



SCIENTIFIC-INDUSTRIAL CORPORATION

«AGRO-SIMO-GLOBAL»

NEW TECHNOLOGIES AND EQUIPMENT

in grain processing

With love to grain...



The main products of SIC "AGRO-SIMO-GLOBAL" Ready-made business projects of "turnkey" plant

Buckwheat plants:

- Buckwheat plant 28 ... 32 tons/day of grain
- Buckwheat plant 55... 60 tons/day of grain
- Buckwheat plant 65... 72 tons/day of grain
- Buckwheat plant 110 ... 120 tons/day of grain
- Buckwheat plant 140... 160 tons/day of grain

Oat mills with flakes lines

- Oat mill 32...36 tons/day of grain
- Oat mill 72 (36...60 - akes) tons/day of grain
- Oat mill 120 (72 - akes) tons/day of grain

Universal groats mills:

- Universal groats mill (wheat, barley, pea) 32 ... 36 tons/day of grain
- Universal groats mill (wheat, barley, peas) 55 ... 60 tons/day of grain

Ready-made business projects of «turnkey» cereal flakes production lines:

- Flakes production line 600 ... 800 kg/hour of flakes
- Flakes production line 800 ... 1200 kg/hour of flakes
- Flake production line 1500 ... 2500 kg/hour of flakes
- Flake production line 2500... 3000 kg/hour flake

Corn processing plants:

- Corn processing plant 48 ... 55 tons/day of grain
- Corn processing plant 150 tons/day of grain

Pea processing plants:

- Pea grain processing plant 22 ... 25 tons/day of grain
- Pea grain processing plant 46... 48 tons/day of grain

Modular feedstuff units:

- Aggregated universal grain shop with a productivity of 16 ... 18 tons/day of grain, processing barley, wheat and rye into three-dimensional cereals, and also peas into cereals: whole peas and half peas
- Mini Feedstuff Unit MKU-0,7
- Mini Feedstuff Unit MKU-1,5
- Mini Feedstuff Unit MKU-3
- Dosing modules for microcomponents of MDK grades
- Installation of the input of the liquid components of the brand BRD-250

Confectionery sunflower processing lines for the purpose of obtaining a husked clean kernel with a productivity of 1000 ... 1200 kg/hour for incoming raw materials

Production line of oatmeal with a productivity of 24 tons/day of oatmeal



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Scientific-industrial corporation AGRO-SIMO-GLOBAL (Ukrainian branch) has successfully been developing, manufacturing and implementing new technologies and equipment for grain processing turnkey plants since 1992.

The company provides the full range of services in designing the turnkey solutions for manufacturing cereals, flour, flakes and feedstuff – from surveying the existing site and facilities to commissioning and starting up a finished plant.

Plant Designing



Specialists of Scientific-industrial corporation AGRO-SIMO-GLOBAL (Ukrainian branch) design plants of any capacity and purpose. Plant designing is a vital stage since the design quality directly determines further plant performance. Design activities carried out by AGRO-SIMO-GLOBAL aim at building a grain processing line of the desired capacity with the optimal number of machines and process equipment to manufacture high quality products – cereals, flour, flakes or feedstuff with the maximum output rate of finished products.

Technical Auditing



Scientific-industrial corporation AGRO-SIMO-GLOBAL (Ukrainian branch) provides technical auditing for grain processing companies, production facilities and lines, process sections, separate production plants and premises to search for the optimization of finished product output rates and energy savings. The main task of the AGRO-SIMO-GLOBAL staff is to receive the most reliable information of the production system condition, applied process flow, and also the performance of each operated machine, to develop suggestions as to the improvement of the production process, technologies and equipment, as well as to prepare balanced managerial decisions.

Plant Reconstruction



Scientific-industrial corporation AGRO-SIMO-GLOBAL (Ukrainian branch) performs system design of grain processing plants, shops and premises, and also system reconstruction of the existing facilities. Reconstruction or retrofitting are considered an alternative to new construction. AGRO-SIMO-GLOBAL staff carry out audits and other activities, enabling to reach the required production rate and high quality products by altering only the process flow, which demands less investments than new construction.

Customized Equipment and Parts



Having its own production and testing facilities and long experience in the design of high performance equipment, Scientific-industrial corporation AGRO-SIMO-GLOBAL (Ukrainian branch) develops and manufactures any custom-tailored equipment, parts and spare parts. Upon survey results and according to the leaders of the grain processing industry, it is personalized approach to each Customer that is the business card of Scientific-industrial corporation AGRO-SIMO-GLOBAL (Ukrainian branch). The outcome of the approach is in the high finished product output rates at insignificant design adaptation or joint design of new machines.

Aspiration/Ventilation Design and Adjustment



Comfortable working conditions are ensured by the availability of aspiration and ventilation systems. Scientific-industrial corporation AGRO-SIMO-GLOBAL (Ukrainian branch) provides a range of services as to designing aspiration, pneumatic and aerosol transport units, air heating and conditioning systems, general ventilation systems for premises. Equipment units are supplied with up to date fans, high performance dust extractors (efficiency up to 99%), heaters, compressors, filters, feeders, and gate valves. It is necessary to manufacture air ducts, dust removers, different air separators, and also to assemble, adjust, startup and certify aspiration and ventilation systems.

Automated Control System



Automated control systems implemented by Scientific-industrial corporation AGRO-SIMO-GLOBAL (Ukrainian branch) enable to control simple and complex units, ensure industrial safety, production efficiency, and make the best of all available production resources. Automation is based on advanced technologies and vast experience of introducing turnkey automated control systems. AGRO-SIMO-GLOBAL staff provide process flow control using PLCs of various complexity, uniting sensors and actuators, including process parameter instruments, position sensors, valves, pumps, frequency controllers, electric and pneumatic drives into the integrated system.

Staff training



Introduction of new production technologies requires availability of trained and skilled staff, who can continuously control and adjust the operations of high performance equipment. Staff training is the key issue for ensuring trouble-free equipment uptime. Therefore, specialists of Scientific-industrial corporation AGRO-SIMO-GLOBAL (Ukrainian branch) provide basic and advanced training services in order to achieve the best efficiency and continuous plant operations.

AGRO-SIMO-GLOBAL staff are ready to provide any professional assistance and support to its customers at any project stage.

AGRO-SIMO-GLOBAL is proud of its professional team that has extensive experience in the development of new technologies and equipment for grain processing, which involves research, machine building, production and non-standard approach to the technologies in the design of turnkey groats mills and optimization of grain processing units.

So far the Company has built **over 88 turnkey groats mills**, reconstructed and commissioned cereal flakes production lines and feedstuff plants; the quality and reliability of equipment has already been tested by more than 500 enterprises in Russia, Ukraine, Belarus, Kazakhstan, Uzbekistan, Moldova, Poland, Lithuania, Austria, Croatia, China, the Czech Republic, Denmark, Hungary and New Zealand.

Scientific-industrial corporation AGRO-SIMO-GLOBAL (Ukrainian branch) is a shareholder of the largest manufacturers of grain processing equipment PJSC Mogilyov-Podolsk machine building plant and PJSC Khorol mechanical plant. These production facilities are also used as the research, development, production and testing site of the company.

PJSC Khorol mechanical plant manufactures grain cleaning separators, flour and cereal sives and sifting machines, as well as a wide range of grain mills, bucket conveyors, screw conveyors and various equipment for cereals manufacturing.



Production SIC "AGRO-SIMO-GLOBAL" has equipment that allows you to manufacture machines and mechanisms for various branches of modern industry, as well as to produce capacitive equipment with a volume of 1-100 m³, operating under a pressure of 0.07-2.5 MPa in temperature ranges of operation from minus 60° C to plus 350° C. The factory competently and professionally produced design and technological design equipment, taking into account all customer requirements. The company is comprehensively developing and improving itself. The organization of production makes it possible to efficiently and efficiently, with minimal labor costs and in terms established under contracts with customers to fulfill orders. The machine park is updated and modernized, equipment with software is in priority.

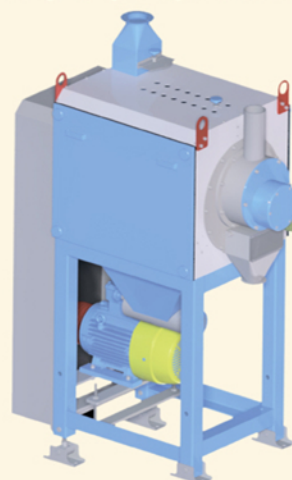


**Shelling abrasive machine SIMO SHAM-1**

Application: Shelling abrasive machine SIMO SHAM-1 is designed for peeling and grinding of leguminous crops, so the processing is carried out sparingly.

Technical specifications:

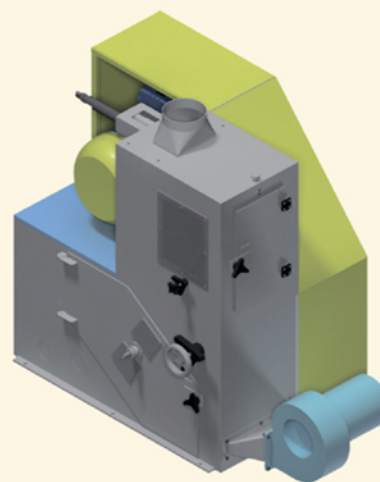
Productivity, kg/hour	1000-1500
The frequency of rotation of the working body, s ⁻¹ (rpm)	62,8 (680)
Installed power, kW, not more than	7,5
Material parts in contact with the product	quality steel and abrasive
Overall dimensions, not more, mm:	
length	2080
width	760
height	1330
Weight, kg	550

**Roller Sheller of rice and millet ShVS-2**

Application: The Roller Sheller consists of an aspirated case, in which there is a pair of rolls with a polyurethane outer layer, a vibrating feeder, an automatic damper with a pneumatic drive, a feed deck with a variable tilt angle, a system for blowing and cooling the grain, inspection doors and hatches.

Technical specifications:

Productivity, kg / h	2500-3000
Frequency of rotation of a rapidly rotating drum, rpm	1150
Air consumption for aspiration, m ³ /hour	180
Power supply with a grounded neutral	50 Hz, 380 V
Service life to overhaul, years	5
Installed power, kW, not more	7,5
Weight, kg, not more	450
Overall dimensions, mm, not more than	1150x670x1000

**Spinning and polishing machine for TsOS-1 cereals (puff separator)**

Application: The SIMO centrifugal tiller consists of an aspirated housing containing a working shaft with races and pins, a collapsible screen basket, an exhaust device with a cargo valve, a hopper with a screw for waste disposal, an electric drive with a belt drive, a welded frame, and revision doors.

Technical specifications:

Productivity, kg / h	2000-2500
Frequency of rotation of the working shaft, rpm	660
Air consumption for aspiration, m ³ /hour	600-1000
Power supply with a grounded neutral	50 Hz, 380 V
Service life to overhaul, years	5
Installed power, kW, not more	8,6
Weight, kg, not more	450
Overall dimensions, mm, not more than	1850x1300x700

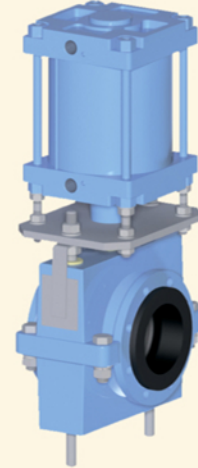


Mechanical (pneumatic) pinch valve 6" (150 mm) KP-150

Application: The mechanical pinch valve is designed to control the flow of abrasive, corrosive and fibrous materials and liquids.

Technical specifications:

Maximum temperature	120° C
Maximum working pressure	16 bar
Maximum compressed air pressure	10 bar
Diameter bore DN150	6"



Steamer PZ-5

Application: The steamer PZ-5 is designed for hydrothermal processing of cereal grain in order to improve the technological properties of the grain and improve the consumer properties of the finished product.

Technical specifications:

Volume of the case, m³: full	0,5
working	0,35
Productivity depending on the type of processed raw materials, kg	700-1400
Working pressure in the case, MPa	0,05÷0,4
Maximum ambient temperature in the enclosure, °C	148
Stirring speed, (r/min)	16-32
Overall dimensions, mm:	
length	4861
width	842
height	1912
Weight, kg	1200



Screener centrifugal TsS-1M

Application: The screening machine TsS-1M is designed to control various products of grain processing. The machine consists of a bed in which there are a fast-rotating whip rotor and the slow-rotating sieve drum surrounding it. The whips are attached to the flail rotor. The mounting design allows you to change the angle of attack of the scourges along the length to regulate the residence time of the product in the working area.

Technical specifications:

Productivity, kg/hour	2500-3000
Screening area, m²	5,75
Sieve drum dimensions,	
diameter, mm	820
length, mm	2250
Sieve drum speed, rpm	20
Diaphragm rotor diameter, mm	755
Whip rotor speed, rpm	167
Dimensions:	
length, mm	3500
width, mm	1250
height, mm	1950
Installed power, kw	7 (5,5+1,5)
Weight, kg	1750



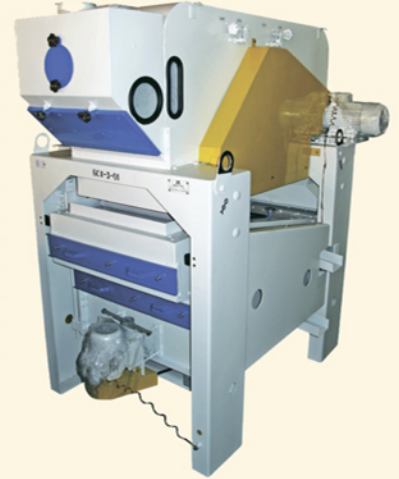


Cleaning machine BSH-3-01, A1-BMS-6

Application: The cleaning machine is designed for cleaning grain from the impurities by size and aerodynamic properties.

Technical specifications:

	BSH-3-01	A1-BMS-6
Capacity, t/h:		
- mill mode	2	25
- elevator mode	12	6
Cleanup factor, %:		
- mill mode	20	20
- elevator mode	80	75
Installed power, kW	2,95	3,75
Circular vibration rate per minute	325	325
Circular vibration radius, mm	9±2	9±2
Air flow, m³/h	2800	3200
Dimensions, mm:		
- length	1839	1889
- width	1305	1540
- height	1898	2024
Weight, kg	810	965

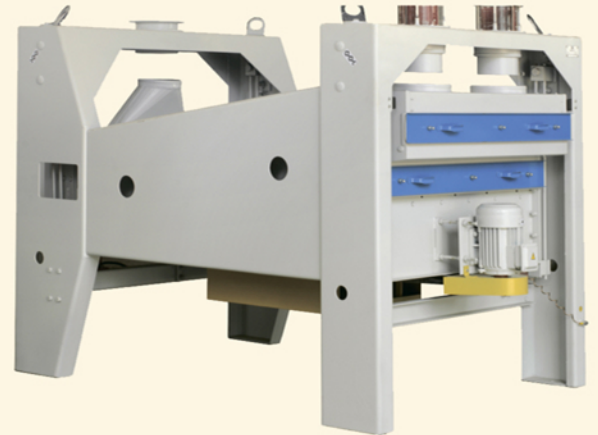


Cleaning machine BSH-12

Application: Cleaning machine BSH-12 is designed for cleaning grain from the impurities by width, thickness and aerodynamic properties. The separator can be installed in the grain cleaning departments of mills, elevators, groats and flour mills.

Technical specifications:

Capacity, t/h:	
- pre-cleaning	40
- final cleaning	12
Cleanup factor, %:	
- pre-cleaning	20
- final cleaning	80
Installed power, kW	1,1
Air flow, m³/h	4000
Sieve plate size, mm	990x760
Dimensions, mm:	
- length	2457
- width	1485
- height	2122
Weight, kg	1005



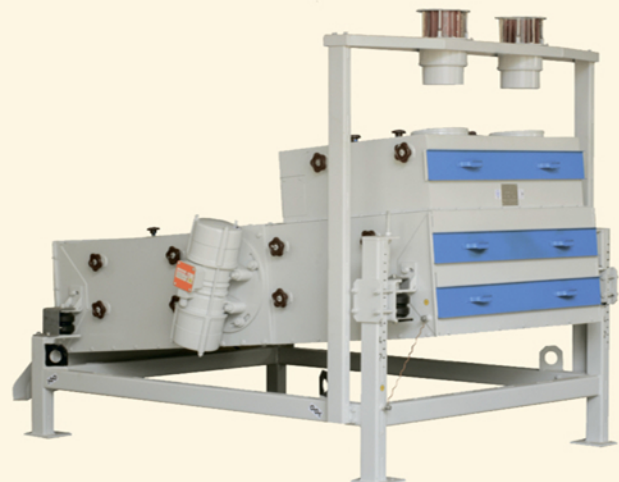
Cleaning machine BSHM-16

Application: Cleaning machine BSHM-16 is designed for cleaning grain from the impurities, by size and aerodynamic properties; as well as for separating grain mix by grades.

Technical specifications:

Capacity, t/hour:	
- mill mode	16
- elevator mode	66
Cleanup factor, %:	
- mill mode	75
- elevator mode	20
Installed power, kW	0,74
Air flow, m³/h	5400
Dimensions, mm:	
- length	2700
- width	1690
- height	1856
Weight, kg	690

Additional options:
1. Spreader
2. Aspiration leg



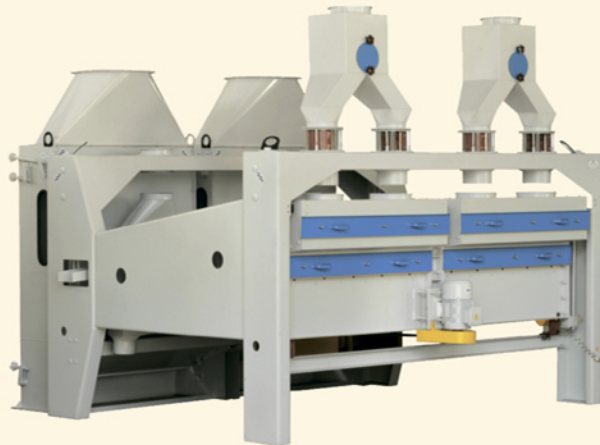


Cleaning machine BSH-100

Application: Cleaning machine BSH-100 is designed for cleaning grain from the impurities by size and aerodynamic properties.

Technical specifications:

Capacity, t/h:	
- pre-cleaning	100
- final cleaning	24
Cleanup factor, %	
- pre-cleaning	20
- final cleaning	80
Installed power, kW	1,5
Air flow, m³/h	8500
Sieve plate size, mm	990x760
Dimensions, mm:	
- length	2457
- width	2509
- height	2154
Weight, kg	1583



Cleaning machine BSH-200, BSH-300, BSH-400

Application: The universal cleaning machine is designed for pre-cleaning (elevator mode), cleaning and final cleaning (mill mode) from impurities by width, thickness and aerodynamic properties.

Technical specifications:

	BSH-200	BSH-300	BSH-400
Capacity, t/h:			
- pre-cleaning	200	300	400
- final cleaning	50	70	150
Cleanup factor, % min			
- pre-cleaning	20	20	20
- final cleaning	80	80	80
Installed power kW, max	2,95	7	7
Air flow, m³/h, max	17000	26000	36000
Dimensions, mm :			
- length	3830	2580	3100
- width	3110	3780	4124
- height	2950	2100	4250
Weight, kg max	3850	5200	9200



Grain Pre-Cleaning Separator SPO-50

Application: SPO-50 is designed for pre-treatment of the incoming field grain heap from impurities, the initial moisture content of up to 35% and the impurities content of up to 20% (separation density is not less than 0.5).

Technical specifications:

Capacity cleaning wheat volume weight 0.67 t / m³ impurity content up to 10% (including culmiferous to 1%) at 20% humidity	up to 80
Installed power kW, max	11,0
Dimensions, mm, max.:	
- length	3089
- width	1828
- height	3023
rotation frequency of fan shaft, rpm	860
rotation frequency of driving shaft, rpm	71
rotation frequency of driven nets shaft, rpm	71
rotation frequency of waste shaft, rpm	630



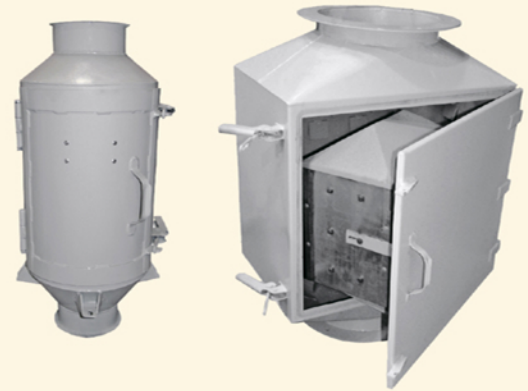


Magnetic cleaning machine B8-BMM, B8-BMP

Application: Magnetic cleaning machines B8-BMM, B8-BMP are designed for removing metal foreign matter from the product.

Technical specifications:

Name	B8-BMP	B8-BMM
Capacity, t/hour	11	8
Quantity of magnetic blocks	1	2
Dimensions, mm:		
- length	505	Ø body 290
- width	380	Ø flange 340
- height	378	700
Weight, kg	20	56



Air separator ASH-2.5, ASH-5, ASH-10

Application: Air separators ASH with a closed air circuit and a cross-flow fan are designed for dividing grain dehulling products (collection of hull and hulling bran, hull control, and finished product control) and for grain cleaning and blowing off light impurities.

Technical specifications:

Name	ASH-2.5	ASH-5	ASH-10
Capacity, t/hour	2,5	5	10
Installed power, kW	1,1	1,1	4,75
Cleanup factor, %	60	60	60
Dimensions, mm:			
- length	731	1031	1327
- width	1205	1205	1414
- height	1860	1860	1905
Weight, kg	300	430	920



Turbo Separator TS

Application: Turbo Separator TS is designed for removing fine impurities from the grain material.

Technical specifications:

Name	TS 5	TS 50	TS 150
Capacity, t/hour	5	50	150
Air flow, m³/hour	600	2500÷3000	6500÷8000
Pressure loss, Pa	300÷350	400÷470	500÷700
Installed power, kW	0,18	1,1	5,5
Cleanup factor, %	90	90	90
Dimensions, mm:			
- length	692	970	1800
- width	514	780	1250
- height	1110	1700	2900
Weight, kg	49	270	870



Colour Sorters OPTIMA Z

Application: Colour Sorters OPTIMA series is designed for detection of product defects based on the analysis of the signal received with optoelectronic sensors.

Technical specifications:

Name	OPTIMA 1	OPTIMA 1	OPTIMA 1
Configuration: - ejectors	60	90	120
- cameras	30	60	90
- chute	30	30	30
Productivity, t/h*:	1,5	3,0	5,0
Supply voltage, V:	220±5%	220±5%	220±5%
Operating power consumption, kW:	1,3	1,5	1,7
Air pressure, MPa:	0,6 – 0,8	0,6 – 0,8	0,6 – 0,8
Ambient temperature, °C:	+5...+40	+5...+40	+5...+40
Relative air humidity %:	20-80	20-80	20-80
Weight, kg	750	800	850
Dimensions, mm:			
- length	1900	1900	1900
- width	1000	1000	1000
- height	1800	1800	1800

*Productivity depends on the type and the percentage of contamination of the product to be sorted



Colour Sorters ZORKIY

Application: Colour Sorters series Zorkiy is designed for sorting a wide variety of bulk products using highly sensitive cameras to cope with small defects in the caryopsis.

Technical specifications:

Name	ZORKIY 1	ZORKIY 2	ZORKIY 3
Configuration: - ejectors	1	2	3
- cameras:	1	2	3
- chute*:	2 – 4 CCD	4 – 8 CCD	6 – 12 CCD
- vibrating plates:	54	108	162
Productivity tins in hour*:	5,0	10,0	15,0
Supply voltage, V:	220±5%	220±5%	220±5%
Operating power consumption, kW:	1,0	1,3	1,5
Air pressure, MPa:	0,6-0,8	0,6-0,8	0,6-0,8
Ambient temperature, °C:	+5...+40	+5...+40	+5...+40
Relative air humidity %:	20-80	20-80	20-80
Weight, kg	420	460	500
Dimensions, mm:			
- length	1492	1492	1492
- width	1442	1442	1442
- height	2000	2000	2000

*Productivity depends on the type and the percentage of contamination of the product to be sorted



Aspirating chamber BSH-100

Application: Aspirating chamber BSH-100 is used to clean grain from the impurities, different in aerodynamic properties.

Technical specifications:

Capacity, t/h (wheat cleaning, humidity rate up to 15%):	
- pre-cleaning	50
- final cleaning	12
Cleanup factor, % (light impurities content up to 3%):	
- pre-cleaning	20
- final cleaning	80
Installed power, kW	4,0
Dimensions, mm:	
- length	1400
- width	1230
- height	2370
Weight, kg	450





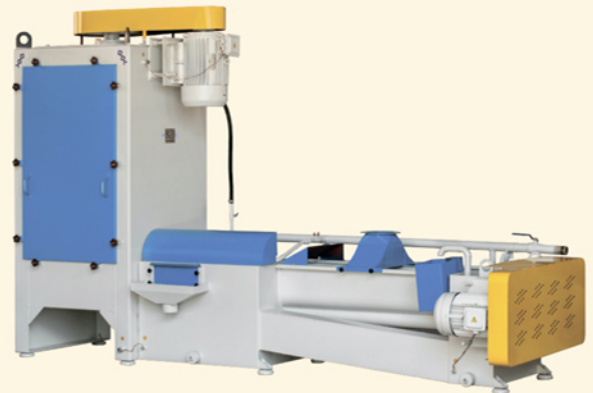
Equipment for grain cleaning

Washer KVD-1

Application: The washer is designed for grain hydroseparation and washing at groats and flour mills.

Technical specifications:

Capacity, t/h, within:	
- for buckwheat	2,7-5,4
- for wheat	3-6,0
- for corn	5-6,0
Efficiency of removing light and organic impurities, %, min	
- for buckwheat	90
- for wheat	85
- for corn	80
Efficiency of collecting mineral impurities, %	71-75
Installed power, kW, within	9,7-13,2
Specific water flow rate, l/t	350 – 850-1200
Dimensions, mm:	
- length	3360
- width	1230
- height	1990
Weight, kg	1900
Aspiration air flow (max), m³/h	10



Gravity table separator PSS

Application: Gravity table separator PSS is designed for dividing bulk materials that have similar particle size but different specific weight.

Technical specifications:

Capacity (rated), t/h	2,5-3,5
Table separator vibration rate, c-1 (per minute)	940
Table separator vibration amplitude, mm	5-6
Table angle, degree:	
- longitudinal	0-8
- transverse	0-8
Impurity separation rate, %	75...90
Required air flow, m³/h, max	8400
Installed power, kW	0,74
Dimensions, mm:	
- length	2020
- width	1850
- height	2010
Weight, kg	600

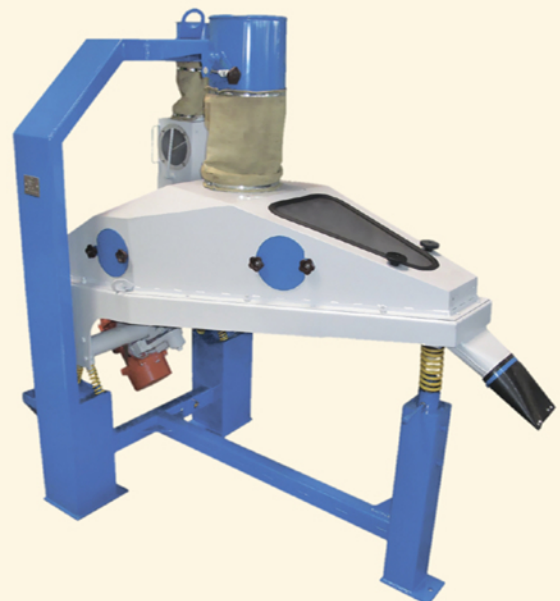


Stone separator PKV-3

Application: Stone separator PKV-3 is designed for grain dry cleaning from mineral impurities.

Technical specifications:

Capacity, t/h	2,0-2,5
Power demand, kW	0,37
Vibration rate per minute	940
Amplitude, mm	2-5
Impurity separation rate, %	96...98
Required air flow, m³/h	4800
Dimensions, mm:	
- length	1950
- width	1050
- height	1650
Weight, kg	250



Stone separator R3-BKT-100

Application: Stone separator R3-BKT-100 is designed for grain dry cleaning from mineral impurities.

Technical specifications:

Hourly capacity of actual running time (wheat cleaning), t/h	6-9
Drive installed power (excluding a fan), kW	0,35
Table working surface area, m ²	1,0
Table angle, degree	5-10
Air flow, m ³ /h, max	4800
Underpressure in the operating chamber for non-loaded machine, mm WG	75
Vibrator shaft rotation rate per minute	930
Dimensions, mm:	
- length	1750
- width	1420
- height	1530
Weight of complete machine, kg	275



Cylinder separator R6-TTs-500, R6-TTs-700

Application: Cylinder separators R6-TTs-500, R6-TTs-700 are designed for removing the impurities, different from the basic grain in length. In terms of the process purpose cylinder separators may be of two types:

- to remove impurities longer than the basic grain (oat cylinder);
- to remove impurities shorter than the basic grain (cockle cylinder).

Technical specifications:

	R6-TTs-500	R6-TTs-700
Capacity, t/h, min	3	6
Cleanup factor, wheat, %, min	70	70
Separator cylinder:		
- diameter, mm	500	700
- length, mm	2400	2400
Electric motor power, kW	1,1	1,1
Power supply voltage, V	380±38	380±38
Aspiration air flow, m ³ /h, max	300	300
Dimensions, when mounted, mm, max:		
- length	3475	3140
- width	900	970
- height	1160	1670
Weight, kg, max	450	620



Cylinder separator BTHM

Application: Cylinder separators BTHM-2, BTHM-2-01, BTHM-2-02, and BTHM-2-03 are used at grain processing plants that manufacture foods in order to remove impurities, different from the main cereal crop grains in size (length).

Technical specifications:

	BTHM 2.00.000	BTHM 2.00.000-01	BTHM 2.00.000-02	BTHM 2.00.000-03
Capacity, t/h	1,5	1,35	2,5	2,2
Cylinder rotation rate, RPM			40	
Cylinder diameter, mm			500	
Mesh size, mm	5,5	9,5	5,5	9,5
Installed power, kW			0,55	
Dimensions, mm:				
- length	2280	2280	3030	3030
- width			785	
- height			950	
Weight, kg	200	200	250	250





Modular grain dryer SZM

Application: Modular grain dryers are designed for drying seed, food and feed grains as well as the seeds of cereals, legumes, cereals and sunflower. The dryers provide drying of grains and seeds with the initial humidity of up to 35%, and can operate in a parallel flow, and in the recirculation mode. The dryers are used in grain cleaning and drying systems and also seed-cleaning and drying lines.

Technical specifications:

	SZM -120	SZM -210	SZM -230	SZM -310	SZM -320	SZM -330	SZM -530	SZM -540	SZM -760
Capacity t / h	15	10	25	10	20	30	33	50	70
Shelled corn (20%...15%)	9	7	16	7	13	19	21	33	46
Shelled corn (25%...15%)	6	5	10,5	5	8,5	12,5	14	22	30
Wheat (20%...15%)	14	10	24	10	19	29	32	49	70
Sunflower (17%...10%)	7,5	5	12,5	5	10	15	17	25	35
Rape (16%...8%)	5	3	8	3	7	10	11	17	25
Installed capacity (no bucket conveyors), kW	42	35	59	40	60	77	84	112	147
Fuel type	gas	gas	gas	gas	gas	gas	gas	gas	gas
Maximum fuel consumption, m ³ / h	200	140	240	90	210	350	350	600	720
Total capacity for grain (approximately)	25 m ³	17 m ³	32 m ³	12 m ³	24 m ³	36 m ³	35 m ³	48 m ³	60 m ³
Number of heating zones	1-2	1-2	2	3	3	3	4-5	4-5	6-7
Dryer operating height, m	5,5	5,5	7,2	8,5	8,5	8,5	11,3	11,3	14,1
Dryer operating length, m	10,0	7,5	10,6	5,6	8,1	10,6	8,1	10,6	10,6
Dryer operating width, m	2,5	2,5	2,5	3,15	3,15	3,15	3,5	3,5	3,5
Number of staff	2	2	2	2	2	2	2	2	2



Mounting steps: / Czynności instalacyjne:



Photo dryers installed in Ukraine and other countries

Bunker section BS 1,5-2X2 brands

Application: The sectional bunker of the BS brand is intended for the storage and operational use of bulk grain materials and products of their processing. The rectangular shape allows rational use of the area, and rounded corners prevent sticking of the product.

Technical specifications:

Capacity of the bunker, full, m ³	26*
working, m ³	24*
Discharge opening, mm	200 x 200
Loading opening, mm	200 x 200
Number of belts	1-5
Height before unloading, mm	880
Overall dimensions, mm:	
- length	2000
- width	2000
- height with fencing	9984
- without fencing	4750
Weight, kg	1430

* Capacity is indicated for a 5-belt bunker (belt height $h = 1512\text{mm}$), each subsequent belt increases the volume of the bunker by 6 m^3 .



Bunker folding BR-2x2

Application: The collapsible bunker BR-2x2 is designed to store 3-5 daily stock of dry food in poultry farms, livestock farms, as well as to store grain and finished products in mills, feed mills and other grain processing plants, and feed it into gravity flow equipment.

Technical specifications:

Capacity of the bunker, full, m ³	10**
working, m ³	9**
Discharge opening, mm	200 x 200
Loading opening, mm	200 x 200
Number of belts	1-4
Height before unloading, mm	880
Overall dimensions, mm:	
- length	2000
- width	2000
- height with fencing	5700
- without fencing	4750
Weight, kg	1000

**The capacity is indicated for a 4-zone bunker (belt height $h = 550\text{ mm}$), each subsequent belt increases the volume of the bunker by 2 m^3 .





Steamer PZ-1

Application: Steamer PZ-1 is designed for cereal crops hydrothermal treatment to improve grain processing properties and useful qualities of the finished product.

Technical specifications:

Volume, m ³ :	V=1,3 m ³	V=1 m ³	V=0,5 m ³
- full	1,3	1,0	0,5
- load	1,15	0,85	0,4
Working pressure, MPa (kgf/cm ²)	0,3-0,5 (3-5)		
Design pressure, MPa (kgf/cm ²)	0,8(8)		
Test pressure, MPa (kgf/cm ²)	0,85 (8,5)		
Pneumatic air control pressure, MPa (kgf/cm ²)	0,6 (6,0)		
The calculated wall temperature, °C	200		
Description of supply mains, V/Hz	220, 50 Hz		
Characteristics of the working substance	harmless, non-explosive, non-flammable		
The name of the substance work	corn, steam		
State of the substance work	solid, couple		
The period of service before overhauls, years	5		
Material of the parts in contact with the product	Stainless steel		
The gasket material	fabric rubber PON-B State Standard GOST 481-80		
Dimensions, mm:			
- length	1734	1734	1734
- width	1130	1130	1130
- height	2917	2617	2017
Weight, kg		936/1076	



Steamer PZ-2

Application: Steamer PZ-2 is designed for cereal crops hydrothermal treatment to improve grain process properties and useful qualities of the finished product.

Technical specifications:

Volume, m ³ :	
- full	1,0
- load	0,9
Working pressure, MPa (kgf/cm ²)	0,05 - 0,2
Design pressure, MPa (kgf/cm ²)	0,6 (6,0)
Test pressure, MPa (kgf/cm ²)	0,84 (8,4)
Pneumatic air control pressure, MPa (kgf/cm ²)	0,6 (6,0)
The calculated wall temperature, °C	200
Description of supply mains, V/Hz	220, 50 Hz
Characteristics of the working substance	harmless, non-explosive, non-flammable
The name of the substance work	corn, steam
State of the substance work	solid, couple
The period of service before overhauls, years	5
Material of the parts in contact with the product	Stainless steel
The gasket material	fabric rubber PON-B State Standard GOST 481-80
Dimensions, mm:	
- diameter	1000
- length	1553
- width	1130
- height	4200
Weight, kg	1320



Steamer PZ-3

Application: Steamer PZ-3 is designed to cook cereals and grains, as well as other bulk products under the saturated steam overpressure and continuous product stirring with a stirrer.

Technical specifications:

Volume, m³:	
- full	0,8
- load	0,5
Capacity (depending on crop and steaming mode), t/hour	0,5÷1,5
Working pressure, MPa (kgf/cm²)	0,15(1,5)
Design pressure, MPa (kgf/cm²)	0,35(3,5)
Test pressure, MPa (kgf/cm²)	0,42(4,2)
Wall permissible temperature, °C	145±5
Description of supply mains, V/Hz	380/50
Operating medium in the housing	safe, noninflammable, inexplusive
Name of operating medium	Solid matter, water vapour
Material of the parts in contact with the product:	Steel St3ps2 State Standard GOST 380-94 Steel 12X18H10T State Standard GOST 5632-72
Sealing material	Paronite PON-A GOST 481-80
Dimensions, mm:	
- length	1425±10
- width	1425±10
- height	3854±10
Weight, kg / Masa, kg	995±20



Steamer PZ-4

Application: Steamer PZ-4 is designed for cereal crops hydrothermal treatment to improve grain processing properties and useful qualities of the finished product.

Technical specifications:

Volume, m³:	
- full machine	2,7
- grain on the belt	0,1
Belt working area, m²	2,2
Belt speed, m/min	0,72÷0,87
Capacity, t/hour	1÷1,2
Working pressure, MPa (kgf/cm²)	0,3 (3,0)
Test pressure, MPa (kgf/cm²)	0,4 (4,0)
Wall permissible temperature, °C	145±5
Description of supply mains, V/Hz	380/50
Service life, years	5
Operating medium in the housing	safe, noninflammable, inexplusive
Name of operating medium	Solid matter, water vapour
Material of the parts in contact with the product	Stainless steel 12X18H10T State Standard GOST 5632-72
Sealing material	Paronite PON-A GOST 481-80
Dimensions, mm:	
- length	4000±20
- width	1600±20
- height	2550±20
Weight, kg	2920





Dryer VS-10M

Application: Dryer VS-10M is designed to dry and parch cereal crop grains and finished cereals. The delivery set includes a cooling tower.

Technical specifications:

Parameters	Quantity of sections (dryer type)				
	4	5	6	7	8
Capacity, t/hour:					
- oats	1,5...1,95	1,8...2,4	2,1...2,85	2,55...3,3	3,0...3,96
- buckwheat	1,5...1,95	1,8...2,4	2,1...2,85	2,55...3,3	3,0...3,6
- peas	3,0...3,9	3,6...4,8	4,2...5,7	5,1...6,6	6,12...7,92
Heat exchange surface area per section, m ²	9,2	9,2	9,2	9,2	9,2
Heating area, sq. m.	36,8	46,0	55,2	64,4	73,6
Initial grain humidity, up to, %	20	20	20	20	20
Steam pressure, kPa	400	400	400	400	400
Steam flow, kg/s	0,050	0,063	0,075	0,083	0,100
Air flow, m ³ /hour	4000	4000	4000	4000	4000
Electric motor power, kW	0,75+1,1	0,75+1,1	0,75+1,1	0,75+1,1	0,75+1,1
Dimensions, mm:					
- length	3455	3455	3455	3455	3455
- width	660	660	660	660	660
- height	6600	7800	9000	10200	11400
Weight, kg	4465	5370	6280	7200	8100



Dryer VS-10M

Application: Humidifier centrifugal TSU-1 - designed to moisten the grain in mills and groats plants with a rotary sprayer.

Technical specifications:

Productivity, kg/h	to 2500
Spray Bob Speed, s ⁻¹ (rpm)	314 (3000)
Installed power, kW	0,06
Weight of humidifier, kg	18
Water consumption, l/hour	to 70
Overall dimensions, mm	
- length	380
- width	350
- height	480



Humidifier R6-UV-250

Application: Humidifier R6-UV-250 is designed for moisturizing grains during their hydrothermal treatment. The humidifier is installed in the preparation departments of grain storage and processing plants.

Technical specifications:

Operating capacity, t/hour, minimum	6
Grain humidifying rate per passage, %, minimum	5
Flail shaft parameters, mm:	
- diameter	250
- length	3000
Flail shaft rotation rate, RPM	240
Power supply voltage, V	380±38
Drive installed power, kW, maximum	5,5
Dimensions, when mounted, mm, maximum:	
- length	3220
- width	320
- height	1730
Weight, kg, maximum	214

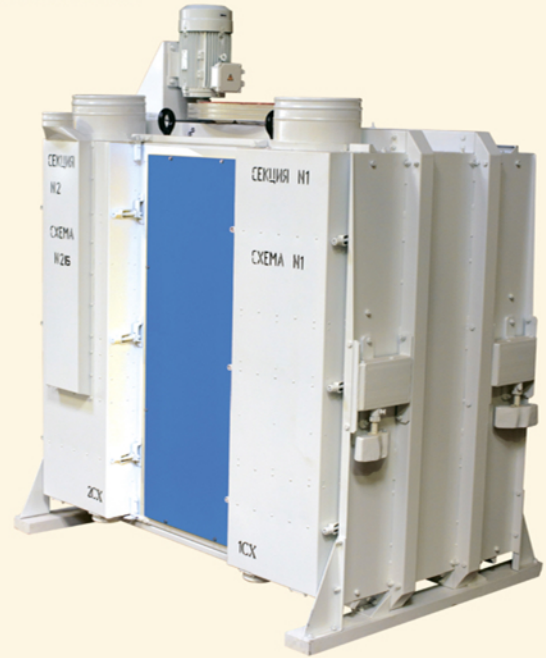


Sifting Machines RK-2 and RK-4

Application: Self-balancing sifting machine is designed to sort cereals (remove impurities, size before dehulling, collect intermediate products of dehulling and polishing, grade and control products) at cereal production facilities.

Technical specifications:

Parameters	RK-4	RK-2
Capacity, t/h	6-8	2-4
Quantity of sections (inlets)	4	2
Estimated sifting frame sizes, mm	400x800	
Total estimated useful area, sq. m.	13,5	6,75
Housing circular vibration rate, c-1	3,0..3,2 - 3,7..3,8	
Radius of circular vibration, mm	28-22	
Aspiration air flow, cubic m/h	840-1080	420-540
Electric drive power, kW	3,0	3,0
Dimensions (max), mm:		
- length	2310	1930
- width	1390	1100
- height	2370	2500
Weight, kg	2415	1809



Sifting Machines R6 RPSH

Application: Sifting machines R6 RPSH-6x18, R6 RPSH-8x24 designed for sorting of intermediate products, that is obtained by grinding wheat at the mills.

Technical specifications:

Parameters	R6 RPSH-6x18	R6 RPSH-8x24
Sifting area, m²	31,8	57-67
Housing rate, rev/min	220	230
Radius of circular vibration, mm	30-40	25-30
Electric drive power, kW	5,5	
The number of frames per section, PCs	18	24
Dimensions (max), mm		
- length	2960	3200
- width	2536	2830
- height	2000	2400
Weight, kg	3800	3800





Centrifugal sieve TsS-1

Application: Centrifugal sieve TsS-1 is designed for controlling different grain products.

Technical specifications:

Capacity, t/h	2500-3000
Flail cylinder rotations per minutes, RPM	154
Drum sieve rotation rate per minute, RPM	20
Aspiration air flow, m ³ /h	700
Rotor drive installed power, kW, max	3,0
Drum drive installed power, kW, max	1,1
Flail angle to the rotor axis, mm/m	50
Sieving surface area, m ²	5,75
Dimensions, mm:	
- length	3600
- width	1180
- height	1940
Weight, kg	1850

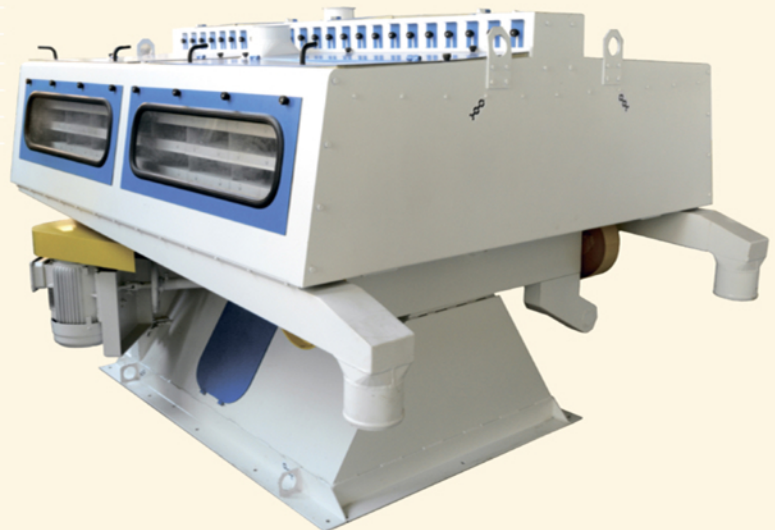


Screening machine MSH

Application: Screening machine MSH is designed for sizing grain dehulling products, for collecting non-dehulled grains in buckwheat, rice and oats with the operation performance of 92...96%.

Technical specifications:

Capacity (estimated), kg/hour	
- rice	1500
- oats	800
- buckwheat	1500
Vibration table rate, vibrations/min	80...105
Vibration table amplitude, mm	180...220
Quantity of table operating channels, pcs.	24
Sizing rate, %	92...96
Aspiration air flow, m ³ /h	450
Installed power, kW	2,2
Dimensions, mm:	
- length	2100
- width	1600
- height	1450
Weight, kg / Masa, kg	1500



Roll huller SGR-600M (advanced)

Application: Advanced roll huller SGR-600M is designed for hulling buckwheat and millet at cereal processing facilities, small and medium size farms.

Technical specifications:

Parameters		SGR – 600M	
		millet	buckwheat
Capacity, grain, t/hour		1,5 - 1,8	2,5 fraction
Performance:			
Hulling factor, %			50
1st hulling system		80-90	-
2nd hulling system		90-95	-
4th hulling system		95-99	-
Whole kernel factor		0,87	0,95
Performance factor		85	48
Installed power, kW		11,0	7,5
Operating surface material	- roll	Abrasive	
	- deck	**	Abrasive
Roll speed rate, RPM		400	
Roll length, mm		600	
Roll diameter, mm		600	
Aspiration air flow, m³/hour, min		1000	
Power line voltage, V		380	
Dimensions, mm, max	- length	1050	
	- width	858	
	- height	2165	
Weight, kg, max		1060	



Centrifugal shelushitel SIMO TsShS-3 (02) (peeling-pea machine)

Application: The centrifugal pea SIMO consists of two working bodies: the rotor and the upper conical deck, which are installed in their own bearing assemblies and placed in a powerful steel case. The working bodies are equipped with individual drives and have the ability to fine-tune the rotational speed by means of frequency converters mounted on electric motors.

Technical specifications:

Productivity at splitting and peeling, kg/h	1200-1600
Disk rotational speed, rpm	2850
Air consumption for aspiration, m³/hour	750-900
Power supply with a grounded neutral	50 Hz, 380 V
Service life to overhaul, years	5
Installed power, kW, not more	18,5
Weight, kg, not more	700
Overall dimensions, mm:	
- length	1400
- width	750
- height	165



Grinder IS-1

Application: Grinder IS-1 is designed for grinding grains (wheat, rye, barley, pea, millet, rice, corn), while they are processed to manufacture flour, cereals, feedstuffs and forage mixes. The grinder is applied at flour and groats mills, feedstuff and forage facilities.

Technical specifications:

Capacity, t/hour	1,2
Installed power, kW	5,5
Rotor speed rate, RPM	2850
Dimensions, mm:	
- length	1030
- width	670
- height	1100
Weight, kg	190





Centrifugal Huller SIMO TsShS-3

Application: The centrifugal huller is designed for high performance sunflower and oats grain hulling with simultaneous shaking and winnowing a part of fibres and hull, crushed corn to select germinable seeds. Rotor operating surfaces and huller decks are made of high-duty chilled cast iron. To hull other cereals the operating deck surfaces may be made of abrasive or polymer materials.

Technical specifications:

Capacity, oats with 11-13% moisture content, hull content 27-30%, t/hour	2,4 ÷ 3
Performance:	
- hulling factor, %	90÷94
- whole kernel factor	0,95
Rotor speed rate, RPM	2850
Deck speed rate, RPM	675
Rotor diameter, mm	500
Deck diameter, mm	550
Aspiration air flow, max, m³/hour	1000
Installed power, kW	
- rotor drive	7,5
- deck drive	0,75
Power line voltage, V	380
Dimensions, mm:	
- length	1456
- width	780
- height	1570
Weight, kg	370



Centrifugal Huller ShO-3

Application: Oat huller ShO-3 is designed for oat grain and sunflower seed crushing at groats mills and oil extraction facilities.

Technical specifications:

Capacity, t/h:	1-1,5
Speed rate, RPM	2000...2500
Installed power, kW	3,0
Rotor diameter, mm	500
Deflector ring diameter, mm	550
Dimensions, mm:	
- length	1200
- width	690
- height	770
Weight, kg	280



Hulling and Polishing Machine R6-MSH

Application: Hulling and polishing unit R6-MSH is designed for hulling and polishing grain and bean crops while processing them into cereals.

Technical specifications:

Capacity, t/h	0,7
Aspiration air flow, m³/h	340-450
Installed power, kW	15
Dimensions, mm:	
- length	1100
- width	900
- height	1650
Weight, kg	500

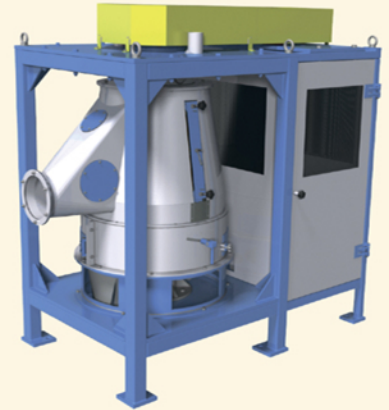


Shelling machine SIMO ShShMS-3

Application: Shelling machine is designed to shell grain crops and polish grains and cereals.

Technical specifications:

Hulling and polishing capacity, t/hour	1,75 - 3
Rotor abrasive surface:	
- diameter (average), mm	500
- area, m ²	0,96
Rotor speed rate, c-1(RPM)	730
Air flow, m ³ /hour	3500
Power supply with solidly earthed neutral	50 Hz, 380 V
Installed power, kW, max	45
Weight, kg, max	2500



Degerminator SIMO DS-2

Application: The degerminator is designed for finishing and polishing different cereals, and degermination of corn to separate germinable grains.

Technical specifications:

Capacity (corn), t/h	1500-2000
Operating device speed rate, RPM (C-1)	62,8 (600)
Installed power, kW, max	37
Power supply with solidly earthed neutral	50 Гц, 380 В
Work product	grain
Work product condition	solid
Forced air volume, m ³ /hour	2000, 5kPa
Aspiration air volume, m ³ /hour	2000
Dimensions, mm:	
- length	1165
- width	690
- height	1790
Weight, kg, max	830



Horizontal Dehullers R3-BGO-6 and R3-BGO-8

Application: The machine is designed for dry wheat and rye grain surface dedusting, cleaning from partial separation of coat, brush and germinable seeds at flour mills and for barley and wheat pre-hulling.

Technical specifications:

Parameter	R3-BGO-6		R3-BGO-8	
	with a sieve cylinder	with an abrasive cylinder	with a sieve cylinder	with an abrasive cylinder
Capacity, t/h	3÷5,5	2÷3	7÷9	3÷5
Installed power, max	5,5	5,5	11	11
Aspiration air flow m ³ /h, max	432	432	800	800
Rotor speed rate, RPM:				
- to clean wheat grain	1085	1085	1085	1085
- to clean barley grain	-	1450	-	1450
Dimensions, mm, max:				
- length	1365	1560	2158	2158
- width	598	620	598	620
- height	1493	1493	1662	1662
Weight, kg, max	247	433	247	690





Equipment for grain dehulling, polishing and milling

Roller Mill VM-2P

Application: Roller mill VM-2P is designed for grinding grains and intermediate products of wheat milling. This machine is used within the process line at flour mills with high extra class flour output.

Technical specifications:

Capacity, a half of the machine, tons per day	40
Nominal length of roll working surface	400
Diameter of roll, mm	185
Installed power of drive electric motors, kW	7,5
Dimensions, mm:	
- length	1050
- width	1090
- height	1540
Weight of mill (without electric drive), kg	1000



Roller Mills R6-BZN-M and A1-BZN

Application: Roll mills R6-BZN-M and A1-BZN are designed for grinding grains and intermediate wheat milling products; they are used within the process line at flour mills with high extra class flour output.

Technical specifications:

Capacity, a half of the machine, tons per day	84
Installed power (½ machine), kW	7,5-18,5
Grinding roll size, mm	
- diameter	250
	1000
Length:	800
	600
Dimensions (excluding electric drives), mm:	
- length	1700
- width	1700
- height	1400



Equipment for flakes production

Air vibration dryer USH

Application: The dryer is designed for drying grain flakes of various crops by convection drying after flaking on the flattening machine. It may also be used to collect surface moisture after cereal steaming and grain dehulling, at groats mills and grain flake production lines.

Technical specifications:

Flakes production capacity, kg/h	500...1000
Drying agent temperature, °C	100...120
Drying agent flow, m³/hour	4000...5000
Electric vibrator rotation rate, C-1 (RPM)	940
Electric vibrator vibration amplitude, mm	5...6
Installed power, kW, max	2x0,37
Power supply main with solidly earthed neutral	50 Hz, 380 V
Working sieve angle, degrees	0...6
Operating environment condition	Solid matter
Overhaul life, years	5
Material of the parts in contact with the product	St3ps2 State Standard DSTU 2651-94 (GOST380-94) Steel 12X18H10T GOST 5632-72
Dimensions, mm:	
- length	2530
- width	1420
- height	1750
Weight, kg, max	595



Cereal cutting machine centrifugal SIMO TsKS-1

Application: Cereal cutting machine centrifugal SIMO TsKS-1 of continuous action is designed for cutting grain oatmeal at groats mills and lines of cereal flakes. It is also possible to use the machine for cutting and other cereals.

Technical specifications:

Performance on oats moisture 11-13%, kg/h	1100-1200
Rotor speed, rpm	365
The number of revolutions of the matrix, rpm	35
Diameter of a rotor, mm	500
Installed power, kW:	
rotor drive	2,2
matrix drive	1,1
Power network voltage, V	380
Air consumption for aspiration, m ³ /hour	200
Compressed air pressure, kgf/cm ²	6 ÷ 8
Overall dimensions, mm	1265x900x1410
Weight, kg	450



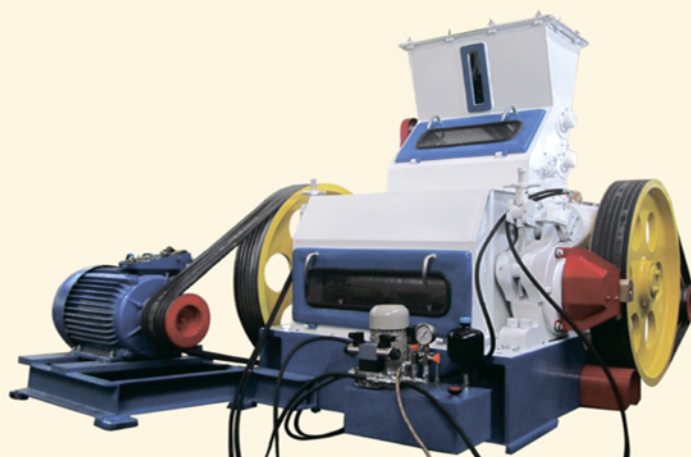
Flaking Mill PS-600

Application: The flaking mill is designed to flatten cereals and hulled grains while manufacturing oatmeal, buckwheat, pearl barley, finely ground barley, corn, wheat, rice and other flakes.

The specific features of this machine operation include cooled rolls, enabling to create optimal flattening conditions for the product to be flattened.

Technical specifications:

Flakes production capacity, kg/hour	700-1200
Aspiration air flow, m ³ /hour	900
Diameter, mm:	
- working rolls	600
- feeding roller	122
Length, mm:	
- working rolls	800
- feeding roller	800
Frequency of rotation, rev / min:	
- working rolls	160
- feeding roller	80
Installed power, kW, max:	
- working rolls drive	30
- feeding roller drive	1.1
Dimensions, mm:	
- length	3000
- width	2210
- height	1700
Weight, kg, max	5500



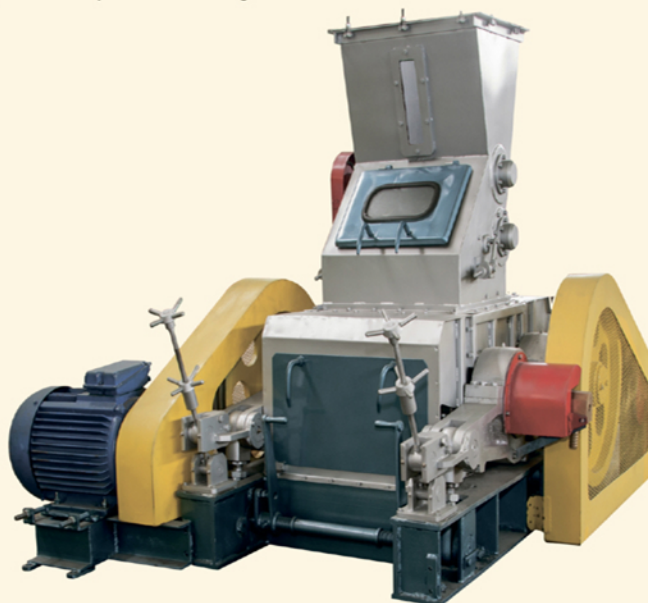
Flaking Mill PS-400

Application: The flaking mill is designed to flatten cereals and hulled grains while manufacturing oatmeal, buckwheat, pearl barley, finely ground barley, corn, wheat, rice and other flakes.

The specific features of this machine operation include cooled rolls, enabling to create optimal flattening conditions for the product to be flattened.

Technical specifications:

Flakes production capacity, kg/hour	600-800
Diameter, mm:	
- working rolls	400
- feeding roller	122
Frequency of rotation, rev / min:	
- working rolls	600
- feeding roller	600
Length, mm:	
- working rolls	237
- feeding roller	20
Installed power, kW, max:	
- working rolls drive	22
- feeding roller drive	0,55
De-aeration volume, m ³ /hour	700
Dimensions, mm:	
- length	2200
- width	1940
- height	1540
Weight, kg	2520





Vertical Mill A1-DM2R-22B

Application: The mill is designed for grinding grains, chaffy, bean, corn, grain mix, oil cake, mill cake and other raw materials, except mineral ones. The mills are installed at the feedstuff plants.

Technical specifications:

	A1-DM2R-22B	A1-DM2R-55	A1-DM2R-75
Rotor speed, RPM	3000	1500	1500
Capacity, barley grinding, t/hour, min:			
4th group size (sieve Ø6,5)	7	6,5	10
3rd group size (sieve Ø5)	4,5	4,5	8
2nd group size (sieve Ø3)	2,5	2,5	3,5
Installed power, kW	45	55	75

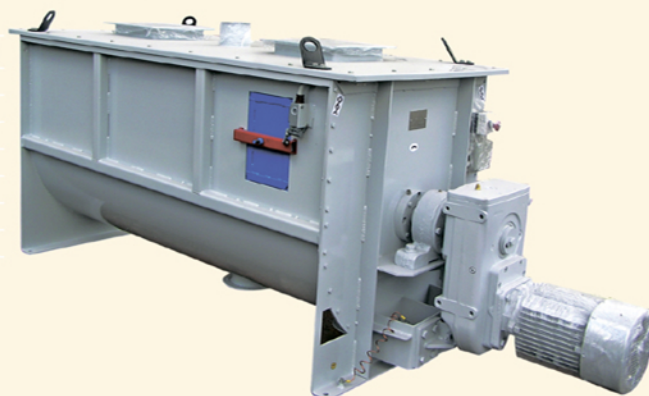


Mixer ZMG-1000, ZMG-2000

Application: The batch-operated horizontal counterflow mixer is designed for mixing feedstuff ingredients. The mixer may be applied at feedstuff plants and in the fortifier production departments.

Technical specifications:

Model	ZMG -1000	ZMG -2000
Capacity, t/h	3	6
Volume, m ³	1,2	4,5
Mix homogeneity rate	95%	95%
Mixing cycle, min.	4-6	5
Discharge, min.		1,5-3
Rotor speed, RPM		28
Installed power, kW	6,6	12,74



Mixer ZSL-1000, ZSL-4000

Application: The mixer is designed for blending feedstuff ingredients after batching. It may be used for mixing mineral fertilizers. The mixer may be applied at feedstuff plants and in the fortifier production departments.

Technical specifications:

	ZSL-1000	ZSL-4000
Capacity, kg per cycle	up to 500	up to 2000
Volume, m ³	1	4
Mix homogeneity rate	up to 95%	up to 95%
Mixing cycle, min.	3,5	3,5
Including:		
Loading time, sec.	0,5	0,5
Mixing time, min.	2,5	2,5
Discharge, min.	0,5	0,5
Rotor speed, RPM	47±3	47±3
Installed power, kW	18,5	45
Dimensions, mm:		
- length	2240	3512
- width	1200	1812
- height	1860	2575
Weight, kg	1900	2600





Mini cereal production plant R6-MKC-7

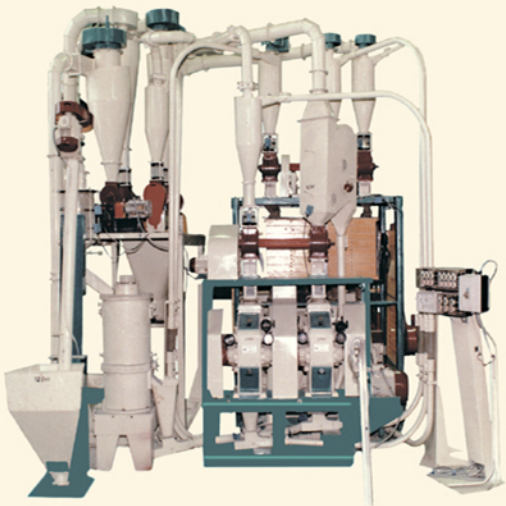
Application: Cereal production plant R6-MKC-7 is designed for processing barley, wheat and peas and manufacturing the following products:

- barley: pearl barley № 1, 2 or fine barley № 1, 2, 3;
- wheat: cereal "Poltavskaya" № 1, 3 and cereals № 2, 3 according to TU U46.22.002-94;
- peas: whole polished, class 1, and crushed polished, class 1.

The cereal production plant is designed to be used by agricultural companies and farms.

Technical specifications:

Parameters	Barley		Wheat		Peas
Capacity, tons per day	4 - 5	5 - 7	5 - 7	4 - 5	5 - 7
- total output, %	50 - 55	60 - 65	55 - 62	45 - 55	60 - 65
including pearl barley cereal № 1	46 - 50	-	-	-	-
pearl barley cereal №2	4 - 5	-	-	-	-
fine barley cereal № 1	-	12 - 18	-	-	-
fine barley cereal № 2	-	30 - 35	-	-	-
fine barley cereal № 3	-	18 - 12	-	-	-
wheat cereal №2	-	-	10 - 15	-	-
wheat cereal №3	-	-	45 - 47	-	-
cereal Poltava №1	-	-	-	35 - 40	-
cereal Poltava №2	-	-	-	10 - 15	-
polished peas	-	-	-	-	12 - 15
polished crushed peas	-	-	-	-	48 - 50
Total power of installed electric drives, kW, max			32,04		
Weight, kg, max			5300		
Dimensions, mm:					
- length			4200		
- width (excluding fan room installation)			3600		
- height			4300		



Mini cereal production plant R6-MKC-15

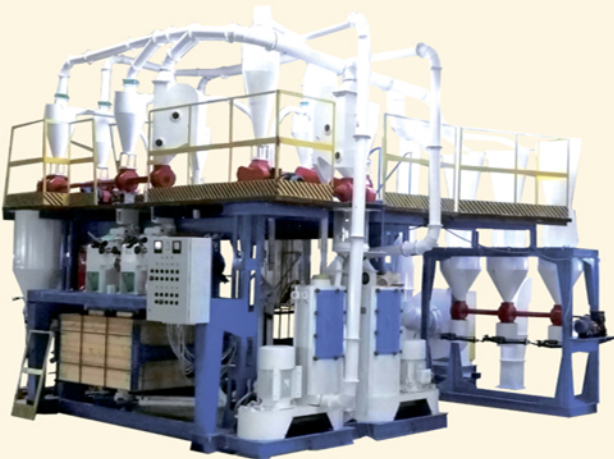
Application: Cereal production plant R6-MKC-15 is designed for processing barley, wheat and peas and manufacturing the following products:

- barley: pearl barley № 1, 3, 4 or fine barley № 1, 2, 3;
- wheat: cereal "Poltavskaya" № 1, 3 and cereals № 2, 3 according to TU U46.22.002-94;
- peas: whole polished, class 1, and crushed polished, class 1.

The cereal production shop is intended to be used in the conditions of agricultural companies and farms.

Technical specifications:

Capacity, tons per day	12
- total output, %	60-80
Roller line total length, mm	500
Rollers diameter, mm	185
Total power of installed electric drives, kW, max	64
Dimensions when assembled, mm, max:	
- length	7500
- width (excluding fan room installation)	6300
- height (with the frame)	5200
Weight, kg, max	10000



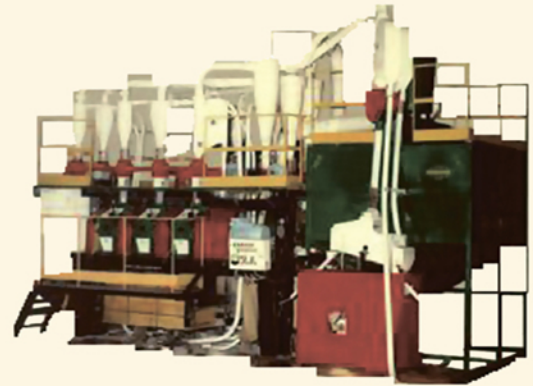


Aggregate roller mill P6-ABM-7

Application: Aggregate roller mill P6-ABM-7 is designed for processing grain into flour of the highest and first grades. To service the mill requires two people. Control of technological equipment is carried out from the console.

Technical specifications:

Productivity at double-sorted grinding of grain (when flour output 72%), tons/day	7
Including:	
- high-grade flour, %	48-50
- first grade flour, %	22-24
Length of the drum line, cm	102
Screening surface, m ²	14,1
Transportation of grain and grinding products	pneumatic
Drive individual group	
Number of electric motors, pcs.	10
Installed power of electric motors, kW	1,1-7,5
Total power of electric motors, kW, not more	27
Mill weight, kg, not more	6400
Overall dimensions in mounted state, mm, not more	
- length (without hopper and ladder)	5700
- width (without ladders)	3900
- height (without technological frame)	5000



Aggregate roller mill P6-ABM-15

Application: The aggregate roller mill AVM-15 with MPZ (Module of preparation of grain) and SVM (the Whiteboard machine) is intended for processing of grain in flour of the highest and first grades. Control of technological equipment is carried out from the console. The mill is a complex of small-sized grain cleaning, grinding, screening, transport and electrical equipment.

Technical specifications:

Productivity at double-sorted grinding of grain (when flour output 72%), tons/day	15
Including:	
- top grade flour, %	48-50
- first grade flour, %	22-24
Length valtsevoy lines, cm	150
Screening surface, m ²	21,2
Transportation of grain and grinding products	pneumatic
Drive individual group	
Number of electric motors, pcs	9
Installed power, kW	1,1-11
Total power of electric motors, kW, not more	35,3
Mill weight, kg, not more	7500
Overall dimensions, mm, not more than	
- length without hopper and ladder	7000
- width without ladders	3400
- height without technological frame	5000



Aggregate roller mill P6-ABM-30, P6-ABM-50

Application: Aggregate mill is designed for grinding wheat and obtain final products: flour of the highest, first and second grades. The mill is used at the enterprises of the agro-industrial complex.

Technical specifications:

	P6-ABM-30	P6-ABM-50
Technical performance, t/day, not less	30	50
Including:		
- top grade flour, %	50-55	50-55
- first grade flour, %	15-20	15
- second grade flour, %	5-8	5-8
Length valtsevoy lines, cm	560	680
Service personnel not less	6	8
Overall dimensions in assembled condition, mm, not more		
- length	18000	30000
- width	11000	14000
- height	7500	6500





Millet processing unit R6-UPP

Application: Millet processing unit R6-UPP is designed for manufacturing polished millet cereal out of the millet grain cleaned from impurities. The unit is a set of equipment assembled on a frame. It includes two hullers, a polishing machine, a pneumatic transport system with fans and electric equipment.

Technical specifications:

Capacity, processing millet with moisture content up to 13,5%, pre-cleaned from impurities, kg/hour, min	250
Installed power, kW	18,2
Polished millet output, %, min	65
Feed bran output, %	12-15
Waste, %, max	23
The frequency of rotation of the grinding, r / min (C-1)	1000 (16,6)
Air flow, m ³ /h, max	
- aspiration	1500
- pneumatic transport	1000
Supply voltage V	
- power supply	380±38
- chains of control	220±22
Dimensions, mm, max:	
- length	5000
- width	3200
- height	3000
Weight, kg, max	1100

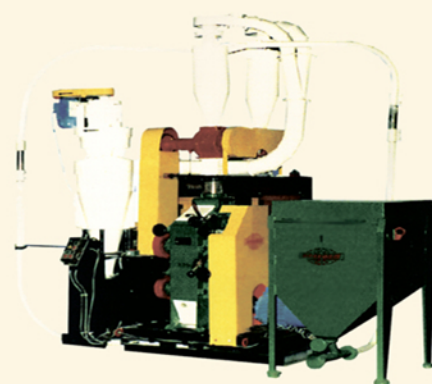


Integrated Mini Mill R6-AMM-7

Application: Integrated mini mill R6-AMM-7 is designed for processing corn grain into flour and cereal at agricultural facilities and farms. Upon customer's request the mini mill may be delivered to mill wheat of the basic conditions. The mill is a set of small grinding, sieving, pneumatic transport and electrical equipment. The mill includes a small-sized rolling mill, model R6-VS-4.185x170 with a magnetic separator, a separate grain sifting machine, pneumatic transport, a receiving bin, and electrical equipment. All equipment is mounted on a metal frame.

Technical specifications:

Grain mill capacity, processing dent and semi-dent corn of basic conditions, kg/hour	340
Total output:	
- corn whole-meal flour, %	10
- fine corn flour, %	70
- large corn cereal, %	10
- bran, %	10
Total length of the rolling line, cm	34
Roll diameter, mm	185
Air flow, m ³ /hour	500
Total power of installed electrical motors, kW	8,8
Power supply voltage, V	380±38
Service staff, person	1
Dimensions when assembled, mm, max:	
- length	3200
- width	1600
- height	3000
Mill weight, kg, max	1500



Modular Feedstuff Production Plant



Module dosing microcomponents MDK

Application: Module dosing microcomponents is designed for dosing 8-12 kind of loose components in one portion. Module allows you to dispense portions of 50-100 kg. The minimum ingredient weight 1 kg (when using a frequency converter).

Technical specifications:

Quantity of hoppers, pcs.	8-16
Hopper volume, l	165-200
Weighing accuracy class	0,5*
The total limit of ingredients weighing per cycle, kg	50-100
The lowest limit of one ingredient weight, kg	0,5
The number of cycles per hour (determined by production process)	10
Installed capacity, kW	1,1
Service life, years	8

* The accuracy of weighing depends on the weighing device





Mini Feedstuff Unit MKU-0,7, MKU-1,5

Application: The unit is designed for the bulk feedstuff production of preliminary prepared ingredients according to the formulation for all poultry, pigs and cattle. Batching (up to six ingredients) is made by the operator under the supervision of the strain gauge system with the weight display, light and buzz signals to indicate reaching the given weight of each ground ingredient.

Technical specifications:

	MKU-1,5	MKU-0,7
Batching	weight	weight
Capacity, t/hour	1,5	0,7
Mixing homogeneity, %	95-97	95-97
Total power, kW	25,7	12
Pneumatic ingredient suction radius, m	up to 7	up to 6
Ingredient batching accuracy, kg	1	1
Quantity of ingredients	up to 6	up to 6
Volume of the over-the-mixer hopper, m ³	1,7	0,7
Dimensions, max:		
Length, mm	7000	4000
Width, mm	2044	1100
Height, mm	3555	3000



Mini Feedstuff Unit MKU-3

Application: The unit is designed for the bulk feedstuff production of preliminary prepared ingredients according to the formulation for all poultry, pigs and cattle. Batching (up to six ingredients) is made by the operator under the supervision of the strain gauge system with the weight display, light and buzz signals to indicate reaching the given weight of each ground ingredient.

Technical specifications:

Batching	
Capacity, t/hour	3
Mixing homogeneity, %	95
Ingredient batching accuracy, kg	70
Quantity of ingredients	8.5x4.5=38
Volume of the over-the-mixer hopper, m ³	2...3
Dimensions, max:	
Length, mm	8310
Width, mm	3720
Height, mm	4280
Weight, kg, max	2450



Batcher for liquid ingredients

Application: Batcher for liquid components is designed for automatic volume dosing of liquid ingredients (sunflower oil, etc.) into the mixer at factories producing animal feedstuff.

Technical specifications:

Pump capacity, l/min	25
Pump drive: installed capacity, kW	2,2
rotation rate, rpm	1000
The installed capacity of the electric heaters, kW (total), up to	7,5
Tank volume, l	250
Dimensions, mm:	
Length	1360
Width	880
Height	950





Bucket conveyors

Application: Bucket conveyors are designed for operating within the process flow with the continuous indoor or outdoor mode for vertical transportation of grains and their products at elevators, flour mills, feedstuff and other grain processing facilities.

Technical specifications:

	N-5	N-10	N-20	N-50	N-100	N-175
Grain capacity, t/h	5	10	20	50	100	175
Drive power, kW:						
- height up to 30m	1,1	1,5	3,0	5,5	11,0	21,0
- height over 30m	1,5	2,2	4,0	7,5	15,0	27,5
Drum diameter, mm	215	400	500	630	750	800
Belt speed operating grains, m/s	1,4	1,6	1,6	2,2	2,2	3,1
Drum length, mm	135	170	200	220	320	320
Drum width, mm	125	150	175	200	300	300
Bucket spacing, mm	210	300	260	160	170	165



Screw conveyor Sh-100, Sh-160, Sh-200

Application: Screw conveyors are designed for horizontal transportation of grains and their products.

Technical specifications:

	Capacity, t/h	Installed power, kW	Length, max, mm	Width, max, mm	Height, max, mm
Sh-100	1...3	0,55...1,1	12000	350	190
Sh-160	5...12	1,1...2,2	12000	350	250
Sh-200	10...25	1,1...3,0	12000	350	280

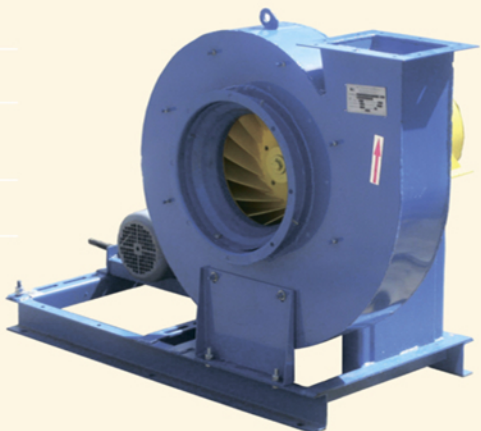


Dust Radial Flow Fan VRP

Application: Dust radial flow fan VRP is applied in the dust collecting units of grain pneumatic transportation systems, to remove wood chips and metal dust from machines.

Technical specifications:

	Power, kW	Speed, RPM	Capacity, m³/hour	Pressure, Pa	Weight, kg
VRP-3,15	2,2	3000	1800	1250	50,2
	3	3000	1800	1250	54,7
VRP-4	5,5	3000	3000	2200	96,4
	7,5	3000	3000	2200	113
VRP-5	7,5	3000	4600	2500	180
	11	3000	5000	3000	220
VRP-6,3	15	3000	5000	1220	235,5
	7,5	1500	6000	1200	202
	11	1500	6600	1420	218





Cyclone batteries BBTs / Baterie cyklonowe BBTs

Application: Cyclone batteries BBTs (BBTsp) are designed for cleaning dust-laden air aspirated from the equipment of elevators, flour, groats and feedstuff mills.

Technical specifications:

Product model	Air cleanup rate, %	Capacity, m ³ /hour	Dimensions, mm, max		
			length	width	height
BBTs-200/BBTsp-200	95/98	960/1200	705	610	2522
BBTs-225/BBTsp-225	95/98	1200/1440	705	610	2642
BBTs-250/BBTsp-250	95/98	1440/1600	775	680	2900
BBTs-275/BBTsp-275	95/98	1600/2140	775	680	3022
BBTs-300/BBTsp-300	95/98	2140/2400	925	830	3262
BBTs-350/BBTsp-350	95/98	2800/3200	925	830	3372
BBTs-400/BBTsp-400	95/98	3800/4250	1132	1044	4095
BBTs-450/BBTsp-450	95/98	5000/5600	1132	1044	4335
BBTs-500/BBTsp-500	95/98	6200/6800	1304	1244	4775
BBTs-550/BBTsp-550	95/98	7400/8400	1304	1244	5015



Gate valves ShZH

Application: Gate valves are designed for discharging the deposited product from dischargers and air cleaning machines. The valve may also be used for discharging bulk products from bins, and also as a doser.

Technical specifications:

Parameter name	ShZH-2	ShZH-3	ShZH-6
Rotor diameter, mm	175	200	250
Holding capacity, litres	2	3	6
Dimensions, mm:			
- length	360	382	392
- width	235	205	300
- height	270	305	330
Operating speed rate	35...65	35...65	35...65



Slide gate valve with a pneumatic drive for a steamer

Application: The slide gate valve is designed to separate the transported product as a block valve. It is used in food processing, grain processing and chemical industries, as well as in different utilities etc.

Technical specifications:

	DU-150	DU-200
Dimensions, mm:		
- length	1363	1371
- width	320	375
- height	276	201
Weight, kg	100	102
Flow diameter, mm	165	200

Pneumatic control air pressure - 0.6 MPa



Weighing semi-automatic machine "Norma-S"

Application: Weighing semi-automatic machine "Norma-S" is designed for packing bulk products in open bags (sugar, grains, cereals, seeds, granular materials).

Technical specifications:

Dosing limits, kg	20-70
Capacity, doses/hour	500
Weight, kg, max	70
Height with attached 50-kg bag, mm	1550
Power consumption from single-phase 220 V no more W	60
Consumption of compressed air at a pressure of 4 atm. not more m³/h	1,0
Dose tolerance, %, not more than	0,1
Overall dimensions, mm:	
- length	550
- width	550
- height	666



Hopper Scale "Norma-TM"

Application: Hopper scale "Norma-TM" are designed for weighing bulk solids in the flow (process monitoring), adjusting the feed and intake of the fixed amount of product (packaging in containers, including soft containers, shipping vehicles), counting the number of doses.

Technical specifications:

Capacity, up to t/h*	12
Weighing error, not more, %	0,1
Weight per serving, to kg*	20
Hopper working volume, l	15
Scale height, mm (H)	1040
Consumption of compressed air at the pressure of 4 atm, not more m³/hour	0,8
Power consumption from single-phase 220 V, not more, W	60
Scale weight is not more than, kg	35

*product at a density of 1 g/cm³



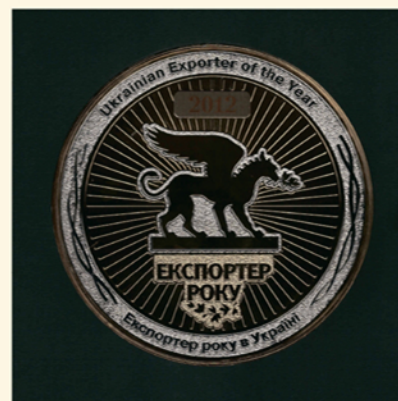
Big Bag Flour Packer "Norma SMK-T"

Application: Weighing machine Norma-SMK2 is designed to dose bulk materials in big bags, and to count the number of filled containers and product dose gross and net weight.

Technical specifications:

	Norma-SMK2-TM1	Norma-SMK2-T1	Norma-SMK2-TH1
Maximum capacity, m³/h	8	20	25
Scale loading time, 1 t, sec	300	90	50
Minimum dose, kg	100	100	500
Maximum dose, kg	1500	1500	1500
Deviation from the set dosage range, up to %	100...500 kg1 500...1000 kg1 1000...1500 kg1	0,25 0,1	— 1,0 0,5
The machine height is determined by the height of MKR (H)		2 800...4 500 mm	
Compressed air pressure, MPa		0,61	
Compressed air consumption, up to m³/h	4	4	10
Power consumption, up to W		60	







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