

US
05|2016



Safety Couplings Series TNT



Partner for Performance
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Welcome to your system supplier for every aspect of power transmission



RINGFEDER POWER TRANSMISSION

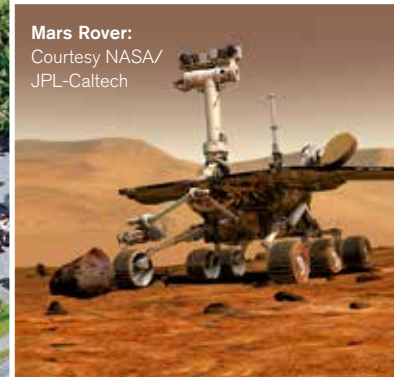
- We say what we mean and mean what we say.
- We see things from our customers' perspective.
- We are considerate of our employees and their families as well as our environment and the society.

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.





Mars Rover:
Courtesy NASA/
JPL-Caltech



We offer locking devices, couplings, bearing housings and damping technology for OEMs but also for the final customer under our strong brand names RINGFEDER, TSCHAN, HENFEL and GERWAH. Our brand ECOLOC supplies reliable products off the shelf.

We 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

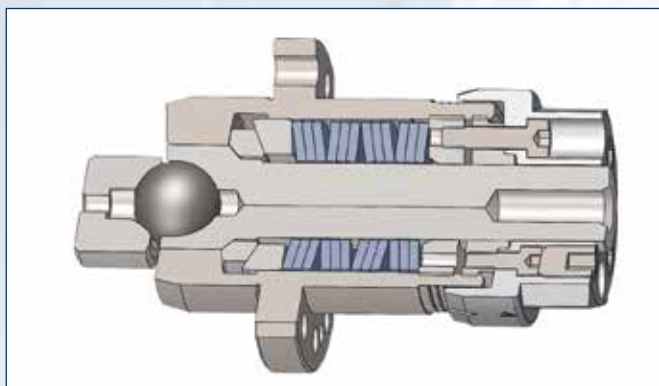




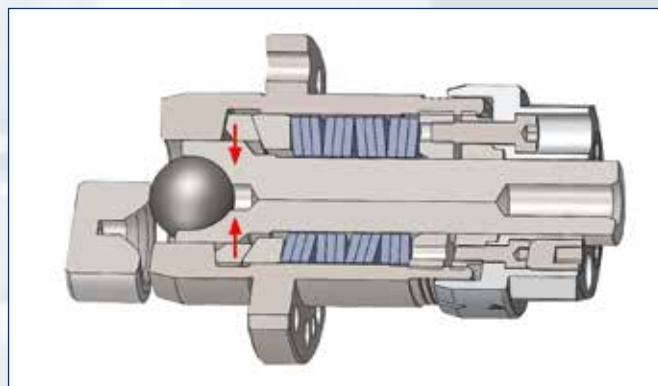
For highest demands

For highest demands in heavy duty industries
TSCHAN® Safety Couplings Series TNT

Functional principle of a switching unit



Engaged



Disengaged

Characteristics

- Flexible design
- Fast separation of the coupling halves in the event of overload
- Disengagement torque can be set exactly
- Units can be set without dismantling
- Simple and fast latching following overload through marking
- Evaluation of axial movement possible by proximity switch or mechanical limit switch
- Reconciliation of shaft misalignment
- Simple operation
- Good precision of disengagement recurrences after long standstill periods



Applications



Applications



Applications in heavy duty industries

- Excavator
- Extruders
- Industrial shredders
- Industrial conveyors
- Levellers
- Marine propulsion
- Rolling mills
- Steel plants
- Shovel excavators
- Test stands
- Tunnel boring machines
- Turntable and slew ring drives
- Turbine construction
- Wastewater treatment

TSCHAN® Safety Couplings Series TNT

TSCHAN® heavy load couplings in the TNT series are specially designed for overload protection in the heavy load industry. The heart of the couplings is in the standardised switching units, up to twelve of which are located around the circumference of the coupling. This achieves great flexibility with regard to disengagement torque, execution and coupling size.

Functionality

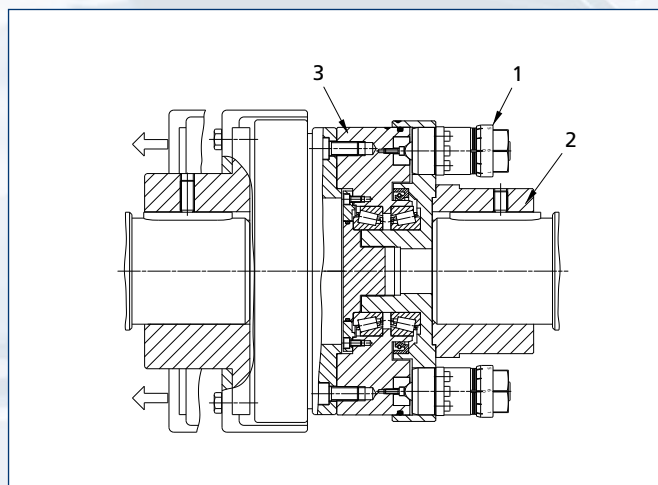
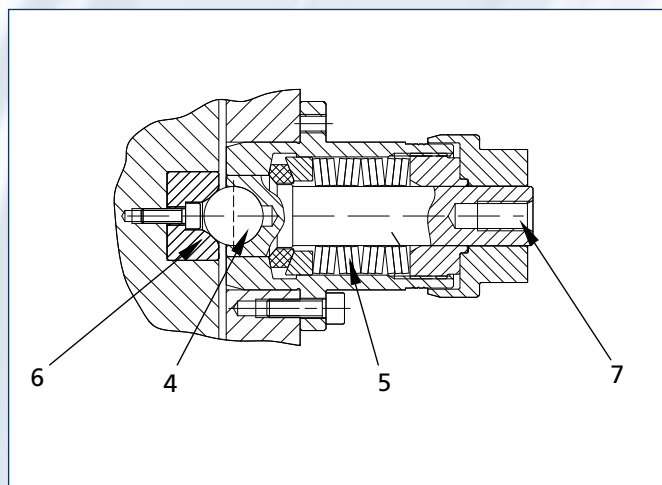
The switching units (1) create the connection and the torque transmission between the drive side (2) and the output end (3) of the coupling. To do this, steel balls (4) are pressed by spring force (5) into a conical resting position (6). If the axial force that is created in the event of overload exceeds the disengagement torque set on the switching units then the steel balls come out of their resting position and cause a constant activation or a separation of the two halves of the coupling. In this condition the coupling is disengaged and free running of the coupling is ensured.

After disengagement the coupling can be returned to its operating condition by striking the pressure pin (7) with a rubber or plastic hammer. It is possible to adjust the disengagement torque in each setting range. We would be pleased to send you our setting chart on request.

Mechanical limit switch

The TNT series can also be adapted with an optional dial and mechanical limit switch on the motor side. These switch signals can be used to switch off the drive and send out an acoustical or optical signal at the same time.

The great flexibility of TSCHAN® TNT heavy load couplings means that solutions can also be carried out beyond standard products.





Series **TNT 2420**

Flange-hub and keyway-hub

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For connection shaft and drive components, such as gear or pulley.



Series **TNT 2425**

Flexible coupling with keyway-hubs

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The elastic elements can be dismounted radially without displacement of the motor and the driven shafts.



Series **TNT 2424**

Rigid disc coupling with keyway-hubs

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The whole coupling and the torque limiter can be dismounted without displacement of the motor, driven shaft and of the hubs.

Flange-hub and keyway-hub

Dimensions

n_M	=	Number of modules
MO	=	Modul version
d_{1kmin}	=	Min. bore diameter with keyway acc. to DIN 6885-1
d_{1kmax}	=	Max. bore diameter with keyway acc. to DIN 6885-1
A	=	Max. outer diameter
A_K	=	Outer contour
B_F	=	Available depth
C	=	Pitch circle diameter
C_M	=	Pitch circle diameter of module range
d_F	=	Center diameter
D₁	=	Outer diameter hub
n_{G1}	=	Quantity of threads G1
D_{G1}	=	Thread
T_{G1}	=	Depth of thread G1
L	=	Overall length
L₆	=	Length of basic part
L_K	=	Length of coupling hub
L_M	=	Protruding module length
L_{SR}	=	Outer length shift ring
S	=	Disengagement travel



Dimensions

Size	n _M	MO	d _{1kmin}	d _{1kmax}	A	A _K	B _F	C	C _M	d _F	D ₁	n _{G1}	D _{G1}	T _{G1}	L	L ₆	L _K	L _M	L _{SR}	S
	pcs.		inch	inch	inch	inch	inch	inch	inch	inch	inch	pcs.	mm	inch	inch					
058-090	4	a	0.984	3.543	7.874	7.480	0.177	6.378	6.063	4.331	4.724	12	12	0.945	7.087	3.622	4.016	2.480	1.575	0.157
058-090	4	b	0.984	3.543	7.874	7.480	0.177	6.378	6.063	4.331	4.724	12	12	0.945	7.087	3.622	4.016	2.480	1.575	0.157
058-090	4	c	0.984	3.543	7.874	7.480	0.177	6.378	6.063	4.331	4.724	12	12	0.945	7.087	3.622	4.016	2.480	1.575	0.157
110-120	3	a	1.575	4.724	9.528	9.213	0.217	7.874	7.638	5.512	6.496	12	12	0.945	7.874	4.685	4.567	2.480	1.575	0.157
110-120	3	b	1.575	4.724	9.528	9.213	0.217	7.874	7.638	5.512	6.496	12	12	0.945	7.874	4.685	4.567	2.480	1.575	0.157
110-120	6	a	1.575	4.724	9.528	9.213	0.217	7.874	7.638	5.512	6.496	12	12	0.945	7.874	4.685	4.567	2.480	1.575	0.157
227-160	3	a	2.165	6.299	12.283	11.811	0.217	9.843	10.472	6.693	8.425	12	12	1.260	9.646	6.142	6.024	2.480	1.772	0.157
227-160	3	b	2.165	6.299	12.283	11.811	0.217	9.843	10.472	6.693	8.425	12	16	1.260	9.646	6.142	6.024	2.480	1.772	0.157
227-160	6	a	2.165	6.299	12.283	11.811	0.217	9.843	10.472	6.693	8.425	12	16	1.260	9.646	6.142	6.024	2.480	1.772	0.157
227-160	9	a	2.165	6.299	12.283	11.811	0.217	9.843	10.472	6.693	8.425	12	16	1.260	9.646	6.142	6.024	2.480	1.772	0.157
424-200	3	a	2.756	7.874	16.535	16.142	0.256	13.150	14.646	7.874	10.315	12	20	1.339	11.496	7.717	7.598	2.480	1.772	0.157
424-200	3	b	2.756	7.874	16.535	16.142	0.256	13.150	14.646	7.874	10.315	12	20	1.339	11.496	7.717	7.598	2.480	1.772	0.157
424-200	6	a	2.756	7.874	16.535	16.142	0.256	13.150	14.646	7.874	10.315	12	20	1.339	11.496	7.717	7.598	2.480	1.772	0.157
424-200	9	a	2.756	7.874	16.535	16.142	0.256	13.150	14.646	7.874	10.315	12	20	1.339	11.496	7.717	7.598	2.480	1.772	0.157
424-200	12	a	2.756	7.874	16.535	16.142	0.256	13.150	14.646	7.874	10.315	12	20	1.339	11.496	7.717	7.598	2.480	1.772	0.157

Ordering example: TNT 2420

Type	Size	d ₁	ft-lbs	MO	n _M	Further details
TNT 2420	058-090	0.984	1230	a	4	*

* Switch disc optional

T_{KNmin} = Min. adjustment value for transmissible torque
 T_{KNmax} = Max. adjustment value for transmissible torque
 n_{max} = Max. rotation speed
 G_w = Weight

	Size	T _{KNmin}	T _{KNmax}	n _{max}	G _w
		ft-lbs	ft-lbs	rpm	lbs
	058-090	494	1438	3000	88
	058-090	996	2877	3000	88
	058-090	1475	4278	3000	88
	110-120	472	1365	2700	106
	110-120	1365	4057	2700	106
	110-120	2840	8113	2700	106
	227-160	649	1918	2300	209
	227-160	1918	5569	2300	209
	227-160	3909	11211	2300	209
	227-160	5827	16743	2300	209
	424-200	885	2618	1900	397
	424-200	2618	7818	1900	397
	424-200	5421	15636	1900	397
	424-200	8113	23455	1900	397
	424-200	10842	31273	1900	397

Flexible coupling with keyway-hubs

Dimensions

n_M	= Number of modules
MO	= Modul version
$d_{1k,2kmin}$	= Min. bore diameter with keyway acc. to DIN 6885-1
$d_{1k,2kmax}$	= Max. bore diameter with keyway acc. to DIN 6885-1
A	= Max. outer diameter
C_M	= Pitch circle diameter of module range
D_1	= Outer diameter hub
D_2	= Outer diameter hub
D_4	= Outer diameter hub
L_{total}	= Total length (several parts)
L	= Overall length
L_6	= Length of basic part
L_K	= Length of coupling hub
L_M	= Protruding module length
L_{SR}	= Outer length shifting ring
S	= Disengagement travel
X	= Overhanging length
H_{es}	= Hardness of the elastomeric spider



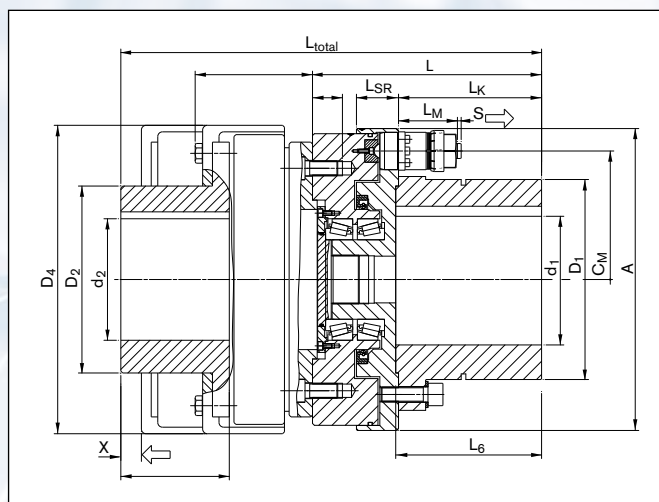
Dimensions

Size	n_M	MO	d_{1kmin}	d_{1kmax}	d_{2kmin}	d_{2kmax}	A	C_M	D_1	D_2	D_4	L_{total}	L	L_6	L_K	L_M	L_{SR}	S	X	H_{es}	
	pcs.		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					-	inch		
058-085	4	a	0.984	3.543	1.181	3.346	7.874	6.063	4.724	5.118	8.780	12.717	7.087	3.622	4.016	2.480	1.575	0.157	0.551	78 SH A	
058-085	4	b	0.984	3.543	1.181	3.346	7.874	6.063	4.724	5.118	8.780	12.717	7.087	3.622	4.016	2.480	1.575	0.157	0.551	78 SH A	
058-085	4	c	0.984	3.543	1.181	3.346	7.874	6.063	4.724	5.118	8.780	13.898	7.087	3.622	4.016	2.480	1.575	0.157	0.551	78 SH A	
058-100	4	a	0.984	3.543	1.575	3.937	7.874	6.063	4.724	5.709	9.921	13.346	7.087	3.622	4.016	2.480	1.575	0.157	0.709	78 SH A	
058-100	4	b	0.984	3.543	1.575	3.937	7.874	6.063	4.724	5.709	9.921	13.346	7.087	3.622	4.016	2.480	1.575	0.157	0.709	78 SH A	
058-100	4	c	0.984	3.543	1.575	3.937	7.874	6.063	4.724	5.709	9.921	13.346	7.087	3.622	4.016	2.480	1.575	0.157	0.709	78 SH A	
110-120	3	a	1.575	4.724	1.969	4.724	9.528	7.638	6.496	6.299	11.417	14.882	7.874	4.685	4.567	2.480	1.575	0.157	0.866	78 SH A	
110-120	3	b	1.575	4.724	1.969	4.724	9.528	7.638	6.496	6.299	7.480	14.882	7.874	4.685	4.567	2.480	1.575	0.157	0.866	78 SH A	
110-120	6	a	1.575	4.724	1.969	4.724	9.528	7.638	6.496	6.299	11.417	14.882	7.874	4.685	4.567	2.480	1.575	0.157	0.866	78 SH A	
227-140	3	a	2.165	6.299	2.362	5.512	12.283	10.472	8.425	7.874	12.992	17.717	9.646	6.142	6.024	2.480	1.772	0.157	1.024	78 SH A	
227-140	3	b	2.165	6.299	2.362	5.512	12.283	10.472	8.425	7.874	12.992	17.717	9.646	6.142	6.142	2.480	1.772	0.157	1.024	78 SH A	
227-140	6	a	2.165	6.299	2.362	5.512	12.283	10.472	8.425	7.874	12.992	17.717	9.646	6.142	6.024	2.480	1.772	0.157	1.024	78 SH A	
227-140	9	a	2.165	6.299	2.362	5.512	12.283	10.472	8.425	7.874	12.992	17.717	9.646	6.142	6.024	2.480	1.772	0.157	1.024	78 SH A	

Ordering example: TNT 2425

Type	Size	d_1	d_2	ft-lbs	MO	n_M	Further details
TNT 2425	058-085	0.984	1.181	1230	b	4	*

* Switch disc optional



Sectional view

Technical Data

- T_{KNmin} = Min. adjustment value for transmissible torque
- T_{KNmax} = Max. adjustment value for transmissible torque
- n_{max} = Max. rotation speed
- T_{max} = Max. transmissible torque
- ΔK_a = Max. permissible axial misalignment
- ΔK_w = Max. permissible angular misalignment
- ΔK_r = Max. permissible radial misalignment
- G_w = Weight

Technical Data

	Size	T_{KNmin} ft-lbs	T_{KNmax} ft-lbs	n_{max} rpm	T_{max} ft-lbs	ΔK_a inch	ΔK_w degree	ΔK_r inch	G_w lbs
	058-085	494	1438	3000	3245	0.055	1.8	0.039	126
	058-085	996	2877	3000	3245	0.055	1.8	0.039	126
	058-085	1475	4278	3000	3245	0.055	1.8	0.039	126
	058-100	494	1438	3000	4278	0.063	2.0	0.047	152
	058-100	996	2877	3000	4278	0.063	2.0	0.047	152
	058-100	1475	4278	3000	4278	0.063	2.0	0.047	152
	110-120	472	1365	2700	8408	0.063	2.3	0.059	216
	110-120	1365	4057	2700	8408	0.063	2.3	0.059	216
	110-120	2840	8113	2700	8408	0.063	2.3	0.059	216
	227-140	649	1918	2300	12539	0.059	2.5	0.059	331
	227-140	1918	5569	2300	12539	0.059	2.5	0.059	331
	227-140	3909	11211	2300	12539	0.059	2.5	0.059	331
	227-140	5827	16743	2300	12539	0.059	2.5	0.059	331

Further sizes see next page

Flexible coupling with keyway-hubs

Dimensions

n_M	= Number of modules
MO	= Modul version
$d_{1k,2kmin}$	= Min. bore diameter with keyway acc. to DIN 6885-1
$d_{1k,2kmax}$	= Max. bore diameter with keyway acc. to DIN 6885-1
A	= Max. outer diameter
C_M	= Pitch circle diameter of module range
D_1	= Outer diameter hub
D_2	= Outer diameter hub
D_4	= Outer diameter hub
L_{total}	= Total length (several parts)
L	= Overall length
L_6	= Length of basic part
L_K	= Length of coupling hub
L_M	= Protruding module length
L_{SR}	= Outer length shift ring
S	= Disengagement travel
X	= Overhanging length
H_{es}	= Hardness of the elastomeric spider



Dimensions

Size	n_M	MO	d_{1kmin}	d_{1kmax}	d_{2kmin}	d_{2kmax}	A	C_M	D_1	D_2	D_4	L_{total}	L	L_6	L_K	L_M	L_{SR}	S	X	H_{es}	
	pcs.		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					-	inch		
227-160	3	a	2.165	6.299	2.362	6.299	12.283	10.472	8.425	8.858	14.882	18.701	9.646	6.142	6.024	2.480	1.772	0.157	1.142	78 SH A	
227-160	3	b	2.165	6.299	2.362	6.299	12.283	10.472	8.425	8.858	14.882	18.701	9.646	6.142	6.024	2.480	1.772	0.157	1.142	78 SH A	
227-160	6	a	2.165	6.299	2.362	6.299	12.283	10.472	8.425	8.858	14.882	18.701	9.646	6.142	6.024	2.480	1.772	0.157	1.142	78 SH A	
227-160	9	a	2.165	6.299	2.362	6.299	12.283	10.472	8.425	8.858	14.882	18.701	9.646	6.142	6.024	2.480	1.772	0.157	1.142	78 SH A	
424-180	3	a	2.756	7.874	3.150	7.087	16.535	14.646	10.315	10.039	17.008	21.732	11.496	7.717	7.598	2.480	1.772	0.157	1.575	78 SH A	
424-180	3	b	2.756	7.874	3.150	7.087	16.535	14.646	10.315	10.039	17.008	21.732	11.496	7.717	7.598	2.480	1.772	0.157	1.575	78 SH A	
424-180	6	a	2.756	7.874	3.150	7.087	16.535	14.646	10.315	10.039	17.008	21.732	11.496	7.717	7.598	2.480	1.772	0.157	1.575	78 SH A	
424-180	9	a	2.756	7.874	3.150	7.087	16.535	14.646	10.315	10.039	17.008	21.732	11.496	7.717	7.598	2.480	1.772	0.157	1.575	78 SH A	
424-180	12	a	2.756	7.874	3.150	7.087	16.535	14.646	10.315	10.039	17.008	21.732	11.496	7.717	7.598	2.441	1.772	0.157	1.575	78 SH A	
424-200	3	a	2.756	7.874	3.543	7.874*	16.535	14.646	10.315	10.827	19.094	25.669	11.496	7.717	7.598	2.480	1.772	0.157	2.362	78 SH A	
424-200	3	b	2.756	7.874	3.543	7.874*	16.535	14.646	10.315	10.827	19.094	25.669	11.496	7.717	7.598	2.480	1.772	0.157	2.362	78 SH A	
424-200	6	a	2.756	7.874	3.543	7.874*	16.535	14.646	10.315	10.827	19.094	25.669	11.496	7.717	7.598	2.480	1.772	0.157	2.362	78 SH A	
424-200	9	a	2.756	7.874	3.543	7.874*	16.535	14.646	10.315	10.827	19.094	25.669	11.496	7.717	7.598	2.480	1.772	0.157	2.362	78 SH A	
424-200	12	a	2.756	7.874	3.543	7.874*	16.535	14.646	10.315	10.827	19.094	25.669	11.496	7.717	7.598	2.480	1.772	0.157	2.362	78 SH A	

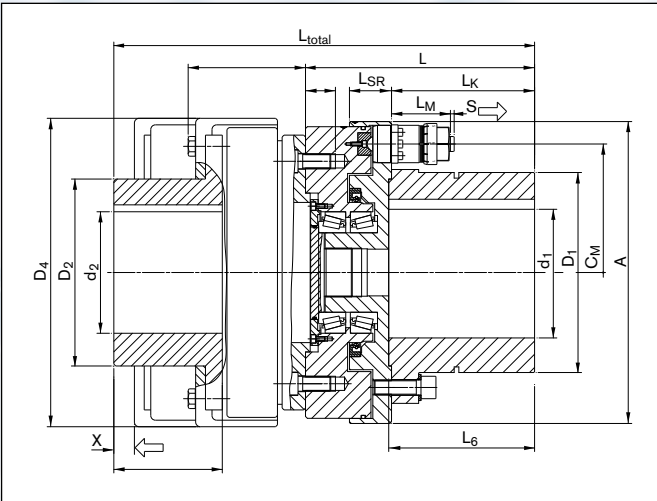
* Diameter d_{2kmax} only to 23454.47 ft-lbs disengagement.
For disengagement >23454.47 ft-lbs $d_{2kmax} = 7.48''$.

Ordering example: TNT 2425

Type	Size	d_1	d_2	ft-lbs	MO	n_M	Further details
TNT 2425	058-085	0.984	1.181	1230	b	4	*

* Switch disc optional

TSCHAN® TNT 2425



Sectional view

Technical Data

- T_{KNmin} = Min. adjustment value for transmissible torque
 T_{KNmax} = Max. adjustment value for transmissible torque
 n_{max} = Max. rotation speed
 T_{max} = Max. transmissible torque
 ΔK_a = Max. permissible axial misalignment
 ΔK_w = Max. permissible angular misalignment
 ΔK_r = Max. permissible radial misalignment
 G_w = Weight

Technical Data

	Size	T_{KNmin} ft-lbs	T_{KNmax} ft-lbs	n_{max} rpm	T_{max} ft-lbs	ΔK_a inch	ΔK_w degree	ΔK_r inch	G_w lbs
	227-160	649	1918	2000	19914	0.079	2.6	0.063	397
	227-160	1918	5569	2000	19914	0.079	2.6	0.063	397
	227-160	3909	11211	2000	19914	0.079	2.6	0.063	397
	227-160	5827	16743	2000	19914	0.079	2.6	0.063	397
	424-180	885	2618	1900	31863	0.067	2.7	0.079	661
	424-180	2618	7818	1900	31863	0.067	2.7	0.079	661
	424-180	5421	15636	1900	31863	0.067	2.7	0.079	661
	424-180	8113	23455	1900	31863	0.067	2.7	0.079	661
	424-180	10842	31273	1900	31863	0.067	2.7	0.079	661
	424-200	885	2618	1760	49786	0.071	2.9	0.083	882
	424-200	2618	7818	1760	49786	0.071	2.9	0.083	882
	424-200	5421	15636	1760	49786	0.071	2.9	0.083	882
	424-200	8113	23455	1760	49786	0.071	2.9	0.083	882
	424-200	10842	31273	1760	49786	0.071	2.9	0.083	882

Rigid disc coupling with keyway-hubs

Dimensions

n_M	= Number of modules
MO	= Modul version
$d_{1k,2kmin}$	= Min. bore diameter with keyway acc. to DIN 6885-1
$d_{1k,2kmax}$	= Max. bore diameter with keyway acc. to DIN 6885-1
A	= Max. outer diameter
C_M	= Pitch circle diameter of module range
D	= Outer diameter
D_1	= Outer diameter hub
D_2	= Outer diameter hub
D_3	= Outer diameter hub
D_{G2}	= Thread
L_{total}	= Total length (several parts)
L	= Overall length
L_1	= Length of coupling
L_2	= Length of the hub
L_6	= Length of basic part
L_K	= Length of coupling hub
L_M	= Protruding module length
L_{SR}	= Outer length shift ring
L_{SEmin}	= Min. shaft distance
S	= Disengagement travel
S_{2min}	= Min. distance between the hub bodies



Dimensions

Size	n_M	MO	d_{1kmin}	d_{1kmax}	d_{2kmin}	d_{2kmax}	A	C_M	D	D_1	D_2	D_3	D_{G2}	L_{total}	L	L_1	L_2	L_6	L_K	L_M	L_{SR}	L_{SEmin}	S	S_{2min}
	pcs.		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch											
058-090	4	a	0.984	3.543	1.181	4.331*	7.874	6.063	7.815	4.724	7.815	5.551	14	16.693	7.087	9.291	3.543	3.622	4.016	2.480	1.575	9.016	0.157	3.858
058-090	4	b	0.984	3.543	1.181	4.331*	7.874	6.063	7.815	4.724	7.815	5.551	14	16.693	7.087	9.291	3.543	3.622	4.016	2.480	1.575	9.016	0.157	3.858
058-090	4	c	0.984	3.543	1.181	4.331*	7.874	6.063	7.815	4.724	7.815	5.551	14	16.693	7.087	9.291	3.543	3.622	4.016	2.480	1.575	9.016	0.157	3.858
110-120	3	a	1.575	4.331	1.575	4.724	9.528	7.638	9.213	5.827	9.213	6.654	16	20.157	7.874	10.433	4.921	4.685	4.567	2.480	1.575	10.551	0.157	4.803
110-120	3	b	1.575	4.331	1.575	4.724	9.528	7.638	9.213	5.827	9.213	6.654	16	20.157	7.874	10.433	4.921	4.685	4.567	2.480	1.575	10.551	0.157	4.803
110-120	6	a	1.575	4.331	1.575	4.724	9.528	7.638	9.213	5.827	9.213	6.654	16	20.157	7.874	10.433	4.921	4.685	4.567	2.480	1.575	10.551	0.157	4.803
227-160	3	a	2.165	6.299	2.362	6.299	12.283	10.472	11.811	8.425	11.811	8.583	20	25.354	9.646	12.835	6.299	6.142	6.024	2.480	2.165	12.913	0.157	6.220
227-160	3	b	2.165	6.299	2.362	6.299	12.283	10.472	11.811	8.425	11.811	8.583	20	25.354	9.646	12.835	6.299	6.142	6.024	2.480	2.165	12.913	0.157	6.220
227-160	6	a	2.165	6.299	2.362	6.299	12.283	10.472	11.811	8.425	11.811	8.583	20	25.354	9.646	12.835	6.299	6.142	6.024	2.480	2.165	12.913	0.157	6.220
227-160	9	a	2.165	6.299	2.362	6.299	12.283	10.472	11.811	8.425	11.811	8.583	20	25.354	9.646	12.835	6.299	6.142	6.024	2.480	2.165	12.913	0.157	6.220
424-200	3	a	2.756	7.874	3.150	7.874	16.535	14.646	14.331	10.315	13.583	10.787	24	30.551	11.496	15.236	7.874	7.717	7.598	2.480	2.756	14.961	0.157	7.441
424-200	3	b	2.756	7.874	3.150	7.874	16.535	14.646	14.331	10.315	13.583	10.787	24	30.551	11.496	15.236	7.874	7.717	7.598	2.480	2.756	14.961	0.157	7.441
424-200	6	a	2.756	7.874	3.150	7.874	16.535	14.646	14.331	10.315	13.583	10.787	24	30.551	11.496	15.236	7.874	7.717	7.598	2.480	2.756	14.961	0.157	7.441
424-200	9	a	2.756	7.874	3.150	7.874	16.535	14.646	14.331	10.315	13.583	10.787	24	30.551	11.496	15.236	7.874	7.717	7.598	2.480	2.756	14.961	0.157	7.441
424-200	12	a	2.756	7.874	3.150	7.874	16.535	14.646	14.331	10.315	13.583	10.787	24	30.551	11.496	15.236	7.874	7.717	7.598	2.480	2.756	14.961	0.157	7.441

* Max. bore diameter with keyway according to DIN 6885/3.

Ordering example: TNT 2424

Type	Size	d_1	d_2	ft-lbs	MO	n_M	Further details
TNT 2424	058-090	0.984	1.181	1230	b	4	*

* Switch disc optional

Technical Data

- T_{KNmin} = Min. adjustment value for transmissible torque
- T_{KNmax} = Max. adjustment value for transmissible torque
- n_{max} = Max. rotation speed
- T_{max} = Max. transmissible torque
- T_{A2} = Tightened torque of clamping screw G2
- ΔK_a = Max. permissible axial misalignment
- ΔK_w = Max. permissible angular misalignment
- ΔK_r = Max. permissible radial misalignment
- G_w = Weight

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TSCHAN® TNT Torque Limiter

Additional possibilities



Series **TSCHAN® TNT 2421***
Flexible claw coupling with keyway hubs

Elastic elements replacement only requires a minimum of work and the driving and driven machines do not need to be axially displaced.



Series **TSCHAN® TNT 2422 ****
Flexible claw coupling with keyway hubs

Replacement of elastic buffers without axial movement of the coupled machines. After removing the cheese head screws the retaining ring can axial shift and the buffers are free changeable.



Series **TSCHAN® TNT 2423 *****
Torsionally rigid tooth coupling with keyway-hubs

Twin-cardanic construction and compact design to compensate radial, axial and angular shaft misalignment.

- * In combination with TSCHAN® Nor-Mex®
- ** In combination with TSCHAN® TNB
- *** In combination with TSCHAN® POSIFLEX®

Fax Inquiry

On this page please explain the planned application of a TSCHAN® TNT Safety Coupling and we will propose our solution. Please send this page to:

RINGFEDER POWER TRANSMISSION USA CORPORATION

FAX: +1 201 664 6053

1. Application Planned use of the coupling (machine, machine group or plant):

2. Type of attachment (please tick/check)

- | | | | |
|---------------------------------------|--|-----------------------------------|--|
| ☐ Clamping hub | ☐ Expanding hub | ☐ Cone hub | ☐ Hub with set screw |
| ☐ Flange mount | ☐ Outer cone | ☐ Fanuc | ☐ Acc. customer request |

3. Dimensions

- | | | |
|--|---|---------------------------------|
| <input type="text"/> Length (mm) | <input type="text"/> Bore D ₁ (mm) | <input type="text"/> Keyway-hub |
| <input type="text"/> Outer diameter (mm) | <input type="text"/> Bore D ₂ (mm) | <input type="text"/> Keyway-hub |

4. Shaft misalignment

- | | | |
|---------------------------------|----------------------------------|---------------------------------------|
| <input type="text"/> Axial (mm) | <input type="text"/> Radial (mm) | <input type="text"/> Angular (degree) |
|---------------------------------|----------------------------------|---------------------------------------|

5. Drive

- Drive power $P =$ kW Input speed $n =$ 1/min Nominal torque of the drive $Mt_{nom} =$ Nm
Peak torque of the drive $Mt_{max} =$ Nm Disengagement moment requested Nm

6. Estimated demands

- | | | | |
|---------------------------------|----------------------------------|---------------------------------|---|
| ☐ Series | ☐ Project | ☐ Repair | ☐ Number of items/p.a. |
|---------------------------------|----------------------------------|---------------------------------|---|

7. Environmental influences

- Temperature in the area of the coupling $Temp =$ °C Special materials (e.g. stainless steel)
Are there any impacts on the load side? ☐ No ☐ Slight ☐ Medium ☐ Heavy
Other, special influences

8. Mass moment of inertia

- On the drive side $JA =$ Nm On the driven side $J_L =$ Nm

9. Target price

- \$/Each

Please send your offer to:

- | | | | |
|---------|----------------------|-----------|----------------------|
| Company | <input type="text"/> | Attention | <input type="text"/> |
| Address | <input type="text"/> | | |
| Phone | <input type="text"/> | Fax | <input type="text"/> |
| E-mail | <input type="text"/> | | |

Online Service

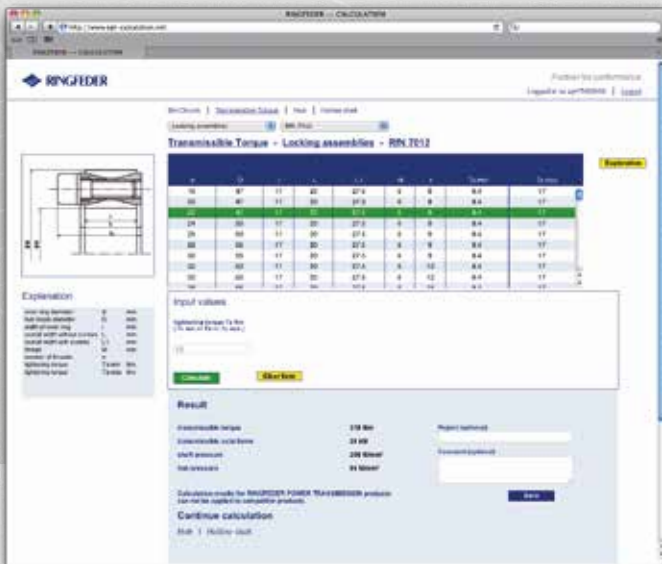
Calculation program for Locking Assemblies and Locking Elements

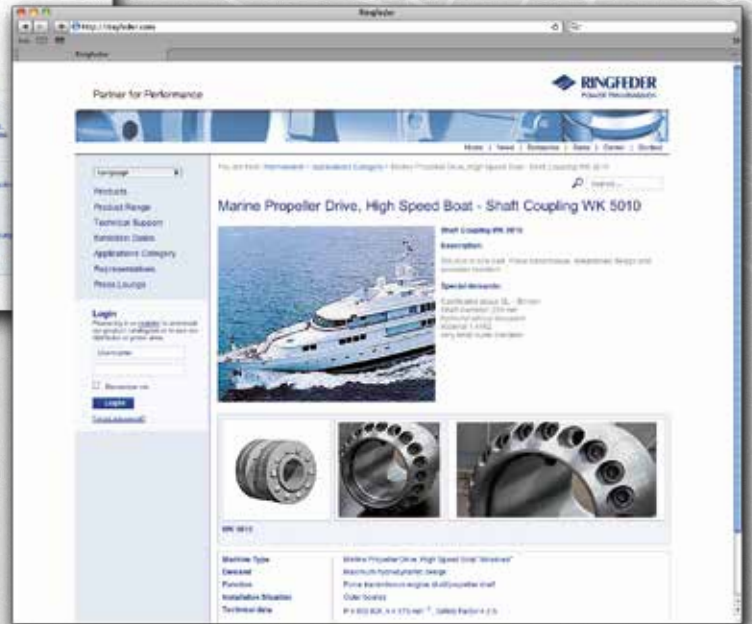
In order to meet the complex requirements on the correct design and selection of RINGFEDER products under practise-relevant demands, RINGFEDER POWER TRANSMISSION has developed a calculation program.

This calculation program offers the engineer a valuable aid in his or her daily work and simplifies the calculation of a wide range of tasks.

Once a product and the desired product size have been selected the program carries out the calculation, taking into account additional user input e.g. **transmissible torque and axial forces, resulting hub and shaft pressure, the outer diameter of the hub, the inner diameter of the hollow shaft** and for special tasks even the **forces and loads under bending moment loads**.

Interested? Visit our Website at www.ringfeder.com!





Our Website

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of products and numerous documents such as product catalogues, data sheets and assembly instruction for you to download.

Visit **www.ringfeder.com** to get right up to date.



Download area Product Range and catalogues



Available Instructions for Installation, Removal and Maintaining



Locking Devices



Locking Assemblies



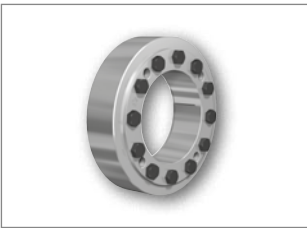
Locking Assemblies for bending moments



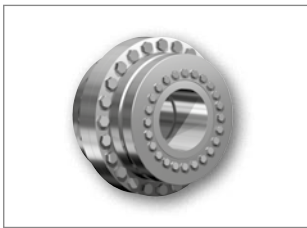
Locking Assemblies – Stainless steel



Locking Elements



Shrink Discs



Flange Couplings

Damping Technology



Friction Springs



DEFORM *plus*®



DEFORM *plus*® R



Couplings



Torsionally Flexible Couplings



Torsionally Flexible Couplings



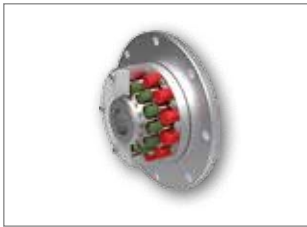
Torsionally Flexible Couplings



Torsionally Rigid Gear Couplings



Torsionally Rigid Barrel Coupling



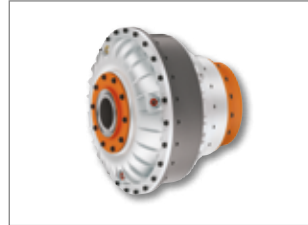
Couplings with variable Stiffness



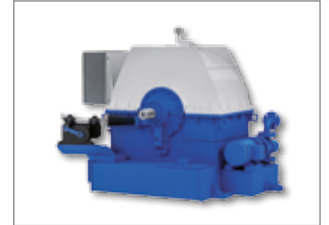
Couplings



Flexible Couplings Henflex



Hydrodynamic Couplings Henfluid



Hydrodynamic Couplings with variable speed

Bearing Housings



Bearing Housings

Remark:

HENFEL products are only available in South America and selected markets.



Couplings



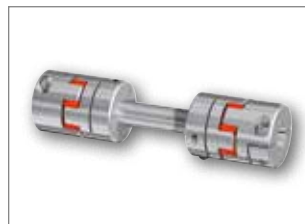
Metal Bellows Couplings



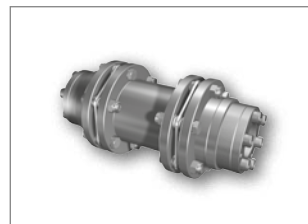
Servo-Insert Couplings



Safety Couplings



Line Shafts



Torsionally Rigid Disc Couplings



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