

EVOTEC



Central Extraction System EP 2815-2822



INNOVATIVE
EXTRACTION
TECHNOLOGY

Central extraction system EP 2815 – EP 2822

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- ★ For extraction of free-flowing, dry dusts and smoke during welding, grinding, polishing and floating dust extraction.
- ★ Powerful medium-pressure turbine suitable for continuous operation (24/7), large air volume
- ★ Frequency converter 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 version according to ATEX zone 22 (optional)

EP 2815
EP 2815-100
EP 2822

Versions:



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

Ideal for extraction of free-flowing dry dusts and smoke 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**. Ideal for extraction of large air volumes to collect suspended dust – **e.g. resulted from laser cutting**.

Comfortable lowering of the 35 l dirt container for easy disposal of the material.

Modern cartridge filter system: Resistant polyester filters with large filter area in **dust class M**. Including monitoring and display of filter condition on control side.

Automatic time-controlled cleaning of the cartridge filters by compressed air (external compressed air connection is required) Integrated impact separator for the pre-separation of coarse material.

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

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

Upgrade ESD version

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

Energy efficient control that can be adapted to customer processes.

Speed control

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

Or optional:

Vacuum pressure control (PID)

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

Assemble your system individually from the two assemblies:

- 1. Motor and control components**
- 2. Filter unit and disposal system**

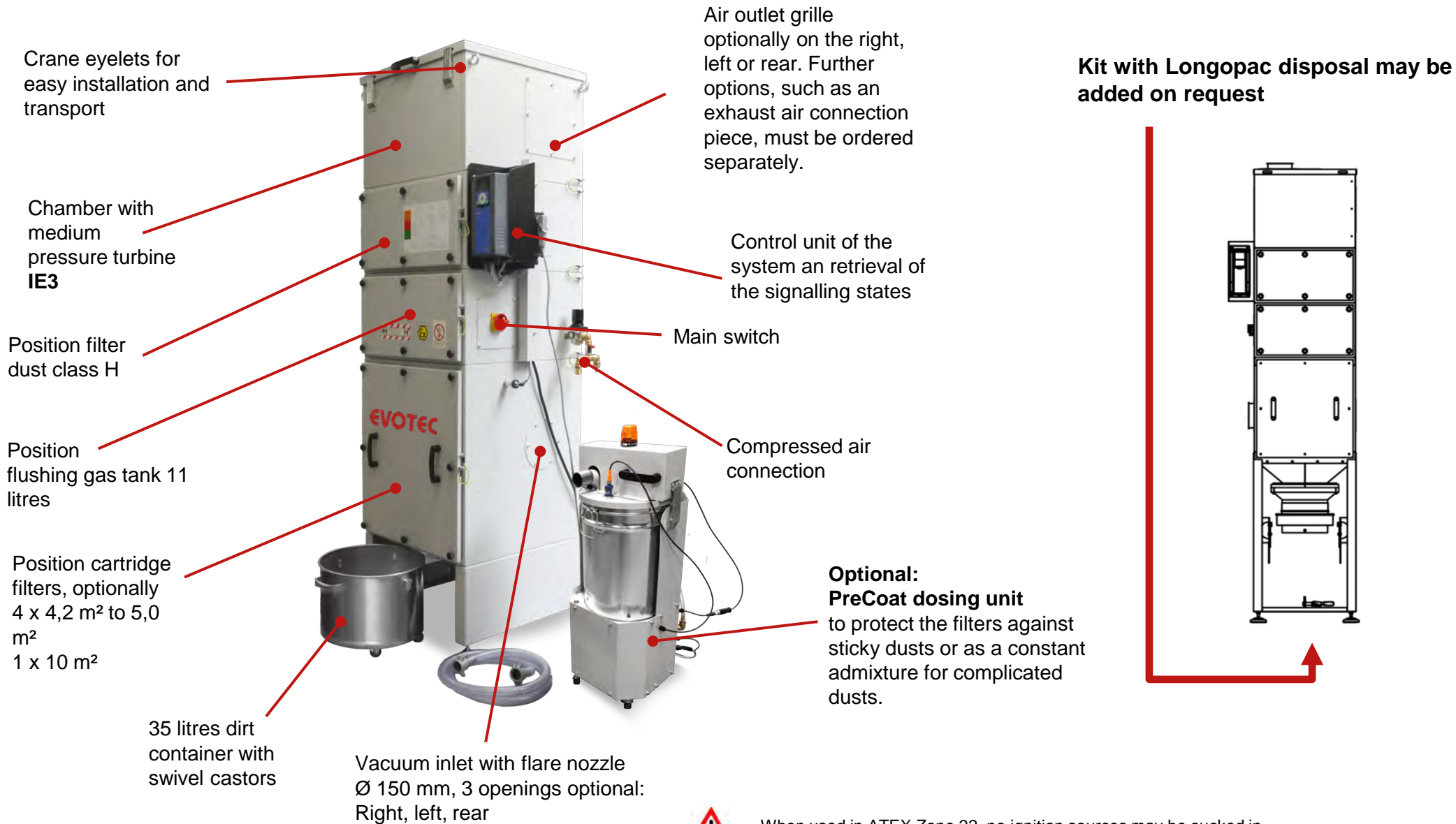
ASSEMBLIES	EP 2815	EP 2822
1. Motor and control (is to be selected from)		
Engine power	1 x 1.500 W	1 x 2.200 W
Voltage	400 V - 3~ - 50/60 Hz.	
Max. motor rated current	3,0 Amp	4,0 Amp
Max. air volume	2.050 m³/h	2.500 m³/h
Max. negative pressure	3.300 Pa	3.500 Pa
Operating air flow approx. *)	1.650 m³/h	1.950 m³/h
Operating negative pressure approx. *)	2.800 Pa	3.200 Pa
Protection class	IP 54	
Noise level	67 dB(A)	
Vacuum connection	Ø 150 mm (Optional position)	
Exhaust air	Air outlet grille (Optional position)	
Dirt container	35 litres	
Dimensions L x W x H **)	740 x 800 x 1970 - 2380 mm	
Operating temperature	5 – 35 °C	
Operating humidity	10 – 70 % non-condensing	
Weight	180	182
Item-No. Motor housing	054-8031	054-8033
2. Filter unit dust class M (to be added)		
„M“ – 4 cartridges á 4,2 m² (16 m²)	-M4PF	054-8036 (4 x M filter cartridges á 4,2 m²)
„M“ – 1 cartridge (10,0 m²)	-M1PF	054-8037 (1 x M filter cartridge 10,0 m²)
UPGRADES (optional)		
Dust class H 8,4 m² Filter area	-H	054-8035 (H filter cassette 8,4 m²)
Activated carbon in.l. 2 AK-panels	-AK	054-8034 (Activated carbon)
EX protection ATEX for zone 22	-EX	054-8042 (EX version ATEX for zone 22)
ESD version electrically conductive	-ESD	054-8044 (ESD version)

*) **Operating data** including standard filter equipment in factory condition without further options such as spark trap, pipelines 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.

**) Regarding to the standard version, varying according to equipment.

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

Control technology:

Modern control industry standard technology facilitates the adaptation of the extraction system to the customers peripheral equipment:

- **Speed control**
The power of the unit is set to a fixed speed (Hz.-display)
Vacuum power can be infinitely adjusted during operation **or optional:**
- **Vacuum pressure control (PID)**
The demand of (the air volume) is determined by sensors in the unit and the frequency inverter controls automatically as well as energy-efficiently to the pre-set negative pressure. (mbar-display)
- Automatic time-controlled filter cleaning (initial and operational cleaning as well as post-cleaning)
- Display of device status and warnings
 - Monitoring of filter status
 - Device malfunctions, e.g. insufficient vacuum pressure

Options:

- Signalling malfunctions/warnings via signal lights
- Monitoring of the dirt container level
- Connection for ON/OFF remote control and reporting of operating states to external controllers
- Usage of PreCoat dosing unit
- Control of customer-side exhaust air shut-off damper



Filter technology:

Independently interchangeable filters

1st filter stage:

- Four cartridge filters **dust class M** with a total filter area of 16,8 m² (Polyester fleece, aluminium coated)
- Automatic and pneumatic filter cleaning (external compressed air is required)

Upgrades to be ordered when ordering device:

Optional:

HEPA filter H13/14, filter area 8,4 m² in MDF frame as a storage filter.

Optional:

Adsorption filter with **activated carbon** as panels before exhaust air. For exhaust air connection, the cover with connection pipe 054-70202 must be added!

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




For complicated dusts, the cartridge filters are available with a **PTFE** coating as an alternative.

Easy access makes filter replacement user-friendly and low-contaminated.





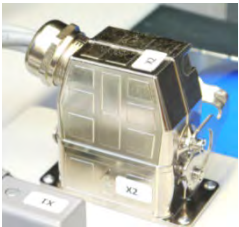

Filters and options EP 2815 - EP 2822

Filter cartridges for EP 2815 to EP 2822	
	<p>Filter cartridge – Dust class M for 4-cartridge filter system Polyester fleece, aluminium 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</p>
	<p>PTFE filter cartridge – Dust class M for 4-cartridge filter system Polyester fleece, PTFE coated, 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</p>
	<p>Filter cartridge – Dust class M for 1-cartridge filter system Polyester fleece, aluminium coated, cylindrical, electrically conductive Length: 600 mm, Ø 328 mm, with tension anchor for fastening on the raw gas side 10,0 m² 054-20189</p>
	<p>PTFE-filter cartridge, Dust class M for 1-cartridge filter system Polyester fleece, PTFE coated, cylindrical, electrically conductive. Length: 600 mm, Ø 328 mm, with tension anchor for fastening on the raw gas side 10,0 m² 054-20190</p>

Filters und options for EP 2815 to EP 2822	
	<p>Filter cassette – dust class H to purchase for dust class H upgrade Filter cassette 497 x 497 x H150 mm Dust class H (H13/H14) with handle an guide rollers 8,4 m² 054-70176</p>
	<p>Activated carbon panels to purchase for AK upgrade to adsorb odours Size: 605x605x32mm For the AK module two pieces are required! 1 piece 054-70175</p>
	<p>Vibrating motor for filter cleaning Supports cartridge filter cleaning by additional mechanical vibration, ideal for critical dusts that change their aggregate state (incl. additional card control) 054-8047</p>

Options EP 2815 - EP 2822



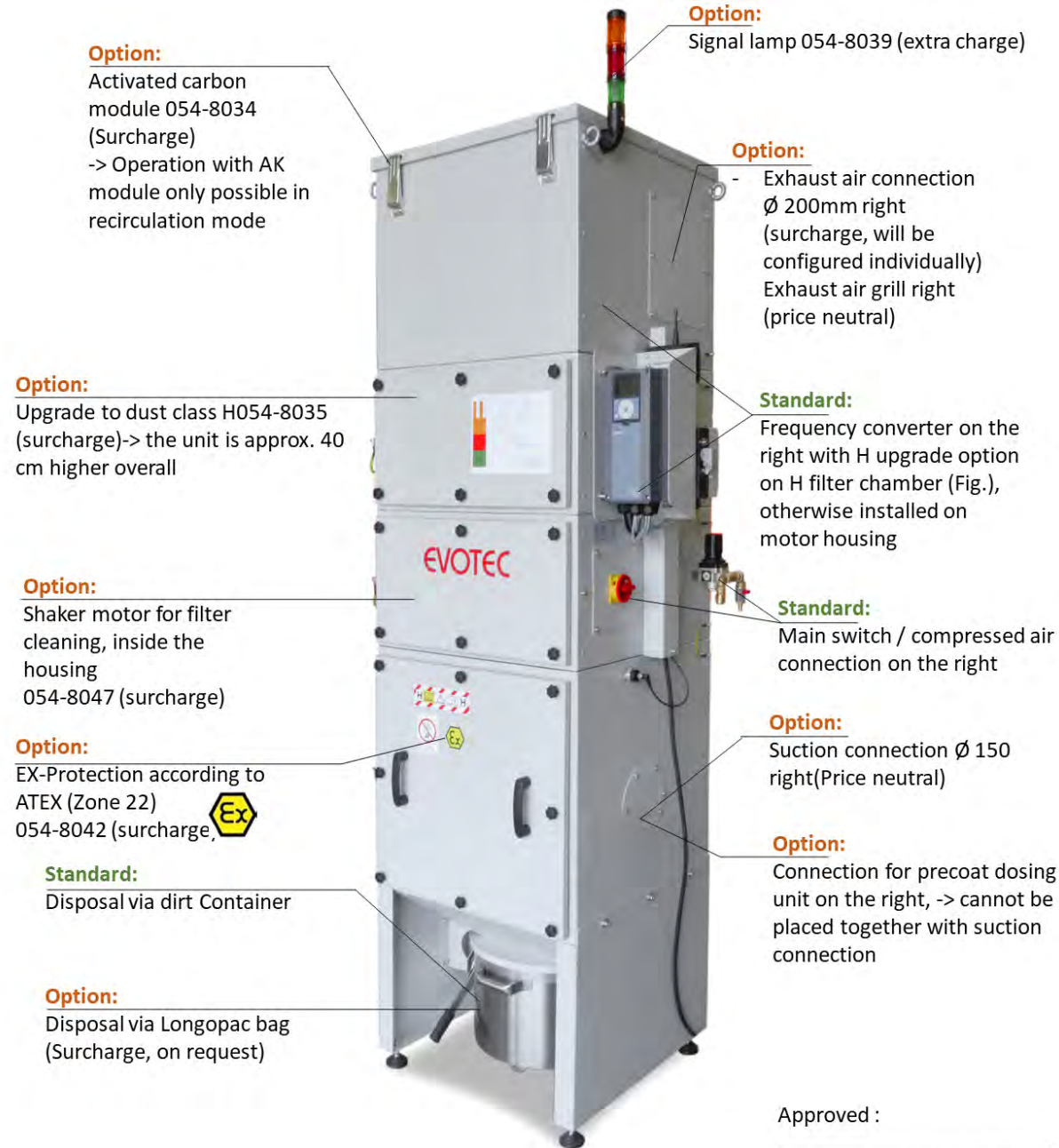
Technical options	
	<p>Extension electric box is required if the relay outputs supplied as standard with the frequency inverter are not sufficient, e.g. if options such as a PreCoat dosing unit and/or potential-free remote signalling (operation, malfunction, maintenance) and/or additional sensors, etc. are added.</p> <p>054-8038</p>
	<p>Signal indicator tower, 24 V For optical reproduction of warning and fault messages.</p> <p>054-8039</p>
	<p>10-pole plug connection Additional seperable plug connection as a communication interface</p> <p>053-0067</p>
	<p>16-pole plug connection Additional seperable plug connection as a communication interface</p> <p>053-0085</p>

Dirt container options	
	<p>Spare or replaceable container enables simple and quick disposal outside of site</p> <p>35 litres 054-3111</p> <p>Matching lid with handles for 35-l-container Ø 400 mm 054-20114</p>
	<p>Plastic disposal bag, antistatic ESD VE = 10 pieces for dust-free disposal of dust classes M and H.</p> <p>Extremely stable and „nail test“-tested. Perfect fit due round bottom design – by-pass not necessary!</p> <p>35-l-Behälter 235-1011</p>
	<p>Level monitoring for dirt container Capacitive sensor monitors the level of the dirt container. The evaluation takes place via SPS and must be adapted to a customer-specific application.</p> <p>054-8040</p>
	<p>Remote ON/OFF via radio 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>Without switch box 054-6933 With switch box 054-6932 Hand transmitter 054-60322</p>

Configuration

EP 2815-EP 2822 Front view / right

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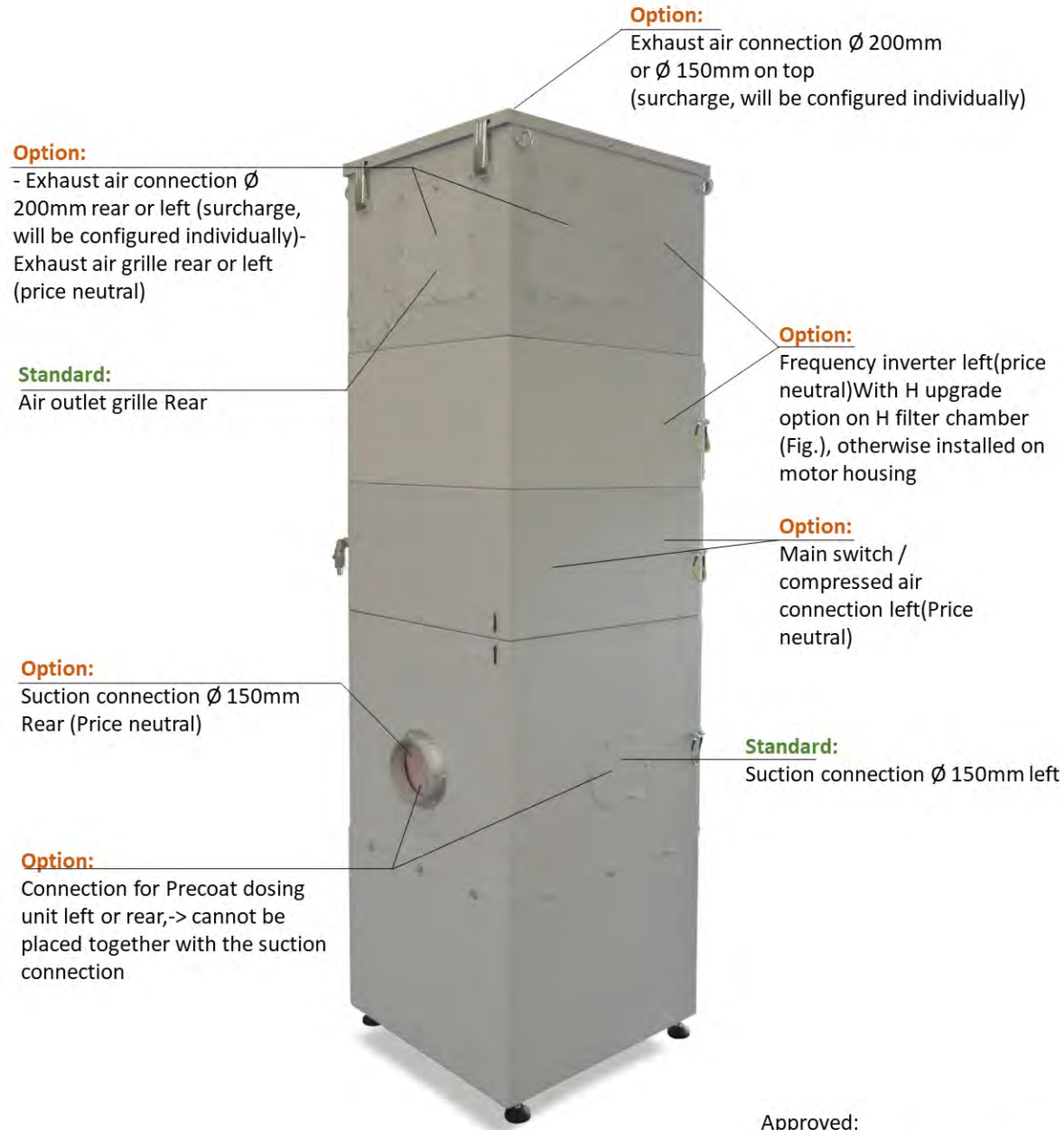
Approved :

Date, Customer Signature

Configuration

EP 2815-EP 2822 Rear view / left

→ Please mark out what you do not want!



Approved:

Date, Customer Signature

Notes

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EVO-PRODUCTS Blankenburg GmbH – Dieselstraße 3 – 53424 Remagen

Tel.: +49 (0)2642 9373-0 Fax: +49 (0)2642 9373-14

www.evo-products.de – info@evo-products.de