



SIFTING, SCREENING AND PROCESSING EQUIPMENT FOR BULK SOLID MATERIALS AND SLURRIES

OVERVIEW OF
*Vibratory Screeners, Centrifugal Sifters, Static Sieves,
Fluid Bed Dryers/Coolers/Moisturisers, Bulk Solid Mixers/Blenders,
Size Reduction Equipment and Processing Systems*



VIBROSCREEN® Circular Vibratory Screeners



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 in size from dry or moist bulk solid material or solids-laden slurries, on a batch or continuous basis. Multi-plane inertial vibration maximises throughput and gentle product handling. Offered in diameters from 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. Single-deck screeners are 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 imbalanced-weight 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 460 to 2135 mm. The external location of gyratory motors also makes Flo-Thru models suitable for high temperature applications.



Single and Multi-Deck Vibratory Screener

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 micron. 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 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 760 to 1525 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 centre tensioning construction, and accommodates screen decks with or without anti-blinding 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. The Air-Lift system is available for any make or model of circular vibratory screener from 1016 to 2540 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

Sanitises 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-in-place (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 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 460, 610 and 760 mm scalp oversize particles down to 38 microns from bulk materials. They feature gap-free screen frames, quick-disconnect vertical clamps and all-stainless 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.



High-Capacity Classifier
Scalps and de-dusts at ultra-high rates

High-Capacity Classifiers 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 64 tonnes/h. Available in diameters from 1525 to 2540 mm. Widely used for removing oversize particles and fines from plastic pellets, grains, sugar, salt, fertiliser and other materials at ultra-high rates.



"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 centre of the lower screen for final separation. Up to three conventional screens can be fitted with KASCADE Internal Recycle



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 pressurised systems are ideal for confirming material quality when loading/unloading trucks or rail cars, or conveying materials between process or storage areas. Available in diameters from 610 to 1525 mm



PNEUMATI-SIFTER/FLO-THRU Dual-Screen Ultra-High-Capacity Separator
Scalps in-line with pneumatic conveying systems gently, at ultra-high rates

Material enters the central chamber through a tangential side inlet, avoiding 90° impact and breakage of particles. Air flow propels material upward through a top screen and downward through a bottom screen at rates to 27,200 kg/h. On-size material above the top screen is pneumatically conveyed through an internal bypass to the discharge outlet. Oversize material ejects at the lower screen's periphery. Available in 1220 and 1525 mm diameters.



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 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 castor-mounted stands.



VIBRO-AIR™ Size/Density Separator
Removes undersize and low bulk density materials

Vibratory screening removes fines, while air flow removes low bulk density materials such as: chaff from grain, wood fibres/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 610 to 2540 mm diameters. Optional scalping deck.



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 1016 to 1830 mm diameter screeners, and as retrofit kit.



Bag Dump Screener
Scalps bulk material while 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 610, 760, 1016 and 1220 mm diameters, to 3-A, FDA, BISSC and other standards.

VIBRO-BED™ Circular Fluid Bed Dryers, Coolers, Moisturisers



Circular Vibratory Fluid Bed Processor

Dries, cools, moisturises with greater efficiency at lower cost

This award-winning design increases efficiency, cuts cleaning time and reduces cost, compared with rectangular fluid bed dryers, coolers and moisturisers. The circular shape with quick-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 labour, decrease cost especially when finished to sanitary standards. Models from 460 to 2135 mm in diameter.



High Temperature Fluid Bed Batch Dryer

Dries small batches of bulk materials at temperatures to 315°C

Kason's Fluid Bed Processing System is offered with an accessory package for batch drying at temperatures to 315°C. The self-contained system comes complete with a fluid bed processor, heater, blower, cyclone separator and controls on a castor-mounted frame, ready for connection to a material inlet/outlet and power source. The 460 mm diameter laboratory/pilot plant model shown dries up to 28 litres 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 moisturises small volumes of bulk material efficiently, economically

Kason Circular Fluid Bed Processors in 460, 610 and 760 mm diameters dry, cool or moisturise 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, castor-mounted frame, ready to plug in and run.



Medium-Capacity Fluid Bed Processing System

Dries, cools or moisturises bulk material on a batch or continuous basis

Kason's 1016 mm diameter 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 castor-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 1220, 1525, 1830 and 2135 mm dry, cool or moisturise up to 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 utilises 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 costs—especially 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 amount 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.

Mixing and Blending Equipment



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 35 to 60,000 litres. They offer dust-tight operation and a wide range of manual or automatic outlet valves. Units can be customised 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 sterilising to drying and mixing. Based on Kason's broad range of horizontal mixers and double cone blenders, they are offered in capacities from 50 to 5,000 litre 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.



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 minimises wear even when processing highly abrasive materials. Working capacity ranges from 20 to 100% without reducing mixing accuracy. Rapid cycles maximise productivity. Complete discharge and interior access allow rapid and thorough cleaning between batches. Available in capacities from 100 to 2500 litres 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 sanitising. Capacities range from 20 to 100,000 litres. Specialised designs can sterilise and dry materials.

Size Reduction Equipment



Lump Breaker

Transforms agglomerates into particles

The Kason model Lump Breaker is designed to break down agglomerated lumps of material up to 150 mm in diameter, into particles as small as 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 to 25 tonnes/h.



Cone Mill

Granulises 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 maximise results for each material application. All models offered in stainless steel and special alloys.



Universal Mill

Provides fine grinding down to 20 micron safely, efficiently

The Kason Universal Mill provides fine grinding from 20 to 300 micron mean particle diameter. It handles a broad range of materials, including applications requiring safe grinding of explosive or toxic products to cryogenic grinding of difficult-to-mill materials. Easily accessible and interchangeable pins, disc, turbine and screen, permit quick changes between batches and offer flexibility for multi-product use. Construction is of cast iron, carbon steel, stainless steel or special alloys. Available for pressure applications up to 10 barg, and with systems to vent, suppress or contain volatiles.



Air Classifier Mill

Controls grinding temperature and particle size distribution

The Kason Air Classifier Mill offers fine grinding capability, typically in the region of tens of microns, plus exceptional control over grinding temperature and particle size distribution. Particle size is readily controlled by varying the rotor speed, classifier speed, airflow rate and feed rate, eliminating the need for separate classification equipment. An optional "Clam Shell" body allows rapid inspection, maintenance and thorough cleaning capacities from several kilograms per hour for laboratory applications, to 15 tonnes per hour for large-scale processes.

Cross-Flo Static Sieves



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 91 tonnes/h. The fixed-slope, heavy-duty, permanent bar screen is offered with apertures from 6 to 76 mm. Because the sieve requires no electrical drive or screen changes, capital cost, operational cost and maintenance are minimised. Standard units are available in widths from 610 to 1830 mm in 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 maximise dewatering rates and is offered in widths from 610 to 1830 mm in 305 mm increments. Two-deck models are available to separate two sizes of solids.



VIBROSCREEN® Original Equipment Replacement Parts

Maximise the performance of any circular vibratory screener

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 460 to 2540 mm in meshes from 50 mm clear opening down to microns. All are available with optional centre holes, radial arm braces or back-up screens and anti-blinding devices. Other replacement parts include motors, auto-lubrication systems, gaskets, flexible connectors, clamp ring assemblies, circular bases, frames, dust covers and springs.

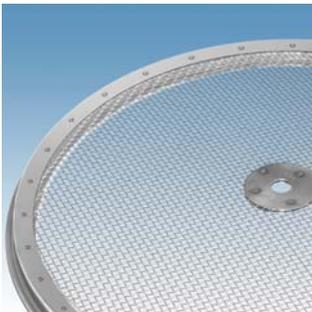


CENTRI-SIFTER™ Original Equipment Replacement Parts

Maximise 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.

K SERIES Replacement Screens



K-DURA High Performance Standard Screens

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



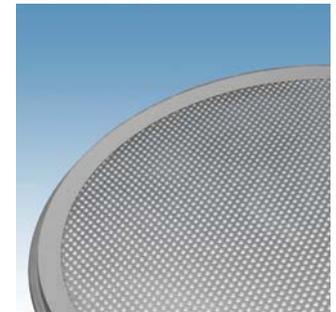
K-STRONG High Strength Supported Screens

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



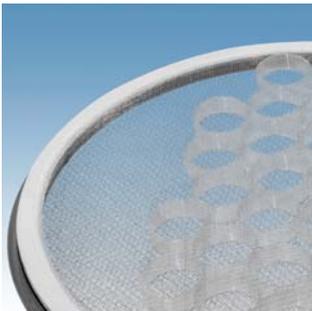
K-SANI High Strength Sanitary Screens

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



K-PERF High Grade Perforated Screens

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



K-KLEAN High Strength Self-Cleaning Screen Rings

Prevent screen blinding caused by near-size particles, fibres, resins/fats/oils



K-KLEAN High Strength Ball Tray Anti-Blinding Device

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



K-CENTRI Durable Screen Cylinders for Centrifugal Sifters

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

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

The combined capabilities of Kason Corporation and Kason Europe Ltd's lines of centrifugal sifters now lead the world in both size and scope, offering lab units up to the world's largest sifters with capacities to 100 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 46 cm diameter laboratory units up to 254 cm diameter screeners with capacities to 150 tonnes per hour, and by Kason's ultra-high capacity static sieves.

Rounding out the screener line are Kason's vertical in-line sifter models for check-screening several kilos per hour to production screening of up to 50 tonnes per hour.

This extensive line of screening equipment fits 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 moisturisers—innovative, self-contained systems that offer greater efficiency and lower capital cost than rectangular designs.

Other examples include Kason's size reduction equipment such as air classifier 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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