

The air purifiers



Part No. 9501440046050199

FILTERCUBE 4N, 4,6 kW, 480V/60Hz , 50 m² (activated carbon cartridges possible)

Which kind of product is the Filtercube?

The TEKA Filtercube product line is a filter unit equipped with filter cartridges applicable for nearly every task in the area of fume and dust filtration.

How does the Filtercube work?

The polluted air is extracted by means of the ventilator and guided towards the filtering section. The toxic particles deposit on the surface of the filter cartridges. The cartridges are dedusted automatically or manually by compressed air.

The particles deposited on the cartridge are detached by the compressed air blast and reach a dust collecting tank. The cleaned air is recycled to the working space via an outlet silencer without any heat loss. Optionally, the air can be guided to the exterior via a two-way branch.

Is the Filtercube certified?

The Filtercube product line is certified according to the standard DIN EN ISO 15012-1 and according to the BGIA (Berufsgenossenschaftliches Institut für Arbeitsschutz – Institute for occupational safety and health) concerning dangerous substances. It is approved for the welding fume category W3 as stationary filter unit for welding fume extraction.

For which fields can the Filtercube be applied?

- as central suction unit for several manual welding posts
- as suction unit for welding robots
- as suction unit for flame cutting tables or grinding benches
- as suction unit for room exhausting (Push-Pull-systems)
- as suction unit combined with exhausting tables
- as mobile filter units for shipyards (special design)
- as suction unit for grinding of non explosive materials

What else do you have to consider?

Many types of dust, for example welding dust particles, are inflammable if ignition sources are let in. The user has to avoid these specific risks. He has to take care especially that no ignition sources are aspired

The air purifiers



during operation of the unit. Concerning explosive substances, please ask for a separate offer according to ATEX.

Units for room exhausting do not absolve the operator from providing appropriate personal protection equipment for his staff.

What is included in delivery?

You receive a complete system that is ready for operation including the necessary star-delta connection (from 5,5 kW on). You only have to accomplish the electrical connection on site.

How is the Filtercube constructed?

The main parts of the Filtercube are the fan with silencer, pneumatic housing, filter section including cartridges and dust collecting section as well as the control unit for filter dedusting.

The housing consists of a stable steel plate construction and is provided with powder coating to enable an optimal and rapid maintenance. The maintenance door of the filter cartridge housing is equipped with a vision panel that consists of laminated safety glass. The control unit is delivered completely preset and is very easy to handle. The control element is specially developed to survey and control the filter unit. All functions can be easily accessed and adjusted according to the operation parameters. The Filtercube is equipped with filter cartridges of the filter category BIA M. A special auxiliary filtering substance is coated on these cartridges ex works.

TECHNICAL DATES:

Medium for filtering:	dry, grease free and oil free dust /fumes
Pre-filter:	perforated plate as baffle protection
Filter surface:	50 m ² (4 cartridges à 12,5 m ²)
Filter cartridge:	BIA M, type easy clean plus
Separation rate:	99% (according to BGIA certificate)
Final filter stage:	Activated carbon cartridges are possible (20 x 1,9 kg)
Filter control:	automatic filter dedusting
Supply voltage:	230V/50Hz
Current consumption:	0,3 A
Construction of the filter control:	separately, with 5 m cable
Ventilator performance:	5000 m ³ /h
Max. compression:	3600 Pa

The air purifiers



Operation point:	3500 m ³ /h at 2600 Pa
Engine performance:	4,6 kW
Supply voltage:	480V/60 Hz
Current consumption:	10,1 A
Type of current:	3Ph+PE (no neutral)
Construction of the ventilator:	on the unit, including silencer
Engine control:	motor protection relais
Construction of the engine control:	integrated in filter steering
Noise level:	ca. 74 dB(A)
Inlet nozzle:	diameter 315 mm, left side
Outlet nozzle:	by means of a silencer diameter 315 mm, length 900 mm, right side
Dimensions (w x d x h):	ca. 800 x 800 x 2972 mm
Weight:	ca. 420 kg

Interface: SUB D9

Pin 1&2 =	Start-Stop
Pin 3&4 =	Ext.Filtermonitoring (closer)
Pin 5&6 =	Operating Control
Pin 7 =	free
Pin 8 =	free
Pin 9 =	Ground (GND)