

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 25V



The Delfin DM AIREX 1/2D-2/2G INERT 25V is the flagship of the INERT AIREX series: 25 venturi units deliver 590 m³/h airflow at 5000 mmH₂O vacuum -- the highest airflow among all INERT models. Double ATEX-certified (II 1/2D for dust and II 2/2G IIB for gas), 44-litre neutralisation tank in AISI 304, and HEPA H14 final filtration. Air consumption is 2500 nl/min at 6 bar, requiring significant compressed-air infrastructure. Built for the largest central suction installations in refineries and chemical production lines, where gas, dust and reactive metallic powder risk must all be handled simultaneously.

APPLICATIONS

- Largest central suction installations at refineries and petrochemicals
- Chemical production lines with high dust volume and multiple suction points
- Largest ammunition facilities with Zone 1 gas + Zone 21 dust
- Process plants where the 19V version cannot cover the airflow demand
- Pharmaceutical factories with high production tempo and INERT requirement

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	25 venturi-enheder, pneumatisk drift (trykluft)
Airflow	590 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	2500 nl/min
Supply pressure	6 bar
Air supply hose	Diameter 12 mm
Venturi units	25 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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