

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

# Depureco PUMA 20 SP DEX 1/2D



The PUMA 20 SP DEX 1/2D combines SP self-cleaning with the PUMA family's highest vacuum: 15 kW delivers 950 m<sup>3</sup>/h at a full 350 mbar, with a 120,000 cm<sup>2</sup> star filter cleaned automatically by reverse jet. ATEX II 1/2D Ex htc IIIC T140°C Da/Dc, H14 HEPA included, TUEV panel. The optimal choice for continuous operation with challenging dust -- fine dust, heavy dust, long hose runs, or processes that demand constant high vacuum at the nozzle. 290 kg chassis, 100 mm inlet, 175 L container.

## APPLICATIONS

- Continuous heavy chemical or metallurgical dust collection in Zone 21
- Fine dust below 10 micron with high vacuum and HEPA exhaust demands
- Long hoses (25+ m) in larger facilities with a central suction station
- Pharma micronisation and chemical granulation in continuous operation
- Processes with variable dust loading (peak excursions)

# 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 (15 kW), TUEV-certificeret el-panel + remote control
<b>Airflow</b>	950 m <sup>3</sup> /h
<b>Vacuum</b>	350 mbar (3569 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, 120.000 cm <sup>2</sup> , reverse jet cleaning (automatisk) + H14 absolutfilter 110.000 cm <sup>2</sup> (inkluderet)
<b>Primary filter</b>	Stjernefilter antistatisk polyester klasse M, 120.000 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>	15 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>	290 kg

# Questions and answers

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## What's the difference between PUMA 20 SP and PUMA 25 SP in practice?

Different emphases: PUMA 20 SP gives high vacuum (350 mbar) with moderate flow (950 m<sup>3</sup>/h) -- best for a few powerful pickup points with fine dust and/or long hoses. PUMA 25 SP gives high flow (1350 m<sup>3</sup>/h) with moderate vacuum (270 mbar) -- best for many points or bulk mass. Rule of thumb: mbar wins for fine dust and distance; m<sup>3</sup>/h wins for coarse dust and breadth.

## Can I use the PUMA 20 SP for vacuum containment or research laboratory use?

Yes, with caveats. The machine delivers HEPA-grade exhaust (H14 is 99.995% efficient at 0.3 µm), so laboratory air quality is ensured. Noise level 74 dB(A) is acceptable in a technical room but may be too high next to a desk -- install in a separate room or fit an exhaust silencer. For radioactive or biohazardous dust, we recommend dedicated isolator systems, not a standard PUMA.

## How long should I expect the external H14 absolute filter to last?

In normal industrial operation with a working star filter + reverse jet: 24-36 months. In lightly loaded installations: 5+ years. The H14 is downstream of the star filter and only sees residual fine dust that slips through -- its loading is therefore minimal. Spare filter P09868 (EUR 347) can be held preventively. Replace on measured efficiency drop or visible degradation.

## Can the PUMA 20 SP be controlled externally via PLC?

Yes -- the remote control panel exposes digital signals (start/stop, fault status, pressure-drop alarm) that can be tied into an external PLC. As an extra option, Depureco can supply a Modbus interface for process values (temperature, pressure, motor current). Important: PLC interaction must be outside the ATEX zone, or itself be ATEX-certified.

# Contact and advisory

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## PARTICULAIR

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