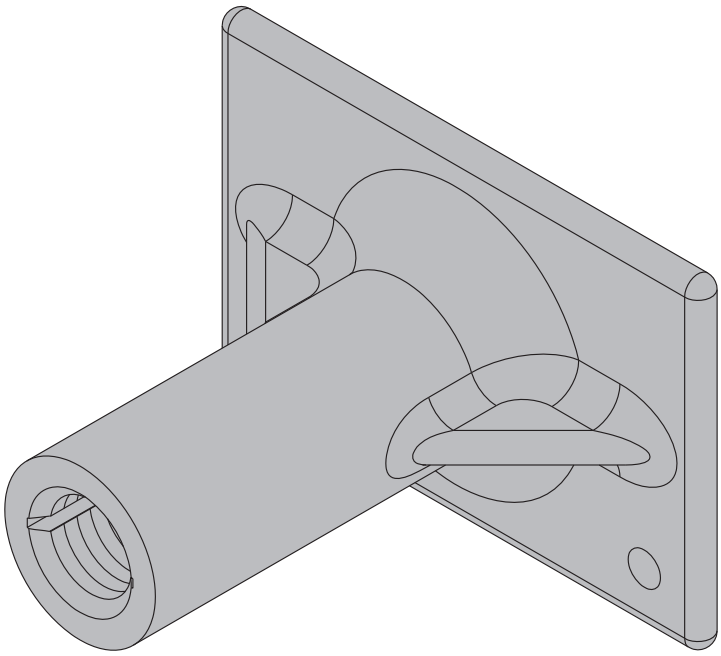
999418002 - 07/2025
en-GB

Formwork & Scaffolding.
We make it work.

Bridge edge beam anchor 15.0

User Information



Introduction

Elementary safety warnings

User target groups

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

Hazard assessment

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

Remarks on this booklet

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

Planning

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

Regulations; industrial safety

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

Rules applying during all phases of the assignment

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

Assembly

- The equipment/system must be inspected by the customer before use, to ensure that it is in an acceptable condition. Steps must be taken to exclude components that are damaged, deformed, or weakened due to wear, corrosion or rot (e.g. fungal decay).
- Using our safety and formwork systems together with those of other manufacturers can create risks that may lead to injury and damage to property. This requires separate verification by the user.
- The equipment/system must be assembled and erected in accordance with the applicable laws, standards and rules by trained customer personnel whilst maintaining any applicable safety inspections that may be required.
- It is not permitted to modify Doka products; such modifications constitute a safety risk.

Closing the formwork

- Doka products and systems must be set up so that all loads acting upon them are safely transferred!

Pouring

- Do not exceed the permitted fresh-concrete pressures. Over-high pouring rates overload the formwork, cause greater deflection and risk breakage.

Stripping the formwork

- Do not strip out the formwork until the concrete has reached sufficient strength and the person in charge has given the order for the formwork to be stripped out!
- When stripping out the formwork, never use the crane to break concrete cohesion. Use suitable tools such as timber wedges, special pry-bars or system features such as Framax stripping corners.
- When stripping out the formwork, do not endanger the stability of any part of the structure, or of any scaffolding, platforms or formwork that is still in place!

Transporting, stacking and storing

- Observe all country-specific regulations applying to the handling of formwork and scaffolding. For system formwork the Doka slinging means stated in this booklet must be used – this is a mandatory requirement.
  If the type of sling is not specified in this document, the customer must use slinging means that are suitable for the application envisaged and that comply with the regulations.
- When lifting, always make sure that the unit to be lifted and its individual parts can absorb the forces that occur.
- Remove loose parts or secure them so that they cannot slip out of position and drop.
- When lifting formwork or formwork accessories with a crane, no persons must be carried along, e.g. on working platforms or in multi-trip packaging.
- All components must be stored safely, following all the special Doka instructions given in the relevant sections of this document!

Maintenance

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

Miscellaneous

The weights as stated are averages for new material; actual weights can differ, depending on material tolerances. Dirt accretions, moisture saturation, etc. can also affect weight.
We reserve the right to make alterations in the interests of technical progress.

Eurocodes at Doka

The permissible values stated in Doka documents (e.g. F_{perm} = 70 kN) **are not design values** (e.g. F_{Rd} = 105 kN), unless specified**!**

- 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:

- γ_F = 1.5
- $\gamma_{M,\ timber}$ = 1.3
- $\gamma_{M,\ steel}$ = 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.

Product description

Intended use

The Bridge edge beam anchor 15.0 is a lost form-tie component. It is used as an anchorage in concrete structural elements.

The Bridge edge beam anchor 15.0 consists of the anchor made of non-galvanised, galvanised or stainless steel, a nailing cone made of plastic as placeholder for the concreting operation and either:

- Screw-in cone 15.0
- Screw-in cone TU
- Bridge edge beam anchor bolt Rd
- Tie rod 15.0mm

Comply with '**Approval No. Z-21.6-1982**' for planning and structural design of the anchor 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

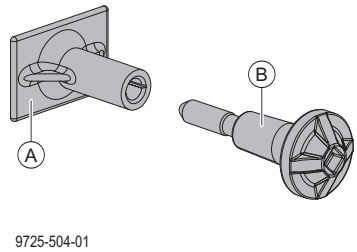
The introduction of the forces, the transfer of these forces into the structure, and the stability of the overall construction, must all be verified by the structural designer.

Required concrete strength class: min. C20/25

The required cube compressive strength $f_{ck,cube,current}$ must, however, be at least 10 N/mm² (corresponding to B10).

Product presentation

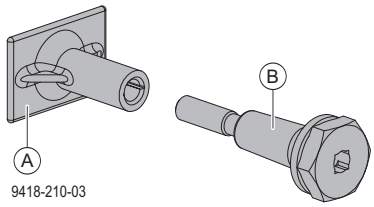
Screw-in cone 15.0



9725-504-01

A Bridge edge beam anchor 15.0 (lost anchoring component)
B Screw-in cone 15.0

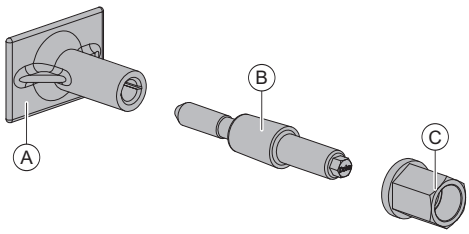
Screw-in cone TU



9418-210-03

A Bridge edge beam anchor 15.0 (lost anchoring component)
B Screw-in cone TU

Bridge edge beam anchor bolt Rd

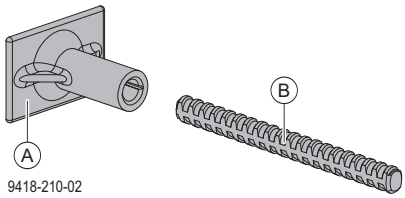


9418-210-01

A Bridge edge beam anchor 15.0 (lost anchoring component)
B Bridge edge beam anchor bolt Rd 16 or 20
C Hexagon nut Rd 16 or 20

Tie rod 15.0mm

Tensile stress is the only permissible mode of loading for the anchorage made with with Tie rod 15.0mm.



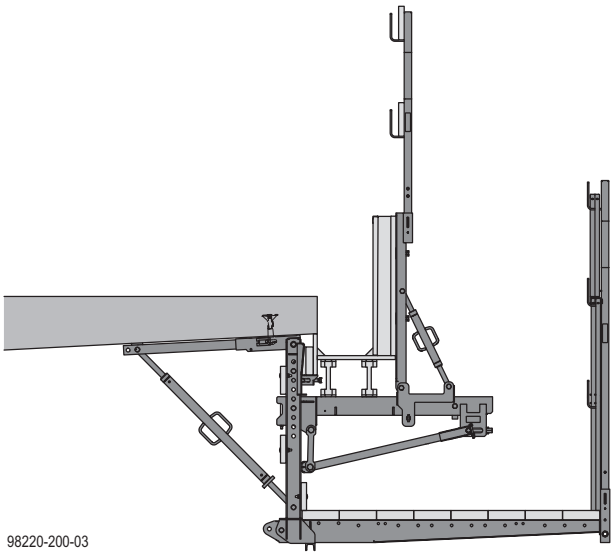
9418-210-02

A Bridge edge beam anchor 15.0 (lost anchoring component)
B Tie rod 15.0mm

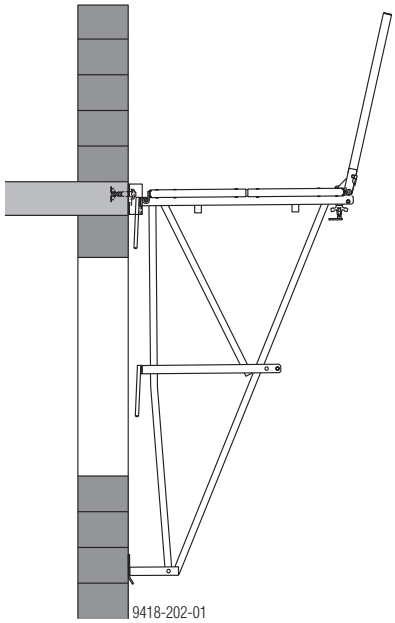
Practical examples

With Screw-in cone 15.0

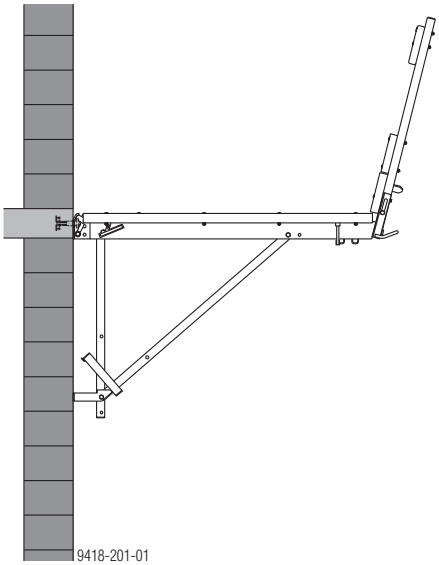
Bridge edge beam formwork NG



Bracket platform M



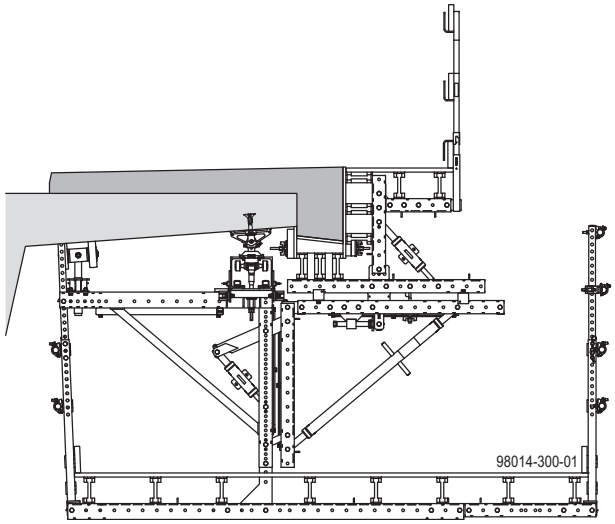
Folding platform K



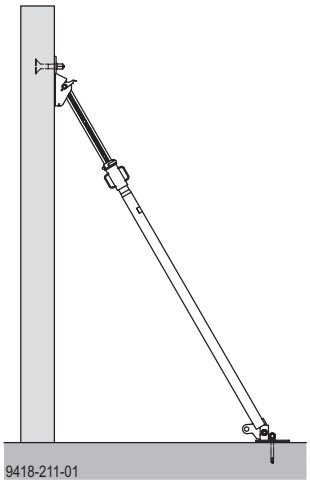
Follow the directions in the relevant User Information booklet.

More practical examples

Screw-in cone TU with Forming wagon TU



Bridge edge beam anchor bolt Rd with plumbing strut



Follow the directions in the relevant User Information booklet.

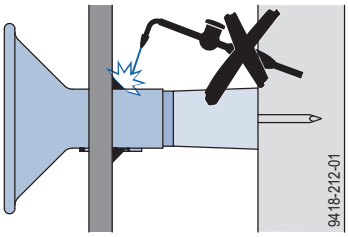
Installation and dismounting

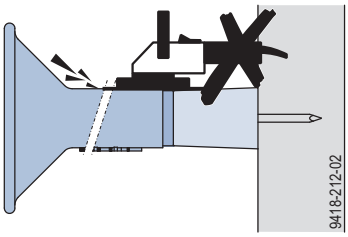
Preparing the positioning point

WARNING

Sensitive anchoring, suspension and connector components!

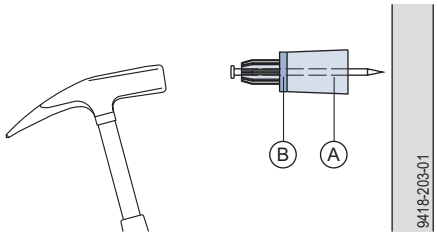
- ➤ Never weld or heat these components.
- ➤ Any components that are damaged or weakened by corrosion or wear must be withdrawn from use.





with Nailing cone 15.0

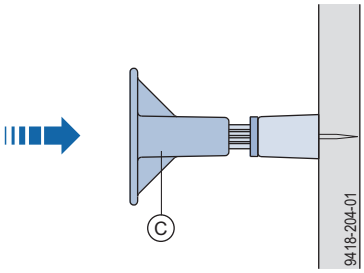
➤ Nail a nailing cone to the form-ply (position as shown in shop drawing / assembly drawing).



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

Tie the bridge edge beam anchor tightly to the reinforcements with binding wire.

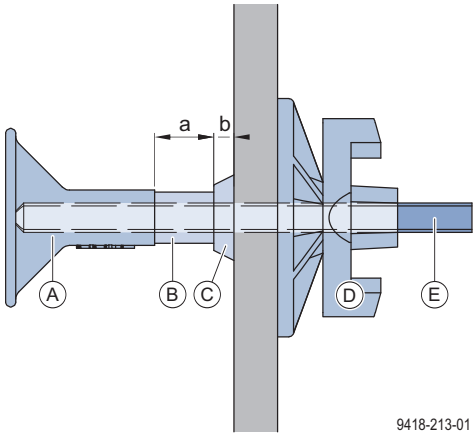
This prevents it from working loose during pouring and vibration.

NOTICE

If statically required – place extra reinforcement steel.

with Tie rod 15.0mm

- ➤ Drill a diam. 18 mm hole in the formwork sheeting.
- ➤ Screw the tie rod into the bridge edge beam anchor.
- ➤ Cut the plastic tube to length.
- ➤ Slip the plastic tube and the universal cone on to the tie rod.
- ➤ Push the pre-assembled unit through the hole.
- ➤ Tighten the pre-assembled unit with a super plate.



a ... min. 3 cm
b ... 1 cm

A	Bridge edge beam anchor 15.0 (lost anchoring component)
B	Plastic tube 22mm
C	Universal cone 22/10mm
D	Super plate 15.0
E	Tie rod 15.0mm

NOTICE

If statically required – place extra reinforcement steel.

Pouring

Mark the positions of the anchoring points at the top edge of the formwork to make them easier to locate when the concrete is being poured.

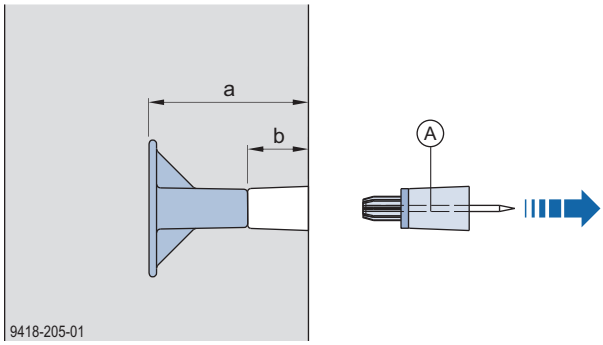
- ➤ Prevent the vibrator from touching the bridge edge beam anchor.
- ➤ Do not place concrete directly above the bridge edge beam anchor.

These measures prevent the anchors from working loose during pouring and vibration.

Preparing the suspension point

Stripping the formwork

- ➤ Remove the nailing cone from the anchoring point.

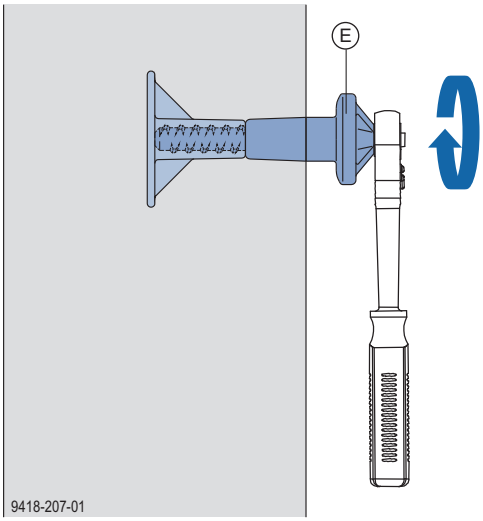


a ... placement depth 11.5 cm
b ... concrete cover 4.0 cm

A	Nailing cone 15.0

Installing the Screw-in cone 15.0

- ➤ Using a Reversible ratchet 1/2", screw in the screw-in cone until it is fully engaged.



E	Screw-in cone 15.0

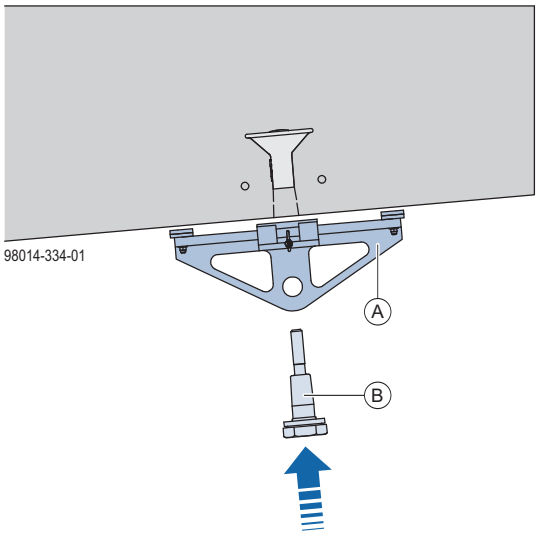
Tools needed:

- Reversible ratchet 1/2"

More practical examples

Installing the Screw-in cone TU

Use the Screw-in cone TU for correct installation of the Suspension shoe TU.

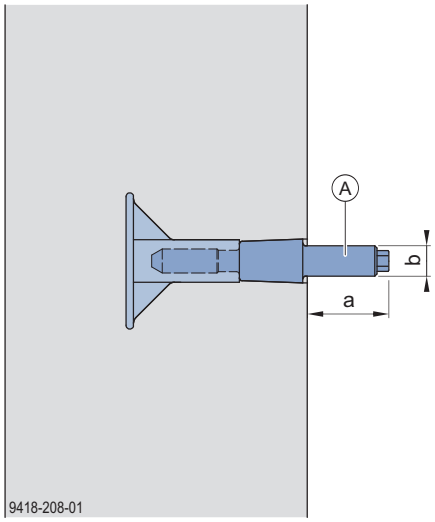


A Suspension shoe TU
B Screw-in cone TU

Follow the directions in the 'Forming wagon TU' User Information booklet.

Installing the Bridge edge beam anchor bolt Rd

➤ Screw the bridge edge beam anchor bolt into the bridge edge beam anchor and tighten.



a ... 54 mm length outside concrete
b ... 16 mm or 20 mm

A Bridge edge beam anchor bolt Rd 16 or 20

Tools needed:

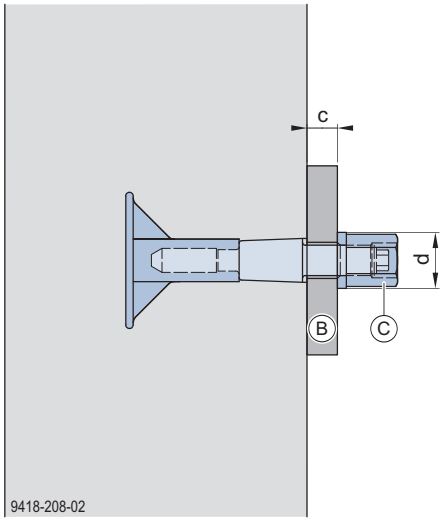
- Fork wrench or ring spanner, width-across 13

➤ Push the component on to the thread.

NOTICE

If the hexagon nut Rd is overtightened, there is a possibility of the bridge edge beam anchor bolt, complete with the component, working loose from the concrete when the hexagon nut Rd is backed off.

➤ Tighten the hexagon nut hand-tight.

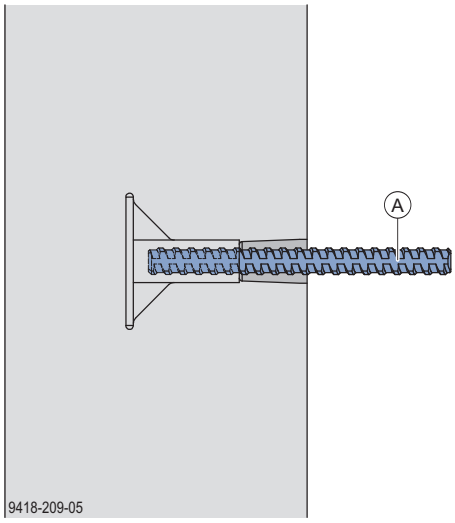


c ... 20 mm max. component thickness
d ... 37 mm collar diameter

B Component
C Hexagon nut Rd 20

Installing Tie rod 15.0mm

➤ Screw the tie rod into the bridge edge beam anchor.



A Tie rod 15.0mm

Tools needed:

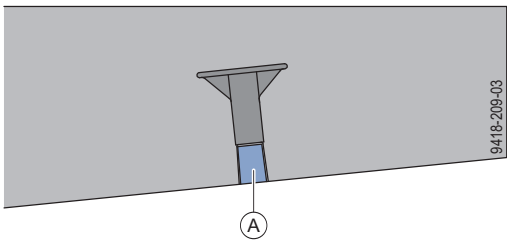
- Tie-rod wrench 15.0/20.0

Sealing the suspension point

Permanently sealing of suspension points

All suspension points that will no longer be required must be permanently sealed.

➤ Glue the concrete cone into the hole of the suspension point.



A Concrete cone D26/24 38mm

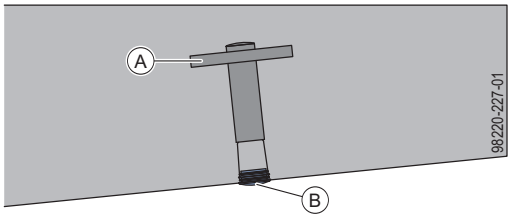
The concrete plug is glued into place with standard concrete adhesive.

Sealing of suspension points for later use

Bridge edge beam anchor 15.0 stainless

If the suspension point is to be available again for later use, bridge edge beam anchor 15.0 stainless should preferably be used.

➤ Push the hole plug into the hole of the suspension point.



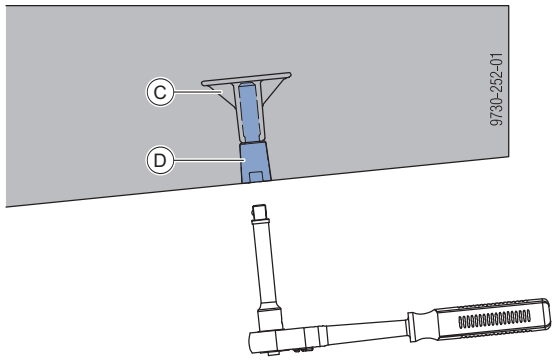
A Bridge edge beam anchor 15.0 stainless

B Hole plug 29mm

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

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.

➤ Screw the zinc plug fully into the hole of the suspension point.



C Bridge edge beam anchor 15.0 or Bridge edge beam anchor 15.0 galv.

D Zinc plug 15.0

Tools needed:

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

	[kg]	Article N°
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	**0.45** **0.44**	**581896000** **581890000**
Bridge edge beam anchor 15.0 stainless Gesimsanker 15,0 rostfrei	**0.6**	**584861000**
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	**0.2**	**581889000**
Concrete cone D26/24 38mm Betonkonus D26/24 38mm	**0.04**	**699410010**
Bridge edge beam anchor bolt Rd 16 Gesimsankerschraube Rd 16 Galvanised	**0.33**	**584857000**
Hexagon nut Rd 16 Sechskantmutter Rd 16 Galvanised	**0.11**	**584859000**
Bridge edge beam anchor bolt Rd 20 Gesimsankerschraube Rd 20 Galvanised	**0.37**	**584856000**
Hexagon nut Rd 20 Sechskantmutter Rd 20 Galvanised	**0.15**	**584858000**

	[kg]	Article N°
Tie rod 15.0mm galvanised 0.50m	**0.72**	**581821000**
Tie rod 15.0mm galvanised 0.75m	**1.1**	**581822000**
Tie rod 15.0mm galvanised 1.00m	**1.4**	**581823000**
Tie rod 15.0mm galvanised 1.25m	**1.8**	**581826000**
Tie rod 15.0mm galvanised 1.50m	**2.2**	**581827000**
Tie rod 15.0mm galvanised 1.75m	**2.5**	**581828000**
Tie rod 15.0mm galvanised 2.00m	**2.9**	**581829000**
Tie rod 15.0mm galvanised 2.50m	**3.6**	**581852000**
Tie rod 15.0mm galvanised .....m	**1.4**	**581824000**
Tie rod 15.0mm non-treated 0.50m	**0.73**	**581870000**
Tie rod 15.0mm non-treated 0.75m	**1.1**	**581871000**
Tie rod 15.0mm non-treated 1.00m	**1.4**	**581874000**
Tie rod 15.0mm non-treated 1.25m	**1.8**	**581886000**
Tie rod 15.0mm non-treated 1.50m	**2.1**	**581876000**
Tie rod 15.0mm non-treated 1.75m	**2.5**	**581887000**
Tie rod 15.0mm non-treated 2.00m	**2.9**	**581875000**
Tie rod 15.0mm non-treated 2.50m	**3.6**	**581877000**
Tie rod 15.0mm non-treated 3.00m	**4.3**	**581878000**
Tie rod 15.0mm non-treated 3.50m	**5.0**	**581888000**
Tie rod 15.0mm non-treated 4.00m	**5.7**	**581879000**
Tie rod 15.0mm non-treated 5.00m	**7.2**	**581880000**
Tie rod 15.0mm non-treated 6.00m	**8.6**	**581881000**
Tie rod 15.0mm non-treated .....m	**1.4**	**581873000**
Ankerstab 15,0mm		
Plastic tube 22mm 2.50m	**0.45**	**581951000**
Kunststoffrohr 22mm 2,50m PVC Grey Diameter: 2.6 cm		
Universal cone 22/10mm	**0.005**	**581995000**
Universal-Konus 22/10mm Grey Diameter: 4 cm		
Super plate 15.0	**0.98**	**581966000**
Superplatte 15,0 Galvanised Height: 6 cm Diameter: 12 cm Width-across: 27 mm		

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