

DELFIN · II 1/2D EX H IIIC T160°C DA/DB

Delfin MTL 3533 EX1/2D



The Delfin MTL 3533 EX1/2D is the compact mid-range model in Delfin's dual-certified ATEX range: a 4 kW side-channel blower in AISI 304 stainless construction, third-party certified by a notified body in compliance with EN 17348:2022 for internal Zone 20 and external Zone 21 (ATEX marking II 1/2D Ex h IIIC T160°C Da/Db). Built for continuous duty with HEPA H14 absolute filter as standard, it delivers 320 m³/h airflow and 2600 mmH₂O vacuum at 69 dB(A) -- a quiet profile that suits pharmaceutical production areas, process plants with fine combustible dust, and service work in Zone 21-classified rooms. The 45-litre stainless collection tank is emptied using an antistatic plastic bag, keeping dust handling both contained and ESD-controlled.

APPLICATIONS

- Pharmaceutical production in Zone 21 where both continuous duty and HEPA H14 fine filtration are requirements
- Collection of fine combustible dust (e.g. lactose, cellulose, API powders) during packaging or tableting operations
- Chemical process plants with likely explosive dust in Zone 21 where notified-body documentation is requested by compliance audits
- Servicing and cleaning of filter units and cyclones in active Zone 21 areas
- Metalworking with fine aluminium, magnesium or titanium dust requiring external Zone 21 approval
- Process-adjacent dust collection where three-phase power is available and a compact footprint (0.93 x 0.58 m) is required
- Post-production cleaning of production cells in batch pharmaceutical manufacture, where internal Zone 20 construction simplifies ATEX risk assessment

Technical specifications

ATEX marking	II 1/2D Ex h IIIC T160°C Da/Db
Internal / external zone	20 / 21
Motor type	Sidekanalblæser, 3-faset (trifase)
Airflow	320 m ³ /h
Vacuum	255 mbar (2600 mmH ₂ O)
Container	45 L
Sound pressure	69 dB(A)
Filter class	H class
Filter type	HEPA H14 (EN 1822-5), 99,995 % MPPS, 27.100 cm ² filterflade, standard inkluderet
Primary filter	Stjerne/taske antistatisk polyester M-klasse (ANT M), 20.000 cm ² , Ø 420 mm
Collection system	Plastic bag
Material	AISI 304 rustfrit stål (beholder standard; filterhus som option)
IP class	IP65
Power	4.0 kW
Current	7.4 A
Voltage	400 V / 50 Hz / 3~
Inlet	Diameter 80 mm
Dimensions (L x W x H)	930 x 580 x 1160 mm
Weight	85 kg

Questions and answers

What does it mean that the MTL 3533 EX1/2D is third-party certified, and why does it matter?

Third-party certification means that a notified body (an independent, EU-accredited technical test house) has conducted the technical evaluation and issued an EU type-examination certificate under the ATEX Directive 2014/34/EU. For category 1 equipment (such as internal Zone 20 components) it is a legal requirement, while for category 2 it is chosen voluntarily to document a higher level of safety. The model is covered by the harmonised standard EN 17348:2022 for industrial vacuum cleaners for use in explosive atmospheres, giving a direct presumption of conformity. In practice the notified-body certificate is often requested by insurers, safety engineers and compliance audits in pharmaceutical and chemical production.

What does the marking II 1/2D Ex h IIIC T160°C Da/Db mean in practical terms?

"II" is equipment group II -- surface installations (not mining). "1/2" indicates internal/external category: 1 means internal category 1 (Zone 20, continuous explosive dust atmosphere inside the machine) and 2 means external category 2 (Zone 21, explosive dust atmosphere likely during normal operation in the room around the machine). "D" is Dust. "Ex h" is constructional safety per EN ISO 80079-36/37. "IIIC" is the strictest dust group -- covering combustible non-conductive and conductive (metal) dust. "T160°C" is the maximum surface temperature of components in contact with dust. "Da/Db" is the Equipment Protection Level (EPL): Da = "very high protection" internally, Db = "high protection" externally. The digits 1 and 2 in this marking NEVER refer to gas zones.

What is the difference between the MTL 3533 EX1/2D and the older MTL 3533 ATEX (self-certified)?

Motor, cabinet and basic air performance are comparable, but the MTL 3533 EX1/2D is a separate notified-body certified product with its own EU type-examination. The practical difference is threefold: (1) It covers external Zone 21 -- the older version is not certified for Zone 21. (2) The ATEX marking uses the new EN 17348:2022 notation with a single T160°C instead of split internal/external T-classes. (3) The documentation package includes the notified-body certificate, which is a requirement in certain insurance policies and internal compliance standards. Technically the MTL 3533 EX1/2D is the correct choice if there is doubt about zone classification or if future-proofing against coming EN 17348 harmonisation is desired.

Can the MTL 3533 EX1/2D be used in Zone 22 instead of a 1/3D model?

Yes. The ATEX hierarchy allows a category 2-certified machine (covering Zone 21) to also be used in Zone 22, which is the less strict external zone. The 1/2D class therefore covers both Zone 21 and Zone 22 externally. If the work area is unambiguously Zone 22, a 1/3D variant is typically more economical, but 1/2D gives flexibility to move the machine between areas with varying zone classification. Conversely -- a 1/3D model must NOT be used in Zone 21. The decision follows the zone plan in the employer's ATEX explosion-protection document (Article 8, Directive 1999/92/EC).

Contact and advisory

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