DEPURECO · ACD EX 1/- D (INTERN KONSTRUKTION SVARENDE TIL ZONE 20 PER IEC 60335-2-69 ANNEX AA)

Depureco M-PRO ACD

The Depureco M-PRO ACD is a compact 45-litre industrial vacuum built to solve one specific task: collecting combustible dust in laboratories, 3D-printing workshops and smaller production environments where the room itself is not ATEX-classified, but where the dust is ignitable. Two bypass motors in parallel deliver 380 m3/h at 250 mbar on standard 230 V -- enough to keep up with a 3D printer or a CNC router without requiring a three-phase installation. Inside the machine, the dust container is treated as Zone 20 per IEC 60335-2-69 Annex AA, so an internal ignition is contained internally.

APPLICATIONS

- 3D-printing laboratories with metal powder from SLM and DMLS processes
- University laboratories and R&D; departments with fine polymer dust
- Smaller CNC workshops handling aluminium and magnesium swarf
- Dental technicians and jewellery workshops collecting precious-metal dust
- Smaller polishing and grinding stations

Technical specifications

ATEX marking	ACD EX 1/- D (intern konstruktion svarende til Zone 20 per IEC 60335-2-69 Annex AA)
Internal / external zone	20 / ikke-ATEX
Motor type	2 bypass-motorer i parallel (2 x 1,3 kW)
Airflow	380 m³/h
Vacuum	250 mbar (2550 mmH_2O)
Container	45 L
Sound pressure	72 dB(A)
Filter class	M class
Filter type	Stjernefilter antistatisk polyester klasse M, 6,000 cm2 (HEPA H14 22.000 cm2 som tilvalg)
Primary filter	Stjernefilter antistatisk polyester klasse M. 6.000 cm2
Collection system	Synthetic safebag
Material	Lakeret staalkonstruktion, AISI 304 stoevbeholder
IP class	IP54
Power	2.6 kW
Voltage	230 V / 50-60 Hz
Inlet	Diameter 50 mm
Dimensions (L x W x H)	516 x 545 x 860 mm
Weight	38 kg

Questions and answers

Why is the Depureco M-PRO ACD a better choice than a standard industrial vacuum?

Because combustible dust -- for example metal powder from 3D printing, precious-metal dust from dental work or fine aluminium swarf from CNC -- requires that the vacuum itself cannot be the ignition source. The Depureco M-PRO ACD is built with a grounding chain, antistatic filter fabric and reinforced AISI 304 dust container, so any ignition inside the container is contained inside the container under IEC 60335-2-69 Annex AA.

Why this specific motor and phase configuration?

Two bypass motors in parallel (2 x 1.3 kW) deliver a combined 380 m3/h and 250 mbar -- close to a small three-phase side-channel. The advantage of single-phase is mobility: the Depureco M-PRO ACD plugs into a standard 230 V outlet in any building without requiring a three-phase installation. The model is aimed at research environments and smaller workshops.

What types of dust is the Depureco M-PRO ACD actually intended for?

Fine combustible dust in small to medium quantities: metal powder from additive manufacturing (aluminium, titanium, tool steel), polymer powders from SLS and MJF, fine aluminium swarf from CNC machining, precious-metal dust from dental and jewellery work, and organic laboratory dust. For reactive metal dust in larger quantities we recommend an INERT model with neutralising bath instead.

What is the difference between ACD and ATEX?

ACD (Appliance for Combustible Dust) covers vacuums for combustible dust in areas that are NOT ATEX-classified -- typically because the dust quantity or operating pattern does not trigger classification. ATEX vacuums are certified to the ATEX Directive 2014/34/EU and may be used in classified zones. If your lab or workshop has no zone classification but you still work with combustible dust, ACD is the correct category.

Contact and advisory

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