

# GRAIN STORAGE TECHNOLOGIES by

**PAWLICA®**



STELA • GEHR. RUBERG • BROCK • BIN • SKANDIA ELEVATOR  
JEMA • PFEUFFER • SØBY • HUTCHINSON • JESMA • AGI FRAME



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# OUR PHILOSOPHY

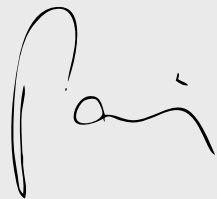
The philosophy of PAWLICA is to deliver high-quality technology and service. From the very beginning, we have collaborated only with the best manufacturers and suppliers from Europe and the USA. The PAWLICA brand has become a symbol of quality and reliable post-harvest systems, both for farmers and for industrial enterprises. Customer satisfaction is our top priority.

We supply modern grain storage technologies from proven international partners offering top-tier specialized products. For many years, we have represented the German dryer manufacturer STELA, the American silo producer BROCK, the Polish export silo manufacturer BIN, the Italian steel silo brand AGI FRAME, and the German cleaning technology specialist GEBR. RUBERG. Our conveying systems come from Scandinavian brands SKANDIA and JE-MA. Recently, the American Hutchinson Grain Pump system and Danish SØBY have also gained popularity. We have also long represented the German laboratory equipment manufacturer PFEUFFER, whose devices have been with us since our founding and are still

highly appreciated by farmers and food processors. Newly represented brands include BOMILL (grain quality sorting) and JESMA (continuous weighers for bulk materials).

From a small family business founded by my father in 1998, we have become a leading supplier of post-harvest grain technologies in the Czech Republic. My father's name and professional approach brought success and customer satisfaction with the quality of our services and products. I am proud to continue this tradition, delivering modern and reliable technology along with expert service—while maintaining a family atmosphere, even as we expand internationally. My goal is to make Pawlica s.r.o. the independent market leader in Central and Eastern Europe.

Ing. Petr Pawlica, MBA



**PAWLICA®**



# ABOUT US

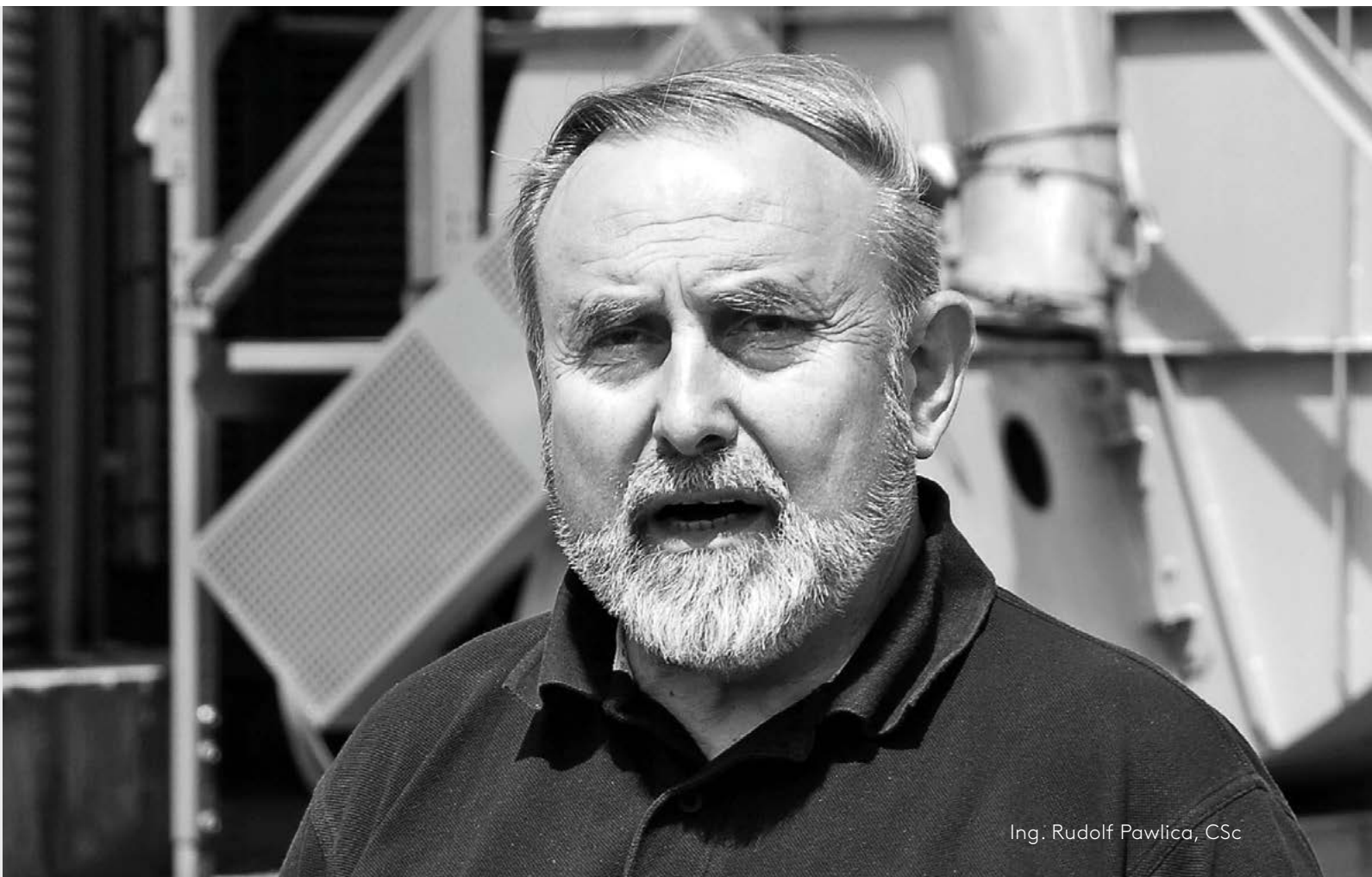
PAWLICA s.r.o. has many years of experience supplying both large and small farms in the Czech Republic and beyond with high-quality technologies for post-harvest grain handling and other commodities. Our portfolio includes agricultural and industrial dryers, grain cleaners, conveyors, galvanized steel silos, and other equipment from leading foreign manufacturers. Together, they form a fully integrated PAWLICA post-harvest system.

## HISTORY

The company was founded in 1998 by Ing. Rudolf Pawlica, CSc., who left his career at the Agricultural Research Institute in Prague-Řepý to start his own business. The first STELA dryer was installed in 1995 in Šatov. The growing demand for drying maize and rapeseed led to significant growth. PAWLICA became a market leader and expanded its portfolio with reputable foreign brands. Ing. Pawlica was the design mind behind the “Strážov dryers,” with more than 600 units installed over 30 years. Later, his son Ing. Petr Pawlica, MBA, took over and continues to lead the company today.

## PRESENT

We provide tailored solutions for both small and large enterprises. Our systems are reliable, efficient, and easy to use, ensuring fast return on investment. Our business values include tradition, trust, personal approach, and respect—for our customers and our employees. Our primary markets are the Czech Republic, Poland, and Slovakia, with a branch established in Wrocław, Poland in 2012.



Ing. Rudolf Pawlica, CSc



PAWLICA Group



## PAWLICA BRAND

### PAWLICA – Registered Technological Solution

With over one hundred installations, proven technologies, and satisfied customers, we are able to offer our solutions across Europe. The PAWLICA brand is protected by a utility model.

Over a hundred installations, proven technologies, and satisfied customers have enabled us to sell our solutions throughout Europe. The PAWLICA brand is protected by a utility model. Our certified PAWLICA Post-Harvest Line is a reliable investment. It integrates proven European and American technologies with demonstrated performance in hundreds of installations—combining BROCK silos, STELA dryers, GEBR. RUBERG cleaners, and SKANDIA conveyors.



**PAWLICA®**



# MUTUAL COOPERATION

In 2019, we expanded into livestock technologies through AGE s.r.o., a long-standing supplier of complete housing systems for poultry and pigs. AGE also produces steel halls and penning systems and is based in Českém Meziříčí, which also hosts a PAWLICA branch.

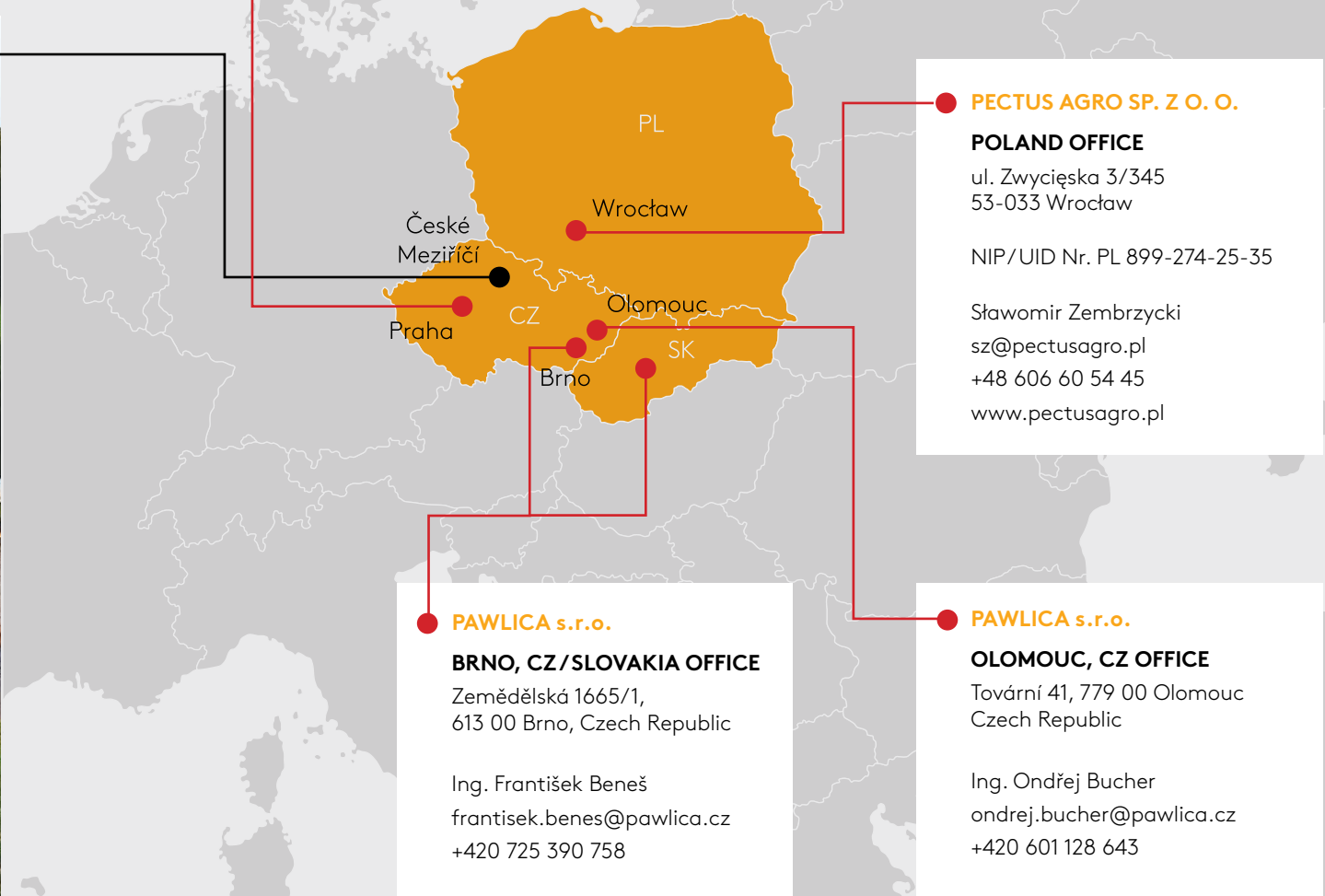


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**PAWLICA®**





## OUR BUSINESS PARTNERS



### STELA

A German family-owned company and a major producer of dryers, recognized as a leader in its field. Based in the town of Massing near Passau in Bavaria, it focuses exclusively on agricultural and industrial drying technology. STELA manufactures belt dryers for wood chips, sawdust, sewage sludge, digestate, vegetables, and trough dryers for poorly flowable materials like pumpkin seeds. In the agricultural sector, it specializes in tower and mobile dryers for all grains.



A Division of CTB, Inc.

### BROCK

An American silo manufacturer with a long-standing tradition. The BROCK brand is known for top quality, long-term durability, and cutting-edge design—considered the global leader in the industry. Founded in 1957 in Milford, Indiana, the company is part of Chore-Time Brock (CTB), which supplies complete technologies for feed storage, poultry and pig farming, and egg production.



### BIN

A respected Polish manufacturer of grain silos. Although officially founded in 1990, its history dates back a decade earlier when founder Zygmund Krzemiński sought better grain storage solutions for his farm. He developed his first flat-bottom silos from galvanized steel. In 1997, he was awarded for contributions to Polish agriculture.



### GEBR. RUBERG

A German producer of grain cleaners and pre-cleaners with a tradition dating back to 1848. The company introduced the world's first oscillating screen cleaner in 1975, still produced today with capacities up to 600 t/h.



### SØBY

A traditional Danish family-owned company offering grain transportation and drying solutions since 1961. Its product range includes chain, screw, and bucket conveyors with capacities from 5 to 150 t/h.



### SKANDIA ELEVATOR

A specialized Swedish manufacturer of high-quality grain conveyors. The company offers products in three categories: Lite, Industry, and Heavy Duty. It continuously innovates to meet the needs of its customers.



### JEMA

A Danish family business based in Sahl, Denmark. Its well-developed range includes various types of conveyors and elevators, including combination conveyors for both horizontal and vertical transport. JEMA also supplies complete systems for floor storage loading and unloading using belt conveyors.



### HUTCHINSON-MAYRATH

An American company established in 1945, now a global supplier of grain handling systems. It offers screw, chain, and belt conveyors, silo sweep augers, and the revolutionary Grain Pump system for easy grain transfer in silos and halls.



### PFEUFFER

A top German manufacturer of laboratory equipment for grain quality analysis. Its product range includes everything from field moisture testers to automatic and manual samplers, sorting and cleaning devices, and complete sample analysis tools. PFEUFFER equipment is used in agricultural and food companies worldwide.



### JESMA

A Danish company specializing in weighing and dosing technology. Its range includes static, dynamic, and continuous scales, as well as Big Bag filling systems. All products are designed for high operational reliability and user-friendliness.



### AGI FRAME

An Italian company and one of Europe's largest and most recognized designers and manufacturers of corrugated steel silos for both commercial and agricultural use.



# DRYERS

**Stationary** Dryers

16

**Mobile** Dryers

22

**Belt** Dryers

24



**stela®**



# STATIONARY DRYERS



STELA MDB-XN 1/7 S - POĽNOHOSPORÁRSKO-PODIELNICKÉ DRUŽSTVO PRAŠICE, VEĽKÉ BEDZANY, SLOVAKIA

Grain drying is the most effective conservation method, essential for storing maize, sunflower seeds, and rapeseed. Scientific studies confirm that drying with STELA is gentle on the grain, preserving germination rates and avoiding damage.

The dryer is made from hardened aluminum, offering

complete corrosion resistance. STELA assemblies are highly modular, allowing customers to choose from various heating options, air systems, heat recovery, dust and noise reduction systems, and automatic moisture control. All dryer types are controlled by Siemens industrial automation, with operation via a touchscreen or the PAWLICA post-harvest control PC.

### ADVANTAGES

- Unlimited performance capacity
- Low fuel consumption
- Low energy demand
- Service life up to 50 years
- Reliable operation
- Optional active or passive heat recovery
- Heat sources: natural gas, LPG, diesel, biogas, or heat exchangers
- Flexible modular construction

The high output and long service life of STELA dryers—up to 50 years—make them highly valued. Over the last 16 years, more than 350 units have been installed in the Czech Republic, Slovakia, and Poland.

The GDB series is intended for cereal drying. MDB dryers are optimized for maize, featuring specially designed drying chambers and fan dimensions for record-low energy consumption. Maize dryers can be equipped with two fans for active heat recovery. Pneumatically controlled discharge and shaft segmentation allow drying of wet maize up to 35% moisture in a single pass. The wide range of performance classes and configurations lets customers choose the ideal setup. Even grain can be dried in MDB dryers.



STELA GDB - TN 1/9 S - ÚSOVSKO A.S., ÚSOV, CZ



STELA MDB-XN 1/16 SB - FIRST FARMS AGRA M s.r.o., MALACKY, SLOVAKIA

### EQUIPMENT

- Gas, oil or LPG burner, hot water heat exchanger
- Direct or indirect heating
- External ladder
- Secondary air dampers
- Pockets for capturing small rapeseed grains
- Axial and radial fan
- Fire protection system, extinguishing system
- Temperature monitoring
- Option for complete thermal insulation of the dryer
- Dust reduction device
- Dust separator
- Noise filter
- Touch panel
- Remote access for control and monitoring



# DRYERS GDB AND MDB

## Standard Construction of STELA GDB and MDB Dryers

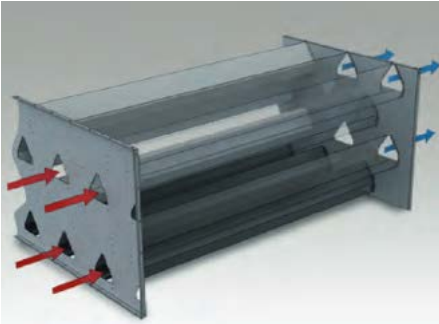
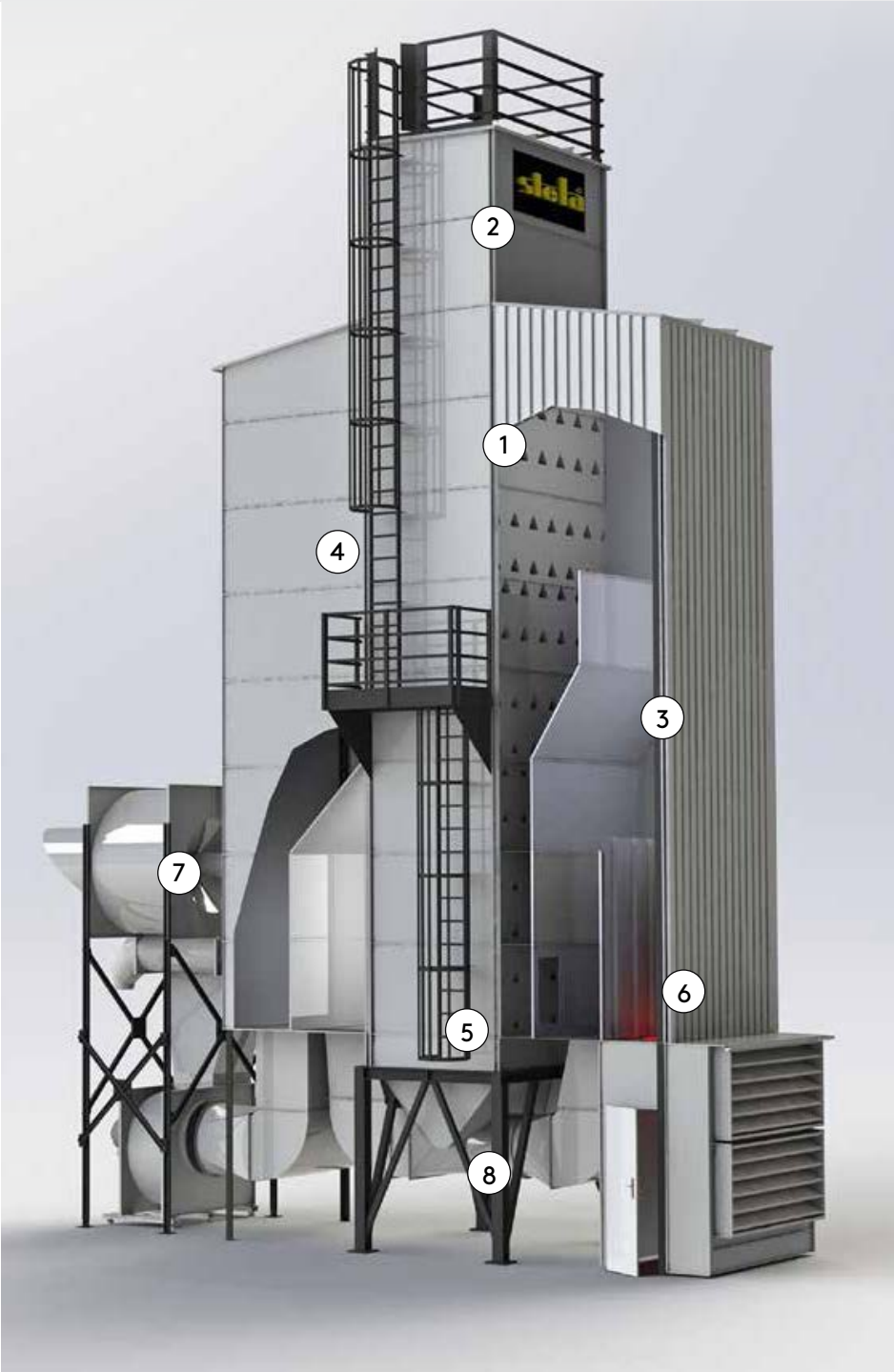
At the bottom of the drying tower (1), there is a solid base with a discharge device, onto which the individual elements of the drying tower are mounted. At the very top, there is a filling hopper (2). On one side of the tower is the hot air chamber (3), and on the opposite side is the exhaust air chamber (4).

The discharge device (5) is of the grate type with impact opening via a pneumatic servo drive. Each tower element is a pass-through box filled with air-handling components—channels for the inflow and outflow of drying or cooling air.

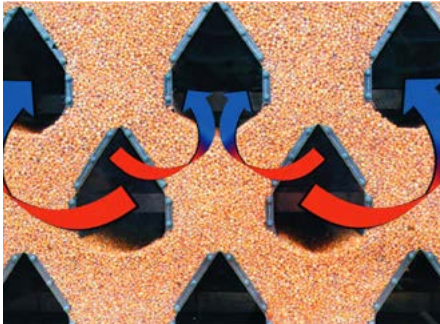
The hot air chamber is connected at the bottom to a heater (either direct or a heat exchanger). In the case of a spatial gas burner, the heater is integrated directly within the chamber (6), eliminating the need for an external heater.

The exhaust air chamber is connected to an exhaust fan, which can be mounted either on the roof of the chamber or on the ground next to the shaft. When mounted on the roof, air is discharged directly into the environment, or a dust limiter can be attached to the fan. A radial fan is placed on the ground when the dryer is equipped with a dust removal system using a cyclone separator (7), or when noise-reducing filters are installed.

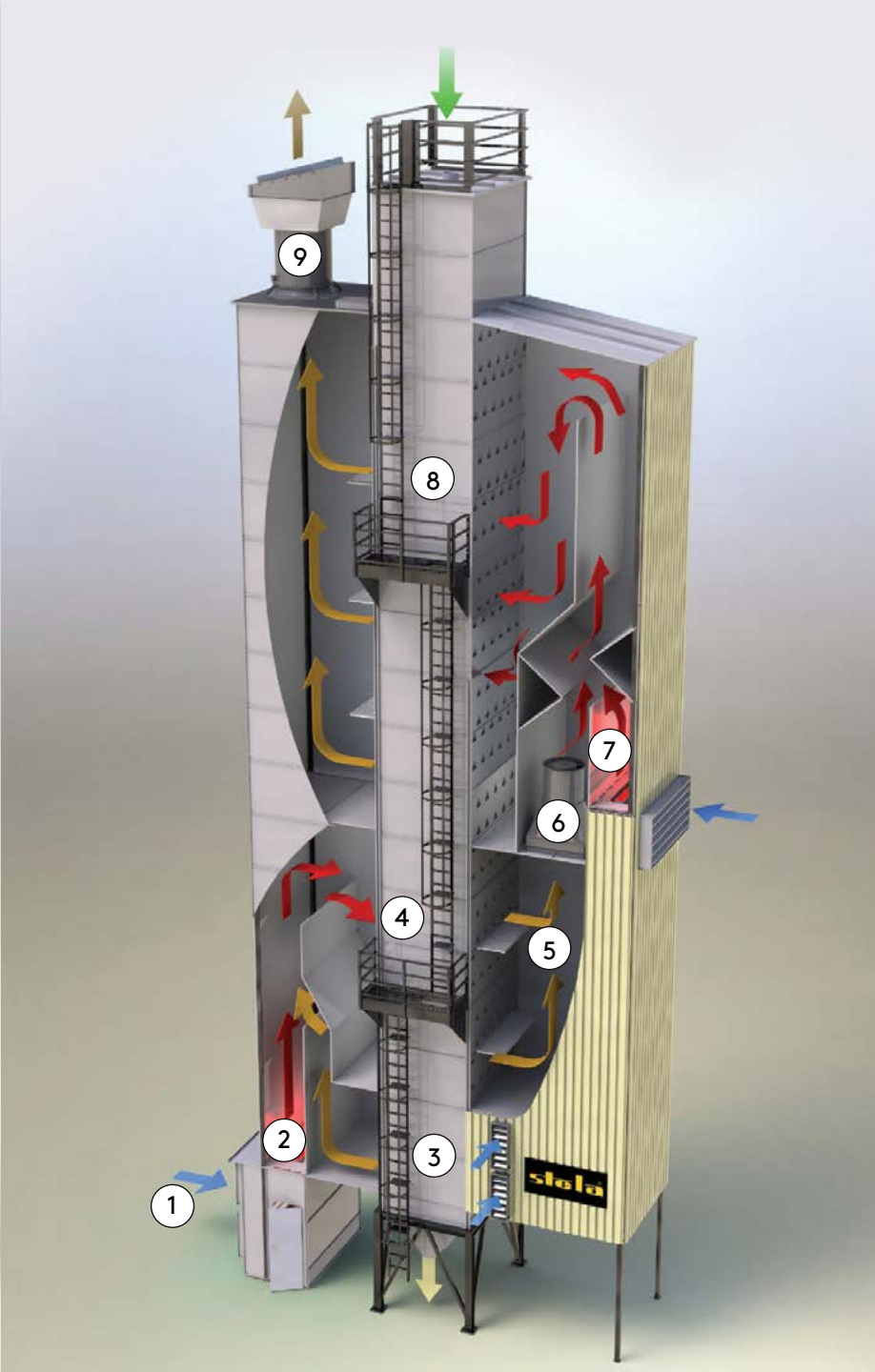
To save thermal energy, three levels of equipment are used. In the version with passive heat recovery, waste heat from the lower cooling elements is utilized. A higher level of equipment is the SU version with active heat recovery using a recirculation fan (8). In this case, waste air is recovered not only from the cooling section but also from the lower drying elements.



Drying element



Air channels of the drying element



Monoblock spot burner with air heater



STELA centrifugal separator

# TECHNOLOGY BITURBO

## Revolutionary Air Duct Arrangement in STELA Dryers with BITURBO Technology

The revolutionary arrangement of air ducts in STELA dryers using BITURBO technology reduces the required amount of heated air by up to 50%, which results in a reduction of thermal energy demand by up to 15% compared to conventional dryers with active heat recovery.

Ambient fresh air (1) is drawn in at the bottom of the dryer to be heated, for example, by a natural gas burner (2), and then directed into the lower drying section of the drying tower—the so-called dry grain zone (4)—together with preheated air from the cooling zone (3). Here, moisture is extracted from the product using air heated up to 150°C—in the opposite direction of conventional drying processes—without damaging the corn kernels, since the moisture content of the product in this zone is already between 18–20%.

The still relatively hot air leaving the dry grain zone (5) is then routed to the upper drying zone by an auxiliary axial fan (6), where it mixes again with ambient air drawn in from the top of the dryer and heated by a second burner (7) to a temperature of 120–130°C. This heated air then passes through the material in the wet grain zone (8) and is finally exhausted into the surrounding atmosphere by a second axial fan (9).



Pneumatic discharge (emptying)



INDEPENDENT TEST

BITURBO TECHNOLOGY

INDEPENDENT TEST – BITURBO TECHNOLOGY

Drying Capacity and Energy Consumption

The “DLG-ANERKANNT in Einzelkriterien” quality mark is awarded to agricultural products that successfully pass independent utility testing based on recognized DLG evaluation criteria. The test demonstrates significant innovation and key performance values.

**SUMMARY:**

During testing, the continuous dryer achieved **good drying performance and excellent specific thermal energy consumption**. The manufacturer’s rated capacity was not fully achieved, likely due to the test maize having lower bulk density than specified

| Drying Capacity Evaluation*                  |                                | Rating |
|----------------------------------------------|--------------------------------|--------|
| Performance                                  |                                |        |
| Dried material (operating conditions)        | 22,95 t/h                      | n.e.   |
| Dried material (standard conditions)         | 21,05 t/h                      | s      |
| Wet material (operating conditions)          | 29,39 t/h                      | n.e.   |
| Wet material (standard conditions)           | 27,48 t/h                      | s      |
| Moisture reduction of corn grain             | 18,7 % (from 33,4 % to 14,7 %) | n.e.   |
| Dehydration of corn grain                    | 6,43 t/h                       | n.e.   |
| Energy Consumption                           |                                |        |
| Energy consumption per tonne of wet material |                                |        |
| – thermal                                    | 190,3 kWh/t                    | ++     |
| – electrical                                 | 5,6 kWh/t                      | ++     |
| Specific energy consumption for dehydration  | 750,8 kWh/t (2 703 kJ/kg)      | ++     |
| Airflow per ton of wet material              | ~7 300 m³                      | ++     |

**Notes:**

Standard conditions: Drying from 35% to 15% moisture at ambient conditions of 5 °C, 80% relative humidity, and 1,013 mbar.

Measured values were determined at hot air temperatures of 132 °C or 135 °C.

The design temperature is 125 °C.

\* **Evaluation scale:** ++/+/o/--- (o = standard, n.e. = not evaluated)



ADVANTAGES

- Thermal energy consumption per ton of wet maize: 190.3 kWh/t, or approx. 1.0 m³/t·% natural gas
- Specific energy for dehydration: 750.8 kWh/t (2,703 kJ/kg)
- Air flow rate: approx. 7,300 m³/t
- 15% lower fuel and hot air consumption
- Two-phase drying with no grain damage
- Temperature control in upper and lower zones
- Equipped with BiTurbo and Combi Air Clean technologies



STELA BITURBO MDB-XN 3/18 SB, 3/20 SB – BIOAGRA S.A., GOŚWINOWICE, POLAND



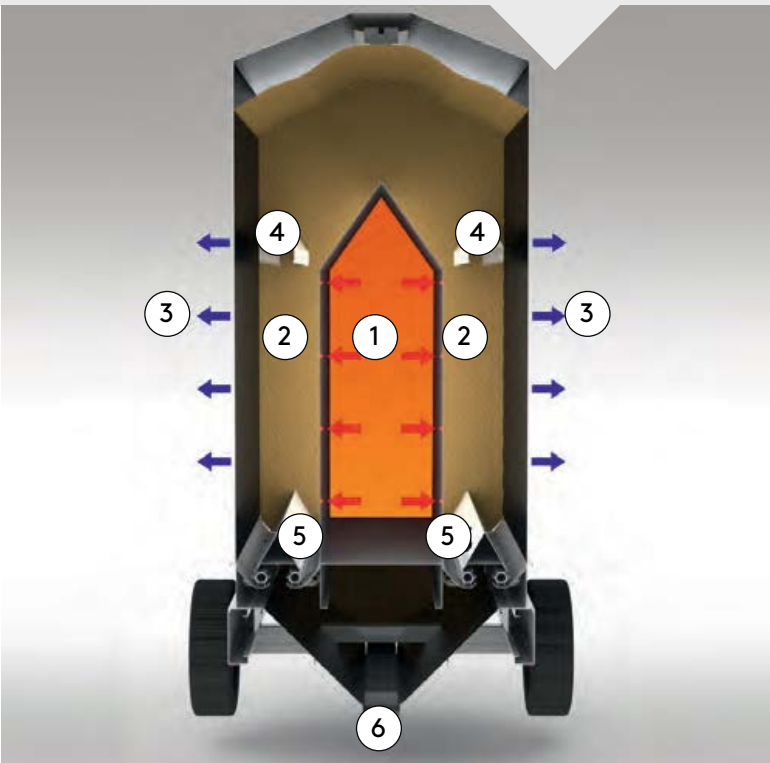
# MOBILE DRYERS

## BATCH MOBILE DRYERS

1. Hot Air
2. Product / Drying Chamber
3. Exhaust Air
4. Roof Pressure Relief
5. Discharge Cylinder
6. Elevator



STELA MUF 110 – PRUSINOWICE, POLAND



# CONTINUOUS

## MOBILE DRYERS



STELA UNIVERSAL 15

**Mobility offers significant benefits.** It allows relocation for servicing multiple storage sites—ideal for service providers or companies cooperating across various regions. Another advantage is immediate operation without lengthy building approvals, as no permit is needed. A mobile dryer can operate in the field or farmyard without a full post-harvest line. **Filling** can be done via loader, conveyor, or directly from a storage bin. **Emptying** is possible via built-in screw conveyor directly into trucks or warehouses. The **MUF series** is ideal for drying **maize, sunflower seeds, and rapeseed**, especially for farms without post-harvest lines.

**MUF 45:** 45–60 t/day  
**MUF 70:** 70–96 t/day  
**MUF 110:** 110–150 t/day

(Capacity depends on input moisture)

The working chamber (Mais Umlauf Fahrbar) is a vertical shaft between inner and outer perforated walls, with cross-flow drying. The drying layer is 0.5 m thick, and wall perforation allows drying even fine seeds like rapeseed. **Drying is batch-based:** once filled, the programmed process runs fully automatically for several hours.

Continuous drying process is preferred for small volumes of material. Mobile dryers are quick to install (after they were tested in the factory) and move about between different locations. UNIVERSAL series offers fully equipped dryers, mounted on the chassis, including a distributor. They have their own feeding hopper for loading and unloading from a height of 10 metres. They are designed for drying rape seed, cereals or corn continuously or in batches. The UNIVERSAL dryers are often supplied already assembled, using a crane, and installed straight inside the post-harvest line. The chassis carrying it is then returned to the factory.

## CONTINUOUS MOBILE DRYERS

- ADVANTAGES**
  - Full integration into the post-harvest line
  - Relocatable
  - No building permit required
- Fast installation
  - Integrated filling and discharge conveyors

- ADVANTAGES**
  - Fast installation
  - No building permit required
  - Flexible location
  - Easy manual control with gauges and display
  - Acoustic and visual drying completion alarms
  - MultiTerm automatic temperature control
  - Tensiometric moisture monitoring
- High-quality drying without grain damage
  - Made from hardened aluminum
  - Service life over 20 years
  - Option for continuous dust extraction from the conveyor during drying – removes only flakes, keeping half grains in the material

- EQUIPMENT OPTIONS**
  - Gas, oil, or LPG burner, or hot-water heat exchanger
  - Direct or indirect heating
  - External ladder
  - Secondary air dampers
  - Seed catch pockets (for rapeseed)
  - Axial fan
- Fire protection and extinguishing system, temperature monitoring
  - Dust suppressor and separator
  - Noise filter
  - Touchscreen control panel
  - Remote access and control



BELT DRYERS BTL



STELA BTL 1/3000-5 – TEAM ENERGO S.R.O., BRNO, CZ

The new BTL dryer series (Band Trockner Lichte) represents a cheaper and easier solution for industrial belt dryers. It is ideal for using waste heat from biogas stations. The BTL dryer is suitable for drying various materials, such as digestate, sawdust, wood chips, sewage sludge, grain solubles, bentonite or agricultural products such as cereals, corn, alfalfa, beet chips, and the like. The principle of belt drying corresponds to the temperatures which can be obtained from cogeneration units or production, i.e. 60–120 °C, and to the character of drying at low temperature with fast air flow. The drying process takes place in an enclosed drying tunnel on a plastic belt made of woven polyamide. This special belt can withstand temperatures up to 140 °C. Thanks to the high density of its weaving very fine powdery materials can be

dried. The belt serves as a natural filter and guarantees a low concentration of dust emissions.

BTL belt dryers are constructed for the capacity of 8,000 hours/year and can even work in extreme weather conditions. Drying is controlled by the belt speed and capacity regulation of the fan. Dryers are equipped with high-quality monitoring system and they meet requirements for automatic mode of operation.

Output moisture is monitored and it is thus possible to reach accurate values for subsequent granulation or any other form of treatment. Belt dryers are the only solution to achieve an even drying process with a guaranteed output moisture.

ADVANTAGES

- Latest belt dryer design
- Plastic woven belt
- Automatic drying and humidity control
- Automatic cleaning
- Designed for 8,000 hours/year
- Powered by low-temperature waste heat (60–120 °C)
- Capacity: 1 to 20 t/h
- Simpler than BT type
- Ideal for biogas plants and small-scale power producers

STELA BT – BELT DRYERS

STELA BT dryers are fully equipped belt dryers

suitable for outdoor installation in industrial environments such as wood pellet production. They are available with capacities from **1 t/h to 50 t/h**. BT Stela dryer is equipped with a special belt, the unique system of screw conveyors dividing the material on the belt into “a cushion” and a paddle wheel ensuring even drying of the entire material, MultiVent system to ensure optimal distribution of the drying air,

sensors to control the constant moisture at the inlet and outlet, and additional safety features to ensure continuous operation with an annual minimum of 8,000 hours suitable for modern pelletizing lines. Thanks to forty years of specialization in drying and excellence in drying wet sawdust and wood chips Stela dryers are installed in pelletizing lines of companies such as CPM, Salmatec, Buhler and others.



STELA BT 1/6200-31.5 – STORA ENSO WOOD PRODUCTS ŽDÍREC S.R.O., ŽDÍREC NAD DOUBRAVOU, CZ

ADVANTAGES

- State-of-the-art belt dryer construction
- Plastic belt made of woven polyamide
- Automatic drying and moisture control
- Automatic cleaning system
- Designed for 8,000 operating hours/year
- Uses waste heat from production (water or steam)
- Capacities from 1 to 50 t/h
- Industrial-grade components
- Ideal for large-scale power and biofuel production



# CLEANERS

Pre-cleaners

28

Cleaners

30



**GEBR. RUBERG**  
Maschinenfabrik



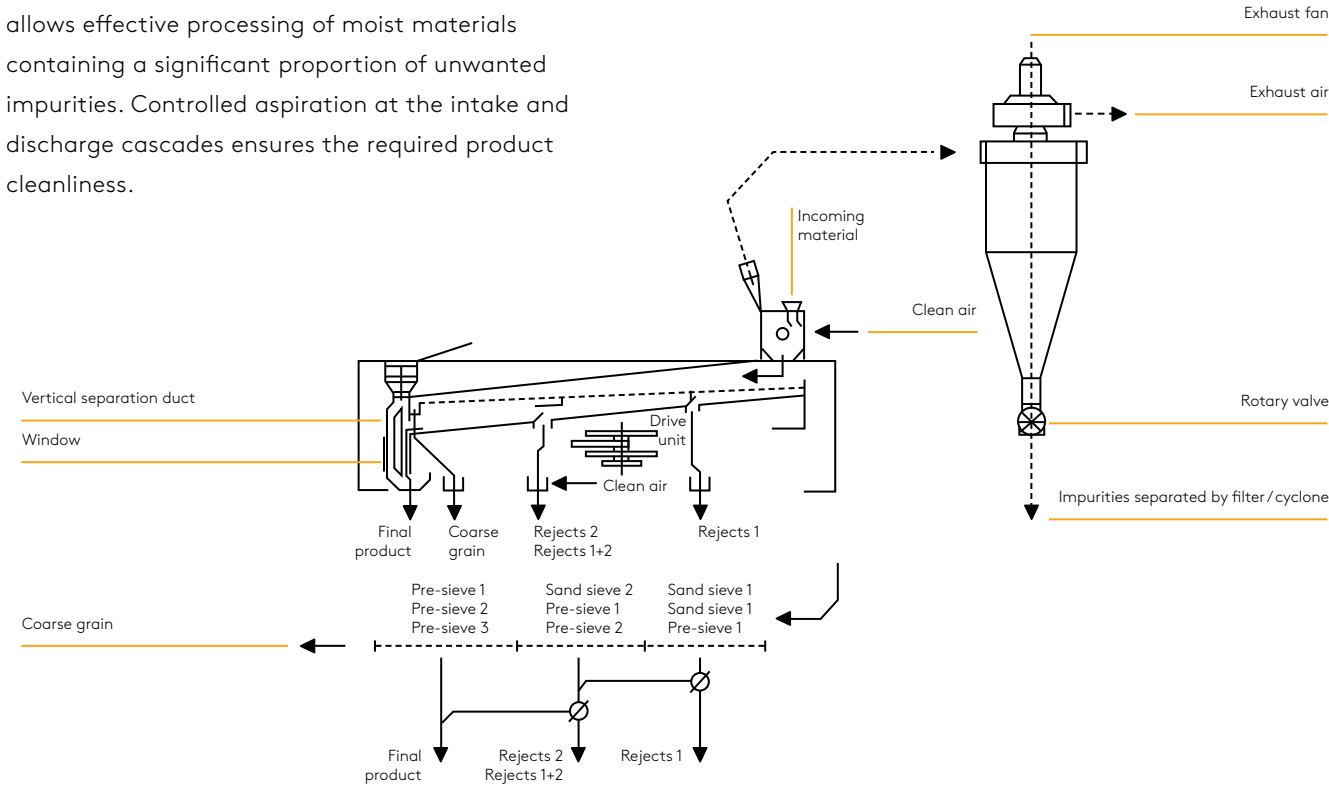
PRE-CLEANERS RUV

Universal RUV Pre-Cleaners increase the efficiency of the pre-cleaning process, or, if required, the final cleaning of cereals, legumes, and granulated substrates. These machines feature a single-sieve design with switching flaps. During intake, they offer high performance in pre-cleaning, and after the sieves are replaced, they can carry out fine final cleaning before dispatch. Their main advantage lies in exceptional adaptability to a wide range of materials, combined with high throughput and durability.

The system of manually or automatically operated distribution flaps directs the material being cleaned to individual sieve sections, with three sections per deck. A generously dimensioned air handling system, together with regulation of air volume and pressure, allows effective processing of moist materials containing a significant proportion of unwanted impurities. Controlled aspiration at the intake and discharge cascades ensures the required product cleanliness.

Manually adjustable distribution flaps allow the material to be sorted into up to four fractions: quality grade 1, quality grade 2 (broken grains without sand), overflow above the pre-screen, and dust. The overflow and dust fractions are collected in a dust chamber and using either manual or pneumatic flaps sieve, can be quickly grouped together or separated.

The air cleaning system is available in four configurations: through-flow cleaning at the inlet and outlet, or recirculating cleaning at the inlet and outlet. Recirculating cleaning reduces energy consumption and lowers the volume of air discharged into the environment. To reduce dust at the outlet, a cyclone in combination with a rotary valve is installed. For maximum dust reduction, textile filtration of the outlet air can also be used.



ADVANTAGES

- Capacity 100 t/h–600 t/h
- 4 air ventilation versions
- Emissions max. 10 mg/m<sup>3</sup> of air
- 4.5 metres long single-sieve model
- Rotation movement of the sieves
- The possibility to change sieves and to adjust the outlet zones using flaps
- Ideal for high capacity pre-cleaning and final cleaning at expedition



CAPACITY DATA USING 3 COARSE GRAIN SIEVES

| Type    | Capacity t/h                       |                                       |                                        |                                  |                                     |                                  |                                  |                                   |                              | Sieve surface m²                    |                        |
|---------|------------------------------------|---------------------------------------|----------------------------------------|----------------------------------|-------------------------------------|----------------------------------|----------------------------------|-----------------------------------|------------------------------|-------------------------------------|------------------------|
|         | Rye, wheat<br>γ = 0,75<br>max.18 % | Winter barley<br>γ = 0,65<br>max.18 % | Brewing barley<br>γ = 0,65<br>max.18 % | Rapeseed<br>γ = 0,60<br>max.14 % | Peas, beans<br>γ = 0,70<br>max.18 % | Dry corn<br>γ = 0,75<br>max.15 % | Wet corn<br>γ = 0,75<br>max.35 % | Sunflower<br>γ = 0,40<br>max.16 % | Rice<br>γ = 0,55<br>max.18 % | Total coarse grain sieve surface m² | Total sieve surface m² |
| RUV 100 | 105                                | 90                                    | 90                                     | 85                               | 85                                  | 100                              | 50                               | 75                                | 30                           | 4,5                                 | 4,5                    |
| RUV 200 | 200                                | 175                                   | 175                                    | 160                              | 170                                 | 200                              | 100                              | 150                               | 60                           | 9,0                                 | 9,0                    |
| RUV 400 | 400                                | 340                                   | 340                                    | 320                              | 320                                 | 400                              | 200                              | 300                               | 180                          | 18,0                                | 18,0                   |
| RUV 600 | 600                                | 520                                   | 520                                    | 480                              | 500                                 | 600                              | 300                              | 600                               | 360                          | 27,0                                | 27,0                   |

CAPACITY DATA USING 2 COARSE GRAIN SIEVES AND 1 FINE GRAIN SIEVE

| Type    | Capacity t/h                       |                                       |                                        |                                  |                                     |                                  |                                  |                                   |                              | Sieve surface m²                |                                        |                              |
|---------|------------------------------------|---------------------------------------|----------------------------------------|----------------------------------|-------------------------------------|----------------------------------|----------------------------------|-----------------------------------|------------------------------|---------------------------------|----------------------------------------|------------------------------|
|         | Rye, wheat<br>γ = 0,75<br>max.18 % | Winter barley<br>γ = 0,65<br>max.18 % | Brewing barley<br>γ = 0,65<br>max.18 % | Rapeseed<br>γ = 0,60<br>max.14 % | Peas, beans<br>γ = 0,70<br>max.18 % | Dry corn<br>γ = 0,75<br>max.15 % | Wet corn<br>γ = 0,75<br>max.35 % | Sunflower<br>γ = 0,40<br>max.16 % | Rice<br>γ = 0,55<br>max.18 % | Total c. g. s.<br>surface<br>m² | Area of main<br>sieve<br>surface<br>m² | Total sieve<br>surface<br>m² |
| RUV 100 | 70                                 | 60                                    | 60                                     | 45                               | 50                                  | 70                               | 35                               | 50                                | 20                           | 3,0                             | 1,5                                    | 4,5                          |
| RUV 200 | 140                                | 120                                   | 120                                    | 110                              | 115                                 | 140                              | 70                               | 100                               | 40                           | 6,0                             | 3,0                                    | 9,0                          |
| RUV 400 | 280                                | 240                                   | 240                                    | 220                              | 230                                 | 280                              | 140                              | 200                               | 120                          | 12,0                            | 6,0                                    | 18,0                         |
| RUV 600 | 400                                | 350                                   | 350                                    | 320                              | 330                                 | 400                              | 200                              | 400                               | 240                          | 24,0                            | 12,0                                   | 27,0                         |

CAPACITY DATA USING 1 COARSE GRAIN SIEVE AND 2 FINE GRAIN SIEVES

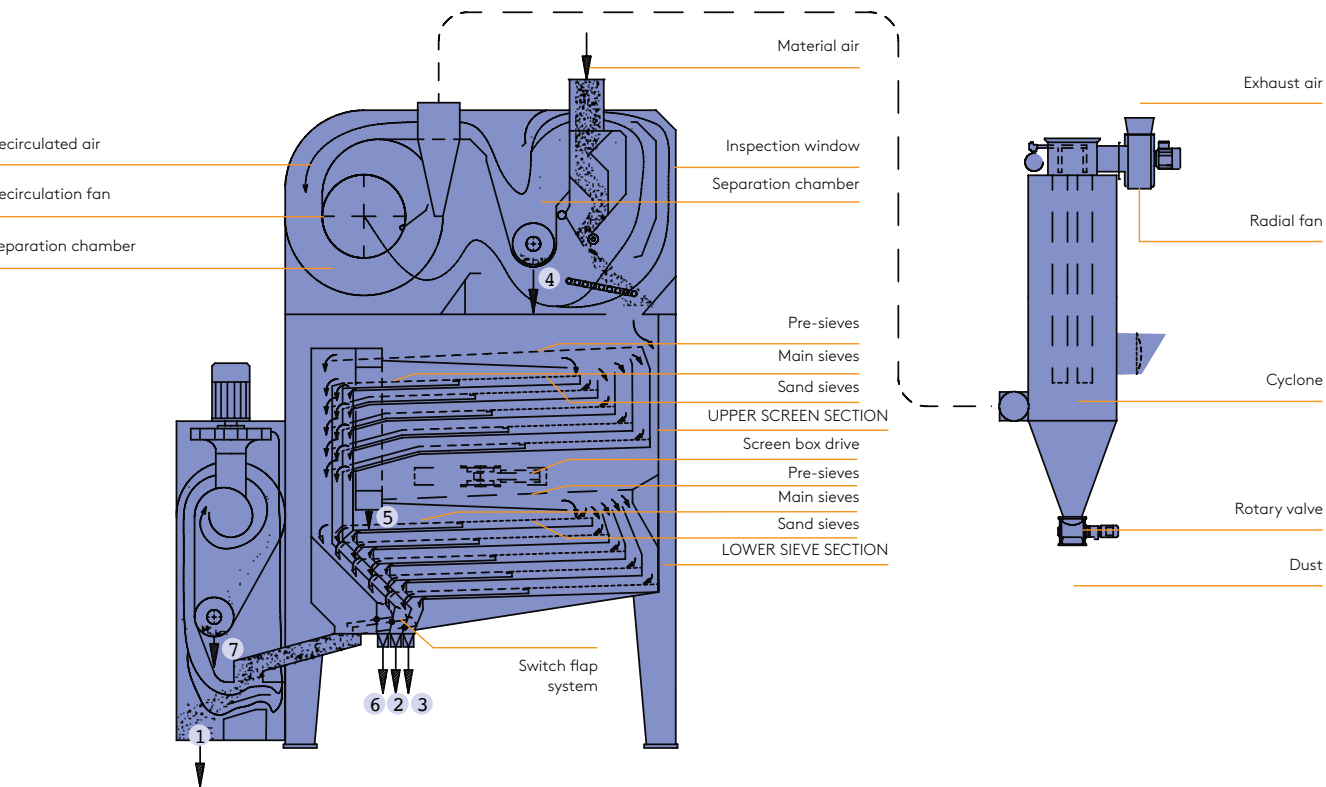
| Type    | Capacity t/h                          |                                          |                                           |                                  |                                        |                                  |                                  |                                   |                              | Sieve surface m²                   |                                           |                                 |
|---------|---------------------------------------|------------------------------------------|-------------------------------------------|----------------------------------|----------------------------------------|----------------------------------|----------------------------------|-----------------------------------|------------------------------|------------------------------------|-------------------------------------------|---------------------------------|
|         | Rye,<br>wheat<br>γ = 0,75<br>max.18 % | Winter<br>barley<br>γ = 0,65<br>max.18 % | Brewing<br>barley<br>γ = 0,65<br>max.18 % | Rapeseed<br>γ = 0,60<br>max.14 % | Peas,<br>beans<br>γ = 0,70<br>max.18 % | Dry corn<br>γ = 0,75<br>max.15 % | Wet corn<br>γ = 0,75<br>max.35 % | Sunflower<br>γ = 0,40<br>max.16 % | Rice<br>γ = 0,55<br>max.18 % | Total<br>c. g. s.<br>surface<br>m² | Area<br>of main<br>sieve<br>surface<br>m² | Total<br>sieve<br>surface<br>m² |
| RUV 100 | 35                                    | 30                                       | 30                                        | 28                               | 30                                     | 35                               | 18                               | 25                                | 10                           | 1,5                                | 3,0                                       | 4,5                             |
| RUV 200 | 70                                    | 60                                       | 60                                        | 55                               | 60                                     | 70                               | 35                               | 50                                | 20                           | 3,0                                | 6,0                                       | 9,0                             |
| RUV 400 | 140                                   | 120                                      | 120                                       | 110                              | 120                                    | 140                              | 70                               | 100                               | 60                           | 6,0                                | 12,0                                      | 18,0                            |
| RUV 600 | 200                                   | 170                                      | 170                                       | 135                              | 170                                    | 200                              | 100                              | 200                               | 120                          | 12,0                               | 24,0                                      | 27,0                            |



RVS CLEANERS

The RVS cleaners boast robust construction and reliable performance, which makes them ideal for postharvest lines receiving the product from the field or from the accumulation silos. They provide air precleaning of input material as well as subsequent air cleaning of the output material. They are simple to set up and checked through the inspection window enabling the operator to have the best control over the ongoing cleaning. The RVS cleaners are equipped with

an automatic loading regulation, based on sensors of lower and upper levels indicating loading, which always assessing the flap position. This solution ensures a machine is used up to its maximum capacity. The cleaners contain air recirculation system inside the air pre-cleaning unit. To reduce the dust level they can be fitted with fabric sleeve filters and achieve a maximum dust level of 10 mg/m<sup>3</sup> only, also thanks to low air flow at the outlet.



PERFORMANCE TABLE WHEN USING 1 PRE-SIEVE AND 2 MAIN SIEVES

| Type    | Capacity in t/h                 |                                  |                                          |                                    |                                |                                        | Cleaning sieve area size |                |                |                           |
|---------|---------------------------------|----------------------------------|------------------------------------------|------------------------------------|--------------------------------|----------------------------------------|--------------------------|----------------|----------------|---------------------------|
|         | Wheat,<br>750 kg/m³,<br>max.18% | Barley,<br>650 kg/m³,<br>max.18% | Malting barley,<br>650 kg/m³,<br>max.18% | Rapeseed,<br>600 kg/m³,<br>max.14% | Peas,<br>700 kg/m³,<br>max.18% | Maize (corn),<br>750 kg/m³,<br>max.18% | Pre-sieves               | Main<br>sieves | Sand<br>sieves | Total<br>cleaning<br>area |
| RV 40   | 40                              | 35                               | 35                                       | 25                                 | 30                             | 30                                     | 3,0                      | 6,0            | 0,0            | 9,0                       |
| RV 60   | 60                              | 52                               | 52                                       | 30                                 | 50                             | 50                                     | 3,0                      | 6,0            | 0,0            | 9,0                       |
| RVS 40  | 40                              | 35                               | 35                                       | 40                                 | 30                             | 30                                     | 2,25                     | 6,0            | 3,0            | 11,25                     |
| RVS 60  | 60                              | 52                               | 52                                       | 50                                 | 50                             | 50                                     | 2,25                     | 6,0            | 3,0            | 11,25                     |
| RVS 65  | 65                              | 56                               | 56                                       | 52                                 | 55                             | 55                                     | 3,0                      | 6,0            | 12,0           | 15,0                      |
| RVS 80  | 80                              | 69                               | 69                                       | 64                                 | 70                             | 70                                     | 3,0                      | 7,5            | 7,5            | 18,0                      |
| RVS 100 | 100                             | 86                               | 86                                       | 80                                 | 85                             | 85                                     | 3,0                      | 7,5            | 7,5            | 18,0                      |
| RVS 90  | 90                              | 75                               | 75                                       | 75                                 | 75                             | 75                                     | 6,0                      | 9,0            | 9,0            | 24,0                      |
| RVS 120 | 120                             | 100                              | 100                                      | 90                                 | 105                            | 105                                    | 6,0                      | 12,0           | 12,0           | 30,0                      |
| RVS 150 | 150                             | 130                              | 130                                      | 120                                | 135                            | 135                                    | 3,0                      | 15,0           | 15,0           | 36,0                      |
| RVS 180 | 180                             | 150                              | 150                                      | 150                                | 150                            | 150                                    | 12,0                     | 18,0           | 18,0           | 48,0                      |
| RVS 240 | 240                             | 210                              | 210                                      | 180                                | 210                            | 210                                    | 12,0                     | 24,0           | 24,0           | 60,0                      |
| RVS 300 | 300                             | 260                              | 260                                      | 240                                | 270                            | 270                                    | 12,0                     | 30,0           | 30,0           | 72,0                      |



GEBR. RUBERG RVS 40 – VOLFÍŘOV A.S., VOLFÍŘOV, CZ



GEBR. RUBERG RVS 80 – BC. ONDŘEJ BAČINA, KLÍČANY, CZ



GEBR. RUBERG RVS 60 – ZD KŘÍŽANOVSKO, KŘÍŽANOV, CZ



RVS CLEANERS



GEBR.RUBERG RVS 150 - ÚSOVSKO a.s., ÚSOV, CZ



RVS Cleaners

Thanks to their robust construction and reliable performance, RVS cleaners are ideal for field intake lines or accumulation silo systems. They provide initial air pre-cleaning of incoming material followed by air cleaning of the outgoing material. Simple settings and visual inspection through an inspection window allow the operator to maintain optimal control over the cleaning process.

RVS cleaners are equipped with automatic filling regulation, based on fill level detection using upper and lower level sensors, which continuously assess the position of the flap. This solution ensures maximum utilization of machine performance.

The cleaners feature recirculation of cleaning air within the air pre-cleaning section. To reduce dust emissions, they can be equipped with textile sleeve filters, achieving dust levels of up to 10 mg/m<sup>3</sup> at the outlet, thanks to the low airflow rate.



ADVANTAGES

- Capacity 60 t/h–300 t/h
- Thorough cleaning and pre-cleaning of cereals and grain
- World leader in malting barley
- Maximum dust level –10 mg/m<sup>3</sup>
- Quick sieve replacement
- Circular movement of sieves
- Long service life
- Low maintenance requirements



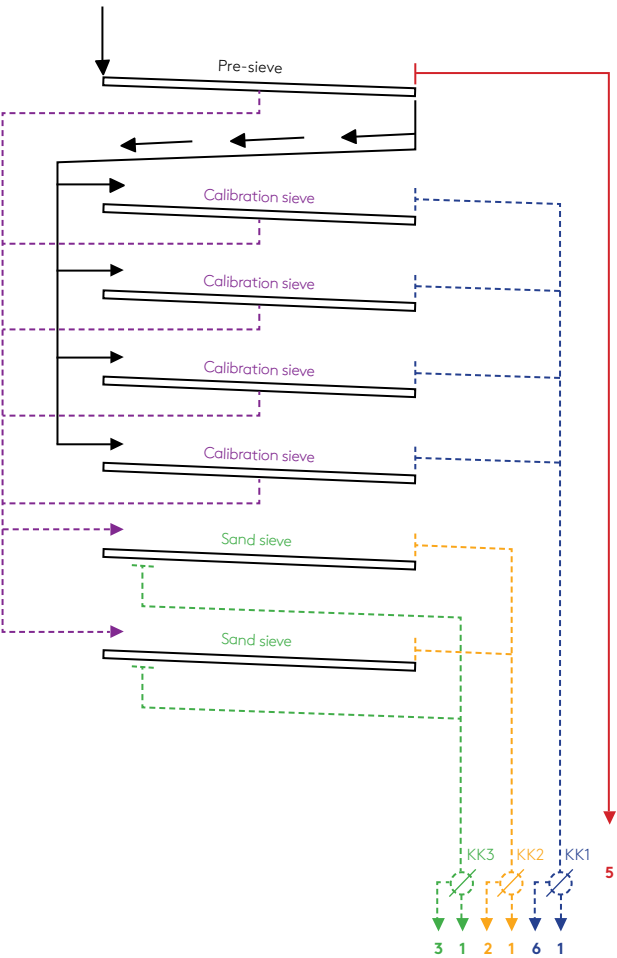


GEHR. RUBERG RVS 100 - AGRO JESENICKO A.S., JESENÍK NAD ODROU, CZ

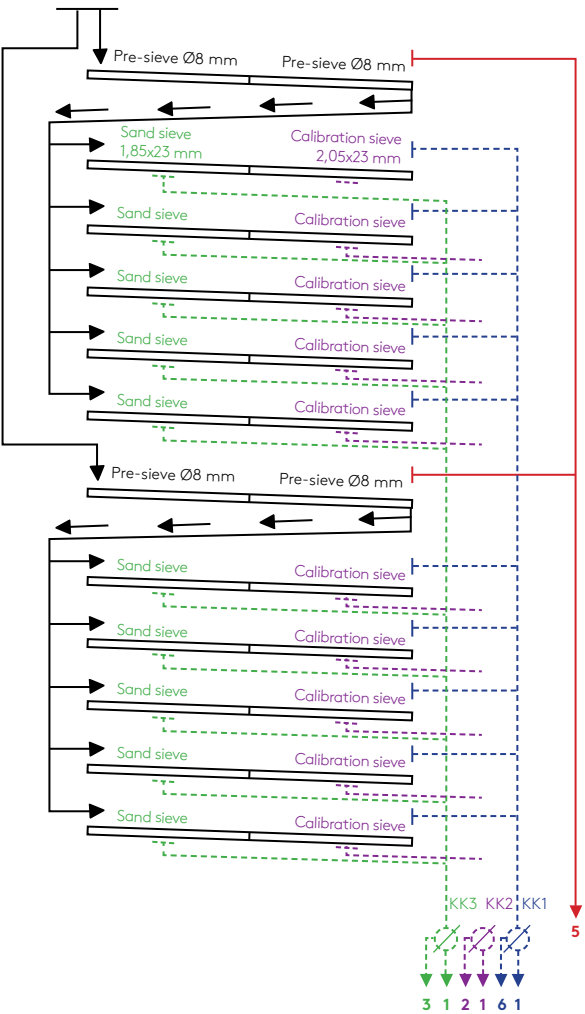


GEHR. RUBERG RVS 150 - ZD UNČOVICE, UNČOVICE, CZ

GEHR. RUBERG  
RVS 40-60



GEHR. RUBERG  
RVS 150 /RVS 300 - WHEAT



|       | KK1 | KK2 | KK3 |
|-------|-----|-----|-----|
| WHEAT | 1   | 1/2 | 3   |

1. Final (clean) product
2. Light impurities / broken kernels (half grains)
3. Sand sieve undersize (UW)
5. Pre-sieve oversize (UW)
6. Calibration sieve oversize – rapeseed only (UW)

**SIEVE CONFIGURATION:**

|                   |              |
|-------------------|--------------|
| Pre-sieve         | Ø8 mm        |
| Calibration sieve | 2,05 x 23 mm |
| Sand sieve        | 1,85 x 23 mm |



# WEIGHING

Continuous **weigher**

38

Road **weighbridge**

39





JESINTAKE **CONTINUOUS WEIGHER**

Jesma’s intake and loading weighers are designed for **continuous weighing of powders and granular materials**, with a focus on **high reliability and accuracy**.

Suitable for **high throughput rates**.  
Accuracy **better than 0.1%**, MID-certified for commercial use (OIML R107 and R61, Class 0.2 and 0.5).

**CONSTRUCTION:**

Fully electronic **weighing hopper and pre-hopper** with pneumatic slide gates.

Entire weighing unit enclosed in a **sealed dustproof frame** with removable covers for easy access during service.

**Elastomer bearings** ensure high weighing precision by absorbing imbalance.

Modern filter technology ensures **fast stabilization** of weight signal.

Control system displays **gross/net weight**, prints results with **timestamp**, and offers various customization options.



**ADVANTAGES**

- Every project is customized based on structural and operational requirements
- Available in 9 standard sizes
- Capacities from 12 to 900 m³
- Up to 400 cycles per hour

PAWLICA TRUCKSCALE – **ROAD WEIGHBRIDGE**

Accurate road vehicle weighing for **commercial applications**, compliant with **OIML and ČSN EN 45501 + AC standards**.

**COMPONENTS:**

**Concrete modular base** – placed on compacted gravel and welded together, minimizing groundwork

**Weighing bridge** – made of flat reinforced concrete, ensuring high strength and resistance to weather.  
Standard size: **3 × 9 m**

**Load cells** – EU-made, **IP68 waterproof** and **hermetically sealed**, compliant with **Accuracy Class III**

Standard truck scale size for farms: **3 × 18 m**, weighing up to **60 tons**  
Equipped with **6 evenly distributed load cells**.

**DESIGN OPTIONS:**

**Flush with terrain (pit-mounted)** – most common  
Surface-mounted with ramps – also available  
**Rubber sealing strip** in T-profile around the scale prevents water and dirt ingress

**STANDARD ACCESSORIES:**

Integration with site control PC  
Ticket printer  
Official EU verification  
Staff training on site

**OPTIONAL FEATURES:**

**External LED display**  
**Traffic light system with barrier**  
**Intercom for driver-operator communication**



PAWLICA TRUCKSCALE – BIOFARMA STARÉ SEDLO S.R.O., STARÉ SEDLO, CZ

**ADVANTAGES**

- Easy foundation preparation and fast installation regardless of weather
- Modular design
- Reliable load cells
- Certified installation and verification for commercial use
- Fully integrated with the PAWLICA post-harvest control system
- Installed and serviced by trained professionals



# BIN SILOS





GRAIN STORAGE SILO



STAIRS

Optional spiral staircase for comfortable access to inspection openings and walkways. Equipped with handrails and resting platforms.



ROOF STRUCTURE

A solid reinforced roof frame ensures high load resistance.



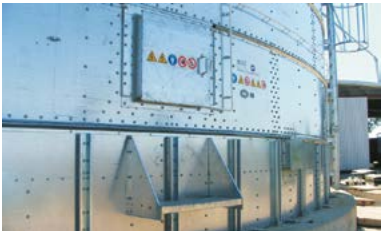
FOOTBRIDGES

Wide and sturdy walkways provide easy and safe access to conveying systems and inspection openings. Modular system with custom design.



ROOF VENTS

Ensure optimal air circulation.



INSPECTION MANHOLES

Together with other safety features, they meet the requirements for safe and trouble-free entry into the silo.



FULLY-GRATED VENTILATED FLOOR

Ensures perfect ventilation conditions. The floor is made of galvanized formed sheets and mounted on concrete blocks. Floor perforation designed for rapeseed applications.



DISCHARGE AUGER

Proven design for mechanical removal of residual material.







BIN 4 x 1 575 T - POĽNOHOSPORÁRSKO-PODIELNICKÉ DRUŽSTVO PRAŠICE, VEĽKÉ BEDZANY, SLOVAKIA



4 x NBIN 1 000 T + 1 x FBIN 1 900 T - ZEMSPOL ČESKÉ MEZIŘÍČÍ, A.S., ČESKÉ MEZIŘÍČÍ , CZ

Polish BIN silos produced mainly for export are a great solution for storing crops at small to middle size silos. They are cylindrical tanks made of smooth steel galvanized (275 g/m<sup>2</sup>) sheets made in Finland. Individual pieces are attached by high-resistance bolts and joints are sealed to prevent water from getting inside the tank. The thickness of the side wall sheets of NBIN 501 models and above is the same (2 mm) along the total height of the silos. Internal vertical supports are installed to ensure the product safety. The roof is constructed to carry a footbridge together with loading equipment and other items necessary for easy access to maintenance and check of the silos. The BIN silos are manufactured in capacities 10–2,200 tons. The construction of BIN silos allows for a maximum height of the cylindrical part of the silo to be 11.45 meters. This construction limit is compensated by a basic BIN silo

equipment including a full-grid perforated floor (perforation in terms of rape seed storage is platitude), which is installed on pre-cast concrete blocks. For a simple and easy operation there is a comfortable and solid spiral staircase, a ladder with a safety cage, internal ladder, roof stairs with railings and, last but not least, sufficiently large check and inspection manholes situated at the lower part of the silo as well as on the roof. All steel structures are tailor-made directly at the factory, according to the current EU standards. They fit perfectly and what is more, they comply with the strictest occupational safety and health regulations. Aeration is vital for high-quality long-term storage of any biological material. In terms of the BIN silos the air intake is provided by powerful carefully designed radial fans made in the Czech Republic. The roof vents make sure that the exhaust air leaves the silo and they

serve as a passive aeration system under the roof of the silo. In case of condensation under the roof of the silo, e.g. rapid changes of the outdoor temperature, an anticondensation exhaust fan is installed on the roof to ensure active ventilation of the space under the roof. Due to its easy construction the 500-ton BIN silo can be built in a few days!

The latest innovation from BIN is the FBIN model series, featuring corrugated sheet steel wall panels, offering capacities of up to 5,000 tons per silo.

ADVANTAGES

- Capacity 10–1,500 tons
- 50 years of service life
- Perforated floor
- Screw and sweep auger conveyors
- Stairs, footbridges, ladders, inspection manholes
- Galvanization (275 g/m<sup>2</sup>)

| Silo model                 | NBIN200U | NBIN200WU | NBIN501 | NBIN501W | NBIN1001 | NBIN1001W | NBIN1500N | NBIN1500P | NBIN1500 | NBIN1500W |
|----------------------------|----------|-----------|---------|----------|----------|-----------|-----------|-----------|----------|-----------|
| Capacity (m <sup>3</sup> ) | 281      | 347       | 695     | 805      | 1264     | 1460      | 1560      | 1713      | 2019     | 2325      |
| Storage capacity (t)       | 220      | 271       | 543     | 628      | 986      | 1140      | 1217      | 1337      | 1575     | 1815      |
| Diameter (m)               | 6,68     | 6,68      | 8,59    | 8,59     | 11,46    | 11,46     | 14,32     | 14,32     | 14,32    | 14,32     |
| Total height (m)           | 9,56     | 11,46     | 13,87   | 15,77    | 14,72    | 16,62     | 12,7      | 13,65     | 15,5     | 17,40     |

| Silo model                 | FBIN9/10 | FBIN9/11 | FBIN9/12 | FBIN9/13 | FBIN9/14 | FBIN11/10 | FBIN11/11 | FBIN11/12 | FBIN11/13 | FBIN11/14 | FBIN11/15 | FBIN11/16 | FBIN11/17 | FBIN14/10 |
|----------------------------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Capacity (m <sup>3</sup> ) | 709      | 775      | 842      | 908      | 974      | 1289      | 1407      | 1525      | 1642      | 1760      | 1877      | 1995      | 2112      | 2059      |
| Storage capacity (t)       | 560      | 605      | 657      | 708      | 760      | 1005      | 1097      | 1190      | 1281      | 1373      | 1464      | 1556      | 1647      | 1606      |
| Diameter (m)               | 8,6      | 8,6      | 8,6      | 8,6      | 8,6      | 11,5      | 11,5      | 11,5      | 11,5      | 11,5      | 11,5      | 11,5      | 11,5      | 14,3      |
| Total height (m)           | 13,88    | 15       | 16,15    | 17,3     | 18,44    | 14,74     | 15,88     | 17,02     | 18,16     | 19,3      | 20,44     | 22,7      | 22,7      | 15,57     |

| NBIN200U | NBIN200WU | NBIN501 | NBIN501W | NBIN1001 | NBIN1001W | NBIN1500N | NBIN1500P | NBIN1500 | NBIN1500W |
|----------|-----------|---------|----------|----------|-----------|-----------|-----------|----------|-----------|
| 281      | 347       | 695     | 1460     | 1264     | 1460      | 1560      | 1713      | 2019     | 2325      |
| 220      | 271       | 543     | 1140     | 986      | 1140      | 1217      | 1337      | 1575     | 1815      |
| 6,68     | 6,68      | 8,59    | 11,46    | 11,46    | 11,46     | 14,32     | 14,32     | 14,32    | 14,32     |
| 9,56     | 11,46     | 13,87   | 16,62    | 14,72    | 16,62     | 12,7      | 13,65     | 15,5     | 17,40     |

| FBIN14/11 | FBIN14/12 | FBIN14/13 | FBIN14/14 | FBIN14/15 | FBIN14/16 | FBIN14/17 | FBIN17/14 | FBIN17/15 | FBIN17/16 | FBIN17/17 | FBIN17/18 | FBIN17/19 | FBIN19/15 | FBIN19/16 | FBIN19/17 | FBIN 19/18 |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| 2243      | 2427      | 2610      | 2794      | 2978      | 3161      | 3345      | 3853      | 4103      | 4353      | 4603      | 4853      | 5104      | 5425      | 5752      | 6078      | 6405       |
| 1750      | 1893      | 2036      | 2179      | 2323      | 2466      | 2609      | 3005      | 3200      | 3395      | 3590      | 3785      | 3981      | 4232      | 4487      | 4741      | 4996       |
| 14,3      | 14,3      | 14,3      | 14,3      | 14,3      | 14,3      | 14,3      | 16,7      | 16,7      | 16,7      | 16,7      | 16,7      | 16,7      | 19,1      | 19,1      | 19,1      | 19,1       |
| 16,71     | 17,87     | 18,99     | 20,13     | 21,27     | 22,41     | 23,55     | 20,87     | 22,01     | 23,15     | 24,29     | 25,43     | 26,57     | 22,7      | 23,84     | 24,98     | 26,12      |



# BROCK SILOS

|                                          |    |
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| Hopper Bottom Silos                      | 52 |
| Overview of Storage Silo Types and Sizes | 53 |





BROCK STORAGE BIN



ROOF STRUCTURE

Innovated roof structure allows extreme load at the top of the silo.



INSPECTION MANHOLES

1.7 m high door at the lower part of the silo and inspection manhole on the roof allow easy access inside the silo.



DISCHARGE SCREW CONVEYOR

A time-tested design for mechanized residual material extraction. Can be equipped with either a screw-type reclaimer or a SKANDIA KTIS chain conveyor.



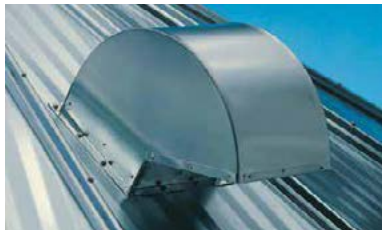
FOOTBRIDGES

Wide solid footbridges ensure easy and safe access to conveying technology and inspection manholes.



STAIRS

Optional roof and spiral staircase for comfortable access to inspection manholes and footbridges. Fitted with railings and rest areas.



ROOF VENTS

They ensure optimal air flow and are equipped with wire grate to prevent birds from getting into the silos.



EAVE VENT KIT

A roof vent running along the entire circumference of the silo eliminates the need for additional roof openings and minimizes the risk of water ingress. In combination with the roof-mounted anti-condensation fan, it ensures ideal airflow beneath the roof.



WALLS

Inner silo wall with access ladder.



VENTILATED FLOOR

It ensures perfect conditions for ventilation. Perforated floor specifically for rapeseed also available. TRI-CORR grid system and PARTHENON supports ensure extraordinary solid floor.



GALVANIZED FLAT BOTTOM **SILOS**



Storing the crops after harvest in high-quality storage positively influences its subsequent value. For this reason we supply our post-harvest lines with American galvanized BROCK silos made of corrugated metal sheets. They are available in a very wide range of sizes and capacities. Based on the increasing global demand for storage of a growing number of commodities a new silo model called EVEREST has been developed. Thanks to its innovative design the BROCK silos can be as high as 40 rings and have a diameter of 47.6 meters. These are the largest dimensions available on the market, proving the uniqueness of this technology. The construction of the cylindrical part of the silo and roof has undergone a complete reconstruction. It can now carry an extreme load of 59,000 kg at the top of the silo. Just for your information, the largest

BROCK silo was built in the US, near Chicago, Illinois. It has a diameter of 47.6 metres and 33,000 tons of grain can be stored in it. To be able to ensure high quality of the stored material adequate aeration is a must. The silos are aerated by a full-grid floor or aeration ducts, which are laid in the baseplate of the silo and their shape is designed strictly according to requirements for aeration. The enormous height of the silos also generates extreme pressure on the grid panels and their supports.

The TRI-CORR patented panel profile with a reinforcing rib in combination with the PARTHENON supports ensure a very high strength and resistance even at the highest measurable pressure generated by grain column. The air intake is ensured by high-pressure radial fans made in the Czech Republic. In order

to prevent condensation under the roof of the silo we install anti-condensation exhaust fans. The unloading process begins with the side discharge draw system followed by a sweep unloading system ensuring complete and thorough unloading.

The BROCK silos are equipped with a local control SIEMENS software providing the operator with an overview of essential information. It informs of the progress of loading, filling up and temperature inside the silo. There are suspension thermometric cables

measuring temperature, its sensors being placed every 1–1.5 metres, in order to register information over the entire height of the silo. The silos are also equipped with a weather station to switch on ventilation automatically depending on the outside temperature, humidity and time.

All the BROCK silos imported into the European market are designed according to the requirements and demands specified by the so-called Eurocodes 3 and they can be insured against risks.



**ADVANTAGES**

- Capacity 100–33,500 tons
- Numerous options in terms of dimensions
- Quick construction – screws with integrated pads
- High quality ventilation – ducts or full-grid floor with small-hole perforation ideal for small grain storage, such as rapeseed
- Effective unloading – optional side discharge draw
- Service life of up to 50 years
- Side wall stiffeners both outside and inside
- Galvanized – 275 g/m<sup>2</sup> in standard models, 450 g/m<sup>2</sup> optional
- High resistance to acid rain
- Diameter 4.5–47.6 m
- Height of the cylindrical part up to 32.5 m

**CROSS-SECTION OF THE FLOOR GRATING**



REINFORCING RIB FOR EXCEPTIONAL STRENGTH · FLAT FLOOR · NO GRAIN RESIDUE IN GAPS  
PERFORATION FOR RAPESEED AND SMALL GRAINS · FULLY GALVANIZED DESIGN



HOPPER BOTTOM SILOS



5 x BROCK 1 000 T - VITERRA CZECH, A.S., LOVOSICE, CZ

The construction of the BROCK hopper bottom silos is also based on the construction principles of the EVEREST model. As such they comply with the Eurocode specifications and do not require additional calculation for the European market. These containers are designed for short term storage, for example prior to the drying process. They may also

serve as manipulation containers in various processes. The hopper bottom can be fitted with aeration system also suitable for rape and other small seed storage. Hopper bottom silos can be also equipped with a side discharge draw unloading system.

THE BROCK EVEREST HOPPER BOTTOM SILOS

|                  |             |             |             |             |
|------------------|-------------|-------------|-------------|-------------|
| Diameter (m)     | 4,6 m/60°   | 5,5 m/60°   | 6,4 m/60°   | 4,6 m/45°   |
| Capacity (m³)    | 105–250     | 158–443     | 227–640     | 97–268      |
| Total height (m) | 10,36–19,30 | 11,43–23,62 | 12,47–25,47 | 8,95–19,52  |
| Diameter (m)     | 5,5 m/45°   | 6,4 m/45°   | 7,3 m/45°   | 8,2 m/40°   |
| Capacity (m³)    | 146–449     | 205–618     | 277–817     | 354–1037    |
| Total height (m) | 9,68–22,69  | 10,41–23,42 | 11,14–24,14 | 11,24–24,24 |
| Diameter (m)     | 9,1 m/40°   | 9,1 m/50°   | 11,0 m/40°  | 11 m/50°    |
| Capacity (m³)    | 450–1346    | 485–1329    | 682–1897    | 737–1952    |
| Total height (m) | 11,89–25,71 | 13,61–27,4  | 13,13–26,13 | 15,2–28,2   |

ADVANTAGES

- Hopper bottoms of 45°, 50° and 60°

— Aeration for rape seed and cereals
- Diameter 4.6–10.97 m

— Capacity 80–1,545 tons

OPTIONAL EQUIPMENT

- Roof landing with a railing at the top of the silo

— Roof staircase
- Internal ladder

— External ladder with a safety cage

OVERVIEW OF TYPES AND SIZES OF STORAGE SILOS  
BROCK EVEREST – FLAT-BOTTOM SILOS

| Diameter (m) | Silo model | Capacity (m³) | Cylindrical section (m) | Total height (m) | Diameter (m) | Silo model | Capacity (m³) | Cylindrical section (m) | Total height (m) |
|--------------|------------|---------------|-------------------------|------------------|--------------|------------|---------------|-------------------------|------------------|
| 4.6 m        | E-01507    | 99            | 5.73                    | 6.92             | 6.4 m        | E-02116    | 432           | 13.05                   | 14.75            |
|              | E-01508    | 112           | 6.55                    | 7.74             |              | E-02117    | 458           | 13.87                   | 15.58            |
|              | E-01509    | 125           | 7.38                    | 8.53             |              | E-02118    | 483           | 14.69                   | 16.37            |
|              | E-01510    | 138           | 8.17                    | 9.36             |              | E-02119    | 509           | 15.48                   | 17.19            |
|              | E-01511    | 152           | 8.99                    | 10.18            |              | E-02120    | 535           | 16.31                   | 18.01            |
|              | E-01512    | 165           | 9.81                    | 10.97            |              | E-02121    | 561           | 17.13                   | 18.81            |
|              | E-01513    | 178           | 10.61                   | 11.80            |              | E-02122    | 587           | 17.92                   | 19.63            |
|              | E-01514    | 191           | 11.43                   | 12.62            |              | E-02123    | 612           | 18.75                   | 20.45            |
|              | E-01515    | 204           | 12.25                   | 13.41            |              | E-02124    | 638           | 19.57                   | 21.24            |
|              | E-01516    | 217           | 13.05                   | 14.23            |              | E-02125    | 664           | 20.36                   | 22.07            |
|              | E-01517    | 231           | 13.87                   | 15.06            |              | E-02126    | 690           | 21.18                   | 22.89            |
|              | E-01518    | 244           | 14.69                   | 15.85            |              | E-02127    | 716           | 22.01                   | 23.68            |
|              | E-01519    | 257           | 15.48                   | 16.67            |              | E-02128    | 742           | 22.80                   | 24.51            |
|              | E-01520    | 270           | 16.31                   | 17.50            |              | E-02129    | 767           | 23.62                   | 25.33            |
| 5.5 m        | E-01521    | 283           | 17.13                   | 18.29            |              | E-02130    | 793           | 24.44                   | 26.12            |
|              | E-01522    | 296           | 17.92                   | 19.11            | 7.3 m        | E-02407    | 264           | 5.73                    | 7.71             |
|              | E-01807    | 145           | 5.73                    | 7.16             |              | E-02408    | 297           | 6.55                    | 8.50             |
|              | E-01808    | 163           | 6.55                    | 7.99             |              | E-02409    | 331           | 7.38                    | 9.33             |
|              | E-01809    | 182           | 7.38                    | 8.81             |              | E-02410    | 365           | 8.17                    | 10.15            |
|              | E-01810    | 201           | 8.17                    | 9.60             |              | E-02411    | 399           | 8.99                    | 10.94            |
|              | E-01811    | 220           | 8.99                    | 10.42            |              | E-02412    | 432           | 9.81                    | 11.77            |
|              | E-01812    | 239           | 9.81                    | 11.25            |              | E-02413    | 466           | 10.61                   | 12.59            |
|              | E-01813    | 258           | 10.61                   | 12.04            |              | E-02414    | 500           | 11.43                   | 13.38            |
|              | E-01814    | 277           | 11.43                   | 12.86            |              | E-02415    | 534           | 12.25                   | 14.20            |
|              | E-01815    | 296           | 12.25                   | 13.69            |              | E-02416    | 567           | 13.05                   | 15.03            |
|              | E-01816    | 315           | 13.05                   | 14.48            |              | E-02417    | 601           | 13.87                   | 15.82            |
|              | E-01817    | 334           | 13.87                   | 15.30            |              | E-02418    | 635           | 14.69                   | 16.64            |
|              | E-01818    | 353           | 14.69                   | 16.12            |              | E-02419    | 669           | 15.48                   | 17.47            |
| 6.4 m        | E-01819    | 372           | 15.48                   | 16.92            |              | E-02420    | 702           | 16.31                   | 18.26            |
|              | E-01820    | 391           | 16.31                   | 17.74            |              | E-02421    | 736           | 17.13                   | 19.08            |
|              | E-01821    | 410           | 17.13                   | 18.56            |              | E-02422    | 770           | 17.92                   | 19.90            |
|              | E-01822    | 429           | 17.92                   | 19.35            |              | E-02423    | 803           | 18.75                   | 20.70            |
|              | E-01823    | 448           | 18.75                   | 20.18            |              | E-02424    | 837           | 19.57                   | 21.52            |
|              | E-01824    | 467           | 19.57                   | 21.00            |              | E-02425    | 871           | 20.36                   | 22.34            |
|              | E-01825    | 486           | 20.36                   | 21.79            |              | E-02426    | 905           | 21.18                   | 23.13            |
|              | E-01826    | 505           | 21.18                   | 22.62            |              | E-02427    | 938           | 22.01                   | 23.96            |
|              | E-02107    | 199           | 5.73                    | 7.44             |              | E-02428    | 972           | 22.80                   | 24.78            |
|              | E-02108    | 225           | 6.55                    | 8.26             |              | E-02429    | 1 006         | 23.62                   | 25.57            |
|              | E-02109    | 251           | 7.38                    | 9.05             |              | E-02430    | 1 040         | 24.44                   | 26.40            |
|              | E-02110    | 277           | 8.17                    | 9.88             |              | E-02431    | 1 073         | 25.24                   | 27.22            |
|              | E-02111    | 303           | 8.99                    | 10.70            |              | E-02432    | 1 107         | 26.06                   | 28.01            |
|              | E-02112    | 328           | 9.81                    | 11.49            |              | E-02433    | 1 141         | 26.88                   | 28.83            |
| 8.2 m        | E-02113    | 354           | 10.61                   | 12.31            |              | E-02434    | 1 175         | 27.68                   | 29.66            |
|              | E-02114    | 380           | 11.43                   | 13.14            |              | E-02435    | 1 208         | 28.50                   | 30.45            |
|              | E-02115    | 406           | 12.25                   | 13.93            |              | E-02707    | 338           | 5.73                    | 7.96             |



OVERVIEW OF TYPES AND SIZES OF STORAGE SILOS

BROCK EVEREST – FLAT-BOTTOM SILOS

| Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) | Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) |
|--------------|------------|----------------------------|-------------------------|------------------|--------------|------------|----------------------------|-------------------------|------------------|
| 8,2 m        | E-02708    | 381                        | 6.55                    | 8.78             | 9.1 m        | E-03020    | 1 108                      | 16.31                   | 18.81            |
|              | E-02709    | 424                        | 7.38                    | 9.60             |              | E-03021    | 1 161                      | 17.13                   | 19.60            |
|              | E-02710    | 466                        | 8.17                    | 10.39            |              | E-03022    | 1 214                      | 17.92                   | 20.42            |
|              | E-02711    | 509                        | 8.99                    | 11.22            |              | E-03023    | 1 266                      | 18.75                   | 21.24            |
|              | E-02712    | 552                        | 9.81                    | 12.04            |              | E-03024    | 1 319                      | 19.57                   | 22.04            |
|              | E-02713    | 594                        | 10.61                   | 12.83            |              | E-03025    | 1 372                      | 20.36                   | 22.86            |
|              | E-02714    | 637                        | 11.43                   | 13.66            |              | E-03026    | 1 425                      | 21.18                   | 23.68            |
|              | E-02715    | 680                        | 12.25                   | 14.48            |              | E-03027    | 1 477                      | 22.01                   | 24.48            |
|              | E-02716    | 722                        | 13.05                   | 15.27            |              | E-03028    | 1 530                      | 22.80                   | 25.30            |
|              | E-02717    | 765                        | 13.87                   | 16.09            |              | E-03029    | 1 583                      | 23.62                   | 26.12            |
|              | E-02718    | 808                        | 14.69                   | 16.92            |              | E-03030    | 1 635                      | 24.44                   | 26.91            |
|              | E-02719    | 851                        | 15.48                   | 17.71            |              | E-03031    | 1 688                      | 25.24                   | 27.74            |
|              | E-02720    | 893                        | 16.31                   | 18.53            |              | E-03032    | 1 741                      | 26.06                   | 28.56            |
|              | E-02721    | 936                        | 17.13                   | 19.35            |              | E-03033    | 1 794                      | 26.88                   | 29.35            |
|              | E-02722    | 979                        | 17.92                   | 20.15            |              | E-03034    | 1 846                      | 27.68                   | 30.18            |
|              | E-02723    | 1 021                      | 18.75                   | 20.97            |              | E-03035    | 1 899                      | 28.50                   | 31.00            |
|              | E-02724    | 1 064                      | 19.57                   | 21.79            |              | E-03036    | 1 952                      | 29.32                   | 31.79            |
|              | E-02725    | 1 107                      | 20.36                   | 22.59            |              | E-03037    | 2 005                      | 30.11                   | 32.61            |
|              | E-02726    | 1 149                      | 21.18                   | 23.41            |              | E-03038    | 2 057                      | 30.94                   | 33.44            |
|              | E-02727    | 1 192                      | 22.01                   | 24.23            |              | E-03039    | 2 110                      | 31.76                   | 34.23            |
|              | E-02728    | 1 235                      | 22.80                   | 25.02            |              | E-03040    | 2 163                      | 32.55                   | 35.05            |
| 9.1 m        | E-02729    | 1 278                      | 23.62                   | 25.85            | 10.1 m       | E-03307    | 518                        | 5.73                    | 8.50             |
|              | E-02730    | 1 320                      | 24.44                   | 26.67            |              | E-03308    | 582                        | 6.55                    | 9.30             |
|              | E-02731    | 1 363                      | 25.24                   | 27.46            |              | E-03309    | 646                        | 7.38                    | 10.12            |
|              | E-02732    | 1 406                      | 26.06                   | 28.29            |              | E-03310    | 709                        | 8.17                    | 10.94            |
|              | E-02733    | 1 448                      | 26.88                   | 29.11            |              | E-03311    | 773                        | 8.99                    | 11.73            |
|              | E-02734    | 1 491                      | 27.68                   | 29.90            |              | E-03312    | 837                        | 9.81                    | 12.56            |
|              | E-02735    | 1 534                      | 28.50                   | 30.72            |              | E-03313    | 901                        | 10.61                   | 13.38            |
|              | E-02736    | 1 576                      | 29.32                   | 31.55            |              | E-03314    | 965                        | 11.43                   | 14.17            |
|              | E-02737    | 1 619                      | 30.11                   | 32.34            |              | E-03315    | 1 028                      | 12.25                   | 15.00            |
|              | E-02738    | 1 662                      | 30.94                   | 33.16            |              | E-03316    | 1 092                      | 13.05                   | 15.82            |
|              | E-02739    | 1 705                      | 31.76                   | 33.99            |              | E-03317    | 1 156                      | 13.87                   | 16.61            |
|              | E-03007    | 423                        | 5.73                    | 8.23             |              | E-03318    | 1 220                      | 14.69                   | 17.43            |
|              | E-03008    | 475                        | 6.55                    | 9.05             |              | E-03319    | 1 284                      | 15.48                   | 18.26            |
|              | E-03009    | 528                        | 7.38                    | 9.85             |              | E-03320    | 1 347                      | 16.31                   | 19.05            |
|              | E-03010    | 581                        | 8.17                    | 10.67            |              | E-03321    | 1 411                      | 17.13                   | 19.87            |
|              | E-03011    | 634                        | 8.99                    | 11.49            |              | E-03322    | 1 475                      | 17.92                   | 20.70            |
|              | E-03012    | 686                        | 9.81                    | 12.28            |              | E-03323    | 1 539                      | 18.75                   | 21.49            |
|              | E-03013    | 739                        | 10.61                   | 13.11            |              | E-03324    | 1 603                      | 19.57                   | 22.31            |
|              | E-03014    | 792                        | 11.43                   | 13.93            |              | E-03325    | 1 667                      | 20.36                   | 23.13            |
|              | E-03015    | 845                        | 12.25                   | 14.72            |              | E-03326    | 1 730                      | 21.18                   | 23.93            |
|              | E-03016    | 897                        | 13.05                   | 15.54            |              | E-03327    | 1 794                      | 22.01                   | 24.75            |
|              | E-03017    | 950                        | 13.87                   | 16.37            |              | E-03328    | 1 858                      | 22.80                   | 25.57            |
|              | E-03018    | 1 003                      | 14.69                   | 17.16            |              | E-03329    | 1 922                      | 23.62                   | 26.37            |
|              | E-03019    | 1 055                      | 15.48                   | 17.98            |              | E-03330    | 1 986                      | 24.44                   | 27.19            |

| Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) | Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) |
|--------------|------------|----------------------------|-------------------------|------------------|--------------|------------|----------------------------|-------------------------|------------------|
| 10.1 m       | E-03331    | 2 049                      | 25.24                   | 28.01            | 12.8 m       | E-04208    | 973                        | 6.55                    | 10.12            |
|              | E-03332    | 2 113                      | 26.06                   | 28.80            |              | E-04209    | 1 077                      | 7.38                    | 10.91            |
|              | E-03333    | 2 177                      | 26.88                   | 29.63            |              | E-04210    | 1 180                      | 8.17                    | 11.73            |
|              | E-03334    | 2 241                      | 27.68                   | 30.45            |              | E-04211    | 1 284                      | 8.99                    | 12.56            |
|              | E-03335    | 2 305                      | 28.50                   | 31.24            |              | E-04212    | 1 387                      | 9.81                    | 13.35            |
|              | E-03336    | 2 368                      | 29.32                   | 32.06            |              | E-04213    | 1 490                      | 10.61                   | 14.17            |
|              | E-03337    | 2 432                      | 30.11                   | 32.89            |              | E-04214    | 1 594                      | 11.43                   | 15.00            |
|              | E-03338    | 2 496                      | 30.94                   | 33.68            |              | E-04215    | 1 697                      | 12.25                   | 15.79            |
|              | E-03339    | 2 560                      | 31.76                   | 34.50            |              | E-04216    | 1 800                      | 13.05                   | 16.61            |
|              | E-03340    | 2 624                      | 32.55                   | 35.33            |              | E-04217    | 1 904                      | 13.87                   | 17.43            |
| 11.0 m       | E-03607    | 624                        | 5.73                    | 8.75             |              | E-04218    | 2 007                      | 14.69                   | 18.23            |
|              | E-03608    | 700                        | 6.55                    | 9.57             |              | E-04219    | 2 111                      | 15.48                   | 19.05            |
|              | E-03609    | 776                        | 7.38                    | 10.36            |              | E-04220    | 2 214                      | 16.31                   | 19.87            |
|              | E-03610    | 852                        | 8.17                    | 11.19            |              | E-04221    | 2 317                      | 17.13                   | 20.67            |
|              | E-03611    | 928                        | 8.99                    | 12.01            |              | E-04222    | 2 421                      | 17.92                   | 21.49            |
|              | E-03612    | 1 004                      | 9.81                    | 12.80            |              | E-04223    | 2 524                      | 18.75                   | 22.31            |
|              | E-03613    | 1 080                      | 10.61                   | 13.62            |              | E-04224    | 2 628                      | 19.57                   | 23.10            |
|              | E-03614    | 1 156                      | 11.43                   | 14.45            |              | E-04225    | 2 731                      | 20.36                   | 23.93            |
|              | E-03615    | 1 232                      | 12.25                   | 15.24            |              | E-04226    | 2 834                      | 21.18                   | 24.75            |
|              | E-03616    | 1 307                      | 13.05                   | 16.06            |              | E-04227    | 2 938                      | 22.01                   | 25.54            |
|              | E-03617    | 1 383                      | 13.87                   | 16.89            |              | E-04228    | 3 041                      | 22.80                   | 26.37            |
|              | E-03618    | 1 459                      | 14.69                   | 17.68            |              | E-04229    | 3 145                      | 23.62                   | 27.19            |
|              | E-03619    | 1 535                      | 15.48                   | 18.50            |              | E-04230    | 3 248                      | 24.44                   | 27.98            |
|              | E-03620    | 1 611                      | 16.31                   | 19.32            |              | E-04231    | 3 351                      | 25.24                   | 28.80            |
|              | E-03621    | 1 687                      | 17.13                   | 20.12            |              | E-04232    | 3 455                      | 26.06                   | 29.63            |
|              | E-03622    | 1 763                      | 17.92                   | 20.94            |              | E-04233    | 3 558                      | 26.88                   | 30.42            |
|              | E-03623    | 1 839                      | 18.75                   | 21.76            |              | E-04234    | 3 662                      | 27.68                   | 31.24            |
|              | E-03624    | 1 915                      | 19.57                   | 22.56            |              | E-04235    | 3 765                      | 28.50                   | 32.06            |
|              | E-03625    | 1 991                      | 20.36                   | 23.38            |              | E-04236    | 3 868                      | 29.32                   | 32.86            |
|              | E-03626    | 2 067                      | 21.18                   | 24.20            | 14.6 m       | E-04237    | 3 972                      | 30.11                   | 33.68            |
|              | E-03627    | 2 143                      | 22.01                   | 24.99            |              | E-04238    | 4 075                      | 30.94                   | 34.50            |
|              | E-03628    | 2 219                      | 22.80                   | 25.82            |              | E-04239    | 4 179                      | 31.76                   | 35.30            |
|              | E-03629    | 2 295                      | 23.62                   | 26.64            |              | E-04240    | 4 282                      | 32.55                   | 36.12            |
|              | E-03630    | 2 371                      | 24.44                   | 27.43            |              | E-04808    | 1 298                      | 6.55                    | 10.30            |
|              | E-03631    | 2 447                      | 25.24                   | 28.25            |              | E-04809    | 1 433                      | 7.38                    | 11.13            |
|              | E-03632    | 2 523                      | 26.06                   | 29.08            |              | E-04810    | 1 568                      | 8.17                    | 11.92            |
|              | E-03633    | 2 599                      | 26.88                   | 29.87            |              | E-04811    | 1 703                      | 8.99                    | 12.74            |
|              | E-03634    | 2 675                      | 27.68                   | 30.69            |              | E-04812    | 1 839                      | 9.81                    | 13.56            |
|              | E-03635    | 2 751                      | 28.50                   | 31.52            |              | E-04813    | 1 974                      | 10.61                   | 14.36            |
|              | E-03636    | 2 826                      | 29.32                   | 32.31            |              | E-04814    | 2 109                      | 11.43                   | 15.18            |
|              | E-03637    | 2 902                      | 30.11                   | 33.13            |              | E-04815    | 2 244                      | 12.25                   | 16.00            |
|              | E-03638    | 2 978                      | 30.94                   | 33.95            |              | E-04816    | 2 379                      | 13.05                   | 16.79            |
|              | E-03639    | 3 054                      | 31.76                   | 34.75            |              | E-04817    | 2 514                      | 13.87                   | 17.62            |
|              | E-03640    | 3 130                      | 32.55                   | 35.57            |              | E-04818    | 2 649                      | 14.69                   | 18.44            |



OVERVIEW OF TYPES AND SIZES OF STORAGE SILOS

BROCK EVEREST – FLAT-BOTTOM SILOS

| Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) | Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) |
|--------------|------------|----------------------------|-------------------------|------------------|--------------|------------|----------------------------|-------------------------|------------------|
| 14.6 m       | E-04819    | 2 784                      | 15.48                   | 19.23            | 16.5 m       | E-05430    | 5 438                      | 24.44                   | 28.71            |
|              | E-04820    | 2 919                      | 16.31                   | 20.06            |              | E-05431    | 5 609                      | 25.24                   | 29.50            |
|              | E-04821    | 3 054                      | 17.13                   | 20.88            |              | E-05432    | 5 780                      | 26.06                   | 30.33            |
|              | E-04822    | 3 189                      | 17.92                   | 21.67            |              | E-05433    | 5 951                      | 26.88                   | 31.15            |
|              | E-04823    | 3 324                      | 18.75                   | 22.49            |              | E-05434    | 6 122                      | 27.68                   | 31.94            |
|              | E-04824    | 3 459                      | 19.57                   | 23.32            |              | E-05435    | 6 293                      | 28.50                   | 32.77            |
|              | E-04825    | 3 594                      | 20.36                   | 24.11            |              | E-05436    | 6 464                      | 29.32                   | 33.59            |
|              | E-04826    | 3 729                      | 21.18                   | 24.93            |              | E-05437    | 6 635                      | 30.11                   | 34.38            |
|              | E-04827    | 3 865                      | 22.01                   | 25.76            |              | E-05438    | 6 806                      | 30.94                   | 35.20            |
|              | E-04828    | 4 000                      | 22.80                   | 26.55            |              | E-05439    | 6 977                      | 31.76                   | 36.03            |
|              | E-04829    | 4 135                      | 23.62                   | 27.37            |              | E-05440    | 7 148                      | 32.55                   | 36.82            |
|              | E-04830    | 4 270                      | 24.44                   | 28.19            | 18.3 m       | E-06008    | 2 113                      | 6.55                    | 11.25            |
|              | E-04831    | 4 405                      | 25.24                   | 28.99            |              | E-06009    | 2 324                      | 7.38                    | 12.07            |
|              | E-04832    | 4 540                      | 26.06                   | 29.81            |              | E-06010    | 2 535                      | 8.17                    | 12.86            |
|              | E-04833    | 4 675                      | 26.88                   | 30.63            |              | E-06011    | 2 746                      | 8.99                    | 13.69            |
|              | E-04834    | 4 810                      | 27.68                   | 31.42            |              | E-06012    | 2 957                      | 9.81                    | 14.51            |
|              | E-04835    | 4 945                      | 28.50                   | 32.25            |              | E-06013    | 3 168                      | 10.61                   | 15.30            |
|              | E-04836    | 5 080                      | 29.32                   | 33.07            |              | E-06014    | 3 379                      | 11.43                   | 16.12            |
|              | E-04837    | 5 215                      | 30.11                   | 33.86            |              | E-06015    | 3 590                      | 12.25                   | 16.95            |
|              | E-04838    | 5 350                      | 30.94                   | 34.69            |              | E-06016    | 3 801                      | 13.05                   | 17.74            |
|              | E-04839    | 5 485                      | 31.76                   | 35.51            |              | E-06017    | 4 012                      | 13.87                   | 18.56            |
|              | E-04840    | 5 620                      | 32.55                   | 36.30            |              | E-06018    | 4 223                      | 14.69                   | 19.39            |
| 16.5 m       | E-05408    | 1 677                      | 6.55                    | 10.82            |              | E-06019    | 4 434                      | 15.48                   | 20.18            |
|              | E-05409    | 1 848                      | 7.38                    | 11.64            |              | E-06020    | 4 646                      | 16.31                   | 21.00            |
|              | E-05410    | 2 019                      | 8.17                    | 12.44            |              | E-06021    | 4 857                      | 17.13                   | 21.82            |
|              | E-05411    | 2 190                      | 8.99                    | 13.26            |              | E-06022    | 5 068                      | 17.92                   | 22.62            |
|              | E-05412    | 2 361                      | 9.81                    | 14.08            |              | E-06023    | 5 279                      | 18.75                   | 23.44            |
|              | E-05413    | 2 532                      | 10.61                   | 14.87            |              | E-06024    | 5 490                      | 19.57                   | 24.26            |
|              | E-05414    | 2 703                      | 11.43                   | 15.70            |              | E-06025    | 5 701                      | 20.36                   | 25.05            |
|              | E-05415    | 2 874                      | 12.25                   | 16.52            |              | E-06026    | 5 912                      | 21.18                   | 25.88            |
|              | E-05416    | 3 045                      | 13.05                   | 17.31            |              | E-06027    | 6 123                      | 22.01                   | 26.70            |
|              | E-05417    | 3 216                      | 13.87                   | 18.14            |              | E-06028    | 6 334                      | 22.80                   | 27.49            |
|              | E-05418    | 3 387                      | 14.69                   | 18.96            |              | E-06029    | 6 545                      | 23.62                   | 28.32            |
|              | E-05419    | 3 558                      | 15.48                   | 19.75            |              | E-06030    | 6 756                      | 24.44                   | 29.14            |
|              | E-05420    | 3 729                      | 16.31                   | 20.57            |              | E-06031    | 6 967                      | 25.24                   | 29.93            |
|              | E-05421    | 3 900                      | 17.13                   | 21.40            |              | E-06032    | 7 179                      | 26.06                   | 30.75            |
|              | E-05422    | 4 071                      | 17.92                   | 22.19            |              | E-06033    | 7 390                      | 26.88                   | 31.58            |
|              | E-05423    | 4 242                      | 18.75                   | 23.01            |              | E-06034    | 7 601                      | 27.68                   | 32.37            |
|              | E-05424    | 4 412                      | 19.57                   | 23.84            |              | E-06035    | 7 812                      | 28.50                   | 33.19            |
|              | E-05425    | 4 583                      | 20.36                   | 24.63            |              | E-06036    | 8 023                      | 29.32                   | 34.02            |
|              | E-05426    | 4 754                      | 21.18                   | 25.45            |              | E-06037    | 8 234                      | 30.11                   | 34.81            |
|              | E-05427    | 4 925                      | 22.01                   | 26.27            |              | E-06038    | 8 445                      | 30.94                   | 35.63            |
|              | E-05428    | 5 096                      | 22.80                   | 27.07            |              | E-06039    | 8 656                      | 31.76                   | 36.45            |
|              | E-05429    | 5 267                      | 23.62                   | 27.89            |              | E-06040    | 8 867                      | 32.55                   | 37.25            |

| Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) | Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) |
|--------------|------------|----------------------------|-------------------------|------------------|--------------|------------|----------------------------|-------------------------|------------------|
| 22.0 m       | E-07208    | 3 163                      | 6.55                    | 12.28            | 22.9 m       | E-07525    | 9 073                      | 20.36                   | 26.24            |
|              | E-07209    | 3 467                      | 7.38                    | 13.11            |              | E-07526    | 9 403                      | 21.18                   | 27.04            |
|              | E-07210    | 3 771                      | 8.17                    | 13.93            |              | E-07527    | 9 733                      | 22.01                   | 27.86            |
|              | E-07211    | 4 075                      | 8.99                    | 14.72            |              | E-07528    | 10 062                     | 22.80                   | 28.68            |
|              | E-07212    | 4 379                      | 9.81                    | 15.54            |              | E-07529    | 10 392                     | 23.62                   | 29.47            |
|              | E-07213    | 4 683                      | 10.61                   | 16.37            |              | E-07530    | 10 722                     | 24.44                   | 30.30            |
|              | E-07214    | 4 987                      | 11.43                   | 17.16            |              | E-07531    | 11 052                     | 25.24                   | 31.12            |
|              | E-07215    | 5 291                      | 12.25                   | 17.98            |              | E-07532    | 11 382                     | 26.06                   | 31.91            |
|              | E-07216    | 5 595                      | 13.05                   | 18.81            |              | E-07533    | 11 712                     | 26.88                   | 32.74            |
|              | E-07217    | 5 899                      | 13.87                   | 19.60            |              | E-07534    | 12 042                     | 27.68                   | 33.56            |
|              | E-07218    | 6 203                      | 14.69                   | 20.42            |              | E-07535    | 12 371                     | 28.50                   | 34.35            |
|              | E-07219    | 6 507                      | 15.48                   | 21.24            |              | E-07536    | 12 701                     | 29.32                   | 35.17            |
|              | E-07220    | 6 811                      | 16.31                   | 22.04            |              | E-07537    | 13 031                     | 30.11                   | 36.00            |
|              | E-07221    | 7 115                      | 17.13                   | 22.86            |              | E-07538    | 13 361                     | 30.94                   | 36.79            |
|              | E-07222    | 7 419                      | 17.92                   | 23.68            |              | E-07539    | 13 691                     | 31.76                   | 37.61            |
|              | E-07223    | 7 723                      | 18.75                   | 24.48            |              | E-07540    | 14 021                     | 32.55                   | 38.44            |
|              | E-07224    | 8 027                      | 19.57                   | 25.30            | 23.8 m       | E-07810    | 4 497                      | 8.17                    | 14.30            |
|              | E-07225    | 8 331                      | 20.36                   | 26.12            |              | E-07811    | 4 854                      | 8.99                    | 15.12            |
|              | E-07226    | 8 635                      | 21.18                   | 26.91            |              | E-07812    | 5 211                      | 9.81                    | 15.94            |
|              | E-07227    | 8 939                      | 22.01                   | 27.74            |              | E-07813    | 5 567                      | 10.61                   | 16.73            |
|              | E-07228    | 9 243                      | 22.80                   | 28.56            |              | E-07814    | 5 924                      | 11.43                   | 17.56            |
|              | E-07229    | 9 547                      | 23.62                   | 29.35            |              | E-07815    | 6 281                      | 12.25                   | 18.38            |
|              | E-07230    | 9 851                      | 24.44                   | 30.18            |              | E-07816    | 6 638                      | 13.05                   | 19.17            |
|              | E-07231    | 10 155                     | 25.24                   | 31.00            |              | E-07817    | 6 994                      | 13.87                   | 19.99            |
|              | E-07232    | 10 459                     | 26.06                   | 31.79            |              | E-07818    | 7 351                      | 14.69                   | 20.82            |
|              | E-07233    | 10 763                     | 26.88                   | 32.61            |              | E-07819    | 7 708                      | 15.48                   | 21.61            |
|              | E-07234    | 11 067                     | 27.68                   | 33.44            |              | E-07820    | 8 065                      | 16.31                   | 22.43            |
|              | E-07235    | 11 371                     | 28.50                   | 34.23            |              | E-07821    | 8 422                      | 17.13                   | 23.26            |
|              | E-07236    | 11 675                     | 29.32                   | 35.05            |              | E-07822    | 8 778                      | 17.92                   | 24.05            |
|              | E-07237    | 11 979                     | 30.11                   | 35.87            |              | E-07823    | 9 135                      | 18.75                   | 24.87            |
|              | E-07238    | 12 283                     | 30.94                   | 36.67            |              | E-07824    | 9 492                      | 19.57                   | 25.69            |
|              | E-07239    | 12 587                     | 31.76                   | 37.49            |              | E-07825    | 9 849                      | 20.36                   | 26.49            |
|              | E-07240    | 12 891                     | 32.55                   | 38.31            |              | E-07826    | 10 206                     | 21.18                   | 27.31            |
| 22.9 m       | E-07509    | 3 795                      | 7.38                    | 13.23            |              | E-07827    | 10 562                     | 22.01                   | 28.13            |
|              | E-07510    | 4 125                      | 8.17                    | 14.05            |              | E-07828    | 10 919                     | 22.80                   | 28.93            |
|              | E-07511    | 4 455                      | 8.99                    | 14.84            |              | E-07829    | 11 276                     | 23.62                   | 29.75            |
|              | E-07512    | 4 785                      | 9.81                    | 15.67            |              | E-07830    | 11 633                     | 24.44                   | 30.57            |
|              | E-07513    | 5 114                      | 10.61                   | 16.49            |              | E-07831    | 11 990                     | 25.24                   | 31.36            |
|              | E-07514    | 5 444                      | 11.43                   | 17.28            |              | E-07832    | 12 346                     | 26.06                   | 32.19            |
|              | E-07515    | 5 774                      | 12.25                   | 18.11            |              | E-07833    | 12 703                     | 26.88                   | 33.01            |
|              | E-07520    | 7 424                      | 16.31                   | 22.16            |              | E-07834    | 13 060                     | 27.68                   | 33.80            |
|              | E-07521    | 7 753                      | 17.13                   | 22.98            |              | E-07835    | 13 417                     | 28.50                   | 34.63            |
|              | E-07522    | 8 083                      | 17.92                   | 23.80            |              | E-07836    | 13 773                     | 29.32                   | 35.45            |
|              | E-07523    | 8 413                      | 18.75                   | 24.60            |              | E-07837    | 14 130                     | 30.11                   | 36.24            |
|              | E-07524    | 8 743                      | 19.57                   | 25.42            |              | E-07838    | 14 487                     | 30.94                   | 37.06            |



OVERVIEW OF TYPES AND SIZES OF STORAGE SILOS

BROCK EVEREST – FLAT-BOTTOM SILOS

| Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) | Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) |
|--------------|------------|----------------------------|-------------------------|------------------|--------------|------------|----------------------------|-------------------------|------------------|
| 23.8 m       | E-07839    | 14 844                     | 31.76                   | 37.89            | 32.0 mm      | E-10525    | 18 427                     | 20.36                   | 28.86            |
|              | E-07840    | 15 201                     | 32.55                   | 38.68            |              | E-10526    | 19 074                     | 21.18                   | 29.69            |
| 27.4 m       | E-09011    | 6 651                      | 8.99                    | 16.15            |              | E-10527    | 19 721                     | 22.01                   | 30.48            |
|              | E-09012    | 7 126                      | 9.81                    | 16.98            |              | E-10528    | 20 367                     | 22.80                   | 31.30            |
|              | E-09013    | 7 601                      | 10.61                   | 17.80            |              | E-10529    | 21 014                     | 23.62                   | 32.13            |
|              | E-09014    | 8 076                      | 11.43                   | 18.59            |              | E-10530    | 21 661                     | 24.44                   | 32.92            |
|              | E-09015    | 8 551                      | 12.25                   | 19.42            |              | E-10531    | 22 307                     | 25.24                   | 33.74            |
|              | E-09016    | 9 026                      | 13.05                   | 20.24            |              | E-10532    | 22 954                     | 26.06                   | 34.56            |
|              | E-09017    | 9 501                      | 13.87                   | 21.03            |              | E-10533    | 23 601                     | 26.88                   | 35.36            |
|              | E-09018    | 9 976                      | 14.69                   | 21.85            |              | E-10534    | 24 247                     | 27.68                   | 36.18            |
|              | E-09019    | 10 452                     | 15.48                   | 22.68            |              | E-10535    | 24 894                     | 28.50                   | 37.00            |
|              | E-09020    | 10 927                     | 16.31                   | 23.47            |              | E-10536    | 25 541                     | 29.32                   | 37.80            |
|              | E-09021    | 11 402                     | 17.13                   | 24.29            |              | E-10537    | 26 187                     | 30.11                   | 38.62            |
|              | E-09022    | 11 877                     | 17.92                   | 25.12            |              | E-10538    | 26 834                     | 30.94                   | 39.44            |
|              | E-09023    | 12 352                     | 18.75                   | 25.91            |              | E-10539    | 27 481                     | 31.76                   | 40.23            |
|              | E-09024    | 12 827                     | 19.57                   | 26.73            |              | E-10540    | 28 127                     | 32.55                   | 41.06            |
|              | E-09025    | 13 302                     | 20.36                   | 27.55            | 40.2 m       | E-13218    | 22 873                     | 14.69                   | 25.58            |
|              | E-09026    | 13 777                     | 21.18                   | 28.35            |              | E-13219    | 23 895                     | 15.48                   | 26.39            |
|              | E-09027    | 14 252                     | 22.01                   | 29.17            |              | E-13220    | 24 917                     | 16.31                   | 27.20            |
|              | E-09028    | 14 727                     | 22.80                   | 29.99            |              | E-13221    | 25 938                     | 17.13                   | 28.02            |
|              | E-09029    | 15 202                     | 23.62                   | 30.78            |              | E-13222    | 26 960                     | 17.92                   | 28.83            |
|              | E-09030    | 15 677                     | 24.44                   | 31.61            |              | E-13223    | 27 982                     | 18.75                   | 29.64            |
|              | E-09031    | 16 152                     | 25.24                   | 32.43            |              | E-13224    | 29 003                     | 19.57                   | 30.45            |
|              | E-09032    | 16 627                     | 26.06                   | 33.22            |              | E-13225    | 30 025                     | 20.36                   | 31.27            |
|              | E-09033    | 17 102                     | 26.88                   | 34.05            |              | E-13226    | 31 047                     | 21.18                   | 32.08            |
|              | E-09034    | 17 577                     | 27.68                   | 34.87            |              | E-13227    | 32 068                     | 22.01                   | 32.89            |
|              | E-09035    | 18 052                     | 28.50                   | 35.66            |              | E-13228    | 33 090                     | 22.80                   | 33.71            |
|              | E-09036    | 18 527                     | 29.32                   | 36.48            |              | E-13229    | 34 112                     | 23.62                   | 34.52            |
|              | E-09037    | 19 003                     | 30.11                   | 37.31            |              | E-13230    | 35 133                     | 24.44                   | 35.33            |
|              | E-09038    | 19 478                     | 30.94                   | 38.10            |              | E-13231    | 36 155                     | 25.24                   | 36.14            |
|              | E-09039    | 19 953                     | 31.76                   | 38.92            |              | E-13232    | 37 177                     | 26.06                   | 36.96            |
|              | E-09040    | 20 428                     | 32.55                   | 39.75            |              | E-13233    | 38 198                     | 26.88                   | 37.77            |
| 32.0 mm      | E-10512    | 10 021                     | 9.81                    | 18.29            |              | E-13234    | 39 220                     | 27.68                   | 38.58            |
|              | E-10513    | 10 668                     | 10.61                   | 19.11            |              | E-13235    | 40 242                     | 28.50                   | 39.40            |
|              | E-10514    | 11 314                     | 11.43                   | 19.93            | 47.6 m       | E-15618    | 33 083                     | 14.69                   | 27.69            |
|              | E-10515    | 11 961                     | 12.25                   | 20.73            |              | E-15619    | 34 510                     | 15.48                   | 28.50            |
|              | E-10516    | 12 607                     | 13.05                   | 21.55            |              | E-15620    | 35 937                     | 16.31                   | 29.31            |
|              | E-10517    | 13 254                     | 13.87                   | 22.37            |              | E-15621    | 37 364                     | 17.13                   | 30.12            |
|              | E-10518    | 13 901                     | 14.69                   | 23.16            |              | E-15622    | 38 791                     | 17.92                   | 30.94            |
|              | E-10519    | 14 547                     | 15.48                   | 23.99            |              | E-15623    | 40 219                     | 18.75                   | 31.75            |
|              | E-10520    | 15 194                     | 16.31                   | 24.81            |              | E-15624    | 41 646                     | 19.57                   | 32.56            |
|              | E-10521    | 15 841                     | 17.13                   | 25.60            |              | E-15625    | 43 073                     | 20.36                   | 33.38            |
|              | E-10522    | 16 487                     | 17.92                   | 26.43            |              |            |                            |                         |                  |
|              | E-10523    | 17 134                     | 18.75                   | 27.25            |              |            |                            |                         |                  |
|              | E-10524    | 17 781                     | 19.57                   | 28.04            |              |            |                            |                         |                  |

OVERVIEW OF TYPES AND SIZES OF STORAGE SILOS

BROCK EVEREST – HOPPER-BOTTOM SILOS

| Diameter (m)  | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) | Diameter (m)  | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) |
|---------------|------------|----------------------------|-------------------------|------------------|---------------|------------|----------------------------|-------------------------|------------------|
|               | EH-27406   | 354                        | 9.01                    | 11.24            | 11.0 m<br>40° | EH-36416   | 1 441                      | 18.24                   | 21.25            |
|               |            |                            |                         |                  |               | EH-36417   | 1 517                      | 19.05                   | 22.07            |
|               | EH-27407   | 396                        | 9.82                    | 12.05            |               | EH-36418   | 1 593                      | 19.86                   | 22.88            |
|               | EH-27408   | 439                        | 10.63                   | 12.86            |               | EH-36419   | 1 669                      | 20.68                   | 23.69            |
| 8.2 m<br>40°  | EH-27409   | 482                        | 11.45                   | 13.67            | 4.6 m<br>45°  | EH-15306   | 97                         | 7.77                    | 8.95             |
|               | EH-27410   | 524                        | 12.26                   | 14.49            |               | EH-15307   | 110                        | 8.58                    | 9.76             |
|               | EH-27411   | 567                        | 13.07                   | 15.30            |               | EH-15308   | 123                        | 9.40                    | 10.57            |
|               | EH-27412   | 610                        | 13.89                   | 16.11            |               | EH-15309   | 137                        | 10.21                   | 11.39            |
|               | EH-27413   | 652                        | 14.70                   | 16.93            |               | EH-15310   | 150                        | 11.02                   | 12.20            |
|               | EH-27414   | 695                        | 15.51                   | 17.74            |               | EH-15311   | 163                        | 11.84                   | 13.01            |
|               | EH-27415   | 738                        | 16.32                   | 18.55            |               | EH-15312   | 176                        | 12.65                   | 13.83            |
|               | EH-27416   | 781                        | 17.14                   | 19.36            |               | EH-15313   | 189                        | 13.46                   | 14.64            |
|               | EH-27417   | 823                        | 17.95                   | 20.18            |               | EH-15314   | 202                        | 14.27                   | 15.45            |
|               | EH-27418   | 866                        | 18.76                   | 20.99            |               | EH-15315   | 216                        | 15.09                   | 16.26            |
|               | EH-27419   | 909                        | 19.58                   | 21.80            |               | EH-15316   | 229                        | 15.90                   | 17.08            |
|               | EH-27420   | 951                        | 20.39                   | 22.62            |               | EH-15317   | 242                        | 16.71                   | 17.89            |
|               | EH-27421   | 994                        | 21.20                   | 23.43            |               | EH-15318   | 255                        | 17.52                   | 18.70            |
| 9.1 m<br>40°  | EH-27422   | 1 037                      | 22.01                   | 24.24            |               | EH-15319   | 268                        | 18.34                   | 19.52            |
|               | EH-30407   | 503                        | 10.21                   | 12.70            | 5.5 m<br>45°  | EH-18306   | 145                        | 8.24                    | 9.68             |
|               | EH-30408   | 556                        | 11.02                   | 13.51            |               | EH-18307   | 164                        | 9.06                    | 10.50            |
|               | EH-30409   | 608                        | 11.83                   | 14.32            |               | EH-18308   | 183                        | 9.87                    | 11.31            |
|               | EH-30410   | 661                        | 12.65                   | 15.14            |               | EH-18309   | 202                        | 10.68                   | 12.12            |
|               | EH-30411   | 714                        | 13.46                   | 15.95            |               | EH-18310   | 221                        | 11.49                   | 12.93            |
|               | EH-30412   | 766                        | 14.27                   | 16.76            |               | EH-18311   | 240                        | 12.31                   | 13.75            |
|               | EH-30413   | 819                        | 15.08                   | 17.57            |               | EH-18312   | 259                        | 13.12                   | 14.56            |
|               | EH-30414   | 872                        | 15.90                   | 18.39            |               | EH-18313   | 278                        | 13.93                   | 15.37            |
|               | EH-30415   | 925                        | 16.71                   | 19.20            |               | EH-18314   | 297                        | 14.75                   | 16.19            |
|               | EH-30416   | 977                        | 17.52                   | 20.01            |               | EH-18315   | 316                        | 15.56                   | 17.00            |
|               | EH-30417   | 1 030                      | 18.34                   | 20.83            |               | EH-18316   | 335                        | 16.37                   | 17.81            |
|               | EH-30418   | 1 083                      | 19.15                   | 21.64            |               | EH-18317   | 354                        | 17.18                   | 18.62            |
|               | EH-30419   | 1 136                      | 19.96                   | 22.45            |               | EH-18318   | 373                        | 18.00                   | 19.44            |
|               | EH-30420   | 1 188                      | 20.77                   | 23.26            |               | EH-18319   | 392                        | 18.81                   | 20.25            |
| 11.0 m<br>40° | EH-30421   | 1 241                      | 21.59                   | 24.08            | 6.4 m<br>45°  | EH-18320   | 411                        | 19.62                   | 21.06            |
|               | EH-30422   | 1 294                      | 22.40                   | 24.89            |               | EH-18321   | 430                        | 20.44                   | 21.88            |
|               | EH-30423   | 1 346                      | 23.22                   | 25.71            |               | EH-18322   | 449                        | 21.25                   | 22.69            |
|               | EH-36406   | 682                        | 10.11                   | 13.13            |               | EH-21306   | 205                        | 8.71                    | 10.41            |
|               | EH-36407   | 758                        | 10.92                   | 13.94            |               | EH-21307   | 230                        | 9.52                    | 11.23            |
|               | EH-36408   | 834                        | 11.74                   | 14.75            |               | EH-21308   | 256                        | 10.34                   | 12.04            |
|               | EH-36409   | 910                        | 12.55                   | 15.56            |               | EH-21309   | 282                        | 11.15                   | 12.85            |
|               | EH-36410   | 986                        | 13.36                   | 16.38            |               | EH-21310   | 308                        | 11.96                   | 13.66            |
|               | EH-36411   | 1 062                      | 14.17                   | 17.19            |               | EH-21311   | 334                        | 12.77                   | 14.48            |
|               | EH-36412   | 1 138                      | 14.99                   | 18.00            |               | EH-21312   | 359                        | 13.59                   | 15.29            |
|               | EH-36413   | 1 214                      | 15.80                   | 18.82            |               | EH-21313   | 385                        | 14.40                   | 16.10            |
|               | EH-36414   | 1 290                      | 16.61                   | 19.63            |               | EH-21314   | 411                        | 15.21                   | 16.91            |
|               | EH-36415   | 1 366                      | 17.42                   | 20.44            |               | EH-21315   | 437                        | 16.03                   | 17.73            |



OVERVIEW OF TYPES AND SIZES OF STORAGE SILOS

BROCK EVEREST – HOPPER-BOTTOM SILOS

| Diameter (m)  | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) | Diameter (m)  | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) |
|---------------|------------|----------------------------|-------------------------|------------------|---------------|------------|----------------------------|-------------------------|------------------|
| 6.4 m<br>45°  | EH-21316   | 463                        | 16.84                   | 18.54            | 11.0 m<br>50° | EH-36510   | 1 041                      | 15.41                   | 18.43            |
|               | EH-21317   | 489                        | 17.65                   | 19.35            |               | EH-36511   | 1 117                      | 16.23                   | 19.24            |
|               | EH-21318   | 514                        | 18.46                   | 20.17            |               | EH-36512   | 1 193                      | 17.04                   | 20.06            |
|               | EH-21319   | 540                        | 19.28                   | 20.98            |               | EH-36513   | 1 269                      | 17.85                   | 20.87            |
|               | EH-21320   | 566                        | 20.09                   | 21.79            |               | EH-36514   | 1 345                      | 18.67                   | 21.68            |
|               | EH-21321   | 592                        | 20.90                   | 22.60            |               | EH-36515   | 1 421                      | 19.48                   | 22.49            |
|               | EH-21322   | 618                        | 21.72                   | 23.42            |               | EH-36516   | 1 497                      | 20.29                   | 23.31            |
| 7.3 m<br>45°  | EH-24306   | 277                        | 9.17                    | 11.14            |               | EH-36517   | 1 573                      | 21.10                   | 24.12            |
|               | EH-24307   | 311                        | 9.98                    | 11.95            |               | EH-36518   | 1 649                      | 21.92                   | 24.93            |
|               | EH-24308   | 345                        | 10.80                   | 12.76            |               | EH-36519   | 1 725                      | 22.73                   | 25.75            |
|               | EH-24309   | 379                        | 11.61                   | 13.57            |               | EH-36520   | 1 801                      | 23.54                   | 26.56            |
|               | EH-24310   | 412                        | 12.42                   | 14.39            |               | EH-36521   | 1 876                      | 24.36                   | 27.37            |
|               | EH-24311   | 446                        | 13.23                   | 15.20            |               | EH-36522   | 1 952                      | 25.17                   | 28.18            |
|               | EH-24312   | 480                        | 14.05                   | 16.01            | 4.6 m<br>60°  | EH-15006   | 105                        | 9.18                    | 10.36            |
|               | EH-24313   | 514                        | 14.86                   | 16.82            |               | EH-15007   | 118                        | 9.99                    | 11.17            |
|               | EH-24314   | 547                        | 15.67                   | 17.64            |               | EH-15008   | 131                        | 10.80                   | 11.98            |
|               | EH-24315   | 581                        | 16.49                   | 18.45            |               | EH-15009   | 145                        | 11.62                   | 12.79            |
|               | EH-24316   | 615                        | 17.30                   | 19.26            |               | EH-15010   | 158                        | 12.43                   | 13.61            |
|               | EH-24317   | 648                        | 18.11                   | 20.08            |               | EH-15011   | 171                        | 13.24                   | 14.42            |
|               | EH-24318   | 682                        | 18.92                   | 20.89            |               | EH-15012   | 184                        | 14.05                   | 15.23            |
|               | EH-24319   | 716                        | 19.74                   | 21.70            |               | EH-15013   | 197                        | 14.87                   | 16.05            |
|               | EH-24320   | 750                        | 20.55                   | 22.51            |               | EH-15014   | 210                        | 15.68                   | 16.86            |
|               | EH-24321   | 783                        | 21.36                   | 23.33            |               | EH-15015   | 223                        | 16.49                   | 17.67            |
| 9.1 m<br>50°  | EH-24322   | 817                        | 22.18                   | 24.14            |               | EH-15016   | 237                        | 17.31                   | 18.48            |
|               | EH-30506   | 485                        | 11.12                   | 13.61            |               | EH-15017   | 250                        | 18.12                   | 19.30            |
|               | EH-30507   | 538                        | 11.94                   | 14.43            | 5.5 m<br>60°  | EH-18006   | 158                        | 9.99                    | 11.43            |
|               | EH-30508   | 591                        | 12.75                   | 15.24            |               | EH-18007   | 177                        | 10.80                   | 12.24            |
|               | EH-30509   | 643                        | 13.56                   | 16.05            |               | EH-18008   | 196                        | 11.62                   | 13.06            |
|               | EH-30510   | 696                        | 14.37                   | 16.86            |               | EH-18009   | 215                        | 12.43                   | 13.87            |
|               | EH-30511   | 749                        | 15.19                   | 17.68            |               | EH-18010   | 234                        | 13.24                   | 14.68            |
|               | EH-30512   | 801                        | 16.00                   | 18.49            |               | EH-18011   | 253                        | 14.06                   | 15.49            |
|               | EH-30513   | 854                        | 16.81                   | 19.30            |               | EH-18012   | 272                        | 14.87                   | 16.31            |
|               | EH-30514   | 907                        | 17.63                   | 20.12            |               | EH-18013   | 291                        | 15.68                   | 17.12            |
|               | EH-30515   | 960                        | 18.44                   | 20.93            |               | EH-18014   | 310                        | 16.49                   | 17.93            |
|               | EH-30516   | 1 012                      | 19.25                   | 21.74            |               | EH-18015   | 329                        | 17.31                   | 18.75            |
|               | EH-30517   | 1 065                      | 20.06                   | 22.55            |               | EH-18016   | 348                        | 18.12                   | 19.56            |
|               | EH-30518   | 1 118                      | 20.88                   | 23.37            |               | EH-18017   | 367                        | 18.93                   | 20.37            |
|               | EH-30519   | 1 171                      | 21.69                   | 24.18            |               | EH-18018   | 386                        | 19.74                   | 21.18            |
|               | EH-30520   | 1 223                      | 22.50                   | 24.99            |               | EH-18019   | 405                        | 20.56                   | 22.00            |
|               | EH-30521   | 1 276                      | 23.31                   | 25.81            | 6.4 m<br>60°  | EH-18020   | 424                        | 21.37                   | 22.81            |
| 11.0 m<br>50° | EH-30522   | 1 329                      | 24.13                   | 26.62            |               | EH-18021   | 443                        | 22.18                   | 23.62            |
|               | EH-36506   | 737                        | 12.16                   | 15.18            |               | EH-21006   | 227                        | 10.77                   | 12.47            |
|               | EH-36507   | 813                        | 12.98                   | 15.99            |               | EH-21007   | 253                        | 11.58                   | 13.28            |
|               | EH-36508   | 889                        | 13.79                   | 16.80            |               | EH-21008   | 279                        | 12.39                   | 14.09            |
|               | EH-36509   | 965                        | 14.60                   | 17.62            |               | EH-21009   | 304                        | 13.20                   | 14.91            |

| Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) | Diameter (m) | Silo model | Capacity (m <sup>3</sup> ) | Cylindrical section (m) | Total height (m) |
|--------------|------------|----------------------------|-------------------------|------------------|--------------|------------|----------------------------|-------------------------|------------------|
| 6.4 m<br>60° | EH-21010   | 330                        | 14.02                   | 15.72            | 9.1 m<br>50° | EH-30508   | 591                        | 12.75                   | 15.24            |
|              | EH-21011   | 356                        | 14.83                   | 16.53            |              | EH-30509   | 643                        | 13.56                   | 16.05            |
|              | EH-21012   | 382                        | 15.64                   | 17.34            |              | EH-30510   | 696                        | 14.37                   | 16.86            |
|              | EH-21013   | 408                        | 16.46                   | 18.16            |              | EH-30511   | 749                        | 15.19                   | 17.68            |
|              | EH-21014   | 434                        | 17.27                   | 18.97            |              | EH-30512   | 801                        | 16.00                   | 18.49            |
|              | EH-21015   | 459                        | 18.08                   | 19.78            |              | EH-30513   | 854                        | 16.81                   | 19.30            |
|              | EH-21016   | 485                        | 18.89                   | 20.60            |              | EH-30514   | 907                        | 17.63                   | 20.12            |
|              | EH-21017   | 511                        | 19.71                   | 21.41            |              | EH-30515   | 960                        | 18.44                   | 20.93            |
|              | EH-21018   | 537                        | 20.52                   | 22.22            |              | EH-30516   | 1 012                      | 19.25                   | 21.74            |
|              | EH-21019   | 563                        | 21.33                   | 23.03            |              | EH-30517   | 1 065                      | 20.06                   | 22.55            |
|              | EH-21020   | 588                        | 22.14                   | 23.85            |              | EH-30518   | 1 118                      | 20.88                   | 23.37            |
|              | EH-21021   | 614                        | 22.96                   | 24.66            |              | EH-30519   | 1 171                      | 21.69                   | 24.18            |
| 9.1 m<br>50° | EH-21022   | 640                        | 23.77                   | 25.47            |              | EH-30520   | 1 223                      | 22.50                   | 24.99            |
|              | EH-30506   | 485                        | 11.12                   | 13.61            |              | EH-30521   | 1 276                      | 23.31                   | 25.81            |
|              | EH-30507   | 538                        | 11.94                   | 14.43            |              | EH-30522   | 1 329                      | 24.13                   | 26.62            |



12 x BROCK 301 T - AGRA OLBRAMOVICE, A.S., OLBRAMOVICE, CZ



SILOS – AGI FRAME

|                                  |    |
|----------------------------------|----|
| FP <b>flat bottom</b> silo       | 65 |
| Silos <b>with conical hopper</b> | 66 |



**AGI FRAME**





AGI FRAME

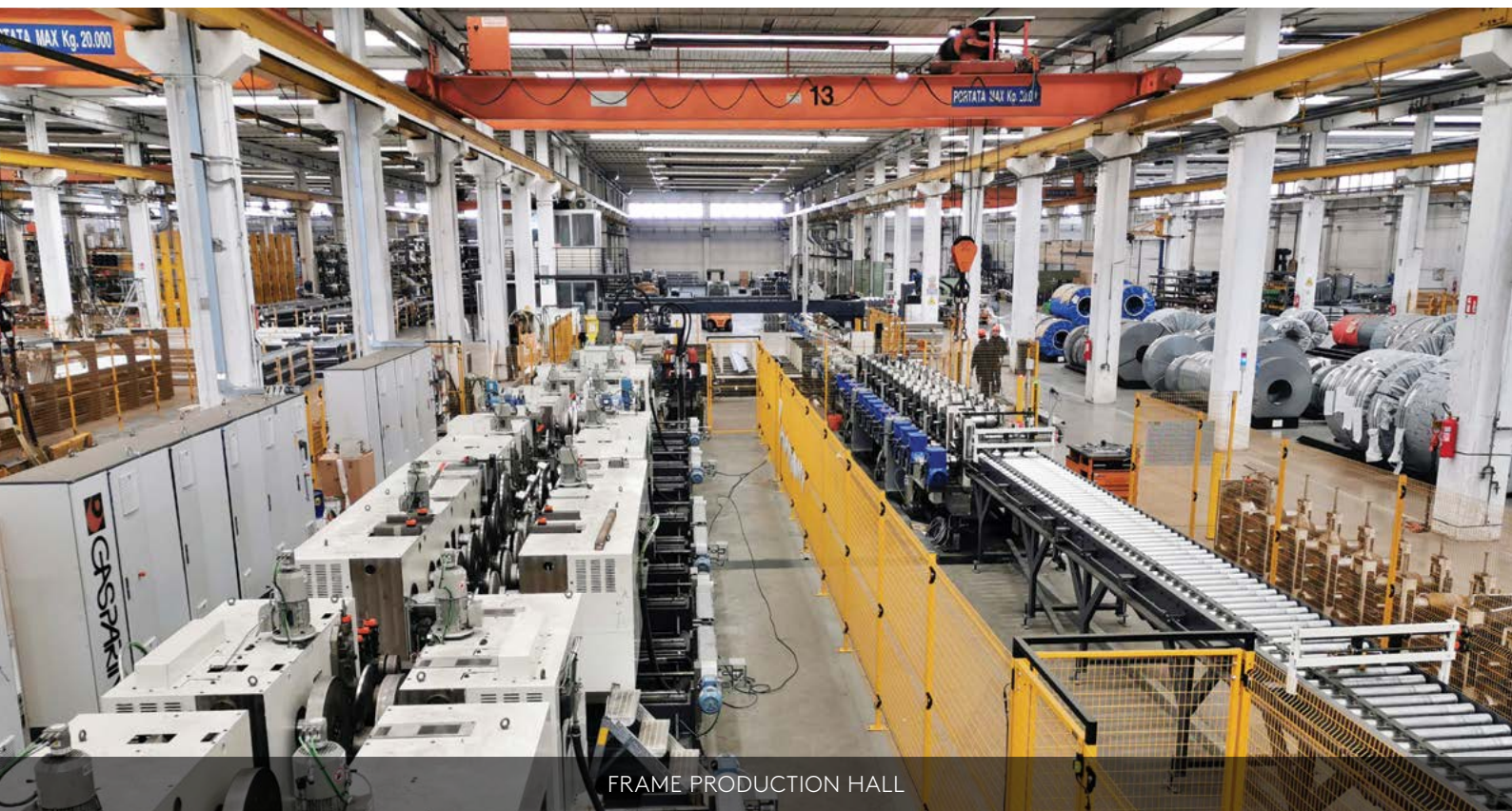
Since 2020, we have established a partnership with the European silo manufacturer AGI FRAME, one of the largest and most respected producers of all types of corrugated steel silos for both agricultural and industrial applications. AGI FRAME entered the market in the mid-1990s as a silo manufacturer. Originally, the company was founded as a general engineering business in Ozzano dell’Emilia near Bologna, Italy.

The company’s product portfolio also includes essential complementary equipment and structures such as catwalks, ladders, platforms, towers, and aeration systems. AGI FRAME supplies silos worldwide and places strong emphasis on a tailored approach to each project—something that is particularly important to us, as it allows the silos to be custom-designed to meet the specific needs of each customer and their local conditions (wind and snow loads, seismic zones).

Naturally, all European standards are fully met, including CE certification and structural parameters in accordance with the latest Eurocode regulations.



All silos—whether with a flat bottom or a hopper bottom—are made from corrugated steel sheets, available with narrow or wide corrugation, and feature standard galvanization of 600 g/m². The roof panels are coated with a Magnelis® surface finish.



FRAME PRODUCTION HALL

FP FLAT BOTTOM SILO

Thanks to its wide range of FP flat-bottom silo models with diameters from 3.64 to 32.74 meters, the company is able to meet almost any requirement of the end investor. The standard 30-degree roof slope ensures maximum storage capacity, even for materials with high angles of repose. These silos are suitable for all free-flowing grains, including wheat, corn, barley, rapeseed, soybeans, rice, as well as sunflower seeds, canola, and even wood pellets.

A complete range of accessories is available, such as:

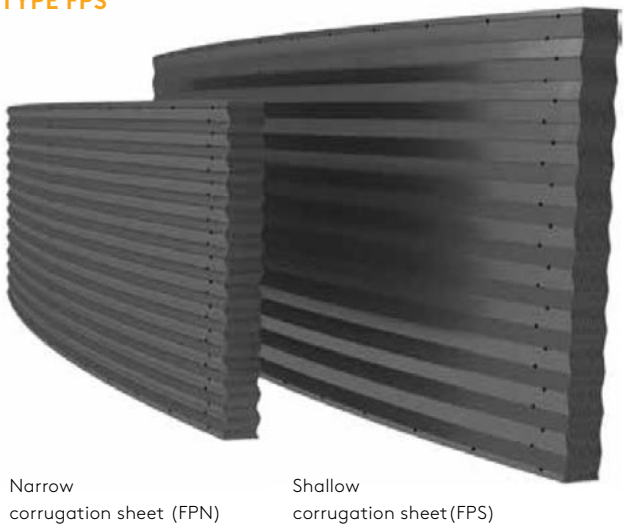
- Aeration ducts or full-floor aeration systems
- Passive roof ventilation outlets
- Exhaust roof fans (anti-condensation)
- Catwalks available in various widths and configurations for different capacities and applications
- External ladders with safety cages, internal ladders, spiral staircases, and roof staircases with railings
- Wind rings for structural reinforcement
- Side gravity discharge outlets and necessary accessories
- Service platforms
- Cascades for fragile materials to reduce the risk of damage from free-fall during loading
- Snow guards on the roof
- Support towers
- Option for perimeter-ventilated roof
- Sweep augers

STEEL SHEET FOR NARROW CORRUGATED SILO PANELS TYPE FPN – (“NARROW CORRUGATION SHEET”)

- Steel HX420LAD+Z, hot-dip galvanized 600 g/m²
- Wave pitch: 67.7 mm x depth 12.7 mm
- Sheet thickness: from 0.8 mm to 5 mm
- Sheet dimensions: 3001.5 mm x 880 mm
- Perforation pattern: according to structural requirements

STEEL SHEET FOR SHALLOW CORRUGATED SILO PANELS TYPE FPS (“Shallow corrugation sheet” – wide corrugation panel)

- Steel HX420LAD+Z, hot-dip galvanized 600 g/m²
- Wave pitch: 101.6 mm x depth 11.4 mm
- Sheet thickness: from 0.8 mm to 5 mm (option for double-layer lamination)
- Wall sheet dimensions: 3001.5 mm x 1117.6 mm
- Perforation pattern: according to structural requirements



AGI FRAME SILO WITH FLAT BOTTOM

| Silo model              | FPN 04-36    | FPS 04-36    |
|-------------------------|--------------|--------------|
| Diameter (m)            | 3,64 - 32,74 | 3,64 - 32,74 |
| Total height (m)        | 4,55 - 40,14 | 4,38 - 39,51 |
| Capacity (m³)           | 40 - 28 416  | 39 - 27 887  |
| Storage capacity in (t) | 31 - 22 164  | 30 - 21 752  |



AGI FRAME offers two models of bins with a hopper

**cone:** 45 and 60 degrees, which provide the best solution even for wet products and high angles of friction. A wide range of models is available, with diameters from 3.6 to 14.55 meters.

Bins with a 45-degree cone angle are available with a capacity of up to 5,050 m³, while bins with a 60-degree cone angle are offered with a capacity of up to 1,218 m³. The elements of the cylindrical part of the bin are identical to those of flat-bottom bins. The hopper sheets, the support ring connecting the cylinder to the hopper, and the lower support structure are hot-dip galvanized.

The internal space of the hopper is designed with a focus on maximum cleanliness during operation. Smooth-walled hopper bins for poorly flowing materials can be supplied as needed. A support structure for truck loading can be offered.

We offer a complete range of accessories, such as:

- Hopper aeration system
- Passive roof ventilation vents
- Roof exhaust fans (anti-condensation)
- Catwalks in various widths and configurations for different capacities and applications
- External ladders with safety cages, internal ladders, spiral staircases, roof staircases with railings
- Snow guards on the roof
- Side doors
- Service platforms
- Option for ventilated perimeter roof

SILOS AGI FRAME WITH CONICAL HOPPER

| Silo model              | FC45N 04-16  | FC60N 04-08  | CR45N 05-07   | CR60N 05-07  | FC45S 04-16  | FC60S 04-08  | CR45S 05-07   | CR60S 05-07   |
|-------------------------|--------------|--------------|---------------|--------------|--------------|--------------|---------------|---------------|
| Diameter (m)            | 3,64 - 14,55 | 3,64 - 7,28  | 4,55 - 6,37   | 4,55 - 6,37  | 3,64 - 14,55 | 3,64 - 7,28  | 4,55 - 6,37   | 4,55 - 6,37   |
| Total height (m)        | 7,04 - 39,07 | 8,14 - 35,56 | 11,23 - 20,99 | 3,14 - 22,86 | 7,36 - 38,37 | 8,86 - 34,86 | 11,06 - 20,72 | 12,97 - 22,59 |
| Capacity (m³)           | 47-5050      | 52-1218      | 77-417        | 87-445       | 45-4933      | 50-1189      | 74-409        | 84-436        |
| Storage capacity in (t) | 36-3939      | 41-950       | 60-325        | 68-347       | 35-3848      | 39-927       | 58-319        | 66-340        |



Snow guards, available as optional equipment, prevent the sudden sliding of ice blocks from the roof.



Cascades for fragile materials reduce the risk of damage caused by falling from height during the filling process.



The spiral staircase with handrail and rest platforms, equipped with anti-slip features, can also be installed on bins with a hopper cone.



3 x FRAME FPN 18/11 STORAGE SILO – AGRO JESENICKO A.S., JESENÍK NAD ODROU, CZ



6 x FRAME FPN 16/22 STORAGE SILO WITH A TOTAL CAPACITY OF 15,617 T, OSOWIEC, POLAND



CONVEYORS

|         |    |            |    |
|---------|----|------------|----|
| Skandia | 70 | Hutchinson | 75 |
| JEMA    | 74 | SØBY       | 76 |





As part of the post-harvest line, we use conveyors from the leading European manufacturer SKANDIA from Sweden. Its range includes various types of chain conveyors (for horizontal transport) and bucket elevators (for vertical transport). The conveyors are fully hot-dip galvanized and manufactured according to EU regulations.

SKANDIA offers three product series in its range of chain conveyors and elevators. L (Lite) conveyors are intended for smaller storage facilities and lines with transport demands up to 60 t/h and are mainly used during the harvest season. These are chain conveyors and elevators exclusively for farm use.

The mid-range I (Industry) is suitable for commercial companies with year-round operation and transport capacity requirements of 40-150 t/h. The chain conveyors have a classic design, where grain is carried in square shafts by plastic (PEHD) paddles mounted on a robust high-strength chain.

The H (Heavy-Duty) series is designed for continuous year-round operation, for example in ports or railway terminals. Chain conveyors and elevators in this series are available with capacities from 60 to 600 t/h. The design of this series is very robust and characterized by long service life, primarily due to 8 mm thick plastic liners on the contact surfaces in elevators and on the floor of the chain conveyors.

All series L, I, and now also H include loading, unloading, and curved chain conveyors with 15°, 30°, and 45° bends, as well as inclined conveyors with high paddles, which operate at inclines up to 45°.

All SKANDIA conveyors use reliable and powerful NORD drives. Upon request, the conveyors can be delivered in Ex design for explosive environments.

Additional equipment includes residue-free chain conveyor design, intermediate discharge outlets with gates that open either perpendicular to the axis of the conveyor or with sliding gates along the conveyor axis, which significantly saves space on the service walkway above the silos.

Chain conveyors are equipped with limit switches to prevent motor overload and conveyor jamming. Elevators can be equipped with belt misalignment sensors. A rotation sensor and a backstop brake on the drum are standard.

The latest addition to the SKANDIA product family is a rotary discharge auger with a chain and plastic paddles, replacing traditional screw augers. This patented conveyor with a capacity of up to 60 t/h provides gentle and reliable final cleaning of flat-bottom silos. Thanks to a special mechanism in the end wheel, the auger responds to grain resistance and adjusts the speed of its forward movement. Additionally, it can be installed in a configuration that eliminates the need to enter the silo for its activation. This innovation should help achieve more thorough and gentler emptying of material from the silo.

SKANDIA products can be used for any purpose within any post-harvest line or storage facility.

# L(Lite) - LINE

The L-Line is specifically adapted for small agricultural facilities with transport requirements of up to 60 t/h and use primarily during the harvest season. These are mainly chain conveyors and elevators intended for farm use with an annual throughput of up to 3,000 tons.

| CAPACITY               | 30-60 tons  |
|------------------------|-------------|
| <b>ELEVATORS</b>       |             |
| Belt speed             | 3.2-3.3 m/s |
| Bucket thickness       | 1.5 mm      |
| Elevator leg thickness | 1.0 mm      |
| Maximum height         | 32 m        |

| <b>HORIZONTAL CONVEYORS</b>       |               |
|-----------------------------------|---------------|
| Chain speed                       | 0.46-0.98 m/s |
| Chain tensile strength            | 33 kN         |
| Intermediate profile thickness    | 1.5 mm        |
| Inlet and outlet hopper thickness | 1.25 mm       |

| <b>INCLINED AND CURVED CONVEYORS</b> |               |
|--------------------------------------|---------------|
| Chain speed                          | 0.54-1.19 m/s |
| Chain tensile strength               | 33 kN         |
| Intermediate profile thickness       | 1.5 mm        |
| Inlet and outlet hopper thickness    | 1.25 mm       |

## PRODUCTS: L-LINE

Belt and bucket elevators

SE 140 TVM

Bottom conveyors

KTFb

KTAAb

KTBU

Top conveyors

KTF

KTF/R

KTA

KTB

Discharge conveyors

KTG

DC Remover

DC Remover

Pipe system

Pipe system

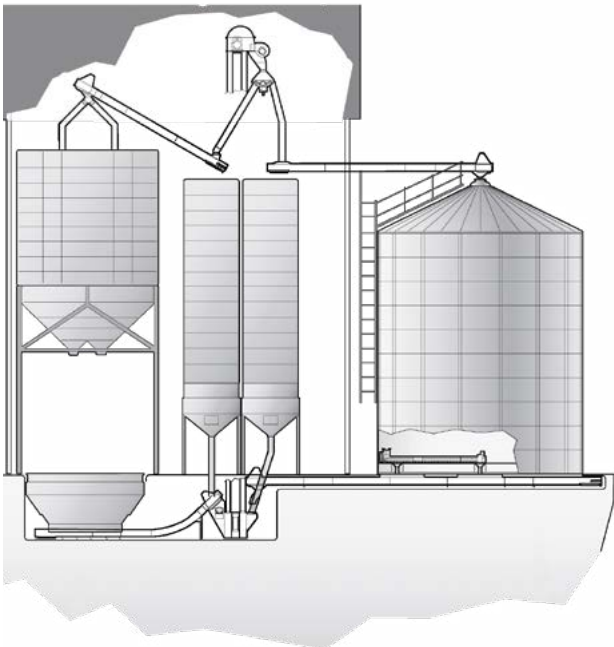
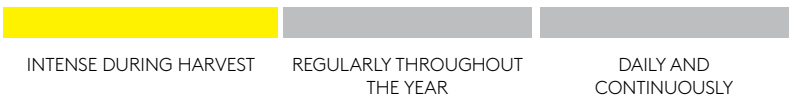
## CAPACITY



## GRAIN STORAGE SIZE



## OPERATING TIME





# I(Industry) - LINE

Products of the I series are designed for facilities with intensive year-round operation. This series is suitable both for medium and large farms as well as for commercial grain traders. The mid-range I (Industry) series of SKANDIA grain conveyors is suitable for commercial companies with year-round operation of up to 50,000 tons annually and transport capacity requirements of 40–150 t/h. The chain conveyors have a classic design, where grain is carried in square shafts by plastic (PEHD) paddles mounted on a robust high-strength chain. The L and I series include loading, unloading, and curved chain conveyors with elbows of 15°, 30°, and 45°, as well as inclined conveyors with high paddles, which operate at inclines up to 45°.

CAPACITY 40-150 tons

ELEVATORS

|                        |              |
|------------------------|--------------|
| Belt speed             | 3.1–3.3 m/s  |
| Bucket thickness       | 1.50–2.00 mm |
| Elevator leg thickness | 1.25–1.50 mm |
| Maximum height         | 33 m         |

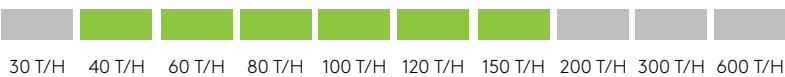
HORIZONTAL CONVEYORS

|                                      |                |
|--------------------------------------|----------------|
| Chain speed                          | 0.43–0.67 m/s  |
| Chain tensile strength               | 80 kN          |
| Drive unit housing (side and bottom) | 5.00 x 2.50 mm |
| Inlet and outlet hopper thickness    | 3.00 mm        |

INCLINED AND CURVED CONVEYORS

|                                      |                |
|--------------------------------------|----------------|
| Chain speed                          | 0.57–0.88 m/s  |
| Chain tensile strength               | 80 kN          |
| Drive unit housing (side and bottom) | 5.00 x 2.50 mm |
| Inlet and outlet hopper thickness    | 3.00 mm        |

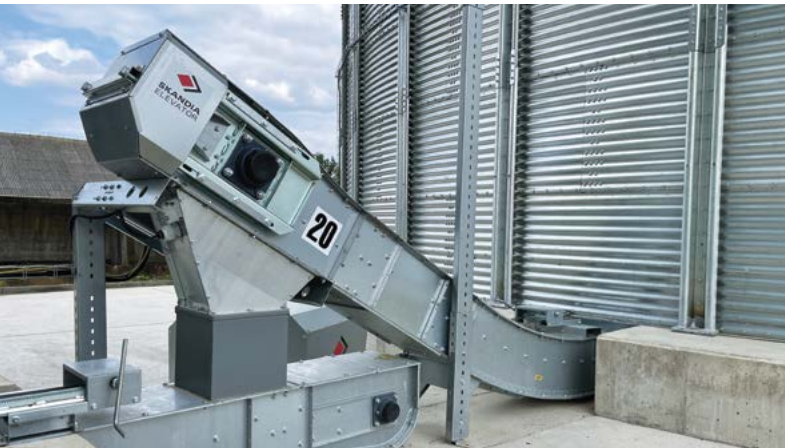
CAPACITY



GRAIN STORAGE SIZE

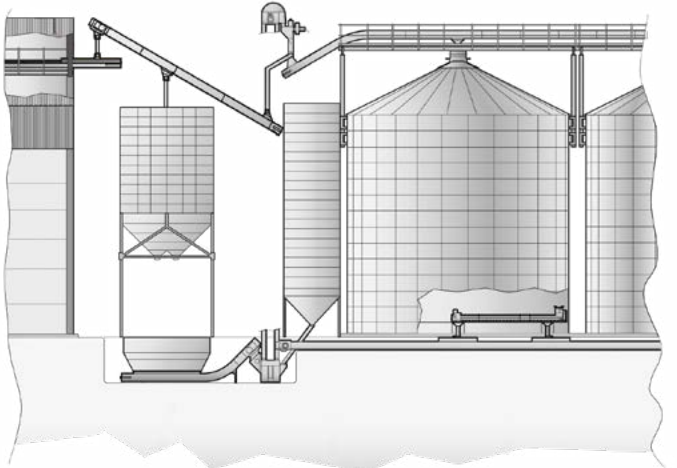


OPERATING TIME



PRODUCTS: I-LINE

- Belt and bucket elevators - SEI 35/14, SEI 50/18, SEI 50/23
- Belt conveyors - ZISZ
- Bottom conveyors - KTIFb, KTIBU
- Discharge augers - KTIS
- Top conveyors - KTIF, KTIF/FR, KTIA, KTIB
- Discharge conveyors - KTIFg, KTIG
- DC Remover - DC Remover
- Pipe system - Pipe system



# H(Heavy-Duty) - LINE

The H-LINE is developed to meet the strict requirements of the grain industry. The H (Heavy-Duty) series is designed for continuous year-round operation, for example in ports or railway terminals handling over 30,000 tons annually. Chain conveyors and elevators in this series are available with capacities ranging from 60 to 600 t/h. The construction of conveyors in this series is very robust and characterized by a long service life, primarily due to 8 mm thick plastic liners on contact surfaces in elevators and on the floors of chain conveyors. The H series also offers curved conveyors with capacities up to 200 t/h.

CAPACITY 60-600 tons

ELEVATORS

|                        |              |
|------------------------|--------------|
| Belt speed             | 3.1–3.3 m/s  |
| Bucket thickness       | 1.50–2.00 mm |
| Elevator leg thickness | 2.00 mm      |
| Maximum height         | 54 m         |

HORIZONTAL CONVEYORS

|                                      |                     |
|--------------------------------------|---------------------|
| Chain speed                          | 0.51–0.72 m/s       |
| Chain tensile strength               | 80–450 kN           |
| Drive unit housing (side and bottom) | 5.00–8.00 x 2.50 mm |
| Inlet and outlet hopper thickness    | 3.00–4.00 mm        |

INCLINED AND CURVED CONVEYORS

|                                      |                     |
|--------------------------------------|---------------------|
| Chain speed                          | 0.63–0.88 m/s       |
| Chain tensile strength               | 80–160 kN           |
| Drive unit housing (side and bottom) | 5.00–8.00 x 2.50 mm |
| Inlet and outlet hopper thickness    | 3.00 mm             |

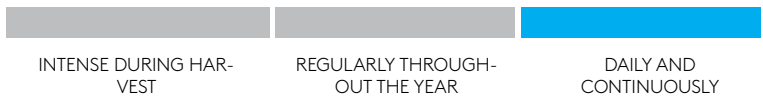
CAPACITY



GRAIN STORAGE SIZE



OPERATING TIME



PRODUCTS: H-LINE

- Belt and bucket elevators  
New generation 50/18, 50/23 & 63/30  
SEH 80/28–33
- Bottom conveyors  
KTHb, KTHBU
- Top conveyors  
KTH, KTHA, KTHB
- Discharge conveyors  
KTHg, KTHG





The JE-MA conveyors are a solution for material transport capacity of up to 60 t/h. Their advantage is high capacity at low energy consumption and very good design solutions. The principal company products are conveyors for grain, cereals, various seeds, granulates and fertilizers. The conveyors are fully galvanized and manufactured in compliance with the EU regulations. They include standard bucket elevators, screw conveyors, belt conveyors, and combined chain conveyors. JE-MA is a Danish manufacturer producing also intake hoppers and drive-over intake pits with a built-in steel trough, which is an integral part of the intake conveyor. In case of low groundwater levels we are able to make a lower double intake pit.

A very successful product of the JE-MA company is a chain conveyor with the possibility to change direction by 90 ° or 45 ° turn. The conveyor is made of a strong chain with rubber carriers that carry the grain in filled chambers. The change of direction is enabled by a special turn station which moves both the pulling and reversing part of the turn. T20 model's capacity is 20 t/h, T40 model's is 40 t/h.

T20 and T40 combined chain conveyors are made of standardized components of the modular system made of galvanized smooth sheets. The material is transported by a strong roller chain with riveted rubber carriers. The horizontal section may be adjusted to serve as an intake hopper. What makes these conveyors so special is the possibility of simultaneous



STOCKING SYSTEM WITH BELT CONVEYOR T51,  
AGRISAB S.R.O., RAKŠICE, CZ

horizontal and vertical transport of material under a single drive. Additionally, the entire transport of material takes place above ground so there is no need to dig the heel of the elevator into the ground. The drive options are a gear motor or gear with pulleys and V-belts.

The JE-MA T20/40 system combines an intake hopper with a discharge conveyor. The hopper can be standing on the ground or can be placed inside a pit (drive-over grids). The intake capacity is up to 40 t/h.

The T19V belt conveyors represent a modular system based on standard elements which, when properly combined, can be assembled into various transport systems. The advantages are small dimensions, low weight, varied assembly options and easy construction. T19V conveyors are suitable for horizontal or slightly rising transportation. Their performance ranges from 25 to 50 t/h. For higher performance the following models are available: T50, T51, T52 and BC400 with a capacity of 60, 105, 150 and 300 t/h respectively. The belts are oil-proof, chambers are made of galvanized coated sheets with plastic rollers. For larger inclination angles conveyors can be equipped with a belt with corrugation or a rake.

A standard JE-MA production program also includes bulk conveyor (T49, T57 and C300) and bucket elevators (T53, T54, T55 and E300) with capacity 60-225 t/h.



ANGLED CONVEYOR T40, ZEMPOL ČESKÉ MEZIŘÍČÍ, A.S.,  
ČESKÉ MEZIŘÍČÍ, CZ

**Nowadays, we often include a new element in our projects:** an innovative and unconventional technology for material transportation in silos, so called GRAIN PUMP by Hutchinson, a US manufacturer. This very simple and yet highly effective system has many advantages, such as gentle transport, high capacity and lower engine power requirements compared to traditional bulk conveyors or elevators. The indisputable advantage is also lower wear and tear compared to traditional conveyors. The grain pump is made of galvanized tubes, where inside there are circular plastic (polyurethane) carriers attached to a robust steel chain. The system is designed to be gentler to the grain. It is more grain-friendly than a traditional way of transport in which damage to the grain may occur when the grain falls from one conveyor to another. This has been proven by a research conducted at the Mendel University in Brno. When testing transportation of wheat, malting barley, rape seed and corn no damage to the grain has been found. For this technology PAWLICA Ltd. won the Grand Prix award at the Techagro exhibition.

The grain pump technology is designed to be flexible and easy to install. The conveyor is always installed above the ground so there is no need for costly and complicated construction work. Although it is an American technology it is installed with Czech engines and electrical components in the Czech Republic. Another advantage is its compliance with the EU standards.



HUTCHINSON - ZD ZÁHOŘÍ, VLASTEC, CZ

#### ADVANTAGES

- Capacities: 55 t/h, 108 t/h, 162 t/h, 270 t/h, and 486 t/h
- Easy installation and maintenance
- Automatic chain tensioning system
- Horizontal and vertical conveying with one or two motors
- Gentle handling of grain
- Lower investment requirements
- Discharge with servo drive or manual control
- Drive bend with Dodge motor and gearbox
- Industrial design with double chain and reinforced piping





SØBY LARGE-CAPACITY PUMPS SG 175 - ZEA, A. S., HOSTĚRADICE, CZ



ZEA, A. S., HOSTĚRADICE, CZ



The SØBY SG grain pump of Danish origin is a chain conveyor for transporting grain, consisting of a pipe housing a high-strength chain with synthetic paddles. The pump combines horizontal and vertical transport of grain and free-flowing materials in a single machine.

Its design is similar to the well-known Hutchinson systems but enhanced with practical features and adapted to meet European standards.

The SG60 grain pump replaces traditional conveying

systems, significantly simplifying most projects while reducing substructure costs, saving energy, and facilitating easier maintenance.

The SØBY grain pump is an ideal solution for silo filling and emptying, as well as for floor storage systems. Additionally, a single conveyor can be used to transfer goods between silos.

We offer SG60 models with a capacity of 60 t/h and SG100 models with a capacity of 100 t/h.



**STANDARD EQUIPMENT**

- Drive bend with gear motor and drive cover
- Drive system with NORD gearbox (chain speed 1.67 m/s)
- All bends made of galvanized steel, 4 mm thick for the SG60 model and 5 mm for the SG100 model, bolted together for easy maintenance
- Bottom bend with adjustable feet and inspection window

- Tensioning bend with adjustable feet and counterweight tensioning system
- Chain type: 81X for SG60/81XHH for SG100
- Backstop brake
- Guide pulley rotation sensor

**OPTIONAL EQUIPMENT**

- Inlet Q24/Q30
- Outlet Q20/Q24
- Intermediate outlet with 1.3 m opening, manually or electrically operated
- Silo discharge, manually or electrically operated
- Platform, tower structure, supports, and walkways
- Chain with paddles for quiet operation

**MATERIAL THICKNESS**

- Bends: 4 mm/5 mm
- Pipe: Ø168/Ø205 x 3 mm
- Tensioning section: 4 mm/5 mm
- Paddles: 10 mm

**CAPACITY**

- SG60: 60 t/h
- SG100: 100 t/h
- Based on dry and clean material, 750 kg/m³



# STEEL STRUCTURES

Intake and Dispatch Hall





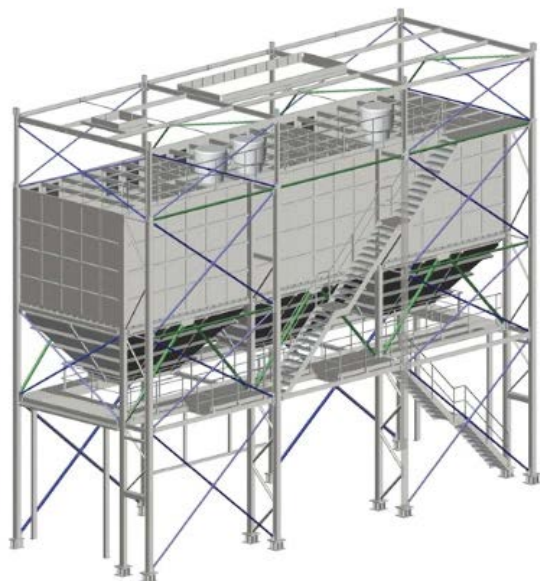
## STEEL STRUCTURES

Most PAWLICA Post-Harvest Lines combine the intake and dispatch points under one hall. The intake pit with a drive-over grate, featuring a drive-through width of 4.4 m, allows for easy side or rear tipping. The length of the grate is designed individually. The grate is fully open, without “dead” zones, meaning that after unloading, only minimal manual cleaning of the pit area is required. Below the grate is a steel hopper with an integrated intake chain conveyor (redler). In cases of high groundwater levels, we install shallow twin pits with the same width.

Adjacent to the intake pit are dispatch hoppers with a square base of 4 x 4 m, conical discharge, and a clearance height of at least 4.2 m. Each hopper typically holds 30 t or 60 t of material, allowing for direct loading of one or two trucks. Dispatch hoppers can be equipped with load cells for accurate weighing of the dispatched goods.

The surface treatment of the hoppers includes anti-corrosion coating, and the entire intake and dispatch hall is clad with trapezoidal AlZn sheet metal. The hall is fitted with roll-up or sectional doors.

Other important steel elements of the PAWLICA post-harvest lines include walkable connecting walkways, platforms under grain cleaners, and elevator towers with staircases to ensure convenient access for operators to all key areas of the line. Walkways and towers are hot-dip galvanized.



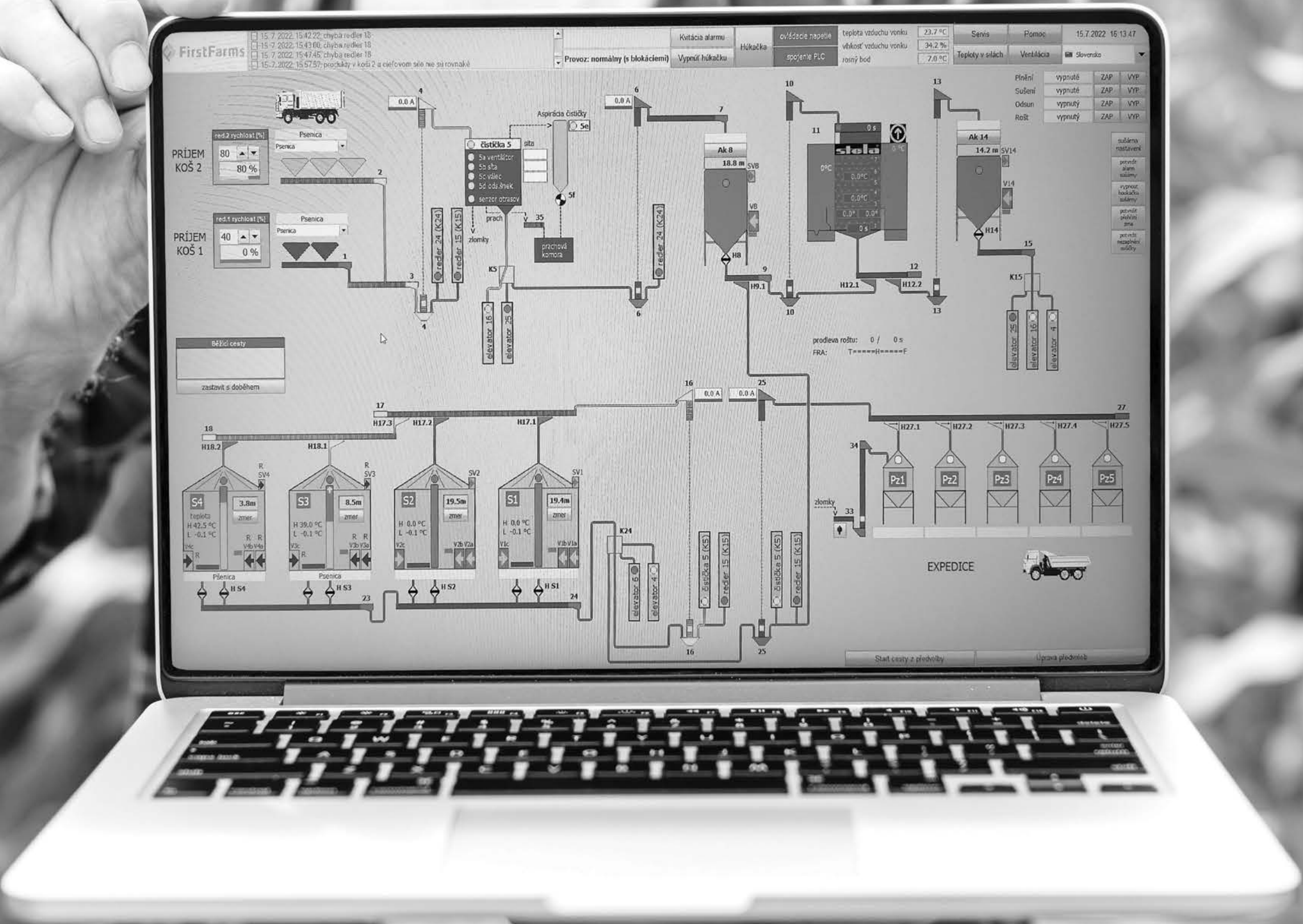
STEEL TOWER STRUCTURE WITH STAIRCASE,  
FIRSTFARMS AGRA M S.R.O., MALACKY, SLOVAKIA



DISPATCH HOPPERS WITH LOAD CELL SCALES – ÚSOVKO A.S., ÚSOV, CZ



# PAWLICA CONTROL SYSTEM





PAWLICA AUTOMATIC CONTROL SYSTEM

The post-harvest lines supplied by our company are controlled using two main systems – either a push-button panel with a process diagram on the control cabinet door or a computer-based system. Regardless of the control method used, each drive is equipped with a so-called local bypass box, allowing the operator to shut down any drive, operate it manually, or switch it back to automatic mode in case of system failure. All possible fault conditions are monitored in both systems and are indicated using both visual and acoustic signals.

PUSH-BUTTON CONTROL SYSTEM WITH PROCESS DIAGRAM ON CONTROL CABINET DOOR

This is the simplest semi-automatic control system, where the operator selects a preset program using buttons on the control cabinet. The system is equipped with interlocks to prevent undesired states and fault signaling. Silo temperatures are read manually using a reading module that can be easily connected to the silo thermometer cables.



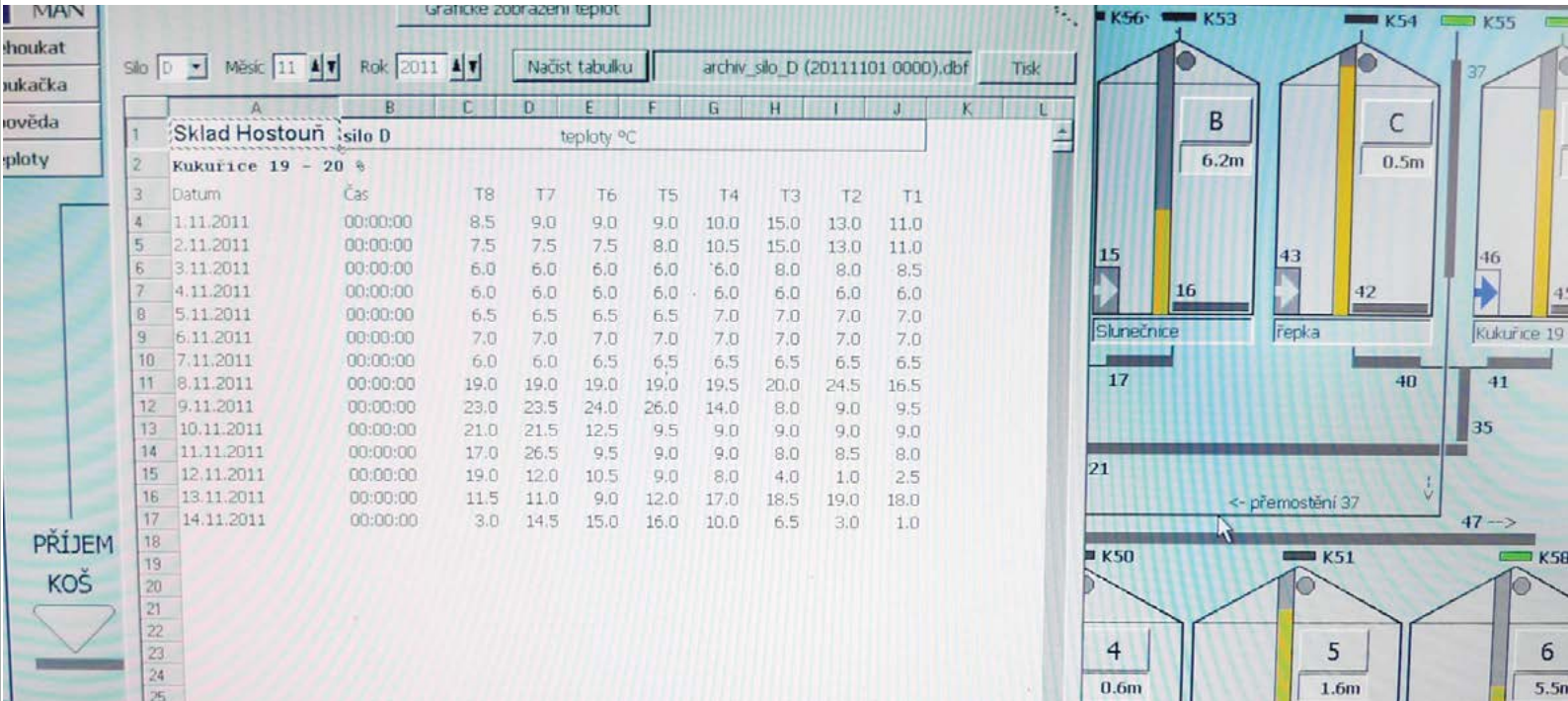
PC-BASED CONTROL SYSTEM

This is the most advanced control system, where the operator launches the selected program by clicking on the control diagram displayed on a PC monitor in the control room. The system is programmed precisely according to the investor’s needs and preferences. All necessary data and statuses are continuously monitored and recorded.

The operator can view and evaluate key data directly on the PC screen, such as the current silo fill levels,

grain temperatures inside the silo, as well as outdoor temperature and humidity. Ventilation is automatically controlled based on current outdoor conditions—temperature, humidity, and time—with the goal of minimizing temperature differences between the inside and outside of the silo to prevent condensation and thus avoid grain spoilage.

Important status updates can also be accessed remotely, for example via mobile devices. Remote access is also used for immediate service interventions and fault monitoring to identify potential malfunctions.





# LABORATORY EQUIPMENT

Vehicle Sampling Systems

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Grain Grading Instruments

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VEHICLE SAMPLING SYSTEMS



RAKORAF - SHR FRANTIŠEK JANOVSKÝ, JAROŠOVICE, CZ

AUTOMATIC TRACK SAMPLER RAKORAF AND RAKORAF 2 LINEAR

The RAKORAF CEE Core Sampler is the fastest and easiest method to take an accurate sample from an open trailer. The sample is taken while the trailer is still on the weighbridge. The telescopic arm with the core tube can be extended or retracted, be turned horizontally 0 to 350 degrees, and can also be raised or lowered vertically. When the core tube is forced downward into the load, the grain, due to the down pressure, is pushed upwards into the inner chamber of the core tube and carried to the receiving chamber located in the weighbridge office via steel and plastic tubing.

The compact handheld remote control which has all moving functions in one handle can activate up to 3 moving functions at the same time. The remote control

speeds up the operation and it is possible to take 5 samples in 40 seconds. The joystick is connected to the sampler with a single multiplug and if required you can replace your old type push button unit very simply. Push button for working lamp and horn. The sampling procedure with a RAKORAF 2 LINEAR Core Sampler is the fastest and easiest method to take an accurate sample from an incoming batch.

SAMPLE SPEAR PFEUFFER

Mechanical samplers are used for obtaining average samples. They allow the sampling up to a depth of 2 m. Mechanical sample spear Pfeuffer can be used in all possible storage places of cereals and pellets, like granaries, storage halls, trucks, railway waggons and similar.

RAKORAF ADVANTAGES

- Correct sampling – no vacuum cleaner effect
- For any flowable product
- Well tried and tested
- Fair to both buyer and seller
- Leading in Europe
- Patented Model Sample

SPEAR PFEUFFER RAKORAF 2 LINEAR ADVANTAGES

- Sampling range of up to 18.8 m x 8.8 m
- Construction on columns or wall bracket
- Proven and patented Rakoraf sampling technique
- Easy-to-use remote control
- Fast installation
- Suitable for all kinds of grains like cereals, oil seeds and starch crops

MOISTURE METERS

Pfeuffer capacitive moisture meters are devices designed to measure the moisture content of whole grains. They use a practical reference method in accordance with the ČSN ISO 712:2003 standard.

GRANOMAT PLUS

Granomat Capacitive Moisture Meter designed for post-harvest lines can measure all cereals, legumes, oilseeds, corn, and malt. The sample volume for analysis is 600 ml, and the device can store up to 100 different calibrations in its memory.

Granomat measures the capacitance (dielectric constant) of the inserted grain sample. It determines the sample’s moisture content, bulk density (hectolitre weight), and temperature. The sample is not ground before insertion into the device probe. The measurement is fully automatic: the operator simply places the sample into the device hopper, selects the product on the display, and starts the measurement. Sample identification can also be entered.

The Granomat automatically draws the required sample amount into the measuring probe, ensuring consistent bulk density. Then, a levelling device evens the sample surface to guarantee an accurate sample volume. The measurement of capacitance, density, and temperature is completed within seconds. The sample is then automatically discharged into a drawer for further analyses if needed.

The Granomat displays moisture (%), bulk density (kg/hl), and temperature (°C) results on the screen, which can be printed using the built-in printer or sent to a PC.

Key features:

- Fully automated measurement process
- Easy operation
- Accurate measurement results
- Measures whole grains (no grinding needed)
- Integrated printer
- Approved for use in many countries
- Measurement ranges depending on product: 3% to 46% moisture
- Modular device configuration



HE 60 & HE 90

Moisture meters HE 60 and HE 90 are suitable for the moisture measurement of almost all types of cereals. Both instruments can also be used especially for flours and coarse meals. A total number of more than 200 product calibrations is available. Grind a sample of 20 ml by means of the hand mill. The samples fall directly into the measurement cell without being heated. Screw in the top section of the measurement cell as far as the stop. The homogeneous press cake guarantees a consistently high accuracy. Select the product by pressing the corresponding key. After 30 seconds the exact measurement result appears on the display. Correction of the temperature are made automatically by the HE’s themselves.

- Measurement method
- Automatic temperature correction
- Official approval
- Ease of servicing
- More than 200 product calibrations is available



## MOISTURE METERS

### HE50 SPECIAL

The HE50 SPECIAL operational moisture meter is ideal for use with dryers and for agronomy applications. Besides all types of grains, it can also measure flour, dried products, pellets, and hops. With an optional temperature probe available in lengths of 1 m, 1.5 m, and 2 m, it can measure the temperature inside bulk materials.

- World standard for operational moisture measurement
- Easy to operate
- Reliable results
- Automatic temperature correction
- Measurement range up to 40% moisture
- 10 calibration channels (wheat, barley, malting barley, rye, oats, triticale, peas, corn, sunflower, rapeseed, mustard, poppy, faba bean, red clover)
- 4 selectable channels from pre-set calibration curves
- Certified by the Czech Metrology Institute (ČMI) Brno

### HE50 BT

The HE50 STANDARD moisture meter can measure moisture not only in all types of grains but also in flour, dried products, pellets, and hops. A 9 ml grain sample is placed into the probe, which is then tightened to crush, homogenize, and compress the sample. After selecting the product type and starting the program, the final measurement results are read directly from the display. With an optional temperature probe of 1 m, 1.5 m, or 2 m length, the temperature inside bulk material heaps can also be measured.

- World standard for operational moisture measurement
- Easy to operate
- Reliable results
- Automatic temperature correction
- Measurement range up to 40% moisture
- 14 calibration channels (wheat, barley, malting barley, rye, oats, triticale, peas, corn, sunflower, rapeseed, mustard, poppy, faba bean, red clover)
- Certified by the Czech Metrology Institute (ČMI) Brno



### HE LITE

The HE LITE has been especially designed for controlling the moisture on the field during the threshing process and for checking the moisture absorption inside the combine-harvester. The HE LITE is used for the regular moisture measurement during the drying process and during the storage to avoid losses in quality. The HE LITE is suitable for the moisture determination of cereals, oilseeds and humid maize. The integrated measurement cell of the HE LITE is based upon the Pfeuffer-principle proven for more than 40 years.

- High measuring range
- Easy menu operation
- Proven principle of measurement
- Possible adjustment of calibrations
- Averaging
- Favourable price



### GRANOLYSER HL

The NIR analyzer GRANOLYSER HL is an advanced successor to the older GRANOLYSER model, now equipped with a weighing system to determine hectolitre weight. The GRANOLYSER HL essentially functions as a complete laboratory suitable for analyzing field samples. Its result determination system is based on the principle of measuring a diode array.

This method is suitable for assessing the quality of all cereals, seeds, legumes, and oilseeds. It operates in a wavelength range of 950 to 1550 nm with high sensitivity, providing precise results for moisture

content, protein content (N-substances), oil content, hectolitre weight, sedimentation index (Zeleny test), gluten content, and starch content.

- Wide measurement range
- Easy menu configuration
- Proven measurement principle from HE50
- Calculation of average values
- Calibration capability
- Newly improved user-friendly interface





### SORTIMAT

SORTIMAT is efficient and rapid laboratory screening machine for the grain trade, stores, maltsters, breweries, laboratories and mills. The SORTIMAT is suitable for carrying out the sorting (according to EBC-method, MEBAK 2.3.1) and for determination of the boldness of brewing barley. It supports the Besatz determination (according to ICC standard 102/1 and 103/1) of wheat, barley and rye. Further possible applications are the control of pre-cleaning machines and vacuum dust extraction plants.

- Determination of the boldness of brewing barley
- Quality assessment of cereals
- Available with 3, 4 or 5 sieves
- Solid construction
- Long service life
- Maintenance-free



### MLN/SLN SAMPLE CLEANER

The sample cleaner is very versatile and can be used on a wide range of products ranging from oil seed rape to maize and beans. We offer model MLN with straw and sand sieve and model SLN3 with additional sorting sieve. Selection by sample gives an accurate assessment of the total consignment. Selection based on sample makes it possible to accept quality grain or alternatively reject that which does not meet the specified standards at intake. The identification of quality and type of impurities in a consignment and the actual grain size is important when selecting suitable grain for seed, malting barley, intervention etc. A similar standard of cleaning as that on cereals can be achieved on peas, beans and more difficult products such as sunflower seeds etc. A large feed hopper can be supplied to enable the cleaner to be used for the separation of pedigree seed from experimental yields.

**MLN model** is equipped with deawner, aspiration and sieves for straw and sand.

**SLN model** checks impurities and grade. SLN3 has one additional grading sieve with ball cleaning system. SLN4 has two additional grading sieves with ball cleaning system.

- Practical use during harvest season
- Fully automatic cleaning – no maintenance.
- The screens are self-cleaning being equipped with the well proven ball cleaning system.
- New locking system for sieves secure quick change of sieves.
- Vibration free operation.



### FRIABILIMETER – MALT ANALYSIS

The FRIABILIMETER allows an easy and fast determination of the brewing value of malt in the practice, immediately after kilning. Irregularities during the malting process can be detected and corrected. The brewery can determine the malt quality immediately upon delivery and apply consistent malt blends accordingly. This avoids unnecessary problems. A malt sample of 50 g ± 0,01 g is weighed and filled into the FRIABILIMETER. Then the instrument is switched on, the lateral pull handle is pulled downwards and

locked into the bottom stop notch. After 8 minutes the instrument switches off. The glassy malt parts, which remained inside the sieve drum are weighed and the friability value referred to 100 % is calculated.

- Fast and easy analysing method
- Practice-oriented determination of the brewing value
- Simplifies the malt analysis
- Robust and solid construction





## CONTADOR – Seed counter

CONTADOR counts and fills all seeds from 0,3 mm up to 15 mm. The feed container is held in place by an electromagnet and vibration induced during counting. The material to be counted reaches the outlet and falls into the receptacle through a photoelectric counter.

- High counting speed
- Precise count
- Easy to use
- Quiet operation
- Flexible



## HECTO CHONDROMETER 0.5 L – Hectolitre measuring system

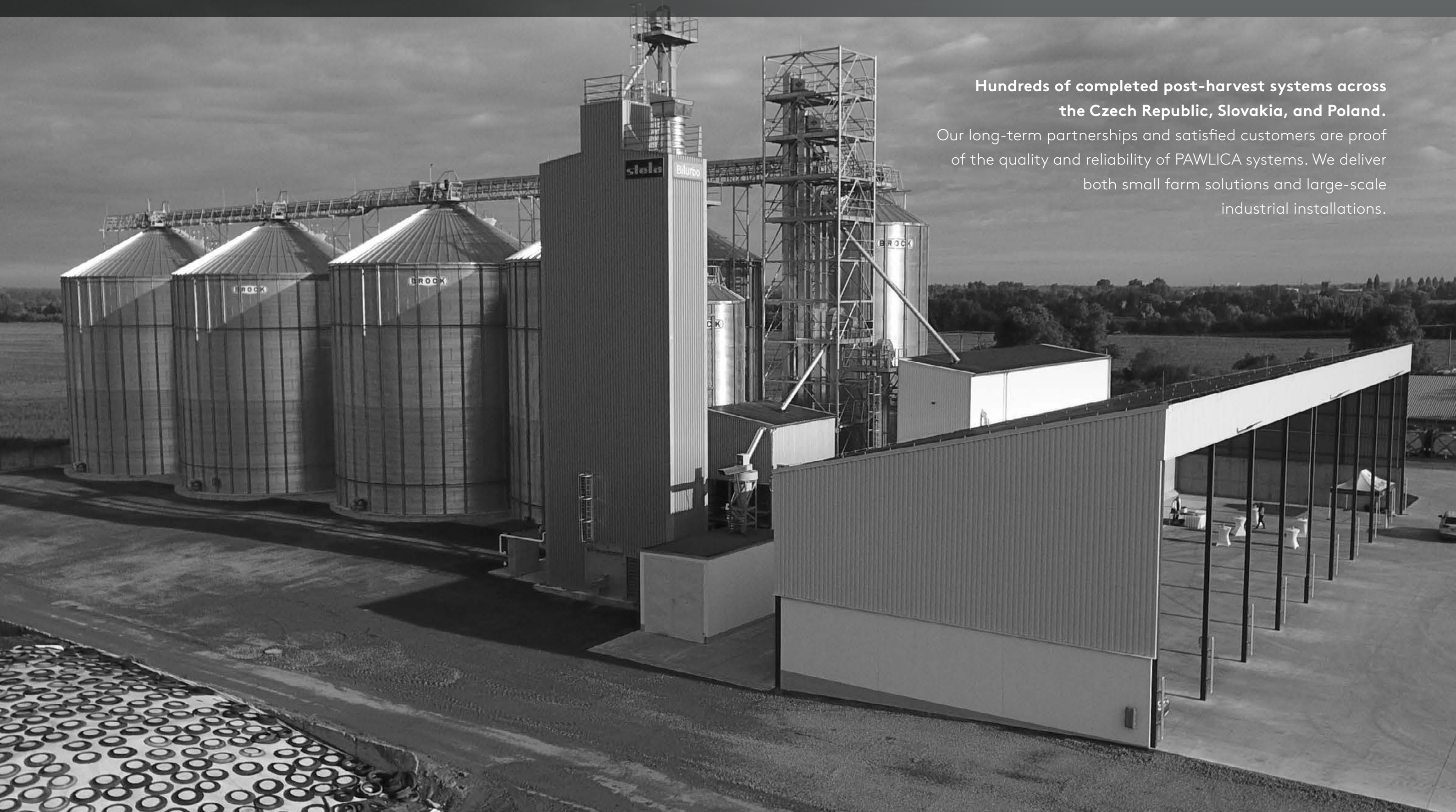
A sample falls with the forerunner into the CHONDROMETER. The content is weighed with the plastic container on a compact digital balance. Then the determination of the hectolitre weight (kg/hl) of the single cereals is carried out by means of the correction chart. Due to the economic price this instrument is suitable especially for farmer, grain acceptance, universities and field tests.

- Sturdy construction (stainless steel)
- Easy handling
- Handy and independent from the mains
- Well arranged in a compact suitcase
- Exact measuring values
- Good reproducibility
- Up to five times quicker than conventional mechanical determinations





## REFERENCES



**Hundreds of completed post-harvest systems across the Czech Republic, Slovakia, and Poland.** Our long-term partnerships and satisfied customers are proof of the quality and reliability of PAWLICA systems. We deliver both small farm solutions and large-scale industrial installations.



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AGRO JESENICKO A.S., JESENÍK NAD ODROU, CZ  
3 × FRAME FPN 18/11 SILO WITH A CAPACITY OF 5,503 T, SØBY SG100 GRAIN PUMP



ZD UNČOVICE, UNČOVICE, CZ  
7 × BROCK EVEREST SILO 13,650 T, SKANDIA I-150 T/H CONVEYORS



AGRA OLBRAMOVICE, A.S., OLBRAMOVICE, CZ  
12 × BROCK SILOS WITH HOPPER BOTTOM, TOTAL CAPACITY 3,600 T, JEMA CONVEYORS 120 T/H, 50 T/H



REFERENCES





REFERENCES





REFERENCES



ZD KŘÍŽANOVSKO, KŘÍŽANOV, CZ  
3 × SILO BIN 1,626 T, RVS 60 CLEANER



PREMIUM PELLETS S.R.O., GOLČŮV JENÍKOV, CZ  
BELT DRYER STELA BTLU CASCADE DRY 1/3 000-30



AGRICULTURAL COOPERATIVE PRAŠICE, VELKÉ BEDZANY, CZ  
4 × SILO BIN 6,700 T, STELA MDB-XN 1/7-S DRYER



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4 × SILO BROCK, 19 × SILO BIN TOTAL STORAGE CAPACITY 28,000 T



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4 × SILO BROCK 9,950 T, CLEANER RVS 120



ZD TĚŠETICE, TĚŠETICE, CZ  
3 × SILO BIN 1,890 T, SKANDIA CONVEYORS 80 T/H



RENOFARMA TROUBKY, A.S. TROUBKY, CZ  
7 × SILO BROCK 12,000 T, DRYER STELA GDB-TN 1/9 S, CLEANER RVS 100



## CONTACT & COMPANY INFO

Thank you for your trust.  
We look forward to helping you build  
or modernize your post-harvest technology.

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**PAWLICA®**

**GENERAL CONTRACTOR FOR TURNKEY POST-HARVEST FACILITIES**, INCLUDING DESIGN,  
BUILDING PERMIT PROCUREMENT, MECHANICAL ASSEMBLY, ELECTRICAL INSTALLATION  
AND AUTOMATION, COMMISSIONING, WARRANTY AND POST-WARRANTY SERVICE.