# **INNOVATION. PASSION. SUCCESS.**

Take advantage of over 35 years experience in Screening and Process Technology

# **GKM Ultra-Vario-Sonic System**

This ultrasonic system delivers a much more efficient sieving action especially with very fine screen sizes. The throughput rate increases significantly on an equivalent surface area. In addition, blinding and sticking of difficult to screen products is prevented. This system is especially suited for hygienic/sanitary sieving requirements in the Food and Pharma Industries.

# Operation

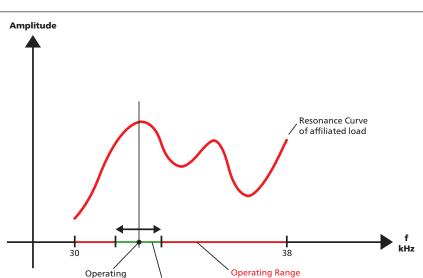
The Hi-Tech Sonic generator is controlled by a microprocessor which agitates the mesh cloth adhered to the sonic transference ring. The difference compared to convential resonance fixed frequency systems is the continuous amplitude and the variable frequency.

This system operates in such a way that ultrasonic waves are transferred over the entire screen surface area which reduces potential frictional resistance between the product and the screen.

The simple patented method prevents the formation of resonance effects which are the cause for high temperatures ("Hot Spots"). It also reduces the mechanical strain to the the screen frame and screen cloth.

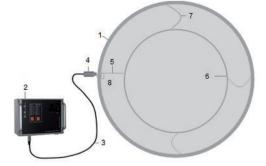
The amplitude and the frequency band width are adjustable for each screen and sieving application. Operation can be continuous or intermittent.

# **Activation Principle**



Generator





Frequency

Sweep Area 2000 Hz

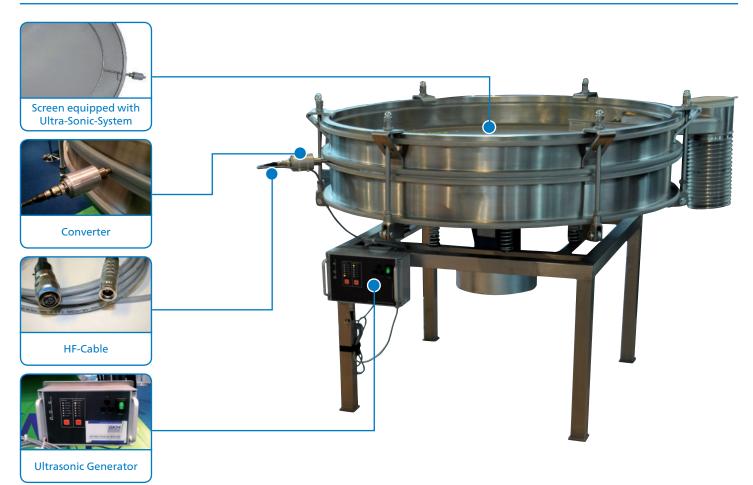
requency ±1000 Hz)

# Ultra-Sonic-Sieve Components

- **1** Sieve Frame
- 2 Ultra-Sonic Generator
- **3** HF-Cable
- 4 Converter
- 5 Sonic Converter
- 6 Sonic Cloth
- **7** Support Element for the Sonic Cloth
- 8 Support Element for the Sonic Converter

### **Technical Specifications** ...

- Suitable for screen mesh with wire diameters of up to 0.4 mm
- PPS/SPS/PCL connection for remote control and error alerts
- ATEX certified (inside zone 20, outside zone 22)
- Memory of up to five applications, combination of applications possible, e.g, automatic change between application and cleaning mode
- Hardware frequency analysis via user software to control the sieving mechanism
- Monitoring of cable, converter functions, temperature and performance
- "Plug and Play" system
- Optional: Remote configuration of process parameters and system monitoring by user software



# Your main benefits include ...

- No tuning or adjusting of the generator in 99% of the applications is needed
- Increase of material throughput
- Converter and Cable are located outside of the machine, therefore no risk of product contamination
- Conforms with ATEX requirements
- No formation of "Hot Spots" due to constant low temperature which prevents the product from melting or sticking to the sonic elements
- Retrofitting for every kind of screening machine at any time, possible combination with other antiblinding system such as ball cleaning
- Suitable as well on double-screen frames for easy self re-meshing
- Extended life cycles for the sieve cloth when adjusted to the ultra sonic performance
- Very competitively priced
- Only one ultrasonic generator is needed to activate up to 4 converters

# The GKM Ultra-Vario-Sonic system can also be used as a silo discharge aid and ongoing cleaning of tanks and pipes

#### **GKM Siebtechnik GmbH**

