





## www.vselmash.ru



## Company profile

Year of foundation – 1917. Opening of the new plant – September 26 of 2012

<u>Specialization</u> – equipment production and construction of facilities for post-harvest processing, drying and storage of grain.

#### **Annual production capacity at one-shift operation:**

Over 2000 equipment units

Total number of built facilities (grain cleaning machines, grain cleaning and drying facilities, elevators, seed lines) - over 72,000 Total number of produced equipment – over 2 000 000 units.

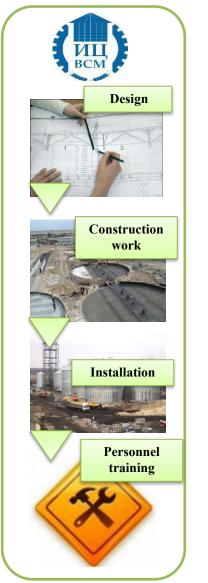
**Dealership network** – over 61 centers in Russia and abroad

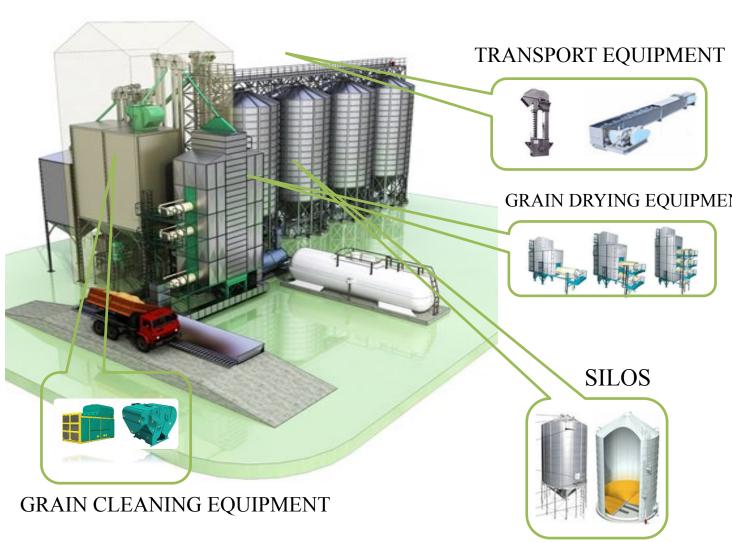
<u>Membership in branch associations</u> – Public Council of Ministry of Agriculture of Russian Federation, Russian Grain Association, Rosagromash Association, Association of mechanical engineers of Russia.





## We perform the following activities: WE PRODUCE:





## RANGE OF PRODUCTS

Voronezhselmash - the only plant in Russia which produces full range of elevator equipment

#### **Grain-cleaning machines**

#### **Dryers**

#### **Transport equipment for elevators**

#### **Stationary Equipment**

The new family of high-performance Optic Sorters 20 types, capacity from 20 to 300 t. / H.



#### **Louver-type series SVM Mine type series SVSH**

The dryers used energy saving and automatic control





Bucket Elevators - Industrial elevator HB-50 (50 m / h), LV-100 (100 t / h), LV-175 (175 t / h). Farmers elevator CDD-25 (25 t / h), UXO-50 (50 t / h).







Drag Conveyers Series KSV - KSV-50 (50 t / h), KSV-100 (100t / h)



#### SILO



#### **Optic Sorters**

#### Capacity 5, 10, 15, 20 t. / hr.



#### Seed Lines



#### Hangars







Sales markets





Company's products are marketed by dealers and regional partners (61 sales representatives) in 36 regions of Russia and CIS countries.

Cooperation and joint production is established with foreign companies SIMEZA (Spain) in production of silos, Cedar (Argentina) in production of grain dryers and transport equipment.

**Cooperation agreement signed with IHI Corporation (Japan)** 

The company collaborates under credit and leasing programs with Rosselkhozbank and Rosagroleasing.









## **Innovations**







Nowadays over 10 doctors of science and candidates work at Voronezhselmash, an honored mechanical engineer of Russia, Russian scientist – member of American Optical Society. Close cooperation with high schools – VGU, VGUIT, VGAU, LETI, MGTU, MGPU, VIM, GOSNIITI.

MINISTRY OF INDUSTRY	-	Development of process equipment sets for grain cleaning, drying and storage.  Development and put into production of grain transport
MINISTRY OF AGRICULTURE	_	discharge line with capacity up to 1500 t/hour  Survey of material and technical base in seed breeding in
VIM & GOSNIITI RESEARCH INSTITUTES	-	Russia and development of laboratory photoseparator  Creation of prototype of machine for seed incrustation
GOVERNMENT OF RUSSIA	-	Development of macrocapsulator.
GOVERNMENT OF VORONEZH REGION	-	Development of seed dresser
MINISTRY OF EDUCATION	-	Development of fiber optic sorter for cleaning of rice seeds

от идеи до объекта

- Development of granary models and transport equipment with use of <u>composite materials</u> of domestic manufacturers
- Development of energy saving technology of drying and disinfection of grain crops with use of infrared projectors







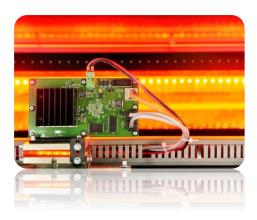
## FIBER-OPTIC LASER SEPARATOR

#### **Innovative Solution**









The development is supported by the Ministry of Education and Science of the Russian Federation.



# Types of optical sorters VORONEZHSELMASH

Voronezhselmash created the color sorters to meet your needs as full as possible. With our technologies, you can get results that are more precise and thus take your business to a new level.

Sorting by color is a new efficient technology.

Producing competitive products with minimal costs is a goal of every manufacturer. Advanced and innovative technologies implemented in Voronezhselmash sorters are able to help in this field.

- Monochrome color sorters
- Bichrome color sorters
- Laser sorter

The family of Voronezhselmash optical sorters is:

High efficiency – up to 99.9%;

High productivity – up to 16 t/h\*;

Easy to operate;

High performance;

Compact size;

Versatility - the separation of a variety of products

\* - Wheat and rye.



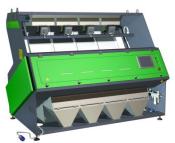


#### **SORTING TECHNOLOGY**

#### **VORONEZHSELMASH**

#### Serial production

#### Monochrome and polychrome OPTICAL SORTERS



- -Sort products in the visible and near-IR ranges (410 nm ... .900nm)
- -Sort products which do not differ in the external color features in the infrared range of 1.0 ... 1.8 mm
- -Monochrome Sorting one wavelength
- -Polychrome sorting simultaneously in several wavelengths

#### **LASER Optical Sorters**



-Sort products by inland clearance featured in the visible and near-IR 410 nm  $\dots$  .900 -Sort products to the light in the infrared range of 1.0  $\dots$  1.8 mm

### A joint project on development and creation of unique fiber

## Development and creation of unique fiber laser separator



Voronezh

State

Universit





**VORONEZHSELMASH** 

#### laser separator









Demonstration of the current prototype



Ганновер/Германия 12 – 16 ноября 2013 г.

Hannover (Germany) 2013



The optic-fiber laser separator versus the color sorter can perform the following tasks:

#### **Feedstock:**

- 1. Rotten nuts approx. 5.5% of the feedstock received
- 2. Shriveled nuts -2.5%
- 3. Nutshell 0.5%
- 4. Whole nuts (in shell) -0.25%
- 5. Manually sorted high-quality nuts 82%



**Good products** 

**Defects products** 

#### Acceptable defects in good products:

Rotten nuts -0%

Nutshell –0.01%

Shriveled (wrinkled) nuts – max. 2%

Good nuts in waste – max. 5%





# We Developed a program of certification of quality management system to ISO 9000



Development of a program of certification quality management system to ISO 9000



Principles will be laid down in the project of creation of the center of additive technologies







Training in the framework of the quality management system





Voronezhselmash objects











# THANK YOU FOR YOUR ATTENTION

