

**CASE STUDY**

**A CLEAN AND PLEASANT  
WORKSHOP**



**THE CHALLENGE**

In 2005, they decided to reorganize the workshop to improve the efficiency. Knowing that welding fume from stainless steel is even more unhealthy than from unalloyed steel, they were aware of the necessity of a high-quality welding fume extraction system. Besides of course proper extraction and filtration capacity, important requirements of the installation were a low noise level, easy operation and low maintenance.

Moba is the largest manufacturer of egg grading and egg packing machines in the world. Moba has an excellent reputation to live up to when it comes to inventive solutions for making egg grading and packing faster and more efficient. Moba, which is a production company, is part of FPS Egg Handling Systems (EHS). The head office of FPS-EHS, like that of Moba, is situated in Barneveld.



**TESTIMONIAL**

By the connected welding cable sensors the system starts and stops fully automatically. After an instruction why and how to use the system, the welders are fully aware of the necessity to protect themselves against welding fume. Despite the fact that the filter and fan unit are located in the middle of the workshop, the noise level is extremely low and does not bother the employees at all.

A clean workshop not only creates pleasant working conditions, but gives a very positive impression to visiting customers as well.

» *No welding without extraction.* «

QUOTE BY Bert Ploeg & Dick Amoraal; welders

## THE SOLUTION

During the reorganization they concentrated the welding activities to fixed workplaces and equipped each workplace with an extraction arm type UltraFlex. The patented BalanceWheel balance system makes them very flexible, easy to handle and almost maintenance-free. The extraction arms are connected via a duct to a central filter unit type SCS with a filter cartridge of 150 m<sup>2</sup>. The air is extracted by a powerful fan placed in line after the SCS.

The maximum extraction capacity of the system is 8000 m<sup>3</sup>/h. To realize an air volume of 1000 m<sup>3</sup>/h at the hood of each of the 11 extraction arms, every workplace is provided with a welding cable sensor (WCS) to be connected to the mass cable of the welding machine. When the welding starts, the WCS detects a change in current of the welding machine and gives a signal to 1) an automatic damper to open, 2) the central fan to start running or to increase velocity. In this so-called Fully Controlled One Fan System the central fan is only running when actual welding takes place, while the fan speed is adapted to the number or arms in use.

For incidental welding jobs outside the designated welding area they have a mobile filter unit type MFD available. This unit contains a disposable filter cartridge of 50 m<sup>2</sup>.



## MAIN BENEFITS

- Because the SCS unit contains an automatic filter cleaning device, it is a very low-maintenance system. This also goes for the extraction arm's BalanceWheel system.
- The working lights mounted in the hood of the arms provide a clear view to the workpiece.



## SYSTEM FACTS

### Year of installation

- 2005

### Options

- WCS, Welding Cable Sensor

### Type of installation

- Multiple arm system
- Mobile fume extractor

### Number of workstations

- 12

### Filtration

- SCS, Stationary Central Self-cleaning + MFD, Mobile unit with Filter Disposable.

### Fan

- FAN-120

NL-02

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