Almost everything you need to know about a motor is contained in the speed-torque curve. If you know where to look, you can find or get a feel for such critical information as peak operating levels, stall conditions, starting torque, and dynamic response. Speed-torque curves can also help you select the best motor technology, whether it’s ac or dc, stepper or servo, moving coil or switched reluctance.

**Questions & Answers**

**Q** Why would a "properly sized" motor stall in actual use?
**A** It’s probably overheating. Use a derating curve to select a different motor, and see if it doesn’t perform better.

**Q** Is it better to use a servo or stepper?
**A** The best motor is the one that does the job. However, if the application falls within a step motor’s safe operating range, you’re likely to save money with the stepper.

**Q** What would cause a motor to fall short of the acceleration predicted by its speed-torque curve?
**A** Friction, mainly. To overcome it, make sure you design in some torque margin when selecting a motor.