



## Module 1

Catalog No.	Hand of helix	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length
		<i>m</i>	<i>z</i>	AH7	B	C	D	E	F	G
SUN1 -13R SUN1 -13L	R L	1	13	6	15	18.38	20.38	10	10	20
SUN1 -15R SUN1 -15L	R L	1	15	6	18	21.21	23.21	10	10	20

## Module 1.5

SUN1.5-10R SUN1.5-10L	R L	1.5	10	8	16	21.21	24.21	15	10	25
SUN1.5-13R SUN1.5-13L	R L	1.5	13	10	23	27.58	30.58	15	10	25
SUN1.5-15R SUN1.5-15L	R L	1.5	15	10	25	31.82	34.82	15	10	25

## Module 2

SUN2 -10R SUN2 -10L	R L	2	10	12	22	28.28	32.28	20	15	35
SUN2 -13R SUN2 -13L	R L	2	13	12	30	36.77	40.77	20	15	35
SUN2 -15R SUN2 -15L	R L	2	15	12	35	42.43	46.43	20	15	35

## Module 2.5

SUN2.5-10R SUN2.5-10L	R L	2.5	10	12	26	35.36	40.36	22	16	38
SUN2.5-13R SUN2.5-13L	R L	2.5	13	15	35	45.96	50.96	22	16	38
SUN2.5-15R SUN2.5-15L	R L	2.5	15	15	40	53.03	58.03	22	16	38

## Module 3

SUN3 -10R SUN3 -10L	R L	3	10	15	34	42.43	48.43	25	18	43
SUN3 -13R SUN3 -13L	R L	3	13	20	45	55.15	61.15	25	18	43
SUN3 -15R SUN3 -15L	R L	3	15	20	50	63.64	69.64	25	18	43

**CAUTION:** For skewed shaft applications, RH and RH or LH and LH are meshed to make up a set of screw gears or crossed-helical gears. For parallel shaft applications, mesh opposite hands of helical gear sets. See the Selection Hints on page 278.



## Specifications

Precision grade	JIS N9 grade (JIS B1702-1: 1996) OLD JIS 5 grade (JIS B1702: 1976)	Heat treatment	—
Reference section of gear	<b>Normal plane</b>	Surface treatment	—
Gear teeth	<b>Standard full depth</b>	Tooth surface finish	<b>Cut</b>
Normal pressure angle	20°	Datum reference surface for gear cutting	<b>Bore</b>
Helix angle	45°	Secondary Operations	<b>Possible</b>
Material	<b>SUS303</b>		

\*Available on special order: Same gears except made from SUS304.

Shape	Allowable torque (N·m) <small>NOTE 1</small>		Allowable torque (kgf·m)		Backlash (mm) <small>NOTE 2</small>	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S1	—	0.19	—	(0.02)	0.08 ~ 0.18	0.03	<b>SUN1 -13R</b> <b>SUN1 -13L</b>
S1	—	0.29	—	(0.03)	0.08 ~ 0.18	0.04	<b>SUN1 -15R</b> <b>SUN1 -15L</b>

S1	—	0.29	—	(0.03)	0.1 ~ 0.2	0.05	<b>SUN1.5-10R</b> <b>SUN1.5-10L</b>
S1	—	0.62	—	(0.06)	0.12 ~ 0.22	0.09	<b>SUN1.5-13R</b> <b>SUN1.5-13L</b>
S1	—	0.93	—	(0.1)	0.12 ~ 0.22	0.12	<b>SUN1.5-15R</b> <b>SUN1.5-15L</b>

S1	—	0.66	—	(0.07)	0.12 ~ 0.22	0.11	<b>SUN2 -10R</b> <b>SUN2 -10L</b>
S1	—	1.42	—	(0.14)	0.12 ~ 0.26	0.22	<b>SUN2 -13R</b> <b>SUN2 -13L</b>
S1	—	2.14	—	(0.22)	0.12 ~ 0.26	0.31	<b>SUN2 -15R</b> <b>SUN2 -15L</b>

S1	—	1.26	—	(0.13)	0.12 ~ 0.24	0.2	<b>SUN2.5-10R</b> <b>SUN2.5-10L</b>
S1	—	2.69	—	(0.27)	0.14 ~ 0.28	0.36	<b>SUN2.5-13R</b> <b>SUN2.5-13L</b>
S1	—	4.03	—	(0.41)	0.14 ~ 0.28	0.49	<b>SUN2.5-15R</b> <b>SUN2.5-15L</b>

S1	—	2.14	—	(0.22)	0.14 ~ 0.26	0.35	<b>SUN3 -10R</b> <b>SUN3 -10L</b>
S1	—	4.51	—	(0.46)	0.16 ~ 0.32	0.59	<b>SUN3 -13R</b> <b>SUN3 -13L</b>
S1	—	6.75	—	(0.69)	0.16 ~ 0.32	0.8	<b>SUN3 -15R</b> <b>SUN3 -15L</b>

**NOTE 1:** The allowable torques shown in the table are calculated from the Niemann formula. Please see the "Selection Hints" (page 278) for further details.

**NOTE 2:** The backlash values shown in the table are the theoretical values in the normal direction of a pair of identical gears in mesh.