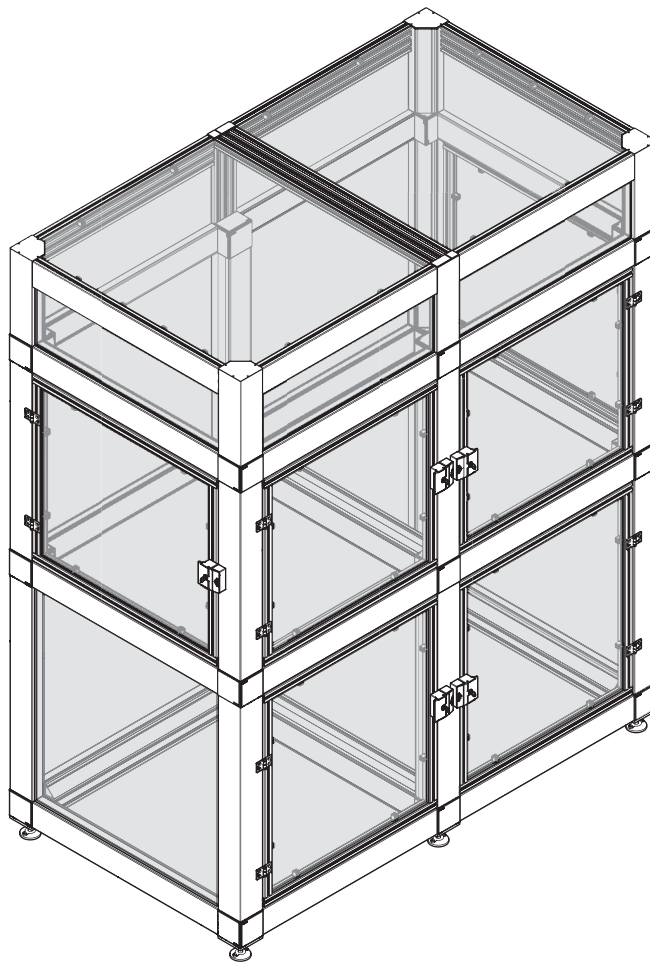


# Function-integrated profiles

**Installation instructions**  
**3 842 558 957/2019-08**

Replaces: –  
ENGLISH

ENGLISH



The information in this manual is for product description purposes only. Any statements in this manual on how to use the product only constitute examples and recommendations. Catalog information is not binding. The information given does not exempt the user from the obligation of own judgment and verification. Our products are subject to natural wear and aging.  
 © All rights reserved by Bosch Rexroth AG, also for the registration of industrial property rights. This document may not be reproduced or distributed to third parties without our consent.  
 The cover depicts a sample configuration. The actual product may vary.  
 The original installation instructions are in German.

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[www.boschrexroth.com/medienverzeichnis](http://www.boschrexroth.com/medienverzeichnis)  
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<b>DE</b>	<b>3 842 558 956</b>	Funktionsintegrierte Profile	Deutsch
<b>EN</b>	<b>3 842 558 957</b>	Function Integrated Profile	English
<b>FR</b>	<b>3 842 558 958</b>	Profilés à fonction intégrée	Français
<b>IT</b>	<b>3 842 558 959</b>	Profilati con funzione integrata	Italiano
<b>ES</b>	<b>3 842 558 960</b>	Perfil con integración funcional	Español
<b>PT</b>	<b>3 842 558 961</b>	Perfis de função integrada	Português
<b>ZH</b>	<b>3 842 558 962</b>	功能集成型材	中文

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# 1 About this documentation

## 1.1 Validity of the documentation

This documentation applies to the following products:


- All components of the modular system of function-integrated profiles

This documentation is intended for fitters, operators, service engineers and system end users.


This documentation contains important information relating to the safe and proper installation, transportation, start-up, operation, use, maintenance and disassembly of the product, and on how to rectify simple faults yourself.

- Read this documentation in full prior to working with the product, particularly chapter 2 "Safety instructions" and chapter 3 "General notes on property and product damage".

## 1.2 Required and supplementary documentation

- Only start up the product if the documentation marked with the book symbol  is available and you have understood and followed the instructions in it.

**Tabelle 1: Required and supplementary documentation**

	<b>Title</b>	<b>Document number</b>	<b>Document type</b>
	General safety instructions for the electrical installation of MPS components	3 842 358 820	

## 1.3 Presentation of information

Standardized safety instructions, symbols, terms and abbreviations are used so that you can use this documentation to work quickly and safely with your product. These are explained in the following chapters to help you understand them better.

### 1.3.1 Safety instructions




This document contains safety instructions in section 2.6 "Product-specific safety instructions" and section 3 "General notes on property and product damage", as well as before any sequence of actions or any required action which involves a risk of personal injury or property damage. Be sure to observe all safety precautions.

Safety instructions are set out as follows:

 <b>SIGNAL WORD</b>
<b>Type and source of danger!</b> Consequences of non-compliance ► Measures to prevent danger ► ...

- **Warning sign:** points out the danger
- **Signal word:** indicates the severity of the danger
- **Type and source of danger:** indicates the type and source of the danger
- **Consequences:** describes the consequences of non-compliance
- **Prevention:** states how the danger can be avoided



Tabelle 2: Risk classes according to ANSI Z535.6-2006

Warning sign, signal word	Meaning
 <b>DANGER</b>	Indicates a hazardous situation that will result in severe injury or death if not avoided.
 <b>WARNING</b>	Indicates a hazardous situation that may result in severe injury or death if not avoided.
 <b>CAUTION</b>	Indicates a hazardous situation that may result in minor to moderate injury if not avoided.
<b>NOTICE</b>	Property damage: the product or the surrounding area could get damaged.

### 1.3.2 Symbols

The following symbols indicate important information that is not safety-relevant but increases the comprehensibility of the documentation.

Tabelle 3: Meaning of the symbols

Symbol	Meaning
	If this information is not observed, the product cannot be used and/or operated as designed.
	Single, independent action
1.	Numbered steps:
2.	The numbers indicate that the action steps are subsequent.
3.	

## 2 Safety instructions

### 2.1 About this section

The product has been manufactured in accordance with the generally accepted rules of current technology. Nevertheless, there is a risk of personal injury and property damage if you do not read this section and follow the safety instructions in this document.

- ▶ Read this documentation carefully and completely before you start working with the product.
- ▶ Keep these instructions accessible to all users at all times.
- ▶ Always include them when giving the product to a third party.

### 2.2 Intended use

You may use the product as follows:

- For the protected routing of power lines.
- For the protected routing of data lines.
- For the protected routing of pneumatic hoses.
- For ambient conditions, see page 41.

This product is intended for construction of a machine frame or machine compartment made of various aluminum profiles with various integrated functions.

- For secure and fully covered cable guiding
- For better cable management with separated guides for various types of lines/ hoses like power lines, data lines or pneumatic hoses
- For preparation of modular structures in combination with standard MGE/MPS components

The product is strictly intended for professional use and not for private use. The intended use also includes having read and understood these instructions, especially section 2 "Safety instructions".

### 2.3 Improper use

Any use other than that described in the section "Intended use" is considered improper and is not permitted.

Bosch Rexroth AG is not liable for any damage resulting from improper use.

The user alone bears any risks associated with improper use.

The following foreseeable misuses also constitute improper use:

- Private use.

### 2.4 Personnel qualifications

The activities described in this document require a basic knowledge of mechanical, electrical and pneumatic systems, as well as familiarity with the corresponding technical terms. Additional knowledge regarding the use of lifting gear and corresponding slings is required for transporting and handling the product.

To ensure safe use, these activities should therefore only be performed by qualified personnel or by an instructed person acting under the direction of such a person.

"Qualified personnel" refers to those who can recognize potential hazards and take appropriate safety measures based on their technical training, knowledge, experience, and understanding of the relevant regulations pertaining to the work being performed. Qualified personnel must comply with the relevant technical regulations and have the necessary expertise.



Bosch Rexroth offers training support for specialized fields. You can find an overview of the training content online at: <http://www.boschrexroth.de/didactic>

## 2.5 General safety instructions

- Observe the applicable accident prevention and environmental protection regulations.
- Observe the safety rules and regulations of the country in which the product is being used.
- Only use Rexroth products that are in proper working order.
- Heed all the notices on the product.
- Persons who assemble, operate, disassemble or maintain Rexroth products should not be under the influence of alcohol, drugs or medication that may affect their ability to respond.
- Use only original accessories and spare parts from Rexroth in order to prevent hazards to people due to unsuitable spare parts.
- Observe the technical data and ambient conditions specified in the product documentation.
- Only start up the product if it has been determined that the end product (for example, a machine or system) into which the Rexroth products have been installed complies with national provisions, safety regulations and application standards.

## 2.6 Product-specific safety instructions

### General

### During transport

### During installation

### During start-up

- Do not attempt to modify the product.
- Always ensure that the product cannot topple over.
- Observe the transport instructions on the packaging.
- Inspect the product for obvious transport damage.
- Make sure that all electrical and pneumatic connections are either in use or covered.
- Check the safety requirements according DIN EN 50085-1, DIN VDE 0100, DIN EN 60204-1, DIN EN 4414 and EN 619.
- Only start up a product that has been completely installed.
- Make sure that all the safety equipment which forms part of the product is present, has been properly installed, and is fully functional. Do not move, bypass or disable any safety equipment.
- Do not reach into moving parts.
- Check the product for malfunctions.
- Make sure that access to maintenance and inspection points is kept unobstructed.
- Make sure that no line connectors, connections or components are disconnected as long as the system is supplied with pressure and voltage. Secure the system against being switched back on.
- Dispose of the product in accordance with the regulations in your country.

### During maintenance and servicing

### During disposal

## 2.7 Personal protective equipment

- Appropriate protective clothing should be worn when handling/using the product (e.g. safety shoes, close-fitting clothing, a hair net for long, loose hair).  
As the system user or operator, you are personally responsible for ensuring the use of appropriate protective equipment when the product is being used.  
All component parts of the personal protective equipment must be free of damage.

# 3 General notes on property and product damage

The warranty only applies to the delivered configuration.

### During cleaning

- The warranty is void in the event of faulty installation, commissioning and operation, as well as improper use and/or improper handling.
- Prevent cleaning agents from getting into the system.
- Never use solvents or corrosive cleaning agents.
- Do not use a pressure washer for cleaning.

## 4 Scope of delivery

The scope of delivery includes the following:

- Components of the modular system of function-integrated profiles and associated products according to your order.
- 1x installation instructions for "Function-integrated profiles".

### 4.1 Condition on delivery

- Unassembled.

## 5 About this product

### 5.1 Specifications

#### 5.1.1 Use of the modular system of function-integrated profiles

This product is intended for construction of a machine frame or machine compartment made of various aluminum profiles with various integrated functions.

- For secure and fully covered cable guiding
- For better cable management with separated guides for various types of lines/ hoses like power lines, data lines or pneumatic hoses
- For preparation of modular structures in combination with standard MGE components
- For routing power supply lines so that they are protected from environmental influences.

#### 5.1.2 Classification of the modular system of function-integrated profiles

All components of the modular system of function-integrated profiles correspond to the classifications of the relevant sections of the following standards:

- DIN EN 50085-1 Cable trunking systems and cable ducting systems for electrical installations – Part 1. General requirements

**Tabelle 4: Classification according to DIN EN 50085-1; Section 6**

<b>6.2</b>	<b>Shock-resistance for installation and use</b>
6.2.4	Electrical installation duct systems for impact energy 2 J
<b>6.4</b>	<b>Resistance to flame propagation</b>
6.4.2	Fire non-propagating cable trunking systems and cable ducting systems
<b>6.5</b>	<b>Electrical conductivity</b>
6.5.1	Cable trunking systems and cable ducting systems with electrical conductivity: Linear impedance $\leq 0.001 \Omega/\text{m}$
<b>6.6</b>	<b>Electrical insulating properties</b>
6.6.1	Cable trunking systems and cable ducting systems without electrical insulating properties
<b>6.7</b>	<b>Protection type of enclosure or covering according to EN 60529:1991</b>


<b>6.2</b>	<b>Shock-resistance for installation and use</b>
6.7.1	Protection against the penetration of foreign matter: IP30 (with closed cover and cover plates mounted on the front face, without edge protector and without cable bushing)
6.7.3	Protection against contact with hazardous parts: IP30-B (with closed cover and cover plates mounted on the front face, without edge protector and without cable bushing)
<b>6.9</b>	<b>System duct covering fastening method</b>
6.9.1	Opening the duct covering of cable trunking systems and cable ducting systems without using tools

- DIN EN 50085-2-1 Cable trunking systems and cable ducting systems for electrical installations – Part 2-1: Special requirements for cable trunking systems and cable ducting system for walls and ceilings

**Tabelle 5: Classification according to DIN EN 50085-2-1; Section 6**

<b>6,101</b>	<b>Intended installation position</b>
6.101.3	Flush/surface-mounted cable trunking systems and cable ducting systems on walls or ceilings
6.101.3.1	Flush/surface-mounted cable trunking systems and cable ducting systems on walls
6.101.3.2	Flush/surface-mounted cable trunking systems and cable ducting systems on ceilings
6.101.4	Cable trunking systems and cable ducting systems on walls supported by horizontal surfaces other than floors
<b>6,103</b>	<b>Type</b>
6.103.1	Type 1 cable trunking systems and cable ducting systems
<b>6,104</b>	<b>Compression strength in closed cable trunking systems and cable ducting systems</b>
6.104.2	Closed cable trunking systems and cable ducting systems for compressive forces up to 320 N

### 5.1.3 Conformity, approvals and tests

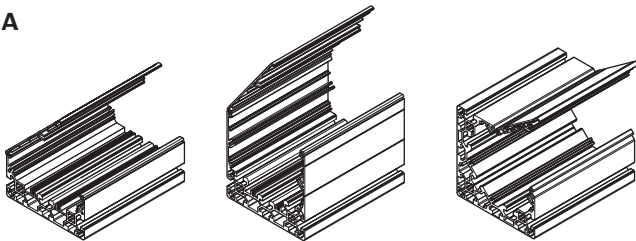
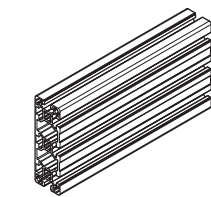
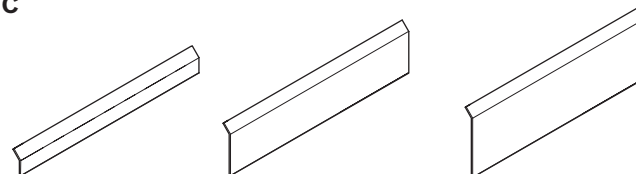
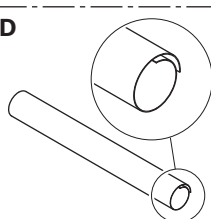
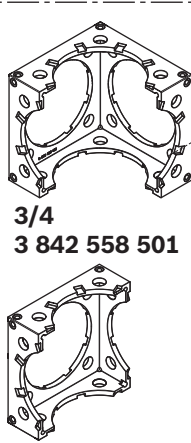
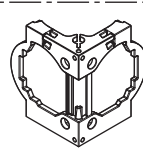
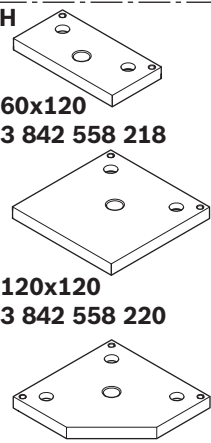
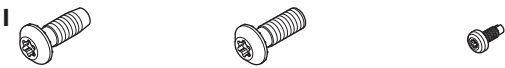
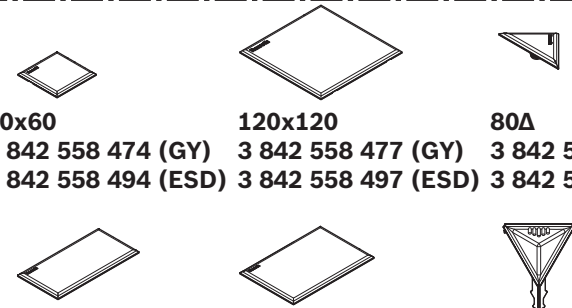

- CE compliant according to Directive 2014/35/EU (low voltage directive)  
Related product standards:
  - DIN EN 50085-1 Cable trunking systems and cable ducting systems for electrical installations – Part 1. General requirements
  - DIN EN 50085-2-1 Cable trunking systems and cable ducting systems for electrical installations – Part 2-1: Special requirements for cable trunking systems and cable ducting system for walls and ceilings
- VDE tested  VDE 0604-1 and VDE 0604-2-1

### 5.1.4 Contents of the modular system of function-integrated profiles

- Guide profiles and strut profile made of anodized aluminum
- PVC dividing strips
- Die-cast aluminum profile joints
- FPP connection bracket
- Anodized aluminum cover plate
- FPP cable bushing (polypropylene ESD version)
- FPP edge protector (polypropylene ESD version)
- FPP cover caps (polypropylene ESD version)
- FPP covers and cover strips (polypropylene ESD version)
- Steel base plate

5.2
Product description

- A: Cable guide profiles
- B: Strut profile
- C: Dividing strips
- D: Protective hose
- E: Profile joints
- F: Connection bracket
- G: Bolt connector
- H: Base plate
- I: Fastening elements
- J: Cover caps
- K: Spacers

<div>A</div>  <div> <div>60x120</div> <div>3 842 558 242</div> </div> <div> <div>120x120</div> <div>3 842 558 241</div> </div> <div> <div>40x120x120</div> <div>3 842 558 243</div> </div>			<div>B</div>  <div> <div>40x120</div> <div>3 842 558 480</div> </div>
<div>C</div>  <div> <div>H60</div> <div>3 842 558 245</div> </div> <div> <div>H80</div> <div>3 842 558 222</div> </div> <div> <div>H120</div> <div>3 842 558 244</div> </div>			<div>D</div>  <div> <div>3 842 558 248</div> </div>
<div>E</div>  <div> <div>3/4</div> <div>3 842 558 501</div> </div> <div> <div>1/2</div> <div>3 842 558 246</div> </div>		<div>F</div>  <div> <div>3 842 558 473</div> </div>	<div>H</div>  <div> <div>60x120</div> <div>3 842 558 218</div> </div> <div> <div>120x120</div> <div>3 842 558 220</div> </div> <div> <div>40x120x120</div> <div>3 842 558 226</div> </div>
<div>I</div>  <div> <div>S12x30</div> <div>3 842 530 236</div> </div> <div> <div>M12x30</div> <div>3 842 530 235</div> </div> <div> <div>ST3,5x9,5</div> <div>3 842 552 267</div> </div>			<div>ISO 4036</div> <div>M12</div>
<div>J</div>  <div> <div>60x60</div> <div>3 842 558 474 (GY)</div> <div>3 842 558 494 (ESD)</div> </div> <div> <div>120x120</div> <div>3 842 558 477 (GY)</div> <div>3 842 558 497 (ESD)</div> </div> <div> <div>80Δ</div> <div>3 842 558 479 (GY)</div> <div>3 842 558 499 (ESD)</div> </div> <div> <div>60x120</div> <div>3 842 558 475 (GY)</div> <div>3 842 558 495 (ESD)</div> </div> <div> <div>80x120</div> <div>3 842 558 476 (GY)</div> <div>3 842 558 496 (ESD)</div> </div> <div> <div>80 3D</div> <div>3 842 558 478 (GY)</div> <div>3 842 558 498 (ESD)</div> </div>			<div>K</div>  <div> <div>20x120</div> <div>3 842 558 502</div> </div>

558 956-21

Fig. 1: Components of the modular system of function-integrated profiles



- L:** Socket strip covers  
**M:** Socket strip cover strips  
**N:** Cable bushings  
**O:** Edge protector  
**P:** Equipotential bonding  
**Q:** Positioning pin  
**R:** Cover plate

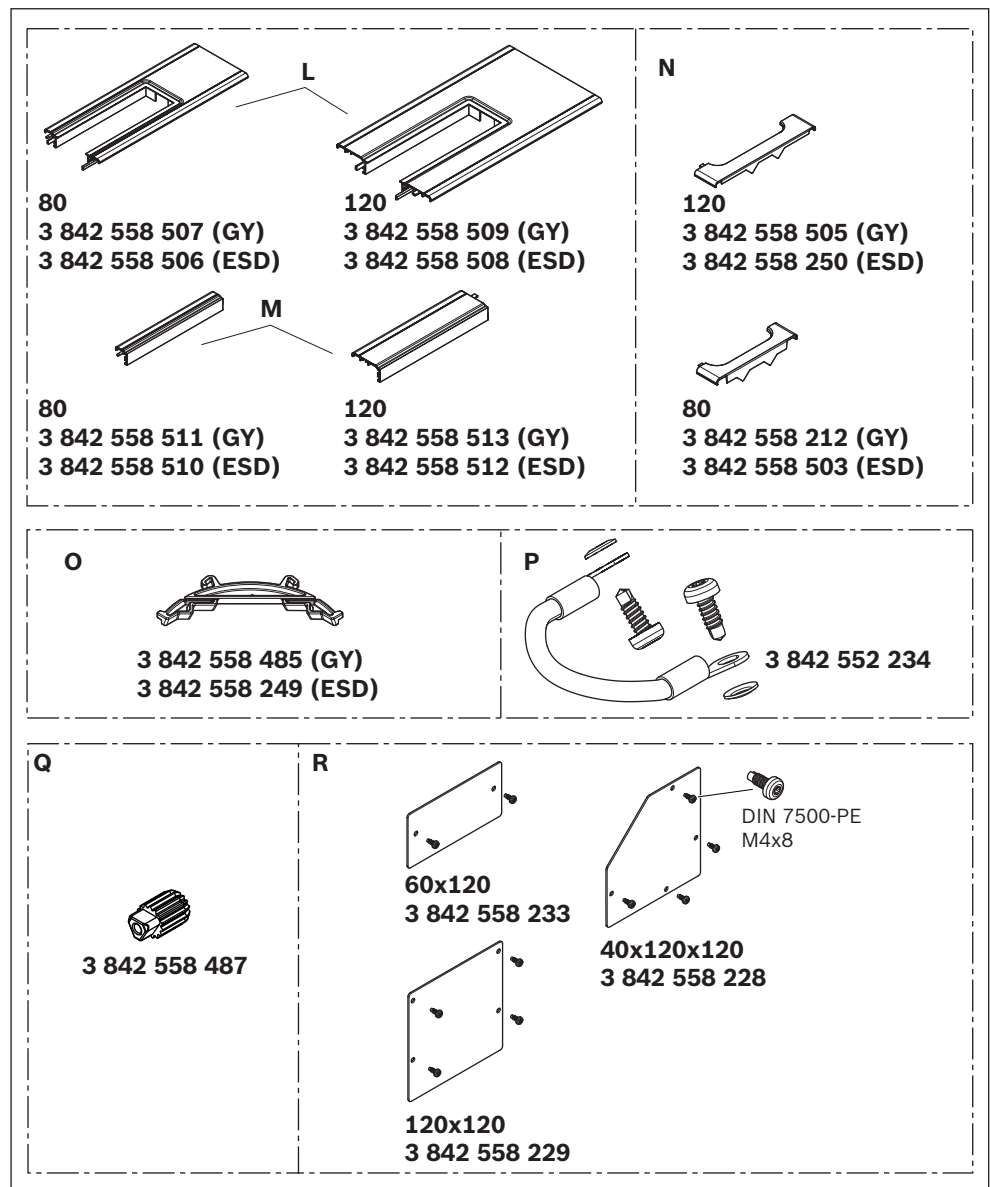


Fig. 2: Accessories for the modular system of function-integrated profiles

## 6 Transport and storage

- Observe the transport instructions on the packaging.
- Transport weight: see delivery documents.
- Secure the product to prevent toppling!
- Always maintain ambient conditions during loading and transport, see page 41.

### 6.1 Transporting the product



#### **WARNING**

##### **Suspended loads can fall!**

Falling objects can result in severe injury (or even death).

- ▶ Use only slings with sufficiently high bearing loads (for product weight see delivery documents).
- ▶ Make sure the lifting straps are correctly fastened before lifting the product!
- ▶ Secure the product against tipping over when lifting!
- ▶ Make sure that no one but the operator is in the danger zone during lifting and lowering!

### 6.2 Storing the product

- Only set the product down on a flat surface.
- Protect the product from mechanical stress.
- Protect the product from environmental influences, such as dirt and moisture.
- Observe the ambient conditions, see page 41.

## 7 Installation

### 7.1 Unpacking

- Lift the product out of its packaging.
- Dispose of the packaging material in accordance with the applicable regulations in your country.

### 7.2 Installation requirements

- During installation, be sure to maintain the ambient conditions specified in the Technical Data (see page 41).

#### 7.2.1 Installation position

- Install the product level and plumb, at right angles, and axially parallel. This ensures proper functioning and prevents premature wear.

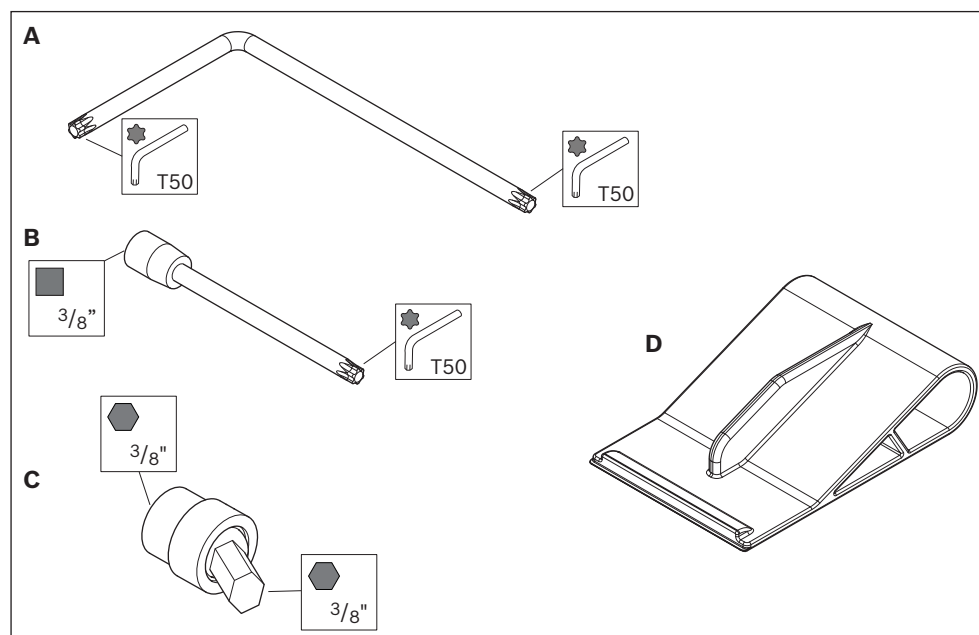
### 7.3 Required tools

#### 7.3.1 Standard tools

- Hexagon wrench SW10
- Hexagon socket wrench SW4
- Torx wrench T10
- Tap M12
- Hammer
- Level

#### 7.3.2 Special assembly tools

- A:** Offset screwdriver  
T50/T50 L = 200 mm  
**3 842 558 181**
- B:** Wrench socket  
□  $\frac{3}{8}$ " / T50  
**3 842 558 194**
- C:** Jointed bit adapter  
□  $\frac{3}{8}$ " / □  $\frac{3}{8}$ "  
**3 842 558 195**
- D:** Cover disassembly tool  
**3 842 558 196**
























**Fig. 3: Special assembly tools**

558 956-23

## 7.4 Symbols used

**Tabelle 6: Symbols used**

	Mounting with rubber mallet is recommended
	Tap for metric threads M = thread diameter ... mm
 M <sub>D</sub> = 20Nm	Hex wrench SW = wrench size ... mm M <sub>D</sub> = required tightening torque ... Nm
 M <sub>D</sub> = 8Nm	Hex socket wrench SW = wrench size ... mm M <sub>D</sub> = required tightening torque ... Nm
 M <sub>D</sub> = 1 Nm	Torx wrench T... = Torx size MD = Required torque
 	Screwdrivers for cross-head screws PZ ... = Pozidriv screw drive, size ... PH ... = Phillips screw drive, size ...
   gleitmo 585 K Anti-Seize	Lubricate/lubricate with specific grease lubricant: • gleitmo 585 K: gleitmo 585 K, <a href="http://www.fuchs-lubritech.com">www.fuchs-lubritech.com</a> • Anti-Seize: Food Grade Anti-Seize/Loctite 8014, <a href="http://www.henkel.com">www.henkel.com</a>
  Loctite 243 Loctite 601	Secure the screws with: • Loctite 243: medium strength (detachable), <a href="http://www.loctite.de">www.loctite.de</a> • Loctite 601: high-strength screw retention (non-detachable), <a href="http://www.loctite.de">www.loctite.de</a>
	The marked parts are not required for the described assembly. Dispose of the parts or use them for other purposes.
  	Graphical depiction of the installation steps. The numbers correspond to the sequence of installation steps, in accordance with the instructions in the accompanying text.
   	Graphical depiction of the designation of components. The letters denote the components mentioned in the accompanying text.
	Detail view from a different direction, for example, the back or the bottom side of the product.

## 7.5 Product installation

### 7.5.1 Cable guide profiles

**3 842 558 242** (60x120)  
**3 842 558 241** (120x120)  
**3 842 558 243**  
 (40x120x120)



**Please note:**

- For lateral or overhead installation, use cable brackets **3 842 526 564** for attachment of individual cables with cable ties (not included in the scope of delivery, see Basic Mechanic Elements catalog)

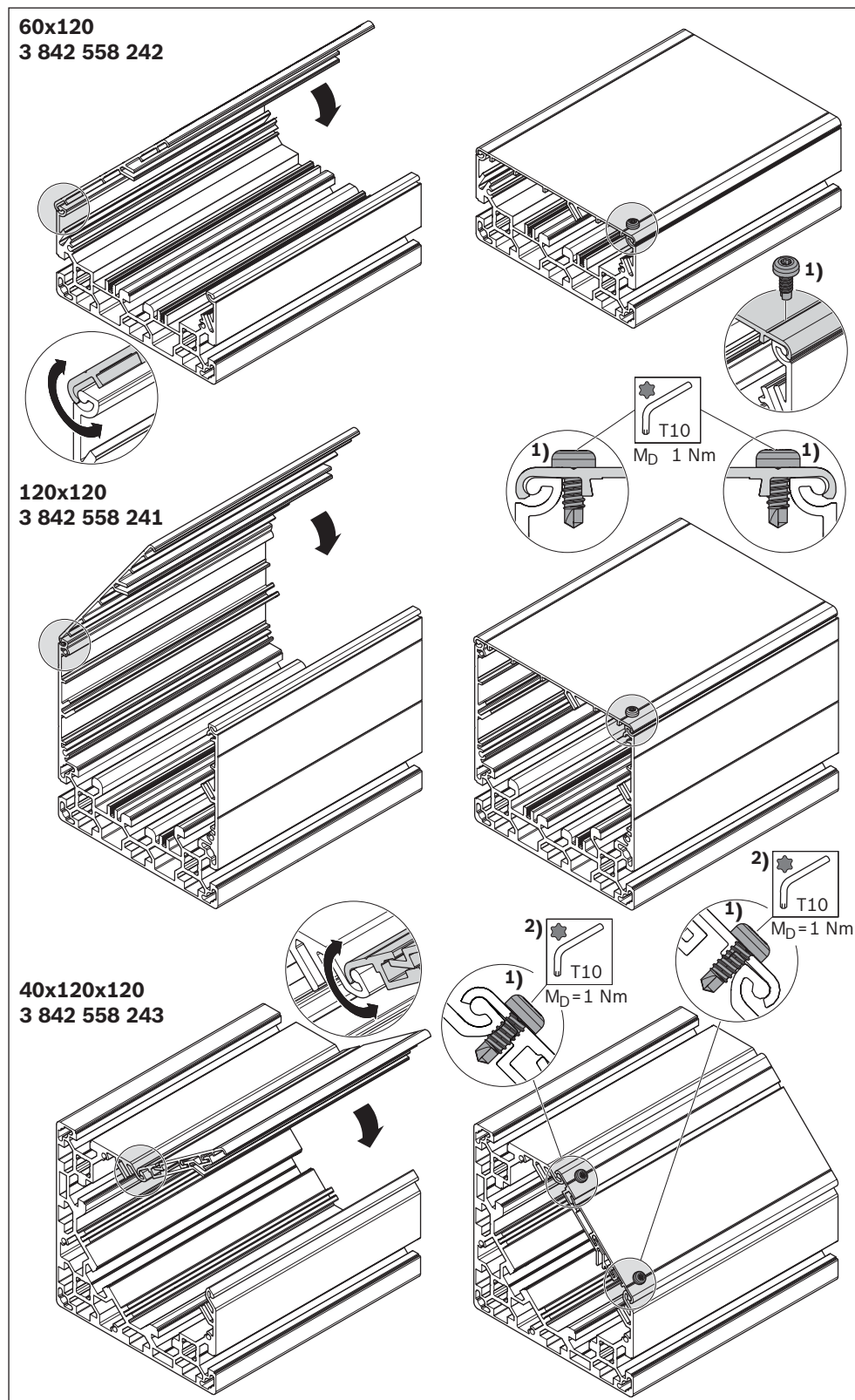
Usable cross-section:

- 60x120: 600 mm<sup>2</sup>
- 120x120: 4,000 mm<sup>2</sup>
- 40x120x120: 3,200 mm<sup>2</sup>

- Tighten the cover to the cable guide cover (1), 2):
  - For overhead or lateral installation.
  - With cover facing upwards when the cover is not grounded separately.
- Ensure that the lid is secured against shifting while the cover is screwed into place.

1) Self-tapping screw ST3.5x9.5  
 3 842 552 267  
 (not included in scope of delivery)

2) Tighten the cover of the cable guide profiles **3 842 558 243** (40x120x120) on both sides.

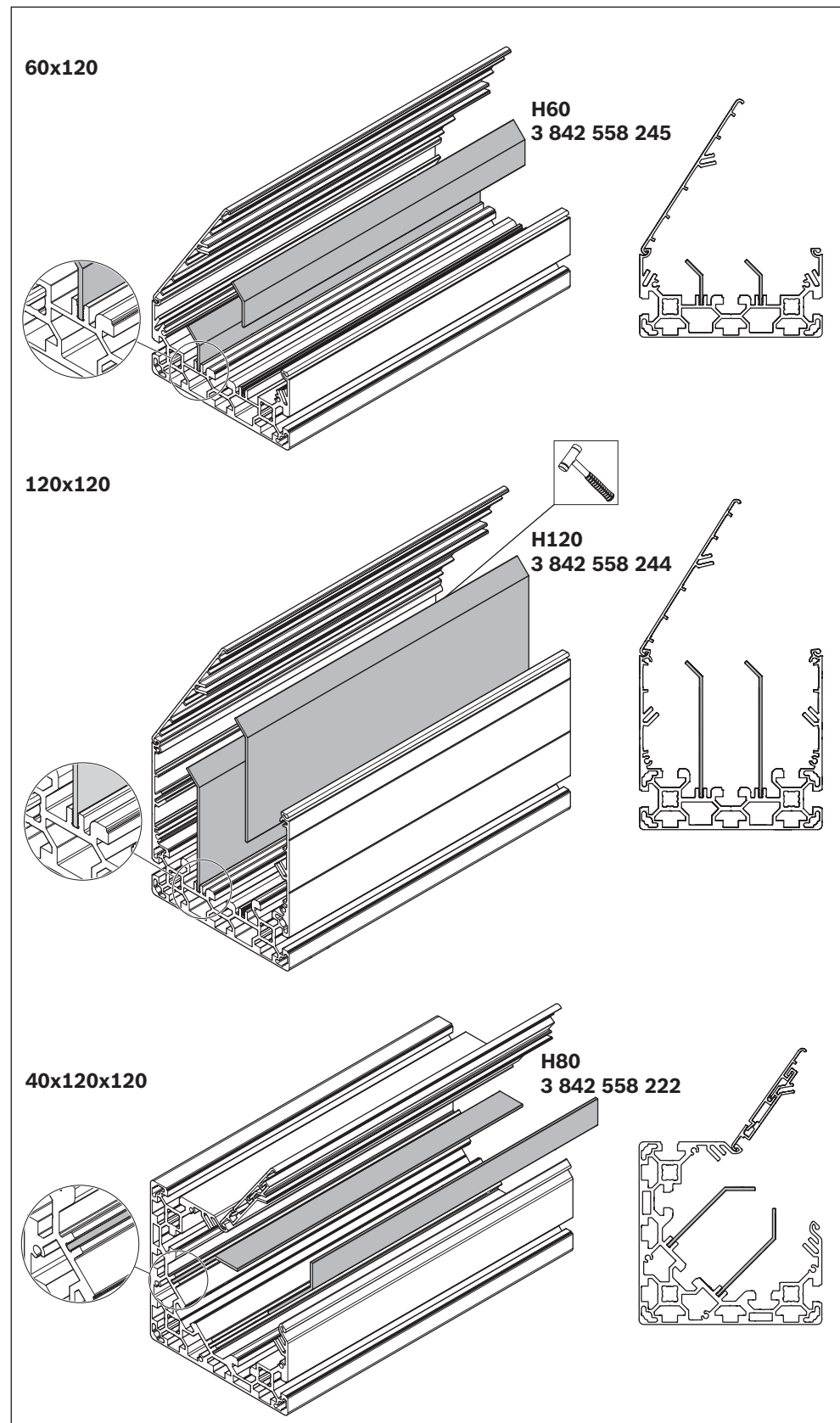


**Fig. 4: Cable guide profiles**

## 7.5.2 Dividing strips

**3 842 558 245** (60 high)  
**3 842 558 222** (80 high)  
**3 842 558 244** (120 high)

- If necessary, use a rubber mallet to install the dividing strips.



558 956-19

**Fig. 5: Dividing strips**

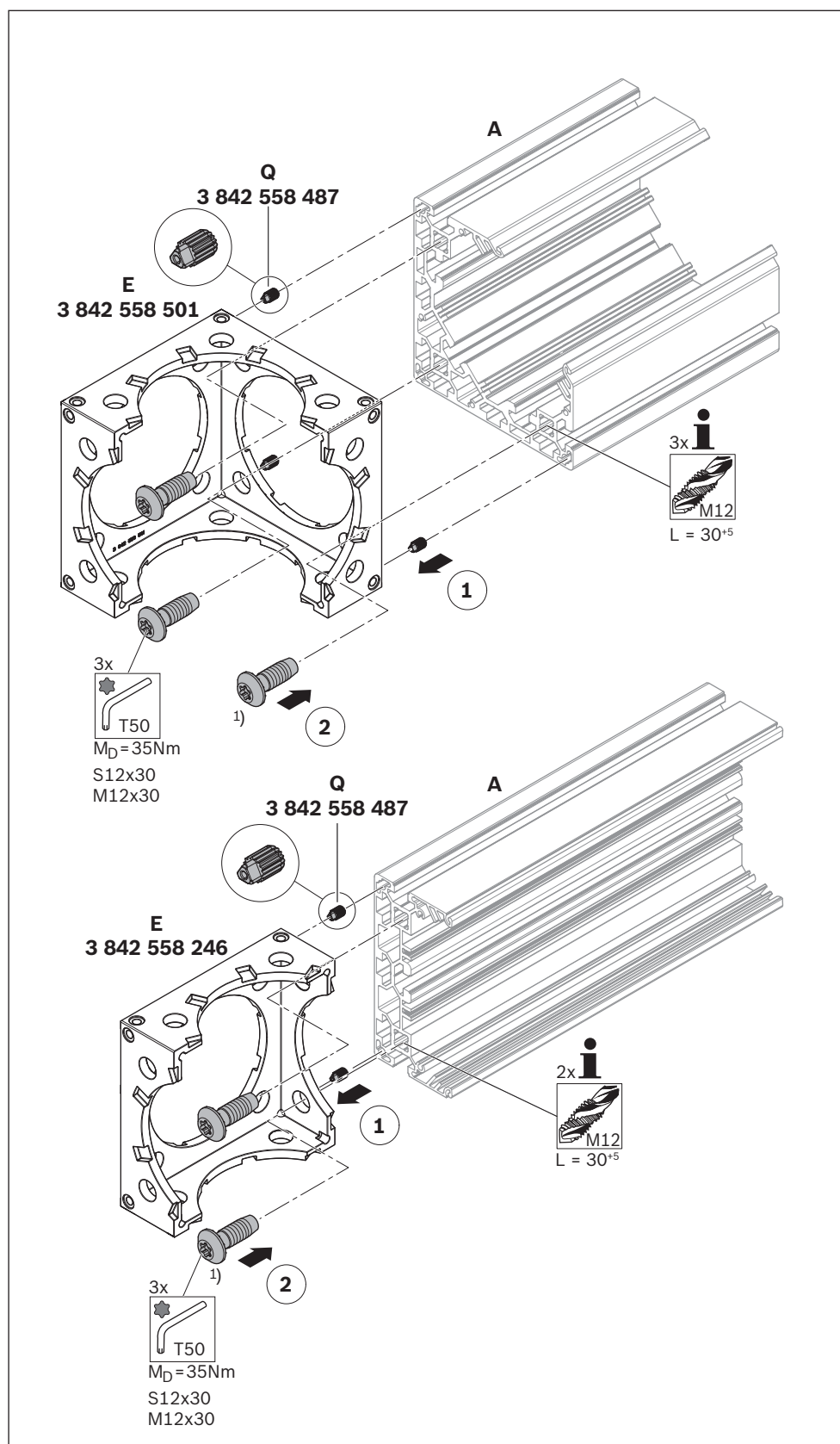
## 7.5.3 Profile joints

**3 842 558 501** (3/4)**3 842 558 246** (1/2)**Please note:**

- If M12x30 screws are to be used, the threads of the cable guide profiles must be cut.
- If more than 3 sides of a profile joint are connected to cable guide profiles, the use of M12x30 screws is recommended.

1. Install the positioning pins (Q) at the profile joint.
2. Connect the cable guide profile (A) to the profile joint (E).

- 1) Screws:  
S12x30 3 842 530 236 or  
M12x30 3 842 530 235  
(not included in scope  
of delivery)

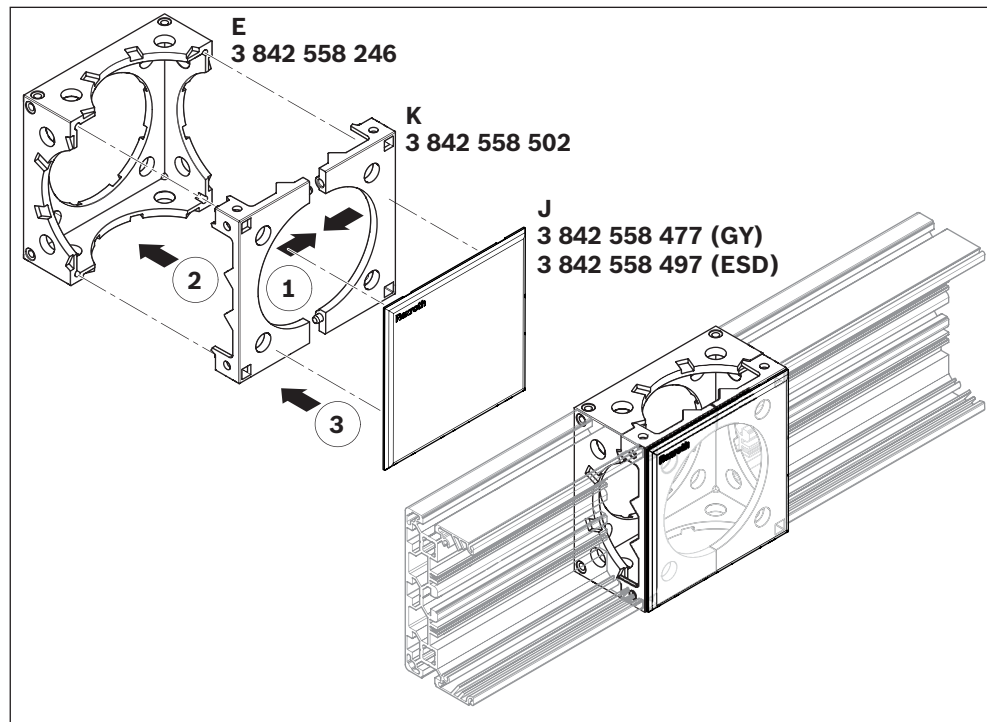
**Fig. 6: Profile joints (installation example)**

558 956-18



**3 842 558 502 (20x120)**

1. Install two spacers (K).
  2. Install the spacer assembly at the profile joints 1/2 (E).
  3. Install the cover cap 120x120 (J).
- Install cable guide profiles 60x120 at the narrow sides.

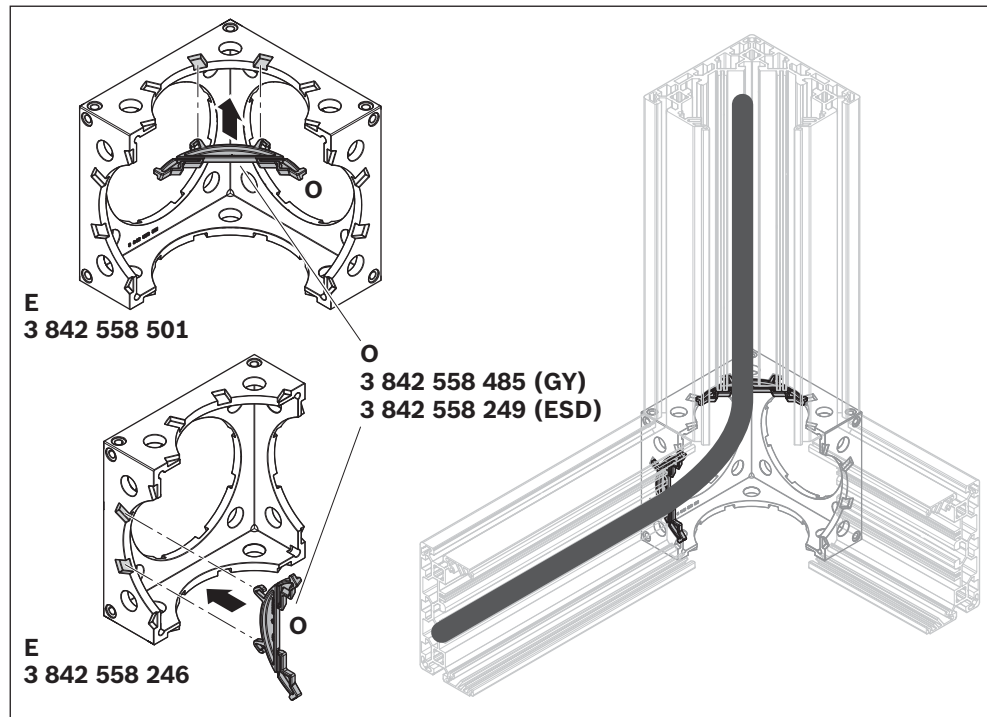
**7.5.4 Spacer**

558 956-17

**Fig. 7: Spacer**
**3 842 558 485 (gray)**  
**3 842 558 249 (ESD)**
**Please note:**

The edge protector prevents damage of the cables at sharp edges inside the profile joint and must be installed according to the cable guide.

- Install the edge protector (O) at the profile joint (E).

**7.5.5 Edge protector**

558 956-16

**Fig. 8: Edge protector**

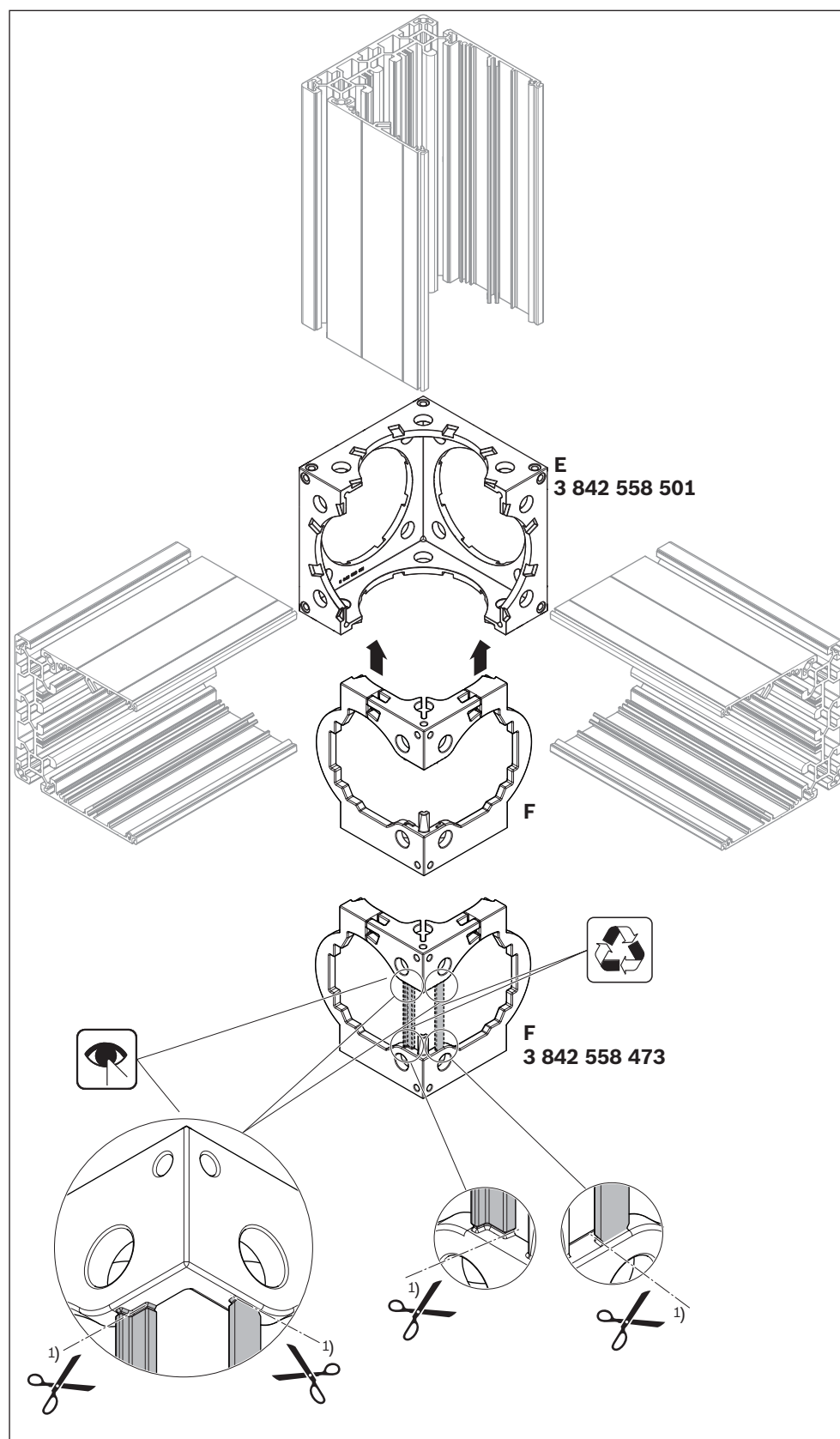


### 7.5.6 Connection bracket

**3 842 558 473**

**Use without 3D cover cap:**

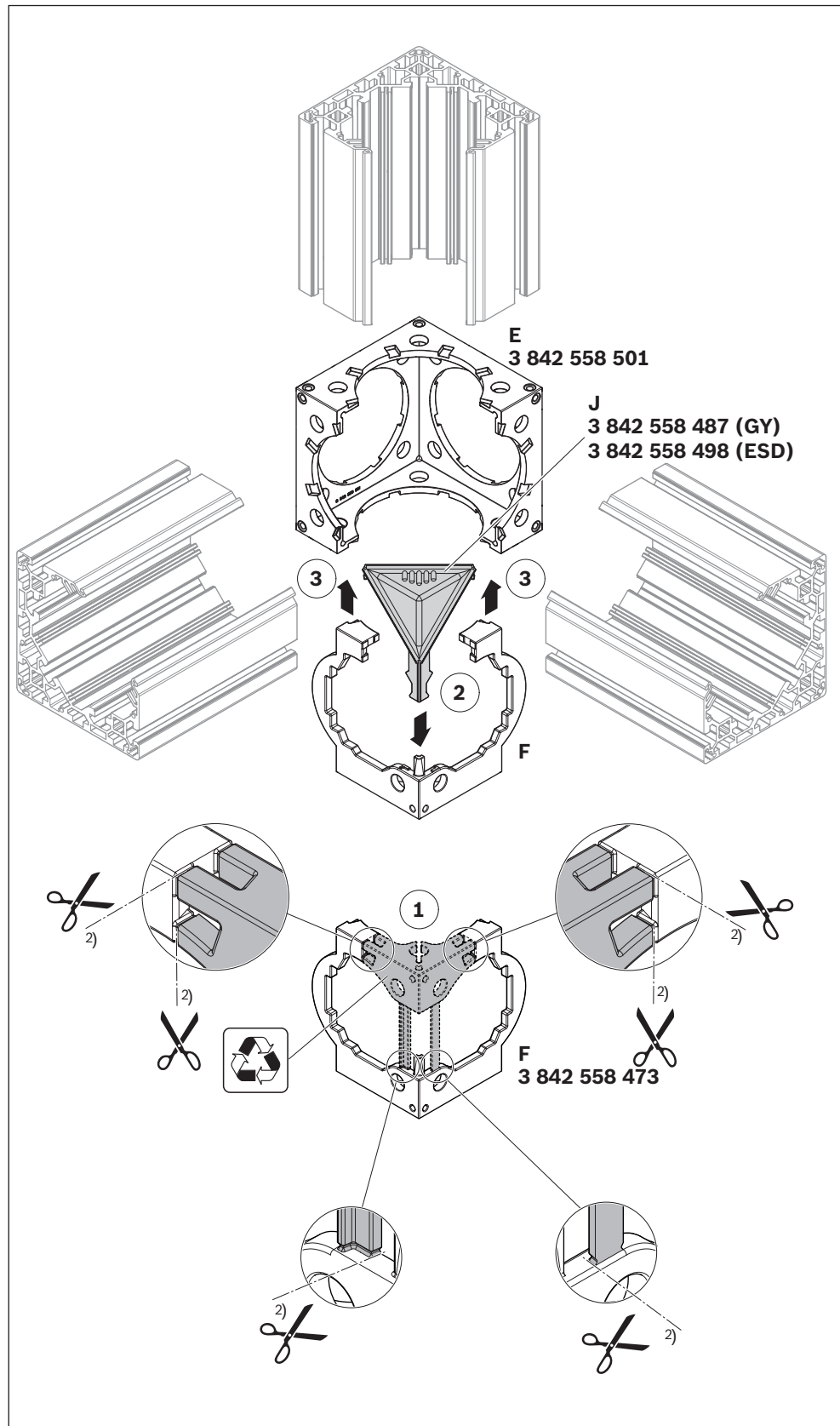
- Install the connection bracket (F) at the profile joint 3/4 (E).
- 1) Cut here to enable easier removal of cables from the profile joint.



**Fig. 9: Connection bracket, use without cover cap 80 3D**

**Use with 3D cover cap:**

1. Cut the connection bracket (F) when using the 3D cover cap (J) 2)
  2. Install the 3D cover cap (J).
  3. Install the connection bracket (F) at the profile joint 3/4 (E).
- 2) If using the 3D cover cap (J), cut here.



**Fig. 10: Connection bracket, use with cover cap 80 3D**

### 7.5.7 Bolt connector

1. Slide the bolt connector (G) into the strut profile (B).
2. Install the centering bolts (G1).
3. Position the screws and T-nuts and slide them from the side into the profiles.
4. Tighten the screws.
5. Install the cover caps (G2).

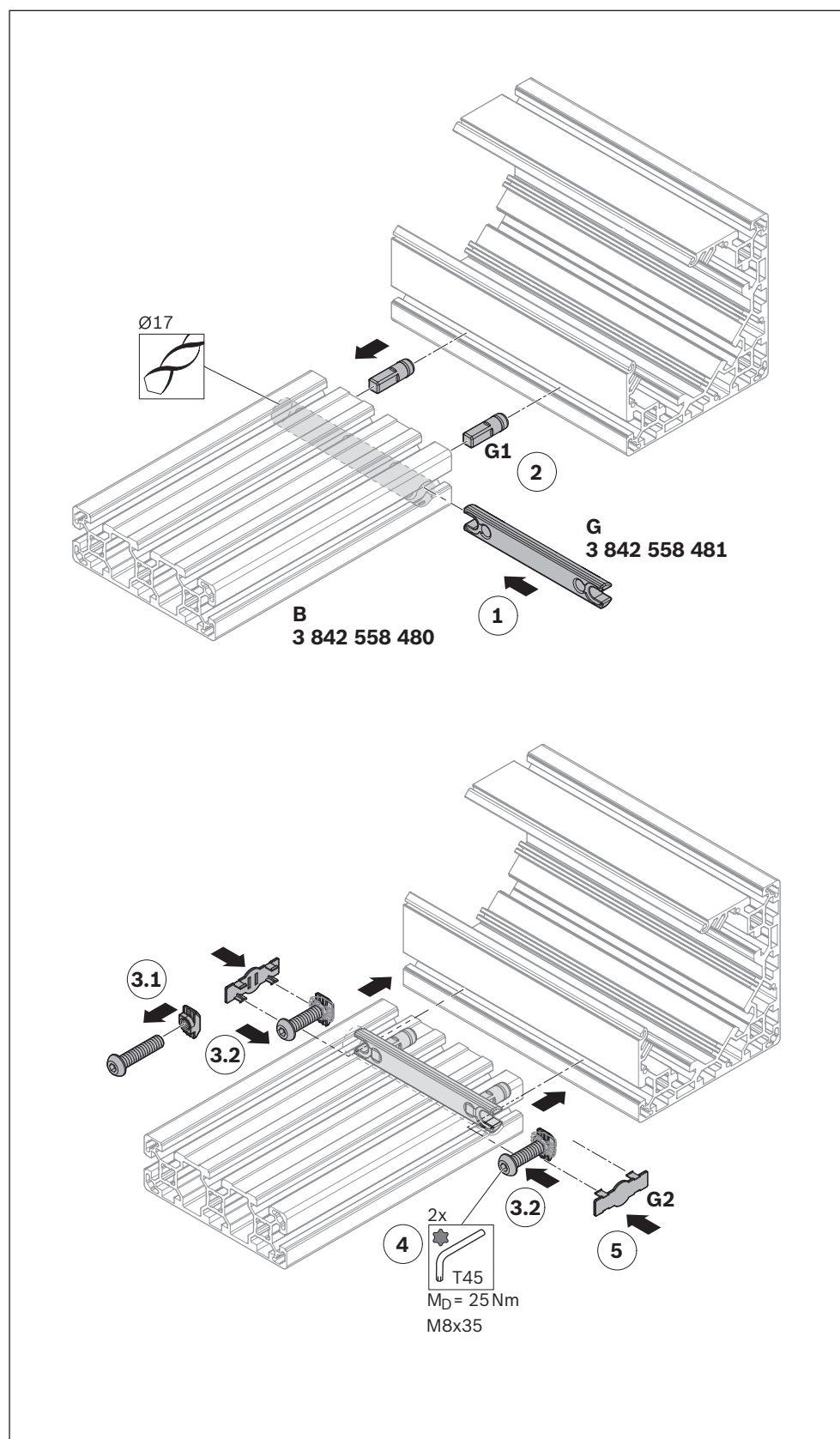


Fig. 11: Bolt connector (installation example)

558 956-13

**3 842 558 218** (60x120)  
**3 842 558 220** (120x120)  
**3 842 558 226**  
 (40x120x120)

#### Required accessories:

- Modular leveling feet (M16 thread), see Basic Mechanic Elements catalog)



#### Please note:

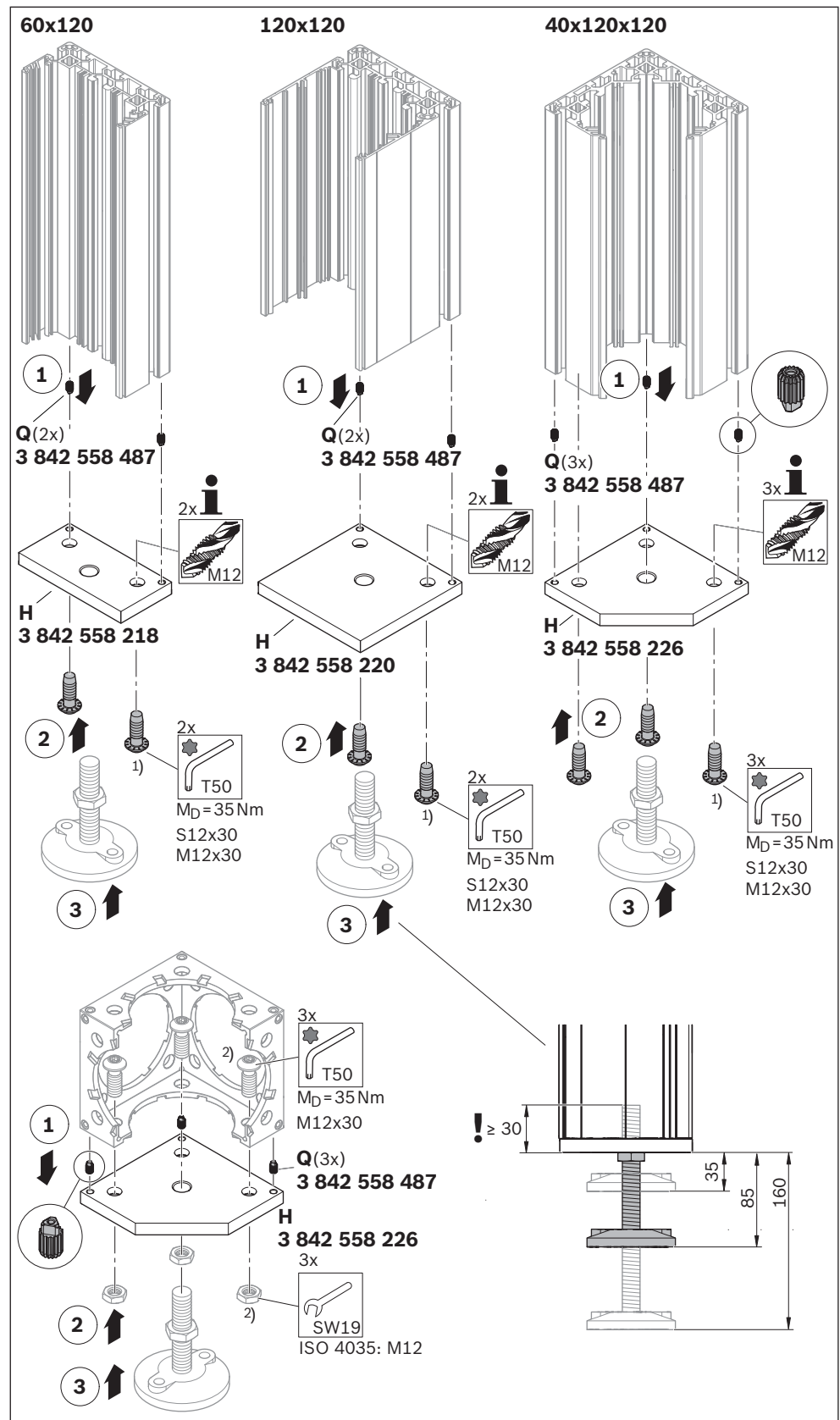
If M12x30 screws are to be used, threads must be cut into the cable guide profiles.

1. Install the positioning pins (Q).
2. Install the base plate (H).
3. Install the leveling foot.

1) Screws:  
 S12x30 3 842 530 236 or  
 M12x30 3 842 530 235  
 (not included in scope  
 of delivery)

2) Screw with nut:  
 M12x30 3 842 530 235  
 ISO 4035: M12  
 (not included in scope  
 of delivery)

### 7.5.8 Base plate



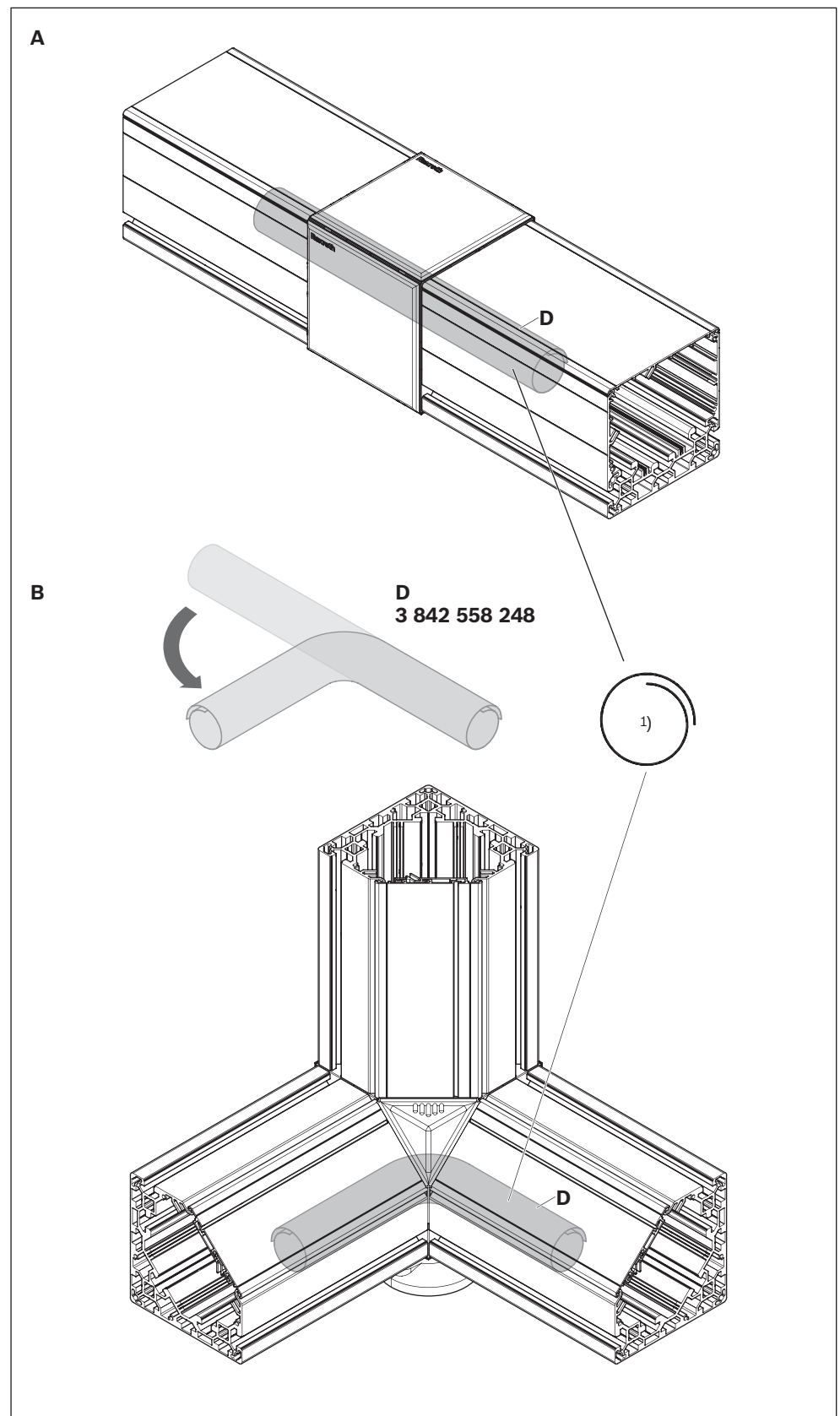
558 956-12

**Fig. 12: Base plate**

**3 842 558 248**

- A** Use in a straight cable guide profile
- B** Use in a profile joint across corner
- As necessary, install the protective hose (D).

1) Bundle diameter max. 38 mm

**7.5.9 Protective hose****Fig. 13: Protective hose**

558 956-11

**3 842 558 212** (80, gray)  
**3 842 558 503** (80, ESD)  
**3 842 558 505** (120, gray)  
**3 842 558 250** (120, ESD)

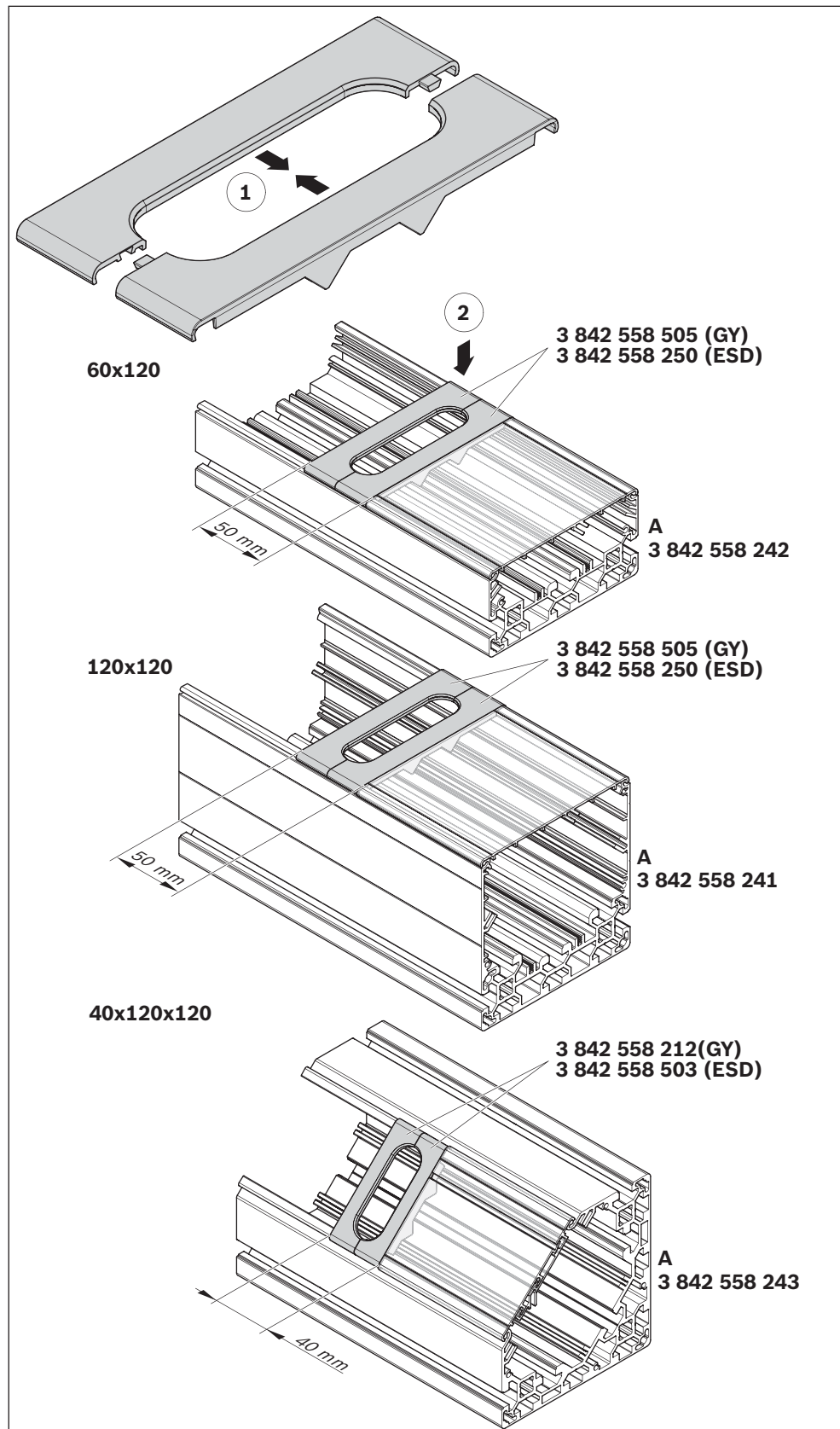


**Please note:**

The cable bushing serves as edge protector to prevent damage at the lines that are guided out of the cable duct.

1. Install two cable bushings (N)
2. Install the cable bushing assembly at the cable guide profiles (A).

### 7.5.10 Cable bushing



558 956-10

**Fig. 14: Cable bushing**



### 7.5.11 Covers and cover strips for socket strip

**3 842 558 509** (120, gray)  
**3 842 558 508** (120, ESD)  
**3 842 558 513** (120, gray)  
**3 842 558 512** (120, ESD)



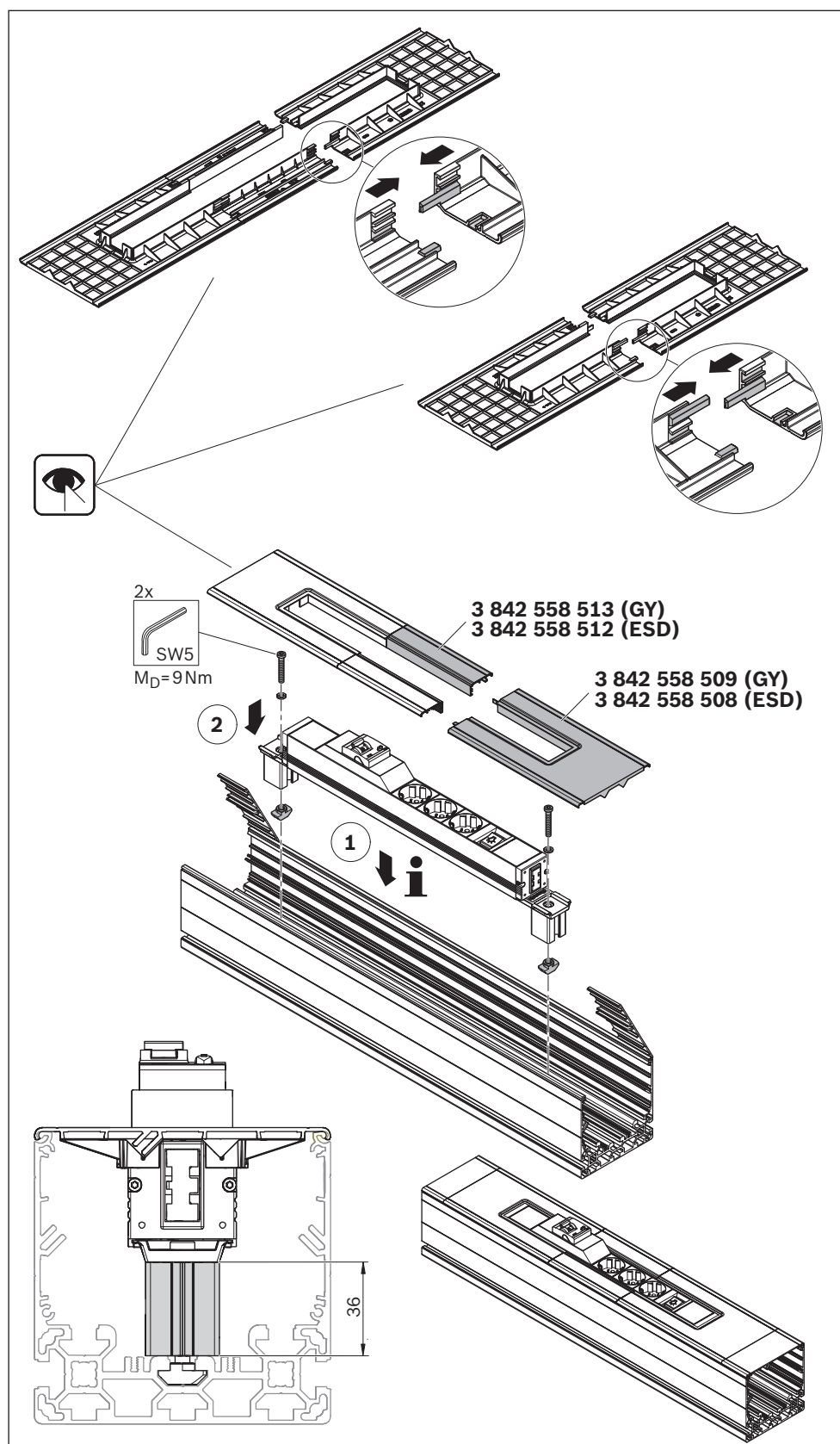
**Please note:**

- Installation of components that are not original Bosch Rexroth MPS components is not admissible.
- Do not use open power sockets or inserts.

**Required accessories:**

- Socket strip (width 44 mm, length max. 263 mm), see Manual Production Systems catalog.
- Cylinder screw M6x55 (2x)
- Strut profile 30x30 L = 36 mm (2x) (not included in scope of delivery)
- T-nut N10 M6 **3 842 530 285** (2x) (not included in scope of delivery)

1. Install the socket strip.
2. Install the covers and cover strips as necessary.



**Fig. 15: Socket strip and cover in cable guide profile 120x120**

558 956-09

**3 842 558 507** (80, gray)  
**3 842 558 506** (80, ESD)  
**3 842 558 511** (80, gray)  
**3 842 558 510** (80, ESD)



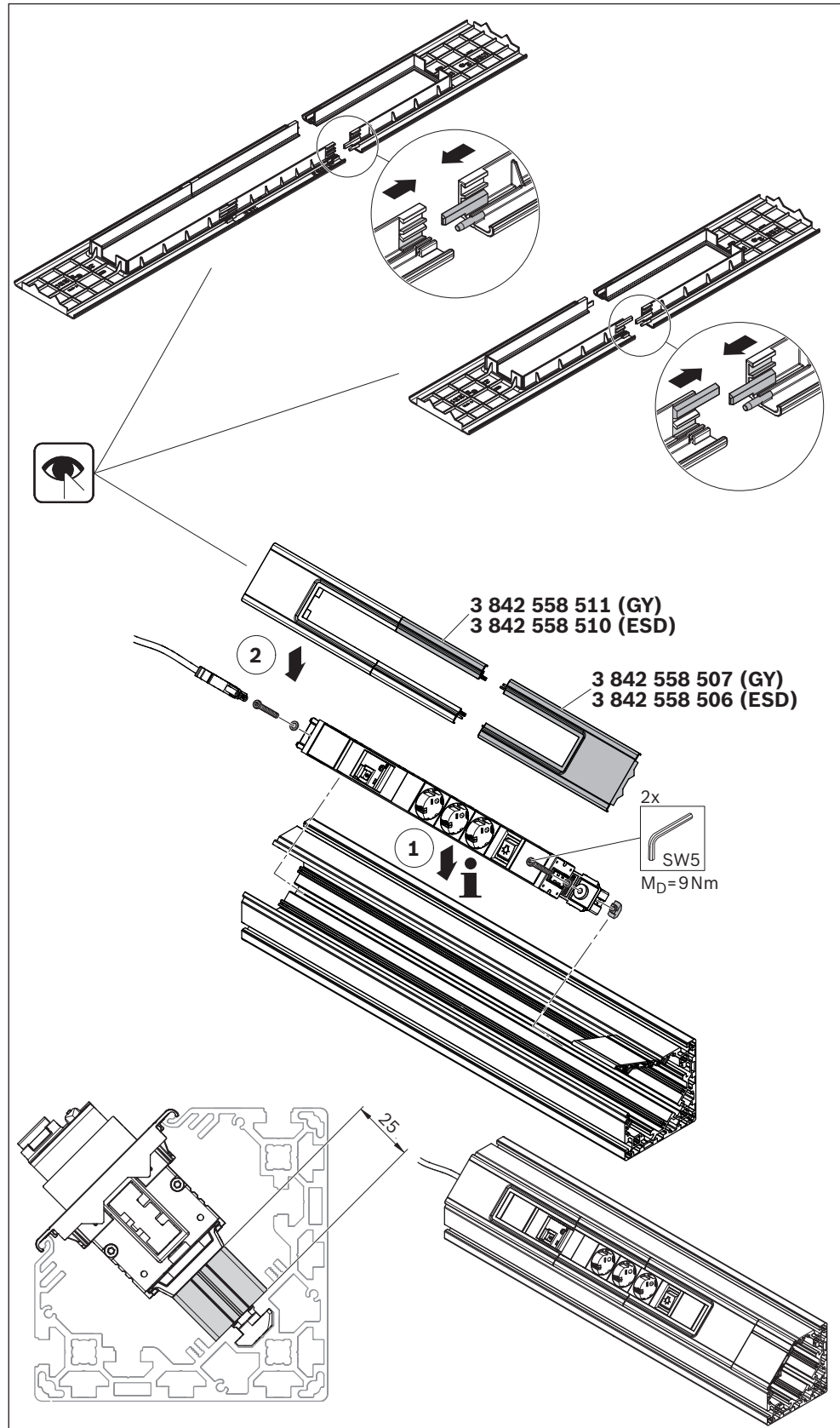
**Please note:**

- Installation of components that are not original Bosch Rexroth MPS components is not admissible.
- Do not use open power sockets or inserts.

**Required accessories:**

- Socket strip (width 44 mm, length max. 263 mm), see Manual Production Systems catalog.
- Cylinder screw M6x45 (2x)
- Strut profile 30x30 L = 25 mm (2x) (not included in scope of delivery)
- T-nut N10 M6 **3 842 530 285** (2x) (not included in scope of delivery)

1. Install the socket strip.
2. Install the covers and cover strips as necessary.



558 956-08

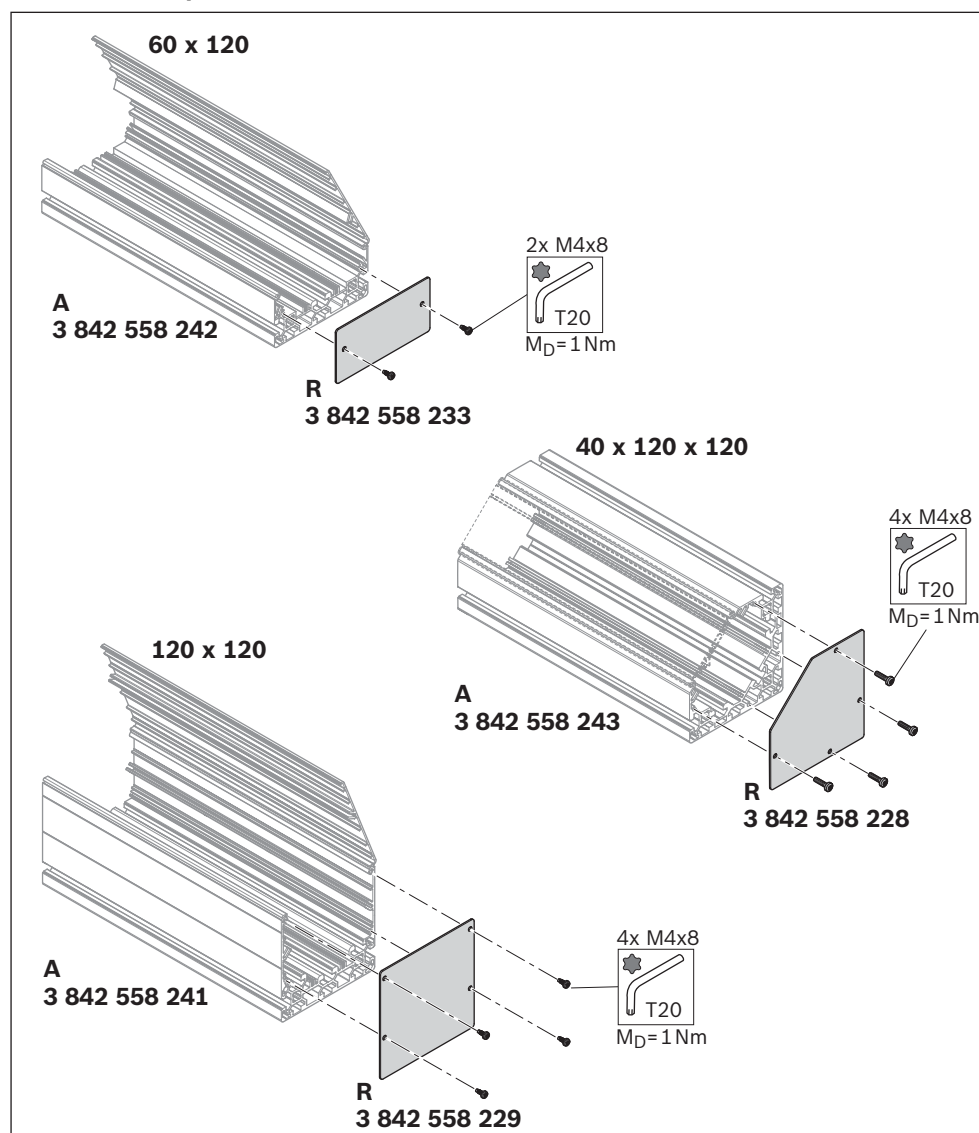
**Fig. 16: Socket strip and cover in cable guide profile 40x120x120**



## 7.5.12 Cover plate

**3 842 558 233** (60x120)  
**3 842 558 229** (120x120)  
**3 842 558 228**  
 (40x120x120)

- Install the cover plates (R) at the cable guide profiles (A).



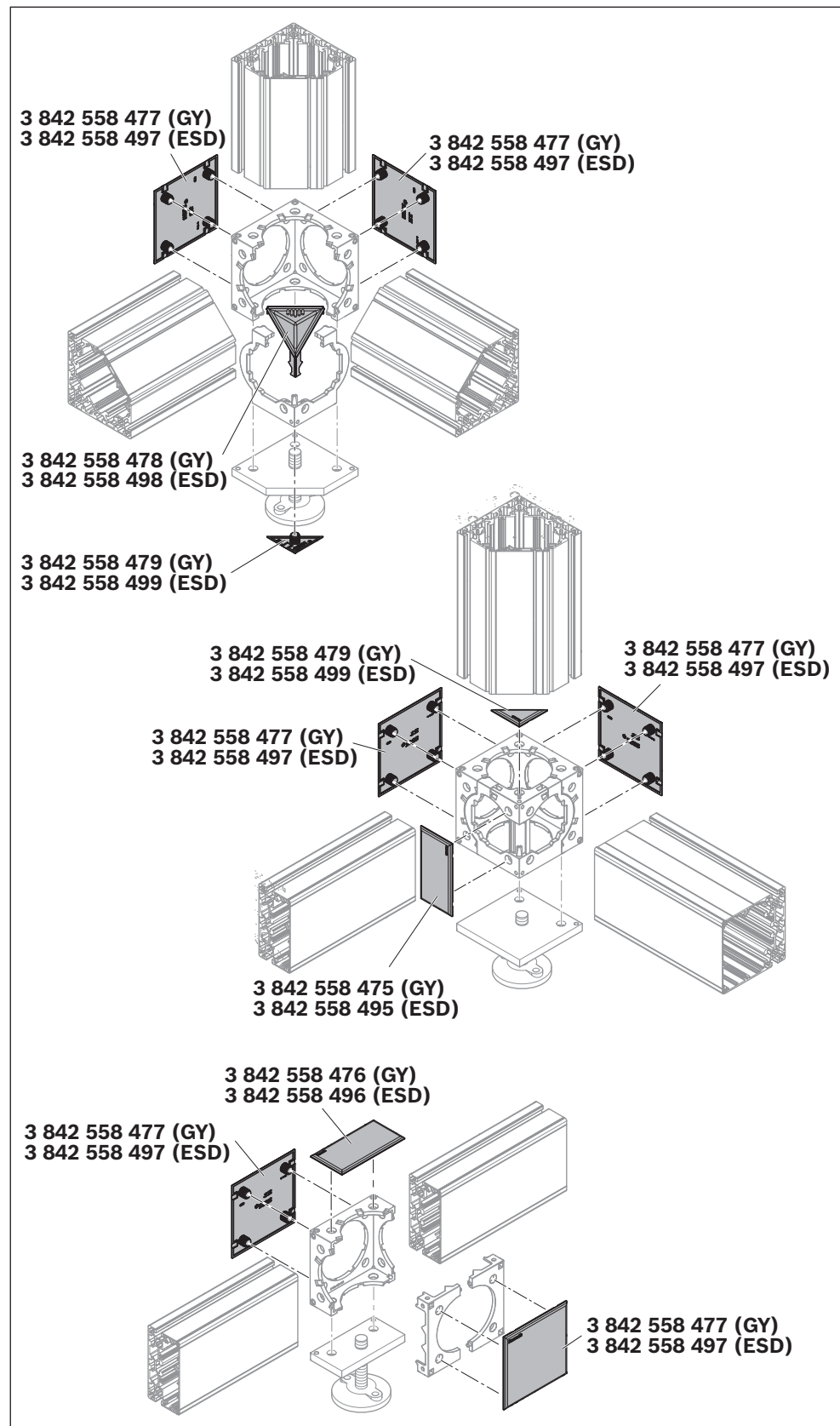
558 956-14

Fig. 17: Cover plate

## 7.5.13 Cover caps

**3 842 558 474** (60x60, gray)  
**3 842 558 494** (60x60, ESD)  
**3 842 558 475**  
 (60x120, gray)  
**3 842 558 495**  
 (60x120, ESD)  
**3 842 558 476**  
 (80x120, gray)  
**3 842 558 496**  
 (80x120, ESD)  
**3 842 558 477**  
 (120x120, gray)  
**3 842 558 497**  
 (120x120, ESD)  
**3 842 558 479** (80 Δ, gray)  
**3 842 558 499** (80 Δ, ESD)  
**3 842 558 478** (80 3D, gray)  
**3 842 558 498** (80 3D, ESD)

► As necessary, install the cover caps.

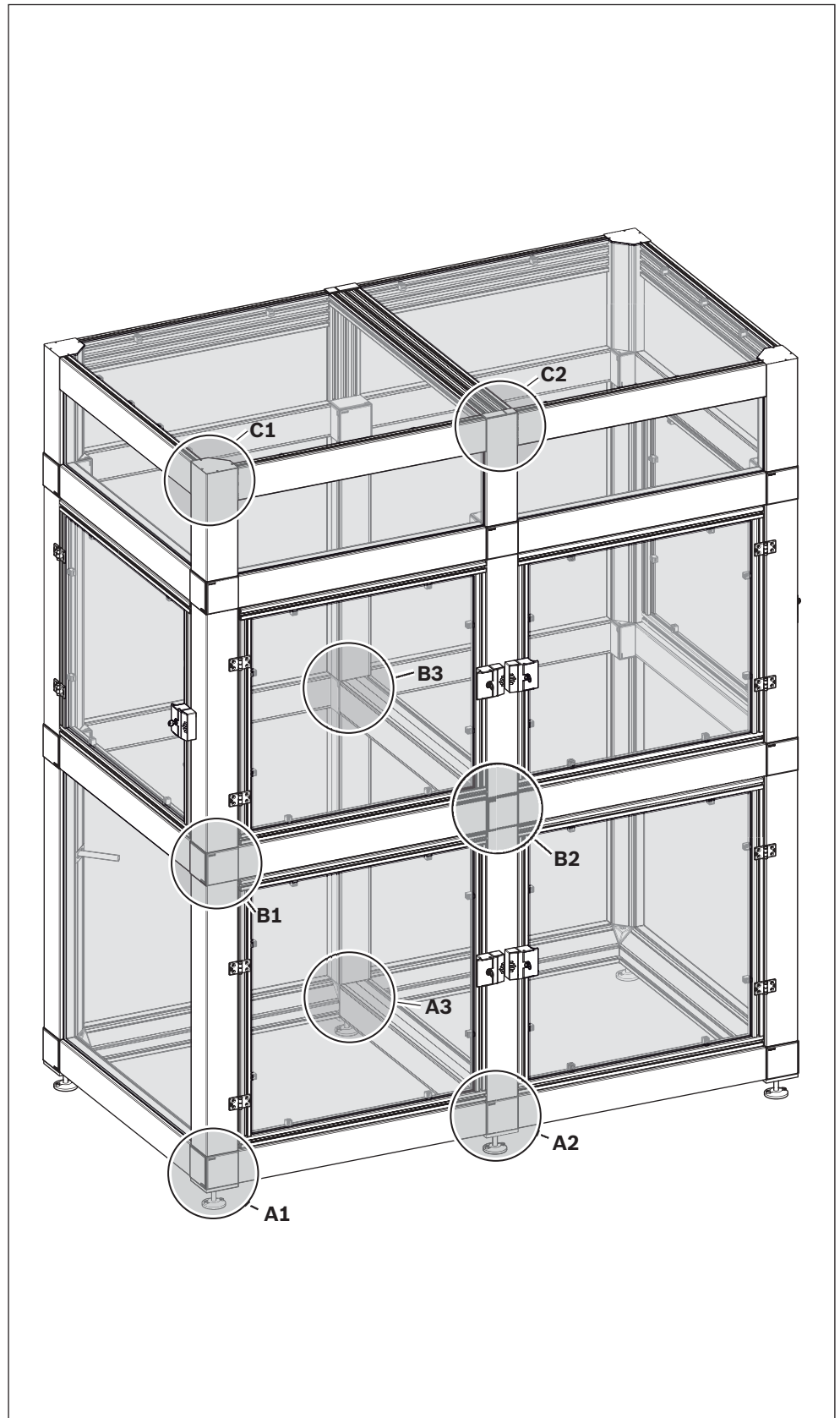


558 956-07

Fig. 18: cover caps (installation examples)

## 7.6 Installation examples

- A** Installation examples for bottom level
- B** Installation examples for medium level
- C** Installation examples for top level



**Fig. 19: Installation examples**

558 956-03

### 7.6.1 Installation examples of joints on bottom level

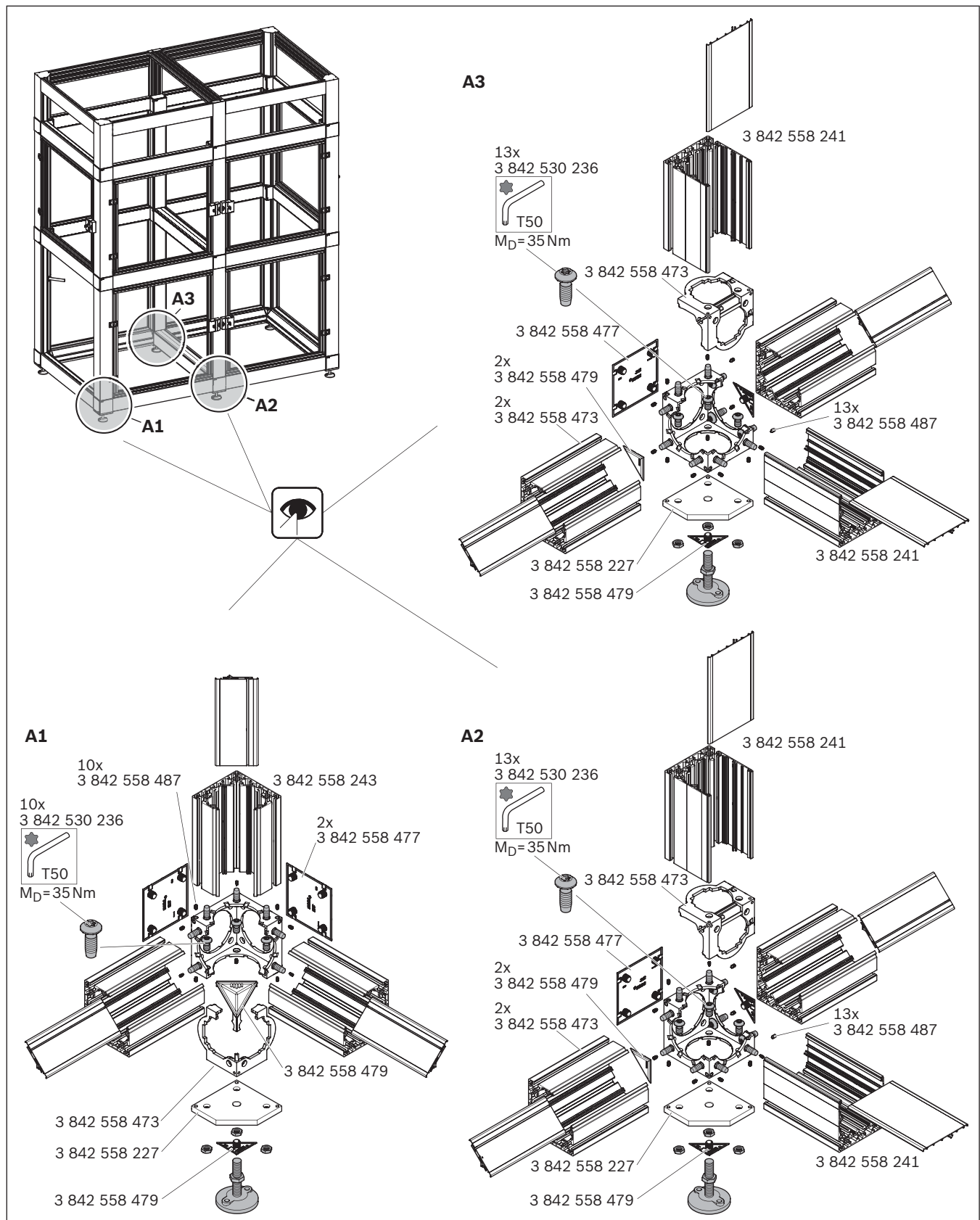


Fig. 20: Installation examples A1/A2/A3

558 956-04

## 7.6.2 Installation examples of joints on medium level

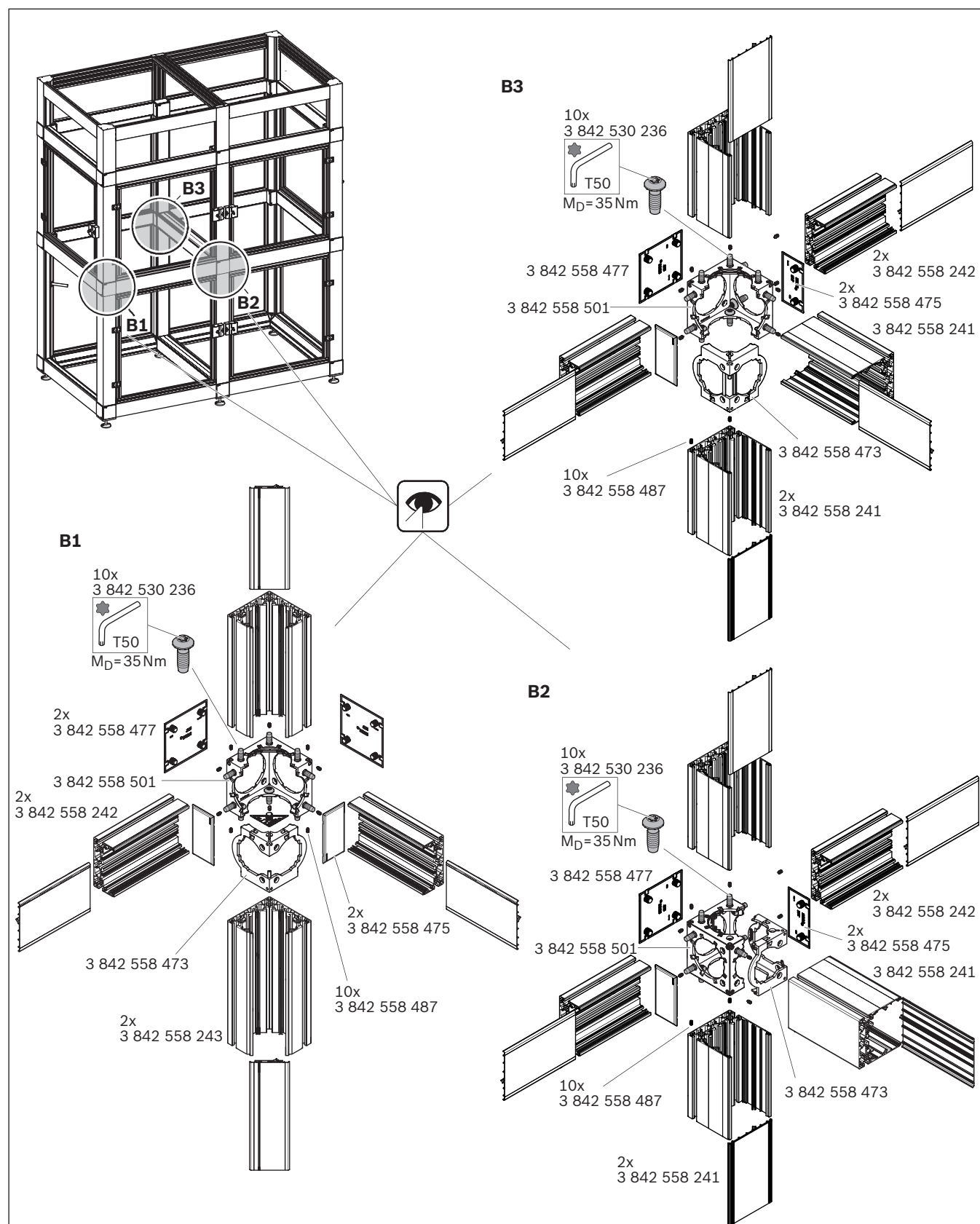
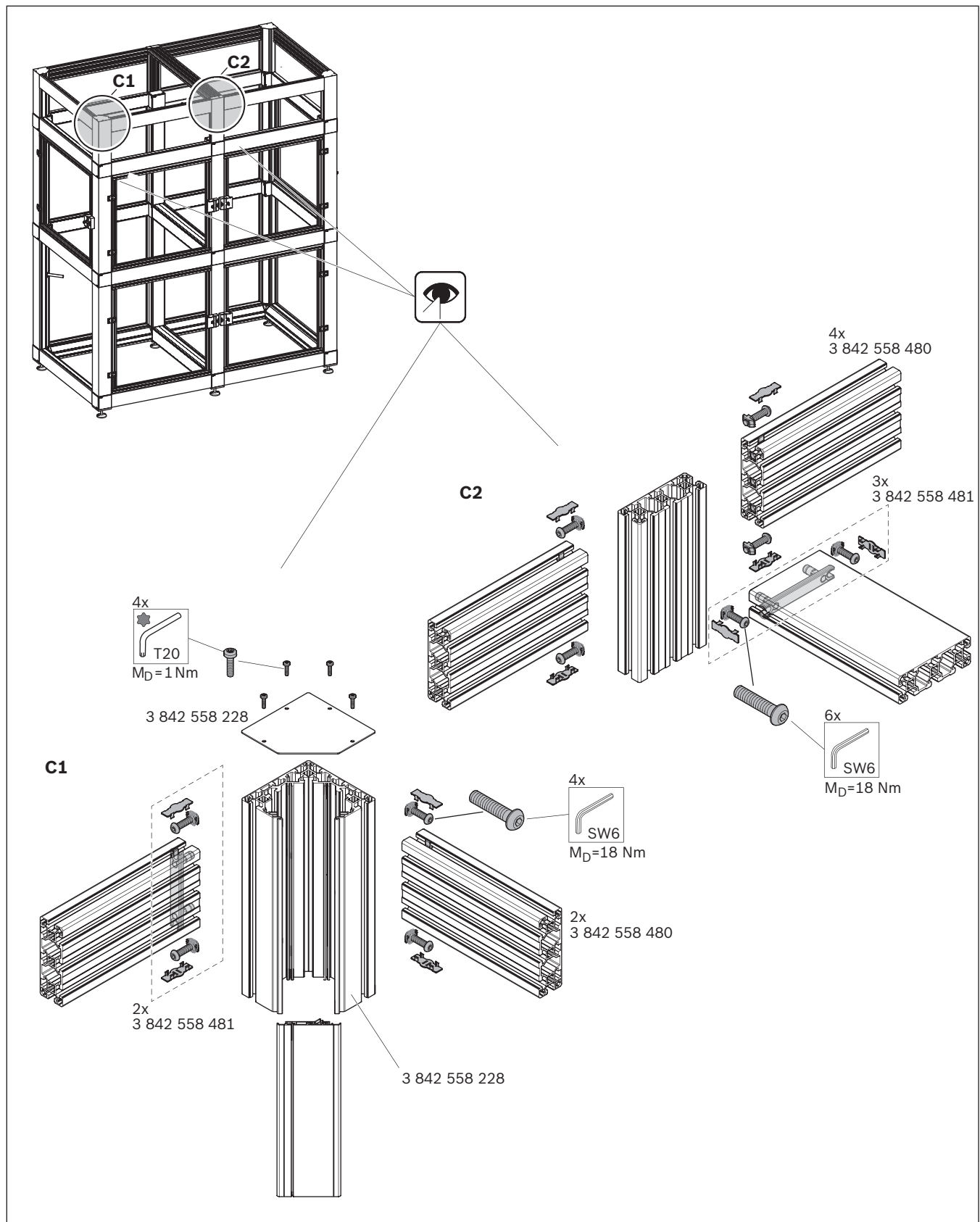


Fig. 21: Installation examples B1/B2/B3

558 956-05



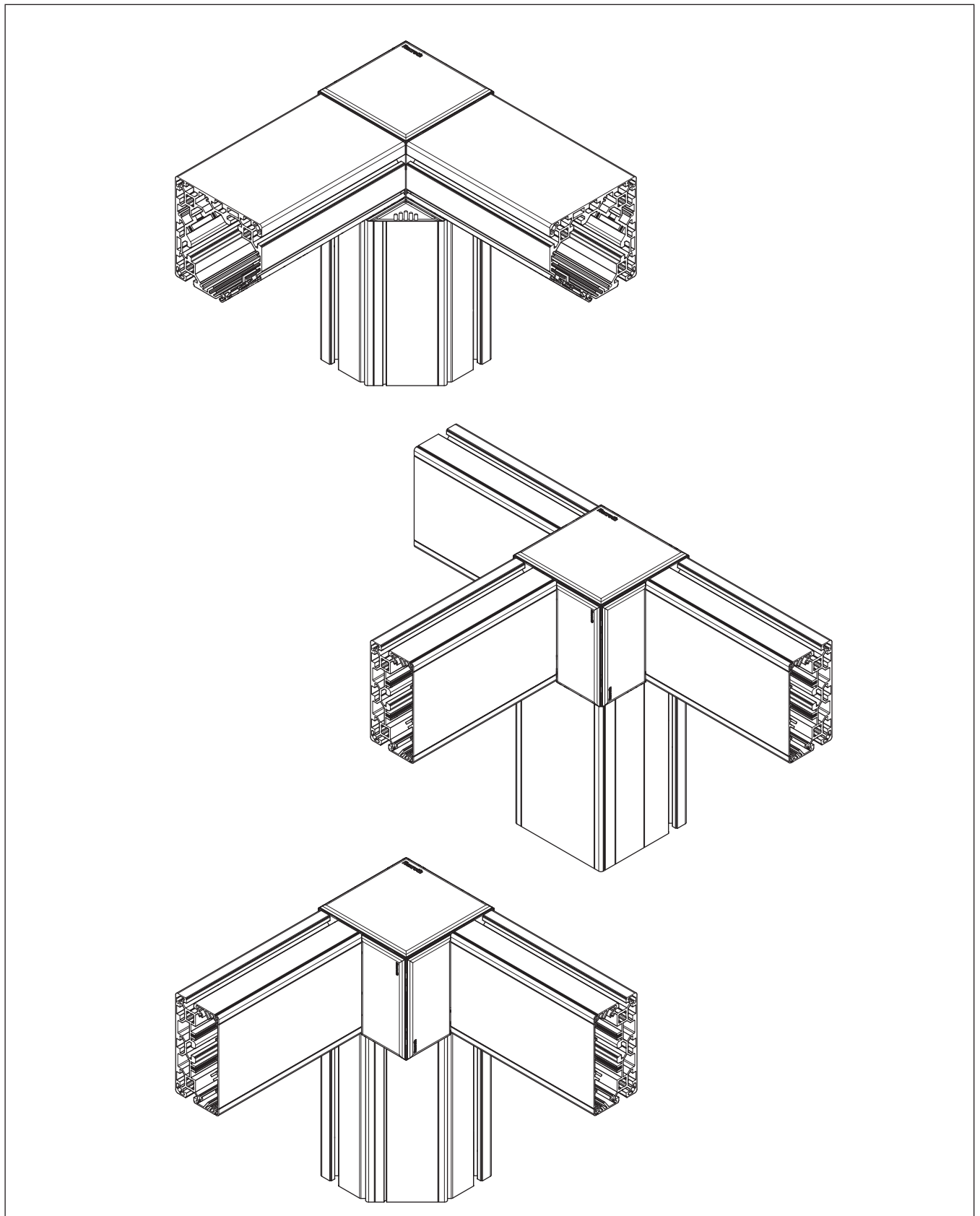
### 7.6.3 Installation examples of joints on top level



558 956-06

Fig. 22: Installation examples C1 and C2

#### 7.6.4 Installation examples of joints on top level with cable guide function



**Fig. 23: Installation examples of joints on top level with cable guide function**

558 956-25

## 7.6.5 Equipotential bonding/equipotential bonding line

3 842 552 234

**Installation by specialists only:**

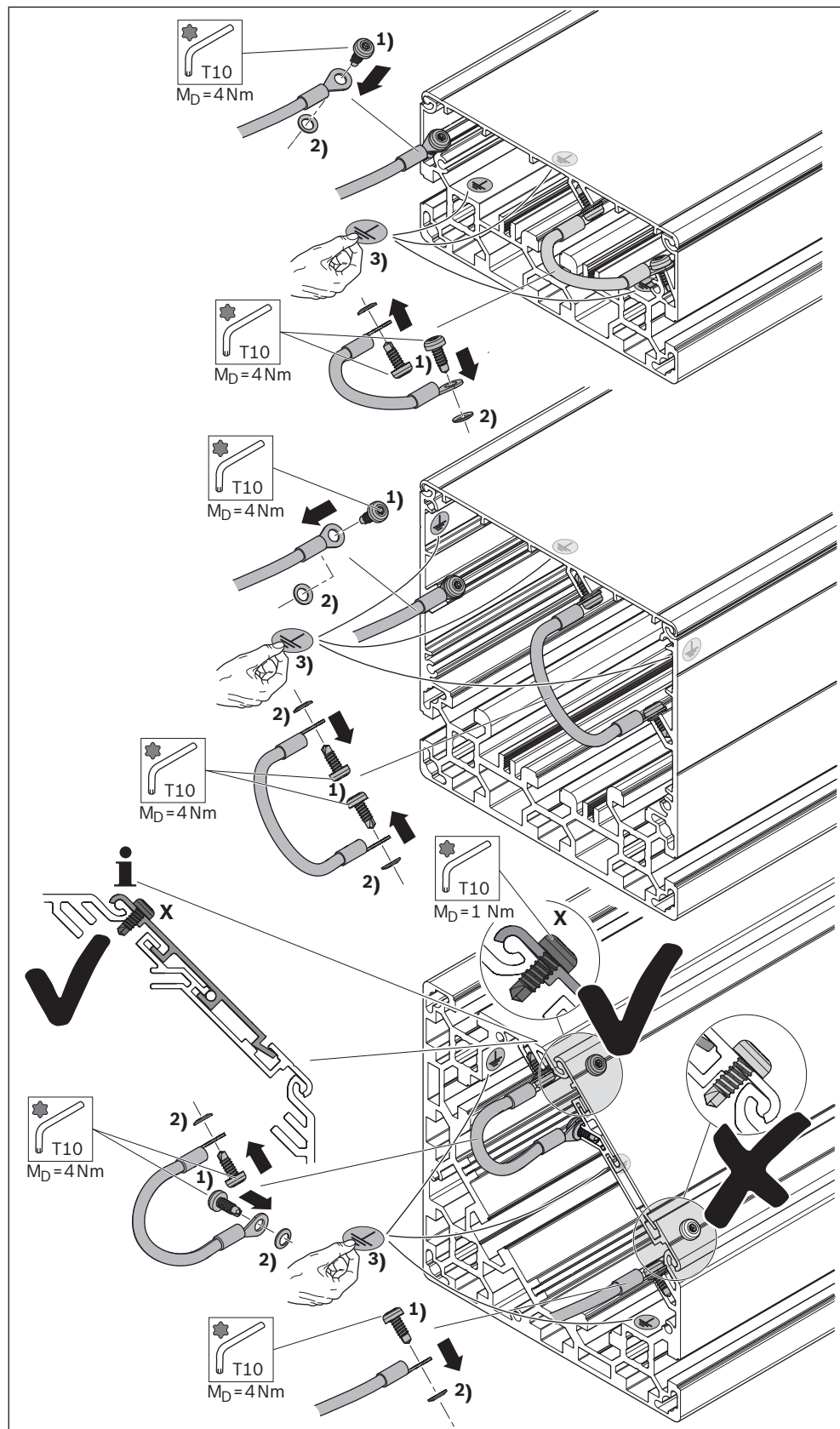
All metal parts, including the cover, must be grounded properly by means of equipotential bonding or equipotential bonding conductor

3 842 552 234.

**Please note:**

- Do not use the cable guide profiles for equipotential bonding. (See EN 60204-1 chapter 8.2.3 "Flexible or rigid metallic conduits and metallic cable sheaths must not be used as a protective conductor.").
- The covers of the cable guide profiles **3 842 558 243** (40x120x120) must be additionally grounded by suitable fitting (X).

- 1) Self-tapping screw ST3.5x9.5  
3 842 552 267
- 2) Lock washer  
S2,5-FST-GALFE/ZN8CB  
3 842 502 382
- 3) Grounding symbol adhesive label and cable are not included in the scope of delivery.



558 956-02

**Fig. 24: Equipotential bonding/equipotential bonding line**



### 7.6.6 Electrical connection of the product



## WARNING

**High electrical voltage!**

Risk of severe injury or death from electric shock.

- ▶ Disconnect the relevant system component before performing any maintenance or repair work.
- ▶ Secure the system against being unintentionally switched on again.

- Electrical work may only be carried out by qualified personnel!  
(e.g. connection of power sockets)
- Comply with the standard DIN EN 60204 (previously: VDE regulation VDE 0100) for Germany, or the corresponding regulations in the country of use.

## 8 Commissioning

### 8.1 Initial start-up



#### WARNING

##### High electrical voltage!

Risk of severe injury or death from electric shock.

- ▶ Ensure that all sections of the components of the modular system of function-integrated profiles are connected by equipotential bonding and to a PE conductor.
- ▶ Ensure that all covers of the components of the modular system of function-integrated profiles are connected to a separate PE conductor.
- ▶ Do not use the components of the modular system of function-integrated profiles for equipotential bonding. (See EN 60204-1 chapter 8.2.3 "Flexible or rigid metallic conduits and metallic cable sheaths must not be used as a protective conductor.").

### 8.2 Re-commissioning after a standstill

Follow the steps outlined for the initial start-up.

## 9 Maintenance and repair



#### WARNING

##### High electrical voltage!

Risk of severe injury or death from electric shock.

- ▶ Disconnect the relevant system component before performing any maintenance or repair work.
- ▶ Secure the system against being unintentionally switched on again.

### 9.1 Cleaning and care

Only clean the product with a damp cloth.

### 9.2 Maintenance

This product is maintenance-free.

### 9.3 Spare parts

For a list of spare parts, see spare parts list in *MTpro*, **3 842 539 057** (download: [www.boschrexroth.com/mtpro](http://www.boschrexroth.com/mtpro)).

## 10 Decommissioning

This product is a component which does not need to be decommissioned. Accordingly, this section has been left blank.

## 11 Disassembly and replacement

### **WARNING**

#### **High electrical voltage!**

Risk of severe injury or death from electric shock.

- ▶ Disconnect the relevant system component before performing any maintenance or repair work.
- ▶ Secure the system against being unintentionally switched on again.

#### **High pneumatic pressure!**

Risk of severe injury or death.

- ▶ Switch off the compressed air supply to the relevant system component before performing any maintenance or repair work.
- ▶ Secure the system against being unintentionally switched on again.

#### **Suspended loads can fall!**

Falling objects can result in severe injury (or even death).

- ▶ Use only slings with sufficiently high bearing loads (for product weight see delivery documents).
- ▶ Make sure the lifting straps are correctly fastened before lifting the product.
- ▶ Secure the product against tipping over when lifting!
- ▶ Make sure that no one but the operator is in the danger zone during lifting and lowering!

### **11.1 Preparing the product for storage/later use**

- Only set the product down on a flat surface.
- Protect the product from mechanical stress.
- Protect the product from environmental influences, such as dirt and moisture.
- Observe the ambient conditions, see page 41.
- For products with a mounted motor: support the product so that the motor is not placed under mechanical load.

## 12 Disposal



### Please note:

- The materials used are environmentally friendly.
- They can be recycled or reused (components may have to be processed and replaced). Recyclability is ensured by the selection of materials and the ability to take the components apart.
- Careless disposal may lead to environmental contamination.
- **Disposal of electrical components:**
  - Electrical components, tools, batteries, and packaging must be recycled in accordance with environmental protection regulations.
  - Never dispose of electrical components, tools, and accumulators/batteries in household waste or commercial waste!
- **Only in EU countries:**
  - According to the currently valid EU Directive on Waste Electrical and Electronic Equipment (WEEE) and its implementation into national law, electrical components and devices that are no longer used must be collected, separated, and recycled in accordance with environmental protection regulations.
  - According to the currently valid WEEE EU Directive, exhausted or defective accumulators/batteries must be recycled.
  - According to the Directive, the product may **not** contain any foreign substances or foreign components when it is recycled.
- Dispose of the product in accordance with the regulations in your country.

## 13 Upgrading and modification

- Do not modify the product.
- The Bosch Rexroth warranty only applies to the configuration as delivered, and to approved upgrades. The manufacturer will not accept any warranty claims for systems with unapproved modifications or upgrades.

## 14 Troubleshooting

- If you cannot correct a fault, please contact one of the addresses you can find at [www.boschrexroth.com](http://www.boschrexroth.com).

## 15 Technical data

- For dimensions, see sales catalog
- Admissible cross-sections of cable guide profiles:
 

60x120:	600 mm <sup>2</sup>
120x120:	4,000 mm <sup>2</sup>
40x120x120:	3,200 mm <sup>2</sup>
- Linear impedance according to DIN EN 50085-1:  $\leq 0.001 \Omega/\text{m}$
- Protection type according to DIN EN 50085-1: IP30/IP30-B

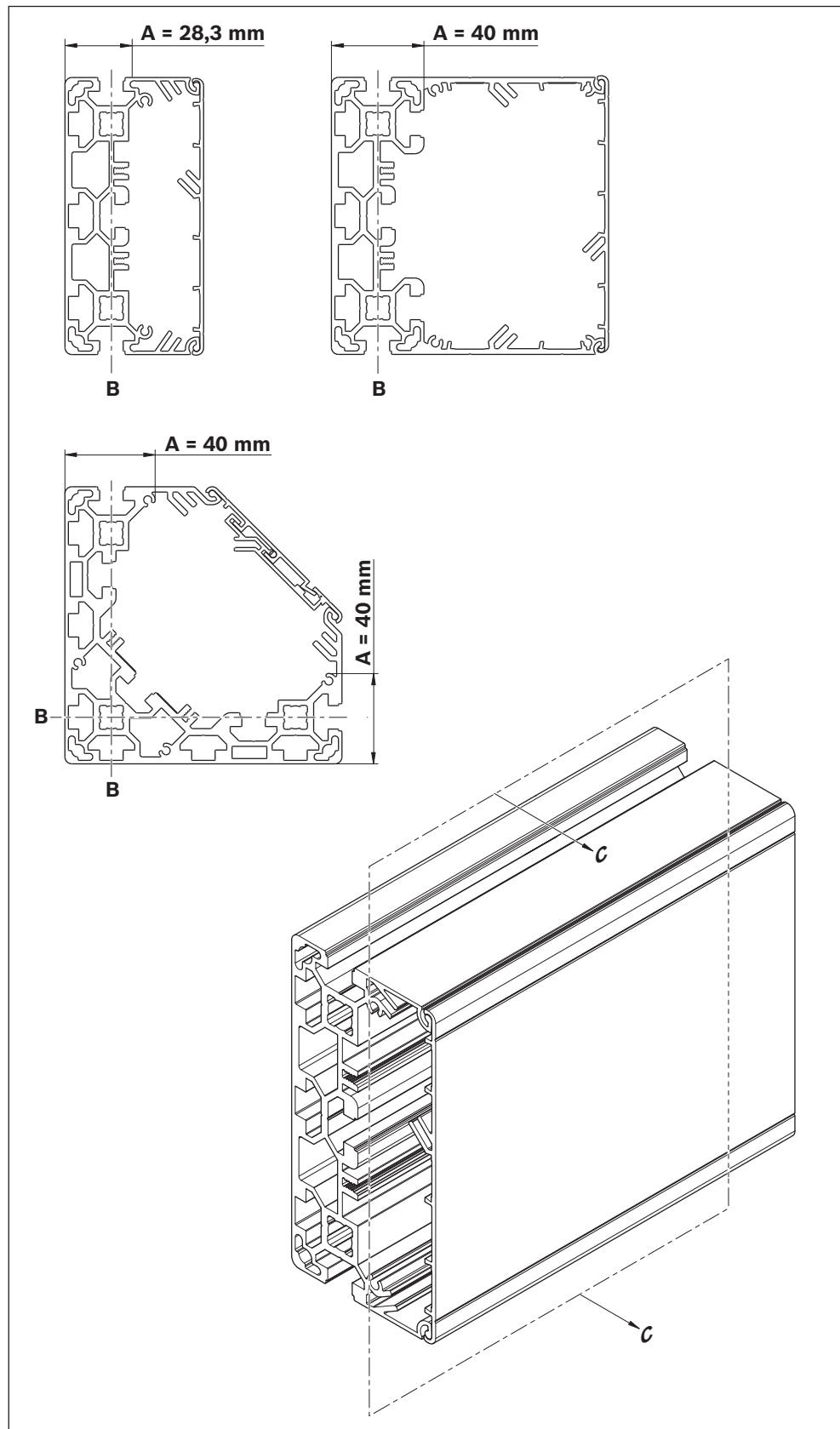
### 15.1 Ambient conditions

- The product is designed for stationary use in indoor areas.
- Operating temperature
 

+5 °C to +40 °C
–5 °C to +60 °C at 20 % reduced load
- Storage temperature +25 °C to +70 °C
- Relative humidity 5 % to 85 %, non-condensing
- Air pressure: > 84 kPa, corresponds to an altitude < 1400 m above sea level
- Max. load capacity of floor: 1000 kg/m<sup>2</sup>
- The area should be kept free of mold, fungus, rodents and other vermin.
- Do not install or operate in the immediate vicinity of industrial equipment producing chemical emissions.
- Resistant to many media that are commonly found in manufacturing, such as water, mineral oil, grease, and detergents. Contact your Rexroth representative if you have any doubts about resistance to specific chemicals, such as test oil, doped oils, corrosive detergents, solvents or brake fluid.
- Avoid prolonged contact with highly reactive acidic or alkaline materials.

## 15.2 Permissible load ranges

- A** Admissible position for loads
- B** Ideal load plane for load vector
- C** In this area, loads are not admissible



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**Fig. 25: Permissible load ranges**



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