

TIGER-VAC · II 2GD EX H IIC T6 GB / EX H IIIC T85°C DB -- LCIE 03 ATEX 6310 X -- IECEx LCIE 17.0076 X -- EN 17348 LC

Tiger-Vac SS-55 (TC) TE TWIN VENTURI



The Tiger-Vac SS-55 (TC) TE TWIN VENTURI is the most powerful pneumatic explosion-proof vacuum in the SS-TE series for the recovery of fuel and flammable liquids in ATEX Zone 1 (gas) and Zone 21 (dust). Two parallel venturi nozzles (2x 6 mm) deliver 331 m³/h airflow -- about 60 % more than the single-venturi version's 204 m³/h -- and 5840 mmH₂O vacuum at 6.9 bar supply pressure. Driven exclusively by compressed air, with no electrical components and no ignition risk, in ATEX T6 class (max 85 °C surface temperature). Certified to EN 17348 LC (flammable + non-flammable liquids) and dual-certified under ATEX (LCIE 03 ATEX 6310 X) and IECEx (LCIE 17.0076 X) for international defense procurement. The Tilt Cart (TC) construction tips the entire tank for emptying without lifting -- a real ergonomic advantage for a 170 litre full liquid tank. AISI 304 stainless construction, activated carbon filter optional for VOC vapours, 75 dB(A) sound level. The higher performance requires a larger compressor: minimum 30 HP with 33 L/s (1980 NL/min) capacity and a 1" (25 mm) air hose. Choose TWIN VENTURI where high-volume recovery is needed -- larger aircraft (C-130, tanker trucks) or simultaneous extraction from multiple jobs.

APPLICATIONS

- High-volume defueling of larger aircraft (C-130, transport aircraft) and tanker trucks where 204 m³/h is not enough
- Simultaneous extraction from several suction points or long hose runs where extra airflow is required
- Recovery of larger fuel spills (JP-8, Jet A-1) in areas with high vapour concentration
- Continuous process extraction without motor overheating (24/7 operation possible)
- Chemical industry with flammable solvents in Zone 1/21 where both T6 rating and high capacity are required

Technical specifications

ATEX marking	II 2GD Ex h IIC T6 Gb / Ex h IIIC T85°C Db -- LCIE 03 ATEX 6310 X -- IECEx LCIE 17.0076 X -- EN 17348 LC
Internal / external zone	-- / 21
Motor type	Pneumatisk venturi-aggregat (twin venturi, 2x 6 mm), ingen elektriske komponenter -- ATEX T6 klasse (Tmax 85 °C)
Airflow	331 m ³ /h
Vacuum	573 mbar (5840 mmH ₂ O)
Container	151 L
Sound pressure	75 dB(A)
Filter class	Stainless steel mesh filter
Filter type	Rustfri stål mesh-filter med clamp (part 213433) -- aktivt kulfilter (211045) som tilvalg for VOC/dampe
Primary filter	Rustfri stål mesh-filter (213433). Strainer basket inkluderet. Statisk ledende konstruktion (< 10 ohm resistivitet).
Cleaning system	Ingen (manuel) -- mesh-filter aftages og skylles rent
Collection system	Detachable container
Material	AISI 304 rustfri stål (undtagen vogn)
Air consumption	1980 nl/min
Supply pressure	6.9 bar
Air supply hose	Diameter 25.4 mm
Venturi units	2 pcs
Inlet	Diameter 50 mm
Dimensions (L x W x H)	1020 x 710 x 1270 mm
Weight	70 kg

Questions and answers

What is the difference between SINGLE and TWIN VENTURI on the SS-55 (TC) TE?

Both share the same chassis, the same Tilt Cart, the same filtration and the same EN 17348 LC certification -- the difference is in the venturi section. SINGLE VENTURI (part number 110278) has one 6 mm venturi nozzle, delivers 204 m³/h and requires a minimum 15 HP compressor at 5.5 bar with a 1/2" (12.7 mm) air hose. TWIN VENTURI (part number 110282) has two parallel 6 mm venturi nozzles, delivers 331 m³/h -- about 60 % more airflow -- and 5840 mmH₂O vacuum, but in turn requires a minimum 30 HP compressor at 6.9 bar and a 1" (25 mm) air hose. Choose single if the compressor is limited or the task is single-operator; choose twin for high-volume recovery or several simultaneous suction points.

What compressor does TWIN VENTURI require?

A minimum 30 HP (22 kW) compressor delivering 33 L/s (1980 NL/min) at 6.9 bar continuously -- roughly twice that of the single-venturi version (15 HP / 21.2 L/s). You also need a 1" (25 mm) air hose from the compressor, not 1/2" as on the single. The unit can be operated continuously as long as the compressor maintains pressure. For field work the compressor must be placed outside the ATEX zone -- a diesel or petrol compressor is itself an ignition source -- with the air hose run into the zone.

Why T6 instead of T3 -- what does it mean in practice?

T6 is ATEX's strictest temperature class: maximum surface temperature 85 °C. T3 is 200 °C. For most fuels such as diesel or Jet A-1, T3 is sufficient because auto-ignition temperature is 210-230 °C. But for hydrogen, acetylene, and certain aerosolised aromatics (such as benzene vapours at high concentration), even 90-120 °C surface temperature can trigger ignition. T6 is also required in many newer defense specifications (NATO STANAG, US Air Force TO-0 series) where a single worst-case class is chosen for all tasks. SS-TE models are built to T6 because the pneumatic construction makes it physically impossible to exceed 85 °C.

What's the difference between the SS (pneumatic) and EXP1 (electric) TE series?

Same chassis family, same Tilt Cart, same filtration (stainless mesh + activated carbon optional), same EN 17348 LC certification. But the motor is fundamentally different: EXP1 is single-phase TEFC electric (230V), SS is pneumatic venturi (compressed air). Choice depends on available energy and risk level: When you have 230V and T3 is sufficient -- choose EXP1 (lighter, no compressor requirement, longer hose reach via cable). When you have compressed air and T6 is required, or you work in ultra-high-risk areas (hydrogen, F-35, rocket fuel) -- choose SS. In practice, many defense units choose SS models because NATO/US Air Force specifications typically require T6.

Contact and advisory

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