

POLYDRILL NOV-2011					
		UNIT		PINION	GEAR
1	No. of Teeth	-	Z	26	26
2	Ratio	-	i	1	1
3	Module	mm	m	5	5
4	Helix Angle	Degree	$\beta$	15	15
5	Helix Angle	Radian		0.261799	0.261799
6	P.C.D.	mm	d	134.5859	134.5859
7	O.D.	mm	Do	144.5859	144.5859
8	Root Dia.	mm	Di	122.0859	122.0859
9	C.D.	mm	CD	134.586	
10	Virtual No. Of Teeth	-		28.84975	28.84975
11	Face Width	mm	F.W.	60	60
12	RPM		N	1000	1000
13	Speed	Mt/Sec	v	7.046901	7.046901
14	Kt	-		3.348967	3.348967
15	Material Strength	N/mm2	8620	330	330
16	Lewis Factor	-		0.384493	0.384493
17	Beam Strength	watts	Fs.	38064.81	38064.81
18	Dynamic Const.	see coment	k	2.75	2.75
19	Power Output	watts	Po.	80096.03	80096.03
20	Torque Output	N-Mt.		764.8608	764.8608
21		-	Q	1	1
22	Wear Strength	watts	Fw	23801.04	23801.04
22	Minimum Shaft Dia.	mm		42.7098	42.7098
	Bearing Design				
23			Pt	11366.13	11366.13
24			Pr	4281.992	4281.992
25			Pa	3045.547	3045.547
26			Fa	3045.547	3045.547
27			Fr	12145.97	12145.97
28			Fresult	12521.97	12521.97
29			Fa/Fr	0.250746	0.250746
30	Expected Life	mhr	L	720	720