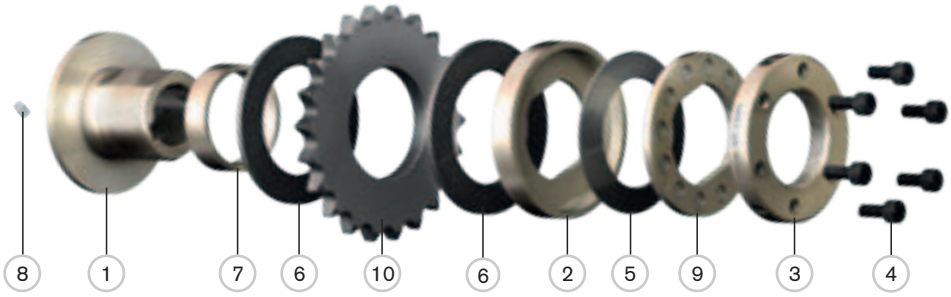
Structure and operation

- Overload protection up to 6800 Nm (standard)
- Available with integrated sprocket
- Asbestos-free and rust-proof friction lining for dry running (ATEX available on request)
- High wear capacity, long service life
- High-quality slide bush with dry-film lubricant
- Torque setting while in place

- Securing of the nut by locking in 12 different positions
- Easy assembly and torque setting
- Coupling components made of steel, high safety reserves
- Corrosion protection by zinc-coated and passivated surfaces
- Rust-proof and acid-proof type on request
- Hohe Leistungsdichte durch hochwertige Federn und Reibbeläge

The RUFLEX® modular system provides solutions for your drive, too.
The combination with the approved KTR couplings and the integration of customer-specific drive components (e. g. sprockets) allows for an overload protection optimally adapted to every application.
Various layers of disk springs and high-quality friction linings ensure a high power density even with only few mounting space.

RUFLEX® consists of the following components:



List of components:

1. Hub
2. Thrust washer
3. Setting nut
4. Torque setting screws
5. Disk spring
6. Friction lining
7. Slide bush
8. Setscrew
9. Locking washer
10. Drive component (e. g. sprocket)

Layers of disk springs:

1 TF
- Small specific load on the friction linings
- For small to average torques
- Long service life of friction linings

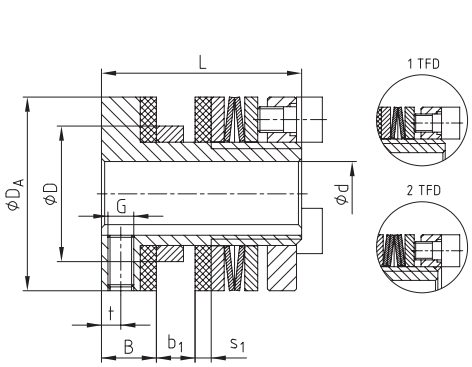
2 TF
- Average specific load on the friction linings
- Average wear and decrease of torque with longer slipping periods
- Double torque due to double layer of the disk springs

3 TF
- High specific load on the friction linings
- High wear and decrease of torque with longer slipping periods
- Suitable only in special cases for designs with only limited dimensions

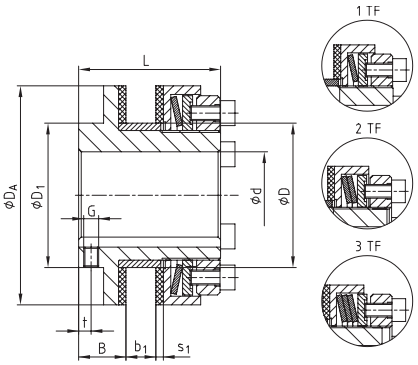
1 TFD
- Small specific load on the friction linings
- Torques like with type 1 TF
- Only small decrease of the torque even with longer period of friction
- Precision torque adjustment due to a double spring excursion

2 TFD
- Average specific load on the friction linings
- Torques like with type 2 TF
- Only small decrease of the torque even with longer period of friction
- Precision torque adjustment due to a double spring excursion

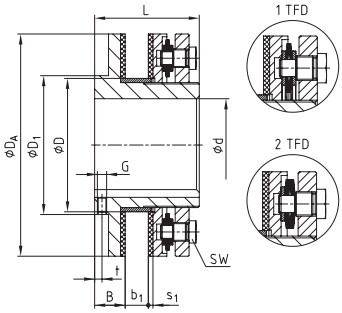
Standard width of drive component



Size 00



Size 0 - 5



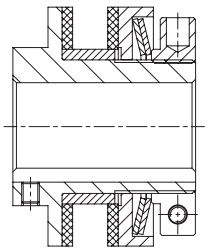
Size 6 - 8

Technical data – Dimensions

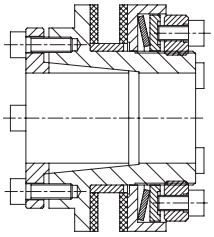
Size	Max. speed4) [RPM]	Torques [Nm]			Dimensions [mm]											
					Bore d						Drive component b1				Setscrew	
		1TF	2TF	3TF[3]	pilot b.	max.	D[2]	D_1	D_A	B	min.	max.	S_1	L	t	G
00	10000	0,5-3	1-5	–	–	10	21	30	30	8,5	2	6	2,5	31	3	M4
0	8500	2-10	4-20	–	–	20 [1]	35	45	45	8,5	2	6	2,5	33	3	M4
01	6600	5-35	10-70	–	–	22	40	40	58	16	3	8	3	45	4	M5
1	5600	20-75	40-150	130-200	–	25	44	45	68	17	3	10	3	52	5	M5
2	4300	25-140	50-280	250-400	–	35	58	58	88	19	4	12	3	57	5	M6
3	3300	50-300	100-600	550-800	–	45	72	75	115	21	5	15	4	68	5	M6
4	2700	90-600	180-1200	1100-1600	–	55	85	90	140	23	6	18	4	78	5	M8
5	2200	400-800	800-1600	1400-2100	–	65	98	102	170	29	8	20	5	92	8	M8
6	1900	300-1200	600-2400	–	38	80	116	120	200	31	8	23	5	102	8	M8
7	1600	600-2200	1200-4400	–	45	100	144	150	240	33	8	25	5	113	8	M10
8	1300	900-3400	1800-6800	–	58	120	170	180	285	35	8	25	5	115	8	M10

[1] Finish bore exceeding Ø19, keyway to DIN 6885 sheet 3
[2] Bore tolerance (drive component): F8 with size 00-4, H8 witht size 5-8
[3] With clamping setting nut, to be used on types with limited dimensions only
[4] See comments on page 226

On request:



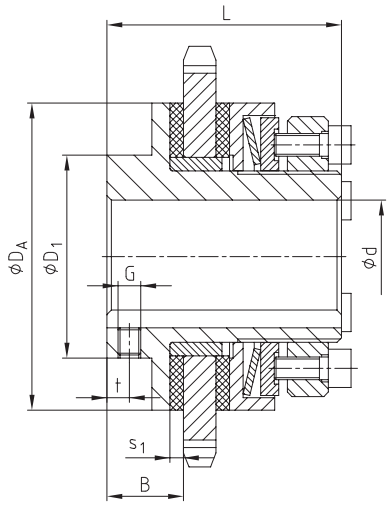
- with clamping setting nut for size 00 – 5. (standard with 3TF)
- for radial torque setting



- with taper bush (hub design 4.5)
- frictionally engaged shaft-hub-connection

Ordering example:	RUFLEX® 1	2TF	b_1 10	d Ø20
	Type / size	Disk spring layer	Width of drive component b1	Finish bore

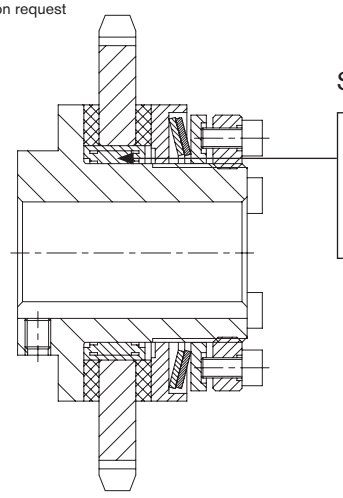
With sprocket



Technical data – Dimensions

Size	Max. speed 3) [RPM]	Torques [Nm]			Dimensions [mm]								Standard sprocket 2)
					Max. bore						Setscrew		
		1TF	2TF	3TF 1)	d	D_1	D_A	B	S_1	L	t	G	
01	6600	5-35	10-70	–	22	40	58	16	3	45	4	M5	06B-1 ($^3/_8$ x $^7/_{32}$) z = 23
1	5600	20-75	40-150	130-200	25	45	68	17	3	52	6	M5	08B-1 ($^1/_2$ x $^5/_{16}$) z = 22
2	4300	25-140	50-280	250-400	35	58	88	19	3	57	6	M6	08B-1 ($^1/_2$ x $^5/_{16}$) z = 27
3	3300	50-300	100-600	550-800	45	75	115	21	4	68	6	M6	12B-1 ($^3/_4$ x $^7/_{16}$) z = 22

1) With clamping setting nut, to use only for designs with limited dimensions
2) Minimum number of teeth required / Other sprockets available on request
3) See comments on page 226



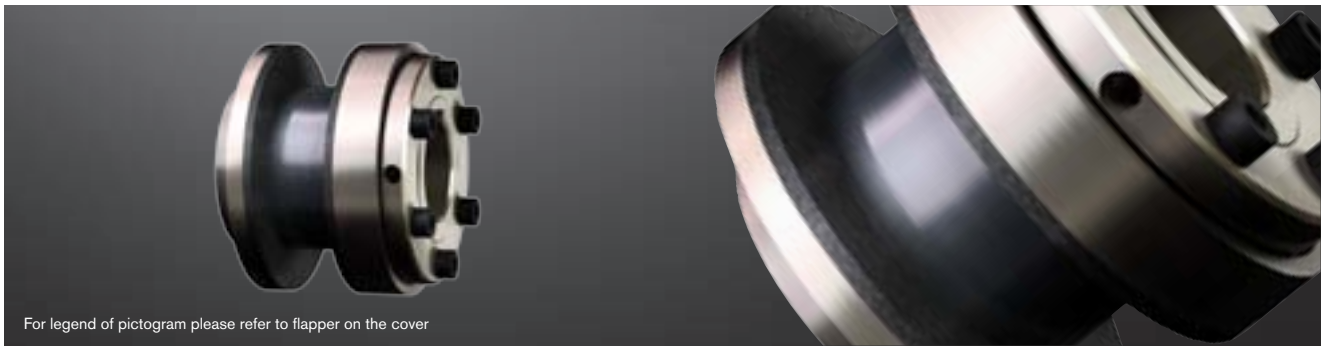
Special type:

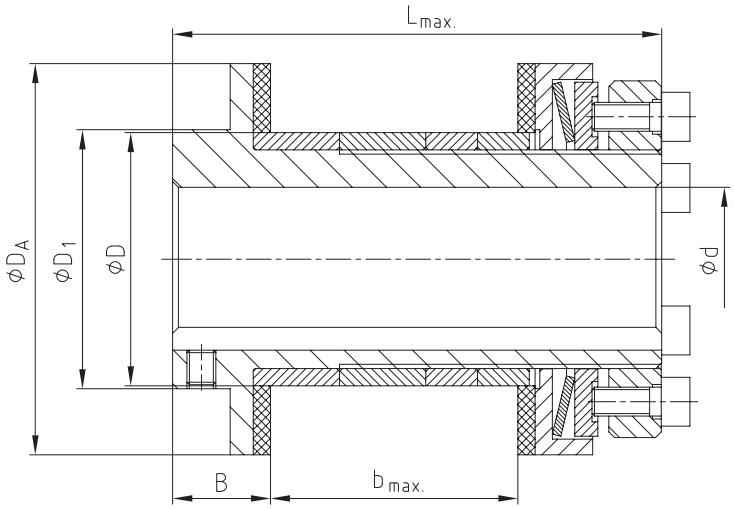
- Available with needle bearing instead of slide bush on request
- For high radial load on the sprocket
- For high speeds or long slipping periods

Ordering example:

RUFLEX® 1	2TF	d Ø20	08B-1 ($^1/_2$ x $^5/_{16}$), z=29	100 Nm
Type / size	Disk spring layer	Finish bore	Sprocket	Torque set

Max. type

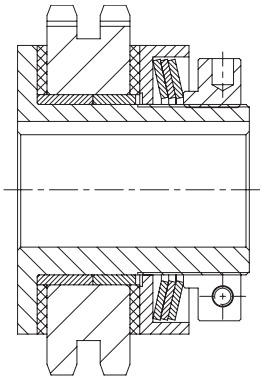




Technical data – Dimensions

Size	Max. speed [3] [1/min]	Torques [Nm]			Dimensions [mm]						
					Max. bore				Maximum		Maximum
		1TF	2TF	3TF [2]	d	D_1	D_A	B	b	D[1]	L
01	6600	5-35	10-70	–	22	40	58	16	33	40	70
1	5600	20-75	40-150	130-200	25	45	68	17	43	44	85
2	4300	25-140	50-280	250-400	35	58	88	19	54	58	100
3	3300	50-300	100-600	550-800	45	75	115	21	62	72	115
4	2700	90-600	180-1200	1100-1600	55	90	140	23	91,5	85	154

[1] Bore tolerance (drive component): F8
[2] With clamping setting nut, to use only for designs with limited dimensions
[3] See comments on page 226

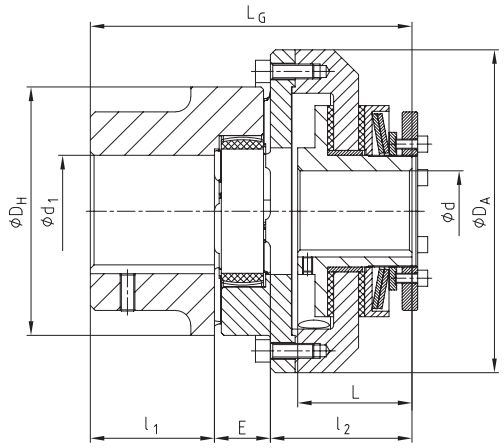


Example:

- RUFLEX® max. with sprocket assembled
- Available as a complete component assembly with torque preset

Ordering example:	RUFLEX® max. 1	2TF	b 35	d Ø20
	Type / size	Disk spring layer	Width of drive component b	Finish bore

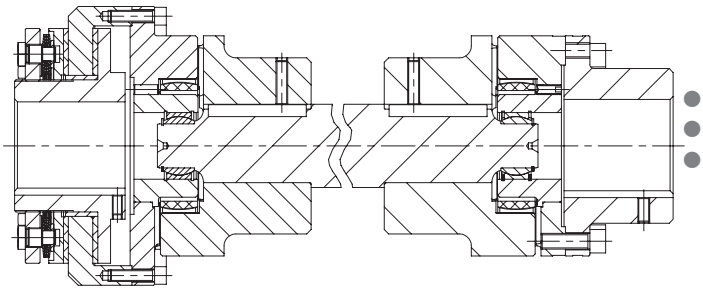
With torsionally flexible ROTEX®



Technical data – Dimensions

RUFLEX® size	ROTEX® size	RUFLEX® torques [Nm]			ROTEX® torques [Nm]		Dimensions [mm]									
					98 Shore-A		Bore d		Max. bore							
		1TF	2TF	3TF 2)	T_{KN}	T_{Kmax}	pilot b.	max.	d_1	D_H	D_A	l_1	l_2	E	L	L_G
00	14	0,5-3	1-5	–	12,5	25	–	10	16	30	44	11	35	13	31	59
0	19	2-10	4-20	–	17	34	–	20 1)	25	40	63	25	37	16	33	78
01	24	5-35	10-70	–	60	120	–	22	35	55	80	30	50	18	45	98
1	28	20-75	40-150	130-200	160	320	–	25	40	65	98	35	58	20	52	113
2	38	25-140	50-280	250-400	325	650	–	35	48	80	120	45	64	24	57	133
3	48	50-300	100-600	550-800	525	1050	–	45	62	105	162	56	82	28	68	166
4	75	90-600	180-1200	1100-1600	1465	2930	–	55	95	160	185	85	80	40	78	205
5	90	400-800	800-1600	1400-2100	3600	7200	–	65	110	200	260	100	114	45	92	259
6	100	300-1200	600-2400	–	4950	9900	38	80	115	225	285	110	130	50	102	290
7	110	600-2200	1200-4400	–	6000	12000	45	100	125	255	330	120	142	55	113	317
8	140	900-3400	1800-6800	–	11000	22000	58	120	160	372	410	115	65	155	152	372

1) Finish bore exceeding Ø19, feather keyway acc. to DIN 6885 sheet 3
2) With clamping setting nut, to use only for designs with limited dimensions

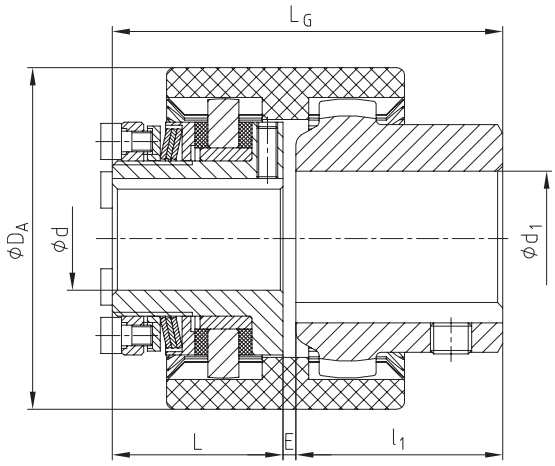


Special type:

- RUFLEX® as intermediate shaft coupling
- For large shaft distance dimensions
- Available in combination with ROTEX® or RADEX®-N steel lamina coupling

Ordering example:	RUFLEX® 1	2TF	d Ø20	ROTEX® 28	98 Sh-A	d_1 Ø25	100 Nm
	Type / size	Disk spring layer	RUFLEX® bore	Type / size	Spider	ROTEX® bore	Torque set

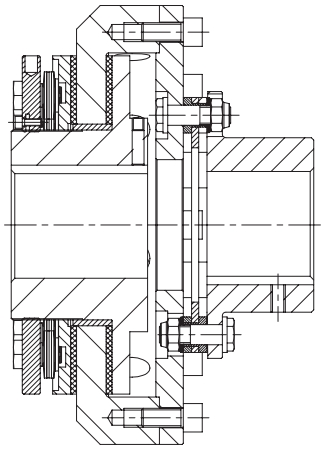
With torsionally rigid BoWex®



Technical data – Dimensions

RUFLEX® size	BoWex® size	RUFLEX® torques [Nm]			BoWex® torques [Nm]		Dimensions [mm]						
							Max. bore						
		1TF	2TF	3TF [2]	T_{KN}	$T_{K\ max.}$	d	d_1	D_A	l_1	L	E	L_G
00	19	0,5-3	1-5	–	16	32	10	19	48	25,0	31	2,5	58,5
0	28	2-10	4-20	–	45	90	20 [1]	28	66	40,0	33	2,5	75,5
01	38	5-35	10-70	–	80	160	22	38	83	35,5	45	1,0	81,5
1	48	20-75	40-150	130-200	140	280	25	48	95	45,5	52	1,0	98,5
2	65	25-140	50-280	250-400	380	760	35	65	132	64,0	57	1,0	122

[1] Finish bores exceeding 19 mm, feather keyway acc. to DIN 6885 sheet 3
[2] With clamping setting nut, to use only for designs with limited dimensions



Special type:

- RUFLEX® with torsionally rigid, backlash-free RADEX®-N steel lamina coupling
- For high operating temperatures (up to 280 °C)
- With variable spacers adapted to the different shaft distance dimensions

Ordering example:

RUFLEX® 1	1TF	d Ø20	BoWex® 48	d_1 Ø25	50 Nm
Type / size	Disk spring layer	RUFLEX® bore	Type / size	BoWex® bore	Torque set