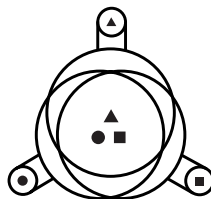




# CENTRI-SIFTER™ Centrifugal Sifters

*for sifting, scalping, de-agglomerating  
and dewatering of powder  
and bulk solids and slurries*



**kason**



# Sift, scalp, de-agglomerate and dewater virtually any bulk solid or slurry

CENTRI-SIFTER™ centrifugal sifters are highly effective at sifting, scalping, de-agglomerating and dewatering of granular materials ranging from dry bulk solids to solids-laden slurries, including moist materials that tend to ball or agglomerate. These sifters are widely used in the chemical, food, dairy, pharmaceutical, plastic, mineral and packaging industries—virtually any field in which bulk solid materials are handled. Kason offers a broad range of models, sizes, configurations and accessories to screen your particular material with unsurpassed efficiency and dependability, at the rate you require, on a batch or continuous basis. Whether you are sifting 50 lb/h (23 kg/hr) batches of contamination-sensitive pharmaceutical products, scalping 120 tons/h (109 metric tons/h) of sugar, or dewatering 400 gal/m (1514 litres/m) of paper fiber, Kason offers a CENTRI-SIFTER centrifugal sifter to maximize the quality of your process while minimizing cost.

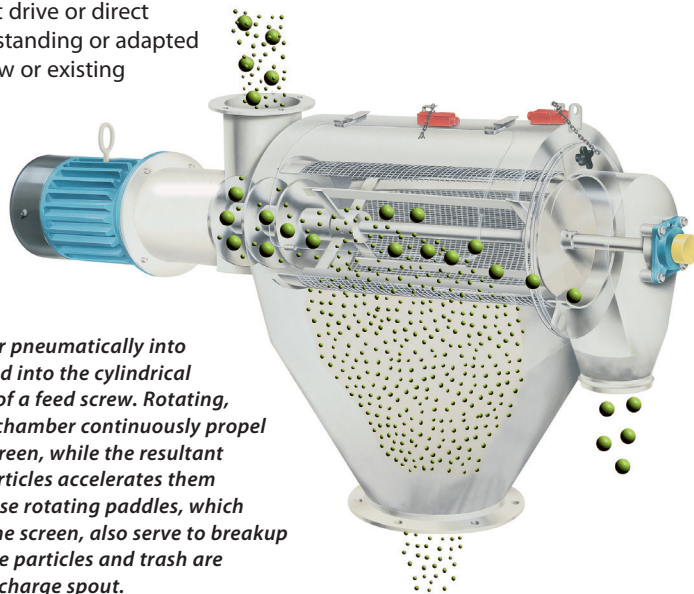
## Features

- Dust-free, sanitary operation. Approved for use by FDA, BISSC, 3-A and other U.S. and European 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 and single or twin models, including belt-driven units with motors from 1 hp (.75 kW) to 10 hp (7.5 kW) and direct-driven units with motors from 1 hp (.75 kW) to 10 hp (7.5 kW)

## Broad model range solves specialized problems

CENTRI-SIFTER centrifugal sifters are designed for gravity-fed applications and for sifting in-line with pneumatic conveying systems. They are available as single and twin models and low profile units, and offered in a broad range of standard, modified and custom configurations. All are available with belt drive or direct drive. Units may be free-standing or adapted for easy mounting on new or existing process equipment.

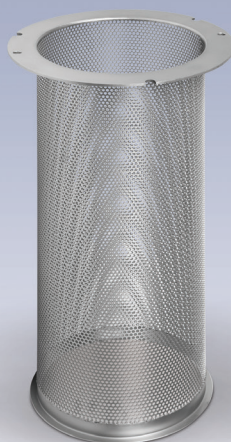
CENTRI-SIFTER separators meet the most stringent worldwide sanitary standards including FDA, 3-A, and BISSC. Special finishes and materials also make these sifters suitable for biochemical and pharmaceutical applications.



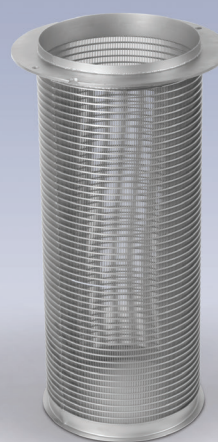
*Material is fed by gravity or pneumatically into the feed inlet and redirected into the cylindrical sifting chamber by means of a feed screw. Rotating, helical paddles within the chamber continuously propel the material against the screen, while the resultant centrifugal force on the particles accelerates them through the apertures. These rotating paddles, which never make contact with the screen, also serve to breakup soft agglomerates. Oversize particles and trash are ejected via the oversize discharge spout.*

## Screen options

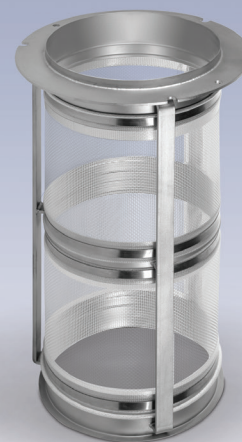
The choice of separating media includes nylon and other monofilament cloth, woven wire in selected metals, perforated plate screen, and wedgewire. Wedgewire screens are preferred when sifting large, dense particles with angular shapes, oversize lumps or when contaminating debris must be prevented from entering processing streams. Kason's wedgewire screens are rugged and provide a high degree of on-stream reliability.



**K-Duracyl**  
with perforated plate



**K-Duracyl**  
with wedgewire



**K-Centri**  
with synthetic or stainless mesh

## Typical Applications



Toll processor scalps cryogenically-ground engineering resins at  $-50^{\circ}$  to  $-275^{\circ}\text{F}$  ( $-46^{\circ}$  to  $-171^{\circ}\text{C}$ ). QUICK-CLEAN design allows changing of screens before ice can form.



Co-packer of powdered beverage mixes met new regulations by sanitizing more frequently, compensating for the productivity loss by sanitizing faster with a QUICK-CLEAN sifter.



In 12 minutes, CENTRI-SIFTER™ sifts 4000 lb (1814 kg) of polymer concrete discharged from pneumatic blender, while eliminating previous screen blinding problem.



Flavor powder producer switched from a vibratory screener to a QUICK-CLEAN CENTRI-SIFTER, boosting output 150 percent while cutting wash down time.



Producer of 200 dairy blends having bulk densities of 25 to 60 lb/cu ft (400 to 960 kg/cu m) screens directly into sacks by weight at rates to 25 lb/min. (11.3 kg/min.)



CENTRI-SIFTER removes oversize particles from on-size powders at temps to  $450^{\circ}\text{F}$  ( $232^{\circ}\text{C}$ ) and rates to 1000 lb/h (453 kg/h) while reducing agglomerates.



Producer of aquaculture feed, high in lipids, screens down to 300 microns (0.3 mm) 60-times faster than with vibratory screener while eliminating screen blinding.



CENTRI-SIFTER simultaneously mixes a flow aid with finely ground rubber, breaks up soft agglomerates and removes fiber and steel debris from on-size material.



Blender discharges into low profile, QUICK-CLEAN CENTRI-SIFTER that removes oversize particles and discharges on-size material into mobile storage vessels.



Large toll processor screens plastics, additives, foods and pharmaceutical products using mobile CENTRI-SIFTERS configured on caster-mounted stands.



Compact CENTRI-SIFTER fits a restricted space between a blender and fiber drums being filled with 100 lbs (45 kg) of screened food ingredients.



The CENTRI-SIFTER centrifugal sifter separates about 7500 lb (3409 kg) per week of fine grain particles from distillery stillage. The dewatered solids pass through the chute in foreground. The water gravity-discharges into the 2000 gal (7570 l) vat below.

## Typical Capacities\*

INDUSTRY	MATERIAL	TYPICAL CAPACITY RANGE
Food and Dairy	COCOA POWDER	1-70 TPH
	FISH MEAL	1-40 TPH
	FLOUR	1-60 TPH
	GROUND COFFEE	1-30 TPH
	LACTOSE	5-300 GPM (20-1850 LPM)
	MILK POWDER	1-30 TPH
	NON-DAIRY CREAMER	1-50 TPH
	SPICES	1-40 TPH
	STARCH	1-50 TPH
	SUGAR	1-120 TPH
	TOFU	5-200 GPM (20-900 LPM)
DISTILLERY SPENT GRAIN	10-150 GPM	
Chemical	CALCIUM STEARATE	1-30 TPH
	EXPANDED SILICA	0.5-6 TPH
	HYDRATED ALUMINA	1-30 TPH
	IRON OXIDE	1-40 TPH
	LATEX	5-200 GPM (20-900 LPM)
	PAPER FIBER	5-400 GPM (20-1800 LPM)
	PIGMENTS	1-40 TPH
	POLYMER BEADS	5-250 GPM (20-1150 LPM)
	POWDER COATINGS	1-30 TPH
TiO <sub>2</sub> SLURRY	5-250 GPM (20-1150 LPM)	
Mineral	CALCIUM CARBONATE	1-70 TPH
	EXPANDED PEARLITE	0.25-7 TPH
	GYPSUM	1-90 TPH
	MICA	0.25-10 TPH
Plastics	ADDITIVES	1-70 TPH
	COMPOUNDS	1-90 TPH
	MICROSPHERES	1-70 TPH
	VIRGIN RESIN	1-70 TPH
Misc.	CELLULOSE	0.25-8 TPH
	FOUNDRY SAND	1-80 TPH
	WOOD FIBER	1-15 TPH
	SUPER ABSORBANT POLYMER (SAP)	1-30 TPH

\*Bulk materials listed are a sampling of hundreds of products screened using CENTRI-SIFTER centrifugal sifters. Capacity ranges shown may vary by application.

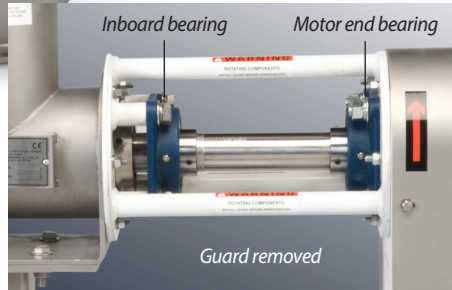


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1-844-KASON-4-U**

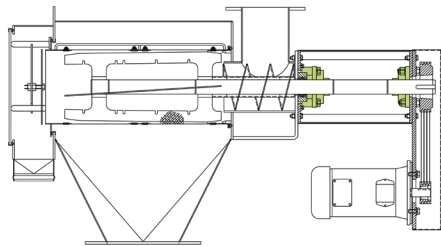
# QUICK-CLEAN Centrifugal Sifters with Cantilevered Shafts



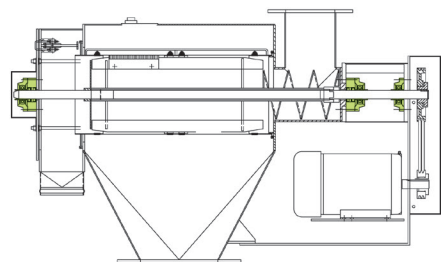
Two-bearing models of QUICK-CLEAN CENTRI-SIFTER™ centrifugal sifters require no bearing on hinged end cover (shown opened, above).



Large diameter shaft and wide spacing between bearings enable two-bearing models to operate at high speeds, free of vibration.



Two-bearing designs utilize one motor-end bearing, and one inboard bearing adjacent to the material infeed chute (no bearing on end cover).



In addition to one motor-end bearing and one inboard bearing adjacent to the material infeed chute, three-bearing designs incorporate a bearing on the exterior of a hinged cover at the discharge end of the sifter.

## Rapid removal of internal components with no sacrifice in performance

QUICK-CLEAN CENTRI-SIFTER™ centrifugal sifters feature cantilevered shafts that allow quick, tool-free removal of internal components through a hinged end cover, for rapid cleaning, screen changes and inspection.

Two-bearing models are configured with one motor-end bearing, and one inboard bearing located exterior of the material infeed chute (no bearing required on end cover).

Three-bearing models additionally have a third bearing located on the hinged cover at the discharge end of the sifter, providing maximum support to handle the heaviest loads and highest capacities.

All Kason QUICK-CLEAN sifters are constructed of stainless steel with optional sanitary finishes suitable for pharmaceutical, food and dairy applications, as well as industrial applications involving frequent screen changes, inspections or runs of multiple materials with no cross contamination.



The hinged end cover is opened using quick-disconnect clamps, allowing the retaining plate, screen and paddle assembly to slide freely from the cantilevered shaft. Note: Two-bearing model shown requires no bearing on end cover.

## Three-bearing models support shaft ends

In addition to a motor-end bearing and an inboard bearing, three-bearing models position a bearing on the exterior of the hinged cover at the discharge end of the sifter, providing maximum support for the highest capacities and heaviest loads. When the end cover is opened, the bearing slides off of the shaft, which cantilevers on the inboard bearing, allowing rapid removal of internal components.





INDUSTRIAL  
FINISH SHOWN

### QUICK-CLEAN Sifter with 3-Bearing

*Supports shaft ends, handles heaviest loads*

In addition to a motor-end bearing and an inboard bearing, three-bearing 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

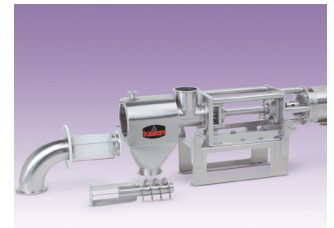
*Allows rapid removal of components*

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 motor-end bearing, and one inboard bearing adjacent to the material feed 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.



### Dual-Drive Centrifugal Sifter with Integral Feeder Model

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.

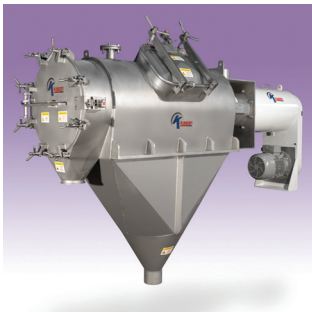


SANITARY  
FINISH SHOWN

### 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 horizontally-oriented 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 gravity-discharges 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 sifters 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.



### Vertical Sifter

*Check-screens for off-spec material*

The Kason Vertical Sifter is ideally suited for check-screening of wet or dry materials for off-spec particles. The compact, in-line vertical design with no offset between inlet and outlet, provides an effective means of confirming product quality at all stages of the manufacturing process. Simple, compact and vibration-free with excellent dust containment and low noise generation, the Vertical Sifter is offered in three sizes for check-screening of several pounds/h (kilos/h) to 55 tons/h (50 tonnes/h). The sifter offers high throughput for its size and power requirements, and is easy to clean and maintain.



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