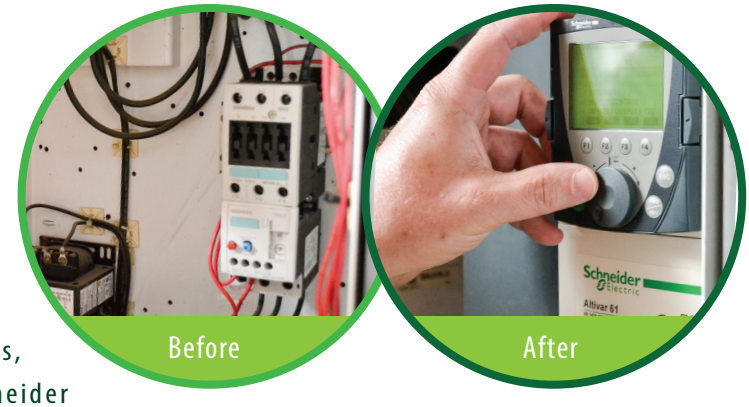
Cutting Energy Costs with VFD Technology

Standard Electric provides major reductions in energy costs with Variable Frequency Drive retrofitting

DETAILS

In 2014, Crew Carwash wanted to reduce the amount of energy consumed by the drying systems at their automated tunnel carwash locations throughout the Indianapolis area. Their drying systems are comprised of 16 blowers. In addition to this efficiency improvement, Crew Carwash also aimed to improve the overall drying performance as well.



SOLUTION

When Standard Electric's Indiana engineering team arrived on site, they immediately took note of the fact that each of the blowers currently operated under the guidance of a full-voltage motor starter.

To more accurately control the power consumed by the blowers, the engineers retrofitted each full-voltage starter with a Schneider Electric Altivar 61 Variable Frequency Drive. From there, the team tuned each blower to a specific running speed and startup acceleration curve, which optimized the energy consumption used in this particular application.

Standard Electric's engineers also calculated each blower's optimum speed. This involved multiple collaborative audits with the Crew Car Wash's quality control department and senior-level management to ensure that the retrofit met their desired outcome.

RESULTS

Crew Carwash invested $16,000 dollars toward the proposed solution. Once the new drives were optimized for performance, the project boasted $12,000 in annual energy savings. Additionally, Crew Carwash became eligible for $9,600 in energy rebates from the state of Indiana for the 2014 tax year. All of this translated to an extremely quick return on investment of only six and a half months. "The Standard Electric engineering team's knowledge of drives is outstanding," Crew Carwash director of engineering and construction Terry Wells said regarding the project's success. "They're flexible, and they understand what we wanted to accomplish. It also led us to have the confidence to install VFDs at a new location."

$12,000 Annual Energy Savings

$9,600 Immediate Energy Rebates

6.5 Months Return on Investment

Schneider Electric

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A Tradition of Innovation & Service