

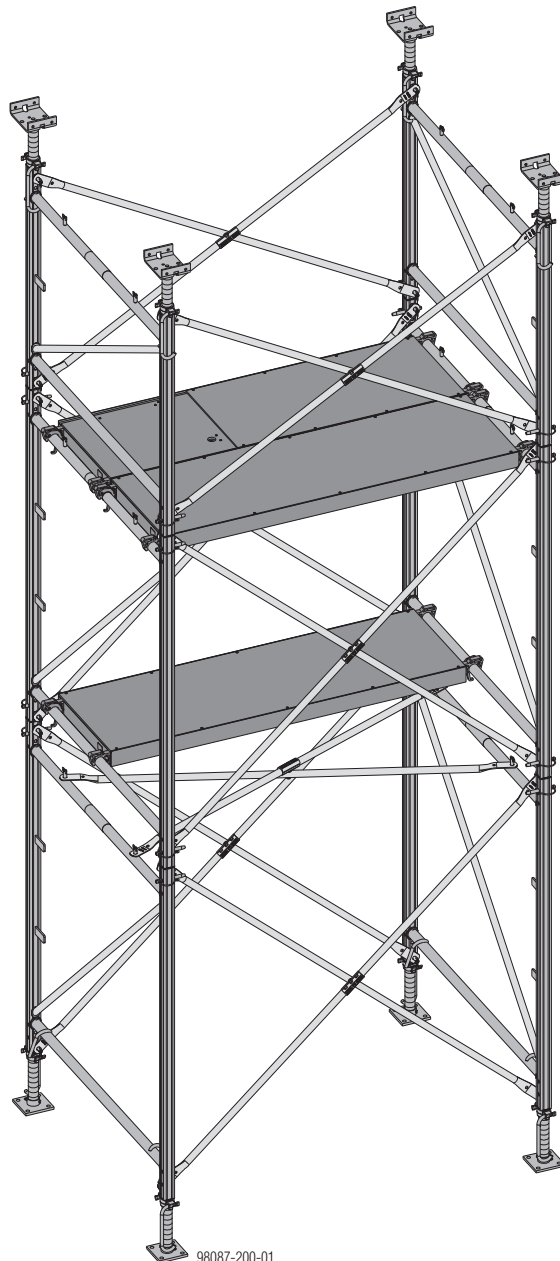
The Formwork Experts.

Load-bearing tower Staxo 100 eco

with brief design as per Eurocode

User Information

Instructions for assembly and use (Method statement)



Contents

4	Introduction
4	Elementary safety warnings
7	Services
8	System description
10	System overview
12	The Staxo 100 eco frame in detail
14	Practical examples
16	Adapts to different ground plans, heights, floor shapes and loads
22	Linking towers / placing assembly-level planking between towers
24	Assembly
25	Horizontal assembly
28	Assembling towers in the upright by hand
32	Assembling towers in the upright by forklift truck
34	Repositioning
35	Repositioning using traveller units
37	Lifting by crane
39	Lifting by forklift truck
40	General
40	Combining Staxo 100 eco with Staxo 100
41	Combining with Dokamatic tables
43	Anchoring on the structure
45	Back-stays/shoring supports for the load- bearing towers
49	Adaptation to building layout
52	Inclination adjustment
55	Steel primary beams
56	Transporting, stacking and storing
61	Structural design
64	Component overview

Introduction

Elementary safety warnings

User target groups

- This booklet is aimed at all persons who will be working with the Doka product or system that it describes. It contains information on the standard design for setting up this system, and on correct, compliant utilisation of the system.
- All persons working with the product described herein must be familiar with the contents of this booklet and with all the safety instructions it contains.
- Persons who are incapable of reading and understanding this booklet, or who can do so only with difficulty, must be instructed and trained by the customer.
- The customer is to ensure that the information materials provided by Doka (e.g. User Information booklets, Instructions for Assembly and Use, Operating Instruction manuals, plans etc.) are up to date and available to all users, and that they have been made aware of them and have easy access to them at the usage location.
- In the relevant technical documentation and form-work utilisation plans, Doka shows the workplace safety precautions that are necessary in order to use the Doka products safely in the usage situations shown.
In all cases, users are obliged to ensure compliance with national laws, standards and regulations throughout the entire project and to take appropriate additional or alternative workplace safety precautions where necessary.

Hazard assessment

- The customer is responsible for drawing up, documenting, implementing and continually updating a hazard assessment at every job-site.
This booklet serves as the basis for the site-specific hazard assessment, and for the instructions given to users on how to prepare and utilise the system. It does not substitute for these, however.

Remarks on this booklet

- This document can be used as general Instructions for Assembly and Use (Method Statement) or be incorporated into site-specific Instructions for Assembly and Use (Method Statement).
- **The graphics, animations and videos in this document or app sometimes depict partially assembled assemblies and may require additional safety equipment and/or measures to comply with safety regulations.**
The customer must ensure all applicable regulations are complied with, even if they are not shown or implied in the graphics, animations and videos provided.
- **Individual sections contain further safety instructions and/or special warnings as applicable.**

Planning

- Provide safe workplaces for those using the form-work (e.g. for when it is being erected/dismantled, modified or repositioned etc). It must be possible to get to and from these workplaces via safe access routes!
- **If you are considering any deviation from the details and instructions given in this booklet, or any application which goes beyond those described in the booklet, then revised static calculations must be produced for checking, as well as supplementary assembly instructions.**

Regulations; industrial safety

- All laws, Standards, industrial safety regulations and other safety rules applying to the utilisation of our products in the country and/or region in which you are operating must be observed at all times.
- If a person or object falls against, or into, the side-guard component and/or any of its accessories, the component affected may only continue in use after it has been inspected and passed by an expert.

Rules applying during all phases of the assignment

- The customer must ensure that this product is erected and dismantled, reset and generally used for its intended purpose in accordance with the applicable laws, standards and rules, under the direction and supervision of suitably skilled persons. These persons' mental and physical capacity must not in any way be impaired by alcohol, medicines or drugs.
- Doka products are technical working appliances which are intended for industrial / commercial use only, always in accordance with the respective Doka User Information booklets or other technical documentation authored by Doka.
- The stability and load-bearing capacity of all components and units must be ensured during all phases of the construction work!
- Do not step on or apply strain to cantilevers, closures, etc. until suitable measures to ensure their stability have been correctly implemented (e.g. by tie-backs).
- Strict attention to and compliance with the functional instructions, safety instructions and load specifications are required. Non-compliance can cause accidents and severe injury (risk of fatality) and considerable damage to property.
- Sources of fire in the vicinity of the formwork are prohibited. Heaters are permissible only when used correctly and situated at a correspondingly safe distance from the formwork.
- Customer must give due consideration to any and all effects of the weather on the equipment and regards both its use and storage (e.g. slippery surfaces, risk of slipping, effects of the wind, etc.) and implement appropriate precautionary measures to secure the equipment and surrounding areas and to protect workers.
- All connections must be checked at regular intervals to ensure that they are secure and in full working order.
In particular threaded connections and wedged connections have to be checked and retightened as necessary in accordance with activity on the jobsite and especially after out-of-the-ordinary occurrences (e.g. after a storm).
- It is strictly forbidden to weld Doka products – in particular anchoring/tying components, suspension components, connector components and castings etc. – or otherwise subject them to heating.
Welding causes serious change in the microstructure of the materials from which these components are made. This leads to a dramatic drop in the failure load, representing a very great risk to safety.
It is permissible to cut individual tie rods to length with metal cutting discs (introduction of heat at the end of the rod only), but it is important to ensure that flying sparks do not heat and thus damage other tie rods.
The only articles which are allowed to be welded are those for which the Doka literature expressly points out that welding is permitted.

Assembly

- The equipment/system must be inspected by the customer before use, to ensure that it is in an acceptable condition. Steps must be taken to exclude components that are damaged, deformed, or weakened due to wear, corrosion or rot (e.g. fungal decay).
- Using our safety and formwork systems together with those of other manufacturers can create risks that may lead to injury and damage to property. This requires separate verification.
- 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.
- All components must be stored safely, following all the special Doka instructions given in the relevant sections of this document!

Maintenance

- Only original Doka components may be used as spare parts. Repairs may only be carried out by the manufacturer or authorised facilities.

Miscellaneous

The weights as stated are averages for new material; actual weights can differ, depending on material tolerances. Dirt accretions, moisture saturation, etc. can also affect weight.

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

Eurocodes at Doka

The permissible values stated in Doka documents (e.g. $F_{perm} = 70 \text{ kN}$) are not design values (e.g. $F_{Rd} = 105 \text{ kN}$)!

- It is essential to avoid confusing permissible values with design values!
- Doka documents will continue to state the permissible values.

Allowance has been made for the following partial factors:

- $\gamma_F = 1.5$
- $\gamma_{M, \text{timber}} = 1.3$
- $\gamma_{M, \text{steel}} = 1.1$
- $k_{mod} = 0.9$

Consequently, all the design values for an EC design calculation can be determined from the permissible values.

Symbols used

The following symbols are used in this document:



DANGER

This is a notifier drawing attention to an extremely dangerous situation in which non-compliance with this notifier will lead to death or severe, irreversible injury.



WARNING

This is a notifier drawing attention to a dangerous situation in which non-compliance with this notifier can lead to death or severe, irreversible injury.



CAUTION

This is a notifier drawing attention to a dangerous situation in which non-compliance with this notifier can lead to slight, reversible injury.



NOTICE

This is a notifier drawing attention to a situation in which non-compliance with this notifier can lead to malfunctions or damage to property.



Instruction

Indicates that actions have to be performed by the user.



Sight-check

Indicates that you need to do a sight-check to make sure that necessary actions have been carried out.



Tip

Points out useful practical tips.



Reference

Cross-references other documents.

Services

Support in every stage of the project

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

Project assistance from start to finish

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

Efficient planning for a safe project sequence

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

Optimise construction workflows with Doka

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

Custom formwork and on-site assembly

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

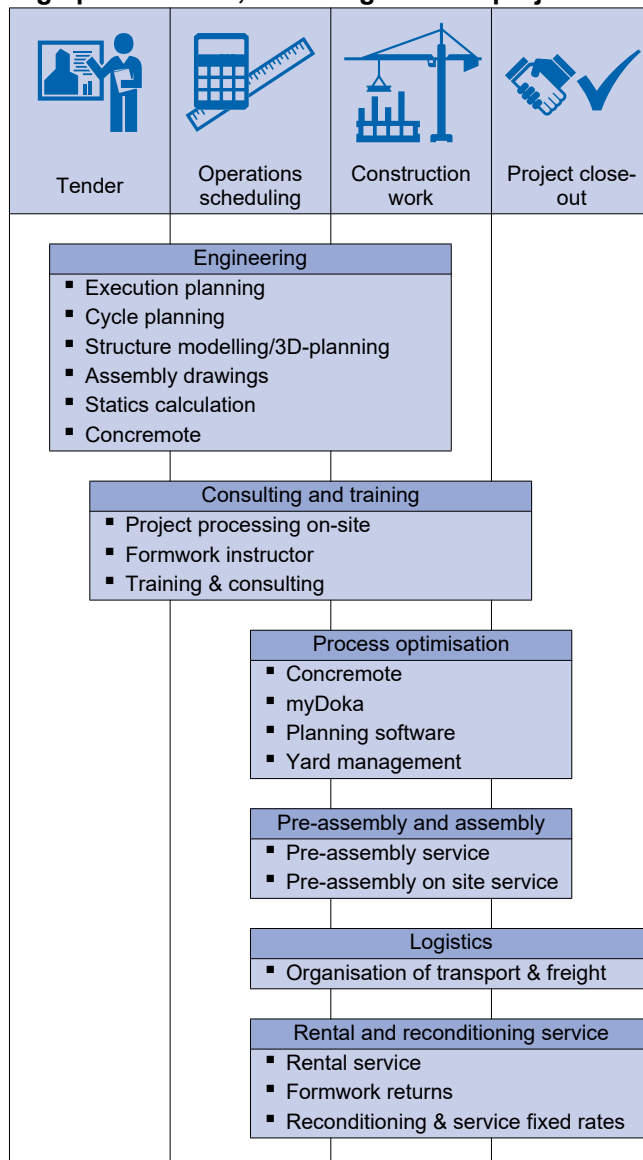
Just-in-time availability

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

Rental and reconditioning service

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

High performance, in all stages of the project



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 doka.com/upbeatconstruction.

System description

Load-bearing tower Staxo 100 eco – the extra-high-capacity, extra-fast and extra-economical shoring system

Staxo 100 eco comes with all the field-proven advantages of Staxo 100 – meaning that it is robust, fast and versatile.

Sturdy galvanised or painted steel frames, in three different heights, are the basis of this high-speed, high-performance load-bearing tower system.

High load-bearing capacity, quick and easy assembly and great versatility – these are the outstanding characteristics of Staxo 100 eco.

Wherever high loads occur, in either the building-construction or civil-engineering fields, this load-bearing tower is the ideal solution.

... is economical

- The tower units are quick and easy to assemble:
 - either on their sides or in the upright
 - for tall towers, tower units can be pre-assembled on their sides, and then simply stacked by crane
 - scaffold planking units make it easy to erect and dismantle the tower and superstructure
- with special wheel units, complete tableforms can quickly be wheeled to their next location
- the Forklift shifting device TG makes the job of erecting, dismantling and transporting Doka load-bearing towers very much easier.

The high-performance load-bearing tower

- high capacity of up to 100 kN per leg
- with lightweight components (frames up to h=1.20 m can be manhandled)
- ergonomical: easy-to-handle parts

... speeds up work

- the small number of system components makes for easier handling and means that no time is wasted searching for parts
- no tools are needed for assembling the towers

... provides optimum safety

- high stability, due to its 1.52 m wide frames
- attachment points for fall-arrest set

... is flexible

- the inter-frame spacing can be varied (from 0.60 m to 3.00 m), for optimum utilisation of the frames' load-bearing capacity. (From 1.00m, in 50 cm increments).
- different frame heights - 0.90 m, 1.20 m and 1.80 m
 - for rough height adjustment in 30 cm increments: 0.90, 1.20 and 1.80 m
- fine adjustment by means of screw-jack U-heads and feet
- can be used in conjunction with floor props and Dokaflex

Areas of use

The Load-bearing tower Staxo is ideal:

- as falsework for use in bridge-building, where high loads occur and where great stability is called for in that horizontal forces such as wind loads have to be safely transferred
- in the building construction field, e.g. for administration buildings and multistorey car-park decks, where large-area tableform units reduce forming times
- in the industrial and power-station construction field, as a load-bearing tower for all manner of applications

Doka stair tower 250

The Doka stair tower 250 consists of 1.20m frames and a small number of lightweight aluminium stairway elements.

Quick to erect, the stair tower provides 'high-level' safety and lets the site crew get quickly to their workplaces.

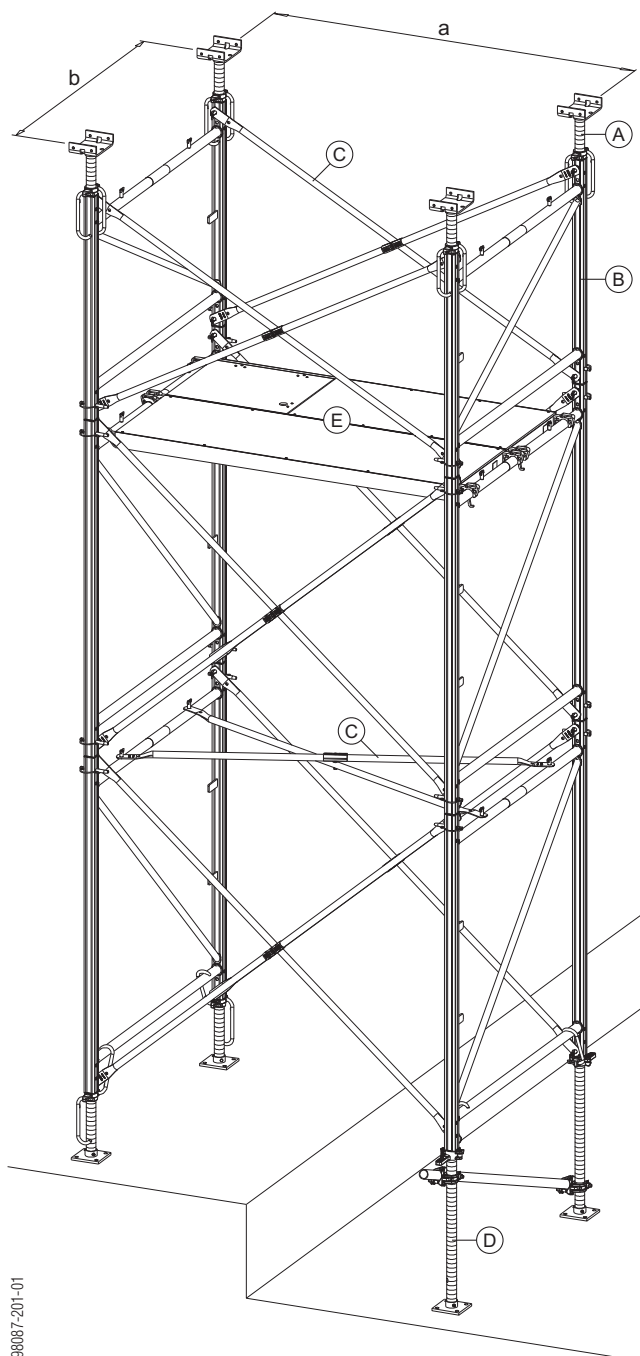


Follow the directions in the 'Doka stair tower 250' User Information booklet!

System overview

Basic design concept

The Staxo 100 eco system components



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a ... Inter-frame spacing = 60* / 100 / 150 / 175 / 200 / 250 / 300 cm
 b ... Frame width = 152 cm
 * only for 1.20 and 0.90m frames

A Head unit

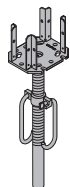
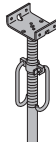
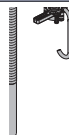
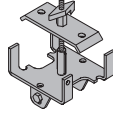
B Staxo 100 eco frame

C Diagonal cross

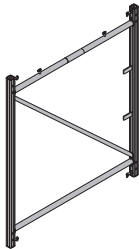
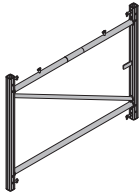
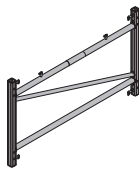
D Base unit

E Scaffold planking

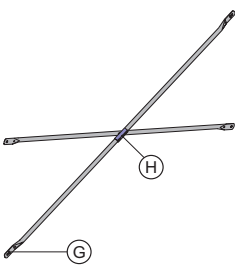
Head units (A)

4-way screw-jack head	Screw jack U-head	Heavy duty screw jack 70 top + Split nut B	U-head D
			
Top height-adjustment screwjacks for load-bearing towers. For holding the superstructure and adjusting its height.			Rotatable, but with no height adjustment.
May be used with either one or two Doka H20 beams. The primary beams are fixed so that they cannot tip over.	For holding the primary beams (e.g. multi-purpose walings, steel girders).		For holding the primary beams (e.g. WS10 steel walings or double H20 beams).

Staxo 100 eco frame (B)

Staxo 100 eco frame 1.80m	Staxo 100 eco frame 1.20m	Staxo 100 eco frame 0.90m
		
The steel frames are available either galvanised or painted.		

Diagonal crosses (C)

	<p>Slot-in bracing crosses made of tubular steel, for mounting between the frames.</p> <p>Identified by:</p> <ul style="list-style-type: none"> Embossed marking (G) e.g. 18.250 <ul style="list-style-type: none"> 18 = frame height 1.80 m 250 = inter-frame spacing 250 cm Notched, colour-coded clips (H) (see table)
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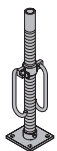
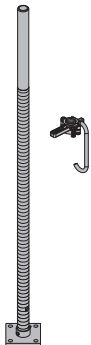
Designation	Colour-coded clip	Notches
Diagonal cross 9.060	Black	—
Diagonal cross 9.100	Green	—
Diagonal cross 9.150	Red	—
Diagonal cross 9.175	Light green	—
Diagonal cross 9.200	Blue	—
Diagonal cross 9.250	Yellow	—
Diagonal cross 9.300	Orange	—
Diagonal cross 12.060	Black	1
Diagonal cross 12.100	Green	1
Diagonal cross 12.150	Red	1
Diagonal cross 12.175	Light green	1
Diagonal cross 12.200	Blue	1
Diagonal cross 12.250	Yellow	1
Diagonal cross 12.300	Orange	1
Diagonal cross 18.100	Green	3
Diagonal cross 18.150	Red	3
Diagonal cross 18.175	Light green	3
Diagonal cross 18.200	Blue	3
Diagonal cross 18.250	Yellow	3
Diagonal cross 18.300	Orange	3

Note:

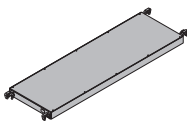
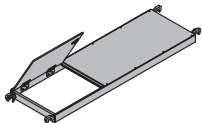
For **horizontal** bracing of the frames, always use **Diagonal crosses 9.xxx**.


In levels in which scaffold planking units are mounted, horizontal bracing with diagonal crosses is no longer needed. This only applies, of course, if the scaffold planking units are left in place in this "storey" until the very end of the assignment (assembly, pouring etc.)

Base units (D)

Screw jack foot	Heavy-duty screw jack 70 + Split nut B	Heavy-duty screw jack 130 + Split nut B
		
Bottom height-adjustment spindle for load-bearing towers.		
The Split nut B can be swung apart, meaning that it does not need to be turned through the full length of the threaded spindle.		
Specially for height mis-matches such as on steps. Otherwise identical to Heavy-duty screw jack 70. For details, see the section headed "Structural design".		

Scaffold planking units (E)

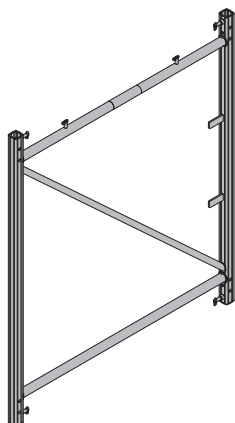
Scaffold planking 60/...cm	Scaffold planking 60/...cm with manhole
	
Aluminium/timber scaffold planking units with or without self-closing cover, for making safe assembly decks.	
Integral anti-liftout guard	
Width: 60 cm	
Lengths: 60 / 100 / 150 / 175 / 200 / 250 / 300 cm	

Scaffold planking 30/... cm

Steel scaffold planking units for making safe assembly decks.
Integral anti-liftout guard
Width: 30 cm
Lengths: 100 / 150 / 175 / 200 / 250 / 300 cm

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

Load Class 2 to EN 12811-1:2003

The Staxo 100 eco frame in detail



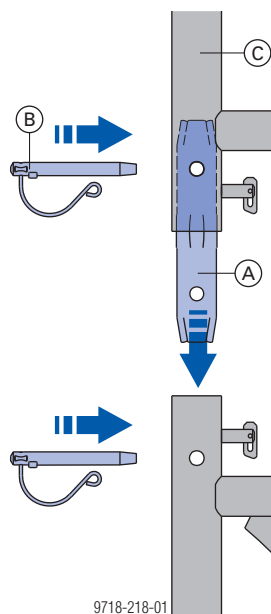
NOTICE

Only Staxo 100 frames and Staxo 100 eco frames fulfil the capacity ratings stated in this document!

Interconnection system on Load-bearing tower Staxo 100 eco

- Easy, safe interconnection using the couplers and spring-locked connecting pins 16mm.

- 1) Fix a coupler in the top frame, using a Spring locked connecting pin 16mm.
- 2) Place this frame on top of the one below it.
- 3) Secure it with a Spring locked connecting pin 16mm.



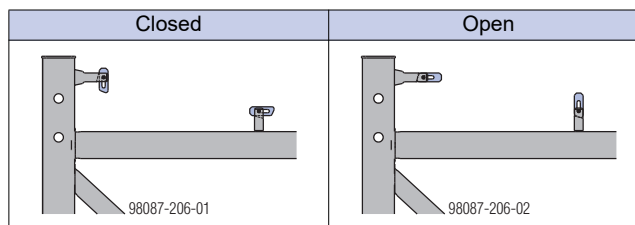
A Coupler

B Spring-locked connecting pin 16mm

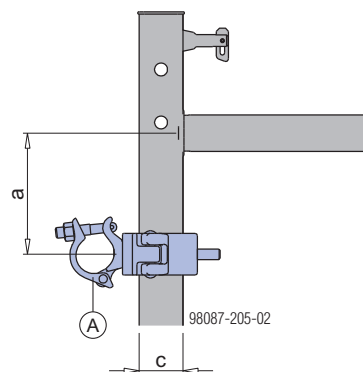
C Staxo 100 eco frame

Safety catch

- tried-and-tested interconnection system (captive)
- secures the diagonal crosses
- two defined positions (closed – open)



Connecting the couplers



a ... max. 16 cm (exception: where tubes are being connected for constructional design purposes)
c ... Diameter 75 mm

A Transition swivel coupler 48/76mm.

This type of link is not in conformity with DIN 4421 (DIN EN 74).
No loads may be introduced parallel to the Staxo tubes.

Profile form

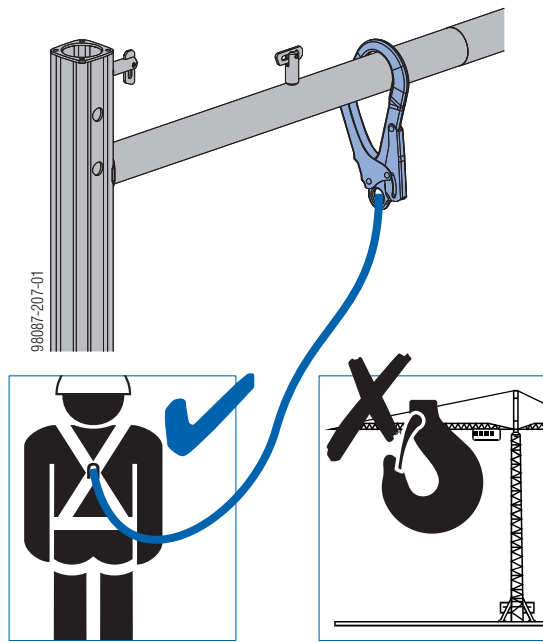
- low weight, yet high load-bearing capacity
- sturdy



Profile seal

- protects against damage
- sliding contact surface for nuts

Attachment point for personal fall-arrest set

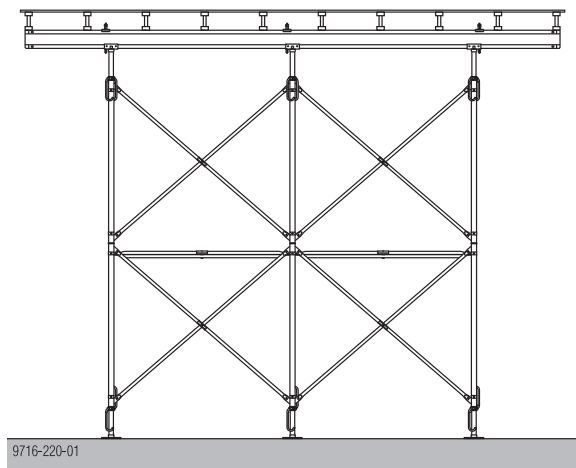


Practical examples

Tableforms and tower frames are both assembled from the same system components.

Tableform units

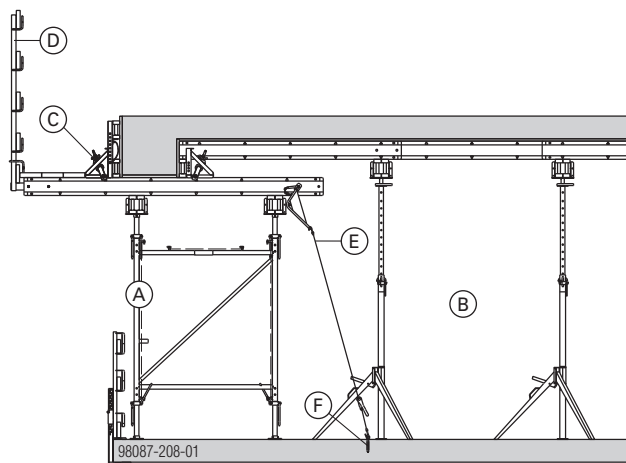
- For repetitive use, the load-bearing tower can be assembled into complete tableforms.



Combined with Dokaflex

For downstand beams, the **load-bearing towers and beam-forming supports** can be combined very effectively with Dokaflex.

Edge floor-beam



- A Load-bearing tower
- B Dokaflex
- C Beam forming support 20
- D Handrail post T 1.80m (optionally with Toeboard holder T 1.80m), Edge protection system XP, Handrail clamp S or Handrail post 1.50m
- E Lashing strap 5.00m
- F Doka express anchor 16x125mm and Doka coil 16mm

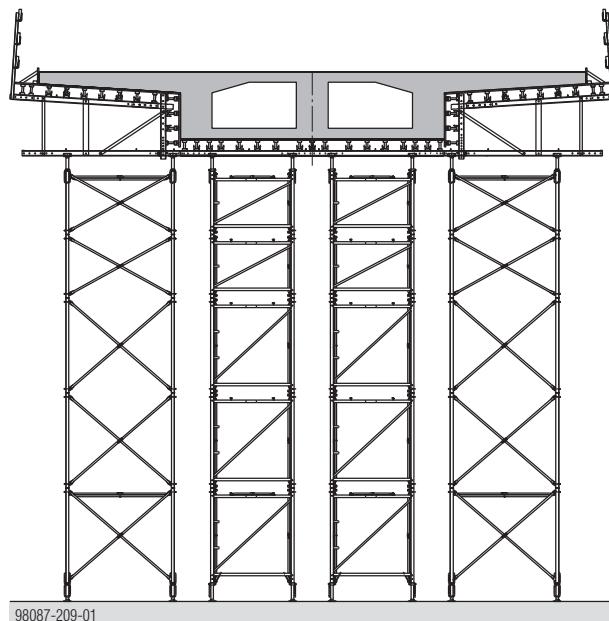
Tower frames

With a load-bearing capacity of up to 100 kN per leg, Staxo 100 eco is an extremely strong load-bearing tower system.

It safely withstands horizontal forces such as wind loads.

The wide frames make for high stability right from the word "go".

Close inter-frame spacing is possible, for transferring high loads.



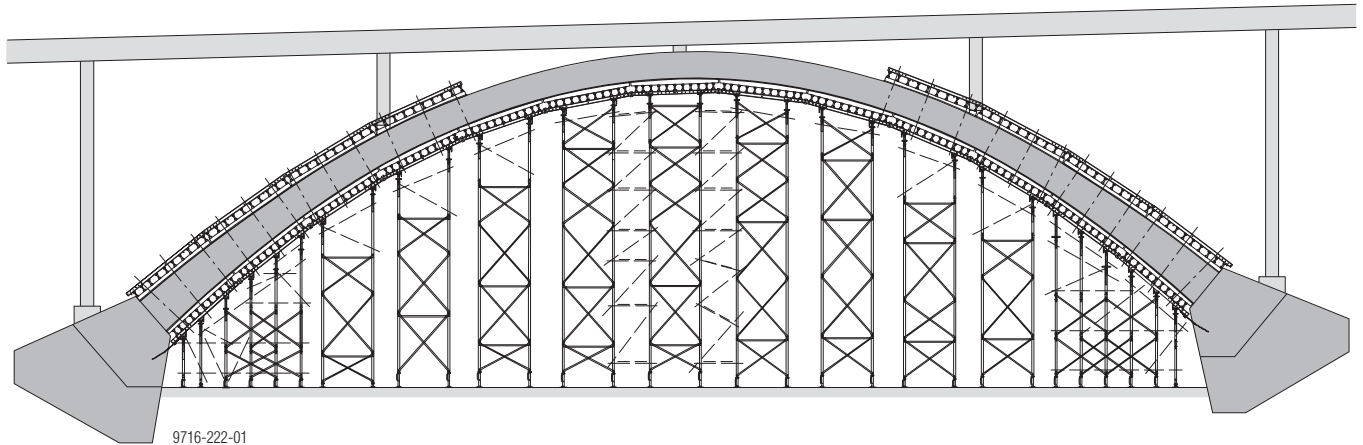
The Universal dismantling tool makes it easier to turn the Split nut B - even when it is under higher loads.

Shoring load-bearing structures

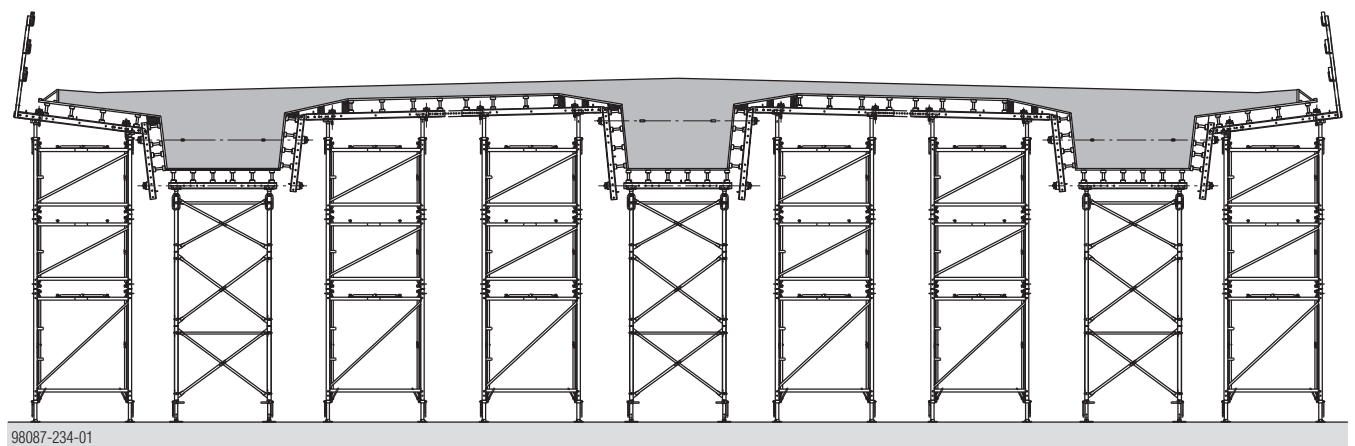
For bridges, underpasses and industrial structures, the load-bearing towers also combine perfectly with Doka large-area formwork Top 50.

Even complicated structures can be formed cost-effectively in this way, with standard parts used extensively.

Propping an arched bridge



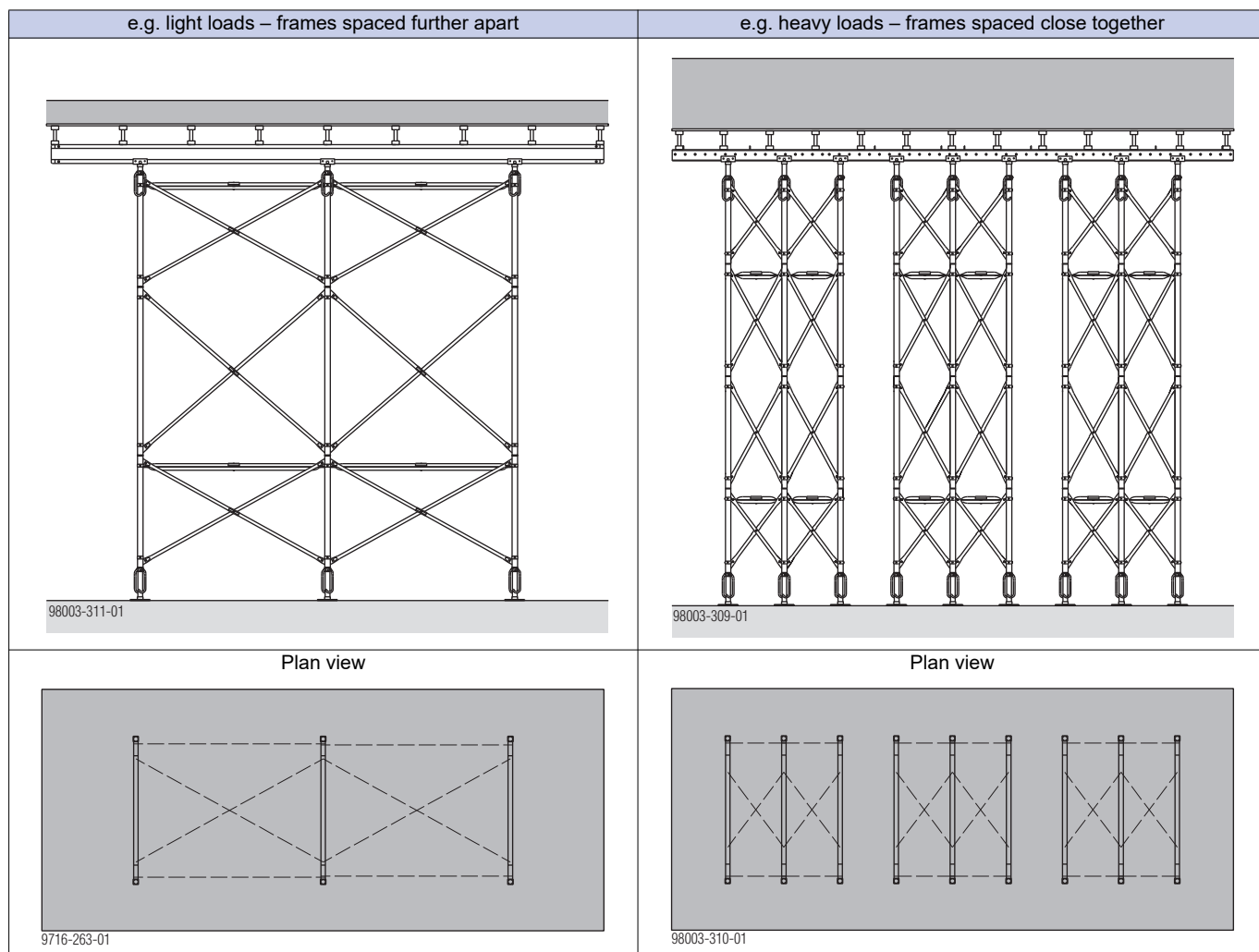
Typical section - propping a superstructure formwork



Adapts to different ground plans, heights, floor shapes and loads

The different sizes of diagonal brace for each height of frame enable the frames to be spaced close together or further apart, depending on the load.

In this way, only as much material is used as is really needed.



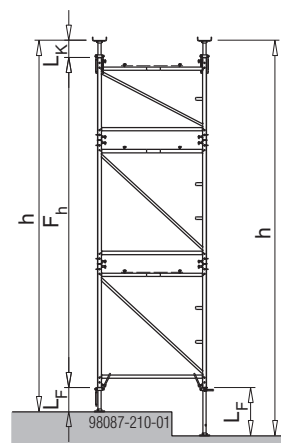
Height ranges and materials schedule

Frame-sizes up to 1.80 m



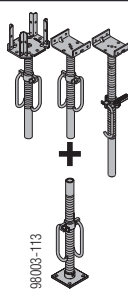
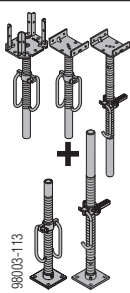
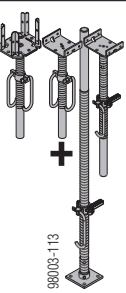
NOTICE

- The minimum values $h_{min.}$ given in Table A are only applicable if the biggest possible frame is always used in the base storey.
- The **lowering distance of 6 cm** is already allowed for in Table A!
- L_K and L_F are in accordance with the structural design. In some cases, the structural design will permit greater extension lengths - see Tables B and C in the section headed 'Height adjustment'.



1.80m, 1.20m and 0.90m frames are possible here.

Table A

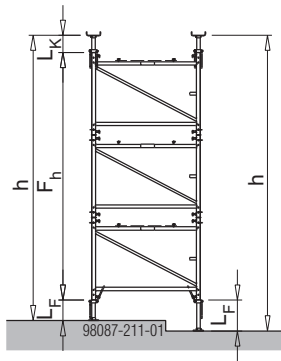
Fixed height of frame F_h [m]	Variant 1 $L_K = \max. 30 \text{ cm}$ $L_F = \max. 30 \text{ cm}$			Variant 2 $L_K = \max. 45 \text{ cm}$ $L_F = \max. 70 \text{ cm}$			Variant 3 $L_K = \max. 45 \text{ cm}$ $L_F = \max. 130 \text{ cm}$			Basic items							
	 98003-113 h [m] min. - max.	4-way screw-jack head, Screw jack U-head or Heavy-duty screw jack 70 top	Screw-jack foot	 98003-113 h [m] min. - max.	4-way screw-jack head, Screw jack U-head or Heavy-duty screw jack 70 top	Screw-jack foot or Heavy-duty screw jack 70 + Split nut B	 98003-113 h [m] min. - max.	4-way screw-jack head, Screw jack U-head or Heavy-duty screw jack 70 top	Heavy-duty screw jack 130 + Split nut B	Staxo 100 frame 0.90m	Staxo 100 frame 1.20m	Staxo 100 frame 1.80m	Diagonal cross 9.xxx	Diagonal cross 12.xxx	Diagonal cross 18.xxx	Coupler	Spring locked connecting pin 16mm
1.20	1.45 - 1.80	4	4	1.76 - 2.35	4	4	2.48 - 2.95	4	4	-	2	-	1	2	-	-	-
1.80	2.02 - 2.40	4	4	2.06 - 2.95	4	4	2.48 - 3.55	4	4	-	-	2	1	-	2	-	-
1.80	2.02 - 2.40	4	4	2.52 - 2.95	4	4	2.91 - 3.55	4	4	4	-	-	5	-	-	4	8
2.10	2.32 - 2.70	4	4	2.52 - 3.25	4	4	3.24 - 3.85	4	4	2	2	-	3	2	-	4	8
2.40	2.62 - 3.00	4	4	2.82 - 3.55	4	4	3.54 - 4.15	4	4	-	4	-	1	4	-	4	8
2.70	2.92 - 3.30	4	4	2.92 - 3.85	4	4	3.24 - 4.45	4	4	2	-	2	3	-	2	4	8
3.00	3.22 - 3.60	4	4	3.22 - 4.15	4	4	3.54 - 4.75	4	4	-	2	2	1	2	2	4	8
3.30	3.52 - 3.90	4	4	3.52 - 4.45	4	4	4.44 - 5.05	4	4	2	4	-	4	4	-	8	16
3.60	3.82 - 4.20	4	4	3.82 - 4.75	4	4	4.14 - 5.35	4	4	-	-	4	1	-	4	4	8
3.90	4.12 - 4.50	4	4	4.12 - 5.05	4	4	4.44 - 5.65	4	4	2	2	2	4	2	2	8	16
4.20	4.42 - 4.80	4	4	4.42 - 5.35	4	4	4.74 - 5.95	4	4	-	4	2	2	4	2	8	16
4.50	4.72 - 5.10	4	4	4.72 - 5.65	4	4	5.04 - 6.25	4	4	2	-	4	4	-	4	8	16
4.80	5.02 - 5.40	4	4	5.02 - 5.95	4	4	5.34 - 6.55	4	4	-	2	4	2	2	4	8	16
5.10	5.32 - 5.70	4	4	5.32 - 6.25	4	4	5.64 - 6.85	4	4	2	4	2	4	4	2	12	24
5.40	5.62 - 6.00	4	4	5.62 - 6.55	4	4	5.94 - 7.15	4	4	-	-	6	2	-	6	8	16
5.70	5.92 - 6.30	4	4	5.92 - 6.85	4	4	6.24 - 7.45	4	4	2	2	4	4	2	4	12	24
6.00	6.22 - 6.60	4	4	6.22 - 7.15	4	4	6.54 - 7.75	4	4	-	4	4	2	4	4	12	24
6.30	6.52 - 6.90	4	4	6.52 - 7.45	4	4	6.84 - 8.05	4	4	2	-	6	4	-	6	12	24
6.60	6.82 - 7.20	4	4	6.82 - 7.75	4	4	7.14 - 8.35	4	4	-	2	6	2	2	6	12	24
6.90	7.12 - 7.50	4	4	7.12 - 8.05	4	4	7.44 - 8.65	4	4	2	4	4	4	4	4	16	32
7.20	7.42 - 7.80	4	4	7.42 - 8.35	4	4	7.74 - 8.95	4	4	-	-	8	2	-	8	12	24
7.50	7.72 - 8.10	4	4	7.72 - 8.65	4	4	8.04 - 9.25	4	4	2	2	6	4	2	6	16	32
7.80	8.02 - 8.40	4	4	8.02 - 8.95	4	4	8.34 - 9.55	4	4	-	4	6	2	4	6	16	32
8.10	8.32 - 8.70	4	4	8.32 - 9.12	4	4	8.64 - 9.85	4	4	2	-	8	4	-	8	16	32
8.40	8.62 - 9.00	4	4	8.62 - 9.55	4	4	8.94 - 10.15	4	4	-	2	8	2	2	8	16	32
8.70	8.92 - 9.30	4	4	8.92 - 9.85	4	4	9.24 - 10.45	4	4	2	4	6	4	4	6	20	40
9.00	9.22 - 9.60	4	4	9.22 - 10.15	4	4	9.54 - 10.75	4	4	-	-	10	2	-	10	16	32
9.30	9.52 - 9.90	4	4	9.52 - 10.45	4	4	9.84 - 11.05	4	4	2	2	8	4	2	8	20	40

Choose the right diagonal crosses for the distance between the frames.

The schedule of materials does not include scaffold planking units.

The scaffold planking units have to be planned separately for each set-up configuration. Provided they are located in the same level, they replace the Diagonal crosses 9.xxx needed for horizontal bracing. This reduction in the number of diagonal crosses needed must be allowed for in the schedule of materials.

Frame-sizes up to 1.20 m



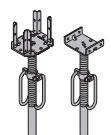
1.20m and 0.90m frames are possible here.



NOTICE

- The minimum values $h_{min.}$ given in Table A are only applicable if the biggest possible frame is always used in the base storey.
- The **lowering distance of 6 cm** is already allowed for in Table A!
- L_K and L_F are in accordance with the structural design. In some cases, the structural design will permit greater extension lengths - see Tables B and C in the section headed 'Height adjustment'.
- Greater extension lengths are possible (up to max. 45 cm) if the head units and/or base units are given suitable scaffold-tube bracing.
- In principle, it is possible to use Heavy-duty screw jacks 70 and Heavy-duty screw jacks 70 top. However, when these are combined with the small frames, you must observe the limitations given in Tables B and C of the section headed 'Height adjustment'.

Table A

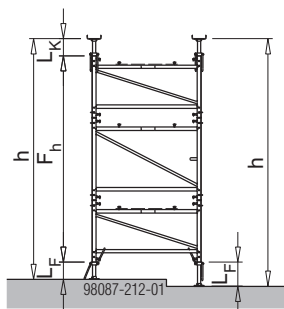
Fixed height of frame F_h [m]	$L_K = \text{max. } 30 \text{ cm}$ $L_F = \text{max. } 30 \text{ cm}$		Basic items							
	 98003-113		4-way screw-jack head or Screw jack U-head							
	h [m] min. - max.		Screw-jack foot		Staxo 100 frame 0.90m	Staxo 100 frame 1.20m	Diagonal cross 9.xxx	Diagonal cross 12.xxx	Coupler	Spring locked connecting pin 16mm
1.20	1.45 - 1.80	4	4	-	2	1	2	-	-	
1.80	2.02 - 2.40	4	4	4	-	5	-	4	8	
2.10	2.32 - 2.70	4	4	2	2	3	2	4	8	
2.40	2.62 - 3.00	4	4	-	4	1	4	4	8	
2.70	3.10 - 3.30	4	4	6	-	8	-	8	16	
3.00	3.22 - 3.60	4	4	4	2	6	2	8	16	
3.30	3.52 - 3.90	4	4	2	4	4	4	8	16	
3.60	3.82 - 4.20	4	4	-	6	2	6	8	16	
3.90	4.12 - 4.50	4	4	6	2	8	2	12	24	
4.20	4.42 - 4.80	4	4	4	4	6	4	12	24	
4.50	4.72 - 5.10	4	4	2	6	4	6	12	24	
4.80	5.02 - 5.40	4	4	-	8	2	8	12	24	
5.10	5.32 - 5.70	4	4	6	4	8	4	16	32	
5.40	5.62 - 6.00	4	4	4	6	6	6	16	32	
5.70	5.92 - 6.30	4	4	2	8	4	8	16	32	
6.00	6.22 - 6.60	4	4	-	10	2	10	16	32	
6.30	6.52 - 6.90	4	4	6	6	8	6	20	40	
6.60	6.82 - 7.20	4	4	4	8	6	8	20	40	
6.90	7.12 - 7.50	4	4	2	10	4	10	20	40	
7.20	7.42 - 7.80	4	4	-	12	2	12	20	40	
7.50	7.72 - 8.10	4	4	6	8	8	8	24	48	
7.80	8.02 - 8.40	4	4	4	10	6	10	24	48	
8.10	8.32 - 8.70	4	4	2	12	4	12	24	48	
8.40	8.62 - 9.00	4	4	-	14	2	14	24	48	
8.70	8.92 - 9.30	4	4	6	10	8	10	28	56	
9.00	9.22 - 9.60	4	4	4	12	6	12	28	56	
9.30	9.52 - 9.90	4	4	2	14	4	14	28	56	

Choose the right diagonal crosses for the distance between the frames.

The schedule of materials does not include scaffold planking units.

The scaffold planking units have to be planned separately for each set-up configuration. Provided they are located in the same level, they replace the Diagonal crosses 9.xxx needed for horizontal bracing. This reduction in the number of diagonal crosses needed must be allowed for in the schedule of materials.

Frame-sizes up to 1.20 m (with 0.90 m frames in the top and bottom 'storeys')



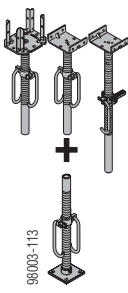
1.20m and 0.90m frames are possible here.



NOTICE

- The minimum values given in the table can only be obtained if the integrated connection sleeve is removed from the frame.
- The **lowering distance of 6 cm** is already allowed for in Table A!
- L_K and L_F are in accordance with the structural design. In some cases, the structural design will permit greater extension lengths - see Tables B and C in the section headed 'Height adjustment'.
- In the top and bottom 'storeys', 0.90m frames **MUST** be used.
- Greater extension lengths are possible (up to max. 40 cm) if the head units and/or base units are given suitable scaffold-tube bracing.
- In principle, it is possible to use Heavy-duty screw jacks 70 and Heavy-duty screw jacks 70 top. However, when these are combined with the small frames, you must observe the limitations given in Tables B and C of the section headed 'Height adjustment'.

Table A

Fixed height of frame F_h [m]	$L_K = \text{max. } 25 \text{ cm}$ $L_F = \text{max. } 25 \text{ cm}$		Basic items						
	 h [m] min. - max.	4-way screw-jack head or Screw jack U-head	Screw-jack foot	Staxo 100 frame 0.90m	Staxo 100 frame 1.20m	Diagonal cross 9.xxx	Diagonal cross 12.xxx	Coupler	Spring locked connecting pin 16mm
1.80	2.02 - 2.30	4	4	4	-	5	-	4	8
2.70	2.92 - 3.20	4	4	6	-	8	-	8	16
3.00	3.22 - 3.50	4	4	4	2	6	2	8	16
3.60	3.82 - 4.10	4	4	8	-	10	-	12	24
3.90	4.12 - 4.40	4	4	6	2	8	2	12	24
4.20	4.42 - 4.70	4	4	4	4	6	4	12	24
4.50	4.72 - 5.00	4	4	10	-	12	0	16	32
4.80	5.02 - 5.30	4	4	8	2	10	2	16	32
5.10	5.32 - 5.60	4	4	6	4	8	4	16	32
5.40	5.62 - 5.90	4	4	4	6	6	6	16	32
5.70	5.92 - 6.20	4	4	10	2	12	2	20	40
6.00	6.22 - 6.50	4	4	8	4	10	4	20	40
6.30	6.36 - 6.80	4	4	6	6	8	6	20	40
6.60	6.66 - 7.10	4	4	4	8	6	8	20	40
6.90	6.96 - 7.40	4	4	10	4	12	4	24	48
7.20	7.26 - 7.70	4	4	8	6	10	6	24	48
7.50	7.56 - 8.00	4	4	6	8	8	8	24	48
7.80	7.86 - 8.30	4	4	4	10	6	10	24	48
8.10	8.16 - 8.60	4	4	10	6	12	6	28	56
8.40	8.46 - 8.90	4	4	8	8	10	8	28	56
8.70	8.76 - 9.20	4	4	6	10	8	10	28	56
9.00	9.06 - 9.50	4	4	4	12	6	12	28	56
9.30	9.36 - 9.80	4	4	10	8	12	8	32	64

Choose the right diagonal crosses for the distance between the frames.

The schedule of materials does not include scaffold planking units.

The scaffold planking units have to be planned separately for each set-up configuration. Provided they are located in the same level, they replace the Diagonal crosses 9.xxx needed for horizontal bracing. This reduction in the number of diagonal crosses needed must be allowed for in the schedule of materials.

Height adjustment

- The 3 different heights of frame 0.90 m, 1.20 m and 1.80 m enable coarse adjustment to within 30 cm.
- Fine adjustment, down to the last millimetre, is done using the various head and base units.



NOTICE

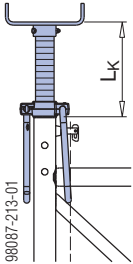
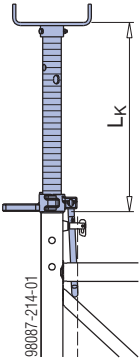
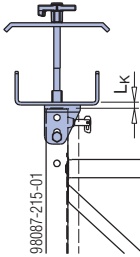
The structural design of the load-bearing tower may make it necessary to plan for shorter extension lengths. See the section headed 'Structural design' for dimensioning details.

System dimensions

on multi-storey towers

Regarding Table A ("Height ranges and materials schedule"), use the version of this table given in the chapter for the usage situation concerned.

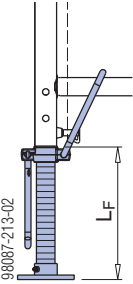
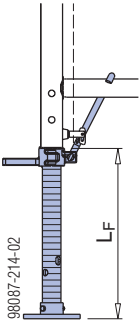
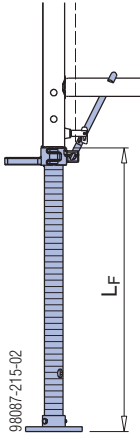
Table B: Head zone

	Screw jack U-head and 4-way screw-jack head	Heavy duty screw jack 70 top			U-head D
					
	1.80 / 1.20 / 0.90m	Frames in the top 'storey'			1.80 / 1.20 / 0.90m
L _K max.	45.8	71.2	71.2	71.2	1.6
L _K min.	7.8	8.4	8.4	24.3	1.6

Values in cm

Min. values with no formwork-striking play

Table C: Base zone

	Screw-jack foot			Heavy duty screw jack 70 + Split nut B			Heavy duty screw jack 130 + Split nut B		
									
	1.80m 1.20m 0.90m			Frames in the bottom 'storey'			1.80m 1.20m 0.90m		
L _F max.	46.2	46.2	46.2	71.2	71.2	71.2	131.2	131.2	131.2
L _F min.	8.2	8.2	8.2	8.8	8.8	24.7	8.8	66.5	96.5

Values in cm

Min. values with no formwork-striking play

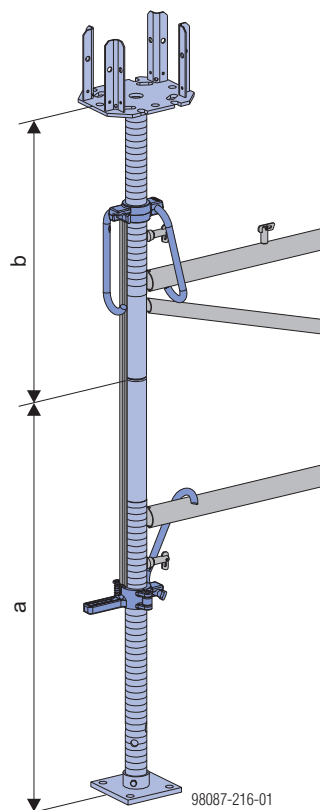
on single-storey towers

Note:

For towers consisting of one section only, the min. values L_K and L_F given in Tables B and C for the head and base units respectively will often not be reached.

Reason: The lengths of the head and base units add up to a larger dimension than the height of the frame. These constraint points have already been allowed for in the operational height data given in Table A (in the section headed "Height ranges and materials schedule").

Close-up: Cut-away view of frame tube

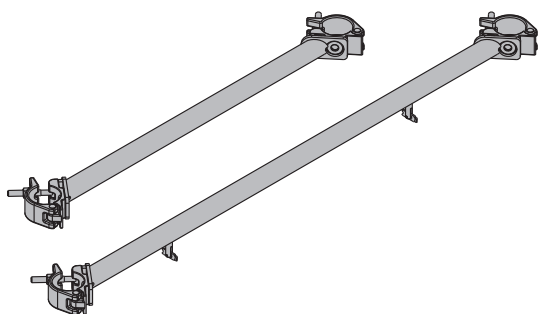


	a	b
Screw-jack foot	69.2	--
Heavy duty screw jack 70	101.2	--
Heavy duty screw jack 130	173.0	--
Screw jack U-head	--	68.8
4-way screw-jack head	--	68.8
Heavy duty screw jack 70 top	--	100.9
U-head D	--	10.0

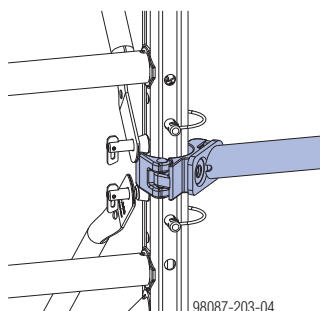
Linking towers / placing assembly-level planking between towers

Staxo 100 planking struts 1.00m and 1.50m can be used – together with scaffold planking units – to create workspaces, access routes or stiffening reinforcements between Staxo 100 eco towers.

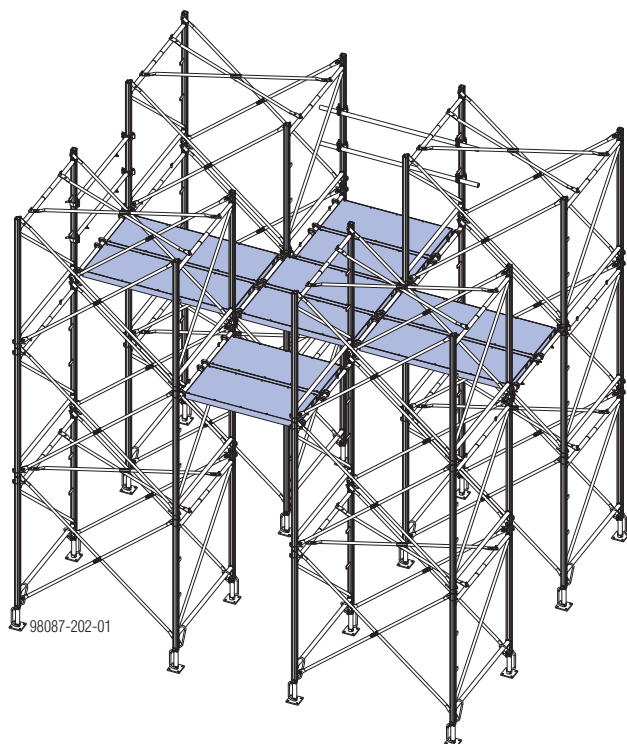
- No need to use scaffold tubes and loose couplers to make links in the frame plane
- Can be used as guard rails in the frame plane
- Can be used as links and, if statically necessary, as bracing between the towers
- Towers are always kept the same distance apart



Close-up showing how the Staxo 100 planking strut is fixed to the Staxo 100 eco frame-joint to make a decking level

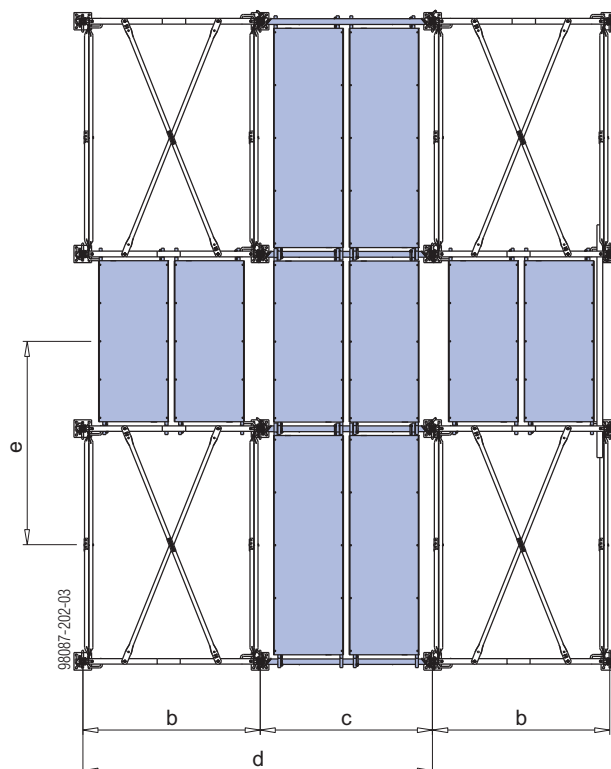
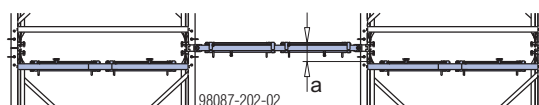


Spanner size (width-across) 22 mm



Note:

There is a height mismatch between the scaffold planking units placed on Staxo 100 planking struts and those placed on the Staxo 100 eco frames.



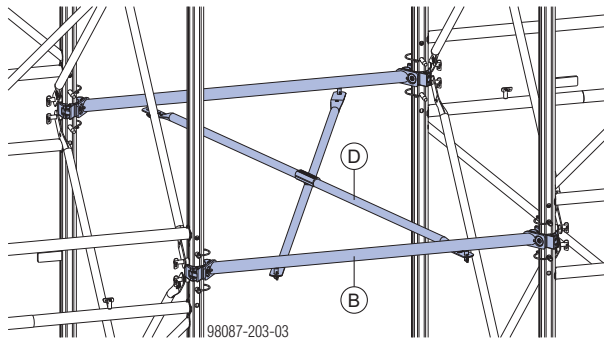
- a ... 16 cm
- b ... 152.4 cm
- c₁ ... 97.6 cm with Staxo 100 planking strut 1.00m
- c₂ ... 147.6 cm with Staxo 100 planking strut 1.50m
- d₁ ... 250.0 cm with Staxo 100 planking strut 1.00m
- d₂ ... 300.0 cm with Staxo 100 planking strut 1.50m
- e ... Permitted influence width (see Table)

Permitted influence width 'e' [cm]

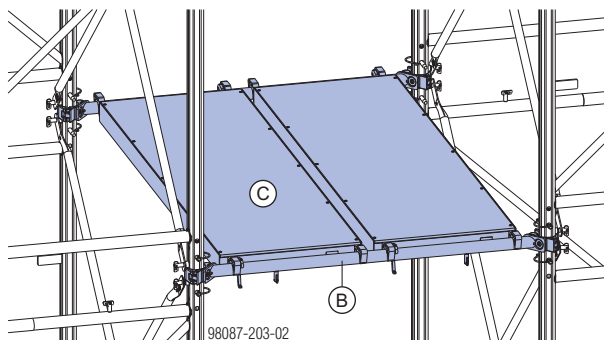
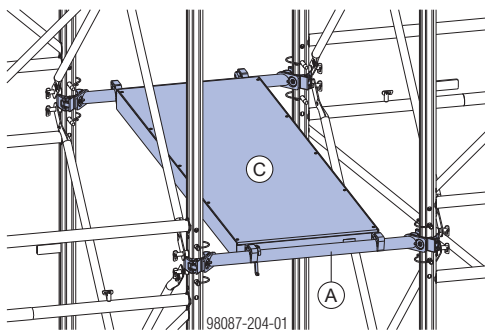
	Service load	
	1.5 kN/m ²	0.75 kN/m ²
Staxo 100 planking strut 1.00m	300	—
Staxo 100 planking strut 1.50m	225	300

Practical examples

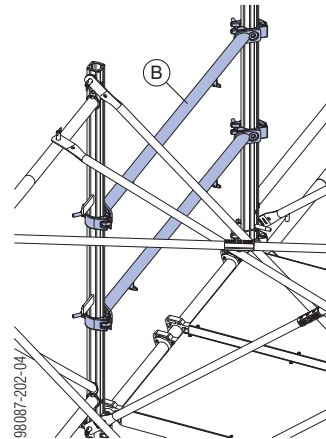
Linking towers



Placing scaffold planking between towers

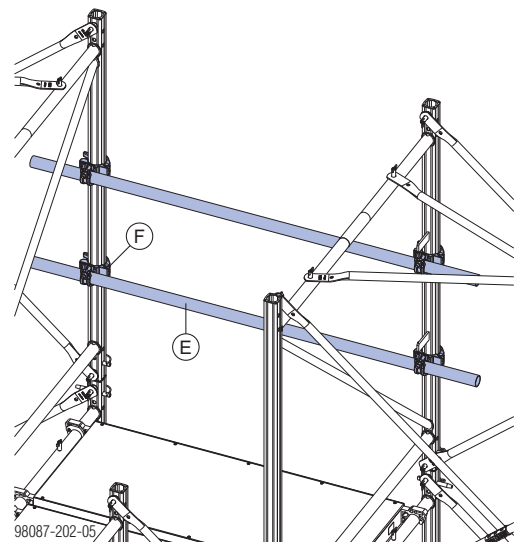


Erecting guard rails in frame plane



Note:

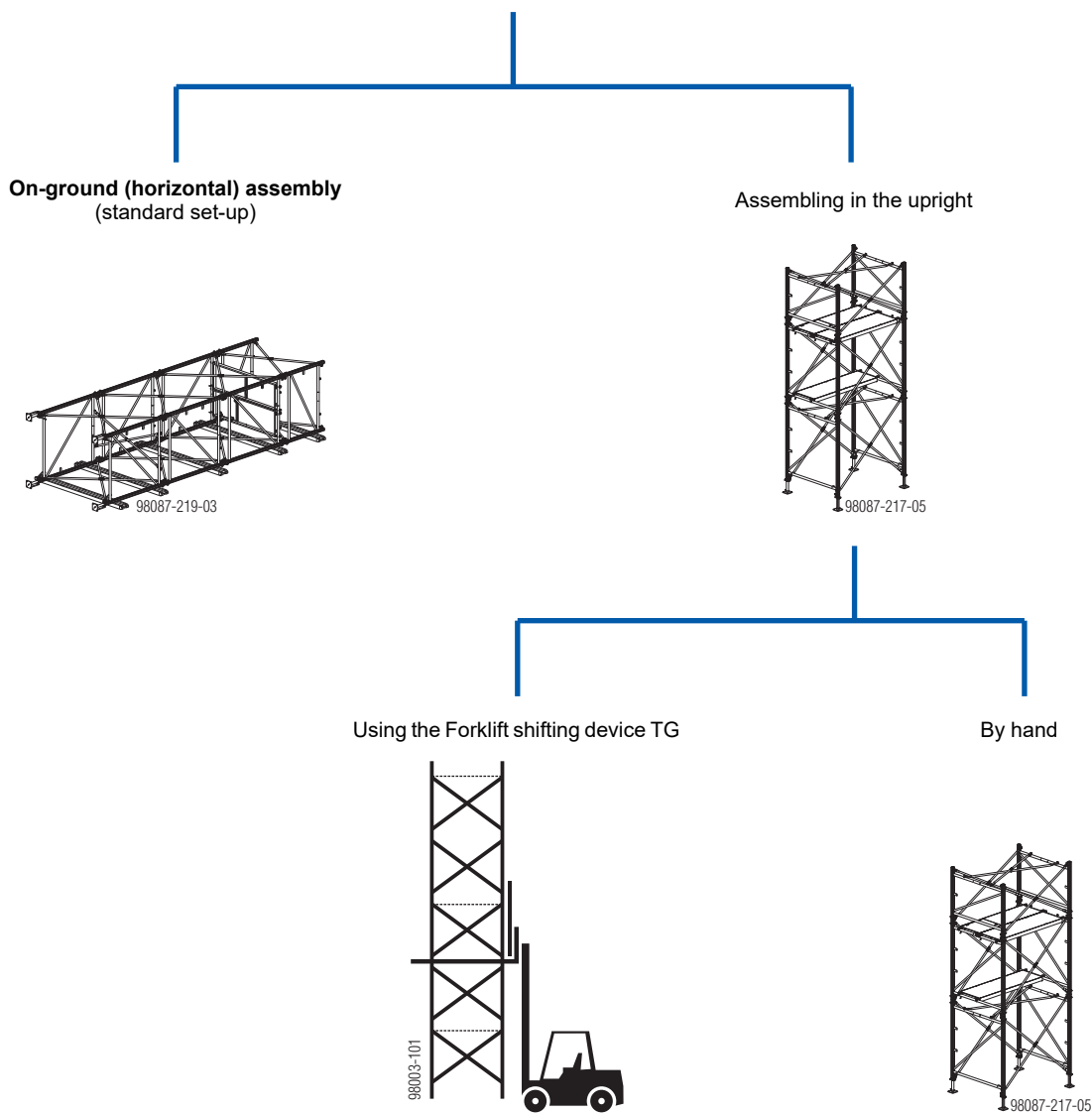
In the bracing-strut plane, guard rails may be erected using scaffold tubes 48.3mm and Transition swivel couplers 48/76mm.



- A Staxo 100 planking strut 1.00m
- B Staxo 100 planking strut 1.50m
- C Scaffold planking
- D Diagonal cross (where statically required)
- E Scaffold tube 48.3mm
- F Transition swivel coupler 48/76mm

Assembly

Different ways of assembling the Staxo load-bearing tower 100 eco



Fall protection when erecting, modifying or dismantling the load-bearing tower

If required by local regulations or as the result of a hazard assessment performed by the scaffold erector, when erecting, modifying or dismantling the load-bearing tower it may be necessary to use a personal fall-arrest system, 'mounted-ahead' frames and/or railings, or a combination of both.



NOTICE

Use only the anchorage points as shown in the section headed 'The Staxo 100 eco frame in detail'!



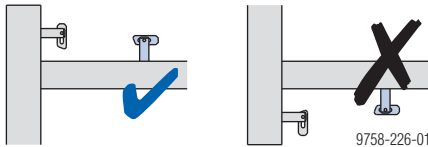
Horizontal assembly

Preliminary remark:

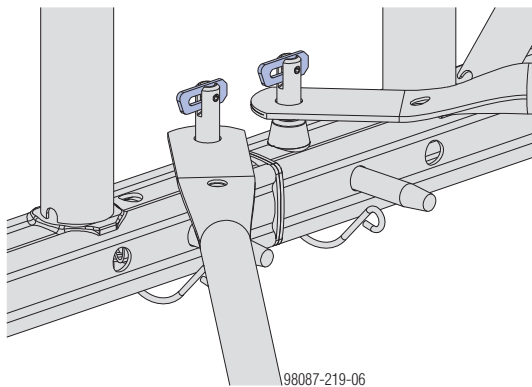
- The terms 'vertical' and 'horizontal' (e.g. referring to the diagonal crosses) are always used here with reference to their installation situation in the finished, upright tower.
- The job of erecting the load-bearing tower begins with the bottom (i.e. first) 'storey'.

General:

- The gravity latches of the frame must always point upwards.



- Slide the diagonal cross onto the safety-catch bolt and immediately secure it with the safety catch.

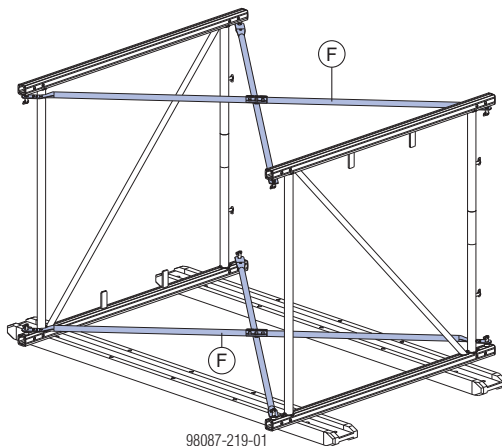


Erecting the first storey

- Having regard to the instructions given above, place the tower frames on their sides on timber supports (min. 4cm high).

Bracing the frames in the vertical

- Link the frames with diagonal crosses.



F Diagonal cross

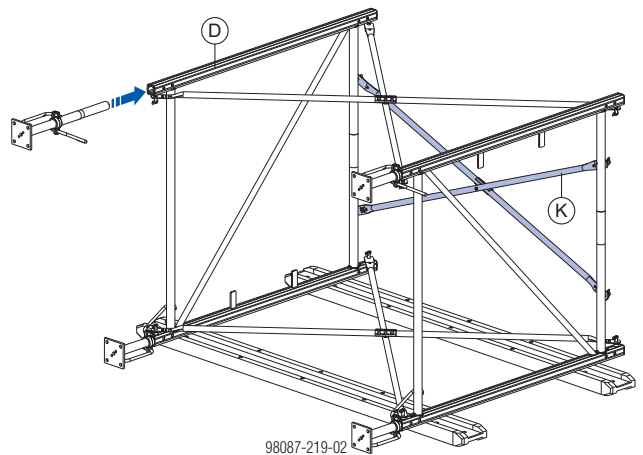
Plan-bracing the frames (in the horizontal)

Basic rule:

- Maintaining correct geometry by fixing a horizontal diagonal cross in the 1st and last-but-one or last 'storey', and every 10 m.
Additionally as required e.g.
 - if there is a horizontal restraint for the tower (even a temporary one)
 - if local loads need to be transferred (e.g. from attaching the tower to the crane after it has been ground-assembled in the horizontal)

For detailed design-load information, see the type test.

- Slot diagonal crosses onto the safety-catch bolts of the horizontal frame tubes, and fix them in place.



D Frame

K Diagonal cross

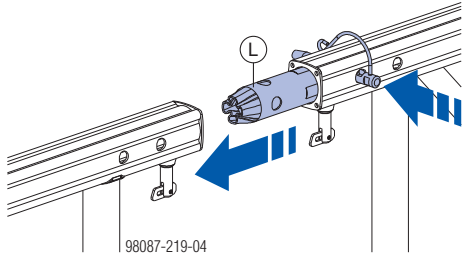
- Push in and secure the base units. See the section headed "Lifting by crane".

Erecting further storeys

Note:

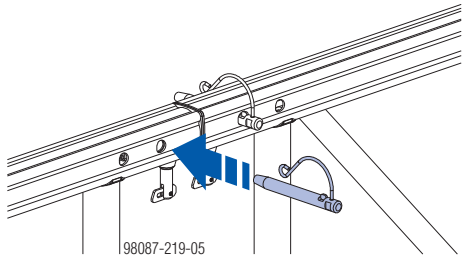
Do not pre-assemble units any higher than 10 m.

- Insert the couplers into the frames that you are about to add, and secure them with Spring locked connecting pins 16mm.

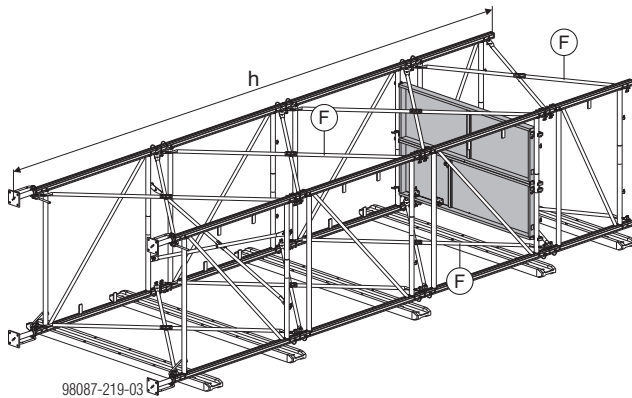


L Coupler

- Add the next frame and connect it to the frame below with Spring locked connecting pins 16 mm.



- Fit and secure diagonal crosses in the same way as in the first 'storey'.

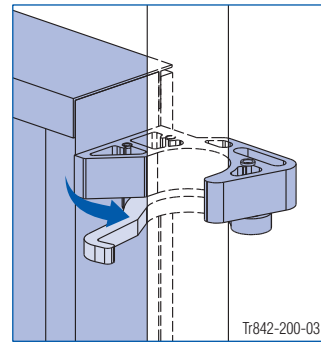


h ... max. 10 m

F Diagonal cross

- Install scaffold planking units where needed.

- Close the anti-liftout guard.



Having scaffold planking units in the top "storey" makes it easier to carry out assembly work on the towerframe superstructure.

Lifting into the upright by crane

- Check before attaching the crane lifting tackle:



- All the spring locked connecting pins must have been fitted (to link the frames).
- All safety catches must be closed.
- All base units must be secured.



NOTICE

Max. extension length of the base units when the tower is being lifted into the upright: 35 cm!

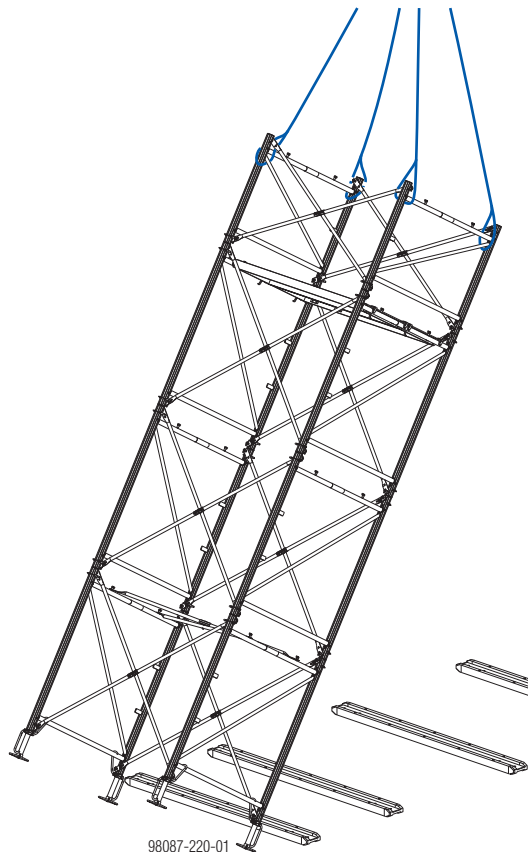
Lifting into the upright



NOTICE

- Erect the load-bearing tower in the vertical on ground that is statically capable of supporting the load.
- If the load-bearing tower is over 6 m high, back-stay it or combine it with other towers.

- Attach the lifting chain to the frames of the top "storey" and lift the entire tower into the upright.



When the tower is standing in the upright, check once again to make sure that all the safety catches are closed.



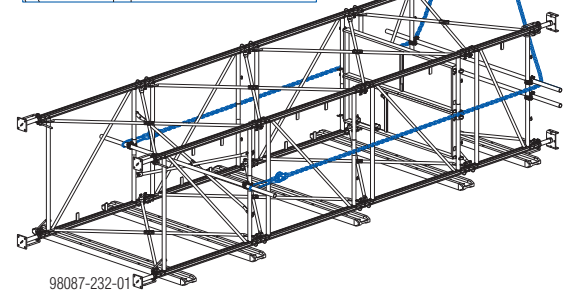
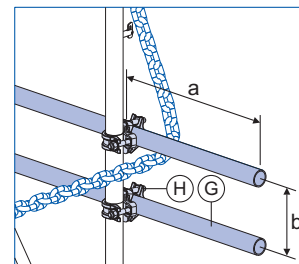
Detaching the lifting chain near ground level:

This method must **not be used for placing the tower back on its side!**

Items needed:

- 3 x Scaffolding tube 48.3mm (G)
 - Minimum length: Inter-frame space + 1.00 m
- 6 x normal or swivel couplers, 48mm (H)

- Attach the scaffolding tubes:
- one between the bottom frames
 - two between the top frames
- Attach two cables, chains or lifting straps to the bottom scaffold tube.
- Lead the cables, chains or lifting straps along the outside of the tower and between the top scaffold tubes.



a ... min. 0.5 m
b ... max. 0.2 m

After the tower has been lifted into the upright, the cables, chains or lifting straps are detached by a crewman working from ground level.

Dismantling

After the tower has been placed back on its side, dismantling is the reverse of the assembly procedure.



NOTICE

As early as in the planning phase, consideration should also be given to the dismantling operations (e.g. travelling/towing the load-bearing tower/unit into the reach of the crane for safe repositioning or for horizontal on-ground dismantling)!

Assembling towers in the upright by hand

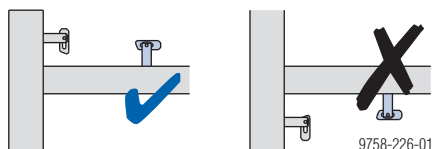


NOTICE

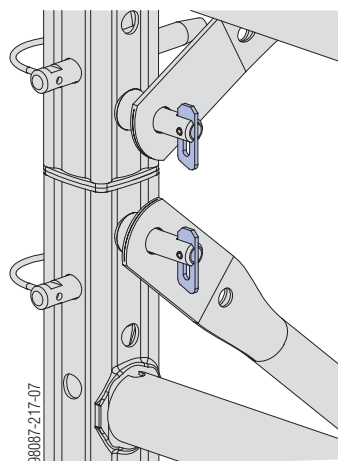
- Erect the load-bearing tower in the vertical on ground that is statically capable of supporting the load.
- If the load-bearing tower is over 6 m high, brace it or combine it with other towers.

As a rule:

- The gravity latches of the frame must always point upwards.



- Slide the diagonal cross onto the safety-catch bolt and immediately secure it with the safety catch.



Example with Heavy-duty screw jack 70 and 4-way screw-jack head.

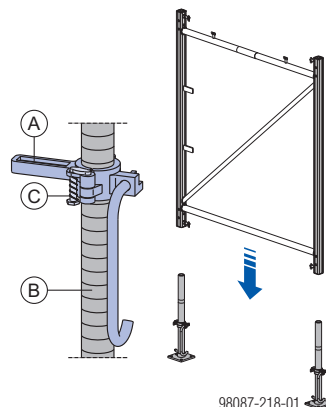
Erecting the first storey

- Place a Split nut B on the Heavy-duty screw jack 70, push the two halves together and secure it with the spring locking pin.



Make sure that the spring locking pin points downwards when it is secured.

- Insert the Heavy duty screw jacks 70 into the frames.

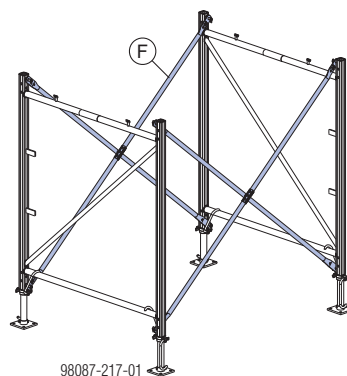


A Split nut B

B Heavy duty screw jack 70

C Spring locking pin

- Link the frames with diagonal crosses.

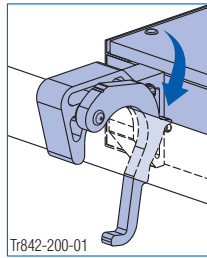


F Diagonal cross

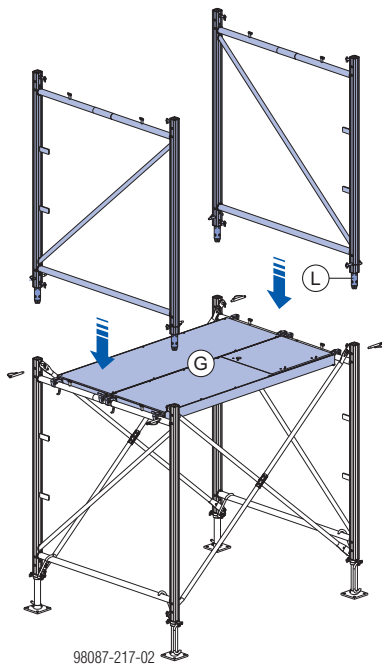
Erecting the second storey

Stacking the frames

- ▶ Place scaffold planking on the finished 'storey'.
- ▶ Close the anti-liftout guard.



- ▶ Insert the couplers into the frames that you are about to add, and secure them with Spring locked connecting pins 16mm.
- ▶ Add the next frame and connect it to the frame below with Spring locked connecting pins 16 mm.

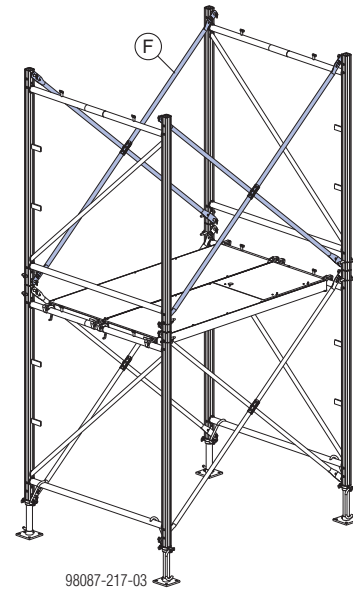


G Scaffold planking

L Coupler

Bracing the frames in the vertical

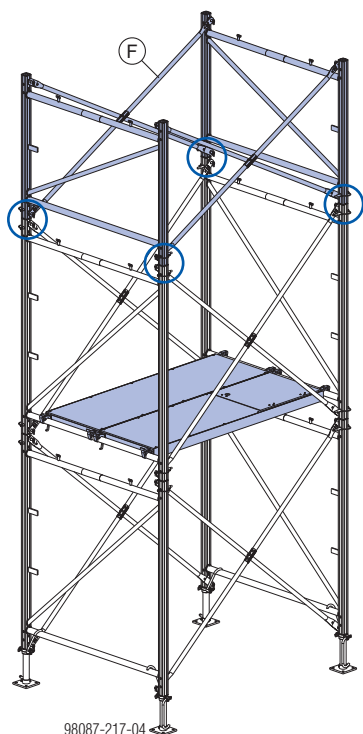
- ▶ Fit and secure diagonal crosses in the same way as in the first 'storey'.



F Diagonal cross

Erecting the third 'storey'

- Raise the scaffold planking units to the next level.
- Add 1.20 m frames in the same way as for the 2nd storey.
- Push diagonal crosses onto the bottom safety-catch bolts and secure them with the safety catches.



98087-217-04

F Diagonal cross

- Place the scaffold planking units 1 storey higher up.
- Push diagonal crosses onto the top safety-catch bolts and secure them with the safety catches.

Plan-bracing the frames (in the horizontal)

Basic rule:

- Maintaining correct geometry by fixing a horizontal diagonal cross in the 1st and last-but-one or last 'storey', and every 10 m.

Additionally as required e.g.

- if there is a horizontal restraint for the tower (even a temporary one)
- if local loads need to be transferred (e.g. from attaching the tower to the crane after it has been ground-assembled in the horizontal)

For detailed design-load information, see the type test.

Erecting further storeys

- Add further frames in the same way as for the 3rd storey, and brace them in the vertical with diagonal crosses.



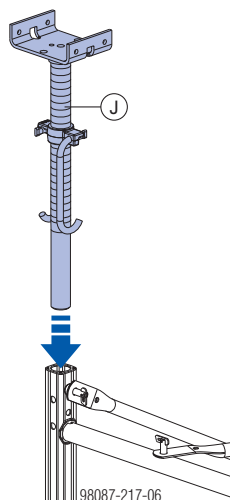
NOTICE

- If the load-bearing tower is over 6 m high, back-stay it or combine it with other towers.

Head zone

Fitting the head unit

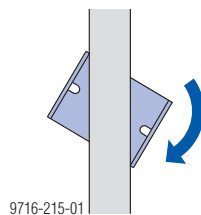
- Insert the head unit.



J Head unit

Always place the primary beams (single or double formwork beams) centrally.

The screw jack U-heads can also be turned to an angle to keep single formwork beams centred.



WARNING

- Where formwork beams cantilever out a long way, secure them against accidental lift-out.



NOTICE

- When lifting and repositioning the entire tower unit (or pre-assembled sub-units) by crane: Follow the instructions in the section headed 'Lifting by crane'!

Dismantling

To dismantle, perform the above steps in reverse order.

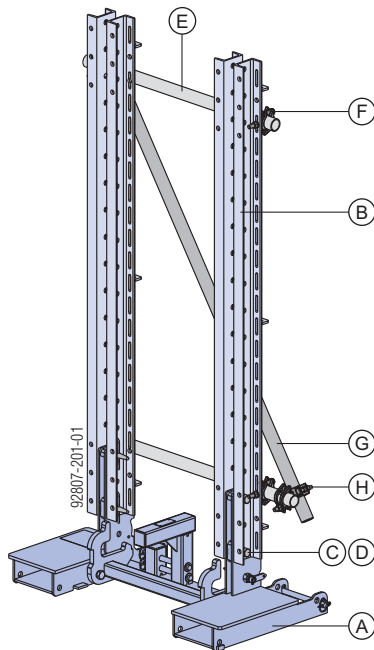
Assembling towers in the upright by forklift truck

Fork lift shifting device TG

The Fork lift shifting device TG may only be used for erecting, dismantling and transporting Doka load-bearing towers Staxo, Staxo 40, Staxo 100, Staxo 100 eco, d2 and d3.



Follow the directions in the Operating Instructions!



Items needed:

Item	Designation	Q'ty
(A)	Fork lift shifting device TG	1
(B)	Multi-purpose waling WS10 Top50 2.00m	2
(C)	Connecting pin 10cm	4
(D)	Spring cotter 5mm	4
(E)	Scaffold tube 48.3mm 1.00m	2
(F)	Screw-on coupler 48mm 50	4
(G)	Scaffold tube 48.3mm 2.00m	1
(H)	Swivel coupler 48mm	2
	Operating cord, site-provided (optional)	1



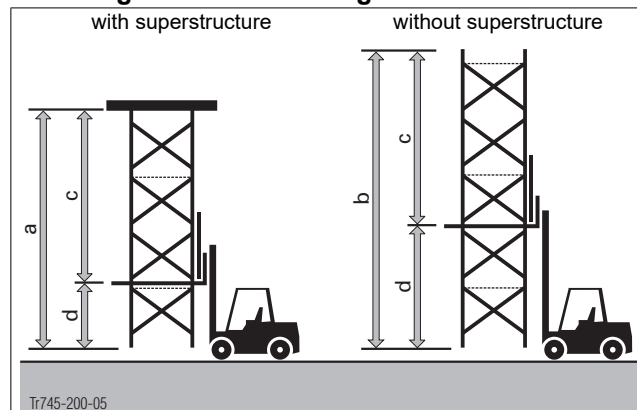
WARNING

While load-bearing towers are being erected or dismantled, lifted or lowered: It is forbidden to walk or stand beneath suspended loads.

Max. load

Max. load on forklift	Max. load on Fork lift shifting device	
	with box-style fork extensions	with telescopic forks
4000 kg	1000 kg	600 kg
2000 kg	600 kg	600 kg

Max. heights of load-bearing towers



	Max. load on forklift 4000 kg		Max. load on forklift 2000 kg	
	when travelling	when lifting	when travelling	when lifting
a	7.20 m	9.00 m	5.00 m	7.00 m
b	9.00 m	12.60 m	7.00 m	10.00 m
c	5.40 m	9.00 m	4.00 m	7.00 m
d	3.60 m	3.60 m	3.00 m	3.00 m

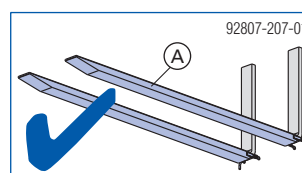
Requirements for fork-lift trucks or telescoping stacker trucks

- Overhead guard for forklift operator
- Centre-to-centre distance of the fork prongs: 850 mm

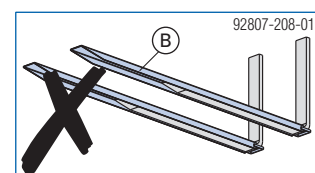


WARNING

- It is forbidden to use forklift or telescoping stacker trucks to erect/dismantle or transport load-bearing towers **without** a Fork lift shifting device TG.
- It is not permitted to use non-enclosed (open) fork extensions.



A Box-style fork extension



B Open fork extension

- Permitted types of fork extension:
 - box-style fork extensions ¹⁾
 - Telescopic fork prongs
- Min. fork length:
 - Distance between the frames of the load-bearing tower + 400 mm
- Max. fork width: 195 mm
- Max. fork height: 71 mm

¹⁾ Observe the following manufacturer's data:

- Load-bearing capacity of the fork extension
- Required length of the fork prongs

Travelling the towerframe units



NOTICE

Very important points for the moving procedure:

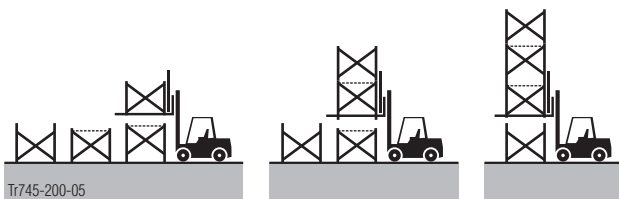
- As well as the fork-lift driver, a specially trained watchman must also be on hand during all lifting, assembly and travelling operations.
- max. inclination of trackway: 2%.
- There must be a flat, firm (e.g. concrete) base that is capable of supporting the load.

Assembling the towerframe units



NOTICE

- ▶ For details of how to assemble and join together the individual 'towerframe storeys', see 'Assembling towers in the upright'!
- ▶ Build each storey at ground level.
- ▶ Use a forklift truck to stack the towerframe storeys into a single towerframe unit.



Dismantling

To dismantle, perform the above steps in reverse order.

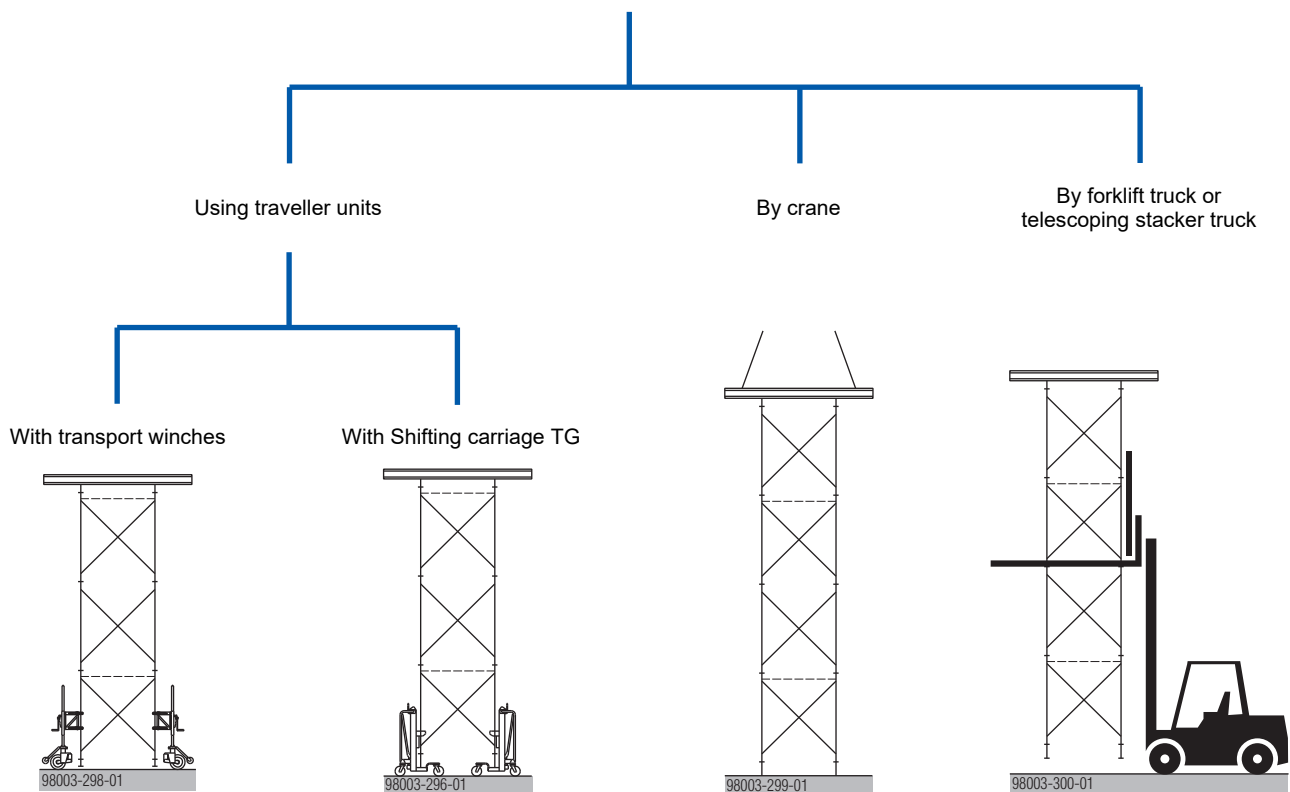


NOTICE

Always only dismantle the bottom 'storey' of the towerframe unit.

Repositioning

Different ways of repositioning



NOTICE

- The most suitable approach to repositioning and dismantling should already be discussed and agreed with the site in the project phase, especially for very tall towers.
- There are also other ways of repositioning the towers that are not shown in this User Information booklet. The customer (contractor) bears sole responsibility for use of all such methods and must prepare a separate risk assessment for any such intended method.

Repositioning using traveller units

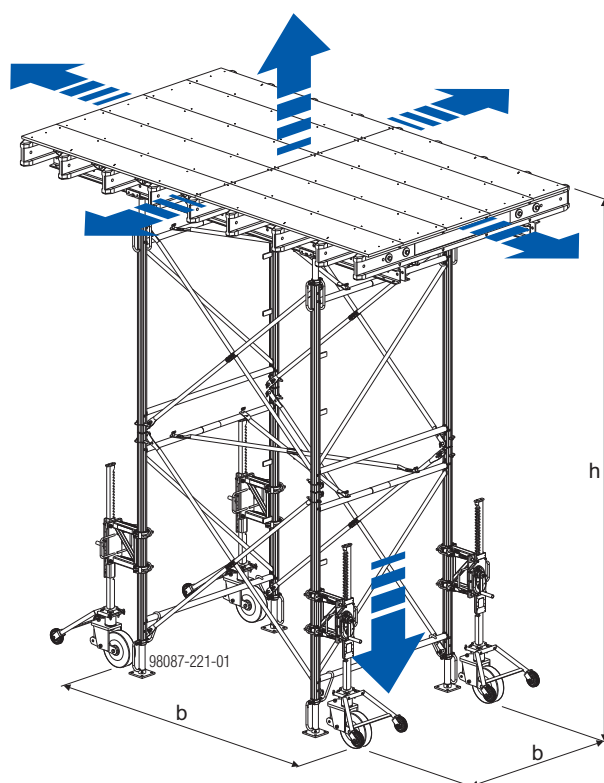
Completely assembled tableforms can be wheeled to their next location, quickly and easily, using traveller units.

The following different types of wheel unit are available for this. The crane is only needed when the tower has to be lifted up to the next storey.

All types of wheel unit can perform the following functions:

- Lifting
- Wheeling
- Lining-and-levelling
- Lowering

Example with Winch 70:



Traveller unit variants:

- Shifting carriage TG
- Modular system (with winches)



NOTICE

When repositioning load-bearing towers that include standard superstructures, remember: Ratio $b:h = \max. 1:3$, with 'b' being the narrowest side.

Custom constructions must be statically verified!

Modular system (with winches)

Optimum adaptability to on-site requirements.

There is a choice of 2 types of winch and 2 types of wheel.

Max. load-bearing capacity:

1000 kg / Winch 70

(lifting height 70 cm) with solid-tyre wheel

1500 kg / Winch 125

(lifting height 125 cm) with Heavy-duty wheel 15kN



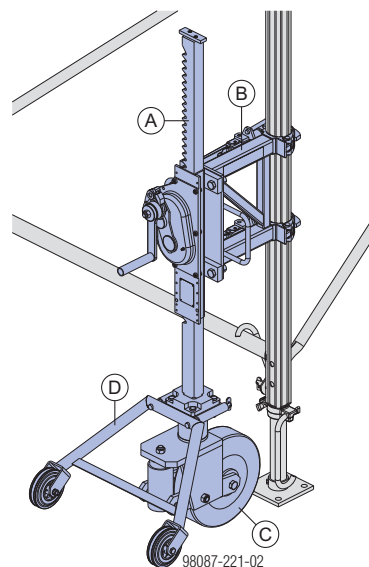
NOTICE

- There must be a flat, firm (e.g. concrete) base that is capable of supporting the load.



Follow the directions in the Operating Instructions!

- Clamp the winch to the frame of the load-bearing tower, using the adapter frame.
- Secure the foot-pieces to prevent them dropping out. See the section headed 'Lifting by crane'.

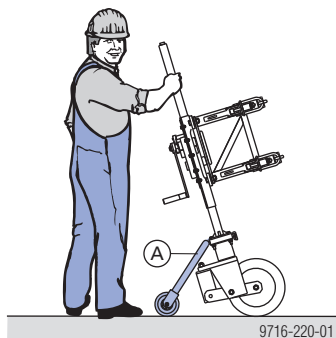


Items needed for one shifting unit

Item	Designation	Quantity
A	Winch 70 or 125	4
B	Staxo/d2 adapter frame	4
C	Solid-tyre wheel or Heavy duty wheel 15kN	4
D	Double wheeled transporter	4

Accessory for transporting the winches when empty:

The **Double wheeled transporter** is bolted into the connecting sockets on the wheel flange and makes it easier to wheel the (empty) wheel-units.



A Double wheeled transporter

Shifting carriage TG

This is an easy-to-operate, manual hydraulic lifting carriage for shifting light to medium-weight tableform units. As well as making the tableforms easier to move around, it also makes it easier to erect and strip the formwork.

- Hydraulic, for near-effortless lifting.
- Tables can be 'inched' down slowly with handle control.
- 3 steerable wheels for maximum manoeuvrability.
- Narrow overall width of 82 cm, the carriage can pass easily through any doorway when empty.

Max. load-bearing capacity per Shifting carriage TG: 1000 kg



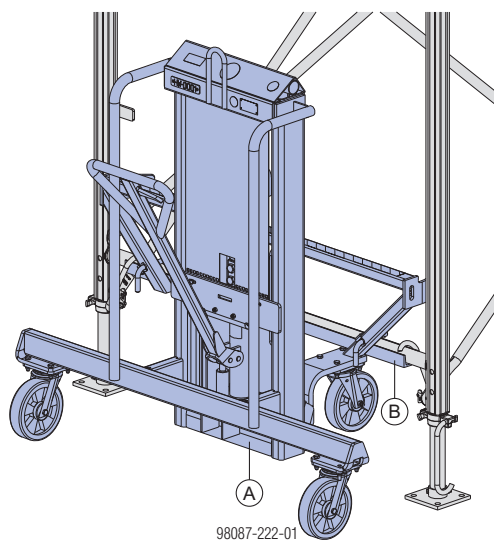
NOTICE

- The floor must be stable, firm and sufficiently smooth (e.g. concrete).
- Max. gradient of floor 5%.
- Max. configuration that can be transported using 2 Shifting carriages TG: Table with max. 3 cross-frames and max. height 5.0 m.



Follow the directions in the Operating Instructions!

- Push the Shifting carriage TG up against the narrowsides of the tableform – the slot-in lifting profile reaches under the bottom cross-tube of the frame.
- Secure the foot-pieces to prevent them dropping out. See the section headed 'Lifting by crane'.



Items needed for one shifting unit

Item	Designation	Quantity
A	Shifting carriage TG	2

A Shifting carriage TG

B Slot-in lifting profile

Lifting by crane



NOTICE

The max. height of towerframe unit that can be lifted in one piece is 20 m!

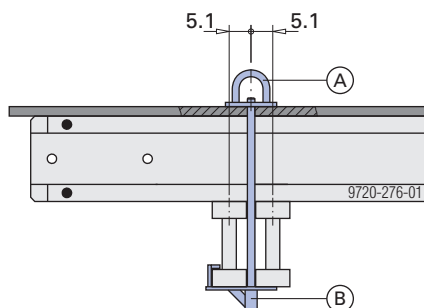
Where the tableforms are to be repositioned in the vertical, i.e. crane-lifted, they must be fitted with a **Lifting rod 15.0** and **Retaining plate 15.0**, which make it easy to attach the transfer cables.

Max. load:

1000 kg per Lifting rod 15.0 - where the load is applied centrally

Assembly

- Mount the Lifting rod 15.0 and Retaining plate 15.0.



A Lifting rod 15.0

B Retaining plate 15.0



Use a 20 mm diam. bit to drill the hole through the form-ply. It can later be filled with a Universal plug R20/25.



Follow the directions in the Operating Instructions!

Preparation



WARNING

Danger from loose and unsecured parts.

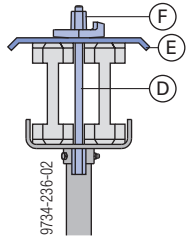
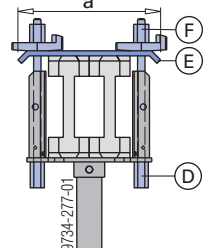
- Observe the following points before lifting!

Connect superstructure components together

- e.g. connect the primary and secondary beams to rafter plates, and nail on the form-ply.

Connect the superstructure to the head units

- e.g. with Locking rod 15.0, Clamping plate and Wing nut 15.0.

On Screw jack U-head	On 4-way screw-jack head
	
Only possible with Clamping plate a = 28 cm (2002 models onward)	

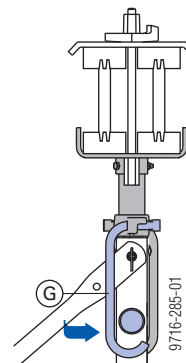
D Locking rod 15.0

E Clamping plate

F Wing nut 15.0

Secure the head units so that they cannot be lifted out

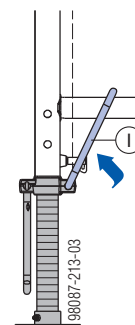
- Slot the fixing handle into the cross-tube of the frame.



G Fixing handle

Secure the base units to prevent them dropping out

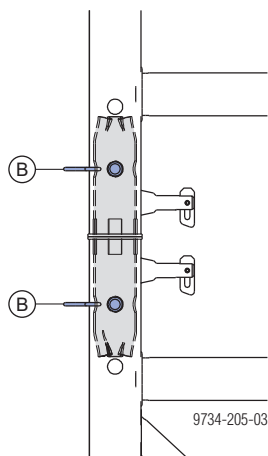
- Slot the fixing handle into the cross-tube of the frame.



I Fixing handle

Link the frames in a crane-handling-safe manner

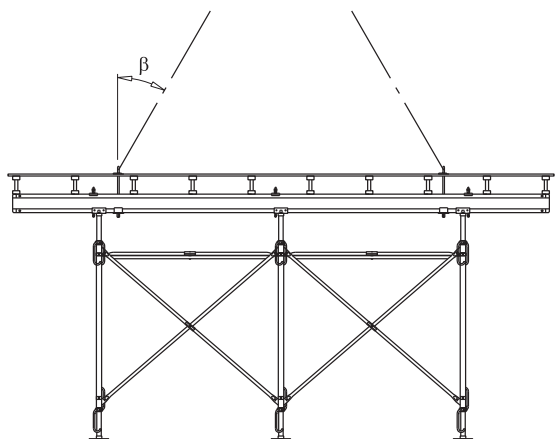
- ▶ Check whether all Spring-locked connecting pins 16mm have been fixed in place.



B Spring-locked connecting pin 16mm

Repositioning operation

- ▶ Working from the service tower, for example, attach the crane sling to the Lifting rods 15.0 and lift the tableform to its next location. Spread angle β max. 30°.

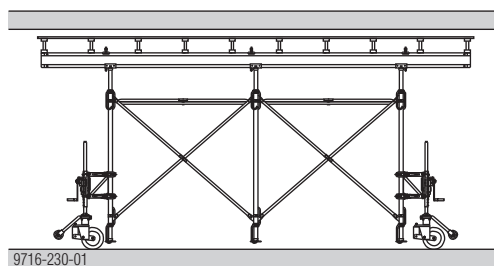


While the tableform is being lifted, there must NOT be any loose parts, tools or other items on the tableform!

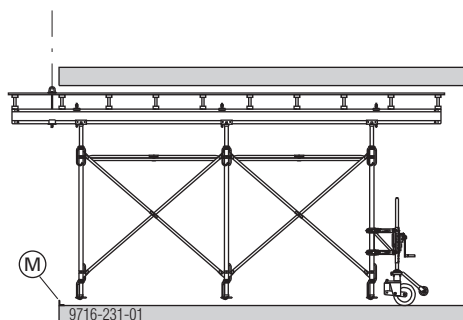
Shifting the table in skeleton construction

- ▶ Take the load off the table by turning the threaded spindles.
- ▶ Clamp on the wheel-units.

- ▶ Push in and secure the base units.

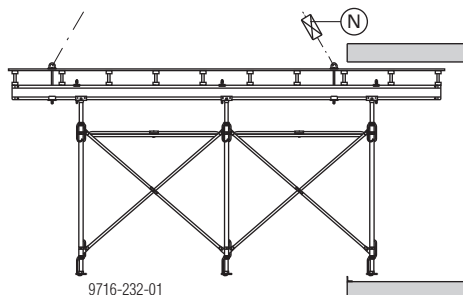


- ▶ Using the wheel-units, lower the table, and wheel it out as far as the stop.
- ▶ Remove the front wheel-units.
- ▶ Screw the Lifting rod 15.0 into the previously mounted Retaining plate 15.0.
- ▶ Attach the crane sling to the Lifting rod 15.0, then raise the crane until the front legs are just off the floor.



M Wheel-out stop

- ▶ Push the table outwards until only the innermost legs are still over the floor.
- ▶ Mount more lifting rods and attach crane slings.
- ▶ Use a chain hoist to shorten the rear cables until the table is suspended in the horizontal.
- ▶ Manoeuvre the table all the way out with the crane, then lift it to the next storey.



N Chain hoist

Lifting by forklift truck

Fork lift shifting device TG

For product information on the Fork lift shifting device TG and the requirements in respect of the forklift truck, see the section entitled 'Assembling towers in the upright by forklift truck'.



Follow the directions in the Operating Instructions!

Max. heights of load-bearing towers

max. height of load bearing towers

with superstructure

without superstructure

Tr745-200-05

Max. load on forklift
4000 kg

Max. load on forklift
2000 kg

when
travelling

when lifting

when
travelling

when lifting

a 7.20 m

9.00 m

5.00 m

7.00 m

b 9.00 m

12.60 m

7.00 m

10.00 m

c 5.40 m

9.00 m

4.00 m

7.00 m

d 3.60 m

3.60 m

3.00 m

3.00 m

Travelling the towerframe units



NOTICE

Very important points for the moving procedure:

- As well as the fork-lift driver, a specially trained watchman must also be on hand during all lifting, assembly and travelling operations.
- max. inclination of trackway: 2%.
- There must be a flat, firm (e.g. concrete) base that is capable of supporting the load.

General

Combining Staxo 100 eco with Staxo 100

**NOTICE**

In principle, the system frames of the Load-bearing towers Staxo 100 eco and Staxo 100 are compatible with one another. Ideally, however, the tower frames should be assembled from components of the same system.



For details regarding structural design, set-up and use, see the 'Doka Load-bearing tower Staxo 100' User Information booklet!

Combining with Dokamatic tables

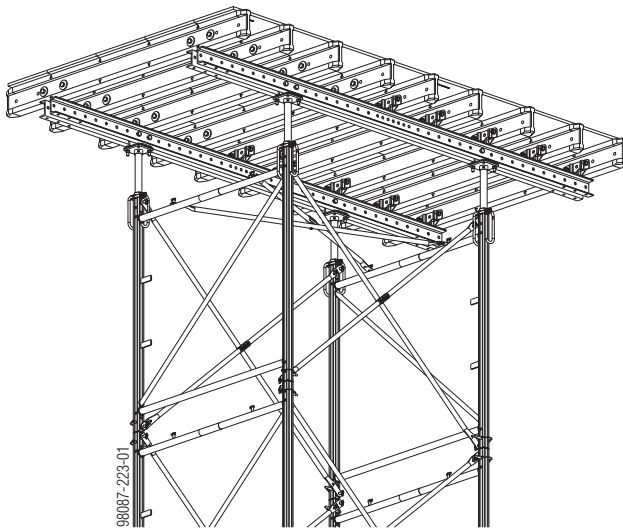
Superstructure attached by Dokamatic table Staxo spindle connectors

- Ready-assembled Dokamatic tables can be mounted directly onto Staxo 100 eco
- Height adjustment is possible in both the head and base zone of the load-bearing tower
- Superstructure can be inclined by up to 12% (in both the longitudinal and transverse directions)



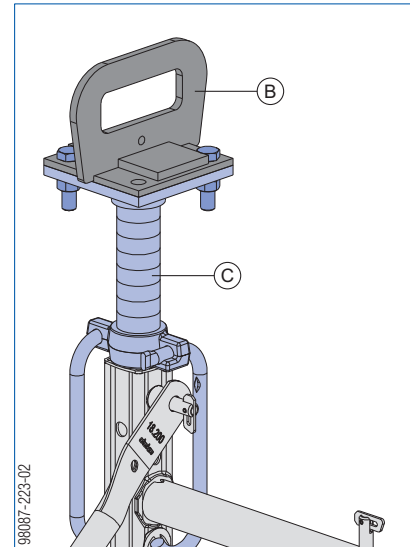
NOTICE

This configuration requires screwjack feet at the top of the tower instead of the usual screw-jack head units!



Assembly

- Mount a Screw-jack foot on the top frame.
- Bolt the 'Dokamatic table Staxo spindle connector' onto the Screw-jack foot.
Spanner size (width-across): 24 mm

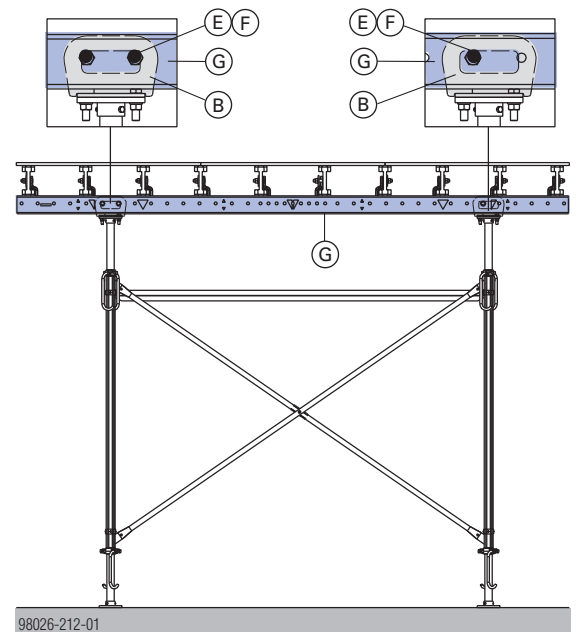


B Dokamatic table Staxo spindle connector

C Screw-jack foot

Attaching the Dokamatic table:

- Place the Dokamatic table onto the Staxo unit with the aid of two Dokamatic lifting straps 13.00m and the crane.
- Fit Connecting pins 10cm to connect the table, and secure these with spring cotters. The second connecting pin on each longitudinal connection prevents any displacement of the table superstructure.



B Dokamatic table Staxo spindle connector

E Connecting pin 10cm

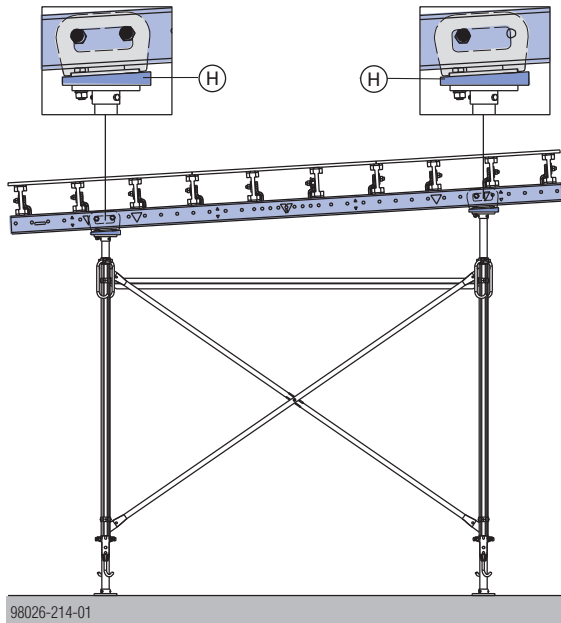
F Spring cotter 5mm

G Dokamatic table

Inclinations

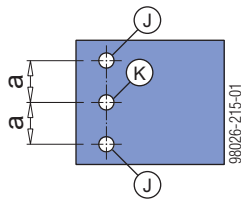
using Wedges for screw-jack % (hardwood wedge)

- Bolt the 'Wedge for screw-jack %' onto the Screw-jack foot. If any more holes are needed in the 'Wedge for screw-jack', these can be drilled on-site.



H Wedge for screw-jack %

Details of extra holes in the Wedge for screw-jack%



a ... 55 mm

J Holes to be drilled (diam. 20 mm)

K Ready-drilled hole (diam. 20 mm)

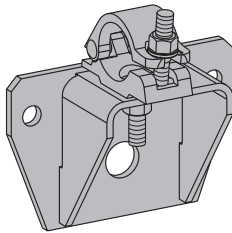


NOTICE

Max. table inclination 12% (in both the longitudinal and transverse directions).

Anchoring on the structure

With Anchoring shoe for stair tower



Permissible force transmission for each Anchoring shoe for stair tower: 12 kN in all directions

Applies when fastened with Cone screw B 7cm and Universal climbing cone 15.0 or two dowels.

Methods for fixing in concrete:

- By using a Cone screw B 7cm to fix the anchoring shoe to an existing suspension point prepared with Universal climbing cones 15.0 (diameter of hole in anchoring shoe = 32 mm). Hardwood shim (essential for ensuring a firm fit) prevents damage to the concrete (scratch marks).

This fixing method is only possible with anchoring shoes manufactured from 05/2009 onwards.

- With one or two dowels (diameter of hole in anchoring shoe = 18 mm).

Required load-bearing capacity of the dowels used:

- Tensile force: $R_d \geq 23.1 \text{ kN}$ ($F_{\text{perm.}} \geq 14.0 \text{ kN}$)
- Shear force: $R_d \geq 6.6 \text{ kN}$ ($F_{\text{perm.}} \geq 4.0 \text{ kN}$)

e.g. Hilti HST M16 - in uncracked B30 concrete, or equivalent products from other manufacturers. Follow the manufacturer's applicable fitting instructions!

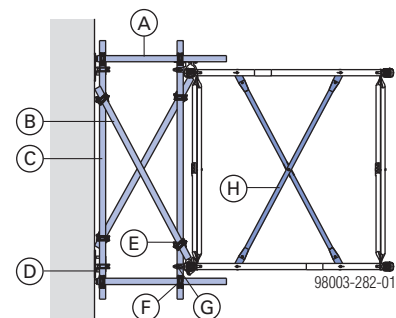
Design of the anchoring planes

The load-bearing tower is connected to the Anchoring shoe for stair tower by scaffold tubes and couplers.



NOTICE

When designing units assembled from tubes and couplers, all applicable standards and regulations must be observed, in particular EN 12812 'Falsework', EN 39 'Loose steel tubes for tube and coupler scaffolds' and EN 74 'Couplers, spigot pins and baseplates for use in falsework and scaffolds'.



A Scaffolding tube 48.3mm (L min = distance from structure)

B Scaffolding tube 48.3mm (L = variable)

C Scaffolding tube 48.3mm (L = variable)

D Anchoring shoe for stair tower

E Swivel coupler 48mm

F Normal coupler 48mm

G Transition swivel coupler 48/76mm

H Horizontal diagonal brace

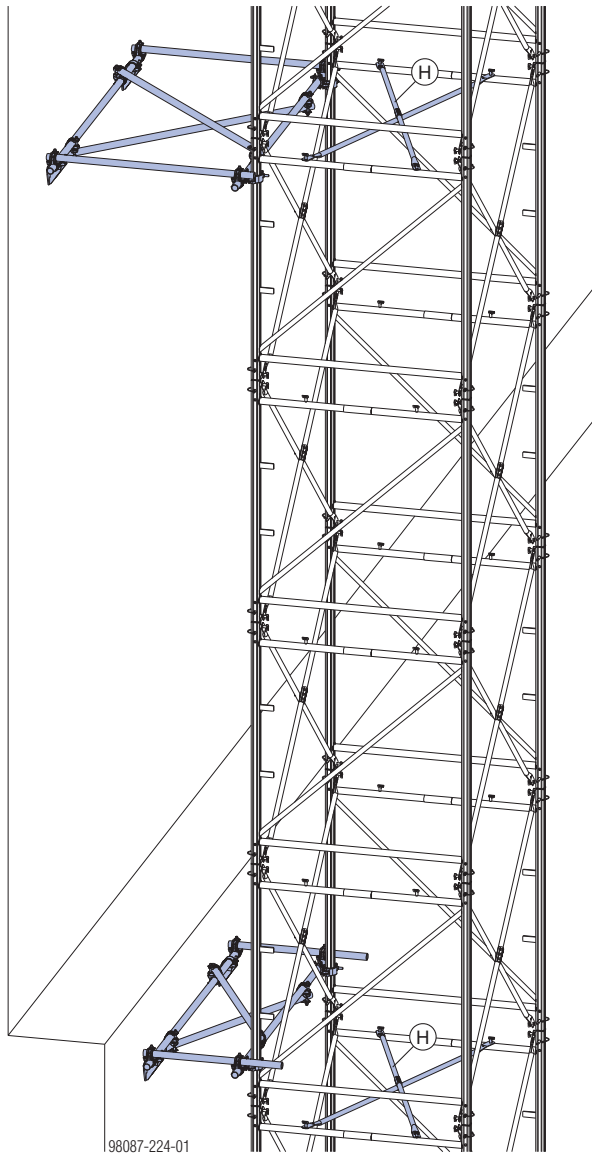
Vertical distance between the anchoring levels

- will depend on the assembly method, the wind loads and the design assumptions
- near junctions (frame-joins)



NOTICE

The load-bearing tower must be stiffened with a diagonal cross in the anchoring plane.



H Diagonal cross



NOTICE

- The actual design of the anchoring planes, and the maximum permitted distances from the structure, must be reviewed separately for each project.
- Adjacent load-bearing towers must be braced to one another as statically required, in a similar way to when towers are anchored to the structure.

Back-stays/shoring supports for the load-bearing towers

Back-stay on the superstructure

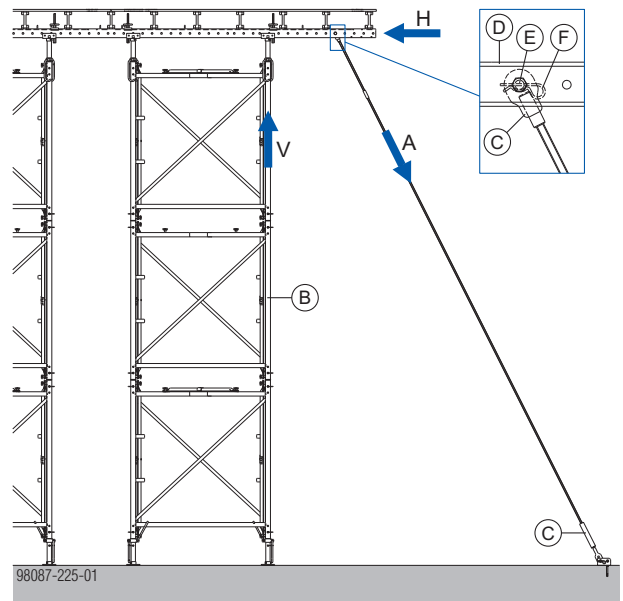
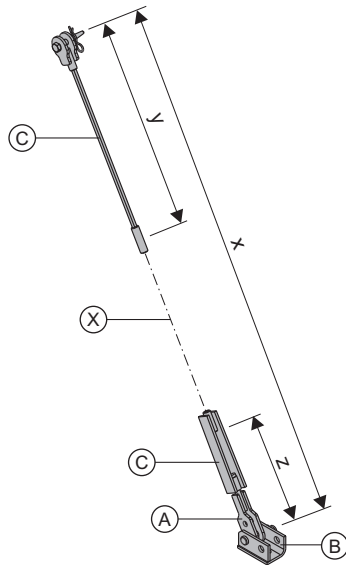
Back-stay for load-bearing towers

For transferring **planned horizontal loads** e.g. wind loads, concrete loads or in custom applications (e.g. on inclined load-bearing towers or for high load-bearing capacities).



NOTICE

Lashing straps are **not** suitable for transferring planned horizontal loads.



H ... Horizontal force

V ... Resulting vertical force from H

A ... Bracing/shoring force

B Load-bearing tower

C Bracing for load-bearing towers

D Multi-purpose waling

E Connecting pin 10cm

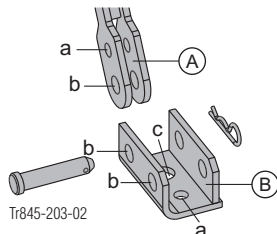
F Spring cotter 5mm

X Tie rod 15.0 (not included in scope of supply)

Length = a minus 119 cm

This leaves a 17 cm adjustment range available

Bores in Screw-jack unit and Shoe complete



a ... diam. 21 mm

b ... diam. 27 mm

c ... diam. 35 mm

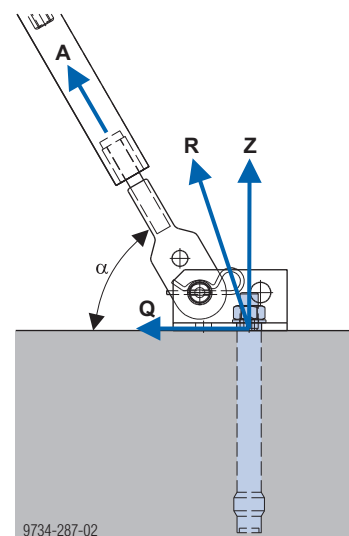
A Screw-jack unit

B Shoe complete



NOTICE

- Screw the tie rods all the way in to the rod connectors of the bracing (i.e. until they are fully engaged)!
- When calculating the leg loads, allow for the additional forces imposed by the bracing!
- With high loads and long back-stays, watch out for any elongation of the bracing!



A ... Bracing force

Q ... Shear force (corresponds to horizontal force H)

R ... Resulting anchor force

Z ... Anchor tensile force

Bracing force $A_k = 30$ kN ($A_d = 45$ kN)

Anchor force [kN]	Z_k	$Q_k = H_k$	R_k	Z_d	$Q_d = H_d$	R_d
$\alpha = 30^\circ$ a)	18.2	26.0	31.7	27.3	39.0	47.6
$\alpha = 45^\circ$ a)	27.6	21.2	34.8	41.4	31.8	52.2
$\alpha = 60^\circ$ a)	44.8	15.0	47.2	67.2	22.5	70.8

Bracing force $A_k = 40$ kN ($A_d = 60$ kN)

Anchor force [kN]	Z_k	$Q_k = H_k$	R_k	Z_d	$Q_d = H_d$	R_d
$\alpha = 30^\circ$ a)	24.3	34.6	42.3	36.5	51.9	63.5
$\alpha = 45^\circ$ a)	36.8	28.3	46.4	55.2	42.5	69.6
$\alpha = 60^\circ$ c)	59.7	20.0	62.9	89.6	30.0	94.4

Bracing force $A_k = 50$ kN ($A_d = 75$ kN)

Anchor force [kN]	Z_k	$Q_k = H_k$	R_k	Z_d	$Q_d = H_d$	R_d
$\alpha = 30^\circ$ b)	30.4	43.3	52.9	45.6	65.0	79.4
$\alpha = 45^\circ$ b)	46.0	35.4	58.0	69.0	53.1	87.0
$\alpha = 60^\circ$ c)	74.6	25.0	78.7	111.9	37.5	118.1

Examples of anchor points in uncracked C 25/30 concrete:

a) HILTI heavy-duty anchor HSL M20

b) HILTI self-undercutting anchor HDA-T-M16

c) HILTI self-undercutting anchor HDA-P-M20, with an extra 50x10 washer with a diam. 22 mm hole

or equivalent products from other manufacturers.

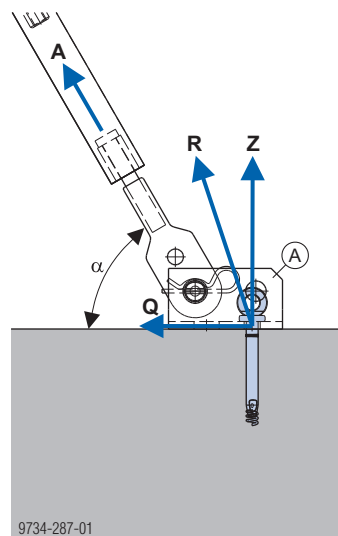
Follow the manufacturers' applicable fitting instructions.

**CAUTION**

- ▶ Do not remove the bracing for load-bearing towers before adequate stability for the load-bearing tower is ensured.

Anchored with Doka Express anchor 16x125mm**Note:**

The 'Shoe (complete)' must be turned by 180° in the horizontal.



A Shoe complete

Permitted bracing force [kN]

	In 'green' (new) concrete		In C20/25 concrete	
	A_k	A_d	A_k	A_d
$\alpha = 30^\circ$	9.0	13.5	16.1	24.2
$\alpha = 45^\circ$	8.1	12.2	14.6	21.9
$\alpha = 60^\circ$	6.0	9.0	10.8	16.2



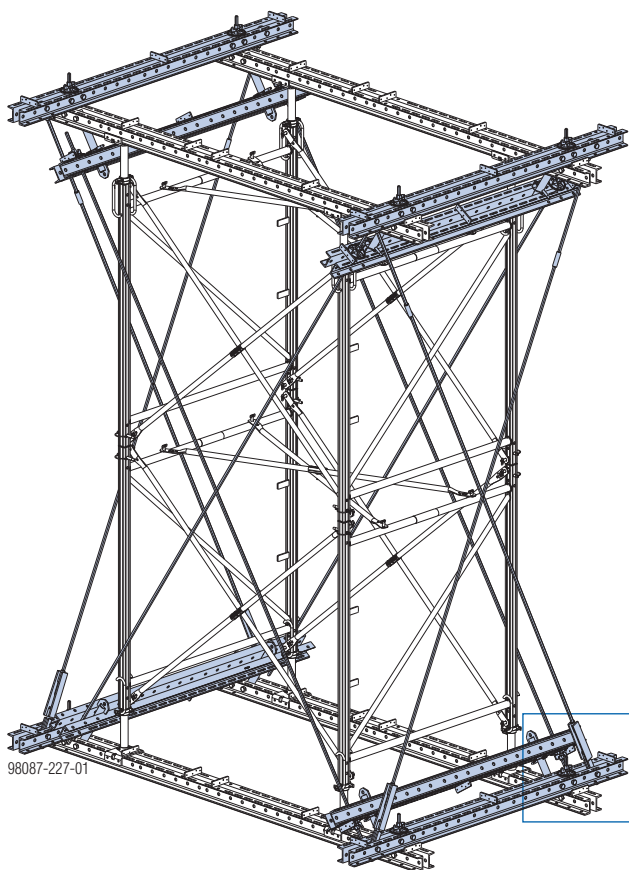
Follow the directions in the 'Doka express anchor 16x125mm' Fitting Instructions!

Bracing waling connector WS10

The Bracing waling connector WS10 is used for bracing load-bearing towers erected on ground which has sufficient load-bearing capacity but in which it is not possible to fix tension anchoring.

It is also possible to brace several load-bearing towers to one another to transfer the horizontal loads jointly.

Bracing individual towers in the bracing-strut and frame planes

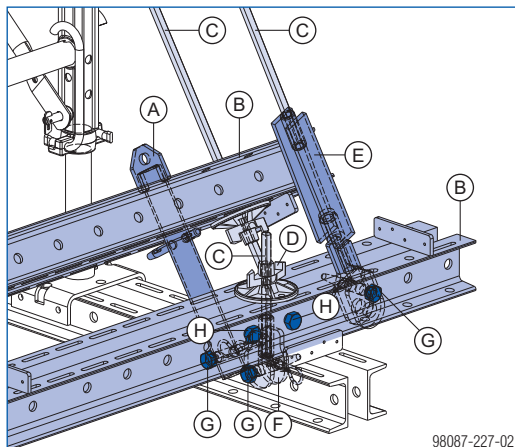


98087-227-01

Note:

Separate towers may also be braced in the frame plane or bracing-strut plane only.

Close-up



98087-227-02

A Bracing waling connector WS10

B Multi-purpose waling WS10 Top50 2.25m

C Tie rod 15.0mm galvanised ...m

D Super plate 15.0

E Bracing for load-bearing towers – without 'Shoe (complete)'

F Eye-lug anchor 15.0 without tie rod

G Connecting pin 10cm and Spring cotter 5mm

H Extra safeguard against slippage (end-stop) with Connecting pin 10cm and Spring cotter 5mm

Note:

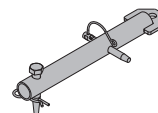
The Bracing for load-bearing towers is attached to the multi-purpose waling directly by means of a spindle unit, without a 'Shoe (complete)'.

Permitted bracing force [kN]

Bolted on through the upper bore (Ø 21 mm) of the screw-jack unit	Bolted on through the lower bore (Ø 27 mm) of the screw-jack unit
50.0	40.0

A Screw-jack unit

Bracing waling connector WS10



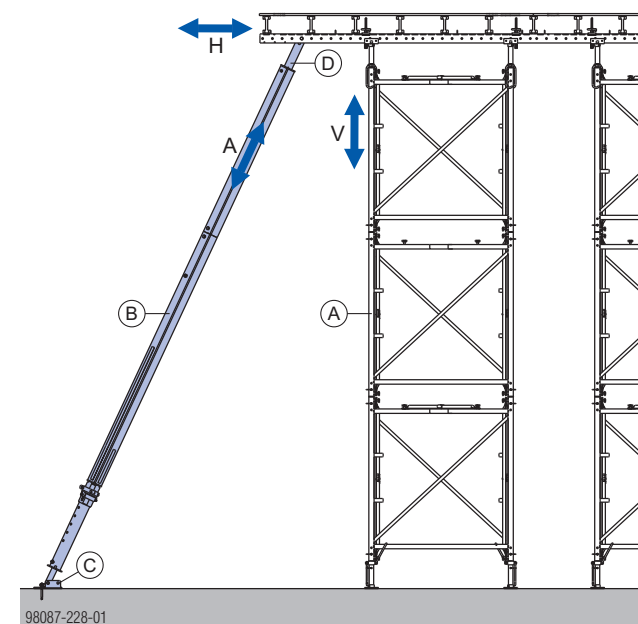
Permitted tensile force: 50 kN



▶ When calculating the leg loads on the Load-bearing tower, allow for the additional forces from the bracing!

Shoring to the superstructure

For transferring **planned horizontal loads** e.g. wind loads, concrete loads or in custom applications (e.g. on inclined load-bearing towers or for high load-bearing capacities).



H ... Horizontal force
V ... Resulting vertical force from H
A ... Back-stay/shoring force

- A Load-bearing tower
- B Plumbing strut Eurex 60 550
- C Plumbing strut shoe Eurex 60 EB
- D Prop head Eurex 60 Top50

Required load-bearing capacity of the dowels used:

$R_d \geq 25.5 \text{ kN}$ ($R_{perm.} \geq 17 \text{ kN}$) in any direction when 2 dowels are used.

Follow the manufacturer's applicable fitting instructions.

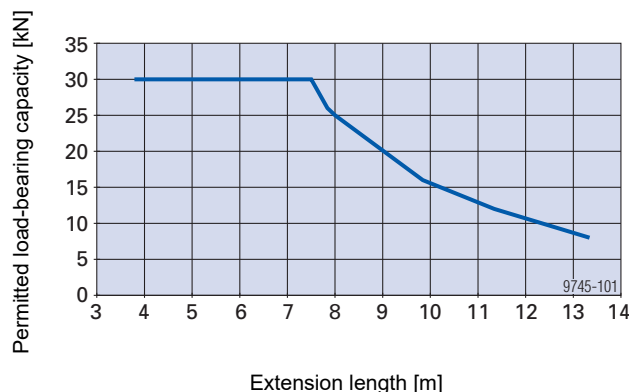


CAUTION

- ▶ The plumbing strut must not be dismantled until it is certain that there is sufficient stability for the load-bearing tower.

Permitted load-bearing capacity of Eurex 60 550 (compressive force)*

Used as a plumbing accessory



* 15 kN tensile force at any extension length
30 kN tensile force at any extension length and when anchored with 2 dowels



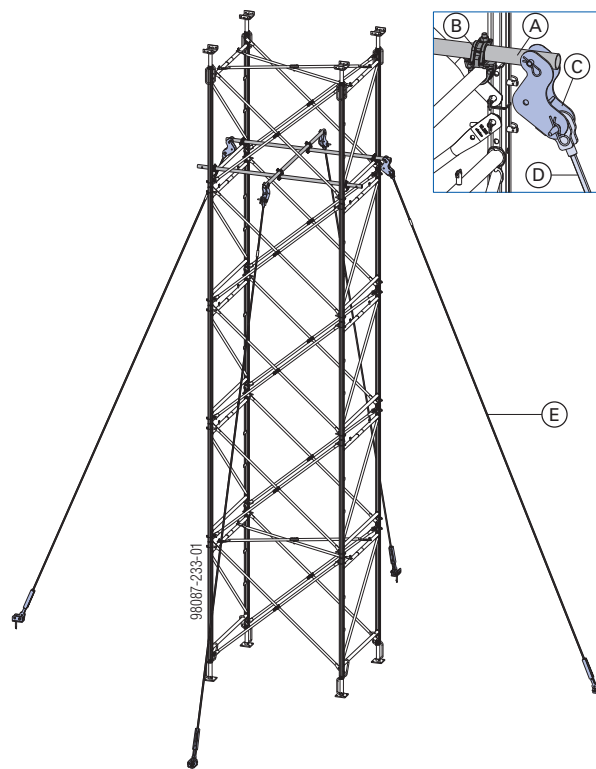
For more detailed information, see the 'User Information booklet Eurex 60 550'

Temporary back-stays directly on the load-bearing tower, for site-erection



NOTICE

Only suitable for use during erection of the load-bearing tower, but **not** for transferring planned horizontal loads.



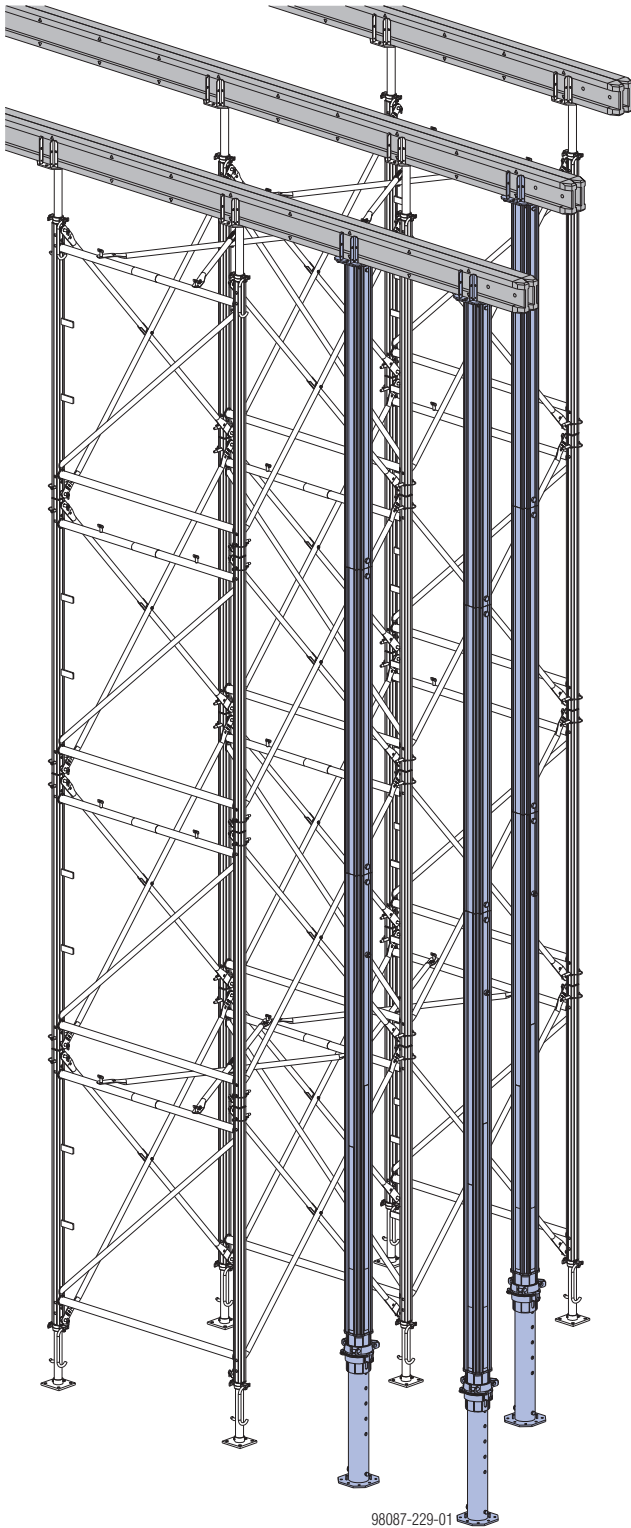
- A Scaffolding tube 48.3mm (with drilled hole $\varnothing 17\text{mm}$)
- B Normal coupler 48mm
- C Spindle connecting plate T
- D Back-stay for load-bearing towers
- E Tie-rod 15.0mm

Adaptation to building layout

with Eurex 60 550 floor props

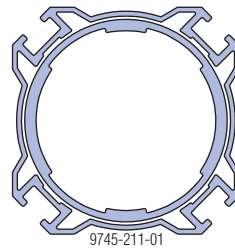


Follow the directions in the "Eurex 60 550" User Information!



Product description

- The perfect complement to all Doka load-bearing towers.
- Transfers loads economically, also in confined spaces.
- Extension length: 3.50 to 5.50 m
- For even greater heights, the prop can be lengthened to 7.50 m or 11.0 m. In this case, allow for the reduction in capacity as shown in the diagram!
- Meets DIBT - German Institute for Construction Engineering - approvals criteria.
- Special aluminium profile tubes give the prop its low weight of only 47.0 kg.





- Can be telescoped in 10 cm increments, with continuous fine adjustment.
- All parts are captively integrated - telescopic tube has anti-dropout safeguard.

Permitted load-bearing capacity of Eurex 60 550

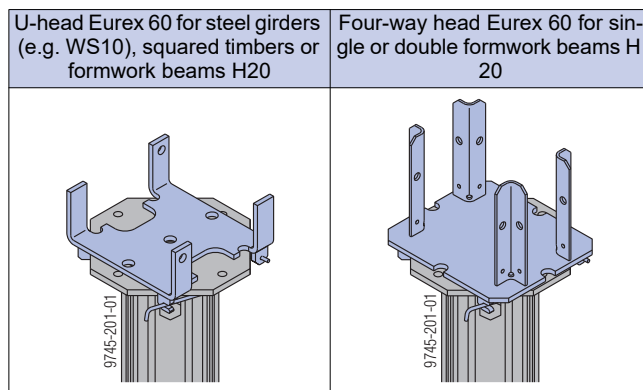
Permitted capacities [kN] as a function of the extension length and the position of the outer tube (prop category T55 to EN 16031)

Prop length [m]	Position of outer tube*)	
	at bottom	at top
5.5	61.8	67.0
5.4	65.0	70.9
5.3	68.5	74.9
5.2	72.1	78.6
5.1	76.0	83.5
5.0	80.3	88.6
4.9	84.0	88.9
4.8		
4.7		
4.6		
4.5		
4.4		
4.3		
4.2		
4.1		
4.0		
3.9		
3.8		
3.7		
3.6		
3.5		

***) Position of outer tube**

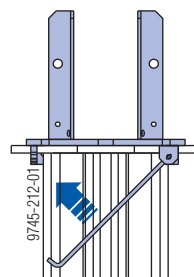
at bottom	at top
	

Holding primary beams



Assembly

- Place the U-head or four-way head on the prop and fix with spring-steel stirrup.

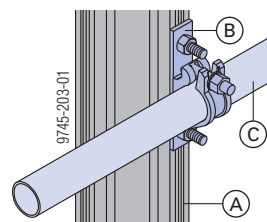


Bracing

Swivel couplers Eurex 60 can be fixed at any height on the outer tube. This means that bracing tubes can be attached wherever needed.

Examples:

- between prop and load-bearing tower frame
- between two or more props
- to facilitate erection of the prop (as a 'handle' for workers to hold onto)



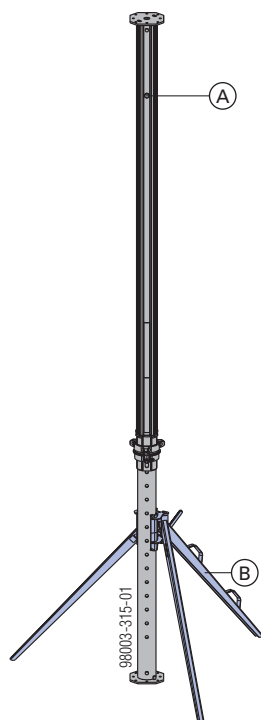
A Floor prop Eurex 60 550

B Swivel coupler Eurex 60

C Scaffolding tube 48.3mm

Holding Eurex 60 550 floor props upright during erection

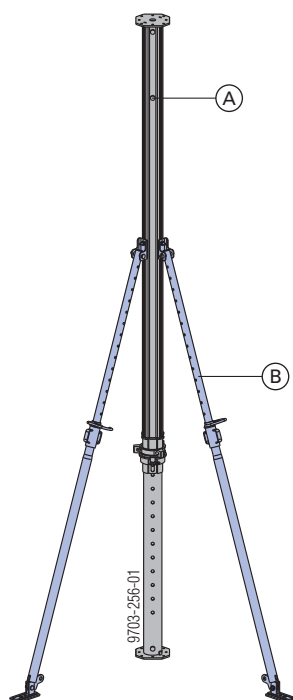
Removable folding tripod 1.20m



A Floor prop Eurex 60 550

B Removable folding tripod 1.20m

Plumbing struts



A Deckenstütze Eurex 60 550

B Plumbing strut 340 or 540 IB with Strut shoe EB

Inclination adjustment

If the superstructure or the ground are **inclined at an angle of 1% or more**, slope compensation must be provided.

using Wedges for screw-jack %

These prefabricated birch plywood wedges make it possible to stand load-bearing towers in the perpendicular on surfaces with various inclinations, even when utilising the full leg load.



CAUTION

Excessively steep wedges may slip away!

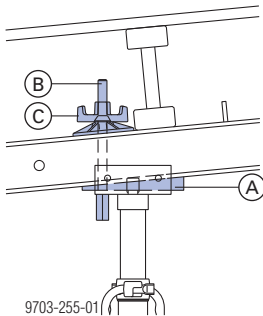
► Maximum inclination: 20%!

For this reason, wedges must NOT be placed on top of one another in an attempt to compensate for inclinations that are greater than 20%.

Inclined superstructures

Securing the superstructure at angles greater than 12%:

- Connect the head-plate to the longitudinal beam (e.g. with Locking rod 15.0 330mm and Super plate 15.0 or Angle anchor plate 12/18)

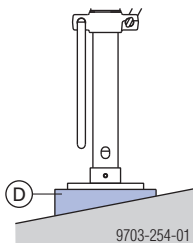


A Wedge for screw-jack %

B Locking rod 15.0 330mm

C Super plate 15.0

Inclined ground surface



D Wedge for screw-jack %

using Staxo wedge support WS10

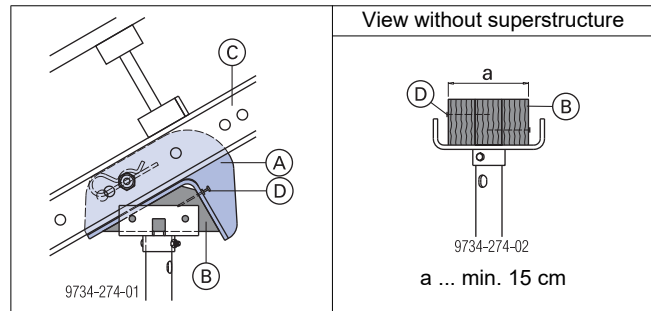
Used with timber wedges, this component provides angle adjustment to floor-slab constructions with a max. inclination of 45°.

Bolted into the multipurpose waling, this wedge support prevents the timber wedges slipping and ensures that the loads are safely transferred.



NOTICE

This type of connection is no substitute for extra structural design measures such as back-stays.



A Staxo wedge support WS10

B Timber wedge, project-specific

C Multi-purpose waling WS10 Top50

D Nailed connection



NOTICE

The grain of the timber wedges must always be in the vertical!

Note:

If the legs of the load-bearing tower have to be located outside the pattern of drilled holes in the multi-purpose waling, then a suitable 20 mm diam. hole must be drilled in the web of the waling.

using Staxo wedge support WU12/14

Same function as Staxo wedge support WS10, except that it is suitable for being pinned to a 12 cm or 14 cm high waling.

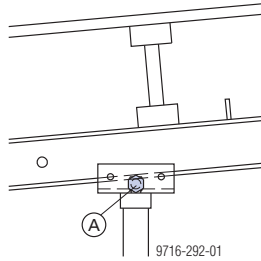
The wedge support is labelled '12' and '14' on the respective sides, to ensure that it is always correctly positioned.

using an M20 hexagonal bolt

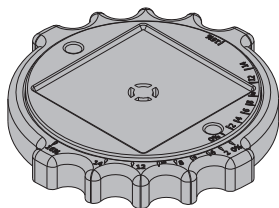
In this case, the superstructure rests on e.g. an M20x240 hexagonal bolt (A). This bolt is inserted through the recessed opening in the Screw jack U-head and is secured with a self-locking M20 hexagon nut.

**CAUTION**

► Maximum inclination: 8%!



with Compensating plate



The 'Compensating plate' is made of tough plastic and is used to compensate for sloping support surfaces beneath load-bearing towers, without limiting their load-bearing capacity.

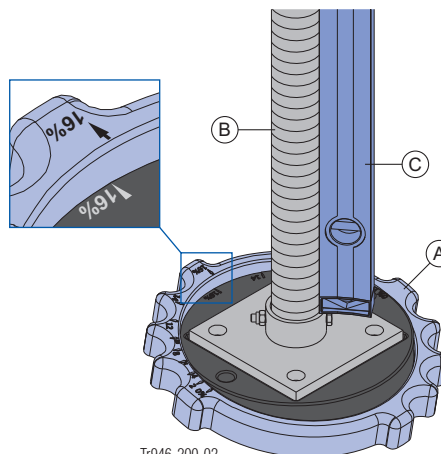
- Angle adjustment from 0 - 16 % in all directions.
- The baseplate is always supported across its entire area.
- The punch-marked number scale is a practical aid for setting and checking the required angle.
- No timber wedges or other chocks are needed.
- Max. size of baseplate: 15 x 15 cm (meaning that Eurex 60 550 cannot be stood on it)



NOTICE

- The 'Compensating plate' must be placed on concrete only.
- For the proof against slippage between the Compensating plate and the concrete, a friction coefficient of 0.33 must be assumed.

- Make sure that the 'Compensating plate' is sitting firmly, and check that the leg is in the vertical.

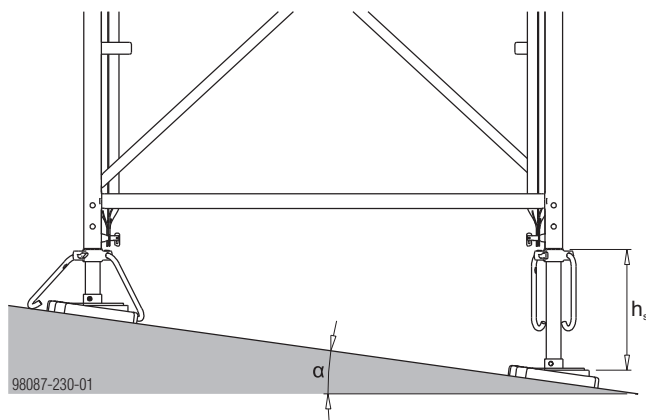


Tr946-200-02

A Compensating plate

B Screw-jack foot

C Spirit level



α ... max. angle 16 %

h_s ... screw-jack extension length (determines design-load of load-bearing tower)

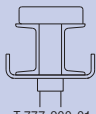
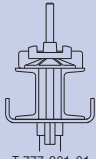
Set-up instructions:

- Place the 'Compensating plates' on concrete.
- Set the required angle with the black rotary plate. The numbers must correspond – see close-up.
- Position the Doka load-bearing tower.

Steel primary beams

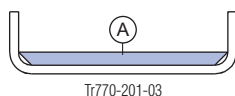
The following tables will be helpful to you when you are planning load-bearing tower superstructures consisting of steel primary beams and Screw jack U-heads, Heavy duty screw jacks 70 top or Swivel bearing plates for Screw jack U-head.

Usage conditions for Doka series walings

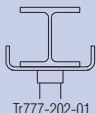
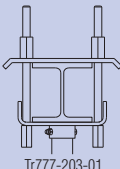
Doka series walings	Width x height [mm]	 Unsecured Max. width = 165 mm	 Secured centrally (necessary from 12%) Max. width = 165 mm
Multi-purpose waling WS10 Top50	153 x 100	Yes	Yes
Multi-purpose waling WU12 Top50	163 x 120	Yes	Yes
Facade waling WU14	172 x 140	Yes ¹⁾	Yes ¹⁾
Multi-purpose waling SL-1 WU16	183 x 160	Yes ¹⁾	Yes ¹⁾
System beam SL-1	226 x 240	No	No

¹⁾ Hardwood support (A) needed.

The bevelled edges prevent it resting in the curved radius zone.
This results in a max. available width of 188 mm.



Usage conditions for various I-section girders

Selection of I-girders	Width x height [mm]	 Unsecured Max. width = 165 mm	 Secured at side (necessary from 12%) Max. width = 150 mm
I 380	149 x 380	Yes	Yes
I 425	163 x 425	Yes	No
IPE 300	150 x 300	Yes	Yes
IPE 330	160 x 330	Yes	No
IPBI 140	140 x 133	Yes	Yes
IPBI 160	160 x 152	Yes	No
IPB 140	140 x 140	Yes	Yes
IPB 160	160 x 160	Yes	No

Transporting, stacking and storing

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

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

Stacking baseblocks

For stacking the Staxo 100 eco frames:

- max. 38 Staxo 100 eco frames per stack!

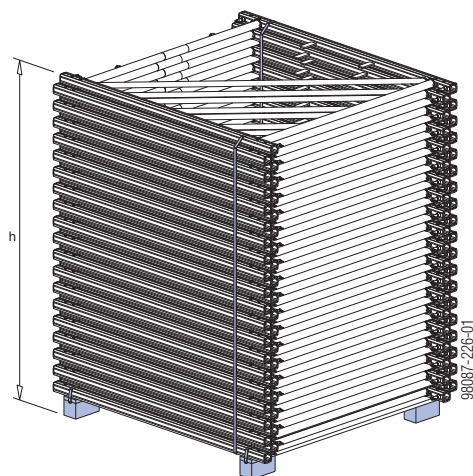


CAUTION

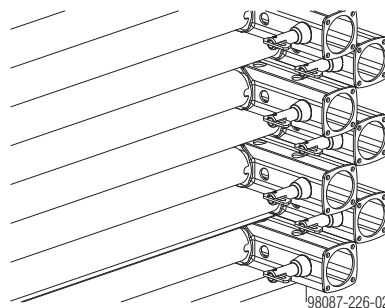
Risk of tipping over!

- Do not mix different sizes of frame in the same stack.

- Place strapping belts around the Staxo 100 eco frames and the stacking baseblocks at each corner, to strap them together firmly.



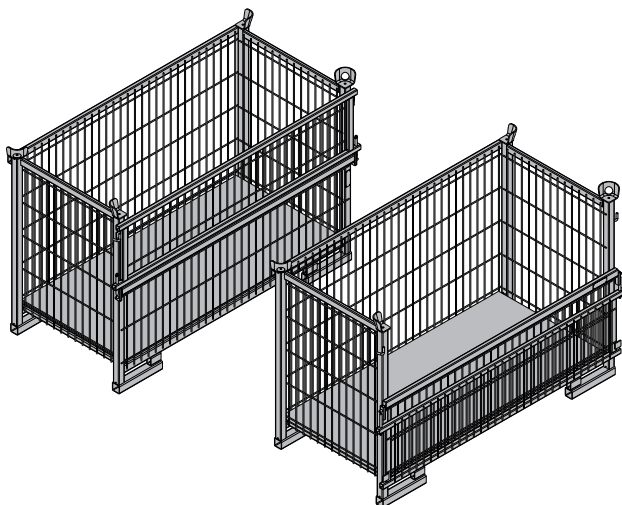
h ... 220 cm



Stack the frames at an offset to one another.

Doka skeleton transport box 1.70x0.80m

Storage and transport device for small items



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

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

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

Max. n° of units on top of one another

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



NOTICE

Stacked multi-trip boxes or pallets must have the heaviest boxes at the bottom and the lightest at the top.

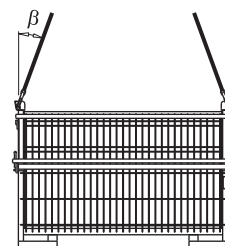
Using Doka skeleton transport boxes 1.70x0.80m as transport devices

Lifting by crane



NOTICE

- Multi-trip packaging items may only be lifted one at a time.
- Only lift the boxes when their sidewalls are closed!
- Use a suitable crane suspension tackle (e.g. Doka 4-part chain 3.20m). Do not exceed the permitted load-bearing capacity.
- Spread angle β max. 30°!



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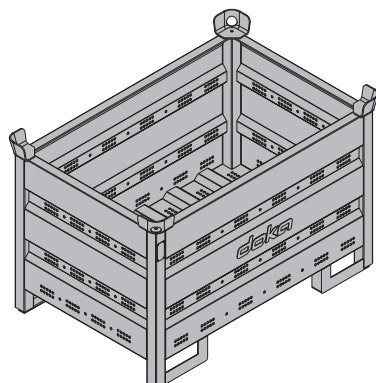
Repositioning by forklift truck or pallet stacking truck

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

Doka multi-trip transport box

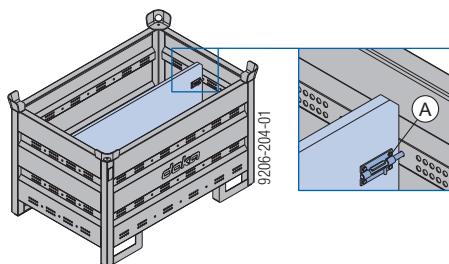
Storage and transport device for small items

Doka multi-trip transport box 1.20x0.80m



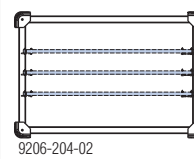
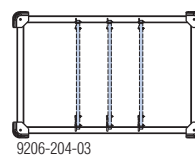
Max. carrying capacity: 1500 kg (3300 lbs)
Permitted imposed load: 7850 kg (17300 lbs)

Different items in the Doka multi-trip transport box can be kept separate with the **Multi-trip transport box partitions 1.20m or 0.80m**.

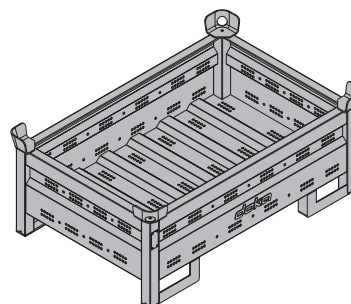


A Slide-bolt for fixing the partition

Possible ways of dividing the box

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

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



Max. carrying capacity: 750 kg (1650 lbs)
Permitted imposed load: 7200 kg (15870 lbs)

Using Doka multi-trip transport boxes as storage units

Max. n° of units on top of one another

Outdoors (on the site)		Indoors	
Floor gradients up to 3%		Floor gradients up to 1%	
Doka multi-trip transport box 1.20x0.80m	Doka multi-trip transport box 1.20x0.80x0.41m	Doka multi-trip transport box 1.20x0.80m	Doka multi-trip transport box 1.20x0.80x0.41m
3	5	6	10
It is not allowed to stack empty pallets on top of one another!			



NOTICE

Stacked multi-trip boxes or pallets must have the heaviest boxes at the bottom and the lightest at the top.

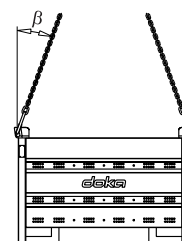
Using Doka multi-trip transport boxes as transport devices

Lifting by crane



NOTICE

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



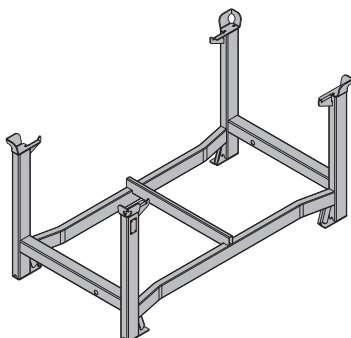
9206-202-01

Repositioning by forklift truck or pallet stacking truck

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

Doka stacking pallet 1.55x0.85m and 1.20x0.80m

Storage and transport devices for long items.



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

Using Doka stacking pallets as storage units

Max. n° of units on top of one another

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



NOTICE

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

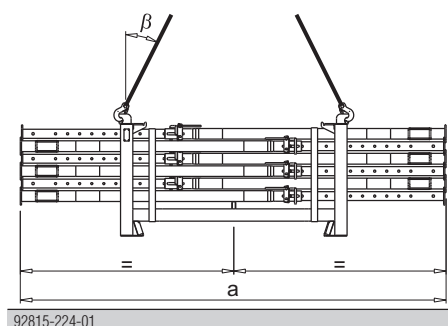
Using Doka stacking pallets as transport devices

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 centrally.
- Fasten the load to the stacking pallet so that it cannot slide or tip out.
- Spread angle β max. 30°!



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

Repositioning by forklift truck or pallet stacking truck

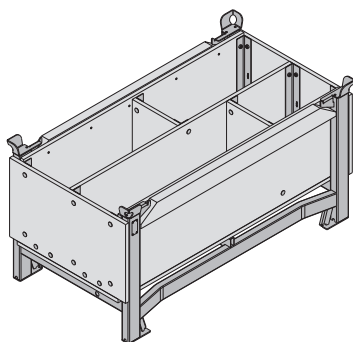


NOTICE

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

Doka accessory box

Storage and transport device for small items



Max. carrying capacity: 1000 kg (2200 lbs)
Permitted imposed load: 5530 kg (12191 lbs)

Doka accessory boxes as storage units

Max. n° of units on top of one another

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



NOTICE

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

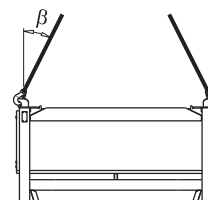
Doka accessory box as transport devices

Lifting by crane



NOTICE

- Multi-trip packaging items 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.
- Spread angle β max. 30°!



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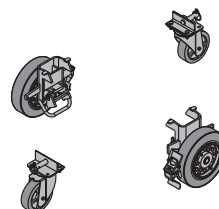
Repositioning by forklift truck or pallet stacking truck

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

Bolt-on castor set B

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

Suitable for drive-through access openings > 90 cm.



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

- Doka accessory box
- Doka stacking pallets



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

Structural design

Preconditions for use

- Working wind of 0.2 kN/m^2 (64.4 km/h) is considered
- Separate proof must be provided, by a suitably skilled person, regarding the foundation. Particular attention must be paid here to the ground-bearing pressure!
- Intermediate anchoring planes may be necessary while the towers are being erected.
- The calculated values are in line with the 'Type test for Staxo 100' and thus also with EN 12812 and EN 1993.
- In all cases which differ from the stated boundary conditions, the type-test must be used as the basis for the dimensioning calculation, to ensure adequate stability.
Such deviations may be due to:
 - variations in height
 - different wind loads
 - different inter-frame spacings
 - additional horizontal loads
 - single legs
 - larger screw-jack extension lengths
 - inclined load-bearing tower
- On multi-plane towers with different inter-frame spaces, it is always the smallest inter-frame space that determines the design load.

Inclination adjustment

- Inclination adjusted with a centering strip (e.g. hexagon bolt M20x230) or Swivel bearing plate for Screw jack U-head = Screw-jack U-head not restrained.
- Inclination adjusted with a wooden wedge or 'Compensating plate' = no effect on the restraint situation.
 - e.g. with Wedge for screw jack U-head or Staxo wedge support

Founding with the 'Compensating plate'



NOTICE

- The 'Compensating plate' must be placed on concrete only.
- For the proof against slippage between the Compensating plate and the concrete, a friction coefficient of 0.33 must be assumed.

Ranges of use for top-held systems

Height of load-bearing tower	Dynamic pressure
$h \leq 15 \text{ m}$	$q_k \leq 1.3 \text{ kN/m}^2$
$15 \text{ m} < h \leq 21 \text{ m}$	$q_k \leq 0.8 \text{ kN/m}^2$

Ranges of use for free-standing systems

For each 1% angle of inclination, increase the minimum imposed loads by +10% (max. +160%).

This fulfils the local proof against slippage between the Compensating plate and the concrete ($\mu_k = 0.33$).

Set-up configurations

As tower Number of frame planes = 2	With multiple towerframe-planes Number of frame planes ≥ 3

Superstructure configuration

Top-held systems	Free-standing systems

Head units restrained	
Double primary beams H20 or Single primary beam I tec 20 	Multipurpose walings

Max. influence width of the secondary beams for the superstructure:
50 cm

Head units not restrained	
Single primary beam H20 	Superstructure with spindle struts

Permitted leg loads

Free-standing systems (without bracing, without holding device)

Frame size [m]	Screw-jack extension lengths [cm] at top and bottom respectively		Inter-frame space [m]	Number of frame planes connected to one another by diagonal crosses (multi-plane tower)	Max. height [m] of load-bearing tower without intermediate anchoring (Intermediate anchoring planes may be necessary while the towers are being erected)	Permitted leg load [kN]			
	Unbraced	Braced				Head units restrained		Head units not restrained	
						V	H	V	H
up to 1.80	30	70	≥ 1.5	≥ 2	7.8	63	1	55	1
					13.2	53	1	—	—
			≥ 1.0	≥ 3	7.8	62	1	54	1
				≥ 5	13.2	56	1	—	—
up to 1.20	30	45	≥ 1.0	≥ 3	7.8	83	1	—	—
				≥ 5	15	75	1	—	—
			≥ 0.6	≥ 5	7.8	77	1	—	—
				≥ 8	15	65	1	—	—

Top-held systems (e.g. enclosed space, or with bracing)

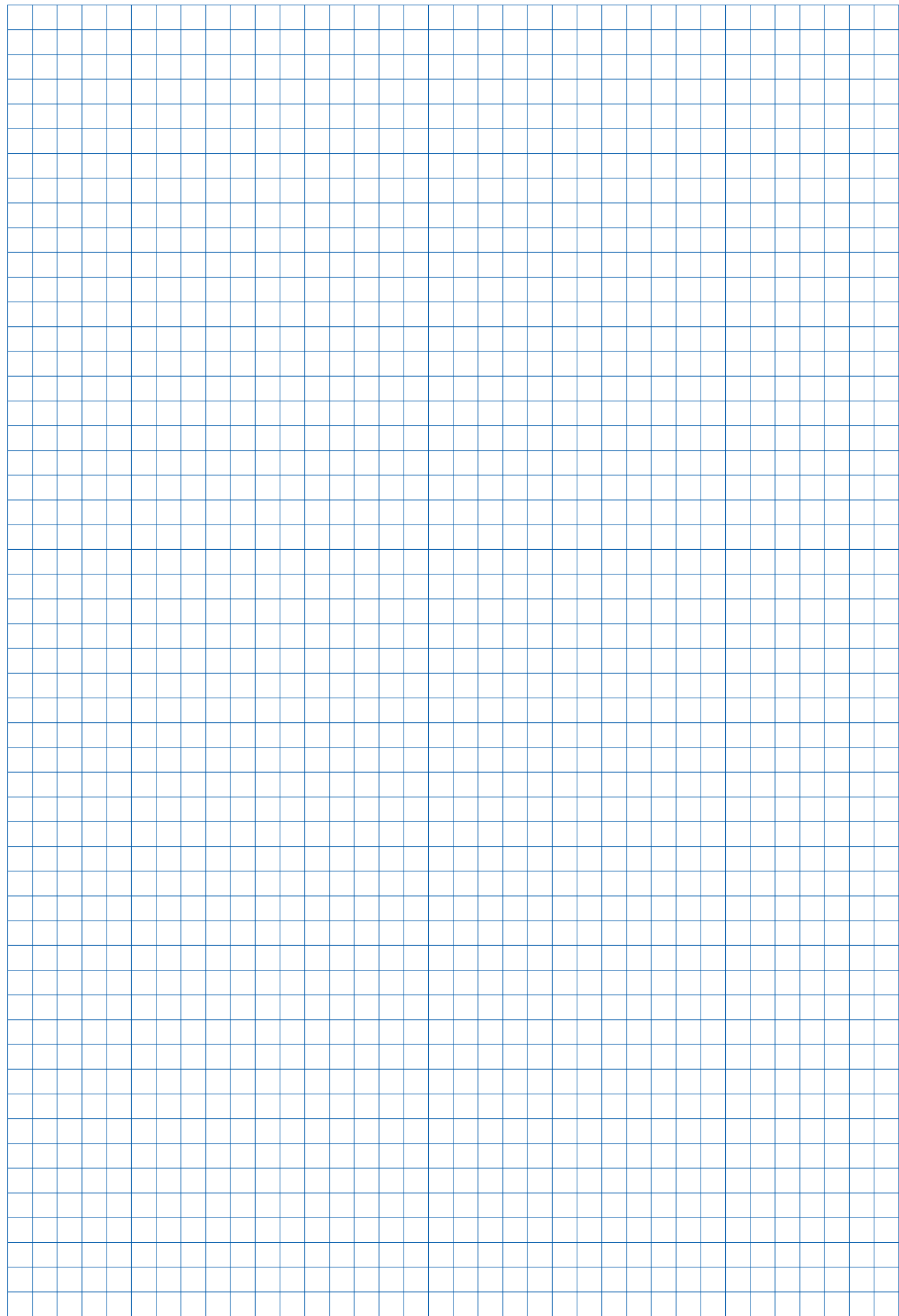
Frame size [m]	Screw-jack extension lengths [cm] at top and bottom respectively		Inter-frame space [m]	Number of frame planes connected to one another by diagonal crosses (multi-plane tower)	Max. height [m] of load-bearing tower without intermediate anchoring (Intermediate anchoring planes may be necessary while the towers are being erected)	Permitted leg load [kN]	
	Unbraced	Braced				Head units restrained	Head units not restrained
up to 1.80	30	70	≥ 1.5	≥ 2	3.2	67	60
					20	70	61
up to 1.20	30	45	≥ 1.5	≥ 2	2.1	89	—
					20	94	—
			≥ 1.0	≥ 3	2.1	87	—
					21	93	—
			≥ 0.6	≥ 5	2.1	87	—
					21	91	—
up to 1.20 (with 0.90 in top and bottom 'storeys')	25	45	≥ 1.5	≥ 2	3.5	105	—
					20	98	—
			≥ 1.0	≥ 2	10	103	—
				≥ 3	20	98	—
			≥ 0.6	≥ 5	20	96	—

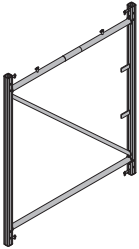
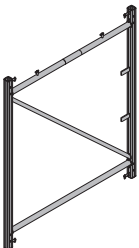



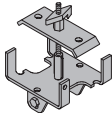
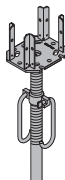
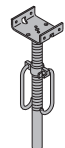
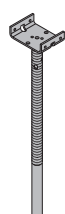
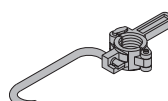




Permitted leg load where 2 Doka beams I tec 20 are used as primary beams in conjunction with Staxo 100 eco: 60 kN


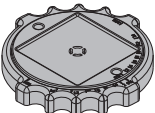
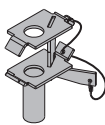

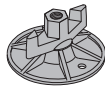

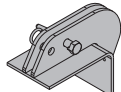

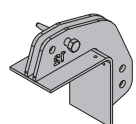
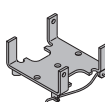
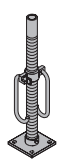
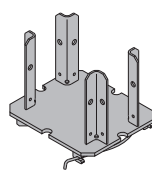
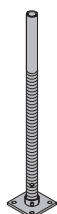
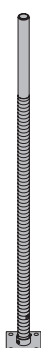



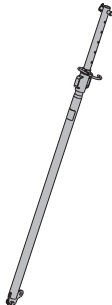

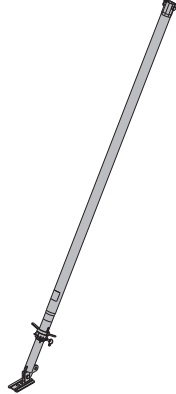

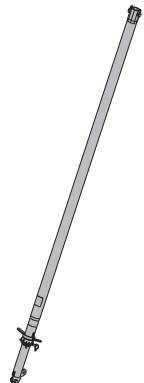
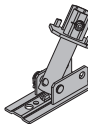

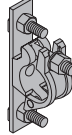


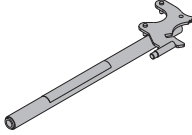
NOTICE






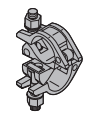
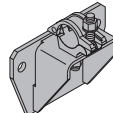

Secure the load-bearing tower against slip-page and tipover, in all situations!


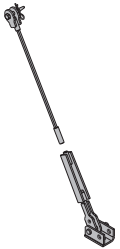

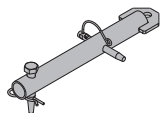

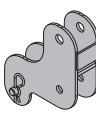

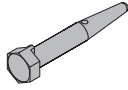
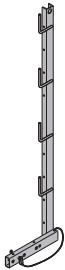

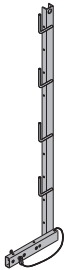

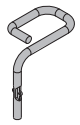

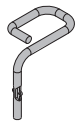


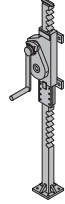


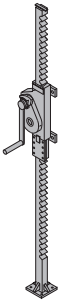
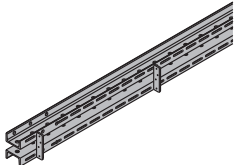
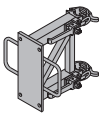

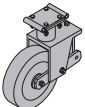
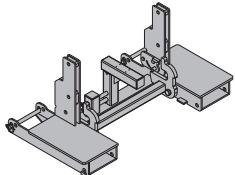
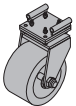

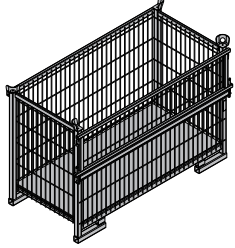
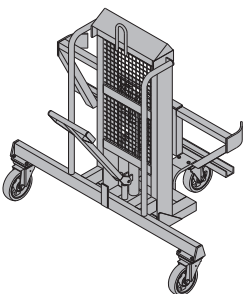
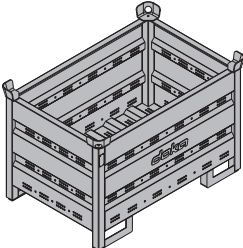
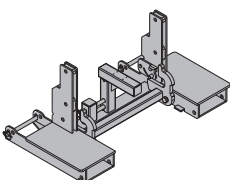
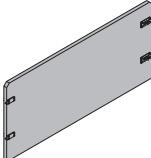
	[kg]	Article n°		[kg]	Article n°
Staxo 100 eco frame 0.90m galvanised Staxo 100 eco frame 1.20m galvanised Staxo 100 eco frame 1.80m galvanised Staxo 100 eco-Rahmen verzinkt Galvanised 	18.3 22.1 29.5	582375000 582374000 582373000			
Staxo 100 eco frame 0.90m painted Staxo 100 eco frame 1.20m painted Staxo 100 eco frame 1.80m painted Staxo 100 eco-Rahmen lackiert Painted yellow 	17.2 20.5 27.6	582372000 582371000 582370000			
Coupler Kupplungsstück  Galvanised Height: 27 cm	0.57	582527000			
Spring locked connecting pin 16mm Federbolzen 16mm  Galvanised Length: 15 cm	0.25	582528000			
Diagonal cross 9.060 Diagonal cross 9.100 Diagonal cross 9.150 Diagonal cross 9.165 Diagonal cross 9.175 Diagonal cross 9.200 Diagonal cross 9.250 Diagonal cross 9.300 Diagonal cross 12.060 Diagonal cross 12.100 Diagonal cross 12.150 Diagonal cross 12.165 Diagonal cross 12.175 Diagonal cross 12.200 Diagonal cross 12.250 Diagonal cross 12.300 Diagonal cross 18.100 Diagonal cross 18.150 Diagonal cross 18.165 Diagonal cross 18.175 Diagonal cross 18.200 Diagonal cross 18.250 Diagonal cross 18.300 Diagonalkreuz Galvanised Delivery condition: folded closed 	3.1 4.1 5.2 5.7 6.1 6.6 7.7 9.0 4.0 4.6 5.7 6.1 6.3 6.9 8.3 9.3 6.1 6.9 7.3 7.8 7.8 9.1 10.3	582322000 582772000 582773000 582627000 582334000 582774000 582775000 582323000 582324000 582610000 582612000 582628000 582335000 582614000 582616000 582325000 582620000 582622000 582629000 582336000 582624000 582626000 582326000			
			U-head D Gabelkopf D  Galvanised Length: 20 cm Width: 22 cm Height: 37 cm	6.7	582709000
			4-way screw-jack head Vierwegkopfspindel  Galvanised Height: 86 cm	10.4	582638000
			Screw jack U-head Kopfspindel  Galvanised Height: 74 cm	9.2	582636000
			Heavy-duty screw jack 70 top Lastspindel 70 oben  Galvanised Height: 106 cm	9.2	582327000
			Split nut B Spannmutter B  Galvanised	2.0	582634000
			Clamping plate D Klemmplatte D  Galvanised Length: 24 cm Width: 9 cm	2.0	502709030
			Wing nut 15.0 Flügelmutter 15,0  Galvanised Length: 10 cm Height: 5 cm Width-across: 27 mm DIN 18216	0.31	581961000
			Locking rod 15.0 330mm Quetschteil 15,0 330mm  Galvanised Width-across: 24 mm	0.48	582641000
			Dokamatic table Staxo spindle connector Staxo-Spindelanschluss Dokamatic-Tisch  Galvanised Length: 20.7 cm	3.9	582347000

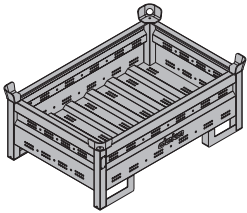
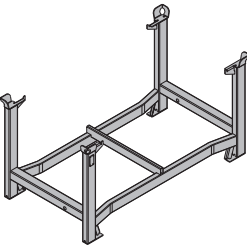
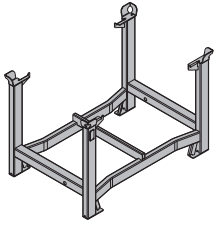
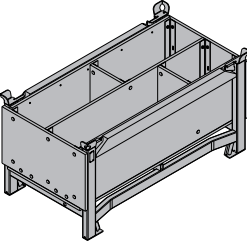
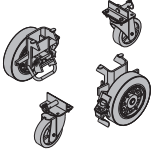
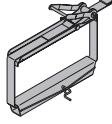
	[kg]	Article n°		[kg]	Article n°
Wedge for screw jack % Spindelkeil %  Length: 20 cm Width: 16 cm	0.46	176071000	Compensating plate Ausgleichsplatte  Orange Black Diameter: 30 cm	1.2	582239000
Staxo 100 spindle adapter Staxo 100-Spindeladapter  Galvanised Height: 26 cm	3.4	582351000	Doka floor prop Eurex 60 550 Doka-Deckenstütze Eurex 60 550  Aluminium Length: 345 - 555 cm	47.0	582650000
Super plate 15.0 Superplatte 15,0  Galvanised Height: 6 cm Diameter: 12 cm Width-across: 27 mm	1.1	581966000	Extension Eurex 60 2.00m Verlängerung Eurex 60 2,00m  Powder-coated blue Aluminium Length: 250 cm	21.3	582651000
Staxo wedge support WS10 Staxo-Keilauflager WS10  Galvanised Length: 31 cm Width: 15 cm Height: 23 cm	8.7	582796000	Coupler Eurex 60 Kupplungsstück Eurex 60  Aluminium Length: 100 cm Diameter: 12.8 cm	8.6	582652000
Staxo wedge support WU12/14 Staxo-Keilauflager WU12/14  Galvanised Length: 35.6 cm Width: 15 cm Height: 33.6 cm	12.2	582350000	U-head Eurex 60 Gabelkopf Eurex 60  Galvanised Length: 22 cm Width: 20 cm Height: 12 cm	2.9	582656000
Screw jack foot Fußspindel  Galvanised Height: 69 cm	9.0	582637000	4-way head Eurex 60 Vierwegkopf Eurex 60  Galvanised Length: 25 cm Width: 21 cm Height: 21 cm	4.5	582655000
Heavy-duty screw jack 70 Lastspindel 70  Galvanised Height: 101 cm	8.8	582639000	Heavy-duty screw jack 130 Lastspindel 130  Galvanised Height: 173 cm	13.0	582711000

	[kg]	Article n°		[kg]	Article n°
Plumbing strut Eurex 60 550 Justierstütze Eurex 60 550  Powder-coated blue Aluminium Length: 343 - 553 cm	42.5	582658000	Plumbing strut 340 IB EF Justierstütze 340 IB EF  Galvanised Length: 190.8 - 341.8 cm	14.9	588247500
Prop head Eurex 60 Top50 Stützenkopf Eurex 60 Top50  Galvanised Height: 50 cm	7.1	582665000	Plumbing strut 540 IB Justierstütze 540 IB  Galvanised Length: 310.5 - 549.2 cm	30.7	588697000
Connector Eurex 60 IB Verbindungsstück Eurex 60 IB  Galvanised Length: 15 cm Width: 15 cm Height: 30 cm	4.2	582657500	Plumbing strut 540 IB EF Justierstütze 540 IB EF  Galvanised Length: 310.5 - 549.2 cm	28.9	588250500
Plumbing strut shoe Eurex 60 EB Justierstützenfuß Eurex 60 EB  Galvanised Length: 31 cm Width: 12 cm Height: 33 cm	8.0	582660500	Strut shoe EB Strebenschuh EB  Galvanised Width: 8 cm Height: 13 cm	0.93	588946000
Swivel coupler 48mm Eurex 60 Drehkupplung 48mm Eurex 60  Galvanised Width-across: 22 mm Follow the directions in the "Fitting instructions"!	1.0	582654000	Prop shoe EB Stützenschuh EB  Galvanised Length: 20 cm Width: 11 cm Height: 10 cm	1.8	588245500
Plumbing strut 340 IB Justierstütze 340 IB  Galvanised Length: 190.8 - 341.8 cm	16.7	588696000	Universal dismantling tool Universal-Lösewerkzeug  Galvanised Length: 75.5 cm	3.7	582768000

	[kg]	Article n°		[kg]	Article n°
Removable folding tripod 1.20m Stützbein 1,20m  Galvanised Height: 120 cm Delivery condition: folded closed	20.7	586145000	Scaffold tube 48.3mm 0.50m Gerüstrohr 48,3mm Galvanised	1.7	682026000
			Scaffold tube 48.3mm 1.00m	3.6	682014000
			Scaffold tube 48.3mm 1.50m	5.4	682015000
			Scaffold tube 48.3mm 2.00m	7.2	682016000
			Scaffold tube 48.3mm 2.50m	9.0	682017000
			Scaffold tube 48.3mm 3.00m	10.8	682018000
			Scaffold tube 48.3mm 3.50m	12.6	682019000
			Scaffold tube 48.3mm 4.00m	14.4	682021000
			Scaffold tube 48.3mm 4.50m	16.2	682022000
			Scaffold tube 48.3mm 5.00m	18.0	682023000
			Scaffold tube 48.3mm 5.50m	19.8	682024000
			Scaffold tube 48.3mm 6.00m	21.6	682025000
			Scaffold tube 48.3mmm	3.6	682001000
Doka express anchor 16x125mm Doka-Expressanker 16x125mm  Galvanised Length: 18 cm Follow the directions in the "Fitting instructions"!	0.31	588631000			
Doka coil 16mm Doka-Coil 16mm  Galvanised Diameter: 1.6 cm	0.009	588633000	Transition swivel coupler 48/76mm Übergangsdrehkupplung 48/76mm  Galvanised Width-across: 22 mm Follow the directions in the "Fitting instructions"!	1.9	582563000
Scaffold planking 30/100cm Gerüstbelag Galvanised	7.4	582231000	Swivel coupler 48mm Drehkupplung 48mm  Galvanised Width-across: 22 mm Follow the directions in the "Fitting instructions"!	1.5	582560000
Scaffold planking 30/150cm	10.6	582232000			
Scaffold planking 30/200cm	13.5	582234000			
Scaffold planking 30/250cm	16.4	582235000			
Scaffold planking 30/300cm	19.5	582236000			
Scaffold planking 60/100cm with manhole Gerüstbelag mit Durchstieg Aluminium	9.5	582311500	Normal coupler 48mm Normalkupplung 48mm  Galvanised Width-across: 22 mm Follow the directions in the "Fitting instructions"!	1.2	682004000
Scaffold planking 60/150cm with manhole	13.8	582312500			
Scaffold planking 60/175cm with manhole	15.5	582333500			
Scaffold planking 60/200cm with manhole	17.7	582313500			
Scaffold planking 60/250cm with manhole	20.8	582314500			
Scaffold planking 60/300cm with manhole	26.3	582315500			
Staxo 40/d3 ladder 2.30m Staxo 40/d3-Leiter 2,30m Galvanised	15.5	582219500	Anchoring shoe for stair tower Ankerschuh für Treppenturm  Galvanised Length: 22 cm Width: 12 cm Height: 22 cm	3.4	582680000
Scaffold planking 60/60cm Gerüstbelag Aluminium	6.1	582330500			
Scaffold planking 60/100cm	9.5	582306500			
Scaffold planking 60/150cm	13.6	582307500			
Scaffold planking 60/175cm	15.5	582332500			
Scaffold planking 60/200cm	17.8	582308500			
Scaffold planking 60/250cm	22.2	582309500			
Scaffold planking 60/300cm	26.2	582310500			
Staxo 100 planking strut 1.00m Staxo 100-Belagstrebe Galvanised Width-across: 22 mm	6.1	582348000	Cone screw B 7cm Konusschraube B 7cm  Red Length: 10 cm Diameter: 7 cm Width-across: 50 mm	0.86	581444000
	9.0	582349000			

		[kg]	Article n°			[kg]	Article n°
Brace stirrup 8 Spannbügel 8 	Galvanised Width: 19 cm Height: 46 cm Width-across: 30 mm	2.7	582751000	Bracing for load-bearing towers Abspannung für Tragerrüste 	Galvanised Painted blue	10.2	582795000
Rafter plate right Rafter plate left Sparrenpfettenanker 	Galvanised Length: 17 cm	0.09	582521000	Bracing waling connector WS10 Abspann-Riegelverbinder WS10 	Galvanised Length: 46.7 cm	2.7	582756000
		0.09	582522000				
Handrail post 1.50m Geländer 1,50m 	Galvanised	12.4	582754000	Spindle connecting plate T Spindellasche T 	Galvanised Width: 20 cm Height: 25 cm	3.1	584371000
Handrail clamp S Schutzgeländerzwinge S 	Galvanised Height: 123 - 171 cm	11.5	580470000	Connecting pin 10cm Verbindungsbolzen 10cm 	Galvanised Length: 14 cm	0.34	580201000
Handrail post T 1.80m Einschubgeländer T 1,80m 	Galvanised	17.7	584373000	Spring cotter 5mm Federvorstecker 5mm 	Galvanised Length: 13 cm	0.03	580204000
Handrail post T 1.80m Einschubgeländer T 1,80m 	Galvanised	17.7	584373000	Lifting rod 15.0 Umsetzstab 15,0 	Painted blue Height: 57 cm Follow the directions in the "Operating Instructions"!	1.9	586074000
Toeboard holder T 1.80m Fußwehrhalter T 1,80m 	Galvanised Height: 13.5 cm	0.53	584392000	Retaining plate 15.0 Jochplatte 15,0 	Galvanised Length: 17 cm Width: 12 cm Height: 11 cm	1.8	586073000
Toeboard holder T 1.80m Fußwehrhalter T 1,80m 	Galvanised Height: 13.5 cm	0.53	584392000	Universal plug R20/25 Kombi-Ankerstopfen R20/25 	Blue Diameter: 3 cm	0.003	588180000
Scaffold tube connection Gerüstrohranschluss 	Galvanised Height: 7 cm	0.27	584375000	Winch 70 Zahnstangenwinde 70 	Painted blue Height: 126 cm Follow the directions in the "Operating Instructions"!	31.0	582779000

	[kg]	Article n°		[kg]	Article n°
Winch 125 Zahnstangenwinde 125  Painted blue Height: 189 cm Follow the directions in the "Operating Instructions"!	63.8	582780000	Multi-purpose waling WS10 Top50 2.00m Mehrweckriegel WS10 Top50 2,00m  Painted blue	38.9	580007000
Staxo/d2 adapter frame Staxo/d2-Adapter  Painted blue Length: 37 cm Width: 36 cm Height: 36 cm	14.1	582781000	Doka personal fall-arrest set Doka-Auffanggurt  Follow the directions in the "Operating Instructions"!	3.6	583022000
Solid tire wheel Vollelastikrad  Painted blue Height: 45 cm	34.5	582573000	Fork lift shifting device TG SN Umsetzgerät TG für Stapler SN  Galvanised Length: 60 cm Width: 113 cm Height: 52 cm Follow the directions in the "Operating Instructions"!	83.0	582797500
Heavy-duty wheel 15kN Schwerlastrad 15kN  Painted blue Height: 41 cm	33.0	582575000	Multi-trip packaging		
Double wheeled transporter Zweirad-Transportroller  Painted blue Width: 57 cm	5.0	582558000	Doka skeleton transport box 1.70x0.80m Doka-Gitterbox 1,70x0,80m  Galvanised Height: 113 cm	87.0	583012000
Shifting carriage TG Hubwagen TG  Galvanised Length: 99 cm Width: 152 cm Height: 148 cm Follow the directions in the "Operating Instructions"!	168.0	582778000	Doka multi-trip transport box 1.20x0.80m Doka-Mehrwegcontainer 1,20x0,80m  Galvanised Height: 78 cm	70.0	583011000
Fork lift shifting device TG Umsetzgerät TG für Stapler  Galvanised Length: 60 cm Width: 113 cm Height: 52 cm Follow the directions in the "Operating Instructions"!	83.0	582797000	Multi-trip transport box partition 0.80m Multi-trip transport box partition 1.20m Mehrwegcontainer Unterteilung  Steel parts galvanised Timber parts varnished yellow	3.7 5.5	583018000 583017000

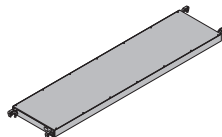
	[kg]	Article n°
Doka multi-trip transport box 1.20x0.80x0.41m Doka-Mehrwegcontainer 1,20x0,80x0,41m Galvanised 	42.5	583009000
Doka stacking pallet 1.55x0.85m Doka-Stapelpalette 1,55x0,85m Galvanised Height: 77 cm 	41.0	586151000
Doka stacking pallet 1.20x0.80m Doka-Stapelpalette 1,20x0,80m Galvanised Height: 77 cm 	38.0	583016000
Doka accessory box Doka-Kleinteilebox Timber parts varnished yellow Steel parts galvanised Length: 154 cm Width: 83 cm Height: 77 cm 	106.4	583010000
Bolt-on castor set B Anklemm-Radsatz B Painted blue 	33.6	586168000
Stacking strap 50 Stapelgurt 50 Powder-coated blue Packaging unit: 2 pcs. 	3.1	586156000

Alte Artikel

	[kg]	Article n°
Assembly planking 60/60cm	5.7	582330000
Assembly planking 60/100cm	8.5	582306000
Assembly planking 60/150cm	12.0	582307000
Assembly planking 60/175cm	14.7	582332000
Assembly planking 60/200cm	17.5	582308000
Assembly planking 60/250cm	21.0	582309000
Assembly planking 60/300cm	24.8	582310000

Montagebelag

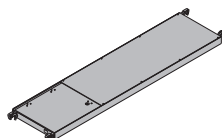
Aluminium



Assembly planking 60/100cm with manhole	10.2	582311000
Assembly planking 60/150cm with manhole	13.8	582312000
Assembly planking 60/175cm with manhole	15.0	582333000
Assembly planking 60/200cm with manhole	17.5	582313000
Assembly planking 60/250cm with manhole	21.0	582314000
Assembly planking 60/300cm with manhole	24.8	582315000

Montagebelag mit Durchstieg

Aluminium



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

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