DEPURECO · II 3 D EX HTC IIIB T140 DC

HF 20 Z22

The Depureco HF 20 Z22 is a stationary ATEX central vacuum cleaner for Zone 22 -- supplied WITHOUT an integrated dust bin. A 15-20 kW ATEX-certified side-channel blower (top-mounted) pulls air through cylindrical cartridge filters (120,000 cm2 M class, antistatic polyester) and delivers 920 m3/h at 350 mBar vacuum. Dust is discharged continuously via a flange connection at the bottom to the customer's own discharge system (big-bag, Longopac cassette, rotary valve + container, or direct pipe to process silo). SP automatic reverse-jet pulsejet keeps differential pressure stable under high dust loads. Safety valve, remote vacuum control and inlet silencer (Ø100 mm, tangential with cyclone pre-separation) are included from factory. Footprint 1240x1910 mm, height 3488 mm -- requires clear ceiling height or outdoor placement. Typical use: large central systems where multiple production points are piped to one unit and dust must be discharged continuously without stopping to empty. ATEX marking II 3 D Ex htc IIIB T140 Dc (dust Zone 22 external).

APPLICATIONS

- Central vacuum plant in Zone 22 where dust is discharged continuously (no emptying at the unit)
- Production plants with multiple dust points connected via piping to a shared unit
- Connection to big-bag, Longopac cassette, rotary valve + container or direct pipe to process silo
- Plants where a 175 L integrated bin is too small or impractical
- ATEX-regulated production environments with non-conductive dust (class 3D, IIIB)
- Installations with clear ceiling height above 3.8 m or outdoors / under canopy

Technical specifications

ATEX marking	II 3 D Ex htc IIIB T140 Dc
Internal / external zone	- / 22
Motor type	1x 3-faset ATEX-sidekanalblaeser (Ex h IIIB Dc, top-monteret)
Airflow	920 m³/h
Vacuum	350 mbar
Sound pressure	74 dB(A)
Filter class	M class
Filter type	Cylindriske patroner
Primary filter	Cylindriske patroner, 120.000 cm2 total, klasse M, antistatisk polyester
Cleaning system	SP-automatisk reverse jet (pulsejet)
Collection system	Localized discharge (container not included)
Material	Lakeret staal-filterhus (beholder leveres ikke -- se lokaliseret udledning)
IP class	IP55
Power	20.0 kW
Voltage	400 V / 50-60 Hz
Dimensions (L x W x H)	1240x1910x3488 mm

Questions and answers

What does the ATEX marking II 3 D Ex htc 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, and 'tc' specifies the enclosure protection level against dust ignition. '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.

Why is the HF 20 Z22 supplied without a dust bin?

The HF chassis is designed for central systems where dust is not emptied at one point but discharged continuously to an external system. The catalogue calls this 'localized discharge'. A flange connection sits at the bottom of the filter chamber, and the customer fits the discharge system that suits the process. Typical choices are: (1) big-bag connection with drawstring clamp, suitable for high volume and easy disposal; (2) Longopac cassette, suitable for contaminated dust where containment matters; (3) rotary valve + container below, suitable for fixed service cycles; or (4) direct pipe to process silo or central collection. The benefit is that HF can run continuously without stopping to empty, and capacity is not limited by a 175 L bin. We are happy to help size the right discharge system for your plant.

When do I choose the HF 20 Z22 over PUMA FIX Z22 or DF FIX Z2-22?

All three are stationary Zone 22 units, but they solve different tasks. **HF Z22** (this model) is a central system without an integrated dust bin -- suitable when dust must be discharged continuously via big-bag, Longopac, rotary valve or direct pipe to process/silo, and a 175 L bin is too small or irrelevant. **PUMA FIX Z22** is also a central system, but with a 175 L AISI 304 bin included -- suitable when dust volume is moderate and an emptiable bin is practical. The performance profile is the same (high vacuum, moderate airflow) -- HF and PUMA FIX overlap in kW class, and the choice is about discharge system, not about suction. **DF FIX Z2-22** is a different kind of unit: high airflow and lower vacuum, for airborne dust extraction from large machines or multiple suction arms simultaneously -- not a central hose-outlet system. In short: HF = continuous discharge, PUMA FIX = bin emptying, DF FIX = high airflow for point extraction.

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

The standard configuration is cylindrical cartridges M class (120,000 cm2 of antistatic polyester) with SP automatic reverse-jet cleaning (pulsejet). For fine-particle emissions or emission requirements below 0.1 mg/m3, Depureco offers a HEPA H14 secondary filter option (110,000 cm2 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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