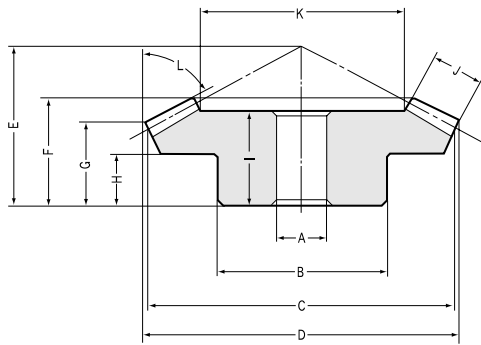


## Gear Ratio 5 ■ Modules 1.5~3

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
	<i>m</i>	<i>z</i>	$A_{H7}(\text{Bore})$ $A_{h7}(\text{Shaft})$	B	C	D	E	F	G	H	I	J
<b>SB1.5-6012</b> <b>SB1.5-1260</b>	1.5	60 12	12 12.2	50 15	90 18	90.33 22.24	30 50	23.89 97.06	21.82 5.42	12 4.7	21 17.06	12
<b>SB2 -6012</b> <b>SB2 -1260</b>	2	60 12	15 15.2	60 20	120 24	120.43 29.65	40 66	31.85 117.08	29.09 6.56	16 5.6	27 22.08	16
<b>SB2.5-6012</b> <b>SB2.5-1260</b>	2.5	60 12	20 20.2	70 25	150 30	150.54 37.06	50 83	39.81 143.1	36.36 8.7	20 7.5	34 28.1	20
<b>SB3 -6012</b> <b>SB3 -1260</b>	3	60 12	20 25.25	80 30	180 36	180.65 44.48	60 100	47.43 172.19	43.64 10.85	25 9.4	41 32.19	22

**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.



B4 Shape

## Specifications

Precision grade	JIS B 1704 grade 3	Tooth hardness	Less than 194HB (pinion are less than 225~260HB)
Gear teeth	Gleason	Surface treatment	—
Pressure angle	20°	Tooth surface finish	Cut
Material	S45C	Datum reference surface for gear cutting	Bore except shaft for pinion
Heat treatment	Thermal refined (pinion only) <sup>NOTE 1</sup>	Secondary Operations	Possible

**NOTE 1:** The pinion is thermally with refined in order to increase stiffness.

Holding surface dia. K	Tip angle L	Shaft length M	Screw	Shape	Allowable torque (N-m) <sup>NOTE 2</sup>		Allowable torque (kgf-m)		Backlash (mm)	Weight (kgf)	Catalog No.
					Bending strength	Surface durability	Bending strength	Surface durability			
65.52 —	80°05' 14°22'	— 80	— M5	B4 B8	11.98 2.071	1.907 0.3815	(1.222 ) (0.2112)	(0.1945) (0.0389)	0.05 ~ 0.15	0.42 0.1	<b>SB1.5-6012</b> <b>SB1.5-1260</b>
86.96 —	80°05' 14°22'	— 95	— M6	B4 B8	28.41 4.909	4.597 0.9199	(2.897 ) (0.5006)	(0.4688) (0.0938)	0.06 ~ 0.16	1.3 0.2	<b>SB2 -6012</b> <b>SB2 -1260</b>
108.8 —	80°05' 14°22'	— 115	— M8	B4 B8	55.48 9.589	9.084 1.817	(5.657 ) (0.9778)	(0.9263) (0.1853)	0.07 ~ 0.17	2.5 0.41	<b>SB2.5-6012</b> <b>SB2.5-1260</b>
134.73 —	80°05' 14°22'	— 140	— M8	B4 B8	90.09 15.57	14.9 2.978	(9.187 ) (1.588 )	(1.519 ) (0.3037)	0.08 ~ 0.18	4.2 0.75	<b>SB3 -6012</b> <b>SB3 -1260</b>

**NOTE 2:** The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 229 for more details.

Pitch Angle Gear: 78°41' Pinion: 11°19'