

3D PRINTING • ATEX II 2GD • WET MIX • CONTINUOUS DUTY

ATEX-10A (IT-40L) CFE HEPA

Pneumatic wet mix immersion vacuum with ATEX II 2GD certification for combustible metal powder from 3D printing. Venturi drive enables continuous 24/7 operation without motor wear. Zone 1 gas and Zone 21 dust. Just 68 dB(A).

- ATEX II 2GD — Zone 1 gas • Zone 21 dust (external)
- Pneumatic venturi drive — no motor, no wear, continuous 24/7
- Water immersion (wet mix) — combustible powder neutralised in immersion bath
- CFE coalescing HEPA filter — 99.97 % at 0.3 µm
- Only 68 dB(A) — quietest model in the range
- AISI 304 • 187 m³/h • 2,790 mmH₂O
- EN 17348 WT • EN ISO 80079-36:2016 • NFPA 484



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

ATEX II 2GD — Zone 1 gas / Zone 21 dust · LCIE 16 AR 077 (Annex VIII) · 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
Drive type	Pneumatic venturi
Duty	Continuous 24/7
Air flow	187 m ³ /h
Vacuum	2,790 mmH ₂ O
Filter	CFE HEPA 99.97 %
Container	AISI 304
Sound level	68 dB(A)

What is the Tiger-Vac ATEX-10A (IT-40L) CFE HEPA?

The ATEX-10A is the only pneumatically driven model in Tiger-Vac's IT-40L wet mix series. Instead of an electric motor, it uses a venturi principle: compressed air is fed through a single venturi unit, generating the vacuum that draws powder-laden air into the collection container. Because there are no rotating electrical components, no brushes and no bearings that wear under heat, the ATEX-10A can run continuously around the clock without rest periods or risk of overheating — a fundamental operational advantage over electric models in high-throughput production environments.

The machine carries ATEX II 2GD certification documented under LCIE file LCIE 16 AR 077 (Annex VIII, Notified Body 0081). This covers both Zone 1 gas (category 2G) and Zone 21 dust (category 2D) externally. The dual gas-and-dust rating makes the ATEX-10A the correct choice for 3D printing environments where both combustible metal powder and flammable solvents or process gases may be present simultaneously — a combination that a dust-only rated machine cannot legally cover. Performance has been verified to

EN 17348:2022 WT and the machine meets the requirements of NFPA 484 for liquid precipitation collectors for metal dusts.

The coalescing HEPA filter (CFE) is positioned upstream of the working air exhaust, capturing moisture droplets and fine particles from the immersion bath so that the air returned to the room is clean and dry. Filter efficiency is 99.97 % at 0.3 µm. The pressure regulator is included as standard and factory set to 5.5 bar — the optimal balance between performance and noise level.

Important restriction: The ATEX-10A uses water as the immersion medium — never oil. It must not be used with metals that react more violently with water than with air. A compressor of at least 15 HP with a 1/2" (12.7 mm) air line at 5.5 bar is required. Actual performance depends on the compressor's capacity.

Technical specifications

Parameter	Value
ATEX marking	II 2GD Ex h IIC T6 Gb / Ex h IIIC T85°C Db
ATEX zone	Zone 1 gas (external) • Zone 21 dust (external)
ATEX certificate	LCIE 16 AR 077 (Annex VIII, NB 0081)
Drive type	Pneumatic — single venturi
Minimum compressor	15 HP
Air line size	1/2" (12.7 mm)
Input air volume	16.5–21.2 L/s
Input air pressure	5.5 bar (factory set)
Air flow	187 m³/h
Vacuum pressure	2,790 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 (0.8 gal) — included
Container	AISI 304 stainless steel
Dimensions	48 × 46 × 86 cm (H)
Sound level	68 dB(A)
Pressure regulator	Included — 0–10 bar, factory set 5.5 bar
Standards	EN 17348:2022 WT • EN ISO 80079-36:2016 • EN ISO 80079-37:2016 • EN 1127-1:2019 • NFPA 484

Accessories and options

The ATEX-10A ships with a complete static dissipating tool kit for the 1.5" camlock suction inlet, including conductive suction hose (3 m), air supply hose (7.5 m with quick disconnect fittings), two-piece stainless steel wand, universal tool with conductive brush strips and rubber blades, conical nozzle, Tiger Claw and round brush with conductive bristles. A multimeter is also included. Conductive wet recovery bag, mist arrestor pack, pressure regulator, degassing vent and liquid level indicator are all included. Optional: wand set with floor tool.



Static dissipating accessory kit with 1.5 inch camlock hose, nozzles and brush for ATEX-10A — included

SD accessory kit — hose, nozzles, brushes



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 ATEX-10A container

Liquid level indicator and drain valve



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

Degassing vent



Optional: wand set with floor tool for ATEX-10A

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/