

VERTICAL SHAFT IMPACT (VSI) CRUSHER

TWISTERTRAC[®]

VS350E



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The TwisterTrac VS350E is a track-mounted, self-driven, feeding, crushing and stockpiling machine for tertiary and quaternary crushing applications.

Fitted with a purpose designed Twister VS350E vertical shaft impact (VSI) crusher, this mobile Vertical Shaft Impactor from Pilot Crushtec International is the market leader locally in track mounted VSI's and is a versatile crusher primarily used for producing sand and fines and for quality enhancement of aggregates. This mobile crusher has been sold globally and operated across numerous sites around the world for shaping aggregates to enhance the best quality end products available.

The TwisterTrac VS350E is a world class mobile VSI solution which is efficient, cost effective, reliable, proven and robust.

Key Features:

- Low capital investment and maintenance costs
- Control product characteristics by using the crushers variable speed function
- Various rotor options dependant on application and product required
- Modular rotor design to deliver low running costs per ton
- Fully site mobile with a quick set-up time
- Highly fuel-efficient diesel engine and crusher drive system
- Easy access to crusher internals for maintenance (one push button operation)
- Can work independently with loaders or interlocked as part of a crushing train with upstream and downstream communication
- Fully guarded with all the latest safety features
- Designed and manufactured to suit mining conditions/regulations
- Highly efficient, Volvo engine
- Easy to maintain crusher with automatic grease lubrication to main bearings



Hopper and Belt Feeder

- Heavy-duty, high torque electric feeder drive
- Variable speed control proportional to crusher load for maximum productivity
- Hydraulic retracting feeder for crusher access and maintenance
- Heavy-duty belt feed hopper, approximately 6 m³ capacity
- Low-level drop-down rear feed flap
- Can be side fed by a front-end loader and rear fed by another crusher or screen
- Class 630/4 ply belt 5 mm top cover, 1.6 mm bottom cover
- Heavy-duty pre-tensioned belt scraper with replaceable scraper blades

Crusher Unit

- Pilot Crushtec VS-AC350 vertical shaft impact crusher
- Various rotor options dependant on applications
- Heavy-duty grease lubricated bearing cartridge
- Electrically controlled variable rotor speed
- Hydraulic lifting of crusher housing cover and feed lid with mechanical rotation
- Replaceable rock box or anvil ring
- Jib crane for rotor removal and replacement
- Taper shaft rotor mount
- Rubber-mount crushing chamber isolation
- Rotor bypass system for power management in high tonnage applications

Power

- Volvo TAD1641GE, 430kW prime power at 1500 rpm, tier 3 engine
- Electronic engine monitoring and protection system
- Highly fuel-efficient engine
- Heavy-duty self-cleaning engine air intake filter system with an exhaust ejector
- Heavy-duty water separator in the engine fuel system
- Diesel tank 1100ℓ capacity with a low-level warning
- WEG™ 335kW high efficiency electric motor to drive crusher

Machine Connectivity

- Provision for upstream, downstream communication via umbilical cord
- Controls feed rate from primary crusher

Product Conveyor

- 1.2 m wide flat belting
- Hydraulic folding for transport
- 3.7 m stockpile height
- Class 500 / 3 Ply belt
- Heavy-duty high torque electric drive
- Belt adjustment at both drive and tail end

Site Mobility

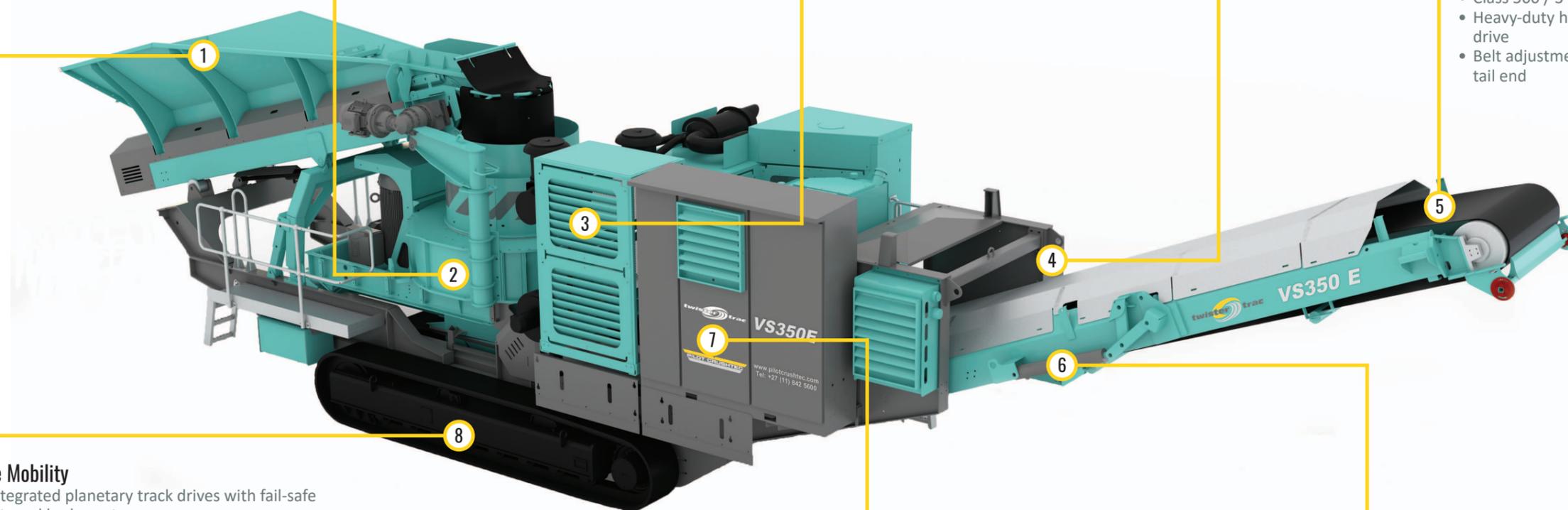
- Integrated planetary track drives with fail-safe internal brake system
- Radio remote control for tracking
- Mounted on crawler track system
- Optional pendant control box for tracking

Electrical System

- 24 VDC Electrical control system for the diesel engine
- Simple, intuitive control panel
- Critical information readily available on display panel
- 600 kVa Leroy Somer Electrical alternator with forced cooling
- 400 VAC Electrical crusher and conveyor system
- Indicator Pilot lights on the control panel
- Fail-safe emergency stop circuit
- Fail-safe crusher housing status switch

Hydraulics

- Load sensing system for fuel saving
- Suction, pressure and return line filtration integration with the control panel fault indication
- Low hydraulic oil level protection





Safety First

Through thousands of hours of in-field experience, the TwisterTrac VS350E has been designed and fine-tuned with a strong emphasis on safety. Full guarding around all access points, nip points and crushing points minimises the possibility of injury. Safety pull cords around the machine's conveyors and a minimum of 5 emergency-stop buttons strategically located around the VS350E ensure that this unit is quick to isolate at the first sign of an emergency.

The VS350E also has a sequential start-up sequence, with audible warnings prior to engine start or tramming, providing a clear warning sound to all personnel that may be within an unsafe radius. The VS350E has a very simple push button function to access the crusher internals and is fitted with a one-ton jib crane for rotor inspection and servicing.

Drive for Efficiency

Possibly the greatest improvement of this latest version of the TwisterTrac is its impressive efficiency. It starts with the latest generation Volvo Penta 16ℓ engine, capable of the most efficient operation of any engine in the industry. Supplementing the engine is a high efficiency electric motor using a simple V-belt drive. The TwisterTrac is the only track-mounted electric-drive VSI on the market. Crusher power draw is monitored and regulates the feed rate to maximise throughput.

Tailored Crushing Action

When it comes to sand manufacturing and product shaping there is no better mobile crushing solution than the TwisterTrac. At the heart of the machine is a purpose built VSI crusher designed to house various rotor options and capable of running through a wide range of rotor speeds. The operator has the option to choose between anvil ring or rock box configuration as well as all-in rotor feed or partial bypass.



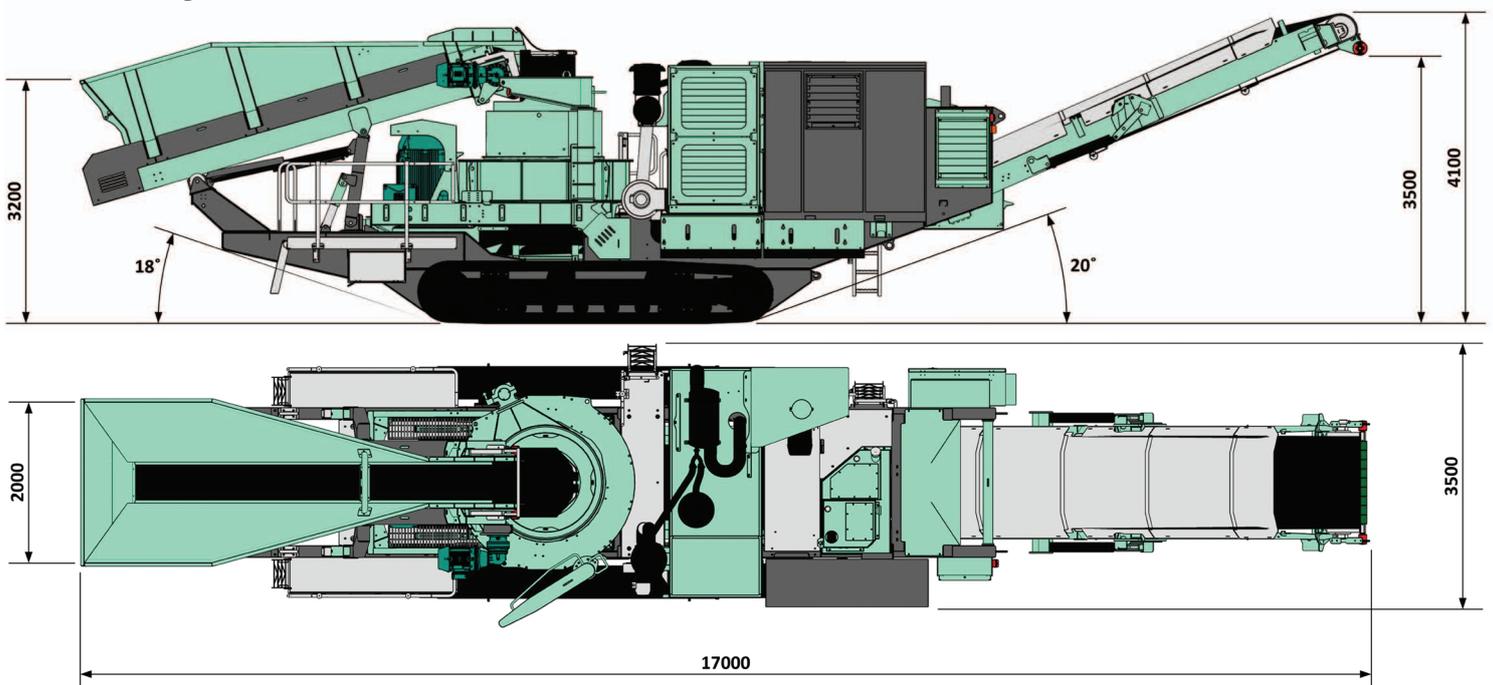
Before



After

Working Dimensions

The working dimensions of the TwisterTrac VS350E





Technical Data

Description	Three Port Rotor	Six Port Rotor	Open Rotor
Maximum Feed Size	50 mm (max. edge length)	60 mm (max. edge length)	90 mm (max. edge length)
Feed Passing Square Mesh Screen	40 mm	45 mm	60 mm
Rotor Speed	1250 - 1650 rpm	*1250 - 1650 rpm	900 rpm
Rotor Diameter	1000 mm	900 mm	1000 mm
Throughput	Up to 350 tph through the rotor, up to 450 tph using cascade system		

*When feed size exceeds 50 mm, the max rotor speed will reduce to 1400 rpm

Notes:

- All tonnages indicate “through-the-rotor” capacity
- All capacities quoted are provided as an application aid only. No performance guarantees are expressed or implied
- Higher and lower capacities can be expected and will depend on many factors including:
 - Type of feed material
 - Shape of the material
 - Size and grading of feed material
 - Size and speed for rotor
 - The rotor revolutions and size of the rotor will determine the speed at which the material leaves the rotor
 - The higher the rotor speed, the higher the reduction value
- Maximum feed size is indicative and will depend on the type of rock, capacity and grading of the feed material.

