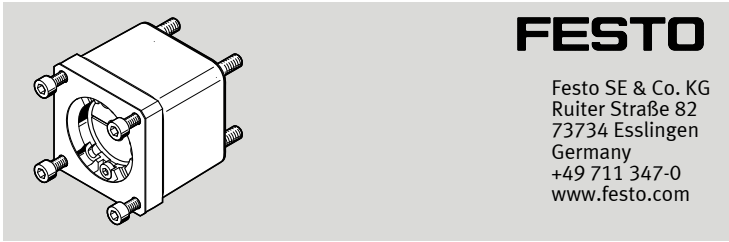


EAMM-A-D...-...A/P/R-S1-10
Axial kit



Instructions | Assembly

8113603
2019-11d
[8113605]



Translation of the original instructions
© 2019 all rights reserved to Festo SE & Co. KG

1 Applicable Documents

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

- Observe further applicable documents:
- Motor instruction manual
 - Axis instruction manual

2 Safety

2.1 Safety Instructions

- Only assemble the product on components that are in a condition to be safely operated.
- Clean shafts. The coupling hubs [1] grip without slipping only on dry and grease-free drive shafts.
- Maintain proper alignment of the coupling hubs [1].
- Support the combination:
 - if there are protruding or heavy motor attachments
 - if there are severe vibrations or oscillation/shock loads
- Perform a homing procedure each time after disconnecting or turning the motor.
- Select required mounting components. The kit contains all the mounting components that may be required.
- Select the correct screw length for the screws [7] depending on the axis. The screws [7] are labelled correspondingly.
- Observe tightening torques. Unless otherwise specified, the tolerance is ± 20 %.
- If they are exceeded, the cover screws of the axis will loosen during disassembly.
- Select the seal that fits the axis [4].

2.2 Intended use

2.2.1 Usage

Connecting an axis to a motor in axial configuration to the driven shaft. Fulfils degree of protection IP65.

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.

- Derive the axis and motor from the interface codes.

Example: EAMM-A-D40-55A

D40: Axis interface

55A: Motor interface

Example: EAMM-A-D40-55A-S1

D40: Axis interface

55A: Motor interface

Axis interface	Axis ¹⁾
D32	ESBF-32
D40	ESBF-40
D50	ESBF-50

Axis interface	Axis ¹⁾
D60	ESBF-63

1) electric cylinder ESBF

Tab. 1

Motor interface	Motor ¹⁾
55A	EMMS-AS-55, third-party motor
57A	EMMS-ST-57, third-party motor
70A	EMMS-AS-70, third-party motor
87A	EMMS-ST-87
100A	EMME-/EMMS-/EMMT-AS-100, third-party motor

1) stepper motor EMM...-AS

Tab. 2



It is the responsibility of users to qualify third-party motors with the matching mechanical interface for the combination. You can find out which third-party motors are suitable from your local Festo contact partner or from → www.festo.com/sp.

2.3 Training of Qualified Personnel

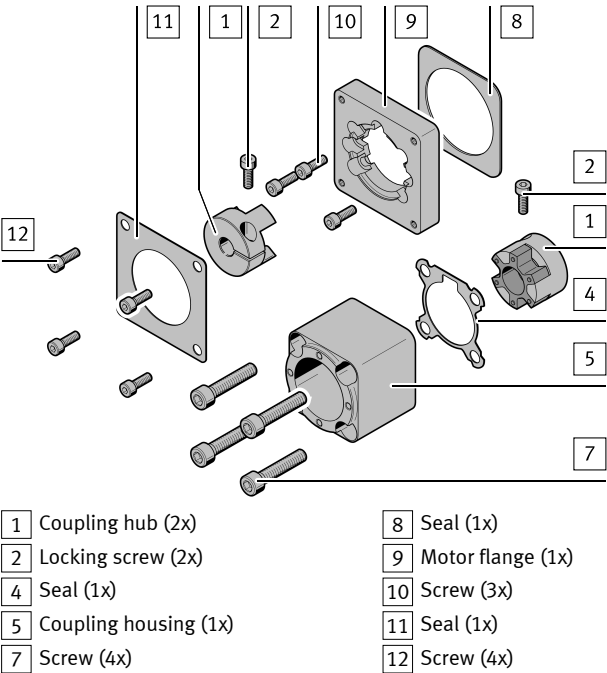
Mounting only by qualified personnel. The qualified personnel must be familiar with the assembly of mechanical drive components.

3 Additional information

- Accessories → www.festo.com/catalogue.

4 Scope of Delivery

EAMM-A-D...-...A/P-S1



- | | |
|-------------------------|---------------------|
| 1 Coupling hub (2x) | 8 Seal (1x) |
| 2 Locking screw (2x) | 9 Motor flange (1x) |
| 4 Seal (1x) | 10 Screw (3x) |
| 5 Coupling housing (1x) | 11 Seal (1x) |
| 7 Screw (4x) | 12 Screw (4x) |

Fig. 1 Scope of Delivery

5 Mounting

5.1 Assembly

5.1.1 Coupling Preassembly

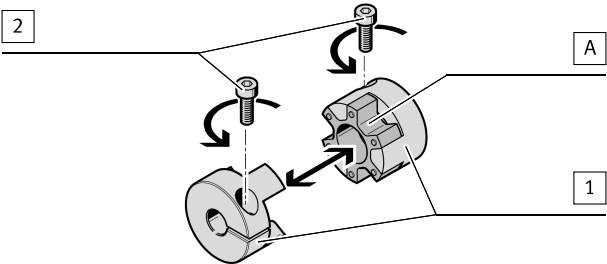


Fig. 2 Disconnect the coupling

- Pull apart coupling.
- Place the elastomer spider [A] on one of the two coupling hubs [1].
- Loosen locking screws [2].

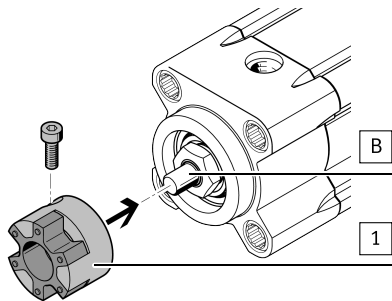


Fig. 3 Push on coupling hub, axis-side

- Push coupling hub [1] with the matching drilled hole onto the drive shaft [B].

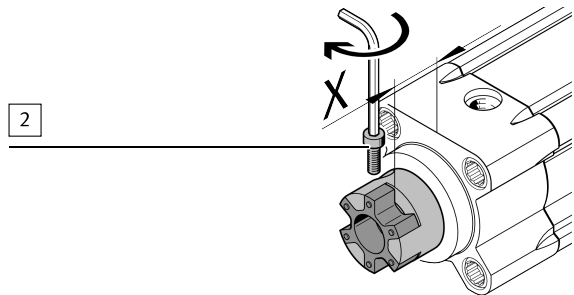


Fig. 4 Align coupling hub, axis-side

1. Observe distance (X) → 5.1.2 Coupling Alignment.
2. Tighten axis-side locking screw [2].

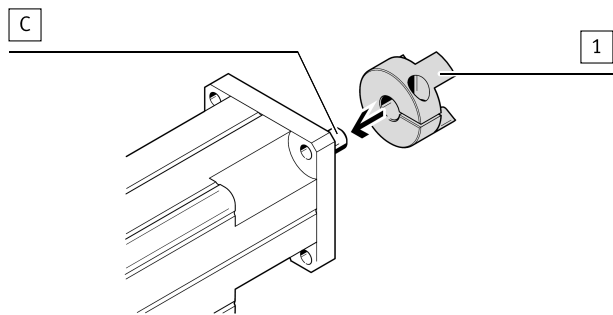


Fig. 5 Push on the coupling hub, motor side

- Push coupling hub [1] with the matching drilled hole onto the drive shaft [C].

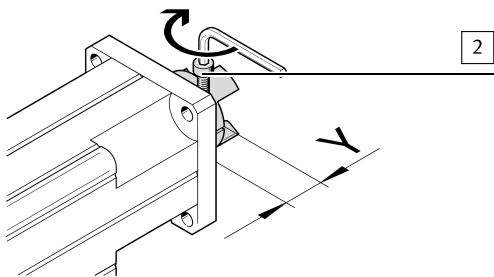


Fig. 6 Align the coupling hub, motor side

1. Observe distance (Y) → 5.1.2 Coupling Alignment.
2. Tighten motor-side locking screw [2].

5.1.2 Coupling Alignment

NOTICE!

Axial forces on the shafts of motor and axis.

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

- Maintain distances.

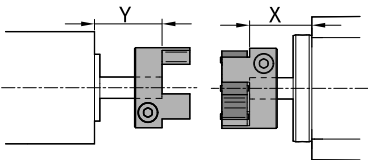


Fig. 7 Align coupling

EAMM-A	Motor-side	Axis-side
	$Y \pm 0.5$ [mm]	$X \pm 0.5$ [mm]
D32-55A-S1	20.6	18.2
D32-57A-S1	21.9	18.2
D40-55A-S1	20.1	18.7
D40-57A-S1	21.4	18.7
D40-70A-S1	22.9	18.7
D40-87A-S1	24.9	18.7
D50-70A-S1	25.5	27.7
D50-87A-S1	27	27.7
D50-100A-S1	40.5	27.7
D60-70A-S1	24.7	23.5
D60-87A-S1	26.2	23.5
D60-100A-S1	39.7	23.5

Tab. 3

5.1.3 Connection of Motor and Axis

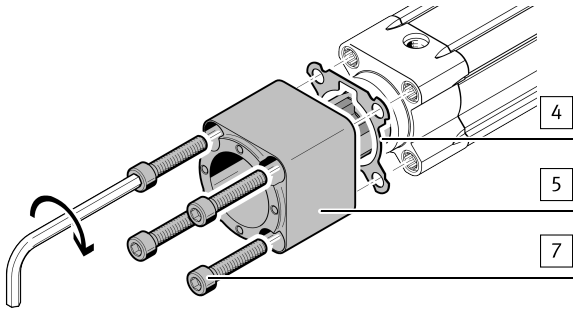


Fig. 8 Mount the coupling housing

1. Place the seal [4] between the coupling housing [5] and axis.
2. Mount the coupling housing [5] to the axis using the screws [7].

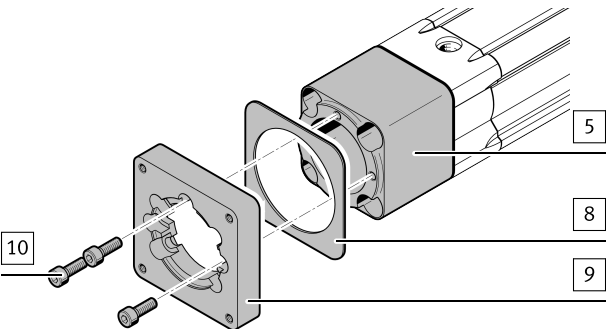


Fig. 9 Mount the motor flange

1. Place the seal [8] between the coupling housing [5] and motor flange [9].
2. Mount the motor flange [9] to the coupling housing [5] using the screws [10].

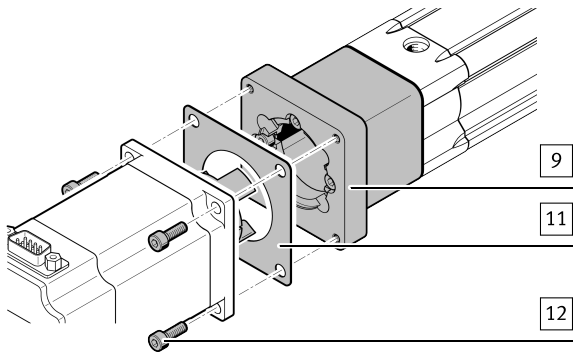


Fig. 10 Mount the motor

1. Place the seal [11] between the motor flange [9] and motor.
2. Push motor and axis together completely. Pay attention to the correct relative position of the coupling hubs [1].
↳ There is no gap between the motor and motor flange [9].
3. Fasten the motor to the motor flange [9] using the screws [12].

5.2 Installation

5.2.1 Supporting the Axis-motor Combination

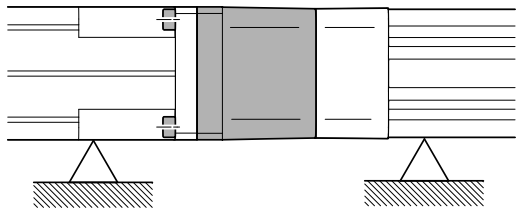


Fig. 11 Support the combination so it is free from tension

- 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 after-ward.

7 Technical data

7.1 Screw Sizes and Tightening Torques

EAMM-A-	[2]	[Nm]	[7]	[Nm]	[10]	[Nm]	[12]	[Nm]
D32-55A-S1	M4x12	4	M6x30	6	M4x12	2.4	M5x18	6
D32-57A-S1	M4x12	4	M6x30	6	M4x12	3	M4x12	3
D40-55A-S1	M4x12	4	M6x30	6	M4x12	2.4	M5x18	6
D40-57A-S1	M4x12	4	M6x30	6	M4x12	3	M4x12	3
D40-70A-S1	M4x12	4	M6x30	6	M4x12	2.4	M5x18	6
D40-87A-S1	M4x12	4	M6x30	6	M4x16	3	M6x22	10
D50-70A-S1	M5x18	8	M8x50	12	M6x12	8	M5x20	6
D50-87A-S1	M5x18	8	M8x50	12	M6x16	10	M6x22	10
D50-100A-S1	M5x18	8	M8x65	12	M6x20	10	M8x25	18
D60-70A-S1	M5x18	8	M8x30	12	M6x12	8	M5x20	6
D60-87A-S1	M5x18	8	M8x30	12	M6x16	10	M6x22	10
D60-100A-S1	M5x18	8	M8x40	12	M6x20	10	M8x25	18

Tab. 4