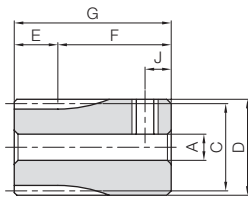
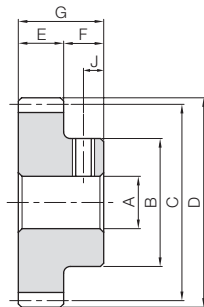




Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	(less than 194HB)
Surface treatment	Black oxide coating



S3T



S1T

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

Catalog Number	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Socket head screw		
				A _{H7(H8)}	B	C	D	E	F	G	Size	J	
SS0.5-15A	m0.5	15	S3T	3 _{H8}	8.5	7.5	8.5	5	11	16	M3	2.5	
SS0.5-18A		18		4 _{H8}	10	9	10				M3		
SS0.5-20A		20		3 _{H8}	11	10	11				M3		
SS0.5-20B				4 _{H8}	12	11	12				M3		
SS0.5-22A		22		4 _{H8}	12	11	12				M3		
SS0.5-24A		24		4 _{H8}	13	12	13				M3	2.5	
SS0.5-24B				5 _{H8}							M4		3
SS0.5-25B		25	5 _{H8}	13.5	12.5	13.5	M4		3				
SS0.5-28A		S1T	28	4 _{H8}	12	14	15		M3	7	12	3.5	
SS0.5-30B			30	5	13	15	16		M4				
SS0.5-50B			50	6	22	25	26		M4				
SS0.5-54A			54	5	25	27	28		M4				
SS0.5-60A			60	6	28	30	31		M4				
SS0.5-80A			80	6	28	40	41		M4				
SS0.5-80B				8					M5				
SS0.5-96A			96	8	28	48	49		M5				
SS0.5-120A			120	8	28	60	61		M5				
SS0.8-15A	m0.8		15	S3T	5 _{H8}	13.6	12	13.6	8				14
SS0.8-20A		S1T	20	5 _{H8}	13	16	17.6	8		16	M4	4	
SS0.8-20B				6							M4		
SS0.8-25A				25	5 _{H8}	16	20				21.6		M4
SS0.8-28A				28	6	18	22.4				24		M4
SS0.8-30A				30	5 _{H8}	20	24				25.6		M4
SS0.8-30C					8								M5
SS0.8-40A				40	6	28	32				33.6		M4
SS0.8-45A	45	6	28	36	37.6	M4							

Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog Number
Bending strength	Surface durability	Bending strength	Surface durability			
0.46	0.022	0.047	0.0022	0~0.10	0.0056	SS0.5-15A
0.61	0.032	0.063	0.0033		0.0076	SS0.5-18A
0.72	0.040	0.073	0.0041		0.010	SS0.5-20A
0.83	0.049	0.084	0.0050		0.0095	SS0.5-20B
0.93	0.059	0.095	0.0060		0.012	SS0.5-22A
0.99	0.064	0.10	0.0065		0.014	SS0.5-24A
1.16	0.081	0.12	0.0082		0.013	SS0.5-24B
1.27	0.093	0.13	0.0095		0.014	SS0.5-25B
2.43	0.27	0.25	0.027		0.011	SS0.5-28A
2.67	0.32	0.27	0.032		0.012	SS0.5-30B
3.03	0.39	0.31	0.040		0.037	SS0.5-50B
4.24	0.72	0.43	0.074		0.047	SS0.5-54A
5.21	1.06	0.53	0.11		0.058	SS0.5-60A
6.68	1.70	0.68	0.17		0.079	SS0.5-80A
1.89	0.088	0.19	0.0090		0.077	SS0.5-80B
2.94	0.17	0.30	0.017	0~0.10	0.099	SS0.5-96A
4.05	0.27	0.41	0.027		0.14	SS0.5-120A
4.73	0.34	0.48	0.035		0.019	SS0.8-15A
5.19	0.39	0.53	0.040		0.018	SS0.8-20A
7.55	0.72	0.77	0.074		0.017	SS0.8-20B
8.75	0.93	0.89	0.095		0.029	SS0.8-25A
					0.037	SS0.8-28A
					0.045	SS0.8-30A
					0.041	SS0.8-30C
					0.085	SS0.8-40A
					0.098	SS0.8-45A



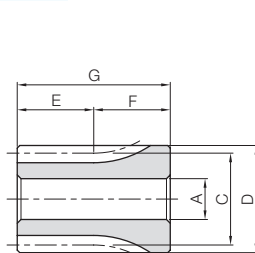
ZAHNRAD24.COM
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info@zahnrad24.com

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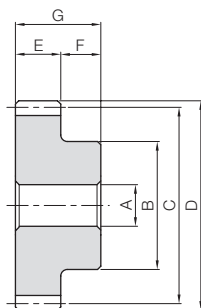




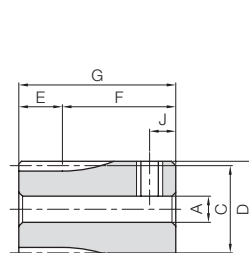
Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998)
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	(less than 194HB)
Surface treatment	Black oxide coating



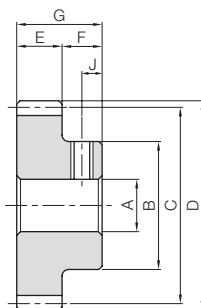
S3



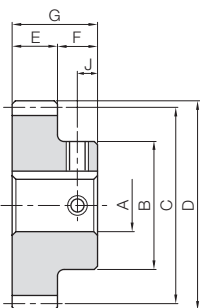
S1



S3T



S1T



S1K

H To order Hardened Plus, please specify **Catalog No. + H**. Example: **SS1-15H**

Catalog Number	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway	Socket head screw	
				AH7	B	C	D	E	F	G	Width x Depth	Size	J
SS1-15 SS1-15A SS1-15B	m1	15	S3 S3T S3T	8 5 6	17	15	17	10	20	30	—	— M4 M4	— 4 4
SS1-16 SS1-16B		16	S3 S3T	8 6	18	16	18					— M4	— 4
SS1-17		17	S3	8	19	17	19					—	—
SS1-18		18	S3	8	20	18	20					—	—
SS1-19		19	S3	8	21	19	21					—	—
SS1-20 SS1-20A SS1-20B SS1-20C		20	S1 S1T S1T S1T	8 5 6 8	16	20	22					— M4 M4 M5	— 5 5 5
SS1-21		21	S1	8	17	21	23					—	—
SS1-22		22	S1	8	18	22	24					—	—
SS1-23		23	S1	8	18	23	25					—	—
SS1-24 SS1-24A SS1-24C		24	S1 S1T S1K	8 6 10	20	24	26				— — 4 x 1.8	— M4 M4	— 5 5
SS1-25 SS1-25B SS1-25C		25	S1 S1T S1K	8 8 10	20	25	27				— — 4 x 1.8	— M5 M4	— 5 5
SS1-26		26	S1	8	22	26	28				—	—	—
SS1-27		27	S1	8	22	27	29				—	—	—
SS1-28		28	S1	8	22	28	30				—	—	—
SS1-29		29	S1	8	24	29	31				—	—	—
SS1-30 SS1-30A SS1-30B		30	S1 S1T S1T	10 6 8	25	30	32		10	20	— — —	— M4 M5	— 5 5
SS1-32 SS1-32A		32	S1 S1T	10 8	26	32	34				— —	M5 —	5 —
SS1-34		34	S1	10	26	34	36				—	—	—
SS1-35		35	S1	10	26	35	37				—	—	—
SS1-36		36	S1	10	28	36	38				—	—	—
SS1-38		38	S1	10	32	38	40				—	—	—
SS1-40 SS1-40B		40	S1 S1K	10 10	35	40	42				— 4 x 1.8	— M4	— 5
SS1-42		42	S1	10	35	42	44				—	—	—
SS1-44		44	S1	10	35	44	46				—	—	—
SS1-45 SS1-45A SS1-45B		45	S1 S1T S1K	10 8 10	35	45	47				— — 4 x 1.8	— M5 M4	— 5 5
SS1-46		46	S1	10	35	46	48				—	—	—
SS1-48		48	S1	10	35	48	50				—	—	—

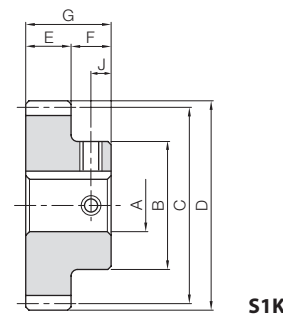
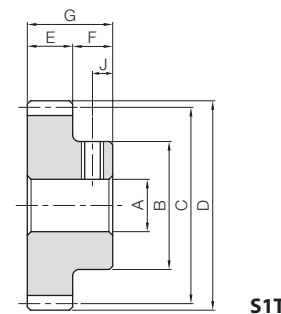
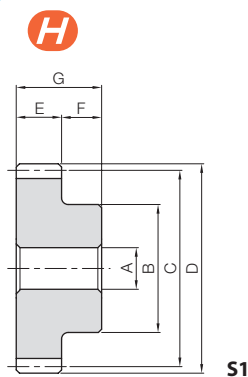
[Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).



Allowable torque						Backlash (mm)	Weight (kg)	Catalog Number
Bending strength		Surface durability		Surface durability 				
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 0.044 0.042	SS1-15 SS1-15A SS1-15B
4.09	0.42	0.2	0.021	0.98	0.10		0.044 0.049	SS1-16 SS1-16B
4.5	0.46	0.23	0.023	1.12	0.11		0.050	SS1-17
4.91	0.5	0.26	0.027	1.26	0.13		0.057	SS1-18
5.33	0.54	0.29	0.030	1.42	0.14		0.065	SS1-19
5.75	0.59	0.33	0.033	1.59	0.16		0.033 0.037 0.036 0.032	SS1-20 SS1-20A SS1-20B SS1-20C
6.17	0.63	0.36	0.037	1.77	0.18		0.037	SS1-21
6.6	0.67	0.4	0.041	1.95	0.20		0.042	SS1-22
7.03	0.72	0.45	0.045	2.15	0.22		0.045	SS1-23
7.47	0.76	0.49	0.050	2.36	0.24		0.052 0.055 0.046	SS1-24 SS1-24A SS1-24C
7.91	0.81	0.54	0.055	2.57	0.26		0.055 0.054 0.049	SS1-25 SS1-25B SS1-25C
8.35	0.85	0.58	0.059	2.79	0.28		0.064	SS1-26
8.79	0.9	0.63	0.064	3.01	0.31		0.067	SS1-27
9.24	0.94	0.68	0.070	3.25	0.33		0.070	SS1-28
9.69	0.99	0.73	0.075	3.49	0.36		0.079	SS1-29
10.1	1.03	0.79	0.081	3.74	0.38		0.082 0.089 0.085	SS1-30 SS1-30A SS1-30B
11.1	1.13	0.90	0.092	4.27	0.44		0.092 0.096	SS1-32 SS1-32A
12.0	1.22	1.03	0.10	4.83	0.49		0.10	SS1-34
12.4	1.27	1.09	0.11	5.13	0.52		0.10	SS1-35
12.9	1.31	1.16	0.12	5.44	0.55		0.12	SS1-36
13.8	1.41	1.30	0.13	6.08	0.62		0.14	SS1-38
14.7	1.50	1.45	0.15	6.76	0.69		0.16 0.16	SS1-40 SS1-40B
15.7	1.60	1.61	0.16	7.47	0.76		0.17	SS1-42
16.6	1.69	1.77	0.18	8.23	0.84		0.18	SS1-44
17.1	1.74	1.86	0.19	8.62	0.88		0.19 0.19 0.19	SS1-45 SS1-45A SS1-45B
17.6	1.79	1.95	0.20	9.02	0.92		0.19	SS1-46
18.5	1.89	2.13	0.22	9.84	1.00		0.21	SS1-48



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**. Example: **SS1-50H**

Catalog Number	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Keyway	Socket head screw	
				AH7	B	C	D	E	F	G	Width x Depth	Size	J
SS1-50	m1	50	S1	10	35	50	52	10	10	20	—	—	—
SS1-50A		50	S1T	8		50	52				—	M5	5
SS1-52		52	S1	10		52	54				—	—	—
SS1-54		54	S1	10		54	56				—	—	—
SS1-55		55	S1	10		55	57				—	—	—
SS1-56		56	S1	10		56	58				—	—	—
SS1-60		60	S1	10	40	60	62				—	—	—
SS1-60C		60	S1K	15		60	62				5 x 2.3	M4	5
SS1-62		62	S1	10		62	64				—	—	—
SS1-64		64	S1	10		64	66				—	—	—
SS1-65		65	S1	10		65	67				—	—	—
SS1-68		68	S1	10	40	68	70				—	—	—
SS1-70		70	S1	10		70	72				—	—	—
SS1-72		72	S1	10		72	74				—	—	—
SS1-75		75	S1	10		75	77				—	—	—
SS1-76		76	S1	10		76	78				—	—	—
SS1-80		80	S1	10		80	82				—	—	—
SS1-84		84	S1	10		84	86				—	—	—
SS1-85		85	S1	10		85	87				—	—	—
SS1-88		88	S1	10		88	90				—	—	—
SS1-90		90	S1	10		90	92				—	—	—
SS1-96		96	S1	10		96	98				—	—	—
SS1-100		100	S1	10		100	102				—	—	—
SS1-110		110	S1	15	50	110	112				—	—	—
SS1-120		120	S1	15	50	120	122				—	—	—
SS1-150		150	S1	20	120	150	152				—	—	—
SS1-200		200	S1	20	160	200	202				—	—	—

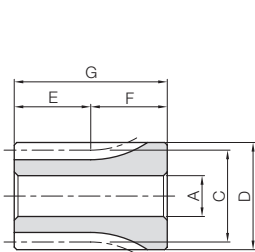
[Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).

Allowable torque						Backlash (mm)	Weight (kg)	Catalog Number
Bending strength		Surface durability		Surface durability 				
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
20.4	2.08	2.52	0.26	11.6	1.18		0.22	SS1-50A
21.4	2.18	2.73	0.28	12.5	1.28		0.23	SS1-52
21.8	2.23	2.83	0.29	13.0	1.33		0.24	SS1-54
22.3	2.28	2.94	0.30	13.5	1.38		0.25	SS1-55
							0.26	SS1-56
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
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
41.7	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	

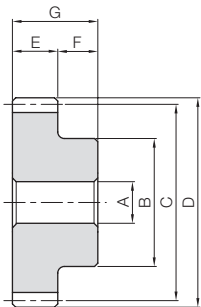




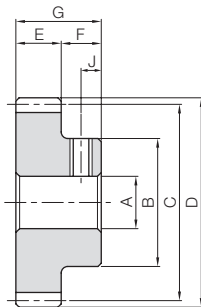
Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998)
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	(less than 194HB)
Surface treatment	Black oxide coating



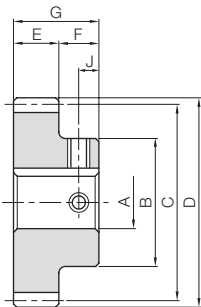
S3



S1



S1T



S1K

H To order Hardened Plus, please specify **Catalog No. + H**. Example: **SS1.5-12H**

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 _{H7}	B	C	D	E	F	G	Width × Depth	Size	J	
SS1.5-12		m1.5	12	S3	8	21	18	21	15	15	30	—	—	—	
SS1.5-13			13	S3	8	22.5	19.5	22.5				—	—	—	
SS1.5-14			14	S1	8	16	21	24		—	—	—			
SS1.5-14B				S1T	8					M5	5				
SS1.5-15			15	S1	8	18	22.5	25.5		—	—	—			
SS1.5-16			16	S1	8	20	24	27		—	—	—			
SS1.5-16B				S1T	8					M5	5				
SS1.5-17			17	S1	8	21	25.5	28.5		—	—	—			
SS1.5-18			18	S1	8	22	27	30		—	—	—			
SS1.5-19			19	S1	8	23	28.5	31.5		—	—	—			
SS1.5-20			20	S1	8	24	30	33		—	—	—			
SS1.5-21			21	S1	8	25	31.5	34.5		—	—	—			
SS1.5-22			22	S1	8	26	33	36		—	—	—			
SS1.5-23			23	S1	8	27	34.5	37.5		—	—	—			
SS1.5-24			24	S1	8	28	36	39		—	—	—			
SS1.5-25			25	S1	8	30	37.5	40.5		15	10	25	—	—	—
SS1.5-26			26	S1	10	32	39	42					—	—	—
SS1.5-26A				S1K	12								4 x 1.8	M4	5
SS1.5-27			27	S1	10	34	40.5	43.5					—	—	—
SS1.5-28			28	S1	10	36	42	45					—	—	—
SS1.5-28A		S1K		12	4 x 1.8				M4				5		
SS1.5-29		29	S1	10	37	43.5	46.5	—	—				—		
SS1.5-30		30	S1	10	38	45	48	—	—				—		
SS1.5-30C			S1K	15				5 x 2.3	M4				5		
SS1.5-32		32	S1	10	40	48	51	—	—				—		
SS1.5-32B			S1K	12				4 x 1.8	M4				5		
SS1.5-34		34	S1	10	40	51	54	—	—				—		
SS1.5-35		35	S1	10	42	52.5	55.5	—	—				—		
SS1.5-36		36	S1	10	45	54	57	—	—				—		
SS1.5-38		38	S1	12	45	57	60	—	—				—		
SS1.5-40		40	S1	12	45	60	63	—	—	—					

[Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).

Allowable torque						Backlash (mm)	Weight (kg)	Catalog Number
Bending strength		Surface durability		Surface durability 				
N·m	kgf·m	N·m	kgf·m	N·m	kgf·m			
6.86	0.70	0.36	0.037	1.76	0.18	0.10~0.22	0.059	SS1.5-12
8.84	0.90	0.44	0.045	2.12	0.22		0.070	SS1.5-13
11.1	1.13	0.52	0.053	2.50	0.26		0.047 0.046	SS1.5-14 SS1.5-14B
12.5	1.27	0.60	0.062	2.91	0.30		0.057	SS1.5-15
13.8	1.41	0.70	0.071	3.36	0.34		0.068 0.067	SS1.5-16 SS1.5-16B
15.2	1.55	0.80	0.082	3.84	0.39		0.077	SS1.5-17
16.6	1.69	0.91	0.093	4.35	0.44		0.087	SS1.5-18
18.0	1.83	1.03	0.11	4.89	0.50		0.098	SS1.5-19
19.4	1.98	1.15	0.12	5.47	0.56		0.11	SS1.5-20
20.8	2.12	1.29	0.13	6.08	0.62		0.12	SS1.5-21
22.3	2.27	1.43	0.15	6.72	0.69		0.13	SS1.5-22
23.7	2.42	1.58	0.16	7.40	0.75		0.15	SS1.5-23
25.2	2.57	1.73	0.18	8.12	0.83		0.16	SS1.5-24
26.7	2.72	1.90	0.19	8.87	0.90		0.18	SS1.5-25
28.2	2.87	2.06	0.21	9.62	0.98		0.19 0.18	SS1.5-26 SS1.5-26A
29.7	3.03	2.23	0.23	10.4	1.06		0.21	SS1.5-27
31.2	3.18	2.41	0.25	11.2	1.14		0.23 0.22	SS1.5-28 SS1.5-28A
32.7	3.34	2.60	0.26	12.1	1.23		0.24	SS1.5-29
34.2	3.49	2.79	0.28	12.9	1.32		0.26 0.24	SS1.5-30 SS1.5-30C
37.3	3.80	3.19	0.33	14.8	1.51		0.30 0.28	SS1.5-32 SS1.5-32B
40.4	4.12	3.63	0.37	16.7	1.71		0.32	SS1.5-34
41.9	4.28	3.85	0.39	17.8	1.81		0.35	SS1.5-35
43.5	4.43	4.09	0.42	18.8	1.92		0.38	SS1.5-36
46.6	4.75	4.58	0.47	21.0	2.14		0.40	SS1.5-38
49.8	5.07	5.10	0.52	23.4	2.38		0.44	SS1.5-40



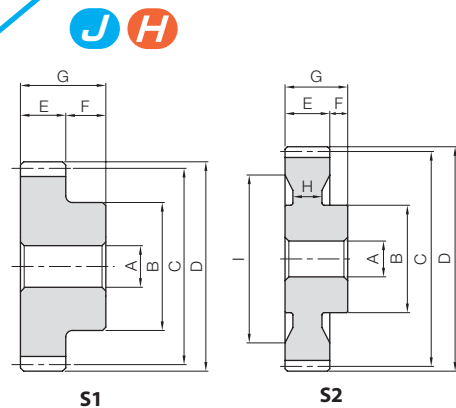
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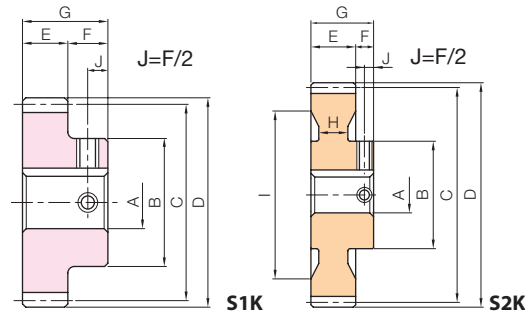


Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	(less than 194HB)
Surface treatment	Black oxide coating
Backlash	0.10 to 0.22

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



J Series



To order Hardened Plus, please specify **Catalog No. + H**. Example: **SS1.5-42H**

Catalog Number	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Allowable torque						Weight (kg)	
												Bending strength		Surface durability		Surface durability			
												N·m	kgf·m	N·m	kgf·m	N·m	kgf·m		
SS1.5-42		42	S1	AH7	B	63	66	15	10	25	—	—	52.9	5.40	5.65	0.58	25.8	2.63	0.47
SS1.5-44		44				66	69						56.1	5.72	6.23	0.64	28.4	2.90	0.51
SS1.5-45		45				67.5	70.5						57.7	5.88	6.53	0.67	29.8	3.03	0.52
SS1.5-46		46				69	72						59.3	6.04	6.83	0.70	31.1	3.17	0.54
SS1.5-48		48				72	75						62.4	6.37	7.47	0.76	34.0	3.46	0.58
SS1.5-50		50				75	78						65.7	6.69	8.15	0.83	36.9	3.77	0.62
SS1.5-52		52				78	81						68.9	7.02	8.85	0.90	40.0	4.08	0.68
SS1.5-54		54				81	84						72.1	7.35	9.59	0.98	43.3	4.41	0.73
SS1.5-55		55				82.5	85.5						73.7	7.51	9.96	1.02	44.9	4.58	0.75
SS1.5-56		56				84	87						75.3	7.68	10.4	1.06	46.6	4.75	0.77
SS1.5-58		58	S1	AH7	B	87	90	15	10	25	—	—	78.5	8.01	11.2	1.14	50.1	5.11	0.82
SS1.5-60		60				90	93						81.8	8.34	12.0	1.22	53.7	5.47	0.87
SS1.5-62		62				93	96						85.0	8.67	12.8	1.31	57.4	5.85	0.95
SS1.5-64		64				96	99						88.3	9.00	13.7	1.40	61.3	6.25	1.00
SS1.5-68		68				102	105						94.8	9.66	15.6	1.59	69.3	7.07	1.11
SS1.5-70		70				105	108						98.0	10.0	16.6	1.69	73.6	7.50	1.17
SS1.5-72		72				108	111						101	10.3	17.6	1.79	77.9	7.95	1.23
SS1.5-75		75				112.5	115.5						106	10.8	19.2	1.95	84.7	8.64	1.36
SS1.5-76		76				114	117						108	11.0	19.7	2.01	87.0	8.88	1.39
SS1.5-80		80				120	123						114	11.7	22.0	2.24	96.7	9.86	1.52
SS1.5-84		84	S1	AH7	B	126	129	15	10	25	—	—	121	12.3	24.4	2.49	107	10.9	1.66
SS1.5-88		88				132	135						128	13.0	27.0	2.75	117	12.0	1.80
SS1.5-90		90				135	138						131	13.3	28.3	2.89	123	12.5	1.87
SS1.5-95		95				142.5	145.5						139	14.2	31.8	3.24	137	14.0	2.07
SS1.5-100		100				150	153						147	15.0	35.5	3.62	152	15.5	2.18
SS1.5-120		120				180	183						180	18.4	52.3	5.33	221	22.5	2.74
SS1.5-150		150	S1	AH7	B	225	228	15	10	153	—	—	192	19.6	70.3	7.17	276	28.1	6.62
SS1.5-200		200				240	300						303	261	26.7	131	13.3	504	51.4

[Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).

To order J Series products, please specify: **Catalog No. + J + BORE**. Example: **SS1.5-42J12**

Catalog Number	Bore H7	* The product shapes of J Series items are identified by background color.															
		10		12		14		15		16		17		18		19	
		4×1.8		5×2.3		6×2.8		8×3.3		10×3.3		12×3.3		14×3.3		16×3.3	
SS1.5-42 J BORE			*														
SS1.5-44 J BORE			*														
SS1.5-45 J BORE			*														
SS1.5-46 J BORE			*														
SS1.5-48 J BORE			*														
SS1.5-50 J BORE			*														
SS1.5-52 J BORE				*													
SS1.5-54 J BORE				*													
SS1.5-55 J BORE				*													
SS1.5-56 J BORE				*													
SS1.5-58 J BORE				*													
SS1.5-60 J BORE				*													
SS1.5-62 J BORE				*													
SS1.5-64 J BORE				*													
SS1.5-68 J BORE				*													
SS1.5-70 J BORE				*													
SS1.5-72 J BORE				*													
SS1.5-75 J BORE				*													
SS1.5-76 J BORE				*													
SS1.5-80 J BORE				*													
SS1.5-84 J BORE				*													
SS1.5-88 J BORE				*													
SS1.5-90 J BORE				*													
SS1.5-95 J BORE				*													
SS1.5-100 J BORE				*													
SS1.5-120 J BORE				*													
SS1.5-150																	
SS1.5-200																	

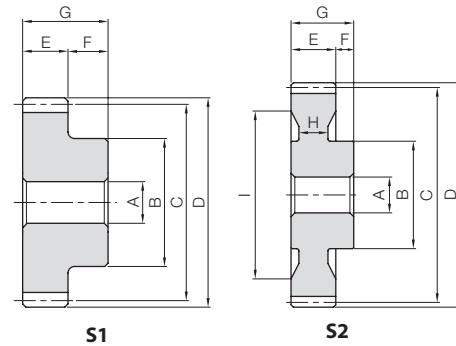
[Caution on J series] ① Cancellation is not possible for made-to-order products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.
② "*" is a product with the original bore diameter, so Hardened Plus is not available. See Page 22 for more details on Hardened 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
Backlash	0.12 to 0.26

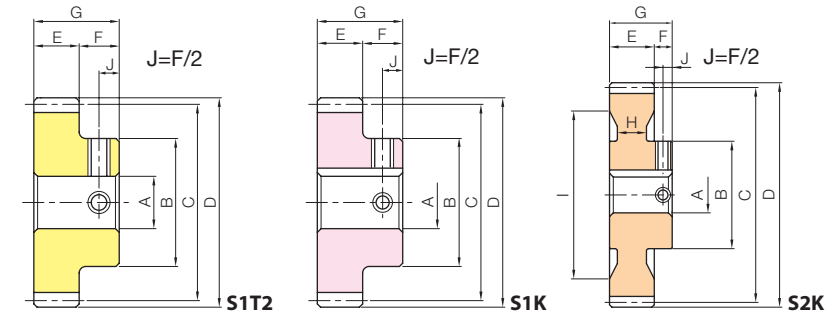
* The precision grade of J Series products is equivalent to the value shown in the table.



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J Series



H To order Hardened Plus, please specify **Catalog No. + H.** **Example: SS2-12H**

Catalog Number	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Allowable torque						Weight (kg)	
												Bending strength		Surface durability		Surface durability ^H			
												N·m	kgf·m	N·m	kgf·m	N·m	kgf·m		
SS2-12		12	10	18	24	28	20	10	30			16.3	1.66	0.88	0.090	4.24	0.43	0.073	
SS2-13		13		20	26	30						21.0	2.14	1.07	0.11	5.11	0.52	0.090	
SS2-14		14		20	28	32						26.3	2.69	1.26	0.13	6.02	0.61	0.10	
SS2-15		15		24	30	34						29.6	3.01	1.48	0.15	7.01	0.71	0.12	
SS2-16		16		26	32	36						32.7	3.34	1.71	0.17	8.08	0.82	0.14	
SS2-17		17	12	28	34	38	20	10	30			36.0	3.67	1.96	0.20	9.23	0.94	0.16	
SS2-18		18		30	36	40						39.3	4.01	2.23	0.23	10.5	1.07	0.19	
SS2-19		19		31	38	42						42.6	4.35	2.52	0.26	11.8	1.20	0.21	
SS2-20		20		32	40	44						46.0	4.69	2.83	0.29	13.2	1.34	0.23	
SS2-21		21		34	42	46						49.4	5.04	3.15	0.32	14.7	1.50	0.26	
SS2-22		22		36	44	48						52.8	5.39	3.50	0.36	16.2	1.66	0.29	
SS2-23		23		37	46	50						56.3	5.74	3.86	0.39	17.9	1.82	0.32	
SS2-24		24		38	48	52						59.8	6.09	4.24	0.43	19.6	2.00	0.35	
SS2-25		25		40	50	54						63.3	6.45	4.64	0.47	21.4	2.18	0.38	
SS2-26		26		42	52	56						66.8	6.81	5.04	0.51	23.2	2.37	0.42	
SS2-27		27		45	54	58						70.4	7.17	5.45	0.56	25.1	2.56	0.46	
SS2-28		28		45	56	60						73.9	7.54	5.89	0.60	27.0	2.76	0.48	
SS2-29		29		47	58	62						77.5	7.91	6.33	0.65	29.1	2.96	0.52	
SS2-30		30		50	60	64						81.1	8.27	6.80	0.69	31.2	3.18	0.57	
SS2-32		32		50	64	68						88.4	9.01	7.78	0.79	35.6	3.63	0.63	
SS2-34		34	S1	50	68	72	20	10	30			95.7	9.76	8.84	0.90	40.3	4.11	0.70	
SS2-35		35		52	70	74						99.3	10.1	9.39	0.96	42.8	4.36	0.74	
SS2-36		36		55	72	76						103	10.5	9.96	1.02	45.3	4.62	0.80	
SS2-38		38		55	76	80						111	11.3	11.2	1.14	50.6	5.16	0.87	
SS2-40		40		55	80	84						118	12.0	12.5	1.27	56.2	5.73	0.93	
SS2-42		42	15	55	84	88	20	10	30			125	12.8	13.8	1.41	62.1	6.34	1.01	
SS2-44		44			88	92						133	13.6	15.2	1.55	68.3	6.97	1.10	
SS2-45		45			90	94						137	13.9	16.0	1.63	71.6	7.30	1.14	
SS2-46		46			92	96						140	14.3	16.7	1.71	74.9	7.63	1.19	
SS2-48		48			96	100						148	15.1	18.3	1.87	81.7	8.33	1.28	
SS2-50		50	15	55	100	104	20	10	30			156	15.9	19.9	2.03	88.8	9.05	1.38	
SS2-52		52			104	108						163	16.6	21.7	2.21	96.2	9.81	1.48	
SS2-54		54			108	112						171	17.4	23.4	2.39	104	10.6	1.58	
SS2-55		55			110	114						175	17.8	24.4	2.48	108	11.0	1.64	
SS2-56		56			112	116						179	18.2	25.3	2.58	112	11.4	1.69	
SS2-58		58	15	60	116	120	20	10	30			186	19.0	27.3	2.78	120	12.3	1.84	
SS2-60		60			120	124						194	19.8	29.3	2.99	129	13.1	1.96	
SS2-62		62			124	128						202	20.6	31.5	3.21	138	14.1	2.08	
SS2-64		64			128	132						209	21.3	33.7	3.44	147	15.0	2.20	
SS2-65		65			130	134						213	21.7	34.8	3.55	152	15.5	2.26	
SS2-66		66	15	60	132	136	20	10	30			217	22.1	36.0	3.67	157	16.0	2.33	
SS2-68		68			136	140						225	22.9	38.4	3.91	166	17.0	2.46	
SS2-70		70			140	144						232	23.7	40.8	4.16	177	18.0	2.60	
SS2-72		72			144	148						240	24.5	43.3	4.42	187	19.1	2.74	
SS2-75		75			150	154						252	25.7	47.3	4.82	203	20.7	2.92	
SS2-76		76	20	60	60	152	156	20	12			256	26.1	48.6	4.96	209	21.3	3.00	
SS2-80		80			60	160	164					271	27.7	54.3	5.53	232	23.6	2.67	
SS2-84		84			70	168	172					140	287	29.2	60.2	6.14	256	26.1	3.09
SS2-85		85			70	170	174					146	291	29.6	61.7	6.30	262	26.8	3.09
SS2-90		90			70	180	184					156	310	31.6	69.7	7.11	295	30.1	3.38
SS2-100		100	S1	25	70	200	204					291	29.7	72.7	7.42	288	29.3	4.01	
SS2-120		120			90	240	244					210	357	36.4	108	11.0	421	43.0	5.91
SS2-150		150			240	300	304					—	455	46.4	174	17.7	672	68.5	14.5

[Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).

To order J Series products, please specify: **Catalog No. + J + BORE.** Example: SS2-12J10

Bore H7		* The product shapes of J Series items are identified by background color.													
Keyway Js9	10	12	14	15	16	17	18	19	20	22	25	28	30	32	35
Screw size	4×1.8		5×2.3				6×2.8				8×3.3		10×3.3		
Catalog Number	M4						M5				M6		M8		
SS2-12 J BORE	*														
SS2-13 J BORE	*														
SS2-14 J BORE	*														
SS2-15 J BORE		*													
SS2-16 J BORE		*													
SS2-17 J BORE		*													
SS2-18 J BORE		*													
SS2-19 J BORE		*													
SS2-20 J BORE		*													
SS2-21 J BORE		*													
SS2-22 J BORE		*													
SS2-23 J BORE		*													
SS2-24 J BORE		*													
SS2-25 J BORE		*													
SS2-26 J BORE		*													
SS2-27 J BORE		*													
SS2-28 J BORE		*													
SS2-29 J BORE		*													
SS2-30 J BORE		*													
SS2-32 J BORE		*													
SS2-34 J BORE		*													
SS2-35 J BORE		*													
SS2-36 J BORE		*													
SS2-38 J BORE		*													
SS2-40 J BORE				*											
SS2-42 J BORE				*											
SS2-44 J BORE				*											
SS2-45 J BORE				*											
SS2-46 J BORE				*											
SS2-48 J BORE				*											
SS2-50 J BORE				*											
SS2-52 J BORE				*											
SS2-54 J BORE				*											
SS2-55 J BORE				*											
SS2-56 J BORE				*											
SS2-58 J BORE				*											
SS2-60 J BORE				*											
SS2-62 J BORE				*											
SS2-64 J BORE				*											
SS2-65 J BORE				*											
SS2-66 J BORE				*											
SS2-68 J BORE				*											
SS2-70 J BORE				*											
SS2-72 J BORE				*											
SS2-75 J BORE									*						
SS2-76 J BORE									*						
SS2-80 J BORE									*						
SS2-84 J BORE									*						
SS2-85 J BORE									*						
SS2-90 J BORE									*						
SS2-100 J BORE									*						
SS2-120 J BORE									*						

To order J Series Hardened Plus products, please specify: Catalog No. + H + J + BORE.
Example: SS2-16HJ14



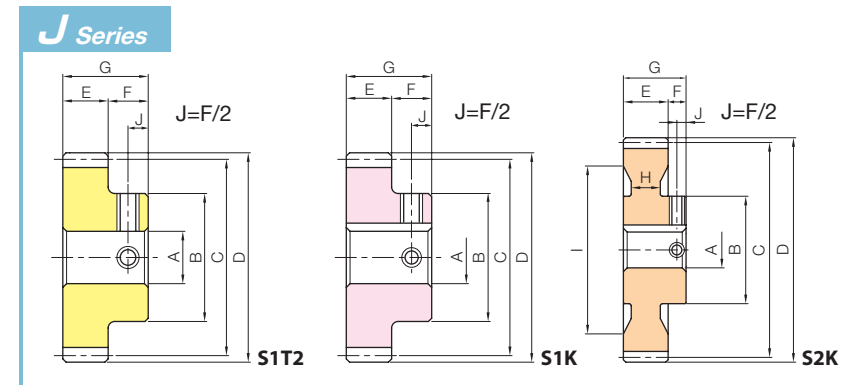
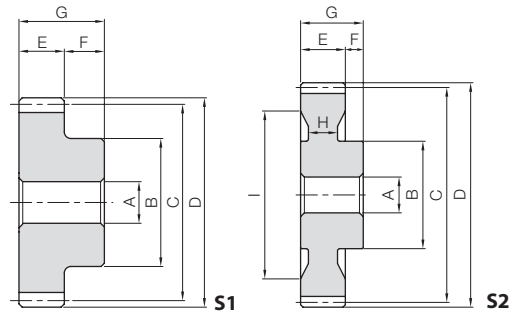
[Caution on J series] ① **Cancellation is not possible** for made-to-order products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.

② **"*"** is a product with the original bore diameter, so Hardened Plus is not available. See Page 22 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
Backlash	0.14 to 0.28

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



To order Hardened Plus, please specify **Catalog No. + H**. Example: **SS2.5-12H**

Catalog Number	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Allowable torque						Weight (kg)			
												Bending strength		Surface durability		Surface durability 					
			A _{H7}	B	C	D	E	F	G	H	I	N·m	kgf·m	N·m	kgf·m	N·m	kgf·m				
SS2.5-12		12	12	23	30	35	25	12	37	—	—	31.8	3.24	1.77	0.18	8.37	0.85	0.15			
SS2.5-13		13		25	32.5	37.5						40.9	4.17	2.14	0.22	10.1	1.03	0.18			
SS2.5-14		14		25	35	40						51.5	5.25	2.53	0.26	11.9	1.21	0.20			
SS2.5-15		15		30	37.5	42.5						57.7	5.89	2.96	0.30	13.9	1.41	0.23			
SS2.5-16		16		32	40	45						64.0	6.52	3.43	0.35	16.0	1.63	0.27			
SS2.5-17		17		35	42.5	47.5						70.3	7.17	3.93	0.40	18.3	1.86	0.32			
SS2.5-18		18		38	45	50						76.7	7.82	4.47	0.46	20.7	2.11	0.37			
SS2.5-20		20		40	50	55						89.8	9.16	5.66	0.58	26.1	2.66	0.45			
SS2.5-22		22	15	44	55	60						103	10.5	6.99	0.71	32.1	3.28	0.56			
SS2.5-23		23		46	57.5	62.5						110	11.2	7.71	0.79	35.4	3.61	0.61			
SS2.5-24		24		48	60	65						117	11.9	8.47	0.86	38.8	3.95	0.67			
SS2.5-25		25		50	62.5	67.5						124	12.6	9.26	0.94	42.3	4.32	0.74			
SS2.5-26		26		55	65	70						130	13.3	10.1	1.03	45.9	4.68	0.82			
SS2.5-27		27		60	67.5	72.5						137	14.0	10.9	1.11	49.6	5.06	0.92			
SS2.5-28		28		60	70	75						144	14.7	11.7	1.20	53.4	5.45	0.97			
SS2.5-30		30		S1	65	75						80	159	16.2	13.6	1.39	61.6	6.28	1.13		
SS2.5-32		32	70		80	85						173	17.6	15.6	1.59	70.3	7.17	1.30			
SS2.5-34		34	70		85	90						187	19.1	17.7	1.80	79.6	8.11	1.42			
SS2.5-35		35	70		87.5	92.5						194	19.8	18.8	1.92	84.4	8.61	1.49			
SS2.5-36		36	70		90	95						201	20.5	20.0	2.04	89.5	9.12	1.56			
SS2.5-38		38	20		70	95						100	216	22.0	22.4	2.28	99.9	10.2	1.66		
SS2.5-40		40				100						105	230	23.5	24.9	2.54	111	11.3	1.81		
SS2.5-42		42				105						110	245	25.0	27.6	2.82	123	12.5	1.97		
SS2.5-44		44		110		115						260	26.5	30.5	3.11	135	13.8	2.14			
SS2.5-45		45		112.5	117.5	267						27.2	31.9	3.26	141	14.4	2.22				
SS2.5-46		46		70	115	120						274	28.0	33.5	3.41	148	15.1	2.31			
SS2.5-48		48			120	125						289	29.5	36.7	3.74	161	16.4	2.49			
SS2.5-50		50			125	130						304	31.0	40.0	4.08	175	17.9	2.68			
SS2.5-52		52	130		135	319						32.5	43.5	4.44	190	19.3	2.88				
SS2.5-54		54	135	140	334	34.0						47.2	4.81	205	20.9	3.08					
SS2.5-56		56	20	70	140	145						349	35.6	51.0	5.20	221	22.5	3.29			
SS2.5-58		58			145	150						364	37.1	55.0	5.61	237	24.2	3.51			
SS2.5-60		60			150	155						379	38.6	59.1	6.03	254	25.9	3.69			
SS2.5-64		64			160	165						409	41.7	67.8	6.92	290	29.6	3.76			
SS2.5-66		66		165	170	424						43.2	72.4	7.39	309	31.5	3.87				
SS2.5-68		68		S2	25	170						175	140	439	44.7	77.2	7.87	328	33.4	4.13	
SS2.5-70		70				175						180	146	454	46.3	82.1	8.37	348	35.5	4.30	
SS2.5-72		72				180						185	151	469	47.8	87.1	8.89	368	37.6	4.49	
SS2.5-76		76	190			195						160	499	50.9	97.7	9.97	411	41.9	4.90		
SS2.5-80		80	S1	30	200	205						15	272	441	45.0	90.9	9.27	359	36.7	6.50	
SS2.5-90		90			90	225								230	505	51.5	117	12.0	460	46.9	8.20
SS2.5-100		100			90	250								255	569	58.0	147	15.0	573	58.5	10.0
SS2.5-120		120			100	300								305	696	71.0	218	22.2	840	85.7	10.8

[Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).

To order J Series products, please specify: **Catalog No. + J + BORE**. Example: **SS2.5-12J12**

Bore H7		* The product shapes of J Series items are identified by background color.															
Keyway Js9		12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	
Screw size		4x1.8	5x2.3				6x2.8				8x3.3			10x3.3		12x3.3	
Catalog Number		M4					M5					M6			M8		
SS2.5-12 J BORE	*																
SS2.5-13 J BORE	*																
SS2.5-14 J BORE	*																
SS2.5-15 J BORE				*													
SS2.5-16 J BORE				*													
SS2.5-17 J BORE				*													
SS2.5-18 J BORE				*													
SS2.5-20 J BORE				*													
SS2.5-22 J BORE				*													
SS2.5-23 J BORE				*													
SS2.5-24 J BORE				*													
SS2.5-25 J BORE				*													
SS2.5-26 J BORE				*													
SS2.5-27 J BORE				*													
SS2.5-28 J BORE				*													
SS2.5-30 J BORE				*													
SS2.5-32 J BORE				*													
SS2.5-34 J BORE				*													
SS2.5-35 J BORE				*													
SS2.5-36 J BORE				*													
SS2.5-38 J BORE									*								
SS2.5-40 J BORE									*								
SS2.5-42 J BORE									*								
SS2.5-44 J BORE									*								
SS2.5-45 J BORE									*								
SS2.5-46 J BORE									*								
SS2.5-48 J BORE									*								
SS2.5-50 J BORE									*								
SS2.5-52 J BORE									*								
SS2.5-54 J BORE									*								
SS2.5-56 J BORE									*								
SS2.5-58 J BORE									*								
SS2.5-60 J BORE											*						
SS2.5-64 J BORE											*						
SS2.5-66 J BORE											*						
SS2.5-68 J BORE											*						
SS2.5-70 J BORE											*						
SS2.5-72 J BORE											*						
SS2.5-76 J BORE											*						
SS2.5-80 J BORE											*						
SS2.5-90 J BORE													*				
SS2.5-100 J BORE													*				
SS2.5-120 J BORE													*				

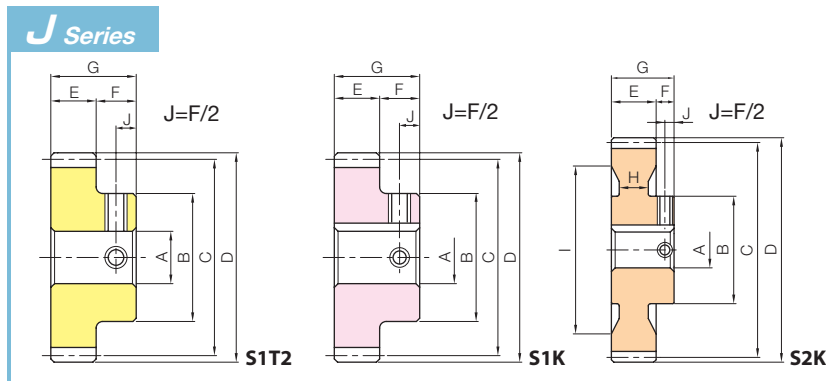
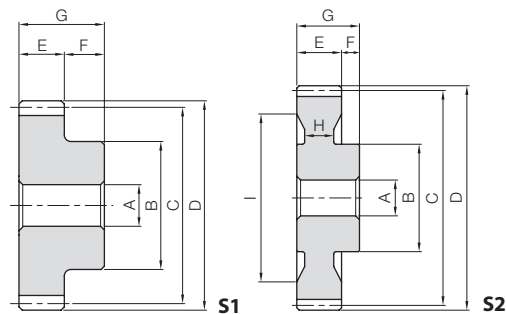


To order J Series Hardened Plus products, please specify: Catalog No. + H + J + BORE.
Example: SS2.5-14HJ14



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
Backlash	0.14 to 0.32

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



To order Hardened Plus, please specify **Catalog No. + H**. Example: **SS3-12H**

Catalog Number		No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Allowable torque						Weight (kg)	
													Bending strength		Surface durability		Surface durability H			
													N·m	kgf·m	N·m	kgf·m	N·m	kgf·m		
SS3-12	H	12	S1	15	28	36	42	30	15	45	—	—	54.9	5.59	3.12	0.32	14.6	1.49	0.25	
SS3-14	H	14			32	42	48						88.9	9.07	4.47	0.46	20.8	2.12	0.36	
SS3-15	H	15			36	45	51						99.7	10.2	5.23	0.53	24.2	2.47	0.43	
SS3-16	H	16			38	48	54						111	11.3	6.05	0.62	28.0	2.85	0.50	
SS3-17	H	17			39	51	57						122	12.4	6.93	0.71	31.9	3.26	0.56	
SS3-18	H	18			40	54	60						133	13.5	7.87	0.80	36.2	3.69	0.62	
SS3-19	H	19			45	57	63						144	14.7	8.88	0.91	40.8	4.16	0.73	
SS3-20	H	20			50	60	66						155	15.8	9.95	1.02	45.6	4.65	0.83	
SS3-21	H	21			52	63	69						167	17.0	11.1	1.13	50.7	5.17	0.92	
SS3-22	H	22			54	66	72						178	18.2	12.3	1.25	56.1	5.72	1.01	
SS3-23	H	23	S1	20	56	69	75	30	15	45	—	—	190	19.4	13.6	1.38	61.7	6.29	1.11	
SS3-24	H	24			58	72	78						202	20.6	14.9	1.52	67.7	6.90	1.21	
SS3-25	H	25			60	75	81						214	21.8	16.3	1.66	73.9	7.53	1.26	
SS3-26	H	26			65	78	84						226	23.0	17.7	1.81	80.1	8.16	1.41	
SS3-27	H	27			65	81	87						237	24.2	19.2	1.96	86.5	8.82	1.49	
SS3-28	H	28			70	84	90						250	25.4	20.7	2.11	93.2	9.50	1.65	
SS3-29	H	29			70	87	93						262	26.7	22.3	2.27	100	10.2	1.74	
SS3-30	H	30			75	90	96						274	27.9	24.0	2.44	107	10.9	1.91	
SS3-32	H	32			75	96	102						298	30.4	27.4	2.80	123	12.5	2.11	
SS3-34	H	34			80	102	108						323	32.9	31.2	3.18	139	14.1	2.41	
SS3-35	H	35	S1	20	80	105	111	30	15	45	—	—	335	34.2	33.1	3.38	147	15.0	2.52	
SS3-36	H	36				108	114						348	35.5	35.2	3.59	156	15.9	2.64	
SS3-38	H	38				114	120						373	38.0	39.4	4.02	174	17.8	2.82	
SS3-40	H	40				120	126						398	40.6	44.0	4.49	193	19.1	3.08	
SS3-42	H	42				126	132						423	43.2	48.9	4.98	214	21.8	3.35	
SS3-44	H	44			80	132	138						449	45.7	54.0	5.50	235	24.0	3.64	
SS3-45	H	45				135	141						461	47.0	56.6	5.78	246	25.1	3.79	
SS3-46	H	46				138	144						474	48.3	59.4	6.05	257	26.2	3.94	
SS3-48	H	48				144	150						500	50.9	65.0	6.63	281	28.6	4.25	
SS3-50	H	50				150	156						525	53.6	70.9	7.23	305	31.1	4.58	
SS3-52	H	52	S2	25	80	156	162	30	15	45	16	126	551	56.2	77.1	7.86	330	33.7	4.38	
SS3-54	H	54				162	168					132	577	58.8	83.6	8.52	357	36.4	4.61	
SS3-55	H	55				165	171					131	590	60.1	86.9	8.86	370	37.8	4.81	
SS3-56	H	56				168	174					134	602	61.4	90.3	9.21	384	39.2	4.94	
SS3-58	H	58				174	180					144	628	64.1	97.3	9.92	413	42.1	5.10	
SS3-60	H	60	S1	25	80	180	186	30	15	45	16	—	—	654	66.7	105	10.7	442	45.1	6.41
SS3-64	H	64				192	198					158	588	60.0	99.9	10.2	396	40.4	5.99	
SS3-65	H	65				195	201					161	599	61.1	103	10.5	409	41.7	6.13	
SS3-66	H	66				198	204					160	610	62.2	107	10.9	422	43.1	6.67	
SS3-68	H	68				204	210					170	632	64.4	114	11.6	450	45.8	6.86	
SS3-70	H	70	S2	30	90	210	216	30	15	45	16	176	654	66.6	121	12.4	478	48.7	7.15	
SS3-72	H	72				216	222					182	675	68.9	129	13.1	507	51.7	7.46	
SS3-75	H	75				225	231					190	708	72.2	141	14.3	552	56.3	7.95	
SS3-76	H	76				228	234					190	719	73.3	145	14.8	567	57.9	8.20	
SS3-80	H	80				240	246					200	763	77.8	162	16.5	632	64.4	8.85	
SS3-90	H	90	30	30	100	270	276	30	15	45	16	240	872	89.0	208	21.2	809	82.4	10.6	
SS3-100	H	100			100	300	306					270	983	100	261	26.6	1010	103	12.5	
SS3-120	H	120			130	360	366					330	1200	123	386	39.4	1480	151	18.1	

[Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).



To order J Series products, please specify: **Catalog No. + J + BORE**. Example: **SS3-12J15**

Bore H7	* The product shapes of J Series items are identified by background color.															
Keyway Js9	15	16	17	18	19	20	22	25	28	30	32	35	40	45	50	
Screw size	5x2.3			6x2.8				8x3.3			10x3.3		12x3.3	14x3.8		
Catalog Number	M4			M5				M6			M8		M10			
SS3-12 J BORE	*															
SS3-14 J BORE	*															
SS3-15 J BORE	*															
SS3-16 J BORE	*															
SS3-17 J BORE	*															
SS3-18 J BORE	*															
SS3-19 J BORE	*															
SS3-20 J BORE	*															
SS3-21 J BORE	*															
SS3-22 J BORE	*															
SS3-23 J BORE	*															
SS3-24 J BORE	*															
SS3-25 J BORE						*										
SS3-26 J BORE						*										
SS3-27 J BORE						*										
SS3-28 J BORE						*										
SS3-29 J BORE						*										
SS3-30 J BORE						*										
SS3-32 J BORE						*										
SS3-34 J BORE						*										
SS3-35 J BORE						*										
SS3-36 J BORE						*										
SS3-38 J BORE								*								
SS3-40 J BORE								*								
SS3-42 J BORE								*								
SS3-44 J BORE								*								
SS3-45 J BORE								*								
SS3-46 J BORE								*								
SS3-48 J BORE								*								
SS3-50 J BORE								*								
SS3-52 J BORE								*								
SS3-54 J BORE								*								
SS3-55 J BORE								*								
SS3-56 J BORE								*								
SS3-58 J BORE								*								
SS3-60 J BORE								*								
SS3-64 J BORE								*								
SS3-65 J BORE								*								
SS3-66 J BORE								*								
SS3-68 J BORE								*								
SS3-70 J BORE								*								
SS3-72 J BORE								*								
SS3-75 J BORE								*								
SS3-76 J BORE								*								
SS3-80 J BORE										*						
SS3-90 J BORE										*						
SS3-100 J BORE										*						
SS3-120 J BORE										*						

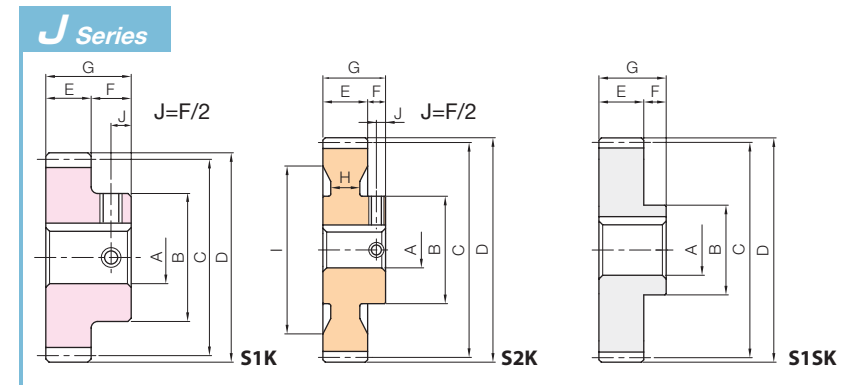
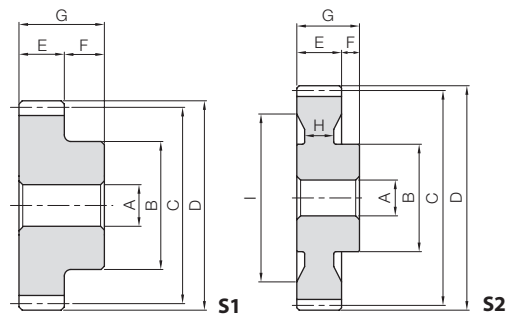
To order J Series Hardened Plus products, please specify: Catalog No. + H + J + BORE.
Example: SS3-14HJ16





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 coated (excludes semi-custom products)
Backlash	0.18 to 0.38

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



To order Hardened Plus, please specify **Catalog No. + H**. Example: **SS4-12H**

Catalog Number	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Allowable torque						Weight (kg)															
												Bending strength		Surface durability		Surface durability 																	
												N·m	kgf·m	N·m	kgf·m	N·m	kgf·m																
SS4-12		12	S1	AH7	35	48	56	20	60	—	—	130	13.3	7.62	0.78	35.3	3.59	0.57															
SS4-14		14			40	56	64					211	21.5	10.9	1.11	50.1	5.11	0.82															
SS4-15		15			45	60	68					236	24.1	12.8	1.30	58.4	5.96	0.99															
SS4-16		16			50	64	72					262	26.7	14.7	1.50	67.3	6.87	1.17															
SS4-17		17			53	68	76					288	29.4	16.9	1.72	76.9	7.85	1.34															
SS4-18		18			55	72	80					314	32.0	19.2	1.96	87.2	8.89	1.50															
SS4-19		19			60	76	84					341	34.8	21.7	2.21	98.1	10.0	1.72															
SS4-20		20			65	80	88					368	37.5	24.3	2.48	110	11.2	1.95															
SS4-21		21			69	84	92					395	40.3	27.1	2.76	122	12.4	2.18															
SS4-22		22			73	88	96					423	43.1	30.1	3.06	135	13.8	2.42															
SS4-23		23			77	92	100					450	45.9	33.2	3.38	148	15.1	2.67															
SS4-24		24			80	96	104					478	48.8	36.4	3.72	163	16.6	2.91															
SS4-25		25			84	100	108					506	51.6	39.9	4.07	178	18.1	3.19															
SS4-26		26			87	104	112					534	54.5	43.3	4.42	192	19.6	3.45															
SS4-27		27			90	108	116					563	57.4	46.9	4.78	208	21.2	3.73															
SS4-28		28			95	112	120					591	60.3	50.6	5.16	224	22.8	4.06															
SS4-29		29			95	116	124					620	63.2	54.5	5.56	241	24.5	4.28															
SS4-30		30			100	120	128					649	66.2	58.7	5.98	258	26.3	4.64															
SS4-32		32			100	128	136					707	72.1	67.4	6.87	294	30.0	4.86															
SS4-34		34			100	136	144					766	78.1	76.7	7.82	333	33.9	5.38															
SS4-35		35			22	100	140					148	40						795	81.1	81.6	8.32	353	36.0	5.65								
SS4-36		36					144					152							825	84.1	86.7	8.84	374	38.1	5.93								
SS4-38		38					152					160							884	90.1	97.3	9.92	418	42.6	6.52								
SS4-40		40					160					168							943	96.2	109	11.1	464	47.3	7.08								
SS4-42		42			168		176					1000	102	120	12.3	512	52.2	7.73															
SS4-44		44			25		100					176	184	56						1060	108	133	13.6	563	57.4	8.41							
SS4-45		45										180	188							1090	112	139	14.2	590	60.1	8.76							
SS4-46		46										184	192							1120	115	146	14.9	617	62.9	9.12							
SS4-48		48										192	200							150	987	101	133	13.6	528	53.9	9.12						
SS4-50		50			200							208	1040	106	146	14.8	575	58.6	9.60														
SS4-52		52			S2							30	208	216	16						165	1090	111	158	16.1	624	63.7	10.2					
SS4-54		54											216	224							175	1140	116	172	17.5	676	68.9	10.8					
SS4-55		55											220	228							178	1160	119	179	18.2	702	71.6	11.1					
SS4-56		56											224	232							182	1190	121	186	18.9	729	74.3	11.5					
SS4-58		58											232	240	190	1240	127	200	20.4	785	80.0	12.5											
SS4-60		60											S2	30	240	248	16						198	1290	132	215	22	842	85.9	13.2			
SS4-62		62													248	256							20	210	1340	137	231	23.6	902	92.0	13.1		
SS4-64		64													256	264							214	1390	142	248	25.2	964	98.3	13.4			
SS4-65		65													260	268							218	1420	145	256	26.1	996	102	13.7			
SS4-66		66													264	272	220	1450	148	265	27	1030	105	14.7									
SS4-68		68													S2	30	272	280	16						225	1500	153	282	28.8	1090	112	15.5	
SS4-70		70															280	288							233	1550	158	300	30.6	1160	119	16.1	
SS4-80		80															320	328							273	1810	184	400	40.8	1540	157	19.3	
SS4-90S		90															S1	40							180	360	368	40	16	56	—	—	1910
SS4-100S		100																	200	400	408	2150	219	586	59.7	42.9							
SS4-110S		110																	220	440	448	2390	244	720	73.4	52.0							
SS4-120S		120																	240	480	488	2630	269	869	88.6	62.0							

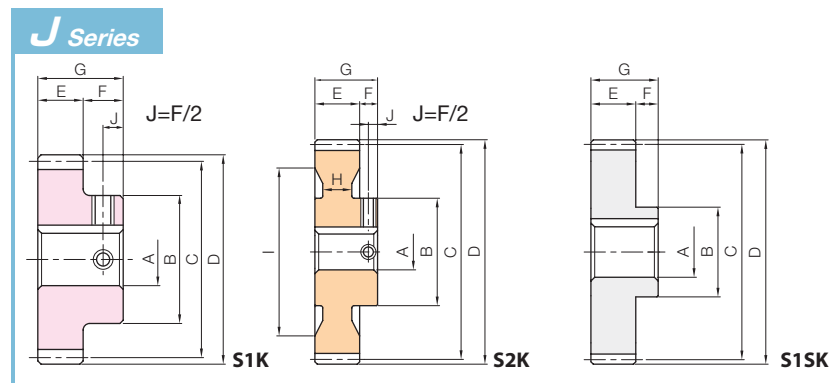
- [Caution on Product Characteristics] ① Products with S at the end of the catalog number are semi-custom stock products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.
- ② For S semi-custom standard products weighing 15 kg or more, eyebolt screw threads (2-M12 depth 25 mm) are machined around the outside of the hub side surface. Details of the PCD of the screw threads are located on page 51.
- [Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).

To order J Series products, please specify: **Catalog No. + J + BORE**. Example: **SS4-14J20**

Bore H7		* The product shapes of J Series items are identified by background color.											
Keyway J _{s9}	20	22	25	28	30	32	35	40	45	50	55	60	65
Screw size	6×2.8		8×3.3			10×3.3		12×3.3	14×3.8		16×4.3	18×4.4	
Catalog Number	M5		M6			M8			M10		M12		
SS4-12													
SS4-14 J BORE	*												
SS4-15 J BORE	*												
SS4-16 J BORE	*												
SS4-17 J BORE	*												
SS4-18 J BORE	*												
SS4-19 J BORE	*												
SS4-20 J BORE	*												
SS4-21 J BORE	*												
SS4-22 J BORE	*												
SS4-23 J BORE	*												
SS4-24 J BORE	*												
SS4-25 J BORE	*												
SS4-26 J BORE	*												
SS4-27 J BORE	*												
SS4-28 J BORE	*												
SS4-29 J BORE	*												
SS4-30 J BORE	*												
SS4-32 J BORE		*											
SS4-34 J BORE		*											
SS4-35 J BORE		*											
SS4-36 J BORE		*											
SS4-38 J BORE		*											
SS4-40 J BORE			*										
SS4-42 J BORE			*										
SS4-44 J BORE			*										
SS4-45 J BORE			*										
SS4-46 J BORE			*										
SS4-48 J BORE			*										
SS4-50 J BORE					*								
SS4-52 J BORE					*								
SS4-54 J BORE					*								
SS4-55 J BORE					*								
SS4-56 J BORE					*								
SS4-58 J BORE					*								
SS4-60 J BORE					*								
SS4-62 J BORE					*								
SS4-64 J BORE					*								
SS4-65 J BORE					*								
SS4-66 J BORE					*								
SS4-68 J BORE					*								
SS4-70 J BORE					*								
SS4-80 J BORE					*								
SS4-90SJ BORE									Ask for Quote				
SS4-100SJ BORE									Ask for Quote				
SS4-110SJ BORE									Ask for Quote				
SS4-120SJ BORE									Ask for Quote				



To order J Series Hardened Plus products, please specify: Catalog No. + H + J + BORE.
Example: SS4-14HJ22



Catalog Number		No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Web thickness	Web O.D.	Allowable torque						Weight (kg)	
													Bending strength		Surface durability		Surface durability 			
													N·m	kgf·m	N·m	kgf·m	N·m	kgf·m		
SS5-12		12	S1	22	46	60	70	50	25	75			254	25.9	15.2	1.55	69.7	7.11	1.21	
SS5-13		13			50	65	75						327	33.4	18.4	1.88	84.0	8.57	1.46	
SS5-14		14			52	70	80						412	42.0	21.8	2.22	99.1	10.1	1.70	
SS5-15		15			60	75	85						462	47.1	25.5	2.60	115	11.8	2.07	
SS5-16		16			65	80	90						512	52.2	29.5	3.01	133	13.6	2.40	
SS5-17		17			68	85	95						562	57.3	33.8	3.45	152	15.5	2.72	
SS5-18		18		70	90	100	614		62.6	38.4			3.92	172	17.6	3.03				
SS5-19		19		76	95	105	666		67.9	43.4			4.42	194	19.8	3.45				
SS5-20		20		82	100	110	718		73.3	48.6			4.96	217	22.1	3.90				
SS5-21		21		90	105	115	772		78.7	54.2			5.53	241	24.5	4.36				
SS5-22		22		25	25	95	110		120					825	84.1	60.1	6.13	266	27.1	4.83
SS5-23		23				100	115		125					879	89.7	66.3	6.77	293	29.9	5.33
SS5-24		24	100			120	130	934	95.2		73.0	7.45		321	32.7	5.69				
SS5-25		25	105			125	135	989	101		80.0	8.16		350	35.7	6.23				
SS5-26		26	110			130	140	1040	106		87.1	8.88		379	38.7	6.79				
SS5-27		27	110			135	145	1100	112		94.4	9.62		410	41.8	7.19				
SS5-28		28	110	140	150	1160	118	102	10.4	441	45.0	7.62								
SS5-29		29	115	145	155	1210	124	110	11.2	474	48.4	8.23								
SS5-30		30	120	150	160	1270	129	118	12.1	508	51.8	8.87								
SS5-32		32	120	160	170	1380	141	136	13.8	580	59.1	9.36								
SS5-34		34	20	20	120	170	180			1500	153	154	15.7	656	66.9	10.4				
SS5-35		35			120	175	185			1550	158	164	16.7	696	71.0	10.9				
SS5-36		36			120	180	190			1610	164	174	17.8	737	75.1	11.5				
SS5-38		38			120	190	200			1730	176	195	19.9	823	83.9	12.6				
SS5-40		40			120	200	210			1730	176	195	19.9	823	83.9	12.6				
SS5-42		42			120	210	220			1540	157	182	18.5	719	73.3	13.2				
SS5-44		44	S2	30	12															

[Caution on Product Characteristics]

- ① Products with S at the end of the catalog number are semi-custom stock products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.
- ② For S semi-custom standard products weighing 15 kg or more, eyebolt screw threads (2-M12 depth 25 mm) are machined around the outside of the hub side surface. Details of the PCD of the screw threads are located on page 51.

[Caution on Secondary Operations]

- ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).

To order J Series products, please specify: **Catalog No. + J + BORE.** Example: SS5-13J22

Bore H7		* The product shapes of J Series items are identified by background color.															
Keyway Js9	22	25	28	30	32	35	40	45	50	55	60	65	70	75	80	85	
Screw size	6x2.8	8x3.3			10x3.3		12x3.3	14x3.8		16x4.3	18x4.4		20x4.9		22x5.4		
Catalog Number	M5	M6			M8			M10		M12			M16				
SS5-12																	
SS5-13 J BORE	*																
SS5-14 J BORE	*																
SS5-15 J BORE	*																
SS5-16 J BORE	*																
SS5-17 J BORE	*																
SS5-18 J BORE	*																
SS5-19 J BORE	*																
SS5-20 J BORE	*																
SS5-21 J BORE		*															
SS5-22 J BORE		*															
SS5-23 J BORE		*															
SS5-24 J BORE		*															
SS5-25 J BORE		*															
SS5-26 J BORE		*															
SS5-27 J BORE		*															
SS5-28 J BORE		*															
SS5-29 J BORE		*															
SS5-30 J BORE		*															
SS5-32 J BORE				*													
SS5-34 J BORE				*													
SS5-35 J BORE				*													
SS5-36 J BORE				*													
SS5-38 J BORE				*													
SS5-40 J BORE				*													
SS5-42 J BORE				*													
SS5-44 J BORE				*													
SS5-45 J BORE				*													
SS5-46 J BORE				*													
SS5-48 J BORE				*													
SS5-50 J BORE				*													
SS5-52 J BORE				*													
SS5-54 J BORE				*													
SS5-56 J BORE				*													
SS5-58 J BORE				*													
SS5-60 J BORE				*													
SS5-62SJ BORE											Ask for Quote						
SS5-64SJ BORE											Ask for Quote						
SS5-65SJ BORE											Ask for Quote						
SS5-66SJ BORE											Ask for Quote						
SS5-68SJ BORE											Ask for Quote						
SS5-70SJ BORE											Ask for Quote						
SS5-80SJ BORE											Ask for Quote						
SS5-90SJ BORE											Ask for Quote						
SS5-100SJ BORE											Ask for Quote						
SS5-110SJ BORE											Ask for Quote						
SS5-120SJ BORE											Ask for Quote						



To order J Series Hardened Plus products, please specify: Catalog No. + H + J + BORE.
Example: SS5-14HJ25

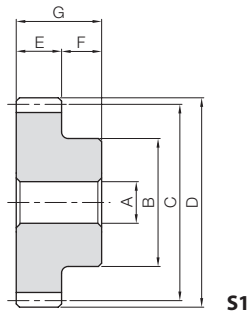
[Caution on J series] ① **Cancellation is not possible** for made-to-order products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.

② **"*"** is a product with the original bore diameter, so Hardened Plus is not available. See Page 22 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 coated (excludes semi-custom products)
Backlash	0.22 to 0.48

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

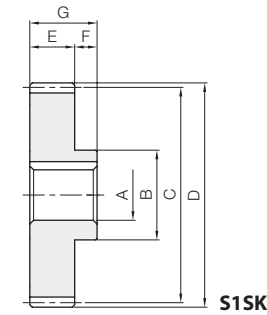
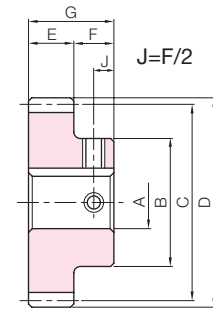


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J Series



 To order Hardened Plus, please specify **Catalog No. + H.** **Example: SS6-12H**

Catalog Number	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Allowable torque						Weight (kg)	
										Bending strength		Surface durability		Surface durability ^H			
										N·m	kgf·m	N·m	kgf·m	N·m	kgf·m		
SS6-12		12	S1	25	55	72	84	60	28	88	439	44.8	26.8	2.73	122	12.4	2.10
SS6-14		14			60	84	96				711	72.5	38.4	3.92	173	17.6	2.89
SS6-15		15			70	90	102				798	81.4	44.9	4.58	201	20.5	3.50
SS6-16		16			75	96	108				884	90.2	52.0	5.30	232	23.7	4.04
SS6-17		17			78	102	114				972	99.1	59.6	6.07	265	27.0	4.56
SS6-18		18		80	108	120	1060				108	67.7	6.90	300	30.6	5.08	
SS6-19		19		90	114	126	1150				117	76.4	7.79	338	34.4	5.87	
SS6-20		20		100	120	132	1240				127	85.9	8.75	377	38.5	6.71	
SS6-21		21		105	126	138	1330				136	95.9	9.78	419	42.7	7.35	
SS6-22		22		110	132	144	1430				145	107	10.9	463	47.3	8.11	
SS6-23		23		28	115	138	150		1520	155	118	12.0	510	52.0	8.90		
SS6-24		24			120	144	156		1610	165	129	13.2	559	57.0	9.73		
SS6-25		25			125	150	162		1710	174	142	14.5	610	62.2	10.6		
SS6-26		26			130	156	168		1800	184	154	15.7	661	67.4	11.5		
SS6-27		27			135	162	174		1900	194	167	17.0	713	72.7	12.4		
SS6-28		28		30	140	168	180		2000	204	181	18.4	768	78.3	13.4		
SS6-30		30			150	180	192		2190	223	209	21.3	884	90.2	15.4		
SS6-32		32			150	192	204		1990	203	200	20.4	792	80.8	16.4		
SS6-34		34			150	204	216		2150	220	228	23.2	899	91.7	18.1		
SS6-35		35			150	210	222		2240	228	242	24.7	955	97.4	19.0		
SS6-36		36		40	150	216	228		2320	237	258	26.3	1010	103	20.0		
SS6-38		38			150	228	240		2490	254	289	29.5	1130	116	22.0		
SS6-40		40			150	240	252		2650	271	323	33.0	1260	129	24.0		
SS6-42		42			150	252	264		2820	288	359	36.6	1400	143	25.9		
SS6-44		44			150	264	276		2990	305	397	40.5	1540	157	28.2		
SS6-45		45	40	180	270	282	3080	314	416	42.5	1620	165	30.7				
SS6-46		46		180	276	288	3160	322	436	44.5	1690	173	32.0				
SS6-48		48		180	288	300	3330	340	478	48.8	1850	189	34.5				
SS6-50		50		180	300	312	3500	357	522	53.2	2020	206	37.1				
SS6-52S		52		S1	40	180	312	324	60	23	83	3390	346	515	52.5	—	—
SS6-54S		54	180			324	336	3550				362	558	56.9	42.6		
SS6-55S		55	180			330	342	3630				370	581	59.2	44.1		
SS6-56S		56	180			336	348	3710				378	603	61.5	45.5		
SS6-58S		58	180			348	360	3870				394	651	66.4	48.6		
SS6-60S		60	180		360	372	4030	411		700	71.4	51.7					
SS6-62S		62	190		372	384	4190	427		751	76.6	55.5					
SS6-64S		64	190		384	396	4350	443		804	82.0	58.9					
SS6-65S		65	200		390	402	4430	451		832	84.8	61.1					
SS6-66S		66	200		396	408	4510	460		860	87.7	62.9					
SS6-68S		68	200		408	420	4670	476		917	93.5	66.4					
SS6-70S		70	210		420	432	4830	492		976	99.5	70.7					
SS6-80S		80	240		480	492	5630	575		1300	133	92.6					
SS6-90S		90	270		540	552	6440	657		1680	172	117					
SS6-100S		100	300		600	612	6740	687		1970	200	145					

[Caution on Product Characteristics] ① Products with S at the end of the catalog number are semi-custom stock products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.
 ② For S semi-custom standard products weighing 15 kg or more, eyebolt screw threads (2-M12 depth 25 mm) are machined around the outside of the hub side surface. Details of the PCD of the screw threads are located on page 51.

[Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).

To order J Series products, please specify: **Catalog No. + J + BORE.** Example: SS6-12J25

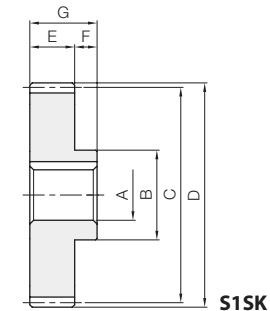
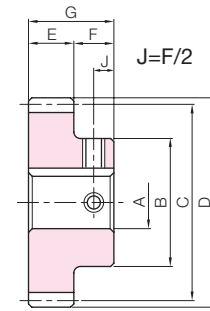
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[Caution on J series] ① **Cancellation is not possible** for made-to-order products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.

② **"*"** is a product with the original bore diameter, so Hardened Plus is not available. See Page 22 for more details on Hardened Plus.

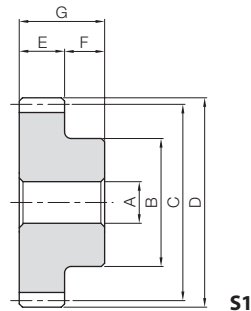


J Series



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 coated (excludes semi-custom products)

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



H To order Hardened Plus, please specify **Catalog No. + H**. Example: **SS8-12H**

Catalog Number	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Allowable torque						Weight (kg)	
										Bending strength		Surface durability		Surface durability 			
										N·m	kgf·m	N·m	kgf·m	N·m	kgf·m		
SS8-12		12	S1	28	75	96	112	75	35	110	975	99.5	62.6	6.39	280	28.5	4.94
SS8-13		13			80	104	120				1260	128	75.2	7.66	334	34.1	5.85
SS8-14		14			85	112	128				1580	161	88.9	9.06	393	40.1	6.83
SS8-15		15			90	120	136				1770	181	104	10.6	458	46.7	7.87
SS8-16		16			100	128	144				1970	200	121	12.3	527	53.7	9.20
SS8-17		17			105	136	152				2160	220	139	14.1	601	61.3	10.4
SS8-18		18			110	144	160				2360	240	158	16.1	681	69.4	11.7
SS8-19		19			120	152	168				2560	261	178	18.2	765	78.0	13.3
SS8-20		20			130	160	176				2760	281	200	20.4	855	87.2	15.0
SS8-21		21			140	168	184				2960	302	223	22.8	949	96.8	16.7
SS8-22		22	S1	30	150	176	192	75	35	110	3170	323	248	25.3	1050	107	18.6
SS8-23		23			155	184	200				3380	344	273	27.9	1150	118	20.2
SS8-24		24			160	192	208				2990	305	250	25.5	991	101	22.0
SS8-25		25			170	200	216				3160	323	273	27.8	1080	110	24.1
SS8-26		26			170	208	224				3340	341	297	30.3	1170	119	25.6
SS8-27		27			170	216	232				3520	359	322	32.8	1270	129	27.2
SS8-28		28			180	224	240				3700	377	348	35.5	1370	139	29.6
SS8-30		30			180	240	256				4060	414	404	41.2	1580	161	33.0
SS8-32S		32	S1	40	200	256	272	75	35	110	4080	416	421	42.9	—	—	37.9
SS8-34S		34			210	272	288				4420	451	479	48.9			42.6
SS8-35S		35			210	280	296				4590	468	510	52.0			44.7
SS8-36S		36			210	288	304				4760	486	542	55.3			46.8
SS8-38S		38			220	304	320				5100	520	608	62.0			52.1
SS8-40S		40			220	320	336				5450	555	679	69.3			56.7
SS8-42S		42			230	336	352				5790	591	754	76.9			62.5
SS8-44S		44			230	352	368				6140	626	834	85.0			67.6
SS8-45S		45			230	360	376				6310	644	875	89.2			70.3
SS8-46S		46			240	368	384				6490	662	917	93.6			74.0
SS8-48S		48	S1	40	240	384	400	75	35	110	6840	697	1010	103	—	—	79.5
SS8-50S		50			240	400	416				7190	733	1100	112			85.3
SS8-52S		52			240	416	432				7540	769	1200	122			91.4
SS8-54S		54			240	432	448				7890	805	1300	132			97.6
SS8-55S		55			240	440	456				8070	823	1350	138			101
SS8-56S		56			240	448	464				8240	841	1400	143			104
SS8-58S		58			240	464	480				8600	877	1510	154			111
SS8-59S		59			240	472	488				8770	895	1570	160			114
SS8-60S		60			240	480	496				8950	913	1630	166			118

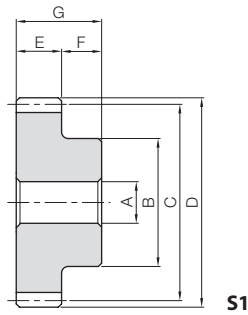
- [Caution on Product Characteristics] ① Products with S at the end of the catalog number are semi-custom stock products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.
- ② For S semi-custom standard products weighing 15 kg or more, eyebolt screw threads (2-M12 depth 25 mm) are machined around the outside of the hub side surface. Details of the PCD of the screw threads are located on page 51.

[Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).

To order J Series products, please specify: **Catalog No. + J + BORE**. Example: **SS8-12J28**

Bore H7	* The product shapes of J Series items are identified by background color.																			
	28	30	32	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	120
Keyway Js9	8x3.3	10x3.3	12x3.3	14x3.8	16x4.3	18x4.4	20x4.9	22x5.4	25x5.4	28x6.4	32x7.4	36x8.4								
Screw size	M6	M8	M10	M12	M16	M20	M24													
Catalog Number	M6	M8	M10	M12	M16	M20	M24													
SS8-12 J BORE																				
SS8-13 J BORE																				
SS8-14 J BORE																				
SS8-15 J BORE																				
SS8-16 J BORE																				
SS8-17 J BORE																				
SS8-18 J BORE																				
SS8-19 J BORE																				
SS8-20 J BORE																				
SS8-21 J BORE																				
SS8-22 J BORE																				
SS8-23 J BORE																				
SS8-24 J BORE																				
SS8-25 J BORE																				
SS8-26 J BORE																				
SS8-27 J BORE																				
SS8-28 J BORE																				
SS8-30 J BORE																				
SS8-32SJ BORE																				
SS8-34SJ BORE																				
SS8-35SJ BORE																				
SS8-36SJ BORE																				
SS8-38SJ BORE																				
SS8-40SJ BORE																				
SS8-42SJ BORE																				
SS8-44SJ BORE																				
SS8-45SJ BORE																				
SS8-46SJ BORE																				
SS8-48SJ BORE																				
SS8-50SJ BORE																				
SS8-52SJ BORE																				
SS8-54SJ BORE																				
SS8-55SJ BORE																				
SS8-56SJ BORE																				
SS8-58SJ BORE																				
SS8-59SJ BORE																				
SS8-60SJ BORE																				

- [Caution on J series] ① **Cancellation is not possible** for made-to-order products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.
- ② **Hardened Plus is not available** for products listed in the J Series lineup.



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 coated (excludes semi-custom products)

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

H To order Hardened Plus, please specify **Catalog No. + H**. Example: **SS10-15H**

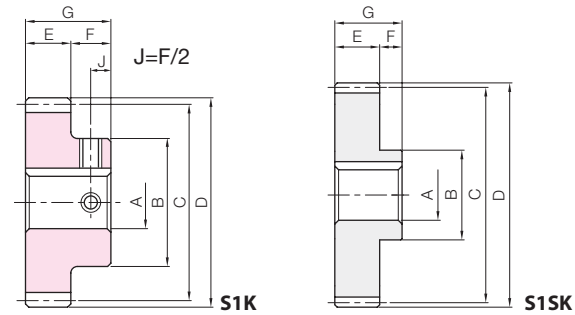
Catalog Number		No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Allowable torque						Weight (kg)
				A _{H7}	B	C	D	E	F	G	Bending strength		Surface durability		Surface durability 		
											N·m	kgf·m	N·m	kgf·m	N·m	kgf·m	
SS10-15		15	S1	30	115	150	170	90	40	130	3330	203	339	20.7	871	88.8	15.0
SS10-20		20		30	165	200	220				4310	323	440	33.0	1280	130	28.2
SS10-25		25		40	200	250	270				5930	529	605	54.0	2060	211	43.3

Catalog Number	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	
			A _{H7}	B	C	D	E	F	G	Bending strength	Surface durability	Bending strength	Surface durability			
SS10-26S	Ⓔ	26	S1	50	210	260	280	90	40	130	5790	522	590	53.3	0.34~0.68	46.4
SS10-27S	Ⓔ	27			220	270	290				6100	566	622	57.7		50.4
SS10-28S	Ⓔ	28			220	280	300				6400	612	653	62.4		53.4
SS10-29S	Ⓔ	29			230	290	310				6720	660	685	67.3		57.7
SS10-30S	Ⓔ	30			240	300	320				7030	710	717	72.4		62.1
SS10-32S	Ⓔ	32			250	320	340				7660	815	781	83.1		70.2
SS10-34S	Ⓔ	34			260	340	360				8290	929	845	94.7		78.8
SS10-35S	Ⓔ	35			260	350	370				8610	988	878	101		82.6
SS10-36S	Ⓔ	36			270	360	380				8930	1050	910	107		87.9
SS10-38S	Ⓔ	38			270	380	400				9570	1180	976	120		96.1
SS10-40S	Ⓔ	40			280	400	420				10200	1320	1040	134		106
SS10-42S	Ⓔ	42			290	420	440				10900	1460	1110	149		117
SS10-44S	Ⓔ	44			290	440	460				11500	1620	1170	165		126
SS10-45S	Ⓔ	45			290	450	470				11800	1700	1210	173		131
SS10-46S	Ⓔ	46			290	460	480				12200	1780	1240	182		136
SS10-48S	Ⓔ	48			300	480	500				12800	1950	1310	199		148
SS10-50S	Ⓔ	50			300	500	520				13500	2140	1370	218		159

- [Caution on Product Characteristics] ① Products with S at the end of the catalog number are semi-custom stock products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.
- ② For S semi-custom standard products weighing 15 kg or more, eyebolt screw threads (2-M12 depth 25 mm) are machined around the outside of the hub side surface. Details of the PCD of the screw threads are located on page 51.
- [Caution on Secondary Operations] ① See Page 22 for more details on Hardened Plus (H Series and HJ Series).



J Series



To order J Series products, please specify: **Catalog No. + J + BORE**. Example: **SS10-15J30**

Bore H7	* The product shapes of J Series items are identified by background color.																			
Keyway Js9	30	32	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110		
Screw size	8×3.3	10×3.3	12×3.3	14×3.8	16×4.3	18×4.4	20×4.9	22×5.4	25×5.4	28×6.4										
Catalog Number	M6	M8	M10	M12	M16	M20														
SS10-15 J BORE																				
SS10-20 J BORE																				
SS10-25 J BORE																				

Bore H7	* The product shapes of J Series items are identified by background color.																							
Keyway Js9	50	55	60	65	70	75	80	85	90	95	100	105	110	120	130	140	150	160	170	180	190	200		
Catalog Number	14x3.8	16x4.3	18x4.4	20x4.9	22x5.4	25x5.4	28x6.4			32x7.4			36x8.4			40x9.4			45x10.4					
SS10-26SJ BORE	Ask for Quote																							
SS10-27SJ BORE	Ask for Quote																							
SS10-28SJ BORE	Ask for Quote																							
SS10-29SJ BORE	Ask for Quote																							
SS10-30SJ BORE	Ask for Quote																							
SS10-32SJ BORE	Ask for Quote																							
SS10-34SJ BORE	Ask for Quote																							
SS10-35SJ BORE	Ask for Quote																							
SS10-36SJ BORE	Ask for Quote																							
SS10-38SJ BORE	Ask for Quote																							
SS10-40SJ BORE	Ask for Quote																							
SS10-42SJ BORE	Ask for Quote																							
SS10-44SJ BORE	Ask for Quote																							
SS10-45SJ BORE	Ask for Quote																							
SS10-46SJ BORE	Ask for Quote																							
SS10-48SJ BORE	Ask for Quote																							
SS10-50SJ BORE	Ask for Quote																							

- [Caution on J series] ① **Cancellation is not possible** for made-to-order products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.
- ② **Hardened Plus is not available** for products listed in the J Series lineup.



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 coated except for portions given secondary operation

* The precision grade of F Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435



Features of F Series

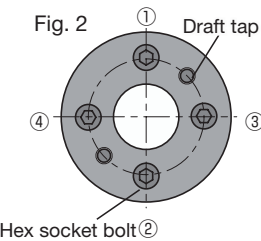
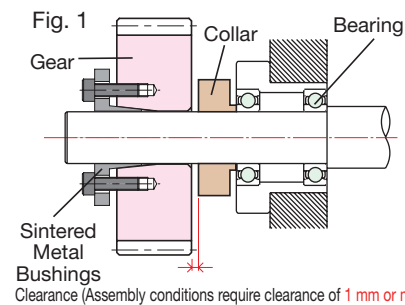
- No rattling of shaft and gear when fastening
- Freely positionable mounting for easy meshing of teeth
- Easily mounted and removed for repeated use
- The bushing slips when overloaded to reduce damage to the gears.

Mounting Method and Precautions

- ① Shaft diameter recommended tolerance is h7. The limit is h8, but we recommend h6 when minimizing runout. Use 1.6a as reference for the surface roughness of the shaft diameter.
- ② Wipe away any debris, dirt or oil on the shaft surface and hole of the fastened section with thinner or the like, and lightly apply hydraulic oil #68. Do not apply molybdenum-based oil or oil with additives, as this may cause reduced fastening torque or slippage.
- ③ Pass completely through the shaft while pressing the bushing flange against the gear before tightening. Removal will not be possible, so be sure to leave a clearance of 1mm or more on the gear rear surface side. (Fig.1)
- ④ Use a torque wrench to fasten bolts on opposite sides when tightening. First tighten at 1/4 of the regulated torque, then at 1/2 of the regulated torque, before finally tightening up to the regulated torque. Do not tighten without passing through the shaft, or fasten the bolts after insertion on the draft tap side. (Fig.2)
- ⑤ If the shaft has a keyway, the fastened section contact area is reduced and the transmission rate is decreased by 15 to 20%.

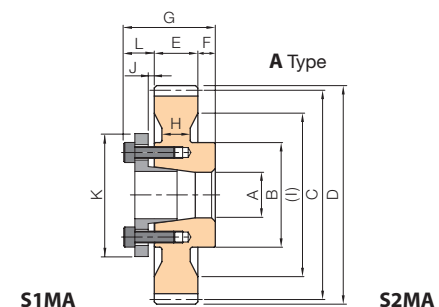
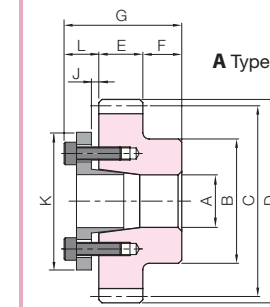
Catalog Number	No. of teeth	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Web thickness	Web O.D.	Allowable torque (N-m)	
		B	C	D	E	F	H	I	Bending strength	Surface durability
SS1.5-26	26	32	39	42	15	10	—	—	28.2	2.06
SS1.5-27	27	34	40.5	43.5					29.7	2.23
SS1.5-28	28	36	42	45					31.2	2.41
SS1.5-29	29	37	43.5	46.5					32.7	2.60
SS1.5-30	30	38	45	48					34.2	2.79
SS1.5-32	32	40	48	51					37.3	3.19
SS1.5-34	34	40	51	54					40.4	3.63
SS1.5-35	35	42	52.5	55.5					41.9	3.85
SS1.5-36	36	45	54	57					43.5	4.09
SS1.5-38	38	45	57	60					46.6	4.58
SS1.5-40	40	45	60	63					49.8	5.10
SS1.5-42	42	45	63	66					52.9	5.40
SS1.5-44	44	45	66	69					56.1	5.72
SS1.5-45	45	45	67.5	70.5					57.7	5.88
SS1.5-46	46	45	69	72					59.3	6.04
SS1.5-48	48	45	72	75	15	10	—	—	62.4	6.37
SS1.5-50	50	45	75	78					65.7	6.69
SS1.5-52	52	50	78	81					68.9	7.02
SS1.5-54	54	50	81	84					72.1	7.35
SS1.5-55	55	50	82.5	85.5					73.7	7.51
SS1.5-56	56	50	84	87					75.3	7.68
SS1.5-58	58	50	87	90					78.5	8.01
SS1.5-60	60	50	90	93					81.8	8.34
SS1.5-62	62	55	93	96					85.0	8.67
SS1.5-64	64	55	96	99					88.3	9.00
SS1.5-68	68	55	102	105	15	10	—	—	94.8	9.66
SS1.5-70	70	55	105	108					98.0	10.0
SS1.5-72	72	55	108	111					101	10.3
SS1.5-75	75	60	112.5	115.5					106	10.8
SS1.5-76	76	60	114	117					108	11.0
SS1.5-80	80	60	120	123					114	11.7
SS1.5-84	84	60	126	129					121	12.3
SS1.5-88	88	60	132	135	15	10	—	—	128	13.0
SS1.5-90	90	60	135	138					131	13.3
SS1.5-95	95	60	142.5	145.5					139	14.2
SS1.5-100	100	60	150	153					9	125
SS1.5-120	120	70	180	183					10	153
SS1.5-150	150	180	225	228					—	—
									192	19.6

* For the backlash of each product, please refer to the dimension table of the original product.



Removal Method and Precautions

- ① Turn off the power source (supply), check that no load is applied to the gear, and confirm that there is no danger due to falling, etc.
- ② Insert removed bolts into all draft taps, and gradually and evenly tighten each bolt in diagonal order until removal is complete.
- ③ The washer and thread surfaces will be roughened, compromising tightening strength, if the bolts are reused. Consequently, we recommend using new bolts of the same size.



To order F Series products, please specify: **Catalog Number + F + BORE + A.**

Bore A		* The product shapes of F Series items are identified by background color.														
Catalog Number		10	12	14	15	16	17	18	19	20	22	25	28	30	32	35
SS1.5-26 F Bore A																
SS1.5-27 F Bore A																
SS1.5-28 F Bore A																
SS1.5-29 F Bore A																
SS1.5-30 F Bore A																
SS1.5-32 F Bore A																
SS1.5-34 F Bore A																
SS1.5-35 F Bore A																
SS1.5-36 F Bore A																
SS1.5-38 F Bore A																
SS1.5-40 F Bore A																
SS1.5-42 F Bore A																
SS1.5-44 F Bore A																
SS1.5-45 F Bore A																
SS1.5-46 F Bore A																
SS1.5-48 F Bore A																
SS1.5-50 F Bore A																
SS1.5-52 F Bore A																
SS1.5-54 F Bore A																
SS1.5-55 F Bore A																
SS1.5-56 F Bore A																
SS1.5-58 F Bore A																
SS1.5-60 F Bore A																
SS1.5-62 F Bore A																
SS1.5-64 F Bore A																
SS1.5-68 F Bore A																
SS1.5-70 F Bore A																
SS1.5-72 F Bore A																
SS1.5-75 F Bore A																
SS1.5-76 F Bore A																
SS1.5-80 F Bore A																
SS1.5-84 F Bore A																
SS1.5-88 F Bore A																
SS1.5-90 F Bore A																
SS1.5-95 F Bore A																
SS1.5-100 F Bore A																
SS1.5-120 F Bore A																
SS1.5-150 F Bore A																
Bore A		10	12	14	15	16	17	18	19	20	22	25	28	30	32	35
Ref. slipping torque N-m		18	23	37	39	42	45	48	49	97	110	124	141	149	163	173
Ref. thrust load kN		3.59	3.76	5.21	5.1	5.17	5.23	5.28	5.12	9.68	9.98	9.90	10.0	9.89	10.1	9.88
Sintered Metal Bushings	L	10														
	K	29	31	36	37	38	39	40	42	46	47	51	53	56	58	61
Clearance	J	2								3						
Total Length	G	35					37							39		
Hex socket bolt	Qty	3								4						
	Size	M4x12					M4x15							M5x18		
	Tightening torque N-m					3.9								7.8		
Bushing weight (g)		20	22	38	40	41	43	45	49	71	71	81	84	93	97	106



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 coated except for portions given secondary operation

* The precision grade of F Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435

Features of F Series

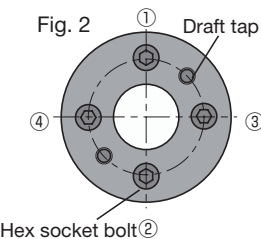
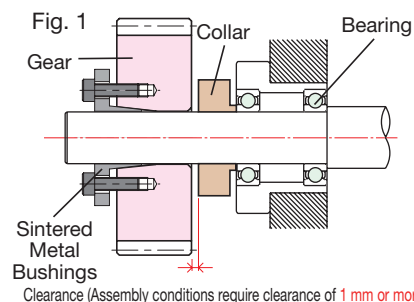
- No rattling of shaft and gear when fastening
- Freely positionable mounting for easy meshing of teeth
- Easily mounted and removed for repeated use
- The bushing slips when overloaded to reduce damage to the gears.

Mounting Method and Precautions

- ① Shaft diameter recommended tolerance is h7. The limit is h8, but we recommend h6 when minimizing runout. Use 1.6a as reference for the surface roughness of the shaft diameter.
- ② Wipe away any debris, dirt or oil on the shaft surface and hole of the fastened section with thinner or the like, and lightly apply hydraulic oil #68. Do not apply molybdenum-based oil or oil with additives, as this may cause reduced fastening torque or slippage.
- ③ Pass completely through the shaft while pressing the bushing flange against the gear before tightening. Removal will not be possible, so be sure to leave a clearance of 1mm or more on the gear rear surface side. (Fig.1)
- ④ Use a torque wrench to fasten bolts on opposite sides when tightening. First tighten at 1/4 of the regulated torque, then at 1/2 of the regulated torque, before finally tightening up to the regulated torque. Do not tighten without passing through the shaft, or fasten the bolts after insertion on the draft tap side. (Fig.2)
- ⑤ If the shaft has a keyway, the fastened section contact area is reduced and the transmission rate is decreased by 15 to 20%.

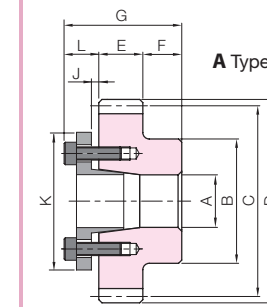
Catalog Number	No. of teeth	Hub dia.		Pitch dia.	Outside dia.	Face width	Hub width	Web thickness	Web O.D.	Allowable torque (N·m)	
		B	C							Bending strength	Surface durability
SS2-23	23	37	46	50						56.3	3.86
SS2-24	24	38	48	52						59.8	4.24
SS2-25	25	40	50	54						63.3	4.64
SS2-26	26	42	52	56						66.8	5.04
SS2-27	27	45	54	58						70.4	5.45
SS2-28	28	45	56	60						73.9	5.89
SS2-29	29	47	58	62						77.5	6.33
SS2-30	30	50	60	64						81.1	6.80
SS2-32	32	50	64	68						88.4	7.78
SS2-34	34	50	68	72						95.7	8.84
SS2-35	35	52	70	74						99.3	9.39
SS2-36	36	55	72	76						103	9.96
SS2-38	38	55	76	80						111	11.2
SS2-40	40	55	80	84						118	12.5
SS2-42	42	55	84	88						125	13.8
SS2-44	44	55	88	92						133	15.2
SS2-45	45	55	90	94						137	16.0
SS2-46	46	55	92	96						140	16.7
SS2-48	48	55	96	100						148	18.3
SS2-50	50	55	100	104						156	19.9
SS2-52	52	55	104	108	20	10				163	21.7
SS2-54	54	55	108	112						171	23.4
SS2-55	55	55	110	114						175	24.4
SS2-56	56	55	112	116						179	25.3
SS2-58	58	60	116	120						186	27.3
SS2-60	60	60	120	124						194	29.3
SS2-62	62	60	124	128						202	31.5
SS2-64	64	60	128	132						209	33.7
SS2-65	65	60	130	134						213	34.8
SS2-66	66	60	132	136						217	36.0
SS2-68	68	60	136	140						225	38.4
SS2-70	70	60	140	144						232	40.8
SS2-72	72	60	144	148						240	43.3
SS2-75	75	60	150	154						252	47.3
SS2-76	76	60	152	156						256	48.6
SS2-80	80	60	160	164			12		136	271	54.3
SS2-84	84	70	168	172					140	287	60.2
SS2-85	85	70	170	174					146	291	61.7
SS2-90	90	70	180	184					156	310	69.7
SS2-100	100	70	200	204					176	291	72.7
SS2-120	120	90	240	244					210	357	108

* For the backlash of each product, please refer to the dimension table of the original product.

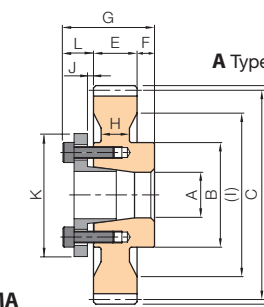


Removal Method and Precautions

- ① Turn off the power source (supply), check that no load is applied to the gear, and confirm that there is no danger due to falling, etc.
- ② Insert removed bolts into all draft taps, and gradually and evenly tighten each bolt in diagonal order until removal is complete.
- ③ The washer and thread surfaces will be roughened, compromising tightening strength, if the bolts are reused. Consequently, we recommend using new bolts of the same size.



S1MA



S2MA

To order F Series products, please specify: **Catalog Number + F + BORE + A.**

Bore A		* The product shapes of F Series items are identified by background color.															
Catalog Number		12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	
SS2-23 F Bore A																	
SS2-24 F Bore A																	
SS2-25 F Bore A																	
SS2-26 F Bore A																	
SS2-27 F Bore A																	
SS2-28 F Bore A																	
SS2-29 F Bore A																	
SS2-30 F Bore A																	
SS2-32 F Bore A																	
SS2-34 F Bore A																	
SS2-35 F Bore A																	
SS2-36 F Bore A																	
SS2-38 F Bore A																	
SS2-40 F Bore A																	
SS2-42 F Bore A																	
SS2-44 F Bore A																	
SS2-45 F Bore A																	
SS2-46 F Bore A																	
SS2-48 F Bore A																	
SS2-50 F Bore A																	
SS2-52 F Bore A																	
SS2-54 F Bore A																	
SS2-55 F Bore A																	
SS2-56 F Bore A																	
SS2-58 F Bore A																	
SS2-60 F Bore A																	
SS2-62 F Bore A																	
SS2-64 F Bore A																	
SS2-65 F Bore A																	
SS2-66 F Bore A																	
SS2-68 F Bore A																	
SS2-70 F Bore A																	
SS2-72 F Bore A																	
SS2-75 F Bore A																	
SS2-76 F Bore A																	
SS2-80 F Bore A																	
SS2-84 F Bore A																	
SS2-85 F Bore A																	
SS2-90 F Bore A																	
SS2-100 F Bore A																	
SS2-120 F Bore A																	
Bore A		12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	
Ref. slipping torque N·m		23	37	39	42	45	48	49	97	110	124	141	149	163	173	725	
Ref. thrust load kN		3.76	5.21	5.10	5.17	5.23	5.28	5.12	9.68	9.98	9.90	10.0	9.89	10.1	9.88	12.3	
Sintered Metal Bushings	L	10				12										19	
	K	31	36	37	38	39	40	42	46	47	51	53	56	58	61	71	
Clearance	J	2							3								
Total Length	G	40			42						44					49	
Hex socket bolt	Qty	3							4							6	
	Size	M4×12			M4×15						M5×18					M6×25	
	Tightening torque N·m				3.9						7.8					13.7	
Bushing weight (g)		22	38	40	41	43	45	49	71	71	81	84	93	97	106	237	



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 coated except for portions given secondary operation

* The precision grade of F Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435



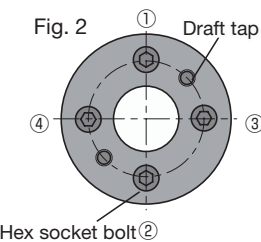
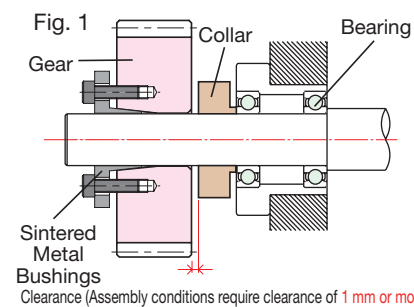
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Features of F Series

- No rattling of shaft and gear when fastening
- Freely positionable mounting for easy meshing of teeth
- Easily mounted and removed for repeated use
- The bushing slips when overloaded to reduce damage to the gears.

Mounting Method and Precautions

- ① Shaft diameter recommended tolerance is h7. The limit is h8, but we recommend h6 when minimizing runout. Use 1.6a as reference for the surface roughness of the shaft diameter.
- ② Wipe away any debris, dirt or oil on the shaft surface and hole of the fastened section with thinner or the like, and lightly apply hydraulic oil #68. Do not apply molybdenum-based oil or oil with additives, as this may cause reduced fastening torque or slippage.
- ③ Pass completely through the shaft while pressing the bushing flange against the gear before tightening. Removal will not be possible, so be sure to leave a clearance of 1mm or more on the gear rear surface side. (Fig.1)
- ④ Use a torque wrench to fasten bolts on opposite sides when tightening. First tighten at 1/4 of the regulated torque, then at 1/2 of the regulated torque, before finally tightening up to the regulated torque. Do not tighten without passing through the shaft, or fasten the bolts after insertion on the draft tap side. (Fig.2)
- ⑤ If the shaft has a keyway, the fastened section contact area is reduced and the transmission rate is decreased by 15 to 20%.

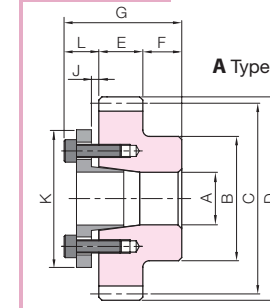


Catalog Number	No. of teeth	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Web thickness	Web O.D.	Allowable torque (N·m)
		B	C	D	E	F	H	I	
SS2.5-22	22	44	55	60					103
SS2.5-23	23	46	57.5	62.5					110
SS2.5-24	24	48	60	65					117
SS2.5-25	25	50	62.5	67.5					124
SS2.5-26	26	55	65	70					130
SS2.5-27	27	60	67.5	72.5					137
SS2.5-28	28	60	70	75					144
SS2.5-30	30	65	75	80					159
SS2.5-32	32	70	80	85					173
SS2.5-34	34	70	85	90					187
SS2.5-35	35	70	87.5	92.5					194
SS2.5-36	36	70	90	95					201
SS2.5-38	38	70	95	100					216
SS2.5-40	40	70	100	105					230
SS2.5-42	42	70	105	110					245
SS2.5-44	44	70	110	115					260
SS2.5-45	45	70	112.5	117.5	25	12			267
SS2.5-46	46	70	115	120					274
SS2.5-48	48	70	120	125					289
SS2.5-50	50	70	125	130					304
SS2.5-52	52	70	130	135					319
SS2.5-54	54	70	135	140					334
SS2.5-56	56	70	140	145					349
SS2.5-58	58	70	145	150					364
SS2.5-60	60	70	150	155					379
SS2.5-64	64	80	160	165				131	409
SS2.5-66	66	80	165	170				140	424
SS2.5-68	68	80	170	175				140	439
SS2.5-70	70	80	175	180				146	454
SS2.5-72	72	80	180	185				151	469
SS2.5-76	76	80	190	195				160	499
SS2.5-80	80	80	200	205					441
SS2.5-90	90	90	225	230					505

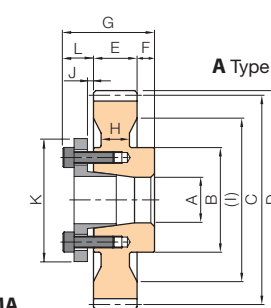
* For the backlash of each product, please refer to the dimension table of the original product.

Removal Method and Precautions

- ① Turn off the power source (supply), check that no load is applied to the gear, and confirm that there is no danger due to falling, etc.
- ② Insert removed bolts into all draft taps, and gradually and evenly tighten each bolt in diagonal order until removal is complete.
- ③ The washer and thread surfaces will be roughened, compromising tightening strength, if the bolts are reused. Consequently, we recommend using new bolts of the same size.



S1MA



S2MA

To order F Series products, please specify: **Catalog Number + F + BORE + A.**

Bore A		* The product shapes of F Series items are identified by background color.													
Catalog Number		15	16	17	18	19	20	22	25	28	30	32	35	40	
SS2.5-22 F Bore A															
SS2.5-23 F Bore A															
SS2.5-24 F Bore A															
SS2.5-25 F Bore A															
SS2.5-26 F Bore A															
SS2.5-27 F Bore A															
SS2.5-28 F Bore A															
SS2.5-30 F Bore A															
SS2.5-32 F Bore A															
SS2.5-34 F Bore A															
SS2.5-35 F Bore A															
SS2.5-36 F Bore A															
SS2.5-38 F Bore A															
SS2.5-40 F Bore A															
SS2.5-42 F Bore A															
SS2.5-44 F Bore A															
SS2.5-45 F Bore A															
SS2.5-46 F Bore A															
SS2.5-48 F Bore A															
SS2.5-50 F Bore A															
SS2.5-52 F Bore A															
SS2.5-54 F Bore A															
SS2.5-56 F Bore A															
SS2.5-58 F Bore A															
SS2.5-60 F Bore A															
SS2.5-64 F Bore A															
SS2.5-66 F Bore A															
SS2.5-68 F Bore A															
SS2.5-70 F Bore A															
SS2.5-72 F Bore A															
SS2.5-76 F Bore A															
SS2.5-80 F Bore A															
SS2.5-90 F Bore A															
Bore A		15	16	17	18	19	20	22	25	28	30	32	35	40	
Ref. slipping torque N·m		39	42	45	48	49	97	110	124	141	149	163	173	725	
Ref. thrust load kN		5.10	5.17	5.23	5.28	5.12	9.68	9.98	9.90	10.0	9.89	10.1	9.88	12.3	
Sintered Metal Bushings	L	12					14								19
	K	37	38	39	40	42	46	47	51	53	56	58	61	71	
Clearance	J	3													
Total Length	G	49					51								56
With hex socket Bolt	Qty						4								6
	Size	M4×15					M5×18								M6×25
	Tightening torque N·m	3.9					7.8								13.7
Bushing weight (g)		40	41	43	45	49	71	71	81	84	93	97	106	237	



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 coated except for portions given secondary operation

* The precision grade of F Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435

Features of F Series

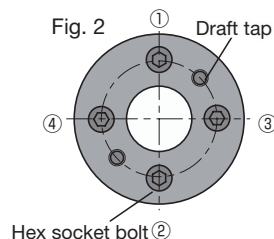
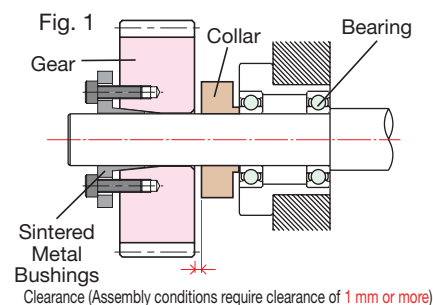
- No rattling of shaft and gear when fastening
- Freely positionable mounting for easy meshing of teeth
- Easily mounted and removed for repeated use
- The bushing slips when overloaded to reduce damage to the gears

Mounting Method and Precautions

- ① Shaft diameter recommended tolerance is h7. The limit is h8, but we recommend h6 when minimizing runout. Use 1.6a as reference for the surface roughness of the shaft diameter.
- ② Wipe away any debris, dirt or oil on the shaft surface and hole of the fastened section with thinner or the like, and lightly apply hydraulic oil #68. Do not apply molybdenum-based oil or oil with additives, as this may cause reduced fastening torque or slippage.
- ③ Pass completely through the shaft while pressing the bushing flange against the gear before tightening. Removal will not be possible, so be sure to leave a clearance of 1mm or more on the gear rear surface side. (Fig.1)
- ④ Use a torque wrench to fasten bolts on opposite sides when tightening. First tighten at 1/4 of the regulated torque, then at 1/2 of the regulated torque, before finally tightening up to the regulated torque. Do not tighten without passing through the shaft, or fasten the bolts after insertion on the draft tap side. (Fig.2)
- ⑤ If the shaft has a keyway, the fastened section contact area is reduced and the transmission rate is decreased by 15 to 20%.

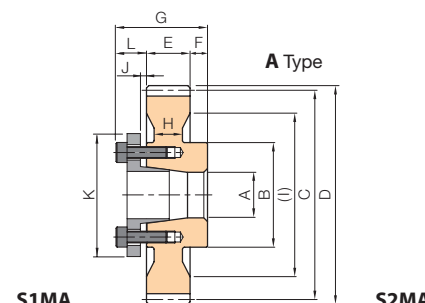
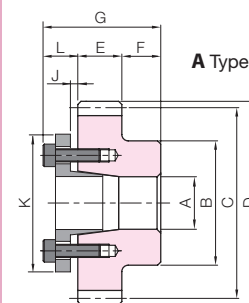
Catalog Number	No. of teeth	Hub dia. B	Pitch dia. C	Outside dia. D	Face width E	Hub width F	Web thickness H	Web O.D. I	Allowable torque (N·m)	Bending strength Surface durability
SS3-19	19	45	57	63					144	8.88
SS3-20	20	50	60	66					155	9.95
SS3-21	21	52	63	69					167	11.1
SS3-22	22	54	66	72					178	12.3
SS3-23	23	56	69	75					190	13.6
SS3-24	24	58	72	78					202	14.9
SS3-25	25	60	75	81					214	16.3
SS3-26	26	65	78	84					226	17.7
SS3-27	27	65	81	87					237	19.2
SS3-28	28	70	84	90					250	20.7
SS3-29	29	70	87	93					262	22.3
SS3-30	30	75	90	96					274	24.0
SS3-32	32	75	96	102					298	27.4
SS3-34	34	80	102	108					323	31.2
SS3-35	35	80	105	111					335	33.1
SS3-36	36	80	108	114					348	35.2
SS3-38	38	80	114	120					373	39.4
SS3-40	40	80	120	126					398	44.0
SS3-42	42	80	126	132					423	48.9
SS3-44	44	80	132	138	30	15			449	54.0
SS3-45	45	80	135	141					461	56.6
SS3-46	46	80	138	144					474	59.4
SS3-48	48	80	144	150					500	65.0
SS3-50	50	80	150	156					525	70.9
SS3-52	52	80	156	162					551	77.1
SS3-54	54	80	162	168					577	83.6
SS3-55	55	80	165	171					590	86.9
SS3-56	56	80	168	174					602	90.3
SS3-58	58	80	174	180					628	97.3
SS3-60	60	80	180	186					654	105
SS3-64	64	80	192	198					588	99.9
SS3-65	65	80	195	201					599	103
SS3-66	66	90	198	204					610	107
SS3-68	68	90	204	210					632	114
SS3-70	70	90	210	216					654	121
SS3-72	72	90	216	222					675	129
SS3-75	75	90	225	231					708	141
SS3-76	76	90	228	234					719	145
SS3-80	80	90	240	246					763	162

* For the backlash of each product, please refer to the dimension table of the original product.



Removal Method and Precautions

- ① Turn off the power source (supply), check that no load is applied to the gear, and confirm that there is no danger due to falling, etc.
- ② Insert removed bolts into all draft taps, and gradually and evenly tighten each bolt in diagonal order until removal is complete.
- ③ The washer and thread surfaces will be roughened, compromising tightening strength, if the bolts are reused. Consequently, we recommend using new bolts of the same size.



To order F Series products, please specify: **Catalog Number + F + BORE + A.**

Bore A		* The product shapes of F Series items are identified by background color.													
Catalog Number		15	16	17	18	19	20	22	25	28	30	32	35	40	
SS3-19 F Bore A															
SS3-20 F Bore A															
SS3-21 F Bore A															
SS3-22 F Bore A															
SS3-23 F Bore A															
SS3-24 F Bore A															
SS3-25 F Bore A															
SS3-26 F Bore A															
SS3-27 F Bore A															
SS3-28 F Bore A															
SS3-29 F Bore A															
SS3-30 F Bore A															
SS3-32 F Bore A															
SS3-34 F Bore A															
SS3-35 F Bore A															
SS3-36 F Bore A															
SS3-38 F Bore A															
SS3-40 F Bore A															
SS3-42 F Bore A															
SS3-44 F Bore A															
SS3-45 F Bore A															
SS3-46 F Bore A															
SS3-48 F Bore A															
SS3-50 F Bore A															
SS3-52 F Bore A															
SS3-54 F Bore A															
SS3-55 F Bore A															
SS3-56 F Bore A															
SS3-58 F Bore A															
SS3-60 F Bore A															
SS3-64 F Bore A															
SS3-65 F Bore A															
SS3-66 F Bore A															
SS3-68 F Bore A															
SS3-70 F Bore A															
SS3-72 F Bore A															
SS3-75 F Bore A															
SS3-76 F Bore A															
SS3-80 F Bore A															
Bore A		15	16	17	18	19	20	22	25	28	30	32	35	40	
Ref. slipping torque N·m		39	42	45	48	49	97	110	124	141	149	163	173	725	
Ref. thrust load kN		5.10	5.17	5.23	5.28	5.12	9.68	9.98	9.90	10.0	9.89	10.1	9.88	12.3	
Sintered Metal Bushings	L	12					14					19			
	K	37	38	39	40	42	46	47	51	53	56	58	61	71	
Clearance	J	3													
Total Length	G	57					59					64			
With hex socket Bolt	Qty	4													
	Size	M4×15					M5×18					M6×25			
	Tightening torque N·m	3.9					7.8					13.7			
Bushing weight (g)		40	41	43	45	49	71	71	81	84	93	97	106	237	