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

Delfin 452 AIREX 14V 1/2D

The Delfin 452 AIREX 14V 1/2D is the 14-venturi version of the 452 AIREX 1/2D -- same double-certified ATEX marking (II 1/2D Ex h for dust and II 2/2G Ex h for gas), same AISI 304 construction and same 45-litre tank as the 7V version, but with double the airflow at 300 m³/h and air consumption of 1458 nl/min at 6 bar. 20,000 cm² PTFE antistatic star-pocket filter. Used in Zone 21 where the task demands high air volume, and where the lower capacity of the 7V version becomes a bottleneck.

APPLICATIONS

- Pharmaceutical or food plants with high cleaning cadence in Zone 21
- Process lines with fine powder and longer hoses
- Fixed installation requiring high airflow and stainless hygiene
- Simultaneous operation through multiple suction points in Zone 21 plants
- Production facility where the 7V cannot deliver sufficient airflow

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 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 (Diameter 360 mm)
Primary filter	Antistatisk polyester klasse ANT M PTFE (star/lommefilter, 20.000 cm², diameter 420 mm).
Cleaning system	Manuel ryste-rensning af lommefilter
Collection system	Plastic bag
Material	AISI 304 rustfrit stål (undtagen vognstel/trolley)
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)	700 x 550 x 1270 mm
Weight	50 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 II 1/2D plus II 2/2G mean at the same time?

The machine carries two parallel markings. "II 1/2D" means internal category 1 (Zone 20 inside) and external category 2 (Zone 21 outside) for dust. "II 2/2G" means internal and external category 2 (Zone 1) for gas. So the machine is built to operate where gas Zone 1 and dust Zone 21 can occur simultaneously. Temperature class is T85°C (dust) and T6 (gas, i.e. <85°C surface). When combined the unit is sometimes called a 1/2GD machine, although Delfin applies the two markings separately.

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.

Does the 14V make sense compared to the 802 WD AIREX 1/2D-2/2G 14V?

Both models have 14 venturi, the same airflow (300 m³/h) and the same 1458 nl/min air consumption. The differences: the 452 AIREX 1/2D has a 45-litre tank with a 20,000 cm² star-pocket filter (optimal for fine dust), while the 802 WD AIREX 1/2D-2/2G has an 80-litre wet/dry tank with a 5,000 cm² sacco filter. Choose the 452 AIREX if the task is fine dust without liquids and you want large filter area; choose the 802 WD if the task also involves liquids or requires more volume.

Contact and advisory

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