



Operating instructions

Cutlery polishing machine TD 3000 Model 07



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1. General Information

1.1 Introduction

This instruction manual contains useful information on the use and service of the cutlery polisher and must be read thoroughly before the machine is put into operation.

Requirements for operating and maintenance personnel




Anyone working on or with the machine, whether its initial start-up, installation, operation, or maintenance is required to read and understand this operating instructions manual. Especially the chapter on "safety" which is listed ahead.

Only sufficiently trained personnel are eligible to operate the machine.

- ▶ Always keep this manual within reach
- ▶ Observe all safety precautions and indications
- ▶ When passing on the machine to any other persons be sure to hand over this instruction manual with it

1.2 Explanations

1.2.1 Meaning of safety indications

Symbol	Signal term	Meaning	Result if ignored
	WARNING!	Possible dangerous situation	Death or serious injury
	CAUTION!		Injury
	CAUTION!	Possible property damage	Slight or heavy damage to the machine
	No signal term	Useful tips and indications	none

1.3 Delivery Contents

- 1 x cutlery polishing machine
- 1 x operation instructions manual
- 1 x instruction sheet for easy machine operation (place near polishing machine)

2. Safety

2.1 Proper use


The intended use of the machine is drying and polishing chrom, steel, or silver cutlery. The following cutlery pieces can be used:

- ▶ spoon
- ▶ knife
- ▶ tea spoon
- ▶ fork
- ▶ small fork

2.2 Improper use

The machine is not designed to polish any other sorts of cutlery or foreign utensils. Any other use is not according to regulations and therefore prohibited. We take no responsibilities for damage caused by improper use.

2.3 General safety instructions

	Warning! Death or serious injury may occur by means of electrical shock
	<ul style="list-style-type: none">> Never install or operate the machine with a damaged power cord.> By suspicion of damage, for example an electrical fault smell, disconnect the machine from the power circuit immediately and contact the company Lugama.> A damaged power cable can only be repaired by company Lugama member or a from Lugama authorized service technician.> Make sure the power cable is never placed near a hot surface.> Make sure the power cable is never pinched or brushed along a sharp edge or surface.> Never open and repair the machine yourself. Make no changes to the machine that are not listed in this manual. This device contains electrical current-carrying parts. After opening, the risk of death or serious injury could occur. Repairs can only be made by Lugama authorised service technicians with original Lugama spare parts and accessories.> Never expose the machine to gushes or jets of water.
	Caution! Risk of injury
	<ul style="list-style-type: none">> Any installed safety components are not to be changed or demounted.> Never put your hands in the machine.> To prevent cuts always insert cutlery by holding the handle of the cutlery.> Never touch hot parts.> Never let the power cord hang loose. It could be tripped over or damaged.> Before performing any cleaning or maintenance work be sure that the power switch is turned off to "O" and the power cord is disconnected.> Turn the machine off when not using it for a longer period of time.> This device must be installed to an appropriate connected power circuit. (See page 15)> Exclusively use the original Lugama Polishing Granulate as well as original Lugama cleaning products.> Install the device far from the reach of children.> Persons, including children, who by reason of physical, sensual or mental complications or unexperience or ignorance may not operate the machine without guidance from a responsible person.> Persons who are not capable of reading or cannot read this manual's language must be educated and trained about the contents of this manual and operation of the machine.

3. Shipping, storage and set up

3.1 Shipping

The following steps must be followed when the machine is being, or has been transported:

- ▶ Never tilt or turn over the machine.
- ▶ Check the machine in advance for any damage caused by the shipment.
- ▶ Use the transportation safety device when shipping the machine.
- ▶ When reshipping, make sure the machine has a straight and sturdy stance.
- ▶ Do not place any transport goods on top of the machine.

There will be no replacements or warranty claims eligible by improper transportation methods.

3.2 Storage

Take note to the following information when storing the machine:

- ▶ Do not store the machine in a moist area
- ▶ Cover up, wrap up or keep the machine in its original packaging.
- ▶ Assure a stable storing method.
- ▶ Always keep in mind that the weight of the machine can be a factor when storing on shelves.
- ▶ Do not place any items on top of the machine.

3.3 Unpacking

- ▶ Never tilt or turn over the machine.
- ▶ Save the packaging for future shipments or dispose it properly.

3.4 Set up

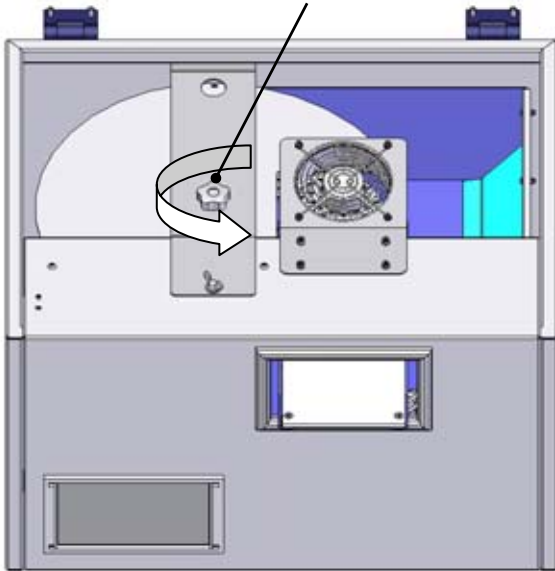
It is recommended to set up the cutlery polisher in the dish washing area.

- ▶ Place the machine on a safe and sturdy leveled surface.
- ▶ Leave approximately 20 mm of space between the wall since the machine causes light vibrations when running.
- ▶ Operating and cleaning should be enabled from a safe stand point.

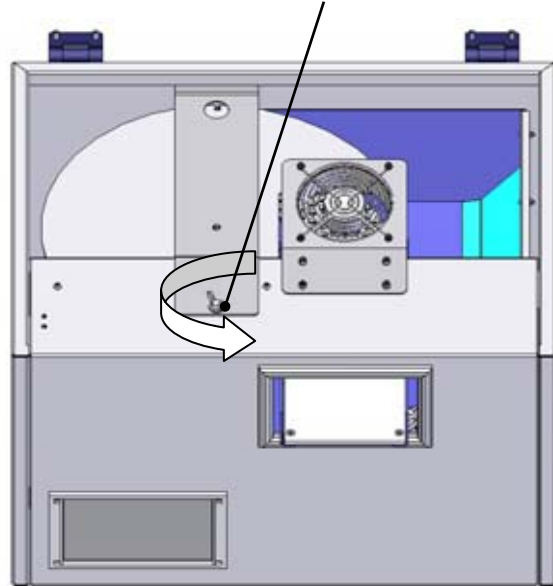
3.5 Removing the transportation safety device

Instructions for removing the transportation safety device:

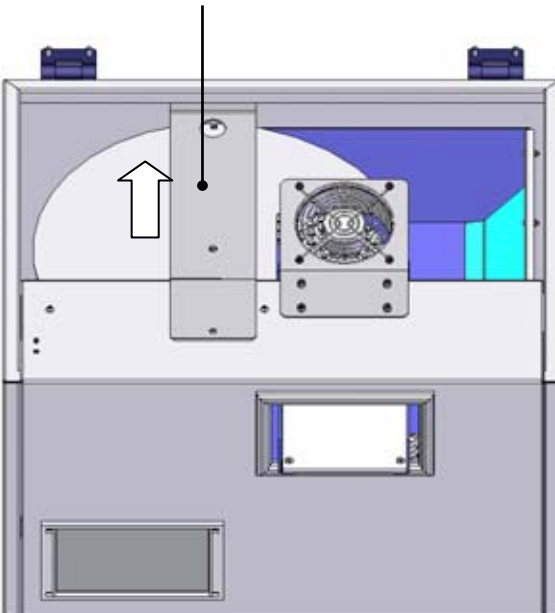
1. Open the top cover and remove the Star grip by loosening it



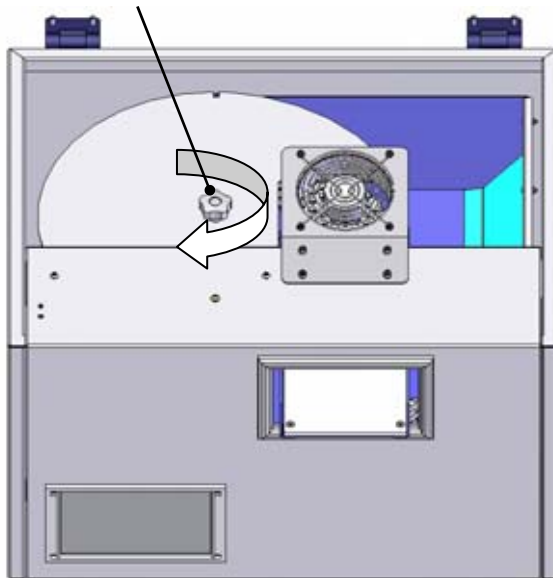
2. Loosen and remove the wing nut by turning it counter clockwise



3. Remove transportation safety device



4. Fasten the star grip and close the top cover



CAUTION!

Never operate the machine before removing the transportation safety device. It could result in damaging the machine.

- The transportation safety device must be removed before the first initial operation.

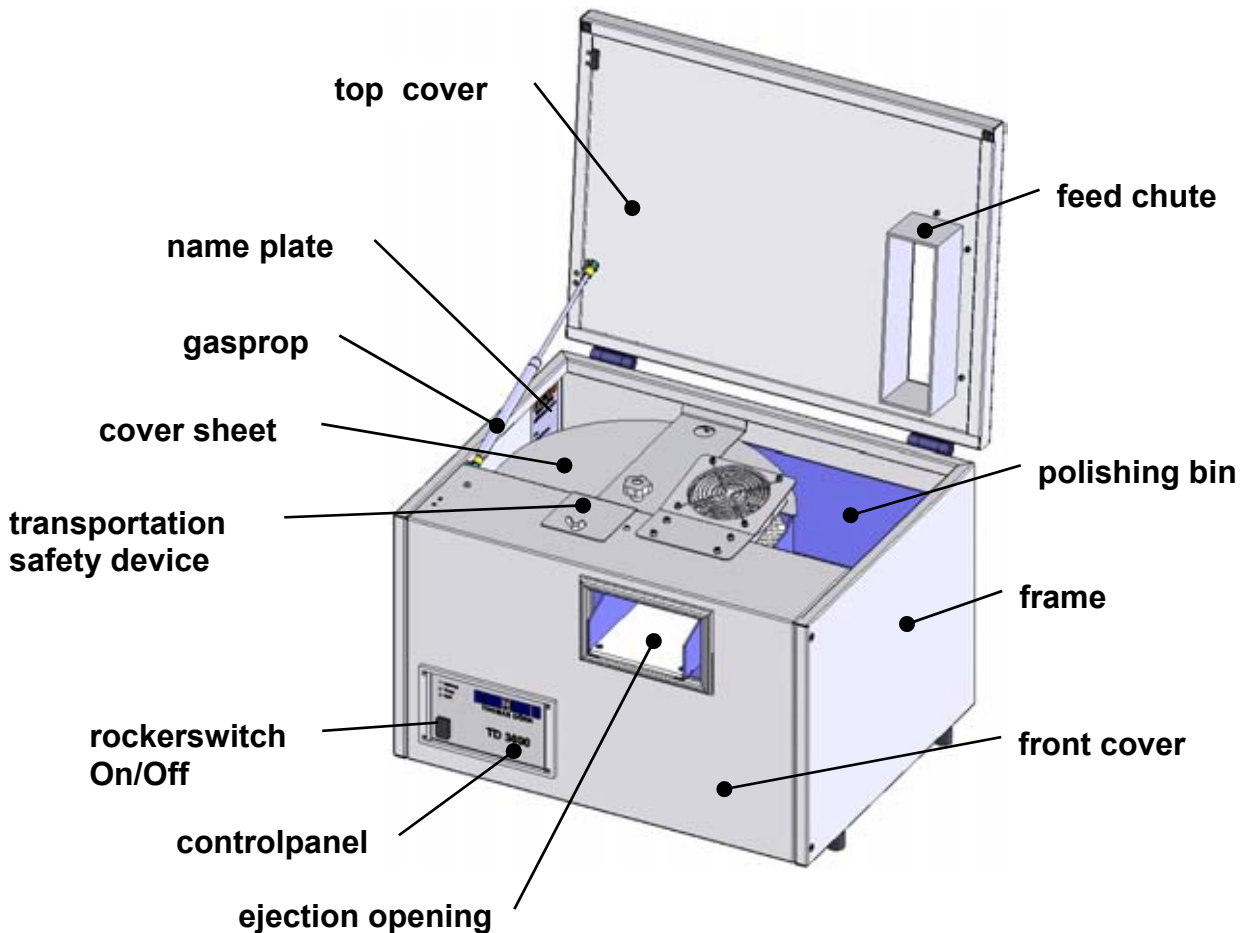
4. Handling

4.1 Before initial operation







Initial operation is only allowed when


- ▶ the machine has been checked for complete sufficiency
- ▶ the set up conditions have been followed
- ▶ the transportation safety device has been removed
- ▶ the instruction manual has been read completely
- ▶ all safety regulations have been adhered to

4.2 Explanation to machine operation



Explanation of symbols on the controlpanel:

-   When the yellow LED is lit, the polishing granulate is being heated.
-   **OK** When the green LED is lit, the granulate has reached its required temperature. The machine is now ready for use.
-   **UVC** When the red LED is lit, the UVC lamp has a malfunction and must be changed.

	Caution!
	Insufficient hygiene > If the UVC lamp is not changed within its reached operation duration or by malfunction, insufficient hygiene will occur.

4.3 Start up and operation of the cutlery polishing machine

1. Remove the transportation safety device.(see chapter 3.5)
2. Plug the power plug into a regulated power outlet (220/230V).
3. Fill the complete contents of the original Lugama polishing granulate into the polishing bin of the machine.
4. Place the cutlery basket directly underneath the ejection opening of the machine
5. Turn on the machine by switching to “I” on the rockerswitch.
The heating process is shown on the control panel by the lit yellow LED. As soon as the granulate has reached its required temperature, the green LED will light up.
6. The machine is now ready for use. The wet cutlery can now be inserted into the feed chute.
7. After use, let the machine run for about 30 minutes so the wet granulate can dry.



Depending on the amount of operating hours, replace granulate within 4-8 weeks (approx. 200 Hours). (See chapter 5.2 Replacing the granulate)



The best polishing results can be achieved by inserting wet cutlery either straight from the dishwasher or a water bath.
Already dried water spots (lime residue) cannot be removed by the cutlery polisher.



Insert one hand full of cutlery (approx. 10 pieces) into the feed chute every 10 seconds to get the most capacity out of the cutlery polisher.

4.4 Further safety referances

	CAUTION!
	Crushing can occur if the top cover falls down ➤ Always open the top cover till the limit stop till the mounted gasprop is fully extended.

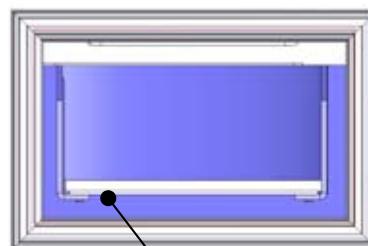
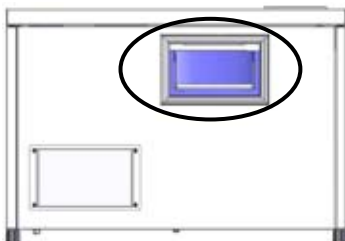
Wrong way



Right way



	CAUTION!
	Fingers can be pinched between the ejection opening and the frame ➤ Never stick fingers in between the ejection opening and the frame because the machine vibrates during operation which causes the bin to sway back and forth.



Danger zone

5. Cleaning and maintenance



CAUTION!

Risk of serious injury or death by means of electrical shock

- Before any maintenance or cleaning jobs are performed always assure the rocker switch is switched to "O" and the power plug is removed from the power circuit.

5.1 Daily cleaning

Clean the cutlery polishing machine daily by following these Steps:

1. Assure the rocker switch is switched to "O" and the power plug is removed from the power circuit.
2. Open the top cover to the machine and remove the granulate dust from the polishing bin, cover sheet, frame and top cover with a damp cloth.
3. Remove the granulate dust from the UVC lamp with a dry cloth. The UVC lamp is found underneath the front cover. (See picture 1 or picture 2 on page 10)



WARNING!

Damage may occur to the frame and / or the electronics

- The in and outside of the machine should never be exposed to water.
- Never hose down the machine or use a high pressure cleaner on it.
- Never use cleaning powder, acid, leaching, steel wool or wire brushes to clean the machine.

5.2 Replacing the granulate and cleaning the machine

The granulate must be replaced after approx. 200 operating hours or 8 weeks for hygienical reasons.



Replace the granulate prior to if :

- it is heavily filled with food leftovers.
- it soaked up too much water and is wet.
- It is heavily greasy (Granulate is dark).

Follow these steps:

1. Before changing the granulate, turn off the machine by switching the rocker switch to „O“ and disconnect the power plug.
2. Open the top cover. Remove the cover sheet on the polishing bin by loosening and removing the star grip. (See picture 1) Open the front cover by removing the the 2 top screws (See picture 2 or page 10, Position 1-2)
3. Vacuum out the granulate with a vacuum cleaner (See picture 3). Clean the Interior area if needed.
4. Spray cleaning alcohol on the polishing bin, cover sheet and top cover and wipe Off with a dry cloth.
5. Remount cover sheet and front cover after cleaning.
6. Insert a filling of original polishing granulate into the polishing bin.
7. Close the top cover. The Machine is now ready for use.



Picture 1




Picture 2



Picture 3

5.3 Replacing the UVC Lamp

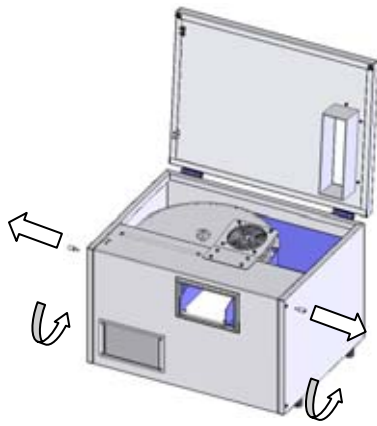
	WARNING!
	Damage may occur to the machine. Crushing can occur. > If using a cutlery catcher or basket holder be sure to remove it before opening the front cover

To assure sterilisation of the granulate, replace the UVC lamp after 8000 operating hours or as soon as the red LED lamp lights up. Replacement of the lamp is shown on the pictures below.

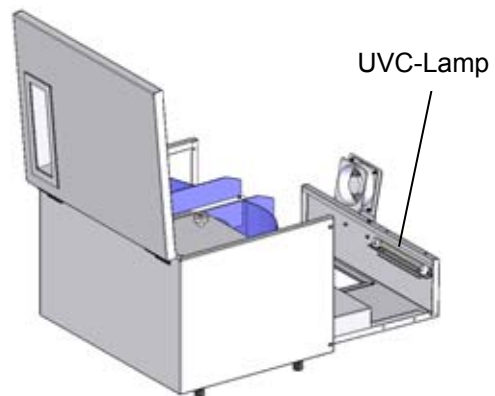
Before replacing the UVC lamp turn the machine off by switching the rocker switch to “O” and disconnect the power plug from the electrical socket.

1. Open the top lid and remove the upper screws from the front cover using a 4mm allen wrench.

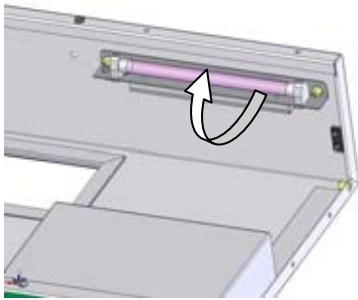
Loosen the bottom 2 screws by turning them counter clockwise. (1-2 rotations)



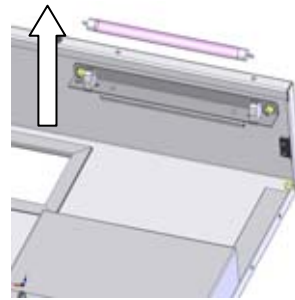
2. Open the front cover



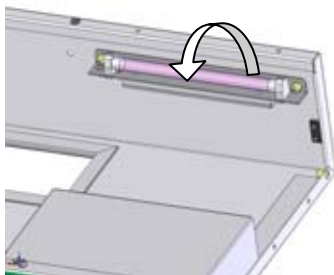
3. Turn the lamp backwards 90 degrees



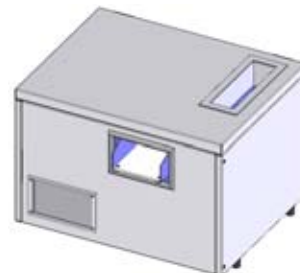
4. Remove the lamp from the socket



5. Insert the new lamp into the socket and turn it 90 degrees frontward



6. Close the front cover and top lid. Insert the screws and fasten them.



6. Troubleshooting

Malfunction / Problem	Possible causes		Solution	
Granulate sticks to cutlery	1.	Cutlery is still dirty	1.	Wash the cutlery again thoroughly and insert into the machine again. → If granulate pieces no longer stick to the cutlery then the problem was the dishwashing results. There may have been too much cutlery in the basket.
	2.	Dishwasher is not operating correctly. Or too much detergent is being used.	2.	Wash the cutlery by hand, rinse thoroughly, then insert it into the cutlery polisher again. If the polishing results are good then there was too much dishwashing detergent in the dishwasher. Contact your dishwasher service technician to reduce the dishwashing detergent or rinsing agent dose.
Granulate falls out of machine	1.	Granulate is or was too wet	1a	If the granulate is or was too wet, the volume of each granulate grain increases; it comes out through the holes in the screen and falls out of the machine. The granulate can become too wet when it is not hot enough and the water therefore does not evaporate. Observe the specified heat-up period. Let the cutlery drip dry to prevent too much water getting into the machine.
			1b	The inserted cutlery was too wet. Let the water drip off the cutlery to prevent it from dripping into the machine.
			1c	The machine may have been turned off directly after a polishing procedure. After use, allow the machine to run for 30 minutes so the granulate can dry. > Replace the granulate and consider the heating process and the drying procedure. Entnehmen Sie Granulat.
	2.	There is too much granulate in the machine	2.	Remove some granulate
	3.	It is possible that spoons transport some granulate out of the machine	3.	The axial fan may not be working properly. Contact an authorized service technician. The form of the spoon makes it impossible to eliminate that granulate falls out of the machine.
Granulate does not heat up	1.	Heating element malfunction	1.	Contact an authorized service technician
	2.	Thermo element malfunction	2.	Contact an authorized service technician
UVC lamp does not switch on	1.	UVC-lamp malfunction	1.	Replace the UVC lamp as described in chapter 5.3. UVC lamps can be ordered from us.

Continued on the following page →

Malfunction / Problem	Possible causes		Solution	
Granulate dust particles on cutlery	1.	New granulate	1.	Fresh granulate can cause more dust deposits at first. When the granulate has been heated up as required, dump 4-5 shot glasses of water into the feed chute of the machine.
	2.	Dishwash detergent or rinsing agent in the dishwasher	2.	The cutlery is smeary, causing granulate dust to stick on it. Wash the cutlery by hand, rinse thoroughly, then insert it into the cutlery polisher again. If the polishing results are good then there was too much dishwashing detergent in the dishwasher. Contact your dishwasher service technician to reduce the dishwashing detergent or rinsing agent dose.
Cutlery is not transported out of the machine	1.	Insufficient quantity of granulate in machine	1.	If there is not enough granulate in the machine the cutlery cannot be transported correctly. Replace the granulate with our original Lugama polishing granulate. The amount needed is exactly one filling.
	2.	Cutlery jam may have occurred	2.	Switch off the machine, open the top cover and if necessary also the cover sheet and remove the cutlery. If this happens often, the granulat may be swelled up. (See troubleshooting section „Granulate falls out of the machine“)
Poor polishing results	1.	Dry cutlery might have been inserted	1.	Always insert the cutlery dripping wet.
	2.	Heating element malfunction	2.	Turn off the machine and check the granulate temperature by hand. It must be noticeably warm. If not the heating element does not work properly. Contact an authorized service technician.
	3.	The granulate is too old	3.	The granulate should be replaced every 4 to 8 weeks depending on the daily operation hours.
The machine is too loud	1.	Cutlery has fallen into the machine	1.	Remove all cutlery pieces laying by the motor, springs and cover sheet.
	2.	Transportation safety device was not properly removed.	2.	Remove the transporting safety device (see chapter3.5).
	3.	Stainless steel frame is vibrating	3.	Make sure all screws are fastened, if not tighten them.
	4.	The machine is defect	4.	If the steps mentioned above do not solve the problem contact an authorized service technician.






Continued on the following page



Malfunction / Problem	Possible causes		Solution	
Machine does not start	1.	Top cover is not closed.	1.	Close the top cover.
	2.	Damaged Fuse.	2.	Check the fuses and have them replaced by an authorized service technician.
	3.	Power plug may not be plugged in.	3.	Check if the power plug is inserted correctly.
	4.	Machine has a malfunction	4.	Contact an authorized service technician.
A cutlery jam has occurred inside the machine.	1.	Too much cutlery has been placed into the machine.	1.	Begin feeding the machine with 30-40 cutlery pieces. Afterwards only place a hand full of cutlery inside the machine after the previous fed cutlery has vanished underneath the granules.
	2.	The granules have swollen, caused from absorbing too much moisture.	2.	In case the granules have absorbed too much moisture, it will swell causing each corn to expand. The filling volume will expand by approximately 20-30%. This means the openings for the cutlery pieces become smaller. To avoid this happening we strongly recommend performing the heating up and final drying process. Please change the granules immediately if this is the case. (See page 9, chapter 5.2)
The cutlery is abnormally intensively scratched.	1.	The cutlery pieces fall too deep from the ejection chute.	1.	Please immediately make sure the cutlery basket, in which the cutlery pieces fall into, is placed directly underneath the ejection chute.

7. Accessories for the cutlery polishing machine

The following accessories can be ordered with your cutlery polishing machine TD 3000 type 07:

Picture	Name	Description
 Art.No.: EBUDTD3R	Mobile underframe TD 3000	Mobile underframe with fixation for a secure stand of the cutlery polisher. For an optimized working height of the machine
 Art.No.: TD001	Perforated cutlery basket	Perforated cutlery basket
 Art.No.: TD002	Cutlery basket	Cutlery basket
 Art.No.: HYPO06	Original Lugama polishing granulate	Original Lugama-polishing granulate. One bucket equals two filling. The granulate should be replaced every 4 to 8 weeks depending on the daily operation hours.
 Art.No.: ZEZI001	Cleaning alcohol (1000 ml)	Recommended cleaning alcohol for daily cleaning.
Art.No.: SK02216P	UVC-Lamp	

The actual status of available accessories can be read on our website. Go to www.lugama.at

8. Company address

If there are any questions about our products, ordering spare parts or demand for our mobile customer service please contact us.

When ordering spare parts always indicate **serial number** and **manufacturing year**. You will find it on the inside of the frame to your upper left (See illustration on page 7).



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9. Technical data

	TD 3000 type 07
Capacity	3.000 to 4.000 cutlery pieces per hour
Consumption	650 W
Weight	60 kg
Dimensions (L x W x H)	65 x 55 x 45 cm
Noise level, not in operation	64 dB (A) – 67 dB (A)
Noise level, in operation	67 dB (A) – 72 dB (A)
Noise level, discharging	72 dB (A) – 76 dB (A)
Input	1 Ph / N / PE (1 x 230 V AC 50 Hz)
Supply voltage	230 V AC 50 Hz
Control voltage	220 - 230 V AC
Nominal current	2,6 Ampere

10. Disposal of the machine

Most parts of the machine are steel, stainless steel or plastic. These parts can be disposed in a normal matter.

Electronic parts such as the control board, axial fan, motor and so on belong to electronic scrap.

The polishing bin is made of sheet metal and has a special certified FDA plastic coating.

By separating and disposing wastes according to specifications we bear and maintain our natural resources and guarantee re-use. The healthiness of man and nature will be protected by doing so.

11. CE - DECLARATION OF CONFORMITY

By means of the EU Machine Guidelines 2006/42 EG



We hereby certify that the machine described below fulfills the applicable basic safety and health requirements of the associated EU Guidelines in terms of its design and construction as well as the version put into circulation by us. Any modification to the machine not coordinated with us invalidates this Declaration of Conformity.

Description of the machine	Cutlery polishing machine
Type:	TD 3000 Model 07
Applicable EU Guidelines:	EU Machine Guidelines (2006/42 EG) EMC Guidelines (2004/108 EG)

MAX DÖRR GmbH
-Förderanlagen-



