

EVOTEC



Fume and Dust Extraction FEX 4000

FEX



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**INNOVATIVE
EXTRACTION TECHNOLOGY**



Mobile fume extraction FEX 4000

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- Process-adaptable extraction system with high air volume for extracting fume, fumes, or airborne dust
- Reliable filtration through multi-stage filter system with pneumatic cleaning (compressed air required)
- Continuous-duty EC blowers (24/7) with stepless volume flow control
- Modern control technology with device status display and error messages
- Optional: Connection for on/off remote control

Versions:



Process-adaptable extraction system for extracting fume, fumes, or airborne dust

Continuous-operation EC blowers for extracting large air volumes to capture airborne dust

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

Device doors allow easy and low-contamination replacement of the **cartridge filter and cassette filter system**.

Long filter operating times due to automatic **pneumatic filter cleaning** (external compressed air required).

Reliable filtration of airborne particles through the use of a multi-part combination filter system. **Optional:** Activated carbon filter to reduce odors in the exhaust air.

Modern control technology enables **stepless adjustment** of the extraction performance during operation.

Clear text display for quick **overview of device status**, settings, or error sources.

Version: Dirt container disposal system with 15-liter dirt container, lowerable by lever.

Version: Longopac disposal system, “endless” bag for easy and low-dust disposal of suction material. 20 m film tube with cable ties for sealing.

Standard version:

Initial filter equipment set consisting of:

- 2 cartridge filters
- HEPA filter H13/H14

Upgrade: EX-protected according to ATEX for safe extraction in Zone 22: Device equipment and parts are electrostatically dissipative. Dissipative filter initial equipment set consisting of:

- 2 cartridge filters
- HEPA filter H13/H14

Upgrade: ESD version with ESD powder coating and ESD rollers. Dissipative filter initial equipment set consisting of:

- 2 cartridge filters
- HEPA filter H13/H14

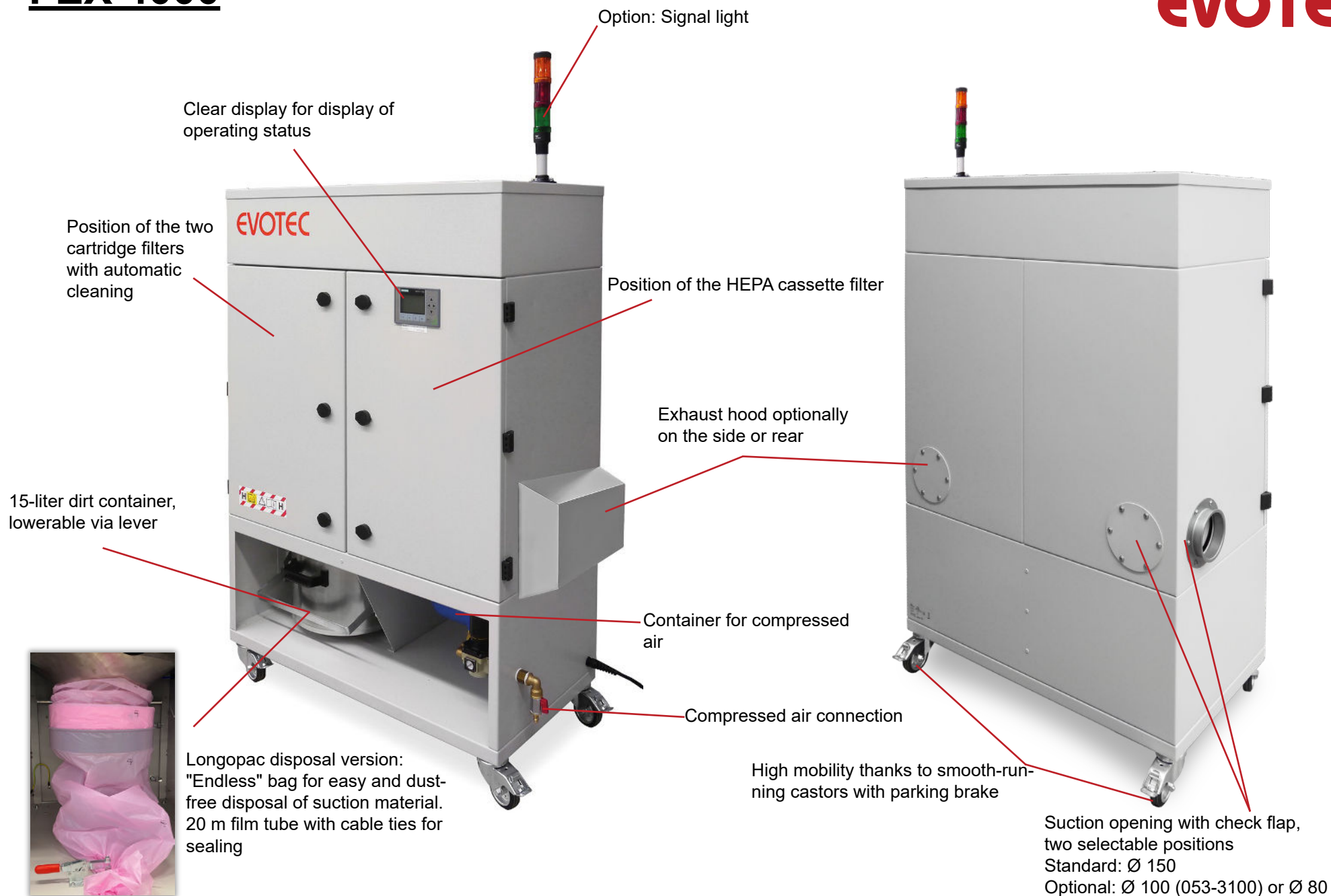
Model		FEX 4000.1	FEX 4000.2	FEX 4000.3
Voltage at 50/60 Hz. **)	Volt	230 V 1~ or 400 V 3~ (N conductor required)	110 V 1~	230 V 1~ or 400 V 3~ (N conductor required)
Motor power	Watt	2 x 1.100		
Maximum air volume in operating condition *)	m³/h	900		380
Max. negative pressure in operating condition *)	Pa	9.000		22.500
1st filter stage: cartridge filter	m²	8,4		
2nd filter stage: HEPA filter H13/H14	m²	5,6		
Optional filter stage: AK adsorption filter	kg	5,8		
Max. air volume <i>turbine output at free outlet</i>	m³/h	1.000		420
Maximum negative pressure <i>at the closed suction nozzle</i>	Pa	10.000		23.500
Sound pressure level <i>(depending on power setting)</i>	dB(A)	74		
Weight	kg	65		
Dimensions L x W x H				
Dirt container version	mm	465 x 890 x 1380		
Longopac version	mm	465 x 890 x 1780		
Suction connection Ø	mm	150		
Exhaust air connection		Exhaust hood (option: exhaust air connection)		
Protection class		IP 54		
Operating temperature	°C	5 - 40		
Operating humidity (non-condensing)	%	10-90		
Color		RAL 7035		
Housing		Steel, powder-coated		
Dirt container version, 15 l	Art. No.	710-4010	710-4020	710-4030
Longopac version, “endless”	Art. No.	710-4040	710-4050	710-4060
Upgrade: EX-protected	Art. No.	054-8054		
Upgrade: ESD version	Art. No.	054-8056		

*) **Operating data** including standard filter equipment in factory condition without further options such as activated carbon filter, spark trap, piping, etc. The effective performance depends on the respective operating point, which is determined by power setting, pipe dimension (Ø, length), and capture at the suction point.

**) Other voltages on request

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Control technology:

Modern control technology with industry-standard standards facilitates the adaptation of the extraction system to customer-side peripherals.

- Device parameters individually adjustable
- Suction power continuously adjustable during operation
- Automatic filter cleaning (operational cleaning and post-cleaning)
- Display of device status and warnings
 - Monitoring filter condition
 - Device malfunctions, e.g. insufficient suction pressure

Options:

- Signal malfunctions/warnings via signal light
- Keypad with large text display
- Fill level monitoring dirt container
- Connection for ON/OFF remote control and reporting of operating states to external controllers



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Filter technology:

Independently replaceable filters:

Filter stage 1

- Two cartridge filters with 8.4 m² filter area Pneumatic filter cleaning (external compressed air required)

Filter stage 2

- Suspended matter filter HEPA H13/14, filter area 5.6 m² in MDF frame as storage filter

Optional

- Adsorption filter with activated carbon filling 5.8 kg (pressure difference increase is approx. 10 - 15%)

High-quality filter materials guarantee **perfect filtration** – ensuring that the exhaust air is reliably cleaned of dust and substances

Thanks to easy accessibility, filter replacement is user-friendly and low in contamination.

Disposal:

- **Dirt container:** Easy emptying of suction material via 15-l dirt container with lowering lever. Optionally, the fill level of the container can be monitored.
- **Longopac disposal system:** Especially easy, low-dust disposal of suction material using "endless" bag. 20 m film tube with cable ties for sealing



Accessories & options

Filter FEX 4000

	Filter cartridge – Dust class M for 4-cartridge filter system Polyester fleece aluminum-coated, cylindrical, electrically conductive, Ø 200 mm, round thread Ø 100 mm, L 50 mm L 500 mm / 4.2 m² 054-20182 L 600 mm / 5.0 m² 054-20178
	PTFE filter cartridge, dust class M for 4-cartridge filter system Polyester fleece with PTFE membrane, cylindrical electrically conductive, Ø 200 mm, round thread Ø 100 mm, L 50 mm L 500 mm / 4.2 m² 054-20183 L 600 mm / 5.0 m² 054-20179
	Suspended particle filter in MDF frame with foamed gasket and groove, fiberglass filter material, 5.6 m² filter area, height 146 mm Class H14 074-20064
	Spacer empty frame in MDF frame with foamed gasket and groove. Arrangement below H14 filter cassette (for ideal performance development of volume flow) Height 146 mm 074-20065

Filter and control options FEX 4000

	Combination filter cassette in MDF frame with foamed gasket and groove, H14 fiberglass filter material, 2.8 m² filter area and activated carbon filling, approx. 3 kg, height 146 mm (Pressure difference increase is approx. 8 – 10%) H14/AC 074-20087
	Adsorption filter AC filling in MDF frame with foamed gasket and groove, Activated carbon filling approx. 6 kg, height 146 mm (Pressure difference increase is approx. 10 – 15%) Activated carbon 074-20063
	Signal indicator column For displaying operating status, reporting warnings/malfunctions 054-8046
	Multi-pin plug connection Detachable plug connection as communication interface 054-8045

Accessories & options

Device connection options

	Spark trap with metal knit insert prevents the suction of sparks. For integration into pipe system. Easy handling thanks to quick-release clamps. (Fig. shows version in 315 mm) Ø connection: <table> <tr> <td>Ø 150 mm</td><td>072-0630</td></tr> <tr> <td>Ø 200 mm</td><td>072-0638</td></tr> <tr> <td>Ø 250 mm</td><td>072-0639</td></tr> <tr> <td>Ø 315 mm</td><td>072-0643</td></tr> </table>	Ø 150 mm	072-0630	Ø 200 mm	072-0638	Ø 250 mm	072-0639	Ø 315 mm	072-0643		
Ø 150 mm	072-0630										
Ø 200 mm	072-0638										
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	Matching metal knit insert for spark traps <table> <tr> <td>Running meter</td><td>072-10032</td></tr> </table> Pre-wound: <table> <tr> <td>Ø 150 mm</td><td>072-0630-01</td></tr> <tr> <td>Ø 200 mm</td><td>072-0638-01</td></tr> <tr> <td>Ø 250 mm</td><td>072-0639-01</td></tr> <tr> <td>Ø 315 mm</td><td>072-0643-01</td></tr> </table>	Running meter	072-10032	Ø 150 mm	072-0630-01	Ø 200 mm	072-0638-01	Ø 250 mm	072-0639-01	Ø 315 mm	072-0643-01
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	Spark trap (up to approx. 1200 m³/h air volume) prevents the suction of sparks into the vacuum. The sparks are deflected by the air deflection against the copper plates and are extinguished. Through the removable inspection plate, the spark trap can be cleaned. <table> <tr> <td>Ø 80 mm</td><td>053-4000</td></tr> <tr> <td>Ø 150 mm</td><td>053-4001</td></tr> </table>	Ø 80 mm	053-4000	Ø 150 mm	053-4001						
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Ø 150 mm	053-4001										

Hoses

	Exhaust air or extraction hose PUR Can be used as an exhaust air, extraction, or connecting hose, chemical-resistant and suitable for food contact, electrostatically dissipative when the spiral is grounded. (Illustration: optionally available with wire clamp and hose connector) Per meter: <table> <tr> <td>Ø 80 mm</td><td>052-0323</td></tr> <tr> <td>Ø 100 mm</td><td>052-0325</td></tr> <tr> <td>Ø 120 mm</td><td>052-0328</td></tr> <tr> <td>Ø 125 mm</td><td>052-0332</td></tr> <tr> <td>Ø 150 mm</td><td>052-0326</td></tr> <tr> <td>Ø 160 mm</td><td>052-0329</td></tr> <tr> <td>Ø 200 mm</td><td>052-0330</td></tr> </table>	Ø 80 mm	052-0323	Ø 100 mm	052-0325	Ø 120 mm	052-0328	Ø 125 mm	052-0332	Ø 150 mm	052-0326	Ø 160 mm	052-0329	Ø 200 mm	052-0330
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Ø 150 mm	052-0326														
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Ø 200 mm	052-0330														
	Exhaust air or extraction hose, PUR antistatic black Can be used as an exhaust air, extraction, or connection hose, throughput and surface resistance < 109 ohms Per meter: <table> <tr> <td>Ø 80 mm</td><td>072-10011</td></tr> <tr> <td>Ø 100 mm</td><td>072-10035</td></tr> <tr> <td>Ø 120 mm</td><td>072-10036</td></tr> <tr> <td>Ø 125 mm</td><td>072-10039</td></tr> <tr> <td>Ø 150 mm</td><td>072-10037</td></tr> <tr> <td>Ø 160 mm</td><td>072-10040</td></tr> <tr> <td>Ø 200 mm</td><td>072-10038</td></tr> </table>	Ø 80 mm	072-10011	Ø 100 mm	072-10035	Ø 120 mm	072-10036	Ø 125 mm	072-10039	Ø 150 mm	072-10037	Ø 160 mm	072-10040	Ø 200 mm	072-10038
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Ø 200 mm	072-10038														

Accessories & options

Disposal options



Plastic disposal bags, antistatic ESD

for dust-free disposal of dusts of dust classes M and H. Extremely robust and "nail-test" approved. Perfect fit due to round-bottom design – no bypass required!

PU = 10 pieces

Suitable for:

15-l container	235-1070
25/35-l container	235-1011
60-l container	235-1021
100-l container	235-1031



Longopac disposal

"Endless" bag for simple and low-dust disposal of collected material. 20-meter film hose with cable ties for sealing.

PU = 4 units of 20 meters each

High **ESD quality**
Thickness: 68 mic. **235-1050**

High quality (non-ESD)
Thickness: 68 mic. **235-1060**

Extraction arms



Hanging extraction arm, incl. extraction hood

Including wall bracket/suspension for mounting of the extraction arm

Aluminum 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

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



Wall bracket/connection flange

with connection of extraction hose to extraction arm

Ø 125 mm, aluminum	054-90336
Ø 160 mm, aluminum	054-90337
Ø 125 mm, ATEX VA	054-90334
Ø 160 mm, ATEX VA	054-90335



Acid protection coating

Protects the device interior from erosion caused by aggressive vapors, such as those that, for example, are produced during PTFE laser cutting.

On request