

Checklist for dust extraction systems

The following information is required to design the optimal filter system:

- Type of system/process
- Operating hours per day / working days per week: _____
- Filter cleaning times during operation:
 - Not applicable
 - During breaks: _____ [min] continuously for _____ [times] daily
- Processed material (alloy components, composition):

- Desired installation location of the filter system
 - Indoors outside
- Number of extraction points: _____
- Simultaneity of extraction points: 100% varying
- Properties of the dust:

free-flowing	agglomerating	clumping
dry	moist	oily
sticky	explosive	hazardous
- Information about the particles
 - o Average concentration in raw gas: _____ [g/m³]
 - o Maximum concentration in raw gas: _____ [g/m³]
 - o Particle size distribution: _____



- Information about the exhaust air to be cleaned
 - o Volume flow: _____ [m³/h]
 - o Temperature: _____ [°C]
 - o Composition (e.g., volume fractions): _____
 - o Humidity: _____ [g/kg] dry air
 - o Desired clean gas dust concentration: _____ [mg/m³]
- Information on flammable particles
 - o LEL: lower explosion limit: _____
 - o p_{max}: maximum explosion (over)pressure: _____
 - o K_{St} value: value for maximum pressure rise over time: _____
 - o MZE: minimum ignition energy: _____
 - o BZ: combustion number (combustibility): _____
 - o Particle size distribution (if available): _____
 - o Substance number according to Gestis database: _____
(if no other data is available)
- Desired dust discharge
 - Big bag Dust bin
- Requirements for noise, emissions, minimum fresh air content, etc.

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- Factory or delivery specifications, other requirements
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