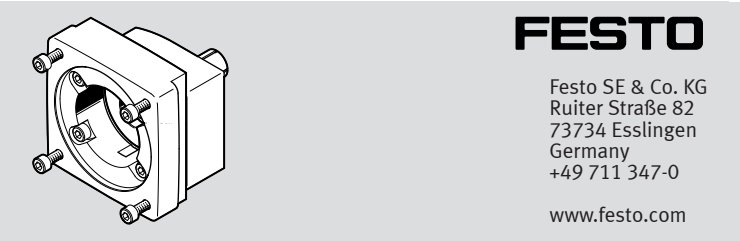


EAMM-A-R...-...A/P/R-3

Axial kit



Assembly instructions

8133009
2022-11e
[8133011]



Translation of the original instructions

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1 Applicable documents

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

Document	Product	Table of contents
Operating instruction	Motor	–
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 and hollow shafts. The coupling only grips without slipping on a dry and grease-free shaft surface.
- Clean the coupling hub [1]:
 - Degrease the clamping pivot [G] on the outside diameter. Do not degrease the expanding mandrel cone [H].
 - Degrease the clamping hole.
- Maintain the alignment of the coupling hub [1].
- Support the combination in the following cases:
 - If there are protruding or heavy motor attachments.
 - In the event of severe vibrations, vibration loads or shock loads.
- 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 axial kit connects an axis to a motor configured axially to the driven shaft.

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 motor from the interface codes.

Example: EAMM-A-R48-87A

R48: axis interface

87A: motor interface

Axis interface	Axis
R27	ELGG-35, ELGR-35
R38	ELGG-45, ELGR-45
R48	ELGG-55, ELGR-55

Tab. 2: Permissible axes

Motor interface	Motor
55A	EMMS-AS-55, third-party motor
57A	EMCS-/EMMS-ST-57, third-party motor
60P	EMMB-/EMME-/EMMT-AS-60, third-party motor
67A	EMCA-EC-67
70A	EMMS-AS-70, third-party motor
80P	EMMB-/EMME-/EMMT-AS-80, third-party motor
87A	EMMS-ST-87
100A	EMME-/EMMS-/EMMT-AS-100, third-party motor

Tab. 3: Permissible motors

It is the responsibility of users to qualify third-party motors with the matching mechanical interface for the combination. To find out which third-party motors are suitable, consult your regional Festo contact or → 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.

4 Scope of delivery

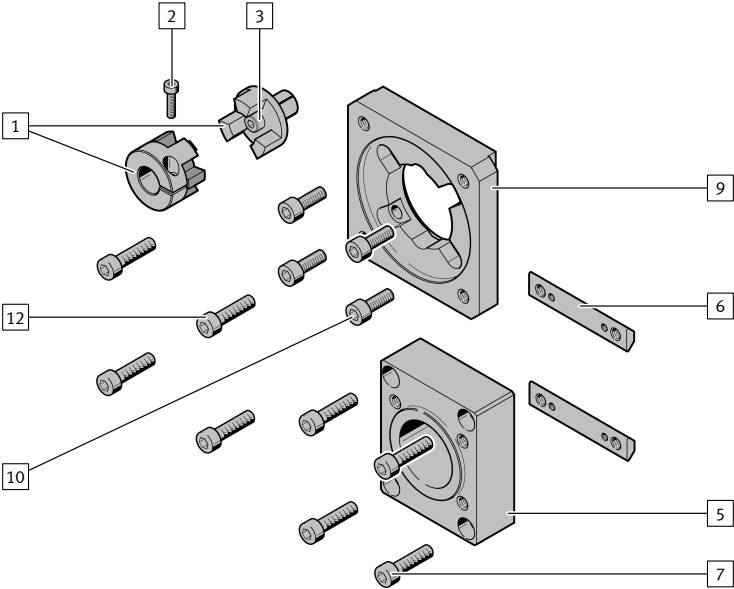


Fig. 1: Scope of delivery

- | | | | |
|---|-----------------------|----|-------------------|
| 1 | Coupling (1x) | 7 | Screw (4x) |
| 2 | Clamping screw (1x) | 9 | Motor flange (1x) |
| 3 | Clamping screw (1x) | 10 | Screw (4x) |
| 5 | Coupling housing (1x) | 12 | Screw (4x) |
| 6 | Slot nut (2x) | | |

5 Assembly

5.1 Preparation

The motor can be mounted in 4 positions with these kits for the axis ELGG/ELGR.

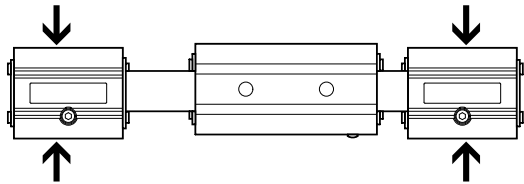


Fig. 2: Connection options

- Select one of the connection options.

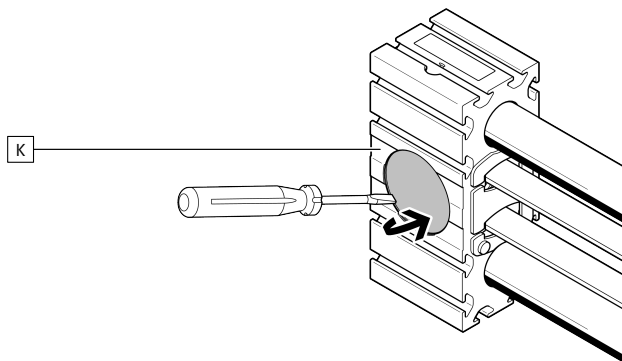


Fig. 3: Lever off the covering

1. Insert a screwdriver into the recess in the drive cover [K].
2. Lever off the covering.

5.2 Assembly

5.2.1 Preassembly of coupling

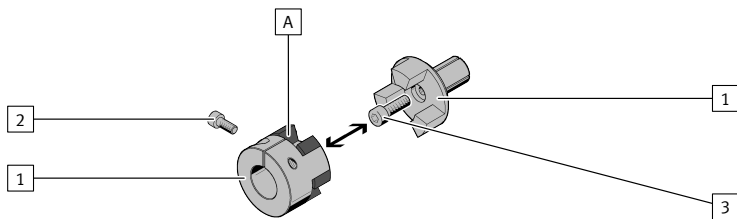


Fig. 4: Disconnecting coupling

1. Pull the coupling apart.
2. Place the elastomer spider [A] on one of the two coupling hubs [1].
3. Unscrew the clamping screws [2] and [3].

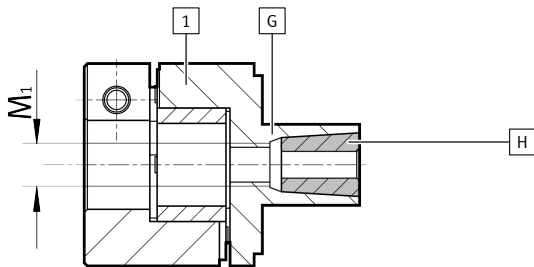


Fig. 5: Expanding mandrel cone in the clamping pivot

- Check the expanding mandrel cone [H].
 ↳ The expanding mandrel cone [H] must sit loosely in the clamping pivot [G], otherwise it cannot be mounted.

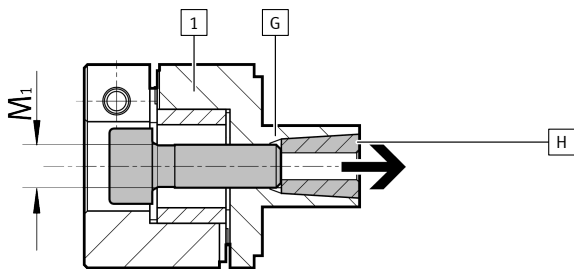


Fig. 6: Pressing out jammed expanding mandrel cone

The extraction thread M_1 is provided for loosening

- Screw a screw into the M_1 thread and press out the jammed expanding mandrel cone [H] → 7 Technical data.

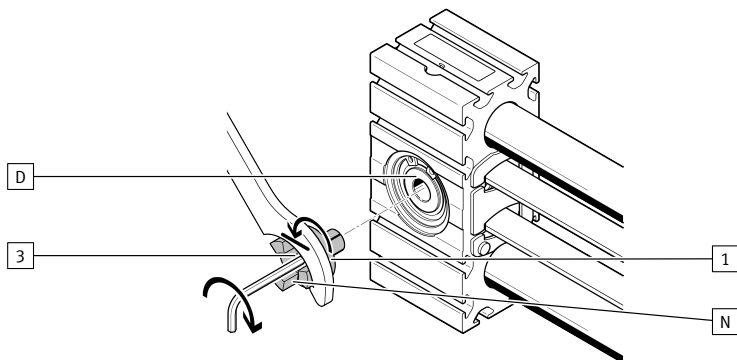


Fig. 7: Mount the coupling hub, axis side

1. Push the clamping pivot of the coupling hub [1] into the hollow shaft [D] to the stop.

2. Counterhold the coupling hub [1] on the coupling cams [N] with a suitable tool. Tool: e.g. hook spanner
 ↳ The counter holding prevents the hollow shaft [D] from rotating and exerting excessive tensile forces on the toothed belt of the axis.
3. Tighten the clamping screw [3].

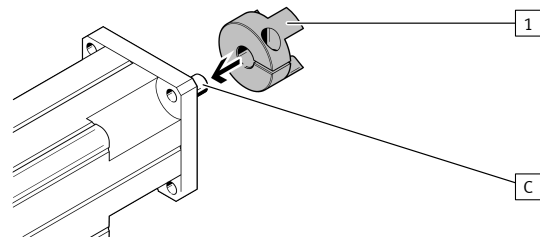


Fig. 8: Pushing on coupling hub, motor side

- Slide the coupling hub [1] with the appropriate hole onto the drive shaft adapter [C].

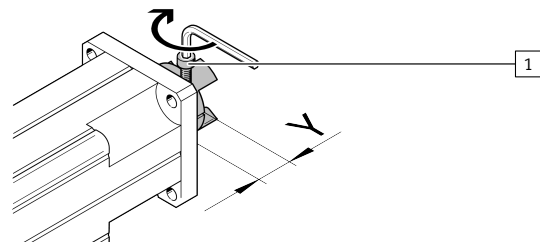


Fig. 9: Aligning the coupling hub, motor side

1. Maintain distance (Y) → 5.2.2 Alignment of coupling.
2. Tighten all clamping screws [2] on the motor side.

5.2.2 Alignment of coupling

NOTICE

Axial forces on the shafts of motor and axis.

Axial forces result in failure of the encoder/brake or increased wear.

- Maintain distances.

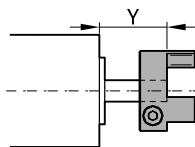


Fig. 10: Aligning coupling hub

EAMM-A-	$Y \pm 0.3$ [mm]
R27-55A	20.1
R27-57A	20.1
R27-67A	25.1
R38-57A	20.1
R38-60P	30.1
R38-70A	22.8
R38-87A	27.1
R48-70A	22.8
R48-80P	35.5
R48-87A	26.6
R48-100A	40.5

Tab. 4: Coupling distance Y

5.2.3 Motor and axis connection

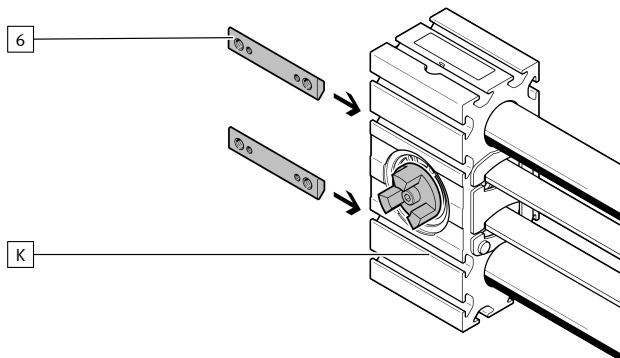


Fig. 11: Positioning the slot nuts

- Insert slot nuts [6] flush into the slots of the drive cover [K].

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.

7 Technical data**7.1 Screw sizes and tightening torques**

EAMM-A-	[2]	[Nm]	[3]	[Nm]	[7]	[Nm]	[10]	[Nm]
R27-55A	M2	0.5	M3	1	M3x14	1.2	M5x12	6
R27-57A	M2	0.5	M3	1	M3x14	1.2	M5x14	6
R27-67A	M2	0.5	M3	1	M3x14	1.2	M5x16	6
R38-57A	M3	2	M4	1.5	M5x20	6	M5x14	6
R38-60P	M3	2	M4	1.5	M5x20	6	M5x18	6
R38-70A	M3	2	M4	1.5	M5x20	6	M5x14	6
R38-87A	M3	2	M4	1.5	M5x20	6	M5x18	6
R48-70A	M4	4	M5	7	M5x25	6	M5x12	6
R48-80P	M5	8	M6	8.5	M5x25	6	M5x25	6
R48-87A	M4	4	M5	7	M5x25	6	M5x12	6
R48-100A	M5	8	M6	8.5	M5x25	6	M5x30	6

Tab. 5: Screws [2] ... [10]

EAMM-A-	[12]	[Nm]
R27-55A	M5x16	6
R27-57A	M4x12	3
R27-67A	M6x16	8
R38-57A	M4x12	3
R38-60P	M4x16	3
R38-70A	M5x20	6
R38-87A	M6x20	10
R48-70A	M5x20	6
R48-80P	M5x20	6
R48-87A	M6x22	10
R48-100A	M8x25	18

Tab. 6: Screw [12]

7.2 Extraction thread M₁

EAMM-A-	M ₁
R27-55A	M4
R27-57A	M4
R27-67A	M4
R38-57A	M5
R38-60P	M5
R38-70A	M5
R38-87A	M5
R48-70A	M6
R48-80P	M8
R48-87A	M6
R48-100A	M8

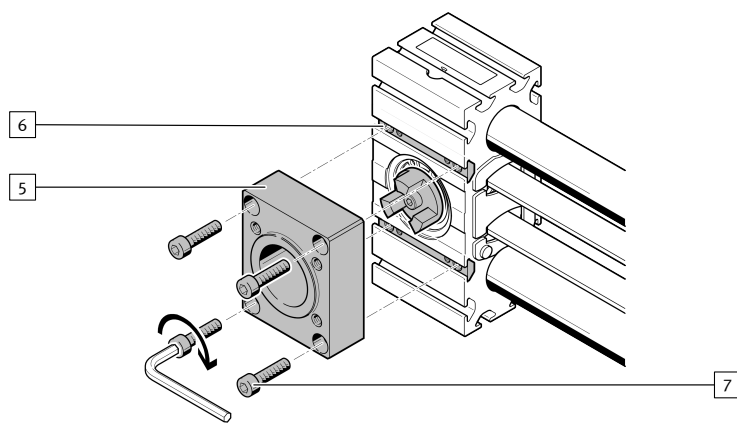
Tab. 7: Extraction thread M₁

Fig. 12: Mounting coupling housing

- Fasten the coupling housing [5] to the slot nuts [6] with the screws [7].

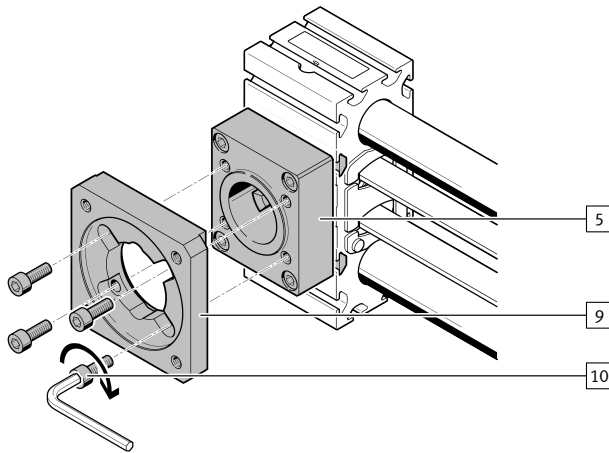


Fig. 13: Mounting motor flange

- Mount the motor flange [9] on the coupling housing [5] with the screws [10].

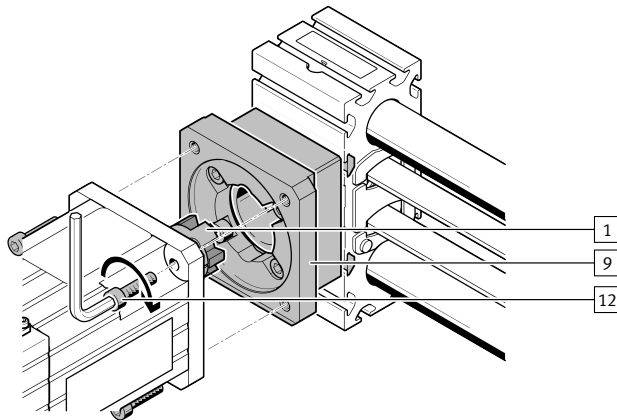


Fig. 14: Mounting motor

- Push the motor and the axis together completely. Ensure that the coupling hubs [1] are in the correct relative position.
 - There is no gap between the motor and motor flange [9].
- Mount the motor [9] on the motor flange with the screws [12].

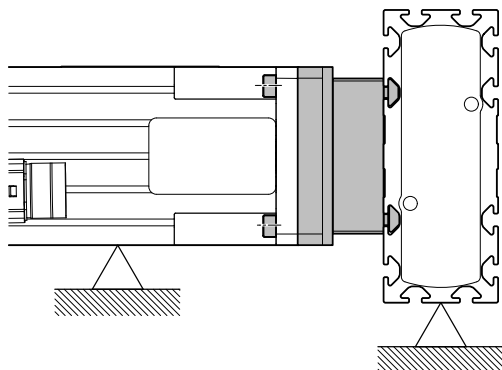
5.3 Supporting frame for the axis-motor combination

Fig. 15: Supporting frame for the axis-motor combination

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