



Innovative Motion Control Devices

**By Terrence Lynch, Contributing Editor --  
6/17/2002**

### **New-look motor boasts high efficiency**

A slotless, brushless, permanent-magnet servomotor of unusual design promises energy efficiency over a wide speed range. The ThinGap TG 1500S uses NdFeB magnets, an iron outer frame, and a miniature air gap between rotor and stator to eliminate electrical hysteresis and the resulting low-speed cogging. It also greatly reduces armature inductance and line-to-line resistance. "The result is a very high efficiency, high power-density motor," says Jerry Yankie, spokesperson for the motor's developer and manufacturer, G&G Technology. While he cautions that overall system efficiency is a function of the motor and the motor controller necessary with a brushless design, the company's published performance curves show near 90% efficiency at 4,500 rpm while delivering 30 oz-inch of torque. Maximum continuous torque for the 2.375-inch OD, 2.180-inch long motor is 115 oz-inch at 2,400 rpm on 24V dc, 15.6A power.

**G&G Technology, Inc.:** Enter 577