

Important notice:

For safe use of our products, please observe all relevant regulations issued by the local health and safety authorities in the country in which you are operating.

Certain illustrations in this brochure show the situation during formwork assembly and are therefore incomplete from the point of view of safety.

The instructions for function and use of the formwork given in this brochure must be strictly adhered to. If any deviations from these instructions are contemplated, revised static calculations must be produced for checking.

All materials must be inspected before use to ensure that they are in a safe condition. Any components that are damaged, deformed, or weakened due to wear, corrosion or rot must not be used.

Use only original Doka components as replacement parts.

Combining our formwork systems with those of other manufacturers could be dangerous and therefore requires special checking.

If required, we can provide trained personnel to give on-site instruction in use of the formwork.

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

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CONTRACTOR OF

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Dokaflex 1-2-4 the high-speed panel system

Small number of system components - all perfectly co-ordinated

on an adjacent floor prop where there is room for all the legs to be completely unfolded.





Detailed plans and measuring up are eliminated for all slabs up to a thickness of 30 cm

- Structural-design work, not required as 1-2-4 shows you the maximum spacings for all slabs up to 30 cm thick
- Reference marks on beams mean there is no need to measure up
- Easy fine adjustment just overlap the Doka formwork beams.
- You can tell at a glance that the formwork has been erected correctly
- Tough, hard-wearing components



No matter whether the beams are supported beneath, between or next to the marks, the maximum spacing is always plain to see.

1 mark = 0.5 m

Longest cantilevering of beam, and spacing of secondary beams

2 marks = 1.0 m

Widest spacing of floor props

4 marks = 2.0 m Widest spacing of primary

beams

Tip

As a rule of thumb, if the length of a room is an uneven measurement (5m, 7 m, 9 m ...), then the primary beams should be at right angles to it, rather than parallel. This makes more efficient utilisation of the potential of the system.



Here's how quick and easy Dokaflex 1-2-4 is to erect





Turn the lowering heads under peripheral sound to provide a strike the impact wedge when stripping the formwork. Turn the lowering heads under peripheral beams so that it is

Fast, clean striking

See the instructions on Page 48 when striking formwork from beneath wide-span concrete floor slabs.



Take out all the intermediate props and store them in the stacking pallet.



Lower the formwork by 6 cm. A blow of the hammer to the lowering head is all it takes.



Turn the secondary beams over onto their sides and pull them out. Leave the beams under the panel-joins in place.





- Adjust the primary beams to the correct floor height.
- Set up the intermediate props (max. spacing - 2 marks):
 Eit a supporting back H 20 DE onto the

Fit a supporting head H 20 DF onto the floor prop and secure it with the integral spring-steel buckle (p. 25).

It is not permitted to place loads on the floor formwork (e.g. beams, panels, reinforcements) until the intermediate props have been set up!





■ Lay the Dokadur panels (or plywood decking).

- Place the secondary beams on the primary beams, with an overlap.
 - Max. spacing: **1 mark** (clear to see, with no need for measuring)
- Be sure to place a beam (or double beam) wherever there is to be a joint in the plywood decking.



To make striking easier:

The mobile scaffold DF is a collapsible wheelaround platform made of light alloy. Its variable working height of up to 3.80 m (platform height 1.75m) makes it ideal for striking formwork in rooms of medium height.

Permissible load: 1.5 kN/m² Floor area of scaffold: 0.75 x 1.80 m

- Take off the Dokadur panels (or plywood decking).
- Use the beam fork to take down the secondary and primary beams, and place them in the stacking pallet.

Place the tripods and props in the handy stacking pallet. Shift floor props and lowering heads separately. When shifting floor props together with attached lowering heads, secure these with a spring-locked connecting pin, 16 mm, to prevent them falling out. This is particularly important when the props are transported in the horizontal!

Dokaflex 1-2-4 fits any groundplan

High-speed closures and adjustments make for rapid forming times

Infill zones are solved within the system. The uniform thickness of the form-ply and the easy lateral adjustability of the supportwork together minimise extra work required in the infill zones. All that remains to be done is to cut sheets to size - no accessories, no small parts.

Grid and flexibility - in one system

A consistent idea that effortlessly adapts to even the most complex groundplans. A truly logical system.

Dokaflex 1-2-4 system components also for slabs that are over 30 cm thick

Only 1 system on site

Using the same system components and the same lengths of beam (secondary beams = 2.65 m, primary beams = 3.90 m), it is just as easy to form slabs with thicknesses of over 30 cm.

Supporting the form-ply

Spacing of secondary beams: max. 1 mark = 0.50 m

Supporting the H 20 2.65 m secondary beams

Spacing of primary beams: max. 4 marks = 2.00 m

Supporting the H 20 3.90 m primary beams Props spaced as per table

		Max. allowable prop spacing [m]				
Floor thickness [cm]	Total load [kN/m²]	1.00	for a se beam : 1.25	lected p spacing 1.50	orimary- [m] of 1.75	2.00
30	9.66	2.03	1.66	1.38	1.18	1.04
35	11.22	1.78	1.43	1.19	1.02	0.89
40	12.78	1.56	1.25	1.04	0.89	0.78
45	14.34	1.39	1.12	0.93	0.80	0.70
50	15.90	1.26	1.01	0.84	0.72	0.63

These tables allow for a live load of 20% of the dead load of the wet concrete, but not less than 1.5 kN/m² (150 kp/m²). Deflection in mid-span has been limited to 1/500.

The high capacity of Doka Eurex floor props to DIN EN 1065 and Eco 20* floor props to ÖNORM B4009 (20 kN irrespective of extension) eliminates the need for any additional verification of the prop load.

* not in the sales range for Germany

Slab stop-ends and railings

The type of shoring used for slab stop-ends and floor-beams will depend upon the:

- Ioad
- size
- Iocation
- shoring height

You can choose between Dokaflex, Dokaflex tables, Aluxo and Staxo.

Ensure safety against overturning near edges!

Without floor-beam

In order for the horizontal forces to be safely transferred, the superstructure must be firmly attached to the bracing. The bracing may be fastened either to the secondary or primary beam. Either chains, ropes or panel props may be used for the bracing.

For work at dangerous heights, the secondary-beam elements with the working platform must be preassembled at ground level.

Where work platforms are erected on cantilevering floor formwork, the formwork must be secured against 'lift-off'.

Secondary beams with clamped-on beam-forming supports must be secured against horiz. pull-out.

The Formwork Experts

With floor-beam

Aluxo and beam-forming supports can be ideally combined with Dokaflex 1-2-4 where a floor-beam needs to be formed.

Dokaflex 1-2-4 can also be combined with the Dokaflex tables.

Floor-beams, slab stop-ends and railings are integrated in the **edge table**.

Dokaflex 1-2-4 in practice

Site: Gas-holder redevelopment, Vienna

Site: New premises for "MLP Softwarehaus", Wiesloch, Germany

Beam-forming support solutions for slab stop-ends and floor beams

The **beam-forming support 20** is the professional way of forming floor beams and slab stop-ends. In conjunction with the **'extension 60 cm for beam support'**, exact height adjustment to within 1 cm is possible up to 60 cm. This does away with timeconsuming in-situ timber make up. The beamforming support automatically clamps the formwork tight, resulting in clean concrete surfaces and grout tight edges.

How to use the beam-forming support

• Place the beam-forming support onto the H 20 secondary beam and push it up against the sidewall formwork.

The large support surface of the beam-forming support gives the sidewall formwork a high degree of (90°) angle accuracy.

Clamp the beam-forming support.

The diagonal bracing of the beam-forming support, ensures that the join between the formply panels is **automatically pressed together tightly**.

The result is a **clean concrete surface** with no grout loss.

Floor beams / slab stop-ends

Floor beams of between 10 and 30 cm in height

Floor beams of between 30 and 47 cm in height

Sidewall formwork:

- L H 20 timber formwork beam
- 4 x 8 cm squared timber for floor beams between 30 and 34 cm in height
- 8 x 8 cm squared timber for floor beams between 34 and 47 cm in height

between secondary beams	Position of beam- forming support
50.0 cm	On every 3rd secondary beam

Spacing between secondary beams	Position of beam- forming support
50.0 cm	On every 2nd secondary beam

Floor beams of between 47 and 70 cm in height

Sidewall formwork:

2 x H 20 timber formwork beams

н	Spacing between secondary beams	Position of beam- forming support
Up to 60 cm	50.0 cm	On every 2nd
From 60 cm	33.3 cm	secondary beam On every 2nd secondary beam

Floor beams of between 70 and 90 cm in height

Sidewall formwork:

- H 20 timber formwork beam, upright
- *) For very stringent dimensional requirements, we recommend placing a form-tie through the sidewall formwork.

н	Spacing between secondary beams	Position of beam- forming support
Up to 85 cm	41.7 cm	On every
From 85 cm	36.0 cm	On every secondary beam

Floor beams integrated into floor

Secondary beams parallel to floor beam

Floor beams of between 10 and 30 cm in height

Base formwork:

Height of squared timber = 30-H (cm)

Sidewall formwork:

□ H 20 timber formwork beam □ Squared timber 10 x 8 cm

Thickness of floor d	Spacing be- tween secon- dary beams for floor beam	Position of beam- forming support
20 cm	62.5 cm	On every 2nd
30 cm	41.7 cm	secondary beam On every 3rd secondary beam

Floor beams of between 30 and 47 cm in height

Sidewall formwork:

L H 20 timber formwork beam

- 4 x 8 cm squared timber for floor beams between 30 and 34 cm in height
- 8 x 8 cm squared timber for floor beams between 34 and 47 cm in height

Thickness of floor d	Spacing be- tween secon- dary beams for floor beam	Position of beam- forming support
20 cm	41.7 cm	On every 2nd
30 cm	33.3 cm	secondary beam On every 2nd secondary beam

Floor beams of between 47 and 60 cm in height

Sidewall formwork:

□ 2 x H 20 timber formwork beams

ams	Thickness of floor d	Spacing be- tween secon- dary beams for floor beam	Position of beam- forming support
	20 cm	31.25 cm	On every 2nd
	30 cm	25.00 cm	secondary beam On every 2nd secondary beam

Floor beams of between 60 and 70 cm in height

Sidewall formwork:

2 x H 20 timber formwork beams
 Height of squared timber
 = H-60 (cm)

6	Thickness of floor d	Spacing be- tween secon- dary beams for floor beam	Position of beam- forming support
	20 cm	40.0 cm	On every secondary beam
	30 cm	-	-

Form-ply 3-SO 21 mm and 3-SO 27 mm

Secondary beams perpendicular to floor beam

Floor beams of between 10 and 30 cm in height

Base formwork:

Height of squared timber = 30-H (cm)

Sidewall formwork:

□ H 20 timber formwork beam □ Squared timber 10 x 8 cm

Thickness of floor d	Spacing be- tween secon- dary beams for floor beam	Position of beam- forming support
20 cm	62.5 cm	On every 2nd
30 cm	41.7 cm	secondary beam On every 3rd secondary beam

Floor beams of between 30 and 40 cm in height

Sidewall formwork:

H 20 timber formwork beam
 Height of squared timber
 H-20 (cm)

Thickness of floor d	Spacing be- tween secon- dary beams for floor beam	Position of beam- forming support
20 cm	50.0 cm	On every 2nd
30 cm	41.7 cm	On every 2nd secondary beam

Floor beams of between 40 and 51 cm in height

Sidewall formwork:

 H 20 timber formwork beam
 Height of squared timber = H-40 (cm)

Thickness of floor d	Spacing be- tween secon- dary beams for floor beam	Position of beam- forming support
20 cm	41.7 cm	On every 2nd
30 cm	31.25 cm	secondary beam On every 2nd secondary beam

Floor beams of between 51 and 70 cm in height

Sidewall formwork:

- 🗅 H 20 timber formwork beam
- □ 5 x 8 cm squared timber for floor beams between 51 and 60 cm in height
- 10 x 8 cm squared timber for floor beams between 60 and 70 cm in height

Thickness of floor d	Spacing be- tween secon- dary beams for floor beam	Position of beam- forming support
20 cm	40.0 cm	On every secondary beam
30 cm	-	-

Doka multi-trip packaging

Exploit the advantages of Doka multi-trip packaging on the site.

Doka offers tried-and-tested means of streamlining transport and handling, and delivers in multi-trip packaging. Any unneeded packaging can simply be sent back to your nearest Doka branch.

Doka multi-trip transport box 1200 x 800

The ideal container for connection parts and other smaller components. Durable and stackable.

Ideal for all sizes of floor props, timber formwork beams, Dokadur panels,

Max. carrying capacity: 1500 kg Max. imposed load: 7900 kg

> It is ESSENTIAL to read the instructions in the manual supplied with the unit before starting to use it!

formwork sheets and folding tripods.

All sizes of Doka floor prop are

delivered ex works in the

With the bolt-on castor set (attached by auick-action connections), the stacking

pallet can easily be turned into a handy, manoeuvrable transport trolley. As it is

only 86 cm wide, it passes easily through

The bolt-on castor set consists of: 2 heavy-duty wheels (complete)

2 bolt-on castors (complete)

stacking pallet.

all standard doorways.

Max. carrying capacity:

Max. imposed load:

Galvanised - stackable - safe to shift by crane

1100 ka

5900 kg

The multi-trip transport box is used to deliver:

Lowering head H 20	40 units
Four-way head H 20	40 units
Beam forming supp. 20	35 units

Doka floor props

Doka stacking pallet

It is ESSENTIAL to read the instructions in the manual supplied with the unit before starting to use it!

Doka stacking strap 50

The perfect way of packing Dokadur panels

• Dokadur panels are delivered ex-works packed in stacking straps 50

The stacking strap is 3 things in one:

- Base rest profile
- Lashing strap
- Edge protection
- and is stable and safe.

The stacking strap 50 is the tidy, spacesaving way of storing and transporting Dokadur panels. It can also be used in conjunction with the wheelaround Doka stacking pallet, enabling even large stacks of panels to be moved around with no need for a crane.

2 stacking straps 50 are needed per stack of panels.

Dokadur panels	
21 mm	60 units
27 mm	50 units

Doka skeleton transport box 1700 x 800

The practical container for all small components - durable - stackable.

Max. carrying capacity: 700 kg Max. imposed load: 3150 kg

It is ESSENTIAL to read the instructions in the manual supplied with the unit before starting to use it! The skeleton transport box is used for delivering e.g.:

Remov. folding tripod35 unitsHandrail clamp S40 units

Tip Practical recommendations for forming floor-slabs economically

- Easy materials scheduling using the materials slide-rule and Tipos formwork planning program
- To protect the surface of the form-ply, use only vibrators with protective rubber caps
- Dokaflex 1-2-4 is ideal for use where the shoring heights are up to approx. 4.0 m. The height range above this is covered by the Dokaflex tables and Doka's Aluxo and Staxo load-bearing towers. For both these systems, Doka offers comprehensive user information material.

Site: "Alpenvorland" residential development, Amstetten, Austria

Sequence-optimised forming with no special planning

Dokaflex 1-2-4, the economical way to work:

- ✓ This easy-to-understand system needs little explaining and is quick to "get the hang of". Cost-cutting potential through man-hour reductions. "1-2-4" speeds up the operating sequence - no measuring up; makes checking very easy.
- ✓ Infill zones are managed within the system no need to fill gaps with in-situ formwork no closures in the sub-construction flexible, despite grid.
- ✓ Dokadur panels make for great economy:
 - high durability, thanks to impact-resistant plastic frame
 - surface is sealed with a special varnish
 - good concreting results, tight joins, no frame imprints
 - discourages workers from making off-cuts
 - no time-consuming panel changes
 - can be used on both sides
 - non-slip anti-skid surface, thanks to corundum additive in varnish
 - easy to clean using high-pressure cleaner

The forming time breaks down as follows:

The forming time comprises basic time, time for infill zones, extra work and contingency allowances.

Site: Hochdahl Arcades at Erkrath, Germany

Site: Weimar-Nord District Centre

Dokaflex tables for large areas of floor

The Dokaflex table turns Dokaflex 1-2-4 into a large-scale module

- Uses components from the Dokaflex 1-2-4 system
- The standard-format Dokaflex tables can be rented as complete units

2.50 x 4.00 m - 27 mm* and 21 mm 2.50 x 5.00 m - 27 mm* and 21 mm 2.00 x 4.00 m - 27 mm* 2.00 x 5.00 m - 27 mm*

* See your local Doka branch for range.

- Can start to pay off after as few as 2 uses
- Special sizes also possible where needed
- Ready-assembled special-format Dokaflex tables can be supplied by the Doka Readyto-Use Service

- Wedge-type connector makes props quick and easy to attach and detach
- Low stacking height when transported and stored
- Safe, fast shifting appliances save time and money
- Seamless forming in infill zones and on closures
- Perfected individual components make a major contribution to higher speeds
- Commissioning quantities are easy to tailor to the construction schedule - weekly cycles are no problem

Doka Eurex floor props: The "legs" of the Dokaflex table

- When the floor props are restrained in the table heads, this increases the maximum load-bearing capacities:
 - Doka Eurex 20 floor props: increase from 20 to 30 kN
 - Doka Eurex 30 floor props: increase from 30 to 40 kN
- Same capacity no matter how far extended
- For floor heights of up to 5.90 m
- Quick connection feature to Dokaflex table

Standard formats of Dokaflex tables

With 21 mm formwork sheet

2.50 x 4.00 m

With 27 mm formwork sheet

(only available in Austria!)

2.50 x 4.00 m

After the Dokaflex tables have been positioned, the gaps between them, and between the tables and the wall, are filled with Doka fitting board DF 27 mm.

Converting from 4 to 6 table heads:

The Dokaflex tables contain secondary beams that are predrilled to accept the Table head 30. This results in the tables being quickly converted for use with 6 floor props.

Example: Dokaflex table 2.50 x 4.00 m with 6 table heads

	П	đ	П	П	П	П
H-#-H-	_1		_1	_ Ŭ_	_	Ц
R=##===			-11	=Æ	Ŧ	Я
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				- 0		Π
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Measurements in cm

Attaching the floor props

The Table head 30 provides a firm link between the Doka H 20 timber formwork beams and Doka Eurex floor props.

Here's how the table head 30 works

The floor prop is quickly and securely fixed onto the Table head 30 with the aid of the double wedge. **N.B.**:

Where the Doka floor prop Eurex 20 550 is used, the Table head 30 can only be attached to the inner tube head plate.

Attaching the intermediate props

Intermediate props can be attached to the double primary beams very easily with the aid of the Intermediate head DF. This is necessary whenever greater floor thicknesses are encountered in a few storeys only, and permits rapid adaptation to the temporarily increased floor load.

Working from ground level, the Intermediate head DF is mounted onto the double primary beams together with the floor prop:

Structural design of standard-format tables

Max. floor-slab thicknesses [cm]

		Dokaflex table	Dokaflex table with extra props in mid-span	Dokaflex table with extra props in mid-span and at edges	
Table format	Model of prop				
2.50 x 4.00 m	Eurex 20	40	42 ^{*)}	45	
	Eurex 30	50	55 ^{*)}	65	
2.50 x 5.00 m	Eurex 20	30 *)	32 *)	32	
	Eurex 30	35 *)	42 *)	48	
2.00 x 4.00 m	Eurex 20	45	50 *)	55	
	Eurex 30	60	70 ^{*)}	80	
2.00 x 5.00 m	Eurex 20	37 *)	40 *)	40	
	Eurex 30	46 *)	52 ^{*)}	60	

*) Application note:

On projects with stringent requirements in respect of the quality of the soffits, attention must be paid to the different deflections occurring at the boundaries between the tables and areas formed with Dokaflex 1-2-4.

Safety note:

The Intermediate heads DF with the attached intermediate props do not provide any additional stability to the Dokaflex table. The table must already have sufficient stability in any case, by virtue of its design!

When the table is shifted, the intermediate props must be retracted or removed.

Filling dosure zones

where form ply can be supported on projecting beams

Form ply 21 mm										
Supported on Dokaflex table:										
	min. 12.5 cm									
	╴ ╶╴									
	<u>.</u>									
Table format	Prop model	l	Floor	thick	mess [cm]					
2.50 x 4.00 m	Eurex 20 Eurex 30	30 30	20 20							
2.50 x 5.00 m	Eurex 20 Eurex 30	29 30	20 20							
		35	40	A _{max}	[cm]					
Table format	Prop model		Floor	thick	ness [cm]					
2.50 x 4.00 m	Eurex 20 Eurex 30	37 48	30 30	20 20						
2.50 x 5.00 m	Eurex 20 Eurex 30	29 35	29 30	20 20						
		25	30	35 B _{max}	[cm]					
		I	Floor	thick	mess [cm]					
		50	20							
		25	30	C_	[cm]					

Form ply 27 mm

Supported on Dokaflex table:

Table format	Prop model	Floor thickness [cm]					
$250 \times 4.00 m$	Eurex 20	37	36	35	30	20	
2.50 × 4.00 m	Eurex 30	48	47	40	30	20	
2 50 x 5 00 m	Eurex 20	29	29	28	27	20	
2.50 X 5.00 m	Eurex 30	35	35	35	30	20	
$2.00 \times 4.00 m$	Eurex 20	45	45	40	30	20	
2.00 × 4.00 m	Eurex 30	60	50	40	30	20	
$2.00 \times 5.00 m$	Eurex 20	37	36	35	30	20	
2.00 × 5.00 m	Eurex 30	46	46	40	30	20	
		25	30	35	40	45	
		A _{max.} [cm]					

Table format	Prop model	l	Floor thickness [cm]				
$250 \times 4.00 m$	Eurex 20	37	36	36	35	30	20
2.50 × 4.00 m	Eurex 30	48	48	47	40	30	20
2 50 x 5 00 m	Eurex 20	29	29	28	27	27	20
2.50 × 5.00 m	Eurex 30	35	35	35	35	30	20
$2.00 \times 4.00 m$	Eurex 20	45	45	44	40	30	20
2.00 X 4.00 III	Eurex 30	60	59	50	40	30	20
2 00 v 5 00 m	Eurex 20	37	36	35	34	30	20
2.00 X 5.00 III	Eurex 30	46	46	46	40	30	20
		20	25	30	35	40	45
		B _{max.} [cm]					

Floor thickness [cm]								
100	70	30	20					
30	35	40	45					
C _{max.} [cm]								

where form ply cannot be supported on projecting beams

Form ply 21 mm	Form ply 27 mm				
Floor thickness [cm]	Floor thickness [cm]				
50 20	100 70 30 20				
25 30	30 35 40 45				
A _{max.} [cm]	A _{max.} [cm]				

with an insert of H 16 formwork beam*

(* Only available in Austria!)

Form ply 27 mm Prop model Table format Floor thickness [cm] Eurex 20 2.50 x 4.00 m Eurex 30 Eurex 20 2.50 x 5.00 m Eurex 30 Eurex 20 2.00 x 4.00 m Eurex 30 Eurex 20 2.00 x 5.00 m Eurex 30 A_{max.} [cm]

Shoring the fitting-boards

This additional shoring is very simple to set up, using formwork beams H 20, H 20 DF supporting heads and Eurex floor props.

Fit a supporting head H 20 DF onto the inner tube of each prop and secure with the integral spring-steel buckle.

Dokaflex tables in practice

Practical tips for economical forming using Dokaflex tables

- To protect the surfaces of the formfacing, we recommend using only vibrators with protective rubber caps.
- The easiest and best way to clean the formwork sheets is with a highpressure water cleaner.

Important instructions:

- Dokaflex tables may only be stood on a firm, horizontal surface to ensure that they can stand unaided.
- Dokaflex tables must be stood stably, and able to withstand wind loads, in every phase of the construction work.

University Clinic, Magdeburg

The table must not be loaded - not even temporarily with e.g. a stack of panels - until it has been completely erected according to plan (i.e. with all intermediate props).

No persons or objects are allowed to be on the table when it is being shifted or otherwise moved.

Site: Westmünster Center, Bocholt, Germany

Site: LVM high-rise, Münster, Germany

Site: "Chirurgie West" hospital extension, Salzburg

Tables around edges of slab

Dokaflex tables for use around the edges of the slab can be assembled with the floor-beam and slab stopend formworks, and the handrails, integrated into the table.

Edge table with slab stop-ends

Guy-bracing directly into the table head

The Doka Table head 30 (date of manufacture 06/96 onwards) already has a \varnothing 25 hole in it for fixing the bracing chain.

Guy-bracing with lifting hook DF

Tensile or compressive bracing

with U-head D and Adjusting prop

See pp. 10 - 15 for more information on forming floor beams and slab stop-ends.

Edge table with floor beam

More safety on site

Sideguards with Handrail post T 1.80 m

The **Handrail post T 1.80 m** is the convenient way of making regulation railings. The handrail posts are fastened to the ends of the primary or secondary beams of the Dokaflex table. Insert the planks, and the result is a highly effective safety railing. In certain countries tubular handrails are used.

Railings may also be erected using the Handrail clamp S (see $\ensuremath{\text{p.10}}$)

The handrail post is fixed in the holes in the beam using:

- 2 x M20x90 hexagonal bolts
- 2 x M20 hexagonal nuts
- 2 x R22 washers

(these fixing materials are not included in the scope of supply)

N.B.:

Please observe all applicable safety regulations.

Site: DEVK, Dresden

Assembling Dokaflex tables

The Dokaflex tables should be assembled with care to deliver clean concrete surfaces with the speed and efficiency expected.

Assembly bench with end-stops

- Flat assembly bench (wooden drawing floor).
- Fasten the end-stops for the table-heads, primary and secondary beams.

Mount the table-heads, primary and secondary beams

- Insert the table-heads into the prepared endstops.
- Place the primary beams into the table-heads and push them up against the end-stops.
- Lay the secondary beams centrally, directly over the table heads, and push them up against the end-stops
- Bolt together the table head and the secondary beam (see Page 31)

Mount the remaining secondary beams

- Place the remaining secondary beams (use template if necessary) and screw them to the primary beams (diagonally, on both sides of flange):
 - using frame-screws 6 x 80

Mount the formwork sheets

- Decide how the formwork sheets are to be arranged. If necessary, mark the position of the first row of panels with a stringline.
- Place the formwork sheets and pull them tightly together with the Strip-steel tensioner 5.00 m.
- Nail the sheets to the secondary beams:
 - using grooved nails 3.1 x 60

The lifting hook DF, or straps, are ideal for lifting the pre-assembled units away from the assembly area.

Doka Ready-to-Use Service

Here, the Dokaflex tables are custom-assembled in any desired design variant, quickly and inexpensively, and delivered to your site ready to use. This saves time and reduces the planning and assembly workload.

Tools and other items needed for assembling Dokaflex tables

- Centre bit DF 30 for drilling 30 mm diam. holes in the web where the Connection unit DF 20/30 is used for attaching the tableheads
- Wood drill-bit, diam. 10 mm for drilling holes in the boom for the Beam-screws S8/60
- Drilling template DF (Art.n° 53 9993 010) Template for drilling the holes on the flange for fixing table heads using Beam-screws S8/60
- Strip-steel tensioner 5.00 m for pulling the form-ply tightly together
- Sleeve nut 19 for tightening nuts on the Connection unit DF20/30
- Socket nut 13 for tightening the bolts on the Beam-screws S8/60
- Reversible ratchet 1/2"

Attaching the table head 30

with connection unit DF

for very high numbers of repeat uses, and long service life.

2 Connection units DF 20/30 are required for each Table head 30.

The holes in the web are drilled with the Centre-bit DF 30

Converting the Table head 30 for a single primary beam H 20

Although designed as standard for double primary beams, the Table head 30 can easily be converted for use with a single primary beam by using different drilled holes for the two M16 x 45 hexagon bolts.

Bolt position for double primary beam

Bolt position for

with Beam-screws S8/60

4 Beam-screws S8/60 are needed for each Table head 30.

The Drilling template DF is available on request, for speeding up the job of drilling the holes in the beams.

Table head 20 fora single primary beam H 20

Where Dokaflex tables are assembled with single primary beams, it is also possible to use the Table head 20 instead of the Table head 30.

Formwork Experts

Structural design of special-format tables

Floor

В

250.0

275.0

300.0

350.0

400.0

а

150.0

175.0

210.0

240.0

45.0

40.0

35.0

30.0

35.0

35.0

28.0

24.0

Observe the instruction "Striking formwork from beneath wide-span floors" on Page 48!

400.0

240.0

14.0

18.0

Primary beam with 3 props b а b а Ħ ш ပ F F 300.0 350.0 450.0 500.0 600.0 L 400.0 thickness 50.0 50.0 60.0 75.0 90.0 а 75.0 b 100.0 125.0 140.0 175.0 210.0 150.0 С 150.0 40.0 35.0 45.0 30.0 30.0 24.0

35.0

30.0

26.0

22.0

28.0

26.0

20.0

18.0

26.0

24.0

18.0

16.0

20.0

18.0

14.0

						L		
uble beam	wi	th		a	⊲	b	a a	
Jie lieau st			л. 					
Eurex 30		в	υ					
			4					
		7	1					
Floor	L	300.0	350.0	400.0	450.0	500.0	600.0	
thickness	а	62.5	75.0	87.5	100.0	100.0		

Floor		Г	300.0	350.0	400.0	450.0	500.0	600.0
thickne	SS	а	62.5	75.0	87.5	100.0	100.0	
В	c	∖ p	175.0	200.0	225.0	250.0	300.0	
250.0	150.0)	65.0	55.0	50.0	45.0	35.0	
275.0	150.0)	60.0	50.0	45.0	40.0	35.0	
300.0	175.0)	55.0	45.0	40.0	35.0	30.0	
350.0	210.0)	45.0	40.0	35.0	30.0	26.0	
400.0	240.0)	40.0	35.0	30.0	26.0	22.0	

Floor thickne	ss	L a	300.0 50.0	350.0 50.0	400.0 60.0	450.0 75.0	500.0 75.0	600.0 90.0
В	с	b	100.0	125.0	140.0	150.0	175.0	210.0
250.0	150.0	<u>`</u>	95.0	80.0	75.0	65.0	60.0	50.0
275.0	150.0		85.0	75.0	65.0	60.0	55.0	45.0
300.0	175.0		80.0	65.0	60.0	55.0	50.0	40.0
350.0	210.0		65.0	55.0	55.0	45.0	40.0	35.0
400.0	240.0		60.0	50.0	45.0	40.0	35.0	30.0

Floor thicknes B	ss c	L a b	300.0 62.5 175.0	350.0 75.0 200.0	400.0 87.5 225.0	450.0 100.0 250.0	500.0 100.0 300.0	600.0
250.0	150.0)	50.0	45.0	40.0	30.0	30.0	
275.0	150.0)	45.0	40.0	35.0	30.0	26.0	
300.0	175.0)	40.0	35.0	30.0	28.0	24.0	
350.0	210.0)	35.0	30.0	26.0	22.0	20.0	
400.0	240.0)	30.0	26.0	22.0	18.0	16.0	

Floor thickness B c		L a b	300.0 50.0 100.0	350.0 50.0 125.0	400.0 60.0 140.0	450.0 75.0 150.0	500.0 75.0 175.0	600.0 90.0 210.0
250.0	150.0)	70.0	60.0	55.0	50.0	45.0	35.0
275.0	150.0)	65.0	55.0	50.0	45.0	40.0	35.0
300.0	175.0)	60.0	50.0	45.0	40.0	35.0	30.0
350.0	210.0)	50.0	45.0	40.0	35.0	30.0	26.0
400.0	240.0)	45.0	40.0	35.0	30.0	26.0	22.0

Primary beam with 5 props

Primary beam with 4 props

В	c 🗸 b	 	100.0	115.0	130.0	160.0
250.0	150.0	 	50.0	45.0	40.0	30.0
275.0	160.0	 	45.0	40.0	35.0	28.0
300.0	175.0	 	40.0	35.0	30.0	24.0
350.0	210.0	 	35.0	30.0	28.0	20.0
400.0	240.0	 	30.0	28.0	22.0	16.0

Floor		L	300.0	350.0	400.0	450.0	500.0	600.0
thickness		а			50.0	52.5	55.0	60.0
В	С	∕ b			100.0	115.0	130.0	160.0
250.0	150.0)			95.0	90.0	80.0	60.0
275.0	150.0)			90.0	80.0	70.0	55.0
300.0	175.0)			80.0	75.0	65.0	50.0
350.0	210.0)			65.0	65.0	55.0	45.0
400.0	240.0)			60.0	55.0	50.0	40.0

Floor	22	L	300.0	350.0	400.0	450.0	500.0	600.0
B	<u>с с</u>	a ∖b					50.0 100.0	50.0 125.0
250.0	150.0)					95.0	80.0
275.0	100.0)					90.0	75.0
300.0	175.0)					80.0	65.0
350.0	210.0)					65.0	55.0
400.0	240.0) -					60.0	50.0

Floor thickne B	ss c	L a b	300.0 	350.0	400.0	450.0 	500.0 50.0 100.0	600.0 50.0 125.0
250.0	150.0	<u> </u>					70.0	60.0
275.0	100.0)					65.0	55.0
300.0	175.0)					60.0	50.0
350.0	210.0)					50.0	40.0
400.0	240.0)					45.0	35.0

Floor		L	300.0	350.0	400.0	450.0	500.0	600.0
thickness		a			50.0	52.5	55.0	60.0
В	С	∕ b			100.0	115.0	130.0	160.0
250.0	150.0	0			70.0	65.0	60.0	45.0
275.0	150.0	0			65.0	60.0	55.0	40.0
300.0	175.0	D			60.0	55.0	50.0	40.0
350.0	210.0	0			50.0	45.0	40.0	35.0
400.0	240.0	0			45.0	40.0	35.0	28.0

Lifting Dokaflex tables

with Lifting hook DF

The **Lifting hook DF** is an easy-to-reposition crane hoisting attachment for:

- Lifting the table superstructure away from the assembly area
- Loading and unloading lorries
- Stacking
- Moving tables to next location of use

Also suitable for tableforms of the Staxo, Aluxo and d2 systems.

Max. capacity per Lifting hook DF: 300 kg (3 kN)

Before starting to use, it is ESSENTIAL to read the instructions in the manual supplied with the equipment!

Finished Dokaflex tables

Please note:

If the tables are to be placed adjacent to one another by crane, the form-ply at either end of the table must be shorter (necessitating subsequent insertion of fitting strips), otherwise the tables are positioned only approximately by crane and must then be fine-positioned using the shifting trolley DF.

Always bolt the Lifting hook DF into the inner of the two holes drilled in the end of the beam.

It is also possible to use the Lifting hook DF on secondary beams, provided that these secondary beams are permanently bolted to the primary beam.

Table superstructures

with Lifting strap DF 13.0 m

The Lifting strap DF facilitates the lifting and setting down of table tops and completely assembled Dokaflex tables. The 13 m long strap is designed to be fixed and detached when working from ground level.

Great care must be taken to avoid damaging the form-ply on the table.

Lifting strap DF 13.00 m* Art. n° 710586156 Max. capacity: 2000 kg (20 kN) * Only available in Austria!

Transporting, stacking and storing

Stacks / how delivered

The Lifting hook DF or Lifting strap DF make it quick and easy to stack pre-assembled table tops. The low height of each of these elements makes for economical transport and storage.

<u>Tip</u>

Preventing damage to the form ply:

- Insert strips of formwork sheet between the Table heads and the form ply
- and
- Use a Spring cotter 6 mm to fix the clamping wedge in the pushed-in position

Transport and storage

Observe the following safety instructions when transporting and storing preassembled tables:

- Dokaflex table elements must be onloaded and off-loaded, transported and stacked in such a way that it is not possible for them to fall off, tip over or slide apart.
- The table elements may only be set down and stacked on flat, firm surfaces.
- Spreading angle of hoisting gear: max. 60°
- When setting down a table element, do not detach it from the hoisting gear until it is safely placed down on the stack.
- Never climb onto the stack of table elements.
- The table elements must be strapped when being transported by lorry.

Measurements in cm

Horizontal shifting and plumbing of Dokaflex tables

Shifting trolley DF and stacking frame DF

The shifting trolley DF speeds up work on any site. The tables are lowered hydraulically, quickly and safely, and then moved.

Height ranges (with distribution beams)

- Shifting trolley DF: H_{min} = 174.0 cm H_{max} = 323.0 cm
- Shifting trolley DF + 1 stacking frame DF: $H_{min} = 249.0 \text{ cm}$ $H_{max} = 398.0 \text{ cm}$
- Shifting trolley DF + 2 stacking frames DF: $H_{min} = 324.0 \text{ cm}$ $H_{max} = 473.0 \text{ cm}$
- Shifting trolley DF + 3 stacking frames DF: H_{min} = 399.0 cm H_{max} = 548.0 cm

Max. carrying capacity per shifting trolley DF, assuming eccentric load application of up to 30 cm: 1200 kg (12 kN)

- with 1 stacking frame: 1100 kg (11 kN) - with 2 stacking frames: 1000 kg (10 kN)
- with 3 stacking frames: 900 kg (9 kN)

N.B. when working with asymmetrical tables:

"Central positioning" means central in terms of the centre of gravity.

Attachable drive unit DF

To streamline the shifting of Dokaflex tables still further

Every Doka shifting trolley DF can be retrofitted with the attachable drive unit DF.

This is a battery-powered, clamp-on drive unit that enables the tables to be moved effortlessly.

As well as the travel drive, the unit also incorporates the hydraulic system for the lifting device, and all the controls.

The battery is designed to allow 1 whole day's operation before being recharged overnight.

Advantages:

- Saves labour and thus cuts costs
- One man, working on his own, can strike the formwork and horizontally relocate it, effortlessly - regardless of the distance that needs to be travelled.

Stacking frame ST 1.50 m for fork-lift

If **stacker lift-trucks** are used for shifting the Dokaflex tables, the Stacking frame ST 1.50 m acts as the link between the stacker truck and the Dokaflex table.

The Stacking frame ST 1.50 m can also be used with the **Shifting trolley DF**.

It is ESSENTIAL to read the instructions in the manual supplied with the unit before starting it up!

Shifting and plumbing with the shifting trolley DF

Site: Potsdamer Platz, Berlin

With or without stacking frames DF, the shifting trolley DF is pushed under the table either from the short or long side, depending upon the dimensions of the table and the situation encountered on the site.

There are 2 possible ways in which the unit can be positioned - either with or without distribution beams:

With distribution beams:

If the centres of the primary beams is greater than the width of the carrying frame (130.0 cm), the entire weight of the table would only be transmitted to the carrying frame via the secondary beams. To prevent this, distribution beams (H 20, L = 2.65 m) must be used.

Without distribution beams:

If the centres of the primary beams of a table is such that these beams rest on the carrying frame when the table is lifted, then no distribution beams are needed.

Safe shifting using "C" hook

Lifting extension bracket DF and Transport fork DF

"C" hooks have proved ideal for shifting Dokaflex tables on construction sites.

Basic structure of a "C" hook:

- "C" hooks are made up of:
- Lifting extension bracket DF and -
- -
- **Transport fork DF** with various fork widths

Before starting to use, it is ESSENTIAL to read the instructions in the manual supplied with the equipment!

Parking position

To make it easier to attach/detach the double-strand suspension chain, the fork automatically tilts down into the parking position when it is placed on the ground.

Overview of variants

	Max. capacity (table weight)	1t	1.5t
	Max. table size length [m] x width [m]	5.0 x 4.0	8.0 x 5.0
Lifting extension bracket DF	Designation Measurement "A" [cm] Measurement "H" [cm]	Lifting extension bracket DF 1t 336.2 280.0	Lifting extension bracket DF 1.5t 456.2 350.0
Σ DF	Designation	Transport fork DF 1t/0.90 m	Transport fork DF 1.5t/0.90 m
t fork	Designation	Transport fork DF 1t/1.30 m	Transport fork DF 1.5t/1.30 m
spor	Designation	Transport fork DF 1t/2.00 m	Transport fork DF 1.5t/2.00 m
Tran	Measurement "L" [cm]	380.0	600.0

Selection criteria for fork width

Table heads with wedges facing outwards

Centres of primary beams	Type of fork
1.52 - 1.90 m	0.90 m
1.90 - 2.62 m	1.30 m
> 2.62 m	2.00 m

If the primary beams are at less than 1.22 m centres, the prongs of the 2.00 m fork can be inserted on the outside of the primary beams (as shown in Fig. A).

table heads with wedges facing inwards

The Transport fork DF 1t/0.90 m is particularly suitable for shifting standard-format Dokaflex

If this transport fork is used perpendicular to the

direction of the primary beams, observe the note

"Important for table-overhangs" on Page 40.

Tip

tables.

* The table allows for 5 cm of play on either side.

Centres of primary beams	Type of fork
1.44 - 1.82 m	0.90 m
1.82 - 2.54 m	1.30 m
> 2.54 m	2.00 m

If the primary beams are at less than 1.30 m centres, the prongs of the 2.00 m fork can be inserted on the outside of the primary beams (as shown in Fig. A).

The 2.0 m wide transport fork is also useful when longer tables on a site are only shifted on their broadsides (greater table stability).

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Safe shifting using "C" hooks

Function of the marking stripes

The table must be as near horizontal as possible when it is shifted.

Once the ideal position is determined on the fork for a certain table, it is easy to repeat this position on subsequent tables of the same type with reference to the marking stripes on the fork.

The stripes are also a highly visible safety warning to site personnel when the fork is "in the air".

Vertical shifting

■ Lift the table out, and up to next storey

details of how to attach)

props before lifting.

Before lifting, remove any intermediate props that are not permanently attached (see p.22 for

■ Completely retract all intermediate

41

Shifting in practice

Site: Plus-City 2000 shopping centre, Pasching, Austria

Site: Warehouse for Messrs. Klotzner, Linz, Austria

Hoisting using a 4-part lifting chain

Where Dokaflex tables are vertically shifted using a 4-part lifting chain, the Lifting rod 15.0 ensures that they are safely suspended from the crane.

Depending on the version, a **Retaining plate 15.0** may also have to be used.

Before starting to use, it is ESSENTIAL to read the instructions in the manual supplied with the equipment!

Mounted between the primary beams:

Retaining plate 15.0

4 x Lifting rods 15.0 are required for crane-shifting Dokaflex tables

Clip the Retaining plate 15.0 onto the primary beam, bolt the Lifting rod 15.0 in place and tighten it thoroughly.

Use a drill bit of diam. 20 - 25 mm to drill through the sheathing. A Universal plug R20/ 25 can then be used to seal the hole.

When considering the load-bearing capacity, a distinction must be made between:

- concentric load application (paired primary beams), and
- eccentric load application (single primary beam)

Max. carrying capacity:

- with concentric load application: 1000 kg (10 kN)
- with eccentric load application: 300 kg (3 kN)

Mounted directly in the Table-head:

Using a Wing nut 15.0, bolt the Lifting rod 15.0 directly into the Table head 30.

Measurements in cm

Combining Dokaflex tables with Dokaflex 1-2-4

The tables and Dokaflex 1-2-4 both use the same system components, so they are ideal to combine. Infill zones and closures can be covered directly from within the system, saving time and cutting costs still further.

Example: Dokaflex tables around the edge, closure in middle with Dokaflex 1-2-4

Site: Porschehof, Salzburg

Tipos helps to form even more efficiently

Tipos has been developed to assist in planning the use of Doka formwork. For floor formwork, wall formwork and platforms, it puts the same tools into your hands that Doka technicians themselves use daily for formwork planning.

TiPOS

Easy to use, fast and accurate results

The easy-to-use interface makes for very fast working. From when you input your layout and define your floor polygons (with the "Schal-Igel"® on-screen assistant), all the way through to when you manually put the finishing touches to the formwork solution the program gives you. All this saves time - yours.

The program contains a large number of templates from formwork practice, so you can be sure of always getting the optimum technical and economical solution to your formwork task. This makes for greater operational reliability, and cuts costs.

You can get to work right away with the piece-lists, plans, views, sections and perspective drawings that the program gives you. Operational reliability is also enhanced by the high degree of detail of the plans.

Formwork drawings really can be this detailed! Both for the layouts and views, and for spatial representations, Tipos sets an impressive new standard of visual presentation.

Always the right quantities of formwork and accessories

70xkh	tumbearb	eitung						
Hent	Atkely	Besitting	PL/Sk	Sec 1	Sauh	Lief	Han.	Sun
DOKA	596174000	Absenkikas/ H28	45.50	0	0	- 24		- 21
DOKA	596149000	Etalkenaulisatz 60 cm	32.50	Ô.	D.	5		
DOKA	556148000	Balkampvinge 20	83.80	0	0	10		- 10
DOKA	596896000	Doke-Deckenstize Eurer 20, 250	72.50	0	0	- 65		- 61
DOKA.	506892008	Doka-Deckenstütze Durex 30 250	79.80	0	0	24		- 2
10123	1000400	Data Schaturgrafatte 350 (3 mm 108/50 cm	13.43	- 0-	- 0	10		- 1
DOKA	106000000	Doka-Schalungsplate 3/SD 21 mm 758/58 cm	20.21	0	0	- 3	- 1	_
DOKA.	1868009008	Doke-Schelungspleite 3:50 21 mm 208/50 cm	26.95	0	0	2		
DOKA	196011000	Doka-Schalungsplatte 3:50 21 mm 258/58 cm	33.89	0	0	- 22		- 2
DOKA.	109824000	Doka-Schalungshäper H 28 P 1.00 m	29.35	0	0	2		
DOKA	189907000	Doke Schekingshöger H 28 P 2,45 m	39.95	0	0	- 1		
DOKA	109910000	Doka-Schalungshäger H 28 P 2.65 m	42.20	Ŭ.	D.	24		- 2
DOKA	189917000	Doke-Schelungshäper H 28 P 3.90 m	63.55	0	0	13		1
DOKA	196852000	Dokadur Paneel 21 190/50 cm	41.25	0	0	12		1.
DOKA	506855000	Dokalier-Tech 2:58 x 5:08 m - 27 mm	Aut Antu-	0	0	6		1
DOKA	502529000	Federbolem 16 nm verginkt	4.95	0	0	55		- 9
DOKA	596176000	Hatebop/ H00	9.75	0	0	21		- 2
DOKA	556155000	Statem	101.50	0	0	24		- 3
DOKA	996808101	basseilige Kanthilaer	0.80	0	0	12		1.
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You can import the automatically generated piece-lists into many other programs for further processing.

Formwork components and accessories that have to be organised at short notice, or replaced by improvisation, are the ones that cost the most. This is why Tipos offers complete piece-lists that leave no room for improvisation. Planning with Tipos eliminates costs before they have a chance to even arise. And your depot can make the best possible use of its stocks.

Correct temporary shoring

When is the best time to strike?

The load occurring during concreting (i.e. the weight of the uncovered floor) will generally be approx. 50 % of the design load of the floor (i.e. dead weight + flooring + live load).

This means that the formwork can be struck once the concrete has reached 50% of its 28-day strength. The loading safety of the floor is then equal to that of the finished structure.

If the load is not removed from the formwork props at this stage they will remain loaded with the dead weight of the floor. When the floor above is concreted, this will lead to twice the load being applied to the props.

The props are not designed to cope with such an overload, and the result may be damage to the formwork, the props and the structure.

Why use temporary shoring after striking?

Depending on the construction sequence, temporary shoring may be needed to carry live loads on the new floor, and concreting loads from the next floor to be poured.

Positioning auxiliary props correctly:

The function of auxiliary props is to spread loads between the new floor and the floor beneath it. The number of auxiliary props that are needed will depend on the relationship between the rigidities of these two floors.

The required numerical relationship between auxiliary props and formwork props can be stated for the following two limit cases:

- only approx. 0.4 auxiliary props per formwork prop where both floors have similar rigidities
- only approx. 0.8 auxiliary props per formwork prop where the floor below has a considerably higher rigidity (foundation slab)

Ask an expert!

As a rule, the question of temporary shoring should be referred to the responsible experts, regardless of the information given above. If there is any doubt, particularly where dissimilar floor systems are involved, the decision must be referred to the responsible structural designer.

Concrete technology and striking formwork

Strength development in new concrete	This diagram shows the strength development where different grades of cement are used. The precondition here is that there is an average temperature of 20° C in the concrete during the curing time. Z_{45} F PZ_{475} Z_{35} F PZ_{375} Z_{35} C in the curing time.
Deflection of the new concrete	The elastic modulus of the concrete has already reached more than 90 % of the 28-day value after only 3 days, regardless of the formulation of the concrete. The increase in the elastic deformation taking place in the new concrete is thus only negligible. The creep deformation, which only ceases after several years, is several times more than the elastic deformation. However, early striking - e.g. after 3 days instead of 28 - only leads to an increase of less than 5 % in the total deformation. The part of this deformation accounted for by creep deformation, however, may be anything between 50 % and 100 % of the standard value, due to such variable influences as the strength of the aggregates, and the atmospheric humidity. This means that the total deformation of the floor is practically independent of the time at which the formwork was struck.
Cracks in new concrete	The bonding strength between the reinforcement and the concrete develops more rapidly in the new concrete than does its compressive strength. This means that early striking does not have any negative effect upon the size and distribution of cracks on the tension side of reinforced concrete constructions. Other cracking phenomena caused by e.g. shrinkage, premature striking, impeded deformation etc. can be combatted effectively by appropriate curing methods.
Curing of new concrete	 New site-placed concrete is exposed to influences which may cause cracking and slow down its strength development: premature drying over-rapid cooling in the first few days excessively low temperatures or frost mechanical damage to the surface of the concrete etc. The simplest precaution is to leave the formwork on the concrete surface for longer. This should be done in any case where any of the familiar extra curing measures are carried out.

Striking formwork from beneath wide-span floors

Where thin, wide-spanned concrete floor slabs are constructed (e.g. in multistorey car parks), the following points must be observed:

When the formwork is removed from beneath these floor-slab spans (i.e. when the load is taken off the props), the props that are still in place are briefly subjected to additional loads that can lead to overloading and damage to the props. When planning and designing floor formworks for these very thin concrete floor slabs, it is thus essential to allow for the **loads occurring during formwork removal**, as well as for the usual design loads.

Please consult your friendly Doka technician.

Maximum prop loads to EN 1065

Eurex 20 floor props

The following	table gives	an	overview	of the	prop	classes,	to	both	ΕN	1065	and
DIN 4424.	-										

Floor prop		Class to)
	EN ²	1065	DIN 4424
Eurex 20 250 (260) Eurex 20 300 Eurex 20 350 Eurex 20 400 (410) Eurex 20 550	D D D D D	B B C C	N N G G
Eurex 30 250 (260) Eurex 30 300 Eurex 30 350 Eurex 30 400 (410)	E E E	C C C C	G G G

Classes N and G of DIN 4424 now correspond to Classes B and C, respectively, of EN 1065. Classes B and C are only of any significance in Germany.

Your Doka adviser will be pleased to provide you with any further information that you may need.

Product overview

	Weight ka	Article		Weight	Article n°		Weight ka	Article
Doka floor prop Eurex 20 250	12.9	586086	Doka floor prop Eco 20 260	11.7	586134	Supporting head H 20 DF	0.77	586179
extension range 147 - 250 cm Doka floor prop Eurex 20 300	15.3	586087	extension range 152 - 260 cm Doka floor prop Eco 20 300	13.0	586135	Haltekopf H 20 DF		
extension range 172 - 300 cm Doka floor prop Eurex 20 350	17.8	586088	extension range 172 - 300 cm Doka floor prop Eco 20 350	15.3	586136	Galvanised Length 19 cm, width 11 cm, height 8 cm		
extension range 197 - 350 cm Doka floor prop Eurex 20 400	22.2	586089	extension range 197 - 350 cm Doka floor prop Eco 20 410	19.2	586137			
extension range 222 - 400 cm Doka floor prop Eurex 20 550	34.6	586090	extension range 227 - 410 cm			U-head 12.5 cm	1.2	586171
extension range 297 - 550 cm			Doka-Deckenstütze Eco 20			Kopfgabel 12,5 cm		
Doka-Deckenstütze Eurex 20			Gaivaniseu			Galvanised Height 23 cm		
Max load: at any telesconing length 20 kN			to ÖNORM B 4009					
to EN 1065			Ŷ					
P München							0.05	
						Spring locked connecting pin 16 mm Federbolzen 16 mm	0.25	582528
						Galvanised		
						Packed in units of 100		
						Connector clip H20 Kreuzverbinder H20	0.70	586184
						Painted blue		
			J.					
			Domovable folding triped	15.6	506155			
			Stützbein	19.0	380133	L'S		
Doka floor prop Eurex 30 250	14.8	586092	Galvanised Height 100 cm			Bracing clamp B	1.4	586195
extension range 147 - 250 cm Doka floor prop Eurex 30 300	16.7	586093				Painted blue		
extension range 172 - 300 cm Doka floor prop Eurex 30 350	20.5	586094				Length 36 cm		
extension range 197 - 350 cm Doka floor prop Eurex 30 400	24.7	586095						
extension range 222 - 400 cm								
Doka-Deckenstutze Eurex 30			Lowering head H 20	6.1	586174	Beam forming support 20	6.9	586148
daivailiseu			Absenkkopf H 20			Galvanised		
to EN 1065			Length 25 cm, width 20 cm, height 38 cm			Length 30 cm, height 35 cm		
Münshan			e					
Wunchen								
						Extension 60 cm		
						for beam forming support Balkenaufsatz 60 cm	4.4	586149
			Four-way head H 20 Vierwegkopf H 20	4.0	586170	Galvanised		
			Galvanised			[] ด		
			Length 25 cm, width 20 cm, height 33 cm					
			J					

	Weight kg	Article n°		Weight kg	Article n°		Weight kg	Article n°
Wheel-around scaffold DF Mobilgerüst DF	44.0	586157	Dokaflex table 2.50 x 4.00 m - 21 mm Dokaflex table 2.50 x 5.00 m - 21 mm Dokaflex-Tisch	385.0 470.0	586052 586053	Connection unit DF 20/30 Spanneinheit DF 20/30	0.93	586084
Aluminium Length 195 cm, width 80 cm, height 290 cm						Galvanised Width 15 cm, height 12 cm, Width-across 19 mm		
Max. load: 150 kg/m²								
			De se a			Beam screw S 8/60 Riegelverschraubung S 8/60	0.06	580116
			Dokaflex table 2.50 x 4.00 m - 27 mm Dokaflex table 2.50 x 5.00 m - 27 mm Dokaflex table 2.00 x 4.00 m - 27 mm	405.0 485.0 334.0	586054 586055 586056	Galvanised Length 7 cm, width-across 13 mm Packed in units of 300		
			Dokaflex-Tisch	400.0	500057	Centre bit DF 30	0.10	586081
Alu beam fork H 20	2.4	586182				Zentrumsbohrer DF 30	0.10	000001
Alu Trägergabel H 20 Aluminium, powder-coated yellow			The second secon				0.24	500106
Length 176 cm			Doka fitting hoard DF 27 mm	*13 በ		T-Leiste 21/42 2,00 m	0.34	290130
			Doka-Passstreifen DF 27 mm	10.0		Grey		
Stripping lever DF 1.20 m	2.7	586158	200/9.5 cm 250/9.5 cm	2.5 3.1	187052 187053			
Ausschalhebel DF 1,20 m Powder-coated yellow			200/20 cm 250/20 cm	5.2 6.5	187050 187051	Handrail post DF Steckgeländer DF	14.6	586076
<i>₽</i> ⊳			* weight per m² Table head 30	18.5	586078	Galvanised Height 142 cm		
			Tischkopf 30 Galvanised, powder-coated, blue			Ň		
			Length 44 cm, width 25 cm, height 30 cm			P		
Lever extension DF 1.20 m Hebelverlängerung DF 1,20 m	2.0	586159	Table head 20 Tischkopf 20	16.5	586085	Handrail post T 1.80 m	17.7	584373
Powder-coated yellow			Galvanised, powder-coated, blue Length 41 cm, width 33 cm, height 30 cm			Einschubgeländer T 1,80 m Galvanised		
			1 Alexandre			L		
-			Spring cotter 6 mm Federvorstecker 6 mm	0.06	580204			
			Galvanised Length 13 cm Packed in units of 300			Ļ		
						i de la companya de la		
			Intermediate head DF Zwischenkopf DF	6,2	586058	Handrail post 1.50 m Geländer 1,50 m	12.4	582754
			Galvanised Width 26 cm, height 33 cm			Galvanised		
						ST.S.		

Product overview

	Weight ka	Article n°		Weight ka	Article n°		Weight ka	Article n°
Handrail clamp S Schutzgeländerzwinge S	11.4	580470	Stacking frame ST 1.50 m Aufsatzrahmen ST 1.50 m	285.0	586060	Transport fork DF 1 t / 0.90 m Transport fork DF 1 t / 1.30 m	220.0 245.0	586069 586070
Galvanised			Galvanised			Transport fork DF 1 t / 2.00 m Gabel DF 1 t	274.0	586071
Height min. 123 cm, max. 171 cm			Length 134 cm, width 130 cm, height 164 cm			Galvanised		
			Max. load: 1200 kg (12 kN) N.B.: Follow the directions in the instruction			Length 411 cm, neight 58 cm Max, load: 1000 kg (10 kN)		
			manual! Attachable drive unit DF	512.0	586062	N.B.: Follow the directions in the instruction manual!		
			Andockantrieb DF			CE		
			Length 100 cm, width 100 cm, height 130 cm					
			Max. load: 1200 kg (12 kN)					
	500.0	500000	N.B.: Follow the directions in the instruction manual!					
Shifting trolley DF Umsetzwagen DF	566.0	586080	CE			Transport fork DF 1.5 t / 0.90 m Transport fork DF 1.5 t / 1.30 m	480.0 520.0	586065 586066
Galvanised Length 181 cm, width 130 cm						Transport fork DF 1.5 t / 2.00 m Gabel DF 1,5 t	540.0	586067
Height min. 154 cm, max. 303 cm						Galvanised Length 638 cm, beight 71 cm		
Positioning lever	6.0	586063	- APR			Max. load: 1500 kg (15 kN)		
Lifting motor DF Painted blue	25.5	586075				N.B.: Follow the directions in the instruction manual!		
Brace stirrup 8 4 pcs. enclosed, loose	2.7	582751	0			CE		
Electricity supply for hydraulic drive:								
Max. load: 1200 kg (12 kN) N.B.: Follow the directions in the instruction			Lifting extension bracket DF 1 t Ausleger DF 1 t	263.0	586068			
manual!			Galvanised					
			Length 336 cm, width 66 cm, height 309 cm					
			How delivered: Folded closed Max. load: 1000 kg (10 kN)			Lifting rod 15.0 Umsetzstab 15,0	1.9	586074
Provent and			N.B.: Follow the directions in the instruction manual!			Painted blue Height 57 cm		
A.P			CE			Safety instruction: Never weld or heat tie-		
A start						rods - risk of fracture! Max. load: 300 kg (3 kN) for single beams; 1000 kg (10 kN) for double beams in		
0			¢ c			conjunction with retaining plate 15.0. N.B.: Follow the directions in the instruction		
Ø						manual!		
Stacking frame DF Aufsatzrahmen DF	82.0	586079	Litting extension bracket DF 1.5 t Ausleger DF 1,5 t	475.0	586064			
Galvanised			Galvanised Length 456 cm, width 82 cm, height 386					
Length 134 cm, width 130 cm, height 75 cm			cm How delivered: Folded closed					
N.B.: Follow the directions in the instruction manual!			Max. load: 1500 kg (15 kN) N.B.: Follow the directions in the instruction			Retaining plate 15.0	1.8	586073
			manual!			Jochplatte 15,0		
						Length 17 cm, width 12 cm, height 11 cm		
								500400
						Kombi-Ankerstopfen R 20/25	0.003	588180
						Colourless Diam. 3 cm		
			Carl Carl			Packed in units of 100		
						Uldr.		

Product overview

	Weight	Article		Weight	Article
Doka formwork heam H 16 P 2 45 m	<u> </u>	189961	Doka formwork_sheet 3-SO 21 mm	*10.5	
Doka formwork beam H 16 P m	*4.3	189960	Doka-Schalungsplatte 3-SO 21 mm	10.0	
Doka-Schalungsträger H 16 P					
Varnished vellow			Available formats: 100/50 cm	53	186007
* weight per linear metre			150/50 cm	7.9	186008
			200/50 cm	10.5	186009
Max. moment = 2.7 kNm,			250/50 cm	13.1	186011
as per approval by Institute of Building			300/50 cm	15.8	186012
Technology, Berlin. Values applicable only			350/50 cm 400/50 cm	18.4	186028
when formwork beams are upright.			400/50 cm 450/50 cm	23.6	186029
several orders of magnitude if formwork			500/50 cm	26.3	186014
beams are horizontal.			550/50 cm	28.9	186023
			600/50 cm	31.5	186027
			100/100	40 5	400045
			100/100 cm 150/100 cm	10.5	106016
			200/100 cm	21 0	186017
			250/100 cm	26.3	186018
			300/100 cm	31.5	186019
			350/100 cm	36.8	186030
Dokadur panel 21 150/50 cm	8.3	186082	400/100 cm	42.0	186020
Dokadur panel 21 200/50 cm	11.0	186083	450/100 cm 500/100 cm	47.3	186031
Dokadur panel 21 250/50 cm	13.8	186081	500/100 CIII 550/100 cm	57 9	186022
Dokadur-Paneel 21			600/100 cm	63.0	186022
High-grade floor-forming panels, 3-ply,					
21 mm, with impact-resistant plastic sur-			* weight per m ²		
round. For clean concrete faces with plain surface appearance. Also available for			3-ply formwork sheet to ÖNORM R 3023		
rental.			made of choice mountain spruce, glue-		
Dokadur panel 27 200/50 cm	13.5	187170	bonded with boilproof and weatherproof		
Dokadur panel 27 250/50 cm	16.9	187168	glue-lines, with high-pressure synthetic-		
Dokadur-Paneel 27			quality formwork sheet for all formwork		
High-grade floor-forming papels 3-ply			tasks.		
27 mm, with impact-resistant plastic sur-			Doka formwork sheet 3-SO 27 mm	*13.0	
round. For clean concrete faces with plain			Doka-Schalungsplatte 3-SO 27 mm		
surface appearance. Also available for			Available formats:		
Stacking strap 50	2 2	586156	100/50 cm	6.5	187007
Stapelgurt 50	0.0	000100	150/50 cm	9.8	187008
			200/50 cm	13.0	187009
Powder-coated, blue			250/50 cm	16.3	187011
Max. strapping force. 40 km			300/50 cm 250/50 cm	19.5	107020
No. of the second se			400/50 cm	22.0 26 0	187013
			450/50 cm	29.3	187029
			500/50 cm	32.5	187014
			550/50 cm	35.8	187023
			600/50 cm	39.0	187027
			100/100 cm	13.0	187015
			150/100 cm	19.5	187016
			200/100 cm	26.0	187017
			250/100 cm	32.5	187018
			300/100 cm	39.0	187019
			350/100 cm	45.5	187030
			400/100 cm 450/100 cm	52.0	18/020
			450/100 CIII 500/100 cm	00.5 65 0	187021
			550/100 cm	71.5	187022
			600/100 cm	78.0	187024
			* weight per m ²		
			3-ply formwork sheet to ÖNORM B 3023.		
			made of choice mountain spruce, glue-		
			bonded with boilproof and weatherproof		
			giue-lines, with high-pressure synthetic-		
			quality formwork sheet for all formwork		
			tasks.		

Weight Article kg n°

Formwork training pays handsome dividends

Forming operations account for the lion's share of labour costs on concrete construction sites. Modern formwork equipment helps to rationalise operations. By improving the overall construction sequence, however, it is possible to achieve even more impressive gains in efficiency.

This requires not only better equipment, but also greater skill in making optimum use of the equipment. Doka can help here, with its specialist training programme - to help each and every member of the team to do his bit towards boosting efficiency and lowering costs.

You'll find the Doka training programme well worth looking into.

Your nearest Doka branch will be pleased to tell you more about Doka's various training offerings.

The Dokaflex Floor System is the economical total solution for floor slabs

With only a small number of perfectly co-ordinated system components, this is the economical and safe way to form all floors. The system gives you both flexibility and very short forming times: Where varying layouts are encountered, you can form either with Dokaflex 1-2-4 or with the pre-assembled Dokaflex tables. You can rent, lease or buy the Dokaflex Floor System.

At the Doka branch in your region or country.

A telephone call is all it takes!

The Doka Group's central plant at Amstetten, Austria

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