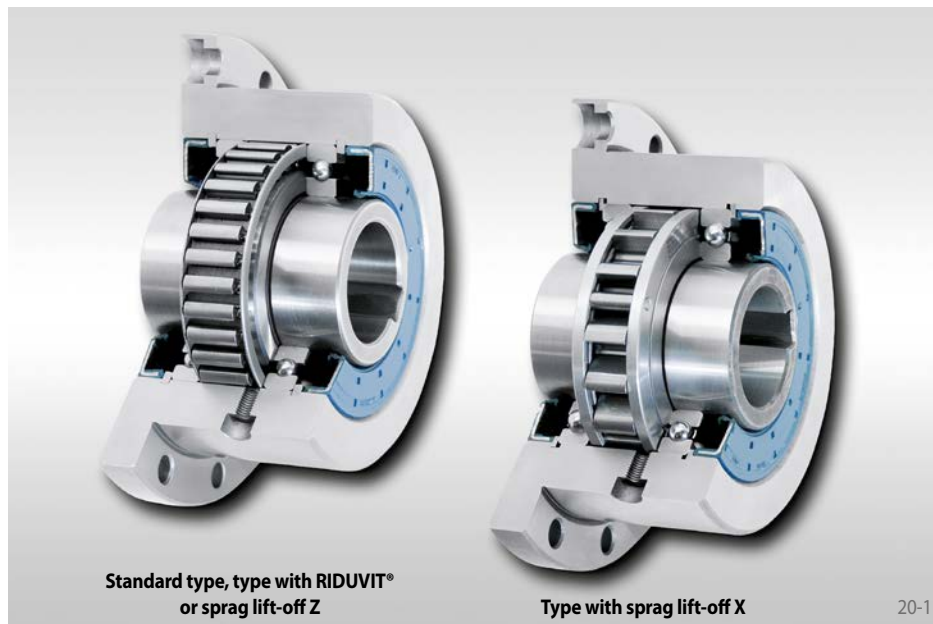


Complete Freewheels FBF

with mounting flange
with sprags, available in four types

RINGSPANN®



Application as

- Backstop
- Overrunning Clutch
- Indexing Freewheel

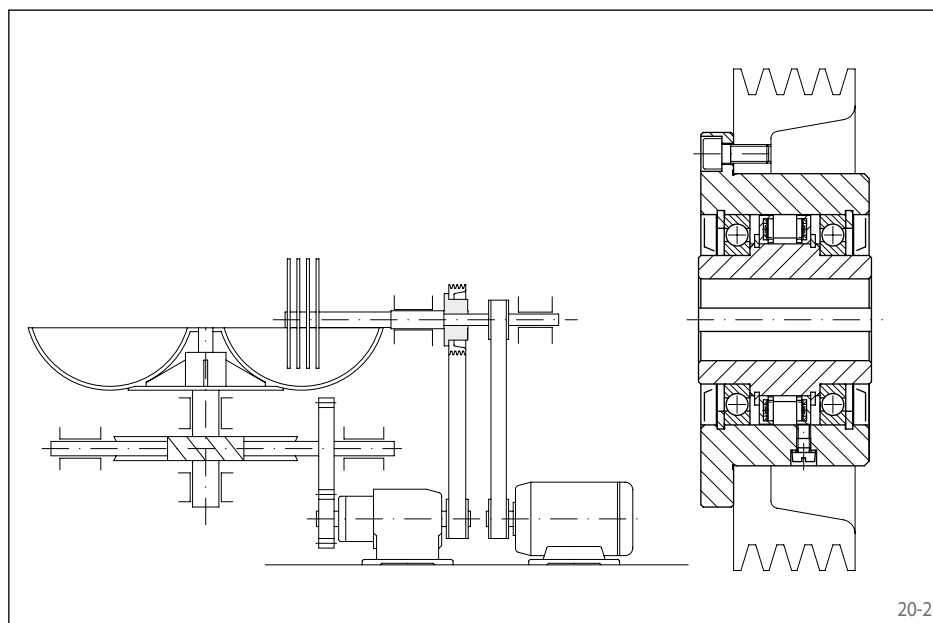
Features

Complete Freewheels FBF with mounting flange are sealed sprag freewheels with ball bearings. They are supplied oil-filled and ready for installation, on customer request with bio-degradable 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

Complete Freewheel FBF 72 DX as an overrunning clutch in the drive of a meat processing machine (chopper). During the mixing process, the gear motor drives the bowl via the gear wheel drive and simultaneously the knife shaft via the belt drive and the locked freewheel. In the cutting process, the knife shaft is driven by a second motor at high speed. By doing so, the inner ring overruns the outer ring that is driven by the gear motor and the gear motor is automatically disengaged. With the high speed of the inner ring in freewheeling operation, the type sprag lift-off X is used; the sprags work in freewheeling operation without contact and hence are wear-free.

Mounting

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

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 FBF 72, type with sprag lift-off X and 40 mm bore:

- FBF 72 DX, d = 40 mm

When ordering, please also specify the freewheeling direction of the inner ring when viewed in direction X:

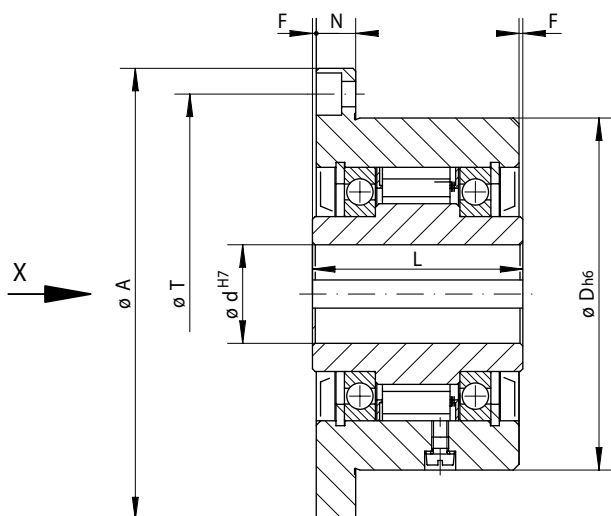
- counter-clockwise free or
- clockwise free

Complete Freewheels FBF

RINGSPANN®

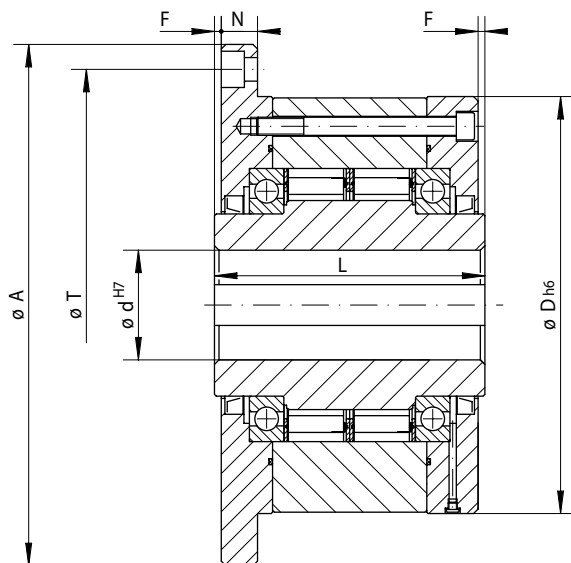
with mounting flange

with sprags, available in four types



Size FBF 24 to FBF 270

21-1



Size FBF 340 to FBF 440

21-2

Indexing Freewheel Overrunning Clutch Backstop	Standard type For universal use	Type with RIDUVIT® For extended service life with 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

Freewheel Size	Type	Nominal torque M _N Nm	Max. speed Inner ring freewheels/ overruns min ⁻¹	Max. speed Outer ring freewheels/ overruns min ⁻¹	Type	Nominal torque M _N Nm	Max. speed Inner ring freewheels/ overruns min ⁻¹	Max. speed 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	Max. speed Outer drives min ⁻¹	Type	Nominal torque M _N Nm	Sprag lift-off at outer ring speed min ⁻¹	Max. speed Outer ring freewheels/ overruns min ⁻¹	Max. speed Inner ring drives min ⁻¹
FBF 24	CF	45	4800	5500	CFT	45	4800	5500										
FBF 29	CF	80	3500	4000	CFT	80	3500	4000										
FBF 37	SF	200	2500	2600	SFT	200	2500	2600						CZ	110	850	3000	340
FBF 44	SF	320	1900	2200	SFT	320	1900	2200	DX	130	860	1900	344	CZ	180	800	2600	320
FBF 57	SF	630	1400	1750	SFT	630	1400	1750	DX	460	750	1400	300	LZ	430	1400	2100	560
FBF 72	SF	1250	1120	1600	SFT	1250	1120	1600	DX	720	700	1150	280	LZ	760	1220	1800	488
FBF 82	SF	1800	1025	1450	SFT	1800	1025	1450	DX	1000	670	1050	268	SFZ	1700	1450	1600	580
FBF 107	SF	2500	880	1250	SFT	2500	880	1250	DX	1500	610	900	244	SFZ	2500	1300	1350	520
FBF 127	SF	5000	800	1150	SFT	5000	800	1150	SX	3400	380	800	152	SFZ	5000	1200	1200	480
FBF 140	SF	10000	750	1100	SFT	10000	750	1100	SX	7500	320	750	128	SFZ	10000	950	1150	380
FBF 200	SF	20000	630	900	SFT	20000	630	900	SX	23000	240	630	96	SFZ	20000	680	900	272
FBF 270	SF	40000	510	750	SFT	40000	510	750	UX	40000	210	510	84	SFZ	37500	600	750	240
FBF 340	SF	80000	460	630	SFT	80000	460	630										
FBF 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		A	D	F	G**	L	N	T	Z**	Weight
	Standard mm	max. mm	mm	mm	mm		mm	mm	mm		kg
FBF 24	12	14*	85	62	1,0	M5	50	10	72	3	1,1
FBF 29	15	17*	92	68	1,0	M5	52	11	78	3	1,3
FBF 37	20	22*	98	75	0,5	M5	48	11	85	8	1,5
FBF 44	25*	25*	118	90	0,5	M6	50	12	104	8	2,3
FBF 57	30	32*	128	100	0,5	M6	65	12	114	12	3,2
FBF 72	40	42*	160	125	1,0	M8	74	14	142	12	5,8
FBF 82	50*	50*	180	135	2,0	M10	75	16	155	8	7,0
FBF 107	60	65*	214	170	2,5	M10	90	18	192	10	12,6
FBF 127	70	75*	250	200	3,0	M12	112	20	225	12	21,4
FBF 140	90	95*	315	250	5,0	M16	150	22	280	12	46,0
FBF 200	120	120	370	300	5,0	M16	160	25	335	16	68,0
FBF 270	140	150	490	400	6,0	M20	212	32	450	16	163,0
FBF 340	180	240	615	500	7,5	M24	265	40	560	18	300,0
FBF 440	220	300	775	630	7,5	M30	315	50	710	18	564,0

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 fastening holes for screws G (DIN EN ISO 4762) on pitch circle T.