



INTELLI-HOOD®

KEY SAVINGS

Overview

Mandarin Oriental, located in the heart of Austria, Vienna, strives to bring the brand's signature elegance, world-class service, and modern design to one of Europe's most historic cultural capitals. As part of this new construction, the hotel set out to integrate a smart, energy-efficient solution that would support operational excellence in their commercial kitchen.

To achieve this, the hotel's project team partnered with Melink Corporation to incorporate Intelli-Hood®, a Demand Control Kitchen Ventilation (DCKV) system, into the hotel's commercial kitchen. Intelli-Hood automatically adjusts exhaust and supply fan speeds based on real-time cooking activity – minimizing energy waste, optimizing ventilation performance, and ensuring a safe, comfortable workspace for the culinary staff.

Implementation

With sustainability playing an increasingly important role in hotel design and operations, the team wanted a smarter approach to managing airflow—one that wouldn't compromise



Total Energy Savings

€45.434/Year



Carbon Dioxide

30,622 kg/Year



Simple Payback Period

1.0 Years



Operating Expense Reduction

43%

comfort, safety, or productivity.

Traditional kitchen hoods often run at maximum speed regardless of cooking intensity, leading to unnecessary energy use and higher operating costs. By choosing Intelli-Hood's more responsive, technology-driven solution, the Mandarin Oriental aimed to ensure its new kitchen would operate with precision and reduced environmental impact from day one.

Annual Kitchen Hood Utility Costs (EUR)

Figure A



Figure A portrays the potential annual utility costs without Intelli-Hood & the results after Intelli-Hood's DCKV system was installed at the Mandarin Oriental hotel. The graph shows the savings in EUR the hotel achieved with after installation.

Project Recap

Before integrating Intelli-Hood, the kitchen ventilation system at Mandarin Oriental, Vienna would have ran at full speed throughout daily operations. By incorporating Intelli-Hood into the kitchen's design of this new construction, the hotel positioned itself to capture immediate and long-term efficiency gains.

Once Intelli-Hood's DCKV system was implemented, the kitchen saw an immediate savings in energy usage, as compared to what they kitchen could have spent without Intelli-Hood's controls. This translated into an annual utility savings of €45,434 and reducing operating costs by 43%. The investment paid for itself in approximately one year, underscoring the value of intelligent ventilation control in a hospitality setting.

The environmental impact was equally notable. With Intelli-Hood maintaining an average fan speed of 72%, the system significantly reduced unnecessary fan energy and optimized airflow

only when cooking activity required it. This improvement resulted in an annual reduction of 30,622 kg.

In Summary

By installing Intelli-Hood® into the Mandarin Oriental's commercial kitchen, the hotel achieved energy savings, a rapid return on investment, and a measurable carbon reduction.

This project shows how smart, demand-based ventilation can elevate operational performance with minimal downtime. For the Mandarin Oriental, Intelli-Hood serves as a long-term asset that will continue contributing to lower operating costs, improved kitchen conditions, and progress toward the brand's future sustainability goals.



The Atelier 7 - Brasserie restaurant located in the Mandarin Oriental in Vienna.