



View X-X

Unit: mm

| Ball screw specification | | |
|---|----------------|------|
| Shaft dia. x Lead / Direction of turn | 15 x 20/Right | |
| Ball recirculation | Return tube | |
| Ball dia. / Ball circle dia. | 3.175/15.5 | |
| Root dia. | 12.2 | |
| Effective turns of balls | 1.5 x 1 | |
| Accuracy grade / Axial play code | Ct7/S | |
| Basic load rating (N) | Dynamic C_d | 4560 |
| | Static C_0 | 7730 |
| Axial play | 0.010 or less | |
| Dynamic friction torque (N · cm) | ~2.5 | |
| Spacer ball | None | |
| Factory pre-packed grease | NSK grease LR3 | |
| Internal spatial volume of nut (cm ³) | 2.3 | |

Unit: mm

| Ball screw No. | Stroke | | Screw shaft length | | |
|------------------------|---------|---------------------------------------|--------------------|----------------|----------------|
| | Nominal | Maximum (L ₁ - Nut length) | L ₁ | L ₂ | L ₃ |
| VFA1520C7S-500 | 300 | 343 | 400 | 455 | 500 |
| VFA1520C7S-700 | 500 | 543 | 600 | 655 | 700 |
| VFA1520C7S-1000 | 800 | 843 | 900 | 955 | 1000 |

| Lead accuracy | | | Shaft run-out** | Mass (Kg) | Permissible rotational speed N (min ⁻¹) | |
|---------------|----------------|------------------|-----------------|-----------|---|--------------|
| T | e _p | v ₃₀₀ | | | Supporting condition | |
| | | | | | Fixed - Simple support | Fixed - Free |
| 0 | 0.120 | 0.052 | 0.075 | 0.94 | 3000 | 2630 |
| 0 | 0.195 | 0.052 | 0.110 | 1.2 | 3000 | 1160 |
| 0 | 0.310 | 0.052 | 0.180 | 1.6 | 2350 | 510 |

- Remarks
1. We recommend NSK support units WBK12-01A (square type, fixed support side), WBK15SF-01 (simple support side), and WBK12-11 (round type, fixed support side). WBK12SF-01 (on the simple support side) is a unit that supports the shaft outside surface by the bearing.
 2. NSK grease LR3 is recommended.
 3. Permissible rotational speed is determined by a $d \cdot n$ value and a critical speed. See page B509. Root diameter of screw shaft (dr) is 12.2 mm.