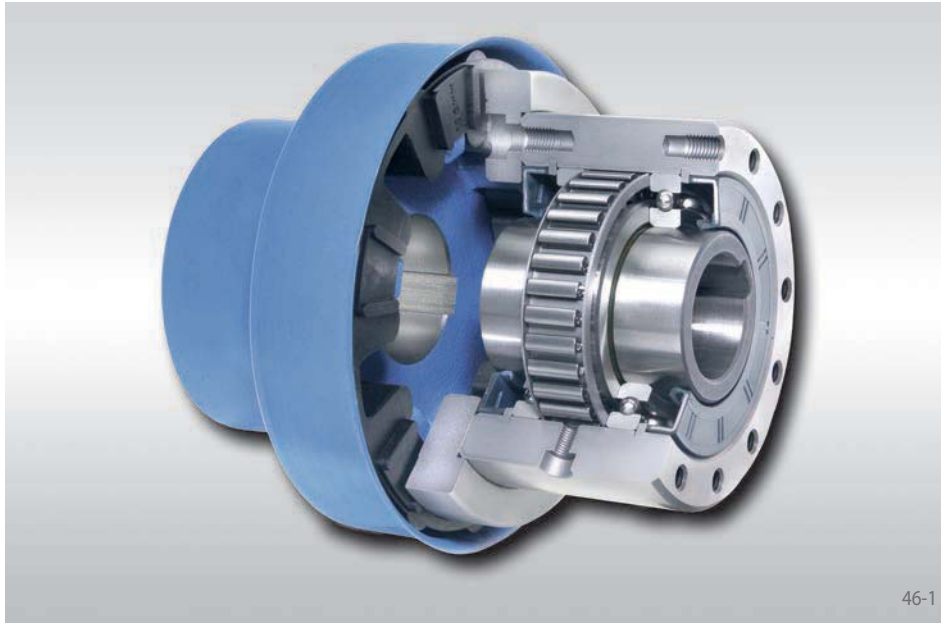


Complete Freewheels FBE

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

EDMAYR
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Application as

▶ Overrunning Clutch

Features

Complete Freewheels FBE with flexible shaft coupling are sealed sprag freewheels with ball bearings for coupling two aligned 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.

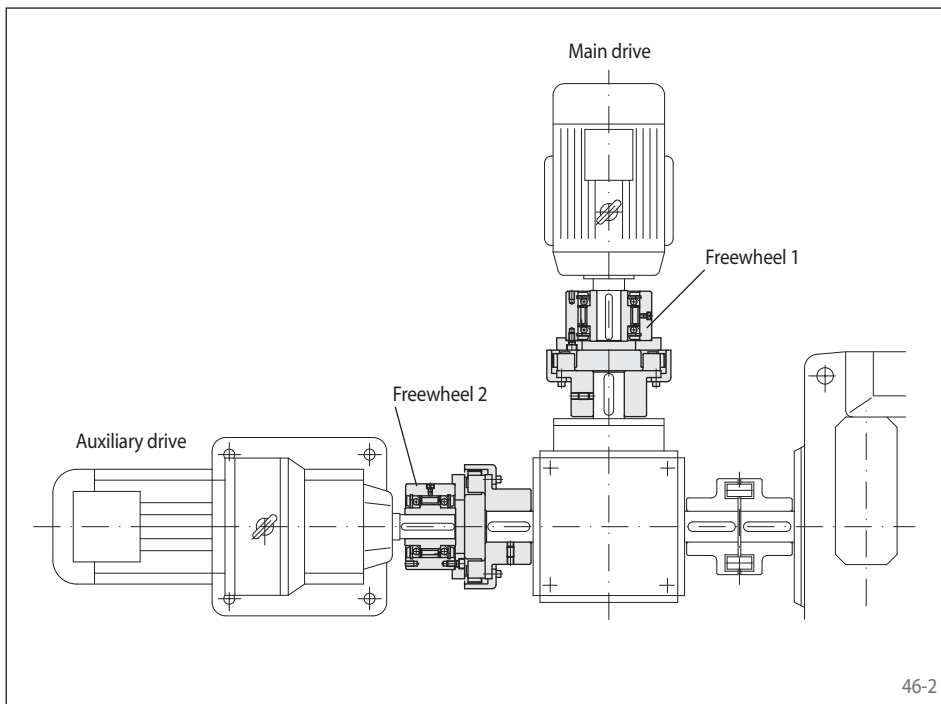
Nominal torques up to 160 000 Nm.

Bores up to 300 mm. Many standard bores are available.

The material of the flexible coupling element is oil-resistant. We can provide you with performance data for the flexible shaft coupling upon request.

Application example

Two Complete Freewheels FBE 72 with shaft coupling as an overrunning clutch in the drive unit of a tube mill with additional auxiliary drive. A freewheel FBE 72 SF, standard type (freewheel 1) is arranged between the main drive and the angular gear. However, a freewheel FBE 72 LZ, type with sprag lift-off Z (freewheel 2) is arranged between the auxiliary drive and the angular gear. If the gear motor is driving in the auxiliary power mode, freewheel 2 works in driving operation and freewheel 1 overruns at a low speed (freewheeling operation). When driving via the main motor, the unit is driven via freewheel 1 (driving operation). Freewheel 2 overruns and automatically disengages the auxiliary drive (freewheeling operation). With the high speed, the type with sprag lift-off Z is used; the sprags work in freewheeling operation without contact and hence are wear-free.



Mounting

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 FBE 107, standard type with 60 mm bore in the freewheel and 55 mm bore in the shaft coupling:

- FBE 107 SF, d1 = 60 mm, d3 = 55 mm

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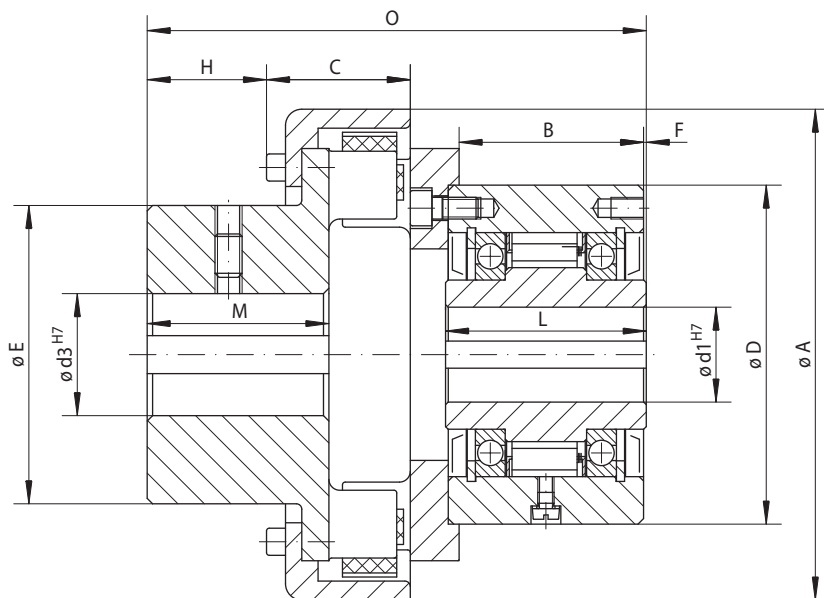
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47-1

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				
Freewheel Size	Type	Nominal Torque M _N Nm	Max.speed Inner ring overruns min ⁻¹	Outer ring overruns min ⁻¹	Type	Nominal Torque M _N Nm	Max.speed Inner ring overruns min ⁻¹	Outer ring overruns min ⁻¹	Type	Nominal Torque M _N Nm	Sprag lift-off at outer ring speed min ⁻¹	Max.speed Outer ring overruns min ⁻¹	Inner ring drives min ⁻¹
FBE 24	CF	45	4 800	5 000	CFT	45	4 800	5 000					
FBE 29	CF	80	3 500	4 000	CFT	80	3 500	4 000					
FBE 37	SF	200	2 500	2 600	SFT	200	2 500	2 600	CZ	110	850	3 000	340
FBE 44	SF	320	1 900	2 200	SFT	320	1 900	2 200	CZ	180	800	2 600	320
FBE 57	SF	630	1 400	1 750	SFT	630	1 400	1 750	LZ	430	1 400	2 100	560
FBE 72	SF	1 250	1 120	1 600	SFT	1 250	1 120	1 600	LZ	760	1 220	1 800	488
FBE 82	SF	1 800	1 025	1 450	SFT	1 800	1 025	1 450	SFZ	1 700	1 450	1 600	580
FBE 107	SF	2 500	880	1 250	SFT	2 500	880	1 250	SFZ	2 500	1 300	1 350	520
FBE 127	SF	5 000	800	1 150	SFT	5 000	800	1 150	SFZ	5 000	1 200	1 200	480
FBE 140	SF	10 000	750	1 100	SFT	10 000	750	1 100	SFZ	10 000	950	1 150	380
FBE 200	SF	20 000	630	900	SFT	20 000	630	900	SFZ	20 000	680	900	272
FBE 270	SF	40 000	510	750	SFT	40 000	510	750	SFZ	37 500	600	750	240
FBE 340	SF	80 000	460	630	SFT	80 000	460	630					
FBE 440	SF	160 000	400	550	SFT	160 000	400	550					

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

Freewheel Size	Bore d1		Bore d3		A	B	C	D	E	F	H	L	M	O	Weight
	Standard mm	max. mm	min. mm	max. mm											
FBE 24	12	14*	10	35	77	45	30	62	55	1,0	28	50	40	114,0	1,7
FBE 29	15	17*	10	40	90	47	33	68	65	1,0	32	52	45	123,0	2,4
FBE 37	20	22*	10	45	114	44	37	75	72	0,5	28	48	48	122,5	3,1
FBE 44	25*	25*	10	50	127	45	36	90	78	0,5	31	50	52	129,5	4,3
FBE 57	30	32*	20	60	158	60	48	100	96	0,5	39	65	61	162,5	7,3
FBE 72	40	42*	20	70	181	68	53	125	110	1,0	44	74	67	184,0	11,6
FBE 82	50*	50*	25	75	202	67	64	135	120	2,0	46	75	75	200,0	15,4
FBE 107	60	65*	30	80	230	81	75	170	130	2,5	48	90	82	230,0	24,9
FBE 127	70	75*	45	100	294	102	97	200	160	3,0	56	112	97	288,0	47,3
FBE 140	90	95*	60	120	330	135	100	250	200	5,0	80	150	116	350,0	93,3
FBE 200	120	120	85	160	432	143	141	300	255	5,0	104	160	160	408,0	169,0
FBE 270	140	150		180	553	190	197	400	300	6,0	145	212	230	512,0	320,0
FBE 340	180	240		235	725	240	235	500	390	7,5	173	265	285	637,5	580,0
FBE 440	220	300		265	832	290	247	630	435	7,5	183	315	310	737,5	1206,0

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

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