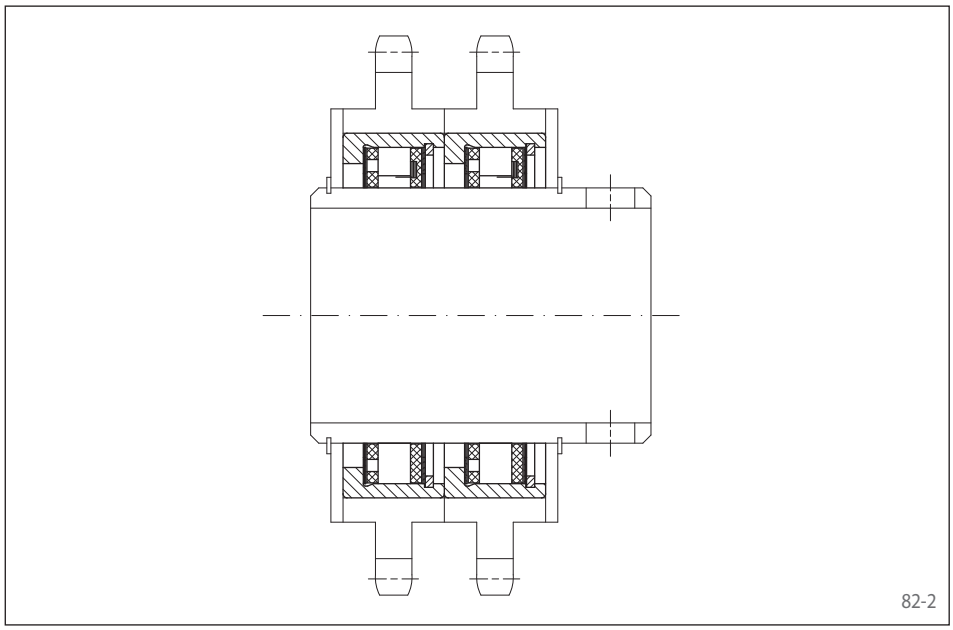
Internal Freewheels FD

for press fit on the outer ring with sprags


82-1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Application as

- Backstop
- Overrunning Clutch
- Indexing Freewheel

Features

Internal Freewheels FD are sprag freewheels without an inner ring. The customers hardened and ground shaft is used as the inner track.

The standard type does not have bearing support. In the case of the standard type, every second sprag has been be replaced by a cylindrical roller; this freewheel can accept radial forces.

Nominal torques up to 2 400 Nm. The torque is transmitted on the outer ring by press fit.

Application example

Two Internal Freewheels FD 40 CFR of standard type with bearing support as overrunning clutches in the drive of the transport rollers in a packaging distribution unit. In normal operation, the transport rollers are driven by means of the freewheels that are working in driving operation. At the withdrawal station, the arriving packages can easily slip off as the drive is overrun by the freewheel (freewheeling operation).

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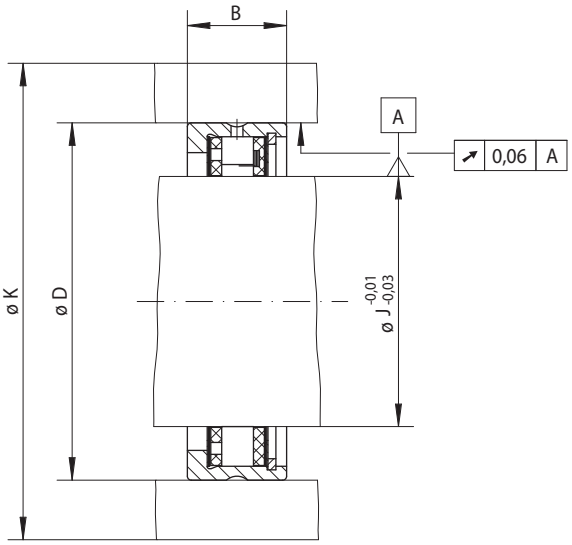

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Indexing Freewheel
Overrunning Clutch
Backstop

Standard type For universal use	Standard type with bearing support For universal use	Dimensions

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}	Load rating of bearing support dynamic C N	Load rating of bearing support static C_0 N	J mm	B mm	D mm	K mm	Weight kg
FD 12	CFH	11	4225	4250	CFR	6	4225	4250	7600	4200	12	16	34	45	0,1
FD 15	CFH	16	3875	3925	CFR	8	3875	3925	7800	4200	15	20	37	50	0,1
FD 20	CFH	28	3375	3450	CFR	14	3375	3450	8320	4200	20	20	42	55	0,1
FD 25	CFH	48	2900	3050	CFR	24	2900	3050	10700	5600	25	20	47	60	0,1
FD 30	CFH	75	2525	2675	CFR	36	2525	2675	12900	7000	30	20	52	65	0,1
FD 40	CFH	160	1900	2150	CFR	71	1900	2150	15000	8400	40	22	62	80	0,1
FD 50	CFH	260	1475	1775	CFR	120	1475	1775	18400	11300	50	22	72	95	0,2
FD 65	CFH	430	1200	1550	CFR	200	1200	1550	21400	14100	65	25	90	120	0,3
FD 80	CFH	650	950	1350	CFR	300	950	1350	23800	17800	80	25	110	140	0,6
FD 105	CFH	2400	800	1175	CFR	1100	800	1175	48600	45000	105	35	130	165	0,7

Freewheels FD are available with short delivery times.
The maximum transmissible torque is 2 times the specified nominal torque. See page 14 for determination of selection torque.
The maximum speed values listed above apply to installation conditions as they are given for Complete Freewheels. If the actual installation conditions are known, higher speeds may be permitted under certain circumstances.

Mounting

Internal freewheels FD in type standard are without bearing support. Concentric alignment of inner and outer ring must be provided by the customer. The permissible run out (T.I.R.) must be observed.

The torque is transmitted 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 P6.

Please note the technical points on page 108 regarding the sprag track (shaft).

The permissible operating temperature of the freewheel is -40°C to 80°C.

Lubrication

An oil lubrication of the specified quality must be provided.

Example for ordering

Freewheel size FD 12, standard type:

- FD 12 CFH

Morskate®

Any questions? Please contact us.

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