

# Motor Appreciation



When I woke up this morning, my house was a comfortable 68°F, despite the fact that overnight temperatures in the Chicago area were close to freezing. I don't often think about the blower motor that helps circulate the warm air from my furnace throughout my house, but today I was grateful for it.

Similarly, I take for granted the exhaust fan in my bathroom, even though I use it every day to keep the mirror from steaming up during my shower, which comes in handy when I want to comb my hair and shave. I don't really have to think about the electric motor that powers the fan. I just flip the switch and go about making myself beautiful.

The point is, electric motors have a much bigger impact on our daily lives than most of us realize. They quietly hum in the background, making our lives better. When I poured cold milk on my Wheaties this morning, I didn't have to think about the evaporator fan on my refrigerator or the electric motor that powers it. I just enjoyed the cold milk.

In fact, it's only noon, and I've already made use of or been assisted by at least a dozen electric motors: My garage door opener, my windshield wipers, the automatic drawer that opens at the drive-through lane at my bank, the printer on my desk, the fan and DVD drives inside my computer.

Even my two fish benefit from motors. Elvis and Albus (don't ask, my kids named them) would be swimming in pretty filthy water if not for the little pump motor that powers the water filter on their tank.

According to the U.S. Department of Energy, electric motors account for more than 50% of all electricity use in the United States, which means that my fish and I are not unique in our dependence upon them. But whereas they're an important part of everyday life, they're even more significant in the nation's industrial activity.

Because of the importance of motors in the overall economy and in the energy consumption they require, enormous effort has been spent on increasing the energy efficiency of motors used in the United States. I encourage those interested in learning more to visit [www.motorsmatter.org](http://www.motorsmatter.org), the website of Motor Decisions Matter, a national public-awareness campaign sponsored by a consortium of electric utilities, industry trade associations and motor manufacturers. The site contains tools and information for better understanding the costs associated with electric motors and their use.

Also, this issue of *Power Transmission Engineering* includes a focus on electric motors, with a special section, beginning on page 22, which includes some of the latest technology from the world's leading manufacturers. Motor designers continue to find ways to provide greater power in smaller packages, increase energy efficiency, reduce noise and provide ever increasing levels of control. If you are a buyer, specifier or end user of electric motors, it behooves you to stay up to date on the latest technology. We've done our part by gathering information in this special section.

And if you're interested in learning more about how motors work, we invite you to read Dan Jones' latest article, beginning on page 46, which explores the basics of step motors.

After half a day of taking a conscious inventory of my electric motor usage, I have a much better appreciation for just how much benefit we derive from them every day. I'd love to hear your feedback about the electric motors you rely on. Perhaps there are some that I used today without even realizing it.

In the meantime, I think I heard the microwave beep, which means my lunch is ready. Thank goodness the one in our office has a rotary turntable in it. Otherwise I'd have to take the food out, stir it and heat it some more. I can't imagine how people survived before they put electric motors in microwave ovens...

A handwritten signature in black ink that reads "Randy Stott". The signature is written in a cursive, flowing style.