## **How To Get The Most From Your Electric Motors**

alignment and mechanical placement will reduce vibration, maximize bearing life, and increase the overall life of the motor and driven machine. To prevent frame distortion, increased vibration and reduced bearing life, correct for "soft foot" when mounting the motor.

■ Suggested Alignment Tolerances. Use dial indicators or laser systems to check the alignment of directly-coupled shafts. The following suggested alignment tolerances are the desired values, whether such values are zero or a targeted offset. Use them only if machinery manufacturer alignment tolerances are not available.

Table 5. Suggested Alignment Tolerances For Directly-Coupled Shafts

	RPM	Installation	In Service
Soft Foot (mils)*	All	±1.0	±1.5
Short Couplings			
Parallel Offset (mils)	RPM	Installation	In Service
Offset	1200	±1.25	±2.0
	1800	±1.0	±1.5
	3600	±0.5	±0.75
Angular Misalignment (mils/inch)**	1200	0.5	0.8
	1800	0.3	0.5
	3600	0.2	0.3
Couplings With Spacers			
	RPM	Installation	In Service
Parallel Offset Per Inch of Spacer Length (mils/Inch)	1200	0.9	1.5
	1800	0.6	1.0
	3600	0.3	0.5

- "Soft foot" describes the condition where the mounting feet are not all in the same plane.
  Measured in mils (I mil. = .001 inches).
- \*\* To find the angular misalignment in mils/inch of coupling diameter, measure the widest opening in mils, then subtract the narrowest opening in mils, and divide by the diameter of the coupling in inches. (Note: Up and down motion of driving and driven shafts with temperature may be in either direction.)