



COMBOVACS



INDUSTRY FIRST
WIRELESS
OPERATION

TORNADO Technologies Inc.

Design and Manufacturing since 1984

The EVOLUTION of Vacuum Truck Technology

Tornado is proud to introduce the ComboVac — the newest in our growing line of industry leading vacuum trucks. With all new wireless operation, minimized overall truck weight and countless ground breaking features, Tornado Technologies Inc. is once again leading the way in research and development. Our promise to customers is to continually update traditional technologies with innovative new designs. Each unique feature translates into a money and time-saving benefit for your business.

WIRELESS CONTROL

An industry first! Tornado provides operators with a wireless remote to control all functions of their truck from hundreds of feet away, or even from within the cab. The handheld unit operates:

- Vacuum On/Off
- Hoist
- Vacuum/pressure level (lbs)
- ESD (vacuum or entire truck)
- Water Pump (for combo units)
- Rear gate and valves
- Agitator and Vibrator
- Engine RPM's



Field spreading can be controlled wirelessly from the cab.

INNOVATIVE PUMP CUBE DESIGN

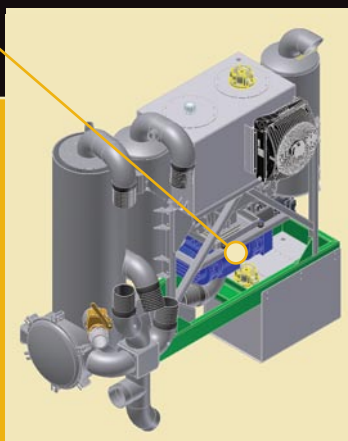
Tornado has taken the traditional vacuum truck and painstakingly reconfigured the Pump Cube for **maximum space and weight efficiency**. Operators will love the clean layout. All your key components are smartly positioned for trouble-free maintenance and operation. By packaging the cyclone, filter housing, blower, silencers, hydraulic tanks, coolers and 4-way valve in one bolt-on cube, Tornado has created a more balanced, centralized mass that weighs far less and means more usable storage space. Our innovative design simply makes sense.

Van Body

All critical components are centralized and housed in an insulated, heated aluminum van body. Operators will especially appreciate this functional space located on both sides of the vehicle.

Blower

Rubber-mounted to minimize NVH (Noise Vibration Harshness). With optional dampening enclosure, Tornado has created the quietest Vac truck in the industry.



Tornado VAC-Watch system

Cyclone

High efficiency cyclone directly mounted to the pump cube for space efficiency. Features include a heated 2" full-port drain to eliminate freezing, and debris catch level shutdown.

Filter Housing

Large stainless mesh filter for decreased servicing and long life.



Water Tank

Versatility! Operators can carry up to 925 gallons of water for additional wash capability. Upper man-way allows separate access to water tank.

Hydraulic Cylinder

Superior nitride-coated cylinder eliminates corrosion for service-free life.

Tool Boxes & Storage

More functional space, better lighting, heated, properly sealed, and plentiful.

Electrical System

Military grade, custom-built, 100% sealed/tested harnesses ensure zero maintenance or issues.

Control Box

The heart and soul. Computer control system, electrical, hydraulic and air controls are centralized, organized and easily accessible.

Code Vacuum Tank

Designed and constructed in full compliance with Transport Canada specification CSA B620-03 for the following specs 407; 412.

Modular Deck Assembly

One dent shouldn't mean repairing the entire deck! Tornado assembles in modular pieces allowing targeted maintenance, repair or replacement of aluminum checkerplate decking.

Redesigned Safety Features

- Self-engage/reset latch safety for rear dump door
- Tank safety prop for tank hoist
- Non-slip surfaces throughout

Lighting

We only choose the best accessories. Ample LED lighting is maintenance free and consumes less power. Work lights are standard on all units.

Rear Fittings Boxes

Heated and organized for easy access; with integrated pinwheel access steps/platform.

ONBOARD COMPUTER SYSTEM

The most intelligent Vacuum Truck on the market. Tornado's proprietary VAC-Watch computer system offers real-time diagnostics. Truck performance is monitored – and even corrected! – to protect YOUR INVESTMENT. Operators will benefit from automated shutdowns, tank pressure control, fan temperature controls, hydraulic leak detection, and much more. As much as possible, the ComboVac operates itself! Tornado can even program customized software to meet your specific needs.



WASH CAPABILITY

The ComboVac delivers **greater versatility** with the addition of a water tank and wash features. The van-body protects all critical components including boiler, water pump, 100-feet of high pressure wash hose, and 100-feet of low pressure, high-temp steam hose.

REDUCED WEIGHT

Maximize your payload! Tornado has significantly reduced overall weight to help put extra money in your pocket – not at the scales.

MORE CHOICE

Tornado designs a range of industrial vacuum trucks to suit different applications and customer needs, including:

STRAIGHT VACS Traditional vacuum loading equipment updated with Tornado's wireless operation, proprietary onboard computer system, and innovative pump cube design. Designed to exceed Transport Canada 407; 412 standards.

TRAILER VACS Additional capacity with stiff-pole pup trailers.

HYDROVACS Already considered the best dedicated hydro-excavator in the industry, Tornado continues to expand our Hydrovac product line with more options and superior productivity.

No truck on the market matches the features of the all new Tornado ComboVac!

Tank Sizes: 82bbl (1,780 IG Debris; 825 IG Water)
92bbl (2,000 IG Debris; 925 IG Water)

Tank Specifications: Built to ASME Section VIII & CSA B620

Wireless Controls: Omnex remote control, handheld

Onboard Computer System: Tornado Proprietary VAC-Watch; monitoring/controlling of vac and water systems; custom software to optimize parameters for steam mode (consistent flow) and wash mode (consistent pressure); full truck diagnostics station

Water System: Cat 3560 water pump; 25 gal/min; up to 3,000 PSI

Blower: Hibon VTB-820 (1400 CFM, 27" Hg) or VTB-822 (2650 CFM, 28" Hg); isolated mounting

Blower & Water Pump Drives: Chelsea 8-bolt PTO to closed-loop hydraulic systems

Boiler: WB 9450 - 700,000 BTU; or WB 9460 - 980,000 BTU

Van Body: Heated, insulated, lit, protected enclosure containing critical components including boiler and hose reels

Hose Reels: 1 high pressure wash reel with 100' of 1/2" hose; 1 low pressure, high-temp steam reel with 100' of 1/2" hose

Rear Door Valves: Two 4"; One 6"; air-actuated piston gate valves

Valve Heating: Engine coolant heating to all rear door, isolation, and cyclone dump valves

Vacuum Pressure Piping: 6" permanent piping (no vacuum disconnect); 6" check valves (blower protection); 6" four-way diverter valve (tank pressurization)

Filtration System: 6" high efficiency cyclone; Washable stainless steel inline filter element

Silencers: One 6" chamber-type discharge silencer; One 6" absorptive-type intake silencer

Hydraulic Dump System: Full-length hydraulic dump sub frame; Nitride-coated dump cylinder; Full-opening hydraulic rear door assembly, with self-engage/reset latch safety system

Hydraulic System: 80 IG hydraulic reservoir, integrated cooler mounts; Fan-assist hydraulic oil cooler; Cabinet-mounted valve body for control of dump, rear door, vibrator, agitator, and optional fold up bumper

Vibrator: Cougar HT-3200 vibrator

Agitator: Gallup in-tank centrifugal agitator

Cabinets: All heated and lit; Aluminum cabinets (upright, below-deck, control, fittings boxes, optional junk box) featuring Western Truck Body doors

Other Standard Features: Full length aluminum checkerplate decking/handrails; Tank ladder rungs; Four TDG placard holders; Retractable static line assembly; DOT-approved LED lighting; DOT bumper; 4" SS DOT 25 PSIG pressure relief valve; Tire chains; Squeegee rack

Please contact your Tornado representative for other options and minimum chassis requirements.



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