



# MICRO AIR RP8-12 (96 Cartridge Collector) on a Large Blasting Room

## CLEAN AIR SOLUTION REPORT

**Application:** 40' W x 110' L x 30' H Steel Grit Blasting Booth

**Location:** Louisiana

**Products:** RP8-12 Dust Collector

- 96 Cartridge System
- Custom Abrasive Intakes
- 60,000 CFM Motor/Blower

**Challenge:** Reed Industrial, the exclusive Micro Air distributor in Louisiana, was asked to provide a dust collection system for a very large steel grit blasting room. The challenge was fitting the dust collector into a relatively small footprint allocated by the end user, while maintaining even airflow through a common fan. As with any blasting application, Reed Industrial was worried about long term abrasion of the dust collector and asked Micro Air to collaborate on some customized abrasion resistant intake plenums.



RP8-12 Dust Collector

**Solution:** The concept Reed Industrial came up with was a heavy duty tee fitting flowing into a customized V-shaped intake plenum. The "V" was designed out of heavy gauge steel to ensure years of wear and tear from the grit as it is collected into the collector. This also served as a drop out area into each dust collector intake as well as a flow equalizer, insuring maximum filter life by not overloading any one section of the dust collector.



Custom "V" Style Inlet

Once those challenges were met, it was a simple calculation of airflow required to maintain a 50 foot per minute cross-flow inside the booth and the appropriate air to filter cloth ratio. At 50 feet per minute, the airflow requirement was 60,000 CFM and the number of cartridges needed was determined to be 96. In order to fit the collector into the allocated space,

the unit was designed to be split in half and run back-to-back with ductwork running down the center for the intake and exhaust airflow to the remote blower. Specialized dropout tees were used to provide an area of drop out of grit to use as a primary abrasive inlet, utilizing the grit itself to absorb the high speed impact of the blasting media.

**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.

Tight Intake/Exhaust Ducting with Drop-Out Tees, Connected to a 60,000 CFM Blower



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