EXTRACTION AND SEPARATION FOR THE THERMAL SPRAYING PROCESS

THE TASK

To efficiently collect the overspray in thermal spraying processes, it is necessary to install an adequate extraction system. The extraction ensures a uniform quality of the required material characteristics of your components. Hazardous substances in different concentrations are created and must be treated based on their chemical composition, temperature and velocity. Consideration must be given to the production processes specific to the product, affecting the manner of collection, separation and extraction, as well as protective measures affecting personnel with respect to environmental quality. Managing air quality can often be very complex because of the presence of extremely fine, explosive, harmful or toxic dust.

THE SOLUTION

Keller Lufttechnik relies on many years of experience and skill in extraction and separation during thermal spraying processes. Our technology has proven itself in a variety of projects. The modular design of our filtration systems and their components enable us to recommend the best solutions for your requirements.

THE KELLER ADVANTAGE

| High efficiency | Consistent air flow |
| Compact design | System solutions |
| Reliable references. |

What that means for you: fully engineered systems utilizing the latest process technologies.

ADVANTAGE . HIGH AVAILABILITY

Extremely long service life when using our KLR-Filter® technology. Keller warranties up to 15,000 operating hours and high availability ensuring economical operation.

What that means for you: fewer spare parts and lower disposal costs, as well as reduced production downtimes and maintenance.

ADVANTAGE . CONSTANT AIR FLOW

Constant air flow through uniform surface filtration is achieved with compressed air pulse de-dusting during operation.

What that means for you: consistent operating conditions despite large volumes of dust.

ADVANTAGE . COMPACT DESIGN

Modular, compact design for optimal extraction efficiency.

What that means for you: optimized investment costs and minimized space requirements.

ADVANTAGE . SYSTEM SOLUTIONS

Project planning solutions for specific collection and separation technology, ductwork, noise insulation, advanced fire and explosion protection methods, and comprehensive service.

What that means for you: experienced Keller contacts - no warranty issues.
The original Keller KLR-Filter® set a new service life record in this filter design, with up to 120,000 cleaning intervals. This superior quality was achieved with the choice of materials, and with our high-quality, state-of-the-art in-house manufacturing process in particular.

The surface of the self-supporting filter is big using a large number of pleats. The pressure loss and resulting energy demand decreases accordingly.

Suitable for many applications
Due to their various characteristics, the new KLR-Filter® is suitable for many applications.

With their residual dust content < 0.1 mg/m³ the KLR-bran filter efficiencies surpass the E11 filter standard according to DIN EN 1822.

All configurations can be obtained with an IFA-M-test certificate for return air operation according to the DIN EN 60335-2-69.
The type of collection is determined by the thermal spraying process and the size of the part. All excess material should ideally be extracted at the source. This reduces the extraction flow volume to a minimum. Production processes are confined mainly to closed booths equipped with extraction systems to prevent dust from escaping, to protect machinery, and for quality assurance purposes, as well as for noise insulation and maintaining the ambient air temperature. Keller Lufttechnik offers all types of collection methods appropriate for the production process - from extraction hoods to booths. With properly designed systems, minimal air volume is required for extraction, which reduces investment and operating costs.

Benefit from our experience!
SAMPLE INSTALLATIONS

REFERENCES - brief version

BMW, Landshut
Euroflamm, Bremen
Federal Mogul, Friedberg
Leistner, München
MTU, München
Praxair, Ratingen
Siemens, Berlin
Saint Gobain, Belgien
Zecher, Paderborn

APPLICABLE LAWS

TA Luft German air quality regulations
TRGS 900 Limit values for the air in the workplace

GTS-ASSOCIATION MEMBERSHIP
(German Association for Thermal Spraying)

Keller Lufttechnik has been a member of the GTS Association for many years, and is well-informed of the latest technical data concerning thermal spraying.