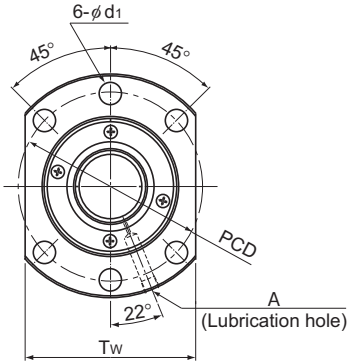
SBK Medium With Preload

DN value	SBK3636,4040,5050	210000
	All other Model SBK units	160000



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	Basic load rating Ca kN	Basic load rating C_0a kN	Rigidity K N/μm
SBK 3620-7.6	36	20	37.75	30.4	1×3.8	48.5	85	870
SBK 3636-5.6	36	36	37.75	31.4	1×2.8	36.6	64.7	460
SBK 4020-7.6	40	20	42	34.1	1×3.8	59.7	112.7	970
SBK 4030-7.6	40	30	42	34.1	1×3.8	59.2	107.5	970
SBK 4040-5.6	40	40	42	34.9	1×2.8	44.8	80.3	520
SBK 5020-7.6	50	20	52	44.1	1×3.8	66.8	141.9	1170
SBK 5030-7.6	50	30	52	44.1	1×3.8	66.5	135	1170
SBK 5036-7.6	50	36	52	44.1	1×3.8	65.9	135	1170
SBK 5050-5.6	50	50	52	44.9	1×2.8	50.3	102.4	630
SBK 5520-7.6	55	20	57	49.1	1×3.8	69.8	156.4	1250
SBK 5530-7.6	55	30	57	49.1	1×3.8	69.2	147	1250
SBK 5536-7.6	55	36	57	49.1	1×3.8	69.1	148.7	1260

Note) With model SBK, the raising of both ends of the thread groove is not available. When designing your system this way, contact THK.

Axial Clearance

Unit: mm

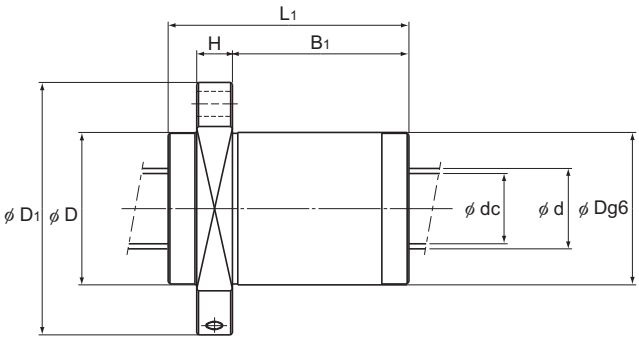
Clearance symbol	G0
Axial Clearance	0 or less

Model number coding

SBK3620-7.6 RR G0 +1500L C5

- SBK3620-7.6: Model number
- RR: Seal symbol (*1)
- G0: Symbol for clearance in the axial direction (G0 for all SBK variations)
- +1500L: Overall screw shaft length (in mm)
- C5: Accuracy symbol (*2)

(*1) See **A15-334**. (*2) See **A15-12**.



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	B_1	PCD	d_1	T_W	Lubrication hole A	$kg \cdot m^2/mm$	kg	kg/m	min^{-1}
	73	114	110	18	81	93	11	86		1.29×10^{-6}	3.4	5.0	4230
	73	114	134	18	105	93	11	86		1.29×10^{-6}	3.37	7.43	5000
	80	136	110	20	79	112	14	103		1.97×10^{-6}	4.5	5.7	3800
	80	136	148	20	117	112	14	103		1.97×10^{-6}	5.6	7.0	3800
	80	136	146	20	115	112	14	103		1.97×10^{-6}	4.74	9.16	5000
	90	146	110	22	77	122	14	110	Rc1/8	4.82×10^{-6}	5.3	10.2	3070
	90	146	149	22	116	122	14	110	(PT1/8)	4.82×10^{-6}	6.6	11.9	3070
	90	146	172	22	139	122	14	110		4.82×10^{-6}	7.4	12.5	3070
	90	146	175	22	142	122	14	110		4.82×10^{-6}	6.46	14.72	4030
	96	152	110	22	77	128	14	114		7.05×10^{-6}	5.7	13.0	2800
	96	152	149	22	116	128	14	114		7.05×10^{-6}	7.2	14.8	2800
	96	152	172	22	139	128	14	114		7.05×10^{-6}	8.1	15.5	2800

Note) The rigidity values in the table represent spring constants, each obtained from the load and the elastic deformation when providing a preload equal to 10% of the basic axial dynamic load rating (Ca) and applying an axial load three times greater than the pre-load.
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 applied preload (Fa_0) is not 0.1 Ca, the rigidity value (K_N) is obtained from the following equation.

$$K_N = K\left(\frac{Fa_0}{0.1Ca}\right)^{\frac{1}{3}}$$

K: Rigidity value in the dimensional table

Options⇒A15-333