



PETKUS

PETKUS Product Overview

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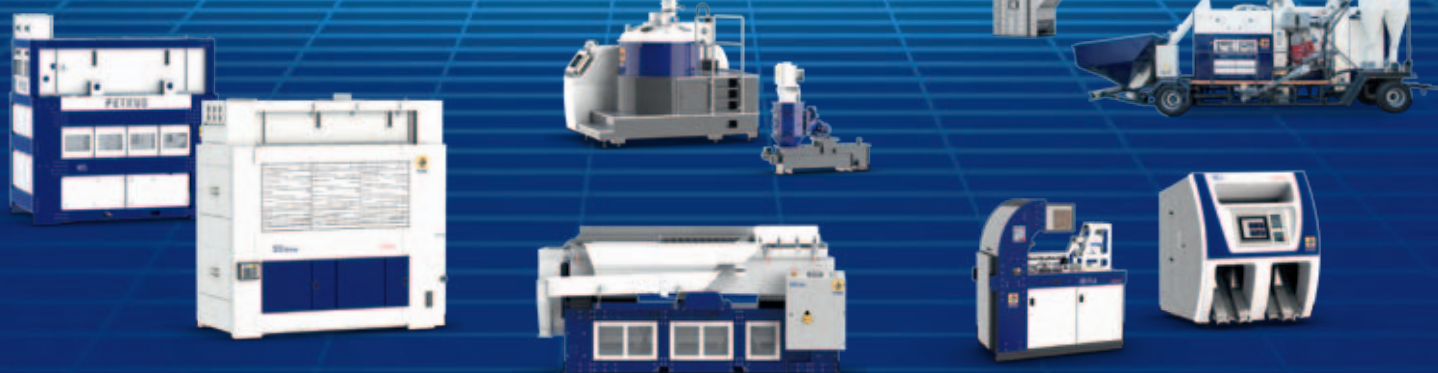
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MOBILE & MOVEABLE PLANTS



 Strong Seed. Healthy Grain.

STRONG SEED and HEALTHY GRAIN are not luxury, but essential to life. Across the entire process chain - from breeders' basic seeds to seed multiplying and on-farm production, every grain must embark on a journey of precision processing before it grows into a strong plant and gives a healthy harvest.

PETKUS' experience and research during its 170-year history have given rise to state-of-the-art ingenious technological solutions for every processing step, focused on the highest yield of the strongest seed and healthiest grain.



 **Strong Seed. Healthy Grain**

01

CLEANING / CALIBRATION

Cleaners - Classic
Cleaners - New Generation
Calibration Machines



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SORTING

Indented Cylinders
Gravity Separators
Optical Sorters



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COATING

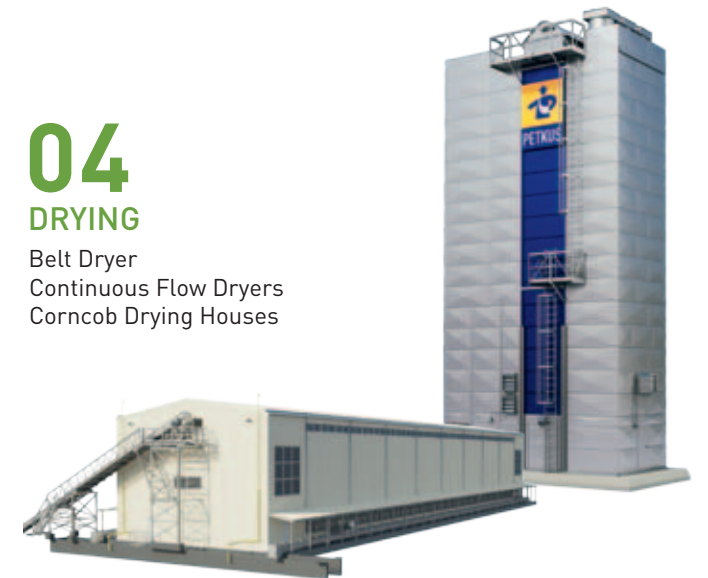
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STORAGE

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MOBILE & MOVEABLE PLANTS

Mobile Seed Processing Plants
Moveable Seed Processing Plants



Cleaning

PETKUS classical cleaners series K, A, U and M are multifunctional, dependable and well-proven machines for low to higher capacity level. They are specialized for all types of cleaning, from intense industrial grain cleaning to high quality seed cleaning, for seeds such as cereals, maize, legumes, fine and grass seeds.



Pre-Cleaners

PETKUS classical pre-cleaners series V, SM, SD, SE, SR are stable, reliable machines for mid to higher capacity level. They are mainly used in industrial grain reception areas, mills or malts plants for intensive cleaning, as well as for pre-cleaning in seed conditioning plants.



Pre-cleaning

Fine seed

Intensive cleaning (Grain)

Corn

Seed cleaning (Seed)

| K6 | — | up to 1.75 t/h | up to 1.2 t/h |
|------|--------------|----------------|----------------|
| K12 | — | up to 4 t/h | up to 2.5 t/h |
| K531 | — | up to 3.5 t/h | up to 2.5 t/h |
| K541 | — | up to 1.75 t/h | up to 1.25 t/h |
| A12 | up to 35 t/h | up to 25 t/h | up to 5 t/h |
| U15 | up to 60 t/h | up to 40 t/h | up to 10 t/h |
| M15 | — | up to 60 t/h | up to 25 t/h |

| Pre-cleaner V | | |
|---------------|--------------|---------------|
| V15 | up to 75 t/h | up to 120 t/h |

| Screening machine SM | |
|----------------------|---------------|
| SM15 | up to 50 t/h |
| SM24 | up to 100 t/h |
| SM30 | up to 120 t/h |

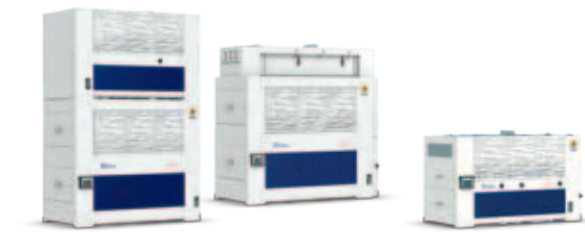
| Drum cleaner SD | |
|-----------------|---------------|
| SD10 | up to 70 t/h |
| SD15 | up to 150 t/h |
| SD30 | up to 300 t/h |

| De-awner SE | |
|-------------|--------------|
| SE3 | up to 3 t/h |
| SE5 | up to 5 t/h |
| SE10 | up to 10 t/h |
| SE20 | up to 20 t/h |
| SE25 | up to 25 t/h |

| RotoCleaner SR | | | Calibration |
|----------------|---------------|---------------|--------------|
| SR40 | up to 8 t/h | up to 7 t/h | up to 3 t/h |
| SR60 | up to 40 t/h | up to 30 t/h | up to 7 t/h |
| SR80 | up to 90 t/h | up to 70 t/h | up to 12 t/h |
| SR120 | up to 250 t/h | up to 200 t/h | up to 25 t/h |

Cleaning

The new generation of PETKUS cleaners sets high standards in seed cleaning. The S series features proven PETKUS quality and is equipped with new functions that offer a whole new added value. The new model range offers an optimal solution for every cleaning requirement.



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Pre-Cleaners

In traditional seed and grain cleaning, it is unconditionally accepted that the higher the capacity of the machine, the lower the quality of the cleaned product. With the new PETKUS X-cleaners, we have developed a cleaning machine that accepts no compromises.



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Calibration

Accurate seed calibration requires special calibration machines. Grading according to different calibre sizes must be particularly gentle on the product in order to protect the seed quality. Calibration can be carried out according to grain width or grain thickness. A wide range of interchangeable standard screen segments are available.



| Cleaner S Airmax | | |
|------------------|--------------|--------------|
| S9 Airmax | up to 24 t/h | up to 8 t/h |
| S12 Airmax | up to 36 t/h | up to 12 t/h |
| S18 Airmax | up to 60 t/h | up to 20 t/h |
| S30 Airmax | up to 90 t/h | up to 30 t/h |

| Cleaner and calibrating machine AIO | Caliber | |
|-------------------------------------|---------|--------------|
| S12 AIO | 2 | up to 6 t/h |
| S18 AIO | 2 | up to 10 t/h |
| S30 AIO | 2 | up to 15 t/h |
| S36 AIO | 2 | up to 20 t/h |

| Cleaner X | | |
|-------------|---------------|---------------|
| X80 Airmax | up to 80 t/h | up to 40 t/h |
| X150 Airmax | up to 150 t/h | up to 75 t/h |
| X225 Airmax | up to 225 t/h | up to 110 t/h |
| X300 Airmax | up to 300 t/h | up to 150 t/h |
| VX | up to 300 t/h | up to 150 t/h |

| Calibrating machine SC | Caliber | |
|------------------------|---------|--------------|
| SC18 | 2 - 5 | up to 12 t/h |
| SC30 | 2 - 5 | up to 18 t/h |

| Calibrating machine SCC | Caliber | |
|-------------------------|---------|--------------|
| SCC18 | 4 | up to 5 t/h |
| SCC30 | 4 | up to 10 t/h |

Indented Cylinders

The PETKUS indented cylinders with asymmetrically pocket-shaped cells sort the product precisely according to the exact grain length with the same cross-section. They can be used either for short-grain or long-grain selection.



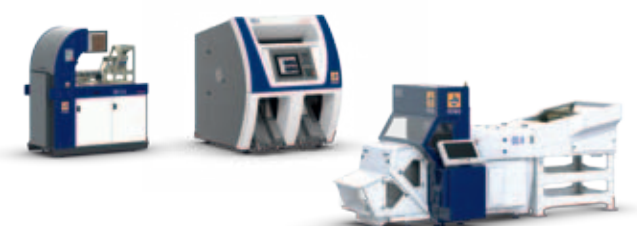
Gravity Separators

Thanks to precise air control, virtually vibration-free operation and digitalisation of the entire sorting process the PETKUS gravity separators meet the highest quality and efficiency demands. The G series is flexible and can be used to sort all types of grains and seeds. The elimination of the critical middle fraction not only improves efficiency, but also reduces product loss.




Optical Sorters

PETKUS optical sorters are the most advanced sorters in the market with the widest range of sorting parameters such as finest full color, extended geometry, both transmission and reflectance and algorithms based on neuronal network. Used across the entire seed industry from lab applications with automatic test protocols to 30 t/h seed production plants, the sorters can optically sort a wide size range, from whole corn cobs down to fine seeds with 33 000 seeds per gram.



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Indented cylinder Z

| | | Modules | |  |
|---------|--|---------|-------------------|---|
| ZK / ZL | Short or long grain separation | 1 | up to 3 - 12 t/h | |
| | Short or long grain separation | 2 | up to 8 - 24 t/h | |
| ZA | Short and long grain separation | 2 | up to 3 - 12 t/h | |
| ZR | | 2 | up to 3 - 12 t/h | |
| | | 3 | up to 14 - 20 t/h | |
| | | 4 | up to 18 - 25 t/h | |
| ZR | Upon request, especially for selection of rice | | | |

Gravity separator G

| | | |
|----------|---------------|---|
| G5 | up to 1.5 t/h |  |
| G20 | up to 5 t/h | |
| G35 | up to 10 t/h | |
| G40 | up to 12 t/h | |
| G5 stone | up to 10 t/h | |
| G5 fine | up to 1.5 t/h | |

Optical sorters OS

| | | |
|-------------|---|----------------------|
| OS t |  | up to 15 t/h |
| OS tt |  | up to 30 t/h |
| OS f |  | up to 2 000 seeds/s |
| OS f AI |  | up to 700 seeds/s |
| OS Analyzer | for laboratory application | |
| OS X |  | up to 3 000 cobs/min |

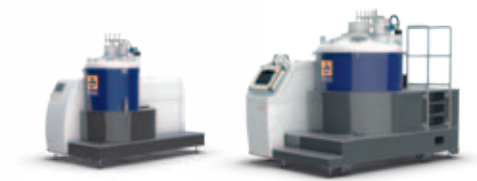
Continuous Treaters

The CT seed treaters are a cost-efficient solution for grain treatment in continuous operation with the highest quality demands.



Batch Treaters

PETKUS batch treaters provide a wide range of applications such as basic and film coating, encrusting and pelleting. Thanks to the combination of up to 10 different liquid dosing feeds and up to 4 different powder dosing feeds, even the most complex recipes can be easily realized using sequential or simultaneous application. The additional integrated drying process in the MultiCoater CM makes PETKUS coating technology the most professional in the market.



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Hygienisation

The HySeed bio hygienises seed with a steam mixture, which enables effective, gentle, fast and targeted heat transfer to and in the seed. Pathogens such as fungi and bacteria as well as insect infestations are gently eliminated across a broad spectrum. This meets the requirements for certification of the seeds in accordance with the organic guidelines.



Chemical Delivery System


Fully automatic chemical delivery system for seed treatment and coating chemicals with recipe management, mixing unit and storage tanks with automatic cleaning for PETKUS treaters.



Continuous treaters CT

| | | |
|------|------------------|---|
| CT5 | up to 1 - 10 t/h |  |
| CT10 | up to 2 - 10 t/h | |
| CT25 | up to 5 - 25 t/h | |

Batch treater

| | | |
|------|----------------------------|---|
| CF04 | for laboratory application |  |
| C200 | up to 11 t/h | |

MultiCoater CM

| | |
|-------|--------------|
| CM25 | up to 2 t/h |
| CM100 | up to 8 t/h |
| CM300 | up to 25 t/h |

HySeed bio

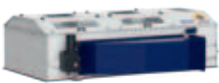
| | | |
|------------------|-------------|---|
| CM 25 HySeed bio | up to 2 t/h |  |
|------------------|-------------|---|

Chemical delivery system

| | |
|-----|---|
| CDS | up to 8 chemical containers |
| | up to 3 separate automatic mixing lines |
| | manual mixing line for recipe development and testing |

Belt Dryer

The PETKUS belt dryer is used immediately after seed treatment and, thanks to its intelligent air-flow, enables gentle seed drying, which leads to improved flow behaviour and Heubach values.



| Belt dryer DB | | |
|---------------|--|--------------|
| DB150 | | Capacity |
| | | up to 20 t/h |

Continuous Flow Dryers

The universally applicable PETKUS continuous flow dryer is a modular system consisting of drying, cooling and storage sections. The drying process features environmentally friendly energy-saving options and has a very user-friendly operation.



| Continuous flow dryers DD, DDU, DW, DWU | | |
|--|-----------|---------------|
| Series 15 | | Capacity |
| | | up to 30 t/h |
| | Series 25 | up to 50 t/h |
| | Series 40 | up to 80 t/h |
| | Series 60 | up to 120 t/h |

Corncob Drying Houses

Dryers for corn cobs are used to dry de-husked maize cobs containing harvest moisture in particularly energy-efficient manner. Even and gentle drying takes place either with the double-pass method (drying chambers are connected to each other via a central air-duct system) or single-pass reverse process (each drying chamber is equipped with its own burner and fan).



| Corncob drying houses | | |
|-----------------------|-------------|----------------|
| DHD | Single Pass | Chamber volume |
| | | 250 - 1 500 t |
| DHS | Double Pass | 250 - 1 500 t |



Bucket Elevators

PETKUS bucket elevators are used for gentle, vertical transport of all grained and free flowing bulk products. The range of offered elevators can be adjusted depending on the specific product and the required capacity. You can choose between different belt speeds: 1.2 - 1.8 m/s (for seed) or 2 - 3 m/s (for grain).



| Bucket elevators BE | | |
|---|----------------|---------------------|
| | Belt speed | Conveying capacity |
|  | 1.2 to 1.8 m/s | 15 t/h to 95 t/h |
|  | 2 to 3 m/s | 30 t/h to 1 000 t/h |

Pendulum Bucket Elevators

PETKUS pendulum bucket elevators are used for homogeneous, gentle transport of free flowing, sensitive bulk products. Individual routing can be created by means of modular vertical and horizontal conveying (Z- or C-shaped).



| Pendulum bucket elevators PB | | |
|---|--------------------|---------------|
| | Conveying capacity | |
|  | | 7.5 to 25 t/h |

Chain Conveyors

The PETKUS trough chain conveyors TKS are used for slightly inclined (angle 30° - 45°) transport of free flowing of free flowing bulk products such as grain, pulses, oilseeds and similar agricultural products.



| Trough chain conveyors TKS | | |
|---|--|---------------|
|  | | 30 to 200 t/h |

The PETKUS trough chain conveyors TK are used for horizontal or slightly inclined transport of free flowing bulk products such as grain, pulses, oilseeds and similar agricultural products.



| Trough chain conveyors TK | | |
|---|--|-----------------|
|  | | 60 to 1 000 t/h |

PETKUS round bottom conveyors are used for product-protecting horizontal and slightly ascending transport of free-flowing bulk materials. The round floor guarantees absolute homogeneity.



| Round bottom conveyors RF | | |
|---|--|---------------|
|  | | 50 to 100 t/h |

Belt Conveyors

PETKUS roller belt conveyors offer a low-cost, flexible solution for transport of granular bulk product. A conveyor belt running on rollers guarantees gentle product conveying.



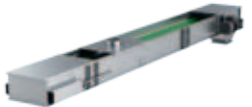
| Roller belt conveyors RB | | |
|---|--|---------------|
|  | | 60 to 150 t/h |

PETKUS sliding belt conveyors offer a low-cost, variable solution for transporting large material such as maize cobs. The products are transported via a belt that slides on a steel floor and is supported by support rollers.



| Sliding belt conveyors GB | | |
|---|--|----------------|
|  | | 100 to 150 t/h |

PETKUS trough belt conveyors are always used whenever pure grade and particularly gentle material transport at low capacities for horizontal and slightly ascending transport is required.



| Trough belt conveyors MB | | |
|---|--|--------------|
|  | | 15 to 30 t/h |

PETKUS sorting belt conveyors are especially suitable for manual sorting of e.g. corn cobs at a sorting table.




| Sorting belt conveyors GS | | |
|---|--|--------------|
|  | | 25 to 40 t/h |

Vibratory Conveyors

PETKUS vibratory conveyors are used for efficient conveying of coarse, hardly flowable products (such as maize cobs, soya beans). They separate the bulk products, to prevent product tangles and ensure a uniform product flow to downstream conveying units.



| Vibratory conveyors SF | | |
|---|--|--------------|
|  | | 25 to 40 t/h |

Profile Wall Silos

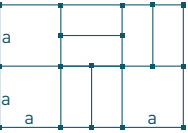
Profile wall silos are a space-saving, sturdy and economical storage system and are primarily suitable for easy-flowing goods. With various cell sizes, they offer compact, flexible solutions in terms of arrangement and storage volume.



Profile wall silo PWS

| | |
|--------------------|----------|
| Maximum cell heigh | 25 m |
| System grid (a) | 2 000 mm |
| | 2 500 mm |
| | 3 000 mm |
| | 3 500 mm |
| | 4 000 mm |

System dimensions can also be supplied in intermediate sizes with 250 mm division



Smooth Wall Silos

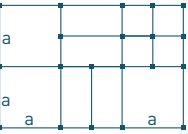
Smooth wall silos are modern and efficient silo systems for the storage of heavy-flowing goods. The silo is also ideally suited for products that must remain contamination-free. The flexible cell sizes – single cell, half cell, quarter cell – allow optimum use of the given footprint.



Smooth wall silos GWS

| | |
|--------------------|----------|
| Maximum cell heigh | 25 m |
| System grid (a) | 2 000 mm |
| | 2 500 mm |
| | 3 000 mm |
| | 3 500 mm |
| | 4 000 mm |

System dimensions can also be supplied in intermediate sizes with 250 mm division



Flat Bottom Silos

PETKUS round steel silos are practical for all types of grain, oilseeds, compound feed pellets and industrial granules. They consist of galvanised corrugated steel sheets, which offer a high level of (Z600) corrosion protection. The modular design of the round silos allows heights between 1 and 25 m and diameters between 3 to 32 m.

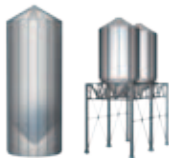


Flat bottom silos FBS

| | |
|----------|--------------------------|
| Diameter | Capacity |
| 3 - 32 m | 437 to approx. 13 361 MT |

Buffer Silos

PETKUS buffer loading silos are perfectly suited for short-term storage of grained, free-flowing products. The loading cells can be accessed by both trucks and wagons.



Buffer silos HBS

| | |
|--------------|------------------------|
| Diameter | Capacity |
| 4.6 - 12.2 m | 71 to approx. 1 600 MT |

Buffer & Loading Silos

The buffer and storage silos from PETKUS are ideal for the short-term storage of granular, flowable materials. Their modular construction facilitates different capacities.



Hopper loading silo TLS

| | |
|-------------|----------------------|
| 3.1 - 5.3 m | 24 to approx. 203 MT |
|-------------|----------------------|

Buffer silos

| | |
|-------------------|--------------------------|
| Module dimensions | Capacity |
| 2 x 2 m | 7.2 to approx. 24 m³ |
| 2.5 x 2.5 m | 11.25 to approx. 37.5 m³ |
| 3 x 3 m | 16.2 to approx. 54 m³ |

Silo Accessories

Sweep augers are used for simple, fast emptying of residues out of flat-bottom round silos.



With **aeration** to reduce the humidity inside the storage silo.

Temperature monitoring of the filling material and control of the aeration system.

Dust Extraction System

The **dust extraction system** is a modular system with a 2 m grid. Each module has a dedusting capacity of 11 000 m³/h.



Square Filters

The **PETKUS square filter FV** is a modular tube filter system with a 20 to 90 m² filter surface.



Conveying capacity

| | |
|--------------------------|---------------|
| Sweep auger FS | 40 to 100 t/h |
| Temperature monitoring | |
| Moisture monitoring | |
| Fixed ladders + walkways | |

Mobile Seed Processing Plants

Mobile seed treatment units are perfectly suitable for both seed cleaning and intensive cleaning of small to medium batches. Short changeover times for variety changes are a great advantage in operational use.

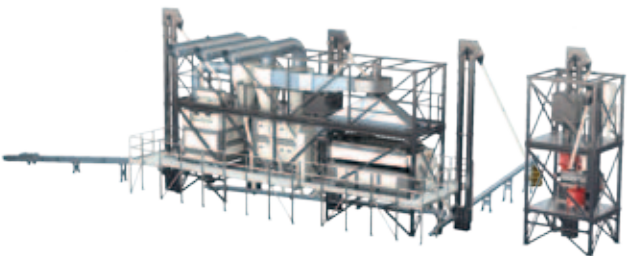


| | | | |
|----------------|--------------|---------------|---------------|
| Truck/Trailer* | — | up to 3.5 t/h | up to 2.5 t/h |
| SSC 5/3 | — | up to 5 t/h | up to 3 t/h |
| SSC 60/10 | up to 60 t/h | up to 30 t/h | up to 10 t/h |
| SSC 80 | up to 80 t/h | up to 40 t/h | up to 15 t/h |

* without treatment

Moveable Seed Processing Plants

PETKUS moveable seed processing systems offer a high degree of flexibility and cost savings due to pre-mounted units on container frames. The units are simply stacked on top of each other and operated via plug and play and can also be moved and transported as a complete system if required.



Seed plant* Individually configurable, e.g.

| | |
|---|--------------|
| Screen cleaner | up to 80 t/h |
| Indented cylinder | up to 12 t/h |
| Gravity separator | up to 12 t/h |
| Continuous chemical treater/batch treater | up to 25 t/h |
| Aspirator | |
| Hopper silo with level sensor | |
| Conveying technology | |

*based on 2 shipping containers



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