

PLYMVENT®

clean air at work



CASE STUDY

AIR QUALITY IN THE WELDING SHOP



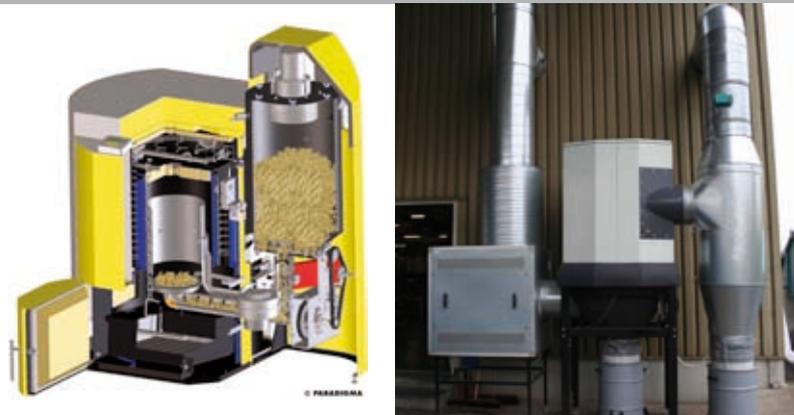
THE CHALLENGE

At the beginning, the welding fumes of the production facility were extracted by two fans. Soon this kind of extraction was not sufficient enough anymore, resulting in considerable fume and dust nuisance.

As the production expanded several welding robots and 11 manual welding workplaces were installed. It was then that the company management decided to purchase five welding fume extraction installations as central systems.

RNO processes about 16 tons of welding wire per year. The employees partly work in three shifts.

The company RNO Kesselfabrik, located at Dettenhausen (Germany), is a manufacturer of highly efficient heating boilers for central heating systems. Wood pellets, being the fuel for these boilers, are CO₂-neutral and consequently contribute to an environmental-friendly way of heating.



» *Our employees enjoy the improved air quality in the welding shop.* «

QUOTE BY Mister Franz Olbrich, Manager.

Alfred T. Ritter, the principal shareholder, is likewise well known for his chocolate factory 'Ritter Sport' and by his many and various environmentally relevant commitments.

TESTIMONIAL

"Annual medical examinations have proved that the life quality of the employees has improved considerably due to the application of the welding fume extraction systems."

Frank Zickermann (Assistant Head of Department)

www.rnokesselfabrik.de

THE SOLUTION

Five central systems consisting of filter systems type SCS with pre separator and fans type SIF-I500 (11 kW) were mounted. The welding fumes generated by the welding robots are captured by means of extraction hoods with baffles and side strips.

At the manual welding workplaces the welding fume is captured by extraction arms type UltraFlex-4/LC (length 4 m). These extraction arms were designed for low ceilings. Due to the mounted crane systems the application of traditional extraction arms was not possible.

A central duct connects the extraction points to the filter systems. To minimise the heating costs each installation is equipped with a summer/winter switch with air recycling duct (summer - exhaust to atmosphere, winter - recirculation).



MAIN BENEFITS

- In order to guarantee the airflow the filter surfaces (150 m²) are cleaned by a automatic filter cleaning system during pauses, change of shifts and in the weekend. With this method compressed air shots are released in the interior of the filters which blow off the dust. The blown off dust falls into a dust container and is easy to remove. Due to the continuous cleaning a constant extraction capacity is guaranteed.



SYSTEM FACTS

Year of installation

- 2004-2007

Options

- Summer/winter switch

Type of installation

- Extraction arms + robots on central filter systems

Number of workstations

- 11 workplaces for manual welding + 9 welding robots

Filtration

- 5 x SCS self-cleaning filter systems

Fans

- 5x SIF-I500

DE-02

PLYMOVENT[®]
clean air at work

Plymovent cares about the air you breathe. We offer products, systems and services which ensure clean air at work, anywhere in the world. We respect the environment and we deliver high-quality products. Our expertise gained over many years and our genuine commitment to customer requirements enable us to provide precisely the solutions you need.