



SECTOR: Metalworking

CLIENT: AMG

LOCATION: Poland

DATE: December 2022

CONTAINMENT OF WELDING DUST AT CONTAINER FACTORY

A MORE EFFECTIVE SYSTEM OFFERING A HIGHER FILTRATION RATE AND MORE SUSTAINABILITY

THE SITUATION

To increase their capacity to handle a growing production demand in Poland, AMG moved their waste container manufacturing to a new facility. They soon discovered that the air quality in the new facility did not meet local regulations or the Permissible Exposure Limit (PEL) for operators regarding exposure to dust, fumes and gases. They also required dust collectors with better performance.

AMG performs welding on large-scale applications where it is not possible to capture emissions by using extraction hoods or arms.

The welding dust in AMG's operations is fine and flammable with high loads – in some areas of the facility it was above 10 milligram per cubic meter air. The dust also contains anti-splatter fluid.

THE SOLUTION

To present an optimal solution, Camfil carried out a thorough examination of the conditions in the new facility.

This included measuring emission levels to locate the most affected areas in the production. A dust analysis was performed in Camfil's laboratory to make sure the right filter media was recommended and that the correct filtration rate of the system was calculated.

The proposed Camfil solution was a Gold Series X-Flo dust collection system with five identical GSX16 dust collectors, installed separately outdoors for simplified service and maintenance.

Additional requirements were that Camfil would be able to install the new dust collectors in just eight hours, during the night shift. Moreover, AMG wanted to be able to control their five separate dust collectors from one control cabinet.



THE RESULT

Thanks to Camfil's Gold Series X-Flo solution, AMG now has a much more effective dust and fume extraction system.

“The system is also more sustainable thanks to reduced energy consumption and longer filter lifetime.”

BENEFITS TO CUSTOMER:

Around 70% of the cleaned air is recirculated and used as additional heating for the production, which leads to significant energy and cost savings

The control unit allows one to adjust the air volume and fan units to the different requirements of each shift which reduces the overall energy consumption of the system at around 30%

Improved indoor air quality and clean production facility to meet occupational health and safety requirements

Long filter life of the Gold Cone X-Flo filter cartridges leads to high plant availability

