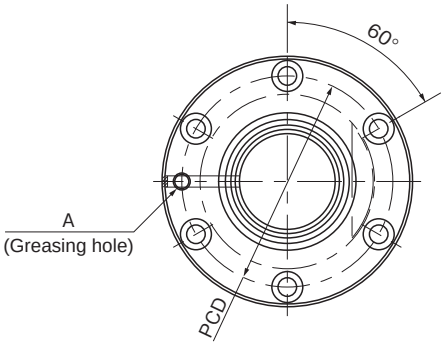
Model SBN



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
SBN 1604-5	16	4	16.5	13.8	1×2.5	5.3	8	281
SBN 1605-5	16	5	16.75	13.2	1×2.5	9.2	12.9	309
SBN 2004-5	20	4	20.5	17.8	1×2.5	5.9	10.1	335
SBN 2005-5	20	5	20.75	17.2	1×2.5	10.3	16.2	370
SBN 2504-5	25	4	25.5	22.8	1×2.5	6.4	12.7	400
SBN 2505-5	25	5	25.75	22.2	1×2.5	11.3	20.3	442
SBN 2506-5	25	6	26	21.4	1×2.5	15.4	25.4	457
SBN 2805-5	28	5	28.75	25.2	1×2.5	11.8	22.8	483
SBN 2806-5	28	6	29	24.4	1×2.5	16.2	28.5	499
SBN 3205-5	32	5	32.75	29.2	1×2.5	12.6	26.1	536
SBN 3206-5	32	6	33	28.4	1×2.5	17.2	32.7	555

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

Axial Clearance

Unit: mm

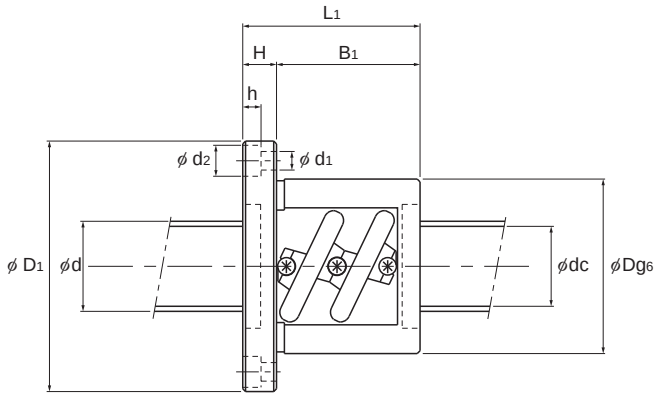
Clearance symbol	G0
Axial Clearance	0 or less

Model number coding

SBN1604-5 QZ RR G0 +1200L C5

- SBN1604-5: Model Number
- QZ: With QZ Lubricator (no symbol if the model is without a QZ Lubricator)
- RR: Seal symbol (*1)
- G0: Symbol for Clearance in the axial direction (G0 for all SBN variations)
- +1200L: Overall screw shaft length (in mm)
- C5: Accuracy symbol (*2)

(*1) See A15-352. (*2) See A15-12.



Unit: mm

	Nut dimensions								Screw shaft inertial moment/mm	Nut mass	Shaft mass
	Outer diameter	Flange diameter	Overall length					Greasing hole			
	Dg_6	D_1	L_1	H	B_1	PCD	$d_1 \times d_2 \times h$	A	kg•cm²/mm	kg	kg/m
	36	59	53	11	42	47	5.5×9.5×5.5	M6×1	5.05×10^{-4}	0.42	1.35
	40	60	56	10	46	50	4.5×8×4.5	M6×1	5.05×10^{-4}	0.50	1.25
	40	63	53	11	42	51	5.5×9.5×5.5	M6×1	1.23×10^{-3}	0.48	2.18
	44	67	56	11	45	55	5.5×9.5×5.5	M6×1	1.23×10^{-3}	0.61	2.06
	46	69	48	11	37	57	5.5×9.5×5.5	M6×1	3.01×10^{-3}	0.55	3.50
	50	73	55	11	44	61	5.5×9.5×5.5	M6×1	3.01×10^{-3}	0.72	3.35
	53	76	62	11	51	64	5.5×9.5×5.5	M6×1	3.01×10^{-3}	0.90	3.19
	55	85	59	12	47	69	6.6×11×6.5	M6×1	4.74×10^{-3}	0.98	4.27
	59	89	63	12	51	73	6.6×11×6.5	M6×1	4.74×10^{-3}	1.19	4.33
	58	85	56	12	44	71	6.6×11×6.5	M6×1	8.08×10^{-3}	0.96	5.67
	62	89	63	12	51	75	6.6×11×6.5	M6×1	8.08×10^{-3}	1.22	6.31

Note) The rigidity values in the table represent the spring constants obtained from the load and the elastic deformation when providing a preload 10% of the basic 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 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⇒A15-351