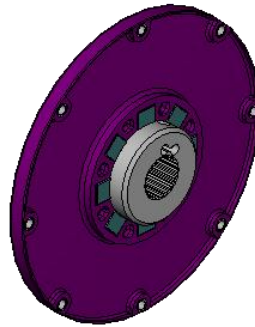
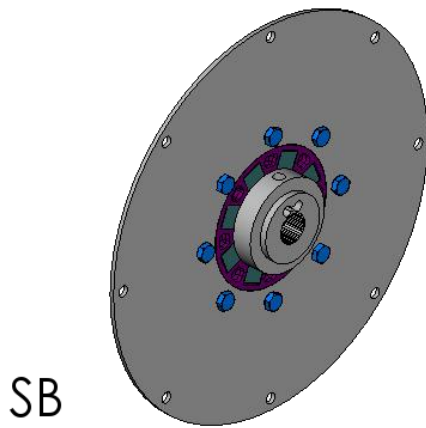


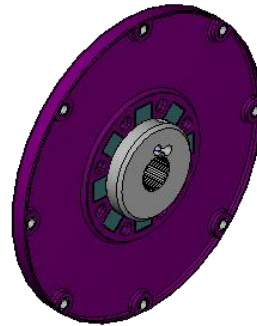
SA



SA



SB



SB

CENTAFLEX-K

Assembly and operating instructions

014K-00150...00200-S...

M014-00002-EN

Rev. 1



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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 9001:2008.

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

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

In case of technical questions, please enquire with our head office:

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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 and
- 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 by the persons responsible.

2.1 Qualification of deployed personnel

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

2.2 Warning notes

In these assembly and operating instructions warning notes are indicated by **signal words and symbols**.

2.2.1 Signal words

The following signal words are used in warning notes to warn of **personal injuries**:

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

The following signal word is used in warning notes to warn of **material damages**:

NOTICE	Denotes a potentially dangerous situation. If not prevented, material damages can result.
---------------	--

2.2.2 Symbols

The following symbols are used in the warning notes:



Warning, hazardous area



Do not switch



Use protective gloves



Use protective goggles

2.3 Application tips

In addition to warning notes in this assembly and operating instructions there are also application tips and particularly useful information provided. These are marked with the signal word **IMPORTANT** and the symbol shown in the following example:



IMPORTANT

This is an example for an application tip.

2.4 Intended use

The coupling is intended exclusively for use in accordance with the relevant design. It may only be used under the specified conditions.

It is only allowed to perform work with the coupling which is described in this assembly and operating instructions. CENTA bears no liability for damages or operating breakdowns resulting from non-compliance with the assembly and operating instructions.

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 assembly and operating instructions.

2.5 Non-intended use

Death, (serious) injuries or material damages can occur, if the coupling is not used according to the intended use.

Intended use see chapter 2.3.

CENTA bears no liability for damages or operating breakdowns resulting from usage not according to the intended use.

Non-intended use of the coupling is, amongst others, the use of the coupling

- with inadmissibly high torque,
- with inadmissibly high or low speeds,
- with excessively high or low ambient temperature,
- in an inadmissible ambient medium,
- with an inadmissible protective enclosure,
- with exceeded admissible overall misalignment values.

NOTICE


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

- Changing plant parameters without reviewing and, where applicable, adjustment of the coupling

Should there be a change of plant parameters, the coupling design must be reviewed by CENTA.


3 Delivery, transport, storage and disposal


3.1 Delivery

NOTICE	
	<p>Material damage of coupling parts can occur as result of:</p> <ul style="list-style-type: none"> ▪ Corrosion after escaping of the protective atmosphere from the package <p>The coupling is protected against corrosion by its packaging. Therefore only open the package of the coupling when the contents are to be used.</p> <p>Immediately reseal any damage to the package.</p> <p>For inspection purposes only open the wrapping briefly. Wear gloves doing this. After inspection reclose the packaging immediately, so that the protective atmosphere can regenerate itself of its own accord.</p>

- Check the completeness and correctness of the delivery.
- Examine the coupling for possible transport damage. Transport damage must be reported immediately to the carrier.

3.2 Transport

WARNING	
	<p>Death or serious injuries can occur as result of:</p> <ul style="list-style-type: none"> ▪ Incorrect transportation of couplings <p>Carefully and appropriately transport the coupling with suitable lifting devices. By doing so, protect it against falling down.</p> <p>Comply with applicable accident prevention regulations.</p> <p>After transportation check the coupling for transport damage.</p>

CAUTION	
	<p>Injuries can occur as result of:</p> <ul style="list-style-type: none"> ▪ Transport damage of the coupling <p>If the coupling has been damaged during transportation, do not use the coupling and confer with CENTA (address see chapter 1).</p>

NOTICE**Material damages can occur as result of:**

- Incorrect transportation, falling down or contact with sharp-edged objects

Carefully and appropriately transport the coupling with suitable lifting devices.

Protect coupling components for transportation.

Only hoist coupling components with nylon belts or ropes.

Always cushion parts when supporting them from below.

Comply with applicable accident prevention regulations.

3.3 Storage**NOTICE****Material damages to elastic elements can occur as result of:**

- Incorrect storage

Store elastic elements so they cannot distort.

Store elastic elements protected from ozone, heat, light, moisture and solvents (see also chapter 3.3.2).

3.3.1 Storage of couplings and/or elastic elements

- Store newly delivered parts in their packaging. Immediately reseal any damage to the
- Re-pack already unpacked parts. For prolonged periods of storage, enclose desiccant and weld into film.
- Store the parts in a suitable storage location (see chapter 3.3.2).



3.3.2 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.

3.4 Disposal

- Separate the coupling parts where possible and sort it according to material type.
- Ensure a safe, environmentally responsible disposal of operating supplies and exchange parts. Safely and environmentally friendly dispose of operating and auxiliary materials, packaging material and exchange parts using locally provided recycling facilities. By doing so, comply with the locally provided regulations.



4 Technical description

4.1 Characteristics

The CENTAFLEX-K series have following excellent characteristics:

- compact, light, robust, safe in operation, long service life
- oil resistant and suitable for temperatures of -40° to +150°C (-40° to +300°F)
- high torsional stiffness – allowing operation below critical speed, without resonances, provided it is correctly selected
- service free combination of steel with highly shock resistant, temperature stabilized special Polyamid
- short mounting length, easy assembly since it can be plugged in axially
- the hubs can be equipped with the proven, patented CENTALOC® clamping. With this the coupling hub can be fitted to splined shafts absolutely free of movement to eliminate fretting
- the hubs can be modified in form and length as needed
- SAE-flywheels and non standard flywheels
- low priced and normally available from stock




4.2 Specifications

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

5 Mounting

5.1 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).

DANGER	
	<p>Death and serious injuries occur as result of:</p> <ul style="list-style-type: none"> ▪ Contact with rotating parts <p>Before starting work at the coupling, switch off the plant and secure against unintentional start-up.</p>
DANGER	
	<p>Death or serious injuries occur as result of:</p> <ul style="list-style-type: none"> ▪ Incorrect transportation of the coupling or of parts of the coupling during assembly/dismantling ▪ Falling down or tipping over of the coupling or of parts of the coupling during assembly/dismantling <p>Carefully and appropriately transport the coupling or coupling parts during the assembly/dismantling with suitable lifting devices.</p> <p>During the assembly/dismantling also protect all parts against falling down or tipping over.</p> <p>Comply with applicable accident prevention regulations.</p>
NOTICE	
	<p>Material damages of coupling parts can occur as result of:</p> <ul style="list-style-type: none"> ▪ Incorrect transportation, ▪ falling down, ▪ tipping over or ▪ contact with sharp-edged objects <p>Carefully and appropriately transport the coupling and coupling parts during the assembly/dismantling with suitable lifting devices.</p> <p>Always protect coupling components for transportation.</p> <p>Only hoist coupling parts with nylon belts or ropes.</p> <p>During the assembly/dismantling also protect all parts against falling down or tipping over.</p> <p>Always cushion parts when supporting them from below.</p> <p>Comply with applicable accident prevention regulations.</p>

NOTICE**Material damage can occur as result of:**

- Assembly of the coupling in the wrong sequence
- Only ever assemble the coupling in the sequence described in this chapter.

NOTICE**Material damages on coupling parts can occur as result of:**

- Wrong screw preparation and wrong tightening torque levels
- Screw preparation and tightening torque levels according to CENTA data sheet D013-016 (see chapter 10.1).

NOTICE**Material damages on coupling parts can occur as result of:**

- Anaerobic adhesives (e.g. Loctite) used for screw locking
- Never let anaerobic adhesives come in contact with rubber parts.


NOTICE**Material damages can occur as result of:**

- Soiled joint surfaces
- Keep the surfaces that are to be joined free of dirt, preservatives and lubricants.

**IMPORTANT**

Part illustration and marking in the assembly and operating instructions may differ from the installation drawing and delivery state.

5.2 Preparing a protective enclosure (if necessary)

DANGER	
	<p>Death or serious injuries occur as result of:</p> <ul style="list-style-type: none"> ▪ Contact with rotating parts or self-loosening of rotating parts <p>In accordance with the applicable accident prevention regulations encase the coupling with a protective enclosure, if it is not already encased by the driving and the driven unit.</p>

A protective enclosure is not part of the scope of supply.

The protective enclosure must fulfill the following functions:

- Providing protection against persons gaining access to rotating parts.
- Restraining any rotating parts which may have worked loose.
- Guaranteeing sufficient ventilation for the coupling.

The protective enclosure must have the following specifications:

- The enclosure must be made of stable steel components.
- The enclosure must be electrically conductive and be included in the equipotential bonding.
- After mounting the enclosure must be positioned a minimum of 15 mm distant from rotating parts.
- In order to ensure an adequate ventilation for the coupling, the enclosure must be fitted with regular openings. For safety reasons, these openings must not exceed the following dimensions:

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

Table 5-1 Shape and size of ventilation holes

- Prepare a suitable protective enclosure or let one be manufactured.

5.3 Mounting the elastic element

- Mount the elastic element (1) as appropriate for the supplied desing (see installation drawing):
 - Mounting the elastic element (1), see chapter 5.3.1.
 - Mounting the pre-mounted elastic element (1), see chapter 5.3.2.

5.3.1 Mounting the elastic element (1)

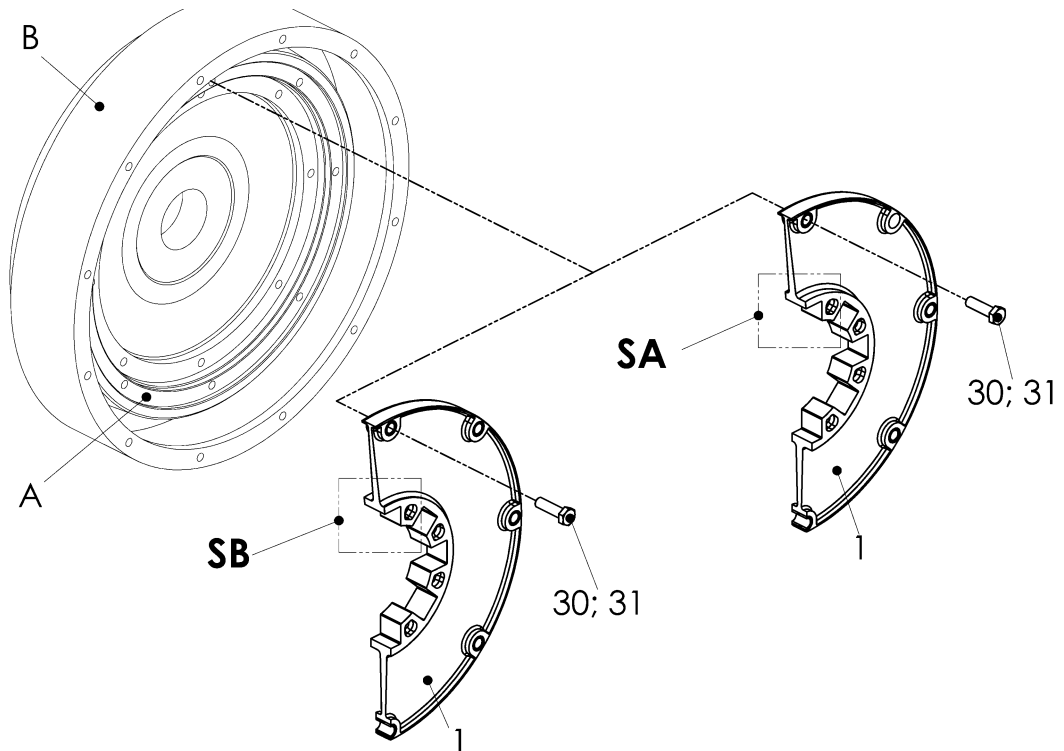


Fig. 5-1 Mounting the elastic element (1; designs SA or SB)

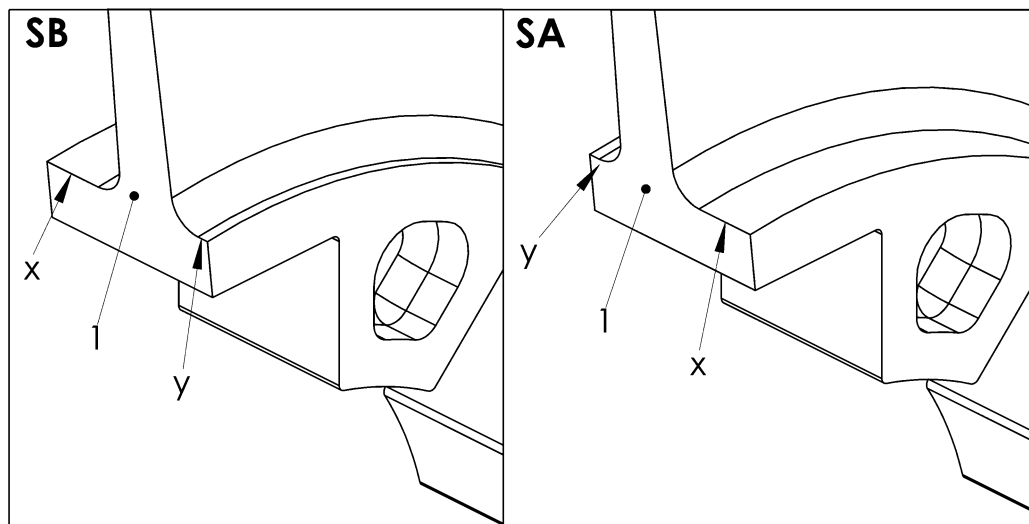


Fig. 5-2 Difference between designs SA and SB



Item	Info	Designation	Remark
1		Elastic element	
30		Screw	If ordered
31		Washer	If ordered
A		Flywheel	Customer part
B		Flywheel housing	Customer part
	x	Long protruding side	
	y	Short protruding side	

- Push the elastic element (1) into the centring of the flywheel (A) as appropriate for the supplied design SA or SB (see installation drawing).
 - When using design SA, the short protruding side (y) of the elastic element (1) must point to the flywheel (B).
 - When using design SB, the long protruding side (x) of the elastic element (1) must point to the flywheel (B).
- Screw the elastic element (1) to the flywheel (A) using the screws (30) and washers (31).

5.3.2 Mounting the pre-mounted elastic element (1)

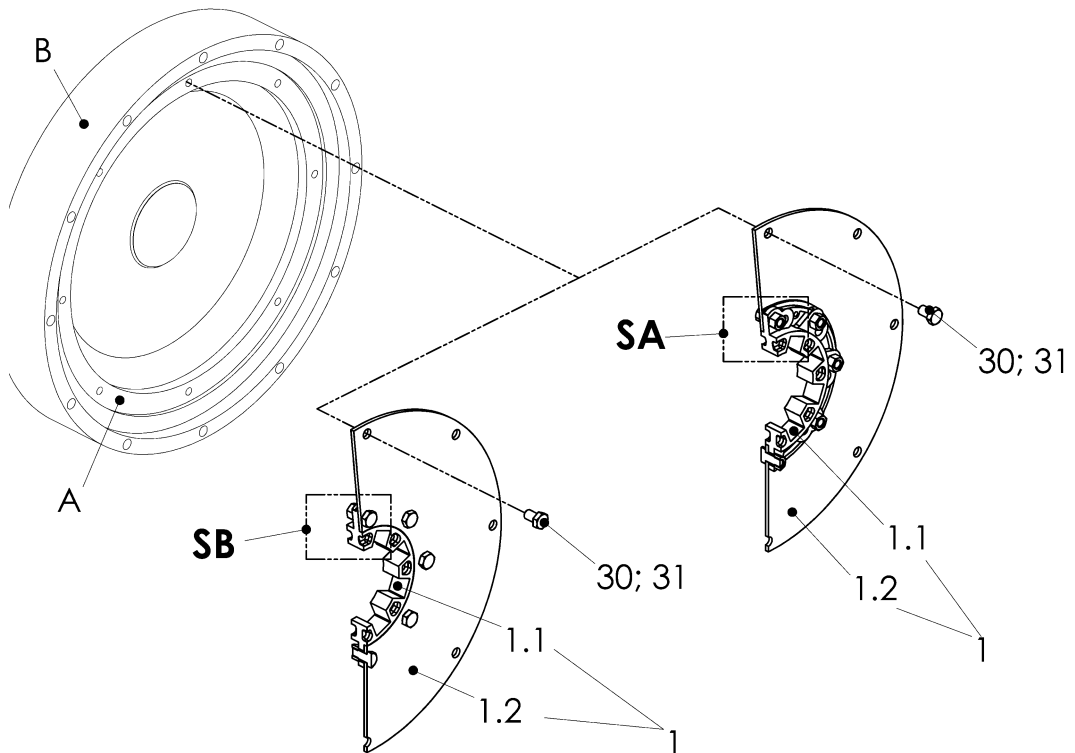


Fig. 5-3 Mounting the pre-mounted elastic element (1)

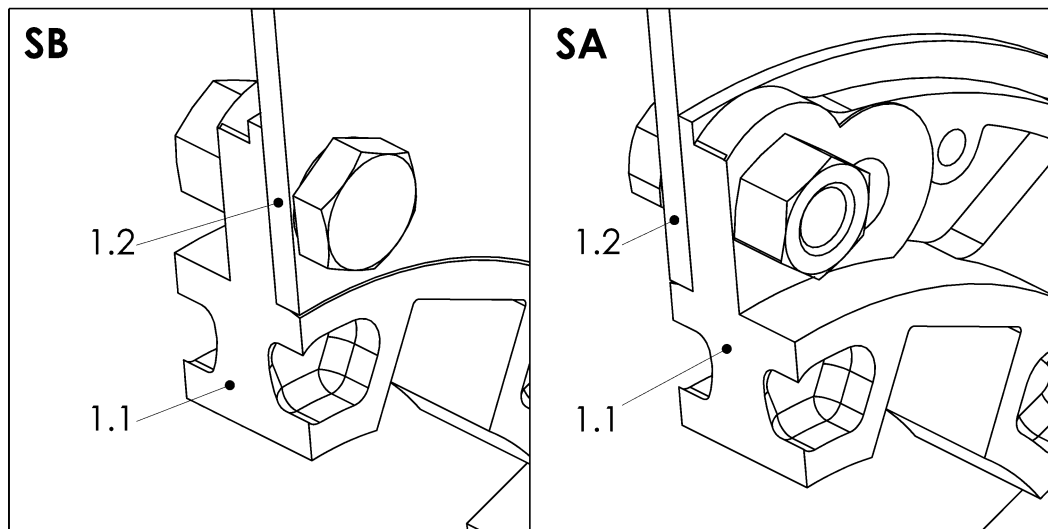


Fig. 5-4 Difference between designs SA and SB



Item	Info	Designation	Remark
1		Pre-mounted elastic element	
1.1		Elastic element	
1.2		Adapter	
30		Screw	If ordered
31		Washer	If ordered
A		Flywheel	Customer part
B		Flywheel housing	Customer part

- Push the pre-mounted elastic element (1) into the centring of the flywheel (A) as appropriate for the supplied design SA or SB (see installation drawing).
- Screw the pre-mounted elastic element (1) to the flywheel (A) using the screws (30) and washers (31).

5.4 Mounting the adapter (if existing)

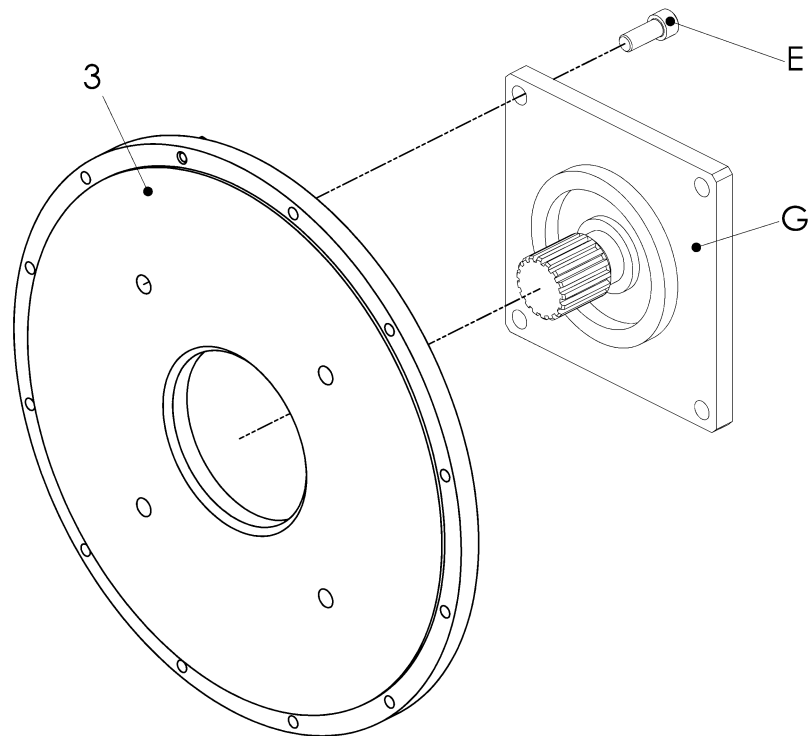


Fig. 5-5 Mounting the adapter (if existing)

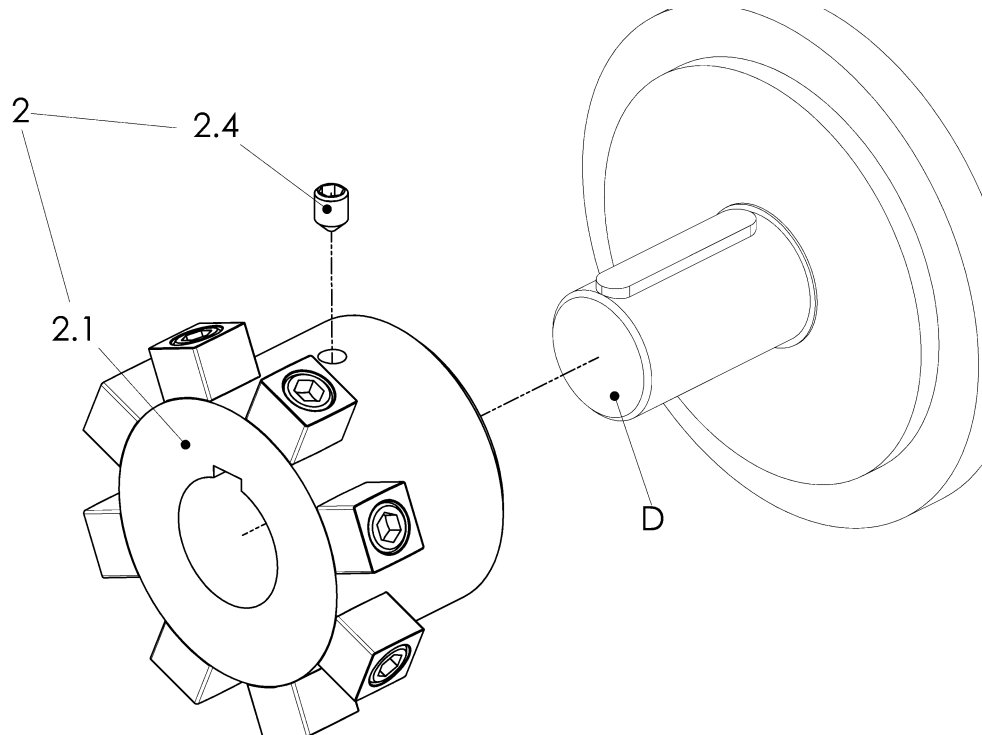
Item	Info	Designation	Remark
3		Adapter	
E		Screw	Customer part
G		Pump housing	Customer part

- Push the adapter (3) onto the centring of the pump housing (G).
- Screw the pump housing (G) to the adapter (3) using the screws (E).
The screws (E) are not part of the delivery.



5.5 Mounting the hub spider (2)

- Mount the hub spider (2) as appropriate for the supplied design (see installation drawing):
 - Mounting the hub spider (2) with cylindrical bore and keyway, see chapter 5.5.1.
 - Mounting the hub spider (2) with conical bore and keyway, see chapter 5.5.2.
 - Mounting the hub spider (2) with CENTALOC clamping set, see chapter 5.5.3.

5.5.1 Mounting the hub spider (2) with cylindrical bore and keyway

Fig. 5-6 Mounting the hub spider (2) with cylindrical bore and keyway

Item	Info	Designation	Remark
2		Hub spider	Pre-mounted by CENTA
2.1		Hub	Pre-mounted by CENTA
2.4		Threaded pin DIN914	See installation drawing
D		Shaft	Customer part

- Unscrew the threaded pin (2.4; if existing) from the hub spider (2) and store it temporarily.
- Push the hub (2.1) onto the shaft (D) until the required mounting position of the hub (2.1) is achieved (see installation drawing).
- Secure the position of the hub (2.1) on the shaft (D). For this purpose use, for example and if existing, the threaded pin (2.4).
Threaded pin : Size see installation drawing
Tightening torque see the following table:

Threaded pin	M6	M8	M10	M12	M14	M16	M20
Tightening torque [Nm]	7	16	30	50	70	120	200

Table 5-2 Tightening torques for threaded pins

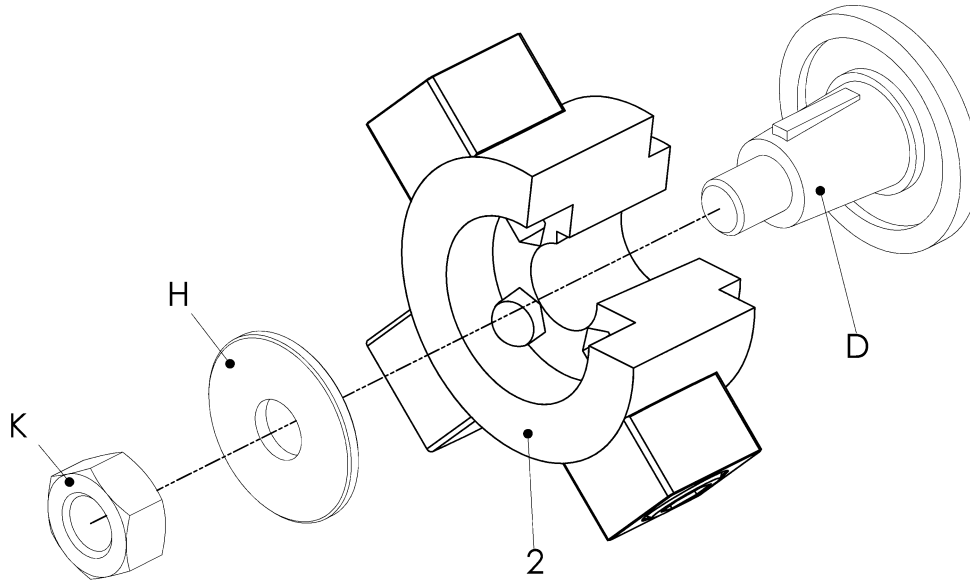
5.5.2 Mounting the hub spider (2) with conical bore and keyway


Fig. 5-7 Mounting the hub spider (2) with conical bore and keyway

Item	Info	Designation	Remark
2		Hub spider	Pre-mounted by CENTA
D		Shaft	Customer part
H		Washer	Customer part
K		Nut	Customer part

- Push the hub (2.1) onto the shaft (D).
- Brace the hub spider (2) to the shaft (D) using the washer (H) and the nut (K).

5.5.3 Mounting the hub spider (2) with CENTALOC clamping set

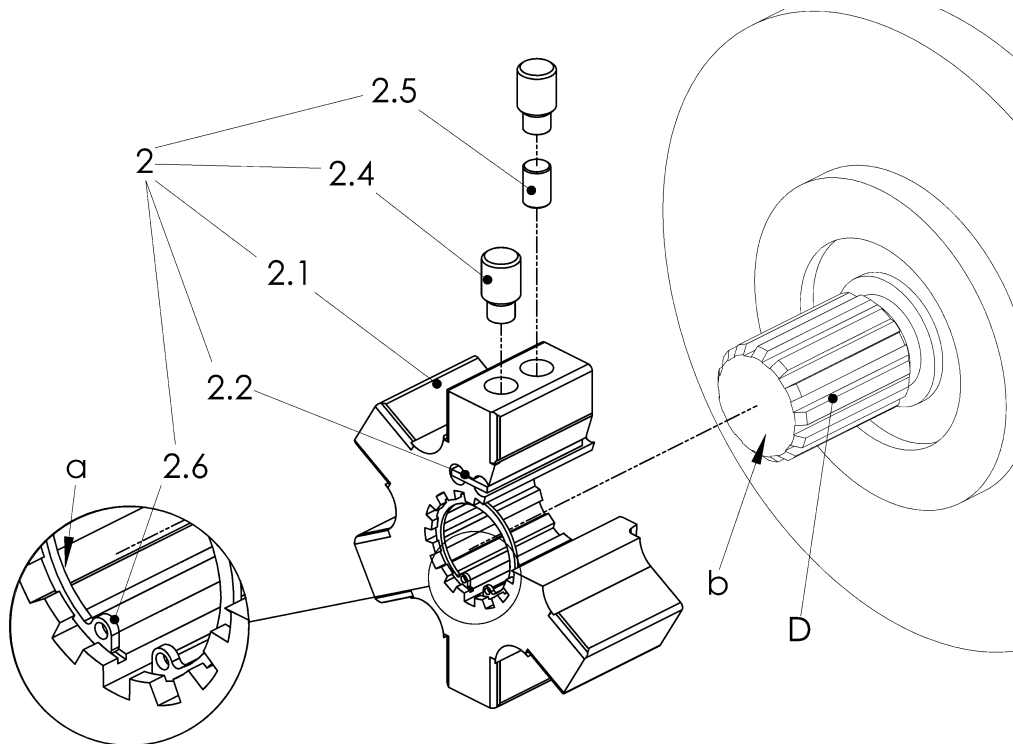


Fig. 5-8 Mounting the hub spider (2) with CENTALOC clamping set

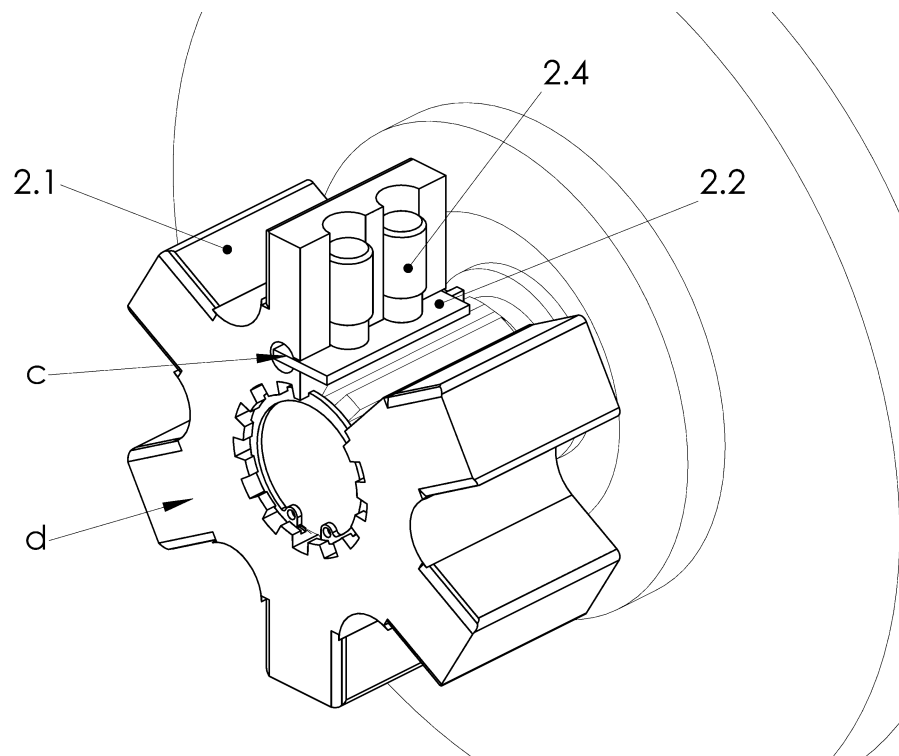


Fig. 5-9 Positioning the sheet (2.2; if existing)



Item	Info	Designation	Remark
2		Hub spider	
2.1		Hub	
2.2		Sheet	If existing, see installation drawing
2.4		Threaded pin	If existing, see installation drawing
2.5		Cylindrical pin	
2.6		Circlip DIN472	If existing, see installation drawing
D		Shaft	Customer part
	a	Back side of the circlip	
	b	Shaft end	
	c	Face of the sheet	
	d	Face of the hub	

- Loosen the threaded pins (2.4).
- Push the hub (2.1) onto the shaft (D) as appropriate for the supplied design **with / without** circlip (2.6; see installation drawing):
 - **with** circlip (2.6):
Push the hub (2.1) onto the shaft (D), until the shaft end (b) touches the backside (a) of the circlip (2.6).
 - **without** circlip (2.6):
Push the hub (2.1) onto the shaft (D), until the required installation position of the hub (2.1) is achieved (see installation drawing).
- If existing: Position the sheet (2.2) in a way, that the face (c) of the sheet (2.2) and the face (d) of the hub (2.1) are aligned.
- Secure the correct position of the hub (2.1) on the shaft (D). For this purpose, fasten the threaded pins (2.4).
Threaded pin: Size see installation drawing
Tightening torque see the following table

Threaded pin	M6	M8	M10	M12	M14	M16	M20
Tightening torque [Nm]	7	16	30	50	70	120	200

Table 5-3 Tightening torques for threaded pins

5.6 Connecting the driving and the driven unit

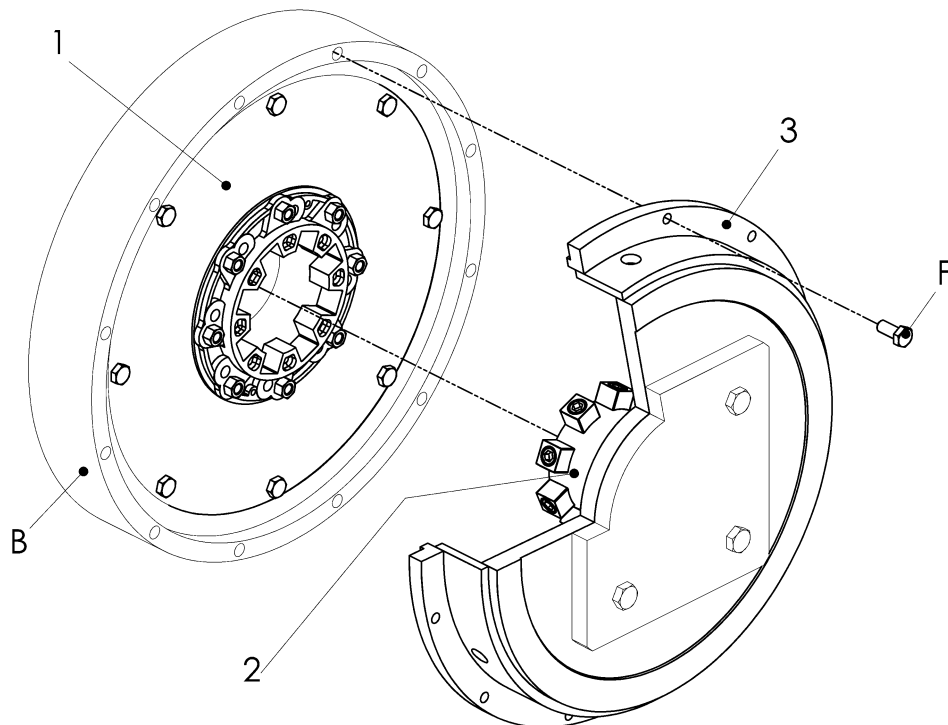




Fig. 5-10 Connecting the driving and the driven unit

Item	Info	Designation	Remark
1		Elastic element	
2		Hub spider	
3		Adapter	If existing
B		Flywheel housing	Customer part
F		Screw	Customer part

- Turn the hub spider (2) and the elastic element (1) until the tothing of the hub spider (2) can be pushed into the tothing of the elastic element (1).
- Push the driving unit with the elastic element (1) and the driven unit with the hub spider (2) together.
- Screw together the driving and the driven unit according to the manufacturers' specifications.

5.7 After completed mounting

WARNING	
	<p>Death or serious injuries can occur as result of:</p> <ul style="list-style-type: none">▪ Loose screw connections <p>Before commissioning, check the tightening torque levels of all screws and correct it, if necessary.</p>
NOTICE	
	<p>Material damages can occur as result of:</p> <ul style="list-style-type: none">▪ Loose screw connections <p>Before commissioning, check the tightening torque levels of all screws and correct it, if necessary.</p>

5.8 Mounting the protective enclosure (if necessary)

- Mount the prepared protective enclosure.

5.9 Test run

- Before commencing long-term operation, carry out a test run of the plant.

6 Operation

NOTICE



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.

6.1 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	Loose screws	<ul style="list-style-type: none"> • Check screw torque levels and correct
Breakage of the elastic element	Inadmissibly high torque	<ul style="list-style-type: none"> • Replace defective parts • Eliminate the cause for inadmissibly high torque
After all remedies		<ul style="list-style-type: none"> • Trial run

Table 6-1 Troubleshooting table

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

6.2 Admissible overall misalignment of the coupling

The overall misalignment values can be found in the catalogue.

7 Care and maintenance

DANGER

**Death and serious injuries occur as 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. We recommend a visual inspection if the driving and driven units have to be separated.

7.1 Work to be performed

7.1.1 Cleaning the coupling

- Remove any loose dirt from the coupling.

7.1.2 Visual inspection of the coupling

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

7.1.3 Visual inspection of the elastic element/-s

**IMPORTANT**

Exchange the elastic element/-s in the event of damage.

- Check the elastic element/-s for cracks.

7.1.4 Inspection of the screw connections

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




7.2 Replacing defective parts

- Remove the coupling as described in chapter 8.
- Replace wearing parts.
- Mount the coupling as described in chapter 5.

8 Dismantling

8.1 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).

DANGER	
	<p>Death and serious injuries occur as result of:</p> <ul style="list-style-type: none"> ▪ Contact with rotating parts <p>Before starting work at the coupling, switch off the plant and secure against unintentional start-up.</p>
DANGER	
	<p>Death or serious injuries occur as result of:</p> <ul style="list-style-type: none"> ▪ Incorrect transportation of the coupling or of parts of the coupling during assembly/dismantling ▪ Falling down or tipping over of the coupling or of parts of the coupling during assembly/dismantling <p>Carefully and appropriately transport the coupling or coupling parts during the assembly/dismantling with suitable lifting devices.</p> <p>During the assembly/dismantling also protect all parts against falling down or tipping over.</p> <p>Comply with applicable accident prevention regulations.</p>
NOTICE	
	<p>Material damages of coupling parts can occur as result of:</p> <ul style="list-style-type: none"> ▪ Incorrect transportation, ▪ falling down, ▪ tipping over or ▪ contact with sharp-edged objects <p>Carefully and appropriately transport the coupling and coupling parts during the assembly/dismantling with suitable lifting devices.</p> <p>Always protect coupling components for transportation.</p> <p>Only hoist coupling parts with nylon belts or ropes.</p> <p>During the assembly/dismantling also protect all parts against falling down or tipping over.</p> <p>Always cushion parts when supporting them from below.</p> <p>Comply with applicable accident prevention regulations.</p>

NOTICE**Material damage can occur as result of:**

- Dismantling of the coupling in the wrong sequence
- Only ever assemble the coupling in the sequence described in this chapter.

8.2 Disconnecting the driving and the driven unit**See Fig. 5-10:**

- Loosen and remove the screwing of the connection driving and driven unit.
- Pull apart the driving and the driven unit.

8.3 Dismantling the hub spider (if necessary)

- Dismantle the hub spider (2) as appropriate for the supplied design (see installation drawing):
 - Dismantling the hub spider (2) with cylindrical bore and keyway, see chapter 8.3.1.
 - Dismantling the hub spider (2) with conical bore and keyway, see chapter 8.3.2.
 - Dismantling the hub spider (2) with CENTALOC-clamping, see chapter 8.3.3.

8.3.1 Dismantling the hub spider with cylindrical bore and keyway**See Fig. 5-6:**

- Loosen the threaded pin (2.4).
- Remove the hub (2.1) from the shaft (D).

8.3.2 Dismantling the hub spider with conical bore and keyway**See Fig. 5-7:**

- Loosen the nut (K) and remove it with the washer (H).
- Remove the hub spider (2) from the shaft (D).

8.3.3 Dismantling the hub spider with CENTALOC-clamping**See Fig. 5-8 and 5-9:**

- Loosen the threaded pins (2.4) and remove them with the cylindrical pins (2.5; if existing).
- Remove the hub (2.1) from the shaft (D).

8.4 Dismantling the adapter (if existing and necessary)

See Fig. 5-5:

- Loosen and remove the screws (E) of the connection adapter (3) and pump housing (G).
- Pull the adapter (3) from the centring of the pump housing (G) and remove it.

8.5 Dismantling the elastic element

- Dismantle the elastic element (1) as appropriate for the supplied design (see installation drawing):
 - Dismantle the elastic element (1), see chapter 8.5.1.
 - Dismantle the pre-mounted elastic element (1), see chapter 8.5.2.

8.5.1 Dismantling the elastic element (1)

See Fig. 5-1 and 5-2:

- Loosen the screws (30) of the connection elastic element (1) and flywheel (A) and remove them with the washers (31).
- Pull the elastic element (1) out of the centring of the flywheel (A) and remove it.

8.5.2 Dismantling the pre-mounted elastic element (1)

See Fig. 5-3 and 5-4:

- Loosen the screws (30) of the connection elastic element (1) and flywheel (A) and remove them with the washers (31).
- Pull the pre-mounted elastic element (1) out of the centring of the flywheel (A) and remove it.

8.6 Reassembling the coupling

- Reassemble the coupling as described in chapter 6.

9 Wearing and spare parts

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.

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.

Wearing part of this coupling:

- Elastic element

**IMPORTANT**

When exchanging, all screw connections of the elastic elements must be renewed. These must be ordered separately.

When ordering a spare, specify:

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



10 Annex

10.1 CENTA data sheet D013-016 (unlubricated screw connections)

Validity:

For all non-dynamically stressed screw connections with **not 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:

Use screws as delivered.

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

Remove all grease from the thread.

Screw tightening method:

Screw in (by hand with torque wrench).

d	Thread size			d	Thread size		
	Strength class	Tightening torques			Strength class	Tightening torques	
		[Nm] ±5%	[in lbs] ±5%			[Nm] ±5%	[in lbs] ±5%
M6	8.8	10	90	M22	8.8	470	4160
	10.9	14	125		10.9	670	5930
	12.9	17	150		12.9	780	6900
M8	8.8	23	205	M24	8.8	600	5310
	10.9	34	300		10.9	850	7520
	12.9	40	350		12.9	1000	8850
M10	8.8	46	410	M27	8.8	750	6640
	10.9	68	600		10.9	1070	9470
	12.9	79	700		12.9	1250	11060
M12	8.8	79	700	M30	8.8	1000	8850
	10.9	117	1050		10.9	1450	12830
	12.9	135	1200		12.9	1700	15050
M14	8.8	125	1100	M33	8.8	1400	12400
	10.9	185	1650		10.9	1950	17250
	12.9	215	1900		12.9	2300	20350
M16	8.8	195	1725	M36	8.8	1750	15500
	10.9	280	2500		10.9	2500	22150
	12.9	330	2900		12.9	3000	26550
M18	8.8	245	2200	M39	8.8	2300	20350
	10.9	350	3100		10.9	3300	29200
	12.9	410	3600		12.9	3800	33650
M20	8.8	350	3100				
	10.9	490	4350				
	12.9	580	5150				



10.2 CENTA data sheet D014-900
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: Torsionally stiff coupling CENTAFLEX-K

Model / series code: CF-K / 014K

Installation size: 100...200D

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. G. Anderseck

by order of Gunnar Anderseck
(Authorised Person Documentation)

Declaration of incorporation was issued:

i.v. J. Exner

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

Haan, 11.12.2009