



#### **UKRAINIAN MINERAL FERTILIZERS LLC**

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### **COMMERCIAL OFFER**

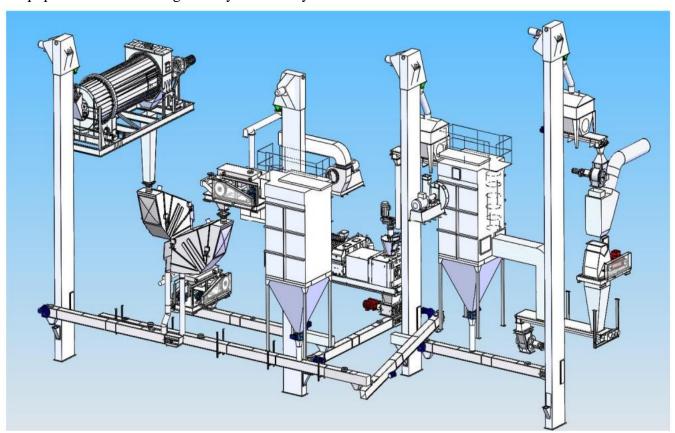
### TO THE LINE FOR THE PRODUCTION OF MINERAL FERTILIZER:

ammonium sulphate granula,

## ammonium sulphate granula with micronutrients

### **NPK**

- 1. Line productivity up to 15 t / h for the finished product
- 2. The finished product is an irregularly shaped granula (chipped)
- 3. Equipment manufacturing country Germany/Ukraine



Year of production - 2018

The number of hours worked by the equipment - about 14000 (13983,850)

# 1. List of equipment:

$N_{\underline{0}}$	Equipment	Quantity	kW	Model	Producer
1 S	Silo, V= 5 m3	3	1,65	-	
2 S	Silo, V= 3 m3	3	0	-	
3 H	Hammer mill	1	30	250x1000	Techpromsystems
	Dosing belt feeder	3	6,6	DL-400-1,05	LLC
5 I	Dosing screw feeder	3	3,3	DSH-0,7	Ukraine
6 E	Belt inclined conveyor	1	3	LK-650-11	Okrame
7 E	Belt inclined conveyor	1	3	LK -650-6,4	
-	Hopper feeder with built-in screen	1	2,4	GSL-21-MБ2	KVMSH PLUS LLC
	Belt conveyor	1	3	LK -650-12	Ukraine
10 E	Bucket elevator	1	7,5	GES 500x280	Romberger, Germany
11 N	Neodymium magnet	1	0	Neodymium N35	Premium Magnets Germany
12 I	Dosing silo (V=3 m3) with	1	7	MSA 250-2.730	Romberger
	discharging screw (2 pcs.)				Germany
	Rotary valve	1	2,2	ZRS 275 MRL	Germany
14 I	Inlet box for hammer-mill	1	0	-	Hosokawa Allpine Germany
15 F	Hammer-mill- dryer	1	55	HUM1008	Hazemag
					Germany
16 A	Air heater with gas burner	1	1,5	KRON-1,0 Turbo	IC "Dramaszannarat"
					"Promgazapparat"
					(ICP) Ukraine
17 6	Comovy convoyen	1	5.5	AS 300-4.960	Ukraine
-	Screw conveyor	1 1	5,5	ZRS 275 XL	
10 1	Rotary valve	1	2,2	MRL	Romberger Germany
19 T	Through chain conveyor	1	7,5	VBR-150-7-300	
20 F	Filtration (aspiration) system of the	1	37	Sfdt-05/12-D-02	Scheuch
n	mill-dryer				Germany
21 E	Bucket elevator	1	7,5	GES 500*280	Romberge
	Dosing silo (V=3 m3) with	1	7	MSA 250-4.150	Germany
	discharging screw (2 pcs.)				Germany
23 F	Roll compactor	1	440,	ARC MC 300	Hosokawa Allpine
			55		Germany
	Pre-crusher disk	1	8	PC-D 500	-
25 F	Roller crusher	1	34,5	WBG 5/6-PN	Merz Germany
	Through chain conveyor	1	5,5	VBR-150-7-300	Romberger
	Bucket elevator	1	7,5	GES 500*280	Germany
	Screw conveyor	1	5,5	TS 400-3.200	Germany
29 \	Vibrating screen	1	2,2	MSizer L1046-	Mogensen
				D8940	Germany
	Through chain conveyor	1	7,5	VBR-150-7-300	Romberger
	Through chain conveyor	1	7,5	VBR-150-7-300	Germany
	Screw conveyor	1	5,5	TS 300-3.170	
33 F	Roller crusher	1	61,2	WBP 5/8	Merz Germany
24 7	Through chain conveyor	1	7,5	VBR-150-7-300	Romberger
34   T	6		,		110111001701

36	Bucket elevator	1	7,5	GES 500*280	
37	Drum for processing granulas with	1	7,5	ST 60/7 D A	Allgaier
	anti-caking agent + anti-caking				Germany
	agent supply and dosing system				
38	Two way valve	1	0	Jacob 654230027-	Jacob
				23	Germany
39	Vibrating screen	1	2	Sizer SH1036	Mogensen
				D8941	Germany
40	Big bag packing station	2	20	DVS-301-1000-1	LLC NPF "Sveda,
					LTD"
					Ukraine
41	Filtration system for general dust	1	18,5	Sfdt-05/09-C-02	Scheuch
	removal (bag filter, fan)			S1dt-03/09-C-02	Germany
42	Compactor cooling system	1	8	Weco 24.1 ab (S	GWK
				1001 4101)	Germany
43	Compressors with refrigeration (2	2	15	Tidy 10	Dalgakiran
	pcs.) and absorption dryers			Tidy 10	Turkey
44	Electrical cabinet	2		-	Lebenstedt
					Germany
45	Control room and software based	1		-	Hosokawa Allpine
	on Siemens				Germany
46	Spare parts and tools (Appendix 1)				

2. The maintenance intervals for the equipment are specified in the passports and operating recommendations (see p. 9).

## 3. Nominal indicators for energy resources:

- ✓ Natural gas 1 MW\*h (maximum power);
- ✓ Electricity 1 MW (rated capacity), actual 871.8 kWh.

### 4. Equipment's advantages:

- The finished product retains 100% flowability for up to 12 months, in case maintaining the integrity of the package and observing storage conditions. This is ensured by the finished granula strength 4-6 kg / granula;
  - ✓ Processing raw materials of different quality (humidity, particle size);
- ✓ Possibility of producing a finished product in 3 fractions (monofraction universal; small granula precision farming; large spreaders and seeders);
  - ✓ Protection system for mechanical impurities (metal inclusions, stones, fabrics, etc.);
  - ✓ Automated production process based on Siemens.

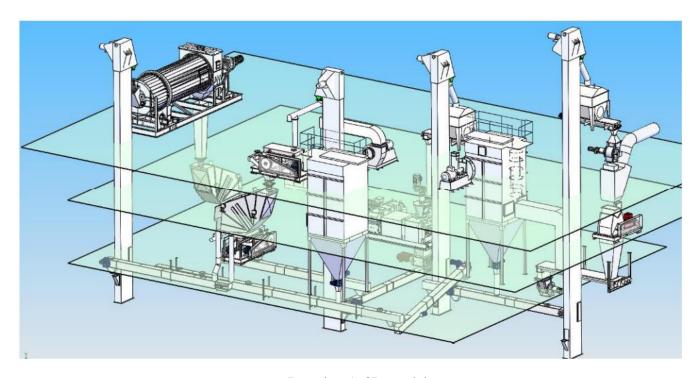


### **5. Installation and commissioning:**

- $\checkmark$  To control the installation and commissioning engineers from the company UMF (2 person).
  - ✓ To control the installation an engineer from Hosokawa (1 person); Costs to be discussed separately.

## 6. Documentation provided with the equipment:

- ✓ Hosokawa engineering documentation (eng., rus.)
- ✓ Project documentation in accordance with Ukrainian standards (rus.)
- ✓ Passports for equipment and operating manuals for each piece of equipment (eng., rus.)
- ✓ Equipment drawings (dwg, pdf)
- ✓ List of instrumentation equipment
- 7. Supply of equipment complex.
- 8. The service life is at least 10 years, in case of timely maintenance and repair of equipment.



Drawing 1. 3D model







Photo 2. Roll compactor





Photo 3. Roll compactor



Photo 4. Vibrating screen



Photo 5. Electrical cabinet

