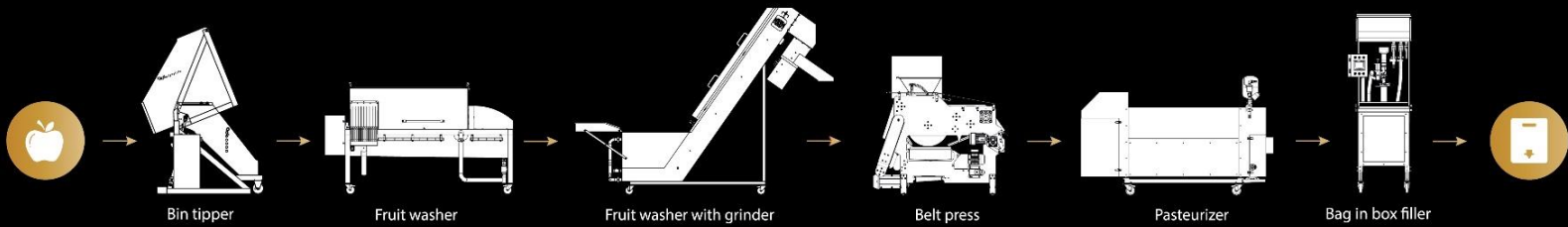


PROFRUIT MACHINERY

Official Manual & Instruction Document

Bin Tipper

UNLOADER 500



INFORMATION ABOUT MANUFACTURER

Manufacturer: UAB ProFruit Machinery

Representative: director Pijus Lopata

Address: Razes g. 27, Peskojai v., LT-92385 Klaipėda county, Lithuania

Company code: 305202037

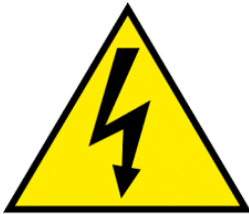
VAT code: LT100012484812

E-mail address: info@pro-fruit.com

Website: www.pro-fruit.com

Warning signs

There are special warning and prohibition signs put on the machines which are meant to inform the user about danger and keep everyone – people and machinery – safe at all situations. The meaning of each sign is described below.



**Control console.
High voltage**



Headers required



Work shoes required



The risk of limb injury.

It is mandatory to remain alert and protect the limbs.



The risk of limb injury.

Moving parts of the machine.



**Hot surface.
Risk of getting burned.**



**Warning. Sharp parts of machine
Risk of limb injury.**

GENERAL REQUIREMENTS

General requirements for machinery use:

- Ambient air temperature +5...+40° C.
- Relative air humidity 50% at 40°C or 90% at 20°C.
- Atmospheric pressure, kPa 84-107.
- The Law on Occupational Safety and Health of the Republic of Lithuania, the General Provisions and Safety Instructions for the Use of Work Equipment and the Laws on Occupational Safety and Health of the European Union must be observed while using the machine.

Bin Tipper UNLOADER 500

Bin tipper UNLOADER 500 is a machine used for emptying standard-sized boxes with different dimensions containing fruits, vegetables or other products. It is a stationary device powered by an electrical installation with a voltage of 400V and a power consumption of up to 2.5 kW. It is equipped with a hydraulic unit and control switches, which allow machine to work without any additional physical effort of the operating personnel. The chute of the machine has side skirts lined with a soft material, which prevents crushing and bruising of fruits, vegetables or other products. Design solutions make the machine easy and simple to use, it can be operated by just one person.

After a box is loaded into bin tipper, it automatically lifts it up by holding the lever up on the command box. When the box is lifted, the products inside the box fall out. After emptying out the box, machine automatically lowers the box down by hold a lever down.

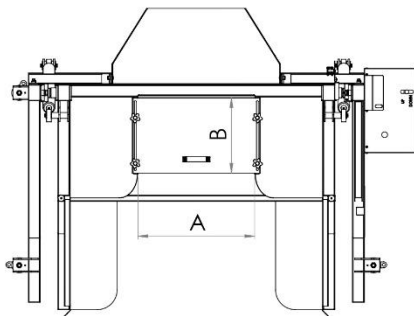
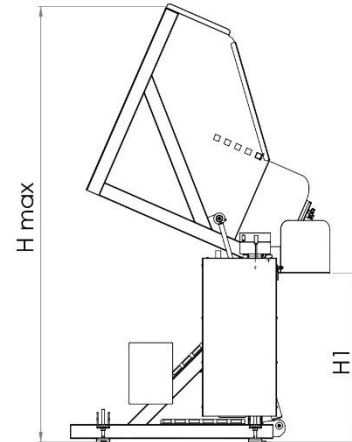
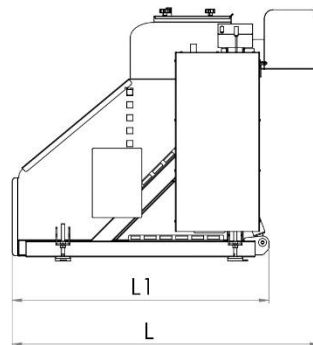
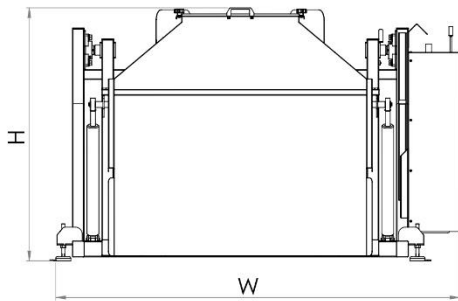
- Entirely made of stainless steel.
- Is equipped with a hydraulic unit.
- Suitable for lifting cargos up to 500 kg.
- Does not require any additional physical efforts of the operating personnel – machine lifts cargos automatically.
- Suitable for standard-sized boxes with different dimensions

Attention! It is mandatory to wash off the device before starting it for the first time.

It is important to eliminate any manufacturing residues and the dust which has built up on the surface, taking care not to wet the electrical parts and keeping the power supply cable disconnected.



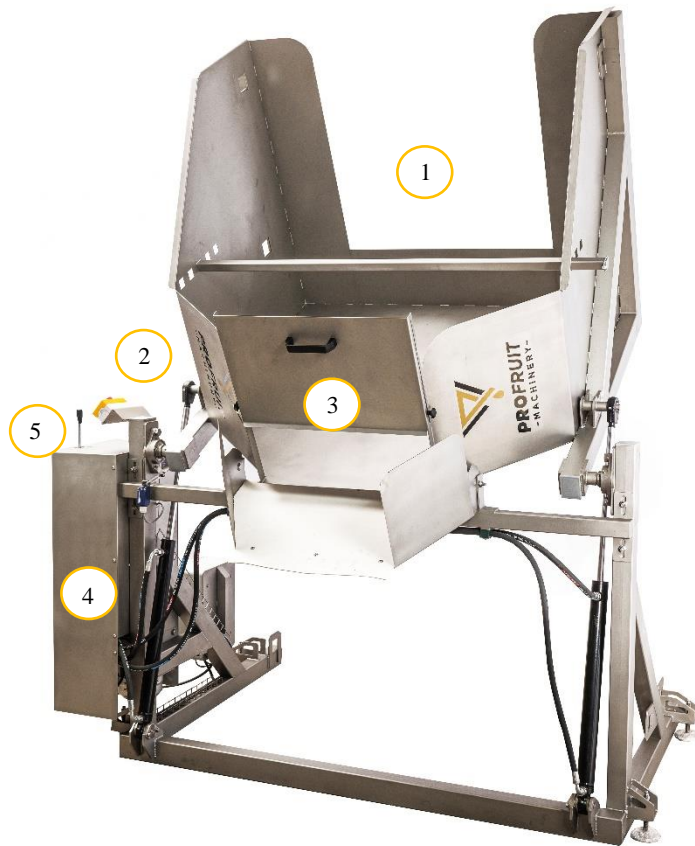
Specifications and drawings of the machine



	Machine	BIN TIPPER
	Type	UNLOADER 500

Load capacity	kg	500
L	mm	1555
L1	mm	3334
W	mm	2040
H	mm	1280
H1	mm	965
H max	mm	2505
AxB	mm	588x380
Box max size W x L x H	mm	1250x1100x800
Dry weight	kg	330
Supply source	kW	1.6
Supply voltage	V	3/N/PE ~ 400 V 50Hz

Main components of the machine



1



2



3



4



5



1.	Box loading area
2.	Main power switch
3.	Fruit outlet
4.	Cover of hydraulic motor and pump
5.	Control box

Assembly, connection and installation of the machine

Steps to accomplish in order to start working with the machine:

- Level the bin tipper precisely.
- Connect the power cable to power supply socket.
- Check if the power supply is connected correctly.
- Turn on the main switch.

The main instruction of control box



- Lever no. 1 controls lifting and lowering process.
- Button no. 2 stops the engine.
- Button no. 3 starts the engine.
- In case of emergency or in the need of immediate stop press an EMERGENCY STOP button No. 4. To turn this button off you need to pull the button.

Instructions for using the machine

- Before starting the work with the machine, you must check engine speed, electric cables, hoses of the hydraulic system, mechanical devices, machine general condition.
- Always test run the bin tipper and check the quality of its operation first.
- Prepare all the additional machines or devices for collecting the products poured from the bin tipper.
- Turn on the power by using main switch.
- Open the fruit outlet slide.
- Load a box with fruit, vegetables or other products using a forklift.
- Press the button no. 3 (Start engine) and hold the lifting lever (no. 1) upwards until machine pours the products out of the box.
- After emptying out the box, hold a lever (no. 1) down until machine fully lowers down the box. Never lower down a box with products still inside. Only an empty box can be lowered.

Safety mechanisms

- **Emergency switch No. 4 EMERGENCY STOP** – needs to be pressed in case of emergency to immediately stop the machine.
- **Safety in case of a sudden black-out** – when the power supply is suddenly cut off or a similar situation happens the machine is turned on normally and does not cause any dangerous situations like sudden start or improper operation.
- **Safety of electronical pieces** – all the electronical pieces, pump and hydraulic motor are installed in the internal part of the shielded with a cover.

Workplace of an operator

- The machinery is operated by one person.
- The workplace of an operator differs. When the machinery is being operated – operator works by the command box.
- When box of products is loaded into machine, operator works in the back of the machine.

Unloading process

- When a lever is being held upwards, the bin tipper lifts the box up for emptying.
- Then fruits, vegetables or other products fall out of the box to the storage device or other machine of your choice.
- After emptying the box, the lever is being held downwards during which the machine lowers it the box down.

The washing of machine

- Wash the machine with a water stream only when machine is turned off.
- Clean the PPE and put it in its designated storage location.
- It is recommended to wash the whole machine with a water stream except the command box and engines.
- It is forbidden to wash or spray any liquids on the central command box and engines.

Conditions for using the machine

- A higher than 2,4 m room or using area is required. The room must be closed and protected against weather conditions. Machine can only be used indoors.
- The work environment must not be highly polluted, e.g. dust, acids, corrosive gases, salt, etc.
- There must not be any risk of explosion or fire in the working environment.

- The area around the machine needs to be empty so machine would not be bothered with any interference.
- The machine, its workplace and ground must be kept clean, neat and properly lit at all times when using it.
- Additional machines or devices for collecting the products poured from the bin tipper are required.
- The machine is operated by one person who has passed his training with the machine, has read all the instructions and is familiar with risks and safety regulations.
- Flat, stable and solid ground is needed for machine, the ground must hold 1000 kg weight. This stable ground is obligatory at all times: when using the machine, during transportation, assembly, dismantling, testing, foreseeable failure or non-usage periods.
- When transporting, lifting or storing the machinery the client is obligated to assure its safety and proper fastening.

Safety requirements

- If some machinery failure, obstacle, accident, emergency or any other dangerous situation happens it is obligatory to stop, shut down the machinery immediately or operate equipment depending on the situation in order to avoid or eliminate dangers.
- The machinery can be operated only by a person who has passed his training for machinery and is familiar with all the machinery instructions and risks. The person must also be in proper physical and mental state and not be affected by any substances that could interfere with normal functioning (such as pharmaceuticals, drugs, alcohol etc.).
- It is prohibited to do any activity with the machine during its working process (such as washing, transporting etc.).
- The machine can only be operated in accordance with its intended use.

- It is prohibited to wet or pour any liquids onto the command box, engine and electronic system.
- If any defects or damage of the machine occur, it must be withdrawn from use, clearly marked with information boards and secured against starting.
- Every time before using the machine, the operator must carefully inspect the machine, check if all the parts and electronical buttons are in place and working properly as well as examine if the equipment meets all the safety requirements and is prepared for normal work.
- If user operates a grounding system, to provide protection against electric shock, the grounding wire should always be connected to the grounding terminal marked with the grounding symbol depicted below on the side.
- The command box, engines and electric system can be fixed, repaired or changed only by the manufacturer or its approved repairing company. All the engineering and electronical works must also be performed by the manufacturer or its approved repairing company.



Warnings

- It is prohibited to use, load and lift products or things that could damage or cause any harm to the machine. Only products that can be identified as fruits, berries, vegetables or similar can be used with this machine. It is mandatory to consult the seller about the products you want to use.
- Never lower down a box with products still inside. Only an empty box can be lowered.
- It is forbidden for any people to touch, lean on or have contact in any way with the working machine, its parts, the products that are being lifted or other dangerous parts because of the risk of injury. Only actions that are necessary for a proper work with the machine are allowed.

- It is forbidden to use the machine, even partially, under the following conditions:
 - in explosive atmospheres;
 - in a hazardous external environment;
 - in an event of a power shortage;
 - in case it has not been properly installed;
 - in conditions of imminent danger or in an event of malfunction;
 - after introducing changes or performing unauthorized interventions;
 - for uses that are contrary to specific regulations;
 - when machine is unprotected and/or when the safety devices are off, defective or were dismantled.
- All machinery parts, buttons and operational details must be used according to their purpose.
- Any change done to the machine must be reported and approved by the manufacturer in writing.
- Any arbitrary adjustment, repair or other mechanical modification of the machine done by a non-manufacturer and/or done without the approval of manufacturer in writing will result in termination of the warranty service and the CE declaration of conformity.
- It is prohibited to climb or put things on the machine.
- The machine only works properly when all its parts are properly attached.
- The machine can only be washed, lifted, transported or otherwise operated after it was switched off completely.
- Maintenance of the machine must only be carried out by the manufacturer or its approved company.
- The manufacturer produces and prepares the machine based on all machinery requirements and client's needs. Changing and mechanically adjusting any machinery settings without manufacturer or its approval is prohibited.

- If a machine failure, defect or other malfunction is noticed, contact the manufacturer for troubleshooting, warranty service or other solution within 5 working days.
- After receiving the machine, check its condition and start to use it only when you make sure that all the components are delivered and machine is in proper condition.

Contingency and Disclaimer

The manufacturer declines all responsibility arising from the following situations:

- Application of the machine that is outside its intended use.
- Operation of the machine by untrained personnel.
- Partial or complete non-compliance with recommendations.
- Personal injury caused by operations that were not reasonably foreseeable.
- Energy shortages.
- Shortages in maintenance.
- Modifications and repairs that were not authorized by the manufacturer.
- Use of non-original spare parts.

Residual risks

- The risk of sound and vibration (depending on the load) remains even in compliance with all safety requirements.

Precautionary directions

- Before using the machine, the operator must inspect the machine for defects and check if it meets all safety requirements. If discrepancies are found, do not use the machine until they have been eliminated.
- Any irregularities in operation of the machine and its electrical installation should always be reported to the supervisor responsible for the operation.

- It is recommended to remain attentive around the machine and to keep a distance from the machine and lifting parts when it is not necessary.
- If situation requires contact with parts of machinery that are hazardous to health or dangerous to environment, additional precautions must be taken: consultation with the manufacturer, usage of other equipment or tools, wearing protective gloves and other actions depending on the situation.
- It is recommended to wear clothing and footwear that is non-slip, water resistant and is appropriate for work.
- It is recommended to follow all additional and logical safety requirements depending on the products you choose to use (do not lift products that are too heavy by yourself, work while protecting your health).

Transportation of machine

- The machine is transported by truck.
- Manual handling and transporting of machine are prohibited.
- The machine is transported in one piece without separating its parts.
- During transportation the machine must be secured in such a way that its components are not damaged and the machine itself remains stable during transport. Fastening of the machine must assure that machine does not fall and unintentionally move during transportation due to vibrations, impacts or other foreseeable external or internal dynamic forces (inertia, electrodynamic forces).
- A stable, non-slippery ground is obligatory during transportation.
- During transportation, all uncovered parts of machine should be properly preserved, protected against weather conditions, dust and corrosion.
- When transporting and otherwise moving or changing the position of the machine, it must be done after it had been completely switched off, emptied and securely fastened.

- The machine must be put straight during transportation.
- Crossbars should be inserted into machine during transportation.

Machine operation in case of risk

- In event of accident or emergency, operate the machine depending on the situation: stop, shut it down, return it to safe or less dangerous position immediately and eliminate the danger.
- In event of a breakdown of the machine posing a threat to the environment, use understandable and clearly visible warning signs, notify your supervisor and leave the workplace in the same condition as when the accident occurred.
- In event of incorrect operation or poor condition of electrical system, always disconnect the electrical system from the power supply and secure it against switching on again.
- If machine breaks down, switch off the machine and evaluate the failure. If the failure cannot be eliminated by yourself (such as removing the dirt, other obstacles) or it is dangerous, contact the manufacturer for warranty service, if the warranty service has expired, apply for repair.
- In case of jammed machine, assess the situation, inspect the jammed part of the machine and try to solve it if there is no danger. Depending on the situation try restarting the machine or contacting the manufacturer for warranty service or repair.

Adjustment and maintenance of machine

- Inspect machine parts before every use, regularly check machinery.
- Wash the machine regularly (after each shift).



Troubleshooting

Troubleshooting must only be carried out by an authorized and qualified person, with the right and appropriate skills and training for the job.

Disturbances / error	Possible reason(s)	Remedy
Machine does not function		
Machine does not function		