

Internal Freewheels FN

for keyway connection on the outer ring
with rollers

RINGSPANN®



96-1

Application as

- ▶ Backstop
- ▶ Overrunning Clutch
- ▶ Indexing Freewheel

Features

Internal Freewheels FN are roller freewheels without bearing support.

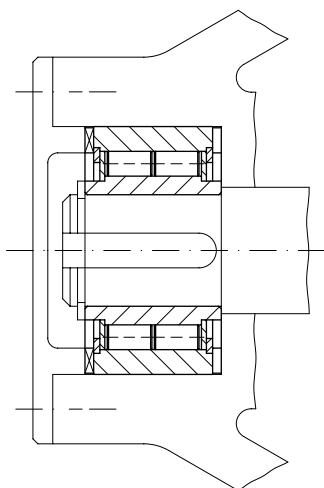
The freewheel is built into the customer housing. This makes compact, space-saving fitting solutions possible.

Nominal torques up to 3000 Nm. The faces of both sides of the outer ring are provided with grooves for torque transmission.

Bores up to 60 mm.

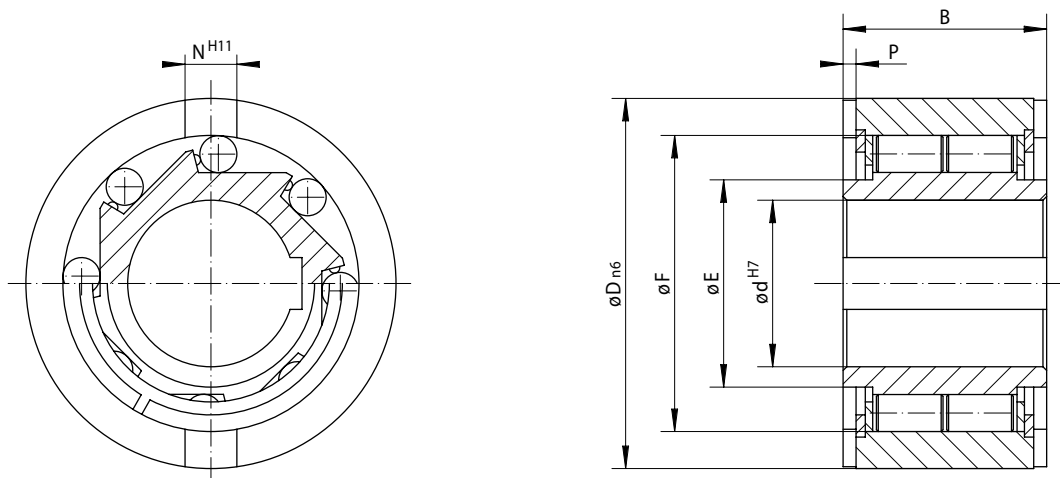
Application example

Internal freewheel FN 20 as a backstop, on the drive shaft of running gears on a chain conveyor. In normal operation, the drive shaft drives and the freewheel works in freewheeling operation. The freewheel as a backstop prevents the running gears from being able to run backwards uncontrolled in the event of a fault.



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for keyway connection on the outer ring
with rollers



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Indexing Freewheel Overrunning Clutch Backstop	Standard type For universal use	Dimensions

Freewheel Size	Nominal torque M_N Nm	Max. speed		Bore d mm	B mm	D mm	E mm	F mm	N mm	P mm	Weight kg
		Inner ring freewheels/ overruns min ⁻¹	Outer ring freewheels/ overruns min ⁻¹								
FN 8	18	2800	5400	8	20	37	19	30	6	3,0	0,1
FN 12	18	2800	5400	12	20	37	19	30	6	3,0	0,1
FN 15	50	2500	5100	15	30	47	23	37	7	3,5	0,3
FN 20	112	1900	4350	20	36	62	35	50	8	3,5	0,6
FN 25	220	1550	3350	25	40	80	40	68	9	4,0	1,1
FN 30	410	1400	3050	30	48	90	45	75	12	5,0	1,6
FN 35	500	1300	2850	35	53	100	50	80	13	6,0	2,3
FN 40	750	1150	2500	40	63	110	55	90	15	7,0	3,1
FN 45	1020	1100	2400	45	63	120	60	95	16	7,0	3,7
FN 50	1900	950	2050	50	80	130	70	110	17	8,5	5,3
FN 55	2000	900	1900	55	80	140	75	115	18	9,0	6,0
FN 60	3000	800	1800	60	95	150	80	125	18	9,0	8,4

The maximum transmissible torque is 2 times the specified nominal torque. See page 14 for determination of selection torque.
Keyway according to DIN 6885, page 1 • Tolerance of keyway width JS10.

Mounting

Internal Freewheels FN are without bearing support. Concentric alignment of inner and outer ring must be provided by the customer.

The tolerance of the housing bore D must be ISO H7 or G7 and the tolerance of the shaft must be ISO h6 or j6.

The outer ring has to be completely enclosed in a stable housing to transmit the listed torques.

Lubrication

An oil lubrication of the specified quality must be provided.

Example for ordering

Freewheel size FN 45, standard type:

- FN 45