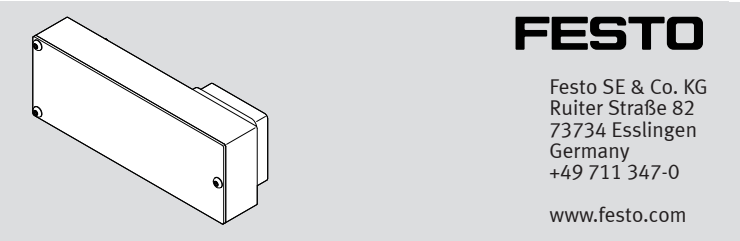


EAMM-U-...-T...-...G/H-8

Parallel kit



Assembly instructions

8221491
2025-02
[8221493]



Original instructions

© 2025 all rights reserved to Festo SE & Co. KG

1 Applicable documents

All available documents for the product → www.festo.com/sp.

Document	Product	Table of contents
Operating instruction	Gear unit	–
Operating instruction	Axis	–

Tab. 1: Applicable documents

2 Safety

2.1 Safety instructions

- Only mount the product on components that are in a condition to be safely operated.
- Clean the shafts. The coupling hub [17] will grip without slipping only on a drive shaft which is dry and free of grease.
- Maintain the alignment of the coupling hub [17].
- If the motor is loosened or turned, homing must be carried out on the axis.
- Select required mounting components. The kit contains all the mounting components that may be required.
- Observe the tightening torques. Unless otherwise specified, the tolerance is ± 20%.

2.2 Intended use

2.2.1 Use

The parallel kit connects an axis to a gear unit in a parallel configuration.

2.2.2 Permissible axes and motors

NOTICE

Overloading can cause malfunction and material damage.

The motor's output variables must not exceed the permissible values of the components used.

Permissible values → www.festo.com/catalogue.

• Limit the motor's output variables accordingly.

- Take the axis and the gear unit from the interface codes.
Example: EAMM-U-65-T42-40G
T42: axis interface
40G: gear unit interface

Axis interface	Axis
T42	EGSC-BS-60, ELGC-BS/TB-60, ELGD-BS-60, ELGD-BS-WD-100, ELGD-BS-WD-120, EPCC-BS-60

Tab. 2: Permissible axes

Gear unit interface	Gear unit
40G	EMGA-40, third-party gear unit

Tab. 3: Permissible gear units

1

It is the responsibility of users to qualify third-party gear units with the matching mechanical interface for the combination.
To find out which third-party gear units are suitable, contact your regional Festo contact or call → www.festo.com/sp.

2.3 Training of qualified personnel

Work on the product may only be carried out by qualified personnel who can evaluate the work and detect dangers. Personnel must have the relevant mechanical training.

3 Additional information

- Contact the regional Festo contact if you have technical problems.
- Accessories → www.festo.com/catalogue.
- Spare parts and accessories → www.festo.com/spareparts.

4 Product Range Overview

4.1 Scope of delivery

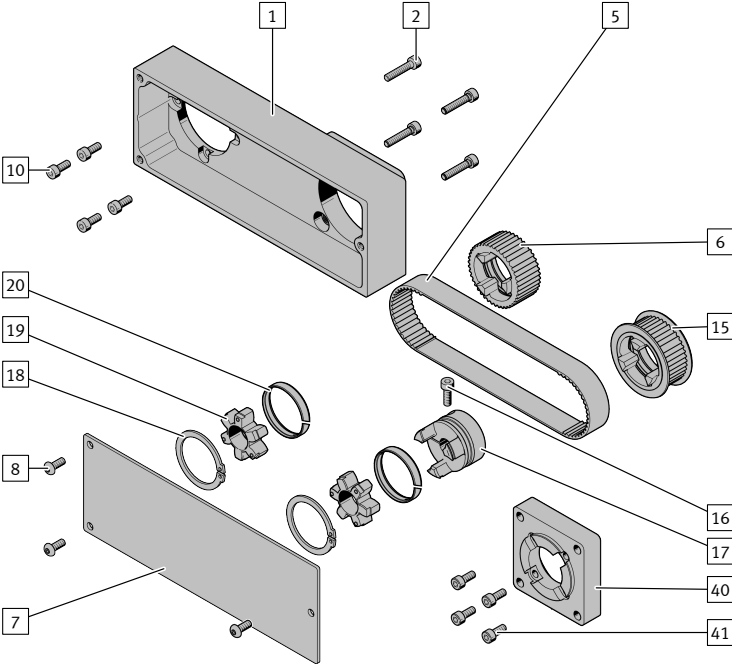


Fig. 1: Basic scope of delivery

- 1

Housing (1x)
- 2

Screw (4x)
- 5

Toothed belt (1x)
- 6

Toothed belt pulley axis (1x)
- 7

Cover (1x)
- 8

Screw (3x)
- 10

Screw (4x)
- 15

Toothed belt pulley motor (1x)

16

Clamping screw (1x)

17

Coupling hub (1x)

18

Retaining ring (2x)

19

Elastomer spider (2x)

20

Slip ring (2x)

40

Adapter plate (1x)

41

Screw (4x)

Fig. 2: Supplement to reducing sleeve

- 78

Reducing sleeve (4x)

5 Mounting

5.1 Assembling

5.1.1 Preassembly of adapter plate

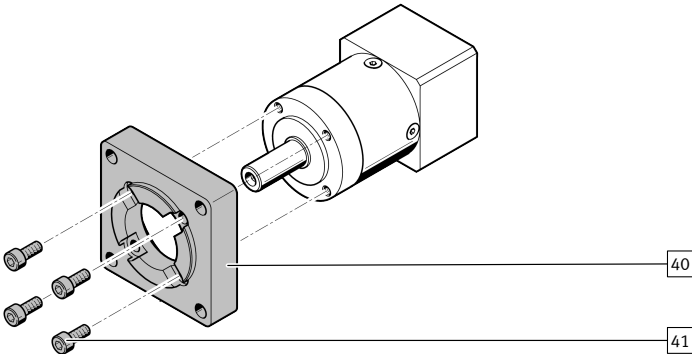


Fig. 3: Mounting adapter plate

- Mount the adapter plate [40] on the gear unit with the screws [41].

5.1.2 Preassembly of coupling

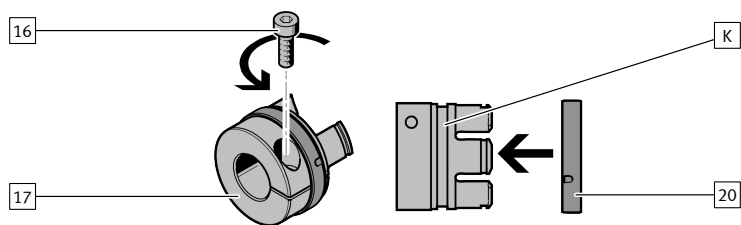


Fig. 4: Insert slip ring on gear unit side

1. Insert the slip ring [20] into the slot [K] of the coupling hub [17] on the gear unit side.
2. Screw on the clamping screw [16].

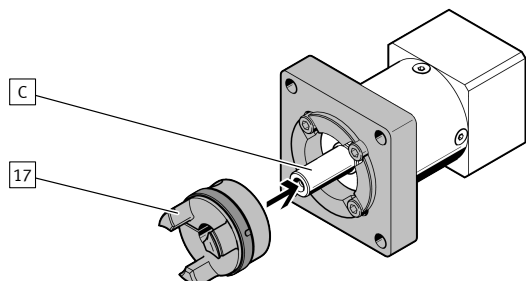


Fig. 5: Pushing on coupling hub on gear unit side

- Slide the coupling hub [17] with the appropriate hole onto the drive shaft adapter [C].

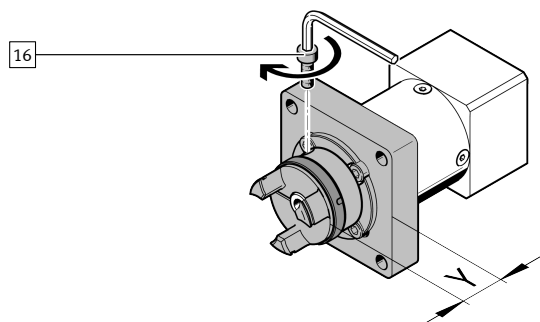


Fig. 6: Aligning coupling hub on the gear unit side

1. Maintain distance (Y) → 5.1.3 Alignment of coupling.
2. Tighten the clamping screw [16] on the gear unit side.

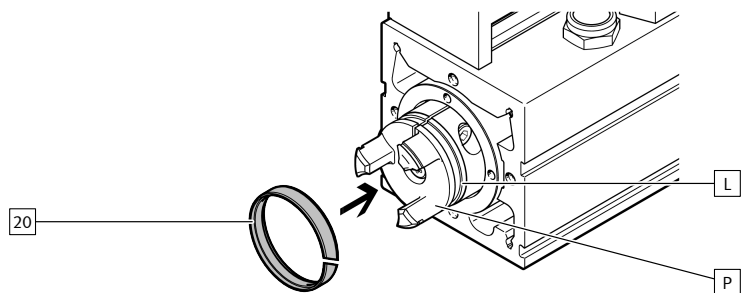


Fig. 7: Insert slip ring axis side

- Insert the slip ring [20] into the slot [L] of the axis-side coupling hub [P].

5.1.3 Alignment of coupling

NOTICE

Faulty coupling alignment

If dimension Y is incorrectly adjusted, this will cause increased wear of the toothed belt and may result in mechanical contact between the toothed belt pulley and the housing or cover.

- Observe distance.

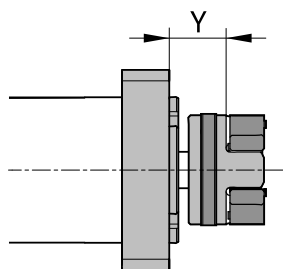


Fig. 8: Alignment of coupling hub

EAMM-U-	$Y \pm 0.3$ [mm]
65-T42-40G	23.8

Tab. 4: Dimension Y

5.1.4 Motor and axis connection

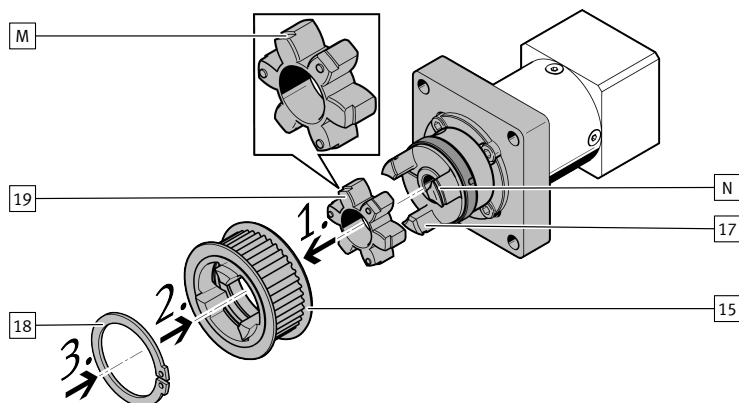


Fig. 9: Mounting toothed belt pulley on the gear unit side

1. Insert the elastomer spider [19] with the recess [M] outwards into the toothed belt pulley [15].
2. Push the toothed belt pulley [15] with elastomer spider [19] on the coupling hub [17] to the stop.
3. Insert the retaining ring [18] into the slot [N] of the coupling hub [17].

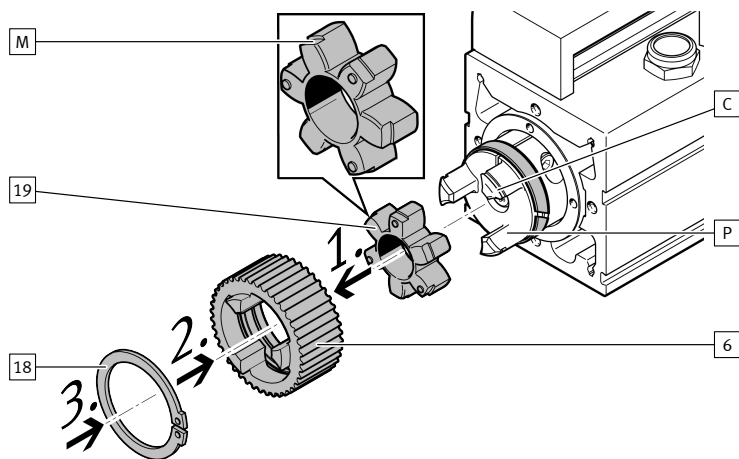


Fig. 10: Mounting toothed belt pulley, axis-side

1. Insert the elastomer spider [19] with the recess [M] outwards into the toothed belt pulley [6].
2. Push the toothed belt pulley [6] with elastomer spider [19] on the coupling hub [P] to the stop.
3. Insert the retaining ring [18] into the slot [C] of the coupling hub [P].

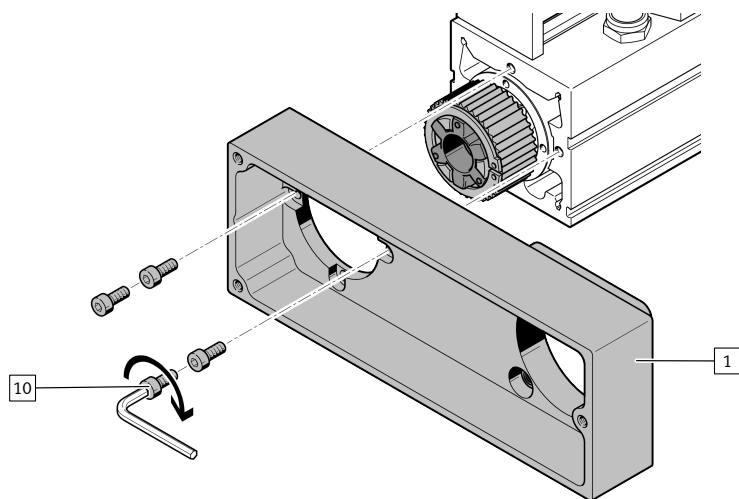


Fig. 11: Mounting housing on axis

- Mount the housing [1] on the axis with the screws [10].

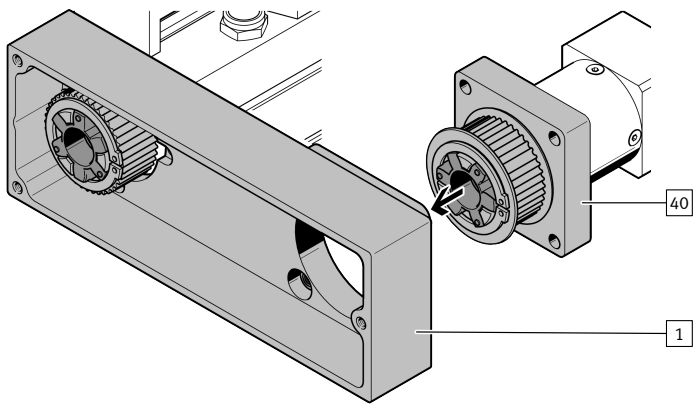


Fig. 12: Positioning gear unit

- Position the gear unit with adapter plate [40] on the housing [1].
 ↳ The gear unit is movable and can be easily tilted.

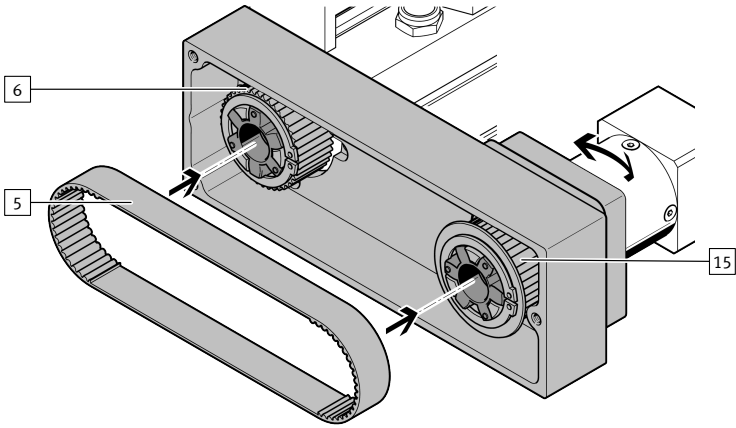


Fig. 13: Inserting toothed belt

- Push the gear unit in the direction of the axis to the stop and tilt it slightly.
- Position the toothed belt [5] first on the toothed belt pulley [15] and then on the toothed belt pulley [6].

i The reducing sleeves [78] are required if the mounting holes on the adapter plate [40] are too large for the included retaining screws.

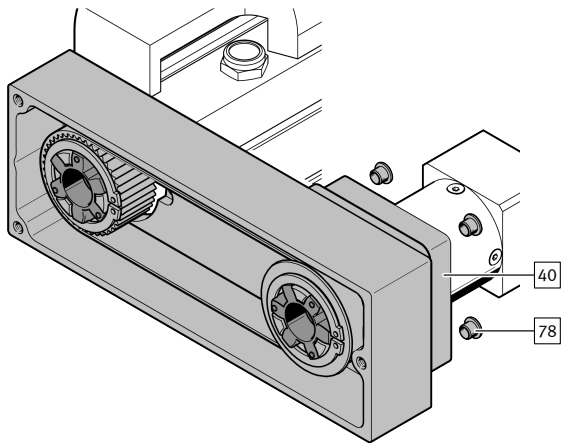


Fig. 14: Inserting reducing sleeves

- Insert the reducing sleeves [78] into the mounting holes of the adapter plate [40].

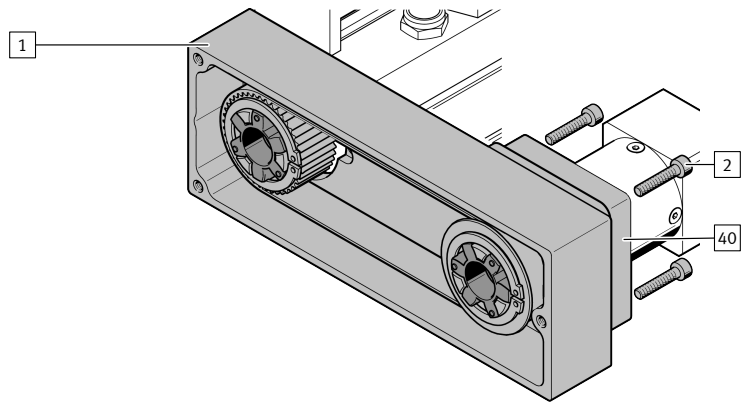


Fig. 15: Fastening gear unit

- Fasten the gear unit to the housing [1] with the screws [2] via the adapter plate [40].
 ↳ The gear unit can be moved, but it can no longer be tilted.

5.1.5 Tensioning the toothed belt

NOTICE

Toothed belt pretensioning too high.
 Impermissible radial loads or shaft break.
 Increased wear of the toothed belt and the bearings of axis and motor.

- Avoid excessive toothed belt pretension.

A low toothed belt pretension is recommended.

The toothed belt [5] is tensioned when the strands [D] run approximately parallel:

- Untensioned: $y > x$
- Tensioned: $y \approx 1 \dots 1.05 \times$

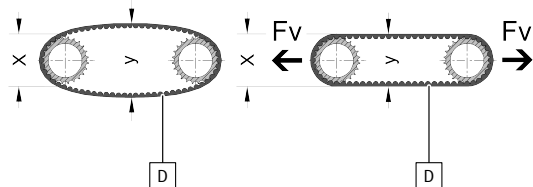


Fig. 16: Strands of the toothed belt

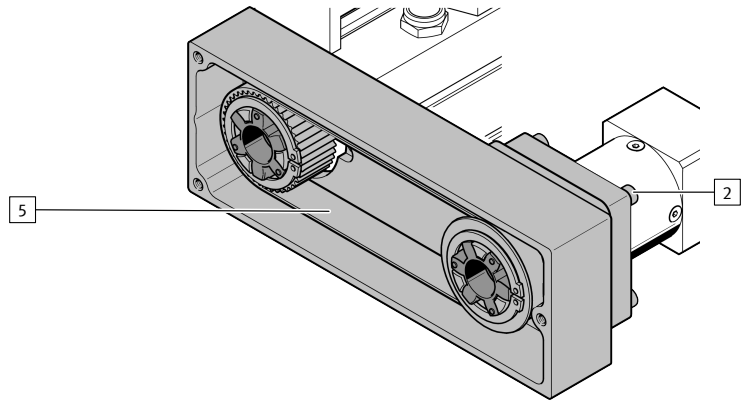


Fig. 17: Tensioning toothed belt

- Move the motor until clamping force F_v is exerted on the toothed belt [5].
- Tighten the screws [2].

EAMM-U-	Clamping force F_v [N]
65	27 ... 60

Tab. 5: Permissible tension of the toothed belt

5.1.6 Mounting the cover

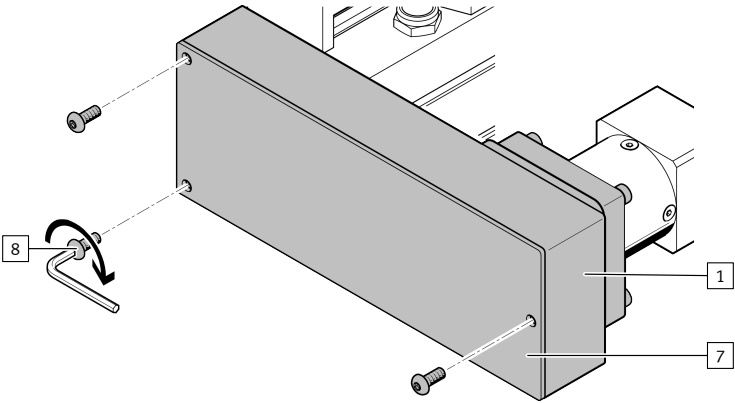


Fig. 18: Mounting cover

- Before commissioning: mount the cover [7] on the housing [8] with the screws [1].

5.2 Integration

5.2.1 Supporting frame for the axis-motor combination

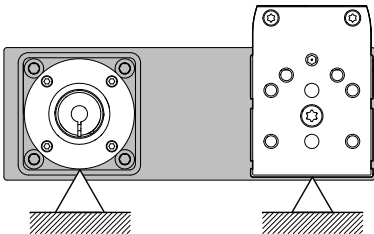


Fig. 19: Support the combination so it is free from tension

- Support the combination so it is free from tension to avoid damage.

6 In operation

CAUTION

Risk of injury from touching hot surfaces.

The motor connecting kit becomes hot due to the heat dissipation of the motor.

- Do not touch the motor connecting kit during operation or immediately afterward.

WARNING

Risk of injury due to unexpected movement of components if toothed belt fails.

- Take supplemental safeguarding measures.

7 Maintenance

7.1 Checking the toothed belt

The toothed belt [5] is a wearing part → www.festo.com/spareparts.

1. Check the toothed belt [5] regularly:
 - during maintenance of the machine
 - when replacing an axis
2. Replace the toothed belt [5] at the following indicators of wear:
 - excessive accumulation of wear particles in the housing
 - cracks on the back of the toothed belt
 - visible glass fibre cords in the tooth base

7.2 Demounting the toothed belt

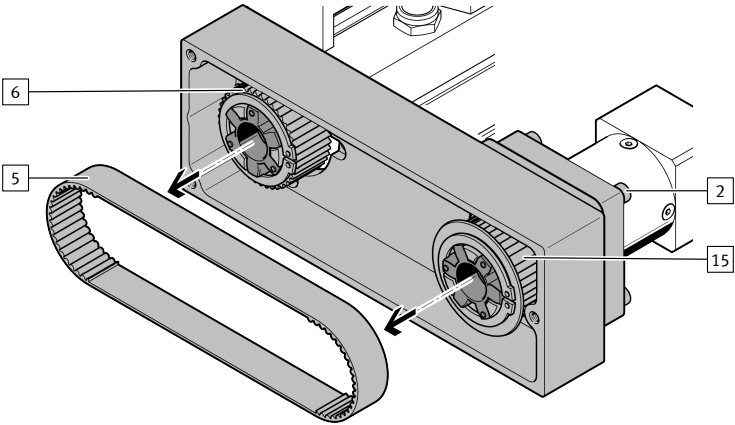


Fig.20



With vertical or diagonal mounting position of the axis:

- Observe applicable safety instructions in the instruction manual for the axis.

1. Remove the screws [2].
 - ↳ The motor is movable and can be easily tilted.
2. Move the motor in the direction of the axis up to the stop and tilt it slightly.
3. Remove the toothed belt [5] from the toothed belt pulleys [6] and [15].

8 Technical data

8.1 Screw sizes and tightening torques

EAMM-U-	[2]	[Nm]	[8]	[Nm]	[10]	[Nm]	[16]	[Nm]
65-T42-40G	M4x20	3	M4x10	3	M4x10	3	M4x12	4

Tab. 6: Screws [2] ... [16]

EAMM-U-	[41]	[Nm]
65-T42-40G	M4x10	3

Tab. 7: Screw [41]