

TIGER-VAC · II 2GD EX H IIC T6 GB / EX H IIIC T85°C DB · LCIE 03 ATEX 6310 X · IECEx LCIE 17.0076 X · EN 17348 DT/LC

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



The Tiger-Vac SS-10 (4W) RE HEPA (MRAC) is the air-driven sister to the electric EXP1-10 (4W) RE HEPA (MRAC). Same cabinet, same tank sizes, same carbon ring and the same HEPA H14, but without a single electrical component. Suction is created by one 6 mm venturi, and because there is no motor, no sparks and no hot surface, the unit is certified in ATEX temperature class T6 with a maximum surface temperature of 85 °C, against the electric version's T3 at 200 °C. The unit is dual-certified under ATEX (LCIE 03 ATEX 6310 X) and IECEx (LCIE 17.0076 X) and marked EN 17348 DT/LC, meaning both combustible dust and flammable liquids. Between the recovery tank and the motor head sits a Middle Ring with activated carbon (MRAC) that adsorbs toxic and corrosive vapours from the work air before it reaches the HEPA filter. The whole construction is AISI 304 stainless steel, and resistivity stays under 10 ohms throughout, castors, hose and tools included.

APPLICATIONS

- Emptying and bottom cleaning of IBC totes, drums and process vessels holding combustible residue
- Chemical and petrochemical production in Zone 1/21 where compressed air is more readily available than a certified electrical installation
- Cleaning around solvent plants, filling stations and mixing tanks
- Pharmaceutical production with volatile, toxic intermediates
- Plants where temperature class T6 is a requirement and a T3-rated electric unit will not do
- Clean-up after spills of flammable liquids, where both liquid and solids must be recovered

Technical specifications

ATEX marking	II 2GD Ex h IIC T6 Gb / Ex h IIIC T85°C Db · LCIE 03 ATEX 6310 X · IECEx LCIE 17.0076 X · EN 17348 DT/LC
Internal / external zone	-- / 21
Motor type	Pneumatisk venturi-aggregat med enkelt dyse à 6 mm, ingen elektriske komponenter, ATEX temperaturklasse T6 (Tmax 85 °C)
Airflow	204 m³/h
Vacuum	448 mbar (4570 mmH ₂ O)
Container	22.7 L
Sound pressure	79 dB(A)
Filter class	H class
Filter type	HEPA H14 med 99,995 % effektivitet ved 0,3 µm, testet efter IEST-RP-CC001 og MPPS efter EN 1822, 6.500 cm² filterflade, aerosol-lækagetestet
Primary filter	Statisk ledende klud-hovedfilter på 3.480 cm², statisk ledende forfilter og væskefilter
Cleaning system	Ingen, manuel
Collection system	Detachable container
Material	AISI 304 rustfrit stål
Air consumption	1272 nl/min
Supply pressure	5.5 bar
Air supply hose	Diameter 12.7 mm
Venturi units	1 pcs
Inlet	Diameter 38 mm
Dimensions (L x W x H)	460 x 460 x 1120 mm
Weight	43 kg

Questions and answers

What is the difference between the SS-10 and the electric EXP1-10 (4W) RE HEPA (MRAC)?

Same cabinet, same 22.7 L dust tank and 28.5 L liquid capacity, same MRAC carbon ring and the same HEPA H14. The difference is the drive. The EXP1-10 has a single-phase explosion-proof TEFC motor and is rated T3, meaning a maximum surface temperature of 200 °C. The SS-10 runs on compressed air through a venturi and has no electrical parts at all, which gives temperature class T6 at a maximum of 85 °C. Choose the EXP1-10 if you have a certified electrical installation and T3 is sufficient. Choose the SS-10 if you have compressed air, or if the specification calls for T6. In return the SS-10 has considerably higher vacuum: 4,570 mmHg against 1,550 mmHg.

What compressor does the SS-10 need?

At least 15 HP delivering 21.2 L/s (1,272 NI/min) at 5.5 bar continuously, and a 1/2" (12.7 mm) air line to the unit. The unit can run around the clock as long as the compressor holds pressure. Bear in mind that the compressor is itself an ignition source: it belongs outside the classified area with the air line run in. That applies in particular to mobile diesel and petrol driven compressors.

What does the marking II 2GD Ex h IIC T6 Gb mean?

II means equipment group II, that is everything other than mines. 2GD is category 2 for both gas and dust, which corresponds to external Zone 1 for gas and Zone 21 for dust. Category 2 does not cover the interior of the equipment, that is Zone 0 and Zone 20, because that requires category 1. Ex h is the type of protection for non-electrical equipment to EN ISO 80079-36. IIC is the strictest gas group and covers hydrogen and acetylene as well. T6 is the strictest temperature class at a maximum of 85 °C surface temperature, and Gb is the equipment protection level for gas corresponding to category 2.

What does the carbon ring (MRAC) do?

The Middle Ring Activated Carbon is a carbon section sitting between the recovery tank and the motor head. It adsorbs toxic, corrosive and malodorous vapours from the work air before it reaches the HEPA filter. The HEPA filter catches particles, not vapours, which is why the carbon section is needed. How long a carbon charge lasts depends entirely on the substance and the concentration, so plan replacement around your own exposure. Contact us if you would like a proposal for a replacement programme.

Contact and advisory

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