

# The Formwork Experts.

# Alternative methods of assembly

Panel floor formwork Dokadek 30

# **User Information**

Instructions for assembly and use (Method statement)



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# Method statement overview

### NOTICE

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- This document is valid only in combination with the basic document(s): 'Panel floor formwork Dokadek 30' User Information booklet.
- When using Dokadek 30 at structure edges, follow the directions in the 'Structure edge' User Information booklet.





- <sup>1)</sup> 2 platform stairways are needed for lifting the panels and hooking them into place.
- <sup>2)</sup> From room heights of 3.80 m upward, the assembling tool extension 2.00m is also needed.

<sup>3)</sup> Head part painted yellow.

<sup>4)</sup> For more information, please contact your Doka technician.

# Operating with assembling tool and suspension tool from ground level

The Dokadek suspension tool is for lifting and engaging Dokadek panels.

### Note:

The Dokadek suspension tool is not a substitute for the Dokadek assembling tool B.

### Features:

- Usable from floor level at floor-to-ceiling heights up to 4.00 m (with platform stairway, up to 4.20 m).
- Panels beside the wall can be pre-lifted in preparation for propping. The Dokadek assembling tool B is the only permissible tool for use when propping the panels.
- Installation of the Doka floor props with Dokadek heads (support head) can be assisted with the suspension tool.

## **Practical example**



A Dokadek suspension tool

The person with the suspension tool uses it to guide the panel and to take some of the weight.

# **Closing the formwork**

- Adjust the Dokadek suspension tool to the required length (= approx. floor-to-ceiling height minus 1.00 m).
- > Persons 1 and 2: Lift the panel off the floor.



Person 3: Engages the panel at the midway point with the Dokadek suspension tool.



A Position of Dokadek suspension tool

> Persons 1, 2 and 3: Hook the panel into the heads.



A Dokadek suspension tool



Make sure that the panel is correctly fitted onto the pin of the head.

Person 1: Position the suspension tool off-centre in the outside cross profile of the panel and lift up the end for propping.



D Dokadek panel



- A Position of Dokadek suspension tool
- E Position of Dokadek assembling tool B
- Person 2: Hook the assembling tool into the middle of the outside cross profile of the panel, raise the panel and secure the assembling tool so that it cannot tip over.

### Installation situation, floor prop with head

Engagement of the Dokadek heads with suspension tool.



### Close-up A



# Stripping the formwork

► In reverse sequence.

# **Operating with assembling tool from Platform stairway 0.97m**



- wheel-around, fold-down platform stairway made of light alloy
- working heights of up to 3.00 m (max. standing height 0.97 m)
- Stair width: 1.20 m

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### NOTICE

- 2 platform stairways are needed for hanging the panels into place.
- Minimum distance a from drop-off edge: 2.00 m



- Position the platform stairways far enough apart to enable the person with the assembling tool to raise the panel without obstruction.
- The platform stairway can be folded together for wheeling between the floor props.



Max. load-bearing capacity: 150 kg



Follow all country-specific regulations!

# **Practical example**



# Operating with DekLift 4.50m and assembling tool from ground level

The DekLift may only be used for easier handling of single Dokadek panels during formwork set-up and removal, especially on larger room heights. The integral prop-locking device makes it possible to tilt up the panels with props attached to them.



### NOTICE

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- The maximum permissible gradient for moving is 3%.
- There must be a flat, firm (e.g. concrete) base that is capable of supporting the load.
- Max. moving speed: 4 km/h (walking pace)
- Max. wind speed = 30 km/h
- A base gradient up to 3 % is permissible when the DekLift is used for installation of Dokadek panels 1.22x2.44m.
- No base gradient is permissible when the DekLift is used for installation of Dokadek panels 0.81x2.44m.

Follow the directions in the '**DekLift 4.50m**' Operating Instructions!

# **Closing the formwork**

### Preparations

For more information, see the section headed 'Operating with assembling tool' in the 'Panel floor formwork Dokadek 30' User Information booklet.

### Mounting the 1st row of panels

### Note:

When working with the DekLift, the only panels that can be placed lengthways alongside a wall are 1.22x2.44m ones.

If 0.81x2.44m panels need to be used (e.g. for 45 cm thick slabs), an approx. 40 cm wide infill zone must be created alongside the wall first.



A Dokadek panel 1.22x2.44m

B Dokadek panel 0.81x2.44m

C Infill zone

### Without prop-locking device

### NOTICE

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From room heights of 3.80 m upward, the assembling tool extension 2.00m is also needed.

Place the panel down centrally on the DekLift and wheel it to the usage location.



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Check to make sure that the panel is properly engaged in the locating pins (A) and locating brackets (B) on the DekLift (wind lift-out protection).



Turn the crank-handle of the DekLift to raise the panel and bring it into a horizontal position.



Animation: https://player.vimeo.com/video/281620277

Place the first prop (plus corner head) beneath the panel and secure it with a wall clamp.



Make sure that the panel is correctly fitted onto the pin of the head.



Place the second prop (plus support head) beneath the panel and secure it with a Removable folding tripod.



Place an assembling tool beneath the panel. (Max. inclination of the assembling tool with respect to the perpendicular: 5°)



Place the third prop (plus wall head) beneath the panel.





Make sure that the panel is correctly fitted onto the pin of the head.



Slightly tilt down the DekLift and wheel it forward until the locating pins are clear.



Turn the crank-handle of the DekLift to lower it, then wheel it away. Meanwhile, the 2nd person secures the prop (incl. wall head).





The other floor props in the 2nd row of props can now be put up.

To allow the DekLift to be repositioned freely, any Removable folding tripods which would be in the way must be turned 180°.

### Before



### After



For 'Panel 1.22x2.44m and Removable folding tripod 1.20m' combinations, it is enough to set up the Removable folding tripods 1.20m as shown here.



 Secure the prop (plus wall head) with a Removable folding tripod.



Place the second panel down centrally on the DekLift.



Check to make sure that the panel is properly engaged in the locating pins (A) and locating brackets (B) on the DekLift (wind lift-out protection).



Turn the Removable folding tripod of the prop (plus support head) by 180° so that the DekLift can be moved around without hindrance.



Put up the next prop (plus support head) and secure it with a Removable folding tripod.



Turn the crank-handle of the DekLift to raise the panel and hook it into the heads.



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Check that the panel is correctly engaged in both heads.



Tilt the panel up and place the prop (plus wall head) beneath both panels.





Make sure that the panel is correctly fitted onto the pin of the head.



Support the panel with the assembling tool of the previous panel. (Max. inclination of the assembling tool with respect to the perpendicular: 5°)



Set up further panels in the same way, until only the planned infill zone is left unformed. Ensure stability during the set-up operations (see the section headed 'Ground rules' in the 'Panel floor formwork Dokadek 30' User Information booklet)!

### With prop-locking device

The prop-locking device makes it possible to fix a 'floor prop plus wall head' onto the panel. In this way, the panel can be tilted-up together with the floor prop plus wall head.

The prop-locking device cannot be used in the following situations:

- Floor props with corner head
- Panels 0.81x2.44m

# CAUTION

- Risk of damage to panel!
- Do not tilt panels forward.
- Always roughly adjust the length of the props to the room height.
- Take the prop-locking device out of the stand-by position.



Turn the crank-handle of the DekLift to raise the panel and hook it into the heads.



Make sure that the panel is correctly fitted onto the pins of both heads.



For room heights > 3.50 m, we recommend mounting the floor prop before the panel is cranked up to the desired height. Hook the pre-adjusted floor prop (incl. wall head) into the panel and fix it with the prop-locking device.







Tilt up the panel plus prop with the DekLift. One person stays by the floor prop to guide it.



Animation: https://player.vimeo.com/video/281620417

 Place a floor prop (plus wall head) beneath both panels.



Make sure that the panels are correctly fitted onto the pins of the head.





To make it easier to fit the prop under both panels after the panel has been tilted up, make a slight turning motion with the prop.

After tilting up the panel, use the assembling tool to remove the prop-locking device, and put it back in its stand-by position.



- Place an assembling tool beneath the panel. (Max. inclination of the assembling tool with respect to the perpendicular: 5°)
- > Put up the next panel, using the DekLift.

### Putting up further rows of panels

### Without prop-locking device

Place the panel down centrally on the DekLift.



Check to make sure that the panel is properly engaged in the locating pins (A) and locating brackets (B) on the DekLift (wind lift-out protection).



> Wheel DekLift to usage location.



Turn the crank-handle of the DekLift to raise the panel and hook it into the heads.



Make sure that the panel is correctly fitted onto the pins of both heads.

Support head



Wall head



> Tilt up the panel with the DekLift and place a floor prop (plus Wall head) beneath it.



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> Place an assembling tool beneath the panel. (Max. inclination of the assembling tool with respect to the perpendicular: 5°)

> Put up the next panel, using the DekLift.



Place a floor prop (plus Support head) beneath both panels.

Make sure that the panels are correctly fitted onto the pins of the head.



Remove the assembling tool and use it to support the next panel. (Max. inclination of the assembling tool with respect to the perpendicular: 5°)



Set up further rows of panels in the same way, until only the planned infill zone is left unformed. Ensure stability during the set-up operations (see the section headed 'Ground rules' in the 'Panel floor formwork Dokadek 30' User Information booklet)!

### With prop-locking device

The prop-locking device makes it possible to fix a 'floor prop plus Support head' onto the panel. In this way, the panel can be tilted-up together with the 'floor prop plus Support head'.

The prop-locking device cannot be used in the following situations:

- 'Floor props plus Wall head' on the broadside of a panel beside a wall.
- 0.81x2.44m panels supported by floor props and Removable folding tripods.

### CAUTION

Risk of damage to panel!

- Do not tilt panels forward.
- > Always roughly adjust the length of the props to the room height.
- > Take the prop-locking device out of the stand-by position.



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Turn the crank-handle of the DekLift to raise the panel and engage it in the heads.



Make sure that the panel is correctly fitted onto the pins of both heads.



For room heights > 3.50 m, we recommend mounting the floor prop before the panel is cranked up to the desired height.

> Hook the pre-adjusted floor prop (incl. Support head) into the panel and fix it with the prop-locking device.



Close-up



> Tilt up the panel plus prop with the DekLift. One person stays by the floor prop to guide it.



 Place a floor prop (plus Support head) beneath both panels.



Make sure that the panels are correctly fitted onto the pins of the head.





To make it easier to fit the prop under both panels after the panel has been tilted up, make a slight turning motion with the prop.

After tilting up the panel, use the Dokadek assembling tool to remove the prop-locking device, and put it back in its stand-by position.



- Place an assembling tool beneath the panel. (max. inclination of the assembling tool with respect to the perpendicular: 5°)
- Put up the next panel, using the DekLift.

### Levelling the formwork



For more information, see the 'Panel floor formwork Dokadek 30' User Information booklet.

Additional precautions for slab thicknesses of up to 50 cm



For more information, see the 'Panel floor formwork Dokadek 30' User Information booklet.

### Mounting guardrail systems



For more information, see the 'Panel floor formwork Dokadek 30' User Information booklet.

### Mounting fillers

For more information, see the 'Panel floor formwork Dokadek 30' User Information book-let.

# Pouring

### Permitted slab thickness [cm]<sup>1)</sup>

Panel size	Without additional pre- cautions	With additional pre- cautions <sup>2)</sup>	Flatness devia- tion as per DIN 18202, Table 3
1.22x2.44m	30		Line 6
1.22x2.44m	> 30 - 35	—	Line 5
1.22x2.44m	—	> 30 - 50	Line 6
0.81x2.44m	45		Line 6
0.81x2.44m	> 45 - 50		Line 5
0.81x2.44m	—	> 45 - 50	Line 6

<sup>1)</sup> when using Doka floor prop Eurex 30 top

 $^{2)}$  see the section headed 'Additional precautions for slab thicknesses of up to 50 cm' in the 'Panel floor formwork Dokadek 30' User Information booklet.

To protect the surface of the form-facing, we recommend using a vibrator with a protective rubber cap.



PU foam (e.g. Hilti CF-FW 500 or Würth UNI PUR) can be used to seal any gaps between the formwork and the walls.



# Stripping the formwork

### NOTICE

- Comply with the stipulated stripping times.
- Always strip out the formwork in reverse order.
- As well as the instructions given here, you must follow the instructions in the section headed 'Reshoring props, concrete technology and stripping out' in the 'Panel floor formwork Dokadek 30' User Information booklet.



The Dokadek stripping tool **(A)** provides an easy, safe way of detaching panels from the concrete where necessary.



### Used on Dokadek panels 1.22x2.44m



### Used on Dokadek panels 0.81x2.44m



### Dokadek stripping tool extension 1.50m

For increasing the length of the Dokadek stripping tool. It enables Dokadek panels at heights up to 4.50 m to be removed from the safety of floor level.

### Assembly

Slip the Dokadek stripping tool extension 1.50m on to the Dokadek stripping tool and secure with threaded fasteners.



- A Dokadek stripping tool extension 1.50m
- B Hexagon screw M12x60 DIN 931 8.8 + Spring washer A12 DIN 127 + Hexagon nut M12 DIN 934 8 (included in scope of supply) Width-across 19 mm
- C Dokadek stripping tool

### Preparations



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For more information, see the 'Panel floor formwork Dokadek 30' User Information booklet.

### Dismantling the floor props and panels

### NOTICE

- The prop-locking device must not be used when the formwork is being stripped out.
- Lower the props in the first row of panels to be stripped out, by approx. 2 cm (= approx. 1 turn of the adjusting nut).



- Person 1: Wheel the DekLift under the panel to be removed, and crank it up to the height of the panel.
- Person 1: Tilt up the DekLift and position it under the middle of the panel, so that the wind lift-out protection is activated.
  - Check to make sure that the panel is properly engaged in the locating pins (A) and locating brackets (B) on the DekLift (wind lift-out protection).



Person 2: Place an assembling tool beneath the 2nd panel. Max. inclination of the assembling tool with respect to the perpendicular: 5°).

A

Person 2: Remove the 1st and 2nd floor props and place them in a stacking pallet.

### NOTICE

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- Loosen the adjusting nut with a blow of the hammer and turn the floor prop to lower it.
- Bring the floor prop into a horizontal position.
- If necessary, open the fastening clamp and push the inner tube into the outer tube.
- > Lay the floor prop on the stacking pallet.



- Person 1: Tilt down the 1st panel with the DekLift and then turn the crank-handle to slightly raise the panel until it disengages from the heads.
- Person 1: Wheel the DekLift forward and crank down the panel.
- Persons 1 and 2: Take the panel off the DekLift and place it on a panel pallet.
- Person 1: Wheel the DekLift under the next panel to be removed, and crank it up to the height of the panel.
- Person 1: Tilt up the DekLift and position it under the middle of the panel, so that the wind lift-out protection is activated.
  - Check to make sure that the panel is properly engaged in the locating pins (A) and locating brackets (B) on the DekLift (wind lift-out protection).



Remove the assembling tool from the 2nd panel and place it beneath the 3rd panel. Max. inclination of the assembling tool with respect to the perpendicular: 5°).

- Remove the 3rd floor prop and place it in a stacking pallet.
- The dismantling procedure for the 2nd panel is the same as for the 1st panel.
- > Take down all the other panels in the same way.

# **Cleaning the formwork**

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For more information, see the 'Panel floor formwork Dokadek 30' User Information booklet.

# Reshoring

Before pouring the next floor-slab (i.e. above the one that has just been stripped), put up reshoring props.

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For more information, see the section headed 'Reshoring props, concrete technology and stripping' in the 'Panel floor formwork Dokadek 30' User Information booklet.



# Working from platform stairway and scissor-lift working platform

# !

### General information:

NOTICE

- Operators working off platform stairways and scissor-lift working platform can handle Dokadek panels up to a room height of 5.50 m.
- At an extension length of 5.50 m, the floor props have to be positioned with the outer tube at the top, as otherwise the folding tripods cannot be installed.
- Dokadek panels beside the wall can be prelifted in preparation for propping. The Dokadek assembling tool B is the only permissible tool for use when propping Dokadek panels.
- Installation of the floor props with Dokadek heads (support head) can be assisted with the suspension tool.

# Information relating to scissor-lift working platform:

- Always comply with the instructions of the scissor-lift working platform (wind loads, floor gradient, etc.)!
- Lifting force: min. 250 kg
- Length of the platform's working surface: approx. 2.50 m (for 2 persons plus width of the Dokadek panel); scissor-lift working platforms with telescopic working surface recommended.
- Recommended width of the platform's working surface:
  - 1.00 1.25 m
- Scissor-lift working platform must be suitable for outdoor use (wind loads).

### CAUTION

Do not change the height of the scissor-lift working platform while formwork set-up or stripping is in progress!





WARNING

Risk of tipping over!

When assembly of the Dokadek system is in progress with the scissor-lift working platform, it is not permissible for additional horizontal loads to occur (F<sub>H</sub> > 400 N).

# **Practical example**



# **Closing the formwork**

- Manoeuvre the scissor-lift working platform into place and position the platform stairways.
  - Height of the platform's working surface: approx. 2 m below the slab.
  - Maintain a distance of approx. 50 60 cm between upright floor prop and scissor-lift working platform.
  - Position the scissor-lift working platform with the telescoping end toward where the floor prop to be installed will stand.
- Persons 1 and 2: Lift the panel off the ground and step up the platform stairway.



- a ... approx. 2.0 m
- b ... 50 60 cm
- Persons 3 and 4: Take over the panel from persons 1 and 2 and lift it on to the scissor-lift working platform.





Dokadek panel can fall down!

After handing over the panel, persons 1 and 2 must exit the danger zone.

### WARNING

- It is not permissible to rest the Dokadek panel on the railing of the scissor-lift working platform!
- Comply with country-specific standards, regulations and laws, and with the manufacturer's operating instructions.
- > Persons 3 and 4: Hook the panel into the heads.



Make sure that the panel is correctly engaged in both heads.



Persons 3 and 4: Swing the free end of the Dokadek panel up. Person 1: Remove the platform stairways and using the assembling tool, prop the panel off the floor from outside.





### WARNING

- It is not permissible to swing the Dokadek panel up into position either by raising the scissor-lift working platform or by using the assembling tool from outside!
- Always swing the Dokadek panels up into position by hand.
- Person 1: Working on floor level, installs the floor prop with the assistance of person 3, working on the platform.





Make sure that the panels are correctly fitted onto the pins of the head.



 Re-position the scissor-lift working platform and set up the platform stairways.



Fully retract the platform before moving the scissor-lift working platform.

### Setting up next row of panels

Re-position the scissor-lift working platform and the platform stairways for the next row of panels.

# Repositioning the scissor-lift working platform when space is restricted

Space is restricted when, for example, there is not enough room between floor prop and wall to manoeuvre the scissor-lift working platform.

Prop the Dokadek panels with 2 assembling tools in the outermost holes and remove the floor prop between the assembling tools.



a ... allow space for width of scissor-lift working platform plus clearances for manipulation

# Stripping the formwork

► In reverse sequence.



The Dokadek stripping tool **(A)** can be used by an operator on the scissor-lift working platform as an easy, safe way of detaching panels from the concrete where necessary.



Used on Dokadek panels 1.22x2.44m



Used on Dokadek panels 0.81x2.44m





![](_page_27_Picture_0.jpeg)

# Near to you, worldwide

Doka is one of the world leaders in developing, manufacturing and distributing formwork technology for use in all fields of the construction sector.

With more than 160 sales and logistics facilities in over 70 countries, the Doka Group has a highly efficient distribution network which ensures that equipment and

technical support are provided swiftly and professionally.

An enterprise forming part of the Umdasch Group, the Doka Group employs a worldwide workforce of more than 6000.

![](_page_27_Figure_6.jpeg)

![](_page_27_Picture_7.jpeg)

www.doka.com/dokadek-30