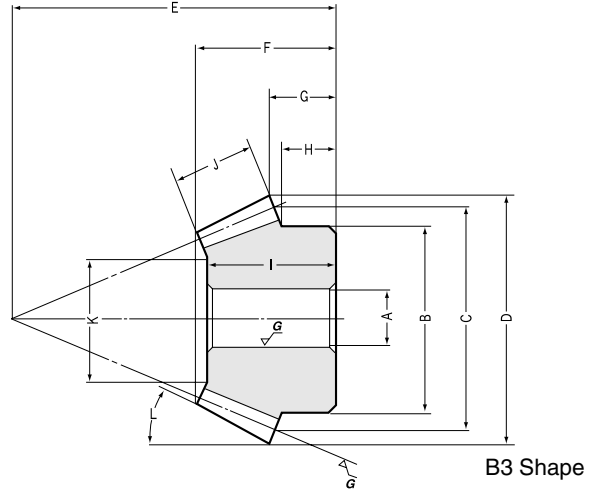




SBSG Ground Spiral Bevel Gears Modules 2~4



B3 Shape

Gear Ratio 1.5 ■ Modules 2~4

Catalog No.	Direction of Spiral	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
		<i>m</i>	<i>z</i>	A _{H7}	B	C	D	E	F	G	H	I	J
SBSG2 -3020R SBSG2 -2030L	R	2	30	12	35	60	61.6	40	26.6	21.2	15	23	11
	L		20	10	30	40	43.55	45	24.91	16.18	11.67	22	
SBSG2.5-3020R SBSG2.5-2030L	R	2.5	30	15	45	75	77.09	50	33.86	26.56	18	30	15
	L		20	12	40	50	54.43	55	30.88	18.98	14.17	28	
SBSG3 -3020R SBSG3 -2030L	R	3	30	16	50	90	92.21	55	35.34	26.66	17	31	17
	L		20	16	45	60	65.58	70	40.17	26.86	20	37	
SBSG4 -3020R SBSG4 -2030L	R	4	30	20	70	120	122.85	75	47.49	37.14	25	40	20
	L		20	20	60	80	87.34	90	48.17	32.45	23.33	43	

Gear Ratio 2 ■ Modules 2~4

SBSG2 -4020R SBSG2 -2040L	R	2	40	12	40	80	81	45	32.26	25.99	18	27	15
	L		20	12	32	40	44.1	60	34	21	18	32	
SBSG2.5-4020R SBSG2.5-2040L	R	2.5	40	15	50	100	101.27	55	39.65	31.27	20	34	20
	L		20	12	40	50	55.2	75	43.61	26.3	22.5	40	
SBSG3 -4020R SBSG3 -2040L	R	3	40	20	60	120	121.48	65	45.76	36.47	24	38	22
	L		20	16	50	60	66.07	90	50.63	31.52	27.5	47	
SBSG4 -4020R SBSG4 -2040L	R	4	40	20	70	160	162.07	80	53.69	42.07	28	45	28
	L		20	20	60	80	88.5	120	66.24	42.12	35	62	

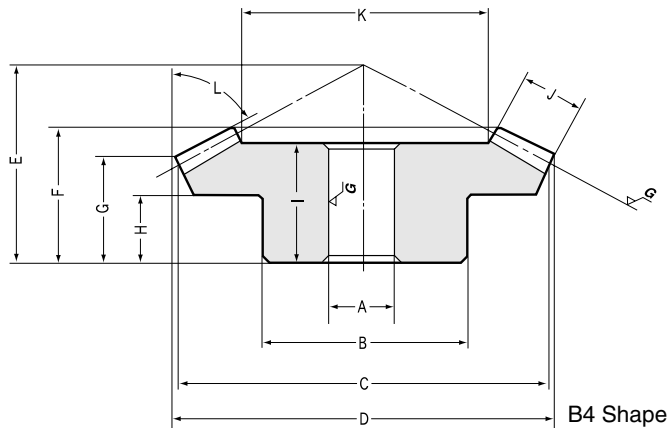
Gear Ratio 3 ■ Modules 2~3

SBSG2 -4515R SBSG2 -1545L	R	2	45	12	40	90	90.67	40	30.29	26.01	17	26	15
	L		15	10	24	30	34.78	60	29.66	15.8	14	29	
SBSG2.5-4515R SBSG2.5-1545L	R	2.5	45	15	50	112.5	113.32	50	38.25	32.47	22	35	20
	L		15	12	30	37.5	43.36	75	38.27	19.73	17.5	37	
SBSG3 -4515R SBSG3 -1545L	R	3	45	20	60	135	135.99	55	40.59	33.98	20	35	23
	L		15	15	38	45	52.08	90	44.98	23.68	21.33	44	

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.



Ground Spiral Bevel Gears



Specifications

Precision grade	JIS B 1704 grade 2	Tooth hardness	48~53HRC
Gear teeth	Gleason	Surface treatment	Black oxide except ground surface
Pressure angle	20°	Tooth surface finish	Ground
Helix angle	35°	Datum reference surface for gear grinding	Bore
Material	S45C	Secondary Operations	Possible except tooth areas
Heat treatment	Teeth induction hardened		

Holding surface dia. K	Tip angle L	Shape	Allowable torque (N-m) NOTE 1		Allowable torque (kgf-m)		Backlash (mm)	Weight (kgf)	Catalog No.
			Bending strength	Surface durability	Bending strength	Surface durability			
37.56 21.34	60°43' 37°40'	B4 B3	14.08 9.607	14.16 9.439	(1.436) (0.9797)	(1.444) (0.9625)	0.05 ~ 0.11	0.25 0.12	SBSG2 -3020R SBSG2 -2030L
45.61 27.42	61°01' 37°41'	B4 B3	29.04 19.81	29.7 19.8	(2.961) (2.02)	(3.029) (2.019)	0.06 ~ 0.12	0.55 0.23	SBSG2.5-3020R SBSG2.5-2030L
57.14 34.71	59°20' 38°45'	B4 B3	48.44 33.05	50.36 33.58	(4.94) (3.37)	(5.135) (3.424)	0.07 ~ 0.13	0.8 0.5	SBSG3 -3020R SBSG3 -2030L
78.59 46.89	58°52' 38°25'	B4 B3	105.8 72.18	113 75.34	(10.79) (7.36)	(11.52) (7.683)	0.1 ~ 0.16	1.8 1.1	SBSG4 -3020R SBSG4 -2030L

Pitch Angle Gear: 56°19' Pinion: 33°41'

48.46 21.11	65°20' 29°58'	B4 B3	25.48 12.77	26.72 13.36	(2.598) (1.302)	(2.725) (1.362)	0.05 ~ 0.11	0.5 0.19	SBSG2 -4020R SBSG2 -2040L
59.26 20.53	65°50' 30°18'	B4 B3	51.66 25.88	55.11 27.56	(5.268) (2.639)	(5.62) (2.81)	0.06 ~ 0.12	1.1 0.4	SBSG2.5-4020R SBSG2.5-2040L
73.78 29.63	65°03' 29°50'	B4 B3	84.84 42.5	91.94 45.96	(8.651) (4.334)	(9.375) (4.687)	0.07 ~ 0.13	1.6 0.7	SBSG3 -4020R SBSG3 -2040L
102.39 42.8	65°30' 30°47'	B4 B3	195.3 97.88	217.2 108.7	(19.92) (9.981)	(22.15) (11.08)	0.1 ~ 0.16	3.3 1.5	SBSG4 -4020R SBSG4 -2040L

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

59.07 19.15	73°25' 22°50'	B4 B3	34.82 11.16	28.13 9.377	(3.551) (1.138)	(2.868) (0.9562)	0.05 ~ 0.11	0.7 0.1	SBSG2 -4515R SBSG2 -1545L
72.82 20.48	73°13' 22°22'	B4 B3	58.96 18.89	48.3 16.1	(6.012) (1.926)	(4.925) (1.642)	0.06 ~ 0.12	1 0.2	SBSG2.5-4515R SBSG2.5-1545L
88.2 28.52	73°18' 22°32'	B4 B3	99.34 31.81	82.47 27.49	(10.13) (3.244)	(8.41) (2.803)	0.07 ~ 0.13	1.8 0.35	SBSG3 -4515R SBSG3 -1545L

Pitch Angle Gear: 71°34' Pinion: 18°26'

NOTE 1: The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 229 for more details.