

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

Delfin 802 WD AIREX 1/2D-2/2G 7V



The Delfin 802 WD AIREX 1/2D-2/2G 7V is a double-certified pneumatic ATEX vacuum -- both "II 1/2D Ex h" for dust (internal Zone 20, external Zone 21) and "II 2/2G Ex h" for gas (Zone 1 both inside and outside). This places it in the ATEX Combi category, equivalent to II 1/2GD in IEC notation. Built entirely in AISI 304 stainless steel with an 80-litre wet/dry tank and antistatic PTFE filter class ANT M. Used in areas where combustible dust and explosive gases can occur simultaneously -- refineries, chemical process plants, fuel handling and similar.

APPLICATIONS

- Refineries and petrochemical plants with simultaneous dust and gas atmospheres
- Fuel handling and open tank facilities in defence or civil aviation
- Chemical process plants with volatile substances and powders
- Pharmaceutical/biotech facilities collecting both powder and volatile liquids
- Wet/dry tasks where gas Zone 1 is also present

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	7 venturi-enheder, pneumatisk drift (trykluft)
Airflow	150 m ³ /h
Vacuum	363 mbar (3700 mmH ₂ O)
Container	80 L
Sound pressure	68 dB(A)
Filter class	H class
Filter type	HEPA H14 (EN 1822-5), 99,995 % ved MPPS, 11.000 cm ² filterflade
Primary filter	Antistatisk polyester klasse ANT M PTFE (sacco/pose, 5.000 cm ² , diameter 420 mm). Vaadfilter: polypropylen 300 mikron med flyder for vaesker.
Cleaning system	Manuel -- aabn og byt pose; HEPA-filter udskiftes efter tilstand
Collection system	Plastic bag
Material	AISI 304 rustfrit staal
Air consumption	729 nl/min
Supply pressure	6 bar
Air supply hose	Diameter 12 mm
Venturi units	7 pcs
Inlet	Diameter 80 mm
Dimensions (L x W x H)	620 x 530 x 1080 mm
Weight	36 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).

Why is the 1/2D-2/2G model categorised as ATEX Combi?

This model is double-certified: "II 1/2D" covers dust (internal Zone 20, external Zone 21), and "II 2/2G" covers gas (Zone 1 both inside and outside). Since it can operate safely in areas where dust and gas atmospheres may occur simultaneously, it belongs in the ATEX Combi category in our catalogue. Equivalent to IEC notation II 1/2GD. Typical use: refineries, chemical plants, drying processes and fuel handling where both atmospheres can occur.

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.

Can it pick up liquids?

Yes, the 802 WD AIREX is a wet/dry model. In wet mode a float activates and automatically stops suction when the tank reaches maximum liquid level, so the liquid is not drawn into the filter chamber or HEPA. When switching from dry to wet, change the primary filter to the supplied wet type (polypropylene 300 micron, 5,000 cm²). Note: do not use AIREX for flammable or chemically aggressive liquids without first consulting Particulair.

Contact and advisory

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