

Tru-Line Flange-Couplings RFK

with backlash free cone-clamping-connections



Features

- Compact design
- Small axial space required for installation
- Fast disassembly for minimal downtime
- High shaft tolerance h8 permissible
- No weakening of shafts by feather keys
- No fretting corrosion as with keyway connections
- Proven solution in many applications, particularly in mining

Applications

A rigid and easy to disassemble shaft coupling solution for:

- Conveyor belts
- Elevators
- Bucket elevators
- Escalators and moving walkways
- Many other applications

Application

Tru-Line Flange-Couplings RFK are particularly suitable for coupling freely suspended motor gear units on a rocker with a torque support.

However, they can neither compensate radial-angle nor axial shaft misalignments. If this is required, then please use the Flexible Couplings L... described from page 8 onwards.



Tru-Line Flange-Coupling RFK 350 F - 350 M connects the gear of the drive unit to the head drum of an iron ore conveyor belt system in South Africa

Transmissible torques

The transmissible torques listed on page 5 are subject to the following tolerances, surface characteristics and material requirements. Please contact us in the case of deviations.

Tolerances

- h8 for shaft diameter d
- h8 for shaft diameters d_F or d_M

Surfaces

Average surface roughnesses at the contact surfaces of the shafts $R_z = 10 \dots 25 \mu\text{m}$.

Materials

We will be happy to recommend suitable shaft materials taking DIN 743 as a basis (12/2012 edition). In doing so we will take the surface pressures prescribed for the Tru-Line Flange-Couplings RFK into account.

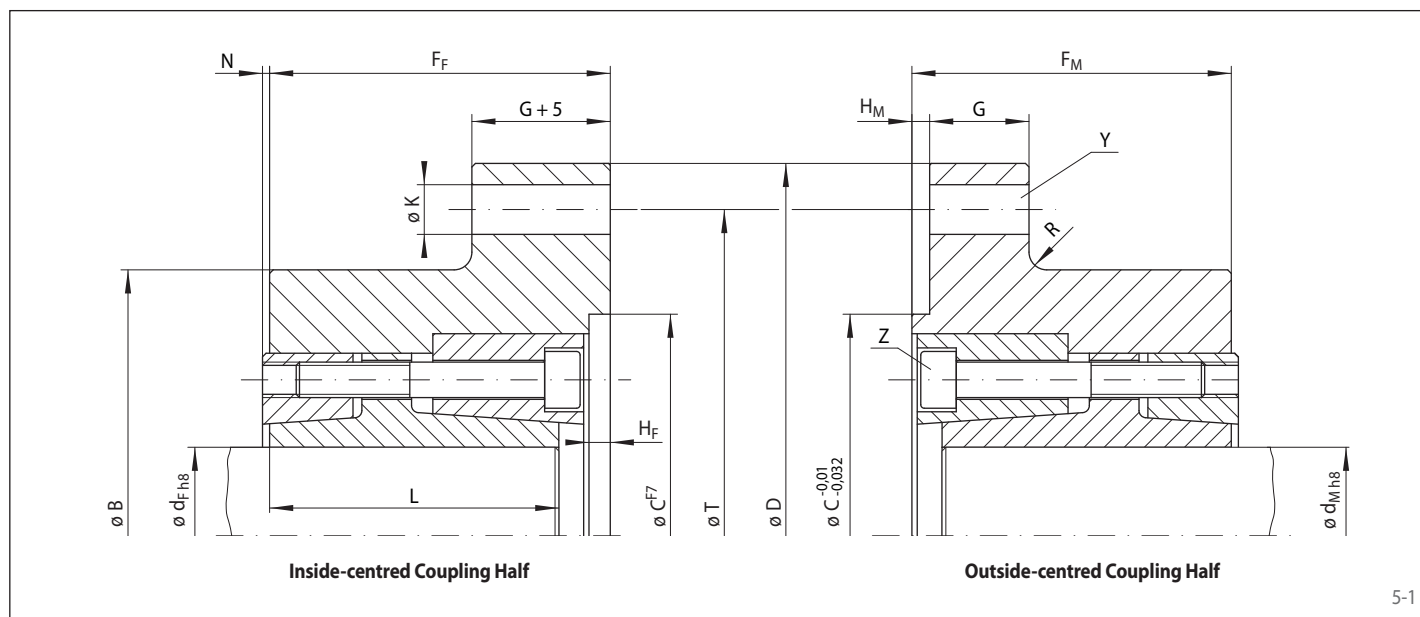
Simultaneous transmission of torque, axial force and bending moment

Where there are axial forces and/or bending moments in the application in addition to the torque M_A , the transmissible torque is reduced compared to the values for M as listed in the tables.

We will select the proper coupling for each application based upon the allowed transmissible torque under existing bending moment conditions. Our selection calculations are in accordance with the latest scientific knowledge and know how in the industry and include the proper safety factor to prevent fretting corrosion. Please contact us.

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Tru-Line Flange-Coupling RFK Size Coupling Half		Shaft d _F or d _M mm	Max. trans- missible torque M Nm	B mm	C mm	D mm	F _F mm	F _M mm	G mm	H _F mm	H _M mm	K mm	L mm	N mm	R mm	T mm	Connection screws		Clamping screws		Weight kg
inside-centred	outside-centred																Y*	Tightening torque Nm	Z	Tightening torque Nm	
50 F	50 M	min. 25 max. 50	2500 5250	120	100	190	70	65	10	5	3	11	60	5	10	160	8 x M 10 x 45	71	8 x M 8	42	7,5 6,8
70 F	70 M	min. 50 max. 70	6300 10000	170	150	260	88	81	15	5	3	15	75	5	15	230	8 x M 14 x 60	195	9 x M 10	83	32 30
90 F	90 M	min. 70 max. 90	16000 20000	200	180	320	103	96	25	7	5	18	90	6	15	280	8 x M 16 x 75	300	9 x M 12	144	39 37
115 F	115 M	min. 95 max. 115	28000 35500	230	300	400	115	105	30	10	6	25	100	8	40	350	8 x M 24 x 100	1020	7 x M 14	229	47 45
140 F	140 M	min. 115 max. 140	45000 56000	270	300	400	115	105	30	10	6	25	100	8	20	350	8 x M 24 x 100	1020	10 x M 14	229	55 51
170 F	170 M	min. 140 max. 170	90000 112000	330	300	560	145	135	36	12	8	32	128	10	30	480	18 x M 30 x 120	2030	11 x M 16	354	112 105
210 F	210 M	min. 170 max. 210	160000 200000	390	300	560	145	135	36	12	8	32	128	10	20	480	18 x M 30 x 120	2030	16 x M 16	354	137 125
211 F	211 M	min. 170 max. 210	160000 200000	430	350	630	145	135	40	12	8	32	128	10	20	550	18 x M 30 x 130	2030	16 x M 16	354	160 148
250 F	250 M	min. 210 max. 250	265000 315000	470	350	630	160	150	40	12	8	32	140	10	10	550	18 x M 30 x 130	2030	14 x M 20	692	199 183
270 F	270 M	min. 250 max. 270	375000 400000	510	550	710	179	169	40	12	8	32	158	10	30	630	24 x M 30 x 130	2030	16 x M 20	692	259 249
290 F	290 M	min. 270 max. 290	450000 490000	550	550	710	179	169	40	12	8	32	158	10	15	630	24 x M 30 x 130	2030	18 x M 20	692	286 275
320 F	320 M	min. 290 max. 320	520000 540000	580	550	750	200	190	40	12	8	32	180	10	15	680	28 x M 30 x 130	2030	20 x M 20	692	318 338
350 F	350 M	min. 320 max. 350	590000 625000	630	550	800	200	190	45	12	8	32	180	10	15	720	28 x M 30 x 150	2030	20 x M 20	692	401 380

Paired coupling halves of the same color can be interchanged due to matching flange patterns. The maximum torques of the smaller coupling half apply.

* Number of connection screws Y in accordance DIN EN ISO 4014 property class 10.9 or 12.9 for RFK 50 on pitch circle T.

Example for ordering

Tru-Line Flange-Coupling RFK with inside-centred coupling half for shaft diameter 210 mm and outside-centred coupling half for shaft diameter 140 mm:

- RFK 210 F - 170 M, d_F = 210, d_M = 140

Mounting

Please request our installation and operating instructions for Tru-Line Flange-Couplings RFK.

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