

flatConnector³

Maintenance and replacement instructions

Disassembly, inspection, and exchange (assembly) of a spare parts kit

Spare part kit flatConnector³
(formerly end fitting type 3)
from 2011

Belt widths: 50 mm and 75 mm

Klocke

Maintenance & Replacement Instructions

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1 Disassembly, inspection and replacement (reassembly)

Before replacing the flatConnector³, the following instructions must be observed!

For further information, refer to the operating instructions for the BRECO® F3 flat belt with end fastening type 3 and the system manufacturer's documentation.

1.1 Safety instructions

The following safety instructions must be observed before and during disassembly!

- Before starting work, these maintenance and replacement instructions must be read carefully and completely.
- The person responsible for dismantling and assembly may only deploy trained personnel for the work. Similarly, only trained specialists may carry out set-up and maintenance work.
- Before dismantling, the technician must check that there are no persons in the danger zone of the machine!
- During disassembly, make sure that the belt no longer performs lifting work.
- There must be no more tensile forces on the belt.
- Keep your workplace tidy. A cluttered workspace increases the risk of accidents.
- Never use acetone to clean the flat belts or metal parts.

1.2 Use and intended application

This spare parts kit is only suitable for use with the end fittings of type 3 now flatConnector³ and is designed exclusively for tensile loads. Any other use is considered improper. The operator bears sole responsibility for use with other types of load. The manufacturer is not liable for any resulting damage. The risk is borne solely by the user.

Only the screws and belts supplied by us in the spare parts kit may be used, along with any tie rods. For safety reasons, components from other manufacturers must not be used.

To avoid the invalidation of the CE declaration for the lifting belt assembly, it may only be replaced by a person who has completed the online training for installing the flatConnector³ and can provide written proof of this. Furthermore, it must be documented that the belt was replaced exactly according to the instructions.

You can find the training video at: klocke-antrieb.de/flatconnector or use the following QR code.

1 Disassembly, inspection and replacement (reassembly)

1.3 Test instructions before disassembly

- Before beginning installation and maintenance work, make sure that the machine has been switched off and that there are no tractive forces on the lifting belt.
- Before dismantling, the belt and the end connections must be visually inspected for damage.
- The final connection is to be checked for completeness of the components.
- If, for example, individual screws are missing, these may have fallen into the system and cause further damage. In this case, suitable measures are to be taken, if necessary in consultation with the system manufacturer.

1.4 Preparations before dismantling

1.4.1 Preparations

To remove and dismantle the flatConnector³, the following should be selected and prepared to ensure a short dismantling time:

- The system manufacturer's dismantling instructions for removing the belt drive assembly from the overall system.
- Suitable disassembly tools
- Measuring and test equipment

1.5 Disassembly

The belt drive assembly is to be removed in a suitable manner according to the specifications of the manufacturer of the overall system. The specified values and instructions of the system manufacturer are to be observed.

1.5.1 Disassembly the metal parts

- The assembly is dismantled after removal from the overall system.
- Removal of the type plate with the CE marking (if the process is carried out by an untrained person).
- Disassembly, without damaging the individual parts, by authorised and trained specialist personnel, using suitable tools.
- You will find a detailed description of the dismantling process on the following pages.

1 Disassembly, inspection and replacement (reassembly)

a) Removal of the original type plate with the CE marking. If the specifications of these dismantling instructions are not complied with.

(In this case, removal of the CE marking must be confirmed in writing.)

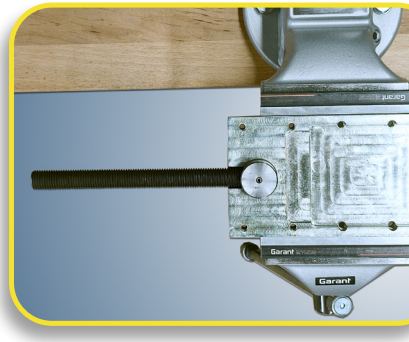


b) Remove the 10 socket cap screws DIN 912 with a suitable tool.



c) Remove and dispose of the 10 dismantled DIN 912–M6x35–10.9 VZ bolts.

These screws must not be reused.



d) Carefully separate the upper and lower plates without damaging the metal parts.

(e.g. with two slotted screwdrivers SL1.6x10 or larger)



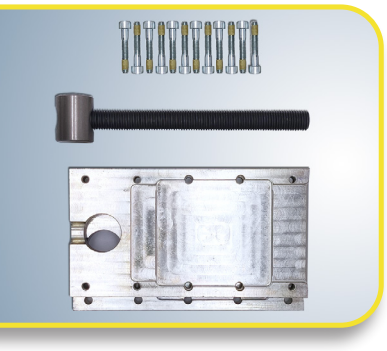
e) Removing the flat belt.



1 Disassembly, inspection and replacement (assembly)

1.5.2 Checking metal parts

- Visual inspection of the dismantled components intended for further use for damage, corrosion and deformation.
- Check thread for damage and mobility.
- Check the metal parts for evenness.
- Parts that are no longer dimensionally stable or have damage in functional areas must not be used for safety reasons and must be replaced.
- For safety reasons, disassembled screws must not be reused.



Check the dismantled metal parts for damage, corrosion, deformation and completeness.

1.6 Preparations before installing the spare parts kit

1.6.1 Preparations

To install the flatConnector³ spare parts kit, the following should be selected and prepared to ensure a short assembly time:

- The system manufacturer‘s installation instructions for removing and installing the belt drive assembly from the overall system.
- Spare parts kit flatConnector³ in the required length.
- Suitable assembly tools
- Measuring and test equipment

1 Disassembly, inspection and replacement (assembly)

1.7 Installation of replacement part kits

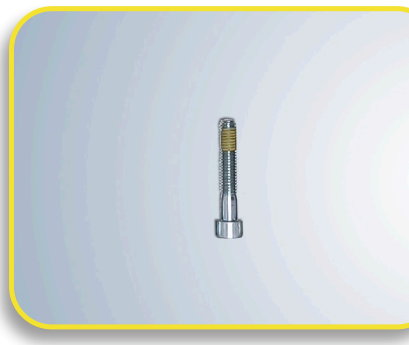
1.7.1 Installation

The flat belts must be firmly attached at both belt ends in a suitable manner. The values and instructions provided by the system manufacturer must be observed.

a) Remove the flat belt and the cylinder head screws from the packaging.



b) There are two additional cylinder head screws, type: DIN 912–M6x35–10.9, in the spare parts kit to replace any lost items.



c) Lay out all the required parts and check for usability and completeness.



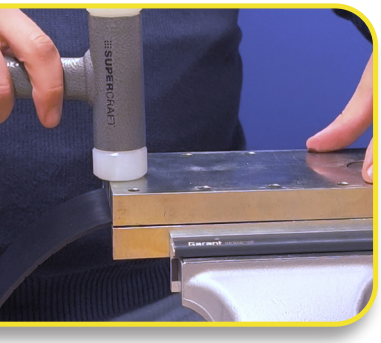
d) Installation of flat belts and, if necessary, tie rods, if this has also been dismantled or replaced, in the lower plate of the end connection.



1 Disassembly, inspection and replacement (assembly)



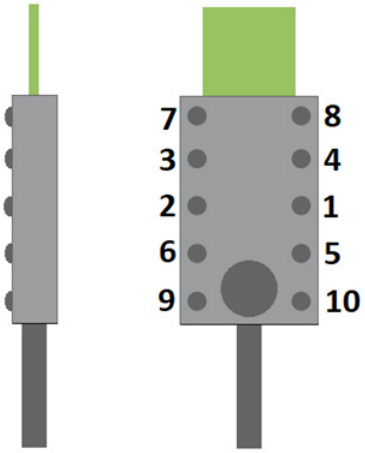
e) Mounting the top plate on the bottom plate. Both metal parts should be seated on top of each other without any gaps before the screws are mounted. The plastic parts must not protrude or be jammed between the top and bottom plates.



f) If necessary, a plastic hammer can be used to position the metal parts by carefully tapping the top plate. Excessive force or violence should not be used.



g) Mount the 10 cylinder head screws in the metal plates of the end connection. The screws are tightened by hand, e.g. with an allen key. It is essential to follow the specified sequence for tightening the screws.



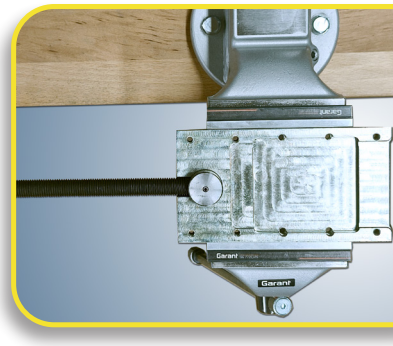
End connector type 3
(principle diagram)

1 -10 = sequence for tightening the screws

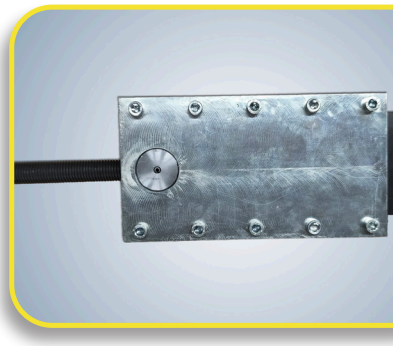


h) Mount the 10 cylinder head screws DIN 912–M6x35–10.9 VZ with a suitable torque wrench. The mounting torque for the screws is 14 Nm and must be strictly adhered to. The permissible tolerance for the torque wrench is +/- 2 to 3% at 14 Nm.

1 Disassembly, inspection and replacement (assembly)



i) Replace the order for tightening the screws that were already tightened once with the mounting torque and then loosened again during this assembly with new screws.



j) After assembly, the belts must be free of grease and residue. (Do not use acetone for cleaning.)

The completely assembled unit can now be reinstalled in the system according to the system manufacturer‘s instructions.

1.7.2 Mounting several flat belts parallel to each other

When arranging several flat belts that are operated in parallel and next to each other, all belts in the set should be replaced.

During installation, it must be ensured that all belts installed in parallel have the same tension in the same lifting table position and that this is checked with a suitable tension measuring device.

All the elements involved must be aligned in such a way that the flat belts do not deviate laterally, in particular that they do not run off the pulleys. The flat belts must be guided in a suitable manner on the winding, drive and deflection pulleys. To ensure full functionality, the belts must be free of grease and residue after installation.

The mounting and adjustment of the end fixings must be carried out in such a way that an almost even contact pattern across the entire width of the belt is ensured.

It is essential to ensure that the flat belt drives are not put into operation until the entire system, with all protective devices, is functioning and
complies with the Machinery Directive.

In this regard, it is essential that you also follow the operating instructions of the system manufacturer.

Our services for you

Full service – anytime, anywhere

Maintenance and replacement instructions
flatConnector³ (formerly drive belt BRECO® F3 flat belt
with end fastening type 3)
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