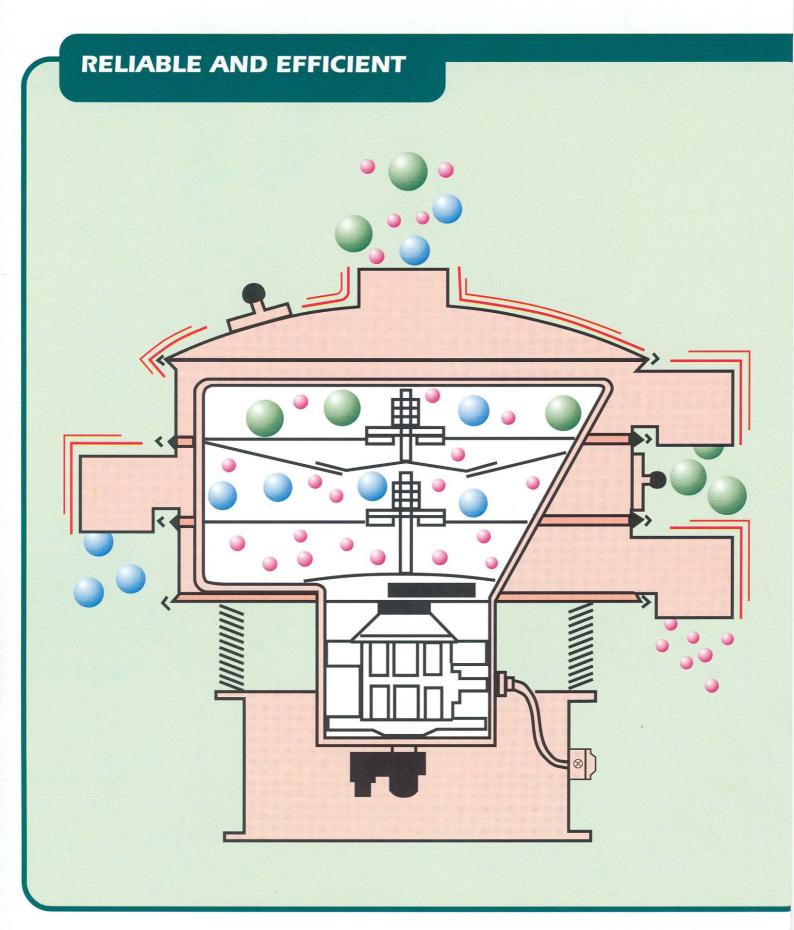


## AMKCO VIBRA-SCREEN SEPARATOR



### CHOICE OF DESIGNS FOR EFFICIENT **SEPARATION – WET OR DRY**



**AIR TIGHT** 

Designed for screening in pneumatic conveying systems.

scalping of dry, free-flowing materials. Assures efficient removal of oversized particles and foreign materials during loading or unloading of tank trucks and rail cars, or while conveying materials to storage or process. Sizes from 24" to 72" with stainless steel on all product contact surfaces.



Auxiliary series feed frame to increase screen area by up to 70 per cent within the same frame height. Applied to increase efficiency of a separation or increase thru-put.

#### STRAIGHT-FLO SEPARATOR

High volume scalping requires a design where the material only hesitates as it flows through the screen and out of the separator. The straight-flo design has dual vibrating motors attached externally at the sides, and a centre conical discharge spout directly in line with the feed. The in-line feature and low height allows the scalping function to be easily added

to existing flow lines, where overhead space is a premium, and on-size product drops directly down to the next process.

Recommended for high

volume dry scalping or high volume wet filtering. Available in all model sizes.



High efficiency circular vibratory separators in 8 sizes from the 18" diameter laboratory / production unit to the 85" diameter machine that is redefining even

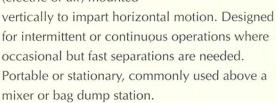
higher capacity and reliability standards. Creative design features: maximize screen area use, handle varying feed rates, screen materials of changing consistencies, increase the "unders" or "overs" capacities, and prevent screen blinding. One to five screen surfaces yielding up to 6 predetermined fractions with accurate separations in mesh sizes from 2" down to 500 mesh (25 microns).

#### **BATCH SIFTER**

Batch dry sifting or wet filtering requires a

simple, economical design that does not require continuous discharge of the over size material. The 18" or 24" models have only one vibrating motor

(electric or air) mounted





## MEETING EVERY SCREENING REQUIREMENT



AMKCO Separator Screens are compact production machines which make mechanical separations according to particle size through proven use of multiplane inertial vibration techniques. They are designed and built to solve the most difficult classifying, separating and dewatering problems. 1 to 5 screen surfaces are superimposed to yield up to 6 fractions. Separators are being used to make accurate separations ranging from 2" clear opening to 625 mesh (25 micron). Eight standard models, sized from 18" diameter to 85" diameter are equipped with the epoxy or spot welded screens, and all wetted parts are built of stainless steel. Other construction materials or protective coatings can be supplied if required.

Any screening application is either WET or DRY

Any DRY application is SCALPING, DE-DUSTING, or CLASSIFYING

Any WET application is DE-WATERING or FILTERING

## SELECTING SCREEN APPLICATION TYPES

Any screening operation can be divided into one of five categories:

#### DRY

#### SCALPING

The removal of a small percentage of oversize from a product.

#### **DE-DUSTING**

The removal of a small percentage of fines from a product.

#### CLASSIFYING

The separation of particles by size into two or more products.

#### WET

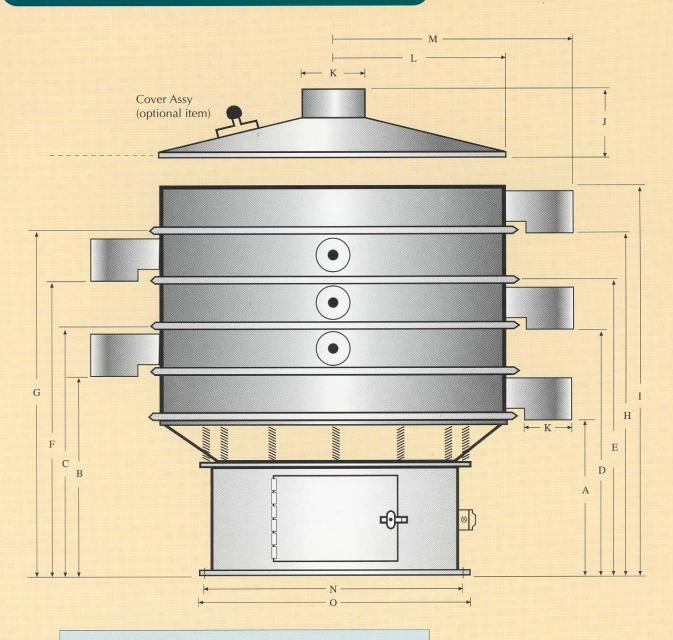
#### DE-WATERING

The removal of a high percent of solids from a liquid.

#### FILTERING

The removal of a low percentage of solids from a liquid.

# STANDARD ROUND VIBRA-SCREEN DIMENSIONS



									1							
			1 Deck		2 D	ecks	3 De	ecks	4 D	ecks						
Am	kco Model	Α	В	С	D	Е	F	G	Н	1	J	К	L	М	N	О
	A-18	33	42	54	52	63	61	72	70	81	9	10	23	35	38	41
	A-24	39	50	65	61	76	72	87	83	98	11	16	30	48	53	58
	A-30	43	58	77	75	93	92	108	107	124	14	16	40	.53	56	60
	A-40	55	75	98	96	119	117	139	138	160	20	21	51	76	78	84
	A-48	55	75	98	96	119	117	139	138	160	20	21	61	91	89	93
	A-60	55	75	98	96	119	117	139	138	160	23	21	76	100	104	109
	A-72	60	84	106	105	128	125	148	146	168	32	26	91	114	135	141

Note: Dimensions in cm. Subject to change without prior notice.

### THREE-DIMENSIONAL MOTION

FLOW PATTERN	PHASE	DESCRIPTION	MAJOR APPLICATION
	0°	Product flows straight from centre to circumference	Easily screenable product, de-dusting
4	15°	Slight vortex motion	Ordinary screening
S	55°	Deepest vortex	Classification of particles into several product categories, long retention time
	90°	Grains concentrated towards center	Scalping oversize from product

#### **VIBRA-SCREEN SEPARATION**

It is a unique and ideal separation technology which includes a vertical mounted motor to facilitate "three-dimensional motion" composed of circular and elliptic motions in horizontal, vertical and inclination planes. The AMKCO Separator achieves superb performance in sieving dry or wet products having a variety of properties, shapes and sizes.

#### **ACTION AND PRINCIPLE**

The principle of the AMKCO Vibra-screen is embodied in a pair of unbalanced weights, an upper weight installed on the upper shaft of the motor and a bottom weight on the lower shaft, which are capable of converting the motor rotation into a 3 "three-dimensional motion". By varying the phaseangle between the weights, the product flow pattern and duration time on the screen can be adjusted.

### A BROAD SCOPE OF APPLICATIONS

- Classification (uniform particle distribution)
- Separation of product and foreign matter
- Separation of coagulated and coarse grains
- Dispersion of coagulated powder particles
- Separation of certain shapes
- Separation and recovery of useful materials and parts
- Wet filtrating
- Cleaning, dehydration, extracting of liquid and drying
- Adjustment to manufacturing process
- Improvement of packing quality
- Measuring constant quantity of large volume reference for improvement of blending accuracy
- Mixing
- Granulating
- Improve fluidity
- Controlling powder flow
- Extraction of dust

### PROFITABLE SOLUTIONS TO PROCESS PROBLEMS



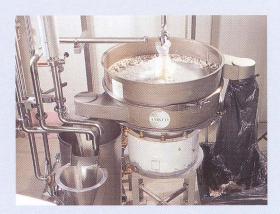
**QUICK AND EASY SCREEN CHANGE** are obtained by a sugar producer using a 2-deck Separator to simultaneously classify sugar into 3 products. The users market has several different specifications requiring fast and easy screen changes. For smaller units, quick release clamps and no screen center tie downs make changes even faster.



MINIMUM SCREEN BLINDING for all separation processes is achieved through the use of and the combination of several techniques. The vibration of the Separator, the use of sliders, the use of bouncing balls, the use of ultra-sonics, the use of water sprays, the use of wipers, and last but not least, the use of good well tensioned screens.



made possible with ultrasonic application to the screen. The material would not process at the required screen mesh. Now, the end product is unique with fast pay back to the producer.



**LONG SCREEN LIFE** is our goal. Removing fiber from coconut milk prior to packaging adds little to the cost of the product because the screen lasts nearly a year. Proper tension, high quality wire, and bonding or welding achieves quality product at low cost.

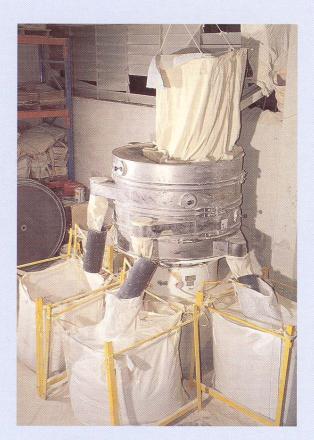


HIGH CAPACITY IN LIMITED SPACE is required by palm oil producers. Twenty

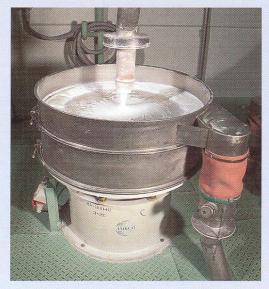
hour days over a hot oil tank at 98° C require a high degree of reliability in a cramped environment.



**NO TRANSMITTED VIBRATION** was a need for a dairy and juice producer. The AMKCO is mounted on a portable stand, easily moveable to different locations for different products. The various locations have floors that are not always level. Quick and easy shims under the legs keep the screen level for good separation.



**ADAPTABILITY** was the reason a sand producer installed an AMKCO separator. Variable feed rates, variable screen meshes, and variable product hoppers made our unit their choice.



**RELIABLE SCALE-UP** was achieved by a fused silica producer who needed to increase production with a new product without lengthy production testing. Small, portable separators offer testing and reliable data for thousands of dry and wet processes. This adds confidence in the AMKCO selection.



**PRODUCT QUALITY** is assured with a final screening before packaging and sending to the customer. Shipping product in bulk only saves the end user time and money when they know the received product is "on spec" and no foreign material in present. A minimum investment for an AMKCO scalping unit gives confidence.

#### **BASIC SEPARATOR FUNCTIONS**

#### **DRY APPLICATIONS**

#### SCALPING - Small percentage of over-size

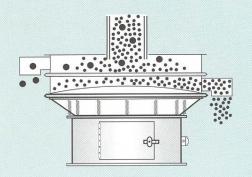
Foods: Dried milk powder, dairy products, starch powder, cocoa powder, dried eggs, spices, tea from bags.

**Chemicals and Petrochemicals:** PVC, polyethylene pellets, melamine, phenolics, cellulose, acetate, polystyrene, sodium carbonate, calcium carbide, copper sulphate, detergents, iron oxide, stearic acid, titanium dioxide, zinc oxide.

Minerals and Metals: Stones from pit sand, barite, mica, perlite, talc, diatomaceous earth.

Animal Feeds: Scalping of foreign material from mash, removal of over size from additives.

Grains: Separation of large foreign materials from bulk shipments, flour sifting.



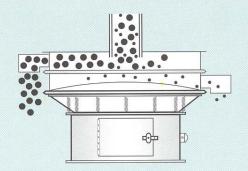
#### DE-DUSTING - Small percentage of undersize

Foods: Instant coffee powders, ground coffees, cereals, spices, nuts, potato flakes, additives, vitamins.

Chemicals: Polyethylene pellets, polystyrene, caustic soda flake.

Minerals and Metals: Steel shot, Abrasives.
Pulp and Wood Product: Particle board.
Pharmaceuticals: Tablet de-dusting, granulation.

Fertilisers: Pelletised, granulated mixes, ammonium nitrate prills.



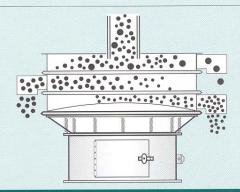
#### CLASSIFICATION - Sizing into two or more categories

Foods: Pea grading, sugars, salts, spices, nuts, bread crumbs.

Chemicals and petrochemicals: Catalyst beds, monosodium glutamate, expandable polystyrene beads, resins.

Minerals and metals: Metal powders (aluminum, copper, bronze, nickel, iron) sand, silica

**Pulp and wood products:** Wood chips, particle board, sawdust, wood flour **Abrasives:** Sand, carborundum, aluminum oxide, glass beads, blasting grit (steel, oxides, iron, copper oxides).



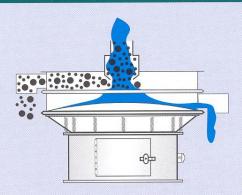
#### WET APPLICATIONS

#### DE-WATERING - High percentage of solids on screen

**Foods:** Separation of bagasse from sugar melt, casein curd from whey, corn fiber rom starch slurry, gluten from wheat starch, de-watering of fruits and vegetables, spent coffee grounds, potato slices, instant rice, tuna, caustic bottle wash, apple or citrus juices prior to filtration.

**Chemicals:** Separation of salt from glycerine, polyethylene from extruder water, coagulum from latex, aligns from digestion liquor, spiralina de-watering, de-watering of digested reclaim rubber, TNT, clarifying of polyvinyl acetate emulsions, paints, enamels.

Pulp: De-watering of rejects before refining, de-watering of knots.



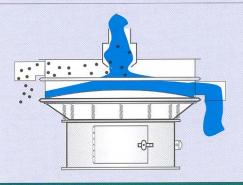
#### FILTERING - Small percentage of solids remain on screen

**Foods:** Protein from yeast slurry, chocolate liquor, frying oil, potato starch, soymilk. **Chemicals:** Aluminum paint suspension, feeds to decanters, centrifuges, classify pigments.

**Minerals:** Separate impurities from kaolin slurry prior to centrifuging, Colombian ore in closed circuit grinding, calcium carbonate.

**Pulp and Paper:** Recovering fiber from mill effluent, starch size press, coating suspensions, white water to produce shower quality water.

**Ceramics:** Clarify body and glaze slips for dishes, sanitary ware, fine china, pottery. **Waste Disposal:** Cannery wastes, paunch manure from meatpacking, distillery slop.



# TO INCREASE CAPACITY **Sloping Pan** Straight-Flo -0+ **Auxiliary-Series Multiple Spouts Auxiliary-Series** Ultrasonic 0 **Multiple Spouts Auxiliary-Series** . . . . . . . . Straight-Flo **Sloping Pan**

#### **CENTER FEED SYSTEM**

Vibra-screen Separators use a single feed pipe onto the center of the screen allowing 100% of the screen area to be available for separating. Velocity reducers for high flow rates can be used to ensure even and steady flow to the separator. Center feed systems also permit units to fit into existing process lines with a minimum of extra piping.

#### **DISCHARGE FRAMES**

Discharge frames allow the rapid discharge of undersize particles or liquid from the separator. Tilted domes, deep frames, and oversized discharge spouts offer different options to obtain higher capacity removal of liquids or solids from the unit. Double slope domes, twin spouts, and baffles can be used to further extend discharge capacities in wet or dry separations.

## CIRCUMFERENTIAL DISCHARGE FRAME

This design provides a 360 degree discharge from the screen deck in dry or wet separations. The full screen area is available for separation as solids cannot build up at the screen periphery while waiting for discharge. As solids reach the screen edge, they either fall out of the unit or into a vibrating chute attached to the frame. The de-dusting capacity of the separator is increased greatly, system overload is virtually impossible, and a very low head height is available.

### **APPLICATION EXAMPLES**

• CERAMICS         Abrasives         1.5         12, 16, 250         A30S-3-6666         Dry         1000           Alumina         0.8 − 1.2         100         A40S-1-66         Dry         250I           Fire Brick         1.2         2mm         A60S-1-88         Dry         1400C           Kaolin         0.4         100         A40S-1-66         Dry         200I           Lime         2.3         100         A40S-1-66         Dry         500I           Silica Grains         1.5         40, 65, 200         A48S-3-8888         Dry         1800           Silicon Carbide         1.5         325         A40S-1-66         Dry         250I           Silicon Nitride         1.0         200         A30S-1-66         Dry         600I           Silip         1.1         120         A40S-1-88         Wet         1000           Zeolite         0.2 - 0.6         5mm, 2mm, 1mm         A40S-3-666         Dry         600I           Zircon Sand         4.6         40         A48S-1-88         Dry         6000           **CHEMICAL PRODUCTS         Invaluance         Name         1.0         4.0         A48S-1-88         Dry         6000	land matrice	Apparent specific	Screen	Model	Dur AMat	Process rate	
Abrasives 1.5 12, 16, 250 A30S-3-6666 Dry 1000 Alumina 0.8 – 1.2 100 A40S-1-66 Dry 250l Fire Brick 1.2 2mm A60S-1-88 Dry 14000 Kaolin 0.4 100 A40S-1-66 Dry 200l Lime 2.3 100 A40S-1-66 Dry 5000 Silica Grains 1.5 40, 65, 200 A48S-3-8888 Dry 1800 Silicon Carbide 1.5 325 A40S-1-66 Dry 250l Silicon Nitride 1.0 200 A30S-1-66 Dry 250l Silicon Nitride 1.0 200 A30S-1-66 Dry 250l Silicon Nitride 1.1 120 A40S-1-88 Wet 1000 Slip 1.1 120 A40S-1-88 Wet 1000 Zeolite 0.2 – 0.6 5mm, 2mm, 1mm A40S-3-6666 Dry 1000 Zircon Sand 4.6 40 A48S-1-88 Dry 6000  **CHEMICAL PRODUCTS** INCLUDING RESINS** Bead Slurry 1.1 50 A40S-1-66 Dry 225l Melamine Formaldehyde Resins 0.4 35, 60 A18S-2-333 Dry 24k P.E. Pellets 1.0 9.5mm A30S-1-66 Dry 3000 P.V.C. Resin Pellet 1.0 9.5mm A30S-1-66 Dry 5000 P.V.C. Resin Pellet 1.0 9.5mm A30S-1-68 Dry 5000 Polyethylene Powder 0.5 60 A48S-1-88 Dry 5000 Vinyl Chloride Resins 0.45 48, 100 A18S-2-333 Dry 31k Zinc Oxide 0.25 – 0.35 16, 60 A48S-2-888 Dry 5000 Non-Magnetic Toner 0.4 60 A48S-1-33 Dry 2800 Non-Magnetic Toner 5.0 100 A18S-1-33 Dry 2800 Non-Magnetic Toner 5.0 100 A18S-1-33 Dry 2800 Non-Magnetic Toner 0.4 60 A40S-1-66 Dry 2001 Polyetter Powder Paint 0.5 – 0.8 80 A30S-1-66 Dry 2001 Polyetter Powder Paint 0.6 – 0.8 80 A30S-1-66 Dry 2001 Polyetter Powder Paint 0.6 – 0.8 80 A30S-1-66 Dry 2001 Polyetter Powder Paint 0.6 – 0.8 80 A30S-1-66 Dry 2001 Polyetter Powder Paint 0.6 – 0.8 80 A30S-1-66 Dry 2001 Polyetter Powder Paint 0.6 – 0.8 80 A30S-1-66 Dry 2001	Input material		Mesh	Model	Dry/Wet	kg/hr or l/hr	
Alumina         0.8 – 1.2         100         A40S-1-66         Dry         250I           Fire Brick         1.2         2mm         A60S-1-88         Dry         1400C           Kaolin         0.4         100         A40S-1-66         Dry         200I           Lime         2.3         100         A40S-1-66         Dry         500I           Silica Grains         1.5         40,65,200         A48S-3-8888         Dry         1800           Silicon Carbide         1.5         325         A40S-1-66         Dry         250I           Silicon Nitride         1.0         200         A30S-1-66         Dry         600I           Slaked Lime         0.7         30,50         A30S-2-666         Dry         600I           Slip         1.1         120         A40S-1-88         Wet         1000           Zeiotte         0.2 - 0.6         5mm, 2mm, 1mm         A40S-1-88         Dry         6000           **CHEMICAL PRODUCTS           INCLUDING RESINS         Bead Slurry         1.1         50         A40S-1-66         Dry         260I           MBS Resin         0.8         100         A40S-1-66         Dry         260I	• CERAMICS						
Fire Brick	Abrasives	1.5	12, 16, 250	A30S-3-6666	Dry	1000kg	
Kaolin	Alumina	0.8 – 1.2	100	A40S-1-66	Dry	250kg	
Lime	Fire Brick	1.2	2mm	A60S-1-88	Dry	14000kg	
Silica Grains         1.5         40, 65, 200         A48S-3-8888         Dry         1800           Silicon Carbide         1.5         325         A40S-1-66         Dry         1501           Silicon Nitride         1.0         200         A30S-1-66         Dry         2501           Slaked Lime         0.7         30, 50         A30S-2-666         Dry         6000           Slip         1.1         120         A40S-1-88         Wet         1000           Zeolite         0.2 – 0.6         5mm, 2mm, 1mm         A40S-3-6666         Dry         1000           Zircon Sand         4.6         40         A48S-1-88         Dry         6000           • CHEMICAL PRODUCTS         Including Resins         1.1         50         A40S-1-66         Dry         1200           • CHEMICAL PRODUCTS         Including Resins         0.8         100         A40S-1-66         Dry         2600           MBS Resin         0.8         100         A40S-1-66         Dry         2601           MBS Resin         0.3         30         A18S-2-333         Dry         24k           P.E. Pellets         1.05         10,20         A40S-2-666         Dry         3000	Kaolin	0.4	100	A40S-1-66	Dry	200kg	
Silicon Carbide         1.5         325         A40S-1-66         Dry         1500           Silicon Nitride         1.0         200         A30S-1-66         Dry         2500           Slaked Lime         0.7         30,50         A30S-1-66         Dry         6000           Slip         1.1         120         A40S-1-88         Wet         1000           Zeolite         0.2 - 0.6         5mm, 2mm, 1mm         A40S-3-6666         Dry         1000           Zircon Sand         4.6         40         A48S-1-88         Dry         6000           • CHEMICAL PRODUCTS           INCLUDING RESINS         Bead Slurry         1.1         50         A40S-1-66         Wet         7200           Bepoxy Resin         0.8         100         A40S-1-66         Dry         2601           MBS Resin         0.3         30         A18S-1-33         Dry         1250           Melamine Formaldehyde Resins         0.4         35,60         A18S-2-333         Dry         24k           P.E. Pellets         1.05         10,20         A40S-2-666         Dry         3000           P.V.C. Resin Pellet         1.0         9.5mm         A30S-1-66         Dry	Lime	2.3	100	A40S-1-66	Dry	500kg	
Silicon Nitride         1.0         200         A30S-1-66         Dry         250B           Slaked Lime         0.7         30, 50         A30S-2-666         Dry         600B           Slip         1.1         120         A40S-1-88         Wet         1000           Zeolite         0.2 - 0.6         5mm, 2mm, 1mm         A40S-3-6666         Dry         1000           Zircon Sand         4.6         40         A48S-1-88         Dry         6000           • CHEMICAL PRODUCTS INCLUDING RESINS         Bead Slurry         1.1         50         A40S-1-66         Wet         7200           Bead Slurry         1.1         50         A40S-1-66         Dry         260b           MBS Resin         0.8         100         A40S-1-66         Dry         260b           Melamine Formaldehyde Resins         0.4         35, 60         A18S-2-333         Dry         24k           P.E. Pellets         1.05         10, 20         A40S-2-666         Dry         3000           P.V.C. Resin Pellet         1.0         9.5mm         A30S-1-66         Dry         770b           P.V.C. Resin Pellet         1.0         ø10mm, ø5         A48S-2-888         Dry         5000	Silica Grains	1.5	40, 65, 200	A48S-3-8888	Dry	1800kg	
Slaked Lime	Silicon Carbide	1.5	325	A40S-1-66	Dry	150kg	
Slip	Silicon Nitride	1.0	200	A30S-1-66	Dry	250kg	
Zeolite         0.2 – 0.6         5mm, 2mm, 1mm         A40S-3-6666         Dry         1000           Zircon Sand         4.6         40         A48S-1-88         Dry         6000           • CHEMICAL PRODUCTS INCLUDING RESINS           Bead Slurry         1.1         50         A40S-1-66         Wet         7200 1200           Epoxy Resin         0.8         100         A40S-1-66         Dry         260k           MBS Resin         0.3         30         A18S-1-33         Dry         125k           Melamine Formaldehyde Resins         0.4         35, 60         A18S-2-333         Dry         24k           P.E. Pellets         1.05         10, 20         A40S-2-666         Dry         3000           P.V.C. Resin Pellet         1.0         9.5mm         A30S-1-666         Dry         770k           P.V.C. Resin Pellet         1.0         ø10mm, ø5         A48S-2-888         Dry         5000           Polyethylene Powder         0.5         60         A48S-1-88         Dry         550k           Vinyl Chloride Resins         0.45         48, 100         A18S-2-333         Dry         31k           Zinc Oxide         0.25 – 0.35         16, 60         A48S-2-88	Slaked Lime	0.7	30, 50	A30S-2-666	Dry	600kg	
Zircon Sand         4.6         40         A48S-1-88         Dry         6000           • CHEMICAL PRODUCTS INCLUDING RESINS           Bead Slurry         1.1         50         A40S-1-66         Wet         7200 1200           Epoxy Resin         0.8         100         A40S-1-66         Dry         2604           MBS Resin         0.3         30         A18S-1-33         Dry         1254           Melamine Formaldehyde Resins         0.4         35, 60         A18S-2-333         Dry         24k           PE. Pellets         1.05         10, 20         A40S-2-666         Dry         3000           P.V.C. Resin Pellet         1.0         9.5mm         A30S-1-66         Dry         7704           P.V.C. Resin Pellet         1.0         ø10mm, ø5         A48S-2-888         Dry         5000           Polyethylene Powder         0.5         60         A48S-1-88         Dry         5504           Vinyl Chloride Resins         0.45         48, 100         A18S-2-333         Dry         31k           Zinc Oxide         0.25 – 0.35         16, 60         A48S-2-888         Dry         1500           • COATING MATERIALS         80         A18S-1-33         Dry	Slip	1.1	120	A40S-1-88	Wet	10000 <i>l</i>	
• CHEMICAL PRODUCTS         INCLUDING RESINS           Bead Slurry         1.1         50         A40S-1-66         Wet         7200           Epoxy Resin         0.8         100         A40S-1-66         Dry         260k           MBS Resin         0.3         30         A18S-1-33         Dry         125k           Melamine Formaldehyde Resins         0.4         35, 60         A18S-2-333         Dry         24k           PE. Pellets         1.05         10, 20         A40S-2-666         Dry         3000           PV.C. Resin Pellet         1.0         9.5mm         A30S-1-66         Dry         770k           P.V.C. Resin Pellet         1.0         ø10mm, ø5         A48S-2-888         Dry         5000           Polyethylene Powder         0.5         60         A48S-1-88         Dry         550k           Vinyl Chloride Resins         0.45         48, 100         A18S-2-333         Dry         31k           Zinc Oxide         0.25 – 0.35         16, 60         A48S-2-888         Dry         1500           • COATING MATERIALS         80         A18S-1-33         Dry         50k           Acrylic Powder Paint         0.5 – 0.8         80         A18S-1-33         <	Zeolite	0.2 – 0.6	5mm, 2mm, 1mm	A40S-3-6666	Dry	1000kg	
INCLUDING RESINS   Bead Slurry	Zircon Sand	4.6	40	A48S-1-88	Dry	6000kg	
MBS Resin         0.3         30         A18S-1-33         Dry         125k           Melamine Formaldehyde Resins         0.4         35, 60         A18S-2-333         Dry         24k           P.E. Pellets         1.05         10, 20         A40S-2-666         Dry         3000           P.V.C. Resin Pellet         1.0         9.5mm         A30S-1-66         Dry         770k           P.V.C. Resin Pellet         1.0         ø10mm, ø5         A48S-2-888         Dry         5000           Polyethylene Powder         0.5         60         A48S-1-88         Dry         550k           Vinyl Chloride Resins         0.45         48, 100         A18S-2-333         Dry         31k           Zinc Oxide         0.25 – 0.35         16, 60         A48S-2-888         Dry         1500           • COATING MATERIALS           Acrylic Powder Paint         0.5 – 0.8         80         A18S-1-33         Dry         50k           Epoxy Powder Paint         0.5 – 0.8         60         A18S-1-33         Dry         300k           Non-Magnetic Toner         5.0         100         A18S-1-33         Dry         300k           Paint         0.8         10         A18S-1-33	INCLUDING RESINS	1.1		A40S-1-66	Wet	7200 <i>l</i> 12000 <i>l</i>	
Melamine Formaldehyde Resins         0.4         35, 60         A18S-2-333         Dry         24k           P.E. Pellets         1.05         10, 20         A40S-2-666         Dry         3000           P.V.C. Resin Pellet         1.0         9.5mm         A30S-1-66         Dry         770k           P.V.C. Resin Pellet         1.0         Ø10mm, Ø5         A48S-2-888         Dry         5000           Polyethylene Powder         0.5         60         A48S-1-88         Dry         550k           Vinyl Chloride Resins         0.45         48, 100         A18S-2-333         Dry         31k           Zinc Oxide         0.25 - 0.35         16, 60         A48S-2-888         Dry         1500           • COATING MATERIALS         50         A18S-1-33         Dry         50k           Acrylic Powder Paint         0.5 - 0.8         80         A18S-1-33         Dry         280k           Magnetic Toner         5.0         100         A18S-1-33         Dry         300k           Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100k           • Paint         0.6 - 0.8         80         A30S-1-66         Dry         200k           • ELECTRIC	Epoxy Resin	0.8	100	A40S-1-66	Dry	260kg	
P.E. Pellets         1.05         10, 20         A40S-2-666         Dry         3000           P.V.C. Resin Pellet         1.0         9.5mm         A30S-1-66         Dry         770k           P.V.C. Resin Pellet         1.0         Ø10mm, Ø5         A48S-2-888         Dry         5000           Polyethylene Powder         0.5         60         A48S-1-88         Dry         550k           Vinyl Chloride Resins         0.45         48, 100         A18S-2-333         Dry         31k           Zinc Oxide         0.25 - 0.35         16, 60         A48S-2-888         Dry         1500           • COATING MATERIALS         Social Section of Control o	MBS Resin	0.3	30	A18S-1-33	Dry	125kg	
P.V.C. Resin Pellet         1.0         9.5mm         A30S-1-66         Dry         770k           P.V.C. Resin Pellet         1.0         Ø10mm, Ø5         A48S-2-888         Dry         5000           Polyethylene Powder         0.5         60         A48S-1-88         Dry         550k           Vinyl Chloride Resins         0.45         48, 100         A18S-2-333         Dry         31k           Zinc Oxide         0.25 - 0.35         16, 60         A48S-2-888         Dry         1500           • COATING MATERIALS         Acrylic Powder Paint         0.5 - 0.8         80         A18S-1-33         Dry         50k           Epoxy Powder Paint         0.5 - 0.8         60         A18S-1-33         Dry         280k           Magnetic Toner         5.0         100         A18S-1-33         Dry         300k           Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100k           Paint         0.8         10         A18S-1-33         Wet         1800           • ELECTRICAL & MAGNETIC MATERIAL         MAGNETIC MATERIAL         A30S-1-66         Dry         200k	Melamine Formaldehyde Resins	0.4	35, 60	A18S-2-333	Dry	24kg	
P.V.C. Resin Pellet         1.0         Ø10mm, Ø5         A48S-2-888         Dry         5000           Polyethylene Powder         0.5         60         A48S-1-88         Dry         550k           Vinyl Chloride Resins         0.45         48, 100         A18S-2-333         Dry         31k           Zinc Oxide         0.25 – 0.35         16, 60         A48S-2-888         Dry         1500           • COATING MATERIALS         Acrylic Powder Paint         0.5 – 0.8         80         A18S-1-33         Dry         50kg           Epoxy Powder Paint         0.5 – 0.8         60         A18S-1-33         Dry         280k           Magnetic Toner         5.0         100         A18S-1-33         Dry         300k           Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100k           Paint         0.8         10         A18S-1-33         Wet         1800           Polyester Powder Paint         0.6 – 0.8         80         A30S-1-66         Dry         200k           • ELECTRICAL & MAGNETIC MATERIAL         MAGNETIC MATERIAL         .         .         .         .	P.E. Pellets	1.05	10, 20	A40S-2-666	Dry	3000kg	
Polyethylene Powder         0.5         60         A48S-1-88         Dry         550k           Vinyl Chloride Resins         0.45         48, 100         A18S-2-333         Dry         31k           Zinc Oxide         0.25 – 0.35         16, 60         A48S-2-888         Dry         1500           • COATING MATERIALS         Acrylic Powder Paint         0.5 – 0.8         80         A18S-1-33         Dry         50kg           Epoxy Powder Paint         0.5 – 0.8         60         A18S-1-33         Dry         280kg           Magnetic Toner         5.0         100         A18S-1-33         Dry         300kg           Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100kg           Paint         0.8         10         A18S-1-33         Wet         1800g           Polyester Powder Paint         0.6 – 0.8         80         A30S-1-66         Dry         200kg           • ELECTRICAL & MAGNETIC MATERIAL         MAGNETIC MATERIAL         A18S-1-38         Dry         200kg	P.V.C. Resin Pellet	1.0	9.5mm	A30S-1-66	Dry	770kg	
Vinyl Chloride Resins         0.45         48, 100         A18S-2-333         Dry         31k           Zinc Oxide         0.25 – 0.35         16, 60         A48S-2-888         Dry         1500           • COATING MATERIALS         0.5 – 0.8         80         A18S-1-33         Dry         50kg           Epoxy Powder Paint         0.5 – 0.8         60         A18S-1-33         Dry         280kg           Magnetic Toner         5.0         100         A18S-1-33         Dry         300kg           Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100kg           Paint         0.8         10         A18S-1-33         Wet         1800g           Polyester Powder Paint         0.6 – 0.8         80         A30S-1-66         Dry         200kg           • ELECTRICAL & MAGNETIC MATERIAL         MAGNETIC MATERIAL         MAGNETIC MATERIAL         MAGNETIC MATERIAL	P.V.C. Resin Pellet	1.0	ø10mm, ø5	A48S-2-888	Dry	5000kg	
Zinc Oxide         0.25 – 0.35         16, 60         A48S-2-888         Dry         1500           • COATING MATERIALS          Acrylic Powder Paint         0.5 – 0.8         80         A18S-1-33         Dry         50kg           Epoxy Powder Paint         0.5 – 0.8         60         A18S-1-33         Dry         280kg           Magnetic Toner         5.0         100         A18S-1-33         Dry         300kg           Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100kg           Paint         0.8         10         A18S-1-33         Wet         180cg           Polyester Powder Paint         0.6 – 0.8         80         A30S-1-66         Dry         200kg           • ELECTRICAL & MAGNETIC MATERIAL         MAGNETIC MATERIAL         A30S-1-66         Dry         200kg	Polyethylene Powder	0.5	60	A48S-1-88	Dry	550kg	
• COATING MATERIALS         Acrylic Powder Paint         0.5 – 0.8         80         A18S-1-33         Dry         50kg           Epoxy Powder Paint         0.5 – 0.8         60         A18S-1-33         Dry         280kg           Magnetic Toner         5.0         100         A18S-1-33         Dry         300kg           Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100kg           Paint         0.8         10         A18S-1-33         Wet         180kg           Polyester Powder Paint         0.6 – 0.8         80         A30S-1-66         Dry         200kg           • ELECTRICAL & MAGNETIC MATERIAL         MAGNETIC MATERIAL	Vinyl Chloride Resins	0.45	48, 100	A18S-2-333	Dry	31kg	
Acrylic Powder Paint         0.5 – 0.8         80         A18S-1-33         Dry         50kg           Epoxy Powder Paint         0.5 – 0.8         60         A18S-1-33         Dry         280kg           Magnetic Toner         5.0         100         A18S-1-33         Dry         300kg           Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100kg           Paint         0.8         10         A18S-1-33         Wet         180cg           Polyester Powder Paint         0.6 – 0.8         80         A30S-1-66         Dry         200kg           • ELECTRICAL & MAGNETIC MATERIAL         .         .         .         .         .	Zinc Oxide	0.25 - 0.35	16, 60	A48S-2-888	Dry	1500kg	
Epoxy Powder Paint         0.5 – 0.8         60         A18S-1-33         Dry         280k           Magnetic Toner         5.0         100         A18S-1-33         Dry         300k           Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100k           Paint         0.8         10         A18S-1-33         Wet         1800k           Polyester Powder Paint         0.6 – 0.8         80         A30S-1-66         Dry         200k           • ELECTRICAL & MAGNETIC MATERIAL         MAGNETIC MATERIAL         A30S-1-66         Dry         A30	COATING MATERIALS						
Magnetic Toner         5.0         100         A18S-1-33         Dry         300k           Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100k           Paint         0.8         10         A18S-1-33         Wet         1800k           Polyester Powder Paint         0.6 – 0.8         80         A30S-1-66         Dry         200k           • ELECTRICAL & MAGNETIC MATERIAL	Acrylic Powder Paint	0.5 - 0.8	80	A18S-1-33	Dry	50kg	
Non-Magnetic Toner         0.4         60         A40S-1-66         Dry         100k           Paint         0.8         10         A18S-1-33         Wet         1800k           Polyester Powder Paint         0.6 – 0.8         80         A30S-1-66         Dry         200k           • ELECTRICAL & MAGNETIC MATERIAL	Epoxy Powder Paint	0.5 - 0.8	60	A18S-1-33	Dry	280kg	
Paint         0.8         10         A18S-1-33         Wet         1800           Polyester Powder Paint         0.6 – 0.8         80         A30S-1-66         Dry         200k           • ELECTRICAL & MAGNETIC MATERIAL         .	Magnetic Toner	5.0	100	A18S-1-33	Dry	300kg	
Polyester Powder Paint 0.6 – 0.8 80 A30S-1-66 Dry 200k • ELECTRICAL & AGNETIC MATERIAL	Non-Magnetic Toner	0.4	60	A40S-1-66	Dry	100kg	
ELECTRICAL &     MAGNETIC MATERIAL	Paint	0.8	10	A18S-1-33	Wet	1800 <i>l</i>	
MAGNETIC MATERIAL .	Polyester Powder Paint	0.6 - 0.8	80	A30S-1-66	Dry	200kg	
1.7 - 2.3   40   7.405-1-0   DIV   500F	MAGNETIC MATERIAL	17 23	40	A405.1.6	Dry	900kg	
						150kg	
						1400kg	
						500kg	

- TESTING OF PRODUCT IS RECOMMENDED
- MODIFICATIONS AVAILABLE TO INCREASE CAPACITY OR MEET SPECIFIC NEEDS

Input material	Apparent	Screen	Model	D. AVet	Process rate	
Input material	specific gravity	Mesh	Model ·	Dry/Wet	kg/hr or l/hr	
• FOODSTUFFS						
Beer Yeast	0.5	32	A48S-1-88	Wet	12000 <i>l</i>	
Common Salt	1.2	10 30, 80	A18S-1-33 A60S-2-888	Dry Dry	125kg 5000kg	
Corn Starch	0.8	40	A30S-1-66	Dry	1100kg	
Gelatin	0.5	35	A30S-1-66	Dry	500kg	
Glucose	0.5	5, 20	A48S-2-888	Dry	2000kg	
Granulated Sugar	1.0	14	A48S-1-88	Dry	6000kg	
Orange Juice (Tsubu Tsubu)	1.0	5mm, 3mm	A48S-1-88	Wet	2000 <i>l</i>	
Palm Oil	0.9	20, 40	A60S-2-888	Wet	30t/hr	
Powder Soup	0.7	6, 80	A18S-1-33	Dry	230kg	
Rice Bran	0.5	16	A30S-1-66	Dry	500kg	
Sauce	1.0	100	A48S-1-88	Wet	60001	
Skim Milk Powder	0.58 - 0.7	24	A60S-1-88	Dry	6000kg	
"Tofu" Slurry	1.0	120	A40S-1-66	Wet	2000 <i>l</i>	
Topica Starch	1.0	200	A48S-1-88	Wet	18000 <i>l</i>	
Wheat Starch	1.0	150 250	A18S-1-33 A48S-1-88	Wet Wet	1000 <i>l</i> 3000 <i>l</i>	
• MEDICALS  Health Food/Medicals	1.2	40, 80	A40S-2-666	Dry	200kg	
Injection	1.0	ø1mm	A18S-1-33	Wet	600 <i>l</i>	
Medicalhers Powder	0.8	. 80	A18S-1-33	Dry	420kg	
• METAL						
Aluminium Powder	0.7	80, 120	A18S-1-33	Dry	300kg	
Brass Powder	1.5	100, 200, 325	A40S-3-6666	Dry	100kg	
Electrolytic Copper Powder	1.3 – 2.3	24	A40S-1-66	Dry	200kg	
Gold Bronze Powder	2.0	100	A18S-1-33	Dry	50kg	
Iron Powder	2.8	400	A18S-1-33	Dry	200kg	
Manganese Carbonate	3.7	60	A30S-1-66	Dry	250kg	
Manganese Dioxide	2.0	60	A40S-1-66	Dry	1500kg	
Powder for Alloys	3.0	200	A18S-1-33	Dry	200kg	
Steel Shot	4.0	4, 8, 42	A18S-3-3333	Dry	1000kg	
Titanium Dioxide	2.1	16	A18S-1-33	Dry	500kg	
Tungsten	8.3	20, 60, 100	A30S-3-6666	Dry	300kg	
Welding Powder	0.95	20, 200	A40S-2-666	Dry	· 500kg	

#### Note

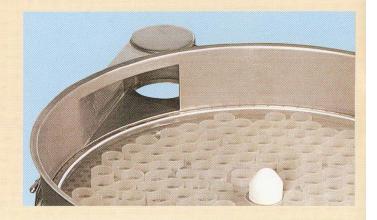
In the item of dry/wet, "dry" denotes that the input material is so dry that it flows and has no free moisture, and "wet" denotes that the input material is so wet that it should be processed in slurry.

Process rates listed are the examples which were offered by the sampled users of AMKCO Vibra-screen. The data may be used as reference. All data are to be evaluated in accordance with product, properties, specific gravity of input material, screen mesh, ambient temperature and humidity.

### SCREEN BLINDING PREVENTION

#### **SCREEN CLEANING RINGS**

Screen cleaning rings (sliders) are supported closely below the screen by a stainless steel perforated plate or a courser screen. Vibration of the separator causes the sliders to rub against the bottom surface of the screen. This action helps prevent screen blinding by creating shearing forces that cut fibers and scrape away gummy materials. The sliders operate with 1 to 2mm of clearance to allow 100% screen area contact, are hollow to promote product flow, and are available in a variety of materials for increased chemical, temperature, or abrasive resistance.



#### **BALL TRAY**

The Ball Tray is a system that is especially appropriate for two different types of blinding problems. One type of situation is for near size, dry material screening. The second is for material that tends to agglomerate on the top of the screen. The bouncing balls flex the screen slightly, dislodge material that may be stuck in the wires, and also lifts the material to keep it flowing. A ball support screen is mounted below the operating screen.



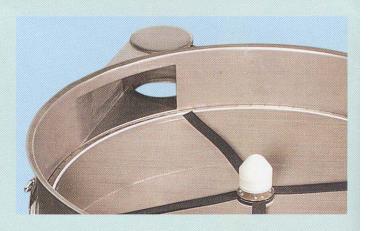
#### **ULTRASONIC**

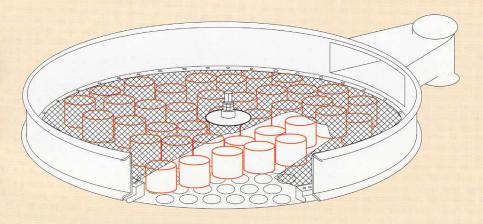
Ultrasonic is an add-on secondary vibration to the primary vibrating screen. The secondary vibration operates at high frequency (36kHz) to generate an additional uniform vibrating motion of 5 microns to the screen mesh. This reduces the friction between the screen mesh and the product which can result in a better flow of product thru' the mesh.



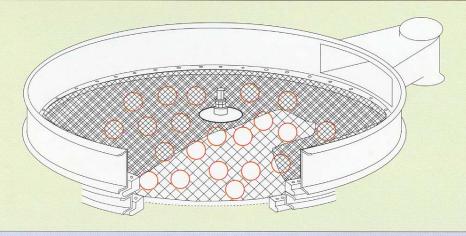
#### **WIPERS**

These are soft strips that tap lightly on the top surface of the screen. The vibrating motion of the seperator flex the strips to tap on the screen. It helps to break up lumps and push the "under" size product thru' the screen mesh.

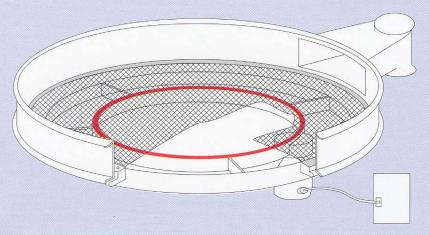




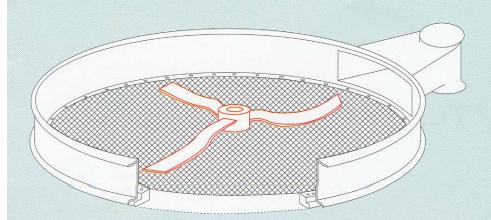
These rings are commonly available in polyester, food grade nylon and polyurethane with excellent wear resistance. Available in single ring or cluster. In heights of 22, 24, and 26 mm.



These bouncing balls are available in natural rubber, neoprene, silicone, EPDM, polyurethane and nitrile. Sizes range from 16, 22, 25, 28, 35 and 50 mm in diameter.



Sonoscreen can be installed or retrofitted in any operational vibrating screen. Items needed are an ultrasonic generator, ultrasonic screen resonator with transducer and high frequency cable connector.



Common materials for this wiper are neoprene or polyurethane.



### **SCREEN OPENINGS**

	TENSIL BC	DLTING CLOT	Н			A			
lesh TBC	Opening	Wire Dia.	X Open Area	Approx. Opening In Microns	Mesh MG	Opening	Wire Dia.	X Open Area	Approx. Opening In Micron
					2	.4370	.0630	76.4	11.099
						.4200	.0800	70.6	10.668
					3	.2790	.0540	70.1	7087
					4	.2023	.0475	65.9	5138
					4	.1870	.0630	56.0	4750
	l es	AMKCO			5	.1590	.0410	63.2	4038
	1.30				6	.1318	.0348	62.7	3347
	16				7	.1080	.0350	57.2	2743
					8	.0964	.0286	60.2	2448
		(N)			10	.0742	.0258	56.3	1885
		3			11	.073	.0180	64.5	1854
					12	.0603	.0230	51.8	1532
16	.0535	.0090	73.3	1359	14	.0510	.0204	51.0	1295
18	.0456	.0090	70.2	1158	16	.0445	.0181	50.7	1130
20	.0410	.0090	67.2	1041					
22	.0380	.0075	69.7	965	18	.0386	.0173	48.3	981
24	.0342	.0075	67.2	868	20	.0345	.0162	46.2	876
26	.0310	.0075	64.8	787					
28	.0282	.0075	62.4	716	24	.0277	.0140	44.2	704
30	.0268	.0065	64.8	681					
32	.0248	.0065	62.7	630					
34	.0229	.0065	60.7	582					
36	.0213	.0065	58.7	541	30	.0203	.0128	37.1	516
38	.0198	.0065	56.7	503					
40	.0185	.0065	54.8	470					
42	.0183	.0055	59.1	465					
44	.0172	.0055	57.4	437	35	.0176	.0118	37.9	447
46	.0162	.0055	55.8	411					
48	.0153	.0055	54.2	389	40	.0150	.0104	36.0	381
50	.0145	.0055	52.6	368	10	.0150	.0101	30.0	301
52	.0137	.0055	51.0	348					
54	.0130	.0055	49.4	330		48-			
58	.0127	.0035	54.6	323				5	
60	.0122	.0045	53.3	310		dir.	10)		
62	.0122	.0045	51.7	295			The second second		
64	.0111	.0045	50.7	282	50	.0110	.0090	30.3	279
70	.0106	.0043	54.9	269	30	.0110	.0000	30.3	273
				259					
72	.0102	.0037	53.8	249					
74 76	.0098	.0037	52.7 51.7	249					
78	.0095	.0037	50.6	231	60	.0092	.0075	30.5	233
				224	00	.0092	.00/3	30.3	233
80	.0088	.0037	49.6	100000000000000000000000000000000000000					
84	.0084	.0035	49.8	213					
88	.0079	.0035	47.9	200 193					
90	.0076	.0035	47.8	70, 7117	90	0070	OOFF	31.4	178
94	.0071	.0035	45.0	180	80	.0070	.0055	31.4	1/0
105	.0065	.0030	46.9	165	100	OOFF	0045	20.2	140
120	.0058	.0025	47.3	147	100	.0055	.0045	30.3	140
145	.0047	.0022	46.4	119	120	.0045	.0037	30.5	114
165	.0042	.0019	47.1	106	150	.0041	.0026	37.9	104
200	.0034	.0016	46.2	86	170	.0035	.0024	35.1	88
230	.0029	.0014	46.0	74	200	.0029	.0021	33.6	74
					250	.0024	.0016	36.0	61
			re mesh. Co		270	.0021	.0016	32.2	53
			steel. Some m		325	.0017	.0014	30.8	43
			r nylon, anti		400	.0015	.0010	36.0	38
	etic stainless		and the second second		500	.0010	.0010	25.0	25
	and ordinings				635	The state of the s	.0008	25.0	20



AMKCO Process Equipment Pte. Ltd is a manufacturer of screening, sieving, and separator equipment for the chemical, food, pulp and paper, and other processing industries. Our core product is the circular vibratory screen... a compact production machine for making mechanical separations through the proven use of multiplane, inertial vibration techniques first patented in the USA in 1954.

AMKCO's mission is to provide the highest value in the market at the lowest cost. We use only modern ISO 9001 motors. We give a three year, no nonsense warranty on standard frames. We provide the best possible customer service. Amkco has personalized engineering service to solve the nonstandard problems.

Our product line of circular vibratory separators has led us to develop machines to process paper mill white water, to pulverize, and to wet grind to 1 micron. In addition to the standard machines described in this brochure, AMKCO offers a wide range of special units and systems to meet special screening requirements.

Whatever your screening needs are, "It pays to talk to a specialist at AMKCO."

#### Manufactured in North America

**Technical Representatives:** 



#### AMKCO PROCESS EQUIPMENT PTE LTD

192 Pandan Loop #06-08, Pantech Industrial Complex, Singapore 128381 Tel: (65) 777 0601 Fax: (65) 777 8067 e-mail: amkco@pacific.net.sg