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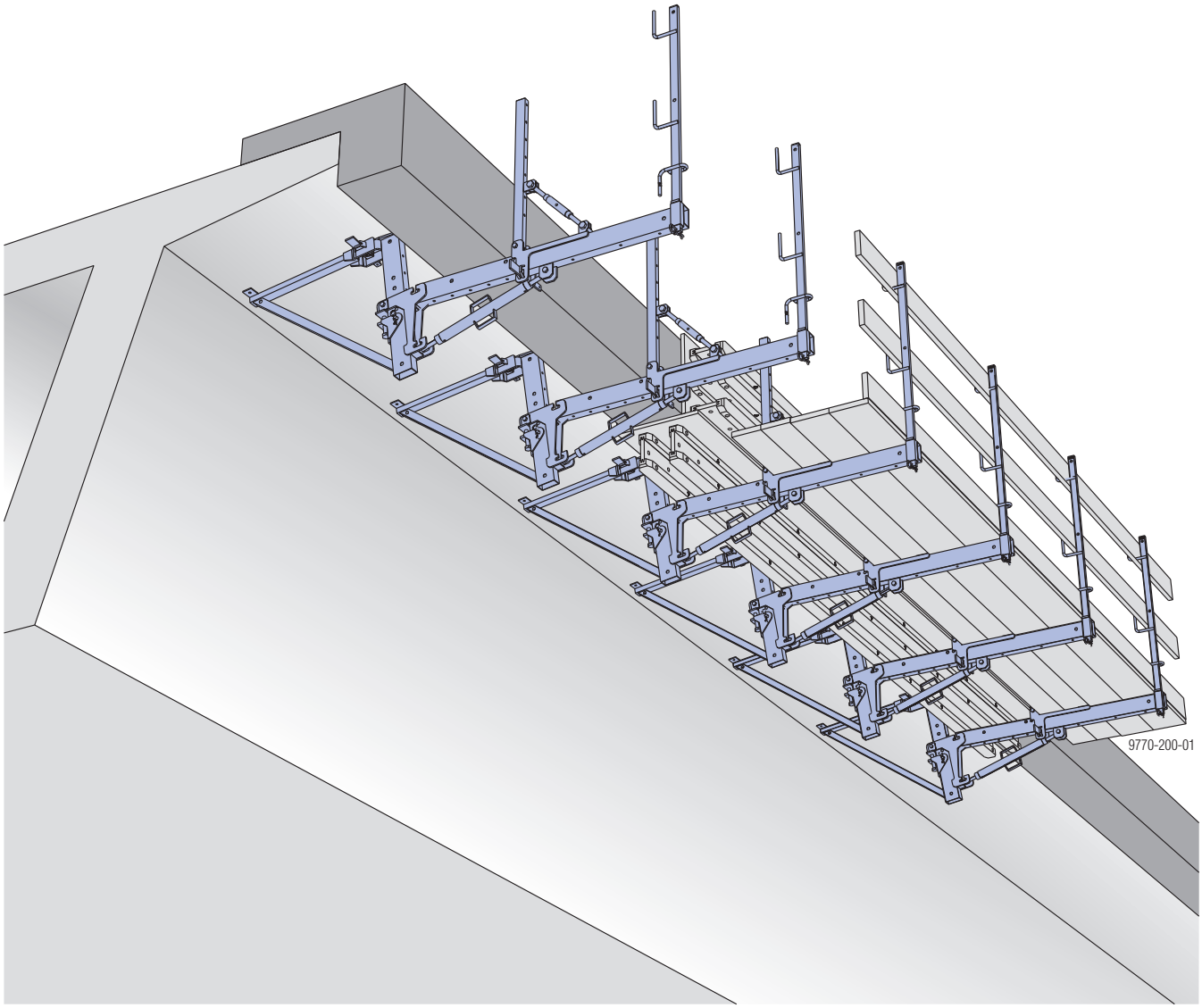
en-GB

The Formwork Experts.

Bridge edge beam formwork T

User Information

Instructions for assembly and use (Method statement)



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Contents

Introduction

Elementary safety warnings

User target groups

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

Hazard assessment

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

Remarks on this booklet

- This booklet can also be used as a generic method statement or incorporated with a site-specific method statement.
- **Many of the illustrations in this booklet show the situation during formwork assembly and are therefore not always complete from the safety point of view.**
  Any safety accessories not shown in these illustrations must still be used by the customer, in accordance with the applicable rules and regulations.
- **Further safety instructions, especially warnings, will be found in the individual sections of this booklet!**

Planning

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

Regulations; industrial safety

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

Rules applying during all phases of the assignment

- The customer must ensure that this product is erected and dismantled, reset and generally used for its intended purpose in accordance with the applicable laws, standards and rules, under the direction and supervision of suitably skilled persons.
  These persons' mental and physical capacity must not in any way be impaired by alcohol, medicines or drugs.
- Doka products are technical working appliances which are intended for industrial / commercial use only, always in accordance with the respective Doka User Information booklets or other technical documentation authored by Doka.
- The stability and load-bearing capacity of all components and units must be ensured during all phases of the construction work!
- Do not step on or apply strain to cantilevers, closures, etc. until suitable measures to ensure their stability have been correctly implemented (e.g. by tie-backs).
- Strict attention to and compliance with the functional instructions, safety instructions and load specifications are required. Non-compliance can cause accidents and severe injury (risk of fatality) and considerable damage to property.
- Sources of fire in the vicinity of the formwork are prohibited. Heating appliances are only allowed if properly and expertly used, and set up a safe distance away from the formwork.
- The customer must consider all types of weather conditions on equipment and in connection with the use or storage of the equipment (e.g. slippery surfaces, risk of slippage, effects of wind, etc.) and must take steps in good time to safeguard the equipment and the surrounding areas and to protect the 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 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 suitable condition. Steps must be taken to rule out the use of any components that are damaged, deformed, or weakened due to wear, corrosion or rot.
- Combining our formwork systems with those of other manufacturers could be dangerous, risking damage to both health and property. If you intend to combine different systems, please contact Doka for advice first.
- The equipment/system must be assembled and erected in accordance with the applicable laws, Standards and rules by suitably skilled personnel of the customer's, having regard to any and all required safety inspections.
- It is not permitted to modify Doka products; any 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 out 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 regulations applying to the handling of formwork and scaffolding. In addition, the Doka slinging means must be used - this is a mandatory requirement.
- Remove any loose parts or fix them in place so that they cannot be dislodged or fall free!
- All components must be stored safely, following all the special Doka instructions given in the relevant sections of this booklet!

Maintenance

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

Miscellaneous

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

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

Symbols used

The following symbols are used in this booklet:

NOTICE
Failure to observe this may lead to malfunction or damage.

CAUTION / WARNING / DANGER
Failure to observe this may lead to material damage, and to injury to health which may range up to the severe or even life-threatening.

Instruction
This symbol indicates that actions need to be taken 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
Refers to other documents and materials.

Eurocodes at Doka

In Europe, a uniform series of Standards known as **Eurocodes** (EC) was developed for the construction field by the end of 2007. These are intended to provide a uniform basis, valid throughout Europe, for product specifications, tenders and mathematical verification.

The EC are the world's most highly developed Standards in the construction field.

In the Doka Group, the EC are to be used as standard from the end of 2008. They will thus supersede the DIN norms as the "Doka standard" for product design.

The widely used "Permissible stress design" (comparing the actual stresses with the permissible stresses) has been superseded by a new safety concept in the EC.

The EC contrast the actions (loads) with the resistance (capacity). The previous safety factor in the permissible stresses is now divided into several partial factors. The safety level remains the same!

$$E_d \leq R_d$$

E_d **Design value of effect of actions**
(E ... effect; d ... design)
Internal forces from action F_d
(V_{Ed}, N_{Ed}, M_{Ed})

F_d **Design value of an action**
$F_d = \gamma_F \cdot F_k$
(F ... force)

F_k **Characteristic value of an action**
"actual load", service load
(k ... characteristic)
e.g. dead weight, live load, concrete pressure, wind

γ_F **Partial factor for actions**
(in terms of load; F ... force)
e.g. for dead weight, live load, concrete pressure, wind
Values from EN 12812

R_d **Design value of the resistance**
(R ... resistance; d ... design)
Design capacity of cross-section
(V_{Rd}, N_{Rd}, M_{Rd})

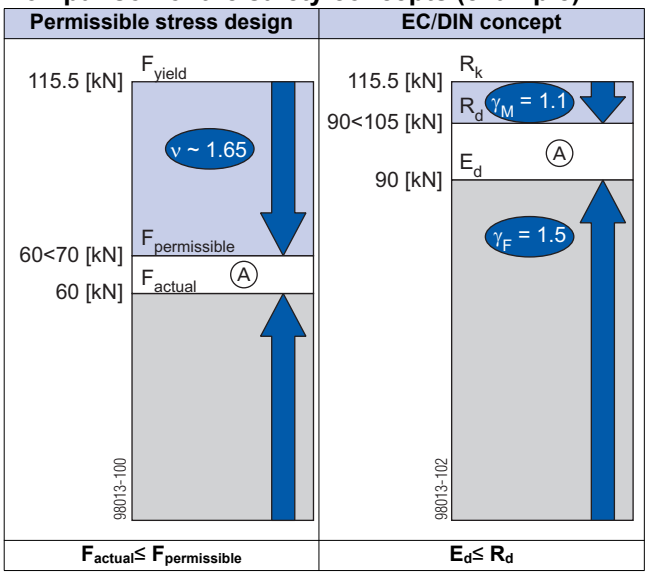
Steel: $R_d = \frac{R_k}{\gamma_M}$ Timber: $R_d = k_{mod} \cdot \frac{R_k}{\gamma_M}$

R_k **Characteristic value of the resistance**
e.g. moment resistance to yield stress

γ_M **Partial factor for a material property**
(in terms of material; M...material)
e.g. for steel or timber
Values from EN 12812

k_{mod} **Modification factor** (only for timber – to take account of the moisture and the duration of load action)
e.g. for Doka beam H20
Values as given in EN 1995-1-1 and EN 13377

Comparison of the safety concepts (example)



A Utilisation factor

The "permissible values" communicated in Doka documents (e.g.: $Q_{permissible}$ = 70 kN) do not correspond to the design values (e.g.: V_{Rd} = 105 kN)!

- ➤ Avoid any confusion between the two!
- ➤ Our documents will continue to state the permissible values.

Allowance has been made for the following partial factors:
γ_F = 1.5
$\gamma_{M,\ timber}$ = 1.3
$\gamma_{M,\ steel}$ = 1.1
k_{mod} = 0.9

In this way, all the design values needed in an EC design calculation can be ascertained from the permissible values.

Doka services

Support in every stage of the project

Doka offers a broad spectrum of services, all with a single aim: to help you succeed on the site.

Every project is unique. Nevertheless, there is one thing that all construction projects have in common – and that is a basic structure with five stages. We at Doka know our clients' varying requirements. With our consulting, planning and other services, we help you achieve effective implementation of your formwork assignment using our formwork products – in every one of these stages.

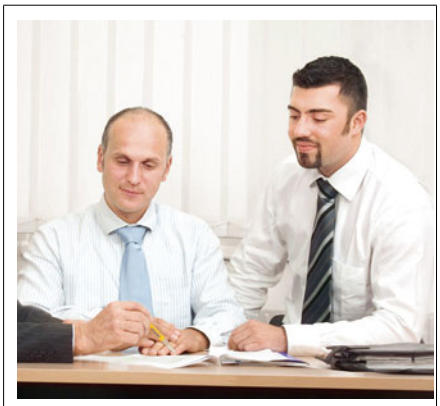
Project Development Stage

Taking well-founded decisions thanks to professional advice and consulting

Find precisely the right formwork solutions, with the aid of

- help with the bid invitation
- in-depth analysis of the initial situation
- objective evaluation of the planning, execution, and time-risks

Bidding Stage



Optimising the preliminary work with Doka as an experienced partner

Draw up potentially winning bids, by

- basing them on realistically calculated guideline prices
- making the right formwork choices
- having an optimum time-calculation basis

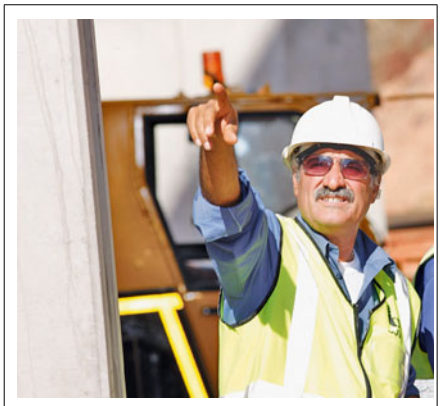
Operations Scheduling Stage

Controlled, regular forming operations, for greater efficiency resulting from realistically calculated formwork concepts

Plan cost-effectively right from the outset, thanks to

- detailed offers
- determination of the commissioning quantities
- co-ordination of lead-times and handover deadlines

Concrete Construction Stage



Optimum resource utilisation
with assistance from the Doka Formwork Experts

Workflow optimisation, thanks to

- thorough utilisation planning
- internationally experienced project technicians
- appropriate transport logistics
- on-site support

Project Close-out Stage

Seeing things through to a positive conclusion
with professional support

Doka Services are a byword for transparency and efficiency here, offering

- jointly handled return of rented formwork
- professional dismantling
- efficient cleaning and reconditioning using special equipment

The advantages for you
thanks to professional advice and consulting

- **Cost savings and time gains**
  When we advise and support you right from the word 'go', we can make sure that the right formwork systems are chosen and then used as planned. This lets you achieve optimum utilisation of the formwork equipment, and effective forming operations because your workflows will be correct.
- **Maximised workplace safety**
  The advice and support we can give you in how to use the equipment correctly, and as planned, leads to greater safety on the job.
- **Transparency**
  Because our services and costs are completely transparent, there is no need for improvisation during the project – and no unpleasant surprises at the end of it.
- **Reduced close-out costs**
  Our professional advice on the selection, quality and correct use of the equipment helps you avoid damage, and minimise wear-and-tear.

System overview

Bridge edge beam formwork T- the fast manual bridge edge beam formwork (type-tested)

This formwork is a quick and easy way of constructing edge kerbs on bridges. It only has a small number of separate parts, which combine high load-bearing capacity with low unit weight. This makes it possible to erect Bridge edge beam formwork T by hand.

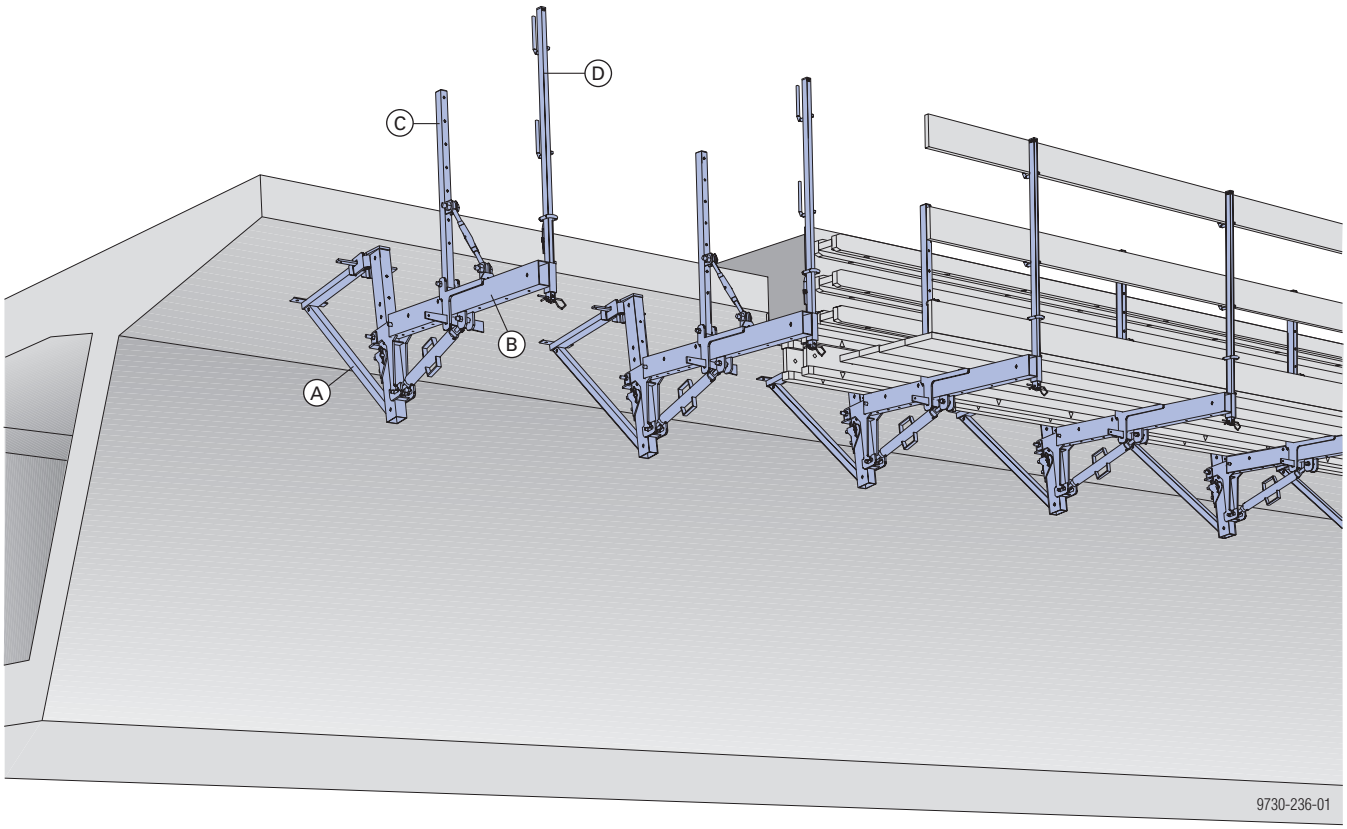
Cost effective utilisation for casting edge kerbs include:

- shorter bridge superstructures (completely scaffolded)
- medium-length bridges with a small number of repositioning cycles

The system is also suitable for curved bridges.

The benefits of Doka bridge edge beam formwork include:

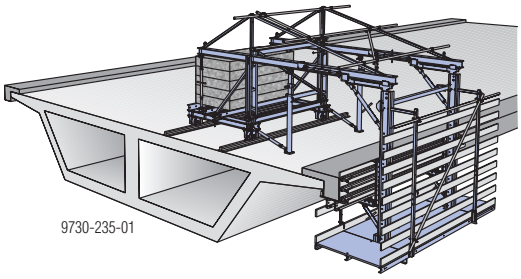
- Quick-attachment of the bridge edge beam bracket
- Continuous height adjustment of the bridge edge beam support on the bridge edge beam bracket
- Quick-fix connection between the bridge edge beam support and the bridge edge beam bracket
- Wide angle-setting range ensures great flexibility
- High load-bearing capacity components combined with low unit weights
- Designed and galvanised for a long service life



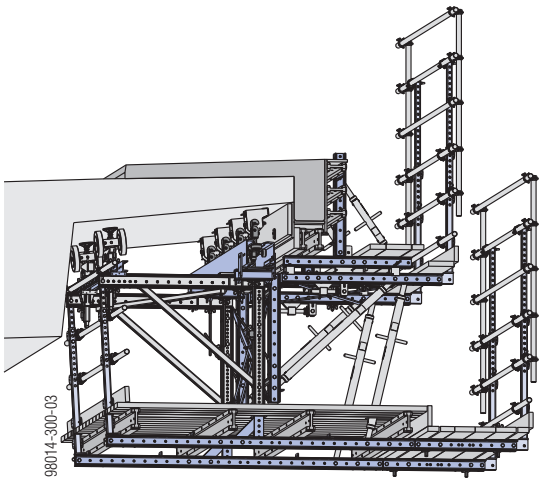
A	Bridge edge beam bracket T 0.80m
B	Bridge edge beam support T 1.40m
C	Bridge edge beam clamp T 0.40m
D	Handrail post 1.00m or Handrail post T 1.80m

Forming wagon T and Forming wagon TU are alternatives for long bridges and/or multiple repositioning cycles. They are also suitable for renovation of existing bridge superstructures. Follow the directions in either the 'Forming wagon T' or the 'Forming wagon TU' User Information, as appropriate.

Example using Forming wagon T:



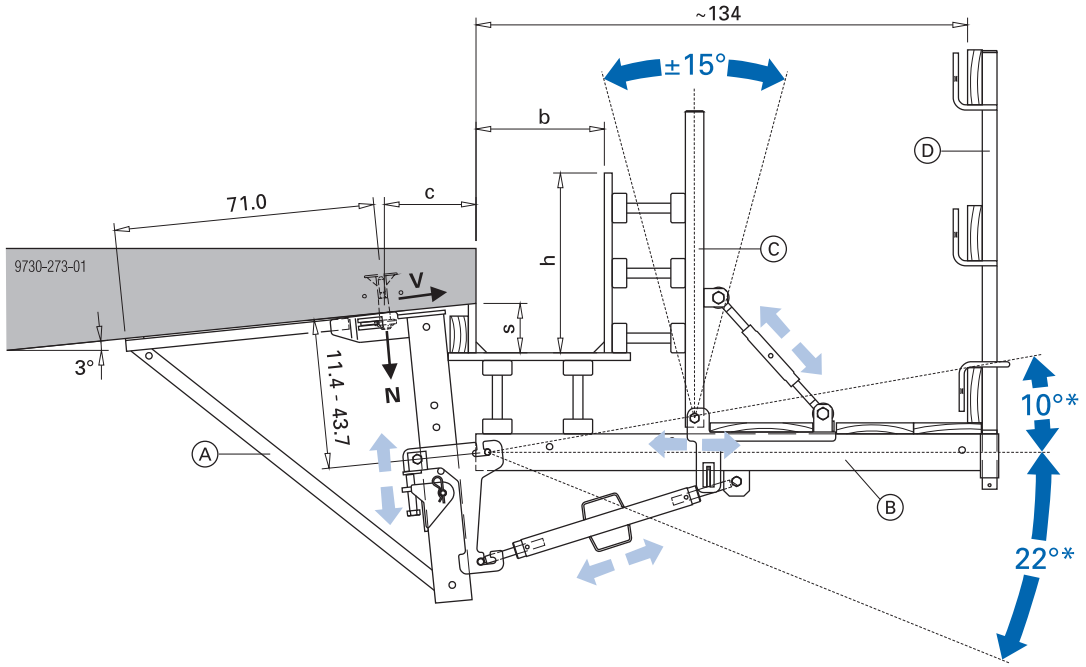
Example using Forming wagon TU:



Structural design

Basic system

This illustration shows the basic system components. It does not include add-ons such as the Bridge edge beam waling T 2.70m, Handrail post T 1.80m, etc.



* ... where the underside of the cantilever slab has an inclination of 3°

Max. dimensions of kerb when Doka formwork beams H20 are used

b	8.0 - 60.0cm
s	0 - 15.5 cm (where cantilever-slab inclination = 0°) 0 - 13.5 cm (where cantilever-slab inclination = 5°)
c	Standard 25.0 cm Where the bridge edge beam support **(B)** has a pronounced rearward inclination, this dimension must be determined with the aid of construction-design drawings.
h	0 - 76 cm

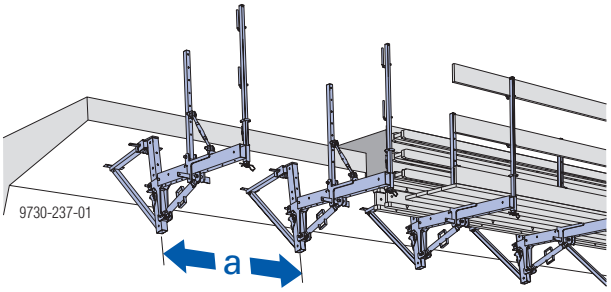
Max. reaction forces of the basic system which will occur when the 'Centre-to-centre distance 'a' graph' is used:

N_d = 34.5 kN (N_k = 23 kN)

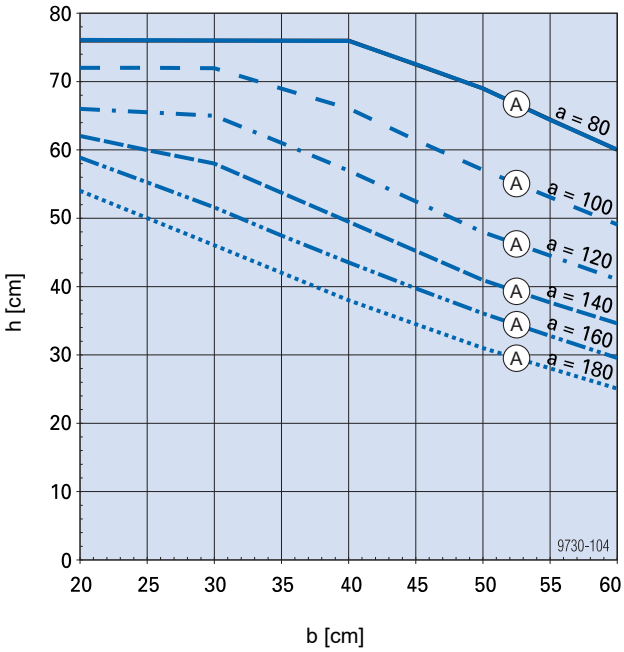
V_d = 10.5 kN (V_k = 7 kN)

Proof must be provided in each individual case for the inward/onward transfer of these reaction forces into the structure.

The centre-to-centre distance **a** between the bridge edge beam brackets along the longitudinal axis of the bridge superstructure will depend on the kerb dimensions (**b** and **h**) and can be read off from the graph below.



Centre to Centre distance 'a' graph (extract from the type-test)



A max. wind pressure w_e = 1.69 kN/m²

Permissible live load on the working platform for pouring is max. 0.75 kN/m²

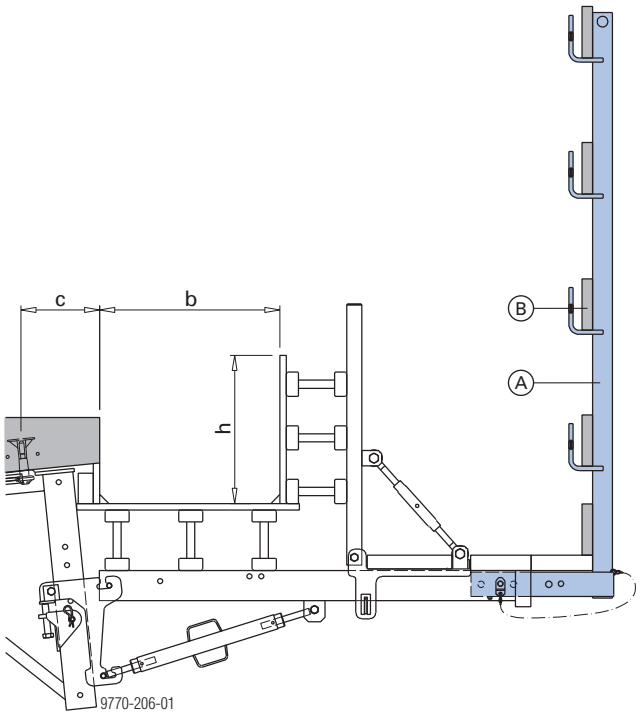
A working wind of 0.25 kN/m² (72 km/h) is taken into account.

Structural design with Handrail post T 1.80m

The Handrail post T 1.80m is ideal for constructing handrails up to 1.80 m high.

Permissible live load on the working platform for pouring is max. 0.75 kN/m²

A working wind of 0.25 kN/m² (72 km/h) is taken into account.

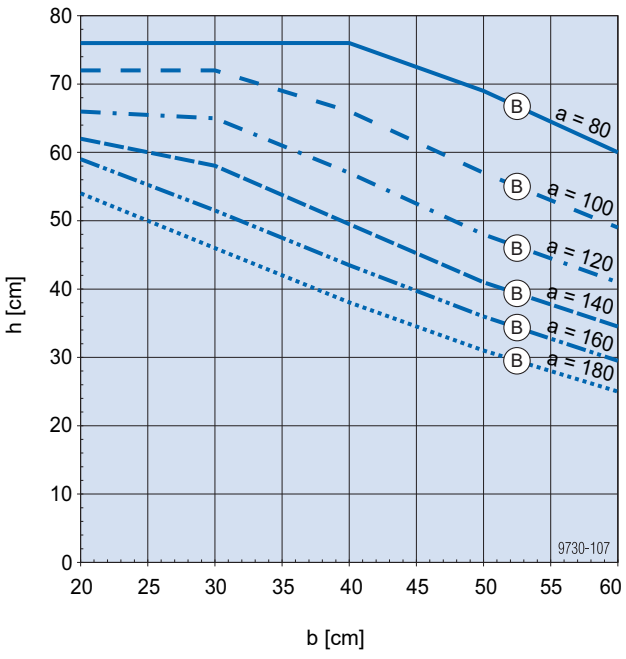


c ... Standard 25.0 cm Where the bridge edge beam support has a pronounced rearward inclination, this dimension must be determined with the aid of construction-design drawings.

A Handrail post T 1.80m

B Guardrail boards 15x3 cm

Centre-to-centre distance 'a' graph (guardrail boards 15x3 cm)



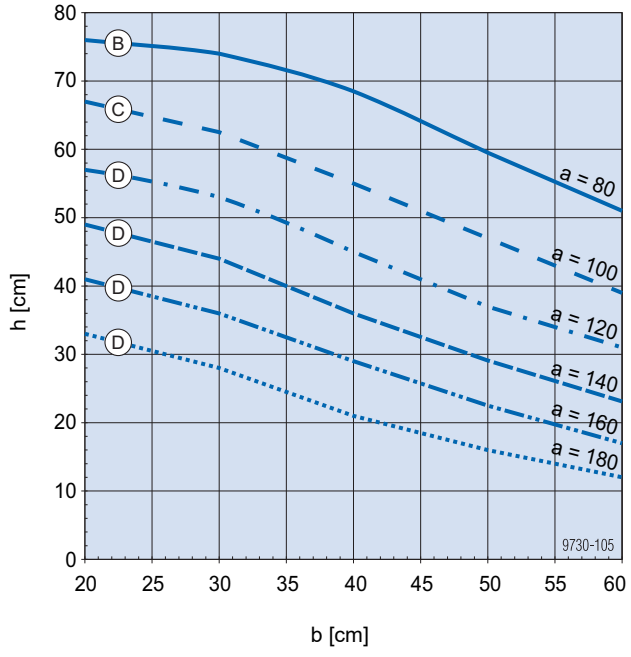
B max. wind pressure w_e = 1.43 kN/m²

c ... Standard 25.0 cm Where the bridge edge beam support has a pronounced rearward inclination, this dimension must be determined with the aid of construction-design drawings.

A Handrail post T 1.80m

C Gap-free boarding

Centre to centre distance 'a' graph (acting on whole area)



B max. wind pressure w_e = 1.43 kN/m²

C max. wind pressure w_e = 1.04 kN/m²

D max. wind pressure w_e = 0.65 kN/m²

Instructions for assembly and use (Method statement)

Preconditions for use:

The suspension points must be pre-fitted into the superstructure at the correct intervals (see the section headed 'Suspension point with bridge edge beam anchor').

For erecting the formwork, we recommend using either a mobile work platform or a personnel cage lowered from a construction crane, mobile crane or truck-mounted crane.

Various types of assembly carriage for edge-kerb formwork are available on the market.
Whether a particular carriage is suitable for erecting Doka bridge edge formwork T will depend upon the dimensions of the edge kerb. This must be verified separately for each kerb condition.

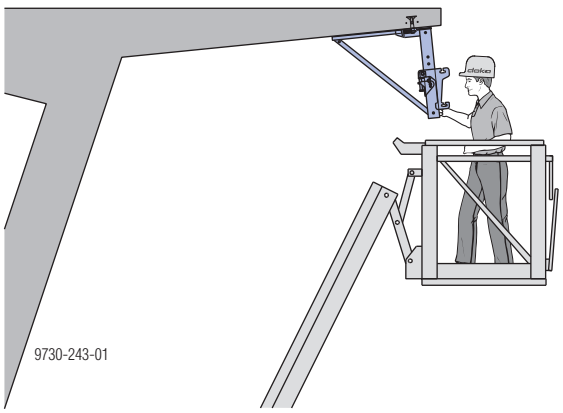
NOTICE

All equipment used must be officially approved for carrying personnel!

Doka bridge edge beam formwork takes a very short time to set up, this avoids the hoisting equipment from being "tied up" for long periods.

Suspending the first Bridge edge beam bracket

- ➤ Screw in the Screw-in cone 15.0 (see the section headed 'Suspension point with bridge edge beam anchor' for details).
- ➤ Mount the bridge edge beam bracket (see 'Suspension point with bridge edge beam anchor' for details). This can be made easier by lowering the bridge edge beam bracket by cable.
- ➤ On the first bridge edge beam bracket, roughly set the height of the connecting slide (see 'Manual erection' for details)



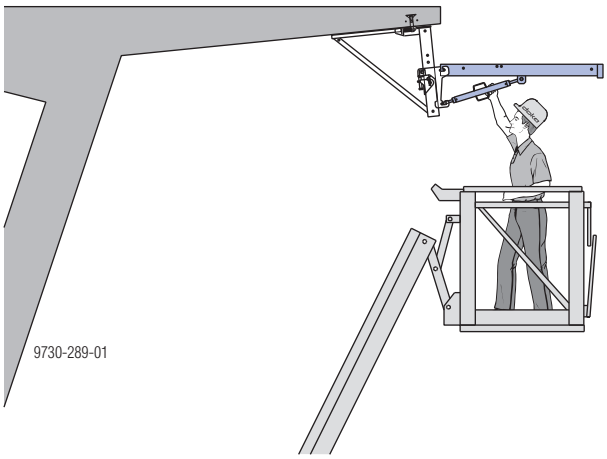
Suspending further Bridge edge beam brackets

Before being suspended, all the other bridge edge beam brackets can be pre-adjusted to match the first bracket.

- ➤ Screw in the Screw-in cone 15.0 (see the section headed 'Suspension point with bridge edge beam anchor' for details).
- ➤ Mount the bridge edge beam brackets (see 'Suspension point with bridge edge beam anchor' for details).

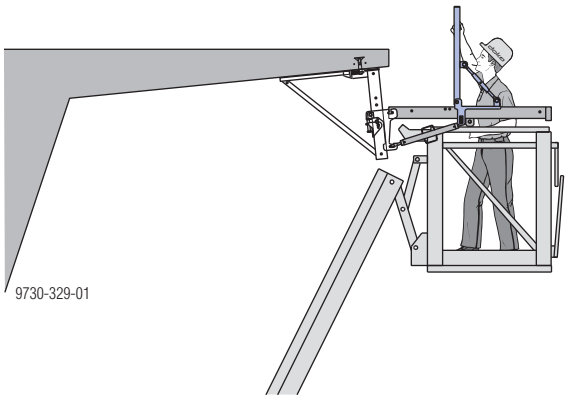
Mounting the Bridge edge beam supports

- ➤ Mount all Bridge edge beam supports T 1.40 m and level them (see "Manual erection" for details).



Mounting the Bridge edge beam clamp

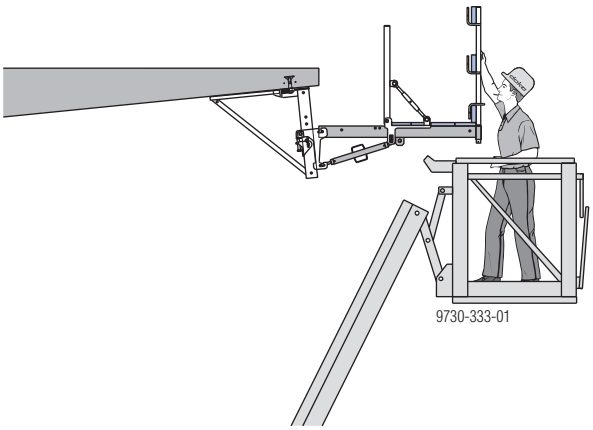
- ➤ Stand the Bridge edge beam clamp T 0.40m on the support and wedge it at the required distance from the edge of the structure (see 'Manual erection' for details).



Mounting the railing

➤ Slot Handrail posts 1.00m into place, and fasten the guard-rail boards (see chapter "Manual erection" for details).

➤ Lay the deck-boards (these must overlap by at least 20 cm).



Board thicknesses:

- floor decking min. 20x4 cm
- guard-rail boards min. 15/3 cm

Note:

The plank and board thicknesses given here comply with the C24 category of EN 338.

Observe all national regulations applying to deck-boards and guard-rail boards.

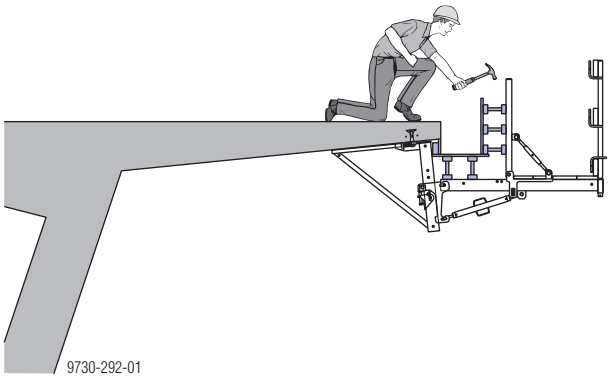
After this, no hoisting equipment is needed for any of the remaining operations.

Mounting the formwork

This is performed from the bridge superstructure on one side, and from the decking on the Bridge edge beam supports on the other.

➤ Mount the bottom formwork (see "Erecting the formwork" for details).

➤ Mount the side-formwork (may be preassembled – see "Erecting the formwork" for details).



Before pouring: Adjusting the formwork and reducing play

The adjusting spindles of the Bridge edge beam clamps are subjected to compressive force during pouring. As the bolted connections naturally have a certain play, it is possible that some spindles will be loose (i.e. under tension) after the formwork is mounted. During pouring, this play in the spindles would result in deviations from the pre-set dimensions.

To prevent this effect, please observe the following points:

➤ Check whether there is any play in the spindle. If not, the adjustment is OK.
If there is:

➤ Screw the spindle clockwise (to move it apart) until the play is eliminated, but not so far that the formwork is also moved at the same time.

! At the same time as checking the spindle, also check the wedge tension of the Bridge edge beam clamp.

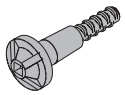
Anchoring on the structure

Suspension point with Bridge edge beam anchor

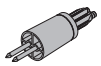
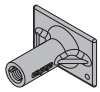
NOTICE

When constructing the bridge superstructure, incorporate the suspension points at the required positions and spacings.
Please check with Doka before attempting to use any other types of anchorage.

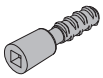
Retrievable anchoring component

Screw-in cone 15.0


Expendable anchoring components

Nailing cone 15.0	Bridge edge beam anchor 15.0 or Bridge edge beam anchor 15.0 galv.
	

For closing off the anchor hole left in the concrete

Hole plug 29mm	Zinc plug 15.0
	 For **long-lasting corrosion protection** of the suspension point

Follow the directions in the 'Bridge edge beam anchor 15.0' Fitting Instructions.

Dimensioning the suspension point

The required **cube compressive strength** of the concrete at the time of loading must be **specified** separately for each project **by the structural designer**. It will depend on the following factors:

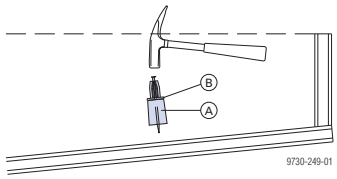
- load actually occurring
- reinforcement / extra reinforcement steel
- distance from edge

The introduction of the forces, the transfer of these forces into the structure, and the stability of the overall construction, must all be verified by the structural designer.

The required cube compressive strength $f_{ck,cube,current}$ must be at least 10 N/mm².

Fitting the bridge edge beam anchor

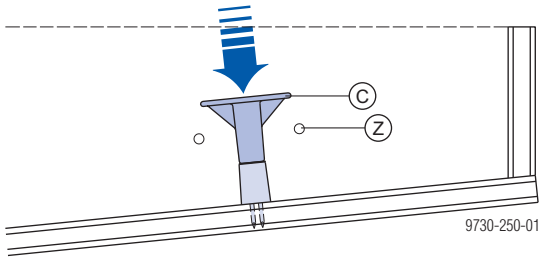
➤ Nail a Nailing cone to the form-ply (position as shown in shop drawing / assembly plan).



A Nailing cone 15.0
B Sealing ring

Make sure that the sealing ring is fitted correctly!

➤ Push the bridge edge beam anchor onto the nailing cone.



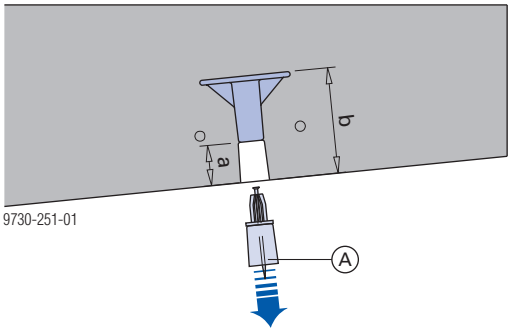
C Bridge edge beam anchor 15.0
Z Extra reinforcement steel

➤ Tie the Bridge edge beam anchor tightly to the reinforcements with binding wire.
This prevents it becoming detached during pouring and vibrating.

If statically required – place extra reinforcement steel.

After formwork has been struck

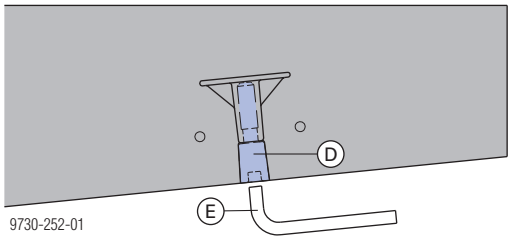
➤ Remove the nailing cone from the anchoring point.



a ... concrete cover 4.0 cm
b ... placement depth 11.5 cm

A Nailing cone 15.0

➤ Close off the hole in the concrete:
with a Hole plug 29mm or
a Zinc plug 15.0 for long-lasting corrosion protection.



D Zinc plug 15.0
E 1/2" square head spanner

Tools needed:

- 1/2" square head spanner

Making the suspension point reusable – lasting protection against corrosion

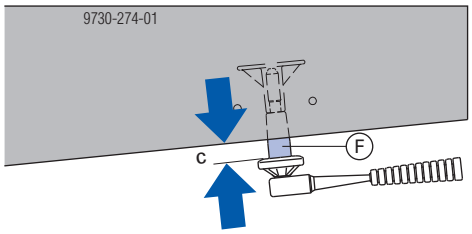
Where an ungalvanised 'standard' Bridge edge beam anchor 15.0 has been used, you can give the suspension point lasting (electrochemical) protection against corrosion by screwing a Zinc plug 15.0 into the anchor after the formwork has been removed.

Quick-attachment facility using Screw-in cone 15.0

Tools needed:

- Reversible ratchet 1/2"
- Extension 11cm 1/2"

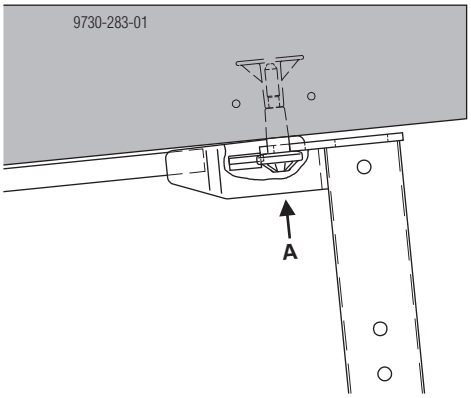
➤ Screw in a Screw-in cone 15.0.



F Screw-in cone 15.0

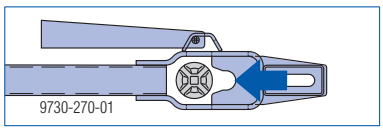
To make it easier to push the bridge edge beam bracket onto the Screw-in cone 15.0, only screw this into the bridge edge beam anchor until the distance **c** between the underside of the slab and the head of the cone is approx. 23 to 25 mm.

➤ Hang the Bridge edge beam bracket T 0.80m into place.

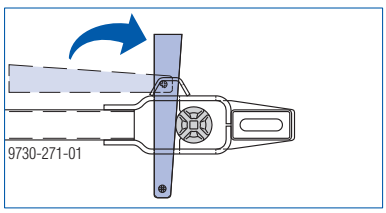


The following points refer to enlarged view A:

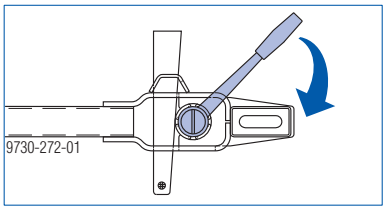
➤ Place the bracket head against the cone head and push it into the suspension opening.



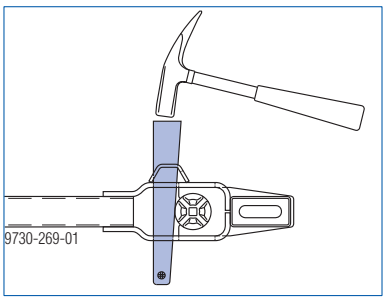
➤ Push the wedge in by hand.



➤ Tighten the Screw-in cone 15.0.



➤ Hammer in the wedge (one blow of the hammer is sufficient).



Retrofitted suspension points

Bridge edge beam formwork T is also ideal for use in bridge renovation. However, for this application, ready-prepared anchoring points will rarely be found.
Retrofitted suspension points with collar-mounts are required for engaging the bridge edge beam brackets.

Collar-mount 21	Collar-mount 25
	
For thread outside diameter 16-20 mm	For thread outside diameter 21-24 mm

Options for making a safe retrofitted suspension point:

- Chemical anchors
  - Glue in a threaded rod
  - Glue in an internally threaded sleeve
- Rock anchor spreader unit 15.0
- Heavy-duty anchor
- Self-undercutting anchor

Follow the manufacturer's fitting instructions!

Max. reaction forces of the basic system which will occur when the 'Centre-to-centre distance 'a' graph' is used:

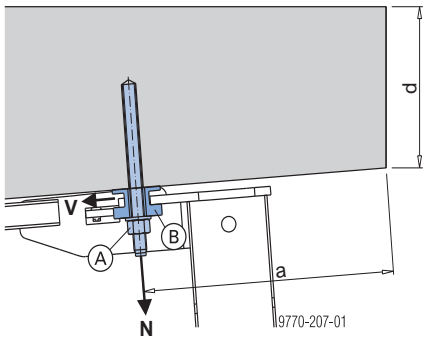
N_d = 34.5 kN (N_k = 23 kN)

V_d = 10.5 kN (V_k = 7 kN)

Proof must be provided in each individual case for the inward/onward transfer of these reaction forces into the structure.

For more information, please contact your Doka technician.

Example with chemical anchor



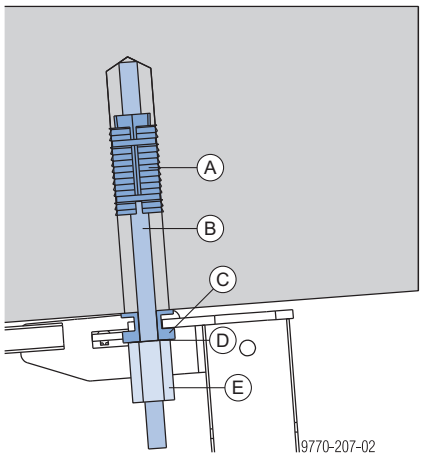
A Chemical anchor
B Collar-mount 21

The manufacturer of the anchorage (e.g. Hilti) has to provide proof of calculation for the suspension point.

It is essential to provide the manufacturer with the following information for this purpose:

- Concrete strength
- a ... distance from edge
- d ... building-element thickness
- N_d ... design value of the anchor tensile load (γ_F = 1.5)
- V_d ... design value of the shear force (γ_F = 1.5)

Example with Rock anchor spreader unit 15.0



A Rock anchor spreader unit 15.0
B Tie rod 15.0
C Collar-mount 21
D Spring washer A20
E Hexagon nut 15.0

Follow the directions in the ‘Rock-anchor spreader unit 15.0’ Fitting Instructions!

Assembly

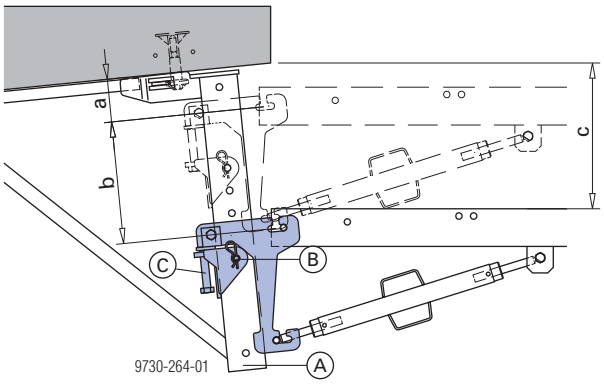
Manual erection

Continuous height adjustment on the Bridge edge beam bracket T 0.80m

Tools needed:

- Reversible ratchet 1/2"
- Box nut 30 1/2"

1) Before fitting the Bridge edge beam support T, bolt and secure the integrated slide **(B)** at roughly the planned height level.
2) Use the adjusting screw **(C)** to make fine adjustments to the slide so as to position the Bridge edge beam support T at exactly the right level after this has been fitted to the bracket.

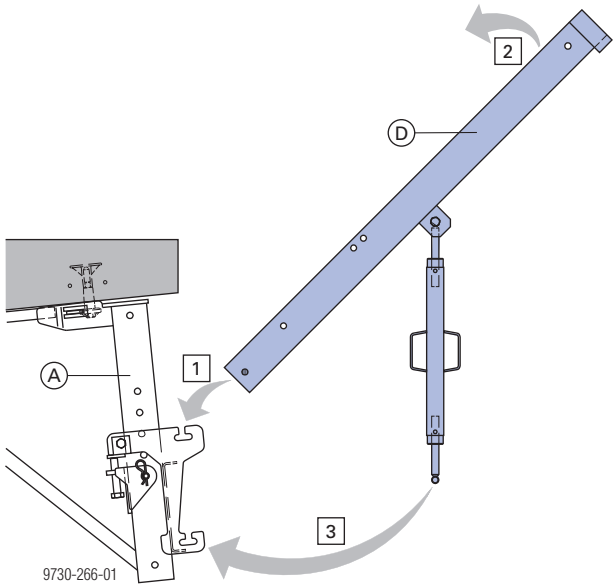


a ... min. 11.4 cm
b ... Adjusting range 32.3 cm
c ... min. 7.7, max. 39.8 cm (limit-values for determining the formwork configuration where the cantilever slab has an inclination of 3°)

A	Bridge edge beam bracket T 0.80m
B	Integral slide with rough adjustment in 4x6.0 cm hole-grid
C	Adjusting screw for continuous fine adjustment (width-across 30 mm)

Quick-fix connection between Bridge edge beam support T 1.40m and Bridge edge beam bracket T 0.80m

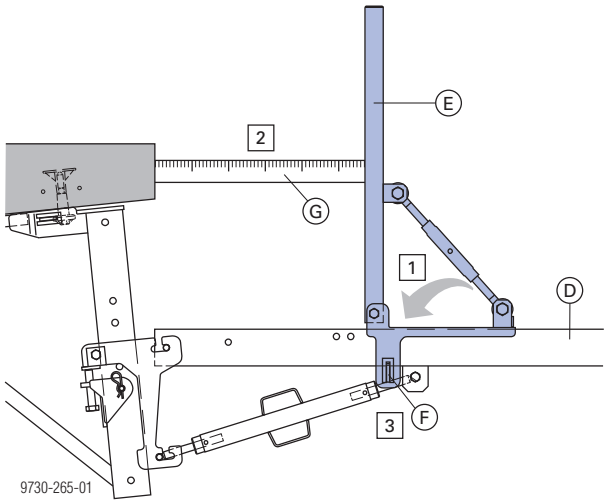
1) Insert the bridge edge beam support **(D)** into the slot at the top of the slide and
2) tilt it up so that
3) the swivel bolt of the spindle can be inserted into the slot at the bottom of the slide.



Once the bridge edge beam support has been let down and has reached its limit positions, it is securely connected to the bridge edge beam bracket.

Quick connection for Bridge edge beam clamp T 0.40m

1) Stand the bridge edge beam clamp **(E)** on the bridge edge beam support **(D)** .
2) Position it the required distance away from the edge of the structure:Ensure that the vertical tube is set to the correct angle.
   Allow for the side-formwork dimension.
3) Secure by hammering in the clamping wedge **(F)** . After erecting the formwork and final adjustments have been made (reducing the play - see the section headed 'Instructions for Assembly and Use') tighten the clamping wedge (F) until the hammer rebounds from the clamping wedge **(F)** .

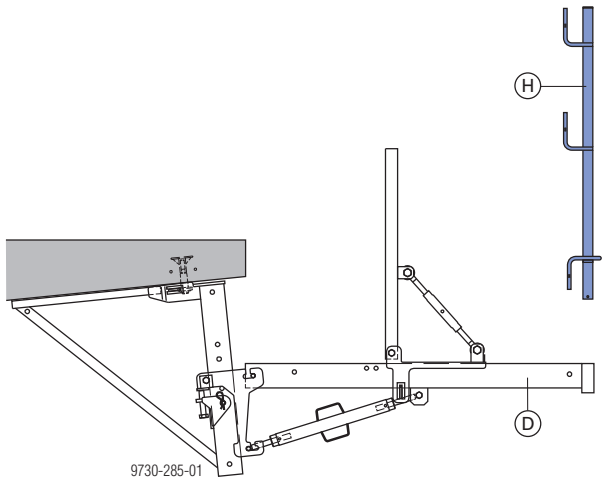


D Bridge edge beam support T 1.40m
E Bridge edge beam clamp T 0.40m
F Clamping wedge
G Ruler

Handrail post 1.00m

Possible ways of connecting:

- to the Bridge edge beam support T 1.40m
- to the Bridge edge beam support extension T 0.20m (see "Platforms on wide edge beams"
- to the Bridge edge beam platform T 2.70m

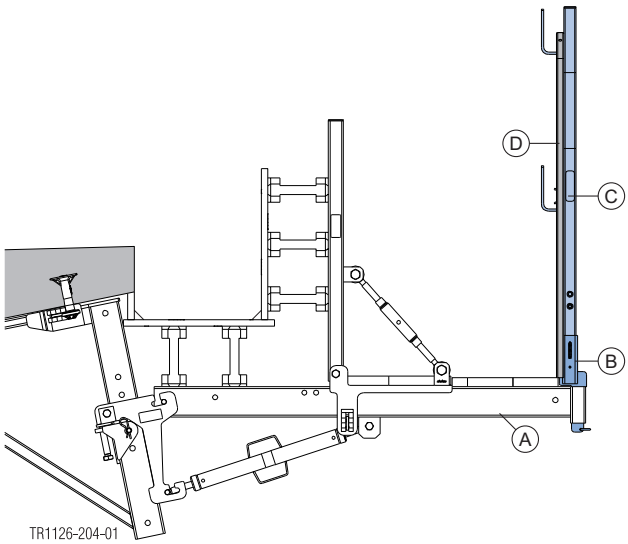


D Bridge edge beam support T 1.40m
H Handrail post 1.00m

Edge protection system XP

With the Bracket adapter XP FRR 50/30, the Edge protection system XP can be mounted on the following components:

- Bridge edge beam support T 1.40m
- Bridge edge beam support extension T 0.20m (see 'Platforms on wide edge beams')
- Bridge edge beam waling T 2.70m



A Bridge edge beam support T 1.40m
B Bracket adapter XP FRR 50/30
C Handrail post XP 1.20m
D Protective grating XP

Assembly

➤ Insert the Bracket adapter XP into the corresponding mounting and secure it with a spring cotter so that it cannot lift out.

The hollow section must face toward the formwork.

➤ Working from below, push the Toeboard holder XP onto the Handrail post XP (not needed when using the Protective grating XP).

➤ Push the Handrail post XP into the post-holding fixture on the Bracket adapter XP until the locking mechanism engages.

The locking mechanism must engage.

➤ Fit on a Protective grating XP or guardrail boards, and fix them in place.

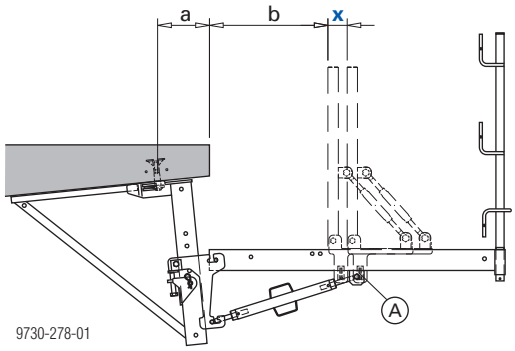
Other ways of erecting guard rails

As an alternative to the Handrail post 1.00m, the Handrail post T 1.80m is also available, especially for erecting high safety railings.
This is described in detail in the section headed "Possible ways of using the Handrail post T 1.80m".

Erecting the formwork

When planning the formwork, allow for the 9.3 cm wide zone **x** in which clamping is not possible.

Because of the spindle connection point, the clamping wedge **(A)** cannot be positioned in this zone.



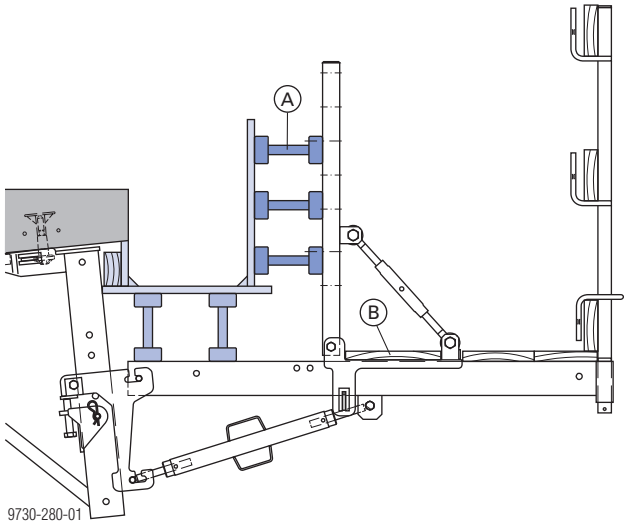
a ... 25 cm
b ... max. 57 cm
x ... 9.3 cm

Side-formwork with "upright" Doka beams

The formwork configuration can be exactly tailored to the requirements encountered on the site.

The use of upright Doka H20 beams has proved particularly effective. The beams can easily be overlapped, giving great flexibility in terms of formwork erection. The side formwork can also be pre-assembled and repositioned in one piece.

The ready-drilled holes in the bridge edge beam clamp make it possible to fasten the beams with e.g. square bolts M10x110 (not included with product).



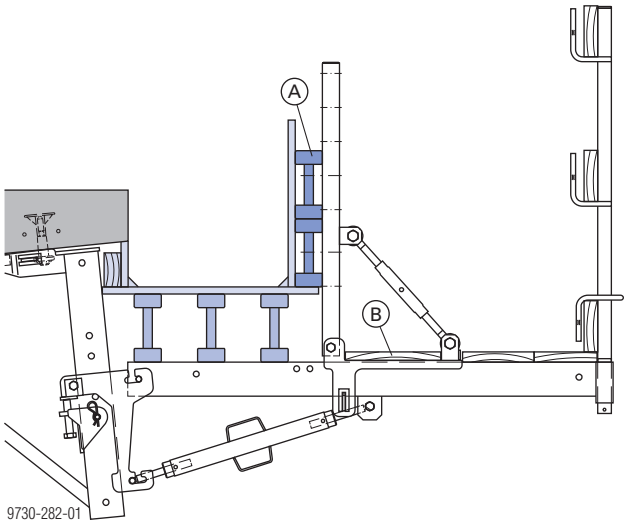
A Upright Doka beam H20
B Plank width max. 28 cm

Side-formwork with "flat" Doka beams

Note:

- The Doka beams H20 of the side-formwork must be statically verified! Where necessary, use them stood upright (i.e. loaded in the 'strong' direction)!
- The beams cannot be overlapped here. However, the formwork can also be pre-assembled and repositioned in one piece.

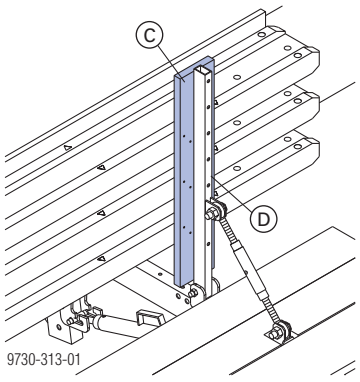
The ready-drilled holes in the bridge edge beam clamp allow the beams to be fastened using e.g. M10x110 square headed bolts (not included with product).



A Flat-placed Doka beam H20
B Plank width max. 28 cm

Tried-and-tested beam fixing method using nailing board:

- Screw the nailing board **(C)** onto the bridge edge beam clamp **(D)** . The Doka beams can be fixed in any position on the nailing board.



- Always attach triangular ledges to the side-formwork.

Additional areas of use

Platforms on wide edge beams

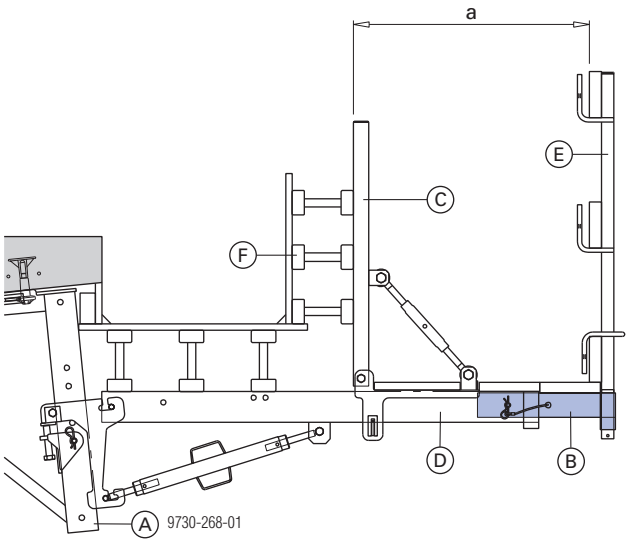
Widening the platform

A minimum distance **a** is stipulated between the outer edge of the formwork and the sideguard railings in situations where the top of the sideguard is less than 1.0 m above the outer edge of the formwork.

In order to comply with these regulations in the case of **wide edge beams**, either of the following 2 methods can be used:

- widening the Bridge edge beam support T 1.40m by adding a **Bridge edge beam support extension T 0.20m**.
- using the **Handrail post T 1.80m** to widen the Bridge edge beam support T 1.40m.

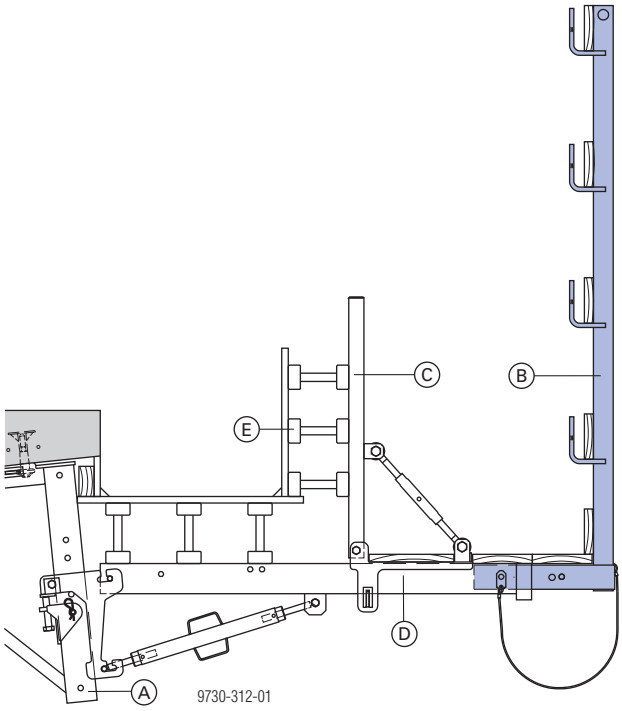
with Bridge edge beam support extension T 0.20m



a ... min. 60 cm

A	Bridge edge beam bracket T 0.80m
B	Bridge edge beam support extension T 0.20m
C	Bridge edge beam clamp T 0.40m
D	Bridge edge beam support T 1.40m
E	Handrail post 1.00m
F	Doka beam H20

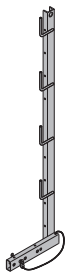
with Handrail post T 1.80m



A	Bridge edge beam bracket T 0.80m
B	Handrail post T 1.80m (extended)
C	Bridge edge beam clamp T 0.40m
D	Bridge edge beam support T 1.40m
E	Doka beam H20

Possible ways of using the Handrail post T 1.80m

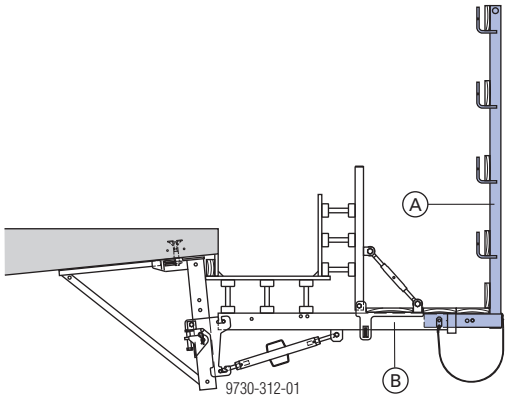
General remarks



The Handrail post T 1.80m is ideal for constructing handrails up to 1.80 m high.
It is highly versatile, with standard connections to many Doka products including:

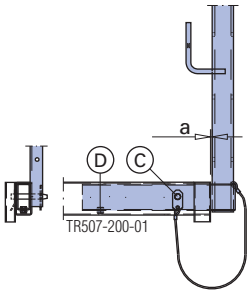
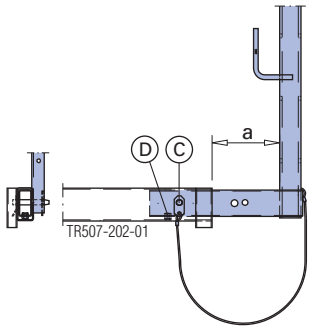
- Bridge edge beam support 1.40m
- Bridge edge beam waling T 2.70m
- Bridge edge beam bracket T 0.80m
- Multi-purpose waling or Steel waling WS10 Top50
- Doka beam H20

with the Bridge edge beam support T 1.40m



A Handrail post T 1.80m
B Bridge edge beam support T 1.40m

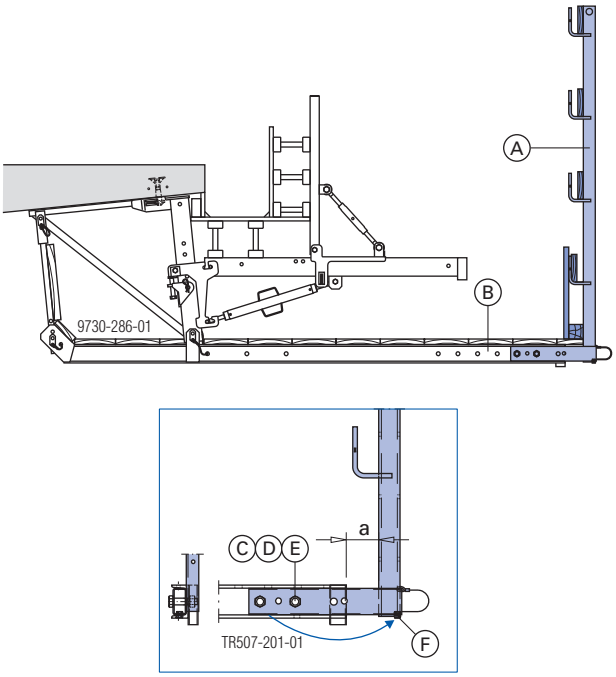
Handrail post T 1.80m

Pushed in	Extended
	
a ... 0.5 cm	a ... 20.5 cm

Details shown without platform planking and guard-rail boards

C Connecting pin 110 (included with product)
D Screw for facilitating mounting (included with product - width-across 17 mm)

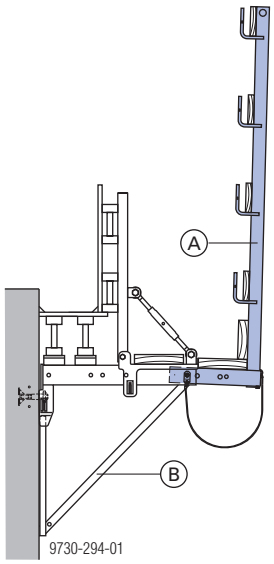
with the Bridge edge beam platform T 2.70m



a ... 9.9 cm
Details shown without platform planking

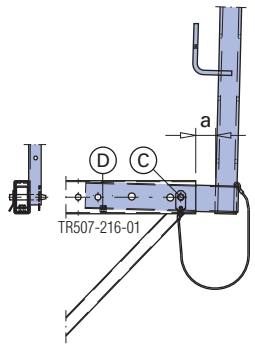
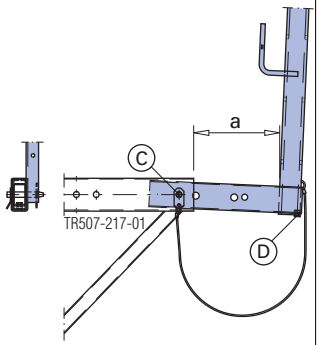
A Handrail post T 1.80m
B Bridge edge beam platform T 2.70m
C Hexagon screw M20x70 (not included with product)
D Hexagon nut M20 (not included with product)
E Washer 21 (not included with product)
F In this application, put the bolt into the "parking position" (bolt is included with product - width-across 17 mm)

with Bridge edge beam bracket T 0.80m



A Handrail post T 1.80m (note slightly slanted position)
B Bridge edge beam bracket T 0.80m

Handrail post T 1.80m

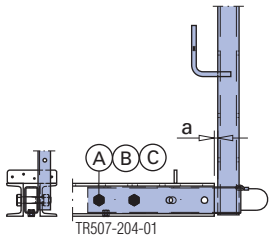
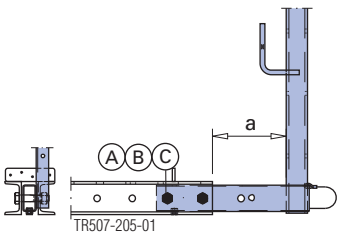
Pushed in	Extended
 a ... 6.1 cm	 a ... 26.2 cm

Details shown without platform planking and guard-rail boards

C Connecting pin 110 (included with product)
D Screw for facilitating mounting in the "parking position" (included with product - width-across 17 mm)

with multipurpose waling or Steel waling WS10 Top50

Handrail post T 1.80m

Retracted	Extended
 a ... 1.0 cm	 a ... 22.4 cm
Details shown without platform planking and guardrail boards	

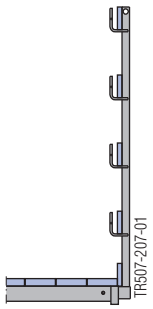
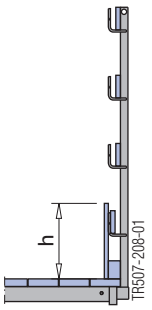
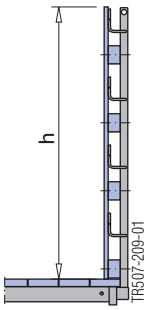
A Hexagon bolt M20x90 (not included with product)
B Hexagon nut M20 (not included with product)
C Washer 21 (not included with product)

Note:
An alternative fixing method is with Connecting pins 10cm + Spring cotters 5mm.

Structural design

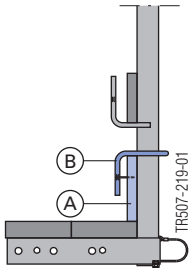
The table below applies to installations with:
- Bridge edge beam support 1.40m
- Bridge edge beam waling T 2.70m
- Bridge edge beam bracket T 0.80m
- Multi-purpose waling WS10 Top50

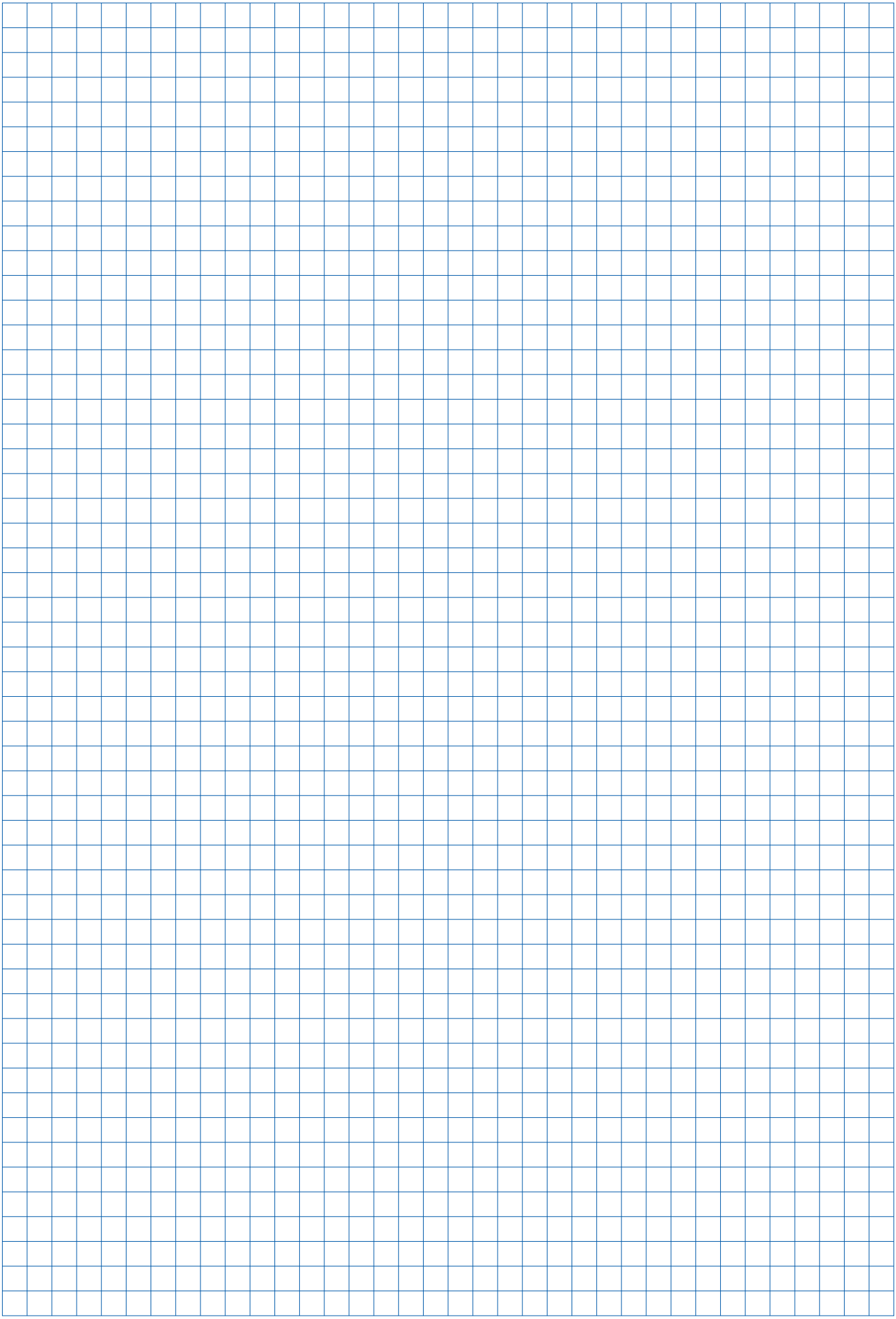
Permitted influence widths for different sideguard configurations

Guard-rail board [cm]	Height above ground					
	up to 20 m	20-100 m	up to 20 m	20-100 m	up to 20 m	20-100 m
15/3	2.00 m	1.80 m	2.00 m	1.60 m	1.00 m	0.80 m
15/4	2.50 m	1.80 m	2.25 m	1.60 m		
			 h ... 0.50 m		 h ... 1.80 m	

Accessory

Where needed, a **Toeboard holder T 1.80 m (B)** can be used for quick fixing of the toeboard **(A)** .





Platforms on bridges over traffic routes

with the Bridge edge beam platform T 2.70m

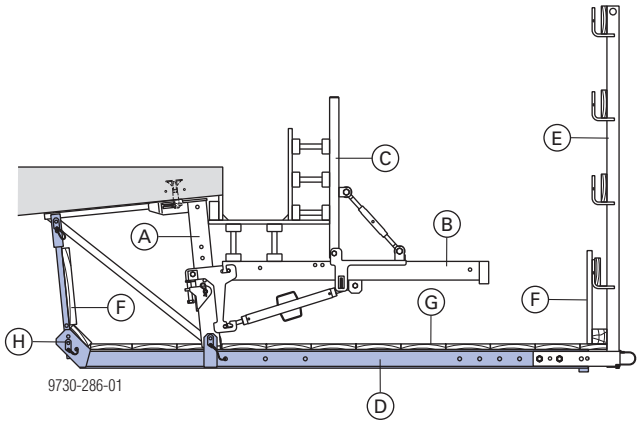
If bridge edge formwork is erected above public transportation routes (roads, waterways, railways) then an enclosed platform (protective canopy) will also be required, to prevent any objects dropping onto the route beneath.

The Bridge edge beam platform T 2.70m **(D)** is available for this purpose.

Rough angle adjustment is possible by means of a hole grid **(H)** .

First mount the Bridge edge beam platform T 2.70m **(D)** ,and only then hang the Bridge edge beam support T 1.40m **(B)** into place.

For design data, please see the section headed "Extended system" in the type test for "Bridge edge beam formwork T".



A	Bridge edge beam bracket T 0.80m
B	Bridge edge beam support T 1.40m
C	Bridge edge beam clamp T 0.40m
D	Bridge edge beam platform T 2.70m
E	Handrail post T 1.80m
F	Skirting board, as per regulation
G	Tightly laid floor decking
H	Hole grid

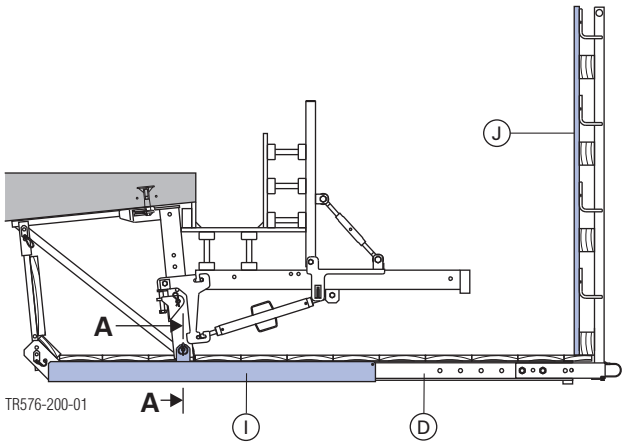
The Bridge edge beam platform T 2.70m is also recommended for use in demolition work.

Additional precautions needed for solid (i.e. gap-free) boarding

The rules may require solid (i.e. gap-free) boarding to be fitted to the Handrail posts – on bridges over railway lines, for example.

The wind forces which are likely to occur (impact pressure), or other extra loads, may make it necessary to use the **Support beam T**.

These must be dimensioned on a project-specific basis.

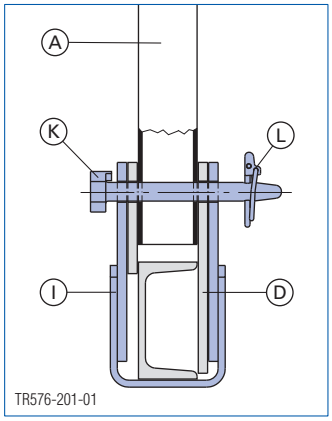


D Bridge edge beam platform T 2.70m

I Support beam T

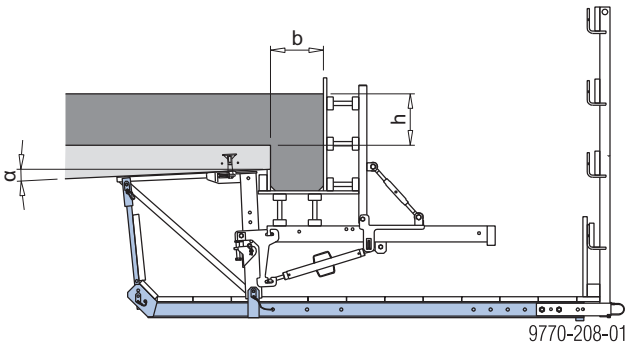
J Solid boarding

Section A-A



➤ Use the pin **(K)** to join the Support beam T **(I)** to the Bridge edge beam platform T 2.70m **(D)** and the Bridge edge beam bracket T **(A)** . Secure with a linch pin **(L)** .

Structural design



α ... 3°

Max. live load on platform	1.00 kN/m²	1.50 kN/m²
Live load on platform during pouring	0.75 kN/m²	
W x H	N_{max} = 23.0 kN; V_{max} =7.0 kN	
	Without support beam	With support beam
	Permissible influences (effect of continuous beams is allowed for!)	
30 x 45 cm	0.80 m	1.30 m
35 x 50 cm	0.80 m	1.30 m
40 x 60 cm	0.80 m	1.07 m
45 x 70 cm	0.80 m	0.85 m
40 x 80 cm	0.70 m	0.70 m

NOTICE

- Max. width of guardrail boards 15cm. Where larger areas are exposed to wind, influence widths will be reduced.
- A working wind of 0.2 kN/m² (64 km/h) is considered.
- max. wind pressure w_e = 1.04 kN/m²

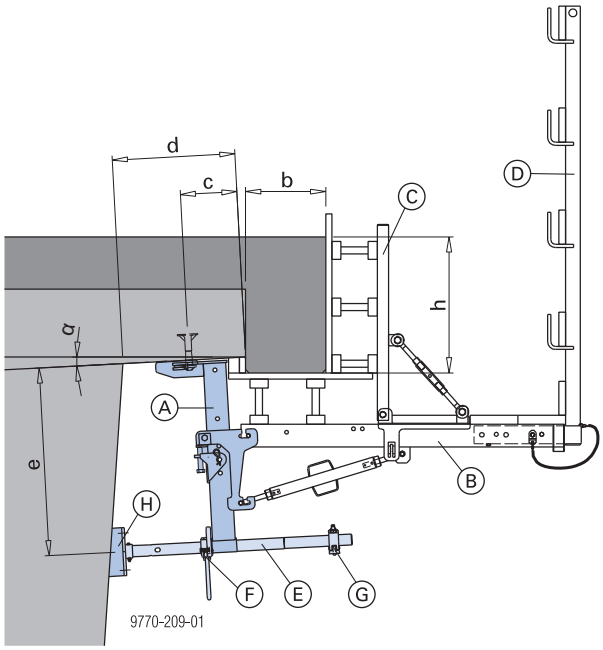
For other applications follow the directions in the section headed 'Extended system' in the type test for 'Bridge edge beam formwork T'.

Other possible areas of use

Short cantilever-arm lengths

Where the cantilever-arm lengths are shorter than 95 cm, the Bracket support T is combined with the following parts:

- Heavy-duty screw jack 70
- e.g. Split nut B



α ... 3°
c ... 25 cm
d ... min. 40 cm - 95 cm
e ... 83.0 cm

A	Bracket support T
B	Bridge edge beam support T 1.40m
C	Bridge edge beam clamp T 0.40m
D	Handrail post 1.00m or Handrail post T 1.80m
E	Heavy-duty screw jack 70 (art. n° 582639000)
F	Split nut (art. n° 582634000)
G	e.g. Screw-on coupler 48mm 50 as anti-dropout safeguard
H	e.g. wedged timber for angle adjustment

NOTICE

Arrange the bracing for the heavy-duty screw jacks as statically required.

Note:

The Screw jack foot (art. n° 582637000) can be substituted for items **(E)** and **(F)** .

Structural design

Max. live load on platform	1.50 kN/m²	
Live load on platform during pouring	1.50 kN/m²	0.75 kN/m²
W x H	N_{max} = 10.0 kN; V_{max} =12.5 kN	
	Permissible influences (effect of continuous beams is allowed for!)	
30 x 45 cm	1.40 m	1.70 m
35 x 50 cm	1.25 m	1.40 m
40 x 60 cm	0.95 m	1.05 m
45 x 70 cm	0.75 m	0.80 m
40 x 80 cm	0.60 m	0.65 m

NOTICE

- Max. width of guardrail boards 15cm. Where larger areas are exposed to wind, influence widths will be reduced.
- A working wind of 0.2 kN/m² (64 km/h) is considered.
- max. wind pressure w_e = 1.04 kN/m²

For other applications follow the directions in the section headed 'Extended system' in the type test for 'Bridge edge beam formwork T'.

Abutments

Variant 1 bridge edge beam clamp located directly on bridge edge beam bracket

For smaller cantilevering projections **b of up to approx. 28 cm**.

For this, the integral slide of the bridge edge beam bracket must be dismantled first.

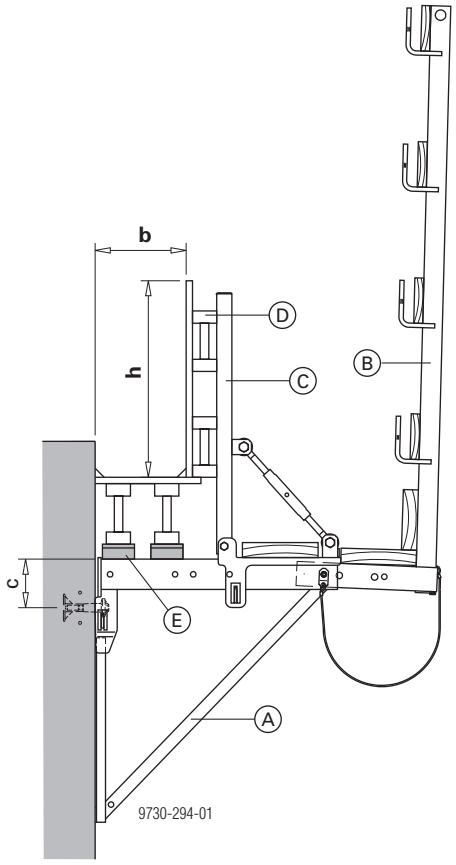
To facilitate plumbing and striking of the formwork, the bottom formwork beams are placed on hardwood wedges (lift-out distance of bracket).

Max. shear force:
V_d = 18 kN (V_k = 12 kN)

Follow the directions in the section headed 'Extended system' in the type test for 'Bridge edge beam formwork T'.

NOTICE

Allow a lift-out distance of min. 5.2 cm for dismounting the Bridge edge beam bracket T 0.80m!



c ... 16.0 cm
b ... Cantilever 0 - 28 cm (applies only where the side-formwork beams are in the positions shown)

A	Bridge edge beam bracket T 0.80m (slide dismounted)
B	Handrail post 1.00m in conjunction with Bridge edge beam support extension T 0.20m or Handrail post T 1.80m
C	Bridge edge beam clamp T 0.40m
D	Doka beam H20
E	Hardwood wedges

Variant 2 bridge edge beam clamp located on bridge edge beam support

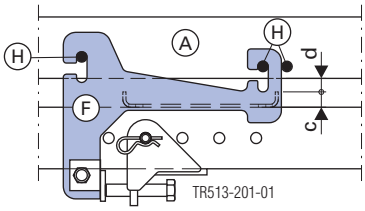
For larger cantilevering projections **d up to approx. 60 cm**.

The Bridge edge beam clamp T 0.40m sits directly on the Bridge edge beam support T 1.40m. The bridge edge beam support sits on the built-in slide of the bridge edge beam bracket and is fixed with timber wedges.

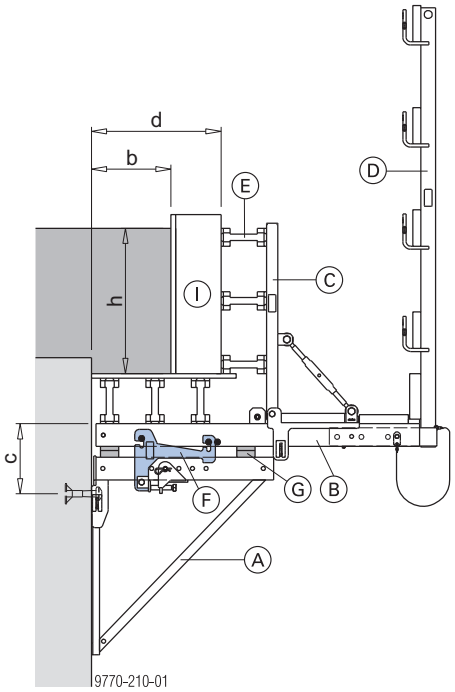
Max. shear force:
V_d = 18 kN (V_k = 12 kN)

NOTICE

This function is only possible on slides **made from 1999 onwards** (**dimension c = 25 mm**). Previous version c = 40 mm.



d ... Stripping play (lowering distance) 22 mm



c ... 30.7 cm
d ... Cantilever 55.0 - 60.0 cm (applies only where the side-formwork beams are in the positions shown)

A	Bridge edge beam bracket T 0.80m
B	Bridge edge beam support T 1.40m
C	Bridge edge beam clamp T 0.40m
D	Handrail post 1.00m or Handrail post T 1.80m
E	Doka beam H20
F	Integral slide
G	Hardwood wedges
H	3 hexagonal bolts M16x90 with self-locking nuts - width-across 24 mm (not included in scope of supply)
I	Double thickness

Structural design

Max. live load on platform	1.50 kN/m²	
Live load on platform during pouring	1.50 kN/m²	0.75 kN/m²
W x H	N_{max} = 19 kN; V_{max} =12 kN	
	Permissible influences (effect of continuous beams is allowed for!)	
30 x 45 cm	1.80 m	2.00 m
35 x 50 cm	1.55 m	1.70 m
40 x 60 cm	1.15 m	1.25 m
45 x 70 cm	0.85 m	0.90 m
40 x 80 cm	0.65 m	0.70 m

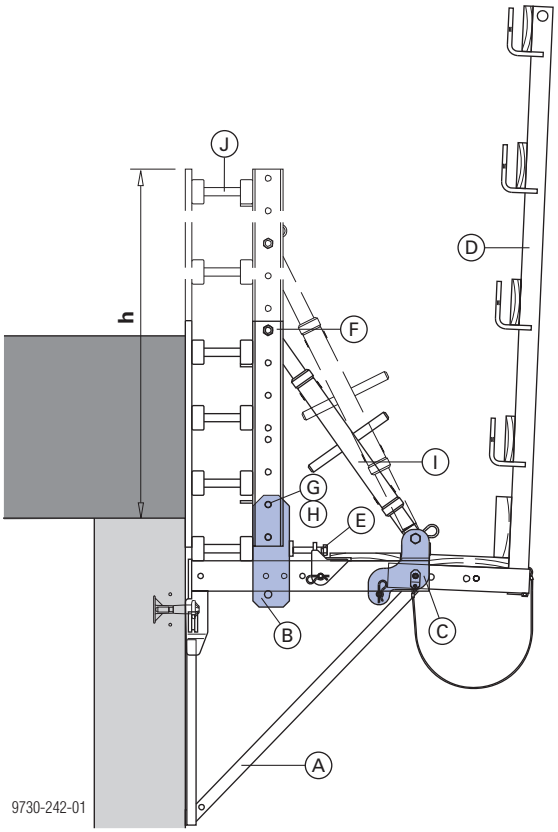
NOTICE

- Max. width of guardrail boards 15cm. Where larger areas are exposed to wind, influence widths will be reduced.
- A working wind of 0.2 kN/m² (64 km/h) is considered.
- max. wind pressure w_e = 1.04 kN/m²

For other applications follow the directions in the section headed 'Extended system' in the type test for 'Bridge edge beam formwork T'.

Edge shuttering

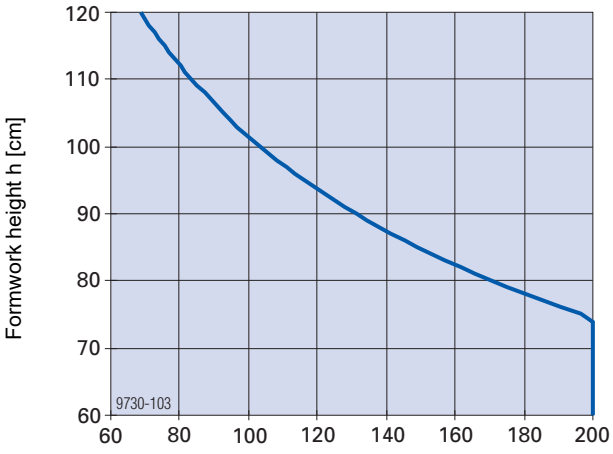
In conjunction with other standard Doka parts, the Bridge edge beam bracket T is an economical way of forming slab stop-ends up to a height of 1.20 m.



h ... Stop-end height max. 120 cm

A	Bridge edge beam bracket T 0.80m
B	Waling connecting plate T
C	Spindle connecting plate T
D	Handrail post 1.00m or Handrail post T 1.80m
E	Adjusting screw for continuous fine adjustment (must be modified for load-transfer)
F	Multi-purpose waling or Steel waling WS10 Top50
G	Connecting pin 10cm
H	Spring cotter 5mm
I	Spindle strut T6 73/110cm
J	Doka beam H20

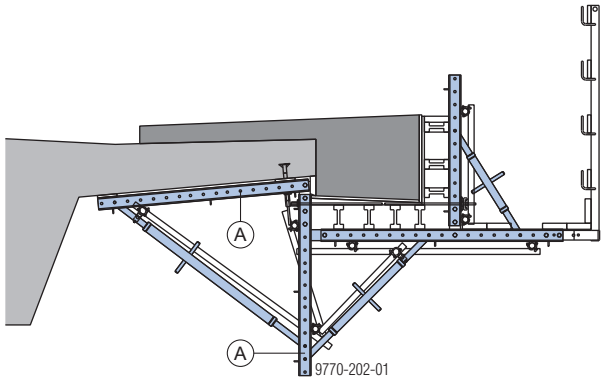
Design graph for anchorage centres



Perm. influence width of the Bridge edge beam bracket T [cm]

Edge kerbs with large cross-sections

For wide edge kerbs, special brackets can be constructed using Multi-purpose walings WS10.

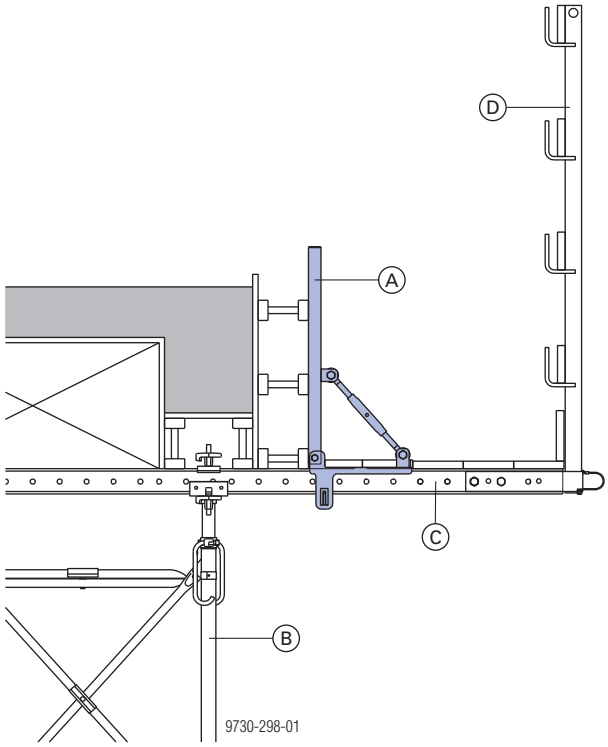


A	Multi-purpose waling WS10 Top50

For more information, please contact your Doka technician.

Bridge edge beam clamp located on Doka Multi-purpose waling or Steel waling WS10 Top50.

The bridge edge beam clamp is designed for a profile size of 100x50 mm. This also enables it to be used on any Doka Multi-purpose waling or Steel waling WS10 etc.



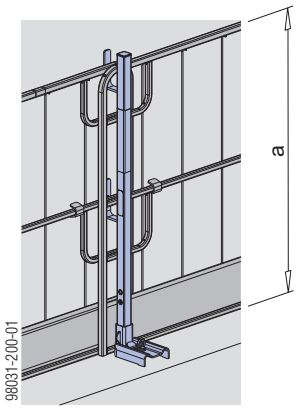
A	Bridge edge beam clamp T 0.40m
B	Aluxo or Staxo edge-table shoring
C	Multi-purpose waling or Steel waling WS10 Top50
D	Handrail post T 1.80m or Handrail post 1.50m

General remarks

Fall-arrest systems on the structure

Handrail post XP 1.20m

- Attached with Screw-on shoe XP, railing clamp, Handrail-post shoe or Step bracket XP
- Protective grating XP, guard-rail boards or scaffold tubes can be used as the safety barrier

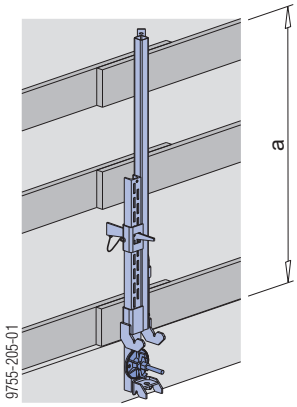


a ... > 1.00 m

Follow the directions in the 'Edge protection system XP' User Information booklet!

Handrail clamp T

- Fixed in embedded anchoring components or reinforcement hoops
- Guard-rail boards or scaffold tubes can be used as the safety barrier

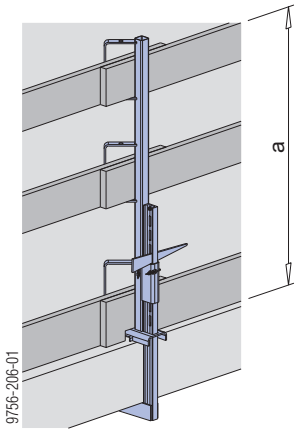


a ... > 1.00 m

Follow the directions in the 'Handrail clamp T' User Information!

Handrail clamp S

- Attached with integral clamp
- Guard-rail boards or scaffold tubes can be used as the safety barrier

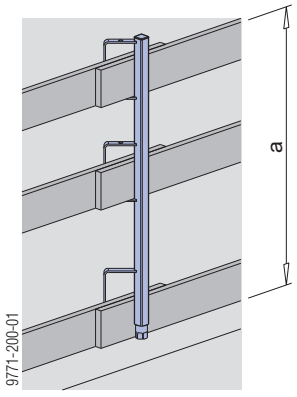


a ... > 1.00 m

Follow the directions in the “Handrail clamp S” User information!

Handrail post 1.10m

- Fixed in a Screw sleeve 20.0 or Attachable sleeve 24mm
- Guard-rail boards or scaffold tubes can be used as the safety barrier



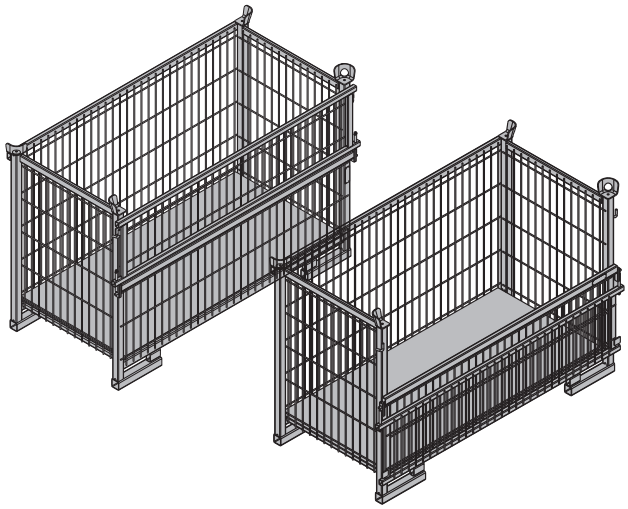
a ... > 1.00 m

Follow the directions in the 'Handrail post 1.10m' User Information!

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.

Doka skeleton transport box 1.70x0.80m



Storage and transport devices for small items:
- durable
- stackable

Suitable transport appliances:
- crane
- pallet stacking truck
- forklift truck

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

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

NOTICE
- Multi-trip packaging items that each contain very different loads must be stacked with the heaviest ones at the bottom and the lightest ones at the top!
- Rating plate must be in place and clearly legible

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

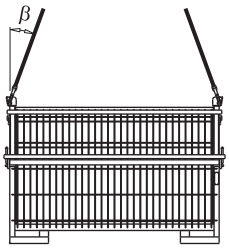
Max. n° of boxes on top of one another

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

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 lifting chain (e.g. Doka 4-part chain 3.20m). Do not exceed the permitted load-bearing capacity.
- Spread-angle β max. 30°!

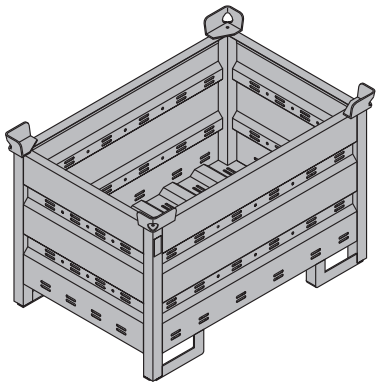


9234-203-01

Repositioning by forklift truck or pallet stacking truck

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

Doka multi-trip transport box 1.20x0.80m galv.



Storage and transport devices for small items:
- durable
- stackable

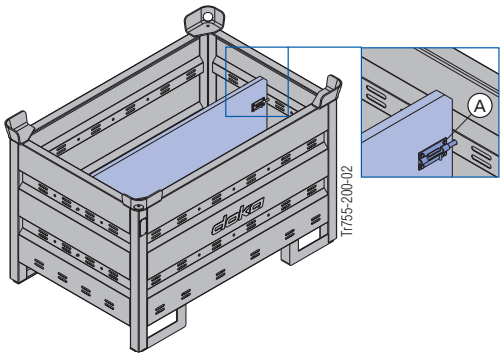
Suitable transport appliances:
- crane
- pallet stacking truck
- forklift truck

Max. load: 1500 kg (3300 lbs)
Permitted imposed load: 7850 kg (17305 lbs)

NOTICE
- Multi-trip packaging items that each contain very different loads must be stacked with the heaviest ones at the bottom and the lightest ones at the top!
- Rating plate must be in place and clearly legible

Multi-trip transport box partition

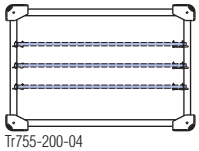
Different items in the Multi-trip transport box can be kept separate with the Multi-trip transport box partitions 1.20m or 0.80m.

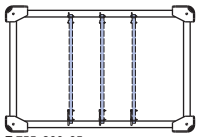


A Slide-bolt for fixing the partition

Possible ways of dividing the box

Multi-trip transport box partition	Lengthways	Crossways
1.20m	max. 3 partitions	-
0.80m	-	max. 3 partitions


Tr755-200-04


Tr755-200-05

Using Doka multi-trip transport boxes as storage units

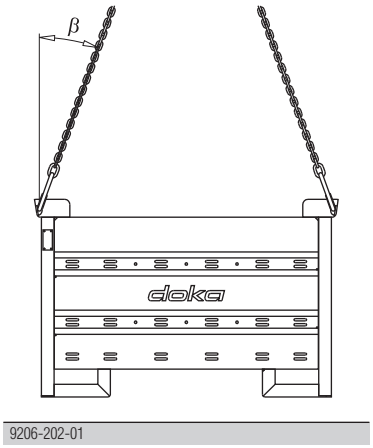
Max. n° of boxes on top of one another

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

Using Doka multi-trip transport boxes 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°!

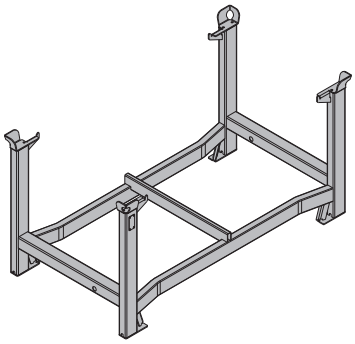


9206-202-01

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:
- durable
- stackable

Suitable transport appliances:
- crane
- pallet stacking truck
- forklift truck

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

NOTICE
- Multi-trip packaging items that each contain very different loads must be stacked with the heaviest ones at the bottom and the lightest ones at the top!
- Rating plate must be in place and clearly legible

Using Doka stacking pallets as storage units

Max. n° of units on top of one another

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

Note:

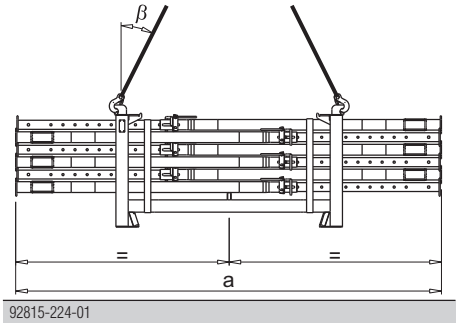
How to use with bolt-on castor set:
Always apply the fixing brake when the container is ‘parked’.

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 lifting chain (e.g. Doka 4-part chain 3.20m). Do not exceed the permitted load-bearing capacity.
- Load the items centrically.
- Fasten the load to the stacking pallet so that it cannot slide or tip out.
- Spread-angle β max. 30°!

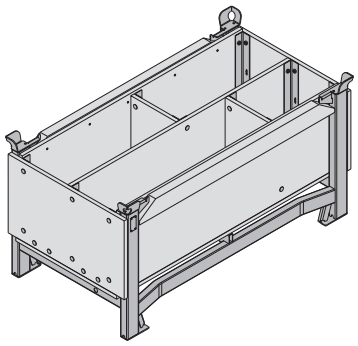


	a
Doka stacking pallet 1.55x0.85m	max. 4.0 m
Doka stacking pallet 1.20x0.80m	max. 3.0 m

Repositioning by forklift truck or pallet stacking truck

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

Doka accessory box



Storage and transport devices for small items:
- durable
- stackable

Suitable transport appliances:
- crane
- pallet stacking truck
- forklift truck

The Doka accessory box is the tidy, easy-to-find way of storing and stacking all interconnection and form-tie components.

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

NOTICE
- Multi-trip packaging items that each contain very different loads must be stacked with the heaviest ones at the bottom and the lightest ones at the top!
- Rating plate must be in place and clearly legible

Doka accessory boxes as storage units

Max. n° of boxes on top of one another

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

Note:

How to use with bolt-on castor set:

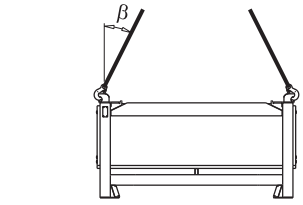
Always apply the fixing brake when the container is 'parked'.

When Doka accessory boxes are stacked, the bottom box 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 lifting chain (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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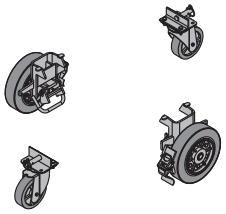
Repositioning by forklift truck or pallet stacking truck

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

Bolt-on castor set B

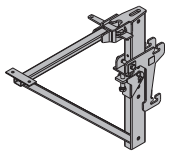
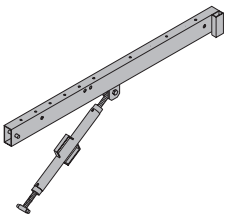
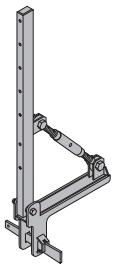
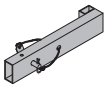
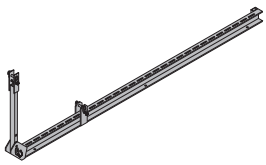
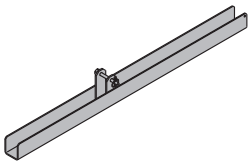
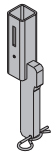
The Bolt-on caster set B turns the stacking pallet into a fast and manoeuvrable transport trolley.

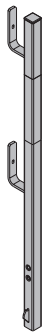
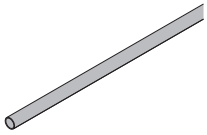
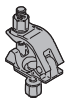
Suitable for drive-through access openings > 90 cm.



The Bolt-on caster set B can be mounted to the following multi-trip packaging items:
- Doka accessory box
- Doka stacking pallets

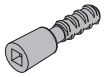
Follow the directions in the Operating Instructions!

	[kg]	Article n°
Bridge edge beam bracket T 0.80m Gesimskonsole T 0,80m Galvanised Length: 99 cm Height: 80 cm 	**22.0**	**584330000**
Bridge edge beam support T 1.40m Gesimsträger T 1,40m Galvanised Delivery condition: folded closed 	**13.3**	**584331000**
Bridge edge beam clamp T 0.40m Gesimszwinge T 0,40m Galvanised Height: 104 cm 	**10.1**	**584332000**
Bridge edge beam support extension T 0.20m Einschubträger T 0,20m Galvanised Length: 45 cm 	**2.9**	**584333000**
Bridge edge beam waling T 2.70m Gesimsbühne T 2,70m Galvanised Length: 285 cm Delivery condition: folded closed 	**35.5**	**584334000**
Support beam T Verstärkungsträger T Galvanised Length: 170 cm 	**24.4**	**584382000**
Bracket adapter XP FRR 50/30 Konsolenadapter XP FRR 50/30 Galvanised Height: 32 cm 	**2.4**	**586486000**

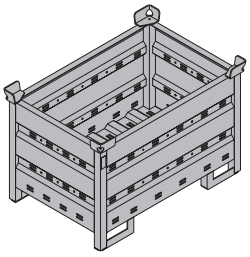
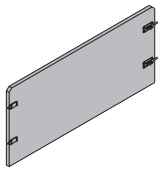
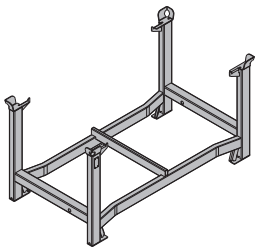
	[kg]	Article n°
Handrail post XP 1.20m Geländersteher XP 1,20m Galvanised Height: 118 cm 	**4.1**	**586460000**
Toeboard holder XP 1.20m Fußwehrhalter XP 1,20m Galvanised Height: 21 cm 	**0.64**	**586461000**
Handrail post 1.00m Geländer 1,00m Galvanised Length: 124 cm 	**3.8**	**584335000**
Scaffold tube 48.3mm 0.50m	**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 48.3mm .....m Gerüstrohr 48,3mm Galvanised 	**3.6**	**682001000**
Scaffold tube connection Gerüstrohranschluss Galvanised Height: 7 cm 	**0.27**	**584375000**
Screw-on coupler 48mm 50 Anschraubkupplung 48mm 50 Galvanised Width-across: 22 mm Follow the directions in the "Fitting instructions"! 	**0.84**	**682002000**

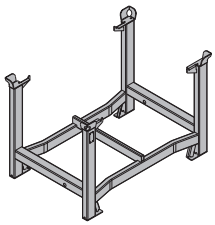
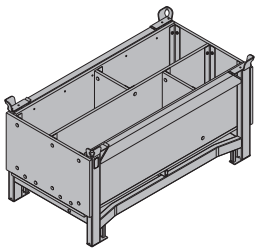
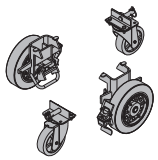
	[kg]	Article n°
Bracket support T Konsolträger T Galvanised Width: 44 cm Height: 85 cm	**17.5**	**584372000**
Waling connecting plate T Riegellasche T Galvanised Width: 12 cm Height: 37 cm	**5.5**	**584370000**
Spindle connecting plate T Spindellasche T Galvanised Width: 20 cm Height: 25 cm	**3.1**	**584371000**
Handrail post T 1.80m Einschubgeländer T 1,80m Galvanised	**17.7**	**584373000**
Toeboard holder T 1.80m Fußwehrhalter T 1,80m Galvanised Height: 13.5 cm	**0.53**	**584392000**
Handrail clamp S Schutzgeländerzwinge S Galvanised Height: 123 - 171 cm	**11.5**	**580470000**
Handrail clamp T Schutzgeländerzwinge T Galvanised Height: 122 - 155 cm	**12.3**	**584381000**

	[kg]	Article n°
Handrail post 1.10m Schutzgeländer 1,10m Galvanised Height: 134 cm	**5.5**	**584384000**
Attachable sleeve 24mm Steckhülse 24mm PVC PE Grey Length: 16.5 cm Diameter: 2.7 cm	**0.03**	**584385000**
Screw sleeve 20.0 Schraubhülse 20,0 PP Yellow Length: 20 cm Diameter: 3.1 cm	**0.03**	**584386000**
Collar-mount 21 **Collar-mount 25** Gesimshülse Galvanised Diameter: 6 cm	**0.39** **0.36**	**584365000** **584364000**
Reversible ratchet 1/2" Umschaltknarre 1/2" Galvanised Length: 30 cm	**0.73**	**580580000**
Extension 11cm 1/2" Verlängerung 11cm 1/2"	**0.20**	**580581000**
Box nut 30 1/2" Stecknuss 30 1/2"	**0.20**	**580575000**
Screw-in cone 15.0 Einschraubkonus 15,0 Galvanised Length: 15 cm	**0.74**	**581895000**
Bridge edge beam anchor 15.0 **Bridge edge beam anchor 15.0 galv.** Gesimsanker 15,0 Length: 7 cm Follow the directions in the "Fitting instructions"!	**0.45** **0.44**	**581896000** **581890000**

	[kg]	Article n°
Nailing cone 15.0 Nagelkonus 15,0  Black Length: 7 cm	**0.02**	**581897000**
Hole plug 29mm Gesimsankerstopfen 29mm  PE Grey Diameter: 3 cm	**0.003**	**581891000**
Zinc plug 15.0 Zinkstöpsel 15,0  Galvanised Length: 9.9 cm Diameter: 2.9 cm	**0.20**	**581889000**

Multi-trip packaging

Doka skeleton transport box 1.70x0.80m Doka-Gitterbox 1,70x0,80m  Galvanised Height: 113 cm	**87.0**	**583012000**
Doka multi-trip transport box 1.20x0.80m Doka-Mehrwegcontainer 1,20x0,80m  Galvanised Height: 78 cm	**70.0**	**583011000**
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**
Doka stacking pallet 1.55x0.85m Doka-Stapelpalette 1,55x0,85m  Galvanised Height: 77 cm	**41.0**	**586151000**

	[kg]	Article n°
Doka stacking pallet 1.20x0.80m Doka-Stapelpalette 1,20x0,80m  Galvanised Height: 77 cm	**38.0**	**583016000**
Doka accessory box Doka-Kleinteilebox  Timber parts varnished yellow Steel parts galvanised Length: 154 cm Width: 83 cm Height: 77 cm	**106.4**	**583010000**
Bolt-on castor set B Anklemm-Radsatz B  Painted blue	**33.6**	**586168000**

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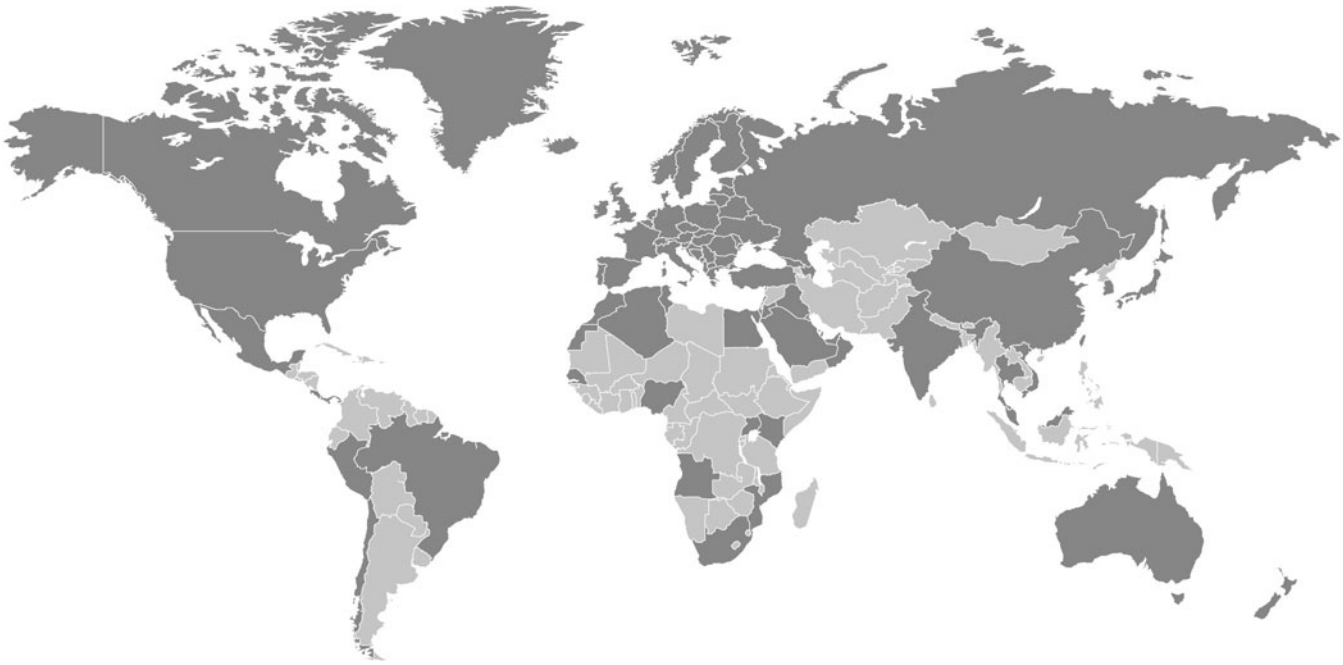

www.doka.com/bridge-edge-beam-formwork-T