

TIGER-VAC · 3D PRINTING / ADDITIVE MANUFACTURING

## C-10 EX DT (PRS-HEC)

PRS vacuum with integrated high-efficiency cyclone for recovery and reuse of metal powder from powder bed fusion printers. Third-party certified for Zone 21 and Zone 22 externally — and uniquely in the class for Zone 20 internally inside the recovery tank (ATEX II 1/3D, IECEx). HEPA H14. Stainless steel SAE 304.

- Zone 20 attestation inside the recovery tank — highest ATEX protection level in the class
- Dual certified: ATEX (LCIE 15 ATEX 3061) and IECEx (IECEx LCIE 15.0048)
- Integrated HEC cyclone — separates up to 98 % of the powder
- HEPA H14 as secondary safety barrier
- Brushless motor (BLSD) available for extended motor service life
- Detachable SS 304 recovery tank — 25 L



Tiger-Vac C-10 EX DT (PRS-HEC) – ATEX Zone 20 internal IECEx powder recovery system

ATEX II 1/3D — Zone 20 internal, Zone 22 external · LCIE 15 ATEX 3061 · IECEx LCIE 15.0048 · HEPA H14 — EN 1822 · EN 17348 — combustible dust

| Quick facts      |                               |
|------------------|-------------------------------|
| Drive type       | Bypass (std.) / BLSD (option) |
| ATEX external    | Zone 22 (II 1/3D)             |
| ATEX internal    | Zone 20 in recovery tank      |
| Certificate      | LCIE 15 ATEX 3061             |
| IECEx            | IECEx LCIE 15.0048            |
| Cyclone          | HEC, up to 98 %               |
| Filter           | HEPA H14                      |
| Tank             | 25 L, detachable, SS 304      |
| Airflow (bypass) | 194 m³/h                      |
| Airflow (BLSD)   | 216 m³/h                      |
| Noise            | 72 dB(A)                      |
| Cord             | 10.6 m                        |

### Highest ATEX protection level in the class

The C-10 EX DT (PRS-HEC) is Tiger-Vac's highest-certified powder recovery system for additive manufacturing. Most ATEX vacuums are certified for Zone 21 externally and Zone 22 internally — that is, for rooms and interior surfaces where explosive dust atmospheres occur periodically. The C-10 EX DT goes a decisive step further: the recovery tank is attested for Zone 20, the zone covering locations with permanent presence of explosive dust atmosphere. That is precisely the situation inside a recovery tank filled with fine, conductive metal powder.

This attestation was carried out by notified body LCIE and covers both ATEX (LCIE 15 ATEX 3061) and IECEx (IECEx LCIE 15.0048) for conductive dust in group IIIC. The integrated HEC cyclone separates up to 98 % of the metal powder into the detachable SAE 304 tank before the HEPA H14 filter is reached.

The standard version is supplied with a bypass motor. As an option the unit can be supplied with a brushless motor (BLSD), which increases airflow to 216 m³/h and offers significantly longer motor service life. The BLSD

version is always supplied with 4 × H14 HEPA filters.

Technical specifications

| Parameter                | Value                                    |
|--------------------------|------------------------------------------|
| Filter class             | HEPA H14 (EN 1822)                       |
| Filter efficiency        | 99.99 % at 0.3 µm                        |
| Cyclone separation       | Up to 98 % (before filter)               |
| Motor type (standard)    | Bypass                                   |
| Motor type (option)      | Brushless (BLSD) — extended service life |
| Power (bypass)           | 1.2 kW / 1,200 W                         |
| Power (BLSD)             | 1.1 kW / 1,100 W                         |
| Voltage                  | 220–240 V, 50/60 Hz, single phase        |
| Current (bypass / BLSD)  | 5 A / 8 A                                |
| Airflow (bypass)         | 194 m³/h                                 |
| Airflow (BLSD)           | 216 m³/h                                 |
| Vacuum pressure (bypass) | 2,504 mmH²O                              |
| Vacuum pressure (BLSD)   | 2,250 mmH²O                              |
| Noise level              | 72 dB(A)                                 |
| Suction inlet            | Ø50 mm (2" camlock)                      |
| Recovery tank            | 25 L — detachable, SS 304                |
| Cord length              | 10.6 m                                   |
| Recovery type            | Dry only                                 |

**Compliance standards:** EN 17348 • EN IEC 60079-0:2018 • EN 60079-31:2014 • EN ISO 80079-36:2016 • EN ISO 80079-37:2016. Specifications subject to change without notice.

Included accessories



3D Tool Kit for C-10 EX – hose and nozzles

3D Tool Kit

Static conductive crushproof hose Ø38 mm × 3 m with 2" camlock. Conical nozzle, round brush and crevice tool (ESD-safe).



Wand set and floor tool (optional)

Wand set and floor tool

Optional. Double-bend wands in chrome (2 pcs) with conductive floor tool.



Extra recovery tank with lid, Part# 223001-ASM1 (optional)

Extra recovery tank

Optional. Tank with closing lid and 4 conductive wheels (Part# 223001-ASM1).



Brushless motor (BLSD) for C-10 EX – with 4x H14 HEPA filters

#### Brushless motor (BLSD)

Optional. Brushless motor unit with extended service life. Supplied with 4 × HEPA H14 filters.



C-10 EX DT (PRS-HEC) side view 1 (bypass version)

#### Side view 1 – bypass



C-10 EX DT (PRS-HEC) side view 2 (BLSD version)

Side view 2 — BLSD

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**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](mailto:sales@particulair.com) · [particulair.eu/life-science/](https://particulair.eu/life-science/)