

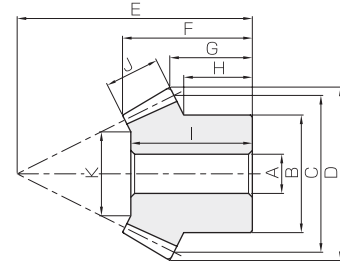


# SB · SBY Steel Bevel Gears

Module 1.5 ~ 6



Specifications	
Precision grade	JIS B 1704 grade 3
Gear teeth	Gleason
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	less than 194HB



B3

Catalog No.	Gear ratio	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Mounting distance	Total length	Crown to back length	Hub width
					A <sub>H7</sub>	B	C	D	E	F	G	H
SB1.5-6015 SB1.5-1560	4	m1.5	60	B4	12	50	90	90.41	32	24.2	21.58	12
			15	B3	8	18	22.5	26.66	56	23.01	11.52	10.43
SB2-6015 SB2-1560		m2	60	B4	15	60	120	120.55	42	31.6	28.1	16
			15	B3	10	24	30	35.55	75	31.01	15.69	14.25
SB2.5-6015 SB2.5-1560		m2.5	60	B4	20	70	150	150.69	53	40	35.63	20
			15	B3	12	30	37.5	44.44	94	39.02	19.87	18.06
SB3-6015 SB3-1560		m3	60	B4	20	80	180	180.83	64	47.97	43.15	25
			15	B3	15	38	45	53.33	112	44.1	23.04	21.12
SB4-6015 SB4-1560		m4	60	B5	25	85	240	241.1	80	59.2	52.2	36
			15	B3	16	50	60	71.10	150	62.03	31.39	28.75
SBY5-6015 SBY5-1560		m5	60	BT	30	180	300	301.36	80	53.97	45.22	20
			15	B3	25	60	75	88.9	185	75.03	36.74	33.13
SBY6-6015 SBY6-1560	m6	60	BT	35	200	360	361.66	100	68.16	58.31	25	
		15	B3	25	75	90	106.66	220	85.17	42.08	38.13	

- [Caution on Product Characteristics]
- ① The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 451 for more details.
  - ② Dimensions of the outside diameter, the overall length and crown to back length are all theoretical values, and some differences will occur due to the corner chamfering of the gear tips.
  - ③ For convenience in handling, BT Shaped Gears have tapped holes on their holding surface. To find the L dimensions and tap sizes, please refer to page 452.

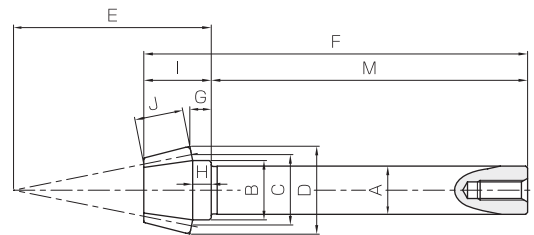


# SB Steel Bevel Gears & Pinion Shafts

Module 1.5 ~ 3



Specifications	
Precision grade	JIS B 1704 grade 3
Gear teeth	Gleason
Pressure angle	20°
Material	S45C
Heat treatment	—*
Tooth hardness	less than 194HB *



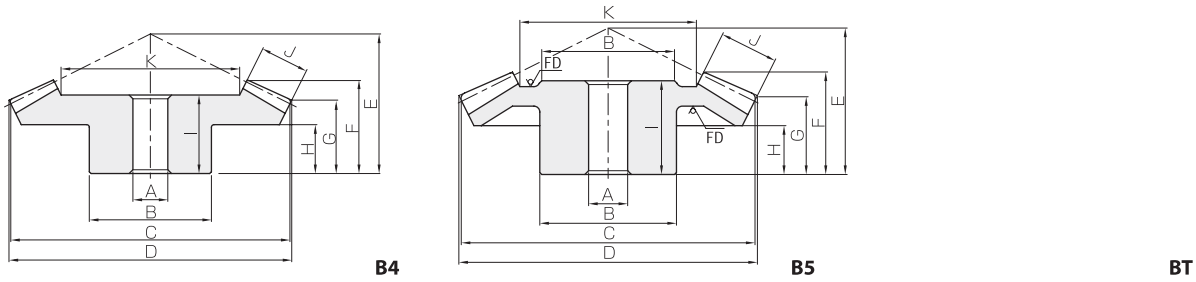
\* Pinions are thermal refined. The hardness of a gear tooth is 225 to 260HB.

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Catalog No.	Gear ratio	Module	No. of teeth	Shape	Bore · Shaft dia.	Hub dia.	Pitch dia.	Outside dia.	Mounting distance	Total length	Crown to back length	Hub width	Length of bore · shaft
					A <sub>H7(Bore)</sub> A <sub>H7(Shaft)</sub>	B	C	D	E	F	G	H	I
SB1.5-6012 SB1.5-1260	5	m1.5	60	B4	12	50	90	90.33	30	23.89	21.82	12	21
			12	B8	12.2	15	18	22.24	50	97.06	5.42	4.7	17.06
SB2-6012 SB2-1260		m2	60	B4	15	60	120	120.43	40	31.85	29.09	16	24
			12	B8	15.2	20	24	29.65	66	117.08	6.56	5.6	22.08
SB2.5-6012 SB2.5-1260		m2.5	60	B4	20	70	150	150.54	50	39.81	36.36	20	34
			12	B8	20.2	25	30	37.06	83	143.1	8.7	7.5	28.1
SB3-6012 SB3-1260		m3	60	B4	20	80	180	180.65	60	47.43	43.64	25	41
			12	B8	25.25	30	36	44.48	100	172.19	10.85	9.4	32.19

- [Caution on Product Characteristics]
- ① The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 451 for more details.
  - ② Dimensions of the outside diameter, the overall length and crown to back length are all theoretical values, and some differences will occur due to the corner chamfering of the gear tips.

## Steel Bevel Gears

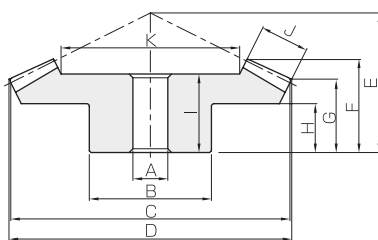


\* FD has die-forged finish.

Length of bore I	Face width J	Holding surface dia. K	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
			Bending strength	Surface durability	Bending strength	Surface durability			
21 22.5	12	65.38	17.3	1.75	1.77	0.18	0.05~0.15	0.62 0.043	<b>SB1.5-6015</b> <b>SB1.5-1560</b>
27 30		15.54	4.46	0.44	0.45	0.045			
34 37.5	16	87.02	41.3	4.30	4.21	0.44	0.06~0.16	1.35 0.10	<b>SB2-6015</b> <b>SB2-1560</b>
41 43		18.06	10.6	1.07	1.08	0.11			
53 60	20	108.64	80.2	8.54	8.18	0.87	0.07~0.17	2.51 0.21	<b>SB2.5-6015</b> <b>SB2.5-1560</b>
45 73		20.57	20.6	2.13	2.10	0.22			
56 82	22	134.4	130	14.2	13.3	1.44	0.08~0.18	4.16 0.36	<b>SB3-6015</b> <b>SB3-1560</b>
53 60		31.58	33.5	3.54	3.42	0.36			
56 82	32	174.03	328	37.0	33.5	3.77	0.12~0.27	6.00 0.91	<b>SB4-6015</b> <b>SB4-1560</b>
45 73		36.12	84.5	9.24	8.62	0.94			
56 82	40	218.79	642	74.4	65.4	7.59	0.14~0.34	17.5 1.58	<b>SBY5-6015</b> <b>SBY5-1560</b>
56 82		49.15	165	18.6	16.8	1.90			
56 82	45	267.73	1050	126	107	12.8	0.16~0.36	30.7 2.83	<b>SBY6-6015</b> <b>SBY6-1560</b>
56 82		54.92	270	31.5	27.5	3.21			

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 452) when performing modifications and/or secondary operations for safety concerns. Haguruma Kobo, the KHK's system for quick modification of KHK stock gears is also available.

## Steel Bevel Gears & Pinion Shafts



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Face width J	Holding surface dia. K	Shaft length M	Screw size	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
				Bending strength	Surface durability	Bending strength	Surface durability			
12	65.52	—	—	18.0	1.41	1.83	0.14	0.05~0.15	0.62 0.097	<b>SB1.5-6012</b> <b>SB1.5-1260</b>
	—	80	M5	4.01	0.46	0.41	0.047			
16	86.96	—	—	42.6	3.43	4.34	0.35	0.06~0.16	1.34 0.19	<b>SB2-6012</b> <b>SB2-1260</b>
	—	95	M6	9.50	1.12	0.97	0.11			
20	108.8	—	—	83.2	6.85	8.48	0.70	0.07~0.17	2.54 0.40	<b>SB2.5-6012</b> <b>SB2.5-1260</b>
	—	115	M8	18.5	2.23	1.89	0.23			
22	134.73	—	—	135	11.4	13.8	1.16	0.08~0.18	4.18 0.74	<b>SB3-6012</b> <b>SB3-1260</b>
	—	140	M8	30.1	3.70	3.07	0.38			

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