

3D PRINTING • ELECTRIC • ATEX II 2GD • ZONE 1/21 • TEFC MOTOR

EXP1-10 (40L) HEPA

Compact electric ATEX vacuum cleaner for combustible plastic powder from medical and dental 3D printing. Certified for Zone 1 (gas IIA) and Zone 21 (dust IIIC) with a totally enclosed TEFC motor and full stainless steel AISI 304 construction. 3D tool kit included.

- ATEX II 2GD — Ex d IIA T3 Gb / Ex t IIIC T200°C Db IP6X • LCIE, NB 0081
- HEPA H14 — 99.99 % at 0.3 µm • EN 17348 • conductive cloth filter included
- TEFC motor — totally enclosed, fan cooled • continuous duty • 1 kW
- Full stainless steel AISI 304 construction • IP6X
- ESD safe — under 10 ohm • conductive accessories included
- 224 m³/h • 15 m cord • 3D tool kit included



Tiger-Vac EXP1-10 (40L) HEPA — compact electric ATEX vacuum cleaner for combustible plastic powder from 3D printing

ATEX 2014/34/EU — II 2GD • Ex d IIA T3 Gb / Ex t IIIC T200°C Db IP6X • LCIE 03 ATEX 6297 — 3rd party certified (LCIE, NB 0081) • HEPA H14 — EN 17348 • EN 60079-0:2009 • EN 60079-1:2007 • EN 60079-31:2009

Quick facts	
ATEX	II 2GD • Zone 1/21
Certification	LCIE 03 ATEX 6297 (3rd party)
Filter	HEPA H14
Filter efficiency	99.99 %
Motor type	TEFC (enclosed, fan cooled)
Airflow	224 m³/h
Vacuum pressure	1550 mmH ₂ O
Power	1 kW
Noise level	78/85 dB(A)
Cord length	15 m
Voltage	230 V, 50 Hz
Duty cycle	Continuous
ESD safe	Yes — under 10 ohm
Construction	AISI 304 stainless steel

TEFC motor — totally enclosed and explosion-safe

The EXP1-10 (40L) HEPA is Tiger-Vac's compact ATEX vacuum cleaner for medical and dental 3D printing, and what sets it apart from the other models in the range is the motor type. Where most ATEX vacuum cleaners use a bypass motor with a separate cooling airstream, the EXP1-10 is fitted with a TEFC motor — Totally Enclosed Fan Cooled. This means the motor is hermetically sealed and cooled externally, with no air passing through the motor housing. The motor is individually ATEX-certified as Ex d “flameproof enclosure” in gas group IIA and

temperature class T3 (200°C), making it suitable for Zone 1 with the most common flammable gases and vapours.

The overall ATEX classification is II 2GD: Zone 1+2 for gas (Ex d IIA T3 Gb) and Zone 21+22 for dust (Ex t IIIC T200°C Db IP6X). The unit is 3rd party certified by LCIE (NB 0081) under certificate LCIE 03 ATEX 6297. The TEFC principle makes the motor well suited for continuous duty, as no heat builds up from exposed cooling air — a significant practical advantage during extended cleaning sessions at 3D printers.

Full AISI 304 construction and HEPA H14

The entire EXP1-10 — tank, motor housing, lid and frame — is manufactured in stainless steel AISI 304. This delivers high corrosion resistance, straightforward cleaning and a neutral appearance that fits naturally into clinical and laboratory surroundings. The IP6X dust protection rating ensures that no dust can enter the motor housing under any circumstances.

The HEPA H14 filter (99.99 % at 0.3 µm) and conductive cloth filter with support cage ensure that exhaust air is clean and particle-free. The conductive accessory system (under 10 ohm) safely dissipates electrostatic charge to earth. The 15 m cord provides the freedom of movement to reach around 3D printers without an extension lead.

Technical specifications

Parameter	Value
ATEX marking	II 2GD — Ex d IIA T3 Gb / Ex t IIIC T200°C Db IP6X
ATEX zones	Zone 1+2 (gas IIA) and Zone 21+22 (dust IIIC)
Certification	LCIE 03 ATEX 6297 — 3rd party (LCIE, NB 0081)
Harmonised standard	EN 17348 (combustible dust)
Filter class	HEPA H14 (EN 1822) — 99.99 % at 0.3 µm
Motor type	TEFC (Totally Enclosed Fan Cooled)
Power	1 kW / 1000 W
Voltage	230 V, 50 Hz, single phase
Current	4.5 A
Airflow	224 m³/h
Vacuum pressure	1550 mmH ₂ O
Noise level	78/85 dB(A)
Suction inlet	Ø38 mm (hose) / Ø60 mm (conductive inlet)
Wheel system	4-wheel dolly
Dimensions	H 86 × W 46 × L 48 cm
Cord length	15 m
Recovery type	Dry only
Dust protection	IP6X
Construction	Stainless steel AISI 304 — entire unit
ESD safe	Yes — under 10 ohm, conductive accessories included
Duty cycle	Continuous
Operating temperature	−5°C ≤ Ta ≤ +37°C

Compliance and harmonised standards: ATEX Directive 2014/34/EU · EN 17348 · EN 60079-0:2009 · EN 60079-1:2007 · EN 60079-31:2009. ATEX certificate: LCIE 03 ATEX 6297 · 3rd party certified by LCIE, NB 0081, Fontenay-aux-Roses, France.

Accessories



3D tool kit for 60 mm suction inlet — included

3D tool kit — 60 mm suction inlet



Optional 3D tools for Tiger-Vac EXP1-10 (40L) — optional

Optional 3D tools

CONTACT

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