

Voronezhselmash today is

one of the leaders on the market of grain-cleaner technique. During the last two years it developed and launched the production of five new grain-cleaners: SVU-60, SVT-40, SVT-30, SPO-100, SPS-10. The new machinery, oriented at production release which matches the high world demands, was built up at the plant thanks to assimilation of advanced technologies.

Our market is the market of successful, profitable and modern grain production.

Our niche is the whole processing chain, from spike to food processing.

Our client is the owner of grain business, regardless of its scale.

Our mission is to make the client's business profitable.

Main goal of our work is

to meet consumers' requirements and expectations at Russian and international markets with the help of continuous quality improvement of producing and supplying grain-cleaner machinery.

According to this our strategy is

to support and strengthen the reputation of "Voronezhselmash" as a reliable producer and supplier of grain-cleaner machinery at the developed and new sales markets;

to detain and expand the plant position in national production and at the grain-cleaner machinery market.



Voronezhselmash: production

New family of high-productive cleaners:

- universal cleaner SVU-60 (pre-cleaning (60t/h), intensive cleaning (40t/h) and final seed cleaning (20-t/h)
- commercial grain cleaner SVT-40 (pre-intensive cleaning)
- intensive cleaner SVT-30 (pre-cleaning (50t/h), intensive cleaning (30t/h)
- pre-cleaner SPO-100 (pre-cleaning with productivity of 100t/h)
- pneumatic sorting cleaner SPS-10

Self-moving machinery:

- self-mobile cleaner OVS-25 (pre-intensive cleaning with productivity of 25t/h).
- self-mobile final cleaner MS-4.5
- self-mobile advanced grain thrower (loader) PZM-80 (productivity 80t/h)

Stationary equipment for grain barn-floors:

- cleaner OVS-25S
- pre-cleaner MPO-50
- intensive cleaner ZVS-20A
- final cleaner MS-4.5S
- trier battery PT-600

Grain floor equipment:

- Bucket conveyors, grain pipes, aspiration systems, control panels

Spare parts list includes more than 1,000 items for grain cleaning machinery

By the way

SVU-60 is called by consumers of grain cleaning machinery as Russian analogue of Petkus.

New family of high production cleaners



SVU-60

UNIVERSAL
CLEANER

- pre-intensive and final grain cleaning
- installation in current grain floors without essential changing in power construction of these facilities
- quality grain cleaning because of machine engineering features
- adjustability to any grain humidity and impurity
- good for all agricultural climate zones

Specifications

Name	Measuring unit	Value
Output		
pre- cleaning	t/h	60
intensive cleaning	t/h	40
final cleaning	t/h	20
specified capacity	kW	18.7
weight	kg	4,000
Dimensions		
length	mm	3,940
width	mm	3,210
height	mm	3,080
screens total area	m ²	17.5

Mechanism

Feeding device

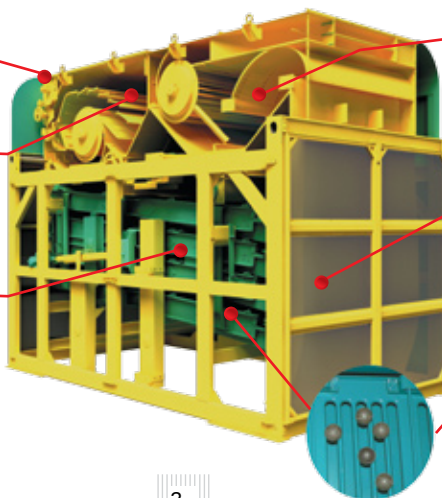
Contains spiral conveyer for even grain distribution along the width of feed chamber.

1st aspiration system

Bitter for active grain throwing into the air channel. Diametric 24-wing ventilator. Light impurities (straw, spikelets) are removed with the air flow into sediment chamber and store there.

Screen cases

4 parallel operating cases consisting of 36 screens of 3 different types and dimensions for cleaning, sorting and separation of black besatz, fine, feeble grain and large impurities



2nd aspiration system

Diametric ventilator, pneumatic duct, sediment chamber. Effectively removes feeble grain and dust. It is purposed for final grain and seeds cleaning.

Air column

Intensive pneumatic grain aspiration purposed to separate feeble and damaged grain, as well as light impurities that weren't removed at the 1st aspiration system.

Screen cleaners

Rubber balls made of special material for effective cleaning of screen plates.



- NEW FAMILY OF HIGH PRODUCTION CLEANERS

SVT-40

COMMERCIAL GRAIN CLEANER

Specifications

Name	Measuring unit	Value
Output		
pre-cleaning	t/h	60
intensive cleaning	t/h	40
specified capacity	kW	11.7
weight	kg	3,600
dimensions		
length	mm	3,880
width	mm	2,285
height	mm	2,810
screens total area	m ²	17.5

- intensive cleaning of spicates, cereals, legumes seeds, as well as technical, oil and hay seeds from light, large and small litter and grain besatz
- pre-cleaning of above mentioned seeds coming directly from combine harvesters and other grinding devices from light, large and small grain besatz
- installation in technological lines of seeds and grain postharvest treatment, as well as in warehouses
- good for all agricultural climate zones

Mechanism

Feeding device

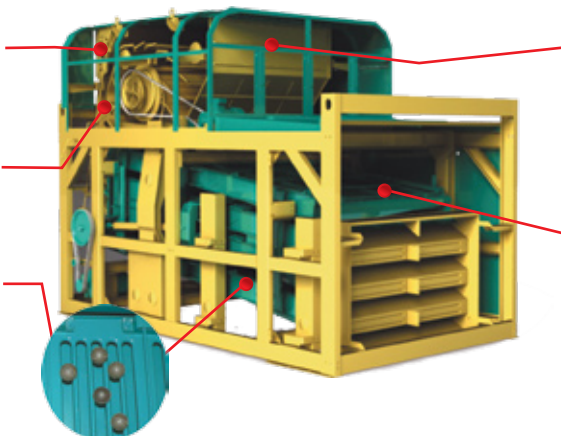
Contains spiral conveyor for even distribution of grain along the width of aspiration system feed chamber.

Distribution device

Divides grain to 4 equal parts after cleaning in aspiration system and drives every part on screen cases.

Screen cleaners

Rubber balls made of special material for effective cleaning of screen plates.



Aspiration system

Bitter for active grain throwing into the counter air flow. Diametric 24-wing ventilator creating powerful air flow regulated with louver damper. Sediment chamber for storing light impurities removed from grain material.

Screen cases

4 parallel operating cases consisting of 36 screens of 3 different types and dimensions for cleaning, sorting and separation of black besatz, fine, feeble grain and large impurities.



- NEW FAMILY OF HIGH PRODUCTION CLEANERS

SVT-30

INTENSIVE CLEANER

Specifications

Name	Measuring unit	Value
Output		
pre-cleaning	t/h	50
intensive cleaning	t/h	30
specified capacity	kW	9.2
weight	kg	3,000
Dimensions		
length	mm	3,660
width	mm	2,905
height	mm	2,920
screens total area	m ²	21.3

- intensive cleaning of spicates, cereals, legumes seeds, as well as technical, oil and hay seeds from light, large and small litter and grain besatz
- pre-cleaning of above mentioned seeds coming directly from combine harvesters and other grinding devices from light, large and small grain besatz
- installation in technological lines of seeds and grain postharvest treatment, as well as in warehouses
- good for all agricultural climate zones

Mechanism

Feeding device

Contains spiral conveyor for even distribution of grain along the width of aspiration system feed chamber.

Distribution device

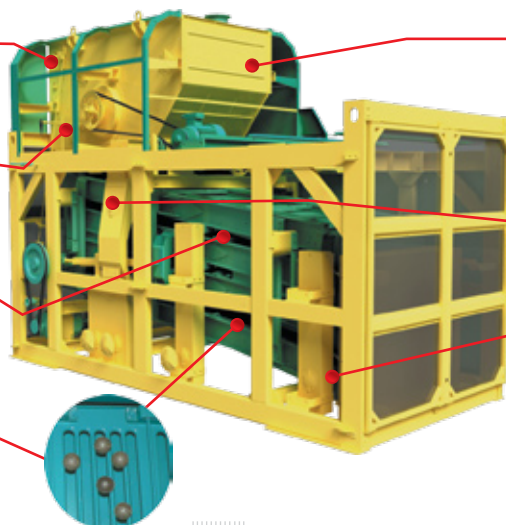
Divides grain to 4 equal parts after cleaning in aspiration system and drives every part on screen cases.

Screen cases

4 parallel operating cases consisting of 36 screens of 3 different types and dimensions for cleaning, sorting and separation of black besatz, fine, feeble grain and large impurities.

Screen cleaners

Rubber balls made of special material for effective cleaning of screen plates.



Aspiration system

Bitter for active grain throwing into the counter air flow. Diametric 24-wing ventilator creating powerful air flow regulated with louver damper. Sediment chamber for storing light impurities removed from grain material.

Screw-type conveyor

For sending away light impurities from the aspiration system.

Clean grain receiver

For gathering of grain cleaned at the screen cases.

Competitive advantages

SVU-60
SVT-40
SVT-30

1

1. Combination of distributing conveyor and throwing bitter provides even distribution of grain and increases the aspiration system operational efficiency. This happens due to grain flow speeding and throwing under optimum angle into the air flow.

2

2. Diametric 24-wings ventilator creates powerful and even air flow resulting efficient grain cleaning because of aerodynamic proprieties of the device. This is an advantage comparing to centrifugal ventilators that create a great irregularity of the air flow.

3

3. In the cleaner model SVU-60 the aspiration systems are independent to each other: if you regulate one aspiration system it has no influence to operation of another. This feature simplifies the cleaner adjustments.

4

4. Ball system for screens cleaning is reliable, efficient and simple in exploitation. Absence of blind zones because of the original patented construction provides larger working screen area. Ball cleaning system also effectively operates with very dirty and damp grain because of rationally firm construction of ball pallet.

5

5. Large specific area of screens and rational three-screened single-staged construction of screen cases provide qualitative size separation unlike less effective classical four-screened two-staged construction of screen cases.

6

6. Each screen area is reduced by half compared to classical screen design. Screens are installed in hard frames. These features provide screens hardness and flatness and increase separation efficiency.

7

7. Inner and outer cases oscillate in anti-phase. Such a work cinematic of screen cases decreases a cleaner vibration compared to majority of traditional cinematic schemes.

8

8. Cleaners are designed fully closed that results noise and dust reduction.

9

9. Hanger rods and silent blocks of screen cases are made of composite materials that provides huge operating resource.

10

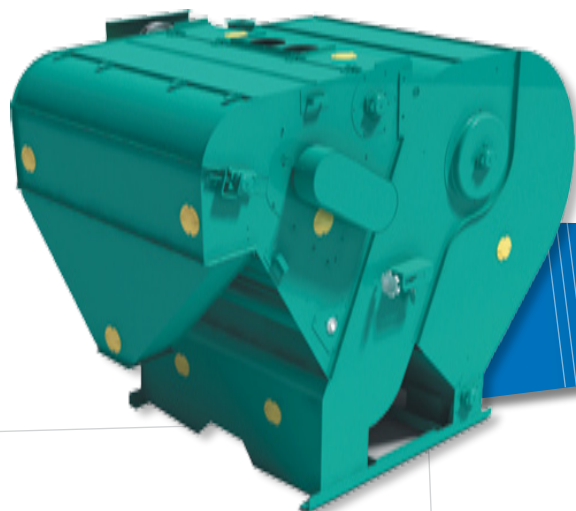
10. Specific energy intensity of the cleaners is small.

11

11. Specific steel intensity compared to other specified class machines is small.

12

12. Good for all agricultural climate zones.



- NEW FAMILY OF HIGH PRODUCTION CLEANERS

SPO-100

PRE-CLEANER

Specifications

Name	Measuring unit	Value
Output		
with humidity of 20% and impurity containing of 10%	t/h	80
specified capacity	kW	11
weight	kg	1,290
Dimensions		
length	mm	2,950
width	mm	1,940
height	mm	2,125

- pre-clears grain, cereals, legume seeds, corn, sorgho and sunflower coming directly from fields
- can be installed in stationary process lines at all climate agriculture zones

Mechanism

Diametric ventilator

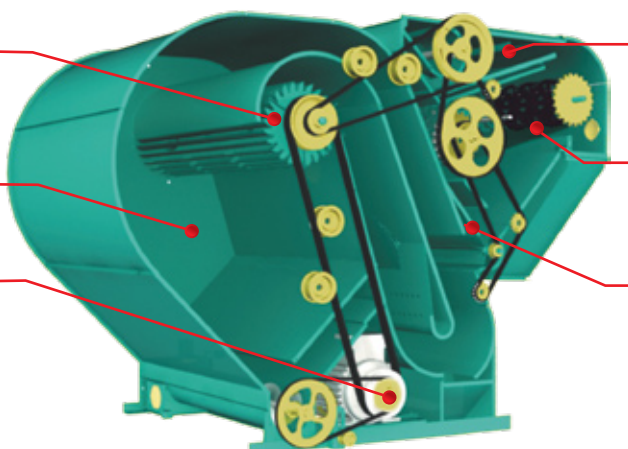
24-wing ventilator creates powerful air flow with an ability of rough and fine power adjustment.

Aspiration system

Removes light and small impurities.

Electric drive

Capacity 11kW.



Feed chamber

Feed screw conveyor providing even distribution of grain flow.

Screen feeder

For big impurities removing (straw, spikelets).

Bitter

Active grain throw in air flow of aspiration system.



- NEW FAMILY OF HIGH PRODUCTION CLEANERS

SPS-10

PNEUMATIC SORTING SEPARATOR

Specifications

Name	Measuring unit	Value
Output		
preparation of marketable grain with humidity up to 18%, foreign grain content up to 10%, trash up to 3%	t/h	10
final cleaning with humidity up to 16%, waste products content up to 5%	t/h	5
installed total capacity	kW	1.25
mass	kg	1,100
Overall dimensions		
length	Mm	4,035
width	Mm	1,574
height	mm	2,955

- final no-sieve cleaning of grain, spiked cereals, groat and pulse crops, technical and oil-bearing crops and hayseed from waste products
- use for preparation of commercial (bread) grain with bringing it up to basic marks
- can work in a combination with machines which transport raw material and intermediate cleared fraction. Can be installed into post-harvest processing lines (grain-cleaning aggregates and grain-cleaning and drying complexes), as well as into special lines warehouses in all agricultural zones

Equipment

Feed bin

With vibro flow for even grain distribution

Aspiration system

Creates directional air flow, turns on 2 radial fans. Mechanism of air speed regulation and lattice block for equalization of air flow

Dusty air outlet

Work chamber

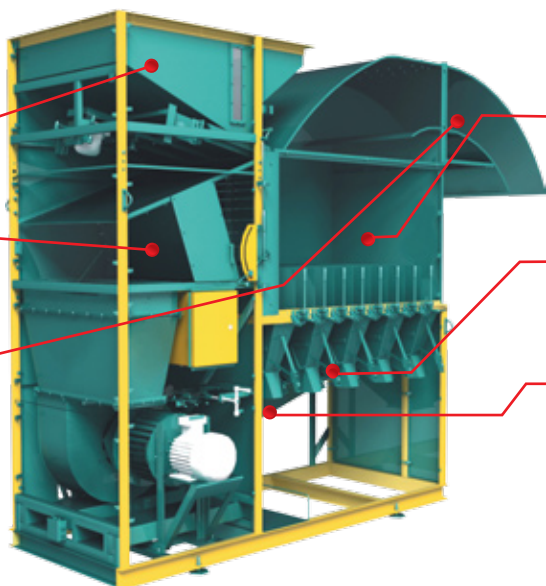
For division of grain into large, light admixtures, forage, marketable grain, using characteristics of relative density and aerodynamic resistance.

Fraction collector

With trays for large, light, main and intermediate fractions, marketable grain and seed grain.

Intermediate fraction bin

For collection of intermediate fractions before re-handling.



Self-mobile equipment



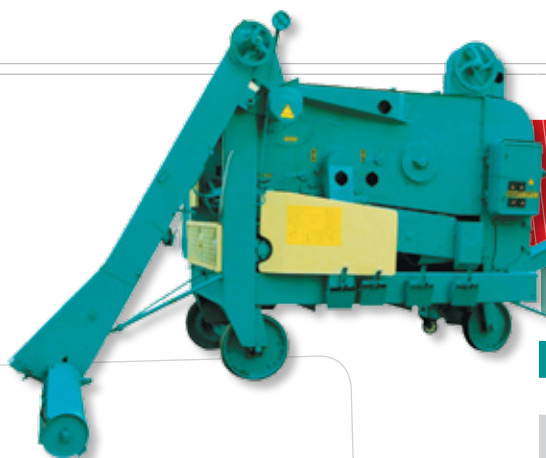
OVS-25

SELF-MOBILE CLEANER

Specifications

- pre- and intensive cleaning of grain, spiked cereals, groat and pulse crops, corn, sorghum, sunflower and rapeseed, incoming directly from field. Cleans from admixtures on open barn-floors of all agricultural zones
- pre- cleaning of sugar beet seeds and castor-oil plant seeds with a use of optional parts
- possible to use for grain shoveling in clamps of 4.5 m width

Name	Measuring unit	Value
Output		
nominal output per hour of prime time on wheat with volume weight 760 gram/liter:		
on pre- cleaning with humidity up to 20% and trash fraction up to 10%;	t/h	25
on intensive cleaning with humidity up to 16% and trash fraction up to 10%	t/h	12
mass (maximum)	kg	1,840
installed capacity (maximum)	kW	9.5
Overall dimensions in on-position		
length	Mm	5,090
width	Mm	6,200
height	Mm	3,280
width of ring capture	Mm	4,280
life time	years	8



MS-4,5

SELF-MOBILE FINAL CLEANER

Specifications

- cleaning of grass seed, grain, pulse, technical and oil-bearing crops
- installation on open bran-floors or in warehouses in all climatic agricultural zones

Name	Measuring unit	Value
Output		
nominal output per hour of prime time on wheat with volume weight 760 gram/liter with humidity up to 16% and waste products content up to 10%, at least	t/h	4.5
mass (maximum)	kg	2,200
installed capacity (maximum)	kW	6.3*/7.4
overall dimensions in on-position		
length	Mm	4,800*/7,800
width	Mm	4,100
height	Mm	3,000
life time	years	8



PZM-80

• SELF-MOBILE EQUIPMENT

ADVANCED
GRAIN LOADER

- use for granaries loading and unloading; mechanical shoveling; piling and drying grain at the area of winnowing barn-floor and in granaries, as well as loading grain on vehicles

Specifications

Name	Measuring unit	Value
Output		
nominal output per hour of prime time on wheat, humidity up to 16% on hard coating floor	t/h	80
mass (maximum)	kg	1,200
installed capacity, at most	kW	9.1
life time	Years	8



Stationary equipment for grain barn-floors

OVS-25S

CLEANER

- use for intensive cleaning of grain, spiked cereals, groat and pulse crops, corn, sorghum, and sunflower in all agricultural zones

Specifications

Name	Measuring unit	Value
Output		
nominal output per hour of prime time on wheat with volume weight 760 gram/liter with humidity up to 16% and admixture content up to 10%, including 3% of trash, at least	t/h	12
mass (maximum)	kg	1,090
installed capacity (maximum)	kW	4
overall dimensions in on-position		
length	Mm	3,130
width	Mm	1,790
Height	Mm	2150
Life time	Years	8



MPO-50

• STATIONARY EQUIPMENT FOR GRAIN BARN-FLOORS

PRE-CLEANER

Specifications

- pre-cleaning of grain, spiked cereals, groat and pulse crops, corn, sorghum and sunflower
- use in stationary processing lines at all agricultural climate zone

Name	Measuring unit	Value
Output		
nominal output per hour of prime time on wheat with volume weight 760 gram/liter with humidity up to 20%, trash content up to 10% and straw content up to 1%	t/h	50
mass (maximum)	kg	1,041
installed capacity (maximum)	kW	7.5
overall dimensions in on-position		
length	Mm	2,900
width	Mm	2,000
height	Mm	2,050
life time	years	8



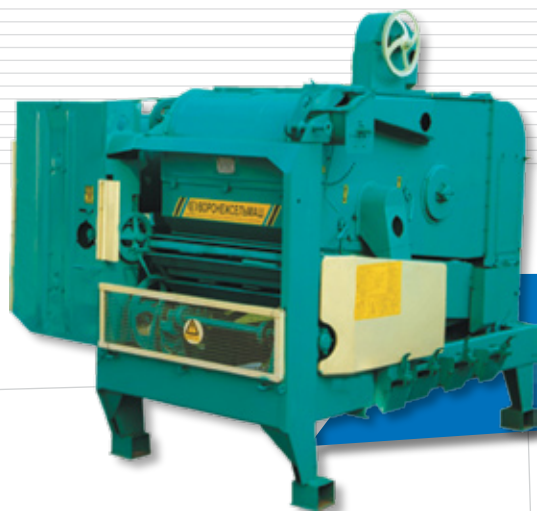
ZVS-20A

INTENSIVE CLEANER

Specifications

- convenient for using as a part of full-circle grain-cleaning aggregates and processing lines in all agricultural zones
- isolation of large and light admixtures from grain material of spiked cereals, groat and pulse crops, corn, sunflower and sorghum

Name	Measuring unit	Value
output		
nominal output per hour of prime time on wheat with volume weight 760 gram/liter with humidity up to 16%, admixture content up to 10% including trash content up to 3%	t/h	25
mass (maximum)	kg	1,085
installed capacity (maximum)	kW	7.7
overall dimensions in on-position		
length	Mm	3,070
width	Mm	2,030
height	Mm	2,750
life time	years	8



● STATIONARY EQUIPMENT
FOR GRAIN BARN-FLOORS

MS-4,5S

FINAL CLEANER

Specifications

Name	Measuring unit	Value
Output		
nominal output per hour of prime time on wheat with volume weight 760 gram/liter with humidity up to 16%, admixture content up to 10%, waste product content up to 5%, at least	t/h	4.5
mass (maximum)	kg	1,550
installed capacity (maximum)	kW	5.2
overall dimensions in on-position		
length	Mm	3,000
width	Mm	2,500
height	Mm	2,800
life time	years	8

- seeds cleaning from dockage and defective seeds
- convenient to use as a part of grain-cleaning processing lines with output of 10, 20 ton/hour, as well as in warehouses



PT-600

TRIER BATTERY

Specifications

Name	Measuring unit	Value
output		
nominal output per hour of prime time on wheat with volume weight 760 gram/liter with humidity up to 16%, waste product content up to 5%, at least	t/h	8
mass (maximum)	kg	900
installed capacity (maximum)	kW	2.2
overall dimensions in on-position		
length	Mm	3,130
width	Mm	1,650
height	Mm	2,100
life time	years	8

- isolation of long (wild oat, straw) and short (corn cockle, buckwheat, crushed seed, etc) admixtures from grain mixture
- convenient to use as a part of grain-cleaning processing line and complexes at all agricultural zones

Equipment for barn-floors

NPK-25 ROUND LIFTING ELEVATOR

Made for vertical transportation of source and handled material as a part grain-cleaning processing lines and grain-cleaning and drying complexes, as well as for grain supply into warehouses in enclosed spaces.

GRAIN PIPES

Made for natural flow transportation of grain and waste products.

ASPIRATION SYSTEM

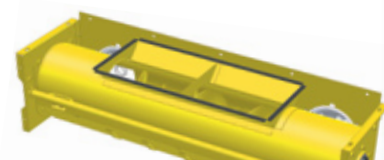
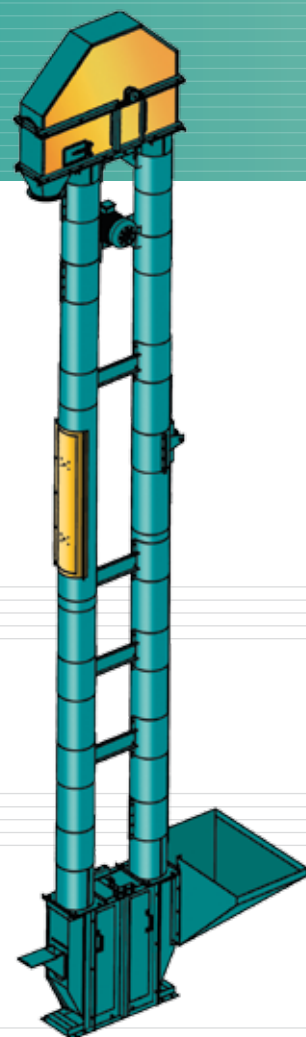
Made for cleaning of exhaust air flow from light admixtures and relocation of deposited light admixtures to special waste bins.

CONTROL BOARDS

Made for distance control of grain-cleaning aggregate.

SPARE PARTS

For grain-cleaning equipment





Engineering Centre

Voronezhselmash

Consulting services

We assist a client to choose an optimal for his needs equipment for post-harvest grain handling.

Design and engineering services

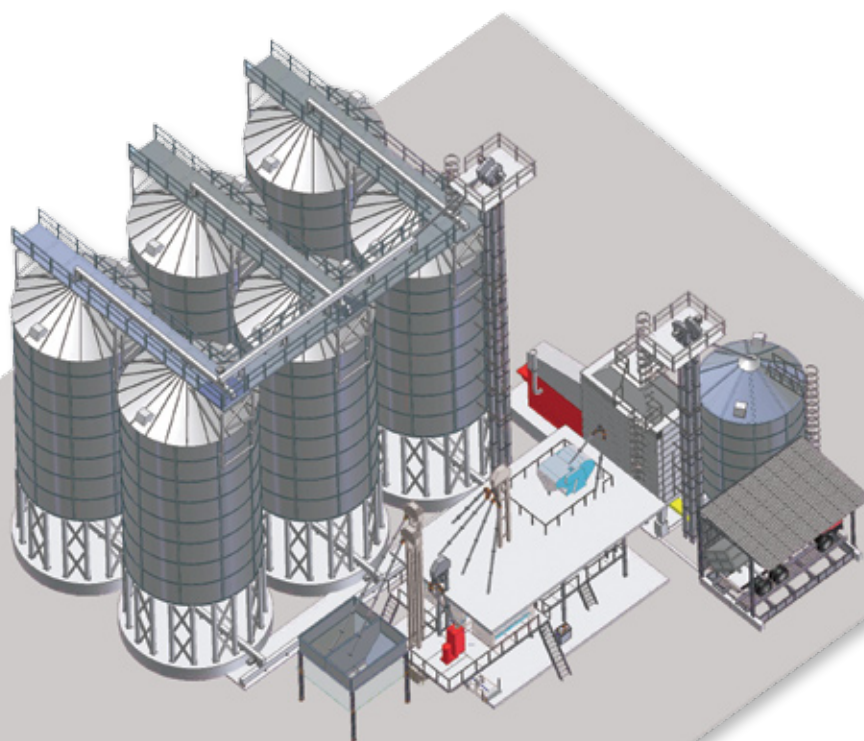
We design production lines for cleaning and storage of grain and seed.

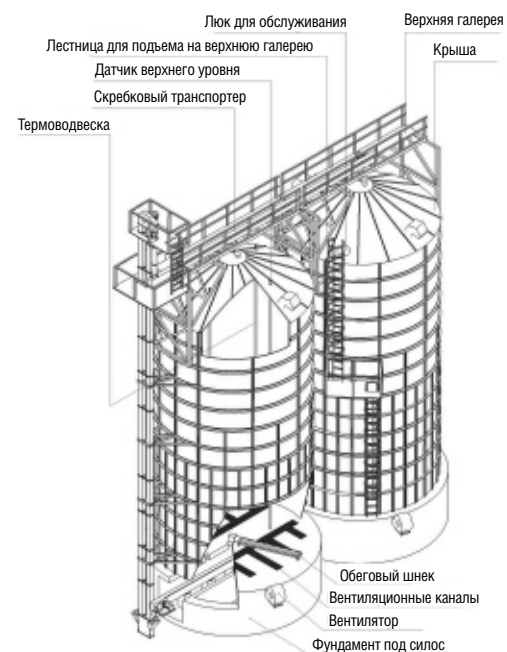
Commercial services

We deliver a full set of equipment and materials necessary for project implementation.

Servicing:

We execute an installation and commissioning works, put equipment into operation and hand it over to oversight and controlling bodies.





Storage bin assembly



“Turnkey” seed lines

We can design and install full-circle grain and seed-cleaning lines with output from 2 up to 100 t/h. The idea of such a seed plant is receiving sacked high-quality seed material after loading crop incoming from combine harvester into dump pit.

Grain cleaning and preparation line

that we offer includes receiving device, low-speed elevators and endless band elevators, pre- and intensive cleaners SPO-100 and SVU-60, containers for short-term and long-term grain storage, SHF dryers, ozone generators, seed germination stimulation devices, packing workshop and other support machines