



## R-MSS (Y) series



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BEAREE product is NTN registered trademark.

### ● Features

BEAREE AS5000 (PPS Resign: 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 reversed operation can be easy.
- Low operation noise compared with Ball Screws.
- Due to the Nuts with low friction, the Screw efficiency is high.

### ● Specifications

Type	Single Nut with Flange
Nut material	BEAREE AS5000
Shaft material	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	$8.1 \times 10^{-5} / ^\circ\text{C}$
Maximum temperature	230°C

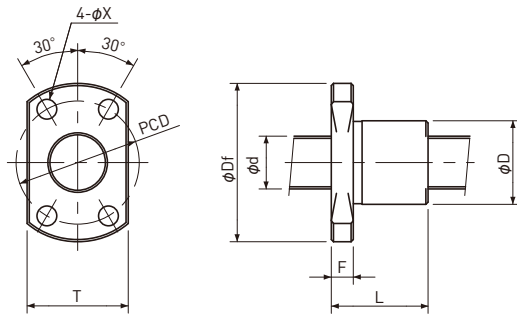


● Dimension table

Model number notation



- ① NTN products
- ② Miniature Plastic Lead Screws
- ③ Shaft nominal diameter(mm)
- ④ Lead(mm)
- ⑤ Nut symbol : BEAREE AS5000



Unit: mm

Model	Shaft			Nut							Shaft length
	Dia. d	Lead	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	4	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	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								
R-MSS1202Y	12	2	1	18	25	35	26	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 <sup>②</sup>	Permissible Revolution <sup>②</sup>	Tightening Torque (max) <sup>③</sup>	Efficiency <sup>①</sup>
	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	500	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  $\eta$  is calculated by following formula based on measurement results of rotational torque (M) under the Axial Load (Q).

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

$\eta$  : Efficiency  
R : Pitch circle radius  
Q : Axial Load  
 $\beta$  : 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 under the Permissible Load and Revolution in the table above.

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