

DEPURECO · II 1/2D EX HTC IIIC T140°C DA/DB

Depureco FOX 3 DEX 1/2D



The FOX 3 DEX 1/2D is the entry point to the Zone 21 class: same FOX chassis with internal cyclone pre-separation as its 1/3D sibling, but with ATEX II 1/2D Ex htc IIIC T140°C Da/Db -- meaning the exterior is cleared for Zone 21, not just Zone 22. 2.2 kW side-channel blower, 100 L AISI 304 container, 80 mm tangential inlet, 320 m³/h at 200 mbar. The H14 absolute filter (28,000 cm²) is included as standard -- not an option, as it is on the 1/3D variant. Well suited for a single operator station in Zone 21 where dust has mixed grain sizes and HEPA-grade exhaust is needed without detours.

APPLICATIONS

- Single operator station in Zone 21 with HEPA exhaust
- Paper, cellulose, wood dust and coarse filler (cyclone catches the coarse fraction)
- Polymer and plastics production with mixed grain sizes
- Laboratory or R&D; environment where the machine itself must sit in Zone 21
- Replacement of 1/3D unit when an area is reclassified to Zone 21

Technical specifications

ATEX marking	II 1/2D Ex htc IIIC T140°C Da/Db
Internal / external zone	20 / 21
Motor type	Sidekanalblaeser 3-fase (2.2 kW) med intern cyklon-forseparation
Airflow	320 m³/h
Vacuum	200 mbar (2039 mmH ₂ O)
Container	100 L
Sound pressure	73 dB(A)
Filter class	M class
Filter type	Stjernefilter antistatisk polyester klasse M, 24.000 cm ² , manuel rens + H14 absolutfilter 28.000 cm ² (inkluderet)
Primary filter	Stjernefilter antistatisk polyester klasse M, 24.000 cm ²
Cleaning system	Manuel filterrens
Collection system	Detachable container
Material	Lakeret staalkonstruktion, AISI 304 stoevbeholder
IP class	IP65
Power	2.2 kW
Voltage	400 V / 50-60 Hz
Inlet	Diameter 80 mm
Dimensions (L x W x H)	660 x 1200 x 1510 mm
Weight	142 kg

Questions and answers

Why choose 1/2D over 1/3D when the price is higher?

The 1/2D marking (Da/Db external) means the exterior of the machine may also stand in Zone 21 -- that is, areas where an explosive dust cloud may occur during normal operation. 1/3D (Da/Dc) assumes the machine exterior only stands in Zone 22, where dust clouds occur only rarely and briefly. If your ATEX zoning has identified Zone 21 outside the machine, 1/2D is a requirement, not a choice. In doubt: consult your ATEX document or call us.

What extra do I get compared to the FOX 3 DEX 1/3D?

Two concrete differences: (1) ATEX II 1/2D Da/Db instead of II 1/3D Da/Dc -- so the exterior may stand in Zone 21. (2) The H14 absolute filter (28,000 cm²) is included as standard, whereas it is optional on 1/3D. Motor, cyclone, container, suction and dimensions are identical -- the difference lies in certification and the filter baseline. The part code is A087 for 1/2D versus A115 for 1/3D.

Can I retrofit the absolute filter onto an existing 1/3D unit myself?

Technically yes -- the filter housing is the same. But you do not gain 1/2D certification on a 1/3D unit by adding a filter. The ATEX marking is on the nameplate and derives from the whole machine's construction, not individual components. If the external zone is Zone 21, the machine must be a factory-certified 1/2D unit.

How much hose can I pull with 2.2 kW?

Rule of thumb: 320 m³/h at 200 mbar sustains one 80 mm collection point with 3-5 m hose for dust up to about 1 mm grain size. Beyond 5 m hose or finer dust (<50 micron), vacuum becomes the limiting factor -- choose the FOX 7.5 (240 mbar) or FOX 10 (280 mbar). Branching to two simultaneous points is possible only if each point is active less than 50% of the time.

Contact and advisory

PARTICULAIR

Particulair

Højtoften 12

2690 Karlslunde, Denmark

CVR: 34129894

Phone: (+45) 70 23 12 03

E-mail: sales@particulair.com

Web: particulair.eu

Product page: particulair.eu/ex-vac/en/atex-dust/fox-3-dex-1-2d/

SMARTER THINKING • BETTER WORKING

This datasheet is generated deterministically from Particulair product data. Prices and availability provided on request. All specifications subject to change without notice.