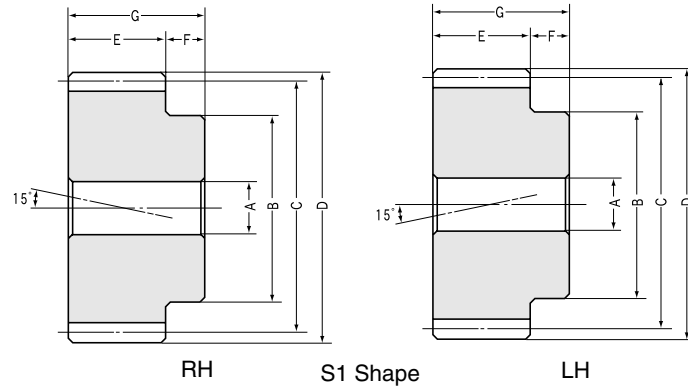




SH Helical Gears Normal Modules 2~3

Helical Gears IS



Module 2

Catalog No.	Direction 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>	A _{H7}	B	C	D	E	F	G
SH2-15R SH2-15L	R L	2	15	12	24	31.06	35.06	25	10	35
SH2-20R SH2-20L	R L	2	20	12	32	41.41	45.41	25	10	35
SH2-30R SH2-30L	R L	2	30	12	50	62.12	66.12	25	10	35
SH2-40R SH2-40L	R L	2	40	18	60	82.82	86.82	25	10	35
SH2-60R SH2-60L	R L	2	60	18	70	124.23	128.23	25	10	35
SH2-90R SH2-90L	R L	2	90	18	120	186.35	190.35	25	10	35

Module 3

SH3-15R SH3-15L	R L	3	15	15	36	46.59	52.59	35	15	50
SH3-20R SH3-20L	R L	3	20	15	50	62.12	68.12	35	15	50
SH3-30R SH3-30L	R L	3	30	20	70	93.17	99.17	35	15	50
SH3-40R SH3-40L	R L	3	40	20	80	124.23	130.23	35	15	50
SH3-60R SH3-60L	R L	3	60	20	140	186.35	192.35	35	15	50

CAUTION: Right handed and left handed helical gears in the same module are designed to mesh as a pair, but they are not interchangeable with KHG type helical gears.



Specifications

Precision grade	JIS N8 grade (JIS B1702-1: 1998) OLD JIS 4 grade (JIS B1702: 1976)	Heat treatment	—
Reference section of gear	Normal plane	Tooth hardness	Less than 194HB
Gear teeth	Standard full depth	Surface treatment	Black oxide
Transverse pressure angle	20°	Tooth surface finish	Cut
Helix angle	15°	Datum reference surface for gear cutting	Bore
Material	S45C	Secondary Operations	Possible

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	43.72	2.895	(4.458)	(0.2952)	0.12 ~ 0.26	0.16	SH2-15R SH2-15L
S1	67.11	5.851	(6.843)	(0.5966)	0.12 ~ 0.26	0.31	SH2-20R SH2-20L
S1	116.8	15.25	(11.91)	(1.555)	0.14 ~ 0.3	0.7	SH2-30R SH2-30L
S1	168.6	28.92	(17.19)	(2.949)	0.14 ~ 0.3	1.2	SH2-40R SH2-40L
S1	274.9	70.81	(28.03)	(7.221)	0.18 ~ 0.36	3	SH2-60R SH2-60L
S1	437.4	173	(44.6)	(17.64)	0.18 ~ 0.36	6.1	SH2-90R SH2-90L

S1	137.7	9.672	(14.04)	(0.9863)	0.16 ~ 0.32	0.5	SH3-15R SH3-15L
S1	211.3	19.39	(21.55)	(1.977)	0.16 ~ 0.32	1	SH3-20R SH3-20L
S1	367.8	50.2	(37.51)	(5.119)	0.18 ~ 0.38	2.2	SH3-30R SH3-30L
S1	530.8	95.46	(54.13)	(9.734)	0.18 ~ 0.38	3.8	SH3-40R SH3-40L
S1	865.8	235.5	(88.29)	(24.01)	0.22 ~ 0.44	9.3	SH3-60R SH3-60L

NOTE 1: The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 131 for more details.

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

■ SH Helical Gear Center Distance

Catalog No.	SH2-15 ^R _L	SH2-20 ^R _L	SH2-30 ^R _L	SH2-40 ^R _L	SH2-60 ^R _L	SH2-90 ^R _L
SH2-15 ^R _L	31.05	—	—	—	—	—
SH2-20 ^R _L	36.23	41.41	—	—	—	—
SH2-30 ^R _L	46.58	51.76	62.11	—	—	—
SH2-40 ^R _L	56.93	62.11	72.46	82.82	—	—
SH2-60 ^R _L	77.64	82.82	93.17	103.52	124.23	—
SH2-90 ^R _L	108.70	113.88	124.23	134.58	155.29	186.35

■ SH Helical Gear Center Distance

Catalog No.	SH3-15 ^R _L	SH3-20 ^R _L	SH3-30 ^R _L	SH3-40 ^R _L	SH3-60 ^R _L
SH3-15 ^R _L	46.58	—	—	—	—
SH3-20 ^R _L	54.34	62.11	—	—	—
SH3-30 ^R _L	69.87	77.64	93.17	—	—
SH3-40 ^R _L	85.40	93.17	108.70	124.23	—
SH3-60 ^R _L	116.46	124.23	139.76	155.29	186.35