Long-stroke Screening Machine

JEL Phoenix

J. ENGELSMANN AG
The Experts for bulk solids processes

▸ JEL Phoenix

The JEL Phoenix is suitable for a wide range of screening applications and products. The long-stroke sieve combines a gentle screening process with highest screening precision and optimal screening and energy efficiency. Thanks to the modular cartridge construction, a variety of different screening surfaces and screening tasks can be reproduced with a single machine.

▸ Operation

The heart of the JEL Phoenix is the cartridge module in which up to 4 screen decks can be stacked on top of one another depending on the task. Thanks to the adjustment of the stroke and the inclination, even difficult products can be screened efficiently and with optimal use of the screen mesh.

▸ Machine equipment

The modular construction principle of the JEL Phoenix offers a range of useful features with many benefits:

▸ Areas of application

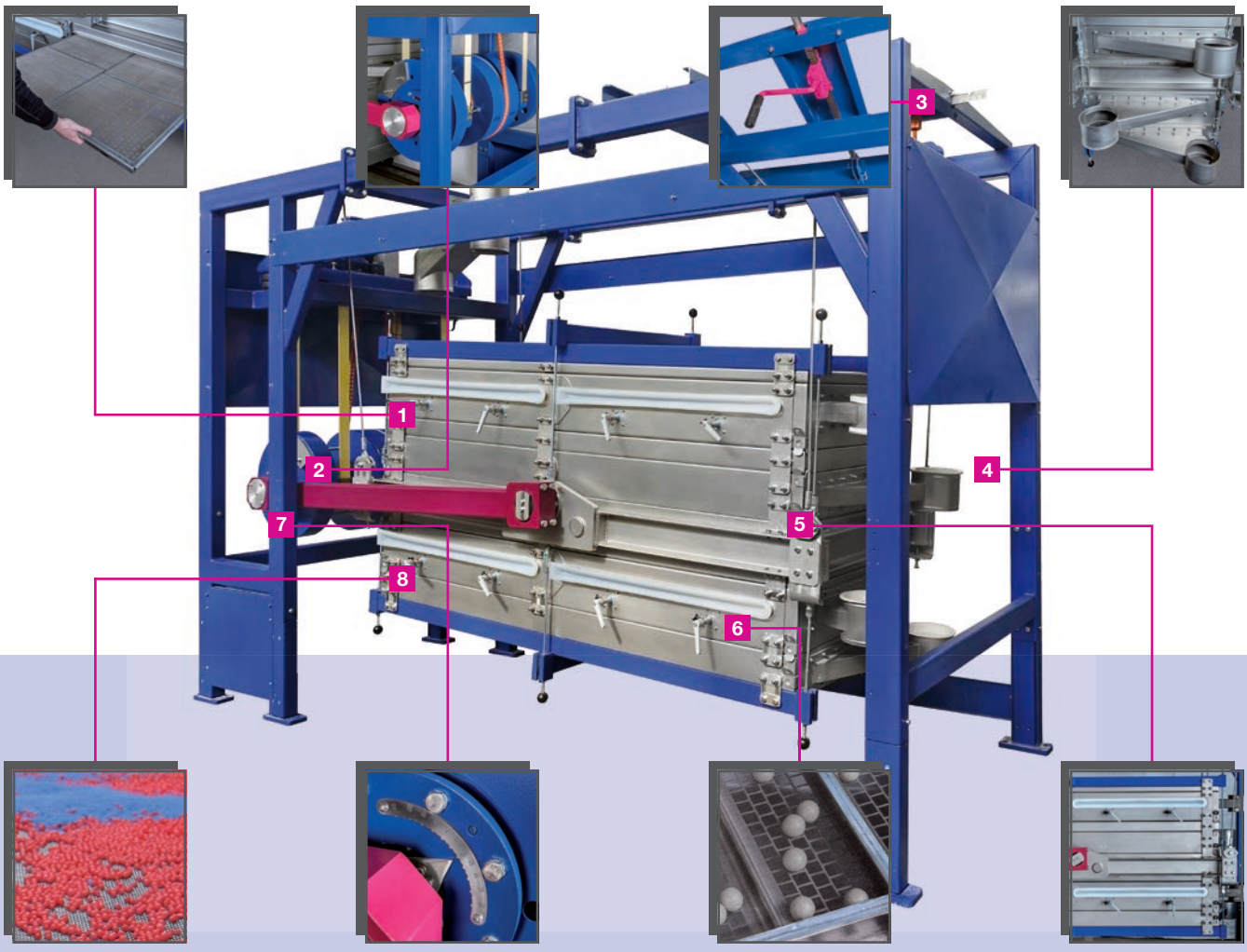
Chemicals	Plastics	Pharma-ceuticals	Foodstuffs	Similar industries
●	●	○	○	○

▸ Bulk solids

Grainy	Powdery	Finely powdered	Fatty	Granular
●	●	●	●	●

▸ Screening applications

Protective screening	Grading	Coarse/Oversize grain screening	Fine screening	Deagglo-merating
●	●	●	●	○



1 Easy screen changing
2 Efficient oscillating drive
3 Inclination adjustment
4 Flexible outlets for covering distances
5 Modular cartridge system
6 Wide variety of screen cleaning systems
7 Stroke adjustment
8 Gentle screening with high screening precision

LONG-STROKE SIEVE | JEL Phoenix

Long-stroke Screening Machine

JEL Phoenix

▸ Design

- Materials: Stainless steel (coming into contact with the product) with a wide variety of surface treatments
- Number of sieve cartridges: 1 to 4 (up to 5 fractions)
- Two screen inserts per sieve cartridge
- Measurable screening surface: 1.5 to 6 m^2
- Product flow distribution for larger screening surfaces
- Stepless stroke and angle adjustment with indicator scale
- Mesh sizes from 40 µm to 20 mm
- Wide variety of screen cleaning systems: balls and ultrasound
- Dust and pressure-tight to 20 mbar
- Flexible arrangement of the outlets
- ATEX model
- All seals made from FDA-compliant materials

Convincing facts

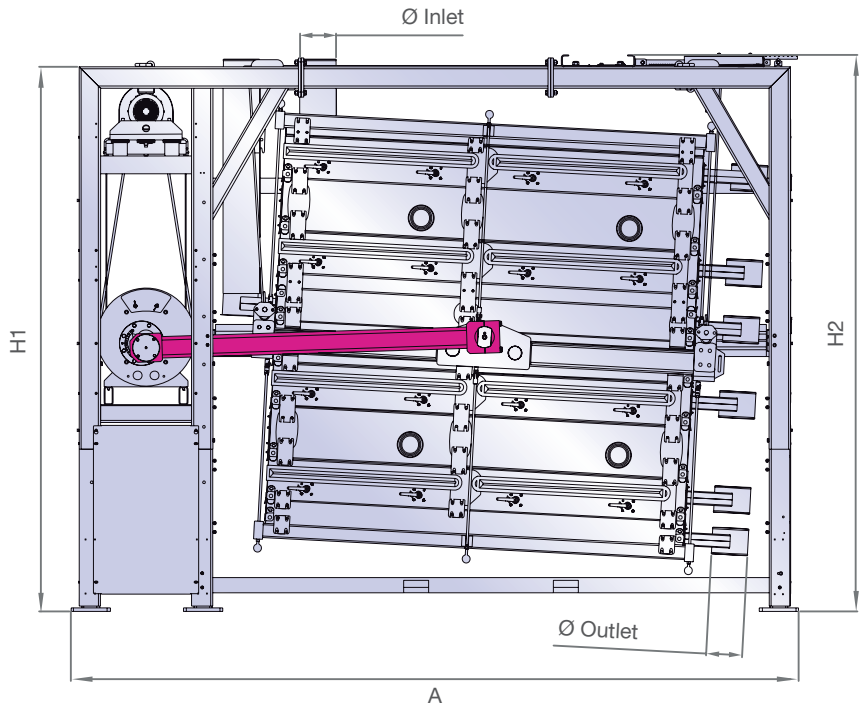
- Grading into up to five fractions
- Very high screening precision (up to 99%)
- Can be retrofitted for other screening applications
- Variable screening surface owing to cartridge construction
- Combination of screening applications possible
- Tool-free and fast changing of inserts
- Stroke and angle adjustment for optimal product adaptation
- Short downtimes thanks to low maintenance requirements
- Screening process which is particularly gentle on the product
- Energy-efficient and quiet drive system

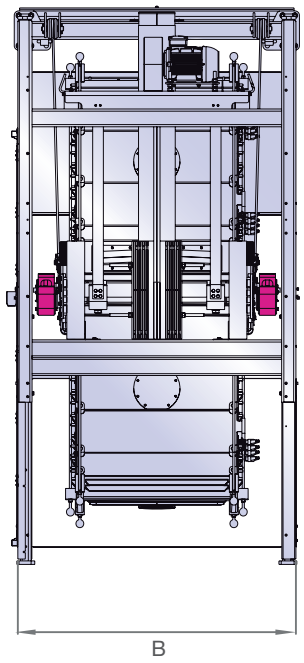
▸ Technical details

MACHINE **DIMENSIONS**

Model	Fractions	Screening surface (m^2)	No. of sieve inserts	Electric motor (kW)	Inlet/outlet Ø (mm)	Length A (mm)	Width B (mm)	Height H1 (mm)	Height H2 (mm)	Weight (kg)
PHX F2-1.5-R0	2	1.50	2	1.5	200	4080	1560	2195	2265	2450
PHX F2-3.0-R0	2	3.00	4	1.5	200	4080	1560	2625	2695	3050
PHX F2-4.5-R0	2	4.50	6	1.5	200	4080	1560	3055	3125	3600
PHX F2-6.0-R0	2	6.00	8	1.5	200	4080	1560	3055	3125	4050
PHX F3-1.5-R0	3	3.00	4	1.5	200	4080	1560	2625	2695	2850
PHX F3-1.5-R1	3	3.00	4	1.5	200	4080	1560	2625	2695	2950
PHX F3-3.0-R0	3	6.00	8	1.5	200	4080	1560	3055	3125	3700
PHX F3-3.0-R1	3	6.00	8	1.5	200	4080	1560	3055	3125	3900
PHX F3-3.0-R2	3	4.50	6	1.5	200	4080	1560	3055	3125	3500
PHX F4-1.5-R0	4	4.50	6	1.5	200	4080	1560	2625	2695	3200
PHX F4-1.5-R1	4	4.50	6	1.5	200	4080	1560	3055	3125	3550
PHX F5-1.5-R1	5	6.00	8	1.5	200	4080	1560	3055	3125	3850

(Technical modifications reserved)





Long-stroke Screening Machine

JEL Phoenix

More versatility thanks to a modular cartridge system

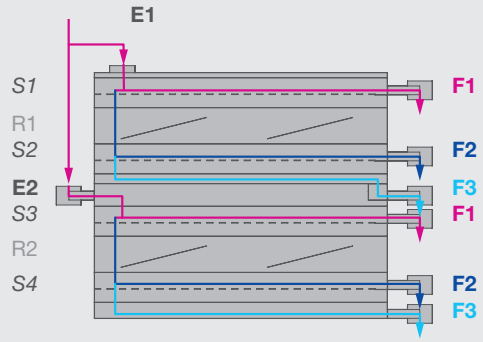
The cartridge system in the JEL Phoenix allows for the installation of up to four screen decks. Depending on the number of decks installed and the mesh widths used for the screen inserts, there are up to twelve different possible applications for the user.

Advantages of the modular cartridge system

- Separation of up to five fractions in classification screening through the installation of up to four sieve cassettes with different mesh widths
- Increase in the throughput or screening surface through distribution of the product flow across different screen decks with the same mesh width
- Simultaneous execution of different screening tasks – including on different levels in order to increase throughput
- Optimal use of the screen mesh thanks to return flow cartridges

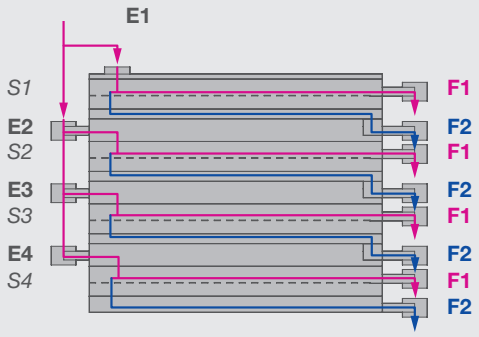
▸ Application and configuration examples

SIMULTANEOUS CLASSIFICATION SCREENING



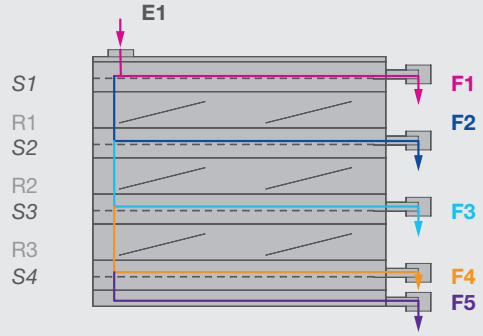
- Separation of three fractions across two levels
- Feeding of the two levels via the **E1** and **E2** inlets through distribution of the product flow
- Separation of the fractions (**F1**, **F2**, **F3**) on the screen decks S1 and *S2* (first level) and *S3* and *S4* (second level)
- Return flow cartridges ensure optimal use of the screening surface of the *S2* and *S4* inserts

OVER-SIZED PARTICLE AND FINE SOLIDS SCREENING



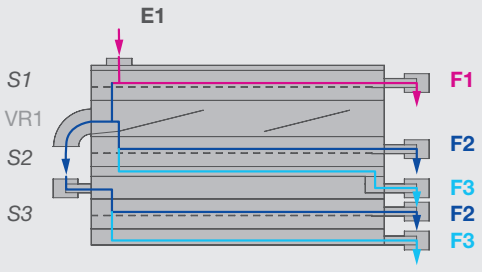
- Separation of two fractions: Over-sized (**F1**) and under-sized particles (**F2**)
- Distribution of the product flow to the respective screen deck inlets (**E1** – **E4**)
- Simultaneous screening across four screen decks with the same mesh width (*S1* – *S4*)
- Total screening surface: 6 m²

CLASSIFICATION SCREENING



- Five fractions (**F1**, **F2**, **F3**, **F4**, **F5**) are separated across four screen decks (*S1* – *S4*)
- Introduction of the product via the **E1** inlet
- The product passes through the individual screen decks one after another (different mesh widths)
- Optimal use of the screening surface of the *S2* and *S4* inserts thanks to return flow cartridges (R1 – R3)

PROTECTIVE SCREENING WITH FRACTIONATION



- Separation of foreign bodies and over-sized particles (**F1**) on screen deck *S1*
- Simultaneous separation of the correctly sized particles into two fractions (**F2**, **F3**) on two levels (*S2*, *S3*)
- Distribution of the product flow after protective screening on the first deck with the help of the distributor return flow (VR1)
- Return flow cassette under the first screen deck for a longer retention time of the correctly sized particles on the screen mesh of the *S2* deck

Screening technology

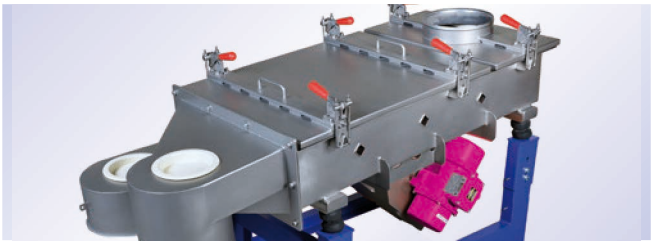
Machine Portfolio

J. ENGELSMANN AG
The Experts for bulk solids processes

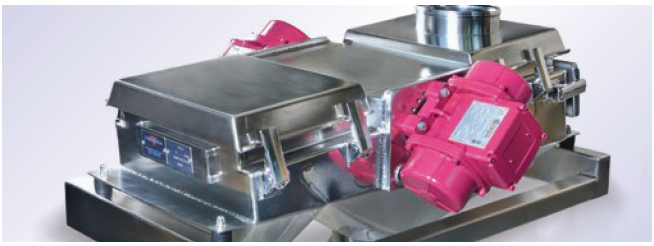
JEL FREISCHWINGER | Long-stroke sieve

JEL REGULA STANDARD | Long-stroke sieve

JEL VIBSPEED | Vibration screening sieve

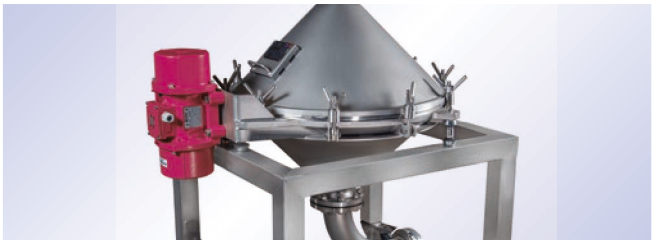


JEL EASYVIB | Vibration screening sieve

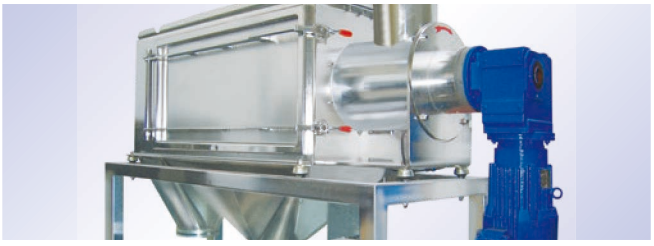


JEL KONTI | Vibration screening sieve

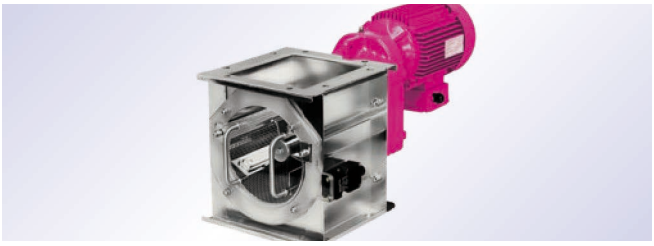
JEL FIX | Vibration screening sieve



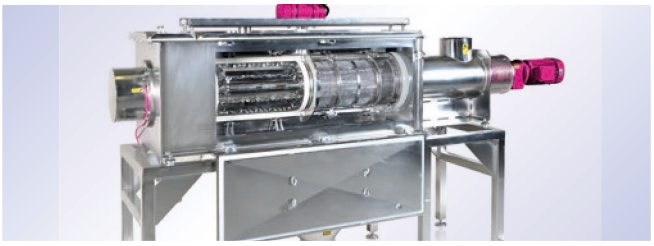
JEL TWS | Vibration screening sieve



JEL PALAFIX | Centrifugal screening sieve



JEL PS | Centrifugal screening sieve



JEL VIRO | Centrifugal screening sieve

▸ Your contact person

Do you still have questions or would you like a non-binding price quotation? Then simply contact our team of experts.

Moritz Meier

Screening technology
Phone +49 (0) 621 59002-42
Fax +49 (0) 621 59002-550
moritz.meier@engelsmann.de

J. Engelsmann AG

Frankenthaler Str. 137-141
D-67059 Ludwigshafen
info@engelsmann.de
www.engelsmann.com

Screening technology

JEL Phoenix [EN] (05-2018)

Screening Technology for Professionals – by Professionals