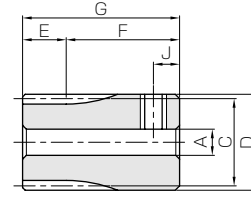




Specifications	
Precision grade	JIS grade N8 (JIS B1702-1:1998) * JIS grade 4 (JIS B1702:1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	less than 194HB



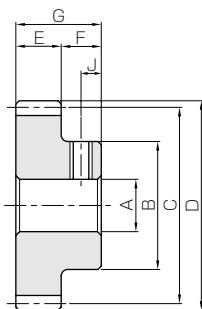
\* The precision grade of products with a module of less than 0.8 is equivalent to the value shown in the table.

S3T

Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway
				AH7	B	C	D	E	F	G	Width×Depth
SS0.5-15A	m0.5	15	S3T	3	8.5	7.5	8.5	5	11	16	—
SS0.5-16A		16	S3T	3	9	8	9	5	11	16	—
SS0.5-17A		17	S3T	3	9.5	8.5	9.5	5	11	16	—
SS0.5-18A		18	S3T	4	10	9	10	5	11	16	—
SS0.5-19A		19	S3T	4	10.5	9.5	10.5	5	11	16	—
SS0.5-20A		20	S3T	3	11	10	11	5	11	16	—
SS0.5-20B				4							
SS0.5-21A		21	S3T	4	11.5	10.5	11.5	5	11	16	—
SS0.5-22A		22	S3T	4	12	11	12	5	11	16	—
SS0.5-23A		23	S3T	4	12.5	11.5	12.5	5	11	16	—
SS0.5-24A		24	S3T	4	13	12	13	5	11	16	—
SS0.5-24B				5							
SS0.5-25A		25	S3T	4	13.5	12.5	13.5	5	11	16	—
SS0.5-25B				5							
SS0.5-26A		26	S3T	4	14	13	14	5	11	16	—
SS0.5-27A		27	S3T	4	14.5	13.5	14.5	5	11	16	—
SS0.5-28A		28	S1T	4	12	14	15	5	7	12	—
SS0.5-29A		29	S1T	4	12	14.5	15.5	5	7	12	—
SS0.5-30A		30	S1T	4	13	15	16	5	7	12	—
SS0.5-30B				5							
SS0.5-30C				6							
SS0.5-32A		32	S1T	5	14	16	17	5	7	12	—
SS0.5-34A		34	S1T	5	15	17	18	5	7	12	—
SS0.5-35A		35	S1T	5	15	17.5	18.5	5	7	12	—
SS0.5-36A		36	S1T	5	16	18	19	5	7	12	—
SS0.5-38A		38	S1T	5	16	19	20	5	7	12	—
SS0.5-40A		40	S1T	5	18	20	21	5	7	12	—
SS0.5-40B				6							
SS0.5-42A		42	S1T	5	18	21	22	5	7	12	—
SS0.5-44A		44	S1T	5	20	22	23	5	7	12	—
SS0.5-45A		45	S1T	5	20	22.5	23.5	5	7	12	—
SS0.5-46A		46	S1T	5	20	23	24	5	7	12	—
SS0.5-48A		48	S1T	5	22	24	25	5	7	12	—
SS0.5-50A		50	S1T	5	22	25	26	5	7	12	—
SS0.5-50B				6							
SS0.5-52A		52	S1T	5	22	26	27	5	7	12	—
SS0.5-54A		54	S1T	5	25	27	28	5	7	12	—
SS0.5-55A		55	S1T	5	25	27.5	28.5	5	7	12	—
SS0.5-56A		56	S1T	5	25	28	29	5	7	12	—
SS0.5-58A		58	S1T	5	25	29	30	5	7	12	—
SS0.5-60A		60	S1T	6	28	30	31	5	7	12	—
SS0.5-60B				8							
SS0.5-62A		62	S1T	6	28	31	32	5	7	12	—
SS0.5-64A		64	S1T	6	28	32	33	5	7	12	—
SS0.5-65A		65	S1T	6	28	32.5	33.5	5	7	12	—
SS0.5-66A		66	S1T	6	28	33	34	5	7	12	—
SS0.5-68A		68	S1T	6	28	34	35	5	7	12	—
SS0.5-70A		70	S1T	6	28	35	36	5	7	12	—
SS0.5-70B				8							
SS0.5-72A		72	S1T	6	28	36	37	5	7	12	—

[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 the bore size is less than  $\phi 4$ , the tolerance is H8. If the bore size is  $\phi 5$  or  $\phi 6$ , and the hole length exceeds 3 times of the bore size, the tolerance is also H8.



S1T

Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
M3	2.5	0.46	0.022	0.047	0.0022	0~0.10	0.0056	SS0.5-15A
M3	2.5	0.51	0.025	0.052	0.0025	0~0.10	0.0064	SS0.5-16A
M3	2.5	0.56	0.028	0.057	0.0029	0~0.10	0.0073	SS0.5-17A
M3	2.5	0.61	0.032	0.063	0.0033	0~0.10	0.0076	SS0.5-18A
M3	2.5	0.67	0.036	0.068	0.0036	0~0.10	0.0085	SS0.5-19A
M3	2.5	0.72	0.040	0.073	0.0041	0~0.10	0.010	SS0.5-20A
M3	2.5	0.77	0.044	0.079	0.0045	0~0.10	0.011	SS0.5-21A
M3	2.5	0.83	0.049	0.084	0.0050	0~0.10	0.012	SS0.5-22A
M3	2.5	0.88	0.054	0.090	0.0055	0~0.10	0.013	SS0.5-23A
M3	2.5	0.93	0.059	0.095	0.0060	0~0.10	0.014	SS0.5-24A
M4	3	0.93	0.059	0.095	0.0060	0~0.10	0.013	SS0.5-24B
M3	2.5	0.99	0.064	0.10	0.0065	0~0.10	0.015	SS0.5-25A
M4	3	0.99	0.064	0.10	0.0065	0~0.10	0.014	SS0.5-25B
M3	2.5	1.04	0.069	0.11	0.0071	0~0.10	0.017	SS0.5-26A
M3	2.5	1.10	0.075	0.11	0.0076	0~0.10	0.018	SS0.5-27A
M3	3.5	1.16	0.081	0.12	0.0082	0~0.10	0.011	SS0.5-28A
M3	3.5	1.21	0.087	0.12	0.0088	0~0.10	0.011	SS0.5-29A
M3	3.5	1.27	0.093	0.13	0.0095	0~0.10	0.013	SS0.5-30A
M4	3.5	1.27	0.093	0.13	0.0095	0~0.10	0.012	SS0.5-30B
M4	3.5	1.27	0.093	0.13	0.0095	0~0.10	0.011	SS0.5-30C
M4	3.5	1.38	0.11	0.14	0.011	0~0.10	0.014	SS0.5-32A
M4	3.5	1.50	0.12	0.15	0.012	0~0.10	0.016	SS0.5-34A
M4	3.5	1.55	0.13	0.16	0.013	0~0.10	0.017	SS0.5-35A
M4	3.5	1.61	0.14	0.16	0.014	0~0.10	0.019	SS0.5-36A
M4	3.5	1.73	0.15	0.18	0.015	0~0.10	0.020	SS0.5-38A
M4	3.5	1.84	0.17	0.19	0.017	0~0.10	0.024	SS0.5-40A
M4	3.5	1.84	0.17	0.19	0.017	0~0.10	0.023	SS0.5-40B
M4	3.5	1.96	0.19	0.20	0.019	0~0.10	0.025	SS0.5-42A
M4	3.5	2.08	0.20	0.21	0.021	0~0.10	0.030	SS0.5-44A
M4	3.5	2.14	0.21	0.22	0.022	0~0.10	0.030	SS0.5-45A
M4	3.5	2.19	0.22	0.22	0.023	0~0.10	0.031	SS0.5-46A
M4	3.5	2.31	0.25	0.24	0.025	0~0.10	0.036	SS0.5-48A
M4	3.5	2.43	0.27	0.25	0.027	0~0.10	0.038	SS0.5-50A
M4	3.5	2.43	0.27	0.25	0.027	0~0.10	0.037	SS0.5-50B
M4	3.5	2.55	0.29	0.26	0.030	0~0.10	0.039	SS0.5-52A
M4	3.5	2.67	0.32	0.27	0.032	0~0.10	0.047	SS0.5-54A
M4	3.5	2.73	0.33	0.28	0.033	0~0.10	0.048	SS0.5-55A
M4	3.5	2.79	0.34	0.28	0.035	0~0.10	0.048	SS0.5-56A
M4	3.5	2.91	0.37	0.30	0.037	0~0.10	0.050	SS0.5-58A
M4	3.5	3.03	0.39	0.31	0.040	0~0.10	0.058	SS0.5-60A
M5	3.5	3.03	0.39	0.31	0.040	0~0.10	0.055	SS0.5-60B
M4	3.5	3.15	0.42	0.32	0.043	0~0.10	0.060	SS0.5-62A
M4	3.5	3.27	0.45	0.33	0.046	0~0.10	0.062	SS0.5-64A
M4	3.5	3.33	0.47	0.34	0.048	0~0.10	0.063	SS0.5-65A
M4	3.5	3.39	0.48	0.35	0.049	0~0.10	0.064	SS0.5-66A
M4	3.5	3.51	0.51	0.36	0.052	0~0.10	0.066	SS0.5-68A
M4	3.5	3.63	0.55	0.37	0.056	0~0.10	0.068	SS0.5-70A
M5	3.5	3.63	0.55	0.37	0.056	0~0.10	0.065	SS0.5-70B
M4	3.5	3.75	0.58	0.38	0.059	0~0.10	0.070	SS0.5-72A

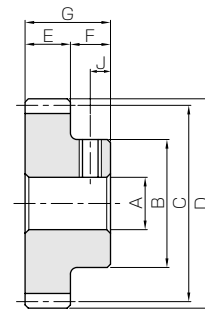
[Caution on Secondary Operations]

- 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.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

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



S1T

Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	Width×Depth
<b>SS0.5-75A</b>	<b>m0.5</b>	75	S1T	6	28	37.5	38.5	5	7	12	—
<b>SS0.5-76A</b>		76	S1T	6	28	38	39	5	7	12	—
<b>SS0.5-80A</b>		80	S1T	6	28	40	41	5	7	12	—
<b>SS0.5-80B</b>			S1T	8	28	40	41	5	7	12	—
<b>SS0.5-84A</b>		84	S1T	8	28	42	43	5	7	12	—
<b>SS0.5-85A</b>		85	S1T	8	28	42.5	43.5	5	7	12	—
<b>SS0.5-88A</b>		88	S1T	8	28	44	45	5	7	12	—
<b>SS0.5-90A</b>		90	S1T	8	28	45	46	5	7	12	—
<b>SS0.5-95A</b>		95	S1T	8	28	47.5	48.5	5	7	12	—
<b>SS0.5-96A</b>		96	S1T	8	28	48	49	5	7	12	—
<b>SS0.5-100A</b>		100	S1T	8	28	50	51	5	7	12	—
<b>SS0.5-105A</b>		105	S1T	8	28	52.5	53.5	5	7	12	—
<b>SS0.5-110A</b>		110	S1T	8	28	55	56	5	7	12	—
<b>SS0.5-115A</b>		115	S1T	8	28	57.5	58.5	5	7	12	—
<b>SS0.5-120A</b>		120	S1T	8	28	60	61	5	7	12	—

[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 the bore size is less than  $\phi 4$ , the tolerance is H8. If the bore size is  $\phi 5$  or  $\phi 6$ , and the hole length exceeds 3 times of the bore size, the tolerance is also H8.

Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
M4	3.5	3.93	0.63	0.40	0.064	0~0.10	0.074	<b>SS0.5-75A</b>
M4	3.5	3.99	0.65	0.41	0.066	0~0.10	0.075	<b>SS0.5-76A</b>
M4	3.5	4.24	0.72	0.43	0.074	0~0.10	0.079	<b>SS0.5-80A</b>
M5	3.5						0.077	<b>SS0.5-80B</b>
M5	3.5	4.48	0.80	0.46	0.082	0~0.10	0.082	<b>SS0.5-84A</b>
M5	3.5	4.54	0.82	0.46	0.084	0~0.10	0.083	<b>SS0.5-85A</b>
M5	3.5	4.72	0.89	0.48	0.090	0~0.10	0.087	<b>SS0.5-88A</b>
M5	3.5	4.85	0.93	0.49	0.095	0~0.10	0.090	<b>SS0.5-90A</b>
M5	3.5	5.15	1.04	0.53	0.11	0~0.10	0.097	<b>SS0.5-95A</b>
M5	3.5	5.21	1.06	0.53	0.11	0~0.10	0.099	<b>SS0.5-96A</b>
M5	3.5	5.46	1.16	0.56	0.12	0~0.10	0.10	<b>SS0.5-100A</b>
M5	3.5	5.76	1.28	0.59	0.13	0~0.10	0.11	<b>SS0.5-105A</b>
M5	3.5	6.07	1.42	0.62	0.14	0~0.10	0.12	<b>SS0.5-110A</b>
M5	3.5	6.38	1.56	0.65	0.16	0~0.10	0.13	<b>SS0.5-115A</b>
M5	3.5	6.68	1.70	0.68	0.17	0~0.10	0.14	<b>SS0.5-120A</b>

[Caution on Secondary Operations]

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- ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

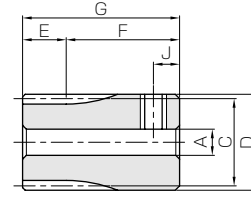
Worm Gear Pair

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB



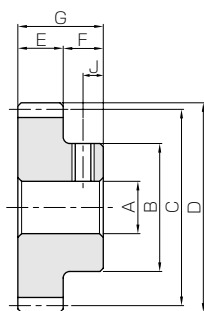
\* The precision grade of products with a module of less than 0.8 is equivalent to the value shown in the table.

S3T

Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	Width×Depth
SS0.8-15A	m0.8	15	S3T	5	13.6	12	13.6	8	14	22	—
SS0.8-16A		16	S3T	5	14.4	12.8	14.4	8	14	22	—
SS0.8-17A		17	S3T	5	15.2	13.6	15.2	8	14	22	—
SS0.8-18A		18	S3T	5	16	14.4	16	8	14	22	—
SS0.8-19A		19	S1T	5	12	15.2	16.8	8	8	16	—
SS0.8-20A		20	S1T	5	13	16	17.6	8	8	16	—
SS0.8-20B				6							
SS0.8-21A		21	S1T	6	14	16.8	18.4	8	8	16	—
SS0.8-22A		22	S1T	6	15	17.6	19.2	8	8	16	—
SS0.8-23A		23	S1T	6	15	18.4	20	8	8	16	—
SS0.8-24A		24	S1T	5	16	19.2	20.8	8	8	16	—
SS0.8-24B				6							
SS0.8-25A		25	S1T	5	16	20	21.6	8	8	16	—
SS0.8-25B				6							
SS0.8-26A		26	S1T	6	18	20.8	22.4	8	8	16	—
SS0.8-27A		27	S1T	6	18	21.6	23.2	8	8	16	—
SS0.8-28A		28	S1T	6	18	22.4	24	8	8	16	—
SS0.8-29A		29	S1T	6	20	23.2	24.8	8	8	16	—
SS0.8-30A		30	S1T	5	20	24	25.6	8	8	16	—
SS0.8-30B				6							
SS0.8-30C				8							
SS0.8-32A		32	S1T	6	22	25.6	27.2	8	8	16	—
SS0.8-34A		34	S1T	6	22	27.2	28.8	8	8	16	—
SS0.8-35A		35	S1T	6	25	28	29.6	8	8	16	—
SS0.8-36A		36	S1T	6	25	28.8	30.4	8	8	16	—
SS0.8-38A		38	S1T	6	25	30.4	32	8	8	16	—
SS0.8-40A		40	S1T	6	28	32	33.6	8	8	16	—
SS0.8-40B				8							
SS0.8-42A		42	S1T	6	28	33.6	35.2	8	8	16	—
SS0.8-44A		44	S1T	6	28	35.2	36.8	8	8	16	—
SS0.8-45A		45	S1T	6	28	36	37.6	8	8	16	—
SS0.8-46A		46	S1T	6	28	36.8	38.4	8	8	16	—
SS0.8-48A		48	S1T	6	28	38.4	40	8	8	16	—
SS0.8-50A		50	S1T	6	28	40	41.6	8	8	16	—
SS0.8-50B				8							
SS0.8-52A		52	S1T	6	28	41.6	43.2	8	8	16	—
SS0.8-54A		54	S1T	6	28	43.2	44.8	8	8	16	—
SS0.8-55A		55	S1T	6	28	44	45.6	8	8	16	—
SS0.8-56A		56	S1T	6	28	44.8	46.4	8	8	16	—
SS0.8-58A		58	S1T	6	28	46.4	48	8	8	16	—
SS0.8-60A		60	S1T	6	28	48	49.6	8	8	16	—
SS0.8-60B				8							
SS0.8-62A		62	S1T	6	28	49.6	51.2	8	8	16	—
SS0.8-64A		64	S1T	6	28	51.2	52.8	8	8	16	—
SS0.8-65A		65	S1T	6	28	52	53.6	8	8	16	—
SS0.8-66A		66	S1T	6	28	52.8	54.4	8	8	16	—
SS0.8-68A		68	S1T	6	28	54.4	56	8	8	16	—
SS0.8-70A		70	S1T	6	28	56	57.6	8	8	16	—
SS0.8-70B				8							
SS0.8-72A		72	S1T	6	28	57.6	59.2	8	8	16	—

[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 the bore size is less than φ 4, the tolerance is H8. If the bore size is φ 5 or φ 6, and the hole length exceeds 3 times of the bore size, the tolerance is also H8.



S1T

Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
M4	3.5	1.89	0.088	0.19	0.0090	0~0.10	0.019	SS0.8-15A
M4	3.5	2.10	0.10	0.21	0.010	0~0.10	0.022	SS0.8-16A
M4	3.5	2.30	0.12	0.23	0.012	0~0.10	0.025	SS0.8-17A
M4	3.5	2.51	0.13	0.26	0.013	0~0.10	0.028	SS0.8-18A
M4	4	2.73	0.15	0.28	0.015	0~0.10	0.016	SS0.8-19A
M4	4	2.94	0.17	0.30	0.017	0~0.10	0.018	SS0.8-20A
M4	4	3.16	0.18	0.32	0.019	0~0.10	0.020	SS0.8-21A
M4	4	3.38	0.20	0.34	0.021	0~0.10	0.022	SS0.8-22A
M4	4	3.60	0.22	0.37	0.023	0~0.10	0.024	SS0.8-23A
M4	4	3.82	0.25	0.39	0.025	0~0.10	0.028	SS0.8-24A
M4	4	4.05	0.27	0.41	0.027	0~0.10	0.029	SS0.8-25A
M4	4	4.28	0.29	0.44	0.030	0~0.10	0.033	SS0.8-26A
M4	4	4.50	0.31	0.46	0.032	0~0.10	0.035	SS0.8-27A
M4	4	4.73	0.34	0.48	0.035	0~0.10	0.037	SS0.8-28A
M4	4	4.96	0.37	0.51	0.037	0~0.10	0.042	SS0.8-29A
M4	4	5.19	0.39	0.53	0.040	0~0.10	0.045	SS0.8-30A
M4	4	5.19	0.39	0.53	0.040	0~0.10	0.044	SS0.8-30B
M5	4	5.19	0.39	0.53	0.040	0~0.10	0.041	SS0.8-30C
M4	4	5.66	0.45	0.58	0.046	0~0.10	0.052	SS0.8-32A
M4	4	6.13	0.51	0.62	0.052	0~0.10	0.056	SS0.8-34A
M4	4	6.36	0.55	0.65	0.056	0~0.10	0.065	SS0.8-35A
M4	4	6.60	0.58	0.67	0.059	0~0.10	0.067	SS0.8-36A
M4	4	7.07	0.65	0.72	0.066	0~0.10	0.072	SS0.8-38A
M4	4	7.55	0.72	0.77	0.074	0~0.10	0.085	SS0.8-40A
M5	4	7.55	0.72	0.77	0.074	0~0.10	0.081	SS0.8-40B
M4	4	8.03	0.80	0.82	0.082	0~0.10	0.090	SS0.8-42A
M4	4	8.51	0.88	0.87	0.090	0~0.10	0.095	SS0.8-44A
M4	4	8.75	0.93	0.89	0.095	0~0.10	0.098	SS0.8-45A
M4	4	8.99	0.97	0.92	0.099	0~0.10	0.10	SS0.8-46A
M4	4	9.47	1.06	0.97	0.11	0~0.10	0.11	SS0.8-48A
M4	4	9.96	1.16	1.02	0.12	0~0.10	0.11	SS0.8-50A
M5	4	9.96	1.16	1.02	0.12	0~0.10	0.11	SS0.8-50B
M4	4	10.4	1.26	1.07	0.13	0~0.10	0.12	SS0.8-52A
M4	4	10.9	1.36	1.12	0.14	0~0.10	0.13	SS0.8-54A
M4	4	11.2	1.42	1.14	0.14	0~0.10	0.13	SS0.8-55A
M4	4	11.4	1.47	1.16	0.15	0~0.10	0.13	SS0.8-56A
M4	4	11.9	1.59	1.21	0.16	0~0.10	0.14	SS0.8-58A
M4	4	12.4	1.70	1.26	0.17	0~0.10	0.15	SS0.8-60A
M5	4	12.4	1.70	1.26	0.17	0~0.10	0.14	SS0.8-60B
M4	4	12.9	1.82	1.32	0.19	0~0.10	0.16	SS0.8-62A
M4	4	13.4	1.95	1.37	0.20	0~0.10	0.16	SS0.8-64A
M4	4	13.6	2.01	1.39	0.21	0~0.10	0.17	SS0.8-65A
M4	4	13.9	2.08	1.42	0.21	0~0.10	0.17	SS0.8-66A
M4	4	14.4	2.22	1.47	0.23	0~0.10	0.18	SS0.8-68A
M4	4	14.9	2.35	1.52	0.24	0~0.10	0.19	SS0.8-70A
M5	4	14.9	2.35	1.52	0.24	0~0.10	0.19	SS0.8-70B
M4	4	15.4	2.50	1.57	0.25	0~0.10	0.20	SS0.8-72A

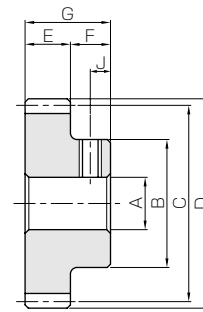
[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 36) when performing modifications and/or secondary operations for safety concerns. Haguruma Kobo, the KHK's system for quick modification of KHK stock gears is also available.

② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

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



S1T

Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	Width×Depth
<b>SS0.8-75A</b>	<b>m0.8</b>	75	S1T	6	28	60	61.6	8	8	16	—
<b>SS0.8-76A</b>		76	S1T	6	28	60.8	62.4	8	8	16	—
<b>SS0.8-80A</b>		80	S1T	6	28	64	65.6	8	8	16	—
<b>SS0.8-80B</b>			S1T	8	28	64	65.6	8	8	16	—
<b>SS0.8-84A</b>		84	S1T	8	28	67.2	68.8	8	8	16	—
<b>SS0.8-85A</b>		85	S1T	8	28	68	69.6	8	8	16	—
<b>SS0.8-88A</b>		88	S1T	8	28	70.4	72	8	8	16	—
<b>SS0.8-90A</b>		90	S1T	8	28	72	73.6	8	8	16	—
<b>SS0.8-95A</b>		95	S1T	8	28	76	77.6	8	8	16	—
<b>SS0.8-96A</b>		96	S1T	8	28	76.8	78.4	8	8	16	—
<b>SS0.8-100A</b>		100	S1T	8	28	80	81.6	8	8	16	—
<b>SS0.8-105A</b>		105	S1T	8	28	84	85.6	8	8	16	—
<b>SS0.8-110A</b>		110	S1T	8	28	88	89.6	8	8	16	—
<b>SS0.8-115A</b>		115	S1T	8	28	92	93.6	8	8	16	—
<b>SS0.8-120A</b>		120	S1T	8	28	96	97.6	8	8	16	—

[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 the bore size is less than  $\phi 4$ , the tolerance is H8. If the bore size is  $\phi 5$  or  $\phi 6$ , and the hole length exceeds 3 times of the bore size, the tolerance is also H8.

Spur Gears  
 Helical Gears  
 Internal Gears  
 Racks  
 CP Racks & Pinions  
 Miter Gears  
 Bevel Gears  
 Screw Gears  
 Worm Gear Pair  
 Bevel Gearboxes  
 Other Products

Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
M4	4	16.1	2.72	1.64	0.28	0~0.10	0.21	<b>SS0.8-75A</b>
M4	4	16.4	2.80	1.67	0.29	0~0.10	0.22	<b>SS0.8-76A</b>
M4	4	17.4	3.11	1.77	0.32	0~0.10	0.24	<b>SS0.8-80A</b>
M5	4						0.23	<b>SS0.8-80B</b>
M5	4	18.4	3.45	1.87	0.35	0~0.10	0.25	<b>SS0.8-84A</b>
M5	4	18.6	3.54	1.90	0.36	0~0.10	0.26	<b>SS0.8-85A</b>
M5	4	19.4	3.80	1.97	0.39	0~0.10	0.28	<b>SS0.8-88A</b>
M5	4	19.9	3.99	2.02	0.41	0~0.10	0.29	<b>SS0.8-90A</b>
M5	4	21.1	4.47	2.15	0.46	0~0.10	0.32	<b>SS0.8-95A</b>
M5	4	21.4	4.57	2.18	0.47	0~0.10	0.32	<b>SS0.8-96A</b>
M5	4	22.4	4.98	2.28	0.51	0~0.10	0.35	<b>SS0.8-100A</b>
M5	4	23.6	5.52	2.41	0.56	0~0.10	0.38	<b>SS0.8-105A</b>
M5	4	24.9	6.09	2.54	0.62	0~0.10	0.41	<b>SS0.8-110A</b>
M5	4	26.1	6.69	2.66	0.68	0~0.10	0.45	<b>SS0.8-115A</b>
M5	4	27.4	7.32	2.79	0.75	0~0.10	0.49	<b>SS0.8-120A</b>

[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.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

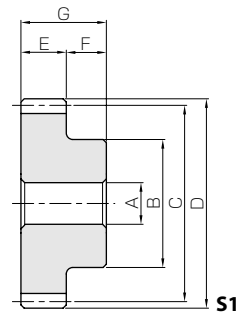
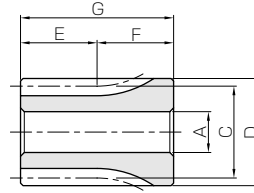
Worm Gear Pair

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB



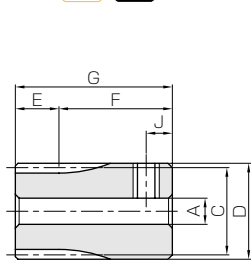
S3

S1

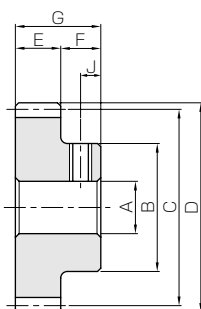
Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	Width×Depth
SS1-15 SS1-15A SS1-15B	m1	15	S3	8	17	15	17	10	20	30	—
S3T			5	—							
S3T			6	—							
SS1-16 SS1-16A SS1-16B		16	S3	8	18	16	18	10	20	30	—
S3T			5	—							
S3T			6	—							
SS1-17 SS1-17A		17	S3	8	19	17	19	10	20	30	—
S3T			8	—							
SS1-18 SS1-18A SS1-18B		18	S3	8	20	18	20	10	20	30	—
S3T			6	—							
S3T			8	—							
SS1-19 SS1-19A		19	S3	8	21	19	21	10	20	30	—
S3T			8	—							
SS1-20 SS1-20A SS1-20B SS1-20C		20	S1	8	16	20	22	10	10	20	—
S1T			5	—							
S1T			6	—							
S1T			8	—							
SS1-21 SS1-21A		21	S1	8	17	21	23	10	10	20	—
S1T			8	—							
SS1-22 SS1-22A		22	S1	8	18	22	24	10	10	20	—
S1T			8	—							
SS1-23 SS1-23A		23	S1	8	18	23	25	10	10	20	—
S1T			8	—							
SS1-24 SS1-24A SS1-24B SS1-24C		24	S1	8	20	24	26	10	10	20	—
S1T			6	—							
S1T			8	—							
S1K			10	4 x 1.8							
SS1-25 SS1-25A SS1-25B SS1-25C		25	S1	8	20	25	27	10	10	20	—
S1T			6	—							
S1T			8	—							
S1K			10	4 x 1.8							
SS1-26 SS1-26A SS1-26B		26	S1	8	22	26	28	10	10	20	—
S1T	8		—								
S1K	10		4 x 1.8								
SS1-27 SS1-27A	27	S1	8	22	27	29	10	10	20	—	
S1T		8	—								
SS1-28 SS1-28A SS1-28B	28	S1	8	22	28	30	10	10	20	—	
S1T		8	—								
S1K		10	4 x 1.8								
SS1-29 SS1-29A	29	S1	8	24	29	31	10	10	20	—	
S1T		8	—								
SS1-30 SS1-30A SS1-30B SS1-30C SS1-30D	30	S1	10	25	30	32	10	10	20	—	
S1T		6	—								
S1T		8	—								
S1K		10	4 x 1.8								
S1K		12	4 x 1.8								
SS1-32 SS1-32A SS1-32B SS1-32C	32	S1	10	26	32	34	10	10	20	—	
S1T		8	—								
S1K		10	4 x 1.8								
S1K		12	4 x 1.8								

[Caution on Product Characteristics]

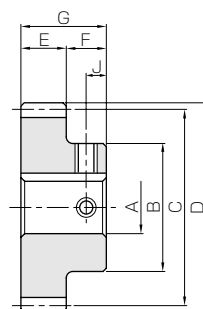
- ① For products with a tapped hole, a set screw is included.
- ② The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ③ The backlash values shown in the table are the theoretical values for the backlash in the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



S3T



S1T



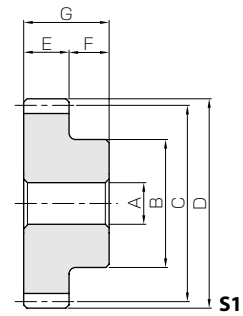
S1K

Set Screw		Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—						0.038	<b>SS1-15</b>
M4	4	3.69	0.17	0.38	0.018	0.08~0.18	0.044	<b>SS1-15A</b>
M4	4						0.042	<b>SS1-15B</b>
—	—						0.044	<b>SS1-16</b>
M4	4	4.09	0.2	0.42	0.021	0.08~0.18	0.051	<b>SS1-16A</b>
M4	4						0.049	<b>SS1-16B</b>
—	—						0.050	<b>SS1-17</b>
M5	4	4.5	0.23	0.46	0.023	0.08~0.18	0.050	<b>SS1-17A</b>
—	—						0.057	<b>SS1-18</b>
M4	4	4.91	0.26	0.5	0.027	0.08~0.18	0.062	<b>SS1-18A</b>
M5	4						0.057	<b>SS1-18B</b>
—	—						0.065	<b>SS1-19</b>
M5	4	5.33	0.29	0.54	0.030	0.08~0.18	0.064	<b>SS1-19A</b>
—	—						0.033	<b>SS1-20</b>
M4	5	5.75	0.33	0.59	0.033	0.08~0.18	0.037	<b>SS1-20A</b>
M4	5						0.036	<b>SS1-20B</b>
M5	5						0.032	<b>SS1-20C</b>
—	—						0.037	<b>SS1-21</b>
M5	5	6.17	0.36	0.63	0.037	0.08~0.18	0.036	<b>SS1-21A</b>
—	—						0.042	<b>SS1-22</b>
M5	5	6.6	0.4	0.67	0.041	0.08~0.18	0.041	<b>SS1-22A</b>
—	—						0.045	<b>SS1-23</b>
M5	5	7.03	0.45	0.72	0.045	0.08~0.18	0.044	<b>SS1-23A</b>
—	—						0.052	<b>SS1-24</b>
M4	5	7.47	0.49	0.76	0.050	0.08~0.18	0.055	<b>SS1-24A</b>
M5	5						0.051	<b>SS1-24B</b>
M4	5						0.046	<b>SS1-24C</b>
—	—						0.055	<b>SS1-25</b>
M4	5	7.91	0.54	0.81	0.055	0.08~0.18	0.058	<b>SS1-25A</b>
M5	5						0.054	<b>SS1-25B</b>
M4	5						0.049	<b>SS1-25C</b>
—	—						0.064	<b>SS1-26</b>
M5	5	8.35	0.58	0.85	0.059	0.08~0.18	0.063	<b>SS1-26A</b>
M4	5						0.057	<b>SS1-26B</b>
—	—						0.067	<b>SS1-27</b>
M5	5	8.79	0.63	0.9	0.064	0.08~0.18	0.066	<b>SS1-27A</b>
—	—						0.070	<b>SS1-28</b>
M5	5	9.24	0.68	0.94	0.070	0.08~0.18	0.069	<b>SS1-28A</b>
M4	5						0.064	<b>SS1-28B</b>
—	—						0.079	<b>SS1-29</b>
M5	5	9.69	0.73	0.99	0.075	0.08~0.18	0.078	<b>SS1-29A</b>
—	—						0.082	<b>SS1-30</b>
M4	5	10.1	0.79	1.03	0.081	0.08~0.18	0.089	<b>SS1-30A</b>
M5	5						0.085	<b>SS1-30B</b>
M4	5						0.080	<b>SS1-30C</b>
M4	5						0.075	<b>SS1-30D</b>
—	—						0.092	<b>SS1-32</b>
M5	5	11.1	0.90	1.13	0.092	0.08~0.18	0.096	<b>SS1-32A</b>
M4	5						0.091	<b>SS1-32B</b>
M4	5						0.085	<b>SS1-32C</b>

- [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.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

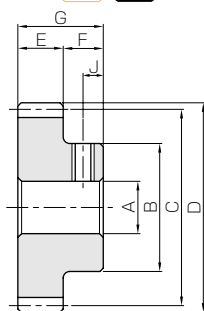


- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

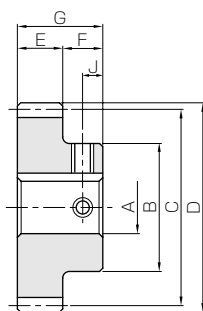
Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	Width×Depth
SS1-34 SS1-34A	m1	34	S1	10	26	34	36	10	10	20	—
S1K			10	4 x 1.8							
SS1-35 SS1-35A SS1-35B		35	S1	10	26	35	37	10	10	20	—
S1K			10	4 x 1.8							
S1K			12	4 x 1.8							
SS1-36 SS1-36A SS1-36B		36	S1	10	28	36	38	10	10	20	—
S1K			10	4 x 1.8							
S1K			12	4 x 1.8							
SS1-38 SS1-38A		38	S1	10	32	38	40	10	10	20	—
S1K			10	4 x 1.8							
SS1-40 SS1-40A SS1-40B SS1-40C		40	S1	10	35	40	42	10	10	20	—
S1T			8	—							
S1K			10	4 x 1.8							
S1K			12	4 x 1.8							
SS1-42 SS1-42A		42	S1	10	35	42	44	10	10	20	—
S1K			10	4 x 1.8							
SS1-44 SS1-44A		44	S1	10	35	44	46	10	10	20	—
S1K			10	4 x 1.8							
SS1-45 SS1-45A SS1-45B SS1-45C		45	S1	10	35	45	47	10	10	20	—
S1T			8	—							
S1K	10		4 x 1.8								
S1K	12		4 x 1.8								
SS1-46 SS1-46A	46	S1	10	35	46	48	10	10	20	—	
S1K		10	4 x 1.8								
SS1-48 SS1-48A SS1-48B	48	S1	10	35	48	50	10	10	20	—	
S1K		10	4 x 1.8								
S1K		12	4 x 1.8								
SS1-50 SS1-50A SS1-50B SS1-50C	50	S1	10	35	50	52	10	10	20	—	
S1T		8	—								
S1K		10	4 x 1.8								
S1K		12	4 x 1.8								
SS1-52 SS1-52A	52	S1	10	35	52	54	10	10	20	—	
S1K		10	4 x 1.8								
SS1-54 SS1-54A	54	S1	10	35	54	56	10	10	20	—	
S1K		10	4 x 1.8								
SS1-55 SS1-55A	55	S1	10	35	55	57	10	10	20	—	
S1K		10	4 x 1.8								
SS1-56 SS1-56A SS1-56B	56	S1	10	35	56	58	10	10	20	—	
S1K		10	4 x 1.8								
S1K		12	4 x 1.8								
SS1-58 SS1-58A	58	S1	10	35	58	60	10	10	20	—	
S1K		10	4 x 1.8								
SS1-60 SS1-60A SS1-60B SS1-60C	60	S1	10	35	60	62	10	10	20	—	
S1K		10	4 x 1.8								
S1K		12	4 x 1.8								
S1K		15	5 x 2.3								
SS1-62 SS1-62A	62	S1	10	40	62	64	10	10	20	—	
S1K		12	4 x 1.8								
SS1-64 SS1-64A	64	S1	10	40	64	66	10	10	20	—	
S1K		12	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.



S1T



S1K

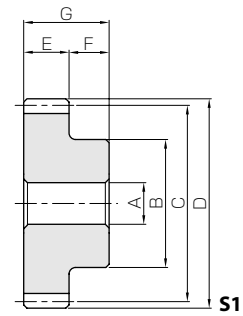
Set Screw		Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	12.0	1.03	1.22	0.10	0.08~0.18	0.10	<b>SS1-34</b> <b>SS1-34A</b>
M4	5						0.099	
—	—	12.4	1.09	1.27	0.11	0.08~0.18	0.10	<b>SS1-35</b> <b>SS1-35A</b> <b>SS1-35B</b>
M4	5						0.10	
M4	5						0.098	
—	—	12.9	1.16	1.31	0.12	0.08~0.18	0.12	<b>SS1-36</b> <b>SS1-36A</b> <b>SS1-36B</b>
M4	5						0.11	
M4	5						0.11	
—	—	13.8	1.30	1.41	0.13	0.08~0.18	0.14	<b>SS1-38</b> <b>SS1-38A</b>
M4	5						0.14	
—	—	14.7	1.45	1.50	0.15	0.08~0.18	0.16	<b>SS1-40</b> <b>SS1-40A</b> <b>SS1-40B</b> <b>SS1-40C</b>
M5	5						0.16	
M4	5						0.16	
M4	5						0.15	
—	—	15.7	1.61	1.60	0.16	0.08~0.18	0.17	<b>SS1-42</b> <b>SS1-42A</b>
M4	5						0.17	
—	—	16.6	1.77	1.69	0.18	0.08~0.18	0.18	<b>SS1-44</b> <b>SS1-44A</b>
M4	5						0.18	
—	—	17.1	1.86	1.74	0.19	0.08~0.18	0.19	<b>SS1-45</b> <b>SS1-45A</b> <b>SS1-45B</b> <b>SS1-45C</b>
M5	5						0.19	
M4	5						0.19	
M4	5						0.18	
—	—	17.6	1.95	1.79	0.20	0.08~0.18	0.19	<b>SS1-46</b> <b>SS1-46A</b>
M4	5						0.19	
—	—	18.5	2.13	1.89	0.22	0.08~0.18	0.21	<b>SS1-48</b> <b>SS1-48A</b> <b>SS1-48B</b>
M4	5						0.20	
M4	5						0.20	
—	—	19.5	2.32	1.98	0.24	0.08~0.18	0.22	<b>SS1-50</b> <b>SS1-50A</b> <b>SS1-50B</b> <b>SS1-50C</b>
M5	5						0.22	
M4	5						0.21	
M4	5						0.21	
—	—	20.4	2.52	2.08	0.26	0.08~0.18	0.23	<b>SS1-52</b> <b>SS1-52A</b>
M4	5						0.23	
—	—	21.4	2.73	2.18	0.28	0.08~0.18	0.24	<b>SS1-54</b> <b>SS1-54A</b>
M4	5						0.24	
—	—	21.8	2.83	2.23	0.29	0.08~0.18	0.25	<b>SS1-55</b> <b>SS1-55A</b>
M4	5						0.25	
—	—	22.3	2.94	2.28	0.30	0.08~0.18	0.26	<b>SS1-56</b> <b>SS1-56A</b> <b>SS1-56B</b>
M4	5						0.25	
M4	5						0.25	
—	—	23.3	3.17	2.37	0.32	0.08~0.18	0.27	<b>SS1-58</b> <b>SS1-58A</b>
M4	5						0.27	
—	—	24.2	3.40	2.47	0.35	0.08~0.18	0.29	<b>SS1-60</b> <b>SS1-60A</b> <b>SS1-60B</b> <b>SS1-60C</b>
M4	5						0.28	
M4	5						0.28	
M4	5						0.27	
—	—	25.2	3.64	2.57	0.37	0.08~0.18	0.32	<b>SS1-62</b> <b>SS1-62A</b>
M4	5						0.32	
—	—	26.2	3.89	2.67	0.40	0.08~0.18	0.34	<b>SS1-64</b> <b>SS1-64A</b>
M4	5						0.33	

[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.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

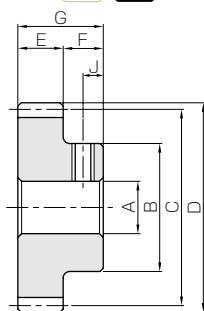


- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

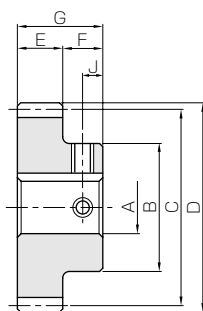
Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	Width×Depth
<b>SS1-65</b> <b>SS1-65A</b>	<b>m1</b>	65	S1	10	40	65	67	10	10	20	—
S1K			12	4 x 1.8							
<b>SS1-66</b> <b>SS1-66A</b>		66	S1	10	40	66	68	10	10	20	—
S1K			12	4 x 1.8							
<b>SS1-68</b> <b>SS1-68A</b>		68	S1	10	40	68	70	10	10	20	—
S1K			12	4 x 1.8							
<b>SS1-70</b> <b>SS1-70A</b> <b>SS1-70B</b> <b>SS1-70C</b>		70	S1	10	40	70	72	10	10	20	—
S1K			12	4 x 1.8							
S1K			15	5 x 2.3							
S1K			18	6 x 2.8							
<b>SS1-72</b> <b>SS1-72A</b> <b>SS1-72B</b> <b>SS1-72C</b>		72	S1	10	40	72	74	10	10	20	—
S1K			12	4 x 1.8							
S1K			15	5 x 2.3							
S1K			18	6 x 2.8							
<b>SS1-75</b> <b>SS1-75A</b>		75	S1	10	40	75	77	10	10	20	—
S1K			12	4 x 1.8							
<b>SS1-76</b> <b>SS1-76A</b>		76	S1	10	40	76	78	10	10	20	—
S1K			12	4 x 1.8							
<b>SS1-80</b> <b>SS1-80A</b> <b>SS1-80B</b> <b>SS1-80C</b>		80	S1	10	40	80	82	10	10	20	—
S1K			12	4 x 1.8							
S1K	15		5 x 2.3								
S1K	18		6 x 2.8								
<b>SS1-84</b> <b>SS1-84A</b>	84	S1	10	40	84	86	10	10	20	—	
S1K		12	4 x 1.8								
<b>SS1-85</b> <b>SS1-85A</b>	85	S1	10	40	85	87	10	10	20	—	
S1K		12	4 x 1.8								
<b>SS1-88</b> <b>SS1-88A</b>	88	S1	10	40	88	90	10	10	20	—	
S1K		12	4 x 1.8								
<b>SS1-90</b> <b>SS1-90A</b> <b>SS1-90B</b> <b>SS1-90C</b>	90	S1	10	40	90	92	10	10	20	—	
S1K		12	4 x 1.8								
S1K		15	5 x 2.3								
S1K		18	6 x 2.8								
<b>SS1-95</b> <b>SS1-95A</b>	95	S1	10	40	95	97	10	10	20	—	
S1K		12	4 x 1.8								
<b>SS1-96</b> <b>SS1-96A</b>	96	S1	10	40	96	98	10	10	20	—	
S1K		12	4 x 1.8								
<b>SS1-100</b> <b>SS1-100A</b> <b>SS1-100B</b> <b>SS1-100C</b>	100	S1	10	40	100	102	10	10	20	—	
S1K		12	4 x 1.8								
S1K		15	5 x 2.3								
S1K		18	6 x 2.8								
<b>SS1-110</b> <b>SS1-110A</b>	110	S1	15	50	110	112	10	10	20	—	
S1K		15	40	5 x 2.3							
<b>SS1-120</b> <b>SS1-120A</b> <b>SS1-120B</b>	120	S1	15	50	120	122	10	10	20	—	
S1K		15	40	5 x 2.3							
S1K		18	6 x 2.8								
<b>SS1-150</b>	150	S1	20	120	150	152	10	10	20	—	
<b>SS1-200</b>	200	S1	20	160	200	202	10	10	20	—	

[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.



S1T



S1K

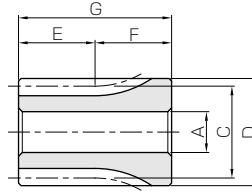
Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	26.6	4.02	2.72	0.41	0.08~0.18	0.35 0.34	SS1-65 SS1-65A
M4	5							
—	—	27.1	4.15	2.77	0.42	0.08~0.18	0.35 0.35	SS1-66 SS1-66A
M4	5							
—	—	28.1	4.42	2.86	0.45	0.08~0.18	0.37 0.36	SS1-68 SS1-68A
M4	5							
—	—	29.1	4.70	2.96	0.48	0.08~0.18	0.39 0.38 0.37 0.36	SS1-70 SS1-70A SS1-70B SS1-70C
M4	5							
M4	5							
M5	5							
—	—	30.0	4.98	3.06	0.51	0.08~0.18	0.41 0.40 0.39 0.37	SS1-72 SS1-72A SS1-72B SS1-72C
M4	5							
M4	5							
M5	5							
—	—	31.5	5.43	3.21	0.55	0.08~0.18	0.43 0.42	SS1-75 SS1-75A
M4	5							
—	—	32.0	5.59	3.26	0.57	0.08~0.18	0.44 0.43	SS1-76 SS1-76A
M4	5							
—	—	33.9	6.23	3.46	0.63	0.08~0.18	0.48 0.47 0.46 0.45	SS1-80 SS1-80A SS1-80B SS1-80C
M4	5							
M4	5							
M5	5							
—	—	35.8	6.90	3.66	0.7	0.08~0.18	0.52 0.51	SS1-84 SS1-84A
M4	5							
—	—	36.3	7.08	3.71	0.72	0.08~0.18	0.53 0.52	SS1-85 SS1-85A
M4	5							
—	—	37.8	7.62	3.85	0.78	0.08~0.18	0.56 0.56	SS1-88 SS1-88A
M4	5							
—	—	38.8	7.98	3.95	0.81	0.08~0.18	0.59 0.58 0.57 0.55	SS1-90 SS1-90A SS1-90B SS1-90C
M4	5							
M4	5							
M5	5							
—	—	41.2	8.95	4.20	0.91	0.08~0.18	0.64 0.63	SS1-95 SS1-95A
M4	5							
—	—	41.7	9.15	4.25	0.93	0.08~0.18	0.65 0.65	SS1-96 SS1-96A
M4	5							
—	—	43.7	9.97	4.45	1.02	0.08~0.18	0.70 0.69 0.68 0.67	SS1-100 SS1-100A SS1-100B SS1-100C
M4	5							
M4	5							
M5	5							
—	—	48.6	12.2	4.95	1.24	0.08~0.18	0.87 0.81	SS1-110 SS1-110A
M4	5							
—	—	53.5	14.7	5.45	1.50	0.08~0.18	1.01 0.95 0.94	SS1-120 SS1-120A SS1-120B
M4	5							
M5	5							
—	—	68.2	23.6	6.96	2.41	0.08~0.18	2.23	SS1-150
—	—	71.5	33.6	7.29	3.42	0.08~0.18	4.00	SS1-200

[Caution on Secondary Operations]

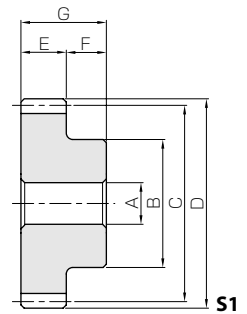
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- ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB



S3

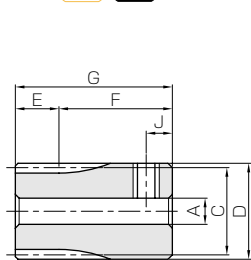


S1

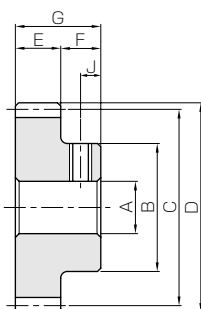
Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS1.5-12</b> <b>SS1.5-12A</b>	<i>m1.5</i>	12	S3 S3T	8 6	21	18	21	15	15	30	—	—	—
<b>SS1.5-13</b> <b>SS1.5-13A</b>		13	S3 S3T	8 6	22.5	19.5	22.5	15	15	30	—	—	—
<b>SS1.5-14</b> <b>SS1.5-14A</b> <b>SS1.5-14B</b>		14	S1 S1T S1T	8 6 8	16	21	24	15	10	25	—	—	—
<b>SS1.5-15</b> <b>SS1.5-15A</b> <b>SS1.5-15B</b>		15	S1 S1T S1T	8 6 8	18	22.5	25.5	15	10	25	—	—	—
<b>SS1.5-16</b> <b>SS1.5-16A</b> <b>SS1.5-16B</b>		16	S1 S1T S1T	8 6 8	20	24	27	15	10	25	—	—	—
<b>SS1.5-17</b> <b>SS1.5-17A</b>		17	S1 S1T	8 8	21	25.5	28.5	15	10	25	—	—	—
<b>SS1.5-18</b> <b>SS1.5-18A</b> <b>SS1.5-18B</b>		18	S1 S1T S1K	8 8 10	22	27	30	15	10	25	—	—	4 x 1.8
<b>SS1.5-19</b> <b>SS1.5-19A</b>		19	S1 S1T	8 8	23	28.5	31.5	15	10	25	—	—	—
<b>SS1.5-20</b> <b>SS1.5-20A</b> <b>SS1.5-20B</b> <b>SS1.5-20C</b>		20	S1 S1T S1T S1K	8 6 8 10	24	30	33	15	10	25	—	—	4 x 1.8
<b>SS1.5-21</b> <b>SS1.5-21A</b> <b>SS1.5-21B</b>		21	S1 S1T S1K	8 8 10	25	31.5	34.5	15	10	25	—	—	4 x 1.8
<b>SS1.5-22</b> <b>SS1.5-22A</b>		22	S1 S1K	8 10	26	33	36	15	10	25	—	—	4 x 1.8
<b>SS1.5-23</b> <b>SS1.5-23A</b>		23	S1 S1K	8 10	27	34.5	37.5	15	10	25	—	—	4 x 1.8
<b>SS1.5-24</b> <b>SS1.5-24A</b> <b>SS1.5-24B</b> <b>SS1.5-24C</b>		24	S1 S1T S1K S1K	8 8 10 12	28	36	39	15	10	25	—	—	4 x 1.8 4 x 1.8
<b>SS1.5-25</b> <b>SS1.5-25A</b> <b>SS1.5-25B</b> <b>SS1.5-25C</b>		25	S1 S1T S1K S1K	8 8 10 12	30	37.5	40.5	15	10	25	—	—	4 x 1.8 4 x 1.8
<b>SS1.5-26</b> <b>SS1.5-26A</b>		26	S1 S1K	10 12	32	39	42	15	10	25	—	—	4 x 1.8
<b>SS1.5-27</b> <b>SS1.5-27A</b>		27	S1 S1K	10 12	34	40.5	43.5	15	10	25	—	—	4 x 1.8
<b>SS1.5-28</b> <b>SS1.5-28A</b>		28	S1 S1K	10 12	36	42	45	15	10	25	—	—	4 x 1.8
<b>SS1.5-29</b> <b>SS1.5-29A</b>		29	S1 S1K	10 12	37	43.5	46.5	15	10	25	—	—	4 x 1.8
<b>SS1.5-30</b> <b>SS1.5-30A</b> <b>SS1.5-30B</b> <b>SS1.5-30C</b> <b>SS1.5-30D</b>		30	S1 S1K S1K S1K S1K	10 10 12 15 16	38	45	48	15	10	25	—	—	4 x 1.8 4 x 1.8 5 x 2.3 5 x 2.3

[Caution on Product Characteristics]

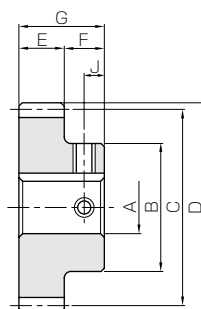
- ① For products with a tapped hole, a set screw is included.
- ② The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ③ The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.



S3T



S1T



S1K

Set Screw		Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	6.86	0.36	0.70	0.037	0.10~0.22	0.059 0.063	<b>SS1.5-12</b> <b>SS1.5-12A</b>
M4	4	8.84	0.44	0.90	0.045	0.10~0.22	0.070 0.075	<b>SS1.5-13</b> <b>SS1.5-13A</b>
—	—	11.1	0.52	1.13	0.053	0.10~0.22	0.047 0.051 0.046	<b>SS1.5-14</b> <b>SS1.5-14A</b> <b>SS1.5-14B</b>
M4	5	12.5	0.60	1.27	0.062	0.10~0.22	0.057 0.061 0.056	<b>SS1.5-15</b> <b>SS1.5-15A</b> <b>SS1.5-15B</b>
—	—	13.8	0.70	1.41	0.071	0.10~0.22	0.068 0.072 0.067	<b>SS1.5-16</b> <b>SS1.5-16A</b> <b>SS1.5-16B</b>
M4	5	15.2	0.80	1.55	0.082	0.10~0.22	0.077 0.077	<b>SS1.5-17</b> <b>SS1.5-17A</b>
—	—	16.6	0.91	1.69	0.093	0.10~0.22	0.087 0.086 0.080	<b>SS1.5-18</b> <b>SS1.5-18A</b> <b>SS1.5-18B</b>
M5	5	18.0	1.03	1.83	0.11	0.10~0.22	0.098 0.097	<b>SS1.5-19</b> <b>SS1.5-19A</b>
—	—	19.4	1.15	1.98	0.12	0.10~0.22	0.11 0.11 0.11 0.10	<b>SS1.5-20</b> <b>SS1.5-20A</b> <b>SS1.5-20B</b> <b>SS1.5-20C</b>
M4	5	20.8	1.29	2.12	0.13	0.12~0.26	0.12 0.12 0.11	<b>SS1.5-21</b> <b>SS1.5-21A</b> <b>SS1.5-21B</b>
—	—	22.3	1.43	2.27	0.15	0.12~0.26	0.13 0.12	<b>SS1.5-22</b> <b>SS1.5-22A</b>
M5	5	23.7	1.58	2.42	0.16	0.12~0.26	0.15 0.14	<b>SS1.5-23</b> <b>SS1.5-23A</b>
—	—	25.2	1.73	2.57	0.18	0.12~0.26	0.16 0.16 0.15 0.14	<b>SS1.5-24</b> <b>SS1.5-24A</b> <b>SS1.5-24B</b> <b>SS1.5-24C</b>
M4	5	26.7	1.90	2.72	0.19	0.12~0.26	0.18 0.17 0.17 0.16	<b>SS1.5-25</b> <b>SS1.5-25A</b> <b>SS1.5-25B</b> <b>SS1.5-25C</b>
—	—	28.2	2.06	2.87	0.21	0.12~0.26	0.19 0.18	<b>SS1.5-26</b> <b>SS1.5-26A</b>
M4	5	29.7	2.23	3.03	0.23	0.12~0.26	0.21 0.20	<b>SS1.5-27</b> <b>SS1.5-27A</b>
—	—	31.2	2.41	3.18	0.25	0.12~0.26	0.23 0.22	<b>SS1.5-28</b> <b>SS1.5-28A</b>
M4	5	32.7	2.60	3.34	0.26	0.12~0.26	0.24 0.23	<b>SS1.5-29</b> <b>SS1.5-29A</b>
—	—	34.2	2.79	3.49	0.28	0.12~0.26	0.26 0.26 0.25 0.24 0.23	<b>SS1.5-30</b> <b>SS1.5-30A</b> <b>SS1.5-30B</b> <b>SS1.5-30C</b> <b>SS1.5-30D</b>

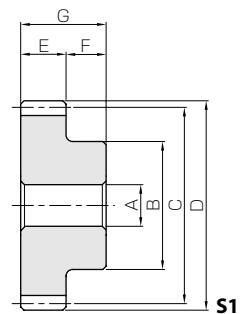
[Caution on Secondary Operations]

- 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.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS1.5-32</b>	<b>m1.5</b>	32	S1	10	40	48	51	15	10	25	—	—	—
<b>SS1.5-32A</b>			S1K	10	38								4 x 1.8
<b>SS1.5-32B</b>			S1K	12	38								4 x 1.8
<b>SS1.5-32C</b>			S1K	15	38								5 x 2.3
<b>SS1.5-32D</b>			S1K	16	38								5 x 2.3
<b>SS1.5-34</b>		34	S1	10	40	51	54	15	10	25	—	—	—
<b>SS1.5-34A</b>			S1K	12	38								4 x 1.8
<b>SS1.5-35</b>		35	S1	10	42	52.5	55.5	15	10	25	—	—	—
<b>SS1.5-35A</b>			S1K	12	40								4 x 1.8
<b>SS1.5-36</b>		36	S1	10	45	54	57	15	10	25	—	—	—
<b>SS1.5-36A</b>			S1K	12	40								4 x 1.8
<b>SS1.5-38</b>		38	S1	12	45	57	60	15	10	25	—	—	—
<b>SS1.5-38A</b>			S1K	15	40								5 x 2.3
<b>SS1.5-40</b>		40	S1	12	45	60	63	15	10	25	—	—	—
<b>SS1.5-40A</b>			S1K	12	40								4 x 1.8
<b>SS1.5-40B</b>			S1K	15	40								5 x 2.3
<b>SS1.5-40C</b>			S1K	16	40								5 x 2.3
<b>SS1.5-42</b>		42	S1	12	45	63	66	15	10	25	—	—	—
● <b>SS1.5-42 J12</b>			S1K	12									4 x 1.8
● <b>SS1.5-42 J14</b>			S1K	14									5 x 2.3
● <b>SS1.5-42 J15</b>			S1K	15									5 x 2.3
● <b>SS1.5-42 J16</b>			S1K	16									5 x 2.3
● <b>SS1.5-42 J18</b>			S1K	18									6 x 2.8
● <b>SS1.5-42 J19</b>			S1K	19									6 x 2.8
● <b>SS1.5-42 J20</b>			S1K	20									6 x 2.8
● <b>SS1.5-42 J22</b>			S1K	22									6 x 2.8
● <b>SS1.5-42 J25</b>			S1K	25									8 x 3.3
<b>SS1.5-44</b>		44	S1	12	45	66	69	15	10	25	—	—	—
● <b>SS1.5-44 J12</b>	S1K		12	4 x 1.8									
● <b>SS1.5-44 J14</b>	S1K		14	5 x 2.3									
● <b>SS1.5-44 J15</b>	S1K		15	5 x 2.3									
● <b>SS1.5-44 J16</b>	S1K		16	5 x 2.3									
● <b>SS1.5-44 J18</b>	S1K		18	6 x 2.8									
● <b>SS1.5-44 J19</b>	S1K		19	6 x 2.8									
● <b>SS1.5-44 J20</b>	S1K		20	6 x 2.8									
● <b>SS1.5-44 J22</b>	S1K		22	6 x 2.8									
● <b>SS1.5-44 J25</b>	S1K		25	8 x 3.3									
<b>SS1.5-45</b>	45	S1	12	45	67.5	70.5	15	10	25	—	—	—	
● <b>SS1.5-45 J12</b>		S1K	12									4 x 1.8	
● <b>SS1.5-45 J14</b>		S1K	14									5 x 2.3	
● <b>SS1.5-45 J15</b>		S1K	15									5 x 2.3	
● <b>SS1.5-45 J16</b>		S1K	16									5 x 2.3	
● <b>SS1.5-45 J18</b>		S1K	18									6 x 2.8	
● <b>SS1.5-45 J19</b>		S1K	19									6 x 2.8	
● <b>SS1.5-45 J20</b>		S1K	20									6 x 2.8	
● <b>SS1.5-45 J22</b>		S1K	22									6 x 2.8	
● <b>SS1.5-45 J25</b>		S1K	25									8 x 3.3	

[Caution on Product Characteristics]

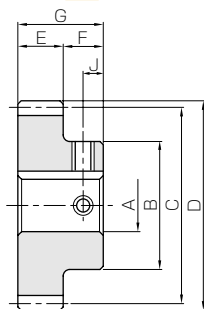
- ① For products with a tapped hole, a set screw is included.
- ② The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ③ The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.

[Caution on Secondary Operations]

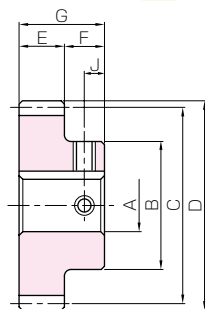
- ① Please read "Caution on Performing Secondary Operations" (Page 36) when performing modifications and/or secondary operations for safety concerns. Haguruma Kobo, the KHK's system for quick modification of KHK stock gears is also available.
- ② Avoid performing secondary operations that narrow the tooth width, as it affects precision and strength.



# Steel Spur Gears



S1K



S1K



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)					
Size	J	Bending strength	Surface durability	Bending strength	Surface durability								
—	—	—	—	—	—	—	0.30	<b>SS1.5-32</b>					
M4	5	37.3	3.19	3.80	0.33	0.12~0.26	0.28	<b>SS1.5-32A</b>					
M4	5						0.28	<b>SS1.5-32B</b>					
M4	5						0.26	<b>SS1.5-32C</b>					
M4	5						0.26	<b>SS1.5-32D</b>					
—	—	—	—	—	—	—	0.32	<b>SS1.5-34</b>					
M4	5	40.4	3.63	4.12	0.37	0.12~0.26	0.30	<b>SS1.5-34A</b>					
—	—	—	—	—	—	—	0.35	<b>SS1.5-35</b>					
M4	5	41.9	3.85	4.28	0.39	0.12~0.26	0.33	<b>SS1.5-35A</b>					
—	—	—	—	—	—	—	0.38	<b>SS1.5-36</b>					
M4	5	43.5	4.09	4.43	0.42	0.12~0.26	0.34	<b>SS1.5-36A</b>					
—	—	—	—	—	—	—	0.40	<b>SS1.5-38</b>					
M4	5	46.6	4.58	4.75	0.47	0.12~0.26	0.36	<b>SS1.5-38A</b>					
—	—	—	—	—	—	—	0.44	<b>SS1.5-40</b>					
M4	5	49.8	5.10	5.07	0.52	0.12~0.26	0.41	<b>SS1.5-40A</b>					
M4	5						0.39	<b>SS1.5-40B</b>					
M4	5						0.39	<b>SS1.5-40C</b>					
M4	5						0.39	<b>SS1.5-40C</b>					
—	—	—	—	—	—	—	0.47	<b>SS1.5-42</b>					
M4*	5	52.9	5.65	5.40	0.58	0.14~0.32	0.46	● <b>SS1.5-42 J12</b>					
M4*	5						0.46	● <b>SS1.5-42 J14</b>					
M4*	5						0.45	● <b>SS1.5-42 J15</b>					
M4*	5						0.45	● <b>SS1.5-42 J16</b>					
M5	5						0.44	● <b>SS1.5-42 J18</b>					
M5	5						0.43	● <b>SS1.5-42 J19</b>					
M5	5						0.42	● <b>SS1.5-42 J20</b>					
M5	5						0.41	● <b>SS1.5-42 J22</b>					
M6	5						0.39	● <b>SS1.5-42 J25</b>					
—	—						—	—	—	—	—	0.51	<b>SS1.5-44</b>
M4*	5						56.1	6.23	5.72	0.64	0.14~0.32	0.50	● <b>SS1.5-44 J12</b>
M4*	5											0.49	● <b>SS1.5-44 J14</b>
M4*	5	0.49	● <b>SS1.5-44 J15</b>										
M4*	5	0.48	● <b>SS1.5-44 J16</b>										
M5	5	0.47	● <b>SS1.5-44 J18</b>										
M5	5	0.47	● <b>SS1.5-44 J19</b>										
M5	5	0.46	● <b>SS1.5-44 J20</b>										
M5	5	0.45	● <b>SS1.5-44 J22</b>										
M6	5	0.42	● <b>SS1.5-44 J25</b>										
—	—	—	—	—	—	—						0.52	<b>SS1.5-45</b>
M4*	5	57.7	6.53	5.88	0.67	0.14~0.32						0.52	● <b>SS1.5-45 J12</b>
M4*	5											0.51	● <b>SS1.5-45 J14</b>
M4*	5						0.51	● <b>SS1.5-45 J15</b>					
M4*	5						0.50	● <b>SS1.5-45 J16</b>					
M5	5						0.49	● <b>SS1.5-45 J18</b>					
M5	5						0.48	● <b>SS1.5-45 J19</b>					
M5	5						0.48	● <b>SS1.5-45 J20</b>					
M5	5						0.47	● <b>SS1.5-45 J22</b>					
M6	5						0.44	● <b>SS1.5-45 J25</b>					

**[Caution on J series]**

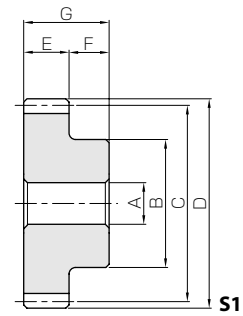
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.

- 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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

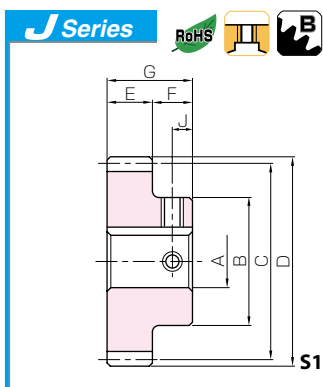
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS1.5-46</b> ● <b>SS1.5-46 J12</b> ● <b>SS1.5-46 J14</b> ● <b>SS1.5-46 J15</b> ● <b>SS1.5-46 J16</b> ● <b>SS1.5-46 J18</b> ● <b>SS1.5-46 J19</b> ● <b>SS1.5-46 J20</b> ● <b>SS1.5-46 J22</b> ● <b>SS1.5-46 J25</b>	m1.5	46	S1	12	45	69	72	15	10	25	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
S1K	25	8 x 3.3											
<b>SS1.5-48</b> ● <b>SS1.5-48 J12</b> ● <b>SS1.5-48 J14</b> ● <b>SS1.5-48 J15</b> ● <b>SS1.5-48 J16</b> ● <b>SS1.5-48 J18</b> ● <b>SS1.5-48 J19</b> ● <b>SS1.5-48 J20</b> ● <b>SS1.5-48 J22</b> ● <b>SS1.5-48 J25</b>	m1.5	48	S1	12	45	72	75	15	10	25	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
S1K	25	8 x 3.3											
<b>SS1.5-50</b> ● <b>SS1.5-50 J12</b> ● <b>SS1.5-50 J14</b> ● <b>SS1.5-50 J15</b> ● <b>SS1.5-50 J16</b> ● <b>SS1.5-50 J18</b> ● <b>SS1.5-50 J19</b> ● <b>SS1.5-50 J20</b> ● <b>SS1.5-50 J22</b> ● <b>SS1.5-50 J25</b>	m1.5	50	S1	12	45	75	78	15	10	25	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
S1K	25	8 x 3.3											
<b>SS1.5-52</b> ● <b>SS1.5-52 J15</b> ● <b>SS1.5-52 J16</b> ● <b>SS1.5-52 J18</b> ● <b>SS1.5-52 J19</b> ● <b>SS1.5-52 J20</b> ● <b>SS1.5-52 J22</b> ● <b>SS1.5-52 J25</b> ● <b>SS1.5-52 J28</b> ● <b>SS1.5-52 J30</b>	m1.5	52	S1	15	50	78	81	15	10	25	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
S1K	30	8 x 3.3											
<b>SS1.5-54</b> ● <b>SS1.5-54 J15</b> ● <b>SS1.5-54 J16</b> ● <b>SS1.5-54 J18</b> ● <b>SS1.5-54 J19</b> ● <b>SS1.5-54 J20</b> ● <b>SS1.5-54 J22</b> ● <b>SS1.5-54 J25</b> ● <b>SS1.5-54 J28</b> ● <b>SS1.5-54 J30</b>	m1.5	54	S1	15	50	81	84	15	10	25	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
S1K	30	8 x 3.3											

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



### Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—						0.54	<b>SS1.5-46</b>
M4*	5						0.54	● <b>SS1.5-46 J12</b>
M4*	5						0.53	● <b>SS1.5-46 J14</b>
M4*	5						0.52	● <b>SS1.5-46 J15</b>
M4*	5						0.52	● <b>SS1.5-46 J16</b>
M5	5	59.3	6.83	6.04	0.70	0.14~0.32	0.51	● <b>SS1.5-46 J18</b>
M5	5						0.50	● <b>SS1.5-46 J19</b>
M5	5						0.50	● <b>SS1.5-46 J20</b>
M5	5						0.48	● <b>SS1.5-46 J22</b>
M6	5						0.46	● <b>SS1.5-46 J25</b>
—	—						0.58	<b>SS1.5-48</b>
M4*	5						0.58	● <b>SS1.5-48 J12</b>
M4*	5						0.57	● <b>SS1.5-48 J14</b>
M4*	5						0.56	● <b>SS1.5-48 J15</b>
M4*	5						0.56	● <b>SS1.5-48 J16</b>
M5	5	62.4	7.47	6.37	0.76	0.14~0.32	0.55	● <b>SS1.5-48 J18</b>
M5	5						0.54	● <b>SS1.5-48 J19</b>
M5	5						0.54	● <b>SS1.5-48 J20</b>
M5	5						0.52	● <b>SS1.5-48 J22</b>
M6	5						0.50	● <b>SS1.5-48 J25</b>
—	—						0.62	<b>SS1.5-50</b>
M4*	5						0.62	● <b>SS1.5-50 J12</b>
M4*	5						0.61	● <b>SS1.5-50 J14</b>
M4*	5						0.60	● <b>SS1.5-50 J15</b>
M4*	5						0.60	● <b>SS1.5-50 J16</b>
M5	5	65.7	8.15	6.69	0.83	0.14~0.32	0.60	● <b>SS1.5-50 J18</b>
M5	5						0.59	● <b>SS1.5-50 J19</b>
M5	5						0.58	● <b>SS1.5-50 J20</b>
M5	5						0.56	● <b>SS1.5-50 J22</b>
M6	5						0.54	● <b>SS1.5-50 J25</b>
—	—						0.68	<b>SS1.5-52</b>
M4*	5						0.67	● <b>SS1.5-52 J15</b>
M4*	5						0.67	● <b>SS1.5-52 J16</b>
M5	5						0.66	● <b>SS1.5-52 J18</b>
M5	5						0.65	● <b>SS1.5-52 J19</b>
M5	5	68.9	8.85	7.02	0.90	0.14~0.32	0.65	● <b>SS1.5-52 J20</b>
M5	5						0.64	● <b>SS1.5-52 J22</b>
M6	5						0.61	● <b>SS1.5-52 J25</b>
M6	5						0.59	● <b>SS1.5-52 J28</b>
M6	5						0.57	● <b>SS1.5-52 J30</b>
—	—						0.73	<b>SS1.5-54</b>
M4*	5						0.72	● <b>SS1.5-54 J15</b>
M4*	5						0.71	● <b>SS1.5-54 J16</b>
M5	5						0.70	● <b>SS1.5-54 J18</b>
M5	5						0.70	● <b>SS1.5-54 J19</b>
M5	5	72.1	9.59	7.35	0.98	0.14~0.32	0.69	● <b>SS1.5-54 J20</b>
M5	5						0.68	● <b>SS1.5-54 J22</b>
M6	5						0.66	● <b>SS1.5-54 J25</b>
M6	5						0.63	● <b>SS1.5-54 J28</b>
M6	5						0.61	● <b>SS1.5-54 J30</b>

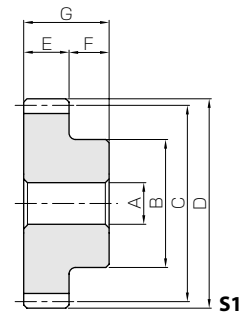
**[Caution on J series]**

- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

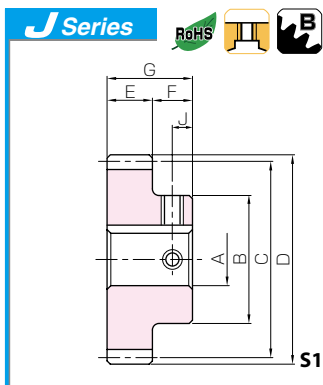
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS1.5-55 ● SS1.5-55 J15 ● SS1.5-55 J16 ● SS1.5-55 J18 ● SS1.5-55 J19 ● SS1.5-55 J20 ● SS1.5-55 J22 ● SS1.5-55 J25 ● SS1.5-55 J28 ● SS1.5-55 J30	m1.5	55	S1	15	50	82.5	85.5	15	10	25	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
SS1.5-56 ● SS1.5-56 J15 ● SS1.5-56 J16 ● SS1.5-56 J18 ● SS1.5-56 J19 ● SS1.5-56 J20 ● SS1.5-56 J22 ● SS1.5-56 J25 ● SS1.5-56 J28 ● SS1.5-56 J30	m1.5	56	S1	15	50	84	87	15	10	25	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
SS1.5-58 ● SS1.5-58 J15 ● SS1.5-58 J16 ● SS1.5-58 J18 ● SS1.5-58 J19 ● SS1.5-58 J20 ● SS1.5-58 J22 ● SS1.5-58 J25 ● SS1.5-58 J28 ● SS1.5-58 J30	m1.5	58	S1	15	50	87	90	15	10	25	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
SS1.5-60 ● SS1.5-60 J15 ● SS1.5-60 J16 ● SS1.5-60 J18 ● SS1.5-60 J19 ● SS1.5-60 J20 ● SS1.5-60 J22 ● SS1.5-60 J25 ● SS1.5-60 J28 ● SS1.5-60 J30	m1.5	60	S1	15	50	90	93	15	10	25	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
SS1.5-62 ● SS1.5-62 J15 ● SS1.5-62 J16 ● SS1.5-62 J18 ● SS1.5-62 J19 ● SS1.5-62 J20 ● SS1.5-62 J22 ● SS1.5-62 J25 ● SS1.5-62 J28 ● SS1.5-62 J30 ● SS1.5-62 J32	m1.5	62	S1	15	55	93	96	15	10	25	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
S1K	32	10 × 3.3											

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



### Steel Spur Gears



Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks & Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

Bevel Gearboxes

Other Products

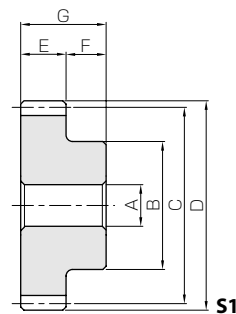
Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—						0.75	<b>SS1.5-55</b>
M4*	5	73.7	9.96	7.51	1.02	0.14~0.32	0.74	● <b>SS1.5-55 J15</b>
M4*	5						0.74	● <b>SS1.5-55 J16</b>
M5	5						0.73	● <b>SS1.5-55 J18</b>
M5	5						0.72	● <b>SS1.5-55 J19</b>
M5	5						0.72	● <b>SS1.5-55 J20</b>
M5	5						0.70	● <b>SS1.5-55 J22</b>
M6	5						0.68	● <b>SS1.5-55 J25</b>
M6	5						0.65	● <b>SS1.5-55 J28</b>
M6	5					0.64	● <b>SS1.5-55 J30</b>	
—	—						0.77	<b>SS1.5-56</b>
M4*	5	75.3	10.4	7.68	1.06	0.14~0.32	0.76	● <b>SS1.5-56 J15</b>
M4*	5						0.76	● <b>SS1.5-56 J16</b>
M5	5						0.75	● <b>SS1.5-56 J18</b>
M5	5						0.74	● <b>SS1.5-56 J19</b>
M5	5						0.74	● <b>SS1.5-56 J20</b>
M5	5						0.73	● <b>SS1.5-56 J22</b>
M6	5						0.70	● <b>SS1.5-56 J25</b>
M6	5						0.68	● <b>SS1.5-56 J28</b>
M6	5					0.66	● <b>SS1.5-56 J30</b>	
—	—						0.82	<b>SS1.5-58</b>
M4*	5	78.5	11.2	8.01	1.14	0.14~0.32	0.81	● <b>SS1.5-58 J15</b>
M4*	5						0.81	● <b>SS1.5-58 J16</b>
M5	5						0.80	● <b>SS1.5-58 J18</b>
M5	5						0.79	● <b>SS1.5-58 J19</b>
M5	5						0.79	● <b>SS1.5-58 J20</b>
M5	5						0.77	● <b>SS1.5-58 J22</b>
M6	5						0.75	● <b>SS1.5-58 J25</b>
M6	5						0.73	● <b>SS1.5-58 J28</b>
M6	5					0.71	● <b>SS1.5-58 J30</b>	
—	—						0.87	<b>SS1.5-60</b>
M4*	5	81.8	12.0	8.34	1.22	0.14~0.32	0.86	● <b>SS1.5-60 J15</b>
M4*	5						0.86	● <b>SS1.5-60 J16</b>
M5	5						0.85	● <b>SS1.5-60 J18</b>
M5	5						0.84	● <b>SS1.5-60 J19</b>
M5	5						0.84	● <b>SS1.5-60 J20</b>
M5	5						0.82	● <b>SS1.5-60 J22</b>
M6	5						0.80	● <b>SS1.5-60 J25</b>
M6	5						0.77	● <b>SS1.5-60 J28</b>
M6	5					0.76	● <b>SS1.5-60 J30</b>	
—	—						0.95	<b>SS1.5-62</b>
M4*	5	85.0	12.8	8.67	1.31	0.14~0.32	0.94	● <b>SS1.5-62 J15</b>
M4*	5						0.94	● <b>SS1.5-62 J16</b>
M5*	5						0.93	● <b>SS1.5-62 J18</b>
M5*	5						0.92	● <b>SS1.5-62 J19</b>
M5*	5						0.92	● <b>SS1.5-62 J20</b>
M5	5						0.90	● <b>SS1.5-62 J22</b>
M6	5						0.88	● <b>SS1.5-62 J25</b>
M6	5						0.86	● <b>SS1.5-62 J28</b>
M6	5					0.84	● <b>SS1.5-62 J30</b>	
M8	5						0.82	● <b>SS1.5-62 J32</b>

- [Caution on J series]**
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
  - ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
  - ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
  - ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
  - ⑤ Areas of products which have been re-worked will not be black oxide coated.
  - ⑥ For products having a tapped hole, a set screw is included.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

Bevel Gearboxes

Other Products

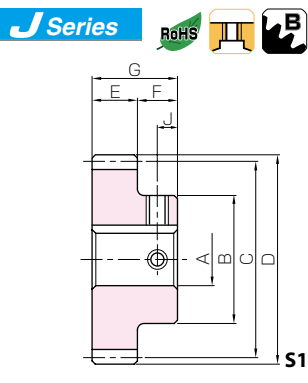
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS1.5-64 ● SS1.5-64 J15 ● SS1.5-64 J16 ● SS1.5-64 J18 ● SS1.5-64 J19 ● SS1.5-64 J20 ● SS1.5-64 J22 ● SS1.5-64 J25 ● SS1.5-64 J28 ● SS1.5-64 J30 ● SS1.5-64 J32	m1.5	64	S1	15	55	96	99	15	10	25	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
S1K	32	10 × 3.3											
SS1.5-65 ● SS1.5-65 J15 ● SS1.5-65 J16 ● SS1.5-65 J18 ● SS1.5-65 J19 ● SS1.5-65 J20 ● SS1.5-65 J22 ● SS1.5-65 J25 ● SS1.5-65 J28 ● SS1.5-65 J30 ● SS1.5-65 J32	m1.5	65	S1	15	55	97.5	100.5	15	10	25	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
S1K	32	10 × 3.3											
SS1.5-66 ● SS1.5-66 J15 ● SS1.5-66 J16 ● SS1.5-66 J18 ● SS1.5-66 J19 ● SS1.5-66 J20 ● SS1.5-66 J22 ● SS1.5-66 J25 ● SS1.5-66 J28 ● SS1.5-66 J30 ● SS1.5-66 J32	m1.5	66	S1	15	55	99	102	15	10	25	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
S1K	32	10 × 3.3											
SS1.5-68 ● SS1.5-68 J15 ● SS1.5-68 J16 ● SS1.5-68 J18 ● SS1.5-68 J19 ● SS1.5-68 J20 ● SS1.5-68 J22 ● SS1.5-68 J25 ● SS1.5-68 J28 ● SS1.5-68 J30 ● SS1.5-68 J32	m1.5	68	S1	15	55	102	105	15	10	25	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
S1K	32	10 × 3.3											
SS1.5-70 ● SS1.5-70 J15 ● SS1.5-70 J16 ● SS1.5-70 J18 ● SS1.5-70 J19 ● SS1.5-70 J20 ● SS1.5-70 J22 ● SS1.5-70 J25 ● SS1.5-70 J28 ● SS1.5-70 J30 ● SS1.5-70 J32	m1.5	70	S1	15	55	105	108	15	10	25	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
S1K	32	10 × 3.3											

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—							<b>SS1.5-64</b>
M4*	5	88.3	13.7	9.00	1.40	0.14~0.32	1.00	●SS1.5-64 J15
M4*	5						0.99	●SS1.5-64 J16
M5*	5						0.98	●SS1.5-64 J18
M5*	5						0.97	●SS1.5-64 J19
M5*	5						0.97	●SS1.5-64 J20
M5	5						0.96	●SS1.5-64 J22
M6	5						0.93	●SS1.5-64 J25
M6	5						0.91	●SS1.5-64 J28
M6	5						0.89	●SS1.5-64 J30
M8	5	0.87	●SS1.5-64 J32					
—	—							<b>SS1.5-65</b>
M4*	5	89.9	14.2	9.17	1.45	0.14~0.32	1.03	●SS1.5-65 J15
M4*	5						1.02	●SS1.5-65 J16
M5*	5						1.01	●SS1.5-65 J18
M5*	5						1.00	●SS1.5-65 J19
M5*	5						1.00	●SS1.5-65 J20
M5	5						0.98	●SS1.5-65 J22
M6	5						0.96	●SS1.5-65 J25
M6	5						0.94	●SS1.5-65 J28
M6	5						0.92	●SS1.5-65 J30
M8	5	0.90	●SS1.5-65 J32					
—	—							<b>SS1.5-66</b>
M4*	5	91.5	14.6	9.33	1.49	0.14~0.32	1.06	●SS1.5-66 J15
M4*	5						1.05	●SS1.5-66 J16
M5*	5						1.04	●SS1.5-66 J18
M5*	5						1.03	●SS1.5-66 J19
M5*	5						1.03	●SS1.5-66 J20
M5*	5						1.02	●SS1.5-66 J22
M5	5						1.01	●SS1.5-66 J25
M6	5						0.99	●SS1.5-66 J28
M6	5						0.96	●SS1.5-66 J30
M6	5	0.95	●SS1.5-66 J32					
—	—							<b>SS1.5-68</b>
M4*	5	94.8	15.6	9.66	1.59	0.14~0.32	1.11	●SS1.5-68 J15
M4*	5						1.10	●SS1.5-68 J16
M5*	5						1.10	●SS1.5-68 J18
M5*	5						1.09	●SS1.5-68 J19
M5*	5						1.08	●SS1.5-68 J20
M5*	5						1.08	●SS1.5-68 J22
M5	5						1.07	●SS1.5-68 J25
M6	5						1.04	●SS1.5-68 J28
M6	5						1.02	●SS1.5-68 J30
M6	5	1.00	●SS1.5-68 J32					
—	—							<b>SS1.5-70</b>
M4*	5	98.0	16.6	10.0	1.69	0.14~0.32	1.17	●SS1.5-70 J15
M4*	5						1.16	●SS1.5-70 J16
M5*	5						1.16	●SS1.5-70 J18
M5*	5						1.15	●SS1.5-70 J19
M5*	5						1.14	●SS1.5-70 J20
M5*	5						1.14	●SS1.5-70 J22
M5	5						1.12	●SS1.5-70 J25
M6	5						1.10	●SS1.5-70 J28
M6	5						1.08	●SS1.5-70 J30
M6	5	1.06	●SS1.5-70 J32					
M8	5	1.04						

**[Caution on J series]**

① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order.

Please allow additional shipping time to get to your local distributor.

② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.

③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.

④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).

⑤ Areas of products which have been re-worked will not be black oxide coated.

⑥ For products having a tapped hole, a set screw is included.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

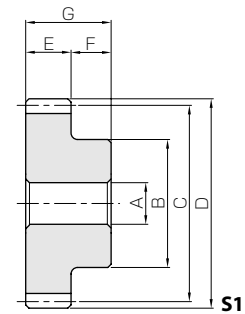
Bevel Gearboxes

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

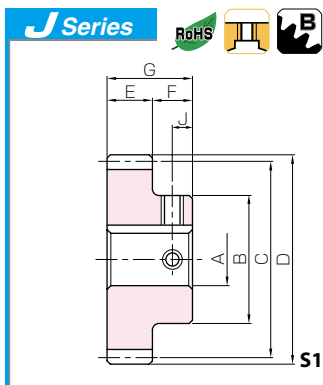
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS1.5-72 ● SS1.5-72 J15 ● SS1.5-72 J16 ● SS1.5-72 J18 ● SS1.5-72 J19 ● SS1.5-72 J20 ● SS1.5-72 J22 ● SS1.5-72 J25 ● SS1.5-72 J28 ● SS1.5-72 J30 ● SS1.5-72 J32	m1.5	72	S1	15	55	108	111	15	10	25	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
SS1.5-75 ● SS1.5-75 J15 ● SS1.5-75 J16 ● SS1.5-75 J18 ● SS1.5-75 J19 ● SS1.5-75 J20 ● SS1.5-75 J22 ● SS1.5-75 J25 ● SS1.5-75 J28 ● SS1.5-75 J30 ● SS1.5-75 J32 ● SS1.5-75 J35	m1.5	75	S1	15	60	112.5	115.5	15	10	25	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
S1K	35	10 x 3.3											
SS1.5-76 ● SS1.5-76 J15 ● SS1.5-76 J16 ● SS1.5-76 J18 ● SS1.5-76 J19 ● SS1.5-76 J20 ● SS1.5-76 J22 ● SS1.5-76 J25 ● SS1.5-76 J28 ● SS1.5-76 J30 ● SS1.5-76 J32 ● SS1.5-76 J35	m1.5	76	S1	15	60	114	117	15	10	25	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
S1K	35	10 x 3.3											
SS1.5-80 ● SS1.5-80 J15 ● SS1.5-80 J16 ● SS1.5-80 J18 ● SS1.5-80 J19 ● SS1.5-80 J20 ● SS1.5-80 J22 ● SS1.5-80 J25 ● SS1.5-80 J28 ● SS1.5-80 J30 ● SS1.5-80 J32 ● SS1.5-80 J35	m1.5	80	S1	15	60	120	123	15	10	25	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
S1K	35	10 x 3.3											

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- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
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### Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—						1.23	<b>SS1.5-72</b>
M4*	5						1.22	● <b>SS1.5-72 J15</b>
M4*	5						1.22	● <b>SS1.5-72 J16</b>
M5*	5						1.21	● <b>SS1.5-72 J18</b>
M5*	5						1.20	● <b>SS1.5-72 J19</b>
M5*	5	101	17.6	10.3	1.79	0.14~0.32	1.20	● <b>SS1.5-72 J20</b>
M5	5						1.18	● <b>SS1.5-72 J22</b>
M6	5						1.16	● <b>SS1.5-72 J25</b>
M6	5						1.14	● <b>SS1.5-72 J28</b>
M6	5						1.12	● <b>SS1.5-72 J30</b>
M8	5						1.10	● <b>SS1.5-72 J32</b>
—	—						1.36	<b>SS1.5-75</b>
M4*	5						1.35	● <b>SS1.5-75 J15</b>
M4*	5						1.34	● <b>SS1.5-75 J16</b>
M5*	5						1.33	● <b>SS1.5-75 J18</b>
M5*	5						1.33	● <b>SS1.5-75 J19</b>
M5*	5	106	19.2	10.8	1.95	0.14~0.32	1.32	● <b>SS1.5-75 J20</b>
M5*	5						1.31	● <b>SS1.5-75 J22</b>
M6	5						1.29	● <b>SS1.5-75 J25</b>
M6	5						1.26	● <b>SS1.5-75 J28</b>
M6	5						1.24	● <b>SS1.5-75 J30</b>
M8	5						1.22	● <b>SS1.5-75 J32</b>
M8	5						1.19	● <b>SS1.5-75 J35</b>
—	—						1.39	<b>SS1.5-76</b>
M4*	5						1.38	● <b>SS1.5-76 J15</b>
M4*	5						1.37	● <b>SS1.5-76 J16</b>
M5*	5						1.36	● <b>SS1.5-76 J18</b>
M5*	5						1.36	● <b>SS1.5-76 J19</b>
M5*	5	108	19.7	11.0	2.01	0.14~0.32	1.35	● <b>SS1.5-76 J20</b>
M5*	5						1.34	● <b>SS1.5-76 J22</b>
M6	5						1.32	● <b>SS1.5-76 J25</b>
M6	5						1.29	● <b>SS1.5-76 J28</b>
M6	5						1.28	● <b>SS1.5-76 J30</b>
M8	5						1.25	● <b>SS1.5-76 J32</b>
M8	5						1.22	● <b>SS1.5-76 J35</b>
—	—						1.52	<b>SS1.5-80</b>
M4*	5						1.51	● <b>SS1.5-80 J15</b>
M4*	5						1.50	● <b>SS1.5-80 J16</b>
M5*	5						1.49	● <b>SS1.5-80 J18</b>
M5*	5						1.49	● <b>SS1.5-80 J19</b>
M5*	5	114	22.0	11.7	2.24	0.14~0.32	1.48	● <b>SS1.5-80 J20</b>
M5*	5						1.47	● <b>SS1.5-80 J22</b>
M6	5						1.45	● <b>SS1.5-80 J25</b>
M6	5						1.42	● <b>SS1.5-80 J28</b>
M6	5						1.41	● <b>SS1.5-80 J30</b>
M8	5						1.38	● <b>SS1.5-80 J32</b>
M8	5						1.35	● <b>SS1.5-80 J35</b>

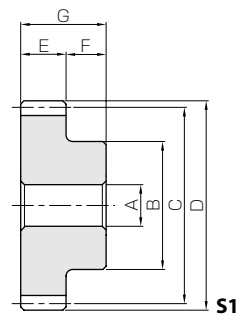
**[Caution on J series]**

- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

Bevel Gearboxes

Other Products

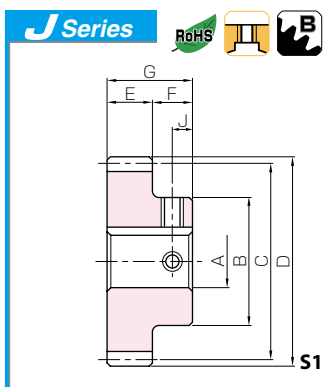
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS1.5-84</b> ● <b>SS1.5-84 J15</b> ● <b>SS1.5-84 J16</b> ● <b>SS1.5-84 J18</b> ● <b>SS1.5-84 J19</b> ● <b>SS1.5-84 J20</b> ● <b>SS1.5-84 J22</b> ● <b>SS1.5-84 J25</b> ● <b>SS1.5-84 J28</b> ● <b>SS1.5-84 J30</b> ● <b>SS1.5-84 J32</b> ● <b>SS1.5-84 J35</b>	m1.5	84	S1	15	60	126	129	15	10	25	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			<b>SS1.5-85</b> ● <b>SS1.5-85 J15</b> ● <b>SS1.5-85 J16</b> ● <b>SS1.5-85 J18</b> ● <b>SS1.5-85 J19</b> ● <b>SS1.5-85 J20</b> ● <b>SS1.5-85 J22</b> ● <b>SS1.5-85 J25</b> ● <b>SS1.5-85 J28</b> ● <b>SS1.5-85 J30</b> ● <b>SS1.5-85 J32</b> ● <b>SS1.5-85 J35</b>	m1.5									85
S1K	15	5 x 2.3											
S1K	16	5 x 2.3											
S1K	18	6 x 2.8											
S1K	19	6 x 2.8											
S1K	20	6 x 2.8											
S1K	22	6 x 2.8											
S1K	25	8 x 3.3											
S1K	28	8 x 3.3											
S1K	30	8 x 3.3											
S1K	32	10 x 3.3											
S1K	35	10 x 3.3											
<b>SS1.5-88</b> ● <b>SS1.5-88 J15</b> ● <b>SS1.5-88 J16</b> ● <b>SS1.5-88 J18</b> ● <b>SS1.5-88 J19</b> ● <b>SS1.5-88 J20</b> ● <b>SS1.5-88 J22</b> ● <b>SS1.5-88 J25</b> ● <b>SS1.5-88 J28</b> ● <b>SS1.5-88 J30</b> ● <b>SS1.5-88 J32</b> ● <b>SS1.5-88 J35</b>	m1.5	88			S1	15	60	132	135	15	10	25	
			S1K	15	5 x 2.3								
			S1K	16	5 x 2.3								
			S1K	18	6 x 2.8								
			S1K	19	6 x 2.8								
			S1K	20	6 x 2.8								
			S1K	22	6 x 2.8								
			S1K	25	8 x 3.3								
			S1K	28	8 x 3.3								
			S1K	30	8 x 3.3								
			S1K	32	10 x 3.3								
			S1K	35	10 x 3.3								
			<b>SS1.5-90</b> ● <b>SS1.5-90 J15</b> ● <b>SS1.5-90 J16</b> ● <b>SS1.5-90 J18</b> ● <b>SS1.5-90 J19</b> ● <b>SS1.5-90 J20</b> ● <b>SS1.5-90 J22</b> ● <b>SS1.5-90 J25</b> ● <b>SS1.5-90 J28</b> ● <b>SS1.5-90 J30</b> ● <b>SS1.5-90 J32</b> ● <b>SS1.5-90 J35</b>	m1.5	90	S1							15
S1K	15	5 x 2.3											
S1K	16	5 x 2.3											
S1K	18	6 x 2.8											
S1K	19	6 x 2.8											
S1K	20	6 x 2.8											
S1K	22	6 x 2.8											
S1K	25	8 x 3.3											
S1K	28	8 x 3.3											
S1K	30	8 x 3.3											
S1K	32	10 x 3.3											
S1K	35	10 x 3.3											

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



### Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	121	24.4	12.3	2.49	0.18~0.38	1.66	SS1.5-84
M4*	5						1.64	●SS1.5-84 J15
M4*	5						1.64	●SS1.5-84 J16
M5*	5						1.63	●SS1.5-84 J18
M5*	5						1.62	●SS1.5-84 J19
M5*	5						1.62	●SS1.5-84 J20
M5*	5						1.61	●SS1.5-84 J22
M6	5						1.58	●SS1.5-84 J25
M6	5						1.56	●SS1.5-84 J28
M6	5						1.54	●SS1.5-84 J30
M8	5						1.52	●SS1.5-84 J32
M8	5						1.49	●SS1.5-84 J35
—	—						123	25.1
M4*	5	1.68	●SS1.5-85 J15					
M4*	5	1.68	●SS1.5-85 J16					
M5*	5	1.66	●SS1.5-85 J18					
M5*	5	1.66	●SS1.5-85 J19					
M5*	5	1.65	●SS1.5-85 J20					
M5*	5	1.64	●SS1.5-85 J22					
M6	5	1.62	●SS1.5-85 J25					
M6	5	1.59	●SS1.5-85 J28					
M6	5	1.58	●SS1.5-85 J30					
M8	5	1.55	●SS1.5-85 J32					
M8	5	1.52	●SS1.5-85 J35					
—	—	128	27.0	13.0	2.75	0.18~0.38		
M4*	5						1.79	●SS1.5-88 J15
M4*	5						1.78	●SS1.5-88 J16
M5*	5						1.77	●SS1.5-88 J18
M5*	5						1.77	●SS1.5-88 J19
M5*	5						1.76	●SS1.5-88 J20
M5*	5						1.75	●SS1.5-88 J22
M6	5						1.73	●SS1.5-88 J25
M6	5						1.70	●SS1.5-88 J28
M6	5						1.69	●SS1.5-88 J30
M8	5						1.66	●SS1.5-88 J32
M8	5						1.63	●SS1.5-88 J35
—	—						131	28.3
M4*	5	1.86	●SS1.5-90 J15					
M4*	5	1.86	●SS1.5-90 J16					
M5*	5	1.85	●SS1.5-90 J18					
M5*	5	1.84	●SS1.5-90 J19					
M5*	5	1.84	●SS1.5-90 J20					
M5*	5	1.82	●SS1.5-90 J22					
M6	5	1.80	●SS1.5-90 J25					
M6	5	1.78	●SS1.5-90 J28					
M6	5	1.76	●SS1.5-90 J30					
M8	5	1.74	●SS1.5-90 J32					
M8	5	1.71	●SS1.5-90 J35					

**[Caution on J series]**

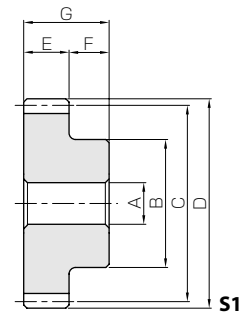
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.

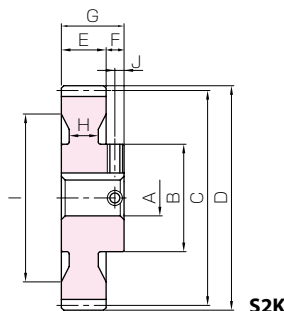
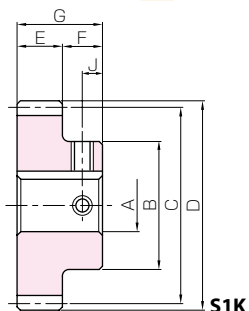
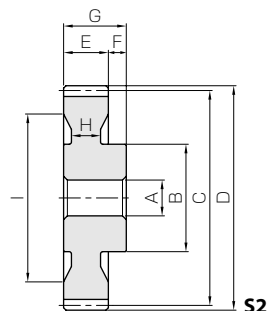


- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS1.5-95</b> ● <b>SS1.5-95 J15</b> ● <b>SS1.5-95 J16</b> ● <b>SS1.5-95 J18</b> ● <b>SS1.5-95 J19</b> ● <b>SS1.5-95 J20</b> ● <b>SS1.5-95 J22</b> ● <b>SS1.5-95 J25</b> ● <b>SS1.5-95 J28</b> ● <b>SS1.5-95 J30</b> ● <b>SS1.5-95 J32</b> ● <b>SS1.5-95 J35</b>	m1.5	95	S1	15	60	142.5	145.5	15	10	25	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
<b>SS1.5-100</b> ● <b>SS1.5-100 J15</b> ● <b>SS1.5-100 J16</b> ● <b>SS1.5-100 J18</b> ● <b>SS1.5-100 J19</b> ● <b>SS1.5-100 J20</b> ● <b>SS1.5-100 J22</b> ● <b>SS1.5-100 J25</b> ● <b>SS1.5-100 J28</b> ● <b>SS1.5-100 J30</b> ● <b>SS1.5-100 J32</b> ● <b>SS1.5-100 J35</b>	m1.5	100	S2	15	60	150	153	15	10	25	9	125	—
			S2K	15									5 x 2.3
			S2K	16									5 x 2.3
			S2K	18									6 x 2.8
			S2K	19									6 x 2.8
			S2K	20									6 x 2.8
			S2K	22									6 x 2.8
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
S2K	35	10 x 3.3											
<b>SS1.5-120</b> ● <b>SS1.5-120 J15</b> ● <b>SS1.5-120 J16</b> ● <b>SS1.5-120 J18</b> ● <b>SS1.5-120 J19</b> ● <b>SS1.5-120 J20</b> ● <b>SS1.5-120 J22</b> ● <b>SS1.5-120 J25</b> ● <b>SS1.5-120 J28</b> ● <b>SS1.5-120 J30</b> ● <b>SS1.5-120 J32</b> ● <b>SS1.5-120 J35</b>	m1.5	120	S2	15	70	180	183	15	10	25	10	153	—
			S2K	15									5 x 2.3
			S2K	16									5 x 2.3
			S2K	18									6 x 2.8
			S2K	19									6 x 2.8
			S2K	20									6 x 2.8
			S2K	22									6 x 2.8
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
S2K	35	10 x 3.3											
<b>SS1.5-150</b>	150	S1	20	180	225	228	15	10	25	—	—	—	
<b>SS1.5-200</b>	200	S1	25	240	300	303	15	10	25	—	—	—	

- [Caution on Product Characteristics]
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
  - ② 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.

- [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.



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	139	31.8	14.2	3.24	0.18~0.38	2.07	<b>SS1.5-95</b>
M4*	5							● <b>SS1.5-95 J15</b>
M4*	5							● <b>SS1.5-95 J16</b>
M5*	5							● <b>SS1.5-95 J18</b>
M5*	5							● <b>SS1.5-95 J19</b>
M5*	5							● <b>SS1.5-95 J20</b>
M5*	5							● <b>SS1.5-95 J22</b>
M6	5							● <b>SS1.5-95 J25</b>
M6	5							● <b>SS1.5-95 J28</b>
M6	5							● <b>SS1.5-95 J30</b>
M8	5							● <b>SS1.5-95 J32</b>
M8	5							● <b>SS1.5-95 J35</b>
—	—	147	35.5	15.0	3.62	0.18~0.38	1.88	<b>SS1.5-100</b>
M4*	5							● <b>SS1.5-100 J15</b>
M4*	5							● <b>SS1.5-100 J16</b>
M5*	5							● <b>SS1.5-100 J18</b>
M5*	5							● <b>SS1.5-100 J19</b>
M5*	5							● <b>SS1.5-100 J20</b>
M5*	5							● <b>SS1.5-100 J22</b>
M6	5							● <b>SS1.5-100 J25</b>
M6	5							● <b>SS1.5-100 J28</b>
M6	5							● <b>SS1.5-100 J30</b>
M8	5							● <b>SS1.5-100 J32</b>
M8	5							● <b>SS1.5-100 J35</b>
—	—	180	52.3	18.4	5.33	0.18~0.38	2.74	<b>SS1.5-120</b>
M4*	5							● <b>SS1.5-120 J15</b>
M4*	5							● <b>SS1.5-120 J16</b>
M5*	5							● <b>SS1.5-120 J18</b>
M5*	5							● <b>SS1.5-120 J19</b>
M5*	5							● <b>SS1.5-120 J20</b>
M5*	5							● <b>SS1.5-120 J22</b>
M6*	5							● <b>SS1.5-120 J25</b>
M6*	5							● <b>SS1.5-120 J28</b>
M6	5							● <b>SS1.5-120 J30</b>
M8	5							● <b>SS1.5-120 J32</b>
M8	5							● <b>SS1.5-120 J35</b>
—	—	192	70.3	19.6	7.17	0.18~0.38	6.62	<b>SS1.5-150</b>
—	—	261	131	26.7	13.3	0.22~0.46	11.8	<b>SS1.5-200</b>

[Caution on J series]

- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks & Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

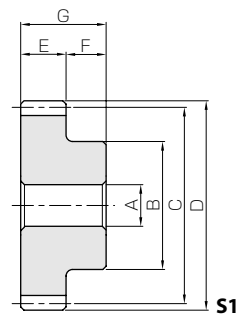
Bevel Gearboxes

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

Bevel Gearboxes

Other Products

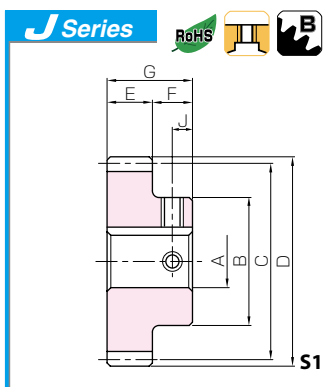
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS2-12</b> ● <b>SS2-12 J10</b>	m2	12	S1	10	18	24	28	20	10	30	—	—	—
S1T2			10	—									
<b>SS2-13</b> ● <b>SS2-13 J10**</b> ● <b>SS2-13 J12</b>		13	S1	10	20	26	30	20	10	30	—	—	—
S1K S1T2			10 12	4 x 1.8 —									
<b>SS2-14</b> ● <b>SS2-14 J10</b> ● <b>SS2-14 J12**</b>		14	S1	10	20	28	32	20	10	30	—	—	—
S1K S1K			10 12	4 x 1.8 4 x 1.8									
<b>SS2-15</b> ● <b>SS2-15 J12</b> ● <b>SS2-15 J14**</b>		15	S1	12	24	30	34	20	10	30	—	—	—
S1K S1K			12 14	4 x 1.8 5 x 2.3									
<b>SS2-16</b> ● <b>SS2-16 J12</b> ● <b>SS2-16 J14</b> ● <b>SS2-16 J15**</b>		16	S1	12	26	32	36	20	10	30	—	—	—
S1K			12	4 x 1.8									
S1K			14	5 x 2.3									
S1K			15	5 x 2.3									
<b>SS2-17</b> ● <b>SS2-17 J12</b> ● <b>SS2-17 J14</b> ● <b>SS2-17 J15</b> ● <b>SS2-17 J16</b>		17	S1	12	28	34	38	20	10	30	—	—	—
S1K			12	4 x 1.8									
S1K			14	5 x 2.3									
S1K			15	5 x 2.3									
S1K			16	5 x 2.3									
<b>SS2-18</b> ● <b>SS2-18 J12</b> ● <b>SS2-18 J14</b> ● <b>SS2-18 J15</b> ● <b>SS2-18 J16</b> ● <b>SS2-18 J18**</b>		18	S1	12	30	36	40	20	10	30	—	—	—
S1K			12	4 x 1.8									
S1K			14	5 x 2.3									
S1K			15	5 x 2.3									
S1K	16		5 x 2.3										
S1K	18		6 x 2.8										
<b>SS2-19</b> ● <b>SS2-19 J12</b> ● <b>SS2-19 J14</b> ● <b>SS2-19 J15</b> ● <b>SS2-19 J16</b> ● <b>SS2-19 J18</b>	19	S1	12	31	38	42	20	10	30	—	—	—	
S1K		12	4 x 1.8										
S1K		14	5 x 2.3										
S1K		15	5 x 2.3										
S1K		16	5 x 2.3										
S1K		18	6 x 2.8										
<b>SS2-20</b> ● <b>SS2-20 J12</b> ● <b>SS2-20 J14</b> ● <b>SS2-20 J15</b> ● <b>SS2-20 J16</b> ● <b>SS2-20 J18</b> ● <b>SS2-20 J19</b>	20	S1	12	32	40	44	20	10	30	—	—	—	
S1K		12	4 x 1.8										
S1K		14	5 x 2.3										
S1K		15	5 x 2.3										
S1K		16	5 x 2.3										
S1K		18	6 x 2.8										
S1K		19	6 x 2.8										
<b>SS2-21</b> ● <b>SS2-21 J12</b> ● <b>SS2-21 J14</b> ● <b>SS2-21 J15</b> ● <b>SS2-21 J16</b> ● <b>SS2-21 J18</b> ● <b>SS2-21 J19</b> ● <b>SS2-21 J20</b>	21	S1	12	34	42	46	20	10	30	—	—	—	
S1K		12	4 x 1.8										
S1K		14	5 x 2.3										
S1K		15	5 x 2.3										
S1K		16	5 x 2.3										
S1K		18	6 x 2.8										
S1K		19	6 x 2.8										
S1K		20	6 x 2.8										

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	16.3	0.88	1.66	0.090	0.12~0.26	0.073 0.071	<b>SS2-12</b> ● <b>SS2-12 J10</b>
M4	5	21.0	1.07	2.14	0.11	0.12~0.26	0.090	<b>SS2-13</b>
M4	5						0.087	● <b>SS2-13 J10**</b>
M4	5	26.3	1.26	2.69	0.13	0.12~0.26	0.10	<b>SS2-14</b>
M4	5						0.10	● <b>SS2-14 J10</b>
M4	5	29.6	1.48	3.01	0.15	0.12~0.26	0.093	● <b>SS2-14 J12**</b>
M4	5						0.12	<b>SS2-15</b>
M4	5	32.7	1.71	3.34	0.17	0.12~0.26	0.12	● <b>SS2-15 J12</b>
M4	5						0.12	● <b>SS2-15 J14**</b>
M4	5	36.0	1.96	3.67	0.20	0.12~0.26	0.14	<b>SS2-16</b>
M4	5						0.14	● <b>SS2-16 J12</b>
M4	5	39.3	2.23	4.01	0.23	0.12~0.26	0.13	● <b>SS2-16 J14</b>
M4	5						0.13	● <b>SS2-16 J15**</b>
M4	5	42.6	2.52	4.35	0.26	0.12~0.26	0.12	<b>SS2-17</b>
M4	5						0.16	● <b>SS2-17 J12</b>
M4	5	46.0	2.83	4.69	0.29	0.12~0.26	0.16	● <b>SS2-17 J14</b>
M4	5						0.15	● <b>SS2-17 J15</b>
M4	5	49.4	3.15	5.04	0.32	0.14~0.30	0.15	● <b>SS2-17 J16</b>
M4	5						0.14	● <b>SS2-17 J16</b>
M5	5	46.0	2.83	4.69	0.29	0.12~0.26	0.19	<b>SS2-18</b>
M5	5						0.19	● <b>SS2-18 J12</b>
M5	5	49.4	3.15	5.04	0.32	0.14~0.30	0.18	● <b>SS2-18 J14</b>
M5	5						0.17	● <b>SS2-18 J15</b>
M5	5	42.6	2.52	4.35	0.26	0.12~0.26	0.16	● <b>SS2-18 J16</b>
M5	5						0.16	● <b>SS2-18 J16</b>
M5	5	46.0	2.83	4.69	0.29	0.12~0.26	0.15	● <b>SS2-18 J18**</b>
M5	5						0.15	● <b>SS2-18 J18**</b>
M4	5	42.6	2.52	4.35	0.26	0.12~0.26	0.21	<b>SS2-19</b>
M4	5						0.21	● <b>SS2-19 J12</b>
M4	5	46.0	2.83	4.69	0.29	0.12~0.26	0.21	● <b>SS2-19 J14</b>
M4	5						0.20	● <b>SS2-19 J14</b>
M4	5	49.4	3.15	5.04	0.32	0.14~0.30	0.19	● <b>SS2-19 J15</b>
M4	5						0.19	● <b>SS2-19 J16</b>
M5	5	42.6	2.52	4.35	0.26	0.12~0.26	0.19	● <b>SS2-19 J16</b>
M5	5						0.19	● <b>SS2-19 J16</b>
M5	5	46.0	2.83	4.69	0.29	0.12~0.26	0.17	● <b>SS2-19 J18</b>
M5	5						0.17	● <b>SS2-19 J18</b>
M4	5	42.6	2.52	4.35	0.26	0.12~0.26	0.23	<b>SS2-20</b>
M4	5						0.23	● <b>SS2-20 J12</b>
M4	5	46.0	2.83	4.69	0.29	0.12~0.26	0.23	● <b>SS2-20 J14</b>
M4	5						0.22	● <b>SS2-20 J14</b>
M4	5	49.4	3.15	5.04	0.32	0.14~0.30	0.22	● <b>SS2-20 J15</b>
M4	5						0.22	● <b>SS2-20 J15</b>
M5	5	42.6	2.52	4.35	0.26	0.12~0.26	0.21	● <b>SS2-20 J16</b>
M5	5						0.21	● <b>SS2-20 J16</b>
M5	5	46.0	2.83	4.69	0.29	0.12~0.26	0.20	● <b>SS2-20 J18</b>
M5	5						0.20	● <b>SS2-20 J18</b>
M5	5	49.4	3.15	5.04	0.32	0.14~0.30	0.19	● <b>SS2-20 J19</b>
M5	5						0.19	● <b>SS2-20 J19</b>
M4	5	42.6	2.52	4.35	0.26	0.12~0.26	0.26	<b>SS2-21</b>
M4	5						0.26	● <b>SS2-21 J12</b>
M4	5	46.0	2.83	4.69	0.29	0.12~0.26	0.25	● <b>SS2-21 J14</b>
M4	5						0.25	● <b>SS2-21 J14</b>
M4	5	49.4	3.15	5.04	0.32	0.14~0.30	0.24	● <b>SS2-21 J15</b>
M4	5						0.24	● <b>SS2-21 J15</b>
M5	5	42.6	2.52	4.35	0.26	0.12~0.26	0.24	● <b>SS2-21 J16</b>
M5	5						0.24	● <b>SS2-21 J16</b>
M5	5	46.0	2.83	4.69	0.29	0.12~0.26	0.22	● <b>SS2-21 J18</b>
M5	5						0.22	● <b>SS2-21 J18</b>
M5	5	49.4	3.15	5.04	0.32	0.14~0.30	0.22	● <b>SS2-21 J19</b>
M5	5						0.22	● <b>SS2-21 J19</b>
M5	5	42.6	2.52	4.35	0.26	0.12~0.26	0.21	● <b>SS2-21 J20</b>
M5	5						0.21	● <b>SS2-21 J20</b>

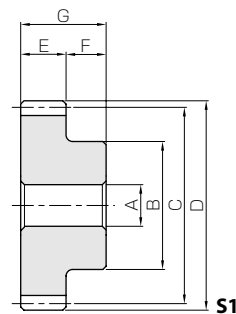
**[Caution on J series]**

- As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- Areas of products which have been re-worked will not be black oxide coated.
- For products having a tapped hole, a set screw is included.
- Products marked with "\*\*\*" have a small amount of material between the corner of the keyway and the tooth root. This mode of failure must be considered when selecting these gears. For details, please see our web site.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

Bevel Gearboxes

Other Products

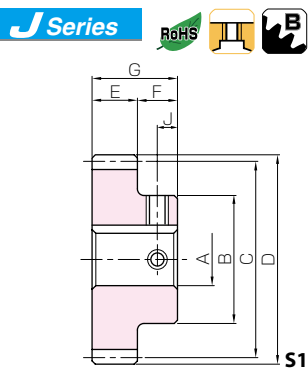
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS2-22 ● SS2-22 J12 ● SS2-22 J14 ● SS2-22 J15 ● SS2-22 J16 ● SS2-22 J18 ● SS2-22 J19 ● SS2-22 J20	m2	22	S1	12	36	44	48	20	10	30	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
S1K	20	6 x 2.8											
SS2-23 ● SS2-23 J12 ● SS2-23 J14 ● SS2-23 J15 ● SS2-23 J16 ● SS2-23 J18 ● SS2-23 J19 ● SS2-23 J20 ● SS2-23 J22	23	S1	12	37	46	50	20	10	30	—	—	—	
		S1K	12									4 x 1.8	
		S1K	14									5 x 2.3	
		S1K	15									5 x 2.3	
		S1K	16									5 x 2.3	
		S1K	18									6 x 2.8	
		S1K	19									6 x 2.8	
S1K	20	6 x 2.8											
S1K	22	6 x 2.8											
SS2-24 ● SS2-24 J12 ● SS2-24 J14 ● SS2-24 J15 ● SS2-24 J16 ● SS2-24 J18 ● SS2-24 J19 ● SS2-24 J20 ● SS2-24 J22	24	S1	12	38	48	52	20	10	30	—	—	—	
		S1K	12									4 x 1.8	
		S1K	14									5 x 2.3	
		S1K	15									5 x 2.3	
		S1K	16									5 x 2.3	
		S1K	18									6 x 2.8	
		S1K	19									6 x 2.8	
S1K	20	6 x 2.8											
S1K	22	6 x 2.8											
SS2-25 ● SS2-25 J12 ● SS2-25 J14 ● SS2-25 J15 ● SS2-25 J16 ● SS2-25 J18 ● SS2-25 J19 ● SS2-25 J20 ● SS2-25 J22	25	S1	12	40	50	54	20	10	30	—	—	—	
		S1K	12									4 x 1.8	
		S1K	14									5 x 2.3	
		S1K	15									5 x 2.3	
		S1K	16									5 x 2.3	
		S1K	18									6 x 2.8	
		S1K	19									6 x 2.8	
S1K	20	6 x 2.8											
S1K	22	6 x 2.8											
SS2-26 ● SS2-26 J12 ● SS2-26 J14 ● SS2-26 J15 ● SS2-26 J16 ● SS2-26 J18 ● SS2-26 J19 ● SS2-26 J20 ● SS2-26 J22 ● SS2-26 J25	26	S1	12	42	52	56	20	10	30	—	—	—	
		S1K	12									4 x 1.8	
		S1K	14									5 x 2.3	
		S1K	15									5 x 2.3	
		S1K	16									5 x 2.3	
		S1K	18									6 x 2.8	
		S1K	19									6 x 2.8	
S1K	20	6 x 2.8											
S1K	22	6 x 2.8											
S1K	25	8 x 3.3											
SS2-27 ● SS2-27 J12 ● SS2-27 J14 ● SS2-27 J15 ● SS2-27 J16 ● SS2-27 J18 ● SS2-27 J19 ● SS2-27 J20 ● SS2-27 J22 ● SS2-27 J25	27	S1	12	45	54	58	20	10	30	—	—	—	
		S1K	12									4 x 1.8	
		S1K	14									5 x 2.3	
		S1K	15									5 x 2.3	
		S1K	16									5 x 2.3	
		S1K	18									6 x 2.8	
		S1K	19									6 x 2.8	
S1K	20	6 x 2.8											
S1K	22	6 x 2.8											
S1K	25	8 x 3.3											

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—						0.29	<b>SS2-22</b>
M4	5						0.29	● <b>SS2-22 J12</b>
M4	5						0.28	● <b>SS2-22 J14</b>
M4	5	52.8	3.50	5.39	0.36	0.14~0.30	0.27	● <b>SS2-22 J15</b>
M4	5						0.27	● <b>SS2-22 J16</b>
M5	5						0.25	● <b>SS2-22 J18</b>
M5	5						0.25	● <b>SS2-22 J19</b>
M5	5						0.24	● <b>SS2-22 J20</b>
M5	5						0.24	● <b>SS2-22 J20</b>
—	—						0.32	<b>SS2-23</b>
M4	5						0.32	● <b>SS2-23 J12</b>
M4	5	56.3	3.86	5.74	0.39	0.14~0.30	0.31	● <b>SS2-23 J14</b>
M4	5						0.30	● <b>SS2-23 J15</b>
M4	5						0.29	● <b>SS2-23 J16</b>
M5	5						0.28	● <b>SS2-23 J18</b>
M5	5						0.27	● <b>SS2-23 J19</b>
M5	5						0.27	● <b>SS2-23 J20</b>
M5	5						0.25	● <b>SS2-23 J22</b>
M5	5						0.25	● <b>SS2-23 J22</b>
—	—						0.35	<b>SS2-24</b>
M4	5						0.34	● <b>SS2-24 J12</b>
M4	5	59.8	4.24	6.09	0.43	0.14~0.30	0.33	● <b>SS2-24 J14</b>
M4	5						0.33	● <b>SS2-24 J15</b>
M4	5						0.32	● <b>SS2-24 J16</b>
M5	5						0.31	● <b>SS2-24 J18</b>
M5	5						0.30	● <b>SS2-24 J19</b>
M5	5						0.29	● <b>SS2-24 J20</b>
M5	5						0.28	● <b>SS2-24 J22</b>
M5	5						0.28	● <b>SS2-24 J22</b>
—	—						0.38	<b>SS2-25</b>
M4	5						0.38	● <b>SS2-25 J12</b>
M4	5	63.3	4.64	6.45	0.47	0.14~0.30	0.37	● <b>SS2-25 J14</b>
M4	5						0.36	● <b>SS2-25 J15</b>
M4	5						0.36	● <b>SS2-25 J16</b>
M5	5						0.34	● <b>SS2-25 J18</b>
M5	5						0.34	● <b>SS2-25 J18</b>
M5	5						0.33	● <b>SS2-25 J19</b>
M5	5						0.33	● <b>SS2-25 J20</b>
M5	5						0.31	● <b>SS2-25 J22</b>
—	—						0.42	<b>SS2-26</b>
M4*	5						0.41	● <b>SS2-26 J12</b>
M4	5	66.8	5.04	6.81	0.51	0.14~0.30	0.40	● <b>SS2-26 J14</b>
M4	5						0.40	● <b>SS2-26 J15</b>
M4	5						0.39	● <b>SS2-26 J16</b>
M5	5						0.38	● <b>SS2-26 J18</b>
M5	5						0.37	● <b>SS2-26 J19</b>
M5	5						0.36	● <b>SS2-26 J20</b>
M5	5						0.35	● <b>SS2-26 J22</b>
M5	5						0.32	● <b>SS2-26 J25</b>
—	—						0.46	<b>SS2-27</b>
M4*	5						0.45	● <b>SS2-27 J12</b>
M4*	5	70.4	5.45	7.17	0.56	0.14~0.30	0.44	● <b>SS2-27 J14</b>
M4*	5						0.44	● <b>SS2-27 J15</b>
M4*	5						0.43	● <b>SS2-27 J16</b>
M5	5						0.42	● <b>SS2-27 J18</b>
M5	5						0.41	● <b>SS2-27 J19</b>
M5	5						0.40	● <b>SS2-27 J20</b>
M5	5						0.39	● <b>SS2-27 J22</b>
M6	5						0.36	● <b>SS2-27 J25</b>

**[Caution on J series]**

① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order.

Please allow additional shipping time to get to your local distributor.

② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.

③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.

④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).

⑤ Areas of products which have been re-worked will not be black oxide coated.

⑥ For products having a tapped hole, a set screw is included.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

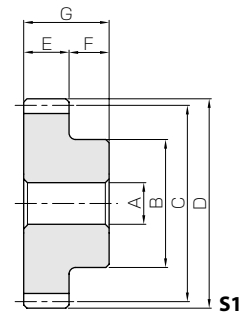
Bevel Gearboxes

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

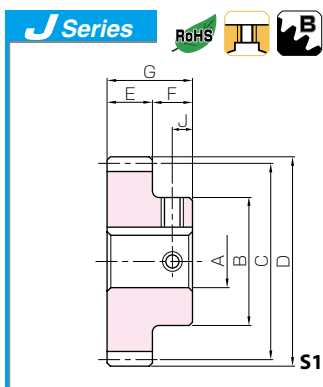
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS2-28</b> ● <b>SS2-28 J12</b> ● <b>SS2-28 J14</b> ● <b>SS2-28 J15</b> ● <b>SS2-28 J16</b> ● <b>SS2-28 J18</b> ● <b>SS2-28 J19</b> ● <b>SS2-28 J20</b> ● <b>SS2-28 J22</b> ● <b>SS2-28 J25</b>	<i>m2</i>	28	S1	12	45	56	60	20	10	30	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
S1K	25	8 x 3.3											
<b>SS2-29</b> ● <b>SS2-29 J12</b> ● <b>SS2-29 J14</b> ● <b>SS2-29 J15</b> ● <b>SS2-29 J16</b> ● <b>SS2-29 J18</b> ● <b>SS2-29 J19</b> ● <b>SS2-29 J20</b> ● <b>SS2-29 J22</b> ● <b>SS2-29 J25</b> ● <b>SS2-29 J28</b>	<i>m2</i>	29	S1	12	47	58	62	20	10	30	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
S1K	25	8 x 3.3											
S1K	28	8 x 3.3											
<b>SS2-30</b> ● <b>SS2-30 J12</b> ● <b>SS2-30 J14</b> ● <b>SS2-30 J15</b> ● <b>SS2-30 J16</b> ● <b>SS2-30 J18</b> ● <b>SS2-30 J19</b> ● <b>SS2-30 J20</b> ● <b>SS2-30 J22</b> ● <b>SS2-30 J25</b> ● <b>SS2-30 J28</b> ● <b>SS2-30 J30</b>	<i>m2</i>	30	S1	12	50	60	64	20	10	30	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
S1K	25	8 x 3.3											
S1K	28	8 x 3.3											
S1K	30	8 x 3.3											
<b>SS2-32</b> ● <b>SS2-32 J12</b> ● <b>SS2-32 J14</b> ● <b>SS2-32 J15</b> ● <b>SS2-32 J16</b> ● <b>SS2-32 J18</b> ● <b>SS2-32 J19</b> ● <b>SS2-32 J20</b> ● <b>SS2-32 J22</b> ● <b>SS2-32 J25</b> ● <b>SS2-32 J28</b> ● <b>SS2-32 J30</b>	<i>m2</i>	32	S1	12	50	64	68	20	10	30	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
S1K	25	8 x 3.3											
S1K	28	8 x 3.3											
S1K	30	8 x 3.3											

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



### Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—						0.48	<b>SS2-28</b>
M4*	5						0.48	● <b>SS2-28 J12</b>
M4*	5						0.47	● <b>SS2-28 J14</b>
M4*	5						0.46	● <b>SS2-28 J15</b>
M4*	5						0.46	● <b>SS2-28 J16</b>
M5	5	73.9	5.89	7.54	0.60	0.14~0.30	0.44	● <b>SS2-28 J18</b>
M5	5						0.44	● <b>SS2-28 J19</b>
M5	5						0.43	● <b>SS2-28 J20</b>
M5	5						0.42	● <b>SS2-28 J22</b>
M6	5						0.39	● <b>SS2-28 J25</b>
—	—						0.52	<b>SS2-29</b>
M4*	5						0.52	● <b>SS2-29 J12</b>
M4*	5						0.51	● <b>SS2-29 J14</b>
M4*	5						0.50	● <b>SS2-29 J15</b>
M4*	5						0.50	● <b>SS2-29 J16</b>
M5	5	77.5	6.33	7.91	0.65	0.14~0.30	0.48	● <b>SS2-29 J18</b>
M5	5						0.48	● <b>SS2-29 J19</b>
M5	5						0.47	● <b>SS2-29 J20</b>
M5	5						0.46	● <b>SS2-29 J22</b>
M6	5						0.43	● <b>SS2-29 J25</b>
M6	5						0.40	● <b>SS2-29 J28</b>
—	—						0.57	<b>SS2-30</b>
M4*	5						0.56	● <b>SS2-30 J12</b>
M4*	5						0.55	● <b>SS2-30 J14</b>
M4*	5						0.55	● <b>SS2-30 J15</b>
M4*	5						0.54	● <b>SS2-30 J16</b>
M5	5	81.1	6.80	8.27	0.69	0.14~0.30	0.53	● <b>SS2-30 J18</b>
M5	5						0.52	● <b>SS2-30 J19</b>
M5	5						0.52	● <b>SS2-30 J20</b>
M5	5						0.50	● <b>SS2-30 J22</b>
M6	5						0.47	● <b>SS2-30 J25</b>
M6	5						0.44	● <b>SS2-30 J28</b>
M6	5						0.42	● <b>SS2-30 J30</b>
—	—						0.63	<b>SS2-32</b>
M4*	5						0.62	● <b>SS2-32 J12</b>
M4*	5						0.61	● <b>SS2-32 J14</b>
M4*	5						0.61	● <b>SS2-32 J15</b>
M4*	5						0.60	● <b>SS2-32 J16</b>
M5	5	88.4	7.78	9.01	0.79	0.14~0.30	0.59	● <b>SS2-32 J18</b>
M5	5						0.59	● <b>SS2-32 J19</b>
M5	5						0.58	● <b>SS2-32 J20</b>
M5	5						0.56	● <b>SS2-32 J22</b>
M6	5						0.53	● <b>SS2-32 J25</b>
M6	5						0.51	● <b>SS2-32 J28</b>
M6	5						0.48	● <b>SS2-32 J30</b>

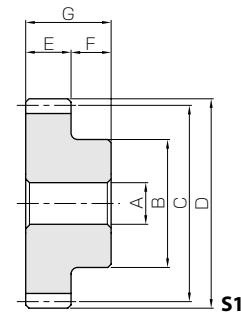
**[Caution on J series]**

- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

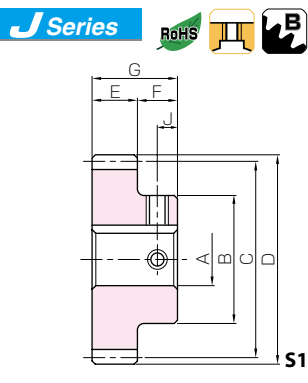
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS2-34</b> ● <b>SS2-34 J12</b> ● <b>SS2-34 J14</b> ● <b>SS2-34 J15</b> ● <b>SS2-34 J16</b> ● <b>SS2-34 J18</b> ● <b>SS2-34 J19</b> ● <b>SS2-34 J20</b> ● <b>SS2-34 J22</b> ● <b>SS2-34 J25</b> ● <b>SS2-34 J28</b> ● <b>SS2-34 J30</b>	m2	34	S1	12	50	68	72	20	10	30	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
<b>SS2-35</b> ● <b>SS2-35 J12</b> ● <b>SS2-35 J14</b> ● <b>SS2-35 J15</b> ● <b>SS2-35 J16</b> ● <b>SS2-35 J18</b> ● <b>SS2-35 J19</b> ● <b>SS2-35 J20</b> ● <b>SS2-35 J22</b> ● <b>SS2-35 J25</b> ● <b>SS2-35 J28</b> ● <b>SS2-35 J30</b>	m2	35	S1	12	52	70	74	20	10	30	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
<b>SS2-36</b> ● <b>SS2-36 J12</b> ● <b>SS2-36 J14</b> ● <b>SS2-36 J15</b> ● <b>SS2-36 J16</b> ● <b>SS2-36 J18</b> ● <b>SS2-36 J19</b> ● <b>SS2-36 J20</b> ● <b>SS2-36 J22</b> ● <b>SS2-36 J25</b> ● <b>SS2-36 J28</b> ● <b>SS2-36 J30</b> ● <b>SS2-36 J32</b>	m2	36	S1	12	55	72	76	20	10	30	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
<b>SS2-38</b> ● <b>SS2-38 J12</b> ● <b>SS2-38 J14</b> ● <b>SS2-38 J15</b> ● <b>SS2-38 J16</b> ● <b>SS2-38 J18</b> ● <b>SS2-38 J19</b> ● <b>SS2-38 J20</b> ● <b>SS2-38 J22</b> ● <b>SS2-38 J25</b> ● <b>SS2-38 J28</b> ● <b>SS2-38 J30</b> ● <b>SS2-38 J32</b>	m2	38	S1	12	55	76	80	20	10	30	—	—	—
			S1K	12									4 x 1.8
			S1K	14									5 x 2.3
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)					
Size	J	Bending strength	Surface durability	Bending strength	Surface durability								
—	—						0.70	<b>SS2-34</b>					
M4*	5						0.69	● <b>SS2-34 J12</b>					
M4*	5						0.68	● <b>SS2-34 J14</b>					
M4*	5						0.67	● <b>SS2-34 J15</b>					
M4*	5						0.67	● <b>SS2-34 J16</b>					
M5	5	95.7	8.84	9.76	0.90	0.14~0.30	0.66	● <b>SS2-34 J18</b>					
M5	5						0.65	● <b>SS2-34 J19</b>					
M5	5						0.64	● <b>SS2-34 J20</b>					
M5	5						0.63	● <b>SS2-34 J22</b>					
M6	5						0.60	● <b>SS2-34 J25</b>					
M6	5						0.57	● <b>SS2-34 J28</b>					
M6	5						0.55	● <b>SS2-34 J30</b>					
—	—											0.74	<b>SS2-35</b>
M4*	5											0.74	● <b>SS2-35 J12</b>
M4*	5											0.73	● <b>SS2-35 J14</b>
M4*	5						0.72	● <b>SS2-35 J15</b>					
M4*	5						0.72	● <b>SS2-35 J16</b>					
M5	5	99.3	9.39	10.1	0.96	0.14~0.30	0.70	● <b>SS2-35 J18</b>					
M5	5						0.70	● <b>SS2-35 J19</b>					
M5	5						0.69	● <b>SS2-35 J20</b>					
M5	5						0.67	● <b>SS2-35 J22</b>					
M6	5						0.65	● <b>SS2-35 J25</b>					
M6	5						0.62	● <b>SS2-35 J28</b>					
M6	5						0.60	● <b>SS2-35 J30</b>					
—	—											0.80	<b>SS2-36</b>
M4*	5											0.79	● <b>SS2-36 J12</b>
M4*	5											0.78	● <b>SS2-36 J14</b>
M4*	5						0.77	● <b>SS2-36 J15</b>					
M4*	5						0.77	● <b>SS2-36 J16</b>					
M5*	5	103	9.96	10.5	1.02	0.14~0.30	0.76	● <b>SS2-36 J18</b>					
M5*	5						0.75	● <b>SS2-36 J19</b>					
M5*	5						0.74	● <b>SS2-36 J20</b>					
M5	5						0.73	● <b>SS2-36 J22</b>					
M6	5						0.70	● <b>SS2-36 J25</b>					
M6	5						0.67	● <b>SS2-36 J28</b>					
M6	5						0.65	● <b>SS2-36 J30</b>					
M8	5						0.62	● <b>SS2-36 J32</b>					
—	—											0.87	<b>SS2-38</b>
M4*	5											0.86	● <b>SS2-38 J12</b>
M4*	5						0.85	● <b>SS2-38 J14</b>					
M4*	5						0.85	● <b>SS2-38 J15</b>					
M4*	5						0.84	● <b>SS2-38 J16</b>					
M5*	5	111	11.2	11.3	1.14	0.14~0.30	0.83	● <b>SS2-38 J18</b>					
M5*	5						0.82	● <b>SS2-38 J19</b>					
M5*	5						0.82	● <b>SS2-38 J20</b>					
M5	5						0.80	● <b>SS2-38 J22</b>					
M6	5						0.77	● <b>SS2-38 J25</b>					
M6	5						0.74	● <b>SS2-38 J28</b>					
M6	5						0.72	● <b>SS2-38 J30</b>					
M8	5						0.70	● <b>SS2-38 J32</b>					

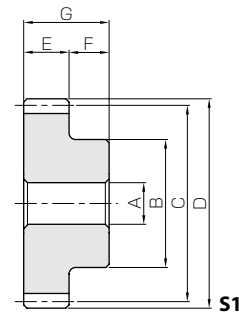
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Please allow additional shipping time to get to your local distributor.
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- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.

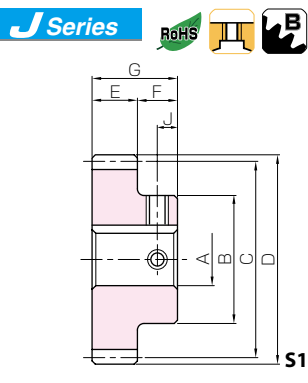


- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS2-40</b> ● <b>SS2-40 J15</b> ● <b>SS2-40 J16</b> ● <b>SS2-40 J18</b> ● <b>SS2-40 J19</b> ● <b>SS2-40 J20</b> ● <b>SS2-40 J22</b> ● <b>SS2-40 J25</b> ● <b>SS2-40 J28</b> ● <b>SS2-40 J30</b> ● <b>SS2-40 J32</b>	<b>m2</b>	40	S1	15	55	80	84	20	10	30	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
			S1K	25									8 × 3.3
			S1K	28									8 × 3.3
			S1K	30									8 × 3.3
			S1K	32									10 × 3.3
			<b>SS2-42</b> ● <b>SS2-42 J15</b> ● <b>SS2-42 J16</b> ● <b>SS2-42 J18</b> ● <b>SS2-42 J19</b> ● <b>SS2-42 J20</b> ● <b>SS2-42 J22</b> ● <b>SS2-42 J25</b> ● <b>SS2-42 J28</b> ● <b>SS2-42 J30</b> ● <b>SS2-42 J32</b>	42									S1
S1K	15	5 × 2.3											
S1K	16	5 × 2.3											
S1K	18	6 × 2.8											
S1K	19	6 × 2.8											
S1K	20	6 × 2.8											
S1K	22	6 × 2.8											
S1K	25	8 × 3.3											
S1K	28	8 × 3.3											
S1K	30	8 × 3.3											
S1K	32	10 × 3.3											
<b>SS2-44</b> ● <b>SS2-44 J15</b> ● <b>SS2-44 J16</b> ● <b>SS2-44 J18</b> ● <b>SS2-44 J19</b> ● <b>SS2-44 J20</b> ● <b>SS2-44 J22</b> ● <b>SS2-44 J25</b> ● <b>SS2-44 J28</b> ● <b>SS2-44 J30</b> ● <b>SS2-44 J32</b>	44	S1			15	55	88	92	20	10	30	—	—
		S1K	15	5 × 2.3									
		S1K	16	5 × 2.3									
		S1K	18	6 × 2.8									
		S1K	19	6 × 2.8									
		S1K	20	6 × 2.8									
		S1K	22	6 × 2.8									
		S1K	25	8 × 3.3									
		S1K	28	8 × 3.3									
		S1K	30	8 × 3.3									
		S1K	32	10 × 3.3									
		<b>SS2-45</b> ● <b>SS2-45 J15</b> ● <b>SS2-45 J16</b> ● <b>SS2-45 J18</b> ● <b>SS2-45 J19</b> ● <b>SS2-45 J20</b> ● <b>SS2-45 J22</b> ● <b>SS2-45 J25</b> ● <b>SS2-45 J28</b> ● <b>SS2-45 J30</b> ● <b>SS2-45 J32</b>	45	S1	15								
S1K	15			5 × 2.3									
S1K	16			5 × 2.3									
S1K	18			6 × 2.8									
S1K	19			6 × 2.8									
S1K	20			6 × 2.8									
S1K	22			6 × 2.8									
S1K	25			8 × 3.3									
S1K	28			8 × 3.3									
S1K	30			8 × 3.3									
S1K	32			10 × 3.3									
<b>SS2-46</b> ● <b>SS2-46 J15</b> ● <b>SS2-46 J16</b> ● <b>SS2-46 J18</b> ● <b>SS2-46 J19</b> ● <b>SS2-46 J20</b> ● <b>SS2-46 J22</b> ● <b>SS2-46 J25</b> ● <b>SS2-46 J28</b> ● <b>SS2-46 J30</b> ● <b>SS2-46 J32</b>	46			S1	15	55	92	96	20	10	30	—	—
		S1K	15	5 × 2.3									
		S1K	16	5 × 2.3									
		S1K	18	6 × 2.8									
		S1K	19	6 × 2.8									
		S1K	20	6 × 2.8									
		S1K	22	6 × 2.8									
		S1K	25	8 × 3.3									
		S1K	28	8 × 3.3									
		S1K	30	8 × 3.3									
		S1K	32	10 × 3.3									

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
 ② 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.

[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.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—						0.93	<b>SS2-40</b>
M4*	5						0.92	● <b>SS2-40 J15</b>
M4*	5						0.92	● <b>SS2-40 J16</b>
M5*	5						0.91	● <b>SS2-40 J18</b>
M5*	5						0.90	● <b>SS2-40 J19</b>
M5*	5	118	12.5	12.0	1.27	0.14~0.30	0.89	● <b>SS2-40 J20</b>
M5	5						0.88	● <b>SS2-40 J22</b>
M6	5						0.85	● <b>SS2-40 J25</b>
M6	5						0.82	● <b>SS2-40 J28</b>
M6	5						0.80	● <b>SS2-40 J30</b>
M8	5						0.77	● <b>SS2-40 J32</b>
—	—						1.01	<b>SS2-42</b>
M4*	5						1.01	● <b>SS2-42 J15</b>
M4*	5						1.00	● <b>SS2-42 J16</b>
M5*	5						0.99	● <b>SS2-42 J18</b>
M5*	5						0.98	● <b>SS2-42 J19</b>
M5*	5	125	13.8	12.8	1.41	0.18~0.36	0.97	● <b>SS2-42 J20</b>
M5	5						0.96	● <b>SS2-42 J22</b>
M6	5						0.93	● <b>SS2-42 J25</b>
M6	5						0.90	● <b>SS2-42 J28</b>
M6	5						0.88	● <b>SS2-42 J30</b>
M8	5						0.85	● <b>SS2-42 J32</b>
—	—						1.10	<b>SS2-44</b>
M4*	5						1.09	● <b>SS2-44 J15</b>
M4*	5						1.08	● <b>SS2-44 J16</b>
M5*	5						1.07	● <b>SS2-44 J18</b>
M5*	5						1.07	● <b>SS2-44 J19</b>
M5*	5	133	15.2	13.6	1.55	0.18~0.36	1.06	● <b>SS2-44 J20</b>
M5	5						1.04	● <b>SS2-44 J22</b>
M6	5						1.02	● <b>SS2-44 J25</b>
M6	5						0.99	● <b>SS2-44 J28</b>
M6	5						0.97	● <b>SS2-44 J30</b>
M8	5						0.94	● <b>SS2-44 J32</b>
—	—						1.14	<b>SS2-45</b>
M4*	5						1.13	● <b>SS2-45 J15</b>
M4*	5						1.13	● <b>SS2-45 J16</b>
M5*	5						1.12	● <b>SS2-45 J18</b>
M5*	5						1.11	● <b>SS2-45 J19</b>
M5*	5	137	16.0	13.9	1.63	0.18~0.36	1.10	● <b>SS2-45 J20</b>
M5	5						1.09	● <b>SS2-45 J22</b>
M6	5						1.06	● <b>SS2-45 J25</b>
M6	5						1.03	● <b>SS2-45 J28</b>
M6	5						1.01	● <b>SS2-45 J30</b>
M8	5						0.98	● <b>SS2-45 J32</b>
—	—						1.19	<b>SS2-46</b>
M4*	5						1.18	● <b>SS2-46 J15</b>
M4*	5						1.17	● <b>SS2-46 J16</b>
M5*	5						1.16	● <b>SS2-46 J18</b>
M5*	5						1.15	● <b>SS2-46 J19</b>
M5*	5	140	16.7	14.3	1.71	0.18~0.36	1.15	● <b>SS2-46 J20</b>
M5	5						1.13	● <b>SS2-46 J22</b>
M6	5						1.10	● <b>SS2-46 J25</b>
M6	5						1.08	● <b>SS2-46 J28</b>
M6	5						1.05	● <b>SS2-46 J30</b>
M8	5						1.03	● <b>SS2-46 J32</b>

**[Caution on J series]**

① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order.

Please allow additional shipping time to get to your local distributor.

② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.

③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.

④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).

⑤ Areas of products which have been re-worked will not be black oxide coated.

⑥ For products having a tapped hole, a set screw is included.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

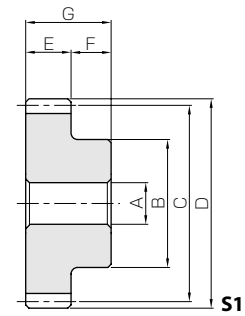
Bevel Gearboxes

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.

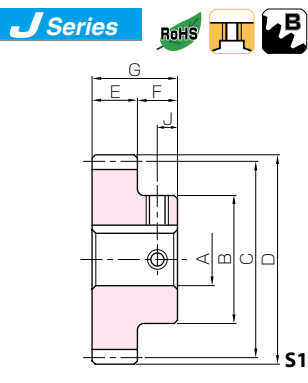


- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS2-48 ● SS2-48 J15 ● SS2-48 J16 ● SS2-48 J18 ● SS2-48 J19 ● SS2-48 J20 ● SS2-48 J22 ● SS2-48 J25 ● SS2-48 J28 ● SS2-48 J30 ● SS2-48 J32	m2	48	S1	15	55	96	100	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
SS2-50 ● SS2-50 J15 ● SS2-50 J16 ● SS2-50 J18 ● SS2-50 J19 ● SS2-50 J20 ● SS2-50 J22 ● SS2-50 J25 ● SS2-50 J28 ● SS2-50 J30 ● SS2-50 J32	m2	50	S1	15	55	100	104	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
SS2-52 ● SS2-52 J15 ● SS2-52 J16 ● SS2-52 J18 ● SS2-52 J19 ● SS2-52 J20 ● SS2-52 J22 ● SS2-52 J25 ● SS2-52 J28 ● SS2-52 J30 ● SS2-52 J32	m2	52	S1	15	55	104	108	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
SS2-54 ● SS2-54 J15 ● SS2-54 J16 ● SS2-54 J18 ● SS2-54 J19 ● SS2-54 J20 ● SS2-54 J22 ● SS2-54 J25 ● SS2-54 J28 ● SS2-54 J30 ● SS2-54 J32	m2	54	S1	15	55	108	112	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
SS2-55 ● SS2-55 J15 ● SS2-55 J16 ● SS2-55 J18 ● SS2-55 J19 ● SS2-55 J20 ● SS2-55 J22 ● SS2-55 J25 ● SS2-55 J28 ● SS2-55 J30 ● SS2-55 J32	m2	55	S1	15	55	110	114	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
 ② 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.

[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.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	148	18.3	15.1	1.87	0.18~0.36	1.28	<b>SS2-48</b>
M4*	5						1.27	● <b>SS2-48 J15</b>
M4*	5						1.27	● <b>SS2-48 J16</b>
M5*	5						1.25	● <b>SS2-48 J18</b>
M5*	5						1.25	● <b>SS2-48 J19</b>
M5*	5						1.24	● <b>SS2-48 J20</b>
M5	5						1.23	● <b>SS2-48 J22</b>
M6	5						1.20	● <b>SS2-48 J25</b>
M6	5						1.17	● <b>SS2-48 J28</b>
M6	5						1.15	● <b>SS2-48 J30</b>
M8	5	1.12	● <b>SS2-48 J32</b>					
—	—	156	19.9	15.9	2.03	0.18~0.36	1.38	<b>SS2-50</b>
M4*	5						1.37	● <b>SS2-50 J15</b>
M4*	5						1.36	● <b>SS2-50 J16</b>
M5*	5						1.35	● <b>SS2-50 J18</b>
M5*	5						1.34	● <b>SS2-50 J19</b>
M5*	5						1.34	● <b>SS2-50 J20</b>
M5	5						1.32	● <b>SS2-50 J22</b>
M6	5						1.29	● <b>SS2-50 J25</b>
M6	5						1.26	● <b>SS2-50 J28</b>
M6	5						1.24	● <b>SS2-50 J30</b>
M8	5	1.22	● <b>SS2-50 J32</b>					
—	—	163	21.7	16.6	2.21	0.18~0.36	1.48	<b>SS2-52</b>
M4*	5						1.47	● <b>SS2-52 J15</b>
M4*	5						1.46	● <b>SS2-52 J16</b>
M5*	5						1.45	● <b>SS2-52 J18</b>
M5*	5						1.44	● <b>SS2-52 J19</b>
M5*	5						1.44	● <b>SS2-52 J20</b>
M5	5						1.42	● <b>SS2-52 J22</b>
M6	5						1.39	● <b>SS2-52 J25</b>
M6	5						1.37	● <b>SS2-52 J28</b>
M6	5						1.34	● <b>SS2-52 J30</b>
M8	5	1.32	● <b>SS2-52 J32</b>					
—	—	171	23.4	17.4	2.39	0.18~0.36	1.58	<b>SS2-54</b>
M4*	5						1.57	● <b>SS2-54 J15</b>
M4*	5						1.57	● <b>SS2-54 J16</b>
M5*	5						1.56	● <b>SS2-54 J18</b>
M5*	5						1.55	● <b>SS2-54 J19</b>
M5*	5						1.54	● <b>SS2-54 J20</b>
M5	5						1.53	● <b>SS2-54 J22</b>
M6	5						1.50	● <b>SS2-54 J25</b>
M6	5						1.47	● <b>SS2-54 J28</b>
M6	5						1.45	● <b>SS2-54 J30</b>
M8	5	1.42	● <b>SS2-54 J32</b>					
—	—	175	24.4	17.8	2.48	0.18~0.36	1.64	<b>SS2-55</b>
M4*	5						1.63	● <b>SS2-55 J15</b>
M4*	5						1.62	● <b>SS2-55 J16</b>
M5*	5						1.61	● <b>SS2-55 J18</b>
M5*	5						1.60	● <b>SS2-55 J19</b>
M5*	5						1.60	● <b>SS2-55 J20</b>
M5	5						1.58	● <b>SS2-55 J22</b>
M6	5						1.55	● <b>SS2-55 J25</b>
M6	5						1.52	● <b>SS2-55 J28</b>
M6	5						1.50	● <b>SS2-55 J30</b>
M8	5	1.48	● <b>SS2-55 J32</b>					

**[Caution on J series]**

① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order.

Please allow additional shipping time to get to your local distributor.

② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.

③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.

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⑥ For products having a tapped hole, a set screw is included.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

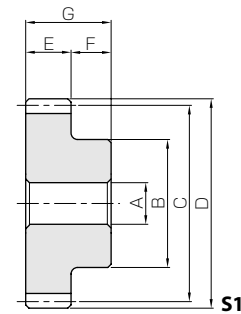
Bevel Gearboxes

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



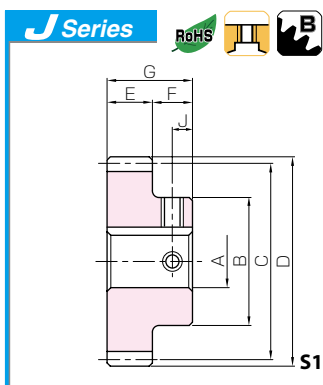
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS2-56</b>	<b>m2</b>	56	S1	15	55	112	116	20	10	30	—	—	—
●SS2-56 J15			S1K	15									5 x 2.3
●SS2-56 J16			S1K	16									5 x 2.3
●SS2-56 J18			S1K	18									6 x 2.8
●SS2-56 J19			S1K	19									6 x 2.8
●SS2-56 J20			S1K	20									6 x 2.8
●SS2-56 J22			S1K	22									6 x 2.8
●SS2-56 J25			S1K	25									8 x 3.3
●SS2-56 J28			S1K	28									8 x 3.3
●SS2-56 J30			S1K	30									8 x 3.3
●SS2-56 J32		S1K	32	8 x 3.3									
●SS2-56 J32		S1K	32	10 x 3.3									
<b>SS2-58</b>		58	S1	15	60	116	120	20	10	30	—	—	—
●SS2-58 J15			S1K	15									5 x 2.3
●SS2-58 J16			S1K	16									5 x 2.3
●SS2-58 J18			S1K	18									6 x 2.8
●SS2-58 J19			S1K	19									6 x 2.8
●SS2-58 J20			S1K	20									6 x 2.8
●SS2-58 J22			S1K	22									6 x 2.8
●SS2-58 J25			S1K	25									8 x 3.3
●SS2-58 J28			S1K	28									8 x 3.3
●SS2-58 J30			S1K	30									8 x 3.3
●SS2-58 J32		S1K	32	8 x 3.3									
●SS2-58 J35		S1K	35	10 x 3.3									
<b>SS2-60</b>		60	S1	15	60	120	124	20	10	30	—	—	—
●SS2-60 J15			S1K	15									5 x 2.3
●SS2-60 J16			S1K	16									5 x 2.3
●SS2-60 J18			S1K	18									6 x 2.8
●SS2-60 J19			S1K	19									6 x 2.8
●SS2-60 J20			S1K	20									6 x 2.8
●SS2-60 J22			S1K	22									6 x 2.8
●SS2-60 J25			S1K	25									8 x 3.3
●SS2-60 J28			S1K	28									8 x 3.3
●SS2-60 J30			S1K	30									8 x 3.3
●SS2-60 J32		S1K	32	10 x 3.3									
●SS2-60 J35	S1K	35	10 x 3.3										
<b>SS2-62</b>	62	S1	15	60	124	128	20	10	30	—	—	—	
●SS2-62 J15		S1K	15									5 x 2.3	
●SS2-62 J16		S1K	16									5 x 2.3	
●SS2-62 J18		S1K	18									6 x 2.8	
●SS2-62 J19		S1K	19									6 x 2.8	
●SS2-62 J20		S1K	20									6 x 2.8	
●SS2-62 J22		S1K	22									6 x 2.8	
●SS2-62 J25		S1K	25									8 x 3.3	
●SS2-62 J28		S1K	28									8 x 3.3	
●SS2-62 J30		S1K	30									8 x 3.3	
●SS2-62 J32	S1K	32	10 x 3.3										
●SS2-62 J35	S1K	35	10 x 3.3										

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



### Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	179	25.3	18.2	2.58	0.18~0.36	1.69	<b>SS2-56</b>
M4*	5						1.68	●SS2-56 J15
M4*	5						1.68	●SS2-56 J16
M5*	5						1.66	●SS2-56 J18
M5*	5						1.66	●SS2-56 J19
M5*	5						1.65	●SS2-56 J20
M5	5						1.64	●SS2-56 J22
M6	5						1.61	●SS2-56 J25
M6	5						1.58	●SS2-56 J28
M6	5						1.56	●SS2-56 J30
M8	5	1.53	●SS2-56 J32					
—	—	186	27.3	19.0	2.78	0.18~0.36	1.84	<b>SS2-58</b>
M4*	5						1.83	●SS2-58 J15
M4*	5						1.82	●SS2-58 J16
M5*	5						1.81	●SS2-58 J18
M5*	5						1.80	●SS2-58 J19
M5*	5						1.80	●SS2-58 J20
M5*	5						1.78	●SS2-58 J22
M6	5						1.75	●SS2-58 J25
M6	5						1.73	●SS2-58 J28
M6	5						1.70	●SS2-58 J30
M8	5	1.68	●SS2-58 J32					
M8	5	1.64	●SS2-58 J35					
—	—	194	29.3	19.8	2.99	0.18~0.36	1.96	<b>SS2-60</b>
M4*	5						1.94	●SS2-60 J15
M4*	5						1.94	●SS2-60 J16
M5*	5						1.93	●SS2-60 J18
M5*	5						1.92	●SS2-60 J19
M5*	5						1.91	●SS2-60 J20
M5*	5						1.90	●SS2-60 J22
M6	5						1.87	●SS2-60 J25
M6	5						1.84	●SS2-60 J28
M6	5						1.82	●SS2-60 J30
M8	5	1.79	●SS2-60 J32					
M8	5	1.76	●SS2-60 J35					
—	—	202	31.5	20.6	3.21	0.18~0.36	2.08	<b>SS2-62</b>
M4*	5						2.06	●SS2-62 J15
M4*	5						2.06	●SS2-62 J16
M5*	5						2.05	●SS2-62 J18
M5*	5						2.04	●SS2-62 J19
M5*	5						2.03	●SS2-62 J20
M5*	5						2.02	●SS2-62 J22
M6	5						1.99	●SS2-62 J25
M6	5						1.96	●SS2-62 J28
M6	5						1.94	●SS2-62 J30
M8	5	1.91	●SS2-62 J32					
M8	5	1.88	●SS2-62 J35					

**[Caution on J series]**

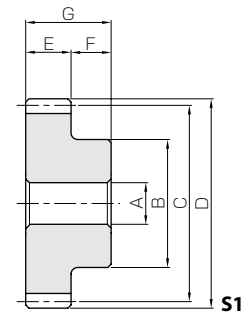
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
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- Spur Gears
- Helical Gears
- 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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.

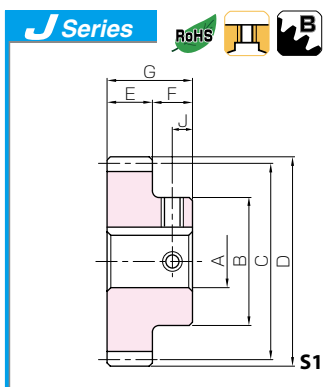


- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	WidthxDepth
<b>SS2-64</b> ● <b>SS2-64 J15</b> ● <b>SS2-64 J16</b> ● <b>SS2-64 J18</b> ● <b>SS2-64 J19</b> ● <b>SS2-64 J20</b> ● <b>SS2-64 J22</b> ● <b>SS2-64 J25</b> ● <b>SS2-64 J28</b> ● <b>SS2-64 J30</b> ● <b>SS2-64 J32</b> ● <b>SS2-64 J35</b>	m2	64	S1	15	60	128	132	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
<b>SS2-65</b> ● <b>SS2-65 J15</b> ● <b>SS2-65 J16</b> ● <b>SS2-65 J18</b> ● <b>SS2-65 J19</b> ● <b>SS2-65 J20</b> ● <b>SS2-65 J22</b> ● <b>SS2-65 J25</b> ● <b>SS2-65 J28</b> ● <b>SS2-65 J30</b> ● <b>SS2-65 J32</b> ● <b>SS2-65 J35</b>	m2	65	S1	15	60	130	134	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
<b>SS2-66</b> ● <b>SS2-66 J15</b> ● <b>SS2-66 J16</b> ● <b>SS2-66 J18</b> ● <b>SS2-66 J19</b> ● <b>SS2-66 J20</b> ● <b>SS2-66 J22</b> ● <b>SS2-66 J25</b> ● <b>SS2-66 J28</b> ● <b>SS2-66 J30</b> ● <b>SS2-66 J32</b> ● <b>SS2-66 J35</b>	m2	66	S1	15	60	132	136	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
<b>SS2-68</b> ● <b>SS2-68 J15</b> ● <b>SS2-68 J16</b> ● <b>SS2-68 J18</b> ● <b>SS2-68 J19</b> ● <b>SS2-68 J20</b> ● <b>SS2-68 J22</b> ● <b>SS2-68 J25</b> ● <b>SS2-68 J28</b> ● <b>SS2-68 J30</b> ● <b>SS2-68 J32</b> ● <b>SS2-68 J35</b>	m2	68	S1	15	60	136	140	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
 ② 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.

[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.



### Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	209	33.7	21.3	3.44	0.18~0.36	2.20 ●SS2-64 ●SS2-64 J15 ●SS2-64 J16 ●SS2-64 J18 ●SS2-64 J19 ●SS2-64 J20 ●SS2-64 J22 ●SS2-64 J25 ●SS2-64 J28 ●SS2-64 J30 ●SS2-64 J32 ●SS2-64 J35	
M4*	5							
M4*	5							
M5*	5							
M5*	5							
M5*	5							
M5*	5							
M6	5							
M6	5							
M6	5							
M8	5							
M8	5							
—	—	213	34.8	21.7	3.55	0.18~0.36	2.26 ●SS2-65 ●SS2-65 J15 ●SS2-65 J16 ●SS2-65 J18 ●SS2-65 J19 ●SS2-65 J20 ●SS2-65 J22 ●SS2-65 J25 ●SS2-65 J28 ●SS2-65 J30 ●SS2-65 J32 ●SS2-65 J35	
M4*	5							
M4*	5							
M5*	5							
M5*	5							
M5*	5							
M5*	5							
M6	5							
M6	5							
M6	5							
M8	5							
M8	5							
—	—	217	36.0	22.1	3.67	0.18~0.36	2.33 ●SS2-66 ●SS2-66 J15 ●SS2-66 J16 ●SS2-66 J18 ●SS2-66 J19 ●SS2-66 J20 ●SS2-66 J22 ●SS2-66 J25 ●SS2-66 J28 ●SS2-66 J30 ●SS2-66 J32 ●SS2-66 J35	
M4*	5							
M4*	5							
M5*	5							
M5*	5							
M5*	5							
M5*	5							
M6	5							
M6	5							
M6	5							
M8	5							
M8	5							
—	—	225	38.4	22.9	3.91	0.18~0.36	2.46 ●SS2-68 ●SS2-68 J15 ●SS2-68 J16 ●SS2-68 J18 ●SS2-68 J19 ●SS2-68 J20 ●SS2-68 J22 ●SS2-68 J25 ●SS2-68 J28 ●SS2-68 J30 ●SS2-68 J32 ●SS2-68 J35	
M4*	5							
M4*	5							
M5*	5							
M5*	5							
M5*	5							
M5*	5							
M6	5							
M6	5							
M6	5							
M8	5							
M8	5							

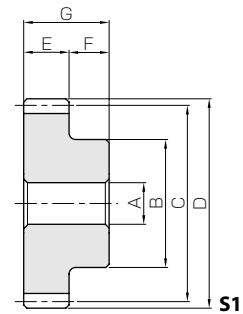
- [Caution on J series]**
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
  - ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
  - ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
  - ④ Certain products which would otherwise have a very long tapped hole are conerbored to reduce the length of the tap. (Products marked with "\*" are tap size).
  - ⑤ Areas of products which have been re-worked will not be black oxide coated.
  - ⑥ For products having a tapped hole, a set screw is included.

- 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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

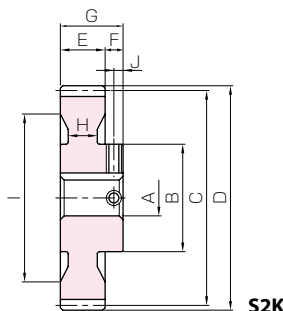
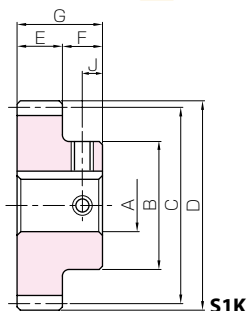
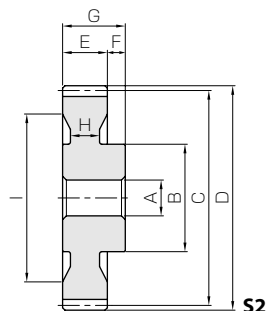
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS2-70 ● SS2-70 J15 ● SS2-70 J16 ● SS2-70 J18 ● SS2-70 J19 ● SS2-70 J20 ● SS2-70 J22 ● SS2-70 J25 ● SS2-70 J28 ● SS2-70 J30 ● SS2-70 J32 ● SS2-70 J35	m2	70	S1	15	60	140	144	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
S1K	35	10 x 3.3											
SS2-72 ● SS2-72 J15 ● SS2-72 J16 ● SS2-72 J18 ● SS2-72 J19 ● SS2-72 J20 ● SS2-72 J22 ● SS2-72 J25 ● SS2-72 J28 ● SS2-72 J30 ● SS2-72 J32 ● SS2-72 J35	m2	72	S1	15	60	144	148	20	10	30	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
S1K	35	10 x 3.3											
SS2-75 ● SS2-75 J20 ● SS2-75 J22 ● SS2-75 J25 ● SS2-75 J28 ● SS2-75 J30 ● SS2-75 J32 ● SS2-75 J35	m2	75	S1	20	60	150	154	20	10	30	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
SS2-76 ● SS2-76 J20 ● SS2-76 J22 ● SS2-76 J25 ● SS2-76 J28 ● SS2-76 J30 ● SS2-76 J32 ● SS2-76 J35	m2	76	S1	20	60	152	156	20	10	30	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
SS2-80 ● SS2-80 J20 ● SS2-80 J22 ● SS2-80 J25 ● SS2-80 J28 ● SS2-80 J30 ● SS2-80 J32 ● SS2-80 J35	m2	80	S2	20	60	160	164	20	10	30	12	136	—
			S2K	20									6 x 2.8
			S2K	22									6 x 2.8
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
S2K	35	10 x 3.3											

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
② 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.

[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.



# Steel Spur Gears



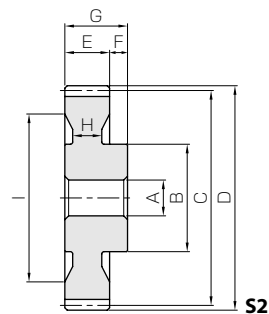
Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No.
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	232	40.8	23.7	4.16	0.18~0.36	2.60 2.59 2.58 2.57 2.56 2.55 2.54 2.51 2.48 2.46 2.43 2.40	SS2-70 ● SS2-70 J15 ● SS2-70 J16 ● SS2-70 J18 ● SS2-70 J19 ● SS2-70 J20 ● SS2-70 J22 ● SS2-70 J25 ● SS2-70 J28 ● SS2-70 J30 ● SS2-70 J32 ● SS2-70 J35
M4*	5							
M4*	5							
M5*	5							
M5*	5							
M5*	5							
M5*	5							
M6	5							
M6	5							
M6	5							
M8	5							
M8	5							
—	—	240	43.3	24.5	4.42	0.18~0.36	2.74 2.73 2.72 2.71 2.70 2.69 2.68 2.65 2.62 2.60 2.57 2.54	SS2-72 ● SS2-72 J15 ● SS2-72 J16 ● SS2-72 J18 ● SS2-72 J19 ● SS2-72 J20 ● SS2-72 J22 ● SS2-72 J25 ● SS2-72 J28 ● SS2-72 J30 ● SS2-72 J32 ● SS2-72 J35
M4*	5							
M4*	5							
M5*	5							
M5*	5							
M5*	5							
M5*	5							
M6	5							
M6	5							
M6	5							
M8	5							
M8	5							
—	—	252	47.3	25.7	4.82	0.18~0.36	2.92 2.91 2.90 2.87 2.84 2.82 2.79 2.76	SS2-75 ● SS2-75 J20 ● SS2-75 J22 ● SS2-75 J25 ● SS2-75 J28 ● SS2-75 J30 ● SS2-75 J32 ● SS2-75 J35
M5*	5							
M5*	5							
M6	5							
M6	5							
M6	5							
M8	5							
M8	5							
—	—	256	48.6	26.1	4.96	0.18~0.36	3.00 2.99 2.97 2.94 2.92 2.89 2.87 2.83	SS2-76 ● SS2-76 J20 ● SS2-76 J22 ● SS2-76 J25 ● SS2-76 J28 ● SS2-76 J30 ● SS2-76 J32 ● SS2-76 J35
M5*	5							
M5*	5							
M6	5							
M6	5							
M6	5							
M8	5							
M8	5							
—	—	271	54.3	27.7	5.53	0.18~0.36	2.67 2.66 2.65 2.62 2.59 2.57 2.54 2.50	SS2-80 ● SS2-80 J20 ● SS2-80 J22 ● SS2-80 J25 ● SS2-80 J28 ● SS2-80 J30 ● SS2-80 J32 ● SS2-80 J35
M5*	5							
M5*	5							
M6	5							
M6	5							
M6	5							
M8	5							
M8	5							

- [Caution on J series]**
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
  - ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
  - ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
  - ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
  - ⑤ Areas of products which have been re-worked will not be black oxide coated.
  - ⑥ For products having a tapped hole, a set screw is included.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* J Series products corresponds to an 'equivalent'.



S2

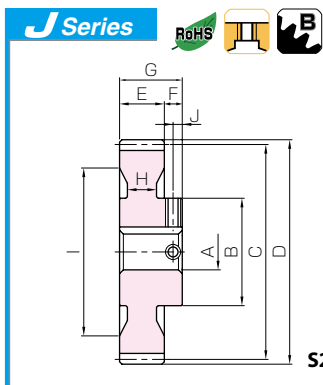
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	WidthxDepth
SS2-84 ● SS2-84 J20 ● SS2-84 J22 ● SS2-84 J25 ● SS2-84 J28 ● SS2-84 J30 ● SS2-84 J32 ● SS2-84 J35	m2	84	S2	20	70	168	172	20	10	30	12	140	—
			S2K	20									6 x 2.8
			S2K	22									6 x 2.8
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
S2K	35	10 x 3.3											
SS2-85 ● SS2-85 J20 ● SS2-85 J22 ● SS2-85 J25 ● SS2-85 J28 ● SS2-85 J30 ● SS2-85 J32 ● SS2-85 J35	m2	85	S2	20	70	170	174	20	10	30	12	146	—
			S2K	20									6 x 2.8
			S2K	22									6 x 2.8
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
S2K	35	10 x 3.3											
SS2-88 ● SS2-88 J20 ● SS2-88 J22 ● SS2-88 J25 ● SS2-88 J28 ● SS2-88 J30 ● SS2-88 J32 ● SS2-88 J35	m2	88	S2	20	70	176	180	20	10	30	12	150	—
			S2K	20									6 x 2.8
			S2K	22									6 x 2.8
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
S2K	35	10 x 3.3											
SS2-90 ● SS2-90 J20 ● SS2-90 J22 ● SS2-90 J25 ● SS2-90 J28 ● SS2-90 J30 ● SS2-90 J32 ● SS2-90 J35	m2	90	S2	20	70	180	184	20	10	30	12	156	—
			S2K	20									6 x 2.8
			S2K	22									6 x 2.8
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
S2K	35	10 x 3.3											
SS2-95 ● SS2-95 J20 ● SS2-95 J22 ● SS2-95 J25 ● SS2-95 J28 ● SS2-95 J30 ● SS2-95 J32 ● SS2-95 J35	m2	95	S2	20	70	190	194	20	10	30	12	166	—
			S2K	20									6 x 2.8
			S2K	22									6 x 2.8
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
S2K	35	10 x 3.3											
SS2-100 ● SS2-100 J20 ● SS2-100 J22 ● SS2-100 J25 ● SS2-100 J28 ● SS2-100 J30 ● SS2-100 J32 ● SS2-100 J35	m2	100	S2	20	70	200	204	20	10	30	12	176	—
			S2K	20									6 x 2.8
			S2K	22									6 x 2.8
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
S2K	35	10 x 3.3											

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



### Steel Spur Gears



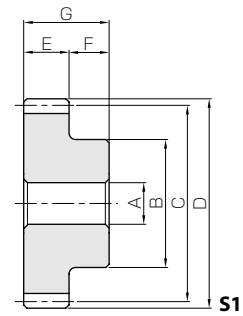
Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	287	60.2	29.2	6.14	0.20~0.44	3.09 3.07 3.06 3.03 3.00 2.98 2.95 2.92	<b>SS2-84</b>
M5*	5							●SS2-84 J20
M5*	5							●SS2-84 J22
M6*	5							●SS2-84 J25
M6*	5							●SS2-84 J28
M6	5							●SS2-84 J30
M8	5							●SS2-84 J32
M8	5							●SS2-84 J35
—	—	291	61.7	29.6	6.30	0.20~0.44	3.09 3.08 3.06 3.03 3.01 2.99 2.96 2.92	<b>SS2-85</b>
M5*	5							●SS2-85 J20
M5*	5							●SS2-85 J22
M6*	5							●SS2-85 J25
M6*	5							●SS2-85 J28
M6	5							●SS2-85 J30
M8	5							●SS2-85 J32
M8	5							●SS2-85 J35
—	—	302	66.5	30.8	6.78	0.20~0.44	3.29 3.28 3.26 3.23 3.21 3.19 3.16 3.12	<b>SS2-88</b>
M5*	5							●SS2-88 J20
M5*	5							●SS2-88 J22
M6*	5							●SS2-88 J25
M6*	5							●SS2-88 J28
M6	5							●SS2-88 J30
M8	5							●SS2-88 J32
M8	5							●SS2-88 J35
—	—	310	69.7	31.6	7.11	0.20~0.44	3.38 3.37 3.35 3.32 3.30 3.28 3.25 3.21	<b>SS2-90</b>
M5*	5							●SS2-90 J20
M5*	5							●SS2-90 J22
M6*	5							●SS2-90 J25
M6*	5							●SS2-90 J28
M6	5							●SS2-90 J30
M8	5							●SS2-90 J32
M8	5							●SS2-90 J35
—	—	330	78.2	33.6	7.97	0.20~0.44	3.69 3.67 3.66 3.63 3.60 3.58 3.55 3.52	<b>SS2-95</b>
M5*	5							●SS2-95 J20
M5*	5							●SS2-95 J22
M6*	5							●SS2-95 J25
M6*	5							●SS2-95 J28
M6	5							●SS2-95 J30
M8	5							●SS2-95 J32
M8	5							●SS2-95 J35
—	—	291	72.7	29.7	7.42	0.20~0.44	4.01 3.99 3.98 3.95 3.92 3.90 3.87 3.84	<b>SS2-100</b>
M5*	5							●SS2-100 J20
M5*	5							●SS2-100 J22
M6*	5							●SS2-100 J25
M6*	5							●SS2-100 J28
M6	5							●SS2-100 J30
M8	5							●SS2-100 J32
M8	5							●SS2-100 J35

- [Caution on J series]**
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order.  
Please allow additional shipping time to get to your local distributor.
  - ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
  - ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
  - ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
  - ⑤ Areas of products which have been re-worked will not be black oxide coated.
  - ⑥ For products having a tapped hole, a set screw is included.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS2-120</b>	<b>m2</b>	120	S2	20	90	240	244	20	10	30	12	210	—
● <b>SS2-120 J20</b>			S2K	20									6 x 2.8
● <b>SS2-120 J22</b>			S2K	22									6 x 2.8
● <b>SS2-120 J25</b>			S2K	25									8 x 3.3
● <b>SS2-120 J28</b>			S2K	28									8 x 3.3
● <b>SS2-120 J30</b>			S2K	30									8 x 3.3
● <b>SS2-120 J32</b>			S2K	32									10 x 3.3
● <b>SS2-120 J35</b>	S2K	35	10 x 3.3										
<b>SS2-150</b>		150	S1	25	240	300	304	20	10	30	—	—	—

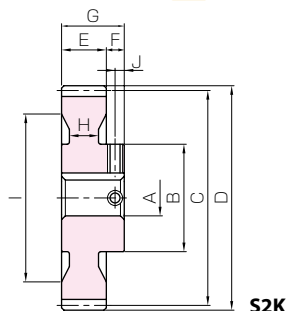
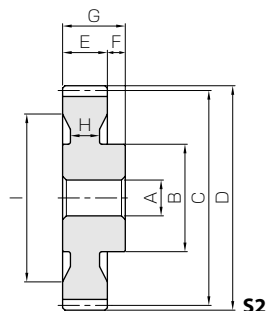
[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.

- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	357	108	36.4	11.0	0.20~0.44	5.91	<b>SS2-120</b>
M5*	5						5.89	● <b>SS2-120 J20</b>
M5*	5						5.87	● <b>SS2-120 J22</b>
M6*	5						5.84	● <b>SS2-120 J25</b>
M6*	5						5.82	● <b>SS2-120 J28</b>
M6*	5						5.80	● <b>SS2-120 J30</b>
M8	5	5.76	● <b>SS2-120 J32</b>					
M8	5	5.73	● <b>SS2-120 J35</b>					
—	—	455	174	46.4	17.7	0.20~0.44	14.5	<b>SS2-150</b>

[Caution on J series]

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- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks & Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

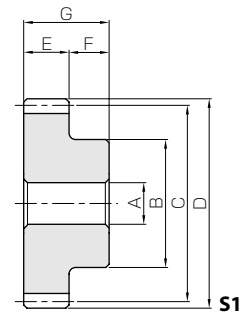
Bevel Gearboxes

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.

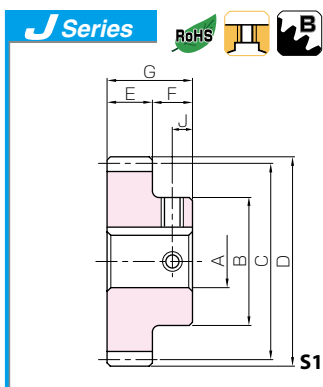


- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway		
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth		
<b>SS2.5-12</b> ● <b>SS2.5-12 J12**</b> <b>SS2.5-13</b> ● <b>SS2.5-13 J12</b> ● <b>SS2.5-13 J14</b> ● <b>SS2.5-13 J15</b> <b>SS2.5-14</b> ● <b>SS2.5-14 J12</b> ● <b>SS2.5-14 J14</b> ● <b>SS2.5-14 J15**</b> <b>SS2.5-15</b> ● <b>SS2.5-15 J15</b> ● <b>SS2.5-15 J16</b> ● <b>SS2.5-15 J18</b> <b>SS2.5-16</b> ● <b>SS2.5-16 J15</b> ● <b>SS2.5-16 J16</b> ● <b>SS2.5-16 J18</b> ● <b>SS2.5-16 J19**</b> <b>SS2.5-17</b> ● <b>SS2.5-17 J15</b> ● <b>SS2.5-17 J16</b> ● <b>SS2.5-17 J18</b> ● <b>SS2.5-17 J19</b> ● <b>SS2.5-17 J20</b> <b>SS2.5-18</b> ● <b>SS2.5-18 J15</b> ● <b>SS2.5-18 J16</b> ● <b>SS2.5-18 J18</b> ● <b>SS2.5-18 J19</b> ● <b>SS2.5-18 J20</b> ● <b>SS2.5-18 J22</b> <b>SS2.5-19</b> ● <b>SS2.5-19 J15</b> ● <b>SS2.5-19 J16</b> ● <b>SS2.5-19 J18</b> ● <b>SS2.5-19 J19</b> ● <b>SS2.5-19 J20</b> ● <b>SS2.5-19 J22</b> <b>SS2.5-20</b> ● <b>SS2.5-20 J15</b> ● <b>SS2.5-20 J16</b> ● <b>SS2.5-20 J18</b> ● <b>SS2.5-20 J19</b> ● <b>SS2.5-20 J20</b> ● <b>SS2.5-20 J22</b>	<b>m2.5</b>	12	S1	12	23	30	35	25	12	37	—	—	—		
			S1K	12									4 x 1.8		
		13	S1	12	25	32.5	37.5	25	12	37	—	—	—	—	—
			S1K	12											4 x 1.8
			S1T2	14											—
			S1T2	15											—
		14	S1	12	25	35	40	25	12	37	—	—	—	—	—
			S1K	12											4 x 1.8
			S1K	14											5 x 2.3
			S1K	15											5 x 2.3
		15	S1	15	30	37.5	42.5	25	12	37	—	—	—	—	—
			S1K	15											5 x 2.3
			S1K	16											5 x 2.3
			S1T2	18											—
		16	S1	15	32	40	45	25	12	37	—	—	—	—	—
			S1K	15											5 x 2.3
			S1K	16											5 x 2.3
			S1K	18											6 x 2.8
			S1K	19											6 x 2.8
		17	S1	15	35	42.5	47.5	25	12	37	—	—	—	—	—
S1K	15		5 x 2.3												
S1K	16		5 x 2.3												
S1K	18		6 x 2.8												
S1K	19		6 x 2.8												
S1K	20		6 x 2.8												
18	S1	15	38	45	50	25	12	37	—	—	—	—	—		
	S1K	15											5 x 2.3		
	S1K	16											5 x 2.3		
	S1K	18											6 x 2.8		
	S1K	19											6 x 2.8		
	S1K	20											6 x 2.8		
19	S1	15	39	47.5	52.5	25	12	37	—	—	—	—	—		
	S1K	15											5 x 2.3		
	S1K	16											5 x 2.3		
	S1K	18											6 x 2.8		
	S1K	19											6 x 2.8		
	S1K	20											6 x 2.8		
20	S1	15	40	50	55	25	12	37	—	—	—	—	—		
	S1K	15											5 x 2.3		
	S1K	16											5 x 2.3		
	S1K	18											6 x 2.8		
	S1K	19											6 x 2.8		
	S1K	20											6 x 2.8		

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
② 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.

[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.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	31.8	1.77	3.24	0.18	0.14~0.28	0.15	SS2.5-12
M4	6							●SS2.5-12 J12**
—	—	40.9	2.14	4.17	0.22	0.14~0.28	0.18	SS2.5-13
M4	6							●SS2.5-13 J12
M4	6							●SS2.5-13 J14
M4	6						0.16	●SS2.5-13 J15
—	—	51.5	2.53	5.25	0.26	0.14~0.28	0.20	SS2.5-14
M4	6							●SS2.5-14 J12
M4	6							●SS2.5-14 J14
M4	6						0.19	●SS2.5-14 J15**
—	—	57.7	2.96	5.89	0.30	0.14~0.28	0.23	SS2.5-15
M4	6							●SS2.5-15 J15
M4	6							●SS2.5-15 J16
M5	6						0.22	●SS2.5-15 J18
—	—	64	3.43	6.52	0.35	0.14~0.28	0.27	SS2.5-16
M4	6							●SS2.5-16 J15
M4	6							●SS2.5-16 J16
M5	6							●SS2.5-16 J18
M5	6						0.24	●SS2.5-16 J19**
—	—	70.3	3.93	7.17	0.40	0.14~0.28	0.32	SS2.5-17
M4	6							●SS2.5-17 J15
M4	6							●SS2.5-17 J16
M5	6							●SS2.5-17 J18
M5	6							●SS2.5-17 J19
M5	6	●SS2.5-17 J20						
—	—	76.7	4.47	7.82	0.46	0.14~0.28	0.37	SS2.5-18
M4	6							●SS2.5-18 J15
M4	6							●SS2.5-18 J16
M5	6							●SS2.5-18 J18
M5	6							●SS2.5-18 J19
M5	6							●SS2.5-18 J20
M5	6	●SS2.5-18 J22						
—	—	83.2	5.05	8.49	0.51	0.14~0.28	0.41	SS2.5-19
M4	6							●SS2.5-19 J15
M4	6							●SS2.5-19 J16
M5	6							●SS2.5-19 J18
M5	6							●SS2.5-19 J19
M5	6							●SS2.5-19 J20
M5	6	●SS2.5-19 J22						
—	—	89.8	5.66	9.16	0.58	0.14~0.28	0.45	SS2.5-20
M4	6							●SS2.5-20 J15
M4	6							●SS2.5-20 J16
M5	6							●SS2.5-20 J18
M5	6							●SS2.5-20 J19
M5	6							●SS2.5-20 J20
M5	6	●SS2.5-20 J22						

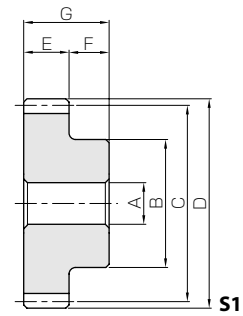
**[Caution on J series]**

- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with " \* " are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.
- ⑦ Products marked with "\*\*\*" have a small amount of material between the corner of the keyway and the tooth root. This mode of failure must be considered when selecting these gears. For details, please see our web site.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

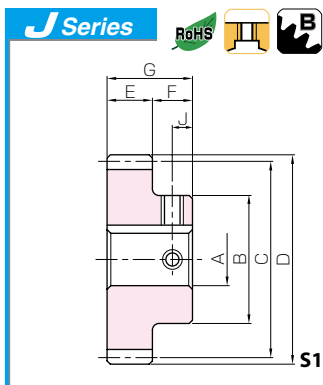
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS2.5-21 ● SS2.5-21 J15 ● SS2.5-21 J16 ● SS2.5-21 J18 ● SS2.5-21 J19 ● SS2.5-21 J20 ● SS2.5-21 J22 ● SS2.5-21 J25	m2.5	21	S1	15	42	52.5	57.5	25	12	37	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
S1K	25	8 × 3.3											
SS2.5-22 ● SS2.5-22 J15 ● SS2.5-22 J16 ● SS2.5-22 J18 ● SS2.5-22 J19 ● SS2.5-22 J20 ● SS2.5-22 J22 ● SS2.5-22 J25	m2.5	22	S1	15	44	55	60	25	12	37	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
S1K	25	8 × 3.3											
SS2.5-23 ● SS2.5-23 J15 ● SS2.5-23 J16 ● SS2.5-23 J18 ● SS2.5-23 J19 ● SS2.5-23 J20 ● SS2.5-23 J22 ● SS2.5-23 J25	m2.5	23	S1	15	46	57.5	62.5	25	12	37	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
S1K	25	8 × 3.3											
SS2.5-24 ● SS2.5-24 J15 ● SS2.5-24 J16 ● SS2.5-24 J18 ● SS2.5-24 J19 ● SS2.5-24 J20 ● SS2.5-24 J22 ● SS2.5-24 J25 ● SS2.5-24 J28	m2.5	24	S1	15	48	60	65	25	12	37	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
S1K	25	8 × 3.3											
S1K	28	8 × 3.3											
SS2.5-25 ● SS2.5-25 J15 ● SS2.5-25 J16 ● SS2.5-25 J18 ● SS2.5-25 J19 ● SS2.5-25 J20 ● SS2.5-25 J22 ● SS2.5-25 J25 ● SS2.5-25 J28 ● SS2.5-25 J30	m2.5	25	S1	15	50	62.5	67.5	25	12	37	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
S1K	25	8 × 3.3											
S1K	28	8 × 3.3											
S1K	30	8 × 3.3											
SS2.5-26 ● SS2.5-26 J15 ● SS2.5-26 J16 ● SS2.5-26 J18 ● SS2.5-26 J19 ● SS2.5-26 J20 ● SS2.5-26 J22 ● SS2.5-26 J25 ● SS2.5-26 J28 ● SS2.5-26 J30 ● SS2.5-26 J32	m2.5	26	S1	15	55	65	70	25	12	37	—	—	—
			S1K	15									5 × 2.3
			S1K	16									5 × 2.3
			S1K	18									6 × 2.8
			S1K	19									6 × 2.8
			S1K	20									6 × 2.8
			S1K	22									6 × 2.8
S1K	25	8 × 3.3											
S1K	28	8 × 3.3											
S1K	30	8 × 3.3											
S1K	32	10 × 3.3											

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



### Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	96.4	6.30	9.83	0.64	0.16~0.34	0.50	SS2.5-21
M4	6							●SS2.5-21 J15
M4	6							●SS2.5-21 J16
M5	6							●SS2.5-21 J18
M5	6							●SS2.5-21 J19
M5	6							●SS2.5-21 J20
M5	6							●SS2.5-21 J22
M6	6	●SS2.5-21 J25						
—	—	103	6.99	10.5	0.71	0.16~0.34	0.56	SS2.5-22
M4*	6							●SS2.5-22 J15
M4	6							●SS2.5-22 J16
M5	6							●SS2.5-22 J18
M5	6							●SS2.5-22 J19
M5	6							●SS2.5-22 J20
M5	6							●SS2.5-22 J22
M6	6	●SS2.5-22 J25						
—	—	110	7.71	11.2	0.79	0.16~0.34	0.61	SS2.5-23
M4*	6							●SS2.5-23 J15
M4*	6							●SS2.5-23 J16
M5	6							●SS2.5-23 J18
M5	6							●SS2.5-23 J19
M5	6							●SS2.5-23 J20
M5	6							●SS2.5-23 J22
M6	6	●SS2.5-23 J25						
—	—	117	8.47	11.9	0.86	0.16~0.34	0.67	SS2.5-24
M4*	6							●SS2.5-24 J15
M4*	6							●SS2.5-24 J16
M5	6							●SS2.5-24 J18
M5	6							●SS2.5-24 J19
M5	6							●SS2.5-24 J20
M5	6							●SS2.5-24 J22
M6	6	●SS2.5-24 J25						
M6	6	●SS2.5-24 J28						
—	—	124	9.26	12.6	0.94	0.16~0.34	0.74	SS2.5-25
M4*	6							●SS2.5-25 J15
M4*	6							●SS2.5-25 J16
M5	6							●SS2.5-25 J18
M5	6							●SS2.5-25 J19
M5	6							●SS2.5-25 J20
M5	6							●SS2.5-25 J22
M6	6	●SS2.5-25 J25						
M6	6	●SS2.5-25 J28						
M6	6	●SS2.5-25 J30						
—	—	130	10.1	13.3	1.03	0.16~0.34	0.82	SS2.5-26
M4*	6							●SS2.5-26 J15
M4*	6							●SS2.5-26 J16
M5*	6							●SS2.5-26 J18
M5*	6							●SS2.5-26 J19
M5*	6							●SS2.5-26 J20
M5	6							●SS2.5-26 J22
M6	6	●SS2.5-26 J25						
M6	6	●SS2.5-26 J28						
M6	6	●SS2.5-26 J30						
M8	6	●SS2.5-26 J32						

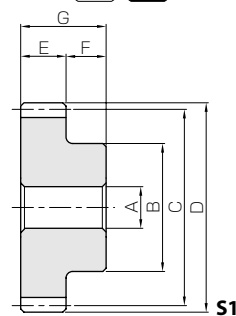
**[Caution on J series]**

- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



S1

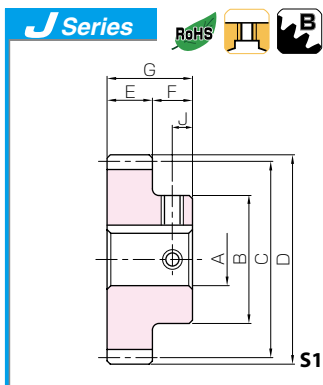
Catalog No. ●: J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	WidthxDepth
SS2.5-27 ●SS2.5-27 J15 ●SS2.5-27 J16 ●SS2.5-27 J18 ●SS2.5-27 J19 ●SS2.5-27 J20 ●SS2.5-27 J22 ●SS2.5-27 J25 ●SS2.5-27 J28 ●SS2.5-27 J30 ●SS2.5-27 J32 ●SS2.5-27 J35	m2.5	27	S1	15	60	67.5	72.5	25	12	37	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
SS2.5-28 ●SS2.5-28 J15 ●SS2.5-28 J16 ●SS2.5-28 J18 ●SS2.5-28 J19 ●SS2.5-28 J20 ●SS2.5-28 J22 ●SS2.5-28 J25 ●SS2.5-28 J28 ●SS2.5-28 J30 ●SS2.5-28 J32 ●SS2.5-28 J35	m2.5	28	S1	15	60	70	75	25	12	37	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
SS2.5-29 ●SS2.5-29 J15 ●SS2.5-29 J16 ●SS2.5-29 J18 ●SS2.5-29 J19 ●SS2.5-29 J20 ●SS2.5-29 J22 ●SS2.5-29 J25 ●SS2.5-29 J28 ●SS2.5-29 J30 ●SS2.5-29 J32 ●SS2.5-29 J35	m2.5	29	S1	15	62	72.5	77.5	25	12	37	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
SS2.5-30 ●SS2.5-30 J15 ●SS2.5-30 J16 ●SS2.5-30 J18 ●SS2.5-30 J19 ●SS2.5-30 J20 ●SS2.5-30 J22 ●SS2.5-30 J25 ●SS2.5-30 J28 ●SS2.5-30 J30 ●SS2.5-30 J32 ●SS2.5-30 J35	m2.5	30	S1	15	65	75	80	25	12	37	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.
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Steel Spur Gears



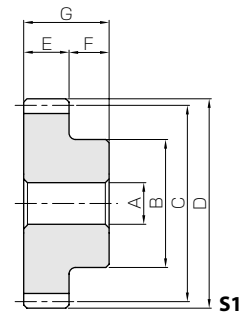
Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	137	10.9	14.0	1.11	0.16~0.34	0.92 0.91 0.90 0.88 0.87 0.87 0.85 0.81 0.78 0.75 0.72 0.67	SS2.5-27 ● SS2.5-27 J15 ● SS2.5-27 J16 ● SS2.5-27 J18 ● SS2.5-27 J19 ● SS2.5-27 J20 ● SS2.5-27 J22 ● SS2.5-27 J25 ● SS2.5-27 J28 ● SS2.5-27 J30 ● SS2.5-27 J32 ● SS2.5-27 J35
M4*	6							
M4*	6							
M5*	6							
M5*	6							
M5*	6							
M5*	6							
M6	6							
M6	6							
M6	6							
M8	6							
M8	6							
—	—	144	11.7	14.7	1.20	0.16~0.34	0.97 0.96 0.95 0.94 0.93 0.92 0.90 0.87 0.83 0.80 0.77 0.73	SS2.5-28 ● SS2.5-28 J15 ● SS2.5-28 J16 ● SS2.5-28 J18 ● SS2.5-28 J19 ● SS2.5-28 J20 ● SS2.5-28 J22 ● SS2.5-28 J25 ● SS2.5-28 J28 ● SS2.5-28 J30 ● SS2.5-28 J32 ● SS2.5-28 J35
M4*	6							
M4*	6							
M5*	6							
M5*	6							
M5*	6							
M5*	6							
M6	6							
M6	6							
M6	6							
M8	6							
M8	6							
—	—	151	12.6	15.4	1.29	0.16~0.34	1.04 1.03 1.02 1.01 1.00 0.99 0.97 0.94 0.90 0.88 0.84 0.80	SS2.5-29 ● SS2.5-29 J15 ● SS2.5-29 J16 ● SS2.5-29 J18 ● SS2.5-29 J19 ● SS2.5-29 J20 ● SS2.5-29 J22 ● SS2.5-29 J25 ● SS2.5-29 J28 ● SS2.5-29 J30 ● SS2.5-29 J32 ● SS2.5-29 J35
M4*	6							
M4*	6							
M5*	6							
M5*	6							
M5*	6							
M5*	6							
M6	6							
M6	6							
M6	6							
M8	6							
M8	6							
—	—	159	13.6	16.2	1.39	0.16~0.34	1.13 1.11 1.11 1.09 1.08 1.07 1.06 1.02 0.99 0.96 0.93 0.88	SS2.5-30 ● SS2.5-30 J15 ● SS2.5-30 J16 ● SS2.5-30 J18 ● SS2.5-30 J19 ● SS2.5-30 J20 ● SS2.5-30 J22 ● SS2.5-30 J25 ● SS2.5-30 J28 ● SS2.5-30 J30 ● SS2.5-30 J32 ● SS2.5-30 J35
M4*	6							
M4*	6							
M5*	6							
M5*	6							
M5*	6							
M5*	6							
M6	6							
M6	6							
M6	6							
M8	6							
M8	6							

- [Caution on J series]
- As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
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  - Keyways are made according to JIS B1301 standards, Js 9 tolerance.
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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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

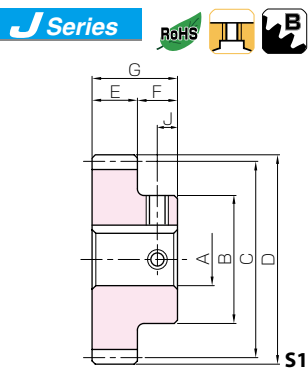
Catalog No. ●: J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS2.5-32 ●SS2.5-32 J15 ●SS2.5-32 J16 ●SS2.5-32 J18 ●SS2.5-32 J19 ●SS2.5-32 J20 ●SS2.5-32 J22 ●SS2.5-32 J25 ●SS2.5-32 J28 ●SS2.5-32 J30 ●SS2.5-32 J32 ●SS2.5-32 J35 ●SS2.5-32 J40	m2.5	32	S1	15	70	80	85	25	12	37	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											
SS2.5-34 ●SS2.5-34 J15 ●SS2.5-34 J16 ●SS2.5-34 J18 ●SS2.5-34 J19 ●SS2.5-34 J20 ●SS2.5-34 J22 ●SS2.5-34 J25 ●SS2.5-34 J28 ●SS2.5-34 J30 ●SS2.5-34 J32 ●SS2.5-34 J35 ●SS2.5-34 J40	m2.5	34	S1	15	70	85	90	25	12	37	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											
SS2.5-35 ●SS2.5-35 J15 ●SS2.5-35 J16 ●SS2.5-35 J18 ●SS2.5-35 J19 ●SS2.5-35 J20 ●SS2.5-35 J22 ●SS2.5-35 J25 ●SS2.5-35 J28 ●SS2.5-35 J30 ●SS2.5-35 J32 ●SS2.5-35 J35 ●SS2.5-35 J40	m2.5	35	S1	15	70	87.5	92.5	25	12	37	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											
SS2.5-36 ●SS2.5-36 J15 ●SS2.5-36 J16 ●SS2.5-36 J18 ●SS2.5-36 J19 ●SS2.5-36 J20 ●SS2.5-36 J22 ●SS2.5-36 J25 ●SS2.5-36 J28 ●SS2.5-36 J30 ●SS2.5-36 J32 ●SS2.5-36 J35 ●SS2.5-36 J40	m2.5	36	S1	15	70	90	95	25	12	37	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.
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## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)	
Size	J	Bending strength	Surface durability	Bending strength	Surface durability				
—	—	173	15.6	17.6	1.59	0.16~0.34	1.30	<b>SS2.5-32</b>	
M4*	6							1.28	●SS2.5-32 J15
M4*	6							1.28	●SS2.5-32 J16
M5*	6							1.26	●SS2.5-32 J18
M5*	6							1.25	●SS2.5-32 J19
M5*	6							1.24	●SS2.5-32 J20
M5*	6							1.22	●SS2.5-32 J22
M6*	6							1.19	●SS2.5-32 J25
M6*	6							1.15	●SS2.5-32 J28
M6	6							1.13	●SS2.5-32 J30
M8	6							1.10	●SS2.5-32 J32
M8	6							1.05	●SS2.5-32 J35
M8	6							0.97	●SS2.5-32 J40
—	—	187	17.7	19.1	1.80	0.16~0.34	1.42	<b>SS2.5-34</b>	
M4*	6							1.41	●SS2.5-34 J15
M4*	6							1.40	●SS2.5-34 J16
M5*	6							1.39	●SS2.5-34 J18
M5*	6							1.38	●SS2.5-34 J19
M5*	6							1.37	●SS2.5-34 J20
M5*	6							1.35	●SS2.5-34 J22
M6*	6							1.32	●SS2.5-34 J25
M6*	6							1.28	●SS2.5-34 J28
M6	6							1.26	●SS2.5-34 J30
M8	6							1.22	●SS2.5-34 J32
M8	6							1.18	●SS2.5-34 J35
M8	6							1.09	●SS2.5-34 J40
—	—	194	18.8	19.8	1.92	0.16~0.34	1.49	<b>SS2.5-35</b>	
M4*	6							1.48	●SS2.5-35 J15
M4*	6							1.47	●SS2.5-35 J16
M5*	6							1.45	●SS2.5-35 J18
M5*	6							1.44	●SS2.5-35 J19
M5*	6							1.44	●SS2.5-35 J20
M5*	6							1.42	●SS2.5-35 J22
M6*	6							1.38	●SS2.5-35 J25
M6*	6							1.35	●SS2.5-35 J28
M6	6							1.32	●SS2.5-35 J30
M8	6							1.29	●SS2.5-35 J32
M8	6							1.24	●SS2.5-35 J35
M8	6							1.16	●SS2.5-35 J40
—	—	201	20.0	20.5	2.04	0.16~0.34	1.56	<b>SS2.5-36</b>	
M4*	6							1.54	●SS2.5-36 J15
M4*	6							1.54	●SS2.5-36 J16
M5*	6							1.52	●SS2.5-36 J18
M5*	6							1.51	●SS2.5-36 J19
M5*	6							1.50	●SS2.5-36 J20
M5*	6							1.49	●SS2.5-36 J22
M6*	6							1.45	●SS2.5-36 J25
M6*	6							1.42	●SS2.5-36 J28
M6	6							1.39	●SS2.5-36 J30
M8	6							1.36	●SS2.5-36 J32
M8	6							1.31	●SS2.5-36 J35
M8	6							1.23	●SS2.5-36 J40

## [Caution on J series]

① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order.

Please allow additional shipping time to get to your local distributor.

② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.

③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.

④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).

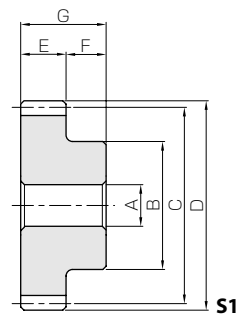
⑤ Areas of products which have been re-worked will not be black oxide coated.

⑥ For products having a tapped hole, a set screw is included.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

Bevel Gearboxes

Other Products

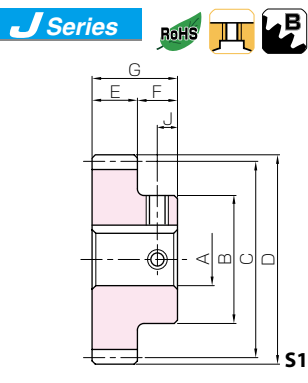
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS2.5-38 ● SS2.5-38 J20 ● SS2.5-38 J22 ● SS2.5-38 J25 ● SS2.5-38 J28 ● SS2.5-38 J30 ● SS2.5-38 J32 ● SS2.5-38 J35 ● SS2.5-38 J40	m2.5	38	S1	20	70	95	100	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											
SS2.5-40 ● SS2.5-40 J20 ● SS2.5-40 J22 ● SS2.5-40 J25 ● SS2.5-40 J28 ● SS2.5-40 J30 ● SS2.5-40 J32 ● SS2.5-40 J35 ● SS2.5-40 J40	m2.5	40	S1	20	70	100	105	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											
SS2.5-42 ● SS2.5-42 J20 ● SS2.5-42 J22 ● SS2.5-42 J25 ● SS2.5-42 J28 ● SS2.5-42 J30 ● SS2.5-42 J32 ● SS2.5-42 J35 ● SS2.5-42 J40	m2.5	42	S1	20	70	105	110	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											
SS2.5-44 ● SS2.5-44 J20 ● SS2.5-44 J22 ● SS2.5-44 J25 ● SS2.5-44 J28 ● SS2.5-44 J30 ● SS2.5-44 J32 ● SS2.5-44 J35 ● SS2.5-44 J40	m2.5	44	S1	20	70	110	115	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											
SS2.5-45 ● SS2.5-45 J20 ● SS2.5-45 J22 ● SS2.5-45 J25 ● SS2.5-45 J28 ● SS2.5-45 J30 ● SS2.5-45 J32 ● SS2.5-45 J35 ● SS2.5-45 J40	m2.5	45	S1	20	70	112.5	117.5	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											
SS2.5-46 ● SS2.5-46 J20 ● SS2.5-46 J22 ● SS2.5-46 J25 ● SS2.5-46 J28 ● SS2.5-46 J30 ● SS2.5-46 J32 ● SS2.5-46 J35 ● SS2.5-46 J40	m2.5	46	S1	20	70	115	120	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											

[Caution on Product Characteristics]

- The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- 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.

[Caution on Secondary Operations]

- 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.
- Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—						1.66	<b>SS2.5-38</b>
M5*	6						1.65	● <b>SS2.5-38 J20</b>
M5*	6						1.63	● <b>SS2.5-38 J22</b>
M6*	6						1.59	● <b>SS2.5-38 J25</b>
M6*	6	216	22.4	22.0	2.28	0.16~0.34	1.56	● <b>SS2.5-38 J28</b>
M6	6						1.53	● <b>SS2.5-38 J30</b>
M8	6						1.50	● <b>SS2.5-38 J32</b>
M8	6						1.46	● <b>SS2.5-38 J35</b>
M8	6						1.37	● <b>SS2.5-38 J40</b>
—	—						1.81	<b>SS2.5-40</b>
M5*	6						1.80	● <b>SS2.5-40 J20</b>
M5*	6						1.78	● <b>SS2.5-40 J22</b>
M6*	6						1.74	● <b>SS2.5-40 J25</b>
M6*	6	230	24.9	23.5	2.54	0.16~0.34	1.71	● <b>SS2.5-40 J28</b>
M6	6						1.68	● <b>SS2.5-40 J30</b>
M8	6						1.65	● <b>SS2.5-40 J32</b>
M8	6						1.61	● <b>SS2.5-40 J35</b>
M8	6						1.52	● <b>SS2.5-40 J40</b>
—	—						1.97	<b>SS2.5-42</b>
M5*	6						1.95	● <b>SS2.5-42 J20</b>
M5*	6						1.94	● <b>SS2.5-42 J22</b>
M6*	6						1.90	● <b>SS2.5-42 J25</b>
M6*	6	245	27.6	25.0	2.82	0.18~0.40	1.87	● <b>SS2.5-42 J28</b>
M6	6						1.84	● <b>SS2.5-42 J30</b>
M8	6						1.81	● <b>SS2.5-42 J32</b>
M8	6						1.76	● <b>SS2.5-42 J35</b>
M8	6						1.68	● <b>SS2.5-42 J40</b>
—	—						2.14	<b>SS2.5-44</b>
M5*	6						2.12	● <b>SS2.5-44 J20</b>
M5*	6						2.10	● <b>SS2.5-44 J22</b>
M6*	6						2.07	● <b>SS2.5-44 J25</b>
M6*	6	260	30.5	26.5	3.11	0.18~0.40	2.03	● <b>SS2.5-44 J28</b>
M6	6						2.01	● <b>SS2.5-44 J30</b>
M8	6						1.97	● <b>SS2.5-44 J32</b>
M8	6						1.93	● <b>SS2.5-44 J35</b>
M8	6						1.84	● <b>SS2.5-44 J40</b>
—	—						2.22	<b>SS2.5-45</b>
M5*	6						2.21	● <b>SS2.5-45 J20</b>
M5*	6						2.19	● <b>SS2.5-45 J22</b>
M6*	6						2.15	● <b>SS2.5-45 J25</b>
M6*	6	267	31.9	27.2	3.26	0.18~0.40	2.12	● <b>SS2.5-45 J28</b>
M6	6						2.09	● <b>SS2.5-45 J30</b>
M8	6						2.06	● <b>SS2.5-45 J32</b>
M8	6						2.02	● <b>SS2.5-45 J35</b>
M8	6						1.93	● <b>SS2.5-45 J40</b>
—	—						2.31	<b>SS2.5-46</b>
M5*	6						2.29	● <b>SS2.5-46 J20</b>
M5*	6						2.28	● <b>SS2.5-46 J22</b>
M6*	6						2.24	● <b>SS2.5-46 J25</b>
M6*	6	274	33.5	28.0	3.41	0.18~0.40	2.21	● <b>SS2.5-46 J28</b>
M6	6						2.18	● <b>SS2.5-46 J30</b>
M8	6						2.15	● <b>SS2.5-46 J32</b>
M8	6						2.10	● <b>SS2.5-46 J35</b>
M8	6						2.02	● <b>SS2.5-46 J40</b>

## [Caution on J series]

① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order.

Please allow additional shipping time to get to your local distributor.

② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.

③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.

④ Certain products which would otherwise have a very long tapped hole are conbored to reduce the length of the tap. (Products marked with "\*" are tap size).

⑤ Areas of products which have been re-worked will not be black oxide coated.

⑥ For products having a tapped hole, a set screw is included.

GCSW for Web (Gear Calculation Software) is now available.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

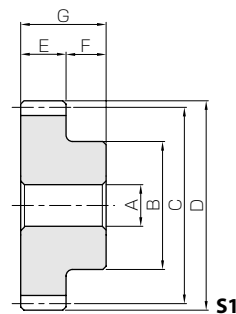
Bevel Gearboxes

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

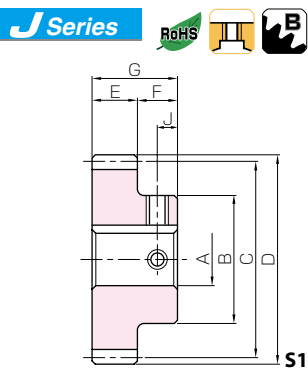
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS2.5-48 ● SS2.5-48 J20 ● SS2.5-48 J22 ● SS2.5-48 J25 ● SS2.5-48 J28 ● SS2.5-48 J30 ● SS2.5-48 J32 ● SS2.5-48 J35 ● SS2.5-48 J40	m2.5	48	S1	20	70	120	125	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
SS2.5-50 ● SS2.5-50 J20 ● SS2.5-50 J22 ● SS2.5-50 J25 ● SS2.5-50 J28 ● SS2.5-50 J30 ● SS2.5-50 J32 ● SS2.5-50 J35 ● SS2.5-50 J40	m2.5	50	S1	20	70	125	130	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
SS2.5-52 ● SS2.5-52 J20 ● SS2.5-52 J22 ● SS2.5-52 J25 ● SS2.5-52 J28 ● SS2.5-52 J30 ● SS2.5-52 J32 ● SS2.5-52 J35 ● SS2.5-52 J40	m2.5	52	S1	20	70	130	135	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
SS2.5-54 ● SS2.5-54 J20 ● SS2.5-54 J22 ● SS2.5-54 J25 ● SS2.5-54 J28 ● SS2.5-54 J30 ● SS2.5-54 J32 ● SS2.5-54 J35 ● SS2.5-54 J40	m2.5	54	S1	20	70	135	140	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
SS2.5-55 ● SS2.5-55 J20 ● SS2.5-55 J22 ● SS2.5-55 J25 ● SS2.5-55 J28 ● SS2.5-55 J30 ● SS2.5-55 J32 ● SS2.5-55 J35 ● SS2.5-55 J40	m2.5	55	S1	20	70	137.5	142.5	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
SS2.5-56 ● SS2.5-56 J20 ● SS2.5-56 J22 ● SS2.5-56 J25 ● SS2.5-56 J28 ● SS2.5-56 J30 ● SS2.5-56 J32 ● SS2.5-56 J35 ● SS2.5-56 J40	m2.5	56	S1	20	70	140	145	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[Caution on Secondary Operations]

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- ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)					
Size	J	Bending strength	Surface durability	Bending strength	Surface durability								
—	—						2.49	<b>SS2.5-48</b>					
M5*	6						2.48	● <b>SS2.5-48 J20</b>					
M5*	6						2.46	● <b>SS2.5-48 J22</b>					
M6*	6						2.42	● <b>SS2.5-48 J25</b>					
M6*	6	289	36.7	29.5	3.74	0.18~0.40	2.39	● <b>SS2.5-48 J28</b>					
M6	6						2.36	● <b>SS2.5-48 J30</b>					
M8	6						2.33	● <b>SS2.5-48 J32</b>					
M8	6						2.28	● <b>SS2.5-48 J35</b>					
M8	6						2.20	● <b>SS2.5-48 J40</b>					
—	—											2.68	<b>SS2.5-50</b>
M5*	6											2.66	● <b>SS2.5-50 J20</b>
M5*	6											2.65	● <b>SS2.5-50 J22</b>
M6*	6						304	40.0	31.0	4.08	0.18~0.40	2.61	● <b>SS2.5-50 J25</b>
M6*	6	2.58	● <b>SS2.5-50 J28</b>										
M6	6	2.55	● <b>SS2.5-50 J30</b>										
M8	6	2.52	● <b>SS2.5-50 J32</b>										
M8	6	2.47	● <b>SS2.5-50 J35</b>										
M8	6	2.39	● <b>SS2.5-50 J40</b>										
—	—											2.88	<b>SS2.5-52</b>
M5*	6											2.86	● <b>SS2.5-52 J20</b>
M5*	6											2.84	● <b>SS2.5-52 J22</b>
M6*	6	319	43.5	32.5	4.44	0.18~0.40	2.81	● <b>SS2.5-52 J25</b>					
M6*	6						2.77	● <b>SS2.5-52 J28</b>					
M6	6						2.75	● <b>SS2.5-52 J30</b>					
M8	6						2.71	● <b>SS2.5-52 J32</b>					
M8	6						2.67	● <b>SS2.5-52 J35</b>					
M8	6						2.58	● <b>SS2.5-52 J40</b>					
—	—											3.08	<b>SS2.5-54</b>
M5*	6											3.06	● <b>SS2.5-54 J20</b>
M5*	6											3.05	● <b>SS2.5-54 J22</b>
M6*	6	334	47.2	34.0	4.81	0.18~0.40	3.01	● <b>SS2.5-54 J25</b>					
M6*	6						2.98	● <b>SS2.5-54 J28</b>					
M6	6						2.95	● <b>SS2.5-54 J30</b>					
M8	6						2.92	● <b>SS2.5-54 J32</b>					
M8	6						2.87	● <b>SS2.5-54 J35</b>					
M8	6						2.79	● <b>SS2.5-54 J40</b>					
—	—											3.19	<b>SS2.5-55</b>
M5*	6											3.17	● <b>SS2.5-55 J20</b>
M5*	6											3.15	● <b>SS2.5-55 J22</b>
M6*	6	341	49.1	34.8	5.01	0.18~0.40	3.12	● <b>SS2.5-55 J25</b>					
M6*	6						3.08	● <b>SS2.5-55 J28</b>					
M6	6						3.06	● <b>SS2.5-55 J30</b>					
M8	6						3.02	● <b>SS2.5-55 J32</b>					
M8	6						2.98	● <b>SS2.5-55 J35</b>					
M8	6						2.89	● <b>SS2.5-55 J40</b>					
—	—											3.29	<b>SS2.5-56</b>
M5*	6											3.28	● <b>SS2.5-56 J20</b>
M5*	6											3.26	● <b>SS2.5-56 J22</b>
M6*	6	349	51.0	35.6	5.20	0.18~0.40	3.22	● <b>SS2.5-56 J25</b>					
M6*	6						3.19	● <b>SS2.5-56 J28</b>					
M6	6						3.16	● <b>SS2.5-56 J30</b>					
M8	6						3.13	● <b>SS2.5-56 J32</b>					
M8	6						3.09	● <b>SS2.5-56 J35</b>					
M8	6						3.00	● <b>SS2.5-56 J40</b>					

## [Caution on J series]

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② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.

③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.

④ Certain products which would otherwise have a very long tapped hole are conbored to reduce the length of the tap. (Products marked with "\*" are tap size).

⑤ Areas of products which have been re-worked will not be black oxide coated.

⑥ For products having a tapped hole, a set screw is included.

GCSW for Web (Gear Calculation Software) is now available.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

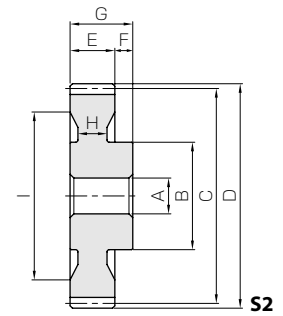
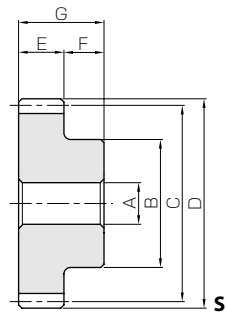
Bevel Gearboxes

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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

Bevel Gearboxes

Other Products

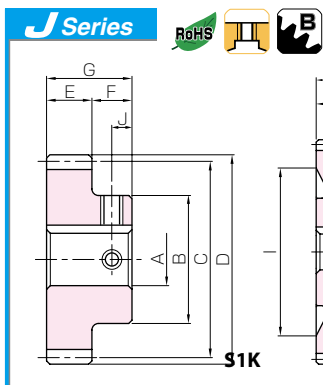
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	WidthxDepth
SS2.5-58 ● SS2.5-58 J20 ● SS2.5-58 J22 ● SS2.5-58 J25 ● SS2.5-58 J28 ● SS2.5-58 J30 ● SS2.5-58 J32 ● SS2.5-58 J35 ● SS2.5-58 J40	m2.5	58	S1	20	70	145	150	25	12	37	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											
SS2.5-60 ● SS2.5-60 J25 ● SS2.5-60 J28 ● SS2.5-60 J30 ● SS2.5-60 J32 ● SS2.5-60 J35 ● SS2.5-60 J40	m2.5	60	S4	25	70	150	155	25	12	37	(10)	(127)	—
			S4K	25									8 x 3.3
			S4K	28									8 x 3.3
			S4K	30									8 x 3.3
			S4K	32									10 x 3.3
			S4K	35									10 x 3.3
S4K	40	12 x 3.3											
SS2.5-62 ● SS2.5-62 J25 ● SS2.5-62 J28 ● SS2.5-62 J30 ● SS2.5-62 J32 ● SS2.5-62 J35 ● SS2.5-62 J40	m2.5	62	S2	25	80	155	160	25	12	37	15	130	—
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
			S2K	35									10 x 3.3
S2K	40	12 x 3.3											
SS2.5-64 ● SS2.5-64 J25 ● SS2.5-64 J28 ● SS2.5-64 J30 ● SS2.5-64 J32 ● SS2.5-64 J35 ● SS2.5-64 J40	m2.5	64	S2	25	80	160	165	25	12	37	15	131	—
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
			S2K	35									10 x 3.3
S2K	40	12 x 3.3											
SS2.5-65 ● SS2.5-65 J25 ● SS2.5-65 J28 ● SS2.5-65 J30 ● SS2.5-65 J32 ● SS2.5-65 J35 ● SS2.5-65 J40	m2.5	65	S2	25	80	162.5	167.5	25	12	37	15	134	—
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
			S2K	35									10 x 3.3
S2K	40	12 x 3.3											
SS2.5-66 ● SS2.5-66 J25 ● SS2.5-66 J28 ● SS2.5-66 J30 ● SS2.5-66 J32 ● SS2.5-66 J35 ● SS2.5-66 J40	m2.5	66	S2	25	80	165	170	25	12	37	15	140	—
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
			S2K	35									10 x 3.3
S2K	40	12 x 3.3											
SS2.5-68 ● SS2.5-68 J25 ● SS2.5-68 J28 ● SS2.5-68 J30 ● SS2.5-68 J32 ● SS2.5-68 J35 ● SS2.5-68 J40	m2.5	68	S2	25	80	170	175	25	12	37	15	140	—
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
			S2K	35									10 x 3.3
S2K	40	12 x 3.3											

[Caution on Product Characteristics]

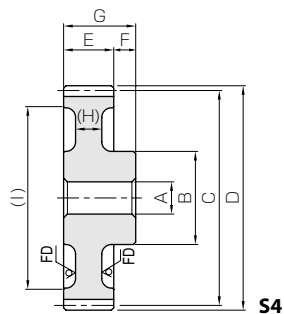
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.

[Caution on Secondary Operations]

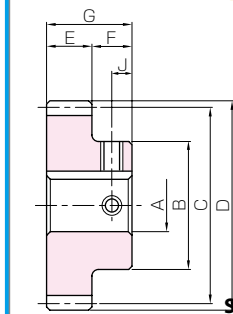
- ① Please read "Caution on Performing Secondary Operations" (Page 36) when performing modifications and/or secondary operations for safety concerns. Haguruma Kobo, the KHK's system for quick modification of KHK stock gears is also available.
- ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.



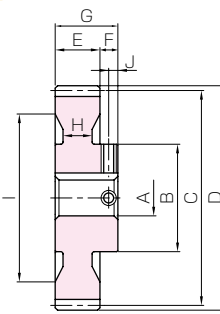
### Steel Spur Gears



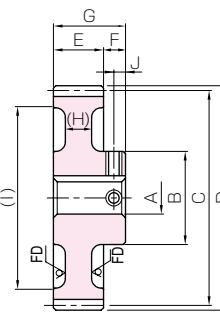
S4



S1K



S2K



S4K \* FD has die-forged finish.



\* FD has die-forged finish.

Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	364	55.0	37.1	5.61	0.18~0.40	3.51	SS2.5-58
M5*	6							●SS2.5-58 J20
M5*	6							●SS2.5-58 J22
M6*	6							●SS2.5-58 J25
M6*	6							●SS2.5-58 J28
M6	6							●SS2.5-58 J30
M8	6							●SS2.5-58 J32
M8	6							●SS2.5-58 J35
M8	6	●SS2.5-58 J40						
—	—	379	59.1	38.6	6.03	0.18~0.40	2.80	SS2.5-60
M6*	6							●SS2.5-60 J25
M6*	6							●SS2.5-60 J28
M6	6							●SS2.5-60 J30
M8	6							●SS2.5-60 J32
M8	6	●SS2.5-60 J35						
M8	6	●SS2.5-60 J40						
—	—	394	63.4	40.1	6.46	0.18~0.40	3.54	SS2.5-62
M6*	6							●SS2.5-62 J25
M6*	6							●SS2.5-62 J28
M6*	6							●SS2.5-62 J30
M8	6							●SS2.5-62 J32
M8	6	●SS2.5-62 J35						
M8	6	●SS2.5-62 J40						
—	—	409	67.8	41.7	6.92	0.18~0.40	3.76	SS2.5-64
M6*	6							●SS2.5-64 J25
M6*	6							●SS2.5-64 J28
M6*	6							●SS2.5-64 J30
M8	6							●SS2.5-64 J32
M8	6	●SS2.5-64 J35						
M8	6	●SS2.5-64 J40						
—	—	416	70.1	42.4	7.15	0.18~0.40	3.84	SS2.5-65
M6*	6							●SS2.5-65 J25
M6*	6							●SS2.5-65 J28
M6*	6							●SS2.5-65 J30
M8	6							●SS2.5-65 J32
M8	6	●SS2.5-65 J35						
M8	6	●SS2.5-65 J40						
—	—	424	72.4	43.2	7.39	0.18~0.40	3.87	SS2.5-66
M6*	6							●SS2.5-66 J25
M6*	6							●SS2.5-66 J28
M6*	6							●SS2.5-66 J30
M8	6							●SS2.5-66 J32
M8	6	●SS2.5-66 J35						
M8	6	●SS2.5-66 J40						
—	—	439	77.2	44.7	7.87	0.18~0.40	4.13	SS2.5-68
M6*	6							●SS2.5-68 J25
M6*	6							●SS2.5-68 J28
M6*	6							●SS2.5-68 J30
M8	6							●SS2.5-68 J32
M8	6	●SS2.5-68 J35						
M8	6	●SS2.5-68 J40						

**[Caution on J series]**

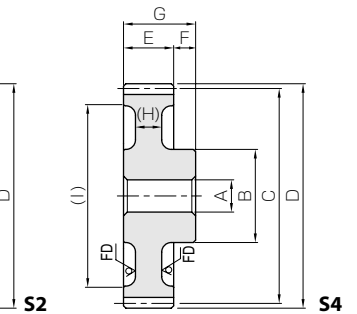
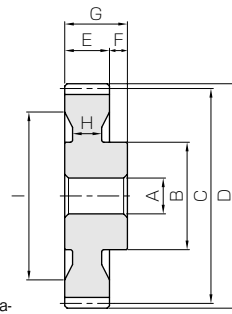
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.

- 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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



\* FD has die-forged finish.

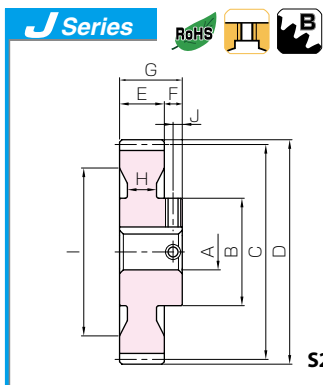
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	WidthxDepth
<b>SS2.5-70</b> ● <b>SS2.5-70 J25</b> ● <b>SS2.5-70 J28</b> ● <b>SS2.5-70 J30</b> ● <b>SS2.5-70 J32</b> ● <b>SS2.5-70 J35</b> ● <b>SS2.5-70 J40</b>	m2.5	70	S2	25	80	175	180	25	12	37	15	146	—
S2K			25	8 x 3.3									
S2K			28	8 x 3.3									
S2K			30	8 x 3.3									
S2K			32	10 x 3.3									
S2K			35	10 x 3.3									
S2K		40	12 x 3.3										
<b>SS2.5-72</b> ● <b>SS2.5-72 J25</b> ● <b>SS2.5-72 J28</b> ● <b>SS2.5-72 J30</b> ● <b>SS2.5-72 J32</b> ● <b>SS2.5-72 J35</b> ● <b>SS2.5-72 J40</b>		72	S2	25	80	180	185	25	12	37	15	151	—
S2K			25	8 x 3.3									
S2K			28	8 x 3.3									
S2K			30	8 x 3.3									
S2K			32	10 x 3.3									
S2K	35		10 x 3.3										
S2K	40	12 x 3.3											
<b>SS2.5-75</b> ● <b>SS2.5-75 J25</b> ● <b>SS2.5-75 J28</b> ● <b>SS2.5-75 J30</b> ● <b>SS2.5-75 J32</b> ● <b>SS2.5-75 J35</b> ● <b>SS2.5-75 J40</b>	75	S2	25	80	187.5	192.5	25	12	37	15	159	—	
S2K		25	8 x 3.3										
S2K		28	8 x 3.3										
S2K		30	8 x 3.3										
S2K		32	10 x 3.3										
S2K		35	10 x 3.3										
S2K	40	12 x 3.3											
<b>SS2.5-76</b> ● <b>SS2.5-76 J25</b> ● <b>SS2.5-76 J28</b> ● <b>SS2.5-76 J30</b> ● <b>SS2.5-76 J32</b> ● <b>SS2.5-76 J35</b> ● <b>SS2.5-76 J40</b>	76	S2	25	80	190	195	25	12	37	15	160	—	
S2K		25	8 x 3.3										
S2K		28	8 x 3.3										
S2K		30	8 x 3.3										
S2K		32	10 x 3.3										
S2K		35	10 x 3.3										
S2K	40	12 x 3.3											
<b>SS2.5-80</b> ● <b>SS2.5-80 J25</b> ● <b>SS2.5-80 J28</b> ● <b>SS2.5-80 J30</b> ● <b>SS2.5-80 J32</b> ● <b>SS2.5-80 J35</b> ● <b>SS2.5-80 J40</b>	80	S4	25	80	200	205	25	12	37	(10)	(177)	—	
S4K		25	8 x 3.3										
S4K		28	8 x 3.3										
S4K		30	8 x 3.3										
S4K		32	10 x 3.3										
S4K		35	10 x 3.3										
S4K	40	12 x 3.3											
<b>SS2.5-90</b> ● <b>SS2.5-90 J30</b> ● <b>SS2.5-90 J32</b> ● <b>SS2.5-90 J35</b> ● <b>SS2.5-90 J40</b>	90	S4	30	90	225	230	25	12	37	(10)	(202)	—	
S4K		30	8 x 3.3										
S4K		32	10 x 3.3										
S4K		35	10 x 3.3										
S4K		35	10 x 3.3										
S4K		40	12 x 3.3										
<b>SS2.5-100</b> ● <b>SS2.5-100 J30</b> ● <b>SS2.5-100 J32</b> ● <b>SS2.5-100 J35</b> ● <b>SS2.5-100 J40</b>	100	S4	30	90	250	255	25	12	37	(10)	(227)	—	
S4K		30	8 x 3.3										
S4K		32	10 x 3.3										
S4K		35	10 x 3.3										
S4K		35	10 x 3.3										
S4K		40	12 x 3.3										
<b>SS2.5-120</b> ● <b>SS2.5-120 J30</b> ● <b>SS2.5-120 J32</b> ● <b>SS2.5-120 J35</b> ● <b>SS2.5-120 J40</b>	120	S4	30	100	300	305	25	12	37	(10)	(277)	—	
S4K		30	8 x 3.3										
S4K		32	10 x 3.3										
S4K		35	10 x 3.3										
S4K		35	10 x 3.3										
S4K		40	12 x 3.3										

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② 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.

[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.



### Steel Spur Gears



S4K \* FD has die-forged finish.

Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—						4.30	<b>SS2.5-70</b>
M6*	6	454	82.1	46.3	8.37	0.18~0.4	4.28	● <b>SS2.5-70 J25</b>
M6*	6						4.24	● <b>SS2.5-70 J28</b>
M6*	6						4.22	● <b>SS2.5-70 J30</b>
M8	6						4.19	● <b>SS2.5-70 J32</b>
M8	6						4.14	● <b>SS2.5-70 J35</b>
M8	6						4.06	● <b>SS2.5-70 J40</b>
—	—						4.49	<b>SS2.5-72</b>
M6*	6	469	87.1	47.8	8.89	0.18~0.4	4.47	● <b>SS2.5-72 J25</b>
M6*	6						4.43	● <b>SS2.5-72 J28</b>
M6*	6						4.41	● <b>SS2.5-72 J30</b>
M8	6						4.37	● <b>SS2.5-72 J32</b>
M8	6						4.33	● <b>SS2.5-72 J35</b>
M8	6						4.24	● <b>SS2.5-72 J40</b>
—	—						4.77	<b>SS2.5-75</b>
M6*	6	492	95.0	50.1	9.69	0.18~0.4	4.75	● <b>SS2.5-75 J25</b>
M6*	6						4.71	● <b>SS2.5-75 J28</b>
M6*	6						4.69	● <b>SS2.5-75 J30</b>
M8	6						4.66	● <b>SS2.5-75 J32</b>
M8	6						4.61	● <b>SS2.5-75 J35</b>
M8	6						4.53	● <b>SS2.5-75 J40</b>
—	—						4.90	<b>SS2.5-76</b>
M6*	6	499	97.7	50.9	9.97	0.18~0.4	4.88	● <b>SS2.5-76 J25</b>
M6*	6						4.84	● <b>SS2.5-76 J28</b>
M6*	6						4.82	● <b>SS2.5-76 J30</b>
M8	6						4.78	● <b>SS2.5-76 J32</b>
M8	6						4.74	● <b>SS2.5-76 J35</b>
M8	6						4.65	● <b>SS2.5-76 J40</b>
—	—						4.42	<b>SS2.5-80</b>
M6*	6	441	90.9	45.0	9.27	0.18~0.4	4.40	● <b>SS2.5-80 J25</b>
M6*	6						4.36	● <b>SS2.5-80 J28</b>
M6*	6						4.34	● <b>SS2.5-80 J30</b>
M8	6						4.31	● <b>SS2.5-80 J32</b>
M8	6						4.26	● <b>SS2.5-80 J35</b>
M8	6						4.18	● <b>SS2.5-80 J40</b>
—	—						5.64	<b>SS2.5-90</b>
M6*	6	505	117	51.5	12.0	0.22~0.48	5.62	● <b>SS2.5-90 J30</b>
M8*	6						5.58	● <b>SS2.5-90 J32</b>
M8*	6						5.54	● <b>SS2.5-90 J35</b>
M8*	6						5.54	● <b>SS2.5-90 J35</b>
M8	6						5.46	● <b>SS2.5-90 J40</b>
—	—						6.78	<b>SS2.5-100</b>
M6*	6	569	147	58.0	15.0	0.22~0.48	6.76	● <b>SS2.5-100 J30</b>
M8*	6						6.72	● <b>SS2.5-100 J32</b>
M8*	6						6.68	● <b>SS2.5-100 J35</b>
M8	6						6.60	● <b>SS2.5-100 J40</b>
—	—						9.38	<b>SS2.5-120</b>
M6*	6	696	218	71.0	22.2	0.22~0.48	9.35	● <b>SS2.5-120 J30</b>
M8*	6						9.31	● <b>SS2.5-120 J32</b>
M8*	6						9.27	● <b>SS2.5-120 J35</b>
M8*	6						9.27	● <b>SS2.5-120 J35</b>
M8*	6						9.18	● <b>SS2.5-120 J40</b>

**[Caution on J series]**

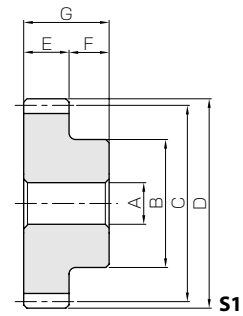
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.

- 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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.

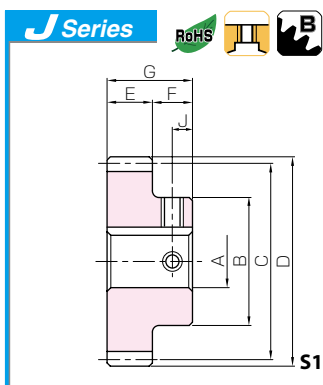


- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway		
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth		
<b>SS3-12</b> ● <b>SS3-12 J15</b> ● <b>SS3-12 J16</b>	<b>m3</b>	12	S1	15	28	36	42	30	15	45	—	—	—		
			S1T2	15									—		
			S1T2	16									—		
		<b>SS3-13</b> ● <b>SS3-13 J15**</b> ● <b>SS3-13 J16**</b> ● <b>SS3-13 J18</b>	13	13	S1	15	30	39	45	30	15	45	—	—	—
					S1K	15									5 x 2.3
					S1K	16									5 x 2.3
					S1T2	18									—
		<b>SS3-14</b> ● <b>SS3-14 J15</b> ● <b>SS3-14 J16</b> ● <b>SS3-14 J18**</b> ● <b>SS3-14 J19</b>	14	14	S1	15	32	42	48	30	15	45	—	—	—
					S1K	15									5 x 2.3
					S1K	16									5 x 2.3
					S1K	18									6 x 2.8
					S1T2	19									—
<b>SS3-15</b> ● <b>SS3-15 J15</b> ● <b>SS3-15 J16</b> ● <b>SS3-15 J18</b> ● <b>SS3-15 J19</b> ● <b>SS3-15 J20**</b>	15	15	S1	15	36	45	51	30	15	45	—	—	—		
			S1K	15									5 x 2.3		
			S1K	16									5 x 2.3		
			S1K	18									6 x 2.8		
			S1K	19									6 x 2.8		
			S1K	20									6 x 2.8		
<b>SS3-16</b> ● <b>SS3-16 J15</b> ● <b>SS3-16 J16</b> ● <b>SS3-16 J18</b> ● <b>SS3-16 J19</b> ● <b>SS3-16 J20</b> ● <b>SS3-16 J22</b>	16	16	S1	15	38	48	54	30	15	45	—	—	—		
			S1K	15									5 x 2.3		
			S1K	16									5 x 2.3		
			S1K	18									6 x 2.8		
			S1K	19									6 x 2.8		
			S1K	20									6 x 2.8		
<b>SS3-17</b> ● <b>SS3-17 J15</b> ● <b>SS3-17 J16</b> ● <b>SS3-17 J18</b> ● <b>SS3-17 J19</b> ● <b>SS3-17 J20</b> ● <b>SS3-17 J22</b>	17	17	S1	15	39	51	57	30	15	45	—	—	—		
			S1K	15									5 x 2.3		
			S1K	16									5 x 2.3		
			S1K	18									6 x 2.8		
			S1K	19									6 x 2.8		
			S1K	20									6 x 2.8		
<b>SS3-18</b> ● <b>SS3-18 J15</b> ● <b>SS3-18 J16</b> ● <b>SS3-18 J18</b> ● <b>SS3-18 J19</b> ● <b>SS3-18 J20</b> ● <b>SS3-18 J22</b>	18	18	S1	15	40	54	60	30	15	45	—	—	—		
			S1K	15									5 x 2.3		
			S1K	16									5 x 2.3		
			S1K	18									6 x 2.8		
			S1K	19									6 x 2.8		
			S1K	20									6 x 2.8		
<b>SS3-19</b> ● <b>SS3-19 J15</b> ● <b>SS3-19 J16</b> ● <b>SS3-19 J18</b> ● <b>SS3-19 J19</b> ● <b>SS3-19 J20</b> ● <b>SS3-19 J22</b> ● <b>SS3-19 J25</b>	19	19	S1	15	45	57	63	30	15	45	—	—	—		
			S1K	15									5 x 2.3		
			S1K	16									5 x 2.3		
			S1K	18									6 x 2.8		
			S1K	19									6 x 2.8		
			S1K	20									6 x 2.8		
S1K	22	6 x 2.8													
S1K	25	8 x 3.3													

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
② 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.

[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.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—							<b>SS3-12</b>
M4	7.5	54.9	3.12	5.59	0.32	0.14~0.32	0.25	● <b>SS3-12 J15</b>
M4	7.5						0.25	● <b>SS3-12 J16</b>
M4	7.5	70.7	3.77	7.21	0.38	0.14~0.32	0.30	● <b>SS3-13 J15**</b>
M4	7.5						0.30	● <b>SS3-13 J16**</b>
M5	7.5						0.29	● <b>SS3-13 J18</b>
M5	7.5						0.27	● <b>SS3-13 J18</b>
M4	7.5	88.9	4.47	9.07	0.46	0.14~0.32	0.36	● <b>SS3-14 J15</b>
M4	7.5						0.35	● <b>SS3-14 J16</b>
M5	7.5						0.35	● <b>SS3-14 J16</b>
M5	7.5						0.32	● <b>SS3-14 J18**</b>
M5	7.5						0.31	● <b>SS3-14 J19</b>
M4	7.5	99.7	5.23	10.2	0.53	0.14~0.32	0.43	● <b>SS3-15 J15</b>
M4	7.5						0.43	● <b>SS3-15 J15</b>
M4	7.5						0.42	● <b>SS3-15 J16</b>
M5	7.5						0.42	● <b>SS3-15 J16</b>
M5	7.5						0.40	● <b>SS3-15 J18</b>
M5	7.5						0.39	● <b>SS3-15 J19</b>
M5	7.5						0.38	● <b>SS3-15 J20**</b>
M4	7.5	111	6.05	11.3	0.62	0.14~0.32	0.50	● <b>SS3-16 J15</b>
M4	7.5						0.49	● <b>SS3-16 J15</b>
M4	7.5						0.48	● <b>SS3-16 J16</b>
M5	7.5						0.48	● <b>SS3-16 J16</b>
M5	7.5						0.46	● <b>SS3-16 J18</b>
M5	7.5						0.45	● <b>SS3-16 J18</b>
M5	7.5						0.44	● <b>SS3-16 J19</b>
M5	7.5						0.44	● <b>SS3-16 J19</b>
M5	7.5						0.42	● <b>SS3-16 J22</b>
M4	7.5	122	6.93	12.4	0.71	0.14~0.32	0.56	● <b>SS3-17 J15</b>
M4	7.5						0.55	● <b>SS3-17 J15</b>
M4	7.5						0.55	● <b>SS3-17 J16</b>
M5	7.5						0.55	● <b>SS3-17 J16</b>
M5	7.5						0.52	● <b>SS3-17 J18</b>
M5	7.5						0.52	● <b>SS3-17 J18</b>
M5	7.5						0.51	● <b>SS3-17 J19</b>
M5	7.5						0.50	● <b>SS3-17 J20</b>
M5	7.5						0.50	● <b>SS3-17 J20</b>
M5	7.5						0.48	● <b>SS3-17 J22</b>
M4	7.5	133	7.87	13.5	0.80	0.14~0.32	0.62	● <b>SS3-18 J15</b>
M4	7.5						0.62	● <b>SS3-18 J15</b>
M4	7.5						0.61	● <b>SS3-18 J16</b>
M5	7.5						0.61	● <b>SS3-18 J16</b>
M5	7.5						0.59	● <b>SS3-18 J18</b>
M5	7.5						0.58	● <b>SS3-18 J18</b>
M5	7.5						0.57	● <b>SS3-18 J19</b>
M5	7.5						0.57	● <b>SS3-18 J19</b>
M5	7.5						0.55	● <b>SS3-18 J22</b>
M4*	7.5	144	8.88	14.7	0.91	0.14~0.32	0.73	● <b>SS3-19 J15</b>
M4*	7.5						0.72	● <b>SS3-19 J15</b>
M4*	7.5						0.71	● <b>SS3-19 J16</b>
M5	7.5						0.71	● <b>SS3-19 J16</b>
M5	7.5						0.69	● <b>SS3-19 J18</b>
M5	7.5						0.69	● <b>SS3-19 J18</b>
M5	7.5						0.68	● <b>SS3-19 J19</b>
M5	7.5						0.67	● <b>SS3-19 J19</b>
M5	7.5						0.67	● <b>SS3-19 J20</b>
M5	7.5						0.65	● <b>SS3-19 J22</b>
M6	7.5						0.60	● <b>SS3-19 J25</b>

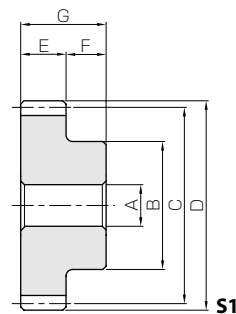
## [Caution on J series]

- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.
- ⑦ Products marked with "\*\*\*" have a small amount of material between the corner of the keyway and the tooth root. This mode of failure must be considered when selecting these gears. For details, please see our web site.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks & Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

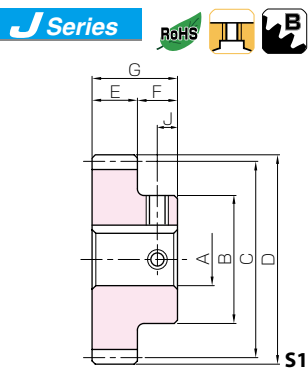
Bevel Gearboxes

Other Products

Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	WidthxDepth
SS3-20 ● SS3-20 J15 ● SS3-20 J16 ● SS3-20 J18 ● SS3-20 J19 ● SS3-20 J20 ● SS3-20 J22 ● SS3-20 J25 ● SS3-20 J28 ● SS3-20 J30	m3	20	S1	15	50	60	66	30	15	45	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
SS3-21 ● SS3-21 J15 ● SS3-21 J16 ● SS3-21 J18 ● SS3-21 J19 ● SS3-21 J20 ● SS3-21 J22 ● SS3-21 J25 ● SS3-21 J28 ● SS3-21 J30	m3	21	S1	15	52	63	69	30	15	45	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
SS3-22 ● SS3-22 J15 ● SS3-22 J16 ● SS3-22 J18 ● SS3-22 J19 ● SS3-22 J20 ● SS3-22 J22 ● SS3-22 J25 ● SS3-22 J28 ● SS3-22 J30 ● SS3-22 J32	m3	22	S1	15	54	66	72	30	15	45	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
SS3-23 ● SS3-23 J15 ● SS3-23 J16 ● SS3-23 J18 ● SS3-23 J19 ● SS3-23 J20 ● SS3-23 J22 ● SS3-23 J25 ● SS3-23 J28 ● SS3-23 J30 ● SS3-23 J32	m3	23	S1	15	56	69	75	30	15	45	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											
SS3-24 ● SS3-24 J15 ● SS3-24 J16 ● SS3-24 J18 ● SS3-24 J19 ● SS3-24 J20 ● SS3-24 J22 ● SS3-24 J25 ● SS3-24 J28 ● SS3-24 J30 ● SS3-24 J32	m3	24	S1	15	58	72	78	30	15	45	—	—	—
			S1K	15									5 x 2.3
			S1K	16									5 x 2.3
			S1K	18									6 x 2.8
			S1K	19									6 x 2.8
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
S1K	32	10 x 3.3											

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
② 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.

[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.



## Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	155	9.95	15.8	1.02	0.14~0.32	0.83	<b>SS3-20</b>
M4*	7.5							● <b>SS3-20 J15</b>
M4*	7.5							● <b>SS3-20 J16</b>
M5	7.5							● <b>SS3-20 J18</b>
M5	7.5							● <b>SS3-20 J19</b>
M5	7.5							● <b>SS3-20 J20</b>
M5	7.5							● <b>SS3-20 J22</b>
M6	7.5							● <b>SS3-20 J25</b>
M6	7.5							● <b>SS3-20 J28</b>
M6	7.5							● <b>SS3-20 J30</b>
—	—	167	11.1	17.0	1.13	0.18~0.38	0.92	<b>SS3-21</b>
M4*	7.5							● <b>SS3-21 J15</b>
M4*	7.5							● <b>SS3-21 J16</b>
M5	7.5							● <b>SS3-21 J18</b>
M5	7.5							● <b>SS3-21 J19</b>
M5	7.5							● <b>SS3-21 J20</b>
M5	7.5							● <b>SS3-21 J22</b>
M6	7.5							● <b>SS3-21 J25</b>
M6	7.5							● <b>SS3-21 J28</b>
M6	7.5							● <b>SS3-21 J30</b>
—	—	178	12.3	18.2	1.25	0.18~0.38	1.01	<b>SS3-22</b>
M4*	7.5							● <b>SS3-22 J15</b>
M4*	7.5							● <b>SS3-22 J16</b>
M5*	7.5							● <b>SS3-22 J18</b>
M5*	7.5							● <b>SS3-22 J19</b>
M5	7.5							● <b>SS3-22 J20</b>
M5	7.5							● <b>SS3-22 J22</b>
M6	7.5							● <b>SS3-22 J25</b>
M6	7.5							● <b>SS3-22 J28</b>
M6	7.5							● <b>SS3-22 J30</b>
—	—	190	13.6	19.4	1.38	0.18~0.38	1.11	<b>SS3-23</b>
M4*	7.5							● <b>SS3-23 J15</b>
M4*	7.5							● <b>SS3-23 J16</b>
M5*	7.5							● <b>SS3-23 J18</b>
M5*	7.5							● <b>SS3-23 J19</b>
M5*	7.5							● <b>SS3-23 J20</b>
M5	7.5							● <b>SS3-23 J22</b>
M6	7.5							● <b>SS3-23 J25</b>
M6	7.5							● <b>SS3-23 J28</b>
M6	7.5							● <b>SS3-23 J30</b>
—	—	202	14.9	20.6	1.52	0.18~0.38	1.21	<b>SS3-24</b>
M4*	7.5							● <b>SS3-24 J15</b>
M4*	7.5							● <b>SS3-24 J16</b>
M5*	7.5							● <b>SS3-24 J18</b>
M5*	7.5							● <b>SS3-24 J19</b>
M5*	7.5							● <b>SS3-24 J20</b>
M5*	7.5							● <b>SS3-24 J22</b>
M6	7.5							● <b>SS3-24 J25</b>
M6	7.5							● <b>SS3-24 J28</b>
M6	7.5							● <b>SS3-24 J30</b>
M8	7.5	● <b>SS3-24 J32</b>						

**[Caution on J series]**

① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order.

Please allow additional shipping time to get to your local distributor.

② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.

③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.

④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).

⑤ Areas of products which have been re-worked will not be black oxide coated.

⑥ For products having a tapped hole, a set screw is included.

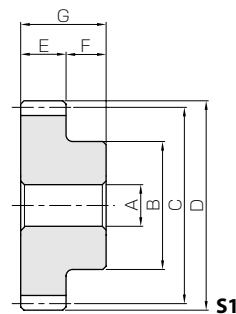


# SS Steel Spur Gears



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks & Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

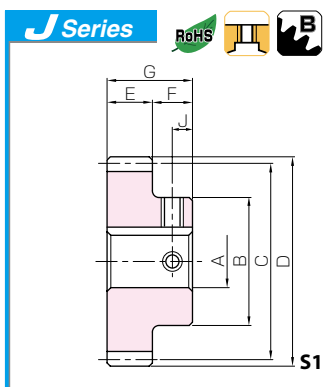
Bevel Gearboxes

Other Products

Catalog No. ●: J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS3-25 ●SS3-25 J20 ●SS3-25 J22 ●SS3-25 J25 ●SS3-25 J28 ●SS3-25 J30 ●SS3-25 J32 ●SS3-25 J35	m3	25	S1	20	60	75	81	30	15	45	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
SS3-26 ●SS3-26 J20 ●SS3-26 J22 ●SS3-26 J25 ●SS3-26 J28 ●SS3-26 J30 ●SS3-26 J32 ●SS3-26 J35	26	26	S1	20	65	78	84	30	15	45	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
SS3-27 ●SS3-27 J20 ●SS3-27 J22 ●SS3-27 J25 ●SS3-27 J28 ●SS3-27 J30 ●SS3-27 J32 ●SS3-27 J35	27	27	S1	20	65	81	87	30	15	45	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
SS3-28 ●SS3-28 J20 ●SS3-28 J22 ●SS3-28 J25 ●SS3-28 J28 ●SS3-28 J30 ●SS3-28 J32 ●SS3-28 J35 ●SS3-28 J40	28	28	S1	20	70	84	90	30	15	45	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
S1K	40	12 x 3.3											
SS3-29 ●SS3-29 J20 ●SS3-29 J22 ●SS3-29 J25 ●SS3-29 J28 ●SS3-29 J30 ●SS3-29 J32 ●SS3-29 J35 ●SS3-29 J40	29	29	S1	20	70	87	93	30	15	45	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
S1K	40	12 x 3.3											
SS3-30 ●SS3-30 J20 ●SS3-30 J22 ●SS3-30 J25 ●SS3-30 J28 ●SS3-30 J30 ●SS3-30 J32 ●SS3-30 J35 ●SS3-30 J40 ●SS3-30 J45	30	30	S1	20	75	90	96	30	15	45	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
S1K	35	10 x 3.3											
S1K	40	12 x 3.3											
S1K	45	14 x 3.8											

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
② 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.

[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.



### Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	214	16.3	21.8	1.66	0.18~0.38	1.26 1.25 1.23 1.19 1.14 1.11 1.07 1.02	<b>SS3-25</b>
M5*	7.5							●SS3-25 J20
M5*	7.5							●SS3-25 J22
M6	7.5							●SS3-25 J25
M6	7.5							●SS3-25 J28
M6	7.5							●SS3-25 J30
M8	7.5							●SS3-25 J32
M8	7.5							●SS3-25 J35
—	—	226	17.7	23.0	1.81	0.18~0.38	1.41 1.39 1.37 1.33 1.28 1.25 1.21 1.16	<b>SS3-26</b>
M5*	7.5							●SS3-26 J20
M5*	7.5							●SS3-26 J22
M6	7.5							●SS3-26 J25
M6	7.5							●SS3-26 J28
M6	7.5							●SS3-26 J30
M8	7.5							●SS3-26 J32
M8	7.5							●SS3-26 J35
—	—	237	19.2	24.2	1.96	0.18~0.38	1.49 1.48 1.46 1.42 1.37 1.34 1.30 1.25	<b>SS3-27</b>
M5*	7.5							●SS3-27 J20
M5*	7.5							●SS3-27 J22
M6	7.5							●SS3-27 J25
M6	7.5							●SS3-27 J28
M6	7.5							●SS3-27 J30
M8	7.5							●SS3-27 J32
M8	7.5							●SS3-27 J35
—	—	250	20.7	25.4	2.11	0.18~0.38	1.65 1.63 1.61 1.57 1.52 1.49 1.45 1.40 1.29	<b>SS3-28</b>
M5*	7.5							●SS3-28 J20
M5*	7.5							●SS3-28 J22
M6*	7.5							●SS3-28 J25
M6*	7.5							●SS3-28 J28
M6	7.5							●SS3-28 J30
M8	7.5							●SS3-28 J32
M8	7.5							●SS3-28 J35
—	—	262	22.3	26.7	2.27	0.18~0.38	1.74 1.73 1.70 1.66 1.62 1.59 1.55 1.49 1.39	<b>SS3-29</b>
M5*	7.5							●SS3-29 J20
M5*	7.5							●SS3-29 J22
M6*	7.5							●SS3-29 J25
M6*	7.5							●SS3-29 J28
M6	7.5							●SS3-29 J30
M8	7.5							●SS3-29 J32
M8	7.5							●SS3-29 J35
—	—	274	24.0	27.9	2.44	0.18~0.38	1.91 1.89 1.87 1.82 1.78 1.75 1.71 1.66 1.55 1.43	<b>SS3-30</b>
M5*	7.5							●SS3-30 J20
M5*	7.5							●SS3-30 J22
M6*	7.5							●SS3-30 J25
M6*	7.5							●SS3-30 J28
M6*	7.5							●SS3-30 J30
M8	7.5							●SS3-30 J32
M8	7.5							●SS3-30 J35
M8	7.5	●SS3-30 J40						
M10	7.5	●SS3-30 J45						

**[Caution on J series]**

- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with " \* " are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.

- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

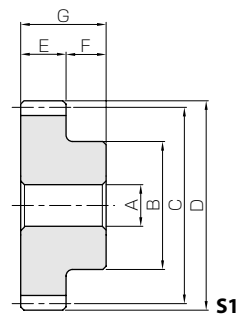


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Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998) * JIS grade 4 (JIS B1702: 1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.

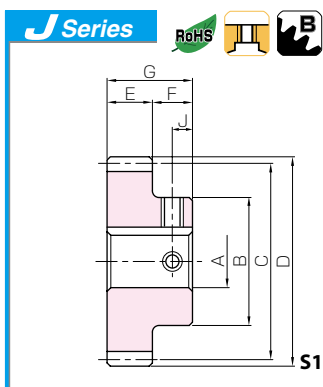


- Spur Gears
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- Other Products

Catalog No. ●: J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS3-32 ●SS3-32 J20 ●SS3-32 J22 ●SS3-32 J25 ●SS3-32 J28 ●SS3-32 J30 ●SS3-32 J32 ●SS3-32 J35 ●SS3-32 J40 ●SS3-32 J45	m3	32	S1	20	75	96	102	30	15	45	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
S1K	45	14 x 3.8											
SS3-34 ●SS3-34 J20 ●SS3-34 J22 ●SS3-34 J25 ●SS3-34 J28 ●SS3-34 J30 ●SS3-34 J32 ●SS3-34 J35 ●SS3-34 J40 ●SS3-34 J45	m3	34	S1	20	80	102	108	30	15	45	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
S1K	45	14 x 3.8											
SS3-35 ●SS3-35 J20 ●SS3-35 J22 ●SS3-35 J25 ●SS3-35 J28 ●SS3-35 J30 ●SS3-35 J32 ●SS3-35 J35 ●SS3-35 J40 ●SS3-35 J45	m3	35	S1	20	80	105	111	30	15	45	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
S1K	45	14 x 3.8											
SS3-36 ●SS3-36 J20 ●SS3-36 J22 ●SS3-36 J25 ●SS3-36 J28 ●SS3-36 J30 ●SS3-36 J32 ●SS3-36 J35 ●SS3-36 J40 ●SS3-36 J45	m3	36	S1	20	80	108	114	30	15	45	—	—	—
			S1K	20									6 x 2.8
			S1K	22									6 x 2.8
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
S1K	45	14 x 3.8											
SS3-38 ●SS3-38 J25 ●SS3-38 J28 ●SS3-38 J30 ●SS3-38 J32 ●SS3-38 J35 ●SS3-38 J40 ●SS3-38 J45	m3	38	S1	25	80	114	120	30	15	45	—	—	—
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
S1K	40	12 x 3.3											
S1K	45	14 x 3.8											

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
② 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.

[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.  
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### Steel Spur Gears



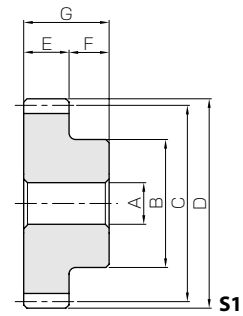
Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	298	27.4	30.4	2.80	0.18~0.38	2.11 2.10 2.07 2.03 1.99 1.96 1.92 1.86 1.76 1.63	<b>SS3-32</b>
M5*	7.5							●SS3-32 J20
M5*	7.5							●SS3-32 J22
M6*	7.5							●SS3-32 J25
M6*	7.5							●SS3-32 J28
M6*	7.5							●SS3-32 J30
M8	7.5							●SS3-32 J32
M8	7.5							●SS3-32 J35
M8	7.5							●SS3-32 J40
M10	7.5							●SS3-32 J45
—	—	323	31.2	32.9	3.18	0.18~0.38	2.41 2.38 2.36 2.32 2.28 2.25 2.21 2.15 2.05 1.92	<b>SS3-34</b>
M5*	7.5							●SS3-34 J20
M5*	7.5							●SS3-34 J22
M6*	7.5							●SS3-34 J25
M6*	7.5							●SS3-34 J28
M6*	7.5							●SS3-34 J30
M8	7.5							●SS3-34 J32
M8	7.5							●SS3-34 J35
M8	7.5							●SS3-34 J40
M10	7.5							●SS3-34 J45
—	—	335	33.1	34.2	3.38	0.18~0.38	2.52 2.50 2.48 2.44 2.39 2.36 2.32 2.27 2.16 2.04	<b>SS3-35</b>
M5*	7.5							●SS3-35 J20
M5*	7.5							●SS3-35 J22
M6*	7.5							●SS3-35 J25
M6*	7.5							●SS3-35 J28
M6*	7.5							●SS3-35 J30
M8	7.5							●SS3-35 J32
M8	7.5							●SS3-35 J35
M8	7.5							●SS3-35 J40
M10	7.5							●SS3-35 J45
—	—	348	35.2	35.5	3.59	0.18~0.38	2.64 2.62 2.60 2.55 2.51 2.48 2.44 2.39 2.28 2.16	<b>SS3-36</b>
M5*	7.5							●SS3-36 J20
M5*	7.5							●SS3-36 J22
M6*	7.5							●SS3-36 J25
M6*	7.5							●SS3-36 J28
M6*	7.5							●SS3-36 J30
M8	7.5							●SS3-36 J32
M8	7.5							●SS3-36 J35
M8	7.5							●SS3-36 J40
M10	7.5							●SS3-36 J45
—	—	373	39.4	38.0	4.02	0.18~0.38	2.82 2.80 2.76 2.73 2.69 2.63 2.53 2.40	<b>SS3-38</b>
M6*	7.5							●SS3-38 J25
M6*	7.5							●SS3-38 J28
M6*	7.5							●SS3-38 J30
M8	7.5							●SS3-38 J32
M8	7.5							●SS3-38 J35
M8	7.5							●SS3-38 J40
M10	7.5							●SS3-38 J45

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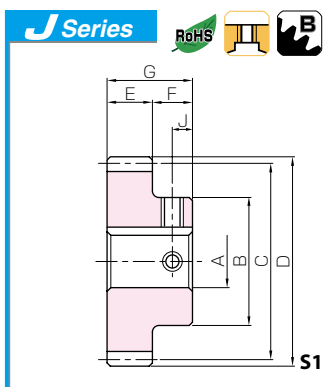


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				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS3-40 ● SS3-40 J25 ● SS3-40 J28 ● SS3-40 J30 ● SS3-40 J32 ● SS3-40 J35 ● SS3-40 J40 ● SS3-40 J45	m3	40	S1	25	80	120	126	30	15	45	—	—	—
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
S1K	45	14 x 3.8											
SS3-42 ● SS3-42 J25 ● SS3-42 J28 ● SS3-42 J30 ● SS3-42 J32 ● SS3-42 J35 ● SS3-42 J40 ● SS3-42 J45	m3	42	S1	25	80	126	132	30	15	45	—	—	—
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
S1K	45	14 x 3.8											
SS3-44 ● SS3-44 J25 ● SS3-44 J28 ● SS3-44 J30 ● SS3-44 J32 ● SS3-44 J35 ● SS3-44 J40 ● SS3-44 J45	m3	44	S1	25	80	132	138	30	15	45	—	—	—
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
S1K	45	14 x 3.8											
SS3-45 ● SS3-45 J25 ● SS3-45 J28 ● SS3-45 J30 ● SS3-45 J32 ● SS3-45 J35 ● SS3-45 J40 ● SS3-45 J45	m3	45	S1	25	80	135	141	30	15	45	—	—	—
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
S1K	45	14 x 3.8											
SS3-46 ● SS3-46 J25 ● SS3-46 J28 ● SS3-46 J30 ● SS3-46 J32 ● SS3-46 J35 ● SS3-46 J40 ● SS3-46 J45	m3	46	S1	25	80	138	144	30	15	45	—	—	—
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
S1K	45	14 x 3.8											
SS3-48 ● SS3-48 J25 ● SS3-48 J28 ● SS3-48 J30 ● SS3-48 J32 ● SS3-48 J35 ● SS3-48 J40 ● SS3-48 J45	m3	48	S1	25	80	144	150	30	15	45	—	—	—
			S1K	25									8 x 3.3
			S1K	28									8 x 3.3
			S1K	30									8 x 3.3
			S1K	32									10 x 3.3
			S1K	35									10 x 3.3
			S1K	40									12 x 3.3
S1K	45	14 x 3.8											

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
② 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.

[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.



### Steel Spur Gears



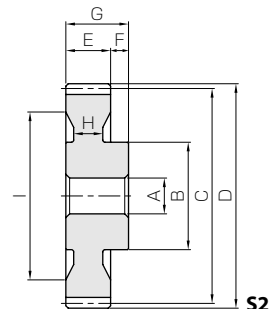
Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	398	44.0	40.6	4.49	0.18~0.38	3.08	<b>SS3-40</b>
M6*	7.5							● <b>SS3-40 J25</b>
M6*	7.5							● <b>SS3-40 J28</b>
M6*	7.5							● <b>SS3-40 J30</b>
M8	7.5							● <b>SS3-40 J32</b>
M8	7.5							● <b>SS3-40 J35</b>
M8	7.5							● <b>SS3-40 J40</b>
M10	7.5	● <b>SS3-40 J45</b>						
—	—	423	48.9	43.2	4.98	0.20~0.44	3.35	<b>SS3-42</b>
M6*	7.5							● <b>SS3-42 J25</b>
M6*	7.5							● <b>SS3-42 J28</b>
M6*	7.5							● <b>SS3-42 J30</b>
M8	7.5							● <b>SS3-42 J32</b>
M8	7.5							● <b>SS3-42 J35</b>
M8	7.5							● <b>SS3-42 J40</b>
M10	7.5	● <b>SS3-42 J45</b>						
—	—	449	54.0	45.7	5.50	0.20~0.44	3.64	<b>SS3-44</b>
M6*	7.5							● <b>SS3-44 J25</b>
M6*	7.5							● <b>SS3-44 J28</b>
M6*	7.5							● <b>SS3-44 J30</b>
M8	7.5							● <b>SS3-44 J32</b>
M8	7.5							● <b>SS3-44 J35</b>
M8	7.5							● <b>SS3-44 J40</b>
M10	7.5	● <b>SS3-44 J45</b>						
—	—	461	56.6	47.0	5.78	0.20~0.44	3.79	<b>SS3-45</b>
M6*	7.5							● <b>SS3-45 J25</b>
M6*	7.5							● <b>SS3-45 J28</b>
M6*	7.5							● <b>SS3-45 J30</b>
M8	7.5							● <b>SS3-45 J32</b>
M8	7.5							● <b>SS3-45 J35</b>
M8	7.5							● <b>SS3-45 J40</b>
M10	7.5	● <b>SS3-45 J45</b>						
—	—	474	59.4	48.3	6.05	0.20~0.44	3.94	<b>SS3-46</b>
M6*	7.5							● <b>SS3-46 J25</b>
M6*	7.5							● <b>SS3-46 J28</b>
M6*	7.5							● <b>SS3-46 J30</b>
M8	7.5							● <b>SS3-46 J32</b>
M8	7.5							● <b>SS3-46 J35</b>
M8	7.5							● <b>SS3-46 J40</b>
M10	7.5	● <b>SS3-46 J45</b>						
—	—	500	65.0	50.9	6.63	0.20~0.44	4.25	<b>SS3-48</b>
M6*	7.5							● <b>SS3-48 J25</b>
M6*	7.5							● <b>SS3-48 J28</b>
M6*	7.5							● <b>SS3-48 J30</b>
M8	7.5							● <b>SS3-48 J32</b>
M8	7.5							● <b>SS3-48 J35</b>
M8	7.5							● <b>SS3-48 J40</b>
M10	7.5	● <b>SS3-48 J45</b>						

- [Caution on J series]**
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
  - ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
  - ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
  - ④ Certain products which would otherwise have a very long tapped hole are conerbored to reduce the length of the tap. (Products marked with "\*" are tap size).
  - ⑤ Areas of products which have been re-worked will not be black oxide coated.
  - ⑥ For products having a tapped hole, a set screw is included.



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

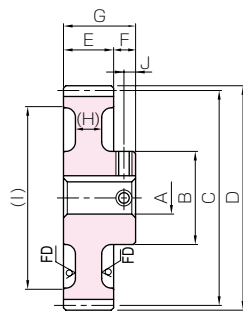
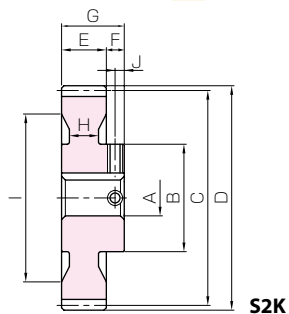
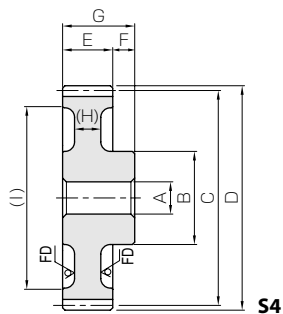
Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS3-50 ● SS3-50 J25 ● SS3-50 J28 ● SS3-50 J30 ● SS3-50 J32 ● SS3-50 J35 ● SS3-50 J40 ● SS3-50 J45	m3	50	S4	25	80	150	156	30	15	45	(10)	(123)	—
			S4K	25									8 x 3.3
			S4K	28									8 x 3.3
			S4K	30									8 x 3.3
			S4K	32									10 x 3.3
			S4K	35									10 x 3.3
			S4K	40									12 x 3.3
S4K	45	14 x 3.8											
SS3-52 ● SS3-52 J25 ● SS3-52 J28 ● SS3-52 J30 ● SS3-52 J32 ● SS3-52 J35 ● SS3-52 J40 ● SS3-52 J45	52	S2	25	80	156	162	30	15	45	16	126	—	
		S2K	25									8 x 3.3	
		S2K	28									8 x 3.3	
		S2K	30									8 x 3.3	
		S2K	32									10 x 3.3	
		S2K	35									10 x 3.3	
		S2K	40									12 x 3.3	
S2K	45	14 x 3.8											
SS3-54 ● SS3-54 J25 ● SS3-54 J28 ● SS3-54 J30 ● SS3-54 J32 ● SS3-54 J35 ● SS3-54 J40 ● SS3-54 J45	54	S2	25	80	162	168	30	15	45	16	132	—	
		S2K	25									8 x 3.3	
		S2K	28									8 x 3.3	
		S2K	30									8 x 3.3	
		S2K	32									10 x 3.3	
		S2K	35									10 x 3.3	
		S2K	40									12 x 3.3	
S2K	45	14 x 3.8											
SS3-55 ● SS3-55 J25 ● SS3-55 J28 ● SS3-55 J30 ● SS3-55 J32 ● SS3-55 J35 ● SS3-55 J40 ● SS3-55 J45	55	S2	25	80	165	171	30	15	45	16	131	—	
		S2K	25									8 x 3.3	
		S2K	28									8 x 3.3	
		S2K	30									8 x 3.3	
		S2K	32									10 x 3.3	
		S2K	35									10 x 3.3	
		S2K	40									12 x 3.3	
S2K	45	14 x 3.8											
SS3-56 ● SS3-56 J25 ● SS3-56 J28 ● SS3-56 J30 ● SS3-56 J32 ● SS3-56 J35 ● SS3-56 J40 ● SS3-56 J45	56	S2	25	80	168	174	30	15	45	16	134	—	
		S2K	25									8 x 3.3	
		S2K	28									8 x 3.3	
		S2K	30									8 x 3.3	
		S2K	32									10 x 3.3	
		S2K	35									10 x 3.3	
		S2K	40									12 x 3.3	
S2K	45	14 x 3.8											
SS3-58 ● SS3-58 J25 ● SS3-58 J28 ● SS3-58 J30 ● SS3-58 J32 ● SS3-58 J35 ● SS3-58 J40 ● SS3-58 J45	58	S2	25	80	174	180	30	15	45	16	144	—	
		S2K	25									8 x 3.3	
		S2K	28									8 x 3.3	
		S2K	30									8 x 3.3	
		S2K	32									10 x 3.3	
		S2K	35									10 x 3.3	
		S2K	40									12 x 3.3	
S2K	45	14 x 3.8											

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
② 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.

[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.



### Steel Spur Gears



\* FD has die-forged finish.

S4K \* FD has die-forged finish.

Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	525	70.9	53.6	7.23	0.20~0.44	3.72 3.70 3.65 3.62 3.58 3.53 3.43 3.30	SS3-50
M6*	7.5							●SS3-50 J25
M6*	7.5							●SS3-50 J28
M6*	7.5							●SS3-50 J30
M8	7.5							●SS3-50 J32
M8	7.5							●SS3-50 J35
M8	7.5							●SS3-50 J40
M10	7.5	●SS3-50 J45						
—	—	551	77.1	56.2	7.86	0.20~0.44	4.38 4.36 4.31 4.28 4.24 4.19 4.08 3.96	SS3-52
M6*	7.5							●SS3-52 J25
M6*	7.5							●SS3-52 J28
M6*	7.5							●SS3-52 J30
M8	7.5							●SS3-52 J32
M8	7.5							●SS3-52 J35
M8	7.5							●SS3-52 J40
M10	7.5	●SS3-52 J45						
—	—	577	83.6	58.8	8.52	0.20~0.44	4.61 4.59 4.55 4.52 4.48 4.42 4.32 4.19	SS3-54
M6*	7.5							●SS3-54 J25
M6*	7.5							●SS3-54 J28
M6*	7.5							●SS3-54 J30
M8	7.5							●SS3-54 J32
M8	7.5							●SS3-54 J35
M8	7.5							●SS3-54 J40
M10	7.5	●SS3-54 J45						
—	—	590	86.9	60.1	8.86	0.20~0.44	4.81 4.79 4.75 4.72 4.68 4.62 4.52 4.39	SS3-55
M6*	7.5							●SS3-55 J25
M6*	7.5							●SS3-55 J28
M6*	7.5							●SS3-55 J30
M8	7.5							●SS3-55 J32
M8	7.5							●SS3-55 J35
M8	7.5							●SS3-55 J40
M10	7.5	●SS3-55 J45						
—	—	602	90.3	61.4	9.21	0.20~0.44	4.94 4.91 4.87 4.84 4.80 4.75 4.64 4.52	SS3-56
M6*	7.5							●SS3-56 J25
M6*	7.5							●SS3-56 J28
M6*	7.5							●SS3-56 J30
M8	7.5							●SS3-56 J32
M8	7.5							●SS3-56 J35
M8	7.5							●SS3-56 J40
M10	7.5	●SS3-56 J45						
—	—	628	97.3	64.1	9.92	0.20~0.44	5.10 5.08 5.04 5.00 4.97 4.91 4.81 4.68	SS3-58
M6*	7.5							●SS3-58 J25
M6*	7.5							●SS3-58 J28
M6*	7.5							●SS3-58 J30
M8	7.5							●SS3-58 J32
M8	7.5							●SS3-58 J35
M8	7.5							●SS3-58 J40
M10	7.5	●SS3-58 J45						

[Caution on J series]

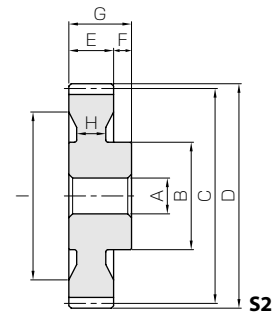
- As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- Areas of products which have been re-worked will not be black oxide coated.
- For products having a tapped hole, a set screw is included.

- 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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



S2

Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS3-60 ● SS3-60 J25 ● SS3-60 J28 ● SS3-60 J30 ● SS3-60 J32 ● SS3-60 J35 ● SS3-60 J40 ● SS3-60 J45	m3	60	S4	25	80	180	186	30	15	45	(10)	(153)	—
			S4K	25									8 x 3.3
			S4K	28									8 x 3.3
			S4K	30									8 x 3.3
			S4K	32									10 x 3.3
			S4K	35									10 x 3.3
			S4K	40									12 x 3.3
S4K	45	14 x 3.8											
SS3-62 ● SS3-62 J25 ● SS3-62 J28 ● SS3-62 J30 ● SS3-62 J32 ● SS3-62 J35 ● SS3-62 J40 ● SS3-62 J45	62	S2	25	80	186	192	30	15	45	16	150	—	
		S2K	25									8 x 3.3	
		S2K	28									8 x 3.3	
		S2K	30									8 x 3.3	
		S2K	32									10 x 3.3	
		S2K	35									10 x 3.3	
		S2K	40									12 x 3.3	
S2K	45	14 x 3.8											
SS3-64 ● SS3-64 J25 ● SS3-64 J28 ● SS3-64 J30 ● SS3-64 J32 ● SS3-64 J35 ● SS3-64 J40 ● SS3-64 J45	64	S2	25	80	192	198	30	15	45	16	158	—	
		S2K	25									8 x 3.3	
		S2K	28									8 x 3.3	
		S2K	30									8 x 3.3	
		S2K	32									10 x 3.3	
		S2K	35									10 x 3.3	
		S2K	40									12 x 3.3	
S2K	45	14 x 3.8											
SS3-65 ● SS3-65 J25 ● SS3-65 J28 ● SS3-65 J30 ● SS3-65 J32 ● SS3-65 J35 ● SS3-65 J40 ● SS3-65 J45	65	S2	25	80	195	201	30	15	45	16	161	—	
		S2K	25									8 x 3.3	
		S2K	28									8 x 3.3	
		S2K	30									8 x 3.3	
		S2K	32									10 x 3.3	
		S2K	35									10 x 3.3	
		S2K	40									12 x 3.3	
S2K	45	14 x 3.8											
SS3-66 ● SS3-66 J25 ● SS3-66 J28 ● SS3-66 J30 ● SS3-66 J32 ● SS3-66 J35 ● SS3-66 J40 ● SS3-66 J45 ● SS3-66 J50	66	S2	25	90	198	204	30	15	45	16	160	—	
		S2K	25									8 x 3.3	
		S2K	28									8 x 3.3	
		S2K	30									8 x 3.3	
		S2K	32									10 x 3.3	
		S2K	35									10 x 3.3	
		S2K	40									12 x 3.3	
S2K	45	14 x 3.8											
S2K	50	14 x 3.8											
SS3-68 ● SS3-68 J25 ● SS3-68 J28 ● SS3-68 J30 ● SS3-68 J32 ● SS3-68 J35 ● SS3-68 J40 ● SS3-68 J45 ● SS3-68 J50	68	S2	25	90	204	210	30	15	45	16	170	—	
		S2K	25									8 x 3.3	
		S2K	28									8 x 3.3	
		S2K	30									8 x 3.3	
		S2K	32									10 x 3.3	
		S2K	35									10 x 3.3	
		S2K	40									12 x 3.3	
S2K	45	14 x 3.8											
S2K	50	14 x 3.8											

[Caution on Product Characteristics]

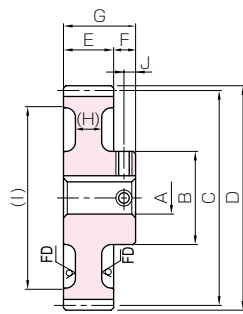
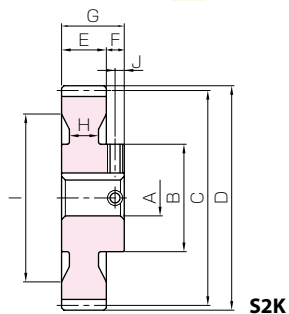
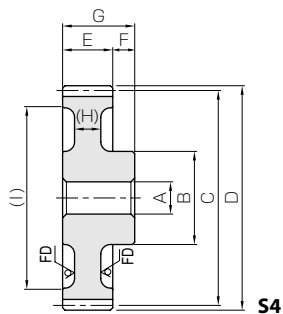
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.

[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.



# Steel Spur Gears



\* FD has die-forged finish.

S4K \* FD has die-forged finish.

Set Screw	Allowable torque (N-m)	Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No.
		Bending strength	Surface durability			
—	—	—	—	—	—	—
M6*	7.5	654	105	66.7	10.7	0.20~0.44
M6*	7.5					
M6*	7.5					
M8	7.5					
M8	7.5					
M8	7.5					
M10	7.5					
—	—	—	—	—	—	—
M6*	7.5	680	112	69.4	11.4	0.20~0.44
M6*	7.5					
M6*	7.5					
M8	7.5					
M8	7.5					
M8	7.5					
M10	7.5					
—	—	—	—	—	—	—
M6*	7.5	588	99.9	60.0	10.2	0.20~0.44
M6*	7.5					
M6*	7.5					
M8	7.5					
M8	7.5					
M8	7.5					
M10	7.5					
—	—	—	—	—	—	—
M6*	7.5	599	103	61.1	10.5	0.20~0.44
M6*	7.5					
M6*	7.5					
M8	7.5					
M8	7.5					
M8	7.5					
M10	7.5					
—	—	—	—	—	—	—
M6*	7.5	610	107	62.2	10.9	0.20~0.44
M6*	7.5					
M6*	7.5					
M8*	7.5					
M8*	7.5					
M8	7.5					
M10	7.5					
M10	7.5					
—	—	—	—	—	—	—
M6*	7.5	632	114	64.4	11.6	0.20~0.44
M6*	7.5					
M6*	7.5					
M8*	7.5					
M8*	7.5					
M8	7.5					
M10	7.5					
M10	7.5					

**[Caution on J series]**

- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
- ④ Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "\*" are tap size).
- ⑤ Areas of products which have been re-worked will not be black oxide coated.
- ⑥ For products having a tapped hole, a set screw is included.

- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

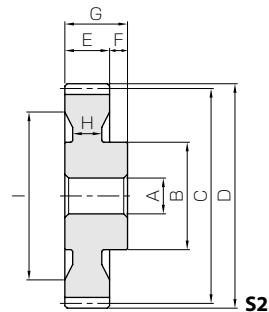


# SS Steel Spur Gears



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



S2

Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
SS3-70 ● SS3-70 J25 ● SS3-70 J28 ● SS3-70 J30 ● SS3-70 J32 ● SS3-70 J35 ● SS3-70 J40 ● SS3-70 J45 ● SS3-70 J50	m3	70	S2	25	90	210	216	30	15	45	16	176	—
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
			S2K	35									10 x 3.3
			S2K	40									12 x 3.3
			S2K	45									14 x 3.8
S2K	50	14 x 3.8											
SS3-72 ● SS3-72 J25 ● SS3-72 J28 ● SS3-72 J30 ● SS3-72 J32 ● SS3-72 J35 ● SS3-72 J40 ● SS3-72 J45 ● SS3-72 J50	m3	72	S2	25	90	216	222	30	15	45	16	182	—
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
			S2K	35									10 x 3.3
			S2K	40									12 x 3.3
			S2K	45									14 x 3.8
S2K	50	14 x 3.8											
SS3-75 ● SS3-75 J25 ● SS3-75 J28 ● SS3-75 J30 ● SS3-75 J32 ● SS3-75 J35 ● SS3-75 J40 ● SS3-75 J45 ● SS3-75 J50	m3	75	S2	25	90	225	231	30	15	45	16	190	—
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
			S2K	35									10 x 3.3
			S2K	40									12 x 3.3
			S2K	45									14 x 3.8
S2K	50	14 x 3.8											
SS3-76 ● SS3-76 J25 ● SS3-76 J28 ● SS3-76 J30 ● SS3-76 J32 ● SS3-76 J35 ● SS3-76 J40 ● SS3-76 J45 ● SS3-76 J50	m3	76	S2	25	90	228	234	30	15	45	16	190	—
			S2K	25									8 x 3.3
			S2K	28									8 x 3.3
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
			S2K	35									10 x 3.3
			S2K	40									12 x 3.3
			S2K	45									14 x 3.8
S2K	50	14 x 3.8											
SS3-80 ● SS3-80 J30 ● SS3-80 J32 ● SS3-80 J35 ● SS3-80 J40 ● SS3-80 J45 ● SS3-80 J50	m3	80	S4	30	90	240	246	30	15	45	(10)	(213)	—
			S4K	30									8 x 3.3
			S4K	32									10 x 3.3
			S4K	35									10 x 3.3
			S4K	40									12 x 3.3
			S4K	45									14 x 3.8
S4K	50	14 x 3.8											
SS3-90 ● SS3-90 J30 ● SS3-90 J32 ● SS3-90 J35 ● SS3-90 J40 ● SS3-90 J45 ● SS3-90 J50	m3	90	S2	30	100	270	276	30	15	45	16	240	—
			S2K	30									8 x 3.3
			S2K	32									10 x 3.3
			S2K	35									10 x 3.3
			S2K	40									12 x 3.3
			S2K	45									14 x 3.8
S2K	50	14 x 3.8											

[Caution on Product Characteristics]

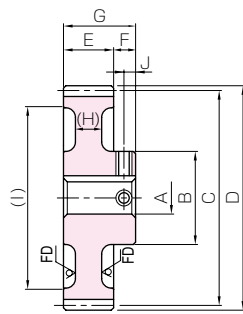
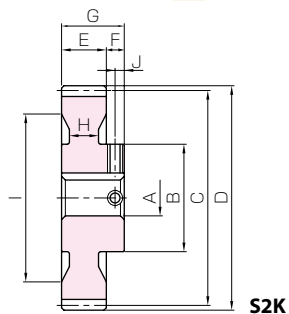
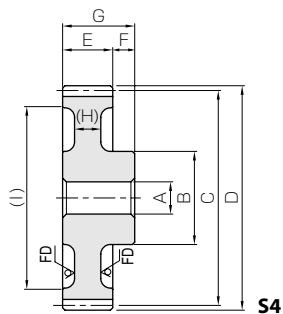
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.
- ② The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.

[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.



# Steel Spur Gears



\* FD has die-forged finish.

S4K \* FD has die-forged finish.

Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	654	121	66.6	12.4	0.20~0.44	7.15 7.13 7.08 7.05 7.01 6.96 6.86 6.73 6.60	SS3-70
M6*	7.5							●SS3-70 J25
M6*	7.5							●SS3-70 J28
M6*	7.5							●SS3-70 J30
M8*	7.5							●SS3-70 J32
M8*	7.5							●SS3-70 J35
M8	7.5							●SS3-70 J40
M10	7.5							●SS3-70 J45
M10	7.5	●SS3-70 J50						
—	—	675	129	68.9	13.1	0.20~0.44	7.46 7.43 7.39 7.35 7.31 7.26 7.16 7.03 6.90	SS3-72
M6*	7.5							●SS3-72 J25
M6*	7.5							●SS3-72 J28
M6*	7.5							●SS3-72 J30
M8*	7.5							●SS3-72 J32
M8*	7.5							●SS3-72 J35
M8	7.5							●SS3-72 J40
M10	7.5							●SS3-72 J45
M10	7.5	●SS3-72 J50						
—	—	708	141	72.2	14.3	0.20~0.44	7.95 7.92 7.88 7.85 7.81 7.75 7.65 7.53 7.40	SS3-75
M6*	7.5							●SS3-75 J25
M6*	7.5							●SS3-75 J28
M6*	7.5							●SS3-75 J30
M8*	7.5							●SS3-75 J32
M8*	7.5							●SS3-75 J35
M8	7.5							●SS3-75 J40
M10	7.5							●SS3-75 J45
M10	7.5	●SS3-75 J50						
—	—	719	145	73.3	14.8	0.20~0.44	8.20 8.18 8.13 8.10 8.06 8.00 7.91 7.78 7.65	SS3-76
M6*	7.5							●SS3-76 J25
M6*	7.5							●SS3-76 J28
M6*	7.5							●SS3-76 J30
M8*	7.5							●SS3-76 J32
M8*	7.5							●SS3-76 J35
M8	7.5							●SS3-76 J40
M10	7.5							●SS3-76 J45
M10	7.5	●SS3-76 J50						
—	—	763	162	77.8	16.5	0.20~0.44	6.92 6.82 6.78 6.72 6.62 6.49 6.37	SS3-80
M6*	7.5							●SS3-80 J30
M8*	7.5							●SS3-80 J32
M8*	7.5							●SS3-80 J35
M8	7.5							●SS3-80 J40
M10	7.5							●SS3-80 J45
M10	7.5	●SS3-80 J50						
—	—	872	208	89.0	21.2	0.26~0.52	10.6 10.6 10.5 10.5 10.4 10.2 10.1	SS3-90
M6*	7.5							●SS3-90 J30
M8*	7.5							●SS3-90 J32
M8*	7.5							●SS3-90 J35
M8*	7.5							●SS3-90 J40
M10	7.5							●SS3-90 J45
M10	7.5	●SS3-90 J50						

[Caution on J series]

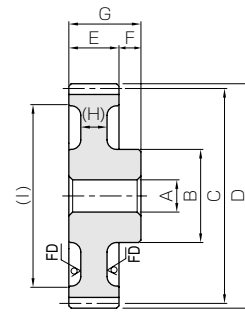
- ① As available-on-request products, requires a lead-time for shipping within 3 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
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- ③ Keyways are made according to JIS B1301 standards, Js 9 tolerance.
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- 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	S45C
Heat treatment	—
Tooth hardness	less than 194HB

\* The precision grade of J Series products is equivalent to the value shown in the table.



**S4**

\* FD has die-forged finish.

Catalog No. ● : J Series (Available-on-request)	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Keyway
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	Width×Depth
<b>SS3-100</b>	<b>m3</b>	100	S4	30	100	300	306	30	15	45	(10)	(273)	—
● <b>SS3-100 J30</b>			S4K	30									8 x 3.3
● <b>SS3-100 J32</b>			S4K	32									10 x 3.3
● <b>SS3-100 J35</b>			S4K	35									10 x 3.3
● <b>SS3-100 J40</b>			S4K	40									12 x 3.3
● <b>SS3-100 J45</b>			S4K	45									14 x 3.8
● <b>SS3-100 J50</b>			S4K	50									14 x 3.8
<b>SS3-120</b>	<b>m3</b>	120	S4	30	130	360	366	30	15	45	(10)	(333)	—
● <b>SS3-120 J30</b>			S4K	30									8 x 3.3
● <b>SS3-120 J32</b>			S4K	32									10 x 3.3
● <b>SS3-120 J35</b>			S4K	35									10 x 3.3
● <b>SS3-120 J40</b>			S4K	40									12 x 3.3
● <b>SS3-120 J45</b>			S4K	45									14 x 3.8
● <b>SS3-120 J50</b>			S4K	50									14 x 3.8

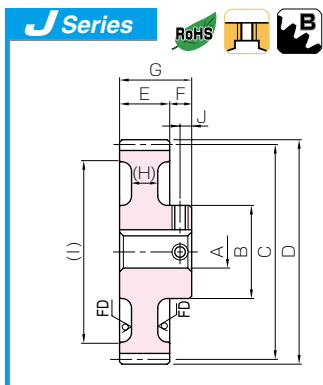
[Caution on Product Characteristics]

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- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products



### Steel Spur Gears



Set Screw		Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No. ● : J Series (Available-on-request)
Size	J	Bending strength	Surface durability	Bending strength	Surface durability			
—	—	983	261	100	26.6	0.26~0.52	10.78	<b>SS3-100</b>
M6*	7.5							● <b>SS3-100 J30</b>
M8*	7.5							● <b>SS3-100 J32</b>
M8*	7.5							● <b>SS3-100 J35</b>
M8*	7.5							● <b>SS3-100 J40</b>
M10	7.5							● <b>SS3-100 J45</b>
M10	7.5							● <b>SS3-100 J50</b>
—	—	1200	386	123	39.4	0.26~0.52	15.7	<b>SS3-120</b>
M6*	7.5							● <b>SS3-120 J30</b>
M8*	7.5							● <b>SS3-120 J32</b>
M8*	7.5							● <b>SS3-120 J35</b>
M8*	7.5							● <b>SS3-120 J40</b>
M10*	7.5							● <b>SS3-120 J45</b>
M10*	7.5							● <b>SS3-120 J50</b>

**[Caution on J series]**

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Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks & Pinions

Miter Gears

Bevel Gears

Screw Gears

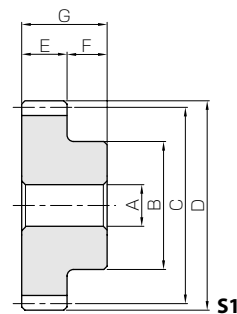
Worm Gear Pair

Bevel Gearboxes

Other Products



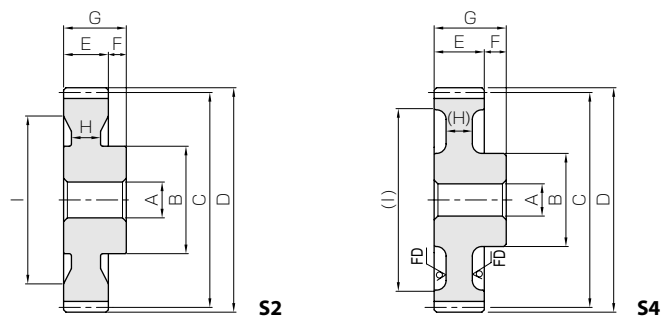
Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998) JIS grade 4 (JIS B1702: 1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	less than 194HB



Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.
				A <sub>H7</sub>	B	C	D	E	F	G	(H)	(I)
SS4-12	m4	12	S1	20	35	48	56	40	20	60	—	—
SS4-13		13	S1	20	38	52	60	40	20	60	—	—
SS4-14		14	S1	20	40	56	64	40	20	60	—	—
SS4-15		15	S1	20	45	60	68	40	20	60	—	—
SS4-16		16	S1	20	50	64	72	40	20	60	—	—
SS4-17		17	S1	20	53	68	76	40	20	60	—	—
SS4-18		18	S1	20	55	72	80	40	20	60	—	—
SS4-19		19	S1	20	60	76	84	40	20	60	—	—
SS4-20		20	S1	20	65	80	88	40	20	60	—	—
SS4-21		21	S1	20	69	84	92	40	20	60	—	—
SS4-22		22	S1	20	73	88	96	40	20	60	—	—
SS4-23		23	S1	20	77	92	100	40	20	60	—	—
SS4-24		24	S1	20	80	96	104	40	20	60	—	—
SS4-25		25	S1	20	84	100	108	40	20	60	—	—
SS4-26		26	S1	20	87	104	112	40	20	60	—	—
SS4-27		27	S1	20	90	108	116	40	20	60	—	—
SS4-28		28	S1	20	95	112	120	40	20	60	—	—
SS4-29		29	S1	20	95	116	124	40	20	60	—	—
SS4-30		30	S1	20	100	120	128	40	20	60	—	—
SS4-32		32	S1	22	100	128	136	40	16	56	—	—
SS4-34		34	S1	22	100	136	144	40	16	56	—	—
SS4-35		35	S1	22	100	140	148	40	16	56	—	—
SS4-36		36	S1	22	100	144	152	40	16	56	—	—
SS4-38		38	S1	22	100	152	160	40	16	56	—	—
SS4-40		40	S1	25	100	160	168	40	16	56	—	—
SS4-42		42	S1	25	100	168	176	40	16	56	—	—
SS4-44		44	S1	25	100	176	184	40	16	56	—	—
SS4-45		45	S1	25	100	180	188	40	16	56	—	—
SS4-46		46	S1	25	100	184	192	40	16	56	—	—
SS4-48		48	S2	25	100	192	200	40	16	56	26	150
SS4-50		50	S4	30	100	200	208	40	16	56	(12)	(168)
SS4-52		52	S2	30	100	208	216	40	16	56	26	165
SS4-54		54	S2	30	100	216	224	40	16	56	26	175
SS4-55		55	S2	30	100	220	228	40	16	56	26	178
SS4-56		56	S2	30	100	224	232	40	16	56	26	182
SS4-58		58	S2	30	110	232	240	40	16	56	26	190
SS4-60		60	S4	30	110	240	248	40	16	56	(12)	(208)
SS4-62		62	S2	30	110	248	256	40	16	56	20	210
SS4-64		64	S2	30	110	256	264	40	16	56	16	214
SS4-65		65	S2	30	110	260	268	40	16	56	16	218
SS4-66	66	S2	30	120	264	272	40	16	56	16	220	
SS4-68	68	S2	30	120	272	280	40	16	56	16	225	
SS4-70	70	S4	30	120	280	288	40	16	56	(12)	(248)	
SS4-80	80	S4	30	120	320	328	40	16	56	(12)	(288)	

[Caution on Product Characteristics]

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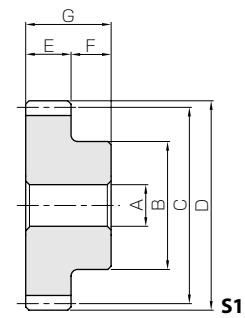
Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
Bending strength	Surface durability	Bending strength	Surface durability			
130	7.62	13.3	0.78	0.18~0.38	0.57	SS4-12
168	9.22	17.1	0.94	0.18~0.38	0.70	SS4-13
211	10.9	21.5	1.11	0.18~0.38	0.82	SS4-14
236	12.8	24.1	1.30	0.18~0.38	0.99	SS4-15
262	14.7	26.7	1.50	0.18~0.38	1.17	SS4-16
288	16.9	29.4	1.72	0.18~0.38	1.34	SS4-17
314	19.2	32.0	1.96	0.18~0.38	1.50	SS4-18
341	21.7	34.8	2.21	0.18~0.38	1.72	SS4-19
368	24.3	37.5	2.48	0.18~0.38	1.95	SS4-20
395	27.1	40.3	2.76	0.20~0.44	2.18	SS4-21
423	30.1	43.1	3.06	0.20~0.44	2.42	SS4-22
450	33.2	45.9	3.38	0.20~0.44	2.67	SS4-23
478	36.4	48.8	3.72	0.20~0.44	2.91	SS4-24
506	39.9	51.6	4.07	0.20~0.44	3.19	SS4-25
534	43.3	54.5	4.42	0.20~0.44	3.45	SS4-26
563	46.9	57.4	4.78	0.20~0.44	3.73	SS4-27
591	50.6	60.3	5.16	0.20~0.44	4.06	SS4-28
620	54.5	63.2	5.56	0.20~0.44	4.28	SS4-29
649	58.7	66.2	5.98	0.20~0.44	4.64	SS4-30
707	67.4	72.1	6.87	0.20~0.44	4.86	SS4-32
766	76.7	78.1	7.82	0.20~0.44	5.38	SS4-34
795	81.6	81.1	8.32	0.20~0.44	5.65	SS4-35
825	86.7	84.1	8.84	0.20~0.44	5.93	SS4-36
884	97.3	90.1	9.92	0.20~0.44	6.52	SS4-38
943	109	96.2	11.1	0.20~0.44	7.08	SS4-40
1000	120	102	12.3	0.24~0.52	7.73	SS4-42
1060	133	108	13.6	0.24~0.52	8.41	SS4-44
1090	139	112	14.2	0.24~0.52	8.76	SS4-45
1120	146	115	14.9	0.24~0.52	9.12	SS4-46
987	133	101	13.6	0.24~0.52	9.12	SS4-48
1040	146	106	14.8	0.24~0.52	8.00	SS4-50
1090	158	111	16.1	0.24~0.52	10.2	SS4-52
1140	172	116	17.5	0.24~0.52	10.8	SS4-54
1160	179	119	18.2	0.24~0.52	11.1	SS4-55
1190	186	121	18.9	0.24~0.52	11.5	SS4-56
1240	200	127	20.4	0.24~0.52	12.5	SS4-58
1290	215	132	22	0.24~0.52	10.7	SS4-60
1340	231	137	23.6	0.24~0.52	13.1	SS4-62
1390	248	142	25.2	0.24~0.52	13.4	SS4-64
1420	256	145	26.1	0.24~0.52	13.7	SS4-65
1450	265	148	27	0.24~0.52	14.7	SS4-66
1500	282	153	28.8	0.24~0.52	15.5	SS4-68
1550	300	158	30.6	0.24~0.52	13.6	SS4-70
1810	400	184	40.8	0.24~0.52	16.3	SS4-80

[Caution on Secondary Operations]

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- ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.



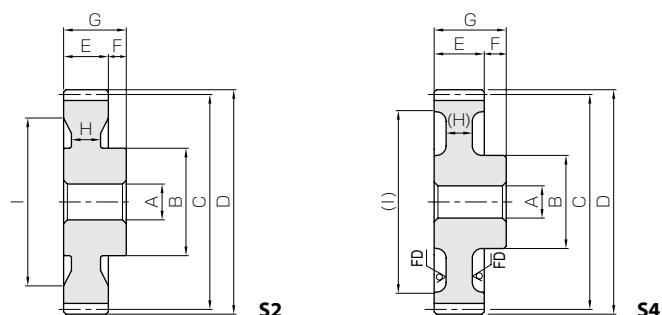
Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998) JIS grade 4 (JIS B1702: 1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	less than 194HB



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.
				A <sub>H7</sub>	B	C	D	E	F	G	(H)	(I)
SS5-12	m5	12	S1	22	46	60	70	50	25	75	—	—
SS5-13		13	S1	22	50	65	75	50	25	75	—	—
SS5-14		14	S1	22	52	70	80	50	25	75	—	—
SS5-15		15	S1	22	60	75	85	50	25	75	—	—
SS5-16		16	S1	22	65	80	90	50	25	75	—	—
SS5-17		17	S1	22	68	85	95	50	25	75	—	—
SS5-18		18	S1	22	70	90	100	50	25	75	—	—
SS5-19		19	S1	22	76	95	105	50	25	75	—	—
SS5-20		20	S1	22	82	100	110	50	25	75	—	—
SS5-21		21	S1	25	90	105	115	50	25	75	—	—
SS5-22		22	S1	25	95	110	120	50	25	75	—	—
SS5-23		23	S1	25	100	115	125	50	25	75	—	—
SS5-24		24	S1	25	100	120	130	50	25	75	—	—
SS5-25		25	S1	25	105	125	135	50	25	75	—	—
SS5-26		26	S1	25	110	130	140	50	25	75	—	—
SS5-27		27	S1	25	110	135	145	50	25	75	—	—
SS5-28		28	S1	25	110	140	150	50	25	75	—	—
SS5-29		29	S1	25	115	145	155	50	25	75	—	—
SS5-30		30	S1	25	120	150	160	50	25	75	—	—
SS5-32		32	S1	30	120	160	170	50	21	71	—	—
SS5-34		34	S1	30	120	170	180	50	21	71	—	—
SS5-35		35	S1	30	120	175	185	50	21	71	—	—
SS5-36		36	S1	30	120	180	190	50	21	71	—	—
SS5-38		38	S1	30	120	190	200	50	21	71	—	—
SS5-40		40	S2	30	120	200	210	50	21	71	36	160
SS5-42		42	S2	30	120	210	220	50	21	71	36	170
SS5-44		44	S2	30	120	220	230	50	21	71	36	175
SS5-45		45	S2	30	120	225	235	50	21	71	36	185
SS5-46		46	S2	30	120	230	240	50	21	71	30	185
SS5-48		48	S2	30	120	240	250	50	21	71	30	200
SS5-50		50	S4	30	120	250	260	50	21	71	(16)	(212)
SS5-52		52	S2	30	130	260	270	50	21	71	30	220
SS5-54	54	S2	30	130	270	280	50	21	71	30	230	
SS5-55	55	S2	30	130	275	285	50	21	71	30	235	
SS5-56	56	S2	30	130	280	290	50	21	71	30	240	
SS5-58	58	S2	30	130	290	300	50	21	71	30	240	
SS5-60	60	S4	30	130	300	310	50	21	71	(20)	(260)	

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
 ② 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.



\* FD has die-forged finish.

Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
Bending strength	Surface durability	Bending strength	Surface durability			
254	15.2	25.9	1.55	0.20~0.44	1.21	<b>SS5-12</b>
327	18.4	33.4	1.88	0.20~0.44	1.46	<b>SS5-13</b>
412	21.8	42.0	2.22	0.20~0.44	1.70	<b>SS5-14</b>
462	25.5	47.1	2.60	0.20~0.44	2.07	<b>SS5-15</b>
512	29.5	52.2	3.01	0.20~0.44	2.40	<b>SS5-16</b>
562	33.8	57.3	3.45	0.20~0.44	2.72	<b>SS5-17</b>
614	38.4	62.6	3.92	0.20~0.44	3.03	<b>SS5-18</b>
666	43.4	67.9	4.42	0.20~0.44	3.45	<b>SS5-19</b>
718	48.6	73.3	4.96	0.20~0.44	3.90	<b>SS5-20</b>
772	54.2	78.7	5.53	0.24~0.50	4.36	<b>SS5-21</b>
825	60.1	84.1	6.13	0.24~0.50	4.83	<b>SS5-22</b>
879	66.3	89.7	6.77	0.24~0.50	5.33	<b>SS5-23</b>
934	73.0	95.2	7.45	0.24~0.50	5.69	<b>SS5-24</b>
989	80.0	101	8.16	0.24~0.50	6.23	<b>SS5-25</b>
1040	87.1	106	8.88	0.24~0.50	6.79	<b>SS5-26</b>
1100	94.4	112	9.62	0.24~0.50	7.19	<b>SS5-27</b>
1160	102	118	10.4	0.24~0.50	7.62	<b>SS5-28</b>
1210	110	124	11.2	0.24~0.50	8.23	<b>SS5-29</b>
1270	118	129	12.1	0.24~0.50	8.87	<b>SS5-30</b>
1380	136	141	13.8	0.24~0.50	9.36	<b>SS5-32</b>
1500	154	153	15.7	0.24~0.50	10.4	<b>SS5-34</b>
1550	164	158	16.7	0.24~0.50	10.9	<b>SS5-35</b>
1610	174	164	17.8	0.24~0.50	11.5	<b>SS5-36</b>
1730	195	176	19.9	0.24~0.50	12.6	<b>SS5-38</b>
1540	182	157	18.5	0.24~0.50	13.2	<b>SS5-40</b>
1630	202	167	20.6	0.28~0.58	14.2	<b>SS5-42</b>
1730	223	177	22.8	0.28~0.58	15.4	<b>SS5-44</b>
1780	234	182	23.9	0.28~0.58	15.8	<b>SS5-45</b>
1830	246	187	25.1	0.28~0.58	16.2	<b>SS5-46</b>
1930	269	197	27.5	0.28~0.58	17.0	<b>SS5-48</b>
2030	294	207	30.0	0.28~0.58	15.0	<b>SS5-50</b>
2130	320	217	32.6	0.28~0.58	19.8	<b>SS5-52</b>
2220	347	227	35.4	0.28~0.58	20.9	<b>SS5-54</b>
2270	361	232	36.8	0.28~0.58	21.5	<b>SS5-55</b>
2320	375	237	38.3	0.28~0.58	22.0	<b>SS5-56</b>
2420	405	247	41.3	0.28~0.58	23.8	<b>SS5-58</b>
2520	435	257	44.4	0.28~0.58	21.4	<b>SS5-60</b>

[Caution on Secondary Operations]

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- ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.

Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks &amp; Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

Bevel Gearboxes

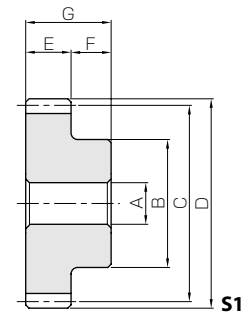
Other Products



# SS Steel Spur Gears



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	S45C
Heat treatment	—
Tooth hardness	less than 194HB



- Spur Gears
- Helical Gears
- Internal Gears
- Racks
- CP Racks & Pinions
- Miter Gears
- Bevel Gears
- Screw Gears
- Worm Gear Pair
- Bevel Gearboxes
- Other Products

Catalog No.	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	
				A <sub>H7</sub>	B	C	D	E	F	G	H	I	
SS6-12	m6	12	S1	25	55	72	84	60	28	88	—	—	
SS6-13		13	S1	25	58	78	90	60	28	88	—	—	
SS6-14		14	S1	25	60	84	96	60	28	88	—	—	
SS6-15		15	S1	25	70	90	102	60	28	88	—	—	
SS6-16		16	S1	25	75	96	108	60	28	88	—	—	
SS6-17		17	S1	25	78	102	114	60	28	88	—	—	
SS6-18		18	S1	25	80	108	120	60	28	88	—	—	
SS6-19		19	S1	25	90	114	126	60	28	88	—	—	
SS6-20		20	S1	25	100	120	132	60	28	88	—	—	
SS6-21		21	S1	28	105	126	138	60	28	88	—	—	
SS6-22		22	S1	28	110	132	144	60	28	88	—	—	
SS6-23		23	S1	28	115	138	150	60	28	88	—	—	
SS6-24		24	S1	28	120	144	156	60	28	88	—	—	
SS6-25		25	S1	28	125	150	162	60	28	88	—	—	
SS6-26		26	S1	28	130	156	168	60	28	88	—	—	
SS6-27		27	S1	28	135	162	174	60	28	88	—	—	
SS6-28		28	S1	28	140	168	180	60	28	88	—	—	
SS6-30		30	S1	30	150	180	192	60	28	88	—	—	
SS6-32		32	S1	30	150	192	204	60	23	83	—	—	
SS6-34		34	S1	30	150	204	216	60	23	83	—	—	
SS6-35		35	S1	30	150	210	222	60	23	83	—	—	
SS6-36		36	S1	30	150	216	228	60	23	83	—	—	
SS6-38		38	S1	30	150	228	240	60	23	83	—	—	
SS6-40		40	S1	30	150	240	252	60	23	83	—	—	
SS6-42		42	S1	40	150	252	264	60	23	83	—	—	
SS6-44		44	S1	40	150	264	276	60	23	83	—	—	
SS6-45		45	S1	40	180	270	282	60	23	83	—	—	
SS6-46		46	S1	40	180	276	288	60	23	83	—	—	
SS6-48		48	S1	40	180	288	300	60	23	83	—	—	
SS6-50		50	S1	40	180	300	312	60	23	83	—	—	
SS8-12		m8	12	S1	28	75	96	112	75	35	110	—	—
SS8-13			13	S1	28	80	104	120	75	35	110	—	—
SS8-14			14	S1	28	85	112	128	75	35	110	—	—
SS8-15			15	S1	28	90	120	136	75	35	110	—	—
SS8-16	16		S1	28	100	128	144	75	35	110	—	—	
SS8-17	17		S1	28	105	136	152	75	35	110	—	—	
SS8-18	18		S1	28	110	144	160	75	35	110	—	—	
SS8-19	19		S1	28	120	152	168	75	35	110	—	—	
SS8-20	20		S1	28	130	160	176	75	35	110	—	—	
SS8-21	21		S1	30	140	168	184	75	35	110	—	—	
SS8-22	22		S1	30	150	176	192	75	35	110	—	—	
SS8-23	23		S1	30	155	184	200	75	35	110	—	—	
SS8-24	24		S1	30	160	192	208	75	35	110	—	—	
SS8-25	25		S1	30	170	200	216	75	35	110	—	—	
SS8-26	26		S1	30	170	208	224	75	35	110	—	—	
SS8-27	27		S1	30	170	216	232	75	35	110	—	—	
SS8-28	28		S1	30	180	224	240	75	35	110	—	—	
SS8-30	30		S1	30	180	240	256	75	35	110	—	—	
SS10-15	m10		15	S1	30	115	150	170	90	40	130	—	—
SS10-20			20	S1	30	165	200	220	90	40	130	—	—
SS10-25		25	S1	40	200	250	270	90	40	130	—	—	

[Caution on Product Characteristics] ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 35 for more details.  
 ② 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.

Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
Bending strength	Surface durability	Bending strength	Surface durability			
439	26.8	44.8	2.73	0.22~0.48	2.10	<b>SS6-12</b>
566	32.4	57.7	3.31	0.22~0.48	2.49	<b>SS6-13</b>
711	38.4	72.5	3.92	0.22~0.48	2.89	<b>SS6-14</b>
798	44.9	81.4	4.58	0.22~0.48	3.50	<b>SS6-15</b>
884	52	90.2	5.3	0.22~0.48	4.04	<b>SS6-16</b>
972	59.6	99.1	6.07	0.22~0.48	4.56	<b>SS6-17</b>
1060	67.7	108	6.9	0.22~0.48	5.08	<b>SS6-18</b>
1150	76.4	117	7.79	0.22~0.48	5.87	<b>SS6-19</b>
1240	85.9	127	8.75	0.22~0.48	6.71	<b>SS6-20</b>
1330	95.9	136	9.78	0.26~0.56	7.35	<b>SS6-21</b>
1430	107	145	10.9	0.26~0.56	8.11	<b>SS6-22</b>
1520	118	155	12	0.26~0.56	8.90	<b>SS6-23</b>
1610	129	165	13.2	0.26~0.56	9.73	<b>SS6-24</b>
1710	142	174	14.5	0.26~0.56	10.6	<b>SS6-25</b>
1800	154	184	15.7	0.26~0.56	11.5	<b>SS6-26</b>
1900	167	194	17	0.26~0.56	12.4	<b>SS6-27</b>
2000	181	204	18.4	0.26~0.56	13.4	<b>SS6-28</b>
2190	209	223	21.3	0.26~0.56	15.4	<b>SS6-30</b>
1990	200	203	20.4	0.26~0.56	16.4	<b>SS6-32</b>
2150	228	220	23.2	0.26~0.56	18.1	<b>SS6-34</b>
2240	242	228	24.7	0.26~0.56	19.0	<b>SS6-35</b>
2320	258	237	26.3	0.26~0.56	20.0	<b>SS6-36</b>
2490	289	254	29.5	0.26~0.56	22.0	<b>SS6-38</b>
2650	323	271	33	0.26~0.56	24.0	<b>SS6-40</b>
2820	359	288	36.6	0.30~0.64	25.9	<b>SS6-42</b>
2990	397	305	40.5	0.30~0.64	28.2	<b>SS6-44</b>
3080	416	314	42.5	0.30~0.64	30.7	<b>SS6-45</b>
3160	436	322	44.5	0.30~0.64	32.0	<b>SS6-46</b>
3330	478	340	48.8	0.30~0.64	34.5	<b>SS6-48</b>
3500	522	357	53.2	0.30~0.64	37.1	<b>SS6-50</b>
975	62.6	99.5	6.39	0.28~0.58	4.94	<b>SS8-12</b>
1260	75.2	128	7.66	0.28~0.58	5.85	<b>SS8-13</b>
1580	88.9	161	9.06	0.28~0.58	6.83	<b>SS8-14</b>
1770	104	181	10.6	0.28~0.58	7.87	<b>SS8-15</b>
1970	121	200	12.3	0.28~0.58	9.20	<b>SS8-16</b>
2160	139	220	14.1	0.28~0.58	10.4	<b>SS8-17</b>
2360	158	240	16.1	0.28~0.58	11.7	<b>SS8-18</b>
2560	178	261	18.2	0.28~0.58	13.3	<b>SS8-19</b>
2760	200	281	20.4	0.28~0.58	15.0	<b>SS8-20</b>
2960	223	302	22.8	0.32~0.66	16.7	<b>SS8-21</b>
3170	248	323	25.3	0.32~0.66	18.6	<b>SS8-22</b>
3380	273	344	27.9	0.32~0.66	20.2	<b>SS8-23</b>
2990	250	305	25.5	0.32~0.66	22.0	<b>SS8-24</b>
3160	273	323	27.8	0.32~0.66	24.1	<b>SS8-25</b>
3340	297	341	30.3	0.32~0.66	25.6	<b>SS8-26</b>
3520	322	359	32.8	0.32~0.66	27.2	<b>SS8-27</b>
3700	348	377	35.5	0.32~0.66	29.6	<b>SS8-28</b>
4060	404	414	41.2	0.32~0.66	33.0	<b>SS8-30</b>
3330	203	339	20.7	0.34~0.68	15.0	<b>SS10-15</b>
4310	323	440	33	0.34~0.68	28.2	<b>SS10-20</b>
5930	529	605	54	0.36~0.76	43.3	<b>SS10-25</b>

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- ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.