

CENTAX-G

Assembly and operating instructions

020G-00050...00090-.S10

M020-00002-EN

Rev. 8



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1 General remarks

These assembly and operating instructions form a constituent part of the coupling delivery and must be kept in an easily accessible place at all times.

CENTA products are developed and produced to quality standard DIN EN ISO 9001:2000.

In the interests of further development, CENTA reserves the right to make technical changes.



IMPORTANT

CENTA is unable to accept liability for damage and operating faults caused by failure to observe the operating instructions.

These operating instructions are protected under copyright to CENTA Antriebe Kirschey GmbH.

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2 Safety

The purpose of these operating instructions is to enable users to:

- use the coupling safely and correctly
- maximize efficiency
- ensure that care and maintenance are carried out correctly

For this reason, these operating instructions must be thoroughly read and understood prior to work on and with the coupling.

WARNING

**Injury and material damage can occur as a result of:**

- Failure to adhere to the safety and accident prevention regulations valid at the relevant installation site

The safety and accident prevention regulations valid at the installation site in question must be adhered to when performing any of the tasks described in these operating instructions.

2.1 Safety remarks

In these operating instructions, safety remarks are indicated by a pictogram and a signal word.

2.1.1 Signal words

The following signal words are used in the safety remarks:

DANGER

Denotes the immediate threat of danger.
If not prevented, fatal or extremely serious injuries can result.

WARNING

Denotes a potentially dangerous situation.
If not prevented, fatal or extremely serious injuries can result.

CAUTION

Denotes a potentially dangerous situation.
If not prevented, minor injuries and/damage to property may result.

IMPORTANT

Denotes application tips and particularly useful information. This is not a signal word denoting a dangerous or damaging situation.

2.1.2 Pictograms

Possible pictograms in the safety precautions:



Warning of a hazardous area



Do not switch




Use protective gloves




Use protective goggles

2.2 Qualification of deployed personnel

All the work described in these operating instructions may only be performed by authorized persons with adequate training and instruction.

WARNING	
	<p>Injury and material damage can occur as a result of:</p> <ul style="list-style-type: none"> Work at the coupling which is not described in these instructions <p>Only carry out work which is described in these operating instructions.</p>

2.3 Intended application

WARNING	
	<p>Injury and material damage can occur as a result of:</p> <ul style="list-style-type: none"> Application not in compliance with the intended use <p>The couplings are intended exclusively for use in accordance with the relevant design. They may only be used under the specified conditions.</p>

WARNING


Injuries can occur as a result of:

- Contact with rotating parts

Shield the coupling in accordance with the applicable accident prevention regulations with an enclosure.

Exception:

The coupling is encased by the driving and driven units.

The scope of delivery provided by CENTA does not include a protective enclosure.

This enclosure must fulfil the following criteria:

- Provide protection against persons gaining access to rotating parts
- Restrain any rotating parts which may be work loose
- Guarantee sufficient ventilation for the coupling

This enclosure must be made of stable steel components. In order to ensure adequate ventilation for the coupling, the enclosure must be fitted with regular openings. For safety reasons, these openings must not exceed the dimensions outlined in table 2-1.


Component	Circular openings [mm]	Rectangular openings [mm]
Top of the enclosure	Ø 8	□ 8
Side elements of the enclosure	Ø 8	□ 8

Table 2-1 Shape and size of ventilation holes

The enclosures must be positioned a minimum of 15 mm distant from rotating parts. The enclosure must be electrically conductive and be included in the equipotential bonding.

Before commencing long-term operation, the plant must successfully complete a test run.

2.4 Application not in compliance with the intended use

WARNING	
	<p>Injury and material damage can occur as a result of:</p> <ul style="list-style-type: none">▪ Inadmissibly high torque▪ Inadmissibly high or low speeds▪ Exceeding the specified ambient temperature▪ Inadmissible ambient medium▪ Inadmissible coupling enclosure▪ Exceeding the admissible overall misalignment values <p>Only use the coupling for the specified application.</p>

CENTA bears no liability for damage resulting from application not in compliance with the intended use of the equipment.
Should there be a change of plant parameters, the coupling design must be reviewed by CENTA (address see chapter 1).



3 Delivery, transport, storage and disposal

3.1 Delivery

After delivery, the coupling:

- must be checked for completeness and correctness of the delivery.
- must be examined for possible transport damage (which must be reported immediately to the carrier).



3.2 Transport

CAUTION	
	Injury and material damage can occur as a result of: <ul style="list-style-type: none"> ▪ Incorrect transportation of couplings <p>Ensure that the coupling is correctly transported.</p>
CAUTION	
	Material damage to coupling components can occur as a result of: <ul style="list-style-type: none"> ▪ Contact with sharp-edged objects <p>Protect coupling components for transportation. Only hoist coupling components with nylon belts or ropes. Always cushion parts when supporting them from below.</p>

Following transportation damage:

- Check the coupling carefully for damage.
- Consult the manufacturer (Address see chapter 1).

3.3 Storage

CAUTION	
	Material damage to elastic elements and rubber parts can occur as a result of: <ul style="list-style-type: none"> ▪ Incorrect storage <p>These parts must be stored laid flat and so they cannot distort, and protected from ozone, heat, light, moisture and solvents.</p>
 IMPORTANT	
<p>Rubber parts are marked where possible with their production date. From this date, they may only be stored for a maximum of 5 years.</p>	

3.3.1 Storage location

Requirements imposed on the storage location:


- Moderately ventilated and low in dust
- Dry (max. 65% humidity)
- Temperature stabilized (-10°C to +25°C)
- Free of ozone-producing devices such as light sources and electric motors
- Free of UV light sources and direct sunlight
- Do not store solvents and disinfectants, fuels or lubricants, acids, chemicals etc. in the same location

For more details, refer to DIN 7716.

3.3.2 Storage of couplings / flexible elements

- Unpack the parts.
- Check the packaging for damage. Replace if necessary.
- Check that the wax protection on steel components is intact. If necessary, patch or renew.
- Package the parts (for prolonged periods of storage, enclose desiccant and weld into film).
- Place the parts into storage.

3.4 Disposal

RECYCLING	
	Ensure safe, environmentally responsible disposal of operating supplies and exchange parts. For this, locally provided recycling facilities and regulations must be utilized.

For disposal, the coupling parts must be separated where possible and sorted according to material type.

4 Technical description

4.1 Characteristics

CENTAX-SEC series G couplings have the following excellent characteristics:

- Sufficient elasticity to take up axial, radial and angular misalignment, movements, installation errors and heat expansion in units with rigid or elastic bearings.
- High torsional elasticity with linear curve. One or more elements with different shore hardnesses can be used in series, in which case the necessary torsional rigidity for optimal vibration behaviour of the unit can be ensured.
- All sides of the rubber element are ventilated all round in order to guarantee good heat dissipation and high heat capacity.
- High dynamic capacity and balancing quality.
- Simple, cost-effective design with compact dimensions, low weight and mass moment of inertia.
- Wear free, low maintenance, simple to install. In all the series, the elements can be replaced radially – without having to move the connected machine components. Suitable dimensioning of bolts and clamping forces for torque transmission by friction.
- Available with or without failsafe device.

4.2 Specifications

The specifications can be found in the catalogue and the dimensions in the installation drawing.

5 Alignment of the units being connected



IMPORTANT

- Align the units during the assembly.
- Align the units that are to be connected as accurately as possible. In this way, a long service life for the coupling and maximum operating misalignment values can be achieved. The overall misalignment is composed of the misalignment and the operating misalignment. The permissible overall misalignment values can be found in the corresponding catalogue and must not be exceeded.
- All permissible alignment tolerances apply to arrangements at operating temperatures. If the arrangement would be aligned at a different temperature, there would be additional deviations in the arrangement, which were produced by the difference between the aligning and operating temperature. For alignment, this has to be taken into account.
- After completion of assembly, check the alignment of the coupling again and if necessary correct.

5.1 Axial alignment

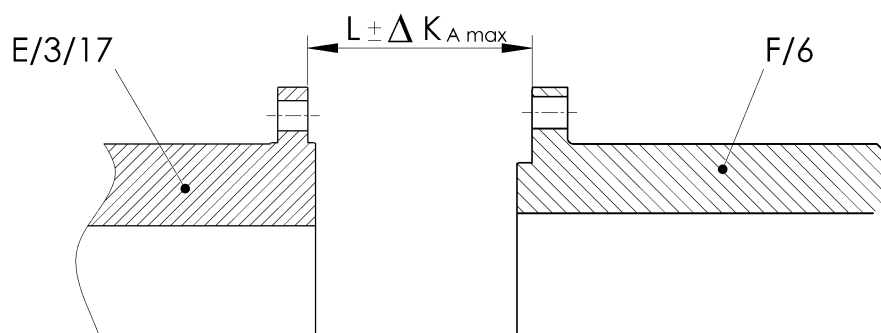


Fig. 5-1 Axial alignment

Item	Info	Designation	Remark
3/6		Hub	If scope of supply
17		Adapter	If scope of supply
E/F		Flange	Customer part

Determine the axial misalignment (see Fig. 5-1).

- Take installation length **L** from the installation drawing.
- Align the units (installation dimension = **$L \pm \Delta K_{A \max}$**).

Permissible axial alignment tolerance:

$$\Delta K_{A \max} = 0.5 \text{ mm}$$

5.2 Radial alignment

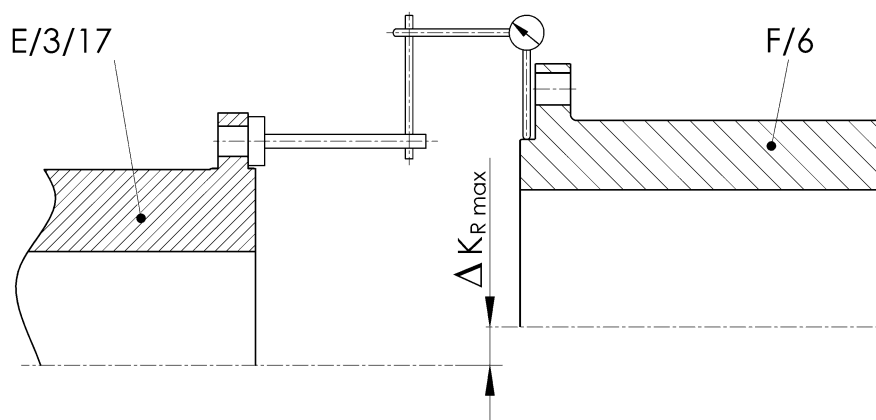


Fig. 5-2 Radial misalignment

Item	Info	Designation	Remark
3/6		Hub	If scope of supply
17		Adapter	If scope of supply
E/F		Flange	Customer part

CAUTION



Material damage to elastically installed engines can occur as a result of:

- Disregard to which extent the engine mounts may settle during alignment

During vertical alignment, take into account the extent by which the engine mounts settle. Please enquire about specifications for the degree of settling from the engine manufacturer or engine mounts manufacturer.

- Measure the radial misalignment with a dial gauge (see Fig. 5-2).
- Attach the dial gauge to the flange/hub/adapter (E/3/17).
- Set the sensor of the dial gauge radially against the centring.
- Turn the flange/hub/adapter (E/3/17) with dial gauge and flange/hub (F/6) slowly by 360°.
- Align the units (calculated deviation $\leq \Delta K_{R \max}$).

The permissible radial alignment tolerance $\Delta K_{R \max}$ can be found in the following table.

Size	Shorehardness [Shore A]	$\Delta K_{R \max}$ [mm]
50 - 56	45 / 50 / 60	± 0.45
	70	± 0.15
64 - 65	50 / 60	± 0.45
	70	± 0.15
66 - 70	50 / 60	± 0.6
	70	± 0.18
72	50 / 60	± 0.75
	70	± 0.22
75	50 / 60	± 0.82
	70	± 0.25
78	50 / 60	± 0.9
	70	± 0.3
80	50 / 60	± 1.05
	70	± 0.33
81	50 / 60	± 1.05
	70	± 0.37
82 - 90	50 / 60	± 1.2
	70	± 0.37

Table 5-1 Permissible radial alignment tolerance

5.3 Angular alignment

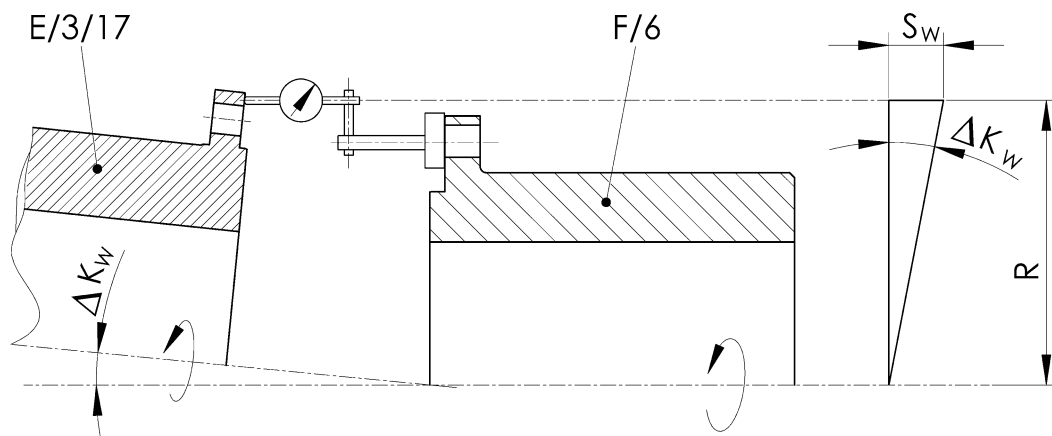


Fig. 5-3 Angular misalignment

Item	Info	Designation	Remark
3/6		Hub	If scope of supply
17		Adapter	If scope of supply
E/F		Flange	Customer part

- Measure the angular misalignment (see Fig. 5-3).
 - Attach the dial gauge to the flange/hub/adaptor (E/3/17).
 - Position the sensor of the dial gauge radially against flat surface at a distance R.
 - Turn the flange/hub/adaptor (E/3/17) with dial gauge and flange/hub (F/6) slowly by 360°.

The maximum dial gauge deflection must not exceed the value $2 \times S_w$ at any point. The permissible tolerance $S_{w \max}$ should be calculated according to formula 5-1 below.

- Align the units (calculated deviation $\leq \Delta K_{w \max}$).

Permissible angular alignment tolerance:

$$\Delta K_{w \max} = 0.05^\circ$$

$$S_w = R \cdot \tan(\Delta K_w)$$

$$S_w = R \cdot 0.00087$$

Formula 5-1 Calculated dimension S_w

6 Mounting

6.1 General assembly instructions

Any work method which impairs the safety of the coupling is prohibited.
The user undertakes to notify the manufacturer immediately of any changes occurring at the coupling which could impair safety (address see chapter 1).

WARNING



Injuries can occur as a result of:

- Contact with rotating parts

Before starting work at the coupling, switch off the plant and secure against unintentional start-up.

WARNING



Injury and material damage can occur as a result of:

- Assembly of the coupling in the wrong sequence

Only ever assemble the coupling in the described sequence.

WARNING



Injury and material damage can occur as a result of:

- Falling coupling components

Secure coupling components against falling to the floor.

CAUTION



Material damage to coupling components can occur as a result of:

- Contact with sharp-edged objects

Protect coupling components for transportation.

Only hoist coupling components with nylon belts or ropes.

Always cushion parts when supporting them from below.

CAUTION



Material damage can occur as a result of:

- Soiled joint surfaces

The surfaces that are to be joined must be free of dirt, preservatives and lubricants.

CAUTION



Material damage to coupling components can occur as a result of:

- Anaerobic adhesives (e.g. Loctite) used for screw locking

This type of screw locking medium may not be in contact with rubber parts.



IMPORTANT

- Screw preparation and tightening torque levels in accordance with CENTA data sheet D013-013 (see chapter 11.1).
- Use suitable lifting devices for assembly.
- The following assembly stages are described for coupling 020G-00070-.S10.
- Part illustration and marking may differ slightly from installation drawing and delivery state.

6.2 Mounting overview

The following figure shows examples of possible design.

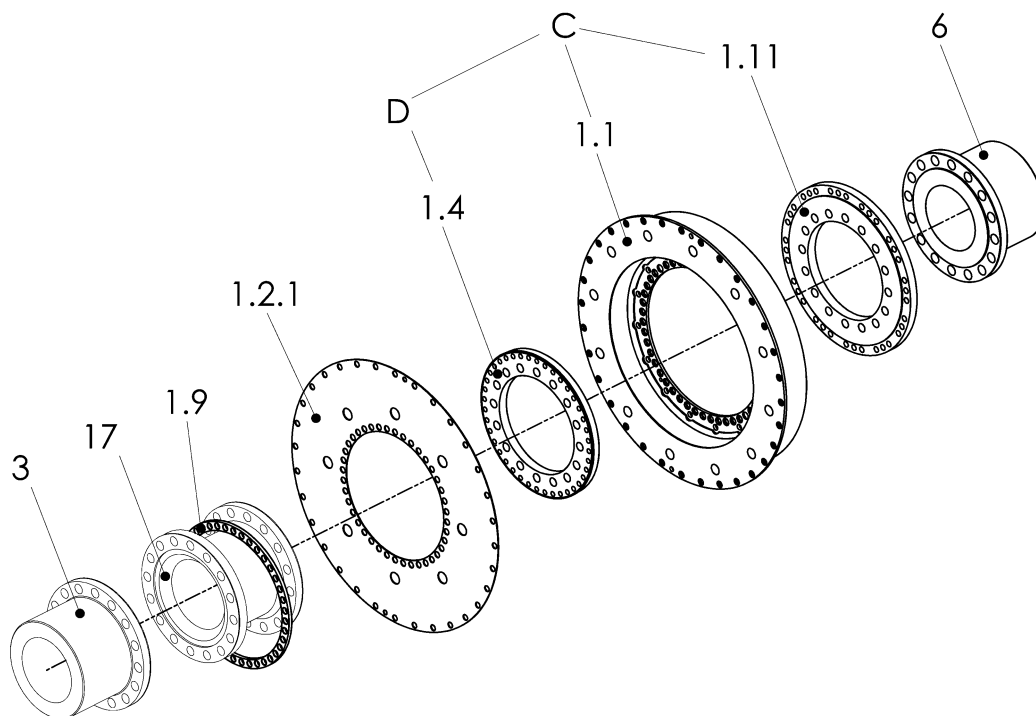


Fig. 6-1 Example: 020G-00050...00090-.S10

Item	Info	Designation	Remark
1.1		Rubber element	
1.2.1		Membrane	
1.4		Ring	
1.9		Ring	Design and size see installation drawing
1.11		Adapter	
3		Hub/Clamping set assembly	If scope of supply
6		Hub/Clamping set assembly	If scope of supply
17		Adapter	If scope of supply
C		Pre-mounted rubber element	
D		Pre-mounted rubber element with ring	



IMPORTANT

This assembly instruction describes the mounting of several design.
Mount the coupling as appropriate for the supplied design (see installation drawing).

- Mount the coupling according to the following described order as appropriate for the supplied design. For delivered design and built-in parts, see installation drawing.
 - Mounting the hub/clamping set assembly (3/6), see chapter 6.3
 - Mounting the adapter (17), see chapter 6.4
 - Aligning the units, see chapter 5
 - Positioning the membrane (1.2.1), see chapter 6.6
 - Mounting the adapter (1.11) to the rubber element (1.1), see chapter 6.7
 - Positioning the ring (1.4) in the pre-mounted rubber element (C), see chapter 6.8
 - Mounting the pre-mounted rubber element with ring (D), see chapter 6.9
 - Mounting the ring (1.4), see chapter 6.10
 - Mounting the membrane (1.2.1), see chapter 6.11
 - Connecting the rubber element (1.1) and the membrane, see chapter 6.12
 - After completed mounting, see chapter 6.13

6.3 Mounting the hub/clamping set assembly

- Mount the hub as appropriate for the type supplied (see installation drawing):
 - Mounting the hub with cylindrical bore and keyway, see chapter 6.3.1
 - Mounting the hub with conical oil interference fit, see chapter 6.3.2
 - Mounting the hub with cylindrical oil interference fit, see chapter 6.3.3
 - Mounting the CENTA conical clamping hub, see chapter 6.3.4
 - Mounting the clamping set assembly, see chapter 6.3.5

6.3.1 Mounting the hub with cylindrical bore and keyway

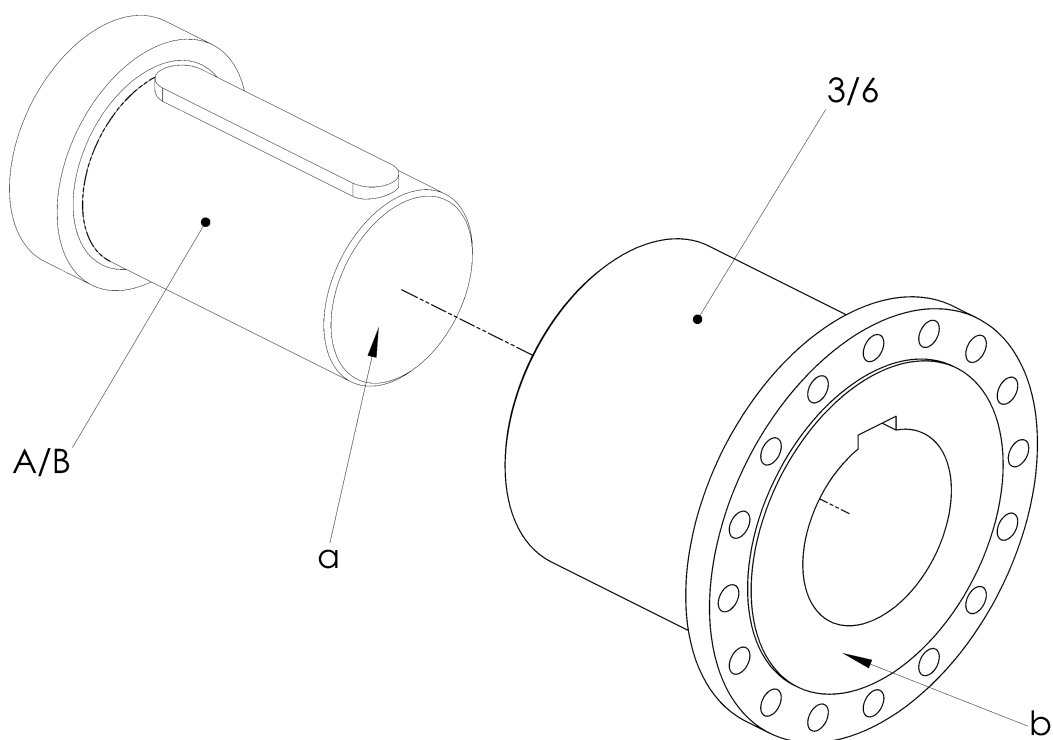


Fig. 6-2 Mounting the hub with cylindrical bore and keyway

Item	Info	Designation	Remark
3/6		Hub	
A/B		Shaft	Customer part
	a	Face of shaft	
	b	Face of hub	

CAUTION**Material damage can occur as a result of:**

- Incorrect heating of the hubs/flange hubs

Heat the hubs/flange hubs steadily in an oil bath, a fan oven, on an electric hot plate, inductive or with a flame (ring burner).

CAUTION**Injuries can occur as a result of:**

- Hot coupling components

Use suitable protective gloves.

- Heat the hub (3/6) to a temperature of 170° - 200°C.
- Push the hub (3/6) onto the shaft (A/B).

**IMPORTANT**

Face of shaft must not protrude to face of hub. Otherwise radial replacement of other coupling parts is not guaranteed.

CAUTION**Material damage can occur as a result of:**

- Hot hubs/flange hubs

Before further mounting of hubs/flange hubs, allow them to cool to ambient temperature.

6.3.2 Mounting the hub with conical oil interference fit

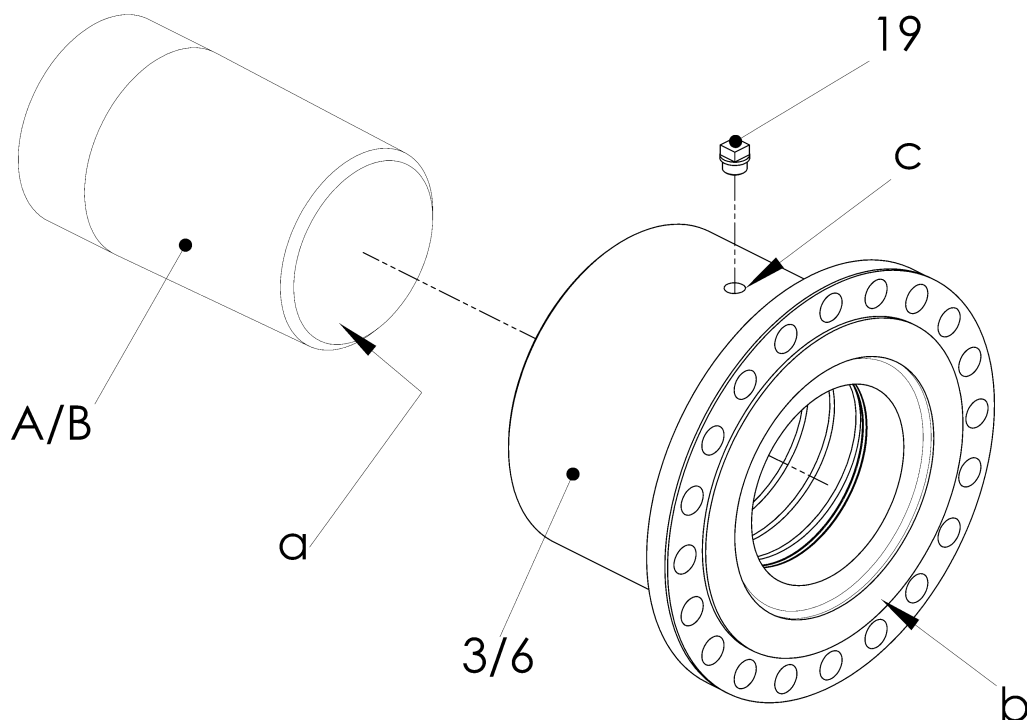


Fig. 6-3 Mounting the hub with conical oil interference fit

Item	Info	Designation	Remark
3/6		Hub	
19		Screw plug	G $\frac{1}{4}$ or G $\frac{3}{4}$ see installation drawing
A/B		Shaft	Customer part
	a	Face of shaft	
	b	Face of hub	
	c	Thread	G $\frac{1}{4}$ or G $\frac{3}{4}$ see installation drawing

- Lightly oil the cone of the shaft (A/B).
- Push the hub (3/6) onto the shaft (A/B).
- Remove the screw plug (19) from the hub (3/6).

WARNING


Injury and material damage can occur as a result of:

- Non-compliance with the operating instructions for the hydraulic pumps

Before carrying out work with the hydraulic pumps, do not fail to read their operating instructions. Only ever work with hydraulic pumps as described in their operating instructions.

WARNING


Injury and material damage can occur as a result of:

- Hydraulic fluid spraying out
- Use protective goggles.



IMPORTANT

We recommend the following mounting fluids:

- For mounting: Oil with a viscosity 300 mm²/s at 20°C, e.g. SKF LHM300
- For dismantling: Oil with a viscosity 900 mm²/s at 20°C, e.g. SKF LHDF900

- Connect the pump (**p_{max} = 3000 bar**) for expanding the hub (3/6) to the thread G¹/₄ or G³/₄ (c).
- Screw the pump for pushing on the hub to the shaft.
- Build up the oil pressure to push on the hub.

WARNING


Material damage can occur as a result of:

- Insufficient expanding pressure in the hub

If the expanding pressure is too low, the necessary pushing pressure is too high.

- Build up the oil pressure for expanding the hub.
- Build up the oil pressure alternately until the lift path (p up) of the hub (3/6) is reached (for p up and reference faces, see installation drawing).
- Decrease the oil pressure for expanding the hub.
- Remove the pump for expanding the hub from the hub (3/6).
- Maintain the oil pressure for pushing on the hub for one hour.
- Decrease the oil pressure for pushing on the hub.

- Remove the pump for pushing on the hub from the shaft.
- Turn the hub (3/6), drain oil out of the thread G $\frac{1}{4}$ or G $\frac{3}{4}$ (c) and dispose correctly.
- Screw the screw plug (19) into the hub (3/6).


IMPORTANT

Do not place a load on the hub for 24 hours.


IMPORTANT

Face of shaft must not protrude to face of hub. Otherwise radial replacement of other coupling parts is not guaranteed.

6.3.3 Mounting the hub with cylindrical oil interference fit

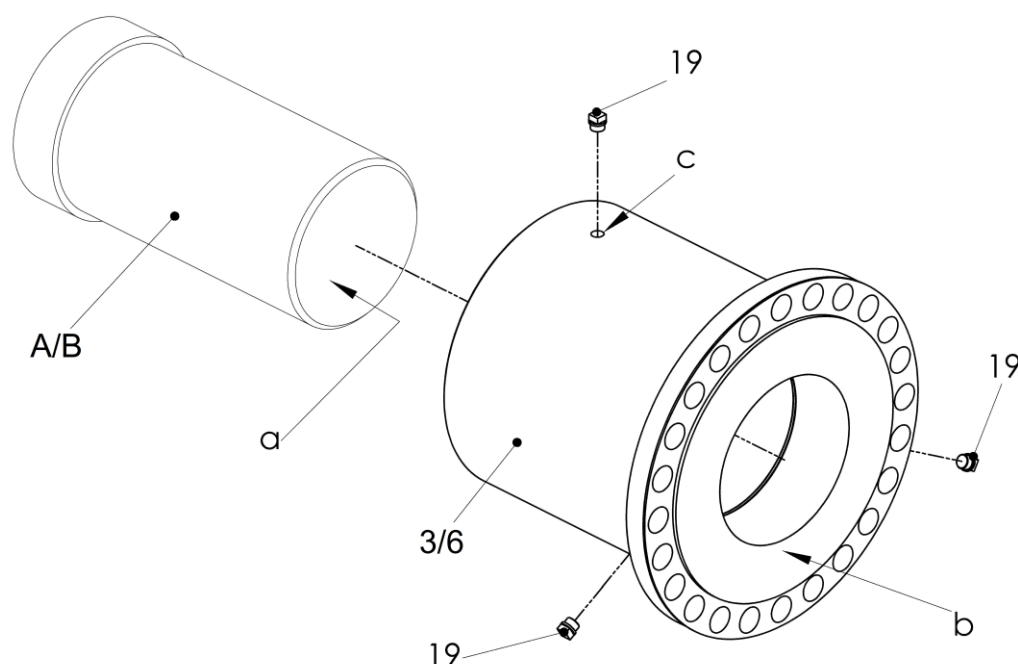


Fig. 6-4 Mounting the hub with cylindrical oil interference fit

Item	Info	Designation	Remark
3/6		Hub	
19		Screw plug	3 x 120° offset
A/B		Shaft	Customer part
	a	Face of shaft	
	b	Face of hub	
	c	Thread G $\frac{1}{4}$	3 x 120° offset

CAUTION**Material damage can occur as a result of:**

- Incorrect heating of the hubs/flange hubs

Heat the hubs/flange hubs steadily in an oil bath, a fan oven, on an electric hot plate, inductive or with a flame (ring burner).

CAUTION**Injuries can occur as a result of:**

- Hot coupling components

Use suitable protective gloves.

- Remove all screw plugs (19) from the hub (3/6).
- Warm the hub (3/6) to a temperature of 280°C - 320°C.
- Push the hub (3/6) onto the shaft (A/B).

**IMPORTANT**

Face of shaft must not protrude to face of hub. Otherwise radial replacement of other coupling parts is not guaranteed.

CAUTION**Material damage can occur as a result of:**

- Hot hubs/flange hubs

Before further mounting of hubs/flange hubs, allow them to cool to ambient temperature.

- Screw all screw plugs (19) into the hub (3/6).

6.3.4 Mounting the CENTA conical clamping hub (3/6)

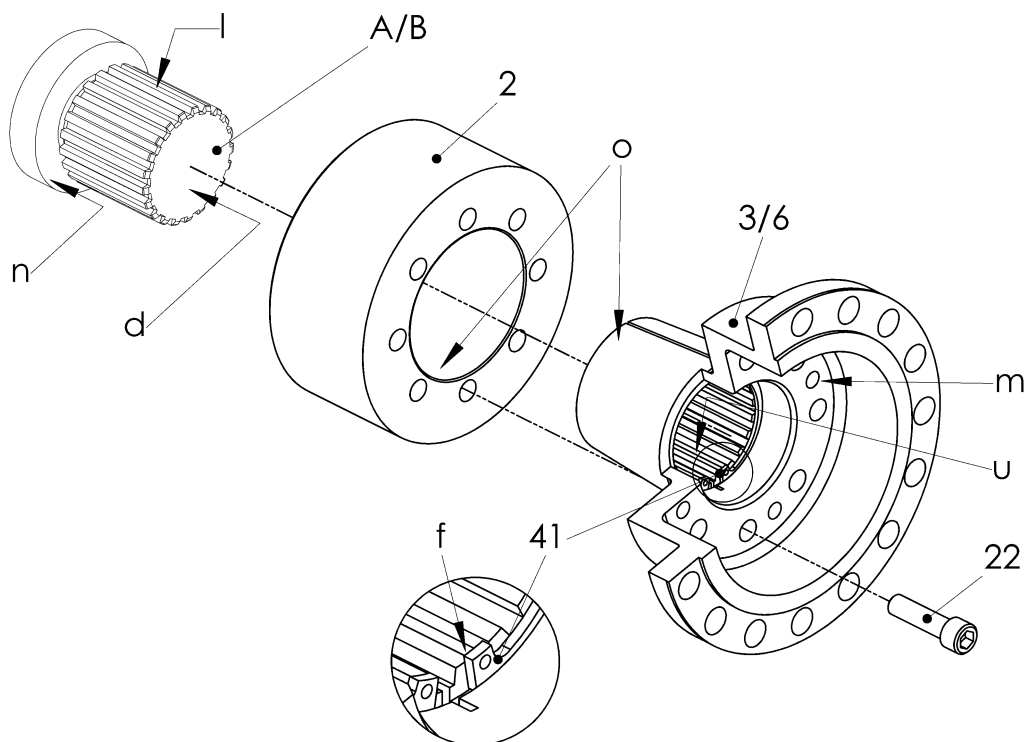


Fig. 6-5 Mounting the CENTA conical clamping hub (3/6)

Item	Info	Designation	Remark
2		Ring	
3/6		Hub	Pre-mounted
22		Screw	
41		Circlip	Design of the hub see installation drawing
A/B		Shaft	Customer part
	d	Shaft end	
	f	Rear side of circlip	
	l	Shaft extension	
	m	Forcing thread	for dismantling
	n	Shaft shoulder	
	o	Conical surface	
	u	Drilling	

**IMPORTANT**

The surfaces of the conical clamping connection and the hub-shaft connection must be free of oil, grease and dirt.

- Prepare the hub (3/6), the ring (2) and the shaft (A/B) for mounting:
 - Clean and degrease the drilling (u) and the conical surface (o) of the hub (3/6).
 - Clean and degrease the conical surface (o) of the ring (2).
 - Clean and degrease the shaft extension (l) of the shaft (A/B).
- Insert the hub (3/6) into the ring (2).
- Loosely screw the hub (3/6) to the ring (2) using the screws (22).
- Push the hub (3/6) onto the shaft (A/B) as appropriate for the supplied design **with / without** circlip (41; see installation drawing):
 - **With** circlip (41):
Push the hub (3/6) and the ring (2) onto the shaft (A/B) until the shaft end (d) touches the rear side (f) of the circlip (41).

**IMPORTANT**

Ensure that the hub is correctly positioned on the shaft (against shaft end).
If necessary brace hub with washer against the shaft.

- **Without** circlip (41):
Push the hub (3/6) and the ring (2) onto the shaft (A/B) against the shaft shoulder (n).

**IMPORTANT**

Ensure that the hub is correctly positioned on the shaft (against shaft shoulder).
If necessary brace hub with washer against the shaft.

- Evenly tighten the screws (22) in three steps crosswise, until the tightening torque (see installation drawing) has been achieved for all screws.
First step: 40 % of the specified tightening torque.
Second step: 60 % of the specified tightening torque.
Third step: 100 % of the specified tightening torque.
- Check the tightening torque of the screws (22) one after the other.

6.3.5 Mounting the clamping set assembly

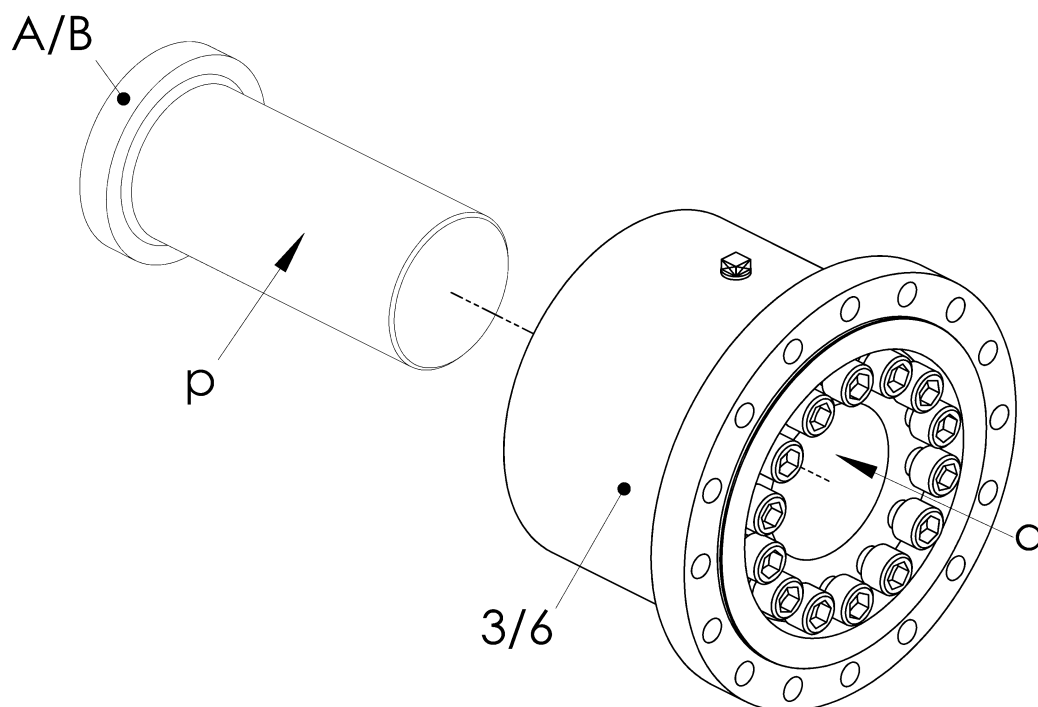


Fig. 6-6 Preparing the clamping set assembly for mounting

Item	Info	Designation	Remark
3/6		Clamping set assembly	
A/B		Shaft	Customer part
	p	Pin of the shaft	
	q	Drilling of the clamping set assembly	



IMPORTANT

The clamping set is delivered ready for installation. Do not dismantle any part.



IMPORTANT

The surfaces of the conical clamping connection and the hub-shaft connection must be free of oil, grease and dirt.

- Clean and degrease the drilling (q) of the clamping set assembly (3/6) and the pin (p) of the shaft (A/B).
- Push the clamping set assembly (3/6) onto the shaft (A/B).

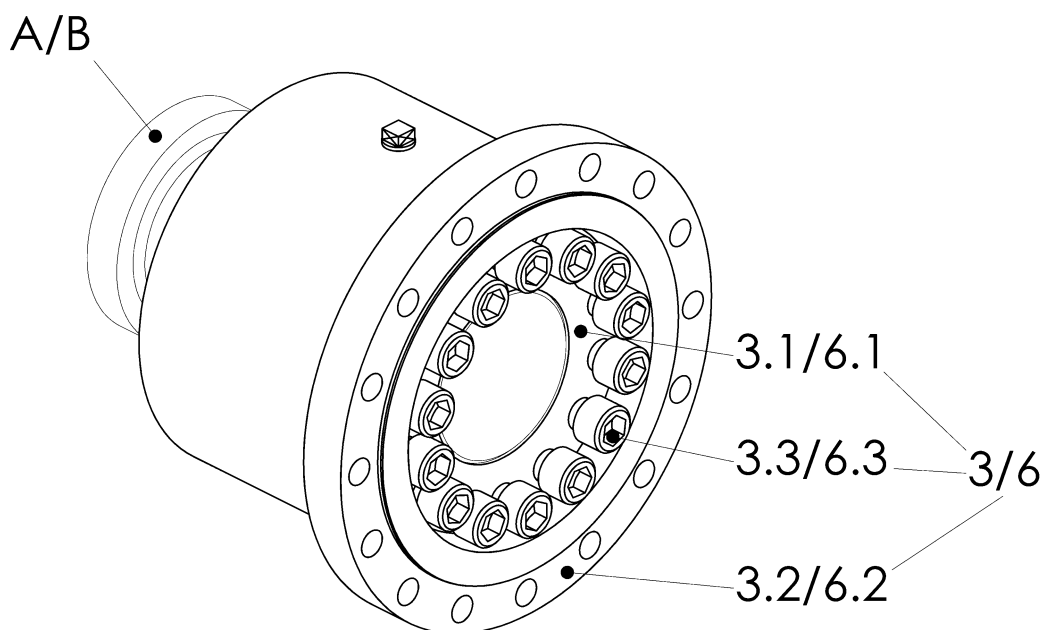


Fig. 6-7 Mounting the clamping set assembly

Item	Info	Designation	Remark
3/6		Clamping set assembly	
3.1/6.1		Inner part	
3.2/6.2		Outer part	
3.3/6.3		Screw ISO4762 16X040 10.9	
A/B		Shaft	Customer part



IMPORTANT

Ensure the axial alignment of the clamping set

- Loosely screw the inner part (3.1/6.1) to the outer part (3.2/6.2) using the screws (3.3/6.3; see installation drawing). By doing so, position the parts axially (axial position see installation drawing).

Mounting procedure:

- Evenly tighten the screws (3.3/6.3) crosswise in three steps, until the tightening torque (see installation drawing) has been achieved for all screws (3.3/6.3).
Step 1: 40 % of the specified tightening torque.
Step 2: 60 % of the specified tightening torque.
Step 3: 100 % of the specified tightening torque.
- Check the tightening torque of the screws (3.3/6.3) one after the other.

6.4 Mounting the adapter (17; if existing)

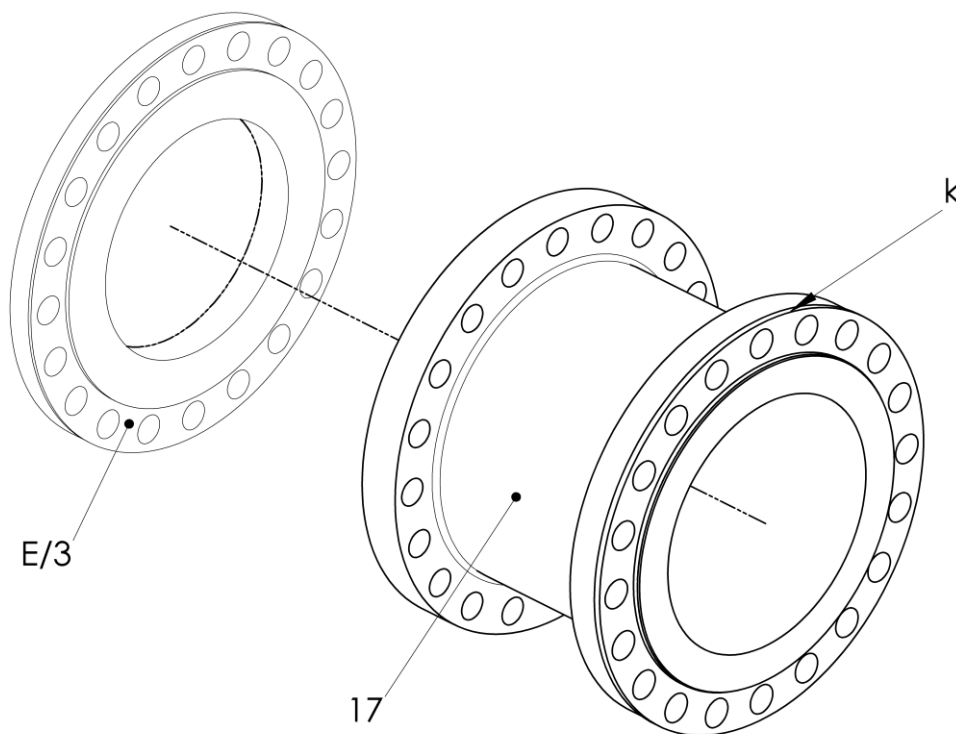


Fig. 6-8 Mounting the adapter (17; if existing)

Item	Info	Designation	Remark
3		Hub	If scope of supply
17		Adapter	
E		Flange	Customer part
	k	Centring	For the membrane

- Push the adapter (17) onto/into the centring of the flange/hub (E/3, see installation drawing).
The centring (k) must be directed towards the membrane (1.2.1).
- Screw the adapter (17) to the flange/hub (E/3). The screwing can be taken from the installation drawing.



IMPORTANT

Tightening torques for elements to connect couplings with customer parts could deviate from CENTA data sheet D013-013.
Consider specifications on installation drawing.

6.5 Aligning the units

- Align the units to be connected (see chapter 5).

6.6 Positioning the membrane (1.2.1)

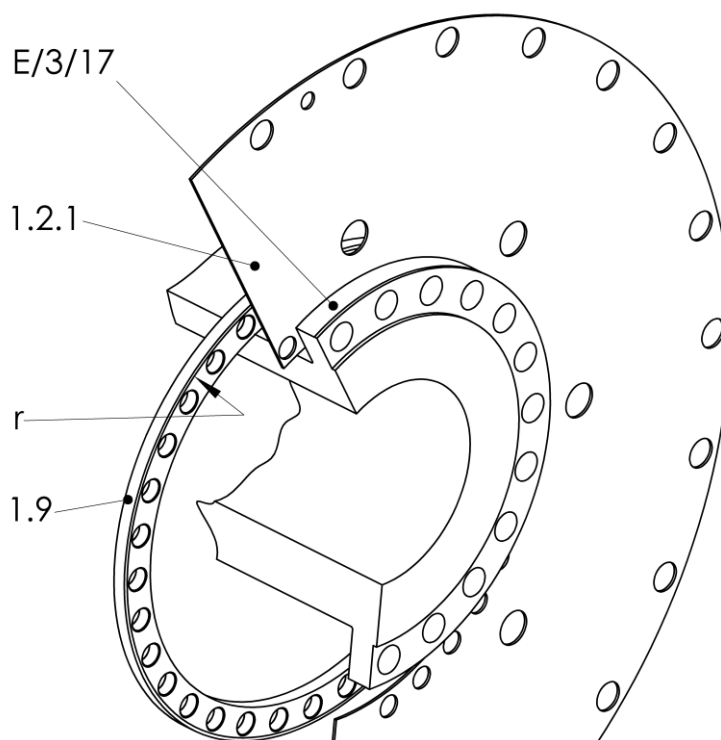


Fig. 6-9 Positioning the membrane (1.2.1)

Item	Info	Designation	Remark
1.2.1		Membrane	
1.9		Ring	Only at sizes 00050...00075
3		Hub	If scope of supply
17		Adapter	If scope of supply
E		Flange	Customer part
	r	Radius	

- Position the membrane (1.2.1) as appropriate for the coupling size supplied (see installation drawing).
- **Positioning the membrane and the ring (coupling sizes 00050...00075)**
Place the ring (1.9) and the membrane (1.2.1) on the flange/hub/adapters (E/3/17; see installation drawing).
The radius (r) of the ring (1.9) must point towards the membrane (1.2.1).
- **Positioning the membrane (coupling sizes 00078...00090)**
Place the membrane (1.2.1) on the flange/hub/adapters (E/3/17; see installation drawing).

6.7 Mounting the adapter (1.11) to the rubber element (1.1)

- Mount the adapter (1.11) to the rubber element (1.1) as appropriate for the supplied coupling size.
- Pre-mounting the rubber element (1.1) of the coupling sizes 00050...00056 and 00066...00090, see chapter 6.7.1
- Pre-mounting the rubber element (1.1) of the coupling size 00064, see chapter 6.7.2

6.7.1 Pre-mounting the rubber element (1.1) of the coupling sizes 00050...00056 and 00066...00090

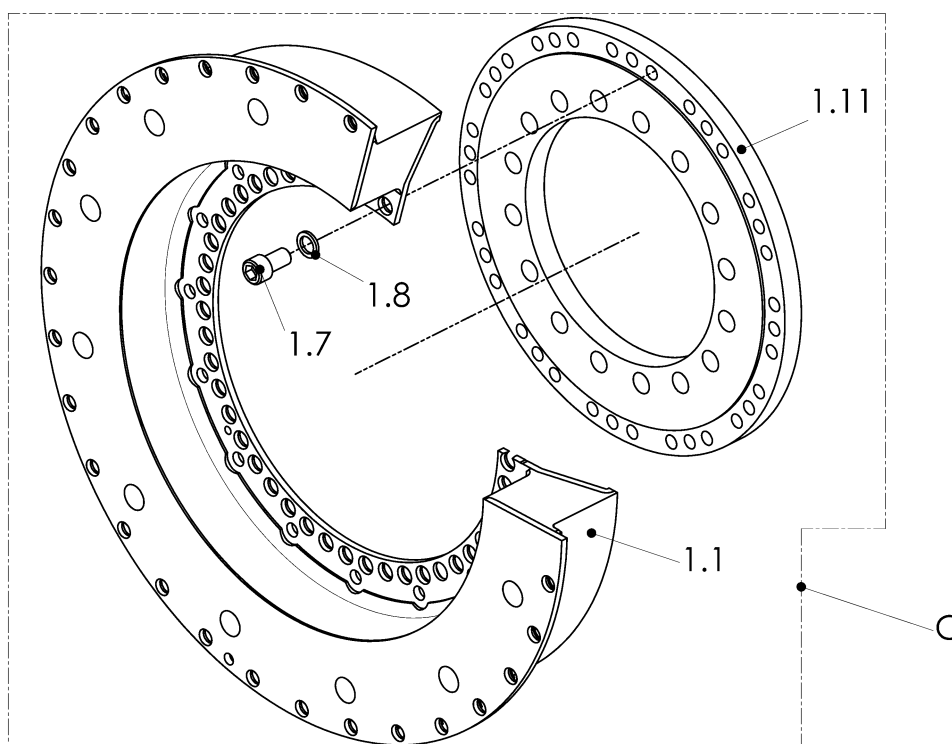


Fig. 6-10 Pre-mounting the rubber element (1.1) of the coupling sizes 00050...00056 and 00066...00090

Item	Info	Designation	Remark
1.1		Rubber element	
1.7		Screw ISO4762 M..	
1.8		Washer/Segment	See installation drawing
1.11		Adapter	
C		Pre-mounted rubber element	

- Push the adapter (1.11) into centring of the rubber element (1.1).
- Screw the rubber element (1.1) to the adapter (1.11) using the screws (1.7) and the washers/segments (1.8).

6.7.2 Pre-mounting the rubber element (1.1) of the coupling size 00064

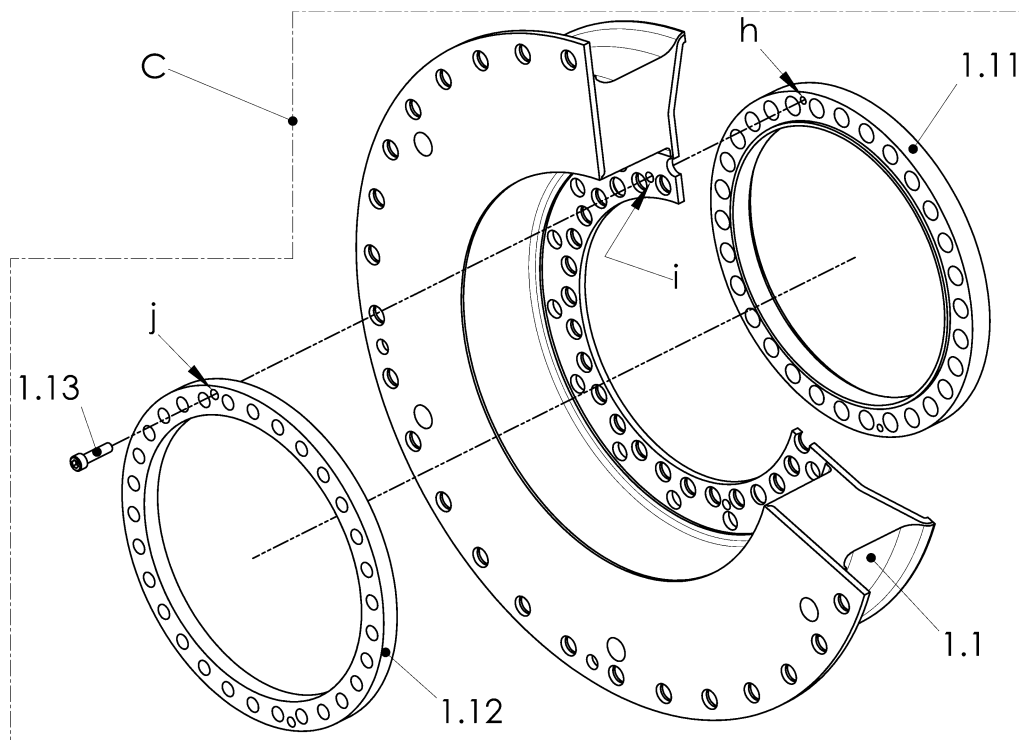


Fig. 6-11 Pre-mounting the rubber element (1.1) of the coupling size 00064

Item	Info	Designation	Remark
1.1		Rubber element	
1.11		Adapter	
1.12		Adapter	
1.13		Screw ISO4762 M..	
C		Pre-mounted rubber element	Pre-mounted by CENTA
	h	Thread M6	2x180°
	i	Drilling	2x180°
	j	Drilling	2x180°

- Turn the adapter (1.11) towards the rubber element (1.1) until the threads (h; 2x180°) and the drillings (i) are aligned.
- Push the adapter (1.11) into the centring of the rubber element (1.1).
- Turn the adapter (1.12) towards the rubber element (1.1) until the drillings (i and j; 2x180°) are aligned.
- Push the adapter (1.12) into the centring of the rubber element (1.1).
- Screw the adapter (1.12) and the rubber element (1.1) to the adapter (1.11) using the screws (1.13).

6.8 Placing the ring into the pre-mounted rubber element (C)

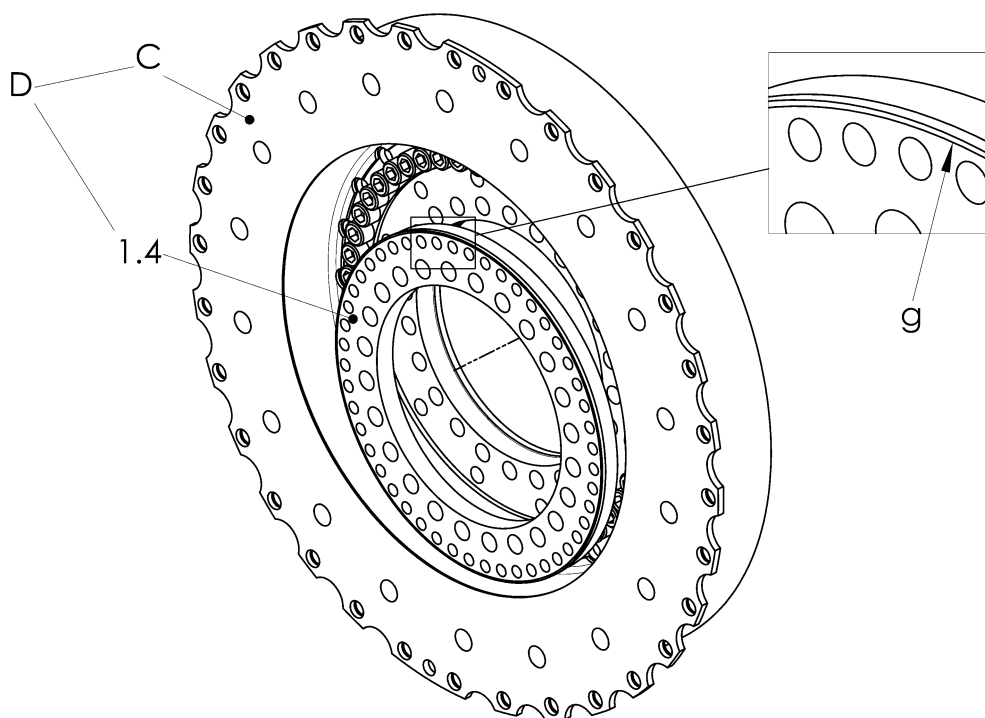


Fig. 6-12 Placing the ring into the pre-mounted rubber element (C)

Item	Info	Designation	Remark
1.4		Ring	
C		Pre-mounted rubber element	
D		Pre-mounted rubber element with ring	
	g	Radius	

- Place the ring (1.4) into the pre-mounted rubber element (C). The radius (g) must point outwards.

6.9 Mounting the pre-mounted rubber element with ring (D)

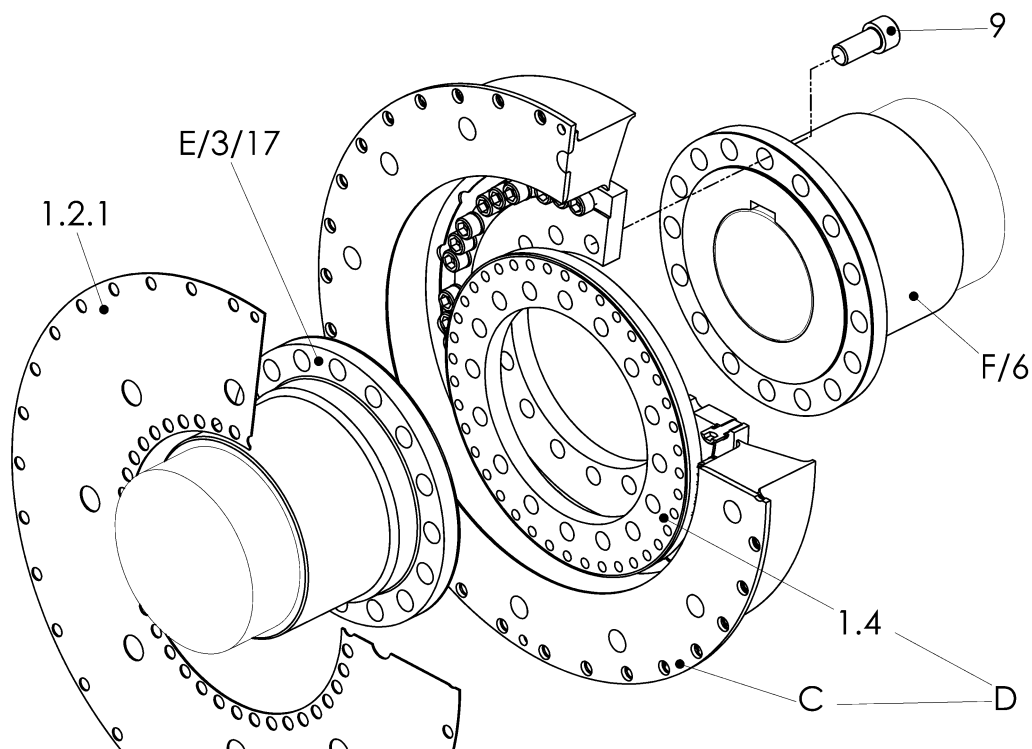


Fig. 6-13 Mounting the pre-mounted rubber element with ring (D)

Item	Info	Designation	Remark
1.2.1		Membrane	
1.4		Ring	
3		Hub	If scope of supply
6		Hub	
9		Screw ISO4762 M.. 10.9	
17		Adapter	If scope of supply
C		Pre-mounted rubber element	
D		Pre-mounted rubber element with ring	
E/F		Flange	Customer part

- Place the pre-mounted rubber element with ring (D) between the flange/hub/adapter (E/3/17; see installation drawing) and the flange/hub (F/6). The ring (1.4) must be on the side of the membrane (1.2.1).
- Push the pre-mounted rubber element (C) onto the centring of the flange/hub (F/6).
- Screw the flange/hub (F/6) to the pre-mounted rubber element (C) using the screws (9).

6.10 Mounting the ring (1.4)

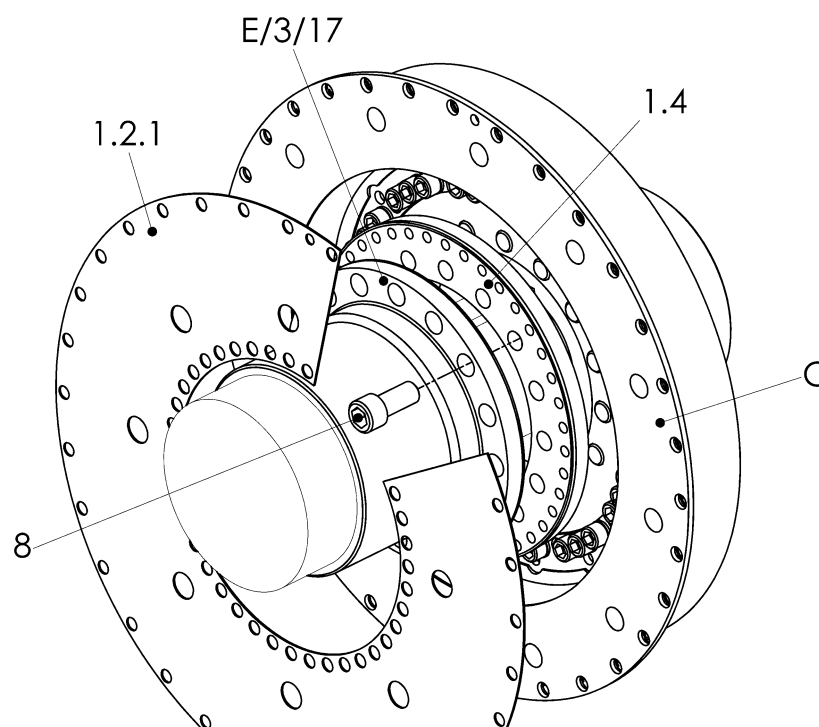


Fig. 6-14 Mounting the ring (1.4)

Item	Info	Designation	Remark
1.2.1		Membrane	
1.4		Ring	
3		Hub	If scope of supply
8		Screw ISO4762 M.. 10.9	
17		Adapter	If scope of supply
C		Pre-mounted rubber element	
E		Flange	Customer part

- Pull the ring (1.4) onto the centring of the flange/hub/adapter (E/3/17; see installation drawing).
- Screw the flange/hub/adapter (E/3/17) to the ring (1.4) using the screws (8).

6.11 Mounting the membrane (1.2.1)

- Mount the membrane as appropriate for the coupling size supplied:
 - Mounting the membrane (coupling sizes 00050...00075), see chapter 6.11.1
 - Mounting the membrane (coupling sizes 00078...00090), see chapter 6.11.2

6.11.1 Mounting the membrane (coupling sizes 00050...00075)

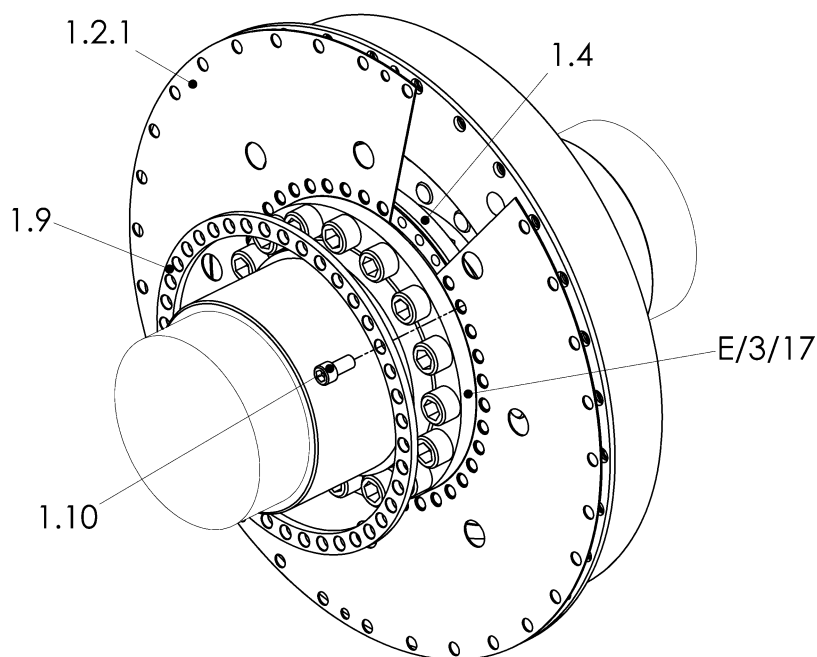


Fig. 6-15 Mounting the membrane (coupling sizes 00050...00075)

Item	Info	Designation	Remark
1.2.1		Membrane	
1.4		Ring	
1.9		Ring	
1.10		Screw ISO4762 M.. 10.9	
3		Hub	If scope of supply
17		Adapter	If scope of supply
E		Flange	Customer part



- Push the membrane (1.2.1) onto the centring of the flange/hub/adaptor (E/3/17; see installation drawing).
- Push the ring (1.9) onto the centring of the the flange/hub/adaptor (E/3/17; see installation drawing).
- Screw the ring (1.9) and the membrane (1.2.1) to the ring (1.4) using the screws (1.10).

6.11.2 Mounting the membrane (coupling sizes 00078...00090)

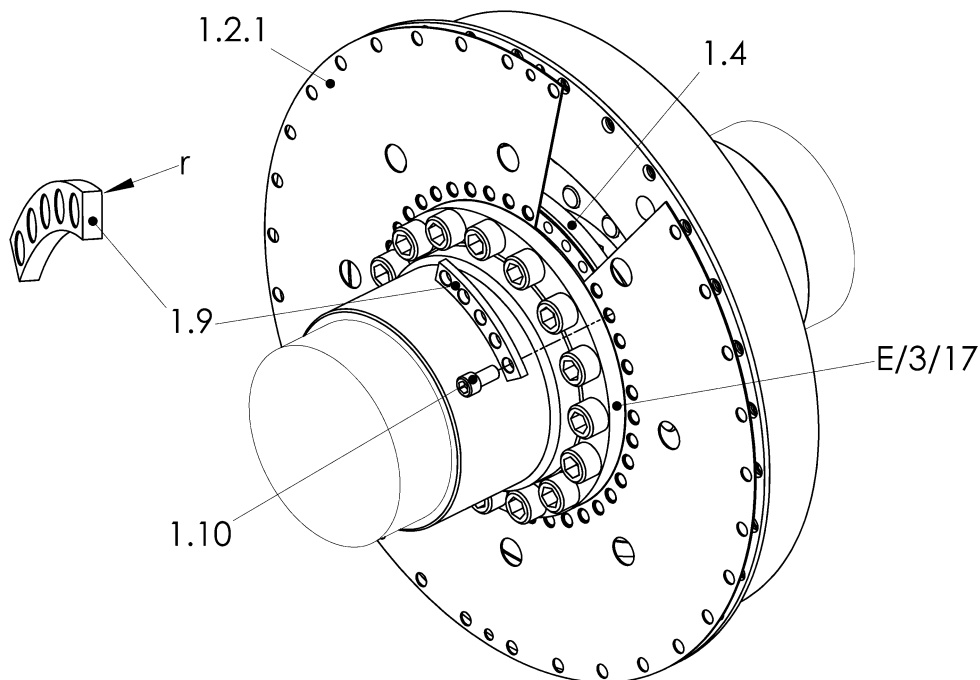


Fig. 6-16 Mounting the membrane (coupling sizes 00078...00090)

Item	Info	Designation	Remark
1.2.1		Membrane	
1.4		Ring	
1.9		Ring (segmented)	
1.10		Screw ISO4762 M.. 10.9	
3		Hub	If scope of supply
17		Adapter	If scope of supply
E		Flange	Customer part
	r	Radius	

- Push the membrane (1.2.1) onto the centring of the flange/hub/adapter (E/3/17; see installation drawing).
- Screw the ring (segmented; 1.9) and the membrane (1.2.1) to the ring (1.4) using the screws (1.10).
The radius (r) of the ring (segmented; 1.9) must be on the side of the membrane (1.2.1).
- Repeat the mounting section above, until the ring (segmented; 1.9) is completely mounted.

6.12 Connect the rubber element (1.1) to the membrane

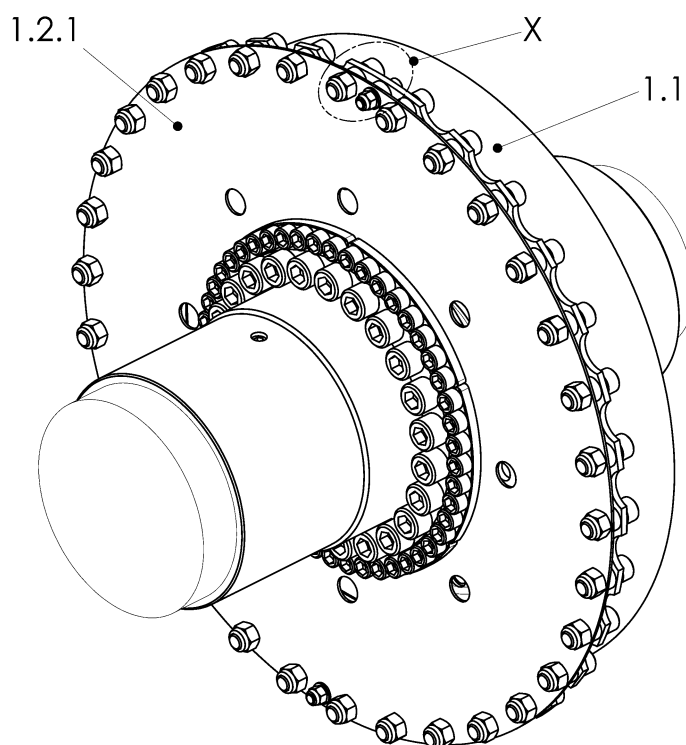


Fig. 6-17 Connect the rubber element (1.1) to the membrane

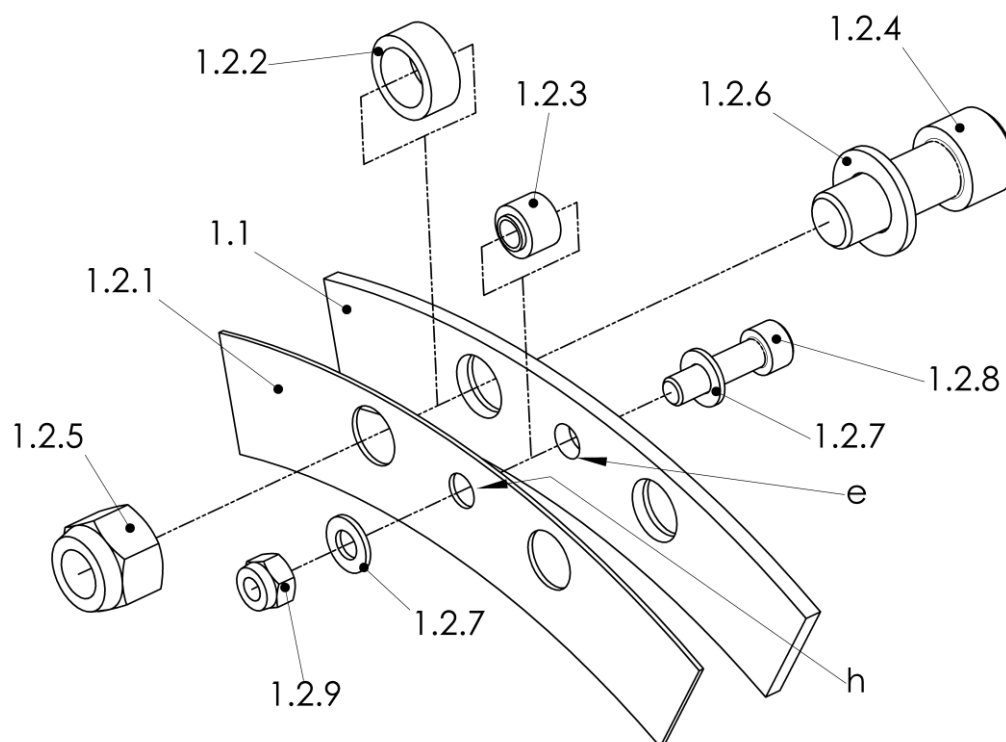


Fig. 6-18 Detail X

Item	Info	Designation	Remark
1.1		Rubber element	CX-intermediate ring
1.2.1		Membrane	
1.2.2		Ring	
1.2.3		Bush	2x180°
1.2.4		Screw	
1.2.5		Nut	
1.2.6		Washer	
1.2.7		Washer	2x2x180°
1.2.8		Screw	2x180°
1.2.9		Nut	2x180°
	e	Drilling for bush	In the rubber element
	h	Drilling for bush	In the membrane
X		Detail	



IMPORTANT

Ensure during installation that the bushes are in the right position. The hole diameters depending on coupling size are: $\varnothing 10H7$ or $\varnothing 18H7$.

- Turn the membrane (1.2.1) towards the rubber element (1.1) until the drillings (e and h) for the bushes (1.2.3) are aligned.
- Push the bushes (1.2.3) into the drillings (e and h; 2x180°) of the rubber element (1.1) and the membrane (1.2.1).
- Screw the rubber element (1.1), the bushes (1.2.3) and the membrane (1.2.1) using the screws (1.2.8), the washers (1.2.7) and the nuts (1.2.9), (2x180°).
- Screw the assembly (1.1) and the membrane (1.2.1) using the screws (1.2.4), the washers (1.2.6), the rings (1.2.2) and the nuts (1.2.5).

6.13 After completed mounting

WARNING



Injury and material damage can occur as a result of:

- Loose screw connections
- Before commissioning, the tightening torque levels of all screws must be checked and corrected if necessary.

Before commencing long-term operation, the plant must successfully complete a test run.

7 Operation

WARNING



Injury and material damage can occur as a result of:

- Worn coupling components

If the running noises change and/or vibrations occur turn the plant off immediately.

Determine the fault and its root cause, and remedy.
The troubleshooting process is simplified by the table in the next chapter.
On principle in case of a fault, an analysis of the entire plant should be performed.

7.1 Operating faults, root causes and remedy

Faults	Possible root causes	Remedy
Prior to all kinds of remedies		<ul style="list-style-type: none"> • Switch off the plant
Running noises or vibrations in the unit	Alignment error	<ul style="list-style-type: none"> • Check alignment and correct • Check screw torque levels and correct
	Loose screws	
Membrane or rubber element damaged	Alignment error	<ul style="list-style-type: none"> • Check alignment and correct • Replace defective parts • Eliminate the cause for inadmissibly high torque
	Inadmissibly high torque	
After all remedies		<ul style="list-style-type: none"> • Trial run

Table 7-1 Troubleshooting table

In case of uncertainty or if you have questions, please contact our head office (address see chapter 1).

7.2 Admissible overall misalignment of the coupling

The overall misalignment values can be found in the catalogue.

8 Care and maintenance

WARNING

**Injuries can occur as a result of:**

- Contact with rotating parts

Before starting work at the coupling, switch off the plant and secure against unintentional start-up.

The coupling requires low maintenance. It is possible to perform a visual inspection during the regular scheduled maintenance intervals for the complete unit. Every 12 months a visual inspection is strictly required.

8.1 Work to be performed

8.1.1 Cleaning the coupling

- Remove any loose dirt from the coupling.

8.1.2 Visual inspection of the coupling

- Inspect the coupling for cracks, chips or missing parts.
- Replace faulty and missing parts.

8.1.3 Visual inspection of the rubber elements / rubber segments

**IMPORTANT**

Exchange the rubber elements / rubber segments in the event that:

- The wear specifications given in W000-00002 are exceeded

- Assess the rubber elements / rubber segments as described in CENTA guidelines W000-00002.

8.1.4 Inspection of the screw connections

- Check the tightening torque levels of all screws and if necessary, correct.

8.2 Replacing defective parts

- Remove the coupling as described in chapter 9.
- Replace wearing parts.
- Mount the coupling as described in chapter 6.

9 Dismantling

9.1 General dismantling instructions

Any work method which impairs the safety of the coupling is prohibited.
The user undertakes to notify the manufacturer immediately of any changes occurring at the coupling which could impair safety (address see chapter 1).



IMPORTANT

The coupling is dismantled in reverse order to the assembly process.
Please refer to the illustrations in chapter 6.

WARNING



Injuries can occur as a result of:

- Contact with rotating parts

Before starting work at the coupling, switch off the plant and secure against unintentional start-up.

WARNING



Injury and material damage can occur as a result of:

- Dismantling of the coupling in the wrong sequence

Only ever dismantle the coupling in the described sequence.

WARNING



Injury and material damage can occur as a result of:

- Falling coupling components

Secure coupling components against falling to the floor.

CAUTION



Material damage to coupling components can occur as a result of:

- Contact with sharp-edged objects

Protect coupling components for transportation.

Only hoist coupling components with nylon belts or ropes.

Always cushion parts when supporting them from below.



IMPORTANT

Use suitable lifting devices for dismantling.

9.2 Dismantling the rubber element (1.1) from the membrane

See Fig. 6-17 and 6-18:

- Loosen the screws (1.2.4) of the connection membrane (1.2.1) and rubber element (1.1) and remove with the washers (1.2.6), the nuts (1.2.5) and the rings (1.2.2).
- Loosen the screws (1.2.8) of the connection membrane (1.2.1) and rubber element (1.1) and remove with the washers (1.2.7), the nuts (1.2.9) and the bushes (1.2.3).

9.3 Dismantling the membrane (1.2.1)

- Dismantle the membrane as appropriate for the supplied coupling size:
 - Dismantling the membrane (coupling sizes 00050 – 00075), see chapter 9.3.1
 - Dismantling the membrane (coupling sizes 00078 – 00090), see chapter 9.3.2

9.3.1 Dismantling the membrane of the coupling sizes 00050...00075

See Fig. 6-15:

- Loosen and remove the screws (1.10) of the connection ring (1.9), membrane (1.2.1) and ring (1.4).
- Pull the ring (1.9) off the centring of the flange/hub/adaptor (E/3/17; see installation drawing) and place it on the flange/hub/adaptor (E/3/17).
- Pull the membrane (1.2.1) off the centring of the flange/hub/adaptor (E/3/17; see installation drawing) and place it on the flange/hub/adaptor (E/3/17).

9.3.2 Dismantling the membrane of the coupling sizes 00078...00090

See Fig. 6-16:

- Loosen the screws (1.10) of the connection ring (segmented; 1.9), membrane (1.2.1) and ring (1.4) and remove with the ring (segmented; 1.9).
- Repeat the mounting section above, until the ring (segmented; 1.9) is completely dismantled.
- Pull the membrane (1.2.1) off the centring of the flange/hub/adaptor (E/3/17; see installation drawing) and place it on the flange/hub/adaptor (E/3/17).

9.4 Dismantling the ring (1.4)

See Fig. 6-14:

- Loosen the screws (8) of the connection hub (3) and ring (1.4) and remove.
- Pull the ring (1.4) off the centring of the flange/hub/adaptor (E/3/17) and place it inside of pre-mounted rubber element (C).

9.5 Dismantling the pre-mounted rubber element with ring (D)

See Fig. 6-13:

- Loosen and remove the screws (9) of the connection flange/hub (F/6) and pre-mounted rubber element (C).
- Pull the pre-mounted rubber element with ring (D) off the centring of the flange/hub (F/6) and remove.
- Pull the ring (1.4) out of the pre-mounted rubber element (C) and remove (see Fig. 6-10).

9.6 Dismantling the adapter (1.11) from the rubber element (1.1)

- Dismantle the adapter (1.11) from the rubber element (1.1) as appropriate for the supplied coupling size:
 - Dismantling the rubber element (1.1) of the coupling sizes 00050...00056 and 00066...00090, see chapter 9.6.1
 - Dismantling the rubber element (1.1) of the coupling size 00064, see chapter 9.6.2

9.6.1 Dismantling the rubber element (1.1) of the coupling sizes 00050...00056 and 00066...00090

See Fig. 6-10:

- Loosen the screws (1.7) of the connection adapter (1.11) and rubber element (1.1) and remove with the washers/segments (1.8; see installation drawing).
- Pull the adapter (1.11) out of the centring of the rubber element (1.1) and remove.

9.6.2 Dismantling the rubber element (1.1) of the coupling size 00064

See Fig. 6-11:

- Loosen the screws (1.13) of the connection adapter (1.12), rubber element (1.1) and adapter (1.11) and remove.
- Pull the adapter (1.12) out of the centring of the rubber element (1.1) and remove.
- Pull the adapter (1.11) out of the centring of the rubber element (1.1) and remove.

9.7 Removing the membrane (1.2.1)

See Fig. 6-9:

- Remove the membrane (1.2.1) and the ring (1.9; only at sizes 00050...00075) from the flange/hub/adapter (E/3/17).

9.8 Dismantling the adapter (17; if existing/ necessary)

See Fig. 6-8:

- Loosen the screws of the connection adapter (17) and the flange/hub (E/3) and remove.
- Push the adapter (17) off/out of the centring of the flange/hub (E/3) and remove.

9.9 Dismantling the hub/clamping set assembly (if necessary/if existent)

- Dismantle the hub (3/6) as appropriate for the supplied design (see installation drawing):
 - Dismantling the hub with cylindrical bore and keyway, see chapter 9.9.1
 - Dismantling the hub with conical oil interference fit, see chapter 9.9.2
 - Dismantling the hub with cylindrical oil interference fit, see chapter 9.9.3
 - Dismantling the CENTA conical clamping hub, see chapter 9.9.4
 - Dismantling the clamping set assembly, see chapter 9.9.5



9.9.1 Dismantling the hub with cylindrical bore and keyway

See Fig. 6-2:

- Remove the hub (3/6) from the shaft (A/B).

9.9.2 Dismantling the hub with conical oil interference fit

See Fig. 6-3:

WARNING	
	<p>Injury and material damage can occur as a result of:</p> <ul style="list-style-type: none"> ▪ Non-compliance with the operating instructions for the hydraulic pumps <p>Before carrying out work with the hydraulic pumps, do not fail to read their operating instructions. Only ever work with hydraulic pumps as described in their operating instructions.</p>
WARNING	
	<p>Injury and material damage can occur as a result of:</p> <ul style="list-style-type: none"> ▪ Hydraulic fluid spraying out <p>Use protective goggles.</p>

WARNING


Injuries and material damages can occur by:

- Suddenly loosening hubs
- Secure the hub with a hydraulic tool against sudden axial loosening.



IMPORTANT

We recommend the following mounting fluids:

- For mounting:
Oil with a viscosity 300 mm²/s at 20°C, e.g. SKF LHM300
- For dismantling:
Oil with a viscosity 900 mm²/s at 20°C, e.g. SKF LHDF900

- Remove the screw plug (19) from the hub (3/6).
- Connect the pump (**p_{max} = 3000 bar**) to the thread (c) of the hub (3/6) to expand the hub.
- Screw the pump to the shaft (A/B), in order to hold the hub.
- Repeat the following mounting section, until the hub is completely released from the shaft:
 - Build up oil pressure in order to hold the hub.
 - Build up oil pressure to expand the hub (**p_{max} = 2000 bar**).
 - Slowly reduce the oil pressure for holding the hub.
 - Reduce the oil pressure for expanding the hub.
- Remove the pump for holding the hub from the shaft (A/B).
- Remove the pump for expanding the hub from the hub (3/6).
- Turn the hub (3/6), drain oil out of the thread (c) and dispose correctly.
- Screw the screw plug (19) into the hub (3/6).
- Remove the hub (3/6) from the shaft (A/B).

9.9.3 Dismantling the hub with cylindrical oil interference fit

WARNING


Injury and material damage can occur as a result of:

- Non-compliance with the operating instructions for the hydraulic pumps

Before carrying out work with the hydraulic pumps, do not fail to read their operating instructions. Only ever work with hydraulic pumps as described in their operating instructions.

WARNING



Injury and material damage can occur as a result of:

- Hydraulic fluid spraying out
- Use protective goggles.

WARNING



Injury and material damage can occur as a result of:

- Large quantity of hydraulic fluid spraying out
- Close the hub with a cover.
Take up leaked hydraulic fluid.



IMPORTANT

We recommend the following mounting fluids:

- For mounting:
Oil with a viscosity 300 mm²/s at 20°C, e.g. SKF LHM300
- For dismantling:
Oil with a viscosity 900 mm²/s at 20°C, e.g. SKF LHDF900

- Remove the screw plugs (19) from the hub (3/6) (see Fig. 6-4).

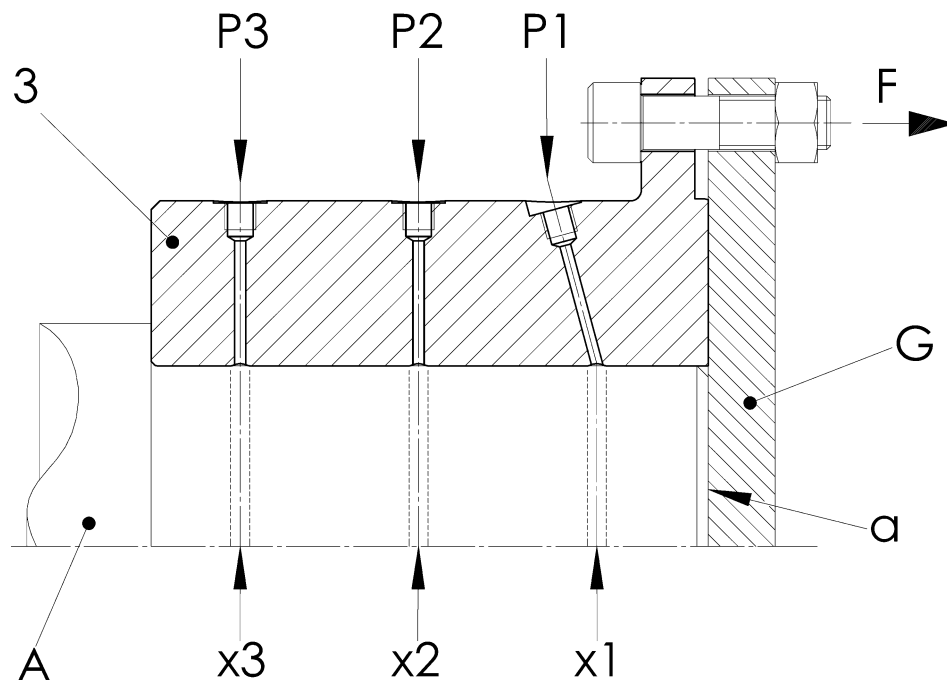


Fig. 9-1 Dismantling the hub with cylindrical oil interference fit



Item	Info	Designation	Remark
3/6		Hub	
A/B		Shaft	Customer part
F		Force in tensile direction	
G		Cover with fasteners	Customer part
P		Connection for hydraulic pump	P1, P2, P3
	a	Face of shaft	
	x	Oilgroove	x1, x2, x3

- Mount the cover (G) to the hub (3/6).
- Connect the high-pressure pumps with the connections (P1, P2 and P3).
- Slowly build up the oil pressure for expanding the hub (**p_{max} = 1500 bar**).
- Pull the hub (3/6) with force (F) continuously in shown direction, until the hub (3/6) is dismantled.
- Remove the high-pressure pumps from the hub (3/6).
- Dismantle the cover (G) from the hub (3/6).
- Pick up leaked hydraulic fluid and dispose properly.
- Screw the screw plugs (19) into the hub (3/6, see fig. 6-4).

9.9.4 Dismantling the CENTA conical clamping hub

See Fig. 6-5:

- Loosen the screws (22) and equally unscrew approx. 10 mm.
- Unscrew and loosely insert one screw (22) into each forcing thread (m).
- By the aid of the screws (22) in the forcing threads (m) separate the ring (2) from the hub (3/6).
- Remove the screws (22).
- Remove the ring (2) and the hub (3/6) from the shaft (A/B).

9.9.5 Dismantling the clamping set assembly

9.9.5.1 Dismantling the clamping set assembly with help of oil pressure

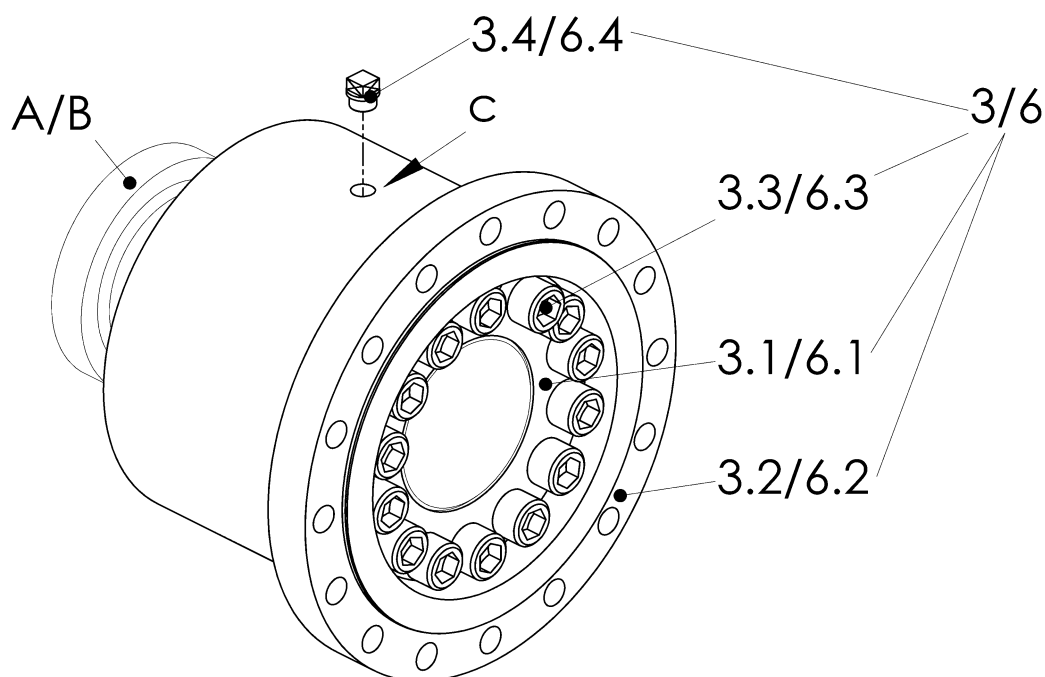


Fig. 9-2 Dismantling the clamping set assembly with help of oil pressure

Item	Info	Designation	Remark
3/6		Clamping set assembly	
3.1/6.1		Inner part	
3.2/6.2		Outer part	
3.3/6.3		Screw ISO4762 M.. 10.9	
3.4/6.4		Screw plug	
A/B		Shaft	Customer part
	c	Thread	

WARNING



Injury and material damage can occur as a result of:

- Non-compliance with the operating instructions for the hydraulic pumps

Before carrying out work with the hydraulic pumps, do not fail to read their operating instructions. Only ever work with hydraulic pumps as described in their operating instructions.

WARNING**Injury and material damage can occur as a result of:**

- Hydraulic fluid spraying out
- Use protective goggles.

**IMPORTANT**

We recommend the following mounting fluids:

- For mounting:
Oil with a viscosity 300 mm²/s at 20°C, e.g. SKF LHM300
- For dismantling:
Oil with a viscosity 900 mm²/s at 20°C, e.g. SKF LHDF900

- Loosen the screws (3.3/6.3) alternately approx. 10 mm.
- Remove the screw plug (3.4/6.4) from the outer part (3.2/6.2).
- Connect a pump for expanding the outer part (3.2/6.2) to the thread (c).

WARNING**Injuries and material damages can occur by:**

- Suddenly loosening hubs
- Secure the hub with a hydraulic tool against sudden axial loosening.

- Slowly build up the oil pressure (**p_{max} = 1500 bar**) for expanding the outer part (3.2/6.2) until the outer part (3.2/6.2) is completely released from the inner part (3.1/6.1).
- Remove the pump for expanding from the thread (c).
- Turn the outer part (3.2/6.2), allow the oil to run out of the thread (c) and dispose of it correctly.
- Screw the plug (3.4/6.4) into the outer part (3.2/6.2).
- Remove the clamping set assembly (3/6) from the shaft (A/B).

9.9.5.2 Preparing the clamping set assembly for remounting

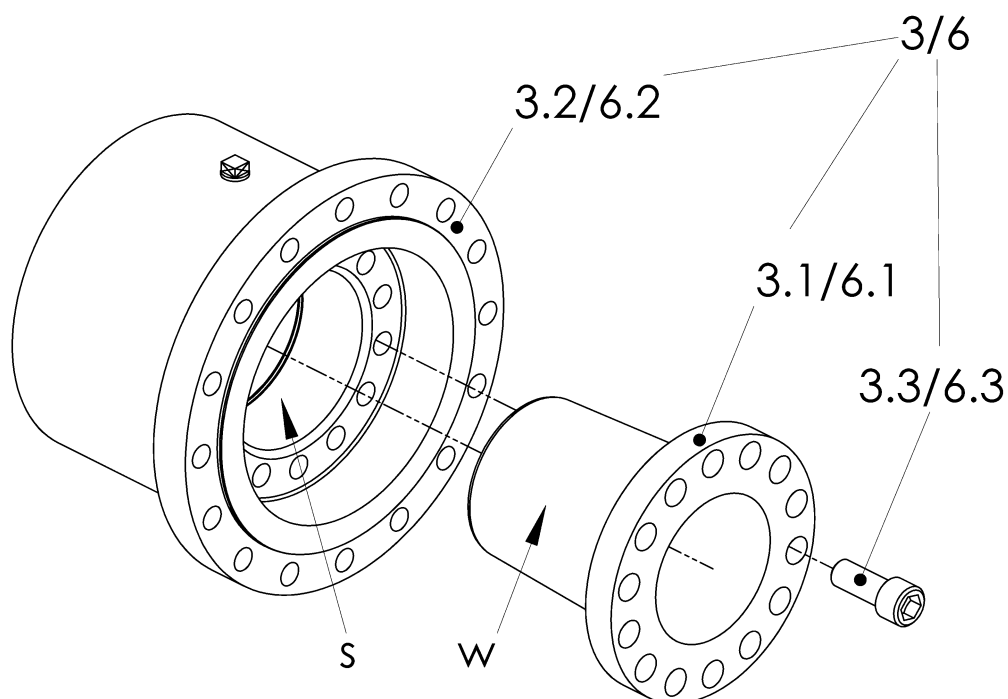


Fig. 9-3 Preparing the clamping set assembly for remounting

Item	Info	Designation	Remark
3/6		Clamping set assembly	
3.1/6.1		Inner part	
3.2/6.2		Outer part	
3.3/6.3		Screw ISO4762 M.. 10.	
	s	Inner surface of the outer part	
	w	Conical surface of the inner part	

- Loosen and remove the screws (3.3/6.3).
- Pull the outer part (3.2/6.2) from the inner part (3.1/6.1).
- Clean and degrease the inner surface (s) of the outer part (3.2/6.2) as well as the conical surface (w) of the inner part (3.1/6.1).
- Thinly oil the inner surface (s) of the outer part (3.2/6.2).
- Push the outer part (3.2/6.2) onto the inner part (3.1/6.1).
- Hand-tight screw the inner part (3.1/6.1) to the outer part (3.2/6.2) using **new** screws (3.3/6.3).

9.10 Reassembling the coupling

- Reassemble the coupling as described in chapter 6.

10 Wearing and spare parts

WARNING

**Injury and material damage can occur as a result of:**

- Mounting and/or utilization of non-original CENTA parts
- Never use parts from other manufacturers.

A stock of the most important wearing and spare parts is the most important condition to ensure that the coupling is functional and ready for operation at all times.

We only provide a warranty for CENTA original parts.

Wear parts of this coupling:

- Rubber element

When exchanging, all screw connections must be renewed. These must be ordered separately.

When ordering a spare, specify:

- Order no.
- Coupling order no.
- Drawing no.



11 Annex

11.1 CENTA data sheet D013-013 (lubricated screw connections)

Validity:

For all non-dynamically stressed screw connections with **lubricated** shank bolts in accordance with ISO 4014, ISO 4017 and ISO 4762 (DIN 912) with metric standard thread in accordance with DIN ISO 262, unless other specifications are given on CENTA documents.

Preparation of parts that are to be screwed together:

The joining areas must be free of dirt, preservatives and lubricants.

Preparation of screws that ARE NOT secured with liquid screw locking medium:

Give the screws extra lubrication with motor oil under the screw head and in the thread.

Preparation of screws that ARE secured with liquid screw locking medium:

Give the screws extra lubrication with motor oil under the screw head. Remove all grease from the thread.

Screw tightening method:

Screw in (by hand with torque wrench).

Thread size				Thread size			
d	Strength class	Tightening torques		d	Strength class	Tightening torques	
		[Nm] ±5%	[in lbs] ±5%			[Nm] ±5%	[in lbs] ±5%
M6	8.8	9	80	M22	8.8	470	4160
	10.9	13	115		10.9	670	5930
	12.9	15	135		12.9	780	6900
M8	8.8	21	185	M24	8.8	600	5310
	10.9	30	265		10.9	850	7520
	12.9	35	310		12.9	1000	8850
M10	8.8	41	360	M27	8.8	750	6640
	10.9	60	530		10.9	1070	9470
	12.9	71	630		12.9	1250	11060
M12	8.8	71	630	M30	8.8	1000	8850
	10.9	104	920		10.9	1450	12830
	12.9	121	1070		12.9	1700	15050
M14	8.8	113	1000	M33	8.8	1400	12400
	10.9	165	1460		10.9	1950	17250
	12.9	195	1725		12.9	2300	20350
M16	8.8	170	1500	M36	8.8	1750	15500
	10.9	250	2210		10.9	2500	22150
	12.9	300	2660		12.9	3000	26550
M18	8.8	245	2170	M39	8.8	2300	20350
	10.9	350	3100		10.9	3300	29200
	12.9	410	3630		12.9	3800	33650
M20	8.8	350	3100				
	10.9	490	4340				
	12.9	580	5130				



11.2 CENTA data sheet D020-900

Declaration of incorporation according to the EC Machinery Directive 2006/42/EC, Appendix II B

Manufacturer:

**CENTA Antriebe
Kirschey GmbH**
Bergische Straße 7
42781 Haan / GERMANY

Contact:

Phone +49-2129-912-0
Fax +49-2129-2790
centa@centa.de
www.centa.info

We herewith declare that the **incomplete** machine

Product: Highly elastic coupling CENTAX-G

Model / series code: CX-G / 020G

Installation size: 50...90

Design: all

Serial number: according to shipping documents, if applicable

- provided this is possible as far as the scope of supply is concerned - complies with the following basic requirements of the **Machinery Directive 2006/42/EC** Appendix I, subchapters 1.1.2, 1.1.3, 1.1.5, 1.3.2, 1.3.3, 1.3.4 and 1.5.4.

In addition, we declare that the special technical documents for this incomplete machine were compiled according to Appendix VII Part B and undertake to forward these to the market monitoring authorities by request via our "Documentation Department".

Commissioning of the incomplete machine is interdicted until the incomplete machine has been incorporated in a machine and the latter complies with the provisions of the EC Machinery Directive and the EC Declaration of Conformity according to Appendix II A is on hand.

The declaration is invalidated by every modification to the delivered parts.

Authorised representative for the compilation of the relevant technical documents:

i.A. J. Anderseck

by order of Gunnar Anderseck
(Authorised Person Documentation)

Declaration of incorporation was issued:

i.v. J. Exner

Haan, 19.11.2009

by proxy Dipl.-Ing. Jochen Exner
(Design Management)