

TIGER-VAC · II 1/2D EX H TB IIIC T135 C DB IP65 -- INTERN: EX H IIIC T50 C DA -- LCIE 03 ATEX 6295 X -- IECEx LCI 10.0040X -- EN 17348 DT

## Tiger-Vac CD-4 EX (MFS) 2D Z21 ESD Safe



The Tiger-Vac CD-4 EX (MFS) 2D Z21 is the ESD Safe variant of the CD-4 series -- marked II 1/2D to EN 17348 DT for combustible and conductive dust. The model is specifically designed to prevent electrostatic discharges (ESD), making it suitable for recovery of aluminium, magnesium, titanium and other pyrotechnic substances. The three-phase TEFC motor (3.4 kW, 8 A) delivers 306 m<sup>3</sup>/h at 2540 mmH<sub>2</sub>O and is dimensioned for continuous duty. Manual Filter Shaker (MFS) cleans the static-dissipative main filter (SD\*, 14 sq ft, part 214556) without opening the machine. The detachable 56.8 L tank simplifies disposal and a conductive poly liner can be added. A muffler is included as standard and reduces noise from 90 dB(A) to 68 dB(A).

### APPLICATIONS

- Recovery of conductive metal dust (aluminium, magnesium, titanium) in Zone 20/21
- Pyrotechnic production environments where ESD protection is critical
- General cleanup in hazardous locations
- Continuous duty with True Cyclone Separator for enhanced suction capacity
- Installations where lowest possible noise level is required (68 dB(A) with muffler)

# Technical specifications

<b>ATEX marking</b>	II 1/2D Ex h tb IIIC T135 C Db IP65 -- Intern: Ex h IIIC T50 C Da -- LCIE 03 ATEX 6295 X -- IECEx LCI 10.0040X -- EN 17348 DT
<b>Internal / external zone</b>	20 / 21
<b>Motor type</b>	3-faset TEFC-motor, eksplosionssikret (Ex h tb IIIC T135 C Db), 3,4 kW / 8 A, 400 V / 50 Hz
<b>Airflow</b>	306 m <sup>3</sup> /h
<b>Vacuum</b>	249 mbar (2540 mmH <sub>2</sub> O)
<b>Container</b>	56.8 L
<b>Sound pressure</b>	68 dB(A)
<b>Filter class</b>	H class
<b>Filter type</b>	HEPA H14 (212202, 11" high, 99,995 % @ 0,3 um) eller ULPA U15 (212203, 11" / 28 cm) -- tilvalg
<b>Primary filter</b>	Main Filter Assembly SD* (214556, 14 sq ft, inkluderer ring og cage) -- statisk ledende hovedfilter
<b>Cleaning system</b>	Manual Filter Shaker (MFS) -- mekanisk rystning, ESD Safe design
<b>Collection system</b>	Detachable container
<b>Material</b>	AISI 304 rustfri staal (undtagen cart: powder coated)
<b>IP class</b>	IP65
<b>Power</b>	3.4 kW
<b>Current</b>	8 A
<b>Voltage</b>	400 V / 50 Hz / 3~
<b>Inlet</b>	Diameter 63.5 mm
<b>Dimensions (L x W x H)</b>	1190 x 690 x 1730 mm
<b>Weight</b>	177 kg

# Questions and answers

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## What does ESD Safe mean in practice?

The ESD Safe design ensures that all internal components (filter, hose, tank, cabinet) are static-dissipative or conductive with resistivity less than 10 ohms. This means recovered conductive particles (e.g. aluminium or metal dust) cannot accumulate static charge and release a spark. For the design to work in practice the grounding of the whole system must be verified with the supplied ground-continuity multimeter (211065B) before each use. If dust is particularly pyrotechnic or conductive (e.g. aluminium fines, magnesium), Ø50 mm explosion-proof accessories (500306D series) are recommended over standard SD accessories.

## Why is the muffler a critical specification element?

Without a muffler the CD-4 EX (MFS) produces 90 dB(A) at direct exhaust -- a level requiring hearing protection and which can trigger noise alarms in many production environments. With the included muffler (stainless steel foam silencer) noise drops to 68 dB(A), comparable to normal conversation in an office. The muffler fits on the exhaust of the main filter housing and does not measurably affect suction. If a HEPA H14 or ULPA U15 filter is optioned the filter housing itself serves as a silencer and the muffler location may change -- contact us for advice.

## What is the difference between CD-4 EX (MFS) and CD-4 EX (MRP)?

Both models have identical chassis, motor, tank, cart and dimensions. The difference lies in the cleaning system: MFS mechanically shakes the flat main filter, while MRP uses a cylindrical reverse-purge cartridge (214219A) where airflow is briefly reversed. The MFS variant is ESD Safe certified and suited for conductive metal dust; the MRP variant has higher durability and longer intervals between filter changes -- but it's the primary filter type that technically differentiates them. Choose MFS if handling conductive or pyrotechnic substances; choose MRP if you want the longest possible time between cleaning cycles.

## Is it suitable for pharma applications?

CD-4 EX (MFS) is not explicitly marketed as pharma-dedicated. The AISI 304 hardware is washable and clean enough for most pharmaceutical production environments, but the cart is powder coated (not stainless). For cleanroom or pharma validation requirements we instead recommend CD-2600 EX CR (MFS) 2D which is 304/316 throughout, or CD-36L EX DT (MFS) with SS cart. Note that the HEPA H14 filter (212202) is aerosol leak tested and thus meets pharmaceutical filter requirements at the filter level, even if the machine cart is not SS.

# Contact and advisory

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