



Spur Gear	Helical Gears	Internal Gears	Racks	CP Racks & Pinions
Miter Gears	Bevel Gears	Screw Gears	Worms Worm Gears	Others Products

## SB · CB Bevel Gears

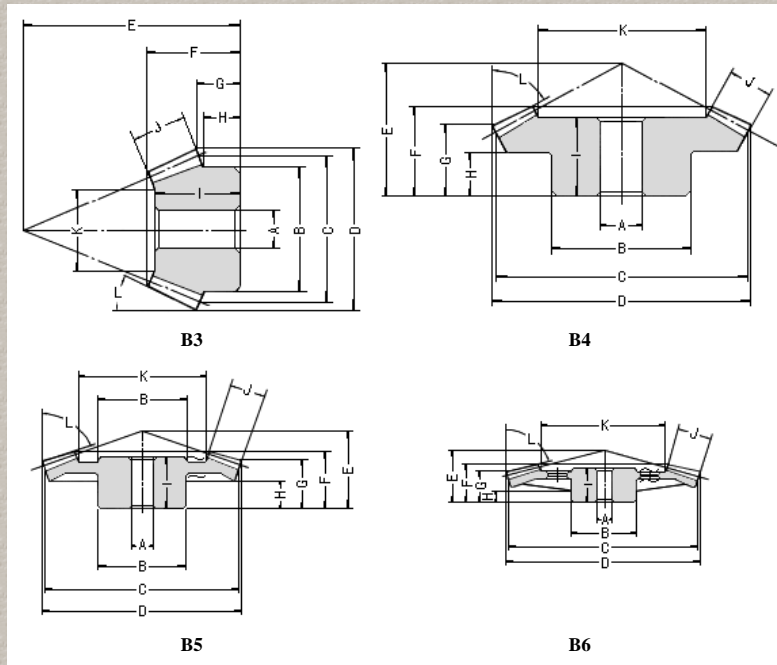
◀ BACK FORWARD ▶

 Module  
1~8

SB · CB



Specifications			
<b>Precision grade</b>	JIS B 1704 grade 3 (CB type grade 4)	<b>Core hardness</b>	HB165~194 except CB type is less than
<b>Gear teeth</b>	Gleason	<b>Surface hardness</b>	HB223
<b>Pressure angle</b>	20°	<b>Surface treatment</b>	Black oxide except CB type
<b>Material</b>	S45C except CB type is FC200	<b>Surface finish</b>	Cut
<b>Heat treatment</b>	-	<b>Datum reference surface for teeth cutting</b>	Bore


 Gear Ratio 2 ■ Module  
1~8

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Mounting distance	Total length	Crown to back length	Hub width	Length of bore	Face width	Holding surface dia.	Face angle	Shape	Allowable torque(kgfm)		Allowable torque(Nm)		Backlash (mm)	Weight (kgf)	Catalog No.			
	<i>m</i>	<i>z</i>	A <sub>H7</sub>	B	C	D	E	F	G	H	I	J	K	L		Bending strength	Surface durability	Bending strength	Surface durability						
SB1-4020 [ DXF   DWG ] SB1-2040 [ DXF   DWG ]	1	40	8	25	40	40.59	22	15.07	12.59	8	12	6	26.58	65° 36'	B4	0.2665	0.0299	2.613	0.2932	0.03~0.13	0.07	SB1-4020			
			6	16	20	22.41	28	13.78	8.6	7	12		9.17	30° 29'		B3	0.1342	0.015	1.316				0.1471	0.02	SB1-2040
SB1.25-4020 [ DXF   DWG ] SB1.25-2040 [ DXF   DWG ]	1.25	40	10	32	50	50.73	27	18.54	15.23	10	16	8	33.61	65° 36'	B4	0.5439	0.0626	5.334	0.6139	0.04~0.14	0.14	SB1.25-4020			
			8	22	25	28.01	36	18.66	11.75	10.25	17		13.22	30° 29'		B3	0.2739	0.0313	2.686				0.3069	0.05	SB1.25-2040
SB1.5-4020 [ DXF   DWG ] SB1.5-2040 [ DXF   DWG ]	1.5	40	10	38	60	60.88	35	25.01	20.88	15	22	10	39.64	65° 36'	B4	0.9654	0.1134	9.467	1.112	0.05~0.15	0.23	SB1.5-4020			
			8	25	30	33.61	46	25.54	16.9	14.75	24		17.28	30° 29'		B3	0.4862	0.0567	4.768				0.556	0.09	SB1.5-2040
SB2-4020 [ DXF   DWG ] SB2-2040 [ DXF   DWG ]	2	40	12	40	80	81.17	45	32.37	26.17	18	27	15	48.46	65° 36'	B4	2.463	0.2977	24.15	2.919	0.06~0.16	0.5	SB2-4020			
			12	32	40	44.81	60	34.16	21.2	18	32		20.92	30° 29'		B3	1.24	0.1488	12.16				1.459	0.2	SB2-2040
SB2.5-4020 [ DXF   DWG ] SB2.5-2040 [ DXF   DWG ]	2.5	40	15	50	100	101.46	55	39.73	31.46	20	35	20	60.28	65° 36'	B4	4.994	0.6162	48.97	6.043	0.07~0.17	1.1	SB2.5-4020			
			12	40	50	56.01	75	43.78	26.5	22.5	41		24.56	30° 29'		B3	2.515	0.3081	24.66				3.021	0.4	SB2.5-2040
SB3-4020 [ DXF   DWG ] SB3-2040 [ DXF   DWG ]	3	40	20	60	120	121.76	65	45.85	36.76	24	38	22	73.81	65° 36'	B4	8.2	1.032	80.41	10.12	0.08~0.18	1.6	SB3-4020			
			16	50	60	67.22	90	50.81	31.8	27.5	47		29.61	30° 29'		B3	4.13	0.5161	40.5				5.061	0.7	SB3-2040
SB4-4020 [ DXF   DWG ] SB4-2040 [ DXF   DWG ]	4	40	20	70	160	162.34	80	53.92	42.34	28	45	28	102.39	65° 36'	B4	18.89	2.456	185.2	24.08	0.12~0.22	3.3	SB4-4020			
			20	60	80	89.62	120	66.59	42.41	35	62		42.78	30° 29'		B3	9.511	1.228	93.27				12.04	1.5	SB4-2040
SB5-4020 [ DXF   DWG ] SB5-2040 [ DXF   DWG ]	5	40	25	100	200	202.93	90	55.33	42.93	26	50	30	138.92	65° 36'	B5	33.32	4.472	326.8	43.85	0.14~0.24	6	SB5-4020			
			20	80	100	112.03	140	68.92	43.01	35	63		57.84	30° 29'		B3	16.78	2.236	164.6				21.93	2.9	SB5-2040
SB6-4020 [ DXF   DWG ] CB6-4020 [ DXF   DWG ] SB6-2040 [ DXF   DWG ]	6	40	25	85	240	243.5	105	65	48.5	38	58	40	158.56	65° 36'	B5	61.17	8.483	599.9	83.19	0.16~0.26	7.9	SB6-4020			
			25	80	240	243.52	105	65	48.5	20	58		158.61	65° 36'		B6	12.29	5.016	120.5				49.19	6	CB6-4020
			20	90	120	134.44	160	78.16	43.6	32.5	70		61.11	30° 29'		B3	30.8	4.242	302				41.6	4.1	SB6-2040
CB8-4020 [ DXF   DWG ] SB8-2040 [ DXF   DWG ]	8	40	35	110	320	324.69	130	79.5	54.69	20	70	60	200.83	65° 36'	B6	31.04	13.23	304.4	129.7	0.2~0.3	14	CB8-4020			
			30	120	160	179.25	210	106.64	54.81	40	95		71.67	30° 29'		B3	77.79	15.39	762.9				150.9	9	SB8-2040

Pitch Angle Gear 63° 26' Pinion 26° 34'

### Gear Ratio 2.5 ■ Module 1~5

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Mounting distance	Total length	Crown to back length	Hub width	Length of bore	Face width	Holding surface dia.	Face angle	Shape	Allowable torque(kgfm)		Allowable torque(Nm)		Backlash (mm)	Weight (kgf)	Catalog No.
	<i>m</i>	<i>z</i>	A <sub>H7</sub>	B	C	D	E	F	G	H	I	J	K	L		Bending strength	Surface durability	Bending strength	Surface durability			
SB1-4518 [ DXF   DWG ] SB1-1845 [ DXF   DWG ]	1	45	8	30	45	45.46	23	16.95	14.57	10	15	7	30.73	70° 06'	B4	0.3419	0.036	3.353	0.353	0.03~0.13	0.11	SB1-4518
			6	15	18	20.57	32	16.34	10.02	8.9	15.5		10.31	25° 31'		B3	0.136	0.0144	1.334			

<b>SB1.25-4518</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ] <b>SB1.25-1845</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ]	1.25	45 18	10 8	34 19	56.25 22.5	56.82 25.72	26 40	18.53 20.66	15.46 12.52	10 11.17	16 19.5	9	37.86 12.16	70° 06' 25° 31'	B4 B3	0.6802 0.2706	0.0734 0.0294	6.67 2.654	0.7198 0.2883	0.04~0.14	0.17 0.04	<b>SB1.25-4518</b> <b>SB1.25-1845</b>
<b>SB1.5-4518</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ] <b>SB1.5-1845</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ]	1.5	45 18	10 8	36 23	67.5 27	68.18 30.86	30 45	21.1 21.97	17.35 12.02	10 10.45	18 21	11	45 16.51	70° 06' 25° 31'	B4 B3	1.189 0.4731	0.1311 0.0524	11.66 4.639	1.286 0.5139	0.05~0.15	0.29 0.06	<b>SB1.5-4518</b> <b>SB1.5-1845</b>
<b>SB2-4518</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ] <b>SB2-1845</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ]	2	45 18	12 10	48 32	90 36	90.91 41.15	40 60	27.91 28.69	23.14 16.03	15 14.2	25 27.5	14	62.24 23.11	70° 06' 25° 31'	B4 B3	2.735 1.088	0.3109 0.1244	26.82 10.67	3.049 1.22	0.06~0.16	0.66 0.16	<b>SB2-4518</b> <b>SB2-1845</b>
<b>SB2.5-4518</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ] <b>SB2.5-1845</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ]	2.5	45 18	15 12	55 40	112.5 45	113.64 51.44	50 72	35.06 33.31	28.92 17.04	18 14.75	31 31.5	18	76.53 26.82	70° 06' 25° 31'	B4 B3	5.441 2.164	0.6317 0.2527	53.36 21.22	6.195 2.478	0.07~0.17	1.27 0.29	<b>SB2.5-4518</b> <b>SB2.5-1845</b>
<b>SB3-4518</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ] <b>SB3-1845</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ]	3	45 18	20 16	65 48	135 54	136.37 61.72	60 85	41.86 38.04	34.71 19.05	22 16.3	37 36	21	92.96 33.41	70° 06' 25° 31'	B4 B3	9.23 3.672	1.094 0.4374	90.51 36.01	10.73 4.289	0.08~0.18	2.05 0.45	<b>SB3-4518</b> <b>SB3-1845</b>
<b>SB4-4518</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ] <b>SB4-1845</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ]	4	45 18	20 20	80 62	180 72	181.82 82.3	75 110	51.16 48.28	41.28 22.06	24 18	45 46	29	22.33 45.83	70° 06' 25° 31'	B4 B3	22.39 8.906	2.734 1.094	219.6 87.34	26.81 10.73	0.12~0.22	4.8 1	<b>SB4-4518</b> <b>SB4-1845</b>
<b>SB5-4518</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ] <b>SB5-1845</b> [ <a href="#">DXF</a>   <a href="#">DWG</a> ]	5	45 18	25 20	100 80	225 90	227.28 102.87	90 135	59.43 55.82	47.85 25.07	28 20.5	51 52.5	34	156.56 56.9	70° 06' 25° 31'	B4 B3	41.91 16.67	5.282 2.113	411 163.5	51.8 20.72	0.14~0.24	8.7 2	<b>SB5-4518</b> <b>SB5-1845</b>

Pitch Angle Gear 68° 12' Pinion 21° 48'

**CAUTION:** 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.

**NOTE:** The allowable torques shown in the table are calculated according to JGMA Standards 403-01 and 404-01.

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