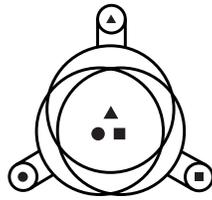




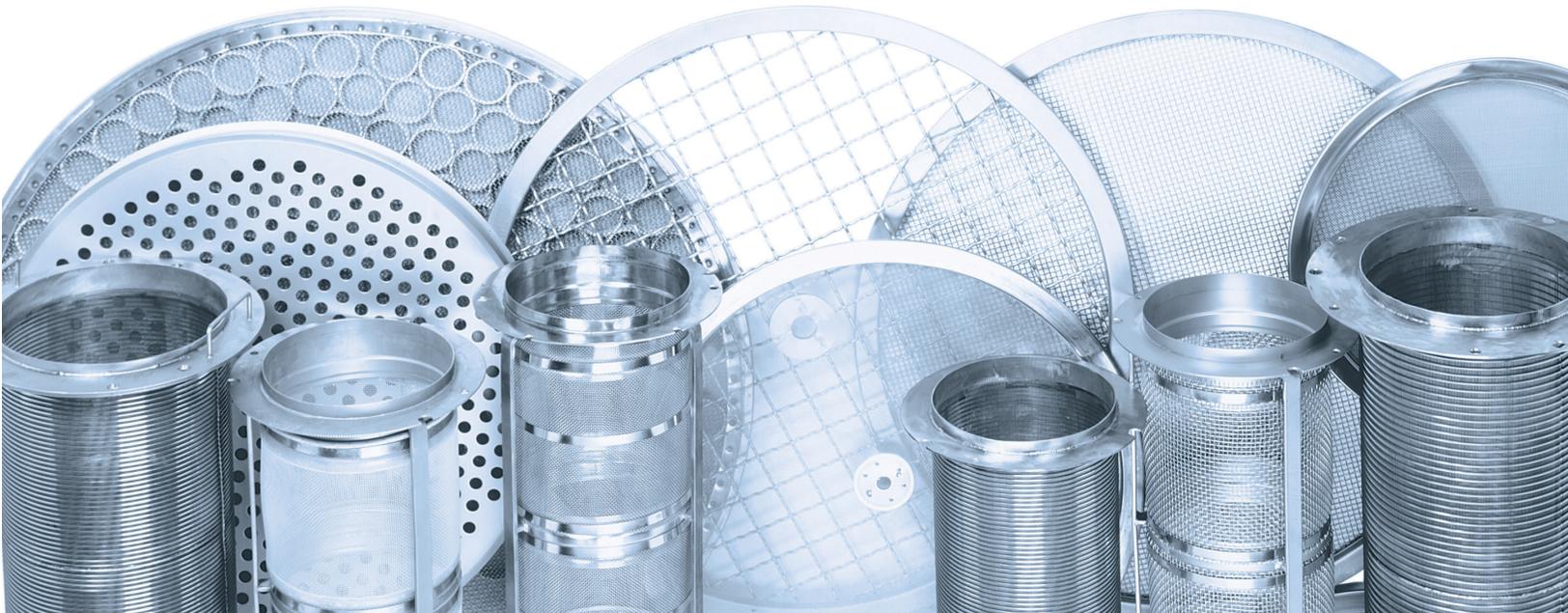
# PNEUMATI-SIFTER

## Vibratory and Centrifugal Screeners

*For sifting and scalping of  
bulk solid materials in-line with  
pneumatic conveying systems*



**kason**



# Sift and scalp bulk materials in-line with pneumatic conveying systems

## ***PNEUMATI-SIFTER in-line pressurized vibratory and centrifugal screeners eliminate need for additional blowers, cyclone separators and rotary air locks***

PNEUMATI-SIFTER configurations of Kason's VIBROSCREEN® vibratory screeners and CENTRI-SIFTER® centrifugal screeners operate in-line with positive and negative pressure, dilute-phase, pneumatic conveying systems, removing oversize particles and foreign materials from free-flowing bulk solids at high rates.

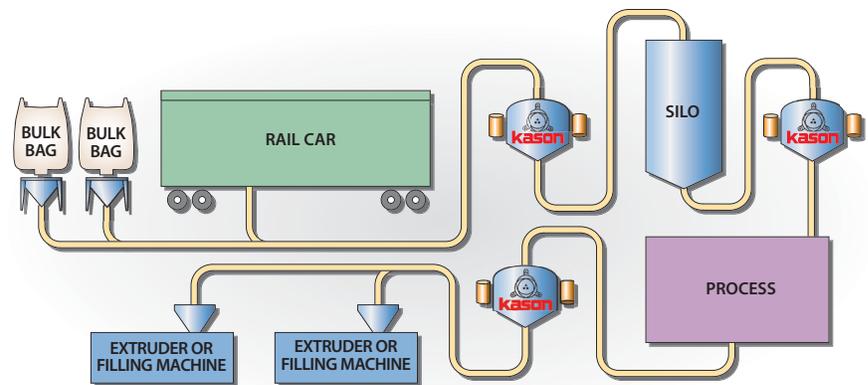
These in-line pressurized screeners eliminate the cost and complexity of additional blowers, cyclone separators and rotary air locks needed for screening off-line, and are used extensively for high volume screening of bulk products conveyed to or from trucks and rail cars, as well as between in-plant process and storage areas.

Numerous high performance, vibratory and centrifugal models are available in various finishes with a broad range of performance enhancements to satisfy the most general to the most specific in-line screening requirements encountered in the chemical, petrochemical, food, dairy, pharmaceutical, stone product and other industries.

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

### **All Kason in-line screeners offer:**

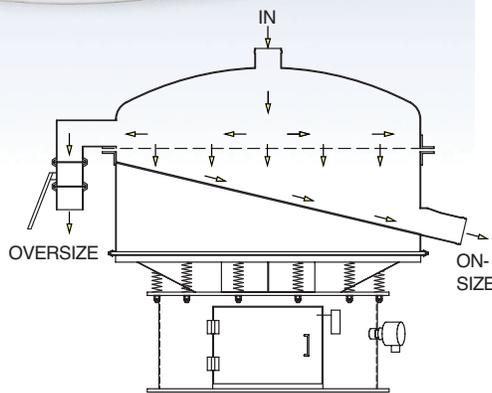
- Enclosed, dust-free operation
- Compliance with industrial, food, dairy and pharmaceutical standards
- Rapid screen changes
- Easy clean out
- Heavy-duty construction for continuous operation
- Compact design
- Low power requirements
- Full range of enhancements to boost performance, automate cleaning, reduce maintenance and extend service life
- Ratings for positive pressures to 14.7 psig (1 barg) or negative pressures to 14 inches (350mm) mercury



## ***Typical applications***

	INDUSTRY	INCOMING MATERIAL	PNEUMATI-SIFTER SEPARATOR	CAPACITY
<b>VIBRATORY MODELS</b>	CHEMICAL	ALUMINA	48" (1225 MM) DIAMETER	15,000 LBS/H (6,800 KG/H)
	PLASTICS	PVC	60" (1525 MM) DIAMETER	40,000 LBS/H (18,150 KG/H)
		POLYETHYLENE	60" (1525 MM) DIAMETER	35,000 LBS/H (15,875 KG/H)
	FOOD	FLOUR	48" (1225 MM) DIAMETER	14,000 LBS/H (6,350 KG/H)
		SUGAR	60" (1525 MM) DIAMETER	50,000 LBS/H (22,675 KG/H)
	PHARMACEUTICAL	CELLULOSE	30" (750 MM) DIAMETER	4,500 LBS/H (2,050 KG/H)
STONE PRODUCTS	LIMESTONE	60" (1525 MM) DIAMETER	30,000 LBS/H (13,600 KG/H)	
<b>CENTRIFUGAL MODELS</b>	CHEMICAL	TITANIUM DIOXIDE	MODEL MOB	14,000 LBS/H (6,350 KG/H)
	PLASTICS	POLYCARBONATE	MODEL MO	25,000 LBS/H (11,325 KG/H)
		PVC	MODEL YOB	50,000 LBS/H (22,675 KG/H)
	FOOD	FLOUR	MODEL YOB	30,000 LBS/H (13,600 KG/H)
		STARCH	MODEL YOB	45,000 LBS/H (20,400 KG/H)
	PHARMACEUTICAL	MAGNESIUM STEARATE	MODEL MO	10,000 LBS/H (4,550 KG/H)
	STONE PRODUCTS	CALCIUM CARBONATE	MODEL YOB	25,000 LBS/H (11,325 KG/H)

# PNEUMATI-SIFTER High Capacity Vibratory Screener



## **Scalps in-line with pneumatic conveying systems gently, at high rates**

PNEUMATI-SIFTER Vibroscreen in-line screeners scalp oversize particles and foreign materials from acceptable products gently, at high rates. They are available in diameters from 24 to 60 in. (600 to 1525mm) to screen up to 30,000 lbs./h (13,600 kg/h) of bulk material, depending on flow characteristics. For higher capacities see PNEUMATI-SIFTER dual screen model at right.

A range of accessories is available including clean-in-place spray heads, anti-blinding ball tray assembly, quick-release clamshell lids for rapid screen changes, and an automatic long-term lubrication system for gyratory motor bearings.

- 3-D adjustable amplitude of vibration
- Rapid screen change
- Easy clean-out
- Integral cleaning/inspection ports
- Construction to industrial, food, dairy and pharmaceutical standards
- Anti-blinding ball tray assembly (optional)
- Automatic lubrication system (optional)
- Clean-In-Place (CIP) spray system (optional)

## **Principle of operation**

The screener is equipped with one imbalanced-weight gyratory motor positioned beneath the screening chamber. The motor imparts adjustable, three-dimensional, inertial vibration to the spring-mounted screening decks, causing oversize particles to vibrate across the screen surface in controlled pathways to the screen periphery where they are discharged. Screening efficiency improves by causing material to pass over a maximum amount of screen surface. Undersized particles pass rapidly through the screen.

*Durable all-stainless steel screens (left) are offered in diameters from 24 to 60 in. (600 to 1525mm)*

*Optional Ball Tray anti-blinding devices (right) utilize inertial vibration and elastomeric balls, held captive between the "operating screen" and a coarse-mesh screen, to bounce against the downstream side of the operating screen, flexing the surface and dislodging near-size particles.*



# PNEUMATI-SIFTER Dual Screen Ultra-High Capacity Vibratory Screener



## *Scalps in-line with pneumatic conveying systems gently, at ultra-high rates*

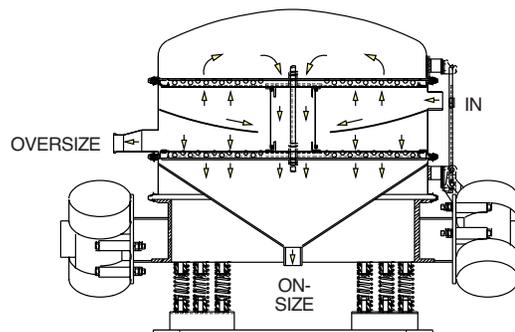
The PNEUMATI-SIFTER Dual Screen Ultra-High Capacity Vibratory Screener scalps up to 60,000 lbs./h (27,200 kg/h) of dry material. Offered in diameters from 40 to 60 in. (1060 to 1525mm), these twin-screen machines can be disassembled rapidly for thorough wash-down.

A range of accessories is available including clean-in-place spray heads, anti-blinding ball tray assembly, quick-release clamshell lids for rapid screen changes, and an automatic long-term lubrication system for gyratory motor bearings.

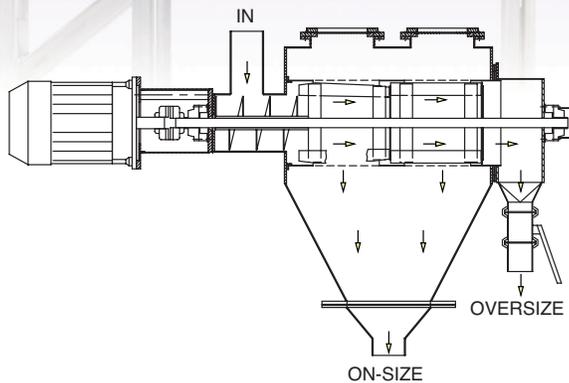
- Twin screen system with internal bypass for ultra-high feed rates
- Tangential feed inlet to reduce impact of material on screen
- Rapid screen change
- Easy clean-out
- Integral cleaning/inspection ports
- Easy access to the externally mounted gyratory motors
- Construction to industrial, food, dairy and pharmaceutical standards
- Clean-In-Place (CIP) spray system (optional)
- Low profile configuration

## **Principle of operation**

The chambers above the top screen and below the bottom screen are connected by a central bypass chute, causing on-size material and air entering the central chamber to reach the bottom outlet via two pathways: upward through the top screen then downward through the chute; or downward through the bottom screen. Oversize material is ejected through a spout at the periphery of the lower screen. A tangential inlet along the horizontal centerline of the central chamber prevents material from impacting screens at 90° angles, minimizing screen damage and the breakdown of oversize foreign material into on-size contaminants.



# PNEUMATI-SIFTER Ultra-High Capacity Centrifugal Screener



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

PNEUMATI-SIFTER centrifugal screeners scalp a wide variety of dry-to-moist bulk materials, and can simultaneously de-lump difficult-to-handle products that tend to ball or agglomerate. In addition to exceptional versatility, these compact screeners can fit in tight spaces, and scalp at capacities to 60,000 lbs./h (27,200 kg/h), depending on material characteristics.

The totally enclosed, stainless steel configuration prevents contamination of the product and plant environment, while large inspection ports facilitate inspection and rapid cleaning.

### **Features:**

- Quiet, vibration-free action
- Rapid screen change
- Easy clean out
- Double air purged seals with outboard bearings
- Integral cleaning/inspection ports
- Heavy duty screen design
- Safety switches on inspection ports and overs end cover
- Construction to industrial, food, dairy and pharmaceutical standards
- Many sizes and single or twin models, including:
  - Belt driven units with motors ranging from 3 hp (2.25 kW) to 5 hp (3.75 kW)
  - Direct driven with 3 hp (2.25 kW) motor

### **Principle of operation**

Material is gravity-fed 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. The rotating paddles, which do not contact the screen, also breakup lumps and soft agglomerates. Oversize particles are ejected via manual or automatic valve into a sealed, quick-release receptacle.



Separating media (left) include nylon and other monofilament woven cloth, stainless steel woven wire, and "wedge wire" profile wire for sifting of lumps or large/dense particles.

Anti-blinding devices (right) increase throughput and reduce maintenance (without contacting the screen), preventing near-size particles from blinding and/or damaging the screen.





Quick-disconnect  
Clamshell Lids



VIBROSCREEN®  
Multi-Deck Vibratory  
Classifiers



VIBROSCREEN®  
FLO-THRU Low-Profile,  
High-Capacity  
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VIBROSCREEN®  
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VIBROSCREEN®  
Bag Dump Screening  
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KASONIC® Ultrasonic  
Anti-Blinding Devices



Automatic Lubrication  
Systems



Wiper Blade Assemblies



CENTRI-SIFTER®  
Centrifugal Screeners



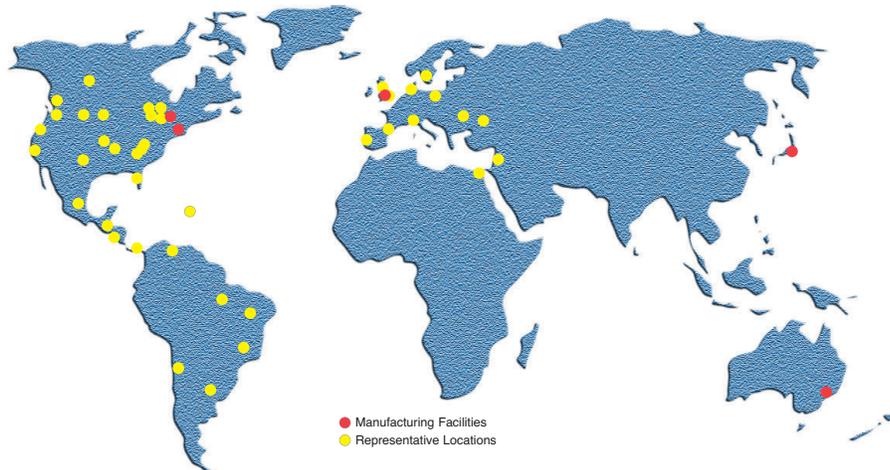
CROSS-FLO Static  
Scalping Sieves



Circular Vibratory  
Fluid Bed Dryers,  
Coolers, Moisturizers



Vibratory Spheroidizers



**KASON CORPORATION**  
67-71 East Willow Street  
Millburn, NJ 07041-1416  
USA  
Tel: 973-467-8140  
Fax: 973-258-9533  
E-mail: info@kason.com

**KASON CORPORATION, EUROPE**  
Block 4, Units 12 & 13  
Park Hall Business Village  
Park Hall Road, Longton  
Stoke-On-Trent  
Staffordshire, ST3 5XA  
UNITED KINGDOM  
Tel: +44 (0) 1782 597540  
Fax: +44 (0) 1782 597549  
E-Mail: kasoneurope@webfactory.co.uk

**SEPARATOR ENGINEERING LTD.**  
2220 Midland Avenue, Unit 85  
Scarborough, Ontario  
CANADA M1P 3E6  
Tel: 416-292-8822  
Fax: 416-292-3882  
E-Mail: seltor@idirect.com

[www.kason.com](http://www.kason.com)

