



Variable Frequency Drives

Do many of your motors drive variable torque loads such as centrifugal pumps, fans, and compressors?

Are these motors often running below their maximum ratings?

Variable frequency drives (VFD's) can be expensive, but through immediate rebate opportunities and large electrical energy savings, payback periods as short as one year can be realized. A VFD saves money by controlling the speed of the motor through monitoring the external load, thus reducing electricity needs.

Services we can offer...

- Investigate installation rebate opportunities and interface with your electric utility to coordinate savings
- Determine ROI and payback period for VFD's in your application
- Compare feasibility of high efficiency motors to VFD's and determine the better alternative
- Assist in installation and implementation

Statistics demonstrating the need for VFD's...

- Pumps and fans are typically sized for worst case scenarios and operate at only 10-50 percent of their rating
- The average pumping system operates below 40 percent efficiency
- 70 percent of pumping systems are oversized

A typical pump application has a 100hp motor operating a centrifugal pump. At \$0.04/kwh, this requires nearly \$27,500 worth of electricity per year. If the control valve is replaced with a VFD, the pump may require only 30hp to operate at half speed, resulting in savings of \$12,500 per year.

