DiC TOOLS

A Brand by Dedicated Impex Co.

HSS & CARBIDE GEAR HOBS



DiC TOOLS
A Brand by Dedicated Impex Co.

INDEX...

HSS & Carbide Gear Hobs — Page No. (04-162)

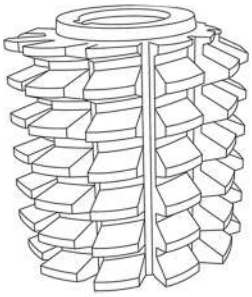
DP 14.5° PA° Gear Hobs 04-15
DP 20° PA Gear Hobs 16-46
DP 22.5° PA Gear Hobs 47
DP 20° PA Gear Hobs 48-49
DP 25° PA Gear Hobs 50-55
DP 30° PA Gear Hobs 56-64
DP 37.5° PA Gear Hobs 65-66
DP 45° PA Gear Hobs 66-67
Module 14.5° PA Gear Hobs 68
Module 15° PA Gear Hobs 69
Module 20° PA Gear Hobs 70-78
Module 25° PA Gear Hobs 79-82
Module 30° PA Gear Hobs 83
Module 20° PA Gear Hobs 84
Module 30° PA Gear Hobs 85-91
Module 37.5° PA Gear Hobs 92
Module 45° PA Gear Hobs 93
Circular Pitch 14.5° PA Gear Hobs 94
Circular Pitch 20° PA Gear Hobs 95-96
Circular Pitch 25° PA Gear Hobs 97
Transverse Pitch 20° PA for 15° Helix Angle 97-98
Transverse Pitch 20° PA for 10° Helix Angle 98-99
Transverse Pitch 20 ° PA for 15 ° Helix Angle 100-101
Transverse Pitch 20 ° PA for 20 ° Helix Angle 102-103
Transverse Pitch 20 ° PA for 23 ° Helix Angle 104
Transverse Pitch 20 ° PA for 30 ° Helix Angle 105
Transverse Pitch 14.5 ° PA for 45 ° Helix Angle 106
Transverse Pitch 20 ° PA for 45 ° Helix Angle 107
20 ° PA Transverse DP for 15 ° & 20° Helix Angle 108
20 ° PA Transverse DP for 15 ° & 20° Helix Angle 109
20 ° PA Transverse DP for 30° Helix Angle 109
20 ° PA Transverse DP for 45° Helix Angle 110
14.5 ° Normal Pressure Angle Transverse CP for 1B 0 Helix Angle 110
Topping Worm Gear Shell Type 14.5 ° PA Axial DP 111
Topping Worm Gear Shank Type 14.5 ° PA Axial DP 112
Topping Worm Gear Shell Type 20 ° PA Axial DP 113-114

INDEX...

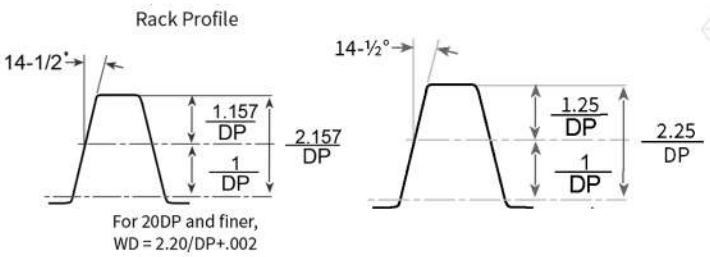
HSS & Carbide Gear Hobs

Topping Worm Gear Shell Type 25 ° PA Axial DP	115
Topping Worm Gear Shell Type 20 ° PA Axial CP	116
Topping Worm Gear Shell Type 14.5° PA	117
Topping Worm Gear Shell Type 20 ° PA	118-119
Topping Worm Gear Shank Type 20 ° PA Axial MOD	120
Topping Worm Gear Shank Type 25° PA Axial MOD	121
Topping Worm Gear Shell Type 14.5° PA Axial CP	121
36 Tooth Straight Sided Serrations Hob	122
48 Tooth Straight Sided Serrations Hob	123
British Straight Sided Serrations Hob	124
55° & 60 ° Angle Serrations Hob Per DIN 5481	125
6 Straight Sided Spline Hob	126-127
10 Straight Sided Spline Hob	128
Metric Straight Sided Spline Hob	129-130
Roller Chain Hob	131-132
American Standard Roller Chain Hob	133
Roller Chain Hob	134
Timing Belt Pulley Hob	135-142
Silent Chain Hob	143
Hobs	144
Hobs for Involute Gear Forms	145-148
Heavy Duty Roughing Hobs	149-150
Skiving Hobs	151-153
Solid Carbide Hobs	154-159
Heavy Duty Roughing Hobs	160
Involute Gear Cutters	161-162

DP 14.5° PA° Gear Hobs



Finishing Non-Topping
Right and left Thread
Single Thread



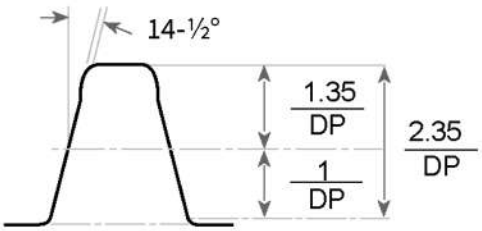
DP	PA	OD	Length	Bore	# of Leads	WD
1	14.5°	10-3/4	15	2-1/2	1	2.157
1	14.5°	10	12-1/2	2	1	2.157
1-1/4	14.5°	8-3/4	12	2	1	1.726
1-1/4	14.5°	8-1/4	10-1/2	1-1/2	1	1.726
1-1/4	14.5°	9	10-1/2	2	1	1.800
1-1/2	14.5°	8	10	2	1	1.438
1-1/2	14.5°	7-1/2	7-3/4	1-1/2	1	1.438
1-1/2	14.5°	8	9-1/4	1-1/2	1	1.500
1-3/4	14.5°	7-1/4	9	2	1	1.233
1-3/4	14.5°	6-3/4	8	1-1/2	1	1.233
2	14.5°	5-3/4	8	1-1/2	1	1.079
2	14.5°	5-1/4	6	1-1/4	1	1.079
2	14.5°	6-1/2	8	1-1/2	1	1.125
2-1/4	14.5°	5-1/2	7-1/2	1-1/2	1	.959
2-1/4	14.5°	5-1/4	6	1-1/2	1	.959
2-1/2	14.5°	5	7	1-1/2	1	.863
2-1/2	14.5°	4-3/4	5	1-1/4	1	.863
2-1/2	14.5°	6	7	1-1/2	1	.900
2-3/4	14.5°	5	6	1-1/2	1	.784
2-3/4	14.5°	4-3/4	5	1-1/4	1	.784
3	14.5°	4-1/2	5	1-1/4	1	.719
3	14.5°	4	4	1-1/4	1	.719
3	14.5°	4-1/2	5	1-1/4	1	.750
3-1/2	14.5°	4-1/4	4-3/4	1-1/4	1	.616
4	14.5°	4	4	1-1/4	1	.539
4	14.5°	4-1/2	5	1-1/4	1	.563
4-1/2	14.5°	3-1/2	3-1/2	1-1/4	1	.479
5	14.5°	3-1/2	3-1/2	1-1/4	1	.431
5	14.5°	3-1/2	3-1/2	1-1/4	1	.450
5-1/2	14.5°	3-1/2	3-1/2	1-1/4	1	.392
6	14.5°	3-1/2	3-1/2	1-1/4	1	.360
6	14.5°	4-1/2	4-1/2	1-1/2	1	.375
6-1/2	14.5°	3-1/2	3-1/2	1-1/4	1	.332
7	14.5°	3-1/2	3-1/2	1-1/4	1	.308
8	14.5°	3	3	1-1/4	1	.270

Continue...

DP	PA	OD	Length	Bore	# of Leads	WD
8	14.5°	3	3	1-1/4	1	.281
8	14.5°	3	3	1-1/4	2	.270
8-1/2	14.5°	3	3	1-1/4	1	.254
9	14.5°	3	3	1-1/4	1	.240
10	14.5°	3	3	1-1/4	1	.216
10	14.5°	3	3	1-1/4	1	.225
10	14.5°	3	3	1-1/4	2	.216
11	14.5°	2-3/4	2-3/4	1-1/4	1	.196
12	14.5°	2-3/4	2-3/4	1-1/4	1	.180
12	14.5°	2-3/4	2-3/4	1-1/4	1	.188
13	14.5°	2-3/4	2-3/4	1-1/4	1	.166
14	14.5°	2-1/2	2-1/2	1-1/4	1	.154
14	14.5°	2-1/2	2-1/2	1-1/4	1	.161
16	14.5°	2-1/2	2-1/2	1-1/4	1	.135
18	14.5°	2-1/2	2-1/2	1-1/4	1	.120
20	14.5°	2-1/2	2	1-1/4	1	.112
24	14.5°	2-1/2	2	1-1/4	1	.094
26	14.5°	2-1/2	2	1-1/4	1	.087
28	14.5°	2-1/2	2	1-1/4	1	.081
30	14.5°	2-1/2	2	1-1/4	1	.075
32	14.5°	2-1/2	2	1-1/4	1	.071
40	14.5°	2-1/2	2	1-1/4	1	.057
48	14.5°	2-1/2	2	1-1/4	1	.048

DP 14.5° PA Gear Hobs

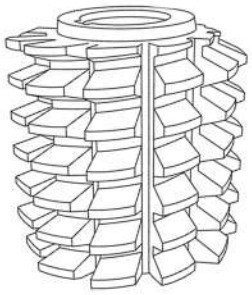
Pre-Shave & Pre-Grind Non-Topping,
Single Thread Right Hand



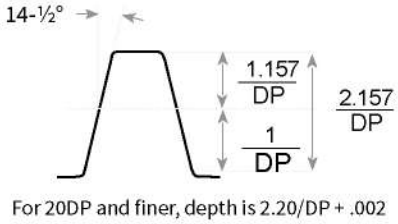
For 20DP and finer,
WD = 2.40/DP+.002

DP	PA	OD	Length	Bore	WD
3	14.5°	4-1/2	5	1-1/4	.783
4	14.5°	4	4	1-1/4	.588
5	14.5°	3-1/2	3-1/2	1-1/4	.470
6	14.5°	3-1/2	3-1/2	1-1/4	.392
8	14.5°	3	3	1-1/4	.294
10	14.5°	3	3	1-1/4	.235
12	14.5°	2-3/4	2-3/4	1-1/4	.196
14	14.5°	2-1/2	2-1/2	1-1/4	.168
16	14.5°	1-7/8	1-7/8	3/4	.147
16	14.5°	2-1/2	2-1/2	1-1/4	.147
18	14.5°	2-1/2	2	1-1/4	.131
20	14.5°	2-1/2	2	1-1/4	.122
24	14.5°	1-7/8	1-7/8	3/4	.102
24	14.5°	2-1/2	2	1-1/4	.102

DP 14.5° PA Gear Hobs



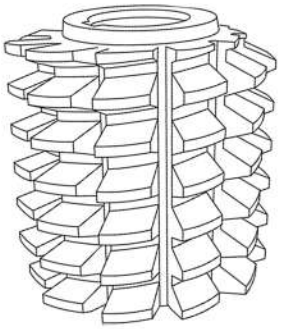
Finishing, Non Topping
Single Lead Right & Left Hand
3/4"Bore & 1 Taper Bore



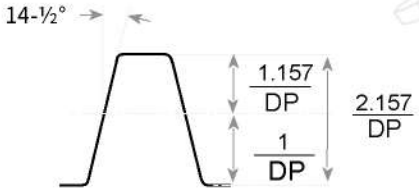
For 20DP and finer, depth is 2.20/DP + .002

DP	PA	OD	Length	Bore	WD
8	14.5°	2	2	3/4	.270
10	14.5°	1-7/8	1-7/8	3/4	.216
11	14.5°	1-7/8	1-7/8	3/4	.196
12	14.5°	1-7/8	1-7/8	3/4	.180
13	14.5°	1-7/8	1-7/8	3/4	.166
14	14.5°	1-7/8	1-7/8	3/4	.154
14	14.5°	1-7/8	1-7/8	#1 Taper	.154
15	14.5°	1-7/8	1-7/8	3/4	.144
16	14.5°	1-7/8	1-7/8	3/4	.135
18	14.5°	1-7/8	1-7/8	3/4	.120
20	14.5°	1-7/8	1-7/8	3/4	.112
22	14.5°	1-7/8	1-7/8	3/4	.102
24	14.5°	1-7/8	1-7/8	3/4	.094
26	14.5°	1-7/8	1-7/8	3/4	.087
28	14.5°	1-7/8	1-7/8	3/4	.081
30	14.5°	1-7/8	1-7/8	3/4	.075
32	14.5°	1-7/8	1-7/8	3/4	.071
34	14.5°	1-7/8	1-7/8	3/4	.067
36	14.5°	1-7/8	1-7/8	3/4	.063
36	14.5°	1-7/8	1-7/8	#1 Taper	.063
38	14.5°	1-7/8	1-1/2	3/4	.060
38	14.5°	1-7/8	1-1/2	#1 Taper	.060
40	14.5°	1-7/8	1-1/2	3/4	.057
42	14.5°	1-7/8	1-1/2	3/4	.054
42	14.5°	1-7/8	1-1/2	#1 Taper	.054
48	14.5°	1-7/8	1-1/2	3/4	.048
48	14.5°	1-7/8	1-1/2	#1 Taper	.048
50	14.5°	1-7/8	1-1/2	#1 Taper	.046
64	14.5°	1-5/8	1-1/2	3/4	.036
64	14.5°	1-5/8	1-1/2	#1 Taper	.036
72	14.5°	1-5/8	1-1/2	#1 Taper	.033
96	14.5°	1-5/8	1-1/2	3/4	.025
96	14.5°	1-1/2	1	#1 Taper	.025
120	14.5°	1-1/2	3/4	3/4	.020
120	14.5°	1-1/2	1	#1 Taper	.020

DP 14.5° PA Gear Hobs



Finishing, Topping
Right & Left Hand



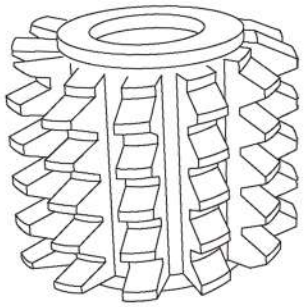
Root of Hob will form O.D. of part.
18 DP and finer WD = 2.2/DP+.002

DP	PA	OD	Length	Bore	WD
3	14.5°	4-1/2	5	1-1/4	.719
3 1/2	14.5°	4-1/4	4-3/4	1-1/4	.616
4	14.5°	4	4	1-1/4	.539
5	14.5°	3-1/2	3-1/2	1-1/4	.431
6	14.5°	3-1/2	3-1/2	1-1/4	.360
8	14.5°	3	3	1-1/4	.270
8	14.5°	3-3/4	3-3/4	1-1/4	.270
10	14.5°	3	3	1-1/4	.216
10	14.5°	3-1/2	3-1/2	1-1/4	.216
10	14.5°	1-7/8	1-7/8	3/4	.216
12	14.5°	2-3/4	2-3/4	1-1/4	.180
12	14.5°	1-7/8	1-7/8	3/4	.180
14	14.5°	2-1/2	2-1/2	1-1/4	.154
16	14.5°	2-1/2	2-1/2	1-1/4	.135
16	14.5°	1-7/8	1-7/8	3/4	.135
18	14.5°	1-7/8	1-7/8	3/4	.124
20	14.5°	1-7/8	1-7/8	3/4	.112
24	14.5°	1-7/8	1-7/8	3/4	.094
26	14.5°	1-7/8	1-7/8	3/4	.087
28	14.5°	1-7/8	1-7/8	3/4	.081
30	14.5°	1-7/8	1-7/8	3/4	.075

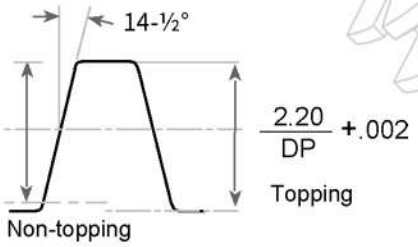
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DP	PA	OD	Length	Bore	WD
32	14.5°	1-7/8	1-7/8	3/4	.071
32	14.5°	1-7/8	1-7/8	#1 Taper	.071
34	14.5°	1-7/8	1-1/2	3/4	.067
36	14.5°	1-7/8	1-7/8	3/4	.063
36	14.5°	1-7/8	1-1/2	#1 Taper	.063
40	14.5°	1-7/8	1-1/2	3/4	.057
42	14.5°	1-7/8	1-1/2	3/4	.054
44	14.5°	1-7/8	1-1/2	3/4	.052
48	14.5°	1-7/8	1-1/2	3/4	.048
48	14.5°	1-7/8	1-1/2	#1 Taper	.048
50	14.5°	1-7/8	1-1/2	3/4	.046
56	14.5°	1-7/8	1-1/2	3/4	.041
64	14.5°	1-5/8	1-1/2	3/4	.036
64	14.5°	1-5/8	1-1/2	#1 Taper	.036
72	14.5°	1-5/8	1-1/2	3/4	.033
72	14.5°	1-5/8	1-1/2	#1 Taper	.033
80	14.5°	1-5/8	1-1/8	#1 Taper	.030
96	14.5°	1-1/2	1	3/4	.025
120	14.5°	1-1/2	3/4	3/4	.020
120	14.5°	1-1/2	1	#1 Taper	.020

DP 14.5° PA Gear Hobs



Finishing, Non-Topping & Topping
Right Hand, Single Thread 1/2"Bore

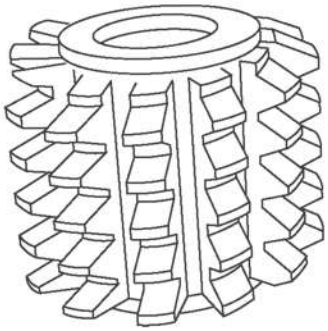


DP	PA	OD	Length	Bore	WD
20	14.5°	1-1/4	1-1/4	1/2	.112
22	14.5°	1-1/4	1-1/4	1/2	.102
24	14.5°	1-1/4	1-1/4	1/2	.094
26	14.5°	1-1/4	1-1/4	1/2	.087
28	14.5°	1-1/4	1-1/4	1/2	.081
30	14.5°	1-1/8	1-1/8	1/2	.075
32	14.5°	1-1/8	1-1/8	1/2	.071
34	14.5°	1-1/8	1-1/8	1/2	.067
36	14.5°	1-1/8	1-1/8	1/2	.063
40	14.5°	1-1/8	1-1/8	1/2	.057
42	14.5°	1-1/8	1-1/8	1/2	.054
44	14.5°	1-1/8	1-1/8	1/2	.052
46	14.5°	1-1/8	1-1/8	1/2	.050
48	14.5°	1-1/8	1-1/8	1/2	.048
50	14.5°	1-1/8	1-1/8	1/2	.046
52	14.5°	1-1/8	1-1/8	1/2	.044
54	14.5°	1-1/8	1-1/8	1/2	.043
56	14.5°	1-1/8	1-1/8	1/2	.041
60	14.5°	1-1/8	1-1/8	1/2	.039
62	14.5°	1-1/8	1-1/8	1/2	.038

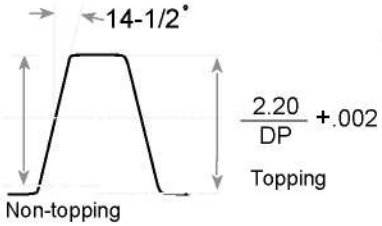
Continue...

DP	PA	OD	Length	Bore	WD
64	14.5°	1-1/8	1-1/8	1/2	.036
66	14.5°	1-1/8	1-1/8	1/2	.035
70	14.5°	1-1/8	1-1/8	1/2	.033
72	14.5°	1-1/8	1-1/8	1/2	.033
80	14.5°	1-1/8	1-1/8	1/2	.030
96	14.5°	1-1/8	1-1/8	1/2	.025
100	14.5°	1-1/8	1-1/8	1/2	.024
120	14.5°	1-1/8	1-1/8	1/2	.020
160	14.5°	1-1/8	1-1/8	1/2	.016
180	14.5°	1-1/8	1-1/8	1/2	.014

DP 14.5° PA Gear Hobs



Finishing, Non-Topping & Topping
Right Hand Single Thread 8mm Bore



DP	PA	OD	Approx. Length	Bore (mm)	WD
24	14.5°	1	1	8	.094
32	14.5°	3/4	3/4	8	.071
34	14.5°	5/8	1/2	8	.067
36	14.5°	5/8	13/32	8	.063
36	14.5°	3/4	1/2	8	.063
38	14.5°	15/16	19/32	8	.060
40	14.5°	1	3/4	8	.057
42	14.5°	15/16	19/32	8	.054
42	14.5°	1	1/2	8	.054
44	14.5°	3/4	1/2	8	.052
48	14.5°	1	1	8	.048
48	14.5°	5/8	11/16	8	.048
50	14.5°	3/4	1/2	8	.046
52	14.5°	15/16	19/32	8	.044
54	14.5°	15/16	5/8	8	.043

Continue..

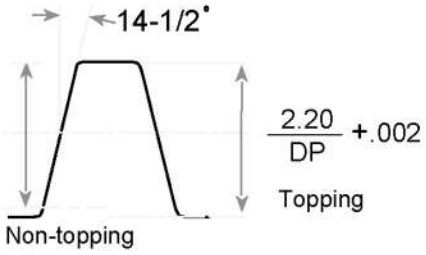
DP	PA	OD	Approx. Length	Bore (mm)	WD
54	14.5°	15/16	5/8	8	.043
56	14.5°	3/4	5/8	8	.041
58	14.5°	15/16	19/32	8	.040
60	14.5°	15/16	19/32	8	.039
62	14.5°	15/16	19/32	8	.037
64	14.5°	3/4	1/2	8	.036
64	14.5°	15/16	19/32	8	.036
64	14.5°	5/8	11/16	8	.036
72	14.5°	3/4	11/16	8	.033
72	14.5°	5/8	3/4	8	.033
80	14.5°	5/8	1/2	8	.030
80	14.5°	3/4	1/2	8	.030
82	14.5°	15/16	19/32	8	.029
88	14.5°	15/16	13/32	8	.027
90	14.5°	15/16	13/32	8	.026
92	14.5°	15/16	13/32	8	.026
94	14.5°	15/16	13/32	8	.025
96	14.5°	3/4	1/2	8	.025
96	14.5°	5/8	13/32	8	.025
100	14.5°	3/4	11/16	8	.024
100	14.5°	15/16	13/32	8	.024
120	14.5°	1/2	1/2	8	.020
120	14.5°	3/4	1/2	8	.020
120	14.5°	1	1/2	8	.020
120	14.5°	15/16	13/32	8	.020

Continue..

DP	PA	OD	Approx. Length	Bore (mm)	WD
125	14.5°	15/16	5/16	8	.020
126	14.5°	5/8	13/32	8	.019
127	14.5°	15/16	5/16	8	.019
132	14.5°	15/16	5/16	8	.019
134	14.5°	15/16	5/16	8	.018
150	14.5°	15/16	5/16	8	.017
156	14.5°	15/16	5/16	8	.016
157	14.5°	15/16	5/16	8	.016
160	14.5°	15/16	5/16	8	.016
175	14.5°	15/16	5/16	8	.015
176	14.5°	15/16	5/16	8	.015
180	14.5°	5/8	1/2	8	.014
180	14.5°	3/4	5/8	8	.014
180	14.5°	15/16	5/16	8	.014
200	14.5°	15/16	5/16	8	.013

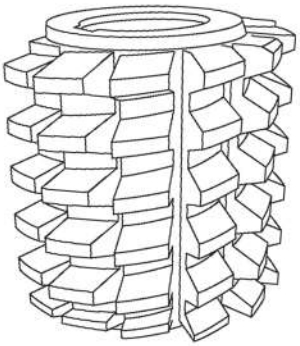
DP 14.5° PA Gear Hobs

Finishing Non-Topping& Topping
Right Hand, Single Thread 10mm Bore

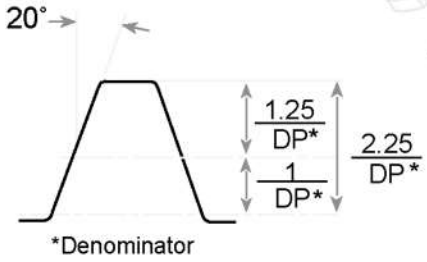


DP	PA	OD	Approx. Length	Bore (mm)	WD
24	14.5°	1-1/4	7/8	8	.094
36	14.5°	1-1/4	1	8	.063
40	14.5°	1-1/4	1	8	.057
48	14.5°	1-1/4	1	8	.048
50	14.5°	1-1/4	25/32	8	.046
60	14.5°	1-1/4	11/16	8	.039
64	14.5°	1-1/4	3/4	8	.036
80	14.5°	1-1/4	3/4	8	.030
96	14.5°	1-1/4	3/4	8	.025
100	14.5°	1-1/4	13/32	8	.024
120	14.5°	1-1/4	13/32	8	.020
126	14.5°	1-1/4	3/4	8	.019
200	14.5°	1-1/4	13/32	8	.013

DP 20° PA Gear Hobs

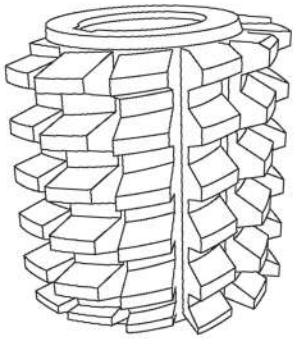


Combination Pitch Right Hand & Left Hand Finishing Non- Topping Right Hand Left Hand

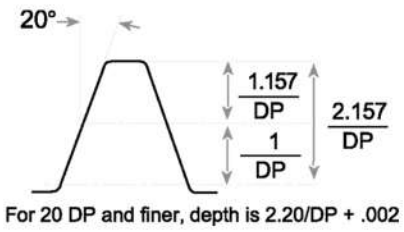


DP	PA	OD	Length	Bore	# of Leads	WD
2/2.5	20°	5	6	1-1/4	1	.900
2.5/3	20°	4-1/2	5	1-1/4	1	.750
3/4	20°	4	4	1-1/4	1	.563
4/5	20°	3-1/2	3-1/2	1-1/4	1	.450
5/7	20°	3-1/4	3-1/4	1-1/4	1	.321
6/8	20°	3	3	1-1/4	1	.281
6/8	20°	3	3	1-1/4	2	.281
7/9	20°	3	3	1-1/4	1	.250
8/10	20°	2	2	3/4	1	.225
8/10	20°	3	3	1-1/4	1	.225
9/11	20°	2	2	3/4	1	.205
9/11	20°	2-3/4	2-3/4	1-1/4	1	.205
10/12	20°	1-7/8	1-7/8	3/4	1	.188
10/12	20°	2-3/4	2-3/4	1-1/4	1	.188
12/14	20°	1-7/8	1-7/8	3/4	1	.161
12/14	20°	2-1/2	2	1-1/4	1	.161
12/14	20°	3	3	1-1/4	2	.161
12/14	20°	3-1/4	3-1/4	1-1/4	3	.161
14/18	20°	2-1/2	2	1-1/4	1	.125
16/21	20°	1-7/8	1-7/8	3/4	1	.107
16/21	20°	2-1/2	2-1/2	1-1/4	1	.107

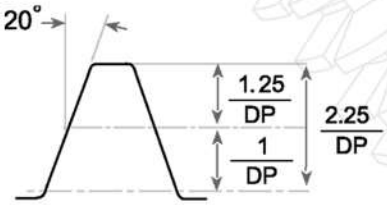
DP 20° PA Gear Hobs



Finishing Non Topping
Full Size & Cut Down



For 20 DP and finer, depth is 2.20/DP + .002

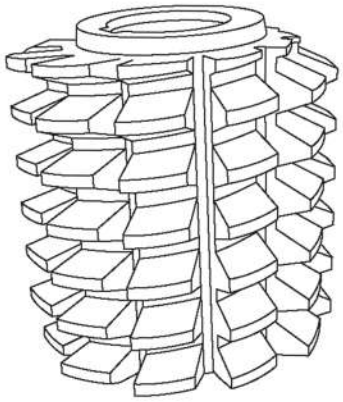


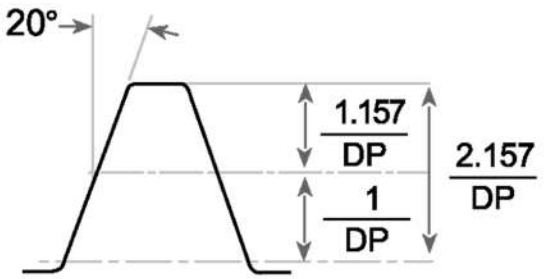
DP	PA	OD	Length	Bore	# of Leads	WD
3/4	20°	12-1/2	16	2-1/2	1	2.876
3/4	20°	12	16	2-1/2	1	2.876
3/4	20°	13	16	2-1/2	1	3.000
7/8	20°	11-1/2	15	2-1/2	1	2.571
1	20°	10-3/4	15	2-1/2	1	2.157
1	20°	10	12-1/4	2	1	2.157
1	20°	10-3/4	15	2-1/2	1	2.250
1	20°	10-1/2	12-1/2	2	1	2.250
1-1/4	20°	8-3/4	12	2	1	1.726
1-1/4	20°	8-1/4	10-1/2	1-1/2	1	1.726
1-1/4	20°	8-3/4	12	2	1	1.800
1-1/4	20°	8-1/2	10-3/4	1-1/2	1	1.800
1-1/2	20°	8	10	2	1	1.438
1-1/2	20°	7-1/2	7-3/4	1-1/2	1	1.438
1-1/2	20°	8	10	2	1	1.500
1-1/2	20°	7-1/2	8	1-1/2	1	1.500
1-3/4	20°	7-1/4	9	2	1	1.233
1-3/4	20°	6-3/4	8	1-1/2	1	1.233
1-3/4	20°	7-1/4	9	2	1	1.286
1-3/4	20°	7	8	1-1/2	1	1.286
2	20°	5-3/4	8	1-1/2	1	1.079
2	20°	5-1/4	6	1-1/4	1	1.079
2	20°	5-3/4	8	1-1/2	1	1.125

Continue...

DP	PA	OD	Length	Bore	# of Leads	WD
2-1/4	20°	5-1/2	7-1/2	1-1/2	1	.959
2-1/4	20°	5-1/4	6	1-1/4	1	.959
2-1/4	20°	5-1/2	7-1/2	1-1/2	1	1.000
2-1/4	20°	5-1/4	6	1-1/4	1	1.000
2-1/2	20°	5	7	1-1/2	1	.863
2-1/2	20°	4-3/4	5	1-1/4	1	.863
2-1/2	20°	5	7	1-1/2	1	.900
2-1/2	20°	4-3/4	5	1-1/4	1	.900
2-3/4	20°	5	6	1-1/2	1	.784
2-3/4	20°	4-3/4	5	1-1/4	1	.784
2-3/4	20°	5-1/4	6	1-1/2	1	.818
2-3/4	20°	4-3/4	5	1-1/4	1	.818
3	20°	4-1/2	5	1-1/4	1	.719
3	20°	4-1/4	4-1/4	1-1/4	1	.719
3	20°	4-1/2	5	1-1/4	1	.750
3	20°	4	4	1-1/4	1	.750
3-1/2	20°	4-1/4	4-3/4	1-1/4	1	.616
3-1/2	20°	4-1/4	4 3/4	1-1/4	1	.643
3-3/4	20°	4	4	1-1/4	1	.575
4	20°	4	4	1-1/4	1	.539
4	20°	4	4	1-1/4	1	.563
4-1/2	20°	3-1/2	3-1/2	1-1/4	1	.479
4-1/2	20°	3 1/2	3 1/2	1-1/4	1	.500
5	20°	3-1/2	3-1/2	1-1/4	1	.431
5	20°	3-1/2	3-1/2	1-1/4	1	.450
5-1/2	20°	3-1/2	3-1/2	1-1/4	1	.392
5-1/2	20°	3-1/2	3-1/2	1-1/4	1	.409
6	20°	3-1/2	3-1/2	1-1/4	1	.360

DP 20° PA Gear Hobs





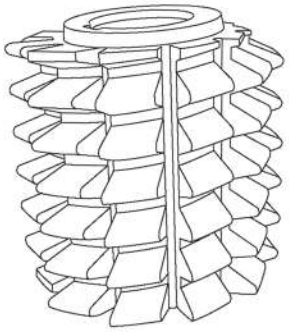
For 20 DP and finer, depth is 2.20/DP + .002

DP	PA	OD	Length	Bore	# of Leads	WD
6	20°	3-1/2	3-1/2	1-1/4	1	.375
6-1/2	20°	3-1/4	3-1/4	1-1/4	1	.332
6-1/2	20°	3-1/4	3-1/4	1-1/4	1	.346
7	20°	3-1/4	3-1/4	1-1/4	1	.308
7	20°	3-1/4	3-1/4	1-1/4	1	.321
7-1/2	20°	3	3	1-1/4	1	.288
7-1/2	20°	3	3	1 1/4	1	.300
8	20°	3	3	1-1/4	1	.270
8	20°	3 1/4	3 1/4	1-1/4	2	.270
8	20°	3	3	1-1/4	1	.281
8-1/2	20°	3	3	1-1/4	1	.254
8-1/2	20°	3	3	1-1/4	1	.265
9	20°	3	3	1-1/4	1	.240
9	20°	3	3	1-1/4	1	.250
10	20°	3	3	1-1/4	1	.216
10	20°	3 -1/2	3 1/2	1 1/4	3	.216

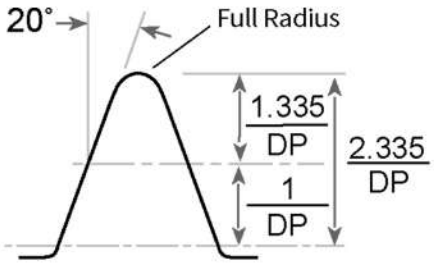
Continue...

DP	PA	OD	Length	Bore	# of Leads	WD
10	20°	3	3	1-1/4	1	.225
10	20°	3	3	1-1/4	2	.225
11	20°	2-3/4	2-3/4	1-1/4	1	.196
11	20°	2-3/4	2-3/4	1-1/4	1	.205
12	20°	2-3/4	2-3/4	1-1/4	1	.180
12	20°	2-3/4	2-3/4	1-1/4	1	.188
12	20°	2-3/4	2-3/4	1-1/4	2	.188
13	20°	2-1/2	2-1/2	1-1/4	1	.166
13	20°	2-1/2	2-1/2	1-1/4	1	.173
14	20°	2-1/2	2-1/2	1-1/4	1	.154
14	20°	2-1/2	2-1/2	1-1/4	1	.161
15	20°	2-1/2	2-1/2	1-1/4	1	.144
15	20°	2-1/2	2-1/2	1-1/4	1	.150
16	20°	2-1/2	2-1/2	1-1/4	1	.135
16	20°	2-1/2	2-1/2	1-1/4	1	.141
17	20°	2-1/2	2	1-1/4	1	.127
17	20°	2-1/2	2	1-1/4	1	.132
18	20°	2-1/2	2	1-1/4	1	.120
18	20°	2-1/2	2	1-1/4	1	.125
19	20°	2-1/2	2	1-1/4	1	.114
20	20°	2-1/2	2	1-1/4	1	.112
20	20°	2-1/2	2	1-1/4	1	.113
21	20°	2-1/2	2	1-1/4	1	.107
22	20°	2-1/2	2	1-1/4	1	.102
24	20°	2-1/2	2	1-1/4	1	.094
24	20°	2-1/2	2	1-1/4	1	.094
24	20°	2-1/2	2	1-1/4	2	.094
26	20°	2-1/2	2	1-1/4	1	.087
28	20°	2-1/2	2	1-1/4	1	.081
30	20°	2-1/2	2	1-1/4	1	.075
30	20°	2-1/2	2	1-1/4	1	.075
34	20°	2-1/2	2	1-1/4	1	.067
36	20°	2-1/2	2	1-1/4	1	.063
40	20°	2-1/2	2	1-1/4	1	.057
42	20°	2-1/2	2	1-1/4	1	.054
48	20°	2-1/2	2	1-1/4	1	.048

DP 20° PA Gear Hobs



Single Thread Finishing
Non Topping Full Fillet

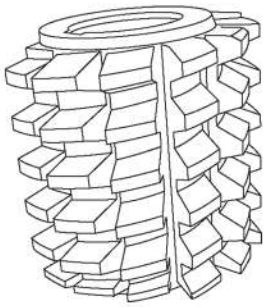


DP	PA	OD	Length	Bore	WD
1	20°	11-1/4	15	2-1/2	2.335
1	20°	10-1/2	12-1/2	2	2.335
1-1/4	20°	9-1/4	12	2	1.868
1-1/4	20°	8-1/2	11	1-1/2	1.868
1-1/2	20°	8-1/4	10	2	1.557
1-1/2	20°	7-3/4	8	1-1/2	1.557
1-3/4	20°	7-1/2	9	2	1.334
1-3/4	20°	7	8	1-1/2	1.334
2	20°	6-1/4	8	1-1/2	1.168
2	20°	5-3/4	6	1-1/4	1.168
2-1/4	20°	5-3/4	7-1/2	1-1/2	1.038
2-1/4	20°	5-1/2	6	1-1/4	1.038
2-1/2	20°	5-1/4	7	1-1/2	.934
2-1/2	20°	5	6	1-1/4	.934
2-3/4	20°	5-1/4	6	1-1/2	.849
3	20°	4-1/2	5	1-1/4	.778
3-1/2	20°	4-1/2	4-3/4	1-1/4	.667
4	20°	4	4	1-1/4	.584
4-1/2	20°	3-1/2	3-1/2	1-1/4	.519
5	20°	3-1/2	3-1/2	1-1/4	.467
5-1/2	20°	3-1/2	3-1/2	1-1/4	.425

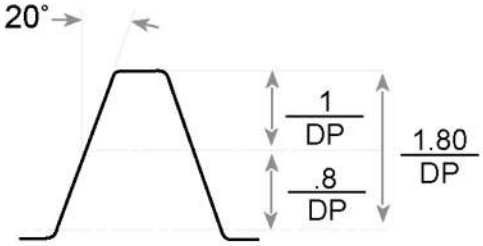
Continue...

DP	PA	OD	Length	Bore	WD
6	20°	3-1/2	3-1/2	1-1/4	.389
6-1/2	20°	3-1/4	3-1/4	1-1/4	.359
7	20°	3-1/4	3-1/4	1-1/4	.334
8	20°	2	2	3/4	.292
8	20°	3	3	1-1/4	.292
9	20°	2	2	3/4	.259
9	20°	3	3	1-1/4	.259
10	20°	1-7/8	1-7/8	3/4	.234
10	20°	3	3	1-1/4	.234
11	20°	2-3/4	2-3/4	1-1/4	.212
12	20°	1-7/8	1-7/8	3/4	.195
12	20°	2-3/4	2-3/4	1-1/4	.195
14	20°	1-7/8	1-7/8	3/4	.167
14	20°	2-1/2	2-1/2	1-1/4	.167
16	20°	1-7/8	1-7/8	3/4	.146
16	20°	2-1/2	2-1/2	1-1/4	.146
18	20°	1-7/8	1-7/8	3/4	.130
18	20°	2-1/2	2	1-1/4	.130
20	20°	1-7/8	1-7/8	3/4	.117
20	20°	2-1/2	2	1-1/4	.117
24	20°	1-7/8	1-7/8	3/4	.097
24	20°	2-1/2	2	1-1/4	.097
32	20°	1-7/8	1-7/8	3/4	.073

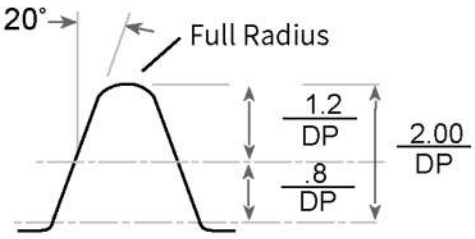
DP 20° PA Stub (Gear Hobs)



Full Fillet AGMA Stub
Right Hand & Left Hand Single
Thread Finishing Non-Topping



DP	PA	OD	Length	Bore	WD
1	20°	10-3/4	15	2-1/2	1.800
1	20°	10	12-1/2	2	1.800
1-1/4	20°	8-3/4	12	2	1.440
1-1/4	20°	7-1/2	10	1-1/2	1.440
1-1/2	20°	8	10	2	1.200
1-1/2	20°	7	8	1-1/2	1.200
1-3/4	20°	7	9	2	1.029
1-3/4	20°	6-1/2	8	1-1/2	1.029
2	20°	5-3/4	8	1-1/2	.900
2	20°	5	6	1-1/4	.900
2-1/4	20°	5-1/2	7	1-1/2	.800
2-1/2	20°	5	7	1-1/2	.720
2-1/2	20°	4-1/2	5	1-1/4	.720
2-3/4	20°	5	7	1-1/2	.655
3	20°	4-1/2	5	1-1/4	.600
3	20°	4	4	1-1/4	.600
3-1/2	20°	4-1/4	4-3/4	1-1/4	.514
4	20°	4	4	1-1/4	.450
4-1/2	20°	3-1/2	3-1/2	1-1/4	.400
5	20°	3-1/2	3-1/2	1-1/4	.360
6	20°	3-1/2	3-1/2	1-1/4	.300
7	20°	3-1/4	3-1/4	1-1/4	.257
8	20°	3	3	1-1/4	.225
9	20°	3	3	1-1/4	.200
10	20°	3	3	1-1/4	.180
12	20°	1-7/8	1-7/8	3/4	.150
12	20°	2-3/4	2-3/4	1-1/4	.150
14	20°	1-7/8	1-7/8	3/4	.129
16	20°	1-7/8	1-7/8	3/4	.113
16	20°	2-1/2	2-1/2	1-1/4	.113
28	20°	2-1/2	2 1/2	1-1/4	.064

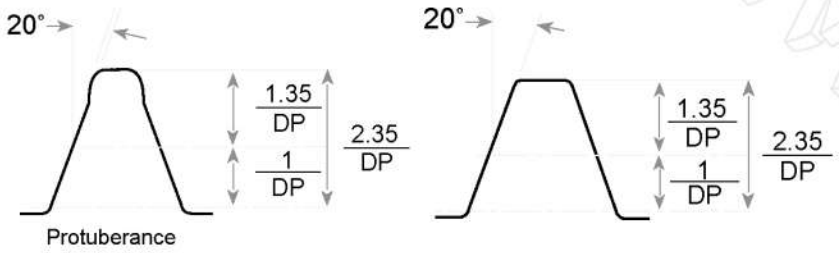


Full Fillet AGMA Stub Right Hand, Single Thread
Finishing Non-Topping

DP	PA	OD	Length	Bore	WD
1-1/4	20°	8-3/4	12	2	1.600
1-1/4	20°	8	10-3/4	1-1/2	1.600
1-1/2	20°	8	9	2	1.333
2	20°	5-3/4	7	1-1/2	1.000
2-1/4	20°	5-3/4	7	1 1/2	.889
2-1/2	20°	5	6	1-1/2	.800
3	20°	4-1/2	5	1-1/4	.667
4	20°	4	4	1-1/4	.500
5	20°	3-1/4	3-1/4	1-1/4	.400
6	20°	3	3	1-1/4	.333
8	20°	3	3	1-1/4	.250
10	20°	2-3/4	2-3/4	1-1/4	.200
12	20°	2-1/2	2-1/2	1-1/4	.167
16	20°	2-1/2	2	1-1/4	.125

DP 20° PA Gear Hobs

Pre-Shave Right Hand & Left Hand
Single Thread Non-Topping

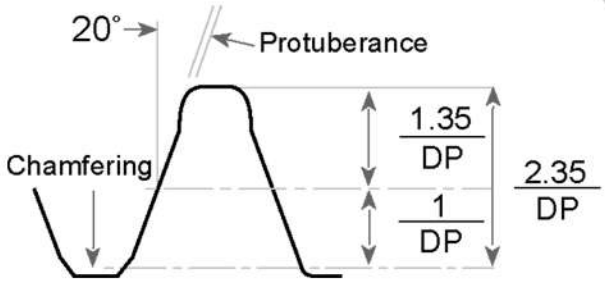


DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx "
2	20°	6	8	1-1/2	1.175	.006	.005
2-1/2	20°	5	6	1-1/2	.940	.005	.004
3	20°	4-1/2	5	1-1/4	.783	.004	.003
3	20°	4-1/2	5	1-1/4	.783	.004	No
3-1/2	20°	4-1/4	4-3/4	1-1/4	0.000	.004	.003
4	20°	4	4	1-1/4	.588	.004	.003
4-1/2	20°	3-1/2	3-1/2	1-1/4	.522	.004	.003
5	20°	3-1/2	3-1/2	1-1/4	.470	.004	.003
5	20°	3-1/2	3-1/2	1-1/4	.470	.004	No
5-1/2	20°	3-1/2	3 1/2	1-1/4	.427	.003	.002
6	20°	3-1/2	3-1/2	1-1/4	.392	.003	.002
6	20°	3-1/2	3-1/2	1-1/4	.392	.003	No
7	20°	3	3	1-1/4	.336	.003	.002
7	20°	3-1/4	3-1/4	1-1/4	.336	.003	No
8	20°	3	3	1-1/4	.294	.003	.002
8	20°	3	3	1-1/4	.294	.003	No
9	20°	3	3	1-1/4	.261	.003	.002
10	20°	1-7/8	1-7/8	3/4	.235	.003	.002
10	20°	3	3	1-1/4	.235	.003	.002
10	20°	3	3	1-1/4	.240	.003	No

Continue...

DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx "
11	20°	2-3/4	2-3/4	1-1/4	.214	.003	.002
12	20°	1-7/8	1-7/8	3/4	.196	.003	.002
12	20°	2	2	3/4	.200	.003	.002
12	20°	2-3/4	2-3/4	1-1/4	.196	.003	.002
14	20°	2-1/2	2-1/2	1-1/4	.168	.003	.002
16	20°	1-7/8	1-7/8	3/4	.147	.003	.002
16	20°	2-1/2	2-1/2	1-1/4	.147	.003	.002
16	20°	2-1/2	2-1/2	1-1/4	.150	.003	No
18	20°	1-7/8	1-7/8	3/4	.131	.002	.002
18	20°	2-1/2	2	1-1/4	.131	.002	.002
20	20°	1-7/8	1-7/8	3/4	.122	.002	.001
20	20°	1-7/8	1-7/8	3/4	.125	.002	No
20	20°	2-1/2	2	1-1/4	.122	.002	.001
22	20°	2-1/2	2	1-1/4	.111	.002	.001
24	20°	1-7/8	1-7/8	3/4	.102	.002	.001
24	20°	1-1/2	1-7/8	3/4	.108	.002	No
24	20°	2-1/2	2	1-1/4	.102	.002	.001
32	20°	1-7/8	1-7/8	3/4	.077	.001	No

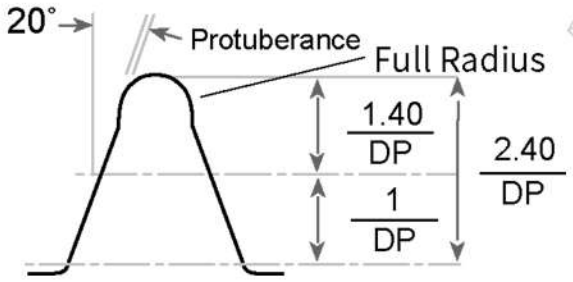
Pre-Shave Semi-Topping Single Thread
Right Hand & Left Hand



DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx"
3	20°	4-1/2	5	1-1/4	.783	.005	.003
5	20°	3-1/2	3-1/2	1-1/4	.470	.004	.003
6	20	3-1/2	3-1/2	1-1/4	.392	.004	.003
8	20°	3	3	1-1/4	.294	.003	.002
10	20°	3	3	1-1/4	.235	.003	.002
12	20°	2-3/4	2-3/4	1-1/4	.196	.003	.002
16	20°	2-1/2	2-1/2	1-1/4	.147	.003	.002
18	20°	2-1/2	2	1-1/4	.131	.002	.002

DP 20° PA Gear Hobs

Pre-Shave Full Fillet Non-Chamfering
Right Hand & Left Hand

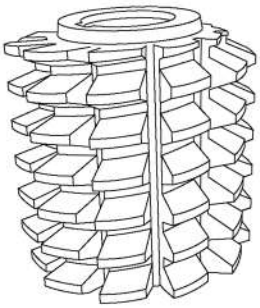


DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx "
4	20°	4	4	1-1/4	.600	.004	.003
4-1/2	20°	3-1/2	3-1/2	1-1/4	.533	.004	.003
5	20°	3-1/2	3-1/2	1-1/4	.480	.004	.003
6	20°	3-1/2	3-1/2	1-1/4	.400	.003	.002
7	20°	3	3	1-1/4	.343	.003	.002
8	20°	3	3	1-1/4	.300	.003	.002
9	20°	3	3	1-1/4	.267	.003	.002
10	20°	3	3	1-1/4	.240	.003	.002
11	20°	2-3/4	2-3/4	1-1/4	.218	.003	.002
12	20°	2-3/4	2-3/4	1-1/4	.200	.003	.002
12	20°	2-3/4	2-3/4	1-1/4	.200	.003	No
12	20°	1-7/8	1-7/8	3/4	.200	.003	No
14	20°	2-1/2	2-1/2	1-1/4	.171	.002	.002
15	20°	2-1/2	2-1/2	1-1/4	.160	.002	.002
16	20°	2-1/2	2-1/2	1-1/4	.150	.002	.002
18	20°	1-7/8	1-7/8	3/4	.132	.002	No
20	20°	2-1/2	2-1/2	1-1/4	.124	.002	.002
20	20°	2-1/2	2-1/2	1-1/4	.124	.002	No
32	20°	2-1/2	2	1-1/4	.080	.001	No
32	20°	1-7/8	1-7/8	3/4	.080	.001	No

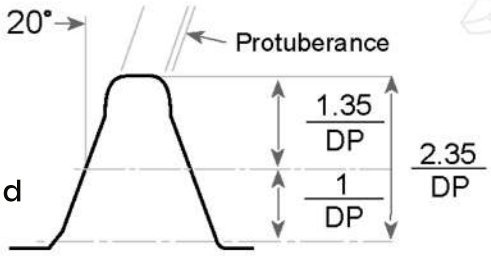
Combination Pitch Stub Pre-Grind & Pre-Shave Non-Topping, Right Hand Single Thread

DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx "
4/5	20°	3-1/2	3-1/2	1-1/4	.470	.004	.003
4/5	20°	3-1/2	3-1/2	1-1/4	.450	.013	.007
5/7	20°	3-1/4	3-1/4	1-1/4	.336	.004	.003
5/7	20°	3-1/4	3-1/4	1-1/4	.336	.011	.006
6/8	20°	3	3	1-1/4	.294	.004	.002
6/8	20°	3	3	1-1/4	.294	.011	.007
8/10	20°	3	3	1-1/4	.235	.003	.002
8/10	20°	3	3	1-1/4	.235	.011	.006
10/12	20°	2-3/4	2-3/4	1-1/4	.196	.003	.002

DP 20° PA Gear Hobs



Pre-Grind Non Topping Single Thread

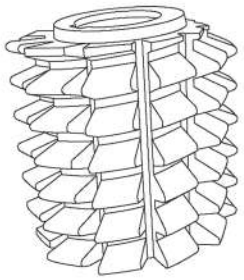


DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx "
1	20°	11	15	2-1/2	2.350	.024	.015
1-1/4	20°	9	12	2	1.880	.022	.014
1-1/2	20°	8	10	2	1.567	.018	.012
1-3/4	20°	7-1/4	8-1/2	2	1.343	.018	.012
2	20°	6	8	1-1/2	1.175	.017	.010
2-1/4	20°	5 1/2	7-1/2	1-1/2	1.044	.016	.010
2-1/2	20°	5	6	1-1/2	.940	.014	.010
2-3/4	20°	5	6	1-1/2	.855	.015	.009
3	20°	4-1/2	5	1-1/4	.783	.013	.007
3-1/2	20°	4-1/4	4-3/4	1-1/4	.671	.013	.007
4	20°	4	4	1-1/4	.588	.013	.007
4-1/2	20°	3-1/2	3-1/2	1-1/4	.522	.012	.006
5	20°	3-1/2	3-1/2	1-1/4	.470	.011	.006
6	20°	3-1/2	3-1/2	1-1/4	.392	.011	.006
6-1/2	20°	3	3	1-1/4	.362	.011	.006
7	20°	3	3	1-1/4	.336	.011	.006
8	20°	3	3	1-1/4	.294	.011	.006
9	20°	3	3	1-1/4	.261	.011	.006
10	20°	1-7/8	1-7/8	3/4	.235	.010	.006
10	20°	3	3	1-1/4	.235	.010	.006

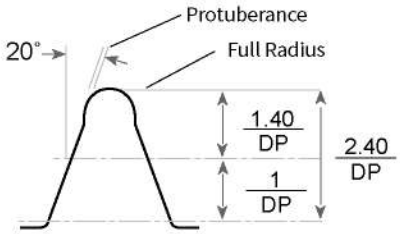
Continue..

DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx "
11	20°	2-3/4	2-3/4	1-1/4	.214	.010	.005
12	20°	1-7/8	1-7/8	3/4	.196	.010	.005
12	20°	2-3/4	2-3/4	1-1/4	.196	.010	.005
14	20°	1-7/8	1-7/8	3/4	.168	.009	.005
14	20°	2-1/2	2-1/2	1-1/4	.168	.009	.005
16	20°	1-7/8	1-7/8	3/4	.147	.008	.005
16	20°	2-1/2	2-1/2	1-1/4	.147	.008	.005
18	20°	1-7/8	1-7/8	3/4	.131	.008	.004
18	20°	2-1/2	2	1-1/4	.131	.008	.004
20	20°	1-7/8	1-7/8	3/4	.122	.007	.004
20	20°	2-1/2	2	1-1/4	.122	.007	.004
24	20°	1-7/8	1-7/8	3/4	.102	.005	.003
24	20°	2-1/2	2	1-1/4	.102	.005	.003

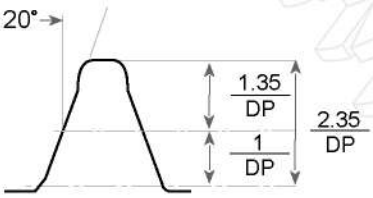
DP 20° PA Gear Hobs



Pre-Grind
Non-Topping
Single Thread



Protuberance and Radius
20DP and finer WD =2.4/DP + .002



Rack Profile

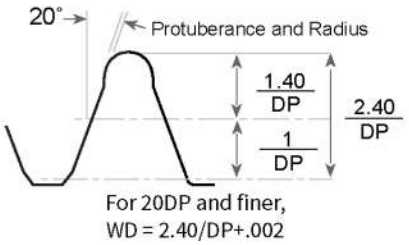
DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx "
1	20°	11-1/4	15	2-1/2	2.400	.024	.015
1-1/4	20°	9-1/4	12	2	1.920	.022	.014
1-1/2	20°	8-1/2	10	2	1.600	.018	.011
1-3/4	20°	7-1/2	8-1/2	2	1.371	.018	.011
2	20°	6-1/4	8	1-1/2	1.200	.017	.010
2-1/4	20°	5-1/2	7-1/2	1-1/2	1.067	.016	.010
2-1/2	20°	5-1/4	6	1-1/2	.960	.014	.010
3	20°	4-1/2	5	1-1/4	.800	.013	.009
3	20°	4-1/2	5	1-1/4	.800	.013	None
3-1/2	20°	4-1/4	4-3/4	1-1/4	.686	.013	.009
4	20°	4	4	1-1/4	.600	.013	.008
4-1/2	20°	3-1/2	3-1/2	1-1/4	.533	.013	.008
5	20°	3-1/2	3-1/2	1-1/4	.480	.011	.006
5	20°	3-1/2	3-1/2	1-1/4	.480	.011	None
6	20°	3-1/2	3-1/2	1-1/4	.400	.011	.006
6	20°	3-1/2	3-1/2	1-1/4	.400	.011	None
7	20°	3	3	1-1/4	.343	.011	.006
7	20°	3	3	1-1/4	.343	.011	None
8	20°	3	3	1-1/4	.300	.011	.006
8	20°	3	3	1-1/4	.300	.011	None
9	20°	3	3	1-1/4	.267	.011	.006
10	20°	3	3	1-1/4	.240	.010	.006

Continue...

DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx "
10	20°	3	3	1-1/4	.240	.010	None
12	20°	2	2	3/4	.200	.010	.005
12	20°	2-3/4	2-3/4	1-1/4	.200	.010	.005
12	20°	2-3/4	2-3/4	1-1/4	.200	.010	None
14	20°	2-1/2	2-1/2	1-1/4	.171	.010	.006
14	20°	1-7/8	1-7/8	3/4	.171	.010	None
16	20°	2-1/2	2-1/2	1-1/4	.150	.006	.004
16	20°	2-1/2	2-1/2	1-1/4	.150	.006	None
20	20°	2-1/2	2	1-1/4	.122	.007	.004
20	20°	2-1/2	2	1-1/4	.122	.007	None
24	20°	2-1/2	2	1-1/4	.102	.005	.003
24	20°	1-7/8	1-7/8	3/4	.102	.005	None
28	20°	1-7/8	1-7/8	3/4	.088	.005	.003
28	20°	1-7/8	1-7/8	3/4	.088	.005	None
30	20°	1-7/8	1-7/8	3/4	.082	.005	None
32	20°	1-7/8	1-1/2	3/4	.077	.005	None
48	20°	1-7/8	1-1/2	3/4	.052	.005	.002
48	20°	1-7/8	1-1/2	3/4	.052	.005	None

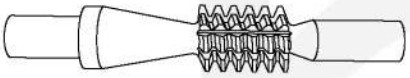
DP 20° PA Gear Hobs

Combination Pitch Stub
Pre-Grind with Protuberance
Semi-Topping Single Thread



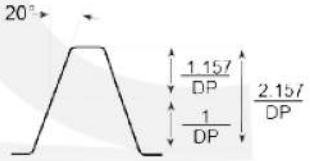
DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx "
1	20°	11-1/4	15	2-1/2	2.400	.024	.015
3	20°	4-1/2	5	1-1/4	.800	.013	.009
4	20°	4	4	1-1/4	.600	.013	.008
5	20°	3-1/2	3-1/2	1-1/4	.480	.011	.006
6	20°	3-1/2	3-1/2	1-1/4	.400	.011	.006
8	20°	3	3	1-1/4	.300	.011	.006
10	20°	3	3	1-1/4	.240	.010	.006
12	20°	2-3/4	2-3/4	1-1/4	.200	.010	.005
14	20°	2-1/2	2-1/2	1-1/4	.171	.010	.006
16	20°	2-1/2	2-1/2	1-1/4	.150	.006	.004

DP 20° & 14° PA Gear Hobs



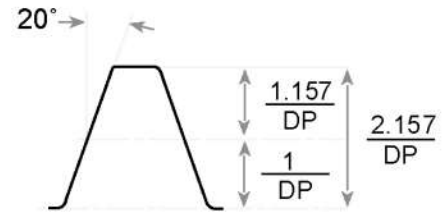
Single Thread Finishing, Non-Topping
Shank Type 5/8" Straight Shanks

Normal Pitch	PA	OD	WD
8	20	7-7/8	.270
10	20	1-5/8	.216
12	20	1-1/4	.180
14	20	1	.154
16	20	1	.135
20	14.5	1	.112
20	20	7/8	.112
24	20	7/8	.094
32	20	7/8	.071
48	20	3/4	.048
64	20	5/8	.036
120	20	1/2	.020



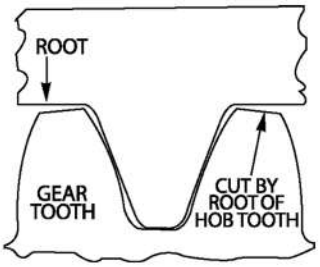
For 16 DP and coarser, depth is 2.157/DP
For 20DP and finer, depth is 2.2/DP=.002
5/8" diam. Drive end

DP 20° PA Gear Hobs



For 20DP and finer, depth is 2.20/DP + +.002

Topping & Finishing
Right & left Hand



DP	PA	OD	Length	Bore	# Leads	WD
4	20°	4	4	1-1/4	1	.539
5	20°	3-1/2	3-1/2	1-1/4	1	.431
6	20°	3-1/2	3-1/2	1-1/4	1	.360
7	20°	3-1/4	3-1/4	1-1/4	1	.308
8	20°	3	3	1-1/4	1	.270
10	20°	3	3	1-1/4	1	.216
10	20°	1-7/8	1-7/8	3/4	1	.225
12	20°	2-3/4	2-3/4	1-1/4	1	.180
12	20°	2	2	3/4	1	.188
14	20°	2-1/2	2-1/2	1-1/4	1	.154
14	20°	1-7/8	1-7/8	3/4	1	.161
15	20°	2-1/2	2-1/2	1-1/4	1	.144
16	20°	2-1/2	2-1/2	1 1/4	1	.135
16	20°	1-7/8	1-7/8	3/4	1	.141
18	20°	2-1/2	2	1 1/4	1	.120
18	20°	1-7/8	1-7/8	3/4	1	.125
20	20°	2-1/2	2	1 1/4	1	.112
20	20°	1-7/8	1-7/8	3/4	1	.113
20	20°	1-7/8	1-7/8	#1 Taper	1	.112

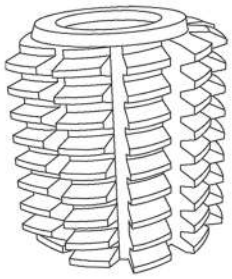
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DP	PA	OD	Length	Bore	# Leads	WD
22	20°	1-7/8	1-7/8	3/4	1	.102
24	20°	2-1/2	2	1 1/4	1	.094
24	20°	1-7/8	1-7/8	3/4	1	.094
24	20°	1-7/8	1-7/8	# 1 Taper	1	.094
26	20°	2-1/2	2	1 1/4	1	.866
26	20°	1-7/8	1-7/8	3/4	1	.087
26	20°	1-7/8	1-7/8	3/4	3	.087
28	20°	1-7/8	1-7/8	3/4	1	.080
28	20°	1-7/8	1-1/2	#1 Taper	1	.081
30	20°	1-7/8	1-1/2	3/4	1	.075
30	20°	1-7/8	1-1/2	#1 Taper	1	.075
32	20°	2-1/2	2	1 1/4	1	.071
32	20°	1-7/8	1-7/8	3/4	1	.070
32	20°	1-7/8	1-7/8	#1 Taper	1	.071
34	20°	1-7/8	1-7/8	3/4	1	.066
36	20°	1-7/8	1-7/8	3/4	1	.063
36	20°	1-3/4	1-3/4	3/4	1	.063
36	20°	1-7/8	1-1/2	#1 Taper	1	.063
38	20°	1-7/8	1-7/8	3/4	1	.059
40	20°	1-7/8	1-7/8	3/4	1	.056
40	20°	1-7/8	1-1/2	3/4	2	.056
42	20°	1-7/8	1-7/8	3/4	1	.054
42	20°	1-7/8	1-1/2	#1 Taper	1	.054
44	20°	1-7/8	1-7/8	3/4	1	.052
46	20°	1-7/8	1-7/8	3/4	1	.050
48	20°	1-7/8	1-1/2	3/4	1	.048

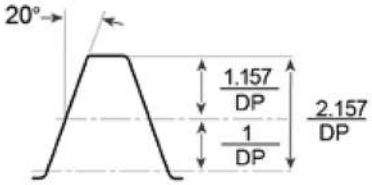
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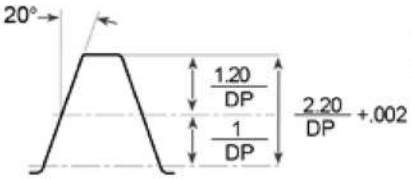
DP	PA	OD	Length	Bore	# Leads	WD
48	20°	1-7/8	1-7/8	3/4	2	.048
48	20°	1-7/8	1-1/2	#1 Taper	1	.048
50	20°	1-7/8	1-1/2	3/4	1	.046
50	20°	1-7/8	1-1/2	#1 Taper	1	.046
52	20°	1-7/8	1-1/2	3/4	1	.044
52	20°	1-7/8	1-7/8	3/4	1	.044
52	20°	1-7/8	1-1/2	#1 Taper	1	.044
56	20°	1-7/8	1-7/8	3/4	1	.041
56	20°	1-7/8	1-1/2	#1 Taper	1	.041
60	20°	1-7/8	1-1/2	3/4	1	.039
64	20°	1-5/8	1-1/2	3/4	1	.036
64	20°	1-7/8	1-5/8	3/4	1	.036
64	20°	1-5/8	1-1/2	3/4	3	.036
64	20°	1-7/8	1-1/2	#1 Taper	1	.036
72	20°	1-7/8	1-1/2	3/4	1	.033
72	20°	1-5/8	1-1/2	#1 Taper	1	.033
85	20°	1-5/8	1-1/2	#1 Taper	1	.028
96	20°	1-5/8	1-1/2	3/4	1	.025
96	20°	1-1/2	1	#1 Taper	1	.025
120	20°	1-1/2	3/4	3/4	1	.020
120	20°	1-1/2	1	#1 Taper	1	.020

DP 20° PA Gear Hobs



3/4" Bore & #1 Taper Bore
Finishing Non Topping





20DP and Finer depth is 2.20/DP+.002
18DP and coarser, depth is 2.157/DP

DP	PA	OD	Length	Bore	WD	Leads
8	20°	2	2	3/4	.270	1
8	20°	1-7/8	1-7/8	3/4	.281	1
10	20°	1-7/8	1-7/8	3/4	.216	1
10	20°	1-7/8	1-7/8	3/4	.225	1
11	20°	1-7/8	1-7/8	3/4	.196	1
12	20°	1-7/8	1-7/8	3/4	.180	1
12	20°	2	2	3/4	.188	1
13	20°	1-7/8	1-7/8	3/4	.166	1
14	20°	1-7/8	1-7/8	3/4	.161	1
14	20°	1-7/8	1-7/8	3/4	.161	1
15	20°	1-7/8	1-7/8	3/4	.144	1
16	20°	1-7/8	1-7/8	3/4	.141	1
16	20°	1-7/8	1-7/8	3/4	.135	1
16	20°	1-7/8	1-7/8	3/4	.141	1
17	20°	1-7/8	1-7/8	3/4	.127	1
18	20°	1-7/8	1-7/8	3/4	.120	1
20	20°	1-7/8	1-7/8	3/4	.112	1
20	20°	1-7/8	1-7/8	3/4	.112	1
22	20°	1-7/8	1-7/8	3/4	.102	1
23	20°	1-7/8	1-7/8	3/4	.098	1

Continue...

DP	PA	OD	Length	Bore	WD	Leads
24	20°	1-7/8	1-7/8	3/4	.094	1
24	20°	1-7/8	1-7/8	3/4	.094	2
24	20°	1-7/8	1-7/8	3/4	.094	3
26	20°	1-7/8	1-7/8	3/4	.087	1
28	20°	1-7/8	1-7/8	3/4	.081	1
30	20°	1-7/8	1-7/8	3/4	.075	1
32	20°	1-7/8	1-7/8	3/4	.071	1
32	20°	1-7/8	1-7/8	3/4	.071	2
32	20°	1-7/8	1-7/8	3/4	.071	3
32	20°	1-7/8	1-1/2	#1 Taper	.071	1
33	20°	1-7/8	1-7/8	3/4	.069	1
34	20°	1-7/8	1-7/8	3/4	.067	1
34	20°	1-7/8	1-1/2	#1 Taper	.067	1
36	20°	1-7/8	1-1/2	#1 Taper	.063	1
38	20°	1-7/8	1-7/8	3/4	.060	1
40	20°	1-7/8	1-7/8	3/4	.057	1
40	20°	1-7/8	1-1/2	#1 Taper	.057	1
42	20°	1-7/8	1-7/8	3/4	.054	1
42	20°	1-7/8	1-1/2	#1 Taper	.054	1
44	20°	1-7/8	1-1/2	3/4	.052	1

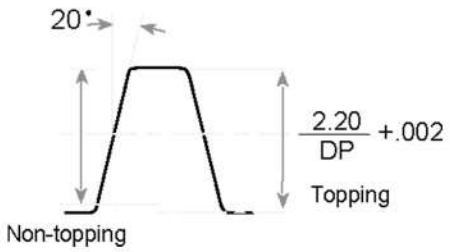
Continue...

DP	PA	OD	Length	Bore	WD	Leads
46	20°	1-7/8	1-1/2	3/4	.050	1
48	20°	1-7/8	1-1/2	3/4	.048	1
48	20°	1-7/8	1-7/8	3/4	.048	2
48	20°	1-7/8	1-7/8	3/4	.048	3
48	20°	1-7/8	1-1/2	#1 Taper	.048	1
50	20°	1-7/8	1-1/2	3/4	.046	1
50	20°	1-7/8	1-1/2	#1 Taper	.046	1
52	20°	1-7/8	1-1/2	3/4	.044	1
52	20°	1-7/8	1-1/2	#1 Taper	.044	1
54	20°	1-7/8	1-1/2	3/4	.043	1
56	20°	1-7/8	1-1/2	3/4	.041	1
57	20°	1-7/8	1-1/2	3/4	.039	1
60	20°	1-7/8	1-1/2	3/4	.039	1
60	20°	1-7/8	1-1/2	#1 Taper	.039	1
64	20°	1-5/8	1-1/2	3/4	.036	1
64	20°	1-7/8	1-7/8	3/4	.036	3
66	20°	1-7/8	1-1/2	3/4	.035	1
66	20°	1-5/8	1-1/2	#1 Taper	.035	1
72	20°	1-7/8	1-1/2	3/4	.033	1

Continue...

DP	PA	OD	Length	Bore	WD	Leads
72	20°	1-5/8	1-1/2	3/4	.033	2
72	20°	1-5/8	1-1/2	3/4	.033	3
72	20°	1-5/8	1-1/2	#1 Taper	.033	1
80	20°	1-5/8	1-1/2	3/4	.030	1
80	20°	1-5/8	1-1/2	#1 Taper	.030	1
82	20°	1-5/8	1-1/2	3/4	.029	1
84	20°	1-5/8	1-1/2	3/4	.028	1
96	20°	1-5/8	1-1/2	3/4	.025	1
96	20°	1-1/2	1	#1 Taper	.025	1
100	20°	1-1/2	1	3/4	.024	1
100	20°	1-1/2	1	#1 Taper	.024	1
120	20°	1-1/2	3/4	3/4	.020	1
120	20°	1-1/2	1	#1 Taper	.020	1
126	20°	1-1/2	3/4	3/4	.019	1
127	20°	1-1/2	3/4	3/4	.019	1
132	20°	1-1/2	3/4	3/4	.019	1
132	20°	1-1/2	1	#1 Taper	.019	1
160	20°	1-1/2	3/4	3/4	.016	1
175	20°	1-1/2	3/4	3/4	.015	1
175	20°	1-1/2	3/4	#1 Taper	.015	1
180	20°	1-1/2	3/4	3/4	.014	1

1/2" Bore Finishing Non Topping & Topping
Right Hand, Single Thread



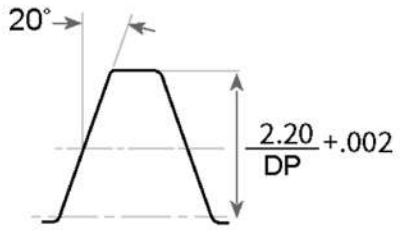
DP	PA	OD	Length	Bore	WD
16	20°	1-1/4	1-1/4	1/2	.135
18	20°	1-1/4	1-1/4	1/2	.125
20	20°	1-1/4	1-1/4	1/2	.112
22	20°	1-1/8	1-1/8	1/2	.102
24	20°	1-1/4	1-1/4	1/2	.094
26	20°	1-1/4	1-1/4	1/2	.087
28	20°	1-1/8	1-1/8	1/2	.081
30	20°	1-1/8	1-1/8	1/2	.075
32	20°	1-1/8	1-1/8	1/2	.071
34	20°	1-1/8	1-1/8	1/2	.067
36	20°	1-1/8	1-1/8	1/2	.063
38	20°	1-1/8	1-1/8	1/2	.060
40	20°	1-1/8	1-1/8	1/2	.057
41	20°	1-1/8	1-1/8	1/2	.056
42	20°	1-1/8	1-1/8	1/2	.054
44	20°	1-1/8	1-1/8	1/2	.052
46	20°	1-1/8	1-1/8	1/2	.050
48	20°	1-1/8	1-1/8	1/2	.048
50	20°	1-1/8	1-1/8	1/2	.046

Continue...

DP	PA	OD	Length	Bore	WD
54	20°	1-1/8	1-1/8	1/2	.043
56	20°	1-1/8	1-1/8	1/2	.041
57	20°	1-1/8	1-1/8	1/2	.041
58	20°	1-1/8	1-1/8	1/2	.040
64	20°	1-1/8	1-1/8	1/2	.036
72	20°	1-1/8	1-1/8	1/2	.033
77	20°	1-1/8	1-1/8	1/2	.031
80	20°	1-1/8	1-1/8	1/2	.030
84	20°	1-1/8	1-1/8	1/2	.028
88	20°	1-1/8	1-1/8	1/2	.027
92	20°	1-1/8	1-1/8	1/2	.026
96	20°	1-1/8	1-1/8	1/2	.025
100	20°	1-1-8	1-1/8	1/2	.024
120	20°	1-1/8	1-1/8	1/2	.020
127	20°	1-1/8	1-1/8	1/2	.019
160	20°	1-1/8	1-1/8	1/2	.016
180	20°	1-1/8	1-7/8	1/2	.014

DP 20° PA Gear Hobs

8MM Bore, Finishing Non Topping & Topping Right Hand



DP	OD	Length	Bore (mm)	WD
20	1.000	.750	8	.112
22	1.000	.750	8	.102
24	1.000	.750	8	.094
24	.750	.750	8	.094
26	1.000	.750	8	.087
26	.750	.750	8	.087
28	1.000	.750	8	.081
28	0.750	.750	8	.081
28	0.690	.750	8	.081
30	1.000	.750	8	.075
30	.750	.750	8	.075
32	1.000	.750	8	.071
32	.625	.688	8	.071
32	.750	.750	8	.071
34	1.000	.625	8	.067
34	.620	.470	8	.067
34	.750	.750	8	.067
34	.930	.625	8	.067
36	1.000	.750	8	.063
36	.625	.470	8	.063
36	.750	.750	8	.063
36	.938	.500	8	.063
38	.750	.750	8	.060

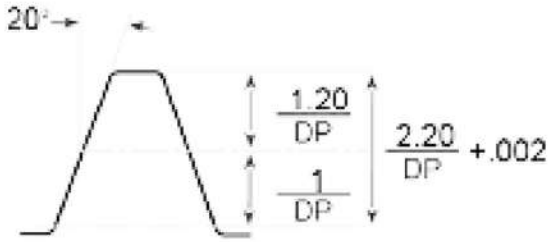
DP	OD	Length	Bore (mm)	WD
40	1.000	.750	8	.057
40	.750	.750	8	.057
42	1.000	.750	8	.054
42	.750	.750	8	.054
46	1.000	.688	8	.050
48	1.000	.688	8	.048
48	.625	.688	8	.048
48	.750	.500	8	.048
50	1.000	.688	8	.046
52	1.000	.688	8	.044
52	.625	.670	8	.044
54	.930	.590	8	.043
56	1.000	.670	8	.041
56	.750	.670	8	.041
56	.875	.530	8	.041
58	.930	.590	8	.040
60	1.000	.670	8	.039
60	.625	.688	8	.039
64	1.000	.670	8	.036
64	.500	.670	8	.036
64	.625	.670	8	.036
64	.750	.670	8	.036
66	1.000	.670	8	.035
70	1.000	.670	8	.033

Continue...

DP	OD	Length	Bore (mm)	WD
72	1.000	.670	8	.033
72	.500	.670	8	.033
72	.625	.670	8	.033
72	.750	.670	8	.033
78	1.000	.688	8	.030
80	1.000	.670	8	.030
80	.500	.670	8	.030
80	.625	.670	8	.030
80	.750	.500	8	.030
80	.938	.400	8	.030
85	.930	.390	8	.028
92	.625	.400	8	.026
96	1.000	.670	8	.025
96	.500	.670	8	.025
96	.625	.670	8	.025
96	.750	.670	8	.025
100	1.000	.600	8	.024
100	.625	.390	8	.024
120	1.000	.670	8	.020
120	.500	.670	8	.020

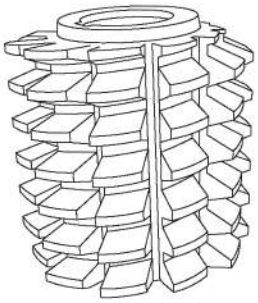
DP	OD	Length	Bore (mm)	WD
120	.625	.670	8	.020
120	.750	.500	8	.020
120	.930	.390	8	.020
126	.930	.390	8	.019
127	1.000	.750	8	.019
127	.750	.670	8	.019
132	.625	.625	8	.019
132	.750	.670	8	.019
132	.930	.313	8	.019
150	.625	.625	8	.017
150	.750	.670	8	.017
157	.930	.313	8	.016
175	.625	.280	8	.015
180	.625	.390	8	.014
200	.930	.310	8	.013

10MM Bore Finishing Non Topping & Topping
Right Hand, Single Thread

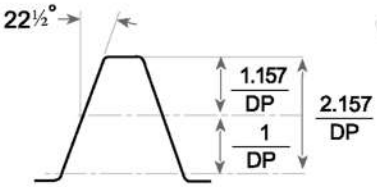


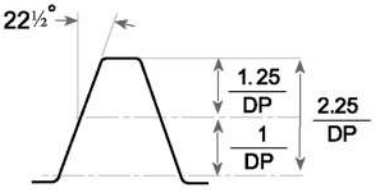
DP	PA	OD	Length	Bore (mm)	WD
20	20°	1.250	1.125	10	.112
24	20°	1.250	1.000	10	.094
28	20°	1.250	.787	10	.081
32	20°	1.250	1.125	10	.071
34	20°	1.250	1.000	10	.067
36	20°	1.250	1.000	10	.063
40	20°	1.250	1.000	10	.057
46	20°	1.250	1.000	10	.050
48	20°	1.250	.750	10	.048
50	20°	1.250	1.000	10	.046
54	20°	1.250	.790	10	.043
56	20°	1.250	.790	10	.041
60	20°	1.250	.790	10	.039
64	20°	1.250	.750	10	.036
72	20°	1.250	.750	10	.033
72	20°	.500	.750	10	.033
80	20°	1.250	.750	10	.030
96	20°	1.250	.750	10	.025
100	20°	1.250	.590	10	.024
120	20°	1.250	.390	10	.020
175	20°	1.250	.310	10	.015
200	20°	1.250	.310	10	.013

DP 22.5° PA Gear Hobs



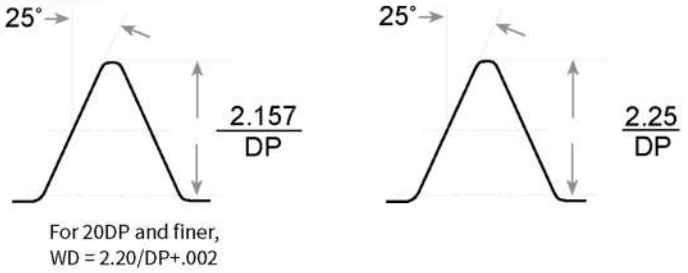
Finishing Non Topping
Right Hand, Single Thread





DP	PA	OD	Length	Bore	WD
1	22.5°	10-3/4	15	2-1/2	2.250
1-1/4	22.5°	8-3/4	12	2	1.726
1-1/2	22.5°	7-1/2	7-1/2	1-1/2	1.438
1-3/4	22.5°	7-1/4	9	2	1.233
2	22.5°	5-1/4	6	1-1/4	1.079
2-1/4	22.5°	5-1/2	7-1/2	1-1/2	.959
2-1/4	22.5°	5-1/2	7-1/2	1-1/2	1.000
2-1/2	22.5°	4-3/4	5	1-1/4	.863
3	22.5°	4-1/2	5	1-1/4	.719
4	22.5°	4	4	1-1/4	.539
5	22.5°	3-1/2	3-1/2	1-1/4	.431
6	22.5°	3-1/2	3-1/2	1-1/4	.360
6	22.5°	3-1/2	3-1/2	1-1/4	.380
7	22.5°	3-1/4	3-1/4	1-1/4	.308
8	22.5°	3	3	1-1/4	.270
10	22.5°	3	3	1-1/4	.216
10	22.5°	3	3	1-1/4	.225
11	22.5°	2-3/4	2-3/4	1-1/4	.196
12	22.5°	2-3/4	2-3/4	1-1/4	.180
12	22.5°	2-3/4	2-3/4	1-1/4	.188
13	22.5°	2-1/2	2-1/2	1-1/4	.166
14	22.5°	2-1/2	2-1/2	1-1/4	.154
16	22.5°	2-1/2	2-1/2	1-1/4	.135
16	22.5°	2-1/2	2-1/2	1-1/4	.141
18	22.5°	2-1/2	2	1-1/4	.120
20	22.5°	1-7/8	1-7/8	3/4	.108
22	22.5°	1-7/8	1-7/8	3/4	.102
24	22.5°	1-1/4	1-1/4	1/2	.090

Finishing Non Topping
Single Thread



For 20DP and finer,
WD = 2.20/DP+.002

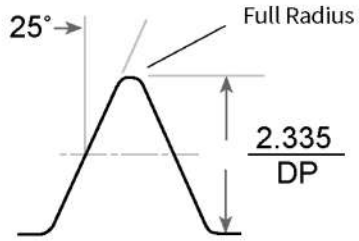
DP	DP	OD	Length	Bore	WD
3/4	20°	12	15	2-1/2	2.876
1	20°	10-3/4	15	2-1/2	2.250
1	20°	10-1/4	12-1/2	2	2.250
1-1/4	20°	8-3/4	12	2	1.726
1-1/4	20°	9	12	2	1.800
1-1/4	20°	8-1/4	10-3/4	1-1/2	1.800
1-1/2	20°	8	10	2	1.438
1-1/2	20°	8-1/4	10	2	1.500
1-1/2	20°	7-1/2	7-3/4	1-1/2	1.438
1-1/2	20°	7-3/4	8	1-1/2	1.500
1-3/4	20°	7-1/4	9	2	1.233
1-3/4	20°	7-1/4	9	2	1.286
1-3/4	20°	6-3/4	8	1-1/2	1.286
2	20°	5-3/4	8	1-1/2	1.079
2	20°	6	8	1-1/2	1.125
2	20°	5-1/4	6	1-1/4	1.079
2	20°	5-1/2	6	1-1/4	1.125
2-1/4	20°	5-1/2	7-1/2	1-1/2	.959
2-1/4	20°	6	8	1-1/2	1.000
2-1/4	20°	5-1/4	6	1-1/4	1.000
2-1/2	20°	5	7	1-1/2	.863
2-1/2	20°	5-1/4	7	1-1/2	.900
2-1/2	20°	4-3/4	5	1-1/4	.863
2-1/2	20°	4-3/4	5	1-1/4	.900
2-3/4	20°	5	6	1-1/2	.784
2-3/4	20°	5-1/4	6	1-1/2	.818
2-3/4	20°	4-3/4	5	1-1/4	.818
3	20°	4-1/2	5	1-1/4	.719
3	20°	4-1/2	5	1-1/4	.750
3-1/2	20°	4	4	1-1/4	.616
3-1/2	20°	4-1/4	4-3/4	1-1/4	.643
4	20°	4	4	1-1/4	.539
4	20°	4	4	1-1/4	.563

Continue...

DP	DP	OD	Length	Bore	WD
4-1/2	20°	3-1/2	3-1/2	1-1/4	.479
4-1/2	20°	3-1/2	3-1/2	1-1/4	.500
5	20°	3-1/2	3-1/2	1-1/4	.431
5	20°	3-1/2	3-1/2	1-1/4	.450
5-1/2	20°	3-1/2	3-1/2	1-1/4	.409
6	20°	3-1/2	3-1/2	1-1/4	.360
6	20°	3-1/2	3-1/2	1-1/4	.375
6-1/2	20°	3-1/4	3-1/4	1-1/4	.346
7	20°	3-1/4	3-1/4	1-1/4	.308
7	20°	3-1/4	3-1/4	1-1/4	.321
8	20°	3	3	1-1/4	.270
8	20°	3	3	1-1/4	.281
9	20°	3	3	1-1/4	.240
9	20°	3	3	1-1/4	.250
10	20°	3	3	1-1/4	.216
10	20°	3	3	1-1/4	.225
11	20°	2-3/4	2-3/4	1-1/4	.205
12	20°	2-3/4	2-3/4	1-1/4	.180
12	20°	2-3/4	2-3/4	1-1/4	.188
14	20°	2-1/2	2-1/2	1-1/4	.154
14	20°	2-1/2	2-1/2	1-1/4	.161
16	20°	2-1/2	2-1/2	1-1/4	.135
16	20°	2-1/2	2-1/2	1-1/4	.141
17	20°	2-1/2	2	1-1/4	.132
18	20°	2-1/2	2	1-1/4	.120
18	20°	2-1/2	2	1-1/4	.125
20	20°	2-1/2	2	1-1/4	.112
22	20°	2-1/2	2	1-1/4	.102
24	20°	2-1/2	2 1/2	1-1/4	.094

DP 25° PA Gear Hobs

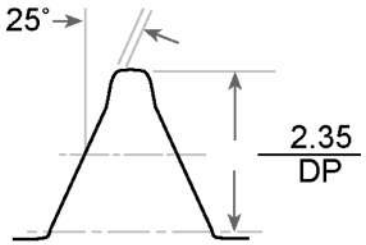
Finishing Non Topping Full Fillet Single Thread



DP	PA	OD	Length	Bore	WD
1	25°	10-1/4	12-1/2	2	2.335
1-1/4	25°	8-7/8	11	2	1.868
1-1/2	25°	8-1/4	10	2	1.557
1-3/4	25°	6-3/4	8	1-1/2	1.334
2	25°	5-1/2	6	1-1/4	1.168
2	25°	6	7	1-1/2	1.168
2-1/4	25°	6	7	1-1/2	1.038
2-1/2	25°	5-1/4	7	1-1/2	.934
2-3/4	25°	5	6	1-1/2	.849
3	25°	4-1/2	5	1-1/4	.778
3-1/2	25°	4-1/4	4-1/4	1-1/4	.667
4	25°	4	4	1-1/4	.584
4-1/2	25°	3-1/2	3-1/2	1-1/4	.519
5	25°	3-1/2	3-1/2	1-1/4	.467
6	25°	3-1/2	3-1/2	1-1/4	.389
7	25°	3-1/4	3-1/4	1-1/4	.334
8	25°	3	3	1-1/4	.292
9	25°	3	3	1-1/4	.259
10	25°	1-7/8	1-7/8	3/4	.234
10	25°	3	3	1-1/4	.234
11	25°	2-3/4	2-3/4	1-1/4	.212
12	25°	1-7/8	1-7/8	3/4	.195
12	25°	2-3/4	2-3/4	1-1/4	.195
14	25°	2-1/2	2-1/2	1-1/4	.167
16	25°	1-7/8	1-7/8	3/4	.146
16	25°	2-1/2	2-1/2	1-1/4	.146
20	25°	1-7/8	1-7/8	3/4	.117
24	25°	1-7/8	1-7/8	3/4	.097
32	25°	1-7/8	1 1/2	3/4	.073

DP 25° PA Gear Hobs

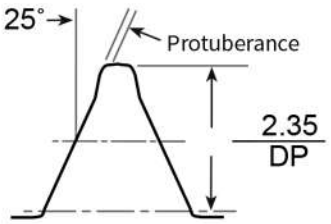
Pre-Shave Non Topping Single Thread



For 20DP and finer,
WD = 2.40/DP+.002

DP	PA	OD	Length	Bore	WD	Thin Approx "	Protuberance Approx "
3	25°	4-1/2	5	1-1/4	.783	.004	.003
4	25°	4	4	1-1/4	.588	.004	.003
5	25°	3-1/2	3-1/2	1-1/4	.470	.004	.002
6	25°	3-1/2	3-1/2	1-1/4	.392	.004	.002
7	25°	3-1/4	3-1/4	1-1/4	.336	.003	.002
8	25°	3	3	1-1/4	.294	.003	.002
10	25°	3	3	1-1/4	.235	.003	.002
12	25°	2-3/4	2-3/4	1-1/4	.196	.003	.002
14	25°	1-7/8	1-7/8	3/4	.168	.003	.001
16	25°	2-1/2	2-1/2	1-1/4	.147	.003	.001
20	25°	1-7/8	1-7/8	3/4	.122	.002	.001
32	25°	1-7/8	1-7/8	3/4	.077	.001	No

Pre- Grind, Non Topping
Single Thread



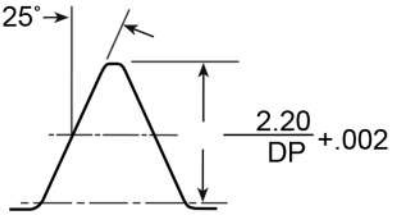
For 20DP and finer,
WD = 2.40/DP+.002

DP	PA	O.D.	Length	Bore	WD	Thin (Approx ")	Protuberance (Approx ")
1-1/4	25°	8-3/4	11	2	1.880	.020	.012
1-1/2	25°	8	10	2	1.567	.015	.011
1-3/4	25°	7-1/4	8-3/4	2	1.343	.015	.010
2	25°	6	8	1-1/2	1.175	.015	.010
2-1/4	25°	6	7	1 1/2	1.044	.015	.010
2-1/2	25°	5-1/4	7	1-1/2	.940	.015	.009
2-3/4	25°	5	6	1-1/4	.855	.014	.008
3	25°	4-1/2	5	1-1/4	.783	.012	.008
3-1/2	25°	4-1/4	4-1/4	1-1/4	.671	.012	.008
4	25°	4	4	1-1/4	.588	.011	.007
4-1/2	25°	3-1/2	3-1/2	1-1/4	.522	.011	.007
5	25°	3-1/2	3-1/2	1-1/4	.470	.011	.006
6	25°	3-1/2	3-1/2	1-1/4	.392	.011	.006
7	25°	3-1/4	3-1/4	1-1/4	.336	.011	.006
8	25°	3	3	1-1/4	.294	.011	.006
9	25°	3	3	1-1/4	.261	.011	.006
10	25°	1-7/8	1-7/8	3/4	.235	.011	.006
10	25°	3	3	1-1/4	.235	.011	.006
10	25°	3	3	1-1/4	.235	.011	No
11	25°	2-3/4	2-3/4	1-1/4	.214	.010	.005
12	25°	1-7/8	1-7/8	3/4	.196	.010	.005
12	25°	2-3/4	2-3/4	1-1/4	.196	.010	.005
14	25°	1-7/8	1-7/8	3/4	.168	.010	.005
14	25°	2-1/2	2-1/2	1-1/4	.168	.010	.005
16	25°	1-7/8	1-7/8	3/4	.147	.010	.005
16	25°	2-1/2	2-1/2	1-1/4	.147	.010	.005
16	25°	2-1/2	2-1/2	1-1/4	.147	.010	No
18	25°	2-1/2	2-1/2	1-1/4	.131	.008	.005
20	25°	1-7/8	1-7/8	3/4	.122	.006	.004
20	25°	2-1/2	2	1-1/4	.122	.006	.004
24	25°	1-7/8	1-7/8	3/4	.102	.005	.004
32	25°	1-7/8	1-7/8	3/4	.077	.005	.003
40	25°	1-7/8	1-1/2	3/4	.062	.004	.003

3/4" Bore, Finishing, Non Topping Right Hand, Single Thread

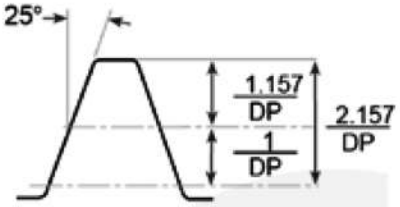
DP	PA	O.D.	Approx. Length	Bore	WD
8	25°	2	2	3/4	.281
10	25°	1-7/8	1-7/8	3/4	.216
10	25°	1-7/8	1-7/8	3/4	.225
12	25°	1-7/8	1-7/8	3/4	.180
12	25°	1-7/8	1-7/8	3/4	.188
14	25°	1-7/8	1-7/8	3/4	.154
14	25°	1-7/8	1-7/8	3/4	.161
16	25°	1-7/8	1-7/8	3/4	.135
16	25°	1-7/8	1-7/8	3/4	.141
18	25°	1-7/8	1-7/8	3/4	.120
18	25°	1-7/8	1-7/5	3/4	.125
20	25°	1-7/8	1-7/8	3/4	.112
20	25°	1-7/8	1-7/8	3/4	.113
22	25°	1-7/8	1-7/8	3/4	.102
24	25°	1-7/8	1-7/8	3/4	.094
28	25°	1-7/8	1-7/8	3/4	.081
32	25°	1-7/8	1-7/8	3/4	.071
34	25°	1-7/8	1-7/8	3/4	.067
36	25°	1-7/8	1-1/2	3/4	.063
40	25°	1-7/8	1-1/2	3/4	.057
44	25°	1-7/8	1-1/2	3/4	.052
48	25°	1-7/8	1-1/2	3/4	.048
64	25°	1-5/8	1-1/2	3/4	.036

3/4" Bore, Finishing, 1-RH, Topping



DP	O.D.	Approx. Length	Bore	WD
20	1-7/8	1-7/8	3/4	.112
24	1-7/8	1-7/8	3/4	.094
120	1-5/8	1-1/2	3/4	.020

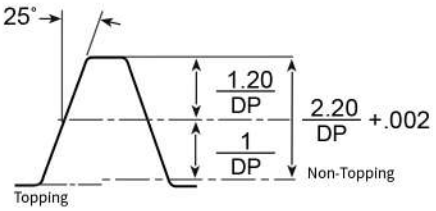
1/2" Bore, Finishing, Non Topping & Topping
Right Hand, Single Thread



DP	PA	O.D.	Length	Bore	WD
16	25°	1-1/4	1-1/4	1/2	.135
18	25°	1-1/4	1-1/4	1/2	.125
20	25°	1-1/4	1-1/4	1/2	.112
24	25°	1-1/4	1-1/4	1/2	.094
32	25°	1-1/8	1-1/8	1/2	.071
40	25°	1-1/8	1-1/8	1/2	.057
44	25°	1-1/8	1-1/8	1/2	.052
48	25°	1-1/8	1-1/8	1/2	.048
64	25°	1-1/8	1-1/8	1/2	.036
96	25°	1-1/8	1-1/8	1/2	.025

DP 25° PA Gear Hobs

8mm Bore, Finishing, Non Topping & Topping
Right Hand, Single Thread



For 18 DP and coarser, whole depth is 2.157/DP.

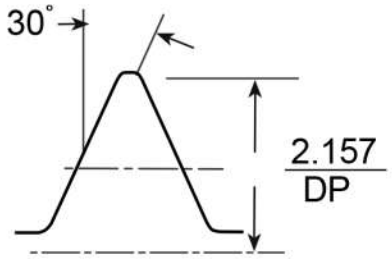
DP	PA	O.D.	Approx. Length	Bore mm	WD
16	25°	1.000	.750	8	.135
20	25°	1.000	.750	8	.112
24	25°	.750	.750	8	.094
24	25°	1.000	.750	8	.094
30	25°	.750	.750	8	.075
32	25°	.750	.750	8	.071
36	25°	.750	.750	8	.063
40	25°	.750	.750	8	.057
48	25°	.750	.750	8	.048
48	25°	1.000	.688	8	.048
64	25°	.625	.688	8	.036
64	25°	.750	.688	8	.036
64	25°	.938	.500	8	.036
64	25°	1.000	1.000	8	.036
72	25°	.625	.688	8	.033
80	25°	.750	.688	8	.030

Old American Standard, Finishing, Semi Topping, 1-RH

DP	PA	Splines	O.D.	Length	Bore	WD
3.556	30°	6	3	3	1-1/4	.088
3.556	30°	6	3	3	1-1/4	.189
4.064	30°	16	3	3	1-1/4	.206
4.267	30°	16	3	3	1-1/4	..253
5.333	30°	16	3-1/2	3-1/2	1-1/4	.133
5.333	30°	10	2-3/4	2-3/4	1-1/4	.148
5.689	30°	16	2-3/4	2-3/4	1-1/4	.221
6.095	30°	24	3-1/2	3-1/2	1-1/4	.210
6.667	30°	10	3-1/4	3-1/4	1-1/4	.118
8.000	30°	6	2-3/4	2-3/4	1-1/4	.039
8.533	30°	24	3	3	1-1/4	.154
8.889	30°	10	2-1/4	2-1/4	1-1/4	.072
9.482	30°	16	3	3	1-1/4	.132
10.667	30°	16	2-3/4	2-3/4	1-1/4	.077
10.667	30°	16	2	2	3/4	.077
14.222	30°	16	3	3	1-1/4	.094

DP 30° PA Gear Hobs

Full Depth, Finishing, Non Topping
Right Hand, Single Thread

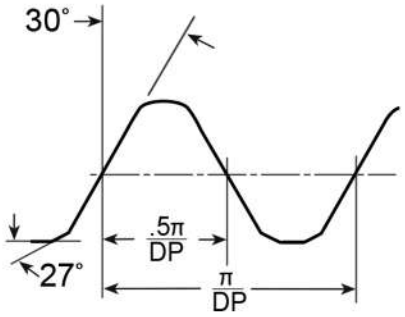


For 20 DP and finer
Whole depth is 2.20/DP+.002.

DP	PA	O.D.	Length	Bore	WD
2	30°	5 3/4	8	1-1/2	1.079
3	30°	4-1/2	4-1/2	1-1/4	.719
3.5	30°	4-1/4	4-1/4	1-1/4	.616
4	30°	4	4	1-1/4	.539
5	30°	3-1/2	3-1/2	1-1/4	.431
6	30°	3-1/2	3-1/2	1-1/4	.360
7	30°	3-1/4	3-1/4	1-1/4	.308
8	30°	3	3	1-1/4	.270
10	30°	3	3	1-1/4	.216
10	30°	1-7/8	1-7/8	3/4	.216
11	30°	2-3/4	2-3/4	1-1/4	.196
12	30°	1-7/8	1-7/8	3/4	.180
12	30°	2-3/4	2-3/4	1-1/4	.180
14	30°	1-7/8	1-7/8	3/4	.154
14	30°	2-1/2	2-1/2	1-1/4	.154
16	30°	1-7/8	1-7/8	3/4	.135
16	30°	2-1/2	2-1/2	1-1/4	.135
20	30°	1-7/8	1-7/8	3/4	.112
24	30°	1-7/8	1-7/8	3/4	.094
32	30°	1-7/8	1-7/8	3/4	.071

DP 30° PA Spline Hobs

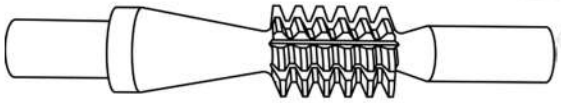
Involute Spline, Finishing, Right Hand
Chamfering, Fillet Root



DP	PA	O.D.	Length	Bore	# of Leads	WD
2.5/5	30°	4	4	1-1/4	1	.560
4/8	30°	3-1/2	3-1/2	1-1/4	1	.350
5/10	30°	3	3	1-1/4	1	.280
6/12	30°	3	3	1-1/4	1	.233
8/16	30°	2-3/4	2-3/4	1-1/4	1	.175
10/20	30°	1-7/8	1-7/8	3/4	1	.140
10/20	30°	2-1/2	2-1/2	1-1/4	1	.140
12/24	30°	1-7/8	1-7/8	3/4	1	.117
12/24	30°	2-1/2	2-1/2	1-1/4	1	.117
16/32	30°	1-7/8	1-7/8	3/4	1	.094
16/32	30°	2-1/2	2	1-1/4	1	.094
16/32	30°	3 1/7	3-1/7	1-1/4	1	.094
20/40	30°	1-7/8	1-7/8	3/4	1	.075
24/48	30°	1 1/4	1 1/4	1/2	2	.063
24/48	30°	1-7/8	1-7/8	3/4	1	.063

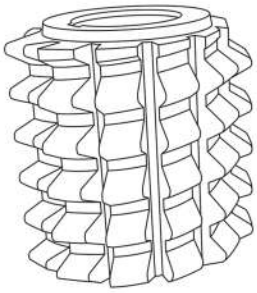
DP 30° PA Spline Hobs

Involute Spline, Shank Type, Finishing,
Single Lead, Right Hand,
Non- Chamfering, Fillet Root

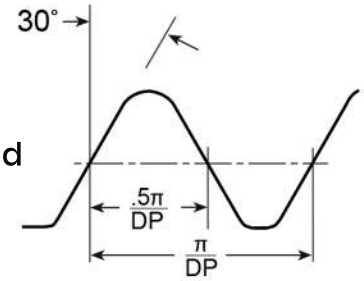


DP	PA	O.D.	WD
8/16	30°	.875	.175
10/20	30°	.875	.140
12/24	30°	.875	.117
12/24	30°	1.000	.117
16/32	30°	.750	.094
16/32	30°	.875	.094
20/30	30°	.750	.082
20/30	30°	1.000	.088
20/40	30°	.750	.075
20/40	30°	1.000	.075
24/48	30°	.750	.063
24/48	30°	1.000	.063
24/48	30°	1.880	.063
32/64	30°	.500	.047
32/64	30°	.750	.047
40/80	30°	.750	.038
48/96	30°	.625	.031
48/96	30°	.750	.031

DP 30° PA Spline Hobs



ANSI Spline, Finishing, Right Hand
Non- Chamfering, Fillet Root



DP	PA	O.D.	Length	Bore	# of Leads	WD
2.5/5	30°	4	4	1-1/4	1	.560
3/6	30°	4	4	1-1/4	1	.467
4/8	30°	3-1/2	3-1/2	1-1/4	1	.350
5/10	30°	3	3	1-1/4	1	.280
6/12	30°	3	3	1-1/4	1	.233
7/16	30°	1-7/8	1-7/8	3/4	1	.175
7/16	30°	2-3/4	2-3/4	1-1/4	1	.175
8/16	30°	1-7/8	1-7/8	3/4	1	.175
8/16	30°	2-3/4	2-3/4	1-1/4	1	.175
8/16	30°	4	4	1-1/4	1	.175
8/16	30°	2-3/4	2-3/4	1-1/4	2	.175
10/20	30°	1-7/8	1-7/8	3/4	1	.140
10/20	30°	2-1/2	2-1/2	1-1/4	1	.140
10/20	30°	2-1/2	2-1/2	1-1/4	2	.140
12/24	30°	1-1/4	1-1/4	1/2	1	.117
12/24	30°	1-7/8	1-7/8	3/4	1	.117
12/24	30°	2-1/2	2	1-1/4	1	.117
12/24	30°	3	3-1/2	1-1/4	1	.117
12/24	30°	4	4	1-1/4	2	.117
16/32	30°	1	3/4	8mm	1	.094
16/32	30°	1-1/4	1-1/4	1/2	1	.094
16/32	30°	1-1/8	1-1/8	1/2	1	.094
16/32	30°	1-7/8	1-7/8	3/4	1	.094
16/32	30°	1-7/8	1-7/8	3/4	2	.094
16/32	30°	2-1/2	2	1-1/4	1	.094
16/32	30°	3-1/2	3-2/5	1-1/4	1	.094
16/32	30°	2-3/4	2-3/4	1-1/4	3	.094
20/30	30°	3/4	3/4	8mm	1	.082
20/30	30°	1-7/8	1-7/8	3/4	1	.082
20/30	30°	2-1/2	2	1-1/4	1	.082
20/40	30°	3/4	3/4	8mm	1	.075
20/40	30°	1-1/4	1-1/4	1/2	1	.075
20/40	30°	1-7/8	1-7/8	3/4	1	.075
20/40	30°	1-7/8	1-7/8	3/4	2	.075
20/40	30°	2-1/2	2	1-1/4	1	.075

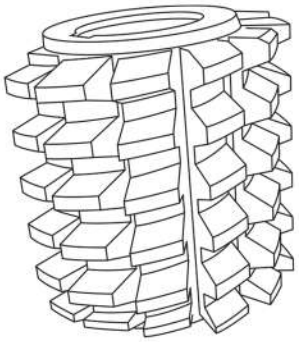
Continue...

DP	PA	O.D.	Length	Bore	# of Leads	WD
24/48	30°	3/4	2/3	8mm	1	.063
24/48	30°	1-1/4	1-1/4	1/2	1	.063
24/48	30°	1 1/8	1-1/8	1/2	1	.063
24/48	30°	1-7/8	1-7/8	3/4	1	.063
24/48	30°	1-1/2	1-1/2	3/4	1	.063
24/48	30°	1-7/8	1-7/8	3/4	1	.063
24/48	30°	2-1/2	2	1-1/4	1	.063
32/64	30°	3/4	2/3	8mm	1	.047
32/64	30°	1-1/8	1-1/8	1/2	1	.047
32/64	30°	1-7/8	1-7/8	3/4	1	.047
32/64	30°	1-3/8	1-1/2	3/4	1	.047
32/64	30°	1-7/8	1-1/2	3/4	2	.047
32/64	30°	2-1/2	2	1-1/4	1	.047
40/80	30°	3/4	2/3	8mm	1	.038
40/80	30°	1-1/8	1-1/8	1/2	1	.038
40/80	30°	1-7/8	1-7/8	3/4	1	.038
40/80	30°	2-1/2	2	1-1/4	1	.038
48/96	30°	3/4	5/8	8mm	1	.031
48/96	30°	1-1/8	1-1/8	1/2	1	.031
48/96	30°	1-7/8	1-1/2	3/4	1	.031
48/96	30°	2-1/2	2	1-1/4	1	.031
64/128	30°	3/4	2/3	8mm	1	.023
64/128	30°	1-5/8	1-1/2	3/4	1	.023

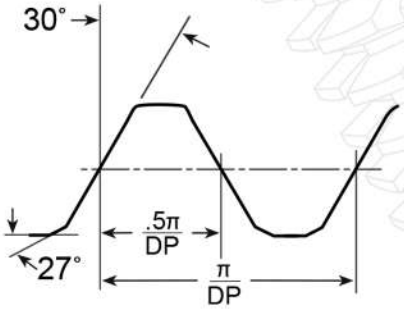
ANSI Spline, Shank Type, Finishing, Non- Chamfering,
Flat Root, Single Lead, Right Hand

DP	PA	O.D.	WD
8/16	30°	.875	.147
10/20	30°	.875	.118
12/24	30°	.875	.098
16/32	30°	.750	.071
16/32	30°	1.000	.071
16/32	30°	.875	.073
20/40	30°	.875	.057
20/40	30°	.625	.059
20/40	30°	.750	.059
24/48	30°	.750	.048
24/48	30°	1.000	.048
24/48	30°	.750	.049
32/64	30°	.750	.037
40/80	30°	.750	.030
48/96	30°	.625	.025

DP 30° PA Gear Hobs



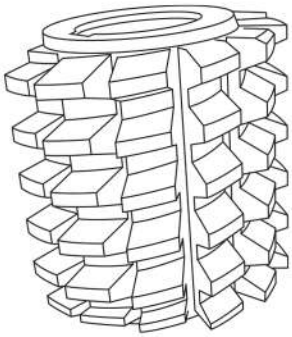
Involute Spline, Finishing,
Right Hand,Chamfering, Flat Root



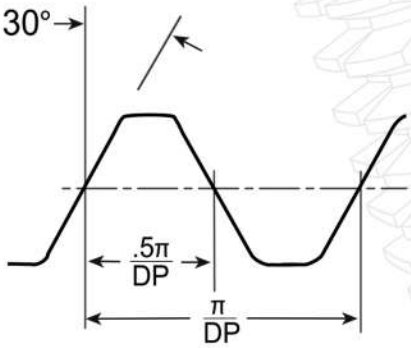
DP	PA	OD	Length	Bore	# of Leads
2.5/5	30°	4	4	1-1/4	1
2.5/5	30°	4-1/4	4-3/4	1-1/4	1
3/6	30°	4	4	1-1/4	1
4/8	30°	3-1/2	3-1/2	1-1/4	1
5/10	30°	3	3	1-1/4	1
6/12	30°	3	3	1-1/4	1
6/12	30°	3-1/4	3-1/4	1-1/4	2
8/16	30°	1-7/8	1-7/8	3/4	1
8/16	30°	2-3/4	2-3/4	1-1/4	1
8/16	30°	3	3	1-1/4	1
8/16	30°	2-3/4	4-3/8	1-1/4	1
8/16	30°	3	3	1-1/4	2
10/20	30°	1-7/8	1-7/8	3/4	1
10/20	30°	2-1/2	2-1/2	1-1/4	1
12/24	30°	1-1/4	1-1/4	1/2	1
12/24	30°	1-7/8	1-7/8	3/4	1
12/24	30°	2-1/2	2	1-1/4	1
12/24	30°	2-3/4	2-3/4	1-1/4	2
16/32	30°	1-1/4	1-1/4	1/2	1
16/32	30°	1-1/4	1-1/4	1/2	1
16/32	30°	1-7/8	1-7/8	3/4	1
16/32	30°	1-7/8	1-7/8	3/4	2

DP	PA	OD	Length	Bore	# of Leads
16/32	30°	2-1/2	2	1-1/4	1
16/32	30°	2-1/4	2-3/4	1-1/4	1
16/32	30°	2-3/4	4	1-1/4	1
16/32	30°	2-3/4	2-3/4	1-1/4	2
20/40	30°	3/4	2/3	8mm	1
20/40	30°	1-1/4	1-1/4	1/2	1
20/40	30°	1-7/8	1-7/8	3/4	1
20/40	30°	1-7/8	1-7/8	3/4	2
20/40	30°	2-1/2	2	1-1/4	1
20/40	30°	3	3	1-1/4	1
24/48	30°	3/4	5/8	8mm	1
24/48	30°	1-1/4	1-1/4	1/2	1
24/48	30°	1-7/8	1-7/8	3/4	1
24/48	30°	2-1/2	2	1-1/4	1
32/64	30°	3/4	2/3	8mm	1
32/64	30°	1-1/8	1-1/8	1/2	1
32/64	30°	1-7/8	1-7/8	3/4	1
32/64	30°	2-1/2	2	1-1/4	1
40/80	30°	1-1/8	1-1/8	1/2	1
48/96	30°	3/4	2/3	8mm	1

DP 30° PA Hobs



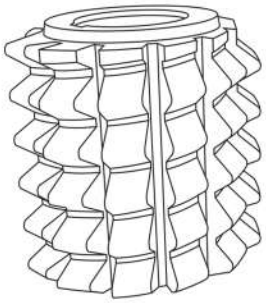
ANSI Spline, Finishing, Right Hand
Non- Chamfering, Flat Root



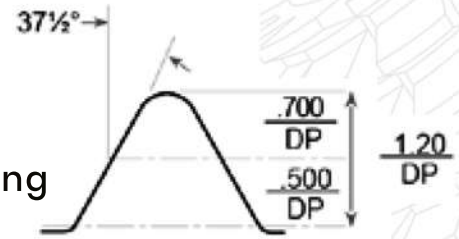
DP	PA	OD	Length	Bore	# Of Leads
2.5/5	30°	4	4	1-1/4	1
3/6	30°	4	4	1-1/4	1
4/8	30°	3-1/2	3-1/2	1-1/4	1
4/8	30°	4	4	1-1/4	2
5/10	30°	3	3	1-1/4	1
5/10	30°	3-1/2	3-1/2	1-1/4	2
6/12	30°	2	3-1/2	3/4	1
6/12	30°	3	3	1-1/4	1
6/12	30°	3-1/4	3-1/4	1-1/4	2
8/16	30°	1-7/8	1-7/8	3/4	1
8/16	30°	2-3/4	2-3/4	1-1/4	1
8/16	30°	3	3	1-1/4	2
10/20	30°	1-7/8	1-7/8	3/4	1
10/20	30°	2	2	3/4	2
10/20	30°	2-1/2	2-1/2	1-1/4	1
10/20	30°	2-3/4	2-3/4	1-1/4	2
10/20	30°	114mm	114mm	40mm	1
12/24	30°	1-1/4	1-1/4	1/2	1
12/24	30°	1-1/4	2-1/2	1/2	1
12/24	30°	1-7/8	1-7/8	3/4	1
12/24	30°	2	2	3/4	2
12/24	30°	2-1/2	2	1-1/4	1
12/24	30°	3	3	1-1/4	1
12/24	30°	2-3/4	2-3/4	1-1/4	2
12/24	30°	48mm	50mm	22mm	1
16/32	30°	1-1/4	1-1/4	1/2	1
16/32	30°	1	1-7/8	1/2	2
16/32	30°	1-7/8	1-7/8	3/4	1
16/32	30°	1-7/8	1-7/8	3/4	2

DP	PA	OD	Length	Bore	# Of Leads
16/32	30°	1-7/8	1-7/8	3/4	3
16/32	30°	2-1/2	2	1-1/4	1
16/32	30°	2-3/4	2-3/4	1-1/4	2
16/32	30°	2-3/4	2-3/4	1-1/4	3
16/32	30°	48mm	50mm	22mm	1
20/40	30°	3/4	3/4	8mm	1
20/40	30°	1-1/4	1-1/4	1/2	1
20/40	30°	1-1/4	1-1/4	1/2	2
20/40	30°	1-7/8	1-7/8	3/4	1
20/40	30°	1-7/8	1-7/8	3/4	2
20/40	30°	1-7/8	1-7/8	3/4	2
20/40	30°	2-1/2	2	1-1/4	1
20/40	30°	60mm	80mm	27mm	1
24/48	30°	3/4	5/8	8mm	1
24/48	30°	1-1/4	1-1/4	1/2	1
24/48	30°	1-7/8	1-7/8	3/4	1
24/48	30°	1-7/8	1-7/8	3/4	2
24/48	30°	2-1/2	2	1-1/4	1
24/48	30°	3	4	1-1/4	1
32/64	30°	3/4	2/3	8mm	1
32/64	30°	1-1/8	1-1/8	1/2	1
32/64	30°	1-7/8	1-1/2	3/4	1
32/64	30°	1-7/8	1-7/8	3/4	2
32/64	30°	2-1/2	2	1-1/4	1
40/80	30°	3/4	5/8	8mm	1
40/80	30°	1-1/8	1-1/8	1/2	1
40/80	30°	1-7/8	1-7/8	3/4	1
40/80	30°	2-1/2	2	1-1/4	1
48/96	30°	3/4	5/8	8mm	1
48/96	30°	1-1/8	1-1/8	1/2	1
48/96	30°	1-7/8	1-1/2	3/4	1
48/96	30°	2-1/2	2	1-1/4	1

DP 37.5° PA Hobs



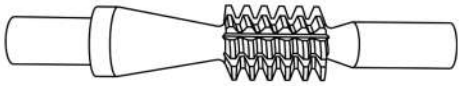
ANSI Spline, Finishing, Single Lead,
Right Hand Fillet Root, Non- Chamfering



DP	PA	O.D.	Length	Bore	WD
2.5/5	37.5°	4	4	1-1/4	.511
3/6	37.5°	3-1/4	3-1/4	1-1/4	.427
4/8	37.5°	3-1/2	3-1/2	1-1/4	.231
5/10	37.5°	3	3	1-1/4	.258
6/12	37.5°	3	3	1-1/4	.216
8/16	37.5°	2-3/4	2-3/4	1-1/4	.163
10/20	37.5°	1-7/8	1-7/8	3/4	.120
10/20	37.5°	2-1/2	2	1-1/4	.120
12/24	37.5°	1-7/8	1-7/8	3/4	.110
16/32	37.5°	1-7/8	1-7/8	3/4	.075
16/32	37.5°	2-1/2	2	1-1/4	.075
20/40	37.5°	1-1/4	1-1/4	1/2	.060
20/40	37.5°	1-7/8	1-7/8	3/4	.060
20/40	37.5°	2-1/2	2	1-1/4	.068
24/48	37.5°	3/4	5/8	8mm	.058
24/48	37.5°	1-1/4	1-1/4	1/2	.058
24/48	37.5°	1-7/8	1-7/8	3/4	.058
24/48	37.5°	2-1/2	2	1-1/4	.058
32/64	37.5°	1-1/8	1-1/8	1/2	.045
32/64	37.5°	1-7/8	1-1/2	3/4	.045
32/64	37.5°	2-1/2	2	1-1/4	.045
40/80	37.5°	3/4	5/8	8mm	.037
40/80	37.5°	1-1/8	1-1/8	1/2	.037
40/80	37.5°	1-7/8	1-1/2	3/4	.037
40/80	37.5°	2-1/2	2	1-1/4	.037
48/96	37.5°	3/4	5/8	8mm	.026
48/96	37.5°	2-1/2	2	1-1/4	.026

DP 37.5° PA Hobs

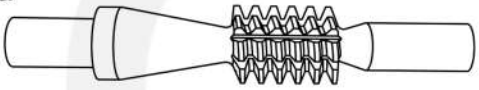
ANSI Spline, Finishing, Right Hand,
Non- Chamfering, Fillet Root
5/8" Straight Shanks



DP	PA	O.D.	Length	WD
16/32	37.5°	.875	6	.0750
20/40	37.5°	.875	6	.0600
24/48	37.5°	.750	6	.0577
32/64	37.5°	.750	6	.0445
40/80	37.5°	.750	6	.0366
48/96	37.5°	.625	6	.0264

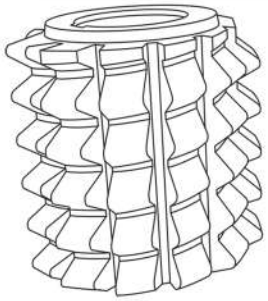
DP 45° PA Gear Hobs

ANSI Spline, Finishing, Single Lead Right Hand
Non Chamfering, Fillet Root Right Hand
5/8" Straight Shanks

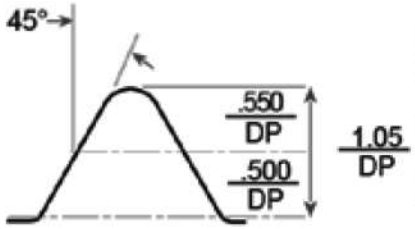


DP	PA	O.D.	Length	WD
8/16	45°	.875	6.000	.131
10/20	45°	.875	6.000	.105
16/32	45°	.875	6.000	.066
20/40	45°	.875	6.000	.053
24/48	45°	.750	6.000	.044
32/64	45°	.750	6.000	.033
40/80	45°	.750	6.000	.026
48/96	45°	.625	6.000	.022
64/128	45°	.563	6.000	.016

DP 45° PA Hobs

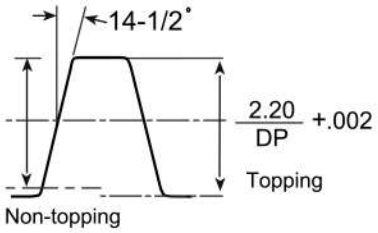


ANSI Spline, Finishing, Right Hand,
Non Chamfering, Fillet Root

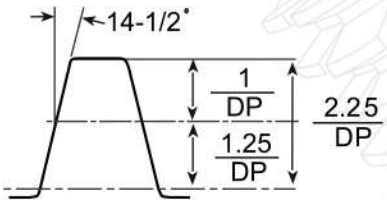


DP	PA	O.D.	Length	Bore	WD
8/16	45°	2-3/4	2-3/4	1-1/4	.131
10/20	45°	1-1/8	1-1/8	1/2	.105
10/20	45°	1-3/4	1-3/4	3/4	.105
10/20	45°	2-1/2	2-1/2	1-1/4	.105
12/24	45°	1-7/8	1-7/8	3/4	.088
12/24	45°	2-1/2	2	1-1/4	.088
16/32	45°	1-1/4	1-1/4	1/2	.066
16/32	45°	1-7/8	1-7/8	3/4	.066
16/32	45°	2-1/2	2	1-1/4	.066
20/40	45°	1-1/4	1-1/4	1/2	.053
20/40	45°	3/4	3/4	8mm	.053
20/40	45°	1-7/8	1-7/8	3/4	.053
20/40	45°	2-1/2	2	1-1/4	.053
24/48	45°	3/4	5/8	8mm	.044
24/48	45°	1-1/4	1-1/4	1/2	.044
24/48	45°	1-7/8	1-7/8	3/4	.044
24/48	45°	1-3/8	1-1/2	3/4	.044
24/48	45°	2-1/2	2	1-1/4	.044
32/64	45°	3/4	5/8	8mm	.033
32/64	45°	1-1/8	1-1/8	1/2	.033
32/64	45°	1-7/8	1-7/8	3/4	.033
32/64	45°	2-1/2	2	1-1/4	.033
40/80	45°	3/4	5/8	8mm	.026
40/80	45°	1-1/8	1-1/8	1/2	.026
40/80	45°	1-7/8	1-7/8	3/4	.026
40/80	45°	1-3/8	1-1/2	3/4	.026
40/80	45°	2-1/2	2	1-1/4	.026
48/96	45°	3/4	5/8	8mm	.022
48/96	45°	1-1/8	1-1/8	1/2	.022
48/96	45°	1-7/8	1-7/8	3/4	.022
64/128	45°	3/4	5/8	8mm	.016
64/128	45°	1-1/8	1-1/8	1/2	.016
64/128	45°	1-7/8	1-1/2	3/4	.016
80/160	45°	3/4	1/2	8mm	.013
80/160	45°	1-1/8	1-1/8	1/2	.013
80/160	45°	1-7/8	1-1/2	3/4	.013

Finishing, Non Topping 1-RH



Rack Profile

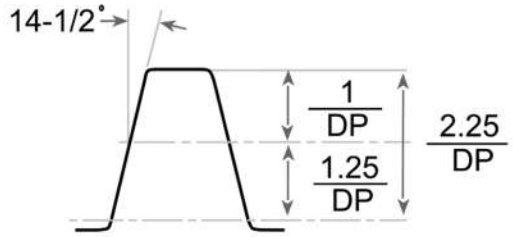


Rack Profile

Module	PA	O.D.	Length	Bore	WD
.500	14.5°	1 1/8	1 1/8	1/2	.045
.600	14.5°	1 1/8	1 1/8	1/2	.054
.750	14.5°	1 1/8	1 1/8	1/2	.067
.800	14.5°	1 1/8	1 1/8	1/2	.071
.900	14.5°	1 7/8	1 7/8	3/4	.080
1	14.5°	1-7/8	1-7/8	3/4	.089
1	14.5°	2-1/2	2	1-1/4	.089
1.250	14.5°	1-7/8	1-7/8	3/4	.111
1.250	14.5°	2-1/2	2	1-1/4	.111
1.500	14.5°	1-7/8	1-7/8	3/4	.133
1.500	14.5°	2-1/2	2-1/2	1-1/4	.133
1.750	14.5°	1-7/8	1-7/8	3/4	.155
1.750	14.5°	2-1/2	2-1/2	1-1/4	.155
2	14.5°	1-7/8	1-7/8	3/4	.177
2	14.5°	2-3/4	2-3/4	1-1/4	.177
2.250	14.5°	1-7/8	1-7/8	3/4	.199
2.250	14.5°	2-3/4	2-3/4	1-1/4	.199
2.50	14.5°	1-7/8	1-7/8	3/4	.221
2.500	14.5°	2-3/4	2-3/4	1-1/4	.221
2.500	14.5°	2-3/4	2-3/4	1-1/4	.212
2.750	14.5°	3	3	1-1/4	.244
3	14.5°	3	3	1-1/4	.266
3.250	14.5°	3	3	1-1/4	.288
3.500	14.5°	3 1/3	3	1-1/4	.310
3.750	14.5°	3	3	1-1/4	.332
4	14.5°	3-1/2	3-1/2	1-1/4	.354
4.250	14.5°	3-1/2	3-1/2	1-1/4	.376
4.500	14.5°	3-1/2	3-1/2	1-1/4	.399
4.750	14.5°	3-1/2	3-1/2	1-1/4	.421
5	14.5°	3-1/2	3-1/2	1-1/4	.443
5.250	14.5°	3-1/2	3-1/2	1-1/4	.465
5.500	14.5°	3-1/2	3-1/2	1-1/4	.487
5.750	14.5°	3-1/2	3-1/2	1-1/4	.509
6	14.5°	4	4	1-1/4	.531
7	14.5°	4-1/4	4-1/4	1-1/4	.620
7.500	14.5°	5	5	1 1/2	.664
8	14.5°	4-1/2	5	1-1/4	.709
9	14.5°	5	6	1-1/4	.797
10	14.5°	5	6	1-1/2	.886
11	14.5°	5-3/4	6-1/2	1-1/2	.974
12	14.5°	5-3/4	7	1-1/2	1.063

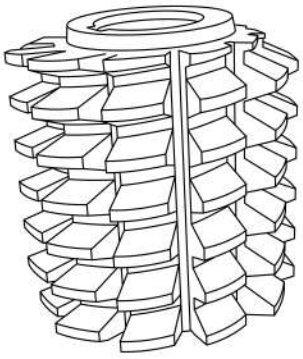
Module 15° PA Gear Hobs

Finishing, Non Topping
1-RH

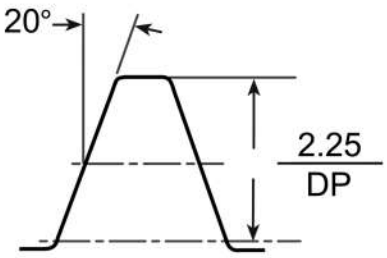


Module	PA	O.D.	Length	Bore	WD
1	15°	1-7/8	1-7/8	3/4	.089
1	15°	2-1/2	2	1-1/4	.089
1.250	15°	2-1/2	2	1-1/4	.111
1.500	15°	2-1/2	2-1/2	1-1/4	.133
1.750	15°	2-1/2	2-1/2	1-1/4	.155
2	15°	2-3/4	2-3/4	1-1/4	.177
2 .250	15°	2-3/4	2-3/4	1-1/4	.199
2.500	15°	2-3/4	2-3/4	1-1/4	.221
2.750	15°	3	3	1-1/4	.244
3	15°	3	3	1-1/4	.266
3.250	15°	3	3	1-1/4	.288
3.500	15°	3	3	1-1/4	.310
3.750	15°	3	3	1-1/4	.332
4	15°	3-1/2	3-1/2	1-1/4	.354

Module 20° PA Gear Hobs



Finishing,
Non Topping



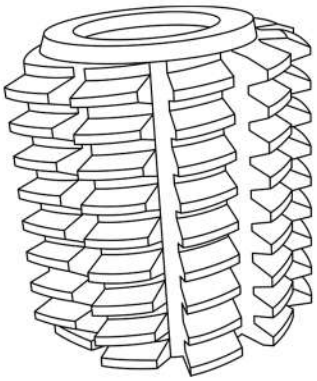
Module	PA	O.D.	Length	Bore	# of Leads	WD
1	20°	1	3/4	8mm	1	.089
1	20°	1-1/4	1-1/4	1/2	1	.089
1	20°	1-7/8	1-7/8	3/4	1	.089
1	20°	2-1/2	2	1-1/4	1	.089
1	20°	32mm	75mm	13mm	1	.089
1	20°	1-7/8	1-7/8	3/4	2	.089
1	20°	1-7/8	1-7/8	3/4	3	.089
1-1/8	20°	1-7/8	1-7/8	3/4	1	.100
1-1/8	20°	2-1/2	2	1-1/4	1	.100
1-1/4	20°	1	3/4	8mm	1	.111
1-1/4	20°	1-1/4	1-1/4	1/2	1	.111
1-1/4	20°	1-7/8	1-7/8	3/4	1	.111
1-1/4	20°	2-1/2	2	1-1/4	1	.111
1-3/8	20°	1-7/8	1-7/8	3/4	1	.122
1-3/8	20°	2-1/2	2	1-1/4	1	.122
1-1/2	20°	1-1/4	1-1/4	1/2	1	.133
1-1/2	20°	1-7/8	1-7/8	3/4	1	.133
1-1/2	20°	32mm	75mm	13mm	1	.133
1-1/2	20°	2-1/2	2-1/2	1-1/4	1	.133
1-1/2	20°	36mm	71mm	16mm	1	.133
1-3/4	20°	1-7/8	1-7/8	3/4	1	.155
1-3/4	20°	2-1/2	2-1/2	1-1/4	1	.155
2	20°	1-7/8	1-7/8	3/4	1	.177
2	20°	2-3/4	2-3/4	1-1/4	1	.177
2	20°	40mm	71mm	16mm	1	.177
2	20°	50mm	70mm	22mm	1	.177
2	20°	70mm	120mm	27mm	1	.177

Module	PA	O.D.	Length	Bore	# of Leads	WD
2-1/4	20°	1-7/8	1-7/8	3/4	1	.199
2-1/4	20°	2-3/4	2-3/4	1-1/4	1	.199
2-1/2	20°	1-7/8	1-7/8	3/4	1	.221
2-1/2	20°	2-3/4	2-3/4	1-1/4	1	.221
2-3/4	20°	2	2	3/4	1	.244
2-3/4	20°	3	3	1-1/4	1	.244
3	20°	2	2	3/4	1	.266
3	20°	3	3	1-1/4	1	.266
3	20°	65mm	100mm	27mm	1	.266
3	20°	112mm	130mm	40mm	1	.266
3-1/4	20°	3	3	1-1/4	1	.288
3-1/2	20°	3	3	1-1/4	1	.310
3-3/4	20°	3	3	1-1/4	1	.332
4	20°	3-1/2	3-1/2	1-1/4	1	.354
4	20°	75mm	120mm	27mm	1	.354
4	20°	90mm	120mm	27mm	1	.354
4	20°	120mm	140mm	40mm	1	.354
4-1/4	20°	3-1/2	3-1/2	1-1/4	1	.376
4-1/2	20°	3-1/2	3-1/2	1-1/4	1	.399
4-1/2	20°	76mm	121mm	27mm	1	.399
4-3/4	20°	3-1/2	3-1/2	1-1/4	1	.421
5	20°	3-1/2	3-1/2	1-1/4	1	.443
5	20°	5	6	1 1/2	3	.443
5	20°	90mm	120mm	27mm	1	.443

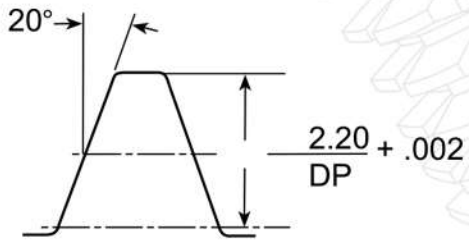
Continue...

Module	PA	O.D.	Length	Bore	# of Leads	WD
5-1/4	20°	3-1/2	3-1/2	1-1/4	1	.465
5-1/2	20°	3-1/2	3-1/2	1-1/4	1	.487
5-3/4	20°	3-1/2	3-1/2	1-1/4	1	.509
6	20°	4	4	1-1/4	1	.531
6	20°	90mm	110mm	27mm	1	.531
6	20°	100mm	120mm	32mm	1	.531
6	20°	120mm	140mm	40mm	1	.531
6-1/4	20°	4	4	1-1/4	1	.554
6-1/2	20°	4	4	1-1/4	1	.576
7	20°	4-1/4	4-3/4	1-1/4	1	.620
7-1/2	20°	4-1/2	5	1-1/4	1	.664
8	20°	4-1/2	5	1-1/4	1	.709
8	20°	119mm	140mm	40mm	1	.709
8-1/2	20°	4-1/2	5	1-1/4	1	.753
9	20°	5	6	1-1/2	1	.797
9	20°	4-3/4	5	1 1/4	1	.797
10	20°	5	7	1-1/2	1	.886
10	20°	4-3/4	5-1/2	1-1/4	1	.886
10	20°	127mm	150mm	40mm	1	.886
11	20°	5-1/2	7-1/2	1-1/2	1	.974
11	20°	5 1/4	6	1-1/4	1	.974
12	20°	5-3/4	8	1-1/2	1	1.063
12	20°	5-1/2	6	1-1/4	1	1.063
12	20°	146mm	203mm	50mm	1	1.063
13	20°	6	8	1-1/2	1	1.152
13	20°	5-1/2	6	1-1/4	1	1.152
14	20°	7-1/4	9	2	1	1.240
14	20°	6-1/2	8	1-1/2	1	1.240
15	20°	7-1/4	9	2	1	1.329
15	20°	6-1/2	8	1-1/2	1	1.329
16	20°	8	10	2	1	1.417
16	20°	7-1/2	8	1-1/2	1	1.417
17	20°	8	10	2	1	1.506
18	20°	8	10	2	1	1.594
18	20°	7-1/2	8	1-1/2	1	1.594
19	20°	8-1/2	11	2	1	1.683
20	20°	8-3/4	12	2	1	1.772
20	20°	8-1/4	10-1/2	1-1/2	1	1.772
21	20°	8-3/4	12	2	1	1.860
22	20°	9-1/2	13	2	1	1.949
22	20°	8-3/4	11	1 1/2	1	1.949
24	20°	10-3/4	18	2-1/2	1	2.126
24	20°	10-1/4	12-1/2	2	1	2.126
25	20°	10-3/4	15	2-1/2	1	2.215
25	20°	10-1/4	12-1/2	2	1	2.215
26	20°	12-1/2	12-1/2	2	1	2.303
28	20°	11-3/4	15	2-1/2	1	2.480
30	20°	12-1/2	15-1/2	2-1/2	1	2.657
30	20°	11-1/2	13-1/2	2-1/2	1	2.657
32	20°	12-1/2	16	2-1/2	1	2.835
32	20°	12	14	2 1/2	1	2.835

Module 20° PA Gear Hobs



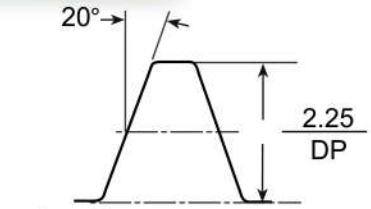
Finishing Non Topping
Single Lead



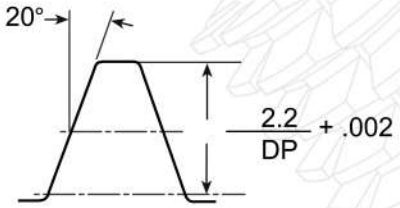
Module	PA	O.D.	Length	Bore	WD
0.2	20°	3/4	5/8	8mm	.019
0.25	20°	5/8	2/3	8mm	.024
0.3	20°	3/4	5/7	8mm	.028
0.3	20°	1-5/8	1-1/2	1/2	.028
0.3	20°	1-5/8	1-1/2	3/4	.028
0.35	20°	3/4	11/16	8mm	.032
0.35	20°	1-1/8	1-1/8	1/2	.032
0.4	20°	3/4	2/3	8mm	.037
0.4	20°	1-1/8	1-1/8	1/2	.037
0.4	20°	1-5/8	1-1/2	3/4	.037
0.45	20°	3/4	2/3	8mm	.041
0.45	20°	1-7/8	1-1/2	3/4	.041
0.5	20°	3/4	5/8	8mm	.045
0.5	20°	1-1/8	1-1/8	1/2	.045
0.5	20°	1-7/8	1-1/2	3/4	.045
0.5	20°	2-1/2	2	1-1/4	.041
0.55	20°	3/4	3/4	8mm	.050
0.55	20°	1-7/8	1-7/8	0.75	.050
0.6	20°	3/4	3/4	8mm	.054
0.6	20°	1-1/8	1-1/8	1/2	.054
0.6	20°	1-7/8	1-1/2	3/4	.054
0.6	20°	2-1/2	2	1-1/4	.054
0.65	20°	3/4	2/3	8mm	.058
0.65	20°	1-1/8	1-1/8	1/2	.058
0.65	20°	1-7/8	1-1/2	3/4	.058
0.7	20°	3/4	3/4	8mm	.063
0.7	20°	1-1/8	1-1/8	1/2	.063
0.7	20°	1-7/8	1-1/2	3/4	.063
0.7	20°	2-1/2	2	1-1/4	.063

Module	PA	O.D.	Length	Bore	WD
0.75	20°	1	5/8	8mm	.067
0.75	20°	1-1/8	1-1/2	1/2	.067
0.75	20°	1-7/8	1-7/8	3/4	.067
0.75	20°	2-1/2	2	1-1/4	.067
0.8	20°	1	3/4	8mm	.071
0.8	20°	1-1/8	1-1/8	1/2	.071
0.8	20°	1-7/8	1-7/8	3/4	.071
0.8	20°	2-1/2	2	1.24	.071
0.85	20°	1	3/4	8mm	.076
0.85	20°	1-1/8	1-1/8	1/2	.076
0.85	20°	1-7/8	1-7/8	3/4	.076
0.85	20°	2-1/2	2	1-1/4	.076
0.9	20°	1	3/4	8mm	.080
0.9	20°	1-1/4	1-1/4	1/2	.080
0.9	20°	1-7/8	1-7/8	3/4	.080
0.9	20°	2-1/2	2	1-1/4	.080
0.95	20°	1	3/4	8mm	.084
0.95	20°	1-7/8	1-1/2	3/4	.084

Finishing, Topping Single Lead

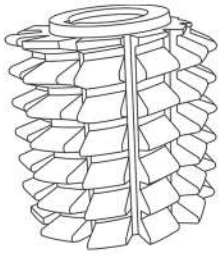


Rack Profile

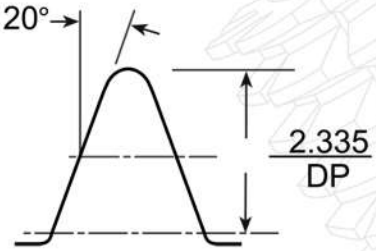


Module	PA	O.D.	Length	Bore	WD
0.3	20°	1	1/2	8mm	.028
0.35	20°	3/4	1/2	8mm	.032
0.4	20°	1	2/3	8MM	.037
0.4	20°	1-5/8	1-1/2	3/4	.037
0.5	20°	3/4	2/3	8MM	.045
0.5	20°	1-7/8	1-1/2	3/4	.045
0.55	20°	2/3	1/2	8MM	.050
0.6	20°	3/4	3/4	8MM	.054
0.6	20°	1-1/8	1-1/8	1/2	.054
0.6	20°	1-7/8	1-1/2	3/4	.054
0.65	20°	3/4	3/4	8MM	.058
0.7	20°	1-1/8	1-1/5	1/2	.063
0.75	20°	1	3/4	8MM	.067
0.75	20°	1-1/8	1-1/8	1/2	.067
0.75	20°	1-7/8	1-7/8	3/4	.067
0.8	20°	1	3/4	8MM	.071
0.8	20°	1-1/8	1-1/5	1/2	.071
0.8	20°	1-7/8	1-7/8	3/4	.071
0.85	20°	3/4	3/4	8MM	.076
0.9	20°	1-7/8	1-1/2	3/4	.080
0.9	20°	2-1/2	2	1 1/4	.080
1	20°	1	3/4	8mm	.089
1	20°	1-1/4	1-1/4	1/2	.089
1	20°	1-7/8	1-7/8	3/4	.089
1.25	20°	1-1/4	1-1/4	1/2	.111
1.25	20°	1-7/8	1-7/8	3/4	.111
1.5	20°	1-7/8	1-7/8	3/4	.133
1.5	20°	2-1/2	2-1/2	1-1/4	.133
1.75	20°	1-7/8	1-7/8	3/4	.155
1.75	20°	2-1/2	2-1/2	1-1/4	.155
2	20°	2	2	3/4	.177
2	20°	2-3/4	2-3/4	1-1/4	.177
2.25	20°	2-3/4	2-3/4	1-1/4	.199
2.5	20°	1-7/8	1-7/8	3/4	.221
2.5	20°	2-3/4	2-3/4	1-1/4	.221
2.75	20°	2	2	3/4	.244
2.75	20°	3	3	1-1/4	.244
3	20°	3	3	1-1/4	.266
3.5	20°	3	3	1-1/4	.310
6	20°	4	4	1-1/4	.531

Module 20° PA Gear Hobs

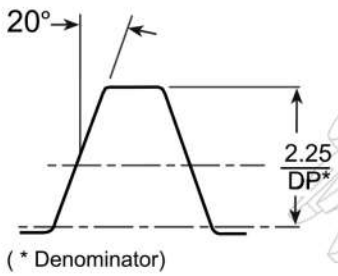


Full Fillet, Finishing
Non Topping, Single Lead Right Hand

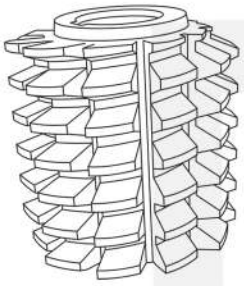


Module	PA	O.D.	Length	Bore	WD
1	20°	1-7/8	1-7/8	3/4	.092
1	20°	2 1/2	2	1-1/4	.092
1-1/4	20°	1-7/8	1-7/8	3/4	.115
1-1/4	20°	2-1/2	2	1-1/4	.115
1-3/8	20°	2-1/2	2	1-1/4	.126
1-1/2	20°	1-7/8	1-7/8	3/4	.138
1-1/2	20°	2-1/2	2	1-1/4	.138
1-3/4	20°	1-7/8	1-7/8	3/4	.161
1-3/4	20°	2-1/2	2-1/2	1-1/4	.161
2	20°	1-7/8	1-7/8	3/4	.184
2	20°	2-3/4	2-3/4	1-1/4	.184
2-1/4	20°	1-7/8	1-7/8	3/4	.207
2-1/4	20°	2-3/4	2-3/4	1-1/4	.207
2-1/2	20°	1-7/8	1-7/8	3/4	.230
2-1/2	20°	2-3/4	2-3/4	1-1/4	.230
2-3/4	20°	3	3	1-1/4	.253
3	20°	2	2	3/4	.276
3	20°	3	3	1-1/4	.276
3-1/4	20°	3-1/4	3-1/4	1-1/4	.299
3-1/2	20°	3	3	1-1/4	.322
3-3/4	20°	3	3	1-1/4	.345
4	20°	3-1/2	3-1/2	1-1/4	.368
4-1/4	20°	3-1/2	3-1/2	1-1/4	.391
4-1/2	20°	3-1/2	3-1/2	1-1/4	.414
4-3/4	20°	3-1/2	3-1/2	1-1/4	.437
5	20°	3-1/2	3-1/2	1-1/4	.460
6	20°	4	4	1-1/4	.552
6-1/2	20°	4	4	1-1/4	.598
7	20°	4-1/4	4-3/4	1-1/4	.644
8	20°	4-1/2	5	1-1/4	.735
9	20°	5	6	1-1/4	.827
10	20°	5	6	1-1/2	.919
11	20°	5-1/2	6-1/2	1-1/2	1.011
12	20°	5-3/4	7	1-1/2	1.103
14	20°	6-1/2	8	1-1/2	1.287
15	20°	6-1/2	8	1-1/2	1.379
16	20°	8	9	2	1.471
18	20°	8-1/4	9	2	1.655
20	20°	8-3/4	11	2	1.839
25	20°	11	15	2-1/2	2.298

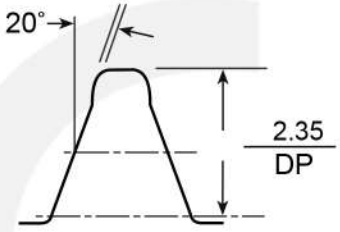
Combination Pitch Stub Finishing, Non Topping Single Lead, Right Hand



Module	PA	O.D.	Length	Bore	WD
1.25/1	20°	2-1/2	2-1/2	1-1/.4	.089
1.5/1.25	20°	2-1/2	2-1/2	1-1/4	.111
2/1.75	20°	2-3/4	2-3/4	1-1/4	.155
2.5/2	20°	2-3/4	2-3/4	1-1/4	.177
3/2.25	20°	3	3	1-1/4	.199
3.5/2.5	20°	3	3	1-1/4	.222
4/3	20°	3-1/2	3-1/2	1-1/4	.266
5/3.75	20°	3-1/2	3-1/2	1-1/4	.332



Pre-Grind Non Topping Single Lead

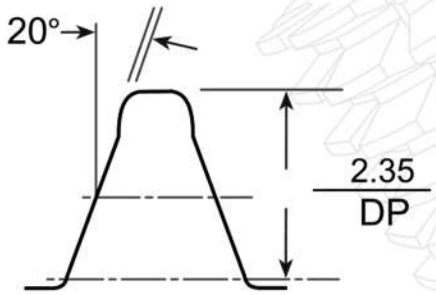


Module	PA	O.D.	Length	Bore	WD	Thin (Approx “)	Protuberance (Approx “)
.750	20°	1-7/8	1-1/2	3/4	.069	.004	.003
.800	20°	1-7/8	1-7/8	3/4	.074	.006	.003
1	20°	1-7/8	1-7/8	3/4	.093	.010	.004
1	20°	2-1/2	2	1-1/4	.093	.010	.004
1.250	20°	1-7/8	1-7/8	3/4	.116	.010	.004
1.250	20°	2-1/2	2-1/2	1-1/4	.116	.010	.004
1.500	20°	2-1/2	2-1/2	1-1/4	.139	.010	.007
1.500	20°	1-7/8	1-7/8	3/4	.139	.010	.007
1.500	20°	2-1/2	2-1/2	1-1/4	.139	.010	.007
1.750	20°	1-7/8	1-7/8	3/4	.162	.010	.007
1.750	20°	2-1/2	2-1/2	1-1/4	.162	.010	.007
2	20°	2-3/4	2-3/4	1-1/4	.185	.010	.007
2.250	20°	2-3/4	2-3/4	1-1/4	.208	.010	.007
2.500	20°	2-3/4	2-3/4	1-1/4	.231	.010	.007

Continue...

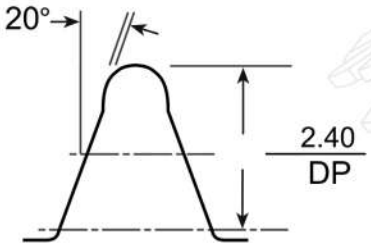
Module	PA	O.D.	Length	Bore	WD	Thin (Approx “)	Protuberance (Approx “)
2.750	20°	3	3	1-1/4	.254	.010	.007
3	20°	3	3	1-1/4	.278	.010	.006
3.250	20°	3	3	1-1/4	.301	.011	.006
3.500	20°	3	3	1-1/4	.324	.012	.006
3.750	20°	3	3	1-1/4	.347	.012	.006
4	20°	3-1/2	3-1/2	1-1/4	.370	.012	.006
4.250	20°	3-1/2	3-1/2	1-1/4	.393	.012	.007
4.500	20°	3-1/2	3-1/2	1-1/4	.416	.012	.007
4.750	20°	3-1/2	3-1/2	1-1/4	.439	.012	.007
5	20°	3-1/2	3-1/2	1-1/4	.463	.012	.008
5.500	20°	4	4	1-1/4	.509	.012	.008
6	20°	4	4	1-1/4	.555	.012	.008
6.500	20°	4-1/4	4-3/4	1-1/4	.601	.013	.008
7	20°	4-1/4	4-3/4	1-1/4	.648	.013	.008
7.500	20°	4-1/2	4-1/2	1-1/4	.694	.013	.008
8	20°	4-1/2	5	1-1/4	.740	.013	.010
9	20°	5	6	1-1/2	.833	.013	.010
10	20°	5	6	1-1/2	.925	.013	.010
11	20°	5-1/2	6-1/2	1-1/2	1.018	.016	.010
12	20°	5-3/4	7	1-1/2	1.110	.016	.010
13	20°	6	7-1/2	1-1-2	1.203	.016	.010
14	20°	6-1/2	8	1-1/2	1.295	.016	.012
15	20°	6-3/4	8	1-1/2	1.388	.016	.012
16	20°	7-1/2	8-1/2	1-1/2	1.480	.018	.012
18	20°	8-1/4	9	2	1.665	.020	.012
20	20°	8-3/4	10	2	1.850	.025	.015
22	20°	9-3/4	13	2	2.035	.026	.015
25	20°	11	15	2-1/2	2.313	.027	.015

Module 20°PA Gear Hobs



Pre-Shave, Non Topping Single Lead, Right Hand

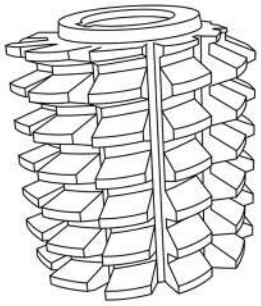
Module	PA	O.D.	Length	Bore	WD	Thin (Approx “)	Protuberance (Approx “)
0.750	20°	1-7/8	1-1/2	3/4	.069	.001	.001
0.800	20°	1-7/8	1-7/8	3/4	.074	.001	.001
1	20°	1-7/8	1-7/8	3/4	.093	.002	.001
1	20°	2-1/2	2	1-1/4	.093	.002	.001
1.250	20°	1-7/8	1-7/8	3/4	.116	.002	.002
1.500	20°	1-7/8	1-7/8	3/4	.139	.002	.002
1.500	20°	2-1/2	2-1/2	1-1/4	.139	.002	.002
1.750	20°	1-7/8	1-7/8	3/4	.162	.003	.002
1.750	20°	2-1/2	2-1/2	1-1/4	.162	.003	.002
2	20°	2-3/4	2-3/4	1-1/4	.185	.003	.002
2.500	20°	2-3/4	2-3/4	1-1/4	.231	.003	.002
2.750	20°	3	3	1-1/4	.254	.003	.002
3	20°	3	3	1-1/4	.278	.004	.002
3.500	20°	3	3	1-1/4	.324	.004	.002
4	20°	3-1/2	3-1/2	1-1/4	.370	.004	.002
4.500	20°	3-1/2	3-1/2	1-1/4	.416	.004	.003
5	20°	3-1/2	3-1/2	1-1/4	.463	.004	.003
6	20°	4	4	1-1/4	.555	.004	.003
7	20°	4-1/4	4-3/4	1-1/4	.648	.005	.004



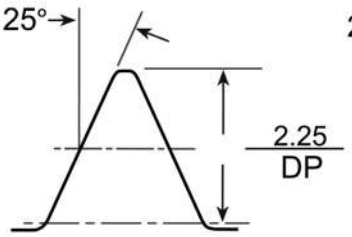
Pre-Grind, Fillet Root, Topping & Semi Topping
Single Lead, Right Hand

Module	PA	O.D.	Length	Bore	WD	Thin (Approx “)	Protuberance (Approx “)
1.750	20°	2 1/2	2-3/4	1-1/4	.165	.010	.007
2	20°	2-3/4	2-3/4	1-1/4	.189	.010	.007
2.250	20°	2-3/4	2-3/4	1-1/4	.213	.010	.007
2.500	20°	2-3/4	2-3/4	1-1/4	.236	.010	.007
2.750	20°	3	3	1-1/4	.260	.010	.007
3	20°	3	3	1-1/4	.283	.010	.006
3.500	20°	3	3	1-1/4	.331	.010	.006
3.750	20°	3	3	1-1/4	.354	.010	.006
4	20°	3-1/2	3-1/2	1-1/4	.378	.010	.006
4.500	20°	3-1/2	3-1/2	1-1/4	.425	.010	.006
5	20°	3-1/2	3-1/2	1-1/4	.472	.010	.006
5.500	20°	4	4	1-1/4	.520	.012	.008
5.750	20°	3-1/2	3-1/2	1-1/4	.543	.012	.008
6	20°	4	4	1-1/4	.567	.012	.008
6.500	20°	4	4	1-1/4	.614	.012	.008
7	20°	4-1/2	5	1-1/4	.661	.012	.008
8	20°	4-1/2	5	1-1/4	.756	.013	.010
9	20°	5	6	1-1/4	.850	.016	.010
10	20°	5	6	1-1/4	.945	.016	.010
11	20°	5-1/2	5	1-1/4	1.039	.016	.010
12	20°	5-3/4	7	1-1/4	1.134	.016	.012
14	20°	6-1/2	8	1-1/2	1.323	.018	.012
16	20°	8	9	2	1.512	.018	.012
18	20°	8-1/4	9	2	1.701	.020	.012
20	20°	8-3/4	10	2	1.890	.024	.015
24	20°	11	15	2-1/2	2.268	.026	.015

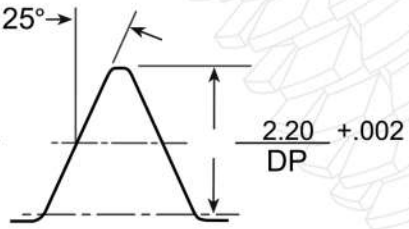
Module 25° PA Gear Hobs



Finishing, Non Topping
Single Lead, Right Hand



Rack Profile



Rack Profile

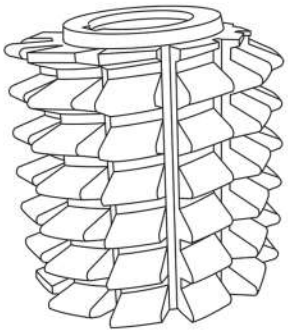
Module	PA	O.D.	Length	Bore	WD
.600	25°	1-7/8	1-7/8	3/4	.054
.750	25°	1-7/8	1-1/2	3/4	.067
.800	25°	1	3/4	8mm	.071
.800	25°	1-1/8	1-1/8	1/2	.071
1	25°	1	3/4	8mm	.089
1	25°	1-1/4	1-1/4	1/2	.089
1	25°	1-7/8	1-7/8	3/4	.089
1	25°	2-1/2	2	1-1/4	.089
1.250	25°	1-7/8	1-7/8	3/4	.111
1.250	25°	2-1/2	2-1/2	1.25	.111
1.500	25°	1-7/8	1-7/8	3/4	.133
1.500	25°	2-1/2	2-1/2	1-1/4	.133
1.750	25°	1-7/8	1-7/8	3/4	.155
1.750	25°	2-1/2	2-1/2	1-1/4	.155
2	25°	1-7/8	1-7/8	3/4	.177
2	25°	2-3/4	2-3/4	1-1/4	.177
2.250	25°	1-7/8	1-7/8	3/4	.199
2.250	25°	2-3/4	2-3/4	1-1/4	.199
2.500	25°	1-7/8	1-7/8	3/4	.221
2.500	25°	2-3/4	2-3/4	1-1/4	.221
2.750	25°	3	3	1-1/4	.244
3	25°	3	3	1-1/4	.266

Continue..

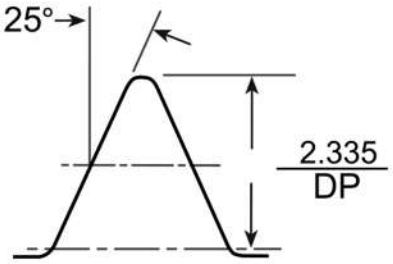
Module	PA	O.D.	Length	Bore	WD
3.250	25°	3	3	1-1/4	.288
3.500	25°	3	3	1-1/4	.310
3.750	25°	3	3	1-1/4	.332
4	25°	3-1/2	3-1/2	1-1/4	.354
4.500	25°	3-1/2	3-1/2	1-1/4	.399
5	25°	3-1/2	3-1/2	1-1/4	.443
6	25°	4	4	1-1/4	.531
7	25°	4-1/4	4-3/4	1-1/4	.620
8	25°	4-1/2	5	1-1/4	.709
9	25°	5	5	1-1/4	.797
10	25°	5-1/2	6	1-1/2	.886
12	25°	5-3/4	8	1-1/2	1.063
14	25°	7-1/4	9	2	1.240
15	25°	7-1/4	9	2	1.329
16	25°	8	10	2	1.417
18	25°	8	10	2	1.594
20	25°	8-3/4	12	2	1.772
20	25°	8-1/4	10-3/4	1-1/2	1.772
22	25°	9-1/2	13	2	1.949
24	25°	10-3/4	15	2-1/2	2.126
25	25°	10-3/4	15	2-1/2	2.215

Pre-Shave, Non Topping, Single Lead, Right Hand

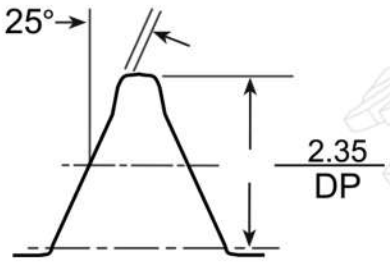
Module	PA	O.D.	Length	Bore	WD	Thin (Approx “)	Protuberance (Approx “)
2	25°	2-3/4	2-3/4	1-1/4	.184	.003	.002
3	25°	3	3	1-1/4	.276	.003	.002
3.500	25°	3	3	1-1/4	.322	.003	.002
4	25°	3-1/2	3-1/2	1-1/4	.368	.003	.003



Fillet Root, Finishing Non- Topping Single Lead, Right Hand



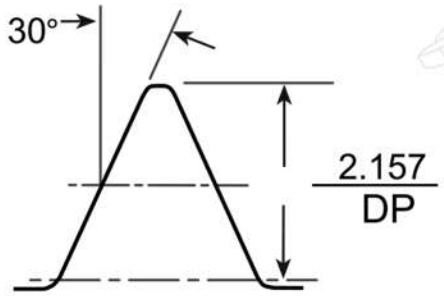
Module	PA	O.D.	Length	Bore	WD
1	25°	1-7/8	1-7/8	3/4	.092
1.250	25°	1-7/8	1-7/8	3/4	.115
1.500	25°	1-7/8	1-7/8	3/4	.138
1.750	25°	1-7/8	1-7/8	3/4	.161
2	25°	1-7/8	1-7/8	3/4	.184
2.250	25°	1-7/8	1-7/8	3/4	.207
2.500	25°	1-7/8	1-7/8	3/4	.230
2.750	25°	3	3	1-1/4	.253
3	25°	3	3	1-1/4	.276
3.750	25°	3-1/2	3-1/2	1-1/4	.345
4	25°	3-1/2	3-1/2	1-1/4	.368
4.250	25°	3-1/2	3-1/2	1-1/4	.391
4.500	25°	3-1/2	3-1/2	1-1/4	.414
4.750	25°	3-1/2	3-1/2	1-1/4	.437
5	25°	3-1/2	3-1/2	1-1/4	.460
6	25°	4	4	1-1/4	.552
8	25°	4-1/2	5	1-1/4	.735
9	25°	5	6	1-1/4	.827
10	25°	5	6	1-1/2	.919
12	25°	5-3/4	7	1-1/2	1.103
14	25°	6-1/2	8	1-1/2	1.287



Pre-Grind, Non Topping Single Lead

Module	PA	O.D.	Length	Bore	WD	Thin (Approx “)	Protuberance (Approx “)
1.500	25°	1-7/8	1-7/8	3/4	.139	.008	.005
2	25°	2-3/4	2-3/4	1-1/4	.185	.009	.006
2.250	25°	2-3/4	2-3/4	1-1/4	.208	.009	.006
2.5	25°	2-3/4	2-3/4	1-1/4	.231	.009	.006
2.750	25°	3	3	1-1/4	.254	.009	.006
3	25°	3	3	1-1/4	.278	.009	.006
3.500	25°	3	3	1-1/4	.324	.009	.006
4	25°	3-1/2	3-1/2	1-1/4	.370	.009	.006
4.250	25°	3-1/2	3-1/2	1-1/4	.393	.011	.007
4.500	25°	3-1/2	3-1/2	1-1/4	.416	.012	.007
5	25°	3-1/2	3-1/2	1-1/4	.463	.012	.007
6	25°	4	4	1-1/4	.555	.012	.007
7	25°	4-1/4	4-3/4	1-1/4	.648	.013	.008
8	25°	4-1/2	5	1-1/4	.740	.014	.008
9	25°	5	6	1-1/4	.833	.014	.009
10	25°	5	5	1-1/2	.925	.015	.009
12	25°	5-3/4	7	1-1/2	1.110	.016	.010
14	25°	6-1/2	8	1-1/2	1.295	.016	.010
16	25°	7-1/2	8-1/2	1-1/2	1.480	.017	.010
18	25°	8 1/4	9	2	1.665	.020	.012
20	25°	8 3/4	10	2	1.850	.025	.015

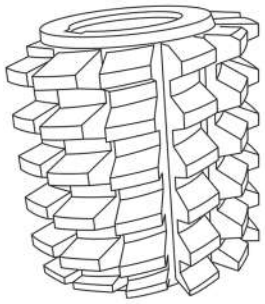
Finishing, Non Topping
Single Lead, Right hand



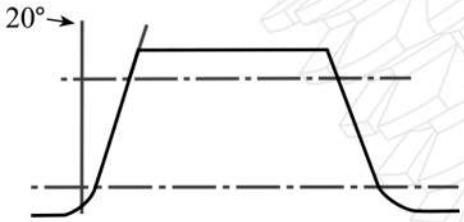
*Some Finer Pitch 2.25/DP

Module	PA	O.D.	Length	Bore	WD
.500	30°	1-1/2	1-1/2	3/4	.044
.750	30°	1-7/8	1-1/2	3/4	.064
.750	30°	1-7/8	1-7/8	3/4	.066
1	30°	1-7/8	1-7/8	3/4	.085
1.500	30°	1-7/8	1-7/8	3/4	.133
1.500	30°	2-1/2	2-1/2	1-1/4	.127
1.750	30°	1-7/8	1-7/8	3/4	.155
2	30°	2-3/4	2-3/4	1-1/4	.170
2.250	30°	2-3/4	2-3/4	1-1/4	.191
2.500	30°	2-3/4	2-3/4	1-1/4	.212
3	30°	3	3	1-1/4	.255
4	30°	3-1/4	3-1/4	1-1/4	.340
5	30°	3-1/2	3-1/2	1-1/4	.425
6	30°	3-1/2	3-1/2	1-1/4	.510
8	30°	4	4	1-1/4	.679

Module 20° PA Gear Hobs



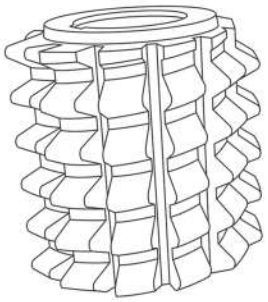
JIS Standard / NFE Standard
Spline, Finishing, Non Topping
Single Lead, Right Hand



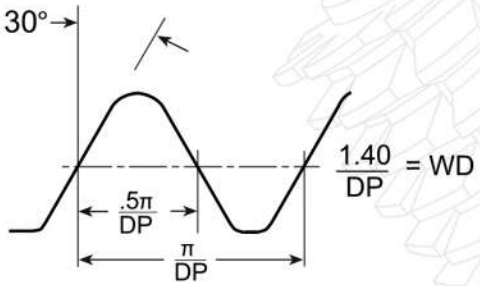
Flat Root
(.04724 x MOD)

Module	PA	O.D.	Length	Bore	WD
.500	30°	1-7/8	1-1/2	3/4	.024
.750	30°	1-7/8	1-1/2	3/4	.035
1	30°	1-7/8	1-1/2	3/4	.047
1	30°	2-1/2	2	1-1/4	.047
1.250	30°	1-7/8	1-1/2	3/4	.059
1.250	30°	2-1/2	2	1-1/4	.059
1.500	30°	1-7/8	1-7/8	3/4	.071
1.500	30°	2-1/2	2	1-1/4	.071
1.667	30°	1-7/8	1-7/8	3/4	.079
1.667	30°	2-1/2	2	1-1/4	.079
1.750	30°	1-7/8	1-7/8	3/4	.083
2	30°	1-7/8	1-7/8	3/4	.094
2	30°	2-3/4	2-1/2	1-1/4	.094
2.500	30°	2-3/4	2-1/2	1-1/4	.118
3	30°	3	3	1-1/4	.142
3.750	30°	3	3	1-1/4	.177
4.500	30°	3-1/4	3-1/4	1-1/4	.212
5	30°	3-1/4	3-1/4	1-1/4	.236
6	30°	3-1/2	3-1/2	1-1/4	.283
7.500	30°	3-1/2	3-1/2	1-1/4	.354
10	30°	4	4	1-1/4	.472

Module 30° PA Gear Hobs

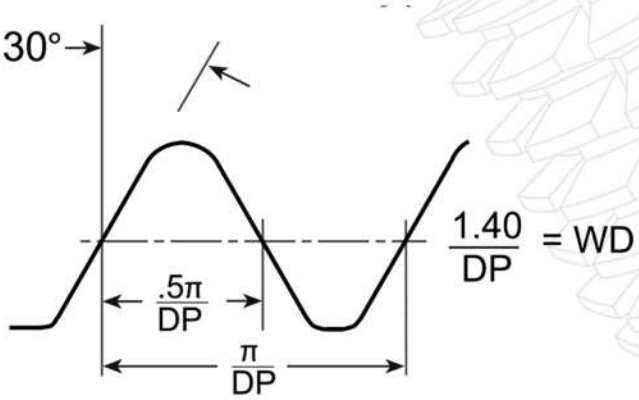


Involute Spline, Finishing,
Right Hand, Non Chamfering
Fillet Root

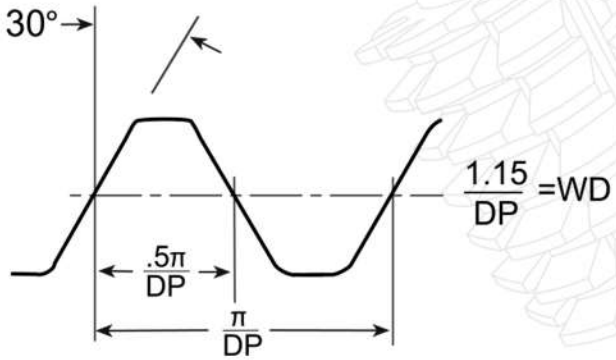


Module	PA	O.D.	Length	Bore	# of Leads	WD
.300	30°	2-1/2	2	1-1/4	1	.017
.500	30°	1-1/8	1-1/8	1/2	1	.028
.750	30°	3/4	3/4	8mm	1	.041
.750	30°	1-1/8	1-1/8	1/2	1	.041
.750	30°	1-7/8	1-1/2	3/4	1	.041
.750	30°	2-1/2	2	1-1/4	1	.041
.750	30°	2-1/2	2	1-1/4	2	.041
.800	30°	1-1/8	1-1/8	1/2	1	.044
.900	30°	1-7/8	1-1/2	3/4	1	.050
1	30°	3/4	3/4	8mm	1	.055
1	30°	1-1/4	1-1/4	1/2	1	.055
1	30°	1-7/8	1-7/8	3/4	1	.055
1	30°	2-1/2	2	1-1/4	1	.055
1.250	30°	1-7/8	1-7/8	3/4	1	.069
1.250	30°	2-1/2	2	1-1/4	1	.069
1.500	30°	1-7/8	1-7/8	3/4	1	.083
1.500	30°	2-1/2	2-1/2	1-1/4	1	.083
1.750	30°	1-7/8	1-7/8	3/4	1	.096
1.750	30°	2-1/2	2-1/2	1-1/4	1	.096
2	30°	1-7/8	1-7/8	3/4	1	.110
2	30°	2-3/4	2-3/4	1-1/4	1	.110
2.250	30°	2-3/4	2-3/4	1-1/4	1	.124
2.500	30°	1-7/8	1-7/8	3/4	1	.138
2.500	30°	2-3/4	2-3/4	1-1/4	1	.138
2.750	30°	2-3/4	2-3/4	1-1/4	1	.152
3	30°	3	3	1-1/4	1	.165
4	30°	3-1/4	3-1/4	1-1/4	1	.220
4	30°	3-1/4	3-1/4	1-1/4	1	.220
5	30°	3-1/2	3-1/2	1-1/4	1	.276
6	30°	3-1/2	3-1/2	1-1/4	1	.331
8	30°	3-3/4	3-3/4	1-1/4	1	.441
10	30°	4	4	1-1/4	1	.551

Involute Spline, Finishing, Single Lead,
Right Hand Non-Chamfering
Fillet Root Shank Type



Module	PA	O.D.	Length	WD
.500	30°	.625	6	.028
.750	30°	.750	6	.041
1	30°	.750	6	.055
1.500	30°	.875	6	.083
1.750	30°	.875	6	.096
2	30°	.875	6	.110



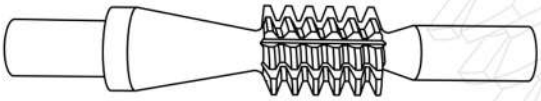
Involute Spline, Finishing, Single Lead,
Non-Chamfering Fillet Root, DIN 5480, Flat Root

Module	PA	O.D.	Length	Bore	Leads	WD
.500	30°	5/8	11/16	8mm	1	.0216
.500	30°	1-1/8	1-1/8	1/2	1	.0216
.500	30°	1-7/8	1-1/2	3/4	1	.0216
.500	30°	2-1/2	2	1-1/4	1	.0216
.600	30°	3/4	3/4	8mm	1	.0259
.600	30°	1-1/8	1-1/8	1/2	1	.0259
.600	30°	1-7/8	1-1/2	3/4	1	.0259
.650	30°	1-1/8	1-1/8	1/2	1	.0281
.700	30°	1-1/8	1-1/8	1/2	1	.0303
.700	30°	1-7/8	1-1/2	3/4	1	.0303
.750	30°	3/4	3/4	8mm	1	.0324
.750	30°	1-1/8	1-1/8	1/2	1	.0324
.750	30°	1-7/8	1-1/2	3/4	1	.0324
.750	30°	2-1/2	2	1-1/4	1	.0324
.800	30°	1-1/8	1-1/8	1/2	1	.0346
.800	30°	1-7/8	1-1/2	3/4	1	.0346
1	30°	3/4	3/4	8mm	1	.0433
1	30°	1-1/4	1-1/4	1/2	1	.0433
1	30°	1-7/8	1-7/8	3/4	1	.0433
1	30°	2-1/2	2	1-1/4	1	.0433
1.250	30°	1-7/8	1-7/8	3/4	1	.0541
1.250	30°	2-1/2	2	1-1/4	1	.0541
1.250	30°	48mm	70mm	22mm	1	.0541
1.500	30°	1-7/8	1-7/8	3/4	1	.0649
1.500	30°	2-1/2	2-1/2	1-1/4	1	.0649

Continue...

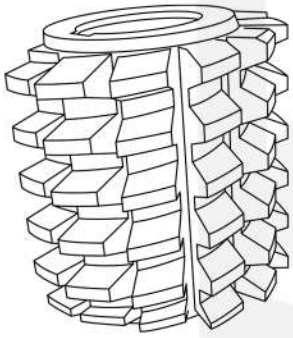
Module	PA	O.D.	Length	Bore	Leads	WD
1.750	30°	1-7/8	1-7/8	3/4	1	.0757
1.750	30°	2-1/2	2-1/2	1-1/4	1	.0757
2	30°	1-7/8	1-7/8	3/4	1	.0866
2	30°	2-3/4	2-3/4	1-1/4	1	.0866
2	30°	70mm	70mm	32mm	1	.0866
2.250	30°	1-7/8	1-7/8	3/4	1	.0974
2.250	30°	2-3/4	2-3/4	1-1/4	1	.0974
2.500	30°	1-7/8	1-7/8	3/4	1	.1082
2.500	30°	2-3/4	2-3/4	1-1/4	1	.1082
3	30°	2	2	3/4	1	.1299
3	30°	3	3	1-1/4	1	.1299
3	30°	3	3	1-1/4	2	.1299
3	30°	76mm	76mm	32mm	1	.1299
3.500	30°	3	3	1-1/4	1	.1515
3.750	30°	3	3	1-1/4	1	.1624
4	30°	3-1/4	3-1/4	1-1/4	1	.1732
4.500	30°	3-1/4	3-1/4	1-1/4	1	.1948
5	30°	3-1/2	3-1/2	1-1/4	1	.2165
6	30°	3-1/2	3-1/2	1-1/4	1	.2598
7	30°	3-3/4	3-3/4	1-1/4	1	.3031
8	30°	3-3/4	3-3/4	1-1/4	1	.3464
10	30°	4	4	1-1/4	1	.4330
12	30°	5-3/4	9	1 1/2	1	.5196

Involute Spline, Finishing. Non- Chamfering,
DIN 5480, Flat Root Shank Type,
Single Lead, Right Hand

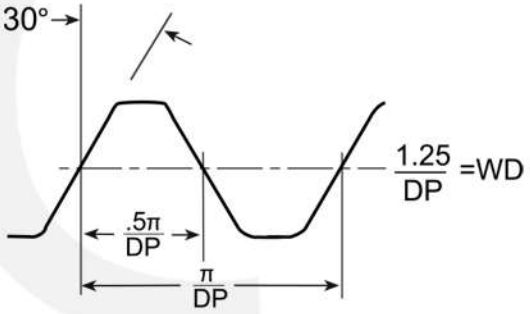


1.15/DP = WD

Module	PA	O.D.	Length	WD
.500	30°	0.625	-	.0216
.750	30°	0.750	6	.0324
.800	30°	0.750	6	.0346
1	30°	0.750	6	.0433
1.250	30°	0.750	6	.0541
1.500	30°	0.875	6	.0649
1.750	30°	0.875	6	.0757
2	30°	0.875	6	.0866
2.500	30°	0.875	-	.1082



Involute Spline, Finishing
Non-Chamfering, ANSI Flat Root



Module	PA	O.D.	Length	Bore	W.D.
.200	30°	5/8	2/3	8mm	.010
.400	30°	1-1/8	1-1/8	1/2	.020
.500	30°	3/4	3/4	8mm	.025
.500	30°	1-1/8	1-1/8	1/2	.025
.500	30°	1-7/8	1-1/2	3/4	.025
.600	30°	1-7/8	1-1/2	3/4	.030
.750	30°	1-1/8	1-1/8	1/2	.037
.750	30°	1-7/8	1-1/2	3/4	.037

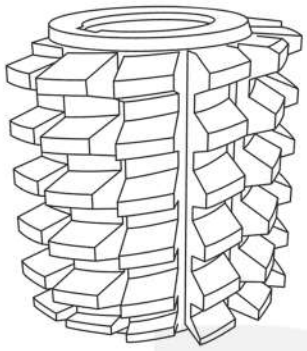
Continue...

Module	PA	O.D.	Length	Bore	W.D.
.800	30°	1-7/8	1-1/2	3/4	.039
1	30°	3/4	3/4	8mm	.049
1	30°	1-1/4	1-1/4	1/2	.049
1	30°	1-7/8	1-7/8	3/4	.049
1	30°	2-1/2	2	1-1/4	.049
1.250	30°	1-7/8	1-7/8	3/4	.062
1.250	30°	2-1/2	2	1-1/4	.062
1.500	30°	1-7/8	1-7/8	3/4	.074
1.500	30°	2-1/2	2-1/2	1-1/4	.074
1.750	30°	1-7/8	1-7/8	3/4	.086
1.750	30°	2-1/2	2-1/2	1-1/4	.086
2	30°	1-7/8	1-7/8	3/4	.098
2	30°	2-3/4	2-3/4	1-1/4	.098
2.250	30°	1-7/8	1-7/8	3/4	.111
2.250	30°	2-3/4	2-3/4	1-1/4	.111
2.500	30°	1-7/8	1-7/8	3/4	.123
2.500	30°	2-3/4	2-3/4	1-1/4	.123
2.750	30°	2-3/4	2-3/4	1-1/4	.135
3	30°	2	2	3/4	.148
3	30°	3	3	1-1/4	.148
4	30°	3-1/4	3-1/4	1-1/4	.197
5	30°	3-1/2	3-1/2	1-1/4	.246
6	30°	3-1/2	3-1/2	1-1/4	.295
7	30°	3-3/4	3-3/4	1-1/4	.344
8	30°	3-3/4	3-3/4	1-1/4	.394
10	30°	4	4	1-1/4	.492

Module 30° PA Gear Hobs

Module	PA	O.D.	Length	WD
.750	30°	.750	6	.037
1	30°	.750	6	.049
1.250	30°	.750	6	.062
1.500	30°	.875	6	.074
1.750	30°	.875	6	.086

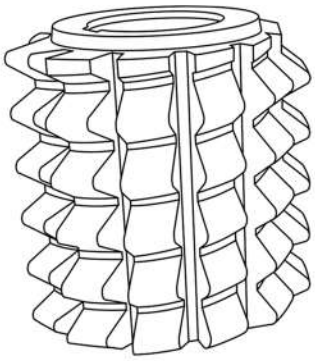
Involute Spline Finishing,
Non-Chamfering ANSI Flat Root,
Shank Type Single Lead, Right Hand



Involute Spline Finishing, Non Topping
Single Start, Right Hand DIN 5482 Flat Root

Module	PA	O.D.	Length	Bore	WD
1.600	30°	1-1/2	1-1/2	1/2	.065
1.600	30°	1-7/8	1-7/8	3/4	.065
1.600	30°	2-1/2	2-1/2	1-1/4	.065
1.750	30°	1-7/8	1-7/8	3/4	.079
1.750	30°	2-1/2	2-1/2	1-1/4	.079
1.900	30°	1-7/8	1-7/8	3/4	.079
1.900	30°	2-3/4	2-3/4	1-1/4	.079
1.900	30°	62mm	80mm	27mm	.079
2	30°	1-7/8	1-7/8	3/4	.108
2	30°	2-3/4	2-3/4	1-1/4	.108
2	30°	62mm	80mm	27mm	.108
2.100	30°	1-7/8	1-7/8	3/4	.114
2.100	30°	2-3/4	2-3/4	1-1/4	.114
2.100	30°	62mm	80mm	27mm	.114
2.250	30°	1-7/8	1-7/8	3/4	.114
2.250	30°	2-3/4	2-3/4	1-1/4	.114

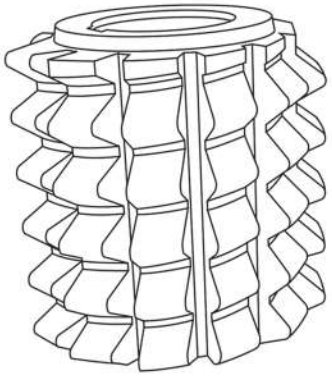
Module 37.5° PA Gear Hobs



Involute Spline Finishing, Non Topping
Right Hand, ANSI Fillet Root

Module	PA	O.D.	Length	Bore	Leads	WD
.500	37.5°	1-1/8	1-1/8	1/2	1	.023
.500	37.5°	1-7/8	1-1/2	3/4	1	.023
.750	37.5°	1-1/8	1-1/8	1/2	1	.034
.750	37.5°	1-1/8	1-1/8	1/2	2	.034
.750	37.5°	1-7/8	1-7/8	3/4	1	.034
.750	37.5°	2-1/2	2	1-1/4	1	.034
1	37.5°	1-7/8	1-7/8	3/4	1	.045
1	37.5°	2-1/2	2	1-1/4	1	.045
1.250	37.5°	1-1/4	1-1/4	1/2	1	.057
1.250	37.5°	1-7/8	1-7/8	3/4	1	.057
1.250	37.5°	2-1/2	2	1-1/4	1	.057
1.500	37.5°	1-7/8	1-7/8	3/4	1	.068
1.500	37.5°	2-1/2	2-1/2	1-1/4	1	.068
1.750	37.5°	1-7/8	1-7/8	3/4	1	.079
1.750	37.5°	2-1/2	2-1/2	1-1/4	1	.079
2	37.5°	1-7/8	1-7/8	3/4	1	.091
2	37.5°	2-3/4	2-3/4	1-1/4	1	.091
2.500	37.5°	1-7/8	1-7/8	3/4	1	.113
3	37.5°	3	3	1-1/4	1	.136
4	37.5°	3-1/4	3-1/4	1-1/4	1	.181
5	37.5°	3-1/2	3-1/2	1-1/4	1	.226
6	37.5°	3-1/2	3-1/2	1-1/4	1	.272
8	37.5°	3-3/4	3-3/4	1-1/4	1	.362

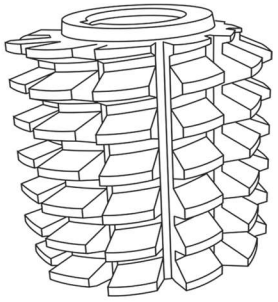
Module 45° PA Gear Hobs



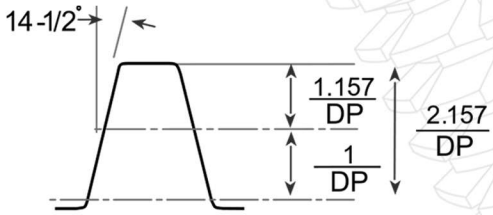
Involute Spline, Finishing Non Topping,
Right Hand ANSI Fillet Root

Module	PA	O.D.	Length	Bore	WD
.250	45°	1-1/8	1-1/8	1/2	.010
.500	45°	1-1/8	1-1/8	1/2	.020
.500	45°	1-7/8	1-1/2	3/4	.020
.750	45°	3/4	3/4	8mm	.030
.750	45°	1-1/8	1-1/8	1/2	.030
.750	45°	1-7/8	1-1/2	3/4	.030
.750	45°	2-1/2	2	1-1/4	.030
1	45°	1	3/4	8mm	.039
1	45°	1-1/4	1-1/4	1/2	.039
1	45°	1-7/8	1-7/8	3/4	.039
1	45°	2-1/2	2	1-1/4	.039
1.250	45°	1-1/4	1-1/4	1/2	.049
1.250	45°	1-7/8	1-7/8	3/4	.049
1.250	45°	2-1/2	2	1-1/4	.049
1.500	45°	1-7/8	1-7/8	3/4	.059
1.500	45°	2-1/2	2-1/2	1-1/4	.059
1.750	45°	1-7/8	1-7/8	3/4	.069
1.750	45°	2-1/2	2-3/4	1-1/4	.069
2	45°	1-7/8	1-7/8	3/4	.079
2	45°	2-3/4	2-3/4	1-1/4	.079
2.500	45°	2-3/4	2-3/4	1-1/4	.098

Circular Pitch 14.5° PA Gear Hobs



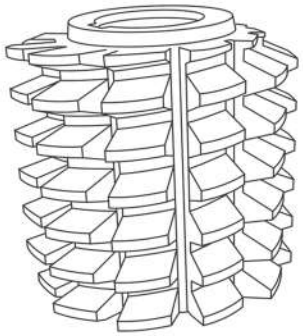
Finishing, Non Toping
Single Lead, Right Hand



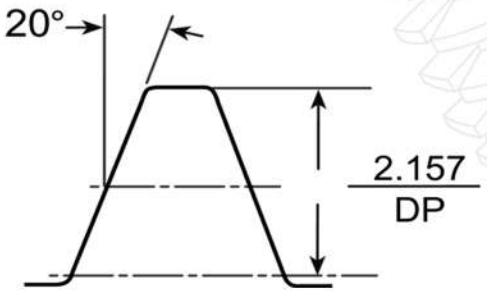
For 1/8 CP & finer, WD = 2.20/DP+.002

CP (Fraction)	Circular Pitch	PA	OD	Length	Bore	WD
1/16	.063	14.5°	1-7/8	1-1/2	3/4	.046
1/10	.100	14.5°	1-1/2	1-1/2	3/4	.072
1/8	.125	14.5°	1-7/8	1-7/8	3/4	.090
1/8	.125	14.5°	2-1/2	2-1/2	1-1/4	.090
1/6	.167	14.5°	1-7/8	1-7/8	3/4	.114
3/16	.188	14.5°	1-7/8	1-7/8	3/4	.129
1/5	.200	14.5°	1-7/8	1-7/8	3/4	.137
1/4	.250	14.5°	1-7/8	1-7/8	3/4	.172
1/4	.250	14.5°	2-3/4	2-3/4	1-1/4	.172
5/16	.313	14.5°	2	2	3/4	.215
1/3	.333	14.5°	2	2	3/4	.229
1/3	.333	14.5°	2-3/4	2-3/4	1-1/4	.229
3/8	.375	14.5°	2	2	3/4	.257
3/8	.375	14.5°	2-3/4	2-3/4	1-1/4	.257
7/16	.438	14.5°	3	3	1-1/4	.300
1/2	.500	14.5°	3-1/4	3-1/4	1-1/4	.343
9/16	.563	14.5°	2-1/2	2-1/2	3/4	.386
9/16	.563	14.5°	3-1/4	3-1/4	1-1/4	.386
5/8	.625	14.5°	3-1/2	3-1/2	1-1/4	.429
2/3	.667	14.5°	3-3/4	3-3/4	1-1/4	.458
11/16	.688	14.5°	3-1/2	3-1/2	1-1/4	.472
3/4	.750	14.5°	4	4	1-1/4	.515
7/8	.875	14.5°	4	4	1-1/4	.601
1	1	14.5°	4-1/2	4-1/2	1-1/4	.687
1-1/8	1.125	14.5°	4-1/2	5	1-1/4	.772
1-1/4	1.250	14.5°	5-1/4	6	1-1/2	.858
1-3/8	1.375	14.5°	5-1/4	6	1-1/2	.944
1-1/2	1.500	14.5°	6	7	1-1/2	1.030
1-5/8	1.625	14.5°	5-3/4	6	1-1/2	1.116
1-3/4	1.750	14.5°	6-1/2	7	1-1/2	1.202
1-7/8	1.875	14.5°	7	8	1-1/2	1.287
2	2	14.5°	7	9	1-1/2	1.373
2-1/4	2.250	14.5°	8-1/4	9	2	1.545
2-1/2	2.500	14.5°	9-1/2	11	2	1.716
2-3/4	2.750	14.5°	10	12-1/2	2	1.888
3	3	14.5°	10-1/2	14	2	2.060
3-1/2	3.500	14.5°	11-1/4	15	2-1/2	2.403
4	4	14.5°	12	16	2-1/2	2.746

Circular Pitch 20° PA Gear Hobs



Finishing, Non Topping
Single Lead, Right



CP (Fraction)	Circular Pitch	PA	OD	Length	Bore	WD
1/20	.050	20°	3/4	1/2	8mm	.037
1/20	.050	20°	1-1/8	1-1/8	1/2	.037
1/16	.063	20°	3/4	1/2	8mm	.046
1/16	.063	20°	1-7/8	1-1/2	3/4	.046
1/10	.100	20°	15/16	1/2	8mm	.072
1/10	.100	20°	1-1/8	1-1/8	1/2	.072
1/10	.100	20°	1-7/8	1-7/8	3/4	.072
1/8	.125	20°	1-7/8	1-7/8	3/4	.090
1/8	.125	20°	1-1/2	1-1/2	3/4	.090
1/8	.125	20°	2-1/2	2	1-1/4	.090
1/6	.167	20°	1-7/8	1-7/8	3/4	.114
1/6	.167	20°	2-1/2	2-1/2	1-1/4	.114
3/16	.188	20°	1-7/8	1-7/8	3/4	.129
1/5	.200	20°	1-7/8	1-7/8	3/4	.137
1/4	.250	20°	1-7/5	1-7/8	3/4	.172
1/4	.250	20°	2-3/4	2-3/4	1-1/4	.172
5/16	.313	20°	2	2	3/4	.215
5/16	.313	20°	3	3	1-1/4	.215
1/3	.333	20°	2	2	3/4	.229

Continue...

CP (Fraction)	Circular Pitch	PA	OD	Length	Bore	WD
1/3	.333	20°	2-3/4	2-3/4	1-1/4	.229
3/8	.375	20°	2	2	3/4	.257
3/8	.375	20°	2-3/4	2-3/4	1-1/4	.257
7/16	.438	20°	3	3	1-1/4	.300
1/2	.500	20°	2	2	3/4	.343
1/2	.500	20°	3-1/4	3-1/4	1-1/4	.343
9/16	.563	20°	2-1/2	2-1/2	3/4	.386
9/16	.563	20°	3-1/4	3-1/4	1-1/4	.386
5/8	.625	20°	3-1/2	3-1/2	1-1/4	.429
2/3	.667	20°	3-3/4	3-3/4	1-1/4	.458
11/16	.688	20°	3-1/2	3-1/2	1-1/4	.472
3/4	.750	20°	4	4	1-1/4	.515
7/8	.875	20°	4-1/4	4-1/4	1-1/4	.601
1	1	20°	4-1/2	4-1/2	1-1/4	.687
1-1/8	1.125	20°	4-1/2	5	1-1/4	.772
1-1/4	1.250	20°	5-1/4	6	1-1/2	.858
1-3/8	1.375	20°	5-1/4	6	1-1/2	.944
1-1/2	1.500	20°	6	7	1-1/2	1.030
1-5/8	1.625	20°	5-3/4	6	1-1/2	1.116
1-3/4	1.750	20°	6-1/2	7	1-1/2	1.202
2	2	20°	7	9	1-1/2	1.373
2-1/4	2.250	20°	8-1/4	9	2	1.545
2-1/2	2.500	20°	9-1/2	11	2	1.716
2-3/4	2.750	20°	10	12-1/2	2	1.888
3	3	20°	10-1/2	14	2	2.060
3-1/2	3.500	20°	11-1/4	15	2-1/2	2.403
4	4	20°	12	16	2-1/2	2.746

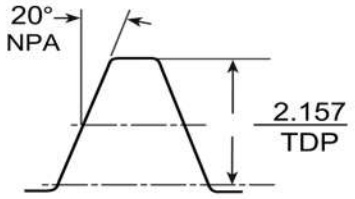
Circular Pitch 25° PA Gear Hobs

CP (Fraction)	Circular Pitch	OD	Length	Bore	WD
1/8	.125	1-7/8	1-7/8	3/4	.090
1/4	.250	1-7/5	1-7/8	3/4	.172
1/4	.250	2-3/4	2-3/4	1-1/4	.172

Finishing, Non Topping
Single Lead, Right Hand

Transverse Pitch 20° PA for 7.5° Helix Angle

Finishing, Non Topping Single Thread

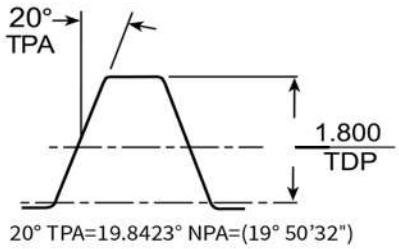


20 DP & finer, WD=2.20/TDP +.002
20° NPA=20.1587° TPA=(20° 9'31")

Transverse DP	Normal DP	Normal PA	OD	Length	Bore	WD
1	1.009	20°	10-1/4	13-1/2	2	2.157
1-1/4	1.261	20°	8-1/4	9	1-1/2	1.726
1-1/2	1.513	20°	7	8	1-1/2	1.438
1-3/4	1.765	20°	6-1/4	7	1-1/2	1.233
2	2.017	20°	5-3/4	6-1/2	1-1/2	1.079
2-1/2	2.522	20°	5	6-1/2	1-1/2	.863
3	3.026	20°	4-1/2	5	1-1/4	.719
3-1/2	3.530	20°	4	4	1-1/4	.616
4	4.035	20°	4	4	1-1/4	.539
5	5.043	20°	3-1/2	3-1/2	1-1/4	.431
6	6.052	20°	3-1/4	3-1/4	1-1/4	.360
7	7.060	20°	3	3	1-1/4	.308
8	8.069	20°	3	3	1-1/4	.270
10	10.086	20°	2-3/4	2-3/4	1-1/4	.216
12	12.104	20°	2-1/2	2-1/2	1-1/4	.180
16	16.138	20°	1-7/8	1-7/8	3/4	.135
16	16.138	20°	2-1/2	2-1/2	1-1/4	.135
20	20.173	20°	1-7/8	1-7/8	3/4	.112
20	20.173	20°	2-1/2	2-1/2	1-1/4	.112
24	24.207	20°	2-1/2	2-1/2	1-1/4	.094

Transverse Pitch 20° PA for 7.5° Helix Angle

Stub, Finishing
Non Topping, Single Thread



20° TPA=19.8423° NPA=(19° 50'32")

Transverse DP	Normal DP	Transverse PA	OD	Length	Bore	WD
1 1/4	1.261	20°	8-1/4	9	1-1/2	1.440
1 1/2	1.513	20°	7	8	1-1/2	1.200
1 3/4	1.765	20°	6-1/4	7-1/4	1-1/4	1.029
2	2.017	20°	5	6	1-1/4	.900
2 1/2	2.522	20°	4-1/2	5-1/2	1-1/4	.720
3	3.026	20°	4-1/4	4-1/4	1-1/4	.600
4	4.035	20°	4	4	1-1/4	.450

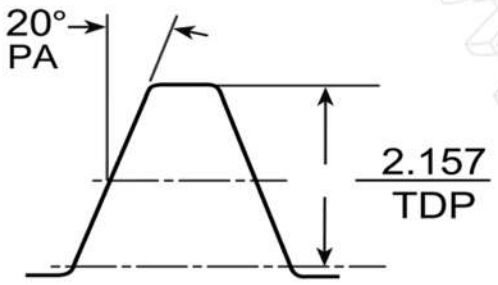
Transverse Pitch 20° PA for 10° Helix Angle

Stub, Finishing, Non Topping
Single Thread, Right Hand

Transverse DP	Normal DP	Transverse PA	OD	Length	Bore	WD
1 1/2	1.523	20°Transverse	7	8	1-1/2	1.200
1 3/4	1.777	20°Transverse	6-1/4	7-1/4	1-1/2	1.029
2	2.031	20°Transverse	5	6	1-1/4	0.900
2 1/2	2.539	20°Transverse	4-1/2	5-1/2	1-1/4	0.720

Transverse Pitch 20° PA for 10° Helix Angle

Finishing, Non Topping
Single Thread, Right Hand

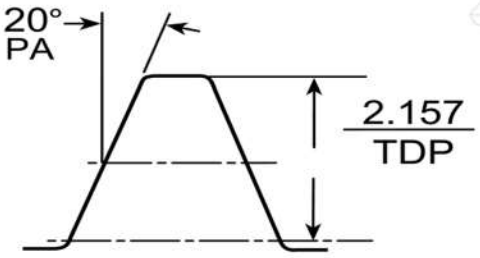


20° TPA=19.7197° NPA=(19° 43'11")

Transverse DP	Normal DP	PA	OD	Length	Bore	WD
2	2.031	20° Normal	5-3/4	6-1/2	1-1/2	1.079
2-1/2	2.539	20°Transverse	5	6	1-1/2	.863
3	3.046	20°Transverse	4-1/2	5	1-1/4	.719
3-1/2	3.554	20°Transverse	4	4	1-1/4	.616
4	4.062	20°Transverse	4	4	1-1/4	.539
5	5.077	20°Transverse	3-1/2	3-1/2	1-1/4	.431
5	5.077	20°Normal	3-1/2	3-1/2	1-1/4	.431
6	6.093	20°Transverse	3-1/4	3-1/4	1-1/4	.360
7	7.108	20°Transverse	3	3	1-1/4	.308
7	7.108	20°Normal	3	3	1-1/4	.308
8	8.123	20°Transverse	3	3	1-1/4	.270
9	9.139	20°Transverse	2-3/4	2-3/4	1-1/4	.240
10	10.154	20°Transverse	2-3/4	2-3/4	1-1/4	.216
12	12.185	20°Transverse	2-1/2	2-1/2	1-1/4	.180
14	14.216	20°Transverse	2-1/2	2-1/2	1-1/4	.154
16	16.247	20°Transverse	2-1/2	2-1/2	1-1/4	.135

Transverse Pitch 20° PA for 15° Helix Angle

Finishing, Non Topping Single Thread

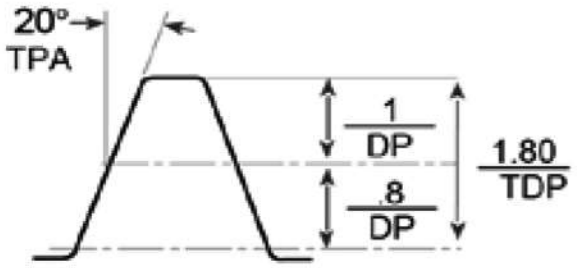


20 DP & Finer WD=2.2/TDP+.002

Transverse DP	Normal DP	PA	OD	Length	Bore	WD
1-1/2	1.553	20°Normal	7	8	1-1/2	1.438
2	2.071	20°Normal	5-3/4	6-1/2	1-1/2	1.079
2	2.071	20°Transverse	5-3/4	6-1/2	1-1/2	1.079
2-1/2	2.588	20°Normal	5	6-1/2	1-1/2	.863
3	3.106	20°Normal	4-1/2	5	1-1/4	.719
3	3.106	20°Transverse	4-1/2	5	1-1/4	.719
3-1/2	3.623	20°Normal	4	4	1-1/4	.616
4	4.141	20°Normal	4	4	1-1/4	.539
5	5.176	20°Normal	3-1/2	3-1/2	1-1/4	.431
5	5.176	20°Transverse	3-1/2	3-1/2	1-1/4	.431
6	6.212	20°Normal	3-1/4	3-1/4	1-1/4	.360
7	7.247	20°Normal	3	3	1-1/4	.308
8	8.282	20°Normal	3	3	1-1/4	.270
8	8.282	20°Transverse	3	3	1-1/4	.270
9	9.317	20°Normal	2-3/4	2-3/4	1-1/4	.240
10	10.353	20°Normal	2-3/4	2-3/4	1-1/4	.216
11	11.388	20°Normal	2-1/2	2-1/2	1-1/4	.196
12	12.423	20°Normal	2-1/2	2-1/2	1-1/4	.180
14	14.494	20°Normal	2-1/2	2-1/2	1-1/4	.154
16	16.564	20°Normal	1-7/8	1-7/8	3/4	.135
16	16.564	20°Normal	2-1/2	2-1/2	1-1/4	.135
18	18.635	20°Normal	1-7/8	1-7/8	3/4	.120
20	20.706	20°Normal	1-7/8	1-7/8	3/4	.112
24	24.847	20°Normal	1-7/8	1-7/8	3/4	.094

Transverse Pitch 20° PA for 15° Helix Angle

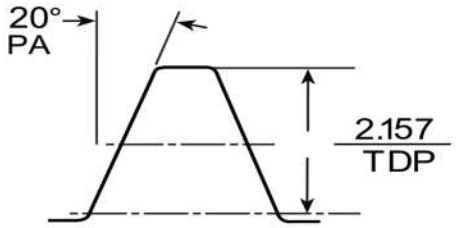
Stub, Finishing
Non Topping, Single Thread



Trans. DP	Normal DP	PA	OD	Length	Bore	WD
1-1/2	1.553	20°Transverse	7	8	1-1/2	1.200
1-3/4	1.812	20°Transverse	6-1/4	7-1/4	1-1/2	1.029
2	2.071	20°Transverse	5	6	1-1/4	.900
2-1/2	2.588	20°Transverse	4-1/2	5-1/2	1-1/4	.720
3	3.106	20°Transverse	4-1/4	4-1/4	1-1/4	.600
4	4.141	20°Transverse	4	4	1-1/4	.450
5	5.176	20°Transverse	3-1/2	3-1/2	1-1/4	.360
6	6.212	20°Transverse	2-3/4	2-3/4	1-1/4	.300
6	6.212	20°Normal	3-1/4	3-1/4	1-1/4	.300
7	7.247	20°Transverse	3	3	1-1/4	.257
8	8.282	20°Transverse	3	3	1-1/4	.225

Transverse Pitch 20° PA for 20° Helix Angle

Finishing, Non Topping
Single Thread



20 DP & finer, WD = 2.2/TDP + .002
20° TPA = 18.8817° NPA = (18° 52'54")

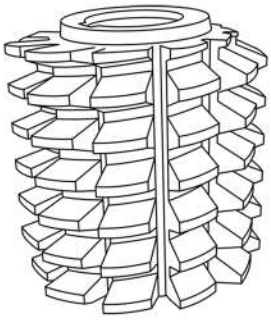
Trans. DP	Normal DP	PA	OD	Length	Bore	WD
2	2.128	20°Transverse	5-3/4	6-1/2	1-1/2	1.079
3	3.193	20°Transverse	4-1/2	5	1-1/4	.719
3-1/2	3.725	20°Transverse	4	4	1-1/4	.616
4	4.257	20°Transverse	4	4	1-1/4	.539
5	5.321	20°Transverse	3-1/2	3-1/2	1-1/4	.431
6	6.385	20°Transverse	3-1/4	3-1/4	1-1/4	.360
6	6.385	20°Normal	3-1/4	3-1/4	1-1/4	.360
7	7.449	20°Transverse	3	3	1-1/4	.308
8	8.513	20°Transverse	3	3	1-1/4	.270
8	8.513	20°Normal	3	3	1-1/4	.270
9	9.578	20°Transverse	2-3/4	2-3/4	1-1/4	.240
10	10.642	20°Transverse	1-7/8	1-7/8	3/4	.216
10	10.642	20°Transverse	2-3/4	2-3/4	1-1/4	.216
10	10.642	20°Normal	2-3/4	2-3/4	1-1/4	.216
12	12.770	20°Transverse	2-1/2	2-1/2	1-1/4	.180
16	17.027	20°Transverse	1-7/8	1-7/8	3/4	.135
16	17.027	20°Transverse	2-1/2	2-1/2	1-1/4	.135
20	21.284	20°Transverse	1-7/8	1-7/8	3/4	.112

Transverse Pitch 20° PA for 20° Helix Angle

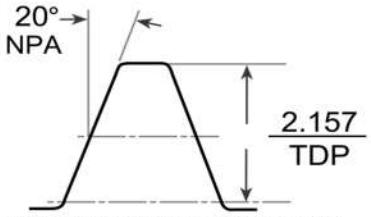
Trans. DP	Normal DP	Transverse PA	OD	Length	Bore	WD
1-1/2	1.596	20°	7	8	1-1/2	1.200
1-3/4	1.862	20°	6-1/4	7-1/4	1-1/2	1.029
2	2.128	20°	5	6	1-1/4	.900
2-1/2	2.660	20°	4-1/2	5-1/2	1-1/4	.720
3	3.193	20°	4-1/4	4-1/4	1-1/4	.600

Stub, Finishing
Non Topping, Single Thread

Transverse Pitch 20° PA for 23° Helix Angle



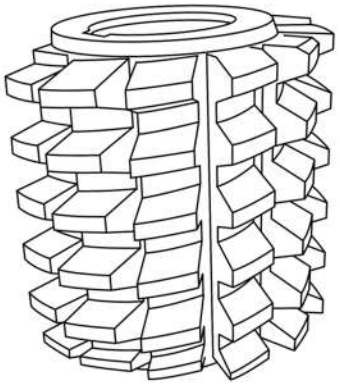
Finishing Non Topping
Single Thread



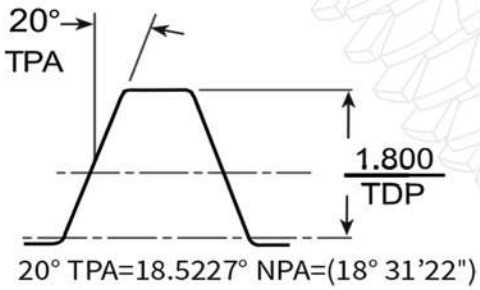
20 DP & Finer, WD=2.20/TDP+.002
20° NPA=21.5939° TPA=(21 34'26")

Trans. DP	Normal DP	Normal PA	OD	Length	Bore	WD
1	1.086	20°	10-1/4	13-1/2	2	2.157
1-1/4	1.358	20°	8-1/4	9	1-1/2	1.726
1-1/2	1.630	20°	7	8	1-1/2	1.438
2	2.173	20°	5-3/4	6-1/2	1-1/2	1.079
2-1/2	2.716	20°	5	6-1/2	1-1/2	.863
3	3.259	20°	4-1/2	5	1-1/4	.719
3-1/2	3.802	20°	4	4	1-1/4	.616
4	4.345	20°	4	4	1-1/4	.539
5	5.432	20°	3-1/2	3-1/2	1-1/4	.431
6	6.518	20°	3-1/4	3-1/4	1-1/4	.360
7	7.605	20°	3	3	1-1/4	.308
8	8.691	20°	3	3	1-1/4	.270
9	9.777	20°	2-3/4	2-3/4	1-1/4	.240
10	10.864	20°	2-3/4	2-3/4	1-1/4	.216
11	11.950	20°	2-1/2	2-1/2	1-1/4	.196
12	13.036	20°	2-1/2	2-1/2	1-1/4	.180
14	15.209	20°	2-1/2	2-1/2	1-1/4	.154
16	17.382	20°	1-7/8	1-7/8	3/4	.135
20	21.727	20°	1-7/8	1-7/8	3/4	.112
24	26.073	20°	1-7/8	1-7/8	3/4	.094

Transverse Pitch 20° PA for 23° Helix Angle

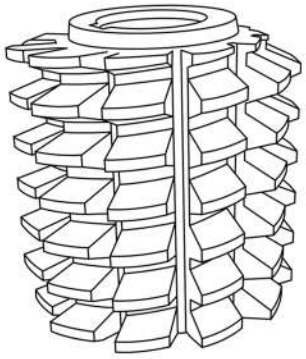


Stub, Finishing Non Tooping
Single Thread

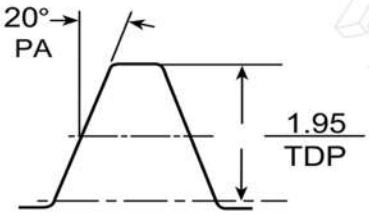


Trans. DP	Normal DP	PA	OD	Length	Bore	WD
1	1.086	20°Transverse	10	12-1/2	2	1.800
1-1/4	1.358	20°Transverse	7-1/2	9-1/2	1-1/2	1.440
1-1/2	1.630	20°Transverse	7	8	1-1/2	1.200
1-3/4	1.901	20°Transverse	6-1/4	7-1/4	1-1/2	1.029
2	2.173	20°Transverse	5	6	1-1/4	.900
2-1/2	2.716	20°Transverse	4-1/2	5-1/2	1-1/4	.720
3	3.259	20°Transverse	4-1/4	4-1/4	1-1/4	.600
4	4.345	20°Transverse	4	4	1-1/4	.450
5	5.432	20°Transverse	3-1/4	3-1/4	1-1/4	.360
5	5.432	20°Normal	3-1/4	3-1/4	1-1/4	.360
6	6.518	20°Transverse	3-1/4	3-1/4	1-1/4	.300
8	8.691	20°Transverse	3	3	1-1/4	.225
9	9.777	20°Transverse	3	3	1-1/4	.200
10	10.864	20°Transverse	3	3	1-1/4	.180
10	10.864	20°Normal	3	3	1-1/4	.180
12	13.036	20°Transverse	2-1/2	2-1/2	1-1/4	.150

Transverse Pitch 20° PA for 30° Helix Angle



Finishing, Non Topping
Single Thread

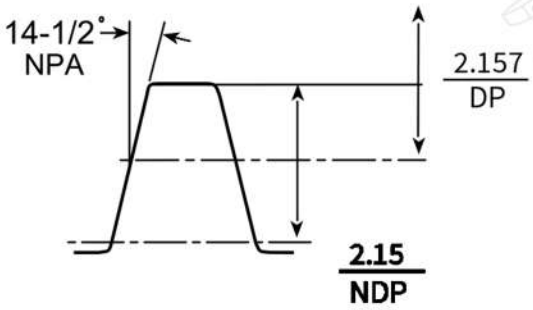


20 DP & finer, WD = 2.20/TDP + .002
20° TPA = 17.4952° NPA = (17° 29'43")

Trans. DP	Normal DP	PA	OD	Length	Bore	WD
1-1/4	1.443	20°Transverse	8-1/4	9	1-1/2	1.560
1-1/2	1.732	20°Transverse	7	8	1-1/2	1.300
1-3/4	2.021	20°Transverse	6-1/4	7	1-1/2	1.114
2	2.309	20°Transverse	5-3/4	6-1/2	1-1/2	.975
2-1/2	2.887	20°Transverse	5	6-1/2	1-1/2	.780
2-1/2	2.887	20°Normal	5	6-1/2	1-1/2	.780
2-3/4	3.175	20°Transverse	4-1/2	5	1-1/4	.709
3	3.464	20°Transverse	4-1/2	5	1-1/4	.650
3-1/2	4.041	20°Transverse	4	4	1-1/4	.557
4	4.619	20°Transverse	4	4	1-1/4	.488
4	4.619	20°Normal	4	4	1-1/4	.488
4-1/2	5.196	20°Transverse	3-1/2	3-1/2	1-1/4	.433
5	5.774	20°Transverse	3-1/2	3-1/2	1-1/4	.390
6	6.928	20°Transverse	3-1/4	3-1/4	1-1/4	.325
6-1/2	7.506	20°Transverse	3	3	1-1/4	.300
7	8.083	20°Transverse	3	3	1-1/4	.279
7	8.083	20°Normal	3	3	1-1/4	.279
8	9.238	20°Transverse	3	3	1-1/4	.244
9	10.392	20°Transverse	2-3/4	2-3/4	1-1/4	.217
10	11.547	20°Transverse	1-7/8	1-7/8	3/4	.195
10	11.547	20°Transverse	2-3/4	2-3/4	1-1/4	.195
11	12.702	20°Transverse	2-1/2	2-1/2	1-1/4	.177
12	13.856	20°Transverse	2-1/2	2-1/2	1-1/4	.163
12	13.856	20°Normal	2-1/2	2-1/2	1-1/4	.163
16	18.475	20°Transverse	1-7/8	1-7/8	3/4	.122
16	18.475	20°Transverse	2-1/2	2-1/2	1-1/4	.122
18	20.785	20°Transverse	1-7/8	1-7/8	3/4	.108
20	23.094	20°Transverse	1-7/8	1-7/8	3/4	.112
24	27.713	20°Transverse	1-7/8	1-7/8	3/4	.094

Transverse Pitch 14.5° NPA for 45° Helix Angle

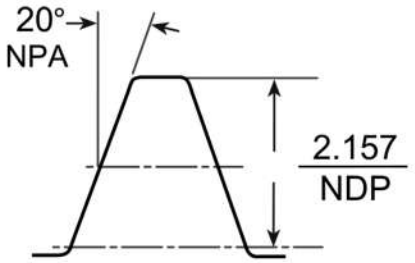
Finishing Non Topping,
Single Thread



Trans. DP	Normal DP	Normal PA	OD	Length	Bore	WD
4	5.657	14.5°	4	4	1-1/4	.381
5	7.071	14.5°	3-1/2	3-1/2	1-1/4	.305
6	8.485	14.5°	3	3	1-1/4	.254
7	9.899	14.5°	3	3	1-1/4	.218
8	11.314	14.5°	1-7/8	1-7/8	3/4	.191
8	11.314	14.5°	2-3/4	2-3/4	1-1/4	.191
9	12.728	14.5°	2-3/4	2-3/4	1-1/4	.169
10	14.142	14.5°	1-7/8	1-7/8	3/4	.153
10	14.142	14.5°	2-1/2	2-1/2	1-1/4	.153
12	16.971	14.5°	1-7/8	1-7/8	3/4	.127
12	16.971	14.5°	2-1/2	2-1/2	1-1/4	.127
14	19.799	14.5°	2-1/2	2-1/2	1-1/4	.109
16	22.627	14.5°	1-7/8	1-7/8	3/4	.099
16	22.627	14.5°	2-1/2	2-1/2	1-1/4	.099
20	28.284	14.5°	1-7/8	1-7/8	3/4	.080
24	33.941	14.5°	1-7/8	1-7/8	3/4	.067

Transverse Pitch 20° NPA for 45° Helix Angle

Finishing Non Topping,
Single Thread



20 DP & Finer WD=2.2/NDP + .002

Trans. DP	Normal DP	Normal PA	OD	Length	Bore	WD
3	4.243	20°	4-1/2	5	1-1/4	.508
4	5.657	20°	4	4	1-1/4	.381
5	7.071	20°	3-1/2	3-1/2	1-1/4	.305
6	8.485	20°	3	3	1-1/4	.254
8	11.314	20°	2-3/4	2-3/4	1-1/4	.191
8	11.314	20°	1-7/8	1-7/8	3/4	.191
10	14.142	20°	1-7/8	1-7/8	3/4	.153
10	14.142	20°	2-1/2	2-1/2	1-1/4	.153
12	16.971	20°	1-7/8	1-7/8	3/4	.127
12	16.971	20°	2-1/2	2-1/2	1-1/4	.127
16	22.627	20°	1-7/8	1-7/8	3/4	.099
16	22.627	20°	2-1/2	2-1/2	1-1/4	.099
20	28.284	20°	1-7/8	1-7/8	3/4	.080
24	33.941	20°	1-7/8	1-7/8	3/4	.067

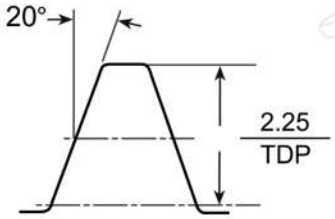
20° PA Transverse DP for 15 & 20° Helix Angle

Finishing, Non-Topping Single Thread Right Hand

Trans. Module	Normal Module	For Helix Angle °	PA	OD	Length	Bore	WD
1-1/4	1.083	30	20°Transverse	1-7/8	1-7/8	3/4	.096
1-1/4	.884	45	20°Normal	1-7/8	1-7/8	3/4	.075
1-1/2	1.299	30	20°Transverse	1-7/8	1-7/8	3/4	.115
1-1/2	1.061	45	20°Normal	1-7/8	1-7/8	3/4	.094
1-1/2	1.061	45	20°Normal	2-1/2	2-1/2	1-1/4	.094
1-3/4	1.644	20	20°Transverse	2-1/2	2-1/2	1-1/4	.155
1-3/4	1.237	45	20°Normal	1-7/8	1-7/8	3/4	.109
2	1.879	20	20°Transverse	2-3/4	2-3/4	1-1/4	.177
2	1.732	30	20°Transverse	2-3/4	2-3/4	1-1/4	.154
2	1.414	45	20°Normal	2-3/4	2-3/4	1-1/4	.120
2	1.414	45	20°Normal	1-7/8	1-7/8	3/4	.120
2-1/2	2.415	15	20°Transverse	2-3/4	2-3/4	1-1/4	.205
2-1/2	2.165	30	20°Transverse	2-3/4	2-3/4	1-1/4	.192
2-1/2	1.768	45	20°Normal	2-3/4	2-3/4	1-1/4	.150
3	2.819	20	20°Transverse	3	3	1-1/4	.266
3	2.598	30	20°Transverse	2-3/4	2-3/4	1-1/4	.230
3	2.121	45	20°Normal	2-3/4	2-3/4	1-1/4	.180
3-3/4	3.524	20	20°Transverse	3	3	1-1/4	.332
4	3.464	30	20°Transverse	3-1/4	3-1/4	1-1/4	.307
4	2.828	45	20°Normal	3-1/4	3-1/4	1-1/4	.240
5	4.330	30	20°Transverse	3-1/4	3-1/4	1-1/4	.384
5	3.536	45	20°Normal	3-1/2	3-1/2	1-1/4	.300
5-1/2	3.889	45	20°Normal	3-1/2	3-1/2	1-1/4	.422

20° PA Transverse DP for 15 & 20° Helix Angle

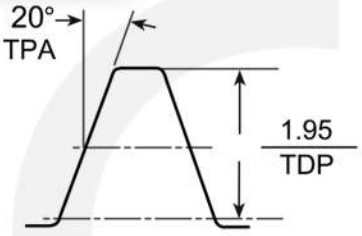
Finishing, NON-Toping
Single Thread, Right Hand



Trans. Module	Normal Module	For Helix Angle	PA	OD	Length	Bore	WD
1-3/4	1.644	20	20°Transverse	2-1/2	2-1/2	1-1/4	.155
2	1.879	20	20°Transverse	2-3/4	2-3/4	1-1/4	.154
2-1/2	2.415	15	20°Transverse	2-3/4	2-3/4	1-1/4	.205
3	2.819	20	20°Transverse	3	3	1-1/4	.266
3-3/4	3.524	20	20°Transverse	3	3	1-1/4	.332

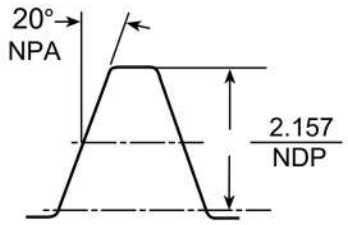
20° PA Transverse DP for 30° Helix Angle

Finishing, Non-Topping
Single Thread



Trans. Module	Normal Module	PA	OD	Length	Bore	WD
1-1/4	1.083	20°Transverse	1-7/8	1-7/8	3/4	.096
1-1/2	1.299	20°Transverse	1-7/8	1-7/8	3/4	.115
2	1.732	20°Transverse	2-3/4	2-3/4	1-1/4	.154
2-1/2	2.165	20°Transverse	2-3/4	2-3/4	1-1/4	.192
3	2.598	20°Transverse	2-3/4	2-3/4	1-1/4	.230
3-1/2	3.031	20°Transverse	3	3	1-1/4	.269
4	3.464	20°Transverse	3-1/4	3-1/4	1-1/4	.307
5	4.330	20°Transverse	3-1/2	3-1/2	1-1/4	.384
5-1/2	4.763	20°Transverse	3-1/2	3-1/2	1-1/4	.422

20° PA Transverse DP for 45° Helix Angle



Finishing, Non-Topping
Single Thread, Right Hand

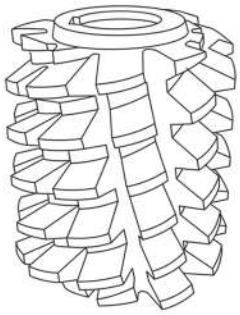
Trans. Module	Normal Module	PA	OD	Length	Bore	WD
1-1/4	.884	20°Normal	1-7/8	1-7/8	3/4	.078
1-1/2	1.061	20°Normal	1-7/8	1-7/8	3/4	.094
1-1/2	1.061	20°Normal	2 1/2	2-1/2	1-1/4	.094
1-3/4	1.237	20°Normal	1-7/8	1-7/8	3/4	.110
2	1.414	20°Normal	2-3/4	2-3/4	1-1/4	.120
2-1/2	1.768	20°Normal	2-3/4	2-3/4	1-1/4	.150
3	2.121	20°Normal	2-3/4	2-3/4	1-1/4	.180
4	2.828	20°Normal	3-1/4	3-1/4	1-1/4	.240
5	3.536	20°Normal	3-1/2	3-1/2	1-1/4	.300

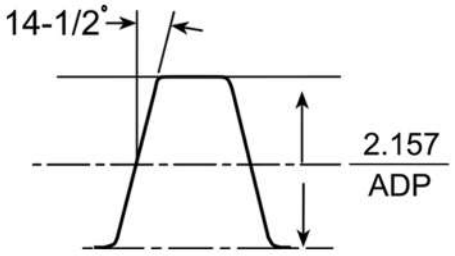
14.5° Normal Pressure Angle Transverse CP for 18° Helix Angle

Finishing, Non-Topping Single Thread

Trans. CP	Normal Pressure Angle	OD	Length	Bore	WD
1/8	14.5	3	3	1-1/4	.090
1/4	14.5	2-3/4	2-3/4	1-1/4	.179

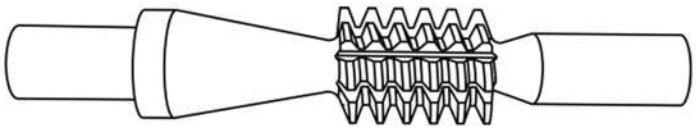
Topping Worm Gear Shell Type 14.5° PA Axial DP

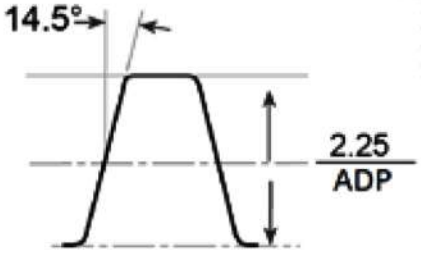




Axial Diam. Pitch	PA	Worm P.D.	OD	Length	# of Threads	Bore
3	14.5°	4.000	4.970	4	1	1-1/4
3	14.5°	4.000	4.970	4	2	1-1/4
4	14.5°	3.000	3.731	4-1/2	1	1-1/4
4	14.5°	3.000	3.731	4-1/2	2	1-1/4
4	14.5°	3.000	3.731	4-1/2	3	1-1/4
4	14.5°	3.000	3.731	4-1/2	4	1-1/4
5	14.5°	2.300	2.880	3	1	1-1/4
5	14.5°	2.300	2.880	3	2	1-1/4
5	14.5°	2.300	2.880	3	3	1-1/4
5	14.5°	2.300	2.880	3	4	1-1/4
6	14.5°	2.000	2.490	3	1	3/4
6	14.5°	2.000	2.490	3	2	3/4
6	14.5°	2.000	2.490	3	3	3/4
6	14.5°	2.000	2.490	3	4	3/4
8	14.5°	1.500	1.878	2-1/2	1	3/4
8	14.5°	1.500	1.878	2-1/2	2	3/4
8	14.5°	1.500	1.878	2-1/2	3	3/4
8	14.5°	1.500	1.878	2-1/2	4	3/4
10	14.5°	1.250	1.555	2	1	1/2
10	14.5°	1.250	1.555	2	2	1/2
10	14.5°	1.250	1.555	2	3	1/2
10	14.5°	1.250	1.555	2	3	5/8
10	14.5°	1.250	1.555	2	4	1/2
12	14.5°	1.000	1.285	1-3/4	1	1/2
12	14.5°	1.000	1.285	1-3/4	2	1/2
12	14.5°	1.000	1.285	1-3/4	3	1/2
12	14.5°	1.000	1.285	1-3/4	4	1/2
16	14.5°	1.125	1.355	1-3/4	1	1/2

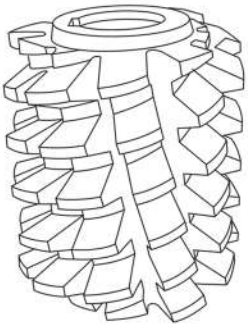
Topping Worm Gear Shank Type 14.5° PA Axial DP

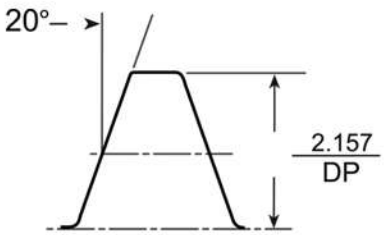




Axial DP	PA	Worm P.D.	OD	# of Threads
8	14.5°	1.500	1.890	1
8	14.5°	1.500	1.890	2
8	14.5°	1.500	1.890	3
8	14.5°	1.500	1.890	4
10	14.5°	1.250	1.570	1
10	14.5°	1.250	1.570	2
10	14.5°	1.250	1.570	3
10	14.5°	1.250	1.570	4
12	14.5°	1.000	1.285	1
12	14.5°	1.000	1.285	2
12	14.5°	1.000	1.285	3
12	14.5°	1.000	1.285	4
16	14.5°	.625	0.855	1
16	14.5°	1.125	1.355	4
16	14.5°	.625	0.855	2
16	14.5°	1.125	1.355	2
16	14.5°	.625	0.855	3
16	14.5°	.625	0.855	4
20	14.5°	.563	0.766	1
24	14.5°	.500	0.681	1
24	14.5°	.500	0.681	2
32	14.5°	.438	0.590	1
48	14.5°	.333	0.457	1
64	14.5°	.313	0.422	1
64	14.5°	.313	0.422	4

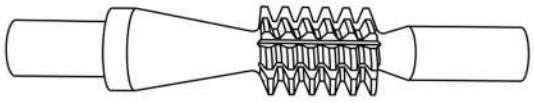
Topping Worm Gear Shell Type 20° PA Axial DP

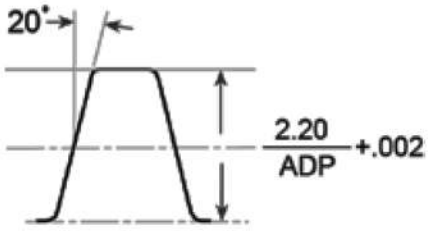




Axial DP	PA	Worm P.D.	# of Threads	OD	Length	Bore
3	20°	4.000	1	4.970	4	1-1/4
3	20°	4.000	2	4.970	4	1-1/4
3	20°	4.000	3	4.970	4	1-1/4
4	20°	3.000	1	3.373	4-1/2	1-1/4
4	20°	3.000	2	3.373	4-1/2	1-1/4
4	20°	3.000	3	3.373	4-1/2	1-1/4
4	20°	3.000	4	3.373	4-1/2	1-1/4
5	20°	2.300	1	2.880	3	1-1/4
5	20°	2.300	2	2.880	3	1-1/4
5	20°	2.300	3	2.880	3	1-1/4
5	20°	2.300	4	2.880	3	1-1/4
6	20°	2.000	1	2.490	3	3/4
6	20°	2.000	2	2.490	3	3/4
6	20°	2.000	3	2.490	3	3/4
6	20°	2.000	4	2.490	3	3/4
8	20°	1.500	1	1.878	2-1/2	3/4
8	20°	1.750	1	2.120	2-1/2	3/4
8	20°	1.500	2	1.878	2-1/2	3/4
8	20°	1.500	3	1.878	2-1/2	3/4
8	20°	1.500	4	1.878	2-1/2	3/4
10	20°	1.250	1	1.555	2	1/2
10	20°	1.250	1	1.555	2	5/8
10	20°	1.250	2	1.555	2	1/2
10	20°	1.250	3	1.555	2	1/2
10	20°	1.250	3	1.555	2	5/8
10	20°	1.250	4	1.555	2	1/2
12	20°	1.000	1	1.285	1-3/4	1/2
12	20°	1.000	2	1.285	1-3/4	1/2
12	20°	1.000	3	1.285	1-3/4	1/2
12	20°	1.000	4	1.285	1-3/4	1/2

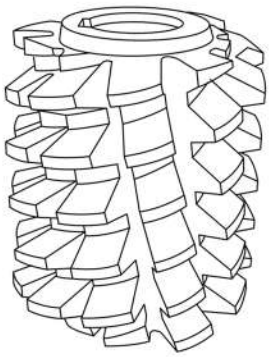
Topping Worm Gear Shank Type 20° PA Axial DP

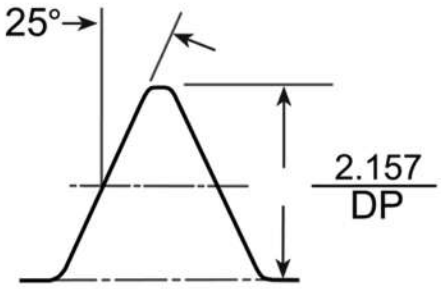




Axial DP	PA	Worm P.D.	# of Threads	OD
8	20°	1.500	1	1.890
8	20°	1.500	2	1.890
8	20°	1.500	4	1.890
10	20°	1.250	1	1.570
10	20°	1.250	2	1.570
10	20°	1.250	3	1.570
10	20°	1.250	4	1.570
12	20°	1.000	1	1.285
12	20°	1.000	2	1.285
12	20°	1.000	3	1.285
12	20°	1.000	4	1.285
14	20°	.750	1	.970
16	20°	.625	1	.855
16	20°	.625	2	.855
16	20°	.625	3	.855
16	20°	.625	4	.855
20	20°	.563	1	.766
20	20°	.563	2	.766
20	20°	.563	3	.766
20	20°	.563	4	.766
24	20°	.500	1	.681
24	20°	.500	2	.681
24	20°	.500	3	.681
24	20°	.500	4	.681
32	20°	.438	1	.590
32	20°	.438	2	.590
32	20°	.438	4	.590
48	20°	.333	1	.457
48	20°	.333	2	.457
64	20°	.313	2	.422

Topping Worm Gear Shell Type 25° PA Axial DP

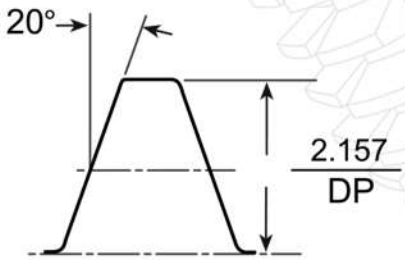




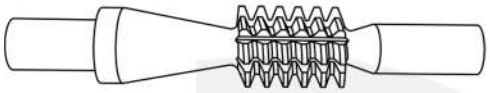
Axial DP	PA	Worm P.D.	# of Threads	OD	Length	Bore
3	25°	4.000	2	4.970	4	1-1/4
4	25°	3.000	1	3.373	4-1/2	1-1/4
4	25°	3.000	2	3.373	4-1/2	1-1/4
4	25°	3.000	3	3.373	4-1/2	1-1/4
5	25°	2.300	1	2.880	3	1-1/4
5	25°	2.300	2	2.880	3	1-1/4
6	25°	2.000	1	2.490	3	3/4
6	25°	2.000	2	2.490	3	3/4
6	25°	2.000	3	2.490	3	3/4
6	25°	2.000	4	2.490	3	3/4
8	25°	1.500	1	1.878	2-1/2	3/4
8	25°	1.500	2	1.878	2-1/2	3/4
8	25°	1.500	3	1.878	2-1/2	3/4
8	25°	1.500	4	1.878	2-1/2	3/4
10	25°	1.250	1	1.555	2	1/2
10	25°	1.250	2	1.555	2	1/2
12	25°	1.000	1	1.285	1-3/4	1/2

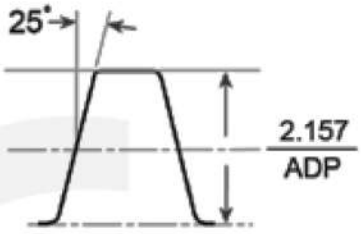
Topping Worm Gear Shell Type 20° PA Axial CP

Axial Circ. Pitch	PA	Worm P.D.	# of Threads	OD	Length	Bore
1/4	20°	1.000	1	1.27	1-3/4	1/2
1/4	20°	1.000	2	1.27	1-3/4	1/2
3/8	20°	1.500	1	1.88	2-1/2	3/4
3/8	20°	1.500	2	1.88	2-1/2	3/4
3/8	20°	1.500	3	1.88	2-1/2	3/4
1/2	20°	1.750	1	2.24	3	3/4
1/2	20°	1.750	2	2.24	3	3/4
5/8	20°	2.250	1	2.83	3	3/4
5/8	20°	2.250	2	2.83	3	3/4



Topping Worm Gear Shank Type 25° PA Axial DP

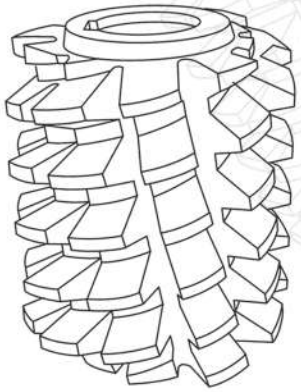




Axial Diam. Pitch	PA	Worm P.D.	# of Threads	OD
10	25°	1.250	4	1.570
12	25°	1.000	2	1.285
16	25°	.625	1	.855
16	25°	.625	2	.855
20	25°	.563	1	.766
20	25°	.563	2	.766
20	25°	.563	4	.766
24	25°	.500	1	.681
24	25°	.500	2	.681
24	25°	.500	4	.681
32	25°	.438	1	.590
32	25°	.438	2	.590
32	25°	.438	4	.590
48	25°	.333	2	.457
48	25°	.333	4	.457

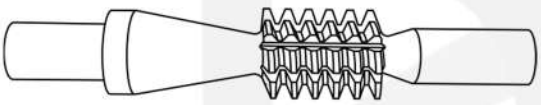
Topping Worm Gear Shell Type 14.5° PA

Axial Mod.	PA	Worm P.D. (mm)	# of Threads	OD	Length	Bore
1.75	14.5°	24	2	1.204	1-1/4	1/2
2.00	14.5°	31	1	1.500	1-1/2	1/2
2.25	14.5°	34	1	1.660	1-3/4	1/2
2.50	14.5°	37	1	1.850	2	3/4
2.50	14.5°	37	2	1.850	2	3/4
2.75	14.5°	40.8	1	1.980	2-1/4	3/4
3.00	14.5°	44	1	2.140	2-1/4	3/4
3.00	14.5°	44	2	2.140	2-1/4	3/4
3.50	14.5°	52	1	2.500	2-3/4	3/4
4.00	14.5°	62	1	2.930	3	1-1/4
4.00	14.5°	62	2	2.930	3	1-1/4
5.00	14.5°	72	1	3.450	3-3/4	1-1/4
6.00	14.5°	86	1	4.100	4-1/2	1-1/4



Axial Module

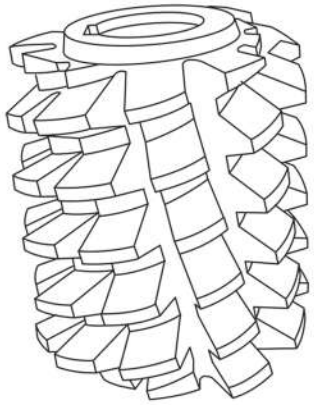
Topping Worm Gear Shank Type 14.5° PA

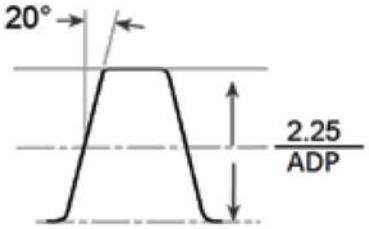


Right Hand Axial Module

Axial Mod.	PA	Worm P.D. (mm)	# of Threads	OD
.50	14.5°	9	1	.420
.60	14.5°	14	1	.635
.75	14.5°	11	1	.600
.80	14.5°	11.4	1	.610
1.00	14.5°	12	1	.640
1.25	14.5°	14	1	.755
1.50	14.5°	16	1	.827
1.50	14.5°	16	2	.827
1.75	14.5°	24	1	1.150

Topping Worm Gear Shell Type 20° PA





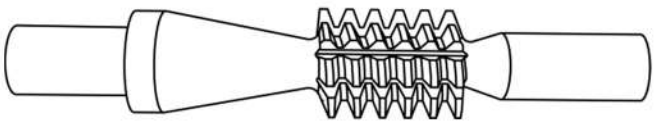
Axial Module Right & Left Hand

Axial Mod.	PA	Worm P.D. (mm)	# of Threads	OD	Length	Bore
1.60	20°	28	1	1.345	1-1/4	1/2
2.00	20°	28	1	1.375	1-1/2	1/2
2.00	20°	28	2	1.375	1-1/2	1/2
2.00	20°	28	4	1.375	1-1/2	1/2
2.00	20°	31	1	1.500	1-3/4	1/2
2.00	20°	31	2	1.500	1-3/4	1/2
2.00	20°	31	4	1.500	1-3/4	1/2
2.00	20°	35.5	1	1.700	1-3/4	1/2
2.25	20°	34	1	1.650	1-3/4	1/2
2.25	20°	34	2	1.650	1-3/4	1/2
2.25	20°	34	4	1.650	1-3/4	1/2
2.50	20°	26.5	1	1.390	2	1/2
2.50	20°	26.5	2	1.390	2	1/2
2.50	20°	26.5	4	1.390	2	1/2
2.50	20°	33.5	1	1.650	2	5/8
2.50	20°	33.5	2	1.650	2	5/8
2.50	20°	33.5	4	1.650	2	5/8
2.50	20°	37	1	1.800	2	3/4
2.50	20°	37	2	1.800	2	3/4
2.50	20°	37	3	1.800	2	3/4
2.50	20°	37	4	1.800	2	3/4
2.50	20°	42.5	1	2.000	2	3/4
2.75	20°	40.8	1	1.970	2	3/4

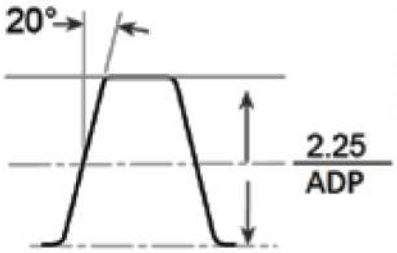
Continue...

Axial Mod.	PA	Worm P.D. (mm)	# of Threads	OD	Length	Bore
3.00	20°	44	1	2.130	2-1/4	3/4
3.00	20°	44	2	2.130	2-1/4	3/4
3.00	20°	44	3	2.130	2-1/4	3/4
3.00	20°	44	4	2.130	2-1/4	3/4
3.15	20°	33.5	1	1.750	2-1/4	3/4
3.15	20°	42.5	1	2.080	2-3/8	3/4
3.15	20°	42.5	2	2.080	2-3/8	3/4
3.15	20°	53	1	2.500	2-1/2	1-1/4
3.50	20°	52	1	2.500	2-1/2	1
3.50	20°	52	2	2.500	2-1/2	1
3.50	20°	52	3	2.500	2-1/2	1
3.50	20°	52	4	2.500	2-1/2	1
4.00	20°	50	1	2.475	3	3/4
4.00	20°	50	2	2.475	3	3/4
4.00	20°	50	4	2.475	3	3/4
4.00	20°	62	1	2.975	3	1-1/4
4.00	20°	62	2	2.975	3	1-1/4
4.00	20°	62	4	2.975	3	1-1/4
4.00	20°	67	1	3.160	3	1-1/4
5.00	20°	63	1	3.100	3-3/4	1-1/4
5.00	20°	63	2	3.100	3-3/4	1-1/4
5.00	20°	63	4	3.105	3-1/2	1-1/4
5.00	20°	72	1	3.410	3-3/4	1-1/4
5.00	20°	72	2	3.410	3-3/4	1-1/4
6.00	20°	86	1	4.125	4-1/4	1-1/4
6.00	20°	86	2	4.125	4-3/8	1-1/4
6.00	20°	86	4	4.125	4-3/8	1-1/4
6.30	20°	63	1	3.34	4-1/2	1-1/4
6.30	20°	63	2	3.340	4-1/2	1-1/4
6.30	20°	63	4	3.340	4-1/2	1-1/4
6.30	20°	80	1	3.925	4-1/2	1-1/4
8.00	20°	100	1	4.900	5-3/4	1-1/2
8.00	20°	100	2	4.900	5-3/4	1-1/2

Topping Worm Gear Shank Type 20° PA Axial MOD



Axial



Axial Mod.	PA	Worm P.D. (mm)	# of Threads	OD
.50	20°	9	1	.450
.50	20°	9	2	.450
.70	20°	10.4	2	.560
.75	20°	11	1	.600
.75	20°	11	2	.600
.80	20°	11.4	1	.610
.80	20°	11.4	2	.610
.80	20°	11.4	4	.610
1.00	20°	12	1	.640
1.00	20°	12	3	.640
1.00	20°	12	4	.640
1.00	20°	17	1	.850
1.00	20°	17	2	.850
1.00	20°	17	1	.860
1.25	20°	14	1	.750
1.25	20°	14	2	.750
1.25	20°	14	4	.750
1.25	20°	22.4	1	1.100
1.50	20°	16	1	.865
1.50	20°	16	2	.865
1.50	20°	16	3	.865
1.50	20°	16	4	.865
1.60	20°	28	1	1.333
1.75	20°	24	1	1.190
1.75	20°	24	2	1.190
2.00	20°	22.4	1	1.175
2.00	20°	22.4	2	1.175
2.00	20°	22.4	4	1.175
2.50	20°	37	1	1.800
2.50	20°	37	2	1.800
3.00	20°	44	1	2.130

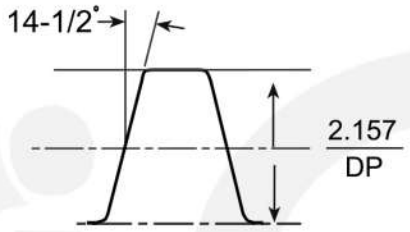
Topping Worm Gear Shank Type 25° PA Axial MOD

Right Hand Axial Module

Axial Mod.	PA	Worm P.D. (mm)	# of Threads	OD
.50	25°	9	4	.423
.80	25°	11.4	2	.610
.80	25°	11.4	4	.610
1.00	25°	12	2	.645
1.00	25°	12	4	.645

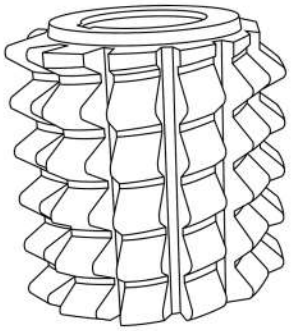
Topping Worm Gear Shell Type 14.5° PA Axial CP

Circular Pitch

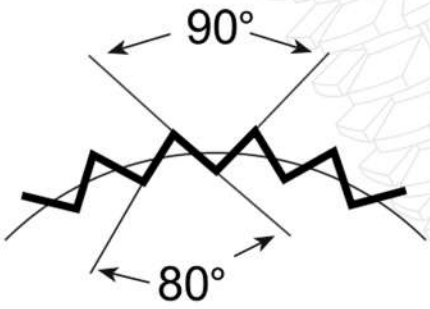


Axial Circ. Pitch	PA	Worm P.D.	# of Threads	OD	Length	Bore
1/4	14.5°	1.000	1	1.27	1-3/4	1/2
1/4	14.5°	1.000	2	1.27	1-3/4	1/2
3/8	14.5°	1.500	1	1.88	2-1/2	3/4
3/8	14.5°	1.500	2	1.88	2-1/2	3/4
1/2	14.5°	1.750	1	2.24	3	3/4
1/2	14.5°	1.750	2	2.24	3	3/4
5/8	14.5°	2.250	1	2.83	3	3/4
5/8	14.5°	2.250	2	2.83	3	3/4
3/4	14.5°	2.750	1	3.45	4	1-1/4
3/4	14.5°	2.750	2	3.45	4	1-1/4

36 Tooth Straight Sided Serrations Hob

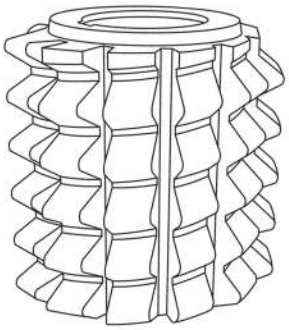


Non Toping Right Hand

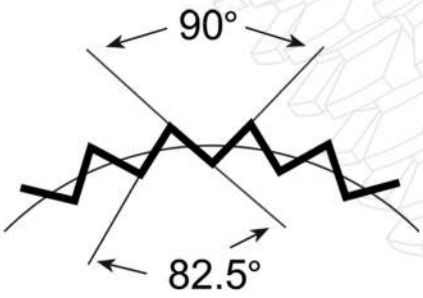


Nom. Dia.	Dec. Equiv.	OD	Length	Bore	Leads	WD
1/8	.125	3/4	5/8	8mm	1	.004
3/16	.188	3/4	3/4	8mm	1	.006
3/16	.188	1-1/8	1-1/8	1/2	1	.006
1/4	.250	3/4	2/3	8mm	1	.008
1/4	.250	1-1/8	1-1/8	1/2	1	.008
1/4	.250	1-1/8	1-1/8	1/2	2	.008
1/4	.250	1-7/8	1	3/4	1	.008
5/16	.313	3/4	5/8	8mm	1	.011
5/16	.313	1-1/8	1-1/8	1/2	1	.011
5/16	.313	1-5/8	1	3/4	1	.011
3/8	.375	3/4	3/4	8mm	1	.013
3/8	.375	1-1/8	1-1/8	1/2	1	.013
3/8	.375	1-1/8	1-1/8	1/2	2	.013
3/8	.375	1-5/8	1	3/4	1	.013
1/2	.500	3/4	2/3	8mm	1	.017
1/2	.500	1-1/4	1-1/4	1/2	1	.017
1/2	.500	1-7/8	1-1/2	3/4	1	.017
1/2	.500	1-7/8	1-1/2	3/4	2	.017
9/16	.563	1-7/8	1-1/2	3/4	1	.018
5/8	.625	3/4	2/3	8mm	1	.021
5/8	.625	1-1/8	1-1/8	1/2	1	.021
5/8	.625	1-7/8	1-1/2	3/4	1	.021
5/8	.625	1-7/8	1-1/2	3/4	2	.021
3/4	.750	1-7/8	1-1/2	3/4	1	.027
3/4	.750	1-7/8	1-1/2	3/4	2	.027
3/4	.750	2-1/2	2	1-1/4	1	.027
7/8	.875	1-1/4	1-1/4	1/2	1	.031
7/8	.875	1-7/8	1-1/2	3/4	1	.031
7/8	.875	2-1/2	2	1-1/4	1	.031
1	1.000	1-7/8	1-1/2	3/4	1	.034
1	1.000	2-1/2	2	1-1/4	1	.034
1-1/8	1.125	1-7/8	1-1/2	3/4	1	.038
1-1/8	1.125	2-1/2	2	1-1/4	1	.038
1-1/4	1.250	2-1/2	2	1-1/4	1	.042

48 Tooth Straight Sided Serrations Hob

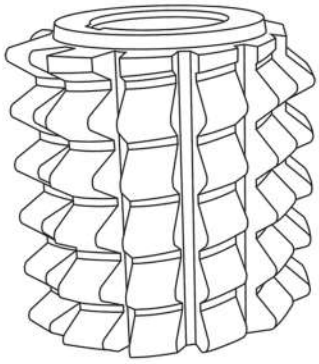


Non Topping Right Hand



Nom. Dia.	Dec. Equiv.	OD	Length	Bore	Leads	WD
1/2	.500	1-7/8	1-1/2	3/4	1	.014
3/4	.750	1-1/4	1-1/4	1/2	1	.018
3/4	.750	1-7/8	1-1/2	3/4	1	.018
3/4	.750	1-7/8	1-1/2	3/4	2	.018
3/4	.750	2-1/2	2	1-1/4	1	.018
7/8	.875	1-1/8	1-1/8	1/2	1	.021
7/8	.875	1-7/8	1-1/2	3/4	1	.021
7/8	.875	2-1/2	2	1-1/4	1	.021
1	1.000	1-1/4	1-1/4	1/2	1	.027
1	1.000	1-7/8	1-1/2	3/4	1	.027
1	1.000	2-1/2	2	1-1/4	1	.027
1-1/8	1.125	1-1/4	1-1/4	1/2	1	.029
1-1/8	1.125	1-7/8	1-1/2	3/4	1	.029
1-1/8	1.125	1-7/8	1-1/2	3/4	2	.029
1-1/8	1.125	2-1/2	2	1-1/4	1	.029
1-1/4	1.250	1-1/4	1-1/4	1/2	1	.033
1-1/4	1.250	1-7/8	1-1/2	3/4	1	.033
1-1/4	1.250	2-1/2	2	1-1/4	1	.033
1-3/8	1.375	1-1/4	1-1/4	1/2	1	.035
1-3/8	1.375	2-1/2	2	1-1/4	1	.035
1-1/2	1.500	1-7/8	1-1/2	3/4	1	.038
1-1/2	1.500	1-7/8	1-1/2	3/4	2	.038
1-1/2	1.500	2-1/2	2	1-1/4	1	.038
1-3/4	1.750	1-7/8	1-1/2	3/4	1	.044
1-3/4	1.750	2-1/2	2	1-1/4	1	.044
2	2.000	2-1/2	2	1-1/4	1	.050
2-1/4	2.250	2-1/2	2	1-1/4	1	.056
2-1/2	2.500	2-1/2	2	1-1/4	1	.062

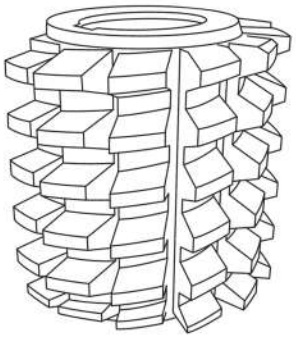
British Straight Sided Serrations Hob



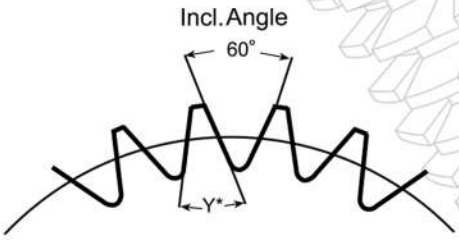
Non Topping Single Lead Right Hand

Nominal Dia.	No. Serrations	O.D.	Length	Bore	WD
7/16	16	1-7/8	1-1/2	3/4	.033
1/2	16	1-7/8	1-1/2	3/4	.038
5/8	20	1-7/8	1-1/2	3/4	.040
3/4	20	1-7/8	1-1/2	3/4	.047
1	24	1-7/8	1-1/2	3/4	.054
1-1/8	24	1-7/8	1-1/2	3/4	.059
1-1/4	24	1-7/8	1-1/2	3/4	.067
1-1/2	24	1-7/8	1-1/2	3/4	.080
1-5/8	36	1-7/8	1-1/2	3/4	.057
1-3/4	36	1-7/8	1-1/2	3/4	.063
2	36	1-7/8	1-1/2	3/4	.071

55° & 60° Angle Serrations Hob Per DIN 5481



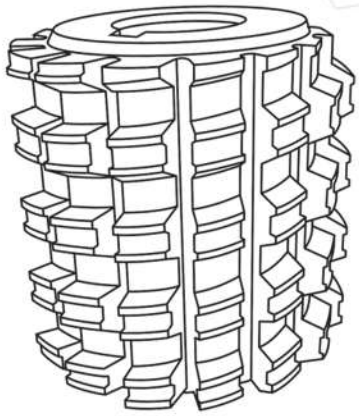
Single Lead Right Hand



Nom. Dia. in mm	No. Teeth in Part	Included Angle	OD	Length	Bore	Approx. Whole Depth
8 x 7	28	60°	1-1/8	1-1/8	1/2	.018
10 x 8	28	60°	1-1/8	1-1/8	1/2	.031
12 x 10	30	60°	1-1/8	1-1/8	1/2	.030
14 x 12	31	60°	1-1/8	1-1/8	1/2	.036
17 x 15	32	60°	1-1/8	1-1/8	1/2	.039
20 x 17	33	60°	1-7/8	1-1/2	3/4	.046
24 x 21	34	60°	1-7/8	1-1/2	3/4	.052
30 x 26	35	60°	1-7/8	1-1/2	3/4	.065
34 x 30	36	60°	1-7/8	1-1/2	3/4	.065
40 x 36	37	60°	1-7/8	1-7/8	3/4	.072
44 x 40	38	60°	2-1/2	2	1-1/4	.078
50 x 45	39	60°	1-7/8	1-7/8	3/4	.093
50 x 45	39	60°	2-1/2	2	1-1/4	.093
55 x 50	40	60°	1-7/8	1-7/8	3/4	.095
55 x 50	40	60°	2-1/2	2	1-1/4	.095
60 x 55	42	60°	1-7/8	1-7/8	3/4	.097
60 x 55	42	60°	2-1/2	2	1-1/4	.097
65 x 60	41	55°	2-1/2	2	1-1/4	.099
70 x 65	45	55°	2-1/2	2	1-1/4	.099
75 x 70	48	55°	2-1/2	2	1-1/4	.099
80 x 75	51	55°	2-1/2	2	1-1/4	.099
85 x 80	55	55°	2-1/2	2	1-1/4	.099
90 x 85	58	55°	2-1/2	2	1-1/4	.099
95 x 90	61	55°	2-1/2	2	1-1/4	.099
100 x 95	65	55°	2-1/2	2	1-1/4	.099
105 x 100	68	55°	2-1/2	2	1-1/4	.099
110 x 105	71	55°	2-1/2	2	1-1/4	.099
115 x 110	75	55°	2-1/2	2	1-1/4	.099
120 x 115	78	55°	2-1/2	2	1-1/4	.099
125 x 120	81	55°	2-1/2	2	1-1/4	.099

6 Straight Sided Spline Hob

Will Produce				Hob Size		
Shaft Dia.	Fit	Root Dia.	Key	OD	Length	Bore
.375	B	.319	.092	1	1-1/4	1/2
.375	C	.300	.091	1-7/8	1-1/2	3/4
.500	A	.450	.125	2-1/4	2	1-1/4
.500	B	.423	.121	1-7/8	1-7/8	3/4
.500	C	.397	.121	1-7/8	1-7/8	3/4
.500	C	.397	.121	2-1/4	2	1-1/4
.625	A	.563	.156	2-1/4	2	1-1/4
.625	B	.529	.152	1-7/8	1-7/8	3/4
.625	B	.529	.152	2-1/4	2	1-1/4
.625	C	.497	.152	1-7/8	1-7/8	3/4
.625	C	.497	.152	2-1/4	2	1-1/4
.688	A	.614	.168	3	3	1-1/4
.750	A	.675	.188	1-7/8	1-7/8	3/4
.750	B	.635	.185	1-7/8	1-7/8	3/4
.750	B	.635	.185	2-1/2	2-1/2	1-1/4
.750	C	.597	.185	1-7/8	1-7/8	3/4
.750	C	.597	.185	2-1/2	2-1/2	1-1/4
.875	A	.788	.219	1-7/8	1-7/8	3/4
.875	A	.788	.219	2-1/2	2-1/2	1-1/4
.875	B	.741	.215	1-7/8	1-7/8	3/4
.875	B	.741	.215	2-1/2	2-1/2	1-1/4
.875	C	.696	.215	1-7/8	1-7/8	3/4
.875	C	.696	.215	2-1/2	2-1/2	1-1/4
1.000	A	.900	.250	1-7/8	1-7/8	3/4
1.000	A	.900	.250	2-1/2	2-1/2	1-1/4
1.000	B	.847	.246	1-7/8	1-7/8	3/4
1.000	B	.847	.246	2-1/2	2-1/2	1-1/4
1.000	C	.796	.246	1-7/8	1-7/8	3/4
1.000	C	.796	.246	2-1/2	2-1/2	1-1/4
1.125	A	1.013	.281	1-7/8	1-7/8	3/4
1.125	A	1.013	.281	2-1/2	2-1/2	1-1/4
1.125	B	.953	.277	1-7/8	1-7/8	3/4
1.125	B	.953	.277	2-1/2	2-1/2	1-1/4
1.125	C	.894	.277	1-7/8	1-7/8	3/4
1.125	C	.894	.277	2-1/2	2-1/2	1-1/4
1.250	A	1.126	.313	1-7/8	1-7/8	3/4
1.250	A	1.126	.313	2-1/2	2-1/2	1-1/4
1.250	B	1.060	.309	1-7/8	1-7/8	3/4
1.250	B	1.060	.309	2-1/2	2-1/2	1-1/4
1.250	C	.996	.309	1-7/8	1-7/8	3/4
1.250	C	.996	.309	2-1/2	2-1/2	1-1/4
1.375	A	1.239	.345	2-3/4	2-3/4	1-1/4
1.375	B	1.165	.340	2	2	3/4
1.375	B	1.165	.340	2-3/4	2-3/4	1-1/4
1.375	C	1.096	.340	2	2	3/4
1.375	C	1.096	.340	2-3/4	2-3/4	1-1/4



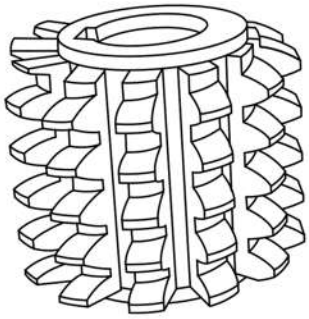
Single Lead Right Hand

Continue...

Will Produce				Hob Size		
Shaft Dia.	Fit	Root Dia.	Key	OD	Length	Bore
1.500	A	1.350	.375	2-3/4	2-3/4	1-1/4
1.500	B	1.271	.371	2	2	3/4
1.500	B	1.271	.371	2-3/4	2-3/4	1-1/4
1.500	C	1.196	.371	2	2	3/4
1.500	C	1.196	.371	2-3/4	2-3/4	1-1/4
1.625	A	1.465	.441	2-3/4	2-3/4	1-1/4
1.625	B	1.378	.402	2-3/4	2-3/4	1-1/4
1.625	C	1.296	.402	2-3/4	2-3/4	1-1/4
1.750	A	1.577	.438	3	3	1-1/4
1.750	B	1.485	.434	3	3	1-1/4
1.750	C	1.396	.434	3	3	1-1/4
1.875	A	1.688	.469	3	3	1-1/4
1.875	B	1.594	.465	3	3	1-1/4
1.875	C	1.500	.465	3	3	1-1/4
2.000	A	1.802	.500	3-1/4	3-1/4	1-1/4
2.000	B	1.696	.495	3-1/4	3-1/4	1-1/4
2.000	C	1.595	.495	3-1/4	3-1/4	1-1/4
2.250	A	2.027	.563	3-1/4	3-1/4	1-1/4
2.250	B	1.908	.558	3-1/4	3-1/4	1-1/4
2.250	C	1.797	.558	3-1/4	3-1/4	1-1/4
2.500	A	2.252	.625	3-1/2	3-1/2	1-1/4
2.500	B	2.120	.620	3-1/2	3-1/2	1-1/4
2.500	C	1.996	.620	3-1/2	3-1/2	1-1/4
2.750	A	2.447	.688	3-1/2	3-1/2	1-1/4
2.750	B	2.333	.683	3-1/2	3-1/2	1-1/4
2.750	C	2.194	.683	3-1/2	3-1/2	1-1/4
3.000	A	2.702	.750	3-1/2	3-1/2	1-1/4
3.000	B	2.545	.745	3-1/2	3-1/2	1-1/4
3.000	C	2.394	.745	3-1/2	3-1/2	1-1/4
3.250	B	2.757	.808	3-1/2	3-1/2	1-1/4
3.250	C	2.594	.808	3-1/2	3-1/2	1-1/4
3.500	B	2.970	.870	3-3/4	3-3/4	1-1/4
3.500	C	2.793	.870	3-3/4	3-3/4	1-1/4
3.750	B	3.183	.933	3-3/4	3-3/4	1-1/4
4.000	B	3.395	.995	4	4	1-1/4
4.000	C	3.192	.995	4	4	1-1/4

10 Straight Sided Spline Hob

Will Produce					Hob Size		
Shaft Dia.	Fit	Root Dia.	Straight Line Dia.	Key	OD	Length	Bore
.500	B	.403	.430	.075	1-7/8	1-7/8	3/4
.500	C	.368	.405	.075	1-7/8	1-7/8	3/4
.625	B	.502	.537	.095	1-7/8	1-7/8	3/4
.625	C	.459	.506	.095	1-7/8	1-7/8	3/4
.750	A	.683	.683	.117	1-7/8	1-7/8	3/4
.750	A	.683	.683	.117	2-1/2	2-1/2	1-1/4
.750	B	.601	.644	.114	1-7/8	1-7/8	3/4
.750	B	.601	.644	.114	2-1/2	2-1/2	1-1/4
.750	C	.550	.607	.114	1-7/8	1-7/8	3/4
.750	C	.550	.607	.114	2-1/2	2-1/2	1-1/4
.750	spec	.629	.652	.114	1-7/8	1-7/8	3/4
.875	A	.797	.797	.137	1-7/8	1-7/8	3/4
.875	B	.706	.753	.134	1-7/8	1-7/8	3/4
.875	B	.706	.753	.134	2-1/2	2 1/2	1-1/4
.875	C	.642	.709	.134	1-7/8	1-7/8	3/4
.875	C	.642	.709	.134	2-1/2	2-1/2	1-1/4
.875	spec	.735	.775	.134	2-1/2	2-1/2	1-1/4
1.000	A	.911	.910	.156	1-7/8	1-7/8	3/4
1.000	B	.806	.859	.153	1-7/8	1-7/8	3/4
1.000	B	.806	.859	.153	2-1/2	2-1/2	1-1/4
1.000	C	.734	.810	.153	1-7/8	1-7/8	3/4
1.000	C	.734	.810	.153	2-1/2	2-1/2	1-1/4
1.125	A	1.024	1.023	.176	2-1/2	2-1/2	1-1/4
1.125	B	.904	.967	.173	1-7/8	1-7/8	3/4
1.125	B	.904	.967	.173	2-1/2	2-1/2	1-1/4
1.125	C	.824	.911	.173	1-7/8	1-7/8	3/4
1.125	C	.824	.911	.173	2-1/2	2-1/2	1-1/4
1.125	spec	.937	.990	.173	1-7/8	1-7/8	3/4
1.250	A	1.138	1.137	.195	1-7/8	1-7/8	3/4
1.250	A	1.138	1.137	.195	2-1/2	2-1/2	1-1/4
1.250	B	1.003	1.073	.192	1-7/8	1-7/8	3/4
1.250	B	1.003	1.073	.192	2-1/2	2-1/2	1-1/4
1.250	C	.916	1.012	.192	1-7/8	1-7/8	3/4
1.250	C	.916	1.012	.192	2-1/2	2-1/2	1-1/4
1.250	spec	1.056	1.088	.192	2-1/2	2-1/2	1-1/4
1.375	A	1.252	1.251	.215	2-3/4	2-1/2	1-1/4
1.375	B	1.107	1.183	.212	2-3/4	2-1/2	1-1/4
1.375	B	1.107	1.183	.212	2	2	3/4
1.375	C	1.008	1.113	.212	2-3/4	2-1/2	1-1/4
1.375	spec	1.053	1.146	.212	2-3/4	2-3/4	1-1/4
1.375	spec	1.165	1.198	.212	2-3/4	2-3/4	1-1/4
1.500	A	1.366	1.365	.235	2-3/4	2-1/2	1-1/4
1.500	B	1.200	1.288	.231	2-3/4	2-1/2	1-1/4
1.500	B	1.200	1.288	.231	2	2	3/4
1.500	C	1.100	1.215	.231	2	2	3/4
1.500	C	1.100	1.215	.231	2-3/4	2-1/2	1-1/4
1.500	spec	1.192	1.279	.231	2-3/4	2-3/4	1-1/4
1.500	spec	1.260	1.289	.231	2-3/4	2-3/4	1-1/4
1.625	A	1.480	1.479	.255	2-1/2	2-1/2	1-1/4
1.625	B	1.305	1.369	.251	2-1/2	2-1/2	1-1/4
1.625	C	1.190	1.316	.251	2-1/2	2-1/2	1-1/4
1.625	spec	1.342	1.397	.251	3	3	1-1/4
1.625	spec	1.386	1.430	.251	2-1/2	2-1/2	1-1/4



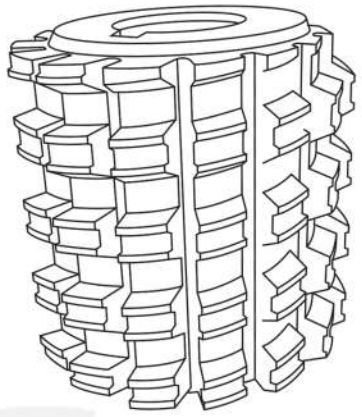
Single Lead Right Hand

Will Produce					Hob Size		
Shaft Dia.	Fit	Root Dia.	Straight Line Dia.	Key	OD	Length	Bore
1.750	A	1.594	1.593	.274	3	3	1-1/4
1.750	B	1.408	1.504	.270	3	3	1-1/4
1.750	C	1.281	1.417	.270	3	3	1-1/4
1.750	spec	1.385	1.488	.270	3	3	1-1/4
1.750	spec	1.457	1.538	.270	3	3	1-1/4
1.750	spec	1.478	1.551	.270	3	3	1-1/4
1.875	C	1.372	1.518	.289	3	3	1-1/4
2.000	A	1.821	1.820	.313	3	3	1-1/4
2.000	B	1.608	1.717	.307	3	3	1-1/4
2.000	C	1.461	1.618	.307	3	3	1-1/4
2.000	spec	1.592	1.706	.307	3	3	1-1/4
2.000	spec	1.694	1.776	.307	3	3	1-1/4
2.250	A	2.049	2.048	.352	3	3	1-1/4
2.250	B	1.812	1.934	.346	3	3	1-1/4
2.250	C	1.646	1.882	.346	3	3	1-1/4
2.500	A	2.277	2.275	.391	3-1/4	3-1/4	1 1/4
2.500	B	2.007	2.148	.385	3-1/4	3-1/4	1 1/4
2.500	C	1.830	2.023	.385	3-1/2	3-1/2	1 1/4
2.500	spec	2.130	2.228	.385	3-1/4	3-1/4	1 1/4
2.750	A	2.503	2.501	.430	3-1/4	3-1/4	1 1/4
2.750	B	2.210	2.320	.424	3-1/4	3-1/4	1-1/4
2.750	C	2.013	2.227	.424	3-1/4	3-1/4	1-1/4
3.000	A	2.732	2.730	.469	3-1/4	3-1/4	1-1/4
3.000	B	2.412	2.578	.463	3-1/4	3-1/4	1-1/4
3.000	C	2.195	2.428	.463	3-1/2	3-1/2	1-1/4
3.000	spec	2.510	2.644	.463	3-1/4	3-1/4	1-1/4
3.500	A	3.190	3.188	.546	3-1/2	3-1/2	1-1/4
3.500	B	2.814	3.010	.541	3-1/2	3-1/2	1-1/4
3.500	C	2.562	2.835	.541	3-1/2	3-1/2	1-1/4
3.500	spec	2.974	3.125	.541	3-1/2	3-1/2	1-1/4
4.000	A	3.640	3.638	.624	3-3/4	3-3/4	1-1/4
4.000	B	3.216	3.440	.619	3-3/4	3-3/4	1-1/4
4.000	C	2.927	3.240	.619	3-3/4	3-3/4	1-1/4

Metric Straight Sided Spline Hob

DIN 5462/5463-UNI 220/221 Standard

Will Produce				Hob Size		
Shaft Dia. (mm)	Root Dia. (mm)	Key (mm)	# Of Splines	OD	Length	Bore
14	11	4	4	1-7/8	1-7/8	3/4
16	13	5	4	64mm	64mm	27mm
20	16	6	4	1-7/8	1-7/8	3/4
22	18	7	4	2-1/2	2-1/2	1-1/4
25	21	8	4	2-1/2	2-1/2	1-1/4
38	32	10	4	2 3/4	2 1/2	1 1/4
14	11	3	6	1-7/8	1-7/8	3/4
14	11	3	6	2 1/4	2	1 1/4
16	13	3.5	6	1-7/8	1-1/2	3/4
20	16	4	6	1-7/8	1-1/2	3/4
20	16	4	6	2-1/2	2-1/2	1-1/4
22	18	5	6	2-1/2	2-1/2	1-1/4
25	21	5	6	2-1/2	2-1/2	1-1/4
26	23	6	6	2-3/4	2-1/2	1-1/4
28	23	6	6	2-3/4	2-1/2	1-1/4
30	26	6	6	2-3/4	2-1/2	1-1/4
32	26	6	6	2-3/4	2-1/2	1-1/4
32	28	7	6	2-3/4	2-1/2	1-1/4
34	28	7	6	2-3/4	2-1/2	1-1/4
38	32	8	6	2-3/4	2-1/2	1-1/4
42	36	8	6	2-3/4	2-1/2	1-1/4
48	42	10	6	2-3/4	2-1/2	1-1/4
52	46	12	6	2-3/4	2-1/2	1-1/4
60	52	14	6	3	3	1-1/4
65	58	14	6	3	3	1-1/4
70	62	16	6	3	3	1-1/4
78	68	16	6	3 1/4	3 1/4	1-1/4
82	72	16	6	3 1/4	3 1/4	1-1/4
90	78	16	6	3 1/4	3 1/4	1-1/4
95	82	16	6	4	4	1-1/4
100	88	16	6	4	4	1-1/4
105	92	20	6	4	4	1-1/4
110	98	20	6	4	4	1-1/4
120	105	20	6	5	5	1 1/2
36	32	6	8	2-3/4	2-3/4	1-1/4
38	32	6	8	2-3/4	2-3/4	1-1/4

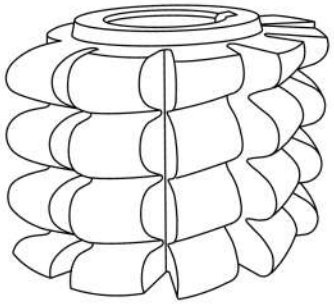


Single Lead, Right Hand, With Lugs, Chamfering

Continue...

Will Produce				Hob Size		
Shaft Dia. (mm)	Root Dia. (mm)	Key (mm)	# Of Splines	OD	Length	Bore
40	36	7	8	2-3/4	2-3/4	1-1/4
42	36	7	8	2-3/4	2-3/4	1-1/4
46	42	8	8	3	3	1-1/4
48	42	8	8	3	3	1-1/4
50	46	9	8	3	3	1-1/4
54	46	9	8	3-1/4	3	1-1/4
58	52	10	8	3-1/4	3	1-1/4
60	52	10	8	3-1/4	3	1-1/4
62	56	10	8	3-1/4	3	1-1/4
65	56	10	8	3-1/2	3-1/2	1-1/4
68	62	12	8	3-1/2	3-1/2	1-1/4
72	62	12	8	3-1/2	3-1/2	1-1/4
20	16	2.5	10	2 1/2	2 1/2	1 1/4
23	18	3	10	2 1/2	2 1/2	1 1/4
26	21	3	10	2 3/4	2 3/4	1 1/4
29	23	4	10	2 3/4	2 3/4	1 1/4
32	26.7	4	10	2 3/4	2 3/4	1 1/4
35	25.2	4	10	3	3	1 1/4
40	32	5	10	3	3	1 1/4
45	36	5	10	3 1/4	3 1/4	1 1/4
52	42	6	10	3 1/4	3 1/4	1 1/4
56	46	7	10	3 1/4	3 1/4	1 1/4
78	72	12	10	3-1/4	3-1/4	1-1/4
82	72	12	10	3-1/4	3-1/4	1-1/4
88	82	12	10	3-1/2	3-1/4	1-1/4
92	82	12	10	3-1/2	3-1/4	1-1/4
98	92	14	10	3-1/2	3-1/2	1-1/4
102	92	14	10	3-1/2	3-1/2	1-1/4
108	102	16	10	3-3/4	3-1/2	1-1/4
112	102	16	10	3-3/4	3-1/2	1-1/4
120	112	16	10	4	3-1/2	1-1/4
125	112	18	10	4	3-1/2	1-1/4
60	52	5	16	3	3	1 1/4
65	56	5	16	3	3	1 1/4
72	62	6	16	3-1/4	3-1/4	1-1/4
82	72	7	16	3-1/4	3-1/4	1-1/4

Roller Chain Hob





Finishing Non Topping Right Hand

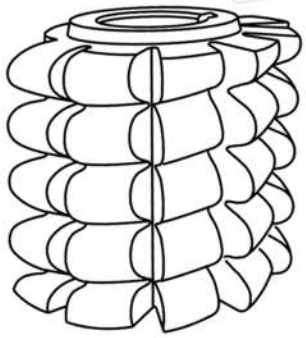
Chain #	Circ. Pitch	Roller Dia.	OD	Length	Bore	# Leads
spec.	.123	.060	1-1/8	1-1/8	1/2	1
spec.	.148	.090	1	3/4	8mm	1
spec.	.148	.090	1-1/8	1-1/8	1/2	1
spec.	.148	.090	1-7/8	1-1/2	3/4	1
25	1/4	.130	1-7/8	1-7/8	3/4	1
25	1/4	.130	2-1/2	2-1/2	1-1/4	1
25	1/4	.130	2-3/4	3-1/2	1-1/4	2
25	1/4	.130	2-3/4	3-1/2	1-1/4	3
35	3/8	.200	1-7/8	1-7/8	3/4	1
35	3/8	.200	3	2-1/2	1-1/4	1
35	3/8	.200	4	4	1-1/4	1
35	3/8	.200	5	4	1-1/2	1
35	3/8	.200	3-3/8	5	1-1/4	1
35	3/8	.200	80mm	65mm	40mm	1
35	3/8	.200	3-1/4	4	1-1/4	3
40	1/2	.313	2	2	3/4	1
40	1/2	.313	3-1/8	2-1/2	1-1/4	1
40	1/2	.313	4	4	1-1/4	1
40	1/2	.313	5	4	1-1/2	1
40	1/2	.313	3-1/2	5	1-1/4	1
40	1/2	.313	3-3/8	4	1-1/4	2
40	1/2	.313	3-3/8	4	1-1/4	3

Continue...

Chain #	Circ. Pitch	Roller Dia.	OD	Length	Bore	# Leads
spec.	1/2	.306	3-1/8	2-1/2	1-1/4	1
50	5/8	.400	3-1/2	2-1/2	1-1/4	1
50	5/8	.400	4	4-1/2	1-1/4	1
50	5/8	.400	5	4-1/2	1-1/2	1
50	5/8	.400	4	5	1-1/4	1
50	5/8	.400	70mm	120mm	27mm	1
50	5/8	.400	3-3/4	4-1/2	1-1/4	2
50	5/8	.400	3-3/4	4-1/2	1-1/4	3
60	3/4	.469	3-1/2	2-7/8	1-1/4	1
60	3/4	.469	4	4	1-1/4	1
60	3/4	.469	5	5	1-1/2	1
60	3/4	.469	80mm	120mm	27mm	1
60	3/4	.469	4	4-3/4	1-1/4	2
80	1	.625	4-1/4	3-1/2	1-1/4	1
80	1	.625	4-1/2	5	1-1/2	1
80	1	.625	106mm	110m	40mm	1
80	1	.625	4-1/2	5-1/2	1-1/4	2
100	1-1/4	.750	4-3/4	4-1/2	1-1/4	1
100	1-1/4	.750	5-1/2	5	1-1/2	1
100	1-1/4	.750	120mm	120mm	32mm	1
120	1-1/2	.875	5	4-3/4	1-1/4	1
120	1-1/2	.875	5-1/4	5-1/4	1-1/2	1
120	1-1/2	.875	127mm	121mm	40mm	1
140	1-3/4	1.000	5-1/2	5-1/2	1-1/2	1
140	1-3/4	1.000	6-1/4	6	2	1
160	2	1.125	6	6	1-1/2	1
160	2	1.125	6-7/8	6-3/4	2	1
180	2-1/4	1.406	6-3/4	6-3/4	1-1/2	1
180	2-1/4	1.406	8	8	2	1
200	2-1/2	1.563	7-1/4	7-1/4	1-1/2	1
200	2-1/2	1.563	8-1/2	8-1/2	2	1
240	3	1.875	9-1/2	11	2	1

American Standard Roller Chain Hob

Chain #	Circ. Pitch	Roller Dia.	OD	Length	Bore	# Leads
spec.	.123	.060	1-1/8	1-1/8	1/2	1
spec.	.148	.090	1-7/8	1-1/2	3/4	1
25	1/4	.130	1-7/8	1-7/8	3/4	1
25	1/4	.130	2-1/2	2-1/2	1-1/4	1
35	3/8	.200	3	2-1/2	1-1/4	1
35	3/8	.200	3-1/4	4	1-1/4	2
35	3/8	.200	4	4	1-1/4	1
35	3/8	.200	5	4	1-1/2	1
40	1/2	.313	3-1/8	2-1/2	1-1/4	1
40	1/2	.313	3-3/8	4	1-1/4	2
40	1/2	.313	4	4	1-1/4	3
40	1/2	.313	4	4	1-1/4	1
40	1/2	.313	5	4	1-1/2	1
50	5/8	.400	3-1/2	2-1/2	1-1/4	1
50	5/8	.400	3-1/2	2-1/2	1-1/4	2
50	5/8	.400	4	4	1-1/4	1
50	5/8	.400	5	4-1/2	1-1/2	1
60	3/4	.469	3-1/2	2-7/8	1-1/4	1
60	3/4	.469	4	4-3/4	1-1/4	2
60	3/4	.469	4	4-1/2	1-1/4	1
60	3/4	.469	5	5	1-1/2	1
80	1	.625	4-1/4	3-1/2	1-1/4	1
80	1	.625	4-1/2	5	1-1/4	1
80	1	.625	5-1/2	5	1-1/2	1
80	1	.625	4-1/2	5-1/2	1-1/4	2
100	1-1/4	.750	4-3/4	4-1/2	1-1/4	1
100	1-1/4	.750	5-1/2	5	1-1/2	1
120	1-1/2	.875	5-1/4	5-1/4	1-1/2	1
140	1-3/4	1.000	5-1/2	6	1-1/2	1



Topping, Single Lead
Right Hand

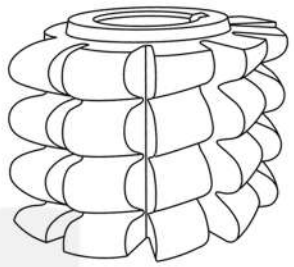
Roller Chain 0° PA Rack Form Cycloidal Hob

Finishing, Topping Right Hand

Chain #	Circ. Pitch	Roller Dia.	OD	Length	Bore	# Leads
40	1/2	.313	3-1/8	2-1/2	1-1/4	1
60	3/4	.469	85mm	100mm	27mm	1
100	1-1/4	.750	4-3/4	4-1/2	1-1/4	1

Roller Chain European Standard Hob

Chain #	Circ. Pitch	Roller Dia.	OD	Length	Bore	# Leads
36	3/8	.250	1-7/8	1-7/8	3/4	1
36	3/8	.250	3	2-1/2	1-1/4	1
42	1/2	.335	3-1/8	2-1/2	1-1/4	1
42	1/2	.335	3-1/2	2-1/2	1-1/4	3
51	5/8	.400	3-1/2	2-1/2	1-1/4	1
61	3/4	.475	3-1/2	2-7/8	1-1/4	1
61	3/4	.475	90mm	120mm	27mm	1
spec	1	.625	4-1/4	3-1/2	1-1/4	1
spec	1-1/2	1.000	5	4-3/4	1-1/4	1
spec	1-1/2	1.000	190mm	170mm	40mm	1



Finishing Topping
Right Hand

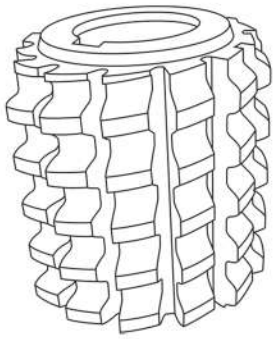
Metric Roller Chain Hob

Finishing Non Topping Righ Hand

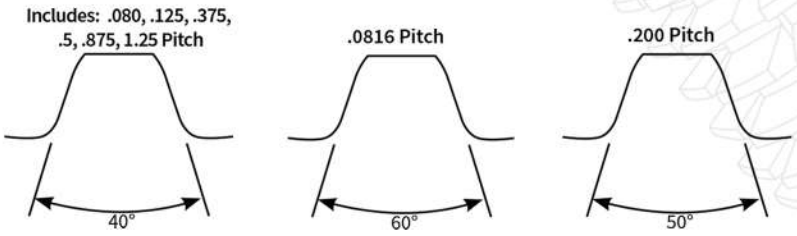


Pitch (mm)	Roller Dia. (mm)	OD	Length	Bore
6	4	1-7/8	1-7/8	3/4
6	4	2-1/2	2-1/2	1-1/4
6	4	64mm	64mm	32 mm
8	5	1-7/8	1-7/8	3/4
8	5	2-1/2	2-1/2	1-1/4

Timing Belt ANSI+British Standard Hob



Finishing Topping
Right Hand



Belt	Pitch	Tooth Range	OD	Length	Bore	Approx. WD	# Leads
XXL	40 DP	10-23	1	3/4	8mm	.021	1
XXL	40 DP	10-23	1-7/8	1-1/2	3/4	.021	1
XXL	40 DP	24 ∞	1	3/4	8mm	.021	1
XXL	40 DP	24 ∞	1-7/8	1-1/2	3/4	.021	1
MXL	1/12.5	10-23	1	3/4	8mm	.026	1
MXL	1/12.5	24 ∞	1	3/4	8mm	.026	1
MXL	1/12.5	10-23	1-1/8	1-1/8	1/2	.026	1
MXL	1/12.5	24 ∞	1-1/8	1-1/8	1/2	.026	1
MXL	1/12.5	10-23	1-7/8	1-1/2	3/4	.026	1
MXL	1/12.5	24 ∞	1-7/8	1-1/2	3/4	.026	1
MXL	1/12.5	24 ∞	2-1/2	2	1-1/4	.026	1
–	1/8	10 ∞	1-7/8	1-7/8	3/4	.035	1
XL	1/5	12 ∞	1-1/4	1-1/4	1/2	.056	1
XL	1/5	10 ∞	1-7/8	1-7/8	3/4	.056	1
XL	1/5	10 ∞	2-1/4	2	1-1/4	.056	1
XL	1/5	10 ∞	2-1/4	2	1-1/4	.056	2
L	3/8	10 ∞	1-7/8	1-7/8	3/4	.085	1
L	3/8	10 ∞	1-7/8	1-7/8	3/4	.085	2
L	3/8	10 ∞	2-1/2	2-1/2	1-1/4	.085	1
H	1/2	12-19	2	2	3/4	.103	1
H	1/2	20 ∞	2	2	3/4	.103	1
H	1/2	12-19	2-3/4	2-3/4	1-1/4	.103	1
H	1/2	20 ∞	2-3/4	2-3/4	1-1/4	.103	1
XH	7/8	18 ∞	3-1/2	3-1/2	1-1/4	.272	1
XH	7/8	18 ∞	112mm	100mm	40mm	.272	1
XXH	1-1/4	18 ∞	4-1/2	5	1-1/2	.405	1

Timing Belt Pulley Hob

Finishing, Topping Single lead, Right Hand

Belt	Pitch	Tooth Range	OD	Length	Bore	Approx. WD
MXL	3/16	10 ∞	1-7/8	1-7/8	3/4	.060
XL	1/5	10-23	1-7/8	1-7/8	3/4	.064
XL	1/5	24 ∞	1-7/8	1-7/8	3/4	.065
–	15/64	10 ∞	1-7/8	1-7/8	3/4	.073
L	3/8	10-23	1-7/8	1-7/8	3/4	.103
L	3/8	24 ∞	1-7/8	1-7/8	3/4	.103
L	3/8	10-23	2-1/2	2-1/2	1-1/4	.103
L	3/8	24 ∞	2-1/2	2-1/2	1-1/4	.103
H	1/2	10-23	2-3/4	2-3/4	1-1/4	.118
H	1/2	24 ∞	2-3/4	2-3/4	1-1/4	.118
XH	7/8	20 ∞	3-1/2	3-1/2	1-1/4	.281
XXH	1-1/4	18 ∞	4-1/2	5	1-1/4	.406

Finishing, Topping Single lead, Right Hand

Pitch (mm)	Tooth Range	OD	Length	Bore
2	10 ∞	1-1/4	1-1/4	1/2
2	10 ∞	1-1/4	1-1/4	3/4
2.5	10 ∞	1-7/8	1-7/8	3/4
3	10 ∞	1-7/8	1-7/8	3/4
3	10 ∞	2-1/2	2-1/2	1-1/4
4.5	12 ∞	2-1/2	2-1/2	1-1/4
5	12 ∞	1-7/8	1-7/8	3/4
5	12 ∞	2-1/2	2-1/2	1-1/4
6	16 ∞	1-7/8	1-7/8	3/4
6	16 ∞	2-3/4	2-3/4	1-1/4
8	20 ∞	2-3/4	2-3/4	1-1/4
14	28 ∞	3	3	1-1/4



Hob Tooth Profile

Timing Belt Pulley Hob

Single Thread, Right Hand



Circ. Pitch	OD	Length	Bore
0.100	1-7/8	1 1/2	3/4

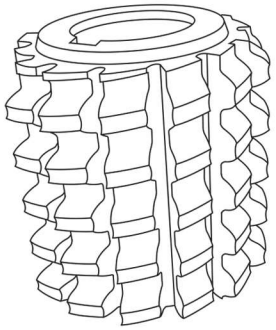
Hob Tooth Profile

Topping, Single lead Right Hand



Pitch	Tooth Range	OD	Length	Bore
3/8	20 ∞	2-3/4	2-3/4	1-1/4

Timing Belt Pulley Hob



Finishing Topping
Right Hand



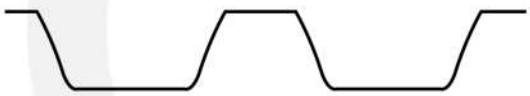
Hob Tooth Profile

Pitch (mm)	Tooth Range	OD	Length	Bore	# of Leads
2	10-12	1-7/8	1-1/2	3/4	1
2	13-18	1-7/8	1-1/2	3/4	1
2	19-35	1-7/8	1-1/2	3/4	1
2	36-60	1-7/8	1-1/2	3/4	1
2	36-60	1-7/8	1-1/2	3/4	2
2	61-200	1-1/4	1-1/4	1/2	1
2	61-200	1-7/8	1-1/2	3/4	1
3	15-27	1-1/8	1-1/8	1/2	1
3	15-27	1-7/8	1-7/8	3/4	1
3	15-27	50mm	50mm	22mm	1
3	9-14	1-7/8	1-7/8	3/4	1
3	15-27	2-1/2	2	1-1/4	1
3	28-56	1-1/4	1-1/4	1/2	1
3	28-56	1-7/8	1-7/8	3/4	1
3	28-56	2-1/2	2	1-1/4	1
3	28-56	50mm	50mm	22mm	1
3	57-140	1-1/4	1-1/4	1/2	1
3	57-140	1-7/8	1-7/8	3/4	1
3	57-140	2-1/2	2-1/2	1-1/4	1
3	57-140	50mm	50mm	22mm	1
3	141-200	2-1/2	2-1/2	1-1/4	1
5	12-15	1-7/8	1-7/8	3/4	1
5	12-15	2-1/2	2-1/2	1-1/4	1
5	16-32	1-7/8	1-7/8	3/4	1
5	16-32	2-1/2	2	1-1/4	1

Timing Belt Pulley Hob

Pitch (mm)	Tooth Range	OD	Length	Bore	# of Leads
5	16-32	1-7/8	1-7/8	3/4	2
5	33-60	1-7/8	1-7/8	3/4	1
5	33-60	2-1/2	2-1/2	1-1/4	1
5	61-140	1-7/8	1-7/8	3/4	1
5	61-140	2-1/2	2-1/2	1-1/4	1
5	141-200	2-1/2	2	1-1/4	1
8	22-29	2-3/4	2-3/4	1-1/4	1
8	30-50	2-3/4	2-3/4	1-1/4	1
8	51-119	2-3/4	2-3/4	1-1/4	1
8	120-220	2-3/4	2-3/4	1-1/4	1
14	25-29	2-3/4	2-3/4	1-1/4	1
14	30-35	3	3	1-1/4	1
14	36-45	3	3	1-1/4	1
14	46-60	3	3	1-1/4	1
14	61-90	3	3	1-1/4	1
14	91-149	3	3	1-1/4	1
14	150-250	3	3	1-1/4	1

Topping, Single Thread
Right Hand

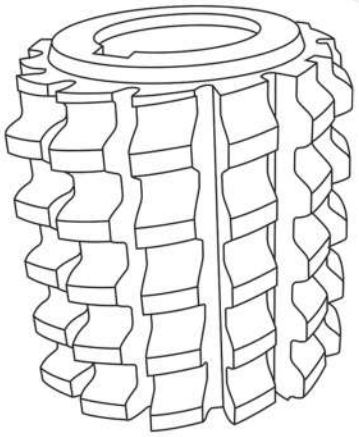


Hob Tooth Profile

Circ. Pitch	Tooth Range	OD	Length	Bore
15/64	14 ∞	1-7/8	1-7/8	3/4
3/8	25-39	2-3/4	2-3/4	1-1/4
1/2	17-24	2-3/4	2-3/4	1-1/4
1/2	40 ∞	2-3/4	2-3/4	1-1/4

Timing Belt Pulley Hob

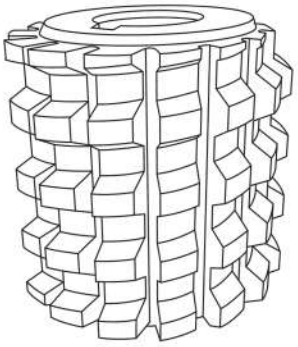
Pitch (mm)	Tooth Range	OD	Length	Bore	# Of Leads
3	9-13	3/4	1/2	8mm	1
3	9-13	1-7/8	1-7/8	3/4	1
3	14-25	1-1/4	1	1/2	1
3	14-25	1-7/8	1-7/8	3/4	1
3	14-25	2-1/2	2-1/2	1-1/4	1
3	14-25	50mm	60mm	22mm	1
3	26-80	1-1/4	1	1/2	1
3	26-80	1-7/8	1-7/8	3/4	1
3	26-80	2-1/2	2	1-1/4	1
3	26-80	50mm	60mm	22mm	1
3	81-200	1-7/8	1-7/8	3/4	1
3	81-200	2-1/2	2	1-1/4	1
3	81-200	50mm	60mm	22mm	1
5	12-16	1-1/4	1	1/2	1
5	12-16	1-7/8	1-7/8	3/4	1
5	12-16	2-3/4	2-3/4	1-1/4	1
5	12-16	50mm	60mm	22mm	1
5	17-31	1-1/4	1	1/2	1
5	17-31	1-7/8	1-7/8	3/4	1
5	17-31	2-3/4	2-3/4	1-1/4	1
5	17-31	50mm	60mm	22mm	1
5	32-79	1-7/8	1-7/8	3/4	1
5	32-79	2-3/4	2-3/4	1-1/4	1
5	32-79	2-3/4	2-3/4	1-1/4	2
5	32-79	50mm	60mm	22mm	1
5	80-200	1-7/8	1-7/8	3/4	1
5	80-200	2-3/4	2-3/4	1-1/4	1
5	80-200	50mm	60mm	22mm	1
8	19-27	1-7/8	1-7/8	3/4	1
8	19-27	2-3/4	2-3/4	1-1/4	1
8	28-89	1-7/8	1-7/8	3/4	1
8	28-89	2-3/4	2-3/4	1-1/4	1
8	90-200	1-7/8	1-7/8	3/4	1
8	90-200	2-3/4	2-3/4	1-1/4	1
14	28-36	3	3	1-1/4	1
14	37-89	3	3	1-1/4	1
14	90 ∞	3	3	1-1/4	1
14	90 ∞	3	3	1-1/4	2
20	32-45	3-1/2	3-1/2	1-1/4	1
20	46-100	3-1/2	3-1/2	1-1/4	1
20	101-200	3-1/2	3-1/2	1-1/4	1





Hob Tooth Profile

Timing Belt Pulley Hob



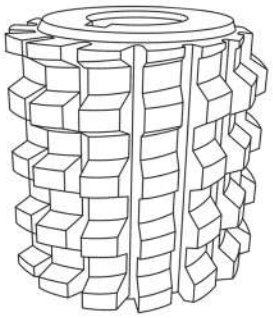
Topping, Single Lead
Right Hand



DIN 7721

Pitch (mm)	Tooth Range	OD	Length	Bore	Backlash
2	12-20	1-7/8	1-7/8	3/4	-
2	21 ∞	1-7/8	1-7/8	3/4	-
2.5	12-20	1-7/8	1-7/8	3/4	-
2.5	21 ∞	1-7/8	1-7/8	3/4	-
5	12-20	1-7/8	1-7/8	3/4	-
5	12-20	2-1/2	2-1/2	1-1/4	-
5	21 ∞	1-7/8	1-7/8	3/4	-
5	21 ∞	2-1/2	2-1/2	1-1/4	-
5	21 ∞	50mm	60mm	22mm	-
5	12-20	1-7/8	1-7/8	3/4	zero
5	12-20	2-1/2	2-1/2	1-1/4	zero
5	21 ∞	1-7/8	1-7/8	3/4	zero
5	21 ∞	2-1/2	2-1/2	1-1/4	zero
10	14-20	1-7/8	1-7/8	3/4	-
10	14-20	2-3/4	2-3/4	1-1/4	-
10	21∞	1-7/8	1-7/8	3/4	-
10	21 ∞	2-3/4	2-3/4	1-1/4	-
10	21 ∞	70mm	70mm	27mm	-
10	14-20	2-3/4	2-3/4	1-1/4	zero
10	21 ∞	2-3/4	2-3/4	1-1/4	zero
20	15-20	3-1/2	3-1/2	1-1/4	-
20	21-34	3-1/2	3-1/2	1-1/4	-
20	35-80	3-1/2	3-1/2	1-1/4	-
20	21 ∞	3-1/2	3-1/2	1-1/4	zero

Timing Belt Pulley Hob



Topping, Single Lead
Right Hand

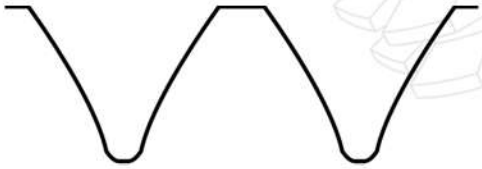


DIN 7721

Pitch (mm)	Tooth Range	OD	Length	Bore	Backlash
2	12-20	1-7/8	1-7/8	3/4	-
2	21 ∞	1-7/8	1-7/8	3/4	-
2.5	12-20	1-7/8	1-7/8	3/4	-
2.5	21 ∞	1-7/8	1-7/8	3/4	-
5	12-20	1-7/8	1-7/8	3/4	-
5	12-20	2-1/2	2-1/2	1-1/4	-
5	21 ∞	1-7/8	1-7/8	3/4	-
5	21 ∞	2-1/2	2-1/2	1-1/4	-
5	12-20	1-7/8	1-7/8	3/4	zero
5	12-20	2-1/2	2-1/2	1-1/4	zero
5	21 ∞	1-7/8	1-7/8	3/4	zero
5	21 ∞	2-1/2	2-1/2	1-1/4	zero
5	21 ∞	50mm	60mm	22mm	-
10	14-20	1-7/8	1-7/8	3/4	-
10	14-20	2-3/4	2-3/4	1-1/4	-
10	21 ∞	1-7/8	1-7/8	3/4	-
10	21 ∞	2-3/4	2-3/4	1-1/4	-
10	21 ∞	65mm	70mm	27mm	-
10	14-20	1-7/8	1-7/8	3/4	zero
10	14-20	2-3/4	2-3/4	1-1/4	zero
10	21 ∞	2-3/4	2-3/4	1-1/4	zero
10	21 ∞	60mm	80mm	27mm	zero
20	15-20	3-1/2	3-1/2	1-1/4	-
20	21 ∞	3-1/2	3-1/2	1-1/4	-
20	14-20	3-1/2	3-1/2	1-1/4	zero
20	21 ∞	3-1/2	3-1/2	1-1/4	zero
10	21 ∞	70mm	70mm	27mm	zero

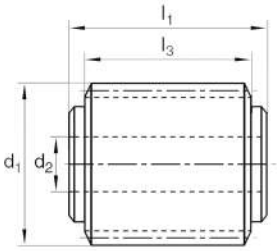
Silent Chain Hob

Chain #	Circ. Pitch	OD	Length	Bore	Tooth Range
SC-1	3/16	2	2	3/4	17-23
SC-1	3/16	1-7/8	1-7/8	3/4	22-30
SC-1	3/16	2	2	3/4	33-43
SC-1	3/16	2	2	3/4	44-58
SC-1	3/16	1-7/8	1-7/8	3/4	46-100
SC-1	3/16	2	2	3/4	59-79
SC-3	3/8	3	3	1-1/4	12-16
SC-3	3/8	3	3	1-1/4	17-23
SC-3	3/8	3	3	1-1/4	24-32
SC-3	3/8	3	3	1-1/4	33-43
SC-3	3/8	3	3	1-1/4	44-58
SC-3	3/8	3	3	1-1/4	59-79
SC-3	3/8	3	3	1-1/4	80-110
SC-3	3/8	3	3	1-1/4	111 ∞
SC-4	1/2	3	3	1-1/4	12-16
SC-4	1/2	3	3	1-1/4	17-23
SC-4	1/2	3	3	1-1/4	24-32
SC-4	1/2	3	3	1-1/4	33-43
SC-4	1/2	3	3	1-1/4	44-58
SC-4	1/2	3	3	1-1/4	59-79
SC-4	1/2	3	3	1-1/4	80-110
SC-4	1/2	3	3	1-1/4	111-150
SC-5	5/8	3-1/2	3-1/2	1-1/4	12-16
SC-5	5/8	3-1/2	3-1/2	1-1/4	17-23
SC-5	5/8	3-1/2	3-1/2	1-1/4	24-32
SC-5	5/8	3-1/2	3-1/2	1-1/4	33-43
SC-5	5/8	3-1/2	3-1/2	1-1/4	44-58
SC-5	5/8	3-1/2	3-1/2	1-1/4	80-110
SC-5	5/8	3-1/2	3-1/2	1-1/4	111-150
SC-6	3/4	3-1/2	3-1/2	1-1/4	12-16
SC-6	3/4	3-1/2	3-1/2	1-1/4	17-23
SC-6	3/4	3-1/2	3-1/2	1-1/4	24-32
SC-6	3/4	3-1/2	3-1/2	1-1/4	33-43
SC-6	3/4	3-1/2	3-1/2	1-1/4	44-58
SC-6	3/4	3-1/2	3-1/2	1-1/4	59-79
SC-6	3/4	3-1/2	3-1/2	1-1/4	80-110
SC-6	3/4	3-1/2	3-1/2	1-1/4	111-150
SC-8	1	4-1/2	4-1/2	1-1/4	17-23
SC-8	1	4-1/2	4-1/2	1-1/4	24-32
SC-8	1	4-1/2	4-1/2	1-1/4	33-43
SC-8	1	4-1/2	4-1/2	1-1/4	44-58
SC-8	1	4-1/2	4-1/2	1-1/4	59-79
SC-8	1	4-1/2	4-1/2	1-1/4	80-110
SC-8	1	4-1/2	4-1/2	1-1/4	111 ∞
SC-10	1-1/4	5	5-1/2	1-1/2	17-23
SC-10	1-1/4	5	5-1/2	1-1/2	24-32
SC-10	1-1/4	5	5-1/2	1-1/2	33-43
SC-10	1-1/4	5	5-1/2	1-1/2	44-58
SC-10	1-1/4	5	5-1/2	1-1/2	59-79
SC-10	1-1/4	5	5-1/2	1-1/2	80-110
SC-12	1-1/2	5-1/4	5-1/2	1-1/2	24-32
SC-12	1-1/2	5-1/4	5-1/2	1-1/2	33-43



Hob Tooth Profile





Quality Grade A to DIN 3968

Single start right-handed with keyway

For Serrated Shafts to DIN 5481 with Staight Flanks for involute Flank form on the component

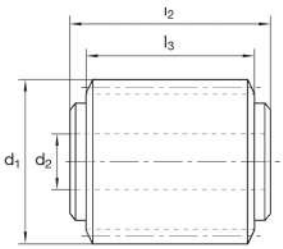
HSS-E

relief ground

Dimensions in mm						Number of gashes*
Serr. sh. nom. size	Pitch	d_1	l_3	l_1	d_2	
7 x 8	0,842	50	25	31	22	16
8 x 10	1,010					
10 x 12	1,152					
12 x 14	1,317					
15 x 17	1,517					
17 x 20	1,761	56	32	38		
21 x 24	2,033					
26 x 30	2,513					
30 x 34	2,792					
36 x 40	3,226					
40 x 44	3,472	63	40	46	27	
45 x 50	3,826					
50 x 55	4,123					
55 x 60	4,301					
60 x 65	4,712	70	50	56		
65 x 70						
70 x 75						
75 x 80						
80 x 85						
85 x 90						
90 x 95						
95 x 100						
100 x 105						
105 x 110						
110 x 115						
115 x 120						
120 x 125						

Hobs for Involute Gear Forms

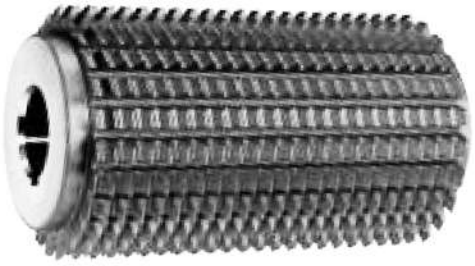


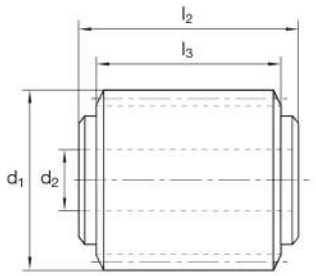




m	d_1	l_3	l_1	d_2	z
1	50	25	31	22	14
1,25	50	25	31	22	14
1,5	56	32	38	22	12
1,75	56	32	38	22	12
2	63	40	46	27	12
2,25	70	50	56	27	12
2,5	70	50	56	27	12
2,75	70	50	56	27	12
3	80	63	69	32	12
3,25	80	63	69	32	12
3,5	80	63	69	32	12
3,75	90	70	78	32	12
4	90	70	78	32	12
4,5	90	70	78	32	10
5	100	80	88	32	10
5,5	100	80	88	32	10
6	115	100	108	40	10
6,5	115	100	108	40	10
7	115	100	108	40	10
8	125	130	138	40	10
9	125	130	138	40	10
10	140	160	170	40	10
11	160	170	180	50	9
12	170	185	195	50	9
13	180	200	210	50	9
14	190	215	225	50	9
15	200	225	235	60	9
16	210	238	248	60	9
17	220	238	248	60	9
18	230	260	270	60	9
19	240	260	270	60	9
20	250	286	296	60	9
21	260	290	300	60	9
22	270	290	300	60	9
23	280	310	320	60	9
24	280	310	320	60	9
25	290	320	330	60	9
26	310	320	330	80	9
27	320	330	340	80	9
28	320	330	340	80	9
29	340	340	350	80	9
30	340	340	350	80	9

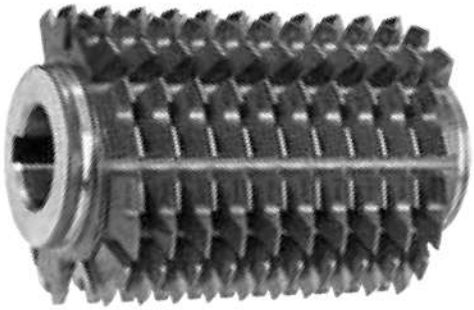
Hobs for Involute Gear Forms

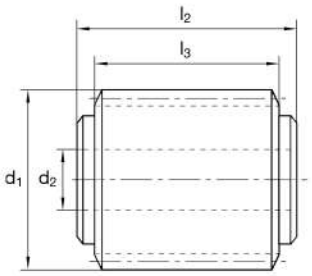




RH1 | Relief ground | KHSS -E | Speed Core 1) | HSS -PM 1) | AL2 Plus | DIN 3968A | DIN 3972 BP II

m	d_1	l_3	l_1	d_2	z
1	50	44	50	22	15
2	63	80	90	27	15
2,5	70	90	100	27	15
3	80	110	120	32	15
4	90	120	130	32	15
5	100	140	150	32	15
6	115	140	150	40	15
7	125	140	150	40	15
8	140	180	190	50	15
9	140	180	190	50	14
10	160	200	210	50	14

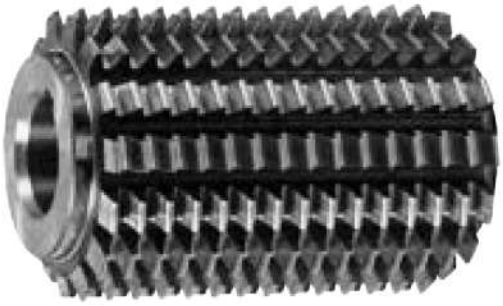


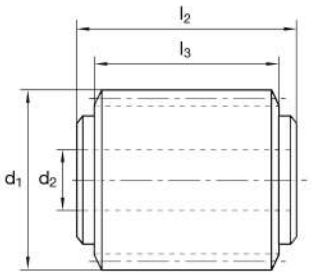




m	d_1	l_3	l_1	d_2	z
6	150	108	118	50	20
7	150	126	136	50	20
8	160	144	154	50	20
9	160	162	172	50	20
10	170	180	190	60	20
11	180	198	208	60	20
12	190	216	226	60	20
13	200	234	244	60	20
14	210	252	262	60	20
15	230	270	280	80	20
16	240	288	300	80	20
18	260	318	330	80	20
20[3)]	287	318	330	80	20
20	290	360	372	100	20
22	300	396	408	100	20
24	310	432	444	100	20
27	330	486	498	100	20
30	340	540	552	100	20

Hobs with Protuberance for Involute Gear Forms



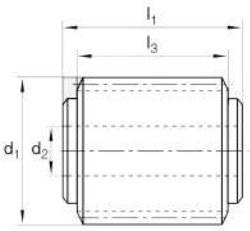


RH1 | LH1 | Relief ground | KHSS -E | Speed Core [1] | HSS -PM [1] | AL2 Plus | DIN 3968 A | Special BP [2]

m	d_1	l_3	l_1	d_2	z
1	70	50	56	27	17
2	70	90	100	27	15
3	80	110	120	32	15
4	90	120	130	32	14
5	100	140	150	32	14
6	140	140	150	40	14
7	150	140	150	40	14
8	160	160	170	50	14
9	170	160	170	50	14
10	180	180	190	50	14
12	200	200	210	60	12

Heavy Duty Roughing Hobs





20° Pressure angle basic Profile III to DIN 3972
With positive rake (undercut) Optionally with chip breaker grooves

For Spur and Helical gears to module pitch

Single start right-handed with keyway

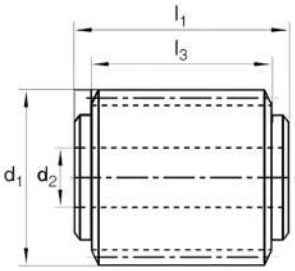
relief turned	■ Quality grade B/C to DIN 3968	■ with 20 gashes
relief ground	■ Quality grade A to DIN 3968	■ with 20 gashes
relief turned	■ Quality grade B/C to DIN 3968	■ with 16 gashes
relief ground	■ Quality grade A to DIN 3968	■ with 16 gashes

HSS-E

Dimensions in mm

m	d_1	l_3	l_0	d_2
6	150	108	118	50
7		126	136	
8	160	144	154	
9		162	172	
10	170	180	190	60
11	180	198	208	60
12	190	216	226	
13	200	234	244	
14	210	252	262	
15	230	270	280	80
16	240	288	300	
18	260	318	330	
20*	287			
20	290	360	372	100
22	300	396	408	100
24	310	432	444	
27	330	486	498	
30	340	540	552	





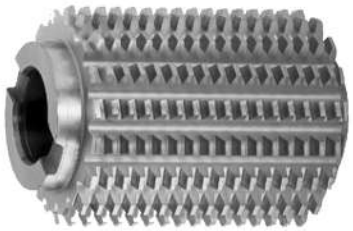
20° Pressure angle basic Profile by arrangement

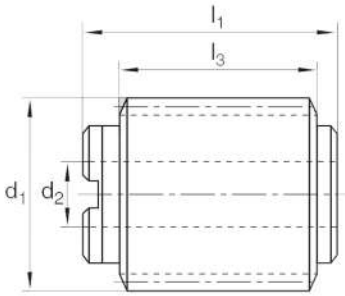
Single start right-handed with keyway

For Spur and Helical gears to module pitch

Carbide - TiN-Coated

Dimensions in mm					Number of tooth rows	Number of segments	Number of indexable inserts[1)]
m	d_1	l_3	l_1	d_2			
5	190	95	144	60	19	24	96
6		114	165				
7	210	133	185				
8		152	206				
9		171	227				
10		190	248				
11	280	209	269	80	19	24	192
12		229	289				
13		248	310				
14		267	331				
15	280	286	352	80	19	24	192
16	300	305	373				
17		324	394				
18		343	415				
19		362	436				
20	300	382	457	80	19	24	192





20° Pressure angle basic Profile:ha0=1.15.m, Qa0=0.1 .m Quality grade AA nach DIN 3968

Single start right-handed with keyway

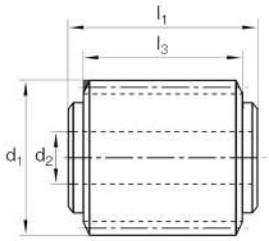
For finishing hardened (highly tempered)spur and helical gears to module pitch

Carbide - TiN-Coated

relief ground

m	Dimensions in mm d_1	l_3	l_1	d_2	Number of gashes
2	80	100	120	32	15
2,5	"	"	"	"	"
3	90	"	"	40	"
3,5	100	120	140	"	"
4	"	"	"	"	"





20° Pressure angle basic Profile:ha0=1.15.m, Qa0=0.1 .m Quality grade AA nach DIN 3968

Single start right-handed with keyway

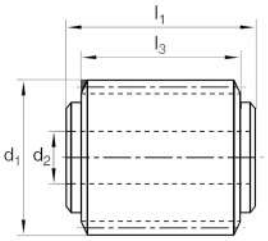
For finishing hardened (highly tempered)spur and helical gears to module pitch

Carbide **relief ground**

Dimensions in mm					Number of tooth rows
m	**d_1**	**l_3**	**l_1**	**d_2**	
4,5	130	130	150	40	12
5					
5,5	160	140	160	50	12
6					
7	170				
8		150	170		
9	180				
10	190	160	180	50	12
11	220	180	200	60	
12		190	210		
13	240	200	220		
14	250	220	240		
15	250	230	250	60	12
16	260	240	260		
17		250	270	80	
18	270	270	290		
19		280	300		
20	280	290	310		



For finishing hardened (highly tempered)spur and helical gears to module pitch



20° Pressure angle basic Profile:ha0=1.15.m, depth of cut 2.15. m Quality grade AA nach DIN 3968

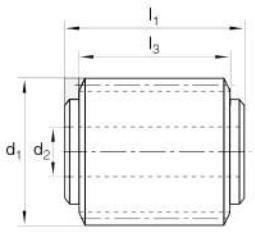
Single start right-handed with keyway or drive slot

Carbide

Dimensions in mm						Number of tooth rows	Number of segments	Number of index inserts
m	d_1	l_3	l_1	l_1 [1)]	d_2			
5	160	79	127	147	50	19	19	76
6		94	145	165				
7	190	110	163	183				
8		126	180	200				
9		142	197	217				
10		158	215	235				
11	220	173	232	256	60	21	21	84
12		189	250	274				
13	250	205	267	291		23	23	92
14		220	285	309				
15	250	236	302	326	60	23	23	92
16		252	320	344				
17	280	268	337	365	80			
18		284	355	383				
19		299	373	401				
20	280	315	390	418	80	23	23	92

Solid Type Hobs





20° Pressure angle basic Profile N2 to DIN 58412
Quality grade 7 to DIN 58413

Single start right-handed with keyway

For Spur and Helical gears to module pitch.

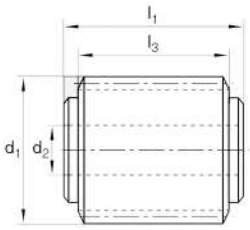
HSS-E

relief ground ■ DIN 58411

Dimensions in mm					Number of gashes
m	**d_1**	**l_3**	**l_1**	**d_2**	
0,2	25	6	12	8	8
0,2	32	12	16	13	10
0,25	25	6	12	8	8
0,25	32	12	16	13	10
0,3	25	10	16	8	8
0,3	32	12		13	10
0,35	25	10		8	8
0,35	32	12		13	10
0,4	25	10	16	8	8
0,4	32	12		13	10
0,45	25	10		8	8
0,45	32	12		13	10
0,5	25	10	16	8	8
0,5	32	12		13	10
0,6	25	10		8	8
0,6	32	12		13	10
0,6	40	20	24	16	12
0,7	25	14	16[2)]	8	8
0,7	32	20	24	13	10
0,7	40			16	12
0,75	25	14	16[2)]	8	8
0,75	32	20	24	13	10
0,75	40			16	12
0,8	25	14	16[2)]	8	8
0,8	32	20	24	13	10
0,8	40			16	12
0,9	32	20	24	13	10
0,9	40			16	12
1,0	32			13	10
1,0	40			16	12

Solid Type Hobs





20° Pressure angle basic Profile N2 to DIN 58412
Quality grade 7 to DIN 58413

Single start right-handed with keyway

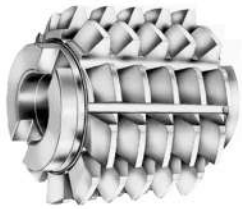
For Spur and Helical gears to module pitch.

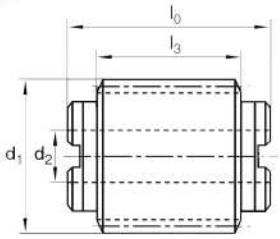
Solid Carbide

relief ground

Dimensions in mm					Number of gashes
m	**d_1**	**l_3**	**l_1**	**d_2**	
0,2	25	7	10	8	12
0,25					
0,3	25	9	12	8	12
0,3	32	12	16	13	
0,35	25	9	12	8	
0,35	32	12	16	13	
0,4	25	9	12	8	12
0,4	32	12	16	13	
0,45	25	9	12	8	
0,45	32	12	16	13	
0,5	25	13	16	8	12
0,5	32	12		13	
0,6	25	13		8	
0,6	32	12		13	
0,6	40	20	25	16	
0,7	25	15	18	8	12
0,7	32	20	25	13	
0,7	40		25	16	
0,75	25	15	18	8	12
0,75	32	20	25	13	
0,75	40		25	16	
0,8	25	15	18	8	12
0,8	32	20	25	13	
0,8	40			16	
0,9	25	15	18	8	12
0,9	32	20	25	13	
0,9	40			16	
1,0	25	15	18	8	12
1,0	32	20	25	13	
1,0	40			16	

Solid Type Hobs





20° Pressure angle basic Profile II to DIN 3972
Quality grade A to DIN 3968

Single start right-handed with drive slot

HSS-E

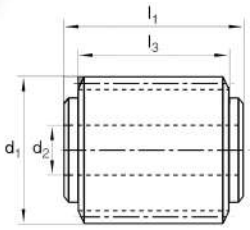
For Spur and Helical gears to module pitch.

relief ground ■ DIN 8002 A

Dimensions in mm					Number of gashes
m	**d_1**	**l_3**	**l_0**	**d_2**	
1	50	25	44	22	14
1,25					
1,5	56	32	51		12
1,75					
2	63	40	60	27	12
2,25	70	50	70		
2,5					
2,75					
3	80	63	85	32	12
3,25					
3,5					
3,75	90	70	94		
4	90	70	94	32	12
4,5					10
5	100	80	104		
5,5					
6	115	100	126	40	10
6,5					
7					
8	125	130	156		
9					
10	140	160	188	40	10
11	160	170	200	50	9
12	170	185	215		
13	180	200	230		
14	190	215	245		
15	200	225	258	60	9
16	210	238	271		
17	220				
18	230	260	293		
19	240				
20	250	286	319	60	9
21	260	290	320		
22	270	290			
23	280	310	340		
24					
25	290	310	350	60	9
26	310	320	360	80	
27	320	330	370		
28					
29	340	340	380		
30					

Solid Type Hobs





20° Pressure angle basic Profile II to DIN 3972

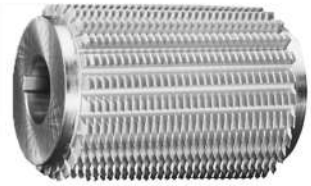
Single start right-handed with drive slot

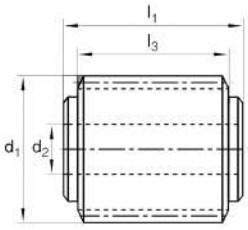
For Spur and Helical gears to module pitch.

relief turned ■ Quality grade B/C to DIN 3968 ■ DIN 8002 B
relief ground ■ Quality grade A to DIN 3968 ■ DIN 8002 B

HSS- E

Dimensions in mm					Number of gashes
m	**d_1**	**l_3**	**l_1**	**d_2**	
0,5	50	16	22	22	14
0,75					
1		25	31		
1,25	50	25	31	22	14
1,5	56	32	38		12
1,75					
2	63	40	46	27	12
2,25	70	50	56		
2,5					
2,75					
3	80	63	69	32	12
3,25					
3,5					
3,75	90	70	78		
4	90	70	78	32	12
4,5					10
5	100	80	88		
5,5					
6	115	100	108	40	10
6,5					
7					
8	125	130	138		
9					
10	140	160	170	40	10
11	160	170	180	50	9
12	170	185	195		
13	180	200	210		
14	190	215	225		
15	200	225	235	60	9
16	210	238	248		
17	220				
18	230	260	270		
19	240				
20	250	286	296	60	9
21	260	290	300		
22	270				
23	280	310	320		
24					
25	290	320	330	60	9
26	310			80	
27	320	330	340		
28					
29	340	340	350		
30					





20° Pressure angle basic Profile II to DIN 3972
Quality grade A to DIN 3968

Single start right-handed with keyway

For Spur and Helical gears to module pitch.

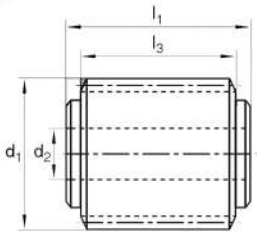
HSS-E-TiN Coated

relief ground

Dimensions in mm					Number of gashes
m	**d_1**	**l_3**	**l_1**	**d_2**	
1	50	44	50	22	15
2	63	80	90	27	
2,5	70	90	100		
3	80	110	120	32	
4	90	120	130		
5	100	140	150		
6	115			40	
7	125				
8	140	180	190	50	
9					14
10	160	200	210		

Solid Type Hobs





20° Pressure angle basic Profile ha0=1.25.m, Qa0=0.3m Quality grade A to DIN 3968

Single start right-handed with keyway

HSS-E

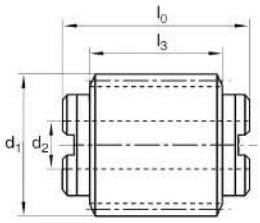
For Spur and Helical gears to DP (Dia-metral Pitch)

relief ground

	Dimensions in mm			
DP	**d_1**	**l_3**	**l_1**	**d_2**
1	290	320	330	60
1,25	250	286	296	
1,5	220	238	248	
1,75	200	225	235	
2	180	200	210	50
2,5	140	160	170	40
3	125	130	138	
3,5	115	100	108	
4	115	100	108	40
5	100	80	88	32
6	90	70	78	
7				
8	80	63	69	32
9				
10	70	50	56	27
11				
12	63	40	46	27
13				
14	56	32	38	22
15				
16				
17				
18				
19	50	25	31	22
20				
21				
22				
23				
24				
25	50	25	31	22
26				
27				
28				
29				
30				

Heavy Duty Roughing Hobs





20° Pressure angle basic Profile III to DIN 3972
With positive rake (undercut) Optionally with chip breaker grooves

Single start right-handed with keyway

For Spur and Helical gears to module pitch

relief turned	■ Quality grade B/C to DIN 3968	■ with 20 gashes
relief ground	■ Quality grade A to DIN 3968	■ with 20 gashes
relief turned	■ Quality grade B/C to DIN 3968	■ with 16 gashes
relief ground	■ Quality grade A to DIN 3968	■ with 16 gashes

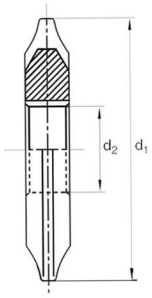
HSS-E

Dimensions in mm

m	d_1	l_3	l_0	d_2
6	150	108	140	50
7		126	158	
8	160	144	176	
9		162	194	
10	170	180	214	60
11	180	198	232	60
12	190	216	250	
13	200	234	268	
14	210	252	286	
15	230	270	310	80
16	240	288	330	
18	260	318	360	
20	290	360	406	100
22	300	396	442	100
24	310	432	478	
27	330	486	532	
30	340	540	586	

Involute Gear Cutters





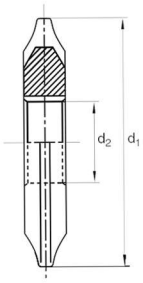
20° Pressure angle basic Profile I to DIN 3972
For Spur and Helical gears to module pitch

HSS / HSS-E

Specification of Sets	Dimensions in mm		
	m	d_1	d_2
from module 0.3 to module 10 in sets of 8 units	0,3	35	13
	0,4		
Cutter No. 1 for 12– 13 teeth	0,5	40	16
Cutter No. 2 for 14– 16 teeth	0,6		
Cutter No. 3 for 17– 20 teeth	0,7		
Cutter No. 4 for 21– 25 teeth	0,75		
Cutter No. 5 for 26– 34 teeth	0,8		
Cutter No. 6 for 35– 54 teeth	0,9	50	
Cutter No. 7 for 55–134 teeth	1		
Cutter No. 8 for 135– ∞ teeth	1,25		
from module 11 to module 20 in sets of 15 units	1,5	60	22
	1,75		
Cutter No. 1 for 12 teeth	2		
Cutter No. 1 1/2 for 13 teeth	2,25		
Cutter No. 2 for 14 teeth	2,5	65	
Cutter No. 2 1/2 for 15– 16 teeth	2,75	70	27
Cutter No. 3 for 17– 18 teeth	3		
Cutter No. 3 1/2 for 19– 20 teeth	3,25	75	
Cutter No. 4 for 21– 22 teeth	3,5		
Cutter No. 4 1/2 for 23– 25 teeth	3,75	80	
Cutter No. 5 for 26– 29 teeth	4		
Cutter No. 5 1/2 for 30– 34 teeth	4,25	85	
Cutter No. 6 for 35– 41 teeth	4,5		
Cutter No. 6 1/2 for 42– 54 teeth	4,75	90	
Cutter No. 7 for 55– 79 teeth	5		32
Cutter No. 7 1/2 for 80–134 teeth	5,5	95	
Cutter No. 8 for 135– ∞ teeth	6	100	
	6,5	105	
	7		
	7,5	110	
	8		
	8,5	115	
	9		
	9,5	120	
	10		
	11	135	40
	12	145	
	13	155	
	14	160	
	15	165	

Involute Gear Cutters





20° Pressure angle basic Profile I to DIN 3972
For Spur and Helical gears to module pitch

HSS / HSS-E

Specification of Sets	Dimensions in mm		
	m	**d_1**	**d_2**
from module 0.3 to module 10 in sets of 8 units	16	170	40
Cutter No. 1 for 12– 13 teeth	17	180	50
Cutter No. 2 for 14– 16 teeth	18	190	
Cutter No. 3 for 17– 20 teeth	19	195	
Cutter No. 4 for 21– 25 teeth	20	205	
Cutter No. 5 for 26– 34 teeth			
Cutter No. 6 for 35– 54 teeth			
Cutter No. 7 for 55–134 teeth			
Cutter No. 8 for 135– ∞ teeth			
from module 11 to module 20 in sets of 15 units			
Cutter No. 1 for 12 teeth			
Cutter No. 1 1/2 for 13 teeth			
Cutter No. 2 for 14 teeth			
Cutter No. 2 1/2 for 15– 16 teeth			
Cutter No. 3 for 17– 18 teeth			
Cutter No. 3 1/2 for 19– 20 teeth			
Cutter No. 4 for 21– 22 teeth			
Cutter No. 4 1/2 for 23– 25 teeth			
Cutter No. 5 for 26– 29 teeth			
Cutter No. 5 1/2 for 30– 34 teeth			
Cutter No. 6 for 35– 41 teeth			
Cutter No. 6 1/2 for 42– 54 teeth			
Cutter No. 7 for 55– 79 teeth			
Cutter No. 7 1/2 for 80–134 teeth			
Cutter No. 8 for 135– ∞ teeth			

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DiC TOOLS

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