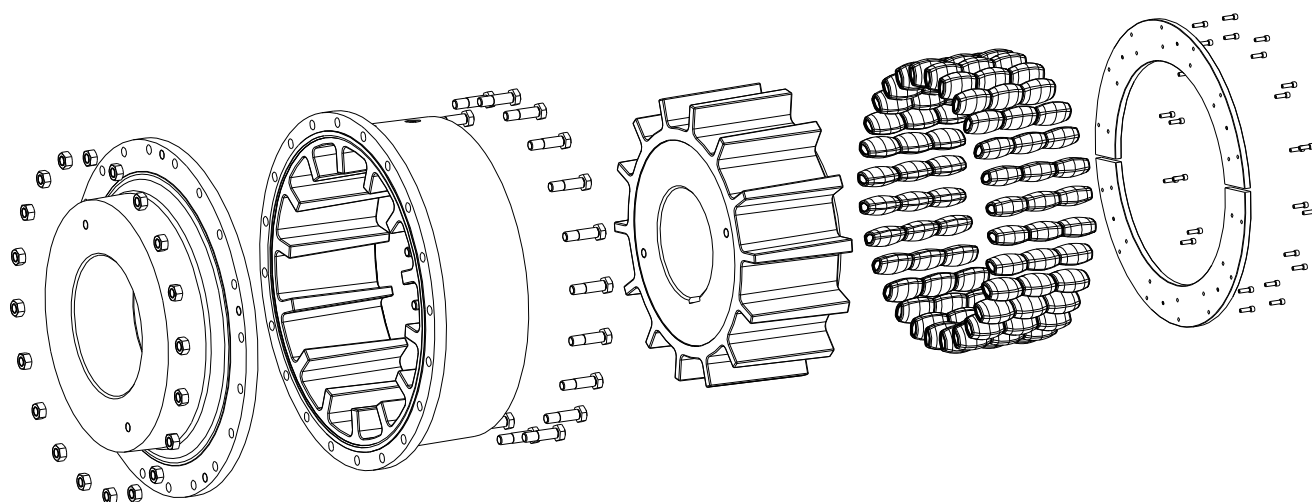




POLY-NORM®-M

Flexible jaw coupling type AFN



Type AFN

POLY-NORM®-M is a torsionally flexible jaw coupling. It is able to compensate for shaft misalignment, for example caused by manufacturing inaccuracies, thermal expansion, etc.

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1 Technical data

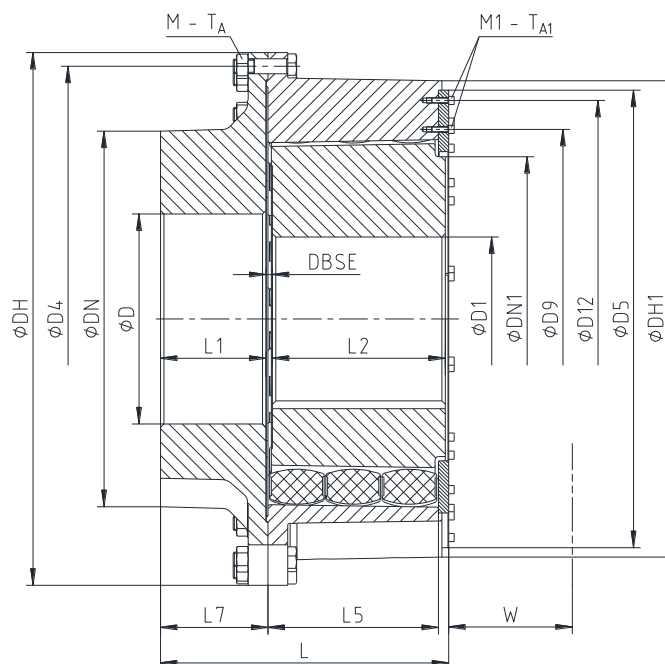


Illustration 1: POLY-NORM®-M type AFN

Table 1: Dimensions

Size	Dimensions in mm																
	Max. finish bore		General														
	D	D1	L ¹⁾	L1 ¹⁾	L2	DBSE ¹⁾	L5	L7 ¹⁾	DH	DH1	DN	DN1	D4	D5	D9	D12	W ²⁾
202	350	200	425	195	215	12	218	200	640	552	500	300	600	530	360	480	150
252	355	250	438	208	215	12	218	213	720	635	550	360	680	610	460	570	150
302	380	300	464	203	247	13	255	209	770	682	600	430	730	660	510	625	175
402	480	400	580	224	335	14	350	230	1000	885	760	530	945	860	650	800	250
502	650	500	654	228	407	19	360	234	1200	1080	1000	700	1140	1050	830	990	250
503	650	500	777	228	530	19	505	234	1200	1075	1000	700	1140	1050	830	990	415
603	700	600	858	309	530	19	505	315	1350	1230	1100	840	1295	1200	950	1150	360
703	700	700	845	309	507	19	500	315	1560	1395	1100	950	1480	1340	1110	1280	360
704	700	700	1020	309	682	19	665	315	1560	1390	1100	950	1480	1340	1110	1280	520
803	1000	800	1040	406	600	24	530	416	1800	1630	1600	1100	1720	1550	1250	1450	390
903	1000	900	982	406	541	25	550	412	2060	1880	1400	1300	1975	1800	1500	1730	390
904	1000	900	1376	406	857	114	745	416	2060	1880	1650	1300	1975	1800	1500	1730	550
905	1000	900	1376	406	857	114	920	416	2060	1865	1650	1300	1975	1800	1500	1730	715

Table 2: Technical data

Size	Torque in kNm		Max. speed ³⁾ in rpm	Tightening torque in Nm				Weight ⁴⁾ in kg
	T _{KN}	T _{K max.}		M	T _A	M1	T _{A1}	
202	100	200	600	M24	970	M16	290	430
252	140	280	530	M24	970	M16	290	590
302	200	400	500	M24	970	M16	290	730
402	400	800	380	M30	1950	M16	290	1750
502	650	1300	320	M30	1950	M16	290	2240
503	950	1900	320	M30	1950	M16	290	3370
603	1250	2500	285	M30	1950	M16	290	4770
703	1500	3000	245	M42	3600	M16	290	5150
704	2000	4000	245	M42	3600	M16	290	7100
803	2400	4800	220	M48	5450	M24	970	9300
903	3300	6600	190	M48	5450	M24	970	9800
904	4400	8800	190	M48	5450	M24	970	13800
905	5500	11000	190	M48	5450	M24	970	14800

1) Variable according to customer's request

2) Drop-out center dimension required

3) Maximum circumferential speed $v = 20$ m/s referring to the maximum outside diameter DH. Higher speed on request.

4) Weights apply for max. bore diameters with feather keyway according to DIN 6885 sheet 1

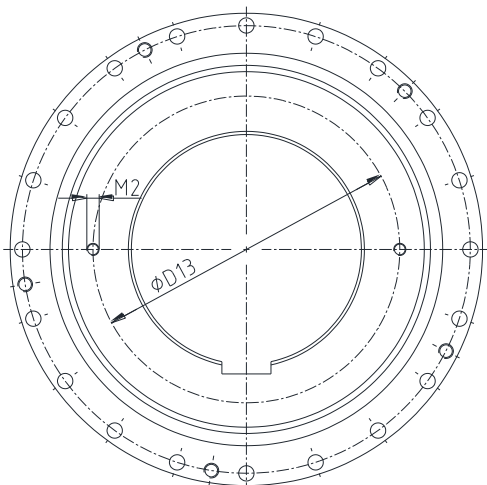
**1 Technical data**

Illustration 2: Pull-off and lifting threads

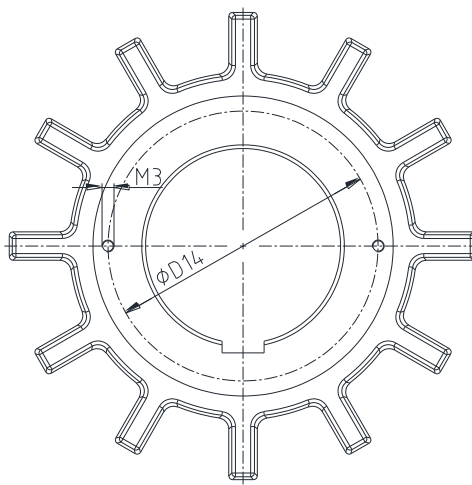


Illustration 3: Pull-off and lifting threads

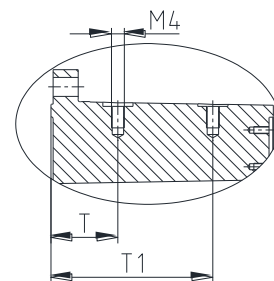


Illustration 4: Lifting threads

Table 3: Dimensions - Pull-off and lifting threads (components 1, 2 and 4)

Size	Dimensions in mm						
	D13	M2	D14	M3	M4	T	T1
202	450	M16	24 5	M12	M16	91	-
252	450	M16	310	M16	M16	93	-
302	500	M20	360	M16	M16	109	-
402	620	M20	455	M20	M20	144	-
502	800	M30	580	M30	M24	146	-
503	800	M30	580	M30	M24	146	-
603	900	M42	700	M36	M24	220	-
703	900	M42	780	M42	M30	150	370
704	900	M42	780	M42	M30	290	-
803	1300	M48	900	M42	M30	240	-
903	1300	M48	1050	M48	M48	240	-
904	1300	M48	1050	M48	M48	320	-
905	1300	M48	1050	M48	M48	411	-

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2 Advice

2.1 General advice

Please read carefully through these operating/assembly instructions before you start up the coupling.

Pay special attention to the safety instructions!

The operating/assembly instructions are part of your product. Please store them carefully and close to the coupling. The copyright for these operating/assembly instructions remains with KTR.

2.2 Safety and advice symbols



Warning of personal injury

This symbol indicates notes which may contribute to preventing bodily injuries or serious bodily injuries that may result in death.



Warning of product damages

This symbol indicates notes which may contribute to preventing material or machine damage.



General advice

This symbol indicates notes which may contribute to preventing adverse results or conditions.



Warning of hot surfaces

This symbol indicates notes which may contribute to preventing burns with hot surfaces resulting in light to serious bodily injuries.

2.3 General hazard warnings



With assembly, operation and maintenance of the coupling it has to be made sure that the entire drive train is secured against accidental switch-on. You may be seriously hurt by rotating parts. Make absolutely sure to read through and observe the following safety indications.

- All operations on and with the coupling have to be performed taking into account "safety first".
- Make sure to switch off the power pack before you perform your work on the coupling.
- Secure the power pack against accidental switch-on, e. g. by providing warning signs at the place of switch-on or removing the fuse for current supply.
- Do not reach into the operating area of the coupling as long as it is in operation.
- Secure the coupling against accidental contact. Provide for the necessary protection devices and covers.

2.4 Intended use

You may only assemble, operate and maintain the coupling if you

- have carefully read through the operating/assembly instructions and understood them
- are technically qualified and specifically trained (e. g. safety, environment, logistics)
- are authorized by your company

The coupling may only be used in accordance with the technical data (see chapter 1). Unauthorized modifications on the coupling design are not admissible. We will not assume liability for any damage that may arise. In the interest of further development we reserve the right for technical modifications.

The **POLY-NORM®-M** described in here corresponds to the state of the art at the time of printing of these operating/assembly instructions.

Please observe protection note ISO 16016.	Drawn:	2024-05-02 Ka/Kr	Replacing:	KTR-N dated 2024-02-06
	Verified:	2024-05-29 Ka	Replaced by:	

 KTR-Group	POLY-NORM®-M Operating/Assembly instructions	KTR-N 49810 EN Sheet: 6 of 17 Edition: 7
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2 Advice

2.5 Coupling selection



For a permanent and failure-free operation of the coupling it must be selected according to the selection instructions (according to DIN 740 part 2) for the particular application (see catalogue drive technology).
If the operating conditions (performance, speed, modifications on engine and machine) change, the coupling selection must be reviewed.
Make sure that the technical data regarding torque refer to the elastomers only. The transmittable torque of the shaft-hub-connection must be reviewed by the customer and is subject to his responsibility.

For drives subjected to torsional vibrations (drives with cyclic stress due to torsional vibrations) it is necessary to perform a torsional vibration calculation to ensure a reliable selection. Typical drives subjected to torsional vibrations are e. g. drives with diesel engines, piston pumps, piston compressors etc. If requested, KTR will perform the coupling selection and the torsional vibration calculation.

2.6 Reference to EC Machinery Directive 2006/42/EC

The couplings supplied by KTR should be considered as components, not machines or partly completed machines according to EC Machinery Directive 2006/42/EC. Consequently KTR does not have to issue a declaration of incorporation. For details about safe assembly, start-up and safe operation refer to the present operating/assembly instructions considering the warnings.

3 Storage, transport and packaging

3.1 Storage

The coupling hubs are supplied in preserved condition and can be stored in a dry and roofed place for 6 - 9 months. The features of the individual elastomers remain unchanged for up to 5 years with favourable stock conditions.



The storage rooms must not include any ozone-generating devices like e. g. fluorescent light sources, mercury-vapour lamps or electrical high-voltage appliances.
Humid storage rooms are not suitable.
Make sure that condensation is not generated. The best relative air humidity is less than 65 %.

3.2 Transport and packaging



In order to avoid any injuries and any kind of damage always make use of proper transport and lifting equipment.

The couplings are packed differently each depending on size, number and kind of transport. Unless otherwise contractually agreed, packaging will follow the in-house packaging specifications of KTR.

Please observe protection note ISO 16016.	Drawn: 2024-05-02 Ka/Kr Verified: 2024-05-29 Ka	Replacing: KTR-N dated 2024-02-06 Replaced by:
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4 Assembly

The coupling is generally supplied in individual parts. Before assembly the coupling must be inspected for completeness.

4.1 Components of the couplings

Components of POLY-NORM®-M type AFN

Component	Quantity	Description
1	1	Flange hub
2	1	Hub
3	2 ¹⁾	Cover segment
4	1	Cam ring
5	see table 4	Individual elastomer
6	see table 4	Cap screw DIN EN ISO 4762 - 12.9
7	see table 4	Hexagon dowel screw DIN 609 - 10.9 ²⁾
8	see table 4	Hexagon nut DIN EN ISO 4032 - 10

1) With size 903, 904 and 905 the number is 4.

2) With size 202 and 252 - hexagon screws DIN EN ISO 4017 - 10.9

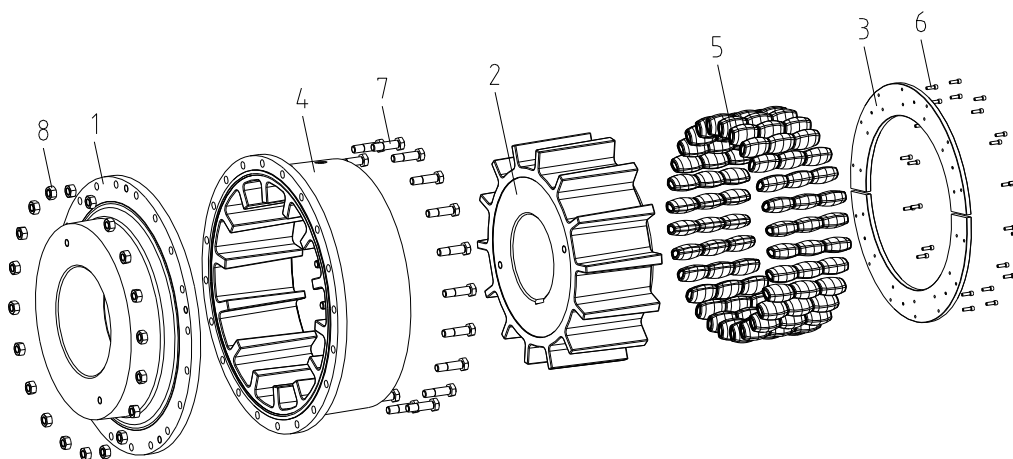


Illustration 5: POLY-NORM®-M type AFN

Table 4:

Size	Number z				
	Component 5		Component 6	Component 7	Component 8
	Coupling	per cavity			
202	32	2	16	24	24
252	36	2	18	30	30
302	48	2	24	20	20
402	40	2	20	18	18
502	48	2	24	24	24
503	72	3			
603	78	3	24	30	30
703	84	3	28	20	20
704	112	4	28	20	20
803	84	3	28	24	24
903	96	3	32	40	40
904	128	4			
905	160	5			

**4 Assembly****4.2 Advice on remachining**

The customer bears the sole responsibility for all machining processes performed subsequently on unbored or pilot bored as well as finish machined coupling components and spare parts. KTR does not assume any warranty claims resulting from insufficient remachining.

4.3 Assembly of the coupling (general)

We recommend to inspect bores, shaft, keyway and feather key for dimensional accuracy before assembly.



Heating the hubs lightly (approx. 80 °C) allows for an easier mounting on the shaft.



Touching the heated hubs causes burns.
Please wear safety gloves.



With the assembly make sure that the distance dimension DBSE (see table 1) is observed so that the coupling components are not in contact with each other during the operation. Disregarding this advice may cause damage to the coupling.



In order to avoid any injuries always make use of proper lifting equipment.

There are tapped holes on the face and outside diameter of the coupling serving for using proper sling gears resp. lifting equipment. If proper sling gears are used they should be dismantled after assembly of the coupling.

4.4 Assembly of type AFN

With assembly of the hub (component 2) it has to be made sure that the hub side with a recess (dimension DN1) is pushed on first (see illustration 9).

- Mount the flange hub (component 1) and the hub (component 2) on the shafts of driving and driven side (see illustration 6).

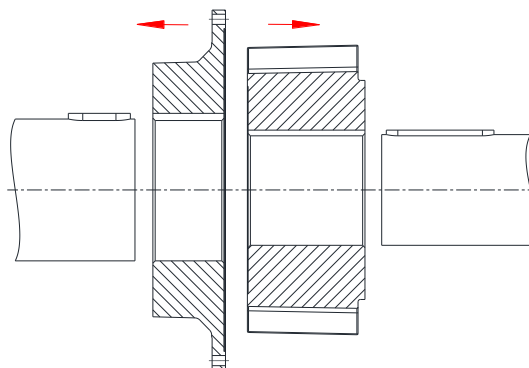


Illustration 6

**4 Assembly****4.4 Assembly of type AFN**

- The internal sides of the flange hub (component 1) and the hub (component 2) must be flush with the front sides of the shafts (see illustration 7).
- **Only valid with feather keyway and setscrew:**
Fasten the flange hub and the hub by tightening the setscrews DIN EN ISO 4029 with a cup point.

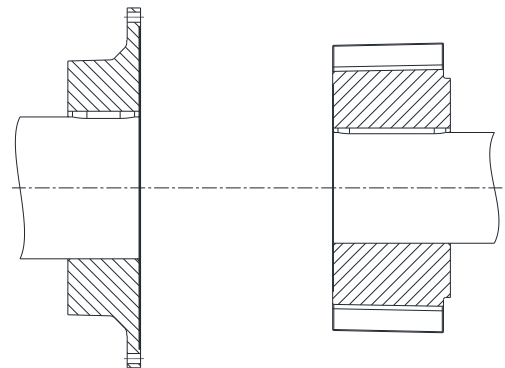


Illustration 7

- Push the cam ring (component 4) over the hub and take it carefully off or hold the cam ring via a proper lifting device (see illustration 8).

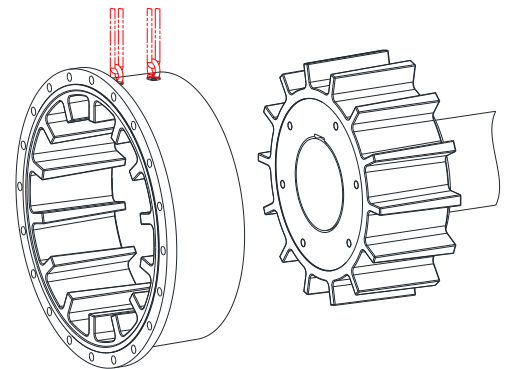


Illustration 8

- Shift the power packs in axial direction until the distance dimension DBSE has been achieved (see illustration 9).
- By slight twisting align the cam ring up to the hub such that the cavities between hub and cam ring are evenly arranged (observe displacement figures, see table 6).
- Make sure the fitting bores are flush.

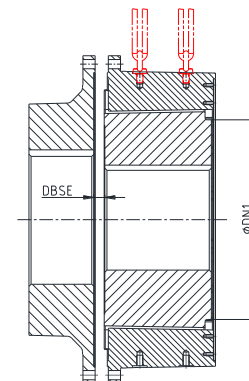


Illustration 9

**4 Assembly****4.4 Assembly of type AFN**

The transmittable torque of the shaft-hub-connection must be reviewed by the customer and is subject to his responsibility.

- Screw together the flange hub and the cam ring via the hexagon dowel screws (component 7) and hexagon nuts (component 8) (see illustration 10).
- Tighten the nuts evenly with several revolutions with a proper tightening tool protecting the hexagon dowel screws from rotating. Increase the tightening torque T_A gradually (see table 5).

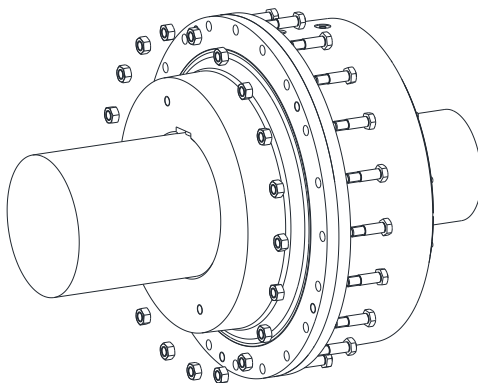


Illustration 10

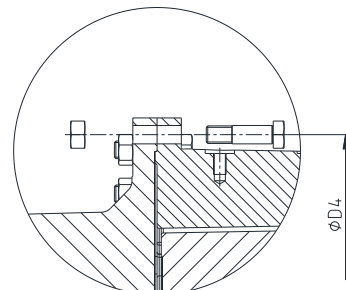


Illustration 11

Table 5: Tightening torques - hexagon nuts (component 8)

Size	202	252	302	402	502	503	603	703	704	803	903	904	905
T_{A1} in Nm		320			650			1200			1800		
T_{A2} in Nm		650			1300			2400			3600		
T_{A3} in Nm		970			1950			3600			5450		

- Insert the individual elastomers (component 5) in the cavities between hub and cam ring as per the order specified in illustration 12, 13 and 14. Make sure that the arrow on the individual elastomers points towards the direction of the shaft.



With the assembly make sure that the individual elastomers on the cam ring do not protrude since otherwise it is not possible to mount the cover segments (component 3).



For an easier assembly of the individual elastomers we recommend to use a fitting lubricant, e. g. REMA TIP TOP Universal mounting paste or a silicone oil having a viscosity of 1000 cSt.



The respective number of individual elastomers must be used in every cavity (see table 4).

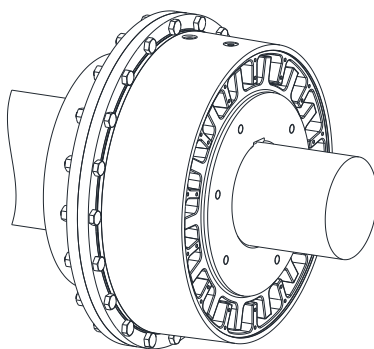


Illustration 12

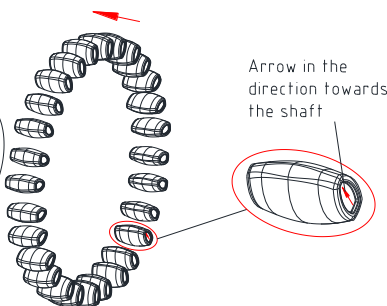


Illustration 13

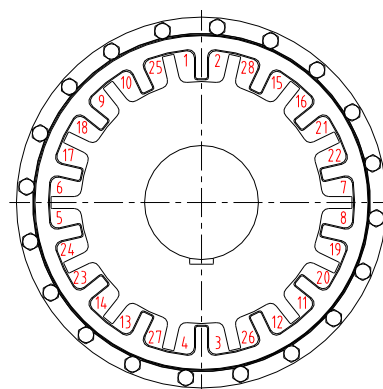


Illustration 14: Example of size 703

**4 Assembly****4.4 Assembly of type AFN**

- Hand-tighten the cover segments (component 3) with the cap screws DIN EN ISO 4762 (component 6) first (see illustration 15, 16 and 17).
- Tighten the cap screws evenly to the tightening torques T_{A2} specified in table 2 by means of a suitable torque key.

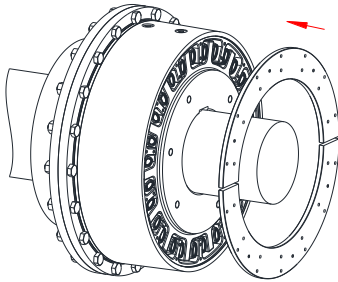


Illustration 15

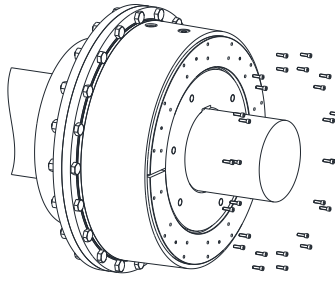


Illustration 16

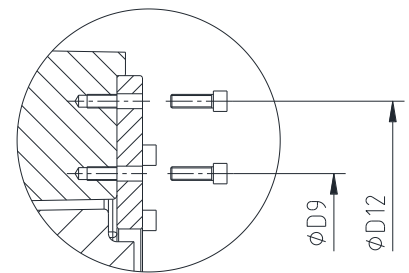


Illustration 17



Having started up the coupling, the tightening torque of the screws and the wear of the individual elastomers have to be inspected at regular maintenance intervals.

4.5 Displacements - alignment of the coupling

The **POLY-NORM®-M** compensates for displacements generated by the shafts to be combined as shown in table 6. Excessive misalignment may be generated by inaccurate alignment, production tolerances, thermal expansion, shaft deflection, twisting of machine frames, etc.

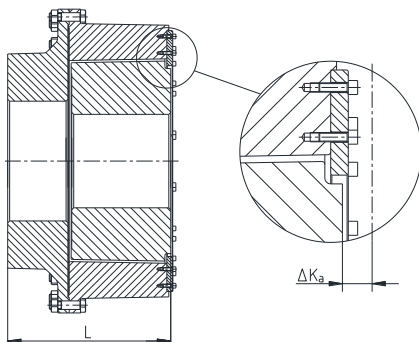


In order to ensure a long service life of the coupling, the shaft ends must be accurately aligned. Please absolutely observe the displacement figures specified (see table 5). If the figures are exceeded, the coupling will be damaged.

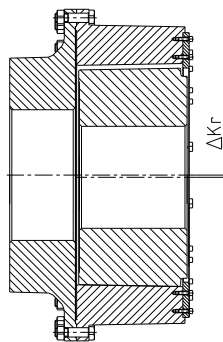
The more accurate the alignment of the coupling, the longer is its service life.

Please note:

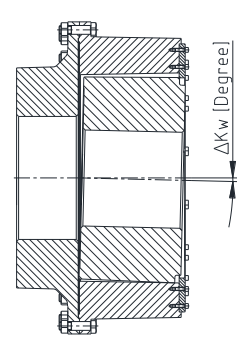
- The displacement figures specified in table 6 are maximum figures which must not arise in parallel. If radial and angular displacement occurs at the same time, the sum of the displacement figures must not exceed ΔK_r or ΔK_w .
- Inspect with suitable measuring tools whether the permissible displacement figures specified in table 6 can be observed.



Axial displacements



Radial displacements



Angular displacements

$$L_{adm.} = L + \Delta K_a \text{ in mm}$$

Illustration 18: Displacements

Please observe protection
note ISO 16016.

Drawn: 2024-05-02 Ka/Kr
Verified: 2024-05-29 Ka

Replacing: KTR-N dated 2024-02-06
Replaced by:

**4 Assembly****4.5 Displacements - alignment of the coupling**

Examples of the displacement combinations specified in illustration 19:

Example 1:

$\Delta K_r = 30\%$

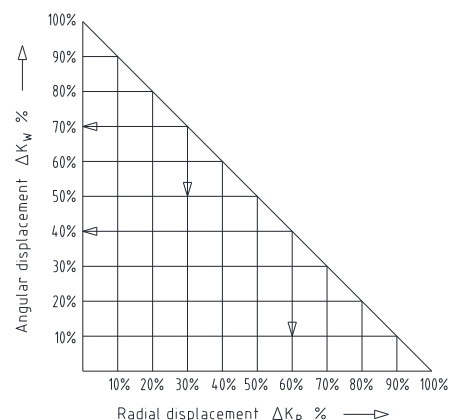
$\Delta K_w = 70\%$

Example 2:

$\Delta K_r = 60\%$

$\Delta K_w = 40\%$

Illustration 19: Combinations of displacement



$$\Delta K_{\text{total}} = \Delta K_r + \Delta K_w \leq 100\%$$

Table 6: Displacement figures

Size	202	252	302	402	502	503	603	703	704	803	903	904	905
Max. axial displacement ΔK_a in mm	± 3.0		± 3.0		± 3.0		± 5.0	± 5.0	± 5.0	± 5.0	± 3.0		
Max. radial displacement ΔK_r in mm	2.0		2.5		3.0		3.0	3.0	3.5	3.5	4.0		
Max. angular displacement ΔK_w in degree	0.5		0.5		0.5		0.5	0.5	0.5	0.5	0.5		

5 Start-up

Before start-up of the coupling, inspect the alignment and the distance dimension DBSE and adjust, if necessary, and also inspect all screw connections for the tightening torques specified.

Finally the coupling protection against accidental contact must be fitted. It is required in accordance with DIN EN ISO 12100 (Safety of Machinery) and must protect against

- access with a little finger
- falling down of solid foreign objects.

The coupling protection is not part of KTR's scope of delivery and is the customer's responsibility. It must have sufficient distance to the rotating components to safely avoid contact. We recommend a minimum distance of 15 mm from the outside diameter DH of the coupling.

Please check if a proper enclosure (ignition protection, coupling protection, contact protection) has been mounted and the operation of the coupling is not affected by the enclosure. The same applies for test runs and rotational direction inspections.

The cover may provide for openings intended for necessary heat dissipation. These openings have to comply with DIN EN ISO 13857.

During operation of the coupling, please pay attention to

- different operating noise
- vibrations occurring.



If you note any irregularities with the coupling during operation, the drive unit must be switched off immediately. The cause of the breakdown must be specified by means of the table „Breakdowns“ and, if possible, be eliminated according to the proposals. The potential breakdowns specified can be hints only. To find out the cause all operating factors and machine components must be considered.

6 Breakdowns, causes and elimination

The below-mentioned failures can lead to improper use of the **POLY-NORM®-M** coupling. In addition to the specifications given in these operating/assembly instructions make sure to avoid such failures. The errors listed can only be clues to search for the failures. When searching for the failure the adjacent components must generally be considered.

General failures with improper use:

- Important data for the coupling selection were not forwarded.
- The calculation of the shaft-hub-connection was disregarded.
- Coupling components with damage occurred during transport are assembled.
- If the heated hubs are assembled, the permissible temperature is exceeded.
- The clearance of the components to be assembled is not coordinated with one another.
- Tightening torques are fallen below/exceeded.
- Components are mixed up by mistake/assembled incorrectly.
- Wrong or no individual elastomers are inserted in the coupling.
- No original **KTR** components (purchased parts) are used.
- Old/already worn off individual elastomers or those which are stored for too long are used.
- Maintenance intervals are not observed.

Breakdowns	Causes	Elimination
Different operating noise and/or vibrations occurring	Misalignment	1) Set the unit out of operation 2) Eliminate the reason for the misalignment (e. g. loose foundation bolts, fracture of the engine mount, heat expansion of unit components, modification of the installation dimension DBSE of the coupling) 3) For inspection of wear see chapter 8
	Wear of elastomers, short-term torque transmission due to metal contact	1) Set the unit out of operation 2) Disassemble the coupling, remove remainders of the elastomers 3) Inspect coupling components and replace coupling components that have been damaged 4) Insert elastomers, assemble coupling components 5) Inspect alignment, adjust if necessary
	Axial fastening of hub working loose	1) Set the unit out of operation 2) Inspect alignment of coupling 3) Inspect axial fastening of hubs and correct, if necessary 4) For inspection of wear see chapter 8
Fracture of cams	Wear of elastomers, torque transmission by metal contact	1) Set the unit out of operation 2) Replace complete coupling 3) Inspect alignment
	Fracture of the cams due to high impact energy/overload	1) Set the unit out of operation 2) Replace complete coupling 3) Inspect alignment 4) Find out the reason for overload
	Operating parameters do not meet with the performance of the coupling	1) Set the unit out of operation 2) Review the operating parameters and select a bigger coupling (consider mounting space) 3) Assemble new coupling size 4) Inspect alignment
	Operating error of the unit	1) Set the unit out of operation 2) Replace complete coupling 3) Inspect alignment 4) Instruct and train the service staff

**6 Breakdowns, causes and elimination**

Breakdowns	Causes	Elimination
Early wear of elastomers	Alignment error (e. g. indicators are large volumes of rubber dust or impressions of the cams of the hub on the cover segment)	1) Set the unit out of operation 2) Eliminate the reason for the misalignment (e. g. loose foundation bolts, fracture of the engine mount, heat expansion of unit components, modification of the installation dimension DBSE of the coupling) 3) For inspection of wear see chapter 8
	e. g. contact with aggressive liquids/oils, ozone influence, too high/low ambient temperatures etc. causing a physical modification of the elastomers	1) Set the unit out of operation 2) Disassemble the coupling, remove remainders of the elastomers 3) Inspect coupling components and replace coupling components that have been damaged 4) Insert elastomers, assemble coupling components 5) Inspect alignment, adjust if necessary 6) Make sure that further physical modifications of the elastomers are excluded
	ambient/contact temperatures which are too high for the elastomers, max. permissible -30 °C/+80 °C	1) Set the unit out of operation 2) Disassemble the coupling, remove remainders of the elastomers 3) Inspect coupling components and replace coupling components that have been damaged 4) Insert elastomers, assemble coupling components 5) Inspect alignment, adjust if necessary 6) Inspect and adjust ambient/contact temperature
Early wear of elastomer (hardening/embrittlement of elastomers)	Vibrations of drive	1) Set the unit out of operation 2) Disassemble the coupling, remove remainders of the elastomers 3) Inspect coupling components and replace coupling components that have been damaged 4) Insert elastomers, assemble coupling components 5) Inspect alignment, adjust if necessary 6) Find out the reason for vibrations

7 Disposal

In respect of environmental protection we would ask you to dispose of the packaging resp. products on termination of their service life in accordance with the legal regulations resp. standards that apply.

- **Metal**
Any metal components have to be cleaned and disposed of by scrap metal.
- **Nylon materials**
Nylon materials have to be collected and disposed of by a waste disposal company.
- **Greases/oils**
Greases and oils have to be collected in suitable containers and disposed of by a waste disposal company.

**8 Maintenance and service**

POLY-NORM®-M is a low-maintenance coupling. We recommend to perform a visual inspection on the coupling **at least once a year**. Pay special attention to the condition of the individual elastomer of the coupling.

- Since the flexible machine bearings of the driving and driven side settle during the course of load, inspect the alignment of the coupling and re-align the coupling, if necessary.
- The coupling components must be inspected for damages.
- Small volumes of rubber dust are standard, with bigger volumes lubrication of the individual elastomers is necessary (e. g. REMA TIP TOP Universal fitting lubricant or a silicone oil having a viscosity of 1000 cSt).
- The screw connections must be visually inspected.

In order to perform a visual inspection of the individual components, remove the cover segments from the coupling (see illustration 23) so that the front sides of the individual elastomers can be seen (see illustration 20). For that purpose take the individual elastomers out of the gaps. Anyway, the individual elastomers should be replaced if one of the following items applies:

- Reaching the limits of wear
- Material deterioration of individual elastomers
- Individual elastomers damaged or torn

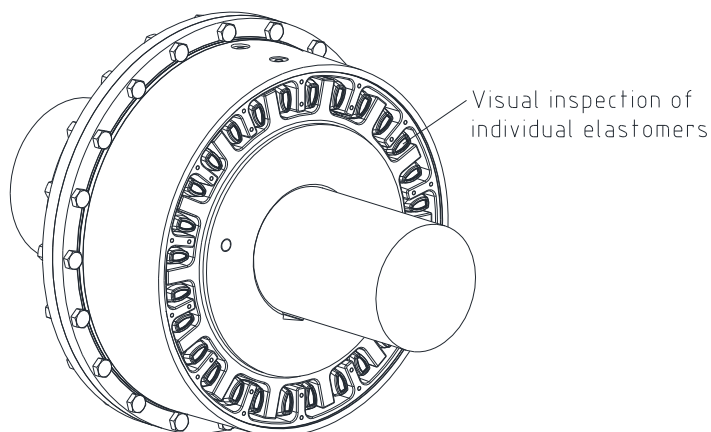


Illustration 20

When reaching the limit of wear and tear $X_{\max.}$, the individual elastomers must be replaced. Wear of the individual elastomers should be inspected with a proper measuring tool (e. g. caliper gauge). Several individual elastomers should be inspected (see illustration 21 and 22).

Reaching the limits for replacing depends on the operating conditions and the existing operating parameters. With wear $\geq 20\%$ of the original elastomer thickness it is necessary to replace the individual elements.



In order to ensure a long service life of the coupling, the shaft ends must be accurately aligned. Please absolutely observe the displacement figures specified (see table 5). If the figures are exceeded, the coupling will be damaged.

The more accurate the alignment of the coupling, the longer is its service life.

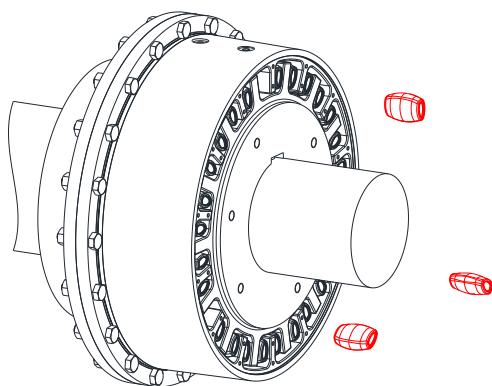


Illustration 21: Inspection of the limit of wear

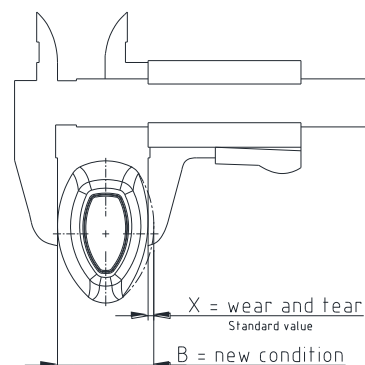


Illustration 22: Wear of elastomers

**8 Maintenance and service****Table 7: Limits of wear**

Size	Limits of wear in mm		
	Thickness of elastomer B	Friction $X_{\max}$	min. thickness of elastomer $B_{\min}$
202	46.0	9.0	37.0
252			
302			
402	67.0	13.5	53.5
502			
503			
603	82.5	16.5	66.0
703			
704			
803	91.0	18.0	72.0
903			
904			
905			

8.1 Replacement of individual elastomers

- Unscrew the cap screws DIN EN ISO 4762 (component 6) first and remove the cover segments (component 3) from the coupling (see illustration 23).

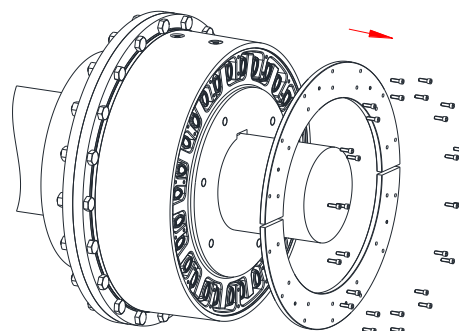


Illustration 23

- Now remove the elastomer rows from the gaps of the cam ring and the hub (see illustration 24).

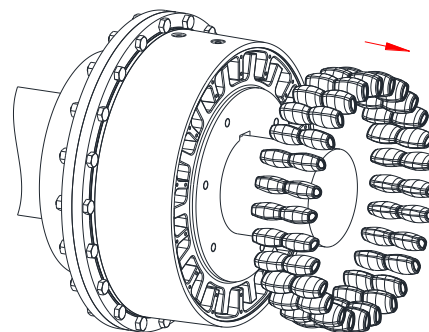


Illustration 24



The following steps are to be observed if removing all individual elastomers from behind is no longer possible!

- Now unscrew the hexagon dowel screws and the hexagon nuts (component 7 and 8). Afterwards push the cam ring (component 4) axially backwards until the balance of individual elastomers is exposed (drop-out center dimension W, see table 1) (see illustration 25).

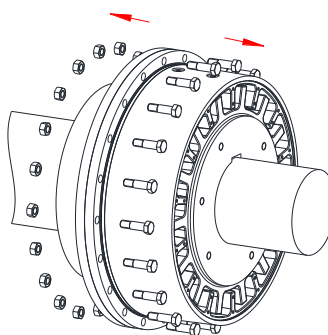


Illustration 25

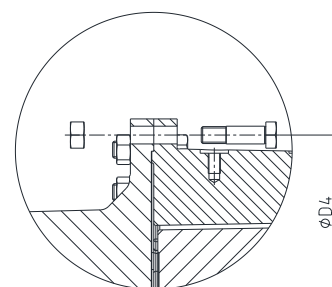


Illustration 26

**8 Maintenance and service****8.1 Replacement of individual elastomers**

- If the cam ring (component 4) does not release by itself, use the pull-off thread of the flange hub (component 1) to untighten the cam ring (see illustration 27).

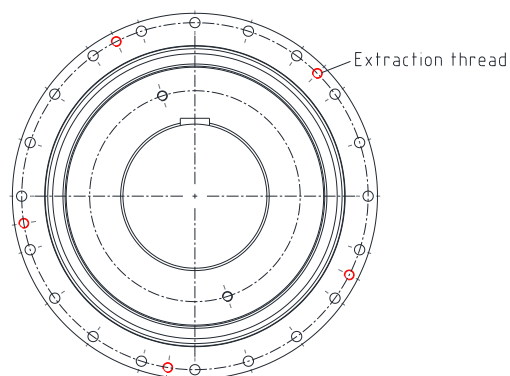


Illustration 27

- Now remove the balance of individual elastomers by removing them radially from the gaps (see illustration 28).

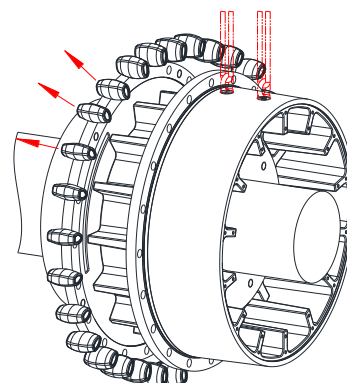


Illustration 28

- To insert the new individual elastomers, observe the procedure as described in chapter 4.4 „Assembly of type AFN“.

S

9 Spares inventory, customer service addresses

A basic requirement to ensure the readiness for use of the coupling is a stock of the most important spare parts on site.

Contact addresses of the KTR partners for spare parts and orders can be obtained from the KTR homepage at www.ktr.com.



KTR does not assume any liability or warranty for the use of spare parts and accessories which are not provided by KTR and for the damages which may incur as a result.

KTR Systems GmbH
Carl-Zeiss-Str. 25
D-48432 Rheine
Phone: +49 5971 798-0
E-mail: mail@ktr.com