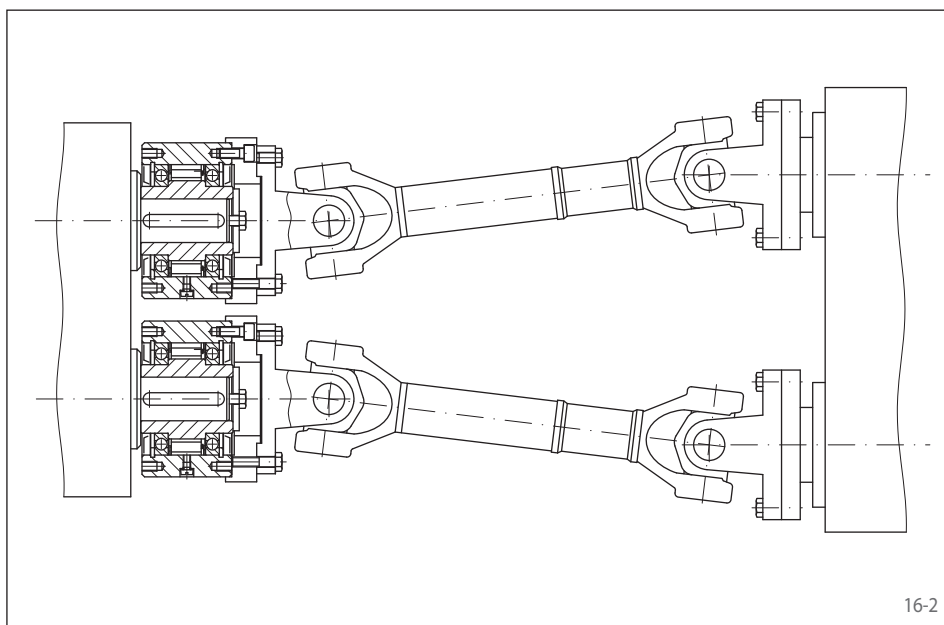


Complete Freewheels FB

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



16-1



16-2

Features

Complete Freewheels FB are sealed sprag freewheels with ball bearings. They are supplied oil-filled and ready for installation.

The freewheels FB are used as:

- ▶ Backstops
- ▶ Overrunning Clutches
- ▶ Indexing Freewheels

In addition to the standard type, four other types are available for extended service life and indexing accuracy.

Nominal torques up to 160 000 Nm.

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

Application example

Two Complete Freewheels FB 82 SFT as overrunning 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 lend 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 38 mm bore:

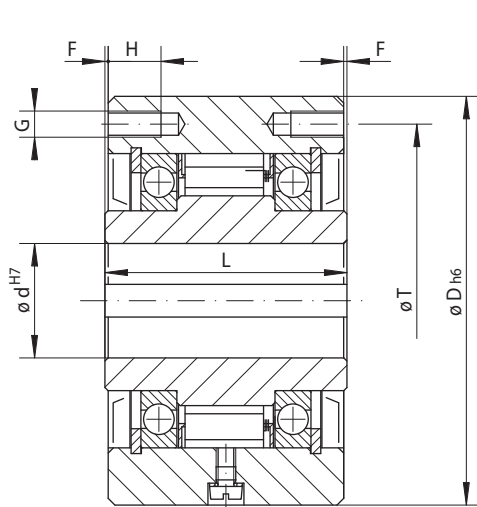
- FB 72 LZ, d = 38 mm

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

- counterclockwise free or
- clockwise free

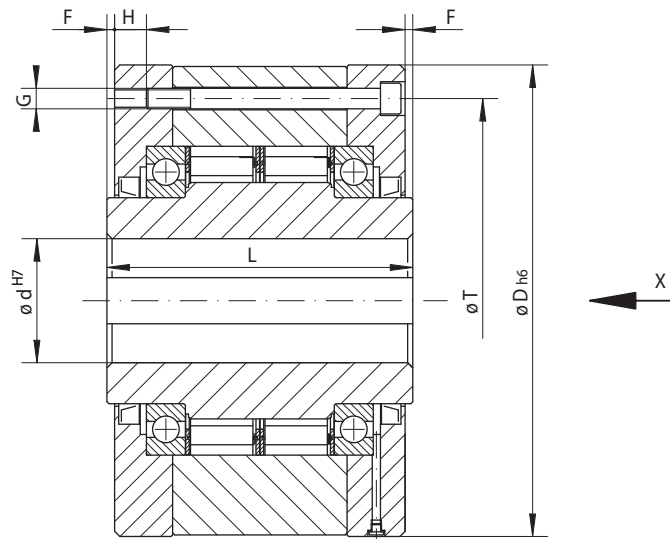
Complete Freewheels FB

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



Size FB 24 to FB 270

17-1



Size FB 340 to FB 440

17-2

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

Freewheel Size	Type	Nominal torque M _N Nm	Max. speed Inner ring freewheels/ overruns min ⁻¹	Outer ring freewheels/ overruns min ⁻¹	Type	Nominal torque M _N Nm	Max. speed Inner ring freewheels/ overruns min ⁻¹	Outer ring freewheels/ overruns min ⁻¹	Type	Nominal torque M _N Nm	Sprag lift-off at inner ring speed min ⁻¹	Max. speed Inner ring freewheels/ overruns min ⁻¹	Outer ring drives min ⁻¹	Type	Nominal torque M _N Nm
FB 24	CF	45	4 800	5 500	CFT	45	4 800	5 500						CFP	19
FB 29	CF	80	3 500	4 000	CFT	80	3 500	4 000						CFP	31
FB 37	SF	200	2 500	2 600	SFT	200	2 500	2 600						SFP	120
FB 44	SF	320	1 900	2 200	SFT	320	1 900	2 200	DX	130	860	1 900	344	CZ	110
FB 57	SF	630	1 400	1 750	SFT	630	1 400	1 750	DX	460	750	1 400	300	LZ	180
FB 72	SF	1 250	1 120	1 600	SFT	1 250	1 120	1 600	DX	720	700	1 150	280	LZ	310
FB 82	SF	1 800	1 025	1 450	SFT	1 800	1 025	1 450	DX	1 000	670	1 050	268	SFZ	630
FB 107	SF	2 500	880	1 250	SFT	2 500	880	1 250	DX	1 500	610	900	244	SFZ	750
FB 127	SF	5 000	800	1 150	SFT	5 000	800	1 150	SX	3 400	380	800	152	SFZ	1 250
FB 140	SF	10 000	750	1 100	SFT	10 000	750	1 100	SX	7 500	320	750	128	SFZ	3 100
FB 200	SF	20 000	630	900	SFT	20 000	630	900	SX	23 000	240	630	96	SFZ	6 300
FB 270	SF	40 000	510	750	SFT	40 000	510	750	UX	40 000	210	510	84	SFZ	12 500
FB 340	SF	80 000	460	630	SFT	80 000	460	630							25 000
FB 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 d						D	F	G**	H	L	T	Z**	Weight
	mm	mm	mm	mm	mm	max. mm	mm	mm		mm	mm	mm		kg
FB 24	12	14*				14*	62	1,0	M 5	8	50	51	3	0,9
FB 29	15	17*				17*	68	1,0	M 5	8	52	56	3	1,1
FB 37	14	16	18	20	22*	22*	75	0,5	M 6	10	48	65	4	1,3
FB 44	20	22	25*			25*	90	0,5	M 6	10	50	75	6	1,9
FB 57	25	28	30	32*		32*	100	0,5	M 8	12	65	88	6	2,8
FB 72	35	38	40	42*		42*	125	1,0	M 8	12	74	108	12	5,0
FB 82	35	40	45	50*		50*	135	2,0	M 10	16	75	115	12	5,8
FB 107	50	55	60	65*		65*	170	2,5	M 10	16	90	150	10	11,0
FB 127	50	60	70	75*		75*	200	3,0	M 12	18	112	180	12	19,0
FB 140	65	75	80	90		95*	250	5,0	M 16	25	150	225	12	42,0
FB 200	110	120				120	300	5,0	M 16	25	160	270	16	62,0
FB 270	140					150	400	6,0	M 20	30	212	360	18	150,0
FB 340	180					240	500	7,5	M 20	35	265	450	24	275,0
FB 440	220					300	630	7,5	M 30	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.