

# Clean Air Solution Report-RP Series Dust Collectors



**Application: Plastic Grinding  
and Dust**

**Location:  
PolyOne  
Vonore, TN**



Due to worker complaints, outdated ductwork and collection systems, PolyOne, a leading supplier of raw materials for the injection molding industry called upon the local Micro Air distributor, Air Purification Inc. of Raleigh, NC to help alleviate the dust problems associated with mixing, melting and grinding their raw materials into finished goods. One of the keys to solving the customer's problems centered around finding a hood system that would collect the dust from the mixing and grinding stations while providing for easy installation and duct runs to the Micro Air 36 Cartridge collector mounted outdoors. By utilizing custom, slotted backdraft hoods and clamp together ductwork, the workstations were all re-engineered to provide for easier dust pickup within the facility. With the new duct design, it was determined the CFM needed was 18,000 at 12" of static pressure, which correlated to a need for a Micro Air dust collection system that contained 36 filters. Again, space was an issue outside since we were replacing a competitors undersized unit. The new dust collector had to fit in a location that was roughly 7 foot wide by 14' deep. By building a custom collector, Micro Air was able to build upwards rather than outwards with custom intake and exhaust plenums to minimize the overall footprint and stay within the space constraints. Thanks to the efforts of Air Purification and Micro Air, all worker complaints have stopped and there is no longer dust escaping from the dump bins.

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