

Capturing and filtering emissions in welding applications



Capturing emissions from welding robots using exhaust fume hoods

The task

Welding produces welding fumes which using even the most advanced production technologies are impossible to prevent. Capturing, removing and extracting these fumes are often required for technical, product-specific, environmental and

legal reasons. The handling of welding fumes is often made even more problematic by the fact that they can represent a health hazard, be toxic or even carcinogenic.

The solution

Keller Lufttechnik has many years of experience and extensive know-how in capturing and filtering of welding emissions in all industrial fields. Our technology has been proven under the most diverse conditions. The modular

design of our filtration systems and their components lets us offer you the best possible solution for your specific needs.

Your advantages

- Individual consultation using our wide range of experience
- Efficient removal and extraction of super-fine welding emissions
- Protection of workers in the workplace
- High-efficiency filter technologies custom-tailored to specific requirements
- Low residual dust content allows clean-air recirculation
- Continuous cleaning with compressed air ensures constant airflow rate



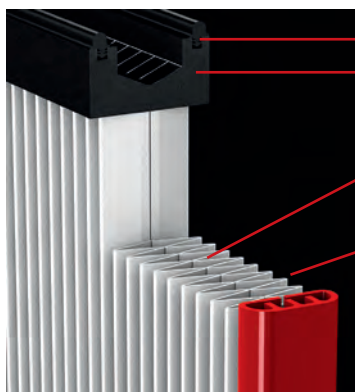
Dry separator VARIO



VARIO filter system

**KLR filter elements:
powerful and
energy-efficient**

KLR filter elements have been proven efficient and effective for a variety of applications. They ensure very compact filter constructions due to their large filtration surface. High separation efficiencies are achieved at a very small pressure loss. Since each fold is agglutinated separately, the filter elements dispose of a very robust self-supporting construction which does not require a support body. The large amount of various filter qualities allow an optimal adjustment to the corresponding range of application.



- Head gasket
- Solid head construction
- High rigidity created by pleating the filter material that forms separate filter chambers
- Trouble-free flow of recirculated air due to high separation efficiency



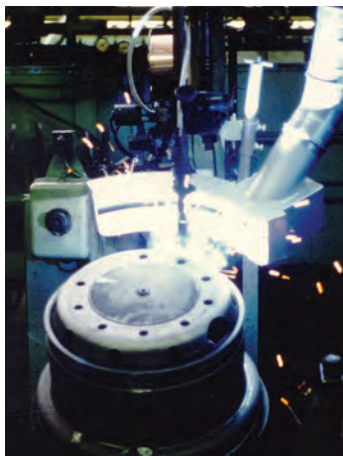
Advantages

- Long service life → up to 20,000 operating hours (max. 3 years)
- 2-3 fold filter surface compared to filter bags → ensures compact filter construction
- Low filter resistance → low energy consumption
- High separation efficiency
- Self-supporting construction → no support bodies required
- Installation possible on the dirty and clean air side
- Easy and quick assembly and disassembly
- Easily cleaned
- Various filter qualities available
- Temperature resistant up to 160°F, as an option up to 230°F



Option: Cartridge filter elements

Implemented systems



Backstop capturing in wheel manufacturing



Capturing welding emissions from welding robots in seat component manufacturing

Suitable collection saves energy

The manner of capturing the welding fumes depends on the production process in use. Ideally the welding fumes should be captured at the point of origin to achieve optimal results. Our correctly designed and

dimensioned capturing devices minimize the amount of air that needs to be treated, thus minimizing your investment and operating costs.



Capturing with suction arm

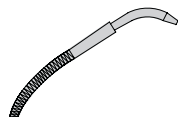


Capturing with suction arm

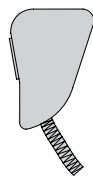


Capturing with exhaust fume hood

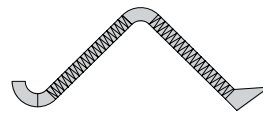
Capturing elements



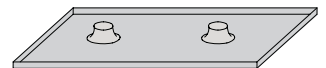
Suction pistol



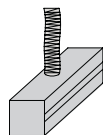
Welding mask with suction line



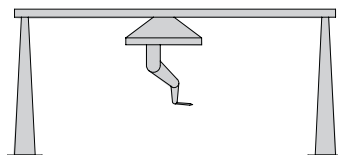
Suction arm



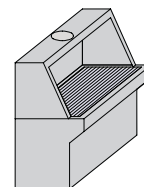
Exhaust fume hood



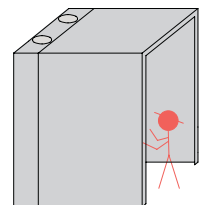
Single backstop



Capturing welding fumes from welding robots



Workbench



Work cabins

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Examples of implemented systems



Central filter system ...



... welding truck bodies



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