



AEROMEH[®]

Own development
Since
2001

| THE COMPANY IS A MANUFACTURER OF GRAIN CLEANING EQUIPMENT



GRAIN CLEANER CAD[®]

| COMPREHENSIVE SOLUTIONS FOR YOUR HARVEST

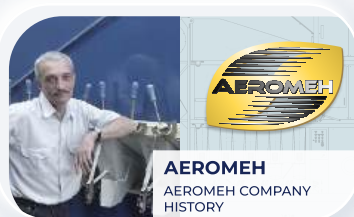
ABOUT THE COMPANY "RPE" AEROMEH" LLC

The company "AEROMEH" is a Ukrainian enterprise that began its history in 2001. The main direction of the plant is the development and implementation of unique innovative solutions in the field of grain sorting and cleaning.

The manufacturer "AEROMEH" offered the world a unique development of the inventor Sukhin VS, namely GRAIN

CLEANER AERODYNAMIC - CAD. The CAD grain separator has made significant progress in the technology of obtaining clean and healthy grain with high sowing and yielding qualities. Today it is known in Ukraine and abroad AEROMEH TECHNOLOGY. The equipment has proven itself in the best conditions in agriculture. During the development, special attention is paid to the quality of grain separation, ease of operation, labor protection and aesthetics.

At our enterprise the most modern technologies of designing, designing and processing of metals, and also quality management and the enterprise as a whole are introduced and used. The technological level and organization of our production allows to provide high quality of products.



2001

Establishment of the AEROMEH plant and implementation of its own development.



2003

Presentation of the CAD separator at the AGRO - 2003 exhibition and the first export of products.



2008

We supply our products in 28 countries. Obtaining a European CE certificate.



2017

The company has more than 70 patents for inventions. Increase of production capacities to 8000 m2.



2022

In April 2022, the Russian Federation completely destroyed the AEROMEH plant. But we have preserved our developments and team.



2002

The first sample of the separator is made. Obtaining the first patent for the invention.

2005

Creation of own production base and laboratory at AEROMEH plant.

2010

Expansion of production and increase of product range.

2020

Victory in the competition "Invention of the Year". We supply our products to 60 countries.

2023

Resumption of production at the AEROMEH plant in a new location in Cherkasy region.



GRAIN CLEANER CAD USE



SEED PRODUCERS, FARMERS, AGRICULTURAL FIRMS, GRAIN PROCESSORS

Innovative CAD machines change and improve grain processing technology, provide accurate sorting of all types of grain and provide you with excellent opportunities to increase the efficiency and profitability of your business.



MANUFACTURERS OF FINISHED PRODUCTS

Sorting of processed products on seed cleaner CAD is used by producers of cereals, coffee, cocoa, technical hemp, medicinal herbs to improve the quality of manufactured products or to solve highly specialized problems.



GRAIN TRADERS, ELEVATORS AND AGROHOLDINGS

High-performance separators CAD use elevators, agricultural holdings, feed mills for successful agriculture, highly efficient product processing.



IN OTHER INDUSTRIES

Manufacturers of pellets, processors of waste of various origins, minerals, rubber, plastics, glass, etc. Use separators CAD to improve the quality of their products.

OUR SOLUTIONS AND TECHNOLOGIES HELP US PRODUCE SAFE AND USEFUL PRODUCTS.

OBTAINING TECHNOLOGY

HIGH-YIELD SEEDS



* The research was conducted in 2003-2005. in the zone of risky agriculture of Luhansk region.

YIELD INCREASE UP TO 35%



EAR OF WINTER WHEAT



Watch the video of selection of productive and healthy seeds on the separator CAD on our [youtube](#) channel.

CRAIN CLEANER CAD - TECHNOLOGY OF OBTAINING HIGH-YIELDING SEEDS.

The separator CAD is based on the TECHNOLOGY of selection of biologically valuable seeds formed in the middle zone of the ear, cob and other inflorescences.

Separators CAD carefully sort any seed by specific gravity with high accuracy. This selection is based on the signs of grain ripeness, namely high germination, weight 1000, viability, natural weight.

AS A RESULT, YOU GET:

- Selective, strong and high-yielding seeds.
- Additive to the crop from seeds sorted on separators CAD.
- Healthy seeds. The separator CAD removes diseased seeds affected by fusarium, aflatoxin, vomitoxin and other grain mycotoxins.
- High germination and seed germination energy.
- Refined and high-quality grain, which can be sold at a higher price.

WE HAVE DEVELOPED THE TECHNOLOGY OF OBTAINING HIGH-YIELDING SEEDS AND IMPLEMENTED IT IN THE AERODYNAMIC GRAIN CLEANER CAD. THE WHOLE WORLD ENJOYS OUR INSTALLATION. JOIN AND BECOME SUCCESSFUL.



SCIENTIFIC SUBSTANTIATION OF THE WORK OF SEPARATORS CAD

Seed quality is a widespread phenomenon in crop production. It is expressed in the fact that the seeds of one plant or even ears, panicles, cobs are unequal in their morphological and physiological and biochemical parameters.

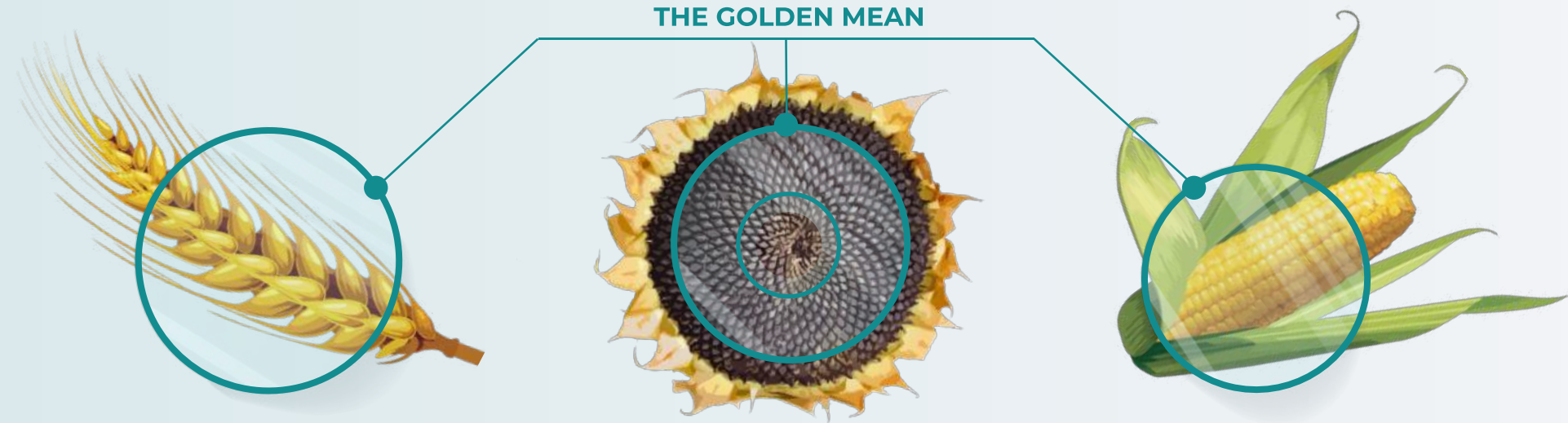
The completeness of the seeds is characterized not so much by their size as by their specific weight, which is associated with the maturity and full weight of the seeds. Only grains with the maximum specific weight are formed in the middle part of the ear. But after threshing the ears of grains are depersonalized, as a result of which it is impossible to determine by appearance the place of their formation in the ear, so to give a conclusion about their biological value.

Back in 2002-2005, AEROMEH conducted its first research. Three-year field experiments have clearly demonstrated that the separator CAD can select seeds with high accuracy based on their biological value. For example, in the severe weather conditions of winter 2002-2003, when soil freezing at the depth of the tillering node reached -23-25 ° C in the long absence of snow cover, winter wheat plants obtained from seeds of 2 and 3 fractions gave a yield to 35 %. At that time, the average wheat yield in the region was 27 centners per hectare. However, the seeds of the 2nd and 3rd fractions had a stronger germ, able to lay a deeper node of tillering. And the yield of wheat of the 2nd and 3rd fractions was at the level of 36-38 c / ha.

Subsequent years of research have also confirmed that with the help of the grain cleaner CAD it is possible to significantly increase the average yield.

HIGH-PERFORMANCE SEEDS ARE FORMED HERE AND AEROMEH TECHNOLOGY ALLOWS TO SELECT IT

THE GOLDEN MEAN

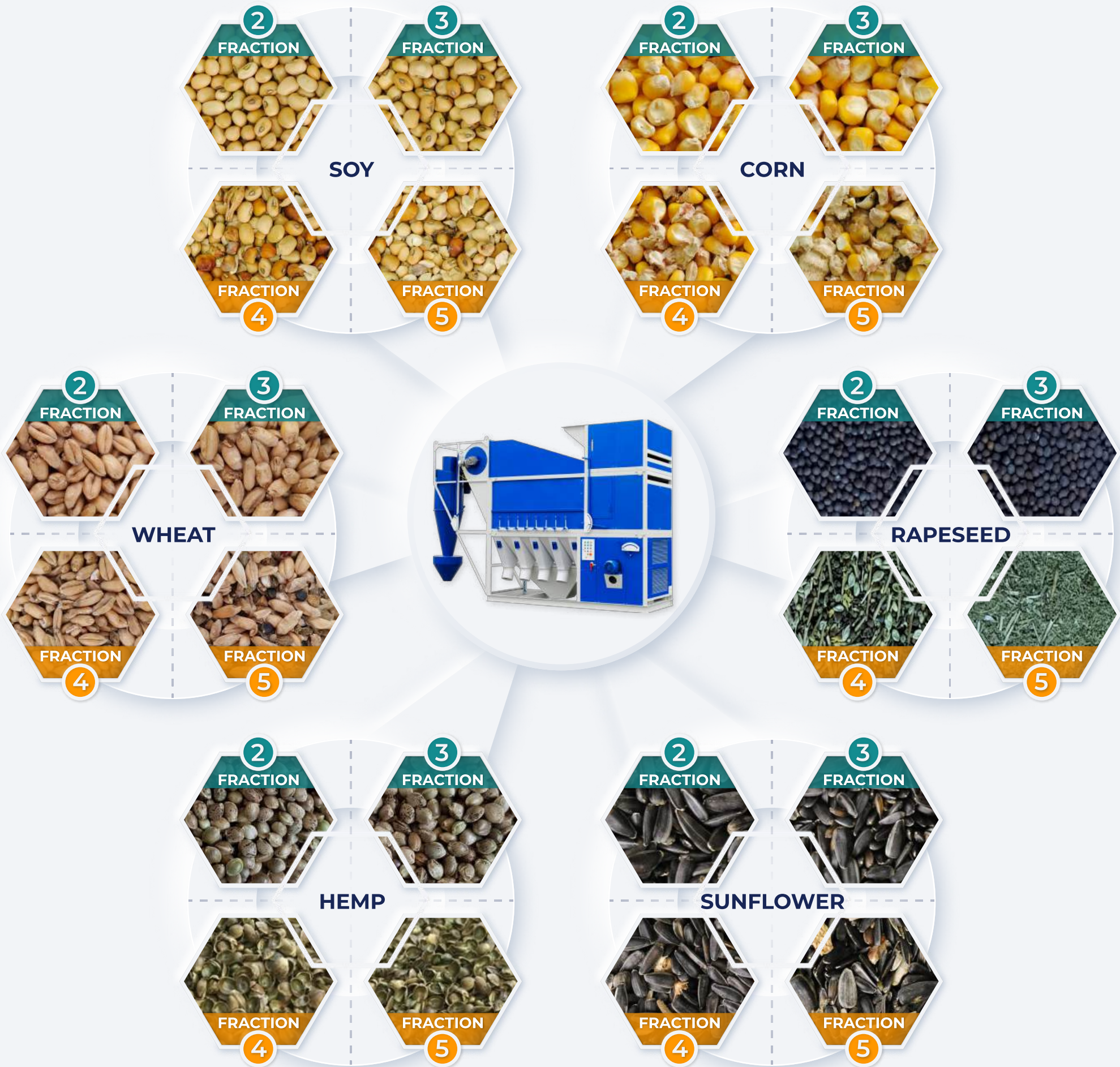


Sowing and yielding quality of winter wheat seeds sorted on the separator CAD

Quality indicators of winter wheat seeds		Seed fractions				
		Source material	2 fraction	3 fraction	4 fraction	5 fraction
Specific weight (g/ml)		1,291	1,366	1,363	1,250	1,199
Germination energy, %		84,5	95,3	89,5	76,0	70,3
Similarity, %		92,5	99,1	95,8	88,4	83,1
Growth force of 200 seeds:	Proportion of sprouted plants, %	77,0	89,5	88,5	69,5	64,0
	Weight of plants, gr	12,05	18,0	14,95	10,5	8,5
Seed yield, (c/ha)		27,1	36,1	37,6	23,3	16,3

* The research was conducted in 2003-2005. in the zone of risky agriculture of Luhansk region.

EXAMPLES OF SEED SORTING



GRAIN CLEANER CAD - HEALTHY SEEDS

Healthy seed is the basis of future harvests. However, as practice shows, very often due to the quality of seeds, namely due to infection with pathogens, harvesting becomes problematic. Any disease is easier to prevent than to cure.

Farmers are increasingly realizing that an important way to protect against infection is pre-sowing seed treatment. However, experience shows that there is no pesticide that can remove the problem of infection. If the seed material is heterogeneous in specific weight and size, it differs in the level of morbidity.

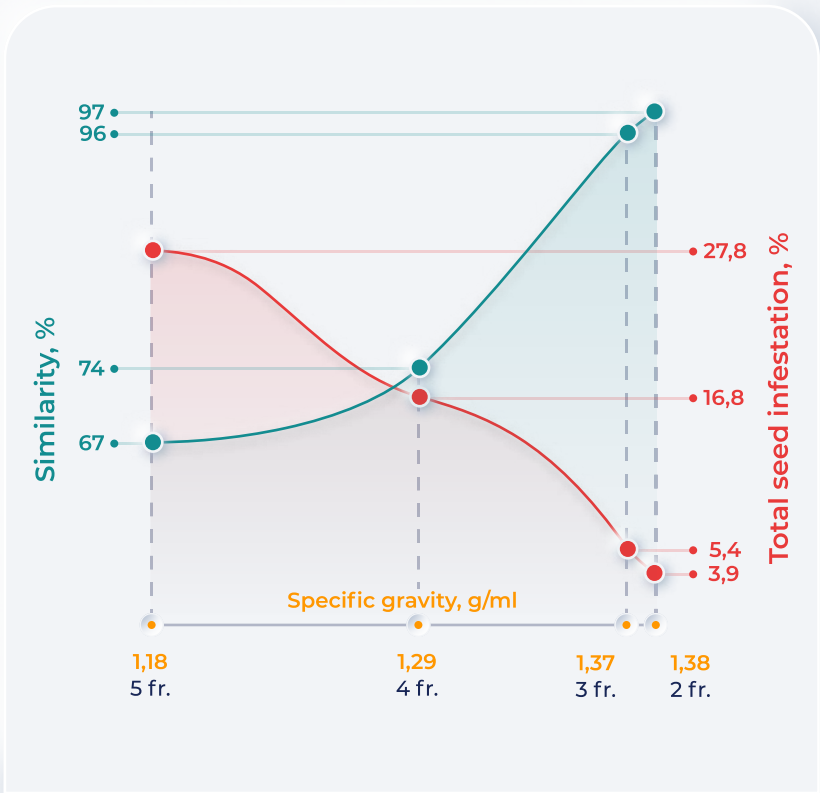
SEPARATORS CAD ARE ALSO USED FOR PRE-SOWING SEED TREATMENT IN ORDER TO REDUCE THE INFECTIVITY OF SEED MATERIAL OF ALL CROPS.

Sowing and phytosanitary indicators of winter wheat seeds that have passed through the separator CAD.

THE TOTAL SEED INFESTATION IS 19%.

The average value for repetition

Quality indicators of winter wheat seeds		Seed fractions				
		Source material	2 fraction	3 fraction	4 fraction	5 fraction
Specific weight (g/ml)		1,290	1,380	1,370	1,290	1,180
Germination energy, %		69	92	93	71	65
Similarity, %		78	97	96	74	67
Seed infestation, %	Hard head	3,0	0,1	0,1	2,0	4,2
	Vigilant head	0,1	-	-	-	0,1
	Fusarium (koreneviy)	0,5	0,1	0,1	1,4	1,6
	Fusarium (root)	2,4	-	-	0,9	2,9
	Alternaria	7,2	0,9	1,9	6,9	9,6
	Helminthosporiosis	3,3	1,6	2,3	3,8	5,8
	Moldy green	0,8	-	-	0,2	1,6
	Mold is black	0,3	0,1	0,1	0,2	0,4
	Moldy flour	1,4	1,1	0,9	1,4	1,6
Total prevalence, %		19,0	3,9	5,4	16,8	27,8
HCP _{0,5}		0,2	0,05	0,05	0,1	0,12



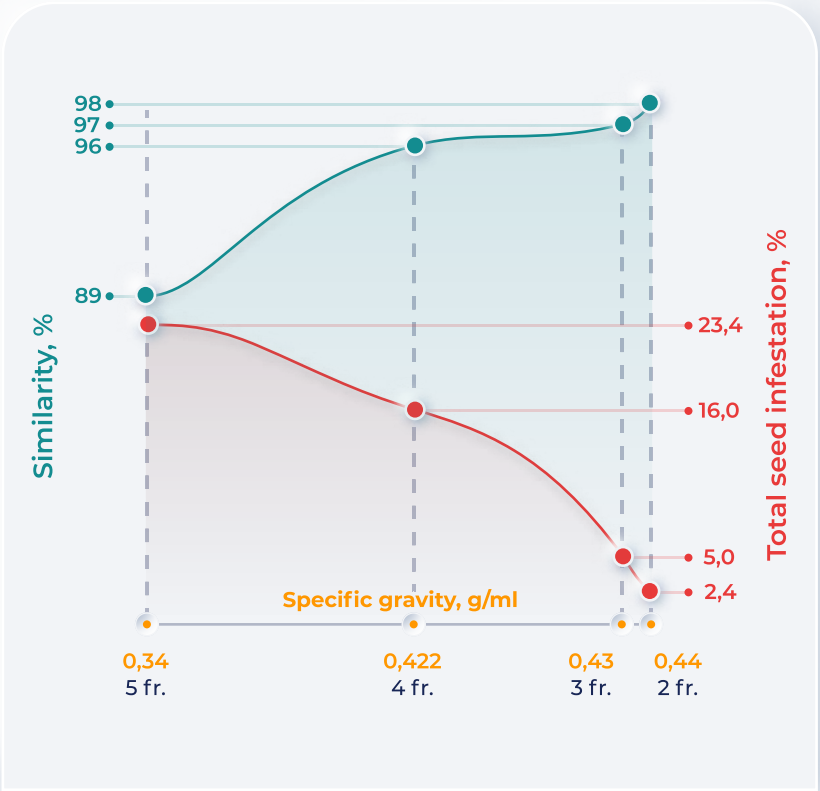
HAVING A TOTAL DAMAGE OF THE SAMPLE OF 19%, THE SEPARATOR CAD ALLOWED TO REDUCE THE INFECTION OF SOLID SMUT FROM 3% TO 0.1%, WHICH CORRESPONDS TO THE SEED MATERIAL RP-1.

AEROMEH

Sowing and phytosanitary indicators of sunflower seeds that have passed through the separator CAD.

THE TOTAL SEED INFESTATION IS 18.1%.

The average value for repetition						
Indicators of sunflower seed quality		Seed fractions				
		Source material	2 fraction	3 fraction	4 fraction	5 fraction
Specific weight (g/ml)		0,370	0,440	0,430	0,422	0,340
Germination energy, %		93	96	96	93	87
Similarity, %		94	98	97	96	89
Seed infestation, %	White rot	2,1	-	-	2,3	2,7
	Gray rot	2,2	-	-	1,9	2,7
	Coal rot	0,9	-	0,2	0,9	2,1
	Fusarium wilt	1,5	-	0,2	1,4	2,5
	Phomopsis	2,1	-	0,6	1,9	2,3
	Mold	5,5	2,4	3,1	4,1	5,9
	Bacteriosis	0,3	-	-	0,4	0,6
	Alternaria	2,3	-	0,9	2,0	2,5
	Brick-red rot	1,2	-	-	1,1	2,1
Total prevalence, %		18,1	2,4	5,0	16,0	23,4
HCP _{0,5}		0,02	0,05	0,09	0,07	0,09



TECHNOLOGY

THE SEPARATOR CAD ALLOWED TO REDUCE THE GENERAL INFECTION OF SUNFLOWER IN THE 2ND AND 3RD FRACTIONS THAT IMPROVED NOT ONLY PHYTOSANITARY INDICATORS, BUT ALSO SOWING QUALITIES OF SEEDS.

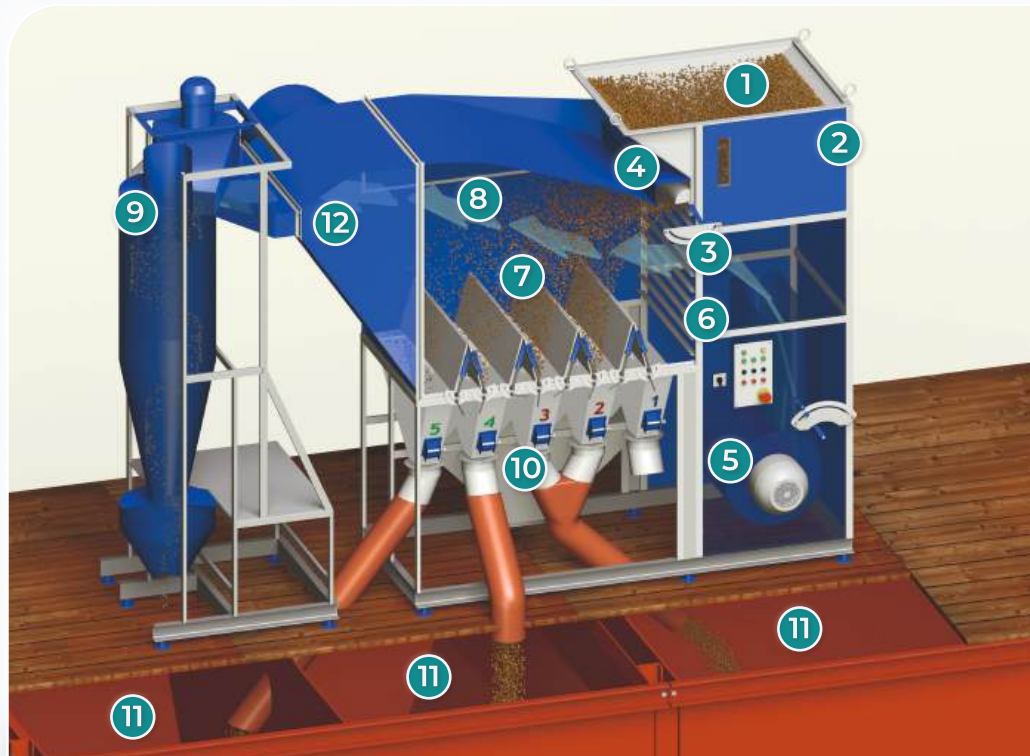
THE RESEARCH WAS CARRIED OUT ON THE BASIS OF THE ODESSA SELECTION AND GENETIC INSTITUTE OF THE NATIONAL CENTER OF SEED SCIENCE AND VARIETY STUDY

Separation of seeds with mold infection on the separator CAD leads to positive results. There is a very clear division by specific gravity, which directly correlates with the sowing qualities of seeds and inversely correlates with infection. In order to improve the sowing and phytosanitary characteristics of winter wheat and sunflower seeds, we recommend the installation of CAD as an alternative to seed treatment. At very high level of defeat of seeds we recommend to apply fractionation on the CAD car in a complex with disinfectants.

SEED CLEANING CAD ARE USED BY PRODUCERS OF ORGANIC PRODUCTS.



PRINCIPLE OF WORK OF SEPARATORS CAD



MARKING

- | | |
|--------------------------|----------------------|
| 1 Grain | 7 Separation chamber |
| 2 Feeder hopper | 8 Air flows |
| 3 Grain supply regulator | 9 Cyclone |
| 4 Vibrating tray | 10 Seed fractions |
| 5 High pressure fan | 11 Reception bunkers |
| 6 Inkjet generator | 12 Aspiration unit |

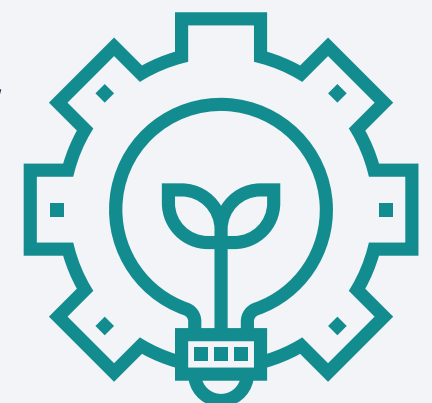
HOW IT WORKS

The operation of the machine is reduced to the distribution of the source material into fractions by specific gravity using air flows. The grain (1) is fed into the hopper-feeder (2), then by means of the grain feed regulator (3) is fed to the vibrating tray (4), where it is rarefied and aligned across the width of the separation chamber (7). In the separation chamber (7) there is a stratification and distribution of grain by specific gravity due to the influence of air turbulent flows (8) generated by the fan (5), prepared by the jet generator (6).

After separation, the grain is divided into seed fractions (10) and sent to the receiving bins (11) or packed in bags. Cyclone (9) is designed to capture dust, light impurities and fine particles that enter together with the exhaust air to the cyclone. The proposed cyclones are designed only for separators CAD and work together with the aspiration unit (12), which is an integral part of the cyclone separator.

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- Increasing sowing yield and marketability of marketable grain.
- Careful sorting of seeds, no injuries.
- **Versatility.** Suitable for all types of crops: small seeds of grasses, vegetables, seeds of cereals, legumes, industrial and other crops.
- **Efficiency.** Effectively cleans the grain of any contamination from coarse impurities (thorns, spikelets, stem, straw, stones) and small impurities (dust, sand, crushed grain).
- **Wide model range** from 1 to 150 t/h (meets the needs of farms, agricultural firms, elevators, grain processors).
- **Quick change of operating modes** of separators.
- **No strict restrictions** on humidity and clogging of the source material. Cleans damp and heavily clogged grain.



OPTIONS OF OPERATION OF SEPARATORS CAD



Separators CAD are installed in elevators, feed, seed, grain processing plants and other adapted premises, where the supply of grain to the height of the separator by means of a noria and waste disposal is organized.



Separators CAD are installed on grain cleaning complexes of the ZAV-40 type, or other adapted premises for grain processing.



Separator CAD-5 with cyclone and with noria H5.



Grain cleaning complexes CAD of various complete sets.



Model CAD - 50 with cyclone and grain loaders.

HOW IT WORKS

MODEL RANGE OF GRAIN CLEANER CAD WITH CYCLONE



MODEL	Pre-cleaning (t/h)	Primary cleaning (t/h)	Calibration (t/h)	Power (kW)	Weight (kg)	Overall dimensions (L×W×H)
CAD - 150	up to 200	up to 150	up to 50	28	3118	5970×2220×3850
CAD - 100	up to 150	up to 100	up to 40	28	3087	5970×2220×3850
CAD - 50	up to 60	up to 50	up to 20	15,8	1617	4550×1700×3350
CAD - 30	up to 40	up to 30	up to 10	12	1370	4550×1450×3350



MODEL	Pre-cleaning (t/h)	Primary cleaning (t/h)	Calibration (t/h)	Power (kW)	Weight (kg)	Overall dimensions (L×W×H)
CAD - 15	up to 16	up to 15	up to 7	7,8	824	3855×1250×2800
CAD - 10	up to 14	up to 10	up to 5	6,3	793	3855×1220×2800



MODEL	Pre-cleaning (t/h)	Primary cleaning (t/h)	Calibration (t/h)	Power (kW)	Weight (kg)	Overall dimensions (L×W×H)
CAD - 5	up to 8	up to 5	up to 2,5	2,5	318	2565×700×1850
CAD - 4	up to 6	up to 4	up to 2	2,5	316	2565×700×1850

MODEL RANGE OF GRAIN CLEANER CAD BASIC MODELS



250

MODEL	Pre-cleaning (t/h)	Primary cleaning (t/h)	Calibration (t/h)	Power (kW)	Weight (kg)	Overall dimensions (L×W×H)
CAD - 150	up to 200	up to 150	up to 50	23	2251	3830×1700×3850
CAD - 100	up to 150	до 100	up to 40	23	2220	3830×1700×3850
CAD - 50	up to 60	up to 50	up to 20	11,5	1039	2750×1260×3000
CAD - 30	up to 40	up to 30	up to 10	7,8	844	2750×1010×3000



MODEL	Pre-cleaning (t/h)	Primary cleaning (t/h)	Calibration (t/h)	Power (kW)	Weight (kg)	Overall dimensions (L×W×H)
CAD - 15	up to 16	up to 15	up to 7	5,8	534	2300×930×2450
CAD - 10	up to 14	up to 10	up to 5	4,3	505	2300×900×2450



CAD - 5



CAD - 1

MODEL	Pre-cleaning (t/h)	Primary cleaning (t/h)	Calibration (t/h)	Power (kW)	Weight (kg)	Overall dimensions (L×W×H)
CAD - 5	up to 8	up to 5	up to 2,5	1,8	211	1520×635×1850
CAD - 4	up to 6	up to 4	up to 2	1,8	209	1520×635×1850
CAD - 1	up to 1,5	up to 1	up to 0,5	0,55	50	980×360×1080

PRE-CLEANING SEPARATORS (SCALPERATORS) - SPO

To increase the efficiency of grain cleaning, the Aeromeh plant offers an additional option for separators CAD - scalpers. SPO scalpers are designed for preliminary and effective cleaning of all types of seeds from large impurities. The SPO scalper reliably removes in grain:

- large or coarse-grained products
- straw particles
- unthreshed ears
- corn on the cob
- sticks in sunflower
- large stones, etc.

CAD - 4C WITH SPO



MODEL

SPO - 8

SPO - 16

Productivity (t/h)

8

16

Energy consumption (kW)

0,25

0,25

Weight (kg)

85

140

Overall dimensions
(L×W×H)

990×470×800

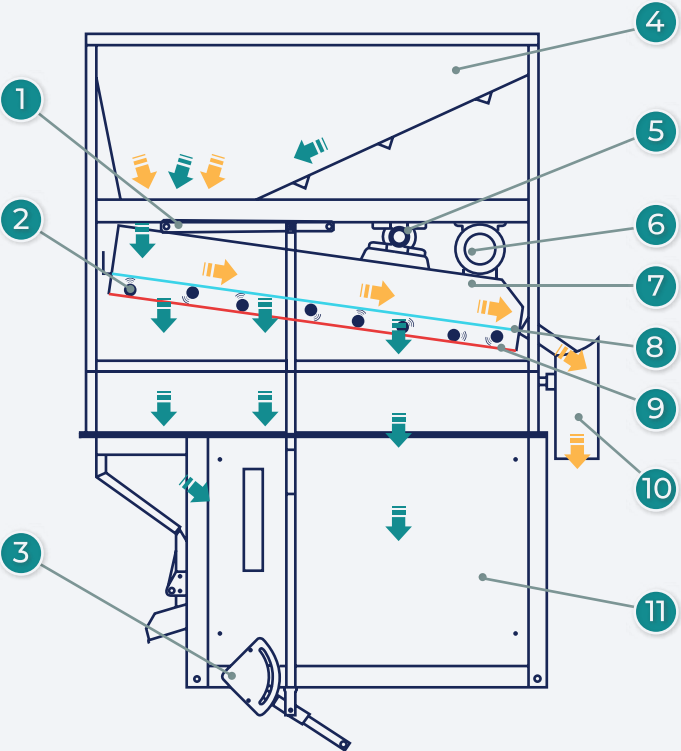
1257×852×975

SPO



* Includes sieves ø5, ø8, ø10.

SCHEME OF WORK SPO



➡ Passage through the sieve (particles smaller in size than the cells of the installed variable sieve).

➡ East of the sieve (particles larger in size than the cells of the installed variable sieve).

The grain from the receiving hopper (4) enters the sieve unit of the SPO separator. The sieve unit by means of the eccentric shaft (5) and the motor (6) performs reciprocating movements. As a result, large impurities are mixed on the surface of the replaceable sieve in the receiver of large impurities (10).

Particles smaller than the holes of the installed interchangeable sieve pass through the sieve and enter the receiving hopper of the separator CAD (11) for further cleaning or sorting.

The sieve block of the separator consists of the case, the lower grid (9) and the top replaceable sieve (8). Between the lower grid of the housing sieve and the interchangeable sieve there are rubber balls (2) in the cells, which move chaotically during the operation of the separator and, cleaning with the sieve, clean it of stuck particles, thus eliminating clogging of the sieve holes.

SELF-PROPELLED GRAIN CLEANING COMPLEXES - SZK - CAD

FUNCTION

The grain cleaning complex is intended for cleaning and calibration of any grain in the conditions of open areas, warehouses, hangars where it is necessary to carry out loading of grain from a collar or big bag and to take away ready pure material and waste.



SELF-PROPELLED COMPLEX IS THE BEST SOLUTION
FOR POST-HARVEST CLEANING AND CALIBRATION OF GRAIN.



PRINCIPLE OF WORK

Through the auger-scraper loader grain with the collar enters the feed hopper. Then it enters evenly through the vibrating tray in the separation chamber, where it is treated with air jets. Shelling 2-3 fractions are transported by noria. Waste, skinny and crushed seeds of 4-5 fractions are removed by an auger. The cyclone is used to catch dust.

FEATURES

- Ease of operation of SZK on open areas and indoors;
- SZK reduces all performed operations on grain cleaning to one, at times simplifying grain processing, saving agrarians of force and time;
- Low energy consumption;
- Versatility;
- Rapid change of crops and grain cleaning regimes;
- Single operator service.

EQUIPMENT FOR GRAIN TRANSPORTATION

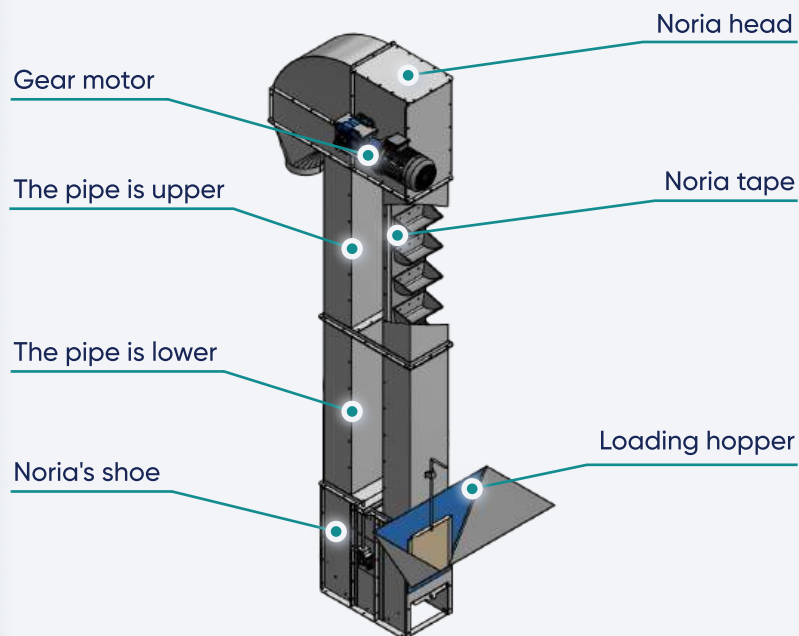
GRAIN NORIA

Norias are designed for vertical transportation of grain and bulk materials.

Used as part of grain cleaning lines in elevators, feed mills, etc.

The main advantage is minimal grain injury, reliability, durability and ease of maintenance.

* We produce norias with a capacity of 5 to 100 t/h.



GRAIN LOADERS

THE GRAIN LOADER IS MOBILE SCRAPER



GRAIN LOADERS CREW VK



SMS — SEED MOBILE STATION



PRODUCTIVITY:

Intensive cleaning Up to 10 t/h

Seed cleaning Up to 5 t/h

Weight ≈ 2500 kg

Length 6800 mm

Width (in transportable condition) 2500 mm

Width (in working condition) 4300 mm

Energy Consumption 13,6 kvt



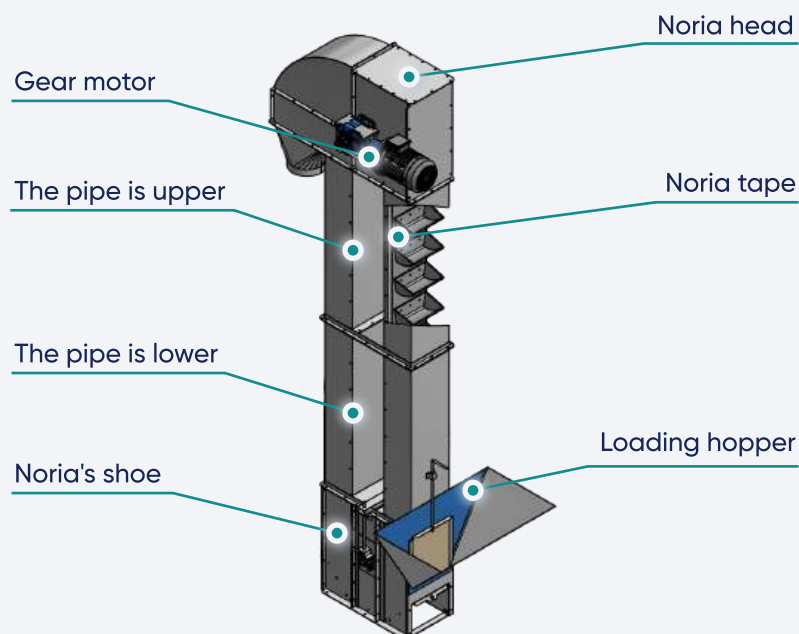
This is a mobile plant for cleaning and preparing strong and healthy seeds for sowing. SMS is very well suited for both normal and intensive cleaning of small to medium seed lots.

GRAIN NORIA (ELEVATOR)

Norias are designed for vertical transportation of grain and bulk materials. Used as part of grain cleaning lines in elevators, feed mills, etc. The main advantage is minimal grain injury, reliability, durability and ease of maintenance.



* We produce norias with a capacity of 5 to 100 t/h.



PRODUCT

FEATURES OF GRAIN CLEANER CAD

LOADING HOPPERS ON DIFFERENT MODELS OF SEPARATORS CAD



FEATURES OF CAD AND CYCLONE SEPARATORS



Air duct



Aspiration unit



Active cyclone



Adders and trays for combining fractions



Observation window into the separation chamber



Grain picker on self-propelled separators CAD

TRAYS FOR REMOVAL OF READY FRACTIONS ON VARIOUS MODELS OF SEPARATORS CAD



AEROMEH AT EXHIBITIONS



UKRAINE, AGRO 2003



UKRAINE, AGRO 2020



GERMANY, AGRITECHNICA 2019



CZECH REPUBLIC 2018



POLAND 2019



ROMANIA 2019



AUSTRIA 2019



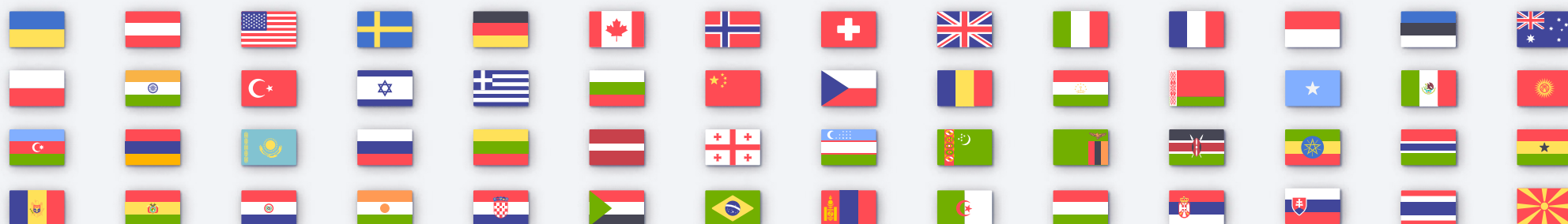
BULGARIA 2017

60+ COUNTRIES
AROUND THE WORLD
USE OUR EQUIPMENT

INDIVIDUAL
APPROACH TO
EVERYONE

THE GRAIN CLEANER CAD
IS A UNIQUE
WORLD-FAMOUS
DEVELOPMENT

WE SUPPLY OUR PRODUCTS TO MORE THAN 60 COUNTRIES



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