



Overview

Texas Roadhouse, situated in the bustling Dubai Mall, sought innovative solutions to optimize its kitchen's energy consumption while maintaining operational efficiency. With soaring utility costs and a commitment to environmental sustainability, the restaurant aimed to reduce expenses and lower its carbon footprint.

High utility expenses were a primary concern for Texas Roadhouse. The existing kitchen ventilation system lacked efficiency, resulting in excessive energy consumption and increased operational costs. Additionally, conventional systems did not offer precise control over ventilation, leading to unnecessary energy waste during non-peak hours.

Intelli-Hood, a global leader in Demand-Controlled Kitchen Ventilation (DCKV) systems, emerged as the ideal solution for Texas Roadhouse. Known for its cutting-edge

Annual Kitchen Hood Utility Costs (USD)





Total Energy Savings \$10.942/Year



Carbon Dioxide 135,801 lbs/Year



Simple Payback Period 1.5 Years



Operating Expense Reduction

36%

technology and ability to optimize kitchen ventilation, Intelli-Hood promised significant energy savings while maintaining a comfortable kitchen environment.

Implementation

The installation of Intelli-Hood was meticulously planned to minimize disruptions to Texas Roadhouse's operations. The installation occurred during off-peak hours, ensuring seamless integration without impacting the restaurant's peak service times. This strategic approach allowed for a smooth transition to the new system without compromising customer experience or service quality.

Performance Results

The installation of Intelli-Hood® brought about significant and noticeable improvements across multiple operational areas at Texas Roadhouse following its implementation.

Utility Cost Reduction: Pre-Intelli-Hood, the restaurant incurred \$30,376 in utility expenses. Post-installation, this reduced significantly to \$19,434 resulting in a substantial saving of \$10,942 (Figure A).

Operating Savings: With a 1.5-year payback period, the restaurant experienced a remarkable 36% reduction in operating expenses, illustrating the efficiency and cost-effectiveness of the Intelli-Hood system.

Average Fan Speed: The average fan speed was enhanced to 72%, ensuring efficient ventilation while minimizing unnecessary energy consumption during periods of lower demand. Figure B shows the variations in fan speed in response to the changing cooking demands. Intelli-Hood's installation helps reduce energy waste caused by the restaurant's kitchen hoods.

CO2 Annual Savings: The annual savings of 135,801 lbs of CO2 emissions showcased the system's positive environmental impact, aligning with Texas Roadhouse's commitment to sustainability.

Conclusion

The installation of Intelli-Hood at Texas Roadhouse in Dubai Mall has not only resulted in substantial cost savings and operational efficiency but also demonstrates the restaurant's dedication to environmental stewardship. By partnering with a global leader in DCKV controls, Texas Roadhouse has set a benchmark for sustainable practices in commercial kitchens, ensuring a comfortable dining experience while significantly reducing its ecological footprint.



Texas Roadhouse Dubai

Texas Roadhouse Dubia Mall UAE- Average Fan Speed

