

HIGH-PRECISION Rack & Pinion



OEM Solutions for the Toughest Industrial Applications – Standard, Modified or Customized





Competitiveness Originated from Reliable Performance and Superior Value Proposition

Since its inception, GearKo has been dedicated to the lintegrated solution of automation motion products . The company has decades of production experience and has been serving the high-end market world widely.

GearKo uses its know-how for high precision planetary reducers and rack & pinion. It has

advanced gear hobbing machines, high-precision gear grinding machines, horizontal machining centers, gear skiving machines, CNCs, coordinate measuring machines, tooth-toothed testers, and computer-based universal tool microscopes etc. High-end Product Position Ensured by Sophisticated Equipment and Operation Excellence











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RACK

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PINION

Code	Quality Grade	Material	Hardness	Туре	Teeth Treatment	Module	Page
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Rack Code Instruction



1st	2nd	3rd	4th	5th	6th	7th	8th
Material	Туре	Cross-Section	Teeth Making	Heat Treatment	Module	Length	Grade
C=Carbon Steel M=Alloy Steel L=Super Alloy Steel	S=Straight Rack H=Helical Rack N=No Teeth	T=Tetragon C=Circle V=V-Shaped Rail	G=Ground S=Shaped M=Milled	T=Quenched & Tempered H=Hardened	015=M1.5 020=M2 100=M10 CP=Circular Pitch 00=No Teeth	05=500mm 10=1000mm 20=2000mm	DIN5-9

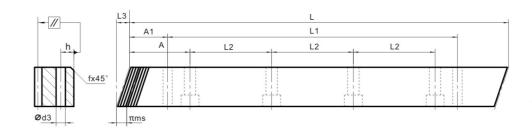


Rack Precision Standard

Test Items	Module Quality Grade	1-2	2-3.55	3.55-6	6-10	10-16
	DIN5	7	6	8	9	10
	DIN6	9	9	11	11	14
Single Pitch Error	DIN7	14	12	16	16	20
Fpt	DIN8	18	18	20	25	28
	DIN9	25	25	28	32	40
	DIN10	40	40	45	56	63
	DIN5	28	28	32	32	36
	DIN6	36	40	45	45	50
Total Pitch Error	DIN7	50	56	63	71	71
FP	DIN8	71	80	90	90	100
	DIN9	100	110	125	125	140
	DIN10	160	180	200	200	220
	DIN5	6	7	9	12	16
	DIN6	8	10	12	16	22
	DIN7	12	14	18	22	28
Tooth Error ff	DIN8	16	20	25	32	40
	DIN9	22	28	36	45	56
	DIN10	36	45	56	71	90
	DIN5	8	8	10	11	13
	DIN6	9	10	13	15	16
	DIN7	15	16	20	23	25
Tooth Error $F\beta$	DIN8	20	20	25	28	32
	DIN9	32	32	41	45	51
	DIN10	52	52	65	71	82
	DIN5	21	21	21	21	21
	DIN6	30	30	30	30	30
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Deviation	DIN8	66	66	66	66	66
	DIN9	87	87	87	87	87
	DIN10	124	124	124	124	124

MHTGH-D5 Helical Teeth Ground Racks

Quality Grade : DIN 5	Teeth Making:
Material : Alloy Steel	Quenched & Ter
Right Hand Angle: 19°31′ 42″	Hardness : HRC
Pressure Angle: 20°	Ground on All Si



Code	Module	L	L3	No.of Teeth	В	н	h₀	f	A	L2	No.of Holes	h	dl	d2	t	A1	L1	d3	FP	kg
MHTGH01505D5	1.5	500	6.03	100	17	17	15.5	1	62.5	125	4	7	6	10	6	31.7	436.6	5.7	0.028	1.0
MHTGH01510D5	1.5	1000	6.03	200	17	17	15.5	1	62.5	125	8	7	6	10	6	31.7	936.6	5.7	0.028	2.1
MHTGH02005D5	2	500	8.51	75	24	24	22.0	1	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.028	2.0
MHTGH02010D5	2	1000	8.51	150	24	24	22.0	1	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.028	3.9
MHTGH03005D5	3	500	10.29	50	29	29	26.0	2	62.5	125	4	9	10	15	9	35	430.0	7.7	0.028	2.9
MHTGH03010D5	3	1000	10.29	100	29	29	26.0	2	62.5	125	8	9	10	15	9	35	930.0	7.7	0.028	5.8
MHTGH04005D5	4	506.67	13.83	38	39	39	35.0	2	62.5	125	4	12	10	15	9	33.3	433.4	7.7	0.032	5.2
MHTGH04010D5	4	1000	13.83	75	39	39	35.0	2	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.032	10.3
MHTGH05005D5	5	500	17.38	30	49	39	34.0	3	62.5	125	4	12	14	20	13	37.5	425.0	11.7	0.032	6.6
MHTGH05010D5	5	1000	17.38	60	49	39	34.0	3	62.5	125	8	12	14	20	13	37.5	925.0	11.7	0.032	12.9
MHTGH06005D5	6	500	20.93	25	59	49	43.0	3	62.5	125	4	16	18	26	17	37.5	425.0	15.7	0.032	9.9
MHTGH06010D5	6	1000	20.93	50	59	49	43.0	3	62.5	125	8	16	18	26	17	37.5	925.0	15.7	0.032	19.7
MHTGH08005D5	8	480	28.02	18	79	79	71.0	4	60	120	4	25	22	33	21	120	240.0	19.7	0.032	21.1
MHTGH08010D5	8	960	28.02	36	79	79	71.0	4	60	120	8	25	22	33	21	120	720.0	19.7	0.032	42.1

GEARKO

Ground

empered : HB220-260

RC50-55

Sides After Hardening





Chromium

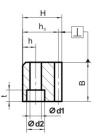
Induction Hardening





(

Ground



Rack

MHTGH-D6 Helical Teeth Ground Racks

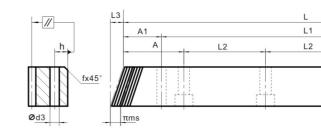
Quality Grade : DIN 6	Teeth Making : Ground
Material : Alloy Steel	Quenched & Tempered : HB220-260
Right Hand Angle : 19°31′42″	Hardness : HRC50-55
Pressure Angle: 20°	Ground on All Sides After Hardening



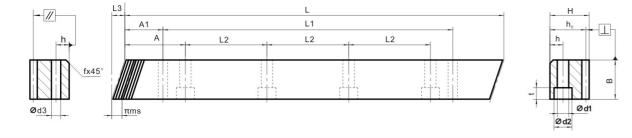




Quality Grade: DIN 6	Teeth Making : Grour
Material : Carbon Steel	Quenched & Tempere
Right Hand Angle: 19°31'42"	Hardness : HRC50-5
Pressure Angle: 20°	Ground on All Sides A



Code	Module	L	L3	No.of Teeth	В	н	h_{o}	f	А	L2	No.of Holes	h	d1	d2	t	A1	L1	d3	FP	kg
CHTGH01505D6	1.5	500	6.03	100	17	17	15.5	1	62.5	125	4	7	6	10	6	31.7	436.6	5.7	0.036	1.0
CHTGH01510D6	1.5	1000	6.03	200	17	17	15.5	1	62.5	125	8	7	6	10	6	31.7	936.6	5.7	0.036	2.1
CHTGH02005D6	2	500	8.51	75	24	24	22.0	1	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.036	2.0
CHTGH02010D6	2	1000	8.51	150	24	24	22.0	1	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.036	3.9
CHTGH02020D6	2	2000	8.51	300	24	24	22.0	1	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	0.036	7.8
CHTGH03005D6	3	500	10.29	50	29	29	26.0	2	62.5	125	4	9	10	15	9	35	430.0	7.7	0.040	2.9
CHTGH03010D6	3	1000	10.29	100	29	29	26.0	2	62.5	125	8	9	10	15	9	35	930.0	7.7	0.040	5.8
CHTGH03020D6	3	2000	10.29	200	29	29	26.0	2	62.5	125	16	9	10	15	9	35	1930.0	7.7	0.040	11.3
CHTGH04005D6	4	506.67	13.83	38	39	39	35.0	2	62.5	125	4	12	10	15	9	33.3	433.4	7.7	0.045	5.2
CHTGH04010D6	4	1000	13.83	75	39	39	35.0	2	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.045	10.3
CHTGH04020D6	4	2000	13.83	150	39	39	35.0	2	62.5	125	16	12	10	15	9	33.3	1933.4	7.7	0.045	20.5
CHTGH05005D6	5	500	17.38	30	49	39	34.0	3	62.5	125	4	12	14	20	13	37.5	425.0	11.7	0.045	6.6
CHTGH05010D6	5	1000	17.38	60	49	39	34.0	3	62.5	125	8	12	14	20	13	37.5	925.0	11.7	0.045	12.9
CHTGH05020D6	5	2000	17.38	120	49	39	34.0	3	62.5	125	16	12	14	20	13	37.5	1925.0	11.7	0.045	25.8
CHTGH06005D6	6	500	20.93	25	59	49	43.0	3	62.5	125	4	16	18	26	17	37.5	425.0	15.7	0.045	9.9
CHTGH06010D6	6	1000	20.93	50	59	49	43.0	3	62.5	125	8	16	18	26	17	37.5	925.0	15.7	0.045	19.7
CHTGH06020D6	6	2000	20.93	100	59	49	43.0	3	62.5	125	16	16	18	26	17	37.5	1925.0	15.7	0.045	39.5
CHTGH08005D6	8	480	28.02	18	79	79	71.0	4	60	120	4	25	22	33	21	120	240.0	19.7	0.045	21.1
CHTGH08010D6	8	960	28.02	36	79	79	71.0	4	60	120	8	25	22	33	21	120	720.0	19.7	0.045	42.1
CHTGH08020D6	8	1920	28.02	72	79	79	71.0	4	60	120	16	25	22	33	21	120	1680.0	19.7	0.045	84.2
CHTGH10005D6	10	500	35.11	16	99	99	89.0	4	62.5	125	4	32	33	48	32	125	250.0	19.7	0.045	33.1
CHTGH10010D6	10	1000	35.11	32	99	99	89.0	4	62.5	125	8	32	33	48	32	125	750.0	19.7	0.045	66.1
CHTGH12005D6	12	520	42.56	13	120	120	108.0	4	40	125	4	40	39	58	38	102.5	250.0	19.7	0.050	53.0
CHTGH12010D6	12	1000	42.56	25	120	120	108.0	4	40	125	8	40	39	58	38	102.5	750.0	19.7	0.050	98.3



Code	Module	e L	L3	No.of Teeth	В	н	h₀	f	А	L2	No.of Holes	h	dl	d2	t	A1	L1	d3	FP	kg
MHTGH01505D6	1.5	500	6.03	100	17	17	15.5	1	62.5	125	4	7	6	10	6	31.7	436.6	5.7	0.036	1.0
MHTGH01510D6	1.5	1000	6.03	200	17	17	15.5	1	62.5	125	8	7	6	10	6	31.7	936.6	5.7	0.036	2.1
MHTGH02005D6	2	500	8.51	75	24	24	22.0	1	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.036	2.0
MHTGH02010D6	2	1000	8.51	150	24	24	22.0	1	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.036	3.9
MHTGH02020D6	2	2000	8.51	300	24	24	22.0	1	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	0.036	7.8
MHTGH03005D6	3	500	10.29	50	29	29	26.0	2	62.5	125	4	9	10	15	9	35	430.0	7.7	0.040	2.9
MHTGH03010D6	3	1000	10.29	100	29	29	26.0	2	62.5	125	8	9	10	15	9	35	930.0	7.7	0.040	5.8
MHTGH03020D6	3	2000	10.29	200	29	29	26.0	2	62.5	125	16	9	10	15	9	35	1930.0	7.7	0.040	11.3
MHTGH04005D6	4	506.67	13.83	38	39	39	35.0	2	62.5	125	4	12	10	15	9	33.3	433.4	7.7	0.045	5.2
MHTGH04010D6	4	1000	13.83	75	39	39	35.0	2	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.045	10.3
MHTGH04020D6	4	2000	13.83	150	39	39	35.0	2	62.5	125	16	12	10	15	9	33.3	1933.4	7.7	0.045	20.5
MHTGH05005D6	5	500	17.38	30	49	39	34.0	3	62.5	125	4	12	14	20	13	37.5	425.0	11.7	0.045	6.6
MHTGH05010D6	5	1000	17.38	60	49	39	34.0	3	62.5	125	8	12	14	20	13	37.5	925.0	11.7	0.045	12.9
MHTGH05020D6	5	2000	17.38	120	49	39	34.0	3	62.5	125	16	12	14	20	13	37.5	1925.0	11.7	0.045	25.8
MHTGH06005D6	6	500	20.93	25	59	49	43.0	3	62.5	125	4	16	18	26	17	37.5	425.0	15.7	0.045	9.9
MHTGH06010D6	6	1000	20.93	50	59	49	43.0	3	62.5	125	8	16	18	26	17	37.5	925.0	15.7	0.045	19.7
MHTGH06020D6	6	2000	20.93	100	59	49	43.0	3	62.5	125	16	16	18	26	17	37.5	1925.0	15.7	0.045	39.5
MHTGH08005D6	8	480	28.02	18	79	79	71.0	4	60	120	4	25	22	33	21	120	240.0	19.7	0.045	21.1
MHTGH08010D6	8	960	28.02	36	79	79	71.0	4	60	120	8	25	22	33	21	120	720.0	19.7	0.045	42.1
MHTGH08020D6	8	1920	28.02	72	79	79	71.0	4	60	120	16	25	22	33	21	120	1680.0	19.7	0.045	84.2

Rack

und

red : HB220-260

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After Hardening







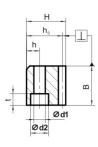
Carbon Steel Induction Hardening





Ground

L2 ------

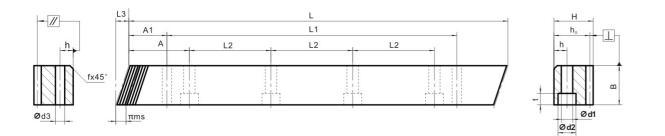


LHTGH-D6 Helical Teeth Ground Racks

Quality Grade: DIN 6	Teeth Making : Ground
Material : Super Alloy	Quenched & Tempered : HB220-260
Right Hand Angle: 19°31'42"	Hardness : HRC58-62
Pressure Angle: 20°	Ground on All Sides After Hardening



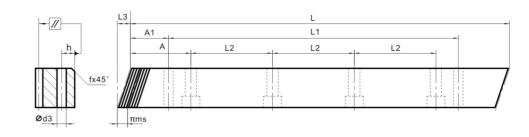
Induction Hardening Helical



Code	Module	L		No.of Teeth	В	н	h_{o}	f	А	L2	No.of Holes	h	d1	d2	t	A1	L1	d3	FP	kg
LHTGH01505D6	1.5	500	6.03	100	17	17	15.5	1	62.5	125	4	7	6	10	6	31.7	436.6	5.7	0.036	1.0
LHTGH01510D6	1.5	1000	6.03	200	17	17	15.5	1	62.5	125	8	7	6	10	6	31.7	936.6	5.7	0.036	2.1
LHTGH02005D6	2	500	8.51	75	24	24	22.0	1	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.036	2.0
LHTGH02010D6	2	1000	8.51	150	24	24	22.0	1	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.036	3.9
LHTGH03005D6	3	500	10.29	50	29	29	26.0	2	62.5	125	4	9	10	15	9	35	430.0	7.7	0.040	2.9
LHTGH03010D6	3	1000	10.29	100	29	29	26.0	2	62.5	125	8	9	10	15	9	35	930.0	7.7	0.040	5.8
LHTGH04005D6	4	506.67	13.83	38	39	39	35.0	2	62.5	125	4	12	10	15	9	33.3	433.4	7.7	0.045	5.2
LHTGH04010D6	4	1000	13.83	75	39	39	35.0	2	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.045	10.3
LHTGH05005D6	5	500	17.38	30	49	39	34.0	3	62.5	125	4	12	14	20	13	37.5	425.0	11.7	0.045	6.6
LHTGH05010D6	5	1000	17.38	60	49	39	34.0	3	62.5	125	8	12	14	20	13	37.5	925.0	11.7	0.045	12.9
LHTGH06005D6	6	500	20.93	25	59	49	43.0	3	62.5	125	4	16	18	26	17	37.5	425.0	15.7	0.045	9.9
LHTGH06010D6	6	1000	20.93	50	59	49	43.0	3	62.5	125	8	16	18	26	17	37.5	925.0	15.7	0.045	19.7

CHTGH-D7 Helical Teeth Ground Racks

Quality Grade: DIN 7	Teeth Making: Grour
Material : Carbon Steel	Quenched & Tempere
Right Hand Angle: 19°31'42"	Hardness : HRC50-5
Pressure Angle: 20°	Ground on All Sides A



Code	Module	e L	L3	No.of Teeth	В	н	h₀	f	А	L2	No.of Holes	h	dl	d2	t	A1	L1	d3	FP	kg
CHTGH01505D7	1.5	500	6.03	100	17	17	15.5	1	62.5	125	4	7	6	10	6	31.7	436.6	5.7	0.050	1.0
CHTGH01510D7	1.5	1000	6.03	200	17	17	15.5	1	62.5	125	8	7	6	10	6	31.7	936.6	5.7	0.050	2.1
CHTGH02005D7	2	500	8.51	75	24	24	22.0	1	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.050	2.0
CHTGH02010D7	2	1000	8.51	150	24	24	22.0	1	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.050	3.9
CHTGH02020D7	2	2000	8.51	300	24	24	22.0	1	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	0.050	7.8
CHTGH03005D7	3	500	10.29	50	29	29	26.0	2	62.5	125	4	9	10	15	9	35	430.0	7.7	0.056	2.9
CHTGH03010D7	3	1000	10.29	100	29	29	26.0	2	62.5	125	8	9	10	15	9	35	930.0	7.7	0.056	5.8
CHTGH03020D7	3	2000	10.29	200	29	29	26.0	2	62.5	125	16	9	10	15	9	35	1930.0	7.7	0.056	11.3
CHTGH04005D7	4	506.67	13.83	38	39	39	35.0	2	62.5	125	4	12	10	15	9	33.3	433.4	7.7	0.063	5.2
CHTGH04010D7	4	1000	13.83	75	39	39	35.0	2	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.063	10.3
CHTGH04020D7	4	2000	13.83	150	39	39	35.0	2	62.5	125	16	12	10	15	9	33.3	1933.4	7.7	0.063	20.5
CHTGH05005D7	5	500	17.38	30	49	39	34.0	3	62.5	125	4	12	14	20	13	37.5	425.0	11.7	0.063	6.6
CHTGH05010D7	5	1000	17.38	60	49	39	34.0	3	62.5	125	8	12	14	20	13	37.5	925.0	11.7	0.063	12.9
CHTGH05020D7	5	2000	17.38	120	49	39	34.0	3	62.5	125	16	12	14	20	13	37.5	1925.0	11.7	0.063	25.8
CHTGH06005D7	6	500	20.93	25	59	49	43.0	3	62.5	125	4	16	18	26	17	37.5	425.0	15.7	0.063	9.9
CHTGH06010D7	6	1000	20.93	50	59	49	43.0	3	62.5	125	8	16	18	26	17	37.5	925.0	15.7	0.063	19.7
CHTGH06020D7	6	2000	20.93	100	59	49	43.0	3	62.5	125	16	16	18	26	17	37.5	1925.0	15.7	0.063	39.5
CHTGH08005D7	8	480	28.02	18	79	79	71.0	4	60	120	4	25	22	33	21	120	240.0	19.7	0.071	21.1
CHTGH08010D7	8	960	28.02	36	79	79	71.0	4	60	120	8	25	22	33	21	120	720.0	19.7	0.071	42.1
CHTGH08020D7	8	1920	28.02	72	79	79	71.0	4	60	120	16	25	22	33	21	120	1680.0	19.7	0.071	84.2
CHTGH10005D	10	500	35.11	16	99	99	89.0	4	62.5	125	4	32	33	48	32	125	250.0	19.7	0.071	33.1
CHTGH10010D7	10	1000	35.11	32	99	99	89.0	4	62.5	125	8	32	33	48	32	125	750.0	19.7	0.071	66.1
CHTGH12005D7	12	520	42.56	13	120	120	108.0	4	40	125	4	40	39	58	38	102.5	250.0	19.7	0.071	53.0
CHTGH12010D7	12	1000	42.56	25	120	120	108.0	4	40	125	8	40	39	58	38	102.5	750.0	19.7	0.071	98.3

und

red : HB220-260

55

After Hardening





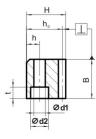


Carbon Steel Induction Hardening

Helical



Ground



CHTSH-D9 Helical Gear Shaped Racks

Quality Grade: DIN 9	Teeth Making : Ground
Material : Carbon Steel	Quenched & Tempered : HB220-260
Right Hand Angle: 19°31'42"	Hardness : HRC50-55
Pressure Angle: 20°	Ground on All Sides After Hardening

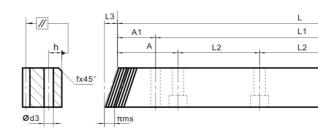




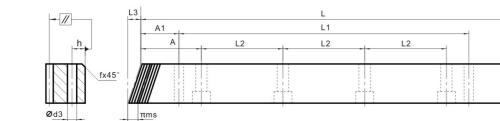
Ød1 Ød2



Quality Grade : DIN 7	Teeth Making : Shape
Material : Carbon Steel	Quenched & Tempered
Right Hand Angle: 19°31'42"	Ground on All Sides Af
Pressure Angle: 20°	



Code	Module	: L	L3	No.of Teeth	В	н	h _o	f	А	L2	No.of Holes	h	d1	d2	t	A1	Ll	d3	FP	kg
CHTST01505D7	1.5	500	6.03	100	17	17	15.5	1	62.5	125	4	7	6	10	6	31.7	436.6	5.7	0.050	1.0
CHTST01510D7	1.5	1000	6.03	200	17	17	15.5	1	62.5	125	8	7	6	10	6	31.7	936.6	5.7	0.050	2.1
CHTST02005D7	2	500	8.87	75	25	24	22.0	1	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.050	2.0
CHTST02010D7	2	1000	8.87	150	25	24	22.0	1	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.050	3.9
CHTST02020D7	2	2000	8.87	300	25	24	22.0	1	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	0.050	7.8
CHTST03005D7	3	500	10.64	50	30	29	26.0	2	62.5	125	4	9	10	15	9	35	430.0	7.7	0.056	2.9
CHTST03010D7	3	1000	10.64	100	30	29	26.0	2	62.5	125	8	9	10	15	9	35	930.0	7.7	0.056	5.8
CHTST03020D7	3	2000	10.64	200	30	29	26.0	2	62.5	125	16	9	10	15	9	35	1930.0	7.7	0.056	11.3
CHTST04005D7	4	506.67	14.18	38	40	39	35.0	2	62.5	125	4	12	10	15	9	33.3	433.4	7.7	0.063	5.2
CHTST04010D7	4	1000	14.18	75	40	39	35.0	2	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.063	10.3
CHTST04020D7	4	2000	14.18	150	40	39	35.0	2	62.5	125	16	12	10	15	9	33.3	1933.4	7.7	0.063	20.5
CHTST05005D7	5	500	17.38	30	49	39	34.0	3	62.5	125	4	12	14	20	13	37.5	425.0	11.7	0.063	6.6
CHTST05010D7	5	1000	17.38	60	49	39	34.0	3	62.5	125	8	12	14	20	13	37.5	925.0	11.7	0.063	12.9
CHTST05020D7	5	2000	17.38	120	49	39	34.0	3	62.5	125	16	12	14	20	13	37.5	1925.0	11.7	0.063	25.8
CHTST06005D7	6	500	20.93	25	59	49	43.0	3	62.5	125	4	16	18	26	17	37.5	425.0	15.7	0.063	9.9
CHTST06010D7	6	1000	20.93	50	59	49	43.0	3	62.5	125	8	16	18	26	17	37.5	925.0	15.7	0.063	19.7
CHTST06020D7	6	2000	20.93	100	59	49	43.0	3	62.5	125	16	16	18	26	17	37.5	1925.0	15.7	0.063	39.5
CHTST08005D7	8	480	28.02	18	79	79	71.0	4	60	120	4	25	22	33	21	120	240.0	19.7	0.071	21.1
CHTST08010D7	8	960	28.02	36	79	79	71.0	4	60	120	8	25	22	33	21	120	720.0	19.7	0.071	42.1
CHTST08020D7	8	1920	28.02	72	79	79	71.0	4	60	120	16	25	22	33	21	120	1680.0	19.7	0.071	84.2
CHTST10005D7	10	500	35.11	16	99	99	89.0	4	62.5	125	4	32	33	48	32	125	250.0	19.7	0.071	33.1
CHTST10010D7	10	1000	35.11	32	99	99	89.0	4	62.5	125	8	32	33	48	32	125	750.0	19.7	0.071	66.1
CHTST12005D7	12	520	42.56	13	120	120	108.0	4	40	125	4	40	39	58	38	102.5	250.0	19.7	0.071	53.0
CHTST12010D7	12	1000	42.56	25	120	120	108.0	4	40	125	8	40	39	58	38	102.5	750.0	19.7	0.071	98.3



Code	Module	L	L3	No.of Teeth	В	Н	h _o	f	А	L2	No.of Holes	h	dl	d2	t	A1	L1	d3	FP	kg
CHTSH01505D9	1.5	500	6.03	100	17	17	15.5	1	62.5	125	4	7	6	10	6	31.7	436.6	5.7	0.100	1.0
CHTSH01510D9	1.5	1000	6.03	200	17	17	15.5	1	62.5	125	8	7	6	10	6	31.7	936.6	5.7	0.100	2.1
CHTSH02005D9	2	500	8.51	75	24	24	22.0	1	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.100	2.0
CHTSH02010D9	2	1000	8.51	150	24	24	22.0	1	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.100	3.9
CHTSH02020D9	2	2000	8.51	300	24	24	22.0	1	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	0.100	7.8
CHTSH03005D9	3	500	10.29	50	29	29	26.0	2	62.5	125	4	9	10	15	9	35	430.0	7.7	0.110	2.9
CHTSH03010D9	3	1000	10.29	100	29	29	26.0	2	62.5	125	8	9	10	15	9	35	930.0	7.7	0.110	5.8
CHTSH03020D9	3	2000	10.29	200	29	29	26.0	2	62.5	125	16	9	10	15	9	35	1930.0	7.7	0.110	11.3
CHTSH04005D9	4	506.67	13.83	38	39	39	35.0	2	62.5	125	4	12	10	15	9	33.3	433.4	7.7	0.125	5.2
CHTSH04010D9	4	1000	13.83	75	39	39	35.0	2	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.125	10.3
CHTSH04020D9	4	2000	13.83	150	39	39	35.0	2	62.5	125	16	12	10	15	9	33.3	1933.4	7.7	0.125	20.5
CHTSH05005D9	5	500	17.38	30	49	39	34.0	3	62.5	125	4	12	14	20	13	37.5	425.0	11.7	0.125	6.6
CHTSH05010D9	5	1000	17.38	60	49	39	34.0	3	62.5	125	8	12	14	20	13	37.5	925.0	11.7	0.125	12.9
CHTSH05020D9	5	2000	17.38	120	49	39	34.0	3	62.5	125	16	12	14	20	13	37.5	1925.0	11.7	0.125	25.8
CHTSH06005D9	6	500	20.93	25	59	49	43.0	3	62.5	125	4	16	18	26	17	37.5	425.0	15.7	0.125	9.9
CHTSH06010D9	6	1000	20.93	50	59	49	43.0	3	62.5	125	8	16	18	26	17	37.5	925.0	15.7	0.125	19.7
CHTSH06020D9	6	2000	20.93	100	59	49	43.0	3	62.5	125	16	16	18	26	17	37.5	1925.0	15.7	0.125	39.5

ed

ed: HB220-260

fter Hardening

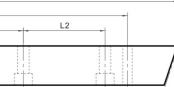


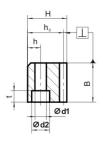






Helical





CHTMT-D8 Helical Milled Racks

L3

A1



Pressure Angle: 20°



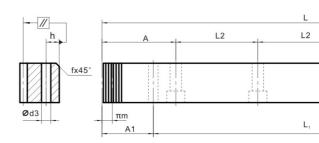


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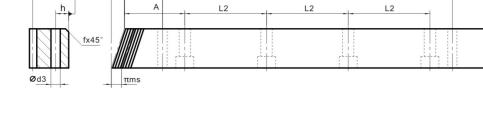
Ød2

Ød1





	Code	Module	e L	No.of Teeth	В	Н	h _o	f	A
	MSTGH01505D6	1.5	499.51	106	17	17	15.5	1	62.8
	MSTGH01510D6	1.5	999.03	212	17	17	15.5	1	62.8
	MSTGH02005D6	2	502.65	80	24	24	22.0	1	62.8
	MSTGH02010D6	2	1005.31	160	24	24	22.0	1	62.8
	MSTGH03005D6	3	508.94	54	29	29	26.0	2	63.6
	MSTGH03010D6	3	1017.88	108	29	29	26.0	2	63.6
	MSTGH04005D6	4	502.65	40	39	39	35.0	2	62.8
	MSTGH04010D6	4	1005.31	80	39	39	35.0	2	62.8
	MSTGH05005D6	5	502.65	32	49	39	34.0	3	62.8
	MSTGH05010D6	5	1005.31	64	49	39	34.0	3	62.8
	MSTGH05020D6	5	2010.62	128	49	39	34.0	3	62.8
	MSTGH06005D6	6	508.94	27	59	49	43.0	3	63.6
	MSTGH06010D6	6	1017.88	54	59	49	43.0	3	63.6
	MSTGH06020D6	6	2035.75	54	59	49	43.0	3	63.6
	MSTGH08005D6	8	502.65	20	79	79	71.0	4	62.8
	MSTGH08010D6	8	1005.31	40	79	79	71.0	4	62.8
_	MSTGH08020D6	8	2010.61	80	79	79	71.0	4	62.8



L1

Code	Module	e L	L3	No.of Teeth	В	Н	h_{0}	f	А	L2	No.of Holes	h	d1	d2	t	A1	L1	d3	FP	kg
CHTMT01505D8	1.5	500	6.03	100	17	17	15.5	1	62.5	125	4	7	6	10	6	31.7	436.6	5.7	0.071	1.0
CHTMT01510D8	1.5	1000	6.03	200	17	17	15.5	1	62.5	125	8	7	6	10	6	31.7	936.6	5.7	0.071	2.1
CHTMT02005D8	2	500	8.87	75	25	24	22.0	1	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.071	2.0
CHTMT02010D8	2	1000	8.87	150	25	24	22.0	1	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.071	3.9
CHTMT02020D8	2	2000	8.87	300	25	24	22.0	1	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	0.071	7.8
CHTMT03005D8	3	500	10.64	50	30	29	26.0	2	62.5	125	4	9	10	15	9	35	430.0	7.7	0.080	2.9
CHTMT03010D8	3	1000	10.64	100	30	29	26.0	2	62.5	125	8	9	10	15	9	35	930.0	7.7	0.080	5.8
CHTMT03020D8	3	2000	10.64	200	30	29	26.0	2	62.5	125	16	9	10	15	9	35	1930.0	7.7	0.080	11.3
CHTMT04005D8	4	506.67	14.18	38	40	39	35.0	2	62.5	125	4	12	10	15	9	33.3	433.4	7.7	0.090	5.2
CHTMT04010D8	4	1000	14.18	75	40	39	35.0	2	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.090	10.3
CHTMT04020D8	4	2000	14.18	150	40	39	35.0	2	62.5	125	16	12	10	15	9	33.3	1933.4	7.7	0.090	20.5
CHTMT05005D8	5	500	17.38	30	49	39	34.0	3	62.5	125	4	12	14	20	13	37.5	425.0	11.7	0.090	6.6
CHTMT05010D8	5	1000	17.38	60	49	39	34.0	3	62.5	125	8	12	14	20	13	37.5	925.0	11.7	0.090	12.9
CHTMT05020D8	5	2000	17.38	120	49	39	34.0	3	62.5	125	16	12	14	20	13	37.5	1925.0	11.7	0.090	25.8
CHTMT06005D8	6	500	20.93	25	59	49	43.0	3	62.5	125	4	16	18	26	17	37.5	425.0	15.7	0.090	9.9
CHTMT06010D8	6	1000	20.93	50	59	49	43.0	3	62.5	125	8	16	18	26	17	37.5	925.0	15.7	0.090	19.7
CHTMT06020D8	6	2000	20.93	100	59	49	43.0	3	62.5	125	16	16	18	26	17	37.5	1925.0	15.7	0.090	39.5
CHTMT08005D8	8	480	28.02	18	79	79	71.0	4	60	120	4	25	22	33	21	120	240.0	19.7	0.100	21.1
CHTMT08010D8	8	960	28.02	36	79	79	71.0	4	60	120	8	25	22	33	21	120	720.0	19.7	0.100	42.1
CHTMT08020D8	8	1920	28.02	72	79	79	71.0	4	60	120	16	25	22	33	21	120	1680.0	19.7	0.100	84.2
CHTMT10005D8	10	500	35.11	16	99	99	89.0	4	62.5	125	4	32	33	48	32	125	250.0	19.7	0.100	33.1
CHTMT10010D8	10	1000	35.11	32	99	99	89.0	4	62.5	125	8	32	33	48	32	125	750.0	19.7	0.100	66.1
CHTMT12005D8	12	520	42.56	13	120	120	108.0	4	40	125	4	40	39	58	38	102.5	250.0	19.7	0.100	53.0
CHTMT12010D8	12	1000	42.56	25	120	120	108.0	4	40	125	8	40	39	58	38	102.5	750.0	19.7	0.100	98.3

MSTGH-D6 Straight Teeth Ground Racks

Quenched & Tempered : HB220-260







Chromium

Induction Hardening

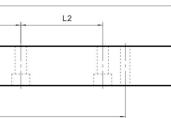
Straight Teeth

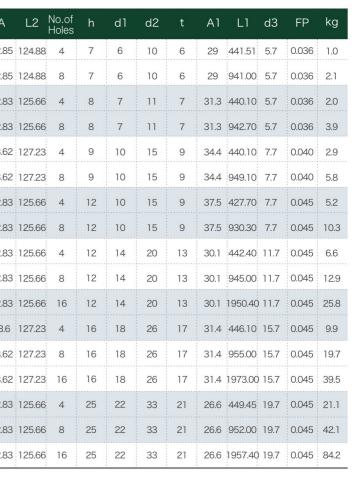




Ød1







CSTGH-D6 Straight Teeth Ground Racks

Quality Grade: DIN 6

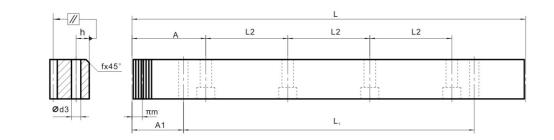
Quenched & Tempered : HB220-260

Ground on All Sides After Hardening

Material : Carbon Steel Hardness : HRC50-55

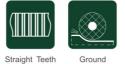
Pressure Angle: 20°

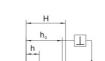
Teeth Making : Ground

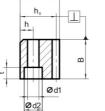


Code	Module	e L	No.of Teeth	В	Н	h_{0}	f	А	L2	No.of Holes	h	dl	d2	t	A1	L1	d3	FP	kg
CSTGH01505D6	1.5	499.51	106	17	17	15.5	1	62.85	124.88	4	7	6	10	6	29	441.51	5.7	0.036	1.0
CSTGH01510D6	1.5	999.03	212	17	17	15.5	1	62.85	124.88	8	7	6	10	6	29	941.00	5.7	0.036	2.1
CSTGH02005D6	2	502.65	80	24	24	22.0	1	62.83	125.66	4	8	7	11	7	31.3	440.10	5.7	0.036	2.0
CSTGH02010D6	2	1005.31	160	24	24	22.0	1	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	0.036	3.9
CSTGH03005D6	3	508.94	54	29	29	26.0	2	63.62	127.23	4	9	10	15	9	34.4	440.10	7.7	0.040	2.9
CSTGH03010D6	3	1017.88	108	29	29	26.0	2	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	0.040	5.8
CSTGH04005D6	4	502.65	40	39	39	35.0	2	62.83	125.66	4	12	10	15	9	37.5	427.70	7.7	0.045	5.2
CSTGH04010D6	4	1005.31	80	39	39	35.0	2	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	0.045	10.3
CSTGH05005D6	5	502.65	32	49	39	34.0	3	62.83	125.66	4	12	14	20	13	30.1	442.40	11.7	0.045	6.6
CSTGH05010D6	5	1005.31	64	49	39	34.0	3	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	0.045	12.9
CSTGH05020D6	5	2010.62	128	49	39	34.0	3	62.83	125.66	16	12	14	20	13	30.1	1950.40	11.7	0.045	25.8
CSTGH06005D6	6	508.94	27	59	49	43.0	3	63.6	127.23	4	16	18	26	17	31.4	446.10	15.7	0.045	9.9
CSTGH06010D6	6	1017.88	54	59	49	43.0	3	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	0.045	19.7
CSTGH06020D6	6	2035.75	54	59	49	43.0	3	63.62	127.23	16	16	18	26	17	31.4	1973.00	15.7	0.045	39.5
CSTGH08005D6	8	502.65	20	79	79	71.0	4	62.83	125.66	4	25	22	33	21	26.6	449.45	19.7	0.045	21.1
CSTGH08010D6	8	1005.31	40	79	79	71.0	4	62.83	125.66	8	25	22	33	21	26.6	952.00	19.7	0.045	42.1
CSTGH08020D6	8	2010.61	80	79	79	71.0	4	62.83	125.66	16	25	22	33	21	26.6	1957.40	19.7	0.045	84.2
CSTGH10005D6	10	502.65	16	99	99	89	4	62.83	125.66	4	32	33	48	32	125.66	376.98	19.7	0.045	33.1
CSTGH10010D6	10	1005.31	32	99	99	89	4	62.83	125.66	8	32	33	48	32	125.66	753.99	19.7	0.045	66.1
CSTGH12005D6	12	527.79	14	120	120	108.0	4	63.62	127.23	4	40	39	58	38	127.23	381.69	19.7	0.050	53.0
CSTGH12010D6	12	1017.88	27	120	120	108.0	4	63.62	127.23	8	40	39	58	38	127.23	763.42	19.7	0.050	98.3



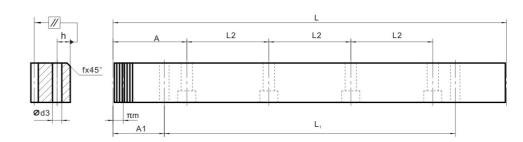






LSTGH-D6 Straight Teeth Ground Racks

Quality Grade : DIN 6	Quenched & Tempere
Material : Super Alloy	Hardness : HRC58-6
Pressure Angle: 20°	Ground on All Sides A
Teeth Making : Ground	



Code	Modul		No.of Teeth	В	Н	h_{o}	f	А	L2	No.of Holes	h	dl	d2	t	A1	L1	d3	FP	kg
LSTGH02005D6	2	502.65	80	24	24	22.0	1	62.83	125.66	4	8	7	11	7	31.3	440.10	5.7	0.036	2.0
LSTGH02010D6	2	1005.31	160	24	24	22.0	1	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	0.036	3.9
LSTGH03005D6	3	508.94	54	29	29	26.0	2	63.62	127.23	4	9	10	15	9	34.4	440.10	7.7	0.036	2.9
LSTGH03010D6	3	1017.88	108	29	29	26.0	2	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	0.036	5.8
LSTGH04005D6	4	502.65	40	39	39	35.0	2	62.83	125.66	4	12	10	15	9	37.5	427.70	7.7	0.040	5.2
LSTGH04010D6	4	1005.31	80	39	39	35.0	2	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	0.040	10.3
LSTGH05005D6	5	502.65	32	49	39	34.0	3	62.83	125.66	4	12	14	20	13	30.1	442.40	11.7	0.045	6.6
LSTGH05010D6	5	1005.31	64	49	39	34.0	3	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	0.045	12.9
LSTGH06005D6	6	508.94	27	59	49	43.0	3	63.6	127.23	4	16	18	26	17	31.4	446.10	15.7	0.045	9.9
LSTGH06010D6	6	1017.88	54	59	49	43.0	3	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	0.045	19.7

red : HB220-260

-62

After Hardening



HRC





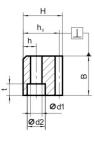
Manganes

JEARKO



Induction Hardening Straight Teeth

Ground



CSTGH-D7 Straight Gear Shaped Racks



Quenched & Tempered : HB220-260

Ground on All Sides After Hardening

Hardness: HRC50-55 Material : Carbon Steel

Pressure Angle: 20°

Teeth Making : Ground

HRC С Carbon Steel Induction Hardening

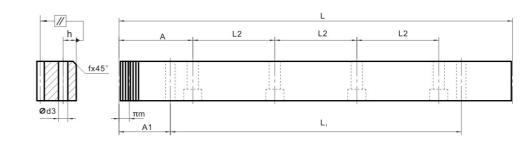


Ød1

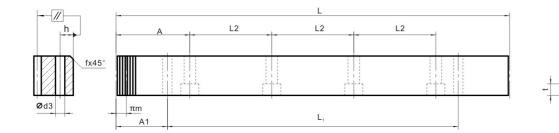
Ød2



Quality Grade: DIN 9	Quenched & Tempere
Material : Carbon Steel	Hardness : HRC50-5
Pressure Angle: 20°	Ground on All Sides A
Teeth Making : Shaped	



Code	Modul	e L	No.of Teeth	В	н	h₀	f	А	L2	No.of Holes	h	dl	d2	t	A1	L1	d3	FP	kg
CSTSH01505D7	1.5	499.51	106	17	17	15.5	1	62.85	124.88	4	7	6	10	6	29	441.51	5.7	0.100	1.0
CSTSH01510D7	1.5	999.03	212	17	17	15.5	1	62.85	124.88	8	7	6	10	6	29	941.00	5.7	0.100	2.1
CSTSH02005D7	2	502.65	80	24	24	22.0	1	62.83	125.66	4	8	7	11	7	31.3	440.10	5.7	0.100	2.0
CSTSH02010D7	2	1005.31	160	24	24	22.0	1	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	0.100	3.9
CSTSH02020D7	2	2010.62	320	24	24	22.0	1	62.83	125.66	16	8	7	11	7	31.3	1948.00	5.7	0.100	7.8
CSTSH03005D7	3	508.94	54	29	29	26.0	2	63.62	127.23	4	9	10	15	9	34.4	440.10	7.7	0.110	2.9
CSTSH03010D7	3	1017.88	108	29	29	26.0	2	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	0.110	5.8
CSTSH03020D7	3	2035.75	216	29	29	26.0	2	63.62	127.23	16	9	10	15	9	34.4	1967.00	7.7	0.110	11.9
CSTSH04005D7	4	502.65	40	39	39	35.0	2	62.83	125.66	4	12	10	15	9	37.5	427.70	7.7	0.125	5.2
CSTSH04010D7	4	1005.31	80	39	39	35.0	2	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	0.125	10.3
CSTSH04020D7	4	2010.62	160	39	39	35.0	2	62.83	125.66	16	12	10	15	9	37.5	1935.60	7.7	0.125	20.5
CSTSH05005D7	5	502.65	32	49	39	34.0	3	62.83	125.66	4	12	14	20	13	30.1	442.40	11.7	0.125	6.6
CSTSH05010D7	5	1005.31	64	49	39	34.0	3	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	0.125	12.9
CSTSH05020D7	5	2010.62	128	49	39	34.0	3	62.83	125.66	16	12	14	20	13	30.1	1950.40	11.7	0.125	25.8
CSTSH06005D7	6	508.94	27	59	49	43.0	3	63.6	127.23	4	16	18	26	17	31.4	446.10	15.7	0.125	9.9
CSTSH06010D7	6	1017.88	54	59	49	43.0	3	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	0.125	19.7
CSTSH06020D7	6	2035.75	54	59	49	43.0	3	63.62	127.23	16	16	18	26	17	31.4	1973.00	15.7	0.125	39.5



Code	Module	e L_	No.of Teeth	В	Н	h₀	f	А	L2	No.of Holes	h	d1	d2	t	A1	L1	d3	FP	kg
CSTGH01005D7	1.0	502.65	160	15	15	14.0	1	62.83	125.66	4	6	5	9	5	31.3	440.10	5.7	0.050	0.8
CSTGH01010D7	1.0	1005.31	320	15	15	14.0	1	62.83	125.66	8	6	5	9	5	31.3	942.70	5.7	0.050	1.6
CSTGH01505D7	1.5	499.51	106	17	17	15.5	1	62.85	124.88	4	7	6	10	6	29	441.51	5.7	0.050	1.0
CSTGH01510D7	1.5	999.03	212	17	17	15.5	1	62.85	124.88	8	7	6	10	6	29	941.00	5.7	0.050	2.1
CSTGH02005D7	2	502.65	80	24	24	22.0	1	62.83	125.66	4	8	7	11	7	31.3	440.10	5.7	0.050	2.0
CSTGH02010D7	2	1005.31	160	24	24	22.0	1	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	0.050	3.9
CSTGH02020D7	2	2010.62	320	24	24	22.0	1	62.83	125.66	16	8	7	11	7	31.3	1948.00	5.7	0.050	7.8
CSTGH03005D7	3	508.94	54	29	29	26.0	2	63.62	127.23	4	9	10	15	9	34.4	440.10	7.7	0.056	2.9
CSTGH03010D7	3	1017.88	108	29	29	26.0	2	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	0.056	5.8
CSTGH03020D7	3	2035.75	216	29	29	26.0	2	63.62	127.23	16	9	10	15	9	34.4	1967.00	7.7	0.056	11.9
CSTGH04005D7	4	502.65	40	39	39	35.0	2	62.83	125.66	4	12	10	15	9	37.5	427.70	7.7	0.063	5.2
CSTGH04010D7	4	1005.31	80	39	39	35.0	2	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	0.063	10.3
CSTGH04020D7	4	2010.62	160	39	39	35.0	2	62.83	125.66	16	12	10	15	9	37.5	1935.60	7.7	0.063	20.5
CSTGH05005D7	5	502.65	32	49	39	34.0	3	62.83	125.66	4	12	14	20	13	30.1	442.40	11.7	0.063	6.6
CSTGH05010D7	5	1005.31	64	49	39	34.0	3	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	0.063	12.9
CSTGH05020D7	5	2010.62	128	49	39	34.0	3	62.83	125.66	16	12	14	20	13	30.1	1950.40	11.7	0.063	25.8
CSTGH06005D7	6	508.94	27	59	49	43.0	3	63.6	127.23	4	16	18	26	17	31.4	446.10	15.7	0.063	9.9
CSTGH06010D7	6	1017.88	54	59	49	43.0	3	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	0.063	19.7
CSTGH06020D7	6	2035.75	54	59	49	43.0	3	63.62	127.23	16	16	18	26	17	31.4	1973.00	15.7	0.063	39.5
CSTGH08005D7	8	502.65	20	79	79	71.0	4	62.83	125.66	4	25	22	33	21	26.6	449.45	19.7	0.071	21.1
CSTGH08010D7	8	1005.31	40	79	79	71.0	4	62.83	125.66	8	25	22	33	21	26.6	952.00	19.7	0.071	42.1
CSTGH08020D7	8	2010.61	80	79	79	71.0	4	62.83	125.66	16	25	22	33	21	26.6	1957.40	19.7	0.071	84.2
CSTGH10005D7	10	502.65	16	99	99	89	4	62.83	125.66	4	32	33	48	32	125.66	376.98	19.7	0.071	33.1
CSTGH10010D7	10	1005.31	32	99	99	89	4	62.83	125.66	8	32	33	48	32	125.66	753.99	19.7	0.071	66.1
CSTGH12005D7	12	527.79	14	120	120	108.0	4	63.62	127.23	4	40	39	58	38	127.23	381.69	19.7	0.071	53.0
CSTGH12010D7	12	1017.88	27	120	120	108.0	4	63.62	127.23	8	40	39	58	38	127.23	763.42	19.7	0.071	98.3

Rack

red : HB220-260

-55

After Hardening



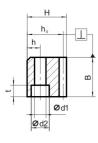




Carbon Steel Induction Hardening



Straight Teeth



CSTST-D7 Straight Gear Shaped Racks

Pressure Angle: 20°

Quality Grade : DIN 7

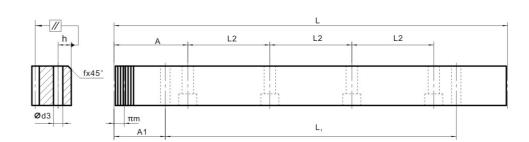
Material : Carbon Steel

Ground on All Sides After Hardening

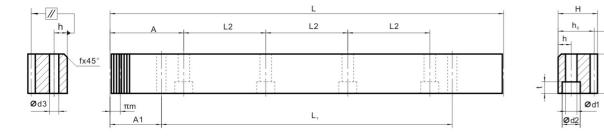


CSTMT-D8 Straight Milled Racks

Quality Grade : DIN 8	Teeth Making : Milleo
Material : Carbon Steel	Quenched & Tempere
Pressure Angle: 20°	Ground on All Sides A



Code	Module	e L	No.of Teeth	В	н	h_{o}	f	А	L2	No.of Holes	h	dl	d2	t	A1	L1	d3	FP	kg
CSTMT01505D8	1.5	499.51	106	17	17	15.5	1	62.85	124.88	4	7	6	10	6	29	441.51	5.7	0.071	1.0
CSTMT01510D8	1.5	999.03	212	17	17	15.5	1	62.85	124.88	8	7	6	10	6	29	941.00	5.7	0.071	2.1
CSTMT02005D8	2	502.65	80	25	24	22.0	1	62.83	125.66	4	8	7	11	7	31.3	440.10	5.7	0.071	2.0
CSTMT02010D8	2	1005.31	160	25	24	22.0	1	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	0.071	3.9
CSTMT02020D8	2	2010.62	320	25	24	22.0	1	62.83	125.66	16	8	7	11	7	31.3	1948.00	5.7	0.071	7.8
CSTMT03005D8	3	508.94	54	30	29	26.0	2	63.62	127.23	4	9	10	15	9	34.4	440.10	7.7	0.080	2.9
CSTMT03010D8	3	1017.88	108	30	29	26.0	2	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	0.080	5.8
CSTMT03020D8	3	2035.75	216	30	29	26.0	2	63.62	127.23	16	9	10	15	9	34.4	1967.00	7.7	0.080	11.9
CSTMT04005D8	4	502.65	40	40	39	35.0	2	62.83	125.66	4	12	10	15	9	37.5	427.70	7.7	0.090	5.2
CSTMT04010D8	4	1005.31	80	40	39	35.0	2	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	0.090	10.3
CSTMT04020D8	4	2010.62	160	40	39	35.0	2	62.83	125.66	16	12	10	15	9	37.5	1935.60	7.7	0.090	20.5
CSTMT05005D8	5	502.65	32	49	39	34.0	3	62.83	125.66	4	12	14	20	13	30.1	442.40	11.7	0.090	6.6
CSTMT05010D8	5	1005.31	64	49	39	34.0	3	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	0.090	12.9
CSTMT05020D8	5	2010.62	128	49	39	34.0	3	62.83	125.66	16	12	14	20	13	30.1	1950.40	11.7	0.090	25.8
CSTMT06005D8	6	508.94	27	59	49	43.0	3	63.6	127.23	4	16	18	26	17	31.4	446.10	15.7	0.090	9.9
CSTMT06010D8	6	1017.88	54	59	49	43.0	3	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	0.090	19.7
CSTMT06020D8	6	2035.75	54	59	49	43.0	3	63.62	127.23	16	16	18	26	17	31.4	1973.00	15.7	0.090	39.5
CSTMT08005D8	8	502.65	20	79	79	71.0	4	62.83	125.66	4	25	22	33	21	26.6	449.45	19.7	0.100	21.1
CSTMT08010D8	8	1005.31	40	79	79	71.0	4	62.83	125.66	8	25	22	33	21	26.6	952.00	19.7	0.100	42.1
CSTMT08020D8	8	2010.61	80	79	79	71.0	4	62.83	125.66	16	25	22	33	21	26.6	1957.40	19.7	0.100	84.2
CSTMT10005D8	10	502.65	16	99	99	89	4	62.83	125.66	4	32	33	48	32	125.66	376.98	19.7	0.100	33.1
CSTMT10010D8	10	1005.31	32	99	99	89	4	62.83	125.66	8	32	33	48	32	125.66	753.99	19.7	0.100	66.1
CSTMT12005D8	12	527.79	14	120	120	108.0	4	63.62	127.23	4	40	39	58	38	127.23	381.69	19.7	0.100	53.0
CSTMT12010D8	12	1017.88	27	120	120	108.0	4	63.62	127.23	8	40	39	58	38	127.23	763.42	19.7	0.100	98.3



Code	Module	e L	No.of Teeth	В	Н	h₀	f	А	L2	No.of Holes	h	d1	d2	t	A1	Ll	d3	FP	kg
CSTST01005D7	1.0	502.65	160	15	15	14.0	1	62.83	125.66	4	6	5	9	5	31.3	440.10	5.7	0.050	0.8
CSTST01010D7	1.0	1005.31	320	15	15	14.0	1	62.83	125.66	8	6	5	9	5	31.3	942.70	5.7	0.050	1.6
CSTST01505D7	1.5	499.51	106	17	17	15.5	1	62.85	124.88	4	7	6	10	6	29	441.51	5.7	0.050	1.0
CSTST01510D7	1.5	999.03	212	17	17	15.5	1	62.85	124.88	8	7	6	10	6	29	941.00	5.7	0.050	2.1
CSTST02005D7	2	502.65	80	25	24	22.0	1	62.83	125.66	4	8	7	11	7	31.3	440.10	5.7	0.050	2.0
CSTST02010D7	2	1005.31	160	25	24	22.0	1	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	0.050	3.9
CSTST02020D7	2	2010.62	320	25	24	22.0	1	62.83	125.66	16	8	7	11	7	31.3	1948.00	5.7	0.050	7.8
CSTST03005D7	3	508.94	54	30	29	26.0	2	63.62	127.23	4	9	10	15	9	34.4	440.10	7.7	0.056	2.9
CSTST03010D7	3	1017.88	108	30	29	26.0	2	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	0.056	5.8
CSTST03020D7	3	2035.75	216	30	29	26.0	2	63.62	127.23	16	9	10	15	9	34.4	1967.00	7.7	0.056	11.9
CSTST04005D7	4	502.65	40	40	39	35.0	2	62.83	125.66	4	12	10	15	9	37.5	427.70	7.7	0.063	5.2
CSTST04010D7	4	1005.31	80	40	39	35.0	2	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	0.063	10.3
CSTST04020D7	4	2010.62	160	40	39	35.0	2	62.83	125.66	16	12	10	15	9	37.5	1935.60	7.7	0.063	20.5
CSTST05005D7	5	502.65	32	49	39	34.0	3	62.83	125.66	4	12	14	20	13	30.1	442.40	11.7	0.063	6.6
CSTST05010D7	5	1005.31	64	49	39	34.0	3	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	0.063	12.9
CSTST05020D7	5	2010.62	128	49	39	34.0	3	62.83	125.66	16	12	14	20	13	30.1	1950.40	11.7	0.063	25.8
CSTST06005D7	6	508.94	27	59	49	43.0	3	63.6	127.23	4	16	18	26	17	31.4	446.10	15.7	0.063	9.9
CSTST06010D7	6	1017.88	54	59	49	43.0	3	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	0.063	19.7
CSTST06020D7	6	2035.75	54	59	49	43.0	3	63.62	127.23	16	16	18	26	17	31.4	1973.00	15.7	0.063	39.5
CSTST08005D7	8	502.65	20	79	79	71.0	4	62.83	125.66	4	25	22	33	21	26.6	449.45	19.7	0.071	21.1
CSTST08010D7	8	1005.31	40	79	79	71.0	4	62.83	125.66	8	25	22	33	21	26.6	952.00	19.7	0.071	42.1
CSTST08020D7	8	2010.61	80	79	79	71.0	4	62.83	125.66	16	25	22	33	21	26.6	1957.40	19.7	0.071	84.2
CSTST10005D7	10	502.65	16	99	99	89	4	62.83	125.66	4	32	33	48	32	125.66	376.98	19.7	0.071	33.1
CSTST10010D7	10	1005.31	32	99	99	89	4	62.83	125.66	8	32	33	48	32	125.66	753.99	19.7	0.071	66.1
CSTST12005D7	12	527.79	14	120	120	108.0	4	63.62	127.23	4	40	39	58	38	127.23	381.69	19.7	0.071	53.0
CSTST12010D7	12	1017.88	27	120	120	108.0	4	63.62	127.23	8	40	39	58	38	127.23	763.42	19.7	0.071	98.3

Rack



ed

red : HB220-260

After Hardening

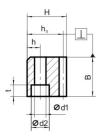




Carbon Steel Straight Teeth



Ground



CSCST-D7 Straight Gear Shaped Racks

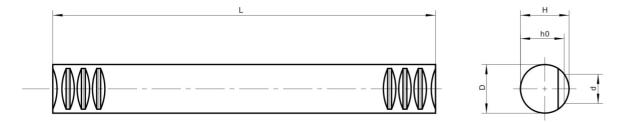
Teeth Making : Shaped Quenched & Tempered : HB220-260

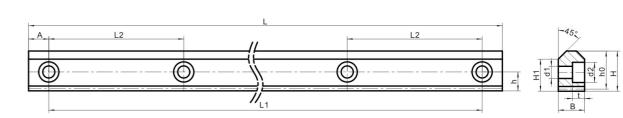
Ground on All External Sides Pressure Angle: 20°



MSVGH-CP-D6 Straight V-Type Guideway Racks

Quality Grade: DIN 6	Quenched & Tempere
Material : Alloy Steel	Hardness : HRC50-8
Pressure Angle: 20°	6 Sides Ground After
Teeth Making: Ground	





Code	СР	No.of Teeth	L	L1	В	Н	H1	h _o	А	L2	No.of Holes	h	d1	d2	t	FP	kg
MSVGH-CP05010-1-D6	5	206	1030	1000	14.5	24.5	20	22.91	15	100	11	11.5	7	11	7	0.036	2.2
MSVGH-CP05010-2-D6	5	206	1030	1000	19.5	29.5	23.5	27.91	15	100	11	14	9	15	9	0.036	3.5
MSVGH-CP07512-D6	7.5	160	1230	1200	24.7	33.3	25.2	30.61	15	100	13	14.5	9	15	9	0.036	5.8
MSVGH-CP05012-D6	10	120	1230	1200	34.6	46.6	36.7	43.42	15	100	13	18	11	18	11	0.036	11.7

Code	Module	L	No.of Teeth	D	н	h₀	b	FP	kg
CSCST01005D7	1.0	499.51	159	15	15	14	7.5	0.05	0.66
CSCST01010D7	1.0	999.03	318	15	15	14	7.5	0.05	1.35
CSCST01505D7	1.5	499.51	106	17	17	15.5	9.6	0.050	0.84
CSCST01510D7	1.5	999.03	212	17	17	15.5	9.6	0.050	1.70
CSCST02005D7	2	502.65	80	20	20	18.0	12	0.050	1.10
CSCST02010D7	2	1005.31	159	20	20	18.0	12	0.050	2.20
CSCST02505D7	2.5	502.7	64	25	25	22.5	15	0.050	1.80
CSCST02510D7	2.5	997.5	127	25	25	22.5	15	0.050	3.60
CSCST03005D7	3	499.51	53	30	30	27.0	18	0.056	2.50
CSCST03010D7	3	999.00	106	30	30	27.0	18	0.056	5.10
CSCST04005D7	4	502.65	40	40	40	36.0	24	0.063	4.50
CSCST04010D7	4	1005.31	80	40	40	36.0	24	0.063	9.10
CSCST05005D7	5	502.65	32	50	50	45.0	30	0.063	7.10
CSCST05010D7	5	1005.31	64	50	50	45.0	30	0.063	14.30



red : HB220-260

-55

Hardening

Cr Chromium Induction Hardening



Straight Teeth





Ground

Rack

22

MSTGH-CP-D6 Straight Teeth Guideway Racks

Quality Grade: DIN 6

Quenched & Tempered : HB220-260

Material : Alloy Steel Hardness : HRC50-55

Pressure Angle: 20°

6 Sides Ground After Hardening

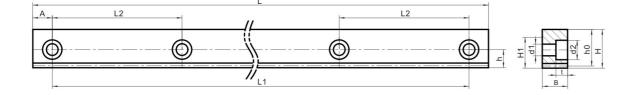
Teeth Making : Ground

Chromium Induction Hardening

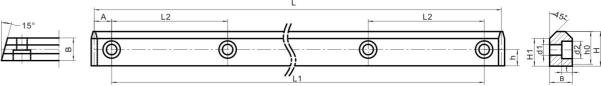


MNVGH-D6	V-Type	Guideway	Ra

Quality Grade: DIN 6	Hardness : HRC50-5
Material : Alloy Steel	6 Sides Ground After H
Quenched & Tempered : HB220-260	



Code	СР	No.of Teeth	L	L1	В	н	H1	h_{0}	А	L2	No.of Holes	h	dl	d2	t	FP	kg
MSTGH-CP05010-1-D6	5	206	1030	1000	14.5	24.5	20	22.91	15	100	11	11.5	7	11	7	0.036	2.2
MSTGH-CP05010-2-D6	5	206	1030	1000	19.5	29.5	23.5	27.91	15	100	11	14	9	15	9	0.036	3.5
MSTGH-CP07512-D6	7.5	160	1230	1200	24.7	33.3	25.2	30.61	15	100	13	14.5	9	15	9	0.036	5.8
MSTGH-CP05012-D6	10	120	1230	1200	34.6	46.6	36.7	43.42	15	100	13	18	11	18	11	0.036	11.7



Code	L	L1	В	н	HI	А	L2	No.of Holes	h	dl	d2	t	kg
MNVGH10-1-D6	1030	1000	14.5	24.5	20	15	100	11	11.5	7	11	7	2.3
MNVGH10-2-D6	1030	1000	19.5	29.5	23.5	15	100	11	14	9	15	9	3.6
MNVGH12-3-D6	1230	1200	24.7	33.3	25.2	15	100	13	14.5	9	15	9	6.3
MNVGH12-4-D6	1230	1200	34.6	46.6		15		13	18	11	18	11	12.5

acks





Pinio

MNTGH-D6 Ground Guideway Racks



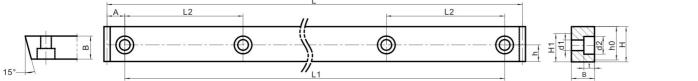
Quenched & Tempered : HB220-260



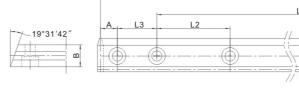




Quality Grade : DIN 6	Quenched & Tempere
Material : Alloy Steel	Hardness : HRC50-5
Pressure Angle : 20°	6 Sides Ground After
Teeth Making : Ground	



Code	L	L1	В	н	Н1	А	L2	No.of Holes	h	dl	d2	t	kg
MNTGH10-1-D6	1030	1000	14.5	24.5	20	15	100	11	11.5	7	11	7	2.3
MNTGH10-2-D6	1030	1000	19.5	29.5	23.5	15	100	11	14	9	15	9	3.6
MNTGH12-3-D6	1230	1200	24.7	33.3	25.2	15	100	13	14.5	9	15	9	6.3
MNTGH12-4-D6	1230	1200	34.6	46.6	36.7	15	100	13	18	11	18	11	12.5



Code	Module	No.of Teeth	L	LI	L2	L3	В	н	HI	h _o	А	No.of Holes	h	dl	d2	t	Fp	kg
MHVGH01512-1-D6	1.5	240	1200	1100	100	35	14.5	24.5	20	22.91	15	11	11.5	7	11	7	0.036	2.2
MHVGH01512-2-D6	1.5	240	1200	1000	100	35	19.5	29.5	23.5	27.91	15	11	14	9	15	9	0.036	3.5
MHVGH02512-D6	2.5	144	1200	1200	100	35	24.7	33.3	25.2	30.61	15	13	14.5	9	15	9	0.036	5.8
MHVGH03012-D6	3	120	1200	1200	100	35	34.6	46.6	36.7	43.42	15	13	18	11	18	11	0.036	11.7

Rack



ed: HB220-260

-55

Hardening





Chromium

Induction Hardening





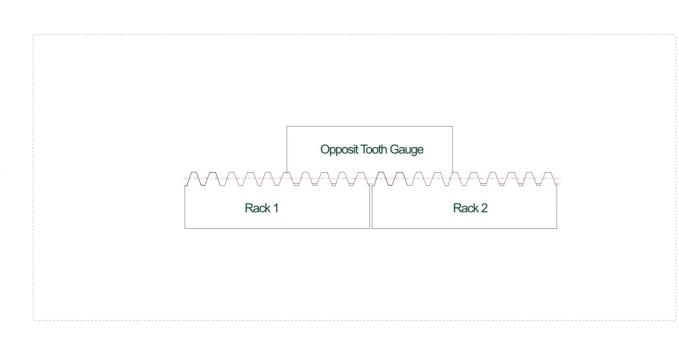
Ground

L1 45

Rack

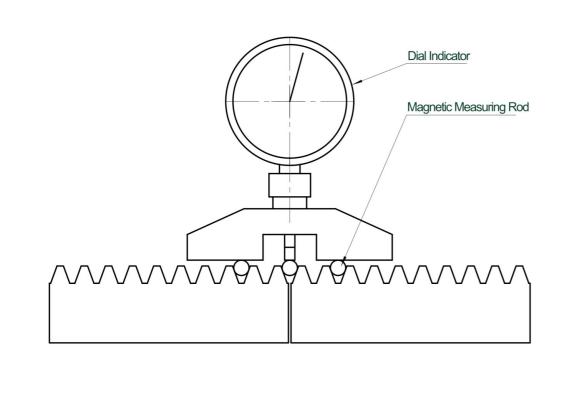
26

Assembly Instructions



The figure above shows how to use the Opposit teeth gauge to connect two racks to a standard pitch. To check the Opposit tooth gauge accuracy, use the gauge shown in the figure below to measure.

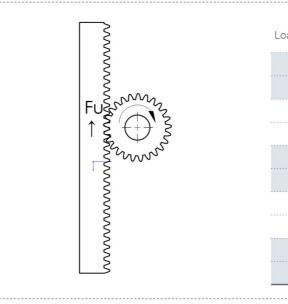
Rack



Allowable Maximum Driving Force of The Rack (Fu)

				Carbo	n Steel	Allo	y Steel	Super Alloy		
Module	Tooth Flank	Width Tooth Type	Normalization	Tempering	Induction Hardening	Tempering	Induction Hardening	Carburizing Quenching		
		Helical	536	880	1760	1140	2280			
M1	15	Helical	640	1056	2110	1368	2730			
105		Straight	1060	1600	3200	2080	4160	4368		
M1.5	19	Helical	1270	1920	3840	2496	4992	5240		
M2	24	Straight	1920	2720	6800	3540	7620	8000		
IVIZ	24	Helical	2400	2920	7200	4240	8680	9120		
M2.5	25	Straight	3040	3840	7360	4608	8832	9270		
C.2IVI	23	Helical	3640	4600	8800	5060	9715	10200		
M3	29	Straight	4480	6266	12530	7520	13430	14100		
CIVI		Helical	5010	6530	13066	7890	14100	16130		
M4	39	Straight	8300	11500	23000	13800	25300	26600		
1414		Helical	9300	11800	24000	15180	29140	30600		
M5		Straight	12800	14720	28000	17660	30470	32000		
UNIS		Helical	14400	16190	30800	19430	33520	35200		
M6		Straight	18600	22300	39300	26760	47160	48000		
IVIO		Helical	20930	24550	43230	29430	51870	54600		
M8		Straight	34000	40800	75000	48960	90000	94500		
IVIO		Helical	15.7	44880	82500	53850	99000	103950		
M10		Straight	40000	48000	100000	57600	120000	130000		
WITO		Helical	44000	52800	110000	63360	132000	143000		

The data in the table is the tooth failure load of the rack under the condition of good grease lubrication, V=1.5m/s, gear hardening, and gear single-sided arm support.





Unit : N

Load Calculation Diagram

Fu=m×g+m×a Fu=m×g× μ +m×a T=Fu×d/2000	Vertical Movement (n) Horizontal Movement (n) Torque (nm) Acceleration
T=Fu×d/2000	Torque (nm)
- \//41-	Acceleration
a=V/tb	
V(m/s)	Running Speed
tb(s)	Acceleration Time
m(kg)	Mobile Quality
g (Gravitational Acceleration 9.81m/s²
μ	Friction Coefficient
d(mm)	Gear Pitch Diameter

Pinion Code Instruction



1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Material	Туре	Series	Teeth Treatment	Hardness	Module Circular Pitch	No. of Teeth	Series	Fig	Grade
C	S	F	G	Н	020	030	1	1	DIN JIS
C=Carbon Steel M=Alloy Steel	S=Straight H=Helical	F=Flange	G=Ground S=Skiving M=Milled	H=Induction Hardening	M1.5~M10 CP5-CP20	12~120	1~11	1, 2	DIN 6-10 JIS 2-4

MHGH-DIN6 Helical Teeth Ground Pinions Quality Grade

Material : Alloy Si	teel	H	eat Treatr	nent N	/lethoo	: Carburiz	zing and Que	nching		Cr	• (X
_eft Hand Angle :	19°31'42												\geq
										Chromi	um	Helical G	Grou
	W2			Γ	W	2	∠ 0.05 B		d1 H6				
	W1	× 0.01]	G Ra0.8/	W1	-		–		► <u> </u>	01		
		Ra0.8	Ĩ					-	k	- 0.3			
•		\square		1 P				At	AtAx				
		1			/		4	1.	-	11			
				P			/		17	/ !]	ł		
da —	A	— d1H6 d2	d di	a d	-/-	d1H6	d2h6	(-(-	——)`-	-)	h		
								i (÷	/ ;/			
					//			1	+	1			
		_	1						+				
		Fig.1	t			Fig . 2							
			No. of			d	da					F _{ta} kℕ	
Code	Fig.	DIN	Teeth	d1	d2 [Pitch Circle Diameter PCD	Diameter of Addendum Circl	e W1	W2	k	h	Max. TORQUE* Feed-Force	
Module 1.5													
MHGH0150201	1	-DIN6	20	11	25	31.83	34.83	20	22	4	12.8	4.48	
MHGH0150202	1	-DIN6	20	13	25	31.83	34.83	20	22	5	15.3	4.48	
MHGH0150203	1	-DIN6	20	14	25	31.83	34.83	20	22	5	16.3	4.48	
MHGH0150204	1	-DIN6	20	16	25	31.83	34.83	20	22	5	18.3	4.48	-
MHGH0150205 MHGH0150206	2	-DIN6 -DIN6	20 20	16 16	25 24	31.83 31.83	34.83 34.83	20 20	30 50	5 *	18.3 *	4.48 4.48	
MHGH0150211	2	-DIN6	21	16	30	33.42	36.42	20	46	5	18.3	5.29	
MHGH0150221	2	-DIN6	22	16	25	35.01	38.01	20	30	5	18.3	5.56	
MHGH0150222	2	-DIN6	22	16	24	35.01	38.01	20	50	*	*	5.56	
MHGH0150251 MHGH0150252	2	-DIN6 -DIN6	25 25	16 16	30 25	39.78 39.79	42.78 42.79	20 20	46 30	5	18.3 18.3	6.37 6.37	
MHGH0150252	2	-DIN6	25 25	16	25 24	39.79	42.79	20	50	5 *	10.3	6.37	
MHGH0150301	2	-DIN6	30	16	25	47.75	50.75	20	30	5	18.3	7.12	
MHGH0150302	2	-DIN6	30	16	24	47.75	50.75	20	50	*	*	7.12	
Module 2													
MHGH0200181	1	-DIN6	18	16	25	38.197	42.20	28	30	5	18.3	7.47	
MHGH0200201	1	-DIN6	20	19	30	42.44	46.40	28	30	6	21.8	8.36	
MHGH0200202 MHGH0200203	2	-DIN6 -DIN6	20 20	19 20	30 30	42.44 42.44	46.40 46.40	28 28	56 30	6 6	21.8 22.8	8.36 8.36	
MHGH0200203	2	-DING	20	22	36	42.44	46.40	28	56	6	24.8	8.36	+
MHGH0200205	1	-DIN6	20	22	30	42.44	46.40	28	30	6	24.8	8.36	
MHGH0200206	2	-DIN6	20	22	36	42.44	46.40	28	36	6	24.8	8.36	
MHGH0200207	2	-DING	20	22	35	42.44	46.44	25	40	6	24.8	8.36	-
MHGH0200208 MHGH0200211	1	-DIN6 -DIN6	20 21	22 16	30 25	42.44 44.56	46.44 48.60	25 28	60 30	5	18.3	8.36 8.81	
MHGH0200212	2	-DIN6	21	22	36	44.56	48.60	28	30	6	24.8	8.81	
MHGH0200221	1	-DIN6	22	19	30	46.69	50.70	28	30	6	21.8	10.38	
MHGH0200222	2	-DING	22	19	30	46.69	50.70	28	56	6 6	21.8	10.38	
MHGH0200223 MHGH0200224	2	-DIN6 -DIN6	22 22	22 22	30 36	46.69 46.69	50.70 50.70	28 28	30 56	6	24.8 24.8	10.38 10.38	
MHGH0200225	2	-DIN6	22	22	35	46.69	50.69	25	40	6	24.8	9.27	
MHGH0200226	2	-DIN6	22	22	35	46.69	50.69	25	60	*	*	9.27	
MHGH0200251	1	-DIN6	25	19	30	53.05	57.10	28	30	6	21.8	11.90	
MHGH0200252 MHGH0200253	2	-DIN6 -DIN6	25 25	19 20	30 30	53.05 53.05	57.10 57.10	28 28	56 30	6	21.8 22.8	11.90 11.90	
MHGH0200253	1	-DING	25	20	30	53.05	57.10	28	30	6	24.8	11.90	
MHGH0200255	2	-DIN6	25	22	36	53.05	57.10	28	56	6	24.8	11.90	
MHGH0200256	1	-DIN6	25	25	36	53.05	57.10	28	30	6	27.8	11.90	
MHGH0200257	2	-DIN6	25	22	35	53.05	57.05	25	40	6 *	24.8 *	10.62	
MHGH0200258 MHGH0200281	2	-DIN6 -DIN6	25 28	22 19	30 30	53.05 59.42	57.05 63.40	25 28	60 30	6	21.8	10.62 13.06	
MHGH0200281	2	-DING	28	19	30	59.42	63.40	28	56	6	21.8	13.06	
				+	*		*						
MHGH0200283	1	-DIN6	28	22	30	59.42	63.40	28	30	6	24.8	13.06	

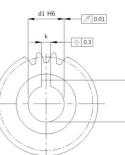






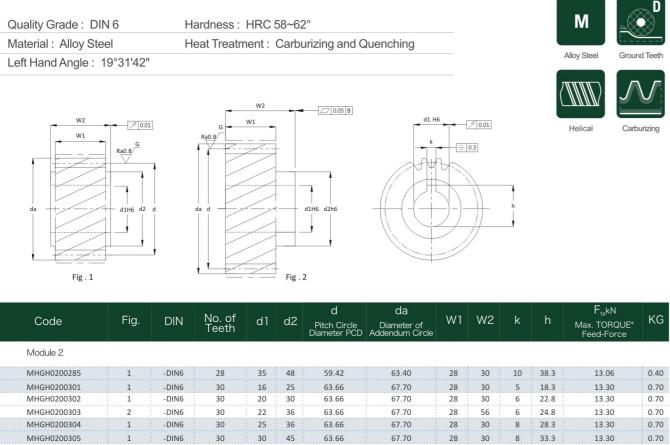






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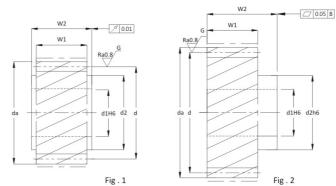
MHGH-DIN6 Helical Teeth Ground Pinions Quality Grade



1011010200505	; 1	-DINO :	50	: 50	45 ;	05.00	67.70	20	50 ;	0	: 33.3	15.50	0.70
MHGH0200306	2	-DIN6	30	30	50	63.66	67.70	28	60	8	33.3	13.30	0.70
MHGH0200307	2	-DIN6	30	32	55	63.66	67.70	28	65	10	35.3	13.30	0.70
MHGH0200308	2	-DIN6	30	22	35	63.66	67.66	25	40	6	24.8	11.87	0.61
MHGH0200309	2	-DIN6	30	22	30	63.66	67.66	25	60	*	*	11.87	0.64
 MHGH0200321	1	-DIN6	32	20	30	67.91	71.90	28	30	6	22.8	13.49	0.70
MHGH0200322	1	-DIN6	32	22	30	67.91	71.90	28	30	6	24.8	13.49	0.70
MHGH0200323	2	-DIN6	32	22	36	67.91	71.90	28	56	6	24.8	13.49	0.70
MHGH0200324	1	-DIN6	32	25	36	67.91	71.90	28	30	8	28.3	13.49	0.70
 MHGH0200325	1	-DIN6	32	35	48	67.91	71.90	28	30	10	38.3	13.49	0.70
MHGH0200361	1	-DIN6	36	35	48	76.39	80.40	28	30	10	38.3	13.84	0.80
MHGH0200391	2	-DIN6	39	32	55	82.76	86.80	28	65	10	35.3	14.06	1.40
MHGH0200401	1	-DIN6	40	35	48	84.88	88.90	28	30	10	38.3	14.13	1.20
Module 3													
MHGH0300181	1	-DIN6	18	25	36	54.00	60.00	28	30	8	28.3	12.51	0.40
MHGH0300201	1	-DIN6	20	25	36	60.00	66.00	28	30	8	28.3	14.00	0.50
MHGH0300202	2	-DIN6	20	25	44	63.66	69.70	28	60	8	28.3	14.00	1.10
MHGH0300203	1	-DIN6	20	30	45	63.66	69.70	28	30	8	33.3	14.00	0.50
MHGH0300204	2	-DIN6	20	30	50	63.66	69.70	28	60	8	33.3	14.00	1.10
MHGH0300205	2	-DIN6	20	32	55	63.66	69.70	28	65	10	35.3	14.00	1.20
MHGH0300206	1	-DIN6	20	35	48	63.66	69.70	28	30	10	38.3	14.00	0.50
MHGH0300207	2	-DIN6	20	22	35	63.66	69.66	30	40	6	24.8	15.06	0.69
MHGH0300208	2	-DIN6	20	22	30	63.66	69.66	30	65	*	*	15.06	0.74
MHGH0300209	2	-DIN6	20	32	50	63.66	69.66	30	60	10	35.3	15.06	0.81
MHGH03002010	2	-DIN6	20	32	44	63.66	69.66	30	70	*	*	15.06	0.78
MHGH0300221	1	-DIN6	22	25	36	70.03	76.00	28	30	8	28.3	17.65	0.60
MHGH0300222	1	-DIN6	22	30	45	70.03	76.00	28	30	8	33.3	17.65	0.60
MHGH0300223	2	-DIN6	22	32	55	70.03	76.00	28	65	10	35.3	17.65	1.40
MHGH0300224	1	-DIN6	22	35	48	70.03	76.00	28	30	10	38.3	17.65	0.60
MHGH0300225	2	-DIN6	22	40	62	70.03	76.00	28	65	12	43.3	17.65	1.40
MHGH0300226	2	-DIN6	22	22	35	70.03	76.03	30	40	6	24.8	16.68	0.85
MHGH0300227	2	-DIN6	22	22	30	70.03	76.03	30	65	*	*	16.68	0.90
MHGH0300228	2	-DIN6	22	32	50	70.03	76.03	30	60	10	35.3	16.68	0.96
MHGH0300229	2	-DIN6	22	32	44	70.03	76.03	30	70	*	*	16.68	0.93
MHGH0300251	2	-DIN6	25	22	36	79.58	85.60	28	56	6	24.8	19.01	1.50
MHGH0300252	1	-DIN6	25	25	36	79.58	85.60	28	30	8	28.3	19.01	0.80
MHGH0300253	2	-DIN6	25	25	44	79.58	85.60	28	60	8	28.3	19.01	1.60
MHGH0300254	1	-DIN6	25	30	45	79.58	85.60	28	30	8	33.3	19.01	0.80
MHGH0300255	2	-DIN6	25	30	50	79.58	85.60	28	60	8	33.3	19.01	1.60

MHGH–DIN6 Helical Teeth Ground Pinions Quality Grade

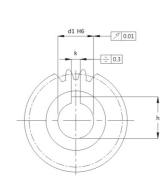
Quality Grade: DIN 6	Hardness : HRC 58~62°
Material : Alloy Steel	Heat Treatment : Carburizing an
Left Hand Angle : 19°31'42"	



Code	Fig.	DIN	No. of Teeth	d1	d2	d Pitch Circle Diameter PCD	da Diameter of Addendum Circle	W1	W2	k	h	F _{ta} kN Max. TORQUE* Feed-Force	KG
Module 3													
MHGH0300256	2	-DIN6	25	32	55	79.58	85.60	28	65	10	35.3	19.01	1.80
MHGH0300257	1	-DIN6	25	35	48	79.58	85.60	28	30	10	38.3	19.01	0.80
MHGH0300258	2	-DIN6	25	35	55	79.58	85.60	28	65	10	38.3	19.01	1.80
MHGH0300259	1	-DIN6	25	40	70	79.58	85.60	28	50	12	43.3	19.01	1.40
MHGH03002510	2	-DIN6	25	40	62	79.58	85.60	28	65	12	43.3	19.01	1.80
MHGH03002511	2	-DIN6	25	22	35	79.58	85.58	30	40	6	24.8	20.37	1.11
MHGH03002512	2	-DIN6	25	22	30	79.58	85.58	30	65	*	*	20.37	1.17
MHGH03002513	2	-DIN6	25	32	50	79.58	85.58	30	60	10	35.3	20.37	1.23
MHGH03002514	2	-DIN6	25	32	44	79.58	85.58	30	70	*	*	20.37	1.20
MHGH0300281	2	-DIN6	28	32	55	89.13	95.10	28	65	10	35.3	19.59	2.20
MHGH0300282	2	-DIN6	28	40	62	89.13	95.10	28	65	12	43.3	19.59	2.20
MHGH0300301	2	-DIN6	30	22	35	95.49	101.49	30	40	6	24.8	21.37	1.62
MHGH0300302	2	-DIN6	30	22	30	95.49	101.49	30	65	*	*	21.37	1.67
MHGH0300303	2	-DIN6	30	32	50	95.49	101.49	30	60	10	35.3	21.37	1.74
MHGH0300304	2	-DIN6	30	32	44	95.49	101.49	30	70	*	*	21.37	1.71
MHGH0300321	2	-DIN6	32	32	55	101.86	107.85	28	65	10	35.3	20.24	2.80
MHGH0300322	2	-DIN6	32	40	62	101.86	107.85	28	65	12	43.3	20.24	2.00
Module 4													
MHGH0400151	1	-DIN6	15	35	52	63.66	71.70	40	50	10	38.3	17 52	0.80
MHGH0400131 MHGH0400181	2	-DIN6	13	32	55	76.39	84.40	40	75	10	35.3	17.53 23.92	1.60
MHGH0400181 MHGH0400201	1	-DING	20	35	52	84.88	92.90	40	50	10	38.3	26.78	1.30
MHGH0400201	1	-DING	20	45	65	84.88	92.90	40	50	14	48.8	26.78	1.30
MHGH0400202 MHGH0400203	2	-DIN6	20	32	50	84.88	92.88	40	60	10	35.3	26.78	1.67
MHGH0400203 MHGH0400204	2	-DIN6	20	32	44	84.88	92.88	40	80	*	\$3.5	26.78	1.73
MHGH0400204 MHGH0400205	2	-DIN6	20	40	60	84.88	92.88	40	85	12	43.3	26.78	1.73
										*	45.5 *		
MHGH0400206 MHGH0400211	2	-DIN6 -DIN6	20 21	40 32	50 55	84.88 89.13	92.88 97.10	40 40	85 75	10	35.3	26.78 28.23	1.58 2.20
MHGH0400211 MHGH0400212				35									* • • • • • • • • • •
MHGH0400212 MHGH0400213	2	-DIN6 -DIN6	21	40	55 62	89.13 89.13	97.10 97.10	40 40	75 75	10 12	38.3 43.3	28.23 28.23	2.20
MHGH0400213	2	-DING	21	40	68	89.13	97.10	40	75	14	48.8	28.23	2.20
MHGH0400214	1	-DING	21	35	52	93.37	101.40	40	50	14	38.3	29.66	1.60
MHGH0400221 MHGH0400222	1	-DING	22	45	65	93.37	101.40	40	50	10	48.8	29.66	1.60
MHGH0400222 MHGH0400223			22	32	50	93.37	101.40	40	60	14	35.3	29.66	2.04
MHGH0400223 MHGH0400224	2	-DIN6 -DIN6	22	32	44	93.37	101.37	40	80	*	>>.> *	29.66	2.04
MHGH0400224 MHGH0400225	2	-DIN6	22	40	44 60	93.37	101.37	40	85	12	43.3	29.66	2.10
										*	45.5 *		
MHGH0400226 MHGH0400241	2	-DIN6	22	40 32	50	93.37	101.37	40	85		25.2	29.66	1.95
MHGH0400241 MHGH0400242	2	-DIN6 -DIN6	24 24	32	55 55	101.86 101.86	109.90 109.90	40 40	75 75	10 10	35.3 38.3	35.79 35.79	2.80 2.80
MHGH0400242 MHGH0400243	2	-DIN6	24	40	62	101.86	109.90	40	75	10	43.3	35.79	2.80
													*
MHGH0400244	2	-DIN6	24	45	68	101.86	109.90	40	75	14	48.8	35.79	2.80
MHGH0400245 MHGH0400251	2	-DIN6	24	55	80	101.86	109.90	40	80	16	59.3	35.79	3.00
	1	-DIN6	25	35	52	106.10	114.10	40	50	10	38.3	36.22	2.00
MHGH0400252	1	-DIN6	25	45	65	106.10	114.10	40	50	14	48.8	36.22	2.00



and Quenching







Alloy Steel



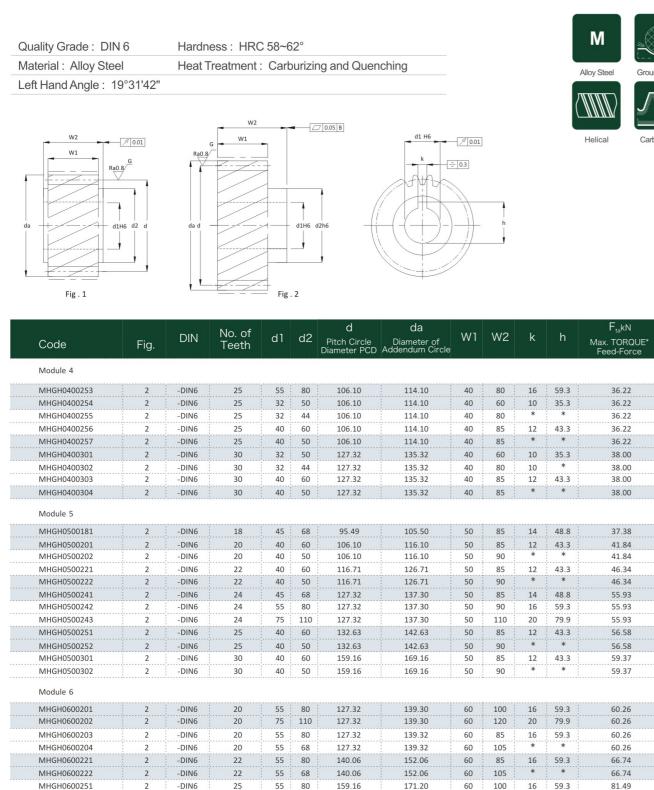
Helical



Carburizing

Hac

MHGH-DIN6 Helical Teeth Ground Pinions Quality Grade



110

159.16

159.16

159.16

190.99

190.99

152.79

169.80

75

55 80

55 80

55 68

55 68

75 110

85 125

MHFGH-DIN6 Helical Flange **Teeth Ground Pinions**

Ground Tee

Carburizing

KG

3.20

2.66

2.72

2.88

2.58

3.88

3.94

4.10

3.80

2.90

3.34

3.16

4.06

3.88

4.90

5.20

6.40

5.28

5.10

7.66

7.48

6.00

7.20

5.28

5.25

6.53

6.50

9.00

10.80

8.64

8.61

12.74

12.71

11.00

14.00

36.22

36.22

36.22

36.22

36.22

38.00

38.00

38.00

38.00

41.84

41.84

46.34

46.34

55.93

55.93

55.93

56.58

56.58

59.37

59.37

60.26

60.26

66.74

81.49

81.49

81.49

81.49

85.49

85.49

95.68

107.12

167.38 26.00

60

60

60

60

60

80

80

171.20

171.16

171.16

212.99

212.99

168.80

185.80

120

85

105

85

105

140

145

232.20 100 165 22 90.4

20

16 59.3

16

*

* *

20 79.9

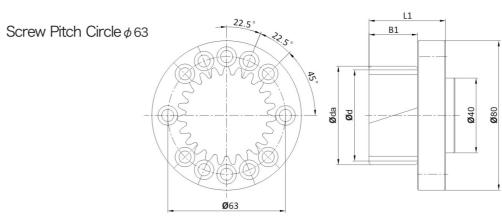
22 90.4

79.9

59.3

*

Quality Grade : DIN 6	Hardness : HRC 58~62°
Material : Alloy Steel	Heat Treatment : Carburizing an
Left Hand Angle : 19°31'42"	



Code	DIN	No. of Teeth	X ⁰ Shift Coefficient	da Diameter of Addendum Circle	d Pitch Circle Diameter PCD	d _w Working Pitch Dia.	В1	Ll	L	F _{ta} kN Max. TORQUE* Feed-Force
Module 2										
MHFGH0200121	—DIN6	12	0.5	31.465	25.565	27.465	26	41	80	6.67
MHFGH0200171	-DIN6	17	0	40.075	36.075	36.075	26	41	113.333	10.8
MHFGH0200191	-DIN6	19	0	44.319	40.319	40.319	26		126.667	11.16
MHFGH0200231	-DIN6	23	0	52.808	48.808	48.808	26	41	153.334	10.65

Pinion

MHGH0600252

MHGH0600253

MHGH0600254

MHGH0600301

MHGH0600302

MHGH0800202

MHGH1000201

Module 10

Module 8 MHGH0800181 -DIN6

-DIN6

-DIN6

-DIN6

-DIN6

-DIN6

-DIN6

25

25

25

30

30

18

20

2 -DIN6 20 85 125 212.21

2

2

2

2

2

2

2





Pinion





Ground Teet



MHFGH-DIN6 Helical Teeth Ground Pinions Quality Grade

Quality Grade : DIN 6	Hardness : HRC 58~62°
Material : Alloy Steel	Heat Treatment : Carburizing and Quenching
Left Hand Angle : 19°31'42"	





B3

ød3 ød1 ød4

Lb¢

Screw Pitch Circle ϕ 80 øda ød5

Code	DIN	No. of Teeth	X ⁰ Shift Coefficient	da Diameter of Addendum Circle	d Pitch Circle Diameter PCD	d _w Working Pitch Dia.	d1	d2	d3	d4	d5	d6	d7	b1	b2	b3	t	F _{ta} kN Max. TORQUE* Feed-Force
Module 2																		
MHFGH0200331	—DIN6	33	0.393	75.599	70.028	71.599	50	80	31.5	100	23.7	9	14	26	39	4	8.6	10.42
MHFGH0200361	-DIN6	36	0	80.394	76.394	76.394	50	80	31.5	100	23.7	9	14	30	43	4	8.6	10.73
MHFGH0200371	-DIN6	37	0.421	84.2	78.517	80.2	50	80	31.5	100	23.7	9	14	26	39	4	8.6	10.44
Module 3																		
MHFGH0300311			0.354	106.8	98.676		50								44		8.6	19.15

MHFGH-DIN6 Helical Flange Teeth Ground Pinions

Quality Grade : DIN 6 Material : Alloy Steel			Hardnes						Alloy S	Steel	Ground				
			Heat Ire	atment : Carb					1						
Left Hand Ang	lie: 1	19*312	+2"										Helia		Carbur
AS°				3		\$2°	22.5°	22.5° 22.5° 22.5° 22.5° 22.5° 20.5°	Å, A5°	øda	Øđw	ØS Ød3		2 -	8d1 6d1
La	Fig		-	L	Fig. 2		Fig. 3	3							
Code	Fig.	DIN	No. of Teeth	X ⁰ Shift	da Diameter of	d Pitch Circle Diameter PCD	d _w Working	d1 d	2 d3	d4	d5	W1	W2	W3	F _{ta} k Max. TOF
Module 2			- oour	Coetticient	t Addendum Circle	Dameter PCD	Pitch Dia.								Feed-F
MHFGH0200261	1	-DIN6	26	0.407	60.800	55.174	56.800	20.0 16	.2 9.5	5.5	31.5	26	29	12.0	11.
MHFGH0200262	1	-DIN6	26	0.407	60.802	55.174	56.802	20.0 16	.0 9.5	5.5	31.5	26	31	11.0	11.
MHFGH0200271	1	· · · · · · · · · · · · · · · · · · ·	27	0.000	61.296	57.296	57.296	20.0 16			31.5	30		11.0	10.9
MHFGH0200272	1		27	0.000	61.296	57.296	57.296	20.0 16		5.5	31.5	26		11.0	11.9
MHFGH0200291 MHFGH0200292	1	-DIN6 -DIN6	29 29	0.415 0.415	67.200 67.200	61.540 61.540	63.200 63.200	20.0 16 25.0 20	••••	5.5	31.5 40.0	26 26		12.0 10.5	12.1
MHFGH0200292 MHFGH0200293	1	-DIN6	29	0.415	67.200	61.540	63.200	20.0 16		5.5	31.5	26		11.0	12
MHFGH0200331	1	-DIN6	33	0.393	75.599	70.028	71.599	31.5 23			50.0	26		14.0	12.0
MHFGH0200332	1	-DIN6	33	0.393	75.599	70.028	71.600	31.5 20			50.0	26		11.0	12.
MHFGH0200351	1	-DIN6	35	0.382	79.800	74.272	75.800	20.0 16	.2 9.5	5.5	31.5	26	29	12.0	12.
MHFGH0200352	1	-DIN6	35	0.382	79.800	74.272	75.800	20.0 16	.0 9.5	5.5	31.5	26	31	11.0	12.
MHFGH0200361	1		36	0.000	80.394	76.394	76.394	31.5 23			50.0	30	33	8.0	14.
MHFGH0200362	1	-DIN6	36	0.000	80.394	76.394	76.394	31.5 20			50.0	26		11.0	12.8
MHFGH0200371	1		37	0.421	84.200	78.517	80.200	31.5 23			50.0	26		14.0	12.
MHFGH0200372 MHFGH0200373	2	-DIN6 -DIN6	37 37	0.421 0.421	84.200 84.200	78.517 78.517	80.200 80.200	31.5 23 31.5 20			50.0 50.0	26 26		14.0 11.0	12.9
MHFGH0200373	1	-DIN6	40	0.421	90.4	84.883	86.4	40 32			63	26		11.5	12.5
MHFGH0200451	· · ÷ · · · · · ·	-DIN6	40	0.375	100.8	95.493	96.8	40 32			÷;	26	29		13.1
Module 3															
MHFGH0300311	2	-DIN6	31	0.354	106.800	98.676	100.800	31.5 23	7 110	6.6	50.0	21	35	14.0	22.2
MHFGH0300312		-DIN6	31	0.354	106.800	98.676	100.800	31.5 23						14.0	22.2
MHFGH0300313	1		31	0.354	106.800	98.676	100.800	31.5 20		*******	÷;			11.0	22.2
MHFGH0300314	3		31	0.354	106.800	98.676	100.800	40.0 31						11.0	22.2
MHFGH0300351	2	-DIN6	35	0.365	119.600	111.409	113.600	50.0 32	.2 14.0	9.0	80.0	31	35	10.5	22.8
MHFGH0300352	3	-DIN6	35	0.365	119.598	111.409	113.598	40.0 31			4 3	31	36	11.0	22.8
MHFGH0300401	2		40	0.379	135.599	127.324	129.599	50.0 32				31		10.5	23.4
MHFGH0300402	3		40	0.379	135.598	127.324	129.598	40.0 31			63.0	31		11.0	23.4
MHFGH0300403	2	-DIN6	40	0.379	135.598	127.324	129.598	50.0 40	.0 14.0	9.0	80.0	31	36	11.0	23.4
Module 4											· · · · · · · · · · ·				
MHFGH0400301		-DIN6	30	0.000	135.324	127.324	127.324	50.0 32					49	9.5	42.1
MHFGH0400302	3		30	0.000	135.324	127.324	127.324	40.0 32			÷;		49	9.5	42.
MHFGH0400303 MHFGH0400381	2		30 38	0.000	135.324 171.200	127.324 161.277	127.234 163.200	50.0 40 80.0 56			÷			16.0 10.5	38.9 40.9
MHFGH0400381 MHFGH0400382		-DIN6	38	0.240	171.200	161.277	163.200	80.0 56			÷;			16.0	40.9
Module 5															
		-DIN6	21	0.000	121.109	111.409	111.409	50.0 32	2 14 0	0.0	80.0	59	64	11.5	52.
MHEGH0500211			21 ;	0.000	121.109	111.409	111.409	30.0:32	.2 14.0	9.0	00.0	22	04	11.3	52.0
MHFGH0500211 MHFGH0500212		(· · · · · · · · · · · · · · · · · · ·		0.000	121 409	111 /00	111 /00	50 0: 40	0:110	: 00	80.0	51	56	16.0	11
MHFGH0500211 MHFGH0500212 MHFGH0500361	2 2 2 2	-DIN6	21 36	0.000 0.000	121.409 200.986	111.409 190.986	111.409 190.986	50.0 40 80.0 56			*******			16.0 12.5	44.9 67.9

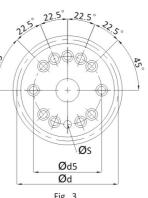


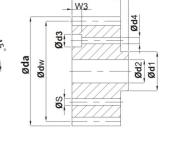














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