

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

# Depureco PUMA 10 DEX 1/2D



The PUMA 10 DEX 1/2D is the PUMA family's entry into Zone 21: 7.5 kW motor drives 750 m<sup>3</sup>/h at 270 mbar through a 100 mm tangential inlet into a 175 L container. ATEX II 1/2D Ex htc IIIC T140°C Da/Db, TUEV-certified electrical panel with remote control, and -- importantly -- the H14 absolute filter (110,000 cm<sup>2</sup>) is INCLUDED as standard on the 1/2D version, whereas it's optional on the 1/3D sibling. The difference vs. FOX: larger inlet, larger container, professional electrical interface. Fits production facilities where Zone 21 is permanent classification and HEPA exhaust is a compliance requirement.

## APPLICATIONS

- Permanent Zone 21 installation in production plants (food, pharma, chemical)
- Central suction station for 3-4 pickup points with 100 mm hose
- HEPA exhaust mandatory from zoning or environmental requirements
- Remote control at an operator panel far from the machine
- Replacement of smaller FOX units when production has scaled up

# Technical specifications

<b>ATEX marking</b>	II 1/2D Ex htc IIIC T140°C Da/Db
<b>Internal / external zone</b>	20 / 21
<b>Motor type</b>	Sidekanalblaeser 3-fase (7.5 kW), TUEV-certificeret el-panel + remote control
<b>Airflow</b>	750 m <sup>3</sup> /h
<b>Vacuum</b>	270 mbar (2753 mmH <sub>2</sub> O)
<b>Container</b>	175 L
<b>Sound pressure</b>	74 dB(A)
<b>Filter class</b>	M class
<b>Filter type</b>	Stjernefilter antistatisk polyester klasse M, 45.000 cm <sup>2</sup> , manuel rens + H14 absolutfilter 110.000 cm <sup>2</sup> (inkluderet)
<b>Primary filter</b>	Stjernefilter antistatisk polyester klasse M, 45.000 cm <sup>2</sup>
<b>Cleaning system</b>	Manuel filterrens
<b>Collection system</b>	Detachable container
<b>Material</b>	Lakeret staalkonstruktion, AISI 304 stoevbeholder
<b>IP class</b>	IP65
<b>Power</b>	7.5 kW
<b>Voltage</b>	400 V / 50-60 Hz
<b>Inlet</b>	Diameter 100 mm
<b>Dimensions (L x W x H)</b>	850 x 1550 x 1980 mm
<b>Weight</b>	295 kg

# Questions and answers

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## What concretely does a 100 mm inlet give me compared to FOX's 80 mm?

Larger cross-section = lower air velocity at the same flow = lower pressure drop in the hose. Concretely: 750 m<sup>3</sup>/h in a 100 mm hose gives about 26 m/s velocity, while 550 m<sup>3</sup>/h in 80 mm gives 30 m/s. Lower velocity means less turbulence and pressure drop, so PUMA handles twice the hose length or three times the branches. And a 100 mm hose physically transports coarse dust up to 8-10 mm grain size without blockage -- versus about 4-5 mm on 80 mm.

## What's a TUEV-certified electrical panel worth to me?

TUEV approval means the panel is independently tested to EN 60204-1 (machine safety) and the ATEX directive. Concrete benefits: emergency stop with magnetic lockout, thermal protection against motor overload, phase monitoring (stops if a phase drops), remote control with lockout, and fault logging per event. On the FOX range, the electrical panel is not TUEV-certified and lacks some of these features. Practical benefit: fewer nuisance stops and better fault diagnostics.

## Why does the PUMA 10 1/2D show 270 mbar while the 1/3D has 280 mbar?

The adjustment comes from the 1/2D using a slightly different motor configuration that delivers higher flow (750 vs 700 m<sup>3</sup>/h) at the cost of some mbar. In practice, 10 mbar is under 4 percent difference -- you won't notice it in operation. The flow increase to 750 m<sup>3</sup>/h is, by contrast, noticeably advantageous with long hoses and multiple simultaneous points.

## Can the remote control panel be moved to another room?

Yes. Standard cable is 5 m, but can be extended to 20 m without signal degradation (shielded cable, CAT5e or better). Good for permanent installation in a separate electrical room or operator cage. Note: the remote enclosure must be in a non-ATEX zone, or itself be ATEX-certified for the relevant zone.

# Contact and advisory

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