



PETKUS

PETKUS Gravity Separator

02 Sorting



 Strong Seed. Healthy Grain.

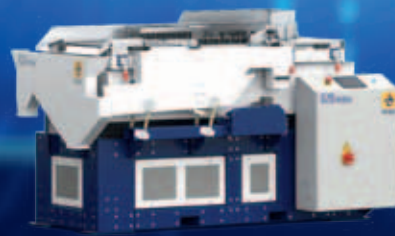
Aerodynamic and mass balance masterpiece for seed specific weight enhancement



G5 stone



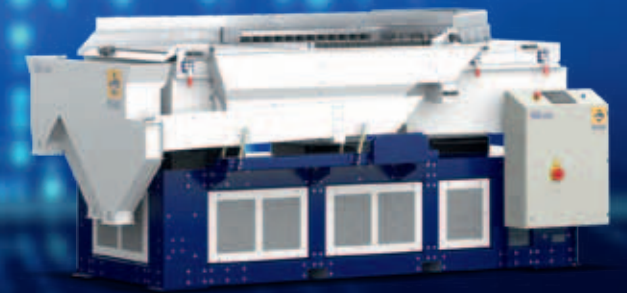
G5



G20



G35



G40

The G Series elevates the separation by specific weight, seamlessly integrating traditional principles into a fully balanced and optimized Gravity Separator. Engineered with meticulous air control, rock-solid management of dynamic forces, and a fully digitized sorting process, it ensures top-tier quality and efficiency. Versatile and adaptable, the G Series handles any crop - from fine seeds to legumes and nuts - managing loads ranging from a few kilograms to an impressive 12 tons per hour. All while eliminating the critical middle fraction through the ingenious Midex technology.

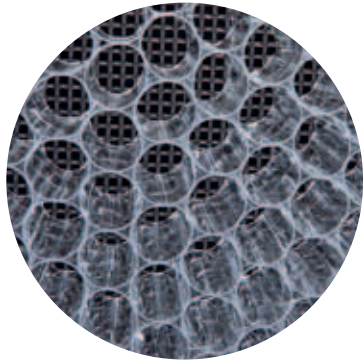
**Your seed.
Our challenge.
New quality standard.**

User-Friendly Design

Main Features and Options

Open honeycomb structure

- + Easy access simplifies cleaning and maintenance
- + Avoids clogging of the air channels and ensures homogeneous airflow



Gas damper

- + Allows for easy deck opening
- + Easy and simple service and maintenance



Iris diaphragm

- + Precise setting and control of airflow for each of the three fans separately
- + Extremely even airflow

Secondary zone

- + Sorts light kernels early and inhibits mixing with mid-weight kernels at the end of the table
- + Reduces the load on the deck

Large selection of decks

- + Wire mesh: 0.6 mm | 1.3 mm | 1.6 mm | 2.0 mm
- + Synthetic fiber mesh (for fine seed available as standard deck only)

Guidance blades

- + Mechanical support for product flow
- + Early steering of light and heavy kernels in the right direction



Touch Panel

- + Comfortable and self-explanatory operation
- + Easy recipe administration, airflow regulation, table angle settings etc.

Mass balancing system

- + Minimal vibration
- + Reduced foundation load

Stone separation

Additional option: S-variation

- + Widened stone discharge
- + Special stone deflecting plate
- + Cleaning brushes for a 50% higher stone separation vs. the standard variation



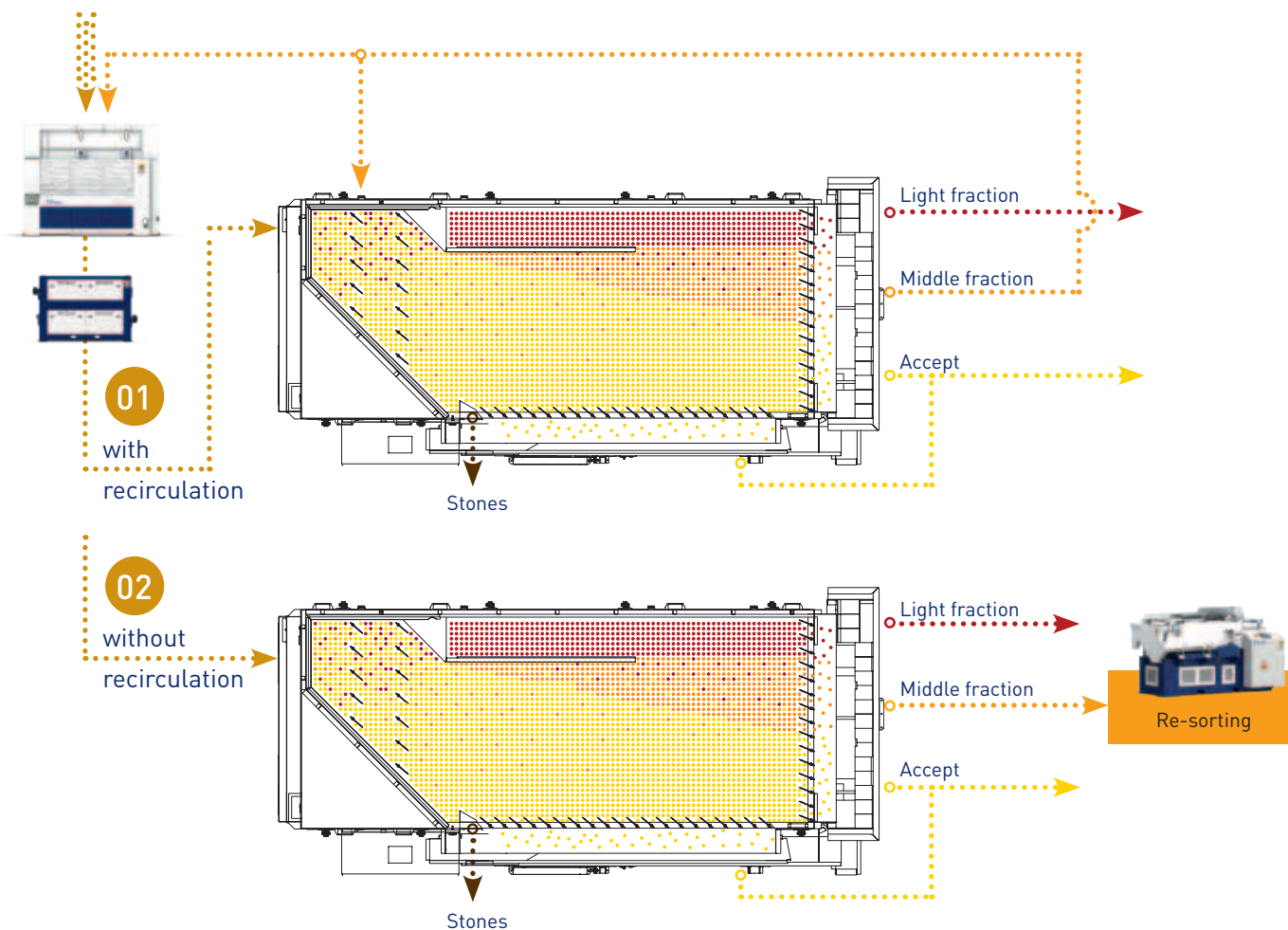
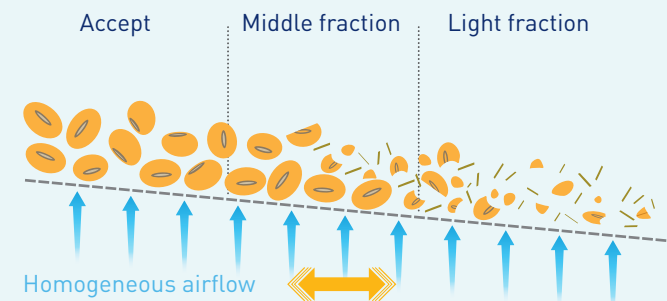
Standard Technology

With Middle Fraction

PETKUS Gravity Separators have a proven, substantially minimal proportion of good product in the reject area resulting in a sustainable increase in machine yield.

Features

- + Separation into three fractions: Heavy (pure) product, middle fraction, light product
- + Continuously variable lateral and transversal adjustment as well as electrical height adjustment and variable frequency
- + Quick and easy change of decks
- + Large selection of decks: fiber cloth/0.6 mm/1.3 mm/1.6 mm/2.0 mm
- + Consistent air pressure and distribution due to an optimized airflow concept
- + Smart Service



PETKUS Midex

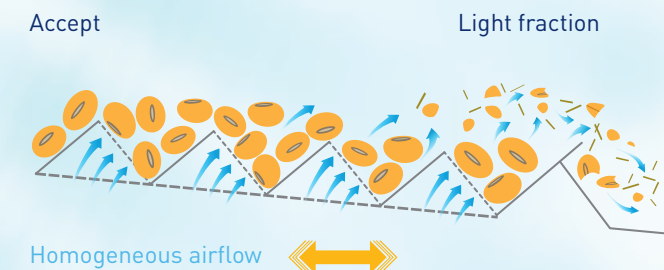
Without Middle Fraction

PETKUS Midex Gravity Separators sort according to an all-or-nothing principle and stand for uncompromised sorting.

Advanced Midex Features

- + Sorting into two fractions only - light and heavy
- + Table surface with zigzagged rib structure on the last third of the deck for intensive separation
- + Special airflow system aimed at the light fraction to increase the driving force on light impurities
- + Suitable as a retrofit upgrade for PETKUS Gravity Separators with standard decks
- + Kernels experience less stress and damage as resorting is eliminated

Equipped with all standard PETKUS G features.

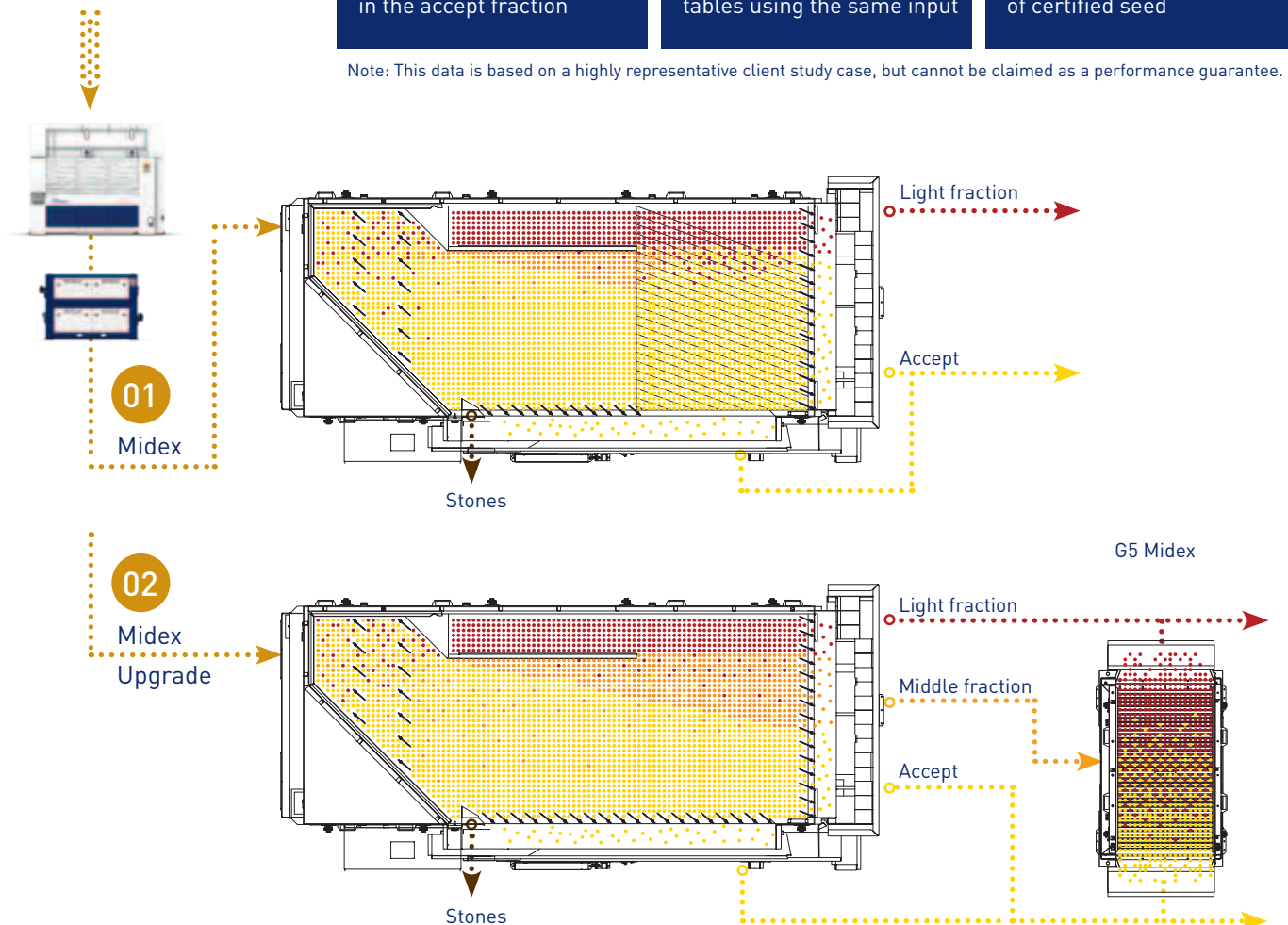


Up to
99.5% purity
in the accept fraction

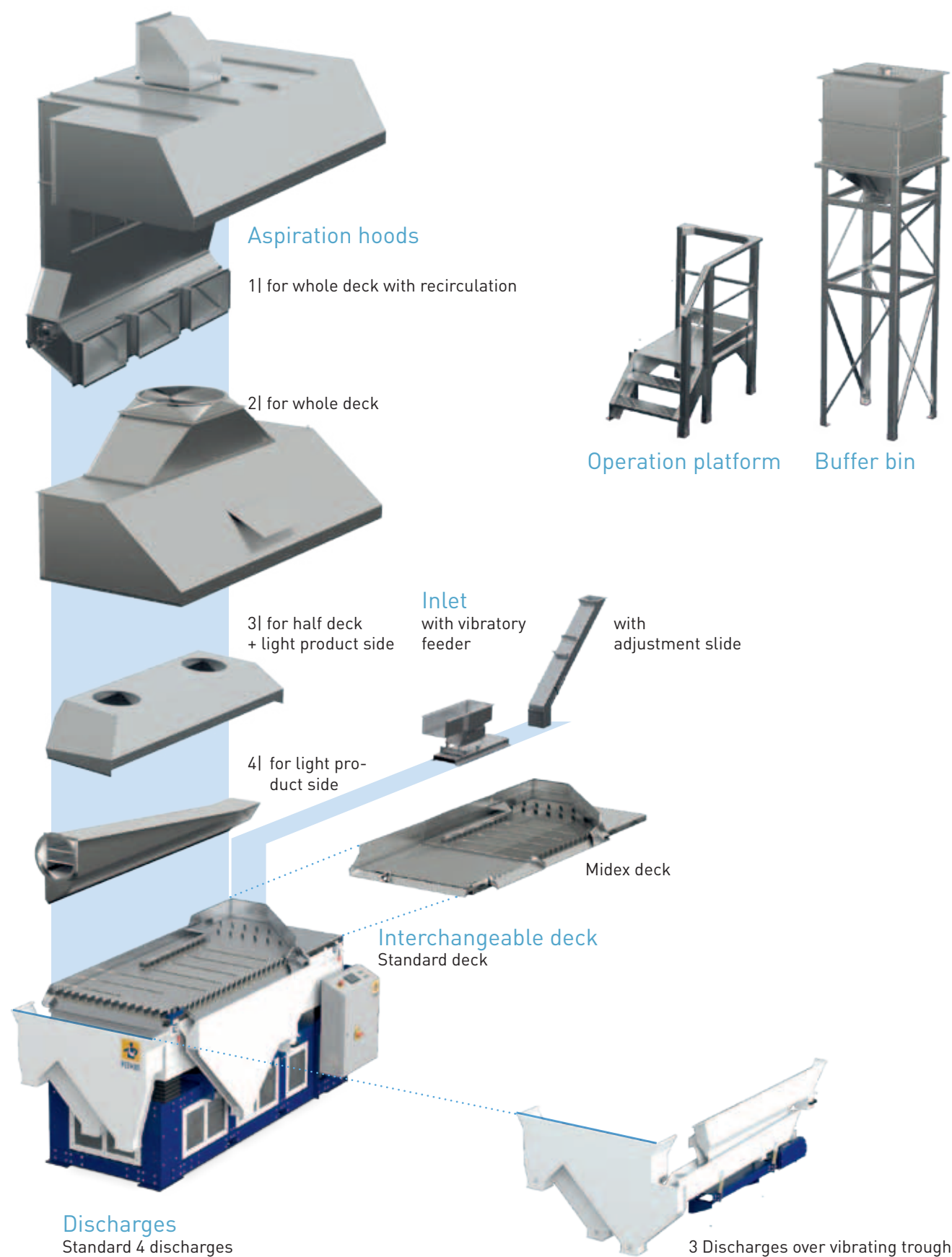
Up to
18% more accept
output vs. conventional
tables using the same input

ROI in only **1 year**
due to increased sales per
ton and higher proportion
of certified seed

Note: This data is based on a highly representative client study case, but cannot be claimed as a performance guarantee.



Options and Technical Features



Digitalisation

Easy, Fast and At Scale

The touch panel and Smart Service make the operation of the PETKUS Gravity Separator simple and comfortable. A reliable, in-house build software with a modern, self-explanatory interface guides the user through recipe administration, airflow regulation, table angle settings and eccentric motor speed.

Recipe management

- + Up to 500 product-specific programs can be stored, documented and retrieved.

Maintenance





- + Operation and control data advise the user in advance of maintenance requirements and errors thereby ensuring safe and trouble-free operation.

Remote access

- + The Smart Service function allows for machine operation, including maintenance, via smartphone or tablet regardless of location.

The controlling, operation and service of PETKUS Gravity Separators are digitalized and intelligent. Remote service and PLC and PLC control are international and available in different languages.



					
Technical Data		G5	G20	G35	G40
Capacity	t/h	up to 1.5	up to 5	up to 10	up to 12
Length	mm	1 650	2 850	3 530	4 190
Width	mm	1 310	1 520	1 820	2 010
Height	mm	1 600	1 700	1 750	2 030
Deck size	mm	790 x 1 200	1 100 x 2 200	1 300 x 2 800	1 500 x 3 500
Eccentric motor	kW	0.55	1.1	1.1	2.2
Fan	kW	3 x 1.9	11	15	22
Discharge	kW	—	0.55	0.55	0.55
Total weight	kg	900	1 800	2 600	2 800
Air volume	m³/h	12 000	24 000	37 500	54 000

Descriptions and measurements are approximate. We reserve the right to implement technical changes.

Examples of Cleaning

	WHEAT	SUNFLOWER	CORN	SOYA	PEAS
Input					
Light fraction					
Accept					

G5 stone

Protecting Downstream Equipment

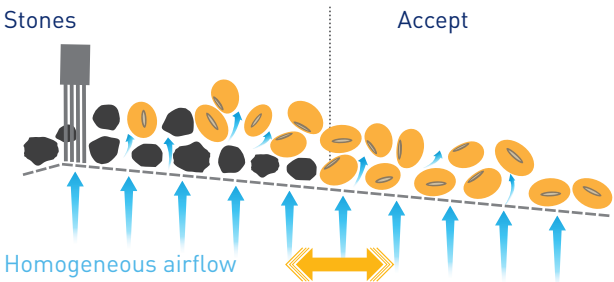
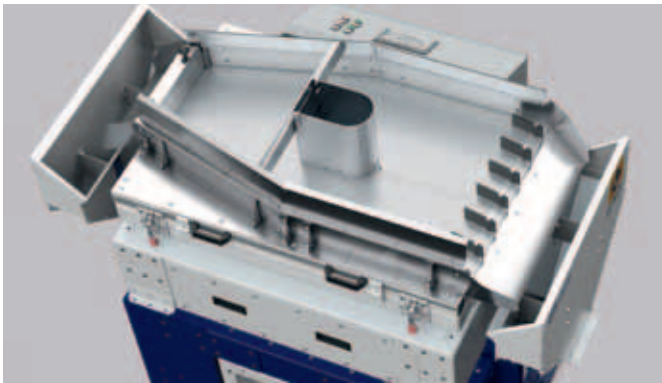
The G5 stone is specially designed for high-efficiency sorting of heavily contaminated raw materials containing dense impurities like stones and clumps - a must for the conditioning of legumes and lodging crops.

Covered with a wire mesh for uniform air distribution, the table ensures the product is layered based on specific weight. The table's vibration facilitates the movement of heavy material to the higher discharge and light material to the lower discharge.

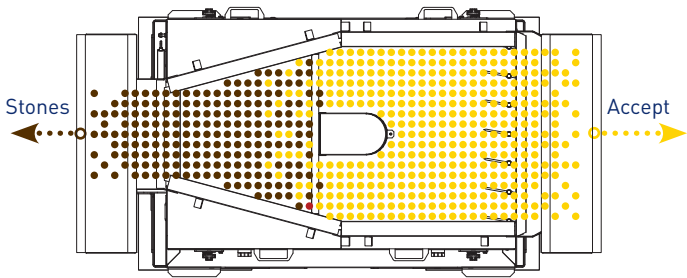
Applications

- Efficient and complete removal of heavy material such as stones or dirt clods from the incoming raw material for:
- + Seed processing (grain, corn, pulses, oilseeds, grass seeds and cottonseed)
 - + Food industry (lentils, peas, beans, coffee, peanuts, hazelnuts and almonds)
 - + Special applications (separation of metals, plastic, rubber, wood, minerals)

Protection and load reduction for following process machines. Equipped with all standard PETKUS G features.



Additional brushes at the heavy product discharge ensure that good product is not discharged.



Technical Data		G5 stone
Capacity	t/h	up to 10
Length	mm	1 810
Width	mm	1 280
Height	mm	1 600
Deck size	mm	790 x 1 200
Eccentric motor	kW	1.1
Fan	kW	3 x 1.9
Total weight	kg	900
Air volume	m³/h	12 000

Descriptions and measurements are approximate. We reserve the right to implement technical changes.

G5 fine

Every Seed is Precious

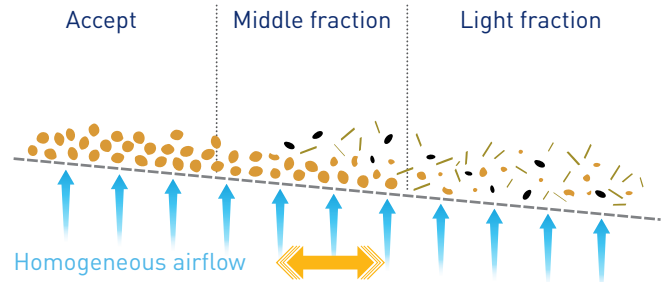
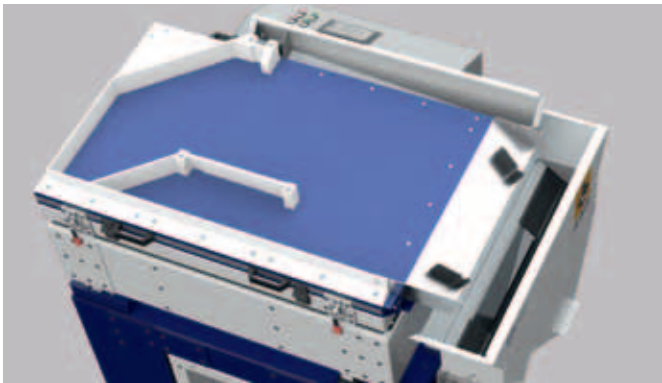
The G5 fine combines state-of-the-art aerodynamics with counterbalancing that allows each kernel to flow unhindered to the outlet port. Recipe management, airflow, table angle, infeed and vibration speed can all be adjusted with the user-friendly touch panel. All settings can be saved allowing for exceptional and repeatable sorting results.

In the fine seed industry, every seed holds considerable value. All components are specially designed to prevent any seed residue from adhering to the table. This guarantees complete emptying, simplifies deck cleaning, and prevents cross-contamination when transitioning between different seed varieties.

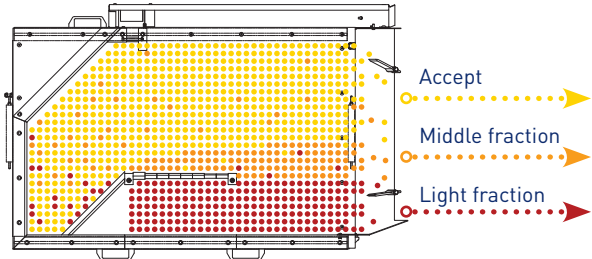
Applications

- + Precise adjustment of the table angle on both planes
- + Quick and easy table angle changes
- + Electrical height adjustment
- + Easy opening of the deck with gas springs
- + Minimal vibration due to the new counterbalancing system
- + Equal air pressure and distribution due to the optimized aerodynamics

Equipped with all standard PETKUS G features.



Depending on the requirements and the fine seed crop, the middle fraction can be entirely removed from the gravity table or partially added to the light or good fraction, allowing the output of light and good fractions only.



Technical Data		G5 fine
Capacity	t/h	up to 1.5
Length	mm	1 650
Width	mm	1 310
Height	mm	1 600
Deck size	mm	790 x 1 200
Eccentric motor	kW	0.55
Discharge	kW	—
Total weight	kg	900
Air volume	m³/h	12 000

Descriptions and measurements are approximate. We reserve the right to implement technical changes.

References



Find a reference close to you:



Your Partner for Seed Solutions.

01 CLEANING / CALIBRATION

02 SORTING

03 COATING

04 DRYING

05 CONVEYING

06 STORAGE

07 MOBILE PLANTS

 **Strong Seed. Healthy Grain.**

PETKUS Technologie GmbH

Roeberstr. 8 | 99848 Wutha-Farnroda | Germany

+49 3 69 21-98 0 | info@petkus.com

www.petkus.com