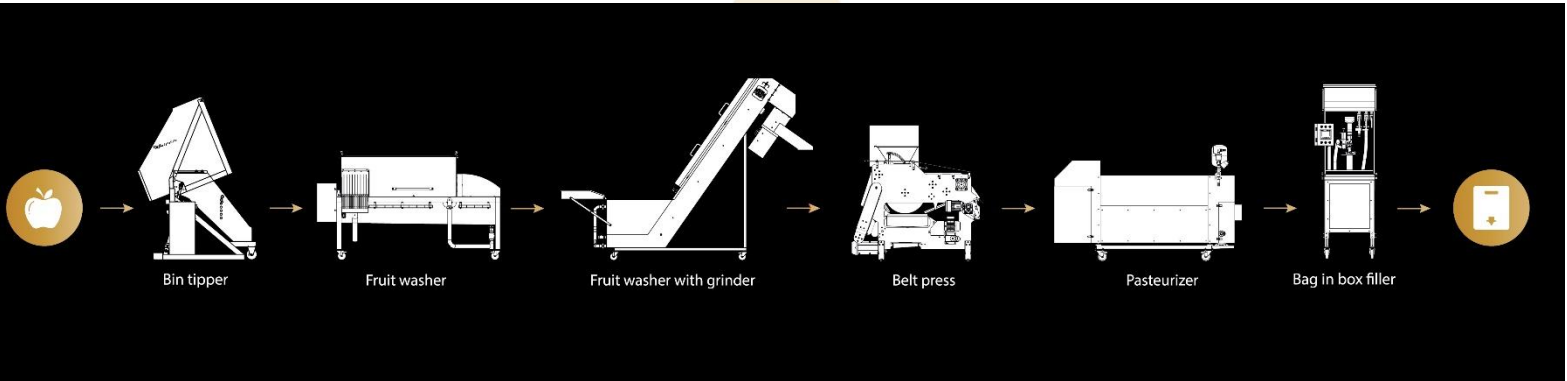


# PROFRUIT MACHINERY

Official Manual & Instruction Document

Fruit and Vegetable Washer-Elevator-Mill

**MAXIMILL 1000/3000**



## INFORMATION ABOUT MANUFACTURER

**Manufacturer:** UAB ProFruit Machinery

**Representator:** director Pijus Lopata

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

**Company code:** 305202037

**VAT codee:** LT100012484812

**E-mail address:** [info@pro-fruit.com](mailto:info@pro-fruit.com)

**Website:** [www.pro-fruit.com](http://www.pro-fruit.com)

## Warning signs

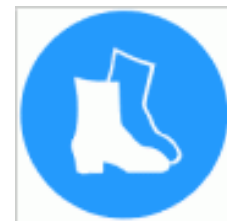
There are special warning and prohibition signs put on the machines which are meant to inform the user about danger and keep everyone – people and machinery – safe at all situations. The meaning of each sign is described below.



**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 instructions:

- Ambient air temperature +8...+35° C.
- Relative humidity (when temperature +25 °C) till 70%.
- 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.

## **Fruit washer-elevator-mill MAXIMILL**

Fruit Washer Elevator Mill MAXIMILL is designed for washing, transporting and milling of fruits and vegetables before further processing. Fruits and vegetables are filled into the washing bathtub with clean water. Conveyor lifts the products up to the mill, during the lifting process the fruits and vegetables are sprayed with water nozzles. The mill crushes fruits and vegetables after they reach the top of the conveyor. The fruit and vegetable mash comes out of mill.

Efficiency – 1000 kg/h, 3000 kg/h

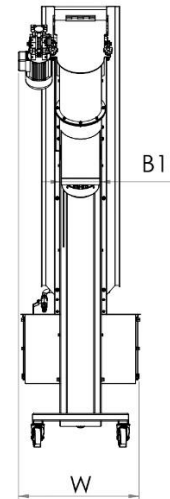
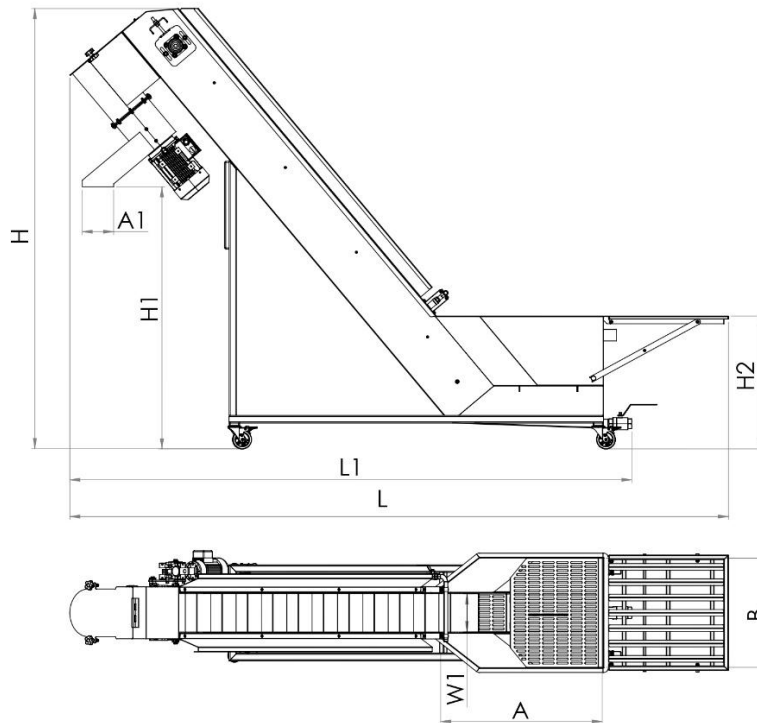
- Fruit washer mill - contact surfaces are constructed from stainless steel or food-grade materials.
- Mounted on pivoting wheels.
- Belt conveyor has a water drainage and speed regulation system.
- The speed of the belt conveyor can be changed in the integrated control panel.
- Sorting table for non-conditional fruits and vegetables.
- Water-spraying system for washing.
- Belt conveyor with water drainage and speed regulation system.
- Replaceable cutting grater/sieves.
- The mill does not damage the fruit seed.
- Easy to clean after using the machine.


**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.

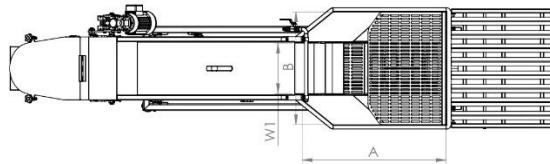
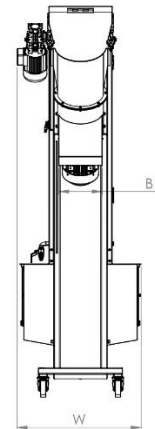
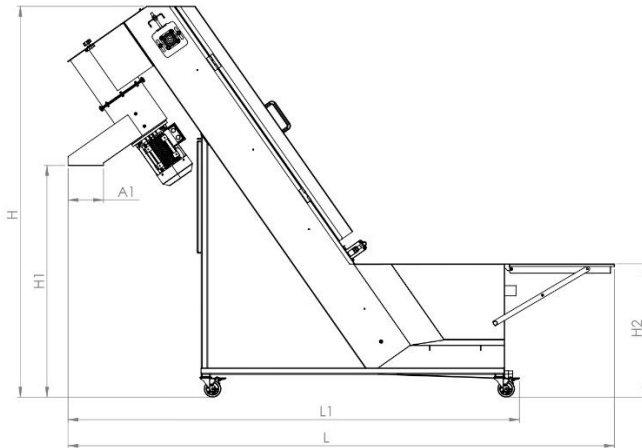



### Specifications and drawings of the machine



	Machine	Fruit and vegetable washer-elevator-grinder
	Type	Maximill 1000

Output	kg/h	1000
L	mm	3440
L1	mm	2935
W	mm	630
W1	mm	200
H	mm	2300
H1	mm	1370
H2	mm	700
AxB	mm	840x570
A1xB1	mm	165x205
Dry weight	kg	195
Supply source	kW	3,0
Supply voltage	V	3/N/PE ~ 400 V 50Hz



	Machine	Fruit and vegetable washer-elevator-grinder
	Type	Maximill 3000

Output	kg/h	3000
L	mm	3250
L1	mm	2740
W	mm	735
W1	mm	300
H	mm	2322
H1	mm	1376
H2	mm	800
AxB	mm	860x700
A1xB1	mm	210x258
Dry weight	kg	225
Supply source	kW	4.8
Supply voltage	V	3/N/PE ~ 400 V 50Hz

## Workplace of an operator

- The machinery is operated by one person.
- The workplace of an operator changes.
- When the machinery is being operated – operator works by the central control box.
- When the fruit and vegetables are being filled into the washing tank / bathtub or being sorted on the fruit tray – operator works in front of the machine near the fruit tray.

### Main components of the machine



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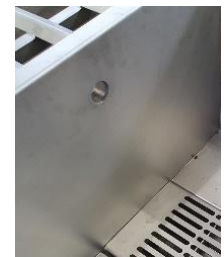
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1.	Central control box
2.	Drain valve
3.	Washing tank / bathtub
4.	Pivoting wheels
5.	Mill
6.	Water nozzles
7.	Conveyor
8.	Fruit tray
9.	Mark of drain valve

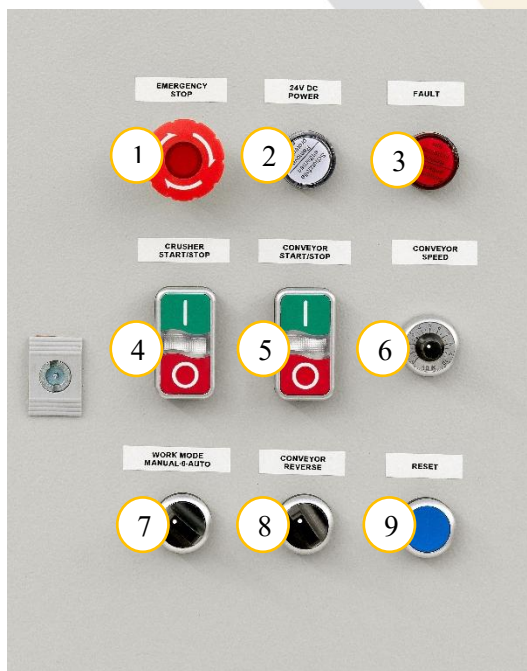
## Assembly, connection and installation of the machine

Steps to accomplish in order to start working with the machine

- Connect a water hose to the water supply valve.
- Fill the washing tank / bathtub to the mark of drain valve.
- Attach the water hose to the water nozzle valve.
- Connect power cable to the three-phase connection.

1

## The main instruction of central control box



- Control the switch Nr. 10 to turn the machine on or off. Horizontal position (0) means the machine is off, vertical position (I) means the machine is on.
- The button No. 2 (24VDC) is lit when the machine operates normally.
- In case of failure or emergency the button No. 3 (FAULT) lightens up in red color.
- To start or stop the conveyor adjust the buttons Nr. 5– green stands for START, red – for STOP.
- To start or stop the crusher adjust the buttons No. 4 – green stands for START, red – for STOP.
- The speed of the conveyor can be changed using an adjusting wheel No. 6.
- In case of emergency or in the need of immediate stop press a button EMERGENCY STOP No. 1. To turn this button off you need to pull the button.
- To reset the failure after the button FAULT was lit or after the button EMERGENCY STOP was pressed, you must press a button No. 9 (RESET FAULT).
- To start conveyor in reverse, switch the button No. 8 (CONVEYOR REVERSE)
- To choose automatic/manual work mode, adjust the switch No. 7. (WORK MODE MANUAL – 0 – AUTO)

### **Instructions for using the machine**

- Turn the power switch Nr. 10 into the working mode – vertical position (I).
- Choose the desired working mode with switch No. 7.
- To start the work, press the button No. 5 CONVEYOR START.
- Turn on the mill by pressing the button No. 4 CRUSHER START.
- Adjust the desirable conveyor speed with the adjusting wheel No. 6.

### **Safety mechanisms**

- **Emergency switch No. 1 EMERGENCY STOP** – needs to be pressed in case of emergency to immediately stop the machine.
- **Safety sensor mill lid** – the mill has a lid with a fastening lock. When in working mode the lid must always be closed and fastened by the lock. The machine will not work and the button

FAULT will stay lit until it is done. In this situation it is needed to close the lid, fasten it with the lock and then press the button FAULT RESET to continue the work.

- **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 break** – machine is mounted on stable and pivoting wheels with breaks. The breaks are fixed with the help of the foot.
- **Safety of electrical pieces** – all the electrical pieces are installed in the internal part of the central command box and shielded with the protection lid. The lid can be opened only with a special key.

### **Washing, lifting and milling process**

- Fruits and vegetables are immediately rinsed when filled into the washing tank / bathtub.
- The fruits and vegetables are lifted by the conveyor from the washing tank / bathtub and once again washed with water nozzles in order to get even cleaner products.
- After the conveyor the fruits and vegetables enter the mill where they are crushed into the mash consistency.

### **The washing of machine**

- Wash the machine with a water stream only when machine is turned off.
- It is recommended to wash the whole machine with a water stream except the central control 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 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.
- The press or other mash collecting machinery or tank is required to be put under the mill of the machine in order to collect it.
- The machine is operated by one person who has passed his training with the machine and is familiar with all the instructions and risks.
- Flat, stable and solid ground is needed for machine, the ground must hold 400 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 person who has passed his training for machinery and is familiar with all the machinery instructions and risks. The person also must 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.).
- It is prohibited to wet or pour any liquids onto the central control box and engines.

- Every time before using the machine the operator must carefully inspect the machine, check if all the parts and electrical 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.
- The central control box and engines can be fixed, repaired or changed only by the manufacturer or its approved repairing company. All the engineering and electrical works must also be performed by the manufacturer or its approved repairing company.

### **Warnings**

- It is prohibited to put products or things into the machine that could damage or cause any harm to it. Only products that can be identified as fruits or vegetables can be used with this machine.
- It is prohibited to wash and process berries, fruits and vegetables that could clog, stop or improperly aggravate the work or harm the machine and its parts in any way (such as tomatoes, watermelons, peaches, etc.).
- 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 processed or other dangerous parts because of the risk of injury. Only actions that are necessary for a proper work with the machine are allowed.
- All machinery parts, buttons and operational details must be used according to their purpose.
- Any arbitrary adjustment, repair or other mechanical modification of the machine by a non-manufacturer will result in termination of the warranty service.
- It is prohibited to climb or put things on the machine at all times.
- 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.
- The cover of the central control panel is opened with a special key by an operator or warranty service person.

- 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.

### **Residual risks**

- The risk of sound and vibration (depending on the load), water splashes and the possibility of getting wet still remains even in compliance with all safety requirements.

### **Precautionary directions**

- Before using the machine, the operator must inspect the machine for defects and meet all safety requirements. If discrepancies are found, do not use the machine until they have been eliminated.
- It is recommended to remain attentive around the machine and to keep a distance from the machine and its washing and crushing parts when it is not necessary.
- If the 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 the safety requirements depending on the products and the way how operator chooses to put them into machine (to not lift products that are too heavy by yourself, to carefully put them into the machine and work while protecting your health).

### **Transportation of machine**

- The machine is transported by truck.
- 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.
- 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 has to be put straight during transportation.

### **Machine operation in case of risk**

- In the event of an accident or emergency operate the machine depending on the situation: stop, shut it down, return to a safe or less dangerous position immediately and eliminate the danger.
- If the 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 (washing parts and mill) before every use, regularly check machinery.
- Wash the machine regularly (after each shift).
- Grease conveyor bearings once a month.

## 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	Phase missing Phase swapped	Have an electrician to check this
Machine does not function	EMERGENCY SWITCH pressed	Unlock EMERGENCY switch
Machine not starting	The safety switch on the crusher head is activated	Make sure the lid is closed and Fault is reset
Conveyor belt does not start	The belt is stuck/locked	Disconnect the power supply. Examine the belt and check if there is some problems.
Crusher head does not start	Something is stuck in the crusher head	Disconnect the power supply. Examine the crusher head.