

MOXY HOTEL

CASE STUDY



Moxy is Marriott International's newest brand, designed to offer younger travelers a stylish and affordable alternative to traditional hotels. When Moxy decided to build a new hotel in Nashville, near the Vanderbilt and Belmont University campuses, they set out to build a fashionably modern hotel that captured the charm of the surrounding universities and the city of Nashville, while not sacrificing any of the comfort and quality that a conventional hotel has to offer.

CHALLENGE:

To build an innovative hotel that showcases the brand's style while providing guests with superior indoor air quality.

While Moxy engineers and architects knew exactly how to make the hotel fashionably modern, they struggled on how to ensure that their guests were receiving the very best air quality, for this they turned to Rome Eddleman & Associates who suggested the FläktGroup SEMCO 3fficiency system.

SOLUTION:

Install SEMCO's 3fficiency system, which is comprised of chilled beams, Neuton[®] Pump, and Pinnacle[®]

Good indoor air quality is critical in the hospitality industry, because poor air quality can affect a guest's ability to relax, potentially have an adverse effect on their health, and ruin their overall experience. Indoor air quality can be affected by temperature, humidity, allergens and mold, as well as odors. The 3fficiency system is ideal for hotels, because it has the ability to masterfully tackle all of these potential issues with one simple water based package.

There are three key components to 3fficiency, the first one being the Pinnacle[®] dedicated outdoor air system (DOAS.) The Pinnacle is able to provide the hotel with superior humidity and temperature control. With its active and passive desiccant wheels, the Pinnacle can eliminate excess humidity and remove 99.95% of airborne contaminants, while maintaining comfortable temperatures, keeping guests and workers happy and healthy.

The second element in 3fficiency is chilled beams. The Moxy - Vanderbilt incorporated The Juno IQHC and the Silencia bulkhead chilled beams into their design. Chilled beams help keep guest rooms at a temperature the guest deems comfortable, never getting too hot or too cold, adjusting to occupancy levels. It is easy to achieve a comfortable room temperature with chilled beams, airflow patterns can easily be adjusted and air leaving the beam is fully mixed and evenly disseminated.

The final component of 3fficiency is the Neuton® pump module. The Neuton pump module allows chilled beams to operate on standard chiller operating temperatures, saving money and preventing condensation formation from fluctuating water temperatures.



CHALLENGE:

Creating a quiet environment where guests can relax, socialize, and enjoy their time without excessive ambient noise.

Ambient noises in guest rooms and throughout the hotel need to be minimized, so guests can enjoy their time at the hotel and get a good night's sleep.

SOLUTION:

The installation of chilled beams in guest rooms and common areas.

Unlike traditional HVAC equipment, which tends to be very noisy due to its reliance on motorized fans, chilled beams do not have any moving parts, so they are inherently very quiet. This allows guests to sleep and converse without feeling like they are being drowned out by noisy equipment.



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CHALLENGE:

Construct a hotel that is sustainable.

It is important to construct a hotel that will both save owners energy and money as well as being environmentally friendly.

SOLUTION:

Designing a hotel with 3fficiency not only saves money, but is environmentally sustainable.

3fficiency is an extremely energy efficient system. The Pinnacle is an energy recovery unit that uses both the True 3Å total energy recovery (TEC) wheel and a passive desiccant wheel to take heat from incoming and return air loads and use it to heat and reheat air, saving energy and building owners money, by essentially warming the air for free.

3FFICIENCY KEY POINTS

- Improves indoor air quality
- Precise environmental control
- Incredibly quiet
- Sustainability focus

All of these factors play into guest's overall experience enhancing their comfort and satisfaction, giving them a unique experience and making them likely to return to the Moxy - Vanderbilt again and again.

