

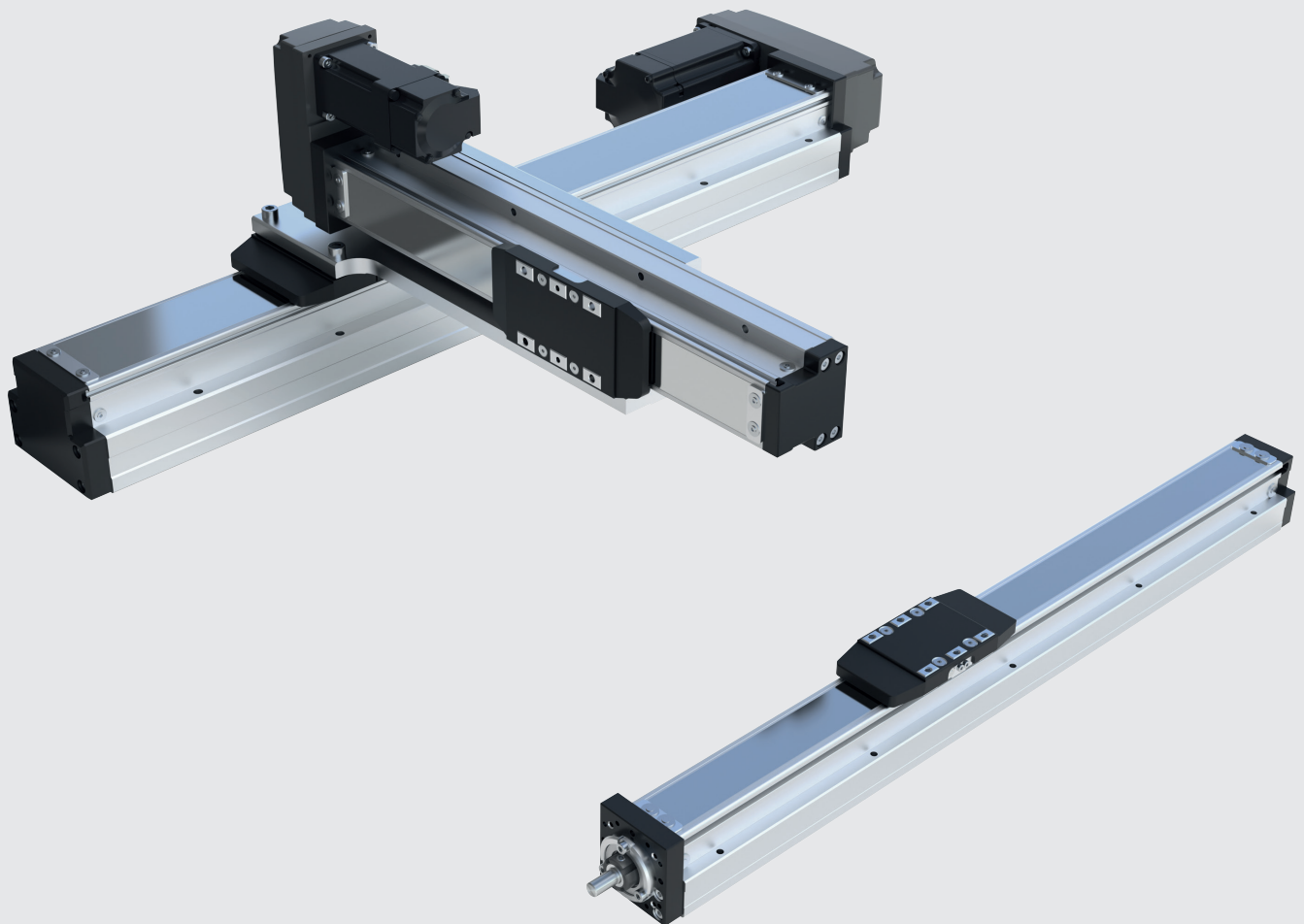
Small Modules Screw driven SMS

R320103227/2024-03
EN



Instructions

ENGLISH



The data specified above only serves to describe the product.

No statements concerning a certain condition or suitability for a certain purpose can be derived from our information.

The information given does not release the user from the obligation of own judgment and verification. Please note that our products are subject to a natural process of wear and aging.

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The title page contains an illustration of a sample configuration.

The product as delivered can differ from the illustration.

The original instructions are in German.

Any dissemination of the product must include these instructions and the safety instructions for linear motion systems R320103152.

Die vorliegende Dokumentation ist in folgenden Sprachen verfügbar.

This documentation is available in the following languages.

DE Deutsch (Originaldokumentation)

EN English

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1 About these instructions

1.1 Validity of the documentation

This documentation applies to the following products:

- Small Modules Screw driven – SMS according to "Small Modules Screw driven – SMS" catalog.

This documentation is intended for assembly personnel, operators and system owners.

This documentation contains important information for the proper and safe mounting, operation, maintenance and disassembly of the product and for troubleshooting simple errors oneself.

- Before working with the product, be sure to read these instructions carefully and completely, especially the chapter titled "Safety instructions".

1.2 Required documentation




Documentation which is indicated by the book symbol  must be obtained before handling the product and must be observed:

Table 1: Required documentation

	Title	Document number	Document type
	Safety instructions for linear motion systems	R320103152	Safety instructions
	Small Modules Screw driven – SMS catalog	R999002167	Catalog

The Rexroth documentation is available for download at www.boschrexroth.com/en/xc/myrexroth/media-directory.


1.3 Presentation of information

To enable users to work rapidly and safely with the product while following these instructions, this documentation uses standardized safety instructions, symbols, terms and definitions, and abbreviations. These are explained in the following sections.

1.3.1 Safety instructions in this manual




This document contains safety instructions preceding any actions that involve a risk of personal injury or damage to property. The safety precautions described must be adhered to.

Safety instructions are structured as follows:

 SIGNAL WORD
Type of hazard! Consequences if ignored. ► Precautions to avoid hazard.

- **Warning sign:** draws attention to the hazard
 - **Signal word:** indicates the severity of the hazard
 - **Type of hazard:** indicates the type or source of hazard
 - **Consequences:** describes the consequences that may occur if precautions to avoid the hazard are not taken
 - **Hazard avoidance precautions:** indicates how to avoid the hazard
- The safety instructions cover the following hazard classes. The hazard class describes the risks involved if the safety instruction is not complied with.

Hazard levels per ANSI Z535.6 - 2006






Warning sign, signal word	Meaning
 DANGER	Indicates a hazardous situation which will result in death or serious injury if not avoided.
 WARNING	Indicates a hazardous situation which may result in death or serious injury if not avoided.
 CAUTION	Indicates a hazardous situation which may result in minor or moderate injury if not avoided.
NOTICE	Property damage: The product or surroundings may be damaged

ENGLISH

1.3.2 Symbols

The following symbols indicate notes which are not related to safety but make the documentation easier to understand.

Table 2: Meaning of the symbols

Symbol	Meaning
	If this information is not observed, the product will not be optimally used / operated.
	Single, independent work step
1.	Numbered work steps
2.	The numbers indicate the sequence of the work steps.
3.	
⇒ 7	See section 7
⇒  Fig. 7.1	See figure 7.1
	Screw with strength class...
	Tightening torque
μ	Friction factor for screws

1.3.3 Abbreviations

The following abbreviations are used in this documentation:

Table 3: Abbreviations and definitions

Abbreviation	Unit	Meaning
BASA	(-)	Ball screw assembly
SMS	(-)	Small Modules Screw driven (with ball screw assembly)
f	(Hz)	Frequency
F_{pr}	(N)	Preload force of toothed belt
M	(-)	Motor

2 Safety instructions

The general safety instructions for this product can be found in the documentation "Safety Instructions for linear motion systems". You must have read and understood these before handling the product.

3 Scope of delivery

The following is included within the scope of delivery:

- SMS
 - Drive (motor with flange and coupling, or motor with belt side drive) if ordered. Not assembled.
 - Connecting elements if ordered (not mounted). The screws required to assemble the connecting elements are not included in the scope of delivery.
- Upon receipt of the delivery, immediately check for completeness against the receipt and notify the carrier or Bosch Rexroth AG if any parts are missing.

3.1 Condition as delivered

- Depends on order
- Product is pre-lubricated

3.2 Accessories

Accessories ➡ Catalog



Dimensions and material numbers of the accessories as well as additional fastening accessories ➡ Catalog.

4 Product description

4.1 Performance description

SMS are precise, ready-to-install linear motion systems that feature high performance in a compact size and can be delivered quickly with a favorable price/performance ratio.

Please refer to the note, technical data, dimensions and descriptions in the catalog.

4.2 Product description

The product consists of the following parts:

- SMS, motor¹⁾, flange¹⁾, belt side drive¹⁾

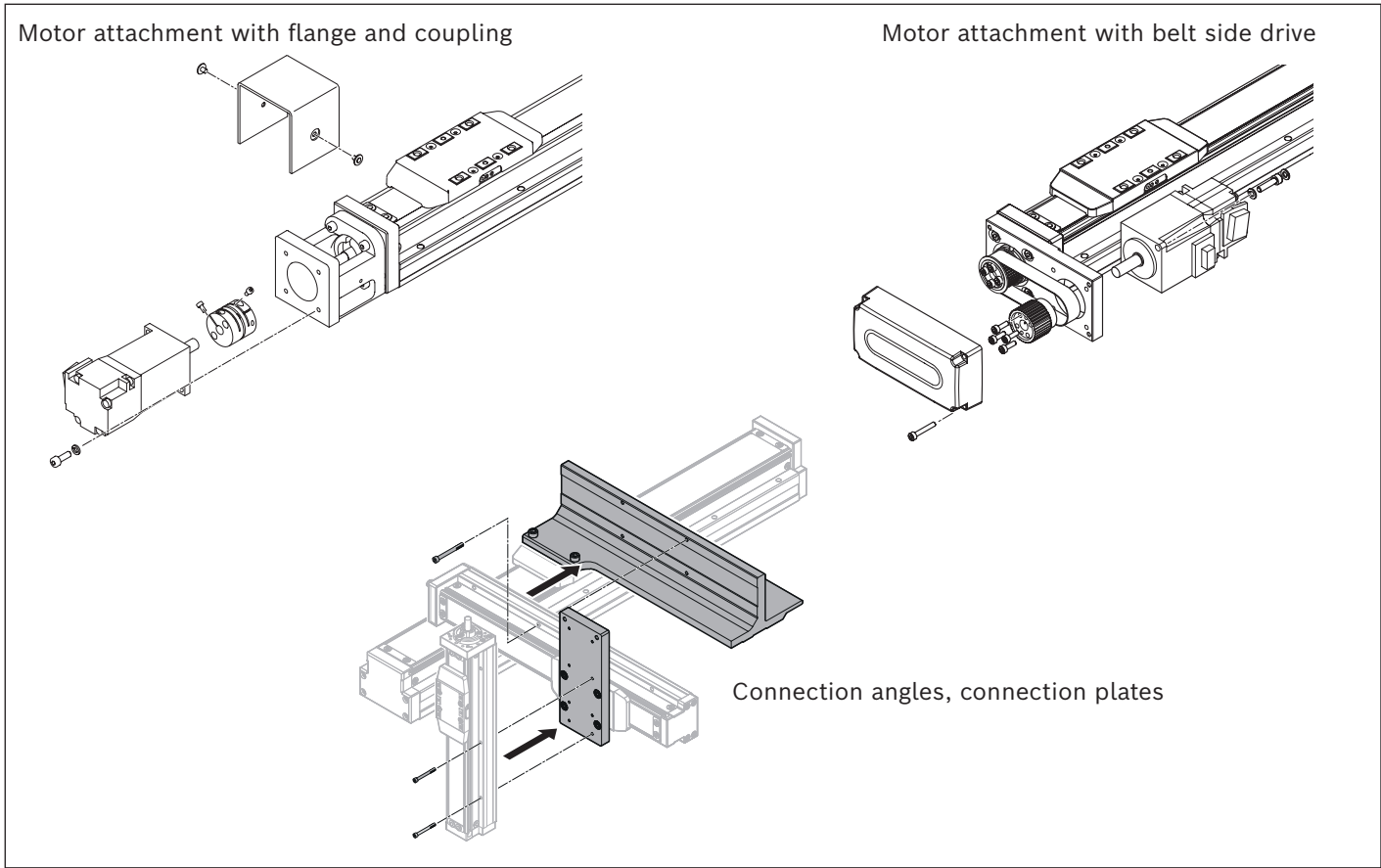


Fig. 1: Product components

¹⁾ Attachments (depend on order, not installed)

4.3 Identification

The nameplate of the product contains the following information:

Table 4: Information on nameplate

Nameplate information	Meaning
MNR	Material number
Type	SMS-030-P8-50
FD	Date of manufacture
(7211)	Manufacturing location

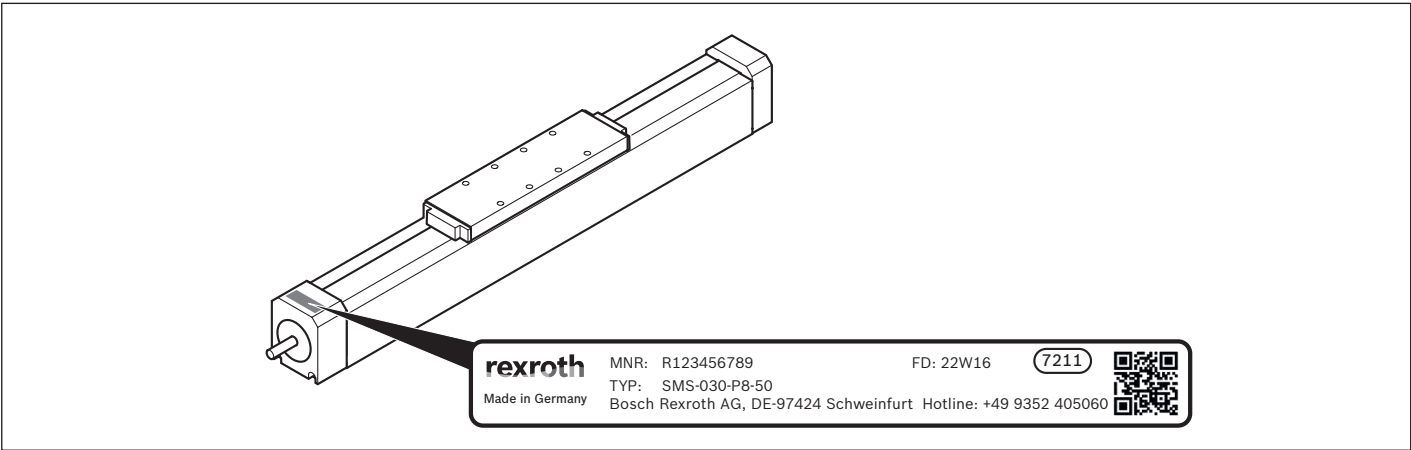


Fig. 2: Nameplate

5 Transport and storage

5.1 Transporting the product

Modules come ready-to-install.



WARNING

Risk of product falling due to inadequate load handling equipment!

Death or severe injury.

- ▶ Use only inspected and suitable load handling equipment.
- ▶ Fasten load handling equipment only to the frame or at the designated points.
- ▶ Do not stand under suspended loads.

1. Before hoisting the product, note the weight ➡ Catalog.
2. Hoist the product as shown in the figure.

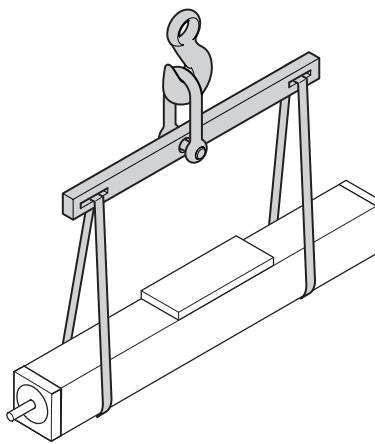


Fig. 3: SMS transport

5.2 Storing the product

NOTICE

Risk of damage due to improper storage!

Potential corrosion of product parts.

- ▶ Store the product only in dry, covered areas.
- ▶ Protect the product from humidity and corrosive agents.

6 Mounting

For dimensions and material numbers of the individual components ➞ Catalog.



WARNING

Risk of product falling due to inadequate load handling equipment!

Death or severe injury.

- ▶ Use only inspected and suitable load handling equipment.
- ▶ Fasten load handling equipment only to the frame or at the designated points.
- ▶ Do not stand under suspended loads.

Risk of product falling if installed vertically or suspended due to lack of protection against falling loads!

Death or severe injury.

- ▶ Secure the product against falling.
- ▶ Do not stand under the product in the hazard zone.

- ▶ Before hoisting the product, note the weight ➞ Catalog.

6.1 Unpacking the product

1. Before hoisting the product, note the weight ➞ Catalog.
2. Take the product out of the packaging and remove the packaging material.
3. Dispose of the packing material according to the local regulations in your country.

6.2 Required accessories

- ▶ Use suitable screws for fastening.

6.3 Installation conditions

- ▶ Take note of the operating conditions ➞ "Operating conditions" on page 25 and catalog.
- ▶ For special operating conditions, please contact us.

NOTICE

Risk of damage due to improper loads!

Damage to the product.

- ▶ Do not attach any projecting loads.

6.4 Installation position

The installation position is basically variable.

NOTICE

limits are not observed for overhead installation

Damage to the product.

- ▶ All available fastening bores must be used.

The following applies to single-axis systems:

- ▶ The maximum moved external load must not exceed 50% of the horizontal application (➔ catalog Small Modules SMS chapter "Technical data").

The following applies to multi-axis systems:

- ▶ Installation position only as defined in chapter 6.9 "Assembling multi-axis systems".

! WARNING

Risk of carriage falling if installed vertically or at an angle due to lack of fall protection!

Death or severe injury.

- ▶ With a vertical or slanting product, secure the carriage so that it cannot drop down.

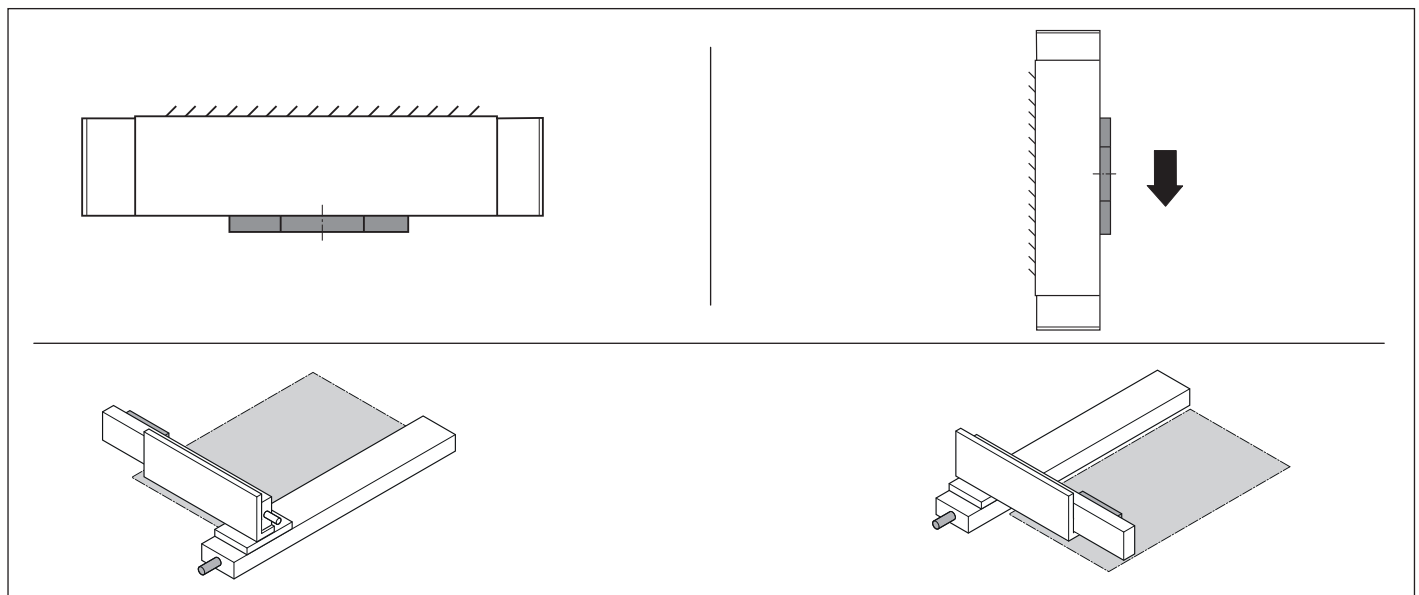


Fig. 4: Installation position

6.5 Fastening the product to the adjoining structure

NOTICE

Risk of product loosening or distortive stress due to improper fastening.

Damage to the product.

- ▶ Do not fasten or support the product at the end blocks/cross ties (1). The frame is the load-bearing part. If possible, support it over the entire length ➔ Fig.5.
- ▶ Recommended number of fastening screws per meter and side: 5 pieces
- ▶ Observe specified tightening torques.

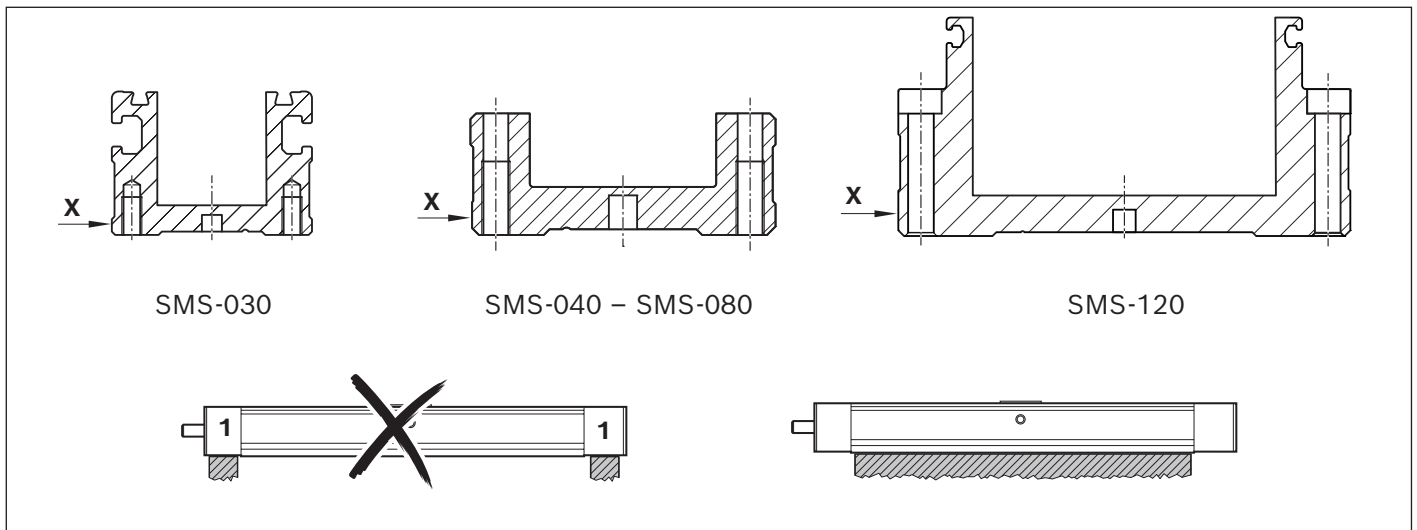


Fig. 6: Fastening

- ▶ Use reference edges (X).
- ▶ Pin holes and longitudinal hole present in the frame (base)
- ▶ Dimensions ➡ Catalog.

6.6 Mounting the electric drive

NOTICE

Risk of excessive torque and rotary speed if limits are not observed!

Damage to the product.

- ▶ Observe the specified limits.

Technical data and limits ➡ Catalog.

Drive types: Flange and coupling with motor, Belt side drive with motor

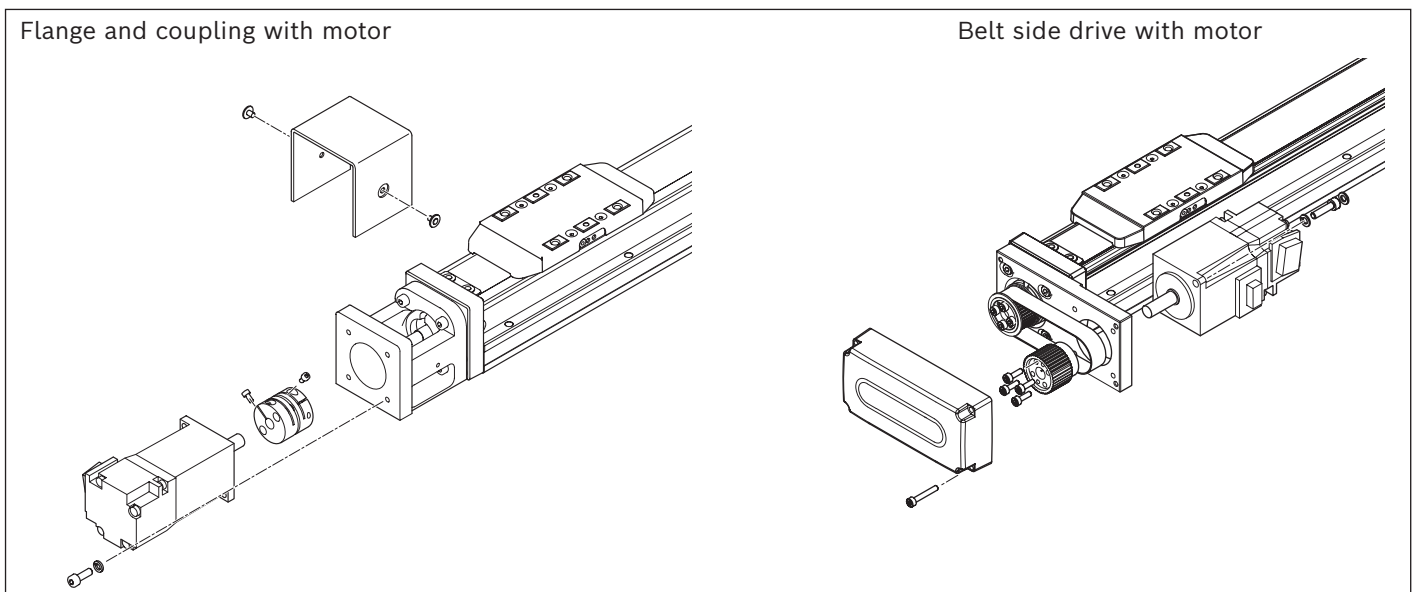


Fig. 5: Drive types



The screw journal of the product and the motor journal must be completely free of grease and oil before mounting.

6.7 Mounting the motor with flange and coupling

6.7.1 SMS-030

- Follow the safety instructions in chapter 6.6 on page 11.
 - Tighten the screws to the specified tightening torques ➡ Table 10 on page 25.
1. Push the flange (1) into/onto the locating feature on the product and screw it down onto the end block (3) using screws (2).
 2. Insert coupling (4) into the flange on the screw journal (5) of the product and set dimension A_1 ➡ Fig. 9 and Table 5.
 3. Tighten the screws (6) of the coupling.
 4. Push the motor into the locating feature of flange and coupling and fasten with screws (8) and washers (9).
 5. Tighten the screws (7) of the coupling.
 6. Mount the flange cover panels (10).

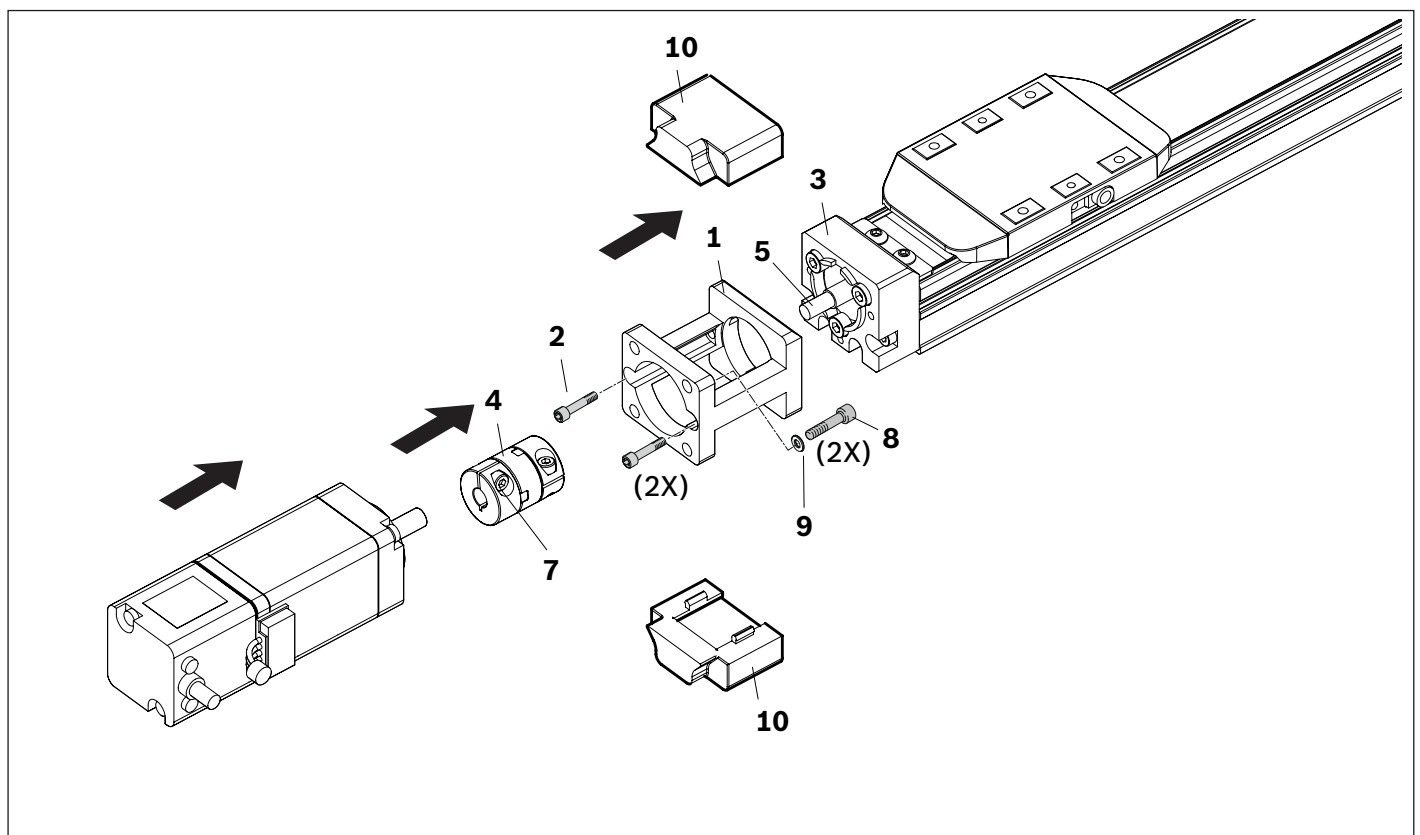


Fig. 7: Mounting the motor with flange and coupling (SMS-030)

6.7.2 SMS-040 – SMS-120

- Follow the safety instructions in chapter 6.6 on page 11.
 - Tighten the screws to the specified tightening torques ➡ Table 10 on page 25.
1. Push the flange (1) into/onto the locating feature on the product and screw it down onto the end block (3) using screws (2).
 2. Insert coupling (4) into the flange on the screw journal (5) of the product and set dimension **A₁** ➡ Fig. 9 and Table 5.
 3. Tighten the screws (6) of the coupling.
 4. Push the motor into the locating feature of flange and coupling and fasten with screws (8) and washers (9).
 5. Tighten the screws (7) of the coupling.
 6. Mount the flange cover panels (10).

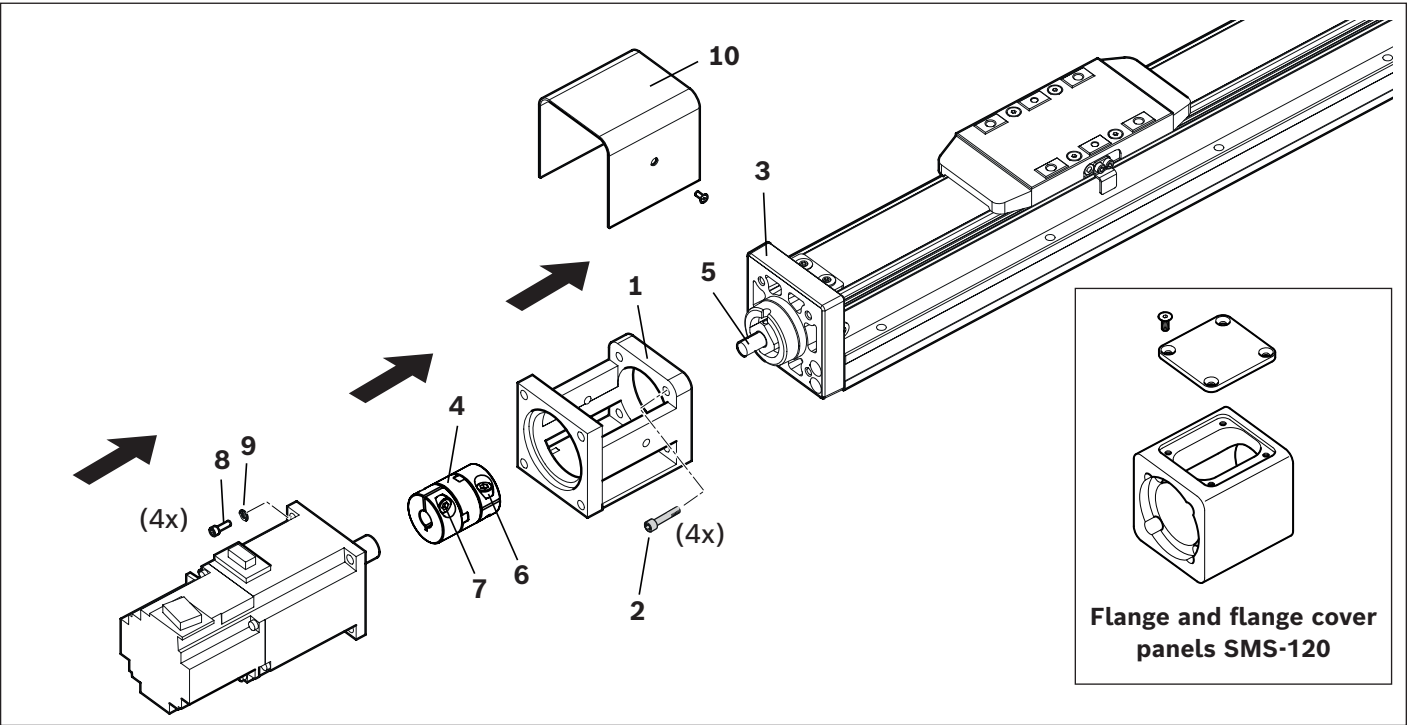


Fig. 8: Mounting the motor with flange and coupling (SMS-040 – SMS-120)

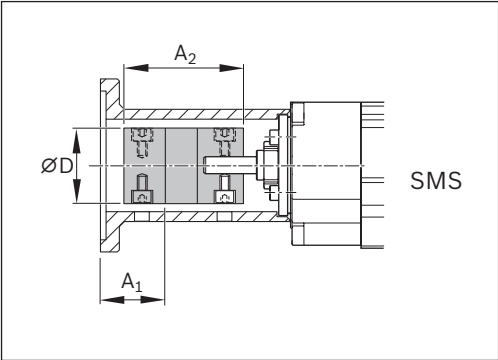



Fig. 9: Dimensions A₁/A₂/D

Table 5: Dimensions A ₁ /A ₂ /D for motor mounting with flange and coupling					
SMS		Dimensions (mm)			Screws (8)
		A ₁	A ₂	Ø D	
-030	Mitsubishi 30W	12.9	21.2	15	2 x M3x12
	Yaskawa 30W				
-040	Mitsubishi 50W	26.5	23.15	26	4 x M4x12
	Yaskawa 50W				
	Delta 50W				
	Panasonic 50W				
-050	Mitsubishi 100W	27.1	23.15	26	4 x M4x12
	Yaskawa 100W				4 x M3x12
	Delta 100W				
	Panasonic 100W				
-080	Mitsubishi 200W	31.1	27.3	34	4 x M5x18
	Yaskawa 200W				4 x M4x18
	Delta 200W				
	Panasonic 200W				
-120	Mitsubishi 400W	31.1	27.3	34	4 x M5x18
	Yaskawa 400W				4 x M4x18
	Delta 400W				
	Panasonic 400W				

6.8 Mounting the motor with belt side drive

- ▶ Follow the safety instruction in chapter 6.6 on page 11.
 - ▶ Tighten the screws to the specified tightening torques ➡ Table 10 on page 25.
- The belt side drive (RV) can be attached in three directions.

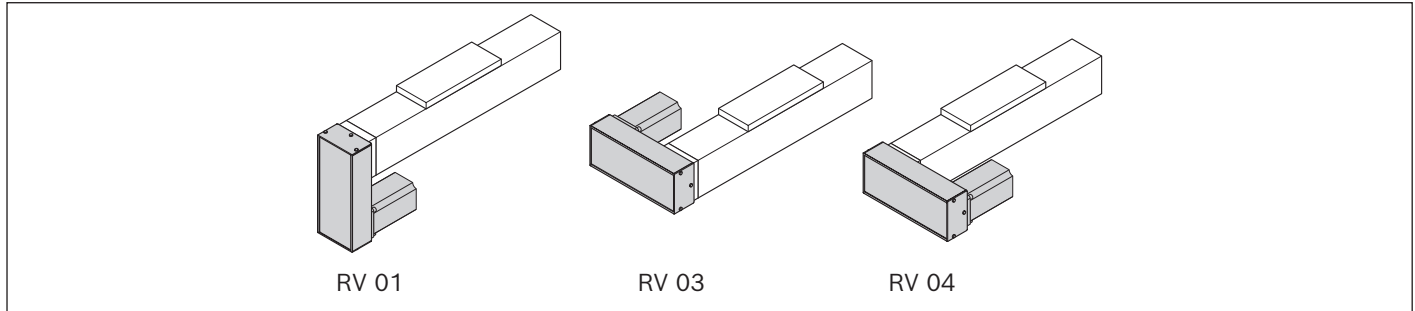


Fig. 10: Attachment options for the belt side drive

6.8.1 SMS-030 – SMS-050

- ▶ Screw the base plate (1) of the timing belt side drive onto the SMS using screws (6)
 - ▶ Assemble first belt pulley (4)
1. Pre-mount the belt pulley (4) (with tensioning unit if necessary) with the toothed belt (5) fitted onto the screw journal (10) of the SMS.
 2. Set distance A ➡ Fig. 13 and Table 6 and fasten belt pulley (4) with screws (12) or tensioning unit.
- ▶ Mounting the second belt pulley and the motor
1. Pre-mount the motor with screws (8) and washers (9) as close as possible to the SMS to permit problem-free insertion of the motor-side belt pulley (3) (with tensioning unit if necessary).
 2. Push the belt pulley (3) (with tensioning unit if necessary) onto the motor journal (11) and insert the toothed belt into the belt pulley.
 3. Set distance B ➡ Fig. 13 and Table 6, and fasten belt pulley (3) with screws (13) (with tensioning unit if necessary).
 4. Tension the toothed belt / complete the assembly ➡ 6.8.3 on page 16.

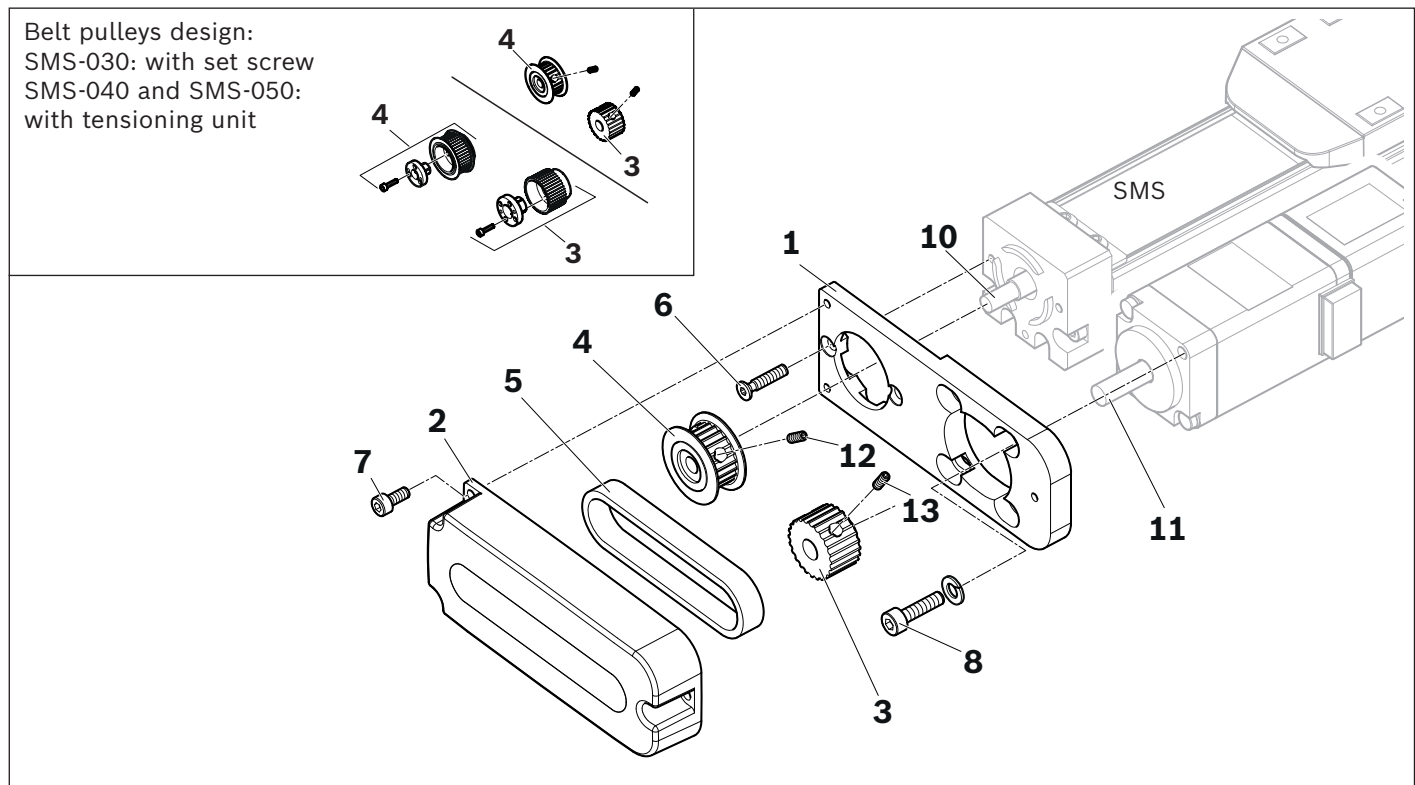


Fig. 11: Mounting the SMS-030 – SMS-050 belt side drive

6.8.2 SMS-080 / SMS-120

- Mount the base plate (1) of the timing belt side drive onto the SMS using screws (6)
- Mounting the first belt pulley
 1. Pre-mount the belt pulley (4), the fitted toothed belt (5) and tensioning unit (4) onto the screw journal (16) of the SMS.
 2. Set distance A ➡ Fig. 13 and Table 6 and fasten the tensioning unit.
- Mounting the second belt pulley and the motor
 1. Pre-mount the motor with screws (8) and washers (9) as close as possible to the linear system (SMS) to permit problem-free insertion of the motor-side belt pulley (4/3).
 2. Push the belt pulley (3) with tensioning unit onto the motor journal (17) and insert the toothed belt (8) into the belt pulley.
 3. Set distance B ➡ Fig. 13 and Table 6 and fasten the tensioning unit.
 4. Mounting the tensioning roller (18) for belt tensioning: pre-mount washer (13), bearing (10), bearing attachment (11) together with the screw (12) through the longitudinal hole with square nut (14) on the rear side of the base plate (1).
 5. Tension the toothed belt (5) / complete the assembly ➡ 6.8.3 on page 16.

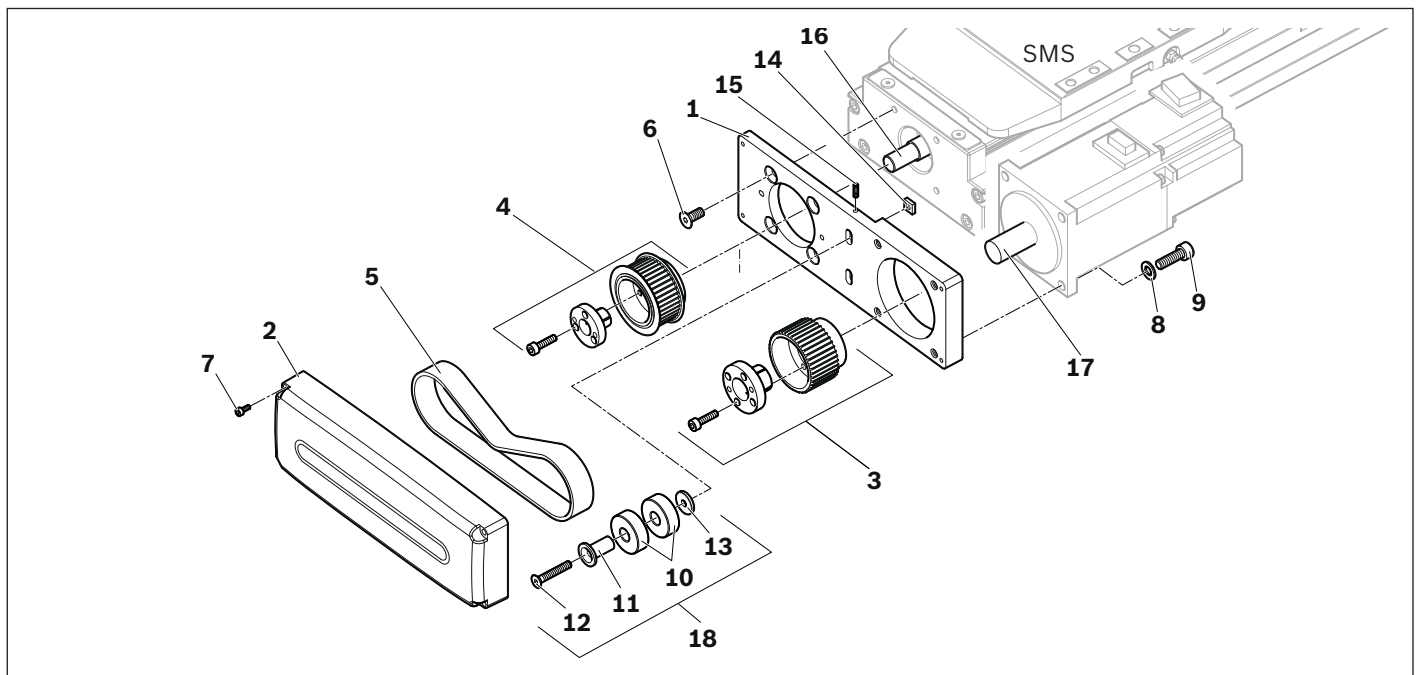


Fig. 12: Mounting the SMS-080 / SMS-120 belt side drive

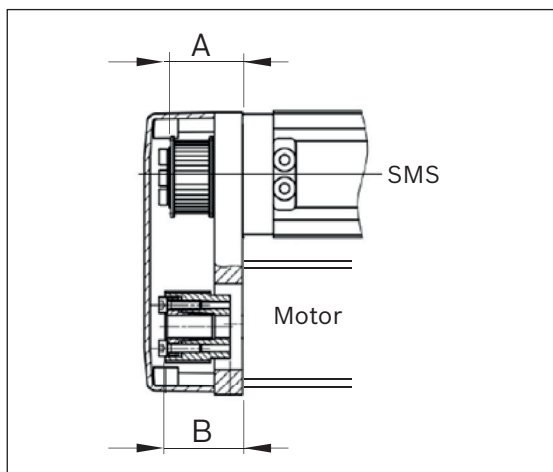


Fig. 13: Dimensions A/B

Table 6: Dimensions A/B for motor mounting with belt side drive

SMS		Dimensions (mm)		Screws (8)
		A	B	
-030	Mitsubishi 30W	13.25	15.5	2 x M3x12
	Yaskawa 30W			
-040	Mitsubishi 50W	24.60	27.5	4 x M4x12
	Yaskawa 50W			
	Delta 50W			
	Panasonic 50W			
-050	Mitsubishi 100W	29.50	27.5	4 x M4x12
	Yaskawa 100W			4 x M3x12
	Delta 100W			
	Panasonic 100W			
-080	Mitsubishi 200W	31.55	33.0	4 x M5x18
	Yaskawa 200W			4 x M4x18
	Delta 200W			
	Panasonic 200W			
-120	Mitsubishi 400W	RV 01: 25.85 RV 03 / RV 04: 28.85	32.1	4 x M5x18
	Yaskawa 400W			4 x M4x18
	Delta 400W			
	Panasonic 400W			

6.8.3 Tensioning toothed belt / completing drive assembly

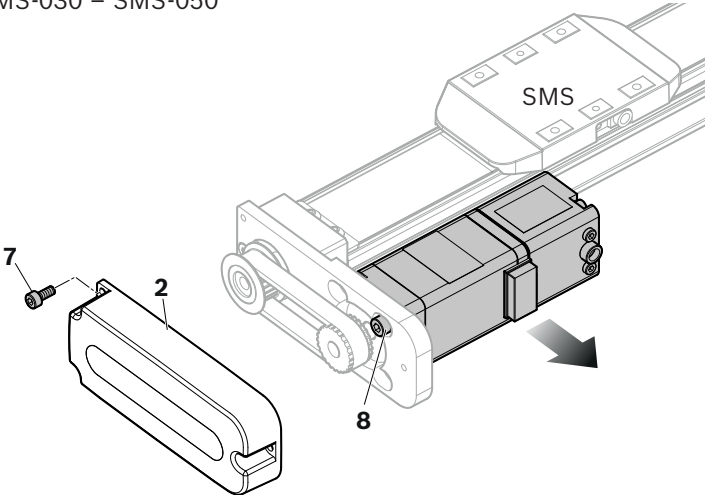
NOTICE

Excessive belt pulley pretensioning can cause the toothed belt to break at the product or the motor!
Damage to the product.
► Observe permissible limits!

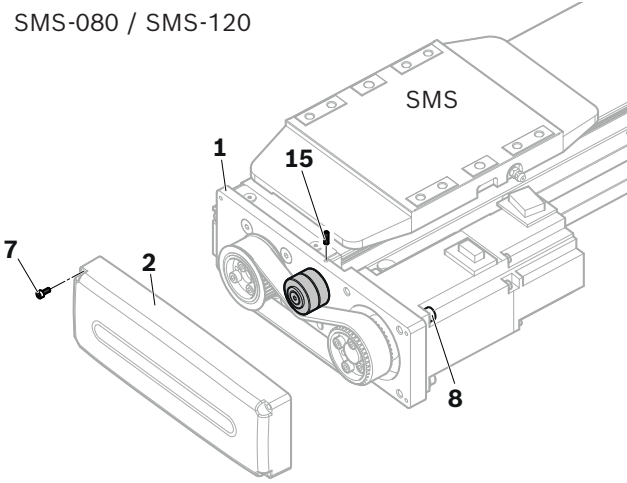
1. Loosen the motor mounting screws (8).
2. SMS-030 – SMS-050: by pulling the motor away from the SMS, the toothed belt is tensioned.
3. SMS-080 / SMS-120: by screwing in the set screw (15) (on the side of the base plate (1)), the square nut (14) is pressed down and the toothed belt tensioned.
4. Set the belt frequency f using a frequency measuring instrument or force F_{pr} and tighten the motor mounting screws (8).
5. Fasten the cover (2) of the belt side drive using screws (7).

 Observe the tightening torques!

SMS-030 – SMS-050



SMS-080 / SMS-120



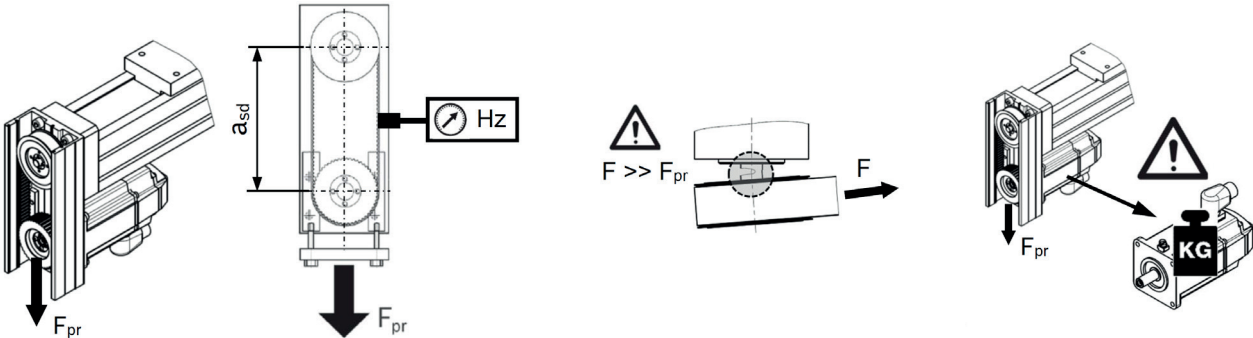


Table 7: Distances between axes/belt frequency/preload force

SMS	Distances between axes a_{sd} (mm)	Belt frequency f (Hz)	Preload force F_{pr} (N)
SMS-030	40	490~583	12-17
SMS-040	50	302~359	
SMS-050	58	239~284	
SMS-080	80	182~209	32-42
SMS-120	100	182~209	

Fig. 14: Tensioning the toothed belt / tightening the motor / mounting the cover

6.9 Assembling multi-axis system

! WARNING

Risk of product falling/toppling due to lack of protection!

Damage to the product/injuries

- Mounting of the axes must be performed by two persons.

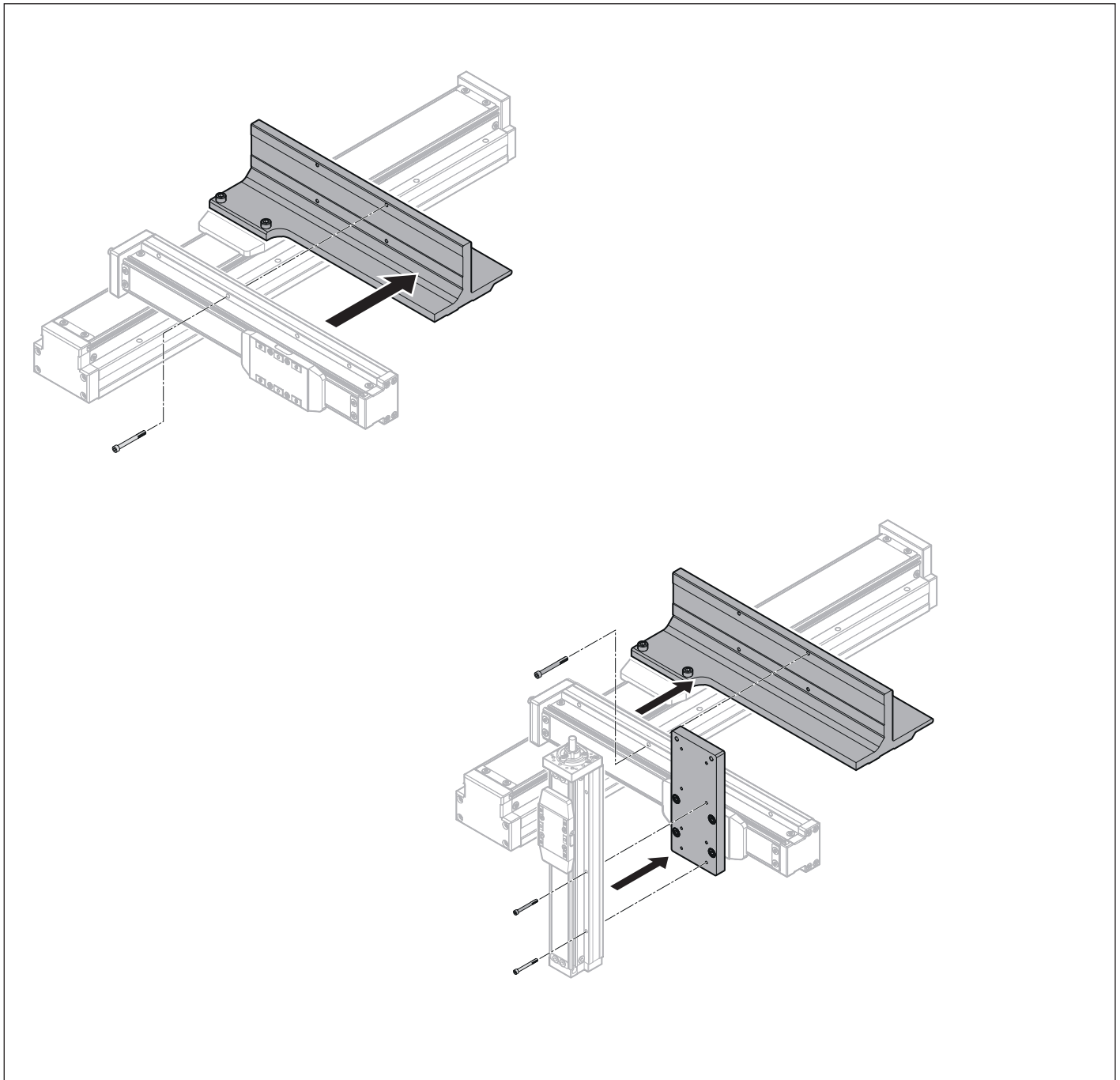





Fig. 15: Assemble multi-axis system



For further information on installing the multi-axis systems, see the following pages

6.9.1 Connection angles, connection plates

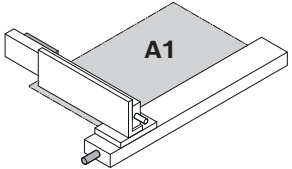
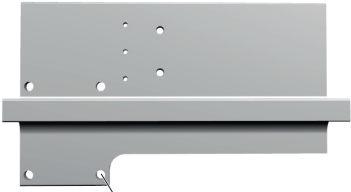
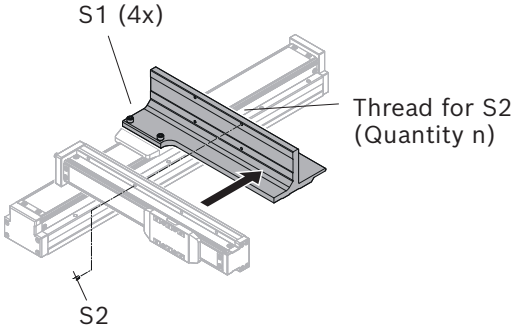
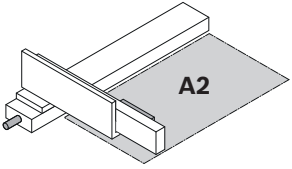
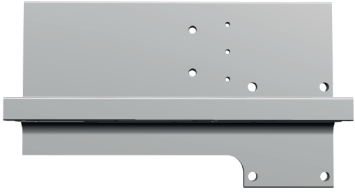
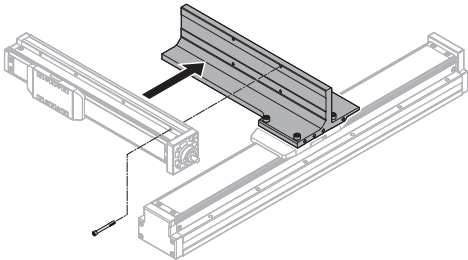
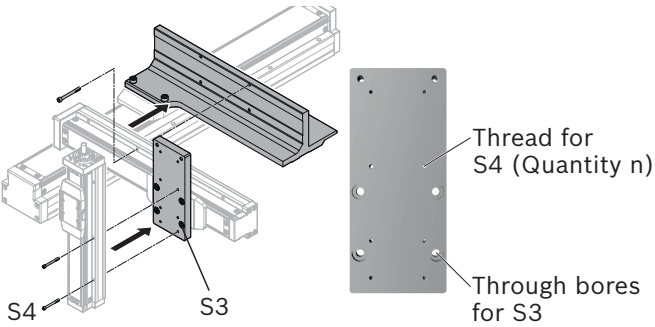
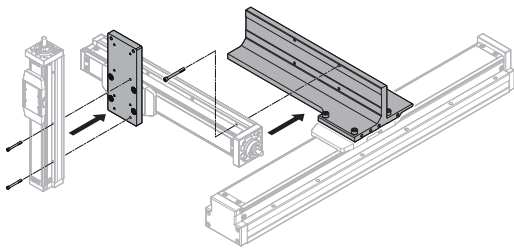
Connection angles, connection plates


Connection angles						
Variant	Y stroke (mm)	Material-no.	 (KG)	 S1 ³⁾	 S2 ³⁾	Quantity (n)
2D1	100	R02680C003 ¹⁾	0.63	4 x M5 x 18	M3 x 30	4
		R02680C004 ²⁾				
2D2	100	R02680C005 ¹⁾	1.05	4 x M6 x 22	M4 x 30	4
		R02680C007 ²⁾				
	200	R02680C006 ¹⁾	1.54		M4 x 30	6
		R02680C008 ²⁾				
2D3	100	R02680C009 ¹⁾	1.87	4 x M6 x 30	M5 x 45	4
		R02680C011 ²⁾				
	200	R02680C010 ¹⁾	2.58		M5 x 45	6
		R02680C012 ²⁾				
2D4	100	R02680C013 ¹⁾	3.69	4 x M6 x 30	M6 x 50	6
		R02680C015 ²⁾				
	200	R02680C014 ¹⁾	4.67		M6 x 50	8
		R02680C016 ²⁾				
	400	R02680C021 ¹⁾	6.68		M6 x 50	12
		R02680C023 ²⁾				
600	R02680C022 ¹⁾	8.67	M6 x 50	16		
	R02680C024 ²⁾					
3D1	100	R02680C005 ¹⁾	1.05	4 x M6 x 22	M4 x 30	4
		R02680C007 ²⁾				
	200	R02680C006 ¹⁾	1.54		M4 x 30	6
		R02680C008 ²⁾				
3D2	100	R02680C009 ¹⁾	1.87	4 x M6 x 30	M5 x 45	4
		R02680C011 ²⁾				
	200	R02680C010 ¹⁾	2.58		M5 x 45	6
		R02680C012 ²⁾				
	400	R02680C017 ¹⁾	3.99		M5 x 45	10
		R02680C019 ²⁾				
600	R02680C018 ¹⁾	5.41	M5 x 45	14		
	R02680C020 ²⁾					
Connection plates						
				S3 ³⁾	S4 ³⁾	
3D1	-	R02680C001	0.31	4 x M5 x 18	M3 x 30	8
3D2	-	R02680C002	2.24	4 x M6 20	M4 x 30	10

¹⁾ Angle version for travel range „A1“

²⁾ Angle version for travel range „A2“

³⁾ Recommended cylinder head screws (not included in the delivery) with hexagon socket according to EN ISO 4762 / DIN 912; Strength class 8.8

Angle version	
Travel range A1	Travel range A2
  <p>Through bores for S1</p>  <p>S1 (4x)</p> <p>Thread for S2 (Quantity n)</p> <p>S2</p>	  
 <p>Thread for S4 (Quantity n)</p> <p>Through bores for S3</p> <p>S4</p> <p>S3</p>	

-  – S1: for mounting the connecting angle on the X-axis
- S2: for mounting the Y-axis on the connecting angle
- S3: for mounting the connection plate on the Y-axis
- S4: for mounting the Z-axis on the connection plate

7 Connecting the product electrically



Fig. 16: Connecting the product electrically



WARNING

Risk of electric shock due to contact with live parts!

Death or severe injury.

- ▶ Before working on the electrical equipment, switch off the power supply and secure it against being switched on again.
- ▶ Follow the safety instructions given in the documentation for the controller used.
- ▶ Observe the safety regulations for working with high-voltage equipment!

8 Commissioning

- ▶ Do not commission the product until it has been verified that the end product (for example a machine or system) into which the Rexroth product has been installed complies with the country-specific requirements, safety regulations and standards for the application.

8.1 Checking the operating conditions

- ▶ Observe the technical data ➡ Catalog.
- ▶ Operating conditions ➡ "Operating conditions" on page 25.

8.2 Test run, running in

WARNING

Dangerous movements! Risk of death, injury, serious physical injury or property damage!

Do not stand in the product's range of movement.

Do not allow persons to inadvertently enter the danger area.

Never perform maintenance on running machines.

Secure the system against restart and unauthorized use during maintenance.

Securely fasten the product in the system or machine.

The product is not self-locking; this means that if it is used vertically or at an angle, it can drop or move uncontrollably.

- ▶ To prevent this, the manufacturer/vendor must take precautions when installing in this manner. The Division Information Sheet on "Gravity-Loaded Axes" of DGUV Fachbereich Holz und Metall, the Woodworking and Metalworking Division of the German statutory accident assurance association (DGUV), and other sources offer further information on this topic.

Risk of burns due to hot surfaces! Temperatures above 60 °C are possible.

- ▶ Avoid touching the hot surface of, e.g., the carriage assembly or motor.
- ▶ After switching off the product, let hot surfaces cool down before touching them.
- ▶ Temperature-sensitive components should not touch the surface of the carriage assembly.
- ▶ Pay attention to the clearance of the connecting cables from other components.

- ▶ Only start up the product after running successful tests under simulated production conditions.
- ▶ Move at low speed over the entire travel range. While doing so, be sure to check the settings and the function of the limit switches.
- ▶ If necessary, optimize the interaction of the mechanical equipment and the electronics.

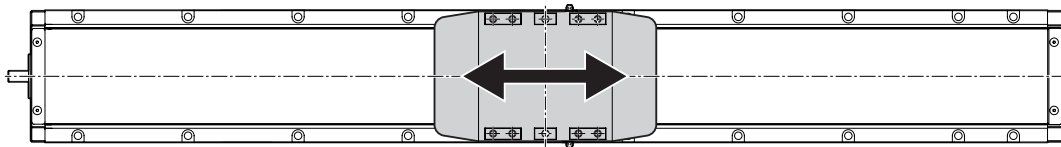


Fig. 17: Moving the carriage


9 Operation


NOTICE
Lubricant may leak if installed vertically! Environmental contamination. ► Take suitable precautions to collect any leaking lubricant and dispose of it properly.
Risk of motor overheating when overloaded! Risk of fire. ► Observe the technical data during operation ➡ Catalog.

10 Maintenance and repair

Maintenance is limited to lubrication.

11 Lubrication

 WARNING
Never perform maintenance on running machines. Secure the system against restart and unauthorized use during maintenance.



This chapter describes relubrication of the product by the customer.
The product is prelubricated at the factory.

- Before using lubricants, read and observe the appropriate safety data sheets.

11.1 Notes

Maintenance is limited to lubrication at the prescribed lubrication intervals.
Lubrication is designed for grease lubrication with a grease gun.
The ball screw assembly and guideway are simultaneously lubricated through a lube connection.

► Before using lubricants, read and observe the appropriate safety data sheets.

The basic lubrication of all other components, such as deep-groove ball bearings, is done by the manufacturer.

- Do not use lubricants with solid particles (e.g. graphite or MoS₂).
- Using lubricants other than those specified may impact performance and chemically interact with the plastics used in the product.

NOTICE
Overlubrication Increased friction and temperatures in the ball screw assembly and guideway. ► Use only the recommended lubricants.
Insufficient lubrication Damage to the product. ► Only use recommended lubricants and observe lubrication intervals.
Special operating conditions Possible damage to the product. ► Consult Bosch Rexroth before commissioning the product under special operating conditions, specifically in the presence of fiber glass or wood dust and solvents, or in short-stroke operations and extreme temperatures.

11.2 Lube fittings / lubricants / lubrication intervals

11.2.1 Lube fittings

- ▶ The lube nipples (1) are available on both sides of the carriage (2). Lubrication from one side only is sufficient.
- ▶ Move carriage (2) to the center and grease with a manual grease gun ➡ Table 8.

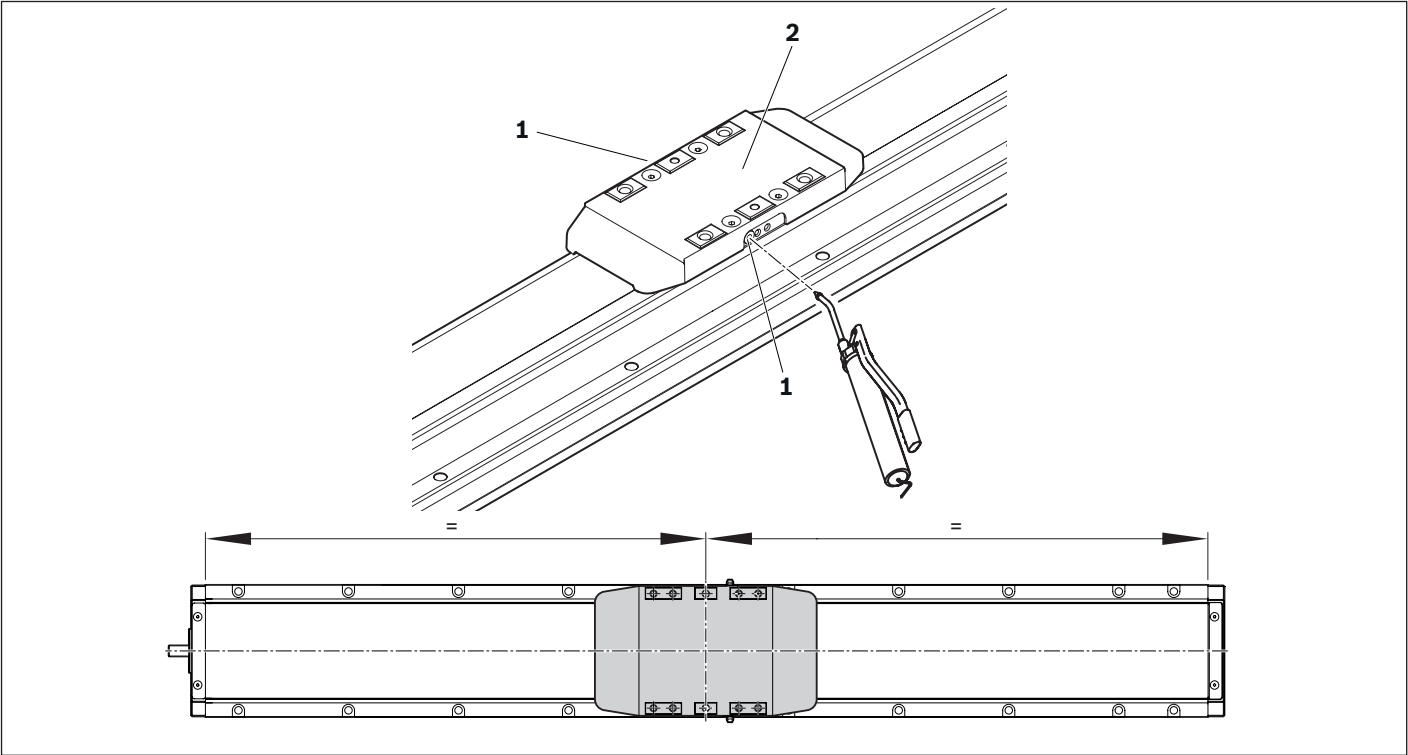


Fig. 18: Lube fittings

11.2.2 Lubricants

- ▶ Recommended lubricant: Tribol GR 100-2 PD
- ▶ Alternative lubricant:
 - Dynalub 510
 - Elkalub GLS 135/N2

11.2.3 Relubrication intervals / relubrication quantities / Lube nipples


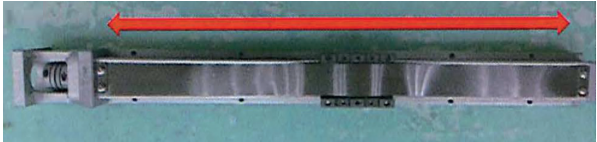
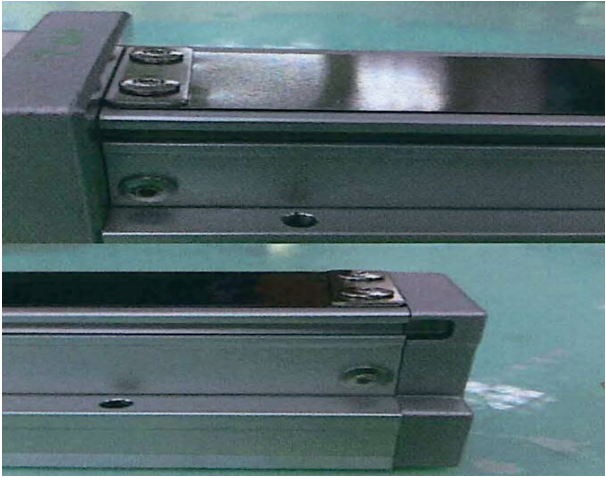

Table 8: Relubrication intervals / relubrication quantities / Lube nipples

Relubrication of BASA and guideway			
SMS	Relubrication interval (km)	Relubrication quantity (cm³)	Lube nipples
SMS-030-P8	900	0.5	DIN 3410- F
SMS-040-P12	1 300	1.0	
SMS-050-P10	1 100	1.0	
SMS-080-P10	1 100	2.5	
SMS-080-P20	2 200	2.5	
SMS-120-P10	1 100	3.5	DIN 71412- AM6
SMS-120-P32	3 500	3.5	

12 Removal and replacement

Assemblies may only be disassembled and replaced by Rexroth.
The only exceptions to this rule are the work steps described in this chapter.

12.1 Sealing strip replacement

<div><div><div>!</div></div><div>CAUTION</div></div>		
<div><div>Cutting injuries due to sharp steel strips!</div><div>Risk of injury.</div><div>► Wear gloves.</div></div>		
1.	<div>► If the sealing strip is not in place, loosen the screws of the mounting plates on the drive side and the opposite side of the drive.</div>	<div></div>
2.	<div>► By pushing the carriage back and forth, the sealing strip is repositioned.</div>	<div> </div>
3.	<div>► Use the mounting plates to secure the sealing strip on the drive side and the opposite side of the drive.</div>	<div></div>

12.2 Removing the electric drive

Removal is the reverse of the chapter "Mounting the electric drive".
Be sure to observe the safety instructions in chapter "Mounting the electric drive"!

13 Disposal

The product contains a number of different materials: aluminum, steel, plastics, grease and possibly electronic components.

NOTICE

Environmentally hazardous materials can pollute the environment if not disposed of properly.
Environmental pollution.
▶ Collect any leaking lubricant and dispose of it properly.
▶ The product and its components must be recycled correctly and in compliance with all applicable national and international guidelines and regulations.

14 Technical data

Technical data ➡ Catalog.

15 Operating conditions


Table 9: Operating conditions

Operating conditions	Value
Ambient temperature	0 °C ... 40 °C
Soiling	Not permissible

15.1 Tightening torques

We use screws in the 8.8 strength class as standard. Any deviations are marked accordingly.

Table 10: Tightening torques

 8.8	M2	M2.5	M3	M4	M5	M6	M8
⊙ M _A max (Nm)	0.3	0.8	1.3	3.1	6.1	9.9	24.6
μ = 0.125							

16 Service and support

The Bosch Rexroth Customer Service help desk and hotline staff will be happy to assist you in any way they can.
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