

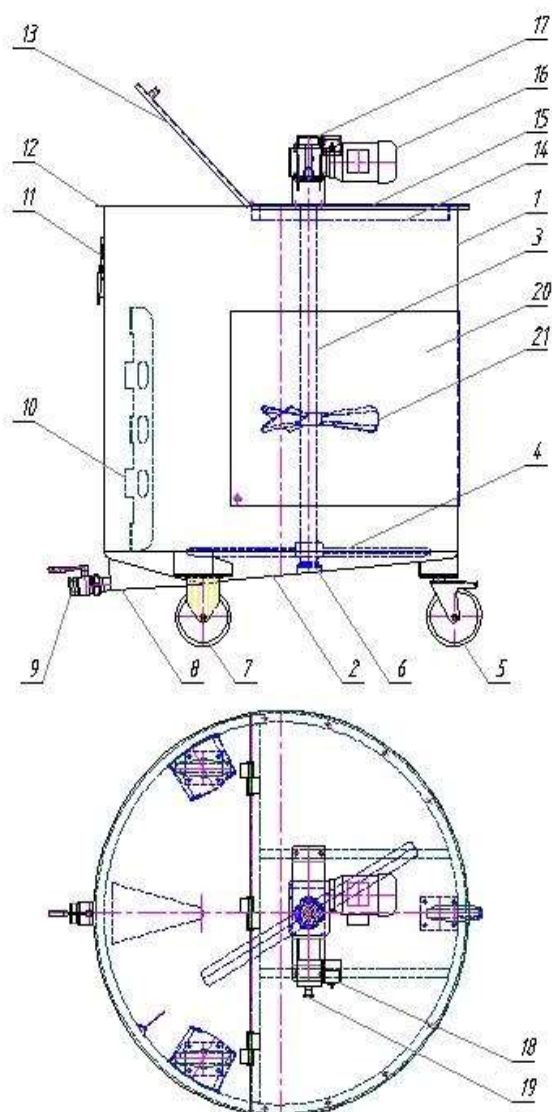


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## 1. MACHINE PARTS

1	Coat	12	Upper border
2	Bottom	13	Cover
3	Axle	14	Gear motor support
4	Mixer	15	Fix cover
5	Leg or rotating wheel	16	Gear motor
6	Bearing	17	Protective cover
7	Leg or fix wheel	18	Protective switch
8	Discharge trough	19	Switch to select direction
9	Discharge valve	20	Cooling jacket
10	Flow breaker	21	Additional propeller
11	Type plate		



## 2. MACHINE SETTINGS

- The mixer is designed to operate in a closed, or at least a covered work area.
- The ground for setting up the mixer must be solid.
- Set the mixer in an upright and stable position.
- All legs/wheels must be evenly loaded.
- Set up the mixer in the work area in a way that all sides have enough space so that all planned actions with the machine (installation, operation, maintenance, ...) can be done in a smooth and safe way.
- Power connector for AC electricity, must be made with electrical grounding and protective cover, voltage 3N ~ 400/230V.

## 3. CONNECT THE MACHINE TO POWER SUPPLY

This machine is designed for an interphasial three-phase power system 400V and frequency of 50Hz. Connection is designed as a round 16A, 5-pole plug: three phase, zero and grounding (3P+N+PE).

Plug-in the connector to the power supply only when the machine will be used.

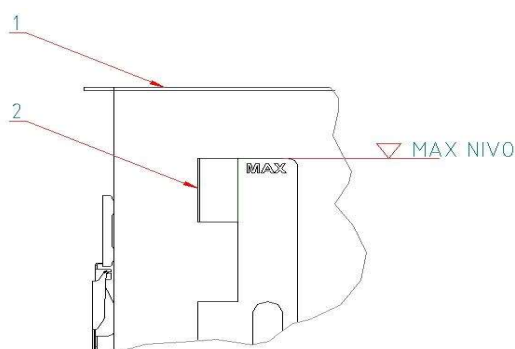
The connector should be pulled out of the socket in standby mode, servicing or cleaning.

## 4. USING THE MACHINE FOR PARTICULAR PURPOSE

The mixer is a machine in vertical construction. It is designed for mixing liquid (must, wine ...) and adding oenological products (e.g. yeast, bentonite...). When working with large quantities of supplements, it is necessary to gradually fill them into the fluid for better dissolution and mixing. It is not allowed to operate or use in any other way than described in this manual. A different operating mode or use other than described in this manual is not allowed. Failure to follow the above means a waiver of liability and warranty claims.

The user is required to illuminate the machine and its surroundings. The light must be of sufficient magnitude in order for the operator to smoothly operate the machine and read the labels.

The maximum allowable level of liquid is at the top of the flow breaker. See figure below. (1 - upper edge; 2 - flow breaker).



## 5. SAFETY NOTES

**To use the machine safely, thoroughly read the manual instructions for the safe operation and strictly follow them.**

We accept no liability for possible damage to the machine that is caused because of noncompliance to these instructions.

### **WARNING - DANGER!**

**Hazardous areas! Never place your hands, head or feet in the interior of the machine, while the machine is connected to the power grid, due to the risk of serious injury!**

During the machine's operating state the operator nor another person may not climb on the machine.

- Before any intervention on the machine (inspection, maintenance, removal, ...), turn off the main switch and disconnect the plug from the socket.
- Before the delivery the machine was subjected to extensive checks and tests of material, functionality and quality treatment. Nevertheless this machine can be dangerous if it is administered by an outsider in an unprofessional and improper way!
- Never allow children to operate the machine.
- The machine must not be set up and operate in rooms where there is a risk of explosion.
- The machine must not be set up and operate in an atmosphere saturated with oil, sulfur, chlorine or salt.
- The machine must not be exposed to water jets.
- Never insert any foreign objects into the machine. If this accidentally happens, immediately stop the machine.
- During the operation, the machine must not be covered or transported.
- People with long hair should wear a hairnet.
- Before each use, check the accuracy of the machine. If it is determined as damaged, the machine must not be used. Repair works have to be done by an authorized expert. Never open the mechanical and electronic control unit yourself!
- Letina intech d.o.o. can ensure reliable operation of the machine if the machine is used and maintained in accordance with these instructions.
- Keep these Instruction manuals as well as complete supporting documents so that they are available if necessary. When relocating or selling machines, submit all documents to the buyer.
- The CE mark, which Letina intech d.o.o. as machine manufacturer permanently puts on the machine, declares that the machine meets the essential safety requirements, health and environment protection that determines the European legislation respectively the following of the new and general approach:
  - **Low Voltage Directive 2006/95/EC (73/23/EEC)**
  - **Electromagnetic Directive 2004/108/EC**
  - **Directive 2006/42/EC on the safety of machinery (98/37/EC).**

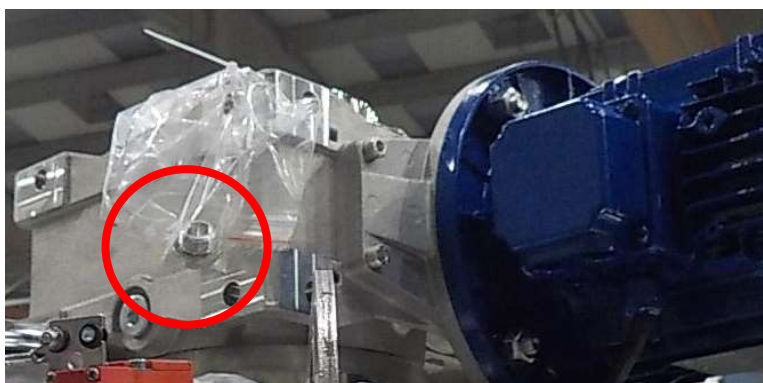
For state institutions the CE mark on the product is proof that the product is legal on the market. The CE mark is an abbreviation of the french words “Conformité Européene” (European Conformity).

#### WARNING!

- **Before turning on the machine make sure that the blind plug is replaced with a vented fill plug on the gearbox!!! The vented fill plug is attached on the gearbox (see figure below). Do not throw it away!**

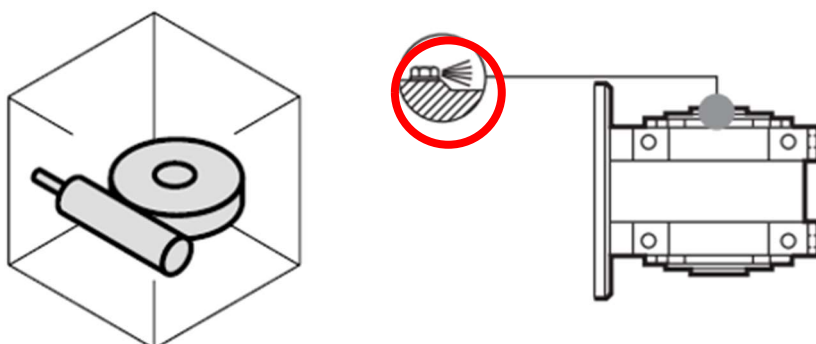
The mixer comes with blind plug to prevent oil leakage due to transport.

For more details on how to maintain the gearbox check attached manual for gearbox.



#### NOTE:

- Additionally, a vented fill plug is used as a pressure relief valve. Vented fill plug is placed in different places, mainly on top of the gearbox, depending on type of the gearbox.



## 6. COMMISSIONING

### WARNING - DANGER!!!

**Never place your hands, head or feet in the interior of the machine, while the machine is connected to the power grid, due to the risk of serious injury!**

The sequence of operations when using the mixer is the following:

- 1) Check the accuracy of the machine
- 2) Check the stability of the machine, all legs must stand firmly on the ground.
- 3) If the machine has wheels, then lock them. Make sure the machine is on a horizontal surface.
- 4) Check the vented fill plug and oil in the gearbox.
- 5) Insert the plug into the socket (AC connector with zero and grounding).
- 6) Let the machine into operation (turn the switch on the machine).

**NOTE** : If the mixer was disconnected from electricity supply or if a loss incurred in power supply, it is necessary (when the power supply returns to the mixer connection) to do the following:

- press the button to stop, after which you can press the button to start.

Fill the machine to the optimum level.

**WARNING!** The maximum liquid level is at the top of the flow breaker!

**NOTE!** The machine can be filled in standby mode but also while operating!

**WARNING!** The machine is not designed to work with grapes or mashes!

**IN CASE OF EMERGENCY, put the switch in neutral position!**

Occasionally check the operation of the machine.

Press the „stop“ button.

Pull out the plug.

Empty the machine.

Wash the machine.

## 7. PROTECTION AGAINST JAMMING AND AUTOMATIC STARTUP



In the picture is seen a motor protection switch and 1-0-2 switch. The switch 1-0-2 is used to change the direction of rotation.

The motor protection switch has integrated:

- Motor protection against short circuit and overload.
- Undervoltage trip.

Overload protection achieves protection of the electro motor. In case of inadequate medium in the vessel or if the mixer blades are stuck, then activates the overcurrent of the motor starter and stops the mixing operation.




The undervoltage trip is used against autorun. Namely, if for example the mixer is working and then a power supply disappears (e.g. if the circuit fuse burns out in the power supply box), the undervoltage trip mechanically turns off the motor protective circuit breaker. When the power supply appears again, the mixer won't run by itself, but it is necessary to press the start button.

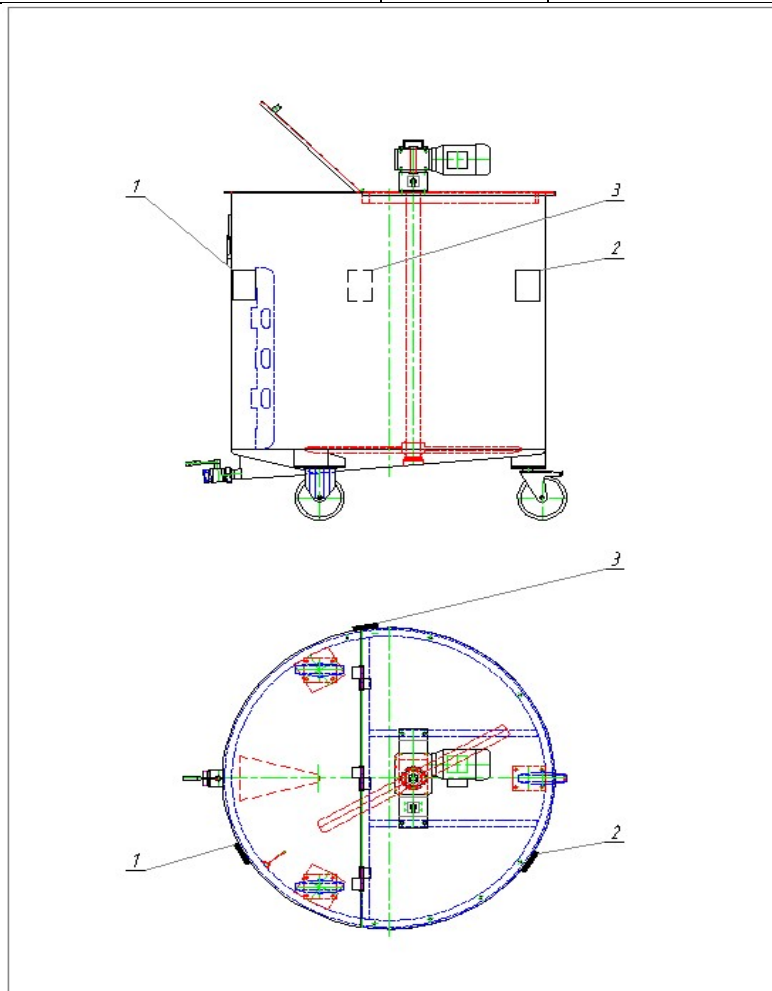
NOTE: If the mixer is disconnected from power supply or if power loss occurs, it is necessary (when the power appears at the mixer connection) to do the following:

- press the button to stop, after which you can press the button to start.



## 8. SAFETY LABELS

	<p style="text-align: center;"><b>1</b></p>	<p style="text-align: center;">Danger of rotating parts</p>
	<p style="text-align: center;"><b>2</b></p>	<p style="text-align: center;">Danger of slipping</p>
	<p style="text-align: center;"><b>3</b></p>	<p style="text-align: center;">Danger of entrapment</p>



## 9. CLEANING AND MAINTENANCE

### WARNING!

Before any intervention on the machine (inspection, maintenance, relocation...) turn off the main switch and unplug it

- To keep the machine well serving its perennial purpose, keep all machine parts clean and dry, free of dust and other dirt. For washing use neutral (non-aggressive) detergents.
  
- Do not use cleaning agents or pads, which could damage the machine surface or the plastic control elements.
  
- The machine must not be exposed to water jets.
  
- If you skip the regular machine maintenance, that may affect its readiness and cause personal and property damage.

## 10. COOLING/HEATING BY USING VALVES

Your mixer can be equipped with a solenoid valve. The task of these valves is to open/close the flow of fluid through the cooling/heating jacket, and thus achieves cooling or heating of the vessel content.

The company Letina inox d.o.o. uses the following solenoid valves Castel :

- 1132/04 (G ½")
- 1132/06 (G ¾")
- 1132/08 (G 1")

The predicted medium passing through the valves is water or a mixture of glycol and water.

The minimum temperature that the valve can withstand is -15°C.

The maximum temperature that the valve can withstand is +105°C.

It is recommended to use the mixture of glycol and water with min. temperature -5°C and max. temperature +60°C.

Thereby, because of the mechanical characteristics of the cooling/heating jacket, the max. the pressure of the mixture is 2.5 bar.

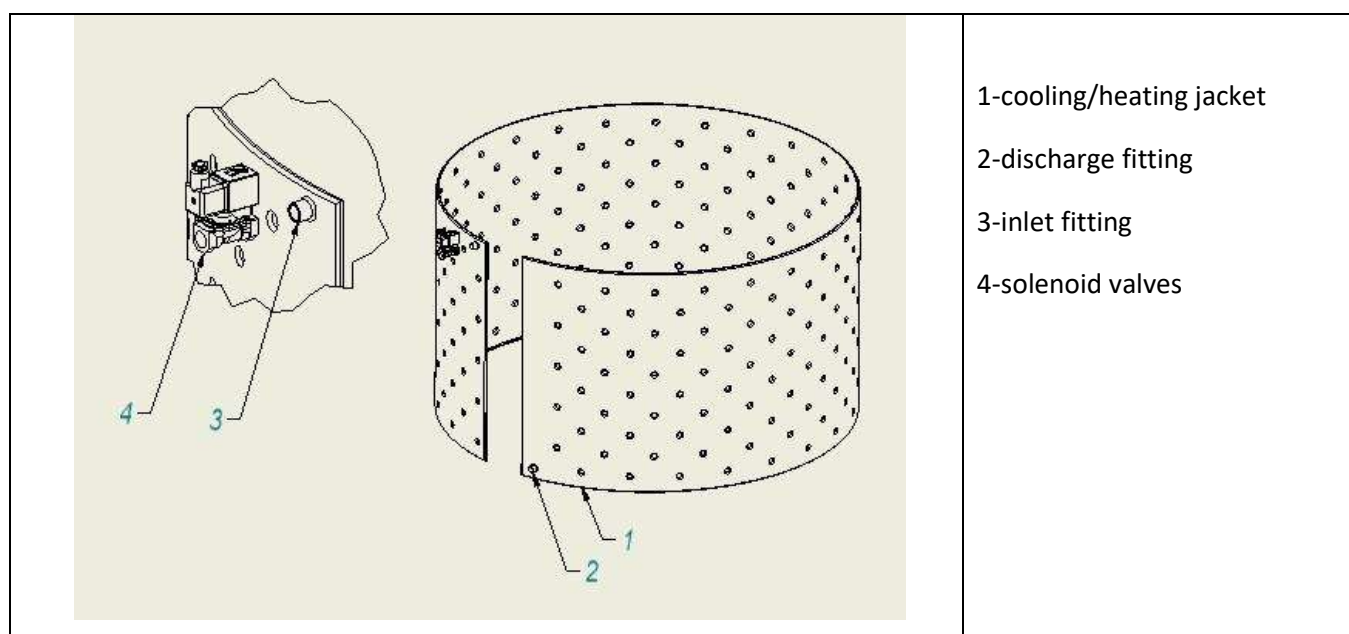
The coil for valve control is of type HM2(9100/RA2) and it's designed for voltage 24VAC, 50/60 Hz, with a tolerance +-10%.

The power that flows through the coil at an ambient temperature 20°C and voltage 24VAC, is the following:

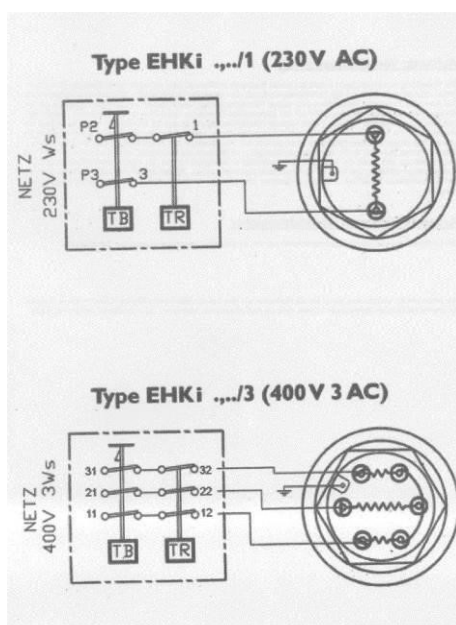
- 0.53A / 50Hz
- 0.42A / 60Hz

These valves are NC (Normal Closed) designed, i.e. when without voltage, they are closed. When the coil has a voltage of 24VAC, the valve opens.

It is recommended to clean the heating/cooling system before the connection of the mixer. The valves have a diaphragm and the presence of impurities may cause malfunction.



## 11. HEATING BY ELECTRIC HEATERS



The figure shows the heater in 1-phase and 3-phase versions.

This heater can optionally be supplied with the mixer.

If supplied, the heater is installed at the bottom of the vessel.

Around the heater is a chamber that needs to be filled with fluid (water or mixture of glycol with water).

The heater has a working thermostat (TB) and a safety thermostat (TR).

On the button of the working thermostat is set the desired temperature.

The maximum possible set temperature is 70-80 °C.

If a failure occurs with the working thermostat and the heater doesn't turn off at the set temperature, then the temperature will rise. When the temperature rises above 90 °C the security thermostat will turn off the heater.

## 12. TECHNICAL SPECIFICATIONS

<b>Mixer, M</b>		500	730	850 1000 1200	1300 1500 2000	2000 2500	3050 4000	5000	6000	8600 10300
<b>Volume, nominal</b>	[lit]	500	730	850 1000 1200	1300 1500 2000	2000 2500	3050 4000	5000	6000	8600 10300
<b>Volume, operating (max. filling)</b>	[lit]	450	650	765 900 1080	1170 1350 1800	1800 2250	2740 3600	4500	5400	7740 9250
<b>Diameter vessel coat</b>	[mm]	797	956	1116	1275	1402	1593	1753	1911	2071
<b>Diameter vessel height</b>	[mm]	1000	1000	850 1000 1250	1000 1150 1550	1250 1600	1500 2000	2050	2050	2500 3000
<b>Voltage</b>	[V~]	3N~ 400/230V	3N~ 400/230V	3N~ 400/230V	3N~ 400/230V	3N~ 400/230V	3N~ 400/230V	3N~ 400/230V	3N~ 400/230V	3N~ 400/230V
<b>Frequency</b>	[Hz]	50	50	50	50	50	50	50	50	50
<b>Gear power</b>	[kW]	0.75	0.75	0.75 0.75 0.75	1.1 1.1 1.5	1.5 1.5	2.2 2.2	3.0	3.0	3.0 3.0
<b>Gear motor</b>	-	Lenze	Lenze	Lenze	Končar	Končar	Končar	Končar	Končar	Končar
<b>Installed power capacity</b>	[kW]	0.75	0.75	0.75 0.75 0.75	1.1 1.1 1.5	1.5 1.5	2.2 2.2	3.0	3.0	3.0 3.0
<b>Current</b>	[A]	1.88 1.88	1.88 1.88	1.88 1.88 1.88	2.8 2.8 3.8	3.8 3.8	5.6 5.6	6.9	6.9	6.9 6.9
<b>IP protection</b>	---	IP54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
<b>RPM</b>	[min <sup>-1</sup> ]	50-60	50-60	50-60	50-60	50-60	50-60	50-60	50-60	40-50
<b>Weight of empty vessel</b>	[kg]									

### 13. PEDESTAL OF THE MIXER

The mixer can be supplied with several versions of the pedestal:

- a) With feet (3 or 4 feet, depending on the size of the tank and the weight of the media)
- b) With wheels for easy moving
  - The tank is always equipped with one fixed wheels and a swiveling wheel for easier moving
  - Before the machine begins to work, obligatory brake the wheels
- c) With stand and slots for forklift transportation

### 14. TRANSPORTATION

The mixer is wrapped with foil to prevent mechanical damage during transportation. **Beware during mixer unwrapping, make sure that the vented fill plug is not thrown away! (see page 5).**

Every type of the mixer (all versions of the pedestal) can be transported with a forklift. The mixer is lifted with forklift from behind.

### 15. ATTACHMENT

# EC - DECLARATION OF CONFORMITY

According to Machinery Directive 2006/42/EC and Annex II, Point A of this Directive

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.

as a manufacturer hereby with full responsibility declare that we are responsible to compile the technical file (Point A, Annex VII of the Machinery Directive), and that the

Product: **Mješalica / Mixer**  
Type: **M**  
Model: **M500, M730, M850, M1000, M1200, M1300, M1500, M2000, M2000, M2500, M3050, M4000, M5000, M6000, M8600, M10300**

has been designed and produced according to the following regulations:

Directive	Standards
- 2006/42/EC - Machinery Directive	EN 60204-1:2006+A1:2009 EN ISO 12100:2010
- 2014/30/EU – Electromagnetic Compatibility Directive	EN 61000-6-1 EN 61000-6-3

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 IIIId**

Rezultati testiranja se nalaze / 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 INTECH d.o.o.  
Neumannova 2, 40000 Čakovec



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