

# Internal Freewheels FZ ...

with ball bearing properties



88-1

## Application as

- ▶ Backstop
- ▶ Overrunning Clutch
- ▶ Indexing Freewheel

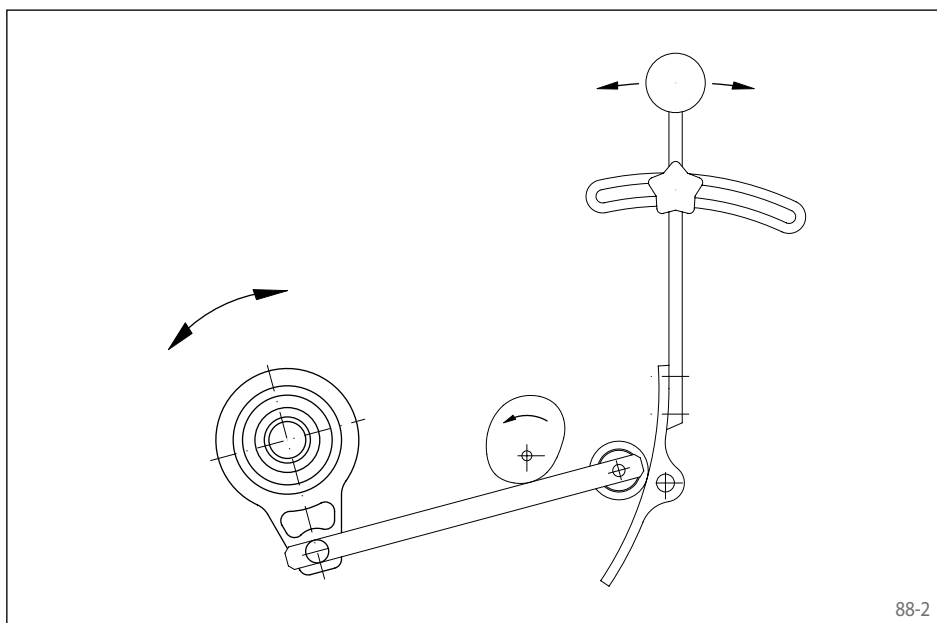
## Features

Internal Freewheels FZ ... are sprag freewheels with bearing support and ball bearing properties. The freewheels are supplied grease-filled for normal operating conditions.

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

Nominal torques up to 420 Nm. The torque is transmitted on the inner ring and/or on the outer ring by press fit or keyway connection.

Bores up to 40 mm.



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The following series are available:

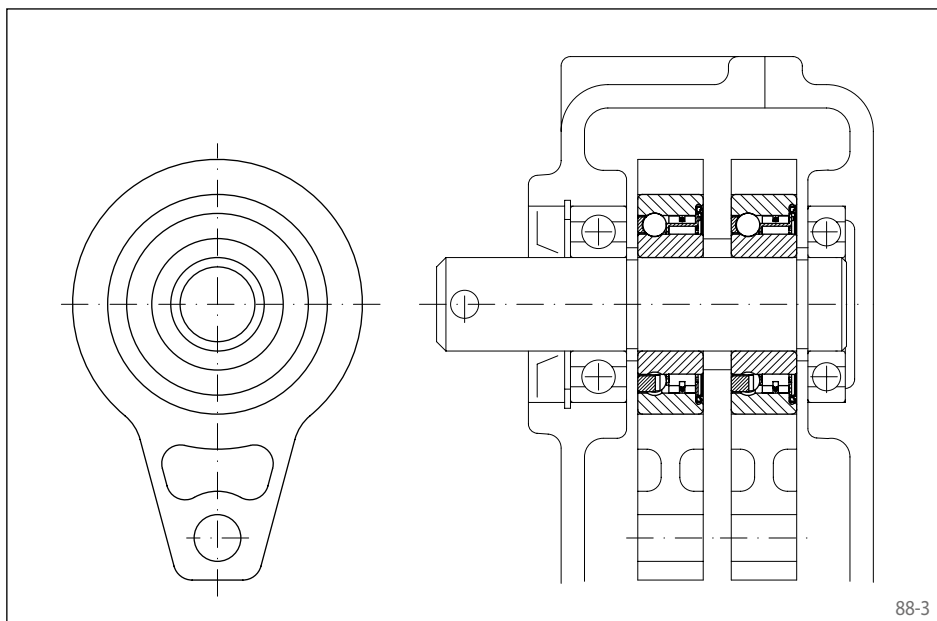
Series	Torque transmission on				2RS-seals	Page
	Outer ring by		Inner ring by			
	keyway	press fit	keyway	press fit		
FZ		●		●		89
FZ ... 2RS		●		●	●	90
FZ ... P2RS		●	●		●	91
FZ ... P		●	●			92
FZ ... PP	●		●			93

Internal Freewheels FZ 6201 to FZ 6207, FZ 6201 P to FZ 6207 P and FZ 6202 PP to FZ 6207 PP have the same dimensions as the respective ball bearings of series 62. The freewheel sizes FZ 6208, FZ 6208 P and FZ 6208 PP as well as the series FZ ... 2RS and FZ ... P2RS have a different width B.

The series FZ ... 2RS and FZ ... P2RS have 2RS seals.

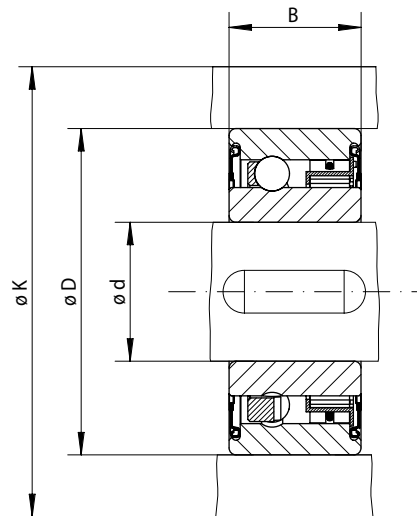
## Application example

Two Internal Freewheels FZ 6206 as indexing freewheels in the drive of the metering roller of a seed spreader. The freewheels are built in an infinitely variable oil bath gearbox. Two cam disks that are set off by 180° are arranged on the gearbox shaft. By means of lever arms, these drive the outer rings of the two adjacent Internal Freewheels, which then gradually turn the metering shaft. The infinite speed settings of the gearbox's drive shaft are executed by means of the respective pivoting of the roller support plate, so that the lever arms can execute lifts of differing amounts.

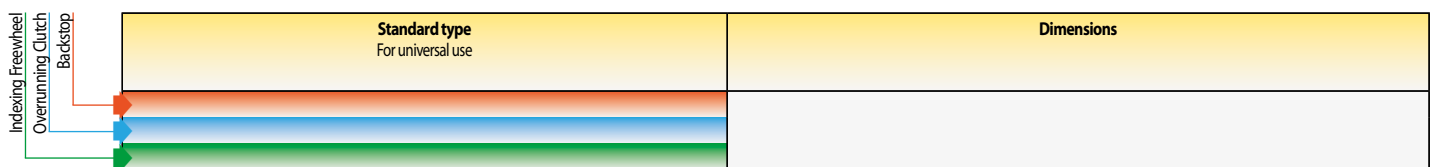


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for press fit on the outer ring  
with sprags, bearing support and sealing



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Freewheel Size	Nominal torque $M_N$ Nm	Max. speed $n$ $\text{min}^{-1}$	Load rating of bearing support		Bore $d$ mm	$B^{**}$ mm	$D$ mm	$K$ mm	Weight kg
			dynamic $C$ N	static $C_0$ N					
FZ 6201 P2RS	9	10000	5140	2370	12*	14	32	39	0,05
FZ 6202 P2RS	21	8400	5160	2410	15*	16	35	42	0,07
FZ 6203 P2RS	32	7300	5650	2860	17*	17	40	51	0,09
FZ 6204 P2RS	88	6000	6890	4190	20*	19	47	58	0,15
FZ 6205 P2RS	100	5200	7230	4660	25*	20	52	63	0,18
FZ 6206 P2RS	230	4000	7730	5660	30*	21	62	73	0,30
FZ 6207 P2RS	330	3600	8170	6630	35*	22	72	85	0,40
FZ 6208 P2RS	420	3000	8950	7990	40	27	80	94	0,60

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.

\* Keyway according to DIN 6885, page 3 • Tolerance of keyway width JS10.

\*\* The width of freewheel size from FZ 6201 P2RS to FZ 6208 P2RS is different to the corresponding ball bearings of series 62.

## Mounting

The torque is transmitted on the inner ring by keyway connection and on the outer ring by press fit. In order to transmit the torques specified in the table, the outer ring must be accommodated in a housing with an external diameter  $K$ . The housing is made of steel or grey cast iron in minimum quality GG-20. When using other housing materials or smaller external diameters, we urge you to contact us regarding the transmissible torque.

The tolerance of the housing bore  $D$  must be ISO N6 and the tolerance of the shaft must be ISO k6.

The permissible operating temperature of the freewheel is  $-20\text{ }^{\circ}\text{C}$  to  $+80\text{ }^{\circ}\text{C}$ . Please contact us if the temperature is different to the given values.

## Lubrication

The freewheels are supplied grease-filled and with 2 RS seals.

## Example for ordering

Freewheel size FZ 6205 P2RS, standard type:

- FZ 6205 P2RS