

DELFIN · II 3D EX H IIIC T80°C (INT) / T135°C (EXT) DC

# Delfin CUBE 20 K4 PN Z22



The Delfin CUBE 20 K4 PN Z22 is the top model in Delfin's ATEX deduster range in the CUBE chassis -- a stationary, certified industrial dust collector for ATEX Zone 22. With a 4 kW centrifugal fan, 3,500 m<sup>3</sup>/h airflow and 370 mmH<sub>2</sub>O (36 mbar) static vacuum it is the most powerful ATEX-certified deduster Delfin offers. The combination of automatic pulse-jet cleaning on 2 large cartridge filters (200,000 cm<sup>2</sup> combined filter surface), Ex-certified motor and control box, and a 90 L detachable container with plastic liner makes it ideal for large central suction systems with 4-6 collection points in classified production areas. Note that the noise level here is 74 dB(A) (2 dB(A) higher than the K2 variant due to the stronger motor). ATEX-certified II 3D Ex h IIIC T80°C (int) / T135°C (ext) Dc, self-certified per EN 17348:2022 (harmonised 2023). IP65 enclosure, stainless steel AISI 304 electrical panel, forklift lifting points in the chassis bottom.

## APPLICATIONS

- Large central suction systems in ATEX Zone 22 with 4-6 collection points and continuous 24/7 operation
- Chemical and pharmaceutical industry with demanding powder handling in classified zones
- Food production with larger flour or spice dust under Zone 22 regime
- Powder coating halls with full zone classification and high dust volume
- Light-metal machining in aerospace or defense industry with ATEX Zone 22 classification

# Technical specifications

<b>ATEX marking</b>	II 3D Ex h IIIC T80°C (int) / T135°C (ext) Dc
<b>Internal / external zone</b>	22 / 22
<b>Motor type</b>	Centrifugalventilator IE3 (4 kW, 3-faset 400 V), Ex h IIIC T135°C ekstem / T80°C intern, Ex tb Dust Tight Certified
<b>Airflow</b>	3500 m <sup>3</sup> /h
<b>Vacuum</b>	36 mbar (370 mmH <sub>2</sub> O)
<b>Container</b>	90 L
<b>Sound pressure</b>	74 dB(A)
<b>Filter class</b>	H class
<b>Filter type</b>	HEPA H14 (EN 1822-5), 99,995 % MPPS, slutfilter -- standard inkluderet
<b>Primary filter</b>	2 patron-filtre i polyester med PTFE-belagt overflade, klasse ANT M antistatisk, 200.000 cm <sup>2</sup> samlet filterflade
<b>Cleaning system</b>	Automatisk pulsejet-rensning (PN -- pneumatisk modstroemsskyl med trykluft under sugning), alternerende mellem patroner
<b>Collection system</b>	Plastic bag
<b>Material</b>	Malet staalkonstruktion med rustfri AISI 304 elektrisk panel og gaffeltruck-loftepunkter i bunden
<b>IP class</b>	IP65
<b>Power</b>	4.0 kW
<b>Voltage</b>	400 V / 50 Hz / 3~
<b>Inlet</b>	Diameter 200 mm
<b>Dimensions (L x W x H)</b>	1350 x 880 x 2550 mm
<b>Weight</b>	250 kg

# Questions and answers

---

## Why 74 dB(A) on the K4 Z22 versus 72 dB(A) on the K4 ACD -- same motor?

It is a consequence of the difference in pulse-jet cleaning timing. The ACD version's 'automatic alternating air washing system' fires pulses in an even, rotating pattern that is often less audible to the operator. The Z22 version's 'automatic filter cleaning with operated air during suction' is ATEX-compatibly timed with the suction-point vacuum, meaning pulses can overlap with phases where the motor is already producing more sound due to load variation. The difference is 2 dB(A) -- noticeable but not significant. Both models remain below the occupational exposure limit of 80 dB(A) for 8-hour exposure. If noise level is critical, a separate technical room or sound-absorbing cabinet that reduces 10-15 dB(A) is recommended.

## Can the CUBE 20 K4 PN Z22 handle Zone 21 if I upgrade the installation?

No -- constructively it is NOT certified for Zone 21 (II 2D category). The Z22 model is certified category 3D which is the lowest ATEX dust category, where explosive atmosphere occurs briefly or rarely during normal operation. Zone 21 (category 2D) requires a higher level of protection where explosive atmosphere occurs periodically during normal operation -- this demands heavier construction, notified third-party certification, and additional explosion dampening. For Zone 21 installations you must choose a II 2D model (such as the MTL 202 1/2D LP or a specially ordered Z21 deduster). It is important to note: you cannot upgrade a Z22 deduster to Z21 by retrofitting -- certification class is determined by the underlying construction.

## What does the Z22 version require extra in the installation versus the ACD version?

Four things, beyond the ACD version's standard requirements. (1) Explosivity assessment documented by the installation responsible party for zoning (a so-called 'EX document' in Denmark, previously 'Explosion Protection Document'). (2) Installation must be performed by an ATEX-qualified technician with documented competence -- in Denmark typically an installer with ATEX course from DBI or equivalent. (3) Annual inspection of the unit documented in an ATEX inspection report per EN 60079-17 -- typically a technical check of continuity, isolation and wear. (4) Secure storage of CE declaration, nameplate photo and EN 17348:2022 compliance documentation in the unit's operating log. These requirements are not physical items on the unit, but administrative discipline around installation.

## How fast is delivery time for the CUBE 20 K4 PN Z22 in Scandinavia?

Standard delivery time from Delfin Italy is 8-14 weeks for standard configuration (painted steel, inox control box, standard cartridge filters). With option selections -- e.g. XXX full AISI 304 construction, PTFE ANT filter, or LOC REM remote control -- delivery typically extends by 2-4 weeks. Freight from Italy to Denmark takes 3-7 days depending on carrier. Installation and commissioning phase at customer is typically 1-3 days, for mechanical connection, electrical hookup and functional test. So from order to operational, 10-18 weeks should be allowed. If delivery is urgent, Delfin can sometimes offer in-stock models at their Italian factory -- contact [sales@particulair.com](mailto:sales@particulair.com) for current stock status.

# Contact and advisory

---

## PARTICULAIR

### Particulair

Højtoften 12

2690 Karlslunde, Denmark

CVR: 34129894

Phone: (+45) 70 23 12 03

E-mail: [sales@particulair.com](mailto:sales@particulair.com)

Web: [particulair.eu](http://particulair.eu)

**Product page:** [particulair.eu/ex-vac/en/atex-dust/cube-20-k4-pn-z22/](http://particulair.eu/ex-vac/en/atex-dust/cube-20-k4-pn-z22/)

---

## SMARTER THINKING • BETTER WORKING

This datasheet is generated deterministically from Particulair product data. Prices and availability provided on request. All specifications subject to change without notice.