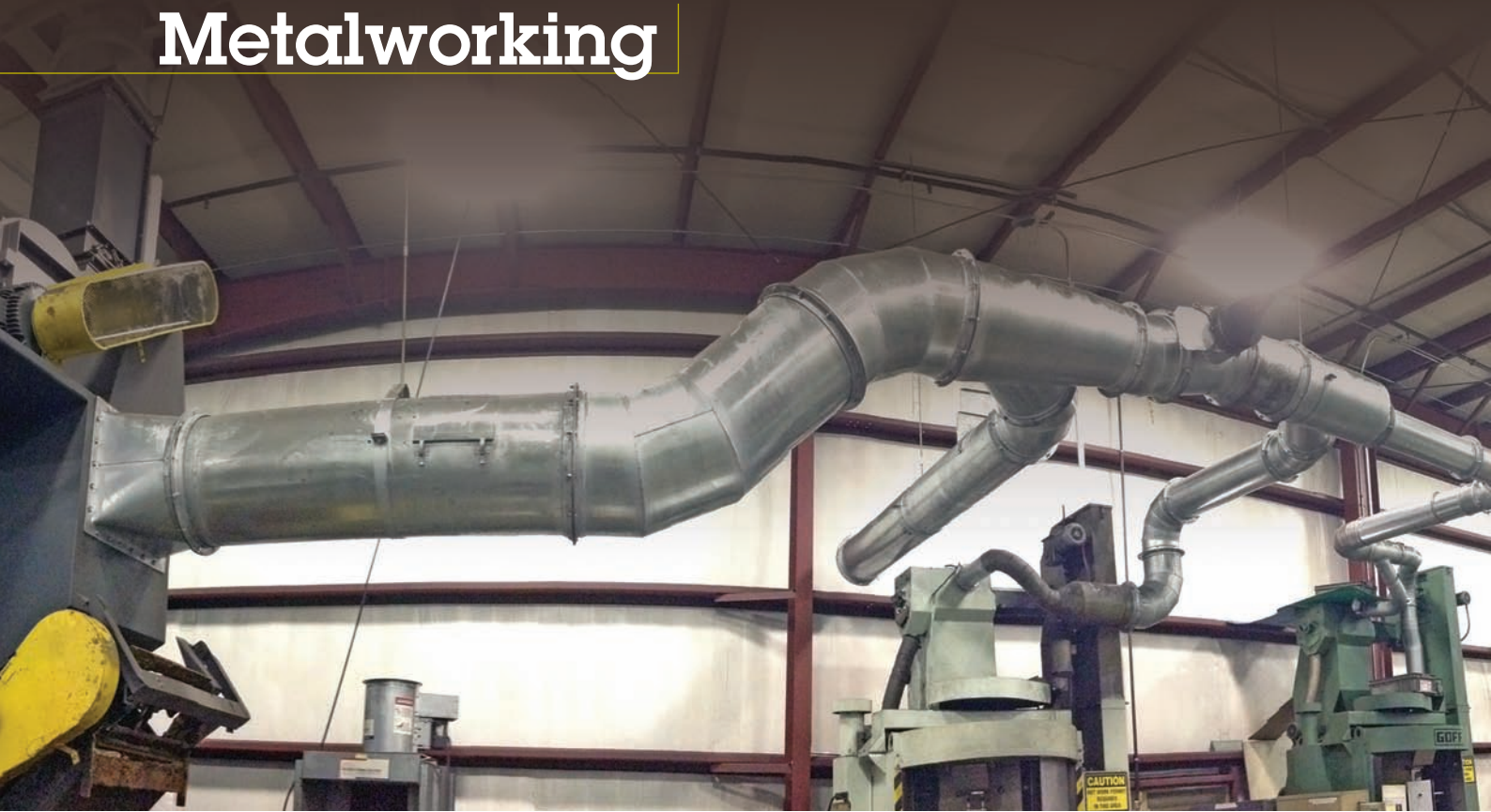


# Metalworking



## Case Study

**Project Location/ Customer** Ohio

**Sector** Metalworking

**Equipment Description** Size 12 NRC Arr C & Control Center

This case concerns the steel shot used on aluminum castings for car parts. The installation was used to remove the excess blasting material from the machine.

Customer chose the NRC for numerous reasons:

- Light Metals being collected
- NRC reduces explosion hazard
- NRC could be placed next to machine-reducing ducting
- Sludge Ejector provides easy waste removal

AAF proposed a size 12 RotoClone N, Arrangement C. The unit was sized based on amount of air from the 3 original machines. Customer then went to two machines and the drive had to be adjusted, as well as the addition of make-up air to maintain carrying velocity in the ducting with less airflow. The system under went numerous air balancing trials until the correct amount of dust was being removed. When the unit was changed from three to two machines, the airflow was still too large and picking up more than just the excess blasting material. After on-site inspection by AAF and final air balancing, it was determined that constant sludge removal would solve the problem. Customer set the controls for the sludge ejector to constantly run even when the fan is off. Customer has a small dumpster under the sludge ejector where the excess sludge is collected. Working now, the customer only has to switch dumpsters every 3 months.

Customer chose Model A controls as they were not interested in constant water overflow, but also chose the low water safety option as this is an explosive dust. Customer also chose the corrosion package as light metals may cause corrosion. This package includes Stainless Steel impellers and mist eliminators and the coal tar epoxy interior. The customer had a silencer mounted in their exhaust ductwork since the unit was inside. The air was exhausted out of the roof to the atmosphere. Operation is intermittent as the workers must be present to manually feed castings into the machine. A control package was also included with the unit.

**Outcome:** Customer was extremely happy with the unit and the solution that it provided. Customer is able to turn unit on/off when the blasting machine is on/off, it collects only nuisance dust, sludge removal quarterly, and yearly maintenance provides an easy solution for their dust problem.

For more information, contact our sales team

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