

# What Can Ecogate® Do For Your Business?

Ecogate® is the Sustainable Approach to Industrial Ventilation

## Benefits Of The Ecogate® On-Demand System:

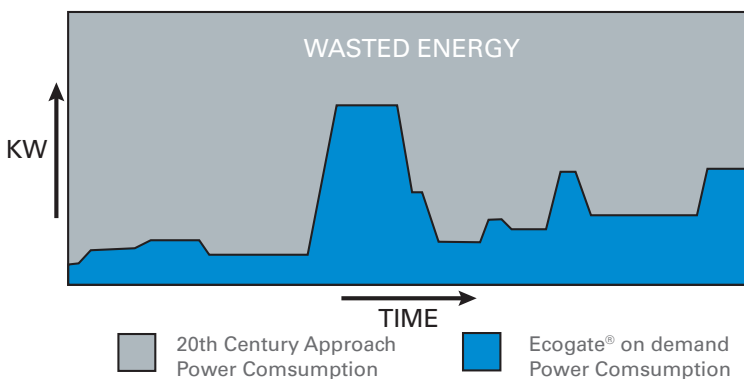
- Achieves highest possible energy savings for dust/fume/trim systems
  - Controls the entire dust collection system including airlock and transfer fan motors to maximise energy savings
  - Makeup air savings from reduced heating/cooling costs may apply
  - Reduces your carbon footprint by using less energy
- Improves ventilation system function and the workplace environment
  - Reduces workplace noise levels
  - Increases filter life by reducing average airflow through the collector
  - Extends system capacity - ventilates only when and where necessary
  - Operates your system at peak efficiency based on your actual workstation utilisation, not peak efficiency at full power
- Simple ROI is 1-3 years in most cases (peak efficiency at full power)

## The Global Leader For Energy Saving Industrial Ventilation Controls

Ecogate® technology is rapidly becoming a global standard for energy efficient industrial ventilation. Our technology is currently saving energy for the following industries and customer groups: wood products, pharmaceuticals, print, welding, ceramics, metals and food processing, manufacturing, education and government sectors. Thousands of small systems and hundreds of industrial systems are installed on three continents.

Our technology is in use today saving energy for Sauder, GlaxoSmithKline, US Navy, RSI Home Products, Universal Forest Products, Bernhardt Furniture, Kohler, North Central Technical College, high schools in Australia, Texas Tech, University of Colorado, Sheridan Books, Schumann Printers, Unilever, Sapeli, Tetley Tea, Oshkosh Door and many others.

Ecogate® provides Duct Design Services to optimise the efficiency of your existing or new system. Below is an example of our work at Baker Furniture in North Carolina – 13 separate systems were consolidated into 6. Energy costs were reduced by a substantial 75%. Additional savings were also achieved by eliminating maintenance of two baghouses and extending filter life of the remaining dust collectors.



Baker Furniture duct design efficiency example

# Ventilation Only When You Need It Automatically

Reduce Energy Costs 50% to 85%

Ecogate® Is Intelligent Ventilation™

## Product Description - greenBOX™ 12/24

The Ecogate® greenBOX™ 12/24 provides On-Demand ventilation for one collection fan and up to 24 workstations.

The greenBOX™ 12/24 automatically starts and stops the main fan as needed. When installed with the Ecogate® Power Master, it will control the entire dust collection system including all fan motors. Ecogate® automatically modulates the speed of the main fan according to workstation demand. This provides the correct amount of airflow to each machine on a real-time basis and produces unmatched energy savings.

The Ecogate® system also maintains required minimum airflow to prevent material from settling in the ducting, while simultaneously achieving the maximum possible energy savings. No other technology can do both as effectively as Ecogate®.

With an optional netbook computer, you can access the system remotely using a secure internet connection for monitoring or maintenance purposes.

If your industrial ventilation system is undersized, the greenBOX™ 12/24 will improve performance without a costly expansion and you will also save energy.



## Product Description - greenBOX Master™

The greenBOX MASTER™ (GBM) provides On-Demand ventilation for up to 4 collection fans and 130 gates simultaneously.

The same unmatched energy savings are achieved as with the greenBOX™ 12/24. Additionally, this Industrial PC-based controller features a colour touch screen, remote access via internet, advanced monitoring of the entire system, and digital communication with our Power MASTER variable speed drive.

The Ecogate Data Mining service is available exclusively for the GBM system and provides a rich set of reports to monitor system performance including workstation utilisation, energy savings, main duct velocity, error reporting and much more.



### GreenBOX Master Advantages:

- Energy savings of 50%-85% depending on application
- Data reports for workstation utilisation
- Secure remote access for remote support, diagnostics and VFD support
- Proof of energy savings
- Balancing by zones
- Simplified maintenance – reduced cost for workstation moves/adds/changes
- One cable link connects all workstations
- Capacity for workstation expansion
- Future software updates and functionality upgrades

# Ecogate® vs. Constant Pressure Systems

With a constant pressure system, the minimum vacuum pressure must be adequate to properly exhaust the farthest workstation in the system. This method wastes energy. With Ecogate®, optimum ventilation is managed dynamically according to actual workstation requirements.

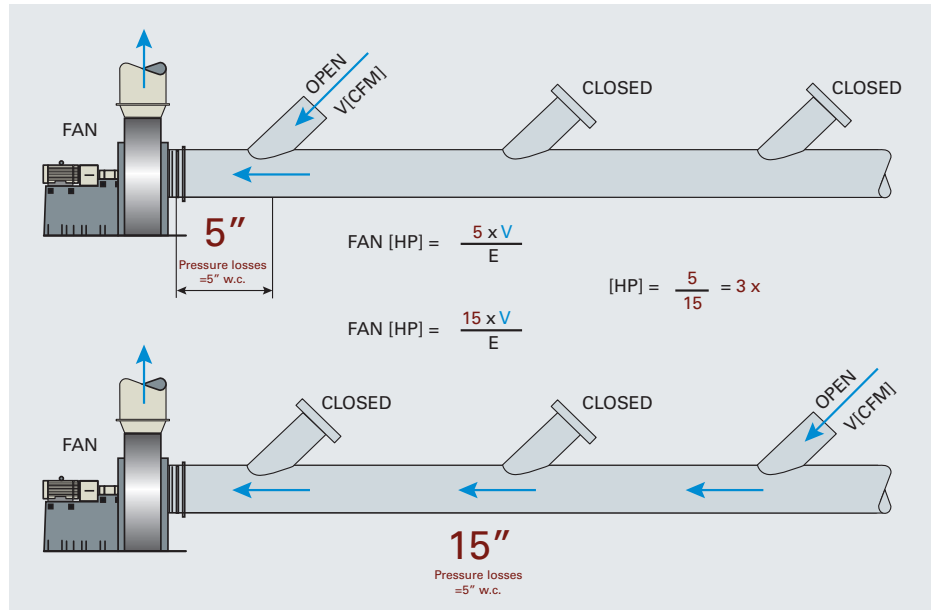
A real world study in an operating factory produced the following data:

Power consumption using Ecogate®: 1,655 kWh/Day

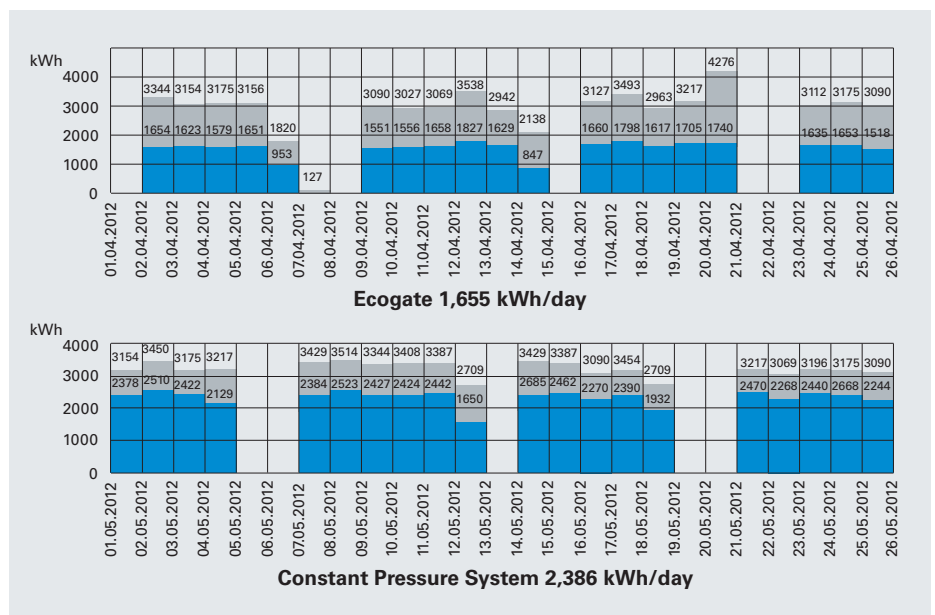
Power consumption using constant pressure: 2,386 kWh/Day

**Ecogate® is 44% more efficient.**

Constant pressure systems are sub-optimal solutions. Ecogate minimises energy waste and maximises savings. Ask your Ecogate representative for details.



How results were obtained: a live production system was operated in May 2012 in constant pressure mode and compared to the previous month when the system was operated in Ecogate® automatic mode. Equipment utilisation was constant during both periods. The grey columns reflect baseline consumption without a control system (i.e. a classic system). The 1,655 kWh and 2,386 kWh are averages calculated from all kWh/day, days with a full shift (i.e. smaller columns that represent partial shifts are not used for the average consumption calculation). The consumption numbers are based on readings from the VFD.





## Leading Technology

- Over 1,000 engineers and scientists worldwide
- Broad range of innovative collectors and filters
- 100s of filter media formulations

## Experience and Service

- Technical expertise and support
- Ready-to-ship filters and parts within 24 hours
- 1,000,000+ dust, fume and mist collectors installed

## Global Support

- Facilities in 37 countries
- 40 manufacturing plants and 14 distribution centers

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**1800 345 837**

[www.donaldsonfilters.com.au](http://www.donaldsonfilters.com.au)



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