

DEPURECO · II 1/2D C T100°C

Depureco AC 65 Z20/21



The AC 65 Z20/21 is Depureco's pneumatically driven vacuum for the higher dust zones: ATEX-marked II 1/2D c T100°C, meaning internal Zone 20 and external Zone 21. A catalog nuance worth noting -- the "c" refers to the protection principle constructional safety (EN 13463-5, non-ignition by construction) rather than the more classical "Ex h" family; this is because venturi drive has by design no electrical ignition source, and the 1/2D category is secured here through constructive measures (grounding, antistatic construction, temperature limit T100°C). The defining difference to the AC 65 Z2/22 is that the H14 absolute filter (28,000 cm² fiberglass) is included as standard on this variant -- not an add-on. That makes it the natural choice for pharmaceutical and research environments where both spark-safety and HEPA exhaust are required.

APPLICATIONS

- Pharmaceutical production with CMR-category substances and Zone 21 classification
- Research and R&D; labs where HEPA on the exhaust is a requirement
- Battery prototyping with active powders that can generate explosive atmosphere
- Gas-neutral rooms with internal Zone 20 + external Zone 21, where electric motors are excluded
- Metal fine-polishing rooms where dust is reactive and operators must be protected

Technical specifications

ATEX marking	II 1/2D c T100°C
Internal / external zone	20 / 21
Motor type	Venturi-rør, pneumatisk drift (trykluft 6-8 bar)
Airflow	480 m ³ /h
Vacuum	500 mbar (5097 mmH ₂ O)
Container	65 L
Sound pressure	70 dB(A)
Filter class	H class
Filter type	Stjernefilter antistatisk polyester klasse M, 24.000 cm ² + H14 absolutfilter 28.000 cm ² fiberglass (inkluderet som standard)
Primary filter	Stjernefilter antistatisk polyester klasse M, 24.000 cm ²
Cleaning system	Manuel filterrens
Collection system	Detachable container
Material	Lakeret staalkonstruktion, AISI 304 stoev- og kammerbeholder
Air consumption	1233 nl/min
Supply pressure	6-8 bar
Air supply hose	Diameter 12 mm
Venturi units	1 pcs
Inlet	Diameter 80 mm
Dimensions (L x W x H)	660 x 800 x 1200 mm
Weight	64 kg

Questions and answers

What does 'H14 included as standard' mean?

It means the AC 65 Z20/21 ships with an H14 absolute filter (28,000 cm² fiberglass, EN 1822-5, 99.995 % MPPS) fitted as delivery -- not as an add-on specified at order. On the AC 65 Z2/22 the H14 is optional; here it is always included. Combined with the stricter zone certification (Zone 20 internal vs Zone 22 internal on Z2/22) this explains the roughly 20 % price difference. Chassis weight is actually the same 64 kg -- the H14 cabinet is integrated in the filter housing, not stacked on top.

Why pneumatic and not electric for Zone 20?

Zone 20 -- where explosive dust atmosphere is continuously or long-term present -- has very high ignition-source elimination requirements. Venturi drive has no moving electrical parts and no hot surfaces above T100°C -- this is precisely why the unit is certified under the protection principle constructional safety ("c" in the 1/2D category). An electric alternative for the same zone needs Ex tb/tc protection or equivalent, and is typically both more expensive and more service-demanding because electric heating elements and bearings must be kept below T100°C even under fault conditions.

What is the difference between an AC 65 Z20/21 and a FOX 3 DEX 1/2D?

The FOX 3 DEX 1/2D is electric (three-phase side-channel blower 2.2 kW), delivers 320 m³/h at 200 mbar and has a large compact 100 L tank. The AC 65 Z20/21 is compressed-air driven, delivers 480 m³/h at 500 mbar but only 65 L container. On flow and vacuum AC wins -- on tank size and compressed-air independence FOX wins. Choose AC if spark safety is the top priority or if you have ample compressed-air capacity; choose FOX if continuous operation without compressor dependence matters more.

Can the AC 65 Z20/21 operate in Zone 22?

Yes. The Zone 21 certification automatically covers Zone 22 (lower requirement). But if your installation is stable Zone 22 (not 21) it may be over-dimensioned -- the AC 65 Z2/22 or a side-channel electric model may then be a better choice.

Contact and advisory

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