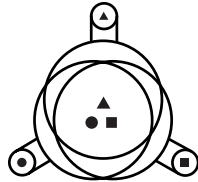




# VIBROSCREEN®

## CIRCULAR VIBRATORY SCREENERS

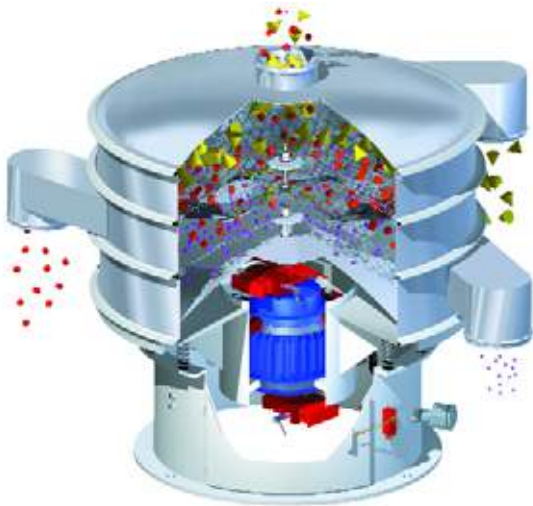
*For sifting, scalping,  
classifying, de-dusting  
and dewatering of powder  
and bulk solids*



**kason**



# Sift, Scalp, De-dust, Dewater or Classify Virtually Any Bulk Solid or Slurry



## Principle of Operation

The main screening assembly of a Kason screener is suspended on rugged springs that allow it to vibrate freely while minimizing power consumption and preventing vibration transmission to the floor. The assembly is equipped with one imbalanced-weight gyratory motor that creates multi-plane inertial vibration for the purpose of controlling the flow path of material on screen surfaces, and maximizing the rate at which material passes through the screen.

Material is fed onto the center of the screen, causing particles larger than screen apertures to travel across the screen surface in controlled pathways, and exit through a discharge spout located at the screen's periphery, while particles smaller than screen apertures pass through the screen onto a lower screen or exit through a lower discharge spout.

Single-deck screeners are generally utilized for "scalping" or "sifting" (removing a small percentage of oversize material through the upper discharge spout), for "de-dusting" (removing a small percentage of undersize material through the lower discharge spout), or for "dewatering" (removing liquid through the lower discharge spout).

Multi-deck screeners (two-deck shown) are generally utilized for "classifying" of particles in three to five predetermined sizes, or when equipped with integral KASCADE™ screening decks (see page 7), for increasing the capacity of a screener without increasing its diameter.

## Adjustable Flow Patterns

Flow patterns of material can be fine tuned for screening efficiency by repositioning the bottom eccentric weight relative to the top eccentric weight.



### 0° (In Phase)

From a central feed, material flows to screen periphery in a straight line.



### 30° Out of Phase

Material spirals slightly from the center to periphery, increasing retention time. Recommended for general purpose screening.



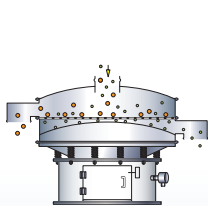
### 45° Out of Phase

Material flows from center in a distinct spiral pattern, further increasing retention time. Recommended for classification of particles and screening of wet material.



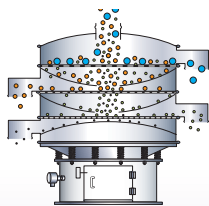
### 90° Out of Phase

Prevents oversize material from discharging.



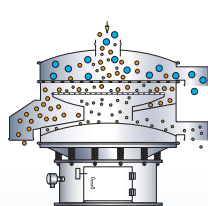
### Single-Deck Screeners

Satisfy general screening requirements at low cost (see page 3)



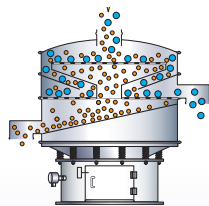
### Multi-Deck Classifiers

Sift, scalp and/or classify into precise fractions (see page 6)



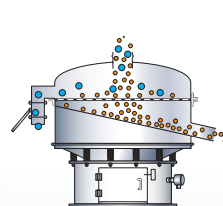
### High-Capacity Classifiers

Scalp and de-dust at ultra-high rates (see page 6)



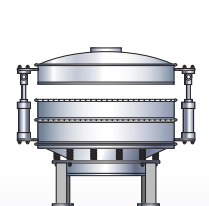
### High-Capacity Sifters

Boost capacity 60-160% within same footprint (see page 7)



### Pneumatic Sifters

Scalp in-line with pneumatic conveying systems (see page 7)



### Ultra-Sanitary Screeners

Meet cGMP, 3-A, USDA and FDA standards (see page 8)

## Broadest Range Solves Specialized Problems

Kason VIBROSCREEN® circular vibratory screeners handle bulk chemicals, minerals, plastics, foods, dairy products, pharmaceuticals and other materials ranging from dry bulk solids to solids-laden slurries. They range in diameter from 18 to 100 in. (460 to 2540 mm) and are offered with single or multiple screening decks, separating particles in one to five predetermined sizes from 2 in. (50 mm) to 500 mesh (25 microns), at capacities from several pounds/kilograms to more than 70 tons per hour.

Kason screeners are offered in gravity-fed and in-line pneumatic configurations (see page 7), both of which are available as stationary and mobile systems equipped with numerous performance enhancements. All can operate on a batch or continuous basis and are available designed and constructed to industrial, food, dairy or pharmaceutical standards.

Available features include:

- Enclosed, dust-free operation
- Compliance with USDA, FDA, BISSC, 3A, ATEX, CE and other standards
- Rapid screen changes
- Easy clean out
- Heavy-duty construction for continuous operation
- Compact design
- Low power requirements
- Full range of enhancements to boost performance, automate cleaning, reduce maintenance and extend service life
- Ratings for positive pressures to 14.7 psig (101.4 kPa) or negative pressures to 14 in. (356 mm) mercury

Kason also offers custom-engineered screeners and complete screening/processing systems to solve the most difficult or unusual in-line separation problem.



### Single-Deck Vibratory Screeners

*Separate solids from dry solids or solids-laden slurries*

Kason single-deck screeners separate solid particles ranging in size from 2 in. (50 mm) to 500 mesh (25 microns) from bulk solid materials or slurries containing solid particles. These screeners have become a world standard for small- to high-capacity, batch and continuous scalping, de-dusting and dewatering of countless bulk products handled in virtually every processing application. They have also solved numerous unusual and difficult manufacturing problems requiring highly custom configurations. Multi-plane inertial vibration maximizes throughput and gentle product handling. Offered in diameters from 18 to 100 in. (460 to 2540 mm), they are constructed of carbon steel, stainless steel and alloys to worldwide standards for industrial, food, dairy and pharmaceutical applications. Options are offered for rapid screen changes, in-place cleaning, and fast, thorough wash down. Available for rapid shipment.



# Typical Applications

## Separating Solids from Solids

(sifting, de-dusting and classifying)



### Gravity-fed and in-line pneumatic models

Kason offers VIBROSCREEN® configurations for three types of solids-solids separation:

1. **Sifting** (also called “scalping” or “bolting”): Separating a small percentage of oversize solids from a large percentage of on-size solids
2. **De-Dusting**: Separating a small percentage of undersize solids from a large percentage of on-size solids
3. **Classifying**: Separating solids into two or more particle size fractions

*These screeners operate on a batch or continuous basis at rates from several pounds/kilograms to 70 tons per hour, separating thousands of powder and bulk solid materials such as:*

ABS RESINS	FERRITES	PLASTIC RESINS
ABRASIVES	FERTILIZERS	POTASH
ACTIVATED CARBON	FISH MEAL	POTATO FLAKES
ADDITIVES	FLAVORINGS	POWDER COATING
ADIPIC ACID	FLOUR	PROTEIN POWDERS
AGAR	FLY ASH	RAISINS
ALMONDS	FOUNDRY SAND	RICE
ALUMINA	FRAGRANCES	SALT
ALUMINUM PRODUCTS	FUSED SILICA	SAWDUST
ANIMAL FEEDS	GLASS (CRUSHED)	SEEDS
ASH	GLUTIN	SILICA GEL
ASPHALT	GRAINS	SILICATES
BAGASSE	GRAPHITE	SILICON CARBIDE
BAUXITE	GRIT/SHOT BEADS	SPICES
BENTONITE	GYPNUM	STARCH
BLEACH	IRON OXIDE	SOAP
BORIC ACID	LACTOSE	SOUP MIX
BREAD CRUMBS	METAL POWDERS	STUCCO
BUILDING PRODUCTS	MILK POWDERS	SUGAR
CALCIUM CARBONATE	NITRATES	SUPER ABSORBENT
CALCIUM STEARATE	NON-DAIRY CREAMER	POLYMER (SAP)
CARBON BLACK	NUTRITIONAL	TEA
CAT LITTER	POWDERS	PURIFIED TEREPHTHALIC
CELLULOSE	NUTS	ACID (PTA)
CERAMIC POWDERS	PERLITE	TITANIUM DIOXIDE
CEREAL	PET COKE	TONER
CHEESE POWDER	PHARMACEUTICAL	TUNGSTEN CARBIDE
CHLORIDES	POWDERS	VITAMIN POWDERS
COCOA POWDER	PIGMENTS	WOOD CHIPS
COFFEE (GROUND)	PLASTIC BEADS	WOOD FLOUR
DIATOMACEOUS	PLASTIC COMPOUNDS	
EARTH	PLASTIC POWDERS	
DETERGENTS	PLASTIC PELLETS	
EPOXY RESINS	PLASTIC REGRIND	

## Separating Solids from Liquids

(dewatering, clarifying and liquid scalping)



### Gravity-fed models only

VIBROSCREEN separators are engineered for three types of solids-liquids separation:

1. **Dewatering**: Separating a small to medium percentage of liquid from a large percentage of solids
2. **Clarifying**: Separating a small percentage of solids from a large percentage of liquids
3. **Liquid scalping**: Separating a small percentage of oversize solids from a large percentage of on-size solids in a slurry

*These screeners operate on a batch or continuous basis at rates from one to 2000 gallons (9200 liters) per minute, separating solids from thousands of liquids such as:*

APPLE CIDER	OIL PROCESSING
BLOOD	PAIN
BREWERY WASTE WATER	PALM OIL
BRINE	PAPER COATING
CANNERY WASTE WATER	PLASTIC FINES AND
CHOCOLATE LIQUOR	RECYCLED WATER
CLAY SLURRY	PLASTIC PELLETS
COAGULANTS	AND WATER
COOKING OIL	POULTRY WASTE WATER
CORN MILLING	PULP AND PAPER
CRANBERRIES	SOY SLURRY
CURD/WHEY	STARCH SLURRY
DRILLING MUD	SEWAGE
FISH WASTER WATER	TAPIOCA STARCH
FRUIT JUICE	TITANIUM DIOXIDE
FRUIT WASHING	SLURRY
RECYCLE WATER	TOFU SLURRY
GLUE	VEGETABLES
GOLD MINE SLURRY	VEGETABLE PEELING/
HONEY	WASHING RECYCLE
ICE CREAM	WATER
INDUSTRIAL WASTE	VEGETABLE OIL
WATER	PROCESSING
ION EXCHANGE	WINE
RESIN SLURRY	YEAST SLURRY
IRRIGATION RECYCLE	
WATER	
LACTOSE SLURRY	
LATEX	
LAUNDRY WASTE WATER	
LIME SLURRY	
SILVER MINE SLURRY	



### Removing Solidified Latex From Rinsewater

The rinsewater from daily cleaning of tank trucks hauling liquid latex contained 8% solidified latex, incurring high sewage disposal costs and concerning environmentalists. By installing a 48 in. (1220 mm) VIBROSCREEN® single-deck, circular vibratory screener with a 105 mesh screen, the hauler reduced solids content by 50% at the rate of 158 gal/min (598 l/min) saving \$2000 to \$3000 per month in sewage costs, and winning state and local ecological awards.



### Classifying Pelletized HDPE

After a successful 10-year experience scalping and de-dusting high density polyethylene 24/7 with two 72 in. (1829 mm) diameter VIBROSCREEN Pellet Classifiers, this major resin producer installed four more—this time to replace four competitive screeners that were breaking down at a second and third extrusion train. Each of the six Kason classifiers can scalp and de-dust 27.5 tons/h of pellets 0.125 in. (3.18 mm) in length and diameter. 100 in. (2540 mm) models can handle 70 tons/h.



### Screening Liquid Biological Fertilizer

A manufacturer of liquid biological fertilizer boosted throughput of a circular vibratory separator 250 to 300% by retrofitting it with a 360° discharge KASCADE™ deck, eliminating a restrictive buildup of rope-like sludge at the screen's periphery. The 60 in. (1524 mm) diameter separator now screens 9000 gal/day (34,000 l/day) versus 3000 to 4500 gal (11,350 to 17,000 l) previously, while saving 9 hours of labor per week formerly needed to remove, clean, and replace the screen deck.



### Sifting Dental Lab Scraps

A precious metals company was hand sifting paper towel shreds, paper clips, plaster and plastics from dental laboratory waste containing particles of silver, gold, platinum and palladium. A 24 in. (610 mm) diameter VIBROSCREEN classifier now separates unusable pieces >10 mesh from 2 size fractions to be smelted: 10 to 40 mesh particles, and <40 mesh dust. Time to classify 50 to 100 lb (22.7 to 45.4 kg) batches dropped from 120 to 30 minutes, helping the foundry double business and pay for the equipment in 9 months.



### Screening a Granular Chemical

The manufacturer of a proprietary chemical product pre-screens granular carrier using a 48 in. (1220 mm) diameter, two-deck VIBROSCREEN separator, then combines it with an active ingredient and a filler. Following a conversion process, the product is dried using a 48 in. (1220 mm) diameter circular fluid bed dryer, after which an integral 48 in. (1220 mm) diameter, two-deck VIBROSCREEN separator (*see page 6*) removes (oversize) agglomerates and (undersize) fines at the rate of 2000 lb/h (907 kg/h).



### Screening a Million Tons of Clay

A Kason in-line PNEUMATI-SIFTER™ VIBROSCREEN circular vibratory separator (*see page 7*) has screened over one million tons of clay over 25 years without an equipment failure at this 190-year manufacturer of stoneware products. The system moves raw materials from any of ten 50 ft (15 m) high silos containing clay, silica, alumina, lime and other ingredients through a pneumatic conveying system to a central weigh hopper that meters 600 lbs/min (272 kg/min) of material into the 60 in. (1525 mm) diameter sifter.



### Screening Soy Concentrate

Soybeans are de-hulled, washed and crushed after which juice is extracted, screened, filtered, pasteurized and chilled. A 48 in. (1220 mm) diameter circular vibratory screener removes particles larger than 0.00465 in. (118 microns) from soy juice at the rate of 1267 gal/h (4800 l/h) using a tough, market-grade stainless steel wire mesh that can be highly tensioned to increase shear. The screener is cleaned hourly using integral clean-in-place nozzles, and disassembled for thorough wash down every 24 hours.



### Classifying Recycled Glass Particles

An innovative recycling plant turns glass containers into profitable products by shattering the glass, grinding it into particles that have no sharp edges, and then separating the particles into five size fractions at the rate of 3 tons/h using a VIBROSCREEN classifier (*see page 6*). The top screen scalps pieces of glass  $\geq 0.51$  in. (13 mm), along with residual rubbish, and the other screens sequentially separate out glass particles  $\geq 0.39$  in. (10 mm),  $\geq 0.24$  in. (6 mm) and  $\geq 0.12$  in. (3 mm). Dust is collected at the bottom.



### Classifying Abrasive Granules

A manufacturer of ferrotitanium, an abrasive additive for steel, overcame the capacity limitation and wear problems of an existing mild steel, 48 in. dia (1220 mm dia) unit, with a stainless steel, 60 in. dia (1520 mm dia) two-deck VIBROSCREEN classifier (*see page 6*) that removes oversize particles at the discharge spout of the upper screen, on-size particles at the spout of the lower screen, and undersize particles from the base of the chamber at the rate of 1200 to 1500 lb/h (544 to 680 kg/h).



### Sifting Granular Flour

A dried pasta producer improved capacity and consistency by installing a VIBROSCREEN 48 in. (1220 mm) diameter screener in-line with a pneumatic conveying system (*see page 7*). Durum granular flour containing 1 to 4% of regrind is metered by a rotary airlock valve into the screener at the rate of 2000 lb/h (907 kg/h) where it is sifted to 0.0059 to 0.0234 in. (150 to 595 microns). On-size material is discharged through a second rotary airlock valve into a pneumatic line that feeds storage tanks.



### Scalping and De-dusting Compounds

The world's largest independent compounder of celluloseics gained 84 sq ft (7.8 sq m) of floor space by replacing six 2 ft x 7 ft (610 x 2134 mm) rectangular screeners, with two-deck 24 in. (610 mm) diameter VIBROSCREEN separators (*see page 6*). The upper deck screens oversize pellets, the lower deck captures on-size pellets (typically 0.125 in. [3 mm] in diameter) and dust falls onto a sloping lower pan that discharges through a spout at rates to 2000 lb/h (907 kg/h).



### Sifting Ground Coffee

A leading coffee producer installed 28 VIBROSCREEN separators to remove chaff and oversize particles from ground coffee prior to packaging. Each 40 in. (1016 mm) diameter screener is equipped with an 8 mesh upper screen and a 10 mesh lower screen, and has a capacity of 3500 lbs/h (1588 kg/h), allowing the plant to screen and package coffee at a rate of 98,000 lb/h (44,452 kg/h). The screeners meet sanitary requirements, and are equipped with quick-disconnect clamp ring assemblies.

# Specialized Screeners



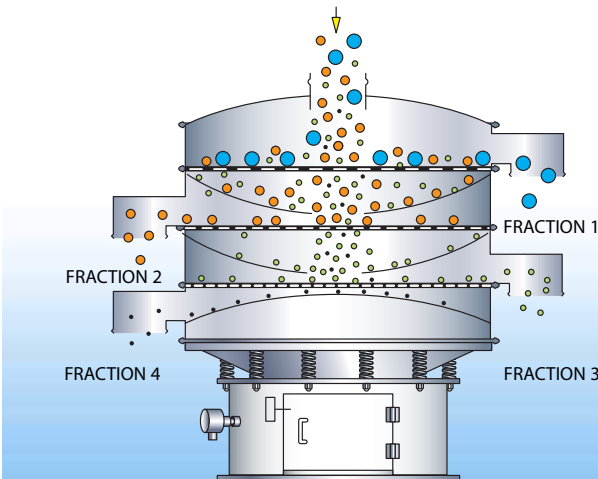
## Multi-Deck Classifiers

Separate a feed stream into precise segments

Kason VIBROSCREEN® separators with multiple screening decks (three-deck shown) are generally utilized for classifying of particles in three to five precise particle sizes from 2 in. (5 cm) to 500 mesh (25 microns). Available with a variety of anti-blinding devices, they handle dry, moist, lumpy, stringy and otherwise difficult-to-handle bulk material on a batch or continuous basis. They are available constructed of stainless steel to industrial or sanitary standards, in diameters from 18 to 100 in. (460 to 2540 mm). Options are available for rapid screen changes, in-place cleaning and fast, thorough wash down.

### Options:

- AIR-LIFT™ quick screen change system (see page 8)
- “Clamshell” quick screen change system (see page 8)
- Clean-In-Place (C.I.P.) design, construction and finish (see page 8)
- Ball Tray anti-blinding device (see page 9)
- KLEEN-SCREEN™ ring anti-blinding device (see page 9)
- Auto-lube automatic lubrication system for gyratory motors (see page 9)
- See-through dust cover



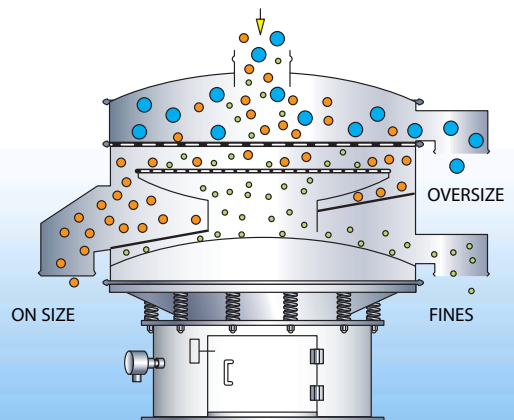
## “A.D.” KASCADE™ High-Capacity Classifiers

Scalp and de-dust at ultra-high rates

VIBROSCREEN “A.D.” KASCADE High-Capacity Classifiers employ a coarse upper screen to scalp oversize particles that exit through a discharge spout. A fine-mesh lower KASCADE screen of smaller diameter allows on-size particles to cascade over the screen’s entire periphery into a 360° annular gap (instead of a single discharge spout), and drop freely onto a steeply sloping pan, exiting through a large discharge spout at rates to 70 tons/h. Dust passes through the KASCADE screen, through a center bypass, onto a domed base and through a discharge spout. Available from 60 to 100 in. (1530 to 2540 mm) in diameter.

### Options:

- AIR-LIFT quick screen change system (see page 8)
- “Clamshell” quick screen change system (see page 8)
- Clean-In-Place (C.I.P.) design, construction and finish (see page 8)
- Ball tray anti-blinding device (see page 9)
- KLEEN-SCREEN™ ring anti-blinding device (see page 9)
- Auto-lube automatic lubrication system for gyratory motors (see page 9)
- See-through dust cover





**"I.R.C." KASCADE™ High-Capacity Sifters**  
**Boost scalping capacity 60 to 160%**

VIBROSCREEN® "I.R.C." KASCADE Sifters offer 60 to 160% higher capacity than single-deck sifters of equal diameter. Required as new when floor space is limited, or as retrofits to undercut cost of new equipment, each KASCADE deck features a 360° annular gap at its periphery and contains a screen whose mesh equals that of the conventional screen below it. Excess material cascades over the periphery of the upper screen, into the center of the lower screen for final separation. Up to three "I.R.C." KASCADE decks can be fitted to a conventional sifter, achieving rates in excess of 150 tons/h. Available from 48 to 100 in. (1200 to 2540 mm) in diameter.

**Options:**

- AIR-LIFT™ quick screen change system (see page 8)
- "Clamshell" quick screen change system (see page 8)
- Clean-In-Place (C.I.P.) design, construction and finish (see page 8)
- Ball tray anti-blinding device (see page 9)
- KLEEN-SCREEN™ ring anti-blinding device (see page 9)
- KASONIC® Ultrasonic anti-blinding device for fine powders (see page 9)
- Design, construction and finish to FDA, 3-A, BISSC, CE and other sanitary standards (see page 8)
- See-through dust cover

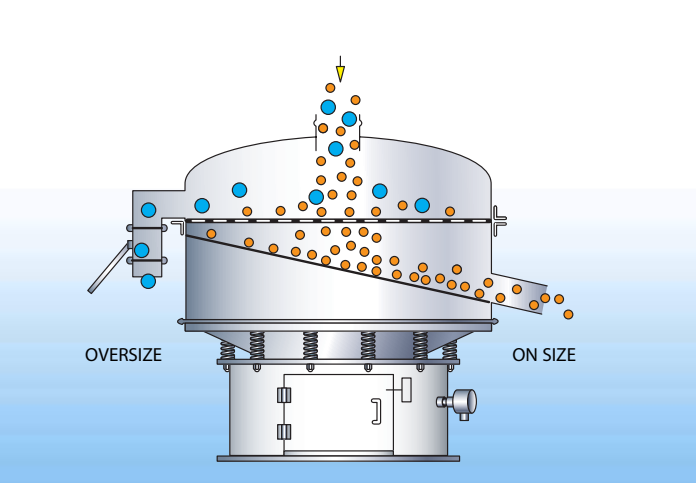
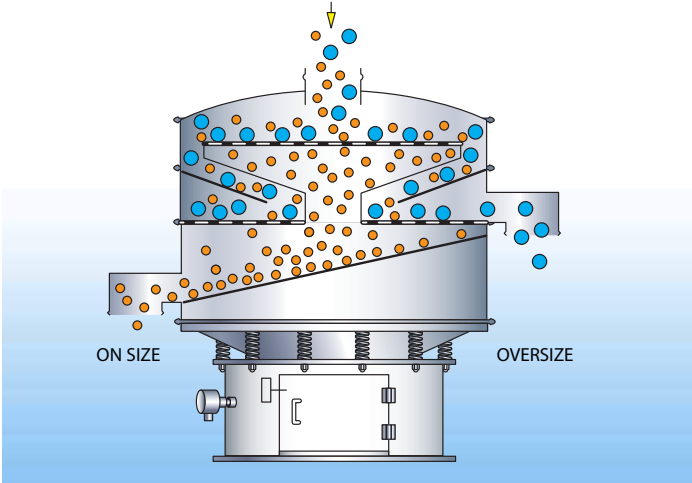


**PNEUMATI-SIFTER™**  
**Scalp in-line with pneumatic conveying systems gently, at high rates**

PNEUMATI-SIFTER separators scalp dry materials in-line with dilute-phase pneumatic conveying systems at high rates, removing oversize particles and foreign materials from plastic resin, flour, starch, sugar and numerous food and chemical products. These pressurized systems eliminate the need for rotary air locks, and are ideal for loading/unloading of trucks or rail cars, or conveying materials between process or storage areas. They are available in diameters from 24 to 60 in. (610 to 1525 mm) to handle up to 30,000 lbs/h (13,600 kg/h). PNEUMATI-SIFTER FLO-THRU™ dual screen models handle up to 60,000 lbs/h (27,200 kg/h).

**Options:**

- AIR-LIFT quick screen change system (see page 8)
- "Clamshell" quick screen change system (see page 8)
- Clean-In-Place (C.I.P.) design, construction and finish (see page 8)
- Design, construction and finish to pharmaceutical specifications (see page 8)
- Ball tray anti-blinding device (see page 9)
- Auto-lube automatic lubrication system for gyratory motors (see page 9)
- Design, construction and finish to FDA, 3-A, BISSC, CE and other sanitary standards (see page 8)



## Designs for Quick Screen Changes, Inspection

Kason offers two innovative ways to separate the frame sections of any circular vibratory screener, allowing screen changes, interior cleaning and inspection in less time and with greater convenience than possible with competitive systems.

One entire raise/lower cycle including disconnection and reconnection of the frames, requires only several minutes, reducing downtime and allowing one operator to perform what was previously a two-person task, depending on screen diameter.

Both systems can be used on screeners having single- or multiple-decks and screens with or without center holes and/or anti-blinding devices.

### AIR-LIFT™ Design



SHOWN WITH  
OPTIONAL  
AIR CYLINDER  
COVERS

Kason's AIR-LIFT design consists of two vertically-mounted air cylinders located on opposing sides of the screener and affixed to mounting brackets on the lower and upper screening frames. To raise the upper frame, band clamps or quick-disconnect clamps connecting the frames are removed/released and a remote air valve is actuated.

A safety lock-out secures the frames in the open or closed position when the upper screener housing is raised or lowered, and safety bars prevent the housing from accidentally descending while in a fully-raised position during screen changes or wash down.

The AIR-LIFT device is available on any new Kason screener, and can be retrofit to any circular vibratory screener of any make or model from 40 to 100 in. (1016 to 2540 mm) in diameter.

### "Clamshell" Design



Kason's "Clamshell" design consists of a hinged frame section that is released from the screen frame below it by removing band clamps or releasing quick-disconnect clamps. The upper frame is raised and held in an open position by gas pistons, allowing rapid screen changes and easy, thorough wash down of all interior surfaces.

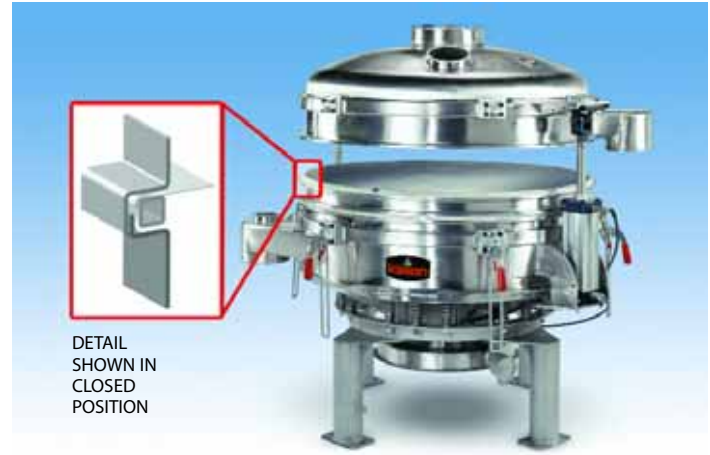
The "Clamshell" option is available on VIBROSCREEN® separators of 30 to 60 in. (760 to 1525 mm) in diameter.

## Designs for Sanitary Applications

All VIBROSCREEN® circular vibratory screeners from 18 to 100 in. (460 to 2540 mm) in diameter are available designed, constructed and finished to industrial, food, dairy and pharmaceutical standards including FDA, 3-A, USDA, BISSC and others. Sanitary screeners generally incorporate rounded corners, continuous ground and polished welds, domed lids, quick-release "U" clamps, and 4-post open bases with stainless steel motor enclosures allowing thorough wash down of the underside and plant floor.

In addition, these screeners can be configured with AIR-LIFT or "Clamshell" devices for quick screen changes and wash down (described at left), and with gap-free screen frames and/or Clean-In-Place cleaning nozzles as follows:

### Gap-Free Design



DETAIL  
SHOWN IN  
CLOSED  
POSITION

This Kason innovation features an interlocking flange between screen frames that protrudes from the external side of the frame to fully envelop the circular support ring of the internal screens. This enables the mesh of the screen to fully extend to the walls of the frame, eliminating the gap between the screen ring and frame wall of conventional screeners where material typically collects. The gap-free design dramatically reduces the possibility of contamination due to bacteria growth, while improving sanitizing efficiency, making it suitable for pharmaceutical, food and dairy applications as well as chemical applications where cross-contamination is a concern.

Screens are mounted to support rings using FDA-approved epoxy and sealed using FDA-approved gasket material. The wire mesh screening material is offered in 304, 316 and "magnetic" 400-series stainless steel that, if broken, can be captured by a downstream magnet.

### Clean-In-Place (C.I.P.) design



VIBROSCREEN C.I.P. separators employ spray nozzles that emit cleaning solutions, rinsing solutions and/or steam for sanitizing the unit's interior without the need to open or disassemble the unit. Perforated, ball-shaped, stainless steel nozzles at the end of stainless steel pipes extend outward from the screen deck frames and upward from the top surfaces. Quick-disconnect clamps allow two-minute disassembly of water supply hoses, Clean-In-Place spray head fittings,

and screener sections for screen changes. Available in diameters from 18 to 60 in. (460 to 1525 mm).



## Efficiency Enhancements



### **Ball Tray Anti-Blinding Device**

The Kason Ball Tray anti-blinding device utilizes the multi-plane inertial vibration of the screener and bouncing elastomeric balls to prevent screen blinding. The device consists of two screens spaced sufficiently apart to allow captive elastomeric balls to bounce between the upper “operating” screen and the lower coarse-mesh “ball screen” for the purpose of dislodging near-size, dry materials lodged in the apertures of the upper screen.



### **Four-Finger Flex Wiper Anti-Blinding Device**

The Four-Finger Flex Wiper anti-blinding device employs four radial arms of durable neoprene to prevent screen blinding of the operating screen by slimes, pitch and other soft, gummy materials. Multi-plane inertial vibration of the screener causes the wipers to rotate continuously, enhancing the flow of material through apertures of the screen. Specially designed units are available for exceptionally difficult-to-screen products.



### **KASONIC® Ultrasonic Anti-Blinding Device**

The patented KASONIC anti-blinding device allows sifting as fine as 500 mesh (25 microns) on any circular vibratory screener of 18 to 72 in. (460 to 1829 mm) diameter. It transmits ultrasonic frequencies (adjustable) to the screen, adjusting power automatically according to screen loads. It operates with standard screens, reducing cost, and is supported independent of the screen, prolonging screen life.



### **KLEEN-SCREEN™ Ring Anti-Blinding Assembly**

Kason KLEEN-SCREEN Rings are effective at preventing fibrous, stringy and sticky materials from blinding the screen. Multi-plane inertial vibration of the screener causes plastic rings to move continuously across a perforated stainless steel plate, shearing fibers and scraping away gummy materials. Because they are hollow, the rings promote product flow over the entire screen surface, maximizing screening efficiency.



### **AUTO-LUBE Auto Lubrication System**

This system pressure-feeds lubricant into bearings of gyratory screener motors for 6 to 12 months between reservoir replacements. Continuous lubricant flow flushes the race of wear materials, broken-down lubricant and contaminants, and minimizes dead spots of unused lubricant. Optional on VIBROSCREEN® separators ≥48 in. (1220 mm) in diameter. Can be retrofit in one hour to any circular vibratory screener.



### **E-Z FORCE™ Weight Adjustment System**

The E-Z FORCE weight adjustment system allows precise control of material flow patterns (see page 2, top right). The high torque, high-efficiency, imbalanced weight gyratory motor, which is rigidly mounted to the screening assembly, has a double extension shaft fitted at each end with variable eccentric weights. Weights can be adjusted in several minutes by one operator, allowing maximum efficiency for each screening application.

# Mesh\*/Micron/Inch Conversions

U.S. SIEVE			MARKET GRADE				MILL GRADE				TENSILE BOLTING CLOTH						
SIEVE NO.	OPENING SIZE INCHES*	MICRONS	MESH SIZE	WIRE SIZE (in.)	OPENING SIZE INCHES*	MICRONS	% OPEN AREA	MESH SIZE	WIRE SIZE (in.)	OPENING SIZE INCHES*	MICRONS	% OPEN AREA	MESH SIZE	WIRE SIZE (in.)	OPENING SIZE INCHES*	MICRONS	% OPEN AREA
1 in.	1.0000	25400															
7/8 in.	0.8750	22400															
3/4 in.	0.7500	19050															
5/8 in.	0.6250	16000															
1/2 in.	0.5000	12500															
7/16 in.	0.4380	11200	2	0.0630	0.4370	11100	76.4	2	0.054	0.446	11330	79.6					
3/8 in.	0.3750	9500															
5/16 in.	0.3120	8000	3	0.0540	0.2790	7090	70.1	3	0.041	0.292	7420	76.7					
1/4 in.	0.2500	6300															
3 1/2	0.2230	5600						4	0.035	0.215	5460	74.0					
4	0.1870	4750	4	0.0475	0.2023	5138	65.9	4	0.032	0.168	4270	70.6					
			4	0.0630	0.1870	4750	56.0	5	0.028	0.139	3530	69.6					
			5	0.0410	0.1590	4040	63.2	6	0.028	0.115	2920	64.8					
5	0.1570	4000	6	0.0350	0.1318	3350	62.7	7	0.025	0.100	2540	64.0					
6	0.1320	3350	7	0.0290	0.1080	2740	57.2	8	0.023	0.088	2240	62.8					
7	0.1110	2800	8	0.0280	0.0964	2463	60.2	9	0.020	0.080	2030	64.0					
8	0.0940	2360															
10	0.0790	2000	10	0.0258	0.0742	1910	56.2										
			11	0.0180	0.0730	1850	64.5										
12	0.0660	1700	12	0.0230	0.0603	1530	51.8	12	0.018	0.065	1650	60.8	14	0.0090	0.0624	1580	76.4
14	0.0550	1400	14	0.0204	0.0510	1310	51.0	14	0.017	0.054	1370	57.2	16	0.0090	0.0535	1360	73.3
16	0.0469	1190	16	0.0181	0.0445	1130	50.7	16	0.016	0.465	1180	55.4	18	0.0090	0.0466	1180	70.2
			18	0.0173	0.0386	979	48.3	18	0.015	0.406	1030	53.4	20	0.0090	0.0410	1040	67.2
18	0.0394	1000	20	0.0162	0.0340	864	46.2	20	0.014	0.036	910	51.8	22	0.0075	0.0380	964	69.7
			20	0.0140	0.0277	704	44.2	22	0.014	0.032	810	49.6	24	0.0075	0.0342	868	67.2
20	0.0331	850						24	0.013	0.029	730	47.4	26	0.0075	0.0310	786	64.8
25	0.0278	710	24	0.0118	0.0277	704	44.2	26	0.011	0.028	700	51.1	28	0.0075	0.0282	716	62.4
								28	0.010	0.026	650	51.8	30	0.0065	0.0268	681	64.8
30	0.0234	600						30	0.010	0.024	605	51.0	32	0.0065	0.0248	630	62.7
													34	0.0065	0.0229	582	60.7
								32	0.009	0.022	570	50.9	36	0.0065	0.0213	541	58.7
								34	0.009	0.020	520	48.1					
35	0.0197	500	30	0.0130	0.0203	516	37.1	36	0.009	0.019	480	45.8	38	0.0065	0.0198	503	56.7
								38	0.009	0.018	450	45.8	40	0.0065	0.0185	470	54.8
													42	0.0055	0.0183	465	59.1
40	0.0165	425	35	0.0118	0.0176	445	37.9	40	0.009	0.017	420	43.6	44	0.0055	0.0172	437	57.5
													46	0.0055	0.0162	411	55.8
													48	0.0055	0.0153	388	54.2
			40	0.0104	0.0150	381	36.0	45	0.008	0.014	360	40.8	50	0.0055	0.0145	368	52.5
45	0.0139	355											52	0.0055	0.0137	348	51.0
													54	0.0055	0.0130	330	49.4
													58	0.0045	0.0127	323	54.6
													60	0.0045	0.0122	310	53.3
50	0.0117	300						50	0.008	0.013	320	39.1	62	0.0045	0.0116	295	51.7
													64	0.0045	0.0111	281	50.7
			50	0.0090	0.0110	279	30.3	55	0.007	0.011	280	37.9	70	0.0037	0.0106	269	54.9
60	0.0098	250						60	0.007	0.010	260	37.5	72	0.0037	0.0102	259	53.8
													74	0.0037	0.0098	249	52.7
													76	0.0037	0.0095	241	51.7
													78	0.0037	0.0091	231	50.6
													80	0.0037	0.0088	224	49.6
													84	0.0035	0.0084	213	49.8
													88	0.0035	0.0079	201	47.9
													90	0.0035	0.0076	193	46.9
													94	0.0035	0.0071	180	45.0
													105	0.0030	0.0065	165	46.9
													120	0.0025	0.0058	147	48.8
													145	0.0022	0.0047	119	46.4
													165	0.0019	0.0042	107	47.1
140	0.0041	106															
170	0.0035	90															
200	0.0029	75	200	0.0021	0.0029	74	33.6										
230	0.0025	63	250	0.0016	0.0024	61	36.0										
270	0.0021	53															
325	0.0017	45	325	0.0014	0.0017	43	30.5										
400	0.0015	38	400	0.0010	0.0015	38	36.0										
500	0.0010	25	500	0.0010	0.0010	25	25.0										
635	0.0008	20	635	0.0008	0.0008	20	25.8										

\*Mesh indicates the number of apertures (openings) in one linear inch. (25.4 mm) of screen.

## Test Laboratory

The Kason test laboratory controls and monitors all processing variables, optimizing equipment configurations according to customers' materials and application parameters. Kason can evaluate the effect of controlled variations in flow rates, deck designs, temperatures, mesh sizes and a variety of screening accessories offered. Laboratory testing of customer-supplied materials is held in strict confidence and is offered without charge.

VIBROSCREEN® circular vibratory screeners include units with single and multiple decks for measuring sifting, scalping, classifying, de-dusting and dewatering performance in both gravity-fed and vacuum/pressurized applications.

All models of laboratory screeners are quick-clean designs, allowing easy access to interior components for rapid inspection, disassembly, screen changes and cleaning.

A full complement of hoppers, mechanical and pneumatic conveyors and flow promotion devices enables Kason lab technicians to replicate virtually any process layout and production scenario, including running of customer-supplied materials at elevated temperatures.

In addition to providing free testing services for Kason customers prior to equipment fabrication, the test lab is utilized to test-run completed equipment and to measure performance characteristics of new equipment designs.

Kason also provides screeners for on-site trials at no charge to customers unable to ship materials for testing, and offers the equipment for pilot plant testing and other long-term trials on a rental basis.



## Genuine Kason Parts

### ***Maximize the performance of any circular vibratory screener***

Kason replacement parts meet or exceed the performance of aftermarket parts and parts of other OEMs, maximizing service life and uptime while minimizing cost.

Exact-fit screens for any make or model of circular vibratory screener include weld-mount screens and food-grade epoxy-mount sanitary screens in diameters from 18 to 100 in. (460 to 2540 mm) in meshes from 2 in. (50 mm) clear opening down to 500 mesh (25 microns). All are available with optional center holes, radial arm braces

or back-up screens to prolong screen life, and anti-blinding devices such as ball tray assemblies, KLEEN-SCREEN™ rings and ultrasonic devices. Other replacement parts available include motors, grease cartridges and auto-lubrication systems, gaskets, flexible connectors, clamp ring assemblies, frames, dust covers, circular bases, motor support tables and support springs.

Kason's premium quality parts and service are available to you for quick shipment at competitive prices. For a quotation call 973-467-8140 or inquire on-line. Ask about Kason's "blanket order" discount pricing on replacement screens.





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