Freewheel Clutch Insert Element FR

with rings

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	-
- Roller bearing	-
- Lubrication	-
- Seal	-

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

Characteristics

Width
12 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

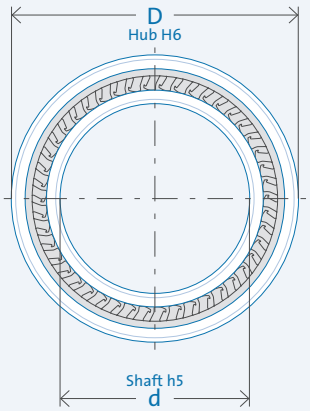
Installation tolerances
Shaft h5; hub H6

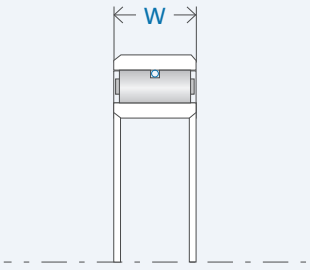
Constraints
The freewheel clutch insert element requires axial constraints on both sides.

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
Freewheel clutch insert elements are not self-centering. External bearing support to define the gap between mating parts (inner and outer rings) is necessary.

Data





Designation	d [mm]	D [mm]	W [mm]	T_{nom} [Nm]	n_{max} [rpm]	Weight [kg]	Item no.
FR 422 M	10	26	12	60	10,100	0.03	300587
FR 422 Z	10	26	12	53	10,100	0.03	300588
FR 427 M	15	31	12	92	7,400	0.04	300591
FR 427 Z	15	31	12	83	7,400	0.04	300592
FR 432 M	20	36	12	128	5,900	0.05	300593
FR 432 Z	20	36	12	117	5,900	0.05	300594
FR 437 M	25	41	12	169	4,800	0.06	300595
FR 437 Z	25	41	12	154	4,800	0.06	300598
FR 442 M	30	46	12	212	4,200	0.07	300599
FR 442 Z	30	46	12	198	4,200	0.07	300600
FR 448 M	35	53	12	272	4,300	0.09	300602
FR 448 Z	35	53	12	248	4,300	0.09	300603
FR 453 M	40	58	12	321	3,400	0.10	300605
FR 453 Z	40	58	12	294	3,400	0.10	300606
FR 463 M	50	68	12	427	2,900	0.12	300608
FR 463 Z	50	68	12	394	2,900	0.12	300610
FR 473 M	60	78	12	539	2,500	0.14	300611
FR 473 Z	60	78	12	496	2,500	0.14	300613

The specified nominal torque is based on sufficient stiffness of mating parts *(Pg. 22)*.
Rotation speed n = insert element's inherent speed *(Pg. 57)*

Drawing legend

d = inner diameter
D = outer diameter
W = width
T = torque
n = rotation speed