

# Internal Freewheels FNR

for keyway connection on the outer ring  
with rollers and bearing



100-1

## Features

Internal Freewheels FNR are roller freewheels with bearing support. The freewheels of sizes 8 to 20 have a sleeve bearing. The sizes 25 to 60 have ball bearings, these enable higher speeds in freewheeling operation.

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

The freewheels FNR are used as:

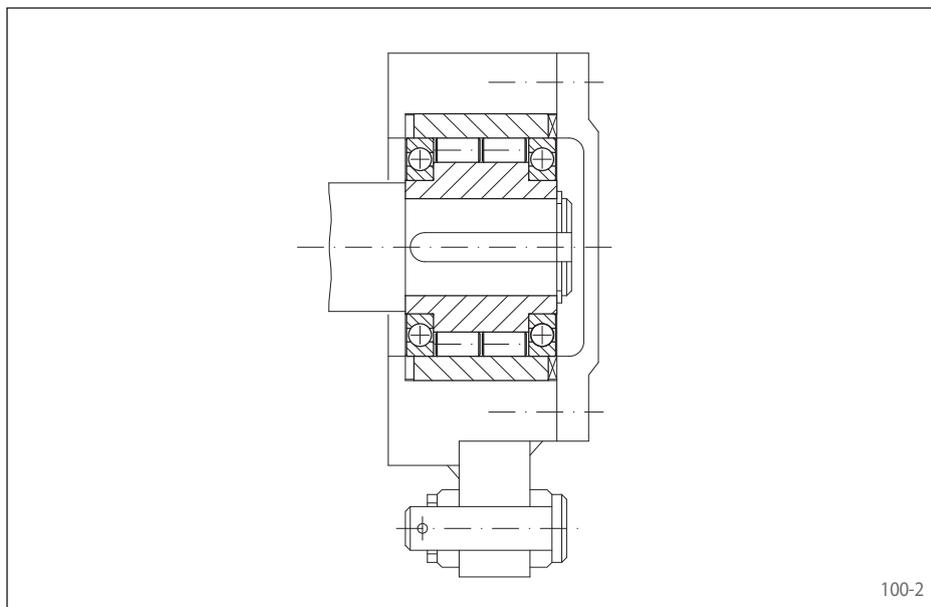
- ▶ Backstops
- ▶ Overrunning Clutches
- ▶ Indexing Freewheels

Nominal torques up to 3 000 Nm. The faces of both sides of the outer ring are provided with grooves for torque transmission.

Bores up to 60 mm.

## Application example

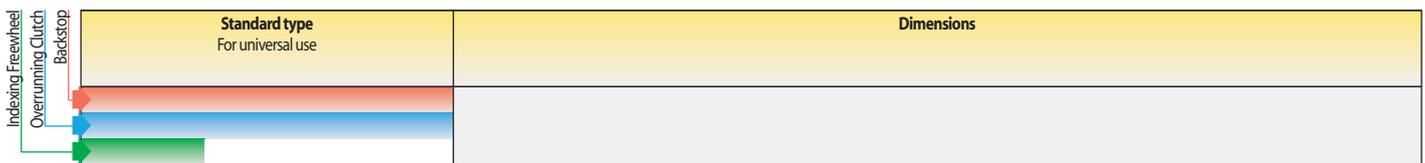
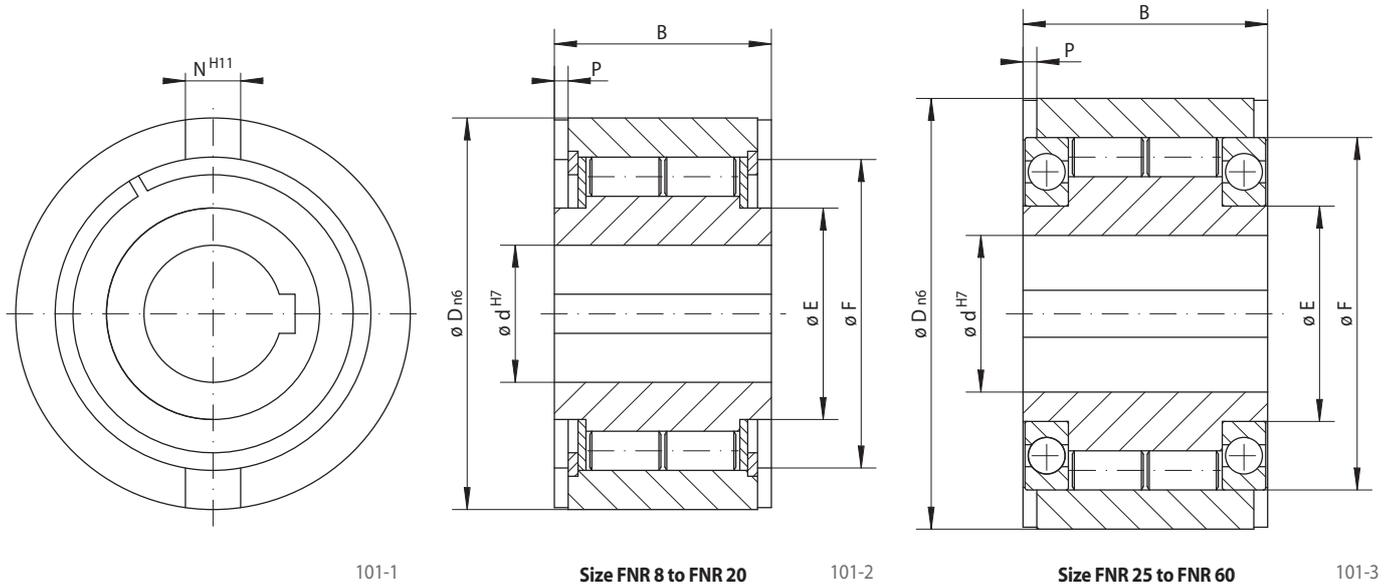
Internal Freewheel FNR 40 as an indexing freewheel for an incremental drive in the feeding device of a wire processing machine. The indexing lever is driven by a crank operation. The back and forth movement is transferred by the indexing freewheel in a gradual rotating movement of the wire feeding device.



100-2

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Freewheel Size	Nominal torque 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 <sup>-1</sup>	Outer ring freewheels/overruns min <sup>-1</sup>								
FNR 8	18	1200	1200	8	20	37	19	30	6	3,0	0,1
FNR 12	18	1200	1200	12	20	37	19	30	6	3,0	0,1
FNR 15	50	950	950	15	30	47	23	37	7	3,5	0,3
FNR 20	112	650	650	20	36	62	35	50	8	6,5	0,6
FNR 25	220	1550	3350	25	40	80	40	68	9	4,0	1,3
FNR 30	410	1400	3050	30	48	90	45	75	12	5,0	1,9
FNR 35	500	1300	2850	35	53	100	50	80	13	6,0	2,6
FNR 40	750	1150	2500	40	63	110	55	90	15	7,0	3,6
FNR 45	1020	1100	2400	45	63	120	60	95	16	7,0	4,2
FNR 50	1900	950	2050	50	80	130	70	110	17	8,5	6,0
FNR 55	2000	900	1900	55	80	140	75	115	18	9,0	6,8
FNR 60	3000	800	1800	60	95	150	80	125	18	9,0	9,5

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

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.

## Lubrication

An oil lubrication of the specified quality must be provided.

## Example for ordering

Freewheel size FNR 20, standard type:  
• FNR 20