

EVOSHAKE 500 V2

Vibrational Shaker

User manual



User Manual
Vibrational shaker
EVOshake 500
Version 1.0 RC (2021)
ORIGINAL INSTRUCTIONS

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If you require additional copies of this manual or further technical information about it, please write to:

COROB S.p.A.
Via Agricoltura 103 • 41038 San Felice s/P • Modena • Italy
Phone: +39-0535-663111 • Fax: +39-0535-663285
www.corob.com

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APPENDIX: EC DECLARATION	Error! Bookmark not defined.

1 GENERAL INFORMATION

1.1 Purpose and use of this manual

Read this manual carefully before using the machine.

The manual is to be considered an integral part of the machine, and must be stored until it is fully dismantled.

Should it be lost or partially ruined, so that its contents can no longer be read in full, you must request a new manual from the manufacturer.

Some of the illustrations in this manual were taken from prototypes; some details may differ on machines in standard production.

Conventionally used graphics

Boldface type is used to highlight notes or information of particular importance to a topic.



DANGER

Indicates a risk of personal injury



WARNING

Indicates a risk of damage to the machine that could interfere with its operation.



Indicates important instructions referring to precautionary rules and/or measures to adopt.

1.2 Definitions

OPERATOR

A person familiar with the methods to mix paints or similar products, trained and authorized to operate and use the machine by its controls and to load and unload production materials with all safety devices installed and enabled. He or she must work only in safety conditions and is allowed to carry out routine maintenance operations.

MAINTENANCE TECHNICIAN / INSTALLATION TECHNICIAN

Specialist prepared and trained in a technical field (mechanical and electrical) and assigned by the manufacturer to work on the machine to perform machine installation, adjustments, repair breakdowns or carry out maintenance.

2 FEATURES

2.1 Description of the machine

The EVOshake 500 is an advanced and flexible vibrational shaker. It has optimal mixing time and speed. The EVOshake 500 is easy to use and it is meant for paint shops.

EVOshake 500 has automatic clamping system which allows mixing of non-explosive paints contained into metal or plastic containers. It is suitable to handle cans of different size and shape, and is capable to shake more than one can simultaneously. The machine is equipped with a upwards sliding door.

The shaking cycle is completely automatic involving can clamping, activations of the shaking motion, unclamping of the can, and opening the door.

2.2 EVOshake 500's parts



Figure 3-1: EVOshake 500's parts

Table 1. Parts of the shaker

1. Display	2. Emergency button *
3. Door handle	4. Lower plate
5. PROG button	6. STOP button
7. Shelf	

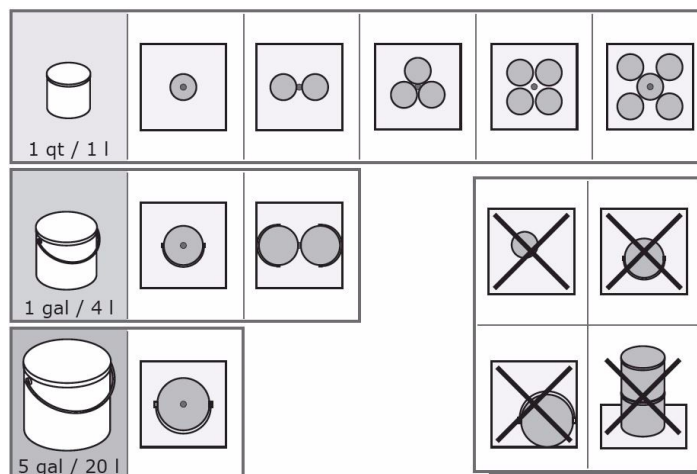
* The Emergency button is a safety device. Pressing this button causes all machine dangerous movements to be stopped, by cutting off power supply to all power circuits. For more specified explanation see chapter "Emergency stop" on page 6.

The PROG and STOP buttons are explained in chapter "Control devices and connections" on page 15.



Some of the pictures in this manual were taken from prototypes; some details may differ in machines in standard production.

2.3 Usable cans



Can handling features	
Type of cans	Round / square / oval
Max can diameter	325 mm
Min. height	50 mm
Max height	410 mm
Max can weight	40 kg
Multiple can handling	Yes
Loading height from floor	430 mm

2.4 Identifying information

The product identification data is printed on the type shield behind the machine, see figure 3-5 on page 9. The type shield is indicating:

- Manufacturer's name and address
- Marking
- Machine model
- Year of manufacture
- Serial number (S/N)
- Electrical specifications



Do not remove or tamper with the identification plate in any way.

3 SAFETY INSTRUCTIONS



DANGER

This machine is meant for mixing paint. Any other use can cause a safety risk.

Neglecting to follow these safety instructions may lead to personal injury. Read the user manual carefully before operating the machine. Never operate contrary to the instructions.



WARNING

The shaker may only be serviced by a qualified service representative.

The EVOshake 500 shaker has been designed to be functional, safe and easy to use. Excellent design has removed several dangers posed by the machine. However, in order for the machine to function properly, it still has points that could cause a dangerous situation. This is why the machine has safety guards that help prevent accidents when used correctly.

Only qualified and appropriately trained personnel (MAINTENANCE TECHNICIAN) are authorized to access the machine parts protected by panels for extraordinary maintenance and repair interventions.

Any routine maintenance intervention performed by the operator must be carried out with the machine off and the power supply cable disconnected from the mains socket outlet.

3.1 Connecting and disconnecting the machine to the mains



DANGER

Electrical shock or sudden start up of the machine may cause personal injury.

Before connecting the mains cable:

- Ensure that starting up the machine will not cause any danger

Before service, repairs and cleaning:

- Unplug the machine from the mains socket.

Periodically check the condition of the mains cable; if it is damaged, replace it with a new cable supplied by the manufacturer.



DANGER

This equipment must be grounded. Check the grounding of the power supply system before connecting the machine.

Do not use extension cords to power the machine.

Do not use multisockets to connect other equipment to the same socket that powers the machine.

3.2 Emergency stop

The EVOshake 500 is equipped with an emergency button, which is located in the front left corner of the machine, see figure 4-3.

The purpose of the emergency button is to stop the machine safely in a dangerous situation. Pressing the button causes the machine to stop immediately in emergency mode, ceasing all movements.

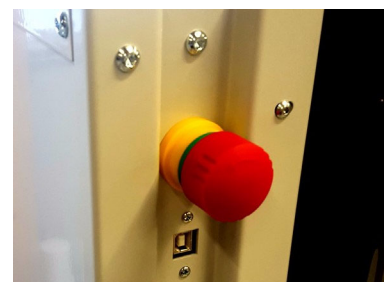


Figure 4-3: The emergency button.



DANGER

The emergency button does not completely cut off power to the entire machine. The power supply unit box inside the machine still remains powered.

To completely remove power from the machine it is necessary to shut it off (the switch behind the machine, see figure 6-18 on page 15) and unplug the power supply cable from the wall socket outlet.

To activate the emergency button

Press the emergency button down.

To release the emergency button

Turn the red mushroom-head button either clock or counterclockwise => STOP button blinks red Press STOP button => The PROG button blinks green and the door opens.

3.3 Danger caused by the shaking mechanism



DANGER

The movement of the clamping mechanism may cause personal injury.

The EVOshake 500 shaker is based on the principle of shaking action. The shaker is equipped with a clamping mechanism to fasten the can during shaking. Clamping and shaking can create a danger of crushing, cutting and entangling. The EVOshake 500 has a sliding door to minimize hazards caused by the shaking mechanism.

The machine is equipped with a safety device that prevents the machine to be started when the door is open and it also prevents the door to be opened during machine operation.

The machine must not be used with cans exceeding the limits set forth in chapter 8.1 Technical information.

The OPERATOR must not carry out operations reserved to the MAINTENANCE TECHNICIAN or the INSTALLATION TECHNICIAN.

The manufacturer CANNOT BE HELD RESPONSIBLE for damages deriving from the non-observance of this prohibition.

It is strictly forbidden to use the machine without protections or with any safety devices present on the machine disabled, broken down, or removed. The panels must be kept closed at all times.



Figure 4-4: The sliding door is closed.

3.4 Danger caused by chemicals

The substances that may be used on the machine -- such as colorants, paints, solvents, lubricants and cleansers -- may be hazardous to your health; handle, store and dispose of these substances in keeping with current regulations and the instructions provided with the product.



DANGER

Handle, store, and dispose of all agents according to the instructions supplied with them.

When shaking paints containing volatile solvents, do not use naked flames, electrical tools or other types of devices that could cause sparks or fire hazards close to the machine.

3.5 Explosion safety

The EVOshake 500 is not designed to be used in spaces where there is a danger of explosion. An explosive space is a room in which burning gas, vapours or mist from burning liquid or burning dust are mixed with air or explosives, causing a danger of explosion.



DANGER

EVOshake 500 must not be used in spaces which pose the danger of an explosion.

Avoid naked flames or material that may create sparks and cause a fire.

3.6 Residual risks

Risk		Preventive measure	P.P.E:	Ch. in this manual
	Risk of electrocution - Risk of electrical shock if you power the machine from a socket not equipped with ground connection.	Power the machine through a grounded socket outlet.	/	ch. 5.2
	Risk of electrocution - Risk of electrical shock if you access machine parts protected by panels without first cutting off electrical power.	The operator is not authorized to access the machine parts protected by panels. For the maintenance technician: before performing any maintenance intervention, shut off the machine and disconnect the power supply cable from the mains socket outlet.	/	ch. 6
	Dorsal/lumbar injuries - Handling heavy loads when moving the machine and loading cans on the shelf may cause injuries.	Do not exceed the weight limits stated by the current regulations in force. If necessary, use appropriate lifting equipment.		ch. 8.1 ch. 6.5
	Risk of falling objects / crushing - When positioning a can on the shelf, there is a risk it may fall onto the operator.	Position the can so that the whole base rests on the shelf surface.		ch. 6.5
	Risk of crushing / entanglement - The automatic movement of the door and of the plates may cause injuries.	The door opens upward. Keep enough free space. Do not put objects on top. Keep your hands away. Before performing any intervention, press Emergency stop button.		ch. 4.3 ch. 6.4 ch. 6.7
	Risk of contusion - When fixing the handle holder, it may cause injuries.	Handle the holder firmly, take a good grip.		ch. 6.6
	Risk of explosion - Fumes generated by the colorants used may cause an explosion.	Do not use the machine in classified areas (areas at risk for explosion). Avoid naked flames or material that may create sparks and cause a fire.	/	
	Risk of poisoning and sensitization - Fumes generated by the colorants used may cause poisoning and/or sensitization during machine cleaning and disposal.	Read the warnings reported in the Material Safety Data Sheets of the colorants used. The MSDS must be provided by the colorant manufacturer. Keep the room suitably ventilated.	Personal Protective Equipment as specified in MSDS.	ch. 4.4

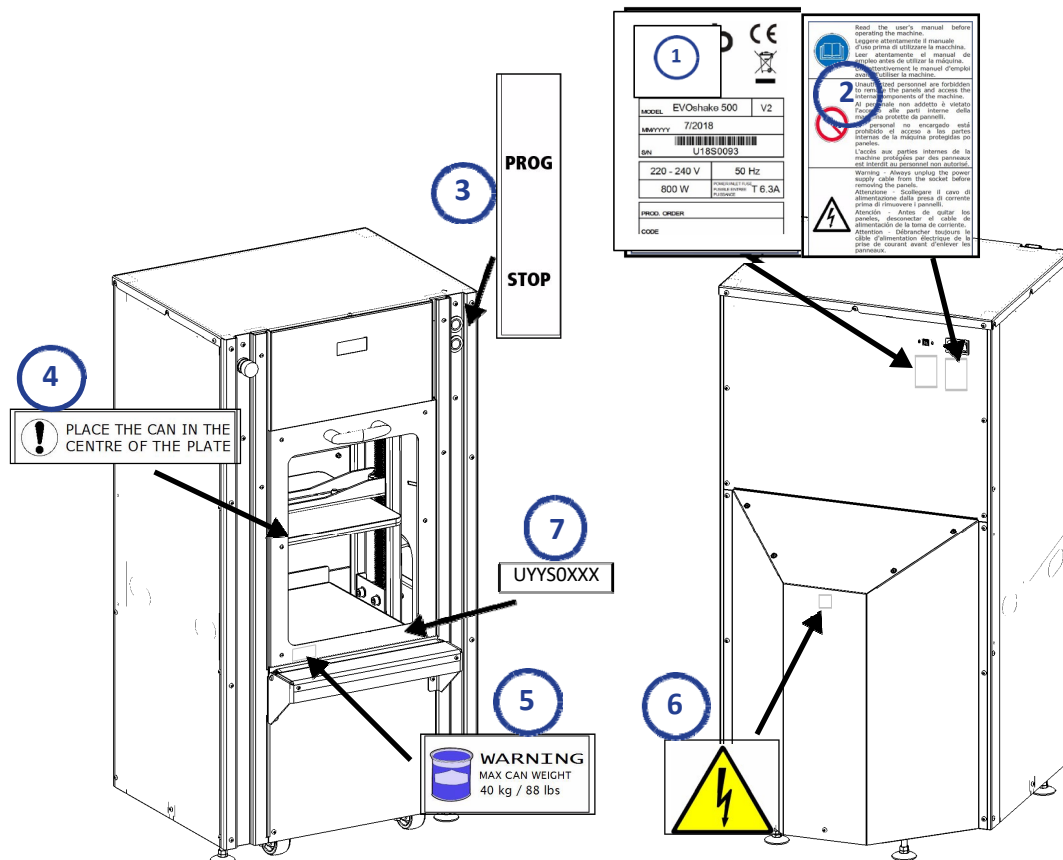
3.7 Position of labels

1. Type shield (2.4 Identifying information on page 5)
2. Label “General warnings”
3. Label “PROG STOP”
4. Label “Place the can”
5. Label “Warning max can size”
6. Label “Electrical danger”
7. Label “Serial Number”



Do not remove or make illegible the safety or instruction labels. Replace any label has become illegible or is missing, by requesting it to the manufacturer.

Figure 4-5: Position of the labels.



4 TRANSPORTATION, STORAGE AND DISPOSAL

4.1 Contents of the basic package

Placed on a pallet

- Shaker
- Equipment bag including:
 - Mains cable
 - User manual
 - Declaration of conformity
 - Spare fuses
 - Supporting foot



If any of the above equipment (including the optional equipment mentioned in the purchase order) is missing, please contact your service centre.

4.2 Handling

The EVOshake 500 and its equipment have been placed on pallet for transportation, which can be handled with a forklift and a pump-operated cart. The package must be handled and stored upright



WARNING

Damaging, tilting or mishandling the packed machine may lead to malfunction when the machine is first used. Special care and caution must be observed when handling the EVOshake 500 and its transportation pallet.

The transportation and storage temperature must be between -25 and +55°C, and the relative humidity in the storage room from 30 to 95%. Protect the crate from rain. The 24-hour average temperature in the storage room must be below +70°C.

In some cases, the machine is packed into special corrosion protection plastic. This plastic can be disposed of like other PE plastics, taken to a dumping site or burned. We recommend recycling.

If the machine is protected by the plastic, there are corrosion protection capsules inside the machine. Capsules do not impede the machine's operation and they can be removed after one year (service life one year).

4.3 Product disposal and recycling



Figure 5-6: The WEEE symbol

This equipment must not be disposed of with unsorted municipal waste. Carry out a separate collection.

Pursuant to the WEEE Directive, collection, treatment, recovery and environmentally sound disposal of Waste Electrical and Electronic Equipment (WEEE) shall be carried out in compliance with the national measures of each EU-Member State implementing the Directive.

Differentiate the parts making up the machine based on the various materials they are made of (plastic, iron, etc.).

For the machine components most soiled with colorant and if any products have been used on the machine that require special disposal procedures, follow local regulations when disposing of waste.

5 MACHINE INSTALLATION

5.1 General warnings

Personnel in charge of these operations must wear the following personal protective equipment.



DANGER

To avoid personal injuries and property damage, use the utmost care and caution when handling the machine, and carefully follow the instructions given in this chapter



WARNING

Only a service representative authorised by the supplier may install the machine.

5.2 Installation site requirements

The structural design of the EVOshake 500 is geared towards it being functional and user-friendly. To ensure ease of use, take into account the following details when installing the machine:

1. The machine should be operated at room temperature (10 °C - 40 °C), in a room with no harmful humidity (relative humidity: 5% - 85%) or drafts and without condensation.
2. The machine must be placed in a clean and dust free place.
3. The room must be ventilated to prevent concentration of harmful fumes.
4. The operating site must have adequate lighting.
5. Place the mains plug in such a place that it can be unplugged without moving the machine.
6. Check that the floor is not slippery or uneven.
7. Reserve 40 cm free space above the machine, as the door opens upwards and needs space.
8. Electrical interface:
 - 220 - 240 V \pm 5%
 - 50 Hz / 6.3 A
 - Earthed wall socket.



WARNING

When using colorants containing volatile solvents the room in which the machine is installed must be spacious, with good ventilation (air exchange) and no type of parts must be leant against or stocked close to the machine.

For indoor use only!

5.3 Unpacking and placement



Make sure the packing has not suffered any damage or tampering during shipping; if so, contact the authorized technical service or your dealer.

Tools required:

- 10 and 17 mm set wrench

One person is enough to carry out the following procedure.

The service representative will install the machine so that it is ready to be used. In addition, he will give training on how to use the machine.

1. Remove the carton box covering the machine.
2. Remove the cover from top of the EVOshake 500.
3. Check that the EVOshake 500 and accompanying equipment have not been damaged during transport.
4. Check that all the ordered items have been delivered, see the section "4.1 Contents of the basic package" on page 10.



Figure 6-7: Fix the cover to the pallet with two screws.

5. Unscrew the three fixing plates which fasten the shaker to the pallet, see figure 6-9. There is one on each side and one at the back of the shaker.
6. Mount the cover to the front of the pallet with two screws from one of the fixing plates you just removed.
7. The EVOshake 500 has two supporting feet in front of the machine and one in the back. Lift the front ones higher to ease the removal of the shaker. See figure 6-8 how to adjust the supporting foot.
8. Take a grip from the front of the machine and slide the machine forward, see figure 6-10.
9. When the back leg reaches the ramp, tilt more, see figure 6-11.
10. Carefully slide the shaker along the ramp (cover) to the floor, see figure on the next page.
11. Move the shaker to its working place bearing in mind the site requirements mentioned on page 10.
12. Adjust the three supporting feet so that the wheels no longer touch the floor and to ensure that the shaker stands steadily.



The machine must be perfectly level in order to operate properly and prevent from vibrating during the shaking cycle.

13. Make sure the shaker is levelled. Shaker may be tilted backwards for 2-3 mm.

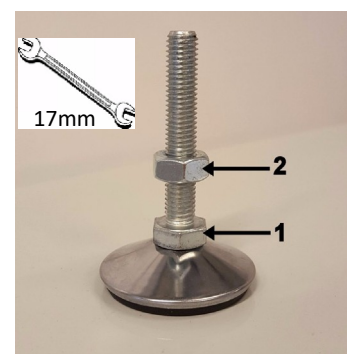


Figure 6-8: EVOshake 500 has two supporting feet. The lower nut (1) is for adjusting the height and the upper (2) for locking.

Removing the machine from the pallet

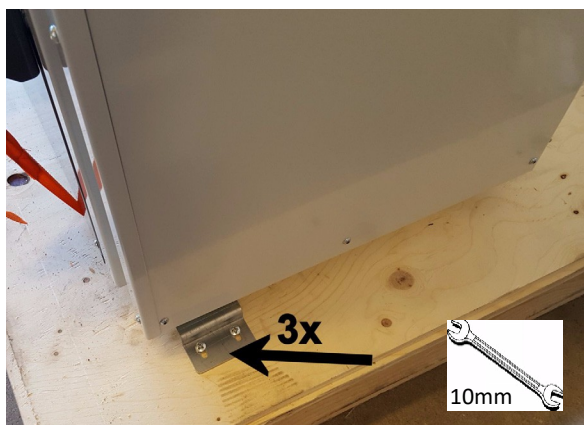


Figure 6-9: Remove the three fixing plates; one on both sides and one on the back.

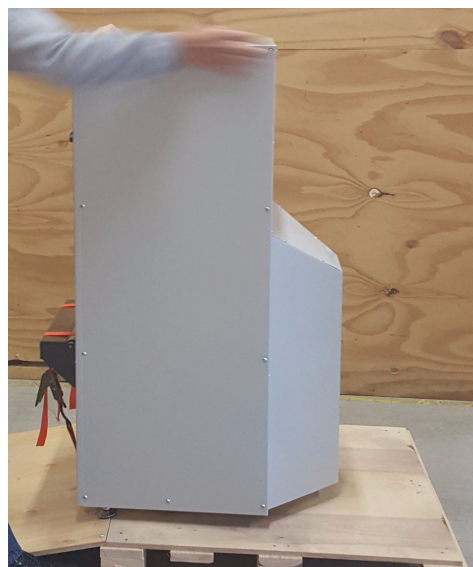


Figure 6-10: Get hold of the front of the machine.

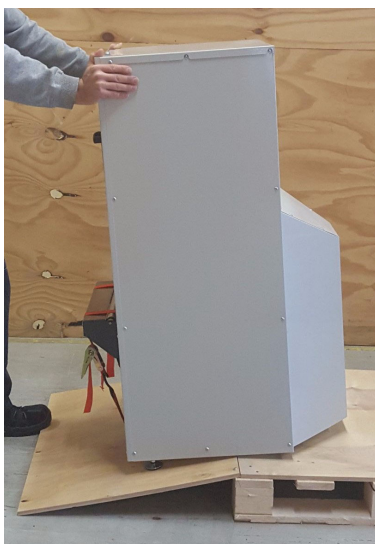


Figure 6-11: Steadily slide the machine along the ramp.



Figure 6-12: Tilt the shaker little to ease the movement on the ramp.



Figure 6-13: Slide the EVOshake 500 slowly to the ground.

If the shaker is equipped with height riser, a stand below the shaker, with the help of additional wheels it is easy to remove the shaker from the pallet. After that

1. Move the shaker to its working place bearing in mind the site requirements mentioned on page 10.
2. Remove the axle and the wheels.

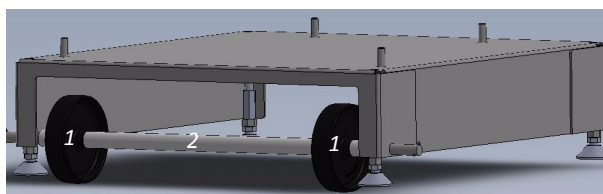


Figure 6-14: The stand with additional wheels (1) and an axle (2).

3. Adjust the four supporting feet to ensure that the shaker stands steadily.
4. Make sure the shaker is levelled. Shaker may be tilted backwards for 2-3 mm.

5.4 Electrical connection and start up



If the shaker is brought in from a cold temperature, wait one day before using the machine. The temperature difference may condense moisture on the machine's components, which could damage the machine's electronics when the power is switched on.

1. Plug the mains plug in a earthed wall socket and to the socket behind the machine, see figure 6-18 on page 15.
2. Turn the power switch on (I) and the door opens.



DANGER

The door opens upwards, higher than the machine.

If the door does not open, see instructions "The door is locked and does not open normally" on page 18.

3. Press the emergency button.
4. Unfasten the two ratchet tie downs inside the machine, see figure 6-15.
5. To remove the wooden block, push the lower plate backwards.
6. Release the emergency button and press the STOP button, see "3.2 Emergency stop" on page 6.
7. Check the display. The arrow is blinking on language line.
8. Select the preferred language by pressing PROG-button.
9. Confirm selection by pressing STOP-button for 3 seconds => stops blinking.
10. Press STOP-button to move arrow to *Pref height* -line.
11. Press STOP-button until arrow starts blinking (3 seconds).
12. Select preferred height by pressing PROG-button (+ 10 mm per push) or STOP-button (-10 mm per push).
13. Verify selection by pressing STOP-button for 3 seconds => stops blinking.
14. Close menu by pressing PROG-button for 3 seconds => the display says 'Auto mode; ready'.



Figure 6-15: There are two ratchet tie downs and one block inside the machine. These must be removed before shaking.

Bootloader v.1.0
Welcome Evoshake
Select language

Figure 6-16: The first text in the display when installing the machine.

Auto mode
READY

Figure 6-17: The text on the display, when the shaker is on standby.

Preferred height is the standard opening height to which the upper plate opens after shaking the can.



DANGER

Neglecting safety instructions may result in an accident. Familiarise yourself with the safety instructions and instructions for use before using the machine.

6 INSTRUCTIONS FOR USE

6.1 General warnings

Personnel in charge of these operations must wear the following personal protective equipment.



DANGER

Neglecting to follow safety instructions may lead to personal injury. Read the safety instructions before operating the machine. Never operate contrary to the instructions.

Before starting up the machine, ensure that it will not cause danger.



WARNING

The shaker must only be operated by trained personnel.

6.2 Control devices and connections

The socket is located behind the machine, see figure 7-18. The machine power switch is next to the fuses. This switch cuts off power from the machine.



Figure 7-18: The mains cable is connected to the back of the machine.



Figure 7-19: Control devices are in the front of the EVOshake 500.

The EVOshake 500 has control devices in front of the machine:

- the emergency button on the top left corner, see fig. 2-1 on page 4
- the display in the middle, see fig. 2-1 on page 4.
- the PROG and STOP button, see fig. 7-19.

The machine has six preset shaking programs:

Program	Function
Auto Mode	Clamping force and time are selected automatically
1 min	Shaking time: 60s Speed: 10s 270 rpm + 50s 599 rpm
2 min	Shaking time: 120s Speed: 10s 270rpm + 110s 595 rpm
3 min	Shaking time: 180s Speed: 10s 270rpm + 170s 584 rpm

Program	Function
Unclamp max	Lifts the upper plate to max open position
Close door	You can close the door manually, for example for the weekend => the machine stays in stand-by mode => the door opens when pressing STOP button
Cleaning	Drives the upper plate down and up couple of times and cleans the spindles => shows Torque avg, max and min
Position reset	Resets encoder position

You can select the program by pressing PROG button and start it by closing the door manually.



WARNING

Only qualified service personnel are allowed to service and repair the EVOshake 500.

6.3 The display

The display shows the status of the EVOshake 500, giving information about the process being done. When you start up the machine, switch the power on, the display lights up and shows what program is selected.

The display also shows when

- the upper plate is moving (clamping),
- the emergency button is pressed,
- an error has occurred.

Possible display readings:

POSITION RESET

The upper plate is driven to the zero position that is max open.

UNCLAMP MAX

The upper plate rises to max open and the door opens.

6.4 Opening the door

The EVOshake 500 is equipped with a sliding door that opens automatically upwards. When the power is switched on, the door opens. After shaking and unclamping, the door opens automatically.

If the door is closed and you want to open it press STOP button.



DANGER

The door opens upwards, higher than the machine.

6.5 Loading of cans



WARNING

- Never use cans weighing more than 40 kgs.
- Do not put one can on top of another.
- Do not load damaged cans into the machine.
- Make sure that the can lid is perfectly closed.
- Place the cans to be mixed in the center of the bottom clamping plate.

More than one can may be mixed at the same time provided they are of the same height and do not overlap the clamping plates. Moreover, the sum of the capacities of the cans must not be greater than the machine's maximum capacity.

The overall dimensions of the cans are listed in the chapter "8.1 Technical information" on page 20. Also see the chapter "2.3 Usable cans" on page 5.

6.6 Handle holder

The handle of the can must be fixed with a holder during mixing.



Figure 7-20: The handle holder is fixed to the body of shaker.

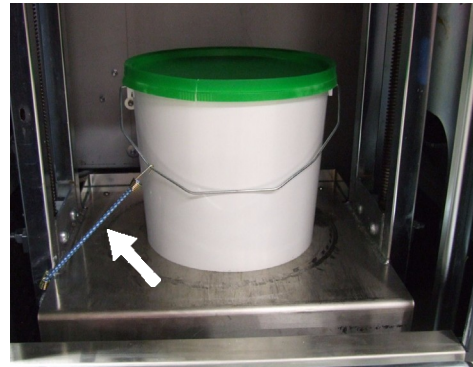


Figure 7-21: The can's holder is now fixed.

6.7 Shaking

After the primary installation or service, you can start up the machine by switching the power on (I) => the door opens. The door opens automatically at the end of the shaking process.

To carry out a shaking cycle, execute the following steps:

1. If the upper plate is too low, raise it as follows:
 - Select declamp
 - Close the door manually.
=> the machine declamps the upper plate to max open position
=> the door opens.
2. Centre the can on the lower plate.
3. Fix the handle of the can with the handle holder, see fig. 7-21.
4. Select the shaking program by pressing PROG button.
5. Close the door and the shaking cycle starts.
6. When shaking is finished, the upper plate rises, and the door opens.
7. Remove the can.



During the whole shaking cycle, the PROG button green lamp is on.

6.8 Changing the language and the preferred height

If you need to change the program settings done in the primary installation, do the following:

1. Press the emergency button.
2. Press both the PROG and the STOP button and keep them pressed.
3. Release the emergency button, the STOP button blinks red.
4. Wait until display says >LANGUAGE in the display and proceed as described in section "5.4 Electrical connection and start up" on page 14.

6.9 Special functions

Just to close the door manually, press the PROG button and simultaneously close the door => display says *CLOSE DOOR*.

To declamp the upper plate to max open position, press the STOP button and simultaneously close the door => display says *CLAMPING*.

6.10 Troubleshooting



The power to the EVOshake 500 must be switched off and the machine disconnected from the mains for servicing and repairs.

The door is locked and does not open normally

First try following steps to open the door:

1. Press the STOP button => you will hear clicking noise.
2. Sharply push the door downwards => the door opens.

If the door still does not open, you can open it manually through the hole behind the shelf. This hole is covered with a plug. To open the door manually, do the following:

1. Press the emergency button.
2. Remove the plug.
3. Place a sharp tool, like a screwdriver, on the left side of the hole.
4. Move the tool sideways to the right and the door opens.
5. Release the emergency button and press the STOP button.

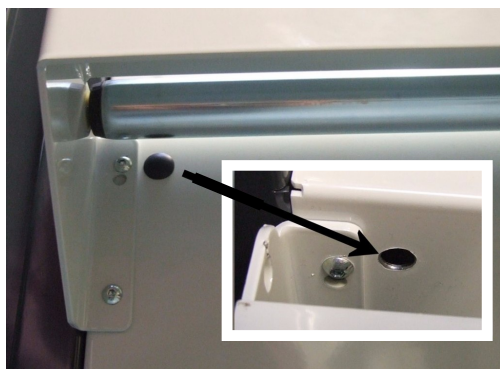


Figure 7-22: Under the shelf there is a hole covered with a plug.

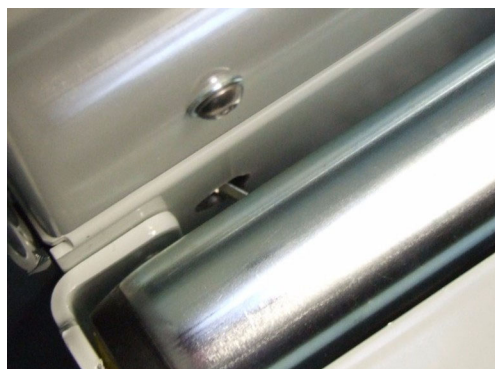


Figure 7-23: Insert a tool into the hole to manually open the door.

Sometimes it helps just lightly lift from the door handle.

Error message

If a function does not work, the display will show an error message and the STOP button blinks red. When this happens, press the STOP button.

If the error message recurs, contact authorized service personnel.



Only qualified service personnel are allowed to service and repair the EVOshake 500.

Before you contact a service representative, take note of the machine's serial number (see fig. 2-2 on page 5).

7 ORDINARY MAINTENANCE

7.1 General warnings

Personnel in charge of these operations must wear the following personal protective equipment.



DANGER

Before carrying out any maintenance operations, you must activate the emergency button and disconnect from mains.

7.2 External cleaning

Keep the EVOshake 500 clean. In case of paint spills, clean the machine immediately.

1. Press the emergency button down.
2. Clean coverings, panels, plates and control devices of the machine, to remove dirt, dust and any colorant stains, using a soft and dry cloth, or slightly moistened with a mild cleansing solution.
3. Release the emergency button by turning it clock or counterclockwise.
4. Press the STOP button => the machine is ready for use.

7.3 Cleaning the threaded axels

On both side of plates there is a threaded axel. These axels raise the upper plate. In time, these threads will get dirty and then they need cleaning. When this happens the following message appears on the display

High torque

and the STOP button blinks red.

1. Press the STOP button
=> the upper plate rises to Preferred height and the door opens.
=> the display says: *Cleaning Remove can*
2. Remove the can, if present, from the plate.
3. Close the door
=> the Cleaning starts and the machine runs cleaning cycle. Display:
Cleaning Torque xx (xx = number that is changing)

When the Cleaning is finished the upper plate stops at Preferred height and the display says: *Cleaning Torque min/max/avg*
=> the door opens.

4. Press the PROG button to select the *Auto mode* to continue shaking.

If the notification *High torque* is repeated shortly, after couple of shakings, do the following:

1. Press the emergency button down.
2. Check the threads visually and remove the possible dirt.
3. Grease the axels with synthetic lubricant.
4. Release the emergency button by turning it clock or counterclockwise and press the STOP button.
5. Ensure that the Cleaning program is selected (in the display reads *Cleaning..*).
6. Close the door to start Cleaning.
7. Follow the steps from 1 to 4 above.

If the notice appears again shortly, contact authorized service company.



*The operator is not allowed to carry out any other maintenance operations than those mentioned in this manual. The operator is not allowed to open any panels.
Contact our authorized service company for service and repair.*

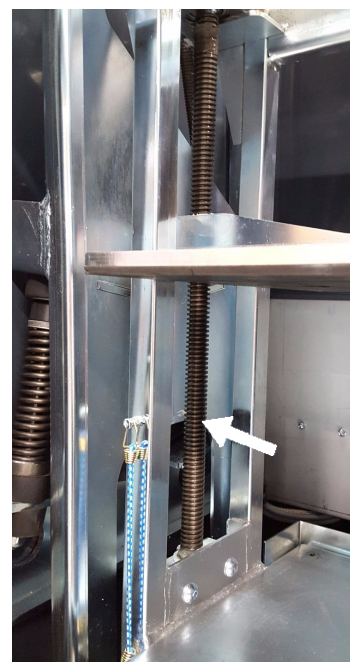


Figure 8-24: The left threaded axel.

8 TECHNICAL SPECIFICATIONS

8.1 Technical information

Power supply	Single-phase 220 - 240V $\pm 5\%$ (Option: 110-120V)
Power	50 Hz
Fuses	T 6.3 A (F 10A on 110-120V)
Max power consumption	800 W
Type	Vibrational
Clamping function	Automatic & self calibrated
Clamp force (kg)	Set by can size
Shake time	Set by can size
Shaking speed	Set by can size
Shaking direction	Bi-directional
Type of cans	Round / square / oval
Max can diameter	370 mm
Min height	50 mm
Max height	410 mm
Max can weight	40 kg
Multiple can handling	Yes
Loading height from floor	430 mm
Noise level	Machine noise emission: < 70dB (A)
Environment working conditions	Temperature: between 10°C and 40°C Relative humidity: 5% - 85%

8.2 Dimensions

	Machine	Packed machine
Depth	673 mm 776 mm with front loading area	850 mm
Width	600 mm	800 mm
Height	1160 mm	1330 mm
Footprint	0.40 m ² 0.46 m ² with front loading area	0.68 m ²
Weight	214 kg	246 kg

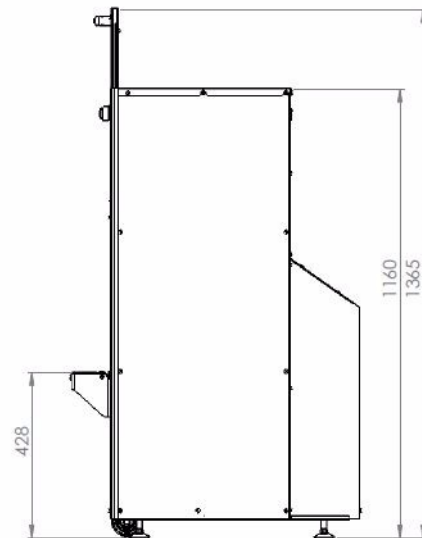
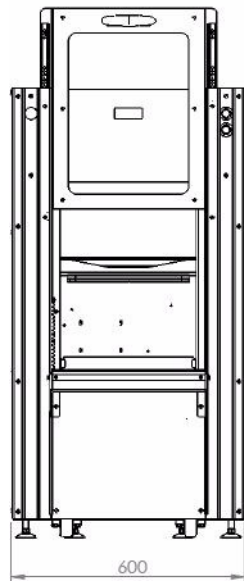
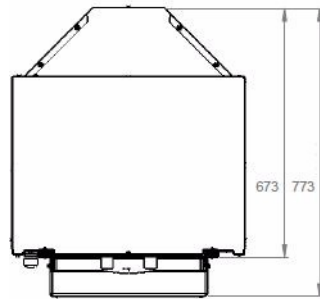


Figure 9-25: Figures are showing the total height when the door is open.

8.3 Declaration of conformity

See Appendix: EC Declaration.

8.4 Warranty

In order for the warranty to be valid, please complete the form included in the machine packing, and send it to the address listed on the form itself.



Contact our authorized and qualified personnel only for all your service needs. Use only original spare parts for all maintenance and replacement intervention

You will receive information regarding your own service company at the time of installation.

Altering or removing the guards and safety devices provided on the machine will not only void the warranty immediately, but is also dangerous and illegal.

The manufacturer may not be held liable for personal injury or property damage caused by improper use of the equipment or tampering with the guards and safety devices installed on the machine.

The following shall **void the manufacturer's warranty**:

- Improper use of the machine.
- Failure to observe the instructions and maintenance rules set forth in the manual.
- Making or having changes and/or repairs made on the machine by personnel outside the service organization authorized by the manufacturer and/or made using non-original spare parts.

You will need the following information from the type shield (See “2.4 Identifying information” on page 5) when you call for service:

- type (MODEL)
- serial number (S/N).

Dichiarazione CE di Conformità *EC Declaration of Conformity*

Versione linguistica originale in Italiano

Translation of the original Italian version

DESCRIZIONE - *DESCRIPTION*

**AGITATORE VIBRAZIONALE AUTOMATICO
AUTOMATIC VIBRATIONAL SHAKER**

MODELLO - *MODEL*

MATRICOLA - *SERIAL No.*

EVOshake 500

Fabbricante e persona autorizzata a costituire il fascicolo tecnico:
Manufacturer and person authorised to compile the technical file:

COROB S.p.A.

Via Agricoltura, 103 - 41038 San Felice s/P (MO) - Italy

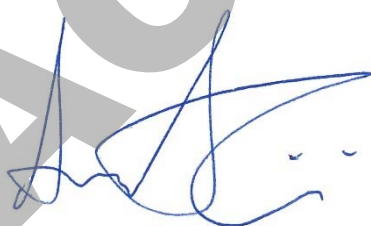
Il fabbricante dichiara sotto la propria esclusiva responsabilità che la macchina alla quale questa dichiarazione si riferisce è conforme ai requisiti essenziali previsti dalle seguenti direttive:

The manufacturer certifies, under its own responsibility, that the machine to which this statement refers to, complies with the essential requirements foreseen by the regulations:

- Direttiva Macchine 2006/42/CE
- Direttiva Compatibilità Elettromagnetica 2014/30/EU
- Direttiva 2011/65/EU come modificata da 2015/863/EU
- Direttiva WEEE 2012/19/EU

- *Machinery Directive 2006/42/EC*
- *Electromagnetic Compatibility Directive 2014/30/EU*
- *Directive 2011/65/EU as amended by 2015/863/EU*
- *WEEE Directive 2012/19/EU*

Andrea Alvisi
(Special Proxy Holder)
COROB S.p.A.
San Felice sul Panaro, 10/05/2021



BG - Производителят, който е лицето упълномощено за изготвяне на техническата документация, декларира на собствена изключителна отговорност, че машината, за която се отнася тази декларация, е в съответствие със съществените изисквания, предвидени от следните Директиви: Директива 2006/42/EC - Машини - Директива 2014/30/EU относно Електромагнитна съвместимост - Директива 2011/65/EU изменена с 2015/863/EU - Директива WEEE 2012/19/EU.
CS - Výrobce a osoba pověřená sestavením technické dokumentace stvrzují na svou vlastní zodpovědnost, že zařízení, ke kterému se toto prohlášení vztahuje, je v souladu se základními požadavky stanovenými následujícími směrnici: Směrnice o strojních zařízeních 2006/42/EC - Směrnice o elektromagnetické kompatibilitě 2014/30/EU - Směrnice 2011/65/EU ve znění 2015/863/EU - Směrnice WEEE 2012/19/EU.
DA - Fabrikanten og personen bemyndiget til at udarbejde den tekniske dokumentation erklærer på eget ansvar at maskinen, som denne erklæring henviser til, er i overensstemmelse med de væsentlige krav i de følgende direktiver: Maskindirektivet 2006/42/EC - Direktivet om elektromagnetisk kompatibilitet 2014/30/EU - Direktivet 2011/65/EU som ændret ved 2015/863/EU - Direktivet WEEE 2012/19/EU.
DE - Der Hersteller und autorisierte Verfasser der technischen Dokumentation erklärt unter eigener exklusiver Verantwortung, dass die Maschine, auf die sich diese Erklärung bezieht, den Grundanforderungen entspricht, die von den folgenden Richtlinien vorgesehen werden: Maschinenrichtlinie 2006/42/EC - Richtlinie zur elektromagnetischen Verträglichkeit 2014/30/EU - Richtlinie 2011/65/EU geändert durch 2015/863/EU - Richtlinie WEEE 2012/19/EU.
EL - Ο κατασκευαστής, και ο εξουσιοδοτημένος συντάκτης του τεχνικού φακέλου, πιστοποιεί, ότι, με δική του υπαιτιότητα, το μηχάνημα στο οποίο αναφέρεται το παρόν, συμμορφώνεται με τις ουσιαστικές απαιτήσεις που προβλέπονται από τους κανονισμούς: Οδηγία Μηχανήματος 2006/42/EC - Οδηγία Ηλεκτρομαγνητικής Συμβατότητας 2014/30/EU - Οδηγία 2011/65/EU όπως τροποποιήθηκε από το 2015/863/EU - Οδηγία WEEE 2012/19/EU.
ES - El fabricante y la persona autorizada para componer el fascículo técnico declara, bajo su propia y exclusiva responsabilidad, que la máquina a la que hace referencia esta declaración guarda conformidad con los requisitos esenciales previstos por las directivas siguientes: Directiva de máquinas 2006/42/EC - Directiva de compatibilidad electromagnética 2014/30/EU - Directiva 2011/65/EU modificada por 2015/863/EU - Directiva WEEE 2012/19/EU.
ET - Tootja ja tehnilise toimiku koostajaks volitatud isik kinnitavad oma täielikul vastutusel, et seade, millele käesolev avaldus viitab, vastab järgnevatel regulatsioonide põhinõudmistele: Masinadirektiiv 2006/42/EC - Elektromagnetilise ühilduvuse direktiiv 2014/30/EU - Direktiiv 2011/65/EU muudetud 2015/863/EU-ga - Direktiiv WEEE 2012/19/EU.
FI - Valmistaja ja henkilö, joka on valtuutettu laatimaan tekninen asiakirja-aineisto, vakuuttavat omalla vastuullaan, että kone, johon tämä lausunto viittaa, vastaa seuraavien direktiivien olennaisia vaatimuksia: Konedirektiivi 2006/42/EC - Sähkömagneettista yhteensopivuutta koskeva direktiivi (EMC) 2014/30/EU ja Direktiivi 2011/65/EU sellaisena kuin se on muutettuna direktiivillä 2015/863/EU - Direktiivi WEEE 2012/19/EU.
FR - Le fabricant, et toute personne autorisée à établir le dossier technique, déclare sous sa propre responsabilité que la machine à laquelle se rapporte cette déclaration est conforme aux exigences essentielles prévues par les directives suivantes : Directive Machines 2006/42/EC - Directive Compatibilité Électromagnétique 2014/30/EU - Directive 2011/65/EU telle que modifiée par 2015/863/EU - Directive WEEE 2012/19/EU.
GA - Dearbhaíonn an déantóir, agus an duine atá údaraithe chun an comhad teicniúil a chur le chéile, ar a fhreagracht féin go bhfuil an gléas a mbaineann an ráiteas seo leis i gcomhréir leis na riachtanais atá leagtha amach sna teoracha seo a leanas: Treoir um Innealra 2006/42/EC - Treoir um Chomhoiriúnacht Leictreamaighnéadach 2014/30/EU - Treoir 2011/65/EU arna leasú le 2015/863/EU - Treoir WEEE 2012/19/EU.
HR - Proizvođač, i osoba ovlaštena za sastavljanje tehničke dokumentacije, izjavljuje pod svojom punom odgovornošću da je stroj na koji se odnosi ova izjava sukladan bitnim zahtjevima slijedećih direktiva: Direktive o strojevima 2006/42/EC - Direktive o elektromagnetskoj kompatibilnosti 2014/30/EU - Direktive 2011/65/EU izmijenjena i dopunjena 2015/863/EU - Direktive WEEE 2012/19/EU.
HU - A gyártó, valamint a műszaki fűzet összeállítására felhatalmazott személy saját felelősségük tudatában kijelentik, hogy a jelen nyilatkozat tárgyát képező gép megfelel az alábbi irányelvek alapvető rendelkezéseinek: 2006/42/EC Gépek irányelv - 2014/30/EU Elektromágneses kompatibilitás irányelv - 2011/65/EU Irányelv, módosítással módosított 2015/863/EU irányelv - WEEE 2012/19/EU irányelv.
IS - Framleiðandinn, og einstaklingurinn sem hefur heimild til að taka saman tækniskjölin, vottar, á eigin ábyrgð, að vélin sem vísað er til í þessari yfirlýsingu, sé í samræmi við þær grunnkröfur sem gert er ráð fyrir í eftirfarandi reglugerðum: Véltilskipun 2006/42/EC - Tilskipun um rafsegulsviðssamhæfi 2014/30/EU - Tilskipun 2011/65/EU eins og henni var breytt með 2015/863/EU - Tilskipun WEEE 2012/19/EU.
LT - Gamintojas ir asmuo įgaliojtas sudaryti techninę dokumentaciją, savo atsakomybe pareiškia, kad staklės, kurioms skirta ši deklaracija, atitinka esminius šių direktyvų reikalavimus: Mašinų direktyva 2006/42/EC - Elektromagnetinio suderinamumo direktyva 2014/30/EU - Direktyva 2011/65/EU su pakeitimais, padarytais 2015/863/EU - Direktyva WEEE 2012/19/EU.
LV - Ražotājs un persona, kas ir pilnvarota sastādīt tehnisko dokumentāciju, apliecina uz savu atbildību, ka mašina, uz kuru šī deklarācija attiecas, atbilst šādu direktīvu: pamatprasībām Mašīnu Direktīva 2006/42/EC - Elektromagnētiskās saderības Direktīva 2014/30/EU - Direktīva 2011/65/EU grozīta ar 2015/863/EU pantu - Direktīva WEEE 2012/19/EU.
MT - Il-manifattur, u l-persuna awtorizzata biex tikkompila l-fajl tekniku jiddikjaraw taht ir-responsabilita taghghom stess li l-magna li ghalija qed issir din id-dikjarazzjoni hija konformi ghar-kravijiet essenzjali previsti mid direttivi li ghejjin: Direttiva dwar il-Magni 2006/42/EC - Direttiva dwar il-Kompatibilita Elettromanjetika 2014/30/EU - Direttiva 2011/65/EU kif emendata b'2015/863/EU - Direttiva WEEE 2012/19/EU.
NL - De fabrikant en gemachtigde voor het samenstellen van het technisch dossier verklaart dat het betreffende toestel voldoet aan de toepasselijke fundamentele voorschriften van de volgende richtlijnen: Machinerichtlijn 2006/42/EC - EMC-richtlijn 2014/30/EU - Richtlijn 2011/65/EU zoals gewijzigd bij 2015/863/EU - Richtlijn WEEE 2012/19/EU.
NO - Produzenten og den personen som er autorisert til å utstede den tekniske dokumentasjonen, erklærer under eget ansvar, at den maskinen denne erklæringen viser til, er i samsvar med de grunnleggende kravene som fremsettes i følgende direktiv: Maskindirektivet 2006/42/EC - Direktivet om elektromagnetisk kompatibilitet 2014/30/EU - Direktiv 2011/65/EU som endret ved 2015/863/EU - Direktiv WEEE 2012/19/EU.
PL - Producent oraz osoba upoważniona do sporządzenia dokumentacji technicznej zaświadcza, na własną, wyłączną odpowiedzialność, że maszyna, której dotyczy niniejsza deklaracja, jest zgodna z zasadniczymi wymaganiami przewidzianymi w następujących dyrektywach: Dyrektywa Maszynowa 2006/42/EC - Dyrektywa Kompatybilności Elektromagnetycznej 2014/30/EU - Dyrektywa 2011/65/EU zmieniona przez 2015/863/EU - Dyrektywa WEEE 2012/19/EU.
PT - O Fabricante e a pessoa autorizada a preencher o documento técnico declaram, à sua inteira e exclusiva responsabilidade, que a máquina a que se refere esta declaração está em conformidade com os requisitos essenciais estabelecidos pelas seguintes diretivas: Diretiva Máquinas 2006/42/EC - Diretiva Compatibilidade Eletromagnética 2014/30/EU - Diretiva 2011/65/EU alterada pela 2015/863/EU - Diretiva WEEE 2012/19/EU.
RO - Fabricantul și persoana autorizată pentru realizarea dosarului tehnic declară pe propria răspundere că mașina la care se referă prezenta declarație se conformează cerințelor esențiale prevăzute de următoarele directive: Directiva 2006/42/EC Mașini - Directiva 2014/30/EU Compatibilitatea electromagnetică - Directiva 2011/65/EU astfel cum a fost modificat de 2015/863/EU - Directiva WEEE 2012/19/EU.
SK - Výrobca a osoba poverená vypracovaním technickej dokumentácie na vlastnú zodpovednosť prehlasujú, že stroj, na ktorý sa toto prehlásenie vzťahuje, je v súlade so základnými požiadavkami, ktoré vyžadujú nasledujúce smernice: Smernica o strojných zariadeniach 2006/42/EC - Smernica o elektromagnetickej kompatibilitate 2014/30/EU - Smernica 2011/65/EU zmenená a doplnená 2015/863/EU - Smernica WEEE 2012/19/EU.
SL - Proizvajalec in oseba, pooblaščená za sestavo tehničnega dokumenta, s polno odgovornostjo izdaja potrdilo, da je stroj, predmet te izjave, izdelan v skladu z osnovnimi zahtevami, kot jih določajo predpisi: Direktiva o strojih 2006/42/EC - Direktiva o elektromagnetni združljivosti 2014/30/EU - Direktiva 2011/65/EU kakor je bila spremenjena z 2015/863/EU - Direktiva WEEE 2012/19/EU.
SV - Tillverkaren och den person som har befogenhet att sammanställa den tekniska dokumentationen intygar, på eget ansvar, att maskinen denna försäkran hänvisar till överensstämmer med de väsentliga krav som ställs av följande direktiv: Maskindirektivet 2006/42/EC - Direktivet om elektromagnetisk kompatibilitet 2014/30/EU - Direktivet 2011/65/EU ändrat genom 2015/863/EU - Direktivet WEEE 2012/19/EU.
TR - Üretici ve teknik dosyayı oluşturmakla görevli kişi bu beyanın ilgili olduđu makinenin, aşığdaki direktifler tarafından öngörölen temel gerekliliklere uygun olduđunu kendi sorumluluđu altında beyan eder: 2006/42/EC Makine Direktifi - 2014/30/EU Elektromanyetik Uyumluluk Direktifi - 2015/863/EU tarafından değıştirilen 2011/65/EU sayılı Direktif - WEEE 2012/19/EU Direktifi.