Industrievertretung Miebach GmbH
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Flange Couplings





RINGFEDER® TNF

EN 08.2019 | **Product Paper & Tech Paper**



Welcome


Machine Building

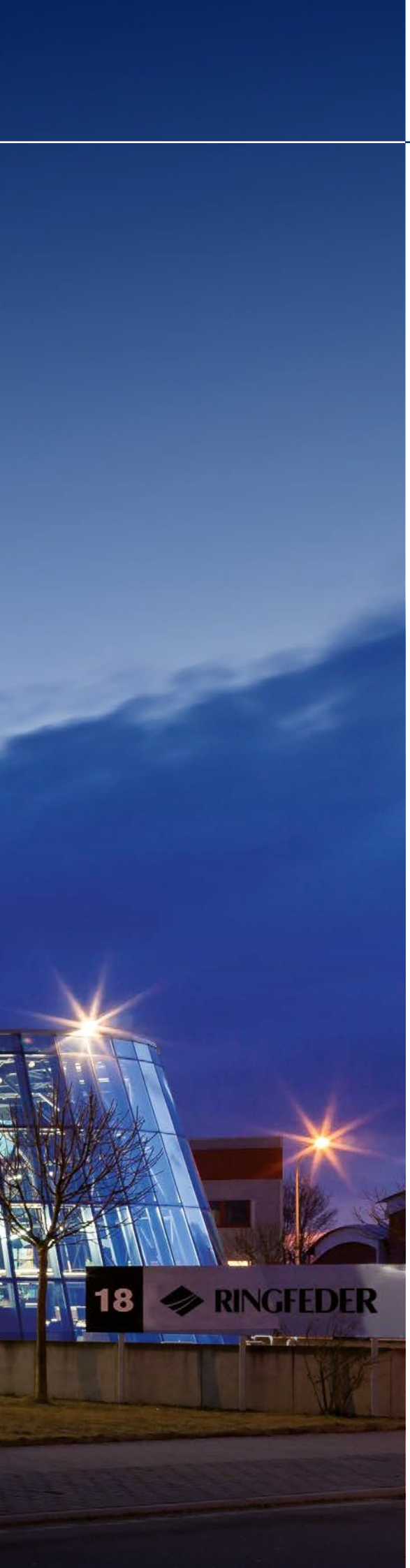

Aerospace


Process


Movement


Energy


Extraction



RINGFEDER
POWER TRANSMISSION

Your system supplier for every aspect of power transmission

We say what we mean and mean what we say.

We see things from our customers‘ perspective.

We are considerate of our employees and their families as well as of our environment and society.



RINGFEDER POWER TRANSMISSION is the global market leader in the niche markets of drive technology and is well regarded for its customer-specific, application-oriented solutions that ensure excellent and failure-free operation for its clients. We offer locking devices, damping technology and couplings for OEMs but also for the final customer under our strong brand name RINGFEDER®.

We do not only provide competent advice to our customers on the basis of our 90 years of experience but also develop innovative ideas in cooperation with them. This is part of our aspiration to be a **Partner for Performance**.

Around the power transmission we promise

- Excellent know-how for our challenging customers
- Best cost-benefit ratio
- Short reaction times and a high product availability




Know-how
Over 90 years of expertise.
Your expert partner
From development to the finished product.
Online calculation program
Always find the right solution.
On-site worldwide
We are there for you. Anytime, anywhere.
Customer
Value

Your projects are our drive

Know-how: Over 90 years of expertise.

Rely on decades of engineering expertise from the inventor of the friction spring. As an expert in drive and damping technology, we are your reliable partner wherever forces are at work. Be it the permanent transfer of very high torques due to non-positive or positive connections or the absorption and trapping of extreme energies to protect expensive constructions.

Your expert partner:
From development to the finished product.

We accompany you through to the successful completion of your project. Beginning with the development phase of your project, we offer our know-how and professional solutions. By working together with global market leaders and as an international supplier of outstanding products and special solutions, we are a reliable partner for you.

Online calculation program:
Always find the right solution.

In response to the complex requirements involved in the correct selection and design of the required products under practical conditions, we have developed our online calculation program. Engineers and experts are able to calculate transferable torques and other important values, taking into account various parameters. Visit our website **www.ringfeder.com!**

On-site worldwide:
We are there for you. Anytime, anywhere.

With our locations in Germany, the Czech Republic, the USA, Brazil, China and India as well as a worldwide service and partner network, we are there for you around the clock. This ensures our support for the successful completion of your projects at any time.

RINGFEDER®
Flange Couplings



Introduction

RINGFEDER® Flange Couplings are the better alternative to press fits. Neither additional components such as keyways or wedges, nor a warming of the outer section and cooling of the inner section are required. The flange coupling is simply pushed onto the shaft and fastened so it is frictionally engaged by tightening the screws in the shrink disc. They transfer torque and bending moments as well as axial and radial forces.

Maximum Safety in Explosion-Endangered Areas

RINGFEDER® Flange Couplings can of course be delivered in compliance with ATEX according to Product Directive 2014/34/EU and DIN EN ISO 80079-36:2016 if required.

Advantages

- Strong connection with high torque capacity
- Easy assembly and disassembly
- Backlash-free shaft hub connection
- High level of true running accuracy



Applications

- Mining companies
- Plant manufacturers
- Gearbox manufacturers

Version A

Shrink discs with external clamping with hexagon screws



HM Centering outside



HF Centering inside



Version B

Shrink discs with internal clamping with hexagon screws

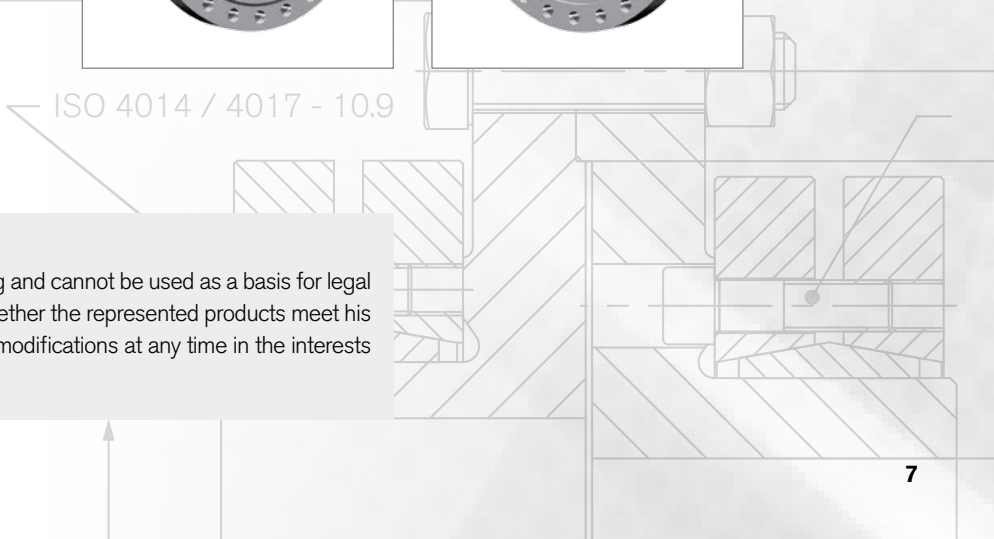


HM Centering outside



HF Centering inside





Disclaimer of liability
All technical details and notes are non-binding and cannot be used as a basis for legal claims. The user is obligated to determine whether the represented products meet his requirements. We reserve the right carry out modifications at any time in the interests of technical progress.





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Flange Couplings
RINGFEDER® TNF

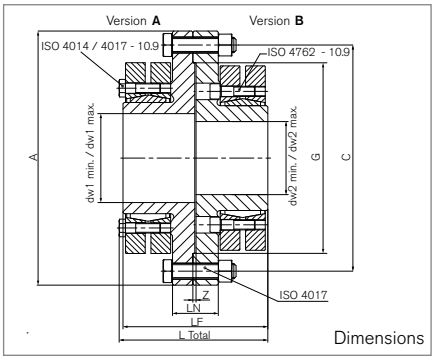
Tables & Values



Flange Couplings
RINGFEDER® TNF 5571







Size	d_{w1}	d_{w2}	A	C	G	L_F	L_N	L_{total}	Z	Transmissible torques T	Flange screws ISO 4017 n_{Sc3}	Flange screws ISO 4017 D_{G3}	Flange screws ISO 4017 T_{A3}	Shrink disc size SDD	Shrink disc screws Version-A ISO 4014/4017 - 10.9 Version-B ISO 4762 - 10.9 n_{SD}	Shrink disc screws Version-A ISO 4014/4017 - 10.9 Version-B ISO 4762 - 10.9 D_{SD}	Shrink disc screws Version-A ISO 4014/4017 - 10.9 Version-B ISO 4762 - 10.9 T_A	Gw
	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm	pcs.	mm	Nm	mm	pcs.	mm	Nm	kg
075	70	70	240	210	170	136	44	147	4	6980	6	16	210	100x170	12	8	30	26
	75	75								7600				100x170	12	8	30	
	80	80								9100				100x170	12	8	30	
090	70	70	305	265	215	160	48	169	5	6980	6	20	420	100x170	12	8	30	48
	75	75								7600				100x170	12	8	30	
	80	80								9100				100x170	12	8	30	
	>80	>80								9250				125x215	12	10	59	
	90	90								13100				125x215	12	10	59	
	100	100								17850				125x215	12	10	59	
100	90	90	340	286	230	190	56	197	5	13700	5	24	720	130x215	12	10	59	63
	95	95								15800				130x215	12	10	59	
	100	100								18200				130x215	12	10	59	
	>100	>100								17550				140x230	10	12	100	
	110	110								22900				140x230	10	12	100	
	115	115								25830				140x230	10	12	100	
120	95	95	400	356	300	228	72	240	5	15100	8	24	720	140x230	10	12	100	120
	105	105								20000				140x230	10	12	100	
	115	115								25850				140x230	10	12	100	
	>115	>115								31450				165x290	8	16	250	
	125	125								39400				165x290	8	16	250	
	135	135								49450				165x290	8	16	250	
130	115	115	400	356	300	228	72	240	5	31450	8	24	720	165x290	8	16	250	120
	125	125								39400				165x290	8	16	250	
	135	135								49450				165x290	8	16	250	
	>135	>135								45500				175x300	8	16	250	
	137,5	137,5								47550				175x300	8	16	250	
	140	140								49700				175x300	8	16	250	

To continue see next page

Flange Couplings RINGFEDER® TNF 5571

Size	d_{w1}	d_{w2}	A	C	G	L_F	L_N	L_{total}	Z	Transmissible torques T	Flange screws ISO 4017 n_{Sc3}	Flange screws ISO 4017 D_{G3}	Flange screws ISO 4017 T_{A3}	Shrink disc size SDD	Shrink disc screws Version-A ISO 4014/4017 - 10.9 Version-B ISO 4762 - 10.9 n_{SD}	Shrink disc screws Version-A ISO 4014/4017 - 10.9 Version-B ISO 4762 - 10.9 D_{SD}	Shrink disc screws Version-A ISO 4014/4017 - 10.9 Version-B ISO 4762 - 10.9 T_A	Gw
	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm	pcs.	mm	Nm	mm	pcs.	mm	Nm	kg
150	125	125	475	420	350	278	90	290	6	36650	10	30	1450	175x300	8	16	250	215
	130	130								41550				175x300	8	16	250	
	140	140								49700				175x300	8	16	250	
	>140	>140								65950				195x350	12	16	250	
	150	150								77600				195x350	12	16	250	
	165	165								96900				195x350	12	16	250	
165	140	140	510	440	370	314	90	326	6	65950	14	30	1450	195x350	12	16	250	270
	150	150								77600				195x350	12	16	250	
	165	165								96900				195x350	12	16	250	
	>165	>165								103200				220x370	15	16	250	
	170	170								110650				220x370	15	16	250	
	180	180								126450				220x370	15	16	250	
180	160	160	540	475	405	322	88	339	6	96000	16	30	1450	220x370	15	16	250	310
	170	170								110650				220x370	15	16	250	
	180	180								126450				220x370	15	16	250	
	>180	>180								141450				240x405	12	20	490	
	190	190								160350				240x405	12	20	490	
	200	200								180550				240x405	12	20	490	
200	170	170	560	500	430	368	110	383	8	123800	16	30	1450	240x405	12	20	490	395
	185	185								150750				240x405	12	20	490	
	200	200								180550				240x405	12	20	490	
	>200	>200								190250				260x430	14	20	490	
	210	210								212900				260x430	14	20	490	
	220	220								236850				260x430	14	20	490	
220	190	190	590	530	460	392	104	407	8	169000	18	30	1450	260x430	14	20	490	445
	205	205								201400				260x430	14	20	490	
	220	220								236850				260x430	14	20	490	
	>220	>220								246450				280x460	16	20	490	
	230	230								272850				280x460	16	20	490	
	240	240								300700				280x460	16	20	490	
240	210	210	615	555	485	408	104	423	8	221450	20	30	1450	280x460	16	20	490	500
	225	225								259450				280x460	16	20	490	
	240	240								300700				280x460	16	20	490	
	>240	>240								310550				300x485	18	20	490	
	250	250								340750				300x485	18	20	490	
	260	260								370700				300x485	18	20	490	
260	230	230	710	640	570	450	118	465	8	281850	24	30	1450	300x485	18	20	490	780
	245	245								325450				300x485	18	20	490	
	260	260								370700				300x485	18	20	490	
	>260	>260								425800				340x570	24	20	490	
	275	275								483200				340x570	24	20	490	
	290	290								544550				340x570	24	20	490	
290	230	230	720	660	590	450	106	465	8	326000	24	30	1450	340x570	24	20	490	790
	260	260								425800				340x570	24	20	490	
	290	290								544550				340x570	24	20	490	
	>290	>290								505800				360x590	24	20	490	
	305	305								566900				360x590	24	20	490	
	320	320								569800				360x590	24	20	490	

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Size	d_{w1}	d_{w2}	A	C	G	L_F	L_N	L_{total}	Z	Transmissible torques T	Flange screws ISO 4017 n_{Sc3}	Flange screws ISO 4017 D_{G3}	Flange screws ISO 4017 T_{A3}	Shrink disc size SDD	Shrink disc screws Version-A ISO 4014/4017 - 10.9 Version-B ISO 4762 - 10.9 n_{SD}	Shrink disc screws Version-A ISO 4014/4017 - 10.9 Version-B ISO 4762 - 10.9 D_{SD}	Shrink disc screws Version-A ISO 4014/4017 - 10.9 Version-B ISO 4762 - 10.9 T_A	Gw
	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm	pcs.	mm	Nm	mm	pcs.	mm	Nm	kg
310	280	280	805	735	660	484	114	490	8	467100	28	30	1450	360x590	24	20	490	1060
	300	300								546100				360x590	24	20	490	
	320	320								629900				360x590	24	20	490	
	>320	>320								719550				390x660	21	24	840	
	330	330								740000				390x660	21	24	840	
	340	340								740000				390x660	21	24	840	
340	300	300	835	770	690	528	122	538	10	626200	30	30	1450	390x660	21	24	840	1230
	320	320								719550				390x660	21	24	840	
	340	340								823800				390x660	21	24	840	
	>340	>340								830950				420x690	24	24	840	
	350	350								830950				420x690	24	24	840	
	360	360								830950				420x690	24	24	840	
380	330	330	920	845	770	556	128	574	10	803900	35	30	1450	420x690	24	24	840	1420
	345	345								887950				420x690	24	24	840	
	360	360								976450				420x690	24	24	840	
	>360	>360								1022500				460x770	28	24	840	
	375	375								1050000				460x770	28	24	840	
	390	390								1050000				460x770	28	24	840	
410	360	360	1030	940	850	618	156	628	12	1022500	32	36	2400	460x770	28	24	840	2200
	375	375								1119450				460x770	28	24	840	
	390	390								1221000				460x770	28	24	840	
	>390	>390								1238150				500x850	24	27	1250	
	410	410								1346650				500x850	24	27	1250	
	430	430								1530600				500x850	24	27	1250	
440	400	400	1100	1000	900	696	160	694	14	1309350	36	36	2400	500x850	24	27	1250	2680
	415	415								1414300				500x850	24	27	1250	
	430	430								1530600				500x850	24	27	1250	
	>430	>430								1788450				530x900	30	27	1250	
	445	445								1884500				530x900	30	27	1250	
	460	460								1884500				530x900	30	27	1250	
470	430	430	1180	1080	980	744	164	748	14	1788450	40	36	2400	530x900	30	27	1250	3340
	445	445								1929000				530x900	30	27	1250	
	460	460								2075350				530x900	30	27	1250	
	>460	>460								2198000				590x980	36	27	1250	
	480	480								2261400				590x980	36	27	1250	
	500	500								2261400				590x980	36	27	1250	
500	470	470	1210	1110	1020	744	164	748	14	2304000	42	36	2400	590x980	36	27	1250	3620
	485	485								2440400				590x980	36	27	1250	
	500	500								2440400				590x980	36	27	1250	
	>500	>500								2440400				620x1020	38	27	1250	
	520	520								2440400				620x1020	38	27	1250	
	540	540								2440400				620x1020	38	27	1250	

Surface finishes
For Shaft $R_a \leq 3{,}2$ µm

Tolerances
For shaft see table on the next page

To continue see next page

Flange Couplings RINGFEDER® TNF 5571

Table clearance

d_w above	d_w up to	ISO	Max. clearance S mm
6	10	H6/j6	0,011
10	18		0,014
18	30		0,017
30	50	H6/h6	0,032
50	80	H6/g6	0,048
80	120	H7/g6	0,069
120	180		0,079
180	250		0,090
250	315		0,101
315	400		0,111
400	500		0,123
500	630		0,136
630	800		0,154

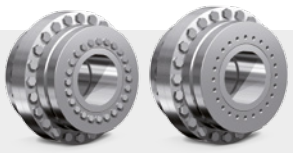
Clearances considered for the calculation of the function values

Explanation

d_{w1} = Solid shaft diameter
d_{w2} = Solid shaft diameter
A = Max. outer diameter
C = Pitch circle diameter
G = Center diameter
L_F = Total length of the mated flanges (HM+HF)
L_N = Flange width
L_{total} = Total length (several parts)
Z = Depth of center value
T = Transmissible torque at given T_A
n_{Sc3} = Quantity of screws at each flange
D_{G3} = Thread
T_{A3} = Tightening torque of the screw D_{G3}
SDD = Shrink disc size
n_{SD} = Quantity of screws (Shrink Disc)
D_{SD} = Diameter of screws (Shrink Disc)
T_A = Max tightened torque of the clamping screws
Gw = Weight

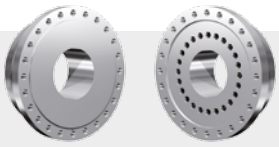
Ordering example

Series	Size	Version	d_{w1}	d_{w2}	Further details
TNF 5571	600	A	480	510	-



Series	Size	Version	d_{w1}	Further details
TNF 5571	600	B	480	HF

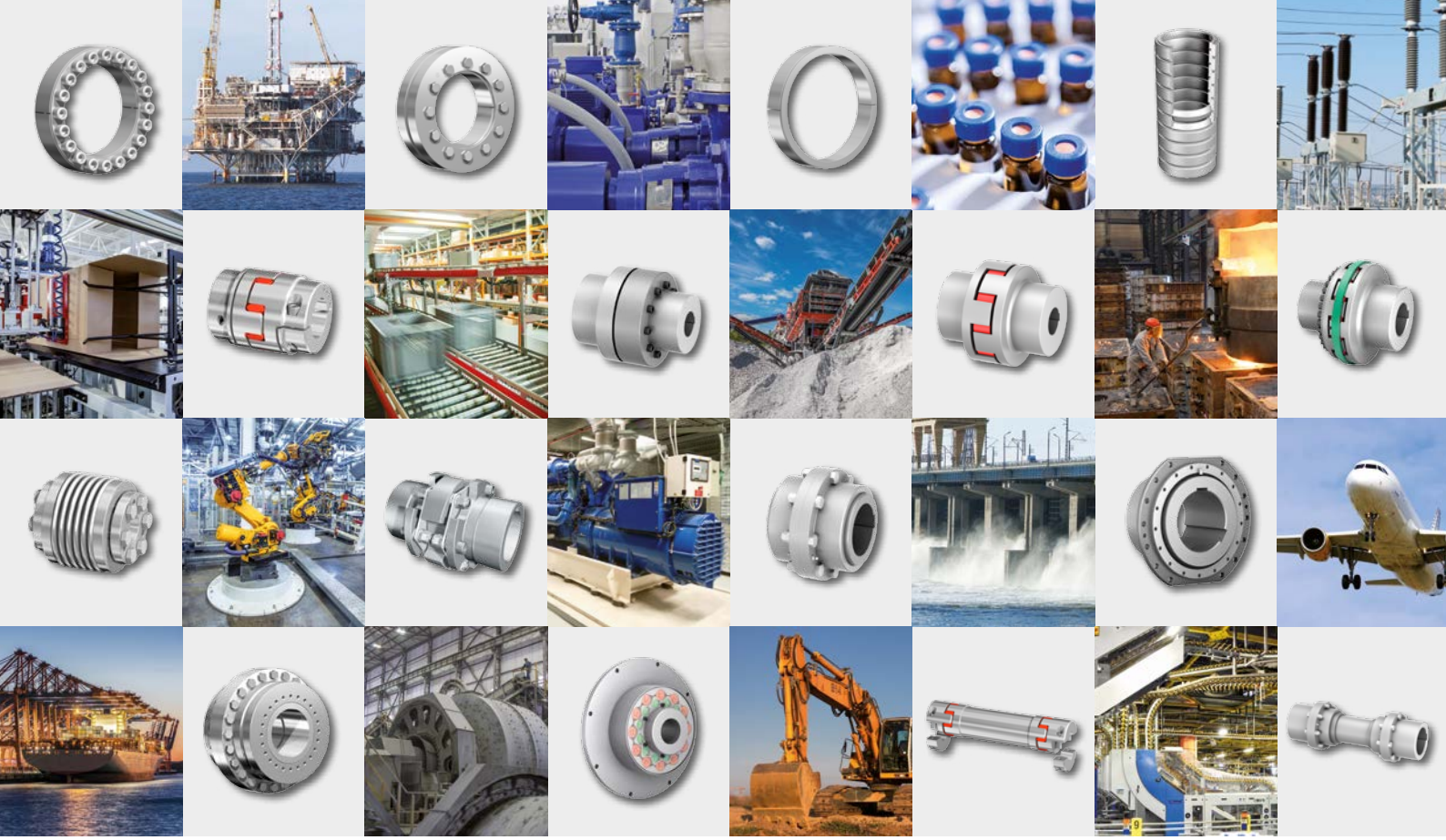
HM = Centering outside
HF = Centering inside



Further information on
RINGFEDER® TNF 5571
on **www.ringfeder.com**

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