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

Delfin 452 AIREX 14V 1/3D

The Delfin 452 AIREX 14V 1/3D is the 14-venturi version of the 452 AIREX: same 45-litre tank, same large 20,000 cm² star-pocket filter and the same notified-body-certified ATEX II 1/3D marking as the 7V version, but with double the airflow at 300 m³/h. Air consumption is 1458 nl/min at 6 bar. Choose this variant when the task requires high air volume through long hoses or multiple suction points on the same unit, and where the facility's compressed-air capacity can sustain it.

APPLICATIONS

- Central vacuum with multiple simultaneous suction points
- Cleaning large-format surfaces in production halls
- Collecting large quantities of powder quickly with no thermal duty limits
- Installations with powerful compressors and high-capacity requirements
- Same vacuum shared by multiple operators working in parallel

Technical specifications

ATEX marking	II 1/3D Ex h IIIC T80°C Da/Dc
Internal / external zone	20 / 22
Motor type	14 venturi-enheder, pneumatisk drift (trykluft)
Airflow	300 m³/h
Vacuum	363 mbar (3700 mmH_2O)
Container	45 L
Sound pressure	68 dB(A)
Filter class	H class
Filter type	HEPA H14 (EN 1822-5), 99,995 % ved MPPS, 20.600 cm² filterflade
Primary filter	Antistatisk polyester klasse ANT M (star/lommefilter, 20.000 cm², diameter 420 mm). Option: PTFE klasse M antistatisk.
Cleaning system	Manuel ryste-rensning af lommefilter
Collection system	Plastic bag
Material	Malet staal (AISI 304 som option)
Air consumption	1458 nl/min
Supply pressure	6 bar
Air supply hose	Diameter 12 mm
Venturi units	14 pcs
Inlet	Diameter 80 mm
Dimensions (L x W x H)	580 x 630 x 1190 mm
Weight	49 kg

Questions and answers

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 1458 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.

When is it worth upgrading from 7V to 14V?

Rule of thumb: if the task requires >25 m of hose, multiple simultaneous suction points, or large surface areas in short time, 14V makes much more sense. If it's a single operator with 10-15 m of hose, 7V is plenty and halves the air consumption. Vacuum performance (3700 mmH■O / ~363 mbar) is identical -- 14V only raises airflow, not suction.

Contact and advisory

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