

# Complete Freewheels FBS

in stainless steel



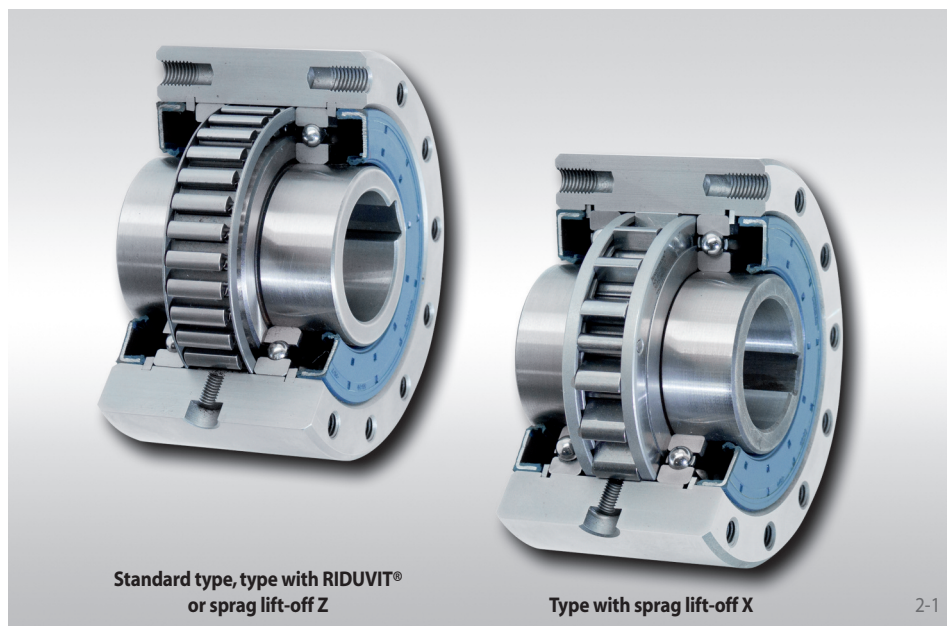
Issue 01/2016 • Technical details subject to change without notice.

E08.130e



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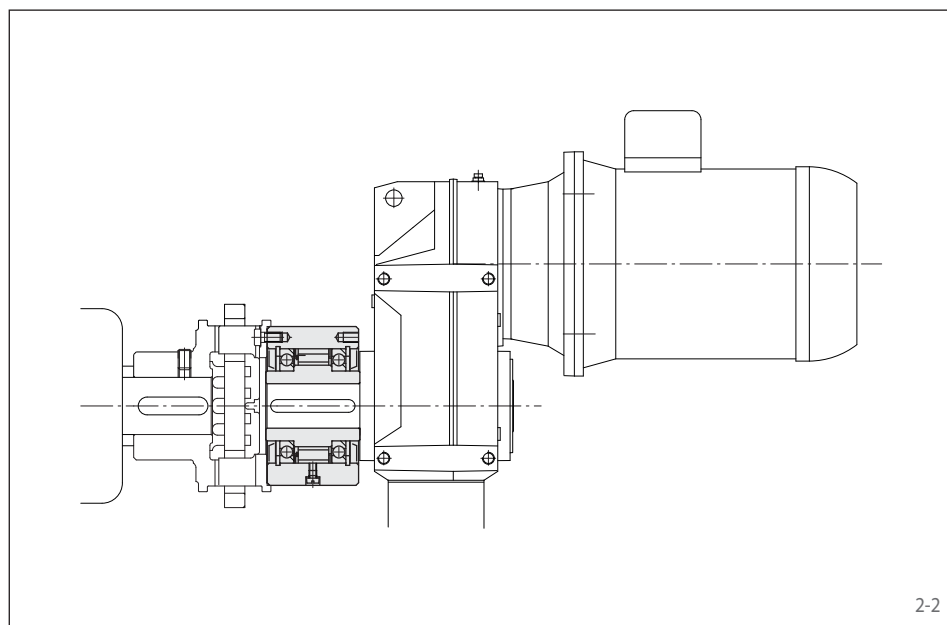
for bolting to the face  
with sprags, available in four types



Standard type, type with RIDUVIT®  
or sprag lift-off Z

Type with sprag lift-off X

2-1



2-2

## Application as

- ▶ Backstop
- ▶ Overrunning Clutch
- ▶ Indexing Freewheel

## Features

Complete Freewheels FBS in stainless steel are sealed sprag freewheels with ball bearings. They are supplied oil-filled and ready for installation.

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

Nominal torques up to 5 000 Nm.

Bores up to 75 mm. Many standard bores are available.

## Application example

Complete Freewheel FBS 44 SF in stainless steel as an overrunning clutch in the drive unit of a conveyor belt system in a freezer warehouse.

The freewheel and shaft coupling are arranged between the gear motor and the driving drum. In normal operation (driving operation), the freewheel engages the running gear motor with the driving drum.

The outer ring with shaft coupling overruns (freewheeling operation) after the drive is switched off and the conveyor belt with the frozen food can slow down freely.

## 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.

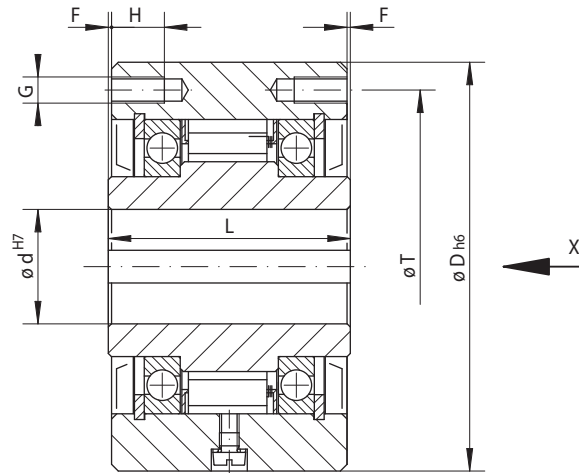
## Example for ordering

Freewheel size FBS 72 in stainless steel, standard type and bore 40 mm:

- FBS 72 SF in stainless steel,  
d = 40 mm

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3-1

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

Freewheel Size	Type	Nominal torque $M_N$ Nm	Max. speed		Type	Nominal torque $M_N$ Nm	Max. speed		Type	Nominal torque $M_N$ Nm	Sprag lift-off at inner ring speed $\text{min}^{-1}$	Max. speed		Type	Nominal torque $M_N$ Nm	Sprag lift-off at outer ring speed $\text{min}^{-1}$	Max. speed	
			Inner ring freewheels/overruns $\text{min}^{-1}$	Outer ring freewheels/overruns $\text{min}^{-1}$			Inner ring freewheels/overruns $\text{min}^{-1}$	Outer ring freewheels/overruns $\text{min}^{-1}$				Inner ring drives $\text{min}^{-1}$	Outer ring drives $\text{min}^{-1}$					
FBS 24	CF	45	4 800	5 500	CFT	45	4 800	5 500										
FBS 29	CF	80	3 500	4 000	CFT	80	3 500	4 000										
FBS 37	SF	200	2 500	2 600	SFT	200	2 500	2 600										
FBS 44	SF	320	1 900	2 200	SFT	320	1 900	2 200	NX	130	860	1 900	344	CZ	110	850	3 000	340
FBS 57	SF	630	1 400	1 750	SFT	630	1 400	1 750	NX	460	750	1 400	300	LZ	430	1 400	2 100	560
FBS 72	SF	1 250	1 120	1 600	SFT	1 250	1 120	1 600	NX	720	700	1 150	280	LZ	760	1 220	1 800	488
FBS 82	SF	1 800	1 025	1 450	SFT	1 800	1 025	1 450	NX	1 000	670	1 050	268	SFZ	1 700	1 450	1 600	580
FBS 107	SF	2 500	880	1 250	SFT	2 500	880	1 250	NX	1 500	610	900	244	SFZ	2 500	1 300	1 350	520
FBS 127	SF	5 000	800	1 150	SFT	5 000	800	1 150	MX	3 400	380	800	152	SFZ	5 000	1 200	1 200	480

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

Freewheel Size	Bore d		D mm	F mm	G**	H mm	L mm	T mm	Z**	Weight kg
	Standard mm	max. mm								
FBS 24	12	14*	62	1,0	M 5	8	50	51	3	0,9
FBS 29	15	17*	68	1,0	M 5	8	52	56	3	1,1
FBS 37	20	22*	75	0,5	M 6	10	48	65	4	1,3
FBS 44	25*	25*	90	0,5	M 6	10	50	75	6	1,9
FBS 57	30	32*	100	0,5	M 8	12	65	88	6	2,8
FBS 72	40	42*	125	1,0	M 8	12	74	108	12	5,0
FBS 82	50*	50*	135	2,0	M 10	16	75	115	12	5,8
FBS 107	60	65*	170	2,5	M 10	16	90	150	10	11,0
FBS 127	70	75*	200	3,0	M 12	18	112	180	12	19,0

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.

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