

EVOTEC



Fume and dust extraction FEX 1000.1



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**INNOVATIVE
EXTRACTION TECHNOLOGY**

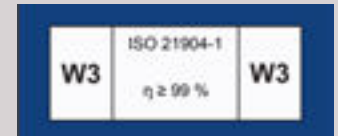


Mobile fume and dust extraction FEX 1000.1



- Process-adaptable extraction system for vacuuming fume, vapors and airborne dust
- Powerful EC-Turbine suitable for continuous operation (24/7), large air volume, stepless airflow control
- Usable as under-table-device due to low height
- Modern control technology with display of unit status and error messages
- Reliable filtration due to dual stage combined filter system
- Connection for remote ON/OFF control

Versions:



Process-adaptable extraction system, suitable for welding fumes, soldering fumes, vapors, or airborne dust

Convenient filter replacement via 2-cartridge system with **independently replaceable filter cartridges**.

Reliable filtration of airborne particles through the use of a **dual-stage combined filter system**.

Optional activated carbon content in the main filter reduces odors in the exhaust air. **Suitable for extracting laser fumes, welding and soldering fumes, cutting fumes as well as various vapors and solvents.**

Continuous-duty EC-turbine for extracting **large air volumes** to capture airborne dust.

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

Easily and comfortably **adaptable to individual requirements** via intuitive control panel.

Clear graphic display and large, multi-colored LEDs for a **quick overview of device status or settings**.

Standard version:

Initial filter equipment set consisting of:

- Storage filter frame with F9 insert
- HEPA particulate filter H13/H14

Upgrade:

ATEX explosion-protected for safe extraction in Zone 22: device equipment and components electrostatically conductive.

Initial filter equipment set (with grounding lug) consisting of:

- Expanded metal filter
- Storage filter frame with F9 insert
- HEPA particulate filter H13/H14

Upgrade:

W3-compliant version including expanded metal filter as a spark arrestor to prevent fire hazards.

Initial filter equipment set consisting of:

- Expanded metal filter
- Storage filter frame with F9 insert
- HEPA particulate filter H13/H14

Upgrade:

ESD version - EX-protected with ESD powder coating and ESD castors.

Initial filter equipment set consisting of:

- Expanded metal filter
- Storage filter frame with F9 insert
- HEPA particulate filter H13/H14

Model		FEX 1000.1
Voltage at 50/60 Hz	Volt	230 (or 110)
Engine power	Watt	1.100
Max. air flow free-blowing at turbine	m³/h	350
Max. air flow in operating condition *)		
with 3 m suction hose Ø 50	m³/h	210
with 3 m suction hose Ø 80	m³/h	240
with 2 x 3 m suction hose Ø 50	m³/h	2 x 150
Maximum usable suction hose length	m	12 (Ø 50 mm)
Max. vacuum	Pa	10.000
Max. vacuum in operating condition *)	Pa	9.000
1st filter stage: storage filter frame F9 + M5	m²	2,2
2nd filter stage: HEPA filter H13/H14	m²	2,8
3rd filter stage: activated carbon adsorption filter	kg	3,0/ 6,0
Noise level (depending on power setting)	dB(A)	52 - 69
Weight	kg	22 (+12 Filter)
Dimensions L x W x H	mm	400 x 430 x 709
Protection class		IP 55
Operating temperature	°C	5-40
Operating humidity (non-condensing)	%	10 - 90%
Color		RAL 7035
Housing		Steel, powder-coated
Standard version	SKU	710-1116
Upgrade: EX-protected for ATEX Zone 22	SKU	054-8049
Upgrade: W3-compliant version	SKU	054-8050
Upgrade: ESD version - EX-protected	SKU	054-8051

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

FEX 1000.1

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Options:

- Suction connection Ø 50 mm or Ø 80 mm
- Connection for extraction arms



Filtration chamber:
Independently replacable
filter cartridges due to
dual-stage combined filter
system

Double suction connection

Recirculation hood,
also available with exhaust air connection

Powder-coated housing, RAL
7035, optional ESD



FEX 1000.1 with pre-separator cyclone upgrade

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Cyclone pre-separator installed on the rear



10-l-Dirt container

The cyclone separator upgrade (074-2120) includes a **highly effective cyclone pre-separator** (see functional diagram) permanently installed at the rear, including a 10-liter dirt container.

This ensures the pre-separation of large quantities of fine dust/particles up to 3 μm and consequently protects the filters.
This increases the filter service life and reduces consumable costs.

Particle discharge (up to 97%) takes place in the removable 10-liter dirt container, which can be emptied or replaced in a **user-friendly and low-contamination manner.**

Powerful extraction technology requires **optimal control technology**, which is why our FEX series is equipped with a **configurable control system** that can be adapted to your extraction process. It can be operated via a clear and **intuitive control panel**.

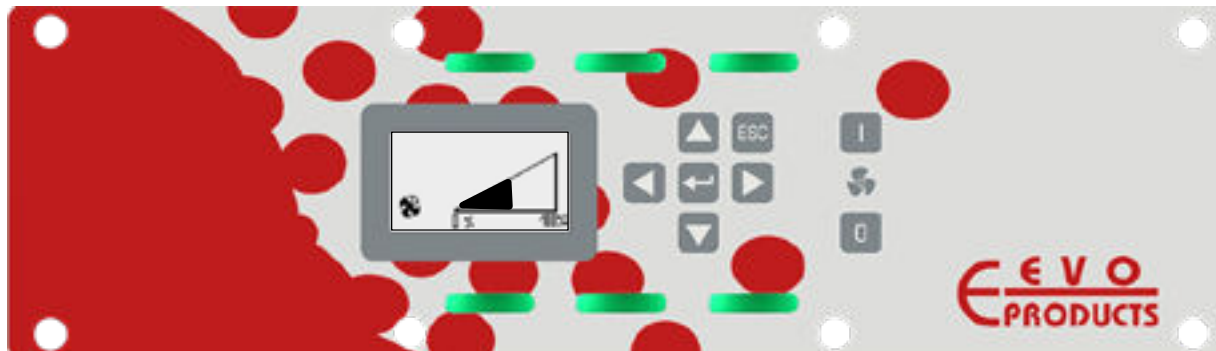
- **Test routine** for motor, buttons, LEDs, and more ensures comprehensive functionality for **maximum safety**
- Comprehensive types of fault messages and filter status messages—with **pictograms and error codes**
- **Error log** for traceability—to provide the **best possible service**
- **Filter fill level is displayed** in real time—separately for each filter
- **Various user roles** with different permissions and individual passwords
- **Real-time fill level display** individually adjustable to your suction material – **for maximum accuracy**
- Individually adjustable run-on time to ensure the **highest possible suction rate**
- **Alarm configuration** according to relevance in your suction process

Connection for on/off remote control

Connection to external controllers or devices:
8-pin socket for remote on/off switching. Operating status and fault signals can be transmitted potential-free or with 24 V.
The matching mating connector is available as an accessory.

Upgrade: Gas and particle sensor (072-0618)

- Signals filter breakthrough – can initiate immediate shutdown if necessary
- Sensitivity and much more can be configured in the user menu
- Test function to ensure functionality



[Discover all features](#) 

Replacement filters



Heavy-duty filters and adsorption filters consist of a sturdy MDF box with a seal and are completely incinerable. The separate design allows them to be combined as required depending on the application and disposed of separately depending on the load.

As a storage filter, an empty frame can be equipped with suitable filter inserts depending on requirements. For the W3 version, the use of an expanded metal filter is required. (In combination with storage filter frame+ filter insert + expanded metal filter)

Combination options:

All cartridges with a height of 146 mm can be combined with each other.

HEPA filter
H13/H14 cartridge
5,6 m² filter surface,
Height 146 mm incl. sealing
SKU 074-20064

Adsorption filter
Activated carbon cartridge
ca. 6 kg AC,
Height 146 mm incl. sealing
SKU 074-20063

Filter replacement kit
for low-contamination disposal:
Covering cardboard for filters, disposal
bags, disposable gloves, dust mask

SKU 072-0632



Standard version:
Storage filter frame
with F9 filter
Free internal height = 75 mm
Total height = 146 mm
SKU 074-20176

F9 filter, 2,2 m²

Static dissipative version:
Storage filter frame with F9 filter
and Expanded metal filter
Free internal height = 60 mm
Total Height = 146 mm
SKU 074-20177

Expanded metal filter

F9 filter, 2,2 m²

HEPA filter
H13/H14 2,8 m² filter surface

Adsorption filter AC
ca. 3 kg AK

Combined filter cartridge
H13/H14 und AK
Height = 146 mm incl. sealing
SKU 074-20087-02

Inlets for storage filter frame:

Expanded metal filter
Height 15 mm - **074-20058**

G4 fleece mat
Height 14 mm - **074-20082**

G4-Z-Line 0,3 m² - Cardboard
frame

G4-Z-Line 0,3 m² - Cardboard
frame

M5 filter 0,8 m² - Cardboard frame
Height 48 mm - **074-20084**

F9 filter, 2,2 m² - Plastic profile,
Height 48 mm - **074-20085**

Filtration technology

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Two independently replaceable filter cartridges
MDF frame, completely incinerable

Filter stage 1, storage filter:

F9 filter of synthetic pleat and glass fiber fleece, filter area 2.2 m²

Upgrade: EX-protected and

Upgrade: Static dissipative design with EX-protection: Expanded metal filter to ensure conductivity, storage filter frame with F9 insert and expanded metal filter, equipped with grounding braid for use in ATEX Zone 22.

Optionally, the storage filter can be supplemented with replaceable inserts in various filter qualities.

Filter stage 2, HEPA filter:

HEPA H13/14, filter area 5.6 m²

W3 upgrade:

Includes spark arrestor grid to prevent fire hazards

The dust class of the device is determined by the filters used.

User-friendly, low-contamination filter replacement. The cover cardboard and insert cardboard supplied with the replacement filter prevent contamination inside the device.

A replacement kit consisting of a filter cover cardboard, disposal bag, dust mask, and disposable gloves is available separately for easy filter replacement.



[Filter replacement video](#) 



Smooth-running lever mechanism for lowering the filter cartridges – then easy removal via handle groove and rail system

Options and accessories

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Hoses and connections FEX

	Vacuum hose PUR black antistatic Contact and surface resistance < 109 Ohm linear meter Ø 50 mm 072-10007 End sleeve electrically conductive for PUR-vacuum hose, 1 piece Ø 50 mm 072-10025 
	Vacuum hose PP for W3-design linear meter (not suitable for EX) Ø 50 mm 072-10003 Fitting for PP-vacuum hose, 1 piece Ø 50 mm 072-10001
	Additional extraction port Panel with 2 openings á Ø 50 mm, sealing, closing plug, for the connection of further vacuum hoses 2 x Ø 50 mm 072-0607
	Closing plug For closing of vacuum openings not neededko Ø 50 mm 072-0609

Hoses and connections FEX

	Adapter for connection vacuum hose For installation on top of the device, including hose clamp Ø 50 mm 072-0620 Ø 80 mm 072-0603 
	Exhaust air or vacuum hose PUR black antistatic Can be used as exhaust air or vacuum hose, throughput and surface resistance < 10⁹ Ohm linear meter Ø 80 mm 072-10011 Ø 100 mm 072-10035 
	Exhaust air hood with exhaust hose connection Exhaust air hood with connection for exhaust hose Ø __ mm 072-0655 
	Wire clamps single For vacuum or exhaust air hoses, galvanized steel Ø 50 mm 054-10090 Ø 80 mm 054-10091 Ø 100 mm 054-10092 

Options and accessories

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Options FEX	
	Spark trap with knitted metal inlay prevents sparks from being sucked in. For integration in pipe system or hose Ø 50 mm 072-0626 Ø 80 mm 0720628 Matching metal knitted inlay for Ø 50 mm 072-0626-01 Ø 80 mm 072-0628-01
	Bracket for spark trap included in delivery. For variable attachment of the spark trap to beams at all angular degrees.
	Expanded metal filter as a spark arrester to prevent fire hazard, suitable for use in storage filters Piece 074-20058
	Cyclone pre-separator ESD for the pre-separation of larger quantities of fine dust. 28-l dirt container made of stainless steel, cyclone made of ESD plastic, connections Ø 50 mm Piece 053-1045

Options FEX	
	Triangular socket wrench Piece 074-20016
	Stand Set For increased stability of the system, e.g. for operation with vacuum arm Set 072-0350
	Power supply cable with angled cold appliance plug, 5 meters with EU Schuko plug 072-0343 open at the end 072-01300

Options and accessories

Options FEX

	Mating connector for 8-pin female connector for connection to external controllers or devices for remote control, without cable Piece 072-0621
	Gas and particle sensor as supporting monitoring unit for damaged filters or saturated activated carbon Attention: The unit must be ordered together with machine Board unit 072-0618
	Test aerosol Test spray for functional testing of gas and particle sensors Can 072-0625
	Protective coating in the upper housing area, recommended for the extraction of acidic vapours Attention: To be ordered together with machine FEX 1000.1 072-0619-01 FEX 3000/ .1/ .2 072-0619-02

Extraction arms

Extraction arms enable spot extraction directly at the point of origin. The self-supporting construction with three stable joints makes it easy to handle and position.

Standard version: Aluminium with polypropylene joints.

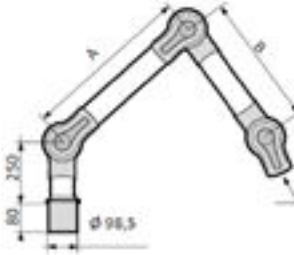
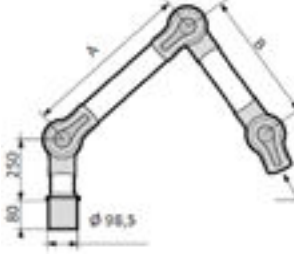
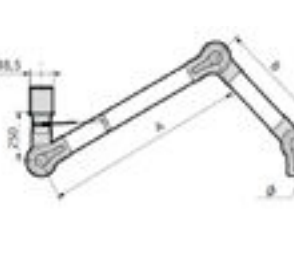
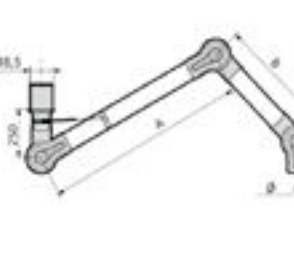
ESD version: for ESD areas (electrostatic discharge, certified according to IEC 61340-5-1). Ideal for use in laboratories, electronics manufacturing, pharmaceutical industry, etc.

- + Energy saving
- + Low noise
- + Low pressure drop

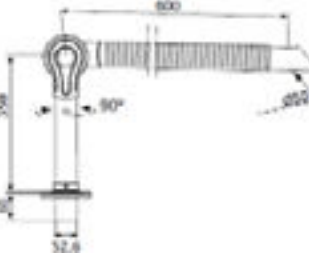
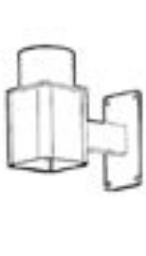
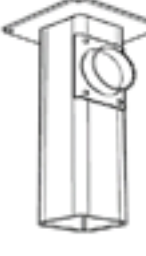
	Extraction arm for table mounting Includes bracket for plate feed-through Figure: Standard version Ø 50 mm - Range 1,300 mm Option: hood tube and flat hood
	Extraction arm for ceiling or wall mounting without bracket Figure: ESD/ATEX version Ø 50 mm - Range 1,300 mm Option: hood tube and flat hood Option: small wall bracket

Options and accessories

Extraction arms and consoles

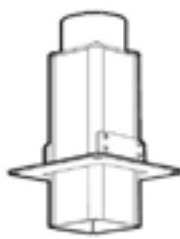
	Standard vacuum arm for table mounting Including console for panel feed-through Ø 50 mm Length 1.300 mm 072-0400 Length 1.500 mm 072-0401 Ø 75 mm Length 1.300 mm 072-0402 Length 1.500 mm 072-0403
	ESD vacuum arm for table mounting Including console for panel feed-through Ø 50 mm Length 1.300 mm 072-0400-ESD Length 1.500 mm 072-0401-ESD Ø 75 mm Length 1.300 mm 072-0402-ESD Length 1.500 mm 072-0403-ESD
	Standard vacuum arm for ceiling or wall mounting, without console Ø 50 mm Length 1.300 mm 072-0404 Length 1.500 mm 072-0405 Ø 75 mm Length 1.300 mm 072-0406 Length 1.500 mm 072-0407
	ESD vacuum arm for ceiling or wall mounting, without console Ø 50 mm Length 1.300 mm 072-0404-ESD Length 1.500 mm 072-0405-ESD Ø 75 mm Length 1.300 mm 072-0406-ESD Length 1.500 mm 072-0407-ESD

Extraction arms and consoles

	Flexible ESD vacuum arm for table mounting Including console for panel feed-through Ø 50 mm Length 600 mm 072-0400-ESD
	Flexible table console Flexible holder for mounting on table tops or shelves. Supplied complete with two screw clamps. Suitable for Ø 50 mm and Ø 75 mm For 072-0400-ESD: 072-0409-ESD Standard 072-0428 ESD 072-428-ESD
	Wall console Universal console for vacuum arm for wall mounting Suitable for Ø 50 mm and Ø 75 mm Standard 072-0427 ESD 072-0427-ESD
	Ceiling console The holder also functions as an exhaust air duct. Universally suitable for Ø 50 mm and Ø 75 mm Standard, Length 250mm 072-0418 ESD, Length 250mm 072-0418-ESD Standard, Length 1000mm 072-0421 ESD, Length 1000mm 072-0421-ESD → Other designs/Lengths auf Anfrage

Options and accessories

Hoods and nozzles	
	Flat hood 300 x 200 mm Especially suitable for gases and vapours. High vacuum efficiency in vertical position to the table surface, including hood tube
	Standard Ø 50 mm 072-0414 ESD Ø 50 mm 072-0414-ESD Standard Ø 75 mm 072-0415 ESD Ø 75 mm 072-0415-ESD
	Vacuum tip, length 300 mm For smaller, concentrated sources of pollutants; cantilevered vacuum tip for increased vacuum efficiency
	Standard Ø 50 mm 072-0410 ESD Ø 50 mm 072-0410-ESD Standard Ø 75 mm 072-0411 ESD Ø 75 mm 072-0411-ESD
	Flexible vacuum tip, length 600 mm, ESD High efficiency paired with high flexibility
	ESD Ø 50 mm 072-0412 ESD Ø 75 mm 072-0413
	Round hood Metal hood Ø 250 mm, including hood tube
	Standard Ø 50 mm 072-0432 ESD Ø 50 mm 072-0432-ESD Standard Ø 75 mm 072-0433 ESD Ø 75 mm 072-0433-ESD

Accessories extracion arms	
	Telescopic ceiling console length up to 1000 mm The holder also functions as an exhaust air duct. Universally suitable for Ø 50 mm and Ø 75 mm
	Standard 072-0426 ESD 072-0426-ESD
	Straight hood tube Spare part for hood, also suitable as straight inlet nozzle
	Standard Ø 50 mm 072-0429 ESD Ø 50 mm 072-0429-ESD Standard Ø 75 mm 072-0430 ESD Ø 75 mm 072-0430-ESD
	Reduction Material PP
	Standard Ø 100-50 mm 072-0416 ESD Ø 100-50 mm 072-0416-ESD Standard Ø 100-75 mm 072-0417 ESD Ø 100-75 mm 072-0417-ESD
	Protective guard For mounting in Ø 75 mm joint
	Standard Ø 75 mm 072-0431 ESD Ø 75 mm 072-0431-ESD