

Resin nut ball screws

R series

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Resin nut ball screws R series

Features

● Light Weight and Compact !

- New compact ballnut design, and with a new improved end deflector.
- The new design of the end deflector is installed on both ends of ball nut which makes ballnut length shorter.

● Corrosion resistance improved due to the use of a Stainless Steel ballnut !

- Stainless steel shaft for anti-corrosion.
- Advanced corrosion resistant design allows for the use in harsh environments.

● Wear Resistance, Longer life !

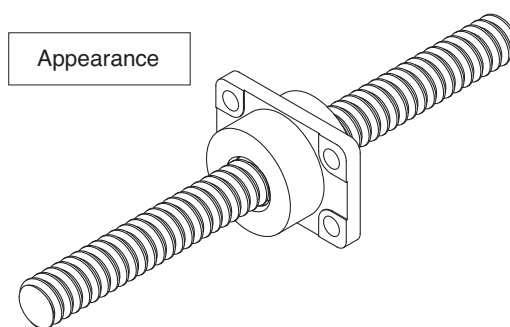
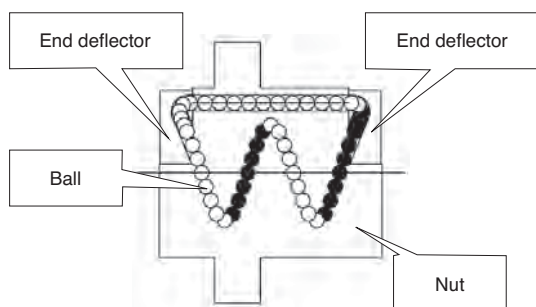
- The desk devise is easier due to a lighter weight resin nut.
- Superior corrosion and wear resistance by using a PolyPhenylene Sulfide ballnut.

● Short delivery !

- Short delivery because of stocked item.

Summary of the specifications

- Shaft diameter: $\varnothing 8$ mm, lead: 2 mm
- Accuracy grade: C7 grade
- Nut type: single nut
- Recirculation system: end deflector method



Series product line-up

Series name	Nut type	Accuracy grade	Shaft diameter line-up	Shaft type	Product line
RW series	Single nut	C7	$\varnothing 8$	Both ends unfinished	Standard (in-stock) product line

- In standard (in-stock) product line, both ends of the screw shaft are not finished. Additional end machining to fulfill your needs and operating conditions is required.

Options available for standard (in-stock) ball screws

Series	Additional end machining	Axial clearance adjustment	Surface treatment	Grease	Direction of nut	Wiper detachment
RW series	o	x	---	o	o	---

- In RW series, both ends of the screw shaft are not finished. Additional end machining to fulfill your needs and operating conditions is required.
- Alvania Grease S2 is contained in a nut shipped from KURODA, unless otherwise specified. Contact KURODA if you want other greases to be contained.

□ Model numbers of R series

Example of the model number	Model series	Screw shaft diameter	Lead	Number of circuits	Combination	Flange type	Ball recirculation system	Wiper material	Thread direction	Overall length of screw shaft	Shaft end type	Thread length	Accuracy grade	Axial clearance
	RW	08	02	P	S	B	P	N	R	0400	X	0300	C7	M
	RW	08	02	P	S	B	P	N	R	<small>To be shown with a 4-digit number in metric unit (mm)</small>	A, X	<small>To be shown with a 4-digit number in metric unit (mm)</small>	C7	M

- For more details, refer to specifications and data for each size.

□ Materials

- Screw Shaft is Stainless Steel (SUS304) for anti-corrosion, Nut is PolyPhenylene Sulfide (PPS), which is a superior corrosion protection and stable dimension. The Steel balls are also Stainless Steel (SUS440C) for anti-corrosion protection.

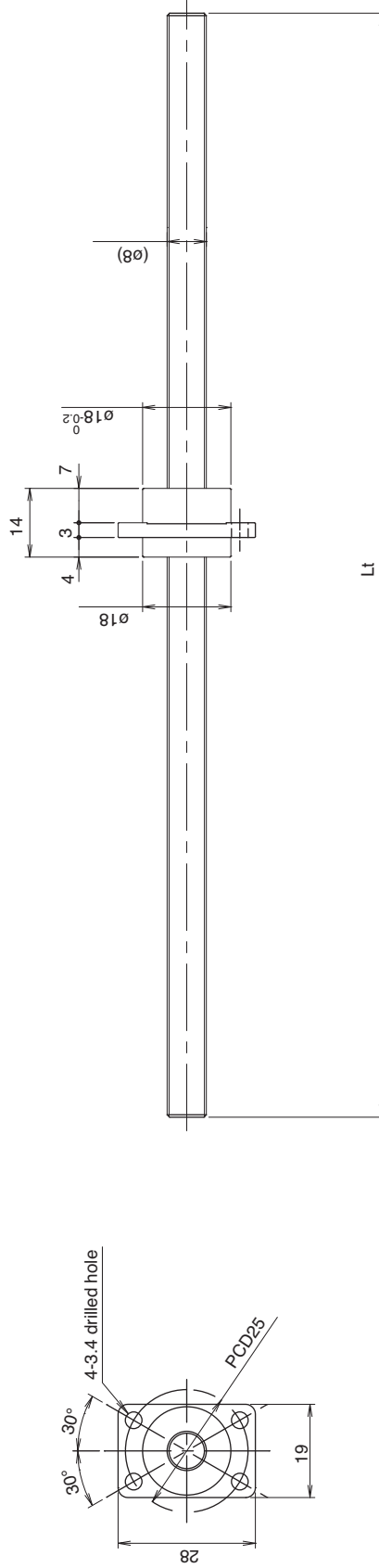
Part name	Material	Heat treatment
Screw shaft	Stainless steel (SUS304)	---
Nut	Super engineering plastic (PPS)	---
Ball	Stainless steel (SUS440C)	Quenching

KURODA Standard Resin Nut Ball Screw: RW Series (Accuracy grade C7)

UNFINISHED SHAFT ENDS

Screw shaft diameter $\phi 8$, Lead 2

(Unit: mm)



Ball screw specifications

Screw shaft diameter	8	Axial clearance	~0.030 (M)
Lead	2	Permissible axial load	40N
Thread direction	Right-hand	Permissible rotational speed	3000min ⁻¹
Number of circuits	3.7 turn 1 circuit	Lubricant	Alvania Grease S2
Ball diameter	1.5875		

Table of optional specifications for each model

Additional machining of shaft end	Axial clearance adjustment	Surface treatment	Difference of grease	Direction of nut
O	X	---	O	O

Model No.	Axial clearance	L _t	Wiper	Mass (kg)
RW0802PS-BPNR-0200A	~0.030 (M)	200	None	0.08
RW0802PS-BPNR-0400A		400		0.14

- The grease is contained inside of nut only at the time of delivery.
- When using it, apply lubricant where appropriate.

Notation of standard resin nut ball screw

- Standard length shaft without end machining
RW0802PS-BPNR-□□□□□□A
- With end machining specified on your drawing
RW0802PS-BPNR-□□□□□□X□□□□□□-C7M

Overall length Thread length

Ballscrew specification data sheet

Company Name		Date	
Department		Contact personnel	
Address		Tel · Fax	
Name of equipment/machine used		Location of use	
Drawing/conceptual drawing attached?	<input type="checkbox"/> Yes pieces of pages	<input type="checkbox"/> No	

Conditions of Use (Either unit system may be used.)

Mass of work and table								
Type of slide guide		<input type="checkbox"/> Rolling (model number: _____)			<input type="checkbox"/> Sliding			
Operating orientation	<input type="checkbox"/> Horizontal	<input type="checkbox"/> Vertical		<input type="checkbox"/> Other (description: _____)				
Maximum table speed	mm/s	Maximum table stroke			mm			
Mount/support method	<input type="checkbox"/> Fixed - fixed (semi-fixed)	<input type="checkbox"/> Fixed - support	<input type="checkbox"/> Fixed - free	<input type="checkbox"/> Support - support				
Moving conditions	<input type="checkbox"/> Shaft rotation - nut movement		<input type="checkbox"/> Nut rotation - nut movement		<input type="checkbox"/> Forward operation			
	<input type="checkbox"/> Shaft rotation - shaft movement		<input type="checkbox"/> Nut rotation - shaft movement		<input type="checkbox"/> Reverse operation			
	Oscillation	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Range of oscillation	mm			
Vibration impact level								
Expected life								
Operating conditions <small>(Select either Case A or B below and describe the operating conditions)</small>								
<input type="checkbox"/> Case A (when axial load and revolving speed can be classified into several patterns) - Please attach a separate document if your descriptions do not fit in the following table.								
No. of patterns	Axial load		Revolving speed		Hours or ratio of use			
1								
2								
3								
<input type="checkbox"/> Case B (when largely impacted by inertial force) - Please attach a separate document if your descriptions do not fit in the following table.								
No. of patterns	Strokes	Table speed	Acceleration time	Constant-speed time	Deceleration time			
1								
2								
3								
Lubrication	<input type="checkbox"/> Grease (brand)			<input type="checkbox"/> Oil (brand)				
Environmental conditions	Temp.	Dust	Humidity	Gas	Liquid	Clean room	Vacuum	Others
	°C		%		In			
Change control	<input type="checkbox"/> Yes		<input type="checkbox"/> No					
Name of motor								
Actuator quantity per a machine								
Quantity for prototype								
Quantity for mass production								

Ballscrew specifications

Screw shaft diameter		Thread direction		Axial clearance		Thread length		Preload	
Lead		Number of circuits		Accuracy grade		Overall length		Required torque	
Nut type	<input type="checkbox"/> Single	<input type="checkbox"/> Double	<input type="checkbox"/> Integral	Flange type		Mounting direction			

Additional description/request

KURODA office	Contact personnel

Ballscrew specification data sheet (Sample)

Company Name	XYZ Industries, Co., Ltd.	Date	
Department	Stage design dept.	Contact personnel	
Address		Tel • Fax	
Name of equipment/machine used	NC lathe	Location of use	Right and left table forwarding along Z-axis
Drawing/conceptual drawing attached?	<input checked="" type="checkbox"/> Yes 1 pieces of pages	<input type="checkbox"/> No	

Conditions of Use (Either unit system may be used.)

Mass of work and table	1000 kg		
Type of slide guide	<input type="checkbox"/> Rolling (model number:)		<input checked="" type="checkbox"/> Sliding
Operating orientation	<input checked="" type="checkbox"/> Horizontal	<input type="checkbox"/> Vertical	<input type="checkbox"/> Other (description:)
Maximum table speed	400 mm/s	Maximum table stroke	830 mm
Mount/support method	<input checked="" type="checkbox"/> Fixed - fixed (semi-fixed)	<input type="checkbox"/> Fixed - support	<input type="checkbox"/> Fixed - free <input type="checkbox"/> Support - support
Moving conditions	<input checked="" type="checkbox"/> Shaft rotation - nut movement	<input type="checkbox"/> Nut rotation - nut movement	<input type="checkbox"/> Forward operation
	<input type="checkbox"/> Shaft rotation - shaft movement	<input type="checkbox"/> Nut rotation - shaft movement	<input type="checkbox"/> Reverse operation
	Oscillation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Range of oscillation 20 mm
Vibration impact level			
Expected life	20,000 hours		
Operating conditions <small>(Select either Case A or B below and describe the operating conditions)</small>			
<input type="checkbox"/> Case A (when axial load and revolving speed can be classified into several patterns) - Please attach a separate document if your descriptions do not fit in the following table.			
No. of patterns	Axial load	Revolving speed	Hours or ratio of use
1	6000 N	100 mm/s	10 %
2	3500 N	200 mm/s	65 %
3	1500 N	400 mm/s	25 %
<input type="checkbox"/> Case B (when largely impacted by inertial force) - Please attach a separate document if your descriptions do not fit in the following table.			
No. of patterns	Strokes	Table speed	Acceleration time Constant-speed time Deceleration time
1			
2			
3			
Lubrication	<input checked="" type="checkbox"/> Grease (brand)	<input type="checkbox"/> Oil (brand)	
Environmental conditions	Temp.	Dust	Humidity
	20 °C	Slightly there	%
Change control	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No
Name of motor			
Actuator quantity per a machine			
Quantity for prototype			
Quantity for mass production			

Ballscrew specifications

Screw shaft diameter	Thread direction	Axial clearance	Thread length	Preload
Lead	Number of circuits	Accuracy grade	Overall length	Required torque
Nut type	<input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Integral	Flange type	Mounting direction	

Additional description/request

Request for an expected life calculation	
KURODA office	Contact personnel