COMPACT FA SERIES BALL SCREWS

Compact FA series ball screws are a next-generation solution that offers high speed and low noise performance from an increasingly compact design. With a dramatically reduced ball nut diameter and the availability of low-profile support units, they provide a unique opportunity for space-saving design of equipment and devices. As a ready-to-install solution for a vast array of applications, NSK Compact FA ball screws are available for optimum delivery from a domestic manufacturing and standard stocking program.

PROVEN BENEFITS
› Compact solution for space-saving design of equipment and devices
› High speed, low noise operation
› Abundant combinations of shaft diameter, lead and stroke to meet diverse application requirements
› Low-profile support units enable even greater reduction of installed space requirement
› Innovative contact seal promotes a clean work environment
› Quick delivery from standard stock

APPLICATIONS
› Semiconductor
› LCD manufacturing
› Material handling
› Inspection / measuring equipment
› Medical
› Transfer equipment

STAY IN MOTION. STAY IN CONTROL.
### DESIGN FEATURES

- Reduced ball nut diameter, as much as 30% compared with NSK’s conventional designs
- Speed capability as high as 5000 min⁻¹, dramatically expanding the range of applications
- Noise level reduced by 6 dB, approximately half the intensity detectable by the human ear
- Equipped with a grease fitting and ports to facilitate lubrication and maintenance; easily connected to an integrated lubrication system
- Screw shafts of 10 mm and above are equipped with an innovative thin-layer seal to minimize grease dispersion and maintain a clean environment
- Available in 3 series: PSS for general applications, USS for high accuracy and clean environments, and FSS for transfer equipment
- Screw shaft diameters ranging from 6 to 25 mm
- Square type, low-profile square type and round type shaft end supports available

### AVAILABILITY - SCREW SHAFT DIAMETER / LEAD

<table>
<thead>
<tr>
<th>UNIT=mm</th>
<th>SCREW SHAFT DIAMETER</th>
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<tbody>
<tr>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>12, 15</td>
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<tr>
<td>12</td>
<td>15, 20, 25</td>
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<tr>
<td>15</td>
<td>20, 25</td>
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<td>20</td>
<td>25</td>
</tr>
<tr>
<td>25</td>
<td>30, 40, 50, 60</td>
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</tbody>
</table>

- **PSS type**
- **USS type**
- **FSS type**

Compact FA low-profile support units enable optimum space-saving design and installation. They’re readily compatible and ready to fit, with no requirement for modification of screw shaft ends.

### DESIGN SPECIFICATIONS

<table>
<thead>
<tr>
<th>Series</th>
<th>Screw Shaft Diameter (mm)</th>
<th>Lead (mm)</th>
<th>NSK Control Number</th>
<th>Shaft Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS</td>
<td>6, 8, 10, 12, 15, 20, 25 mm</td>
<td>15</td>
<td>05 N1D 0361</td>
<td></td>
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</tbody>
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- **Accuracy Grade**
  - PSS: C5 grade of JIS
  - USS: C3 grade of JIS
  - FSS: C10 grade of JIS

- **Axial Play**
  - PSS: Shaft dia. 6 and 8 mm = 0.005 mm or less
  - USS: Shaft dia. 10 mm or over = 0 (oversize ball preload)
  - FSS: 0.010 mm or less

- **Support Units**
  - Square type (including low-profile options), round type

www.nskamericas.com