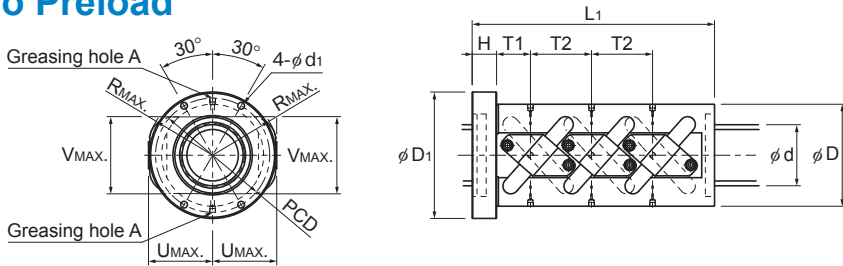


HBN-K No Preload

DN value	120000
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Models HBN6335 to HBN8050 (two rows)

Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows × turns	Threads	Basic load rating		Permissible load* F _p kN	Rigidity K N/μm
							Ca kN	C _{0a} kN		
HBN6335K-10	63	35	66	52.6	4 × 2.5	2	548	1376	169	3647
HBN6335K-15	63	35	66	52.6	6 × 2.5	2	776	2064	240	5369
HBN6342K-3	63	42	66.5	49.6	2 × 1.5	2	259	526	80	1222
HBN6350K-10	63	50	66.5	49.6	4 × 2.5	2	719	1723	222	3805
HBN8040K-5	80	40	83.5	66.6	2 × 2.5	2	451	1105	154	2402
HBN8050K-15	80	50	83.5	66.6	6 × 2.5	2	1171	3376	472	6895
HBN10016K-10	100	16	103	89.6	4 × 2.5	1	673	2244	314	5362
HBN10020K-7.5	100	20	103.5	86.6	3 × 2.5	1	717	2107	295	4212
HBN10020K-10	100	20	103.5	86.6	4 × 2.5	1	919	2810	393	5542
HBN10020K-12.5	100	20	103.5	86.6	5 × 2.5	1	1114	3512	491	6856
HBN10020K-7	100	20	103.5	86.6	2 × 3.5	1	674	1956	273	3939
HBN10020K-10.5	100	20	103.5	86.6	3 × 3.5	1	955	2934	410	5798
HBN10025K-7.5	100	25	104	83.6	3 × 2.5	1	921	2532	354	4325
HBN10025K-10	100	25	104	83.6	4 × 2.5	1	1180	3376	472	5690
HBN10025K-12.5	100	25	104	83.6	5 × 2.5	1	1429	4220	590	7038
HBN10025K-7	100	25	104	83.6	2 × 3.5	1	866	2355	329	4046
HBN10025K-10.5	100	25	104	83.6	3 × 3.5	1	1227	3533	494	5956
HBN10025K-14	100	25	104	83.6	4 × 3.5	1	1572	4711	659	7836

Note 1) The permissible load F_p* 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.

Note 2) Certain precautions are necessary regarding the assembly method. (See [A15-208](#).)

Note 3) For high-load ball screws, the standard maximum length of the screw shaft is 3000 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

Model number

Seal symbol (*1)

Accuracy symbol (*2)

Overall screw shaft length (in mm)

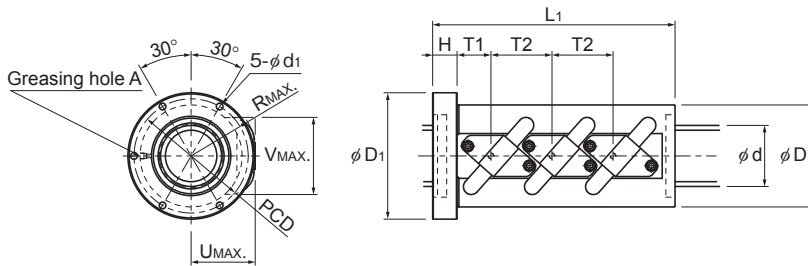
Symbol for clearance in the axial direction

(For the axial clearance, this model has clearance G2 as standard.)

Other clearance is also available at your request. Contact THK for details.)

(*1) See [A15-308](#). (*2) See [A15-12](#).

High-Thrust Ball Screw



Models HBN10016 to HBN14040 (one row)

Unit: mm

Nut dimensions												Screw shaft inertial moment/mm ⁴	Nut mass	Shaft mass
Overall length L ₁	Outer diameter D	Flange diameter D ₁	H	PCD	d ₁	T1	T2	U _{MAX}	V _{MAX}	R _{MAX}	Greasing hole A			
271	105	139	28	122	9	72.5	87.5	70.5	82	73	Rc1/8 (PT1/8)	1.21×10^{-5}	10.5	24
376	105	139	28	122	9	72.5	87.5	70.5	82	73		1.21×10^{-5}	14.5	24
156	117	157	32	137	11	39.5	—	79	84	80		1.21×10^{-5}	8.3	24
358	117	157	32	137	11	94	150	78.5	84	80		1.21×10^{-5}	19.2	24
185	134	174	32	154	11	81	—	88	102	93		3.16×10^{-5}	11	39
519	134	174	32	154	11	92	150	89	101	90		3.16×10^{-5}	31.9	39
263	150	190	32	170	11	37.5	48	92	119	98.5		7.71×10^{-5}	18.1	61
252	154	194	32	174	11	44	60	96	123	101		7.71×10^{-5}	18.9	61
312	154	194	32	174	11	44	60	96	123	101		7.71×10^{-5}	23.4	61
372	154	194	32	174	11	44	60	96	123	101		7.71×10^{-5}	27.9	61
232	154	194	32	174	11	44	80	97	128	105		7.71×10^{-5}	23.4	61
312	154	194	32	174	11	44	80	97	128	105		7.71×10^{-5}	29.4	61
322	167	207	40	187	11	55.5	75	105	127	109.5		7.71×10^{-5}	32	61
397	167	207	40	187	11	55.5	75	105	127	109.5		7.71×10^{-5}	39.4	61
472	167	207	40	187	11	55.5	75	105	127	109.5		7.71×10^{-5}	46.9	61
297	167	207	40	187	11	55.5	100	105	127	109.5		7.71×10^{-5}	29.5	61
397	167	207	40	187	11	55.5	100	105	127	109.5		7.71×10^{-5}	39.4	61
497	167	207	40	187	11	55.5	100	105	127	109.5		7.71×10^{-5}	49.3	61

Note) 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 0.3 Ca, the rigidity value (K_N) is obtained from the following equation.

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

K: Rigidity value in the dimensional table.