



R1 Shape

*SW is saw blade finish.

Specifications

Precision grade	KHK R 001 grade 4
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C-D
Heat treatment	Stress relief annealing
Tooth hardness	Less than 95HRB
Surface treatment	Black oxide
Tooth surface finish	Cut
Datum reference surface for gear cutting	Bottom surface
Secondary Operations	Possible

Modules 1~10 100 Racks

Catalog No.	Module m	Total length A	Face width B	Height C	Height to pitch line D	Effective No. of teeth	Shape	Allowable force (N) note 1		Allowable force (kgf)		Weight (kgf)
								Bending strength	Surface durability	Bending strength	Surface durability	
SR1 -100	1	98	10	12	11	29	R1	958.2	176.7	(97.71)	(18.02)	0.086
SR1.5-100	1.5	101	15	20	18.5	20	R1	2156	420.9	(219.9)	(42.92)	0.23
SR2 -100	2	98	20	25	23	14	R1	3833	775	(390.9)	(79.03)	0.36
SR2.5-100	2.5	100	25	30	27.5	11	R1	5989	1242	(610.7)	(126.6)	0.55
SR3 -100	3	101	30	35	32	9	R1	8624	1821	(879.4)	(185.7)	0.78
SR4 -100	4	98	40	45	41	6	R1	15330	3325	(1563)	(339.1)	1.3
SR5 -110	5	108	50	50	45	5	R1	23960	5296	(2443)	(540)	2
SR6 -110	6	111	60	60	54	4	R1	34500	7735	(3518)	(788.8)	2.9
SR8 -130	8	123	75	75	67	3	R1	44230	10380	(4510)	(1059)	4.9
SR10 -160	10	155	90	80	70	3	R1	66340	16100	(6765)	(1642)	7.8

Modules 1~3 300 Racks

SR1 -300	1	303	10	12	11	94	R1	958.2	176.7	(97.71)	(18.02)	0.25
SR1.5-300	1.5	303	15	20	18.5	62	R1	2156	420.9	(219.9)	(42.92)	0.73
SR2 -300	2	303	20	25	23	46	R1	3833	775	(390.9)	(79.03)	1.2
SR2.5-300	2.5	303	25	30	27.5	37	R1	5989	1242	(610.7)	(126.6)	1.8
SR3 -300	3	303	30	35	32	30	R1	8624	1821	(879.4)	(185.7)	2.5

Modules 1~6 500 Racks

SR1 -500	1	505	10	12	11	159	R1	958.2	176.7	(97.71)	(18.02)	0.42
SR1.5-500	1.5	505	15	20	18.5	105	R1	2156	420.9	(219.9)	(42.92)	1.2
SR2 -500	2	505	20	25	23	79	R1	3833	775	(390.9)	(79.03)	1.9
SR2.5-500	2.5	505	25	30	27.5	63	R1	5989	1242	(610.7)	(126.6)	2.6
SR3 -500	3	505	30	35	32	52	R1	8624	1821	(879.4)	(185.7)	3.8
SR4 -500	4	505	40	45	41	39	R1	15330	3325	(1563)	(339.1)	6.3
SR5 -500	5	505	50	50	45	31	R1	23960	5296	(2443)	(540)	8.3
SR6 -500	6	505	60	60	54	25	R1	34500	7735	(3518)	(788.8)	12.7

Modules 1.5~8 1000 Racks

SR1.5-1000	1.5	1010	15	20	18.5	212	R1	2156	420.9	(219.9)	(42.92)	2.2
SR2 -1000	2	1010	20	25	23	160	R1	3833	775	(390.9)	(79.03)	3.6
SR2.5-1000	2.5	1010	25	30	27.5	128	R1	5989	1242	(610.7)	(126.6)	5.3
SR3 -1000	3	1010	30	35	32	106	R1	8624	1821	(879.4)	(185.7)	7.6
SR4 -1000	4	1010	40	45	41	80	R1	15330	3325	(1563)	(339.1)	12.5
SR5 -1000	5	1010	50	50	45	64	R1	23960	5296	(2443)	(540)	17.5
SR6 -1000	6	1010	60	60	54	53	R1	34500	7735	(3518)	(788.8)	25.4
SR8 -1000	8	1010	75	75	67	40	R1	44230	10380	(4510)	(1059)	39

Modules 1.5~6 1500 Racks

SR1.5-1500	1.5	1515	15	20	18.5	320	R1	2156	420.9	(219.9)	(42.92)	3.4
SR2 -1500	2	1515	20	25	23	240	R1	3833	775	(390.9)	(79.03)	5.4
SR2.5-1500	2.5	1515	25	30	27.5	192	R1	5989	1242	(610.7)	(126.6)	8
SR3 -1500	3	1515	30	35	32	160	R1	8624	1821	(879.4)	(185.7)	11.4
SR4 -1500	4	1515	40	45	41	120	R1	15330	3325	(1563)	(339.1)	19
SR5 -1500	5	1515	50	50	45	96	R1	23960	5296	(2443)	(540)	26
SR6 -1500	6	1515	60	60	54	79	R1	34500	7735	(3518)	(788.8)	38

CAUTION: The backlash of a rack depends on the mating pinion. Please refer to the pinion's backlash.

NOTE 1: The allowable forces shown in the table are the calculated values according to the assumed usage conditions. Please see page 155 for more details.