



Located in Portland Oregon, RingSide Steakhouse Downtown and RingSide Steakhouse Glendoveer are both legends in the world of American steakhouses. RingSide Steakhouse Glendoveer radiates a country club atmosphere on the Glendoveer Golf Course. RingSide Steakhouse Downtown has been perfecting the steakhouse experience for 67 years and is set in a one-of-a-kind brick building in the Nob Hill section of Portland, Oregon, this venerable landmark has its own civic identity.

Both RingSide Steakhouses have placed significant awards and honors on their walls: *Tom Horan's America's Top Ten Hall of Fame; Prime Time Top 10 Steakhouses; Wine Spectator's Best of Award of Excellence* and the much coveted *Award of Excellence – the DiRoNA Award-from Distinguished Restaurants of North America.*



RINGSIDE STEAKHOUSE DOWNTOWN PROJECT

Restaurant

- 8,700 square foot restaurant
- Seats 140 dining and 40 bar
- 14 hours average operation

Gaylord's Project Scope

- Install AirVantage (DCV-AV-ND) hood ventilation controls to monitor and adjust exhaust & makeup air fan speeds (44HZ to 60 HZ modulation)
- Reduce overall energy costs
- Save HVAC and fan operational costs
- Optimize HVAC and fan efficiency
- Improve kitchen comfort and noise levels

TYPE OF KITCHEN EQUIPMENT

Exhaust Hood

- 32' Gaylord Wall Mounted Canopy Hood
- Model ELX (31' of Active Hood)

Grease Filters

- Gaylord High Efficiency XGS Extractors

Exhaust Blower

- Greenheck, 3 HP, Utility set blower, UL 762

Supply/Dedicated Makeup Air

- Greenheck, 5HP - Indirect Fired Heating with
- Evaporative Cooling System

Type of Cooking

- Mixed heavy duty with charbroiling, griddles, fryers, and ranges

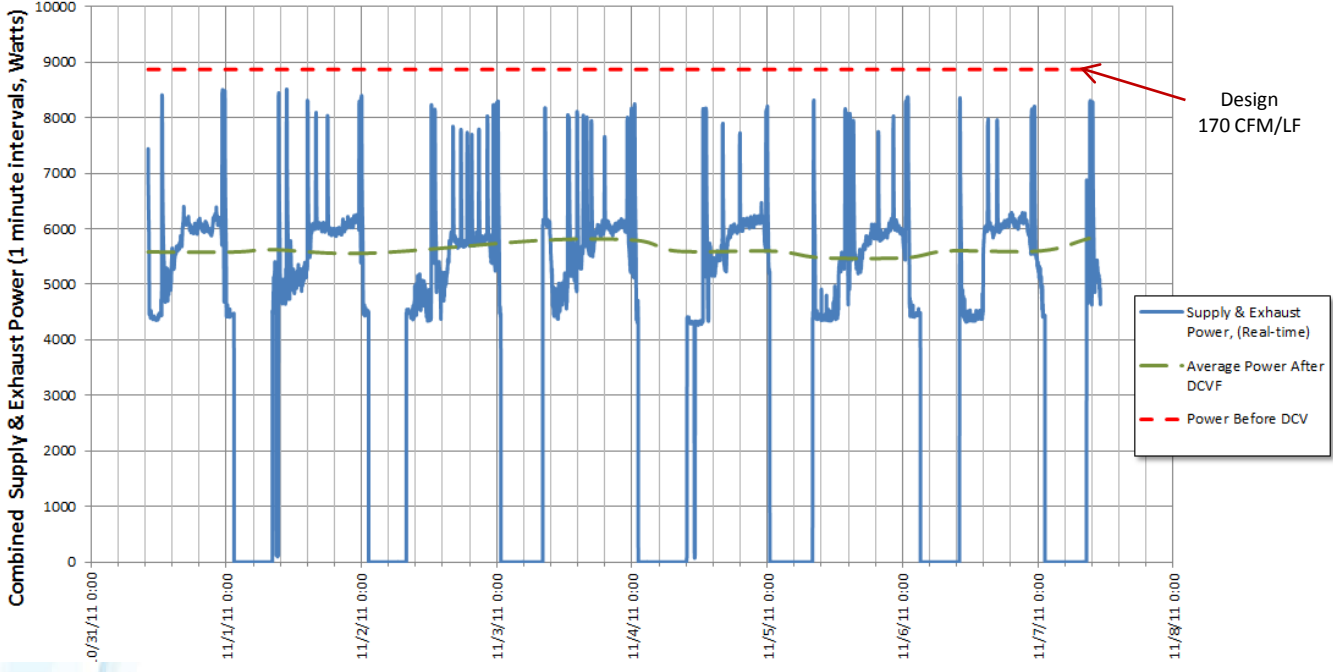


AirVantage: RingSide Restaurant Case Study Data

Study Result Information Data

Ringside Steak House Operations (10/31/2011 - 11-6-2011)

(Combined Exhaust & Supply Fan Power Consumption for 1 Week - ELX Series Hood Running at about 160 CFM/LF)



Source: RingSide Restaurant, Portland OR. Testing period from 10/31/11 to 11/6/11. Heating load savings based on 85,119 kBtu/yr reduction in load at \$1.18/Therm 2011 NW Natural Costing. Submetering used was Dent Instruments, EliteSP Pro. Payback values proportionally increase based on system static pressures, ventilation rates, hours of operation, and utility costs.

Without DCV Control Installed	ELX	
Design Exhaust Ventilation Rate	5,268	CFM
Exhaust & Makeup Fan Power	8.8	kW
Exhaust & Makeup Fan Energy (Day)	145	kWh
With Gaylord AirVantage (DCV-AV-ND) Control Installed		
Average Exhaust Rate Reduction, (%)	14	(%)
Average Energy Consumption Reduction, (%)	38	(%)
Average Supply and Exhaust Fan Load Reduction	3.3	kW
Average Supply and Exhaust Fan Energy Reduction, (kWhr/day)	53.4	kWh/day
Average Estimated Yearly Heating Reduction, (kBtu)	85,119	kBtu/yr

Operational Energy Savings		
Average Estimated Yearly Fan Energy Savings, (\$)	1,967.22	(\$)
Average Yearly Heating Cost Reduction, (\$/yr)	1,009.18	(\$/yr)
Average Total Yearly Savings*	2,976.40	(\$/yr)
Estimated Installed Cost After Energy Rebate and Tax Incentives	5,696.00	(\$)
Years Payback with AirVantage (DCV-AV-ND) System	1.9	Years

***ELX is 155 CFM/LF so savings are nearly double for a standard hood @ 300 CFM/LF!**