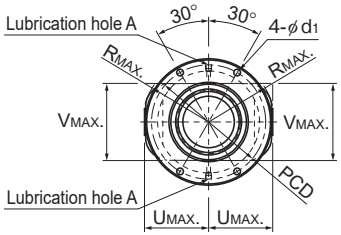
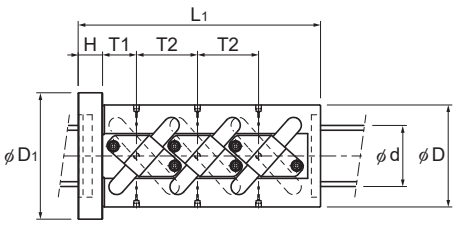
HBN-K and HBN-KA
No Preload

DN value	120,000





Models HBN6335K to HBN8050K (two rows)

Model No.	Screw shaft outer diameter	Lead	Ball center-to-center diameter	Thread minor diameter	No. of loaded circuits	Threads	Basic load rating		Permissible load*	Rigidity
							Ca	C0a	Fp	K
	d	Ph	dp	dc	Rows × turns		kN	kN	kN	N/μm
HBN6335K-10	63	35	66	52.6	4×2.5	2	548	1,376	169	3,935
HBN6335K-15	63	35	66	52.6	6×2.5	2	776	2,064	240	5,791
HBN6342K-3	63	42	66.5	49.6	2×1.5	2	259	526	80	1,289
HBN6350K-10	63	50	66.5	49.6	4×2.5	2	719	1,723	222	4,011
HBN8040K-5	80	40	83.5	66.6	2×2.5	2	451	1,105	154	2,503
HBN8040KA-5	80	40	83.5	66.6	2×2.5	2	451	1,105	154	2,503
HBN8050K-15	80	50	83.5	66.6	6×2.5	2	1,171	3,376	472	7,270
HBN8050KA-15	80	50	83.5	66.6	6×2.5	2	1,171	3,376	472	7,270

Notes: The permissible load Fp* indicates the maximum axial load that the ball screw can receive.
This model is capable of achieving a longer service life than the conventional ball screw under a high load.
Certain precautions are necessary regarding the assembly method. (See A**15-242**.)
For high-load ball screws, the standard maximum length of the screw shaft is 3,000 mm. For lengths greater than this, please contact THK.

Axial Clearance

Unit: mm

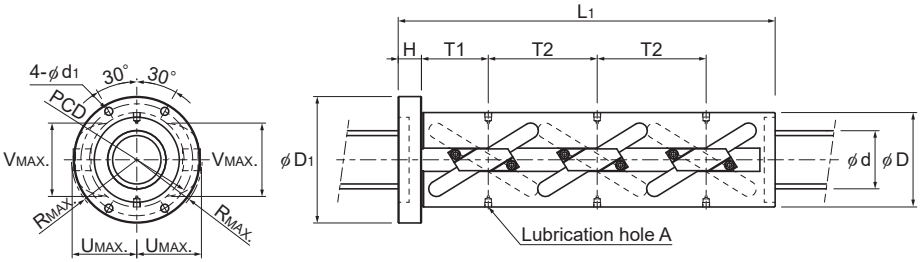
Clearance symbol	G2
Axial clearance	0 to 0.02

Model number coding

HBN6335K-10 RR G2 +1200L C7

- HBN6335K-10: Model number
- RR: Seal symbol (*1)
- G2: Symbol for clearance in the axial direction (For the axial clearance, this model has clearance G2 as standard. Other clearance is also available at your request. Contact THK for details.)
- +1200L: Overall screw shaft length (in mm)
- C7: Accuracy symbol (*2)

(*1) See A**15-354**. (*2) See A**15-12**.



Models HBN8040KA and HBN8050KA (two rows)

Unit: mm

Nut dimensions												Screw shaft inertial moment/mm	Nut mass	Shaft mass	Permissible rotational speed
Outer diameter D	Flange diameter D_1	Overall length L_1	H	PCD	d_1	T1	T2	U_{MAX}	V_{MAX}	R_{MAX}	Lubrication hole A	kg·m²/mm	kg	kg/m	min^{-1}
105	139	271	28	122	9	72.5	105	70.5	82	73	Rc1/8 (PT1/8)	1.21×10^{-5}	10.5	24	1,810
105	139	376	28	122	9	72.5	105	70.5	82	73		1.21×10^{-5}	14.5	24	1,810
117	157	156	32	137	11	39.5	—	79	84	80		1.21×10^{-5}	8.3	24	1,800
117	157	358	32	137	11	94	150	78.5	84	80		1.21×10^{-5}	19.2	24	1,800
134	174	185	32	154	11	81	—	88	102	93		3.16×10^{-5}	11	39	1,430
130	174	185	32	154	11	81	—	88	102	93		3.16×10^{-5}	10.2	39	1,430
134	174	519	32	154	11	92	150	89	101	90		3.16×10^{-5}	31.9	39	1,430
130	174	519	32	154	11	92	150	89	102	90		3.16×10^{-5}	29.2	39	1,430

The rigidity values in the table represent spring constants, each obtained from the load and the elastic deformation under an axial load equal to 30% of the basic axial dynamic load rating (Ca).
These values do not include the rigidity of the components related to mounting the ball screw nut. Therefore, it is normally appropriate to regard roughly 80% of the value in the table as the actual value.
If the axial load (Fa) is not 30% of Ca, the rigidity value (K_N) is obtained from the following equation.

$$K_N = K\left(\frac{Fa}{0.3Ca}\right)^{\frac{1}{3}}$$

K: Rigidity value in the dimensional table

Options⇒A15-353