

# SV SOLIDS PUMPS

## PRODUCT RANGE

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# SV SOLIDS PUMPS

## PNEUMATIC CONVEYING UNITS

Air operated solids and slurry pumps. Ultra tough pumping units capable of transferring any flowable material across a wide range of agricultural, industrial, municipal, mining, oil and gas applications.

### SV SOLIDS PUMPS

Supavac SV Solids Pumps are Pneumatic conveying units which are capable of transferring up to 40m<sup>3</sup>/hour of any flowable material with solids sizes up to 70% of the diameter of inlet.

SV Solids Pumps are not a competitor for conventional pumps, they come into their own when traditional pumps fail due to the high solids nature of the material being conveyed. SV Solids Pumps are self priming and are fully sealed with zero discharge, allowing for the safe transfer of hazardous materials for environmental compliance.

SV Solids Pumps are 100% air operated to create a vacuum and high airflow allowing the recovery of material up to 25 metres (82 ft) and discharge up to 1000 metres (3280 ft) horizontally.

With no rotating parts and no moving parts in contact with the pumped material, they are not susceptible to clogging and wear that occurs in centrifugal and submersible pumps. They do not suffer from cavitation and can be run dry indefinitely with no overheating or damage.

### COMPACT, LIGHTWEIGHT & MOBILE

SV Solids Pumps are designed to be easily transported and quickly deployed where and when required. Units are fitted with wheels or skid mounted for simple on-site mobility and deployment.

Units are supplied with protective covers for operating controls and valves. They can also be fitted with roll cages and enclosures to provide additional protection and durability.

### SIMPLE OPERATION

With easy access to air supply and suction and discharge pipelines, SV Solids Pump units can be deployed in less than 10 minutes.

Deployment is a simple process involving the connection of suction and discharge pipes (camlock, victaulic or BSP), air hoses and then turning on the air supply.

Once running, units are controlled by simply varying the suction and discharge timers to suit the material being conveyed, the distance being recovered from and the transfer distance. This allows for fully automatic operation. Alternatively, units can be manually operated using a switch to control loading and discharge times.

### INTRINSICALLY SAFE

SV Solids Pumps require no electricity supply to operate and have been designed to safely operate in hazardous environments.



SUPAVAC SV60V



SUPAVAC SV110V



There are no rotating parts and all moving parts are covered to prevent entanglement and reduce risk of operator injury.

#### **MAINTENANCE & SUPPORT**

With minimal moving parts and no electricity, troubleshooting is a quick and simple process. Parts are easily replaced and fitted using readily available tools.

Supavac provides global support for all SV Solids Pumps. Our expert operators can provide on-site demonstrations and training for new users and assist with product selection and troubleshooting.

#### **APPLICATIONS**

SV Solids Pumps have been utilised all over the world to provide effective solutions for a wide range of product transfer problems including:

- Coal and other mining slurries
- Thickener sludge
- Sump, shaft and pipeline cleaning
- Tank and drain cleaning
- Tailings and ash pond cleaning
- Tank and drain cleaning
- Oil spill capture and transfer
- Drilling mud and cuttings
- Agricultural product and waste
- Dam desilting
- Bentonite, sand
- Effluent and processing waste
- Pulp and paper mill waste
- Tunnelling and pneumatic excavation
- Barge, ballast tank and ship cleaning
- Wash plant and under belt cleaning

SV Solids Pumps are capable of pumping any flowable material including liquids slurries, mud, slimes, sand, gravel, powders and many more. Where other pumps cannot operate, SV Solids Pumps provide a simple, safe and versatile solution.

# PNEUMATIC CONVEYING

## MATERIAL RECOVERY AND TRANSFER



### PURE VACUUM PUMPING

SV S Solids Pumps have the capability of recovering material by two modes the first being 'pure vacuum' while the second is 'air conveying'.

As a general rule pure vacuum would be used for removing sludge from beneath liquid or for rapid liquid or slurry loading within close proximity to the machine. In this mode, the vacuum tube is totally submersed in the liquid and only material (no air) transports through the line.

The maximum vertical suction lift from the machine to the liquid surface cannot exceed 9.2 metres at sea level assuming water is the liquid. Horizontal suction distances would be greater. For materials of a higher density than water, these figures must be reduced accordingly. This mode is a conventional

pumping technique with the material being displaced by negative pressure.

However the SV Solids Pumps can transcend conventional pumping techniques by pneumatically conveying materials.

### PNEUMATIC CONVEYING

Pneumatic conveying is a method of handling materials by utilising high velocity airflow with a pipeline. This requires sufficient air velocity to pass the material being picked up to capture it and convey it through the vacuum tube to the machine.

The air velocity is kept up by not fully submersing the nozzle or by allowing air to the pick-up point via a snorkel tube attached to the nozzle.

The advantages of this technique are:

- Suction lifts up to 25 metres (82 feet)+ vertically can be achieved
- Materials can be liquid or dry
- Particle sizes of up to 70% of the suction hose diameter can be conveyed
- Horizontal suction distances in excess of 60 metres (197 feet) can be achieved
- Fibrous, waxy and heavy sludge can be handled
- Powders and solids can be handled as well as wet materials

There are also applications where a vacuum fluidising tube should be used which combines the benefits of pure vacuum and pneumatic conveyance when removal of material from beneath liquids is required where the distance exceeds the limitations of pure vacuum.

All SV Solids Pumps utilize high airflow and vacuum (up to 85kPa vacuum at 700kPa air pressure) to ensure high performance.

The SV Solids Pumps are designed to convey recovered material under pressure through a pipeline or into a collection vessel. Alternatively, deadheads and cuttings carousels are available which absorb and dissipate the discharge pressure and allow the delivery of material under gravity to a confined location such as a conveyor belt or cuttings skip.

Two modes of positive pressure discharge are used in SV Solids Pumps; dense phase and lean phase pneumatic conveying. The latter can achieve vertical heads in excess of 35 metres (115ft) and horizontal discharge distances of over 1000 metres (3280ft).

The absence of any electrical supply in SV Solids Pumps makes them useful in restricted or potentially hazardous areas.



SV280-V



# SUPAVAC

## SV60 Portable Slurry Pump - Horizontal



### Features

- 100% compressed air operation
- Multipurpose vacuum pump
- Intrinsically safe
- Fully automatic
- Versatile
- No internal moving components
- Minimal maintenance
- High vacuum and high airflow
- Recovers material from up to 50 metres (164 ft)

) ft)

### Ab

The SV60 is designed to offer the operator a one man vacuum recovery, pressure discharge pump capable of recovering and transferring up to 27m<sup>3</sup>/hr (119USGPM) @ SG1.0 of almost any flowable material.

The SV60 Portable Slurry Pump is 100% air powered and operated, generates up to 25"Hg (85kPa) of vacuum using 150cfm (71 L/sec) at 85psi (6bar)+.

The SV60 Portable Slurry Pump is employed worldwide servicing oil & gas, mines, drill rigs, municipal, industrial, farms and construction sites.

- Sump cleaning and desilting
- Tank bottoms and sludge extraction
- Pneumatic excavation and dewatering
- Transfer of mining slurries and slimes
- Drain desilting
- Effluent transfer
- Hazardous waste transfer
- Agricultural product and waste transfer
- Corrosive slurries (316SST MOC)
- Width 73 cm (29")
- Length 165 cm (65")
- Weight 198 kg (437lb)
- Throughput capacity up to 27m<sup>3</sup>/hr (119USGPM) @ SG1.0
- Air consumption 150cfm at 85psi+ (71 L/sec at minimum) 85psi (6bar) to 100psi (7bar) at the pump
- Air supply connection 25mm (1")
- Up to 25"Hg+ (85kPa) vacuum
- Suction 75 mm (3") BSP/Type B camlock
- Discharge 75 mm (3") BSP/Type A camlock
- Handles solids to 50 mm (2")
- Carbon Steel Vessel
- Also available in 316 stainless steel materials of construction
- Skid mount / roll frame weights / dimensions on request

## SV60V Portable Solids Pump - Vertical



### Features

- ATEX Zone 2/CE conformity
- 100% compressed air operation
- Multipurpose vacuum pump
- Intrinsically safe
- Fully automatic
- Versatile
- No internal moving components
- Minimal maintenance
- High vacuum and high airflow
- Recovers material from up to

(ft)

### Ab

The SV60V is a one man vacuum loading, pressure discharge pump capable of recovering and transferring up to 27 m<sup>3</sup>/hr (119USGPM) @ SG1.0 of almost any flowable material.

The SV60V Portable Solids Pump is 100% air powered and operated, generates up to 25"Hg+ of vacuum combined with high airflow which allows the unit to transfer materials ranging from mining slurries and oil sludge through to cementitious powders and grains.

The SV60V Portable Solids Pump is employed worldwide servicing farms, mines, drill rigs, municipal, industrial and construction sites.

- Sump cleaning and desilting
- Tank bottoms and sludge extraction
- Pneumatic excavation and dewatering
- OBM transfer and pit cleaning
- Bentonite, sand, and cement powders transfer
- Width 73 cm (29")
- Length 93 cm (37")
- Weight 198 kg (437 lb)
- Throughput capacity up to 27m<sup>3</sup>/hr (119USGM) @ SG1.0
- Air consumption 150cfm (71 L/sec) at minimum 85psi (6bar) to 100psi (7bar) at the pump
- Air supply connection 25mm (1")
- Up to 25"Hg+ (85kPa) vacuum
- Suction 75 mm (3") BSP/Type B camlock
- Discharge 75 mm (3") BSP/Type A camlock
- Handles solids to 50 mm (2")
- Carbon steel vessel
- Also available in 316 stainless materials of construction
- Skid mounted/roll frame weights/dimensions on request



# SUPAMAC

## SV110V Mobile Solids and Sludge Pump - Vertical



### Features

- ATEX Zone 2/CE conformity
- 100% compressed air operation
- Multipurpose vacuum pump
- Intrinsically safe
- Fully automatic
- Versatile
- No internal moving parts
- Minimal maintenance
- Robust construction
- High vacuum and high airflow
- Recovers material from up to 50 metres (164ft)
- Delivers over 500 metres (1640ft)
- Skid or wheel mounted

### About

The SV110V Mobile Sludge Pump is 100% air powered and operated, generates up to 25"Hg of vacuum whilst generating high in-line convey velocities. The unit requires only 280 cfm (132L/sec) at 85psi (6 bar)+ and can transfer heavy sludge with a high solids content up to a rate of 18m<sup>3</sup>/hr (79USGPM) @ SG1.0

The SV110V Mobile Sludge Pump is a vacuum loading pressure discharge batch system that can recover from up to 50 metres (164 ft) and deliver in excess of 500 metres (1640 ft) whilst remaining a one man or fully automatic operation.

Employed worldwide in the offshore drilling, oil, gas and mining industries the SV110V Mobile Solids and Sludge Pump is ideal for rapid recovery of large scale spills, tank cleaning, mining slimes and sump/drain cleaning.

### Applications

- Thickener de-sludge
- Tunnelling and TBM applications
- Sump and shaft cleaning
- Tailings and ash pond cleaning
- Digester and pond cleaning
- Oil spill capture and transfer
- Hazardous waste recovery
- Drilling mud and cuttings transfer
- Transfer of mining slurries
- Agricultural product and waste transfer

### Technical Data

- Height 135 cm (54" wheel mount)
- Width 66 cm (26" wheel mount)
- Length 131 cm (52" wheel mount)
- Weight 275 kg (606 lb)
- Throughput capacity up to 35m<sup>3</sup>/hr (154USGPM) @SG1.0
- Air consumption minimum 280 cfm (132 L/sec) at minimum 85psi (6 bar) to 100psi (7 bar) at the pump
- Air supply connection 25 mm (1")
- Up to 25"Hg (85kPa)+ vacuum
- Suction 100 mm (4") BSP/Type B camlock
- Discharge 100 mm (4") BSP/Type A camlock
- Handles solids to 70 mm (3")
- Carbon steel vessel
- Also available in Class 3 carbon, 316 stainless steel or polyurethane coated tanks
- Skid mount/roll frame weights dimensions on request

# SUPAVAC

## SV250V Mining Slimes Pump



### Features

- Intrinsically safe
- Manual or fully automatic operation
- High vacuum and high airflow
- Throughput capacity up to and in excess of 30 m<sup>3</sup>/hr (132USGPM) @ SG1.0
- Can transfer in excess of 30 m<sup>3</sup>/hr (132USGPM) @ SG1.0
- Variable air consumption 150 - 750 cfm (75 - 354 L/sec)
- Robust and compact
- Gravity feed capability
- Roll cage and weather cover (optional)

### About

The SV250V Mining Slimes Pump is designed to transfer an extremely wide array of heavy sludges via 100 mm (4") suction and discharge lines.

The SV250V Pump has the ability to operate with various SV Jet Packs ranging from 150 (71 L/sec) to 750 cfm (354 L/sec).

The SV250V Pump is a vacuum loading pressure discharge batch system that can recover flowing slurries from up to 50 metres (164 ft) and deliver the same up to 1000 metres (1640 ft) whilst remaining a one person or fully automatic operation.

The SV250V Pump can transfer in excess of 30 m<sup>3</sup>/hr (132USGPM) @ SG1.0 depending on the required duty.

### Applications

- Drilling mud and cuttings transfer
- Thickener de-sludge
- Petrochemical tank cleaning
- Heavy crude transfer
- Barge and hull cleaning
- Sump and shaft de-mucking
- Tailings and ash pond cleaning
- Raw effluent pond de-sludging
- Hazardous waste recovery
- Transfer of mining slurries

### Technical Data

- Height 165 cm (65")
- Width 129 cm (51")
- Length 120 cm (48")
- Weight 680 kg (1500 lb)
- Air consumption minimum 150/270 /400 /600/750 cfm (75/128/189/284/354 L/sec) at minimum 85psi (6 bar) to 100psi (7 bar) at the pump
- Air supply connection 50 mm (2")
- Up to 25"Hg+ (85kPa) vacuum
- Suction 100 mm (4") BSP/Type B camlock
- Discharge 100 mm (4") BSP/Type A camlock
- Handles solids to 70 mm (3")
- Carbon steel vessel
- Also available in Class 3 carbon, 316 stainless steel or polyurethane coated tanks
- Roll cage and weather cover

# SUPAVAC

## SV280V Heavy Duty Solids Pump - Fully Enclosed



### Features

- 100% compressed air operation
- Intrinsically safe
- Manual or fully automatic operation
- Robust construction and low wear characteristics
- High vacuum and high airflow
- Delivers up to 1000 metres (3280 ft) horizontally and 35 metres (115 ft) vertically
- High solids content transfer
- Can transfer in excess of 30 m<sup>3</sup>/hr (132USGPM) @ SG1.0 depending on the materials and distances involved

### About

The SV280V Heavy Duty Solids Pump is a high velocity, heavy duty solids pump, capable of capturing high density slurries via a strong 25"Hg vacuum combined with high velocity airflows.

The SV280V Heavy Duty Solids Pump can handle solids up to 70% of the employed hose diameter and will transfer up to 30 m<sup>3</sup>/hr (132USGPM) @ SG1.0 depending on the materials and distances involved.

The SV280V Heavy Duty Solids Pump has no moving components that come in contact with the material being pumped and can pass rags, bolts and many other items that would render a standard impeller pump inoperable.

### Applications

- Capture and transfer of drill cuttings
- Sump cleaning and desilting
- Tank bottoms and sludge extraction
- Tailings transfer or dewatering
- OBM transfer and pit cleaning
- Bentonite and sand transfer

### Technical Data

- Height 151 cm (60")
- Width 138 cm (55")
- Length 130 cm (52")
- Weight 720 kg (1588 lb)
- Air consumption minimum 600 cfm (284 L/sec) at minimum 85psi (6 bar) to 100psi (7 bar) at the pump
- Air supply connection 50 mm (2")
- Up to 25"Hg+ (85kPa) vacuum
- Suction 100 mm (4") BSP/Type B camlock
- Discharge 100 mm (4") BSP/Type A camlock
- Gravity feed 100 mm (4")
- Handles solids to 70 mm (3")
- Carbon steel vessel

## SV1000-V High Volume Solids Pump



### Features

- 100% compressed air operation
- Intrinsically safe
- Fully Portable
- No internal moving components
- Manual or fully automatic operation
- High vacuum and very high airflow
- High solids content (up to 70%) transfer
- Delivers up to 1000 metres (3280ft)
- Air consumption options 600 - 750 cfm (284 - 354 L/sec)
- Throughput Capacity up to 50 m<sup>3</sup>/hr (220USGPM) @ SG1.0 depending on the materials and distances involved

### About

The SV1000-V High Volume Solids Pump is a high velocity, heavy duty solids pump, capable of capturing high density slurries via a strong 25" Hg vacuum combined with high velocity airflows.

The SV1000-V can transfer up to 50 m<sup>3</sup>/hr (220USGPM) depending on the materials and distances involved.

The SV1000-V High Volume Solids Pump has no moving parts in contact with the material being pumped and can pass rags, bolts and many other items that would render a standard impeller pump inoperable.

### Applications

- Spillage recovery and transfer
- Large dam desilting
- Sump cleaning and desilting
- Tank bottoms and sludge extraction
- Palm oil pond desludging
- OBM transfer and pit cleaning
- Bentonite and sand transfer

### Technical Data

- Height 240 cm (94.5")
- Width 180 cm (71")
- Length 250 cm (98.5")
- Weight 750 kg (1655 lb)
- Air consumption options includes 284 L/sec or 354 L/sec
- Pressure at the pump 6 bar (85psi minimum to 7 bar (100psi) at the pump
- Air supply connection 50 mm (2")
- Up to 25" Hg+ (85kPa) vacuum
- Suction 100 mm (4") BSP/Type B camlock
- Discharge 100 mm (4") or 150mm (6") via NPT, BSP or Victaulic Coupling
- Handles solids to 70 mm (3")
- Carbon steel vessel

# SUPAVAC

## SV700 E-Vac In-line Vacuum Pump



### Features

- Intrinsically safe
- No internal workings
- High vacuum and high airflow
- Fully automatic operation
- Can be fitted to any piping configuration
- Robust construction
- Ideal for use in confined spaces
- 3" unit can transfer up to 10m<sup>3</sup>/hr (44USGPM) @ SG1.0
- 4" unit can transfer up to 18m<sup>3</sup>/hr (79USGPM) @ SG1.0

### About

The SV700 E-Vac In-line Vacuum Pump is designed as an in-line system allowing the conversion of a standard pipeline into a fixed vacuum system.

The SV700 can be fitted to a range of pipes including HDPE, steel or flexible suction hose.

Operating on a variable range of air supplies, the SV700 can consistently deliver up to 25"Hg+ (85kPa) of vacuum.

The SV700 operates at under 74 dba within 1 m (3 ft). The unit can be installed with various nozzles ranging from 150cfm (71 L/sec) to 280cfm (132 L/sec).

The SV700 must be installed on a 30° angle or higher and is ideal for mining, tank cleaning and ship hull installation.

### Applications

- Conveyor boot and end trouble spots
- Sump cleaning
- Confined space installations
- Tank and pit cleaning
- Hazardous waste recovery
- Drilling mud transfer
- Open sump installations
- FPSO tank cleaning/desludging
- Vessel bilge cleaning

### Technical Data

- Height 60 cm (24")
- Width 50 cm (20")
- Weight 145 kg (320lb)
- Air consumption minimum 150/280 cfm (71/132 L/sec) minimum 85psi (6bar) to 100psi+ (7bar) at the pump
- Air supply connection 25 mm (1")
- SV700/3-3" unit suction and discharge 75 mm (3") BSP
- Handles solids to 50 mm (2")
- Air consumption 150cfm (71 L/sec) at minimum 85psi (6 bar) to 100psi (7 bar) at the pump can transfer up to 10m<sup>3</sup>/hr (44USGPM) @ SG1.0
- SV700/4-4" unit suction and discharge 100 mm (4") BSP
- Handles solids to 70 mm (3")
- Air consumption 280cfm (132 L/sec) at minimum 85psi (6 bar) to 100psi (7 bar) at the pump can transfer up to 18m<sup>3</sup>/hr (79USGPM) @ SG1.0
- Also available in 316 stainless steel

# ACCESSORIES

## SUCTION AND DISCHARGE CONNECTIONS

### SNORE BOXES AND STRAINER



Supavac manufacture a range of snore boxes and strainers in a variety of sizes to prevent blockages when pumping with a submerged suction line.

The snore box is a simple means of capturing as much material as possible, whilst excluding oversize particles and ensuring the pumps keep transferring at maximum capacity

Snore boxes are available for 75mm and 100mm suction lines and feature a simple Camlock connection.

### PICKUP NOZZLES



Supavac manufactures a complete range of pick-up nozzles that can both assist and enhance the collection performance of SV Solids Pumps.

Lightweight and manufactured in 304 stainless steel as standard, nozzles are designed to be simple to connect and easy to use.

### AIR ASSIST NOZZLES



Supavac Air Assist Nozzles were designed primarily to boost both pick up and in line convey velocities. The air enters the nozzle via either an annular eductor or Air Assist jet which whilst creating its own vacuum, accelerates the product and aerates the material as it passes down the tube into the convey line.

Variations are available or individual Eductor Nozzles can be developed for both task and material. All nozzles are manufactured in 304 stainless steel unless otherwise specified.

Both versions are available with either valve, remote or trigger actuation.

The nozzle allows for the accelerated recovery of extremely viscous products along with dryer material such as powders, fibres, grains and sand etc.

Supavac also manufacture Air Assist attachments for direct coupling in-line. This can significantly increase both vertical lift and discharge capabilities of all SV Solids Pumps.

### HOOVER END



Supavac floor attachments are designed to maintain the high vacuum and excellent airflows supplied via SV Solids Pumps when cleaning liquids from smooth surfaces.

Manufactured in 304 stainless steel and robust in construction, the Hoover Heads maximise the suction area in contact with surface, ensuring the rapid capture of liquids on the deck or rig floor.

These units are ideal for the rapid recovery of spills of oil based mud or similar material.

Units are available to suit 50mm, 75mm and 100mm suction lines.



### DISCHARGE DEAD HEADS & DROP BOXES



Supavac manufacture a complete range of gravity drop boxes "Dead Heads" in both tubular and rectangular arrangement. Designed to be either slung or hard piped and solid mounted, "Dead Heads" are a versatile and convenient way to deliver your recovered product exactly where you want it. With product delivered at pace, the "Dead Head" is designed to absorb the shock and then let gravity take its course.

Manufactured in either painted mild steel, galvanized steel or 304/316 stainless steel if required, the unit's come with either Camlock, threaded, shouldered or grooved victaulic fittings. Installed correctly, the exit area is designed to deliver 100% of the product to an area, skip or moving conveyor belt no wider than 800mm assembled with pump units



### CUTTINGS CAROUSEL



The Supavac SV800 Cuttings Carousel is designed to enable the controlled discharge of cuttings delivered from SV Solids Pumps to a skip or confined location.

The Cuttings Carousel can rotate through 360 degrees which in turn allows for the filling of multiple skips depending on the available space.

These units are adjustable for height, length, angle and box size to suit the requirements of operators.

### SUCTION & DISCHARGE HOSES

Supavac can supply a range of suction, discharge and air supply hoses and associated fittings to operate the full range of SV Solids Pumps in a wide range of applications.

Hoses and fittings can be supplied individually or fully assembled with pump units.

A wide range of suction and discharge attachments and accessories are available to work with the SV Solids Pumps range. Supavac can supply fully integrated turn key solutions which are simple to set up and easy to use with a single operator.

# SUPAVAC APPLICATION GUIDE

Industry	Application
Offshore drilling	Drill cuttings transfer
	Mud transfer
	Waste management solids control
	Hazardous waste recovery/transfer
	Spill management
	OBM & WBM transfer
	Bentonite and sand transfer
	Tank cleaning / desludging
	Rig floor cleaning
	Ditch cleaning
	Slops sump/pit cleaning
	Oil sludge and tank bottoms residue transfer
	Refinery
Hazardous waste recovery	
Spill management	
Petrochemical tank cleaning	
Heavy crude transfer	
Slops sump cleaning	
Oil sludge and tank bottoms residue transfer	
Marine	FPSO tank cleaning / desludging
	Bilge cleaning
	Spill management
	Vacuum cleaning of barge and vessel bottoms
	Barge and hull cleaning waste recovery
Mining coal	Sump/pit cleaning & desludging
	Slurry transfer
	Mud and tailings transfer
	Fan drifts
	Monorail malibu
	Maingate BSL
	Belt roads
	Tailgate sumps
	Transfer points
	Feeders
	Drive head sump
	Settling pond
	Thickeners/froth ponds
	Conveyor sumps
	Fish tanks
	Travel roads
	Surface drains/culverts
	Wash plant
	Drift

Industry	Application
Mining hard rock	Sump/pit cleaning & desludging
	Transfer of mining slurries
	Mud and tailings transfer
	Waste management solids control
	Thickener spill management / desludging
	Hazardous waste recovery
	Tailings and pond cleaning
	Road swillies
	Belt spillage
	Winder shaft sump
	Pump lodges
	Tailings dam
	Drains and culverts
	Industrial
Sump/pit/drain cleaning & desilting	
Hazardous waste recovery/transfer	
Spill management	
Transfer of slurries/sludges	
Power generation	Lagoon de-silting
	Ash pond cleaning
	Conveyor sumps
	Basement cleaning
Municipal	Sump/drain/pit cleaning
	Digester tanks
	Sump/pit/drain cleaning & desilting
	Waste water transfer
	Raw effluent pond desludging
	Grit channels
	Filter beds
	Mains supply
	Screen traps
Lagoons	
Civil contractors	Construction sumps
	Tunneling & TBM applications
	Sludge de-watering
	Drains/culverts
	Pneumatic excavation
	Dam de-silting
	Grouting
Agriculture	Agricultural product and waste transfer
	Offal transfer / sump cleaning
	Effluent transfer / sump cleaning