

"The Sizing People"®



**GYRA-VIB® SEPARATORS**

**877-4-SIZING**

## MR Series Gyra-Vib® Separator

Vibratory separators are used to separate particles by size or separate solids from liquids. Designed for maximum screening efficiency, Midwestern's MR Series Separator can be constructed and finished to food, dairy, and pharmaceutical standards.

## ME Series Gyra-Vib® Separator

The ME Series Gyra-Vib® Separator utilizes a variable speed drive, giving the user greater control over screening applications resulting in accurate particle separation. ME Series Separators are available in a wide range of sizes and finishes that includes food, dairy, and pharmaceutical standards.

The MR Series Gyra-Vib® Separator features a conventional design utilizing a center-mounted motor and unique balance cage weight system to control the vibratory screening motion.

Sifting, scalping, classifying, and dewatering applications benefit from the versatility and

range of screening products available to customize each vibratory separator for specific applications. Additional screening decks are available for multiple separations. Midwestern MR Series Separators are manufactured from 18" through 60" diameter units.

The innovative ME Series Separator design is a combination of a shaft, two balance cages, and a foot-mounted motor connected to the shaft by a belt. The motor employs a variable speed pulley, and is mounted to a sliding base that allows the motor to be adjusted in and out by a crank for various rpm changes. This allows fine adjustment of frequency providing accurate

material travel and increased production. For increased durability, the unit's base and table assemblies are constructed of heavy steel plate by certified welders. The lower frame is bolted to the table on 36" through 72" diameter units, enabling use of multiple screening surfaces without the spacing frames turning.

### MR System



### Midwestern Balance Cage Weight System

The innovative and first in the industry balance cage system is found on Midwestern separators. The top balance cage is known as the horizontal cage. Weights added to this cage produce the horizontal or flat effect of the screen. If you are screening a heavy material, more weights would be added to the top cage to create the horizontal movement to convey

the material outward. Screening performance is not achieved until sufficient horizontal motion is attained.

The bottom balance cage is known as the vertical cage. Weights added to this cage impose the vertical lift on the screen. Changing the position of these weights alters the flow pattern of the material (see typical MR and ME flow patterns diagram on opposite page).

### ME System



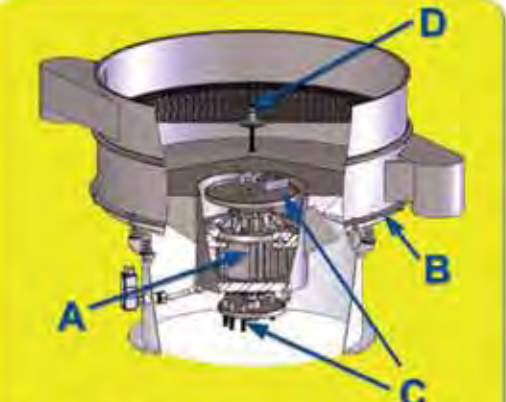
A Standard NEMA foot-mounted motor. Explosion-proof motors can be used for hazardous locations. All motors are available in a wide range of voltage options.

B The variable speed pulley is easily accessible and mounted on the motor, isolating the screen vibration from the motor. The motor is mounted on an adjustable slide base allowing for a variable speed range of 950-1450 rpm.

C The motor mount is adjustable for the control of frequency. The power is transmitted from the motor to the balance cages using a heavy-duty belt.

D The reversible center locking device allows positive screen tensioning up or down.

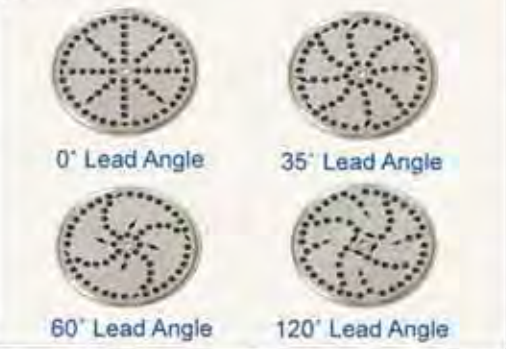
E Balance cages are mounted on a large diameter shaft between standard, heavy-duty, double spherical roller bearings. Specially designed bearing housings have greater grease capacity for long life as well as convenient lubrication fittings.



- A All MR Series Separators come standard with a specially designed 1200 rpm motor. High-speed 1800 rpm motors are also available. All motors are available in a wide range of voltage options.
- B Bolt-mounted lower frame will not turn and wear out flanges on the table and lower frame. A conversion kit is available to modify conventional clamp-mounted separator lower frames to the bolt-mounted style.
- C Balance cages mounted directly on the motor shaft and designed for quick and easy weight adjustments.
- D The reversible center locking device allows positive screen tensioning up or down.

### Typical MR and ME Flow Patterns

The flow pattern on a screen deck may be varied to retain material for desired intervals or directly sweep to the discharge spout. The lead angle determines particle motion.



### Making an Informed Decision

Midwestern believes this is the best tool for our customers to make informed decisions about their screening process. The simple act of sending in material can save you time and money by purchasing the right equipment the first time.

### Ultrasonics

Midwestern has one of the most advanced ultrasonic systems in place today, offering our customers better results with less complication. By utilizing a combination of gyratory vibration and ultrasonics, your process will be more efficient, have greater throughput, and less near-size plugging.

The way we accomplish such effective results is by converting electrical energy into high-frequency energy, which is then converted into ultrasonic oscillation by the converter. Unlike other systems, Midwestern's ultrasonic systems use frequency variation generators that excite the screen over a larger bandwidth, eliminating the costly and timely process of tuning the screen's ring to meet a sharp resonance.



# Accessories, Frames, and Screens

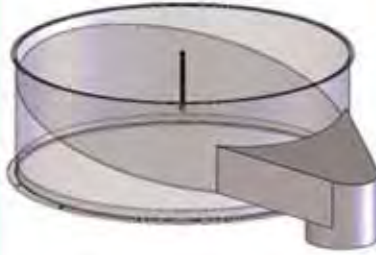
Midwestern services all your screening needs by manufacturing high quality, heavy duty frames and screens to fit most round vibratory separators. These items are designed to keep production levels high and downtime at a minimum.

### RAS System



The RAS Frame is designed for applications with a high percentage of oversized material.

### Diverter Frame



The Diverter Frame is useful when dealing with a high volume of undersized particles.

### Anti-Blinding Devices



### KleenerTray Assembly



### Ball Tray Assembly

### Series Feed Frame



Manufactured for high capacity screening, the series feed frame gives the user the ability to screen the material twice with one machine.

### Round & Square Screens



### Ultrasonic Screens



### Perforated Screens



### Sandwich Screens



### Bulls-Eye Screens



### Wagon Wheel Screens



### Custom Woven Screens

