

# Complete Freewheel Clutch Unit FP

for press fit (IR and OR)



## Components

### Freewheel clutch

**insert element\*** FE 400 M (meander spring)  
FE 400 Z (tension spring)

**+ Raceways** Bearing steel, hardened and ground  
**inner ring** Press fit  
**outer ring** Press fit

**+ Ball bearing** Integrated

**+ Roller bearing** Integrated

- Lubrication -

- Seal -

\* available with either freewheel clutch insert element FE 400 M (meander spring) or FE 400 Z (tension spring).

## Characteristics

**Width**  
27 mm

**Operating temperature**  
max. 140°C  
Higher temperatures on request

## Lubrication

oil or grease lubrication (Pg. 60–61)  
Delivered with corrosion protection.  
Operative grease filling on request.

## Installation

### Installation tolerances

Shaft h5; hub H6

### Mating parts

Hardening and grinding of the mating parts is not necessary. Thoroughly clean (grease free) the mating parts in the vicinity of the freewheel clutch as well as the freewheel clutch's rings before making the press fit.

### Bearing

The freewheel clutch includes ball and roller bearings. Additional external bearing support is not necessary.

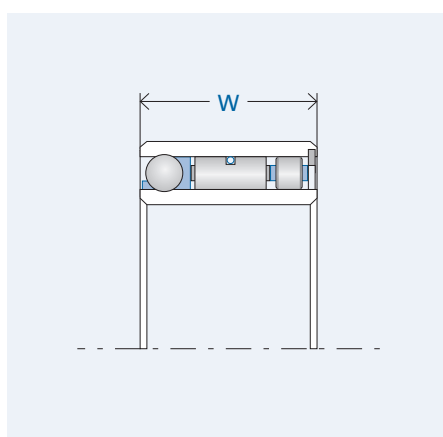
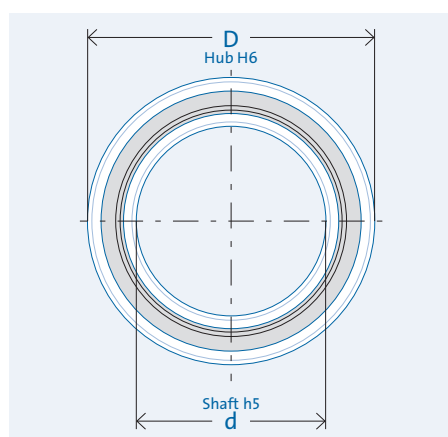
### Press fit pressure

Press fit pressure must not be applied to the balls.

### Clamping direction

The arrow on the inner ring designates the inner ring's clamping direction.

## Data



## Drawing legend

- d = inner diameter
- D = outer diameter
- W = width
- T = torque
- n = rotation speed
- C = load capacity

Designation	d [mm]	D [mm]	W [mm]	T <sub>nom</sub> [Nm]	n <sub>max</sub> [rpm]	C <sub>dyn.</sub> [N]	C <sub>stat.</sub> [N]	Weight [kg]	Item no.
FP 422 M	10	26	27	60	10,100	6,013	4,380	0.07	300655
FP 422 Z	10	26	27	53	10,100	6,013	4,380	0.07	300656
FP 427 M	15	31	27	94	7,400	7,679	6,397	0.08	300663
FP 427 Z	15	31	27	84	7,400	7,679	6,397	0.08	300664
FP 432 M	20	36	27	133	5,900	8,104	7,241	0.10	300669
FP 432 Z	20	36	27	121	5,900	8,104	7,241	0.10	300670
FP 437 M	25	41	27	176	4,800	9,201	8,142	0.12	300673
FP 437 Z	25	41	27	160	4,800	9,201	8,142	0.12	300674
FP 442 M	30	46	27	223	4,200	10,247	10,708	0.14	300679
FP 442 Z	30	46	27	208	4,200	10,247	10,708	0.14	300680
FP 448 M	35	53	27	286	4,300	11,642	13,440	0.19	306522
FP 448 Z	35	53	27	262	4,300	11,642	13,440	0.19	306523
FP 453 M	40	58	27	343	3,400	11,417	13,577	0.21	300683
FP 453 Z	40	58	27	314	3,400	11,417	13,577	0.21	300684
FP 463 M	50	68	27	461	2,900	13,070	17,063	0.25	300685
FP 463 Z	50	68	27	428	2,900	13,070	17,063	0.25	300687
FP 473 M	60	78	27	588	2,500	14,128	19,896	0.30	300691
FP 473 Z	60	78	27	543	2,500	14,128	19,896	0.30	300693

The specified nominal torque is based on sufficient stiffness of mating parts (Pg. 22).

Rotation speed n = insert element's inherent speed (Pg. 57)