

3D PRINTING • ATEX ZONE 22 • OIL INERTING • CONTINUOUS DUTY

Delfin Zefiro 75 INERT

Large oil inerting vacuum with side channel blower for continuous 24/7 duty. ATEX II 3D certified for Zone 22. Three phase 400 V. HEPA H14. AISI 304.

- ATEX II 3D — Zone 22 external (CE EX 22)
- HEPA H14 — 99.995 % at MPPS (EN 1822) • 26,000 cm²
- Oil inerting — neutralises reactive powder before emptying
- Side channel blower 3.0–6.5 kW — maintenance-free, 24/7 duty
- AISI 304 container — INERT tank 37 L oil / 44 L total
- 75 dB(A) • 95 kg • pressure safety valve incl.
- Tested to EN 17348 • EN IEC 62784:2018 • EN ISO 80079-36:2016



Delfin Zefiro 75 INERT — ATEX II 3D side channel blower vacuum Zone 22

ATEX II 3D — Zone 22 · HEPA H14 — EN 1822 · EN 17348:2022 · EN IEC 62784:2018 · EN ISO 80079-36:2016

Quick facts	
ATEX	II 3D • Zone 22
Motor	Side channel, 24/7
Filter class	HEPA H14
Efficiency	99.995 % at MPPS
Power	3.0–6.5 kW
Airflow	318 m³/h
INERT tank	37 L oil / 44 L total
Container	AISI 304
Weight	95 kg
Noise	75 dB(A)

What is the Delfin Zefiro 75 INERT?

The Zefiro 75 INERT represents a different architectural approach from the MTL 451 and DM2: instead of a TEFC motor, it uses a side channel blower as its drive. This is a technology choice with significant practical consequences. Side channel blowers have no brushes, slip rings or bearings that wear under heat — they are in principle maintenance-free and built for continuous 24/7 operation without overheating or required rest periods. For production environments with high uptime requirements, this is a decisive advantage.

The machine is ATEX II 3D certified for Zone 22 externally — the zone describing environments where an explosive dust atmosphere is only present rarely and briefly. The internal INERT container is classified as Zone 20 (permanent presence of explosive atmosphere), and the overall system is attested in accordance with EN 17348:2022. The Zone 22 classification for the external environment makes the Zefiro 75 suitable for many typical 3D printing production facilities that are not classified as Zone 20 or Zone 21.

Three phase 400 V / 50 Hz supply gives the machine a power range of 3.0–6.5 kW, well above the single phase TEFC models. Vacuum depth is correspondingly higher: 3,000–2,300 mmH₂O versus 2,250 mmH₂O for the MTL 451 and DM2. IP65 protection class applies to the motor throughout.

The pressure safety valve is included as standard equipment — a valve that activates if overpressure builds up in the container system. This is a requirement under EN 17348:2022 for machines with closed container systems, and Delfin has chosen to supply it as standard rather than as an option.

Zone restriction: The Zefiro 75 INERT is certified for Zone 22 externally (ATEX II 3D). It is not suitable for environments classified as Zone 20 or Zone 21 externally — select the MTL 451 or DM2 1/2D INERT for those situations. The machine is also not certified for flammable gases or vapours.

Technical specifications

Parameter	Value
ATEX marking	II 3D Ex h tb IIIC T80°C (Int) / T165°C (ext) Dc
ATEX zone	Zone 22 external (3D, Zone 20 Int / Zone 22 Ext)
EX category	3D — CE EX 22
Voltage	400 V • 50 Hz • three phase • IP65
Power	3.0–6.5 kW
Motor type	Side channel blower (maintenance-free, suitable for 24/7)
Airflow	318 m ³ /h
Vacuum pressure (max.)	3,000–2,300 mmH ₂ O
Suction inlet	Ø50 mm
Primary filter	Star/Tasche antistatic polyester ANT M • 30,000 cm ² • Ø500 mm
Filter cleaning	Manual shaking mechanism • filter indicator incl.
HEPA filter	H14 • 99.995 % at MPPS • 26,000 cm ²
INERT capacity (oil)	37 L
INERT capacity (oil + material)	44 L (max.)*
Container	AISI 304 stainless steel
Pressure safety valve	Included as standard
Dimensions	79 × 66 × 170 cm (H)
Weight	95 kg
Noise level	75 dB(A) (EN ISO 3744)
Standards	EN 17348 • EN IEC 62784:2018 • EN ISO 80079-36:2016

* Variable based on the vacuumed material characteristics.

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