
Case Study

September 12, 2017

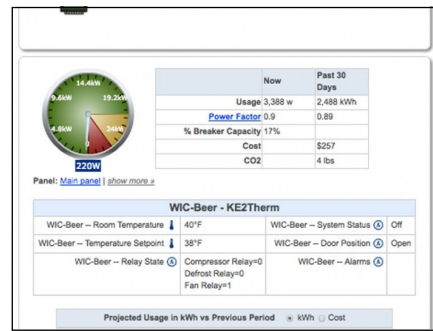
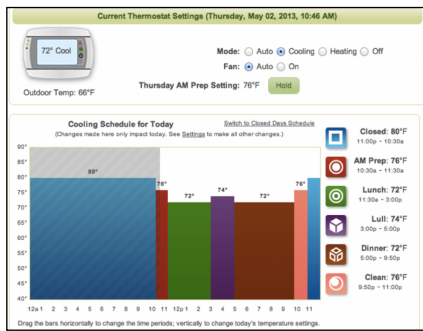
Install of Alltemp M at restaurant #7297



**BRILLIANT
EFFICIENCIES**

Background

Brumit Restaurant Group, founded by Joe Brumit, operates Arby's restaurants in North and South Carolina. Joe started as a franchisee in 1988 with 13 Arby's in western North Carolina. Since then Joe has brought on two partners, JoAnn Yoder, COO, who has worked with Brumit since 1989 and Greg Catevenis, CFO, since 2008. Together with a very talented team of people, Brumit has grown to operate 50 Arby's restaurants across North and South Carolina. Brumit is recognized as the premier Arby's franchisee in the United States. Unlike many QSR operators, Brumit has an in-house HVAC service team. This service team has deployed advanced remote equipment control and monitoring devices throughout its restaurant footprint. These devices are deployed to all equipment including lighting, kitchen equipment and HVAC. Brumit uses these connected devices with the Site Sage management platform by PowerHouse Dynamics.



Brilliant Efficiencies is an energy efficiency solution provider and distributor of alltemp. alltemp® provides a sustainable, eco-friendly, true drop-in refrigerant that meets the Montreal/Kyoto Protocols and EPA standards with the lowest Global Warming Potential for any non-flammable HFC. It is the most energy efficient, non-flammable refrigerant on the market, yielding a 27% average reduction in kWh without loss in capacity. alltemp consists of three products alltemp L (low pressure), alltemp M (medium pressure), alltemp H (high pressure).

Goals

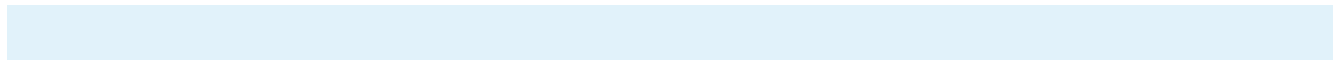
Prior to testing, Brumit Facilities Supervisor Drew Ponder established multiple goals:

1. To Create Energy Savings
2. To Increase HVAC Cooling Capacity
3. Mitigate R-22 Liability
4. To Improved Equipment Operation
5. To Have Drop In Solution With No Oil or Equipment Changes
6. To Consolidate A Variety Of Refrigerants Enabling A Reduction In Inventory Costs, replacing multiple bottles of refrigerants with a single refrigerant type

Site Selection

Facilities Supervisor Drew Ponder selected Arby's Restaurant #7297 as the location for the test install located at 345 New Leicester Hwy Asheville, NC 28806. The unit selected was a Rheem Model No: RKKB-A150CL25E option code 949, manufactured 11/01 using R-22 refrigerant (a 16 year old system). The system's thermostat is set at 72 degrees to maintain a comfortable work environment. First the Rheem unit was vacuumed to 500 microns using standard HVAC equipment. The system was then charged using alltemp M. No further adjustments were performed.

Data was collected using Brumit's existing monitors and Site Sage platform.



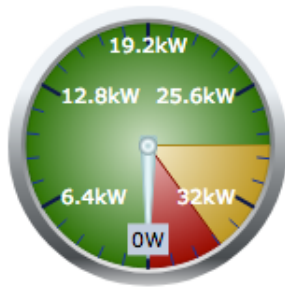


Results

Facilities Supervisor Drew Ponder selected Arby's Restaurant #7297.

1. HVAC energy costs on the unit tested was reduced from \$10 per day to \$7 per day resulting on in \$1,095.00 in annually energy savings.
2. Cooling Capacity was increased due to lower operating pressures, which allowed refrigerant to flow faster across the coils, resulting in greater heat exchange.
3. R-22 Liability was mitigated as alltemp M is not on the EPA Phase Out list.
4. The 16 year old equipment is now operating noticeably better. With better cycling and off times, the life of the equipment is extended. In addition, while hard to measure, per the in house HVAC technician, the equipment seems to operate better.
5. With alltemp M serving both the HVAC and walk in cooler refrigerant needs, the goal of a single solution refrigerant was accomplished.

"From what I can see we are seeing faster to target temperature times, lower system usage, longer off time and more accurate temperature cycling. Store employees have also commented on how comfortable the kitchen feels."
--Drew Ponder | Facilities Supervisor | Brumit Restaurant Group



	Now	Past 30 Days
Usage	0 w	3,205 kWh
Power Factor	1	0.87
% Breaker Capacity	0%	
Cost		\$271
CO2		4 lbs

Panel: [Outside](#) | [show more »](#)

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Kitchen RTU

- ☐ Kitchen RTU Return Temp
- ☐ Kitchen RTU Supply Temp

75°F

68°F

Projected Costs vs Previous Period ☐ kWh ☒ Cost



Kitchen RTU

Thursday 09-07-2017

[Day](#)[Week](#)[Month](#)[Year](#)

