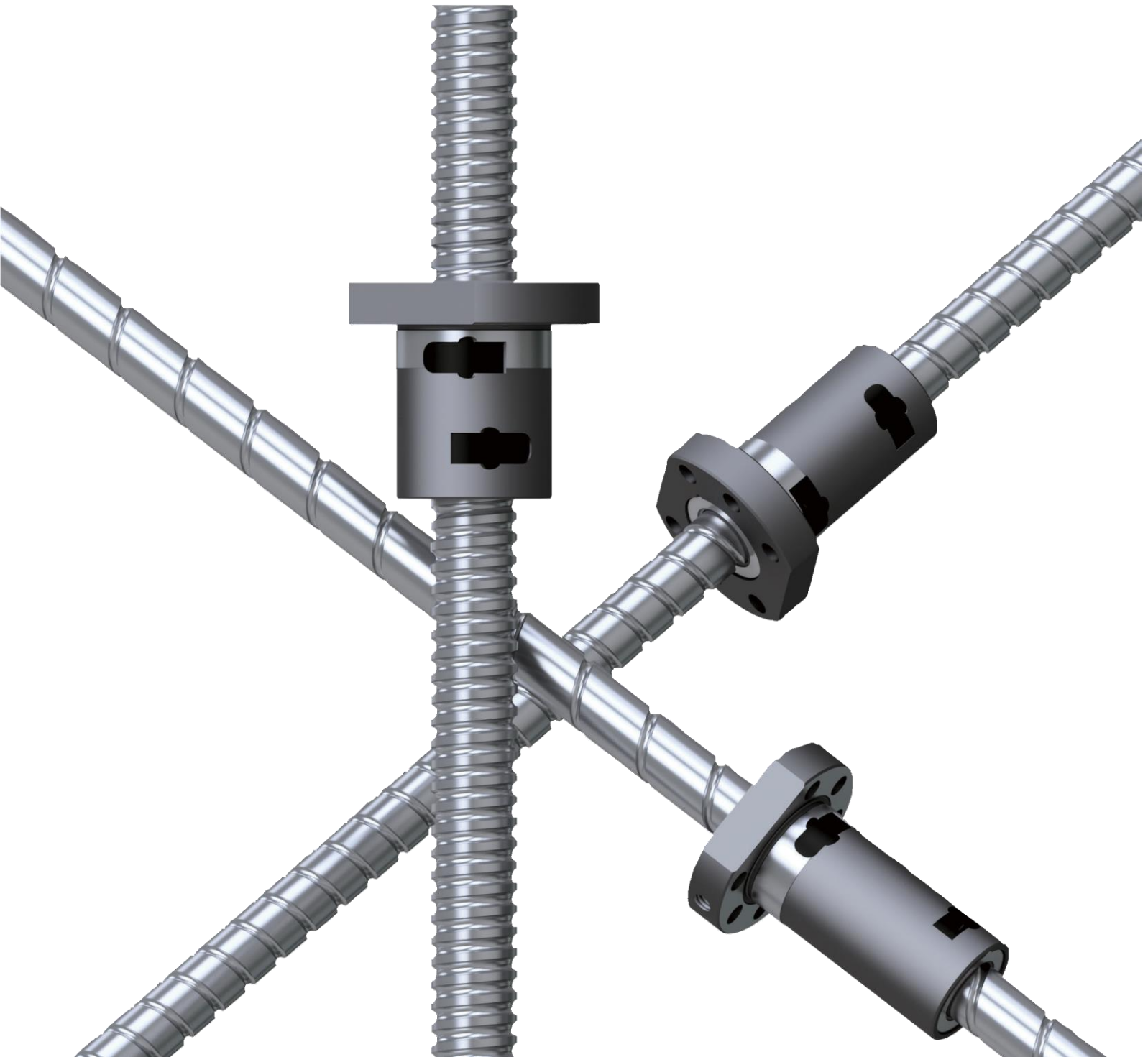
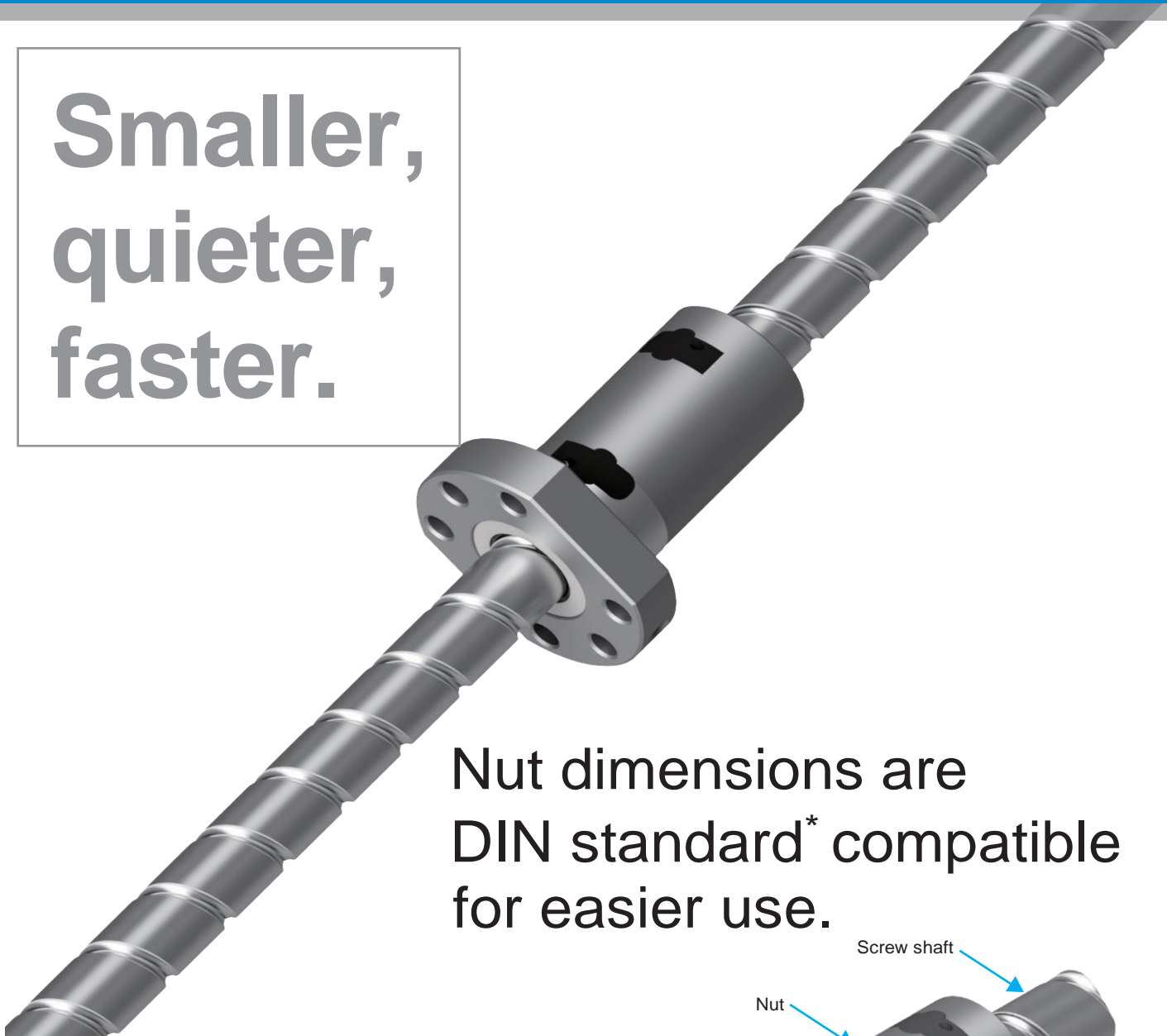


Side Deflector™ Ball Screw

AD/AH Series



**Smaller,
quieter,
faster.**

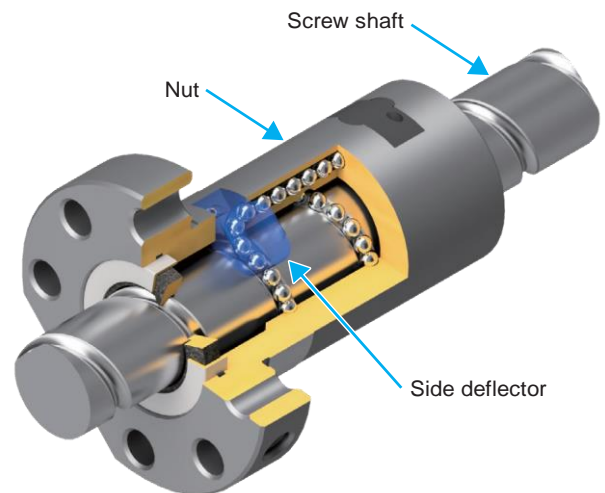


**Nut dimensions are
DIN standard* compatible
for easier use.**

New Circulation Method

A new circulation method (SIDE DEFLECTOR™) is used to achieve an optimal recirculation structure and an ideal transition for the ball into the recirculation passage. This design contributes to a more compact nut, higher speed, and quieter operation. The nut dimensions are DIN standard* compatible, for a nut that is both compact and easy to use.

(Parts are shown colored above for improved visibility)



* DIN standards are a set of industrial standards created by the German Institute for Standardization (Deutsches Institut für Normung e.V.), that are widely used in various industrial fields across Europe, Asia and elsewhere. The nut dimensions for this product are compatible with DIN69051.

* SIDE DEFLECTOR is a registered trademark of KURODA.

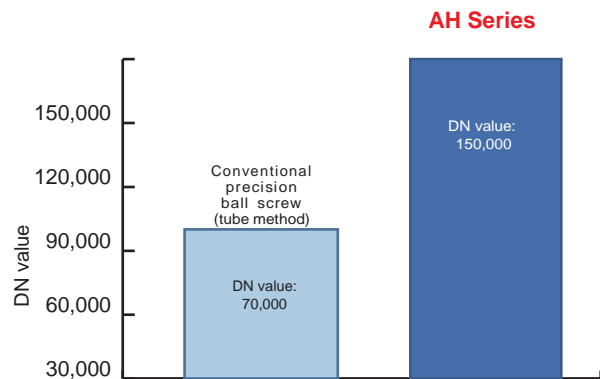
The SIDE DEFLECTOR™ method

Industry-leading Performance

High Speed

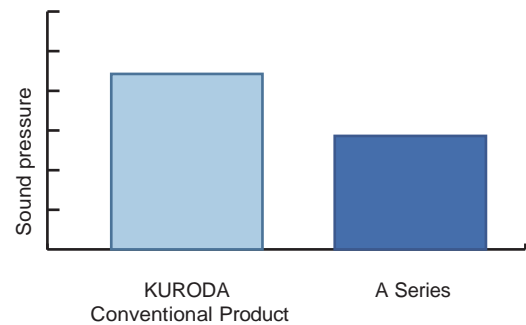
Designed to meet the needs of recent developments in automation as well as applications with strict takt time requirements, AD/AH Series Side Deflector Ball Screws offer greatly increased maximum rotational speeds and DN values. This high-speed capability keeps in step with improvements in high performance motors.

AD/AH Series ball screws deliver a maximum DN value of 150,000 (twice that of conventional products) and a maximum rotational speed of 5,000 min⁻¹.



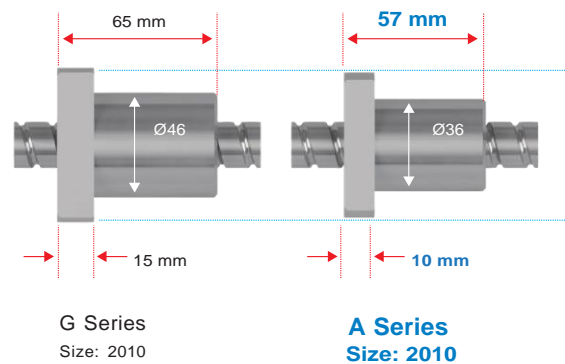
Quiet

Sound pressure has been reduced up to 6dB when compared to conventional tube recirculation method ball screws. Additionally, the AD/AH Series design greatly reduces high frequency sound, which provides a pleasing improvement in sonic performance.



Compact

In an effort to support the space efficiency of our customers' equipment, Kuroda has developed a streamlined nut body with a compact flange, reducing nut size by 30% and nut weight by up to 50% when compared to conventional options.



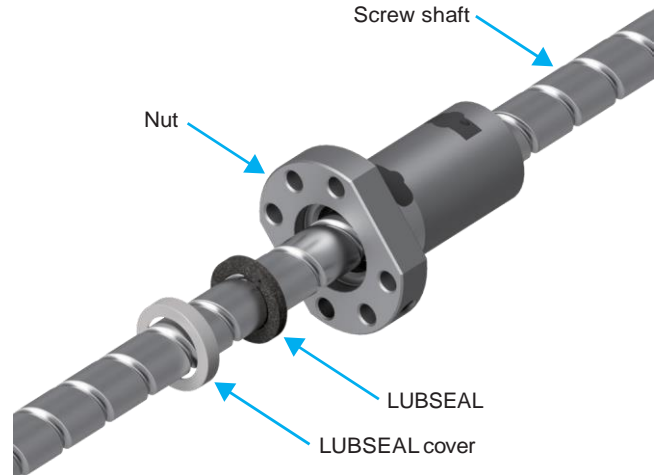
*SIDE DEFLECTOR is a registered trademark of KURODA.

* The allowable rotational speed is the DN value, maximum rotational speed, or dangerous speed, whichever is lowest. Be sure to use the product at this allowable rotational speed or lower.

Equipped as standard with LUBSEAL™ lubrication unit for long-term maintenance-free operation.

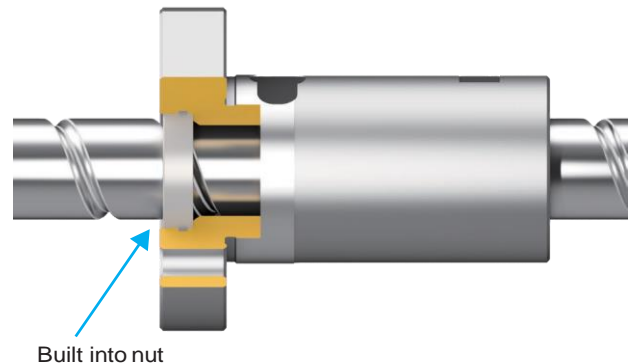
Lubrication Unit Features

The “LUBSEAL” is a lubrication unit that is fitted in contact with the shaft thread and supplies a proper amount of lubricant. Built into the nut, LUBSEAL supplies the lubricating oil contained therein to the thread groove, entering the load region as the nut moves. This contact type lubrication unit prevents contaminants from entering or excessive lubricant from flowing out, resulting in a lubrication unit that takes both contact area and contact pressure into consideration while also providing low sliding resistance.



Space Saving

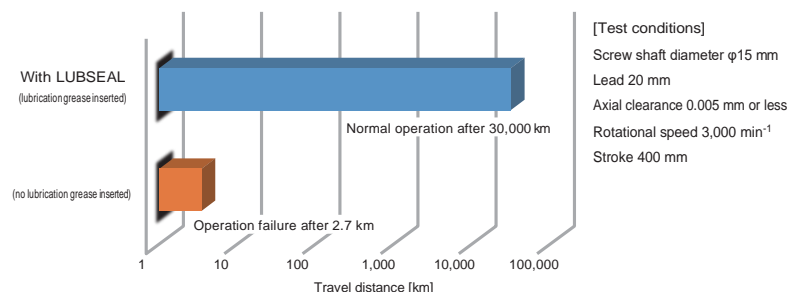
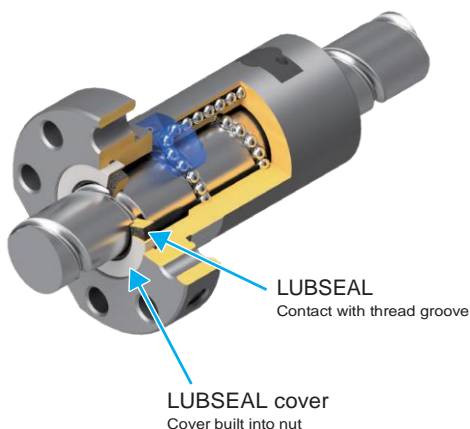
Designed to maximize ball screw performance without sacrificing shaft length, “LUBSEAL™” lubrication units prolong the period of maintenance-free operation with no loss in range of motion. It is designed to have no effect on the mounting space or stroke, avoiding the need to redesign equipment to maximize ball screw performance.



Structure and Performance

LUBSEAL™ allows contact with the raceway of the screw shaft thread groove. The lubricant contained in the nut is supplied to the raceway of the screw shaft through LUBSEAL™, ensuring that lubricant is supplied continuously and in just the right amount. It also reduces the outflow of lubricating oil from the nut compared with other wipers or seals, reducing the amount of lubricant used even over long-term travel, and maintaining lubrication performance.

When tested under in-house experiment conditions, products achieved a travel durability of 30,000 km over.



AD Series

Screw shaft nominal diameter Ø16

Lead 5 mm
 10 mm
 16 mm
 20 mm

Screw shaft nominal diameter Ø20

Lead 5 mm
 10 mm
 20 mm

Screw shaft nominal diameter Ø25

Lead 5 mm
 10 mm
 25 mm

AH Series

Screw shaft nominal diameter Ø16

Lead 5 mm
 10 mm
 16 mm
 20 mm

Screw shaft nominal diameter Ø20

Lead 5 mm
 10 mm
 20 mm

Screw shaft nominal diameter Ø25

Lead 5 mm
 10 mm
 25 mm

A Series

Application Examples

The AD/AH ball screws are ideal for a wide range of fields: semiconductor and LCD manufacturing equipment, transport robots, medical equipment, and inspection equipment.



Ball Screw Specifications

Series lineup: AH Series, AD Series

Screw shaft nominal diameter: Available in three sizes (Ø16, Ø20, Ø25)

Lead: 5 mm, 10 mm, 16 mm, 20 mm, 25 mm (varies by screw shaft nominal diameter)

* The allowable rotational speed is the lowest value of the maximum rotational speed, DN value, and dangerous speed.

Series	AD Series		AH Series		
	Screw Shaft Nominal Diameter	Lead	Screw Shaft Nominal Diameter	Lead	
Lineup	16	5	16	5	
		10		10	
		16		16	
		20		20	
	20	5	20	5	
		10		10	
		20		20	
	25	5	25	5	
		10		10	
		25		25	
	Accuracy Grade	C7		C5	
	Axial Clearance	0.010 mm or less		0.005 mm or less	
Lubrication Unit	LUBSEAL™		LUBSEAL™		
Maximum Rotational Speed	5,000 min ⁻¹		5,000 min ⁻¹		
DN Value	100,000		150,000		

Lubrication Unit LUBSEAL (Included)

A Series ball screws come equipped with KURODA's acclaimed LUBSEAL lubrication units.

The "LUBSEAL" is a lubrication unit that is fitted in contact with the shaft thread and supplies a proper amount of lubricant. Designed to maximize ball screw performance without sacrificing shaft length, "LUBSEAL" lubrication units prolong the period of maintenance-free operation with no loss in range of motion.

This standard feature of A Series ball screws prevents damage to the operation zone of the nut and allows for long-term maintenance-free use.

