TIGER-VAC · II 2GD EX H IIC T6 GB EX H IIIC T85 C DB -4 C <= TA <= +37 C EN 17348 DT

Tiger-Vac ATEX-12A (2+2W) MR

The Tiger-Vac ATEX-12A (2+2W) MR (Middle Ring) is the dry-only variant of the 2+2W platform -- the same II 2GD certification, the same drive specs, the same cart, but optimised for safe disposal of combustible or CMR-classified dust. The unit is equipped with a Middle Ring that holds a conductive poly-liner (212100S-5, 40 L, 5-pack) in place inside the dust tank; when the liner is full the draw string is tied and the bag can be lifted out without releasing dust. The main filter is an SD* assembly with 4 laces for a white filter cage (219046A) plus a prefilter (215179) to protect the expensive HEPA H14 downstream. Used mainly for asbestos, lead, silica, lithium dust and pharma CMR substances where liquid is not part of the recovery.

APPLICATIONS

- Asbestos abatement in refinery boundary zones and chemical industry (Zone 1 + Zone 21)
- Lead, silica and quartz dust where safe disposal is critical
- Pharma CMR substances in pilot production with combined-zone marking
- Lithium and battery electrode dust in cell production
- Fire- and explosion-hazardous fine dust where liquid is not part of the process

Technical specifications

ATEX marking	II 2GD Ex h IIC T6 Gb Ex h IIIC T85 C Db -4 C <= Ta <= +37 C EN 17348 DT
Internal / external zone	-- / 21
Motor type	Single venturi, pneumatisk drift -- ingen elektriske dele i sugekredsen
Airflow	187 m³/h
Vacuum	274 mbar (2790 mmH_2O)
Container	38 L
Sound pressure	68 dB(A)
Filter class	H class
Filter type	HEPA H14 (EN 1822, 99,995 % MPPS) aerosol leak-testet, OSHA-compliant -- Tiger-Vac 212304B-HD
Primary filter	Main filter assembly SD* m/4 laces til white filter cage (219046A) + prefilter 215179
Cleaning system	Ingen aktivt filterrens-system -- HEPA og hovedfilter skiftes ved fuld mætning
Collection system	Detachable container
Material	AISI 430 rustfri stål, krop og opsamlingstank
Supply pressure	5,5 bar
Air supply hose	Diameter 12.7 mm
Venturi units	1 pcs
Inlet	Diameter 50 mm
Dimensions (L x W x H)	550 x 600 x 1020 mm

Questions and answers

Why pneumatic and not electric?

In combined zones with both gas Zone 1 and dust Zone 21 electric drive is generally not allowed -- even ATEX-certified electric motors have hot surfaces and contact elements that can act as ignition sources under fault conditions. Pneumatic venturi drive has no moving electrical parts: the compressed air alone creates the vacuum through the venturi nozzle. That is the safest construction for Category 2 areas.

Which compressor do I need?

A minimum of 15 HP (about 11 kW) installed compressor capacity is recommended. The compressed-air supply must be 5.5 bar with a flow of 16.5–21.2 L/s (approximately 990–1272 Nl/min), fed through a 1/2" (12.7 mm) air hose. Refrigerant-dried air (PDP +3 °C or better) is recommended to avoid condensation in the venturi nozzles, and a separate pressure regulator (219841) ensures stable operation.

What is a "Middle Ring" and why does it matter?

The Middle Ring is a mechanical retainer ring fitted vertically inside the dust tank that holds a conductive poly-liner (212100S-5) in place during the suction cycle. As the liner fills with dust the ring prevents the bag from twisting or collapsing under vacuum. At disposal the draw string at the top of the liner is tied and the whole bag is lifted out in one piece -- no dust is released into the surrounding environment. It is the preferred solution for asbestos, lead and pharma CMR where the user must not touch the collected material at disposal.

Why an additional prefilter (215179) on top of the main filter?

The 215179 prefilter is an SD* fibre element with an elastic band that fits around the main filter (219046A) as the first line of defence. It captures the largest particles and prevents them from puncturing the main filter or clogging the expensive HEPA H14 (212304B-HD) prematurely. The prefilter is easy to wash or replace and significantly extends the life of both the main filter and the HEPA. In practice: prefilter replaced monthly, main filter yearly, HEPA every two years under typical use.

Contact and advisory

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