

# EVOTEC



## Central Extraction System EP 2830-28110



INNOVATIVE  
EXTRACTION  
TECHNOLOGY

## Central extraction system – EP 2830 - EP 28110

# EVOTEC



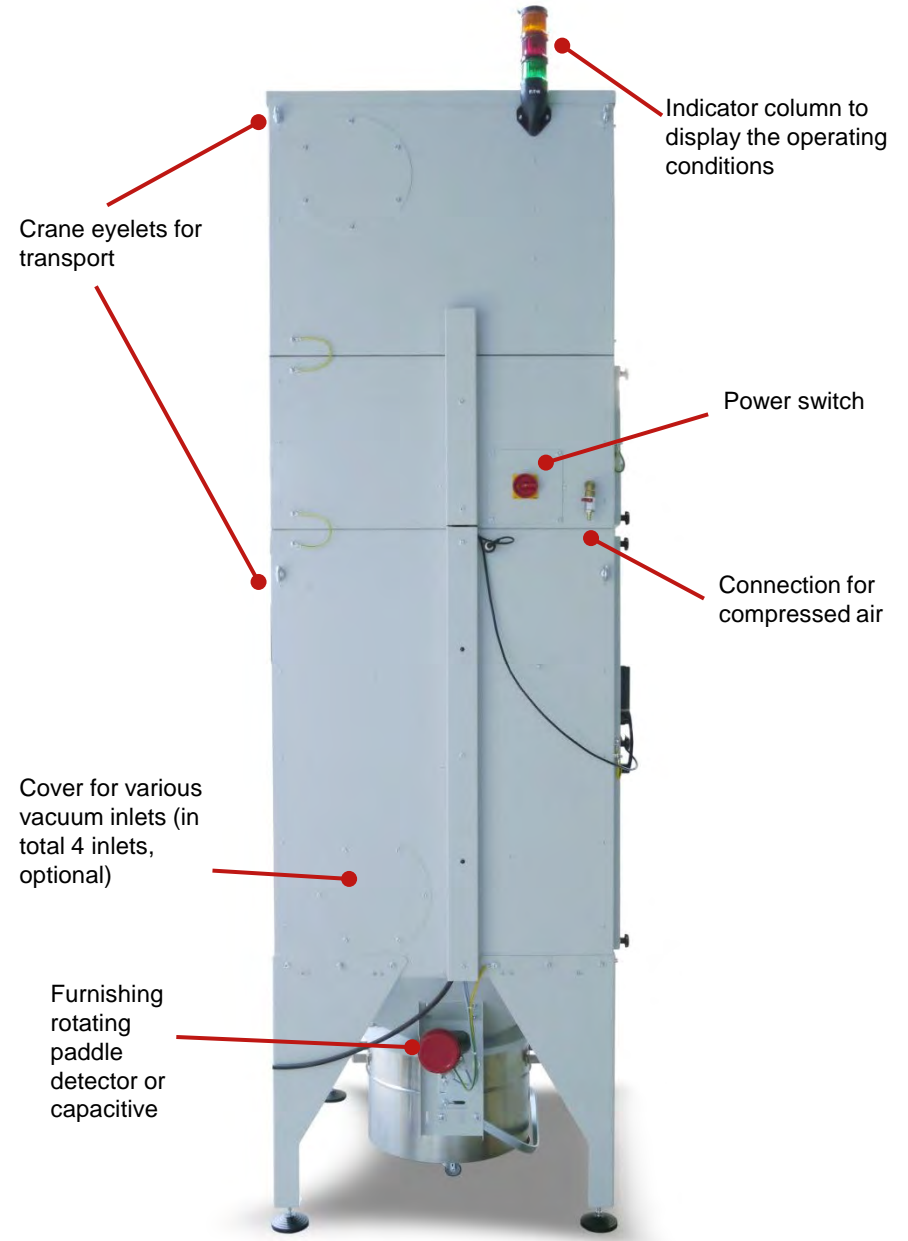
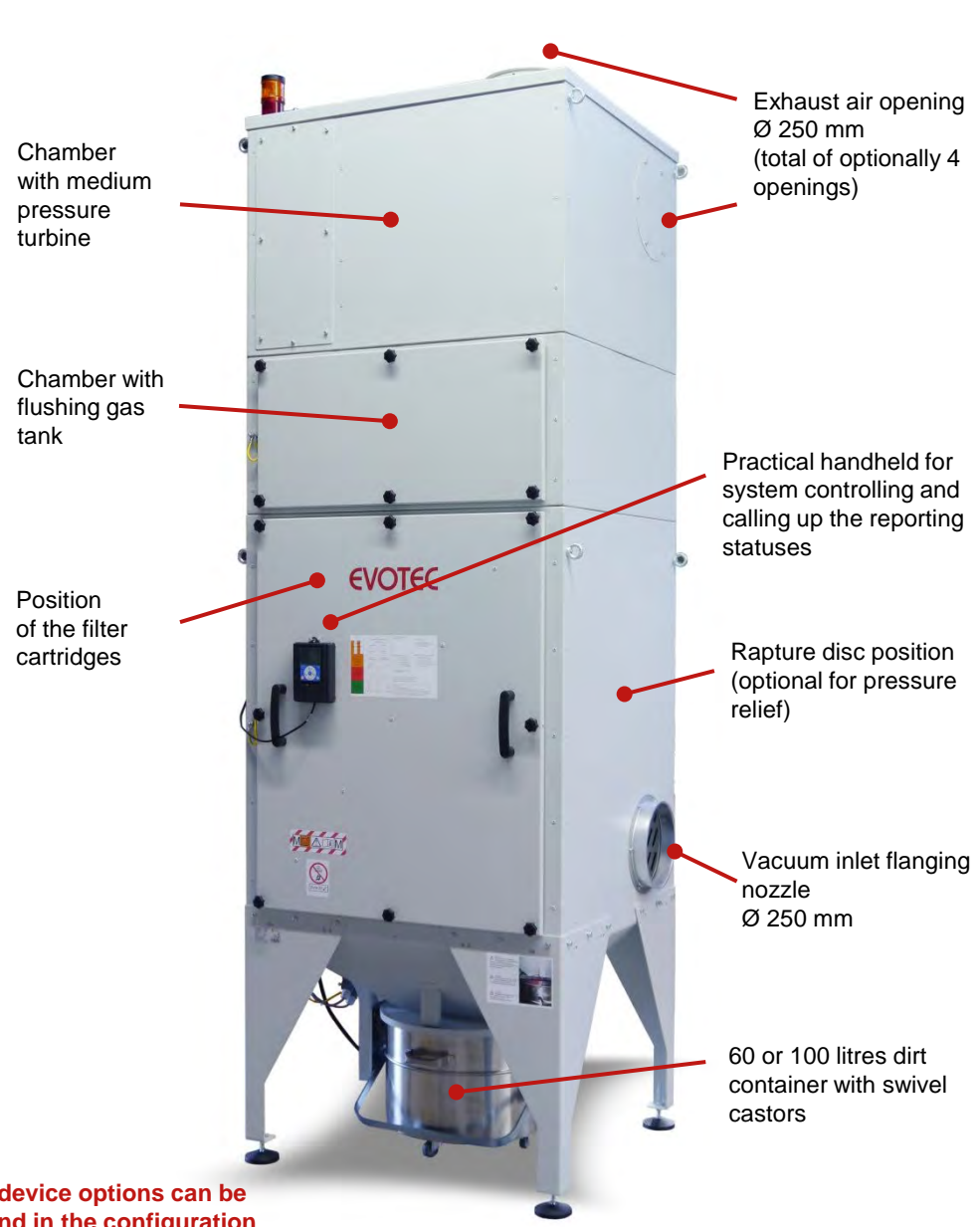
- ★ High vacuum power suitable for pipe systems with various openings to connect.
- ★ Automatic volume flow control (PID)
- ★ Remote ON/OFF possible
- ★ Practical handheld
- ★ Full safety equipment
- ★ Fill level monitoring of dirt tank

EP 2830  
EP 2855  
EP 2875  
EP 28110

Versions:



# EP 2830 - EP 2875



All device options can be found in the configuration sheet further in this document

**Powerful stationary extraction system with high air volume to collect and filter dry and hazardous dusts**

Ideal to extract free flowing, dry dusts and smoke during welding, grinding, polishing, cutting materials or plastics or at transfer stations.

High quality standards – maintenance-free **IE3** medium pressure turbine suitable for **3-shift-operation**. Ideal for extraction of large air volumes to collect suspended dust – e.g. from **laser cutting**.

Comfortable container lowering of dirt container for easy disposal of the material.

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

Dust class H available on request.

Monitoring and display of filter status included in control side.

Automatic time controlled cartridge filter cleaning by compressed air (external compressed air connection is required). Integrated impact separator to pre-separate coarse material.

**Upgrade EX protection:** Device fully grounded as a preventive protective measure for safe use in accordance with ATEX in zone 22.

**Optional** additional protective measures, e.g. relief valve or rapture disc available on request.

**Upgrade ESD version**

- completely grounded
- ESD powder coated
- Feet/castors ESD

**Energy efficient control which can be adapted to customers processes:**

**Volume flow control (PID)**

The required air volume is determined by sensors in the system and the frequency inverter automatically controls to the appropriate negative pressure (mbar-display) or

**Speed control**

The power of the unit is set to a fixed speed (Hz.-display).

\*) **Operating** data including standard filter equipment in factory condition without further options such as spark trap, pipeline or H-upgrade, etc. The operating point varies due to the power setting and pipe design (Ø, length) as well as measurement at the suction point.

\*\*) With regard to the standard version, varying according to equipment.

Model	Volt	EP2830-40	EP2830-64	EP2855	EP2875	EP 28110-76
Voltage at 50/60 Hz		400				
Engine power	Watt	3.000		5.500	7.500	11.000
Max. motor current	Amp.	5,3		10,4	13,4	19,3
Max. air flow approx. *)	m³/h	3.830		6.200	7.200	9.000
Max. negative pressure	Pa	3.900		4.500	6.100	6.000
Air flow in operating condition approx. *)	m³/h	3.300	3.500	5.500	6.300	7.900
Pressure in operating condition approx. *)	Pa	3.800		4.200	5.000	6.000
Flushing gas tank	ltr.	2 x 10				
Filter area dust class „M“	m²	4 x 10 = 40	4 x 16 = 64			4 x 19 = 76
Dirt container	ltr.	60 - (optional 100)				
Protection class		IP 54 (if exhaust air ist connected)				
Noise level at 50 Hz	dB(A)	68		70	72	74
Vacuum inlet/ exhaust air connection	Ø mm	250 mm, various inlets optional				
Dimensions**) T x B x H	cm	98 x 102 x 285	98 x 102 x 325			142 x 102 x 360
Weight**) kg		480	485	520	540	600
Operating temperature	°C	5 – 35				
Operating humidity	%	10 – 70 (non condensing)				
<b>Standard version</b>		<b>251-4220</b>	<b>251-4221</b>	<b>251-4240</b>	<b>251-4250</b>	<b>251-4261</b>
<b>Upgrade EX protection</b> ATEX Zone 22	<b>I.No.</b>	<b>054-8042</b>				
<b>Upgrade ESD version</b> electrostatically conductive	<b>I.No.</b>	<b>054-8044</b>				
<b>Upgrade 100 dirt container</b>	<b>I.No.</b>	<b>053-1095</b>				
Upgrade two-parted version	<b>I. No.</b>	<b>054-7313</b>				–
Upgrade dust class „H“ filter area 20 m²	<b>I. Nr.</b>	<b>054-7330</b>			–	–

# EP 28110-76

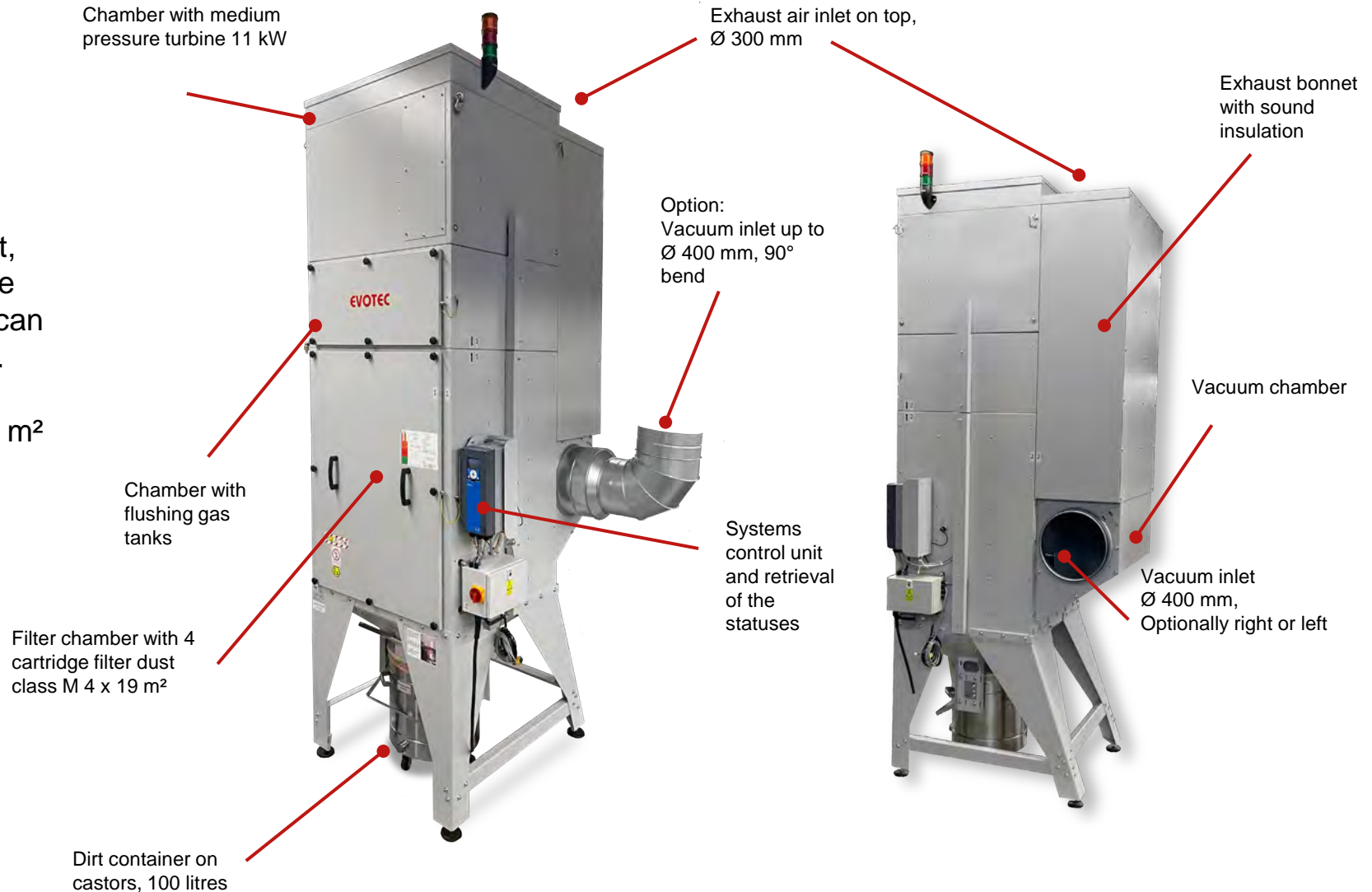


**NEW**

## **EP 28110-76 with large-volume exhaust bonnet to reduce noise emission**

The large vacuum inlet, which is ideal to handle large air volume flow, can be reduced if required.

★ Large filter area: 76 m<sup>2</sup>

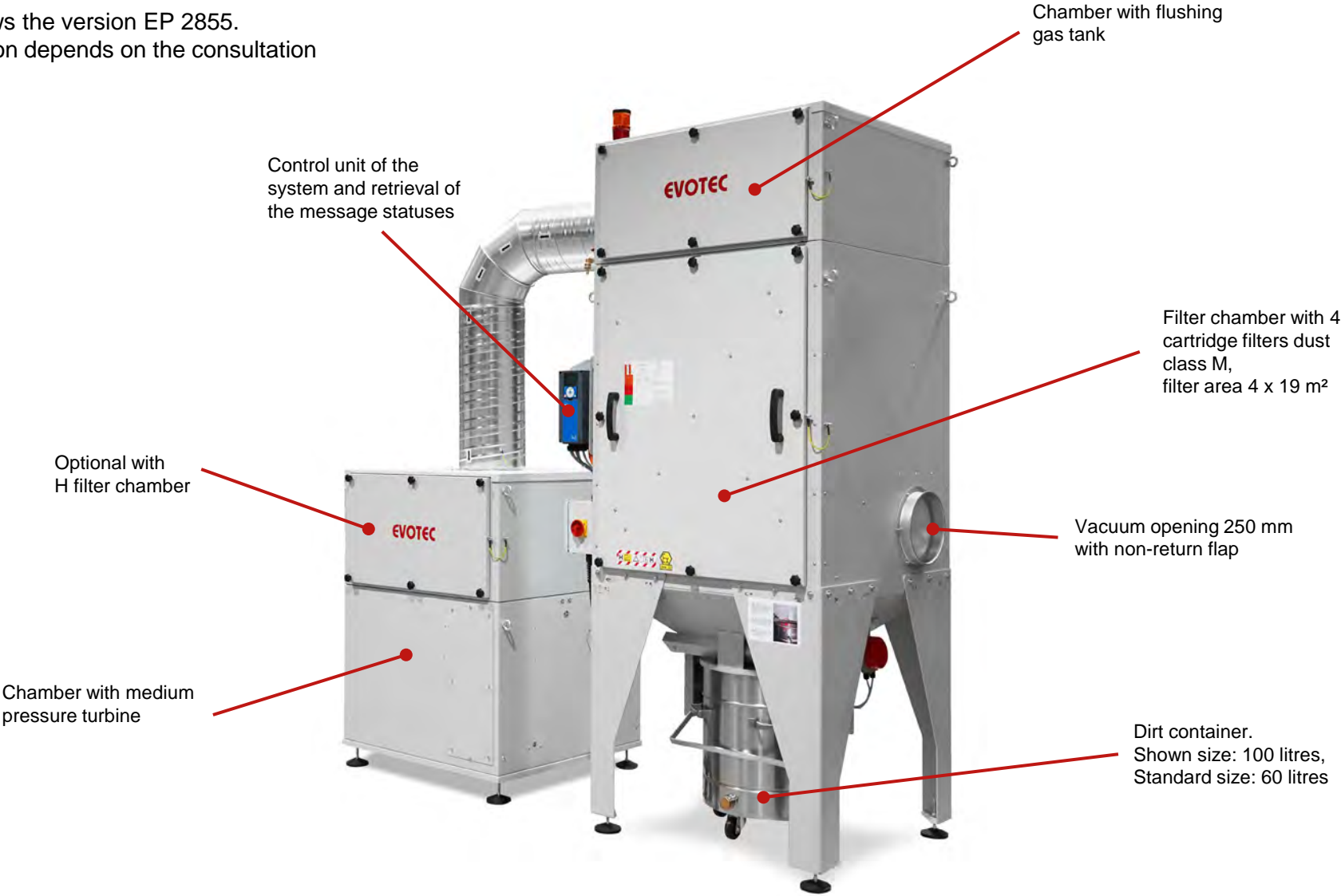


## Upgrade two parted version

For the models EP2830-2875

★ Recommended for H upgrade or if ceiling height is not sufficient.

Image shows the version EP 2855.  
Configuration depends on the consultation



## Control technology:

### **Automatic volume flow control (PID)**

The required air volume is determined by sensors in the system and the frequency inverter automatically regulates to the appropriate negative pressure (mbar-display)

or

### **Speed control regulation**

The power of the unit is set to a fixed speed (Hz.-display).

Further control options

- Signal interfaces to operate message and filter message
- Remote ON/OFF
- Control of the system via practical handheld
- Signal lights and display with status message
- Monitoring of: maximum negative pressure
- Maximum differential pressure (filter load)
- Control of cartridge filter cleaning
- Service hour counter (including maintenance notice)



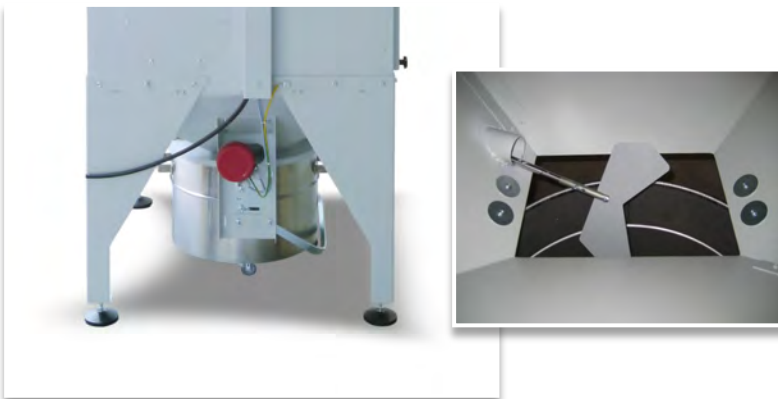
## Disposal:

- V2A stainless steel dirt container 60 litres
- Upgrade: 100 litres dirt container
- Dirt container with swivel castors
- Dirt container can be lowered by lever for easy disposal
- Plastic disposal bag for low contamination disposal also available in ESD quality
- Rotating paddle detector for level monitoring in the dirt container

Suitable disposal bags:

Item no. 235-1021 (60 litres)

Item no.. 235-1031 (100 litres)



### Filter technology

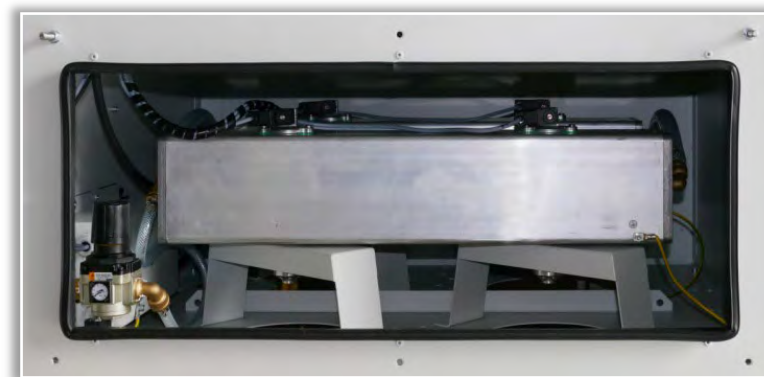
- Four cartridge filters dust **class M** according to DIN EN 60335-2-69
- Filter area:  
4 x 10 m<sup>2</sup> = 40 m<sup>2</sup> (Item no. 054-20189)  
or  
4 x 16 m<sup>2</sup> = 64 m<sup>2</sup> (Item no. 054-20153)
- Pre-Coating dosing unit **optional** item no. 054-7500  
pre-treatment for filter protection
- User-friendly filter change
- For zone 22 – Ex protection by earthing straps

### Filter cleaning technology

- Automatic periodic compressed air filter cleaning, alternating intervals, **external compressed air is required** (5 to 8 bar)  
Maximum operating pressure 6 bar,  
Flushing gas tanks 2 x 10 litres
- Monitoring of:  
→ maximum negative pressure  
→ maximum differential pressure (filter load)



When used in ATEX Zone 22, no ignition sources may be sucked in.





# Filters and options EP 2830 - EP 28110

Cartridge filters EP 2830 to EP 28110	
	<p><b>Cartridge filter– Dust class M</b> for 4-cartridge filter system, polyester fleece, alu-coated, cylindrical, electrically conductive, Ø 328 mm, for fastening on the raw gas side with tension anchor</p> <p>10 m<sup>2</sup>, L600mm   <b>054-20189</b> 16 m<sup>2</sup>, L1000mm   <b>054-20153</b> 19 m<sup>2</sup>, L1200mm   <b>054-20196</b></p>
	<p><b>PTFE cartridge filter - Dust class M</b> for 4-cartridge filter system, polyester fleece, with PTFE membrane, cylindrical, electrically conductive, Ø 328 mm, for fastening on the raw gas side with tension anchor</p> <p>10 m<sup>2</sup>, L600mm   <b>054-20190</b> 16 m<sup>2</sup>, L1000mm   <b>054-20187</b> 19 m<sup>2</sup>, L1200 mm   <b>054-20197</b></p>
	<p><b>Set: Hepa-filter cassettes H13</b> MDF-frame, filter class H13</p> <p>610 x 610 x H260 mm   <b>074-20114</b> 610 x 610 x H292 mm   <b>074-20114</b></p>
	<p><b>Upgrade activated carbon</b> To adsorb odours, additional housing with device for the activated carbon module can be used up to 3,0 kW</p> <p style="text-align: right;"><b>054-7320</b></p>

Options EP 2830 to EP 28110	
	<p><b>Vibrator motor for filter dedusting</b> Supports filter cleaning through additional mechanical vibration, ideal for critical dusts that change their aggregate state (incl. extension module control)</p> <p><b>054-8047</b></p>
	<p><b>Spare or replaceable container Ø 500</b> enables simple and quick disposal outside of site, with swivel castors</p> <p>60 litres               <b>054-3210</b> 100 litres              <b>054-3220</b></p> <p>Matching lid with handles Ø 500 mm              <b>054-20090</b></p>
	<p><b>Plastic disposal bag, antistatic ESD</b> VE = 10 pieces for dust-free disposal of dust classes M and H. Extremely stable and „nail test“-tested. Perfect fit due round bottom design.</p> <p>60-l-container                               235-1021 100-l-container                              235-1031</p>

# Technical options EP 2830 - EP 28110

Technical options EP 2830 to EP 28110	
	<p><b>Extension electric box</b> is required if the relay outputs supplied as standard with the frequency inverter are not sufficient, e.g. if options such as a PreCoat dosing unit and/or potential-free remote signalling (operation, malfunction, maintenance) and/or additional sensors, etc. are added.</p> <p><b>On request</b></p>
	<p><b>Multi-pole plug connection</b> Additional separable plug connection as communication interface. (Image shows 10-pole plug connection)</p> <p>10-pole                    <b>053-0067</b> 16-pole                    <b>053-0085</b></p>
	<p><b>Remote ON/OFF via radio</b></p> <p>With hand transmitter and receiver, works with a range up to 350 m. If not in combination with frequency inverter a switch box is required.</p> <p><b>Without</b> switch box    <b>054-6933</b> <b>With</b> switch box        <b>054-6932</b></p> <p>Hand transmitter        <b>054-60322</b></p>

Technical options	
	<p><b>PreCoat dosing unit</b> Doses a filter aid into the extraction unit in fixed cycles. The filters are then coated with a „sacrificial layer“ and thus are protected from e.g. sticky adhesions. Which otherwise cannot be cleaned of the filter.</p> <p>The filter life cycle is being extended and the filtration results are improved..</p> <p><i><b>Solid inerting:</b> Alternatively it is also suitable s an admixture to reduce the reactivity of complicated dusts.</i></p> <p><b>Including filling level control for PreCoat container</b> Sensor monitors the filling level of the PreCoat container. The evaluation takes place via PLC. Processing of the signals according to customer agreement.</p> <p>Compressed air controlled dosing unit including 20 kg container with ready-to-use-EVOMIN precoat powder.</p> <p>363 x 363 x 990 mm        <b>054-7502</b></p>
	<p><b>Precoat EVOMIN replacement container</b> Ready-to-use filled replacement container for Precoat dispenser, containing 20 kg</p> <p><b>054-7501</b></p>

# Accessories for series EP 2830 and EP 28110



Device connection options	
	<p><b>Spark trap with knitted inlay</b> prevents sparks from being sucked in. For integration into pipe systems. Easy handling due to quick adjustable clamping rings. Ø connection:</p> <p>Ø 150 mm      <b>072-0630</b>            Ø 200 mm      <b>072-0638</b>            Ø 250 mm      <b>072-0639</b>            Ø 315 mm      <b>072-0643</b></p>
	<p><b>Matching metal knitted inlay</b> for spark traps</p> <p>Linear metres      <b>072-10032</b> Ready wound:</p> <p>Ø 150 mm      <b>072-0630-01</b>            Ø 200 mm      <b>072-0638-01</b>            Ø 250 mm      <b>072-0639-01</b>            Ø 315 mm      <b>072-0643-01</b></p>
	<p><b>Spark trap</b> (up until approx. 1200 m³/h air volume) 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. Connection Ø 150 mm      <b>053-4001</b></p>
	<p><b>Control of exhaust air shut-off damper</b> suitable for shut-off dampers in the customer's exhaust air. Only for actuators with spring return (e.g. Belimo damper) <b>On request</b></p>

Hoses	
	<p><b>Exhaust air or vacuum hose PUR</b> </p> <p>Can be used as an exhaust air, vacuum hose or connecting hose, chemical resistant and food-graded, electrostatically conductive when spiral is grounded. (Image: Optionally with wire clamp and hose connection piece.)</p> <p>Linear metres</p> <p>Ø 80 mm      <b>052-0323</b>            Ø 100 mm      <b>052-0325</b>            Ø 120 mm      <b>052-0328</b>            Ø 125 mm      <b>052-0332</b>            Ø 150 mm      <b>052-0326</b>            Ø 160 mm      <b>052-0329</b>            Ø 200 mm      <b>052-0330</b></p> <p><i>Suitable hose connectors and reducers can be found in the piping catalogue.</i></p>
	<p><b>Exhaust air or vacuum hose PUR, antistatic black</b> </p> <p>Can be used as an exhaust air, vacuum hose or connecting hose. Flow and surface resistance &lt; 10<sup>9</sup> Ohm</p> <p>Linear metres</p> <p>Ø 80 mm      <b>072-10011</b>            Ø 100 mm      <b>072-10035</b>            Ø 120 mm      <b>072-10036</b>            Ø 125 mm      <b>072-10039</b>            Ø 150 mm      <b>072-10037</b>            Ø 160 mm      <b>072-10040</b>            Ø 200 mm      <b>072-10038</b></p> <p><i>Suitable hose connectors and reducers can be found in the piping catalogue.</i></p>

## Configuration

### EP 2830-EP 2875 Front view / right

→ Please mark out what  
you do not want!

**Option:**

Upgrade to dust class  
H054-7330 (extra charge)  
-> the unit becomes  
approx. 50 cm higher  
overall

**Option:**

Shaker motor for filter  
cleaning, inside the  
housing 054-8047  
(surcharge)

**Standard:**

Dirt container 60l

**Option:**

Dirt tank 100l 053-1095  
(surcharge)  
-> the unit is approx. 30 cm  
higher overall

**Standard:**

Exhaust air connection  
Ø 250mm top

**Option:**

Exhaust air connection Ø  
250mm right  
(price neutral)

**Option:**

EX-Protection according to  
ATEX (Zone 22) 054-8042  
(surcharge)



**Standard:**

Suction connection Ø 250  
right



Approved:

\_\_\_\_\_  
Date, Customer Signature

# Configuration

## EP 2830-EP 2875 Rear view / left

→ Please mark out what  
you do not want!

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**Option:**

Exhaust air connection  
Ø 250mm rear  
(price neutral)

**Standard:**

Signal Tower left

**Option:**

Exhaust air connection  
Ø 250mm left (price neutral)

**Standard:**

Main switch /  
compressed air  
connection left

**Option:**

Suction connection  
Ø 250mm left  
(Price neutral)

**Option:**

Sauganschluss Ø 250mm  
Hinten links oder  
hinten rechts(Preisneutral)



Approved:

\_\_\_\_\_  
Date, Customer Signature

Notes

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Notes

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