

Ball screws Bearing housings

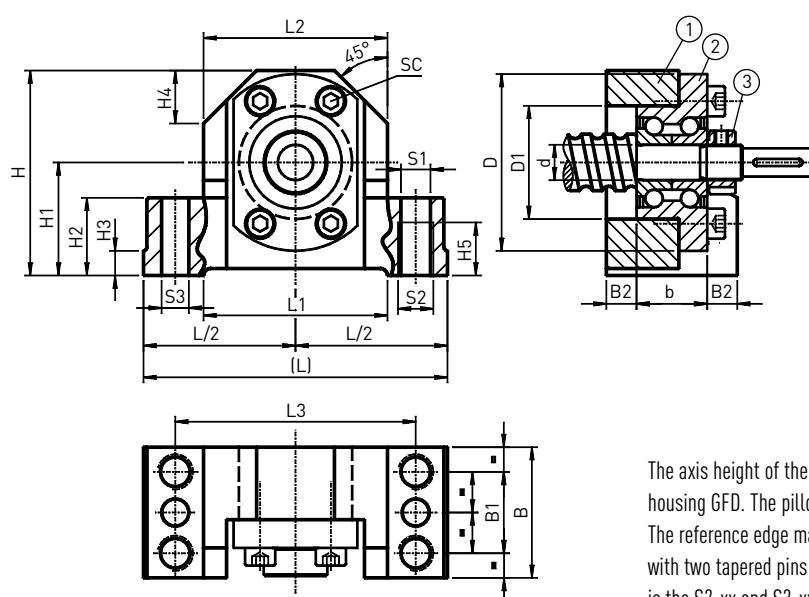
5.1 Fixed bearing housing type SFA

Precise bearing housings SFA are recommended for peeled and ground ball screws.

Fixed bearing housing SFA includes:

- Steel housing
- Angular contact ball bearing ZKL
- Lock nut

SFA-06 ÷ SFA-10



(1) Steel housing, (2) Bearing, (3) Lock nut

The axis height of the fixed bearing is matched to supported bearing SLA and nut housing GFD. The pillow block can be screwed on from above (S1) and below (S2). The reference edge makes it easier to align the unit. The fixed bearing can be pinned with two tapered pins or cylindrical pins. The end machining suited to the fixed bearing is the S2-xx and S3-xx type.

Bearing unit dimensions

| Ball screw size | Type | L | L1 | L2 | L3 | H | H1 JS7 | H2 | H3 | H4 | H5 | d | D | D1 | b | B | B1 | B2 | S1 H12 | S2 | S3 | SC DIN 912 10.9 |
|-----------------|--------|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|------|--------|-----|-----|-----------------|
| 12 | SFA-06 | 62 | 34 | 38 | 50 | 41 | 22 | 13 | 5 | 11 | 9 | 6 | 30 | 19 | 12 | 32 | 16 | 10.0 | 5.3 | M6 | 3.7 | 4xM3x12 |
| 16 | SFA-10 | 86 | 52 | 52 | 68 | 58 | 32 | 22 | 7 | 15 | 15 | 10 | 50 | 32 | 20 | 37 | 23 | 8.5 | 8.4 | M10 | 7.7 | 4xM5x20 |

Dimensions in [mm]

Technical data of bearing and lock nut

| Unit type | Bearing type | C ₀ axial [N] | C _{dyn} axial [N] | Max. speed [n/min] | Lock nut | | | |
|-----------|---------------|--------------------------|----------------------------|--------------------|----------|----------------------------|------------|------------------------------|
| | | | | | Type | Nut tightening torque [Nm] | Screw size | Screw tightening torque [Nm] |
| SFA-06 | ZKLFA0630-ZZ | 6100 | 4900 | 14000 | HIR 06 | 2 | M4 | 1 |
| SFA-10 | ZKLFA1050-2RS | 8500 | 6900 | 6800 | HIR 10 | 6 | M4 | 1 |

[illegible]

| Ball screw size | Type | L | L1 | L2 | L3 | H | H1 JS7 | H2 | H3 | H4 | H5 | d | D | D1 | b | B | B1 | B2 | S1 H12 | S2 | S3 | SC DIN 912 10.9 |
|-----------------|--------|-----|----|-----|-----|-----|--------|----|----|----|----|----|-----|----|----|----|----|------|--------|-----|-----|-----------------|
| 20 | SFA-12 | 94 | 52 | 60 | 77 | 64 | 34 | 22 | 7 | 17 | 15 | 12 | 55 | 32 | 25 | 42 | 25 | 8.5 | 8.4 | M10 | 7.7 | 3xM6x35 |
| 25 | SFA-17 | 108 | 65 | 66 | 88 | 72 | 39 | 27 | 10 | 19 | 18 | 17 | 62 | 36 | 25 | 46 | 29 | 10.5 | 10.5 | M12 | 9.7 | 3xM6x35 |
| 32 | SFA-20 | 112 | 65 | 73 | 92 | 78 | 42 | 27 | 10 | 20 | 18 | 20 | 68 | 42 | 28 | 49 | 29 | 10.5 | 10.5 | M12 | 9.7 | 4xM6x40 |
| 40 | SFA-30 | 126 | 82 | 84 | 105 | 92 | 50 | 32 | 13 | 23 | 21 | 30 | 80 | 52 | 28 | 53 | 32 | 12.5 | 12.6 | M14 | 9.7 | 6xM6x40 |
| 50 | SFA-40 | 146 | 82 | 104 | 125 | 112 | 60 | 32 | 13 | 30 | 21 | 40 | 100 | 66 | 34 | 59 | 34 | 12.5 | 12.6 | M14 | 9.7 | 4xM8x50 |

| Unit type | Bearing type | C ₀ axial [N] | C _{dyn} axial [N] | Max. speed [n/min] | Lock nut | | | |
|-----------|---------------|--------------------------|----------------------------|--------------------|------------|----------------------------|------------|------------------------------|
| | | | | | Type | Nut tightening torque [Nm] | Screw size | Screw tightening torque [Nm] |
| SFA-12 | ZKLF1255-2RS | 24700 | 17000 | 3800 | HIR 12 | 8 | M4 | 1 |
| SFA-17 | ZKLF1762-2RS | 31000 | 18800 | 3300 | HIR 17 | 15 | M5 | 3 |
| SFA-20 | ZKLF2068-2RS | 47000 | 26000 | 3000 | HIR 20 × 1 | 18 | M5 | 3 |
| SFA-30 | ZKLF3080-2RS | 64000 | 29000 | 2200 | HIR 30 | 32 | M6 | 5 |
| SFA-40 | ZKLF40100-2RS | 101000 | 43000 | 1800 | HIR 40 | 55 | M6 | 5 |