

EVOTEC



**Inert Vacuum Cleaner
for explosive Dusts
with liquid bath**



**INNOVATIVE
EXTRACTION TECHNOLOGY**



Additive Manufacturing

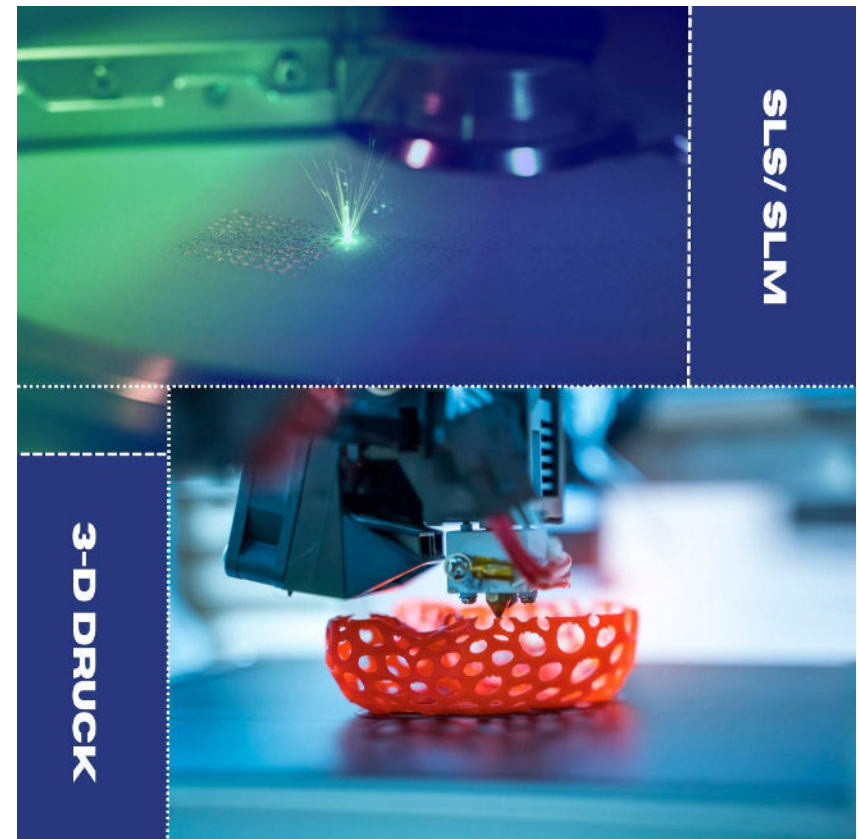
Depending on the process, different materials are used in additive manufacturing: **plastics**, such as polyamides, polystyrenes or polypropylenes, and **metals**, such as aluminium, titanium, cobalt-chrome or copper. There are a few things to keep in mind when performing maintenance cleaning of the 3-D print room: Accumulating dusts can be **reactive and/or explosive**, depending on the grain size and properties of the material. The following processes can cause dust swirls that are hazardous and dangerous:

- Cleaning the build space of 3D laser printers
- Removal of smut residues
- Separation of the workpiece from the carrier plate

Special safety vacuum cleaners are therefore required for safe extraction:

- **Inert vacuum cleaner** to extract reactive dusts, such as aluminium, copper or titanium
- **EX-protected vacuum cleaners** for use in **zone 22** to extract explosive, non-reactive fine dusts such as polyamide, polystyrene or iron dust

Below you will find our industrial vacuums specially designed for the requirements of additive manufacturing.



EP Inert-Industrial vacuum



- ★ Full safety equipment - **E.g. for Additive Manufacturing** - Many years of experience with and for renowned manufacturers in the 3D printing industry
- ★ Complies with VDI 3405
- ★ Inert process: Liquid bath for passivation of explosive and reactive dusts (e.g.: aluminium, titanium).
- ★ Degassing valve
- ★ H14-cartridge filter (2m²) and Special VA filter (1m²)
- ★ ESD hose



Image EP 2130 ECO-WB

EP 2130 ECO-WB
EP 312-100-WB
ECODust Pro 15-WB

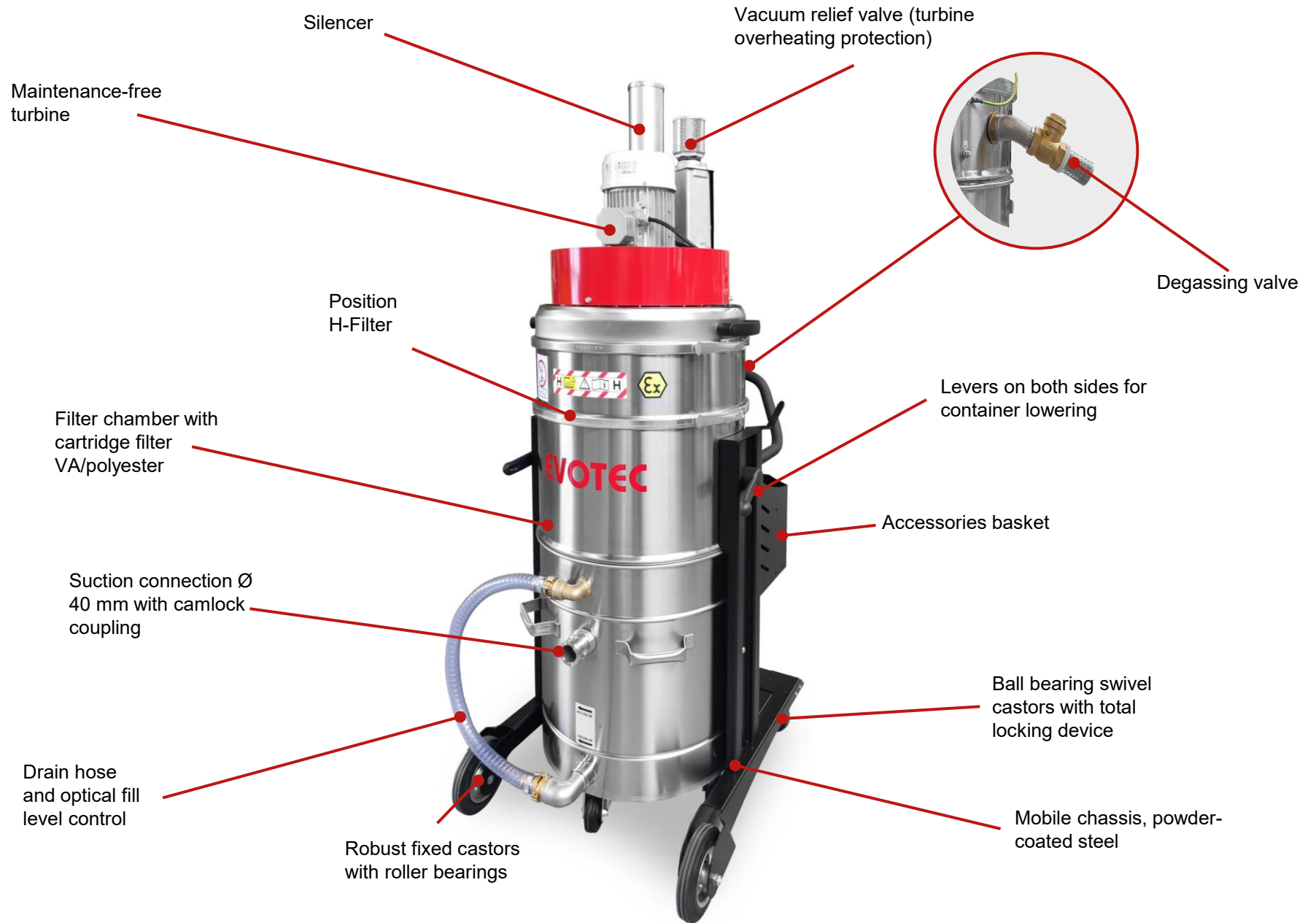
Versions:

Zone 1 + 2
Zone 21 + 22



Inert-Industrial vacuum EP 2130 ECO-WB

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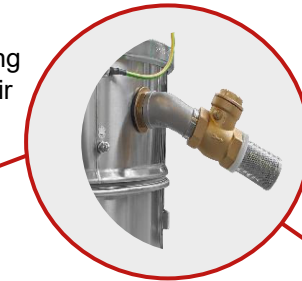


Inert-Industrial vacuum EP312-100-WB

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Vacuum manometer
for filter monitoring

Soundproofed housing
with 2 compressed air
ejectors



Degassing valve

Position
H-Filter

Levers on both sides for
Container lowering

Filter chamber with
cartridge filter VA

Earth terminal for equipotential
bonding

Suction connection
Ø 40 mm with
Kamlock coupling

Accessories basket

Drain hose
and optical fill
level control

Ball bearing swivel
castors with total
locking device

Robust fixed
castors with roller
bearings

Mobile chassis, powder-
coated steel



Inert-Industrial vacuum ECODust Pro 15-WB



**Upgrade:
ECODustPro 15-WB Clean room version with
enclosed motor head**

Powerful industrial vacuum cleaner with liquid bath separator integrated in the dirt tank for the extraction of explosive, reactive, deposited metal dusts such as aluminum, copper, titanium.

In the inert process, the explosive as well as reactive material is **passivated** by the liquid bath.

Critical fine dusts are bound to liquid separation medium (e.g. water) - according to VDI 3405.

EP 2130 ECO-WB and EP 312-100-WB both with a large wet separator tank with safety device for passivation of vacuumed media:
 Minimum level = 25 liters
 Maximum level = 35 liters

Simple and fast optical level control (minimum and maximum filling) to ensure sufficient liquid level.

Degassing valve avoids accumulation of gases and vapors generated

Additional special VA filter plus H14 filter cartridge for reliable separation in dust class H according to EN 60335-2-69 and EN 62487.

High quality standards - EP 2130 ECO-WB and ECODustPro 15-WB with **electric drive**. Well-designed, soundproofed turbine (side channel compressor) on the exhaust air side. Or: EP 312-100 with compressed air ejectors - **Powerful compressed air version. Attention:** external compressed air required! (Operating pressure 6 - 10 bar)

Convenient lowering of the dirt container for **easy disposal** of the vacuumed material.

Vacuum bend with camlock coupling for safe connection of the hose.

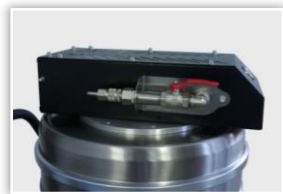



Image shows compressed air head incl. ejectors (EP 312-110 WB)

Length connection cable: 8 m

Model		ECODustPro 15-WB	EP 2130 ECO-WB	EP 312-100-WB
Drive		Voltage: 230 Volt Engine power: 1.500 Watt	Voltage: 400 Volt Engine power: 3.000 Watt	2 compressed air ejectors, consumption: 56 m³/h (at 4 bar pressure) Operating pressure: 6-10 bar
Max. air volume	m³/h	220	320	300
Negative pressure	mbar	200/ 240 max.	240/ 310 max.	200/ 280 max.
Filter area VA-Filter Filter area „H“ (H14)	m² m²	1,0 m² + 1,7 m²	1,5 + 2,0	
Dirt container: Minimum-Level Maximum-Level	Litres	50 12 15,5	100 25 35	
Protection class		IP 55		-
Noise level	dB(A)	76		
Suction connection	Ø mm	40 mm Kamlock connection		
Dimensions LxWxH	cm	48 x 56 x 138	83 x 68 x 165	
Weight	kg	59	100	
Dust class	 Item No.	H/Type22: 151-3099	H/Type22: 251-3081	H/Zone 1, 2, 21, 22: 053-0083

Scope of delivery includes:
 3,5 m ESD hose Ø 40 mm and scoring nozzle



You will find further suitable accessories online with the models



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