

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

Delfin 452 AIREX 1/2D-2/2G INERT 14V



The Delfin 452 AIREX 1/2D-2/2G INERT 14V is the 14-venturi version of the double-certified AIREX INERT family -- same ATEX marking (II 1/2D for dust and II 2/2G IIB for gas), same AISI 304 stainless full construction and same 15-litre neutralisation tank (10 L liquid + 5 L material) as the 7V version, but with doubled airflow of 300 m³/h and doubled HEPA filter area of 20,600 cm². Air consumption is 1458 nl/min at 6 bar. Used where the 7V version's airflow becomes a bottleneck, typically in central suction at refineries or in chemical production lines requiring simultaneous gas and dust protection.

APPLICATIONS

- Central suction at refineries with reactive dust and gas zones
- Chemical production lines with higher dust volume and gas group IIB
- Pharmaceutical factories requiring high airflow and INERT protection
- Larger ammunition facilities with simultaneous gas and dust risk
- Process plants where the 7V version cannot cover the suction demand

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	14 venturi-enheder, pneumatisk drift (trykluft)
Airflow	300 m ³ /h
Vacuum	363 mbar (3700 mmH ₂ O)
Container	15 L
Sound pressure	68 dB(A)
Filter class	H class
Filter type	HEPA H14 (EN 1822-5), 99,995 % MPPS, 20.600 cm ² filterflade
Primary filter	Stjerne/taske polyester ANT M PTFE antistatisk, 20.000 cm ² , diameter 420 mm
Cleaning system	Manuel filterrensning
Collection system	INERT neutralisation bath
Material	AISI 304 rustfrit staal (helkonstruktion)
Air consumption	1458 nl/min
Supply pressure	6 bar
Air supply hose	Diameter 12 mm
Venturi units	14 pcs
Inlet	Diameter 50 mm
Dimensions (L x W x H)	700 x 550 x 1270 mm
Weight	50 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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