

EVOTEC

Central Extraction System

EP 2815-2822



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**INNOVATIVE
EXTRACTION TECHNOLOGY**



Central extraction system EP 2815-2822

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- For extraction of free-flowing, dry dusts and fumes during welding, grinding, polishing as well as airborne dusts
- Powerful medium-pressure turbine suitable for continuous operation (24/7), large air volume
- Frequency converter (FC) for volume flow control
- M filter cartridges with automatic compressed air cleaning
- PreCoat as filter aid (optional)
- H cassette filter H13/14 (optional)
- ESD version or EX-protected according to ATEX Zone 22 (optional)

Versions:



Powerful stationary extraction system with high air volume for capturing and filtering dry and health-hazardous dusts

Optimal for extracting free-flowing, dry dusts and fumes during welding, grinding, polishing, cutting metals or plastics, or at transfer stations.

High quality standards – **maintenance-free energy-efficient IE3 medium-pressure turbine**, suitable for 3-shift operation.

Optimal for extracting large air volumes to capture airborne dusts – **e.g. from laser cutting**.

Convenient lowering of the 35-liter dirt container for easy disposal of the suction material.

Modern cartridge filter system: durable polyester filters with large filter area in **dust class M**.

On the control side, including monitoring and display of filter status.

Automatic time-controlled cleaning of the cartridge filters by compressed air (external compressed air connection required).

Integrated impact separator for pre-separation of coarse collected material.

Modular system: Configure the extraction system according to your requirements

1. Model + performance

2. Filter unit

Upgrade EX protection: Device completely grounded as a preventive safety measure for safe operation according to ATEX in Zone 22.

Optional further safety measures, e.g. relief valve or bursting disc available on request.

Upgrade ESD version

- completely grounded
- ESD powder coating
- ESD feet/castors

Energy-efficient and customer-process-adaptable control:

Speed control

The system's output is set to a fixed speed (Hz display).

Upgrade: Suction pressure control

(PID) Sensors in the system determine the required air volume and the frequency converter automatically adjusts to the appropriate negative pressure (mbar display).

1. Selection: Model + performance		EP 2815	EP 2822
Motor power	Watt	1.500	2.200
Voltage at 50/60 Hz.	Volt	400 V - 3 ~	
Motor rated current max.	Amp	3.0	4.0
Maximum air volume turbine output at free outlet	m³/h	2.050	2.500
Maximum vacuum at closed suction nozzle	Pa	3.300	3.500
Maximum air volume in operating condition *)	m³/h	1.650	1.950
Maximum negative pressure in operating condition *)	Pa	2.800	3.200
Sound pressure level (depending on power setting)	dB(A)	67	
Weight	kg	180	182
Dimensions L x W x H**)	mm	740 x 800 x 1970 - 2380	
Suction connection Ø	mm	150 (position selectable)	
Exhaust air connection		Outlet grille (position selectable)	
Protection class		IP 54	
Operating temperature	°C	5 - 35	
Operating humidity (non-condensing)	%	10 - 70	
Art. No.		054-8031	054-8033
2. Add: Filter unit dust class M		Art. No.	
"M" – 4 cartridges of 4.2 m² (16 m²)	M4PF	054-8036	
"M" – 1 cartridge (10.0 m²)	M1PF	054-8037	
Optional upgrades:		Art. No.	
Dust class H 8.4 m² filter area	H	054-8035	
Longopac disposal system	LP	054-8060	
Activated carbon incl. 2 AK panels	AK	054-8034	
EX protection according to ATEX Zone 22	EX	054-8042	
ESD version electrostatically dissipative	ESD	054-8044	

*) **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.

**) Based on the standard version and vary depending on the equipment configuration.

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View: Front/ right

Chamber with
medium-pressure
turbine IE3

Filter position
Dust class H
(Upgrade, machine
becomes 40 cm)

Position
Purge gas tank 11
liters

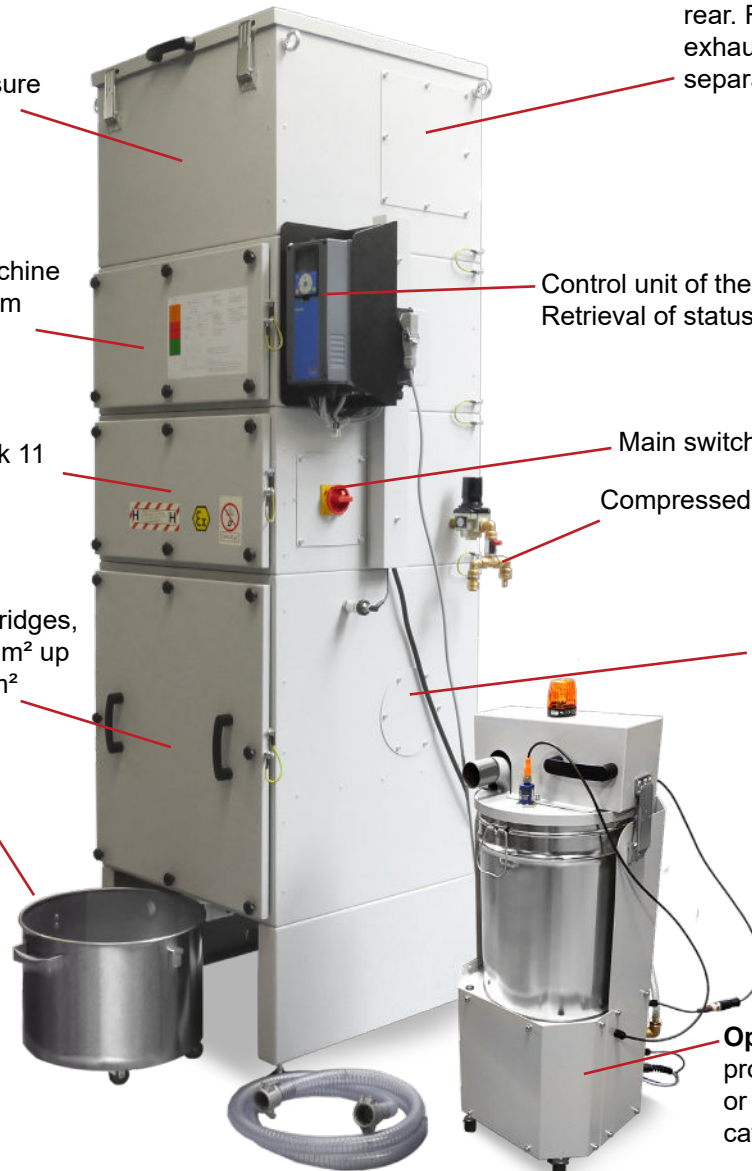
Position filter cartridges,
optionally 4 x 4.2 m² up
to 5.0 m² 1 x 10 m²

Standard:

35-liter dirt container
with swivel castors

Upgrade:

Longopac disposal system



Outlet grille optionally right, left or
rear. Further options, such as an
exhaust nozzle, must be ordered
separately.

Control unit of the system and
Retrieval of status messages

Main switch

Compressed air connection

Suction connection
Ø 150 mm, optionally
right, left or rear

Optional: PreCoat dosing unit to
protect the filters from sticky dusts
or as a constant additive for compli-
cated dusts

View: Rear/ left



Pedestals

Central extraction system EP 2815-2822

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Control technology:

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

- **Speed control**
The system's output is set to a fixed speed (Hz display).
Suction power continuously adjustable during operation Automatic time-controlled filter cleaning (initial and operational cleaning as well as 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
- Fill level monitoring dirt container
- Connection for ON/OFF remote control and reporting of operating states to external controllers
- Use of PreCoat dosing unit
- Control of customer-side exhaust air shut-off damper
- **Suction pressure control (PID)**
Sensors in the system determine the required air volume and the frequency converter automatically and energy-efficiently regulates to the preset negative pressure (mbar display)



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Filter technology:

Independently replaceable filters:

First filter stage:

- Four cartridge filters dust class M with a total of 16.8 m² filter area (polyester fleece, aluminum-coated)
- Automatic and pneumatic filter cleaning (external compressed air required)

To be ordered as an upgrade when ordering the device:

Optional:

Suspended matter filter HEPA H13/14, filter area 8.4 m² in MDF frame as storage filter

Optional:

Adsorption filter with activated carbon as panels in front of the exhaust air. Attention: When connecting to exhaust air, the cover hood with connection nozzle 054-70202 must be added!

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

For complex dusts, the cartridge filters are also available with a **PTFE coating** as an option.

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

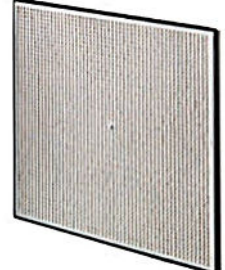


Accessories & options

Filters and options EP 2815 - 2822

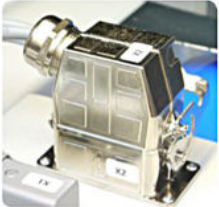
	Filter cartridge – Dust class M for 4-cartridge filter system Polyester fleece aluminum-coated, cylindrical, electrically conductive, Ø 200 mm, round thread Ø 100 mm, L 50 mm L 500 mm / 4.2 m² 054-20182 L 600 mm / 5.0 m² 054-20178
	PTFE filter cartridge, dust class M for 4-cartridge filter system Polyester 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
	Filter cartridge – Dust class M Polyester fleece aluminum-coated, cylindrical Length: 600 mm, electrically conductive, Ø 328 mm, for fastening on the raw gas side with tension anchor L 600 mm/ 10 m² 054-20189 L 1000 mm/ 16 m² 054-20153 L 1200 mm/ 19 m² 054-20196
	PTFE filter cartridge, dust class M Polyester fleece with PTFE membrane, cylindrical Length: 600 mm, electrically conductive, Ø 328 mm, for fastening on the raw gas side with tension anchor L 600 mm/ 10 m² 054-20190 L 1000 mm/ 16 m² 054-20187 L 1200 mm/ 19 m² 054-20197

Filters and options EP 2815 - 2822

	Filter cassette - dust class H For subsequent purchase for upgrade dust class H filter cassette 497 x 497 x H150 mm dust class H (H13/H14) 8,4 m² 054-70176
	Filter cassette - dust class H For subsequent purchase for upgrade AK for adsorption of odors, 605x605x32mm, 2 pieces are required for the AK module! Standard 054-70175 Cover hood Ø 200 mm 054-70202
	Vibrating motor for filter cleaning Supports cartridge filter cleaning through addition: mechanical vibration, ideal for critical dusts that change their state of aggregation (including additional control card) 054-8047
	PID upgrade (constant volume flow) Sensors in the system determine the required air volume, which is then automatically and energy-efficiently regulated by frequency converters kept constant 054-8059

Accessories & options

Control technology EP 2815 - 2822

	Extension electrical box is required if the relay outputs supplied as standard with the frequency converter are not sufficient, e.g. when adding options such as PreCoat dosing unit and/or potential-free remote signaling (operation, fault, maintenance) and/or additional sensors, etc. 054-8038
	Signal indicator column For displaying operating status, reporting warnings/malfunctions 054-8046
	10-pin plug connection Additional detachable plug connection as communication interface 053-0067
	16-pin plug connection Additional detachable plug connection as communication interface 053-0085

Control and disposal options EP 2815 - 2822

	Fill level monitoring for dust container Sensor monitors the fill level of the dust container. Evaluation is performed via the PLC. Processing of signals according to customer specification. 054-8040
	Remote ON/OFF via radio With handheld transmitter and receiver, works up to 350 m range. If not in combination with FC, a switch box is required. Without switch box 054-6933 With switch box 054-6932 Additional handheld transmitter 054-60322

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**

Disposal options



Replacement or exchange container with castors, Ø 400

enables simple and fast disposal outside the operating location

35 liters **054-3111**

Matching lid with handle
Ø 400 mm **054-20114**