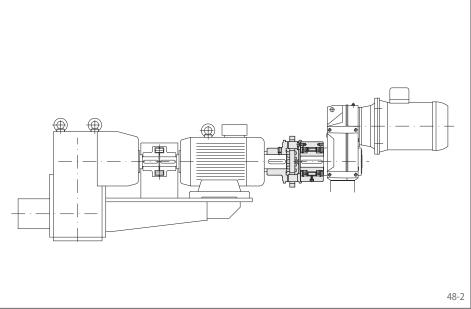
Complete Freewheels FBL

with shaft coupling for large shaft misalignments with sprags, available in three types







Application as

Overrunning Clutch

Features

Complete Freewheels FBL with RINGSPANN Shaft Coupling are sealed sprag freewheels with ball bearings for coupling two shafts. They are supplied oil-filled and ready for installation.

In addition to the standard type, two other types are available for extended service life.

Nominal torques up to 8 000 Nm.

Bores up to 140 mm. Many standard bores are available.

The torsionally stiff RINGSPANN Shaft Coupling can accept large radial and angular misalignments, without reactive forces affecting neighbouring bearings. We can provide you with performance data upon request.

Application example

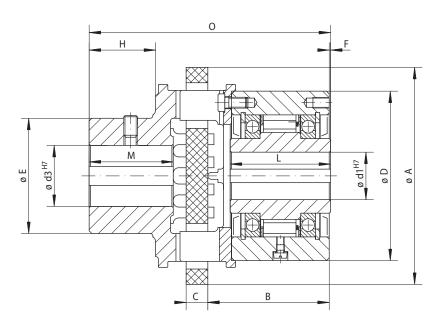
Complete Freewheel FBL 82 SFZ as an overrunning clutch in the drive unit of a conveyor belt system with additional creep drive. The freewheel with shaft coupling is arranged in between the main motor and the creep drive. When the creep drive operates, the freewheel is in driving operation and drives the belt at low speed. In normal operation (freewheeling operation), the main motor drives and the outer ring overruns, whereupon the creep drive is automatically disengaged. With the high speed here, the type sprag lift-off Z is used; the sprags work in freewheeling operation without contact and hence are wear-free.



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Overrunning Clutch	Standard type For universal use	Type with RIDUVIT® For extended service life with coated sprags	Type with Sprag lift-off Z For extended service life using sprag lift-off at high speed rotating outer ring

			Max.speed				Max.s	peed				Max.speed	
		Nominal	Inner ring	Outer ring		Nominal	Inner ring	Outer ring		Nominal	Sprag lift-off	Outer ring	Inner ring
Freewheel		Torque	overruns	overruns		Torque	overruns	overruns		Torque	at outer ring	overruns	drives
Size	Type	M _N Nm	min ⁻¹	min ⁻¹	Type	M _N Nm	min ⁻¹	min ⁻¹	Type	M _N Nm	speed min ⁻¹	min ⁻¹	min ⁻¹
FBL 37	SF	85	2500	2600	SFT	85	2500	2600	CZ	85	850	3 000	340
FBL 44	SF	190	1 900	2 200	SFT	190	1 900	2200	CZ	180	800	2600	320
FBL 57	SF	500	1 400	1 750	SFT	500	1 400	1750	LZ	430	1400	2 100	560
FBL 72	SF	500	1120	1600	SFT	500	1 120	1600	LZ	500	1 2 2 0	1800	488
FBL 82	SF	1000	1025	1450	SFT	1 000	1 0 2 5	1450	SFZ	1000	1450	1 600	580
FBL 107	SF	2000	880	1 250	SFT	2000	880	1 250	SFZ	2000	1300	1 350	520
FBL 127	SF	4000	800	1 150	SFT	4000	800	1 150	SFZ	4000	1 200	1 200	480
FBL 140	SF	8 000	750	1 050	SFT	8 000	750	1050	SFZ	8000	950	1 050	380

 $The \ maximum \ transmissible \ torque \ is \ 2 \ times \ the \ specified \ nominal \ torque. See \ page \ 14 \ for \ determination \ of \ selection \ torque.$

Freewheel	Bore d1		Bore d3		Α	В	С	D	Е	F	Н	L	М	0	Weight
Size	Standard	max.	min.	max.											
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
FBL 37	20	22*	14	35	110	62,0	12	75	53	0,5	33	48	42	124	3,0
FBL 44	25*	25*	20	42	135	65,0	14	90	66	0,5	41	50	53	140	4,6
FBL 57	30	32*	30	50	160	82,5	16	100	85	0,5	51	65	62	170	6,9
FBL 72	40	42*	30	50	160	89,5	16	125	85	1,0	51	74	62	178	10,0
FBL 82	50*	50*	40	70	200	92,0	20	135	104	2,0	65	75	79	204	14,2
FBL 107	60	65*	50	90	250	111,5	25	170	150	2,5	81	90	100	250	28,0
FBL 127	70	75*	60	110	315	138,0	32	200	175	3,0	101	112	124	313	48,8
FBL 140	90	95*	75	140	400	183,5	40	250	216	5,0	130	150	160	410	102,2

For bore d1: Keyway according to DIN 6885, page 1 • Keyway width tolerance JS10. * Keyway according to DIN 6885, page 3 • Keyway width tolerance JS10. For bore d3: Keyway according to DIN 6885, page 1 • Keyway width tolerance P9

Mounting

The flexible disk of the shaft coupling must be axially free when fitted so that the ball bearings in the freewheel are not distorted due to heat expansion.

The shaft coupling including the fastening screws are supplied loose. Depending on the desired freewheeling direction, the shaft coupling can be fitted on the right or the left of the freewheel.

The tolerance of the shaft must be ISO h6 or j6.

Example for ordering

Freewheel size FBL 72, type with sprag lift-off Z and 40 mm bore in the freewheel and 50 mm bore in the shaft coupling:

• FBL 72 LZ, d1 = 40 mm, d3 = 50 mm

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