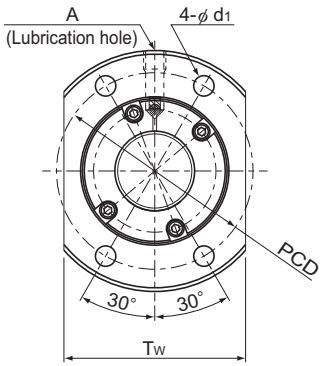
SBK Small
With Preload

DN value	130,000



Model No.	Screw shaft outer diameter	Lead	Ball center-to-center diameter	Thread minor diameter	No. of loaded circuits	Basic load rating		Rigidity
						Ca	C0a	K
	d	Ph	dp	dc	Rows × turns	kN	kN	N/μm
SBK 1520-3.6	15	20	15.75	12.2	1×1.8	5.8	7.8	178
SBK 1616-3.6	16	16	16.65	13.5	1×1.8	4.6	6.4	182
SBK 2010-5.6	20	10	20.75	17.2	1×2.8	10.7	17.3	353
SBK 2020-3.6	20	20	20.75	17.2	1×1.8	7	10.5	229
SBK 2030-3.6	20	30	20.75	17.2	1×1.8	6.9	11.2	236
SBK 2520-3.6	25	20	26	21.5	1×1.8	11	16.9	292
SBK 2525-3.6	25	25	26	21.5	1×1.8	10.8	16.9	290
SBK 3220-5.6	32	20	33.25	27.9	1×2.8	23.6	41.1	565
SBK 3232-5.6	32	32	33.25	27.9	1×2.8	23.1	41.8	567

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

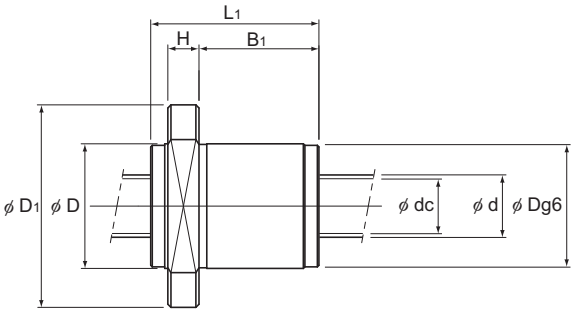
Unit: mm

Clearance symbol	G0
Axial Clearance	0 or less

Model number coding

SBK2525-3.6 QZ G0 +1200L C5

- SBK2525-3.6: Model Number
- QZ: With QZ Lubricator (no symbol if the model is without a QZ Lubricator)
- G0: Symbol for clearance in the axial direction (G0 for all SBK variations)
- +1200L: Overall screw shaft length (in mm)
- C5: Accuracy symbol[1]



Unit: mm

	Nut dimensions									Screw shaft inertial moment/mm	Nut mass	Shaft mass	Permissible rotational speed
	Outer diameter	Flange diameter	Overall length						Lubrication hole				
	D	D_1	L_1	H	B_1	PCD	d_1	T_W	A	$kg \cdot m^2/mm$	kg	kg/m	min^{-1}
	38	62	54	10	38.5	49	5.5	39	M6	3.90×10^{-8}	0.41	1.27	5,000
	33	54	45	10	29.5	43	4.5	38	M6	5.05×10^{-8}	0.25	1.46	5,000
	40	65	45	10	29.5	53	5.5	49	M6	1.23×10^{-7}	0.37	2.18	5,000
	40	65	54	10	38.5	53	5.5	49	M6	1.23×10^{-7}	0.43	2.32	5,000
	40	65	71	10	55.5	53	5.5	49	M6	1.23×10^{-7}	0.55	2.36	5,000
	47	74	57	12	38	60	6.6	56	M6	3.01×10^{-7}	0.59	3.58	5,000
	47	74	68	12	49	60	6.6	56	M6	3.01×10^{-7}	0.69	3.63	5,000
	58	92	82	15	58	74	9	68	M6	8.08×10^{-7}	1.23	5.82	3,900
	58	92	118	15	94	74	9	68	M6	8.08×10^{-7}	1.70	5.99	3,900

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 preload.
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 10% of 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