

The Formwork Experts.

Doka floor prop Eurex 20 top 700

User Information

Instructions for assembly and use (Method statement)



doka

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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 sideguard 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 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.

Symbols used

The following symbols are used in this document:

DANGER This is a r

This is a notifier drawing attention to an extremely dangerous situation in which noncompliance 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.



Тір

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.





upbeat construction digital services for higher productivity

From planning through to completion - with upbeat construction we'll be moving construction forward and upping the beat for more productive building with all our digital services. Our digital portfolio covers the entire construction process and is being extended all the time. To find out more about our specially developed solutions go to <u>doka.com/upbeatconstruction</u>.

Product description

Doka floor prop Eurex 20 top 700

The Doka floor prop Eurex 20 top 700 is an adjustable telescopic steel construction prop that conforms to EN 1065. It is intended to be used as a vertical prop for temporary works equipment.



- A Head-plate
- B Inner tube
- C Fastening clamp
- D Adjusting nut
- E Toggle lever
- F Rating label
- G Outer tube
- H Baseplate

The main features:

- DIB (German Institute of Construction Engineering) approval n° Z-8.311-905
- EN 1065-compliant floor prop
- high load-bearing capacity
 - see the section headed 'Permitted carrying capacity'
- numbered pegging holes, for easier height adjustment



Quick connection:

Head adapters of various types can be attached in a crane-handling-safe manner with the spring-locked connecting pin

- Drop-out latch: For safety reasons, Doka props have latches to prevent the inner tube sliding out of the outer tube.
- special thread geometry, which makes the prop easier to release even when it is under high load
- When the prop is pushed in all the way, it still leaves a clear 10 cm gap so that the operator's hands are not trapped.
- elbowed fastening clamps, reducing the risk of injury and making the props easier to operate
- Galvanised, long-life constructional design

Removable folding tripod 1.20m

Is not substitute for bracing on supporting systems.

Only use for holding floor props upright!

The Removable folding tripod 1.20m is mainly intended to hold Doka floor props Eurex upright while they are being set up (see table below).

The pivot-mounted legs facilitate positioning close to walls and in corners, or elsewhere if space is at a premium.

Props and tripods have to be repositioned separately.

Setup:

Open the clamping lever.



> Open the legs of the tripod and place it in position.

- Slip the floor prop into the tripod.
- Close the clamping lever to secure the assembly.

Closing the clamping lever with the legs folded in secures the legs in this position for transport and storage.

Possible clamping ranges:

Doka floor prop	Outer tube	Inner tube
Eurex 20 top 400	Х	—
Eurex 20 top 550	Х	Х
Eurex 20 top 700	Х	Х
Eurex 30 top 350	Х	—
Eurex 30 top 400	Х	—
Eurex 30 top 450	Х	Х
Eurex 30 top 550	Х	Х
Eurex 60 550		Х

Instructions for assembly and use (Method statement)

Adaptation at edges of Doka floor tables

For details of the permitted load-bearing capacities, see the section headed "Permitted carrying capacity".



Follow the directions in the "Dokamatic table" User Information booklet!

Practical example



a ... Extended length max. 7.00 m

Using with Dokaflex 1-2-4 and Doka Xtra

Use of the 'Eurex 20 top 700 floor prop' with Dokaflex 1-2-4 and Doka Xtra is permitted up to a max. extension length of 6.00 m.



In applications of this nature, it is advisable to use a Doka load-bearing tower on account of the low weight of the individual components and the additional strength.



Follow the directions in the "Dokaflex 1-2-4" and "Doka Xtra" User Information booklets!

Doka floor prop Eurex 20 700 as temporary shoring

For details of the permitted load-bearing capacities, see the section headed "Permitted carrying capacity"

Practical example



Using on Doka floor tables

WARNING

It is not permitted to use Eurex floor props 20 top 700 on Doka tableforms.

For these heights, Eurex 20 top 550 floor props must be used in conjunction with Dokamatic table frames 1.50m.

Using with Floor-prop extension 0.50m

WARNING

- It is not allowed to use the 'Eurex 20 top 700 floor prop' with the Floor prop extension 0.50m, and the products' safety-first design in any case makes this impossible.
 - Alterations or modifications are strictly forbidden!

Setup and removal

NOTICE

I

For manual transport, grip the floor prop only by the outer and inner tubes.



Setting up with tripod

- > Set up Removable folding tripod 1.20m.
- With one foot against the baseplate to prevent slippage, raise the floor prop upright.



Put the floor prop into the Removable folding tripod 1.20m and fix it in place with the clamping lever. Before stepping onto the formwork, check again to make sure that the props have been correctly fixed in the tripods.



NOTICE

- Observe the safety rules of the working scaffold!
- > Set up the working scaffold.

Secure a rope underneath the head-plate and pull on the rope to extend the floor prop.



 Roughly adjust the height of the floor prop, using the fastening clamp.

The pegging holes are all numbered, which makes it easier to adjust the props to the same height.

- If you do transport the floor props with the lowering heads still attached, you must secure these with a Spring locked connecting pin 16 mm to prevent them dropping out. This is particularly important when they are transported in the horizontal.
- Insert a Lowering head H20 into the floor prop. Leave the correct amount of lowering play (a)!



Clearance **a** between wedge and head-plate: 6 cm



The lowering heads under edge primary beams must all be turned to the position in which the wedges can be knocked open when the formwork is stripped.



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With the prop upright, use the adjusting nut for precision adjustment.



- The fastening clamp (A) has to be pushed all the way into the floor prop.
 - Adjusting nut (B) has to be tightened into contact with the fastening clamp.



Setting up without tripod

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- To prevent toppling, use Supporting head H20 DF to secure intermediate props for floor formwork (see the User Information booklets for Dokaflex 1-2-4 or Doka-Xtra, as applicable).
- When using props as temporary reshoring, press them sufficiently tightly against the floor structure to ensure that they cannot topple.

Removal

Removal is the reverse of the setup procedure.

Bracing

NOTICE

Variant 1: Bracing clamp B with planks



Always hammer in the wedge from top to bot-tom!



Planks can be attached to the floor props as diagonal braces, using the Bracing clamp B.



Plank fastened to outer Plank fastened to inner tube



Recommended dimensions of plank for the Doka floor prop Eurex 20 top 700

Plank dimen- sions [cm]	α Outer tube	α Inner tube
2.4 x 10	≥ 14°	≥ 8°
3 x 10	≥ 14°	≥ 10°
2.4 x 12	≥ 24°	≥ 18°
3 x 12	≥ 24°	≥ 20°

Planks of these sizes can also be connected to the Dokamatic table frame (see Practical example).

Practical examples

Planks fastened to Dokamatic table frame 1.50m



Planks fastened to tableform superstructure



- A Bracing clamp B
- B Bracing plank (site-provided)
- C Doka floor prop Eurex 20 top 700
- **D** Dokamatic table frame 1.50m

Variant 2: Screw-on couplers 48mm 135 with scaffolding tubes

NOTICE

I

Before fitting the bracing, make sure that the holes in the floor prop and the 4-way head or Lowering head are correctly aligned (see Practical examples)!

Plank fastened to outer tube Plank fastened to inner tube



- A Screw-on coupler 48mm 135
- B Scaffold tube 48.3mm
- C Doka floor prop Eurex 20 top 700

! |

NOTICE

- The 4-way head or Lowering head must be fixed onto the floor prop before the screw-on couplers are mounted.
- If the screw-on couplers are mounted first, this makes it impossible to retract the floor prop all the way.
- Carefully screw on the screw-on couplers, so as not to damage the floor prop.

Practical examples

4-way head or Lowering head with 2 Doka beams H20



- A Screw-on coupler 48mm 135
- **B** Scaffold tube 48.3mm
- **C** Doka floor prop Eurex 20 top 700
- **D** Transition swivel coupler 48/76mm

4-way head or Lowering head with 1 Doka beam H20



- A Screw-on coupler 48mm 135
- B Scaffold tube 48.3mm
- C Doka floor prop Eurex 20 top 700
- D Transition swivel coupler 48/76mm
- E Swivel coupler 48mm

Note:

If there is 1 Doka beam H20 resting on the 4-way head or Lowering head, then an extra scaffolding tube must be attached so that the floor prop can be braced to the table frame.

Possible incorrect usages



9790-205-01



Baseplate must make full-sur-



Do not attempt to use floor props one on top of another.	Do not use anchor rods or lengths of rebar as substitutes for the pegs.
9790-206-01	0100-200-01





Technical condition

The following quality criteria define the statically permitted degree of damage or weakening.

Use is prohibited if the damage is more extensive.

Outer tube - inner tube

Head plate or baseplate bent out of shape

- a max. 1 mm outward and
- b max. 3 mm inward is permissible





Cracks in welds

not permissible



Threads

 must be greased over entire length and action must be smooth.

Inner tube

• When the inner tube is rotated inside the outer tube so that the U-bolt fixing-holes of both tubes are lined up, it must be possible to fully extend and retract the inner tube.

Widening

 of the pegging holes in the inner tube is permissible up to 2 mm.

Permitted carrying capacity

Used as free (non-system-dependent) construction props

Permitted capacities [kN] as a function of the extension length and the position of the outer tube (as per General Building-Inspectorate Approval Z-8.311-905)

ce*)

aorv

	Eurex 20 top 700		
	Bottom	Тор	Position of outer tube*
	C70	C70	Prop categor
Prop length [m]	D70	D70	to EN 1065
7.0	20.6	21.7	
6.9	21.5	22.6	
6.8	22.4	23.6	
6.7	23.3	24.5	
6.6	24.3	25.5	
6.5	25.1	26.3	
6.4	26.3	27.5	
6.3	27.4	28.6	
6.2	28.5	29.7	
6.1	29.7	30.9	
6.0	30.7	32.0	
5.9	32.1	33.9	
5.8	33.5	35.7	
5.7	35.1		
5.6	36.5		
5.5			
5.4	1		
5.3			
5.2	1		
5.1	1		
5.0			
4.9			
4.8		36.7	
4.7	36.7		
4.6			
4.5			
4.4			
4.2			
4.1			
4.0			
3.9			

*) Position of outer tube



For details of the permitted capacities of the i Doka floor props when used with the Dokaflex and Doka Xtra systems, please refer to the relevant User Information booklets.

Doka floor prop Eurex 20 700 as temporary shoring

Permitted load-bearing capacity when used as temporary reshores (props restrained): 35 kN up to 7.00 m prop length (with 2 Doka beams H20 as packers, up to 6.70 m prop length).



The increased load-bearing capacity applies only if the prop is set up with head-plate or, as applicable, baseplate directly against the underside of the slab (2 Doka beams H20 or a strip of formwork sheeting as packer permissible).

With increased load-bearing capacity



Without increased load-bearing capacity



- A Formwork sheet
- B Doka beam H20
- C Lowering head H20 or 4-way head H20



Transporting, stacking and storing

Loading capacity

Doka floor prop	Stacking pallet 1.55x0.85m	Multi-trip trans- port box 1.20x0.80m
Eurex 20 top 150	—	40
Eurex 20 top 250, 300 and 350	40	—
Eurex 20 top 400 and 550	30	—
Eurex 20 top 700	20	—
Eurex 30 top 250 and 300	40	—
Eurex 30 top 350, 400 and 450	30	_
Eurex 30 top 550	24	

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

NOTICE

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

Using Doka stacking pallets as transport devices

Lifting by crane

NOTICE

- Multi-trip packaging items may only be lifted one at a time.
- Use a suitable crane suspension tackle (e.g. Doka 4-part chain 3.20m).
 Do not exceed the permitted load-bearing capacity.
- Load the items centrically.
- Fasten the load to the stacking pallet so that it cannot slide or tip out.
- Spread angle β max. 30°!



	а
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 centrically.
- Fasten the load to the stacking pallet so that it cannot slide or tip out.

Bolt-on castor set B

The Bolt-on caster set B turns the stacking pallet into a fast and manoeuvrable transport device. Suitable for drive-through access openings > 90 cm.



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

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

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





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.





www.doka.com/floor-props