

ELECTRIC MOTOR WORKS

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WHERE EVERY DROP COUNTS

Maximizing Your Pumping Station's Energy Efficiency.

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Today's skyrocketing energy costs are definitely going to get worse before they get any

better. Superintendents in California are faced with the compound situation of providing top quality turf conditions on their golf course as well as getting it done in an economically feasible

manner. Due to the latest deregulations by Edison & PG&E, many golf course managers have seen their light bills double, triple, and some have even quadrupled. A major contributor to the light bill is the irrigation system's pumping station.

Variable Frequency Drives (VFD's) have had a major impact in the pumping station industry by providing more efficient power consumption. Originally, pumping stations started across the line (full-volt) and a control valve modulated the pressure and flow going out to the golf course. This brought a significant amount of energy loss due to the hydraulic loss across the valve as well as the power expenditure of starting a motor at full-voltage. When a motor starts at full-voltage, the inrush current imposed on the incoming power source can be up to seven times the nameplate current for that particular motor. VFD's circumvent this initial inrush current and bring the motors up at a reduced current. Whatever the system requires, the VFD delivers, thereby maximizing energy efficiency.

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