

Ballscrews

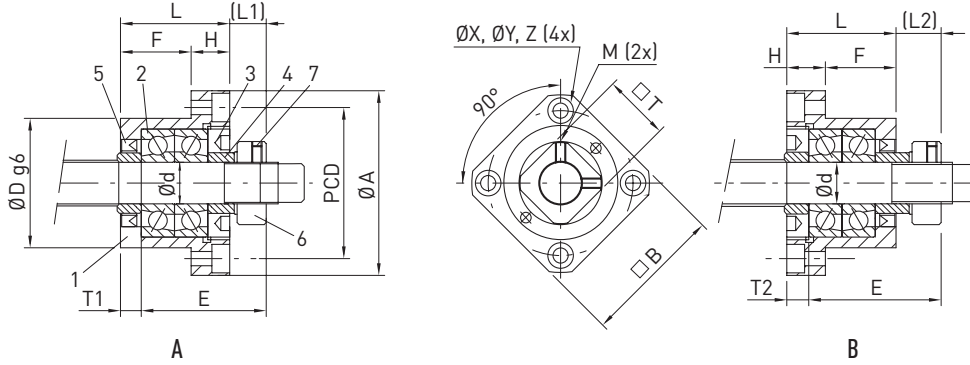
Shaft ends and accessories

8.7 FK/FF bearing series

8.7.1 Fixed bearing FK

The associated supporting bearing unit is the FF bearing series (Section 8.7.2). The end machining suited to fixed bearing FK is the E8-xx type (Section 8.1).

The bearings are lubricated for life.



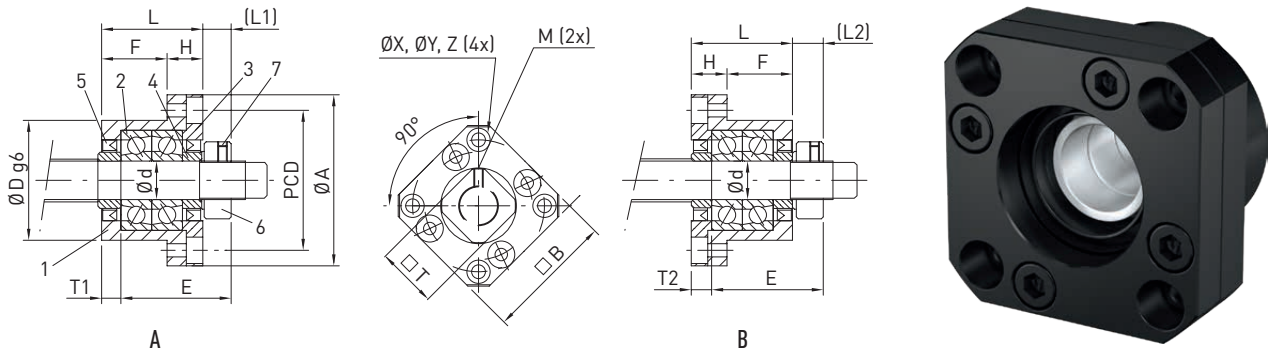
(1) Housing, (2) Bearing, (3) Retaining cover, (4) Support ring, (5) Seal, (6) Clamping nut, (7) Allen set screw



Table 8.31 Bearing unit dimensions

| Type | Shaft nominal Ø | d | L | H | F | E | D | A | PCD | B | Assembly variant A | | Assembly variant B | | Hole X | Counter bore Y | Counter bore depth Z | M | T |
|------|-----------------|---|----|---|----|----|----|----|-----|----|--------------------|----|--------------------|----|--------|----------------|----------------------|----|----|
| | | | | | | | | | | | L1 | T1 | L2 | T2 | | | | | |
| FK08 | 12 | 8 | 23 | 9 | 14 | 26 | 28 | 43 | 35 | 35 | 7 | 4 | 8 | 5 | 3.4 | 6.5 | 4 | M3 | 14 |

Unit: mm



(1) Housing, (2) Bearing, (3) Retaining cover, (4) Support ring, (5) Seal, (6) Clamping nut, (7) Allen set screw



Table 8.32 Bearing unit dimensions

| Type | Shaft nominal \varnothing | d | L | H | F | E | D | A | PCD | B | Assembly variant A | | Assembly variant B | | Hole X | Counter bore Y | Counter bore depth Z | M | T |
|------|-----------------------------|----|----|----|----|------|----|-----|-----|----|--------------------|----|--------------------|----|--------|----------------|----------------------|----|----|
| | | | | | | | | | | | L1 | T1 | L2 | T2 | | | | | |
| FK10 | 16 | 10 | 27 | 10 | 17 | 29.5 | 34 | 52 | 42 | 42 | 7.5 | 5 | 8.5 | 6 | 4.5 | 8.0 | 5 | M3 | 16 |
| FK12 | 16 ¹⁾ | 12 | 27 | 10 | 17 | 29.5 | 36 | 54 | 44 | 44 | 7.5 | 5 | 8.5 | 6 | 4.5 | 8.0 | 5 | M4 | 19 |
| FK15 | 20 | 15 | 32 | 15 | 17 | 36.0 | 40 | 63 | 50 | 52 | 10.0 | 6 | 12.0 | 8 | 5.5 | 9.5 | 6 | M4 | 22 |
| FK20 | 25 | 20 | 52 | 22 | 30 | 50.0 | 57 | 85 | 70 | 68 | 8.0 | 10 | 12.0 | 14 | 6.6 | 11.0 | 10 | M4 | 30 |
| FK25 | 32 | 25 | 57 | 27 | 30 | 60.0 | 63 | 98 | 80 | 79 | 13.0 | 10 | 20.0 | 17 | 9.0 | 15.0 | 13 | M6 | 35 |
| FK30 | 40 | 30 | 62 | 30 | 32 | 61.0 | 75 | 117 | 95 | 93 | 11.0 | 12 | 17.0 | 18 | 11.0 | 17.5 | 15 | M6 | 40 |

Unit: mm

¹⁾ Depending on actual shaft outer diameter $d_{s\min} = 15.5$

Table 8.33 Technical data of bearing

| Type | Bearing type | C_0 axial [N] | C_{dyn} axial [N] | Max. permissible axial load [N] | Lock nut | | | | Article number |
|------|--------------|-----------------|---------------------|---------------------------------|----------|----------------------------|------------|------------------------------|----------------|
| | | | | | Type | Nut tightening torque [Nm] | Screw size | Screw tightening torque [Nm] | |
| FK08 | 708 | 4,800 | 2,800 | 1,000 | RN8 | 2.5 | M3 | 0.6 | 18-000446 |
| FK10 | 7000A P0 | 8,800 | 5,200 | 1,900 | RN10 | 2.9 | M3 | 0.6 | 18-000037 |
| FK12 | 7001A P0 | 9,400 | 6,000 | 2,200 | RN12 | 6.4 | M4 | 1.5 | 18-000447 |
| FK15 | 7002A P0 | 10,000 | 6,900 | 2,400 | RN15 | 7.9 | M4 | 1.5 | 18-000448 |
| FK20 | 7204B P0 | 21,600 | 15,300 | 6,800 | RN20 | 16.7 | M4 | 1.5 | 18-000449 |
| FK25 | 7205B P0 | 24,000 | 19,000 | 8,100 | RN25 | 20.6 | M6 | 4.9 | 18-000450 |
| FK30 | 7206B P0 | 33,500 | 27,000 | 10,600 | RN30 | 31.4 | M6 | 4.9 | 18-000451 |