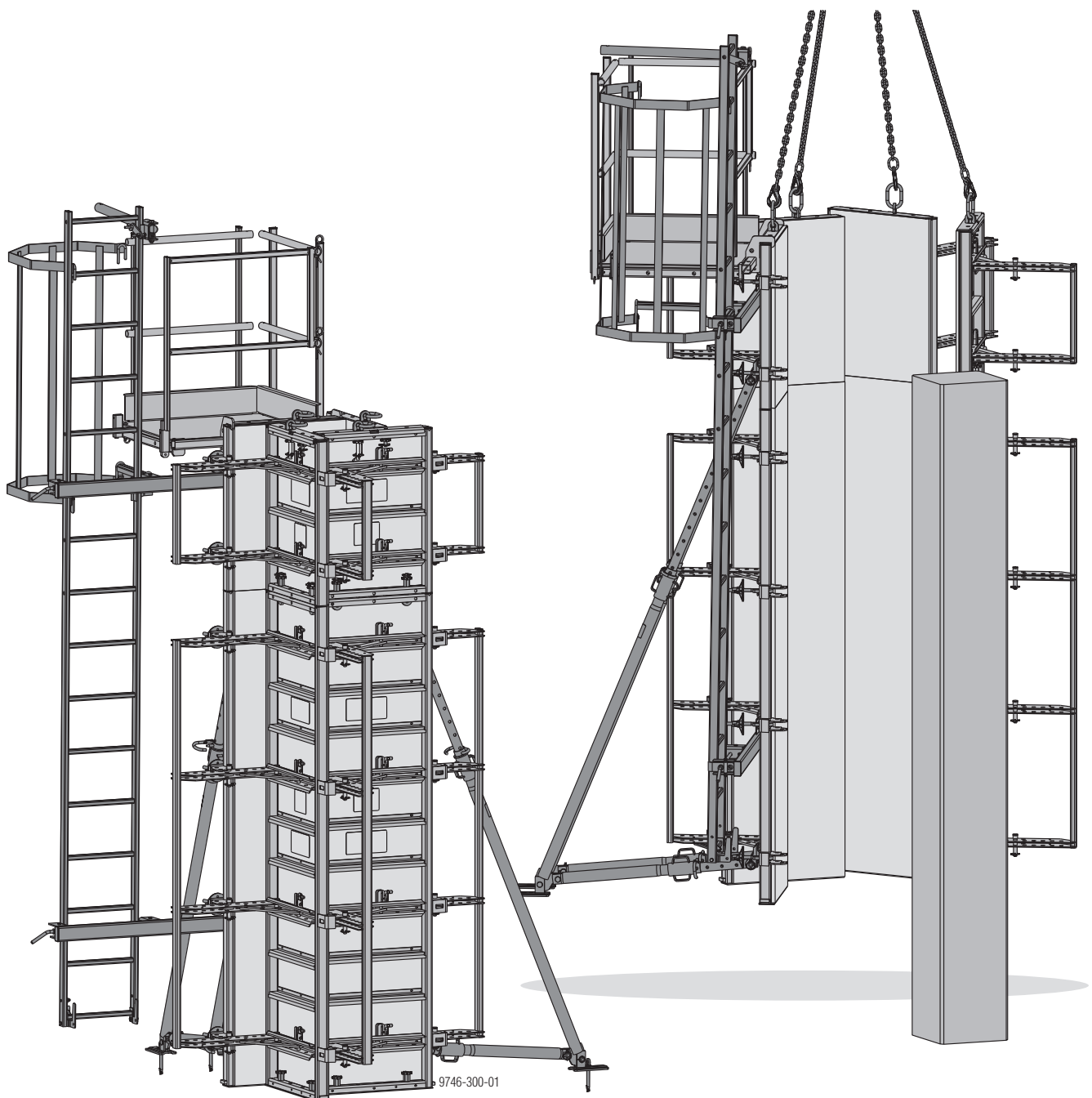


The Formwork Experts.

Column formwork KS Xlife

User Information

Instructions for assembly and use (Method statement)



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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 formwork 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 formwork (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.

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.

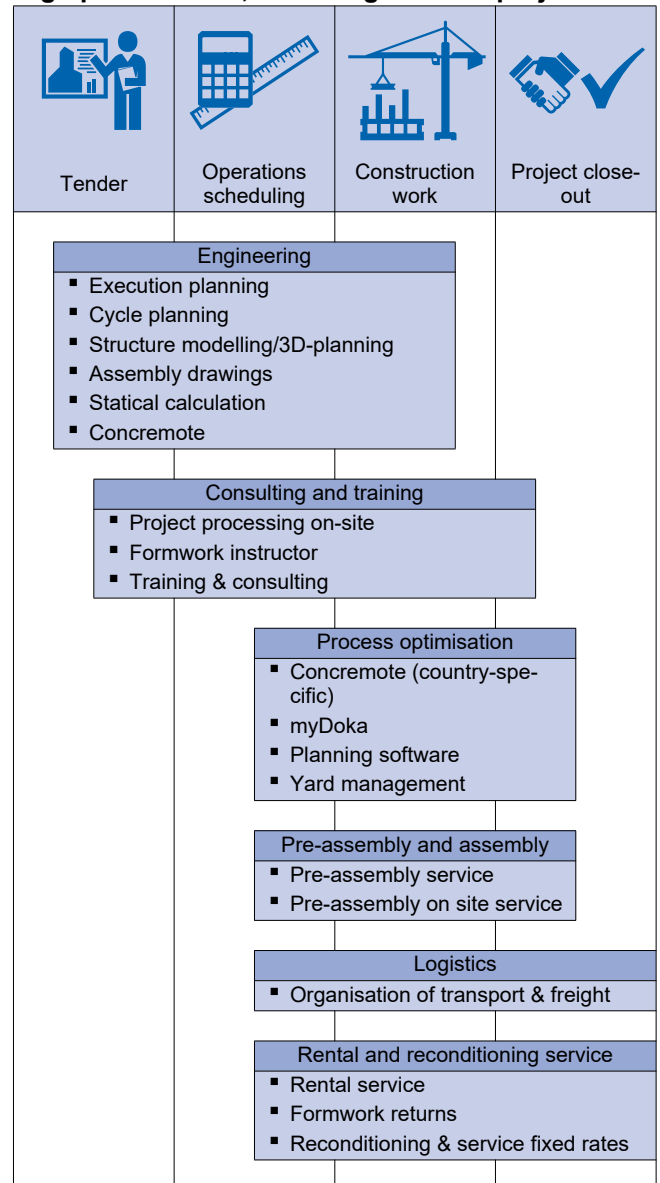
Just-in-time availability

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.

Product description

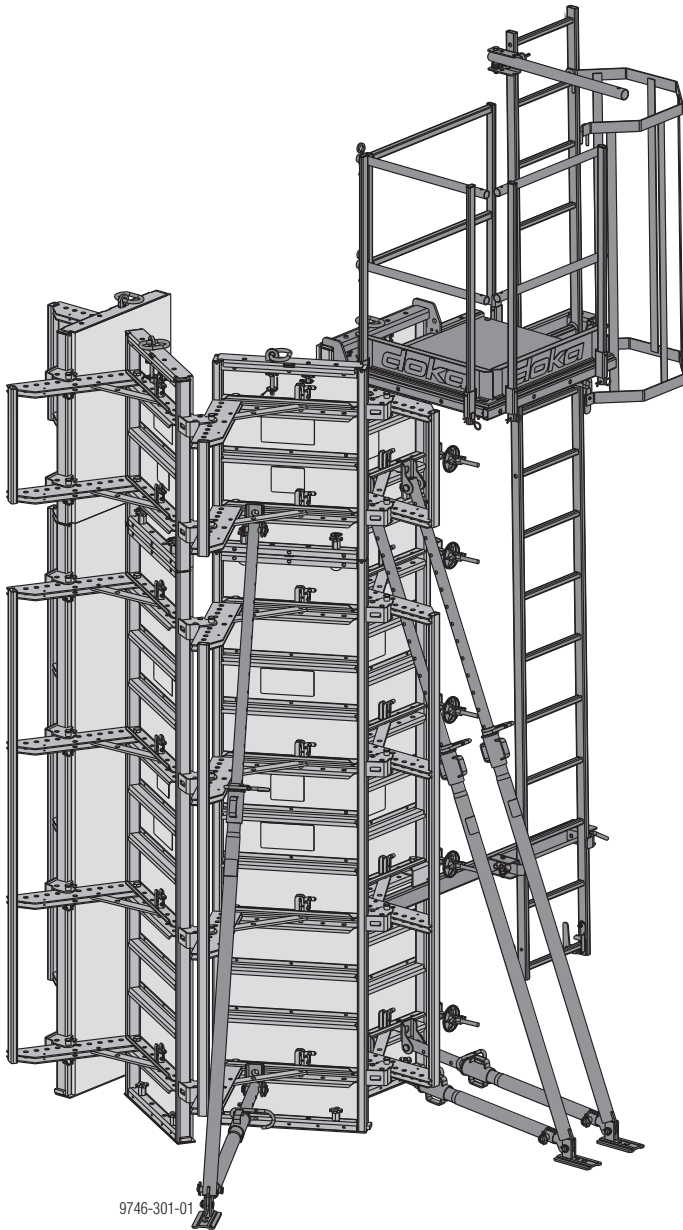
The Column formwork KS Xlife is a top-quality, site-ready column formwork system.

The formwork is easy to open and close, resulting in very short striking and set-up times. Another advantage is that there is no need for time-consuming assembly and dismantling work.

Just one crane cycle is all it takes to reposition the entire formwork unit, in one piece.

Product features:

- adjusting range between 20 cm and 60 cm, in 5 cm increments
- suitable for square and rectangular column cross-sections
- no need to change the form-facing for different cross-sections
- no tie-holes and frame imprints in the concrete
- 30 cm height grid
- for column heights of up to 6.60 m
- easy to operate; simply fold/unfold the panels to set up and strip the formwork
- safe working environment ensured by using Platform planking KS or Doka column formwork platform 150/90cm
- safe vertical access provided by Ladder system XS
- easy and convenient to clean
- 21 mm form-facing screwed on from rear
- long service life thanks to its sturdy design and galvanised steel construction



Permitted fresh-concrete pressure: 90 kN/m²

Areas of use

Height grid

Panels with heights of 0.90 m, 1.20 m, 2.70 m and 3.30 m can be combined, resulting in a 30 cm height grid.

Materials schedule:

Formwork height [m]	Xlife panel KS 3.30m	Xlife panel KS 2.70m	Xlife panel KS 1.20m	Xlife panel KS 0.90m	Locking hook KS	Super plate 15.0	Stacking screw KS	Protective plate KS ¹⁾	Protective plate KS top ¹⁾	Lifting ring	Prop head KS EB	Panel strut 340 IB	Panel strut 540 IB	Connecting pin 10cm ²⁾
0.90	—	—	—	4	2	2	—	4	4	4	—	—	—	3
1.20	—	—	4	—	2	2	—	4	4	4	—	—	—	3
1.80	—	—	—	8	4	4	8	4	4	4	—	—	—	3
2.10	—	—	4	4	4	4	8	4	4	4	6	3	—	3
2.40	—	—	8	—	4	4	8	4	4	4	6	3	—	3
2.70	—	4	—	—	4	4	—	—	—	4	6	3	—	3
3.00	—	—	4	8	6	6	16	4	4	4	6	3	—	3
3.30	4	—	—	—	5	5	—	—	—	4	6	3	—	3
3.60	—	4	—	4	6	6	8	—	—	4	6	3	—	3
3.90	—	4	4	—	6	6	8	—	—	4	6	3	—	3
4.20	4	—	—	4	7	7	8	—	—	4	6	—	3	3
4.50	—	4	—	8	8	8	16	—	—	4	6	—	3	3
4.50	4	—	4	—	7	7	8	—	—	4	6	—	3	3
4.80	—	4	4	4	8	8	16	—	—	4	6	—	3	3
5.10	—	4	8	—	8	8	16	—	—	4	6	—	3	3
5.10	4	—	—	8	9	9	16	—	—	4	6	—	3	3
5.40	—	8	—	—	8	8	8	—	—	4	6	—	3	3
5.40	4	—	4	4	9	9	16	—	—	4	6	—	3	3
5.70	—	4	4	8	10	10	24	—	—	4	6	—	3	3
5.70	4	—	8	—	9	9	16	—	—	4	6	—	3	3
6.00	4	4	—	—	9	9	8	—	—	4	6	—	3	3
6.30	—	8	—	4	10	10	16	—	—	4	6	—	3	3
6.30	4	—	4	8	11	11	24	—	—	4	6	—	3	3
6.60	—	8	4	—	10	10	16	—	—	4	6	—	3	3
6.60	8	—	—	—	10	10	8	—	—	4	6	—	3	3

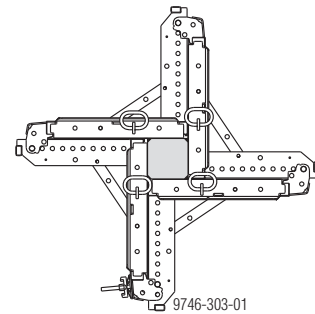
¹⁾ A **Protective plate KS** is included with the Xlife panels KS 2.70m and 3.30m and comes pre-mounted on the panels. The **Protective plate KS top** is pre-mounted to the Xlife panels KS 2.70m and 3.30m, and protects the top edge of the Xlife sheet. The **Protective plates KS** and **KS top** can also be ordered as separate parts where needed, and used on the Xlife 0.90m and 1.20m panels.

²⁾ The connecting pins secure the Xlife panels KS against swinging open and closed. This safeguard is necessary for repositioning by crane and also when there is a change in column cross-section.

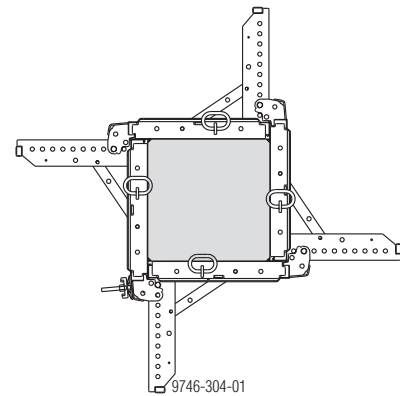
Column cross-sections

The column cross-sections can be either square or rectangular in shape, in a 5 cm grid from 20x20 cm to 60x60 cm – with no need to modify the form-facing in any way.

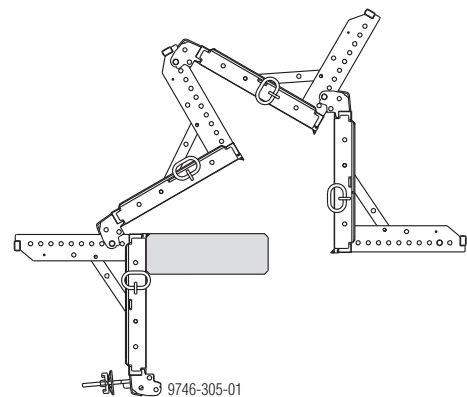
20x20cm column



60x60cm column



20x60cm column (with formwork opened)

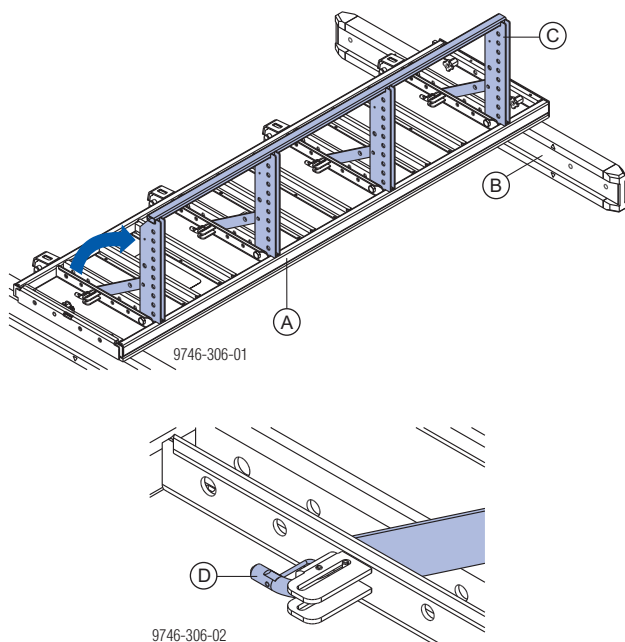


Instructions for assembly and use (Method statement)

Assembling the column formwork

Preparing the panels

- Place each panel (A) on an approx. 20 cm high base support (B) (e.g. Doka formwork beams H20). These supports must always be located under the ends of the panels.
- Tilt up the adjustment wing (C) and bolt it into place with U-bolts (D).

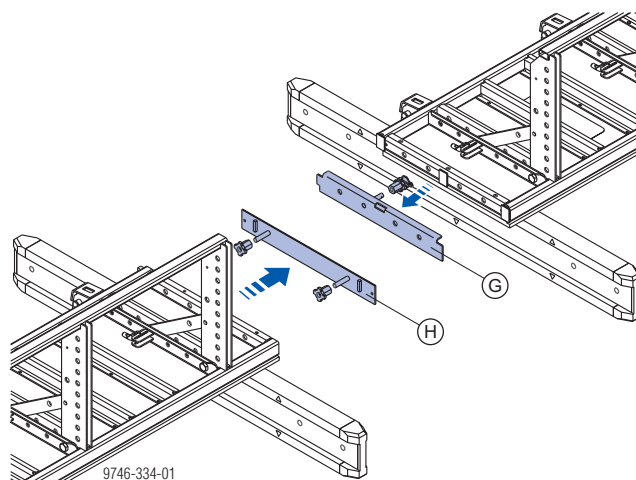


- For vertical stacking configurations: Prepare further panels as described above.

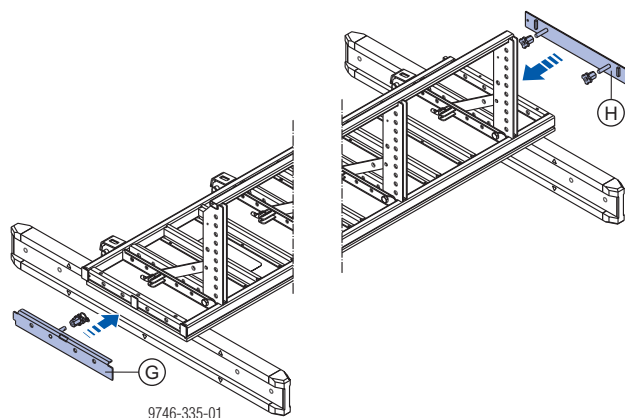
Vertical stacking

Dismounting/mounting the Protective plates KS:

- There is a Protective plate KS at the bottom of every finished formwork unit.
- At the top of every finished formwork unit, there is a Protective plate KS top.
- No protective plates are needed between the Xlife panels.
- Dismount any previously mounted Protective plates KS and Protective plates KS top.



- If not already mounted, fix a Protective plate KS to the bottom of the formwork unit and a Protective plate KS top to the top of the unit.



G Protective plate KS top

H Protective plate KS

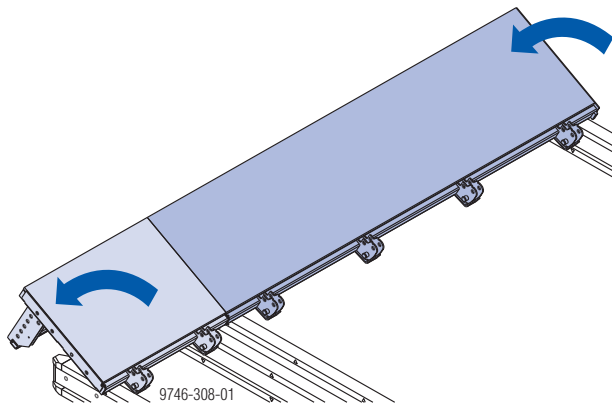


Be sure to store the Protective plates KS in a safe place so that they can be found again and fitted back on the panels after the stacking combination has been dismantled.



Before turning the panels over, install the Prop heads KS EB. See the section headed 'Plumbing accessories'.

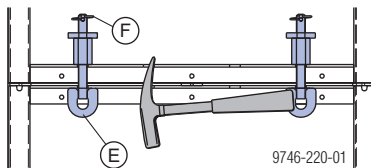
- Turn each panel over separately.



- Join the panels with Stacking screws KS (E) (2 per panel), and secure these with linch pins (F).

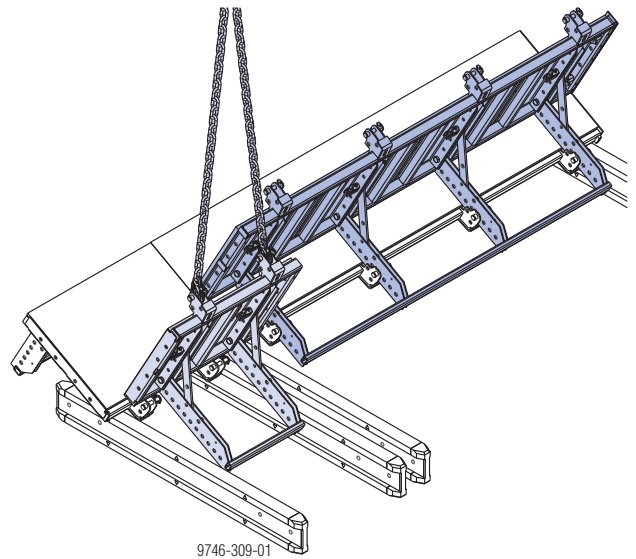


For an exact panel joint: use a formwork hammer as a centring tool.



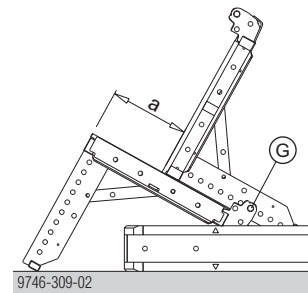
Finishing the formwork-half

- Place additional unfolded panels onto the first panel(s), at right-angles.



Setting the column width:

- Use spacer bolts (G) to fix the desired column width 'a', and secure these bolts with linch pins.

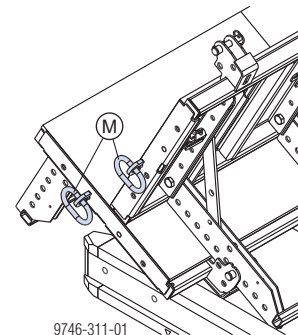


Finishing the first formwork-half

- See the section headed 'Mounting the pouring platform'.

Finishing the second formwork-half

- Mount the 2 lifting rings (M) and fix them with nuts and linch pins.



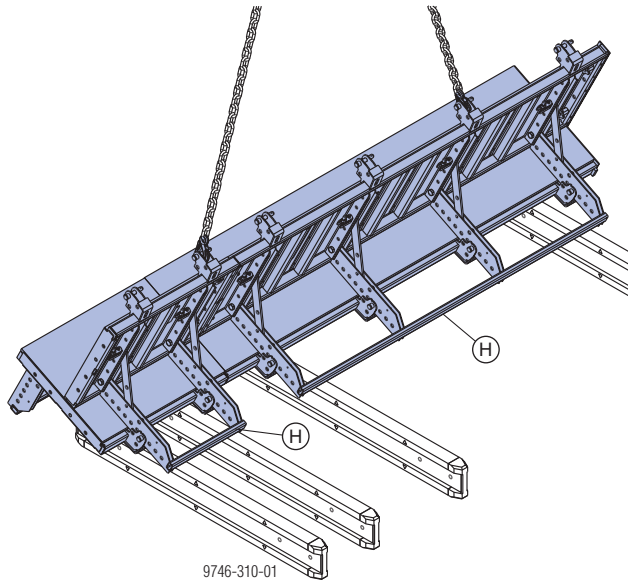
- Attach the formwork-half to the lifting rings and raise it by crane.

Max. load-bearing capacity: 600 kg per Lifting ring

Mounting the pouring platform

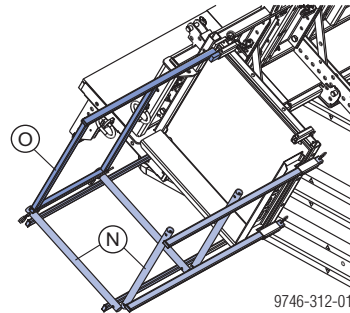
Raising the formwork-half

- Raise the formwork-half by crane and push H20 formwork beams under the adjustment wing (**H**). This makes it easier to mount the Platform planking KS.



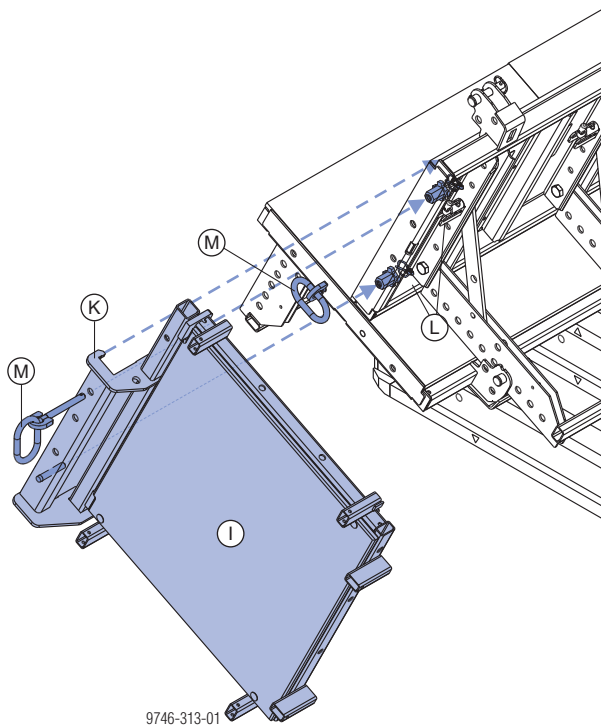
Mounting the railing

- Mount a Railing KS 1.00x0.85m (**N**) and secure it with a Spring cotter 5mm.
- Mount a Counter railing platform planking KS (**O**) and secure it with a Spring cotter 5mm.



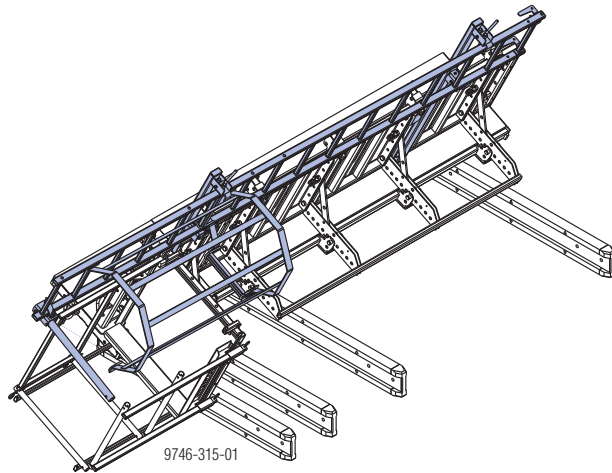
Mounting the Platform planking KS

- Insert the Platform planking KS (**I**), using the hook (**K**) to hang it into place in the side-rail of the panel, and secure it with a nut and linch pin (**L**). Then attach lifting rings (**M**) and secure them (see the section headed "Platform configurations with Platform planking KS").



Mounting the ladder system

- ▶ Mount the Ladder system XS to the horizontally placed formwork-half. (see the section headed 'Ladder system XS with Platform planking KS')

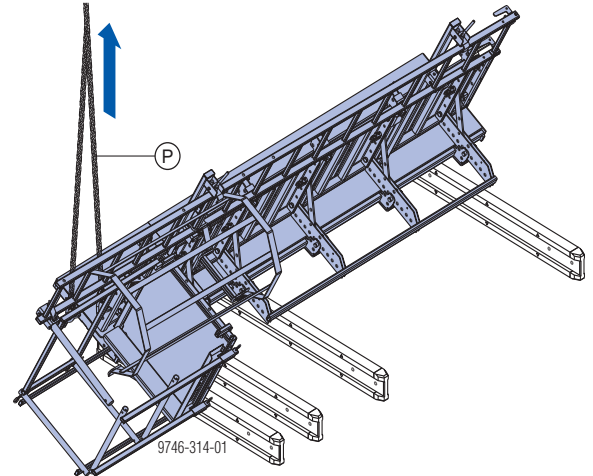


Lifting the pre-assembled formwork-halves into the upright

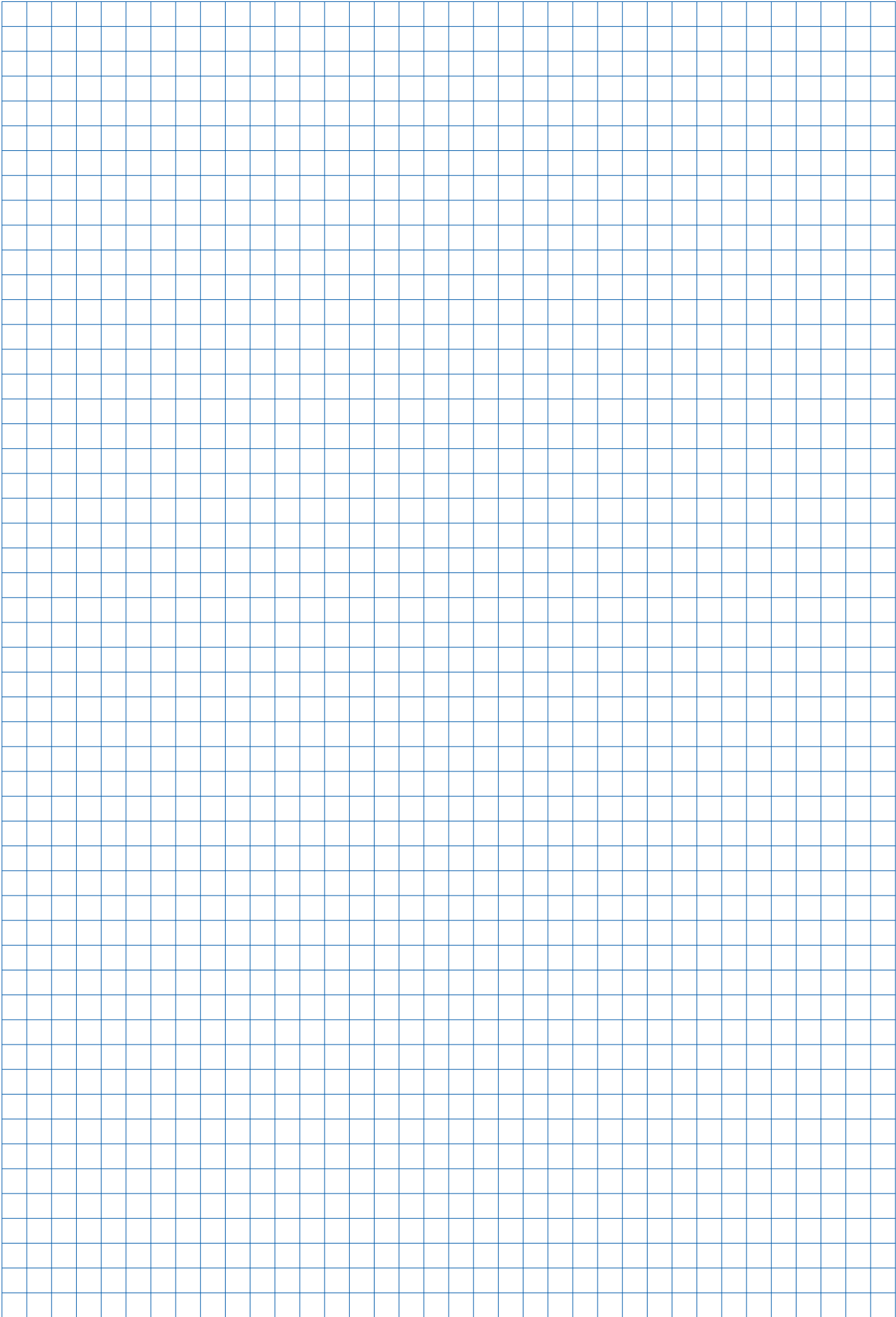


NOTICE

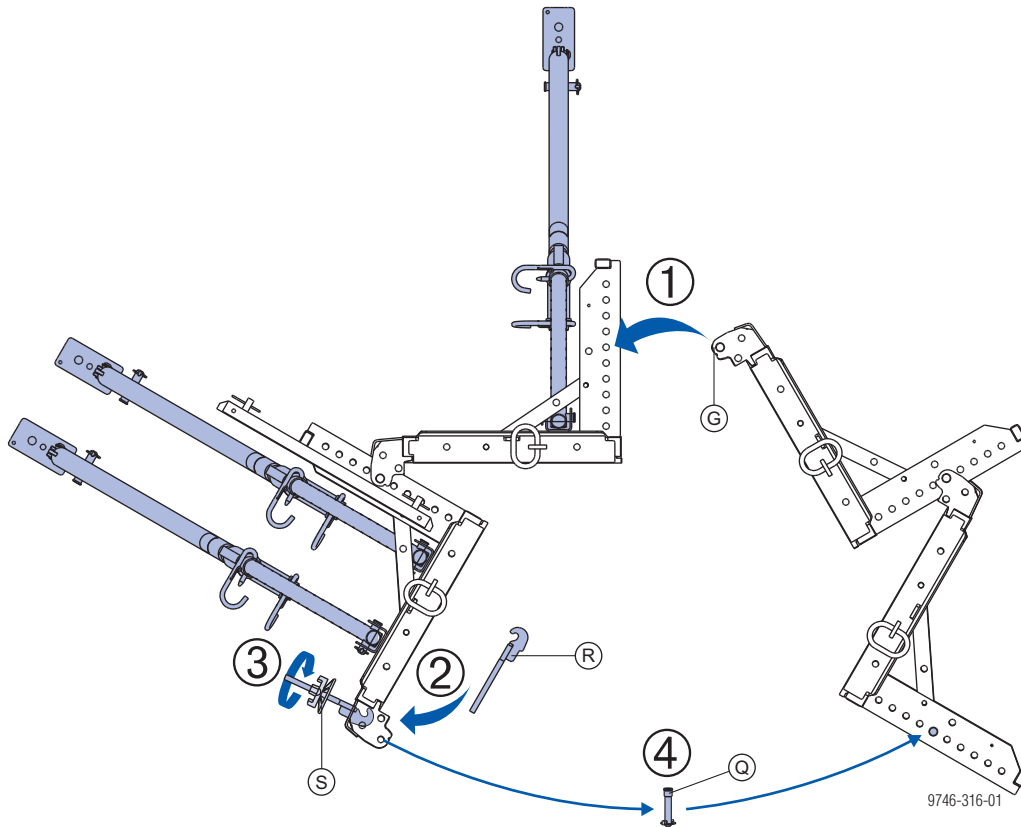
- ▶ Where panels have been vertically stacked, only ever lift completely assembled (i.e. L-shaped) formwork-halves.
- ▶ Attach a Doka 4-part chain 3.20m (**P**) to the lifting-rings on the first formwork-half and raise this by crane.



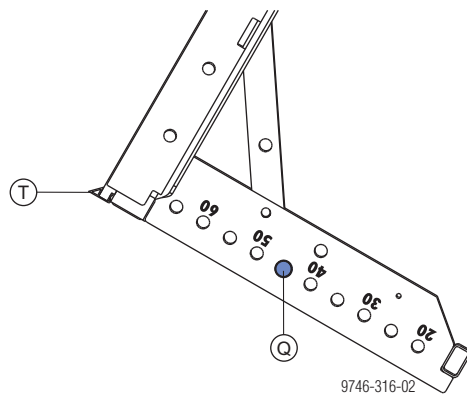
- ▶ Secure this formwork-half with 3 panel struts (see the section headed 'Plumbing accessories' for details of how to attach the panel struts). Do not detach it from the crane before this has been done.
- ▶ Assemble the second formwork-half – see the section headed 'Preparing the panels'.



Joining the formwork-halves together



- 1) Use spacer bolts (**G**) to connect the 2nd formwork-half to the 1st, for the required column width, and secure the bolts with linch pins. Do not detach it from the crane before this has been done.
- 2) Fit in the Locking hook KS (**R**) as shown in the illustration.
- 3) Screw a Super plate 15.0 (**S**) onto the Locking hook KS.
- 4) Relocate the spacer bolt (**Q**) as shown in the illustration. The hole-grid with markings indicates the column width. When the spacer bolt is relocated on the closing side of the formwork, the column width must be increased by 5 cm. (Example: column width 40 cm = spacer bolt located at 45 cm).

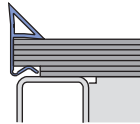
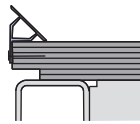


NOTICE

Concrete pressure produces a minimal gap at the inter-panel joint in the corner!

► The inter-panel joint must be sealed with **triangular ledges**!

- 5) Install triangular ledges (**T**) (with the formwork still unfolded).

Frontal triangular ledge KS 15 or 20mm	Framax triangular ledge 2.70m
 9746-237-01	 9746-235-01
■ no nails needed	

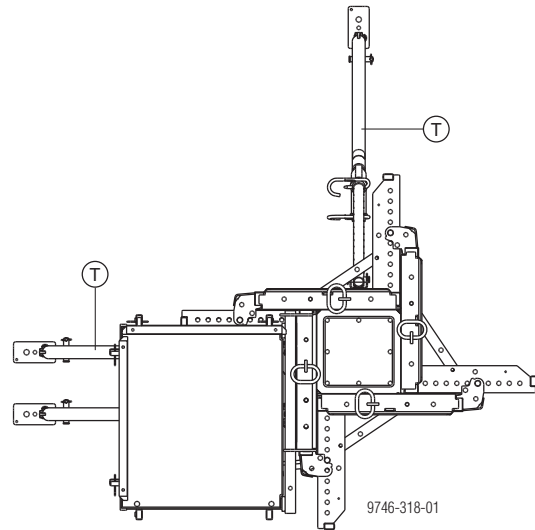
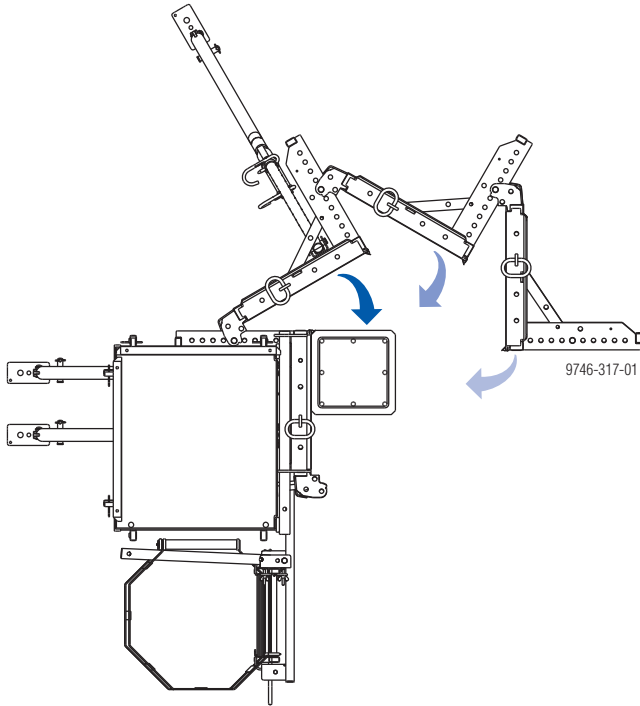
Alternatively: triangular ledge (chamfer) with max. 1 mm thick nailing strip.

Erecting and stripping the formwork

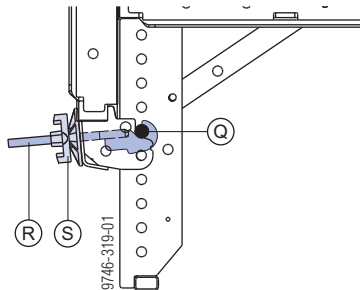
Closing the formwork

- Close the formwork.

- Plumb and align the column formwork with the panel struts (T) .

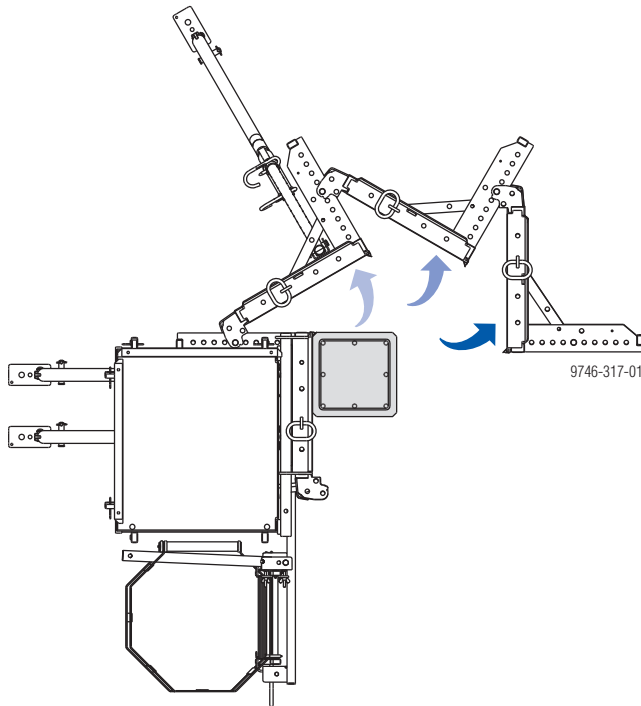


- Hook the Locking hook KS (R) into the spacer bolt (Q) and tighten the formwork with the Super plate 15.0 (S) .

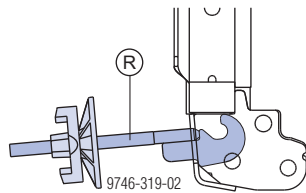


- At the usage location, close the formwork around the reinforcing cage, or lower the closed formwork down over the reinforcing cage by crane.

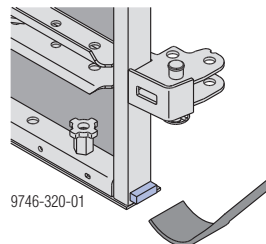
Stripping the formwork



- Release the Locking hook KS (**R**) and open the formwork.
- Shift the Locking hook into the stand-by position.



Insertion point for plumbing tool.



Cleaning and care of your equipment

After pouring:

- Remove any blobs of concrete from the back-face of the formwork, using water (without any added sand).

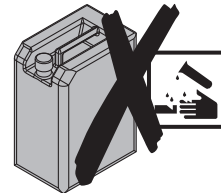
Immediately after stripping the formwork:

- and before every pour, apply an extremely thin layer of concrete **release agent** to the form-ply and the end faces.



NOTICE

Do not use any chemical cleaning agents!



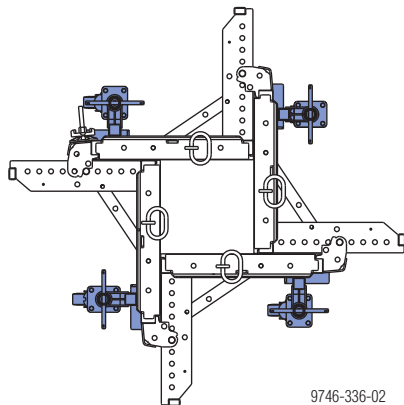
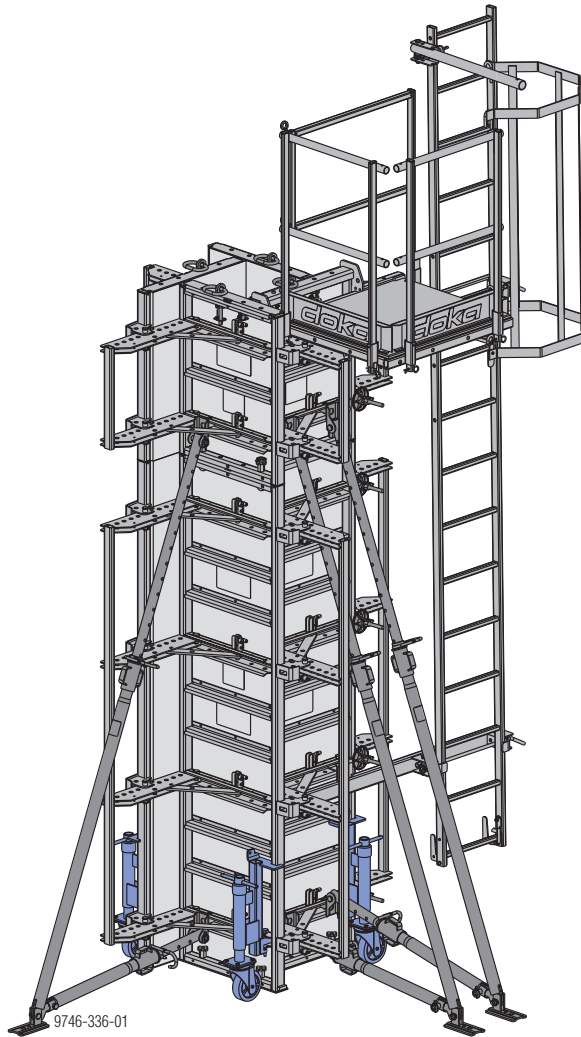
Repositioning

Horizontal repositioning

The Shifting wheel KS makes it possible for Column formworks KS Xlife of **up to 3.60 m in height** to be horizontally travelled.

It can be clamped to 2.70 m and 3.30 m high panels.

4 Shifting wheels KS are needed for repositioning 1 Column formwork KS Xlife.



Max. load-bearing capacity: 300 kg / shifting wheel

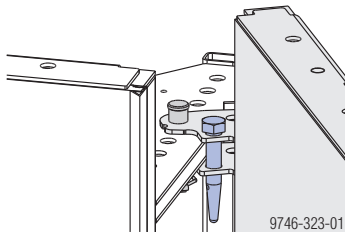


Follow the directions in the 'Shifting wheel KS' Operating Instructions!

Lifting by crane

Fix the panels so that they cannot fold open and shut:

- Use a Connecting pin 10cm or spacer bolt on each Xlife panel KS to secure the unfolded panels against accidentally folding shut.



Reposition the formwork:

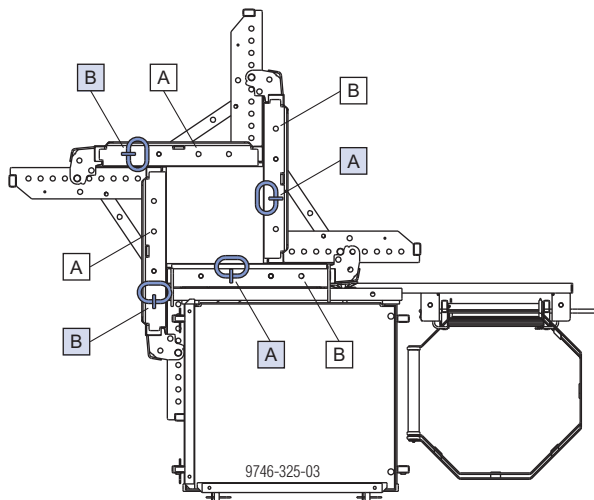


When an opened formwork unit is suspended from the crane, it must hang in the perpendicular!

- Adjust the Doka 4-part chain 3.20m to the centre-of-gravity position.

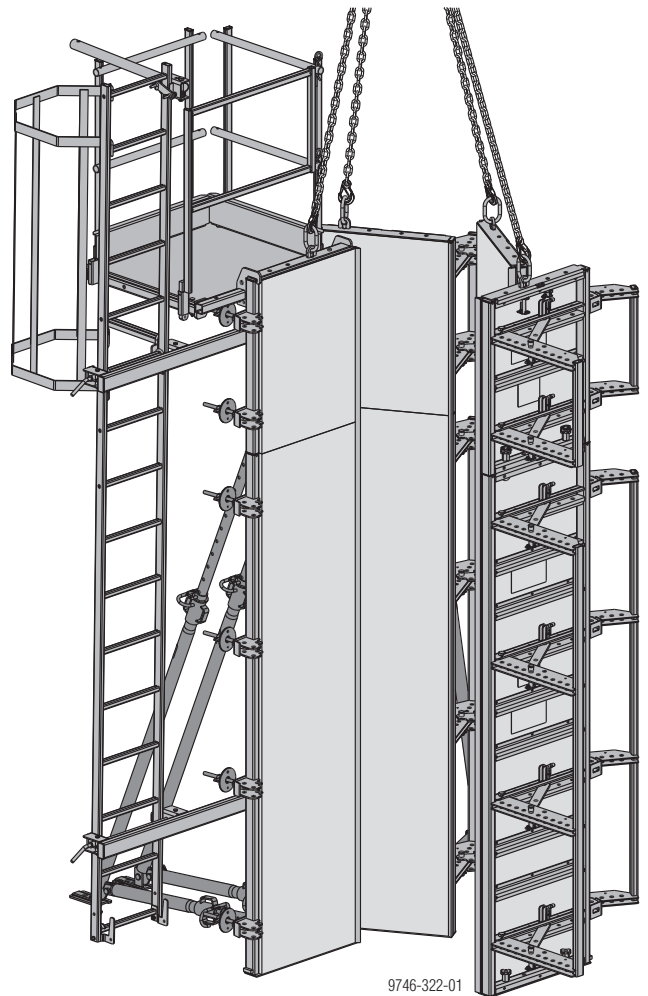
- Attach the crane to the lifting rings with the Doka 4-part chain 3.20m.

Hoisting points on Platform planking KS



To obtain as perpendicular a position as possible when the column formwork unit is suspended above the ground (either open or closed), use the following hoisting points: A-B-B-A (starting at the panel with the platform and continuing in a clockwise direction).

- Reposition the formwork unit in one crane cycle.



The platform can stay attached to the formwork throughout this entire operation.



Follow the directions in the "Doka 4-part chain 3.20m" Operating Instructions!

Changing the column cross-section

The formwork can be quickly adjusted to a new column cross-section when it is standing in the upright:

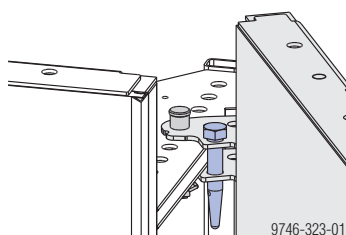
- even if it has been vertically extended (stacked) upward or downward
- even with pouring platforms and ladderways attached

Preparation

- Unfold the column formwork unit in the same way as when striking the formwork.

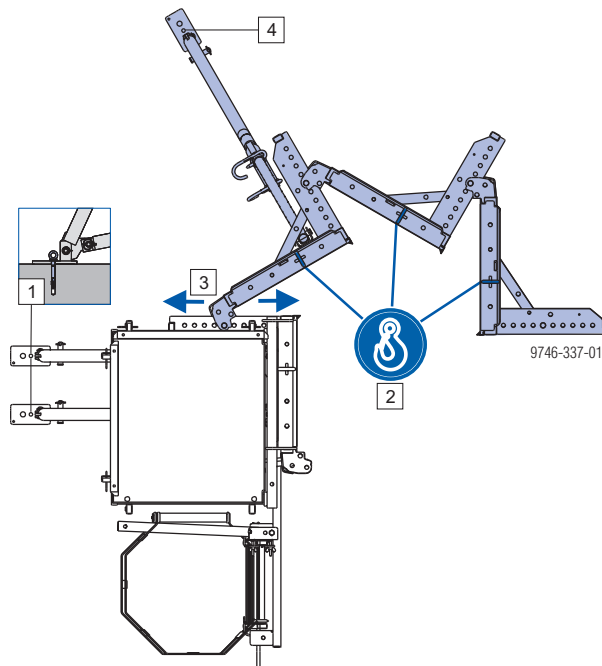
Fix the panels so that they cannot fold open and shut:

- Use a Connecting pin 10cm or spacer bolt on each Xlife panel KS to secure the unfolded panels against accidentally folding shut.

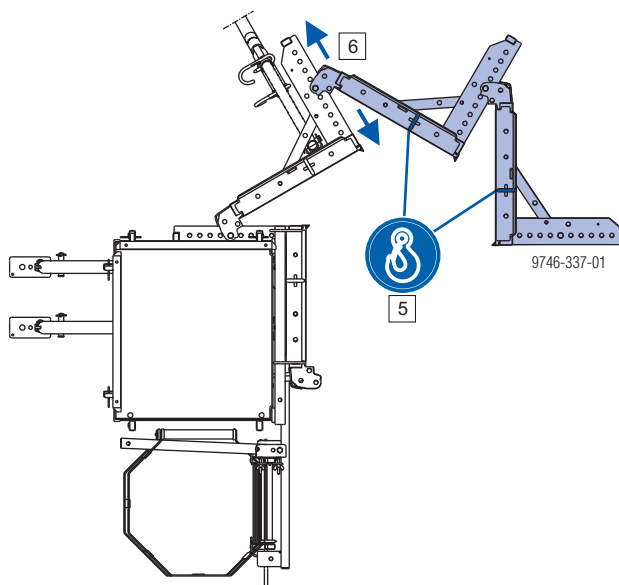


Adjustment procedure

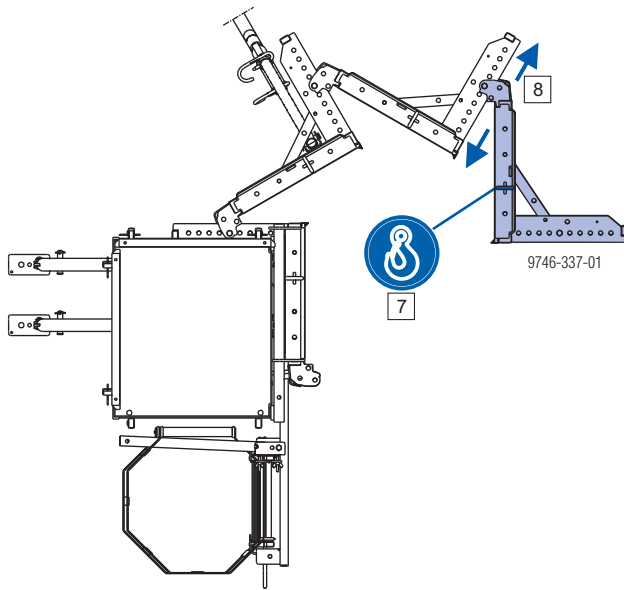
- 1) On the panel with the double panel struts, fix these to the ground with Doka express anchors 16x125mm.
- 2) At the positions shown, slightly lift the other 3 panels by crane.
- 3) Undo the spacer bolts between the panels, slide the panels to the desired position and fix them again with the spacer bolts.
- 4) Fix the panel strut of the freshly positioned panel to the ground, as shown in Point 1.



- 5) Attach the crane to the last two panels, at the positions shown, and slightly raise them.
- 6) Undo the spacer bolts between the panels, slide the panels to the desired position and fix them again with the spacer bolts.



- 7) Attach the crane to the last panel, at the position shown, and slightly raise it.
- 8) Undo the spacer bolts between the panels, slide the panels to the desired position and fix them again with the spacer bolts.



- 9) Move the spacer bolts for the Locking hook (on the last panel) to their new position (column width + 5cm). See the section headed 'Joining the formwork-halves together'.

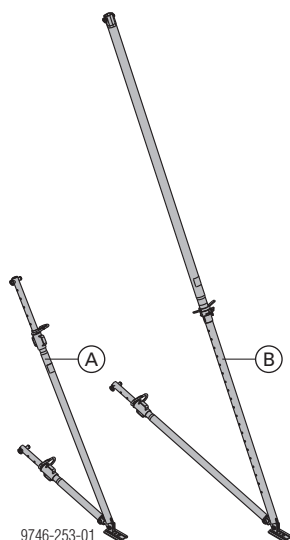
Note:

The column cross-sections can also be adjusted with the panels in the horizontal. See the section headed 'Assembling the column formwork'.

Plumbing accessories

Panel struts

Plumbing accessories brace the formwork against wind loads and make it easier to plumb and align.



A Panel strut 340 IB

B Panel strut 540 IB

Product features:

- can be extended in 8 cm increments
- Fine adjustment by screw-thread
- All parts are captive, including the telescopic tube which has a safety stop to prevent dropout



WARNING

Risk of the formwork tipping over!

- ▶ Formwork panels must be held stable in **every phase** of construction work!
- ▶ Observe all applicable safety regulations!
- ▶ If **high wind speeds** are likely, and when work finishes for the day or before prolonged work-breaks, always take extra precautions to fix the formwork in place.

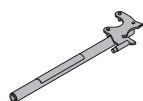
Suitable precautions:

- set up the opposing formwork
- place the formwork against a wall
- anchor the formwork to the ground (e.g. with Framax floor fixing plates)
- ▶ The safety pin is only for rough adjustment of the plumbing accessory. Do not attempt to remove or release the safety pin under load.



Universal dismantling tool

For easy operation of the spindle nuts.



Items required for shoring each column formwork

Formwork height	Panel strut 340 IB	Panel strut 540 IB	Prop head KS EB
up to 3.90 m	3	-	6
up to 6.60 m	-	3	6

The values apply where the wind pressure $w_e = 0.65 \text{ kN/m}^2$. This results in a peak velocity pressure $q_p = 0.5 \text{ kN/m}^2$ (102 km/h) where $c_{p, \text{net}} = 1.3$. In cases where higher wind pressure is encountered, the number of struts must be determined by static calculation!



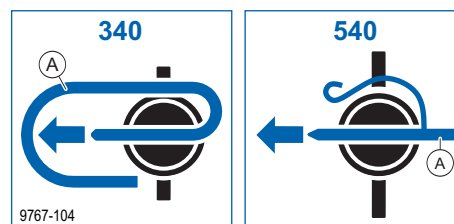
For more information, see the Calculation Guide 'Wind loads to the Eurocodes', or consult your Doka technician!

Pre-assembly

- ▶ Fix the plumbing accessory to the formwork and to the ground (see connection possibilities below for details).
- ▶ Precision adjustment of the plumbing strut with adjusting nut.

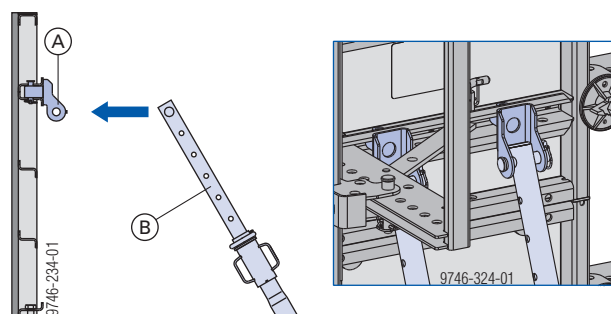


Safety pin (A) must be pushed all the way into the plumbing accessory.



Connection in the function profile

- ▶ Bolt the Prop head KS into the function profile and secure it with a linch pin.
- ▶ Bolt the panel strut onto the Prop head KS. (For details of how to locate the panel struts, see the section headed 'Assembling the column formwork').



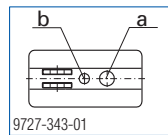
A Prop head KS EB

B Panel strut 340 IB or 540 IB

Fixing to the ground

- Anchor the plumbing accessories in such a way as to resist tensile and compressive forces!

Drilled holes in the footplate of the panel strut:

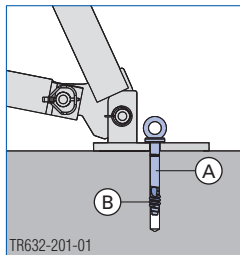


a ... Ø 26 mm

b ... Ø 18 mm (suitable for Doka express anchors)

Anchoring the footplate

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



A Doka express anchor 16x125mm

B Doka coil 16mm

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



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

Required safe working load of alternative anchors:

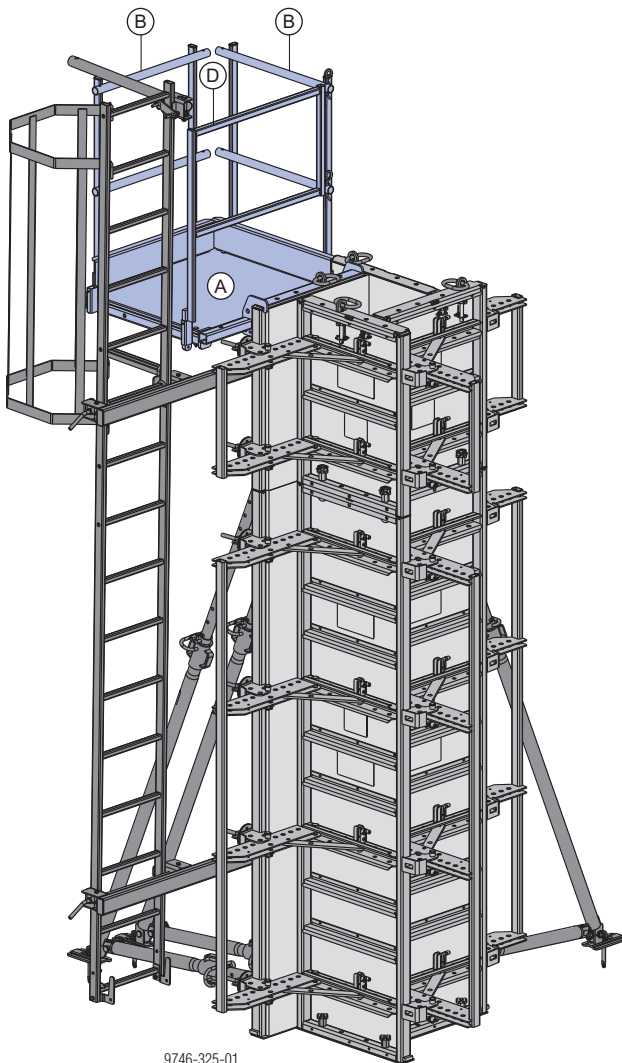
$F_d \geq 20.3 \text{ kN}$ ($F_{exist} \geq 13.5 \text{ kN}$)

Follow the manufacturers' applicable fitting instructions.

Platform configurations with Platform planking KS

Product description

Platform configuration without Ladder system XS



9746-325-01

- A Platform planking KS
- B Railing KS 1.00x0.85m
- D Counter railing platform planking KS

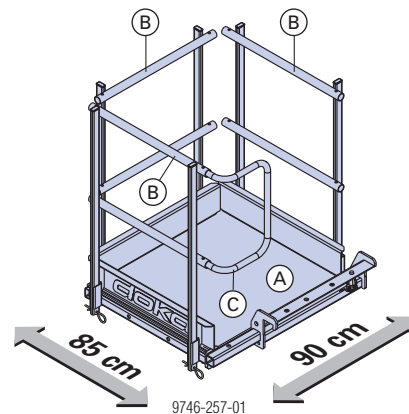
Permitted service load: 1.5 kN/m² (150 kg/m²)

Load Class 2 to EN 12811-1:2003

A safe working platform can quickly be erected using only a very few separate parts.

The main features:

- Platform is 0.90 m wide, permitting safe, convenient working.
- Level, unobstructed platform workspace, with no projecting parts.
- Is readied for operation in just a few simple steps.
- Does not take up much space in transit.
- Long service life thanks to its sturdy design and galvanized steel construction.



9746-257-01

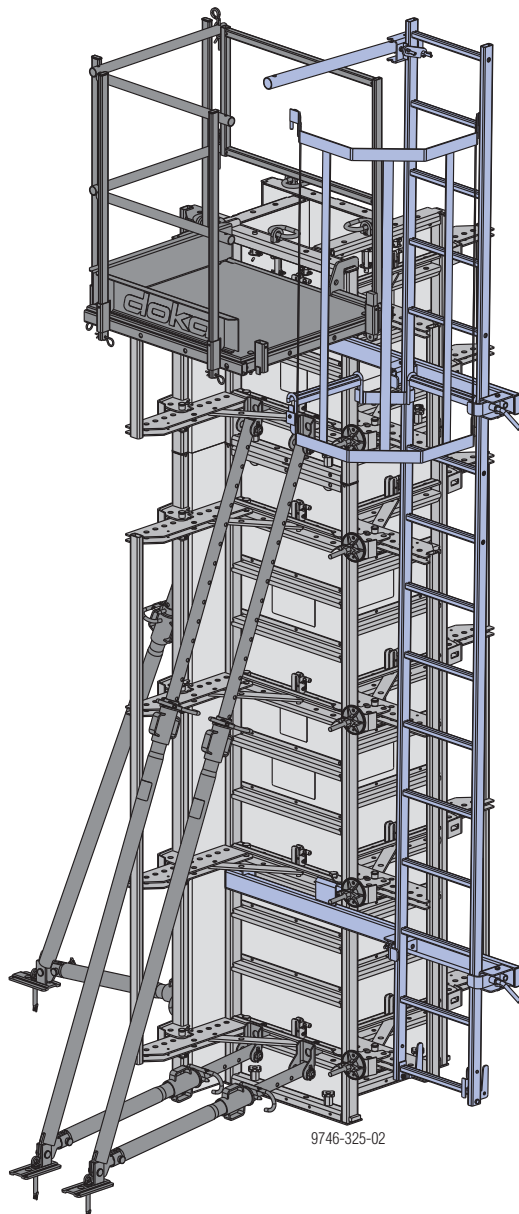
- A Platform planking KS
- B Railing KS 1.00x0.85m
- C Side railing KS 0.30m (incl. 2 tube linch pins)



NOTICE

When the platform is used **without a Ladder system XS**, three Railings KS 1.00x0.85m (B) and one Side railing KS 0.30m (C), are needed.

Ladder system XS with Platform planking KS



The Ladder system XS provides a safe and reliable way of climbing up and down column formworks:

- during pouring
- when placing reinforcing cages
- when opening/closing the formwork-halves
- when attaching/detaching the formwork-halves

Note:

The Ladder system XS must be implemented in such a way that all national regulations are complied with.



WARNING

- ▶ The Ladders XS may only be used as part of the XS system, and must NOT be used separately (as "lean-to" ladders).

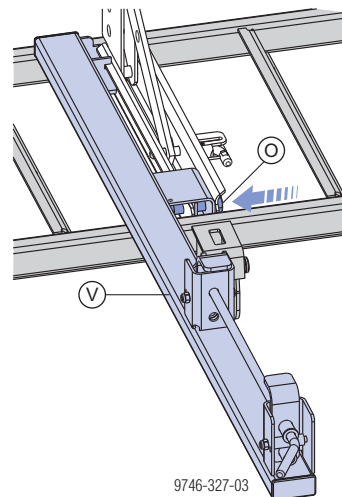
Assembly

Preparing the formwork

- ▶ Pre-assemble gang-forms face-down on a prepared flat area (see the section headed 'Assembling the column formwork').
- ▶ Mount the Platform planking KS to the formwork unit while it is lying on the assembly bench (see the section headed 'Assembling the column formwork').

Attaching connectors to the formwork

- ▶ Attach a Connector XS for Platform planking KS to the function profile towards the bottom of the formwork: Swivel the Connector XS for Platform planking KS (V) into place and secure it in the waling profile with a Connecting pin 10cm (O) and a spring cotter.



- ▶ Mount a Connector XS for Platform planking KS near the top of the formwork, in the same way.

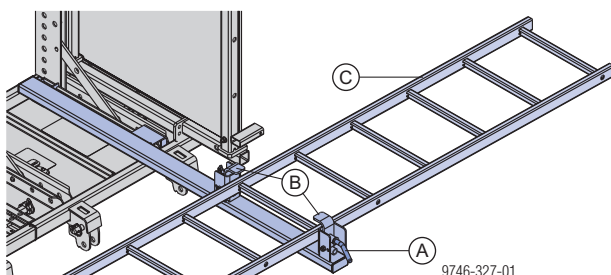
Fixing the ladder

- Pull out the push-in bolt, and pivot the two safety hooks out of the way.
- Place the System ladder XS 4.40m onto the Connector XS for Platform planking KS, with the hooking brackets facing downwards.
- Close the safety hooks.
- Insert the push-in bolt into whichever rung of the ladder is suitable for the height of the formwork, and secure it with a linch pin.

Note:

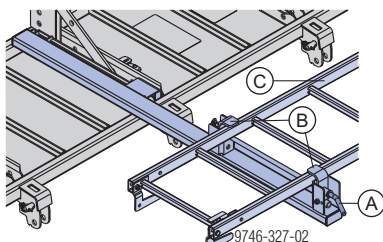
Follow the directions in the section headed 'Special instruction for formwork heights of 2.70m'.

Top Connector XS for Platform planking KS



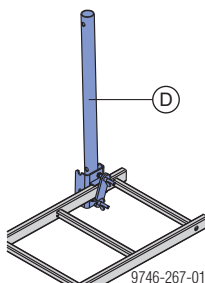
When planning to use the Securing barrier XS: The ladder must be bolted at least in the second ladder hole from the top to ensure it protrudes sufficiently to fix the Securing barrier XS.

Bottom Connector XS for Platform planking KS



- A Push-in bolt
- B Safety hook
- C System ladder XS 4.40m

- Mount the Securing barrier XS to the ladder, with fixing hooks and wing-nuts.



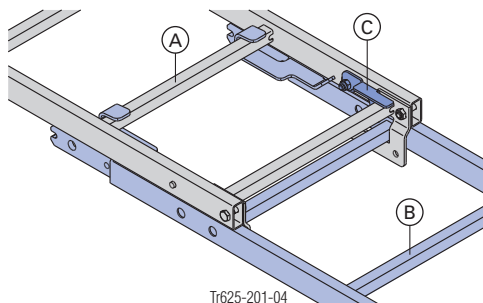
- D Securing barrier XS (pivoting)

The components needed for mounting the Securing barrier XS are capively attached to it.

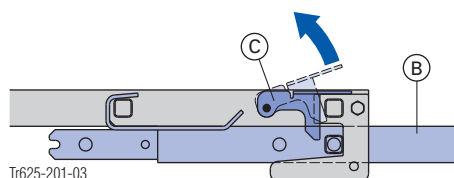
Ladder system XS for heights above 3.75 m

Telescoping ladder extension (for adjusting to ground level)

- To telescope the ladders past one another, lift the safety latch on the ladder and fix the Ladder extension XS 2.30m onto the desired rung of the other ladder.



Close-up

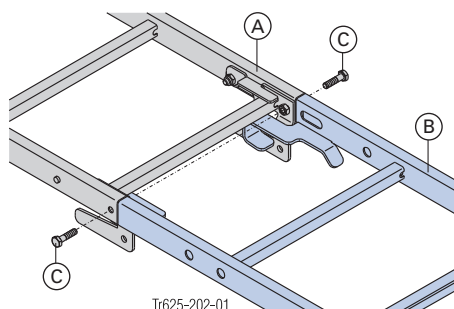


- A System ladder XS 4.40m
- B Ladder extension XS 2.30m
- C Securing latch

A telescoping join between two Ladder extensions XS 2.30m can be made in the same way.

Permanently fixed ladder extension

- Insert the Ladder extension XS 2.30m into the uprights of the System ladder XS 4.40m, with its hooking brackets facing downwards, and fasten it. Tighten the hexagon bolts only **slightly**!



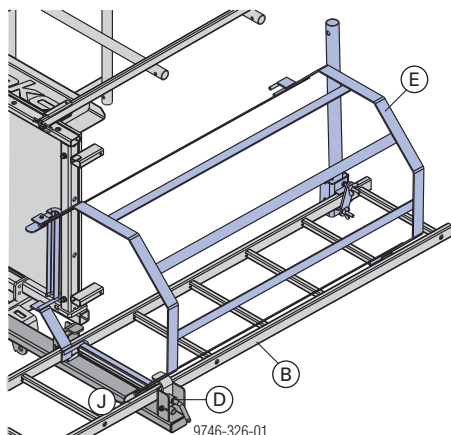
Hexagon bolts (C) are included in the scope of supply of the System ladder XS 4.40m and the Ladder extension XS 2.30m.

- A System ladder XS 4.40m
- B Ladder extension XS 2.30m
- C Hexagon bolts

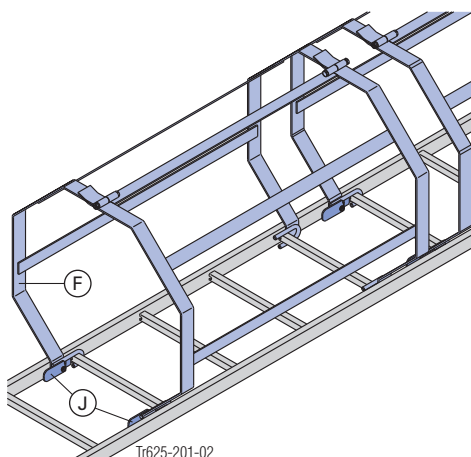
Two Ladder extensions XS 2.30m can be fixed together in the same way.

Ladder cage**NOTICE**

- ▶ Always observe all relevant safety regulations applying to the use of the ladder cage in the country in which you are operating (e.g. in Germany: BGV D 36).
- ▶ Fix the Ladder cage exit XS (**E**) (the underside must always be at the same height as the Connector XS for Platform planking KS (**D**)). The safety latches (**J**) prevent the cage being accidentally lifted out.



- ▶ Fix the Ladder cage XS 1.00m (**F**) onto the next available rung. The safety latches (**J**) prevent the cage being accidentally lifted out. Add further Ladder cages XS 1.00m, in each case fixing them onto the next available rung.

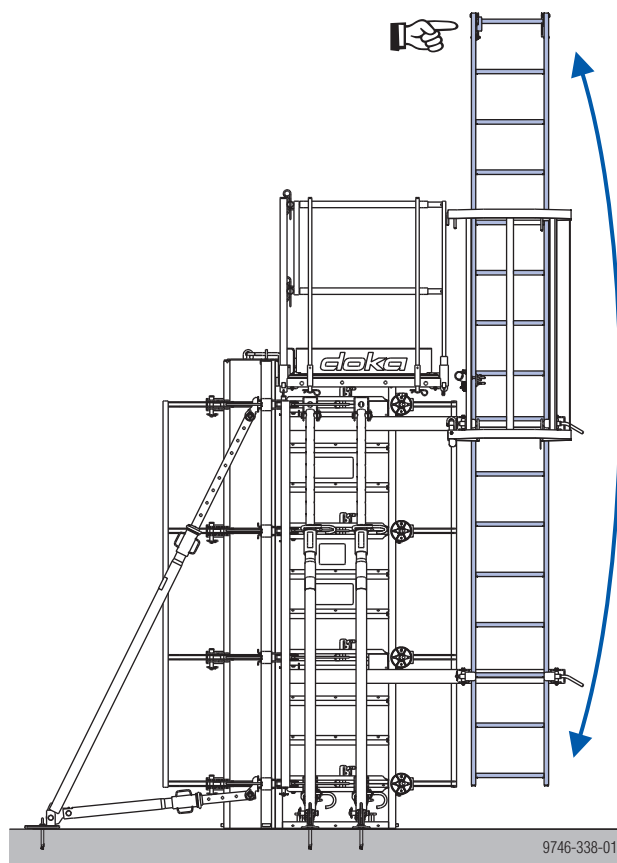


Special instruction for formwork heights of 2.70m

The ladder is normally always mounted with the hooking brackets at the bottom.

Exception:

On 2.70m high formworks, the ladder must be turned upside down and mounted with the hooking brackets at the top, as otherwise it cannot be bolted to the Connectors XS.



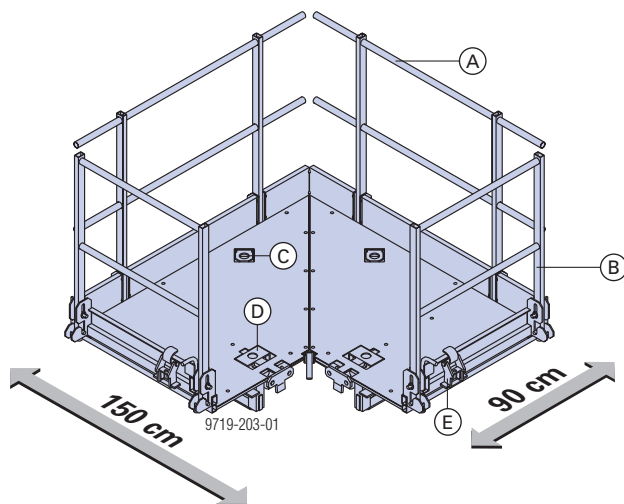
Items needed

Ladder system	Formwork half with platform		
	2.70 m-3.60 m	>3.60 m-5.70 m	>5.70 m-6.60 m
Connector XS platform planking KS	2	2	2
System ladder XS 4.40m	1	1	1
Ladder extension XS 2.30m	—	1	2

Ladder cage	Formwork half with platform			
	2.70 m-3.25 m	>3.25 m-4.30 m	>4.30 m-5.50 m	>5.50 m-6.60 m
Ladder cage exit XS	1	1	1	1
Securing barrier XS	1	1	1	1
Ladder cage XS 1.00m	—	1	2	3

Platform configurations with Doka column formwork platform 150/90cm

Product description



- A Rear railing
- B Side railing
- C Rear hoisting point
- D Safety hook (blue) = front hoisting point
- E Extra hoisting point (red) in parked position

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

Load Class 2 to EN 12811-1:2003

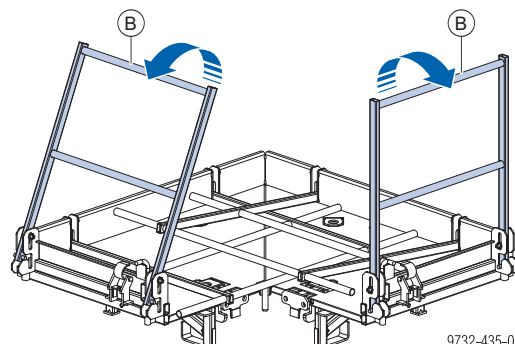
The main features:

- This pre-assembled, ready-to-use platform ensures convenient and safe working on column formworks. It can be used on columns of any cross-section.
- The slinging points recessed into the decking make it a quick and easy job to lift the platform by crane. Only one column formwork platform can be used on each column!
- Because the platform can be re-suspended so quickly, it can "migrate" from one formwork to the next during concreting. This means that one platform is sufficient to serve several column formworks.
- The practical swing-out side railings make it easy to get on or off the platform. Both the side railings can be fixed in either the open or closed position.

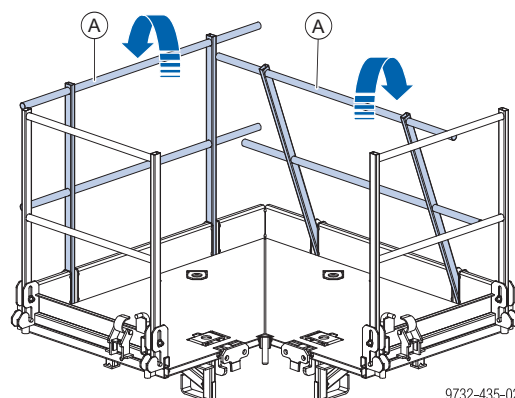
Combined with the Column formwork platform 150/90cm, the Doka Ladder system XS provides a safe and reliable way of climbing up and down column formworks.

Basic design concept

- Tilt up the side railings. They lock into place automatically.



- Tilt up the rear railings. They lock into place automatically.



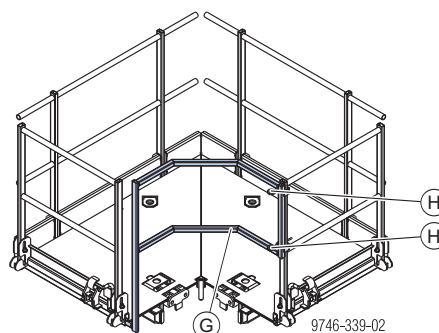
- A Rear railing
- B Side railing

The column formwork platform is now ready for use.

Note:

When folding the platform back down, first fold down the rear railings, and then the side ones.

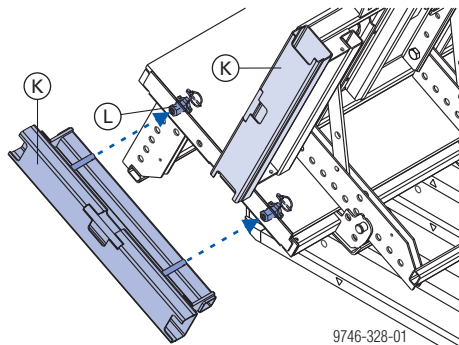
- Mount the Counter railing Col. formwork plat. 150/90cm and secure with Spring cotters 5mm.



- G Counter railing col. formwork plat. 150/90cm
- H Spring cotter 5mm

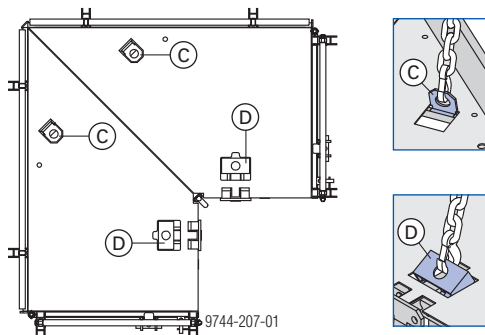
Preparing the formwork

- Fit 2 Platform adapters KS (**K**) onto the pre-assembled formwork-half and secure them with nuts and linch pins (**L**) .



Moving the platform

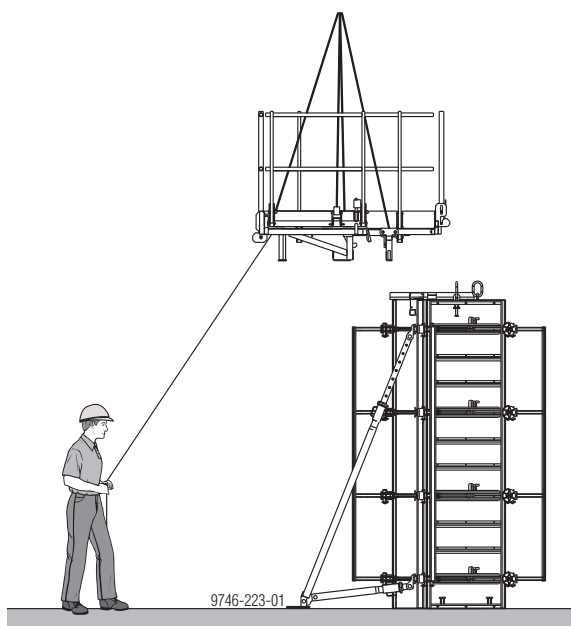
- Attach the crane to the locations shown.



C Rear crane suspension point

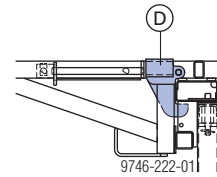
D Front crane suspension point

- Hook the platform onto the pre-mounted Platform adapter KS.



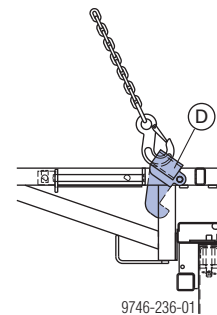
Suspending the platform exactly in position is made much easier when guide-cables are used.

- After the column formwork platform has been hung into place on the formwork, detach the four-part lifting chain.



The safety hook (**D**) drops down into its starting position and automatically secures the platform against being accidentally lifted out.

- When the platform is lifted, the lifting chain acts on the safety hook (**D**) and the platform is automatically unlocked.

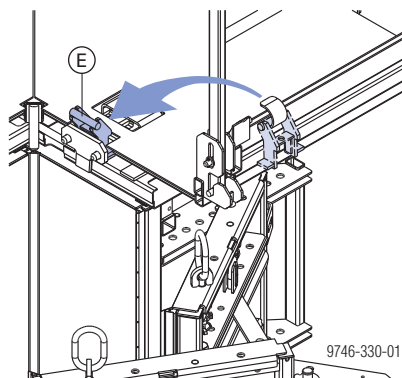


Follow the directions in the "Doka 4-part chain 3.20m" Operating Instructions!

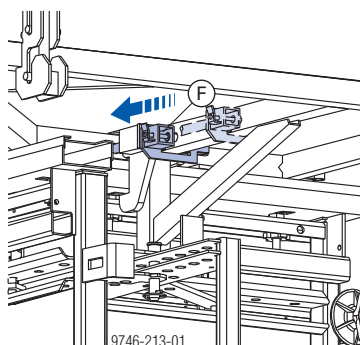
Moving the formwork and the platform in one piece

To save crane time, the Doka column formwork platform can also be repositioned jointly with the formwork:

- ▶ Hang the platform into place on the formwork (see the section headed 'Moving the platform').
- ▶ Move the extra hoisting point (E) from the parked position to the working position. Correctly positioned = tilted forward toward the formwork.



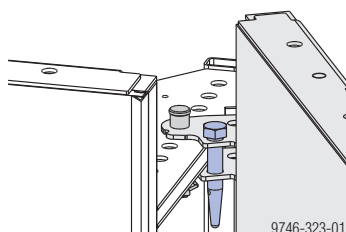
- ▶ Lock the extra hoisting point with the slide bolt (F) on the underside of the platform.



Make sure the slide bolt engages in the front-most position.

Fix the panels so that they cannot fold open and shut:

- ▶ Use a Connecting pin 10cm or spacer bolt on each Xlife panel KS to secure the unfolded panels against accidentally folding shut.



Reposition the formwork:

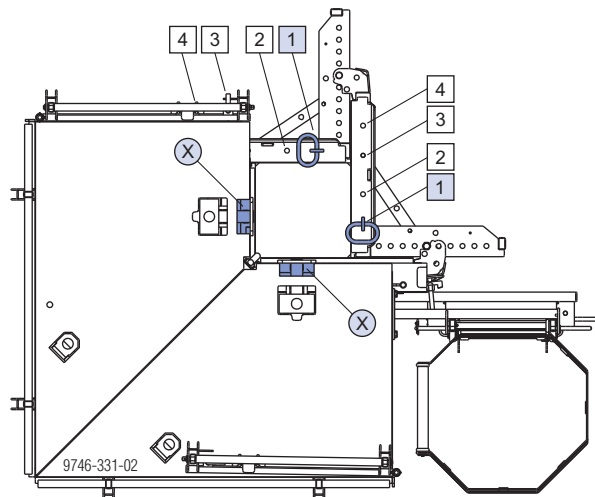


When an opened formwork unit is suspended from the crane, it must hang in the perpendicular!

- ▶ Adjust the Doka 4-part chain 3.20m to the centre-of-gravity position (shorten chain-lengths by 6 chain-links).

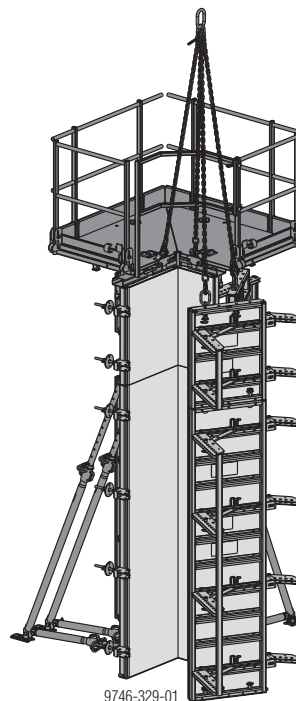
- ▶ Attach the crane to the lifting-rings with the Doka 4-part chain 3.20m.

Hoisting points on Doka column formwork platform 150/90



To ensure as perpendicular a position as possible when the formwork unit is suspended above the ground (either open or closed), use hoisting points X-1-1-X.

- ▶ Reposition the formwork unit in one crane cycle.



The platform can stay attached to the formwork throughout this entire operation.

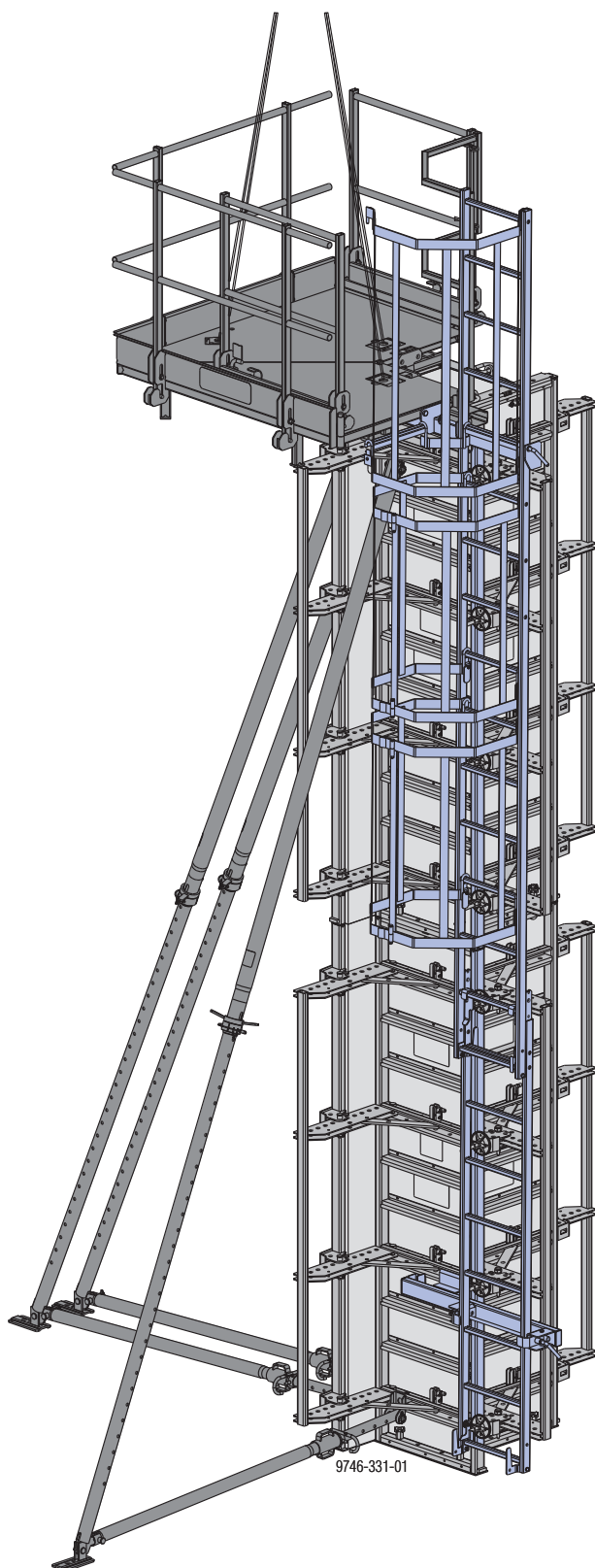


Follow the directions in the 'Doka 4-part chain 3.20m' Operating Instructions!

Separating the platform from the formwork

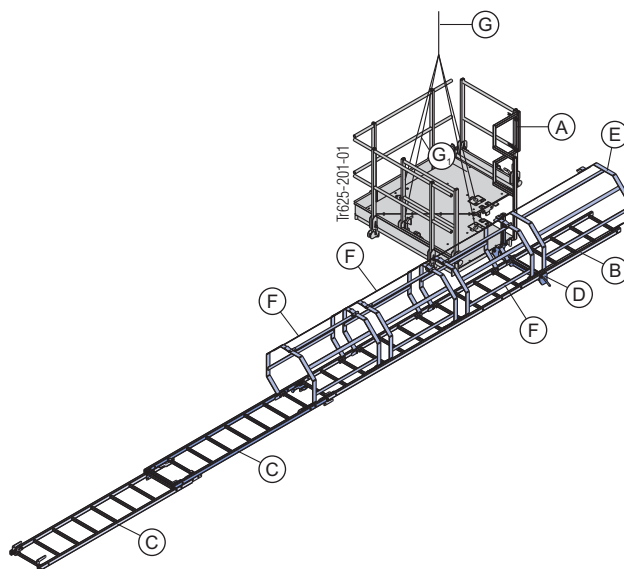
- ▶ Fix the slide bolt (**F**) back in the rear position and move the extra crane lifting point into the 'parked' position.
- ▶ Attach the crane to the locations shown in section 'Moving the platform'.

Ladder system XS on Doka column formwork platform 150/90cm



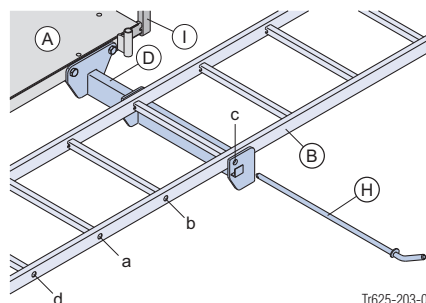
Pre-assembly

- Pre-assemble the Ladder system XS and the Column formwork platform 150/90cm flat on the ground, and hoist them onto the upright half of the formwork using the Doka 4-part chain 3.20m. (Shorten the 2 lengths of chain nearest the entry-point by removing approx. five chain-links!)



- | | |
|----------------|--|
| A | Doka column formwork platform 150/90cm |
| B | System ladder XS 4.40m |
| C | Ladder extension XS 2.30m |
| D | Connector XS column formwork platform |
| E | Ladder cage exit XS |
| F | Ladder cage XS 1.00m |
| G | Doka 4-part chain 3.20m |
| G ₁ | shortened chain-strands |

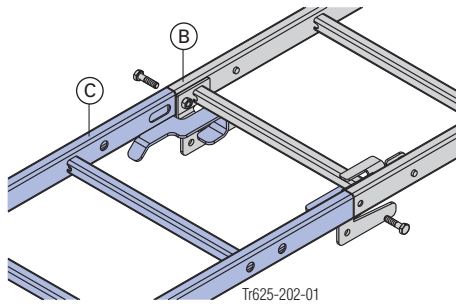
- Fasten the Connector XS for column formwork platform (D) to the Doka column formwork platform 150/90cm (A), using the threaded-fastener material supplied. (Only Column formwork platforms manufactured since 02/2002 come with pre-drilled holes for attaching the Connector XS. Older Column formwork platforms will be retrofitted with these holes.)
- Place the System ladder XS 4.40m (B) onto the Connector XS, with the hooking brackets facing downwards.
- Insert the push-in bolt (H) into the rung that is suitable for the height of the column, and twist to secure.



- a ... Hole for a column height of 2.70 m
 b ... Hole for a column height of 3.00 m
 c ... Hole for a column height > 3.30 m
 d ... Extra hole for special applications

Permanently fixed ladder extension

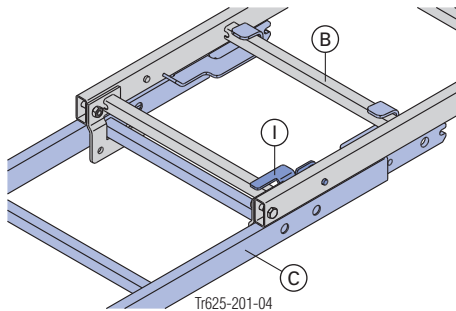
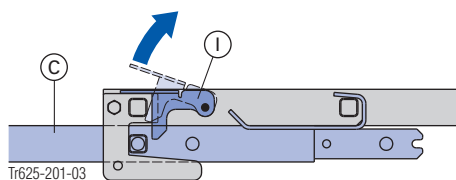
- ▶ Insert the Ladder extension XS 2.30m (C) into the uprights of the System ladder XS 4.40m (B), with its hooking brackets facing downwards, and fasten it with the threaded-fastener material supplied



Two Ladder extensions XS 2.30m can be fixed together in the same way.

Telescoping ladder extension (for adjusting to ground level)

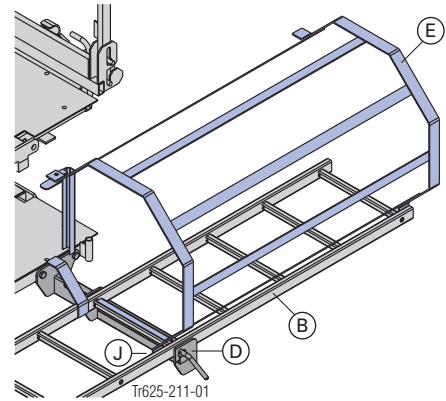
- ▶ To telescope the ladders past one another, lift the safety latch (I) on the ladder (B) and fix the Ladder extension XS 2.30m (C) onto the desired rung of the other ladder.

**Close-up**

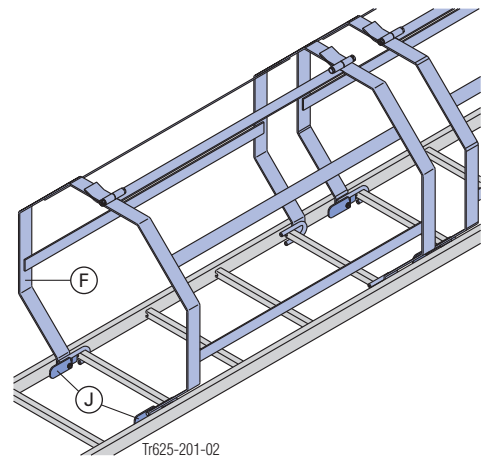
A telescoping joint between two Ladder extensions XS 2.30m can be made in the same way.

Ladder cage**NOTICE**

- ▶ Always observe all relevant safety regulations applying to the use of the ladder cage in the country in which you are operating (e.g. in Germany: BGV D 36).
- ▶ Fix the Ladder cage exit XS (E) (the underside must always be at the same height as the Connector XS column formwork platform (D)). The safety latches (J) prevent the cage being accidentally lifted out.

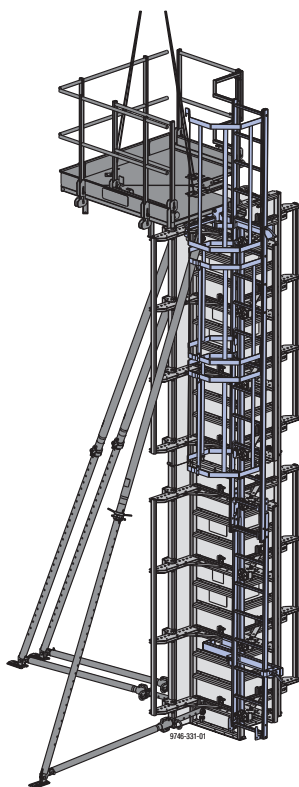


- ▶ Fix the Ladder cage XS 1.00m (F) onto the next available rung. The safety latches (J) prevent the cage being accidentally lifted out. Add further Ladder cages XS 1.00m, in each case fixing them onto the next available rung.

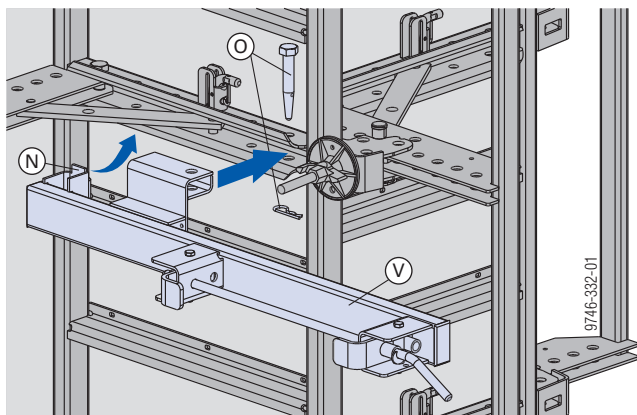


Assembly

- ▶ Hang the prepared column formwork platform, complete with the ladder, into place on the column formwork.

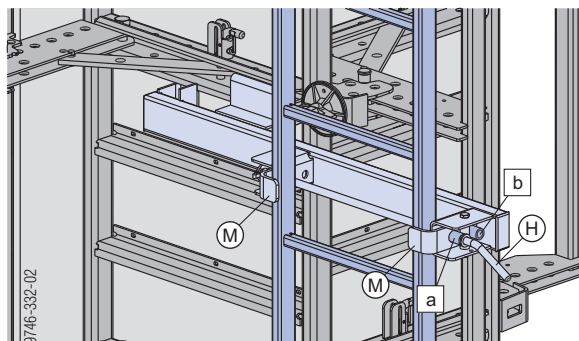


- ▶ Fit in the U-angle (**N**) under the function profile, swivel the Connector XS KS (**V**) into place and secure it in the function profile with a Connecting pin 10cm and a spring cotter (**O**) .



- ▶ Pull out the push-in bolt (**H**) , pivot the two securing hooks (**M**) out of the way, and insert the ladder.

- ▶ Snap-close the securing hooks (**M**) , re-insert the push-in pin (**H**) and twist it to secure it.
 - in the frontmost position (**a**) for one single ladder
 - in the rear position (**b**) in the telescoping zone (for 2 ladders)



Items needed

Ladder system	Formwork-half with Column formwork platform 150/90cm		
	2.70 m- 3.60 m	>3.60 m- 5.70 m	>5.70 m- 6.60 m
Connector XS column formwork platform	1	1	1
Connector XS KS	1	1	1
System ladder XS 4.40m	1	1	1
Ladder extension XS 2.30m	—	1	2

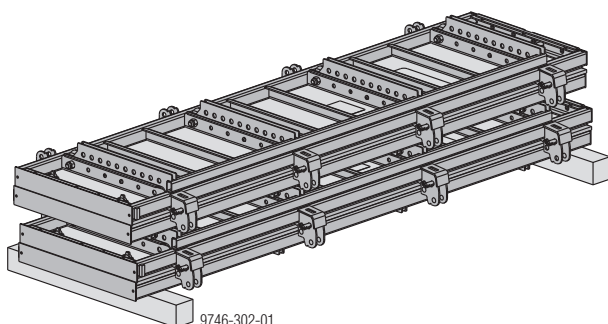
Ladder cage	Formwork-half with Column formwork platform 150/90cm			
	2.70 m- 3.15 m	>3.15 m- 4.20 m	>4.20 m- 5.40 m	>5.40 m- 6.60 m
Ladder cage exit XS	1	1	1	1
Securing barrier XS ¹⁾	1	1	1	1
Ladder cage XS 1.00m	—	1	2	3

¹⁾ The side railing of the Doka column formwork platform 150/90cm can be used as the securing barrier.

General

Transporting, stacking and storing

When folded closed, the Column formwork KS Xlife panels are easy to transport and store.

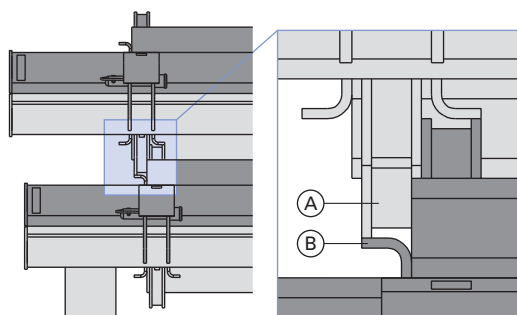


Example: Stacking dimensions for 4 Xlife panels KS 2.70m
Length = 276.0 cm, width = 90.0 cm, height incl. 10 cm squared timbers = 66.4 cm



NOTICE

When stacking the panels, make sure that the adjustment wing **(A)** is always resting on the cross profile **(B)** beneath it.

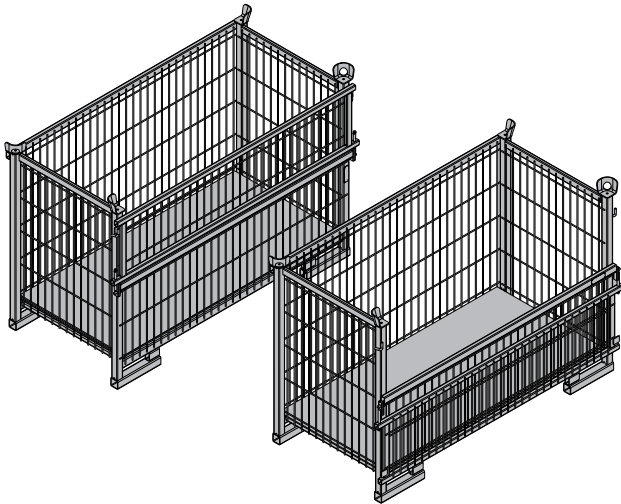


Utilise the benefits of Doka multi-trip packaging on your site.

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.

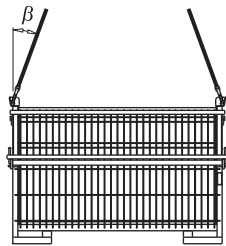
**Using Doka skeleton transport boxes
1.70x0.80m as transport devices**

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°!



9234-203-01

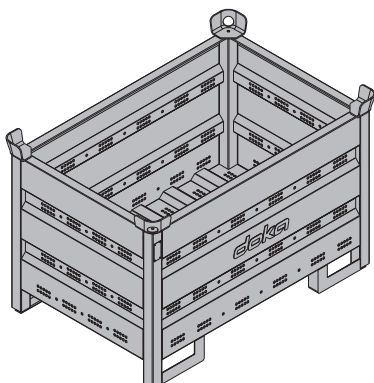
Repositioning by forklift truck or pallet stacking truck

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

Doka multi-trip transport box

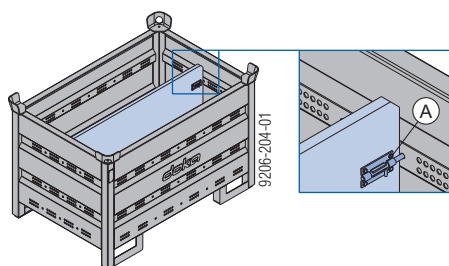
Storage and transport device for small items

Doka multi-trip transport box 1.20x0.80m



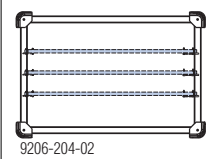
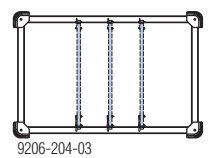
Max. carrying capacity: 1500 kg (3300 lbs)
Permitted imposed load: 7850 kg (17300 lbs)

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**.

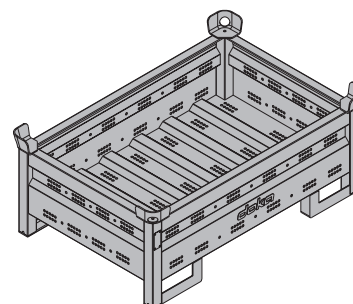


A Slide-bolt for fixing the partition

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.

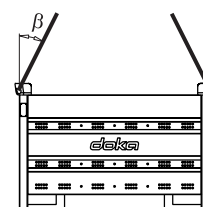
Using Doka multi-trip transport boxes as transport devices

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°!



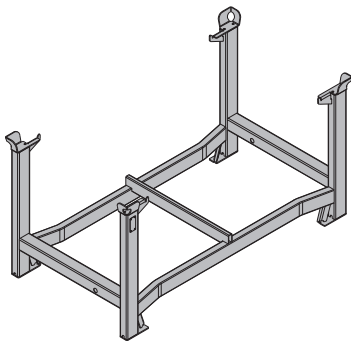
9206-202-01

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.

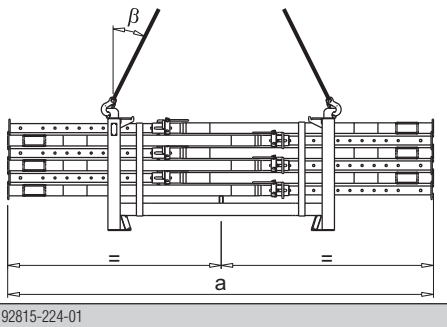
Using Doka stacking pallets as transport devices

Lifting by crane



NOTICE

- Multi-trip packaging items 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.
- Load the items centrally.
- Fasten the load to the stacking pallet (e.g. with strapping tape or lashing strap) so that it cannot slide or tip out.
- Sling angle β max. 30°!



92815-224-01

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

Repositioning by forklift truck or pallet stacking truck

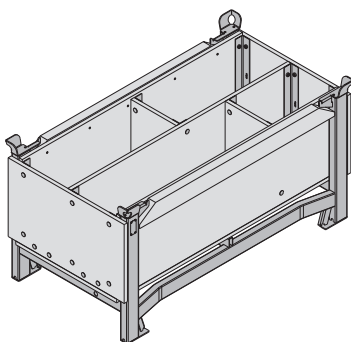


NOTICE

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

Doka accessory box

Storage and transport device for small items



Max. carrying capacity: 1000 kg (2200 lbs)
Permitted imposed load: 5530 kg (12190 lbs)

Doka accessory boxes as storage units

Max. n° of units on top of one another

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



NOTICE

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

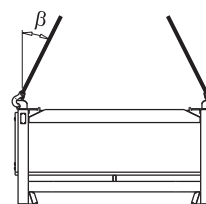
Doka accessory box as transport devices

Lifting by crane



NOTICE

- Multi-trip packaging items must be lifted individually.
- Use a suitable crane lifting tackle (e.g. Doka 4-part chain 3.20m). Do not exceed the permitted working load limit.
- When lifting accessory boxes to which Bolt-on castor sets B have been attached, you must also follow the 'Bolt-on castor set B' User Information booklet!
- Sling angle β max. 30°!



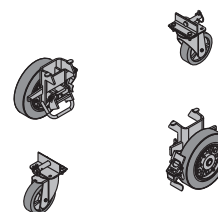
92816-206-01

Repositioning by forklift truck or pallet stacking truck

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

Bolt-on castor set B

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

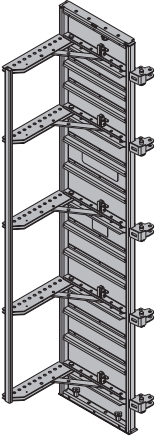
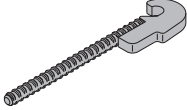
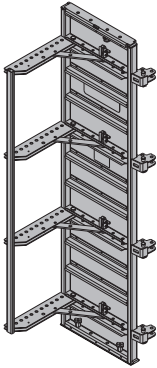
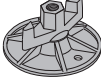
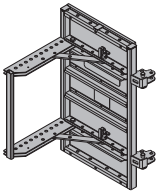
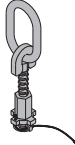
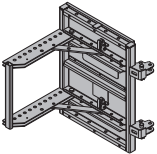

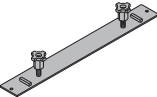
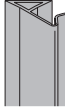
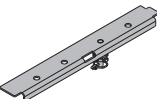

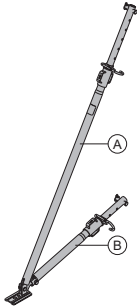


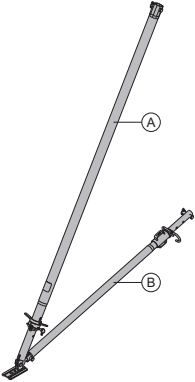

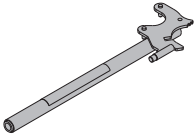
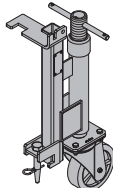


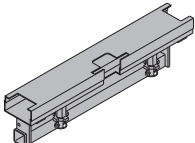
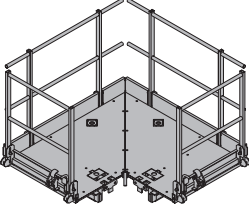
The Bolt-on castor set B can be mounted to the following multi-trip packaging items:

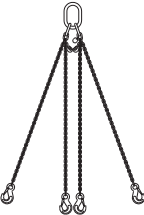

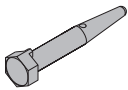
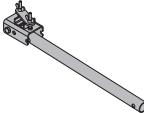
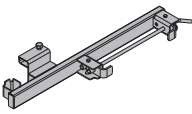
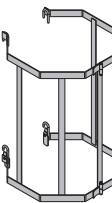
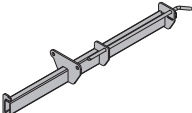
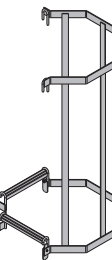
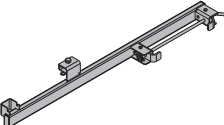

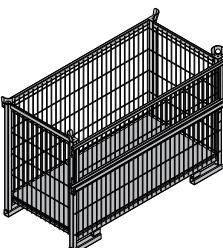
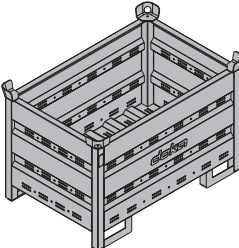
- Doka accessory box
- Doka stacking pallets
- Protective barrier Z pallets

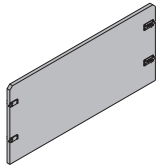
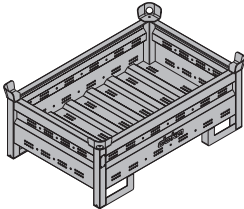
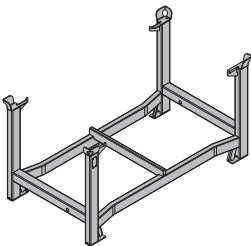
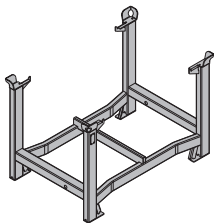
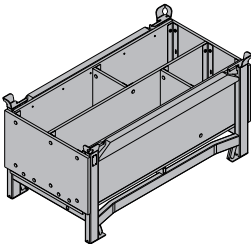
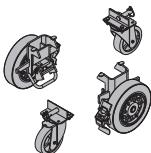


Follow the directions in the 'Bolt-on castor set B' User Information booklet!

	[kg]	Article N°		[kg]	Article N°
Xlife panel KS 3.30m Xlife-Element KS 3,30m <div>  <p>Galvanised Width: 80 cm Delivery condition: folded closed</p> </div>	185.0	580346500	Locking hook KS Verschlusshaken KS <div>  <p>Galvanised Length: 31 cm</p> </div>	0.83	580344000
Xlife panel KS 2.70m Xlife-Element KS 2,70m <div>  <p>Galvanised Width: 80 cm Delivery condition: folded closed</p> </div>	140.0	580337500	Super plate 15.0 Superplatte 15,0 <div>  <p>Galvanised Height: 6 cm Diameter: 12 cm Width-across: 27 mm</p> <p>DIN 18216</p> </div>	1.1	581966000
Xlife panel KS 1.20m Xlife-Element KS 1,20m <div>  <p>Galvanised Width: 80 cm Delivery condition: folded closed</p> </div>	66.0	580338500	Lifting ring Umsetzring <div>  <p>Galvanised Height: 20 cm</p> </div>	1.4	580340000
Xlife panel KS 0.90m Xlife-Element KS 0,90m <div>  <p>Galvanised Width: 80 cm Delivery condition: folded closed</p> </div>	56.0	580339500	Stacking screw KS Aufstossschraube KS <div>  <p>Galvanised Height: 20 cm</p> </div>	0.77	580345000
Protective plate KS Schutzleiste KS <div>  <p>Galvanised Length: 70 cm Width: 9 cm</p> </div>	3.3	580343000	Frontal triangular ledge KS 20 4.00m Frontal triangular ledge KS 15 4.00m Stirndreikantleiste KS <div>  <p>Grey</p> </div>	0.93 0.71	580347000 580359000
Protective plate KS top Schutzleiste KS oben <div>  <p>Galvanised Length: 65.3 cm Width: 8.4 cm</p> </div>	3.0	580357000	Framax triangular ledge 2.70m Framax-Dreikantleiste 2,70m <div>  </div>	0.38	588170000
			Panel strut 340 IB Elementstütze 340 IB consisting of: <div> <div> (A) Plumbing strut 340 IB Galvanised Length: 190.8 - 341.8 cm </div> <div> (B) Adjusting strut 120 IB Galvanised Length: 81.5 - 130.6 cm </div> </div> <div>  <p>Galvanised Delivery condition: folded closed</p> </div>	24.3 16.7 7.6	580365000 588696000 588248500

	[kg]	Article N°		[kg]	Article N°
Panel strut 540 IB Elementstütze 540 IB consisting of: (A) Plumbing strut 540 IB Galvanised Length: 310.5 - 549.2 cm (B) Adjusting strut 220 IB Galvanised Length: 172.5 - 221.1 cm	41.4	580366000	Counter railing col. formwork plat. 150/90cm Gegengeländer Stützenbühne 150/90cm Galvanised Width: 87 cm Height: 170 cm	8.0	588385000
 Galvanised Delivery condition: folded closed	30.7	588697000	Platform planking KS Fertigbelag KS Timber parts varnished yellow Steel parts galvanised Length: 90 cm Width: 85 cm	32.3	580360000
Prop head KS EB Stützenkopf KS EB Galvanised Length: 14 cm Width: 11 cm Height: 14 cm	0.85	580342000	Railing KS 1.00x0.85m Fertiggeländer KS 1,00x0,85m Galvanised	12.4	580363000
	3.7	582768000	Counter railing platform planking KS Gegengeländer Fertigbelag KS Galvanised Width: 91.6 cm Height: 170 cm	7.4	580361000
Universal dismantling tool Universal-Lösewerkzeug Galvanised Length: 75.5 cm	0.31	588631000	Side railing KS 0.30m Seitengeländer KS 0,30m Galvanised Length: 38 cm Width: 30 cm Height: 53 cm	2.6	580364000
	0.009	588633000	Shifting wheel KS Umsetzrad KS Galvanised Follow the directions in the "Operating Instructions"!	15.8	580358000
Doka express anchor 16x125mm Doka-Expressanker 16x125mm Galvanised Length: 18 cm	11.4	580341000			
	211.8	588382000			
Doka coil 16mm Doka-Coil 16mm Galvanised Diameter: 1.6 cm					
					
Platform adapter KS Bühnenanschluss KS Galvanised Length: 74 cm Width: 12 cm Height: 20 cm					
					
Doka column formwork platform 150/90cm Doka-Stützenbühne 150/90cm Galvanised Length: 173 cm Width: 173 cm Height: 130 cm Delivery condition: folded closed					
					

	[kg]	Article N°		[kg]	Article N°
Doka 4-part chain 3.20m Doka-Vierstrangkette 3,20m  <p>Follow the directions in the "Operating Instructions"!</p>	15.0	588620000	Ladder extension XS 2.30m Leiternverlängerung XS 2,30m  <p>Galvanised</p>	19.1	588641000
Connecting pin 10cm Verbindungsbolzen 10cm  <p>Galvanised Length: 14 cm</p>	0.34	580201000	Securing barrier XS Sicherungsschranke XS  <p>Galvanised Length: 80 cm</p>	4.9	588669000
Ladder system XS					
Connector XS KS Anschluss XS KS  <p>Galvanised Length: 115 cm</p>	13.2	580367000	Ladder cage XS 1.00m Ladder cage XS 0.25m Rückenschutz XS  <p>Galvanised</p>	16.5 10.5	588643000 588670000
Connector XS column formwork platform Anschluss XS Stützenbühne  <p>Galvanised Length: 123 cm</p>	10.0	588637000	Ladder cage exit XS Rückenschutz-Ausstieg XS  <p>Galvanised Height: 132 cm</p>	17.0	588666000
Connector XS platform planking KS Anschluss XS Fertigbelag KS  <p>Galvanised Length: 161.8 cm</p>	11.0	580368000			
System ladder XS 4.40m System-Leiter XS 4,40m  <p>Galvanised</p>	33.2	588640000			
			Multi-trip packaging		
			Doka skeleton transport box 1.70x0.80m Doka-Gitterbox 1,70x0,80m  <p>Galvanised Height: 113 cm</p>	87.0	583012000
			Doka multi-trip transport box 1.20x0.80m Doka-Mehrwegcontainer 1,20x0,80m  <p>Galvanised Height: 78 cm</p>	70.0	583011000

	[kg]	Article N°		[kg]	Article N°
Multi-trip transport box partition 0.80m Multi-trip transport box partition 1.20m Mehrwegcontainer Unterteilung	3.7 5.5	583018000 583017000	 Steel parts galvanised Timber parts varnished yellow		
Doka multi-trip transport box 1.20x0.80x0.41m Doka-Mehrwegcontainer 1,20x0,80x0,41m Galvanised	42.5	583009000			
Doka stacking pallet 1.55x0.85m Doka-Stapelpalette 1,55x0,85m Galvanised Height: 77 cm	41.0	586151000			
Doka stacking pallet 1.20x0.80m Doka-Stapelpalette 1,20x0,80m Galvanised Height: 77 cm	38.0	583016000			
Doka accessory box Doka-Kleinteilebox Timber parts varnished yellow Steel parts galvanised Length: 154 cm Width: 83 cm Height: 77 cm	106.4	583010000			
Bolt-on castor set B Anklemm-Radsatz B Painted blue	33.6	586168000			

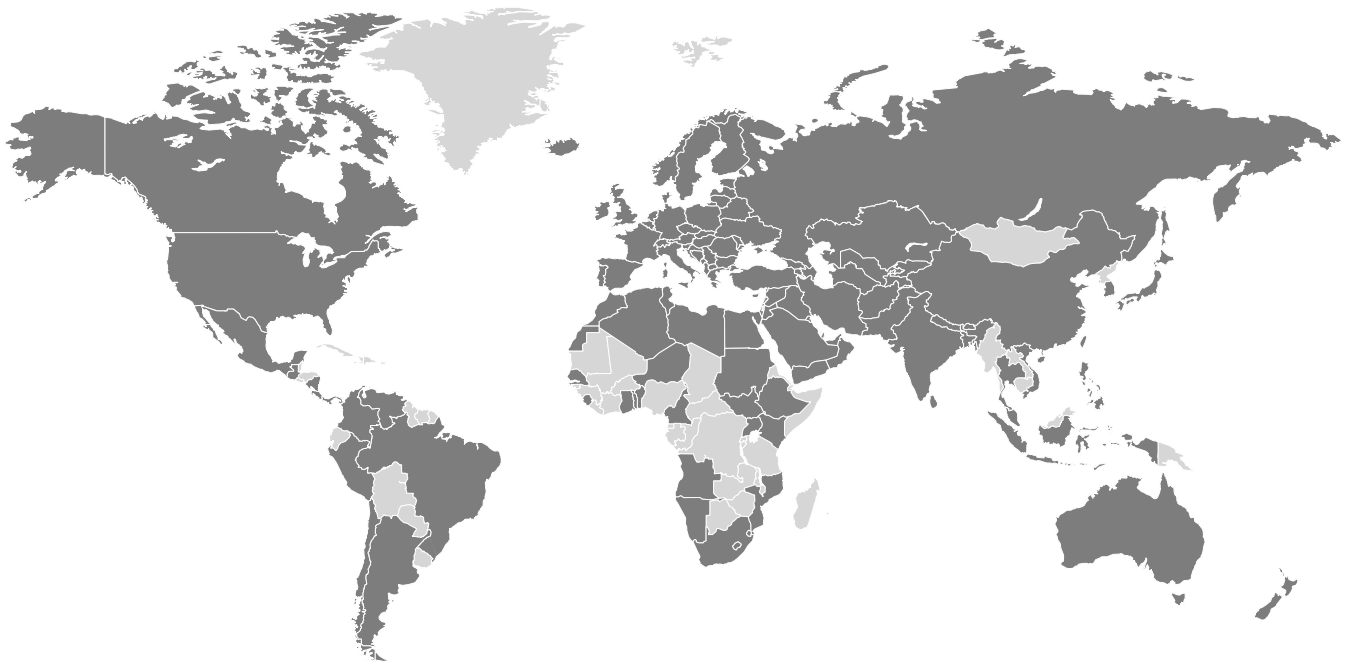
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