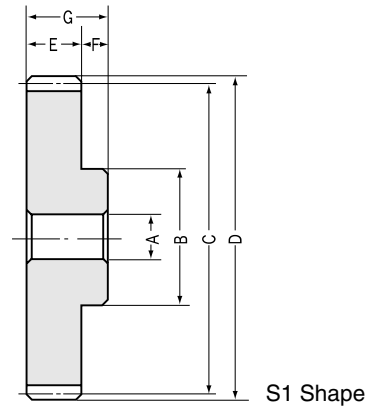




SSY Steel Thin Face Spur Gears Modules 0.8~1



Module 0.8

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width <small>NOTE 1</small>	Hub width	Total length	Web thickness	Web O.D.
	<i>m</i>	<i>z</i>	AH7	B	C	D	E	F	G	H	I
SSY0.8-20	0.8	20	5	13.5	16	17.6	4	8	12	—	—
SSY0.8-25	0.8	25	5	17	20	21.6	4	8	12	—	—
SSY0.8-30	0.8	30	5	20	24	25.6	4	8	12	—	—
SSY0.8-40	0.8	40	5	25	32	33.6	4	8	12	—	—
SSY0.8-50	0.8	50	5	25	40	41.6	4	8	12	—	—

Module 1

SSY1- 12	1	12	5	9	12	14	6	8	14	—	—
SSY1- 14	1	14	5	11	14	16	6	8	14	—	—
SSY1- 15	1	15	6	12	15	17	6	8	14	—	—
SSY1- 16	1	16	6	13	16	18	6	8	14	—	—
SSY1- 18	1	18	6	14	18	20	6	8	14	—	—
SSY1- 20	1	20	6	16	20	22	6	8	14	—	—
SSY1- 24	1	24	6	16	24	26	6	8	14	—	—
SSY1- 25	1	25	6	16	25	27	6	8	14	—	—
SSY1- 28	1	28	6	16	28	30	6	8	14	—	—
SSY1- 30	1	30	6	25	30	32	6	8	14	—	—
SSY1- 32	1	32	6	25	32	34	6	8	14	—	—
SSY1- 35	1	35	6	25	35	37	6	8	14	—	—
SSY1- 36	1	36	6	25	36	38	6	8	14	—	—
SSY1- 40	1	40	8	28	40	42	6	8	14	—	—
SSY1- 45	1	45	8	28	45	47	6	8	14	—	—
SSY1- 48	1	48	8	28	48	50	6	8	14	—	—
SSY1- 50	1	50	8	28	50	52	6	8	14	—	—
SSY1- 55	1	55	8	28	55	57	6	8	14	—	—
SSY1- 56	1	56	8	28	56	58	6	8	14	—	—
SSY1- 60	1	60	8	35	60	62	6	8	14	—	—
SSY1- 64	1	64	8	35	64	66	6	8	14	—	—
SSY1- 65	1	65	8	35	65	67	6	8	14	—	—
SSY1- 70	1	70	8	35	70	72	6	8	14	—	—
SSY1- 72	1	72	8	35	72	74	6	8	14	—	—
SSY1- 75	1	75	8	35	75	77	6	8	14	—	—
SSY1- 80	1	80	10	40	80	82	6	8	14	—	—
SSY1- 85	1	85	10	40	85	87	6	8	14	—	—
SSY1- 90	1	90	10	40	90	92	6	8	14	—	—
SSY1- 95	1	95	10	40	95	97	6	8	14	—	—
SSY1- 96	1	96	10	40	96	98	6	8	14	—	—
SSY1-100	1	100	10	50	100	102	6	8	14	—	—
SSY1-110	1	110	10	50	110	112	6	8	14	—	—
SSY1-120	1	120	10	50	120	122	6	8	14	—	—

CAUTION: The gears with wider face widths such as SS and SSA series can be used as the mating gears to these.

NOTE 1: Due to the thin face width, if you wish to perform secondary operations on these gears, please use care to avoid side run out and deformation. If you heat treat them, there is the possibility of warping these gears.



Specifications

Precision grade	JIS N8 grade (JIS B1702-1: 1998) OLD JIS 4 grade (JIS B1702: 1976)	Tooth hardness	Less than 194HB
Gear teeth	Standard full depth	Surface treatment	Black oxide
Pressure angle	20°	Tooth surface finish	Cut
Material	S45C	Datum reference surface for gear cutting	Bore
Heat treatment	—	Secondary Operations	Possible

Shape	Allowable torque (N·m) <small>NOTE 2</small>		Allowable torque (kgf·m)		Backlash (mm) <small>NOTE 3</small>	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S1	1.471	0.085	(0.15)	(0.0087)	0.06 ~ 0.16	0.013	SSYO.8-20
S1	2.025	0.134	(0.207)	(0.0137)	0.1 ~ 0.2	0.022	SSYO.8-25
S1	2.596	0.197	(0.265)	(0.0201)	0.1 ~ 0.2	0.032	SSYO.8-30
S1	3.774	0.362	(0.385)	(0.0369)	0.1 ~ 0.2	0.054	SSYO.8-40
S1	4.98	0.58	(0.508)	(0.0591)	0.12 ~ 0.24	0.068	SSYO.8-50

S1	1.527	0.0686	(0.1557)	(0.007)	0.08 ~ 0.18	0.01	SSY1- 12
S1	1.982	0.0961	(0.2021)	(0.0098)	0.08 ~ 0.18	0.01	SSY1- 14
S1	2.216	0.1118	(0.226)	(0.0114)	0.08 ~ 0.18	0.01	SSY1- 15
S1	2.457	0.1275	(0.2505)	(0.013)	0.08 ~ 0.18	0.02	SSY1- 16
S1	2.946	0.1618	(0.3004)	(0.0165)	0.08 ~ 0.18	0.02	SSY1- 18
S1	3.448	0.201	(0.3516)	(0.0205)	0.08 ~ 0.18	0.02	SSY1- 20
S1	4.482	0.2952	(0.457)	(0.0301)	0.1 ~ 0.22	0.03	SSY1- 24
S1	4.744	0.3217	(0.4838)	(0.0328)	0.1 ~ 0.22	0.03	SSY1- 25
S1	5.545	0.4089	(0.5654)	(0.0417)	0.1 ~ 0.22	0.04	SSY1- 28
S1	6.084	0.4737	(0.6204)	(0.0483)	0.1 ~ 0.22	0.06	SSY1- 30
S1	6.629	0.5423	(0.676)	(0.0553)	0.1 ~ 0.22	0.06	SSY1- 32
S1	7.453	0.6551	(0.76)	(0.0668)	0.1 ~ 0.22	0.07	SSY1- 35
S1	7.73	0.6963	(0.7882)	(0.071)	0.1 ~ 0.22	0.08	SSY1- 36
S1	8.844	0.8698	(0.9018)	(0.0887)	0.1 ~ 0.22	0.09	SSY1- 40
S1	10.25	1.115	(1.045)	(0.1137)	0.12 ~ 0.26	0.11	SSY1- 45
S1	11.1	1.277	(1.132)	(0.1302)	0.12 ~ 0.26	0.12	SSY1- 48
S1	11.67	1.392	(1.19)	(0.1419)	0.12 ~ 0.26	0.13	SSY1- 50
S1	13.1	1.699	(1.336)	(0.1733)	0.12 ~ 0.26	0.14	SSY1- 55
S1	13.39	1.765	(1.365)	(0.18)	0.12 ~ 0.26	0.15	SSY1- 56
S1	14.53	2.04	(1.482)	(0.208)	0.12 ~ 0.26	0.19	SSY1- 60
S1	15.69	2.336	(1.6)	(0.2382)	0.12 ~ 0.26	0.21	SSY1- 64
S1	15.97	2.412	(1.629)	(0.246)	0.12 ~ 0.26	0.21	SSY1- 65
S1	17.43	2.817	(1.777)	(0.2873)	0.12 ~ 0.26	0.24	SSY1- 70
S1	18	2.989	(1.836)	(0.3048)	0.12 ~ 0.26	0.25	SSY1- 72
S1	18.88	3.259	(1.925)	(0.3323)	0.12 ~ 0.26	0.26	SSY1- 75
S1	20.34	3.735	(2.074)	(0.3809)	0.12 ~ 0.26	0.31	SSY1- 80
S1	21.8	4.246	(2.223)	(0.433)	0.16 ~ 0.32	0.34	SSY1- 85
S1	23.26	4.79	(2.372)	(0.4885)	0.16 ~ 0.32	0.37	SSY1- 90
S1	24.72	5.369	(2.521)	(0.5475)	0.16 ~ 0.32	0.4	SSY1- 95
S1	25.02	5.489	(2.551)	(0.5597)	0.16 ~ 0.32	0.41	SSY1- 96
S1	26.19	5.981	(2.671)	(0.6099)	0.16 ~ 0.32	0.48	SSY1-100
S1	29.14	7.309	(2.971)	(0.7453)	0.16 ~ 0.32	0.56	SSY1-110
S1	32.08	8.799	(3.271)	(0.8973)	0.16 ~ 0.32	0.65	SSY1-120

*The blue catalog numbers indicate the new products.

NOTE 2: The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 27 for more details.

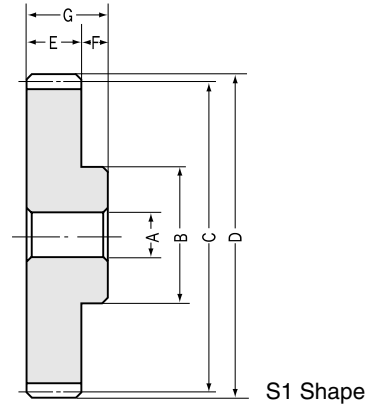
NOTE 3: The backlash values shown in the table are the theoretical values of a pair of identical gears in mesh.



SSY Steel Thin Face Spur Gears Module 1.25

Module 1.25

Spur Gears



Module 1.25

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width <small>NOTE 1</small>	Hub width	Total length	Web thickness	Web O.D.
	m	z	AH7	B	C	D	E	F	G	H	I
SSY1.25- 12	1.25	12	5	11	15	17.5	8	10	18	—	—
SSY1.25- 14	1.25	14	5	13	17.5	20	8	10	18	—	—
SSY1.25- 15	1.25	15	6	15	18.75	21.25	8	10	18	—	—
SSY1.25- 16	1.25	16	6	16	20	22.5	8	10	18	—	—
SSY1.25- 18	1.25	18	6	18	22.5	25	8	10	18	—	—
SSY1.25- 20	1.25	20	8	20	25	27.5	8	10	18	—	—
SSY1.25- 24	1.25	24	8	24	30	32.5	8	10	18	—	—
SSY1.25- 25	1.25	25	8	24	31.25	33.75	8	10	18	—	—
SSY1.25- 28	1.25	28	8	28	35	37.5	8	10	18	—	—
SSY1.25- 30	1.25	30	10	30	37.5	40	8	10	18	—	—
SSY1.25- 32	1.25	32	10	30	40	42.5	8	10	18	—	—
SSY1.25- 35	1.25	35	10	36	43.75	46.25	8	10	18	—	—
SSY1.25- 36	1.25	36	10	36	45	47.5	8	10	18	—	—
SSY1.25- 40	1.25	40	10	40	50	52.5	8	10	18	—	—
SSY1.25- 45	1.25	45	10	40	56.25	58.75	8	10	18	—	—
SSY1.25- 48	1.25	48	10	40	60	62.5	8	10	18	—	—
SSY1.25- 50	1.25	50	12	45	62.5	65	8	10	18	—	—
SSY1.25- 55	1.25	55	12	45	68.75	71.25	8	10	18	—	—
SSY1.25- 56	1.25	56	12	45	70	72.5	8	10	18	—	—
SSY1.25- 60	1.25	60	12	50	75	77.5	8	10	18	—	—
SSY1.25- 64	1.25	64	12	50	80	82.5	8	10	18	—	—
SSY1.25- 65	1.25	65	12	50	81.25	83.75	8	10	18	—	—
SSY1.25- 70	1.25	70	15	55	87.5	90	8	10	18	—	—
SSY1.25- 72	1.25	72	15	55	90	92.5	8	10	18	—	—
SSY1.25- 75	1.25	75	15	55	93.75	96.25	8	10	18	—	—
SSY1.25- 80	1.25	80	15	60	100	102.5	8	10	18	—	—
SSY1.25- 85	1.25	85	15	60	106.25	108.75	8	10	18	—	—
SSY1.25- 90	1.25	90	15	65	112.5	115	8	10	18	—	—
SSY1.25- 95	1.25	95	15	65	118.75	121.25	8	10	18	—	—
SSY1.25- 96	1.25	96	15	65	120	122.5	8	10	18	—	—
SSY1.25-100	1.25	100	15	65	125	127.5	8	10	18	—	—

NOTE 1: Due to the thin face width, if you wish to perform secondary operations on these gears, please use care to avoid side run out and deformation. If you heat treat them, there is the possibility of warping these gears.



Specifications

Precision grade	JIS N8 grade (JIS B1702-1: 1998) OLD JIS 4 grade (JIS B1702: 1976)	Tooth hardness	Less than 194HB
Gear teeth	Standard full depth	Surface treatment	Black oxide
Pressure angle	20°	Tooth surface finish	Cut
Material	S45C	Datum reference surface for gear cutting	Bore
Heat treatment	—	Secondary Operations	Possible

Shape	Allowable torque (N-m) <small>NOTE 2</small>		Allowable torque (kgf-m)		Backlash (mm) <small>NOTE 3</small>	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S1	3.181	0.1442	(0.3244)	(0.0147)	0.08 ~ 0.18	0.02	SSY1.25- 12
S1	4.129	0.201	(0.421)	(0.0205)	0.08 ~ 0.18	0.02	SSY1.25- 14
S1	4.618	0.2334	(0.4709)	(0.0238)	0.08 ~ 0.18	0.03	SSY1.25- 15
S1	5.117	0.2687	(0.5218)	(0.0274)	0.08 ~ 0.18	0.03	SSY1.25- 16
S1	6.137	0.3432	(0.6258)	(0.035)	0.08 ~ 0.18	0.04	SSY1.25- 18
S1	7.183	0.4295	(0.7325)	(0.0438)	0.08 ~ 0.18	0.05	SSY1.25- 20
S1	9.337	0.6315	(0.9521)	(0.0644)	0.1 ~ 0.22	0.07	SSY1.25- 24
S1	9.885	0.6884	(1.008)	(0.0702)	0.1 ~ 0.22	0.08	SSY1.25- 25
S1	11.55	0.8738	(1.178)	(0.0891)	0.1 ~ 0.22	0.1	SSY1.25- 28
S1	12.68	1.011	(1.293)	(0.1031)	0.1 ~ 0.22	0.11	SSY1.25- 30
S1	13.81	1.159	(1.408)	(0.1182)	0.1 ~ 0.22	0.12	SSY1.25- 32
S1	15.52	1.4	(1.583)	(0.1428)	0.1 ~ 0.22	0.16	SSY1.25- 35
S1	16.1	1.487	(1.642)	(0.1516)	0.1 ~ 0.22	0.17	SSY1.25- 36
S1	18.43	1.855	(1.879)	(0.1892)	0.1 ~ 0.22	0.21	SSY1.25- 40
S1	21.36	2.376	(2.178)	(0.2423)	0.12 ~ 0.26	0.24	SSY1.25- 45
S1	23.12	2.72	(2.358)	(0.2774)	0.12 ~ 0.26	0.26	SSY1.25- 48
S1	24.31	2.964	(2.479)	(0.3022)	0.12 ~ 0.26	0.3	SSY1.25- 50
S1	27.29	3.617	(2.783)	(0.3688)	0.12 ~ 0.26	0.34	SSY1.25- 55
S1	27.89	3.756	(2.844)	(0.383)	0.12 ~ 0.26	0.35	SSY1.25- 56
S1	30.28	4.345	(3.088)	(0.4431)	0.12 ~ 0.26	0.42	SSY1.25- 60
S1	32.69	4.981	(3.333)	(0.5079)	0.12 ~ 0.26	0.45	SSY1.25- 64
S1	33.29	5.146	(3.3395)	(0.5248)	0.12 ~ 0.26	0.46	SSY1.25- 65
S1	36.3	6.018	(3.702)	(0.6137)	0.12 ~ 0.26	0.54	SSY1.25- 70
S1	37.52	6.387	(3.826)	(0.6513)	0.12 ~ 0.26	0.56	SSY1.25- 72
S1	39.33	6.962	(4.011)	(0.7099)	0.12 ~ 0.26	0.59	SSY1.25- 75
S1	42.37	7.975	(4.321)	(0.8132)	0.12 ~ 0.26	0.69	SSY1.25- 80
S1	45.41	9.059	(4.631)	(0.9238)	0.16 ~ 0.32	0.75	SSY1.25- 85
S1	48.46	10.22	(4.942)	(1.042)	0.16 ~ 0.32	0.86	SSY1.25- 90
S1	51.51	11.47	(5.253)	(1.17)	0.16 ~ 0.32	0.93	SSY1.25- 95
S1	52.12	11.73	(5.315)	(1.196)	0.16 ~ 0.32	0.94	SSY1.25- 96
S1	54.57	12.81	(5.565)	(1.306)	0.16 ~ 0.32	1	SSY1.25-100

NOTE 2: The allowable torques shown in the table are calculated values according to the assumed usage conditions.
Please see page 27 for more details.

NOTE 3: The backlash values shown in the table are the theoretical values of a pair of identical gears in mesh.