

CleanAirTower

 Room ventilation with cleanable filters

 Effective energy reduction



Applications

- Workshops where local exhaust ventilation is not possible
- To complement local exhaust ventilation systems
- Environments with changing sources of smoke and dust
- Workstations, Workshops, Logistic and distribution centres

Properties

- Automatic filter cleaning
- Effective baffle plates for spark pre-separation
- KEMPER-Cloud connection via mobile network*
- Contamination -free dust disposal in one-way containers.
- Optimised airflow
- Pinball method and tornado principle
- Displacement flow principle, recommended by health and safety bodies
- System barely generates air turbulence

Benefits

- Effective energy reduction of possible sparks and particles by the pinball method with 7 or more collision points
- Effective efficiency through tornado principle
- Minimization of heating costs due to air recirculation and air distribution
- Enormously long filter lifetime due to optimised air flow
- Increased safety with contamination-free dust disposal
- Low risk potential due to foreign bodies
- Cost-effective installation or retrofit, as no ductwork is needed
- New head element can be retrofitted to existing systems
- Safe transportation and easy installation by crane eyes
- Permanent operation by means of automatic dust disposal in dust collection bin

Accessories

- AirWatch

Technical Data

Filter	
Filter stages	1
Filter method	Cleanable filter
Filter cleaning method	Rotating nozzle
Number filter elements	3
Filter surface total	60 m ²
Filter material	PTFE-membrane
Filter efficiency	> 99.9 %
Dust classification	M
Basic data	
Extraction capacity	6000 m ³ /h
Height	3622 mm
Diameter	1172 mm
Weight	666 kg
Motor power	5.5 kW
Power supply	3 x 400 V / 50 Hz
Rated current	11 A
Control voltage	24 V, DC
Noise level	72 dB(A)
Additional information	
Fan type	Radial fan, direct driven
Compressed air supply	5 - 6 bar
Capacity Dust collection container	10 l

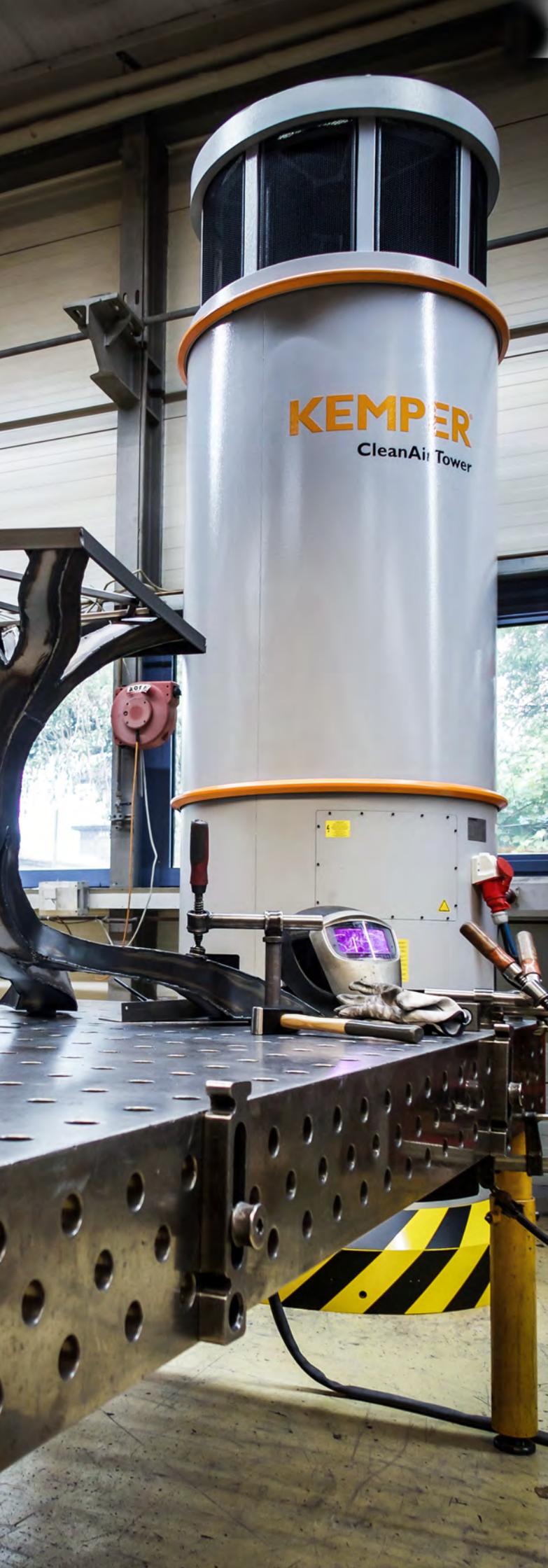
Order Data

Art. No.	Description
390 600	CleanAirTower - Cleanable filter

Replacement Parts and Accessories

Art. No.	Description
109 0447	20 m ² KemTex® ePTFE membrane cartridge filter
149 0675	Dust collection bin (set of 3)





Recruiting advantage for small companies: Clean indoor air through CleanAirTower

Fronz Metallbau GmbH is at home in the production of prototypes and samples from a quantity of one up to smaller series, and develops 3D designs and laser cut blanks. With its 12 employees, the company has its own powder coating for steel, stainless steel or aluminium and works with thermal processing methods such as cutting, grinding and welding. The metal company from Asbach in Baden-Württemberg is an average company, but a look behind the facade shows what even a small company can do for the health of its employees.

Dangers to employees identified at an early stage

Early on, the metalworking company was aware of the immense dangers inherent in welding fumes and from cutting and grinding dust. Fronz Metallbau invested in the protection of its employees more than a decade ago. While below-table extraction systems for laser systems were unavoidable in any case, the company gradually expanded its range of protective welding equipment to include **extraction units for source extraction** during welding. And it went even further: Fronz Metallbau focussed on all of the air in the hall and developed an **integral air pollution control concept** with KEMPER. Thanks to the clean air technology employed, the company now has the best arguments for employee retention and recruitment. The two **CleanAirTower general ventilation systems** from KEMPER are central to implementing the concept. The two filter towers operate according to the **principle of layer ventilation recommended** by the Employer's Liability Insurance Association (Wood and Metal). At a height of about 3.5 metres, they capture the hazardous substances rising due to their thermal properties.

The systems separate more than 99.9 percent of even ultra-fine particles and gently discharge the purified air at ground level. This forms a circuit that permanently cleans the indoor air.

Proven excellent indoor air quality

Since Fronz Metallbau has implemented the clean air concept, the fine dust warning light has always been green. The **AirWatch air monitoring system** from KEMPER proves, in a way that is visible to all employees, the benefits of general ventilation systems on the indoor air quality. It permanently measures the air quality and, **thanks to highly sensitive sensor technology**, detects individual fine dust particles as small as 0.1 μm .

AirWatch and CleanAirTower are networked with one another. The stored software displays limit values and automatically controls general ventilation systems on the basis of the recorded fine dust data. The system automatically starts up the general ventilation systems and the air is cleaned long before there is a risk of the limits being exceeded. The relevant data on air quality is continuously fed into an app. This enables Fronz Metallbau to control the indoor air quality on a PC, tablet or smartphone at any time and from any location.

Trust in the employer due to effective protective welding equipment

The feedback from employees could hardly be clearer: Since the company has implemented **KEMPER's protective welding equipment concept**, the air quality in the hall has again improved significantly. This allows Fronz Metallbau to create trust both internally and externally because the company consistently integrates the measures for general ventilation in its communication, e.g. recruiting videos.

