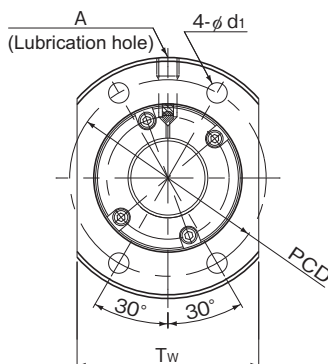


SBK With Preload

Smaller than SBK3232	
DN value	*The permissible rotational speed (N_2) of the miniature SBK (smaller than SBK3232) is the highest rotational speed listed in the specification table.



Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K N/μm
						Ca kN	C _{0a} kN	
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

Axial Clearance

Unit: mm

Clearance symbol	G0
Axial Clearance	0 or less

Model number coding

SBK2525-3.6 QZ G0 +1200L C5

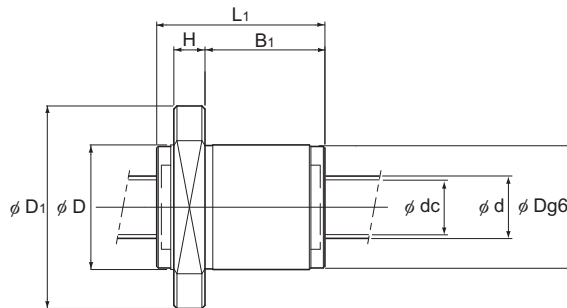
Model Number

Overall screw shaft
length (in mm)

Accuracy symbol (*1)

Symbol for clearance in the axial direction
(G0 for all SBK variations)With QZ Lubricator
(no symbol if the model is without a QZ Lubricator)(*1) See **A15-12**.

Positioning Ball Screw



Unit: mm

	Nut dimensions									Screw shaft inertial moment/mm kg·m ² /mm	Nut mass kg	Shaft mass kg/m	Maximum permissible rotation speed min ⁻¹
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	PCD	d ₁	T _w	Lubrication hole A				
	38	62	54	10	38.5	49	5.5	39	M6	3.90×10^{-8}	0.41	1.27	5000
	33	54	45	10	29.5	43	4.5	38	M6	5.05×10^{-8}	0.25	1.46	
	40	65	45	10	29.5	53	5.5	49	M6	1.23×10^{-7}	0.37	2.18	
	40	65	54	10	38.5	53	5.5	49	M6	1.23×10^{-7}	0.43	2.32	
	40	65	71	10	55.5	53	5.5	49	M6	1.23×10^{-7}	0.55	2.36	
	47	74	57	12	38	60	6.6	56	M6	3.01×10^{-7}	0.59	3.58	
	47	74	68	12	49	60	6.6	56	M6	3.01×10^{-7}	0.69	3.63	3900
	58	92	82	15	58	74	9	68	M6	8.08×10^{-7}	1.23	5.82	
	58	92	118	15	94	74	9	68	M6	8.08×10^{-7}	1.70	5.99	

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 (Fa₀) is not 0.1 Ca, the rigidity value (K_v) is obtained from the following equation.

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

K: Rigidity value in the dimensional table