

NSK



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

CONDITIONS

HS HIGH SPEEDS

HL HIGH LOADS

Q LOW NOISE

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

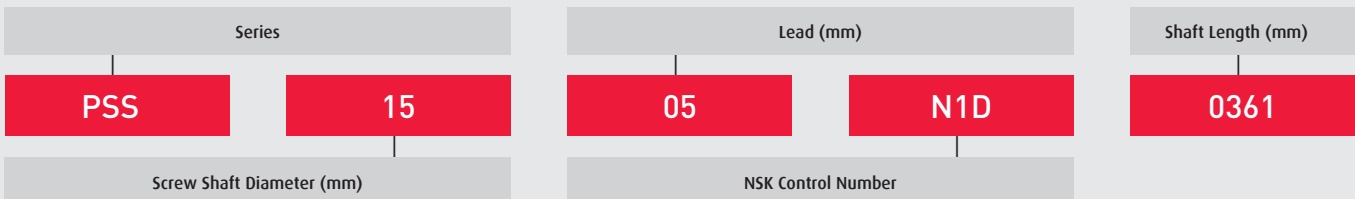
UNIT=mm		SCREW SHAFT DIAMETER						
		6	8	10	12	15	20	25
LEAD	5			● ●	● ●	● ●	●	●
	8	●						
	10		●	●	● ●	● ●	● ●	● ●
	12	●						
	15		●					
	20				●	● ●	● ●	● ●
	25							● ●
	30				●	●	●	●
	40						●	
	50							●
60						●		

● 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



Series	PSS: for general applications USS: for high accuracy and clean environments FSS: for transfer equipment
Screw Shaft Diameter	PSS: 6, 8, 10, 12, 15, 20, 25 mm USS: 10, 12, 15 mm FSS: 12, 15, 20, 25 mm
Lead	Square type (including compact low-profile), flange type

Accuracy Grade	PSS: C5 grade of JIS USS: C3 grade of JIS FSS: CT7 grade of JIS
Axial Play	PSS: Shaft dia. 6 and 8 mm = 0.005 mm or less Shaft dia. 10mm or over = 0 (oversize ball preload) USS: 0 FSS: 0.010 mm or less
Support Units	Square type (including low-profile options), round type