

## Signicast Inc.

### **Trion Air Boss<sup>®</sup> Media Systems Keep Machine Shop Clean.**



#### **Splash, Mist, And Dust.**

Six Trion Air Boss<sup>®</sup> MP 1500M media air cleaners have been cleaning up the air, and everything it touches, in the machine shop at Signicast in Milwaukee, Wisconsin since 1994. Signicast is a foundry doing investment casting that handles full-service production complete to print. This means they keep the 6,800-square-foot machining cell very busy with secondary functions of drilling, cutting, deburring and other finishing tasks each requiring a constant stream of water-soluble coolant.

With six CNC machines going full tilt in a relatively small area, two problems were being created: mist from the water-soluble coolants and smoke and dust from the deburring processes.

"Even though the machining cell is air conditioned separately from the foundry, there was a noticeable mist that fell on surfaces and remained airborne," says Signicast engineer Gil Kowalczyk. The oil mist was a nuisance for machinists and attracted damaging dust and dirt to sensitive CNC machinery.



#### **Trion Provides Logical Choice.**

"We were familiar with Trion from their work in our other plants," says Kowalczyk. "And we liked the simplicity of the Air Boss<sup>®</sup> media air cleaning system with its easy maintenance features."

With the six air cleaners mounted above, each machine has its own duct work for source capture and its own cleaner. About 66 percent of the total air flow is dedicated to the machine tool and the remainder draws dust from the deburring stations.

Trion's distributor, Hastings Air Energy Control, of Milwaukee, helped Signicast develop a solution to fit the shop's requirements. With the water-soluble coolant being used, a media system was a viable solution, according to Hastings. The Air Boss<sup>®</sup> MP 1500M is relatively quiet, easy to maintain, has a long filter life and requires little attention once it's installed, and that's always a consideration in a busy shop.



# TRION<sup>®</sup>

## A Custom Solution.

"The installation went smoothly," says Kowalczyk. "Each cleaner was ducted to our CFM requirements and connected to each machine without having to rearrange positions of equipment or make any major retrofitting adjustments, and it was all done with the existing electrical system due to the units low horsepower."

No major retrofitting.  
All done with existing  
electrical system.

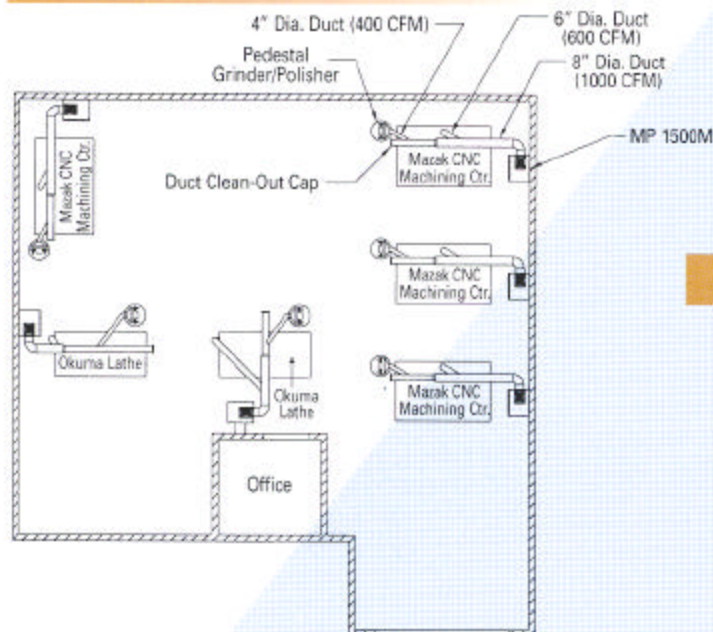


## A More User-friendly Shop.

The shop has seen very noticeable improvement in air quality. The oily film that used to be accepted in a machine shop is completely gone. Environmental testing quantifies the results with workers wearing special air quality monitors during their shifts.

"The entire shop is very happy with the system," claims Kowalczyk. "They used to complain about that rush of mist you get opening the doors of the machines, but that's gone now."

### Signicast Machining Area



#### Technical Data

Contaminant: Water Soluable Machining Coolant, Cast Iron Dust  
Trion Equipment: (6) MP1500M With Impinger & 95% Bag Filter  
Entrainment: Source Capture, Solid Galvanized Duct  
Exhaust Air Volume: 1,000 CFM / MP1500M

Each unit is fitted with a magnehelic pressure gauge to alert staff when air cleaners need to be cleaned. Kowalczyk estimates the filters need changing about every six months.

The system is practically  
maintenance free.

## For Health, Safety and Productivity.

Signicast considers the investment in air cleaning an investment in productivity because of the "friendlier" environment. Providing a cleaner shop makes a difference in employee pride, and it demonstrates Signicast's commitment to health and safety. Trion's Air Boss® MP 1500M units provide a powerful, easy-to-maintain system that doesn't interfere with Signicast's production process.

Through its dedicated distributor network, Trion maintains a partnering relationship with Signicast and other forward-thinking plants to assure continuing quality in the air cleaning process.

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Years of Indoor Air Quality

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