

R-MSS (Y) Series



● Features

BEAREE AS5000 (PPS Resin: Poly Phenylene Sulfide) Nuts and Stainless (SUS304) Shafts are employed. This Lead Screw with low operating noise is able to be used as wide use.

- Wide use: Because Screw surfaces are smooth and its lead is high, the back drive operation can be easy.
- Low operation noise compared with Ball Screws.
- Due to the Nuts with low friction, the Screw efficiency is high.

● BEAREE product is NTN registered trademark.

● Specifications

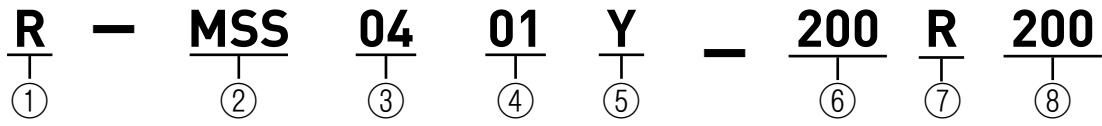
Type	Single Nut with Flange
Nut material	BEAREE AS5000
Shaft material	JIS : SUS304
Axial play	50 μm or less (lead 1mm, 2mm) 100 μm or less (more than lead 2mm)
Accuracy grade	C10 (JISB1192)
Cumulative lead error	±0.21/300mm

● Material characteristics

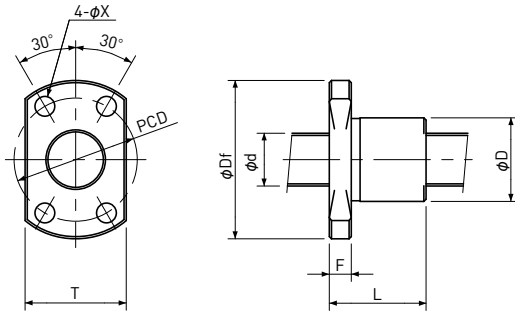
	AS5000
Specific gravity	1.53
Hardness	80 Durometer
Tensile strength	51Mpa
Elongation	3%
Bending strength	61Mpa
Water absorption rate	0.05%
Linear Expansion coefficient	8.1 x 10 ⁻⁵ / °C
Maximum temperature	230°C

● Dimension table

Model number notation



- ① NTN products
- ② Miniature Plastic Lead Screws
- ③ Shaft nominal diameter (mm)
- ④ Lead (mm)
- ⑤ Nut symbol : BEAREE AS5000
- ⑥ Screw thread length (mm)
- ⑦ Thread direction (Right-hand only)
- ⑧ Screw total length (mm)



Unit:mm

Model	Shaft			Nut							Shaft length
	Dia. d	Lead リード	Number of thread	D	L	Df	F	P.C.D	X	T	
R-MSS0401Y	4	1	1	10	11.5	23	3.5	15	2.9	15	200
R-MSS0402Y		2	2								
R-MSS0601Y	6	1	1	12	14.5	26	3.5	18	3.4	17	300
R-MSS0602Y		2									
R-MSS0609Y		9	4								
R-MSS0618Y		18									
R-MSS0801Y	8	1	1	14	18	29	4	21	3.4	18	300
R-MSS0802Y		2									
R-MSS0812Y		12	4								400
R-MSS0824Y		24	6								
R-MSS1002Y	10	2	1	16	22	33	5	24	4.5	21	300
R-MSS1015Y		15	4								450
R-MSS1030Y		30	6								500
R-MSS1202Y	12	2	1	18	25	35	5	26	4.5	22	300
R-MSS1218Y		18	6								500
R-MSS1236Y		36									

Note 1) End-journal is not machined. Please inquire, if end-journal machining is required.

● Technical data

Model	Shaft		Permissible Axial Load N	Permissible Revolution rpm	Tightening Torque (max) N·mm	Efficiency %
	Dia. mm	Lead mm				
R-MSS0401Y	4	1	50	2000	180	45
R-MSS0402Y		2	60			70
R-MSS0601Y	6	1	120	2000	400	40
R-MSS0602Y		2	60			55
R-MSS0609Y		9	90			85
R-MSS0618Y		18	110			85
R-MSS0801Y	8	1	200	2000	400	30
R-MSS0802Y		2	290			45
R-MSS0812Y		12	210			80
R-MSS0824Y		24	210			85
R-MSS1002Y	10	2	460	1500	500	40
R-MSS1015Y		15	410			80
R-MSS1030Y		30	440			85
R-MSS1202Y	12	2	660	1000	500	35
R-MSS1218Y		18	750			75
R-MSS1236Y		36	540			80

Criteria : MSS0824Y, verification of no remarkable wear after 200km running test under 100N of Axial Load and 2,000rpm of Speed. Other than that are obtained by calculation.

① Efficiency η is calculated by following formula based on measurement results of rotational torque(M) under the Axial Load (Q).

$$\eta = \frac{R \cdot Q \cdot \tan\beta}{M} \times 100 (\%) \quad \tan \beta = \frac{\text{Lead}}{2\pi R}$$

η : Efficiency
R : Pitch circle radius
Q : Axial Load
 β : Lead angle
M : Rotational torque

② Permissible Axial Load and Permissible Revolution are based on the test results under the following condition.

- 1) Test machine : NTN Lead Screw Durability test machine
- 2) Condition : Room temperature, no lubricant, 100mm travel (200mm/ cycle) or 200mm travel (400mm/cycle)
- 3) Criteria : No remarkable damage or wear on Screw surface after running test of 10^3 or 6×10^3 cycles under the Permissible Load and Revolution in the table above.

③ This number means when Plastic Nut is fixed onto the Bracket.