WINEFICATOR VINIMATIK

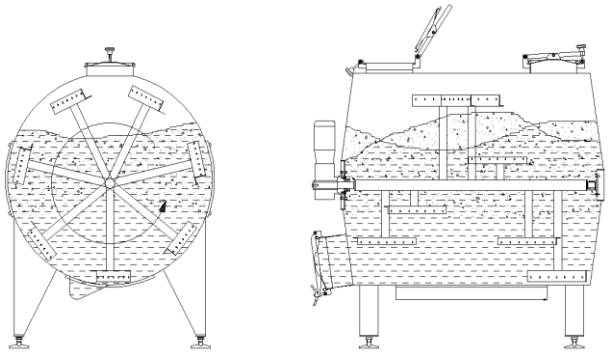
EN

Letina
STAINLESS STEEL TECHNOLOGY

Content

1. Description

The horizontal version of the Vinimatik is designed for maceration and fermentation of pressed white or black grapes, or various fruits in liquid condition. The Vinimatik can also serve as a container for wine. Another mode of operation or usage, besides the one described in these operating instructions, is not permitted. Failure to comply with the above means renunciation of responsibility and warranty claims.



The barrel (1) is made of the cylinder and two bottoms, which are frontally welded on the cylinder. The adjustable legs (2) are solid and can be adjusted in height, so that the machine can be set in an adequate position and on a surface which is not ideally horizontal.

The geared motor (3) drives the mixing system for pressed grapes, by an adjustable number of rotations (rotations per minute), in a clockwise and counter clockwise direction. The mixing system (4) allows very gentle but efficient mixing of the content, as well as automatic emptying of the machine. For more efficient mixing, the shaft of the system (4) is located 25 mm under the shaft of the barrel (1). The axle of the mixing system is embedded in bearings of food approved materials, which to not require special care. The bearings are lubricated by the liquid phase of the machine content.

The rectangular discharge door (5) sized 330x440 mm enables emptying of the machine. With its elevated position it allows positioning of a pump or other devices during discharge. The revision door (6) sized 300x180 mm allows visual control of filling and emptying, during standstill of the machine.

The upper doors, 2 pieces (7) diameter 400 mm, allow filling the machine and supervision of the process, as well as washing it. It is possible to fit a boiler on the upper door or a connection for inert gas. The cooling system (8) allows fast cooling of the machine content, as well as keeping the system at the intended (low) temperatures. The working pressure of the cooling system is from 1,5 to 2,5 bar. The cooling agent can be glycol, frost protection agent or water. Ventilate the system occasionally. Electromagnetic valve for cooling is on top of duplicator(8a). The heating system (9) on the bottom of the barrel shell enables heating of the content. The heating body is an electrical heater. The heater (9a) serves as a medium in the heating system. The thermometer (11) shows the temperature of the machine content.

The total discharge (12) with suction container enables the filling and emptying of the machine by means of a pump without air suction. The test tap (13) is used for taking liquid samples. The partial discharge (14) enables complete emptying of the machine.

The control panel (15) enables the management of the machine (starting and stopping the machine, adjusting the rotation speed of the spades of the Vinimatik, adjusting the time intervals of mixing the content and stoppage of the machine, cooling and heating, emptying the machine). The safety switch, 4 pieces (16) are used for blocking the function of the machine while some of the doors are open, except when manually emptying the machine. The sign plate (17) contains identification and technical data about the machine.

The machine and the attached fittings are made of stainless steel WN 1.4301 (AISI A304) or WN 1.4571 (AISI A316Ti).

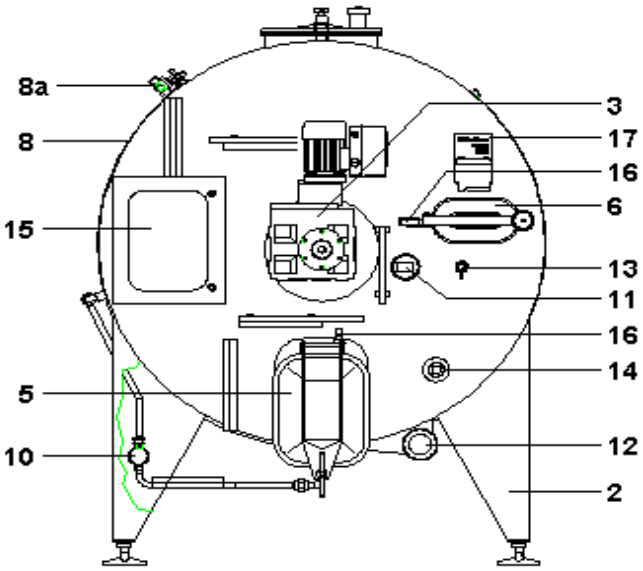
2. Parts

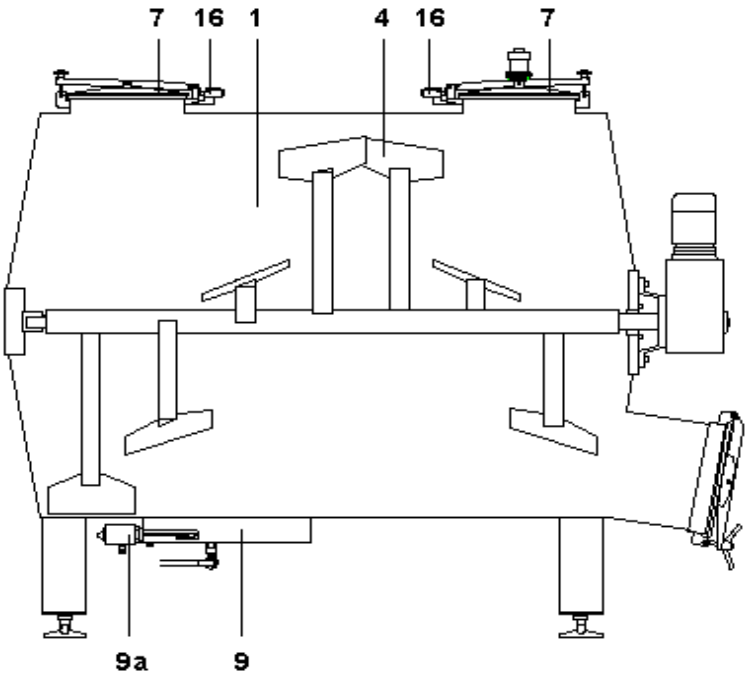
2

3

5

6





8

1 Barrel (cylinder and bottom)
2 Adjustable legs
3 Geared motor
4 Mixing system
5 Discharge door
6 Revision door
7 Upper door w/ safety valve
8 Cooling system
8a Electromagnetic
9 Heating system
9a Heater
10 Circulation pump
11 Thermometer
12 Total discharge
13 Test tap
14 Partial discharge
15 Control unit
16 Safety switch
17 Sign plate

3. Tehnical data

Wineficator Vinimatik		2400 3200 4000	4100 5100	5000 6200 7400	7500 8900	10500 13800	12200 16100	15400 20300	30000
Capacity nominal	**[lit]**	3200 4000	4100 5100	5000 6200 7400	7500 8900	10500 13800	12200 16100	15400 20300	30000
Capacity operating	**[lit]**	do 1650 do 2850 do 3600	do 3700 do 4600	do 4500 do 5600 do 6650	do 6750 do 8000	do 9450 do 12400	do 11000 do 12400	do 13850 do 18250	do 27500
Diameter of the barrel	**[mm]**	1403	1594	1753	1912	2072	2231	2502	2502
Length of the barrel	**[mm]**	1500 2000 2500	2000 2500	2000 2500 3000	2500 3000	3000 4000	3000 4000	3000 4000	6000
Power supply	**[V~]**	3P+N+PE 400V	3P+N+PE 400V	3P+N+PE 400V	3P+N+PE 400V	3P+N+PE 400V	3P+N+PE 400V	3P+N+PE 400V	3P+N+P E 400V
Frequency	**[Hz]**	50	50	50	50	50	50	50	50
Motor power	**[kW]**	1,5	1,5	2,2	2,2	2,2	2,2	2,2	2,2
Heater power	**[kW]**	3,0 4,0 4,0	4,0 4,0	4,0 4,0 6,0	6,0 6,0	6,0 2 x 4,0	2 x 4,0 2 x 6,0	2 x 6,0 2 x 6,0	4x6,0
Pump power	**[kW]**	0,025	0,025	0,025	0,025	0,025	0,025	0,025	0,115
Installed power	**[kW]**	1,5-6,0	1,5-8,0	2,2-6,5	2,2-8,5	2,2-10,5	2,2-14,5	2,2-14,5	26,3
Struja	**[A]**	2,2-8,7	2,2-11,5	3,2-9,4	3,2-12,3	3,2-15,2	3,2-20,9	3,2-20,9	38
IP protection	**----**	IP 42	IP 42	IP 42	IP 42	IP 42	IP 42	IP 42	IP 42
Number of rotations , idle	**[min^{-1}]**	0 do 7	0 do 7	0 do 7	0 do 7	0 do 7	0 do 7	0 do 7	0 do 7
Number of rotations, operating	**[min^{-1}]**	0 do 7	0 do 7	0 do 7	0 do 7	0 do 7	0 do 7	0 do 7	0 do 7
Machine weight , net	**[kg]**	540 580 610	670 720	720 850 980	980 1090	1220	1220	1510	2870

4. Safety notes

To be able to use the machine in a safe manner, please read the instructions for safe work thoroughly.
We do not carry any responsibility for possible damages of the machine, which would occur due to disregarding these instructions.

ATTENTION – DANGER! DANGEROUS AREAS! NEVER PUT HANDS, HEAD OR LEGS INTO THE INTERIOR OF THE VINIFIKATOR, WHILE THE MACHINE IS CONNECTED TO THE POWER SUPPLY SYSTEM, BECAUSE THERE IS DANGER OF SERIOUS INJURIES!!!

- The machine operator or other persons are not allowed to climb the machine during operation.
- Before any interventions on the machine (check up, maintenance, relocation…), disconnect the main switch (15.1) and pull the plug out of the socket.
- Prior to delivery the machine was thoroughly examined concerning material, function and manufacturing quality. Nevertheless, the machine can be dangerous if inexperienced people operate it in an unprofessional and incorrect manner.
- Never let children run the machine.
- The machine must be only operated by one person.
- The machine must not be placed and worked with in a room where there is danger of explosion.
- The machine must not be placed and worked with in an atmosphere saturated with oil, sulphur, chlorine and salt.
- The machine must not be exposed to water jets.
- People who operate machines must wear anti slippery boots.

- Never put tools or any objects into the machine.
- During the filling from up operator should respect instruction for safe work at the high levels.
- It is not allowed to cover up or transport the machine during operation.
- Periodically check functions of safety switches at doors and also the function of Emergency Stop pushbutton.
- Before any usage check the correctness of the machine. Should any damage be found, to not use it. Leave any repairs to authorised technicians. Never open mechanical or electrical assemblies by yourself!
- Load the machine adequately, so that the spades of the Vinimatik can rotate freely.
- Letina intech d.o.o. can ensure reliable work with the machine, if it is used and maintained in accordance with these instructions.
- Please keep this user manual, as well as the entire associated documentation, at your disposal.
- In case of relocation or sale of the machine, all the documents are to be handed over to the new owner.
- With the CE sign, which Letina intech d.o.o. puts on the machine, it is declared that the machine fulfils important safety requirements, as well as requirements about health and environment protection defined by the European legal regulations. For government institutions, the CE sign means that the product is on the market legally. The CE sign is short for the French words “Conformité Européene” (European conformity).

5. Transport of machine

The transport of the machine has to be done in a horizontal position, secured by ribbons with fixing mechanisms. Before moving the machine, pull the plug out of the socket. To lift the machine there are handles on the upper side of the barrel. Label of maximum lifting mass per lifting lug is put beside every lifting lug. Every lifting lug is individual for itself.

To move the machine to short distances, a forklift can be used. The forks should fit on the lower side of the barrel. Care should be taken that the heating system will not be squeezed. The forks of the forklift have to be wrapped with fabric or similar material, so that the barrel will not be damaged at the point of contact. The machine can only be transported in an empty condition.

6. Seting up machines

- The Vinimatik is intended for closed or at least covered workspaces.
- The ground for setting up the Vinimatik has to be solid.
- The Vinimatik has to be set up upright and in a stable position by means of the height regulation system on the legs (2), so that the back side is about 10 mm higher than the front, to be able to be completely emptied.
- All four legs have to be equally burdened.
- The Vinimatik has to be placed in the workspace in a way that there is enough space on all sides of the machine for unhindered work (mounting, usage, maintenance…), in a safe fashion.
- The connection of the Vinimatik with alternating current has to be carried out with grounding and a safety lid, voltage 3x400 V + N + PE.
- The place of installation and possible use of the machine has to be sheltered from freezing.
- When using the machine for the first time, fill the cooling and heating system with a cooling liquid: glycol, frost protection agent or maybe water (with low temperatures please consider possible freezing!).
- When using the machine for the first time, fill the reducer with the necessary quantity of lubricating oil. About the type and quantity of oil, please consult the instructions for the reducer.
- The Vinimatik is intended for closed or at least covered workspaces.
- The ground for setting up the Vinimatik has to be solid.

7. Safety labels

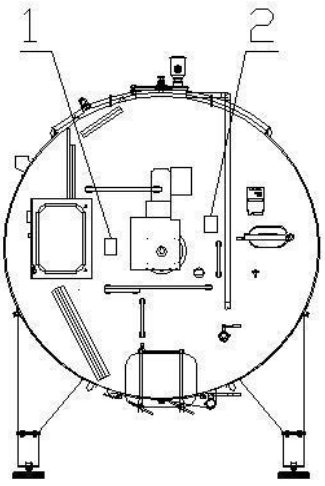
1. Danger of slips

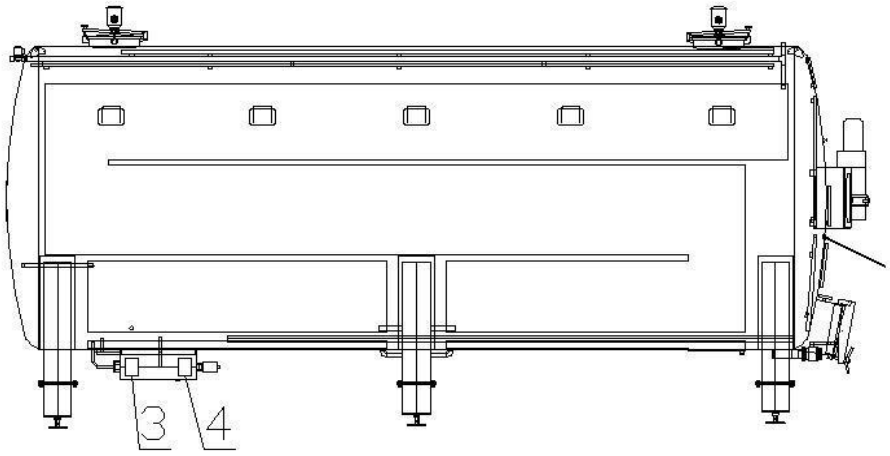
2. Danger of entrapment

3. Danger of burns

4. Danger from hot substances

In case of any danger, press the safety switch „EMERGENCY STOP“.





8. Prerequisites for commissioning

ATTENTION-DANGER!

NEVER PUT HANDS, HEAD OR LEGS INTO THE INTERIOR OF THE WINEFICATOR, WHILE THE MACHINE IS CONNECTED TO THE POWER SUPPLY SYSTEM, BECAUSE THERE IS DANGER OF SERIOUS INJURIES!!!

- Check if the main switch (Q0) is turned off.
- Check the cleanness of the machine, outside and inside. If necessary, clean the machine.
- Check the stability of the Vinimatik; all legs (2) have to stand firmly on the ground; if not, adjust them.
- If required, ventilate the cooling / heating system and fill it up.
- ATTENTION: The heater must not work in dry conditions!
- Fill up the machine.

9. Filling up the machines

ATTENTION! THE VINIMATIK MAY ONLY BE FILLED UP WHILE STANDING STILL! ATTENTION!

The Vinimatik can be filled only with :

- grapes that are cleaned of stalks.
- Ground fruit in a liquid state.
- The rotation of the spades should only be turned on if the level of the fluid machine content is at least up to the middle of the barrel, so that bearings are moistened for some time even after the fluid level is below the middle of the barrel.

Filling up the Vinimatik through the upper door (7):

a. Check if all the taps are closed; if not, close them.
b. Check if the discharge door (5) is closed; if not, close it.
c. Check if the revision door (6) is closed; if not, close it.
d. Fill up the Vinimatik so that the quantity of mash and liquid fruit does not exceed 90% of the nominal capacity of the machine, or that between the level of the machine content and the top of the barrel stays at least 20 cm free space.

Filling up the Vinimatik through the total discharge hole (12)

a. Check if all the taps are closed; if not, close them.
b. Check if the discharge door (5) is closed; if not, close it.
c. Check if the revision door (6) is closed; if not, close it.
d. Connect the supply tube to the total discharge (12).
e. Open the tap of the total discharge (12).
f. Fill up the Vinimatik so that the quantity of mash and liquid fruit does not exceed 90% of the nominal capacity of the machine, or that between the level of the machine content and the top of the barrel stays at least 20 cm free space.

10.Emptying the Vinimatik

ATTENTION-DANGER!

NEVER PUT HANDS, HEAD OR LEGS INTO THE INTERIOR OF THE VINIMATIK, WHILE THE MACHINE IS CONNECTED TO THE POWER SUPPLY SYSTEM, BECAUSE THERE IS DANGER OF SERIOUS INJURIES!!!

Emptying the Vinimatik through the door (5):

a. Let the liquid phase out through the total discharge (12).
b. Open the discharge door (5); the signal lamp is flashing (hL-1).
c. On the control panel in the field DIRECTION, turn the switch (b5) to position LEFT, so that the spades push the mash towards the doors (5).
d. Press the green button START (b2) on the control panel in the field STOP/START, the signal lamp (h0) flashes, the spades of the Vinimatik rotate.
e. On the control panel in the field EMPTYING, press and hold, the green button (b3) till the Vinimatik is completely empty.

Emptying the Vinimatik with the pump:

a. Connect the hose of the pump to the total discharge (12).
b. On the control panel, in the field DIRECTION, turn the switch (b5) to the position LEFT, so that the spades push the mash towards the total discharge (12).
c. The rotation speed of the spades (4) is adjusted on the touchscreen, so that they rotate about 1 (rpm).
d. On the control panel, turn the switch (b4) to position MANUAL.
e. On the control panel in the field STOP/START press the green button START (b1), the signal light flashes (h0), the spades of the Vinimatik rotate.
f. Open the tap of the total discharge (12).
g. Turn on the emptying pump, the pump is not a part of the Vinimatik.

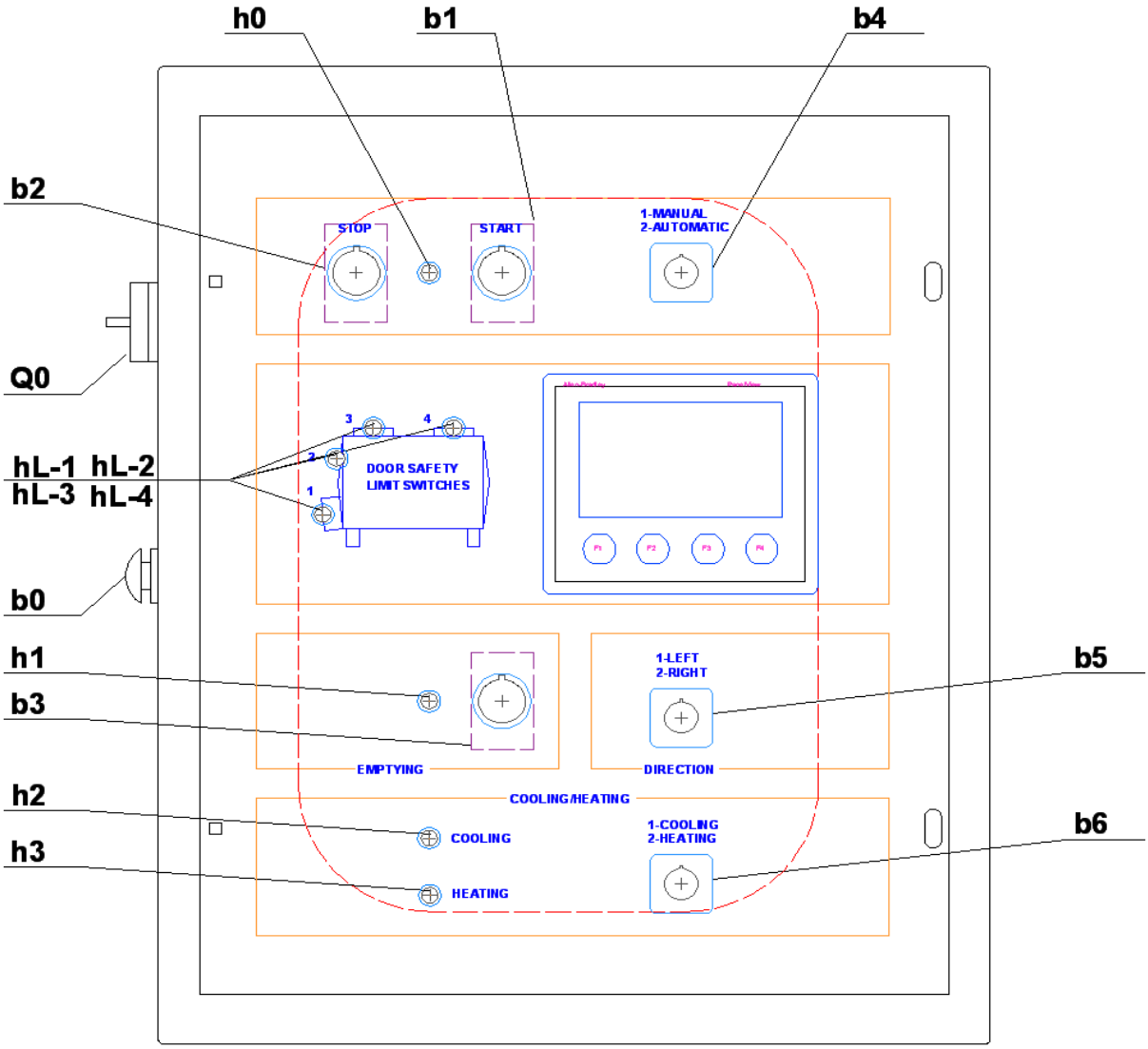
ATTENTION!

While emptying the Vinimatik with the pump, the mash always has to have a certain liquid part. If the mash, while emptying, remain without the liquid phase, it is necessary:

- Press the button STOP (b2) on the control panel, in the field STOP/START, to interrupt the spade rotation of the Vinimatik.
- Return a part of the liquid phase of the mash, which was pumped out earlier, through the upper door (7).
- Press the button START (b1) on the control panel, in the field STOP/START, to go forward with the spade rotation.

Repeat this procedure until the Vinimatik is completely empty.

11.Control unit



Q0 - main switch
b0 - emergency stop button
b1 - button for starting the blade motor
b2 - button for stopping the blade motor
b3 - emptying button (when emptying, the motor drives the paddles as long as this button is kept pressed)
b4 - switch 1-0-2 serves to select manual-automatic blade rotation
b5 - switch 1-0-2 is used to select the direction of rotation during manual operation of the blades
b6 - switch 1-0-2 is used to select the mode of heating or cooling of beans
hL-1, hL-2, hL-3, hL-4 - signal LED that lights up red when some of the doors are open
h0 - signal LED lights up green when the blade motor drive is in Start mode
h1 - the signal LED lights up green when the Vinimatik is being discharged
h2 - the signal LED lights up green when the EMV for cooling the green beans is turned on
h3 - the signal LED lights up green when the heater for heating the beans is on
__ - touch screen for monitoring and entering process parameters 4.3''

12.Instruction for work

- Check whether the working conditions of the machine are met:

  a. Machine set up according to instructions.
  b. Connected to sources of electrical power, cooling.
  c. Heater loaded. (If this option is installed)
  d. Machine filled with oil up to the blades in the upper position.
  e. All doors closed.

- Turn on the main switch (Q0). After a while, the initial management screen appears on the screen.

- Choose one of 3 possible modes of operation:

A. Manual work

If you want to drive the Vinimatic blades manually, then switch the switch (b4) to the (MANUAL) position. All doors on the machine must be closed. Select the direction of rotation with switch (b5) (LEFT or RIGHT). Enter the rotation speed via the touch screen. Then press the button (b1) (START). The Vinimatik blades are now starting to spin.

B. Automatic operation

If you want to operate the Vinimatik in automatic mode, then switch the switch (b4) to the (AUTOMATIC) position. All doors on the machine must be closed. Enter the rotation speed via the touch screen. Enter the working time of the mixer via the touch screen. Press the button (b1) (START). The Vinimatik blades are now starting to spin. The rotation continues until the operating time expires. Which is followed by break time. After the pause time has expired, the working time (i.e. rotation of the blades) follows again, and the cycle repeats. The direction of rotation changes with each new start of rotation of the blades.

C. Discharge

If you want to empty the Vinimatik through the lower door, i.e. door number 1, then open the same door and close all other doors. Move switch (b4) to the manual position (MANUAL). ". Select the direction of blade rotation with switch (b5). Set the desired rotation speed on the screen. Press the green button (b1) (START). If you now hold down the button (b3) (EMPTYING), then the vanes rotate as long as you hold down this button.

- Select the Cooling / Heating temperature operating mode, with switch b6.

A. Heating

It is necessary to enter the desired temperature and the hysteresis temperature. When the current temperature is lower than the set value minus the hysteresis values:

Temp. °C < Temp. Set °C – Hist. °C,

the heater at the base of the machine turns on. After the desired temperature is reached, the heater is turned off. The heater is switched on again when the above condition is met.

B. Cooling

It is necessary to enter the desired temperature and the hysteresis temperature. When the current temperature is higher than the set value increased by the hysteresis values:

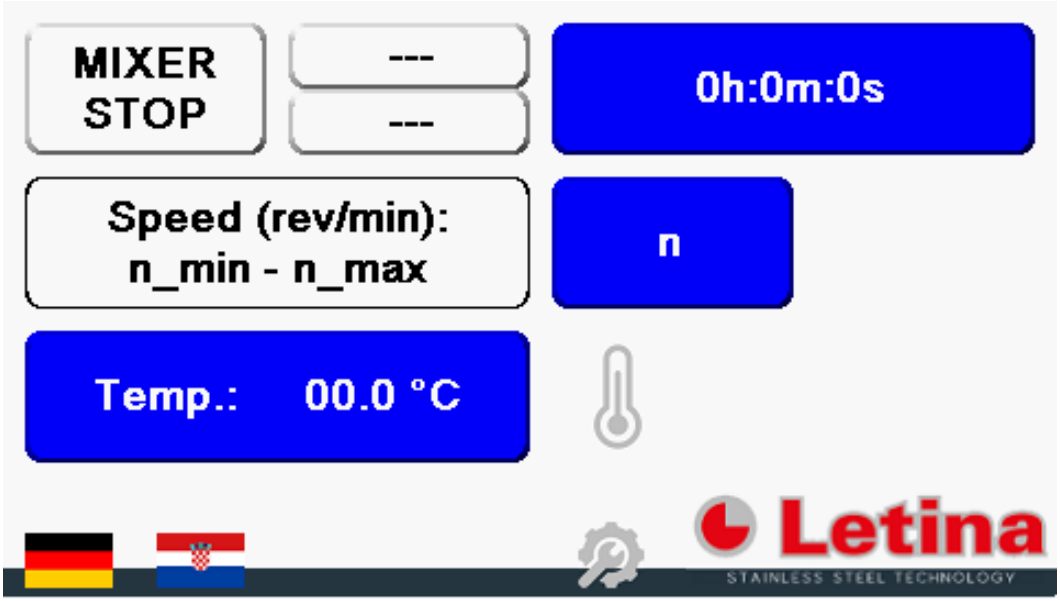
Temp. °C > Temp. Set °C + Hist. °C,

cooling is switched on, that is, the EMV valve on the duplicator opens. After the desired temperature is reached, the valve closes. The valve opens again when the above condition is met.

- Shutting down the machine.

a. Press button (b2) (STOP).
b. Set switches b4 (Manual/Automatic), b5 (Left/Right), b6 (Cooling/Heating) to neutral position "0".
c. Turn off the main switch (Q0).
d. Disconnect the sources of electrical power and cooling.

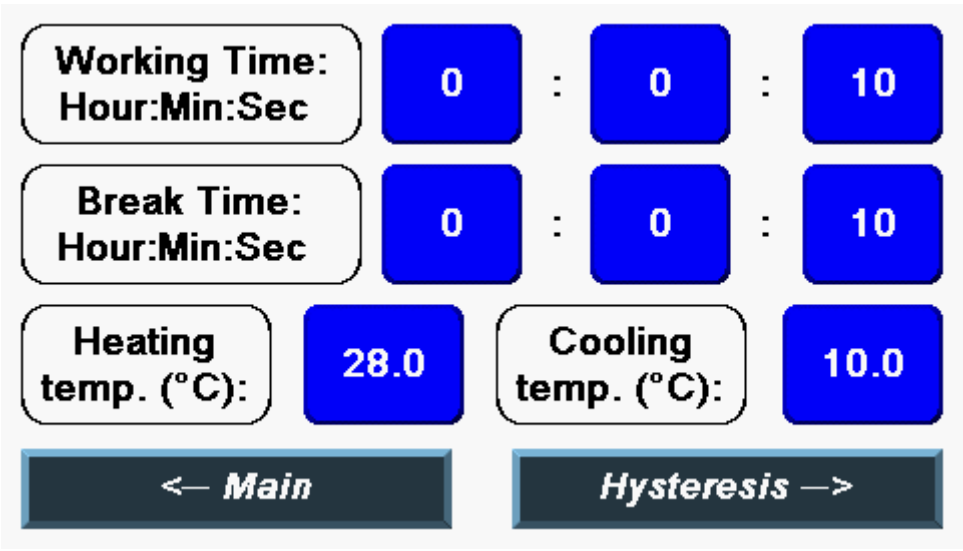
13.Instruction for touchscreen



First top row

home screen is intended to display information about the Mixer. The selected operating mode with switch b4 (MANUAL, AUTOMATIC, STOP) is shown in the left field. The central fields show the current status (RUN, PAUSE, ---) and the direction of rotation (LEFT, RIGHT). In the right, blue field, the remaining time of operation or pause for automatic operation mode is displayed. By clicking on the blue field, a new window opens in which the user can set the desired working and break times. The set minimum working time is 10 s, and the pause time is 10 s. The user can enter the time value by pressing the blue field, where the numerical keyboard for entering the parameter opens. Times are defined in the format:

Hours (H) : Minutes (M) : Seconds (S)

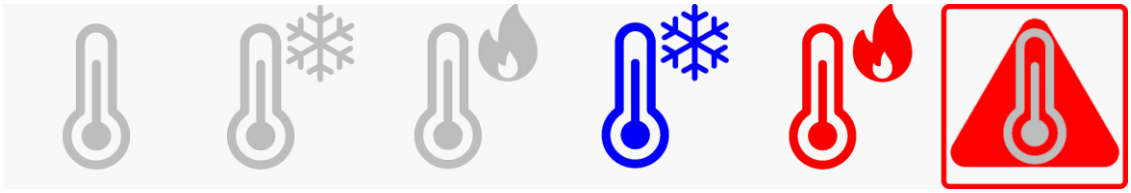


Second middle row

home screen is intended to display mixer speed information. The speed is expressed with the number of revolutions per minute. The minimum and maximum speed are shown in the left field. By clicking on the blue field, the keyboard opens where you can enter the desired rotation speed in the displayed frame.

Third bottom row

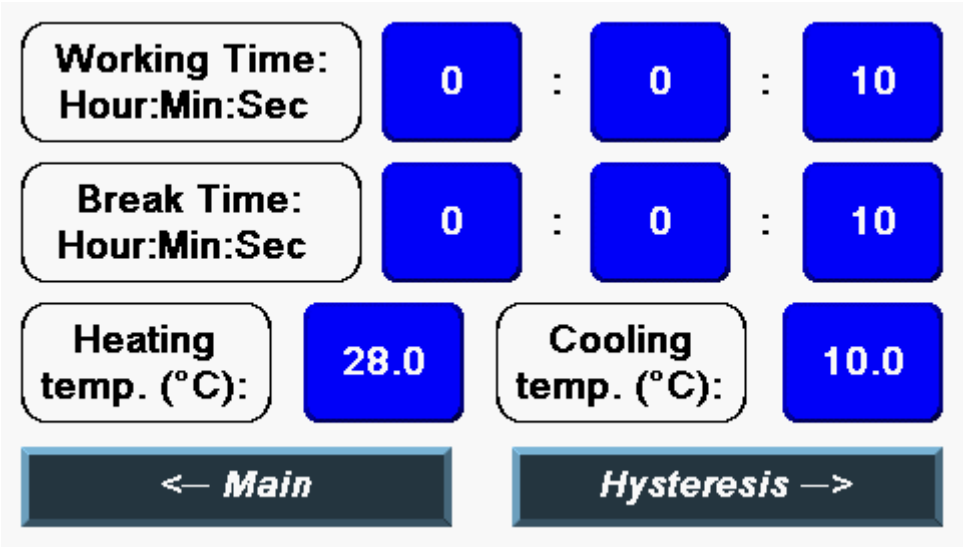
home screen displays information about the temperature of the machine's contents. The thermometer symbol shows the system status. When the red icon appears, heating is on. When the blue icon appears, it is cooling.



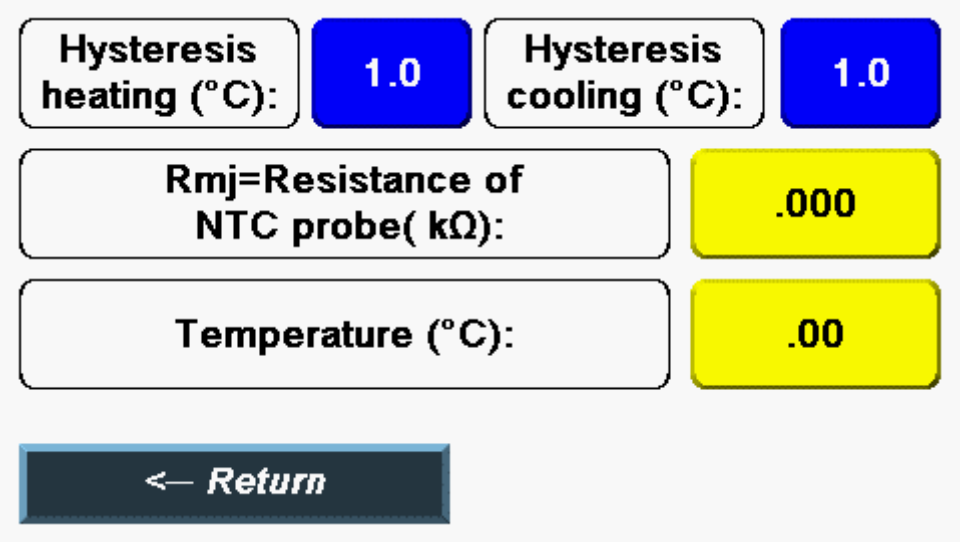
Statuses: Neutral Cooling mode Heating mode Cooling Heating Probe error

IMPORTANT: The temperature operation mode is selected manually with switch b6 (HEATING / COOLING), while after the set temperature, the automatic system will turn on or off the selected system.

The blue field shows the current temperature in °C. Pressing the blue field displays the screen for setting the cooling or heating temperature. This display shows the set heating and cooling temperatures. By pressing the blue field, a keyboard appears for entering the desired temperature.



Next, pressing the "Hysteresis" button opens a new screen. Current hysteresis values are shown. By pressing the blue field, a keyboard appears for entering a new value. The smaller the hysteresis, the more often the system will turn on. It is possible to enter values from 1°C to 10°C. Informatively, the resistance of the probe and the current temperature can be read on this screen.



Menu on bottom row

gives the possibility to select the desired language. By clicking on one of the displayed flags, the language of all screens is selected. The "settings" icon is intended for authorized personnel when setting the initial parameters of the machine. Entry is password protected. Pressing the "F4" key allows access to the "settings" icon.

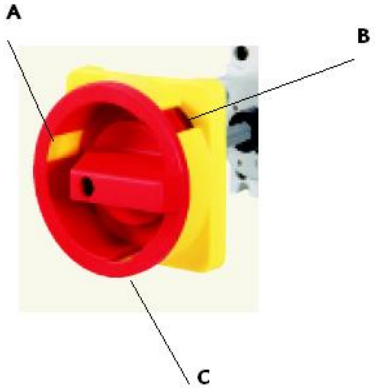
14.Cleaning and maintenence

In order for the machine to be functional for many years, keep it clean and dry, free of dust and dirt. Use neutral detergents for washing. Do not use agents that can scratch and damage the surface of the machine or its parts.

To clean the exterior, use a wet cloth and diluted detergent.

IMPORTANT: Do not use a water jet to clean the outside of the machine. The water jet can reach sensitive electrical and electronic parts, which can cause malfunction and potential danger.

ATTENTION! Before any intervention on the machine (i.e. maintenance, cleaning, moving), turn off the main switch and unplug the machine. During the intervention, disable the main switch on openings A or B or C (see picture below).



15.Attachments:

EC DECLARATION OF CONFORMITY

We,

Letina intech d.o.o.
Neumannova 2, 40000 Čakovec, Croatia

***Letina intech d.o.o. is subsidiary company of Letina inox d.o.o.**

Declare under our sole responsibility that product: **Wineficator Vinimatik**

Type: **VIN**

Models: **VIN2400, VIN3200, VIN4000, VIN4100, VIN5100, VIN5000, VIN6200, VIN7400, VIN7500, VIN8900, VIN10500, VIN13800, VIN12200, VIN16100, VIN15400, VIN20300, VIN30000**

The designated product is in conformity with the following directives:

2014/30/EU - Electromagnetic compatibility (EMC)
2014/35/EU - Low voltage (LVD)
2006/42/EC - Machinery (MD)
2011/65/EU - ROHS Directive

by applying following standards:

EN IEC 61000-6-4:2019	*EN IEC 61000-6-2:2019*	*EN 61000-4-2:2009*
EN 61000-4-3:2006+A1:2008+A2:2010	*EN 61000-4-4:2012*	*EN 61000-4-5:2014+A1:2017*
EN61000-4-6:2014	*EN 61000-4-8:2010*	*EN 61000-4-11:2004+A1:2017*
EN 61000-3-2:2019+A1:2021	*EN 61000-3-3:2013+A1:2019*	*EN 60204-1:2018*
EN 61326-1:2013	*EN 61204-1:2006+A1:2009*	*EN ISO 12100:2010*
EN 953:1997+A1:2009	*EN 13849-1:2008*	*EN 1672-2:2005+A1:2009*

Conformity assessment has been performed by

KONČAR – Institut za elektrotehniku d.d., Notified Body No. 2494.

Year of affixing of CE marking: **2022.**

Also, the designed products is in conformity with the following Regulation:

1935/2004/EC - Regulation on materials and articles intended to come into contact with food

by using the following product material: **W.Nr1.4301 IIId**

Test results can be found at:

Letina intech d.o.o., Neumannova 2, 40000 Čakovec, Croatia

Place and date of issue:
Čakovec, 21.07.2022.

General Manager
Željko Benc

Letina
LETINA INTECH d.o.o.
Neumannova 2, HR-40000 Čakovec

Letina

STAINLESS STEEL TECHNOLOGY

CE

Letina intech d.o.o.
Neumannova 2, HR-40000 Čakovec, Croatia
tel: +385 (0)40 328100 **fax:** +385 (0)40 328200
e-mail: letina@letina.com **web:** www.letina.com
OIB: 32033415378 **VAT:** HR32033415378
IBAN: HR5024840081106765375 Raiffeisenbank Austria d.d. Zagreb
IBAN: HR8623400091111113699 Privredna banka d.d. Zagreb