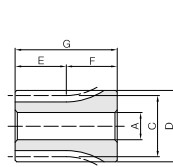
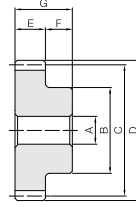




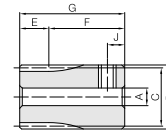
Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998)
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	(less than 194HB)
Surface treatment	Black oxide coating



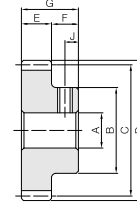
53



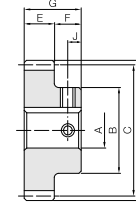
51



S3T



S1T



S1K

H To order Hardened Plus, please specify Catalog No. + H.

Catalog Number	Module	No. of teeth	Shape	Bore				Face width	Hub width	Total length	Keyway	Socket head screw	
				A-H	B	C	D					Size	J
S51-15	m1	15	S3	8	17	15	17	E	F	G	Width × Depth	—	—
S51-15A			S3T	5								M4	4
S51-15B			S3T	6								M4	4
S51-16		16	S3	8	18	16	18					—	—
S51-16B			S3T	6								M4	4
S51-17			S3	8								19	17
S51-18		18	S3	8	20	18	20					—	—
S51-19		19	S3	8	21	19	21					—	—
S51-20		20	S1	8	16	20	22					—	—
S51-20A			S1T	5								M4	5
S51-20B			S1T	6								M4	5
S51-20C			S1T	8								M5	5
S51-21		21	S1	8	17	21	23					—	—
S51-22		22	S1	8	18	22	24					—	—
S51-23		23	S1	8	18	23	25					—	—
S51-24		24	S1	8	20	24	26					—	—
S51-24A			S1T	6								M4	5
S51-24C			S1K	10								M4	5
S51-25		25	S1	8	20	25	27					—	—
S51-25B			S1T	8								M5	5
S51-25C	S1K		10	M4				5					
S51-26	26	S1	8	22	26	28	—	—					
S51-27	27	S1	8	22	27	29	—	—					
S51-28	28	S1	8	22	28	30	—	—					
S51-29	29	S1	8	24	29	31	—	—					
S51-30	30	S1	10	25	30	32	—	—					
S51-30A		S1T	6				M4	5					
S51-30B		S1T	8				M5	5					
S51-32	32	S1	10	26	32	34	—	—					
S51-32A		S1T	8				M5	5					
S51-34	34	S1	10	26	34	36	—	—					
S51-35	35	S1	10	26	35	37	—	—					
S51-36	36	S1	10	28	36	38	—	—					
S51-38	38	S1	10	32	38	40	—	—					
S51-40	40	S1	10	35	40	42	—	—					
S51-40B		S1K	10				4 × 1.8	M4	5				
S51-42	42	S1	10	35	42	44	—	—					
S51-44	44	S1	10	35	44	46	—	—					
S51-45	45	S1	10	35	45	47	—	—					
S51-45A		S1T	8				M5	5					
S51-45B		S1K	10				4 × 1.8	M4	5				
S51-46	46	S1	10	35	46	48	—	—					
S51-48	48	S1	10	35	48	50	—	—					

- [Caution on Product Characteristics]
- The key groove used is a JIS B 1301 normal type (Js9) and a set screw is included for products with a tapped hole.
 - The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 38 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.
 - When using S3T and S1T set screws for fastening gears to a shaft, only use this method for applications with light load usage. For secure fastening, please use dowel pins in combination.

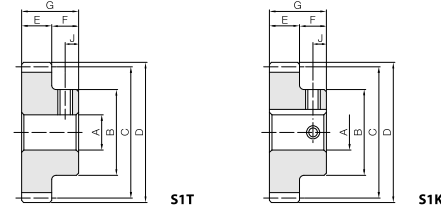
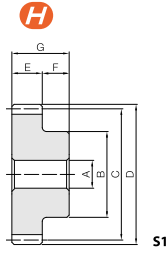
Allowable torque						Backlash (mm)	Weight (kg)	Catalog Number
Bending strength		Surface durability		Surface durability ^H				
N-m	kgf-m	N-m	kgf-m	N-m	kgf-m			
3.69	0.38	0.17	0.018	0.85	0.086	0.08~0.18	0.038	S51-15
							0.044	S51-15A
							0.042	S51-15B
4.09	0.42	0.2	0.021	0.98	0.10		0.044	S51-16
							0.049	S51-16B
4.5	0.46	0.23	0.023	1.12	0.11		0.050	S51-17
4.91	0.5	0.26	0.027	1.26	0.13		0.057	S51-18
5.33	0.54	0.29	0.030	1.42	0.14		0.065	S51-19
5.75	0.59	0.33	0.033	1.59	0.16		0.033	S51-20
							0.037	S51-20A
							0.036	S51-20B
							0.032	S51-20C
6.17	0.63	0.36	0.037	1.77	0.18		0.037	S51-21
6.6	0.67	0.4	0.041	1.95	0.20		0.042	S51-22
7.03	0.72	0.45	0.045	2.15	0.22		0.045	S51-23
7.47	0.76	0.49	0.050	2.36	0.24		0.052	S51-24
							0.055	S51-24A
							0.046	S51-24C
7.91	0.81	0.54	0.055	2.57	0.26		0.055	S51-25
							0.054	S51-25B
						0.049	S51-25C	
8.35	0.85	0.58	0.059	2.79	0.28	0.064	S51-26	
8.79	0.9	0.63	0.064	3.01	0.31	0.067	S51-27	
9.24	0.94	0.68	0.070	3.25	0.33	0.070	S51-28	
9.69	0.99	0.73	0.075	3.49	0.36	0.079	S51-29	
10.1	1.03	0.79	0.081	3.74	0.38	0.082	S51-30	
						0.089	S51-30A	
						0.085	S51-30B	
11.1	1.13	0.90	0.092	4.27	0.44	0.092	S51-32	
						0.096	S51-32A	
12.0	1.22	1.03	0.10	4.83	0.49	0.10	S51-34	
12.4	1.27	1.09	0.11	5.13	0.52	0.10	S51-35	
12.9	1.31	1.16	0.12	5.44	0.55	0.12	S51-36	
13.8	1.41	1.30	0.13	6.08	0.62	0.14	S51-38	
14.7	1.50	1.45	0.15	6.76	0.69	0.16	S51-40	
						0.16	S51-40B	
15.7	1.60	1.61	0.16	7.47	0.76	0.17	S51-42	
16.6	1.69	1.77	0.18	8.23	0.84	0.18	S51-44	
17.1	1.74	1.86	0.19	8.62	0.88	0.19	S51-45	
						0.19	S51-45A	
						0.19	S51-45B	
17.6	1.79	1.95	0.20	9.02	0.92	0.19	S51-46	
18.5	1.89	2.13	0.22	9.84	1.00	0.21	S51-48	

- [Caution on Secondary Operations]
- Please read "Cautions on Performing Secondary Operations" (Page 40) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK 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.

[Caution on Hardened Plus] ① See Page 6 for more details on Hardened Plus.



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



H To order Hardened Plus, please specify Catalog No. + H.

Catalog Number	Module	No. of teeth	Shape	Bore		Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway	Socket head screw	
				A-H	B								C	D
SS1-50	m1	50	S1	10	35	40	110	112	10	10	20	—	—	—
SS1-50A														
SS1-52		52	S1	10	35	40	110	112	10	10	20	—	—	—
SS1-54														
SS1-55		55	S1	10	35	40	110	112	10	10	20	—	—	—
SS1-56														
SS1-58		58	S1	10	35	40	110	112	10	10	20	—	—	—
SS1-60														
SS1-60C		60	S1	10	35	40	110	112	10	10	20	—	—	—
SS1-62														
SS1-62		62	S1	10	40	40	120	122	10	10	20	—	—	—
SS1-64														
SS1-65		65	S1	10	40	40	120	122	10	10	20	—	—	—
SS1-66														
SS1-68		68	S1	10	40	40	120	122	10	10	20	—	—	—
SS1-70														
SS1-72		72	S1	10	40	40	120	122	10	10	20	—	—	—
SS1-75														
SS1-76		76	S1	10	40	40	120	122	10	10	20	—	—	—
SS1-80														
SS1-84	84	S1	10	40	40	120	122	10	10	20	—	—	—	
SS1-85														8
SS1-88	88	S1	10	40	40	120	122	10	10	20	—	—	—	
SS1-90														8
SS1-95	95	S1	10	40	40	120	122	10	10	20	—	—	—	
SS1-96														8
SS1-100	100	S1	10	40	40	120	122	10	10	20	—	—	—	
SS1-110														8
SS1-110	110	S1	15	50	50	110	112	10	10	20	—	—	—	
SS1-120														8
SS1-120	120	S1	15	50	50	110	112	10	10	20	—	—	—	
SS1-150														8
SS1-150	150	S1	20	120	120	150	152	10	10	20	—	—	—	
SS1-200														8
SS1-200	200	S1	20	160	160	200	202	10	10	20	—	—	—	
														8

- [Caution on Product Characteristics]
- The key groove used is a JIS B 1301 normal type (Js9) and a set screw is included for products with a tapped hole.
 - The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 38 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.
 - When using S3T and S1T set screws for fastening gears to a shaft, only use this method for applications with light load usage. For secure fastening, please use dowel pins in combination.

Allowable torque						Backlash (mm)	Weight (kg)	Catalog Number
Bending strength		Surface durability		Surface durability H				
N-m	kgf-m	N-m	kgf-m	N-m	kgf-m			
19.5	1.98	2.32	0.24	10.7	1.09	0.08~0.18	0.22	SS1-50
							0.22	SS1-50A
20.4	2.08	2.52	0.26	11.6	1.18		0.23	SS1-52
21.4	2.18	2.73	0.28	12.5	1.28		0.24	SS1-54
21.8	2.23	2.83	0.29	13.0	1.33		0.25	SS1-55
22.3	2.28	2.94	0.30	13.5	1.38		0.26	SS1-56
23.3	2.37	3.17	0.32	14.5	1.48		0.27	SS1-58
24.2	2.47	3.40	0.35	15.6	1.59		0.29	SS1-60
							0.27	SS1-60C
25.2	2.57	3.64	0.37	16.7	1.70		0.32	SS1-62
26.2	2.67	3.89	0.40	17.8	1.81		0.34	SS1-64
26.6	2.72	4.02	0.41	18.4	1.87		0.35	SS1-65
27.1	2.77	4.15	0.42	18.9	1.93		0.35	SS1-66
28.1	2.86	4.42	0.45	20.1	2.05		0.37	SS1-68
29.1	2.96	4.70	0.48	21.4	2.18		0.39	SS1-70
30.0	3.06	4.98	0.51	22.6	2.31		0.41	SS1-72
31.5	3.21	5.43	0.55	24.6	2.51		0.43	SS1-75
32.0	3.26	5.59	0.57	25.3	2.58		0.44	SS1-76
33.9	3.46	6.23	0.63	28.1	2.87		0.48	SS1-80
35.8	3.66	6.90	0.7	31.1	3.17		0.52	SS1-84
36.3	3.71	7.08	0.72	31.8	3.25	0.53	SS1-85	
37.8	3.85	7.62	0.78	34.2	3.48	0.56	SS1-88	
38.8	3.95	7.98	0.81	35.8	3.65	0.59	SS1-90	
41.2	4.20	8.95	0.91	40.0	4.08	0.64	SS1-95	
41.7	4.25	9.15	0.93	40.8	4.16	0.65	SS1-96	
43.7	4.45	9.97	1.02	44.4	4.53	0.70	SS1-100	
48.6	4.95	12.2	1.24	53.9	5.50	0.87	SS1-110	
53.5	5.45	14.7	1.50	64.4	6.57	1.01	SS1-120	
68.2	6.96	23.6	2.41	102	10.4	2.23	SS1-150	
71.5	7.29	33.6	3.42	144	14.7	4.00	SS1-200	

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[Caution on Hardened Plus] ① See Page 6 for more details on Hardened Plus.