

Assembly instructions - NovoDock L330 / L330i

EN



novoferm

Assembly instructions

EN

NovoDock L330 / L330i

Englisch

Contents

1. Introduction	1
2. General instructions	2
3. Site provisions (third party supply).....	4
4. Preparations for installation	5
5. Installation instructions, frame CX	6
6. Electrical connections	8
7. Final installation actions	10
8. Option: Docking buffers.....	11
9. Frame AX.....	12
10. Frame BX	13
11. Frame DX	14
12. Frame EX.....	15
13. Frame FX.....	16
14. Commissioning	17
Notes	90
Copyright	92

EN

1. Introduction

Dear customer,

Thank you for choosing a Novoferm product. We hope that you are satisfied and that the product meets all of your expectations.

Proper operation and maintenance significantly increase the performance and lifespan of the leveller. Operator errors and poor maintenance will inevitably result in malfunctions. In addition, reliable and safe operation can only be guaranteed if the unit is operated properly and conscientiously maintained.



Note the following:

Depending on the choice of accessories, the scope of supply may include additional installation manuals, for example for the leveller control unit. Please read these manuals carefully and completely. Please observe the instructions and comply with all safety notices and warnings.

++ WARNING +++ WARNING +++ WARNING ++

2. General instructions

EN



Read this first!

- The area of application of this leveller is described in the EN 1398 standard.
- Installation, repairs, maintenance and dismantling must be carried out by qualified professionals.
- During commissioning, the qualified technician doing the work must be alert to possible hazards and check that the leveller operates correctly.

++ WARNING +++ WARNING +++ WARNING ++

2.1 General instructions

- Please read the installation manual completely before using the product for the first time! Take note of the comments and comply with the safety notices and warnings!



Warning

- When performing all installation tasks, switch off the power supply and secure the system to prevent it from being switched on by an authorised person.
- During installation, parts can drop, which may result in injury to people and damage to goods.
- Contact with electrically live components may result in electric shock. Make sure that the customer's electrical system has been installed in accordance with valid safety requirements.
- Never connect a mains voltage supply to the control unit; this will result in irreparable damage to the electronics.
- Only perform welding and grinding tasks on the leveller if expressly permitted in the position in question. Ensure adequate ventilation in order to prevent build-up of an explosive atmosphere of dust and other combustible materials.

++ WARNING +++ WARNING +++ WARNING ++

Make sure that all generally acknowledged legal and other binding regulations for the prevention of accidents and protection of the environment, national regulations and acknowledged engineering and technical rules for safe and correct execution of the work are observed.

- Check that the fasteners and fixing materials provided are suitable for the site conditions. Only use suitable fasteners and fixing materials.
- Perform each step in sequence in accordance with the installation drawings!
- Only use proper and suitable tools!
- Only work on the leveller when it has

been made non-operational.

- Failure to observe these precautions may result in serious injury and material damage!
- The components that are to be used are manufactured from high-grade, durable and solid materials. Even so, care must be taken during installation in order to avoid damage.
- If parts suffer damage, always replace them with OEM parts. If you fail to do so, correct operation of the leveller can no longer be guaranteed! Furthermore, this voids the warranty!

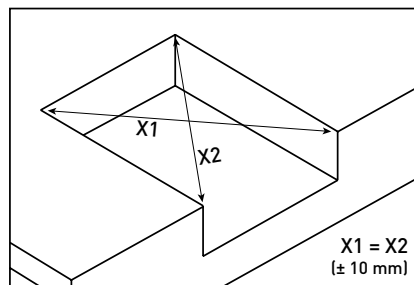
2.2 Check the following before installation:

Check the following items before installation:

- Does the electrical supply that is available correspond to the requirements for the leveller?
- Are suitable cables and fuses available?
- In the case of models that are to be installed in a prepared pit: Does the pit correspond to the relevant installation drawings and has an empty conduit measuring 70 mm in diameter been provided to allow insertion of the cable?

Only start installation work if all of the conditions are satisfied.

To check dimensional accuracy, measure the length and width of the pit, the height of the front and rear sides and the diagonals. The length of the diagonals (X) may not differ from each other by more than 10 mm. Instruction: The leveller must be installed so that it is perfectly horizontal across its width. If not, leveller operation may be adversely affected. There is also a risk of damage to the leveller.



2.3 Tools required for installation

You require the following tools for the installation work:

- ESAB caddy 200 (5–200A) welder (typical example).
- ESAB OK 48.00 3.25 welding rod (typical example).

2.4 Lifting equipment

- Forklift truck: Lifting capacity of at least 35 kN, fork length 2000 mm, or
- Crane: Lifting capacity of at least 35 kN in the area where work must take place.

2.5 Electrical connections

- Cable: 7 x 0.75mm²
- Motor cable: 4 x 1.5mm²

2.6 Functional check

- Check all operating modes of the leveller upon completion of the installation work. To do so, use the leveller test report.
- Fill out the test report truthfully and sign the entry.
- After doing so, hand this installation manual together with the other documents to the customer.



Warning

A malfunctioning leveller may cause personal injury and material damage to goods. Only use the leveller when in proper operating condition.

++ WARNING +++ WARNING +++ WARNING ++

2.7 Commissioning

- The leveller may only be used for the first time after handing over the declaration of conformity.
- Give the users instruction in how to operate the leveller. Do not allow third parties (e.g. visitors) to operate the leveller.
- This installation manual must be given to the customer and kept safely during the entire period of use!
- Do not make any changes to the software for the programmable control unit.
- Changes or additions to the product that has been delivered may only be made by the supplier.
- The manufacturer is not liable for damage caused by non-observance of the installation manual or improper use.
- Please note that the valid regulations require the leveller to be inspected by an expert once a year.
- Maintenance must be performed each year or every 5000 cycles.



Warning

Movements performed by the leveller may cause injury to people and damage to goods.

- Make sure that no people or objects are in the vicinity of the leveller when it is moving.
- Never use the leveller to raise people or objects.

++ WARNING +++ WARNING +++ WARNING ++

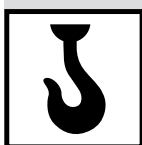
2.8 Dismantling

If the leveller is to be dismantled and removed, a qualified technician must carry out the steps described in section 4 in reverse order.

2.9 Staff qualifications

Installation requires adequate qualifications for performing both mechanical and electrical work and, depending on the model, welding work and/or concrete work.

All work on the leveller requires in-depth professional knowledge and may only be performed by authorised persons. Authorised persons are professional technicians from the manufacturer who have been instructed and trained appropriately.



Instruction!

Only attach lifting equipment to the points indicated by this symbol!
Always use all four lifting eyes (with a forklift truck: at least two lifting eyes)!



Caution, deadly danger!

Only use lifting equipment that is in good operating order. The lifting equipment must be used in the prescribed way and have a capacity of at least 35 kN.
Observe the accident prevention regulations in force at the company!
Never stand or work under a suspended load!



Caution!

Keep away from the pit edge in order to avoid foot injuries!



Instruction!

Make sure that the lateral gap between the frame and deck amounts to 10 mm (+0, -2mm).
The frame must be aligned horizontally.



Caution!

Before carrying out any work on electrical equipment, the power supply to the leveller must be switched off and locked to prevent it from being switched back on!
Only fully qualified and authorised staff may work on the electrical components of the leveller!



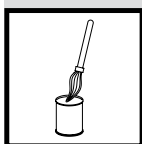
Caution!

Always observe the valid safety regulations!
Electrical connection must be carried out by a qualified electrician in accordance with the wiring diagram.
Only open the housing if the main switch is turned to the off position "0".



Instruction!

Make sure that all leveller functions can be observed from the operator station. The electrical controls must be installed in a way that ensures protection against splashing water. If any malfunctions are observed, secure the leveller immediately and inform the Novoform customer service organisation that is responsible for your company.



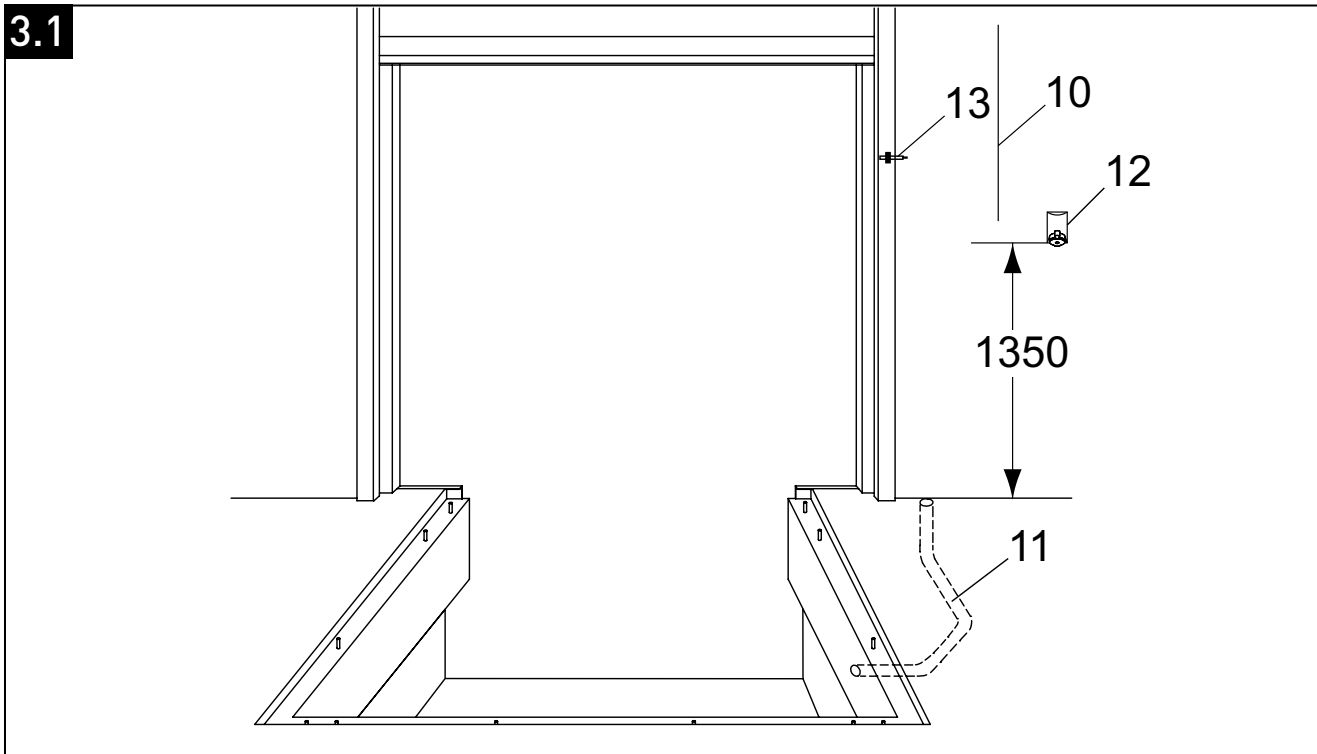
Painting welded and damaged surfaces:

Surfaces that are to be painted must be dry and free of dirt, grease, rust, etc.
Use a wire brush and thinner.

- Spray cold galvanising paint on the surfaces and allow to dry for approximately 30 minutes
- After installation, apply a final coat of paint to all areas of paint damage using the touch-up paint provided.

3. Site provisions (third party supply)

EN

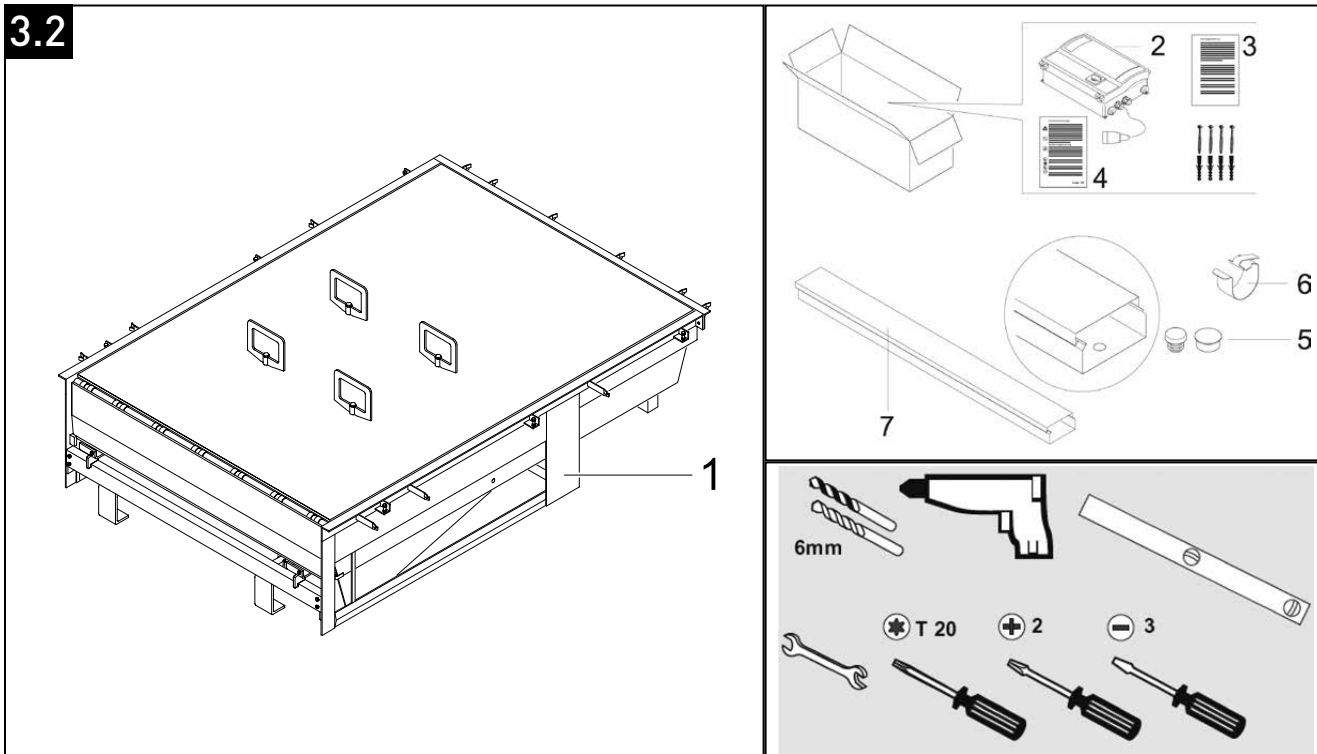


Site provisions (third party supply)

- 10** Mains power supply: 3 / N / PE AC 50Hz 230/400V
Mains fuse: D0 10A gI, Motor capacity: 0.75kW
- 11** Tube for electrical cable, inner diameter minimum of 70 mm, curved through $\leq 45^\circ$

- 12** CEE power socket 16A
- 13** Door position sensor (optional)

General instruction: The image may differ at detail level.



Required for installation

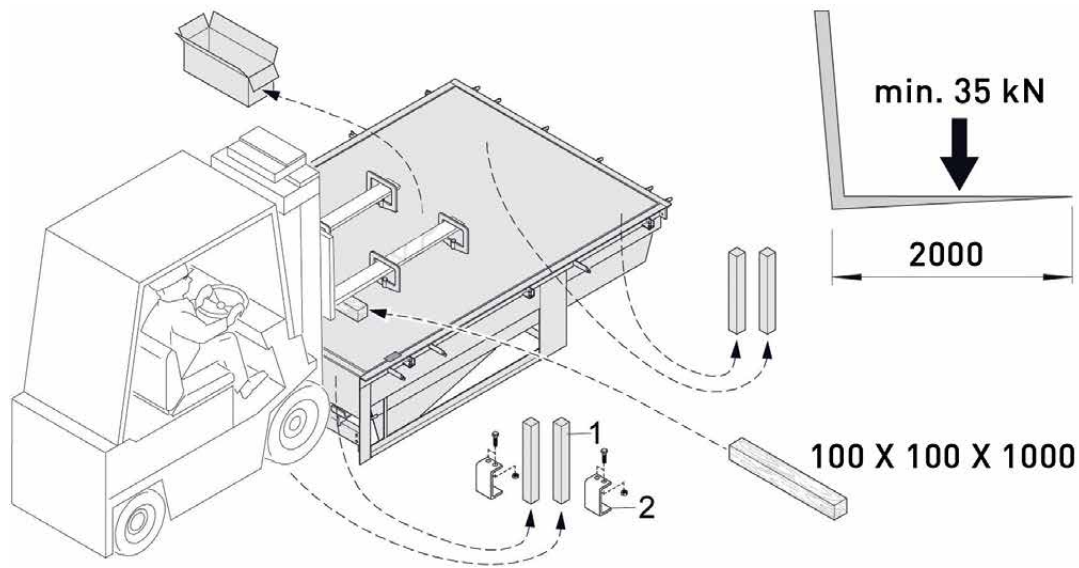
- 1** Leveller
- 2** Controls
- 3** Installation and user manual, control system
- 4** Quick start guide

- 5** Plastic plug
- 6** Cable clamp
- 7** Cable conduit (not included in the scope of supply)

General instruction: The image may differ at detail level.

4. Preparations for installation

4.1



- 1 H = 800/900
2 H = 600/700

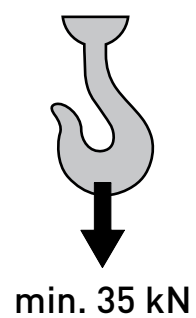
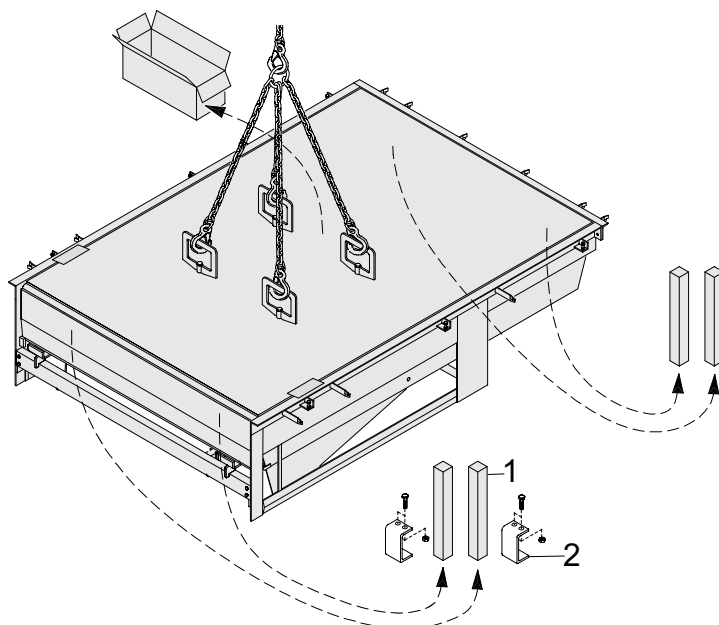


Instruction

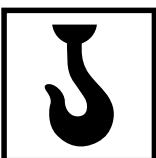
- Wooden beam not included in the scope of supply.

General instruction: The image may differ at detail level.

4.2



- 1 H = 800/900
2 H = 600/700

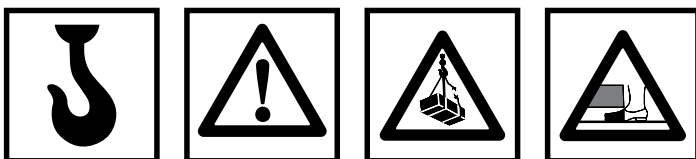
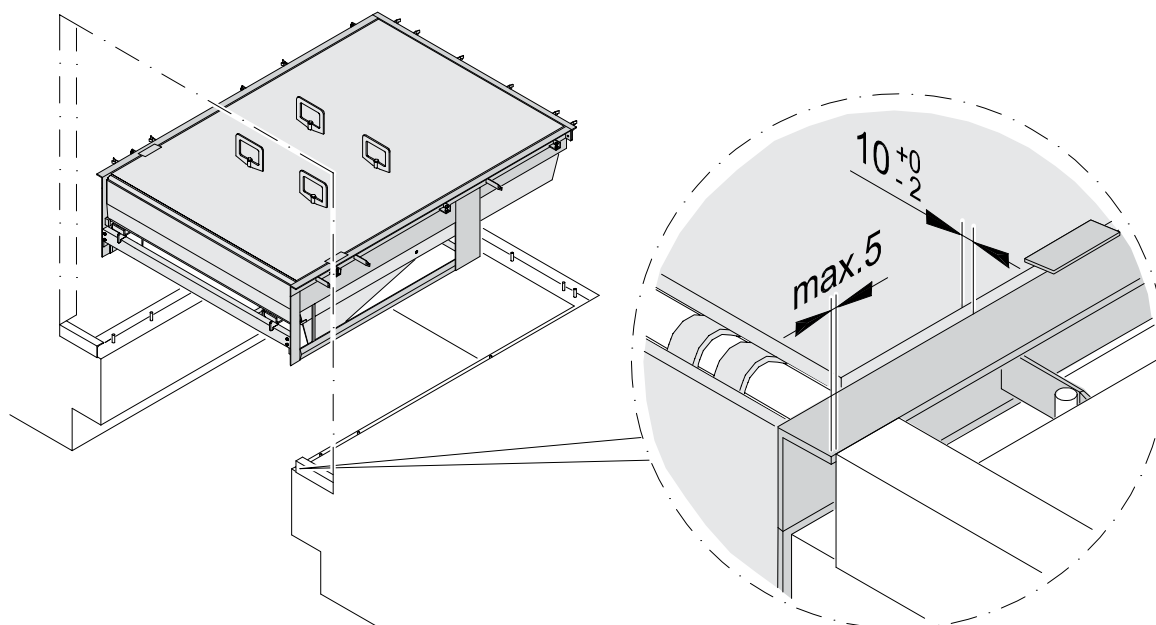


General instruction: The image may differ at detail level.

5. Installation instructions, frame CX

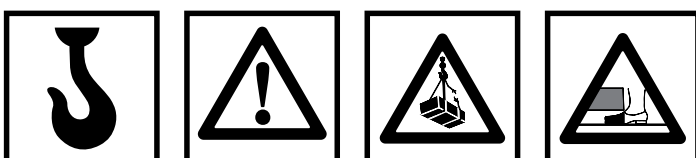
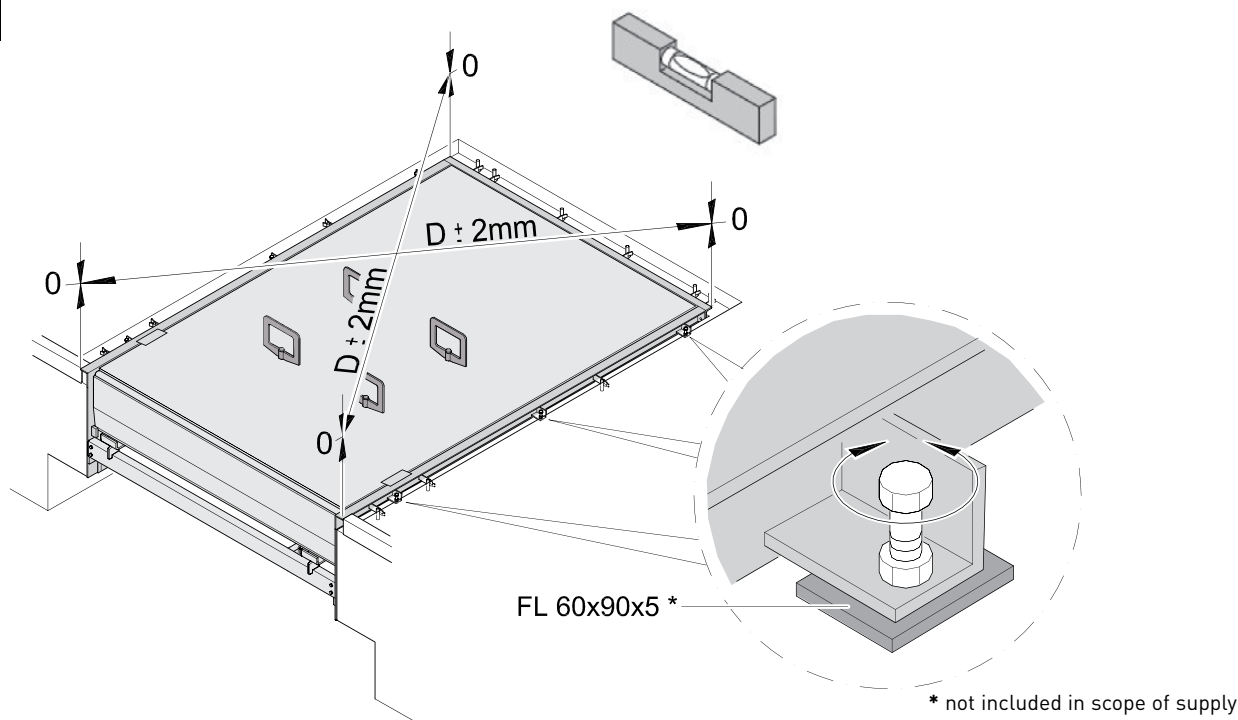
5.1

EN



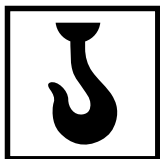
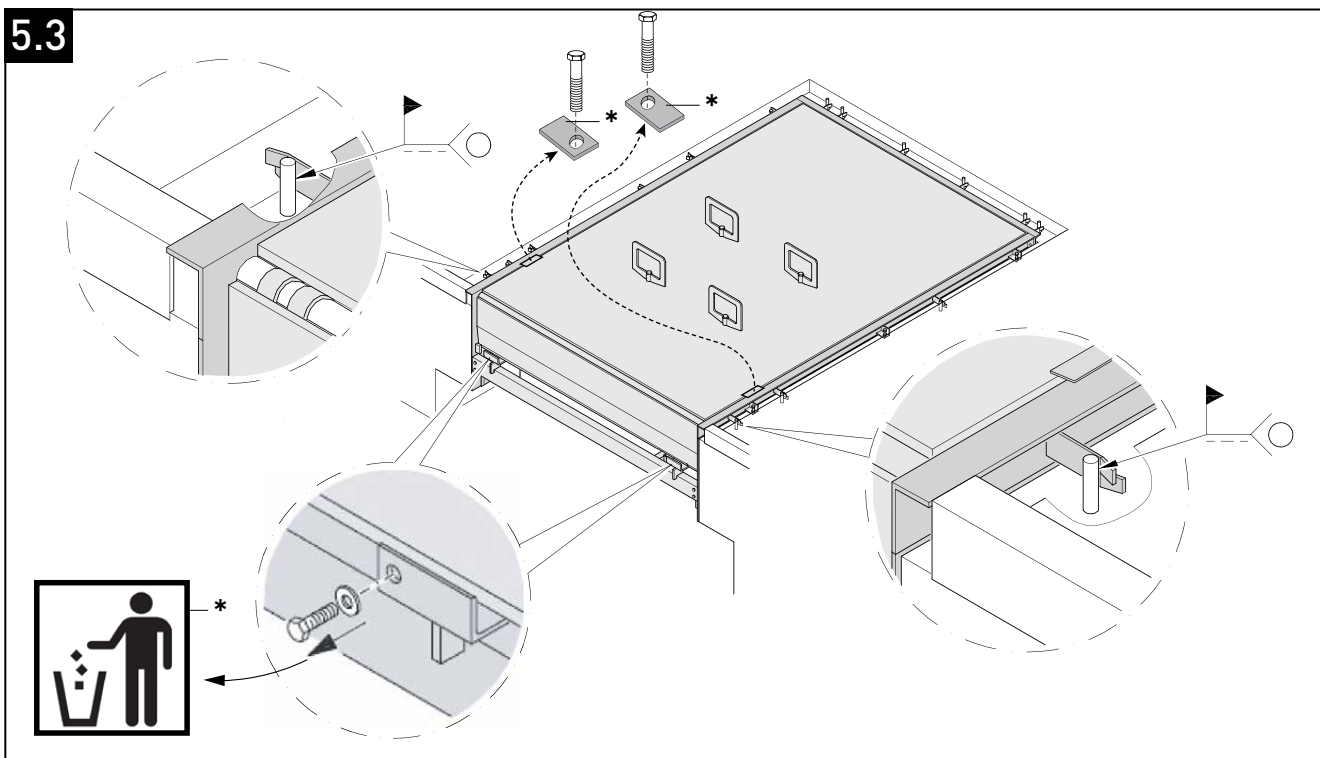
General instruction: The image may differ at detail level.

5.2



General instruction: The image may differ at detail level.

5.3

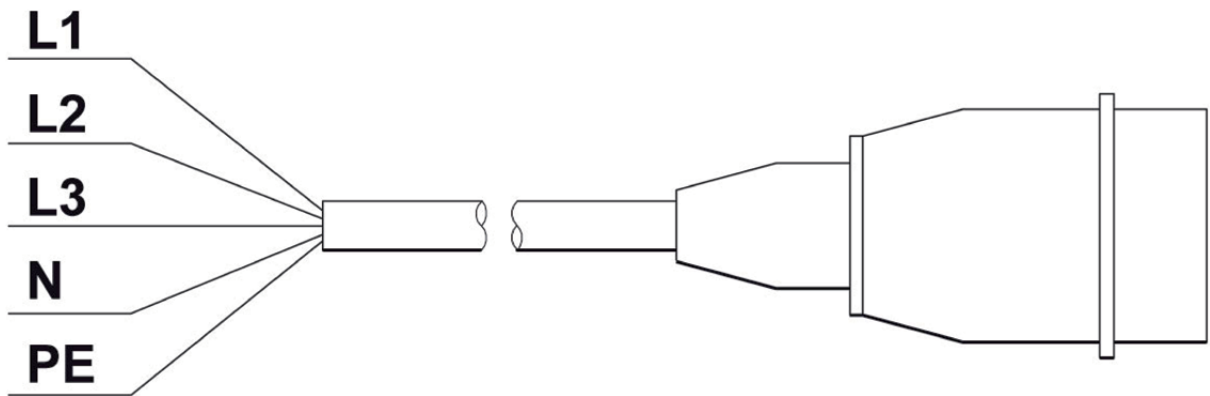


General instruction: The image may differ at detail level.

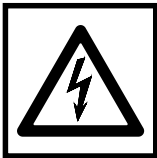
6. Electrical connections

6.1

EN

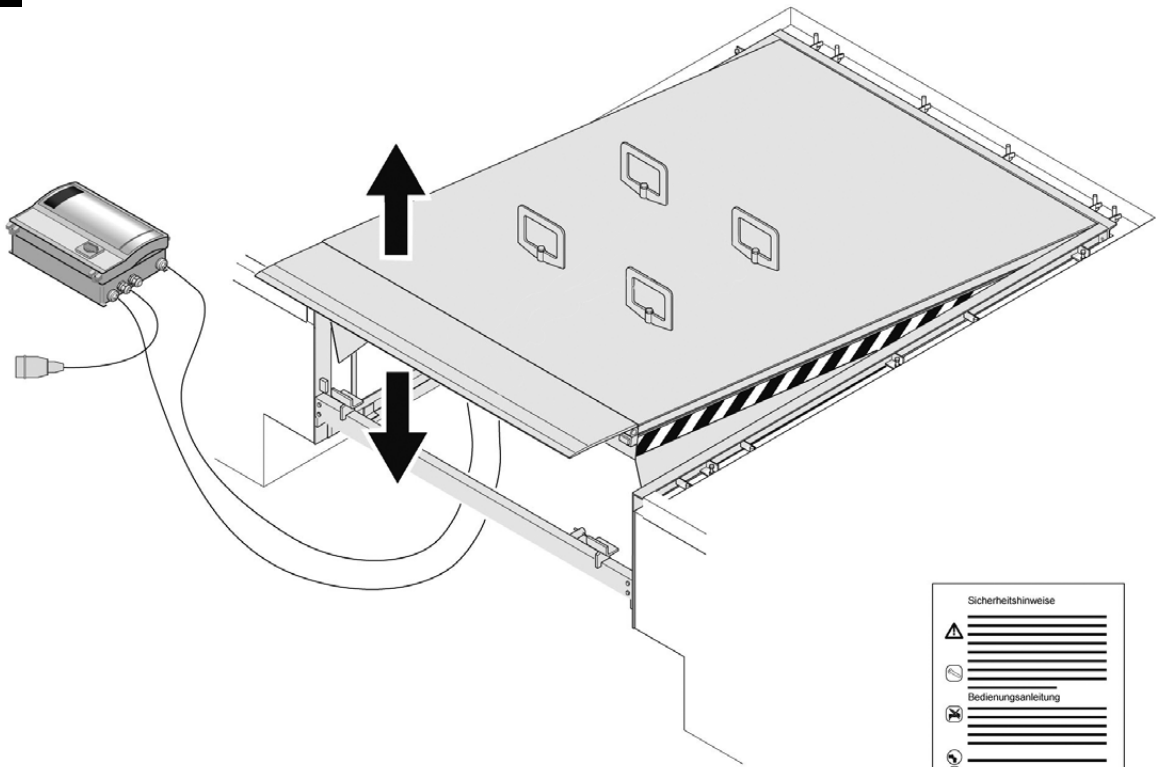


General instruction: The image may differ at detail level.



	(DE)	(EN)	(FR)	(NL)
L1 =	Braun (1)	Brown (1)	Brun (1)	Bruin (1)
L2 =	Schwarz (2)	Black (2)	Noir (2)	Zwart (2)
L3 =	Grau (3)	Grey (3)	Gris (3)	Grijs (3)
N =	Blau (4)	Blue (4)	Bleu (4)	Blauw (4)
PE =	gelb/grün	yellow/green	jaune/vert	geel/groen

6.2



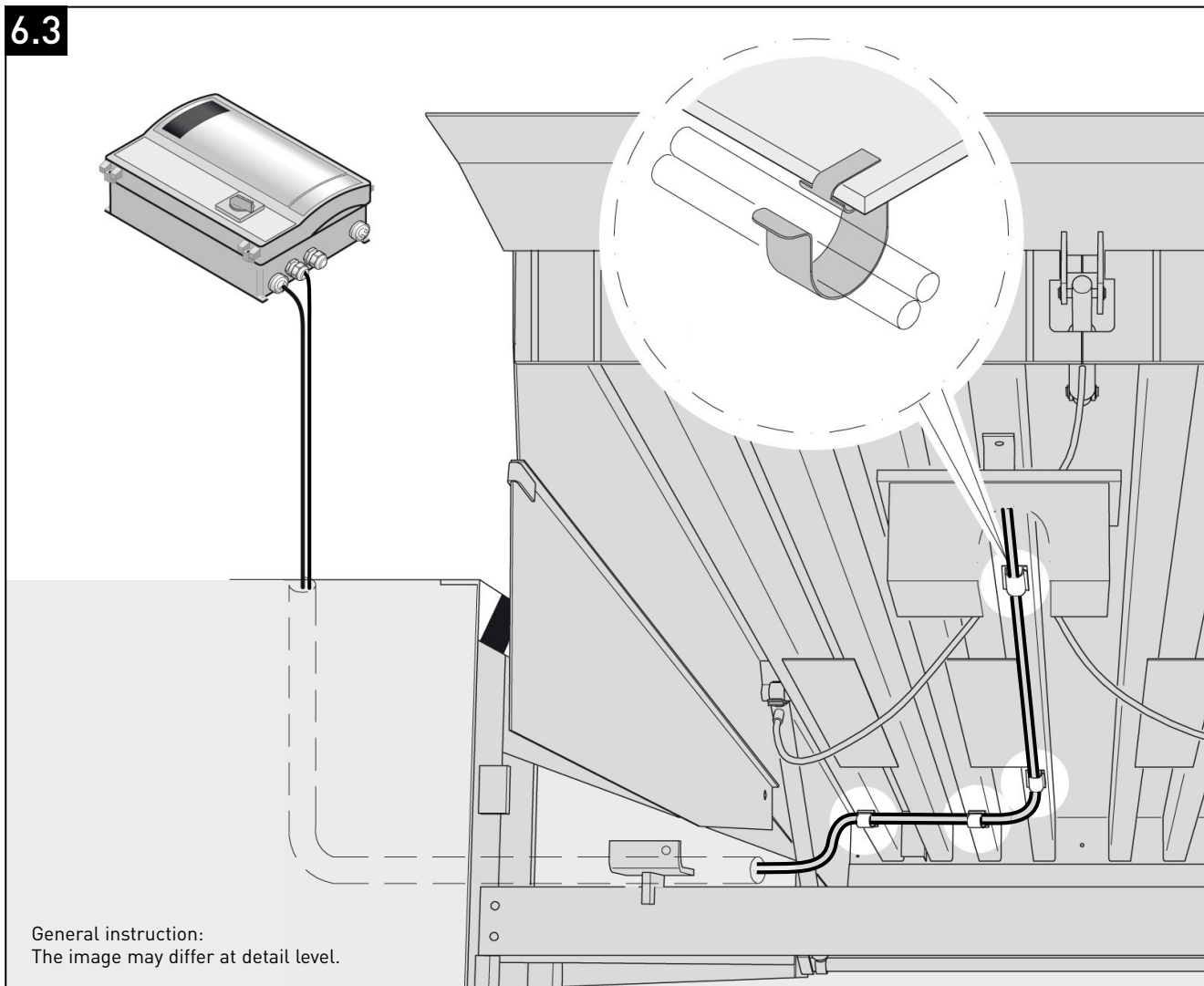
Instruction

Check that the hydraulic hose connections are all firmly tightened.
General instruction: The image may differ at detail level.

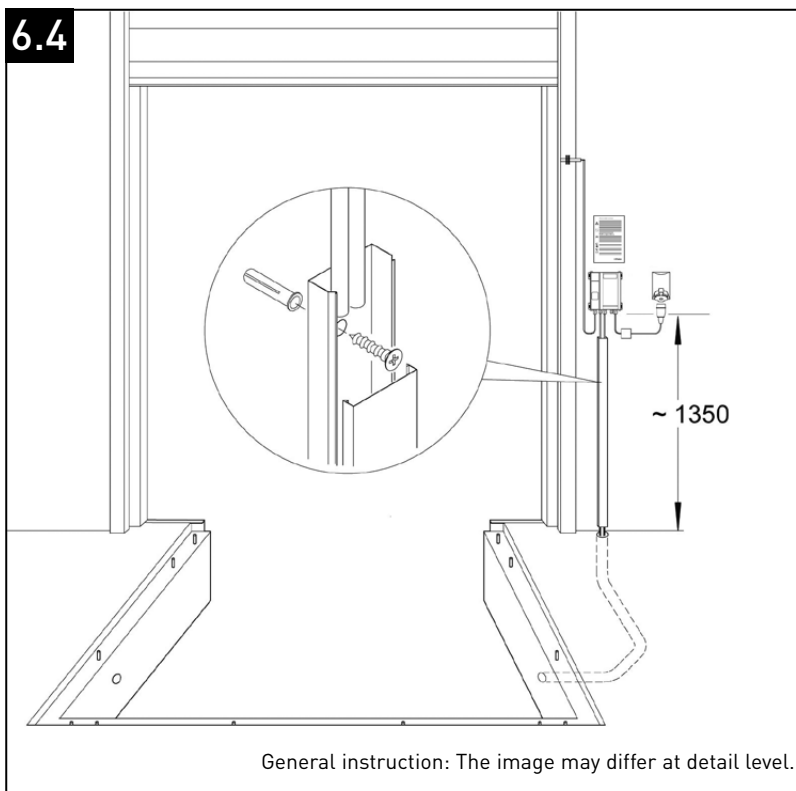


6.3

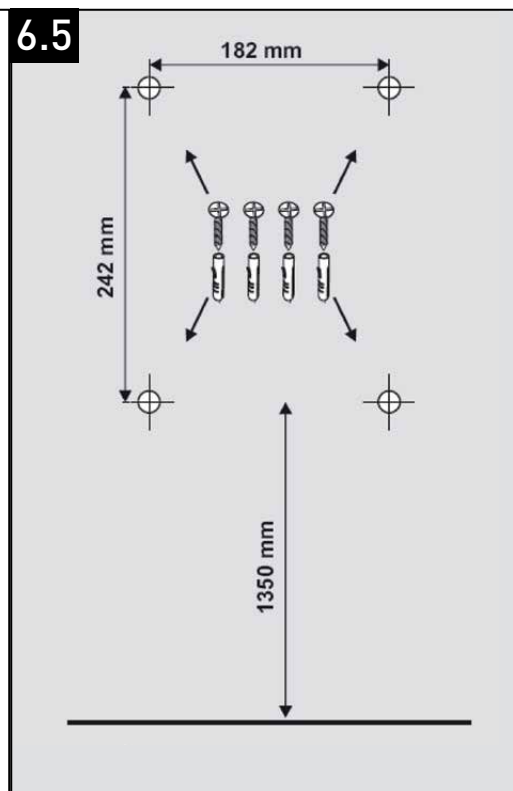
EN



6.4



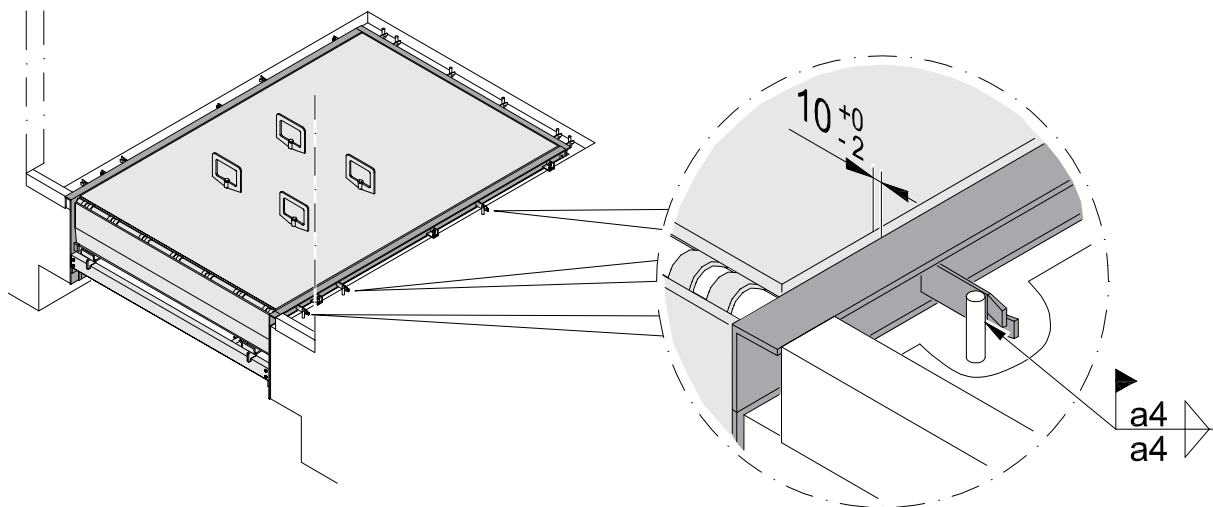
6.5



7. Final installation actions

7.1

EN



Instruction

Weld the anchors on the leveller to the reinforcement or the dowels.

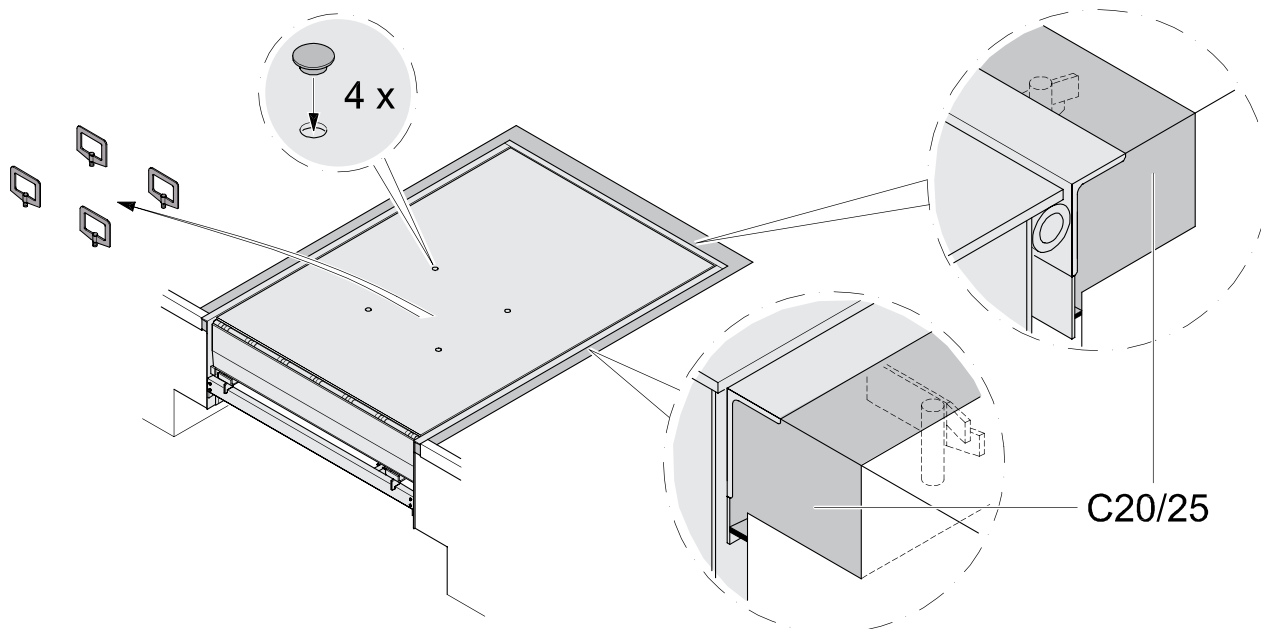


Health hazard when welding galvanised components:

Welding galvanised parts produces vapours which can be harmful to health if inhaled. To avoid this, grind the zinc coating off the parts that are to be welded.

General instruction: The image may differ at detail level.

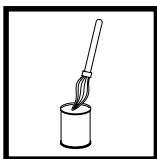
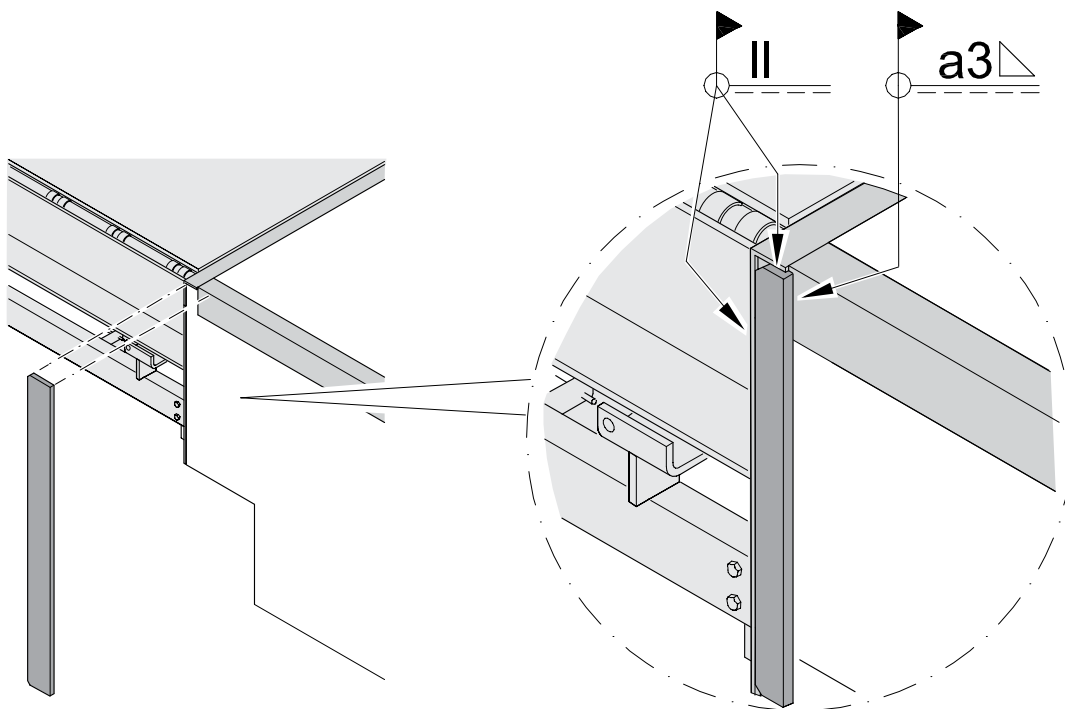
7.2



Instruction

Before pouring the liquid concrete, the area adjoining the leveller must be shuttered in on site. We recommend covering the platform with a protective film before pouring the concrete. Pour the liquid concrete. Ensure use of a suitable grade of concrete, at least C20/25. In the case of a significant casting height, make sure that the side loads caused by pouring and compacting do not become excessive. Excessive loads could distort the side walls.

General instruction: The image may differ at detail level.

**Instruction**

Paint the welded seams with the touch-up paint included in the scope of supply in order to prevent rust formation.

The front plate shown in 6.8 may not be required in combination with certain options. When docking buffers are installed, the front plate shown in figure 6.8 is not used. Depending on the design, the docking buffer plate included in the scope of supply should be welded in place. Please refer to the corresponding assembly instructions for this.

General instruction: The image may differ at detail level.

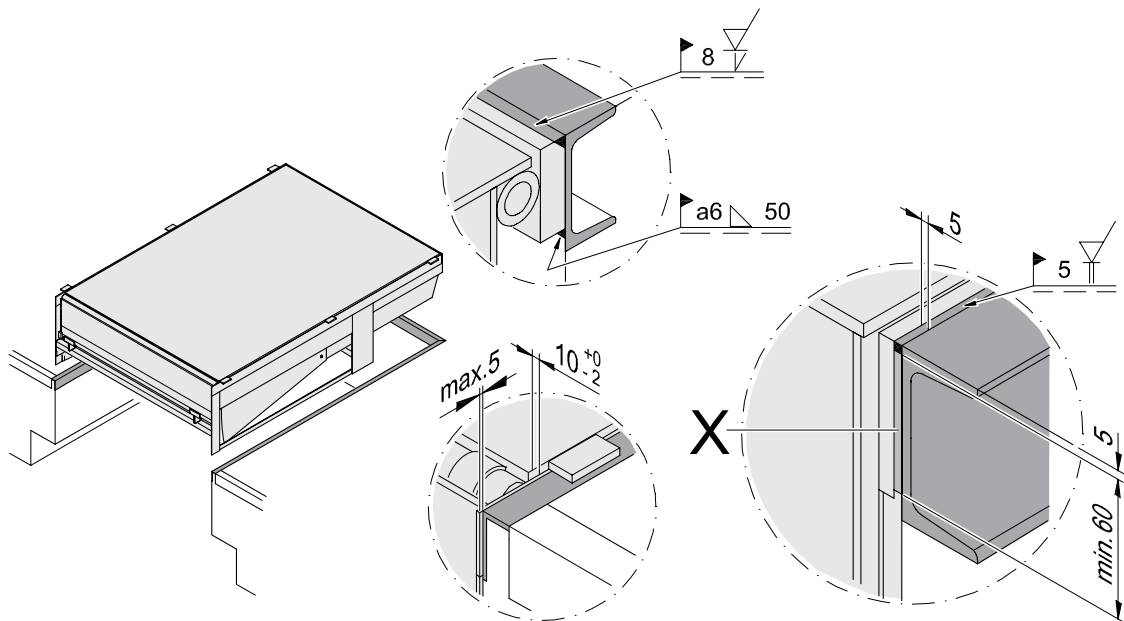
8. Optional buffers

**Docking buffers (not included in the leveller scope of supply).**

Protect the docking platform and vehicles with suitable docking buffers. Docking forces in excess of 100 kN may require special measures. Please ask your supplier or the manufacturer.

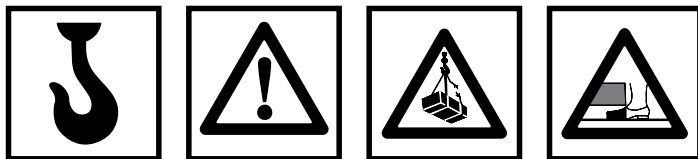
9. Frame AX

EN



Instruction

X Spacer plates in the area of the welded joints (not in scope of supply)

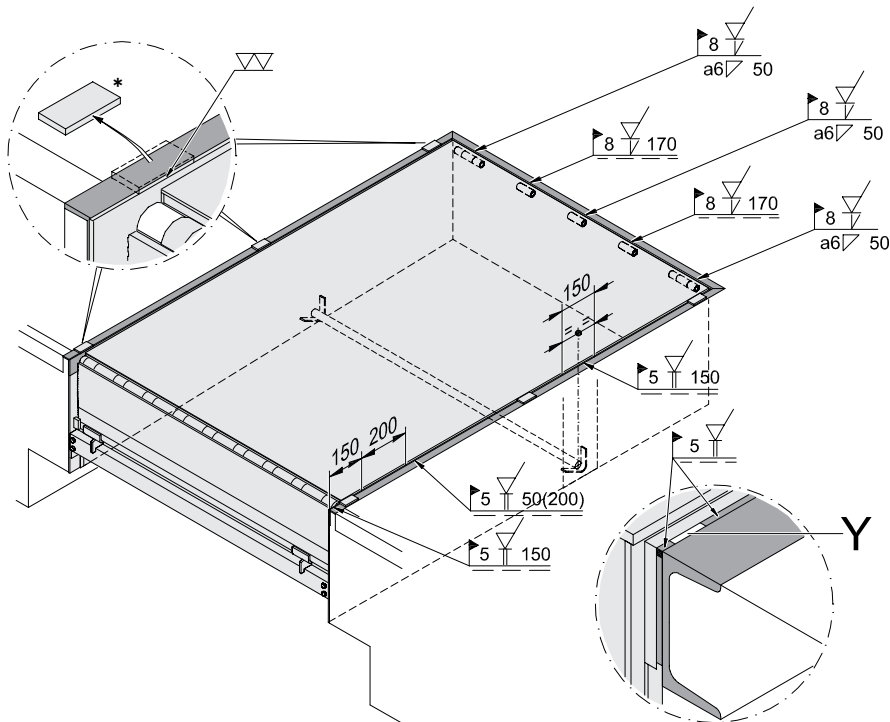


Health hazard when welding galvanised components:

Welding galvanised parts produces vapours which can be harmful to health if inhaled. To avoid this, grind the zinc coating off the parts that are to be welded.

General instruction: The image may differ at detail level.

9.2



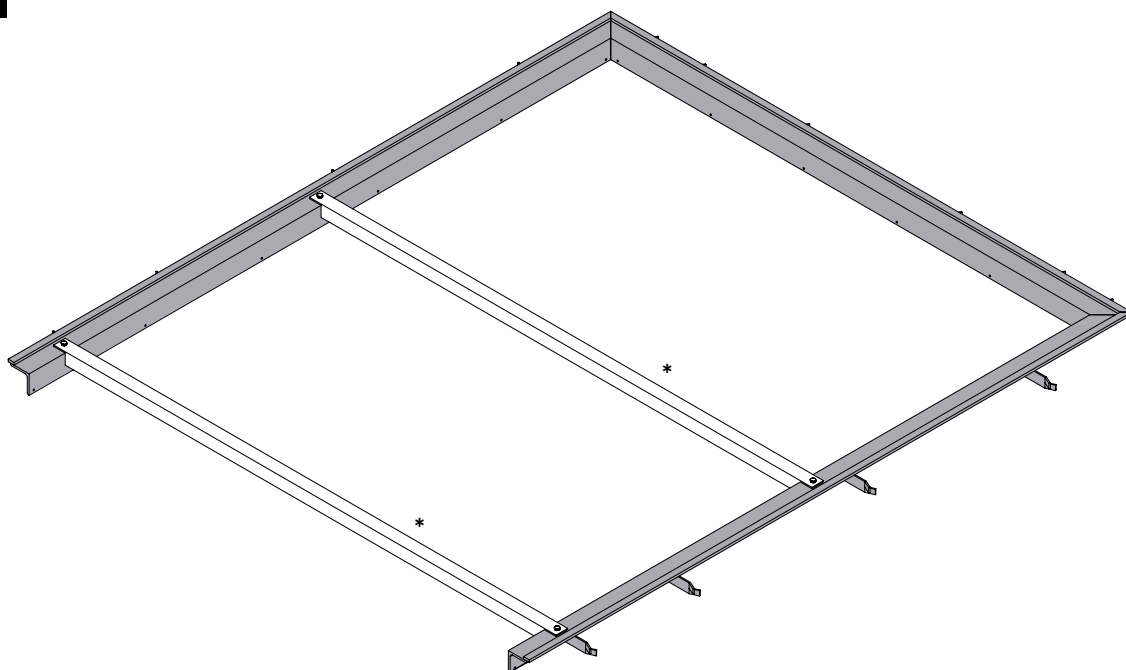
Instruction

* Remove after welding

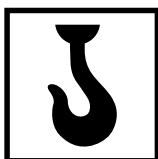
Y Hollow spaces must be sealed.

General instruction: The image may differ at detail level.

10.1



EN

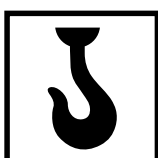
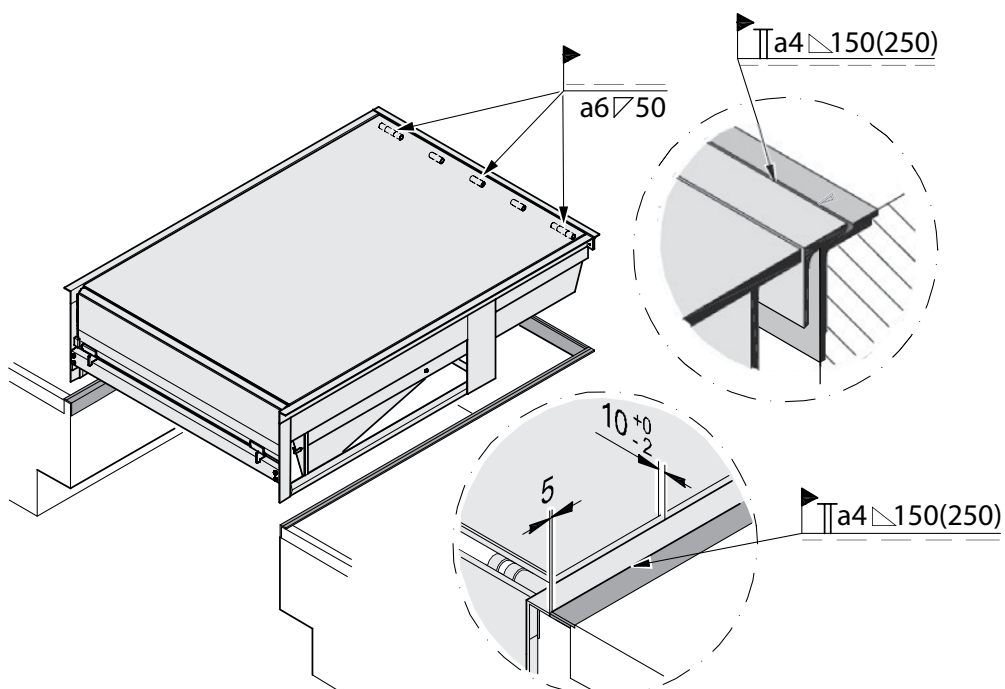
**Instruction**

Pre-frame can be constructed on site or delivered by Novoform.

* Remove the braces before installing the leveller.

General instruction: The image may differ at detail level.

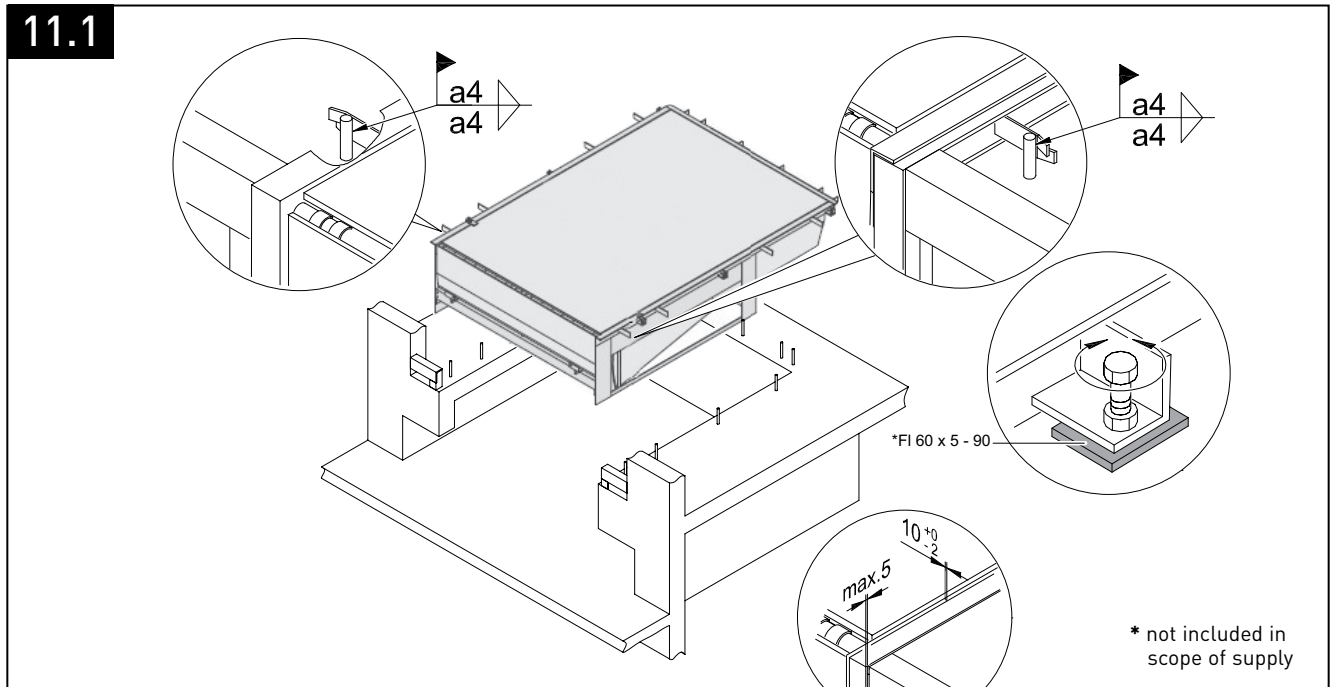
10.2



General instruction: The image may differ at detail level.

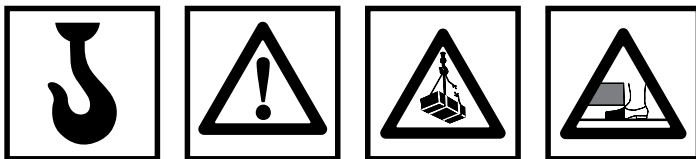
11. Frame DX

EN



Instruction

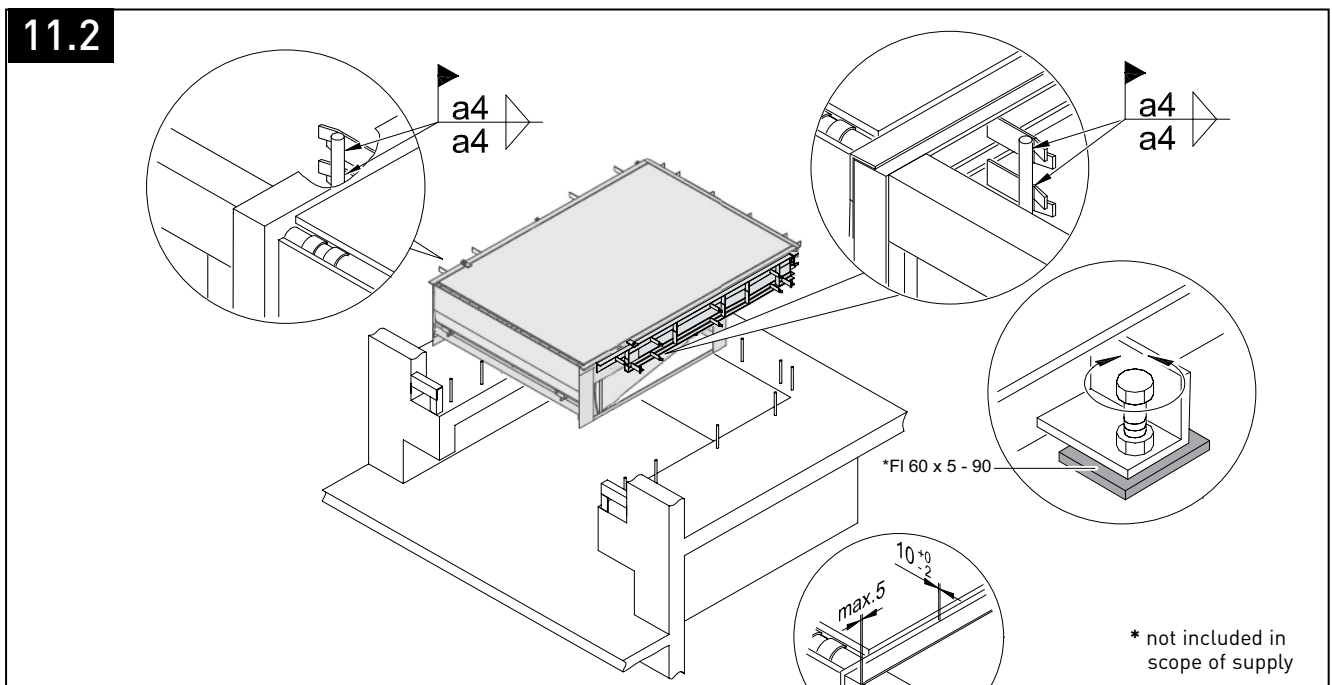
Concrete embedding height 100 - 160 mm



Health hazard when welding galvanised components:

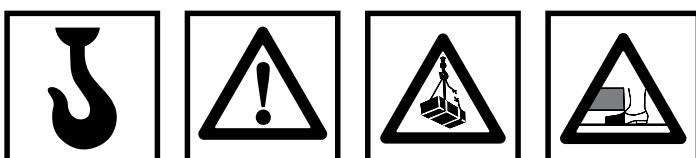
Welding galvanised parts produces vapours which can be harmful to health if inhaled. To avoid this, grind the zinc coating off the parts that are to be welded.

General instruction: The image may differ at detail level.



Instruction

Concrete embedding height 160 - 250 mm

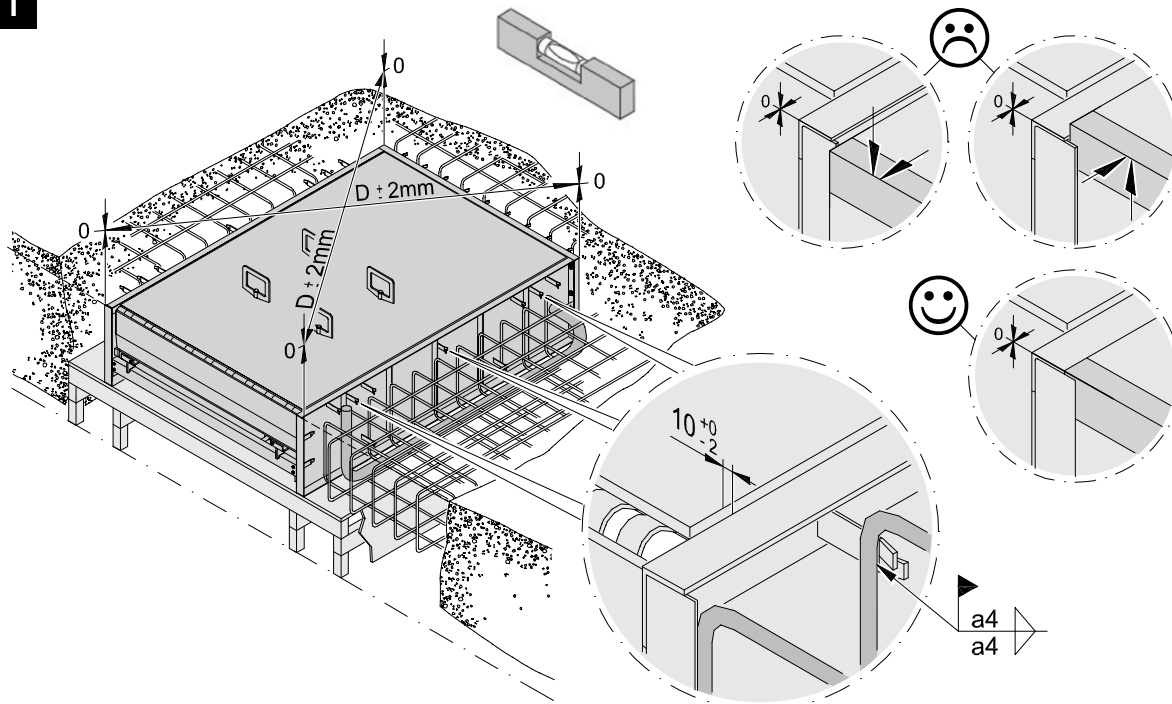


Health hazard when welding galvanised components:

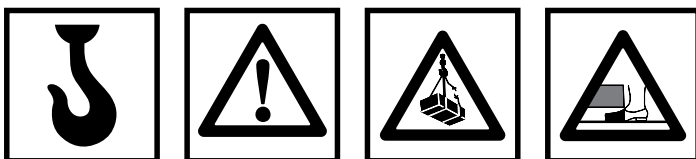
Welding galvanised parts produces vapours which can be harmful to health if inhaled. To avoid this, grind the zinc coating off the parts that are to be welded.

General instruction: The image may differ at detail level.

12.1



EN

**Instruction**

Drill fixing holes in the upright wall of the frame.

Maintain a gap of 10 mm.

Use bracing if required.

Pouring

1. We recommend covering the visible parts with a protective film before pouring the concrete.
2. Pour the liquid concrete slowly and in layers. Ensure use of a suitable grade of concrete, at least C20/25. In the case of a significant casting height, make sure that the side loads caused by pouring and compacting do not become excessive. Excessive loads could distort the side walls.

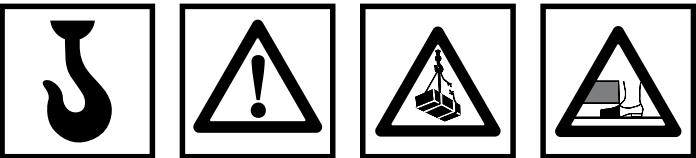
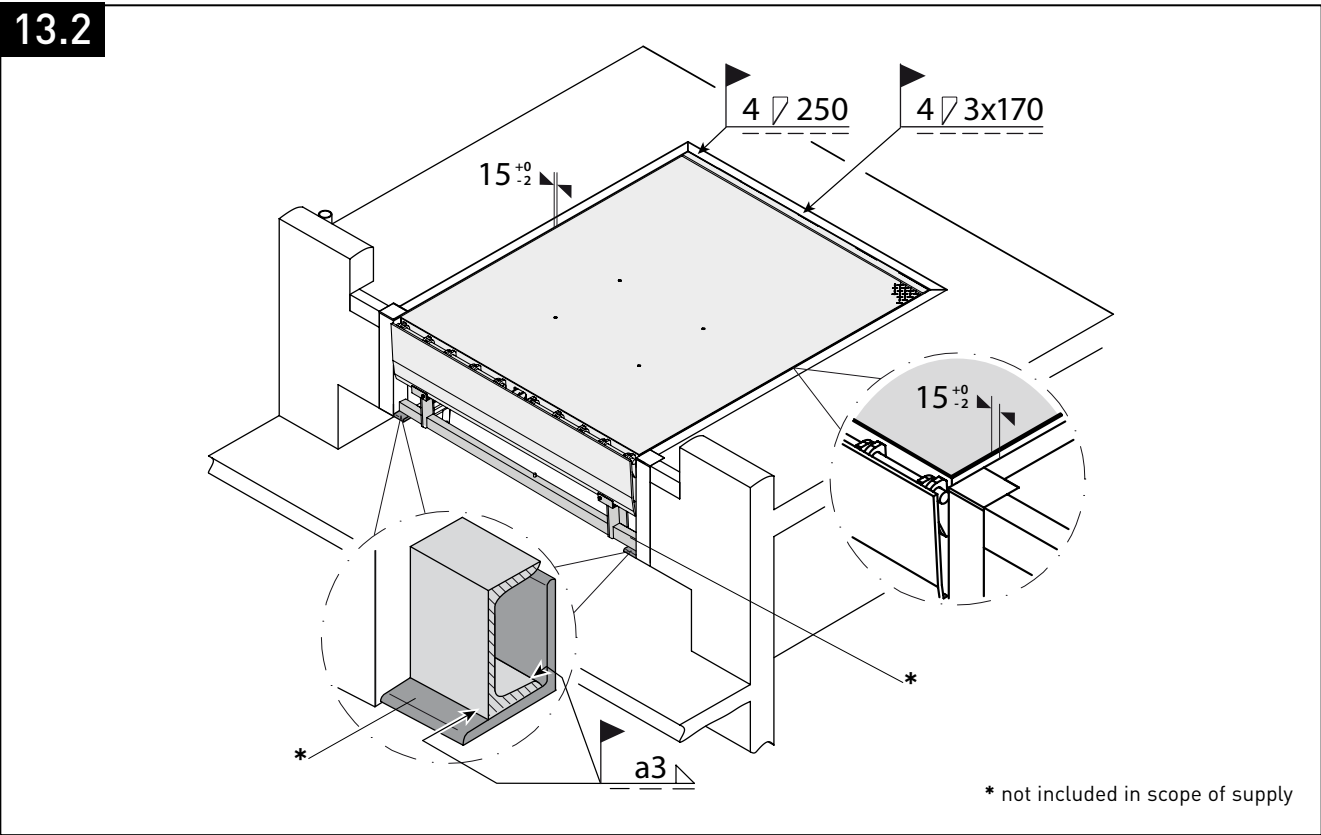
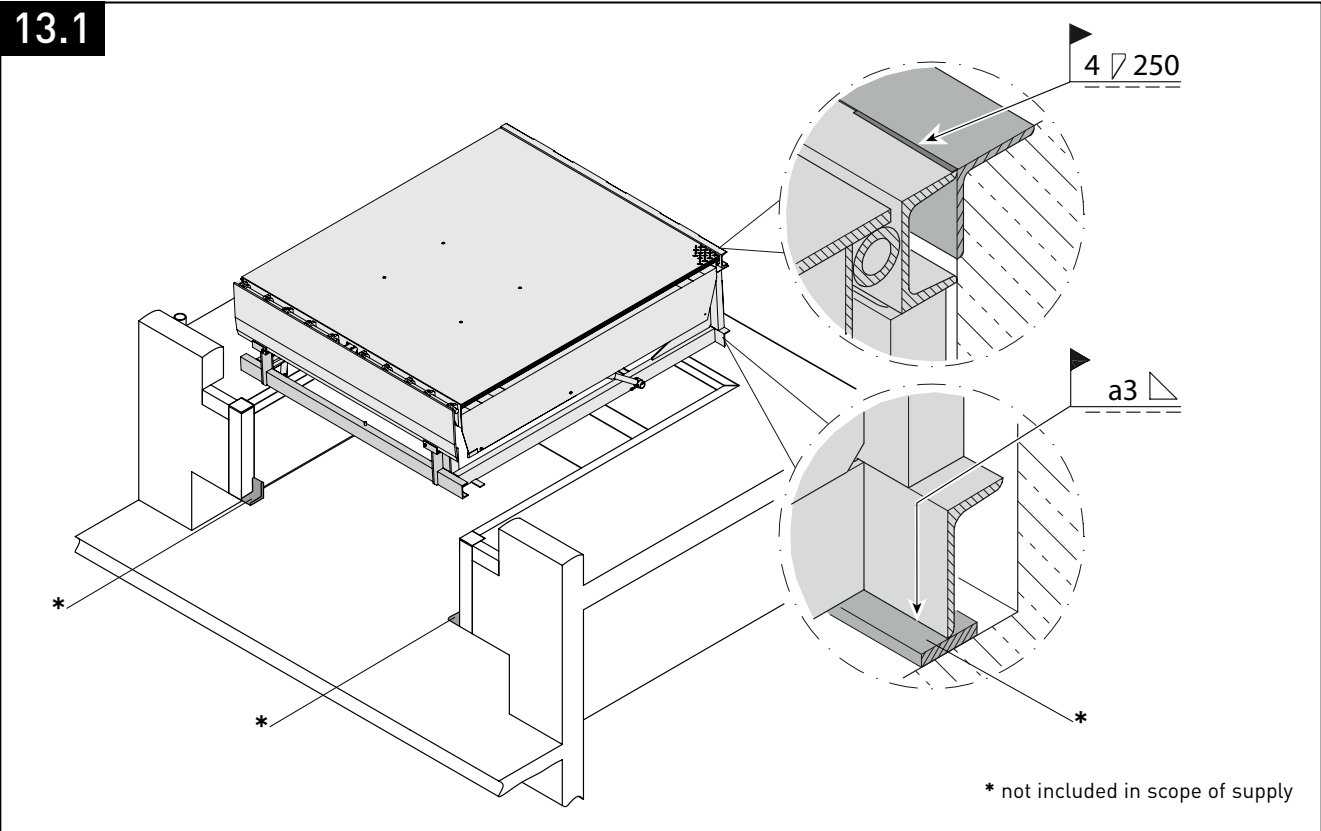
**Health hazard when welding galvanised components:**

Welding galvanised parts produces vapours which can be harmful to health if inhaled. To avoid this, grind the zinc coating off the parts that are to be welded.

General instruction: The image may differ at detail level.

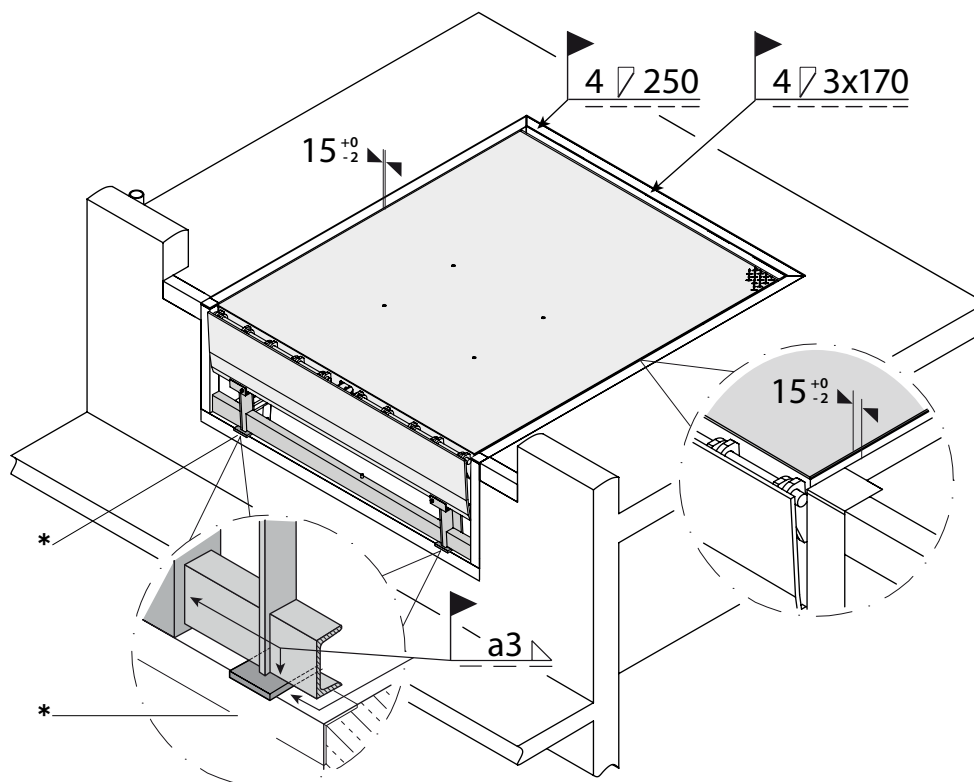
13. Frame FX

EN

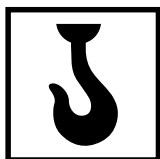


General instruction: The image may differ at detail level.

13.3



EN



Instruction:

* not included in scope of supply, adapt material thickness on site to ensure correct height alignment

General instruction: The image may differ at detail level.

14. Commissioning

14.1 Fittings

- Remove the lifting eyes before commissioning.
- Remove the transportation immobilisers and spacers.
- Return parts that can be reused to the manufacturer or supplier.

14.2 Functional test

Levellers are tested and delivered including the hydraulic oil.

The following must be taken into consideration during commissioning:

- Check that the leveller platform and the loading bay floor are at the same height.

- Make sure that the operators receive instruction.
- Perform a trial run.
- When doing so, refer to the separate manual for the controls.
- Check that the leveller operates smoothly and without excessive noise.
- Have the safety features tested.

[illegible]

English

Deutsch

Français

Nederlands

Español



Copyright

All rights reserved. Nothing in this publication may be reproduced and/or published by means of printing, photocopy, microfilm or any other means without the prior written permission of the supplier. This also applies for the associated drawings and diagrams.

The supplier reserves the right to change components at any time, without prior or direct announcement to the customer. The contents of this publication can also be changed without prior warning.

For information concerning adjustments, maintenance activities or repairs not covered by this publication, you are requested to contact your supplier.

This publication has been prepared with the greatest possible care, but the supplier can accept no responsibility for any errors in this publication or the results thereof.

Copyright

Alle Rechte vorbehalten. Diese Unterlagen einschließlich aller Zeichnungen, Schemata etc. darf nicht ohne unser ausdrückliche schriftliche Genehmigung durch Druck, Fotokopie, Mikrofilm oder in irgendeiner anderen Form vervielfältigt und/oder verbreitet werden. Das gleiche gilt für Auszüge und Ausschnitte.

Der Lieferant behält sich das Recht vor, jederzeit Teile zu ändern, ohne zuvor den Abnehmer davon in Kenntnis zu setzen. Der Inhalt dieser Ausgabe kann ebenfalls ohne vorherige Ankündigung geändert werden.

Informationen zu Einstellungen, Wartungsarbeiten oder Reparaturen, die nicht in dieser Ausgabe aufgeführt sind, erhalten Sie bei Ihrem Lieferanten.

Diese Ausgabe wurde mit größtmöglicher Sorgfalt erstellt. Allerdings übernimmt der Lieferant keine Verantwortung für eventuelle Fehler in dieser Ausgabe, ebenso wenig trägt er die sich eventuell daraus ergebenden Konsequenzen.

Copyright

Tous droits réservés. Il n'est pas autorisé de reproduire ou publier des parties de ce document, sous forme de tirages, photocopies, microfilm ou par quelque autre procédé que ce soit, sans avoir obtenu au préalable la permission écrite du fournisseur. Cela vaut également pour les schémas et autres illustrations annexes.

Le fournisseur se réserve le droit de modifier des pièces ainsi que le contenu de cette publication à tout moment sans notification préalable ou directe.

Vous êtes priés de prendre contact avec le fournisseur si vous désirez des informations sur des réglages, opérations d'entretien ou réparations dont ce document ne traiterait pas.

Cette publication a été réalisée avec le plus grand soin possible; le fournisseur ne peut toutefois assumer la responsabilité des erreurs qu'elle contiendrait et de leurs conséquences.

Copyright

Alle rechten voorbehouden. Niets in deze uitgave mag worden verveelvoudigd en/of openbaar gemaakt door middel van druk, fotokopie, microfilm of op welke andere wijze dan ook, zonder voorafgaande schriftelijke toestemming van de leverancier. Dit geldt ook voor de bijbehorende tekeningen en schema's.

De leverancier behoudt zich het recht voor om onderdelen op elk gewenst moment te wijzigen, zonder voorafgaande of directe kennisgeving aan de afnemer. De inhoud van deze uitgave kan eveneens gewijzigd worden zonder voorafgaande waarschuwing.

Voor informatie betreffende afstellingen, onderhoudswerkzaamheden of reparaties waarin deze uitgave niet voorziet, wordt u verzocht contact op te nemen met uw leverancier.

Deze uitgave is met alle mogelijke zorg samengesteld, maar de leverancier kan geen verantwoording op zich nemen voor eventuele fouten in deze uitgave of voor de gevolgen daarvan.

Copyright

Reservados todos los derechos. Ninguna parte de esta publicación podrá reproducirse ni publicarse mediante imprenta, fotocopia, microfilme o cualquier otro medio, sin previa autorización por escrito del proveedor. Esta restricción también es válida para los planos y esquemas correspondientes.

El proveedor se reserva el derecho de modificar componentes en cualquier momento, sin notificación previa o directa al cliente. También el contenido de esta publicación puede modificarse sin aviso previo.

Si desea más información acerca de los ajustes y trabajos de mantenimiento y reparación que no se indiquen en esta publicación, le rogamos se ponga en contacto con su proveedor.

Aunque en la elaboración de la presente publicación se ha puesto la máxima atención, el proveedor no podrá aceptar ninguna responsabilidad por los posibles errores en la misma ni por sus consecuencias.

