

DELFIN · II 1/-D EX H III C T80°C (INTERNAL) DA/-

# Delfin 452 ACD INERT



The Delfin 452 ACD INERT collects combustible and reactive metallic dust in non-ATEX-classified areas in a fundamentally different way from a standard industrial vacuum: dust is channelled directly into a neutralising liquid bath inside the AISI 304 tank, where the reactive particle is inactivated instantly. This eliminates self-ignition and reaction with oxygen or moisture -- and it makes the machine safe in productions that would otherwise require full ATEX classification. Two single-phase bypass motors (2.3 kW) deliver 360 m<sup>3</sup>/h airflow at 245 mbar, and the HEPA H14 final filter (99.995 % MPPS) ensures clean exhaust. ACD-certified to IEC 60335-2-69 Annex AA; the INERT system is performance-tested to EN 17348:2022.

## APPLICATIONS

- Shooting ranges: collection of lead dust and primer residue
- Ammunition manufacturing and military production facilities
- 3D printing with aluminium or titanium powder (outside ATEX zones)
- Light-metal grinding and machining in aerospace and automotive
- Powder metallurgy with reactive alloys in non-ATEX workshops

# Technical specifications

<b>ATEX marking</b>	II 1/-D Ex h IIIC T80°C (Internal) Da/-
<b>Internal / external zone</b>	20 / ikke-ATEX
<b>Motor type</b>	1-faset bypass-motor (2,3 kW)
<b>Airflow</b>	360 m <sup>3</sup> /h
<b>Vacuum</b>	245 mbar (2500 mmH <sub>2</sub> O)
<b>Container</b>	15 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, 20.500 cm <sup>2</sup> filterflade
<b>Primary filter</b>	Stjerne/taske polyester ANT M-klasse antistatisk, 20.000 cm <sup>2</sup> , diameter 420 mm
<b>Cleaning system</b>	Manuel filterrensning + indikator for tilstopning
<b>Collection system</b>	INERT neutralisation bath
<b>Material</b>	Lakeret staalkonstruktion, AISI 304 INERT-beholder
<b>IP class</b>	IP64
<b>Power</b>	2.3 kW
<b>Current</b>	10 A
<b>Voltage</b>	115/230 V / 50-60 Hz
<b>Inlet</b>	Diameter 50 mm
<b>Dimensions (L x W x H)</b>	610 x 660 x 1330 mm
<b>Weight</b>	52 kg

# Questions and answers

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## 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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