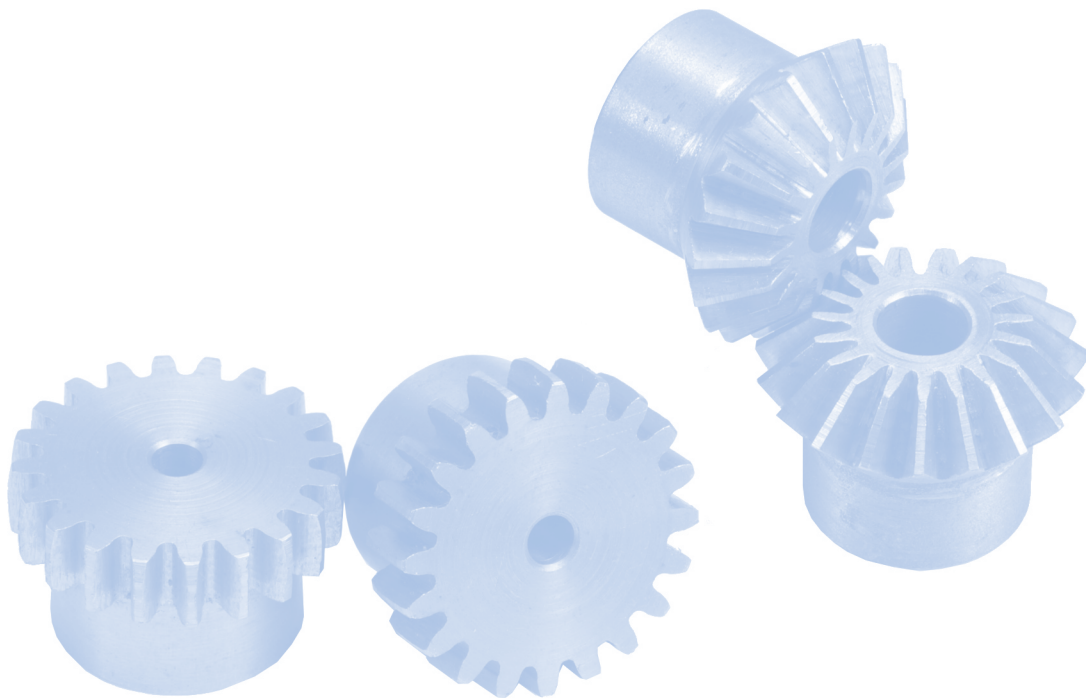


**MEDWAY®**

# Gears & Racks



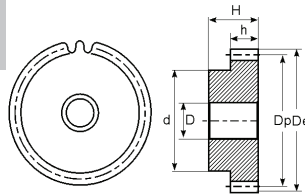
**MEDWAY POWER TRANSMISSION LTD**

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**Tooth width "h" for different module :**

- M1,0 = 15mm    M3,0 = 30mm
- M1,5 = 17mm    M4,0 = 40mm
- M2,0 = 20mm    M5,0 = 50mm
- M2,5 = 25mm    M6,0 = 60mm



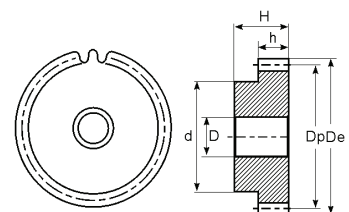
**Through bore "H" for different module:**

- M1,0 = 25mm    M3,0 = 50mm
- M1,5 = 30mm    M4,0 = 60mm
- M2,0 = 35mm    M5,0 = 75mm
- M2,5 = 40mm    M6,0 = 80mm

Z	M 1,0				M 1,5				M 2,0			
	De	Dp	d	D	De	Dp	d	D	De	Dp	d	D
12	14	12	9	4	21.0	18.0	14	8	28	24	18	10
13	15	13	10	4	22.5	19.5	15	8	30	26	20	10
14	16	14	11	4	24.0	21.0	17	8	32	28	22	10
15	17	15	12	4	25.5	22.5	18	8	34	30	24	10
16	18	16	13	4	27.0	24.0	20	8	36	32	25	10
17	19	17	14	8	28.5	25.5	20	8	38	34	25	10
18	20	18	15	8	30.0	27.0	20	8	40	36	25	10
19	21	19	15	8	31.5	28.5	20	8	42	38	25	10
20	22	20	16	8	33.0	30.0	25	8	44	40	30	10
21	23	21	16	8	34.5	31.5	25	10	46	42	30	12
22	24	22	16	8	36.0	33.0	25	10	48	44	30	12
23	25	23	18	8	37.5	34.5	25	10	50	46	30	12
24	26	24	20	10	39.0	36.0	25	10	52	48	35	12
25	27	25	20	10	40.5	37.5	25	10	54	50	35	12
26	28	26	20	10	42.0	39.0	30	12	56	52	40	12
27	29	27	20	10	43.5	40.5	30	12	58	54	40	12
28	30	28	20	10	45.0	42.0	30	12	60	56	40	12
29	31	29	20	10	46.5	43.5	30	12	62	58	40	14
30	32	30	20	10	48.0	45.0	30	12	64	60	40	14
31	33	31	25	10	49.5	46.5	35	12	66	62	45	14
32	34	32	25	10	51.0	48.0	35	12	68	64	45	14
33	35	33	25	10	52.5	49.5	35	12	70	66	45	14
34	36	34	25	10	54.0	51.0	35	12	72	68	45	14
35	37	35	25	10	55.5	52.5	35	12	74	70	45	14
36	38	36	25	10	57.0	54.0	35	12	76	72	45	14
37	39	37	25	10	58.5	55.5	40	12	78	74	50	14
38	40	38	25	10	60.0	57.0	40	12	80	76	50	14
39	41	39	25	10	61.5	58.5	40	12	82	78	50	14
40	42	40	25	10	63.0	60.0	40	12	84	80	50	14
41	43	41	30	10	64.5	61.5	40	12	86	82	55	16
42	44	42	30	10	66.0	63.0	50	12	88	84	55	16
43	45	43	30	10	67.5	64.5	50	12	90	86	55	16
44	46	44	30	10	69.0	66.0	50	12	92	88	60	16
45	47	45	30	10	70.5	67.5	50	12	94	90	60	16
46	48	46	30	10	72.0	69.0	50	14	96	92	60	16
47	49	47	30	10	73.5	70.5	50	14	98	94	70	16
48	50	48	30	10	75.0	72.0	50	14	100	96	70	16
49	51	49	30	10	76.5	73.5	50	14	102	98	70	16
50	52	50	30	12	78.0	75.0	50	14	104	100	70	16
51	53	51	40	12	79.5	76.5	60	14	106	102	70	16
52	54	52	40	12	81.0	78.0	60	14	108	104	70	16
53	55	53	40	12	82.5	79.5	60	14	110	106	70	16
54	56	54	40	12	84.0	81.0	60	14	112	108	70	16
55	57	55	40	12	85.5	82.5	60	14	114	110	70	16
56	58	56	40	12	87.0	84.0	60	16	116	112	70	16
57	59	57	40	12	88.5	85.5	60	16	118	114	70	16
58	60	58	40	12	90.0	87.0	60	16	120	116	70	16
59	61	59	40	12	91.5	88.5	60	16	122	118	70	16
60	62	60	40	12	93.0	90.0	60	16	124	120	70	16
61	63	61	50	12	94.5	91.5	70	16	126	122	80	16
62	64	62	50	12	96.0	93.0	70	16	128	124	80	16
63	65	63	50	12	97.5	94.5	70	16	130	126	80	16
64	66	64	50	12	99.0	96.0	70	16	132	128	80	16
65	67	65	50	12	100.5	97.5	70	16	134	130	80	16
66	68	66	50	12	102.0	99.0	70	16	136	132	80	16
67	69	67	50	12	103.5	100.5	70	16	138	134	80	16
68	70	68	50	12	105.0	102.0	70	16	140	136	80	16
69	71	69	50	12	106.5	103.5	70	16	142	138	80	16
70	72	70	50	12	108.0	105.0	70	16	144	140	80	16

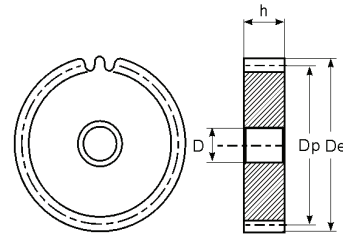
Z	M 2,5				M 3,0				M 4,0			
	De	Dp	d	D	De	Dp	d	D	De	Dp	d	D
12	35.0	30.0	22	10	42	36	27	12	56	48	35	14
13	37.5	32.5	25	10	45	39	30	12	60	52	40	14
14	40.0	35.0	28	10	48	42	33	12	64	56	45	14
15	42.5	37.5	30	10	51	45	35	12	68	60	45	14
16	45.0	40.0	32	12	54	48	38	14	72	64	50	16
17	47.5	42.5	35	12	57	51	42	14	76	68	50	16
18	50.0	45.0	35	12	60	54	45	14	80	72	50	16
19	52.5	47.5	35	12	63	57	45	14	84	76	60	16
20	55.0	50.0	40	12	66	60	45	14	88	80	60	16
21	57.5	52.5	40	14	69	63	45	16	92	84	70	16
22	60.0	55.0	45	14	72	66	50	16	96	88	70	16
23	62.5	57.5	45	14	75	69	50	16	100	92	75	20
24	65.0	60.0	45	14	78	72	50	16	104	96	75	20
25	67.5	62.5	50	14	81	75	60	16	108	100	75	20
26	70.0	65.0	50	14	84	78	60	16	112	104	75	20
27	72.5	67.5	50	14	87	81	60	16	116	108	75	20
28	75.0	70.0	50	14	90	84	60	16	120	112	75	20
29	77.5	72.5	50	14	93	87	60	16	124	116	75	20
30	80.0	75.0	55	14	96	90	60	16	128	120	75	20
31	82.5	77.5	55	16	99	93	60	16	132	124	80	20
32	85.0	80.0	55	16	102	96	70	16	136	128	80	20
33	87.5	82.5	55	16	105	99	70	16	140	132	80	20
34	90.0	85.0	55	16	108	102	70	16	144	136	80	20
35	92.5	87.5	60	16	111	105	70	16	148	140	80	20
36	95.0	90.0	60	16	114	108	70	20	152	144	80	25
37	97.5	92.5	60	16	117	111	70	20				
38	100.0	95.0	60	16	120	114	80	20				
39	102.5	97.5	60	16	123	117	80	20				
40	105.0	100.0	70	16	126	120	80	20				
41	107.5	102.5	70	16	129	123	80	20				
42	110.0	105.0	70	16	132	126	80	20				
43	112.5	107.5	70	16	135	129	80	20				
44	115.0	110.0	70	16	138	132	90	20				
45	117.5	112.5	70	16	141	135	90	20				
46	120.0	115.0	70	20	144	138	90	20				
47	122.5	117.5	80	20	147	141	100	20				
48	125.0	120.0	80	20	150	144	100	20				
49	127.5	122.5	80	20								
50	130.0	125.0	80	20								
51	132.5	127.5	80	20								
52	135.0	130.0	90	20								
53	137.5	132.5	90	20								
54	140.0	135.0	90	20								
55	142.5	137.5	90	20								
56	145.0	140.0	10	20								
57	147.5	142.5	100	20								
58	150.0	145.0	100	20								
59	152.5	147.5	100	20								
60	155.0	150.0	100	20								

Z	M 5,0				M 6,0			
	De	Dp	d	D	De	Dp	d	D
12	70	60	45	16	84	72	54	20
13	75	65	50	16	90	78	60	20
14	80	70	55	20				
15	85	75	60	20	102	90	70	20
16	90	80	65	20	108	96	75	20
17	95	85	70	20				
18	100	90	70	20	120	108	80	20
19	105	95	70	20				
20	110	100	80	20	132	120	90	20
21	115	105	80	20				
22	120	110	80	20				
23	125	115	90	20				
24	130	120	90	20	156	144	110	25
25	135	125	90	20	162	150	110	25
26	140	130	100	20				
27	145	135	100	20				
28	150	140	100	25				
29	155	145	110	25				
30	160	150	110	25				



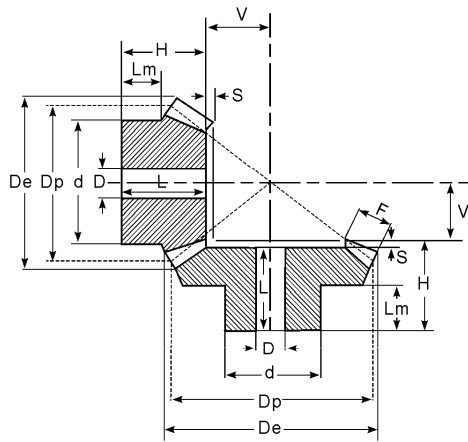
Tooth width "h" for different module:

- M1,0 = 15mm                      M3,0 = 30mm
- M1,5 = 17mm                      M4,0 = 40mm
- M2,0 = 20mm                      M5,0 = 50mm
- M2,5 = 25mm                      M6,0 = 50mm

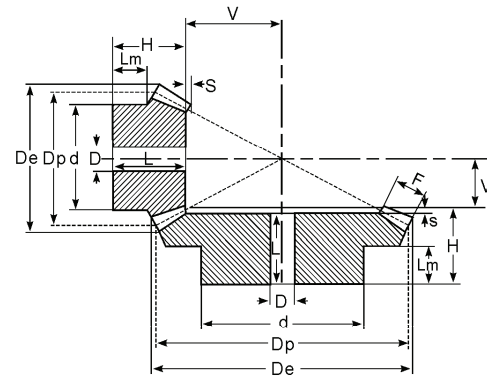


Z	M 1,0			M 1,5			M 2,0			M 2,5		
	De	Dp	D	De	Dp	D	De	Dp	D	De	Dp	D
65										167.5	162.5	20
70										180.0	175.0	20
72	74	72	12	111.0	108.0	16	148	144	16	185.0	180.0	20
75	77	75	12	115.5	112.5	16	154	150	20	192.5	187.5	20
76	78	76	12	117.0	114.0	16	156	152	20	195.0	190.0	20
80	82	80	12	123.0	120.0	16	164	160	20	205.0	200.0	25
85	87	85	12	130.5	127.5	16	174	170	20	217.5	212.5	25
90	92	90	12	138.0	135.0	16	184	180	20	230.0	225.0	25
95	97	95	12	145.5	142.5	16	194	190	20	242.5	237.5	25
100	102	100	12	153.0	150.0	16	204	200	20	255.0	250.0	25
110	112	110	12	168.0	165.0	16	224	220	20	280.0	275.0	25
114	116	114	12	174.0	171.0	16	232	228	20	290.0	285.0	25
120	122	120	12	183.0	180.0	16	244	240	20	305.0	300.0	25
127	129	127	12	193.5	190.5	16	258	254	20	322.5	317.5	25

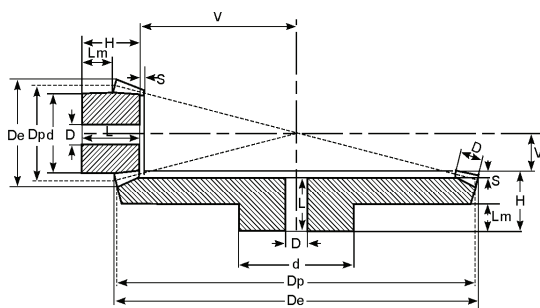
Z	M 3,0			M 4,0			M 5,0			M 6,0		
	De	Dp	D	De	Dp	D	De	Dp	D	De	Dp	D
28										180	168	25
30										192	180	25
32							170	160	25	204	192	25
35							185	175	25	222	210	25
38				160	152	25	200	190	25	240	220	25
40				168	160	25	210	200	25	252	240	25
45				188	180	25	235	225	25			
48				200	192	25	250	240	25			
50	156	150	20	208	200	25	260	250	30			
52	162	156	20	216	208	25	270	260	30			
55	171	165	20	228	220	25	285	275	30			
57	177	171	20	236	228	25	295	285	30			
60	186	180	20	248	240	25	310	300	30			
65	201	195	20	268	260	25	335	325	30			
70	216	210	25	288	280	25	360	350	30			
72	222	216	25									
75	231	225	25	308	300	25	385	375	30			
76	234	228	25	312	304	25	390	380	30			
80	246	240	25	328	320	25	410	400	30			
85	261	255	25	348	340	25	435	425	30			
90	276	270	25	368	360	25	460	450	30			
95	291	285	25	388	380	25	485	475	30			
100	306	300	25	408	400	25	510	500	30			
110	336	330	25	448	440	25	560	550	30			
114	348	342	30	464	456	25	580	570	30			
120	366	360	30									
127	387	381	30									



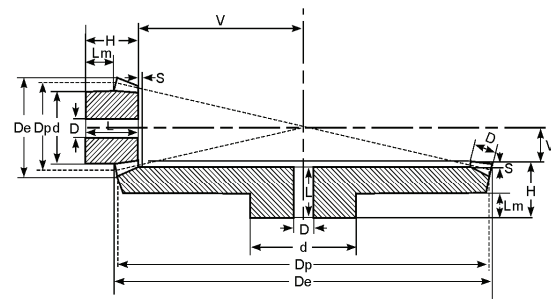
RATIO 1:1



RATIO 1:2



RATIO 1:3



RATIO 1:4

Ratio: 1:1

M	Z	De	Dp	H	F	d	D	V	L	Lm	S
1.5	16	26.1	24.0	18.9	6	20.3	8	7.10	16.9	12.0	2.0
1.5	20	32.1	30.0	20.0	10	22.0	10	7.40	18.0	8.5	2.0
1.5	22	35.1	33.0	20.0	10	25.0	10	10.20	18.0	9.7	2.0
1.5	25	39.6	37.5	23.0	10	28.0	10	11.09	21.0	12.0	2.0
1.5	30	47.1	45.0	25.0	12	30.0	12	13.35	22.5	12.0	2.5
2.0	16	34.8	32.0	23.5	8	25.3	10	9.50	20.5	14.0	3.0
2.0	20	42.8	40.0	25.0	12	32.0	10	10.78	22.0	12.0	3.0
2.0	22	46.8	44.0	25.0	12	36.0	10	12.70	22.0	11.7	3.0
2.0	25	52.8	50.0	28.0	14	40.0	12	14.28	25.0	12.3	3.0
2.0	30	62.8	60.0	30.0	16	50.0	12	17.78	27.0	12.8	3.0
2.5	16	43.5	40.0	28.1	10	30.3	12	11.90	25.1	15.0	3.5
2.5	20	53.5	50.0	30.5	12	40.0	12	15.43	27.0	16.0	3.5
2.5	22	58.5	55.0	30.5	12	45.0	12	17.80	27.0	15.9	3.5
2.5	25	66.0	62.5	33.5	15	50.0	15	19.48	30.0	16.0	3.5
2.5	30	78.5	75.0	35.5	18	55.0	15	23.63	32.0	16.0	3.5
3.0	16	52.2	48.0	31.7	12	40.3	15	14.30	28.0	18.0	4.0
3.0	20	64.2	60.0	35.0	18	45.0	15	16.00	31.0	13.6	4.0
3.0	22	70.2	66.0	35.0	18	50.0	15	19.00	31.0	13.0	4.0
3.0	25	79.2	75.0	38.0	20	55.0	15	22.00	34.0	16.0	4.0

Ratio: 1:1

M	Z	De	Dp	H	F	d	D	V	L	Lm	S
3.5	16	60.9	56.0	36.4	14	45.3	15	16.60	32.0	20.0	4.5
3.5	20	74.9	70.0	40.5	22	55.0	15	18.13	36.0	17.0	4.5
3.5	22	81.9	77.0	40.5	22	60.0	15	21.50	36.0	18.0	4.5
3.5	25	92.4	87.5	43.5	26	65.0	20	23.97	39.0	18.0	4.5
3.5	30	109.9	105.0	48.0	30	70.0	20	30.02	43.5	19.0	4.5
4.0	16	69.6	64.0	44.3	15	50.3	15	19.70	39.8	25.0	5.0
4.0	20	85.6	80.0	43.0	25	60.0	18	20.74	38.0	18.0	5.0
4.0	22	93.6	88.0	43.0	25	65.0	18	24.70	38.0	18.0	5.0
4.0	25	105.6	100.0	45.0	28	70.0	20	28.50	40.0	18.0	5.0
4.0	30	125.6	120.0	48.0	32	80.0	25	35.67	43.0	16.0	5.0
4.5	16	78.3	72.0	46.3	18	55.3	18	21.70	41.3	25.0	6.0
4.5	20	96.3	90.0	48.0	28	65.0	20	23.41	42.0	18.0	6.0
4.5	22	105.3	99.0	48.0	28	70.0	20	27.80	42.0	18.0	6.0
4.5	25	118.8	112.5	50.0	32	75.0	20	31.76	44.0	18.0	6.0
4.5	30	141.3	135.0	53.0	35	90.0	25	40.82	47.0	17.0	6.0
5	16	87.0	80.0	48.9	18	60.3	20	25.10	42.9	25.0	6.5
5	20	107.1	100.0	50.5	30	70.0	20	26.86	44.0	18.5	6.5
5	22	117.1	110.0	50.5	30	80.0	20	31.70	44.0	18.5	6.5
5	25	132.1	125.0	53.5	34	90.0	20	36.36	47.0	18.0	6.5
5	30	157.1	150.0	56.5	38	110.0	30	45.97	50.0	18.0	6.5

Ratio: 1:2

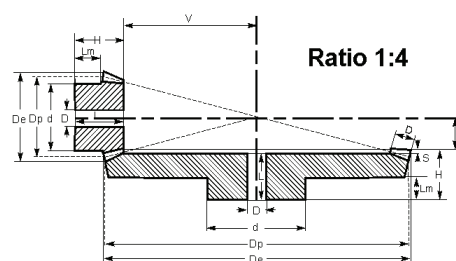
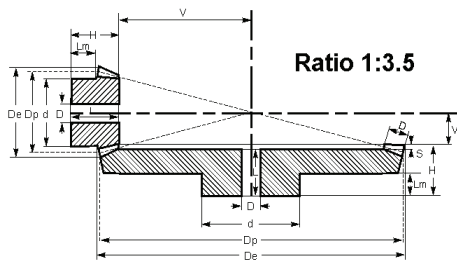
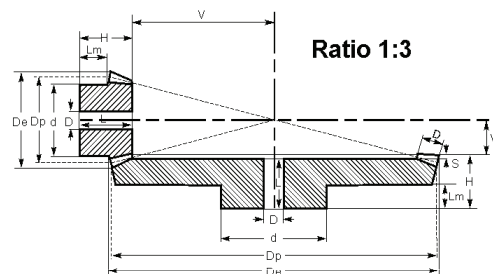
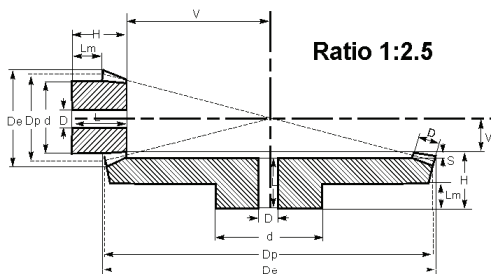
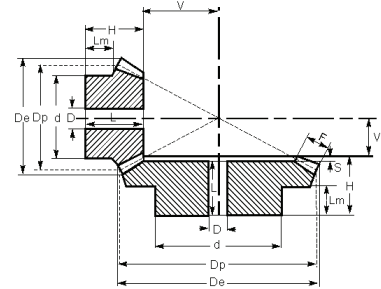
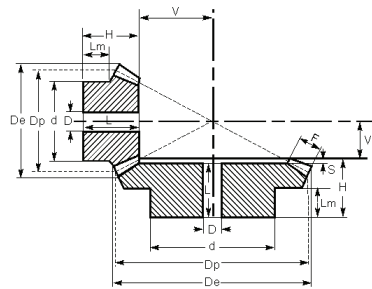
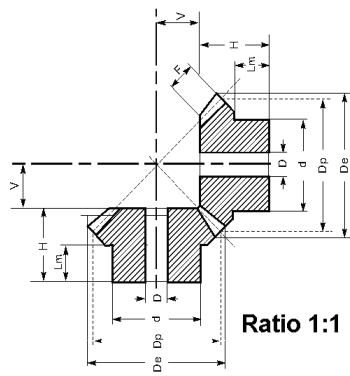
M	Z	De	Dp	H	F	d	D	V	L	Lm	S
1.5	16	26.7	24	19.5	8	21	10	16.33	18	11.3	1.5
1.5	32	49.3	48	20.0	8	32	12	7.45	17	10.0	3.0
2.0	16	35.6	32	23.0	10	26	10	22.41	21	12.2	2.0
2.0	32	65.8	64	25.0	10	40	12	10.21	21	10.0	4.0
2.5	16	44.4	40	27.5	12	34	12	28.38	25	14.4	2.5
2.5	32	82.2	80	25.0	12	50	15	14.10	20	10.0	5.0
3.0	16	53.4	48	28.0	15	40	15	33.64	25	11.6	3.0
3.0	32	98.7	96	30.0	15	60	15	15.31	24	10.0	6.0
3.5	16	62.3	56	33.5	18	48	15	38.83	30	14.4	3.5
3.5	32	115.1	112	31.0	18	70	20	17.77	24	10.0	7.0
4.0	16	71.1	64	36.0	20	50	20	44.81	32	13.4	4.0
4.0	32	131.6	128	32.0	20	80	20	20.42	24	10.0	8.0
4.5	16	80.1	72	39.5	22	60	20	51.00	35	15.4	4.5
4.5	32	148.0	144	36.0	22	90	25	23.21	27	10.0	9.0
5.0	16	88.9	80	50.0	25	60	20	56.06	45	21.1	5.0
5.0	32	164.5	160	38.0	25	100	25	25.52	28	10.0	10.0

Ratio: 1:3

M	Z	De	Dp	H	F	d	D	V	L	Lm	S
1.5	16	26.9	24	24.0	12	20	10	22.44	23.0	11.7	1.0
	48	72.9	72	20.0	12	50	15	7.27	17.0	10.0	3.0
2	16	35.8	32	28.5	15	26	12	33.26	27.0	12.4	1.5
	48	97.3	96	23.0	15	60	15	9.90	19.0	10.0	4.0
2.5	16	44.7	40	32.0	18	32	12	42.41	30.0	13.0	2.0
	48	121.6	120	23.0	18	70	20	13.23	21.0	10.0	5.0
3	16	53.7	48	32.0	18	40	15	54.25	30.0	12.1	2.0
	48	145.9	144	29.0	18	80	20	16.20	23.0	10.0	6.0
3.5	16	62.6	56	38.0	22	48	15	62.29	35.5	15.0	2.5
	48	170.2	168	31.0	22	90	20	18.48	24.0	10.0	7.0
4	16	71.6	64	41.5	25	55	20	71.23	38.5	15.2	3.0
	48	194.5	192	33.0	25	100	22	21.20	25.0	10.0	8.0
4.5	16	80.6	72	53.0	28	60	20	80.27	50.0	23.4	3.0
	48	218.6	216	49.0	28	100	25	23.30	40.0	18.0	9.0
5	16	89.5	80	60.0	35	60	20	85.61	57.0	22.5	3.0
	48	243.1	240	50.0	35	150	28	25.45	40.0	20.0	10.0

Ratio: 1:4

M	Z	De	Dp	H	F	d	D	V	L	Lm	S
1,5	16	26,9	24	25	12	18	10	36,02	24	12,2	1
	64	96,7	96	22	12	70	15	8,53	19	10	3
2	16	35,9	32	24	15	25	12	49,07	23	8,2	1
	64	129,0	128	24	15	80	20	11,79	20	10	4
2,5	16	44,9	40	30,5	18	30	15	61,99	26	8,2	1,5
	64	161,2	160	29	18	90	20	13,77	24	10	5
3	16	53,8	48	34	22	40	15	74,05	32	11	2
	64	193,5	192	30	22	100	20	16,41	24	10	6
3,5	16	62,8	56	45	25	48	15	87,13	43	19,1	2
	64	225,7	224	50	25	100	25	19,32	43	22	7
4	16	71,7	65	50	30	50	20	98,21	48	18,5	2
	64	257,9	256	50	30	120	28	21,72	42	20	8
4,5	16	80,7	72	53	32	55	20	112,08	50,5	19	2,5
	64	290,1	288	53	32	130	30	24,83	44	23	9
5	16	89,7	80	58	35	60	20	125,06	55,5	20,6	2,5
	64	322,4	320	58	35	150	30	27,65	48	25	2,5



**Ratio: 1:1**

M	Z	De	Dp	H	F	d	D	V	Lm
1.0	16	17.4	16.0	11.2	4.0	13.3	4	4.80	6.5
1.0	19	20.4	19.0	11.8	4.0	15.3	4	6.20	6.5
1.0	22	23.4	22.0	12.8	4.7	16.3	5	7.20	6.5
1.0	26	27.4	26.0	13.3	5.5	20.3	5	8.70	7.0
1.0	30	31.4	30.0	16.0	6.4	20.3	5	10.00	8.0
1.5	16	26.1	24.0	18.9	6.0	20.3	8	7.10	12.0
1.5	19	30.6	28.5	21.3	7.0	20.3	8	8.70	12.0
1.5	22	35.1	33.0	22.5	7.5	25.3	8	10.50	12.0
1.5	26	41.1	39.0	23.2	8.5	28.3	8	12.80	12.0
1.5	30	47.1	45.0	27.2	10.0	30.3	12	14.80	12.0
2.0	16	34.8	32.0	23.5	8.0	25.3	8	9.50	14.0
2.0	19	40.8	38.0	24.2	9.0	25.3	8	11.80	12.0
2.0	22	46.8	44.0	27.9	10.0	30.3	12	14.10	14.0
2.0	26	54.8	52.0	31.4	12.0	35.3	12	16.60	14.0
2.0	30	62.8	60.0	34.1	13.0	40.3	14	19.90	17.0
2.5	16	43.5	40.0	28.1	10.0	30.3	12	11.90	15.0
2.5	19	51.0	47.5	27.1	11.0	35.3	12	14.90	13.0
2.5	22	58.5	55.0	30.1	12.0	45.3	16	17.90	16.0
2.5	26	68.5	65.0	33.2	15.0	45.3	16	20.80	16.0
2.5	30	78.5	75.0	39.0	16.0	50.3	16	25.00	20.0

Ratio: 1:1

M	Z	De	Dp	H	F	d	D	V	Lm
3.0	16	52.5	48.0	31.70	12.0	40.3	12	14.30	18
3.0	19	61.2	57.0	36.00	13.0	40.3	14	18.00	17
3.0	22	70.2	66.0	36.90	15.0	50.3	16	21.10	17
3.0	26	82.2	78.0	38.40	17.0	50.3	16	25.60	18
3.0	30	94.2	90.0	43.80	19.0	60.3	20	30.20	22
3.5	16	60.9	56.0	36.40	14.0	45.3	16	16.60	20
3.5	19	71.5	66.5	37.80	15.0	50.3	18	21.00	19
3.5	22	81.9	77.0	39.10	17.0	55.3	20	24.90	18
3.5	26	96.0	91.0	43.35	20.0	62.3	20	29.70	20
3.5	30	110.0	105.0	47.10	23.0	70.3	20	34.90	22
4.0	16	69.7	64.0	44.30	15.0	50.3	16	19.70	25
4.0	19	81.7	76.0	44.40	18.0	55.3	20	23.60	22
4.0	22	93.7	88.0	45.90	20.0	60.3	20	28.10	22
4.0	26	109.7	104.0	48.00	25.0	70.3	20	34.00	22
4.0	30	125.7	120.0	54.20	26.0	80.3	25	39.80	25
4.5	16	78.4	72.0	46.30	17.5	55.3	20	21.70	25
4.5	19	91.8	85.5	49.00	20.0	62.3	20	26.57	25
4.5	22	105.3	99.0	50.10	22.0	70.3	20	31.90	25
4.5	26	123.0	117.0	54.70	25.0	75.3	20	38.60	26
4.5	30	141.4	135.0	60.00	29.0	80.3	25	45.00	28
5.0	16	87.1	80.0	48.90	18.0	60.3	20	25.10	25
5.0	19	102.1	95.0	52.20	22.0	60.3	20	29.80	25
5.0	22	117.1	110.0	58.20	24.0	80.3	25	35.80	30
5.0	26	137.1	130.0	62.70	29.0	80.3	25	42.30	30
5.0	30	157.1	150.0	68.90	32.0	80.3	30	50.10	35

Ratio: 1:1.5

M	Z	De	Dp	H	F	d	D	V	L	Lm	S
1.0	16	18.1	16	12.0	4.3	13.3	4	8.0		7.0	
1.0	24	24.8	24	14.8	4.3	20.3	5	5.2	13.3	9.3	1.5
1.5	16	27.1	24	20.3	8.0	20.3	8	10.7		11.8	
1.5	24	37.2	36	24.9	8.0	28.3	8	7.1	22.7	16.0	2.2
2.0	16	36.2	32	25.2	10.0	25.3	8	14.8		13.8	
2.0	24	49.7	48	27.2	10.0	32.3	8	9.8	24.7	16.0	2.5
2.5	16	45.2	40	30.8	13.0	32.3	12	18.2		16.4	
2.5	24	62.1	60	34.0	13.0	45.3	16	12.0	30.8	20.0	3.2
3.0	16	54.3	48	32.4	14.5	40.3	12	22.6		16.4	
3.0	24	74.5	72	36.2	14.5	55.3	16	14.8	32.0	20.0	4.2
3.5	16	63.3	56	40.4	18.0	45.3	16	25.6		20.4	
3.5	24	86.9	84	44.2	18.0	55.3	20	16.8	40.0	25.0	4.2
4.0	16	72.4	64	46.8	18.0	50.3	16	31.2		25.4	
4.0	24	99.3	96	45.5	18.0	60.3	20	20.5	40.0	25.0	5.5
4.5	16	81.4	72	47.6	20.0	60.3	20	35.4		25.1	
4.5	24	111.7	108	57.8	20.0	80.3	25	23.2	51.3	35.0	6.5
5.0	16	90.5	80	54.1	24.0	60.3	25	37.9		25.4	
5.0	24	124.1	120	61.1	24.0	80.3	30	24.9	54.5	35.0	6.6

Ratio: 1:2

M	Z	De	Dp	H	F	d	D	V	L	Lm	S
1.0	15	17.4	15.0	11.9	5.0	13.3	4	10.1		6.5	
1.0	30	30.6	30.0	15.1	5.0	20.3	5	4.9	13.7	9.0	1.4
1.5	15	26.1	22.5	21.1	9.0	19.3	8	13.9		11.9	
1.5	30	45.9	45.0	25.2	9.0	32.3	8	6.8	23.0	16.0	2.2
2.0	15	34.8	30.0	26.0	11.5	25.3	8	19.0		14.1	
2.0	30	61.2	60.0	29.8	11.5	40.3	14	9.2	26.8	18.0	3.0
2.5	15	43.5	37.5	31.8	15.0	32.3	12	23.2		16.2	
2.5	30	76.5	75.0	33.7	15.0	45.3	16	11.3	30.0	20.0	3.7
3.0	15	52.2	45.0	37.3	17.0	40.3	12	28.7		19.9	
3.0	30	91.8	90.0	42.1	17.0	55.3	16	13.9	38.0	25.0	4.1
3.5	15	60.9	52.5	46.1	20.5	45.3	16	32.9		24.7	
3.5	30	107.1	105.0	45.0	20.5	60.3	20	16.0	40.0	25.0	5.0
4.0	15	69.6	60.0	48.6	22.5	50.3	20	38.4		24.6	
4.0	30	122.3	120.0	57.3	22.5	80.3	25	18.7	51.9	35.0	5.4
4.5	15	78.3	67.5	51.4	26.0	60.3	20	42.6		24.7	
4.5	30	137.6	135.0	60.3	26.0	80.3	30	20.7	54.3	35.0	6.0
5.0	15	87.0	75.0	57.6	30.0	60.3	25	46.4		25.3	
5.0	30	152.9	150.0	62.5	30.0	80.3	30	22.5	56.0	35.0	6.5

Ratio: 1:2.5

M	Z	De	Dp	H	F	d	D	V	L	Lm	S
1.0	16	18.6	16	14.4	6.5	13.3	4	13.6		7.4	
1.0	40	40.4	40	14.8	6.5	25.3	8	5.2	13.0	9.0	1.8
1.5	16	27.9	24	24.2	11.5	20.3	8	18.8		12.3	
1.5	40	60.7	60	27.8	11.5	40.3	14	7.2	25.5	18.0	2.3
2.0	16	37.2	32	29.6	15.0	25.3	8	25.4		13.7	
2.0	40	80.9	80	32.4	15.0	45.3	16	9.6	29.0	20.0	3.4
2.5	16	46.4	40	38.4	19.0	32.3	12	31.6		18.5	
2.5	40	101.1	100	39.8	19.0	55.3	16	12.2	35.9	25.0	3.9
3.0	16	55.7	48	41.9	21.5	40.3	16	39.1		19.6	
3.0	40	121.4	120	47.9	21.5	60.3	20	15.1	44.0	3.0	3.9
3.5	16	65.0	56	49.1	22.6	45.3	20	47.9		25.0	
3.5	40	141.6	140	54.6	22.6	80.3	25	18.4	50.0	35.0	4.6
4.0	16	74.3	64	52.5	26.0	55.3	20	54.5		25.3	
4.0	40	161.8	160	57.0	26.0	80.3	30	21.0	50.5	35.0	6.5
4.5	16	83.6	72	56.3	30.0	60.3	25	60.7		24.6	
4.5	40	182.1	180	59.7	30.0	80.3	30	23.3	53.0	35.0	6.7
5.0	16	92.9	80	65.4	32.0	60.3	25	68.6		30.1	
5.0	40	202.3	200	65.7	32.0	90.3	30	26.3	58.3	40.0	7.4

**Ratio: 1:3**

M	Z	De	Dp	H	F	d	D	V	L	Lm	S
1.0	15	17.7	15.0	16.6	7.1	13.3	4	15.4		9.2	
1.0	45	45.3	45.0	17.1	7.1	25.3	8	4.9	15.2	10.0	1.9
1.5	15	26.5	22.5	22.6	10.5	19.3	8	23.4		11.7	
1.5	45	68.1	67.5	29.6	10.5	45.3	14	7.4	34.6	20.0	2.4
2.0	15	35.4	30.0	28.9	14.0	25.3	8	31.1		14.2	
2.0	45	90.8	90.0	32.1	14.0	45.3	16	9.9	28.4	20.0	3.7
2.5	15	44.1	37.5	34.6	18.0	32.3	12	38.4		15.9	
2.5	45	113.4	112.5	39.7	18.0	60.3	20	12.3	35.3	25.0	4.4
3.0	15	53.0	45.0	41.3	21.0	40.3	16	46.7		19.7	
3.0	45	136.1	135.0	47.2	21.0	60.3	25	14.8	42.0	30.0	5.2
3.5	15	61.9	52.5	49.6	23.5	45.3	20	55.4		25.0	
3.5	45	158.8	157.5	54.4	23.5	80.3	25	17.6	48.6	35.0	5.8
4.0	15	70.7	60.0	54.3	27.5	50.3	20	62.7		25.4	
4.0	45	181.5	180.0	57.0	27.5	80.3	30	20.0	50.5	35.0	6.5
4.5	15	79.5	67.5	55.2	28.5	55.3	25	72.8		24.8	
4.5	45	204.2	202.5	63.9	28.5	90.3	30	23.1	57.0	40.0	6.9
5.0	15	88.4	75.0	65.3	33.0	60.3	25	79.7		30.0	
5.0	45	226.9	225.0	66.7	33.0	90.3	30	25.3	59.2	40.0	7.5

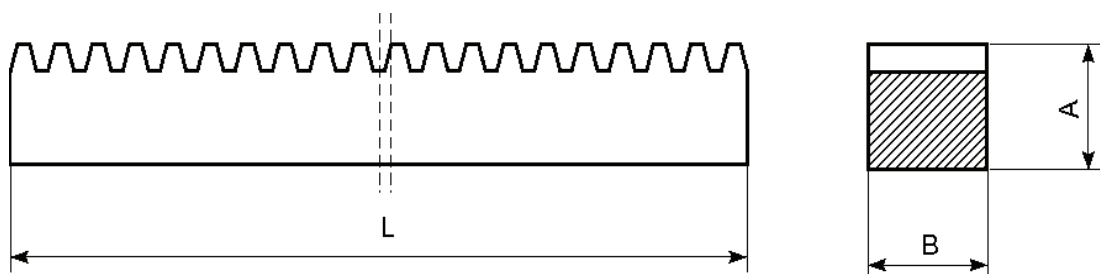
**Ratio: 1:3.5**

M	Z	De	Dp	H	F	d	D	V	L	Lm	S
1.0	16	18.7	16	16.6	8.7	13.3	4	19.4		7.6	
1.0	56	56.3	56	16.7	8.7	30.3	8	5.3	14.2	10.0	2.5
1.5	16	28.1	24	24.0	12.0	20.3	8	30.0		11.5	
1.5	56	84.5	84	34.8	12.0	45.3	14	8.2	32.0	25.0	2.8
2.0	16	37.5	32	30.9	16.0	25.3	8	40.1		14.1	
2.0	56	112.6	112	37.1	16.0	55.3	16	10.9	33.3	25.0	3.8
2.5	16	46.8	40	38.9	20.0	32.3	14	50.1		17.9	
2.5	56	140.8	140	44.4	20.0	60.3	20	13.6	40.0	30.0	4.4
3.0	16	56.2	48	49.9	24.0	40.3	16	60.1		24.9	
3.0	56	169.0	168	52.7	24.0	80.3	25	16.3	47.5	35.0	5.2
3.5	16	65.6	56	52.0	25.0	25.5	20	73.0		25.5	
3.5	56	197.1	196	55.1	25.0	80.3	25	19.9	49.1	35.0	6.0

**Ratio: 1:4**

M	Z	De	Dp	H	F	d	D	V	L	Lm	S
1.0	15	17.80	15.0	17.2	9.3	13.3	4	20.8		7.7	
1.0	60	60.30	60.0	17.1	9.3	30.3	8	4.9	15.2	10.0	1.9
1.5	15	26.70	22.5	23.0	11.0	20.3	8	34.0		11.7	
1.5	60	90.40	90.0	34.0	11.0	50.3	16	8.0	31.2	25.0	2.8
2.0	15	35.60	30.0	31.0	16.0	25.3	8	44.0		14.4	
2.0	60	120.60	120.0	37.6	16.0	60.3	16	10.4	24.2	25.0	3.4
2.5	15	44.50	37.5	38.1	19.0	32.3	14	55.9		18.4	
2.5	60	150.70	150.0	44.8	19.0	60.3	20	13.2	40.0	30.0	4.8
3.0	15	53.30	45.0	48.1	23.0	40.3	16	66.9		24.5	
3.0	60	100.80	180.0	53.2	23.0	80.3	25	15.8	48.2	35.0	5.0
3.5	15	62.20	52.5	52.1	26.0	45.3	20	78.9		25.1	
3.5	60	211.00	210.0	60.4	26.0	90.3	30	18.6	54.4	40.0	6.0
4.0	15	71.10	60.0	55.1	30.0	50.3	20	89.9		23.0	
4.0	60	241.10	240.0	60.8	30.0	90.3	30	21.2	53.0	40.0	7.8
4.5	15	79.97	67.5	57.0	32.0	52.3	20	102.9		23.0	
4.5	60	271.24	270.0	62.0	32.0	90.3	30	24.3	53.5	40.0	8.5
5.0	15	88.80	75.0	62.0	34.0	55.3	20	115.7		25.0	
5.0	60	301.30	300.0	65.0	34.0	90.3	30	27.0	55.0	40.0	10.0

European standard racks from M1.0 - M16, pressure angle 20° with maximum length of 3.0 meters



**STANDARD SIZES EX STOCK ( C45 STEEL)**

Module.	A X B	LENGTH					
		Teeth No.	Actual length	Teeth No.	Actual length	Teeth No.	Actual length
1.0	15X15	159	449.51	318	999.02	636	1998.05
1.5	17X17	106	449.51	212	999.02	424	1998.05
2.0	20X20	80	502.65	159	999.02	318	1998.05
2.5	25X25	64	502.65	127	997.45	255	2002.77
3.0	30X30	53	499.51	106	999.02	212	1998.05
4.0	25X25	40	502.65	80	1005.31	159	1998.05
4.0	30X30	40	502.65	80	1006.00	159	1998.05
4.0	40X40	40	502.65	80	1005.31	159	1998.05
5.0	50X50	32	502.65	64	1005.31	128	2010.31
6.0	60X60	27	508.93	53	999.02	106	1998.05
8.0	80X80	20	502.65	40	1005.31	80	2010.62

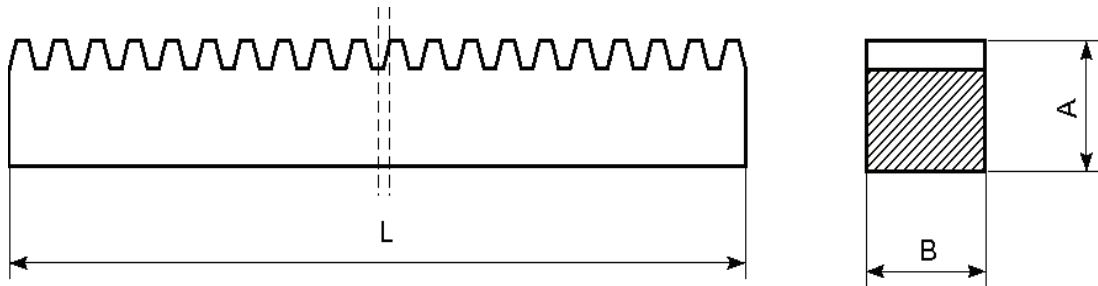
Grade of tothing 8-9 according to DIN standard 3962,

Tolerance on single pitch +/- 20µm;

Tolerance on sum of pitches for 500mm rack +/- 30µm;

According to AGMA grade 8-9;

American standard racks from DP20 - DP3, pressure angle 14.5° / 20°



**STANDARD SIZES EX STOCK ( C45 STEEL)**

DP	Pressure angle	A X B (inch)	Length (inches)	Wt. (LBS)
20	14.5° or 20°	3/8 X 3/8	49	1.60
20	14.5° or 20°	3/8 X 3/8	73	2.40
16	14.5° or 20°	1/2 X 1/2	49	2.80
16	14.5° or 20°	1/2 X 1/2	73	4.20
12	14.5° or 20°	3/4 X 1/2	49	4.40
12	14.5° or 20°	3/4 X 1/2	73	6.90
12	14.5° or 20°	3/4 X 3/4	49	6.60
12	14.5° or 20°	3/4 X 3/4	73	10.40
10	14.5° or 20°	1 X 5/8	49	7.50
10	14.5° or 20°	1 X 5/8	73	11.30
10	14.5° or 20°	1 X 1	49	12.00
10	14.5° or 20°	1 X 1	73	18.00
8	14.5° or 20°	1 1/4 X 3/4	49	10.60
8	14.5° or 20°	1 1/4 X 3/4	73	15.70
8	14.5° or 20°	1 1/4 X 1 1/4	49	17.60
8	14.5° or 20°	1 1/4 X 1 1/4	73	26.20
6	14.5° or 20°	1 1/2 X 1	49	17.50
6	14.5° or 20°	1 1/2 X 1	73	26.20
6	14.5° or 20°	1 1/2 X 1 1/2	49	26.40
6	14.5° or 20°	1 1/2 X 1 1/2	73	39.20
5	14.5° or 20°	1 3/4 X 1 1/4	49	24.30
5	14.5° or 20°	1 3/4 X 1 1/4	73	35.90
4	14.5° or 20°	2 X 1 1/2	49	35.60
4	14.5° or 20°	2 X 1 1/2	73	52.90
4	14.5° or 20°	2 X 2	49	47.40
4	14.5° or 20°	2 X 2	73	70.50
3	14.5° or 20°	3 X 1 1/2	49	47.40
3	14.5° or 20°	3 X 1 1/2	73	70.50