

**TABLE II-3  
TOLERANCES, SINTERED ALNICO MAGNETS**

	Dimensions		Tolerances	
	(Inches)	(Millimeters)	(Inches)	(Millimeters)
<b>Size:</b>				
Unfinished surfaces: (including draft)	0 to 0.125 over 0.125 to 0.625 over 0.625 to 1.25	0 to 3.2 3.2 to 16 16 to 32	±0.005 ±0.010 ±0.015	±0.1 ±0.2 ±0.4
Finished surfaces:				
Plane ground		any	±0.005	±0.1
Center or centerless ground:	0 to 1.5 over 1.5	0 to 38 over 38	±0.002 ±0.005	±0.05 ±0.1
<b>Parallelism:</b>				
Finished parallel surfaces			½ total tolerance between surfaces	
<b>Angles, including squareness:</b>				
Between two unfinished surfaces				± 1°*
Between one finished & one unfinished surface				± 1°*
Between two finished surfaces			±0.005 (±0.1) from true angle as measured on the shorter of the two surfaces in question or ± ½°, whichever is greater	
<b>Concentricity between inside and outside surfaces:</b>				
Unfinished surfaces	0 to 0.5 OD over 0.5 to 1 OD over 1 to 1.5 OD	0 to 13 13 to 25 25 to 38	0.005 TIR 0.010 TIR 0.015 TIR	0.1 TIR 0.2 TIR 0.4 TIR
Finished surfaces		any	0.003 TIR	0.8 TIR
<b>Surface roughness:</b>				
Unfinished surfaces			No surface roughness specification	
Finished surfaces			63 microinches (1.6 μm) over at least 95% of the surface	

\*Tolerances may be greater for special shapes