

3D PRINTING • ATEX II 2GD • ZONE 1 GAS • ZONE 21 DUST • TEFC MOTOR

EXP1-10 (IT-40L) EX (CFE) HEPA

Electric ATEX II 2GD wet mix immersion vacuum with TEFC motor (Totally Enclosed Fan Cooled) for combustible metal powder from 3D printing. Highest airflow in the IT-40L range: 224 m³/h. Zone 1 gas and Zone 21 dust external. Third-party certified LCIE 03 ATEX 6297.

- ATEX II 2GD — Zone 1 gas • Zone 21 dust (external)
- LCIE 03 ATEX 6297 — 3rd party type examination certificate
- Water immersion (wet mix) — combustible powder neutralised in immersion bath
- TEFC motor 1 kW — hermetically sealed, no cooling air intake
- Highest airflow: 224 m³/h • CFE HEPA 99.97 %
- 31.8 kg • 15 m cord • AISI 304
- EN 17348 WT • EN ISO 80079-36:2016 • NFPA 484



Tiger-Vac EXP1-10 (IT-40L) EX (CFE) HEPA — ATEX II 2GD TEFC motor wet mix immersion vacuum for combustible metal powder

ATEX II 2GD — LCIE 03 ATEX 6297 · Zone 1 gas · Zone 21 dust · EN 17348:2022 WT · CFE HEPA — 99.97 % at 0.3 µm · NFPA 484

Quick facts	
ATEX	II 2GD
Zones	Zone 1 gas / Zone 21 dust
Motor	TEFC 1 kW
Air flow	224 m³/h
Vacuum	1,550 mmH ₂ O
Filter	CFE HEPA 99.97 %
Container	AISI 304
Weight	31.8 kg
Sound level	78/85 dB(A)

What is the Tiger-Vac EXP1-10 (IT-40L) EX (CFE) HEPA?

The EXP1-10 is the electric model in the IT-40L series with ATEX II 2GD certification covering both Zone 1 gas and Zone 21 dust externally. This distinguishes it from the C-10 EX, which is certified for Zone 22 externally but has Zone 20 internal protection — the EXP1-10 is the correct choice when the environment is classified as Zone 21 dust and Zone 1 gas, and when there is no requirement for IECEx certification or Zone 20 protection inside the collection container.

The motor is a TEFC motor — Totally Enclosed Fan Cooled. TEFC motors are hermetically sealed: cooling air circulates over the motor housing rather than through it. This makes the motor robust against dust and moisture, and is the preferred choice in ATEX environments that also carry gas risk, as the motor interior is shielded from the surrounding atmosphere. The EXP1-10 is the only electric model in the IT-40L series with a TEFC motor; both the C-10 EX and 2D-10 use bypass motors. There is no brushless motor option for the EXP1-10.

The EXP1-10 delivers the highest airflow in the series at 224 m³/h, but correspondingly the lowest vacuum pressure at 1,550 mmH₂O. This makes it well suited to rapid cleaning of open powder deposits over large areas,

but it is not optimised for reaching deep into perforated structures or narrow geometries that require high vacuum pressure. The ATEX certificate is LCIE 03 ATEX 6297 issued by LCIE (NB 0081). There is no IECEx certification.

Important restriction: The EXP1-10 uses water as the immersion medium — never oil. A power outlet plug is not included and must be fitted separately. Cord length is 15 m. The machine covers Zone 1 gas and Zone 21 dust externally — the container interior is not Zone 20 certified.

Technical specifications

Parameter	Value
ATEX marking	II 2GD Ex d IIA T3 Gb / Ex t IIIC T200°C Db IP6X
ATEX zone	Zone 1 gas (external) • Zone 21 dust (external)
ATEX certificate	LCIE 03 ATEX 6297 (3rd party, NB 0081)
Motor type	TEFC (Totally Enclosed Fan Cooled) 1 kW
Voltage	230 V • 50 Hz • single phase • 4.5 A
Air flow	224 m³/h
Vacuum pressure	1,550 mmH ₂ O
Suction inlet	Ø38 mm (1.5" camlock)
Filter	CFE coalescing HEPA — 99.97 % at 0.3 µm
Water capacity (container)	12.3 L (3.25 gal)
Recovery bag	Conductive wet recovery bag — 3 L — included
Container	AISI 304 stainless steel
Dimensions	48 × 46 × 86 cm (H)
Weight	31.8 kg
Sound level	78/85 dB(A)
Cord length	15 m (power outlet plug not included)
Standards	EN 17348 WT • EN ISO 80079-36:2016 • EN ISO 80079-37:2016 • NFPA 484

Accessories and options

The EXP1-10 ships with a complete static dissipating accessory kit for the 1.5" camlock suction inlet, including conductive crush-proof hose (3 m), crevice tool, round brush and conical nozzle with curved tip. Conductive wet recovery bag, mist arrestor pack, degassing vent and liquid level indicator are all included. There is no brushless motor option. Optional: wand set with floor tool.



Static dissipating accessory kit with 1.5 inch camlock hose, crevice tool, round brush and conical nozzle — included
3D accessory kit — hose, nozzles, brush



CFE coalescing HEPA filter upstream — 99.97 percent at 0.3 micron
CFE coalescing HEPA filter



Conductive wet recovery bag with bag retainer bracket installed in container
Conductive wet recovery bag



Liquid level indicator and drain valve on EXP1-10 container

Liquid level indicator and drain valve



Degassing vent on EXP1-10 — must remain open when not in use

Degassing vent



Optional: wand set with floor tool for EXP1-10

Wand set and floor tool

CONTACT

Particulair — Life Science Hub

Nordic specialist in industrial vacuum for pharma & life science

Højtoften 12, 2690 Karlslunde, Denmark

Tel: +45 70 23 12 03 · sales@particulair.com · particulair.eu/life-science/