

**binder+cö**

# conventional screening technology

Resonance-, Linear-, Circular Vibratory Screens



we process the future



Processing Technology



## RESONANCE VIBRATORY SCREENS



### TASK

Resonance vibratory screens are ideally suited to applications requiring screening of processed materials to the highest quality with screens from the very fine, up to 70 mm, particularly for dry and wet screening of round, angular, cubic or flaky materials without blinding.



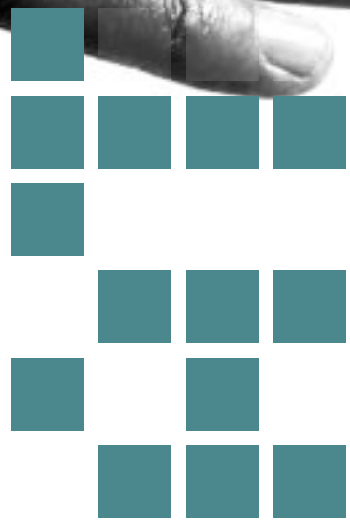
### FUNCTION

High separating efficiency is provided by a horizontally arranged screen with up to separate 6 screened fractions being achieved on a single machine. Due to the low dynamic forces generated during screening, only lightweight support structures of low height are required, giving additional cost savings and operating benefits in simpler associated conveyor systems.

Binder Resonance Vibratory Screens operate according to the ejecting principle, describing a linear motion, guided by suspensions arms. Two rocker arms with identical weights are bedded in rubber sleeves and connected to the suspension arms to provide a maintenance free mechanism. Both rocker arms are excited by an eccentric drive whose connecting rods are secured to elastic spring mountings. The energy transferred from the vibratory system by these elastic springs is relatively little compared to other screening systems.

### DRIVE AND MOUNTING

Drive is achieved by electric motor and v-belt assembly with the drive shaft mounted in heavy duty cylinder roller bearings and connecting rods mounted in large, heavy duty ball bearings sets. Mounting is on suspension arm supports and steel base frame which in turn is mounted on antivibration blocks.





## LINEAR VIBRATORY SCREENS



### TASK

Binder Linear Vibratory Screens operate horizontally or at very low angles of declination and consequently provide high quality separation of processed material fractions. Ideally suitable for fine, medium and coarse screening up to approximately 200 mm of round, angular, cubic or flaky material. Efficient screening applications range from dry or damp material to wet draining processes.

Extensive experience in providing efficient screening systems within industrial plants and guaranteed tonnages up to 1500 t/hour continuous operation with minimal screen wear, enable Binder+Co to provide the correct solution.

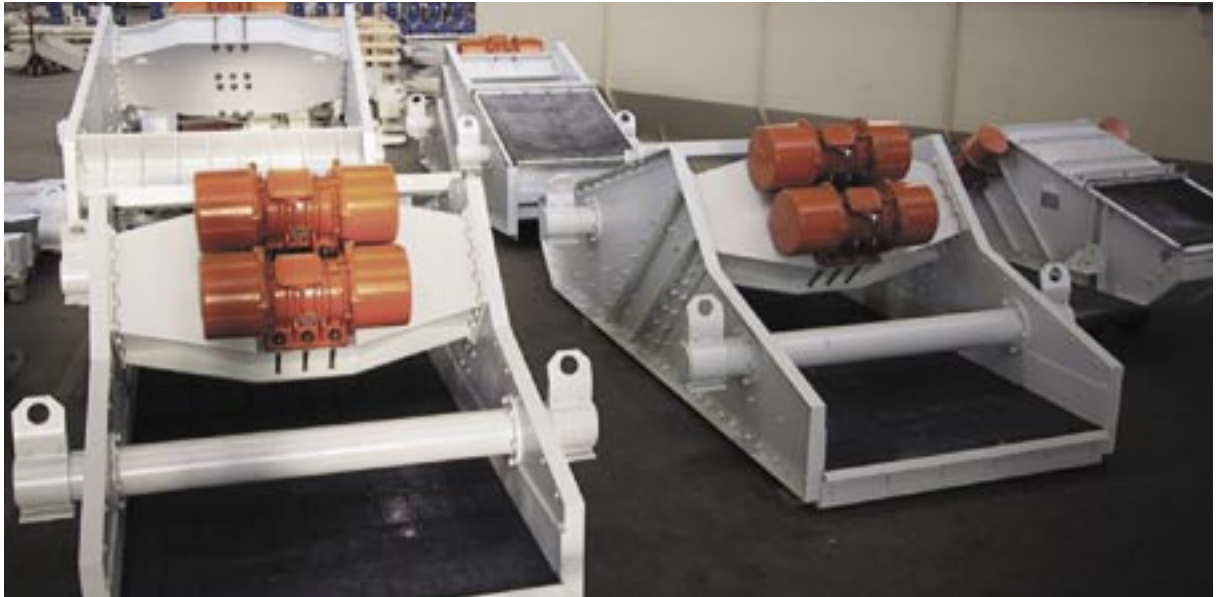
### FUNCTION

Binder Linear Vibratory Screens operate according to the ejection principle and describe linear motion. Adjustable weights in the drive mechanism allow the vibration pattern to be altered to suit the processed fraction and the descending gradient can be adjusted for each application. Long screen surfaces allow several fraction sizes to be screened on a single machine.

Due to the ejection principle, processed material makes point contact only with the screens, ensuring long screen life. In addition the drive bearings of the linear vibratory screens run in an oil bath thus providing reliable continuous operation with minimum maintenance requirements.



## LINEAR VIBRATORY SCREENS



### DRIVE AND MOUNTING

Drive is achieved by electric motor with cardan shaft to the drive shaft equipped with twin unbalance, adjustable weights. Where required additional v-belt drive can be provided.

The number of exciters is increased according to screen width and two models are available with the exciters arranged above the screen or below, depending on application.

Each unit is mounted on hollow, reinforced rubber springs which reduce noise levels, reduce dynamic forces, have optimal expansion and contraction properties without the need for bump stops and dispense with the need of a counterswing frame.





## CIRCULAR VIBRATORY SCREENS



### TASK

Binder Circular Vibratory Screens are particularly suited to the efficient screening of materials with a tendency to combine and stick. The circular motion provides moments of momentum which maintains the ejection principle and efficient screening. The Circular vibratory screens are primarily installed as pre-separators for intermediate and finished products. Their application is classical dry or wet screening of medium to coarse fractions up to approx 150 mm.

### FUNCTION

The speed and amplitude of vibration are adjustable to suit the processed fraction and ensure that the circular vibratory screen provides efficient screening. The Binder Circular Vibratory Screen operates according to the ejection principle, describing a near circular motion.

Adjustable unbalance weights allow for differing materials and throughputs and always operate at a descending gradient to control fraction depth.

### DRIVE AND MOUNTING

Drive is by electric motor and cardan shaft to the main drive shaft equipped with a single unbalance weight. Where required additional v-belt drive can be provided. The drive shaft is mounted on heavy duty roller bearings sets, lubricated with grease or oil. Like the linear vibratory screens, Binder Circular Vibratory Screens are mounted on reinforced rubber springs to provide the same benefits in performance and long life.



## PERFORMANCE

### RESONANCE VIBRATORY SCREENS

Binder Resonance Vibratory Screens are available as single or double deck screens for throughputs up to 400 t/h and fraction sizes up to 350 mm. Screened fractions of 0.5 mm to 70 mm are available.



### LINEAR VIBRATORY SCREENS

Binder Linear Vibratory Screens process fractions up to 1200 mm with screened fractions of 0.5 mm to 200 mm. They are available as single deck, double deck or 2 ½ deck systems.



### CIRCULAR VIBRATORY SCREENS

Binder Circular Vibratory Screens process fractions up to 1500 mm with throughputs up to 1500 t/h. Screened fraction sizes of 1 mm – 150 mm are achieved. They are available as single deck, double deck or 2 ½ deck systems.



- Processing Technology
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- Bagging Technology

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With 50 years experience in screening technology, Binder+Co is able to assess each application, with every installation being tailored to suit the clients specific requirements to ensure the most efficient screening system is provided.

Linear and vibratory screens are of fully bolted construction to avoid fractures and ensure a maximum life cycle. Double deck units are provided with sufficient distance between decks to allow easier accessibility.

The resonance vibratory screens feature two heavy duty steel U-beams to form the vibratory body in both decks to provide strength and rigidity.

Available options include sprinklers for wet operations and dust enclosures or covers for dust retention.

Conventional screening by Binder+Co - The complete programme for screening of all types of fractions.

