete floor-slab

Without insulation, or with insulation up to 10 cm thick

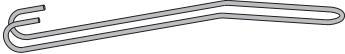
Re-usable part
Suspension plate ES

1 per bracket

With insulation and/or facing-brickwork between 10 and 30 cm thick





Re-usable part
Suspension profile ES

1 per bracket

Suspension point in concrete

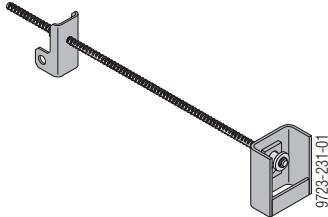
Without insulation (standard suspension point)

Lost part
Suspension loop ES

2 per bracket

Suspension point in wall

Lost parts		Re-usable parts	
Bridge edge beam anchor 15.0	Nailing cone 15.0	Suspension shoe M	Screw-in cone 15.0
			
1 of each, for each bracket			

Retrofitted suspension point in masonry

Re-usable parts
Suspension shoe M, Wall anchor M and Anchor bracket M

1 of each, for each bracket

Suspension point in concrete

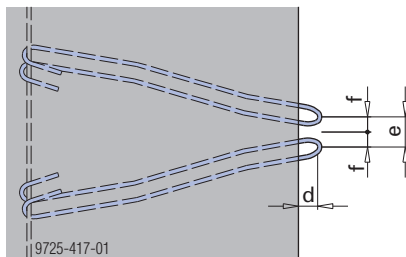
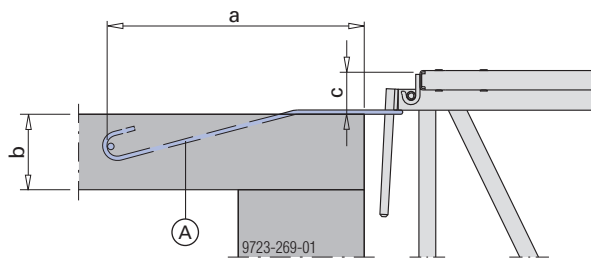
Without insulation (standard suspension point)

with Suspension loop ES

Permitted service load: 3.0 kN/m² (300 kg/m²)

Load Class 4 to EN 12811-1:2003

Characteristic cube compressive strength of the concrete ($f_{ck, cube}$):
min. 10 N/mm²



- a ... min. 50 cm
- b ... min. 13.0 cm
- c ... 9.0 cm
- d ... 9.0 to 10.0 cm
- e ... 8.0 cm
- f ... 4.0 cm

A Suspension loop ES



NOTICE

Do not deform (bend, buckle etc.) Suspension loops!

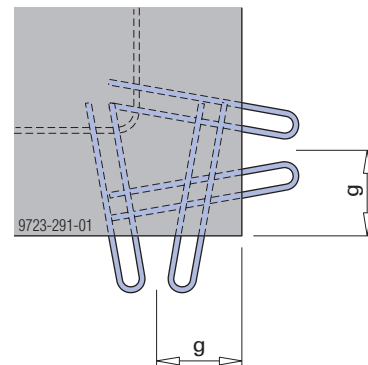
Restriction applicable when used in Austria:

- **Permitted service load: 2.0 kN/m² (200 kg/m²)** when suspended from dia. 8 mm loops (see 'Construction Worker Protection Ordinance (BauV) § 63, Sect. 4')

Restriction applicable when used in Germany:

- No approval is necessary for steel loop-type suspensions compliant with module B 119 issued by Germany's employers' liability insurance association of the construction industry (**BGBau B 119**).

Corner solution



g ... 15 cm

Installation

- Embed the Suspension loops ES in the concrete floor-slab.
- After the concrete has cured, hang the bracket platforms into place.

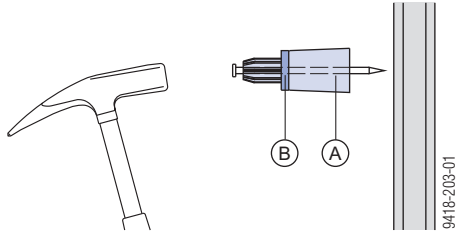
Suspension point in wall

The Bridge edge beam anchor 15.0 is type-tested.

Permitted service load: 3.0 kN/m² (300 kg/m²)
Load Class 4 to EN 12811-1:2003

Fitting the bridge edge beam anchor

- Nail a nailing cone to the form-ply (position as shown in shop drawing / assembly plan).



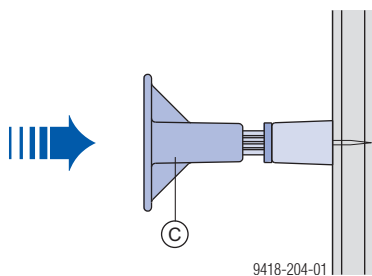
A Nailing cone 15.0

B Sealing ring



Make sure that the sealing ring is fitted correctly!

- Push the Bridge edge beam anchor onto the nailing cone.



C Bridge edge beam anchor 15.0

Z Extra reinforcement steel

- Tie the Bridge edge beam anchor tightly to the reinforcements with binding wire. This prevents it from working loose during pouring and vibration.

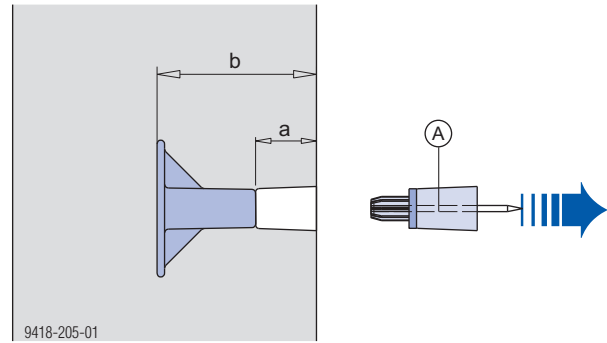


NOTICE

If statically required – place extra reinforcement steel.

After formwork has been struck

- Remove the Nailing cone from the anchoring point.



a ... Depth of concrete cover 4.0 cm
b ... Installation depth 11.5 cm

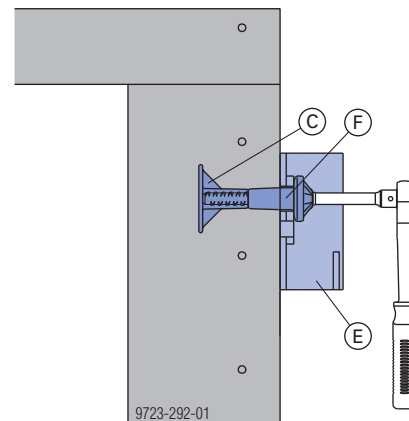
A Nailing cone 15.0

Mounting the Suspension shoe M

Tools needed:

- Reversible ratchet 1/2"
- Extension 11cm 1/2"

- Fix the Suspension shoe M in the Bridge edge beam anchor 30kN 15.0 with a Screw-in cone 30kN 15.0.



C Bridge edge beam anchor 30kN 15.0

E Suspension shoe M

F Screw-in cone 30kN 15.0

Making the suspension point reusable – lasting protection against corrosion

Where an ungalvanised 'standard' Bridge edge beam anchor 15.0 has been used, you can give the suspension point lasting (electrochemical) protection against corrosion by screwing a Zinc plug 15.0 into the anchor after the formwork has been removed.

Field of use:

Especially in bridge-building:

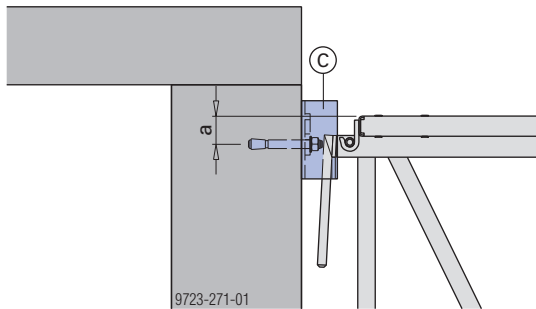
- piers
- superstructures

For suspension points which are intended to be re-usable in many years' time, when the time comes to rehabilitate the structure.

Suspension point fixed in a hole subsequently drilled in the concrete

Permitted live load: 3.0 kN/m² (300 kg/m²)

Load Class 4 to EN 12811-1:2003



a ... 6 cm

The dowel is fitted in the small (diam. 21 mm) hole in the Suspension shoe.

C Suspension shoe M

Minimum load-bearing capacity for dowel-type connections (these forces occur simultaneously):

Tensile force: $R_d \geq 24.9 \text{ kN}$ ($F_{\text{perm}} \geq 16.6 \text{ kN}$)

Shear force: $R_d \geq 16.1 \text{ kN}$ ($F_{\text{perm}} \geq 10.7 \text{ kN}$)

Follow the manufacturer's applicable fitting instructions.

e.g.: Hilti stud anchor HST M20/30 or equivalent dowels from another manufacturer.

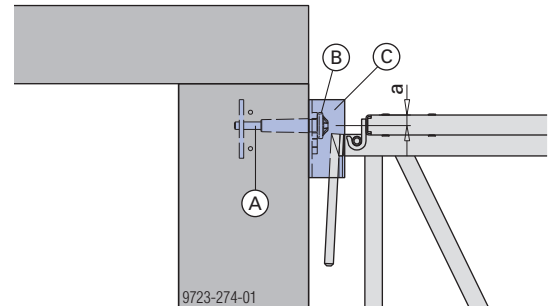
Other possible areas of use for the Suspension shoe M

Permitted live load: 3.0 kN/m² (300 kg/m²)

Load Class 4 to EN 12811-1:2003

In walls

with a Stop-anchor 15.0 16cm



a ... 2.0 cm

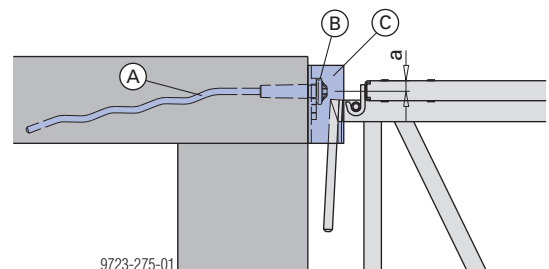
A Stop-anchor 15.0 16cm

B Suspension cone 15.0 5cm

C Suspension shoe M

In floor-slabs

with a Pigtail anchor 15.0



a ... 2.0 cm

A Pigtail anchor 15.0

B Suspension cone 15.0 5cm

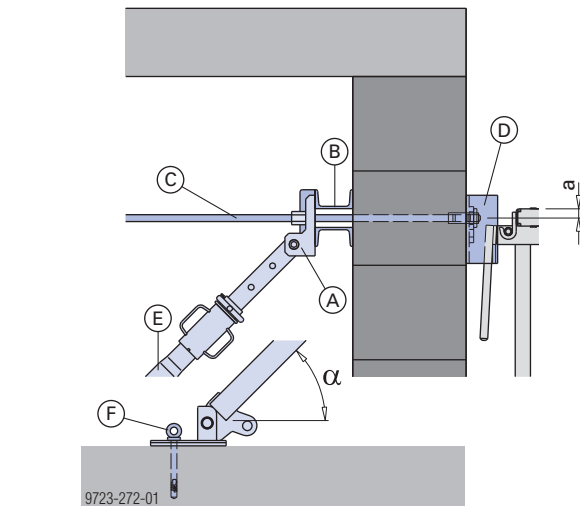
C Suspension shoe M

Retrofitted suspension point in masonry

With Suspension shoe M, Wall anchor M and Anchor bracket M

Permitted service load: 3.0 kN/m² (300 kg/m²)

Load Class 4 to EN 12811-1:2003



a ... 2.0 cm
α ... max. 45°

- A** Anchor bracket M
- B** Multi-purpose waling WS10 Top50
- C** Wall anchor M
- D** Suspension shoe M
- E** Plumbing strut IB
- F** Doka express anchor 16x125mm

Installation



- Only anchor into masonry that has sufficient load-bearing capacity.

Bulk density $\geq 0.8 \text{ kg/dm}^3$
Characteristic compressive strength: $\geq 10 \text{ N/mm}^2$
Wall thickness at least 24 cm



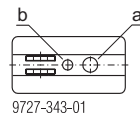
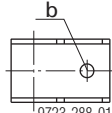
NOTICE

Special care is needed when preparing suspension points in masonry. Every suspension point must be inspected by a skilled person before being loaded.

Tools needed:

- Tie-rod wrench 15.0/20.0
- Drill a dia. 28 hole through the masonry at the point required.
- Insert the Wall anchor M.
- Push the Multi-purpose waling WS10 Top50 (min. 1.00 m long) onto the Wall anchor M and fix it with the Anchor bracket M.
- Bolt the plumbing strut onto the Anchor bracket M and anchor it to the floor-slab to resist tensile and compressive forces.

Drilled holes in the footplates

Plumbing strut 340 IB, 540 IB	Plumbing strut 260 IB
	

a ... diam. 26 mm
b ... diam. 18 mm

Anchoring the footplate

The **Doka express anchor** can be re-used many times over.

Characteristic cube compressive strength of the concrete ($f_{ck, \text{cube}}$):
min. 15 N/mm² (C12/15 grade concrete)



Follow the directions in the 'Doka express anchor 16x125mm' User Information booklet!

Required load-bearing capacity of alternative anchor-bolts:

$R_d \geq 20.3 \text{ kN}$ ($F_{perm.} \geq 13.5 \text{ kN}$)

Follow the manufacturers' applicable fitting instructions.

Dismantling

- Remove the Bracket platforms M.



Before proceeding with any further work-steps, make absolutely sure that the platforms have been removed from the suspension points.

- Unscrew the Express anchor or dowel, and remove the suspension point.

Suspension points subsequently fixed onto the concrete floor-slab

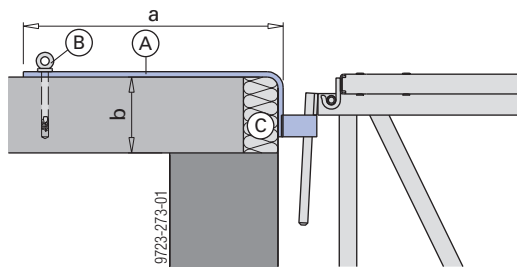
For creating suspension points on concrete floor-slabs when building in brick or refurbishing old buildings.

Permitted live load: 3.0 kN/m² (300 kg/m²)

Load Class 4 to EN 12811-1:2003

Without insulation, or with insulation up to 10 cm thick

With Suspension plate ES



a ... 60.0 cm

b ... min. 18.0 cm

A Suspension plate ES

B Doka express anchor 16x125mm

C Insulation, max. 10 cm thick

Minimum load-bearing capacity for dowel-type connections (these forces occur simultaneously):

Tensile force: $R_d \geq 7.5 \text{ kN}$ ($F_{perm.} \geq 5.0 \text{ kN}$)

Shear force: $R_d \geq 12.9 \text{ kN}$ ($F_{perm.} \geq 8.6 \text{ kN}$)

e.g.: Doka express anchor 16x125mm

Minimum value of the characteristic cube compressive strength ($f_{ck, cube}$):

15 N/mm² (concrete C12/15)

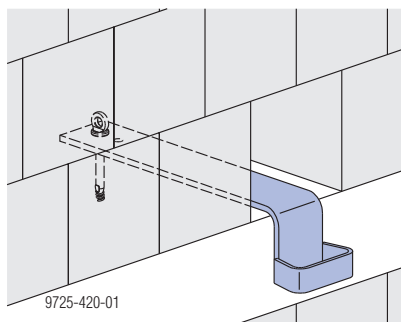


Follow the directions in the 'Doka express anchor 16x125mm' User Information booklet!

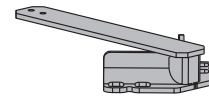


Suggestion for installation:

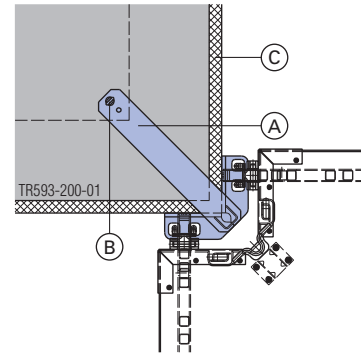
Leave out a brick where the suspension plate is to be mounted. The suspension plate can then be dismantled from inside the structure.



Corner solution with Corner suspension plate M



The Corner suspension plate M provides an improved method for suspending Bracket platforms M in corner zones. This component prevents Suspension plates ES 'colliding' in the corners.



A Corner suspension plate M

B Doka express anchor 16x125mm

C Insulation, max. 5 cm thick

Minimum load-bearing capacity for dowel-type connections (these forces occur simultaneously):

Tensile force: $R_d \geq 7.5 \text{ kN}$ ($F_{perm.} \geq 5.0 \text{ kN}$)

Shear force: $R_d \geq 18.3 \text{ kN}$ ($F_{perm.} \geq 12.2 \text{ kN}$)

e.g.: Doka express anchor 16x125mm

Minimum value of the characteristic cube compressive strength ($f_{ck, cube}$):

15 N/mm² (concrete C12/15)



Follow the directions in the 'Doka express anchor 16x125mm' User Information booklet!

Dismantling

► Remove the Bracket platforms M.

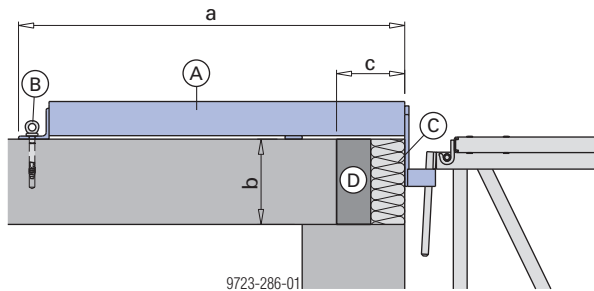


Before proceeding with any further work-steps, make absolutely sure that the platforms have been removed from the suspension points.

► Unscrew the Express anchor or dowel, and remove the suspension point.

With insulation and/or facing brickwork between 10 and 30 cm thick

With Suspension profile ES



- a ... 113.0 cm
b ... min. 18.0 cm
c ... max. 30.0 cm

- A** Suspension profile ES
B Express anchor 16x125mm
C Insulation
D Facing brickwork

Minimum load-bearing capacity for dowel-type connections (these forces occur simultaneously):

Tensile force: $R_d \geq 7.5 \text{ kN}$ ($F_{perm.} \geq 5.0 \text{ kN}$)

Shear force: $R_d \geq 12.9 \text{ kN}$ ($F_{perm.} \geq 8.6 \text{ kN}$)

e.g.: Doka express anchor 16x125mm

Minimum value of the characteristic cube compressive strength ($f_{ck, cube}$):

15 N/mm² (concrete C12/15)

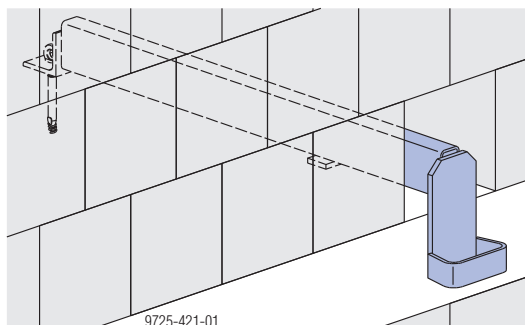


Follow the directions in the 'Doka express anchor 16x125mm' User Information booklet!



Suggestion for installation:

Leave out a brick where the suspension plate is to be mounted. The suspension plate can then be dismantled from inside the structure.



Dismantling

- Remove the Bracket platforms M.



Before proceeding with any further work-steps, make absolutely sure that the platforms have been removed from the suspension points.

- Unscrew the Express anchor or dowel, and remove the suspension point.

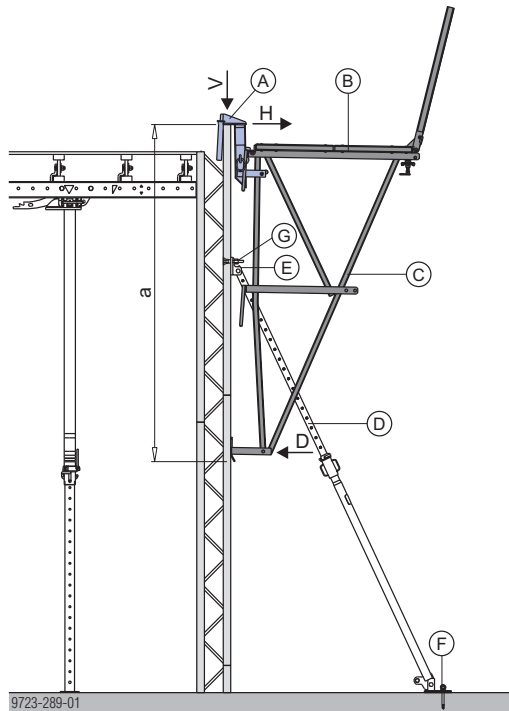
Suspension points in pre-cast construction

On hollow-wall elements

Permitted service load: 1.5 kN/m² (150 kg/m²)

Load Class 2 to EN 12811-1:2003

For using the Bracket platform M on prefabricated hollow-wall elements.



a ... 249.0 cm

- A** Precast member head M
- B** Platform decking M 3.00m
- C** Platform bracket M
- D** Plumbing strut IB
- E** Strut shoe EB
- F** Doka express anchor 16x125mm
- G** Hollow-wall anchor

Max. loads actually occurring:
 Horizontal load $H_k = 2.5 \text{ kN}$ ($H_d = 3.75 \text{ kN}$)
 Vertical load $V_k = 6.0 \text{ kN}$ ($V_d = 9.0 \text{ kN}$)
 Compressive load $D_k = 2.2 \text{ kN}$ ($D_d = 3.3 \text{ kN}$)

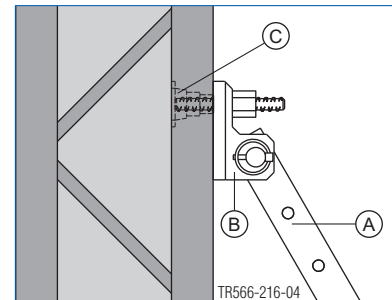


CAUTION

- Make sure that the pre-cast members have adequate shoring!
- Do not suspend bracket platforms from damaged hollow-wall elements (do a sight-check first).
 Before using the Precast member head M, check with the pre-cast part manufacturer to establish whether the loads imposed by the platform can be sustained (if necessary, provide extra reinforcement steel as statically required).
- Mount the Precast member head M in the top drop-in position only – as shown in the practical example.

Shoring the panel

Hollow-wall anchor

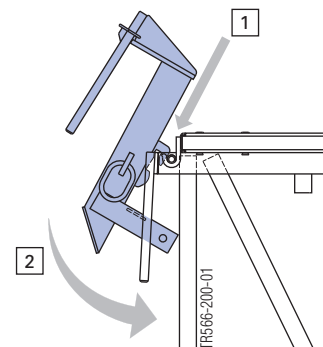


- A** Plumbing strut IB
- B** Strut shoe EB
- C** Hollow-wall anchor

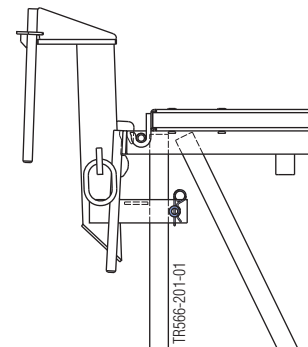
- Anchor the plumbing strut to the ground to resist tensile and compressive forces!

Assembly

- Fit the Precast member head M into the Platform bracket M
- Swivel it forwards



- Bolt it in place with a Tube wedge 16mm and secure with a 3mm spring cotter (the play of up to 5 mm compensates for any tolerances).

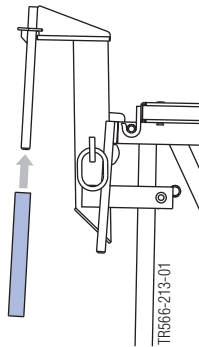


Once the Precast member head M has been mounted to the Bracket platform M, the unit is ready to be used on cavity-wall elements.

The Precast member head M can also be premounted in the same way on the Platform bracket M.

To prevent the drop-in rod being encased in concrete when the cavity-wall element is filled, a Mounting sleeve 325mm (consumable part) must be fitted over it.

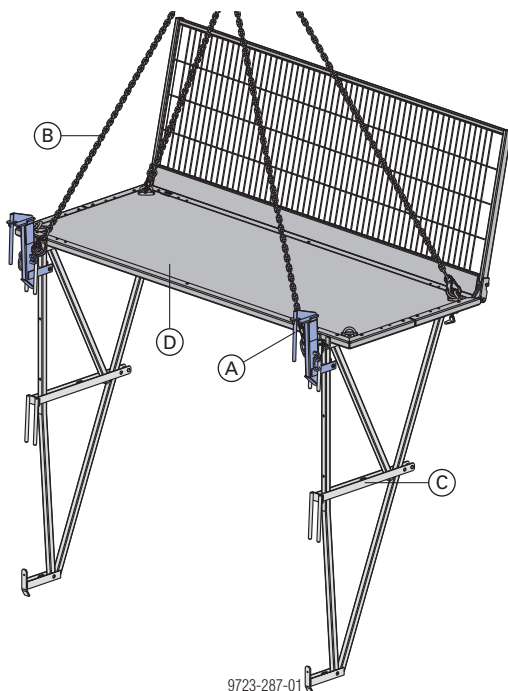
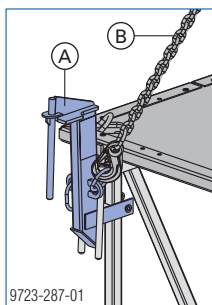
- Push on the Mounting sleeve 325mm as far as it will go



This means that all the system components (corner transitions, closures etc.) are also available for use on construction sites where precast cavity-wall elements are being used.

Lifting by crane

- Use the right slinging points! (Always attach the slings to the suspension rings on the inside of the Precast member head M)



- A Precast member head M
- B Doka 4-part chain 3.20m

- C Platform bracket M
- D Platform decking M 3.00m

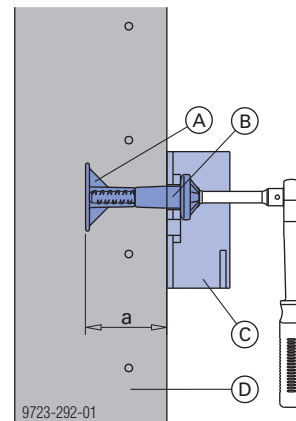
On solid pre-cast members

In normal concrete and masonry construction, this is the standard method of installation.

For precast members it is more economical to incorporate the suspension shoe anchors during their production process.

This type of suspension point is particularly suitable for solid precast members.

The required load bearing capacities must be agreed with the precast production plant to ensure their suitability for their intended use.

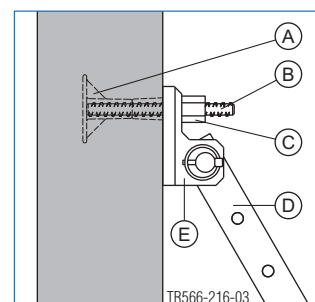


a ... 11.5 cm

- A Bridge edge beam anchor 15.0
- B Screw-in cone 15.0
- C Suspension shoe M
- D Precast concrete member

For instructions on installing the bridge edge beam anchor, see the section headed [Suspension point in concrete](#).

Shoring the panel



- A Bridge edge beam anchor 15.0
- B Tie rod 15.0
- C Hexagon nut 15.0
- D Plumbing strut IB
- E Strut shoe EB

For instructions on installing the bridge edge beam anchor, see the section headed [Suspension point in concrete](#).

- Anchor the plumbing strut so that it is resistant to tensile and compressive forces!

Assembly

Set-up procedure



NOTICE

- For working at heights that cannot be reached from the floor, use a suitable elevated platform (e.g. Platform stairway 0.97m, Wheel-around scaffold DF or mobile scaffold tower)!
- Always comply with the country-specific safety regulations!
- Do not step onto the Bracket platform M until an all-round fall protection is in place! Otherwise wear a personal fall-arrest system (e.g. safety harness)!

Perm. service load: 3.0 kN/m² (300 kg/m²)

Load Class 4 to EN 12811-1:2003

(depends on the type of suspension point)



WARNING

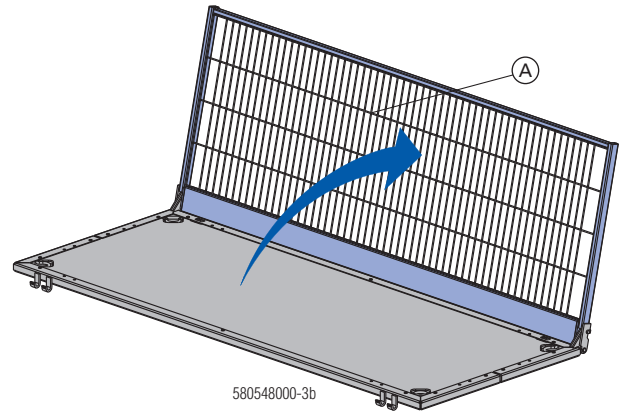
Risk of overloading!

Exceeding the permitted service load can cause the Bracket platform M to collapse!

- Do not use the Bracket platform M as an installation base for scaffolding.

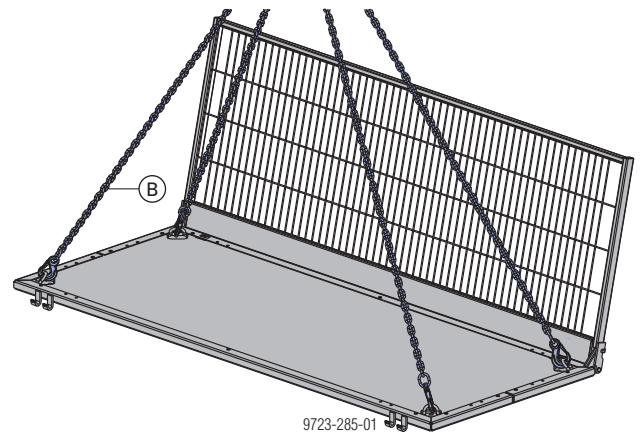
Putting up the railings

- Tilt up the railings (A). These automatically slot in when they reach the stop.



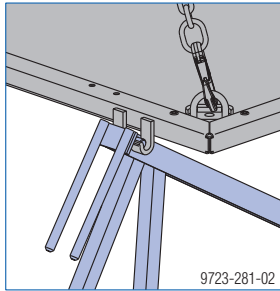
Attaching the crane

- Pull out the lifting bows from the recesses, attach a four-part lifting chain (e.g. Doka 4-part chain 3.20m) (B) and lift the Platform decking M.

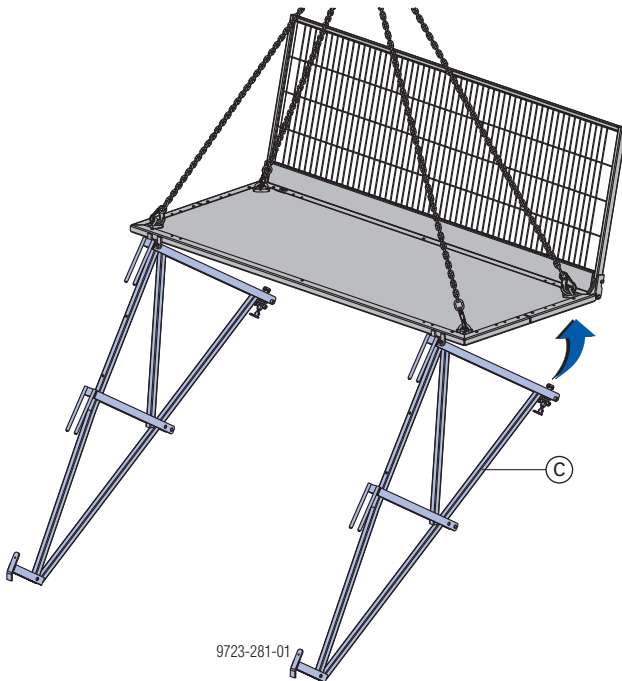


Suspending and fixing the Platform bracket M

- Hook both brackets into the front claws of the platform.

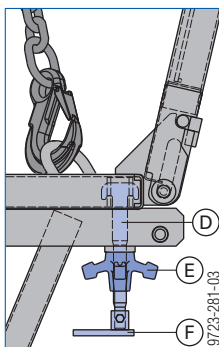


- Raise the Bracket platform.



The Platform bracket M **(C)** now automatically pivots upwards.

- Push through a scaffolding bolt **(D)** and lock it.
- Tighten the Star grip nut **G (E)** .

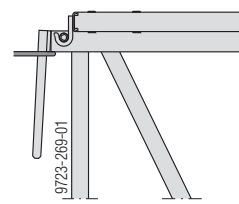


The fixing components are captively connected to the bracket.



The handle **(F)** must be pointing in the same direction as the bracket plane!

Hanging the Bracket platform M into place



Thanks to the long drop-in rods, in most cases no extra safeguards are needed to protect against accidental lift-out of the platforms.

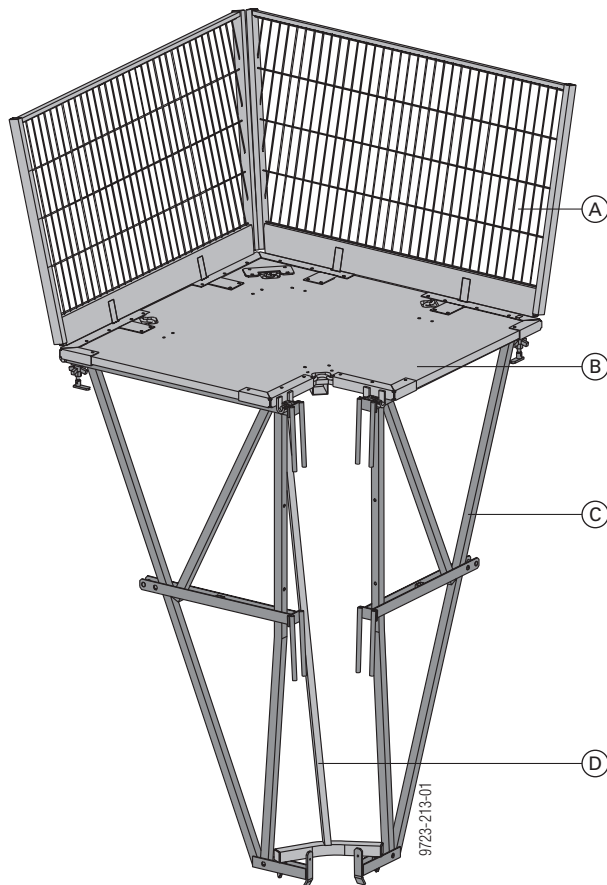
Outside corners

The system offers several different ways of dealing with corner zones.

The result is safe corner transitions that meet all possible requirements.

All corner configurations are designed not to need any extra connections to the adjacent platforms.

Corner platform decking M as the outside corner



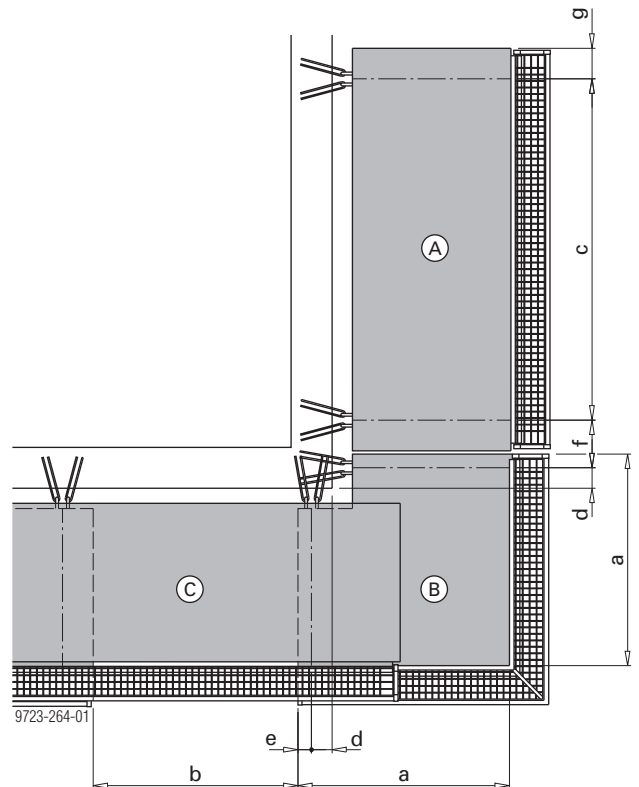
- A** Corner platform railing M
- B** Corner platform decking M
- C** Platform bracket M
- D** Corner platform strut M

Platform decking can be placed onto the Corner platform decking M from both sides. This makes it easy to create closures in the corner zones.

The whole unit can be lifted and repositioned in a single crane cycle. This makes it possible to arrange platform layouts very quickly, even in corner zones.

Another advantage of this type of corner is that the full working width of 1.55 m is still available.

For drops of up to 3.00 m.



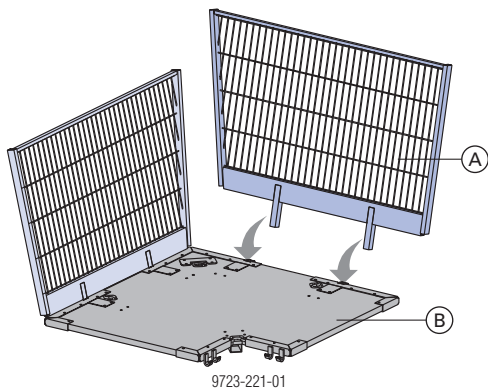
- a ... 155.0 cm
- b ... Closure width max. 200 cm
- c ... 250.0 cm
- d ... 15.0 cm
- e ... 10.0 cm
- f ... 35.0 cm
- g ... 22.5 cm

- A** Bracket platform M
- B** Corner platform decking M as the outside corner
- C** Platform decking M 3.00m

Assembly

Mounting the rear railings

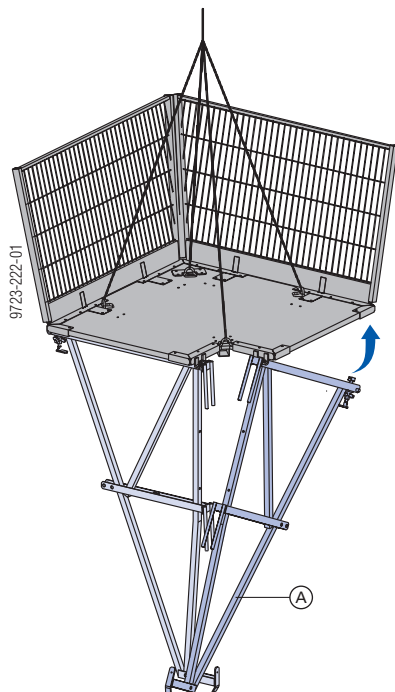
- Insert the Corner platform railing M into the Corner platform decking M.
- Pull out the lifting bows from their recesses and attach the 4-part chain. Lift the platform.



- A** Corner platform railing M
- B** Corner platform decking M

Attaching and fastening the Platform brackets M

- Hook the first bracket into the front claws of the platform.
- Lift the Corner platform decking M.

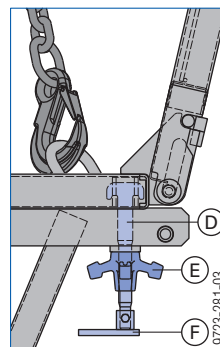


- A** Platform bracket M

The Platform bracket M (**C**) now automatically pivots upwards.

- Push through a scaffolding bolt and lock it.
- Tighten the Star grip nut G

- Hook in and fasten the second Platform bracket M.



The fixing components are captively connected to the bracket.

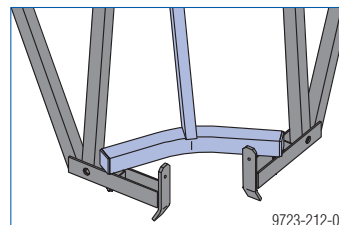


The handle (**F**) must be pointing in the direction of the bracket plane!

Mounting the Corner platform M

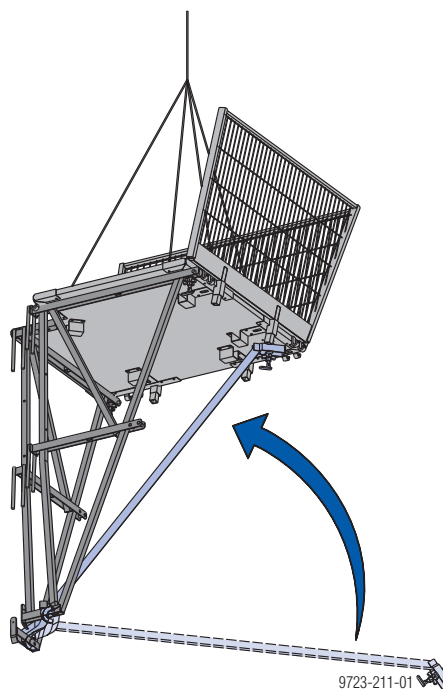
- Place the Corner platform strut M in the horizontal in such a way that the hooks engage in the shaped tubes of the bracket pressure plate.

Fastening the Corner platform strut M at the bottom



The hooks of the Corner platform strut M must engage in the shaped tubes of the bracket pressure points.

- Tilt up the Corner platform strut M and fasten it with a scaffolding bolt and a Star grip nut G.



Corner transition M 1.80m

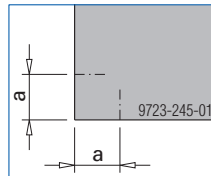
This ready-to-use, fold-down platform is a fast, safe way of providing outside corner transitions. When folded closed, it is easy to transport and takes up little storage space.

Note:

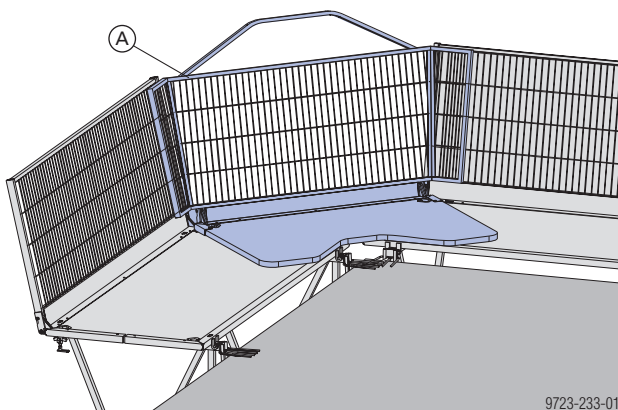
Austria's Construction Worker Protection Ordinance (Bauarbeiterschutzwverordnung, BauV) §57 requires full-width platforms to be built around the corners of structures. Consequently, in Austria the Corner platform decking M is used for outside corners.

Necessary precondition

The first suspension points for the two bracket platforms (one on either side of the corner) must be located at a distance 'a' of 15.0 cm from the edge of the structure.



- Clear access passage 0.90 m
- For drops of up to 3.00 m.



A Corner transition M 1.80m

Assembly

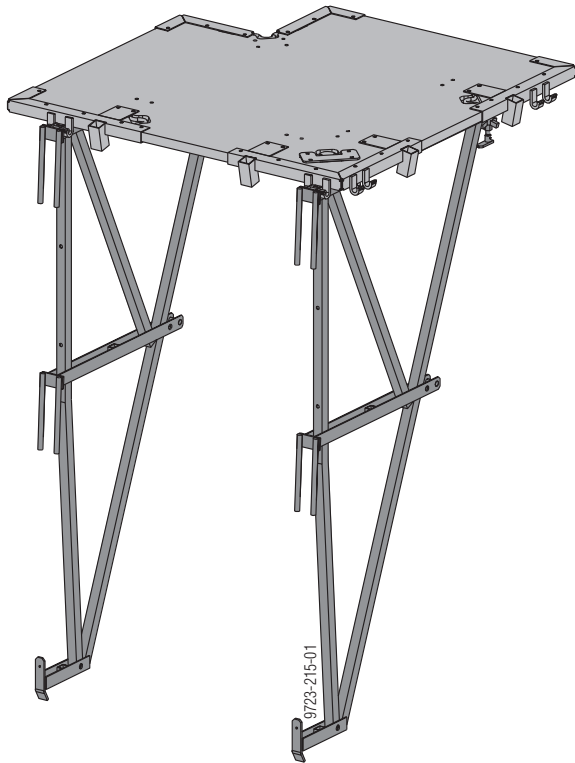
- Tilt up the railings of the Corner transition M 1.80m: These automatically slot in when they reach the stop.
 - Pull out both lifting bows from their recesses, and attach the lifting chain.
 - Place the decking of the Corner transition M 1.80m down onto the two bracket platforms on either side of the corner, so that it covers an equal length of each platform.
- Apart from this, no other fixing is needed.

Inside corners

Corner platform decking M as the inside corner

The Corner platform decking M is designed so that it can also be used for inside corners. The two platform brackets are mounted in parallel with one another. The direction of the brackets relative to the Corner platform decking is not important and can be chosen to suit the location.

Gaps can be bridged by placing platform decking on one side.



c ... 195.0 cm
d ... 25.0 cm

A Bracket platform M

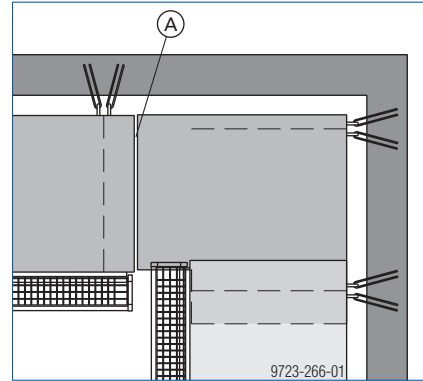
B Corner platform decking M as the inside corner

C Platform decking M 3.00m



NOTICE

Closures are not permitted on the cantilevering side **(A)** of the Corner platform M!



Assembly

Lifting the Corner platform decking M by crane

- Pull out the lifting bows from their recesses and attach the 4-part chain. Lift the platform.

Suspending and fixing the Platform bracket M

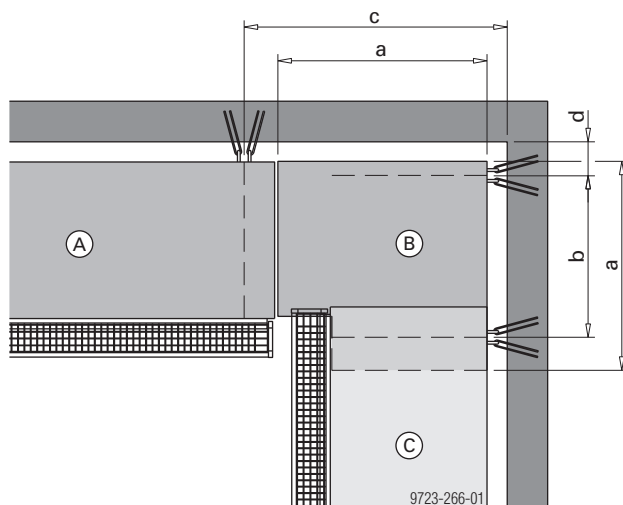
- Hook both brackets into the front claws of the Corner platform decking M.
- Lift the Corner platform decking M. The Platform bracket M now automatically pivots upwards
- Push through a scaffolding bolt and lock it.
- Tighten the Star grip nut G



The handle **(F)** must be pointing in the direction of the bracket plane!

A Corner platform decking M

B Platform bracket M

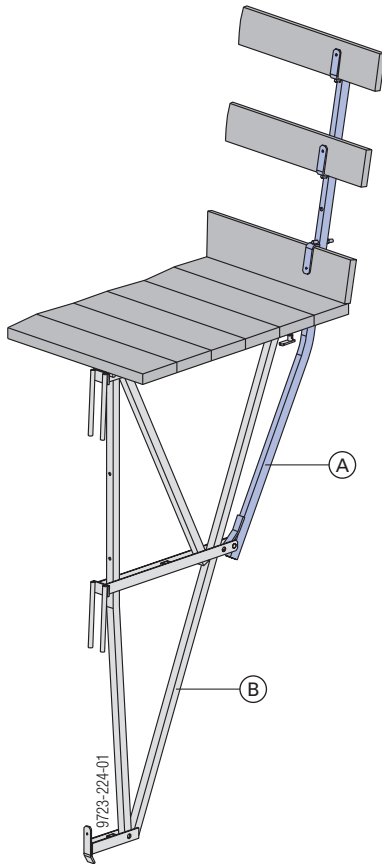


a ... 155.0 cm
b ... 120.0 cm

Platform assembled from single brackets

Highly irregular façades require a great deal of flexibility from the platform system. Often, sites attempt to make the necessary adaptations by using inherently risky improvisations, whereas Doka can offer standardised system solutions.

Adding a Bracket railing post M to the Doka bracket platform M creates a safe railing on a single bracket.



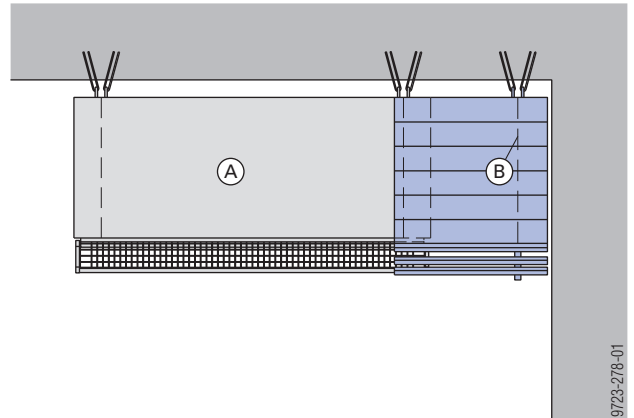
Scaffold planks as specified by DIN 4420-1:2004-03 and/or ÖNORM B 4007

A Bracket railing post M

B Platform bracket M

Distance between a single bracket and the suspension point of the next platform: max. 1.50 m

Once the floor-planks have been laid in place and the guardrail boards have been fixed in the Bracket railing post M, a bespoke, safe and economical platform to the correct length will be provided.



A Bracket platform M

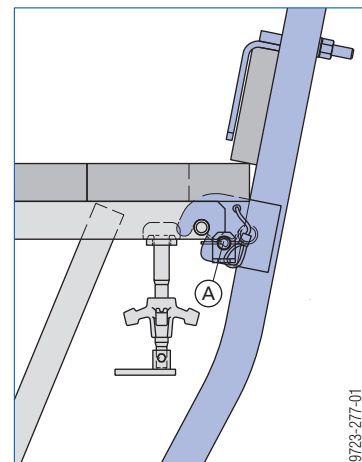
B Platform bracket M with Bracket railing post

- Slot the Bracket railing post M onto the Platform bracket M.



Make sure that the claws of the Bracket railing post M fit over the welded-on bolt of the platform bracket.

- Fixing the captive pin in place prevents accidental lift-out of the Bracket railing post M.



A Fixing pin

Repositioning

Moving the platform

Instructions for safe repositioning of the Bracket platform M



NOTICE

During the planning phase, consideration should also be given to the repositioning order and the removal of the last platform!

- In a standard platform layout, the last platform is where there are access and exit routes for the regular work sequence. Vertical access is usually provided by stair towers or aerial work platforms.
- If there are window or door openings in the façade, then the last platform can be one that enables access through these façade openings.
- If a Platform decking M 3.00m is used to bridge between the bracket platforms, once it has been removed there is no longer an uninterrupted decking surface in place. Consequently, without suitable protective equipment it is no longer permissible to access the individual Bracket platforms M. Under these circumstances it is advisable to use the Transport fork K/M plus.
- Do not install access and exit routes where platforms only have one bracket. These platforms are supported at one end on the neighboring platform and therefore have to be removed before the latter is removed.

Safety precautions

- Local regulations, or a risk assessment carried out by the erector, may make it necessary to use personal fall-arrest systems (PFAS) during repositioning.



- When one platform is repositioned, this leaves exposed fall-hazard locations on the remaining units. Each of these openings has to be closed off with a side railing or a barrier set up at least 2.0 m short of the drop-off edge.



- The personnel in charge of the repositioning operation are responsible for positioning the access prohibition barriers correctly.

Methods of repositioning

The platforms are normally lifted using suitable 4-part lifting chains such as the Doka 4-part lifting chain 3.20m.

Use the Transport fork K/M plus in the following situations:

- when it is not possible to walk onto the platform to attach the 4-part lifting chain;
- when the platform is being used as a sloping-rooftop fall barrier and cannot be lifted out by 4-part lifting chain because of the projecting eaves.

Transport fork K/M plus



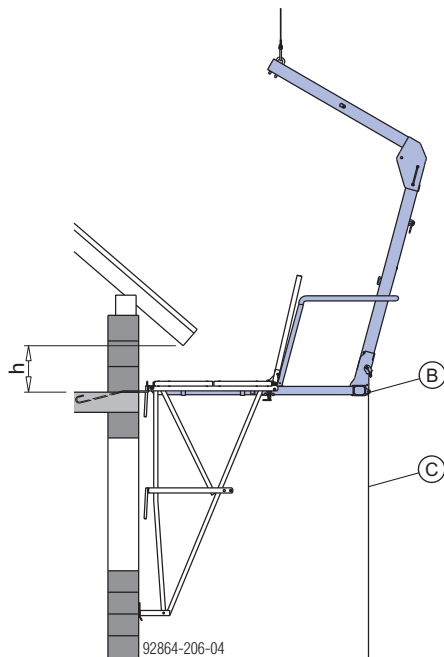
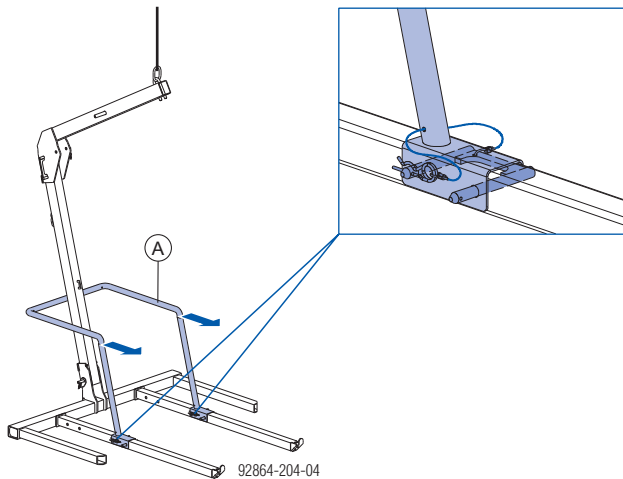
Follow the directions in the 'Transport fork K/M plus' Operating Instructions!



NOTICE

Before using with Bracket platforms M, check the following:

The tilting unit must be in the front pin-fixing position, and fixed in place.

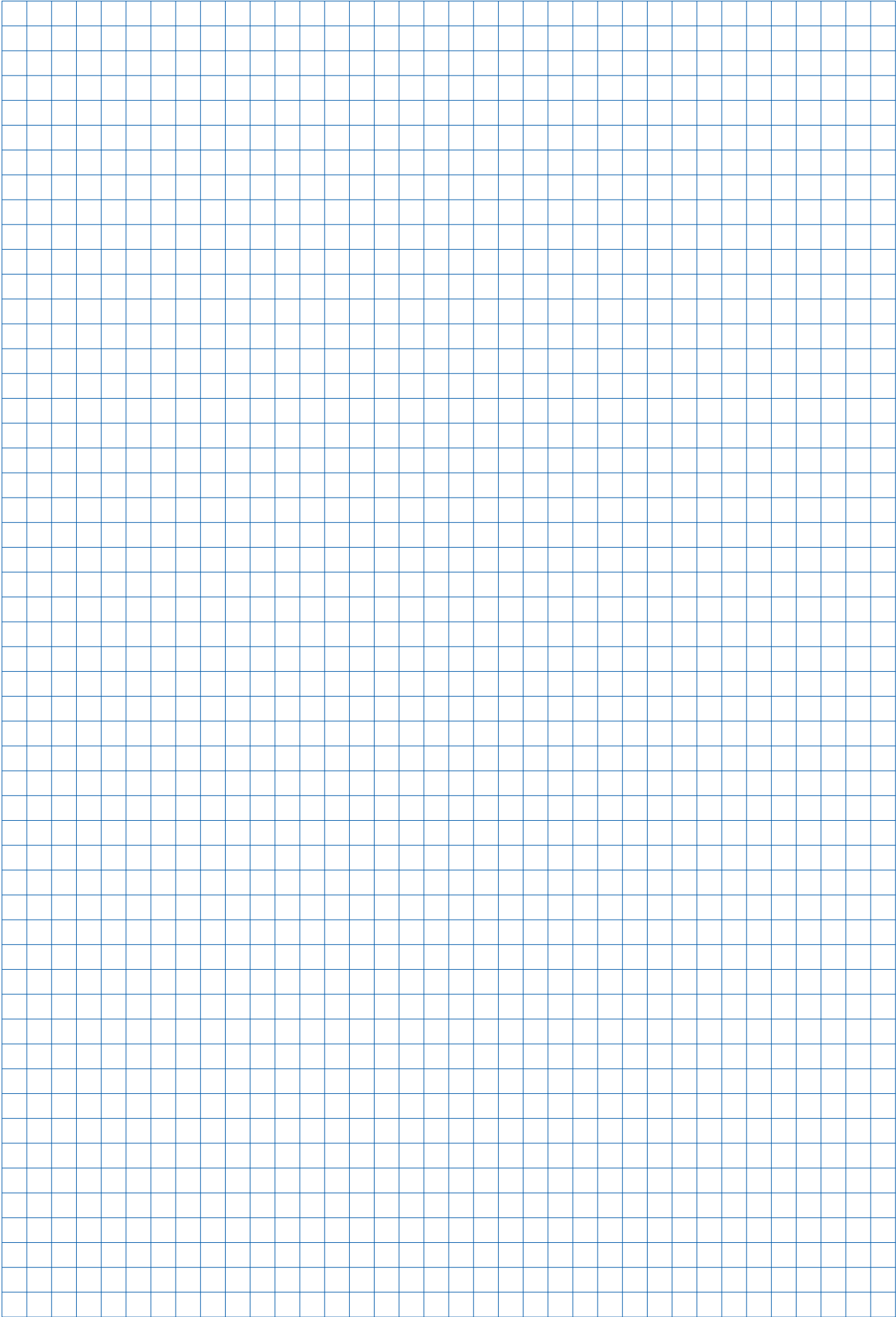


h ... min. 35 cm

A Tilting unit

B Slings point for tag-line

C Tag-line (not included with product)

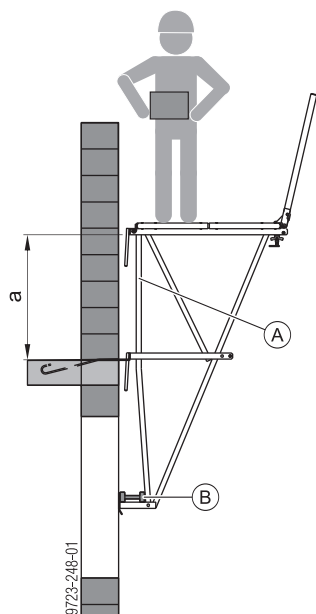


General

Other possible areas of use

Platform raised

Raising the height of the Bracket platform M provides optimum working conditions, which allow work to move ahead swiftly and safely.



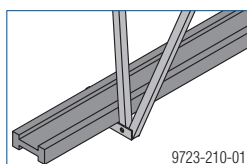
a ... 100 cm

(A)

The Platform bracket M profile is drilled with 13 mm dia. holes to attach site-provided guardrail boards as fall protection, if required.

(B)

Doka beam H20 as a horizontal bridging beam. Alternatively, two nailed 5x20 cm planks can be used.



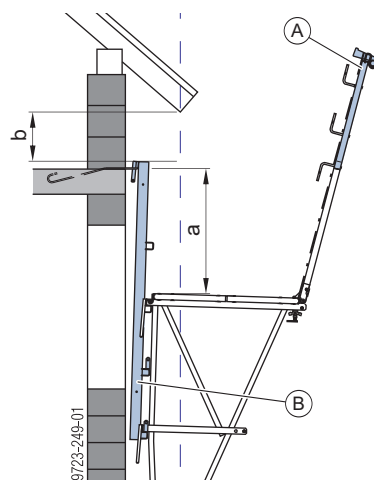
NOTICE

- Fix the bridging beam so that it cannot fall off!
- The horizontal bridging beam must **always** be resting against a construction with sufficient load-bearing capacity!

Permitted clear gaps of openings	
Normal position	5 m
Raised	3 m

Platform lowered

The Suspension beam M allows the Bracket platform M to be lowered by 50 cm or 100 cm.



a ... 50 cm or 100 cm

b ... Minimum lift-out distance 15 cm

A Universal handrail extension M

B Suspension beam M

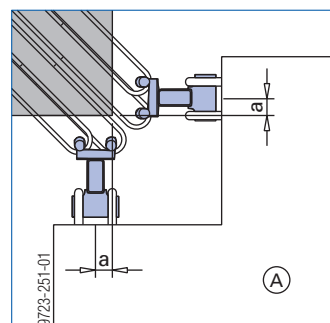
Perm. service load: 1.5 kN/m² (150 kg/m²)
Load Class 2 to EN 12811-1:2003



NOTICE

- The Suspension beam M can be connected to the Platform brackets M. This allows the platform to be raised and repositioned in one crane cycle.
- When using the Universal handrail extension M – max. influence width: 3.00 m
- Allow for the min. lift-out distance (b) of 15 cm!

Suspension shoe for an outside corner zone (plan view)



A Corner platform decking M

Suspension loop **centre-to-centre distance 'a'** from the structure edge: 4.0 cm (instead of the standard 15.0 cm).

Applies to corner solutions with:

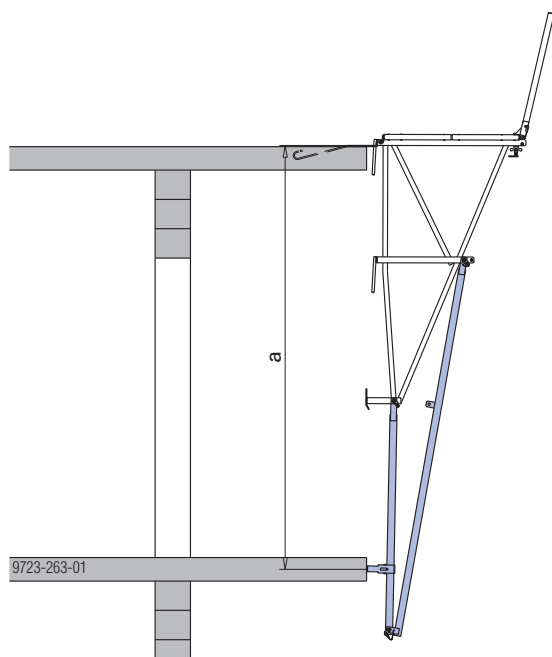
- Corner platform decking M as the outside corner
- Bracket platform M with Corner transition M 1.80m

Bridging storey-high openings

The Support lengthening piece M is required in situations where the pressure point of the bracket platform is not resting against part of the structure (as in e.g. skeleton-type construction, wall openings etc).



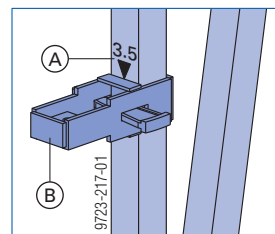
A Support lengthening piece M



a ... min. 2.40 m - max. 4.00 m

Adjustable support shoe

Markings on the vertical tube of the support lengthening piece make it easier to position the support shoe.

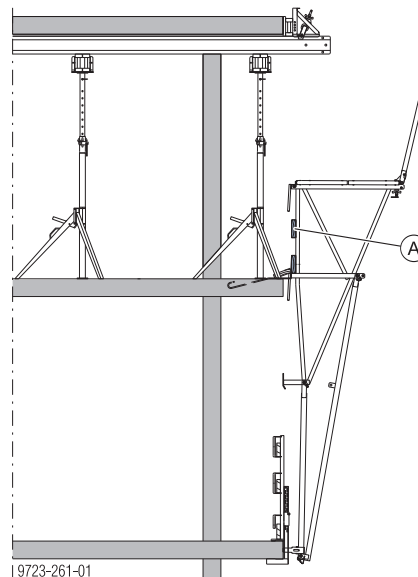


A Mark

B Support shoe



Safety barrier on raised Bracket platform M



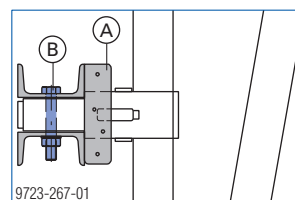
(A)

The Platform bracket M profile is drilled with 13 mm dia. holes to attach site-provided guardrail boards as fall protection, if required.

Extra horizontal bridging

For situations where the support shoe does not rest up against any part of the structure, a Multi-purpose waling WS10 Top50 can be used to bridge the gap.

- The multi-purpose waling must be secured so that it cannot fall off.

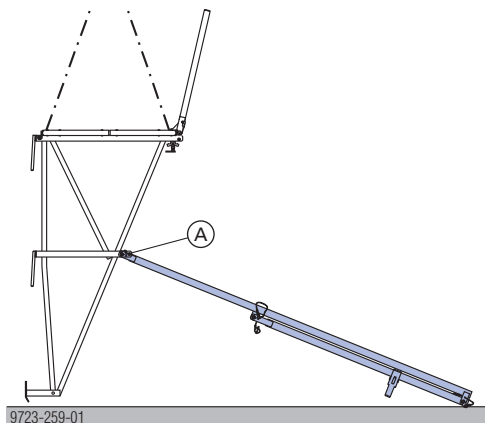


A Multi-purpose waling WS10 Top50

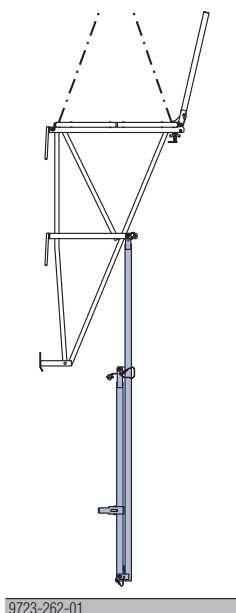
B Hexagon bolt M16x100 + Hexagon nut M16

Assembly

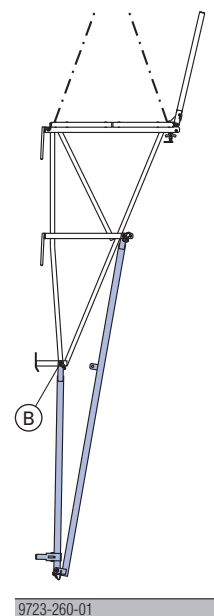
- ▶ Lift the Bracket platform M by crane.
- ▶ Bolt the Support lengthening piece M in the hole **(A)** on the bracket, using a connection bolt, and secure this with a spring cotter.



- ▶ The support lengthening piece automatically swivels downwards the further the bracket platform is lifted.



- ▶ Detach the front strut of the support lengthening piece from the transport lock and bolt it onto the bottom pressure point **(B)** of the bracket, using a connection bolt secured with a spring cotter.



The Bracket platform M plus support lengthening piece is now ready for use.

Sideguards on exposed platform-ends

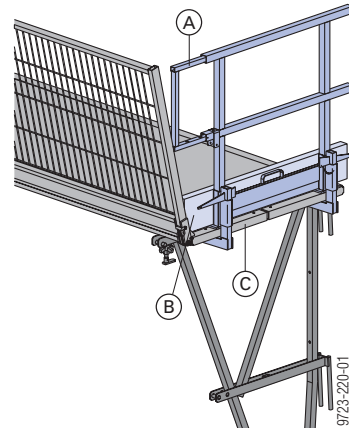
On pouring platforms that do not completely encircle the structure, suitable sideguards must be placed across exposed end-of-platform zones.

Note:

The plank and board thicknesses given here comply with the C24 category of EN 338.

Observe all national regulations applying to deck-boards and guard-rail boards.

Side handrail clamping unit T



A Side handrail clamping unit T with integral telescopic railing

B Guardrail board min. 15/3 cm (site-provided)

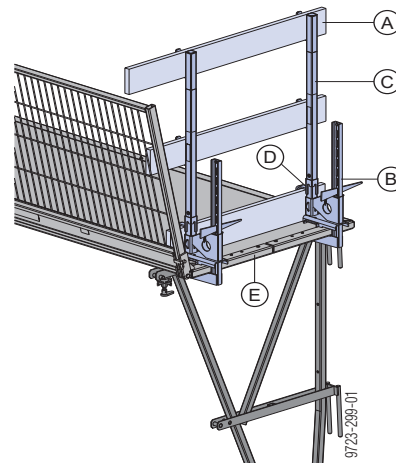
C Bracket platform M

Installation:

- ▶ Use the wedge (clamping range 4 to 6 cm) to fasten the clamping part to the decking of the bracket platform.
- ▶ Slot in the railing.
- ▶ Extend the telescopic railing to the desired length and secure it.
- ▶ Insert toeboard (guardrail board).

Note:

Alternatively the Xsafe edge protection system XP can be used as an end-of-platform sideguard.



A Guardrail board min. 15/3 cm (site-provided)

B Railing clamp XP 40cm

C Handrail post XP 1.20m

D Toeboard holder XP 1.20m

E Bracket platform M

Transporting, stacking and storing

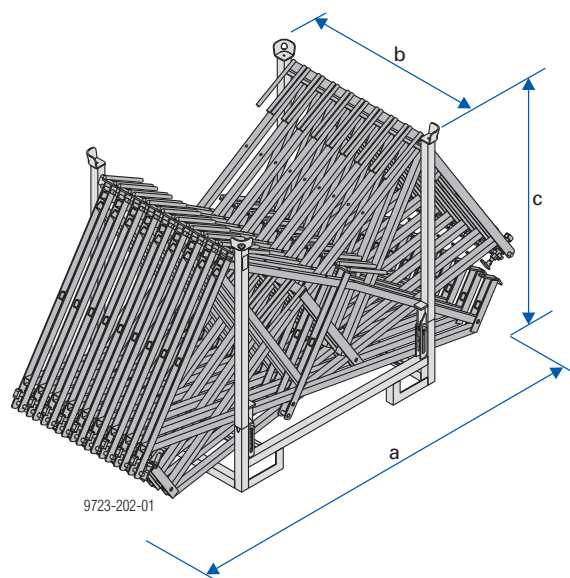
Pallet for platform brackets M

Storage and transport pallet for Platform brackets M (max. 18 per pallet):

- durable
- stackable – both when filled and empty (folded closed)
- collapsible – space efficient

Suitable transport appliances:

- crane
- pallet truck
- forklift truck



a ... 280 cm
b ... 115 cm
c ... 156 cm

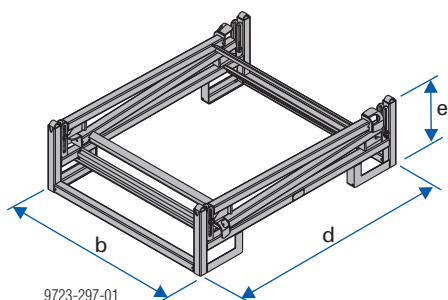
Permitted load-bearing capacity: 600 kg
Permitted imposed stacking load: 2000 kg



NOTICE

- Stacked multi-trip boxes or pallets must have the heaviest boxes at the bottom and the lightest at the top.
- The type plate must be in place and clearly legible.

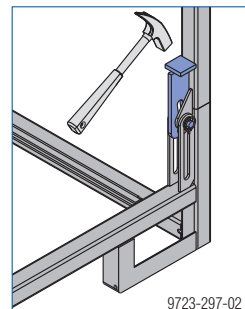
The pallets can be collapsed to save space when transported empty.



b ... 115 cm
d ... 146 cm
e ... 41 cm

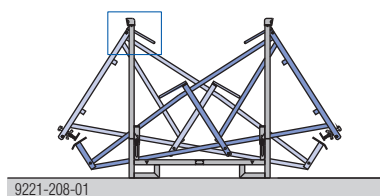
Height of 6 stacked pallets: 236 cm.

- After unfolding the pallet, fix all four corner-posts firmly by hammering in the wedge.

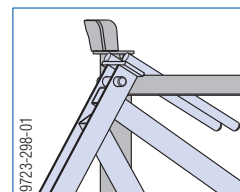


Loading the transport device

- Place the brackets into the pallet alternately from right and left, as shown in the illustration.



The top hooks of the Platform brackets M must be hooked into the cross-profiles of the pallet.



Using 'Pallets for platform brackets M' as storage units

Max. n° of units on top of one another

Outdoors (on the site) Floor gradient up to 3%	Indoors Floor gradient up to 1%
2 full pallets	4 full pallets
4 collapsed pallets	15 collapsed pallets
It is not allowed to stack empty, unfolded pallets on top of one another!	3 empty unfolded pallets

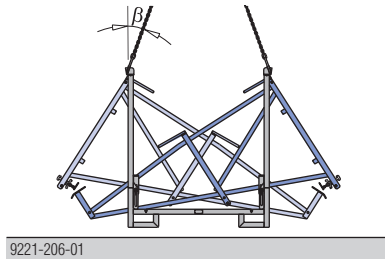
Using 'Pallets for platform brackets M' as transport devices

Lifting by crane



NOTICE

- Multi-trip packaging items must be lifted individually.
- Secure the load in part-loaded pallets!
- Use a suitable crane suspension tackle (e.g. Doka 4-part chain 3.20m). Do not exceed the permitted working load limit.
- Sling angle β max. 30°!

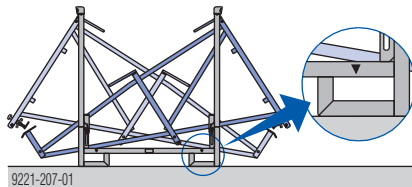


Repositioning by forklift truck or pallet stacking truck



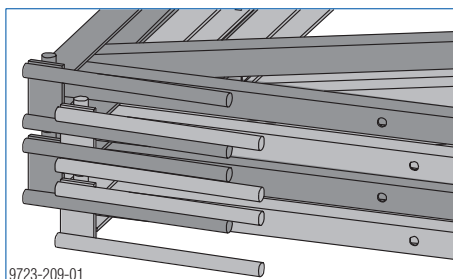
NOTICE

- The forks of the stacker truck must be placed beneath the marked points (**red marking**)!



- Multi-trip packaging items must be lifted individually.

When stacked horizontally



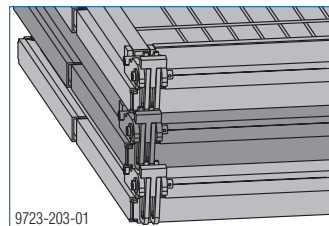
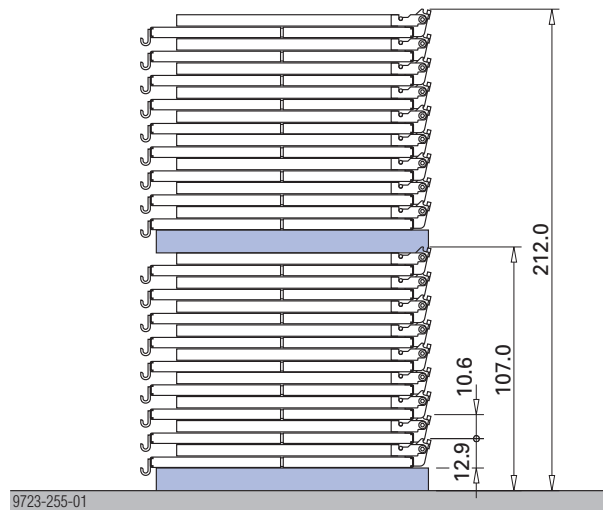
Alternately nesting the Platform brackets M in one another protects them against slippage.
When transporting them by truck, secure them with tension straps as well.

Platform decking M 3.00m Space-saving, and safe against overturning

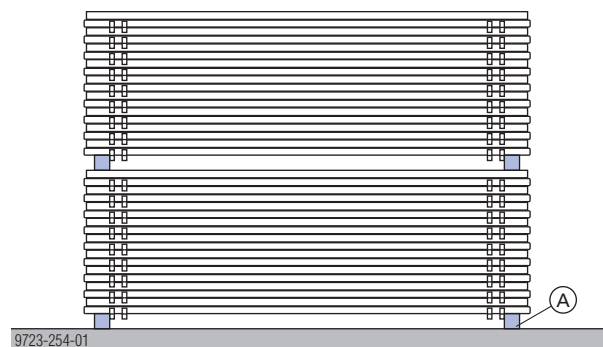
Stack of 18 Platform decking units M 3.00 m (2 stacks of 9 each).

Note:

Only ever lift bundles of 9 platform decking units at a time.



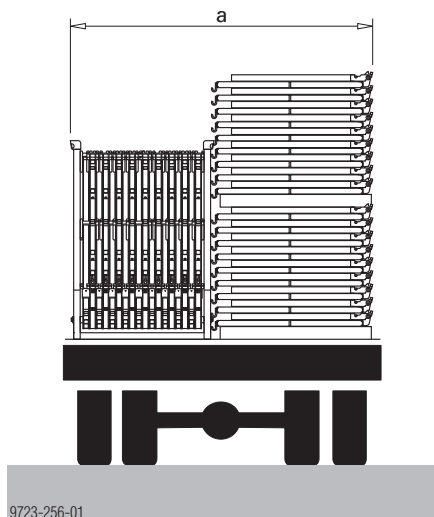
Alternately nesting the Platform brackets M in one another protects them against slippage.
When transporting them by truck, secure them with tension straps.
When folded closed, the platform decking units are easy to transport and store.



Note:

Always place squared-timber sleepers (**A**) at the edges of the stack.

This optimum packing density translates into low shipping volume and excellent utilisation of the loading area of the truck.

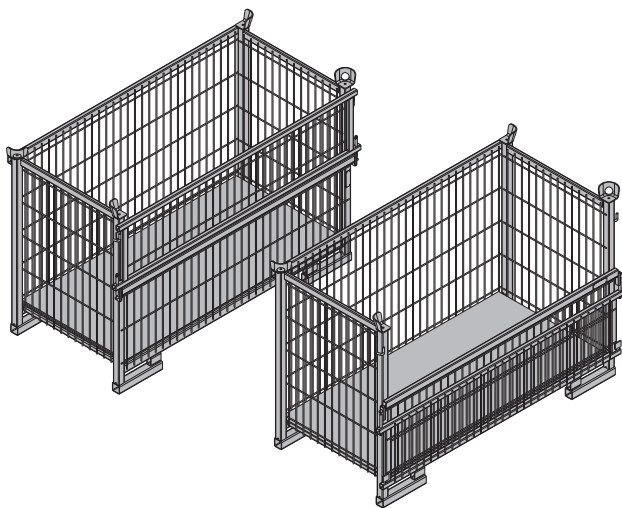


a ... 240 cm

Utilise the benefits of Doka multi-trip packaging on the jobsite.

Multi-trip packaging such as containers, stacking pallets and skeleton transport boxes help keep everything neat and tidy on site. They minimise the time wasted searching for parts, streamline the storage and transportation of system components, small items and accessories.

Doka skeleton transport box 1.70x0.80m



Storage and transport device for small items.

To make the Doka skeleton transport box easier to load and unload, one of its sidewalls can be opened.

Permitted load-bearing capacity: 700 kg (1540 lbs)
Permitted imposed stacking load: 3150 kg (6950 lbs)

Using Doka skeleton transport boxes 1.70x0.80m as storage units

Max. n° of units on top of one another

Outdoors (on the site) Floor gradients up to 3%	Indoors Floor gradients up to 1%
2	5
It is not allowed to stack empty pallets on top of one another!	



NOTICE

Stacked multi-trip boxes or pallets must have the heaviest boxes at the bottom and the lightest at the top.

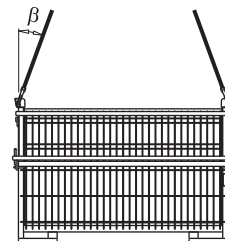
Using Doka skeleton transport boxes 1.70x0.80m as transport devices

Lifting by crane



NOTICE

- Multi-trip packaging items must be lifted individually.
- Only lift the boxes when their sidewalls are closed!
- Use suitable lifting chains:
 - e.g. Doka 4-part chain 3.20m
 - Do not exceed the permitted working load limit of the lifting chains.
- Sling angle β max. 30°!



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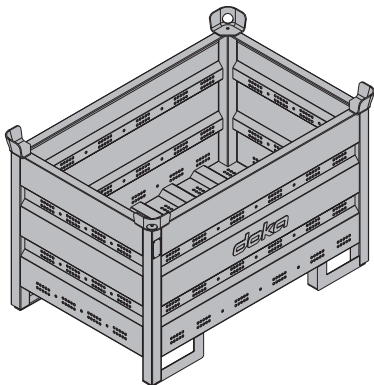
Repositioning by forklift truck or pallet stacking truck

The forks can be inserted under either the broadside or the narrowside of the containers.

Doka multi-trip transport box

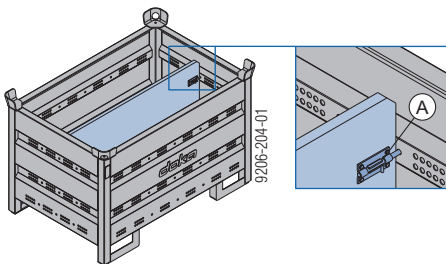
Storage and transport device for small items

Doka multi-trip transport box 1.20x0.80m



Permitted load-bearing capacity: 1500 kg (3300 lbs)
Permitted imposed stacking load: 7850 kg (17300 lbs)

Different items in the Doka multi-trip transport box can be kept separate with the **Multi-trip transport box partitions 1.20m or 0.80m**.

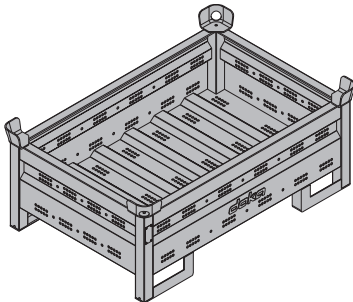


A Slide-bolt for fixing the partition

Possible ways of dividing the box

Multi-trip transport box partition	in the longitudinal direction	in the transverse direction
1.20m	max. 3	-
0.80m	-	max. 3

Doka multi-trip transport box
1.20x0.80mx0.41m



Permitted load-bearing capacity: 750 kg (1650 lbs)
Permitted imposed stacking load: 7200 kg (15870 lbs)

Using Doka multi-trip transport boxes as storage units

Max. n° of units on top of one another

Outdoors (on the site)		Indoors	
Floor gradients up to 3%		Floor gradients up to 1%	
Doka multi-trip transport box 1.20x0.80m	Doka multi-trip transport box 1.20x0.80x0.41m	Doka multi-trip transport box 1.20x0.80m	Doka multi-trip transport box 1.20x0.80x0.41m
3	5	6	10
It is not allowed to stack empty pallets on top of one another!			



NOTICE

Stacked multi-trip boxes or pallets must have the heaviest boxes at the bottom and the lightest at the top.

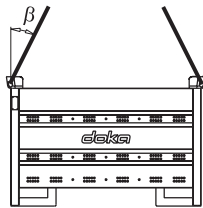
Using Doka multi-trip transport boxes as transport devices

Lifting by crane



NOTICE

- Multi-trip packaging items must be lifted individually.
- Use suitable lifting chains:
 - e.g. Doka 4-part chain 3.20m
 - Do not exceed the permitted working load limit of the lifting chains.
- Sling angle β max. 30°!



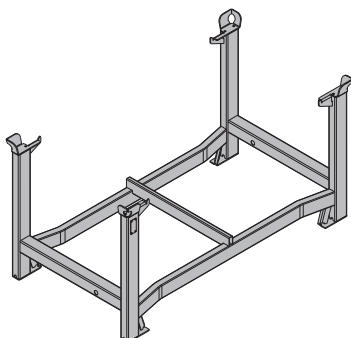
9206-202-01

Repositioning by forklift truck or pallet stacking truck

The forks can be inserted under either the broadside or the narrowside of the containers.

Doka stacking pallet 1.55x0.85m and 1.20x0.80m

Storage and transport device for long items.



Permitted load-bearing capacity: 1100 kg (2420 lbs)
Permitted imposed stacking load: 5900 kg (13000 lbs)

Using Doka stacking pallets as storage units

Max. n° of units on top of one another

Outdoors (on the site) Floor gradients up to 3%	Indoors Floor gradients up to 1%
2	6
It is not allowed to stack empty pallets on top of one another!	



NOTICE

- Stacked multi-trip boxes or pallets must have the heaviest boxes at the bottom and the lightest at the top.
- How to use with Bolt-on castor set B:**
 - Always apply the fixing brake when the container is 'parked'.
 - When Doka stacking pallets are stacked, the bottom pallet must NOT be one with a bolt-on castor set mounted to it.

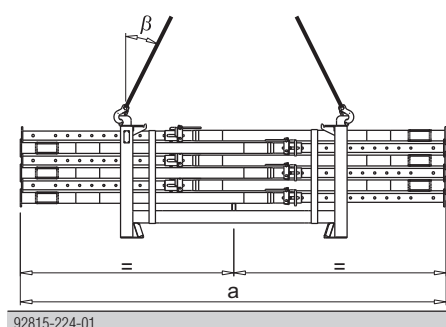
Using Doka stacking pallets as transport devices

Lifting by crane



NOTICE

- Multi-trip packaging items must be lifted individually.
- Use suitable lifting chains:
 - e.g. Doka 4-part chain 3.20m
 - Do not exceed the permitted working load limit of the lifting chains.
- Load the items centrally.
- Fasten the load to the stacking pallet (e.g. with strapping tape or lashing strap) so that it cannot slide or tip out.
- Sling angle β max. 30°!



92815-224-01

	a
Doka stacking pallet 1.55x0.85m	max. 4.5 m
Doka stacking pallet 1.20x0.80m	max. 3.0 m

Repositioning by forklift truck or pallet stacking truck

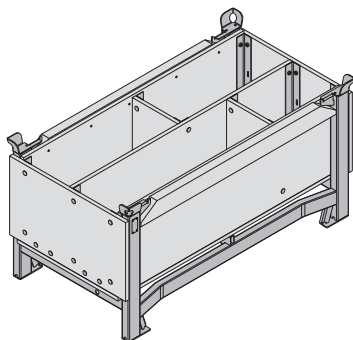


NOTICE

- Load the items centrally.
- Fasten the load to the stacking pallet (e.g. with strapping tape or lashing strap) so that it cannot slide or tip out.

Doka accessory box

Storage and transport device for small items.



Permitted load-bearing capacity: 1000 kg (2200 lbs)
Permitted imposed stacking load: 5530 kg (12190 lbs)

Doka accessory boxes as storage units

Max. n° of units on top of one another

Outdoors (on the site) Floor gradients up to 3%	Indoors Floor gradients up to 1%
3	6
It is not allowed to stack empty pallets on top of one another!	



NOTICE

- Stacked multi-trip boxes or pallets must have the heaviest boxes at the bottom and the lightest at the top.
- How to use with Bolt-on castor set B:**
 - Always apply the fixing brake when the container is 'parked'.
 - When Doka stacking pallets are stacked, the bottom pallet must NOT be one with a bolt-on caster set mounted to it.

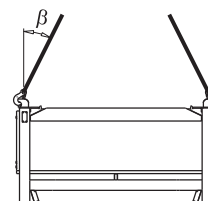
Doka accessory box as transport devices

Lifting by crane



NOTICE

- Multi-trip packaging items must be lifted individually.
- Use suitable lifting chains:
 - e.g. Doka 4-part chain 3.20m
 - Do not exceed the permitted working load limit of the lifting chains.
- When lifting units to which Bolt-on castor sets B have been attached, you must also follow the directions in the 'Bolt-on castor set B' User information booklet!
- Sling angle β max. 30°!



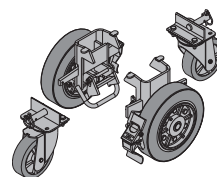
92816-206-01

Repositioning by forklift truck or pallet stacking truck

The forks can be inserted under either the broadside or the narrowside of the containers.

Bolt-on castor set B

The Bolt-on castor set B turns multi-trip packaging items into fast and manoeuvrable transport devices. Suitable for drive-through access openings > 90 cm.



The Bolt-on castor set B can be mounted to the following multi-trip packaging items:

- Doka accessory box
- Doka stacking pallets
- Protective barrier Z pallets

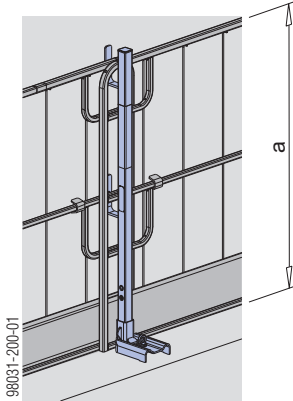


Follow the directions in the 'Bolt-on castor set B' User Information booklet!

Fall protection on the structure

Xsafe edge protection XP

- Attached with screw-on shoe, railing clamp, hand-rail-post shoe or Step bracket XP
- Protective grating XP, guardrail boards or scaffold tubes can be used as the safety barrier



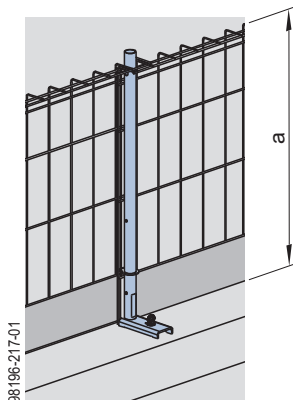
a ... > 1.00 m



Follow the directions in the 'Xsafe edge protection XP' User Information booklet.

Xsafe edge protection Z

- Attachment by integral screw-on shoe
- Protective barrier Z can be used as the safety barrier



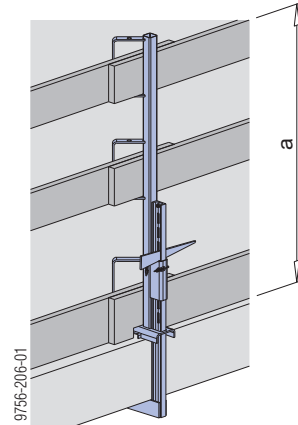
a ... > 1.17 m



Follow the directions in the 'Xsafe edge protection Z' User Information booklet.

Handrail clamp S

- Attached with integral clamp
- Guard-rail boards or scaffold tubes can be used as the safety barrier



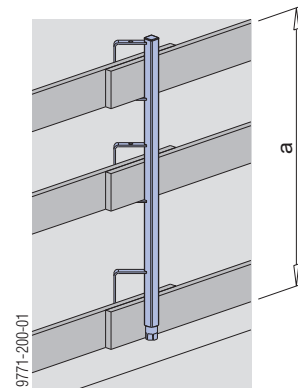
a ... > 1.00 m



Follow the directions in the "Handrail clamp S" User information!

Handrail post 1.10m

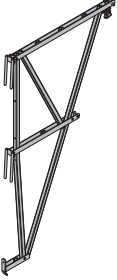

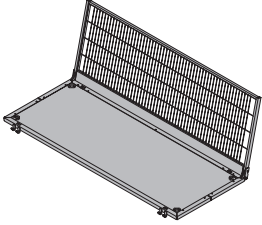

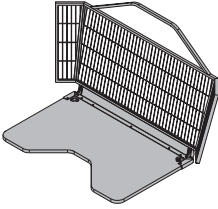


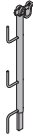
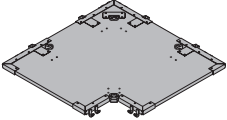

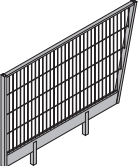
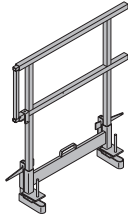
- Fixed in a Screw sleeve 20.0 or Attachable sleeve 24mm
- Guard-rail boards or scaffold tubes can be used as the safety barrier

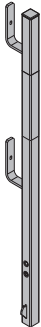



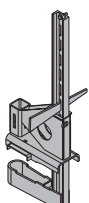
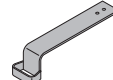
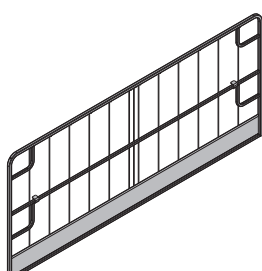
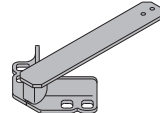
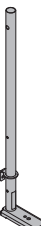
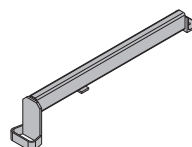
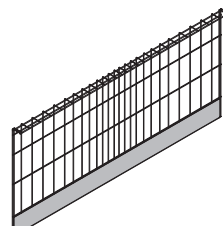



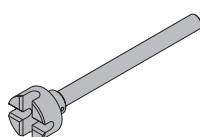


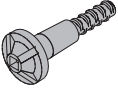
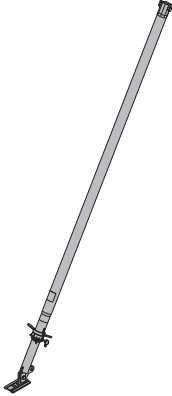


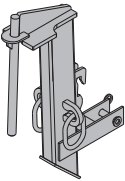





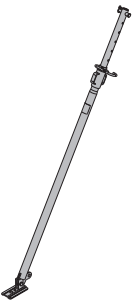


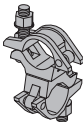
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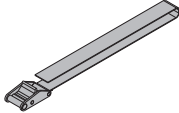
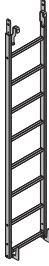

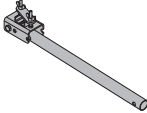
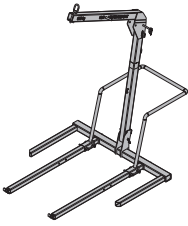
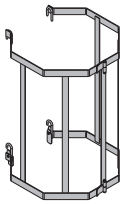
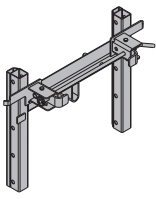

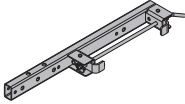
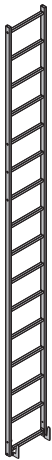
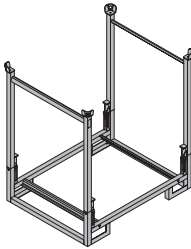
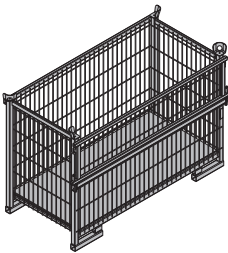


Follow the directions in the 'Handrail post 1.10m' User Information!

	[kg]	Article N°		[kg]	Article N°
Platform bracket M Bühnenkonsole M  <p>Galvanised Length: 136 cm Height: 230 cm</p>	33.6	580547000	Corner platform strut M Eckbühnenstrebe M  <p>Galvanised Height: 232 cm</p>	13.3	580552000
Platform decking M 3.00m Bühnenbelag M 3,00m  <p>Timber parts varnished yellow Steel parts galvanised Delivery condition: folded closed</p>	121.7	580548000	Support lengthening piece M Abstützverlängerung M  <p>Galvanised Height: 338 cm Delivery condition: folded closed</p>	33.7	580553000
Corner transition M 1.80m Eckübergang M 1,80m  <p>Timber parts varnished yellow Steel parts galvanised Delivery condition: folded closed</p>	77.9	580556000	Suspension beam M Einhängeträger M  <p>Galvanised Height: 221 cm</p>	17.6	580572000
Handrail extension Corner transition M 1.80m Geländerverlängerung Eckübergang M 1,80m  <p>Galvanised Width: 126 cm Height: 158 cm</p>	20.1	580592000	Universal handrail extension M Universal-Geländerverlängerung M  <p>Galvanised Height: 113 cm</p>	6.7	580560000
Corner platform decking M Eckbühnenbelag M  <p>Timber parts varnished yellow Steel parts galvanised Length: 160 cm Width: 160 cm</p>	64.7	580550000	Bracket railing post M Konsolgeländerholm M  <p>Galvanised Height: 232 cm</p>	11.0	580554000
Corner platform railing M Eckbühnengeländer M  <p>Galvanised Length: 177 cm Height: 123 cm</p>	25.4	580551000	Side handrail clamping unit T Seitenschutzgeländer T  <p>Galvanised Length: 115 - 175 cm Height: 112 cm</p>	29.1	580488000

	[kg]	Article N°		[kg]	Article N°
Handrail post XP 1.20m Geländersteher XP 1,20m  Galvanised Height: 118 cm	4.1	586460000	Handrail clamp S Schutzgeländerzwinge S  Galvanised Height: 123 - 171 cm	11.5	580470000
Toeboard holder XP 1.20m Fußwehrhalter XP 1,20m  Galvanised Height: 21 cm	0.64	586461000	Suspension loop ES Einhängeschlaufe ES  Non-treated Length: 72 cm	0.93	580458000
Railing clamp XP 40cm Geländerzwinge XP 40cm  Galvanised Height: 73 cm	7.7	586456000	Suspension plate ES Aufhängeblech ES  Galvanised Length: 68 cm	9.2	580493000
Protective grating XP 2.70x1.20m Protective grating XP 2.50x1.20m Protective grating XP 2.00x1.20m Protective grating XP 1.20x1.20m Schutzgitter XP  Galvanised	22.2 20.5 17.4 12.0	586450000 586451000 586452000 586453000	Corner suspension plate M Eckenhängeblech M  Galvanised Length: 73 cm	19.0	580591000
Handrail post Z 1.20m Geländersteher Z 1,20m  Galvanised	5.0	586640000	Suspension profile ES Aufhängeprofil ES  Galvanised Length: 109 cm	15.3	580596000
Protective barrier Z 2.50x1.20m Protective barrier Z 1.25x1.20m Schutzgitter Z  Powder-coated blue	13.3 7.3	586642000 586643000	Suspension shoe M Aufhängeschuh M  Galvanised Width: 15 cm Height: 18 cm	4.3	580557000
			Anchor bracket M Ankerbügel M  Galvanised Width: 8 cm Height: 16 cm	1.2	580558000
			Wall anchor M Wandanker M  Galvanised Length: 80 cm	1.5	580559000
			Tie-rod wrench 15.0/20.0 Ankerstabschlüssel 15,0/20,0  Galvanised	1.8	580594000

	[kg]	Article N°		[kg]	Article N°
Screw-in cone 15.0 Einschraubkonus 15,0  Galvanised Length: 15 cm	0.74	581895000	Plumbing strut 540 IB Justierstütze 540 IB  Galvanised Length: 310.5 - 549.2 cm	30.7	588697000
Bridge edge beam anchor 15.0 Bridge edge beam anchor 15.0 galv. Gesimsanker 15,0  Length: 7 cm	0.45 0.44	581896000 581890000			
Nailing cone 15.0 Nagelkonus 15,0  Black Length: 7 cm	0.02	581897000			
Precast member head M Fertigteilkopf M  Galvanised Height: 55 cm	7.0	580573000	Strut shoe EB Strebenschuh EB  Galvanised Width: 8 cm Height: 13 cm	0.93	588946000
Mounting sleeve 325mm Einbauhülse 325mm  Grey	0.1	580574500	Doka express anchor 16x125mm Doka-Expressanker 16x125mm  Galvanised Length: 18 cm	0.31	588631000
Plumbing strut 260 IB Justierstütze 260 IB  Galvanised Length: 146.8 - 256.7 cm	12.8	588437500	Doka coil 16mm Doka-Coil 16mm  Galvanised Diameter: 1.6 cm	0.009	588633000
Plumbing strut 340 IB Justierstütze 340 IB  Galvanised Length: 190.8 - 341.8 cm	16.7	588696000	Information plate for express anchor Plakette Expressanker  PS Width: 8 cm Height: 7.5 cm	0.1	588630000
			Scaffold tube 48.3mm 0.50m Scaffold tube 48.3mm 1.00m Scaffold tube 48.3mm 1.50m Scaffold tube 48.3mm 2.00m Scaffold tube 48.3mm 2.50m Scaffold tube 48.3mm 3.00m Scaffold tube 48.3mm 3.50m Scaffold tube 48.3mm 4.00m Scaffold tube 48.3mm 4.50m Scaffold tube 48.3mm 5.00m Scaffold tube 48.3mm 5.50m Scaffold tube 48.3mm 6.00m Scaffold tube 48.3mmm Gerüstrohr 48,3mm  Galvanised	1.7 3.6 5.4 7.2 8.4 10.8 12.6 14.4 16.2 18.0 19.8 21.6 3.6	682026000 682014000 682015000 682016000 682017000 682018000 682019000 682021000 682022000 682023000 682024000 682025000 682001000
			Swivel coupler 48mm Drehkupplung 48mm  Galvanised Width-across: 22 mm	1.5	582560000

	[kg]	Article N°		[kg]	Article N°
Quick-locking strap 55cm Gurtschnellverschluss 55cm  Yellow	0.07	580787000	Ladder extension XS 2.30m Leiternverlängerung XS 2,30m  Galvanised	19.1	588641000
Doka 4-part chain 3.20m Doka-Vierstrangkette 3,20m  Follow the directions in the "Operating Instructions"!	15.0	588620000	Securing barrier XS Sicherungsschranke XS  Galvanised Length: 80 cm	4.9	588669000
Transport fork K/M plus Umsetzgabel K/M plus  Galvanised Length: 305 cm Width: 204 cm	226.0	583025000	Ladder cage XS 1.00m Ladder cage XS 0.25m Rückenschutz XS  Galvanised	16.5 10.5	588643000 588670000
Ladder system XS					
Connector XS wall formwork Anschluss XS Wandschalung  Galvanised Width: 89 cm Height: 63 cm	20.8	588662000	Ladder cage exit XS Rückenschutz-Ausstieg XS  Galvanised Height: 132 cm	17.0	588666000
Connector XS DM/SL-1 Anschluss XS DM/SL-1  Galvanised Length: 100 cm	11.7	588672000	Multi-trip packaging		
System ladder XS 4.40m System-Leiter XS 4,40m  Galvanised	33.2	588640000	Pallet for platform brackets M Palette für Bühnenkonsolen M  Galvanised Length: 146 cm Width: 115 cm Height: 156 cm	74.9	580549000
			Doka skeleton transport box 1.70x0.80m Doka-Gitterbox 1,70x0,80m  Galvanised Height: 113 cm	87.0	583012000

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www.doka.com/bracket-platform-m