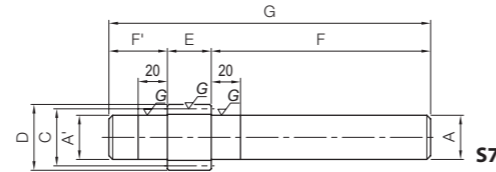




Specifications	
Precision grade	JIS grade N7 (JIS B1702-1: 1998)
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	Thermal refined, gear teeth induction hardened*
Tooth hardness	50 to 60HRC
Surface treatment	Black oxide coated except for ground part

* Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm).



Catalog Number	Module	No. of teeth	Profile shift coefficient	Shape	Shaft diameter (L)		Pitch dia.	Outside dia.	Face width	Shaft diameter (R)		Total Length
					A'	F'				A	F	
SSGS1.5-10 SSGS1.5-12 SSGS1.5-13	m1.5	10	+0.5	S7	12.2	25	15	19.35	15	12.2	100	140
		12	0		13.7					13.7		
		13	0		15.2					15.2		
SSGS2-10 SSGS2-12 SSGS2-13	m2	10	+0.5	S7	16.2	30	20	25.8	20	16.2	120	170
		12	0		18.2					18.2		
		13	0		20.2					20.2		
SSGS2.5-10 SSGS2.5-12 SSGS2.5-13	m2.5	10	+0.5	S7	20.2	35	25	32.25	25	20.2	135	195
		12	0		22.7					22.7		
		13	0		25.2					25.2		
SSGS3-10 SSGS3-12 SSGS3-13	m3	10	+0.5	S7	24.2	40	30	38.7	30	24.2	150	220
		12	0		27.2					27.2		
		13	0		30.2					30.2		

(Caution on Product Characteristics) ① For the center distance of the profile shifted gear, please refer to "Center distance of stock spur gear meshing with profile shifted gear" below.

② The backlash values shown in the table are the theoretical values for the normal direction for the internal ring in mesh with an SSG spur gear.

Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog Number
Bending strength	Surface durability	Bending strength	Surface durability			
12.7	3.76	1.30	0.38	0.08~0.16	0.14	SSGS1.5-10 SSGS1.5-12 SSGS1.5-13
9.97	4.70	1.02	0.48			
12.1	5.51	1.23	0.56			
30.2	9.07	3.08	0.93	0.10~0.20	0.30	SSGS2-10 SSGS2-12 SSGS2-13
23.6	11.3	2.41	1.15			
28.6	13.3	2.92	1.35			
58.9	17.9	6.01	1.83	0.10~0.20	0.54	SSGS2.5-10 SSGS2.5-12 SSGS2.5-13
46.2	22.4	4.71	2.28			
46.6	21.9	4.75	2.23			
102	31.3	10.4	3.19	0.10~0.20	0.89	SSGS3-10 SSGS3-12 SSGS3-13
66.5	32.6	6.78	3.32			
80.4	38.3	8.20	3.91			

Center distance of stock spur gear meshing with profile shifted gear

The center distance of the stock gear ($x = 0$) that meshes with profile shifted gear ($x = +0.5$) of $m = 1$ is shown in the table at right. Please multiply by the module of the gear to be used.

Center distance where number of teeth is 12 to 30 (unit: mm)

Number of teeth ($x = 0$)	Number of teeth ($x = +0.5$)
12	11.4410
13	11.9428
14	12.4446
15	12.9462
16	13.4477
17	13.9492
18	14.4505
19	14.9518
20	15.4530
21	15.9542
22	16.4553
23	16.9564
24	17.4574
25	17.9583
26	18.4592
27	18.9601
28	19.4610
29	19.9618
30	20.4625

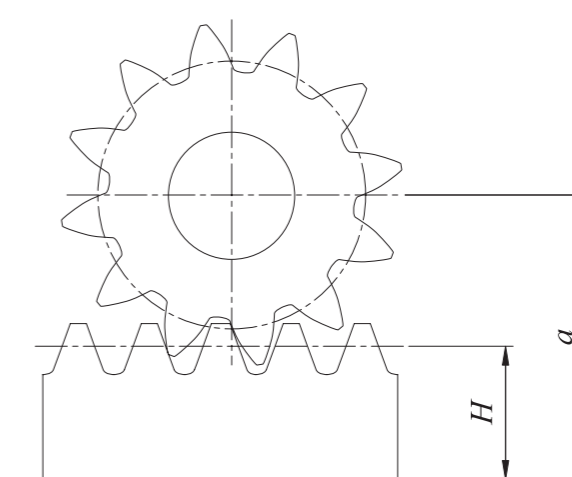
Center distance where number of teeth is 32 to 62 (unit: mm)

Number of teeth ($x = 0$)	Number of teeth ($x = +0.5$)
32	21.4640
34	22.4653
35	22.9660
36	23.4666
38	24.4677
40	25.4688
42	26.4698
44	27.4707
45	27.9712
46	28.4716
48	29.4725
50	30.4733
52	31.4740
54	32.4747
55	32.9750
56	33.4754
58	34.4760
60	35.4766
62	36.4772

Center distance where number of teeth is 64 to 200 (unit: mm)

Number of teeth ($x = 0$)	Number of teeth ($x = +0.5$)
64	37.4777
65	37.9780
66	38.4782
68	39.4787
70	40.4792
72	41.4796
75	42.9803
76	43.4805
80	45.4813
84	47.4820
85	47.9822
88	49.4826
90	50.4830
95	52.9837
100	55.4844
120	65.4866
150	80.4890
200	105.4915

Mounting distance of a profile shifted gear and the meshing rack



$$a = \frac{zm}{2} + H + xm$$

Where
 a : Mounting distance
 H : Pitch line height
 m : Module
 z : No. of teeth
 x : Profile shift coefficient