

SCOPE OF WORK.

OUR CLEANING SOLUTIONS - SCOPE OF WORK.

- Cleaning of sumps and settlers.
- Shaft bottom cleaning.
- Vamping operations.
- Cleaning of cross cuts and haulages and drains and sumps.
- Conveyor belts and conveyor decline cleaning.
- Silo cleaning
- Bulk material handling storage vacuuming cleaning i.e. Silos, Hoppers, Bins, Transfer points etc.
- De-Watering.
- Dam cleaning.
- Cleaning of spillages in plants /conveyor belts, sumps, mills, tanks, dams.





SCOPE OF WORK.

OUR SMALL SCALE MINING SOLUTIONS - SCOPE OF WORK.

- ➤ In stope development
- ➤ Pillar extraction
- ➤ Ledging
- ➤ Stoping
- ➤ Pre ledge equipping
- > Equipping
- ➤ Vamping operations
- ➤ Opening up
- > Reclaiming
- ➤ Shot Crete
- ➤ Mesh and lacing
- ➤ Footwall lifting
- ➤ Haulage maintenance
- ➤ Support





METHODOLOGY OF OPERATION OF VACUUM UNITS

Materials(minerals) – spillages will be sucked into the nozzle by the air flow at the opening in the nozzle and travels along the pipes to the collector bin. The material will then enter the collector bin and then will be tipped at any dedicated area nominated by the client and this area can be up to 80m – 120m from the area vacuumed depending on the material that are vacuumed.

OUR EQUIPMENT CAN BE DIESEL DRIVEN MOTORS OR 525 VOLTS OR 380 VOLTS ELECTRICAL DRIVEN MOTORS.

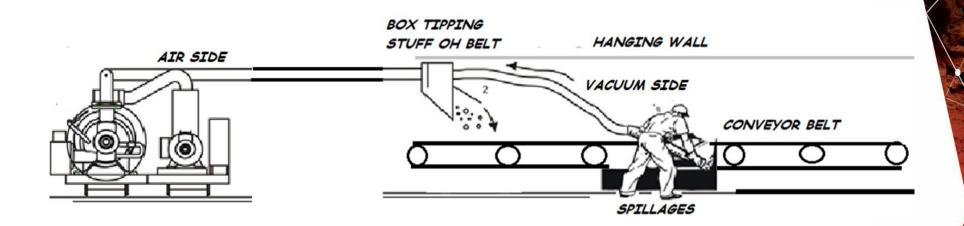


TECHNICAL METHODOLOGY OF OPERATION OF VACUUM UNITS.

Our Vacuum units are water ring unit meaning that we make use of water in a water tank that feeds the water into the barrel that has an impeller inside and as it turns the water is thrown in one direction and as it turns it creates vacuum suction that are connected to our pipe column and this suction runs through the collector box right to the front at the vacuum nozzle. Materials(minerals) – spillages will then be sucked into the nozzle by the air flow (vacuum) at the opening in the nozzle and travels along the pipes column to the collector bin. The material will then enter the collector bin and strike a stop plate inside the bin and material falls in the bin. The bin is operating on a timer that is set for a time that it takes to fill up the collector box, once the box is full the timer opens a valve to cut the vacuum suction and the material falls out the box by means of gravity. The material will be tipped at any dedicated area nominated by the client and this area can be up to 20m – 180m away from the area vacuumed depending on the material that are vacuumed. Our vacuums do not have filter bags as it works on a cyclone system and it runs less than 85 decibels.



ILLUSTRATION OF A TYPICAL INSTALLATION





Keep in mind.

- Most of the vacuum projects are self sustainable operations and runs independently.
- How do we get to this statement if we do conveyor belt cleaning, dam and setter cleaning, sweepings and vamping on reef or development ext the product(mineral) is availible and had been paid for when it was mined; so we clean the product that carries value so when it is cleaned by V TECH it contrubutes to the revenue of our clients.
- Lastly bring safety and cost together it makes sense to make use of vacuum technology as we improve safety conditions and the recovery factor.

VACUUM MINING IS THE FUTURE SOLUTION TO TODAY'S CHALLENGING MINING AND INDUSTRIAL ENVIRONMENT AND V TECH TEAM ARE THE LEADERS IN THIS INDUSTRY.



CLEANING OF BLASTED FACES.

- Enhances safety Do not make use of water jets nor winches and rigs
- To increase the recovery factor. Vacuum takes out all minerals in small cracks and crevices.
- · Closed circuit reduces material handling.







CLEANING OF GULLIES AND WINZES.

- To enhance safety- avoid winches and rigs.
- Tip blasted stuff (Tip , hoppers , conveyor belt or back to surface.)
- To increase the recovery factor. Vacuum takes out all minerals in small cracks and crevices.
- Closed circuit reduces material handling









CLEANING OF CONVEYOR BELTS.

- Enhances safety .
- To avoid slip and falls.
- You need to do maintenance on the conveyor structure .
- To avoid build up of stuff under the belt that can damage the belt and the rollers.









SWEEPING AND VAMPING.

- Enhances safety Do not make use of water jets nor winches and rigs
- To increase the recovery factor. Vacuum takes out all minerals in small cracks and crevices.
- Closed circuit reduces material handling.









VAMPING IN DEVELOPMENT ENDS.

Vamping of old cross cuts and haulages, taking stuff out upto footwall.

Vacuums ;vacuums wet and dry stuff.











CLEANING OF RAILS, DRAINS AND SUMPS.

- Enhance safety minimize slip and fall.
- Minimize derailments.
- Clean rails you can inspect the rails.
- Clean drains water have a path.
- Less wear and tear on pumps.











CLEANING OF SHAFT BOTTOMS.

- Safety wise over run for cages.
- Clean shaft bottom you can handle / pump the water.
- Less wear and tear on pumps.
- Can tip vacuumed stuff back to belt level or back into loading flask or into skip.











CLEANING OF SETTLER DAMS SURFACE.

- If your settler dams are clean the water that you re uses is almost mud free.
- Less mud less wear and tear on your pumps.
- No mud in dam more volume capacity for water.











CLEANING OF SETTLER DAMS UNDERGROUND.

- If your settler dams are clean the water that you re uses is almost mud free.
- Less mud less wear and tear on your pumps.
- No mud in dam more volume capacity for water.











CLEANING OF PLANTS.

- To enhance safety avoid slip and falls.
- Keep mud out of water systems less wear and tear on pumps.
- Keep dust to minimum.
- Clean plants assist so you can do proper maintenance.











Typical underground installations.



























VACUUM TRUCKS.

At V Tech Cleaning Solutions For Mining we have quality Vacuums and HP Combination Trucks and trailers. Each solution is custom designed around our client needs. Customers have great input during the design and manufacturing process of their units. Only top quality components are used during manufacturing. Tanks can be manufactured from mild steel or stainless steel in various grades. We have a range of pumps from 1000cfm to 4500cfm that can be fitted in direct, belt or hydraulic drive. Optional items include: toolboxes, hydraulic HP hose reels, hydraulic door clamps, level bridles, heat exchanging vacuum separator tanks, etc.

These units are for sale and we do also due rentals on these trucks.

These trucks are Ideal for plants cleaning of sumps, dams, settlers, drains and areas that aren't easily accessible with conventional loading equipment.

Product is secure inside the vacuum tank in areas where there is a theft risk.









MINING VACUUMS - 3 INCH VACUUM UNIT.

This small unit is main manufacture for problem area at conveyor belts at the tail pulleys where there are always spillages and the space is confined. Also successful in plant areas to clean spillages and to keep conveyor belt construction clean.

Can be on a trolley so it is a mobile unit.







MINING VACUUMS - 5 INCH VACUUM UNIT.

This unit is ideal to clean underground dams and drains and sumps. We use this units where spillages are small then in plants on surface it works good to keep the house keeping under control







MINING VACUUMS – 6 INCH VACUUM UNIT.

The 6inch unit forms the back bone of our product line. The unit has proven itself in gold; platinum and chrome mines in South Africa. The unit is very robust and requires very little maintenance.

The unit is ideally suited for cleaning cross cuts and haulages; dam cleaning; conveyor belts cleaning; vamping and sweeping and cleaning of panels.







MINING VACUUMS – 8 INCH VACUUM UNIT.

The 8 inch vacuum machine is currently the biggest machine installed in South African mines. The machine offers high efficiency and requires low maintenance. The unit has successfully recovered 30 tons of rock per shift in high carbonations panel by dumping straight into hoppers.

The unit is ideally suited for cleaning shaft bottoms and area where a high vertical lift is required





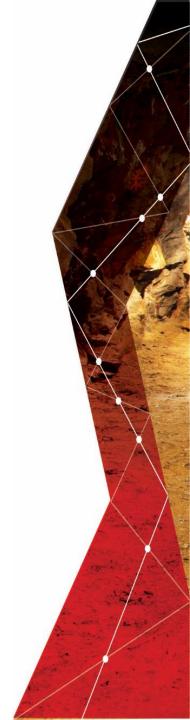


TECHINCAL INFO.

VACUUM 2INCH.	-90KPA (GAGE)
VOLUME	180 CFM
POWER SUPPLY	11KW, 525VOLTS, 18AMP
DIMENSIONS	500MM(W), 600MM(H), 1050(L)
SUCTION DISRTANCE	30M – 60M
VERTICAL SUCTION HEAD	10M
MATERIAL SIZE	FINES UP TO 25MM
PRODUCTION AVAERAGE	1TON PER HOUR
COUPLING	DIRECT
WEIGHT	1TON

VACUUM 3 INCH.	-90KPA (GAGE)
VOLUME	352 CFM
POWER SUPPLY	18.5KW , 525VOLTS , 28AMP
DIMENSIONS	500MM(W), 600MM(H), 1050(L)
SUCTION DISRTANCE	30M – 60M
VERTICAL SUCTION HEAD	10M
MATERIAL SIZE	FINES UP TO 40MM
PRODUCTION AVAERAGE	2TON PER HOUR
COUPLING	DIRECT
WEIGHT	1.5TON

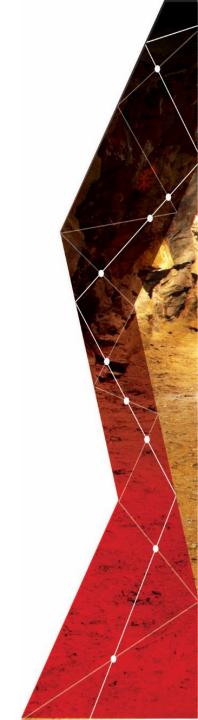




VACUUM 5 INCH UNIT	-88KPA (GAGE)
VOLUME	1200 CFM
POWER SUPPLY	75KW , 525VOLTS , 90AMP
DIMENSIONS	1350MM(W), 14500MM(H), 1800(L)
SUCTION DISRTANCE	30M – 60M
VERTICAL SUCTION HEAD	10M
MATERIAL SIZE	FINES UP TO 40MM
PRODUCTION AVAERAGE	3-4 TON PER HOUR
COUPLING	DIRECT
WEIGHT	2.0 TON

VACUUM 6 INCH UNIT	-85KPA (GAGE)
VOLUME	1775 CFM
POWER SUPPLY	90KW , 525VOLTS , 180AMP
DIMENSIONS	1500MM(W), 18500MM(H), 3200(L)
SUCTION DISRTANCE	60M – 150M
VERTICAL SUCTION HEAD	30M
MATERIAL SIZE	FINES UP TO 60MM
PRODUCTION AVAERAGE	4-6 TON PER HOUR
COUPLING	DIRECT
WEIGHT	3.0 TON

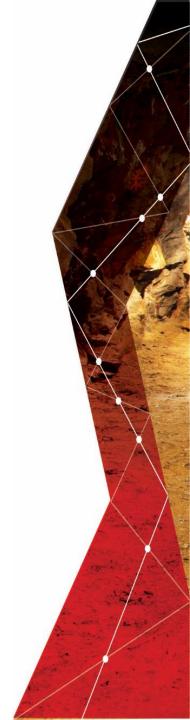




VACUUM 8ÏNCH UNIT	-90KPA (GAGE)
VOLUME	2960 CFM
POWER SUPPLY	150KW , 525VOLTS , 240AMP
DIMENSIONS	1500MM(W), 18500MM(H), 3200(L)
SUCTION DISRTANCE	80M – 200M
VERTICAL SUCTION HEAD	60M
MATERIAL SIZE	FINES UP TO 100MM
PRODUCTION AVAERAGE	6-8 TON PER HOUR
COUPLING	BELT DRIVE
WEIGHT	5.0 TON

VACUUM DIESEL UNIT.	-85KPA (GAGE)
VOLUME	1775 CFM
POWER SUPPLY	130KW DIESEL AIR COOLED MOTOR
DIMENSIONS	1800MM(W), 18500MM(H), 5200(L)
SUCTION DISRTANCE	60M – 150M
VERTICAL SUCTION HEAD	30M
MATERIAL SIZE	FINES UP TO 60MM
PRODUCTION AVAERAGE	4-6 TON PER HOUR
COUPLING	DIRECT
WEIGHT	3.0 TON





PRODUCTS AND SERVICES.

ALL OUR PRODUCTS CAN BE PURCHASED OR YOU CAN RENT THE EQUIPMENT FORM US ON A MONTHLY RENTAL BASIS.

WE AS V TECH CAN ALSO RENDER CLEANING SERVICES WHERE BY WE SUPPLY THE EQUIPENT AND LABOUR AND DO THE WORK AND CHARGE RAND / TON OR RAND / M2 OR A FLAT RATE PER JOB.



CONTACT DETAILS.

Charlom Enslin 082 699 2889

charlom@vtech-mining.co.za



