

DELFIN · II 1/2D EX H IIIC T85°C DA/DB -- II 2/2G EX H IIB T6 GB/GB

Delfin DM AIREX 1/2D-2/2G INERT 19V



The Delfin DM AIREX 1/2D-2/2G INERT 19V is the larger DM variant of the double-certified AIREX INERT family: 44-litre neutralisation tank (37 L liquid + 7 L material) in AISI 304, 19 venturi units delivering 465 m³/h airflow at 5000 mmH₂O vacuum, and HEPA H14 final filtration over 26,000 cm². Double ATEX-certified (II 1/2D for dust and II 2/2G IIB for gas) with performance test to EN 17348:2022. Air consumption is 1530 nl/min at 6 bar. Used where the large liquid capacity and higher airflow are required -- typically central suction at larger refineries and chemical plants with simultaneous gas and dust risk.

APPLICATIONS

- Central suction at larger refineries with significant reactive dust
- Chemical plants with high gas flow and simultaneous reactive powder
- Larger ammunition facilities with Zone 1 gas + Zone 21 dust
- Process plants with high liquid bath demand (large collection cycles)
- Pharmaceutical factories with larger volumes of reactive powders in gas zones

Technical specifications

ATEX marking	II 1/2D Ex h IIIC T85°C Da/Db -- II 2/2G Ex h IIB T6 Gb/Gb
Internal / external zone	20 / 21
Motor type	19 venturi-enheder, pneumatisk drift (trykluft)
Airflow	465 m ³ /h
Vacuum	490 mbar (5000 mmH ₂ O)
Container	44 L
Sound pressure	74 dB(A)
Filter class	H class
Filter type	HEPA H14 (EN 1822-5), 99,995 % MPPS, 26.000 cm ² filterflade
Primary filter	Stjerne/taske polyester ANT M PTFE antistatisk, 30.000 cm ² , diameter 500 mm
Cleaning system	Manuel filterrensning
Collection system	INERT neutralisation bath
Material	AISI 304 rustfrit staal (helkonstruktion, undtagen vognstel)
Air consumption	1530 nl/min
Supply pressure	6 bar
Air supply hose	Diameter 12 mm
Venturi units	19 pcs
Inlet	Diameter 50 mm
Dimensions (L x W x H)	620 x 620 x 1600 mm
Weight	80 kg

Questions and answers

What does INERT mean in this context?

INERT denotes a vacuum cleaner with a neutralising liquid bath in the collection tank. Dust is channelled directly into the liquid and inactivated immediately, so it cannot react with oxygen, heat or sparks. The technology is developed for reactive metallic dust (aluminium, titanium, magnesium, zirconium, lead dust from shooting ranges), where conventional dry collection would itself be an ignition source.

Is the INERT system tested to EN 17348:2022?

Yes. The entire Delfin INERT range is performance-tested to EN 17348:2022 -- the harmonized European standard for industrial vacuum cleaners in ATEX zones. The test confirms that the neutralisation bath actually inactivates reactive dust under real operating conditions, not just in a lab setup. Documentation available on request.

What types of dust is INERT technology intended for?

Reactive metallic dust: aluminium and aluminium alloys, titanium, magnesium, zirconium, fine iron powder, lead dust and primer residue from shooting ranges, and pyrophoric powders from aerospace and defense. For non-reactive dust (organic process dust, plastics, etc.) the INERT technology adds no further safety -- a standard ATEX or ACD model without liquid bath is selected instead.

How does the HEPA H14 final filter work together with the liquid bath?

The neutralisation bath inactivates dust at the moment of collection, but there will always be a fine aerosol fraction that passes the liquid surface. The HEPA H14 filter captures 99.995 % of particles down to 0.3 micrometres per EN 1822-5 (MPPS method) before exhaust. The combination secures both safe collection (no reactive dry particle) and clean exhaust (no health-hazardous aerosol). The filter is Included/Incluso as standard on all INERT models.

Contact and advisory

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