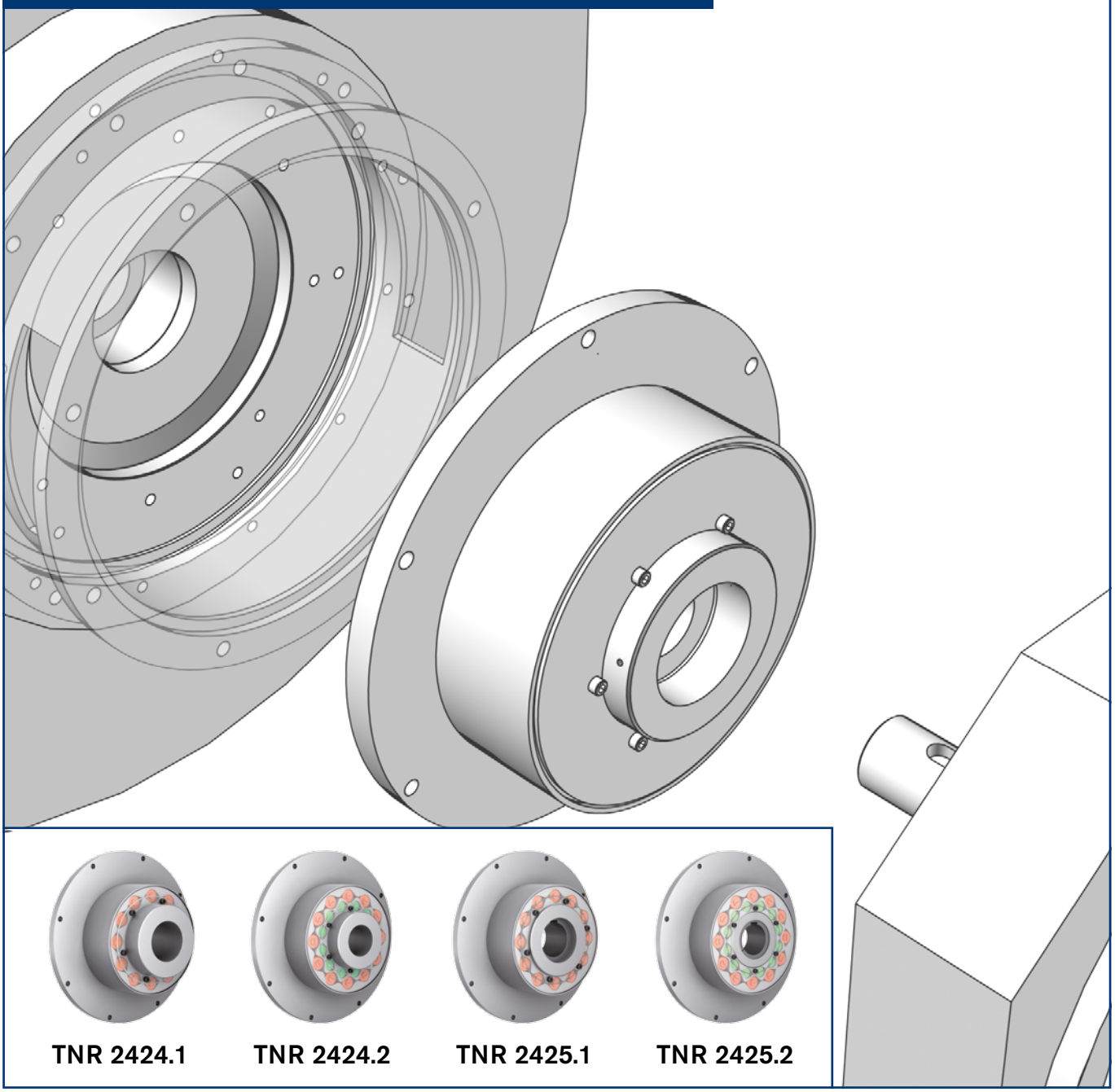
EN
08.2019

Industrievertretung Miebach GmbH
Phone +49 2206 1424 · info@iv-miebach.de

Torsional Highflex Couplings
RINGFEDER® TNR

Assembly, Disassembly, Maintenance



TNR 2424.1

TNR 2424.2

TNR 2425.1

TNR 2425.2

Safety instructions

Rotating machine parts may injure operators and service staff! Therefore:

- Switch off the drive before assembly work.
- Safeguard the machine against accidental switch-on.
- Mount all covers and protection devices before switching on the machine.
- RINGFEDER® products may only be mounted by specialist staff and for suitable applications.
- Use only appropriate cleaning agents for the coupling.
-  Never extend your hands in the working area of the coupling whilst it is still running.
-  The coupling heats up during operation.
-  Use hand-gloves when assembling hot flanges and hubs.
-  Dimension check ensure sufficient clearance.
-  Consider thermal-expansion to avoid blocking of drive-train parts.

Storage information

- Couplings can be stored in a dry room under normal ambient temperatures for a period of six months.
- Prevent storage in moisture and damped conditions - the preferred relative humidity is below 65 %.
- Storage for a longer time requires the application of a long-term preservation.
- The elastic buffers must not be exposed to ozonic media, direct sun-light or intensive light sources.
- If the parts are properly stored, the quality characteristics of the elastic buffers remain almost unchanged for up to three years.

Attention

- Please read these instructions through carefully.
- In the event of infringement of these notes all claims of liability will become void.
- RINGFEDER POWER TRANSMISSION reserves the right to make technical changes to improve the product.
- RINGFEDER® Torsional Highflex Couplings are designed in accordance with state of the art.

If you experience problems or have any questions, our technical and service staff will be happy to assist you. See the reverse of these instructions for the corresponding contact information.

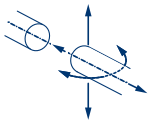
Legend


Assembly


Disassembly


Maintenance / exchange of buffers


Cleaning


Align shafts (axial, radial and angular)


Screwdriver


Max. assembling temperature


Attention!



Lock all screws with adequated torque


Lubricate (grease, talcum) used for assembling


Glue-screwlocking

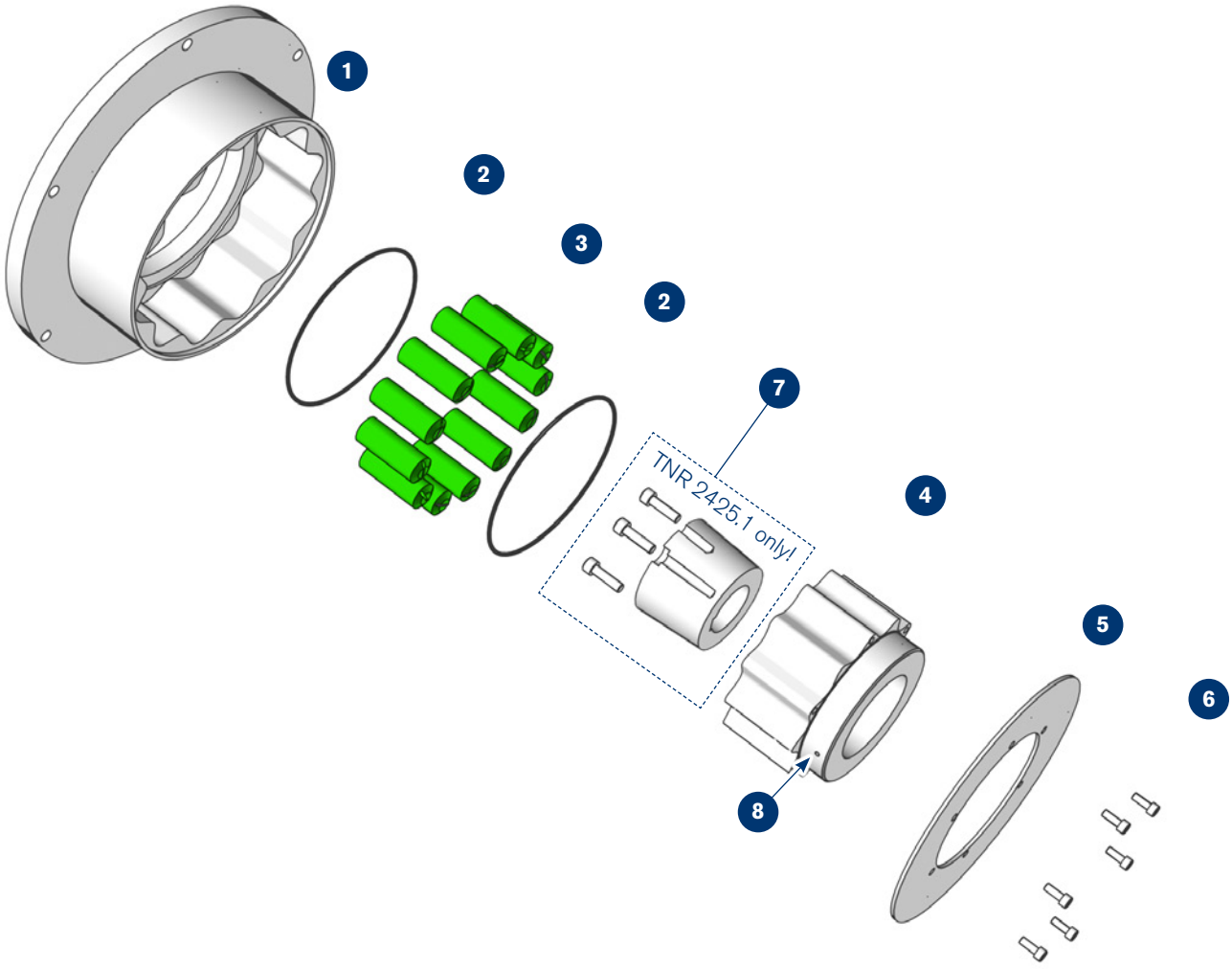

Tongs


Scissors

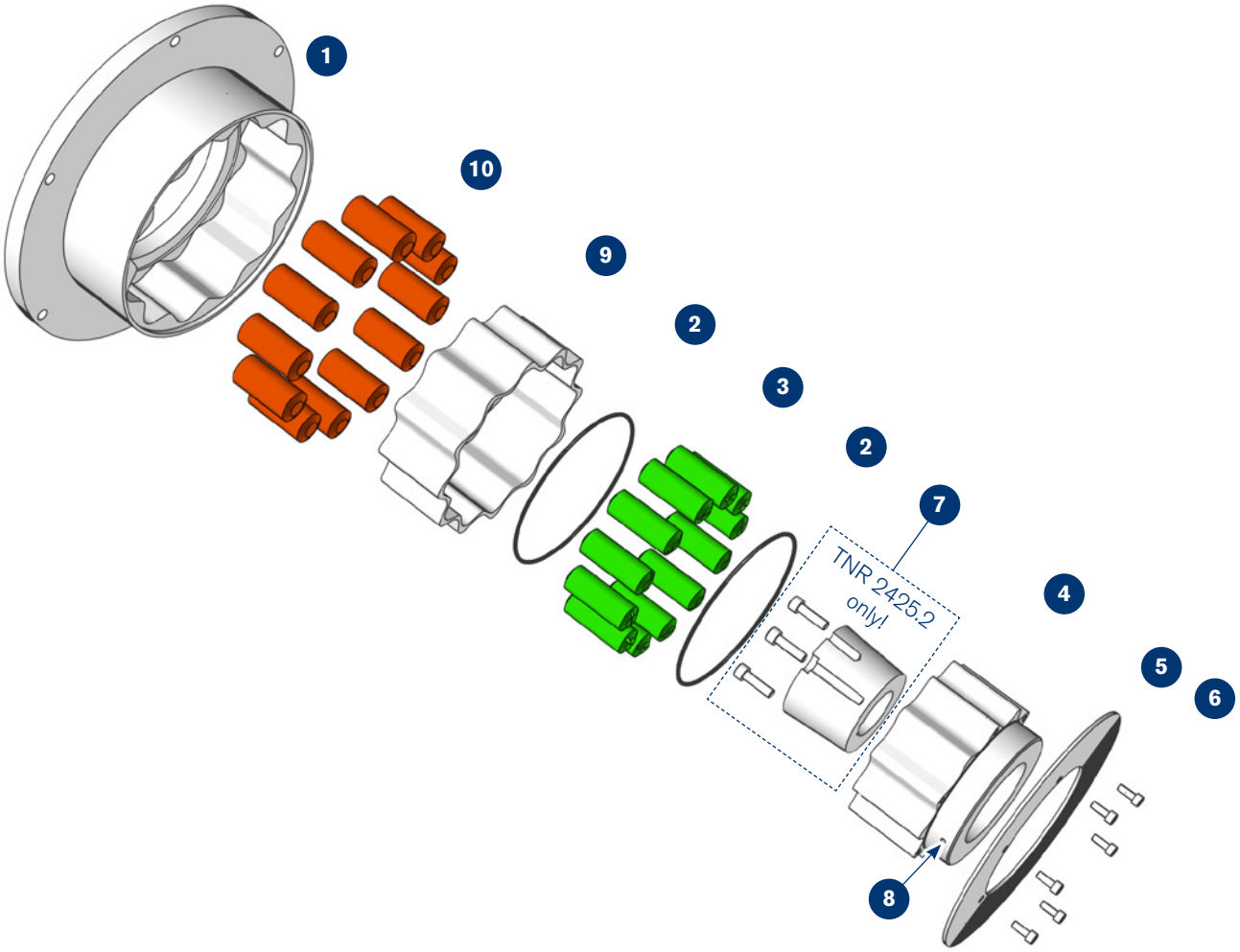

Only double-row


Dispose


No new ring needed!



Position	Part	No. / (remarks)
1	SAE flange + outer coupling sleeve	1+1 (assembled)
2	O-ring (fitting-aid)	2 x (used only for assembling)
3	Elastic buffer	12 x
4	Hub	1 x (driven side / provided for taper bush.)
5	Cover	1 x (retaining buffers)
6	Socket head screw	6 x (for fixing of cover on hub)
7	Taper lock-bushing (TNR 2425.1 only!)	1 x (bushing + screws; supplied by customer)
8	(Set-screw)	(1 x) (on demand)



Position	Part	No. / (remarks)
1	SAE flange + outer coupling sleeve	1+1 (assembled)
2	O-ring (fitting-aid)	2 x (used only for assembling)
3	Elastic buffer	12 x (inner-side)
4	Hub	1 x (driven side / provided for taper bush.)
5	Cover	1 x (retaining buffers)
6	Socket head screw	6 x (for fixing of cover on hub)
7	Taper lock-bushing (TNR 2425.2 only!)	1 x (bushing + screws; supplied by customer)
8	(Set-screw)	(1 x) (on demand)
9	Buffer-link	1 x (intermediate-ring)
10	Elastic buffer	12 x (outer-side)



Danger of injuries!

- Disconnect the drive before carrying out any work on the coupling! Secure the drive against unintentional re-start and rotation! Incorrectly tightened bolts can cause serious personal injuries and property damages!
- Assemble the coupling outside of the danger zone. Take care that suitable transportation means are at disposal and that the transportation ways are free of obstacles. Do not use tools which cause sparks when mounting the parts in explosive areas!
- In compliance with accident prevention regulations, you are obliged to protect all freely rotating parts by means of permanently installed guards/covers (with ventilation holes) against unintentional contact and falling down objects.
- To avoid sparks, the protective guards for couplings used in explosive atmospheres should be made of stainless steel!
- As a minimum, the guards have to fulfil the requirements of protection type IP2X.
- The covers have to be designed to prevent dust from depositing on the coupling.
- The cover must not contact the coupling or impair the proper function of the coupling.
- Make sure that speed, torque and ambient temperatures will not exceed permitted values (see current Product Paper & Tech Paper "Torsional Highflex Couplings" and/or released assembly drawings).
- The maximum permissible bore diameters must not be exceeded.
- Check wether the shaft-hub connections safely transmit the occuring operating torques.
- The standard tolerance of RINGFEDER® for finish bores is fit H7.
- Keyways comply with ISO-standards, if not otherwise stated.
- Check the dimensions and tolerances of shafts, hub bores, keys and keyways.
- Set screws as required.



- The specific technical data refer only to the actual coupling! It is part of the users responsibility to ascertain that the components, in particular the SAE screw-connections, the dimensioning of shaft and key connections are designed with sufficent safety margins with respect to its transferable torque.
- If necessary, additional measures have to be implemented.



Set-screw DIN 916	**M5**	**M6**	**M8**	**M10**	**M12**	**M16**	**M20**
T_{A1} [Nm]	3	4	8	15	25	70	130

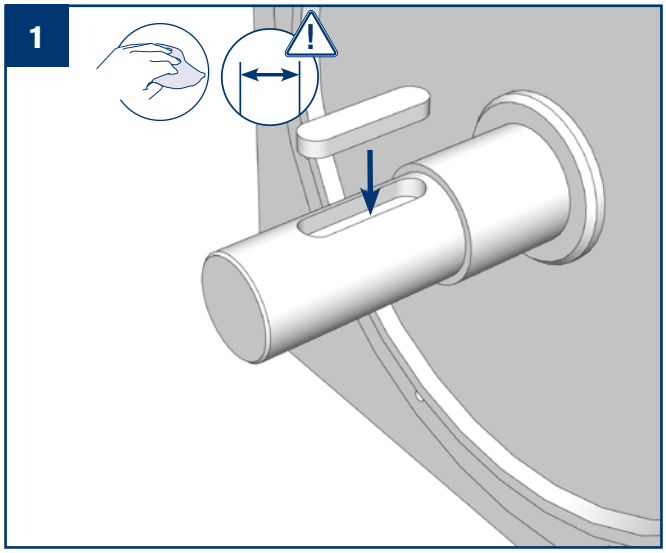


Cover-screws Grade 8.8	**M5**	**M6**	**M8**	**M10**	**M12**	**M16**	**xx**
T_{A2} [Nm]	6	10	25	49	85	210	On request!

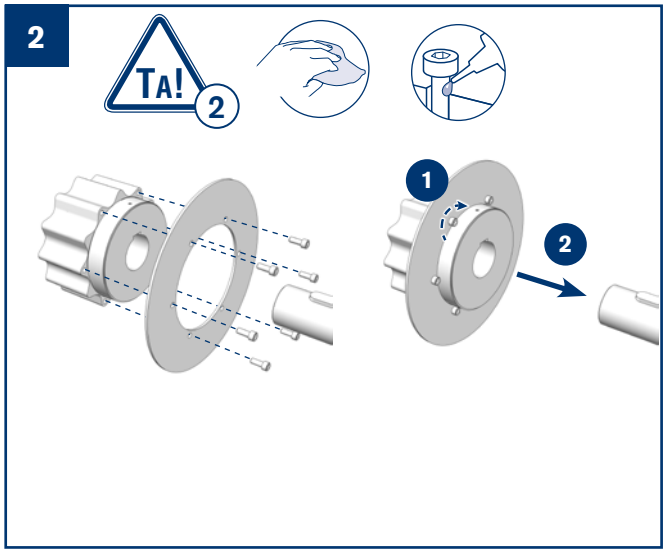


Tapper-screws	**1615**	**2012**	**2517**	**3020**	**3525**	**3535**	**4040**	**5050**	**xx**
T_{A3} [Nm]	19,9	31,8	48,8	90,8	114	114	193	352	On request!

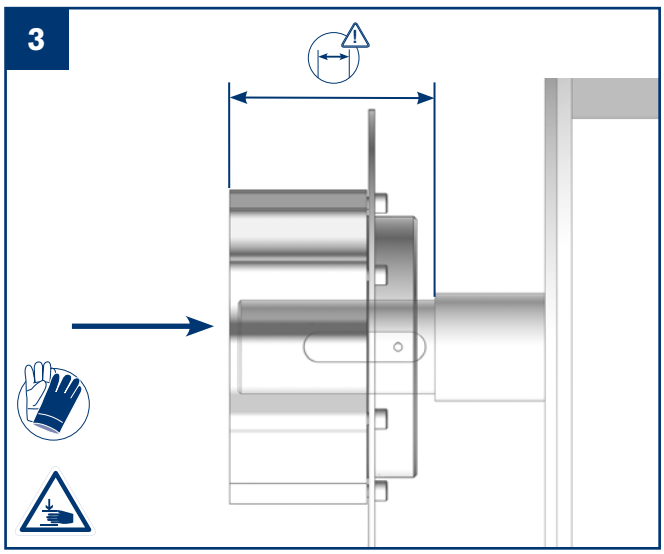
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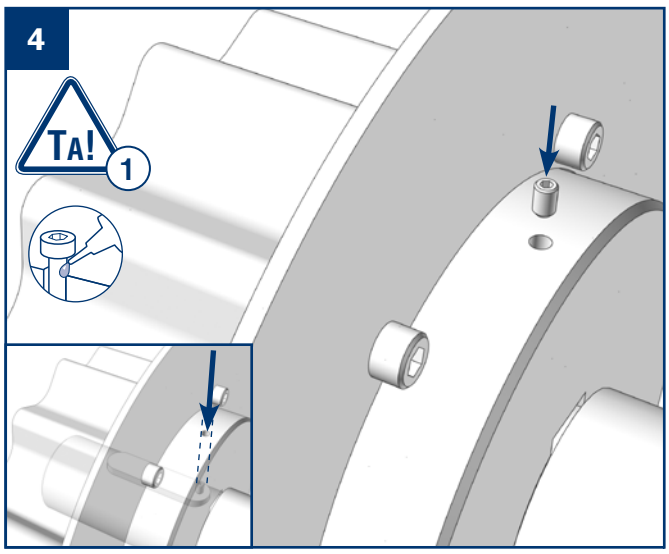
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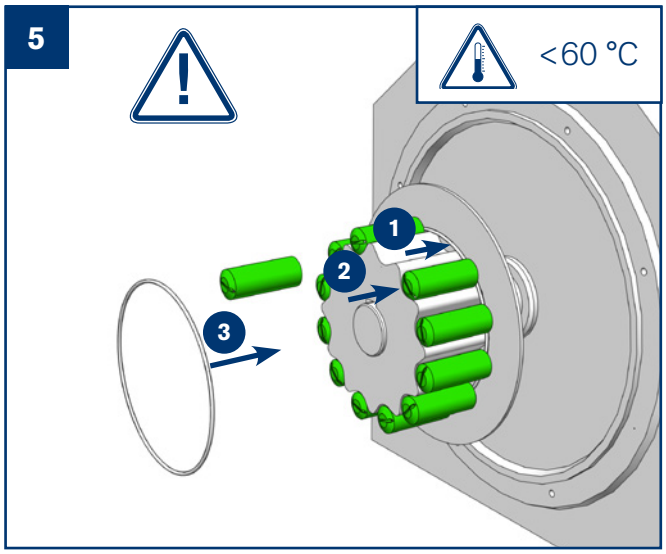
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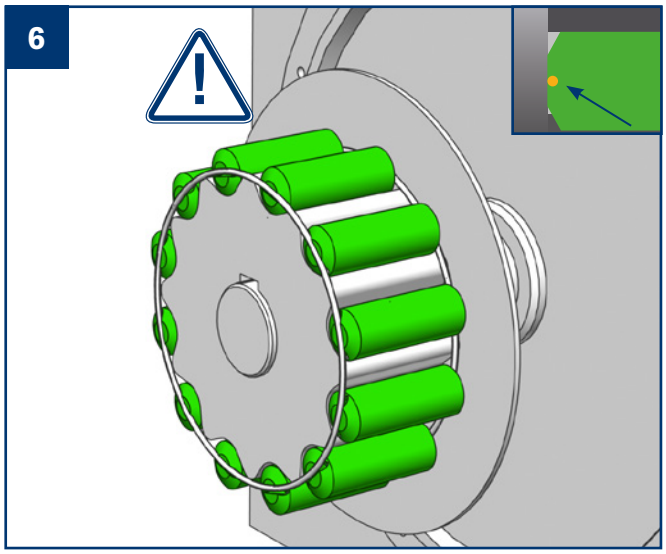
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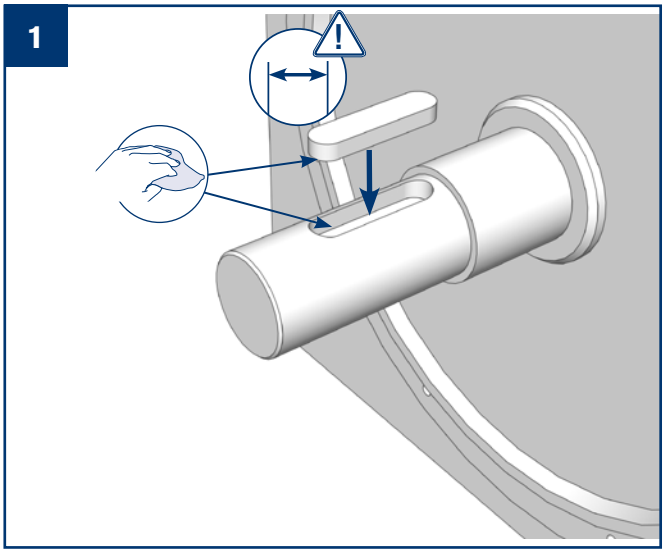
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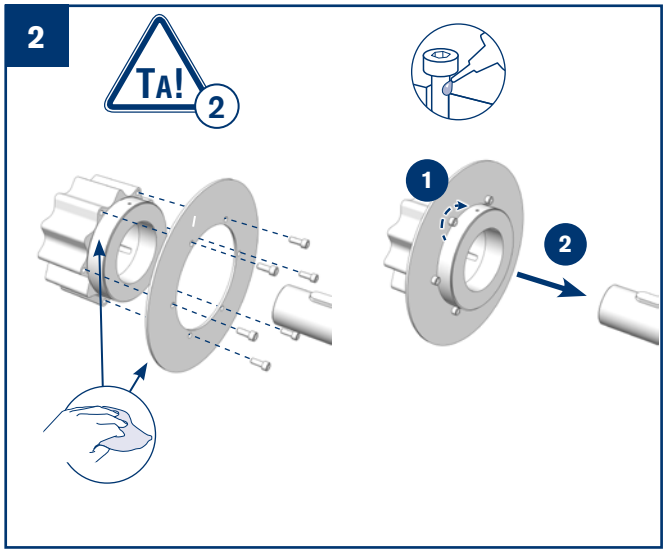
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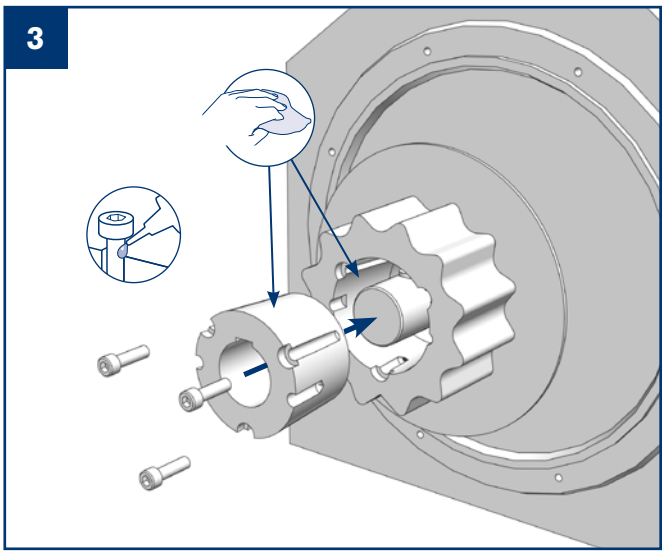
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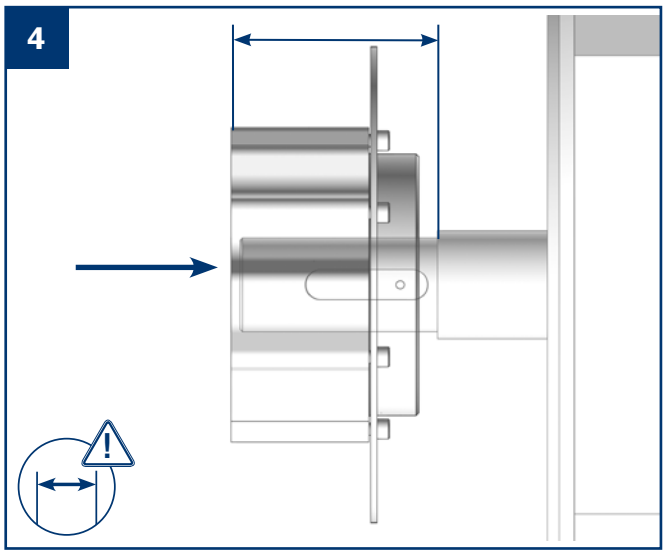
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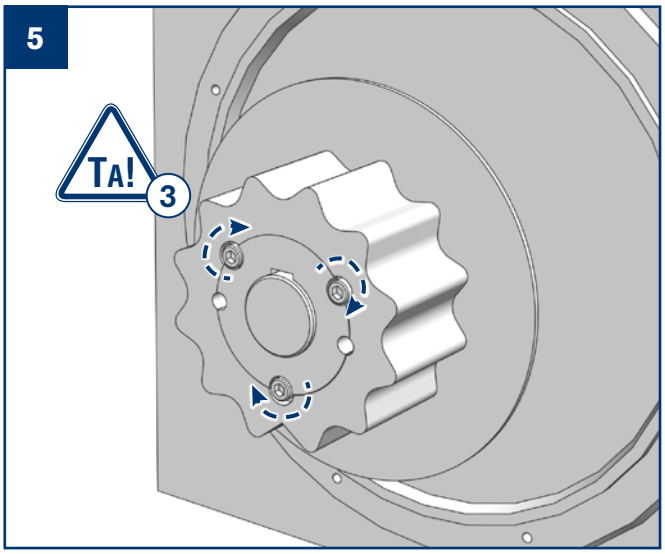
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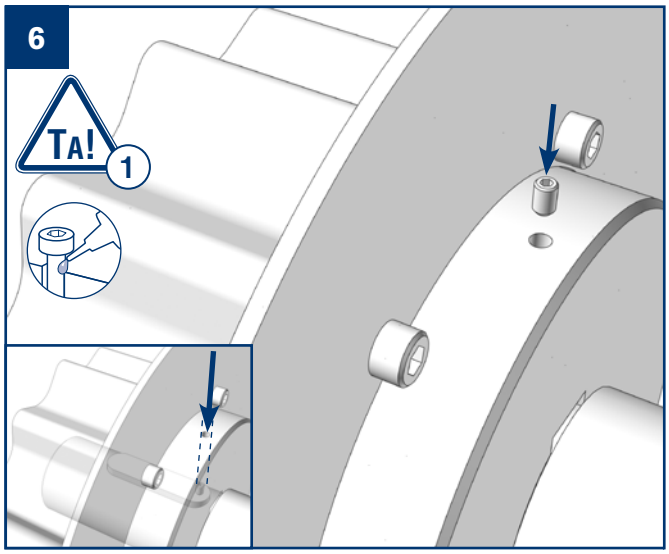
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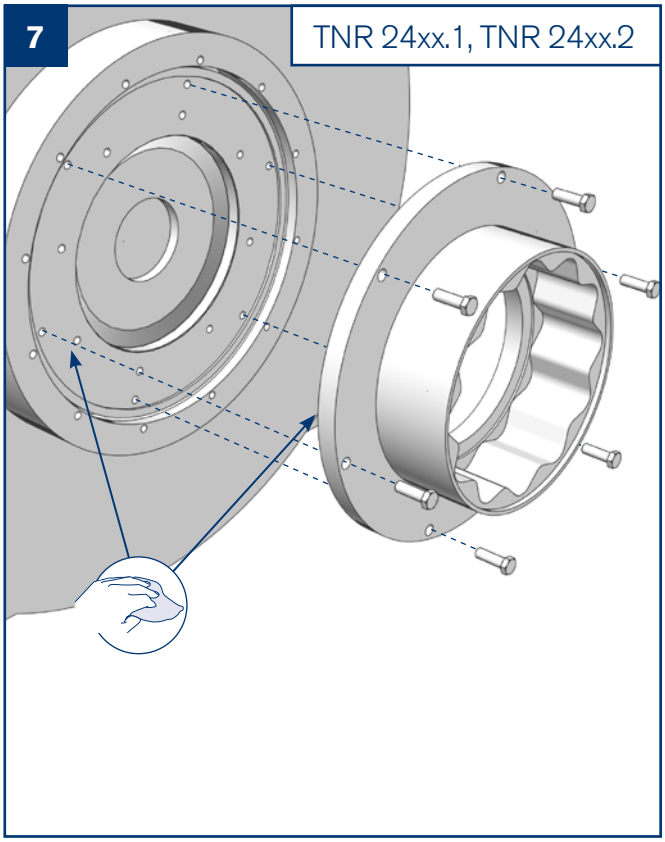
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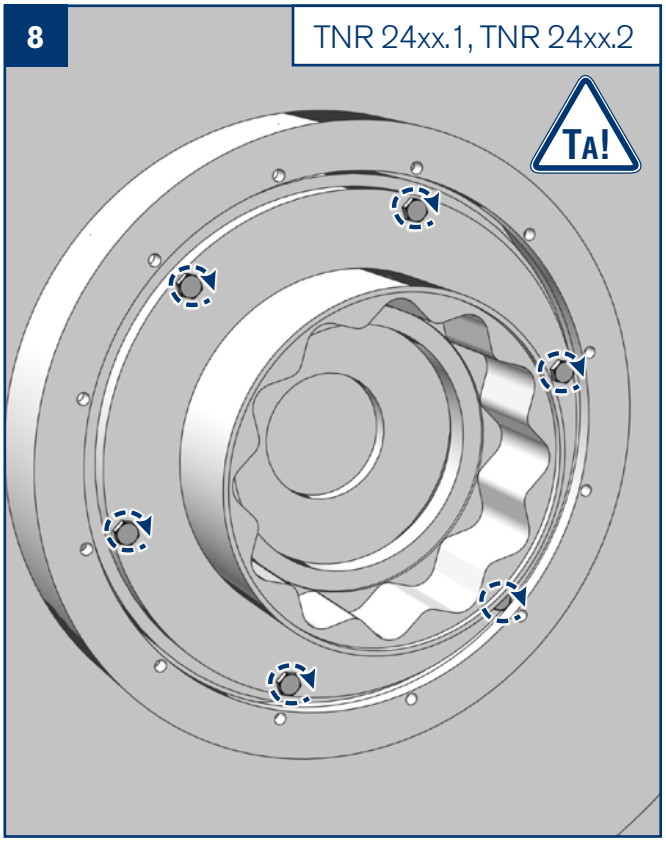
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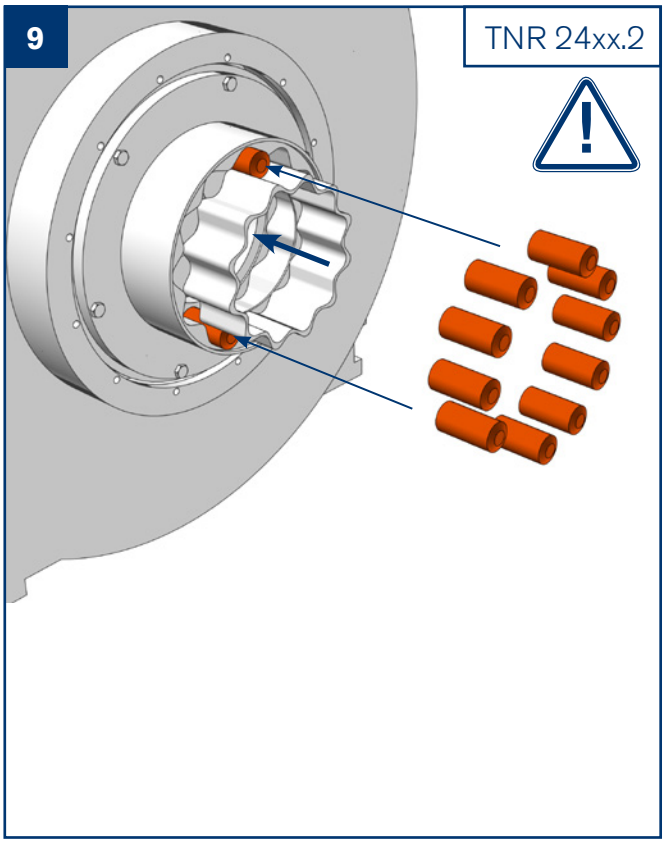
7 TNR 24xx.1, TNR 24xx.2



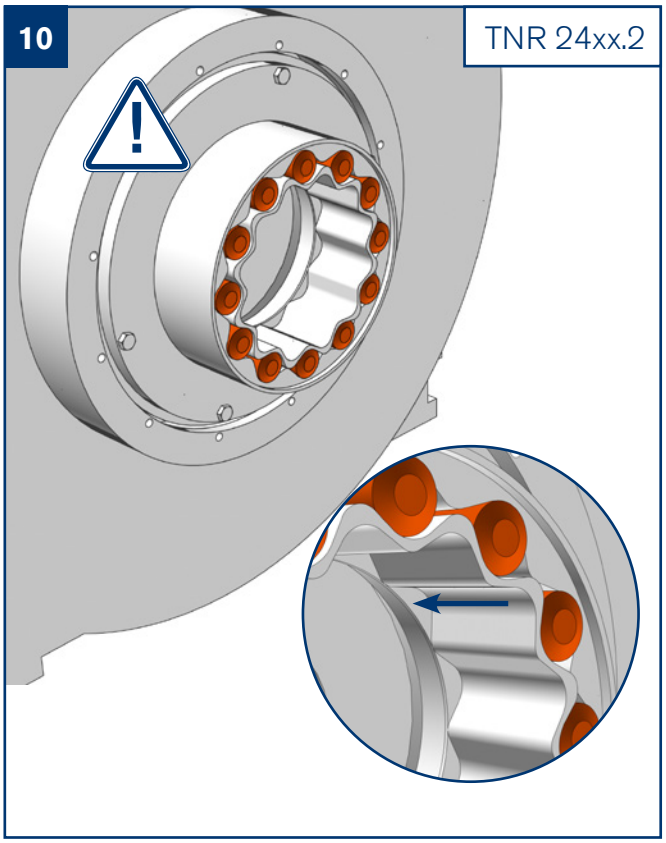
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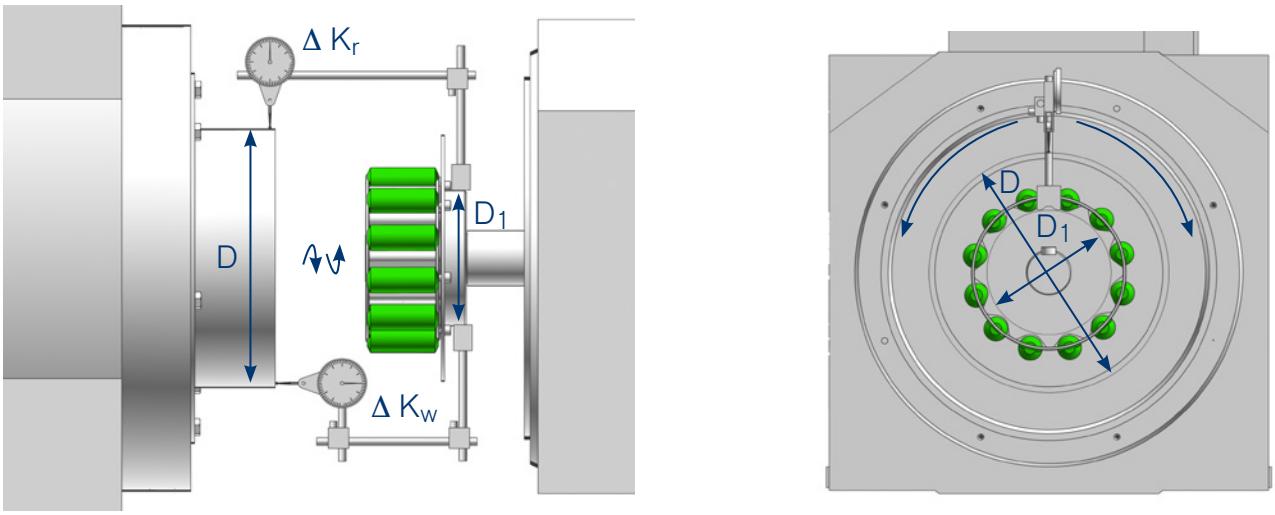
9 TNR 24xx.2



10 TNR 24xx.2



11



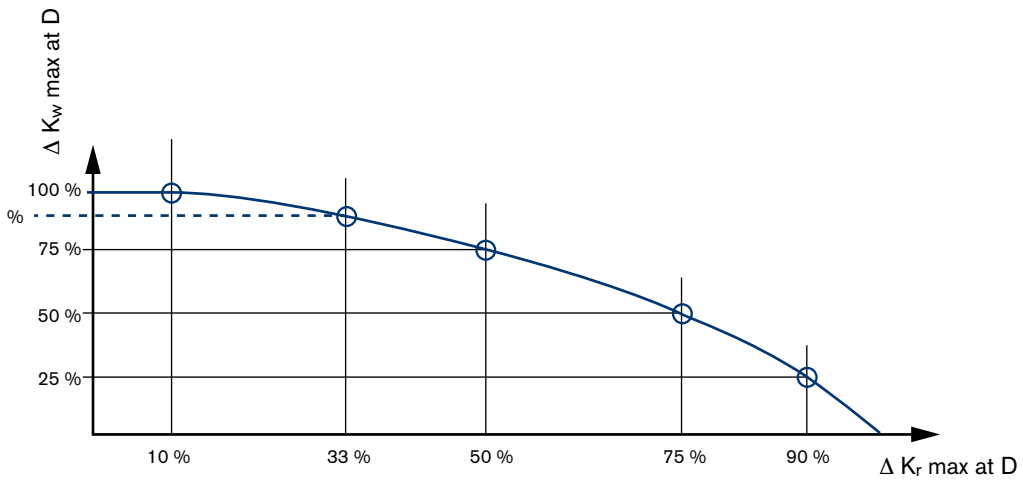
If not otherwise specified in order-related technical documents!

Max. misalignment values (assembling condition)*

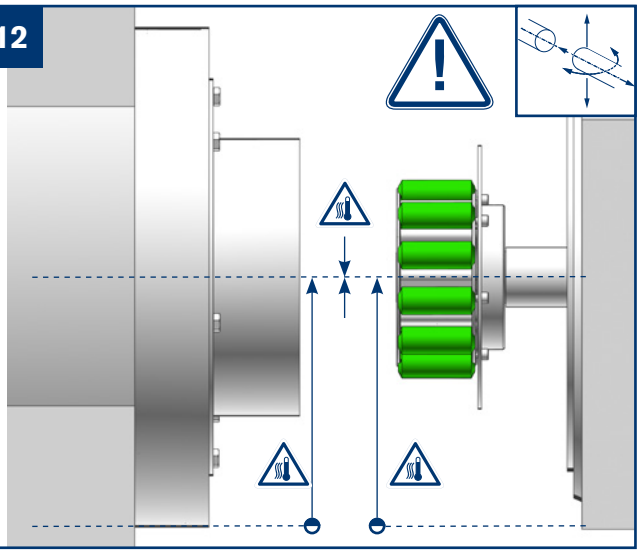
TNR size (D)	120	160	200	260	320	400	500	640	XX
Δ K_r max at D [mm]	0,2	0,25	0,25	0,3	0,4	0,5	0,6	0,8	On request!
Δ K_w max at D [mm]	0,52	0,68	0,86	1,1	1,3	1,7	2,1	2,8	

* Permitted max. values in running condition: multiply values x 2

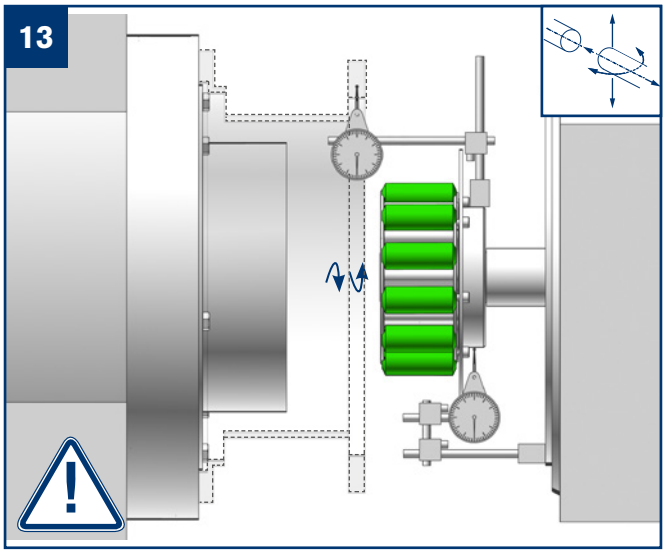
Δ K_w / Δ K_r - permissible misalignment characteristic



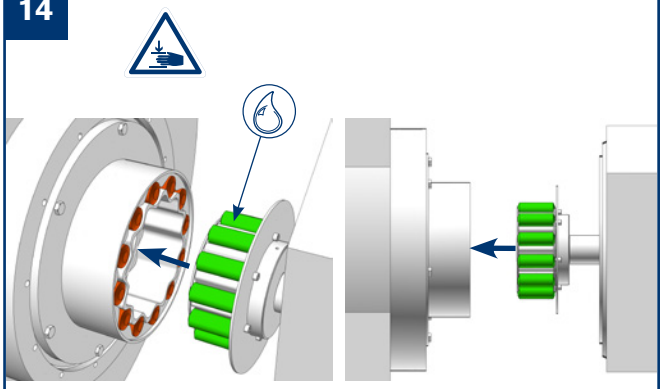
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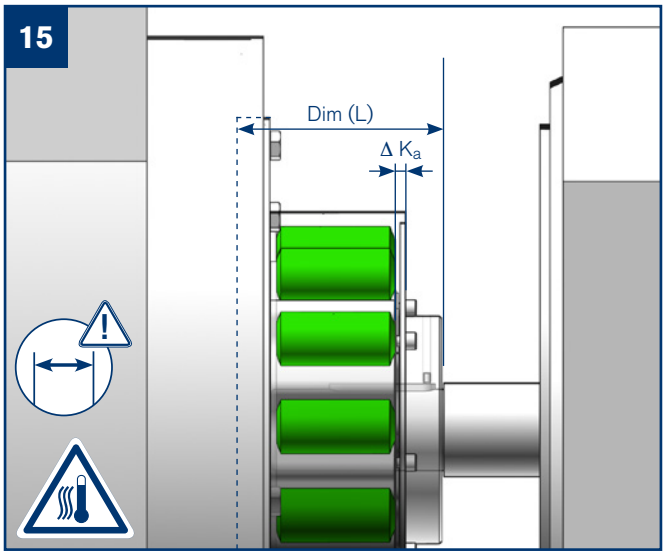


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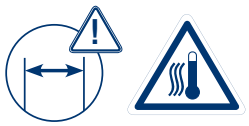


Talcum: Vk-buffers
Grease: Pb-buffers

15



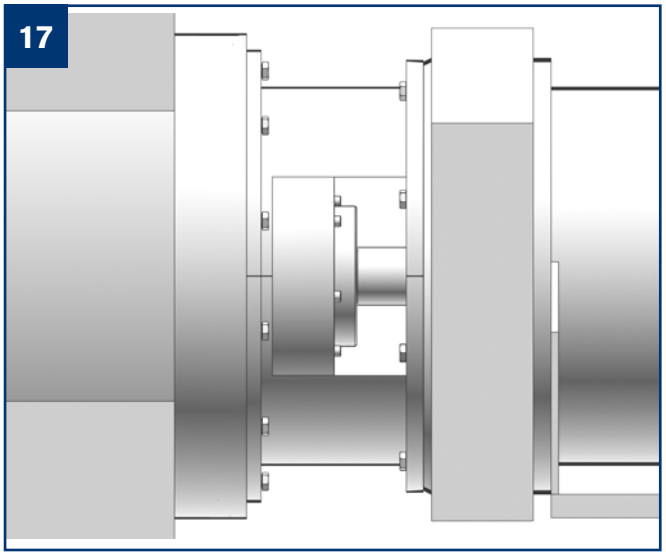
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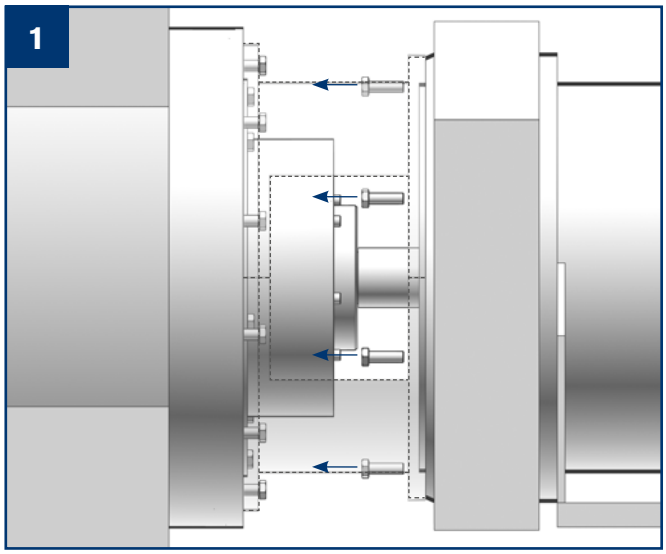


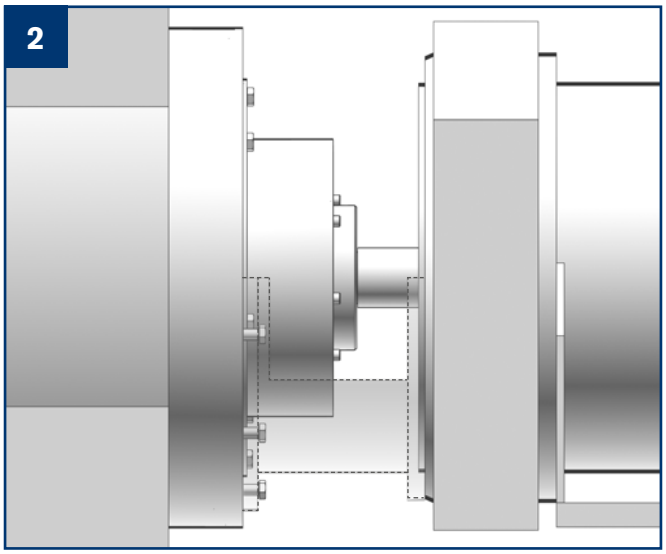
± Δ K_a [mm]

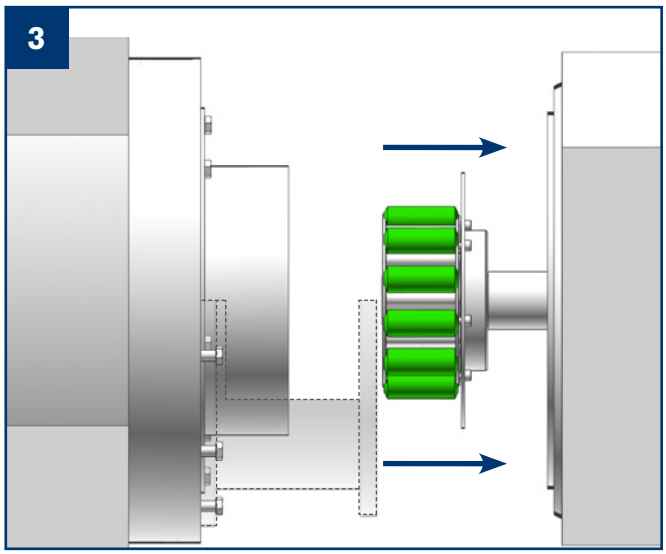
TNR Size [D]	120	160	200	260	320	400	500	640	XX
TNR x.1	0,5	0,5	0,75	0,75	1	1	1,25	2,25	On request!
TNR x.2		0,5	0,5	0,75	0,75	1	1	1,25	

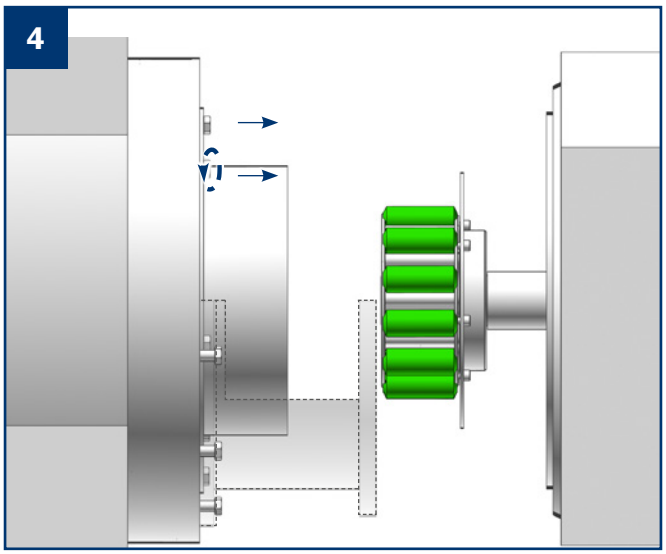
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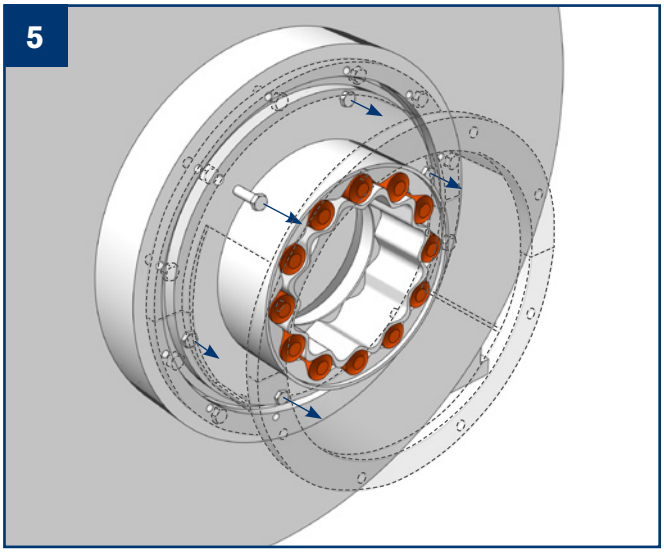

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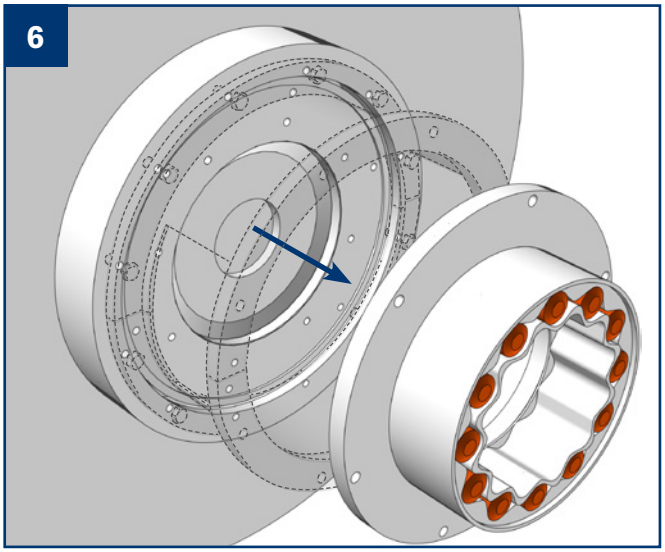

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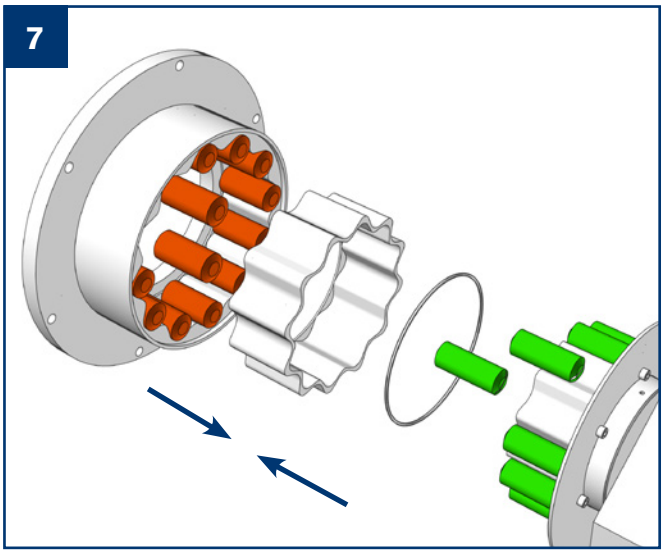
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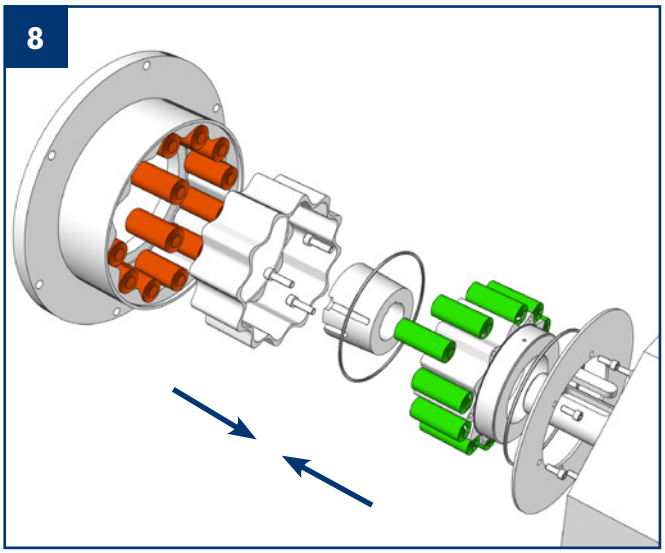
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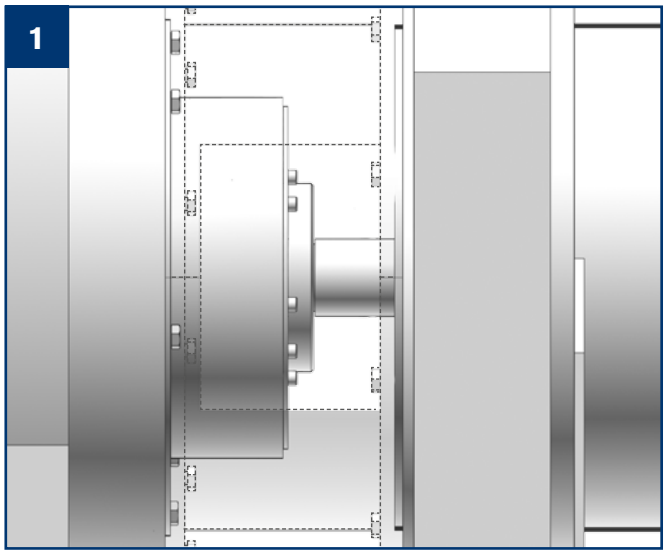
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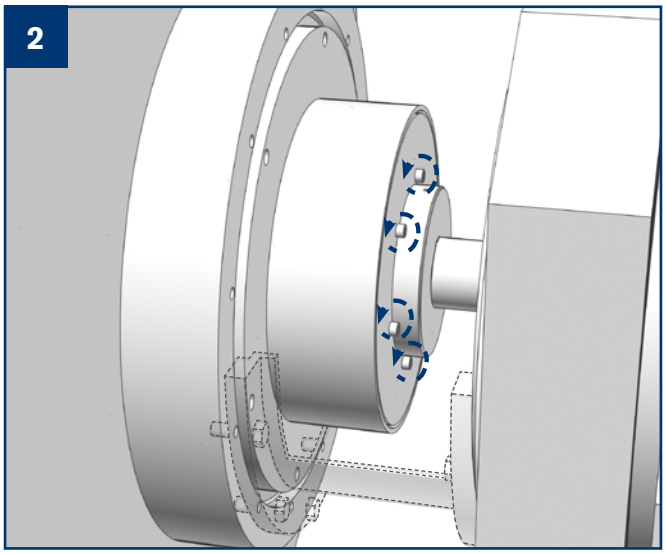
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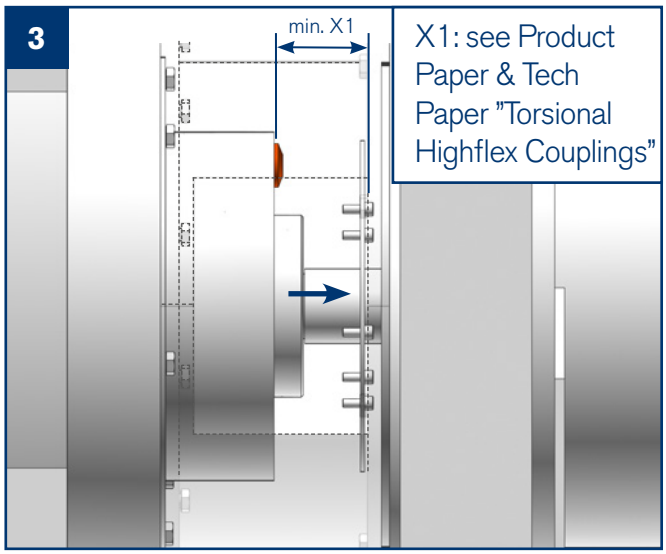
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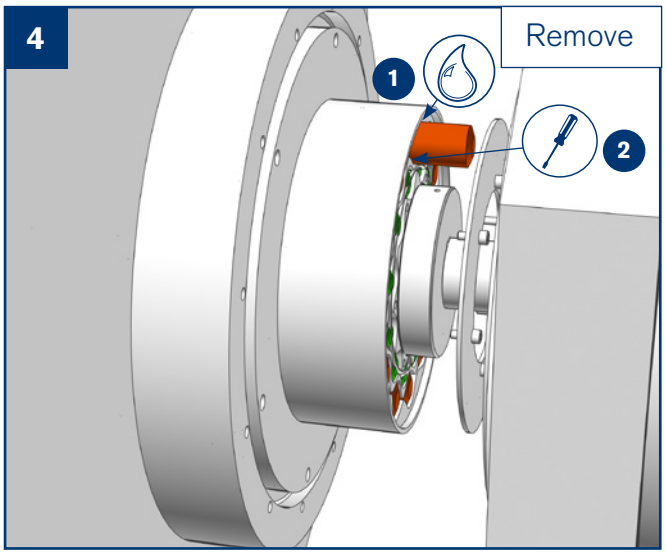


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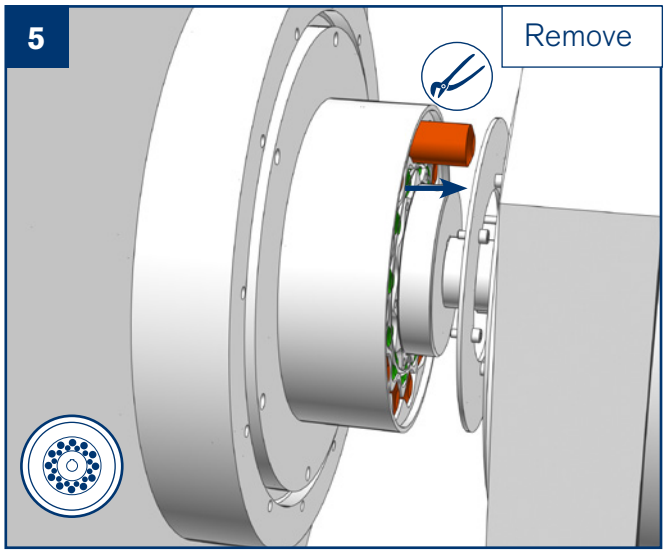


X1: see Product Paper & Tech Paper "Torsional Highflex Couplings"

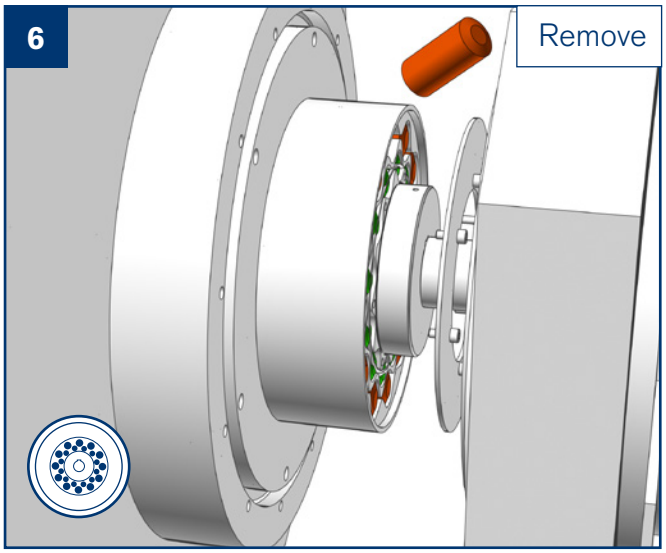
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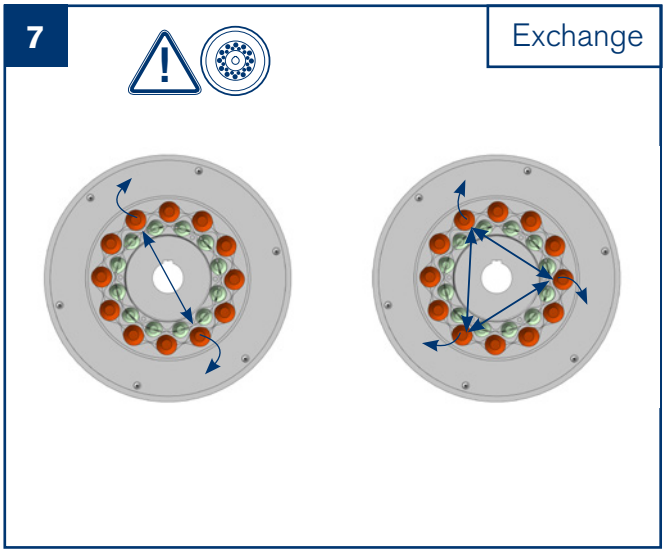
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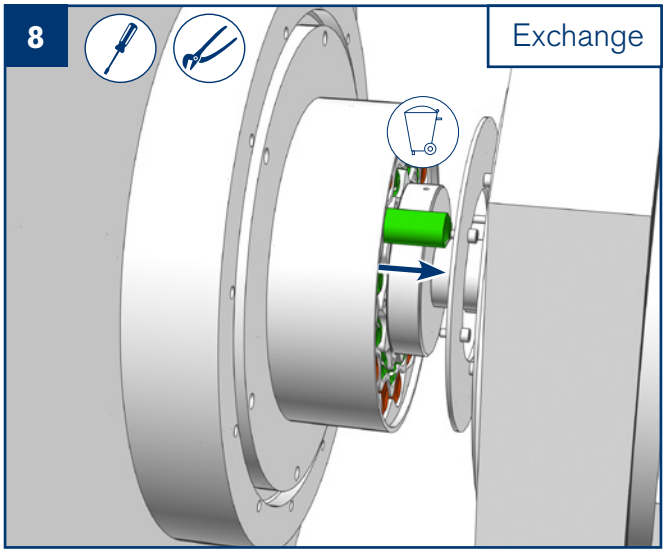
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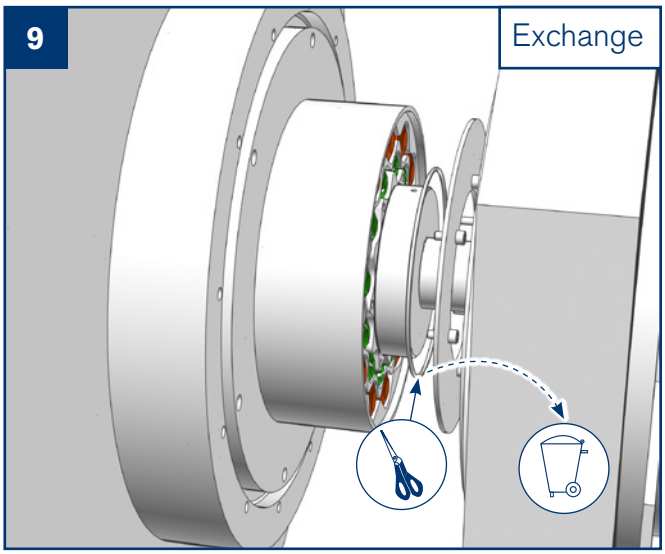
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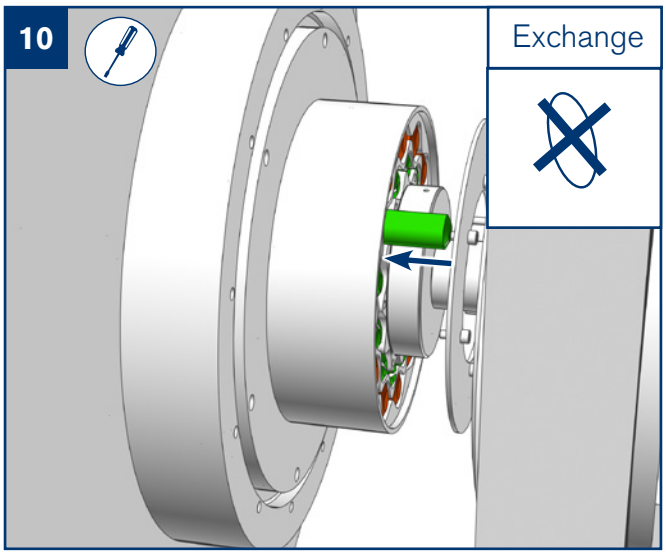
8 Exchange



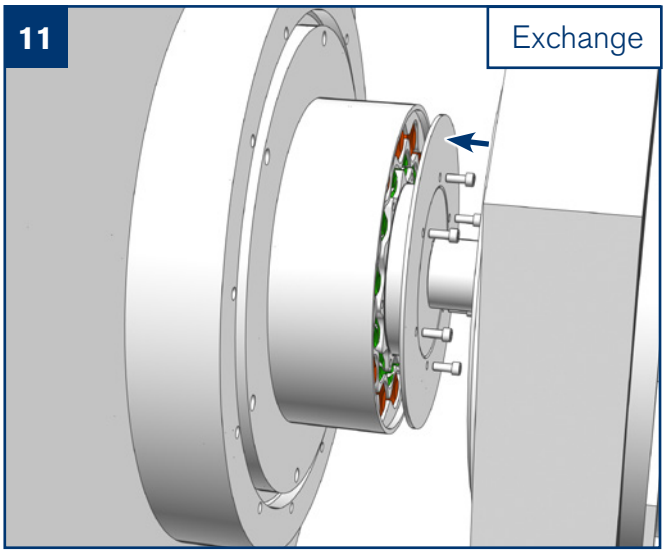
9 Exchange



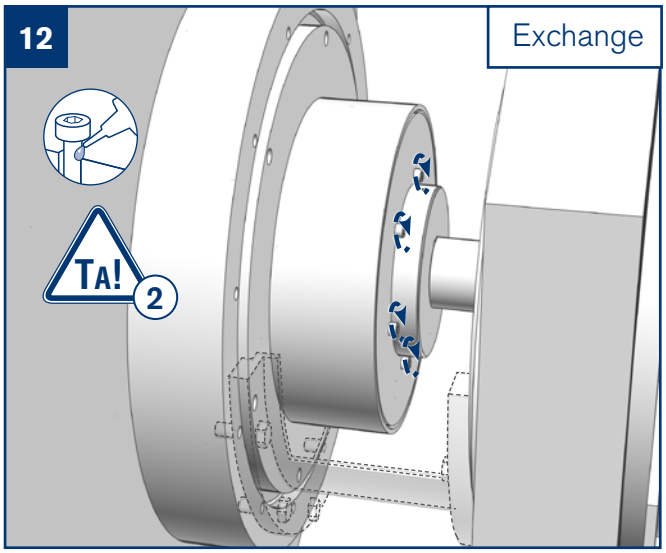
10 Exchange



11 Exchange



12 Exchange



RINGFEDER POWER TRANSMISSION GMBH
Werner-Heisenberg-Straße 18, D-64823 Groß-Umstadt, Germany · Phone: +49 (0) 6078 9385-0 · Fax: +49 (0) 6078 9385-100
E-mail: sales.international@ringfeder.com

RINGFEDER POWER TRANSMISSION TSCHAN GMBH
Zweibrücker Straße 104, D-66538 Neunkirchen, Germany · Phone: +49 (0) 6821 866-0 · Fax: +49 (0) 6821 866-4111
E-mail: sales.tschan@ringfeder.com

RINGFEDER POWER TRANSMISSION USA CORPORATION
165 Carver Avenue, Westwood, NJ 07675, USA · Toll Free: +1 888 746-4333 · Phone: +1 201 666 3320 · Fax: +1 201 664 6053
E-mail: sales.usa@ringfeder.com

HENFEL INDÚSTRIA METALÚRGICA LTDA.
Av. Major Hilário Tavares Pinheiro, 3447 · CEP 14871 300 · Jaboticabal - SP - Brazil · Phone: +55 (16) 3209-3422
E-mail: vendas@henfel.com.br

RINGFEDER POWER TRANSMISSION INDIA PRIVATE LIMITED
Plot No. 4, Door No. 220, Mount - Poonamallee Road, Kattupakkam, Chennai – 600 056, India
Phone: +91 (0) 44-2679 1411 · Fax: +91 (0) 44-2679 1422 · E-mail: sales.india@ringfeder.com

KUNSHAN RINGFEDER POWER TRANSMISSION COMPANY LIMITED
NO. 406 Jiande Road, Zhangpu 215321, Kunshan, Jiangsu Province, China
Phone: +86 (0) 512-5745-3960 · Fax: +86 (0) 512-5745-3961 · E-mail: sales.china@ringfeder.com

Your contact
Industrievertretung Miebach GmbH
Landsberger Str. 10 · 51491 Overath · Germany · Phone +49 2206 1424 · info@iv-miebach.de · www.iv-miebach.de