

GEAR RACKS • DIN 6 & DIN 10

HELICAL RACKS

Hardened helical-tooth racks in two precision grades — ground DIN 6 and milled DIN 10 — for smoother, quieter drives with higher load capacity.

MODULES

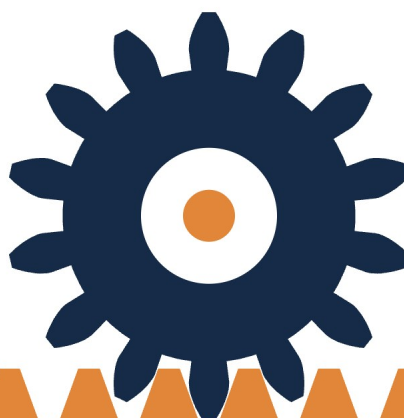
M1.5 – M6

LENGTHS

500 • 1000 • 2000 mm

HELIX ANGLE

19°31' 42" RH



SMOOTHER, QUIETER, STRONGER DRIVES

KJK Precision helical racks have teeth cut at a 19°31'42" right-hand helix, so more teeth are in mesh at once. The result is smoother, quieter running and higher allowable force than a straight rack of the same module. Every rack is hardened to HRC 50–55 and supplied with counterbored mounting holes.

Choose **DIN 6 ground** for high-accuracy axes and **DIN 10 milled** for robust, cost-effective drives.

DIN 6 · Ground		CHTGH
Material	S45C	
Hardness	HRC 50–55	
Finish	Ground all sides after hardening	
Total pitch error	≤ 0.036 mm / 1000 mm ≤ 0.047 mm / 2000 mm	
Modules	1.5 · 2 · 3	
Lengths	500 · 1000 · 2000 mm	
Suited to CNC machines, laser and plasma cutting, precision gantries.		

DIN 10 · Milled		CHTMH
Material	S45C	
Hardness	HRC 50–55	
Finish	Sand-blasted	
Total pitch error	≤ 0.15 mm / 1000 mm	
Modules	1.5 · 2 · 3 · 4 · 5 · 6	
Lengths	1000 · 2000 mm	
Suited to Automation, material handling, woodworking and general gantries.		

HOW TO READ A PART CODE

CHTGH	020	10	DIN6	24X24
Series	Module	Length	Quality grade	Section
CHTGH helical, ground	015 = M1.5 · 020 = M2	05 = 500 · 10 = 1000	DIN6 or DIN10	B × A0 in mm
CHTMH helical, milled	030 = M3 ... 060 = M6	20 = 2000 mm		

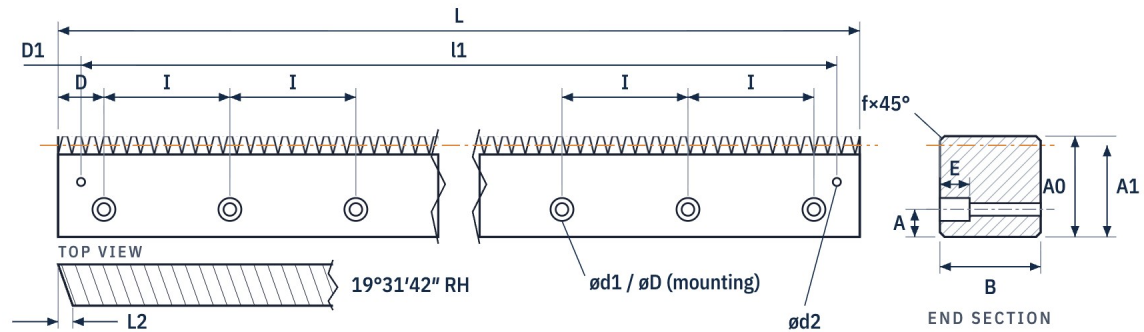
Example: **CHTGH02010-DIN6-24X24** — helical ground rack, module 2, 1000 mm long, DIN 6, 24 × 24 mm section.

SECTION SIZE AT A GLANCE · B × A0 (MM)

Grade	M1.5	M2	M3	M4	M5	M6
DIN 6	19 × 19	24 × 24	29 × 29	—	—	—
DIN 10	17 × 17	24 × 24	29 × 29	39 × 39	49 × 39	59 × 49

DIMENSIONS

UNIT: MM


QUALITY GRADE
DIN 6
HARDNESS
HRC 50–55
TEETH
Helical, ground
FINISH
**Ground all sides after
hardening**
HELIX ANGLE
 $19^\circ 31' 42''$ right-hand
PITCH ERROR FP
 $\leq 0.036 / 1000 \text{ mm}$
 $\leq 0.047 / 2000 \text{ mm}$
MATERIAL
S45C
MODULES
 $1.5 \cdot 2 \cdot 3$

DIMENSIONS & LOAD

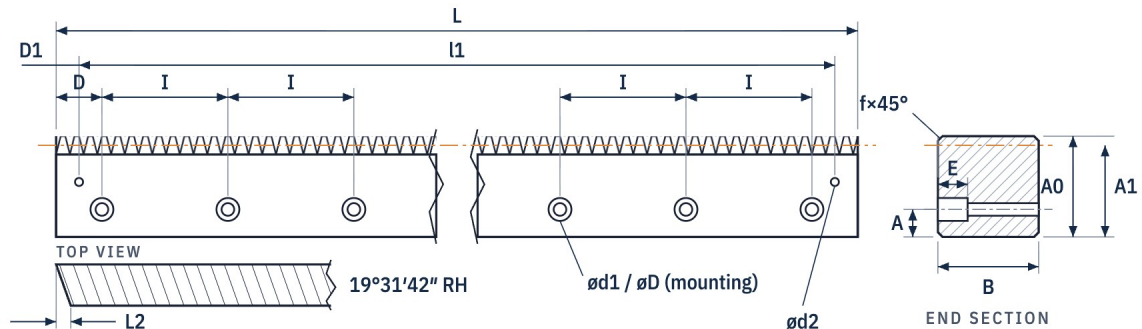
Part code	Module	L	L2	Teeth	B	A0	A1	Ft kN	Weight kg
CHTGH01505-DIN6-19X19	1.5	500.00	6.70	100	19	19	17.5	6.87	1.3
CHTGH01510-DIN6-19X19	1.5	1000.00	6.70	200	19	19	17.5	6.97	2.6
CHTGH02005-DIN6-24X24	2	500.00	8.50	75	24	24	22.0	11.46	2.1
CHTGH02010-DIN6-24X24	2	1000.00	8.50	150	24	24	22.0	11.68	4.1
CHTGH02020-DIN6-24X24	2	2000.00	8.50	300	24	24	22.0	11.80	8.2
CHTGH03005-DIN6-29X29	3	500.00	10.30	50	29	29	26.0	20.41	3.0
CHTGH03010-DIN6-29X29	3	1000.00	10.30	100	29	29	26.0	20.96	6.0
CHTGH03020-DIN6-29X29	3	2000.00	10.30	200	29	29	26.0	21.28	12.0

MOUNTING HOLES

Part code	D	I	Holes	A	$\phi d1$	ϕD	E	D1	l1	$\phi d2$	f
CHTGH01505-DIN6-19X19	62.5	125	4	8	7	11	7	31.7	436.60	5.7	1.5
CHTGH01510-DIN6-19X19	62.5	125	8	8	7	11	7	31.7	936.60	5.7	1.5
CHTGH02005-DIN6-24X24	62.5	125	4	8	7	11	7	31.7	436.60	5.7	2
CHTGH02010-DIN6-24X24	62.5	125	8	8	7	11	7	31.7	936.60	5.7	2
CHTGH02020-DIN6-24X24	62.5	125	16	8	7	11	7	31.7	1936.60	5.7	2
CHTGH03005-DIN6-29X29	62.5	125	4	9	10	15	9	35.0	430.00	7.7	2
CHTGH03010-DIN6-29X29	62.5	125	8	9	10	15	9	35.0	930.00	7.7	2
CHTGH03020-DIN6-29X29	62.5	125	16	9	10	15	9	35.0	1930.00	7.7	2

DIMENSIONS

UNIT: MM



QUALITY GRADE DIN 10	TEETH Helical, milled	HELIX ANGLE 19°31'42" right-hand	MATERIAL S45C
HARDNESS HRC 50–55	SURFACE Sand-blasted	PITCH ERROR FP ≤ 0.15 / 1000 mm	MODULES 1.5 · 2 · 3 · 4 · 5 · 6

DIMENSIONS & LOAD

Part code	Module	L	L2	Teeth	B	A0	A1	Ft kN	Weight kg
CHTMH01510-DIN10-17X17	1.5	1000	6.00	200	17	17	15.5	4.57	2.1
CHTMH02010-DIN10-24X24	2	1000	8.50	150	24	24	22	8.56	4.1
CHTMH02020-DIN10-24X24	2	2000	8.50	300	24	24	22	8.66	8.2
CHTMH03010-DIN10-29X29	3	1000	10.30	100	29	29	26	15.37	6.0
CHTMH03020-DIN10-29X29	3	2000	10.30	200	29	29	26	15.60	12.0
CHTMH04010-DIN10-39X39	4	1000	13.80	75	39	39	35	27.31	10.8
CHTMH04020-DIN10-39X39	4	2000	13.80	150	39	39	35	27.83	21.6
CHTMH05010-DIN10-49X39	5	1000	17.40	60	49	39	34	42.51	13.6
CHTMH05020-DIN10-49X39	5	2000	17.40	120	49	39	34	43.49	27.2
CHTMH06010-DIN10-59X49	6	1000	20.90	50	59	49	43	60.92	20.5
CHTMH06020-DIN10-59X49	6	2000	20.90	100	59	49	43	62.54	41.1

MOUNTING HOLES

Part code	D	I	Holes	A	ød1	øD	E	D1	L1	ød2	f
CHTMH01510-DIN10-17X17	62.5	125	8	7	6	9.5	7	31.7	936.6	5.7	1.5
CHTMH02010-DIN10-24X24	62.5	125	8	8	7	11	7	31.7	936.6	5.7	2
CHTMH02020-DIN10-24X24	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	2
CHTMH03010-DIN10-29X29	62.5	125	8	9	10	15	9	35.0	930.0	7.7	2
CHTMH03020-DIN10-29X29	62.5	125	16	9	10	15	9	35.0	1930.0	7.7	2
CHTMH04010-DIN10-39X39	62.5	125	8	12	10	15	9	33.3	933.4	7.7	2
CHTMH04020-DIN10-39X39	62.5	125	16	12	10	15	9	33.3	1933.4	7.7	2
CHTMH05010-DIN10-49X39	62.5	125	8	12	14	20	13	37.5	925.0	11.7	3
CHTMH05020-DIN10-49X39	62.5	125	16	12	14	20	13	37.5	1925.0	11.7	3
CHTMH06010-DIN10-59X49	62.5	125	8	16	18	26	17	37.5	925.0	15.7	3
CHTMH06020-DIN10-59X49	62.5	125	16	16	18	26	17	37.5	1925.0	15.7	3

GET THE RIGHT RACK FOR YOUR AXIS

Tell us the module, length and accuracy grade you need — we'll confirm availability and lead time, and help you pair the rack with the right pinion.

CONTACT US

WEB

kjkprecision.com

ALSO AVAILABLE

Straight Racks

Ground DIN 6 and milled DIN 10, modules 1.5 to 6.
Ask for the straight racks catalogue.