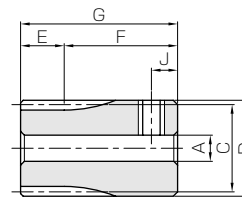




Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998) * JIS grade 4 (JIS B1702: 1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	Free cutting brass (C3604)
Heat treatment	—
Tooth hardness	more than 80HV



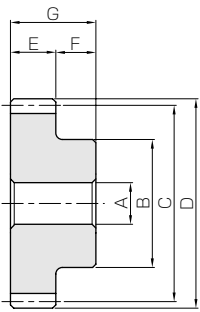
* The precision grade of products with a module of less than 0.8 is equivalent to the value shown in the table.

S3T

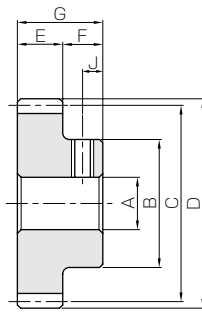
Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway	
				A _{H7}	B	C	D	E	F	G	Width×Depth	
BSS0.5-15A	m0.5	15	S3T	3	8.5	7.5	8.5	3	11	14	—	
BSS0.5-16A		16	S3T	3	9	8	9	3	11	14	—	
BSS0.5-17A		17	S3T	3	9.5	8.5	9.5	3	11	14	—	
BSS0.5-18A		18	S3T	3	10	9	10	3	11	14	—	
BSS0.5-19A		19	S3T	3	10.5	9.5	10.5	3	11	14	—	
BSS0.5-20		20	S1	4	8.5					7	10	—
BSS0.5-20A			S3T	3	11	10	11	3	11	14	—	
BSS0.5-20B			S3T	4	11					11	14	—
BSS0.5-21A		21	S3T	3	11.5	10.5	11.5	3	11	14	—	
BSS0.5-22A		22	S1T	3	9	11	12	3	7	10	—	
BSS0.5-23A		23	S1T	3	9	11.5	12.5	3	7	10	—	
BSS0.5-24A		24	S1T	3	10	12	13	3	7	10	—	
BSS0.5-24B			S1T	4	10	12	13	3	7	10	—	
BSS0.5-25		25	S1	4	11							—
BSS0.5-25A			S1T	3	10	12.5	13.5	3	7	10	—	
BSS0.5-25B			S1T	4	10							—
BSS0.5-26A		26	S1T	3	10	13	14	3	7	10	—	
BSS0.5-27A		27	S1T	3	10	13.5	14.5	3	7	10	—	
BSS0.5-28A		28	S1T	3	12	14	15	3	7	10	—	
BSS0.5-29A		29	S1T	3	12	14.5	15.5	3	7	10	—	
BSS0.5-30		30	S1	4	13							—
BSS0.5-30A			S1T	3	12	15	16	3	7	10	—	
BSS0.5-30B			S1T	4	12							—
BSS0.5-30C			S1T	5	12							—
BSS0.5-32A		32	S1T	4	14	16	17	3	7	10	—	
BSS0.5-34A		34	S1T	4	15	17	18	3	7	10	—	
BSS0.5-35A		35	S1T	4	15	17.5	18.5	3	7	10	—	
BSS0.5-36A		36	S1T	4	16	18	19	3	7	10	—	
BSS0.5-38A		38	S1T	4	16	19	20	3	7	10	—	
BSS0.5-40		40	S1	4	17							—
BSS0.5-40A			S1T	4	18	20	21	3	7	10	—	
BSS0.5-40B			S1T	5	18							—
BSS0.5-50A	50	S1T	4	22	25	26	3	7	10	—		
BSS0.5-50B		S1T	5	22							—	
BSS0.5-60A	60	S1T	5	28	30	31	3	7	10	—		
BSS0.5-60B		S1T	6	28							—	
BSS0.5-70A	70	S1T	5	28	35	36	3	7	10	—		
BSS0.5-70B		S1T	6	28							—	
BSS0.5-80A	80	S1T	5	28	40	41	3	7	10	—		
BSS0.5-80B		S1T	6	28							—	

[Caution on Product Characteristics]

- ① For products with a tapped hole, a set screw is included.
- ② The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ③ The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.
- ④ If diameter is less than $\phi 4$, the diameter tolerance is H8. If diameter is $\phi 5$ or $\phi 6$, and the hole length exceeds 3 times of the diameter, the tolerance is also H8.



S1



S1T

Set Screw		Allowable torque (N·m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Bending strength			
M3	2.5	0.058	0.0059	0 ~0.10	0.0054	BSS0.5-15A
M3	2.5	0.065	0.0066	0 ~0.10	0.0062	BSS0.5-16A
M3	2.5	0.071	0.0072	0 ~0.10	0.0070	BSS0.5-17A
M3	2.5	0.078	0.0079	0 ~0.10	0.0079	BSS0.5-18A
M3	2.5	0.084	0.0086	0 ~0.10	0.0088	BSS0.5-19A
—	—	0.091	0.0093	0 ~0.10	0.0043	BSS0.5-20
M3	2.5				0.0098	BSS0.5-20A
M3	2.5				0.0091	BSS0.5-20B
M3	2.5	0.10	0.0099	0 ~0.10	0.011	BSS0.5-21A
M3	3.5	0.10	0.011	0 ~0.10	0.0054	BSS0.5-22A
M3	3.5	0.11	0.011	0 ~0.10	0.0056	BSS0.5-23A
M3	3.5	0.12	0.012	0 ~0.10	0.0067	BSS0.5-24A
M3	3.5	0.12	0.012	0 ~0.10	0.0063	BSS0.5-24B
—	—	0.12	0.013	0 ~0.10	0.0077	BSS0.5-25
M3	3.5				0.0070	BSS0.5-25A
M3	3.5				0.0065	BSS0.5-25B
M3	3.5	0.13	0.013	0 ~0.10	0.0072	BSS0.5-26A
M3	3.5	0.14	0.014	0 ~0.10	0.0075	BSS0.5-27A
M3	3.5	0.15	0.015	0 ~0.10	0.0097	BSS0.5-28A
M3	3.5	0.15	0.016	0 ~0.10	0.010	BSS0.5-29A
—	—	0.16	0.016	0 ~0.10	0.011	BSS0.5-30
M3	3.5				0.010	BSS0.5-30A
M3	3.5				0.0099	BSS0.5-30B
M4	3.5				0.0092	BSS0.5-30C
M3	3.5	0.17	0.018	0 ~0.10	0.013	BSS0.5-32A
M3	3.5	0.19	0.019	0 ~0.10	0.015	BSS0.5-34A
M3	3.5	0.20	0.020	0 ~0.10	0.015	BSS0.5-35A
M3	3.5	0.20	0.021	0 ~0.10	0.017	BSS0.5-36A
M3	3.5	0.22	0.022	0 ~0.10	0.018	BSS0.5-38A
—	—	0.23	0.024	0 ~0.10	0.020	BSS0.5-40
M3	3.5				0.022	BSS0.5-40A
M4	3.5				0.021	BSS0.5-40B
M3	3.5	0.31	0.031	0 ~0.10	0.033	BSS0.5-50A
M4	3.5				0.032	BSS0.5-50B
M4	3.5	0.38	0.039	0 ~0.10	0.052	BSS0.5-60A
M4	3.5				0.051	BSS0.5-60B
M4	3.5	0.46	0.047	0 ~0.10	0.058	BSS0.5-70A
M4	3.5				0.057	BSS0.5-70B
M4	3.5	0.54	0.055	0 ~0.10	0.065	BSS0.5-80A
M4	3.5				0.065	BSS0.5-80B

[Caution on Secondary Operations]

- ① Please read "Caution on Performing Secondary Operations" (Page 36) 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.
- ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.
- ③ When performing secondary operations, be aware of deflection and distortion as the tooth is thin in width.

Spur
GearsHelical
GearsInternal
Gears

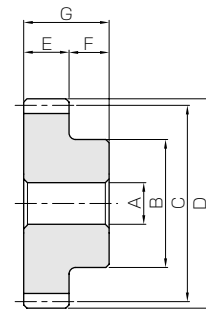
Racks

CP Racks
& PinionsMiter
GearsBevel
GearsScrew
GearsWorm
Gear PairBevel
GearboxesOther
Products



Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998) * JIS grade 4 (JIS B1702: 1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	Free cutting brass (C3604)
Heat treatment	—
Tooth hardness	more than 80HV

* The precision grade of products with a module of less than 0.8 is equivalent to the value shown in the table.

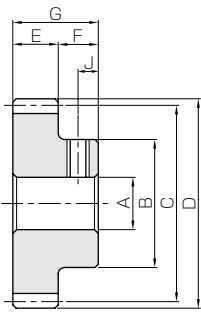


S1

Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway	
				A _{H7}	B	C	D	E	F	G	Width×Depth	
BSS0.8-15A	m0.8	15	S1T	4	9	12	13.6	4	8	12	—	
BSS0.8-16A		16	S1T	4	10	12.8	14.4	4	8	12	—	
BSS0.8-17A		17	S1T	4	10	13.6	15.2	4	8	12	—	
BSS0.8-18A		18	S1T	4	10	14.4	16	4	8	12	—	
BSS0.8-19A		19	S1T	4	12	15.2	16.8	4	8	12	—	
BSS0.8-20		20	S1	5	13.5							—
BSS0.8-20A			S1T	4	12	16	17.6	4	8	12	—	
BSS0.8-20B			S1T	5	12							—
BSS0.8-21A		21	S1T	5	14	16.8	18.4	4	8	12	—	
BSS0.8-22A		22	S1T	5	15	17.6	19.2	4	8	12	—	
BSS0.8-23A		23	S1T	5	15	18.4	20	4	8	12	—	
BSS0.8-24A		24	S1T	4	16	19.2	20.8	4	8	12	—	
BSS0.8-24B			S1T	5	16							—
BSS0.8-25		25	S1	5	17	20	21.6	4	8	12	—	
BSS0.8-25A			S1T	4	16							—
BSS0.8-25B			S1T	5	16							—
BSS0.8-26A		26	S1T	5	18	20.8	22.4	4	8	12	—	
BSS0.8-27A		27	S1T	5	18	21.6	23.2	4	8	12	—	
BSS0.8-28A		28	S1T	5	18	22.4	24	4	8	12	—	
BSS0.8-29A		29	S1T	5	20	23.2	24.8	4	8	12	—	
BSS0.8-30		30	S1	5	20							—
BSS0.8-30A			S1T	4	20	24	25.6	4	8	12	—	
BSS0.8-30B			S1T	5	20							—
BSS0.8-30C			S1T	6	20							—
BSS0.8-32A		32	S1T	5	22	25.6	27.2	4	8	12	—	
BSS0.8-34A		34	S1T	5	22	27.2	28.8	4	8	12	—	
BSS0.8-35A		35	S1T	5	25	28	29.6	4	8	12	—	
BSS0.8-36A		36	S1T	5	25	28.8	30.4	4	8	12	—	
BSS0.8-38A		38	S1T	5	25	30.4	32	4	8	12	—	
BSS0.8-40		40	S1	5	20	32	33.6	4	8	12	—	
BSS0.8-40A	S1T		5	28							—	
BSS0.8-40B	S1T		6	28							—	
BSS0.8-50A	50	S1T	5	28	40	41.6	4	8	12	—		
BSS0.8-50B		S1T	6	28							—	
BSS0.8-60A	60	S1T	5	28	48	49.6	4	8	12	—		
BSS0.8-60B		S1T	6	28							—	

[Caution on Product Characteristics]

- ① For products with a tapped hole, a set screw is included.
- ② The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ③ The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.
- ④ If diameter is less than $\phi 4$, the diameter tolerance is H8. If diameter is $\phi 5$ or $\phi 6$, and the hole length exceeds 3 times of the diameter, the tolerance is also H8.



S1T

Set Screw		Allowable torque (N·m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Bending strength			
M3	4	0.20	0.020	0 ~0.10	0.0067	BSS0.8-15A
M3	4	0.22	0.022	0 ~0.10	0.0082	BSS0.8-16A
M3	4	0.24	0.025	0 ~0.10	0.0088	BSS0.8-17A
M3	4	0.26	0.027	0 ~0.10	0.0094	BSS0.8-18A
M3	4	0.29	0.029	0 ~0.10	0.012	BSS0.8-19A
—	—	0.31	0.032	0 ~0.10	0.014	BSS0.8-20
M3	4				0.013	BSS0.8-20A
M4	4				0.012	BSS0.8-20B
M4	4	0.33	0.034	0 ~0.10	0.015	BSS0.8-21A
M4	4	0.36	0.036	0 ~0.10	0.018	BSS0.8-22A
M4	4	0.38	0.039	0 ~0.10	0.018	BSS0.8-23A
M3	4	0.40	0.041	0 ~0.10	0.022	BSS0.8-24A
M4	4				0.021	BSS0.8-24B
—	—	0.43	0.043	0 ~0.10	0.024	BSS0.8-25
M3	4				0.023	BSS0.8-25A
M4	4				0.022	BSS0.8-25B
M4	4	0.45	0.046	0 ~0.10	0.026	BSS0.8-26A
M4	4	0.47	0.048	0 ~0.10	0.027	BSS0.8-27A
M4	4	0.50	0.051	0 ~0.10	0.028	BSS0.8-28A
M4	4	0.52	0.053	0 ~0.10	0.033	BSS0.8-29A
—	—	0.55	0.056	0 ~0.10	0.034	BSS0.8-30
M3	4				0.035	BSS0.8-30A
M4	4				0.034	BSS0.8-30B
M4	4				0.033	BSS0.8-30C
M4	4	0.60	0.061	0 ~0.10	0.040	BSS0.8-32A
M4	4	0.64	0.066	0 ~0.10	0.042	BSS0.8-34A
M4	4	0.67	0.068	0 ~0.10	0.051	BSS0.8-35A
M4	4	0.69	0.071	0 ~0.10	0.052	BSS0.8-36A
M4	4	0.74	0.076	0 ~0.10	0.055	BSS0.8-38A
—	—	0.79	0.081	0 ~0.10	0.046	BSS0.8-40
M4	4				0.066	BSS0.8-40A
M4	4				0.065	BSS0.8-40B
M4	4	1.05	0.11	0 ~0.10	0.081	BSS0.8-50A
M4	4				0.080	BSS0.8-50B
M4	4	1.31	0.13	0 ~0.10	0.10	BSS0.8-60A
M4	4				0.099	BSS0.8-60B

[Caution on Secondary Operations]

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- ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.
- ③ When performing secondary operations, be aware of deflection and distortion as the tooth is thin in width.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks & Pinions

Miter Gears

Bevel Gears

Screw Gears

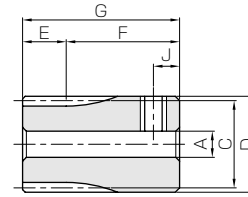
Worm Gear Pair

Bevel Gearboxes

Other Products



Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998) JIS grade 4 (JIS B1702: 1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	Free cutting brass (C3604)
Heat treatment	—
Tooth hardness	more than 80HV

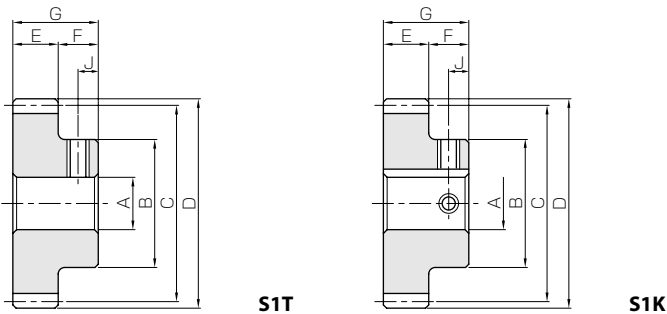


S3T

Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway
				A _{H7}	B	C	D	E	F	G	Width×Depth
BSS1-15A BSS1-15B	m1	15	S3T	4	17	15	17	6	15	21	—
S3T			5	17	15	17	6	15	21	—	
BSS1-16A BSS1-16B		16	S1T	4	12	16	18	6	8	14	—
S1T			5	12	16	18	6	8	14	—	
BSS1-17A		17	S1T	6	14	17	19	6	8	14	—
BSS1-18A BSS1-18B		18	S1T	5	15	18	20	6	8	14	—
S1T			6	15	18	20	6	8	14	—	
BSS1-19A		19	S1T	6	16	19	21	6	8	14	—
BSS1-20A BSS1-20B BSS1-20C		20	S1T	4	16	20	22	6	8	14	—
S1T			5	16	20	22	6	8	14	—	
S1T			6	16	20	22	6	8	14	—	
BSS1-21A		21	S1T	6	18	21	23	6	8	14	—
BSS1-22A		22	S1T	6	18	22	24	6	8	14	—
BSS1-23A		23	S1T	6	20	23	25	6	8	14	—
BSS1-24A BSS1-24B BSS1-24C		24	S1T	5	20	24	26	6	8	14	—
S1T			6	20	24	26	6	8	14	—	
S1T			8	20	24	26	6	8	14	—	
BSS1-25A BSS1-25B BSS1-25C		25	S1T	5	22	25	27	6	8	14	—
S1T			6	22	25	27	6	8	14	—	
S1T			8	22	25	27	6	8	14	—	
BSS1-26A BSS1-26B		26	S1T	6	22	26	28	6	8	14	—
S1T			8	22	26	28	6	8	14	—	
BSS1-27A		27	S1T	6	22	27	29	6	8	14	—
BSS1-28A		28	S1T	6	25	28	30	6	8	14	—
BSS1-29A		29	S1T	8	25	29	31	6	8	14	—
BSS1-30A BSS1-30B BSS1-30C BSS1-30D		30	S1T	5	25	30	32	6	8	14	—
S1T			6	25	30	32	6	8	14	—	
S1T			8	25	30	32	6	8	14	—	
S1K			10	25	30	32	6	8	14	4 x 1.8	
BSS1-32A BSS1-32B BSS1-32C BSS1-32D		32	S1T	5	28	32	34	6	8	14	—
S1T	6		28	32	34	6	8	14	—		
S1T	8		28	32	34	6	8	14	—		
S1K	10		28	32	34	6	8	14	4 x 1.8		
BSS1-34A	34	S1T	8	28	34	36	6	8	14	—	
BSS1-35A BSS1-35B	35	S1T	8	28	35	37	6	8	14	—	
S1K		10	28	35	37	6	8	14	4 x 1.8		
BSS1-36A BSS1-36B	36	S1T	8	28	36	38	6	8	14	—	
S1K		10	28	36	38	6	8	14	4 x 1.8		
BSS1-38A	38	S1T	8	28	38	40	6	8	14	—	
BSS1-40A BSS1-40B BSS1-40C	40	S1T	6	28	40	42	6	8	14	—	
S1T		8	28	40	42	6	8	14	—		
S1K		10	28	40	42	6	8	14	4 x 1.8		
BSS1-50A BSS1-50B BSS1-50C	50	S1T	6	28	50	52	6	8	14	—	
S1T		8	28	50	52	6	8	14	—		
S1K		10	28	50	52	6	8	14	4 x 1.8		

[Caution on Product Characteristics]

- ① For products with a tapped hole, a set screw is included.
- ② The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ③ The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.
- ④ If diameter is less than $\phi 4$, the diameter tolerance is H8. If diameter is $\phi 5$ or $\phi 6$, and the hole length exceeds 3 times of the diameter, the tolerance is also H8.



S1T

S1K

Set Screw		Allowable torque (N·m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Bending strength			
M3	4	0.47	0.048	0.08~0.18	0.035	BSS1-15A
M4	4			0.08~0.18	0.034	BSS1-15B
M3	4	0.52	0.053	0.08~0.18	0.016	BSS1-16A
M4	4			0.08~0.18	0.015	BSS1-16B
M4	4	0.57	0.058	0.08~0.18	0.018	BSS1-17A
M4	4	0.62	0.063	0.08~0.18	0.022	BSS1-18A
M4	4			0.08~0.18	0.021	BSS1-18B
M4	4	0.67	0.069	0.08~0.18	0.024	BSS1-19A
M3	4	0.73	0.074	0.08~0.18	0.028	BSS1-20A
M4	4			0.08~0.18	0.027	BSS1-20B
M4	4			0.08~0.18	0.026	BSS1-20C
M4	4	0.78	0.080	0.08~0.18	0.031	BSS1-21A
M4	4	0.83	0.085	0.08~0.18	0.033	BSS1-22A
M4	4	0.89	0.091	0.08~0.18	0.038	BSS1-23A
M4	4	0.94	0.10	0.08~0.18	0.041	BSS1-24A
M4	4			0.08~0.18	0.040	BSS1-24B
M5	4			0.08~0.18	0.037	BSS1-24C
M4	4	1.00	0.10	0.08~0.18	0.047	BSS1-25A
M4	4			0.08~0.18	0.046	BSS1-25B
M5	4			0.08~0.18	0.044	BSS1-25C
M4	4	1.05	0.11	0.08~0.18	0.048	BSS1-26A
M5	4			0.08~0.18	0.046	BSS1-26B
M4	4	1.11	0.11	0.08~0.18	0.051	BSS1-27A
M4	4	1.17	0.12	0.08~0.18	0.060	BSS1-28A
M5	4	1.22	0.12	0.08~0.18	0.059	BSS1-29A
M4	4	1.28	0.13	0.08~0.18	0.066	BSS1-30A
M4	4			0.08~0.18	0.065	BSS1-30B
M5	4			0.08~0.18	0.062	BSS1-30C
M4	4			0.08~0.18	0.058	BSS1-30D
M4	4	1.40	0.14	0.08~0.18	0.079	BSS1-32A
M4	4			0.08~0.18	0.078	BSS1-32B
M5	4			0.08~0.18	0.075	BSS1-32C
M4	4			0.08~0.18	0.071	BSS1-32D
M5	4	1.51	0.15	0.08~0.18	0.080	BSS1-34A
M5	4	1.57	0.16	0.08~0.18	0.083	BSS1-35A
M4	4			0.08~0.18	0.079	BSS1-35B
M5	4	1.63	0.17	0.08~0.18	0.086	BSS1-36A
M4	4			0.08~0.18	0.082	BSS1-36B
M5	4	1.74	0.18	0.08~0.18	0.092	BSS1-38A
M4	4	1.86	0.19	0.08~0.18	0.10	BSS1-40A
M5	4			0.08~0.18	0.098	BSS1-40B
M4	4			0.08~0.18	0.094	BSS1-40C
M4	4	2.46	0.25	0.08~0.18	0.14	BSS1-50A
M5	4			0.08~0.18	0.13	BSS1-50B
M4	4			0.08~0.18	0.13	BSS1-50C

[Caution on Secondary Operations]

- ① Please read "Caution on Performing Secondary Operations" (Page 36) 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.
- ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.
- ③ When performing secondary operations, be aware of deflection and distortion as the tooth is thin in width.