

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

# Depureco PUMA 25 SP DEX 1/2D



The PUMA 25 SP DEX 1/2D is the 24/7 top of the standard PUMA range: 18.5 kW motor + a 120,000 cm<sup>2</sup> star filter with automatic reverse jet + TUEV panel with remote control. 1350 m<sup>3</sup>/h at 270 mbar for handling a whole department's continuous dust collection without operator intervention. ATEX II 1/2D Ex htc IIIC T140°C Da/Dc, H14 HEPA (110,000 cm<sup>2</sup>) included. 370 kg chassis for the highest flows in the PUMA family. The right installation for large-scale Zone 21 production that cannot stop for any kind of filter handling.

## APPLICATIONS

- Large-scale continuous production (bakery, cement, metallurgy) 24/7
- Central suction station for whole departments with 6-8 simultaneous points
- Automated conveyor lines with high bulk dust loading
- Dust collection at large-scale palletising or container filling
- Replacement of multiple smaller units in a central consolidation

# 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 (18.5 kW), TUEV-certificeret el-panel + remote control
<b>Airflow</b>	1350 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, 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>	18.5 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>	370 kg

# Questions and answers

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## How many kilowatt-hours does the PUMA 25 SP consume per year?

At 5-day-week 16-hour operation: about 15 kWh/hour x 16 hours x 260 days = about 62,400 kWh/year. At 24/7 continuous: about 131,000 kWh/year. Electricity cost at EUR 0.20/kWh industrial rate: about EUR 12,500 to 26,300/year. Compressed-air consumption on top = an additional ~EUR 200. Compare against OPEX and operator-time savings to verify the business case.

## Is there a point where the PUMA 25 SP is undersized and I should look at PUMA HD?

Yes. PUMA HD DEX 1/2D (A273/A278) has a 130 mm inlet and motors of 22 kW (30P) or 18.5 kW (30S). Switch to PUMA HD if: (1) the inlet must be 130 mm to handle coarse dust or long horizontal runs; (2) you need over 1,500 m<sup>3</sup>/h flow (PUMA 30P = 1940); (3) or you need 380+ mbar vacuum (PUMA 30S = 380). The PUMA 25 SP hits about 85-90% of PUMA 30-class performance at 60% of the price -- so jump only if you actually cross those limits.

## How is heat dissipation from the 18.5 kW motor handled?

Under full load the motor dissipates about 3-4 kW of heat to the surroundings (the rest goes into suction work). In a 200 m<sup>3</sup> room with ventilation turnover once per hour, that raises temperature about 0.5-1°C above outdoor ambient. If the room is small (under 50 m<sup>3</sup>), consider supplementary ventilation or relocation to a larger room. In a large well-ventilated room: no intervention needed.

## Can the PUMA 25 SP be used as a pre-separator for a PUMA HD or a central plant?

Not in the traditional sense -- the PUMA 25 SP is a standalone vacuum unit, not a stationary pre-separator. For pre-separation ahead of a PUMA HD, the DM range is designed for that. But two PUMA units can run in parallel with a manifold for load sharing or redundancy (see also the PUMA 10 SP FAQ on parallelisation). Note that a dual-SP configuration requires double the compressed-air supply.

# Contact and advisory

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## PARTICULAIR

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