

EVOTEC



Mobile Fume Extraction FEX 5000



**INNOVATIVE
EXTRACTION
TECHNOLOGY**

Mobile fume extraction FEX 5000



- ★ Powerful extraction system to extract smoke, vapours or airborne dusts
- ★ Turbine suitable for continuous run (24/7), with large air volume
- ★ Reliable filtration due to graduated combination filter system
- ★ Optional: Connection for ON/OFF remote control
- ★ Optional: EX-protected according to ATEX or ESD version
- ★ Optional: W3 version in recirculation or exhaust air mode
- ★ Storage filter
- ★ Special activated carbon version for extracting gases and odours

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FEX 5000

Versions:



W3	ISO 21904-1 $\eta \geq 99\%$	W3
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Powerful extraction system to extract smoke vapours or airborne dusts.

High quality standards – suitable for **3-shift operation**.

Comfortable filter change due to **2 cassette system** with individually removable filter cassettes.

Reliable filtering of suspended particles through the use of a graduated combination filter system.

For the extraction of laser smoke, welding and soldering fumes, cutting fumes as well as various vapours and solvents.

Permanently operational turbine for the extraction of large air volumes to collect suspended dust.

Extraction with up to two hoses or extraction arm, hose connection at the rear, top or sides.

Note: The design of the capture elements have a direct effect on air performance and negative pressure.

Upgrade optional: ESD version



Device completely grounded, ESD powder coating and ESD rollers.

Upgrade optional: EX protected according to ATEX



For safe extraction in zone 22: Equipment and parts of equipment electrostatically conductive.

Upgrade optional W3 compliant version (welding fumes):



For exhaust air operation including exhaust air connection or for recirculation operation including exhaust diffuser.

In delivery included:

Initial equipment set of filters according to individual configuration.

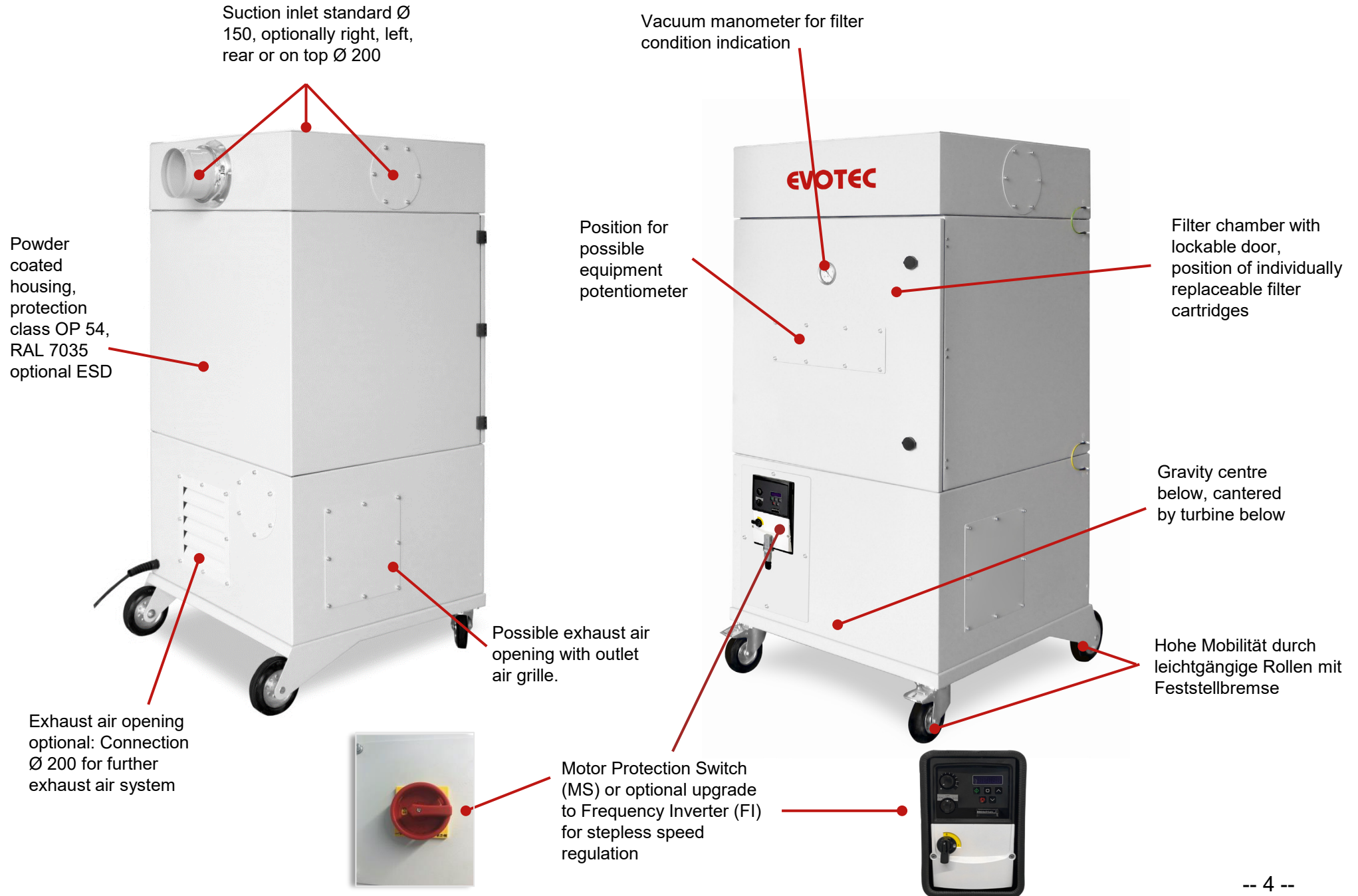
Further suitable accessories such as hoses, extraction arms and replacement filters can be found in the accessories list.

*) **Operating data** including standard filter equipment in operating conditions without further options such as activated carbon filter, spark trap, piping, etc. The operating point varies due to the power setting and pipe design (Ø, length) as well as measurement at the suction point.

Model	Volt	FEX5000.3	FEX5000.4
Voltage at 50/60 Hz.		400	
Engine power	Watt	1.500	2.200
Max. airflow free blowing at turbine	m³/h	2.200	2.500
Negative pressure max.	Pa	3.500	4.000
Air volume in operating condition approx. *)	m³/h	1.900	2.200
Negative pressure in operating condition approx. *)	Pa	3.300	3.800
1st filter stage	m²	19 m² storage filter E10	
2nd filter stage	m²	20 m² HEPA filter H14	
Alternate 2nd filter stage	kg	2x 12.5 kg Activated Carbon Filling Change in Operating Air Volume -400/500 m³/h	
Dimensions L x W x H	mm	780 x 970 x 1590	
Weight (incl. filter)	kg	240	
Vacuum connection	mm	Ø 150 position optional (optional Ø 200 on top)	
Exhaust air		Outlet grille (optional exhaust air connection)	
Noise level	dB(A)	75 (during exhaust air operation)	
Protection class		IP 54 (with vent hood)	
Operating temperature	°C	5 - 40	
Operating humidity	%	10 – 90 % (non condensing)	
Standard version	I.-No.	710-2012	710-2013
Upgrade: EX-version	I.-No.	054-8042	
Upgrade: ESD-version	I.-No.	054-8044	
Upgrade: Frequency inverter	I.-No.	053-4008	053-4009
Upgrade: W3-version exhaust air	I.-No.	054-4012	
Upgrade: W3-version recirculation air mode	I.-No.	054-4013	

FEX 5000

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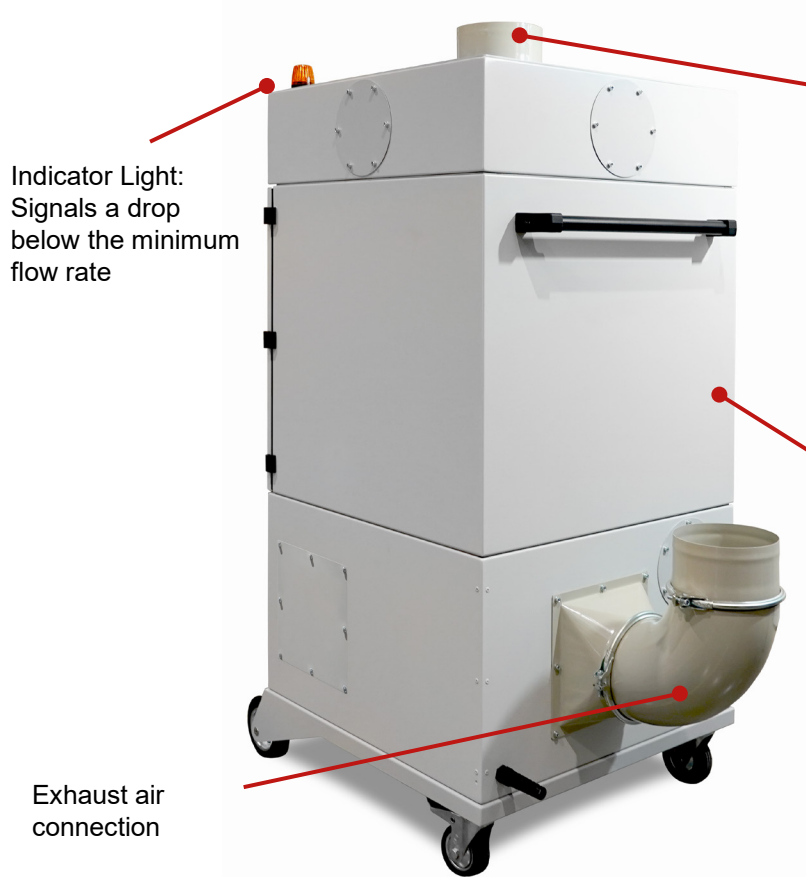


FEX 5000 W3 Upgrade



Exhaust air mode

Recirculation air mode



Indicator Light:
Signals a drop
below the minimum
flow rate

Vacuum
connection

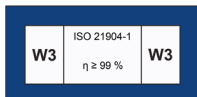
Differential
pressure
transmitter:
*For analysing
filter load and
motor function.*

Powder-coated
housing, protection
class
IP 54,
RAL 7035

Exhaust air
connection



Displacement diffuser
for reduced discharge
velocity



W3-compliant system for
the extraction of welding
fumes

FEX 5000 for the extraction of gases and odours



Special activated carbon version

Configuration example: Motor can be used in zones 1 and 2, without additional electronic components. Connection cable end open for connection to the system by the customer. For extracting and filtering gases.

Please contact us about your application.



Easy filter-handling FEX 5000

Best filter quality for perfect filtration

High-quality filter materials guarantee **perfect filtration** - so that the exhaust air is also safely cleaned of dusts and substances.

HEPA filters are **individually tested** and certificated.

HEPA filters and adsorption filters which are installed in a stable MDF box with seal are completely incinerable.

Easy filter replacement due to **separable version**. Can be combined to suit the application and disposed separately depending on the load.

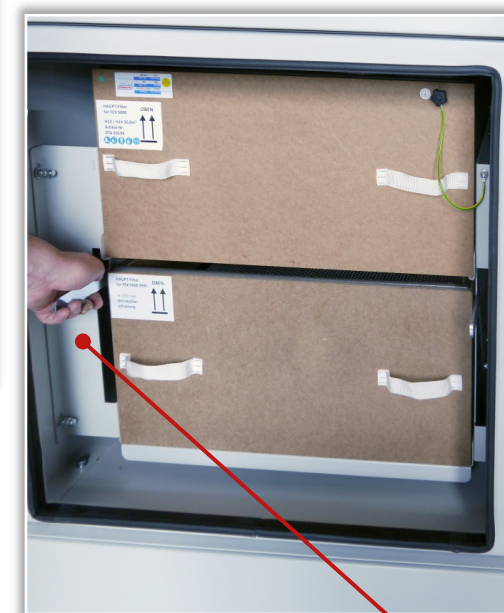
All cassettes with a box height of 292 mm can be combined with each other. **Note:** *Activated carbon cassettes have only half the height (145 mm) due to their weight, therefore 2 pieces are needed.**

Filter mats or expanded metal filters can also be inserted in filter boxes with a free internal height.

**Note: When using 2x half activated carbon filter cartridges, the operating air volume changes -400/500 m³/h.*



2 stage combination filter system



Lifting device = separates the filters for easy handling during filter replacement and prevents damage to the filter seals.

Filters and accessories FEX 5000

Storage filters and options FEX 5000	
	<p>HEPA filter in MDF frame FEX 5000 foamed gasket, glass fibre filter material, 19,5 m² filter area, height 292 mm, handles, free internal height= 60 mm</p> <p>Class E10 074-20103 Class H14 074-20104</p>
	<p>HEPA filter in metal frame FEX 5000 Galvanized steel frame with foamed gasket, glass fibre filter material, 19,5 m² filter surface, height 292 mm, free internal height= 60 mm</p> <p>Class E10 074-20105 Class H14 074-20106</p>
	<p>Storage filter in fan format FEX 5000 In MDF frame, foamed gasket, height 292 mm, no free interior height</p> <p>Class F7 074-20107</p>
	<p>G4 Fleece mat FEX 5000 550 x 550 mm, height 22 mm, can be used as an additional pre-filter in filter cassettes with free internal height.</p> <p>3 pieces 074-20110</p>




Storage filters and options FEX 5000	
	<p>Adsorption filter AK in fan format FEX 5000 8,5 m² synthetic filter with activated carbon in MDF frame, foamed gasket, height 292 mm, no free internal height.</p> <p>Activated carbon foam 074-20108</p>
	<p>Adsorption filter AC-filling FEX 5000 MDF frame with foamed gasket, activated carbon filling 21 kg, perforated plate as handle protection, height 145 mm</p> <p>2 units are required per device! <i>Change in Operating Air Volume – 400/500 m³/h</i> Activated carbon 7 mm 074-20088-70</p>
	<p>Adsorption filter AC-filling FEX 5000 Metal frame with foamed seal, activated carbon filling 21 kg, perforated plate as handle protection, height 292 mm</p> <p><i>Change in Operating Air Volume – 400/500 m³/h</i> Activated carbon 4 mm 074-20117-40</p>
	<p>DDMU Differential pressure transducer For negative pressure and filter status monitoring.</p> <p>054-60486</p> <p><i>Available as standard in W3 version</i></p>

Options and accessories FEX 5000

Device connection options	
	<p>Spark trap with knitted metal inlay Prevents sparks from being sucked in. Easy handling due to clamping rings.</p> <p>Ø 150 mm 072-0630 Ø 200 mm 072-0638 Ø 250 mm 072-0639</p>
	<p>Matching metal knitted inlay For spark traps</p> <p>Linear meter 072-10032</p> <p>Ready wound:</p> <p>Ø 150 mm 072-0630-01 Ø 200 mm 072-0638-01 Ø 250 mm 072-0639-01</p>
	<p>Spark trap Prevents sparks from being sucked into the vacuum cleaner. The air deflection causes the sparks to collide with the copper sheets and extinguish. The spark trap can be cleaned via removable viewing plate.</p> <p>Connections Ø 150 mm 053-4001</p>
	<p>Expanded metal filter FEX 5000 As a spark trap arrester to prevent fire hazards, 545 x 545 mm, height 15 mm Fits into filters with free inner height.</p> <p>1 piece 074-20109</p> <p><i>Available as standard in W3 version</i></p>

Hose	
 	<p>Exhaust air suction hose PUR Can be used as exhaust air, suction or connecting hose, chemical-resistant and food-grade electrostatically conductive when spiral is grounded. (Illustration: optionally with wire clamp and hose connection piece)</p> <p>Linear meters:</p> <p>Ø 150 mm 052-0326 Ø 200 mm 052-0330</p> <p><i>Further versions and fittings can be found in the piping catalogue.</i></p>
 	<p>Exhaust air or suction hose, PUR antistatic black Can be used as exhaust air, suction or connecting hose, flow and surface resistance <math>< 10^9 \text{ Ohm}</math></p> <p>Linear meters:</p> <p>Ø 150 mm 072-10037 Ø 200 mm 072-10038</p> <p><i>Further versions and fittings can be found in the piping catalogue.</i></p>
	<p>Suction connection FEX 5000 on top Ø 200 mm Complete set suction connection Ø 200 mm on top of the case cover FEX 5000, consisting of: powder-coated connecting pieces with hose connection Ø 200 mm</p> <p>053-3097</p>
	<p>Exhaust air connection FEX 5000 Complete set exhaust air connection FEX 5000 Ø 200 mm with 90 ° arc Ø 200 mm, with powder-coated hose connection 053-3098</p> <p><i>For exhaust air ducting when extracting particularly toxic gases, please contact us.</i></p>

Options and accessories FEX 5000

Suction arms for FEX 5000	
	<p>Vertical suction arm, incl. suction hood FEX 5000 Includes bracket for plate feed-through</p> <p>Aluminium version (illustration) Ø 125 mm, length 2,0 m 054-90332 Ø 125 mm, length 3,0 m 054-90342 Ø 160 mm, length 2,0 m 054-90333 Ø 160 mm, length 3,0 m 054-90343</p> <p>ATEX version VA  Ø 125 mm, length 2,0 m 054-90330 Ø 125 mm, length 3,0 m 054-90340 Ø 160 mm, length 2,0 m 054-90331 Ø 160 mm, length 3,0 m 054-90341</p>
	<p>Hanging suction arm, incl. suction hood for FEX 5000 Including wall bracket/suspension for mounting of the extraction arm.</p> <p>Aluminium version Ø 125 mm, length 2,0 m 054-90352 Ø 125 mm, length 3,0 m 054-90362 Ø 160 mm, length 2,0 m 054-90353 Ø 160 mm, length 3,0 m 054-90363</p> <p>ATEX version VA (illustration)  Ø 125 mm, length 2,0 m 054-90350 Ø 125 mm, length 3,0 m 054-90360 Ø 160 mm, length 2,0 m 054-90351 Ø 160 mm, length 3,0 m 054-90361</p>

Options	
	<p>Wall bracket/connecting flange with connection of connecting hose, extraction to suction arm.</p> <p>Ø 125 mm, Aluminium 054-90336 Ø 160 mm, Aluminium 054-90337</p> <p>Ø 125 mm, ATEX VA 054-90334 Ø 160 mm, ATEX VA 054-90335</p>
	<p>Acid protection coating</p> <p>Protects against erosion caused by aggressive vapours, such as those produced by PTFE laser cutting.</p> <p>072-0619-03</p>
	<p>Remote ON/OFF via cable (FSK) 24-Volt with power supply unit (potential-free contact), output voltage 24 Volt AC with transfer point, motor protection relay, changeover switch = 0/Automatic/Manual</p> <p>for FEX 5000.1 and .2 054-6934 for FEX 5000.3 and .4 054-6930</p>
	<p>Multipole plug connection Disconnectable plug connection as a communication interface.</p> <p>054-8045</p>

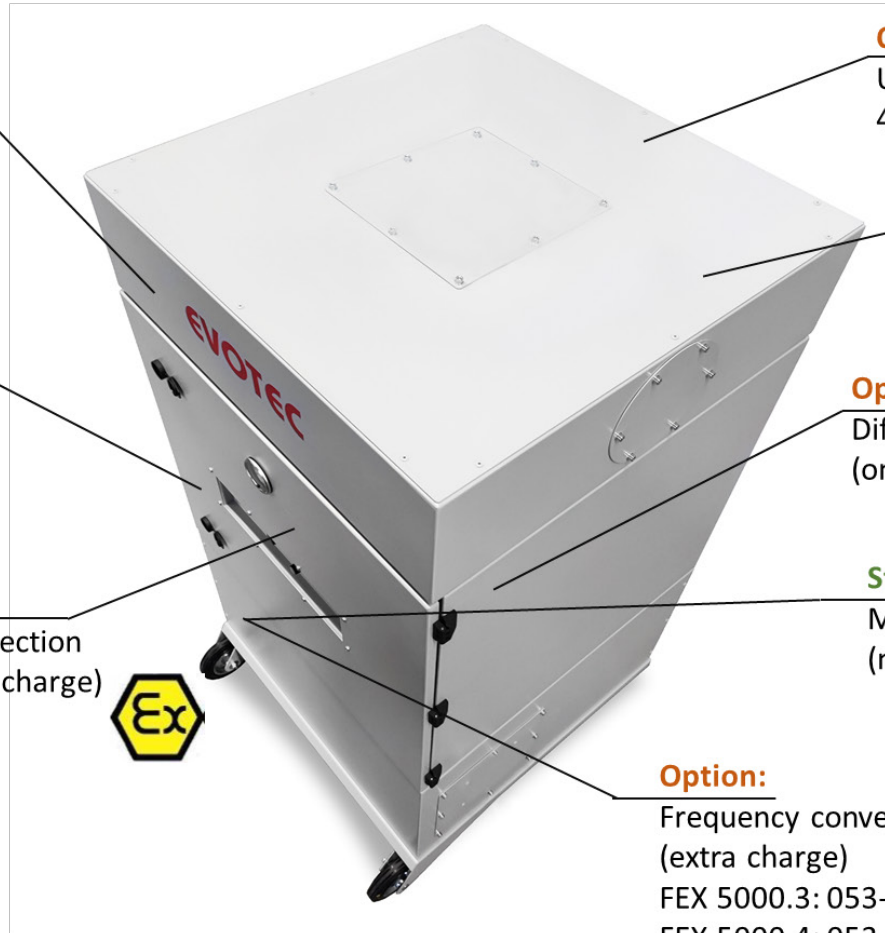
Options and accessories FEX 5000

Device options	
	<p>Frequency inverter</p> <p>For FEX 5000.3: 053-4008 For FEX 5000.4: 053-4009</p>
	<p>Silencer and Exhaust Diffuser</p> <p>Ideally, order with the device, otherwise retrofittable. To reduce the sound pressure level by approx. 5-8 dB(A) (included in the W3 version)</p> <p>054-4014</p>

Configuratio



FEX 5000.3 + .4 Front view/ right



Option:

Protective coating inside the unit,
072-0619-03 (extra charge)

Filter allocation:

- G4
- E10
- H14
- AK

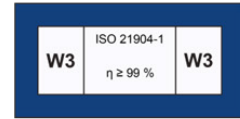
Option:

Upgrade EX protection
054-8042 (extra charge)



Option:

Upgrade W3 Exhaust air version 054-4012 or recirculated air 054-4013



Option:

ESD version 054-8044 (extra charge)



Option:

Differential pressure transducer right
(only with option W3)



Standard:

Main switch front
(not applicable for FU)



Option:

Frequency converter front
(extra charge)

FEX 5000.3: 053-4008
FEX 5000.4: 053-4009



Configuration



FEX 5000.3 + .4 Rear view/ left

Option:

Suction connection \varnothing 200mm top
053-3097, 053-3097VA
(extra charge), or suction connection
 \varnothing 150 mm top 053-4043
(extra charge)



Standard:

Suction connection \varnothing 150mm rear



Standard:

Recirculation/ Air outlet grill
Also possible on the side
Not applicable with exhaust air
connection/ Silencer



Option:

Exhaust air connection \varnothing 200mm (extra
charge)
053-3098

ATTENTION:

Exhaust air device not connected has
negative effect on the sound emissions.
*Exhaust air device included as standard in W3 upgrade
exhaust air version.*



Option:

Suction connection \varnothing 150mm left
Or right (Price neutral)



Option:

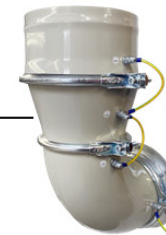
Silencer with outlet diffusor rear
(extra charge)
instead of air outlet grill



Option:

Exhaust air direct connection rear \varnothing 200mm
(extra charge) 053-3099

ATTENTION: Exhaust air not connected may
increase the sound emissions to **>80 dB!**



Notes

Notes

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