

# EVOTEC



## Mobile Fume Extraction FEX 5000



INNOVATIVE  
EXTRACTION  
TECHNOLOGY

## Mobile fume extraction FEX 5000

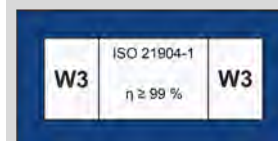
# EVOTEC



- ★ 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

### FEX 5000

#### Versions:



**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 displacement outlet.

**In delivery included:**

Initial equipment set of filters according to individual configuration.

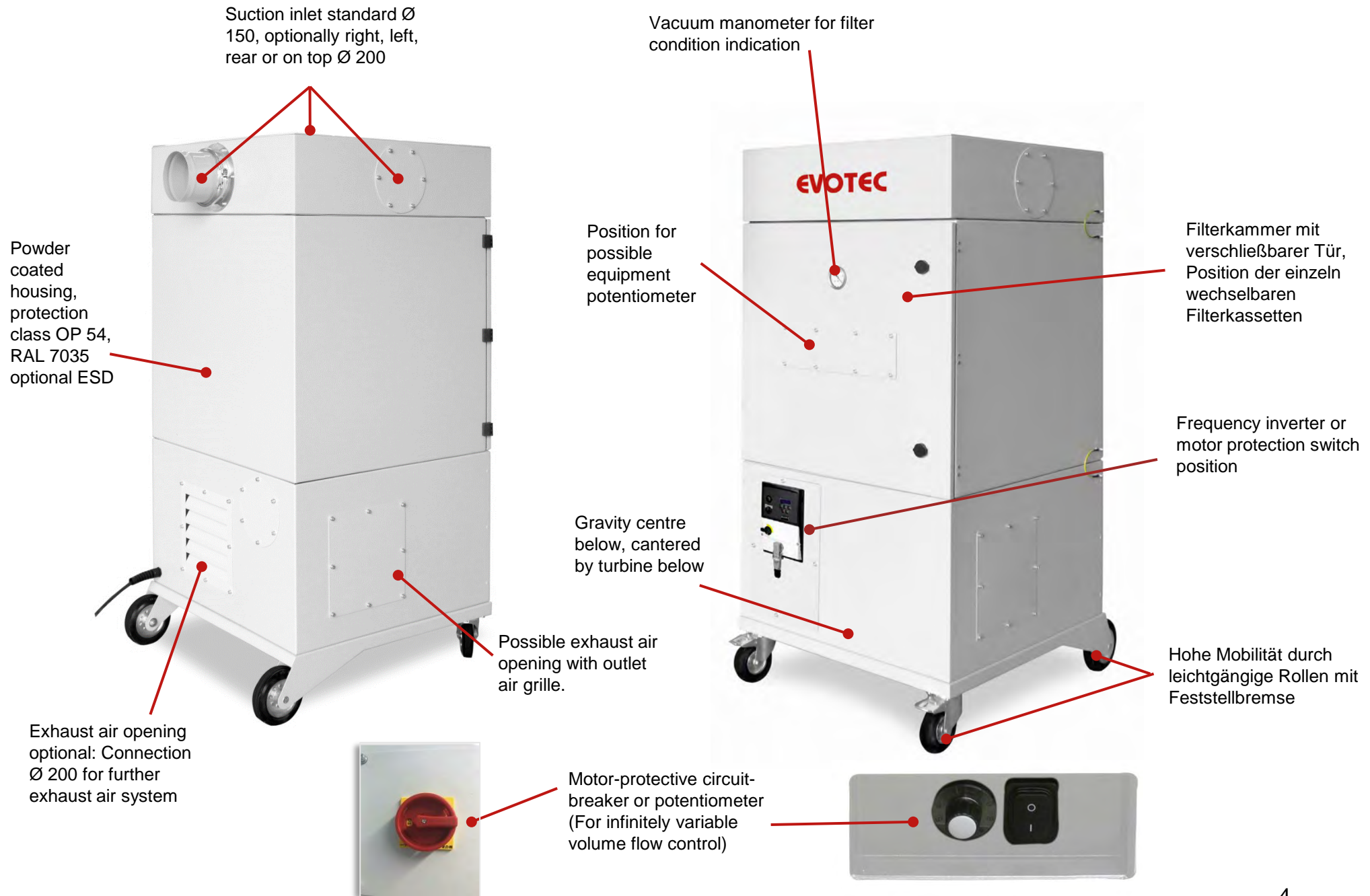
Further suitable accessories such as hoses, extraction arms and replacement filters can be found in the accessories list.

\*) **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
<b>1st filter stage</b>	m²	19 m² storage filter <b>E10</b>	
<b>2nd filter stage</b>	m²	20 m² HEPA filter <b>H14</b>	
Speed control included		No	
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)	
<b>Standard version</b>	<b>I.-No.</b>	<b>710-2012</b>	<b>710-2013</b>
<b>Upgrade: EX-version</b>	<b>I.-No.</b>	<b>054-8042</b>	
<b>Upgrade: ESD-version</b>	<b>I.-No.</b>	<b>054-8044</b>	
<b>Upgrade: Frequency inverter</b>	<b>I.-No.</b>	<b>053-4008</b>	<b>053-4009</b>
<b>Upgrade: W3-version exhaust air</b>	<b>I.-No.</b>	<b>054-4012</b>	
<b>Upgrade: W3-version recirculation air mode</b>	<b>I.-No.</b>	<b>054-4013</b>	

# FEX 5000

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# FEX 5000 W3 Upgrade

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**Exhaust air mode**

**Recirculation air mode**

Signal lamp:  
*Signals high  
filter load or  
motor faults*

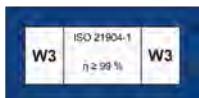
Vacuum  
connection

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

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## **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.

Each filter is **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.



**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



**HEPA filter in MDF frame FEX 5000**  
foamed gasket, glass fibre filter material, 19,5 m<sup>2</sup> filter area, height 292 mm, handles, free internal height= 60 mm

Class E10                **074-20103**  
Class H14               **074-20104**



**HEPA filter in metal frame FEX 5000**  
Galvanized steel frame with foamed gasket, glass fibre filter material, 19,5 m<sup>2</sup> filter surface, height 292 mm, free internal height= 60 mm

Class E10                **074-20105**  
Class H14               **074-20106**



**Storage filter in fan format FEX 5000**  
In MDF frame, foamed gasket, height 292 mm, **no** free interior height

Class F7                 **074-20107**



**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.

3 pieces                 **074-20110**

## Storage filters and options FEX 5000



**Adsorption filter AK in fan format FEX 5000**  
8,5 m<sup>2</sup> synthetic filter with activated carbon in MDF frame, foamed gasket, height 292 mm, **no** free internal height.

Activated carbon foam **074-20108**



**Adsorption filter AK-filling FEX 5000**  
MDF frame with foamed gasket, activated charcoal filling 21 kg, perforated plate as handle protection, height 292 mm

Activated carbon 7 mm **074-20088-70**



**Adsorption filter AK-filling FEX 5000**  
Metal frame with foamed seal, activated carbon filling 21 kg, perforated plate as handle protection, height 292 mm

Activated carbon 4 mm **074-20117-40**



**DDMU Differential pressure transducer**  
For negative pressure and filter status monitoring.

**054-60486**

*Available as standard in W3 version*



# Options and accessories FEX 5000

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## Device connection options



**Spark trap with knitted metal inlay**  
Prevents sparks from being sucked in. Easy handling due to clamping rings.

Ø 150 mm      **072-0630**  
Ø 200 mm      **072-0638**  
Ø 250 mm      **072-0639**



**Matching metal knitted inlay**  
For spark traps

Linear meter      **072-10032**  
Ready wound:  
Ø 150 mm      **072-0630-01**  
Ø 200 mm      **072-0638-01**  
Ø 250 mm      **072-0639-01**



**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.

Connections Ø 150 mm      **053-4001**



**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.

1 piece      **074-20109**

*Available as standard in W3 version*

## Hose



**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)

Linear meters:  
Ø 150 mm      **052-0326**  
Ø 200 mm      **052-0330**

*Further versions and fittings can be found in the piping catalogue.*



**Exhaust air or suction hose, PUR antistatic black**

Can be used as exhaust air, suction or connecting hose, flow and surface resistance < 10<sup>9</sup> Ohm

Linear meters:  
Ø 150 mm      **072-10037**  
Ø 200 mm      **072-10038**

*Further versions and fittings can be found in the piping catalogue.*



**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

**053-3097**






**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**

*For exhaust air ducting when extracting particularly toxic gases, please contact us.*

# Options and accessories FEX 5000

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

Options	
	<p><b>Wall bracket/connecting flange</b> with connection of connecting hose, extraction to suction arm.</p> <p>Ø 125 mm, Aluminium <b>054-90336</b>            Ø 160 mm, Aluminium <b>054-90337</b></p> <p>Ø 125 mm, ATEX VA <b>054-90334</b>            Ø 160 mm, ATEX VA <b>054-90335</b></p>
	<p><b>Acid protection coating</b></p> <p>Protects against erosion caused by aggressive vapours, such as those produced by PTFE laser cutting.</p>
	<p><b>Remote ON/OFF via cable (FSK)</b> 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 <b>054-6934</b>            for FEX 5000.3 and .4 <b>054-6930</b></p>
	<p><b>Multipole plug connection</b> Disconnectable plug connection as a communication interface.</p> <p><b>054-8045</b></p>

## Options and accessories FEX 5000

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### Device options



#### Frequency inverter

For FEX 5000.3: **053-4008**

Bor FEX 5000.4: **053-4009**



#### Displacement diffuser

Can be used with recirculation air mode to reduce the discharge velocity.

To be specified when ordering the appliance. Can only be used with elbow connection piece (053-3097).

*Available as standard in W3 recirculation air mode.*

# Configuration

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## FEX 5000.3 + .4

Front view / right

710-2012

710-2013

→ Please mark with a cross what you do not want!

### Option:

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



### Option:

Protective coating inside the unit  
(extra charge)

### Filter allocation:

G4	<input type="checkbox"/>
E10	<input type="checkbox"/>
H14	<input type="checkbox"/>
AK	<input type="checkbox"/>

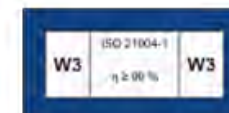
### Option:

Upgrade EX-protection  
054-8042 (extra charge)



### Option:

W3 Version exhaust air mode  
054-4012 or recirculation air mode  
054-4013 (extra charge)



### Option:

ESD-version 054-8044 (extra charge)



### Option:

Suction connection Ø 150mm right  
(Price neutral)

### Standard:

Main switch right  
(not applicable with option FU)



### Option:

Frequency converter right  
(extra charge)  
FEX 5000.3: 053-4008  
FEX 5000.4: 053-4009



Released:

\_\_\_\_\_  
Date, signature customer



## FEX 5000.3 + .4

Rear view / left

→ Please mark with a cross what you do not want!

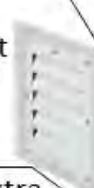
### Standard:

Suction connection Ø 150mm rear



### Standard:

Recirculation / air outlet grill  
With option FU also possible on the side. Not applicable with exhaust air connection



### Option:

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

### ATTENTION:

Exhaust air device not connected has negative effect on the sound emissions.

*Exhaust air device is included in W3-Upgrade exhaust air version.*

Released:

\_\_\_\_\_  
Date, signature customer

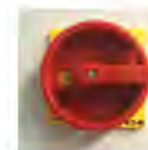
### Option:

Suction connection Ø 150mm left  
(Price neutral)



### Option:

Main switch front  
(Not applicable for FU, price-neutral)



### Option:

Frequency converter front



### Option:

Exhaust air direct connection Ø 200mm  
(surcharge) 053-3099

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





## Notes

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## Notes

**EVOTEC**



MADE IN  
GERMANY

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