

WASTE DISPOSAL, LLC

Original Equipment Manufacturer (OEM) for

WASTE RECYCLING, COMPOSTING, INCINERATION AND LIQUID WASTE MANAGEMENT







IN BRIEF

HISTORY

- → 2008 was the year ABONO® brand was born. Since that time ABONO, LLC specialize in recycling, composting and waste incineration equipment design and manufacturing.
- ▶ Machine-Building Plant **ABONO** is a member of the Scientific and Technical Council of the Industry and Trade Ministry of the Russian Federation "Manufacturers of equipment for the treatment and / or disposal and / or recycling of waste production and consumption".
- The machine-building plant ABONO is a part of technical working groups (№ 9, № 42, №43) in the Bureau of the Best Available Technologies of the Russian Federation.
- ➡ Russian Export Center included the plant ABONO in the register of bona fide exporters of producers. The number of the certificate of conformity is RE.17.00048.





MANUFACTURING

EQUIPMENT & SOLUTIONS

MADE IN RUSSIA







COMPOSTING



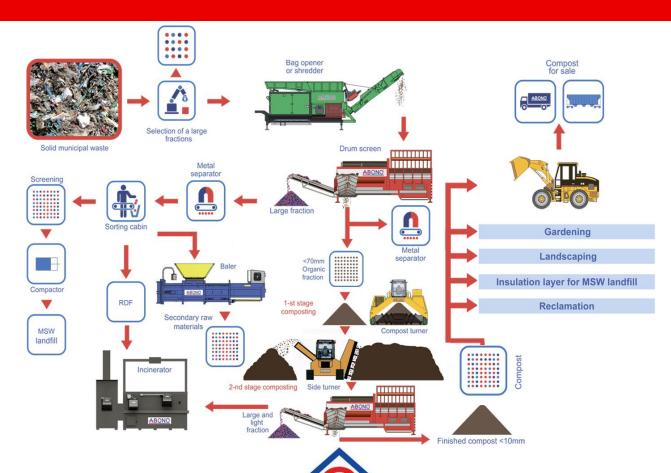
IRRIGATION







MSW RECYCLING UP TO 60%







PRODUCTION

RECYCLING EQUIPMENT MANUFACTURING

MADE IN RUSSIA









- → Self-propelled compost turner
- → Tractor-pulled compost turners
- → Tunnel compost turners
- **→** Bioreactors
- **♦** Incinerators
- ➡ Irrigation Drums







COMPOSTING

SELF-PROPELLED COMPOST TURNERS

MADE IN RUSSIA





Self-propelled windrow and tunnel compost turners ABONO® are used to accelerate organic waste composting and decrease comosting time from 2 years up to 3 weeks. Composting is a biothermal aerobic process used to sanitize and stabilize solid organic such as food waste, poultry litter, manure, sewage sludge, organic waste from municipal solid waste (MSW).





Self-propelled compost turners ABONO ®:

- Turning capacity up to 7000 m³ / h
- Width of the pile to 7.5 m
- Height of the pile up to 3.3 m
- Rotor diameter up to 1800 mm
- Engine power up to 450 kW







WINDROW COMPOSTING

TRACTOR-PULLED COMPOST TURNERS

MADE IN RUSSIA



Tractor-pulled PTO turners create a perfect mixing- and ventilation result.

- Capacity up to 1660 m³/h
- Width of the windrow to 4,3 m
- Height of the windrow up to 2,2 m
- Rotor diameter up to 1800 mm
- Tractor power from 30 to 150 HP.







WINDROW COMPOSTING

TRACTOR-PULLED COMPOST TURNERS

MADE IN RUSSIA







Tractor driven turners with a side cut are turned from PTO of a tractor.

- Capacity up to 1200 m³/h
- Height of the windrow up to 3,2 m
- Control: tractor hydraulics
- Tractor power from 120 to 185 HP.







IN-VESSEL COMPOSTING

TUNNEL, BRIDGE COMPOSTING & BIO-DRYING



Tunnel & bridge compost turners ABONO® mix, airate and split in fibers organic waste. The mixing and aeration process conducted automatically.

- Width of the tunnel up to 15 m
- Height of the tunnel up to 2 m
- Electricaly or diesel driven

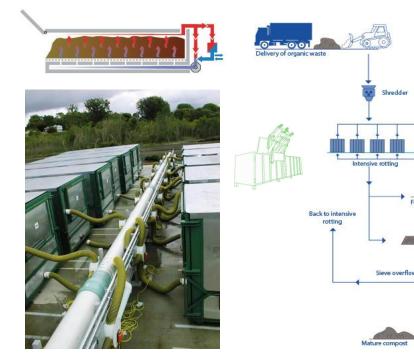






IN-VESSEL COMPOSTING

CONTAINERIZED COMPOSTING & BIO-DRYING



Composting Containers ABONO® are used for aerobic biological treatment of solid organic waste.

- Container capacity up to 75 m³
- Composting capacity up to 5000 t/a
- Treatment time 1-12 days
- Positive or negative aeration with odor control.





IN-VESSEL COMPOSTING

BIOREACTORS AND BIO-FERMENTERS









Bioreactors ABONO® (vertical, horizontal, drum) are an effective solution to the problem of processing organic waste in the shortest time and in all weather conditions.

Advantages of ABONO® bioreactors:

- Volume up to 100 m³
- Mechanized loading
- Automated Unloading
- Dust and gas purification system
- Reduction of processing time to 7 days







COMPOSTING - IRRIGATION

RADIO-CONTROLLED HARD HOSE IRRIGATION DRUMS

MADE IN RUSSIA



Radio-controlled irrigation drums ABONO® are used for high capacity irrigation applications to be controlled from a cabin of self-propelled turners.

Advantages of ABONO® RC hose drums:



- Consumption up to 2000 l/min
- Hydraulic or electric drive
- Radio control











SHREDDING

MOBILE SHREDDERS ABONO®



Shredders ABONO® are intended for grinding fresh and secondary wood, bark, branches of wooden packages, boxes, construction debris from wood and other types of biomass.

Advantages of ABONO® shredders:

- Capacity up to 230 m³/h
- Mobile performance
- Drive from a diesel or electric motor







SCREENING & SORTING

TROMMEL SCREENS ABONO®

MADE IN RUSSIA



Mobile and stationary drum screens **ABONO**® are suitable for most applications:

- Capacity up to 250 m³/h.
- Drum length up to 7.2 m
- Drum diameter up to 2 m
- Thickness of drum walls up to 10 mm

ABONO, LLC produce screening drums with desired perforation size and pattern in order to use them in a different applications.





IRRIGATION

IRRIGATION DRUMS ABONO®

MADE IN RUSSIA



Irrigation drums are used to spread water and liquid organic fertilizers.

Irrigation drums ABONO® advantages:

- Hose length up to 1000 m
- Hose diameter up to 150 mm
- Drums for soft and hard hose
- Mobile performance
- Turntable (on larger models)
- Power take-off
- Pulled by a tractor or by hydraulic motor



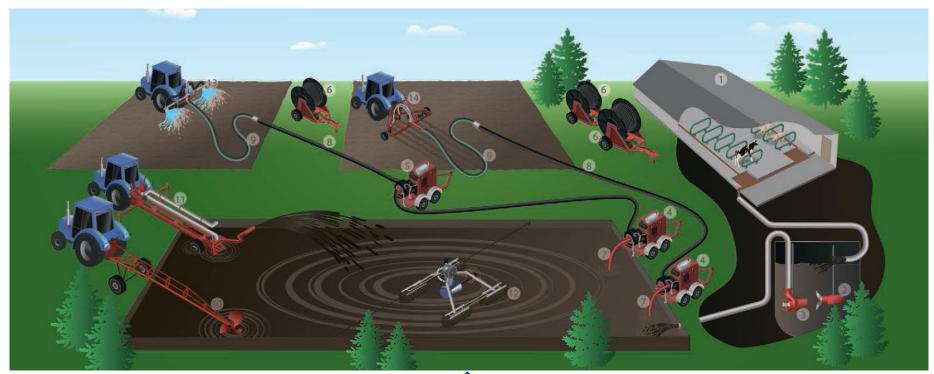




LIVESTOCK SLURRY UTILIZATION TECHNOLOGY

DRAG HOSE SYSTEM SHEMATICS ABONO®

MADE IN RUSSIA





COMPOSTING INCINERATION IRRIGATION



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LIVESTOCK SLURRY UTILIZATION TECHNOLOGY

DRAG HOSE SYSTEMS ABONO®

MADE IN RUSSIA

- 1. Farm
- 2. Submersible mixer in a sump
- 3. Submersible pump in a sump
- 4. Diesel pump station main
- 5. Diesel pump station (booster)
- 6. Hose reels for transportation
- 7. Suction line





- 8. Supply line
- 9. Drag line
- 10. Lagoon mixer
- 11. Lagoon pump
- 12. Mixer-aerator
- 13. Surface sluryy applicator
- 14. Slurry injector









LIVESTOCK SLURRY UTILIZATION TECHNOLOGY

DRAG HOSE SYSTEMS ABONO®

MADE IN RUSSIA



















Drag hose system consists from main pump station, a supply hose, drag hose lines and an slurry applicator, installed on a tractor. After being mixed in the lagoon, slurry is transferred by a diesel pump station through a hose line to the application equipment hitched on a tractor. A tractor drags the drag line of hoses which provides constant slurry application to the soil with a preliminary determined flow rate. When the application is over, the hose lines are cleaned from slurry remains by a clean out ball which is launched inside the hoses by an air compressor. The capacity of the system depends on solids content in slurry, hose diameter and pressure losses.





INCINERATION

INCINERATORS ABONO®

MADE IN RUSSIA





Incinerators ABONO® are easy to operate, economical in maintenance costs and they guarantee controlled flue gase emissions.





Scope of application:

- Biological waste
- Oil sludge
- → Household waste, MSW
- Medical waste



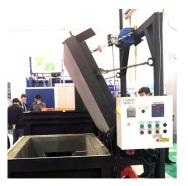


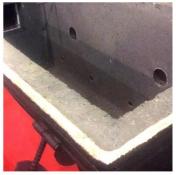


INCINERATION

INCINERATORS ABONO®

MADE IN RUSSIA







Incinerators ABONO® are made of the best refractory materials and are characterized by the highest thermodynamic parameters.

Methods of opening the loading hatch: counterbalance, electric winch, hydraulic drive.

- Loading: from 100 kg to 20 000 kg
- Burning rate: from 50 kg / h to 6500 kg/h
- Lining layer: refractory concrete or bricks
- Type of fuel: diesel, gas, liquefied gas









CERTIFICATION

ALL EQUIPMENT IS CERTIFIED



























IMPLEMENTED PROJECTS

- Poultry farm "ROSKAR" self-propelled turner of the compost for litter processing 120 000 tons per year
- SC «Belaya Ptitsa» Belgorod self-propelled turner of the compost for litter processing 120 000 tons per year
- SC «Belaya Ptitsa» self-propelled turner of the compost for litter processing
- BEZRK «BelGranKorm» 2 self-propelled turners of the compost for litter processing 70 000 tons per year
- Poultry farm "Volzhanin" self-propelled turner of the compost for litter processing 110 000 tons per year
- "LISKo-Broiler" self-propelled turner of the compost for litter processing 110 000 tons per year
- Collective Farm named after S.G. Shaumyan self-propelled turner of compost for processing cattle manure
- Poultry farm "Obsharovskaya" 2 self-propelled turners of compost for litter processing
- "Orel Vodokanal" self-propelled turner of compost for processing sewage sludge treatment
- Stud farm "Za mir i trud" self-propelled turner of compost for processing cattle manure
- SPK "Kolos" self-propelled turner of compost for processing cattle manure
- Landfill "Mehuborka" self-propelled turner of compost for composting of forest and parks waste
- JSC "DROTEP" self-propelled turner of compost for processing of sewage sludge
- JSC "Samarinskoye" self-propelled turner of compost for processing cattle manure
- LLC "Tipto" 2 self-propelled turners of compost for litter processing 35 000 tons per year
- · ...and others



IMPLEMENTED PROJECTS

- LLC "Lazarevskoe" Tula region. The cremators (incinerator) ABONO-362 on gaseous fuel with afterburner and the cremator (incinerator) ABONO 251 on gaseous fuels with afterburning chamber for utilization of animal wastes.
- LLC "Dymov-YUG" Krasnodar Krai The cremators (Incinerator) ABONO 151 on gaseous fuels for utilization of pig waste.
- LLC "Krol and K" Smolensk region. The cremators incinerator ABONO 200 on gaseous fuel with afterburner for disposal of rabbit waste.
- GK "Karelian Fish Plants" Republic of Karelia The cremators (Incinerator) ABONO 151 on diesel fuel with afterburner for waste disposal of fish farming.
- LLC "Batyr Broiler" Republic of Dagestan The cremators (incinerator) ABONO-251 on gaseous fuel with afterburner for recycling of poultry waste.
- CJSC "Agrotek Holding" Kamchatsky Krai The cremators (incinerator) ABONO 151 on diesel fuel with afterburner for pig waste management.
- IP "Hramov" The Moscow region. The cremators (incinerator) ABONO 75 on gaseous fuel with afterburner for waste disposal of slaughterhouse.
- JSC "Krasnodonskoe", the Volgograd Region. The cremators (incinerator) ABONO 251 on gaseous fuel with afterburner for pig waste disposal.
- APK "Agroeco" Voronezh region. The cremators (incinerator) ABONO 138 on gaseous fuel with afterburner for pig waste disposal. Installed 7 pieces of equipment.
- · LLC "Titan-Agro" Omsk region. The cremators (incinerator) ABONO 351 on gaseous fuel with afterburner for disposal of pig waste.
- JSC "Kuban" Krasnodar Territory. The cremators (incinerator) ABONO 138 and ABONO 151 on diesel fuel for the utilization of pig waste.
- LLC "OryolSelProm" Orel region. The cremators (incinerator) ABONO 151 on diesel fuel for the utilization of pig waste.
- JSC "Pobeda" Krasnodar region. The cremators (incinerator) ABONO 250 on gas fuel for the utilization of pig waste. (purchased 2 pieces of equipment)
- CJSC Plemzavod Yubileyny Tyumen Region. The cremators (incinerator) ABONO 185 K on gaseous fuels for utilization of pig waste.
- LLC "Lipetsk Rabbit" Lipetsk Region. The cremators (Incinerator) ABONO 160 on gaseous fuels for utilization of waste from the rabbit breeding enterprise.
- CJSC Agrotek Holding Kamchatsky krai Petropavlovsk-Kamchatsky The cremators (incinerator) ABONO 200 on diesel fuel for the utilization of pig waste. (delivery of the second unit of equipment in connection with the opening of the second stage)
- JSC "OB" (Omsk Bacon) Omsk region Cremators (incinerators) ABONO 185; ABONO 250; ABONO 35, on diesel fuel for the utilization of pig waste.
- SHPK "Usolsky svinokompleks" Irkutsk region. Usolsky rn. The cremators (incinerators) ABONO 150 in the amount of 2 pcs. on diesel fuel for the utilization of pig waste. The equipment was supplied by the official dealer company AGORA LLC
- OOO SMP (SpecialMyasoProm) Vladimirskaya obl. The cremators (incinerator) ABONO 251 on gaseous fuels for the utilization of slaughterhouse waste.
- OOO Timeryazevo, Tverskaya obl. The cremators (incinerator) ABONO 200 on diesel fuel for utilization of waste by slaughter of cattle.
- LLC "Romcor" Chelyabinsk region. The cremators (incinerator) ABONO 200 on gaseous fuels for utilization of meat processing plant waste.
- Not all companies are listed in the list, and it is constantly growing



COMPOSTING INCINERATION IRRIGATION



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COMPOSTING, INCINERATION, IRRIGATION

High quality, affordable

equipment ABONO®





