



# Building Performance Equipment, Inc.®

Sustainable, Reliable, and Energy Efficient Ventilation Systems



## LOCATION

**Casella Recycling Bin  
Maintenance Facility**

Worcester, MA

*(Left) The Worcester shop where Casella recycles the dumpster 'cans. (Right) The BPE-XE-MIR-2000 with ductwork. Note exhaust filter lower to floor.*

## Challenge

Casella Waste Management is all about “innovative sustainable solutions for waste and material management that support and drive a circular economy.” As such, their Massachusetts refurbishment workshop deals with high numbers of recycling bins (or ‘cans’ as the industry calls them), that need well ... recycling to continue being of use. Facility repairs include repainting the bins and re-welding bin bottoms all day long.

As the company grew, Casella’s welding operations increased to the point the facility ventilation systems needed renovation. Welding produces fine metal particles and fumes that, according to the International Agency for Research on Cancer (IARC), are carcinogenic substances (Group 1). Oil-based paint fumes are not wonderful to breathe either. To meet ASHRAE and OSHA guidelines for ventilation, the company looked to industrial shop ventilation design experts [Ventilation USA](#) to upgrade their HVAC system.

## Solutions

Ventilation USA believes shop workers’ health should be the top concern of company owners. For an HVAC system design that allows Casella employees to breathe the highest quality air, they reached into their arsenal of high-quality HVAC equipment options and employed strategic ductwork and a Building Performance Equipment, Inc. ERV.

The new system sends fumes below the breathing zone via controlled airflow and closer to the floor where an exhaust filter lower on the wall picks up the heavier air fumes. (continued)



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From there, the fouled air is sent through the ERV and expelled through an exhaust vent in the building envelope. Fresh air, on the way into the building is treated to thermal adjustment made possible by the recovered energy from the exhaust air. Despite this recovery, there is virtually no mixing of air as the fresh air is delivered to the space.

Energy recovery, considered its own sort of fuel by BPE, Inc. CEO Klas Haglid, P.E., R.A., CEM, is an excellent vehicle for delivering indoor comfort that doesn't break the bank in bills or lop loads more carbon emissions into the atmosphere.

This project is Ventilation USA's fourth improved Casella facility work environment.

Their Salem, NH shop utilizes the BPE-XE-MIR-1000 ERV (below):



*Outdoor exhaust and intake vents.*



*For more information on HVAC system design for commercial shops and machine rooms, contact Ventilation USA at [info@ventusa.com](mailto:info@ventusa.com).*

*For more information on the most efficient ERVs on the market, contact [info@bpequip.com](mailto:info@bpequip.com).*