

**Ultrasonic/Air-cleaning combo optimizes fine screening**

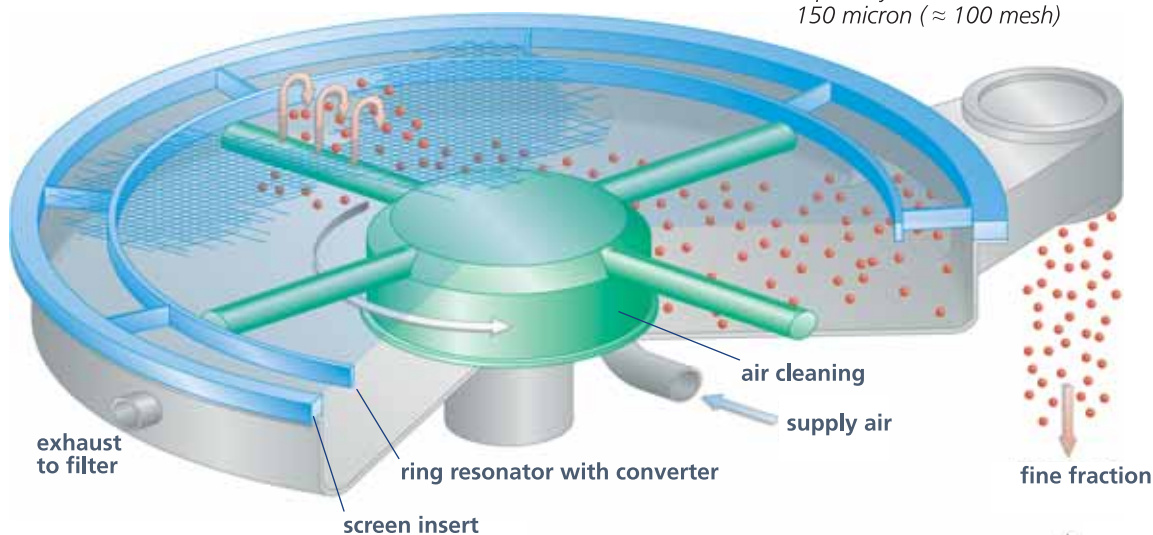


## The new mesh cleaning device combines a special ultrasonic system and air cleaning

When screening especially fine-grained and dusty materials or products, that tend to agglomerate or charge themselves electro statically, it is advisable to use air-cleaning in order to avoid clogging of the mesh cloth. The air jet is blown upwards through the meshes. Through an exhaust underneath the screen deck, the air flow is reversed just above the screen deck and pulls fine particles through the mesh cloth. This air-cleaning device is combined with a special ultrasonic system.

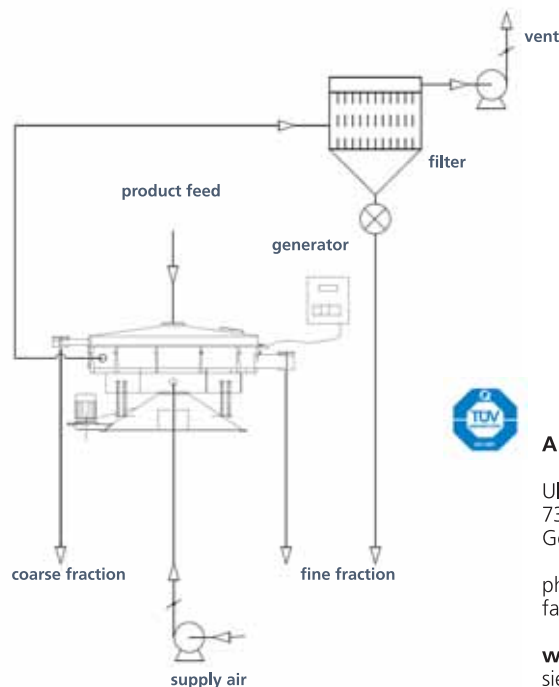
### Your advantages:

- significant increase of the feedrate
- improvement of the screening efficiency
- retrofit for all tumbler screening machines larger than 1200 mm diameter ( $\approx 48''$ ) possible
- single and multi-ultrasonic systems available
- test unit available in the test center
- fields of application: plastics such as: PA, PE, HDPE, PVC, PP, PS, EPS, furthermore CMC, cellulose, powder coating, toner, wax, metals, perlite, silica, abrasives, coke, gypsum, silica sand, enamel powder, starch, rice flour, ...
- especially suitable for mesh sizes smaller than 150 micron ( $\approx 100$  mesh)



The electric oscillations produced by the ultrasonic generator are transmitted through a high frequency cable to the converter which is mounted into a ring resonator. This converter transforms the electrical oscillations into mechanical oscillations. Through direct connection of the ring resonator to the mesh cloth, the oscillations are uniformly distributed across the mesh cloth and produce peak accelerations of 15,000 g. Adhesive forces between individual particles are additionally resolved.

Exceptionally efficient is the superposition of ultrasound and air in the outer part of the ring resonator. In this area the particles of critical size are screened. The air allows for a disaggregation of the bulk solids. The micro oscillations produced by the ultrasound creates better screening efficiency.



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