

Assembly instructions

Vertical ladders



MUNK GmbH is considered the first address for ladders, mobile scaffolding and special constructions far beyond Europe. Not least because you receive a 15-year quality guarantee on our products.

Climbing technology from Günzburg has been a tradition for over 110 years. Today the company is run by the founding family in the fourth generation. With over 200 dedicated employees, MUNK GmbH develops and manufactures all-round intelligent solutions. It is no coincidence that our motto is "climbing technique with brains". But what exactly do we mean by that? Quite simple: Clever products and product details with practical added value for our customers. These include, for example, nivello® ladder shoes for increased slip and stability or the ergonomic grip zone ergo-pad®. It makes carrying ladders more comfortable and easier on your back than ever before.

It has always been particularly important to us that production takes place exclusively at our company headquarters in Günzburg, Bavaria. The result of this down-to-earth company policy is a unique promise:

A 15-year quality guarantee always gives you the good and secure feeling that you have chosen the right product with MUNK GmbH.

For us, production at our home location is both a quality feature and a philosophy - and here too we are one of the pioneers: We are the first company whose products were certified by TÜV Nord with the "Made in Germany" seal of quality.

Speaking of awards: our company was awarded the "Grand Prize for Medium-Sized Enterprises 2009" for securing and creating jobs, service and customer proximity, the high level of innovation and commitment to the region, making it the most important prize of its kind in Germany.

The solutions from MUNK GmbH are used in numerous areas: in industry and trade, with public clients and of course also in the private sector.

Request documents free of charge:

The climbing technology guide with over 1,500 standard solutions, our catalogs "Special constructions" and "Climbing technology solutions for aviation" with many application examples of customer solutions that have already been delivered, roll container guide or the rescue technology guide with professional technology for fire, rescue and disaster operations.

You can also visit us on the Internet at www.munk-group.com



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1 About this document

These assembly instructions belong to the „vertical ladders“ and „fall arrestor“ products (abbreviated below to „vertical ladder system“) supplied by MUNK GmbH:

The parts of the product have been developed to conform to the current state-of-the-art and the recognised rules of technical safety. Danger to life and limb of the user or of third parties can nonetheless arise when using the product, or impairments to the product and other material assets can occur.

- Read the assembly instructions carefully before use.
- Retain the assembly instructions during the product's service life.
- Keep the assembly instructions available to the erection and service personnel at all times.
- Pass on the assembly instructions to each subsequent owner or user of the product.

Update the assembly instructions each time the manufacturer issues a revision.



Note

Additionally, observe our information brochure „Instructions for erecting and using the GÜFA climb guard system“



Caution

This caution warns about the danger of fatal accidents or injuries when not precisely following or failing to follow the operating and work instructions.



Warning

This warning is kept next to work or operating processes that must be accurately complied with to avoid damage or destruction of the system.



Note

The note stands for technical requirements and important information that must be particularly considered.

2 Product information

The vertical ladder system has a modular design with a number of different executions. Any height can be reached with the modular system by combining the interacting construction elements. If necessary, individual elements may need to be shortened to the required length on-site.

All points of connection in the vertical ladder system are executed as screwed unions in order to simplify the assembly process.

2.1 Standards and regulations

The vertical ladder system conforms to the following standards and regulations:

Standard	Title
DIN 18799-1	Fixed vertical ladders on construction works – Part 1: Vertical Ladders with side stiles, technical safety requirements and tests
DIN 14094-1	Escape vertical ladder installations – Part 1: Escape vertical ladders with and without falling protection, holding device, platform
DIN EN ISO 14122-4	Safety of machines – Permanent means of access to machinery – Part 4: Fixed vertical ladders

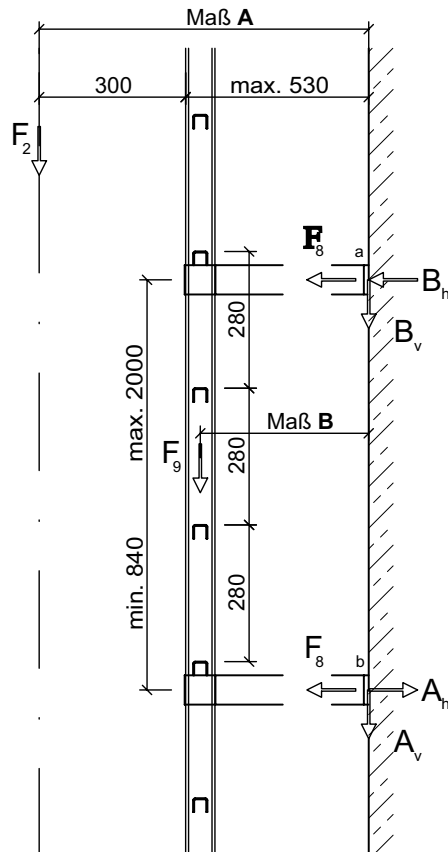
2.2 Pull-out forces for fastenings



Note

**The efficiency of the fastening shackles with the stiles as frame (unions resistant to bending) must be ensured.
Connect the shackles on the stiles accordingly.**

2.2.1 Vertical ladders, without footplate



Pos	Dimens. A [mm]	Dimens. B [mm]	Bh [kN]
1	830	500	1,11
2	780	450	1,06
3	730	400	1,01
4	680	350	0,96
5	630	300	0,90
6	580	250	0,85
7	530	200	0,80

a Lower connection point, not decisive Forces per connection point and stile:

$$B = \text{Root } (B_v \cdot B_v + B_h \cdot B_h) = 1.06 \text{ kN}$$

$$B_h = (F_2 \cdot 675 + F_9 \cdot 345) / 840 + F_8 = 0.96 \text{ kN}$$

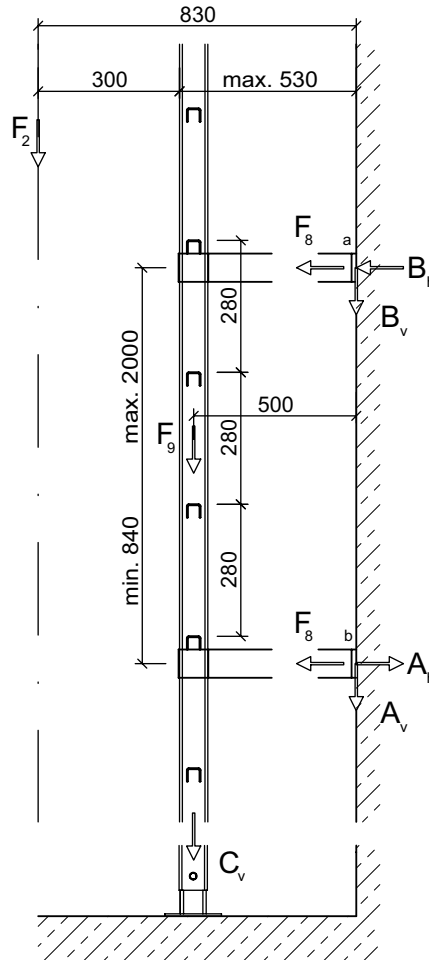
$$B_v = F_2 / 2 + F_9 / 2 = 0.44 \text{ kN}$$

$$F_2 = 0.75 \text{ kN per stile (1.5 kN)}$$

$$F_8 = 0.30 \text{ kN per stile}$$

$$F_9 = 0.13 \text{ kN (per stile; ladder weight)}$$

2.2.2 Vertical ladders, with footplate



a Lower connection point, not decisive Forces per connection point and stile:

$$B = \text{Root } (B_v * B_v + B_h * B_h) = 0.69 \text{ kN}$$

$$B_h = (F_2 \times 300) / 840 + F_8 = 0.57 \text{ kN}$$

$$B_v = F_2 / 2 = 0.38 \text{ kN}$$

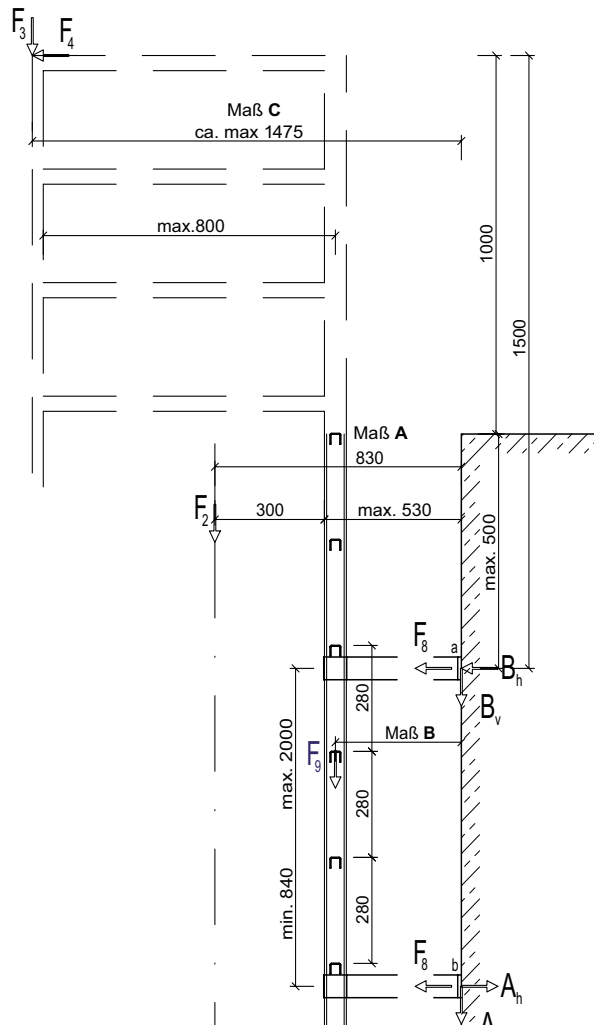
$$F_2 = 0.75 \text{ kN per stile (1.5 kN)}$$

$$F_8 = 0.30 \text{ kN per stile}$$

$$F_9 = 0.13 \text{ kN (per stile; ladder weight: max. 9 kg/m, next fastening point only after 2 m)}$$

$$C_v = (F_2 + F_9) / 2 * \text{ladder length (per foothold and per stile)}$$

2.2.3 Vertical ladders with falling protection, without footplate



	Dimens. A	Dimens. B	Dimens. C	Bh
1	830	500	1475	2,44
2	780	450	1375	2,33
3	730	400	1275	2,22
4	680	350	1175	2,10
5	630	300	1075	2,00
6	580	250	975	1,88
7	530	200	875	1,77

a Lower connection point, not decisive Forces per connection point and stile:

$$B = \text{Root } (B_v * B_v + B_h * B_h) = 2.21 \text{ kN}$$

$$B_h = (F_2 * 675 + F_9 * 345 + F_3 * 1175 + F_4 * 1500) / 840 + F_8 = 2.10 \text{ kN}$$

$$B_v = F_2 / 2 + F_9 / 2 + F_3 / 2 = 0.69 \text{ kN}$$

$$F_2 = 0.75 \text{ kN per stile (1.5 kN)}$$

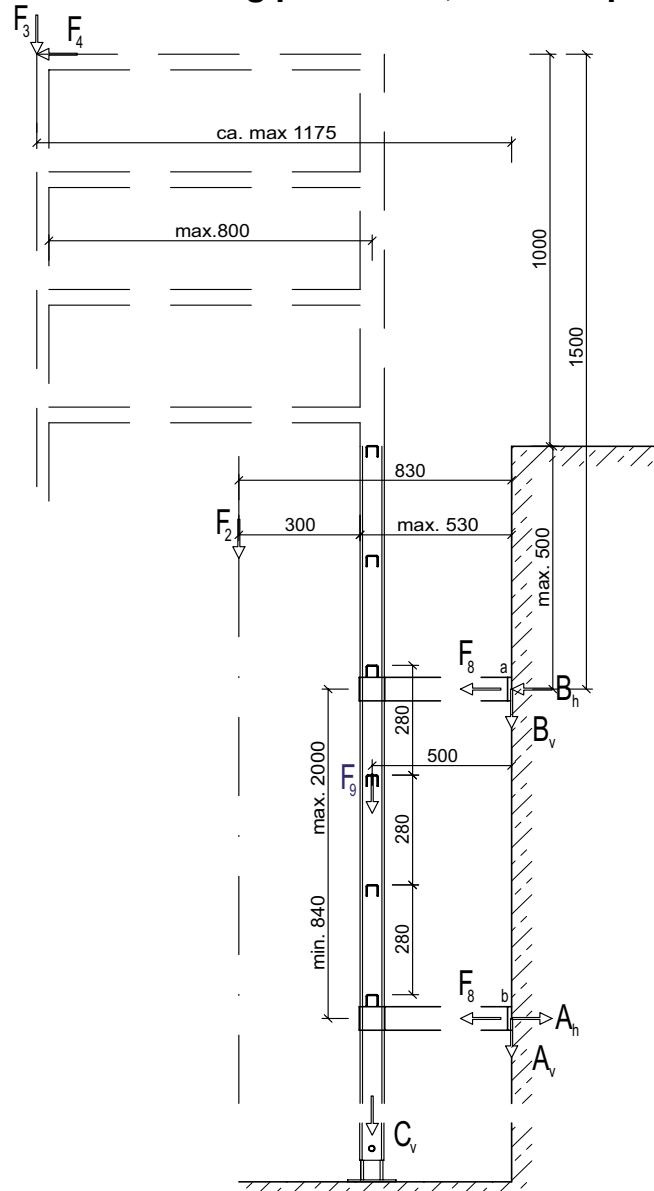
$$F_3 = 0.50 \text{ kN per stile (0.5 kN)}$$

$$F_4 = 0.25 \text{ kN per stile (0.5 kN)}$$

$$F_8 = 0.30 \text{ kN per stile}$$

$$F_9 = 0.13 \text{ kN (per stile; ladder weight: max. 9 kg/m, next fastening point only after 2 m)}$$

2.2.4 Vertical ladders with falling protection, with footplate



a Lower connection point, not decisive Forces per connection point and stile:

$B = \text{Root } (B_v * B_v + B_h * B_h) = 1.35 \text{ kN}$

$B_h = (F_2 * 300 + F_3 * 800 + F_4 * 1500) / 840 + F_8 = 1.19 \text{ kN}$

$B_v = F_2 / 2 + F_3 / 2 = 0.63 \text{ kN}$ (F_2 from the most unfavourable aspect)

$F_2 = 0.75 \text{ kN}$ per stile (1.50 kN)

$F_4 = 0.30 \text{ kN}$ per stile

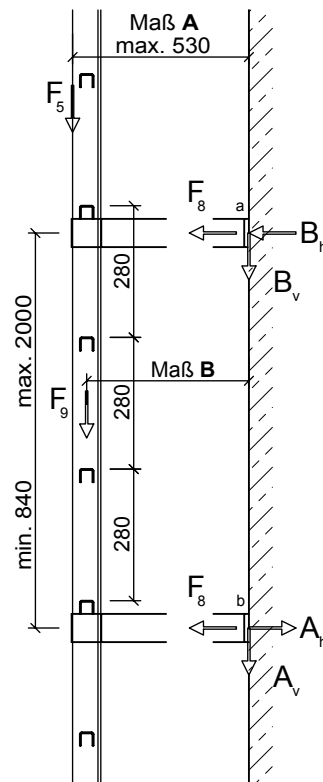
$F_8 = 0.30 \text{ kN}$ per stile

$F_9 = 0.13 \text{ kN}$ (per stile; ladder weight: max. 9 kg/m, next fastening point only after 2 m)

$C_v = F_3 + (F_2 + F_9) / 2 * \text{ladder length (per foothold and per stile)}$. Assumption: F_3 takes effect only 1x

2.2.5 Vertical ladders with climb guard rail, without footplate

- Fix the climb guard rail to at least 4 rungs.



Pos	Dimens. A [mm]	Dimens. B [mm]	Bh [kN]
1	530	500	2,27
2	480	450	2,08
3	430	400	1,89
4	380	350	1,71
5	330	300	1,52
6	280	250	1,33
7	230	200	1,15

a Lower connection point, not decisive Forces per connection point and stile:

$$B = \text{Root} (B_v \cdot B_v + B_h \cdot B_h) = 2.10 \text{ kN}$$

$$B_h = (F_5 \cdot 375 + F_9 \cdot 345)/840 + F_8 = 1.39 \text{ kN}$$

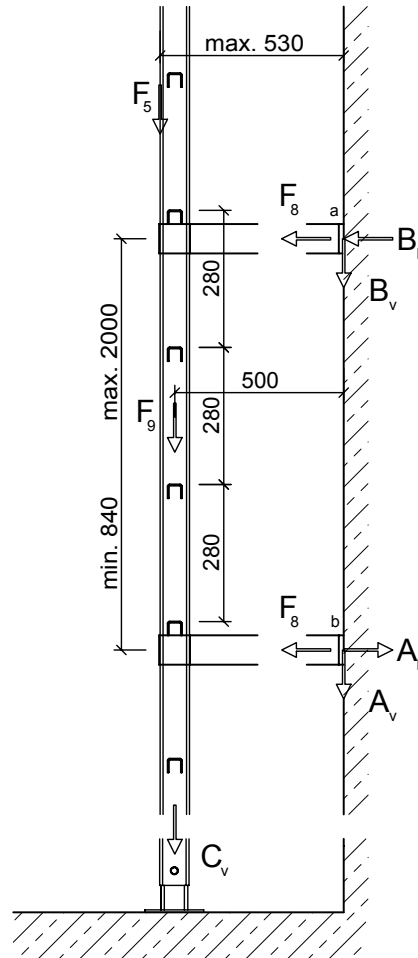
$$B_v = F_5/2 + F_9/2 = 1.57 \text{ kN}$$

$$F_5 = 3.0 \text{ kN per stile (6.0 kN)}$$

$$F_8 = 0.3 \text{ kN per stile}$$

$$F_9 = 0.13 \text{ kN (per stile; ladder weight: max. 9 kg/m, next fastening point only after 2 m)}$$

2.2.6 Vertical ladders with climb guard rail, with footplate



a Lower connection point, not decisive

Forces per connection point and stile:

$$B = \text{Root } (B_v \cdot B_v + B_h \cdot B_h) = 0.41 \text{ kN}$$

$$B_h = (F_5 \cdot 30)/840 + F_8 = 0.41 \text{ kN}$$

$$B_v = 0 \text{ kN}$$

$$F_8 = 0.30 \text{ kN per stile}$$

$$C_v = F_5 + F_9/2 \cdot \text{Ladder length}$$

$$F_5 = 3.00 \text{ kN per stile (max. total load = 6.0 kN impact force when falling)}$$

$$F_9 = 0.13 \text{ kN per stile (max. load due to ladder weight)}$$

$$C_v = 3.00 + 0.13/2 = 3.07 \text{ kN} \cdot \text{ladder length (per base point and per stile)}$$

3 Safety notices

3.1 Intended use

The vertical ladder system has been designed for use as a climbing aid, escape ladder/exit for people in accordance with the standard.

- Only use original components for assembly and repairs.

Combining components of third party manufacturers or accessories other than those stated in these assembly instructions can impair safety and is not permitted.

The vertical ladder system is not intended to transport loads, such use is not permitted.

3.2 Product safety

- Only deploy the product in a technically faultless condition and for its intended use. Be aware of hazards, work in a safety conscious manner and observe the assembly instructions.
- Rectify deficiencies which could impair safety (e.g. deviations from the conditions for the permissible, intended use) without delay.

3.3 Obligations of the site principal

- Before assembly starts, check whether there is any plant or equipment at the foreseen point of assembly which could endanger those involved.
- Cordon off plant, machinery and areas to ensure that they do not pose a danger for personnel.
- Provide these assembly instructions to the operator and to personnel.
- Issue works instructions for the operator containing all the rules required for safe deployment:
 - Review of hazards
 - Conduct when using the product
 - Conduct if defects are established

3.4 Obligations of the operator

Regulations

- Only assemble, use and maintain the product in agreement with the following regulations:
 - Assembly instructions
 - Specific national and regional regulations and ordinances
 - Regional construction ordinance
 - Accident prevention regulations and Workplace Directive
 - Industrial health and safety directives
 - Works instructions

Personnel

- Assembly and all other work stated in the assembly instructions may only be planned, supervised and executed by foremen with suitable training and experience.
- Only deploy suitable, trained personnel for assembly, service work, conversions, maintenance, repairs and dismantling.
- Determine the responsibilities of personnel for assembly, service work, conversions, maintenance, repairs and dismantling in line with their qualifications and job descriptions.
- Provide personnel with the pertinent accident prevention and safety regulations and the Workplace Directive.
- Provide workers with the necessary personal safety equipment.
- Ensure that the following requirements are fulfilled:
 - The staff have read and understood these assembly instructions, especially the chapter „Safety instructions“.
 - The personnel knows the relevant accident prevention and safety regulations as well as the workplace directive.
 - The staff carries the personal protective equipment.

Assembly

- Ensure that all the checks and repair work prescribed in these assembly instructions are performed

Preparation

- Unpack all individual parts and check that they are complete (see section System overview and assembly).
- Check all individual parts for damage.
- Follow the assembly instructions

3.5 Structural changes, spare parts



Changes and conversions can endanger the operational safety of the product. These include:

- arbitrary structural changes to the product
- changes to the building structure which influence the safety of the product.

MUNK GmbH accepts no liability for damages suffered as a result of such.

Only MUNK GmbH itself, a service office authorised by it, or personnel it has authorised and trained are allowed to perform changes or conversions to the product.

- Only use original spare parts from MUNK GmbH.

3.6 Safety action at certain operational phases

3.6.1 Transport and assembly



Parts of the product falling from heights can cause fatalities or serious injuries.

- Ensure that only authorised personnel trained for the purpose are deployed for slinging loads, operating lifting gear and giving instructions.
- Deploy suitable lifting gear for loads.

There is an injury hazard and a crushing hazard when mounting and aligning the product on the building structure.

- Keep people at a safe distance during assembly.
- Ensure a secure base when erecting the product parts.
- Do not subject the product parts (e.g. ladders, transfer points, platforms) to loads until they have been fully assembled and checked for secure fastening.

3.6.2 Assembly



- Check that the delivery is complete. Inspect all parts for damage, sort out any damaged components.
- Before starting assembly, have the following points checked by an expert for adequate stability and ensure that the on-site conditions allow safe assembly:
 - The construction and support works (steel structures) and the base (concrete or stone) must have sufficient bearing capacity.
- Only use dowel pins or fasteners with general construction approval. If necessary, get in touch with the producer of the dowel pins. Observe the producer's instructions for use.
- When selecting the dowel pins, observe the load specifications for the individual retainers and wall anchors.
- If assembly aids (e.g. scaffolds, cranes etc.) are deployed, read and observe the relevant instructions for their operation and use.
- Mount either falling protection or a fall stop. Do not mount falling protection and a fall stop together on one ladder.
- In the case of emergency ladder systems with emergency exit ladder, the condition of the contact surface must ensure that the rungs of the extended ladder section and the lowest ladder segment are at the same height for the entire service life of the ladder system.
- Proper installation must be carried out individually for each construction project as well as checked and inspected by a responsible expert for stability during and after installation. A test report must be drawn up for this purpose.

3.6.3 Normal operation



Operator

- Instruct users in the correct use of the product on a regular basis, although at least once per annum.
- Do not deploy the product unless it is in a safe and properly functional state.
- Do not use the product unless all protective fittings are in place and are functioning correctly.
- Ensure that the product cannot be used by unauthorised persons.
- The product may only be used with personal protective equipment, helmet, gloves and safety shoes.
- The product may only be used by specially instructed personnel.
- The operator must specify the quantity of fall arresters required. However, there must be at least two fall arresters.
- The product must not be used with incompatible fall arresters, but only with fall arresters from Munk GmbH. Otherwise there is a risk of falling.

User

- Each time before using the product, make a visual check to ensure that it is in good condition, check the safety equipment in particular.

3.6.4 Deficiencies



- Do not use the product if safety equipment or parts of the product are damaged or if indications of damage are apparent.
- In case of functional deficiencies or damage to parts of the product, stop the product being used immediately and block off access to it.
- Sort out damaged parts of the product and replace such with original spare parts. Rectify any damage to the product and deficiencies in its proper functioning immediately.

3.6.5 Inspections and maintenance



- Have the product inspected by a capable person to confirm its faultless state and safe functioning in line with the conditions of deployment and as required by the operational situation, although at least once per annum.
- Document inspections and their findings. Checklists can be called up at www.steigtechnik.de.
- Note the inspection stickers on the product and renew these after an inspection.

4 Inspections, repairs, cleaning, disposal

4.1 Inspections

Annual inspection

- Have the product inspected by a capable person to confirm its faultless state and safe functioning in line with the conditions of deployment and as required by the operational situation, although at least once per annum.
- Document inspections and their findings. Checklists can be called up at www.steigtechnik.de.
- Note the inspection stickers on the product and renew these after an inspection.

4.2 Repairs

- Replace damaged components with original spare parts.
- Do not use spare parts which have not been approved for the product by MUNK GmbH.

4.3 Cleaning and care

- Clean away soiling with suitable substances which preserve the material.
- Do not use any acids or lyes which could attack surfaces.
- Treat damaged surfaces with anti-corrosion agents.
- Lubricate moving parts of the ladder, hinges and safety barriers with suitable lubricants.

4.4 Disposal

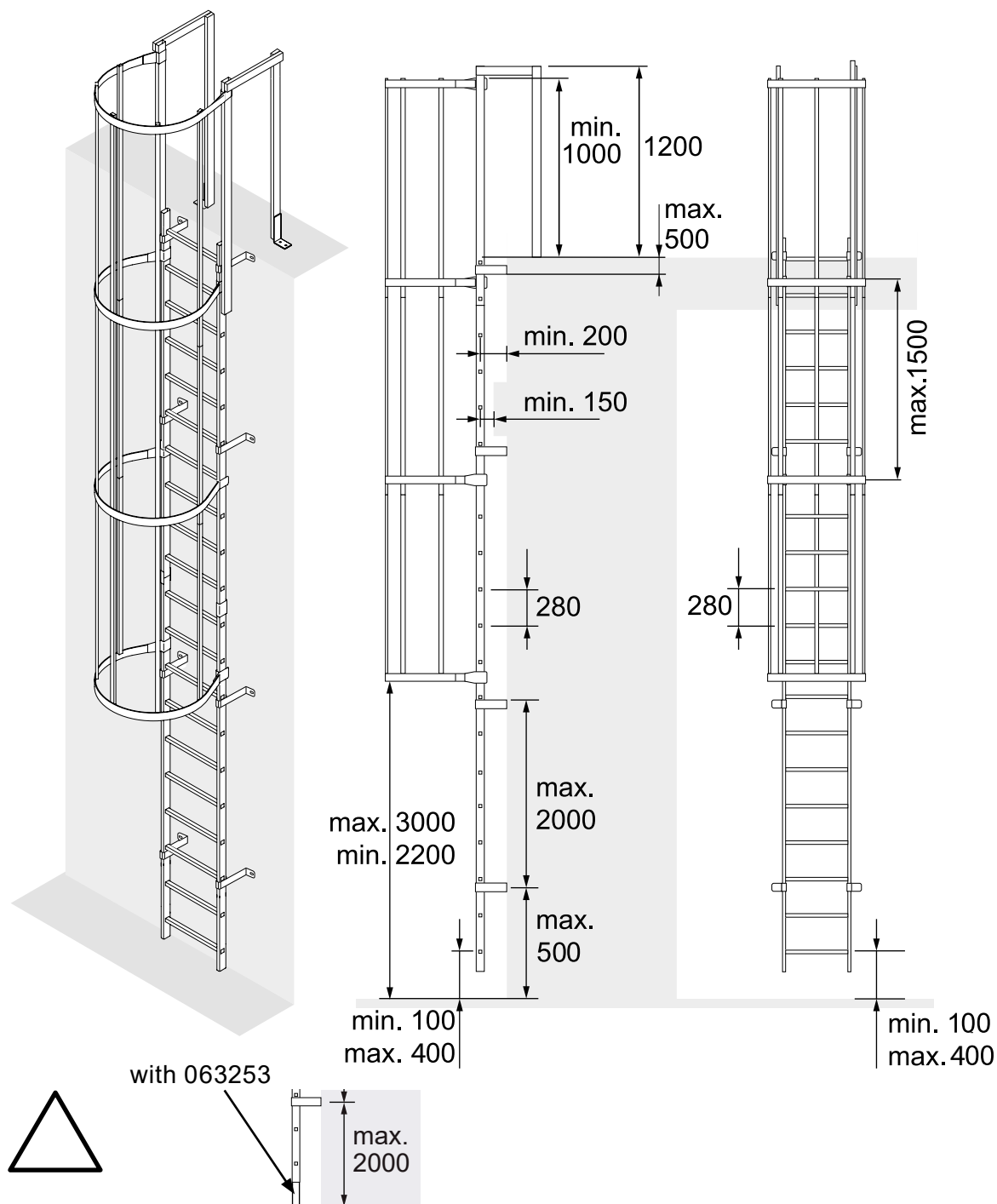
- Undertake the following steps before disposing of the product:
 - Cordon-off access to the product.
- Dismantle the product properly and dispose of it in accordance with the regional regulations.
- Observe the rules and regulations for disposing of metals.

5 Vertical ladders

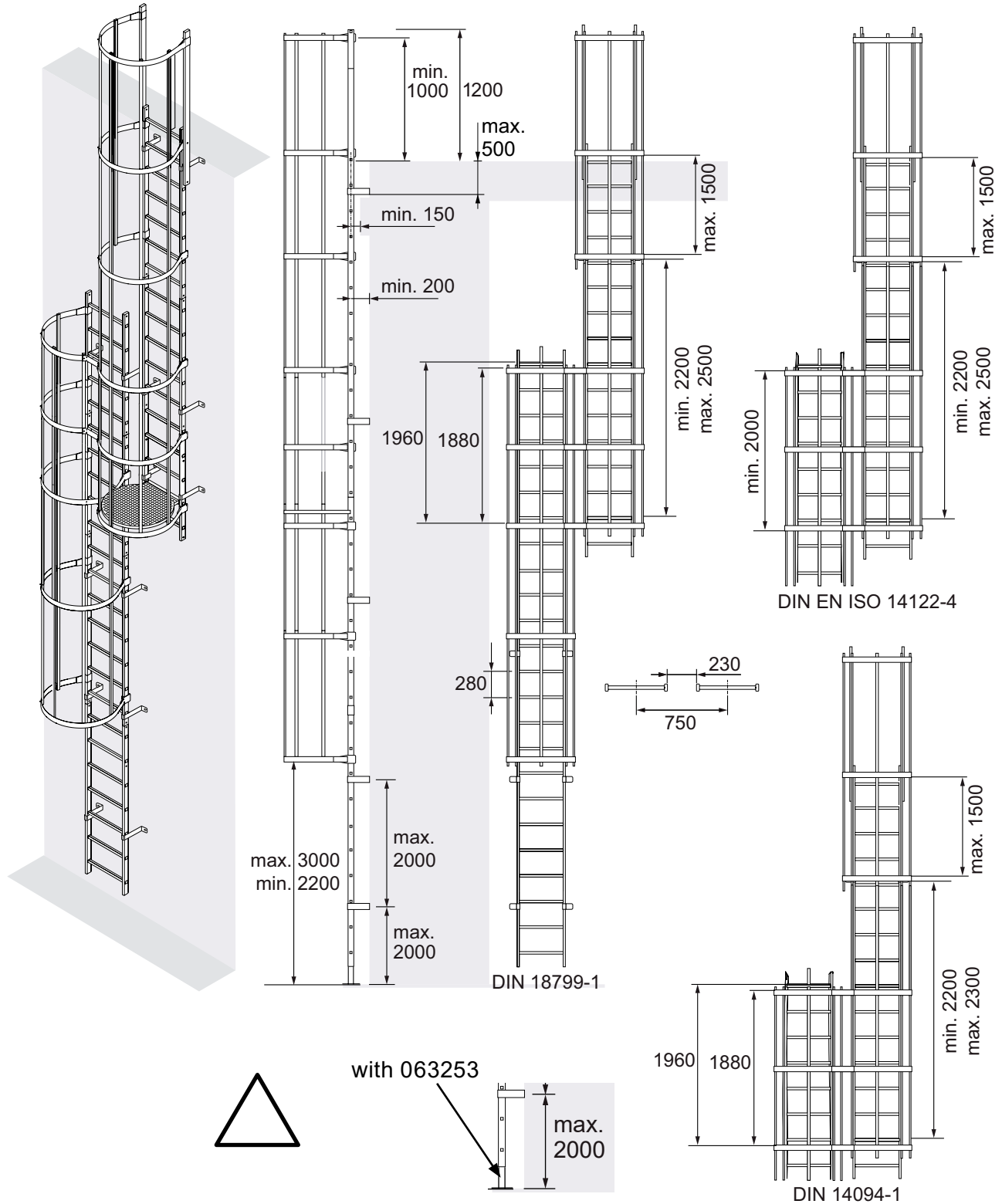


In order to ensure the requested stability, the vertical braces of the ladder cage have to be connected with at least two ladder cage braces.

5.1 System dimensions, single track

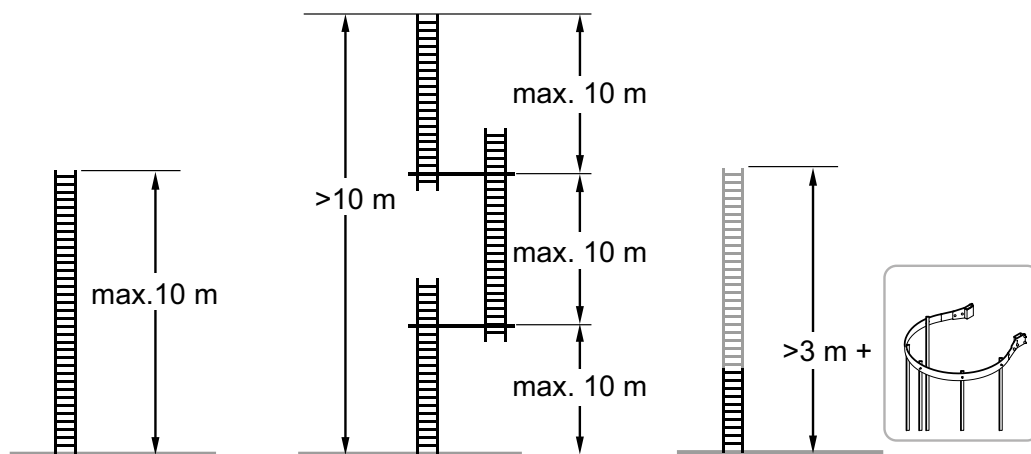


5.2 System dimensions, dual track

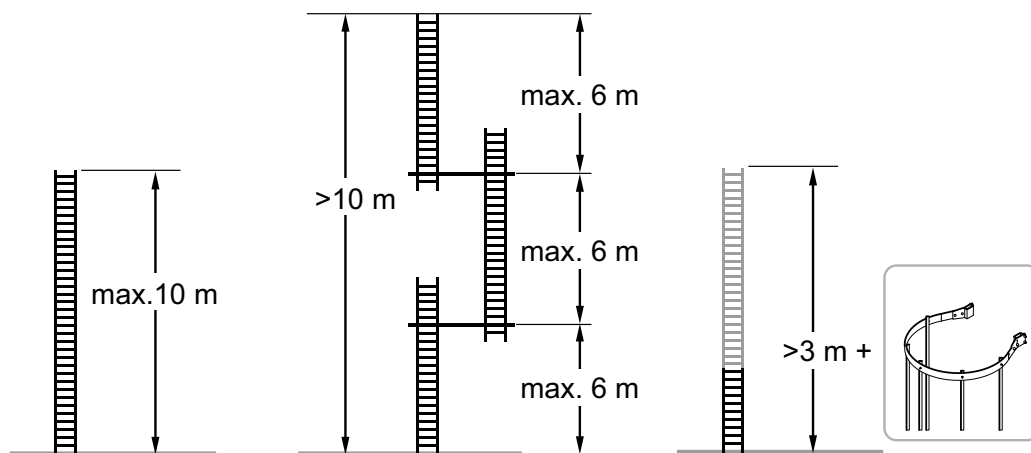


5.3 System dimensions, as per DIN/DIN EN ISO

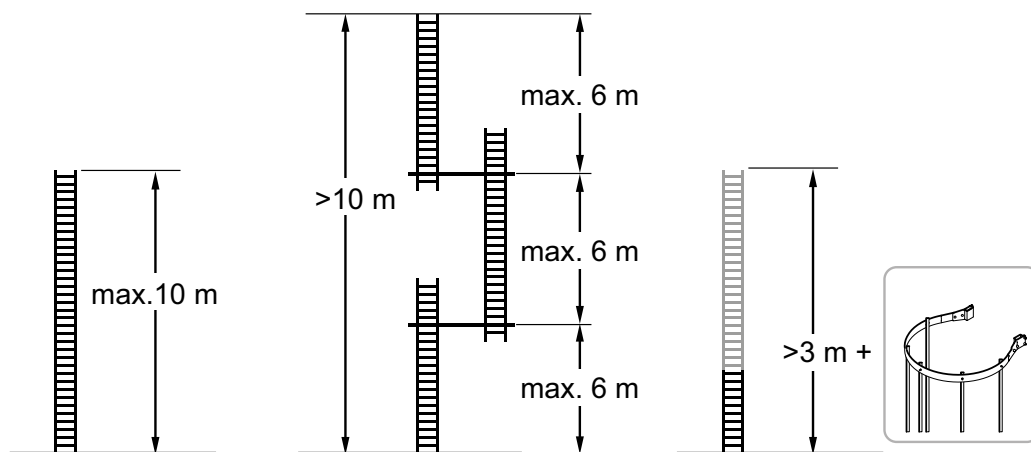
DIN 18799-1



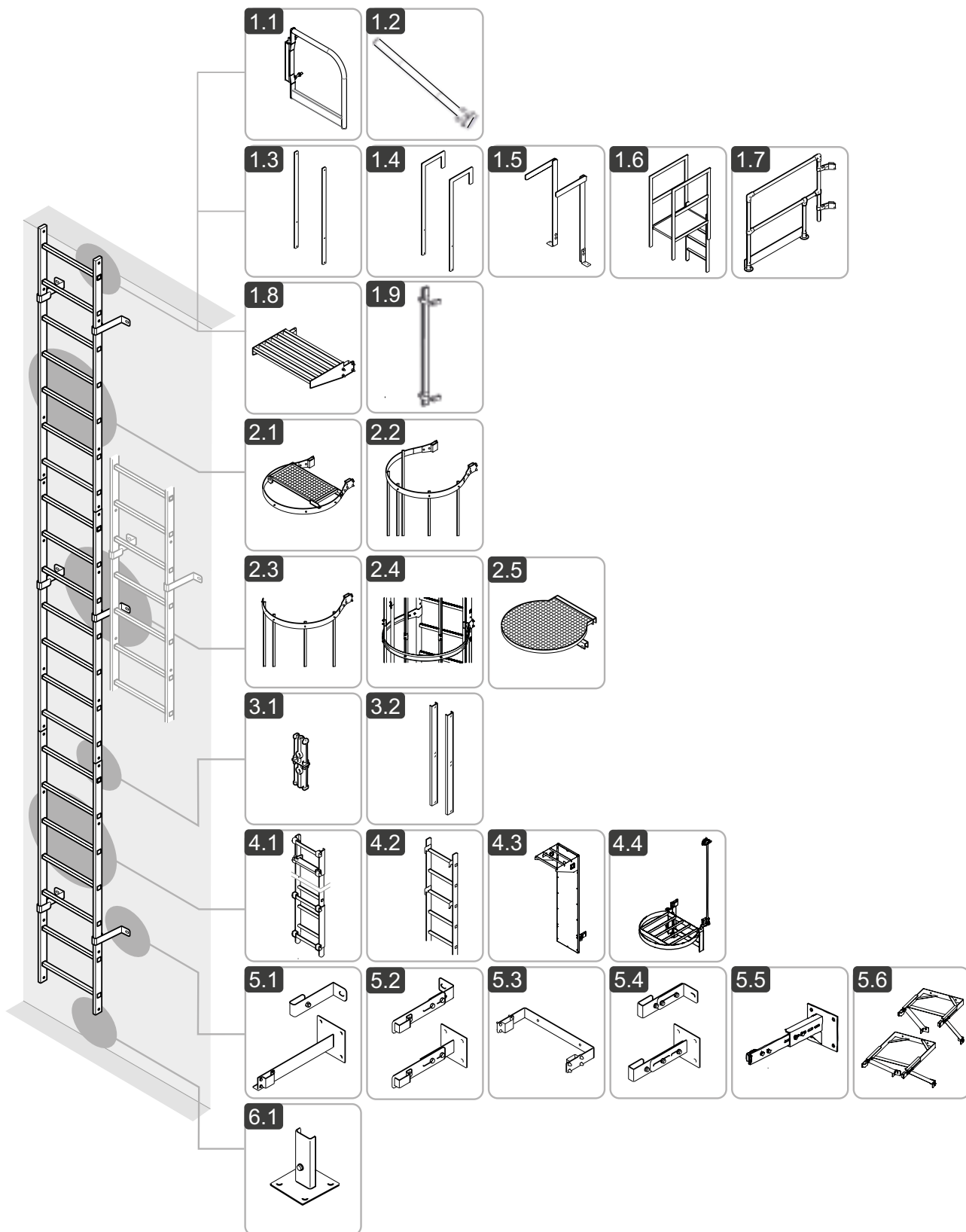
DIN 14094-1



DIN EN ISO 14122-4

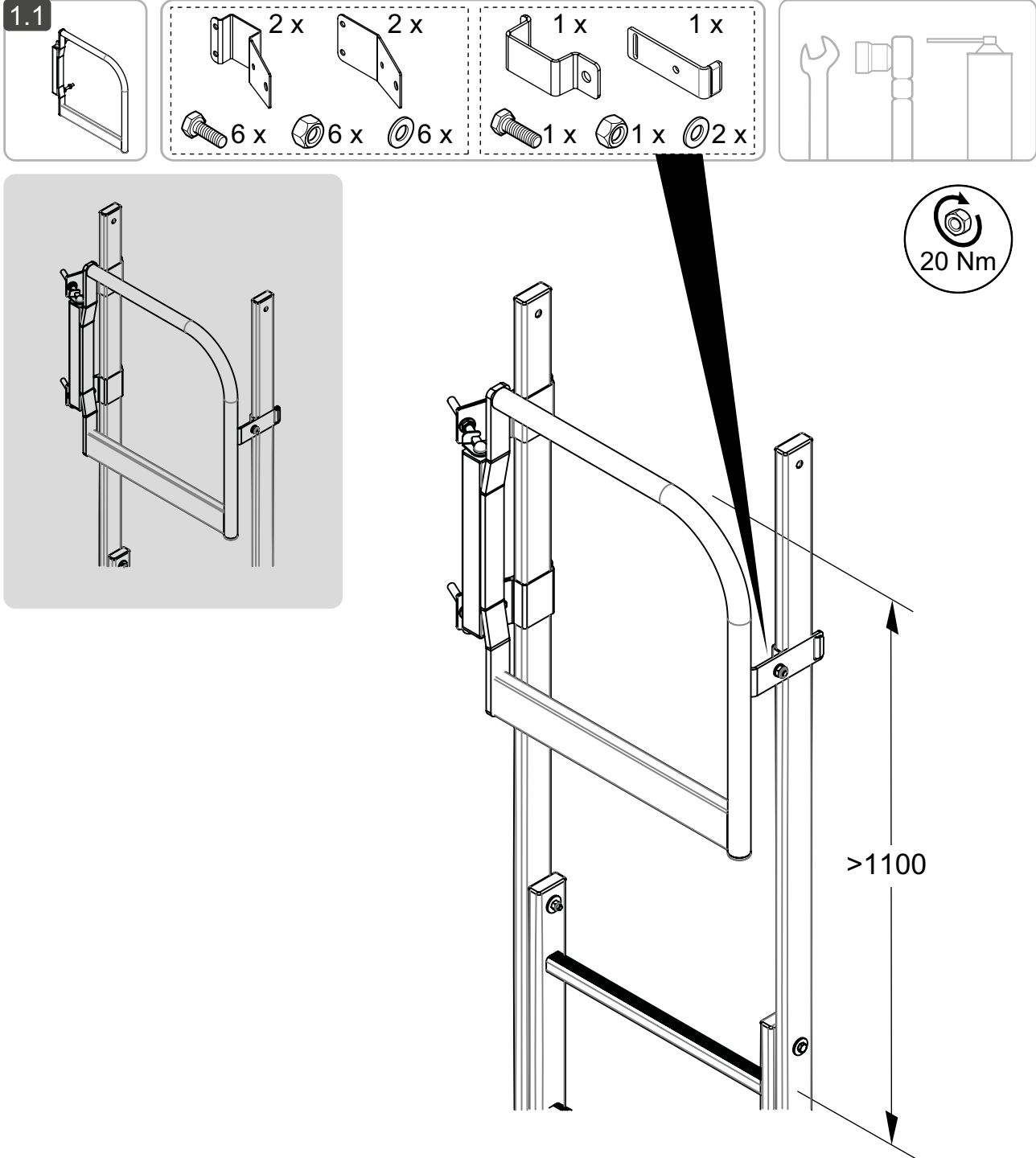


5.4 System overview and assembly

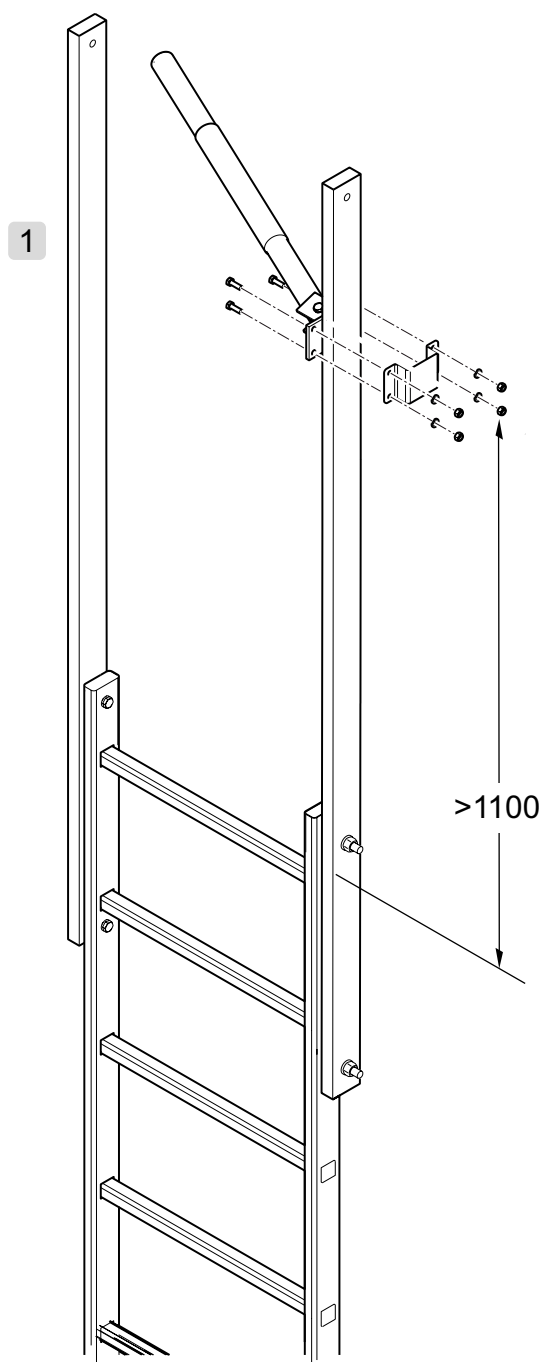
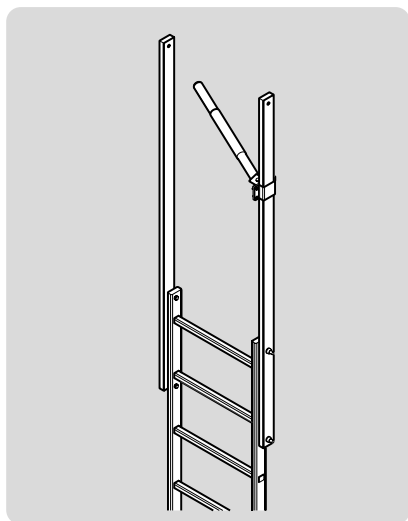
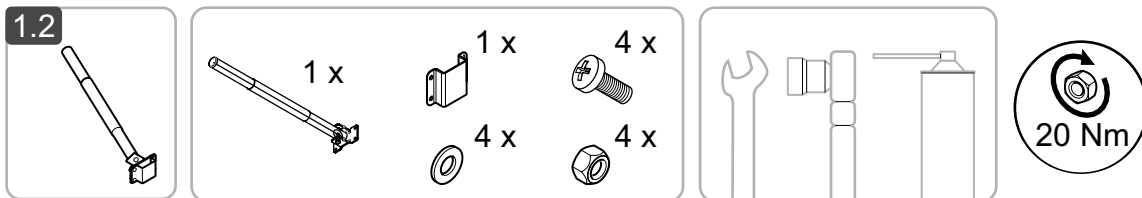


5 VERTICAL LADDERS

Safety door (Order No. 63502)



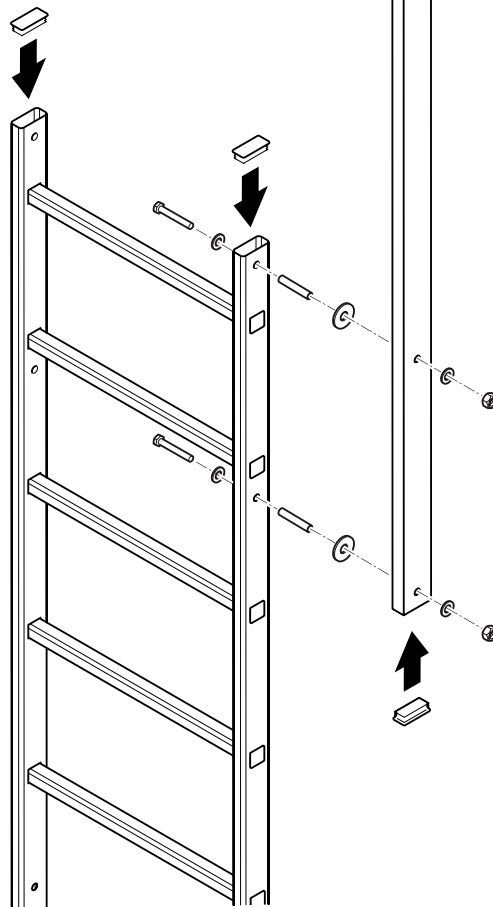
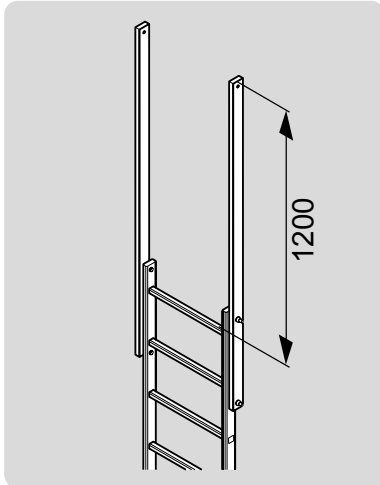
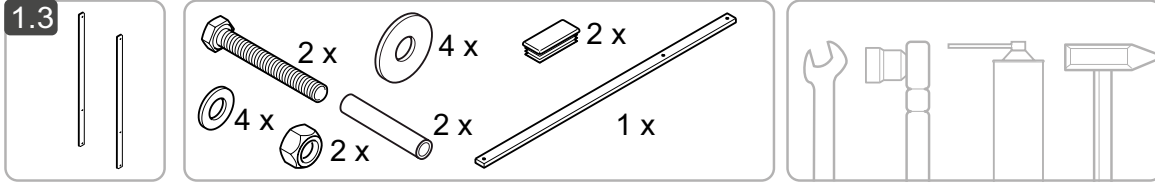
Safety barrier (Order No. 63500)



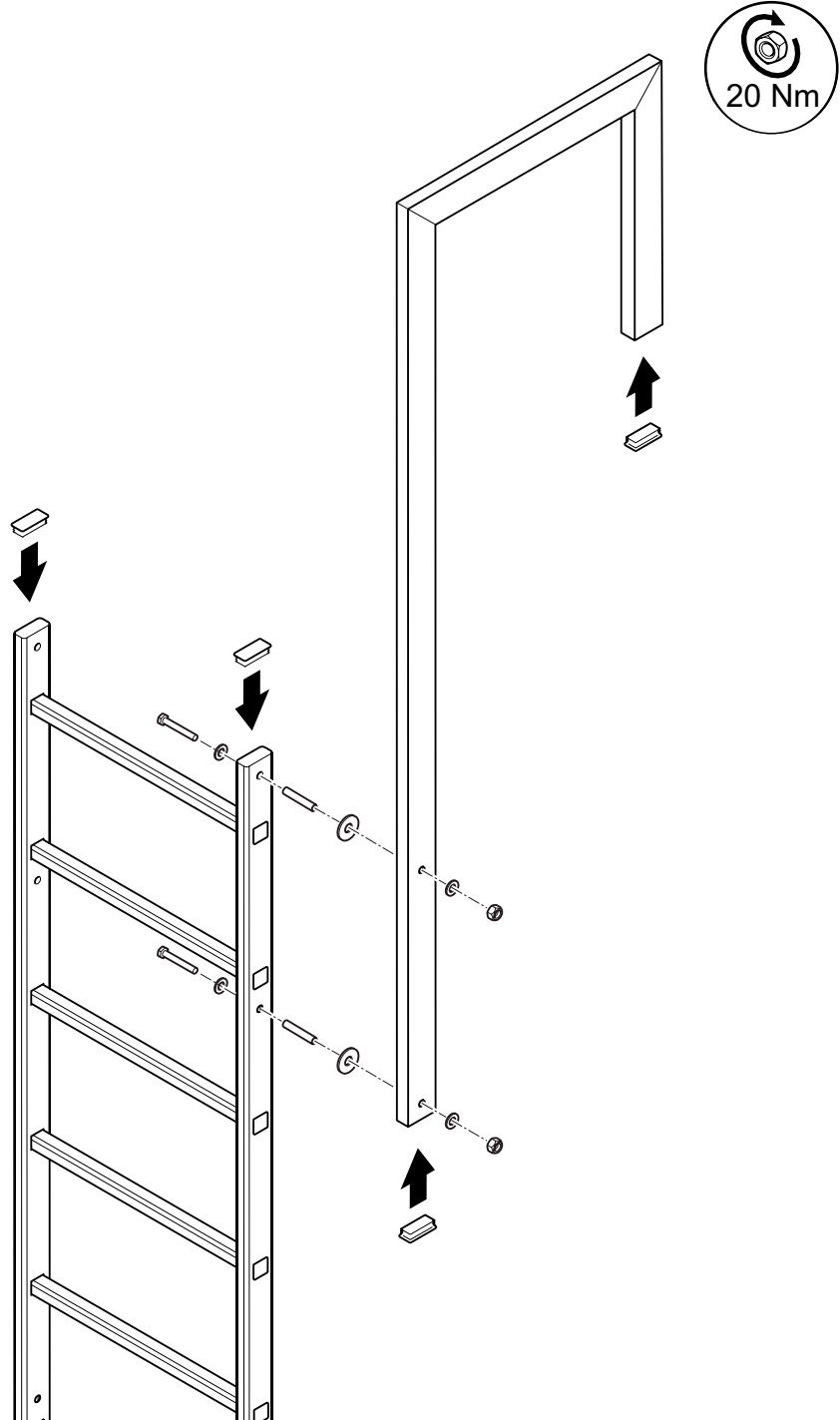
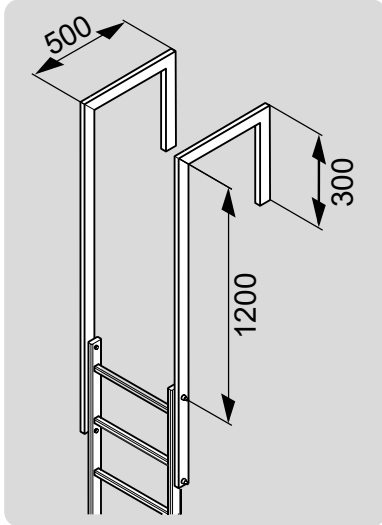
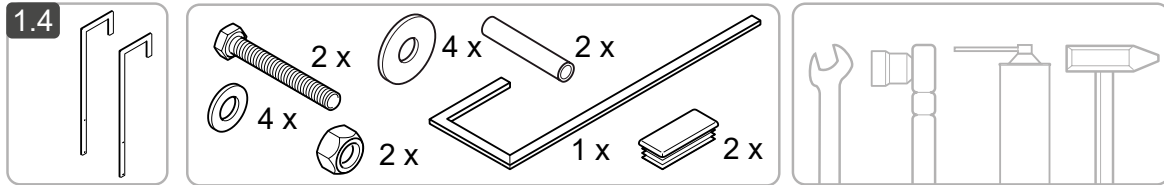
5 VERTICAL LADDERS

Exit stile (Order No. 61243, 62243, 63243, 68243)

1.3

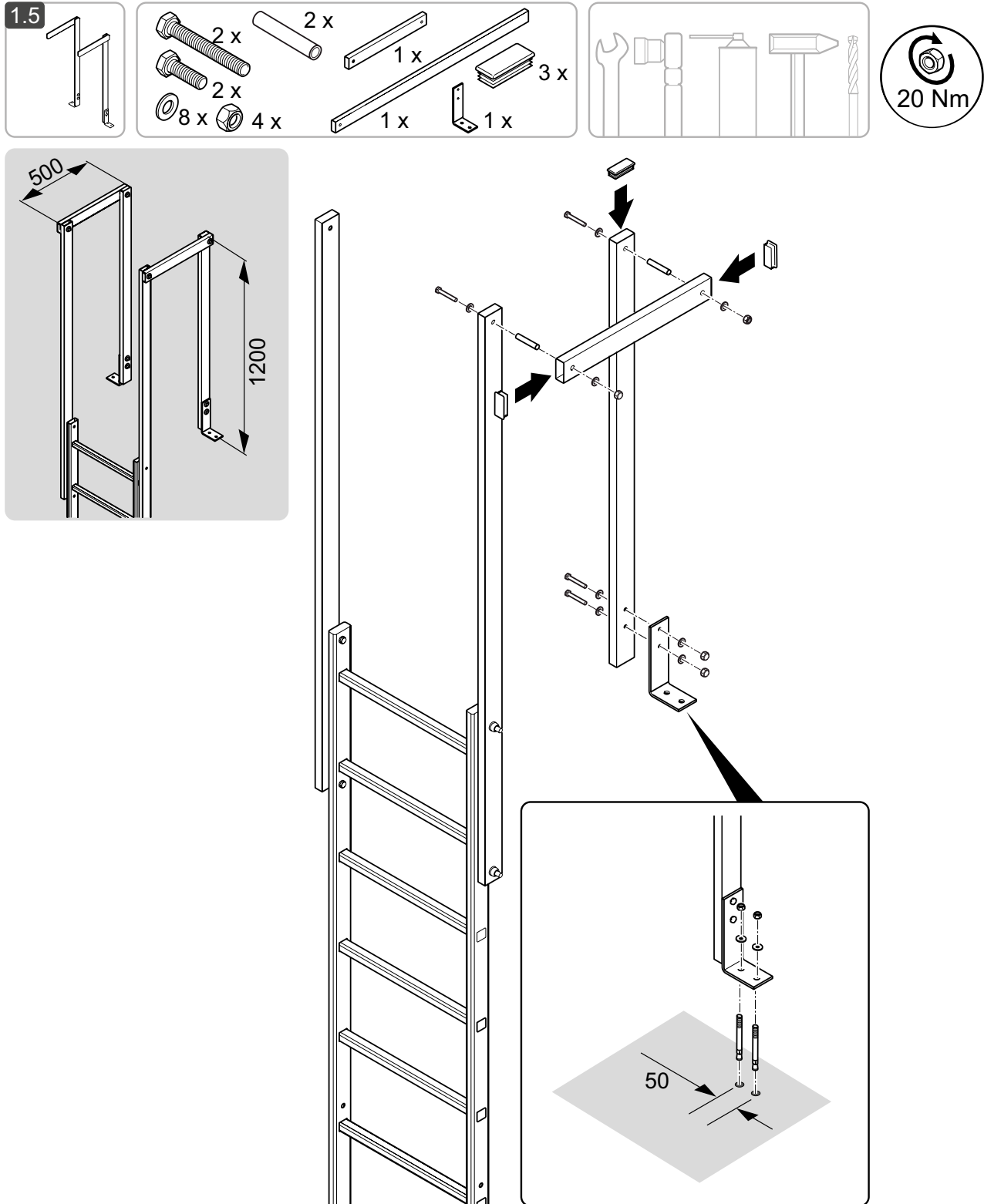


Exit railings (Order No. 61049, 62049, 63049, 68049)

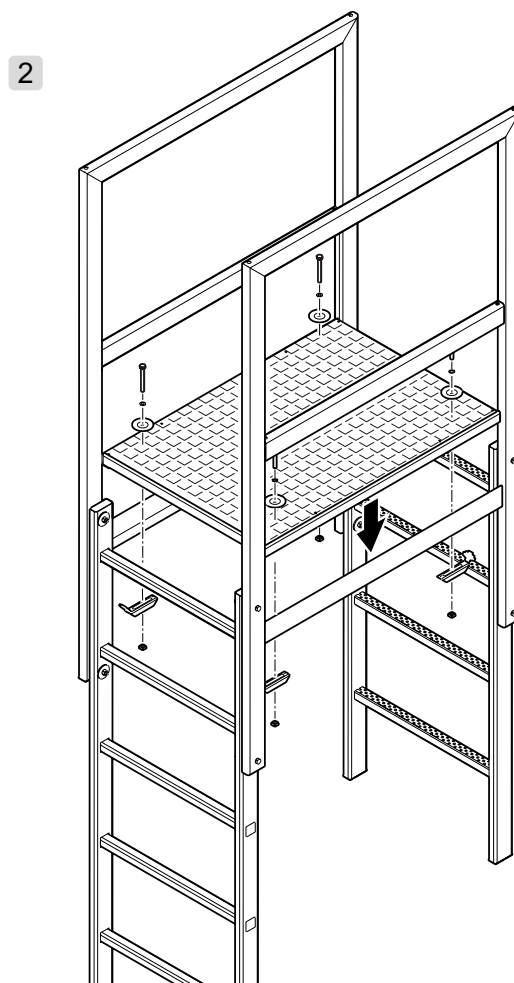
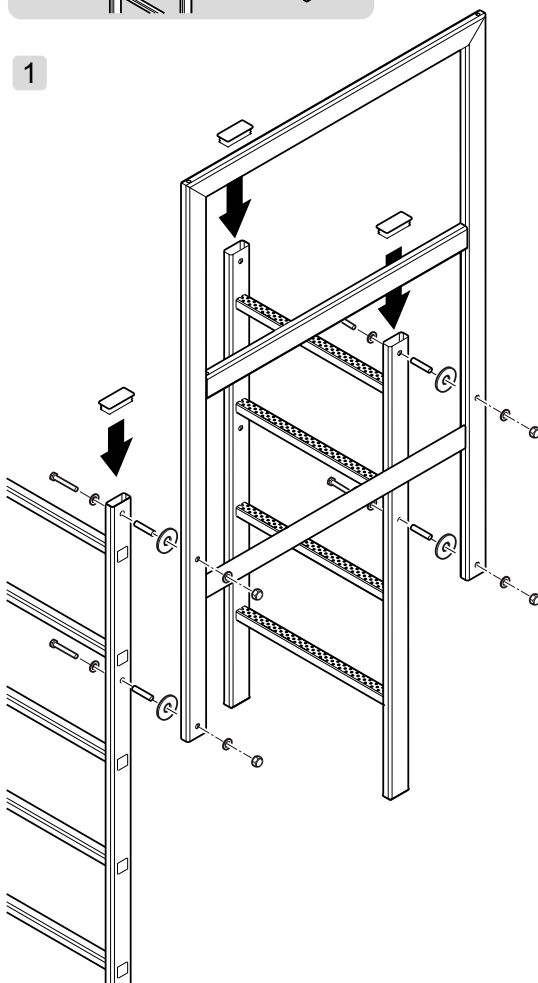
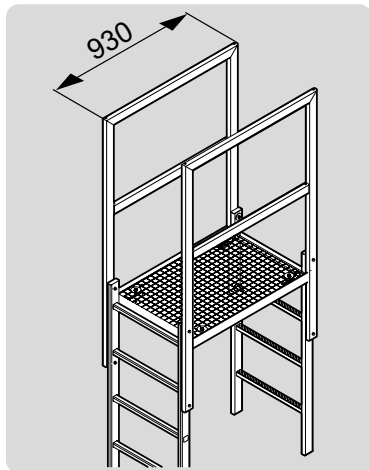
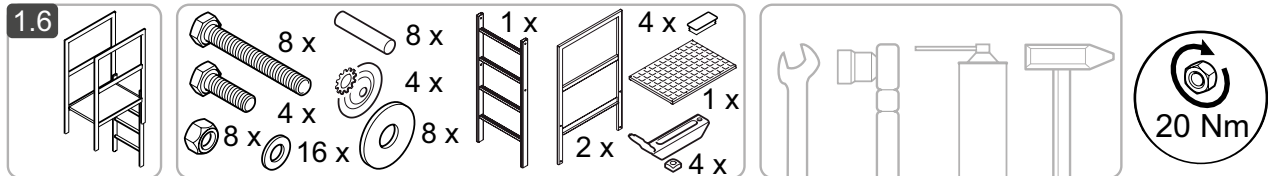


5 VERTICAL LADDERS

Exit railings with base angle (Order No. 61248, 62248, 63248, 68248)

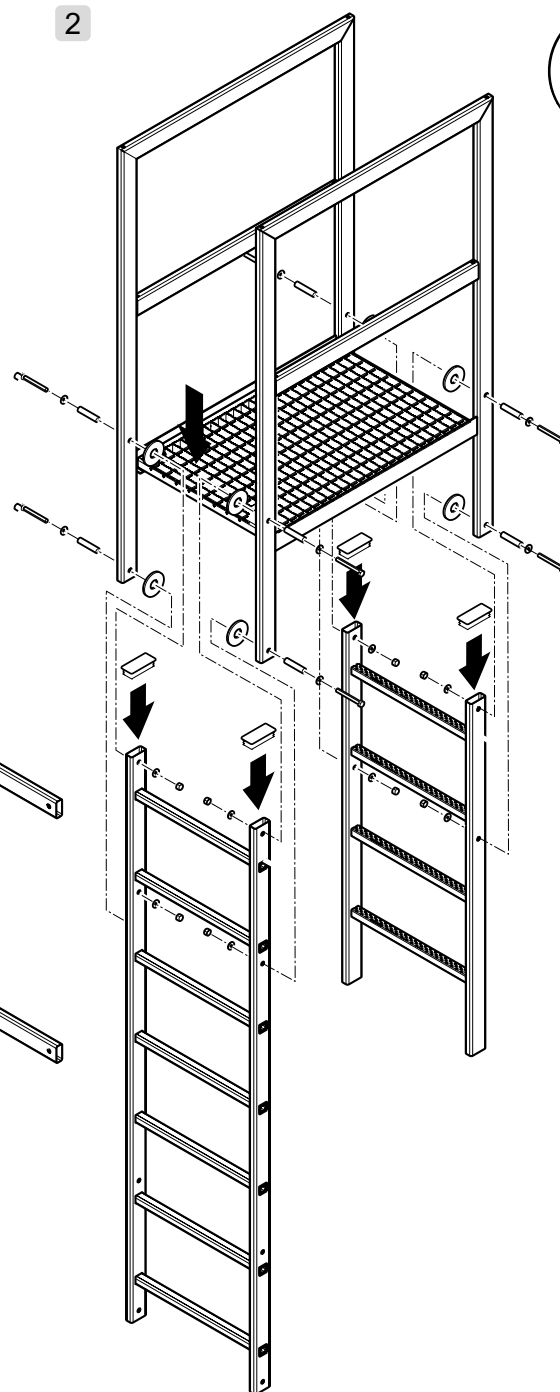
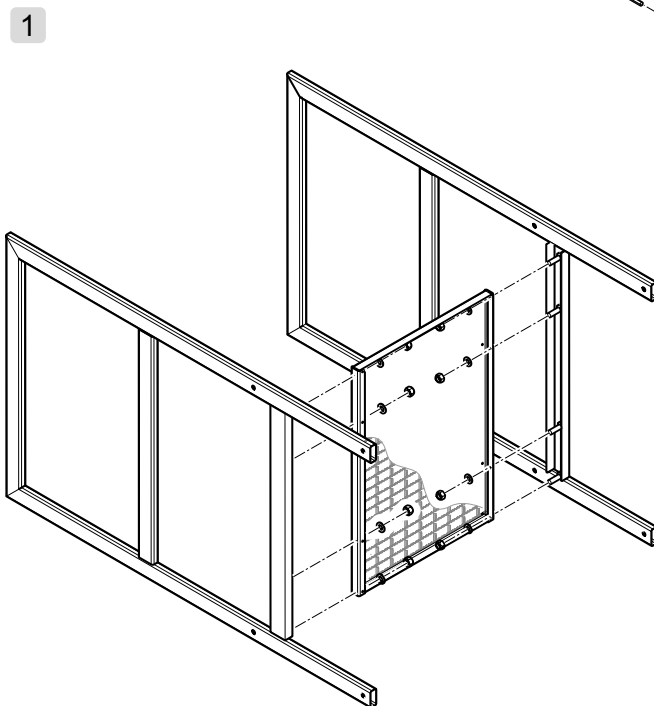
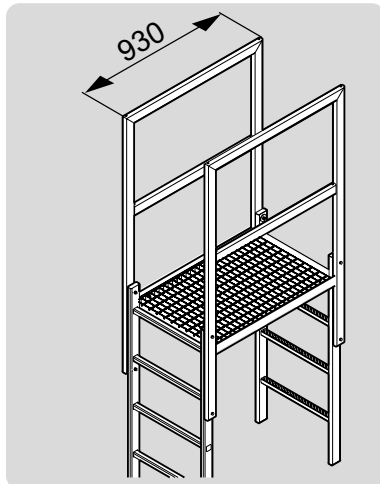
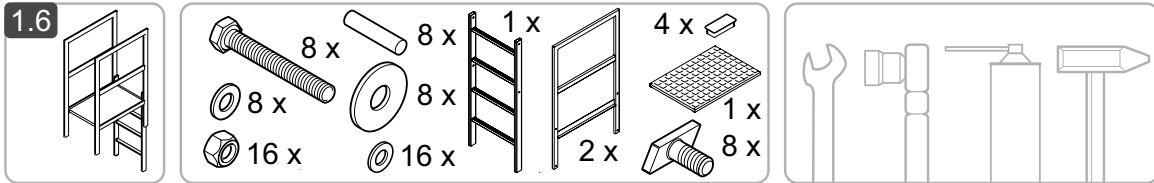


Attica top, steel (Order No. 63181, 63182, 63183, 63184, 63185, 64182, 64183, 64184, 64185, 68181)

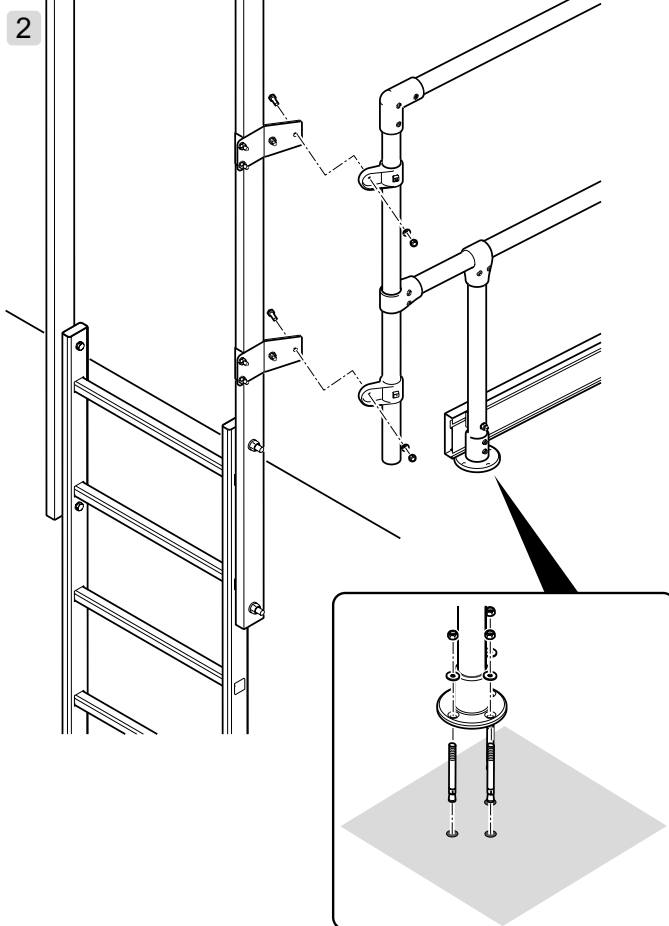
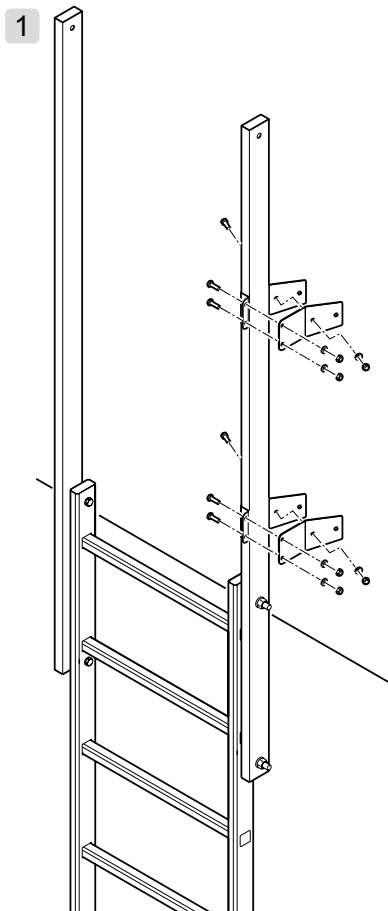
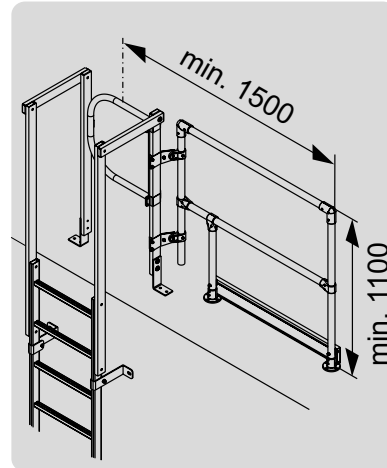
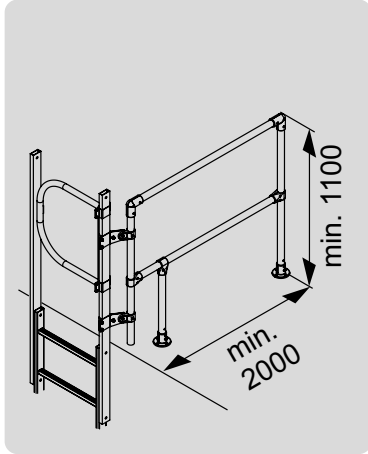
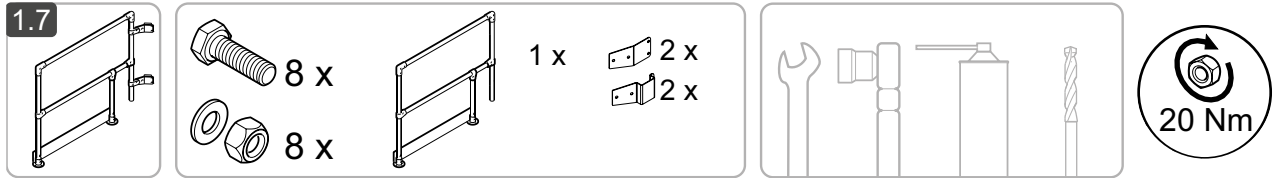


5 VERTICAL LADDERS

Attica top, aluminium (Order No. 61181, 62181)



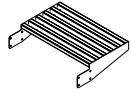
Side exit railings (Order No. 60981)



5 VERTICAL LADDERS

Exit step (Order No. 62966, 62967, 62968, 62969, 62970, 63966, 63967, 63968, 63969, 63970, 64966, 64967, 64968, 64970)

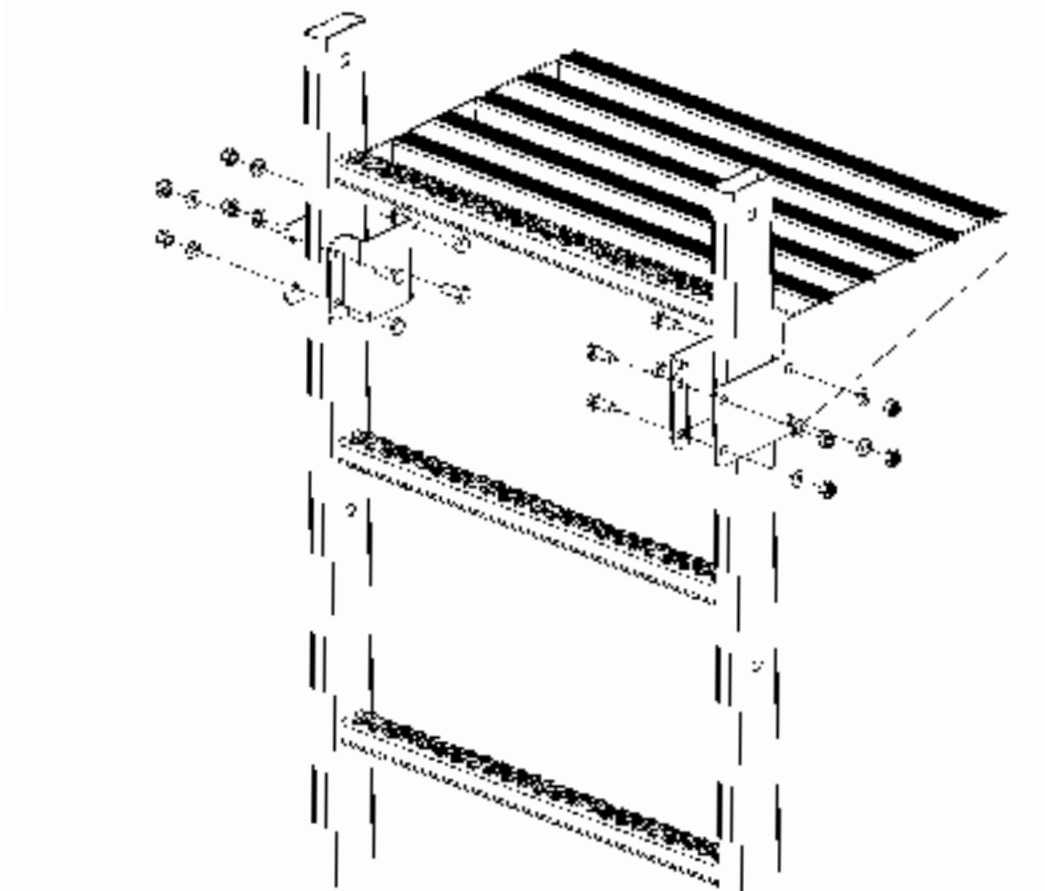
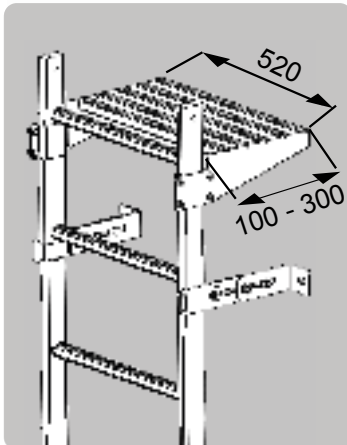
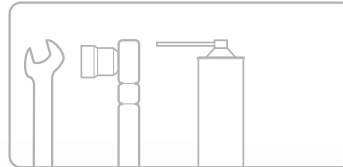
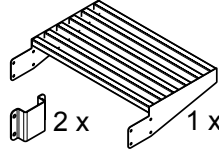
1.8



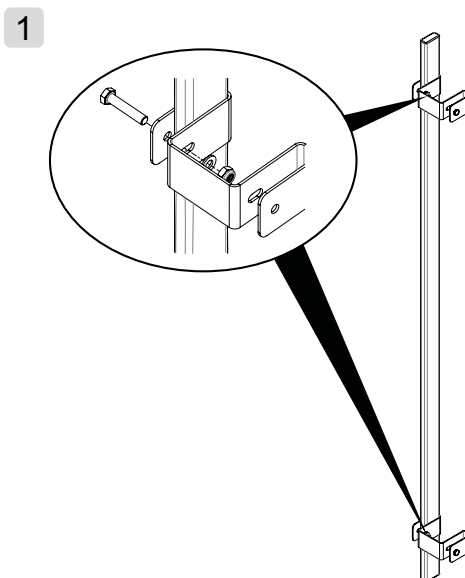
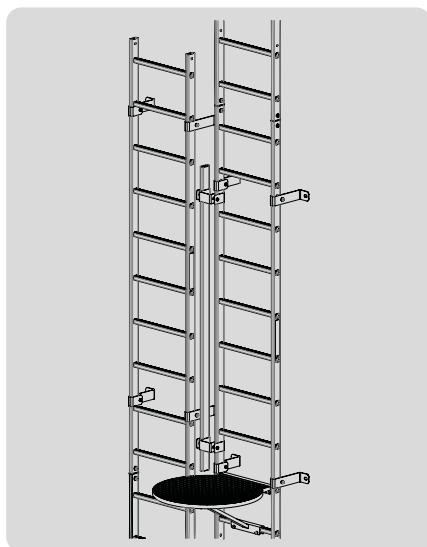
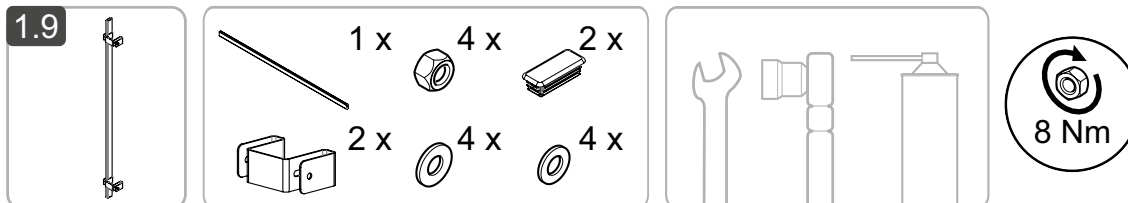
8 x



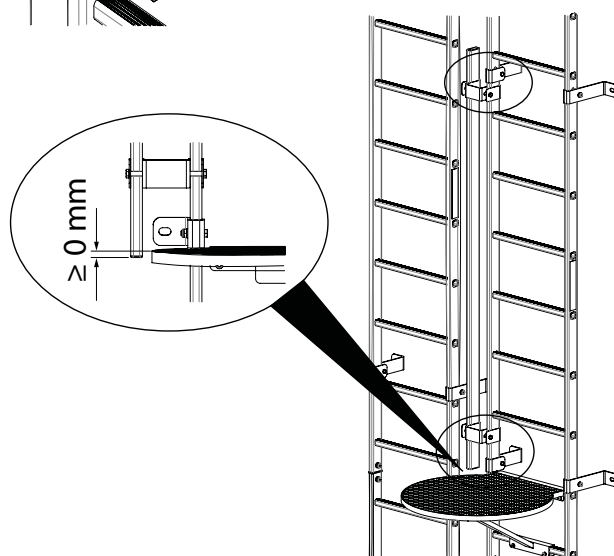
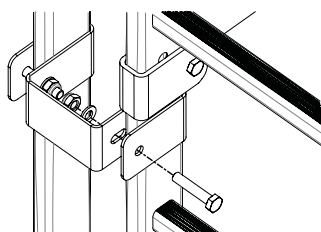
8 x



Safety strut (Order No. 61274, 62274, 63274, 68274)



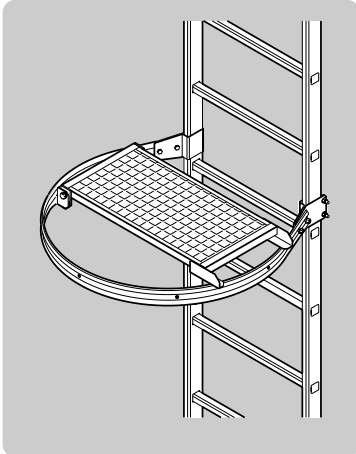
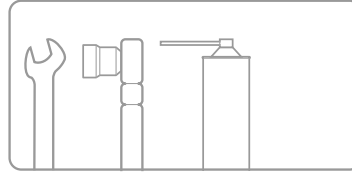
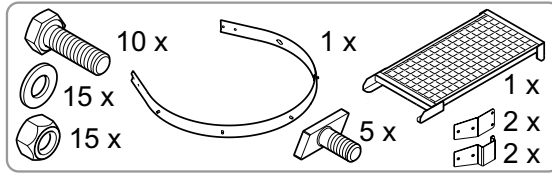
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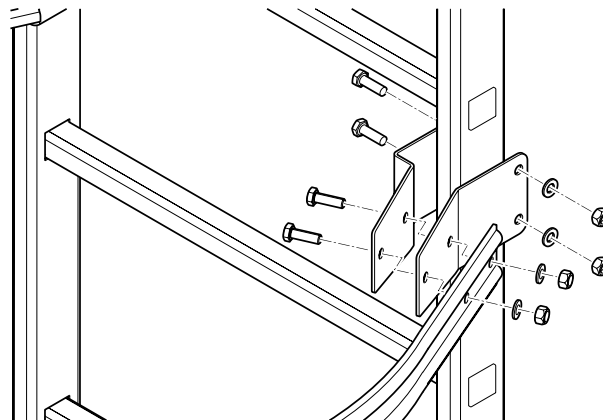
5 VERTICAL LADDERS

Intermediate platform, foldable (Order No. 61960, 62960, 63960, 68960)

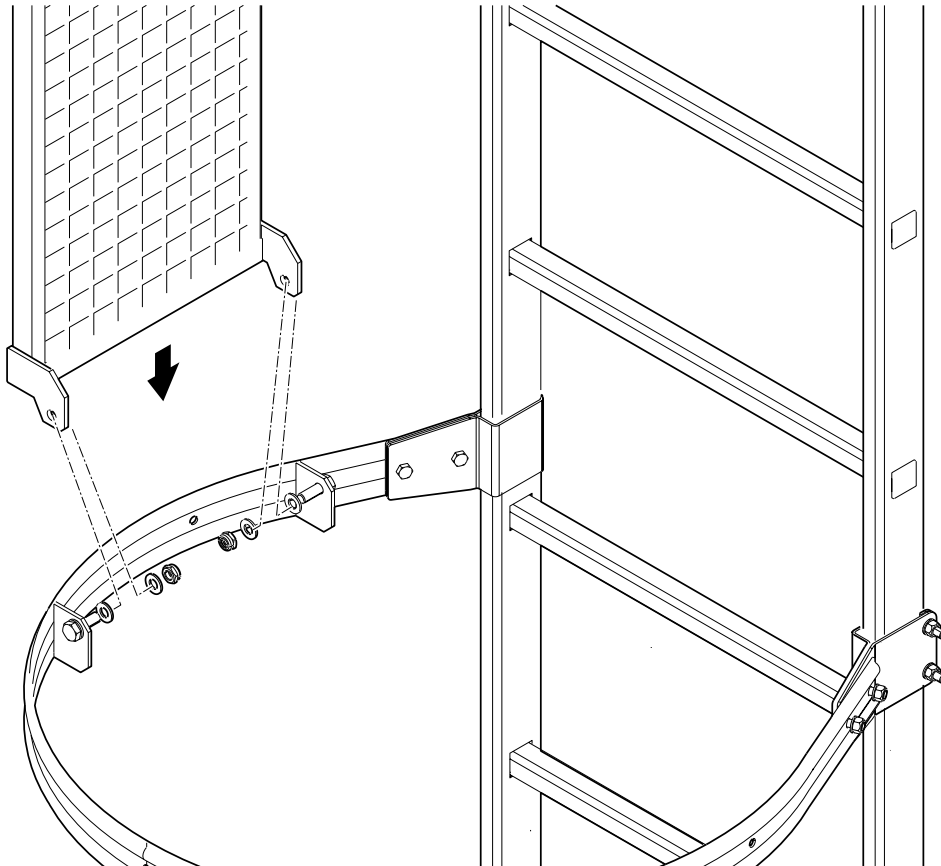
2.1



1



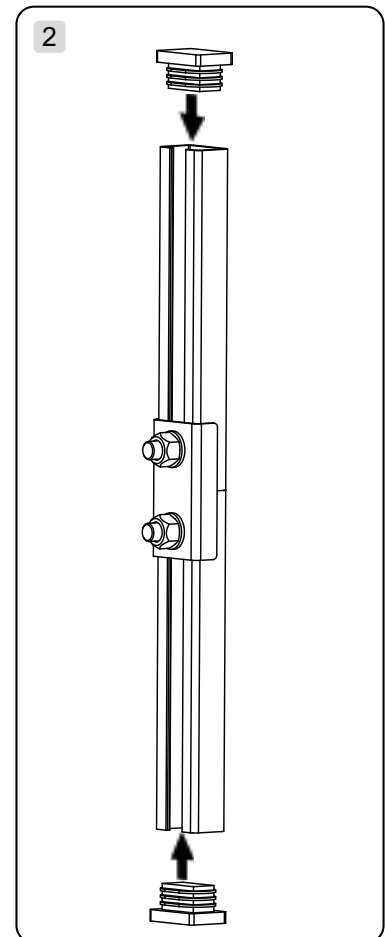
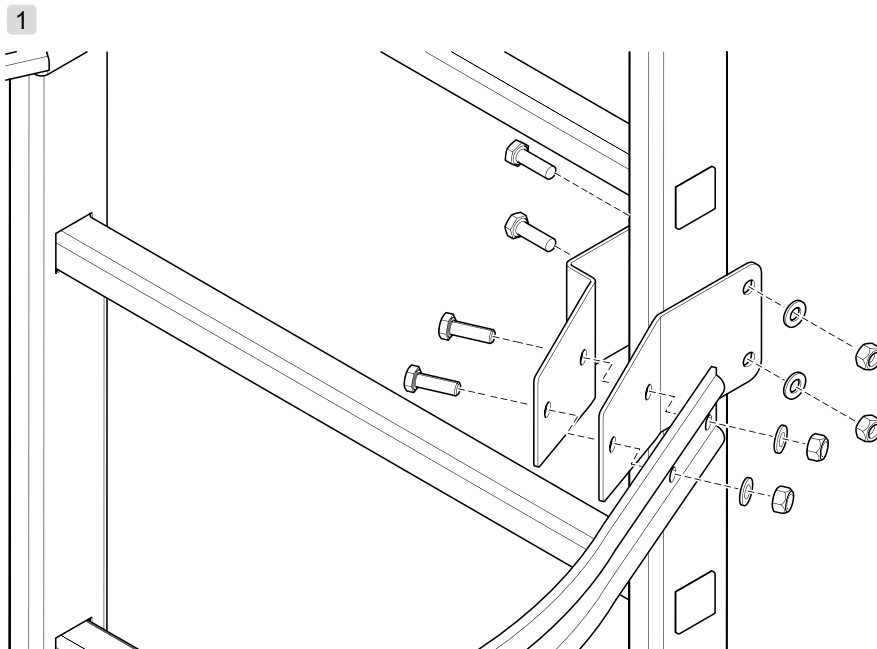
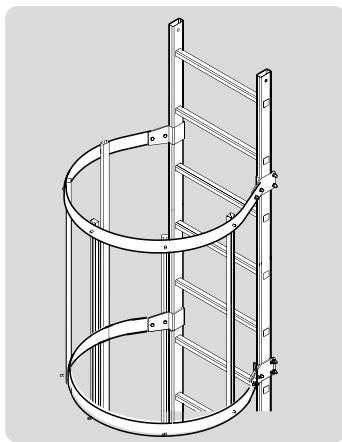
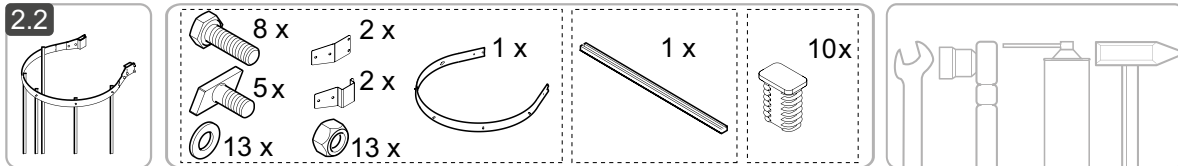
2



Falling protection bracket (Order No. 61234, 62234, 63234, 68234)

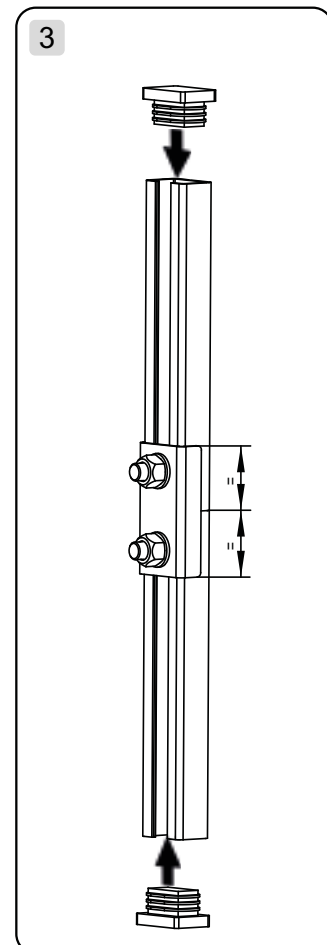
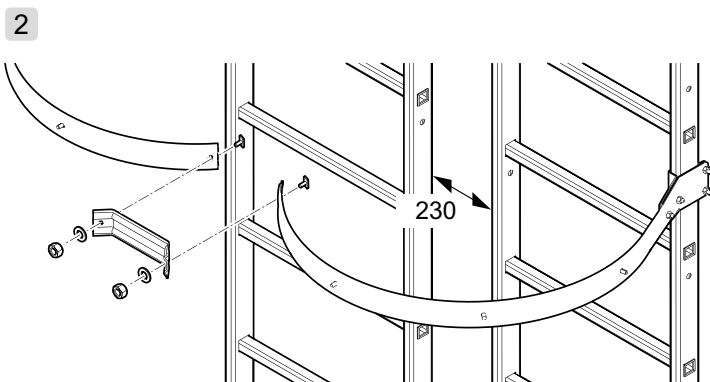
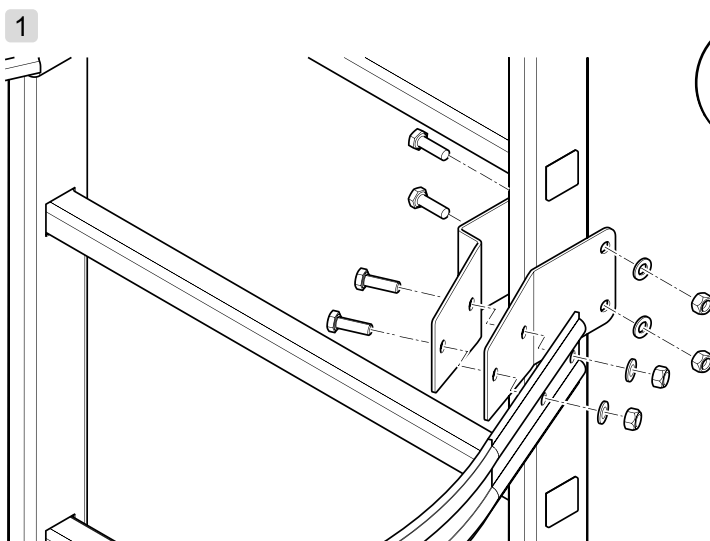
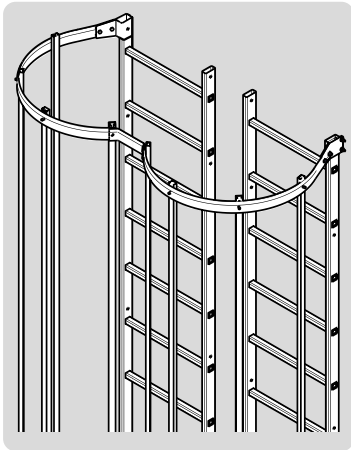
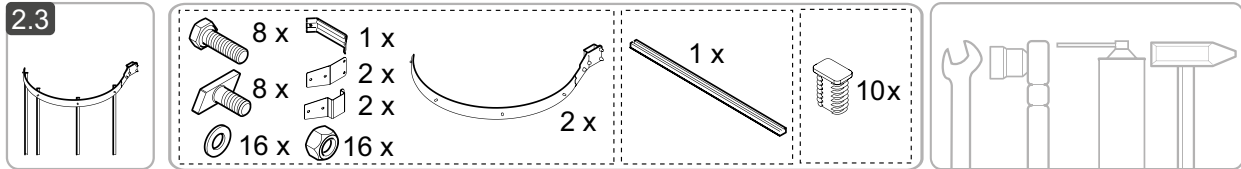
Falling protection brace (Order No. 61235, 62235, 63235, 68235)

End cap Back protection strut (Order No. 60959)



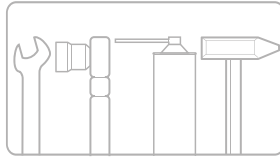
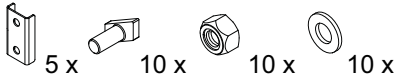
5 VERTICAL LADDERS

Falling protection bracket, offset (Order No. 61963, 62963, 63963, 68963)
End cap Back protection strut (Order No. 60959)



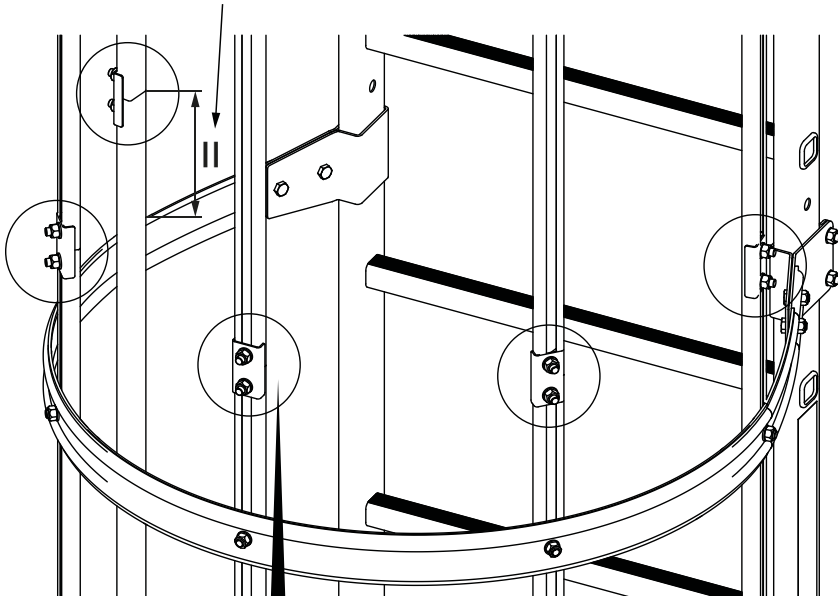
C-connector back guard struts (Order No. 68238)

2.4

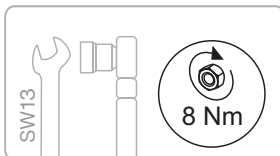


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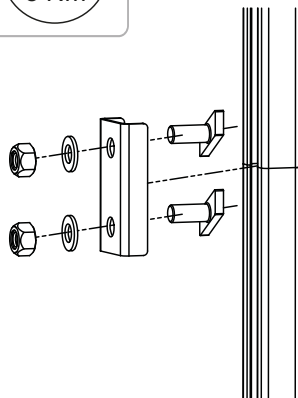
frei wählbar / freely selectable



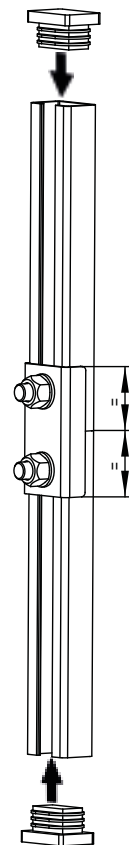
2



5x



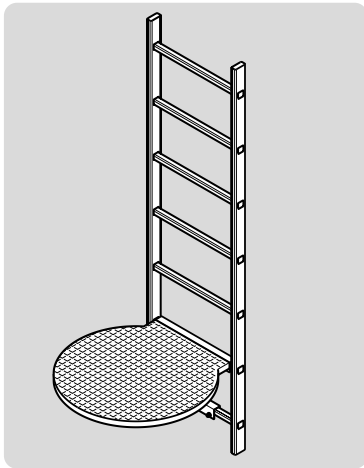
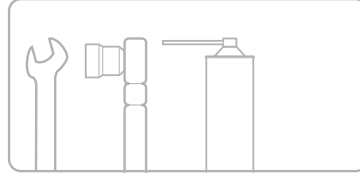
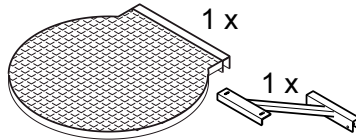
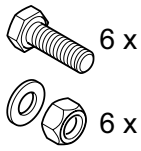
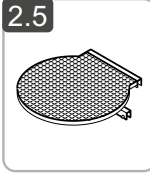
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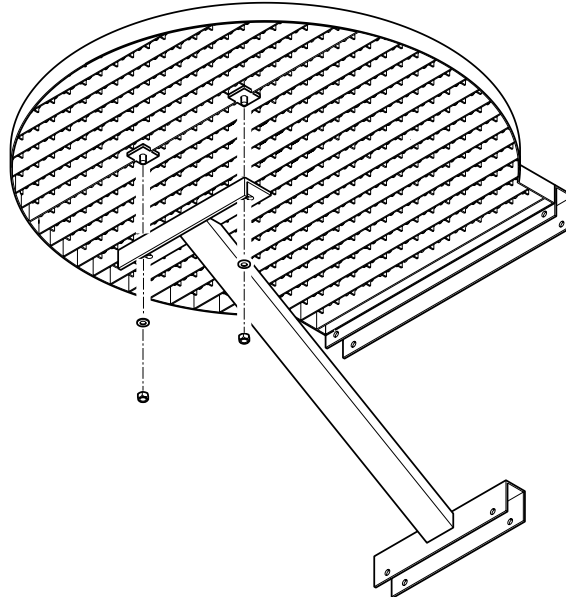
5 VERTICAL LADDERS

Transfer platform (Order No. 63961, 68961)

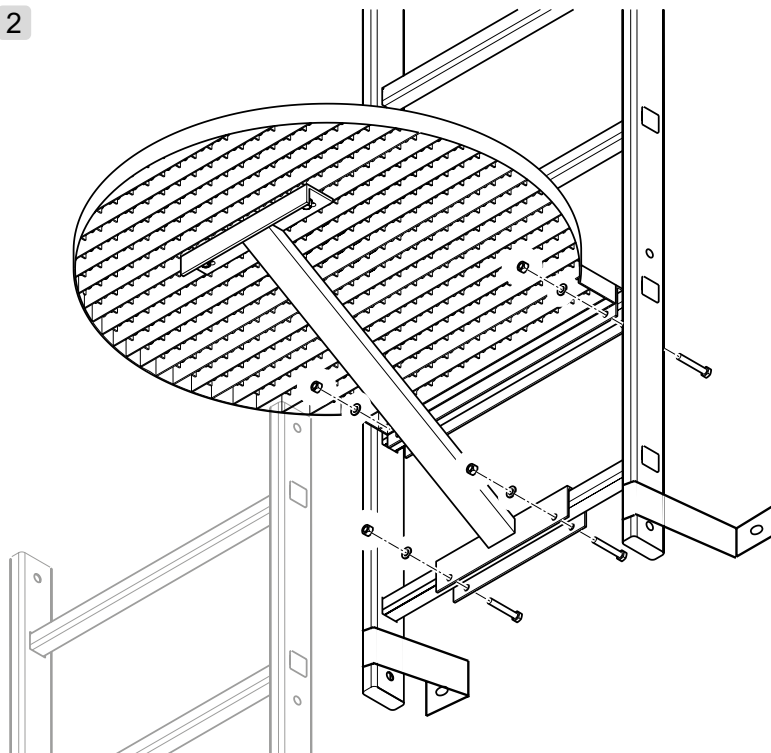
2.5



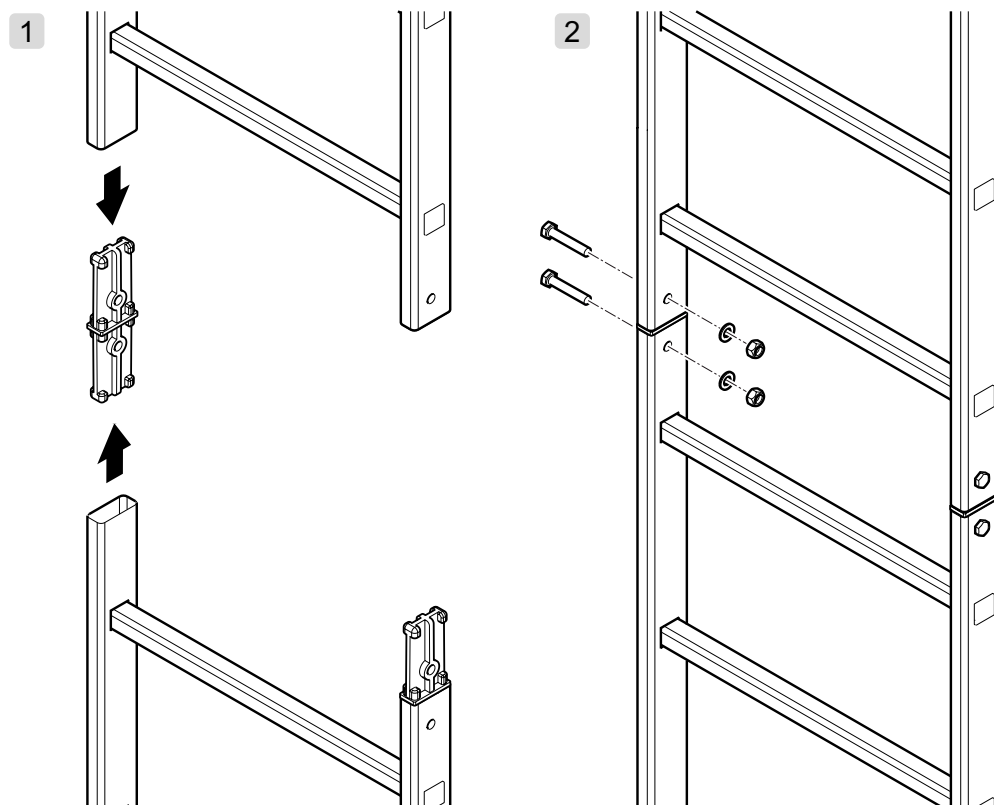
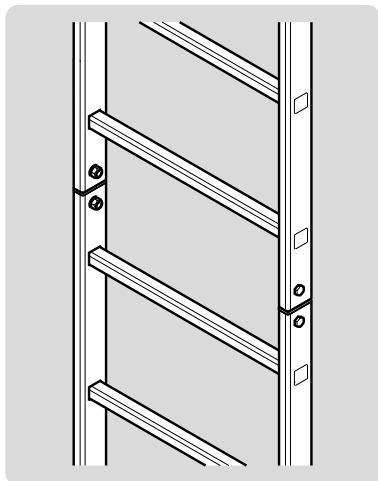
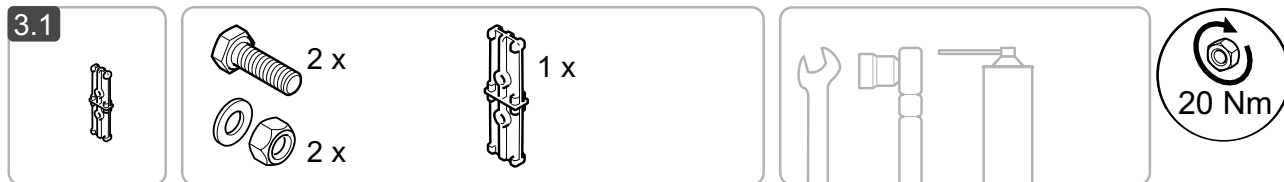
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2



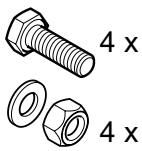
Vertical ladder connector (Order No. 61236, 68236)



5 VERTICAL LADDERS

Connection brace (Order No. 68239)

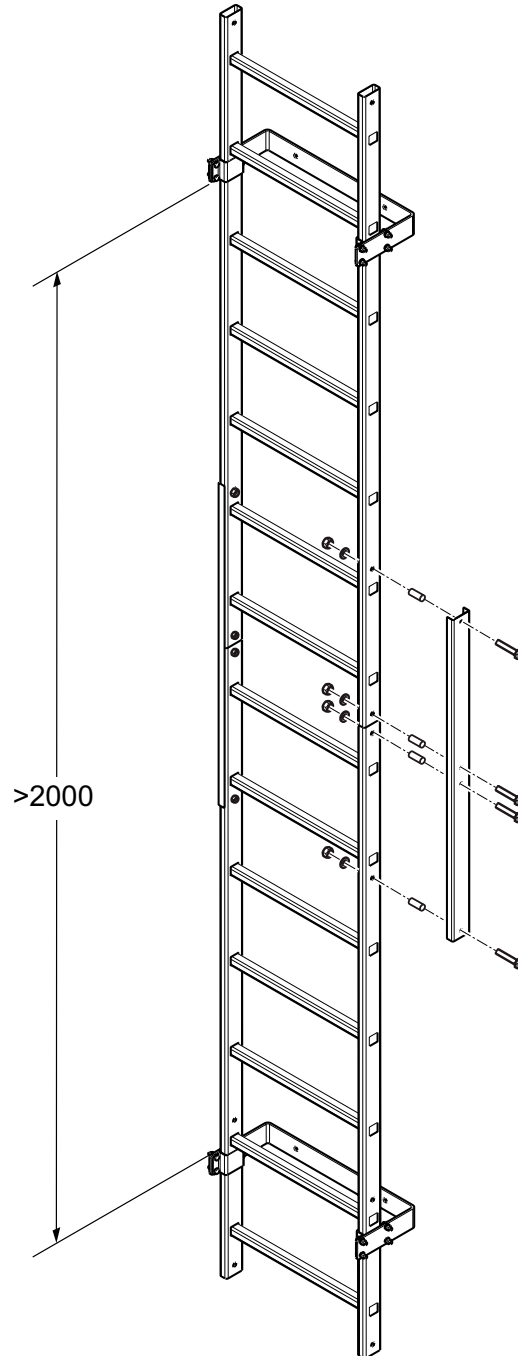
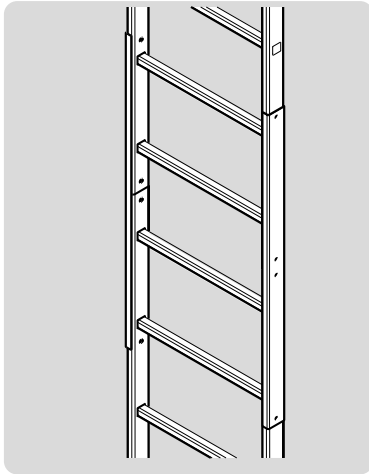
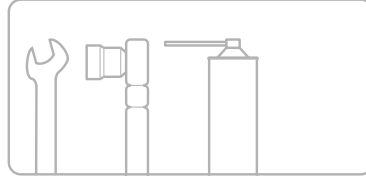
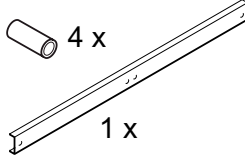
3.2



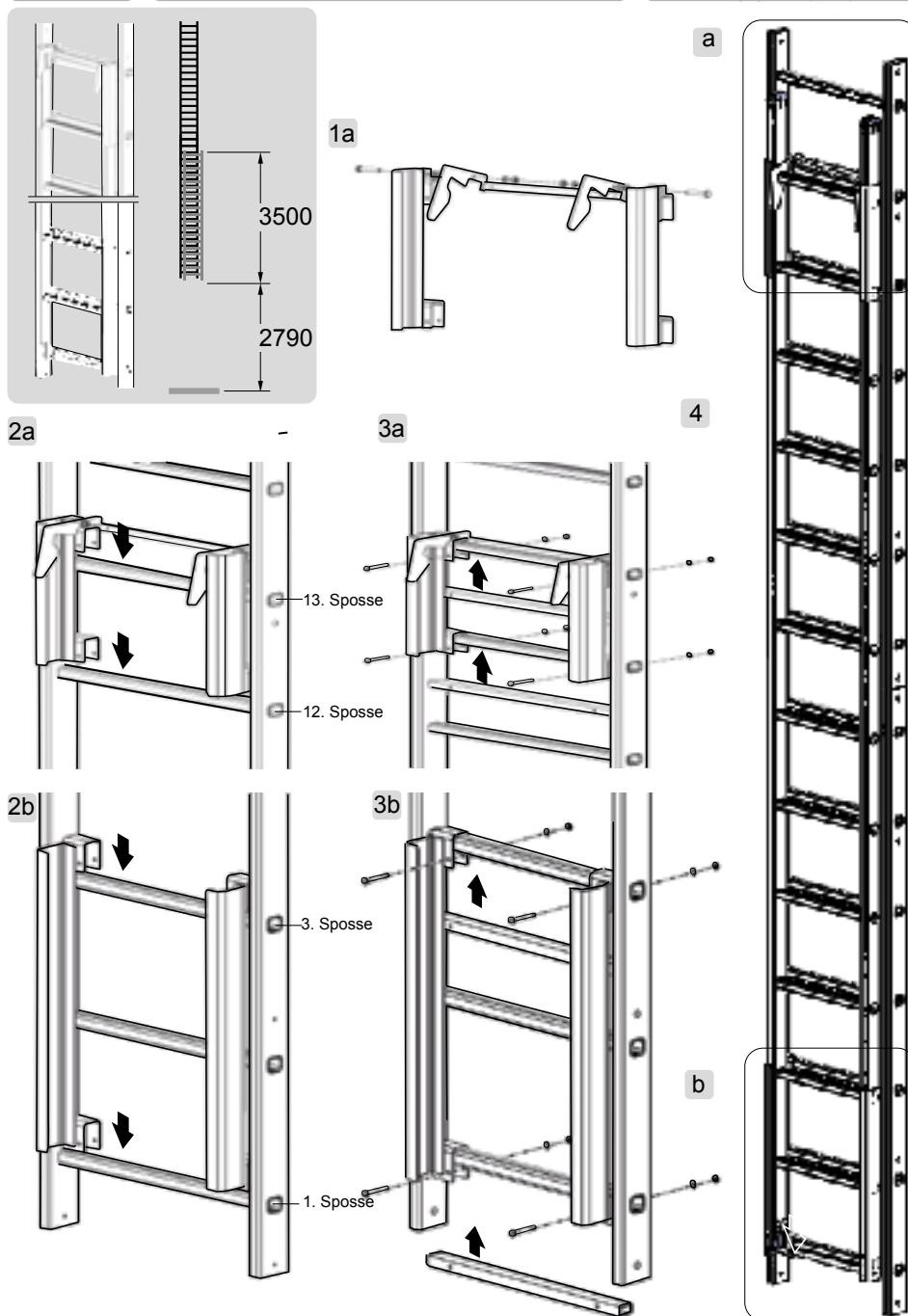
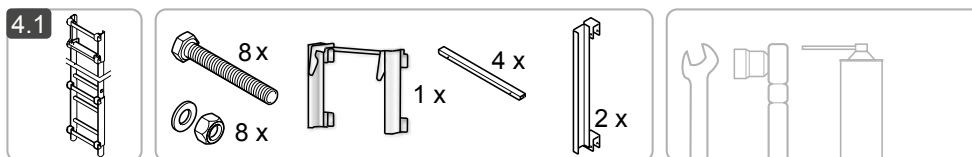
4 x

4 x

1 x



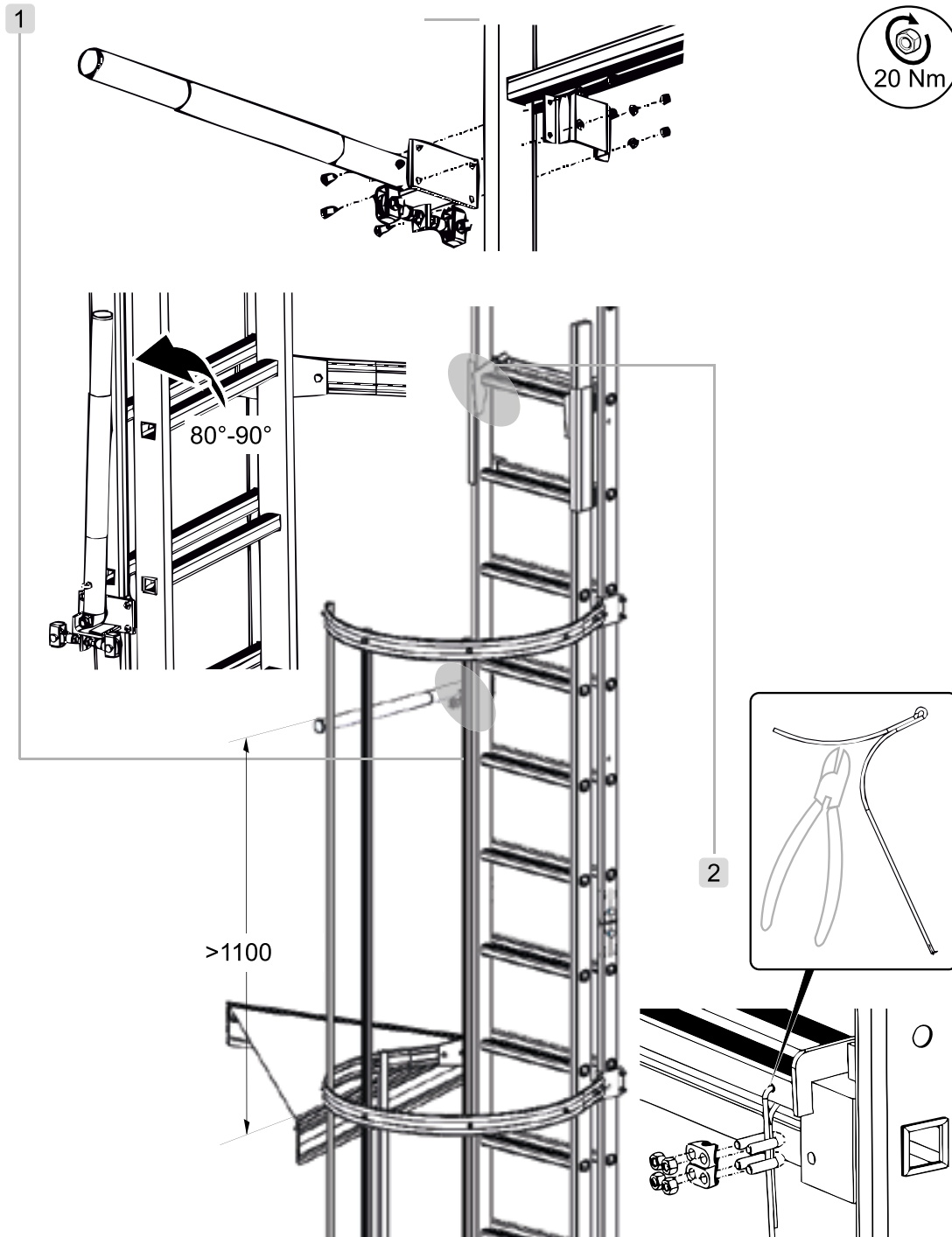
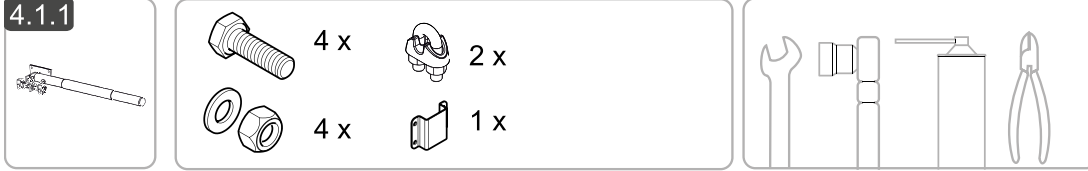
Aluminum emergency exit ladder (Order No. 62446)



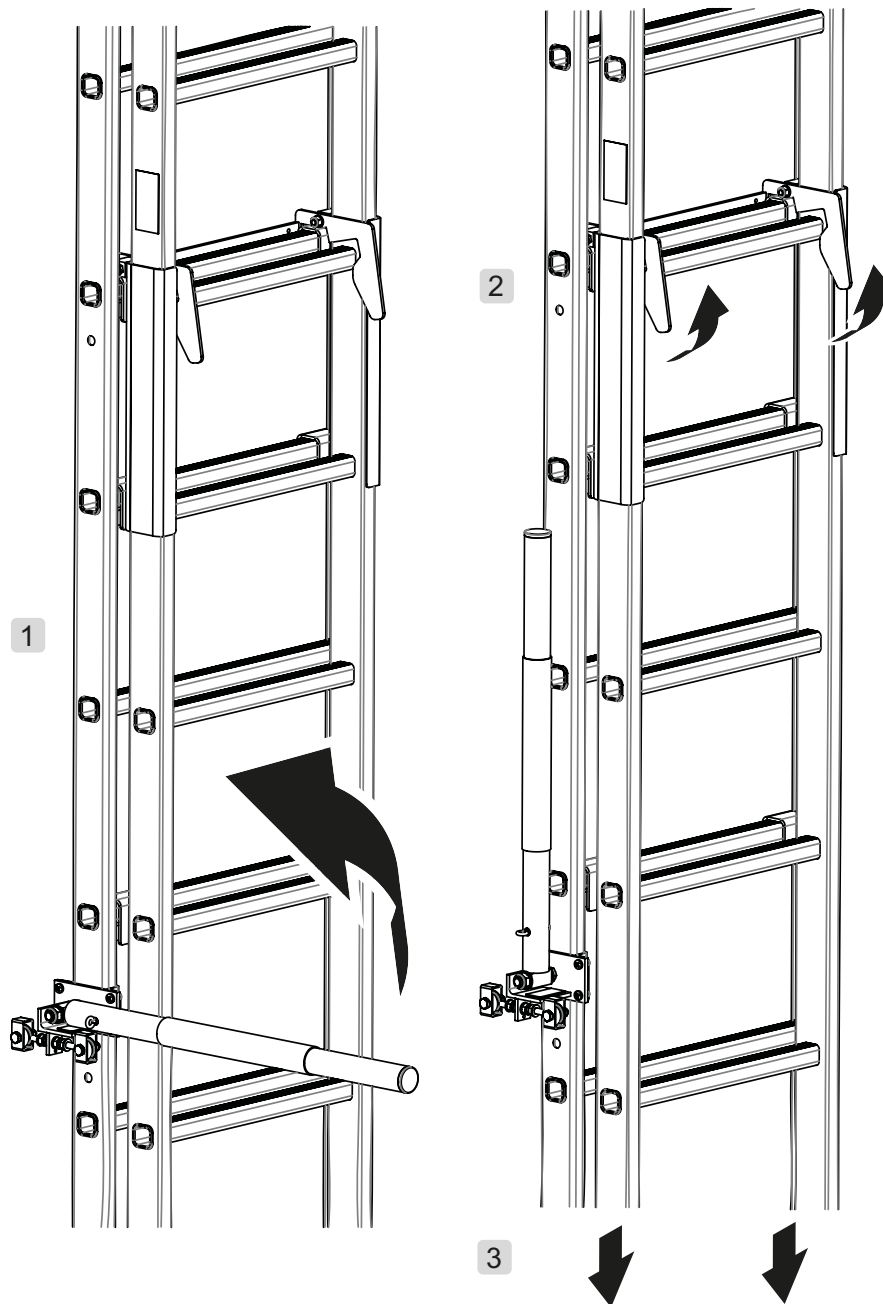
5 VERTICAL LADDERS

Release mechanism (Order No. exit left: 63504 | exit right: 63505)

4.1.1



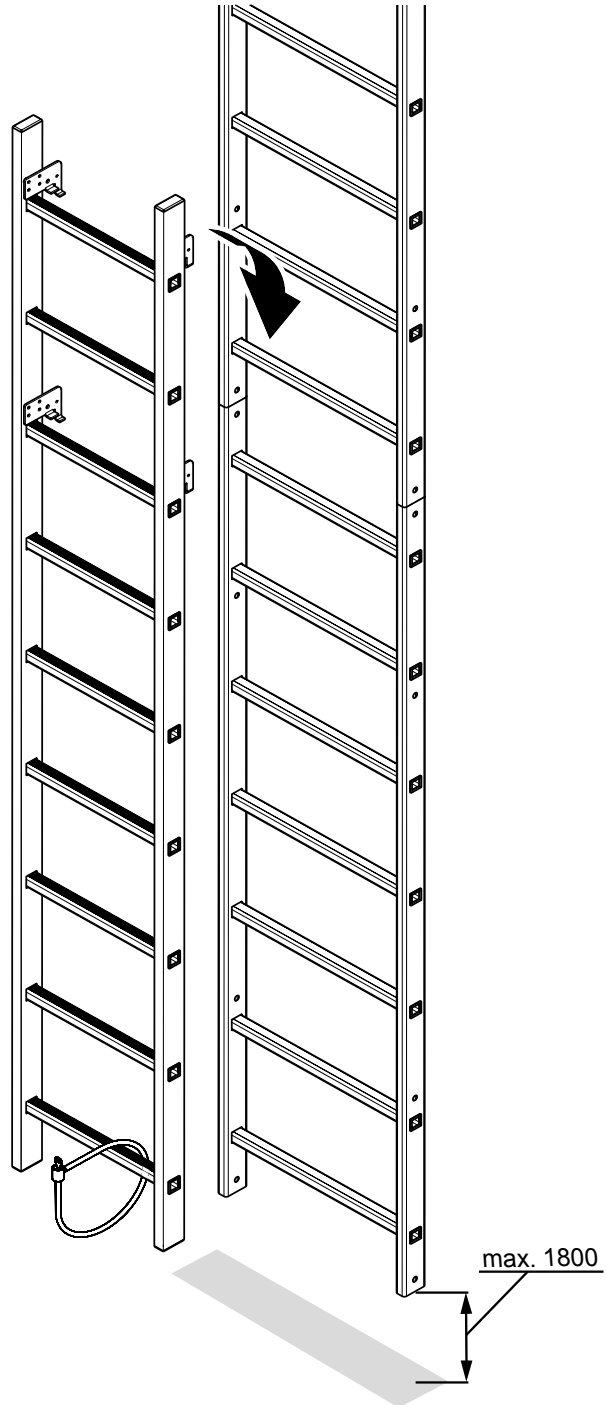
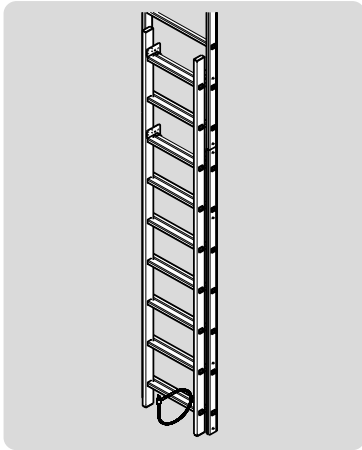
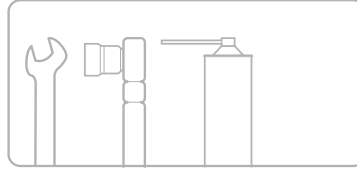
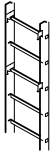
Release mechanism-Operational principle (Order No. 61445)



5 VERTICAL LADDERS

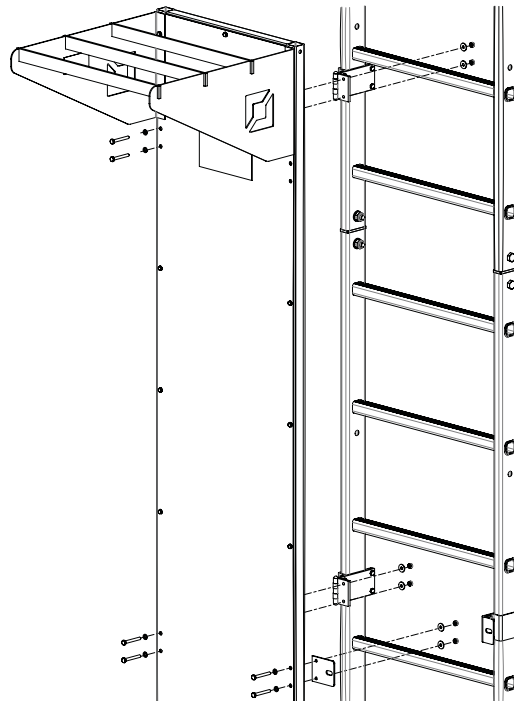
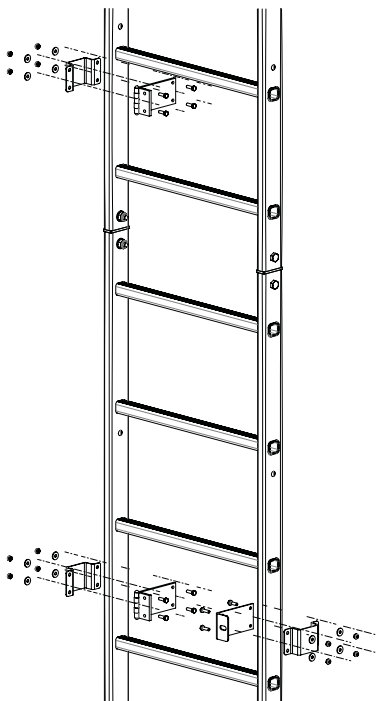
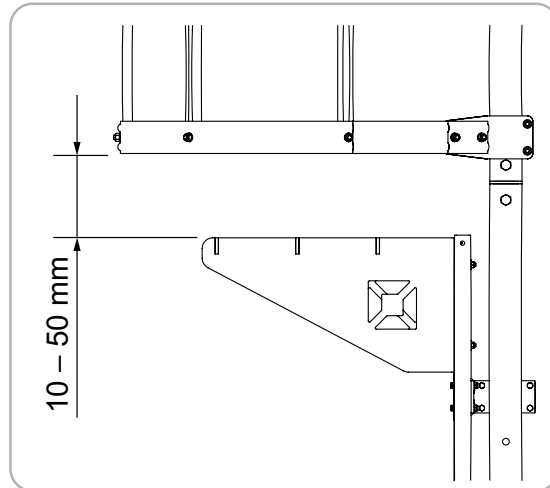
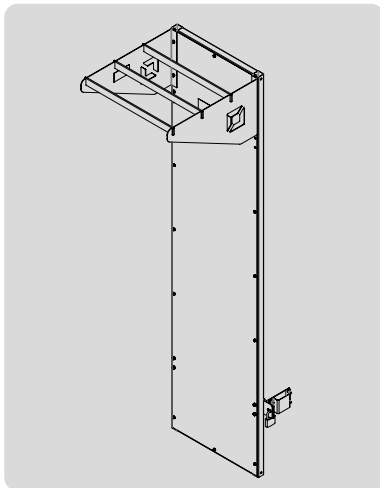
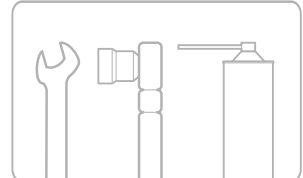
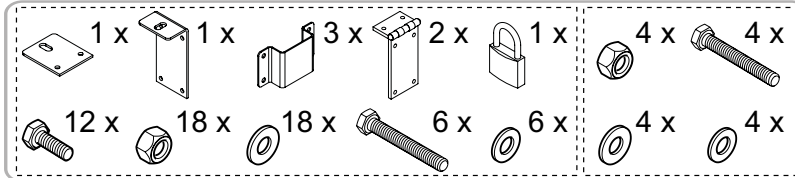
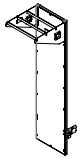
Aluminum-access ladder (Order No. 61445)

4.2



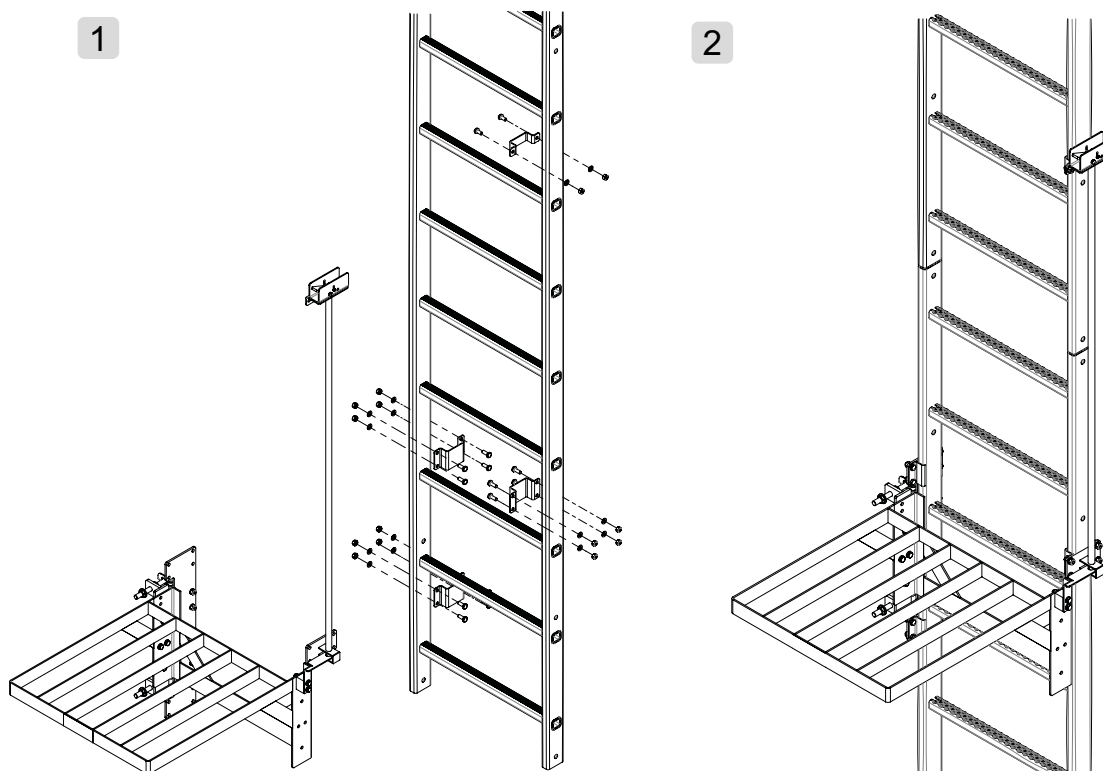
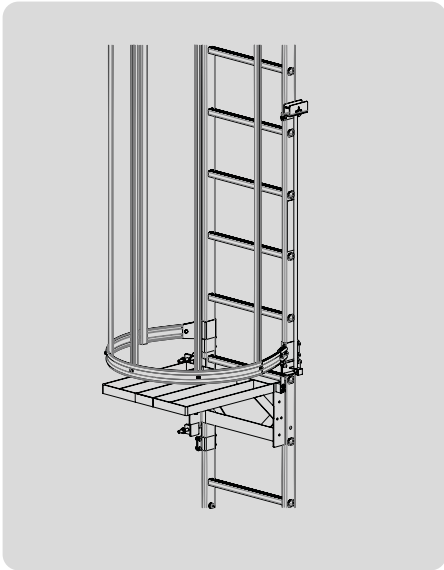
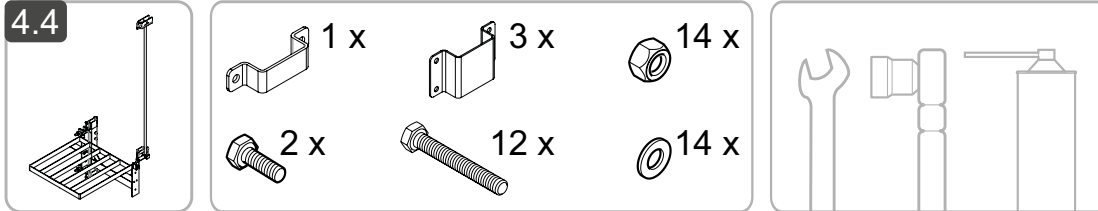
Access guard locking door (Order No. 63497)

4.3

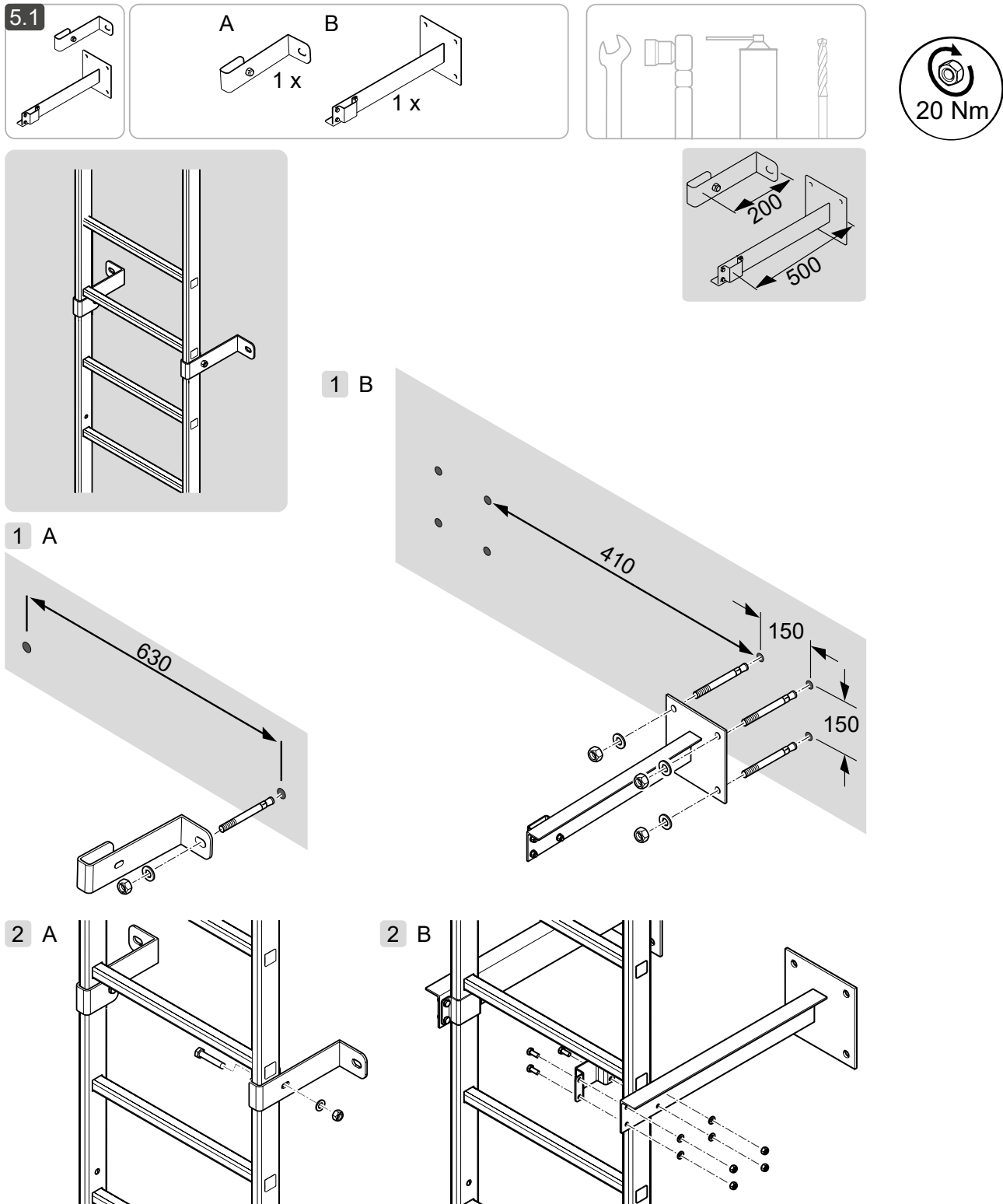


5 VERTICAL LADDERS

Entrance protection (Order No. 63962)



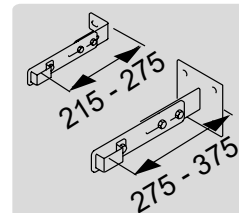
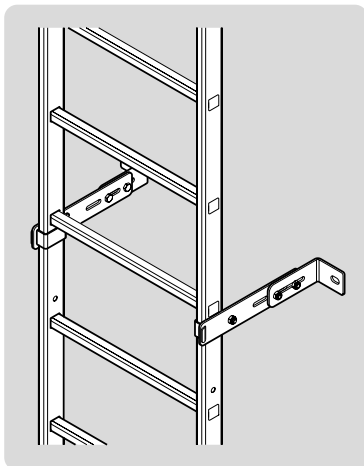
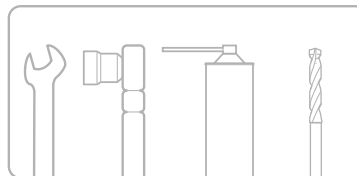
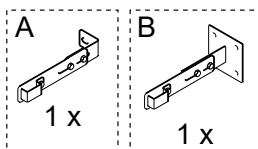
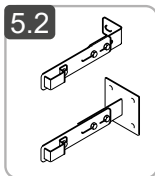
Wall anchor, rigid (Order No. 63249, 63270, 63271, 63272, 63273, 64270, 64271, 64272, 64273, 68249, 63254)



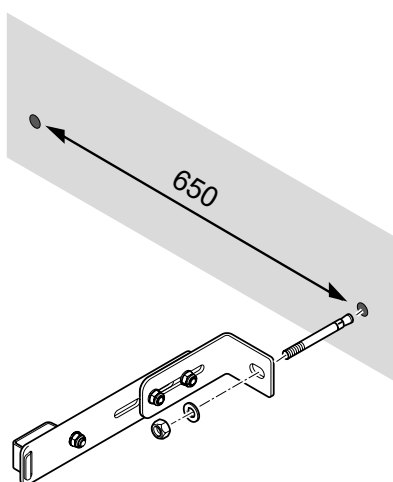
5 VERTICAL LADDERS

Wall anchor, adjustable (Order No. 63262, 68262, 63261, 68261)

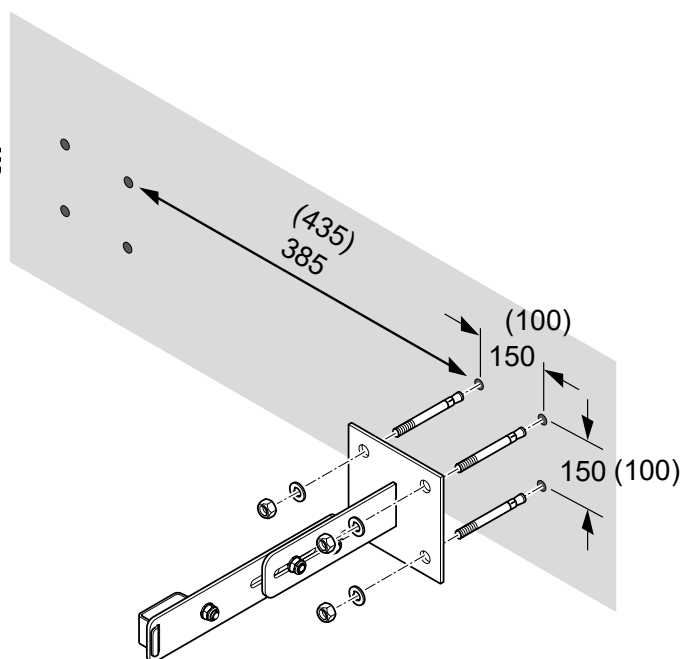
5.2



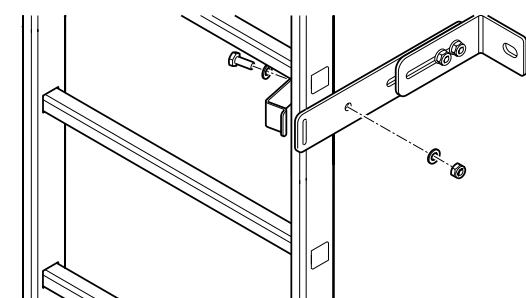
1 A



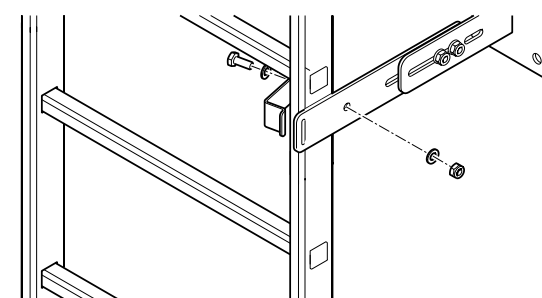
1 B



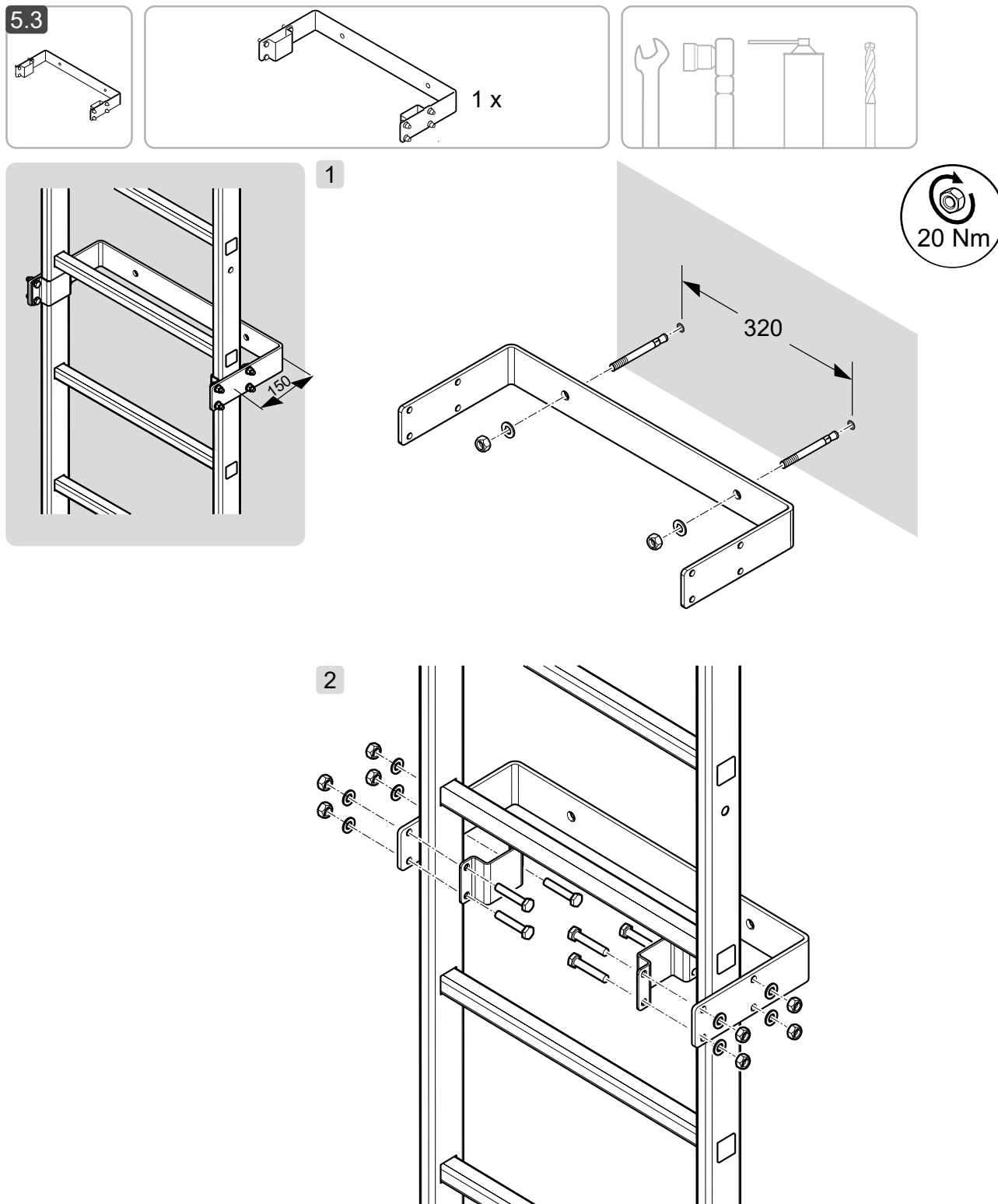
2 A



2 B



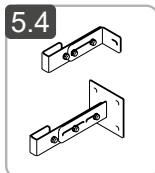
U-bracket (Order No. 63257, 63259, 63260, 63263)



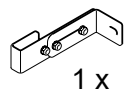
5 VERTICAL LADDERS

Wall anchor, adjustable, with clamping bracket (Order No. 63250, 68250, 63252, 68252, 63251, 68251)

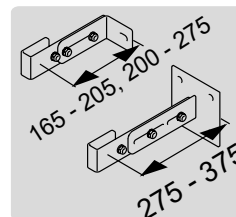
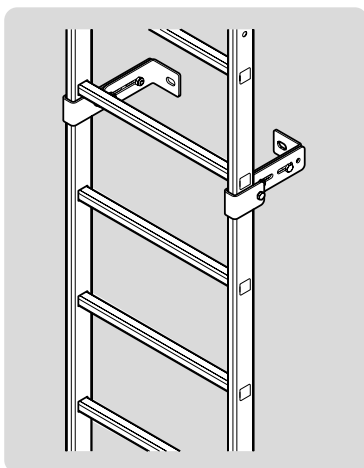
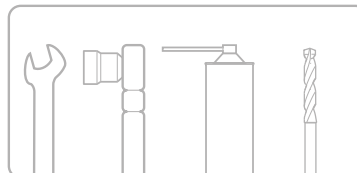
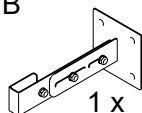
5.4



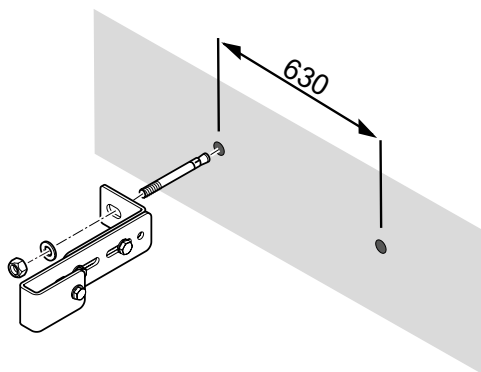
A



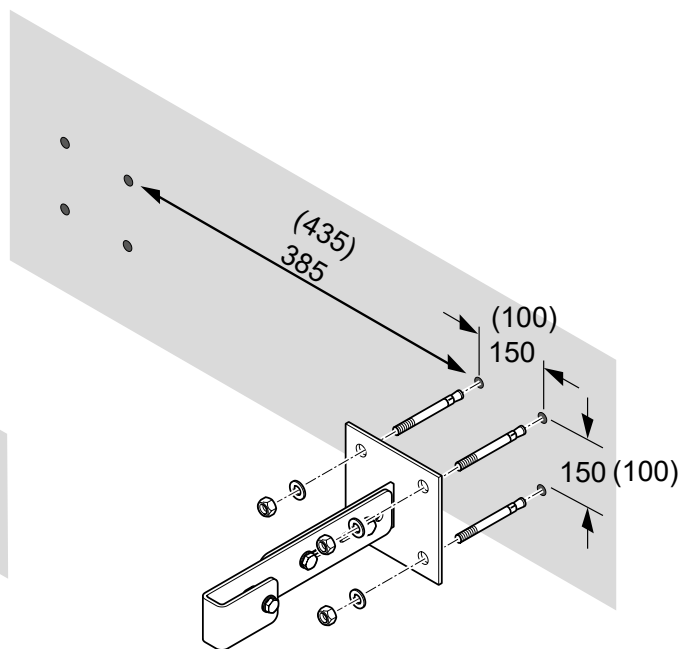
B



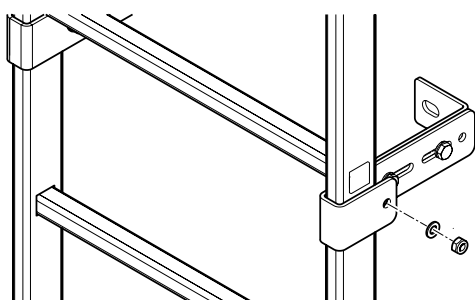
1 A



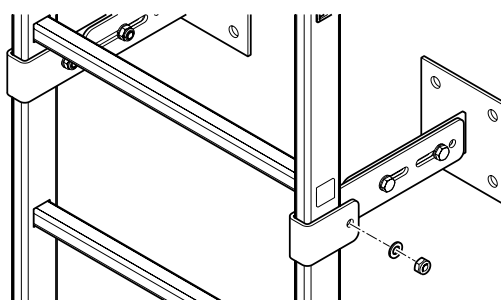
1 B



2 A

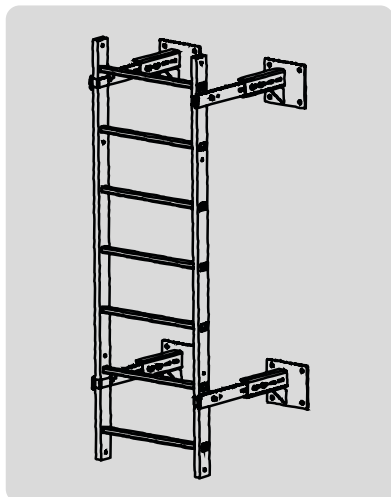
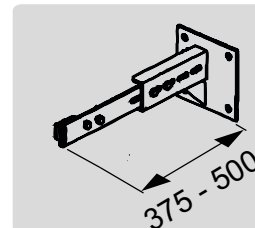
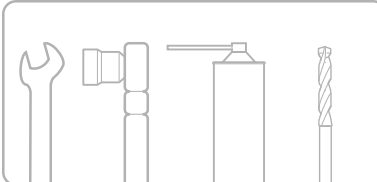
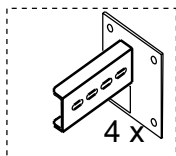


2 B

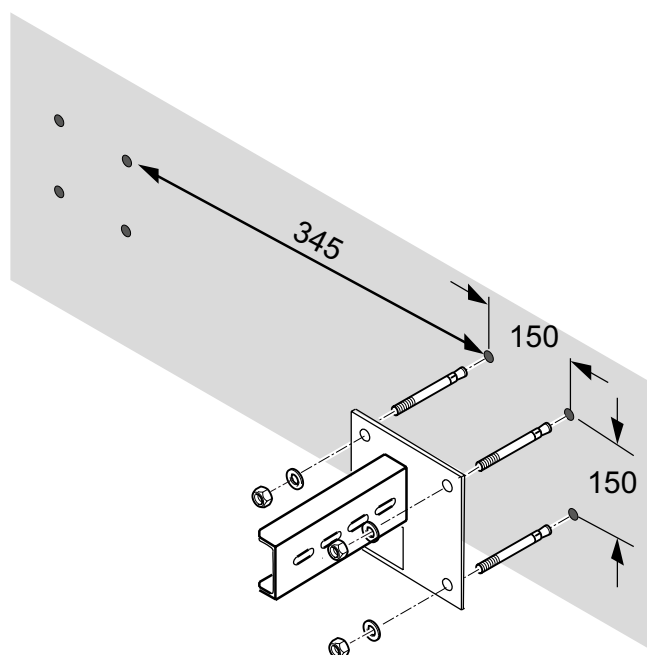


Wall anchor, adjustable, with clamping bracket (Order No. 63269)

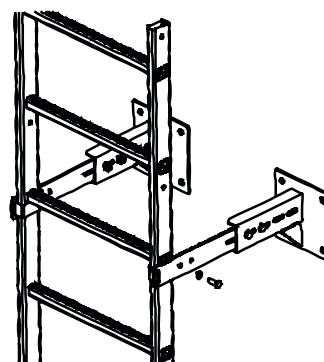
5.5



1

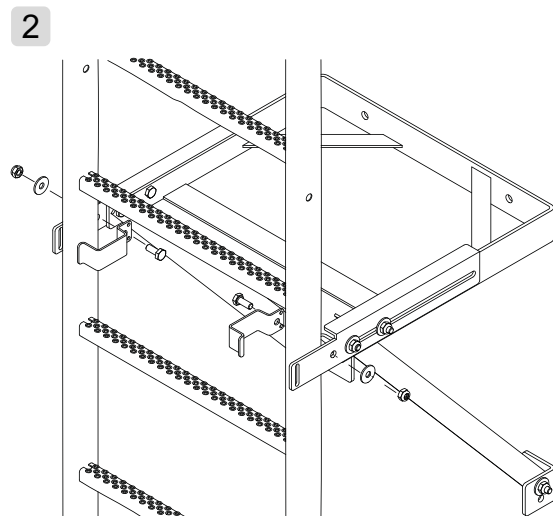
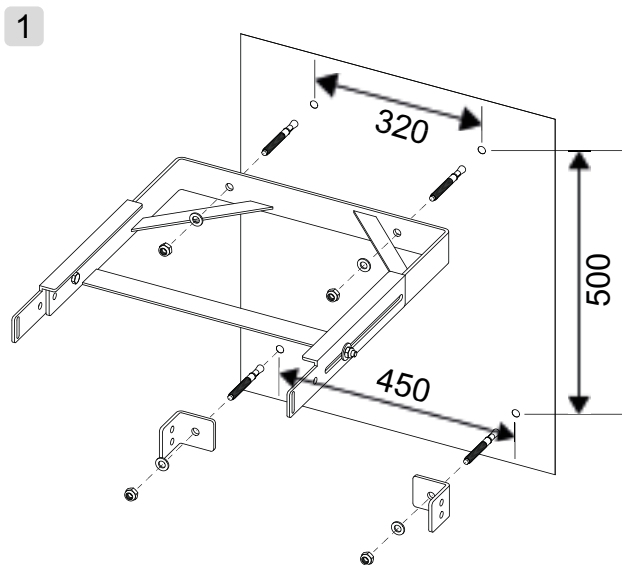
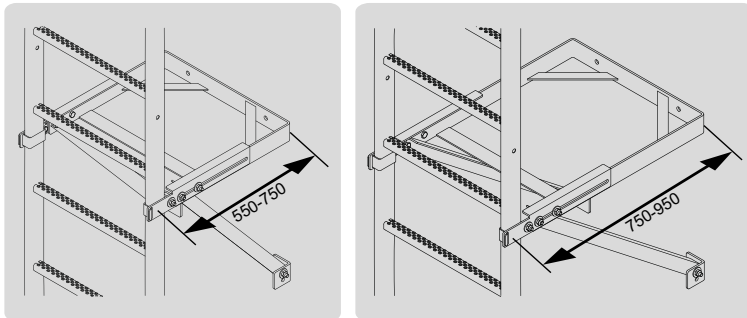
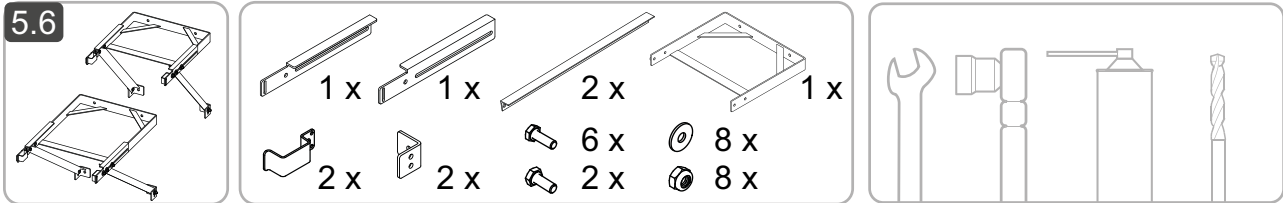


2



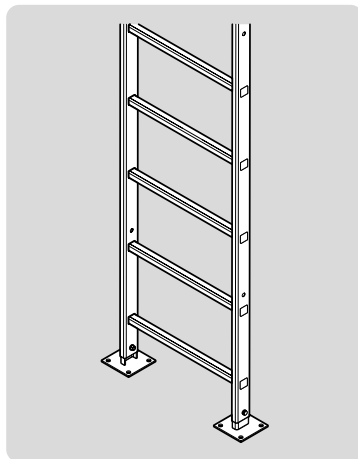
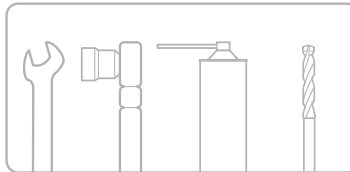
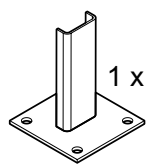
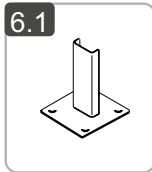
5 VERTICAL LADDERS

Wall anchor U-bracket, adjustable (Order No. 63279, 63280)

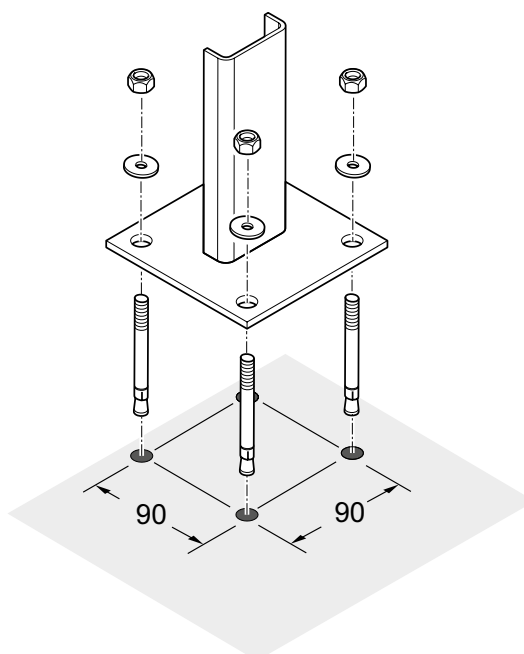


Foot plate (Order No. 63253, 68253)

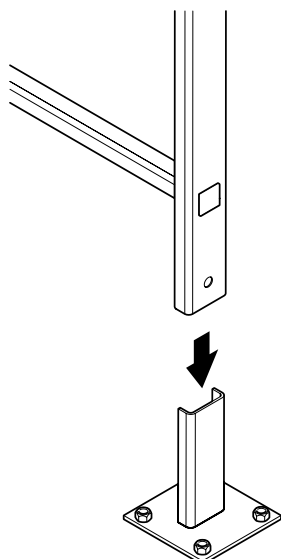
6.1



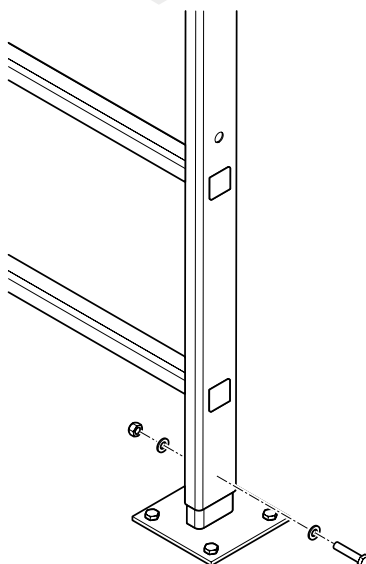
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2



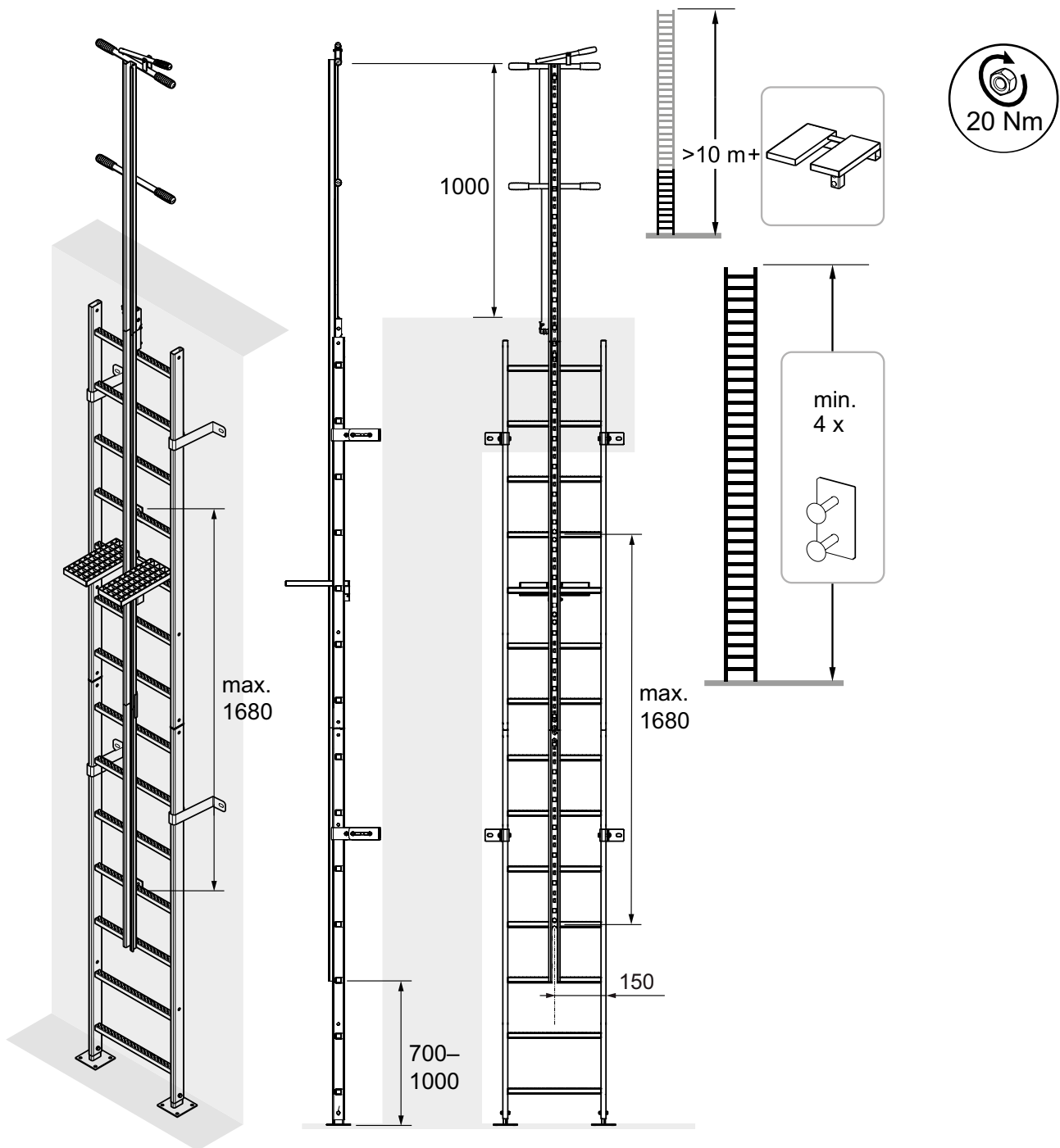
3



6 FALL ARRESTOR

6 Fall arrestor

6.1 System dimensions

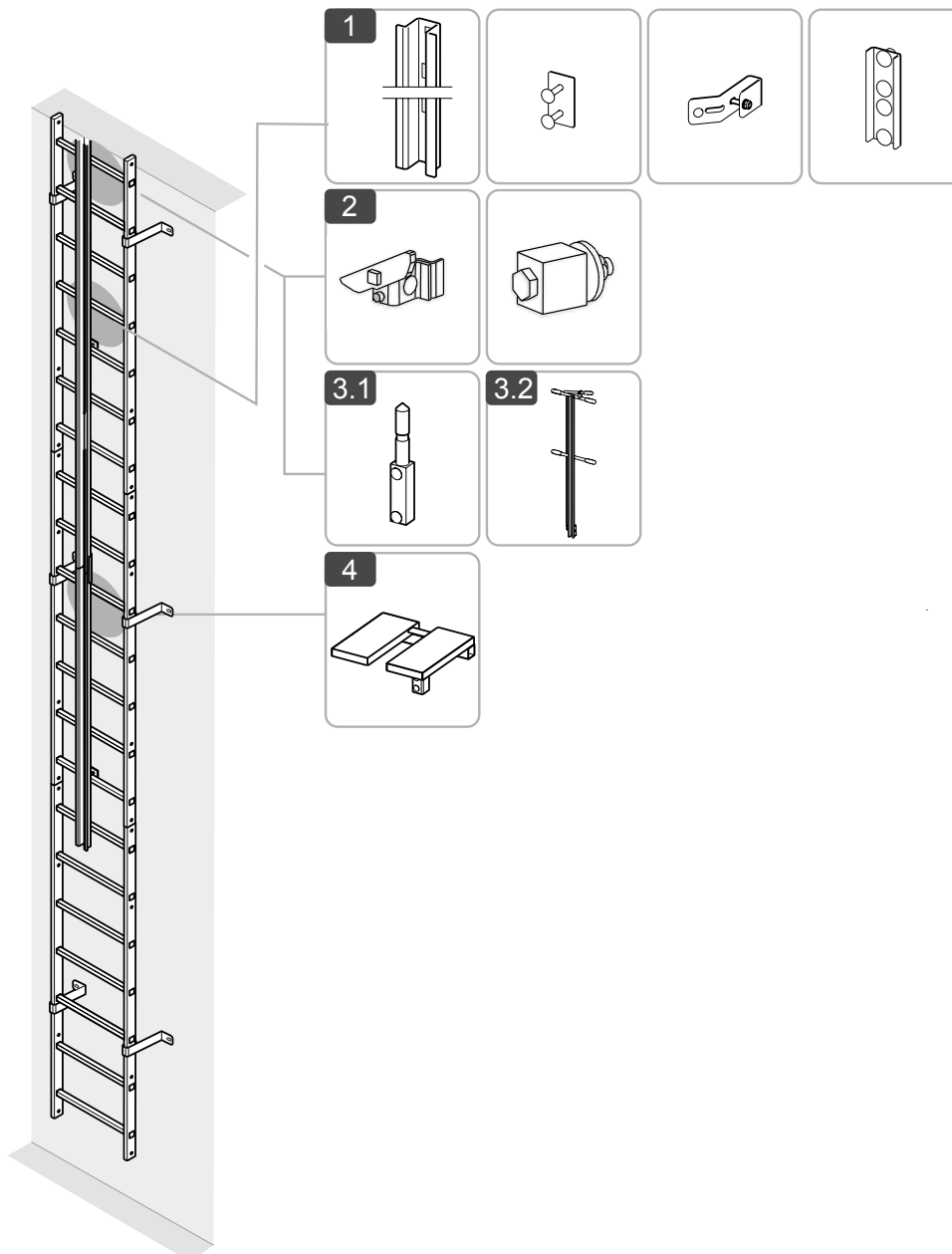


6.2 System overview and assembly



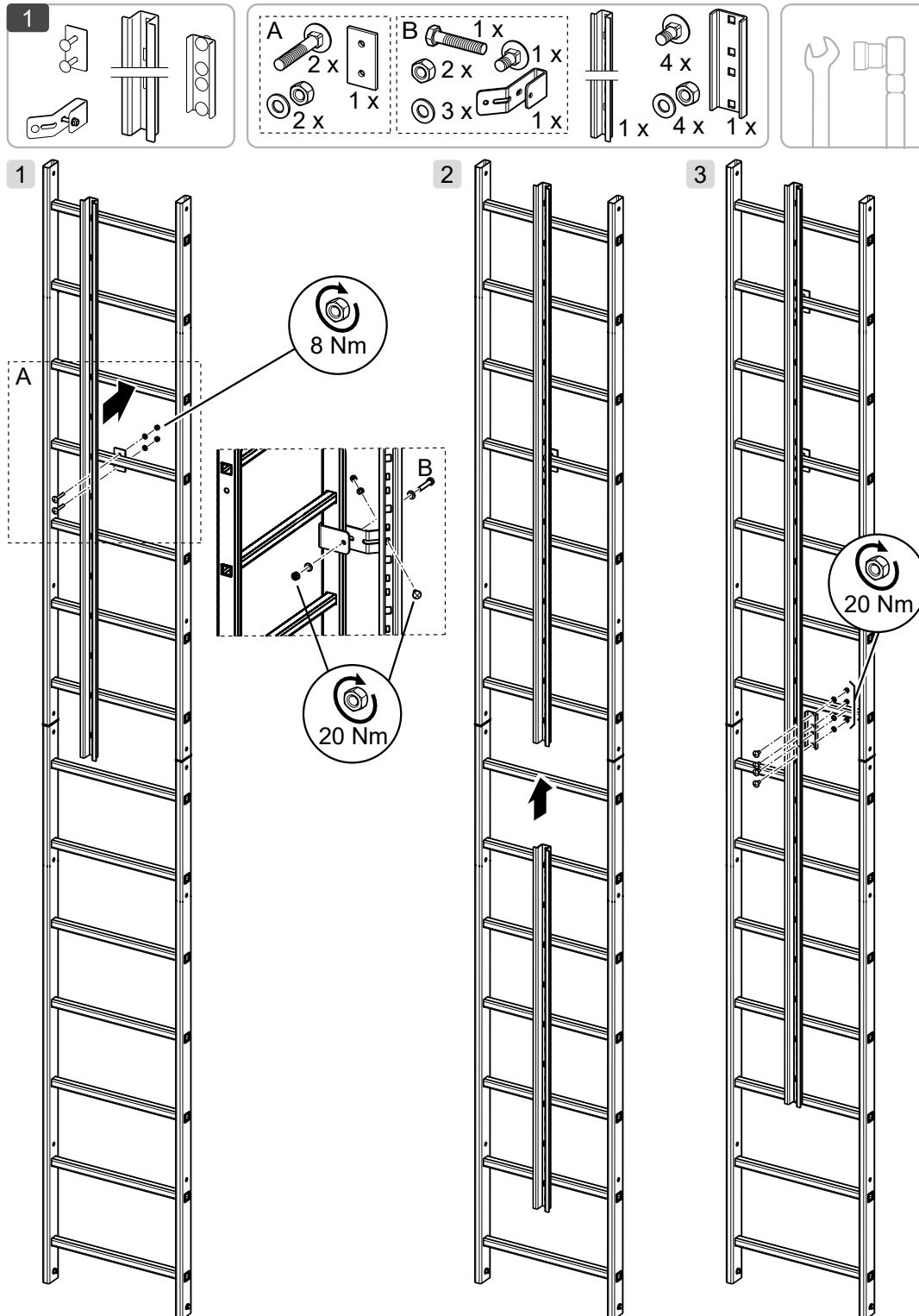
System overview

Note: Additionally, observe our information brochure „Instructions for erecting and using the climb guard system GÜFA“.

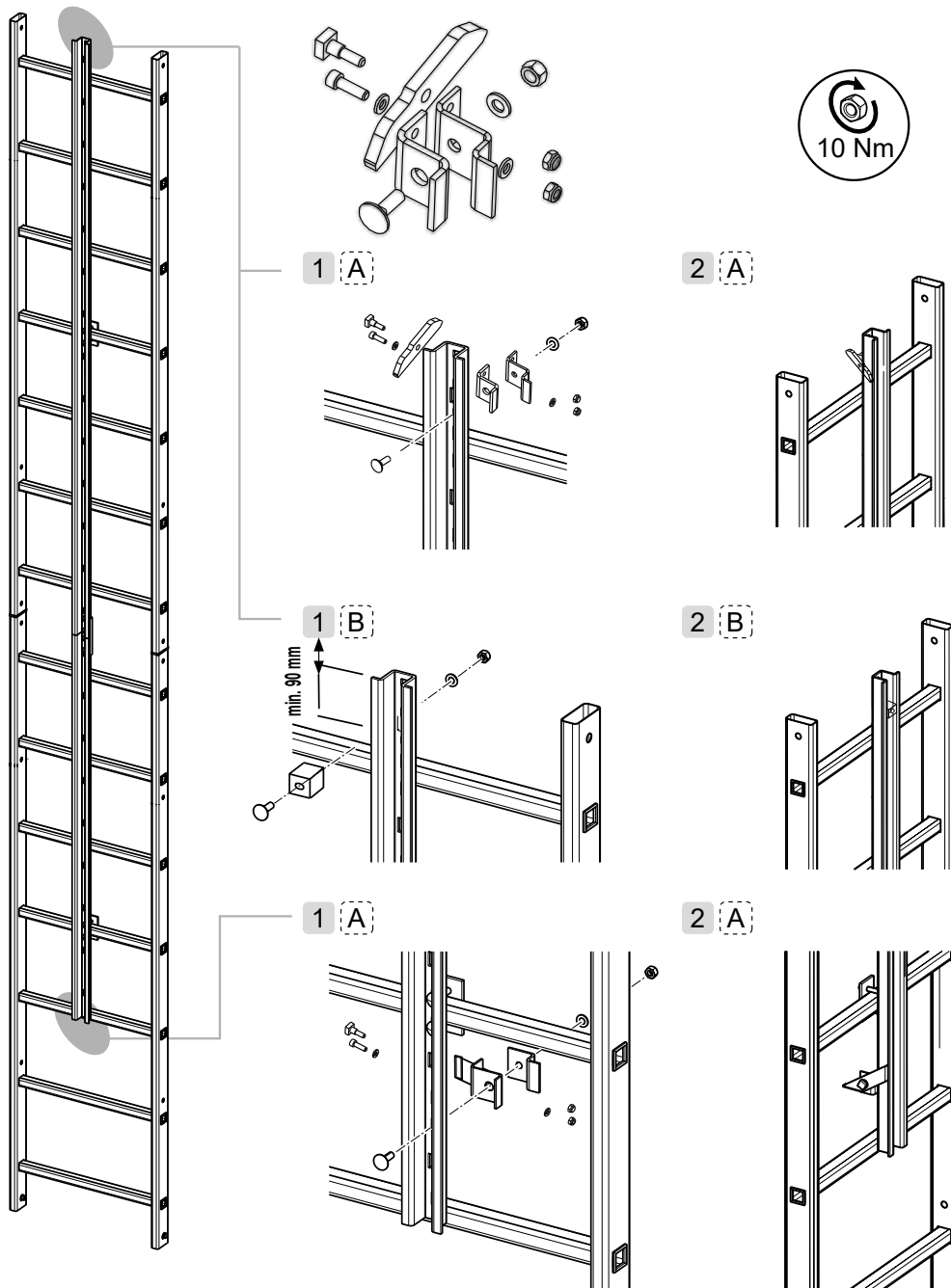
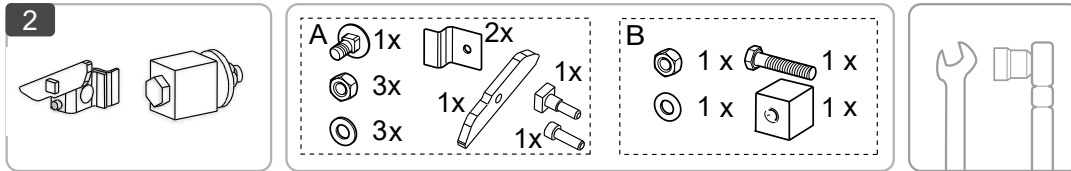


6 FALL ARRESTOR

Fall arrestor rails (Order No. 77530, 77531, 77532, 77550, 77551, 77552, 77059, 77058, 77057)

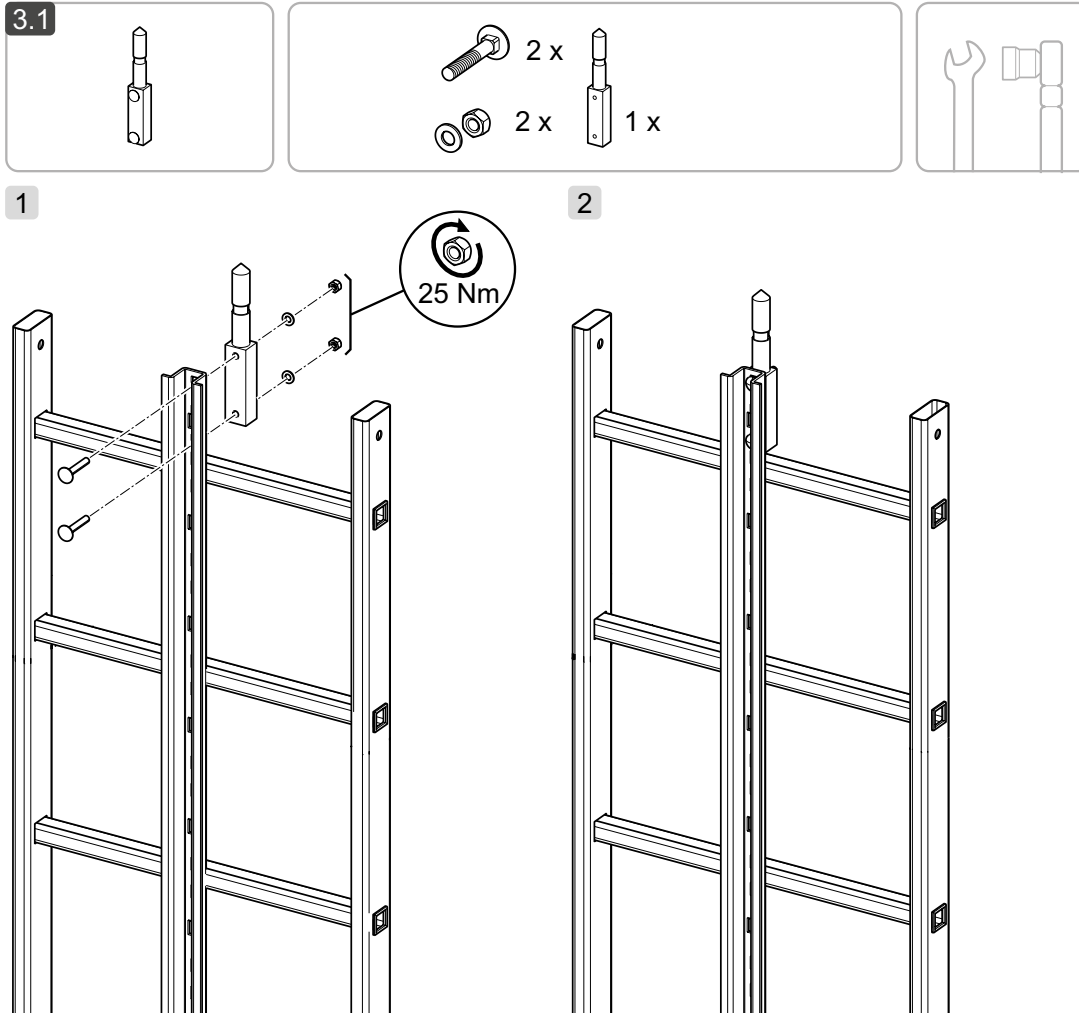


Rail arrester rigid/removable (Order No. 77574, 77575)

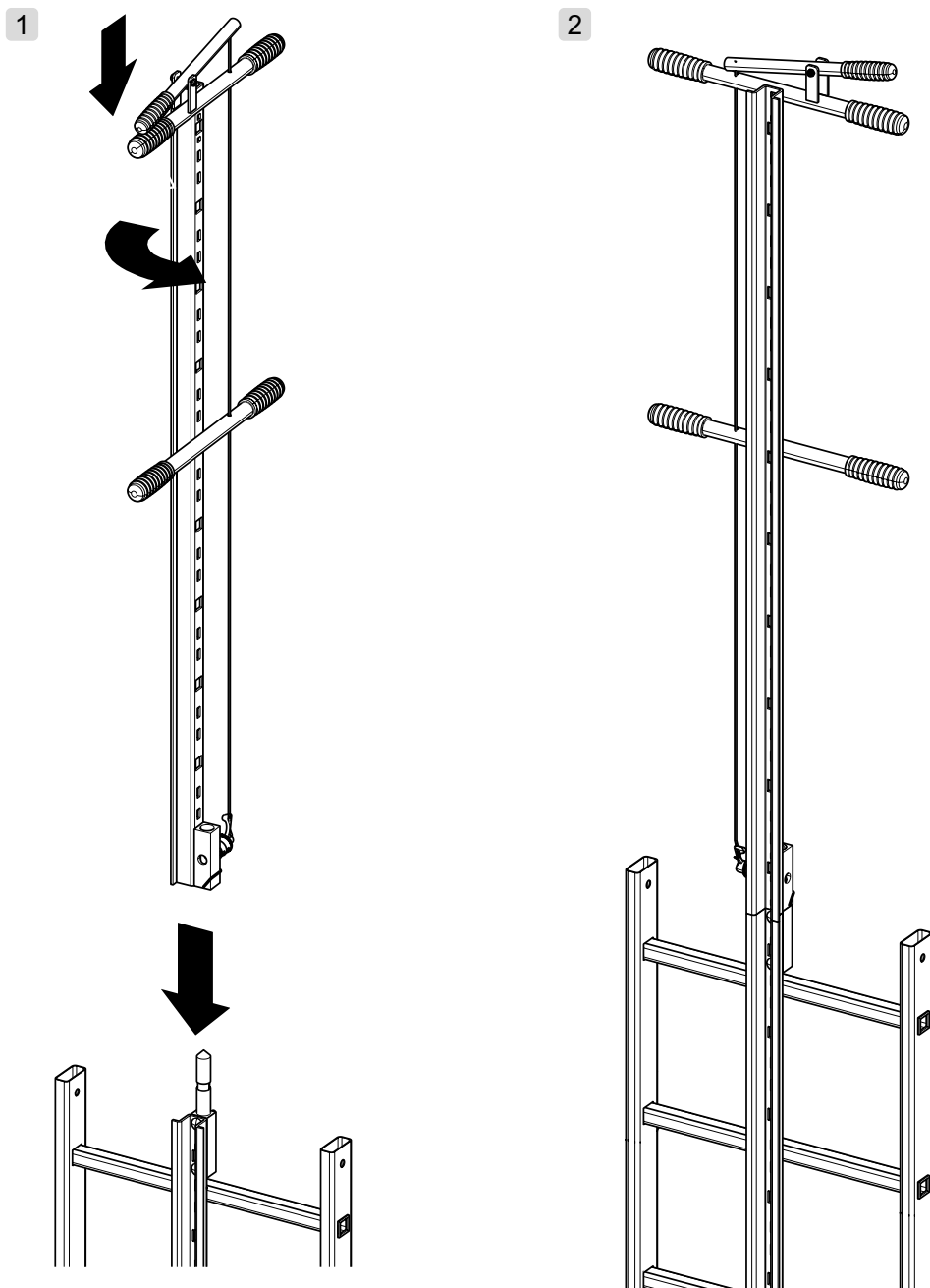
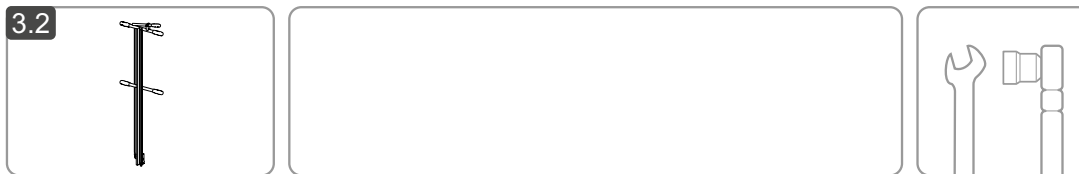


6 FALL ARRESTOR

Plug-on piece (Order No. 77563)

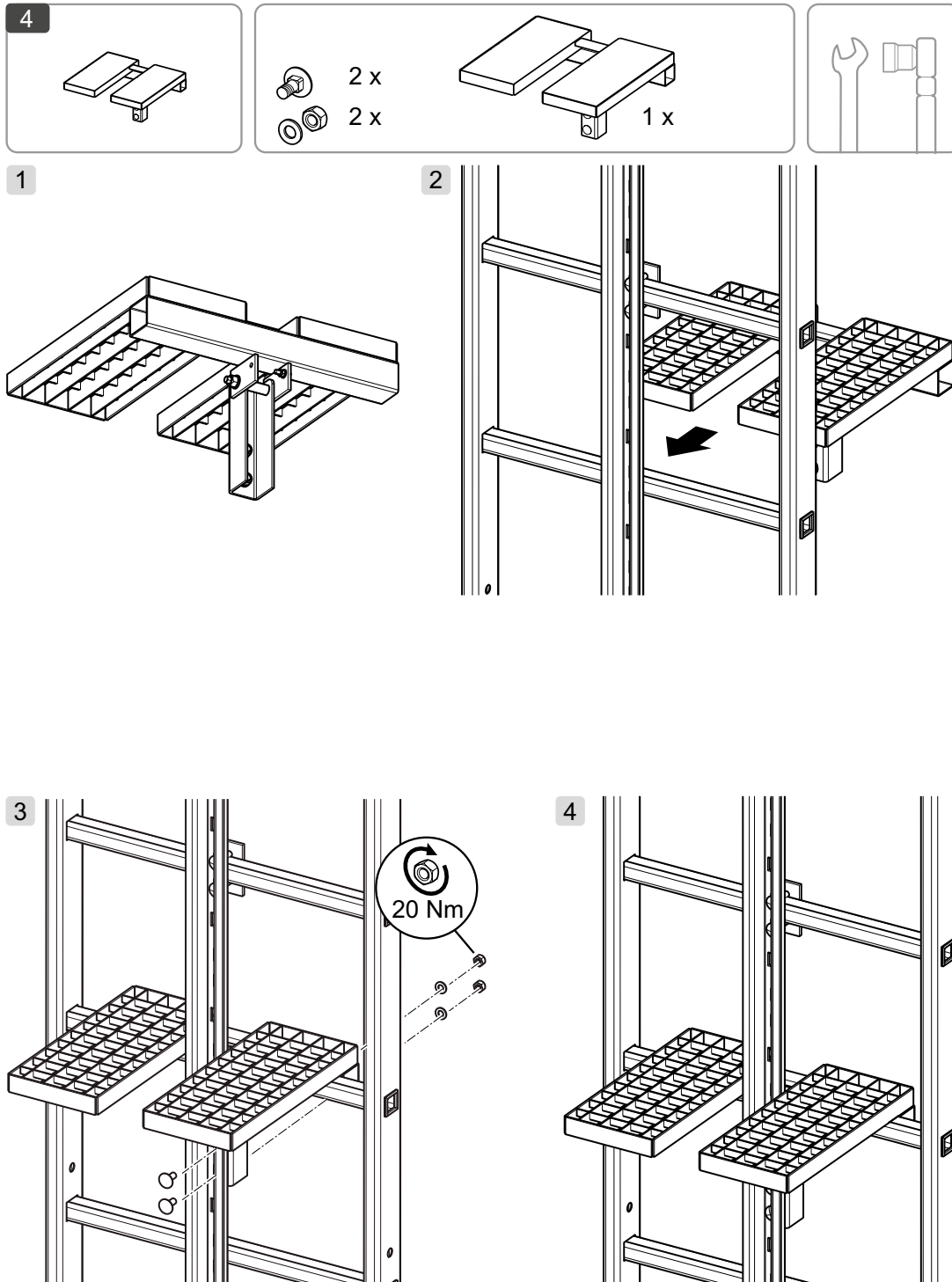


Access aid (Order No. 77541, 77561)



6 FALL ARRESTOR

Rest platform (Order No. 77539, 77559)



Safety. Made in Germany.

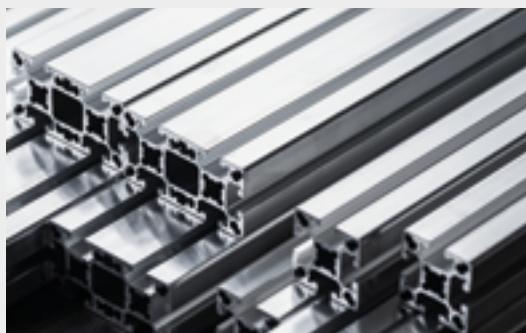
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MUNK GmbH | Rudolf-Diesel-Str. 23 | D-89312 Günzburg
Tel +49 (0) 82 21 / 36 16-01 | Fax +49 (0) 82 21 / 36 16-80
info@munk-group.com | www.munk-group.com