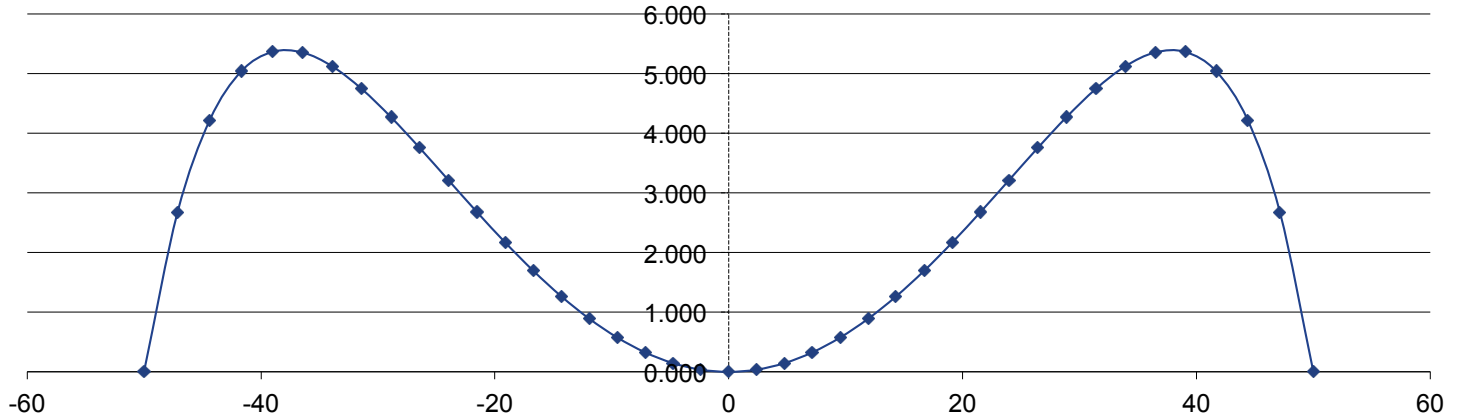




Calculation of Elliptical Form for a Conical Tool

Radius **1** mm 0.039370079 in Original Height 1.200 Original Radius 3.000
 Front Cl **12.5** Degrees New Height 0.900 New Radius 2.933
 Rake **-20** Degrees
 Arc (+/-) **50** Degrees
 Best fit Radius 0.90840332 mm Maximum Deviation **5.361634** um



X	X(mm)	Arc(RAD)	Arc(DEG)	Deviation (um)	Radius	mm	
-1	-0.717315481	-0.872664626	-50	0.000	0.5		
-0.95	-0.681449707	-0.822843653	-47.1454685	2.671	12.5	Degrees	0.218166156 rads
-0.9	-0.645583933	-0.774563408	-44.37921423	4.222	-20	Degrees	-0.34906585 rads
-0.85	-0.609718159	-0.727522675	-41.68397877	5.038	50	Degrees	0.872664626 rads
-0.8	-0.573852385	-0.681490798	-39.04654653	5.362	90		1.570796327
-0.75	-0.537986611	-0.636287165	-36.4565691	5.352			
-0.7	-0.502120837	-0.591767784	-33.90579645	5.120			
-0.65	-0.466255063	-0.547816178	-31.38755493	4.741			
-0.6	-0.430389289	-0.504336994	-28.89638122	4.271			
-0.55	-0.394523514	-0.461251397	-26.42775832	3.752			
-0.5	-0.35865774	-0.418493657	-23.97792027	3.214			
-0.45	-0.322791966	-0.376008573	-21.54370428	2.681			
-0.4	-0.286926192	-0.333749474	-19.12243626	2.169			
-0.35	-0.251060418	-0.291676636	-16.71184024	1.693			
-0.3	-0.215194644	-0.249756008	-14.30996518	1.264			
-0.25	-0.17932887	-0.207958153	-11.91512449	0.889			
-0.2	-0.143463096	-0.166257358	-9.525844941	0.574			
-0.15	-0.107597322	-0.124630864	-7.140822524	0.326			
-0.1	-0.071731548	-0.083058183	-4.758883358	0.145			
-0.05	-0.035865774	-0.04152048	-2.378948289	0.036			
0	0	0	0	0.000			
0.05	0.035865774	0.04152048	2.378948289	0.036			
0.1	0.071731548	0.083058183	4.758883358	0.145			
0.15	0.107597322	0.124630864	7.140822524	0.326			
0.2	0.143463096	0.166257358	9.525844941	0.574			
0.25	0.17932887	0.207958153	11.91512449	0.889			
0.3	0.215194644	0.249756008	14.30996518	1.264			
0.35	0.251060418	0.291676636	16.71184024	1.693			
0.4	0.286926192	0.333749474	19.12243626	2.169			
0.45	0.322791966	0.376008573	21.54370428	2.681			
0.5	0.35865774	0.418493657	23.97792027	3.214			
0.55	0.394523514	0.461251397	26.42775832	3.752			
0.6	0.430389289	0.504336994	28.89638122	4.271			
0.65	0.466255063	0.547816178	31.38755493	4.741			
0.7	0.502120837	0.591767784	33.90579645	5.120			
0.75	0.537986611	0.636287165	36.4565691	5.352			
0.8	0.573852385	0.681490798	39.04654653	5.362			
0.85	0.609718159	0.727522675	41.68397877	5.038			
0.9	0.645583933	0.774563408	44.37921423	4.222			
0.95	0.681449707	0.822843653	47.1454685	2.671			
1	0.717315481	0.872664626	50	0.000			