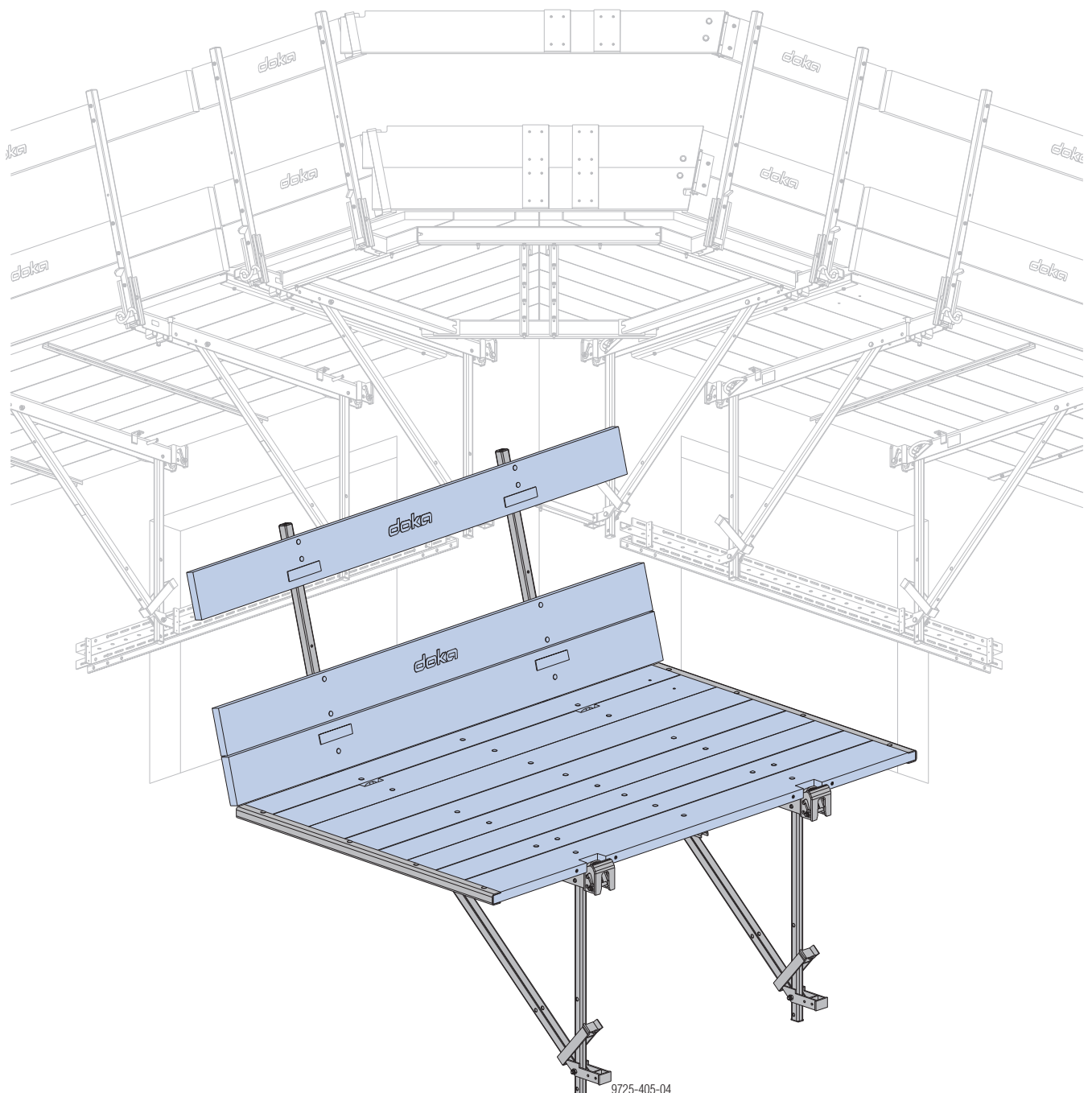


The Formwork Experts.

Folding platform K

User Information

Instructions for assembly and use (Method statement)



9725-405-04

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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. $F_{Rd} = 105 \text{ kN}$)!

- 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

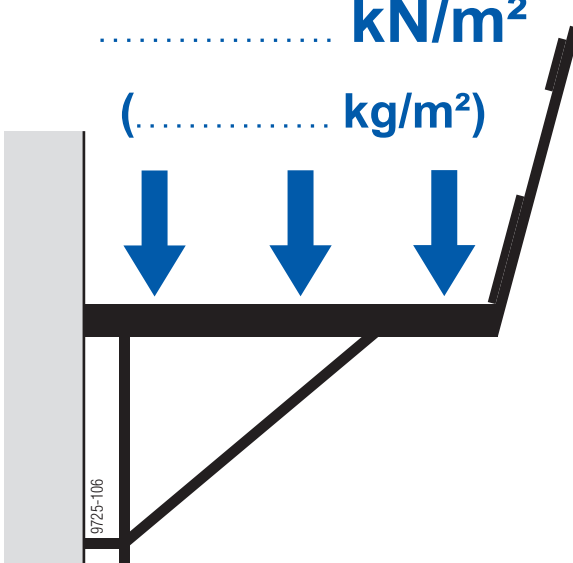
Cross-references other documents.

Labelling of platforms (loading data)

National regulations may require platforms to be labelled with their loading data. The form below can be used as a master copy, making it easier to label each platform.

Before the loading-data labelling is affixed, technically qualified personnel from the company responsible for erecting the system must verify that it has been properly assembled and erected in accordance with the applicable laws, standards and regulations.



Construction firm / site										
<p>Note on max. loading for Doka folding platform K</p> <p>Conforms to the following EN 12811 Load Class (tick relevant box)</p> <table style="margin: auto;"> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	2	3	4	5	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	3	4	5	6						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<p>Permitted service load:</p> <div style="text-align: center;"> <p>..... kN/m²</p> <p>(..... kg/m²)</p>  </div>										
Dead weight of the unit (platform) to be lifted and repositioned:										
Please refer to the User Information booklet or planning documents for detailed usage instructions										
Date										
Name										



Services

Support in every stage of the project

- Project success assured by products and services from a single source.
- Competent support from planning through to assembly directly on site.

Project assistance from start to finish

Every single project is unique and calls for individualised solutions. When it comes to the forming operations, the Doka team can help you with its consulting, planning and ancillary services in the field, enabling you to carry out your project effectively, safely and reliably. Doka assists you with individual consulting services and customised training courses.

Efficient planning for a safe project sequence

Efficient formwork solutions can only be developed economically if there is an understanding of project requirements and construction processes. This understanding is the basis of Doka engineering services.

Optimise construction workflows with Doka

Doka offers special tools that help you in designing transparent processes. This is the way to speed up pouring processes, optimise inventories and create more efficient formwork planning processes.

Custom formwork and on-site assembly

To complement its system formwork range, Doka offers customised formwork units. And specially trained personnel assemble load-bearing towers and formwork on site.

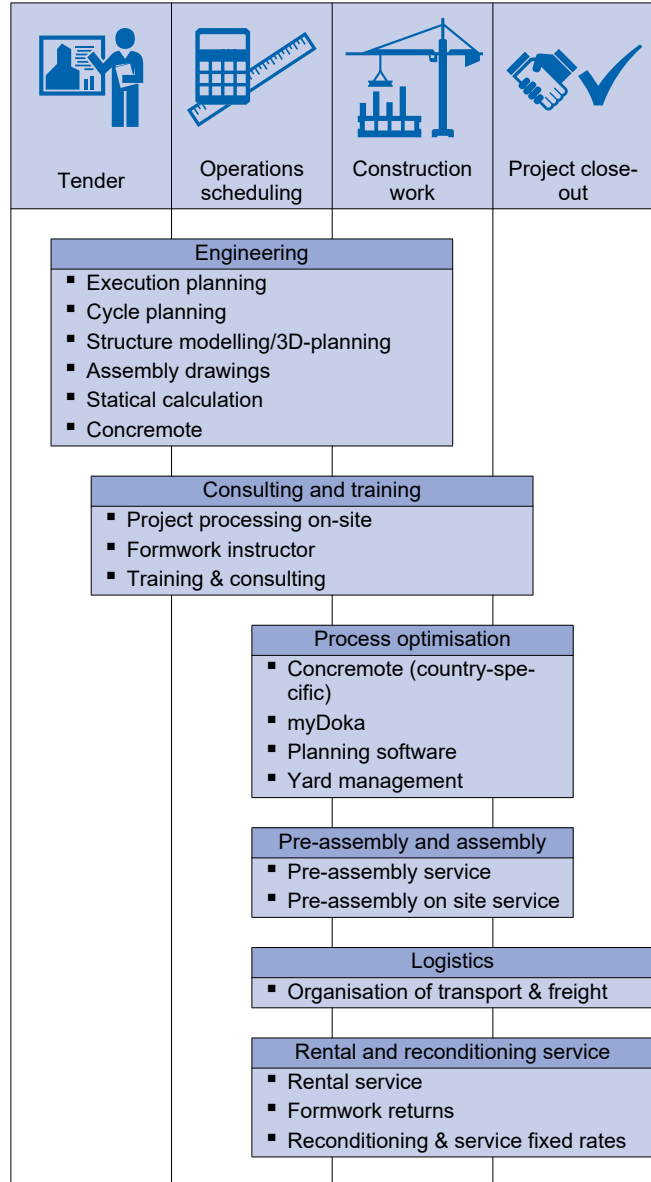
Just-in-time availability

Formwork availability is a crucial factor in realising your project on time and on budget. The worldwide logistics network puts the necessary formwork quantities on site at the agreed time.

Rental and reconditioning service

The formwork material needed for any particular project can be rented from Doka's high-performing rental park. Doka Reconditioning cleans and overhauls both client-owned equipment and Doka rental equipment.

High performance, in all stages of the project



Digital Services

for higher productivity in construction

From planning to completion of construction - with our digital services we want to set the pace for boosting productivity in construction. Our digital portfolio includes solutions for planning, procuring and managing to performing on site. Learn more about our digital offer at doka.com/digital.

System description

The comprehensive range of ready-to-use platforms for every field

The Doka folding platforms K are pre-assembled (and thus immediately work-ready) scaffold platforms.

They are delivered to the site folded closed, to save space.

At the site, it takes only an instant to unfold them before they are craned to the prepared suspension points and hung into place.

A range of practical accessories makes work on the site a lot easier and does away with the need for costly job-site improvisations.

Among the many advantages of the Doka folding platform K:

- High load-bearing capacity of up to 6 kN/m² (600 kg/m²) - Load Class 6
- The 3.00 or 4.50 m long platforms are easy to plan
- Safe corner transition with the Folding platform K outside corner and the Folding platform K inside corner
- Closure platform 3.00m for length adjustment and corner solutions – all-in-one, with integral railings
- Retractable crane lifting points for an even, safe platform deck – no projecting parts that anybody might trip over
- Long service life thanks to its sturdy design, varnished floor planking and galvanised steel construction
- Deck-boards are protected by a steel profile at either end of the platform
- Climbing formwork K – simply adding a few standard Doka components to the platforms transforms them into a fully-fledged tiltable climbing formwork system
- Support lengthening piece and suspended platform – as system components for bridging storey-high openings and for safe finishing-work
- Good bridging of wall and window openings
- Handrail extension K and safety netting – for extending and reinforcing the rooftop fall barrier function
- Side handrail clamping unit T – the quick way of putting up safe end-railings at the ends of the platforms
- Very little space required for storage and transport

Areas of use

The comprehensive ready-to-use platform-range of the Folding platform K series meets the following requirements:

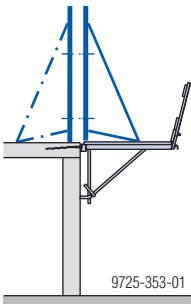
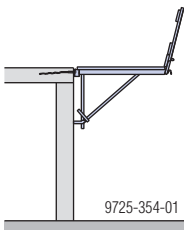
- EN 12811-1 and ČSN 738101 compliant working platforms
- DIN 4420-1, ÖNORM B4007 and ČSN 738106 compliant protection platforms

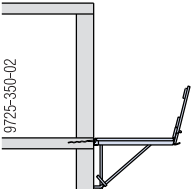
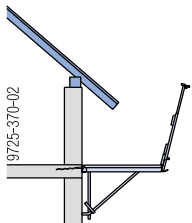
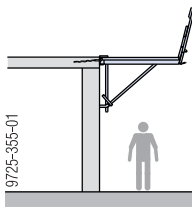
- Construction Worker Protection Ordinance (BauV)

Practical examples of Load Classes

Load Class 2	Load Class 3	Load Class 4, 5, 6			
For service and maintenance work, especially for cleaning operations on facades	e.g. for external rendering and stucco work, coating, pointing or repair work; as a reinforcement or pouring platform in reinforced-concrete construction work.	Normally for masonry and external rendering work, tiling and squared-stone facing work, and heavy site-erection work.			
Only for work in which it is not necessary to store building materials or parts on the platform decking.	The materials and equipment stored on the platform decking may not be set down on the platform by lifting appliances.	Building materials and parts may be set down on the platform by lifting appliances and stored on the platform decking.			
	Precondition: When materials are stored on the platform decking, a clear access passage at least 0.20 m wide must be left free.	Precondition: When materials are stored on the platform decking, a clear access passage at least 0.20 m wide must be left free.			
Permitted service load: 1.5 kN/m ² (150 kg/m ²)	Permitted service load: 2.0 kN/m ² (200 kg/m ²)	Load Class Permitted service load <table border="1"> <tr> <td>4 3.0 kN/m² (300 kg/m²)</td><td>5 4.5 kN/m² (450 kg/m²)</td><td>6 6.0 kN/m² (600 kg/m²)</td></tr> </table> or partial-area load	4 3.0 kN/m ² (300 kg/m ²)	5 4.5 kN/m ² (450 kg/m ²)	6 6.0 kN/m ² (600 kg/m ²)
4 3.0 kN/m ² (300 kg/m ²)	5 4.5 kN/m ² (450 kg/m ²)	6 6.0 kN/m ² (600 kg/m ²)			
	The actual load is made up of the weight of the stored material and of the persons on the platform. For each person, a weight of 100 kg must be assumed.	The actual load is made up of the weight of the stored material and of the persons on the platform. For each person, a weight of 100 kg must be assumed.			

Overview of possible areas of use

Working platform	
with formwork	without formwork
	

Protection platform		
Fall-stop scaffold	Sloping-rooftop fall barrier	Protective canopy
		

For detailed information on the different areas of use, see the section 'Working platform' or 'Protection platform'!

**with the Folding platform K
product range**

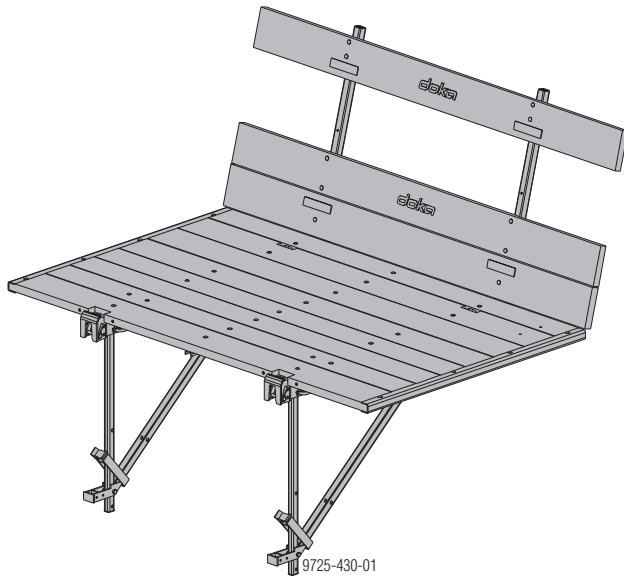
The narrow side of the Folding platform K inside corner where the rear railing is open must be facing the wall.

- A** Doka folding platform K 3.00m
- B** Doka folding platform K 4.50m
- C** Doka folding platform K outside corner
- D** Doka folding platform K inside corner
- E** Closure platform 3.00m

Main components

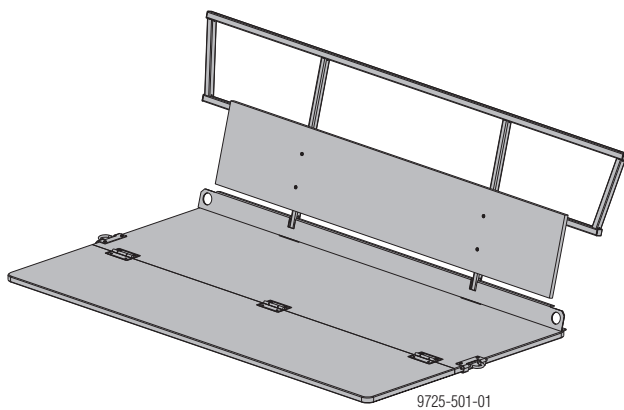
Doka folding platform K

- 2 possible lengths of platform, as required by the situation:
 - 3.00 m (2 brackets)
 - 4.50 m (3 brackets)
- The suspension points always have the **same grid spacing of 1.50 m**



Length adjustment

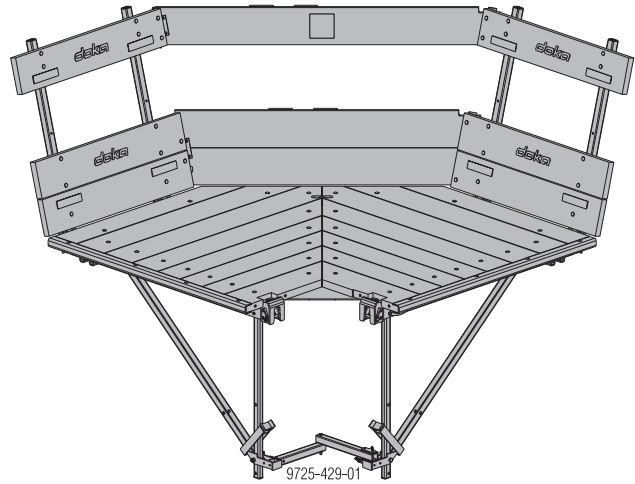
Closure platform 3.00m for length adjustment and corner solutions – all-in-one, with integral railings



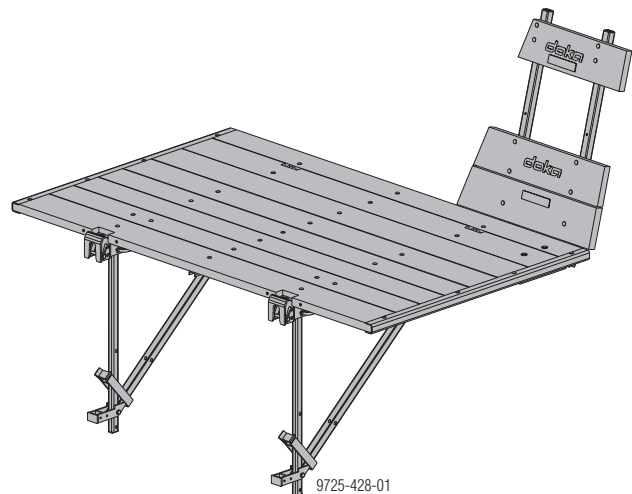
Corner solutions

Safe corner transition with the Folding platform K outside corner and the Folding platform K inside corner

Doka folding platform K outside corner

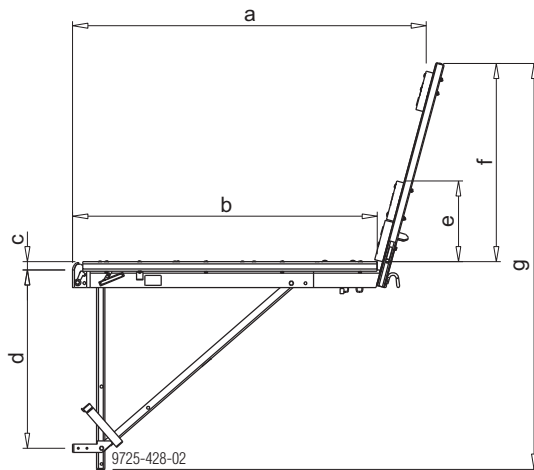


Doka folding platform K inside corner



Doka folding platform K in detail

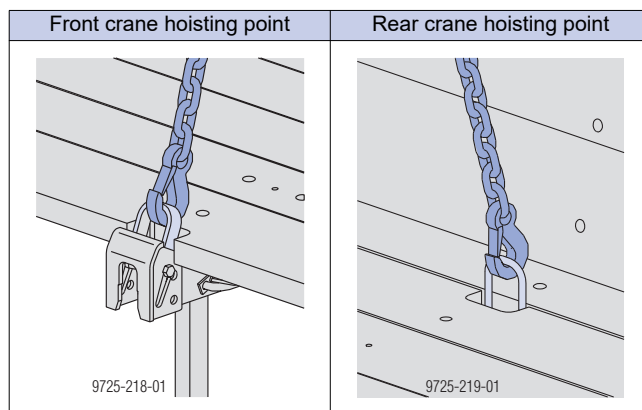
System dimensions:



- a ... 2120 mm
- b ... 1840 mm
- c ... 50 mm
- d ... 1080 mm
- e ... 530 mm
- f ... 1210 mm
- g ... 2450 mm

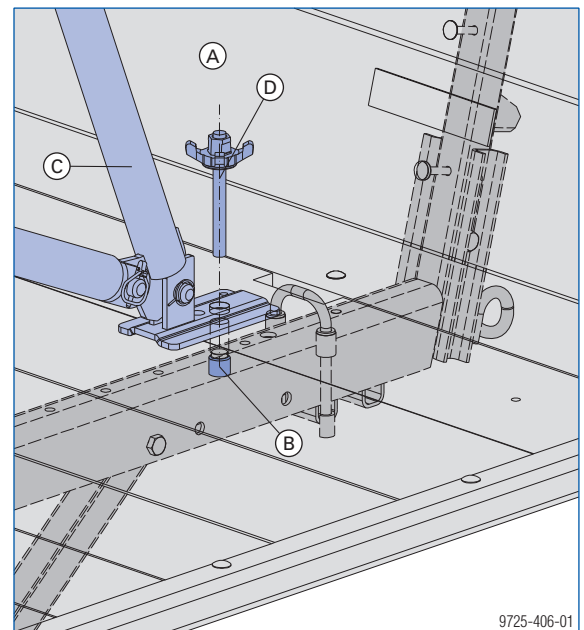
Crane hoisting points

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



Attaching panel struts

- Connection sockets for attaching the panel struts are integrated in the platform.



- A Doka folding platform K
- B Connection socket
- C Panel strut
- D Star screw

Working platform

Working platform with formwork

H (horizontal load) and V (vertical load) refer to the loads at the suspension point. These loads cover all the usage situations given here. The structure, and all its applicable parts, must be verified for stability based on this data.

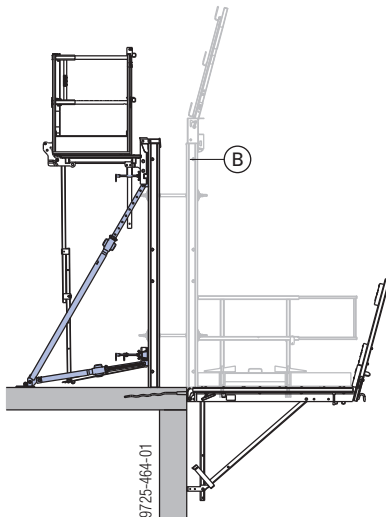
- H = 14.0 kN
- V = 24.0 kN
- Closure length 1.00 m

Note:

The values stated for the permitted service load and closures must also be complied with when using inside corners and outside corners.

Formwork shored from floor slab

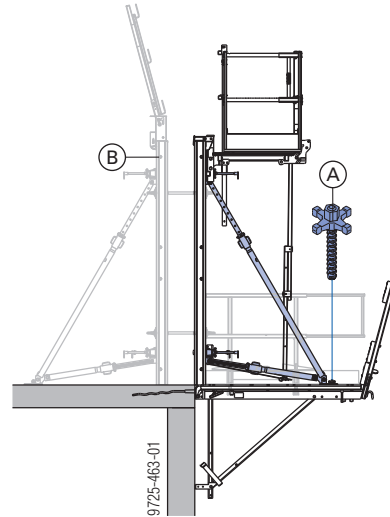
Formwork height max. 5.50 m



B Opposing formwork

Formwork shored from folding platform

Formwork height max. 3.00 m



A Star screw

B Opposing formwork

- Load Class 2 (permitted service load 1.5 kN/m² (150 kg/m²) on folding platform and pouring platform)
- Max. width of pouring platforms 1.20 m.
- Wind speeds up to 55 km/h (as per "UVV" accident prevention rule for cranes). At wind speeds of up to 45 km/h, a formwork height of 4.00 m is possible.
- If higher wind speeds are likely, and when work finishes for the day or before prolonged work-breaks, the formwork must be closed. Fix the panel struts of the opposing formwork to the floor slab stably.



CAUTION

The panel struts on the folding platform must:

- only be positioned in the axis of the bracket!
- only be fitted into the special connection sockets!
- only be fixed with star screws!

Tie rod 15.0mm is forbidden!

Working platform without formwork

Doka folding platform K 3.00m and 4.50m

H (horizontal load) and V (vertical load) refer to the loads at the suspension point. These loads cover all the usage situations given here. The structure, and all its applicable parts, must be verified for stability based on this data.

Types of suspension point ¹⁾	Suspension cone					
	Rock anchor spreader unit 15.0 + Suspension cone 15.0 with collar					
	Suspension cone 15.0 f. insulation up to 11cm (insulation thickness up to 6cm)					
	Suspension cone 15.0 f. insulation up to 11cm (insulation thickness up to 11cm)					
	Bridge edge beam anchor 15.0					
	Suspension profile AK					
	Suspension plate AK					
		H = 9.2 kN V = 9.2 kN	H = 16.2 kN V = 16.0 kN		H = 25.0 kN V = 26.0 kN	
		Load Class 2 Permitted service load 1.5 kN/m ² (150 kg/m ²)	Load Class 2 Permitted service load 1.5 kN/m ² (150 kg/m ²)	Load Class 3 Permitted service load 2.0 kN/m ² (200 kg/m ²)	Load Class 4 Permitted service load 3.0 kN/m ² (300 kg/m ²)	Load Class 5 Permitted service load 4.5 kN/m ² (450 kg/m ²)
						Load Class 6 Permitted service load 6.0 kN/m ² (600 kg/m ²)
Closures		1.00 m	2.50 m ²⁾	1.50 m ²⁾	1.00 m	0.75 m

¹⁾ See also 'Anchoring on the structure'.

²⁾ For closures of longer than 1.00 m, only use the Closure platform 3.00m.

Doka folding platform K inside corner

	Load Class 2 Permitted service load 1.5 kN/m ² (150 kg/m ²)	Load Class 2 Permitted service load 1.5 kN/m ² (150 kg/m ²)	Load Class 3 Permitted service load 2.0 kN/m ² (200 kg/m ²)	Load Class 4 Permitted service load 3.0 kN/m ² (300 kg/m ²)	Load Class 5 Permitted service load 4.5 kN/m ² (450 kg/m ²)	Load Class 6 Permitted service load 6.0 kN/m ² (600 kg/m ²)
Closures	1.00 m	2.50 m ²⁾	1.50 m ²⁾	Not allowed	Not allowed	Not allowed

²⁾ For closures of longer than 1.00 m, only use the Closure platform 3.00m.

Doka folding platform K outside corner

	Load Class 2 Permitted service load 1.5 kN/m ² (150 kg/m ²)	Load Class 3 Permitted service load 2.0 kN/m ² (200 kg/m ²)	Load Class 4 Permitted service load 3.0 kN/m ² (300 kg/m ²)
Closures	2.50 m ²⁾	1.50 m ^{2) 3)}	Not allowed

²⁾ For closures of longer than 1.00 m, only use the Closure platform 3.00m.

³⁾ Closures of up to 2.50 m long are permitted if the closure platform is resting on a Folding platform K outside corner on both sides (e.g. pier).

Anchoring on the structure













NOTICE

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




Suspension point in concrete

Standard suspension point (without insulation)







Lost parts		Reusable parts			
Stop anchor 15.0  or Pigtail anchor 15.0 	Sealing sleeve 15.0/5cm  or Sealing sleeve S 15.0/5cm 	Positioning cone 15.0/5cm  or Cantilever positioning cone 15.0/5cm 	Tie rod 15.0, length approx. 20 cm  or Fixing plate 15.0 	Super plate 15.0 	Suspension cone 15.0/5cm 

Other possible anchorages

Variant using bridge edge beam anchor





Lost parts		Reusable parts
Bridge edge beam anchor 15.0 	Nailing cone 15.0 	Screw-in cone 15.0 

Suspension points with insulation up to 11 cm thick

Lost parts		Reusable parts	
Pigtail anchor 15.0  or Stop anchor 15.0 	Sealing sleeve 15.0 f. insulation up to 11cm 	Suspension cone 15.0 f. insulation up to 11cm  in addition, where needed Positioning disc Rd28 	Cone screw Rd28 


Retrofitted suspension points

Drilling a hole for the suspension point through the wall

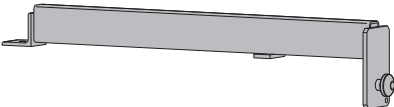
Lost parts	Reusable parts		
Rock anchor spreader unit 15.0 	Tie rod 15.0 	Rock anchor installation tube 	Suspension cone 15.0 with collar 

Attachment to the concrete slab

without insulation, or with insulation up to 10 cm thick

Reusable part
Suspension plate AK 

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

Reusable part
Suspension profile AK 

Distances from edges

Dimensioning the suspension point

The required **cube compressive strength** of the concrete and ready-mix mortar at the time of loading must be **specified** separately for each project **by the structural designer**. It will depend on the following factors:

- load actually occurring
- wall thickness
- reinforcement / extra reinforcement steel
- distance from edge

The introduction of the forces, the transfer of these forces into the structure, and the stability of the overall construction, must all be verified by the structural designer.

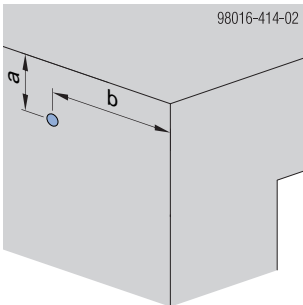
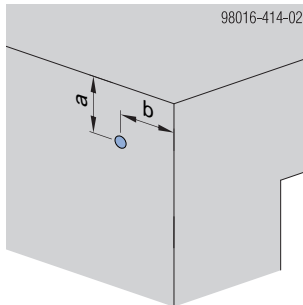
The required cube compressive strength $f_{ck, cube, current}$ must be at least 10 N/mm², however.



NOTICE

- It is essential to comply with the following distances from edges!
- Actual loads have to be ascertained on a project-specific basis.

Used in the wall or in a floor slab with wall underneath

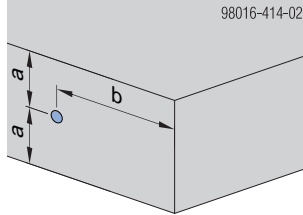
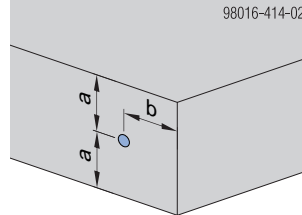
Used with Stop anchor 15.0	Used with Pigtail anchor 15.0
 <p>a ... min. 10 cm b ... min. 30 cm</p>	 <p>a ... min. 10 cm b ... min. 15 cm</p>

Used in the floor slab (without wall)



DANGER

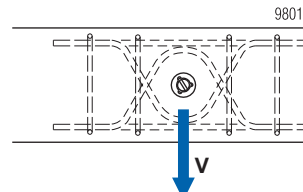
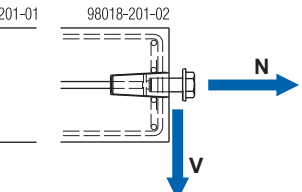
- It is essential to install extra reinforcement for tensile and shear forces if there is no wall underneath the slab.

Used with Stop anchor 15.0	Used with Pigtail anchor 15.0
 <p>a ... min. 10 cm b ... min. 30 cm</p>	 <p>a ... min. 10 cm b ... min. 15 cm</p>



NOTICE

The installation of extra reinforcement always has to be agreed with the structural engineer!

Extra reinforcement steel	
 <p>98018-201-01</p>	 <p>98018-201-02</p>
<p>V_{perm} ... shear force N_{perm} ... tensile force</p>	

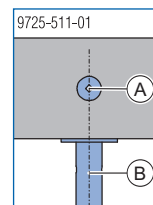


For more information, please contact your Doka technician.



NOTICE

Floor props directly underneath the suspension points reduce the global and local load of the slab. Their positioning must be ensured throughout the entire construction process.

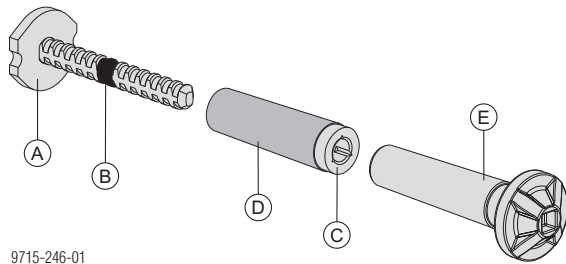


A Suspension point for Folding platform K

B Floor prop

Suspension point in concrete

Standard suspension point (without insulation)



9715-246-01

- A** Stop anchor 15.0 (expendable anchoring component)
- B** Depth mark
- C** Positioning cone 15.0 5cm
- D** Sealing sleeve 15.0 5cm (expendable anchoring component)
- E** Suspension cone 15.0 5cm

▪ Stop anchor

- Expendable anchoring component for anchoring the suspension cone (and thus the climbing unit) in the concrete from one side.

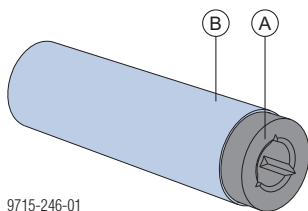
▪ Positioning cone

- Placeholder for the suspension cone on the positioning point.
- The Positioning cone 15.0 5cm or the Cantilever positioning cone 15.0 5cm can be used as positioning cone.

▪ Suspension cone

- For safe suspension of the Folding platform K or climbing unit.

Positioning cone 15.0 5cm



9715-246-01

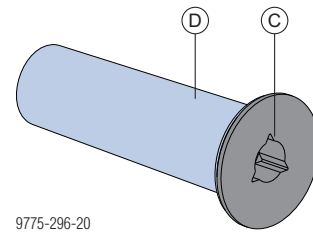
- A** Positioning cone 15.0 5cm
- B** Sealing sleeve 15.0 5cm (orange)



NOTICE

Positioning cones 15.0 5cm are supplied together with Sealing sleeves 15.0 5cm. Fit **new sealing sleeves every time the cones are re-used.**

Cantilever positioning cone 15.0 5cm



9775-296-20

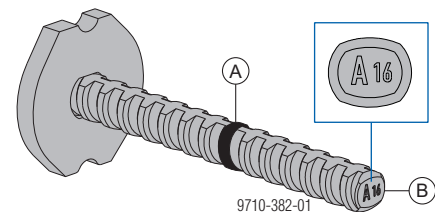
- C** Cantilever positioning cone 15.0 5cm
- D** Sealing sleeve S 15.0 5cm (orange)



NOTICE

Cantilever positioning cones 15.0 5cm are supplied together with Sealing sleeves S 15.0 5cm. Fit **new sealing sleeves every time the cones are re-used.**

Types of stop anchor



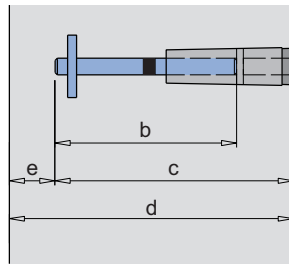
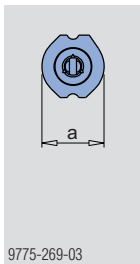
9710-382-01

- A** Mark for screw-in depth
- B** Code for stop-anchor type



The stop anchor has an identification code on the end face.

- The code is a combination of a letter and a number and it unequivocally describes the features of the stop anchor:
 - Letter: Tie-rod size and size of the stop-anchor plate.
 - Number: Length of the stop anchor in cm
- Easy identification of the stop-anchor type before and after the concrete has been poured

Stop anchor 15.0 A16 and A21

A	Stop anchor 15.0
16	a ... size of stop-anchor plate: 55 mm
	b ... tie-rod length: 16,0 cm

c ... installation depth: 21.0 cm

d ... minimum wall thickness: 23.0 cm (where the concrete cover is 2 cm)

d ... minimum wall thickness: 24.0 cm (where the concrete cover is 3 cm)

e ... concrete cover

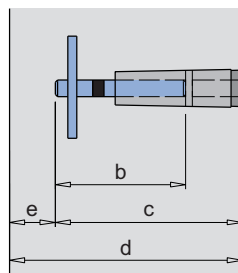
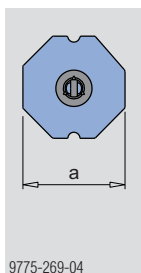
A	Stop anchor 15.0
21	a ... size of stop-anchor plate: 55 mm
	b ... tie-rod length: 21,0 cm

c ... installation depth: 26.0 cm

d ... minimum wall thickness: 28.0 cm (where the concrete cover is 2 cm)

d ... minimum wall thickness: 29.0 cm (where the concrete cover is 3 cm)

e ... concrete cover

Stop anchor 15.0 B11

B	Stop anchor 15.0
11	a ... size of stop-anchor plate: 90 mm
	b ... tie-rod length: 11.5 cm

c ... installation depth: 16.5 cm

d ... Minimum wall thickness: 19 cm (where the concrete cover is 2 cm)

d ... Minimum wall thickness: 20 cm (where the concrete cover is 3 cm)

e ... concrete cover

**WARNING**

The short **Stop anchor 15.0 B11** has a much lower load-bearing capacity than the Stop anchor 15.0 A16.

- The short stop anchor may only be used on systems with low tensile loads at the anchoring location, such as on climbing systems inside shafts.
- If the geometry will only allow installation of short stop anchors, then revised static calculations and/or extra reinforcement steel may be required where any higher tensile loads are expected.
- The Stop anchor 15.0 B11 is only permitted for wall thicknesses < 24 cm. For wall thicknesses ≥ 24 cm, the Stop anchor 15.0 A16 (or larger) must be used.

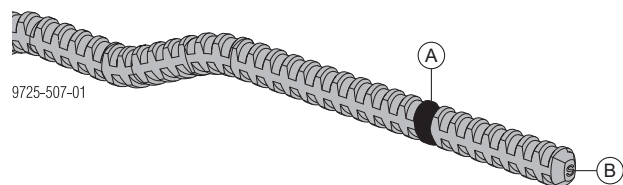
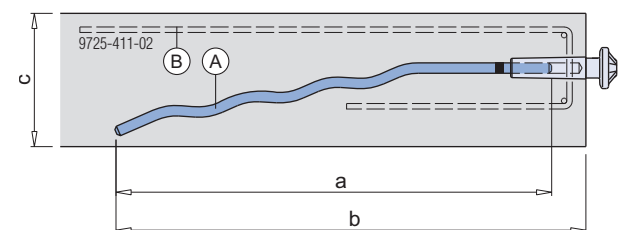
**WARNING**

The **Stop anchor 15.0 B11** may accidentally come unscrewed from the positioning cone while low-viscosity concrete is being poured.

- Take additional precautions to prevent the Stop anchor 15.0 B11 from being turned.

Pigtail anchor

It is also possible to use a **pigtail anchor** for a positioning point / suspension point in the floor-slab, instead of a stop anchor.

**A** Mark for screw-in depth**B** Code on end face 'S' (= Pigtail anchor 15.0)

a ... 64.0 cm

b ... 69.0 cm

c ... min. 20.0 cm

A Pigtail anchor 15.0

B Longitudinal reinforcement and U-reinforcements, min. diam. 8 mm, spaced max. 15 cm apart

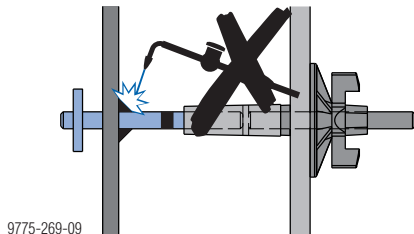
Preparing the positioning point



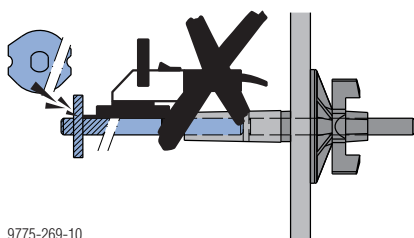
WARNING

Sensitive anchoring, suspension and connector components!

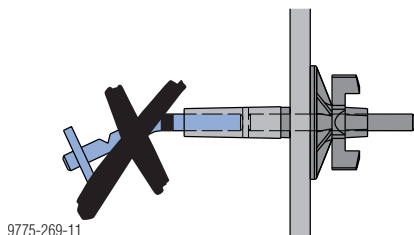
- Never weld or heat these components.
- Any components that are damaged or weakened by corrosion or wear must be withdrawn from use.



9775-269-09



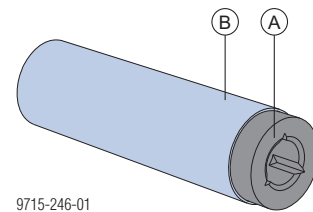
9775-269-10



9775-269-11

Preparing the positioning point

- Push the sealing sleeve all the way onto the positioning cone.



9715-246-01

A Positioning cone 15.0 5cm

B Sealing sleeve 15.0 5cm (orange)

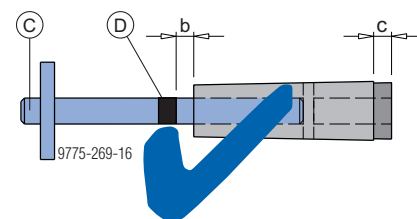
Note:

Do not screw the stop anchor in until the sealing sleeve is pushed fully on to the positioning cone.



WARNING

- Always screw the stop anchor into the positioning cone until it fully engages. Not screwing the stop anchor fully into the cone may lead to reduced load-bearing capacity and failure of the suspension point – resulting in possible injury and/or damage.



9775-269-16

b ... 10 mm

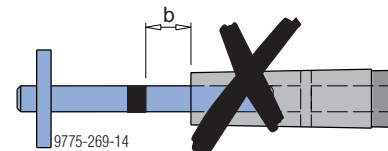
c ... 10 mm

C Stop anchor 15.0 (lost anchoring component)

D Depth mark



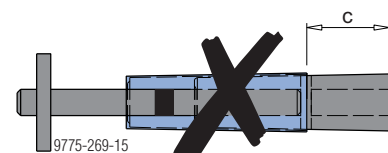
- Always screw in components until they are fully engaged. When correctly fitted, there will still be 10 mm of thread visible between the part and the depth mark on the stop anchor or pigtail anchor.



9775-269-14

b ... > 10 mm not permitted

- The sealing sleeve must be completely pushed onto the positioning cone.



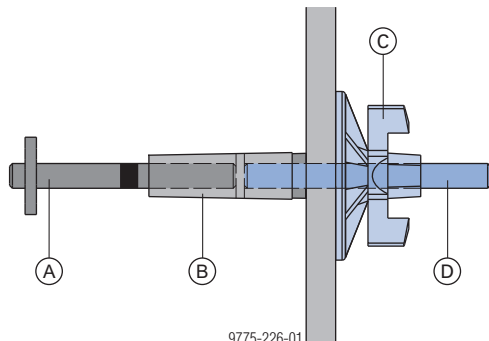
9775-269-15

c ... > 10 mm not permitted

Positioning point with Positioning cone 15.0 5cm (with hole drilled through form-ply)

Installation:

- ▶ Drill a diam. 18 mm hole in the form-ply (position as shown in shop drawing / assembly plan).
- ▶ Insert a Tie rod 15.0 (length approx. 20 cm) through the hole drilled in the form-ply, screw it into the positioning cone and tighten it with a Super plate 15.0.



A Stop anchor 15.0

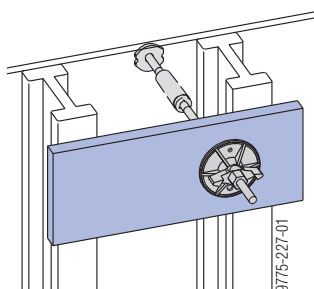
B Positioning cone 15.0 5cm + Sealing sleeve 15.0 5cm

C Super plate 15.0

D Tie rod 15.0mm

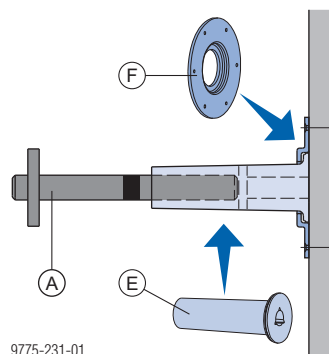


If the positioning point is located too close to a Doka beam, a board can be nailed to this and the adjoining beam to provide a support surface for the super plate.



Positioning point with Cantilever positioning cone 15.0 5cm (with no hole drilled through form-ply)

For special applications only, when it is not possible to drill through the form-ply (e.g. where there are Doka beams or formwork panel frame profiles directly behind the positioning point).



A Stop anchor 15.0

E Cantilever positioning cone 15.0 5cm + Sealing sleeve S 15.0 5cm

F Fixing plate 15.0



NOTICE

It is not permitted to use the Fixing plate 15.0 more than once in the same position, as it cannot be fixed firmly and securely in the old nail-holes.

Installation:

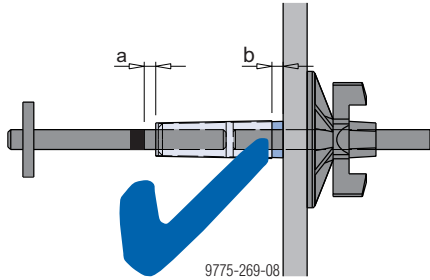
- ▶ Nail a cantilever positioning cone to the form-ply using a Fixing plate 15.0 (position as shown in project plan).

Check of the positioning point

- Before pouring, check all positioning points and suspension points again.



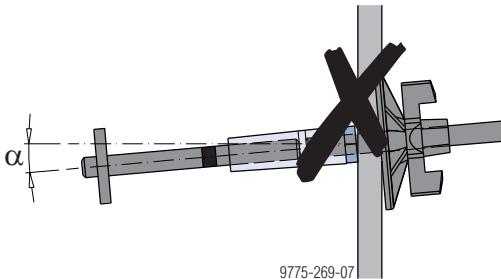
- The sealing sleeve must be completely pushed onto the positioning cone.
- Always screw in components until they are fully engaged. When correctly fitted, there will still be 10 mm of thread visible between the part and the depth mark on the stop anchor or pigtail anchor.
- Tolerance for locating the positioning points and suspension points: ± 10 mm in the horizontal and the vertical.



a ... 10 mm
b ... 10 mm



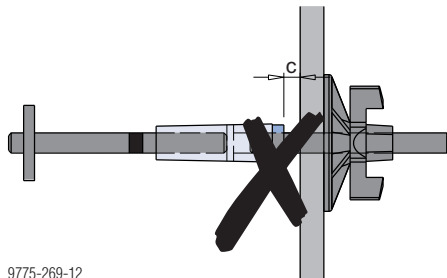
- The axis of the positioning cone must be at right-angles to the surface of the concrete – maximum angle of deviation 2° .



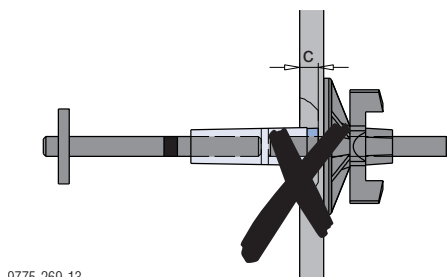
α ... max. 2°



- The positioning cone must be embedded so that it is flush with the concrete surface.



9775-269-12



9775-269-13

c ... > 0 mm not permitted

Pouring



Mark the positions of the anchoring points at the top edge of the formwork to make them easier to locate when the concrete is being poured.

- Prevent the vibrator from touching the stop anchors.
- Do not place concrete from directly above the stop anchors.

These measures prevent the anchors from working loose during pouring and vibration.

Stripping the formwork

Remove the connecting parts holding the positioning point to the formwork either before or after stripping, depending on which connecting parts are used.

Positioning point with Positioning cone 15.0 5cm:

- Remove the Super plate 15.0 before stripping the formwork.
- Unscrew the Tie rod 15.0.

Preparing the suspension point

Dimensioning the suspension point

The required **cube compressive strength** of the concrete at the time of loading must be **specified** separately for each project **by the structural designer**. It will depend on the following factors:

- load actually occurring
- length of stop anchor or pigtail anchor
- reinforcement / extra reinforcement steel
- distance from edge

The introduction of the forces, the transfer of these forces into the structure, and the stability of the overall construction, must all be verified by the structural designer.

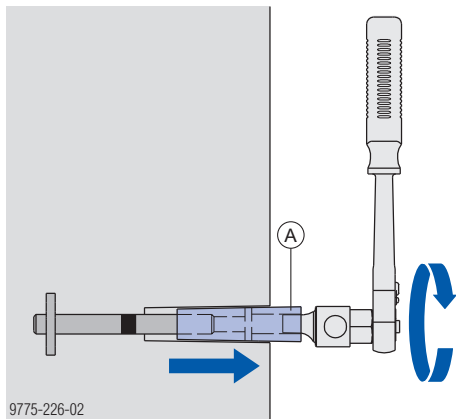
The required cube compressive strength $f_{ck, cube, current}$ must be at least 10 N/mm², however.



Follow the directions in the Calculation Guide entitled "Load-bearing capacity of anchorages in concrete" or ask your Doka technician!

Lowering the working platform into engagement

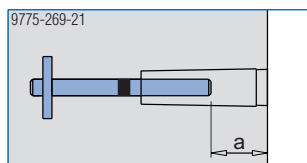
- Unscrew the Positioning cone, using a Reversible ratchet 1/2" and a Positioning-cone spanner 15.0 DK.



A Positioning cone 15.0 5cm

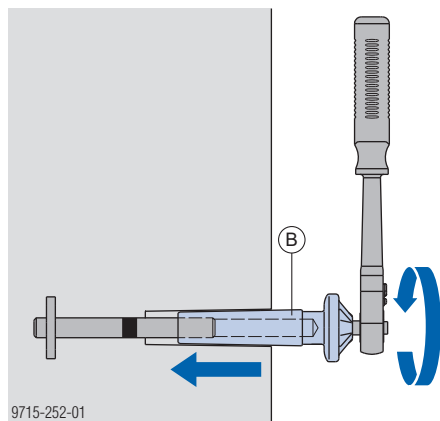
Check of the positioning point

- Check the code on the stop anchor.
- Check the placement depth of the stop anchor.



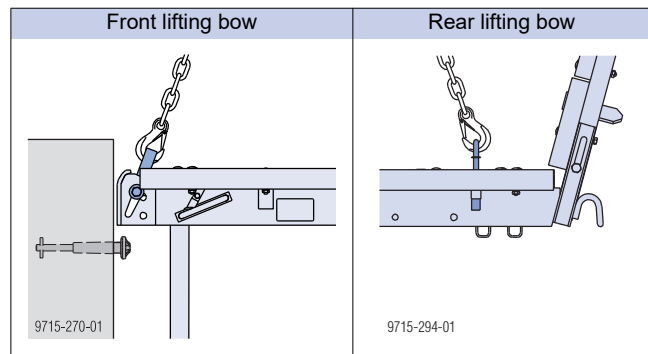
a ... placement depth: 50 mm

- Screw in Suspension cone 15.0 until fully engaged, and tighten using Reversible ratchet 1/2".



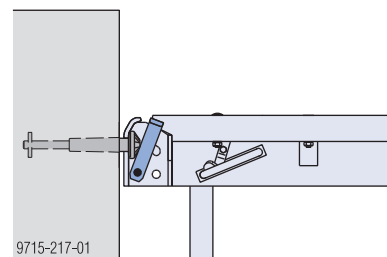
B Suspension cone 15.0 5cm

- Lower the working platform into engagement in the prepared suspension point by crane.



This raises the front lifting bows, opening the lift-out guard.

- Once the working platform has been hung into place on the suspension cone, the load is removed from the four-part lifting chain.



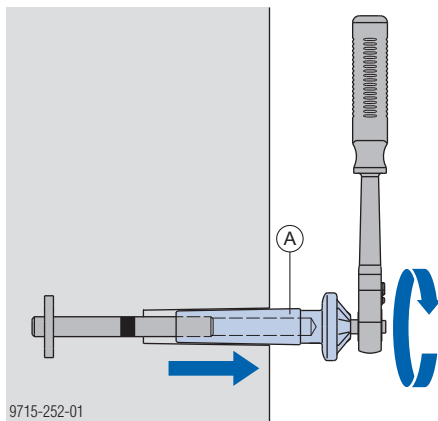
The lifting bows drop into the starting position, automatically securing the platform against accidental lift-out.



'Locked' position = lifting bow is flush with decking.

Dismounting the suspension point

- Unscrew the suspension cone with a Reversible ratchet 1/2".



A Suspension cone 15.0 5cm

Sealing the suspension point

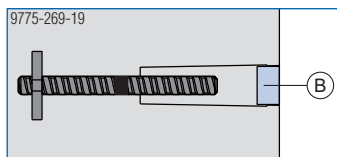
Grout level with the rest of the surface

Sealing of the suspension points can be a requirement, for reasons of rust prevention.

- Fill the cavity of the suspension point with mortar and grout it smoothly.

Fibre concrete plugs

- Remove the sealing sleeve.
- Glue the fibre concrete plug into the hole of the suspension point.

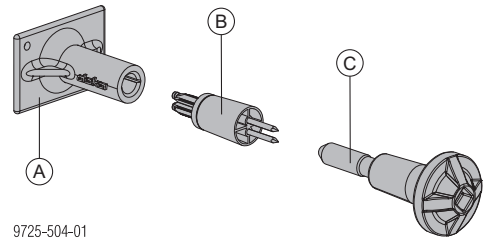


B Fibre concrete plug 30.7mm

The concrete plug is glued into place with standard concrete adhesive.

Other possible anchorages

Suspension points in concrete for reduced loading requirements



A Bridge edge beam anchor 15.0 (expendable anchoring component)

B Nailing cone 15.0 (expendable anchoring component)

C Screw-in cone 15.0



WARNING

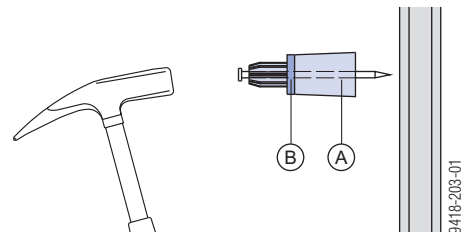
- Use of the Bridge edge beam anchor 15.0 is only permitted up to **Load Class 4**. It is **forbidden** to place **formwork** or **heavy loads** on the platform!



Comply with the General Building-Inspectorate Approval (Z-21.6-1982)!

Fitting the bridge edge beam anchor

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



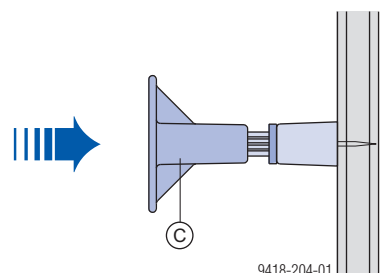
A Nailing cone 15.0

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

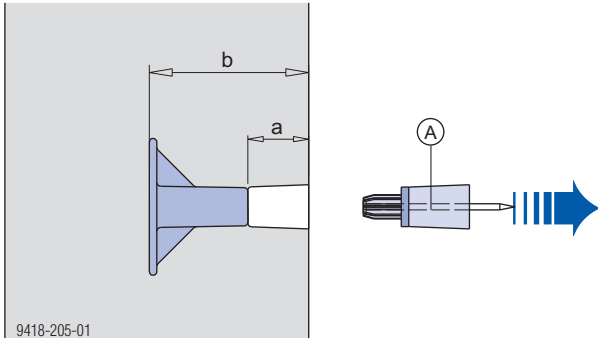
- Tie the Bridge edge beam anchor tightly to the reinforcements with binding wire. This prevents it becoming detached during pouring and vibrating.

**NOTICE**

If statically required – place extra reinforcement steel.

After formwork has been struck

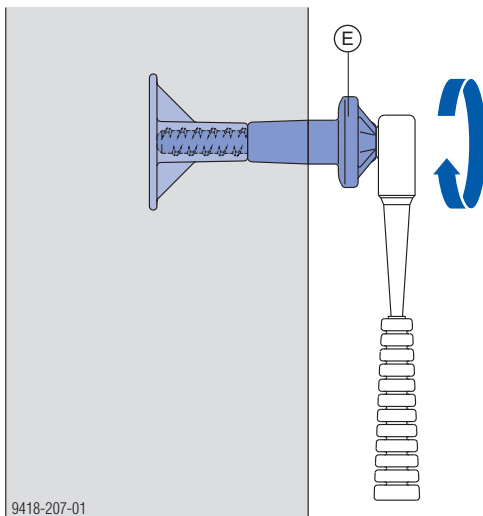
- Remove the nailing cone from the anchoring point.



a ... concrete cover 4.0 cm
b ... placement depth 11.5 cm

A Nailing cone 15.0

- Using a Reversible ratchet 1/2", screw in the Screw-in cone until it is fully engaged.

**E Screw-in cone 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

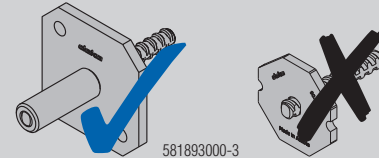
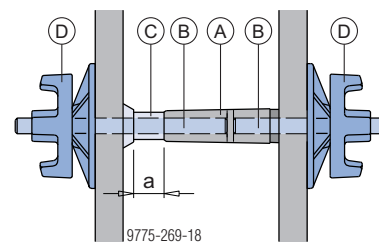
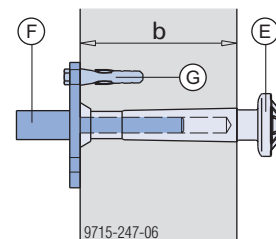
For suspension points which are intended to be re-usable in many years' time, when the time comes to rehabilitate the structure.

Thin walls

Wall thicknesses of 15 to 16 cm are prepared using the **Wall anchor 15.0 15cm**.

**Risk of confusion!**

- NEVER use Stop anchors 15.0 for this application.

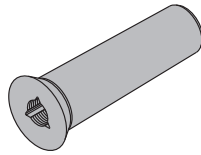
**Positioning point****Suspension point**

a ... length of plastic tube 3 - 4 cm
b ... 15 - 16 cm

- A** Positioning cone 15.0 0.5cm + Sealing sleeve 15.0 5cm
- B** Tie rod 15.0mm
- C** Universal cone 22mm + Plastic tube 22mm
- D** Super plate 15.0
- E** Suspension cone 15.0 5cm
- F** Wall anchor 15.0 15cm
- G** Hexagon timber screw 10x50 + dowel Ø12

Suspension point for fair-faced concrete

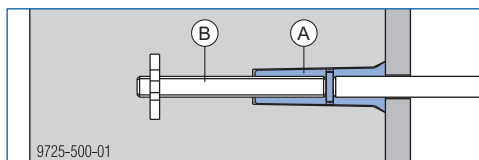
The Fair-faced concrete positioning cone 15.0 5cm is particularly suitable for fair-faced concrete projects where the form-tie points and suspension points are required to make a uniform hole-pattern.



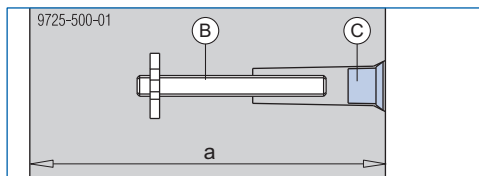
NOTICE

The Fair-faced concrete positioning cone may only be used on suspension points that are located within a maximum of 80 cm from the top edge of the concrete. The reason for this restriction is the reduced load-bearing capacity of such suspension points, due to the shallower screw-in depth of the end of the tie rod nearest the form-ply.

Anchoring situation



Illustrated inside the concrete

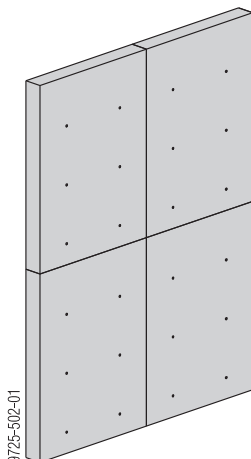


a ... 26 cm (where there is 5 cm concrete cover on both sides)

- A** Fair-faced concrete positioning cone 15.0 5cm
- B** Stop anchor double-ended 15.0
- C** Fair-faced concrete plug 41mm

If it is intended to use this type of suspension point, a Doka technician must be contacted before the project starts.

Result (in terms of appearance):



The form-tie points and/or suspension points have a uniform, regular hole-pattern

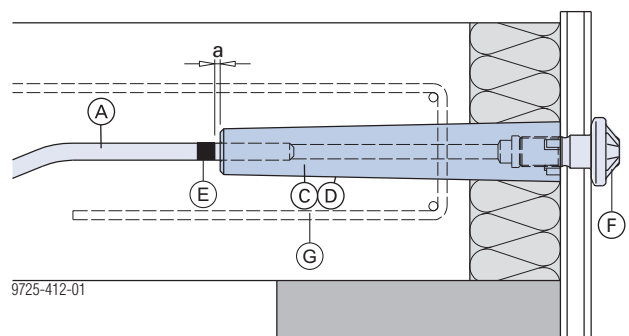
Suspension points with insulation up to 11 cm thick

Tools needed:

- Reversible ratchet 1/2"
- Reversible ratchet 3/4"
- Universal cone spanner 15.0/20.0

Positioning point (with hole drilled through form-ply)

- Drill a diam. 30 mm hole in the form-ply (position as shown in the project plan).
- Screw a stop anchor or pigtail anchor into the Suspension cone 15.0 for insulation up to 11 cm.
- Insert a Cone screw Rd28 through the hole drilled in the form-ply, screw it into the cone and tighten it.



a ... 0.5 cm

- A** Stop anchor 15.0 or Pigtail anchor 15.0
- C** Suspension cone 15.0 f. insulation up to 11cm
- D** Sealing sleeve 15.0 f. insulation up to 11cm
- E** Depth mark
- F** Cone screw Rd28
- G** Longitudinal reinforcement and U-reinforcements, min. diam. 8 mm, spaced max. 15 cm apart



0.5 cm distance between depth mark and cone.

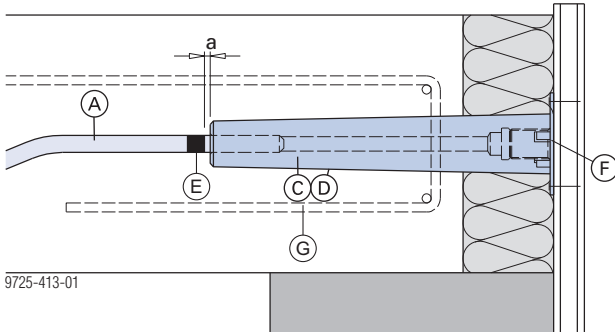
Note:

Suspension cones 15.0 for insulation up to 11cm are supplied with Sealing sleeves (D). **Every time** the cones are **re-used**, fit them with **new sealing sleeves** first.

Positioning point (with no hole drilled through form-ply)

e.g. where there is a Doka beam or the profile of a framed formwork panel directly behind the location of the positioning point.

- Nail a Positioning disk Rd28 to the form-ply (position as shown in project plan).
- Screw the Suspension cone 15.0 for insulation up to 11 cm onto the Positioning disk Rd28.
- Screw the stop anchor or pigtail anchor into the Cantilever positioning cone until fully engaged.



a ... 0.5 cm

- A** Stop anchor 15.0 or Pigtail anchor 15.0
- C** Suspension cone 15.0 f. insulation up to 11cm
- D** Sealing sleeve 15.0 f. insulation up to 11cm
- E** Depth mark
- F** Positioning disk Rd28
- G** Longitudinal reinforcement and U-reinforcements, min. diam. 8 mm, spaced max. 15 cm apart



0.5 cm distance between depth mark and cone.

Note:

Suspension cones 15.0 for insulation up to 11cm are supplied with Sealing sleeves (**D**). **Every time** the cones are **re-used**, fit them with **new sealing sleeves** first.

Before pouring

- Check all positioning points and suspension points once again.

Suspension point



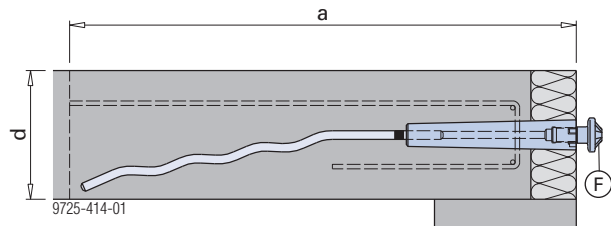
➤ **Warning** - Ensure the suspension cones are screwed in sufficiently. Any insertion deficiency may result in load bearing capacity reduction. This may cause the suspension point to fail, leading to possible injury and/or damage.

- Always screw in components until they are fully engaged.

- Unscrew the Positioning disk Rd 28 with a Reversible ratchet 1/2".

When fitted and removed carefully, using minimum force, the Positioning disk RD 28 can be re-used several times.

- Screw in the Cone screw Rd28 until fully engaged, and tighten using a Reversible ratchet 1/2".



F Cone screw Rd28

	Pigtail anchor 15.0	Stop anchor 15.0 A16	Stop anchor 15.0 A21
a ... placement depth	92.5 cm	44.6 cm	49.6 cm
d ... slab thickness	min. 20.0 cm	min. 26.4 cm	min. 26.4 cm

Retrofitted suspension points

Drilling a hole for the suspension point through the wall

e.g.: if the crew forgot to prepare a positioning point.

Dimensioning the suspension point

The required **cube compressive strength** of the concrete and ready-mix mortar at the time of loading must be **specified** separately for each project **by the structural designer**. It will depend on the following factors:

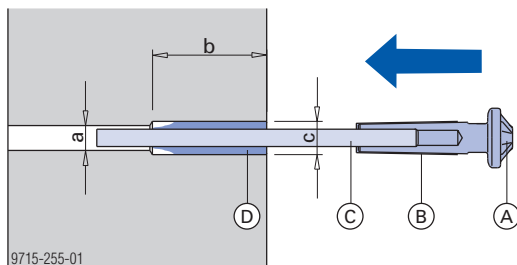
- load actually occurring
- wall thickness
- reinforcement / extra reinforcement steel
- distance from edge

The introduction of the forces, the transfer of these forces into the structure, and the stability of the overall construction, must all be verified by the structural designer.

The required cube compressive strength $f_{ck, cube, current}$ must be at least 10 N/mm², however.

Used with Suspension cone 15.0 5cm

- Drill a hole of diam. 35 mm and 115 mm depth.
- Drill a hole of diam. 25 mm.
- Push the sealing sleeve all the way onto the suspension cone.
- Screw the tie rod into the suspension cone until fully engaged, and put the rod part-way into the hole.
- Paste the ready-mix mortar (supplied by site) into the drilled hole with a spatula.



a ... 25 mm
b ... 115 mm
c ... 35 mm

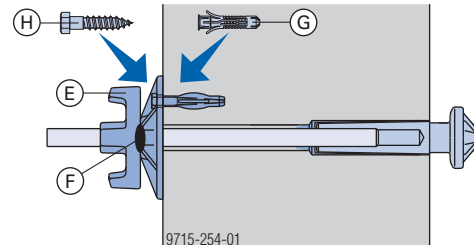
- A** Suspension cone 15.0 5cm
- B** Sealing sleeve 15.0 5cm
- C** Tie rod 15.0mm
- D** Ready-mix mortar

- Insert the unit so that it is flush with the concrete surface.
Scrap away the excess ready-mix mortar with a spatula.



NOTICE

- Weld a bead to the super plate to join the nut and the plate. Do this **BEFORE** screwing the super plate onto the tie rod.
- On the other side of the concrete wall, screw on the super plate (now welded together) and secure it with a screw and dowel so that it cannot be unscrewed.

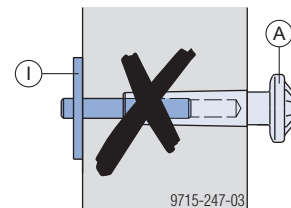


- E** Super plate 15.0
- F** Weld-seam
- G** Dowel Ø12
- H** Hexagon timber screw 10x50



WARNING

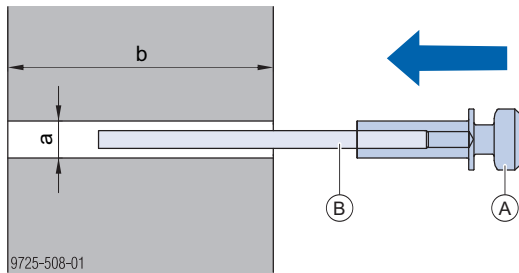
- Do **NOT** fit stop anchors with the anchor plate exposed! The anchor plate must always be embedded in the concrete.



- A** Suspension cone
- I** Stop anchor

Used with Suspension cone 15.0 with collar

- ▶ Drill a hole of diam. 36 mm.
- ▶ Screw the tie rod fully into the suspension cone with collar.



a ... 36 mm
b ... min. 150 mm

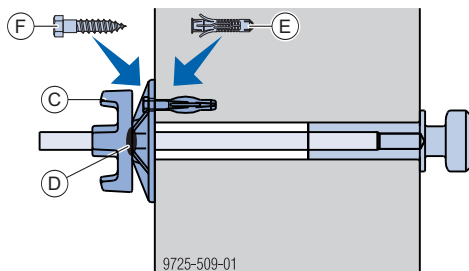
- A** Suspension cone 15.0 with collar
- B** Tie rod 15.0mm

- ▶ Insert the unit so that it is flush with the concrete surface.



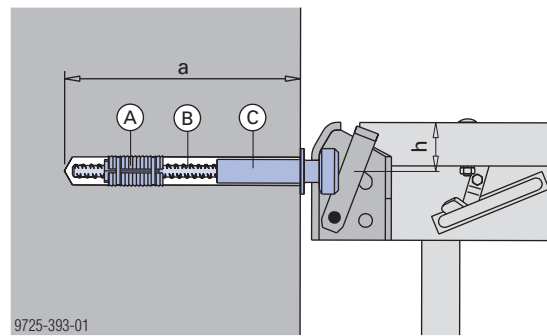
NOTICE

- ▶ Weld a bead to the super plate to join the nut and the plate. Do this **BEFORE** screwing the super plate onto the tie rod.
- ▶ On the other side of the concrete wall, screw on the super plate (now welded together) and secure it with a screw and dowel so that it cannot be unscrewed.



- C** Super plate 15.0
- D** Weld-seam
- E** Dowel Ø12
- F** Hexagon timber screw 10x50

Single-sided tie using Rock anchor spreader unit 15.0 and Suspension cone 15.0 with collar



a ... depth of drilled hole min. 250 mm
h ... 6.5 cm

- A** Rock-anchor spreader unit 15.0 (expendable anchoring component)
- B** Tie rod 15.0
- C** Suspension cone 15.0 with collar



Before using, be sure to read and follow the directions in the Fitting Instructions for the "Rock anchor spreader unit 15.0" and "Suspension cone with collar 15.0"!

Extra components needed for preparing the suspension point:

- Tensioning instrument B, consisting of
 - 1 hollow-piston cylinder
 - 1 hydraulic hand pump
 - 1 pressure support
 - 1 carrying case
- Rock anchor installation tube
- Tie-rod wrench 15.0/20.0
- Super plate 15.0
- Rock drill-bits diam. 37 or 38 mm

or

- Tensioning instrument 300kN, consisting of
 - 1 hollow-piston cylinder RH302
 - 1 hydraulic hand pump
 - 1 pressure support C
 - 1 carrying case
 - 1 Rock anchor installation tube
- Tie-rod wrench 15.0/20.0
- Super plate 15.0
- Rock drill-bits diam. 37 or 38 mm



NOTICE

The Tensioning instrument B cannot be combined with the Tensioning instrument 300kN!

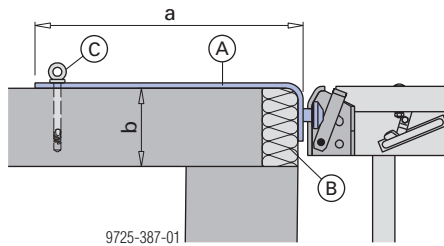
Acceptance test

- ▶ Every anchoring point must undergo acceptance testing.

Attachment to the concrete slab

Without insulation, or with insulation up to 10 cm thick

With Suspension plate AK



a ... 60.0 cm
b ... min. 18.0 cm

- A** Suspension plate AK
- B** Insulation, max. 10 cm thick
- C** Doka express anchor 16x125mm



WARNING

► Use of the Suspension plate is permitted with **Load Class 2** only. It is **forbidden** to place **formwork** or **heavy loads** on the platform!

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

Tensile force: ≥ 5.0 kN

Shear force: ≥ 9.2 kN

e.g.: Doka express anchor 16x125mm

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

25 N/mm² (concrete C20/25)

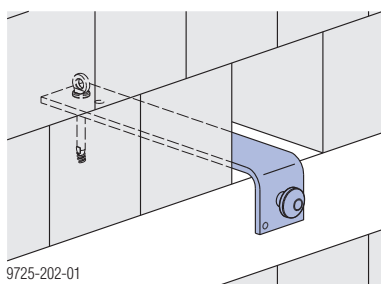


Follow the directions in the 'Doka express anchor 16x125mm' Fitting Instructions!



Installation hint for masonry:

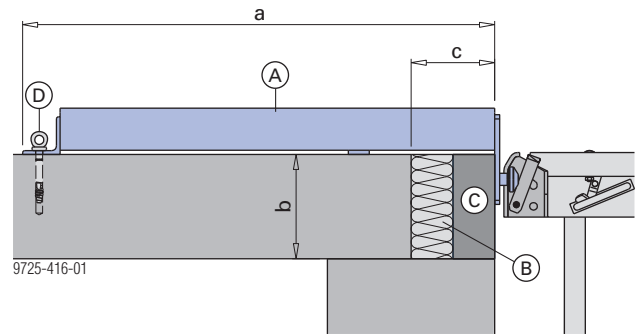
Leave out a brick where the suspension plate is to be mounted. The suspension plate can then be dismantled from inside the structure.



► Before undoing the Express anchor or dowel, make sure that the platforms have been removed from the suspension points!

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

With Suspension profile AK



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

- A** Suspension profile AK
- B** Insulation
- C** Facing brickwork
- D** Doka express anchor 16x125mm



WARNING

► Use of the Suspension profile is permitted with **Load Class 2** only. It is **forbidden** to place **formwork** or **heavy loads** on the platform!

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

Tensile force: $\geq 5,0$ kN

Shear force: ≥ 9.2 kN

e.g.: Doka express anchor 16x125mm

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

25 N/mm² (concrete C20/25)

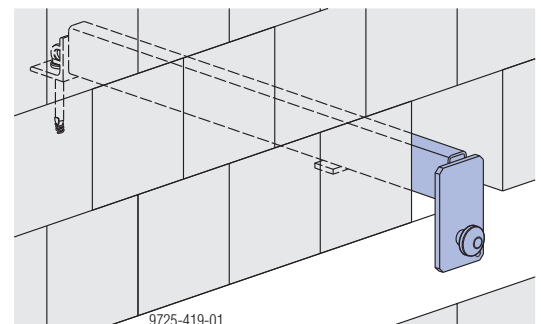


Follow the directions in the 'Doka express anchor 16x125mm' Fitting Instructions!



Installation hint for masonry:

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



► Before undoing the Express anchor or dowel, make sure that the platforms have been removed from the suspension points!

Assembly

Set-up procedure

Doka folding platform K

- Lift the stacked platforms off the truck by crane or forklift truck, and set them down on a flat, paved surface.

Animation: <https://player.vimeo.com/video/301157967>

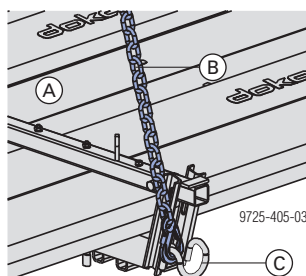
Separating the platforms

- Attach the four-part lifting chain to the crane hoisting points at the front and to the extra lifting bows at the rear.



NOTICE

Only attach and lift 1 platform at a time.

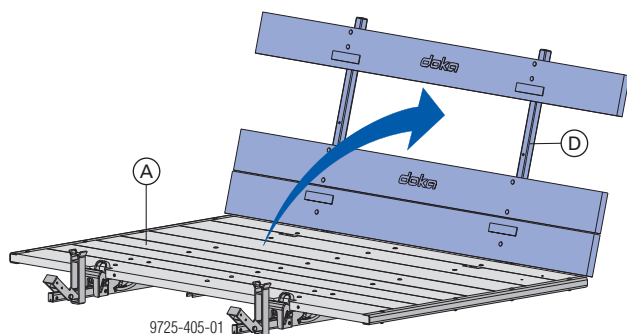


- A Doka folding platform K
- B Doka 4-part chain 3.20m
- C Lifting bow

Putting up the railings

- Tilt up the rear railings. When you reach the stop, lift the railings and slot them into place.

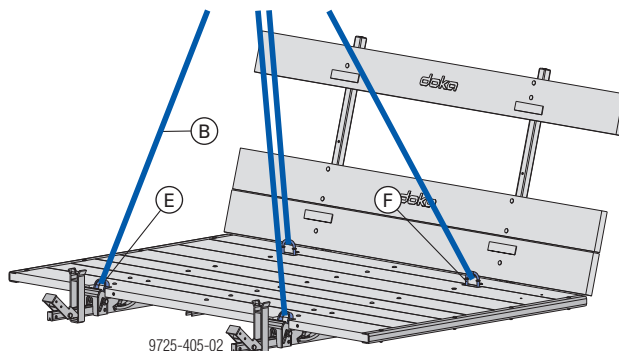
Folding platform K



- A Doka folding platform K
- D Rear railing

Attaching the crane

- Pull the lifting bows up out of their recesses, attach the four-part lifting chain (e.g. Doka 4-part chain 3.20m) and raise the Folding platform K.



- B Doka 4-part chain 3.20m
- E Lifting bow (at front)
- F Lifting bow (at rear)

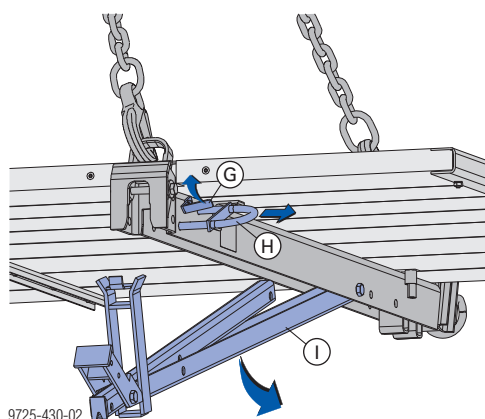
Pulling out the pressure rod



WARNING

After being released, the pressure rod swings downwards!

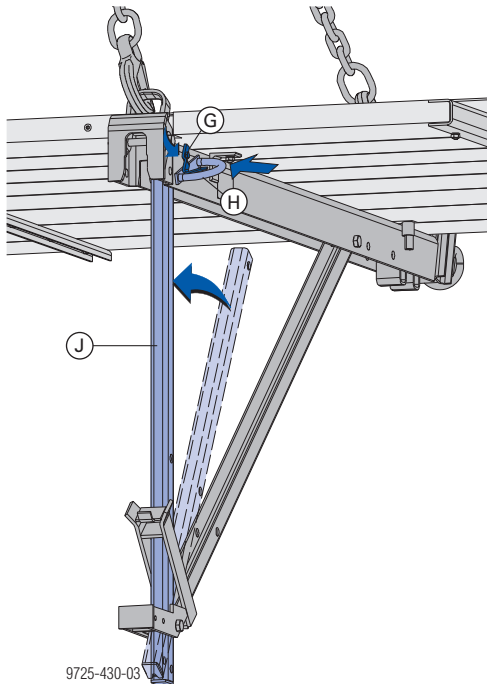
- Hold the pressure rod in one hand.
- Then, with the other hand, lift up the red safety bow and pull out the U-bolt as far as it will go.
- **Gradually lower the pressure rod by hand.**



- G Safety bow (red)
- H Fastening clamp
- I Pressure rod

Bolting the vertical rod in place

- ▶ Tilt up the vertical rod and fix it by inserting the U-bolt.
- ▶ Secure the U-bolt with the red safety clip to prevent it being opened accidentally.



G Safety clip (red)

H U-bolt

J Vertical rod

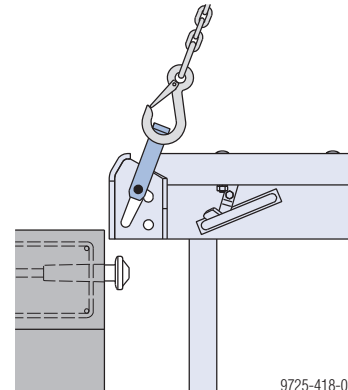
The Folding platform K is now ready for use.

Hanging the Folding platform K into place



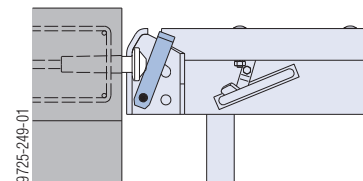
NOTICE

- Remove any loose items from the platforms, or secure them firmly.
 - 'Passenger transportation' is forbidden!
- ▶ Raise the Folding platform K with a four-part lifting chain.



This raises the front lifting bows, opening the lift-out guard.

- ▶ Once the Folding platform K is suspended from the suspension cone, the load is removed from the four-part lifting chain.



The lifting bows drop into the starting position, automatically securing the platform against accidental lift-out.



'Locked' position = lifting bow is flush with decking.

Length adjustment



NOTICE

In exposed locations (e.g. on tall buildings with closed facades where platforms are mounted near the top of the building and a storm warning has been given), loose deck-boards and closure platforms must be secured against accidental lift-out.

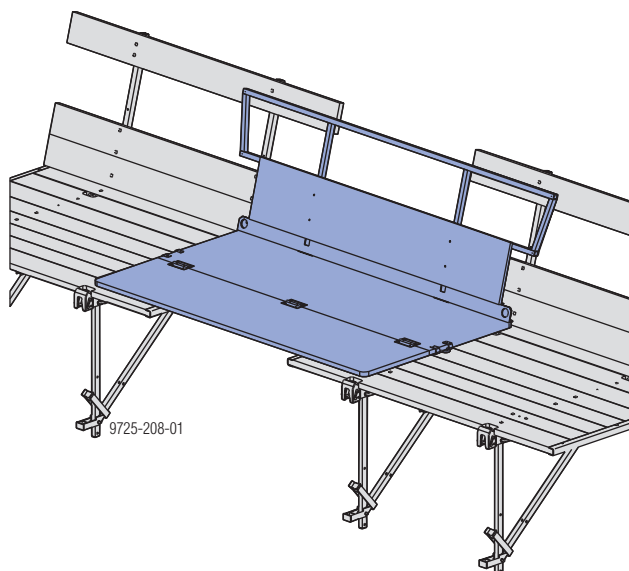
(e.g. join the platform railings and the guard rails of the closure platform using two connected Quick-locking straps 55cm).

with Closure platform 3.00m

This ready-to-use, fold-down platform is the quick way of making closures up to 2.50 m long, and corner configurations.

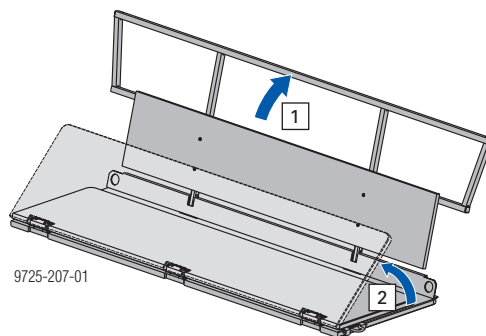
Other features include:

- Long service life thanks to its sturdy design and galvanised steel railings.

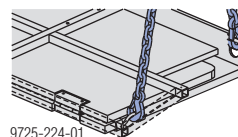


Preparing the platform

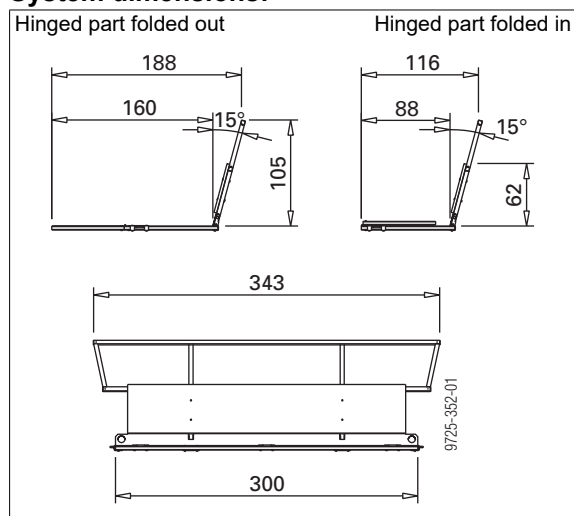
- 1) Tilt up the railings and slot them into place at 15°. In this form, the Closure platform is ready for use as a **corner decking unit**.
- 2) Fold out the hinged part. In this form, it is ready for use as a **closure decking unit**.



The integral crane hoisting points enable the Closure platform to be lifted safely using a four-part lifting chain.



System dimensions:



Length adjustment

- Position the Closure platform 3.00m across the middle of the closure zone.

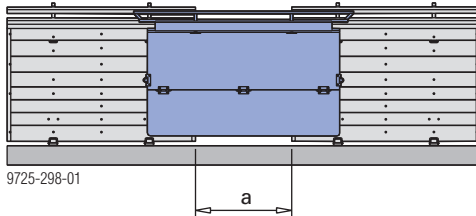


NOTICE

Do not exceed the max. closures **a**, depending on the usage situation.

See the following sections:

- Working platform with formwork
- Working platform without formwork
- Protection platform



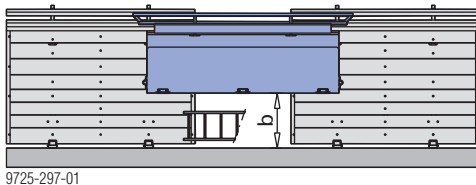
Manhole

- Position the Closure platform 3.00m across the middle of the closure zone.
Front hinged part must be folded back.



NOTICE

Do not exceed the max. closures, as stated for the length adjustment.

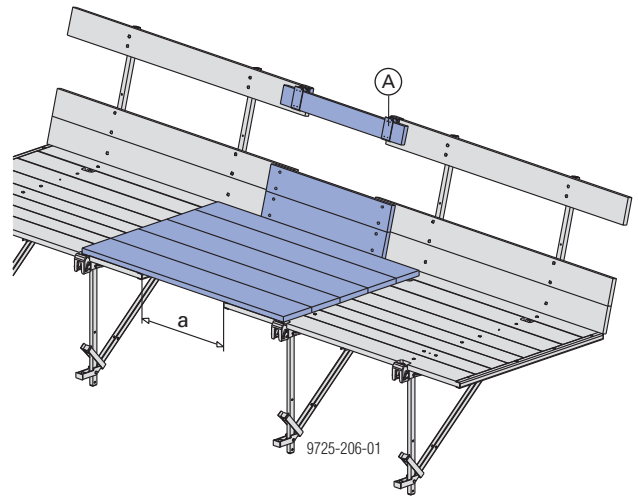


b ... 86 cm

with planks

Closures and corner transitions can also be made using field-built solutions.

Length adjustment



A Attach a guard-rail board with a Universal railing shackle or with two 2.8x65 nails on each side

Floor planking:

- Lay down planks with a min. cross-section of 20x5 cm.
Minimum overlap 75 cm!



NOTICE

Do not exceed the max. closures **a**, depending on the usage situation.

See the following sections:

- Working platform with formwork
- Working platform without formwork
- Protection platform

Setting up guard rails using the Universal railing shackle:

- Attach the Universal railing shackles to the side railings of the folding platform using two 2.8x65 nails.
- Insert guard-rail boards (min. 15x3 cm) into the Universal railing shackles and fix them with two 2.8x65 nails on each side.
Minimum overlap 15 cm!

Nailing the railings on directly:

- Fix the guard-rail boards (min. 15x3 cm) with two 2.8x65 nails on each side.
Minimum overlap 15 cm!

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.

Outside corners

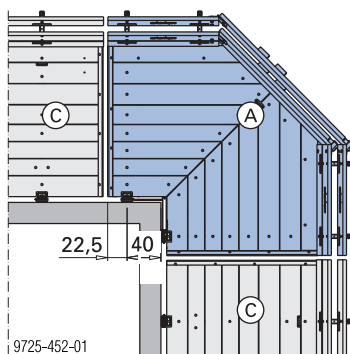
The system offers several different ways of dealing with corner zones.

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

Load Class 4 to EN 12811-1:2003

Doka folding platform K outside corner

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.



Load Class 2 Permitted service load 1.5 kN/m ² (150 kg/m ²)	Load Class 3 Permitted service load 2.0 kN/m ² (200 kg/m ²)	

A Doka folding platform K outside corner

B Closure platform 3.00m

C Doka folding platform K



NOTICE

With Load Class 4, closures on the Folding platform K outside corner are forbidden.

Note:

When used with formwork, comply with the permitted service load and closures stated in the section 'Working platform with formwork'.

Other corner solutions

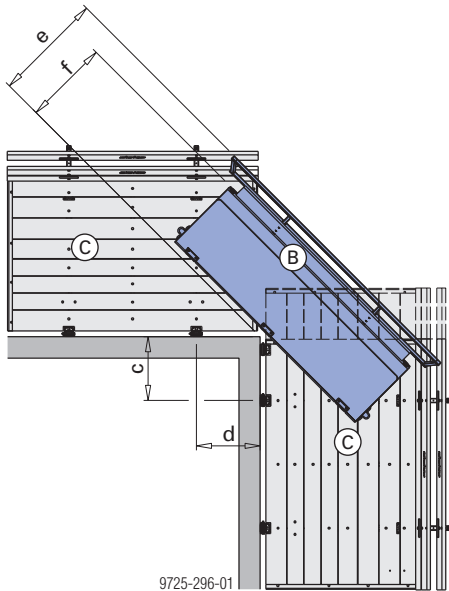
Corner solution with closure platform

- Set down the Closure platform 3.00m on the two corner folding platforms with equal overlap to either side (no additional fixing required).
Front hinged part must be folded back.



NOTICE

Minimum overlap 20 cm!

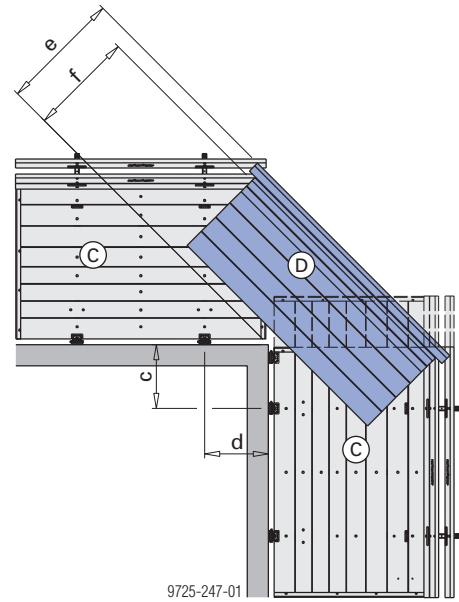


c ... 15 to 75 cm
d ... 75 cm
e ... min. 130 cm
f ... min. 90 cm

B Closure platform 3.00m

C Doka folding platform K

Corner solution with planks



c ... 15 to 75 cm
d ... 75 cm
e ... min. 130 cm
f ... min. 90 cm

C Doka folding platform K

D Planks

- Cover the corner zone with planks (min. 20x5 cm).
Minimum overlap 20 cm!
- Fix the guard-rail boards (min. 15x3 cm) with two 2.8x65 nails on each side.
Minimum overlap 15 cm!



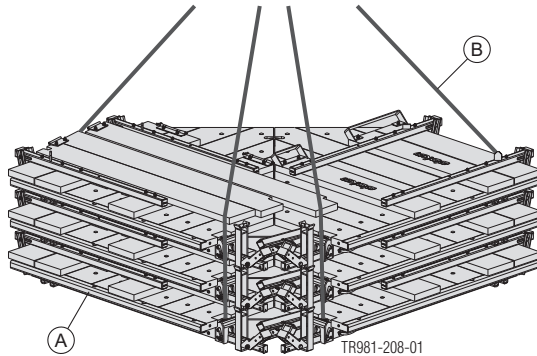
The Universal railing shackle can be used in the same way as with the length adjustment.

Set-up procedure Doka folding platform K outside corner

- Lift the stacked platforms off the truck by crane or forklift truck, and set them down on a flat, paved surface.

Separating the platforms

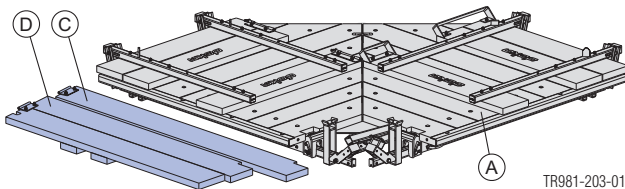
- Attach the four-part lifting chain to the crane hoisting points at the front and to the extra lifting bows at the rear.
The lifting chain can be attached to stacked platforms in the same way.



A Doka folding platform K outside corner

B Doka 4-part chain 3.20m

- Place the waist-level guardrail and toeboards to one side.



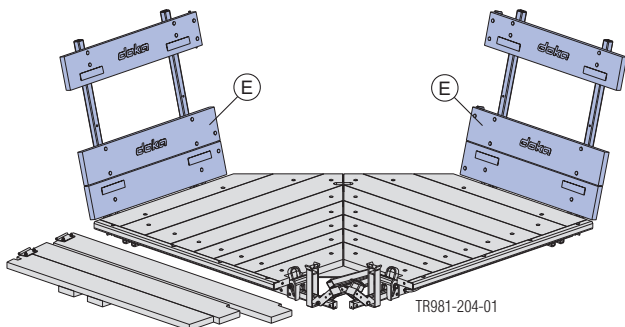
A Doka folding platform K outside corner

C Waist-level guardrail for outside corner

D Toeboards for outside corner

Putting up the railings

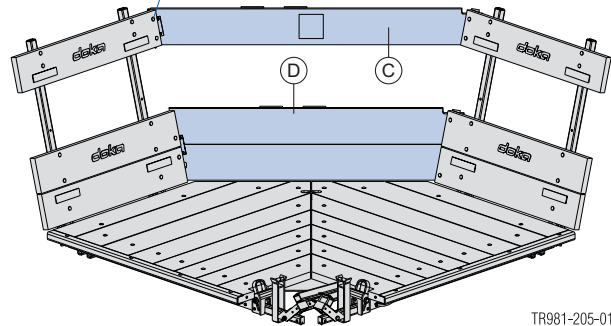
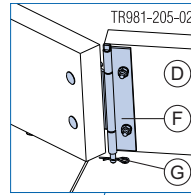
- Tilt up both rear railings. When you reach the stop, lift the railings and slot them into place.



E Rear railing

- Fit the waist-level guard rail and the toeboards into their respective holding plates.

- On the opposite side, secure each hinge with a hinge pin and spring cotter d2.



C Waist-level guard rail for outside corner

D Toeboards for outside corner

F Hinge

G Hinge pin + spring cotter d2

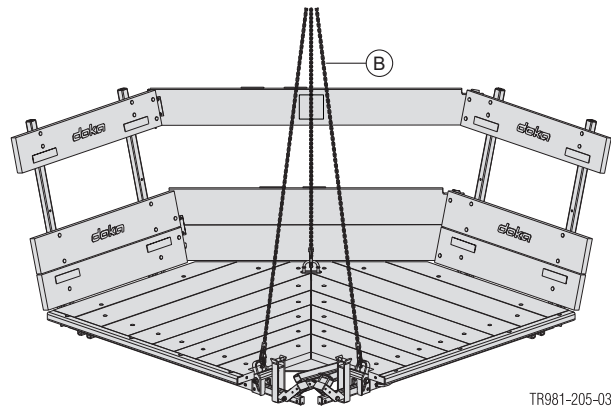
Attaching the crane

- Pull the lifting bows up out of their recesses, attach the four-part lifting chain (e.g. Doka 4-part chain 3.20m) and raise the Folding platform K.



NOTICE

Only attach and lift 1 platform at a time.



B Doka 4-part chain 3.20m

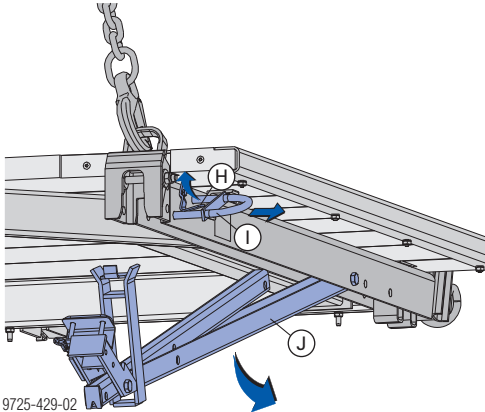
Pulling out the pressure rod



WARNING

After being released, the pressure rod swings downwards!

- Hold the pressure rod in one hand.
- Then, with the other hand, lift up the red safety bow and pull out the U-bolt as far as it will go.
- **Gradually lower the pressure rod by hand.**



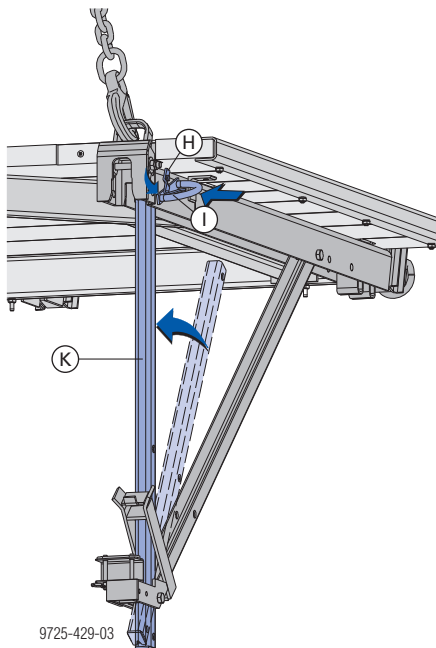
H Safety bow (red)

I Fastening clamp

J Pressure rod

Bolting the vertical rod in place

- Tilt up the vertical rod and fix it by inserting the U-bolt.
- Secure the U-bolt with the red safety clip to prevent it being opened accidentally.



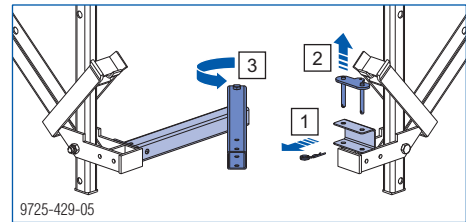
H Safety clip (red)

I U-bolt

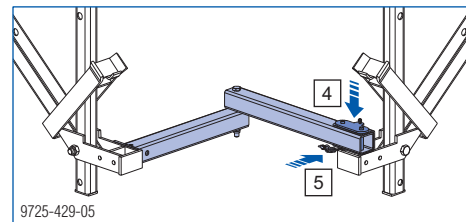
K Vertical rod

Assembling the pressure-strut unit

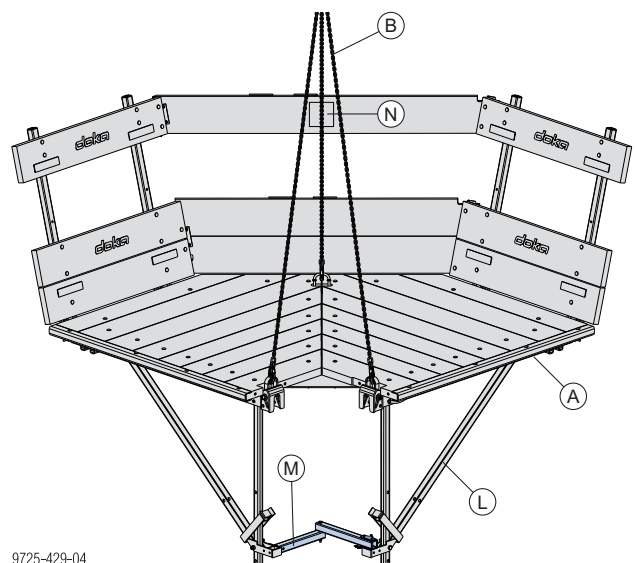
- 1) Pull out the spring cotter d3.
- 2) Pull out the Double bolt D10/85.
- 3) Turn the swivel profile to the fastening unit.



- 4) Push the Double bolt D10/85 into the fastening unit.
- 5) Secure the Double bolt D10/85 with the spring cotter d3.



The Folding platform K outside corner is now ready for use.



A Doka folding platform K outside corner

B Doka 4-part chain 3.20m

L Folding bracket K

M Pressure-strut unit of outside corner

N 'No riding on unit during transport' sticker

Hanging the Folding platform K outside corner into place



NOTICE

- Remove any loose items from the platforms, or secure them firmly.
- 'Passenger transportation' is forbidden!

This is done in the same way as with the Folding platform K.

Inside corners

Doka folding platform K inside corner

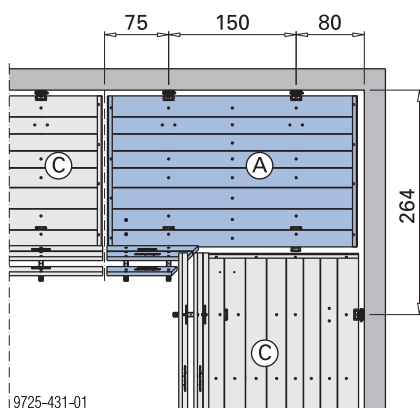
Its special rear railing distinguishes the Folding platform K inside corner from the Folding platform K 3.00m. It ensures that safe guard rails are in place in the area of inside corners.

Note:

The narrow side of the Folding platform K inside corner where the rear railing is open must be facing the wall.

Permitted service load: 6.0 kN/m² (600 kg/m²)

Load Class 6 to EN 12811-1:2003



Load Class 2 Permitted service load 1.5 kN/m ² (150 kg/m ²)	Load Class 3 Permitted service load 2.0 kN/m ² (200 kg/m ²)

A Doka folding platform K inside corner

B Closure platform 3.00m

C Doka folding platform K



NOTICE

Closures on the Folding platform K inside corner are forbidden with Load Class 4 or higher.

**WARNING**

Risk of platform tipping over when setting down formwork on the Folding platform K inside corner!

- The anti-liftout guard of the Folding platform K inside corner must be active!
- Set formwork down first on the long side of the Folding platform K inside corner and then on the narrow side.

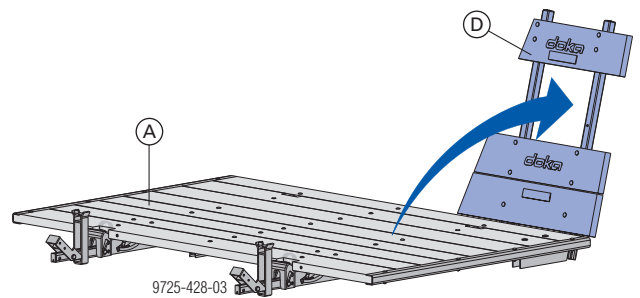
Formwork must first be removed from the narrow side when stripping the formwork.

Note:

When used with formwork, comply with the permitted service load and closures stated in the section 'Working platform with formwork'.

Set-up procedure

- Tilt up the rear railings. When you reach the stop, lift the railings and slot them into place.



A Doka folding platform K inside corner

D Rear railing

The set-up procedure from now on is the same as for the Doka folding platform K.

Hanging the Folding platform K inside corner into place

This is done in the same way as with the Folding platform K.

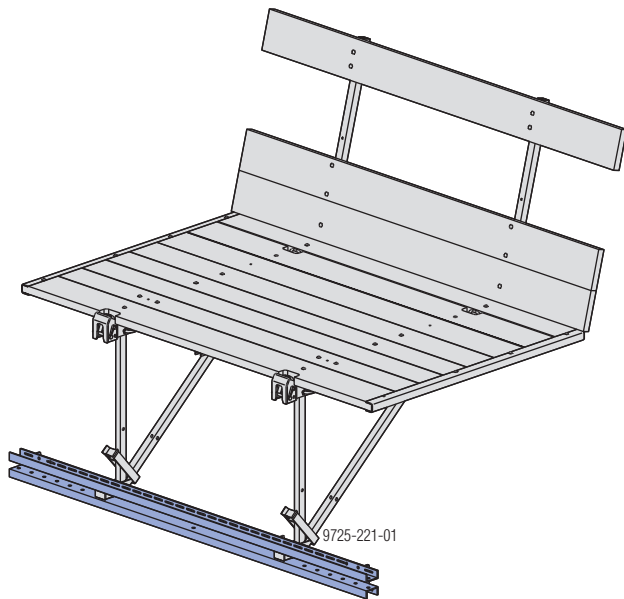
**NOTICE**

The Folding platform K inside corner must always be hung into place first, to prevent any collisions with adjacent folding platforms.

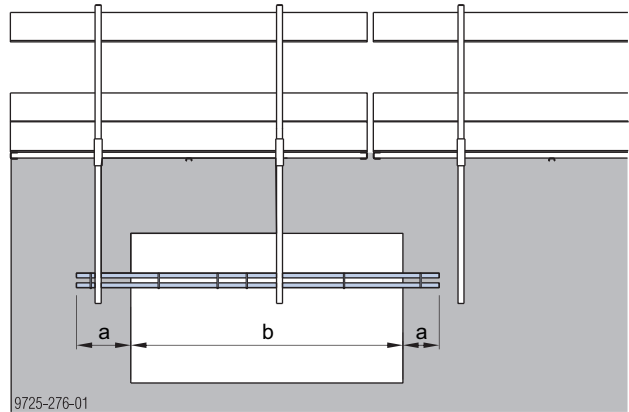
When repositioning and dismantling the platforms, the Folding platform K inside corner is always the last to be lifted away.

Bridging openings in walls

Multi-purpose walings WS10 Top50 must be used for horizontal bridging of wall openings. These bridging beams are also suitable for use as supporting profiles in masonry construction.



Areas of use



- a ... min. 0.25 m
- b ... 2.20 m with working platform
- b ... 4.00 m with protection platform



NOTICE

Fix the bridging beam so that it cannot fall off!

Securing the bridging beam	
with connecting pins	with bolting items

- A** Multi-purpose waling WS10 Top50 2.75m or 3.50m
- B** Connecting pin 10cm
- C** Spring cotter 5mm
- D** Hexagon bolt ISO 4014 M20x90 8.8 galv.
- E** Spring washer DIN 127 A20
- F** Hexagon nut ISO 4032 M20 8 galv.

Can also be mounted to the folding platform when this is folded closed. The bridging beam can remain on the closed folding platform.

Platform assembled from single brackets

Makes it possible to choose any bracket spacing and any length of platform, for constructing closure platforms (of e.g. less than 3.0 m in length) and special shapes for use in corner zones.

Max. influence width per bracket 1.50 m



NOTICE

When making project-specific platforms, observe the following points:

- Position brackets as symmetrically as possible and keep their cantilever short.
- Ensure that all loads are applied centrally.
- The stability of the platforms must be ensured during all phases of the construction work!



CAUTION

Risk of platforms tipping over when **loads are applied non-centrally**.

If there is no way to avoid cantilevers extending out to one side, observe the following points:

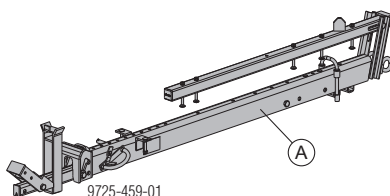
- Choose the widest possible bracket spacing in relation to the cantilever!
- Allow for the greater influence of the bracket in the cantilevering region!
- Contact your Doka technician for information on further measures to prevent platforms tipping over.

The anti-liftout guards are not suitable for sustaining planned forces! The anti-liftout guard is only designed to prevent the platform from being accidentally lifted out of its suspension points while work is in progress.

Assembly

Separating the brackets

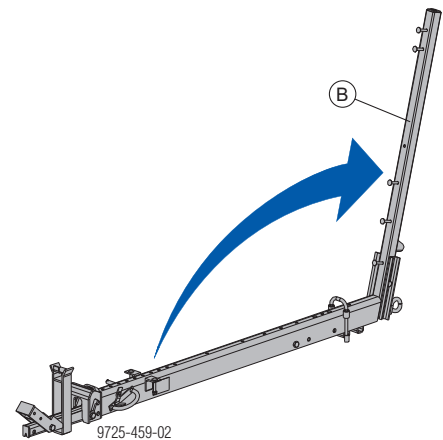
- Lift the Folding brackets K off the truck and set them down on a flat surface.



A Folding bracket K

Putting up the railings

- Tilt up the railings. When you reach the stop, lift the railings and slot them into place.

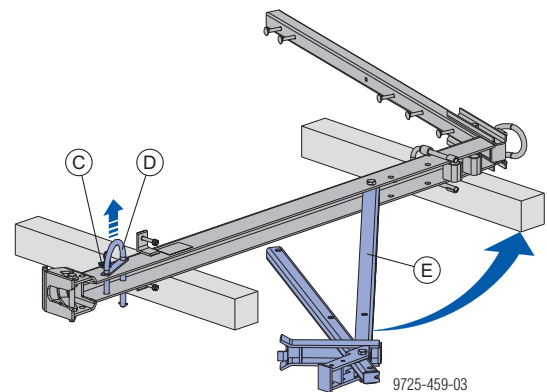


B Railing

- Place the Folding bracket K on its side, on timber supports on the ground.

Pulling out the pressure rod

- Raise the red safety clip and pull out the U-bolt as far as it will go.
- Pull out the pressure rod.



C Red safety clip

D U-bolt

E Pressure rod

Note:

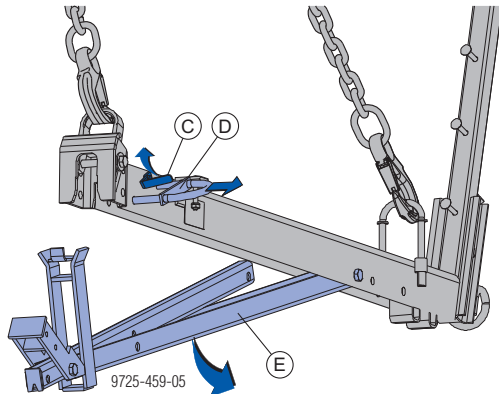
In cases where the bracket is unfolded while suspended from the crane:



WARNING

After being released, the pressure rod swings downwards!

- Hold the pressure rod in one hand.
- Then, with the other hand, lift up the red safety bow and pull out the U-bolt as far as it will go.
- **Gradually lower the pressure rod by hand.**



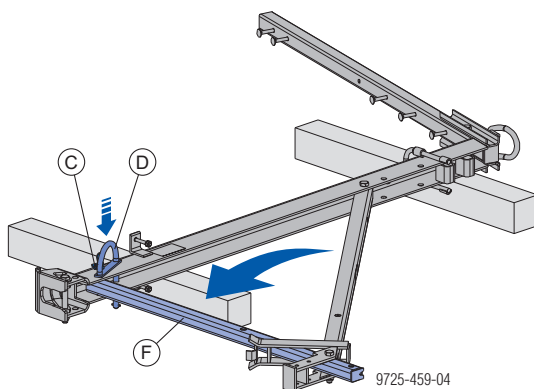
C Safety bow (red)

D Fastening clamp

E Pressure rod

Bolting the vertical rod in place

- Tilt up the vertical rod and fix it by inserting the U-bolt.
- Secure the U-bolt with the red safety clip to prevent it being opened accidentally.



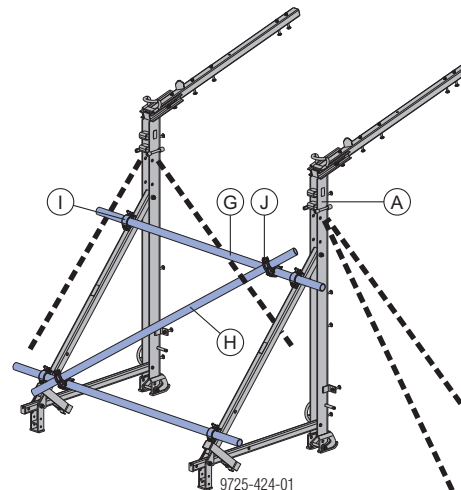
C Red safety clip

D U-bolt

F Vertical rod

Fitting the bracing

- Prepare an assembly bench.
- Prepare the bracing.
- Tilt up the Folding brackets K and stand them spaced the specified centre-to-centre distance apart (see shop drawing / assembly plan).
- Secure them so that they cannot topple over.
- The length of the scaffold tubes used will depend on the centre-to-centre spacing of the brackets.
- Brace the Folding brackets K in the horizontal, with 4 screw-on couplers and 2 scaffolding tubes.
- Mount a scaffold tube as a diagonal stiffening reinforcement between the brackets, using 2 swivel couplers.



A Folding bracket K

G Scaffold tube 48.3mm (length = centre-to-centre distance + 20 cm)

H Scaffold tube 48.3mm (length = centre-to-centre distance + 50 cm)

I Screw-on coupler 48mm 50

J Swivel coupler 48mm

Distance between screw-on coupler and swivel coupler: max. 160 mm.

This set-up scheme is for platform units with 2 brackets. On platform units with 3 brackets, the number of couplers and scaffolding tubes will need to be adjusted accordingly.

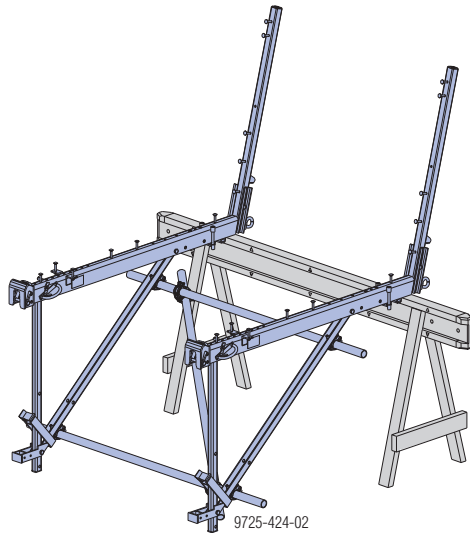
Attaching the platform decking

Note:

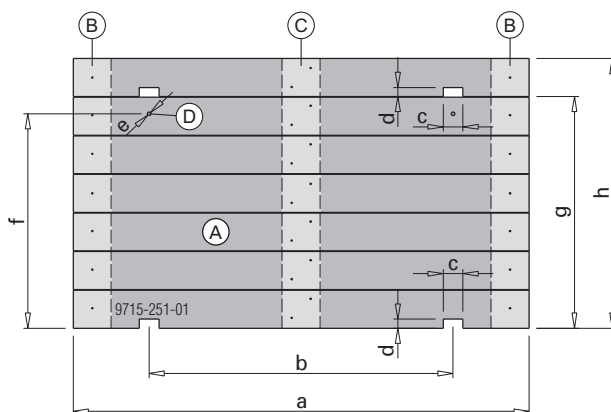
The plank and board thicknesses stated comply with the EN 338 C24 timber.

Observe all national regulations applying to deck and guardrail boards.

- Place the braced Folding brackets K onto a trestle.



- Lay deck-boards onto the bracket. (Cut them to size as shown in the illustration)



- a ... platform length
- b ... centre-to-centre distance
- c ... 13 cm
- d ... 6 cm
- e ... diam. 2.4 cm
- f ... 141 cm
- g ... 154 cm
- h ... 177 cm

A Deck-boards 25/5 cm

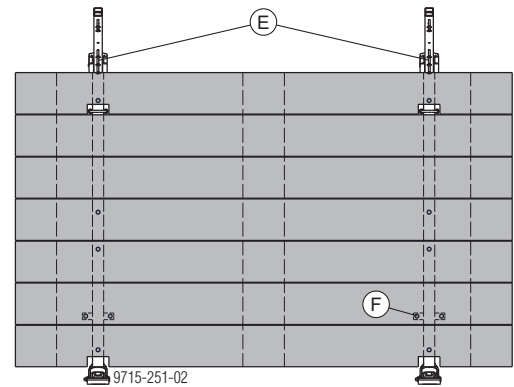
B outside reinforcement plank min. 20/5 cm

C middle reinforcement plank min. 20/5 cm

D Drilled hole for securing panel strut

- Screw on an outside reinforcing plank at each end of the platform (secure each reinforcing board with 1 Torx TG 6x90 A2 universal countersunk-head screw per deck-board).
- Screw on the middle reinforcing plank centred between the brackets (2 Torx TG 6x90 A2 universal countersunk-head screws per deck-board).

- Use the square bolts included in the scope of supply to secure the deck-boards to the brackets (6 pcs. included in scope of supply of the Folding bracket K).



E Folding bracket K

F Bolting items in scope of supply



NOTICE

- Attach guard rails so as to comply with the applicable national regulations.
- On each bracket, fasten handrail planks onto the handrail post using carriage bolts M 10x110, spring washers A 10 and hexagon nuts M 10 (5 bolts are included with each Folding bracket K).



Note:

In corner zones, or where the corners are not right-angled, the platform planking must be trimmed accordingly.

Mount passage units as shown in the shop drawing / assembly plan.

Repositioning

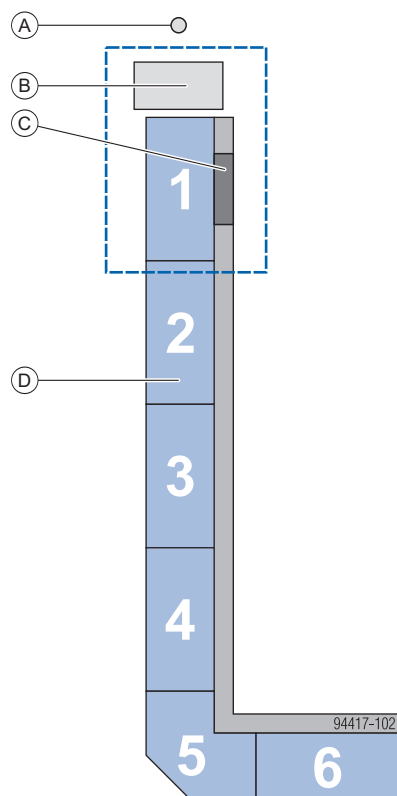
Instructions for safe repositioning of the Folding platform K



NOTICE

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

- 'Passenger transportation' is forbidden!
- Use tag ropes for safe guidance throughout the entire repositioning operation.
- In general, 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 access can also be enabled through these façade openings.



- A Starting and finishing point
- B Stair tower or aerial work platforms
- C Façade opening
- D Folding platform K



NOTICE

- Local regulations, or the result of a hazard assessment carried out by the erector, may necessitate the use of personal fall-arrest systems (e.g. safety harnesses) 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 (see 'Sideguards on exposed platform-ends').



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



The FreeFalcon mobile fall protection mast permits a secure attachment point to be created for the safety harness.



User instruction prior to use of the FreeFalcon is mandatory. Follow the directions in the 'FreeFalcon' Operating Instructions.

Transport fork K/M plus

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

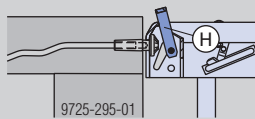
Use a transport fork in the following situations:

- 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.



When using a transport fork, observe the following:

- Working from the second-last platform, disengage the anti-liftout guard of the last platform. The red lifting bow (**H**) must be shifted into the stand-by position (fixed in the short slot).



- Re-lock the anti-liftout guard. After hanging the platform into place on the suspension cone, move the lifting bow back into the locked position (fixed in the long slot so that the lifting bow is flush with the platform decking).

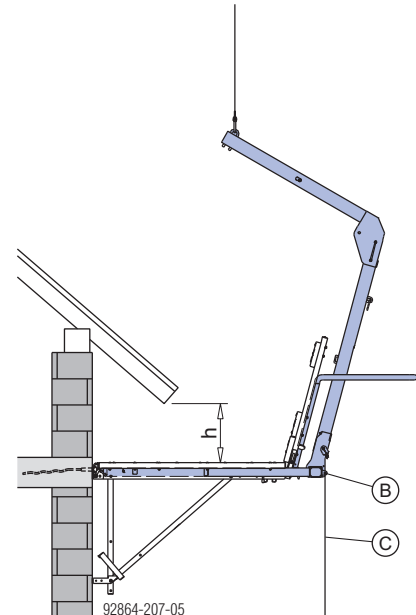
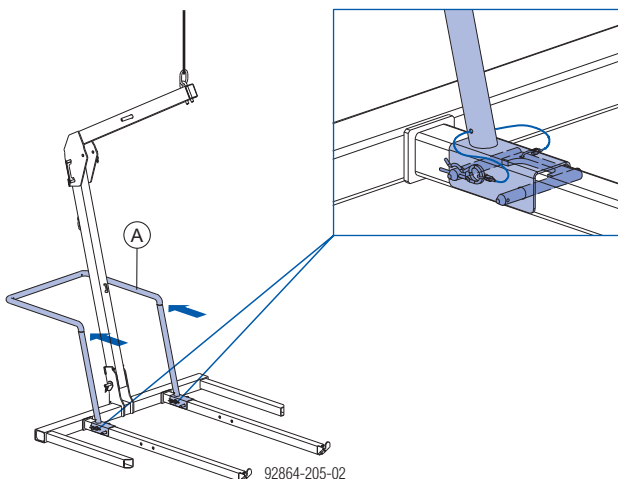


Follow the directions in the 'Transport fork K/M plus' Operating Instructions!



Check before using with the Folding platform K:

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



h ... min. 13 cm

A Tilting unit

B Slings point for tag-line

C Tag-line (not included with product)

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.
- Folding platform K has been tested as a fall barrier for a maximum fall height of 3.00 m.

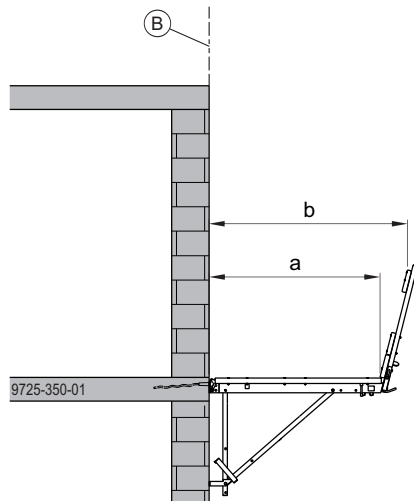


NOTICE

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

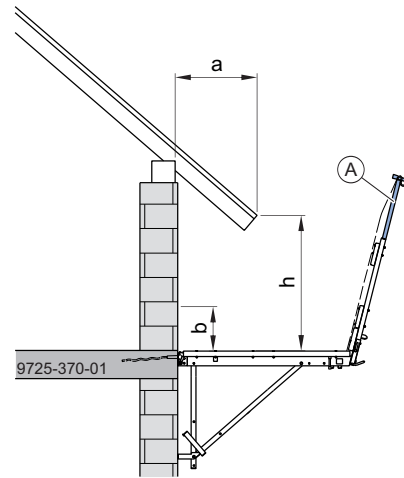


a ... 1.85 m
b ... 2.13 m

B Guard rails

Sloping-rooftop fall barrier

As per DIN 4420-1



a ... eaves depth
b ... min. 30 cm
h ... max. 1.50 m

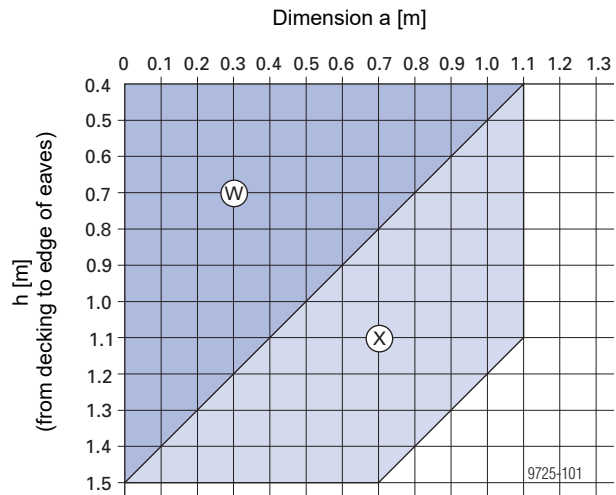
A Handrail extension K



NOTICE

- When the Handrail extension K is used, the max. closure length is 1.00 m
- Allow for the min. lift-out distance b of 30 cm!

Areas of use



W Folding platform – standard

X with Handrail extension K

Dimensioning example

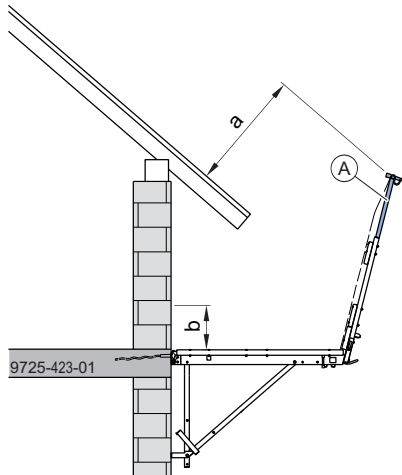
for determining the max. dimension 'h' (from decking to edge of eaves).

Given: Eaves depth 'a' = 0.80 m

Results (possibilities):

- Folding platform (standard), as shown in area **(W)**
h = max. 0.70 m or
- Folding platform with Handrail extension K, as shown in area **(X)**
h = max. 1.40 m

As per ÖNORM B 4007



a ... min. 60 cm
b ... min. 30 cm

A Handrail extension K



NOTICE

- When the Handrail extension K is used, the max. closure length is 1.00 m
- Allow for the min. lift-out distance b of 30 cm!

Handrail extension K

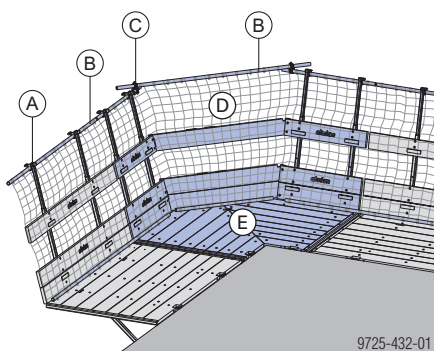
The **Handrail extension K** extends the range of use of the Folding platform K as a fall barrier for work on sloping roofs (see diagram in the section headed 'Sloping-rooftop fall barriers').



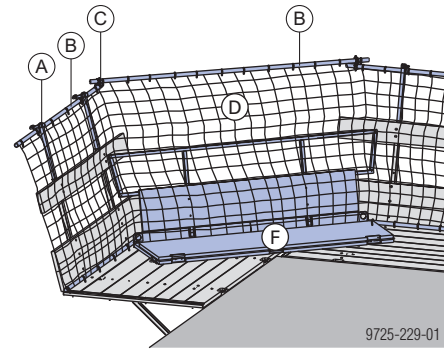
NOTICE

When the Handrail extension K is used, the max. closure length is 1.00 m

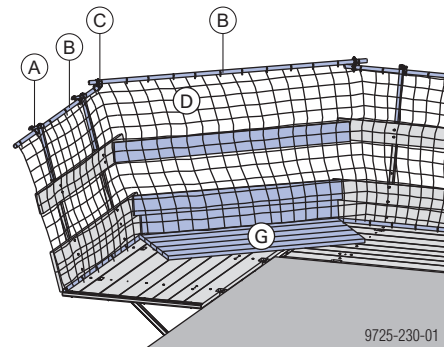
Folding platform K outside corner



Closure platform 3.00m



In-situ bridging using planks



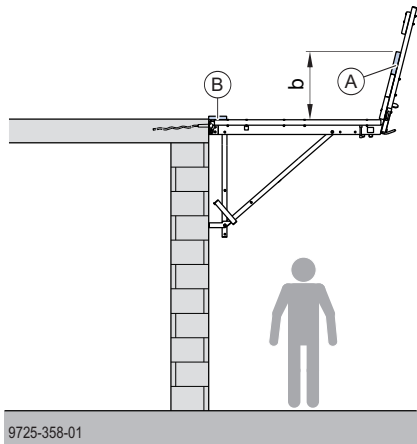
- A** Handrail extension K
- B** Scaffold tube 48.3mm
- C** Swivel coupler 48mm
- D** Safety net
- E** Doka folding platform K outside corner
- F** Closure platform 3.00m
- G** Planks

Assembly

- Push the Handrail extension K all the way into the handrail posts of the Folding platform K and the Folding platform K outside corner.
- Insert the scaffold tubes into the quick-acting couplings on the handrail extensions. Wedge in place firmly.
- Link the scaffold tubes at the corners with Swivel couplers 48mm.
- Fix the safety nets in place.

Protective canopy

The components of the Folding platform K comply with the requirements for erecting protective canopies as per EN 12811-4.



b ... Sidewall height

- A Extra guardrail board
- B Cover for gap

	Sidewall height b
As per DIN 4420-1	60.0 cm Extra guardrail board required
As per ÖNORM B 4007	50.0 cm Corresponds to the standard height – therefore no extra guardrail board required

Cover the gaps between the decking and the wall, and between the platforms.

Board thicknesses:

- 20/3.5 cm for spans of up to 1.50 m
- 24/4.5 cm for spans of up to 2.50 m

Other possible areas of use

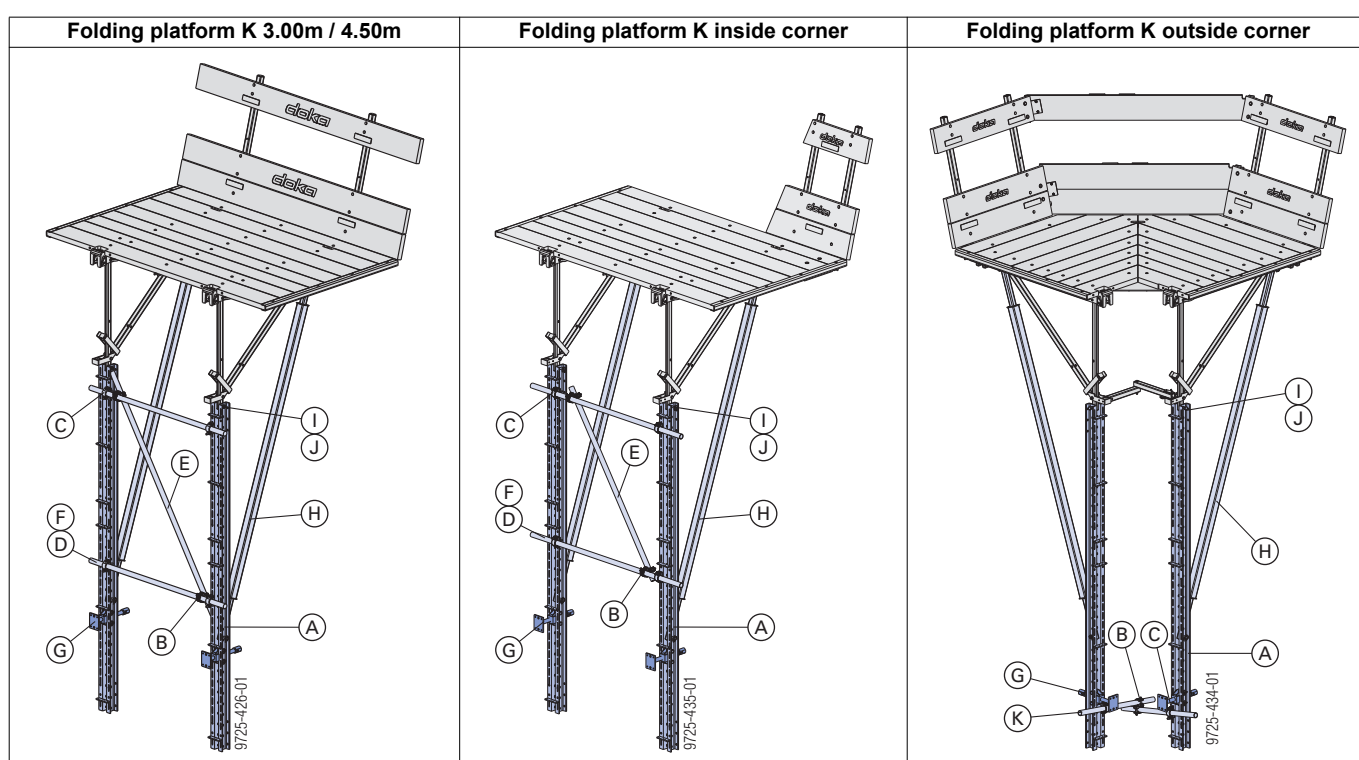
Bridging storey-high openings

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

For loadability data, see:

- Working platform with formwork
- Working platform without formwork

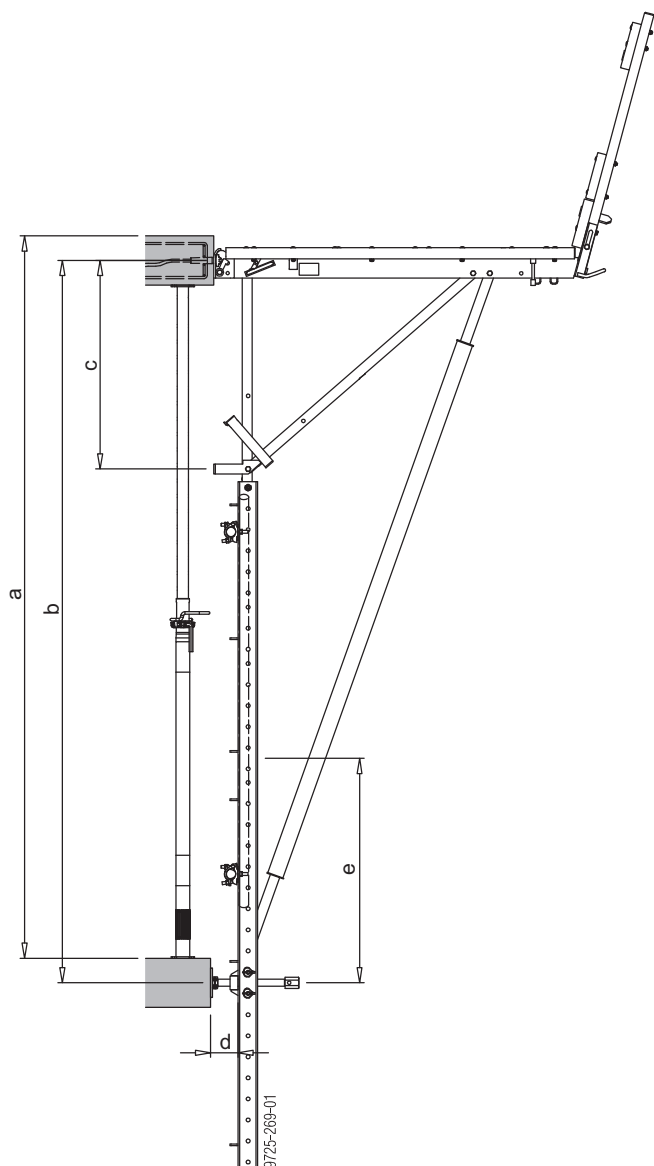
Support lengthening piece with Multi-purpose waling and Strut



The support lengthening piece consists of:

Item	Designation	N° of items			
		Folding platform K 3.00m	Folding platform K 4.50m	Folding platform K inside corner	Folding platform K outside corner
A	Multi-purpose waling WS10 Top50 3.50m	2	3	2	2
B	Swivel coupler 48mm	2	4	2	1
C	Screw-on coupler 48mm 50	4	6	4	2
D	Scaffold tube 48.3mm 2.00m	2	--	2	--
E	Scaffold tube 48.3mm 2.50m	1	2	1	--
F	Scaffold tube 48.3mm 3.50m	--	2	--	--
G	Facade precast member clamp V*	2	3	2	2
H	Strut*	2	3	2	2
I	Pin D16/112 (Art. n° 500403330)	2	3	2	2
J	Linch pin 6x42 (DIN 11023)	2	3	2	2
K	Scaffold tube 48.3mm 1.00 m	--	--	--	2

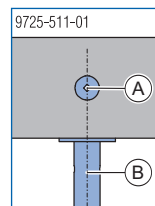
* Fixing items included with product.

Practical example

- a ... possible storey heights 212 to 457 cm
 b₁ ... with Facade precast member clamp V: 211 - 253 and 367 - 442 cm (region 'e' cannot be used)
 b₂ ... with squared timber: 211 - 456 cm
 c ... 107 cm
 d ... 14 cm

**NOTICE**

Floor props directly underneath the suspension points reduce the global and local load of the slab. Their positioning must be ensured throughout the entire construction process.



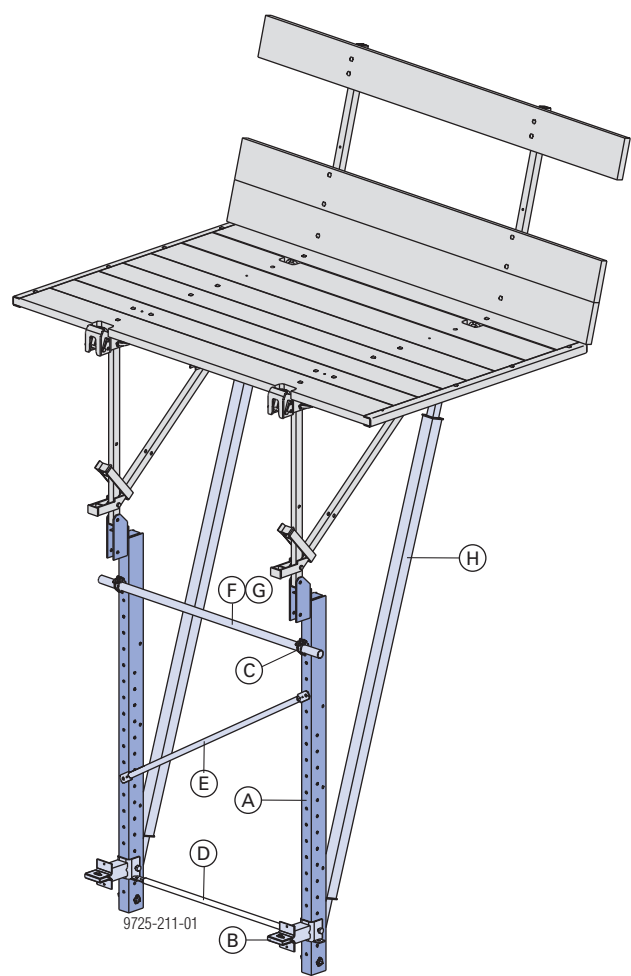
A Suspension point for Folding platform K

B Floor prop

**CAUTION**

- The Facade precast member clamp V must be mounted within range "b", irrespective of the length of the multi-purpose walings.

Support lengthening piece with
Support girder and Strut

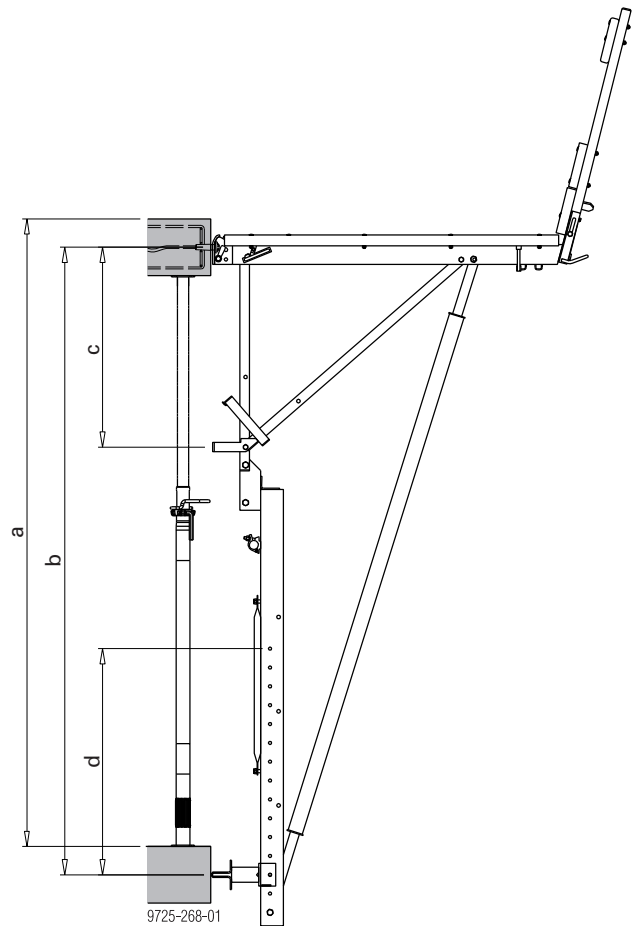


The support lengthening piece consists of:

Item	Designation	N° of items	
		Folding platform K 3.00m and Folding platform K inside corner	Folding platform K 4.50m
A	Support girder	2	3
B	Bearing profile	2	3
C	Screw-on coupler 48mm 50	2	3
D	Horizontal strut 1.35m	1	2
E	Horizontal brace d2 175	1	2
F	Scaffold tube 48.3mm 2.00m	1	--
G	Scaffold tube 48.3mm 3.50m	--	1
H	Strut	2	3

The support lengthening piece is supplied knocked-down, incl. all necessary fixing items.

Practical example



- a ... possible storey heights 2.12 to 3.34 m
- b ... 333.0 cm
- c ... 107.0 cm
- d ... hole-grid 12x10.0 cm = 120.0 cm

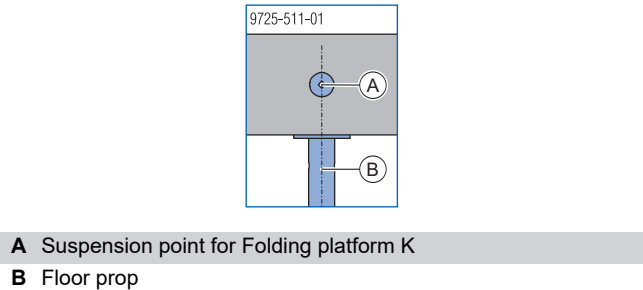
- !

NOTICE

The Folding platform K outside corner can only be used with multi-purpose waling and strut.
- !

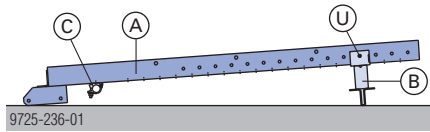
NOTICE

Floor props directly underneath the suspension points reduce the global and local load of the slab. Their positioning must be ensured throughout the entire construction process.



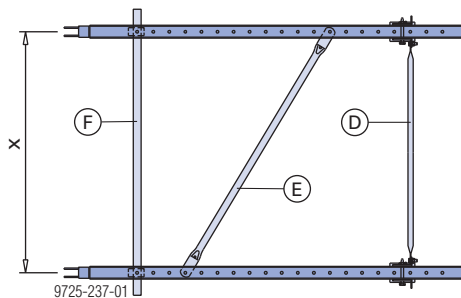
Assembly

- Place the Support girder on level ground. Fasten the Bearing profile onto the Support girder in the desired position (will depend on the storey height), using a Pin D16/112, and secure with a linch pin.
- Mount the Screw-on coupler 48mm 50 in the top hole on the Support girder.



- A Support girder
- B Bearing profile
- C Screw-on coupler 48mm 50
- U Pin D16/112

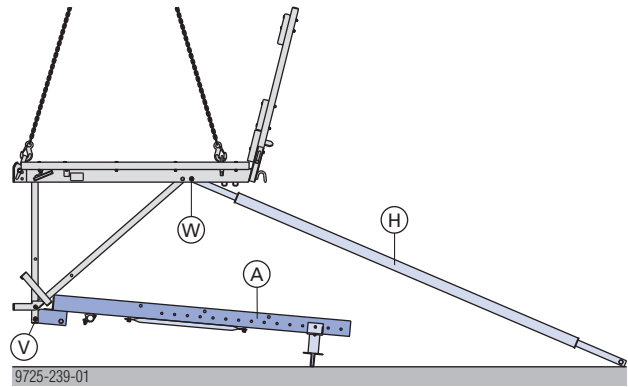
- Place the 2nd Support girder on the floor beside the 1st (on 4.50 m wide platforms, a 3rd Support girder may also be needed). Centre-to-centre distance: 1.50 m. (Mount the Bearing profile and the Screw-on coupler 48mm 50 as described above).
- Fasten the Horizontal strut 1.35m to the Bearing profile with M16x45 hexagon bolts.
- Mount the Horizontal brace d2 175 to provide diagonal bracing, bolting it on with M16x45 hexagon bolts.
- Mount a Scaffold tube 48.3mm into the Screw-on couplers 48mm 50, to provide horizontal bracing.



- D Horizontal strut 1.35m
- E Horizontal brace d2 175
- F Scaffold tube 48.3mm

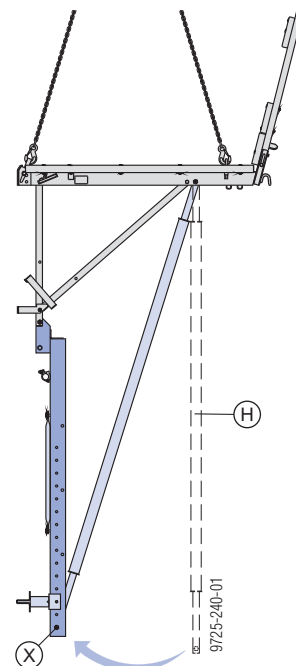
- Using a Pin D16/112, insert the Support girder into the borehole (V) on the folding platform, and secure with a linch pin.

- Using a Pin D16/112, insert the Strut into the borehole (W) on the folding platform, and secure with a linch pin.



- A Support girder
- H Strut
- V Borehole on the folding platform
- W Borehole on the folding platform

- Gradually raise the folding platform:
The Support girder and Strut automatically pivot downwards.
- Pivot the Strut forward into the Support girder, fix it in place in the borehole (X) with a Pin D16/112, and secure with a linch pin.



- H Strut
- X Borehole

The Folding platform K plus Support lengthening piece is now ready for use.

Dismantling

To dismantle, perform the above steps in reverse order.

Second workdeck level

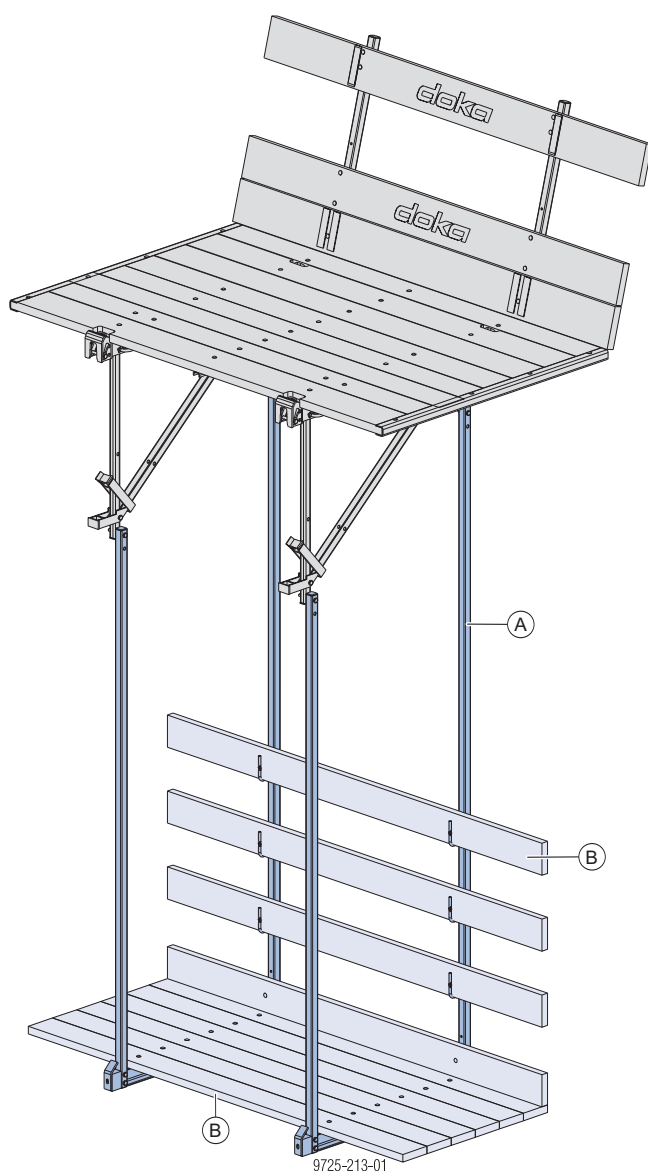
with Suspended platform 120 4.30m

For finishing-work on cured concrete surfaces or for dismantling work (e.g. dismantling unneeded suspension points).



NOTICE

It is not permitted to use the Folding platform K outside corner with a Suspended platform 120 4.30m!



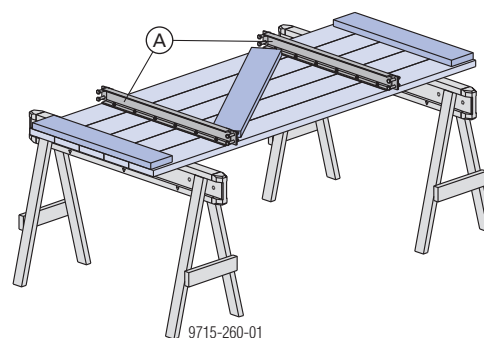
Items needed:

Item	Designation	N° of items	
		Folding platform K 3.00m	Folding platform K 4.50m
A	Suspended platform 120 4.30m	2	3
B	Planks and guardrail boards*	--	--

Supplied knocked-down, incl. all necessary fixing items (except for *).
* supplied by site

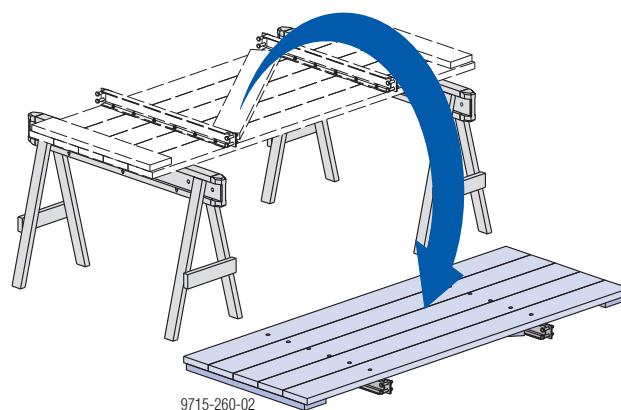
Preparing the platform decking

- Place the deck-boards on trestles.
- Place platform profiles onto the deck-boards, spaced apart at the centre-distance of the brackets.
- Fasten the platform profiles to the deck-boards with M 10x70 square bolts.
- Fix planks to the ends of the platforms, and diagonally between the platform profiles. (2 nails per deck-board)



A Platform profiles

- Turn over the pre-assembled decking and set it down on the ground.

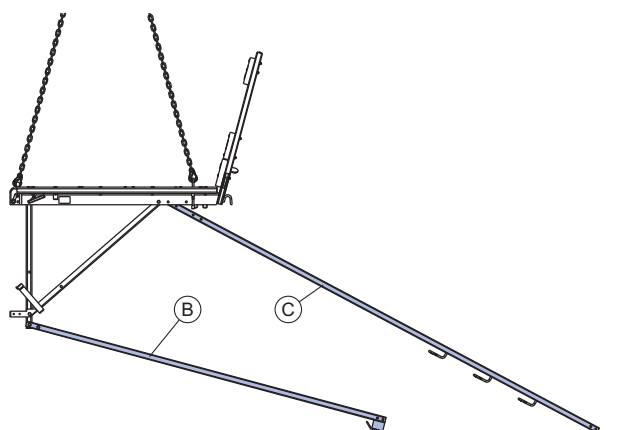


Note:

In corner zones, or where the corners are not right-angled, the platform planking must be trimmed accordingly.

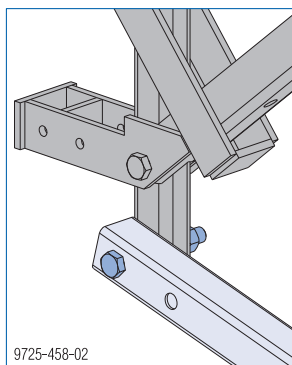
Assembling the suspended platform

- Lift the Folding platform K by crane.

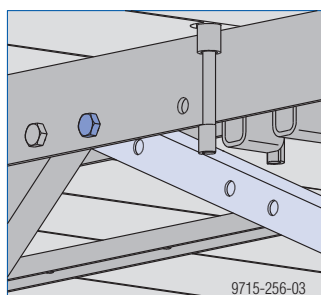


- B** Inside suspension tube
- C** Outside suspension tube

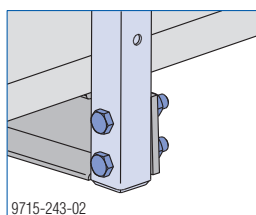
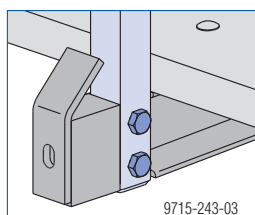
- Bolt on the inside suspension tube with an M16x120 hexagon bolt.



- Bolt on the outside suspension tube with an M16x90 hexagon bolt.

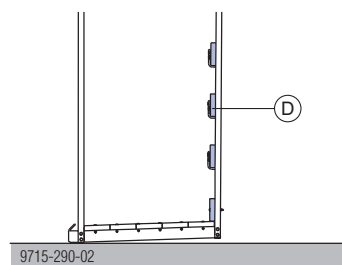


- Mount the platform profiles of the pre-assembled platform decking to the suspension tubes with 4 hexagon bolts M16x90 for each profile.



- Use an M10x120 square bolt to attach a guardrail board (min. 15x3 cm) as a toeboard.

- Insert guardrail boards (min. 15x3 cm) into the railing shackles and fix them with 28x65 nails.



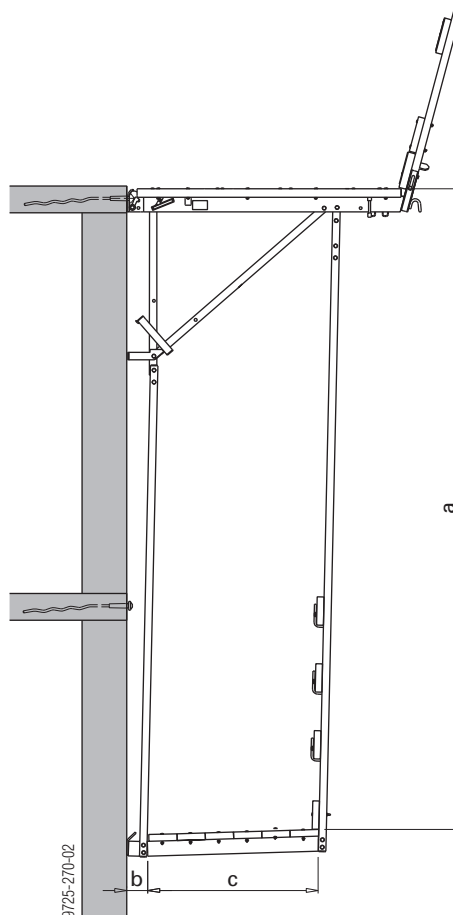
- D** Guardrail board min. 15/3 cm

Note:

The plank and board thicknesses stated comply with the EN 338 C24 timber.

Observe all national regulations applying to deck and guardrail boards.

Practical example



- a ... 434.0 cm
- b ... 15.0 cm
- c ... 115.0 cm

Dismantling

To dismantle, perform the above steps in reverse order.

Folding platform K as a base on which to stand façade scaffolding

This method is recommended in situations where it is not possible to erect façade scaffolding from the ground, e.g. because of an open building pit or because traffic and pedestrian access routes have to be left clear.

The high load-bearing capability of the Folding platform K, on which independently statically planned scaffolds can be erected, considerably extends the range of possible uses of the folding platform.



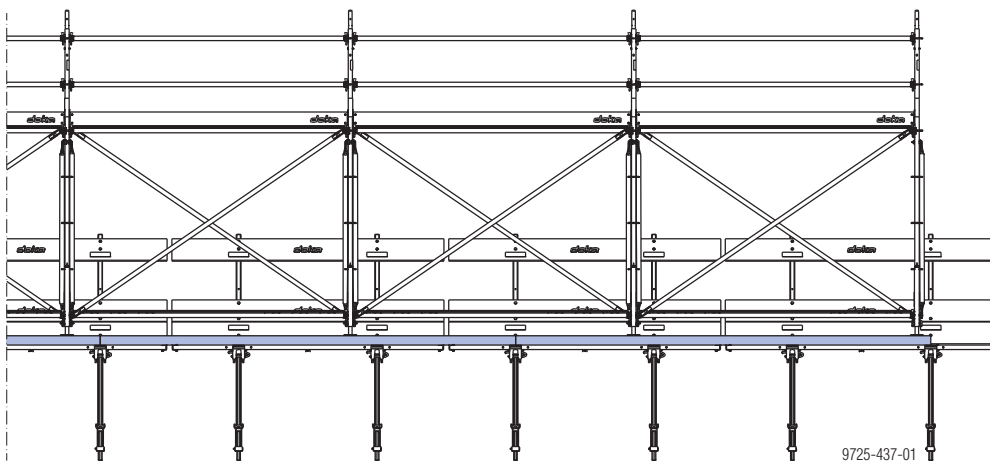
NOTICE

- Only use suspension points that are permitted for Load Classes 5 and 6.
- Revised static calculation required.

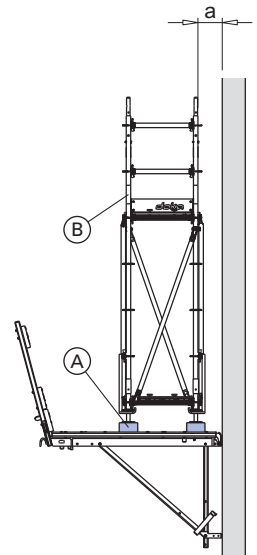


For more information, please contact your Doka technician.

Practical example



9725-437-01



a ... max. 30 cm

A Sleepers or Multi-purpose walings WS10 Top50

B Façade scaffolding

Climbing with the Folding platform K

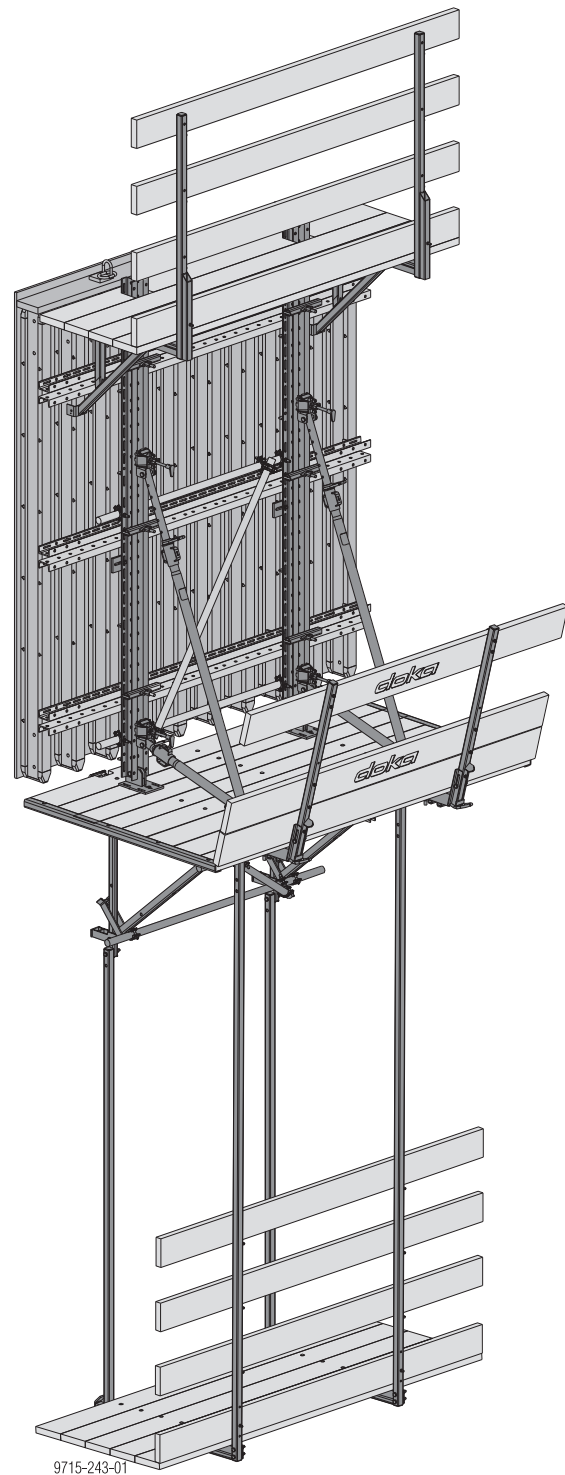
Climbing formwork K

Simply adding a few **standard components** to the Folding platform K transforms it into a fully-fledged, tilt-able climbing formwork – the **Climbing formwork K**.

- It is used in situations where formwork has to be lifted in several casting steps and where retractable formwork is not required.
- The formwork-plus-platforms unit is repositioned in its entirety in a single crane cycle.
- The formwork is set up and struck with no need for a crane, meaning that the only crane times needed are those for the lifting operations.



Follow the directions in the 'Climbing formwork K' User Information booklet!



9715-243-01

General

Sideguards on exposed platform-ends

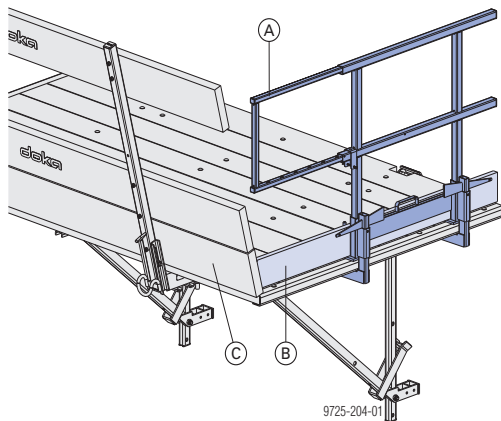
On platforms that do not completely encircle the structure, suitable sideguards must be placed across exposed end-of-platform zones.

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

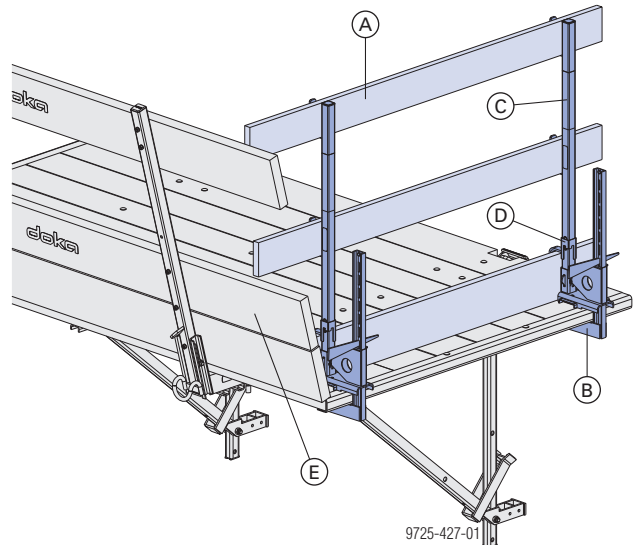


- A** Side handrail clamping unit T with integral telescopic handrail
- B** Guard-rail board min. 15x3 cm (site-provided)
- C** Doka folding platform K

How to mount:

- Fasten the clamping part to the decking of the folding platform using the wedge (clamping range 4 to 6 cm).
- Slot in the railing.
- Extend the telescopic railing to the desired length and secure it.
- Insert toeboard (guard-rail board).

Edge protection system XP



- A** Guard-rail board min. 15x3 cm (site-provided)
- B** Railing clamp XP 40cm
- C** Handrail post XP 1.20m
- D** Toeboard holder XP 1.20m
- E** Doka folding platform K

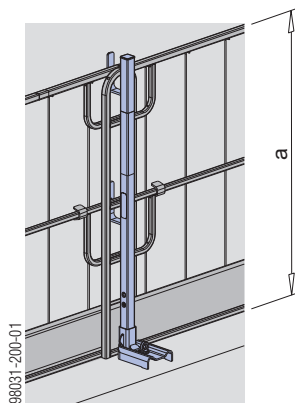
How to mount:

- Fasten the clamping part of the railing clamp to the decking of the folding platform using the wedge.
- Working from below, push the Toeboard holder XP 1.20m onto the Handrail post XP 1.20m. The bracket of the toeboard holder must be pointing downward, facing the platform.
- Push on the Handrail post XP 1.20m until it locks ("Easy-Click" function).
- Place guard-rail boards on the handrail-post plates and secure them with nails (diam. 5 mm).

Fall-arrest systems on the structure

Edge protection system XP

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



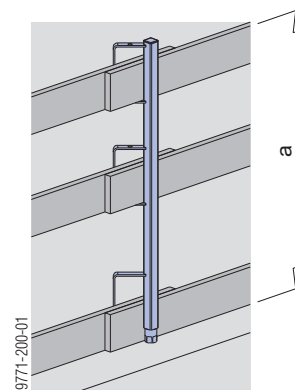
a ... > 1.00 m



Follow the directions in the 'Edge protection system XP' User Information booklet!

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



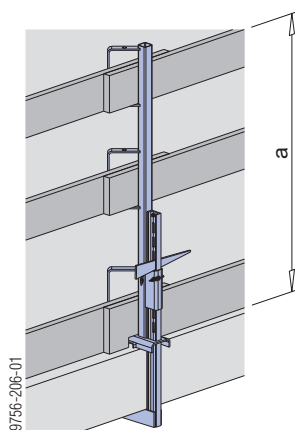
a ... > 1.00 m



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

Handrail clamp S

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



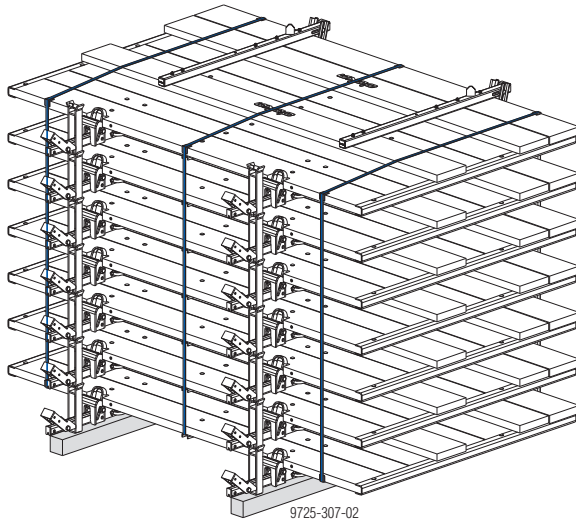
a ... > 1.00 m



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

Transporting, stacking and storing

The Folding platforms K are pre-assembled and can be collapsed for easy shipping and storage – no risk of slippage.



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

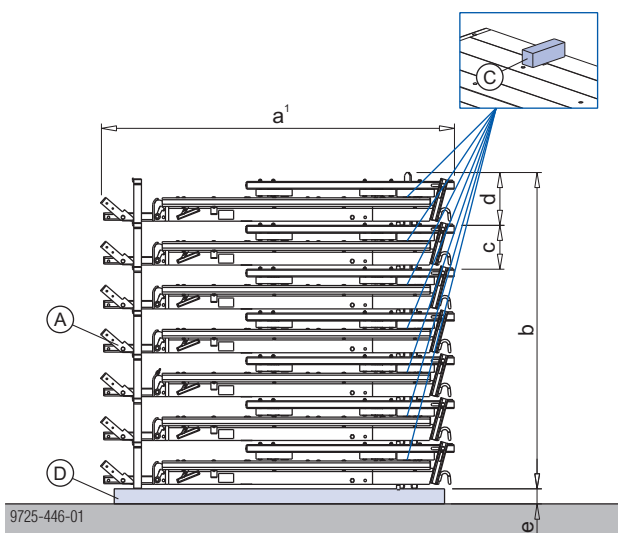
- 84 linear metres of Doka folding platforms K per truck semi-trailer
This corresponds to:
 - 28 Folding platforms K 3.00m
- 94.5 linear metres of Doka folding platforms K per truck trailer
This corresponds to:
 - 21 Folding platforms K 3.00m +
 - 7 Folding platforms K 4.50m

Stack of 7 Folding platforms K or of 7 Folding platform K inside corners

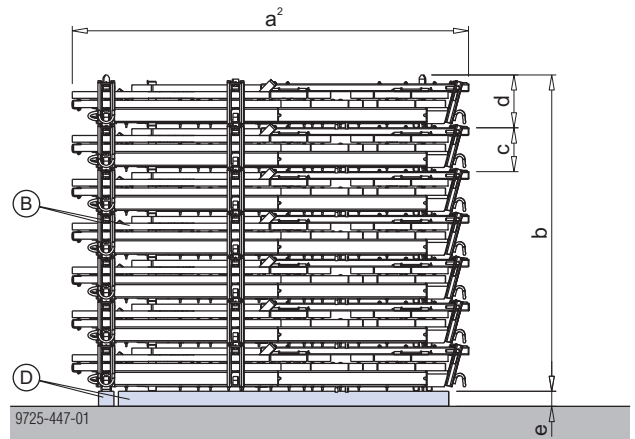


NOTICE

When stacking Folding platform K inside corners, a squared timber 10x10x30 cm must be inserted to keep each stacked platform horizontal.



Stack of 7 Folding platform K outside corners



- a¹ ... 234.0 cm
- a² ... 262.0 cm
- b ... 210.0 cm
- c ... 29.0 cm
- d ... 35.0 cm
- e ... 10.0 cm

- A Doka folding platform K or
Doka folding platform K inside corner
- B Doka folding platform K outside corner
- C Squared timber 10x10x30 cm
- D Sleeper, 10 cm high

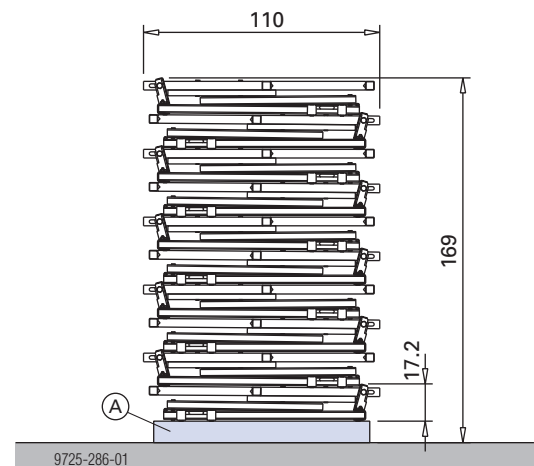
Stack of 10 Closure platforms 3.00m

When folded closed, the pre-assembled Closure platforms are easy to transport and store.

With their high packing density and ideal dimensions, they make highly efficient use of the available storage and shipping capacity.

Note:

Only set down stacks of platforms on flat, paved surfaces.

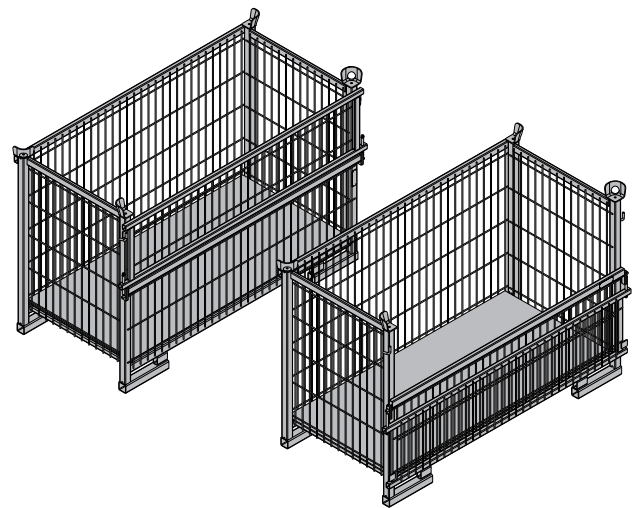


- A Sleeper, 10 cm high

Utilise the benefits of Doka multi-trip packaging on your site.
Multi-trip packaging such as containers, stacking pallets and skeleton transport boxes keep everything in place on the site, minimise time wasted searching for parts, and streamline the storage and transport of system components, small items and accessories.

Doka skeleton transport box
1.70x0.80m

Storage and transport device for small items



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

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

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

Max. n° of units on top of one another

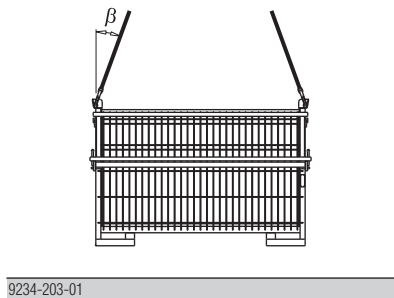
Outdoors (on the site) Floor gradients up to 3%	Indoors Floor gradients up to 1%
2	5
It is not allowed to stack empty pallets on top of one another!	

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 may only be lifted one at a time.
 - Only lift the boxes when their sidewalls are closed!
 - 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°!



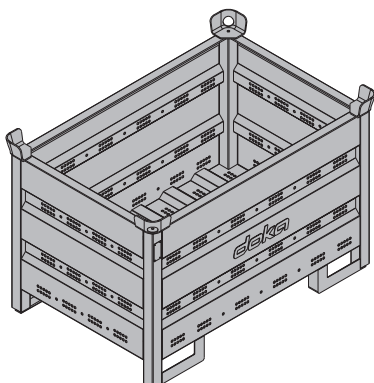
Repositioning by forklift truck or pallet stacking truck

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

Doka multi-trip transport box

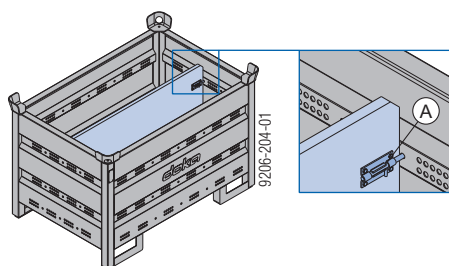
Storage and transport device for small items

Doka multi-trip transport box 1.20x0.80m



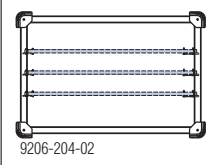
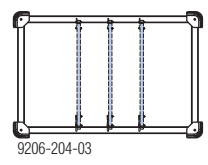
Max. carrying capacity: 1500 kg (3300 lbs)
Permitted imposed load: 7850 kg (17300 lbs)

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**.

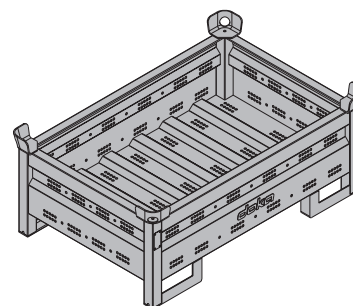


A Slide-bolt for fixing the partition

Possible ways of dividing the box

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

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



Max. carrying capacity: 750 kg (1650 lbs)
Permitted imposed 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.

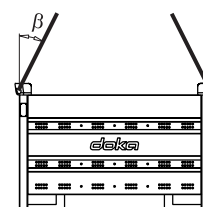
Using Doka multi-trip transport boxes as transport devices

Lifting by crane



NOTICE

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



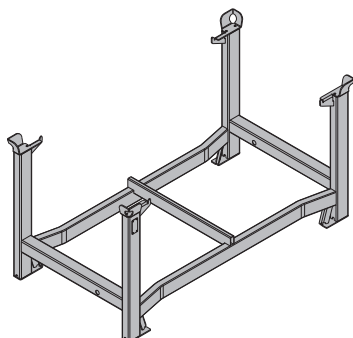
9206-202-01

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 devices for long items.



Max. carrying capacity: 1100 kg (2420 lbs)
Permitted imposed load: 5900 kg (12980 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.

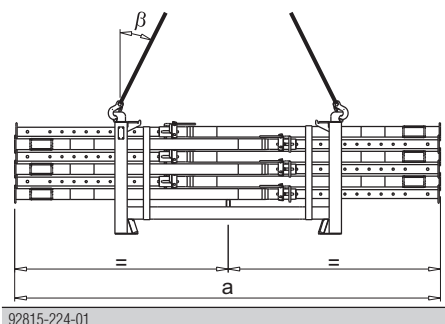
Using Doka stacking pallets as transport devices

Lifting by crane



NOTICE

- Multi-trip packaging items may only be lifted one at a time.
- Use a suitable crane suspension tackle (e.g. Doka 4-part chain 3.20m). Do not exceed the permitted working load limit.
- Load the items centrally.
- Fasten the load to the stacking pallet 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

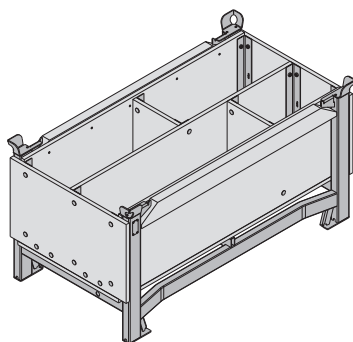


NOTICE

- Load the items centrally.
- Fasten the load to the stacking pallet so that it cannot slide or tip out.

Doka accessory box

Storage and transport device for small items



Max. carrying capacity: 1000 kg (2200 lbs)
Permitted imposed load: 5530 kg (12191 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 castor set mounted to it.

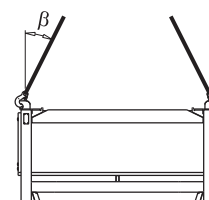
Doka accessory box as transport devices

Lifting by crane



NOTICE

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



92816-206-01

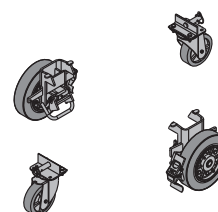
Repositioning by forklift truck or pallet stacking truck

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

Bolt-on castor set B

The Bolt-on caster set B turns the stacking pallet into a fast and manoeuvrable transport device.

Suitable for drive-through access openings > 90 cm.

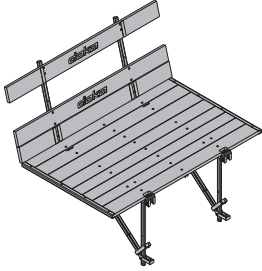

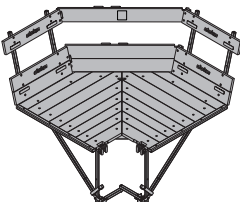

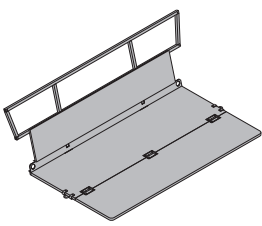



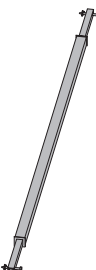
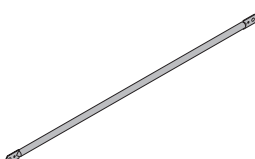
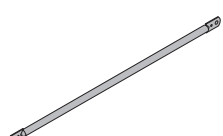


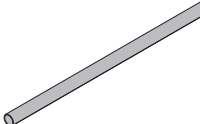
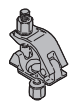
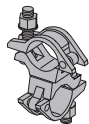
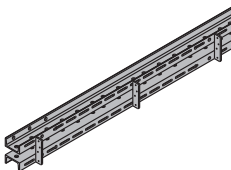
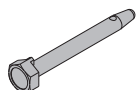

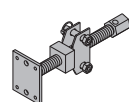
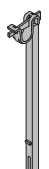
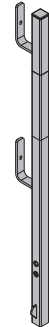

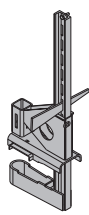




The Bolt-on caster set B can be mounted to the following multi-trip packaging items:

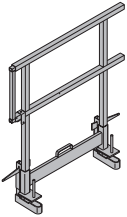
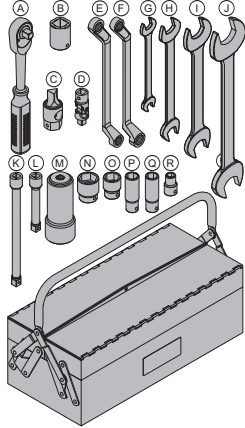



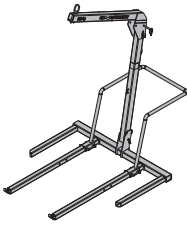
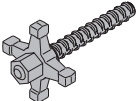
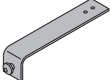
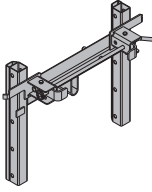
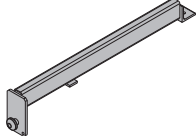
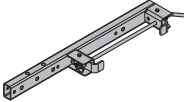
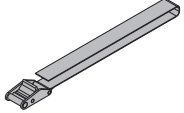
- Doka accessory box
- Doka stacking pallets
- Protective barrier Z pallet

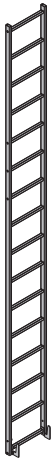
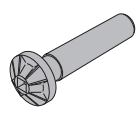
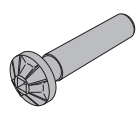
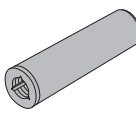

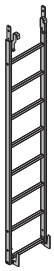


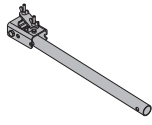
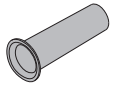
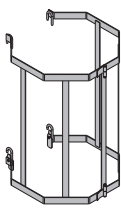



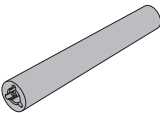
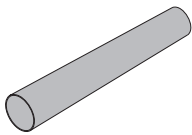





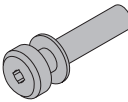


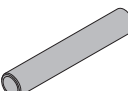
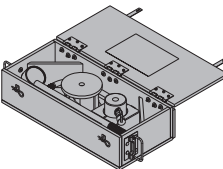

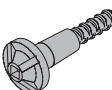
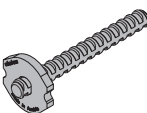

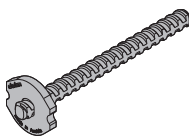

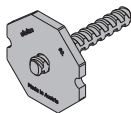


Follow the directions in the 'Bolt-on castor set B' Operating Instructions!


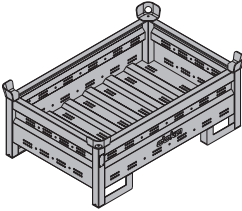
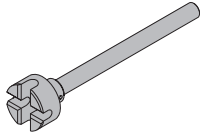
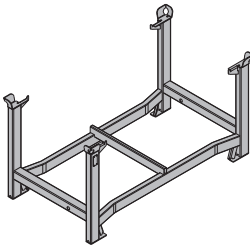

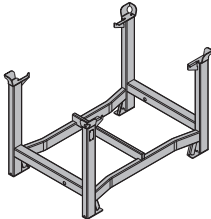
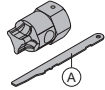
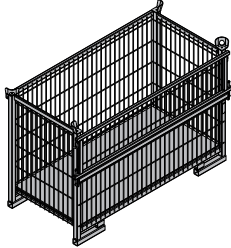
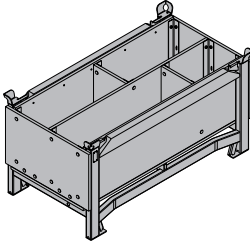
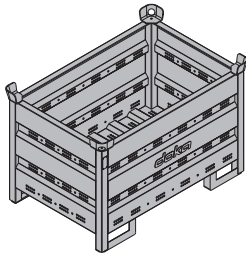
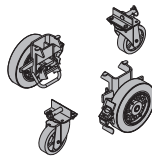
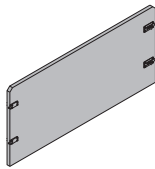
	[kg]	Article N°		[kg]	Article N°
Doka folding platform K 3.00m Doka folding platform K 4.50m Doka-Faltbühne K	291.5 444.5	580442000 580443000	 <p>Steel parts galvanised Timber parts varnished yellow Delivery condition: folded closed</p>		
Folding bracket K Faltkonsole K	52.4	580441000	 <p>Galvanised Length: 224 cm Height: 245 cm Delivery condition: folded closed</p>		
Doka folding platform K outside corner Doka-Faltbühne K Außenecke	442.0	580424000	 <p>Timber parts varnished yellow Steel parts galvanised Width: 287 cm Height: 245 cm Delivery condition: folded closed</p>		
Doka folding platform K inside corner Doka-Faltbühne K Innenecke	283.0	580413000	 <p>Timber parts varnished yellow Steel parts galvanised Width: 294 cm Height: 245 cm Delivery condition: folded closed</p>		
Closure platform 3.00m Ausgleichsbühne 3,00m	153.5	580485000	 <p>Timber parts varnished yellow Steel parts galvanised Delivery condition: folded closed</p>		
			 <p>Galvanised Delivery condition: separate parts</p>	44.0 52.6	580411000 580412000
			Support girder Stützträger	28.5	580414000
			 <p>Galvanised Height: 248 cm</p>		
			Bearing profile Druckprofil	4.9	580417000
			 <p>Galvanised Length: 34 cm Width: 19 cm</p>		
			Strut Stützstab	32.9	580416000
			 <p>Galvanised Length: 370 cm</p>		
			Horizontal brace d2 175 Horizontalstrebe d2 175	2.7	582733000
			 <p>Galvanised</p>		
			Horizontal strut 1.35m Horizontale 1,35m	2.1	580422000
			 <p>Galvanised</p>		

	[kg]	Article N°		[kg]	Article N°
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	1.7 3.6 5.4 7.2 9.0 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	 Galvanised		
Screw-on coupler 48mm 50 Anschraubkupplung 48mm 50	0.84	682002000	 Galvanised Width-across: 22 mm Follow the directions in the "Fitting instructions"!		
Swivel coupler 48mm Drehkupplung 48mm	1.5	582560000	 Galvanised Width-across: 22 mm Follow the directions in the "Fitting instructions"!		
Multi-purpose waling WS10 Top50 3.50m Mehrzweckriegel WS10 Top50 3,50m	68.4	580012000	 Painted blue		
Pin D16/112 Steckbolzen D16/112	0.29	500403330	 Galvanised Length: 16 cm		
Linch pin 6x42 St galv. Kommerzklapstecker 6x42 St verz.	0.03	020401	 Galvanised		
Facade precast member clamp V Fassaden-Fertigteilklemme V	8.1	580694000	 Galvanised Length: 70 cm Height: 41 cm Width-across: 50 mm		
Handrail extension K Geländerverlängerung K	4.9	580447000	 Galvanised Height: 87 cm		
Handrail post XP 1.20m Geländersteher XP 1,20m	4.1	586460000	 Galvanised Height: 118 cm		
Toeboard holder XP 1.20m Fußwehrhalter XP 1,20m	0.64	586461000	 Galvanised Height: 21 cm		
Railing clamp XP 40cm Geländerzwinge XP 40cm	7.7	586456000	 Galvanised Height: 73 cm		
Handrail clamp S Schutzgeländerzwinge S	11.5	580470000	 Galvanised Height: 123 - 171 cm		
Handrail post 1.10m Schutzgeländer 1,10m	5.5	584384000	 Galvanised Height: 134 cm		
Attachable sleeve 24mm Steckhülse 24mm	0.03	584385000	 PVC PE Grey Length: 16.5 cm Diameter: 2.7 cm		
Screw sleeve 20.0 Schraubhülse 20,0	0.03	584386000	 PP Yellow Length: 20 cm Diameter: 3.1 cm		

	[kg]	Article N°		[kg]	Article N°
Side handrail clamping unit T Seitenschutzgeländer T  Galvanised Length: 115 - 175 cm Height: 112 cm	29.1	580488000	Universal tool box 15.0 Universal-Werkzeugbox 15,0 included in scope of supply: (A) Reversible ratchet 1/2" Galvanised (B) Square nut 22 (C) Positioning cone spanner 15.0 DK Galvanised Length: 8 cm Width-across: 30 mm (D) Universal joint coupling 1/2" (E) Ring spanner 16/18 (F) Ring spanner 17/19 (G) Fork wrench 13/17 (H) Fork wrench 22/24 (I) Fork wrench 30/32 (J) Fork wrench 36/41 (K) Extension 22cm 1/2" (L) Extension 11cm 1/2" (M) Box spanner 41 (N) Box nut 30 1/2" (O) Box nut 24 1/2" (P) Box nut 19 1/2" L (Q) Box nut 18 1/2" L (R) Box nut 13 1/2" 	8.4	580392000
Universal railing shackle Universal-Geländerbügel  Galvanised Height: 20 cm	3.0	580478000			
Doka 4-part chain 3.20m Doka-Vierstrangkette 3,20m  Follow the directions in the "Operating Instructions"! 	15.0	588620000			
Transport fork K/M plus Umsetzgabel K/M plus  Galvanised Length: 305 cm Width: 204 cm	226.0	583025000			
Star screw Sternschraube  Galvanised Length: 17 cm Width-across: 24 mm	0.75	580425000	Ladder system XS		
Suspension plate AK Aufhängeblech AK  Galvanised Length: 65 cm	8.3	580494000	Connector XS Wall formwork Anschluss XS Wandschalung  Galvanised Width: 89 cm Height: 63 cm	20.8	588662000
Suspension profile AK Aufhängeprofil AK  Galvanised Length: 109 cm	14.8	580595000	Connector XS DM/SL-1 Anschluss XS DM/SL-1  Galvanised Length: 100 cm	11.7	588672000
Quick-locking strap 55cm Gurtschnellverschluss 55cm  Yellow	0.07	580787000			

	[kg]	Article N°		[kg]	Article N°
System ladder XS 4.40m System-Leiter XS 4,40m  Galvanised	33.2	588640000	Tie rod system 15.0 		
			Suspension cone 15.0 5cm Aufhängekonus 15,0 5cm  Galvanised Length: 16 cm Diameter: 6 cm Follow the directions in the "Fitting instructions"!	0.88	581971000
			Positioning cone 15.0 5cm Vorlaufkonus 15,0 5cm  Galvanised Length: 11 cm Diameter: 3 cm Follow the directions in the "Fitting instructions"!	0.43	581969000
			Cantilever positioning cone 15.0 5cm Sperrenvorlauf 15,0 5cm  Length: 11 cm Diameter: 5 cm Follow the directions in the "Fitting instructions"!	0.45	581699000
Ladder extension XS 2.30m Leiternverlängerung XS 2,30m  Galvanised	19.1	588641000	Fair-faced concrete positioning cone 15.0 5cm Sichtbetonvorlauf 15,0 5cm  Galvanised Length: 11 cm Diameter: 4.3 cm	0.46	581973000
			Sealing sleeve 15.0 5cm Dichtungshülse 15,0 5cm  Orange Length: 10 cm Diameter: 3 cm	0.008	581990000
Securing barrier XS Sicherungsschranke XS  Galvanised Length: 80 cm	4.9	588669000	Sealing sleeve S 15.0 5cm Dichtungshülse S 15,0 5cm  Orange Length: 11 cm Diameter: 4.7 cm	0.009	581697000
Ladder cage XS 1.00m Ladder cage XS 0.25m Rückenschutz XS  Galvanised	16.5 10.5	588643000 588670000	Fair-faced concrete plug 41mm plastic Fair-faced concrete plug 41mm concrete Sichtbetonstopfen  Grey	0.007 0.05	581851000 581848000
			Fixing plate 15.0 Nagelblech 15,0  Galvanised Diameter: 10 cm	0.16	581692000
Ladder cage exit XS Rückenschutz-Ausstieg XS  Galvanised Height: 132 cm	17.0	588666000	Suspension cone 15.0 f. insulation up to 11cm Aufhängekonus 15,0 für Isolierung bis 11cm  Galvanised Length: 30 cm Diameter: 5 cm	3.6	580495000
			Sealing sleeve 15.0 f. insulation up to 11cm Dichtungshülse 15,0 für Isolierung bis 11cm  White Length: 30 cm Diameter: 6 cm	0.05	580498000

	[kg]	Article N°		[kg]	Article N°
Positioning disc Rd28 Vorlaufscheibe Rd28  Galvanised Diameter: 9 cm	0.25	580497000	Pigtail anchor 15.0 Wellenanker 15,0  Non-treated Length: 67 cm	0.92	581984000
Cone screw Rd28 Konusschraube Rd28  Galvanised Length: 9 cm Diameter: 6 cm	0.65	580496000	Suspension cone 15.0 with collar Bund-Aufhängekonus 15,0  Galvanised Length: 16 cm Diameter: 6 cm Follow the directions in the "Fitting instructions"!	1.4	580428000
Tie rod 15.0mm galvanised 0.50m Tie rod 15.0mm galvanised 0.75m Tie rod 15.0mm galvanised 1.00m Tie rod 15.0mm galvanised 1.25m Tie rod 15.0mm galvanised 1.50m Tie rod 15.0mm galvanised 1.75m Tie rod 15.0mm galvanised 2.00m Tie rod 15.0mm galvanised 2.50m Tie rod 15.0mm galvanisedm Tie rod 15.0mm non-treated 0.50m Tie rod 15.0mm non-treated 0.75m Tie rod 15.0mm non-treated 1.00m Tie rod 15.0mm non-treated 1.25m Tie rod 15.0mm non-treated 1.50m Tie rod 15.0mm non-treated 1.75m Tie rod 15.0mm non-treated 2.00m Tie rod 15.0mm non-treated 2.50m Tie rod 15.0mm non-treated 3.00m Tie rod 15.0mm non-treated 3.50m Tie rod 15.0mm non-treated 4.00m Tie rod 15.0mm non-treated 5.00m Tie rod 15.0mm non-treated 6.00m Tie rod 15.0mm non-treated 7.50m Tie rod 15.0mm non-treatedm Ankerstab 15,0mm 	0.72 1.1 1.4 1.8 2.2 2.5 2.9 3.6 1.4 0.73 1.1 1.4 1.8 2.1 2.5 2.9 3.6 4.3 5.0 5.7 7.2 8.6 10.7 1.4	581821000 581822000 581823000 581826000 581827000 581828000 581829000 581852000 581824000 581870000 581871000 581874000 581886000 581876000 581887000 581875000 581877000 581878000 581888000 581879000 581880000 581881000 581882000 581873000	Rock anchor spreader unit 15.0 Felsanker-Spreizeinheit 15,0  Galvanised Length: 9 cm Diameter: 4 cm Follow the directions in the "Fitting instructions"!	0.41	581120000
			Rock anchor installation tube Felsanker-Einbaurohr  Galvanised Length: 50 cm Diameter: 3 cm	0.85	581123000
			Tensioning instrument B Vorspanngerät B  Galvanised	34.5	580570000
Super plate 15.0 Superplatte 15,0  Galvanised Height: 6 cm Diameter: 12 cm Width-across: 27 mm	1.1	581966000	Screw-in cone 15.0 Einschraubkonus 15,0  Galvanised Length: 15 cm	0.74	581895000
Stop anchor 15.0 A16 Sperranker 15,0 A16  Non-treated	0.38	581997000	Bridge edge beam anchor 15.0 Bridge edge beam anchor 15.0 galv. Gesimsanker 15,0  Length: 7 cm Follow the directions in the "Fitting instructions"!	0.45 0.44	581896000 581890000
Stop anchor 15.0 A21 Sperranker 15,0 A21  Non-treated	0.44	581884000	Nailing cone 15.0 Nagelkonus 15,0  Black Length: 7 cm	0.02	581897000
Stop anchor 15.0 B11 Sperranker 15,0 B11  Non-treated	0.55	581868000	Hole plug 29mm Gesimsankerstopfen 29mm  PE Grey Diameter: 3 cm	0.003	581891000
			Zinc plug 15.0 Zinkstöpsel 15,0  Galvanised Length: 9.9 cm Diameter: 2.9 cm	0.20	581889000

	[kg]	Article N°		[kg]	Article N°
Protective cap 15.0/20.0 Schutzkappe 15,0/20,0  Yellow Length: 6 cm Diameter: 6.7 cm	0.03	581858000	Doka multi-trip transport box 1.20x0.80x0.41m Doka-Mehrwegcontainer 1,20x0,80x0,41m Galvanised 	42.5	583009000
Tie-rod wrench 15.0/20.0 Ankerstabschlüssel 15,0/20,0  Galvanised	1.8	580594000	Doka stacking pallet 1.55x0.85m Doka-Stapelpalette 1,55x0,85m Galvanised Height: 77 cm 	41.0	586151000
Positioning cone spanner 15.0 DK Vorlaufschlüssel 15,0 DK  Galvanised Length: 8 cm Width-across: 30 mm	0.30	580579000	Doka stacking pallet 1.20x0.80m Doka-Stapelpalette 1,20x0,80m Galvanised Height: 77 cm 	38.0	583016000
Universal cone spanner 15.0/20.0 Universal-Konusschlüssel 15,0/20,0 included in scope of supply: (A) Safety Ruler SK Length: 18 cm  Galvanised Width-across: 50 mm	0.90	581448000			
	0.02	581439000			
Multi-trip packaging					
Doka skeleton transport box 1.70x0.80m Doka-Gitterbox 1,70x0,80m  Galvanised Height: 113 cm	87.0	583012000	Doka accessory box Doka-Kleinteilebox Timber parts varnished yellow Steel parts galvanised Length: 154 cm Width: 83 cm Height: 77 cm 	106.4	583010000
Doka multi-trip transport box 1.20x0.80m Doka-Mehrwegcontainer 1,20x0,80m  Galvanised Height: 78 cm	70.0	583011000	Bolt-on castor set B Anklemm-Radsatz B Painted blue 	33.6	586168000
Multi-trip transport box partition 0.80m Multi-trip transport box partition 1.20m Mehrwegcontainer Unterteilung  Steel parts galvanised Timber parts varnished yellow	3.7	583018000			
	5.5	583017000			

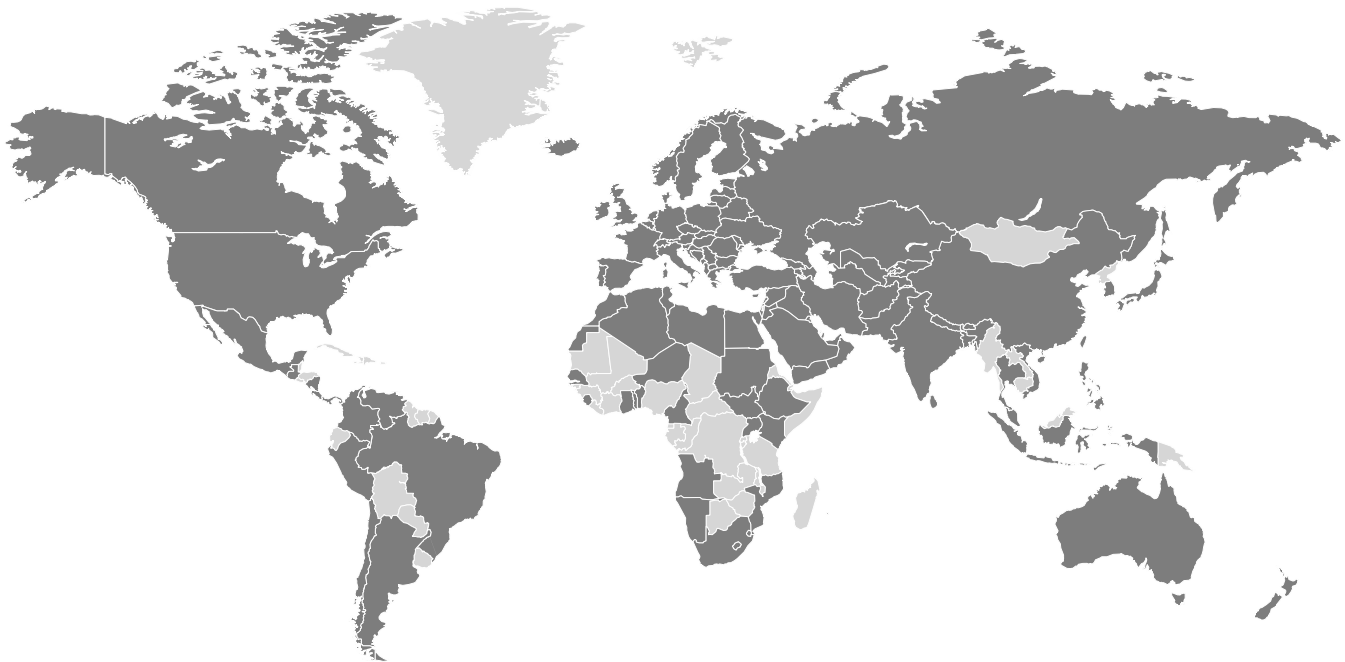
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