

TIGER-VAC · II 2GD EX D IIA T3 GB / EX T IIIC T200°C DB IP6X -- LCIE 03 ATEX 6297 -- EN 17348

Tiger-Vac EXP1-10 (4W) RE HEPA (MRAC)



The Tiger-Vac EXP1-10 (4W) RE HEPA (MRAC) is the specialist in the line -- built with a Middle Ring Activated Carbon module between container and motor head that absorbs toxic and corrosive vapours in the work air before HEPA filtration. Certified II 2GD to EN 17348 DT/LC for both combustible dust and flammable liquids in Zone 1/21. The Middle Ring ships with 3 mm regular carbon (212200B) as standard and can be specified for mercury vapours (MERSORB, 212200C), chloride vapours (KOGC3/KINA3, 212200K) or arsine/phosphine (A-3, 212200L).

APPLICATIONS

- Mercury remediation in laboratories and dental clinics with MERSORB carbon variant
- Chlorine production and halogen chemistry with KOGC3/KINA3 carbon for chloride vapours
- Semiconductor and LED manufacturing with arsine and phosphine exposure (A-3 carbon)
- Pharmaceutical production with volatile toxic intermediates
- Research and incident response where unknown toxic vapours may be present

Technical specifications

ATEX marking	II 2GD Ex d IIA T3 Gb / Ex t IIIC T200°C Db IP6X -- LCIE 03 ATEX 6297 -- EN 17348
Internal / external zone	-- / 21
Motor type	1-faset TEFC-motor, eksplosionssikret (Ex d IIA T3 Gb / Ex t IIIC T200°C Db), 1.0 kW / 4.5 A
Airflow	224 m ³ /h
Vacuum	152 mbar (1550 mmH ₂ O)
Container	22.7 L
Sound pressure	78 dB(A)
Filter class	H class
Filter type	HEPA H14 (EN 1822-5, 99.995 % @ 0.3 µm MPPS), 211027B, 6 500 cm ² filterflade
Primary filter	Statisk ledende klud-hovedfilter 211013 (3 480 cm ²) + forfilter 212008 + vaeskefilter 211010
Cleaning system	Ingen (manuel)
Collection system	Detachable container
Material	AISI 304 rustfri staal
IP class	IP6X
Power	1.0 kW
Current	4.5 A
Voltage	230 V / 50 Hz / 1~
Inlet	Diameter 38 mm
Dimensions (L x W x H)	480 x 460 x 1190 mm
Weight	37 kg

Questions and answers

What does II 2GD mean in the ATEX marking?

II 2GD means category 2 for both gas and dust. The unit may be used in areas where explosive atmospheres OCCASIONALLY occur during normal operation -- that is external Zone 1 for gas and Zone 21 for dust. Category 2 does NOT cover the interior of the equipment (Zone 0/20) -- that requires category 1. EN 17348:2022 is the harmonised standard that specifies test requirements for vacuums in this category.

Which carbon variant should I choose?

The Middle Ring Activated Carbon (MRAC) is available in four variants matched to the contaminant type. Regular (212200B) is standard and covers general VOCs and light solvents. MERSORB (212200C) is sulphur-impregnated for mercury vapours -- used in dental clinics, laboratories and mercury remediation. KOGC3/KINA3 (212200K) is impregnated for acid vapours and chlorides -- used in halogen chemistry and chlorine production. A-3 (212200L) covers ammonia, arsine and phosphine -- used in semiconductor and LED production. See our wiki article on MRAC carbon variants for the full overview.

How often must the carbon charge be replaced?

It depends entirely on the contaminant type and concentration. Regular 212200B can last several months in routine VOC collection; MERSORB in mercury remediation can saturate in weeks. Tiger-Vac recommends monitoring via downstream sampling before the carbon section, or -- for high-risk substances -- a scheduled replacement programme. Contact Particulair for a proposal.

Is the HEPA filter standard or optional?

HEPA H14 to EN 1822-5 (99.995 % MPPS at 0.3 µm) is standard on this model. ULPA filter can be specified if the application requires a higher class.

Contact and advisory

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