

TECHNICAL BRIEF

A better motion. A better cut.

Most screening problems are motion problems. Conventional vibratory screeners drive product across the deck with intense, high-frequency vibration — effective for coarse, forgiving materials, but punishing for the fine, friable, and difficult-to-screen products modern processors depend on. Particles fracture, superfines smear into the wrong fraction, screens wear out, and yield walks out the door.

GKM's tumbler screening machines take a different approach: a gentle, **three-dimensional elliptical motion** that works the way hand-sieving does — moving product across the screen precisely and controllably, without beating up the material or the machine. Motion is tuned on three axes to the application, so dwell time on the screen becomes an engineering variable instead of an accident.



GKM KTS tumbler screening machine

The comparison, side by side

	Traditional Vibratory	GKM Tumbler Screening
Screening motion	Intense, high-frequency vibration	Gentle, three-dimensional elliptical movement
Material treatment	Aggressive — degrades fine and friable products	Non-aggressive — preserves particle integrity, purity, and quality
Cut quality & yield	Limited control over how long product works the screen	Adjustable dwell time via three-axis motion control — sharper cuts, higher yield, less reprocessing
Capacity	Screen surface under-utilized at high feed rates	Better surface utilization — up to 6 decks and 7 fractions in a single machine
Wear & uptime	High stress on screens, components, and structure	Gentle motion extends screen and machine life — designed for 24/7 operation with minimal maintenance
Plant environment	Higher noise and power draw; vibration transmitted to the building	Quiet operation at ~75 dB(A), lower power consumption, fully balanced for vibration-free installation

Where it earns its keep

- Pharmaceuticals
- Battery Materials
- Food & Food Additives
- Chemicals
- Plastics & Rubber
- Recycling
- Wood
- Abrasives
- Stones & Earth

One machine. Three dimensions. Up to six decks.

GKM's KTS tumbler screening machine is built to separate and dedust dry, powdered, and granular products at high feed rates — and it earns its keep on exactly the materials that defeat vibratory screeners: fine, lightweight, and difficult to screen.

Ultra-precise sizing

Tight, repeatable cuts for demanding quality standards.

Reduced wear

Gentle motion extends screen and machine life.

Higher throughput

Better surface utilization — more capacity per footprint.

Efficient & quiet

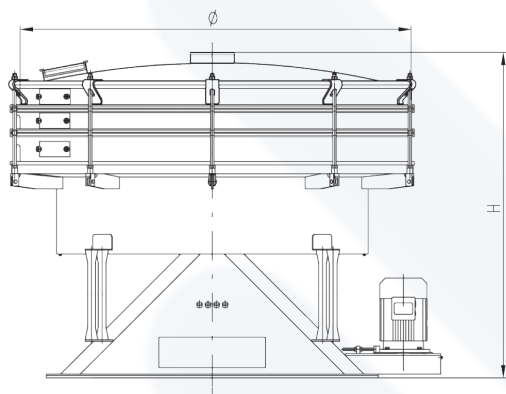
Lower power draw; ~75 dB(A) in operation.

Customizable movement

Motion engineered to the application for maximum yield.

Dust-tight

Contained by design — cleaner, safer plants.



KTS dimensions — diameter (Ø) and height (H) by model below

Process capabilities

Feed rates	Up to 50 tph
Mesh openings	20 µm – 25 mm (1")
Anti-blinding	Rubber balls, ultrasonic, air nozzles, roller brushes, etc.
Bulk density	1 – 625 pcf

Model range & dimensions

Model KTS	600	1000	1200	1600	2000	2400	2600
Screening area (m²)	0.3	0.725	1.1	1.8	2.6	4.5	5.3
Diameter Ø (mm)	630	900	1100	1601	1901	2471	2672
Motor power (kW)	0.25	1.50	2.20	4.00	4.00	5.50	5.50
Weight (kg)	215–300	500–950	900–1100	1280–1580	1300–1700	2400–2800	2500–3000
Height, 1–6 decks (mm)	817–1383	944–1514	1264–1834	1283–1853	1396–1966	1572–2142	1582–2152

One local partner, backed by the manufacturer. GKM Siebtechnik is a global manufacturer specializing in precision screening for dry bulk classification and separation. GQI is GKM's North American partner — application engineering, replacement screens, and aftermarket support, delivered from the Chicago area.



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Let's talk about your screening application.

Innovative Solutions. Reliable Support. Always a Step Ahead.

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