



virto



## **C-LINE**

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Vibrating sieves  
for **Powders**  
and **Liquids**

# Vibrating sieves for **Powders**



## VPB SIEVE

The VPB is used for screening and separating **dry powders** across many different industries such as food, recycling, coatings and metal powders. The main point of differentiation from other sieves resides in the design characteristics such as the stainless steel base (optional trolley mounted), central mounted motor and quick-release band clamps. Due to its compact size, height adjustability and mobility, the VPB models are highly versatile units that are manufactured in four different sizes. Commonly used in conjunction with sack tip units and with big bag filling/discharging stations, all VPB models can be modified to suit individual application needs. As well as the single deck configuration, the 500 mm and 800 mm diameter units are offered in multiple-deck configurations of up to 3 decks and can be mounted on a stainless steel base, a static unit or a trolley.

### SIZES AND CONFIGURATION:

- Standard single deck: The standard single deck configuration is offered with a 450 mm diameter (VPB 450 1Y) or 600 mm diameter (VPB 600 1Y);
- Trolley mounted single deck: The 500 mm diameter (VPB 500 1X) and 800 mm diameter (VPB 800 1X) single deck units are mounted on a mobile trolley.

### USES OF VPB

Compared to alternative C-Line sieves such as VPM model, the VPB sieve is used for screening powders at lower capacities for laboratory use, batch production, safety screening, separation, de-dusting, topping and tailing and other applications.

### BENEFITS OF VPB

- Compact dimensions.
- Multiple-deck separation.
- Versatile in its application to all process lines and all major industries.
- Manufactured in stainless steel.
- ATEX certified.
- FDA approved seals and gaskets.
- 2 year warranty\*.

### DESIGN CHARACTERISTICS

VPB 450 - 600	VPB 500 - 800
<ul style="list-style-type: none"> <li>• Body and trolley in AISI 304 stainless steel;</li> <li>• High speed motor at 2,800 RPM;</li> <li>• Conical sieve deck with hand knobs and stainless steel bolts.</li> </ul>	<ul style="list-style-type: none"> <li>• Standard motor at 1,500 RPM;</li> <li>• Trolley or fixed base in stainless steel;</li> <li>• Multiple sieve decks;</li> <li>• Quick-release band clamps.</li> </ul>

TECHNICAL CHARACTERISTICS	VPB 450	VPB 600	VPB 500 1-2X	VPB 500 3 X	VPB 800 1-2X	VPB 800 3X
Electrical Power (kW)	0.18	0.48	0.3	0.3	0.73	0.73
Centrifugal force (kg)	230	428	590	400	590	1,000
Sieving decks	1-3	1-3	1-2	3	1-2	3
Mesh surface (m <sup>2</sup> )	0.104	0.264	0.22	0.22	0.36	0.36

\*(consumable items not included)



## VPM SIEVE

The high capacity VPM vibrating sieve from the C-Line has become the industry standard for the efficient screening and separation of **fine powders at high throughputs**. With over 20 years of constant development in design and manufacturing, this model offers the sieving industry's most cost effective, user friendly and reliable screening solution for nearly all powder applications. VPM is available with various accessories to optimize performance including mesh cleaning systems such as ultrasonic or ball cleaning systems (food and non-food grade). VPM can be offered with ATEX certification and is manufactured in accordance with GMP standards.

### SIZES AND CONFIGURATION:

- Diameter sizes: 900 mm (VPM 900), 1,200 mm (VPM 1200), 1,500 mm (VPM 1500) and 2,000 mm (VPM 2000);
- Multiple decks: The VPM is offered in multiple-deck configuration of up to 3 decks;
- High capacity & versatile design: The VPM has a sloped under-pan for high capacity, a lid with spigots to suit all process lines and quick-release clamps.

### USES OF VPM

Designed specifically for high capacity and highly efficient powder separation for all major industries and often used for de-dusting, topping and tailing, grading and control screening.

### BENEFITS OF VPM

- Designed for high capacity and highly efficient separation.
- Multiple-deck separation.
- Versatile in its application to all process lines and all major industries.
- Manufactured in stainless steel contact parts.
- ATEX certified.
- FDA approved seals and gaskets.
- 2 year warranty\*.

### DESIGN CHARACTERISTICS

- Available with single or multiple decks;
- Ring clamping system or quick release band clamps;
- All contact parts in AISI 304 stainless steel;
- Fixed base with an option to mount on wheels;
- Sloped bottom to achieve high capacity;
- Standard motor 1,500 RPM.

TECHNICAL CHARACTERISTICS	VPM 900 1-2X	VPM 900 3X	VPM 1200 1-2X	VPM 1200 3 X	VPM 1500 1-2X	VPM 1500 3X	VPM 2000 1-2X	VPM 2000 3X
Electrical Power (kW)	0.73	0.73	1.25	1.25	1.5	1.5	4.25	4.25
Centrifugal force (kg)	850	1,280	1,300	1,900	2,300	2,900	6,000	6,900
Sieving decks	1-2	3	1-2	3	1-2	3	1-2	3
Mesh surface (m2)	0.587	0.587	0.932	0.932	1.575	1.575	2.7	2.7

\*(consumable items not included)

# Vibrating sieves for **Powders**



## VP1 SIEVE

VP1 is Virto's latest addition into the C-Line family of vibrating sieves, achieving outstanding performance for **high-capacity and safety/control screening**. Suitable for wet or dry applications, has 1 lateral motor, central bottom outlet, is 100% customizable and easily fits into small spaces thanks to its compact size. With quick release clamps, the new VP1 reduces down-time as it's easy to strip down and clean without tools. Manufactured in 800 mm diameter size, it comes in a single deck configuration.

### SIZES AND CONFIGURATION:

- Diameter size: 800 mm
- Single deck configuration

### USES OF VP1

The VP1 is used as safety screener for guaranteeing maximum product control but also for applications where is needed an higher capacity with oversize product up to 10%. It can be installed under storage silos, on powder conveyor lines and at pre-packing phases within many industries including food, pharmaceutical, agriculture, chemical, recycling and many others.

### BENEFITS OF VP1

- Specifically designed for highly efficient safety/control screening.
- Greater performance on safety/control screening.
- Higher capacity in comparison to same size machines.
- Suitable for low headroom.
- Easy and faster to assemble and clean.
- Fully customizable to meet your specifications.
- ATEX certified.
- FDA approved seals and gaskets.
- 2 year warranty\*.

### DESIGN CHARACTERISTICS

- Central outlet discharge;
- Quick release clamps;
- One vibrating motor;
- Control box rated to IP 65;
- Contact parts in AISI 304 or 316 stainless steel;
- Versatile and mobile – quick release clamps, adjustable height and optional trolley;

TECHNICAL CHARACTERISTICS	VP1 800
Electrical Power (kW)	0.52
Centrifugal force (kg)	1,100
Number of meshes	1
Mesh surface (m2)	0.36

\*(consumable items not included)



## VP2 SIEVE

The VP2 models are compact circular screeners for **safety screening powders** at critical check points. The units feature a central inlet and a central outlet with twin motors, one motor mounted on each side of the machine.

The design allows for a large diameter screener to be installed within limited headroom, often in an existing process line.

VP2 models are commonly used in conjunction with sack tip units and with big bag filling/discharging stations. Manufactured in various sizes, this model comes in a single deck configuration, and is suitable for use with dry powders.

## SIZES AND CONFIGURATION:

The VP2 is offered in multiple sizes in a single deck configuration only:

MODEL	DIAMETER SIZE
VP2 450 1Y	450 mm
VP2 500 1X	500 mm
VP2 800 1X	800 mm
VP2 900 1X	900 mm
VP2 1200 1X	1,200 mm
VP2 1500 1X	1,500 mm
VP2 2000 1X	2,000 mm

## USES OF VP2

The VP2 models are used as safety screens with maximum oversize product of 2%, for guaranteeing excellent product control. Typical environments where they are employed include storage silo outlets, powder conveyor lines and at pre-packing phases within many different industries including food, agriculture, chemical, recycling and many others.

## BENEFITS OF VP2

- Specifically designed for highly efficient safety/control screening.
- High capacity due to straight-through design.
- Suitable for low headroom.
- Easy maintenance.
- Manufactured in stainless steel contact parts.
- ATEX certified.
- FDA approved seals and gaskets.
- 2 year warranty\*.

## DESIGN CHARACTERISTICS

- Cover with suction and inspection hole;
- Central outlet discharge;
- Ring clamping system or quick release band clamps;
- Two vibrating motors;
- Control box rated to IP 65;
- All contact parts in AISI 304 or 316 stainless steel.

TECHNICAL CHARACTERISTICS	VP2 450	VP2 500	VP2 800	VP2 900	VP2 1200	VP2 1500	VP2 2000
Electrical Power (kW)	0.18 + 0.18	0.17 + 0.17	0.3 + 0.3	0.62 + 0.62	0.85 + 0.85	0.9 + 0.9	1.1 + 1.1
Centrifugal force (kg)	394	426	854	1,342	1,500	2,810	3,600
Sieving decks	1	1	1	1	1	1	1
Mesh surface (m <sup>2</sup> )	0.104	0.13	0.36	0.587	0.932	1.575	2.7

\*(consumable items not included)

# Vibrating sieves for **Liquids**



## VLB SIEVE

The VLB model is very similar to the VLM line except for the convexed bottom suitable for reduced capacity. Like VLB is typically used for the straining and filtering of materials in a slurry, waste water processing, for dewatering solids and/or for **liquid solid separation**. With over 20 years of constant development in design and manufacturing this model offers the industry's most cost effective, user-friendly and reliable straining and filtration solution for almost all major wet applications. Like the VLM model, the weights can be adjusted to allow the material to remain on the mesh for longer for a more efficient screening. This design approach minimises down-time for cleaning and thereby maximises productivity.

### SIZES AND CONFIGURATION:

- Diameter sizes: 800 mm (VLB 800), 900 mm (VLB 900), 1,200 mm (VLB 1200), 1,500 mm (VLB 1500);
- Multiple decks: The VLB is offered in multiple-deck configuration of up to 3 decks.

### USES OF VLB

The VLB models are used for screening particles in liquids, for dewatering solids, straining slurries and liquid-solid separation.

### BENEFITS OF VLB

- Designed for highly efficient straining and filtration.
- Multiple-deck separation.
- Versatile in its application to all process lines for all major industries.
- Manufactured in stainless steel contact parts.
- ATEX certified.
- FDA approved seals and gaskets.
- 2 year warranty\*.

### DESIGN CHARACTERISTICS

- Higher sieve deck to prevent liquids from splashing (on request);
- Ring clamping system or quick release band clamps;
- Contact parts in AISI 304 or 316 stainless steel;
- Fixed base, with option to mount on wheels;
- 1,500 RPM standard off the shelf motor.

TECHNICAL CHARACTERISTICS	VLB 800	VLB 900	VLB 1200	VLB 1500
Electrical Power (kW)	0.73	0.73	1.25	1.5
Centrifugal force (kg)	590	700	1,200	2,150
Sieving decks	1-3	1-3	1-3	1-3
Mesh surface (m <sup>2</sup> )	0.36	0.587	0.932	1.575

\*(consumable items not included)



## VLM SIEVE

The VLM is a circular screener typically used for the **separation of materials contained in liquids**; used for dewatering, slurry processing, waste oil filtration, waste water processing or liquid solid separation.

The units can operate with material with a temperature of up to 200°C. The VLM line is very similar to the VLB line but the VLM has a side-round outlet in order to achieve greater capacity. Users can adjust the time the material stays on the mesh with the adjustable weights, whilst its 1,500 rpm motor has been designed to optimise vibration so that it constantly selfcleans the mesh.

This design minimises down time for cleaning and thereby maximises productivity. Reliability and high quality are the main characteristics for this line.

### SIZES AND CONFIGURATION:

- Diameter sizes: 900 mm (VLM 900), 1,200 mm (VLM 1200), 1,500 mm (VLM 1500) and 2,000 mm (VLM 2000);
- Multiple decks: The VLM is offered in multiple-deck configuration of up to 3 decks;
- High capacity: The VLM has a side-round outlet in order to achieve higher capacity.

### USES OF VLM

The VLM models are used for screening particles in liquids, dewatering solids, straining slurries and liquid-solid separation at higher capacities.

### BENEFITS OF VLM

- Designed for highly efficient straining and filtration.
- Multiple-deck separation.
- Versatile in its application to all process lines for all major industries.
- Manufactured in stainless steel contact parts.
- ATEX certified.
- FDA approved seals and gaskets.
- Higher capacity than the VLB line.
- 2 year warranty\*.

### DESIGN CHARACTERISTICS

- Higher sieve deck to prevent liquids from splashing (on request);
- Ring clamping system or quick release band clamps;
- Contact parts in AISI 304 or 316 stainless steel;
- Fixed base, with option to mount on wheels;
- 1,500 RPM standard off the shelf motor.

TECHNICAL CHARACTERISTICS	VLM 900	VLM 1200	VLM 1500	VLM 2000
Electrical Power (kW)	0.73	1.25	1.5	4.25
Centrifugal force (kg)	850	1,750	2,300	6,000
Sieving decks	1-3	1-3	1-3	1-3
Mesh surface (m <sup>2</sup> )	0.587	0.932	0.575	2.7

\*(consumable items not included)

# ACCESSORIES AND MODIFICATIONS

A wide range of product variations and accessories are available for the C-Line product range:

## MESH CLEANING SYSTEMS

Virto Group offers various mesh cleaning systems to minimise the clogging or blinding of the mesh. These include silicon balls, plastic cylinder, washing system with nozzles, air cleaning systems and also **ultrasonic system** that can be easily retrofitted to any existing vibratory sieve including non-Virto equipment.

## LIDS

These vary according to the different diameter for the inlet, inspection ports and valves/spigots.

## STAINLESS STEEL BASE

If required, a stainless steel base can be added.

## QUICK RELEASE BAND CLAMPS

Available for safe, effective and quick fixing of decks to the machine base.

## AISI 316 STAINLESS STEEL MANUFACTURING

Virto Group specialises in making FDA and ATEX compliant AISI 316 stainless steel screeners for the food and pharmaceutical industries and provides the same machines for many other sectors.

## INTEGRATED MAGNETS

Bespoke, high gauss strength magnets can be incorporated into our sieves at the inlet or the outlet of the machine.

## PNEUMATIC LIFTING SYSTEM

This is offered for all C-Line models (from 1,200 mm diameter up) to automatically loading the cover.

## POLYURETHANE AND TEFLON COATING

To protect the machine and the internal parts from the corrosive effect of some materials or high temperatures.

## ATEX COMPLIANT

All of the Virto equipment can be built to be ATEX compliant, to meet all of the necessary regulatory requirements for the pharmaceutical, food, metal powder and many other industries.

## MOBILE TROLLEY

Most of C-Line machines can be mounted on trolley in order to make them mobile.



Virto Group

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