

DELFIN · II 1/3D EX H IIIC T80°C DA/DC

# Delfin 452 AIREX 7V 1/3D



The Delfin 452 AIREX 7V 1/3D occupies the middle ground in the AIREX family: 45-litre tank and a star/pocket filter of 20,000 cm<sup>2</sup> -- a markedly larger filter area than the cartridge models, which gives longer operating intervals and lower air load per cm<sup>2</sup> of filter. Same notified-body-certified ATEX II 1/3D marking and the same 7 venturi units as the smaller models. Built in painted steel, with manual shake-cleaning of the pocket filter. Particularly used where dust is fine and filter clogging would otherwise disrupt production frequently.

## APPLICATIONS

- Production with fine, dusty powder where large filter area reduces interruptions
- Cleaning after grinding, machining or painting in Zone 22
- Filling lines and dosing systems at pharmaceutical and food plants
- Concrete and cement plants with dust zones (where electric motors are not wanted)
- Mobile cleaning tasks in facilities with limited three-phase power capacity

# Technical specifications

<b>ATEX marking</b>	II 1/3D Ex h IIIC T80°C Da/Dc
<b>Internal / external zone</b>	20 / 22
<b>Motor type</b>	7 venturi-enheder, pneumatisk drift (trykluft)
<b>Airflow</b>	150 m <sup>3</sup> /h
<b>Vacuum</b>	363 mbar (3700 mmH <sub>2</sub> O)
<b>Container</b>	45 L
<b>Sound pressure</b>	68 dB(A)
<b>Filter class</b>	H class
<b>Filter type</b>	HEPA H14 (EN 1822-5), 99,995 % ved MPPS, 11.000 cm <sup>2</sup> filterflade
<b>Primary filter</b>	Antistatisk polyester klasse ANT M (star/lommefilter, 20.000 cm <sup>2</sup> , diameter 420 mm). Option: PTFE klasse M antistatisk.
<b>Cleaning system</b>	Manuel ryste-rensning af lommefilter
<b>Collection system</b>	Plastic bag
<b>Material</b>	Malet staal (AISI 304 som option)
<b>Air consumption</b>	729 nl/min
<b>Supply pressure</b>	6 bar
<b>Air supply hose</b>	Diameter 12 mm
<b>Venturi units</b>	7 pcs
<b>Inlet</b>	Diameter 80 mm
<b>Dimensions (L x W x H)</b>	580 x 630 x 1190 mm
<b>Weight</b>	46 kg

# Questions and answers

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## Why pneumatic venturi drive instead of an electric motor?

Venturi units have no moving parts, no brushes and no motor windings. That eliminates two things at once: a potential ignition source in an explosive atmosphere, and the maintenance burden of motor, bearings and cooling. The vacuum can run continuously for as long as compressed air is supplied, and there are no electrical components to certify or inspect. The trade-off is air consumption -- venturi makes most sense where compressed air is already available (production plants, refineries, pharmaceutical facilities).

## What does the II 1/3D marking mean?

The marking reads as two digits: "1" is the internal category (Zone 20 inside the vacuum -- continuous dust atmosphere in the collection tank), and "3" is the external category (Zone 22 in the surrounding room -- rare or short-term dust atmosphere). "D" stands for dust. The internal Zone 20 certification is exactly what EN 17348:2022 has raised the bar on, and it is only obtained through notified-body certification.

## What compressed-air installation is required?

The unit requires clean, dry compressed air at 6 bar with a 12 mm ID supply hose. Air consumption at full load is 729 nl/min, which corresponds to a mid-range industrial compressor, so the installation must be able to sustain this. Always fit an air filter upstream to protect the venturi nozzles.

## Why a star/pocket filter instead of cartridge or sacco?

The pocket filter has 20,000 cm<sup>2</sup> of filter area -- more than three times the cartridge filter on the MTL 301 AIREX and four times the sacco filter on the 802 WD AIREX. This means lower air load per cm<sup>2</sup>, longer intervals between cleanings and better performance on fine dust. The trade-off is slightly more effort to replace and manual shake-cleaning, whereas the sacco model is just a bag swap.

# Contact and advisory

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