

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

# Depureco FOX 3 SP DEX 1/2D



The FOX 3 SP DEX 1/2D combines Zone 21 certification with SP self-cleaning: a 90,000 cm<sup>2</sup> cartridge filter with automatic reverse jet cleaning requires no manual intervention -- the machine maintains itself throughout operation. ATEX II 1/2D Ex htc IIIC T140°C Da/Dc (the external EPL drops to Dc because of the reverse-jet pulse), H14 HEPA filter included. 2.2 kW, 320 m<sup>3</sup>/h at 200 mbar, 100 L container, 80 mm inlet. The choice for continuous operation in Zone 21 without operator intervention in filter maintenance.

## APPLICATIONS

- Continuous 24/7 operation with minimal operator load
- Fixed installation in Zone 21 where manual filter cleaning is impractical
- Low-staffing environments (evening/night shift)
- Fine dust where a star filter would clog in a few hours
- Production where filter cleaning must happen without interrupting flow

# Technical specifications

<b>ATEX marking</b>	II 1/2D Ex htc IIIc T140°C Da/Dc
<b>Internal / external zone</b>	20 / 21
<b>Motor type</b>	Sidekanalblaeser 3-fase (2.2 kW) med intern cyklon-forseparation
<b>Airflow</b>	320 m <sup>3</sup> /h
<b>Vacuum</b>	200 mbar (2039 mmH <sub>2</sub> O)
<b>Container</b>	100 L
<b>Sound pressure</b>	73 dB(A)
<b>Filter class</b>	M class
<b>Filter type</b>	Cartridge antistatisk polyester klasse M, 90.000 cm <sup>2</sup> , reverse jet cleaning (automatisk) + H14 absolutfilter 28.000 cm <sup>2</sup> (inkluderet)
<b>Primary filter</b>	Cartridge antistatisk polyester klasse M, 90.000 cm <sup>2</sup>
<b>Cleaning system</b>	Automatisk reverse jet cleaning
<b>Collection system</b>	Detachable container
<b>Material</b>	Lakeret staalkonstruktion, AISI 304 stoevbeholder
<b>IP class</b>	IP65
<b>Power</b>	2.2 kW
<b>Voltage</b>	400 V / 50-60 Hz
<b>Inlet</b>	Diameter 80 mm
<b>Dimensions (L x W x H)</b>	660 x 1200 x 1860 mm
<b>Weight</b>	142 kg

# Questions and answers

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## Why does the SP variant carry ATEX Da/Dc when the machine is otherwise 1/2D?

It's a Depureco design choice: the reverse-jet pulse creates a brief pressure rise inside the filter housing that falls outside the normal duty envelope for Da/Db. So Depureco certifies the SP variant as II 1/2D Da/Dc -- internally Zone 20 and externally Zone 22 at EPL level, but still with the 1/2D category mark because all other 1/2D construction requirements are met. The question is whether that is acceptable for your zone classification. For most Zone 21 installations the answer is yes, because the reverse-jet event is short and controlled, and external Dc is sufficient when internal Da is verified. Verify with your ATEX officer.

## How quickly does the reverse-jet system clean the filter?

The reverse-jet pulse lasts about 100-200 milliseconds per cartridge and targets one cartridge at a time in sequence. The whole cartridge pack is cleaned every 30-60 seconds under normal operation. The pressure source is an internal compressed-air reservoir (fed by an external 6 bar compressor). Filter pressure drop stays constant at around 30-50 mbar -- compare with the star filter on the FOX DEX, where pressure drop can rise to 150+ mbar before manual cleaning is performed.

## Does the FOX SP need a compressed-air supply?

Yes. The reverse-jet system needs 6 bar dry compressed air -- typically from an external compressor with air filtration and oil-free conditioning. Consumption: about 150-200 litres/hour under normal operation. Compressed-air connection is 1/4" or 3/8" BSPT depending on model. If compressed air is not available, choose the standard FOX DEX (manual cleaning) instead.

## Can I retrofit SP onto an existing FOX DEX?

No. SP and DEX variants have different filter housings -- the cartridge pack requires a larger chamber and taller chassis (1860 mm height versus 1510 mm on DEX). And the ATEX marking differs (Da/Dc versus Da/Db). They are two separate products, not an accessory. If you start with DEX and later want automatic cleaning, consider whether FOX 3 DEX 1/2D + a planned filter-cleaning routine can solve it before you invest in a new SP machine.

# Contact and advisory

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