

PRECITEC®

POLYTEC POLISHING MACHINES

User manual
MSA23.003 - MSA23.004



SWISS MARKET

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L'outil Horloger...

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TABLE OF CONTENTS

1. INTRODUCTION.....	3
2. SAFETY INSTRUCTIONS.....	4
3. TECHNICAL DATA.....	5
3.1 TECHNICAL INFORMATION	5
3.2 SPEED TABLE.....	5
3.3 DEVICE SUMMARY	6
3.4 SCOPE OF DELIVERY	6
4. BEFORE RUNNING.....	7
5. USING.....	8
5.1 LIGHTING.....	8
5.2 VACUUM SYSTEM.....	9
5.3 POLISHING MOTOR.....	9
5.4 FILTER SYSTEM	10
5.4.1 INSTALLATION OF FILTER SYSTEM	10
5.4.2 FILTER SYSTEM CLEANING.....	11
5.5 EMERGENCY STOP SWITCH.....	12
6. REPLACING FUSES.....	12
7. DISPOSAL.....	14
8. SPARE PARTS.....	15
9. EC DECLARATION.....	16

1. INTRODUCTION

Our product, POLYTEC POLISHING MACHINE, is a newly developed product with superior technical features and differentiates from other devices in numerous points. Device made an impression with its modern and ergonomic design.

This device is developed with the idea of

PERFORMANCE THROUGH DURABLE AND COMPACT DEVICE DESIGN.

You can add personal details to your work pieces in polishing field arranged in a modest and ergonomic fashion by polishing, brushing and dulling processes. Device is extremely user-friendly with its collapsible headpiece and removable Plexiglas cover on the working area. Product provides exceptionally good absorption performance with its revised air transfer.

Polishing with POLYTEC POLISHING MACHINE provides fully professional conditions for works and we guarantee you our usual performance, reliability and longevity. We congratulate you for purchasing this high-performance device.

We wish you use this device for a long time and we kindly request your help : Please read this user manual before running the device. Both you and the personnel to work with the POLYTEC POLISHING MACHINE get to know the device and comply with safety requirements stated below. We highly recommend you to perform periodical maintenance and cleaning precautions ; safe and efficient usage is only possible through these.

Please keep this user manual at a location, which is close to device and always accessible. We kindly request you to store in its original package.

Please read all safety warning and comply with them!

Safety warnings will enable you to use the device with ease and help to prevent misunderstandings and tangible or intangible damages.

2. SAFETY INSTRUCTIONS

This device is manufactured in accordance with current technical standards and well accepted technical safety rules. However, user or third persons may incur physical damages or life-threatening situations may arise or other values in kind may be harmed.

Thus, we kindly request the following safety instructions are observed in an absolute manner:

1. Use the devices when they are in a perfect technical condition and in compliance with the rules, ensure its safety and be aware of potential dangers and according to instruction manual! You shall have no right to claim warranty in case of misuse or deficient maintenance.
2. Before running the device, check the information stated on type license at the rear side of the device. Device is compatible for 230V connection and shall only be connected that type of mains input.
3. In case of failures, which may have adverse effects on safety, please immediately request the failure to be repaired by manufacturer; otherwise, all warranty and liability insurances will be lost.
4. This device is suitable for grinding, milling, scratching and polishing processes only with permitted tools. Any other use deemed to be unsuitable. Manufacturer shall not be liable for losses arising from such use. User shall be fully responsible for this risk.
5. Store the user manual meticulously and close to device at all times.
6. In addition to user manual, pay attention to legal provisions with general validity and other binding regulations related to accident prevention and environment protection.
7. Personnel assigned to work with the device are required to carefully read user manual and in particular, safety instructions before using. This rule is especially prevalent for personnel, which will occasionally work with the device.
8. Do not carry jewellery, necktie or pendant clothes. Pendant cloth pieces may be snatched by rotary parts and cause serious injuries. In case of having long hair, wear a suitable hood.
9. Protect connection cables from heat and sharp edges and install them in such a way that they will not get damaged. Unplug the device when it is not used, during tool change or repair. While unplugging, pull from plug and do not pull the cable itself. Make sure that all connections are perfect when using cable extensions and check electrical load and capacity before use.
10. Do not use the device in humid environment or close to flammable liquids and gases.
11. Device is not suitable for wet grinding.
12. Do not exceed device capacity and clean meticulously after use.
13. In case polishing device fails, immediately unplug. Device can only be re-used after maintenance or repair. Broken connection cables must be immediately changed.
14. Always wear goggles with clear glass that can protect against shreds.
15. Spare parts must be compatible with the requirements specified by manufacturer. Warranty can only be provided when original spare parts of HOROTEC SA are used.
16. Operations to be performed on or with the device must only be executed by qualified, trained and specifically assigned personnel.
Please take legally permitted age limit into consideration.
17. Keep user manual.

3. TECHNICAL DATA

3.1 TECHNICAL INFORMATION

Product number	:	MSA23.003 ; MSA23.004
Motor supply	:	230 V / 50 Hz
Motor power	:	0,55 kW
Speed RPM	:	1500/3000 - MSA23.003 ; 300...3000 adjustable - MSA23.004
Vacuum	:	750 m3 / hour
Lighting	:	4x 9 LED 1600 Lumen
Brush diameter	:	160 mm maximum
Device dimensions	:	680 mm (L) x 370 mm (W) x 460 mm (H)
Packaging dimensions	:	795 mm (L) x 465 mm (W) x 565 mm (H)
Net weight	:	47 Kg (MSA23.003) ; 44 Kg (MSA23.004)
Gross weight	:	52 Kg (MSA23.003) ; 49 Kg (MSA23.004)

3.2 SPEED TABLE

The speed table for MSA23.004 is as follows (in revolutions per minute : RPM)

0.....0 RPM (*During this position motor is stopped but it is still under load, we recommend to stop the motor by on/off switch*)

1.....300 RPM

2.....700 RPM

3.....1'100 RPM

4.....1'400 RPM

5.....1'750 RPM

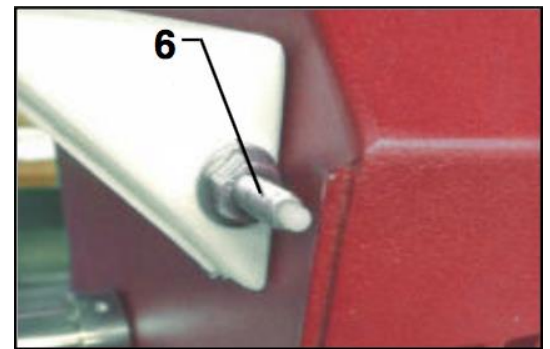
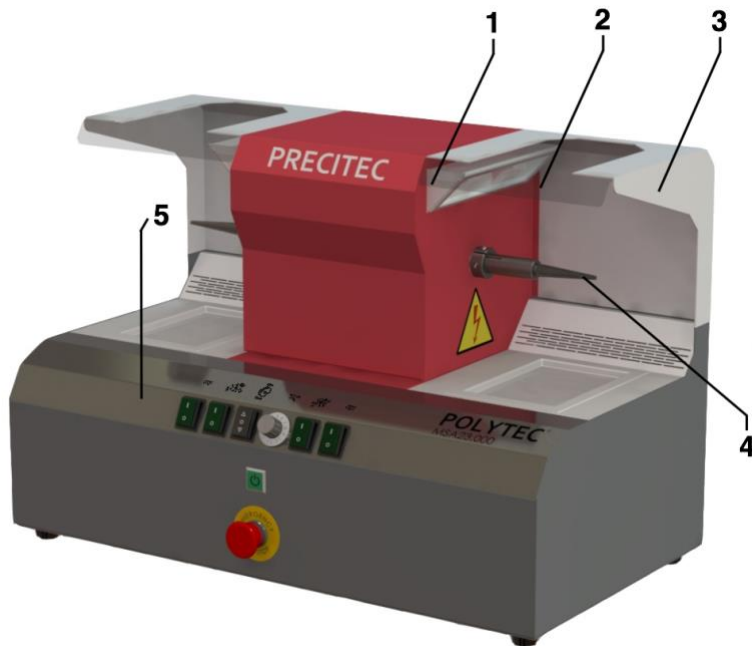
6.....2'100 RPM

7.....2'400 RPM

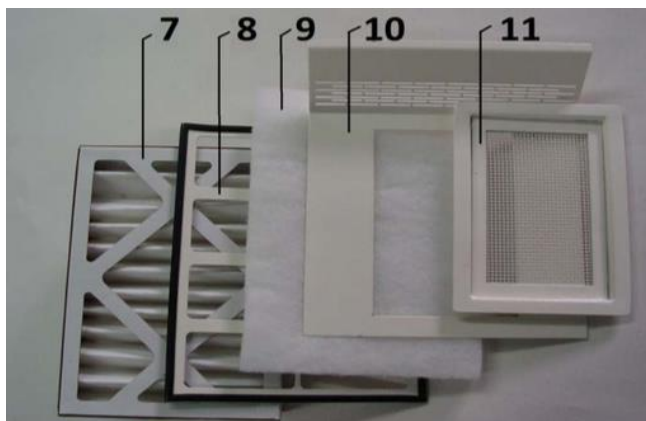
8.....2'700 RPM

9.....3'000 RPM

3.3 DEVICE SUMMARY



- 1) LED Lighting
- 2) Plexiglass face protection
- 3) Safety cover
- 4) Tapered polishing adaptor
- 5) Control panel
- 6) Safety switch
- 7) Z-Line cartridge filter
- 8) Filter protection filter
- 9) Fibre filter
- 10) Filter cover plate
- 11) Vacuum grid



3.4 SCOPE OF DELIVERY

MSA23.003 / MSA23.004

- 1x Electric cord
- 1x Tapered polishing adaptor
- 1x Tapered polishing adaptor
- 2x Face protection plate
- 2x Vacuum grid
- 2x Filter Cover Plate
- 4x Fibre Filter
- 2x Filter Protection Plate
- 4x Z-Line Cartridge Filter

Ready for installation

- Right helix, Ø 14 mm
- Left helix, Ø 14 mm
- Transparent Plexiglas
- Painted metal
- Painted metal
- Size : 265 x 190 x 16 mm
- Painted metal
- High performance G4 cartridge filter.
- Size : 258 x 178 x 48 mm.

Note : All of the above items are installed in the device except extra spare two Z-line filters and the fibre filters.

4. BEFORE RUNNING

Check the package whether it is damaged from outside before opening the product package. Open cardboard, remove protective papers and foam casts. First, take the cardboard containing accessories packed separately. These are :

- Fibre filter
- Z-Line cartridge filter
- Power cable

Then carefully take the device and remove foam cast beneath. Keep the original package and device protective equipment for possible return.

Check the device for possible damages and control whether accessories are complete. In case any damage occurred during shipping, we kindly request you to immediately contact shipper. Otherwise, compensation claims shall be discharged.



We kindly request that the device is unplugged during installation and equipping, or equipment change and pay attention that green switches are in "position zero".

Remove the protective folio on control panel. Place the filter heading into the vacancy on the filter. Then, place the vacuum grid into the vacancy inside the plate.

Connect the mains cable provided into to hole at the rear side of the device and plug in.



Protect connection cables from heat and sharp edges and install them in such a way that they will not get damaged. Make sure that all connections are perfect when using cable extensions and check electrical load and capacity before use.

The device is ready for use !

5. USING

We kindly request you to check the buttons on control panel and try to learn the device.



- Button 1** Power switch on/off
- Button 2** Left lighting on/off
- Button 3** Left vacuum power on/off
- Button 4** Power on/off button for polishing motor
- Button 5** Speed selection switch for MSA23.003 : (I) 1500 (II) 3000
Potentiometer to adjust the number of revolutions (only for MSA23.004)
- Button 6** Right vacuum power on/off
- Button 7** Right lighting on/off
- Button 8** Emergency stop button

The power switch empowers on and off the whole device. This button emits light when device is energized. If switched off, no operation can be handled at the device. When the device is in operation, if the power button is pressed directly, the entire device stops working ; but the device goes on operating again after power button is switched back on. So, for your safety, we recommend switching off all buttons when you want to power off the whole device.

5.1 LIGHTING

Lighting system is consisted of 4x 9 high-power LED lights and has the capacity of 1600 Lumens that perfectly lightens the work area of polishing device and prevents glows. With its comfortable white light, it is possible to work without straining the eyes.


You can turn on the light by pressing the buttons no. 2 and 7 (dust and dirt and can be easily and reliably cleaned).



Use a slightly moisturized and dust-free swab for cleaning. Do not use aggressive solutions for cleaning in order to prevent protective glass from potential damages.

It is possible to change the light cover when it is damaged or seriously scratched. You can procure this protective glass produced by acrylic as spare part from your dealer.

5.2 VACUUM SYSTEM

Press buttons no. 3 or 6  on control panel to run the vacuum system. Ventilation system does not require maintenance and its major features are its longevity and silent operation.



Important! Failures and damages are only suitable to be repaired by manufacturer BALKAN MOTOR A.Ş. otherwise all warranty and liability insurances shall be removed.

5.3 POLISHING MOTOR

Our device has an electrical motor (0,55 kW), which has the highest performance in its class. In spite of its power, most important feature of the motor is its silent operation and suitable propelling force. Motor does not require maintenance and based on our experience we can say that you will have a long lasting and smooth usage.



We would like to remind you that motor can heat up to 85° C during long polishing processes. This is normal and does not affect power and life of the engine.

Polishing motor starts by pressing the button n° 4  on the control panel.

To adjust revolution (MSA23.003), you can adjust speed to 1500 RPM with position I and 3000 RPM with position II via button no. 5 shown here.



For MSA23.004, you make adjustment by turning the potentiometer clockwise or vice-versa. You can see the number of revolutions, on page 5 (only for MSA23.004). Number of revolutions can be adjusted at any time by turning the potentiometer while the engine is running.



During "0" position polishing motor is stopped but it is still under load, we recommend stopping the motor via on/off switch, if you want to stop it.





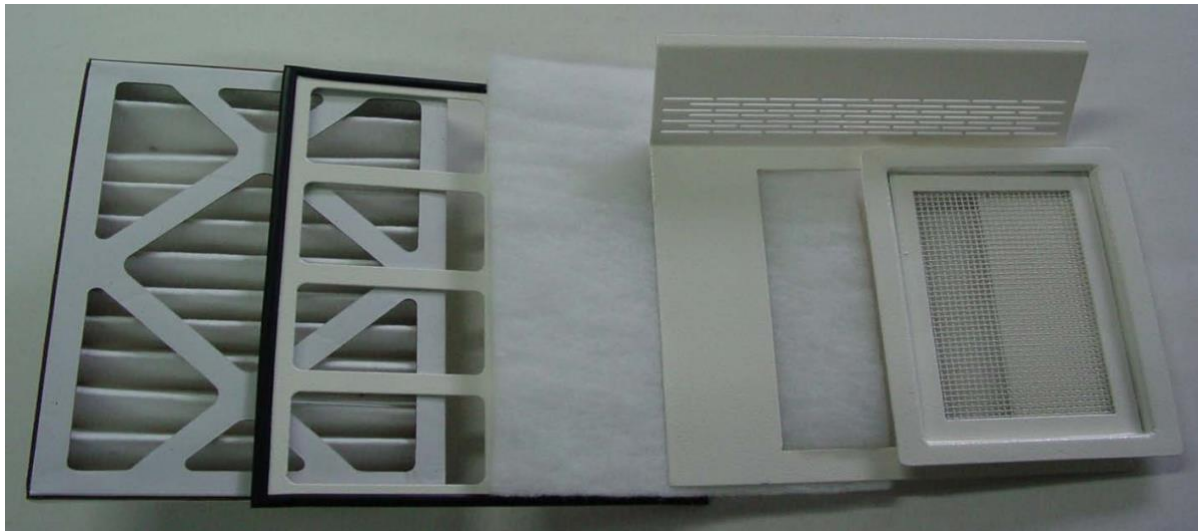
Important! For the workers safety the polishing motor will automatically stop when the safety cover is opened. However please be cautious that the motor will again automatically start to turn when the cover is closed.



Important! Failures and damages are only suitable to be repaired by HOROTEC SA. Otherwise all warranty and liability insurances shall be removed.

5.4 FILTER SYSTEM

5.4.1 INSTALLATION OF FILTER SYSTEM



We use a brand new and highly effective filter system in our device universal polishing bench. This filter system enables us to filter fine dust over 90%.

Explanation of filters from left to right :

- | | |
|--------------------------------|--|
| 1. Z-Line filter | Complete board frame, folded filter with net layer, filter class G4, DIN EN779 |
| 2. Filter support plate | Metal coating, as intermediate layer and protection of filters |
| 3. Fibre filter | Synthetic fibre according to DIN EN779. Size : 210 x 260 x 60 mm. Valuable metal wastes are collected here and can be shaken if necessary. |
| 4. Filter cover plate | Varnished from iron, little vacuum holes at the back, to filter coarse dust |
| 5. Vacuum grid | Filter cover, to immediately filter coarse dust during vacuum. |

Filter material is produced in accordance with current occupational safety and disposal regulations and meets relevant requirements.



Ensure that filters are placed correctly in accordance with the photo in the previous page.

5.4.2 FILTER SYSTEM CLEANING

Remove vacuum grid (front filter) and clean by removing coarse dirt and dust. In case the net is torn, it is recommended to change it.

Put your fingers inside the hole and remove the filter cover plate from work area by pulling to front sinuously. Clean this part from coarse dirt and dust in the same way.

Remove fibre filter from its location and clean it by shaking, vacuuming with vacuum cleaner, washing or change it depending on its level of contamination.



Do not squeeze washed filter layers!

Remove the filter support plate and clear dust if it necessary.

Lastly, remove the complete frame from the body along with Z-Line filter and clean these filters by shaking, vacuuming with vacuum cleaner or change them.

Re-assembly is done from bottom to the top; starts with Z-line cartridge filter and ends with vacuum grid. We kindly request you to pay attention that all parts are placed on the frame in correct order and in the right way.



Insufficient cleaning or rare changing of filter layers may cause damages on vacuum system.



We kindly request that the device is unplugged during installation and equipping, or equipment change and pay attention that green switches are in "position zero".

Filter material we use are harmless in terms of health and ecology, silicon-free, fully flammable, can be heated up to 80° C, can spontaneously extinguish in accordance with DIN 53438 / F1 and resists to humidity up to 100%.

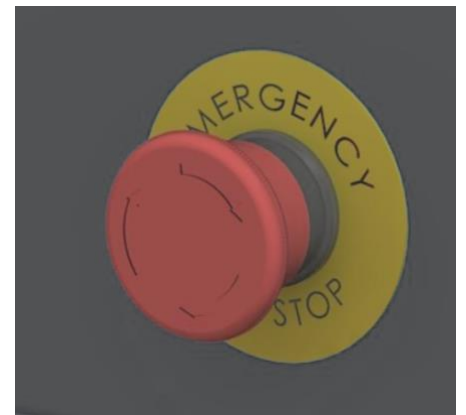
5.5 EMERGENCY STOP SWITCH

The switch is used to turn off the device immediately in case of danger.

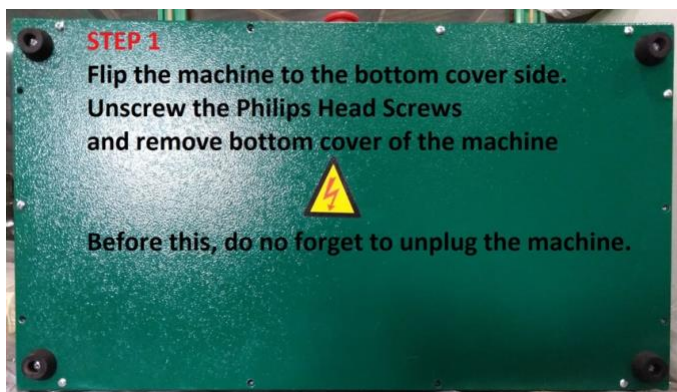
By the use of this switch the motors can be stopped at any time during operation.

The lighting and the vacuum will not be affected from the emergency stop button as these operations do not include any potential of danger.

The brush motors can only be started after the unlocking of the emergency stop button. The button has to be rotated following the arrows on it and put back into its original position to unlock. By pressing the main button, motors will be activated once more.

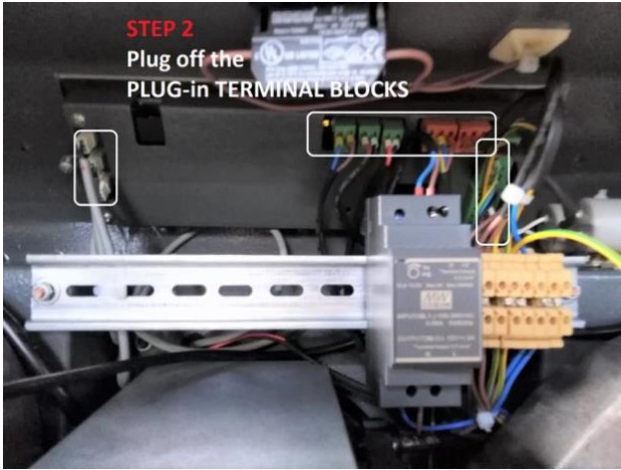


6. REPLACING FUSES

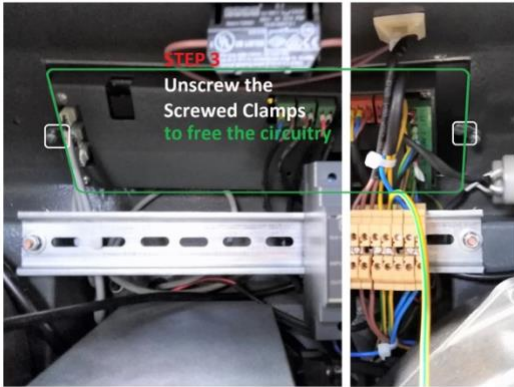


Step 1

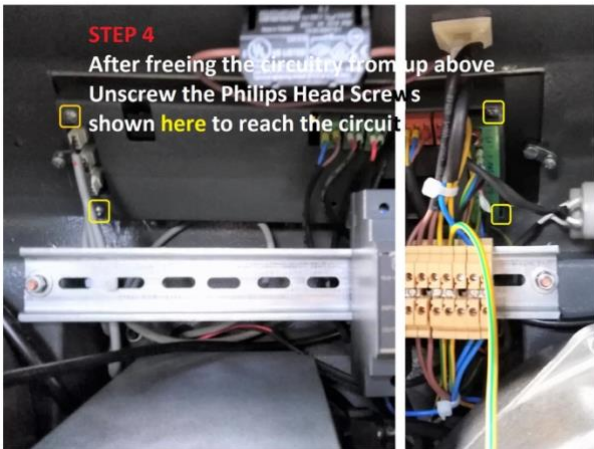
Flip the machine to the bottom cover side. Unscrew the Philips head screws and remove bottom cover of the machine. Before this, do not forget to unplug the machine.



Step 2
Plug off the plug-in terminal blocks.



Step 3
Unscrew the screwed clamps to free the circuitry.



Step 4
After freeing the circuitry from up above, unscrew the Philips Head screws shown here to reach the circuit.



Step 5
To reach the fuses, take off these covers. Fuses are attached to these covers.

7. DISPOSAL

Electrical and electronic devices law (ElektroG) has also adapted 2002/96/EG numbered WEEE European Directive to introduced electrical and electronic device manufacturers the obligations to design devices that help to protect environment and to recover old devices for disposal.

HOROTEC SA has been a registered company for years and being aware of its responsibilities, every year ensures that all devices are registered. We are determined to do our best for minimizing recycling expenses and to deliver benefits, arising from this, to our clients and our society.

Thus, we kindly request that if one day you have to leave this device, please do not dispose it with domestic wastes and deliver it to a location where unused old electronic devices are collected.

Thank you!

And now we wish you to have fun with your new device!

8. SPARE PARTS

MSA23.000-E
RIGHT-SIDED TAPERED SPINDLE



MSA23.000-A
PLEXIGLAS PROTECTION



MSA23.000-D
GRINDING WHEEL HOLDER
Ø 16 mm
Ø inner brush : 50.80 mm
Brush width : 20-40 mm



MSA23.000-B
FIBRE FILTER



MSA23.000-C
CARTRIDGE FILTER



9. EC DECLARATION



EC Declaration of conformity


We herewith,

HOROTEC SA
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declare that the polishing machines MSA23.000 - MSA23.001 - MSA23.002 comply with the essential health and safety requirements according to the

Machinery Directive (MD) 2006/42/EC
Low Voltage Directive (LVD) 2006/95/EC

based on its design and type, as brought into circulation by Horotec SA. In case of alteration of the machine, not agreed upon by Horotec SA, this declaration will lose its validity.

Description of the machine	:	Polishing machine
Machine type	:	MSA23.003 - MSA23.004
Applicable harmonized standards	:	TS EN ISO 12100:2010 TS EN 953+A1 TS EN ISO 13857 TS EN 1837+A1 TS EN 894-1+A1 TS EN 894-3+A1 TS EN 60204-1 TS EN 1093-2+A1
Date	:	November 2019
First and last name	:	Eric Zuccatti
Title	:	Director
Authorized signature	:	

Company stamp

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