



*innovation. not imitation.*



# GKM SIEBTECHNIK



// We are one of the leading specialists worldwide, for screening technology. More than 25 years of experience and tremendous confidence from our customers secure a constant and healthy growth of the company. We are setting the global benchmark with our products for the fine screening.

// »Our machines stand for optimal, well designed and reliable mechanical solutions. They are thereby extremely long-lasting, easy to handle, multi functional and solid« summarize the managing partners Gotthard Becker and Thomas Scholl the principles of GKM Siebtechnik.



// We always satisfy the increasing demands of the market with new solutions for fine and multiple deck screening by adapting exactly the customer demands to our machines. We can fractionate, control screen or dedust your product within the desired particle sizes using meshes down to 20 microns with our tumbler screening machines, round vibrating screening machines and vibrating control screening machines.

Famous companies with worldwide operations from the chemical and food industry have entered into contracts with us – a major sign of confidence regarding the capability and competence of our company. Innovation is for us not only lip service but is also lived day by day. But we put our focus on real innovation bringing substantial advantages to the customer to act more efficiently, economically and successfully in the market.

The modular design makes our machines extremely flexible operationally. Special versions for double, triple or reversed screening are possible to optimize the screening output and efficiency. Therefore highest outputs are guaranteed even with fine and difficult to screen materials. Our patented manual lifting device makes the screen changes not only very easy but is also a standard option for our tumbler screening machines starting at a diameter of 1200 mm.

You can adjust individually for each material, the residence time on the screen with the patented three dimensional screen motion adjustments on our tumbler screening machines. A special curve writer draws the 3D movement and delivers with the precise measurement, optimal and reproducible parameters for future setting verifications and therewith constant high screening quality.







## CHEMICAL, PHARMACEUTICAL AND FOOD INDUSTRY

// Our tumbler and vibrating screening machines are manufactured according to the strict regulations of the GMP and FDA criteria to process high quality and sensitive powders, pellets and granulates for the pharmaceutical, chemical and food industry. Especially the tumbler screening machine ensures a gentle treatment and function.

Only FDA approved rubber and plastic materials are used. Highest class surface finish with a roughness depth of 0,4 microns and mirror finished stainless steel can be used depending on the requirements of the pharmaceutical application. All machines can be equipped, depending on the material to be screened, with product specific screen cleaning technologies like the ultra high resistant bouncing balls or with the contamination free ultrasonic cleaning device. Clamp connections for CIP (cleaning in place) cleaning solutions of the screen body are also often used.





EA variable and easy selection of screen inserts with only a few fasteners, allows a fast adjustment to changed process conditions from 2 to 7 fractions within one machine with maximum screening efficiency.

The compact design of our machines on which we paid attention to have only a few welds and to minimize the weights of each single component, matches also the high requirements of these industries.



All our machines and different sizes are used in the chemical and food industry whereas in the pharmaceutical industry, for example pharmaceutical raw materials or additives, mainly smaller and high quality versions are used.

Corn starch, wheat gluten, sugar and citric acid are screened with it. In particular, several well-known global flavor manufacturers trust in our know-how and competence.







## PLASTIC, RUBBER, WOOD & RECYCLING INDUSTRY



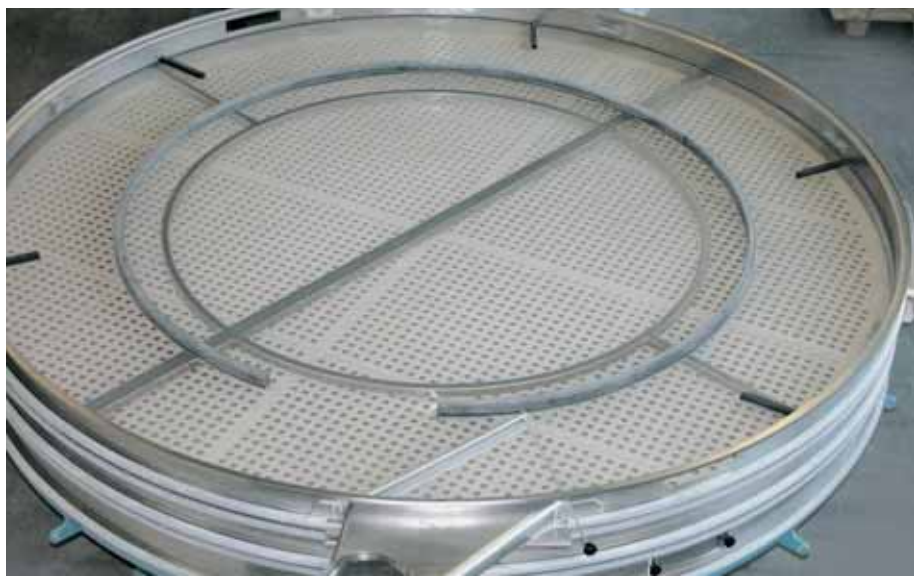
The worldwide demand for raw materials is increasing with at the same time diminishing resources. In spite of oil shortage the plastic industry is an important branch of the economy with a heavy demand on varied screening applications of all kinds of plastic powders like granulates, spheres, flakes and Hard-PVC wash water separation.

The main challenge for plastics is that you can find them very often in fine concentrated powder forms of less than 1 micron which makes them extremely difficult to screen. Our machines are well prepared against possible screen blinding or electrostatic charging by having product specific and highly efficient cleaning devices.

Wood, as one of the highly demanded raw materials, is produced in high quantities and screened in form of wood flakes, wood flour and cellulose. These products are used very often in the plastic, chemicals and pharmaceutical industry as fillers. This makes it also certain that there will be a steady increasing demand for our screening machines.

// All GKM machines, but especially our tumbler screening machines, are used in all available sizes in these industrial branches

The topic recycling is getting more and more important because it is essential to recycle high-quality plastics. GKM Siebtechnik is also playing a very important role in this field. We secured recently a significant project in Asia in the field of PET - Recycling. More projects are going to be realized in Europe and Russia. Our machines are also installed worldwide for PVC, powder and expandable polystyrol balls (EPS). A lot of customers from this field are acting as plant engineering companies. They benefit mainly from our long lasting experience to find together with us the best solutions for often difficult problems.







// The screening of building materials and minerals places high demands on our machines.

They have to be very robust and solid and at the same time having low maintenance intervals and costs. Most of the building materials and minerals, especially silica sand and all kind of calcium carbonate such as dolomite and marble, are screened, before further processing.

In the first instance very large tumbler screening machines with diameters up to 2600 mm and with up to 5 or 6 screen decks are required. Particularly, the screen inserts can be made of special, abrasion-resistant and extra robust materials.



# *BUILDING MATERIALS AND MINERALS*

Tumbler screening machines are universally applicable and especially popular for their robust design and high life time. The functional / screening principle is based on the hand screening or panning for gold action: the screening process is always consistent mechanically, and in fact independent from the capacity of the product to be screened.

A perfect static and dynamic balance is an important condition for the operation of these large machines due to the fact that they are installed not infrequently in buildings at heights of 20 up to 60 meters. Our GKM specialists therefore electronically balance the machines optimally before delivery, with smallest tolerances.





## METALLURGY, GLASS AND CERAMIC INDUSTRY

This market has also its special demands. Various metal and ceramic powders exist very often in extremely fine particle sizes, smaller than 100 microns, which blocks the meshes very fast.

GKM offers therefore a range of easy to mount and effective screen cleaning systems like for instance the cleaning with special rubber balls, rotating brushes or air jet arms and ultrasonic. A continuous operating can be therefore always guaranteed and with it the required precise screen accuracy desired by the customer.

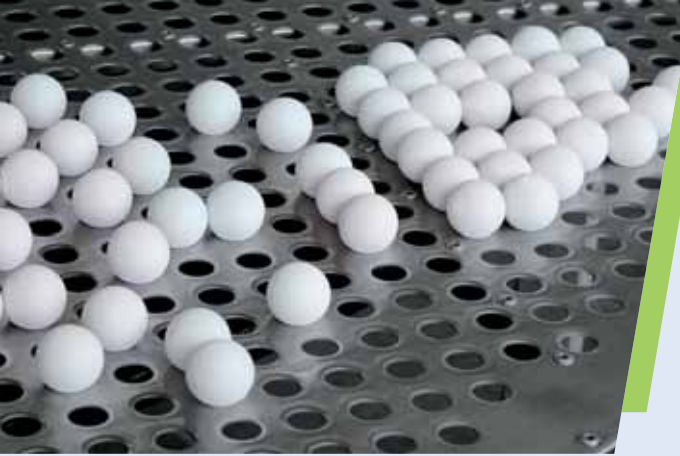




Different metal powders like alumina, copper, bronze, silver or gold are required as high quality alloys for the electronic industry but also for the paint and varnish industry. Today's tool manufacturing is not imaginable without artificial diamonds and hard metal powders. Ultrafine glass beads and frits are also very demanding for screening machines. Only small amounts of impurities have to be screened out, often with a control screening machine to reduce the waste proportion of the end products.

Also vibrating tumbler screening machines are applied in this type of industry, besides our smaller and medium sized tumbler screening machines. They are perfectly suitable for control screening, fractionizing and dedusting of dry, dust, powder and granular shaped products. Their use is also ideal for wet screening as well as solid / liquid separation.





// Take advantage of our profound knowledge based on thousands of machines installed world-wide, and our own laboratory tests.

Our specialists figure out a fast and competent solution in our test center, even for the trickiest screening applications. We analyze the given product samples at pre-testing, in detail, in our laboratory, to identify the exact data for the future machine settings, required screen mesh sizes and necessary screen cleaning procedures.

It is sometimes only possible to confirm the screen ability of a product after making a practical test series in which we incorporate our long experience.

Your required machine is later perfectly adjusted and ready to operate based on the determined data to obtain an outstanding screening result. We offer you also on request, a demonstration machine, depending on the application. Our project team works closely together with you and we manage quite often to find together a new product or process development.

*OUR GKM TEST CENTER.  
WITH US ON THE TEST BENCH.*





We distinguish ourselves by efficient and professional service. The satisfaction of our customers is thereby the measure of all things.

Our competent and experienced service technicians are therefore ready for a worldwide intervention. Special contact persons are in our company at your disposal to answer all kinds of service questions.

## OUR SERVICE. PROMPTNESS IS OUR TRUMP CARD.

**Spare and wearing parts for screening machines**  
We do have all necessary parts available...

**Screen remeshing service for perfect screen inserts**  
We take care that your screening is working perfectly...

**Service and optimization of screening machines in the plant**  
We are ready, if you need support for adjusting your screening machine – fast, professional and competent...

**Maintenance and service packages**  
Preventive maintenance guarantees optimal performance and avoids often longer down times of machines. Inform yourself about our customized service options...

**Plant engineering**  
We support you professionally in the planning and realization of your projects. Please benefit from our valued experience...

**Customer training and consulting**  
We pass over our comprehensive knowledge to your colleagues. Take advantage from our know-how regarding process and maintenance related issues...

**Contract screening**  
We screen your product on demand – fast and reliable...

**Purchase and resale of second hand machines**  
We are your contact if you want to realize big plans with a small budget...





### The Ultimate Tumbler Screening Machine with patented deck lifters



### GKM Vibrating Tumbler Screening Machines

#### Areas of application:

For the control screening, fractionating and dedusting of dry, powdered and granular products. Particularly suitable for high feed rates and multi deck separations of fine, lightweight products which are difficult to screen.

For lower feed rates and simpler control screening operations; fractionating of dry, powdered and granular products, and liquid-solid separation; particularly well suited for heavy products and wet screening.

Particle feed sizes: 0,001 – 20 mm

0,001 – 20 mm

Feed rates: 1 – 50.000 kg/h

1 – 10.000 kg/h

Bulk densities: 20 – 10.000 gr./Liter

200 – 10.000 gr./Liter

Seperation: 0,020 – 20 mm

0,020 – 20 mm

Screens usable: Stainless steel wire or synthetic fibre mesh, perforated plates

Stainless steel wire or synthetic fibre mesh, perforated plates

No. of screen decks: 1 – 6 per machine

1 – 3 per machine

#### Anti blinding systems:

Standard Rubber balls  
Optional Rotating plastic roller brush arms  
Optional Slider rings  
Optional Rotating air-jet nozzle arms  
Optional Ultrasound converters  
Optional Combinations

Rubber balls  
–  
Slider rings  
–  
Ultrasound converters  
Combinations

Speed range: 180 – 280 min-1

1.500/3.000 (1.800/3.600) min-1 at 50(60)Hz

Screen movement: Three dimensional, set to product

Three dimensional, set to product

Amplitude: 60 – 80 mm horizontally and 5 – 40 mm vertically

3 – 6 mm horizontally and 3 – 6 mm vertically

Acceleration: 1,3 – 1,8 g

3 – 6 g

Model sizes / ca. Ø: 7 KTS 600 – 2.600 mm

6 KTS-V 450 – 1.500 mm

Screening surface: 0,292 – 5,31 m²

0,11 – 1,45m²

Motor power: 0,25 – 5,5 kW

0,19 - 2,75 kW

Materials: Carbon steel, stainless and special steels, Intermediate cylinder serially made of stainless steel 1.4301

Stainless steel

Surfaces: Painted, brushed or ground, mirror or electro polished for food and pharmaceutical products with a surface roughness of < 0.4 microns (GMP, FDA compliant)

Painted, brushed or ground, mirror or electro polished for food and pharmaceutical products with a surface roughness of < 0.4 microns (GMP, FDA compliant)

#### Specific features:

- High screening efficiency
- Pat. manual deck lifters for easy screenchange
- Individually adjustable retention time for any product and capacity
- Low acceleration, long service life of all parts, no product degradation. Tough modular design, no dead corners, low part weights
- 100% statically and dynamically balanced for vibration free installation in steel structures
- Low noise level of approx. 75 db(A)
- SCREEN INSERTS from KTS 2400 MADE IN TWO PIECES for low cost spare parts transportation and low cost remeshing with wide choice of mesh size

- High screening efficiency, fast fine particle discharge, adjustable retention time
- High acceleration; also suitable for solid-liquid separation and wet products
- Up to 100% availability in 24h operation; maintenance-free motor
- Easy cleaning under the machine
- Optimum set-up of the vibrating springs, minimal transfer of vibrations
- Low noise level of approx. 75 db(A)
- Screen frames with twin-clamp rings for fast re-meshing on-site





## Vibrating Control Screening Machines

For pure control screening with higher performance of dry, dusty, powdered and granular products, and liquid-solid separation with a low percentage of coarse material.

0,001 – 20 mm

1 – 200.000 kg/h

200 – 10.000 gr./Liter

0,10 – 20 mm

Stainless steel or plastic wire mesh fabric

1 – 2 per machine

Rubber balls

–

Slider rings

–

Ultrasound converters

Combinations

1.000/1.500 (1.200/1.800) min-1 at 50(60)Hz

Two dimensional, set to product

4 – 8 mm

4 – 6 g

8 KTS-V2 450 – 2.000 mm

0,11 – 2,6 m<sup>2</sup>

0,19 – 3,6 kW

Stainless steel

Painted, brushed or ground, mirror or electro polished for food and pharmaceutical products with a surface roughness of < 0.4 microns (GMP, FDA compliant)

- Good screening efficiency, extremely fast centre discharge of fine particles, adjustable retention time for oversize particles
- High acceleration; also suitable for solid-liquid separation and wet products
- Up to 100% availability in 24h operation; maintenance-free motor
- Optimum set-up of the vibrating springs, minimal transfer of vibrations
- Low noise level of approx. 75 db(A)
- Screen frames with double clamping ring for fast self changing



## Laboratory Air-Jet Sieve

For dry, powdered and granular products; especially suitable for very fine, lightweight and statically charged products that are difficult to screen where conventional vibration or shaker sieves have reached their limits.

0,001 – 3 mm

1 – 100g

20 – 10.000 gr./Liter

0,005 – 5 mm

for all standard analysis screens

1

–

–

–

Rotating air-jet nozzles

–

–

15 min-1

–

–

–

KLS 200 N

0,019 kW

Plastic/Aluminium

–

- Extremely high and reproducible screening efficiency
- Short screening times
- Suitable for all standard 200 mm laboratory screens

### General advantages of all models:

- Delivered ready to operate and adjusted for each individual product, plug and play
- Up to 100% availability during 24h operation with low maintenance requirements
- Modular, automatically centered, upgradeable modular design
- Dust and water tight screen frames with U – type profile sealing made of NBR or silicone (FDA)
- Solid, modular mounted screen body with low component part weights
- Easy disassembly and cleaning of all parts
- Low installation height by reduced height of intermediate rings to obtain better screening results on each screen deck
- Screen assembly according to GMP regulations

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