

# SIFTING, SCREENING AND PROCESSING EQUIPMENT

## FOR BULK SOLID MATERIALS AND SLURRIES



An overview of Vibratory Screeners, Centrifugal Sifters, Static Sieves, Fluid Bed Dryers/Coolers/ Moisturizers, Bulk Solid Mixers/Blenders, Size Reduction Equipment and Processing Systems









# Why Kason? Over 50 years of experience, knowledge, innovation and adherence to quality.

Kason Corporation is an innovative and sustainable partner for the world's top pharmaceutical, foodservice, chemical, plastic, energy, mineral, aerospace, and defense industry customers. We are proud to provide solutions across the globe that customers can depend on, developing decades-long relationships. As a leader and dominant supplier in the customizable sifting and drying industry, no one understands and anticipates customer needs like Kason. Only Kason offers the widest selection of screening, drying, cooling and processing equipment in the world, complete with complimentary testing and on-site trials. Only Kason provides a variety of screens for specific applications whereas our competitors only offer one type of screen for all applications. And unlike our competitors, only Kason provides the highest quality, proactive, solution specific equipment, tailored specifically to our customers' applications. Our approach to screening and processing equipment is constantly shifting to reflect the emergent

needs of existing and developing markets that increase performance and eliminate downtime. Our dedicated support team truly listens and finds out what is essential to your team and your applications—now and into the future. From there, our support team works in tandem with our experienced craftsmen to innovate and engineer endless customizable possibilities that help support and advance your unique growth opportunities.

#### We are consistent.

From our sales team to the manufacturing floor, every Kason product is engineered and inspected to ensure top quality and that it adheres to the most stringent of standards. As proven through our laboratory testing, only Kason products are guaranteed to outlast the competition so you can outlast your competition. Your customers depend on you. **Depend on Kason**.

#### THE KASON ADVANTAGE: DYNAMIC. DEPENDABLE. CUSTOMIZABLE.

Proven success in providing screening and processing solutions.







**Kason VIBROSCREEN circular vibratory screeners** (also called separators and sieves) separate bulk solid materials from solids and solids-laden slurries using multi-pane, inertial vibration that causes particles to pass through apertures in the screen or to travel across the screen surface in controlled pathways.

#### **Typical Applications:**

#### Features and Benefits Include:

- Sifting/Screening
- Scalping
- Classifying
- De-Dusting
- De-Lumping
- Dewatering

- Sizes ranging from 18 inches to 100 inches (460 mm to 2540 mm) in diameter
- Enclosed dust-free operation
- Compact design
- Low power requirements
- Single or multiple screening decks to separate particles in one to five predetermined sizes ranging from 2 inches (50 mm) to 500 mesh (25 microns)
- Capacities ranging from several pounds/kilograms to more than 70 metric tons per hour
- All offered as gravity-fed or in-line pneumatic models for batch or continuous operation
- Available to industrial, food, dairy and pharmaceutical standards



## **VIBROSCREEN** Typical Configurations



#### Single-Deck Vibratory Screener

### Satisfies general screening requirements at low cost

Kason single-deck screeners separate solid particles ranging from 5 cm to 25 microns (500 mesh) in size from dry or moist bulk solid material or solids-laden slurries, on a batch or continuous basis. Multi-plane inertial vibration maximizes throughput and gentle product handling. Offered in diameters from 18 to 100 in. (460 to 2540 mm) and constructed 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.

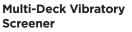


#### FLO-THRU Low-Profile, High-Capacity Scalper

#### Separates at high rates in low-headroom areas

FLO-THRU VIBROSCREEN separators employ two imbalancedweight gyratory motors mounted on the exterior of the unit (instead of one motor positioned beneath the screening chamber), reducing minimum height requirements significantly. This enables the bottom outlet to be located directly below the top inlet, allowing material to fall vertically through the screen at high rates. Available in diameters from 18 to 84 in. (460 to 2135 mm). The external location of gyratory motors also makes FLO-THRU models suitable for high temperature applications.





## Sifts, scalps and/or classifies into precise segments

Kason VIBROSCREEN separators with single or multiple decks (shown) yield up to five precise particle classifications from 5 cm to 25 microns (500 mesh). Available with a variety of antiblinding 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 available for rapid screen changes, in-place cleaning and fast, thorough wash down.



#### Vibratory Screener with Clamshell Lid

## Allows rapid screen changes, easy wash down

All VIBROSCREEN vibratory screeners from 30 to 84 in. (760 to 2135 mm) in both single- and multi-deck configurations are available with Kason's exclusive "Clamshell" option. The hinged lid and/or frames are released via quick-disconnect clamps and held in an open position by gas pistons, allowing rapid screen changes, inspection and easy, thorough wash down of all interior surfaces. The Clamshell Lid accepts screens with or without center tensioning construction, and accommodates screen decks with or without antibinding devices.



#### "Air-Lift" Quick Screen Change System

### Allows quick, easy cleaning, screen changes, inspection

The Kason Air-Lift system allows one operator to gain rapid access to the interior of any circular vibratory screener for screen changing, cleaning or inspection. Two vertically-mounted air cylinders raise/lower the upper frame, which is secured with a safety lock-out. Eliminates potential worker injury, oil leakage, frame cocking and manual requirements associated with hydraulic systems that protrude from screener bases. Available for any make or model of circular vibratory screener from 48 to 84 in. (1220 to 2135 mm) in diameter.



#### Ultra-Sanitary, Gap-Free Screener

## Meets cGMP, 3-A, USDA and FDA standards

The VIBROSCREEN Ultra-Sanitary Screener features gap-free screen frames, quick-release "U" clamps, radius corners, a domed lid, an Air-Lift device to raise the frames. continuous ground and polished welds, a crevice-free interior, and a washable underside. The external. interlocking flange configuration of the screen frame fully envelops the support ring of the screen, allowing the screen's wire mesh to extend to the interior walls of the frame. Eliminates the gap between the screen ring and frame wall of conventional screeners where material typically collects.



#### Pharmaceutical/Sanitary CIP Sifter

## Sanitizes quickly, thoroughly, using CIP spray heads

Kason's VIBROSCREEN sifter for pharmaceutical/sanitary applications features all-stainless construction finished to cGMP, USDA, FDA, 3-A, and BISSC sanitary standards. Quick-disconnect clamps allow two-minute disassembly of all water supply hoses, clean-inplace (CIP) spray head fittings, and screen frame sections for inspection or screen changes. The screen frame's interlocking flange eliminates the gap between the screen ring and frame wall of conventional screeners where material would otherwise collect. Available in diameters from 18 to 60 in. (460 to 1525 mm).



#### Ultra-Sanitary Low-Profile Batch Screener

## Meets cGMP, 3-A, USDA and FDA standards

VIBROSCREEN Low-Profile, Ultra-Sanitary Batch Sifters in diameters of 18, 24 and 30 in. (460, 610 and 760 mm) scalp oversize particles down to 25 microns (500 mesh) from bulk materials. They feature gap-free screen frames, quickdisconnect vertical clamps and allstainless construction. The screen frame's interlocking flange fully envelops the support ring of the screen, allowing the wire mesh of the screen to extend to the interior walls of the frame, eliminating the gap between the screen ring and frame wall of conventional screeners where material would otherwise collect



## **VIBROSCREEN** Typical Configurations



#### **High-Capacity Classier**

Scalps and de-dusts at ultra-high rates

High-Capacity Classiers employ a coarse upper screen to scalp, and a fine-mesh lower screen to de-dust. On-size material is discharged at high rates through a 360° annular gap (instead of a discharge spout) into the unit's outer frame, eliminating a material choke point Material drops freely onto a steeply sloping pan and exits through a large discharge spout at rates up to 70 tons/h (64 tonnes/h). Available in diameters from 60 to 100 in (1525 to 2540 mm). Widely used for removing oversize particles and fines from plastic pellets, grains, sugar, salt, fertilizer and other materials at ultra-high rates.



#### **Portable Batch Sifter**

## Scalps material loaded into containers, process equipment and storage vessels

This lightweight Batch Sifter variant of Kason's FLO-THRU VIBROSCREEN separator line scalps oversize particles from small batches of bulk material being loaded into drums, blenders, other process equipment and storage vessels. Offered in diameters of 18, 24 and 30 in. (460, 610 and 760 mm), with a single imbalanced-weight gyratory motor of ample capacity for typical batch requirements. Constructed of stainless steel finished to worldwide standards for industrial, food, dairy or pharmaceutical applications. Available as portable units or as mobile units on caster-mounted stands.

#### "KASCADE" Internal Recycle High-Capacity Screener

#### Boosts capacity 60 to 160%

"KASCADE" Internal Recycle screening decks increase capacity 60 to 160% over screeners of equivalent 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. Excess material cascades over the periphery of the upper screen, into a bowl shaped tray that redirects it into the center of the lower screen for final separation. Up to three conventional screens can be fitted with KASCADE Internal Recycle decks, achieving rates to 100 tons/h (91 tonnes/h).



#### PNEUMATI-SIFTER

#### High-Capacity Screener Scalps in-line with pneumatic conveying systems gently, at high rates

PNEUMATI-SIFTER VIBROSCREEN 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 are ideal for loading/unloading trucks or rail cars, or conveying materials between process or storage areas. Available in diameters from 24 to 60 in. (610 to 1525 mm) to handle up to 30,000 lbs/h (13,600 kg/h).





#### 3D-ReKlaimer Metal Powder Recovery System

#### Ultrasonic screening system confirms the quality of powders prior to reuse in 3D printers

3D-ReKlaimer Metal Powder Recovery System reconditions AM powders for reuse, reducing waste and lowering costs while protecting workers from dust. The unit can accept bottles of powder or is offered with a vacuum system that transfers powders from the build chamber to the 3D-ReKlaimer. Screened powders can be discharged into bottles, or transferred pneumatically to the 3D printer. The 24 in. (610 mm) diameter VIBROSCREEN vibratory screener with Kasonic anti-blinding allows sifting down to 25 µm/500 mesh. The system can be purged with inert gas gas to isolate contaminationsensitive powders from ambient air and moisture.



#### EXTERNAL "KASCADE" High-Capacity Screener

## Discharges oversize particles 360° around screen's periphery

EXTERNAL "KASCADE" models screen wet or dry bulk materials containing a large percentage of oversize fractions at high rates. On-size particles pass through the screen to a lower discharge chute, while oversize particles flow outward in a spiral pattern, cascading at any point over the screen's periphery into a trough to a high capacity discharge spout. Eliminates overs build up around screen circumference and restricted discharge through conventional 15° to 25° spout openings. Available on new 40 to 72 in. (1016 to 1830 mm) diameter screeners, and as retrofit kit



### Removes undersize and low bulk density materials

Vibratory screening removes fines, while airflow removes low bulk density materials such as: chaff from grain, wood fibers/flour from chips, and strands/angel hair from plastic pellets/ regrind. On-size material flows through a discharge spout at the screen's periphery as heavier fines pass through the screen and a lower spout. Air drawn into the base of the chamber flows upward. drawing low density materials into an airstream vented to a cyclone and/ or dust collector. Available in 24 to 100 in. (610 to 2540 mm) diameters. Optional scalping deck.



#### scalps bulk material whil collecting dust

**VIBROSCREEN** Circular Vibratory Bag Dump Screeners scalp bag scraps and other oversize materials from manually dumped bulk materials while protecting the operator and plant environment against dust contamination. Ambient air and dust from dumping activities is drawn through dual cartridge filters that derive vacuum from a top-mounted exhaust fan. Dust accumulated on the filters' exterior surfaces is dislodged by pulse jet nozzles that alternately release short blasts of air on a timed cycle. Available in 24, 30, 40 and 48 in. (610, 760, 1016 and 1220 mm) diameters, to 3-A, FDA, BISSC and other standards.





#### REPLACEMENT PARTS FOR CIRCULAR SCREENERS

Kason offers an extensive inventory of exactfit parts for round vibratory screeners of all makes and models including:

- Anti-Blinding Devices
- Auto-Lubrication Systems
- Bearings
- Circular Bases
- Clamp Ring Assemblies
- Dust Covers
- Flexible Connectors
- Frames
- Gaskets
- Grease Cartridges
- Motor Support Tables
- Motors
- Rubber Wiper Blades
- Seal Rings
- Support Springs
- Topside wipers (brushes or elastomeric blades)

Best of all, Kason's premium quality parts and screens are available to you for quick shipment at highly competitive prices.



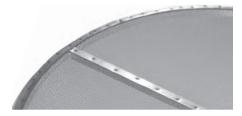
Upgrade any make or model circular vibratory screener with our K Series exact-fit replacement screens. Choose from weldmount screens and food-grade epoxy-mount sanitary screens in diameters from 18" to 100" (460mm to 2540mm) and with meshes from 2" (25 mm) clear opening down to 500 mesh (25 microns). 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 ring assemblies, topside wiper blade and brush assemblies, and ultrasonic devices.





#### K-DURA High Performance Standard Screens

Satisfy a broad range of general purpose screening applications reliably and efficiently.



K-STRONG High Strength Supported Screens

Handle high material loadings and dense materials on fine mesh screens; support larger diameter screens.



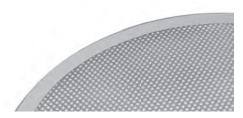
K-KLEAN High Strength Self Cleaning Screens

Elastomeric balls bouncing between two screens dislodge particles blinding the upper screen.



K-SANI High Strength Sanitary Screens

Meet stringent sanitary requirements including 3-A, FDA, USDA and cGMP.



K-PERF High Grade Perforated Screens

Minimize passage of long particles and/or outlast the most durable screen mesh.



## **CENTRI-SIFTER** Centrifugal Sifters and Separators

#### Kason CENTRI-SIFTER

centrifugal sifters are versatile, high capacity, compact and economical. They are used for screening a wide variety of powders or granular materials, including chemicals, plastics and resins, foods, dairy products, pharmaceuticals and biologicals, at high rates. This range of equipment is the ideal choice for continuous scalping of dry or moist materials, even those that tend to ball or agglomerate as these units de-lump and deagglomerate while screening. **CENTRI-SIFTERS** are also extremely effective as liquid/ solids separators.

#### **Typical Applications:**

- Sifting/Screening
- Scalping
- Separating
- De-lumping
- De-watering
- De-agglomerating



#### Features and Benefits Include:

- Dust-free, sanitary operation. Approved for use by FDA, BISCC, 3-A and other US and international standards
- Quiet, vibration-free operation
- One- to two-minute screen changes, depending on model
- Easy clean-out
- Double seal outboard bearings
- Rapid sieving action

- Heavy-duty construction for batch or continuous operation
- Compact design
- Low power requirements
- Integral cleaning/inspection door(s)
- Many sizes in single or twin models available, including belt-driven units and direct-driven units with motors ranging from 1 hp (.75 kW) to 10 hp (7.5 kW)



#### **CENTRI-SIFTER Original Equipment Replacement Parts**

#### Maximize the performance of any centrifugal screener

Choose from an extensive inventory of standard parts including gravity-fed, in-line pneumatic, direct-driven and belt-driven configurations. Separating media include nylon and other monofilament cloth, woven wire in selected metals, perforated plate screen, and wedgewire (ideal for heavy loads and/ or materials, and for in-line pneumatic applications). Also available for rapid shipment are motors, bearings, seal rings, gaskets and anti-blinding devices such as rubber wiper blades and brushes— all genuine Kason original equipment for unsurpassed performance.



Satisfy a broad range of general purpose screening applications reliably and efficiently using wire or synthetic screen mesh.



K-DURACYL Ultra Durable Screen Cylinders for Centrifugal Sifters

Satisfy the most demanding sifting applications with Heavy Duty Wedgewire and Perforated Plate Screen Cylinders.



## **CENTRI-SIFTER** Typical Configurations



#### **QUICK-CLEAN Sifter with 3-Bearing**

#### Supports shaft ends, handles heaviest loads

In addition to a motor-end bearing and an inboard bearing, threebearing QUICK-CLEAN centrifugal sifters (shown) position a bearing on the exterior side of the hinged end cover. When the end cover is opened, the bearing slides off of the shaft, which cantilevers on the inboard bearing, allowing rapid removal of the screen and paddle assembly. During operation, the shaft rides on both end bearings, providing vibration-free performance, at the highest speeds under the heaviest, imbalanced loads. Ideal for high capacity sifting, scalping, de-lumping and dewatering. Available to industrial. 3-A, FDA and BISSC sanitary standards.



#### **QUICK-CLEAN Sifter** with Cantilevered Shaft Allows rapid removal of components

QUICK-CLEAN centrifugal sifters feature cantilevered shafts that allow quick, tool-free removal of the cylindrical screen and the paddle assembly through a hinged end cover for cleaning, screen changes and inspection. Two-bearing models (shown) have one motorend bearing, and one inboard bearing adjacent to the material infeed chute (no bearing on the end cover). A large diameter shaft and wide spacing between bearings allow high-speed, vibration-free operation. This high-capacity model is available to industrial, 3-A, FDA and BISSC sanitary standards for applications requiring frequent screen changes or runs of multiple materials.





#### With integral feeder

The centrifugal sifter allows independent speed control of the feed screw and helical paddle assembly, allowing each to be adjusted, thus eliminating the need for a separate feeder (feed control device). On-size particles passing through the screen gravity discharge through a flanged outlet. Oversize particles are ejected through its open end to discharge through a secondary outlet for disposal or reprocessing. The cantilevered shaft allows easy access to internal components for rapid cleaning, inspection or screen changes with no tools. The unit is capable of sifting dry or moist chemical, mineral, food, dairy or pharmaceutical products at rates to 30 tons/h.



#### **QUICK-CLEAN Small Batch Pharmaceutical Sifter**

#### Disassembles rapidly for sanitizing manually or in an autoclave

Ultra Sanitary Mini centrifugal sifters disassemble rapidly for sanitizing manually or in an autoclave. In less than three minutes, the unit's cylindrical screen/spout assembly and feed screw/paddle assembly can be removed with three hand knobs. and the screening chamber with one bolt, providing access to sanitize all material contact surfaces. Cylindrical screens are offered in woven nylon. monofilament, wire mesh stainless steel, perforated plate and stainless steel wedge wire, to accommodate a wide range of pharmaceutical products. Finished to FDA, 3-A and other sanitary standards.



#### **PNEUMATI-SIFTER Centrifugal Sifter**

#### Screens in-line with pneumatic conveying systems at high rates

PNEUMATI-SIFTER centrifugal sifters de-lump and screen materials in-line with dilute-phase pneumatic conveying systems, eliminating the need for cyclone separators and rotary air locks. Rated for positive pressures to 14.7 psig (1 barg) or negative pressures to 14 in. (356 mm) Hg. Rotating helical paddles continuously propel on-size material through apertures in a horizontallyoriented cylindrical screen. Oversize particles are ejected from the end of the screen cylinder, through a manual or automatic valve into a sealed, quick-release receptacle.

#### **Centrifugal Sifter with Bag Dump Station**

#### Scalps materials dumped manually while containing dust

Centrifugal sifters are available with an integral bag dump station and dust collector to remove bag scraps and other oversize contaminants from manually dumped bulk materials while protecting the operator and plant environment against dust contamination. Configured for installation on a mezzanine, the system gravitydischarges into process equipment below. Dust is drawn onto cartridge filters that derive vacuum from a top-mounted exhaust fan, while pulse jet nozzles cause accumulated dust to fall into the screener.

#### **Centrifugal Dewatering** Screener

#### Extracts more moisture than conventional screeners

Adjustable, inclined centrifugal dewatering screeners feature a low-pitched internal feed auger that moves high loadings of material into and through the inclined screen cylinder. This allows the unit to be inclined up to 40° as rotating paddles impart centrifugal force, moving the material in a spiral path through the cylinder. The incline increases dwell time of material within the chamber and the drainage rate of free liquid, while causing moisture to remain near the downhill inlet, resulting in greater dryness of discharged solids.





### Designed for applications requiring

### exceptionally high capacities

These duplex units are available in a range of designs that double the capacity of single units. Twin models are equipped with a splitter to evenly divide the flow of incoming material, regardless of feed rate. Options include: Anti-blinding devices, Bag Dump Station, Clean-in-place (CIP), Twin centrifugal configuration, Design, construction and finish to FDA. 3-A, BISSC, EEC and other sanitary standards, Belt drive and Direct drive configurations.

## VIBRO-BED Circular Fluid Bed Dryers, Coolers, Moisturizers



Kason circular fluid bed dryers/coolers maintain an unprecedented level of operating efficiency across a wide range of model sizes from 18 to 84 inches (460 to 2540 mm) in diameter for laboratory and pilot plant testing as well as batch or highvolume in-line drying, cooling, or moisturizing of bulk foods, pharmaceuticals, and chemicals.



#### Circular Vibratory Fluid Bed Processor

### Dries, cools, moisturizes with greater efficiency at lower cost

This award-winning design increases efficiency, cuts cleaning time and reduces cost, compared with rectangular fluid bed drvers, coolers and moisturizers. The circular shape with auick-disconnect housing requires only one air inlet and outlet, and is inherently rigid, allowing materials of construction to be down-gauged, vibratory motors to be down-sized and associated components to be eliminated. Reductions in material, required welding, and labor, decrease cost especially when finished to sanitary standards. Models from 18 to 84 in (460 to 2135 mm) in diameter.



#### High Temperature Fluid Bed Batch Dryer

#### Dries small batches of bulk materials at temperatures to 600°F (315°C)

Kason's Fluid Bed Processing System is offered with an accessory package for batch drying at temperatures to 600°F (315°C). The self-contained system comes complete with a fluid bed processor, heater, blower, cyclone separator and controls on a caster-mounted frame, ready for connection to a material inlet/outlet and power source. The 18 in. (460 mm) diameter laboratory/pilot plant model shown dries up to one cu. ft. (28 liters) per cycle, after which a valve at the spout automatically opens to evacuate the material.



#### Fluid Bed Batch Systems for Labs and Pilot Plants

#### Dries, cools or moisturizes small volumes of bulk material efficiency, economically

Kason Circular Fluid Bed Processors in 18, 24 and 30 in. (460, 610 and 760 mm) diameters dry, cool or moisturize bulk foods. pharmaceuticals and chemicals in batch sizes typical of lab and pilot plant applications. Available for purchase or rental, they offer the same performance advantages as larger diameter models, allowing accurate projections of production scale efficiencies from test results. All components of the system can be consolidated on a compact, caster-mounted frame, ready to plug in and run.

#### Continuous Fluid Bed Processing System

## Dries, cools or moisturizes bulk material on a continuous basis

Kason's Circular Fluid Bed Dryer satisfies a range of medium volume production applications not satisfied by rectangular systems, and does so with high operating efficiency at low capital cost. Because the circular design is inherently more rigid, lighter materials and smaller motors can be used, and cross braces eliminated, reducing material and fabrication costs significantly-particularly when contact surfaces are finished to sanitary standards. Complete systems can be consolidated on caster-mounted frames.



#### Medium/High-Capacity Fluid Bed Processing System

## Outperforms rectangular systems of equivalent area

Kason's Circular Fluid Bed Processing systems in diameters of 48, 60, 72 and 84 in. (1220, 1525, 1830 and 2135 mm) dry, cool or moisturize up to 10 tons/h (9 tonnes/h) of bulk material, with higher operating efficiency and at lower capital cost than possible with rectangular systems. Inherently rigid. Kason's circular design utilizes lighter materials of construction and smaller motors. It also eliminates the need for cross braces and multiple air inlets/outlets, significantly reducing material and fabrication costsespecially when systems are finished to sanitary standards.



#### Double Deck Fluid Bed Processor

## Reduces capital cost, energy usage and floor space

Kason's patented Double-Deck, Circular Vibratory Fluid Bed Processor offers unprecedented reductions in capital cost, energy usage and floor space per pound of product being dried or cooled. The addition of an upper deck makes use of heated or cooled air that would otherwise be exhausted after passing through the lower deck, and requires little to no increase in the size or energy consumption of imbalanced-weight motors, heat exchangers or blower fans, nearly doubling capacity and efficiency with little to no increase in operating cost or floor space.



## **CROSS-FLO** Static Sieves

#### **Size Reduction Equipment**



#### CROSS-FLO Static Scalping Sieve

### Scalps coarse, free-flowing dry solids at ultra-high rates

The CROSS-FLO static sieve continuously removes oversize particles from coarse, free-flowing, dry bulk solids at rates to 100 tons/h (91 tonnes/h). The fixed-slope, heavyduty, permanent bar screen is offered with apertures from .25 to 3 in. (6 to 76 mm). Because the sieve requires no electrical drive or screen changes, initial cost and operational costs are low. Standard units are available in widths from 2 to 6 ft. (610 to 1830 mm) in 1 ft. (305 mm) increments, with larger sizes available on a custom basis.



#### CROSS-FLO Static Dewatering Sieve

## Removes solids from waste streams at ultra-high rates

The CROSS-FLO static dewatering sieve continuously clarifies high volumes of industrial or municipal wastewater at low cost. The screening deck is fitted with stainless steel profile wire screen having slots oriented perpendicular to the flow of material, accelerating fluid through the screen in accordance with the "Coanda" effect. The deck is adjustable to maximize dewatering rates and is offered in widths from 2 to 6 ft (610 to 1830 mm) in 1 ft. (305 mm) increments. Two-deck models are available to separate two sizes of solids



#### Lump Breaker

### Transforms agglomerates into particles

The Kason model Lump Breaker is designed to break down agglomerated lumps of material up to 6 in. (150 mm) in diameter, into particles as small as 0.08 in. (2 mm) in preparation for further processing It is offered as standard with a shaft supported at both ends for reliable service in demanding applications, or a cantilevered shaft for improved access and cleanability in lighter duty applications. Available in carbon steel, stainless steel 304 or 316, Hastelloy and other alloys, it features easy-to change grinding screens and interchangeable beaters. Throughput from 2.2 to 27.6 tons/h (2 to 25 tonnes/h).



### Cone Mill

## Granulizes fatty, moist, sticky, fragile products

The Kason Cone Granulation Mill is a gentle, low energy size reduction mill ideal for wet and dry milling, preconditioning and de-agglomerating of fatty, heat sensitive, sticky, moist or fragile products, making it ideal for food and pharmaceutical applications. It offers close particle size distribution from 125 to 250 microns, while alleviating traditional milling problems of noise, dust and heat generation. A diversity of grinding media is offered to maximize results for each material application. All models offered in stainless steel and special alloys.

### **Mixing and Blending Equipment**



#### **Vertical Mixer**

## Blends fragile and heat-sensitive materials gently

The Kason Vertical Mixer offers fast, low-shear, gentle mixing with minimal heat generation, making it ideal for free flowing, heat sensitive and fragile products. The gentle mixing action minimizes wear even when processing highly abrasive materials. Working capacity ranges from 20 to 100% without reducing mixing accuracy. Rapid cycles maximize productivity. Complete discharge and interior access allow rapid and thorough cleaning between batches. Available in capacities from 3.5 to 90 cu ft (100 to 2500 liters) with numerous performance enhancements.

#### Double Cone Blender Blends fragile materials gently,

### cleans rapidly

The Kason Double Cone Blender features proprietary multi-shear deflector plates that produce a gentle, low energy tumbling action ideal for blending of the most delicate products. It is also equally effective at mixing high bulk density and abrasive products with minimal attrition. Its hygienic design has no internal seals, affords total discharge of product with minimal retention and is easy to clean, making it suitable for applications requiring frequent sanitizing. Capacities range from 0.7 to 3,500 cu ft (20 to 100,000 liters). Specialized designs can sterilize and dry materials.



#### **Horizontal Mixer**

## Blends a diversity of materials economically

Kason Horizontal Mixers with ribbon, paddle or plough agitators, provide consistent batch and continuous blending of dry materials, pastes and slurries in capacities from 1 to 2100 cu ft (35 to 60,000 liters). They offer dust-tight operation and a wide range of manual or automatic outlet valves. Units can be customized with special troughs, side cutters. intensifiers, spray lines, jackets and other enhancements. A full diameter hinged and safety-interlocked door at the non-drive end of the vessel offers improved access for cleaning and maintenance. Available to industrial or sanitary standards.



#### **Processors and Reactors**

## Custom built to meet specific process requirements

Kason's Processors and Reactors satisfy a diversity of batch mixing and processing applications from reacting and sterilizing to drying and mixing. Based on Kason's broad range of horizontal mixers and double cone blenders, they are offered in capacities from 2 to 180 cu ft (50 to 5,000 liter) and are available constructed to PED and ASME standards for pressure and vacuum applications. All are offered with jackets for heating or cooling applications. Kason also custom engineers processors for efficient, cost effective cooling or drying of virtually any bulk material.





# Expanded product line produced worldwide, solves an unequalled range of processing problems globally.

The combined capabilities of Kason Corporation and Kason Europe Ltd lines of centrifugal sifters make Kason the world-leading producer in both size and scope, offering lab units up to the world's largest sifters with capacities to 100 tons (90 tonnes) per hour.

The expanded centrifugal sifter line is complemented by Kason's equally extensive line of round vibratory screeners, which encompasses the world's widest range of designs and sizes, from 18 inch (46 cm) diameter laboratory units up to 100 inch (254 cm) diameter screeners with capacities to 150 tons (136 tonnes) per hour, and by Kason's ultrahigh capacity static sieves. Rounding out the screener line are Kason's vertical in-line sifter models for check-screening several pounds/kilos per hour to production screening of up to 50 tons (45 tonnes) per hour.

This extensive line of screening equipment ts neatly with other Kason equipment in terms of upstream and downstream positioning in the process stream.

One example is Kason's complete line of circular, vibratory fluid bed dryers, coolers and moisturizers—innovative, self-contained systems that offer greater operational efficiency and lower capital cost than rectangular designs. Other examples include Kason's size reduction equipment such as air classier mills, cone mills, universal mills and lump breakers, and our mixing/blending equipment models including double cone blenders, vertical mixers and horizontal mixers, as well as engineered process systems.

This expanded range of high performance equipment is available to food, pharmaceutical, nutraceutical, dairy and industrial standards worldwide, and is now manufactured in four strategic locations for rapid shipment, cost competitiveness and factory support throughout the world.



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