Charleston Fun Park SLASHES Expenses & INCREASES Revenue with Berner Air Curtains!

Berner Air Curtains improved indoor air comfort for patrons and helped increase sales 20% in the first year since installation at Charleston Fun Park’s indoor area.

Indoor entertainment players are staying longer and buying more game time because of the air comfort.

Charleston Fun Park in South Carolina cuts their annual utility bills by $20,000 and increases overall sales by 20% after installing air curtains above their park entrances.

Hot, steamy summertime indoor temperatures and skyrocketing utility bills were not “fun” costs of doing business for the Charleston Fun Park, a popular, five-acre indoor/outdoor family entertainment center.

However, four entryway air curtains, which now protect the Mount Pleasant, S.C.-based amusement park’s 16,000-square-foot indoor area from outdoor temperatures, have lowered annual utility costs and energy use by approximately $20,000 and 6.6-MMBtu, respectively. The improved indoor air comfort also helped increase sales by 20% in the first year since installation.

The indoor facility, which houses the virtual reality and arcade area, along with the ticket staging, a snack/eating section, and restrooms, is air conditioned with five 10-ton split-system air conditioners. However, the units couldn’t overcome heat gain from three sets of double doors that accommodated constant foot traffic during peak hours. General Manager Brian Lee estimates the 7 x 8-foot glass doorways are typically opened an average of 60 times/hour each.

Consequently, the sweltering 85°F minimum indoor temperatures on summer days discouraged indoor activities. The indoor area also serves as a cool refuge for patrons participating in the go-kart track, paintball area, miniature golf, climbing wall, and outdoor activities. “In 2016, regular customers thought our air conditioning was broken and now they think it’s fixed, but we never touched the air conditioning,” quipped Lee, who now easily maintains the indoor facility at 70 to 72°F year-round.

Lee attributes most of the aforementioned sales increase to the new air curtains which now encourage customers to purchase additional playing time up and above entrance ticket prices to utilize the 60-machine arcade and virtual reality area. Indoor entertainment players are staying longer and buying more game time because of the air comfort, according to Lee.

The park attracts nearly 300,000 people annually and Lee believes return business has increased, too, because patrons are feeling more comfortable during their previous visits.

While the sales increase was surprising, the utility savings was expected, according to Tom Gondi, president, Southern Market Share, a Greenville, S.C. industrial product manufacturer’s representative.

Gondi initially ran an energy audit for the park using the free, web-based program, the Berner Energy Savings Calculator www.berner.com/energy-savings-calculator/. This program uses data inputs - such as door dimensions, use times, cycles, local energy rates and National Weather Data (Bin Data) - to provide the user with energy savings and payback estimates.

In addition to energy savings and indoor air comfort, the air curtains also prevent dirt and insect infiltration by creating an invisible air barrier that flying insects can’t penetrate, thus increasing sanitary conditions in the 35-seat snack area.

The kitchen’s four-foot-wide shipping door also received an air curtain to assist with health code compliance.

Charleston, S.C.-based material handling distributor Custom Equipment Co., supplied the air curtains. Charleston Fun Park’s in-house maintenance staff and licensed electrician ran 120v power and wall-mounted the six-foot-wide Commercial Low Profile 8-Series (CLC08) units above the double doorways in less than a day with no park down-time.

Each air curtain features a 24v control panel and two heavy-duty magnetic reed switches that automatically activate the air curtain when either door is opened. The magnetic reed switch guarantees the air curtain is activated without interaction by employees. The air curtain control package turns them off after a factory-set 60 second timer delay, however Lee said constant foot traffic through the doors keeps the air curtains running almost continuously.

All four air curtains’ annual operating expense is $111.54.

Now with improved utility savings and air comfort, everything is “fun” at the Charleston Fun Park!
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