

# CASE STUDY

WELD FUMES



Waconia Manufacturing Inc. has built agricultural equipment since 1959.

## SO NEW, SO CLEAN: GOLD SERIES® KEEPS MANUFACTURER CLEAR OF DUST, FUMES

### PRODUCT

<b>Product</b>	Gold Series® Dust Collector
<b>Model</b>	GS40
<b>Air Flow</b>	50,000 cfm
<b>Application</b>	Weld Fumes
<b>Customer</b>	Waconia Manufacturing Inc.
<b>Install Date</b>	November 13, 2013

### CHALLENGE

"We're a dry fertilizer blending and handling equipment manufacturer," Brian Mumford, Operations Manager at Waconia Manufacturing, said. With enthusiasm, Mumford explained Waconia's metal manufacturing business that began in 1959.

"Since 2008, we've been an employee owned company," Mumford said. "We are able to service the fertilizer market's needs"

Waconia's fertilizer blend tower is their signature equipment produced. Their mission: to provide a premium quality product to the fertilizer industry supported with effective marketing strategy, technical training and unparalleled service to their distributors and customers.

"What we do in terms of the process contains a lot of different stages. This reflects the equipment we use. We have storage of raw materials. We do a lot of sawing and shearing, plasma cutting, punching and drilling. We have rollers and press breaks, a paint booth where we do our own painting. And we have welders," Mumford said.

In the spring of 2014, Waconia opened a brand new facility and began researching to find the best dust collector to keep the new facility clean.



The Gold Series dust collector at newest Waconia Manufacturing Inc. factory ensures a clean work environment.



The factory's air is so clean that reflection of lights overhead can be seen in the floor!

## CHALLENGE (CONTINUED)

A Camfil APC representative assisted Waconia from the beginning in order to find the best solution. Because of the welding smoke, the Camfil representative did not want the collection points lower than the return points in order to avoid downdraft situations and the possibility of recirculating contaminated air.

“We were up against an un-ducted, standalone vortex type of unit,” stated the representative.

## SOLUTION

The Camfil representative and Waconia decided to install a centrally located, ducted Gold Series for this project.

“The facility is brand new,” Mumford said. “We had the luxury of figuring out which system would work best for the facility we were constructing. Our Camfil representative was involved in getting us a unit that would best serve our facility.”

Because the facility was new, Waconia chose to install a unit before there was any dust produced.

“We hadn’t had time to have any issues [with dust] yet. And we haven’t had to change out any filters yet. The filters have been running since we opened. The unit was installed prior to the facility functioning and started operating in April of 2014,” Mumford said. “Based on our meter readings, we will get around two and a half or three years out of our filters.”

Camfil and Waconia chose to add abrasion resistant inlets to the Gold Series because the ductwork was coming from the ceiling level and dropping into the collector. Also, dual smaller fans were used because of the small space.

Waconia has two production facilities. The first one was opened when the company was founded in 1959.

“What we’ve noticed is that the air in the new facility is clean and not hazy like in an older shop or a shop with bad air flow. Our high beams in the facility are painted white and they still look like they were painted a few days ago,” Mumford said. “We have been really impressed with how the Gold Series has maintained the look of the building.”

The employees and management are not the only ones who appreciate the clean air at Waconia Manufacturing.

“We had a paint company showcasing our paint booth and they were so impressed with how the building was set up and operating and how clean everything has been because of the air exchange system and maintaining a good work environment,” Mumford said. “It will be interesting to see the difference between our old shop and new shop when we do particulate testing in the future.”



Vented ductwork runs through the entire factory to ensure the circulation of clean air.



With the Gold Series dust collector, the facility stays clean and clear of dust and fumes.