



# Titan<sup>®</sup> Klean Shot<sup>®</sup> E-2

## Skid Mounted Electric Shot/Grit Reclaim System

The Titan Klean Shot Model E-2 requires a vacuum source and an external compressed air source for operation. The vacuum source can be a VecLoader Titan Series vacuum or a similar customer supplied high-powered (and preferably high mercury) vacuum system. The Klean Shot cleans spent media that is drawn in the system by the (vacuum) power supplied by the aforementioned high-powered vacuum. While the Klean Shot is capable of processing up to six to eight tons grit per hour, throughput will be limited by the chosen vacuum source. After cleaning, the cleaned media is pneumatically conveyed to the user's blast pot, storage container or 55-gallon drum, dependent upon the customer's requirements. A customer supplied air compressor (200 CFM minimum) is required to support this pneumatic conveyance. The external air source must be clean, dry air or there will be a tendency for ferrous blast media to rust and become trapped in the machine.

The Titan Klean Shot Model E-2 features a multi-stage cleaning process combining a) cyclonic separation, b) media specific dual rotary screens, c) a vertical air wash and, d) an integral baghouse/dust collector. Basic principals are as follows: Stage 1 - During the initial shot or grit loading stage, light fines are cyclonically separated and carried over to the vacuum system. Stage 2 - Trash is segregated from the collected shot or grit in the unit's second cleaning stage by a rotating dual scalping screen system, which deposits the segregated trash into a covered 55-gallon drum. Stage 3 - Collected media passing through these first two precleaning stages is then metered through an air wash system where the remaining foreign particulate is separated and carried over to the integral dust collection system. After this final cleaning, the processed blast media is gravity fed to the lower transport chamber well is then pressurized to direct the blast media to a blast pot, steel drum or other storage container. Stage 4 - Foreign particulate segregated by the Titan Klean Shot's air wash system continues to the integral dust collector.

The system offers product specific variable speed for precise control of the cleaning process. This allows effective cleaning of both ferrous and non-ferrous grit as well as differing and changing mesh sizes and grit mixes. As the vacuum source draws the spent media into the Titan Klean Shot Model E-2, the contaminated abrasive enters the system at the upper processing chamber. High velocity incoming material impacts against a removable wear plate, where it loses velocity and drops within the processing chamber to a dual rotating scalping screen section. Within the rotating scalping screens, large debris such as face shields, gloves, rocks, rust, large paint chips, etc is separated from the blast media. One screen is removable and has a standard mesh size of 1/8". This screen can be easily changed to an alternative mesh size, for substantial changes in media sizing. The material then passes through a dual gravity dump door system, allowing for continuous vacuum. The material is then metered out of the dump system to a bucket elevator that elevates the product to the 180 degree airwash section of the system. Abrasive is cleaned and separated as it passes through the airwash system. Contaminants removed from during the airwash are carried over to the dust collector.

The speed of the material processing flow and resultant cleanliness is controlled through a manually adjusted metering valve. The settings on the airwash system allows for precise control of the size of the media being discharged as unusable. The airwash system is adjusted by changing RPM, which affects the volume of air (CFM) being produced by the centrifugal fan. A higher RPM, equates to a higher CFM. When the CFM is too high, usable blast media is captured and discharged into the dust collector's sealed 55-gallon drum. During initial set up, the material which being discharged as unusable, should be visually evaluated. If usable blast media is being discharged, the operator will need to lower the RPM so that the material collected in the dust collector drum, is limited to paint chips, dust, and fines, rather than usable blast media. These controls take minimal time to set up and will greatly enhance the precision of cleaning and reduce the waste of usable media.

After processing, clean media is gravity-fed to the lower transport pot. The lower transport pot is then pressurized to pneumatically convey clean blast media to a blast pot, steel drum, or other storage container. When not in a discharge mode, the pot is refilling. Fill and discharge transport cycles are controlled by an adjustable repeat cycle timer. Since the conveyance is pneumatic, the receiving vessel can be placed at great distances, allowing significant set-up flexibility. The transport pot has an eight cubic feet capacity and is ASME certified to 175 PSI.

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## OVERVIEW AND SPECIFICATIONS, TITAN® KLEAN SHOT® SHOT/GRIT RECLAIM SYSTEM (Model E-2)

The Titan Klean Shot is a unique and versatile high performance shot or grit cleaning system for the continuous recycling and conveying of various recyclable media in a variety of blast operations. With the Titan Klean Shot, spent media can be thoroughly cleaned for use and re-use while maintaining an appropriate operating mix with an absence of contaminants. The Titan Klean Shot can be used to process any recyclable media.

### DESIGN AND FEATURES:

- The Titan Klean Shot E-2 will work in conjunction with any industrial vacuum loader.
- Continuously cleans shot or grit at rates to six to eight tons/hour (depending upon vacuum source used).
- Allows precise speed and cleaning efficiency for a variety of recyclable blast media operating mixes and sizes.
- System offers product specific variable speed through a VFD for precise control of the cleaning process.
- Self-cleaning cartridge filters provide extended filter life; 99.99 @ .5 micron filtration levels.
- Unit design allows easy filter change out without tools with minimum operator exposure.

### OPERATING PRINCIPALS:

Spent media is cleaned by the Titan Klean Shot after being drawn into the system utilizing power supplied by a VecLoader Titan vacuum or a similar capacity high-powered, high vacuum system vacuum. System throughput will be governed by the vacuum source selected. After cleaning, the cleaned media is pneumatically conveyed to the user's blast pot, storage container or 55 gallon drum, dependent upon the customer's requirements. Pneumatic conveyance is accomplished by a customer supplied air compressor (200 SCFM @ 90- 150 PSI minimum is required).

Unit features a four-stage cleaning process combining cyclonic separation, rotary screens, vertical air wash and an integral dust collector. Stage 1 - During the initial Shot or grit loading stage, light fines are cyclonically separated and carried over to a VecLoader Titan vacuum or other customer supplied high-powered vacuum system. Stage 2 -Trash is segregated from the collected Shot or grit in the unit's second cleaning stage by utilizing a rotating screen system, which deposits the segregated trash into a separate 55-gallon drum. Stage 3 -Collected media passing through these first two precleaning stages is then metered through an air wash system where the remaining foreign particulate is separated and then transferred to the integral dust collection system. After this final cleaning, the processed blast media is gravity fed to the lower transport chamber, which is then pressurized to direct the blast media to a blast pot, steel drum or other storage container. Conveyance to the customer blast pot, steel drum or other storage container is dust free. Stage 4 -Foreign particulate segregated by the Titan Klean Shot's air wash system is transported to the unit's integral dust collector and gravity fed to 55 gallon drums.

### SPECIFICATIONS:

Fan	Centrifugal variable speed fan capable of producing 2,500 CFM airflow.
Dust removal	Direct gravity discharge into 55 gallon drum.
Power	Three phase 230/460 7.5 Hp T.E.F.C Electric Motor drive fan and hydraulic system
Controls	NEMA 4 enclosure. Controls include master switch, fan push-to-start/stop buttons, vacuum on/off, transfer pot on/off, emergency shutoff, hydraulic push-to-start/stop buttons and hour meter.
Filtration:	
Filter element	Spun-bond filter cartridges horizontal installation, natural dust release (99.9 @ .5 micron).
Filter media area	760 sq ft, comprised of 4 cartridges each having 190 sq. ft. filtration per filter.
Filter cleaning	Pulse jet, utilizing customer supplied air
Air requirements	Volume - 9 scfm/min; Pressure - 90 psi min/100 psi max.
Skid:	Features an integral skid with approved forklift pockets and lifting eyes. Length: 14'-0", Width: 6'-0", Transport Height: 10'-0", Operating Height 11'10", Approximate Empty Weight: 9,600 lbs.
Other features	Magnehelic gauge to monitor baghouse, 16" manhole for baghouse inspection/maintenance, on-board hydraulic system.

Specifications are subject to change without notice so that improvements can be made as quickly as possible.

### Warranties, Service and Reliability:

The Titan Klean Shot is manufactured, warranted and serviced by Vector Technologies Ltd., Milwaukee, Wisconsin. For over 30 years, Vector has been a leading innovator of specialized material handling equipment. The Titan Klean Shot offers the same level of quality, innovation, reliability and field tested features that have made Vector vacuums the standard for reliability and performance in the abrasive blast industry.

The Titan Klean Shot carries a six-month warranty backed by Vector Technologies and its elite roster of suppliers. Assistance is available our U.S. toll free hot line at 1 (800) 832-4010. Vector is fully dedicated to providing the finest "after-the-sale" service and support obtainable.

For more information, contact Vector Technologies. at (800) 832-4010. In Wisconsin. Outside the United States, please call 1 (414) 247-7100 or fax 1 (414) 247-7110. Also see our Web site at [www.vector-vacuums.com](http://www.vector-vacuums.com).

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