



Ultimate Screener™
Ultimate Slurry Processor™
Ultimate Dewaterer™
Ultimate Delumper™



**The whole spectrum of vibratory equipment
powered by the unique innovative
Kroosh®
multi-frequency technology**

For dry and wet separation, scalping, fines removal, sizing, dewatering and decompaction
For all industries and applications

From
Food and pharmaceuticals

To
Aggregates and mining



Process and operational advantages

The Ultimate Screener™

- Significantly greater specific feed capacity and throughput (in times and tens of times compared to any traditional single-frequency apparatuses)
- Extremely high efficiency
- Guaranteed blinding-free processing with all dry and wet applications
- Screening in wide spectrum of apertures (from 10 microns to tens of millimeters)
- Possibility to screen much finer than it was possible before
- Possibility to screen much faster than it was possible before
- Possibility to screen difficult and “impossible” materials
- Longer mesh life
- Simplicity of screen replacement
- Very cheap screen replacement
- Economic substitution of not only traditional screeners, but in many cases of non-vibratory equipment (centrifuges, filters, cyclones, hydro-cyclones)
- No additional power or drive required
- No electronic, hydraulic or pneumatic components
- No rotating parts (except of a motor)
- No screen-cleaning devices

The Laboratory Ultimate Screener™ – all from above plus

- Test-screening in seconds/minutes even of dry powders for 10 microns
- Simultaneous test-screening of five fractions in standard version (up to 15 in special edition)
- Working with standard 200 mm TYLER lab sieves

The Ultimate Slurry Processor™

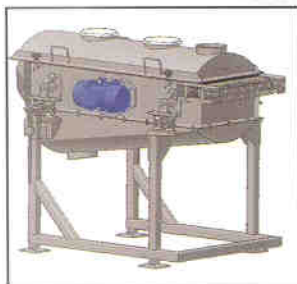
- Specific feed capacity with slurries 4 – 6 times greater even than that of the Ultimate Screener™ (hundreds of m³ per m²)
- Screen life extremely long thanks to the unique system of screen placement
- All other advantages described for the Ultimate Screener™

The Ultimate Dewaterer™

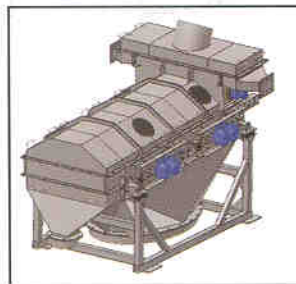
- Dewatering to the grades impossible not only for traditional screeners, but for non-vibratory apparatuses, such as centrifuges, belt press-filters etc.
- Much cheaper dewatering per kilogram/per ton compared to traditional driers
- High productivity
- No rotating parts
- Very simple and cheap maintenance resembling that of a screener

The Ultimate Delumper™

- Efficient decompaction of even hardly compacted materials inside paper or plastic bags
- Extremely fast decompaction (seconds/minutes per bag)
- No damage to a bag (breaking of all agglomerates inside with a bag intact)



ULS™ 0,6m x 1,5m



ULS™ 1m x 2,5m
with stationary body



ULS™ 2m x 1m heavy type



The Ultimate Delumper™

HOW IS IT POSSIBLE ?!

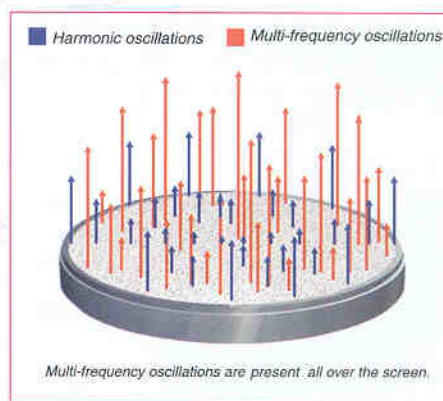
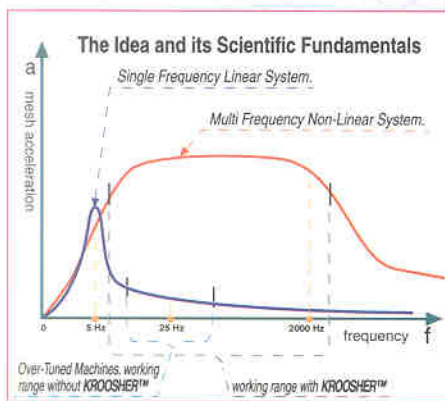
Because of the powerful multi-frequency Kroosher® technology

Since traditional screeners are all identical in their core characteristics, they principally do not differ from each other and all together from a simple hand sifter. The only thing, which has changed through ages, is that a manual drive has been replaced by a motor and, in case of gyratory screeners, greater horizontal amplitude with different trajectory has been applied to a sieve. However, in principle all traditional screeners are

Past-resonance single-frequency linear vibratory systems

There is only one screener with principally other vibratory characteristics – the Ultimate Screener™ (and the whole row of other machines of KROOSH Technologies) powered by the Kroosher® vibratory technology and it makes all the difference, because the Ultimate Screener™ is the only

Resonance multi-frequency non-linear vibratory system



Quality	Traditional screener	Ultimate Screener™
Character of vibration	Single-frequency	Multi-frequency
Dynamic boosting	Non existent	Strong
Direct influence to a mesh	Non existent	Strong
Acceleration level	4 – 5 G (up to 10 G)	Next to and over 1000 G
Amplitude of a body	2 – 3 mm	0,8 – 1,2 mm
Amplitude of a mesh	2 – 3 mm	4 – 10 mm
Blinding-free processing	No	Yes
De-agglomeration effect	Non existent or weak	Strong
Mesh life	Shorter	Longer
Mesh replacement costs	Higher	Lower



Laboratory ULS™ with 200 mm sieves



ULS™ 1200 mm



ULS™ 1m x 2m



ULS™ 1m x 2,5m stationary body 3000 Rpm

Multi-frequency machines in production:

The Ultimate Screener™ machines:	
Circular 900 mm	Rectangular 1 m x 2 m
Circular 1200 mm	Rectangular 1 m x 2 m with stationary body (1500 Rpm and 3000 Rpm)
Circular 1500 mm	Rectangular 1 m x 2,5 m with stationary body (1500 Rpm and 3000 Rpm)
Rectangular 0,3 m x 0,8 m	Rectangular 1,5 m x 3 m
Rectangular 0,6 m x 1 m	Rectangular 2 m x 4 m
Rectangular 0,6 m x 1,5 m	Laboratory Ultimate Screener™

All Ultimate Screener™ machines are available in carbon steel and stainless steel versions.

All rectangular Ultimate Screener™ machines are available in specialized configurations for dry and wet processing.

Ultimate Screener™ 1 m x 2 m machines and 2 m x 4 m machines are available in heavy mining configuration

The Ultimate Slurry Processor™ - 0,6m x 1,5m; 1m x 2m; 1m x 3m

The Ultimate Dewaterer™ (for various capacity)

The Ultimate Delumper™ - for 25 kg bags; for 50 kg bags; for big bags

Practical examples of the Ultimate Screener™ and other multi-frequency machines performance

A. Chemical product. Dry. Cut point – 63µ. A traditional screener cannot work with this product even with 500µ (!) mesh (safety screening) due to constant blinding.

The Ultimate Screener™ processes this material with 63 µ mesh (!) at the rate of 1,5 TN/hr x m² separating 15% of fines (de-dusting task) with 97% efficiency.



ULS™ 1200 on a pharmaceutical factory

B. Material – Dolomite. Wet powder, 4% moisture. Mineral. A traditional screener cannot effectively screen for less than 8 mm due to constant blinding. *The Ultimate Screener™ separates at 2 mm with the rate of 6 TN/hr x m². Also separates at 1 mm and 500 µ.*



ULS™ 1m x 2m on a ULS™ 1m x 2m on a sand processing plant



ULS™ on a coal mine (coal beneficiation plant)



Bags with material before and after processing with the Ultimate Delumper™

C. Material – Kaolin. Type of clay for ceramic industry. Slurry. Cut point 150µ. A traditional screener of 1200 mm in diameter (square 1,13 m²) screens at the rate of 2,7 TN/hr x m². Screen blinds and requires periodical cleaning with pressurized water every 30 minutes. *The Ultimate Screener™ screens with feed rate of 10 TN/hr x m² without blinding.*

Many more examples, case studies and detailed technical explanations – on the CD.



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