



MICRO AIR Dust Collectors on Combustible and Hazardous Dust at Candy Manufacturer in New England

CLEAN AIR SOLUTION REPORT

Application: Dust Generated during the manufacture of candy . Dusts included Sugars and Starches with potentially explosive KST values.

Location: New England Confectionary Company
Revere, MA

Products: Micro Air RP8-5 (40 Cartridge), RP8-2 (16 Cartridge) and 2 ea. RP8 (8 Cartridge) Dust Collectors equipped with Intelli-Touch, Explosion Vents, and explosion suppression equipment.

Challenge: As a major manufacturer of hard candies, NECCO wanted to ensure their manufacturing facility met the new requirement for the OSHA National Combustible Dust Emphasis Program. During their manufacturing process, several combustible dusts were used in the coating process of making the candy. These dusts included sugars and starches. In an effort to remain "green" and cut down on utility costs, the end-user also wanted to minimize it's energy consumption and consumable costs.

Solution: After consulting with the exclusive New England Micro Air distributor, Aquest Corporation, it was determined that the best solution to meet all of the customer's requirements would be several Micro Air RP series dust collectors equipped with explosion venting, explosion suppression systems and Micro Air's exclusive Intelli-touch control panel. The Intelli-touch control panel automatically varies the frequency of the motor/blower on the system to only use as much brake horsepower as is required based on changing loading conditions and not only saves 20-30% of the electricity costs associated with running the system, it makes sure the system is running at ideal "design conditions" 100% of the time, thereby maximizing filter life and compressed air usage. NECCO was able to apply for and be granted a rebate for these devices based on existing energy savings rebate programs with their local electrical utility. Aquest custom designed the systems to minimize the cost impact of the explosion control systems required under the OSHA NEP. In order to keep the dust collectors indoors without expensive ducting requirements to place the unit outdoors, Micro Air supplied the units with top mounted explosion vents that exhausted out of the roof. The close proximity of the vents to the roof allowed the end user to stay within NFPA requirements for vent sizing and installation.

Micro Air Advantage: Using Micro Air's exclusive Roto-Pulse filter cleaning system and REDMAX cartridge filters, the system effectively removes 99.999% of the dust brought into the dust collector and helps the end user maintain low operating costs while meeting the most stringent air quality standards of today and into the future. The Micro Air *Intelli-Touch* control panel further reduces electrical demand by as much as 30% through a variable frequency drive system and automatically controls operating conditions in the dust collector to maintain maximum efficiency through maintaining ideal operating conditions. This also extends filter life by as much as 40-50% over traditional operating systems.



Roof Penetrations for Explos. Vents



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