

DEPURECO · II 3 D EX H IIIB T140 DC

# PUMA FIX 20 Z22



The Depureco PUMA FIX 20 Z22 is the stationary, fixed-installation version of the PUMA chassis for central vacuum systems in Zone 22. A 15-20 kW ATEX-certified side-channel blower delivers 950 m<sup>3</sup>/h at 350 mBar vacuum through 4x cylindrical cartridge filters (120,000 cm<sup>2</sup> total, M class, antistatic polyester). Dust is collected in a 175 L AISI 304 bin beneath the filter chamber, and the cartridges are cleaned automatically via SP reverse-jet pulsejet to keep differential pressure stable under high dust loads. Electrical panel with remote control, safety valve and inlet silencer are included from factory. Typical use: central system where multiple production points are piped to a single unit, and the operator works at several outlets without moving a machine. ATEX marking II 3 D Ex h IIIB T140 Dc (dust Zone 22 external).

## APPLICATIONS

- Fixed installation in Zone 22 external -- dust collection from multiple points via piping
- Central vacuum system where high vacuum matters more than large air volume
- Production environments with ATEX requirements (class 3D dust, non-conductive)
- Stationary installation where a mobile trolley is impractical or ineffective
- Plant with 4x cylindrical cartridges and automatic reverse-jet cleaning for stable operation

# Technical specifications

|                                 |   |
|---------------------------------|---|
| <b>ATEX marking</b>             | II 3 D Ex h IIIB T140 Dc  |
| <b>Internal / external zone</b> | - / 22  |
| <b>Motor type</b>               | 1x 3-faset ATEX-sidekanalblaeser (Ex h IIIB Dc)   |
| <b>Airflow</b>                  | 950 m <sup>3</sup> /h   |
| <b>Vacuum</b>                   | 350 mbar  |
| <b>Container</b>                | 175 L   |
| <b>Sound pressure</b>           | 74 dB(A)  |
| <b>Filter class</b>             | M class   |
| <b>Filter type</b>              | Cylindriske patroner (4x)   |
| <b>Primary filter</b>           | 4x cylindriske patroner, 120.000 cm <sup>2</sup> total, klasse M, antistatisk polyester |
| <b>Cleaning system</b>          | SP-automatisk reverse jet (pulsejet)  |
| <b>Collection system</b>        | Detachable container  |
| <b>Material</b>                 | AISI 304 rustfri stoevbeholder + lakeret staal-filterhus                                |
| <b>IP class</b>                 | IP55  |
| <b>Power</b>                    | 20.0 kW   |
| <b>Voltage</b>                  | 400 V / 50-60 Hz  |
| <b>Dimensions (L x W x H)</b>   | 840x1700x1970 mm  |
| <b>Weight</b>                   | 460 kg  |

# Questions and answers

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## What does the ATEX marking II 3 D Ex h IIIB T140 Dc mean?

The model is EU type-approved under ATEX directive 2014/34/EU for stationary operation in external Zone 22 (dust, low risk). 'Ex h' is the construction protection type per EN ISO 80079-36/37. 'IIIB' covers non-conductive dust (paper, fibres, grain, bag dust etc.) -- note that class IIIC (conductive metallic dust) requires separate approval. 'T140' is maximum surface temperature in operation (140 degrees C). 'Dc' is the EPL code for Zone 22.

## What is the difference between the PUMA FIX 20 Z22 and the mobile PUMA DEX variant?

The PUMA chassis exists both as a mobile DEX variant (on wheels, typically 270-620 kg, for movable point extraction) and as the stationary FIX variant, which is this model. PUMA FIX is bolted to the plant and ships from factory with electrical panel, safety valve, remote control and inlet silencer included. Fan, bin (175 L AISI 304) and cartridge filter setup (4x 120,000 cm<sup>2</sup>) are identical between FIX and DEX in the same kW class; the difference is primarily mounting, mobility and the electrical panel.

## What is the difference between the PUMA FIX 20 Z22 and DF FIX Z2-22?

Both are stationary central units in Zone 22, but they solve different tasks. **\*\*PUMA FIX Z22\*\*** is a traditional central vacuum cleaner with high vacuum (260-350 mBar) and moderate airflow -- suitable for smaller pipe diameters and longer pipe runs, where resistance builds up over distance and sufficient suction must be preserved at the hose end. **\*\*DF FIX Z2-22\*\***, conversely, is designed for high airflow and lower vacuum -- suitable for large pipe diameters and airborne dust, typically extraction directly from machines or from multiple suction arms simultaneously, where air volume creates the capture effect rather than vacuum. The choice depends on whether your plant primarily has few long pipe runs (PUMA FIX) or many short, wide extraction points requiring high air exchange (DF FIX).

## Which filter option should I choose on the PUMA FIX 20 Z22 for fine-particle emissions?

The standard configuration is 4x cylindrical cartridges M class (120,000 cm<sup>2</sup> total, antistatic polyester) with SP automatic reverse-jet cleaning (pulsejet). For fine-particle emissions or emission requirements below 0.1 mg/m<sup>3</sup>, Depureco offers a HEPA H14 secondary filter option (110,000 cm<sup>2</sup> fibreglass). The combination gives a filter stack that meets requirements for hazardous, pharmaceutical or metallic fine dust. Note that HEPA H14 adds pressure drop and must be accounted for in vacuum reserve during pipe sizing.

# Contact and advisory

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