

Energy Efficient Kitchen Ventilation Systems



Specializing in balancing your environment while maximizing your resources

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Energy Efficient Commercial Kitchen Ventilation

*Air Solutions & Balancing has been around since 1992

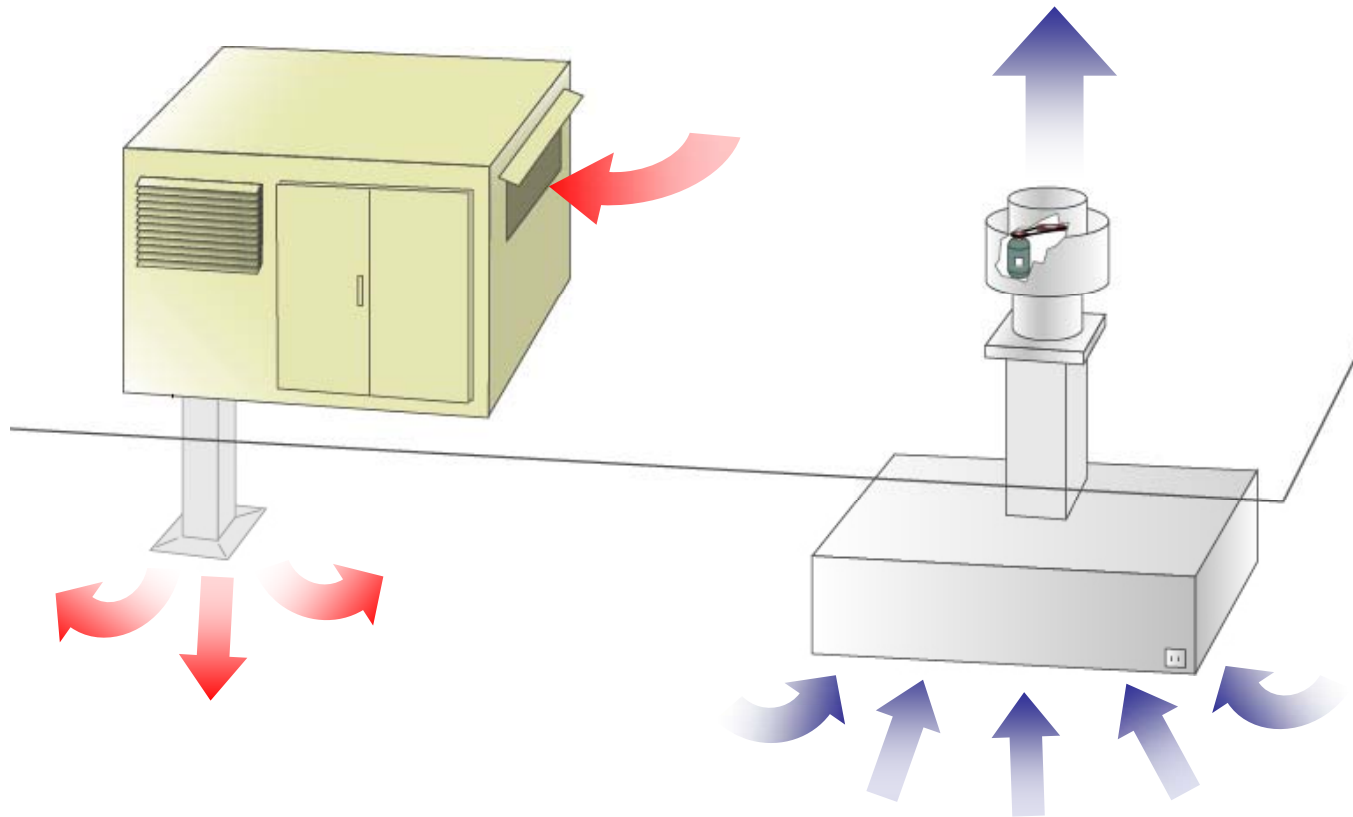
*For almost 20 years, Air Solutions & Balancing has been doing Testing & Balancing Services, Demand Ventilation for Commercial Kitchens, provide Commercial Kitchen Ventilations, and Commissioning

*Melink was founded in 1987 where the developed a program that would lead to the first variable-speed controls on the market: the Intelli-Hood Controls

*Air Solutions & Balancing proudly represents Melink for the installations of the Intell-Hood product

Intelli-Hood

Solves the problem of all-or-nothing ventilation





- The whole reasoning behind this “all-or-nothing” control strategy is *‘you never know when someone is going to demand food, so you better leave the fans running all the time’* = Unfortunately this *Wastes Energy!!*
- Not only is exhaust and make-up air fan energy wasted, but the conditioned air is wasted.
- *Example:* This relates to heating or air-conditioning one’s home with the windows wide open. The furnace or A/C unit would have to run continuously to try and keep the thermostat satisfied and it would also be very uncomfortable.

Intelli-Hood

Intelligent • Automatic • Variable-Speed Controls



Intelli-Hood

The age of the Microprocessor



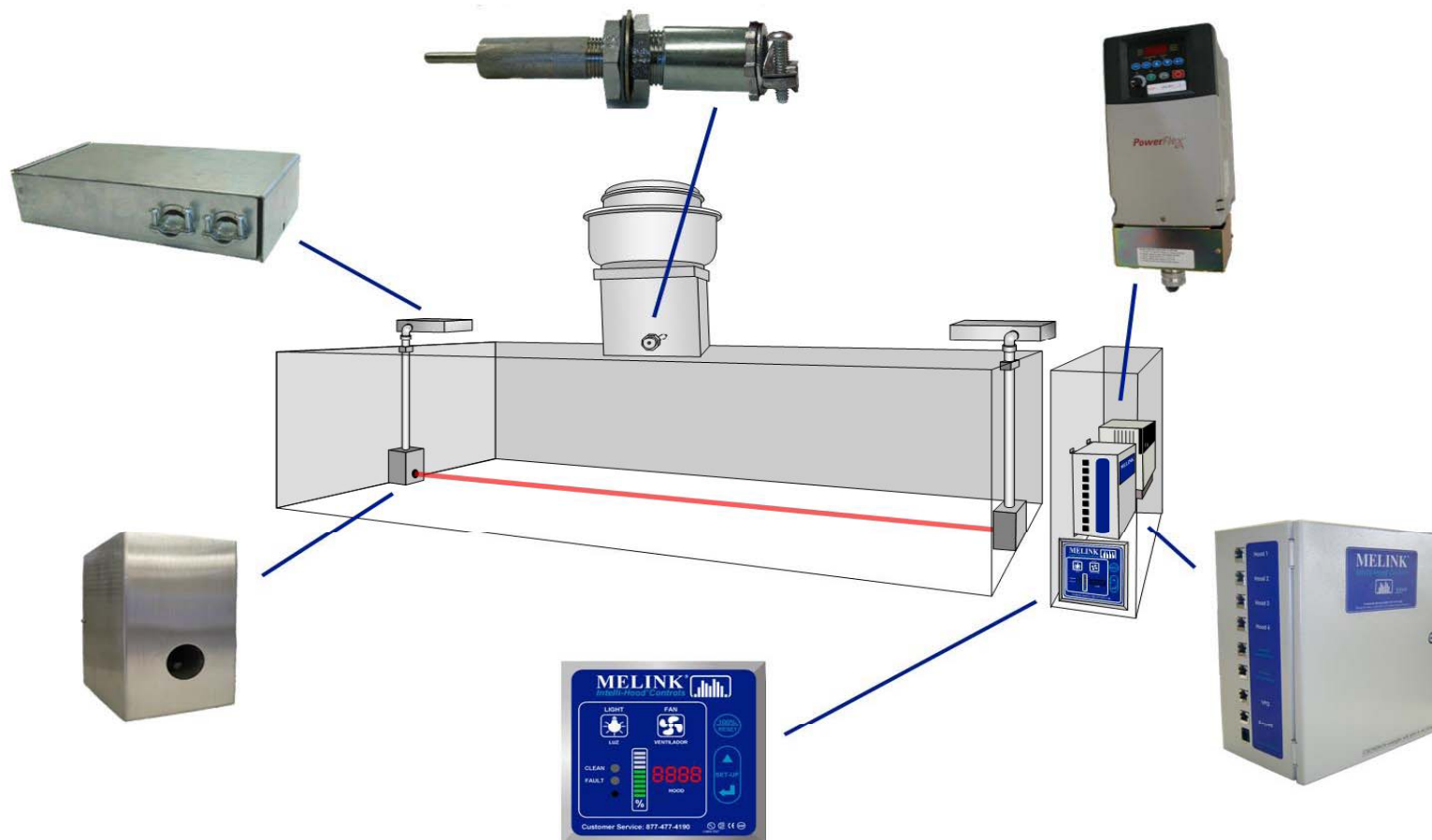


Intelli-Hood® In Action

Follow website below to view the Intelli-Hood in Action:

<http://www.melinkcorp.com/Products-and-Services/Kitchen-Ventilation-Controls/Melink-Intelli-Hood.aspx>

The Intelli-Hood® System



Intelli-Hood® Operation



1. Press Light Switch



2. Press Fan Switch



3. Press 100% Switch
if emergency



Intelli-Hood Energy Savings

New England average savings based on typical code prescribed hood airflow

*10' Hood – 2,500 cfm – 1 ¾ hp

Heating Savings - \$1,439 / YR
Cooling Savings - \$313 / YR
Fan Energy Savings - \$842 / YR
Total Savings = \$2,594 / YR

*20' Hood – 5,000 cfm – 5 hp

Heating Savings - \$2,877 / YR
Cooling Savings - \$626 / YR
Fan Energy Savings - \$2,105 / YR
Total Savings = \$5,608 / YR

*30' Hood – 7,500 cfm – 8 hp

Heating Savings - \$4,316 / YR
Cooling Savings - \$939 / YR
Fan Energy Savings - \$3,368 / YR
Total Savings = \$8,623 / YR

Assumptions based on kitchen being operated for 17 hours per day from 5am-10pm, 365 days/yr.
\$.17 / KWH and \$1.35 / therm natural gas.



Intelli-Hood Case Study

Energy Savings Report:

Company:	Belknap County Nursing Home
Location:	Laconia, NH
Application:	Kitchen Ventilation
Total installation cost:	\$17,495
Total Savings:	\$5,973/ YR
-Fan Energy Savings:	\$2,972/ YR
-Heating Savings:	\$2,445 / YR
-Cooling Savings:	\$556 / YR
Payback Period:	2.9 YEARS
Rate of Return: (5 years)	16.6%
(10 years)	29.4%

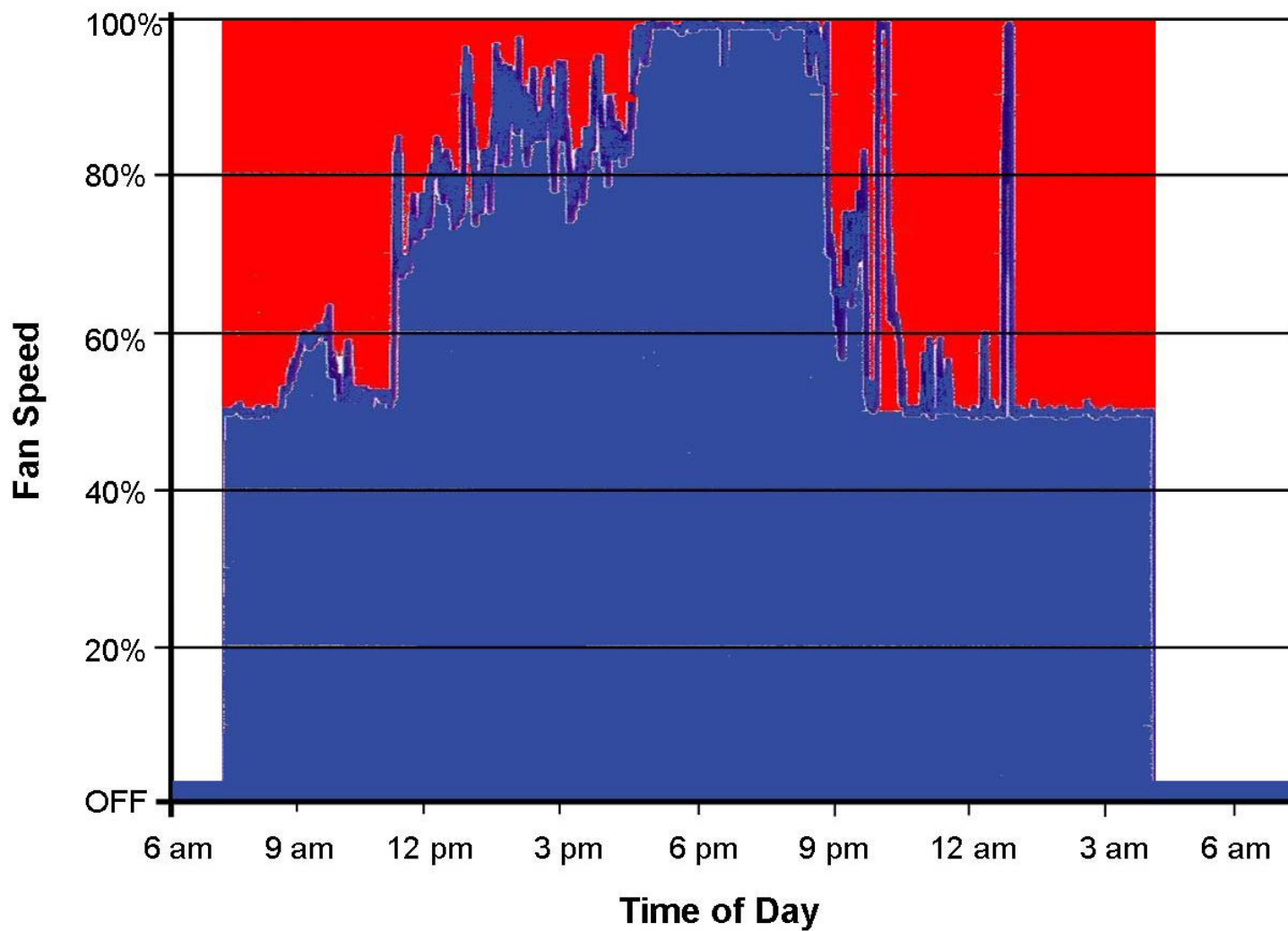


Intelli-Hood Case Study

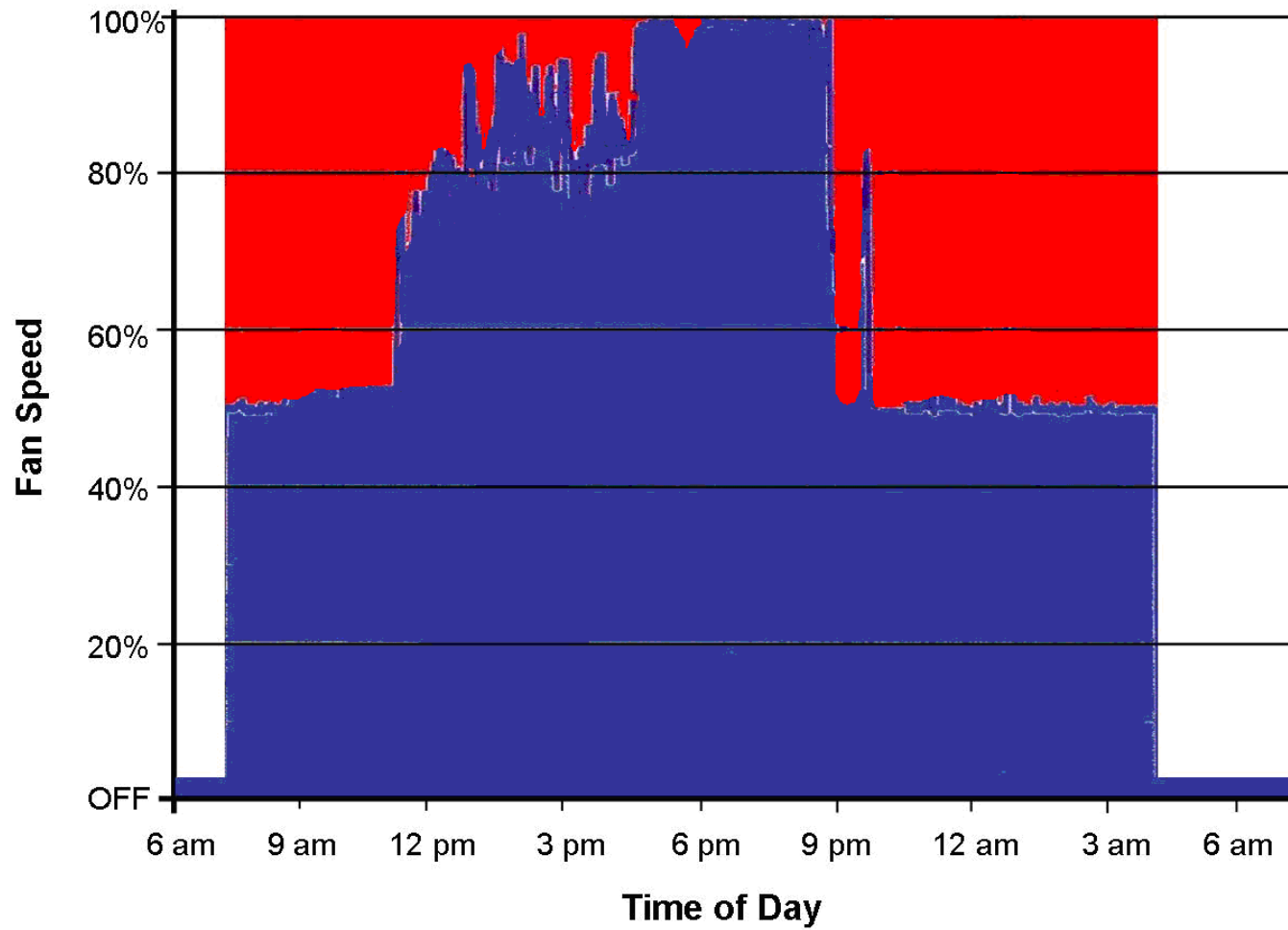
Energy Savings Report:

Company:	Museum of Science
Location:	Boston, MA
Application:	Exhaust Only
Total installation cost:	\$55,578
Total Savings:	\$18,200/ YR
-Fan Energy Savings:	\$8,025/ YR
-Heating Savings:	\$10,097 / YR
-Cooling Savings:	\$78 / YR
Payback Period:	3.1 YEARS
Rate of Return: (5 years)	15.2%
(10 years)	28.2%

Hotel: 1-Day Profile



Gov. Facility: 1-Day Profile



Intelli-Hood Benefits



Energy Efficiency



Kitchen Comfort



Fire Safety

Intelli-Hood Code Compliance

- NFPA 96 – duct air velocity reduced 1500 fpm to 500 fpm.
- UL, CSA, and CE approved.
- IMC – Allows for Engineered or Listed variable-speed systems
- Letters of acceptance from inspectors across the U.S.

Types of Customers



Restaurants



Supermarkets



Resorts



Hotels



Schools



Hospitals



Nursing Homes



Clubs



Air Solutions & Balancing Customers





Additional Customers in Connecticut & Massachusetts

Hospital Facilities / Schools

Windham School District
Worcester North High School
Mass Maritime Academy
Putnam Vocational School
Northshore Community College
Wellesley College
Clark University
Minuteman Regional Hospital
Cooley Dickinson Hospital

Commercial / Gov. Projects

Mass Mutual
Cambridge Discovery Park
General Dynamics
Genzyme 49
Hamden County Jail
175 Wyman Street – Office Building
610 Lincoln Street
CT Department of Corrections

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