



your vibrating equipment specialist

# VIBRAMECH - your vibrating equipment specialist

Founded in 1977, Vibramech (Pty) Ltd. is a world leader in manufacturing and supplying high-quality vibrating equipment to the mineral processing industry. We built our reputation in southern Africa's mining industry, among the harshest and most aggressive environments in the world. This has enabled our brand to become synonymous with quality, reliability and robust vibrating equipment.

Over 500 units of Vibramech vibrating equipment are supplied and commissioned worldwide – annually!

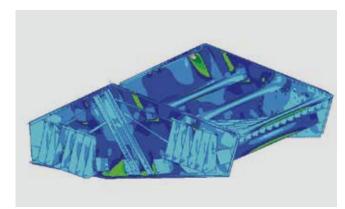
Our staff complement of over 200, based in Johannesburg, is focused on delivering the best in design, manufacturing, as well as aftersales service and support both locally and internationally.

Vibramech prides itself on its customised equipment, where every unit supplied is designed to meet client-specific requirements, be it process-, mechanical- or geometric-related requirements. All equipment is produced with the aid of the latest 3D modelling and design techniques, backed by years of experience in the heavy-duty mining industry.

Vibramech has the largest installed base of vibrating equipment in Southern Africa.



Factory assembly bay



Research and Development

# Vibramech product range

Vibramech's in-depth knowledge of mineral processing and technical expertise makes us your ideal vibrating equipment partner. We enhance our offering by optimising the ideal solution to meet client-specific requirements.

# **Grizzly Feeders**

Vibramech Grizzly Feeders are the ideal solution for removing fines and ensuring that primary crushers are evenly fed. Designed with a suitably long impact area or feed pan, followed by single or multi-tiered grizzly bars, our Grizzly Feeders are robust and an effective feeder solution. With typical process cut points of 80 mm and above, and feed material lump sizes of up to 1.5 m, Vibramech Grizzly Feeders are custom-designed to suit each specific requirement.

The feed pans can be lined with wear-resistant material or rubber impact liners up to 0.2 m thick, ensuring long equipment lifespan. Grizzly bars are available in cast manganese, cast manganese - CrMo alloy or wear-resistant fabricated options.

Current Vibramech Grizzly Feeder installations comprise Grizzly Feeders ranging in width from 0.6 m to 2.7 m, with options of geared exciter (externally driven) or vibrator motor-energised units.

With a proven track record in heavy-duty environments, Vibramech Grizzly Feeders have proven to be a totally reliable feeding solution.



1.6 m wide x 5.2 m long three-tiered Grizzly Feeder



Heavy-duty grizzly bars

# **Vibrating Screens**

Vibramech pioneered the use of vibrator motors on large vibrating screens. This knowledge and expertise was subsequently extended into a comprehensive range of exciter-driven screens, culminating in a renowned, robust and reliable range of Vibrating Screens to satisfy any process requirement. As screens from Vibramech are custom-designed to specific client requirements, this allows the client the freedom to design the relevant plant infrastructure without being constrained by standard screen geometry.

#### Standard features on all Vibramech Vibrating Screens:

- Rubber-lined cross members
- Wear liners (wear-resistant steel, polyurethane, ceramic)
- · Huck bolted construction
- Machined internal components
- Epoxy resin between all mating surfaces
- Triple-coat heavy-duty paint specification

Rolled (not fabricated) I-beam sections on our exciter-driven screens are used for superior fatigue-resistance resulting in extended life.

#### Optional accessories for this range include:

- Sub-frames to provide increased structural vibration isolation
- Dust enclosures
- Integral under pans for undersized material collection
- Integral spray pipes
- · Rubber discharge skirts
- · Polyurethane deck dividers

With a choice of externally-driven geared exciters or vibrator motors, available in single, double or triple deck geometries, Vibramech's Vibrating Screens are broadly categorised into an identifiable industry-proven range.

## Banana screens

Banana, or Multi-slope, screens are able to process considerably higher throughputs when compared to conventional horizontal screens used in sizing applications. The increased capacity is attributable to faster material velocities (and consequently reduced bed depths) generated on these specialised screens.

Vibramech Banana screen sizes range from 1.2 m wide x 4.8 m long to 4.3 m wide x 8.5 m long, enabling customers to choose the ideal screening solution for their application. They are available in single and double deck configurations, with two to six sloped deck geometries.



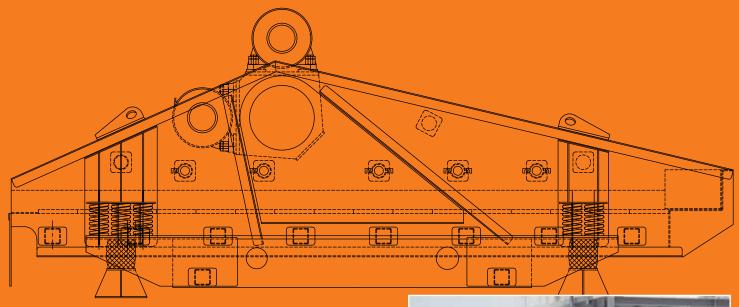
4.3 m wide x 9.2 m long Banana screen



3.6 m wide x 7.2 m long Banana screen



3.0 m wide x 6.4 m long double deck Multi-slope screen



### Horizontal screens

Vibramech Horizontal screens, designed for wet or dry applications, are used for small aperture screening in applications such as fines removal, fines sizing or medium recovery. The Horizontal screen design results in a cost-effective, low height solution for screening process requirements. Other advantages include user simplicity, compact equipment and lower installation and maintenance costs. Available in single, double and triple deck designs, and sizes ranging from 0.3 m wide x 1.5 m long to 3.6 m wide x 7.6 m long, means our customers get the ideal size for their application requirements.

# Dewatering screens

The Vibramech range of Dewatering screens is specifically designed for product dewatering applications. This is made possible with high G-forces combined with a dual sloped screening deck, which results in superior drainage of water and fines – and a dewatered conveyable discharge cake of material. Vibramech dewatering screens are available in widths from 0.3 m to 3.0 m and are generally vibrator motor-driven.

### Inclined screens

The use of Inclined screens is applicable to large aperture screening or heavy-duty scalping applications. Vibramech Inclined screens are, generally, installed at either 15° or 19° angles combined with an optimum drive configuration. This combination ensures a process-specific balance between deck media de-blinding, mineral travel velocity and required process efficiency. Our screening equipment comes standard with the geared exciter and vibrator motor energised options, while an oscillator drive (circular throw) may be used on smaller units. Typical applications involve screen sizes ranging from 1.2 m wide x 3.0 m long to 3.6 m wide x 6.1 m long.



2.4 m wide x 4.8 m long double deck scalping screen



1.5 m wide x 3.6 m long Dewatering screen



1.8 m wide x 4.8 m long circular throw screen

#### **Feeders**

Vibramech brute force Feeders are custom-designed for heavy-duty mining environments. Our Feeders provide an even, controllable flow of material to crushers, screens, mills, scrubbers and conveyors. Vibramech Feeders are generally powered with vibrator motors, placed either below the feeder or side-mounted for low-profile applications. Geared Exciters are used on larger Feeder units.

Our range of Feeders is available in suspended or foot-mounted options, with installation angles ranging from horizontal to 15°. Where necessary, the normal 0.2 – 0.25 m feeder trough height can be increased to provide a high-sided feeder. This negates the need for static guide skirts.

Optional accessories include dust enclosures, movable trolley supports, hinged discharge sections for easier crusher maintenance, dewatering sections, numerous wear lining options and frequency controllers.

Pan sizes range from  $0.2 \, \text{m}$  wide  $\times \, 0.9 \, \text{m}$  long to  $3.3 \, \text{m}$  wide  $\times \, 6.1 \, \text{m}$  long, with proven flow rates of up to  $4.800 \, \text{m}^3/\text{hr}$ . This makes the Vibramech Feeder the ideal solution for most feeding applications. All feeders and associated chute geometries are assessed together with the client. This ensures a trouble-free and reliable feeding solution.

### **Tube Feeders & Grease Tables**

Vibramech Tube Feeders, used to prevent spillage and convey material along a predetermined enclosed length, and Grease Tables, to capture diamonds at the end of the recovery process, are used in diamond recovery plants.

Vibramech Grease Tables are supplied in widths of 0.6 m, 0.9 m and 1.2 m complete with support stand and water flow box, forming a full solution. In addition, they can be supplied with a feed box to regulate feed, and a discharge chute to dewater the overflow waste solids.

Tube Feeders are available in lengths from 1.0 m to 8.0 m, with various cross sections to suit the required conveyed length and feed capacity. Powered by vibrator motors, optional accessories include inspection covers and dewatering panels with suspended or footmounted arrangements, depending on client requirements.



2.7 m wide x 6.1 m long Pan Feeder



0.8 m wide x 4.5 m long Pan Feeder



Tube Feeder



Grease Table

### **Liwell Screens**

Vibramech is the exclusive distributor of Liwell Screens in Africa. The Liwell Screen was developed specifically to cater for difficult screening applications where "sticky" material must be screened at small apertures without the aid of process water. Liwell Screens are imperative for this application type, as conventional geared exciter or vibrator motor-energised vibrating screens cannot be used successfully for this duty.

Liwell Screens have a combination of a sound, proven engineering design and a unique screening deck motion developing 50G. Imported from Germany, Liwell Screens are available in single and double deck arrangements, with sizes ranging from 1.0 m wide x 2.2 m long to 3.0 m wide x 10.0 m long.



2.2 m wide x 8.8 m long Liwell Screen

### **Uras Vibrator Motors**

Vibramech is the sole African distributor for the URAS Vibrator Motor range, arguably the best available worldwide. Imported from Japan, URAS motors provide unrivalled reliability and robustness for all Vibramech vibrator motor-energised equipment. These low maintenance motors minimise equipment downtime.

The energy-efficient URAS vibrator motor range comprises 50 models, and is available with 2, 4, 6 or 8 pole windings to suit all international electrical supply formats. Motors with centrifugal forces ranging from 300 kgf (kilogram-force) to 18 000 kgf are used with an adjustable output force from 0 - 100%. Our range includes options like flame- and spark-proof designs, enhancing safety, and stainless steel covers are available in insulation classes ranging from IP55 - IP66. CSA and CE-approved models are also available for countries where these specifications are mandatory.

Vibramech's extensive stockholding of these specialised vibrator motors guarantees short lead times and minimal downtime. Local repairs of Uras vibrator motors are undertaken by specialised personnel at the Vibramech facility.



Uras Vibrator Motors

## **Geared Exciters**

The quality, reliability and robust nature of the Vibramech range of Geared Exciters has resulted in a successful global installed base, numbering in the thousands. Vibramech Geared Exciters, under licence from Siebtechnik, are generally used on heavier vibrating equipment in excess of 15 tons. Our Geared Exciters produce a force output ranging from 0 to 460 kN. The reliability and ease of maintenance, which reduces downtime, adds to the success of the Vibramech range of heavy vibrating equipment.

The extensive stock levels maintained by Vibramech enable short lead times and local exciter repairs guarantees minimum downtime.



Geared Exciters

### **Vibramech Field Services and Refurbishments**

Vibramech provides a wide range of 24/7 back-up services carried out by our dedicated field service crews. These include:

- · Equipment maintenance and repair
- · Component installation
- · Equipment modifications
- Equipment inspections with reports that include preventative maintenance advice
- · Commissioning assistance

#### Vibramech's field service crews

Our field service crews are highly competent, experienced engineers and technicians who:

- are compliant with applicable Occupational Health and Safety standards
- are highly trained and vastly experienced in "in situ" screen component installation procedures and methods
- utilise specialist tools and fasteners to ensure that onsite component installations to vibrating screens and equipment are conducted to the same high quality as that of our manufacturing works
- ensure flexible and rapid response times with a fleet of dedicated site compliant vehicles
- work closely with Vibramech's Sales, Engineering and Manufacturing departments to troubleshoot, diagnose and resolve equipment and processing issues
- minimise unscheduled equipment and production downtime

## Safety

Vibramech, at all times, has total commitment to safety, safe working practices and specific site compliance requirements.

#### Refurbishments

Refurbishments are a viable alternative to the purchase of new equipment.

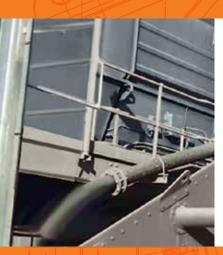
Vibramech will partner with you through the refurbishment process, utilising experience and expertise, offering recommendations and advice. We ensure maximum benefits and savings without compromising integrity, quality or performance.

In the event that a refurbishment is being considered, Vibramech can either collect the equipment for its assessment at its Chamdor facility, or conduct an onsite inspection to assess the feasibility of the refurbishment.





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