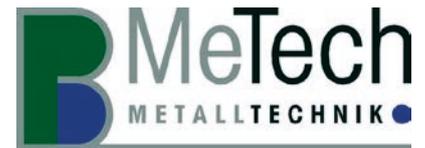


CASE STUDY

**FULLY CONTROLLED MULTIPLE
ARM SYSTEM REMOVES WELDING
FUMES EFFECTIVELY**



THE CHALLENGE

PB MeTech GmbH, situated in Germany, manufactures (among others) products for ambulances, such as seats and stretcher tables. They were looking for a high-quality extraction system, a system that could capture and remove welding fumes and floating pieces of metal effectively from their manufacturing facility. PB MeTech needed to meet the legal regulations and wanted to create a safe and healthy working environment for its employees. Besides a safe working environment, PB MeTech was also looking for an energy efficient solution (saving energy, thus costs).

The manufacturing facility of PB MeTech has ten welding workshops (cabins) and two grinding workplaces. As the welding workplaces are fixed locations, Plymovent opted for a fully controlled multiple arm system.

PB MeTech GmbH founded in 1999 in Lorch (Germany) manufactured merely in the production field of metal engineering. In 2002 they took over part of the ambulance products from BINZ and continued independently. In the meantime, PB MeTech has strongly expanded their business activities worldwide. Due to this strong expansion it was necessary to move facilities in 2006.



» Plymovent's products work perfectly, take little floor space, save energy, thus saving us a lot of operational costs. «

QUOTE BY Mr Pflüger of PB MeTech GmbH.

PB MeTech moved into a newly-built modern factory and office plant of 3,500 m². They develop, produce and install components for patient's transport such as taxi transport and ambulances.

TESTIMONIAL

"We are very happy with the multiple arm system of Plymovent. Not only does it extract the welding fumes effectively, it also saves us a lot of costs. The fully controlled system makes sure that extraction only takes place at that workshop where people are actually welding. So no energy is wasted! Besides, we use heat recovery which is our primary heat source now. Saving us operational costs as well. Overall, an excellent solution!"

THE SOLUTION

Source extraction is always the most effective method to remove welding fumes. Therefore Plymovent installed a multiple arm system at PB MeTech. In this case the *fully controlled* multiple arm system includes ten extraction arms and one central filter system.

They selected the FlexMax, a flexible extraction arm that covers large working areas as it reaches up to 8.5 m. Various lengths were installed for optimal working flexibility in the workshops.

To save energy, the *fully controlled* system was chosen. This system ensures -via sensors- that extraction only takes place when people are actually welding. This is a cost efficient solution as less power is being used. The entire system is connected to one central filter unit, the MultiDust® Bank. The MDB-10 is placed outside, on the roof of the manufacturing facility. A very practical solution which also lowers the noise level inside.

Besides welding, PB MeTech has two grinding workplaces. Those workplaces were provided with downdraft tables. The DraftMax of Plymovent is a workbench and extraction system in one. One of its benefits is that the DraftMax unit uses little work/floor space. Thus: an efficient solution.



MAIN BENEFITS

- Heat recovery (= primary heat source).
- Efficient filtration of welding fumes and grit.
- Maintenance-friendly as the filter cartridges have a self-cleaning mechanism.
- Flexible, the inlet and outlet of the central filtration unit (MDB) can be placed in various positions.
- Modular design of MultiDust® Bank makes expanding the system in the future easy.
- Roof-mounted central filter unit saves valuable floor space.
- Overall: low operational costs.

SYSTEM FACTS

Products

Fully controlled multiple arm system (for welding)

- 10 x FlexMax (extraction arm)
- 1 x central filter unit MultiDust® Bank (10,000 m³/h)
- Sensors and dampers
- Pressure transmitter
- VFD (adjustable-frequency drive)

Downdraft table (for grinding)

- 2 x DraftMax Ultra (plug & play unit)

Year of installation

- 2008

Applications

- Welding
- Grinding

www.pbmetech-gmbh.de

DE-09



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