

Technology that Helps the Bottom Line

How HVAC control technology helps operators stay on budget and improve the restaurant atmosphere. BY PEGGY CAROUTHERS



Staying on budget for 2017 just got a whole lot easier. Restaurant owners are looking at technology that improves their heating ventilation and air conditioning (HVAC) systems while knocking \$4,000–\$6,000 off their expenses every year. This can equate to adding an estimated 1,200 customer tickets annually.

It's long been felt that quick-serve restaurants couldn't take advantage of certain energy saving control technologies for HVAC systems out of concern that the restaurant atmosphere would be jeopardized, especially when it comes to customer comfort and space pressurization. That's no longer the case.

Today's HVAC control technology helps restaurants not only save energy, but also reduce maintenance costs, ensure indoor air quality, and maintain proper building pressure control, all without compromising customer comfort.

"For a lot of operators, HVAC energy usage can be 20–30 percent of their total

utility expenses, so it can be a big line item on the budget," says Justin Sipe, senior vice president of technology at Transformative Wave. "Now there are simple upgrades with advanced controls that can make a big difference to the bottom line."

These HVAC upgrades provide control over fan speed and outside air damper openings to match the energy use to the needs of the restaurant. They measure temperatures, carbon dioxide levels, and space pressure to provide more efficient operation, better humidity control, and a consistent air balance while actually lowering expenses.

"The short time we've had the CATALYST system," says Jim Froio, a Burger King franchisee, "we've notice substantial decreases in our electric bill, more efficient units, and an array of graphs and charts that will monitor actual usage and temperatures so we can see savings immediately."

These systems also help operators identify HVAC problems before they can hurt business.

"Although I don't speak for all McDonald's locations, the heating and HVAC bills at my store have been reduced by upwards of 20 percent," says Paul Goodman, a McDonald's franchisee. "In addition to the energy savings, the CATALYST system monitors my economizers, dampers, and other HVAC components, alerting me of current and potential problems I wouldn't have known about otherwise. This saves valuable time, as the earlier we know about an issue, the quicker we can order a part or dispatch a technician. With the advanced detection and diagnostics, it not only shortens our downtime, but also improves the level of service from the technician, as they are better prepared to repair the units, so that's a huge advantage."

With the exhaust fans and vent hoods used in kitchens to capture smoke and fumes from cooking appliances, an unintended consequence can be space pressure issues that result in wasted energy. This technology makes it possible to ensure it's always in balance.

"In quick-serve restaurants, a lot of times you might find it difficult to open the front door because of extreme negative pressure and it feels like there's a vacuum inside," says Danny Miller, president of Transformative Wave. "Kitchen exhaust hoods require adequate make-up air through the HVAC systems to correctly pressurize the space. Beyond energy savings, the CATALYST technology addresses this challenge."

In addition to these many benefits, this technology is more affordable now that utilities are stepping up to cover some of the cost for this technology, often referred to as "Advanced Rooftop-Unit Controls" (ARCs). This gives restaurant owners and operators even more bang for their buck, helping them stay on budget and improve their bottom line.