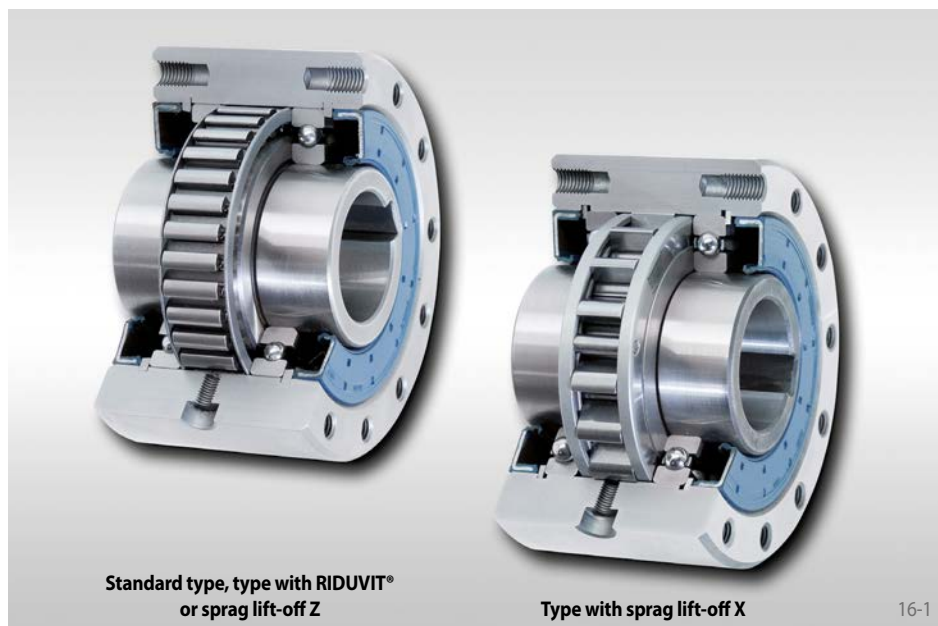


Complete Freewheels FB

for bolting to the face
with sprags, available in four types



Application as

- ▶ Backstop
- ▶ Overrunning Clutch
- ▶ Indexing Freewheel

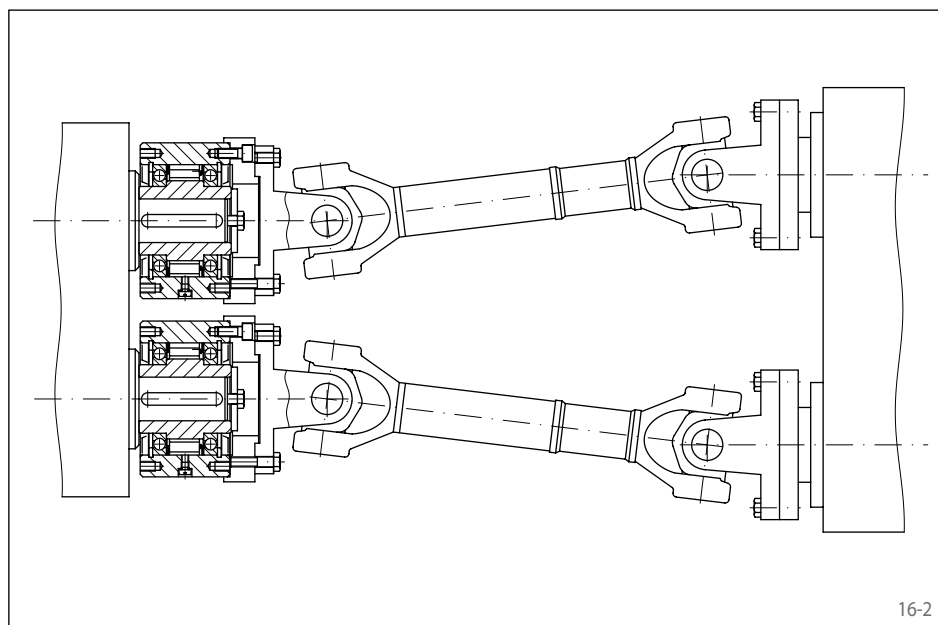
Features

Complete Freewheels FB are sealed sprag free-wheels with ball bearings. They are supplied oil-filled and ready for installation, on customer request with biodegradable oil.

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

Nominal torques up to 160 000 Nm.

Bores up to 300 mm. A multitude of standardized bore diameters are available with short delivery times.



Application example

Two Complete Freewheels FB 82 SFT as over-running clutches in the drive of an edge trimming shear in a wide strip roll train. When trimming the edges of the strip, the trimming rollers are driven by the drive of the edge trimming shear. By doing so, the two freewheels work in driving operation. As soon as the sheet metal strip is gripped by the next pair of rollers, they pull the strip at an increased speed and the inner rings overrun the slower turning drive of the edge trimming shear. By doing so, the freewheels work in freewheeling operation. The RIDUVIT® sprags give the freewheels an extended service life.

Mounting

The customer attachment part is on the external diameter D and then bolted on to the face.

The tolerance of the shaft must be ISO h6 or j6 and the tolerance of the pilot diameter D of the attachment part must be ISO H7 or J7.

Example for ordering

Freewheel size FB 72, type with sprag lift-off Z and 40 mm bore:

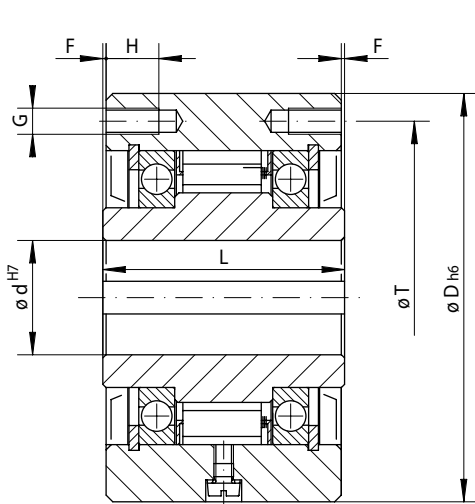
- FB 72 LZ, d = 40 mm

When ordering freewheel size FB 340 and FB 440, please also specify the freewheeling direction of the inner ring when viewed in direction X:

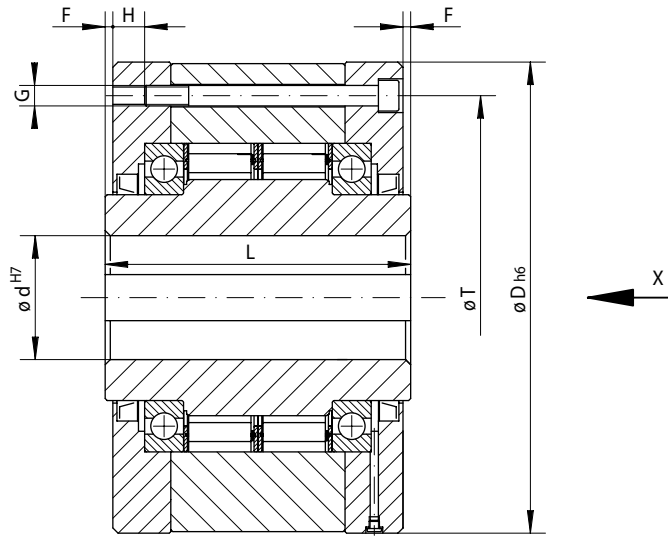
- counter-clockwise free or
- clockwise free

Complete Freewheels FB

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Size FB 24 to FB 270



Size FB 340 to FB 440

17-2

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

Freewheel Size	Type	Nominal torque Mn Nm	Max. speed		Type	Nominal torque Mn Nm	Max. speed		Type	Nominal torque Mn Nm	Sprag lift-off at inner ring speed min ⁻¹	Max. speed		Type	Nominal torque Mn Nm	Sprag lift-off at outer ring speed min ⁻¹	Max. speed	
			Inner ring freewheels/ overruns min ⁻¹	Outer ring freewheels/ overruns min ⁻¹			Inner ring freewheels/ overruns min ⁻¹	Outer ring freewheels/ overruns min ⁻¹				Inner ring freewheels/ overruns min ⁻¹	Outer ring drives min ⁻¹				Outer ring freewheels/ overruns min ⁻¹	Inner ring drives min ⁻¹
FB 24	CF	45	4800	5500	CFT	45	4800	5500										
FB 29	CF	80	3500	4000	CFT	80	3500	4000										
FB 37	SF	200	2500	2600	SFT	200	2500	2600									3000	340
FB 44	SF	320	1900	2200	SFT	320	1900	2200	DX	130	860	1900	344	CZ	180	800	2600	320
FB 57	SF	630	1400	1750	SFT	630	1400	1750	DX	460	750	1400	300	LZ	430	1400	2100	560
FB 72	SF	1250	1120	1600	SFT	1250	1120	1600	DX	720	700	1150	280	LZ	760	1220	1800	488
FB 82	SF	1800	1025	1450	SFT	1800	1025	1450	DX	1000	670	1050	268	SFZ	1700	1450	1600	580
FB 107	SF	2500	880	1250	SFT	2500	880	1250	DX	1500	610	900	244	SFZ	2500	1300	1350	520
FB 127	SF	5000	800	1150	SFT	5000	800	1150	SX	3400	380	800	152	SFZ	5000	1200	1200	480
FB 140	SF	10000	750	1100	SFT	10000	750	1100	SX	7500	320	750	128	SFZ	10000	950	1150	380
FB 200	SF	20000	630	900	SFT	20000	630	900	SX	23000	240	630	96	SFZ	20000	680	900	272
FB 270	SF	40000	510	750	SFT	40000	510	750	UX	40000	210	510	84	SFZ	37500	600	750	240
FB 340	SF	80000	460	630	SFT	80000	460	630										
FB 440	SF	160000	400	550	SFT	160000	400	550										

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

Freewheel Size	Bore d		D	F	G**	H	L	T	Z**	Weight
	Standard mm	max. mm								
FB 24	12	14*	62	1,0	M5	8	50	51	3	0,9
FB 29	15	17*	68	1,0	M5	8	52	56	3	1,1
FB 37	20	22*	75	0,5	M6	10	48	65	4	1,3
FB 44	25*	25*	90	0,5	M6	10	50	75	6	1,9
FB 57	30	32*	100	0,5	M8	12	65	88	6	2,8
FB 72	40	42*	125	1,0	M8	12	74	108	12	5,0
FB 82	50*	50*	135	2,0	M10	16	75	115	12	5,8
FB 107	60	65*	170	2,5	M10	16	90	150	10	11,0
FB 127	70	75*	200	3,0	M12	18	112	180	12	19,0
FB 140	90	95*	250	5,0	M16	25	150	225	12	42,0
FB 200	120	120	300	5,0	M16	25	160	270	16	62,0
FB 270	140	150	400	6,0	M20	30	212	360	18	150,0
FB 340	180	240	500	7,5	M20	35	265	450	24	275,0
FB 440	220	300	630	7,5	M30	40	315	560	24	510,0

Keyway according to DIN 6885, page 1 • Tolerance of keyway width JS10.
* Keyway according to DIN 6885, page 3 • Tolerance of keyway width JS10.
** Z = Number of tapped holes G on pitch circle T.