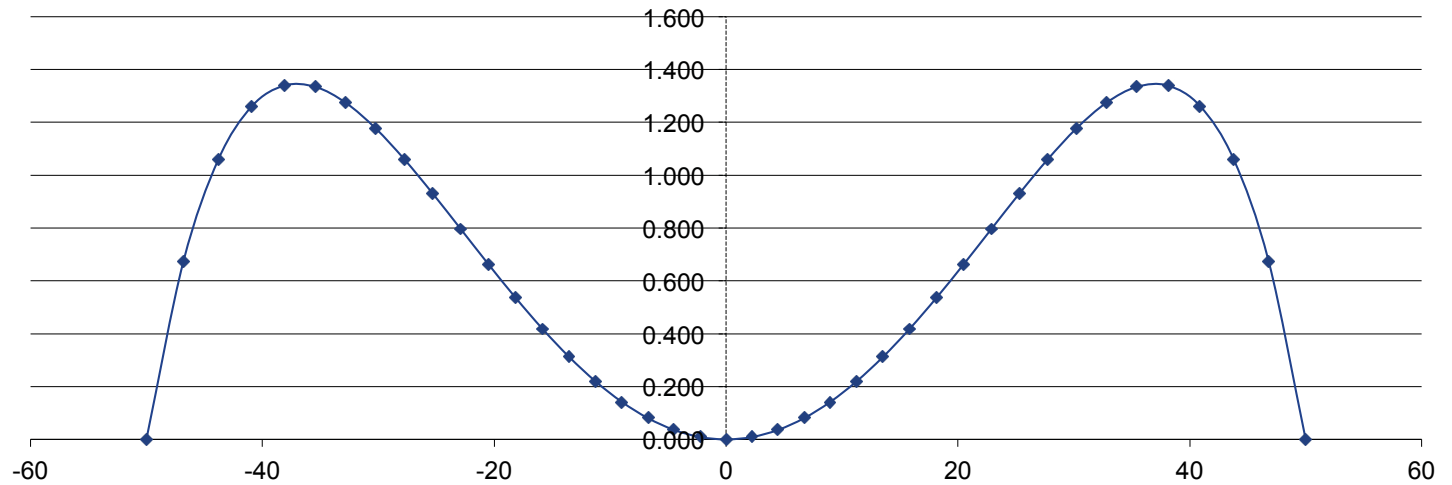




### Calculation of Elliptical Form for a Cylindrical Tool

Radius **1** mm 0.039370079 in  
 Front Cl **10** Degrees  
 Rake **-25** Degrees  
 Arc (+/-) **50** Degrees  
 Best fit Radius 0.977860792 mm

Maximum Deviation **1.339137** um



X	X(mm)	Arc(RAD)	Arc(DEG)	Deviation (um)	Radius	Front Cl	Rake	Arc (+/-)
-1	-0.754928907	-0.872664626	-50	0.000	0.5	10	-25	50
-0.95	-0.717182462	-0.817065713	-46.81441693	0.673	mm	Degrees	Degrees	Degrees
-0.9	-0.679436017	-0.764296279	-43.79095107	1.060				
-0.85	-0.641689571	-0.713810214	-40.89831265	1.261				
-0.8	-0.603943126	-0.665202414	-38.11329084	1.339				
-0.75	-0.56619668	-0.61816216	-35.41808281	1.334				
-0.7	-0.528450235	-0.572444523	-32.79865515	1.274				
-0.65	-0.49070379	-0.527851936	-30.24368816	1.178				
-0.6	-0.452957344	-0.484221838	-27.74386768	1.060				
-0.55	-0.415210899	-0.441418092	-25.29139364	0.930				
-0.5	-0.377464454	-0.399324861	-22.87962918	0.796				
-0.45	-0.339718008	-0.357842122	-20.50284332	0.663				
-0.4	-0.301971563	-0.316882296	-18.15601819	0.536				
-0.35	-0.264225118	-0.276367672	-15.83470119	0.418				
-0.3	-0.226478672	-0.236228386	-13.53488952	0.312				
-0.25	-0.188732227	-0.196400817	-11.25293792	0.219				
-0.2	-0.150985781	-0.156826273	-8.985483563	0.142				
-0.15	-0.113239336	-0.117449899	-6.729383501	0.080				
-0.1	-0.075492891	-0.078219744	-4.481661228	0.036				
-0.05	-0.037746445	-0.039085948	-2.239459883	0.009				
0	0	0	0	0.000				
0.05	0.037746445	0.039085948	2.239459883	0.009				
0.1	0.075492891	0.078219744	4.481661228	0.036				
0.15	0.113239336	0.117449899	6.729383501	0.080				
0.2	0.150985781	0.156826273	8.985483563	0.142				
0.25	0.188732227	0.196400817	11.25293792	0.219				
0.3	0.226478672	0.236228386	13.53488952	0.312				
0.35	0.264225118	0.276367672	15.83470119	0.418				
0.4	0.301971563	0.316882296	18.15601819	0.536				
0.45	0.339718008	0.357842122	20.50284332	0.663				
0.5	0.377464454	0.399324861	22.87962918	0.796				
0.55	0.415210899	0.441418092	25.29139364	0.930				
0.6	0.452957344	0.484221838	27.74386768	1.060				
0.65	0.49070379	0.527851936	30.24368816	1.178				
0.7	0.528450235	0.572444523	32.79865515	1.274				
0.75	0.56619668	0.61816216	35.41808281	1.334				
0.8	0.603943126	0.665202414	38.11329084	1.339				
0.85	0.641689571	0.713810214	40.89831265	1.261				
0.9	0.679436017	0.764296279	43.79095107	1.060				
0.95	0.717182462	0.817065713	46.81441693	0.673				
1	0.754928907	0.872664626	50	0.000				