

Food Slicer



MODEL

310p2

Manual

 **Ma-Ga®**

REMARK!

The slicer knife is made of carbon steel coated with a layer of chrome,

SPECIAL CARE IS REQUIRED

CARE FOR CLEANLINESS AND HYGIENE.

EVERY DAY, wash the slicer and in particular the inner surface of the knife after work.

AFTER WASHING, WIPE DRY.

It is recommended to leave the knife cover unscrewed to the slicer overnight.

Failure to follow this recommendation may result in the appearance of traces of corrosion on the knife

The grinding wheels,
sharpener and knife are not
subject to
free replacement

Warranty repairs
and post-warranty repairs are paid, also
carried out by the manufacturer





Ma-Ga[®]

Bydgoszcz Catering Machine Plant "Ma-Ga" Sp. z o.o.
Kujawska 136, 85-950 BYDGOSZCZ, skr. post. 142
tel. +48 52 3704-500, fax +48 52 3712-657
www.maga.com.pl | handlowy@maga.com.pl

310p2 and 310p2T Food Slicers

Manual



We wish the user of our machine a pleasant work and the best possible results when cutting food. We recommend that you read the user manual carefully and follow the user guidelines contained therein.

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1. INTRODUCTION

1.1 Delivery Status

When you pick up the delivered machine, check that the packaging is not damaged and that the items inside comply with the order and specifications. If there are non-conformities, the supplier should be informed.

The 310p2 slicer is supplied complete by the manufacturer. After unpacking, remove the following packaging elements:
 into the plastic cover of the knife blade,
 in clean from the preservative layer.

1.2 Packaging

The slicer is delivered in a carton. During transport, the carton should be secured against tipping over and the possibility of mechanical damage.

The external dimensions and weight are given in Table 1.

	Unit	Measure	Paperboard
Length		Mm	620
Width		Mm	510
Height		Mm	450
Gross Weight		Kg	26

Table 1

1.3 Temporary protection

For transport and storage, the metal surfaces of the slicer are coated with a thin layer of preservative. The preservatives used allow the machine to be stored indoors for a period of 6 months.

1.4 Storage

The slicer should be stored in a dry room that provides protection from weather influences (temperature, air humidity).

The storage conditions are indicated on a sticker on the carton or crate.

1.5 Qualifications

All activities related to loading, unloading and moving the slicer must be performed by authorized persons with the necessary qualifications and experience.

2. TECHNICAL CHARACTERISTICS

2.1 Destiny

The 310p2 food slicer is a precision machine that allows you to slice a variety of thickness of slices: cold cuts, cheese, bread and raw, baked or cooked meat, quickly and accurately. The machine user is provided with comfortable operation and the ability to maintain maximum cleanliness in the cutting process, thanks to modern control solutions. structure.

Proper operation, careful daily cleaning and maintenance, and proper sharpening of the knife ensure a high degree of hygiene, good performance and a long service life of the slicer. The elements, subject to daily or periodic cleaning, are easy to disassemble without the use of any tools.

The 310p2 slicer is designed for the needs of trade and gastronomy, where the slicing process takes place intermittently. If you use a slicer for industrial slicing and packaging of food, in continuous operation, you will lose your warranty rights.

The manual informs the user about the procedure and operation during the use of the slicer.

2.2 Basic quantities

Model	310p2
Dimensions	
- length	560 mm
- width	410 mm
- height	400 mm
Weight	23 kg
Thickness of sliced slices Knob	0 - 15 mm
plot value Knife diameter	ok. 1 mm
Rotation of the knife	250 mm
Feeding Table Dimensions	300 rpm
Maximum Table Stroke Motor	235×210 mm
Operating	ok. 250 mm
Capacitor Supply	150 watts
Voltage	5 F 230 V, 50Hz

1. Thrust Plate
2. Knife
3. Sharpener
4. Knife Cover
5. Feeding Table
6. Pressure Plate
7. Table Bracket
8. Table Mounting
9. Screw Adjuster
10. Knob Table

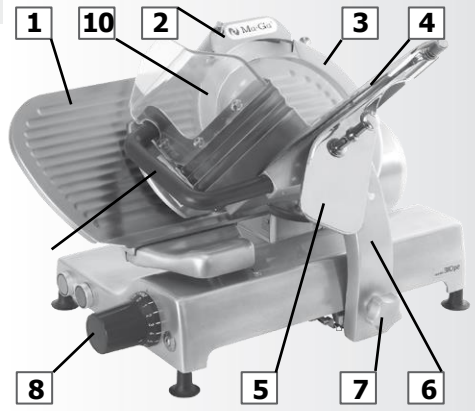
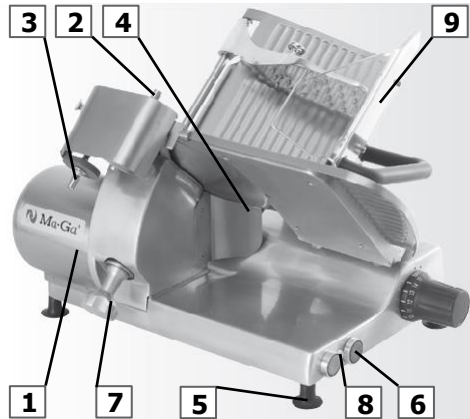


Fig. 1. Overview

In the area of direct contact with the food to be cut, the slicer is made of stainless steel components. The individual elements of the slicer are very smooth and easy to clean. The slicer knife is driven by an electric motor through a worm gear. The electric drive can be switched on by pressing the green START control element (Fig. 2, item 6). When the drive is switched on, the warning light comes on (Fig. 2, item 8).

The machine is switched off by pressing the red control element of the connecting STOP.

1. Engine (under cover)
2. Sharpening wheel pusher
3. Honing wheel pusher
4. Slice guide
5. Foot - suction cup
6. Controls
7. Tie Screw
8. Indicator light
9. Plastic Cover



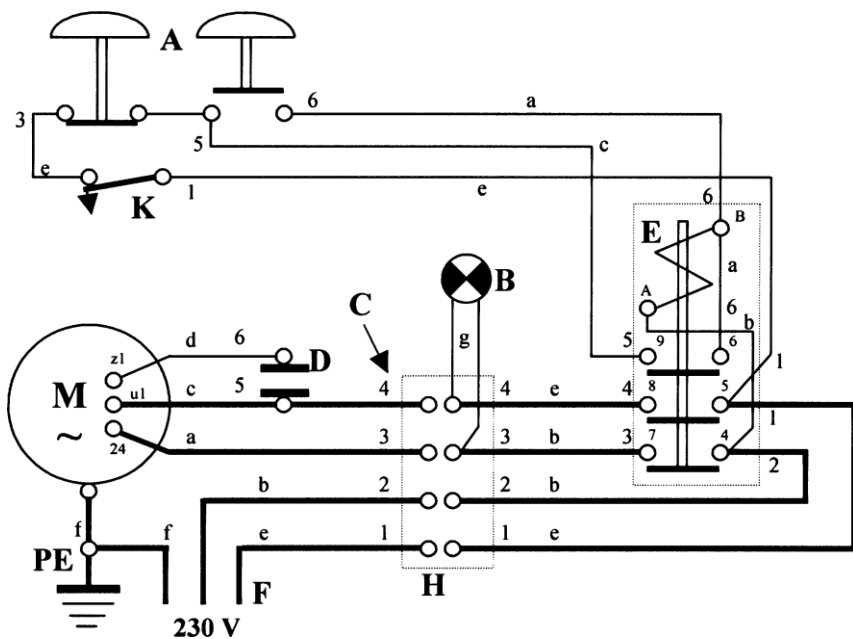
The slicer will switch off automatically in the following cases:

- a) if the pull screw is loosened (Fig. 2, item 7),
- b) with even a temporary power outage in the power supply.

The slicer can only be switched on again by pressing the green START control once the above factors preventing safe operation have been removed.

The table can only be removed in the zero position of the regulator knob (Fig. 1, item 8).

Electrical diagram of the 310p2 slicer with RUC relay



Markings in Fig. 3:

Wire colors :

- a -black;
- b -blue;
- c -red;
- d -yellow;
- e -brown;
- f - green-yellow;
- g -white

Specification of markings:

- A -Controls
- B - Indicator light
- C - Wire IDs
- D - Kondensator $5\mu F$
- E - RUC relay
- F - Power Cord
- H - Terminal Block
- K - Micro Switch
- M - Motor
- PE - Protective conductor clamp

3. HAZARD PROTECTION

3.1 Sources of Danger

Typical sources of threats and technical security measures used to eliminate them are presented in the table:

Rodzaj zagrożenia	Źródła zagrożenia	Nr cz.	Techniczne środki bezpieczeństwa, zastosowane w celu eliminowania zagrożenia
Mechaniczne	Nóż	2255	Oslony stałe, wymienione poniżej: Oslona noża stała, zapobiegająca skaleczeniu podczas czyszczenia, przy zdjętej pokrywie i (lub) wysuniętej ku górze ostrzarce
		2535	Płyta oporowa
	Napęd	2550	Zabezpieczenie przed przypadkowym włączeniem napędu noża krojącego
		2580	Pokrywa noża, działająca jako osłona z urządzeniem blokującym, które uniemożliwia włączenie napędu noża przy zdjętej lub nieprawidłowo ustawionej pokrywie
		2570 2589	Stół podawczy, połączony z urządzeniem blokującym, które uniemożliwia włączenie napędu noża po zdjęciu tego stołu Oslony stałe, wymienione poniżej: Oslona silnika, uniemożliwiająca dotyk elementów silnika Oslona stołu utrudniająca manipulowanie wolną ręką podczas krojenia żywności i chroniąca przed ewentualnymi odpryskami
Elektryczne	Uniemożliwienie kontaktu z częściami przewodzącymi przez dotyk bezpośredni	2510	Ochrona podstawowa, w tym: Oslona dolna wnętrza aparatury elektrycznej
	Uniemożliwienie kontaktu z częściami przewodzącymi przez dotyk pośredni		Ochrona elektryczna (zob. schemat połączeń instalacji elektrycznej). Punkty podłączenia przewodu ochronnego oznaczone znakiem "PE": a) styk centralny PE pod osłoną nr 2509 b) silnik w pobliżu korpusu przekładni
Biologiczne	Kontakt żywności z elementami krajalnicy		Materiały z atestem Państwowego Zakładu Higieny (wymienione poniżej)
		25448	Nóż - chrom
			Nóż - stal nierdzewna
		2535	Płyta oporowa - stal nierdzewna
			Pokrywa noża - stal nierdzewna
		2585	Płyta stołu - stal nierdzewna
			Oslona noża - stal nierdzewna
		2501	Taca - stal nierdzewna
	Prowadnica plastra - stal nierdzewna		
	2590	Dociskacz żywności - chrom	
		Korpus główny - odlew AL anodowany	
		Wkręty i śruby ze stali nierdzewnej	
		Szczeliny wypełnione kitem Sealant SCS 1009 Aluminium	

Table 2

3.2 Residual Risk

This risk occurs when trying to press small bites and food residues with your hand while cutting.

Therefore, a warning sign is placed near the cutting zone and the slicer is equipped with a presser, which must be used at all times when cutting small bites and food leftovers.

When you remove the components of the slicer for cleaning as shown in Figure 11, you should take special care when wiping the knife, as the sharpener is removed to reveal a section of the blade.

3.3 Noise level

The noise level at the operator's station, under normal operating conditions, measured at a height of 1.6 m and at a distance of 1 m from the slicer, does not exceed 70 dBA.

3.4 Safe Work Principles

The safe use of the slicer depends on the following conditions:

- a) training the operator, who should know the potential hazards at the slicer,
- b) prohibit the use of the slicer if:
 - the machine is used incorrectly or the cutting parameters specified in the instructions would be exceeded,
 - machine is visibly out of order,
 - any of the electrical covers or moving parts have been removed,
- c) clearly define activities that are not the responsibility of the slicer operator and reserved for designated authorized persons, especially in the case of removal of defects and repairs, including electrical installations,
- d) maintenance only when the electrical supply is disconnected (except for the knife sharpening process).

The above requirements should be included in the job manual.

- 3.4.1** In order to ensure safe working conditions and comfortable operation, the At least 3 m² should be allocated to the workstation and good lighting should be provided .
During work, the operator should use protective clothing required by local sanitary regulations.

It is forbidden to:

- 1) Use the slicer for other than its intended purpose. The manufacturer is not responsible for events resulting from the misuse of the rack .
- 2) Operation of the machine by unauthorized persons and under 18 years of age.
- 3) Use of a technically defective machine.
- 4) Press the sliced food by hand, either directly or through the pressure plate.
- 5) **Any manipulation of the hands in the cutting zone. Manual operations during cutting should be limited only to moving the table with the handle (Fig. 1, item 9).**

- 6) Unauthorized repairs.
- 7) Connecting the slicer to the mains without ensuring the continuity of the protective conductor. On the user side, the grounding pin of the socket outlet must be permanently connected to the protective conductor.
- 8) Cutting products not intended for consumption, bone-in and frozen.
- 9) Leaving the device running unattended.
- 10) Using the slicer with the sharpener removed.

3.5 Compliance with standards

The 310p2 slicer's electrical control system, electric shock protection, and short-circuit and overload protection are made in accordance with PN-EN 60204-1;2010.

The 310p2 slicer meets the requirements of Annex 1.A to Directive 2006/42/EC EEC and the requirements of the harmonized standard PN-EN 1974:2010.

4. PREPARING FOR COMMISSIONING

4.1 Unpacking

Together with the 310p2 slicer, in a cardboard box, a container with oil for the maintenance of metal parts, a brush for cleaning hard-to-reach elements is delivered. In the box there is a user manual, a warranty card and a declaration of conformity with standards.

4.2 Setup

After removing the slicer from the package, the machine must be placed on a stable surface, suitable for the weight. You should also remove the packaging elements listed in point 1.1 of the instructions.

4.3 Connection to the mains

The 310p2 slicer is supplied complete, with a three-core cable, 1 mm² cross-section, terminated with a plug. It is the responsibility of the user to install a plug socket with a protective contact, permanently connected to the protective installation and protected by a 6 A fuse.

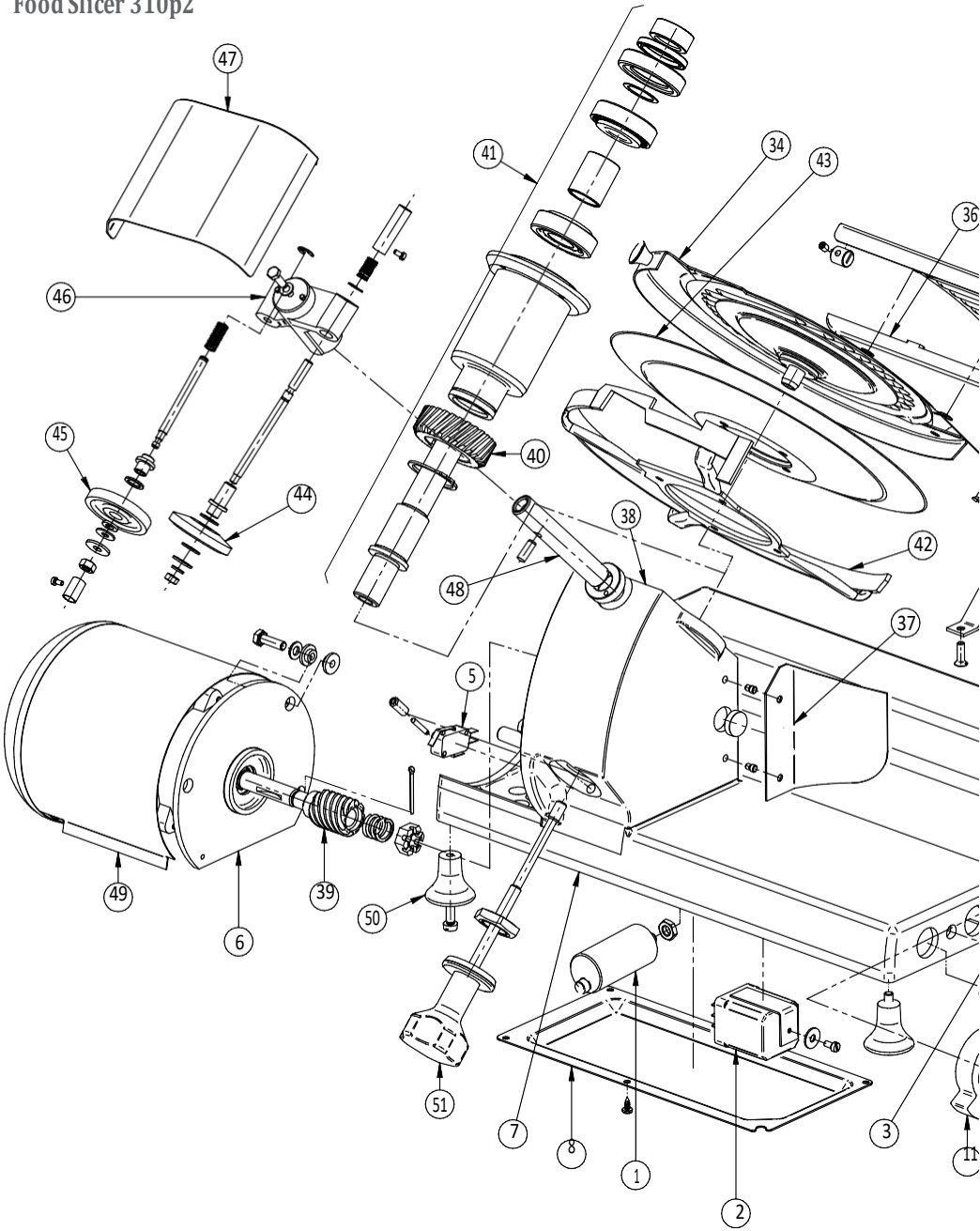
4.4 Starting the Slicer

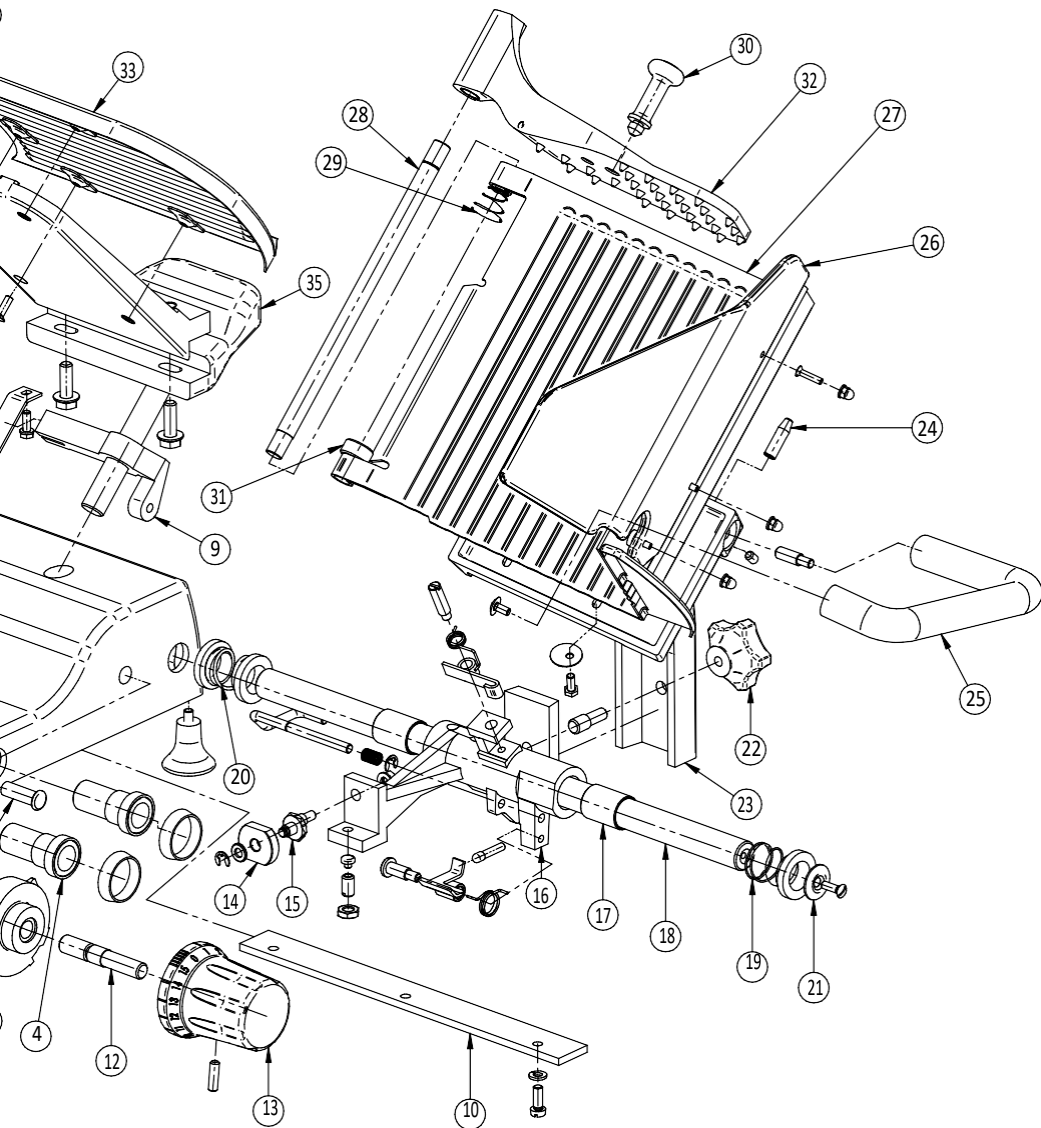
After unpacking the machine and removing the packaging and transport protection elements listed in points 1.1 and 1.3, read the operating instructions carefully.

The owner of this appliance is fully responsible for ensuring that the slicer is used safely and in accordance with these operating instructions, strictly following the instructions in the manual, and that the appliance complies with the requirements of European Union regulations during operation.

To start the slicer knife, make sure that the knife cover and the knife sharpener are in the right places and only then press the green START control button.

Fig. 13
Food Slicer 310p2





5. USING THE SLICER

5.1 Adjusting the thickness of the slice

The knob for the slice thickness regulator is located on the front wall of the slicer and has an orienting scale in the adjustable thickness, with an accuracy of approx. 1 mm. Setting the thickness of the sliced slice is achieved by tuning this knob, shown in Fig. 1, item 8.

5.2 Moving the table

The 45° inclined feeding table with usable dimensions of 235×210 mm and grooves on the surface ensures that the sliced food can be fed under its own weight. The table is moved manually over a length of up to 240 mm.

The end positions of the table are cushioned by springs. The design of the slicer ensures a smooth and light movement of this table. When cutting, hold the handle intended for moving the table (Fig. 4), avoiding sudden movements. The food to be cut presses against the resistance plate under its own weight.

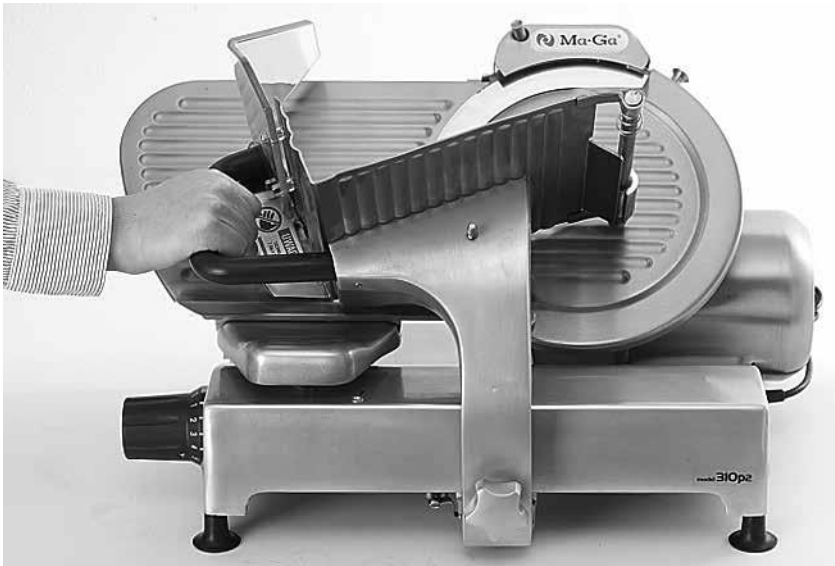


Fig. 4. Moving the table

When cutting small bites and trimming food leftovers, use a pressure button located under the serving table. The use of a clamp significantly improves the quality of cutting. The pressure puller (Fig. 1, item 5), after unticking, should be placed on the feeding table of the tap, then it presses small pieces of chopped food with its weight. When not in use, the clamp should be hooked on a pin placed on the slicer table support, under the feeding table tray.

5.3 Sharpening the Knife

During the operation of the slicer, it is necessary to periodically sharpen the food slicing knife. This is done by means of a sharpener permanently attached to the slicer, above the edge of the knife.

Before sharpening, the knife should be dry and clean of grease. A greasy knife prevents proper sharpening due to clogging of the sharpening wheels.

The process of sharpening the slicer knife (Fig. 5-8) should be carried out as follows:

1. Sharpening unit in normal position, grinding wheels are offset, knife edge is shielded (Fig. 5)
2. Hold the sharpener guard and lift the whole thing until the sharpener core slips out of the arbor.



Fig. 5 Sharpening unit in normal position



Fig. 6 Extending the sharpener from the arbor

3. Now turn the sharpener by 180 ° and slide it over the spindle until it stops (Fig. 7).
4. In this position, the sharpener is ready to sharpen the knife (Fig. 8).



Fig. 7. Preparing for sharpening



Fig. 8. Sharpening the knife

In order to sharpen the knife, the slicer must be complete and prepared as if it were for cutting food. Follow these steps:

1. Switch on the slicer.
2. Press the sharpener pusher button (the one on the back) for 5 -10 seconds, and then press the smoothing button (Fig. 8, the one on the front) for the same period of time. This should be enough for regular sharpening of the knife. If the edge of the knife is chipped, sharpen it longer. At the end of the sharpening process, press both pushers simultaneously (for 2-3 seconds) (Fig. 8).
3. Switch off the engine and visually inspect the blade edge. The sharpness can be checked on a strip of paper that should be pulled across the blade (with the knife stationary). A sharp knife will cut through paper without difficulty.
4. After sharpening the knife, remove the dirt caused by the abrasive discs falling off. To do this, remove the knife cover and clean the knife, then put the cover back in place.

Remark:

The knife should be absolutely sharpened if the quality of slicing deteriorates. The sharpening operation should be performed gently, without excessive force when manipulating the sharpening machine tappets.

When the knife has finished sharpening, the sharpener should be returned to its normal position (Fig. 5).

To do this, follow these steps:

1. Grasp the guard, slide the sharpener out of the mandrel.
2. Turn the sharpening tool 180°, then push it on until it stops. It now acts as a segment of the knife guard and the slicer is prepared for further use.

Remark:

The sharpening process affects the gradual reduction of the knife diameter. The new knife has a diameter of 249±1 mm. If the diameter is less than 240 mm as a result of use, further sharpening is not possible and the knife must be replaced. In order to be able to sharpen smaller and smaller knives repeatedly, there is a special adjusting nut on the body under the sharpener, which can be used to adjust the sharpener to the knife blade.

6. MAINTENANCE

6.1 Cleaning the Slicer

Strict adherence to the cleaning instructions will ensure that the required sanitary regulations are met. The slicer should be cleaned daily after use. **No It is allowed to immerse the slicer in water or wash the machine with a jet of water under pressure, due to the motor and electrical equipment that do not have airtight**

Enclosures.

When cleaning the slicer, the following steps must be performed:

- a) Set the slice adjustment knob to the zero position (red dot),
- b) remove the plug from the mains socket,
- c) move the table as far as it will go, towards the strip adjuster knob (Fig. 10), until a characteristic crack sound is heard - the slide will be locked,



Fig. 9. Removing or attaching the knife cover

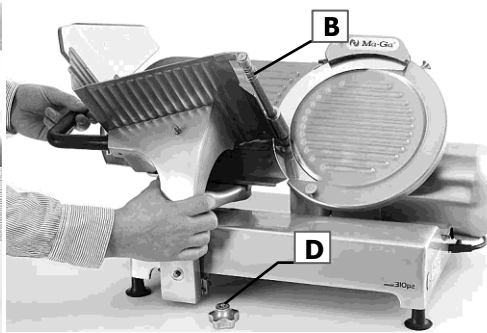


Fig. 10. Removing the table

- d) unscrew the table mounting knob (Fig. 1, item 7),
- e) grasp the table support (Fig. 10) and remove it, together with the feeding table,
- f) unscrew the screw of the knife cover (Fig. 2, item 7), when it falls down by itself, remove the cover (Fig. 9),
- h) remove the patch guide (Fig. 2, item 4),
- i) clean the machine from food residues, paying special attention to the knife and the knife cover,
- j) wipe all parts of the slicer dry,
- k) put the dismantled elements in their places.

When attaching (or removing) the knife cover, hold it by the two handles, (Fig. 9) by inserting the retaining insert into the hole in the center of the knife. Then, holding the knife cover with your hand, tighten the pulling screw as far as it will go (Fig. 2, item 7).

Remark:

With the serving table removed, it is not possible to move the sleigh on which the table is mounted. You also cannot turn the knob of the slice thickness adjuster.

The sharpener should be removed from the slicer (mandrel) during cleaning. This allows food residues to be thoroughly removed from the knife guard as well as the sharpener to be thoroughly cleaned. After cleaning, the sharpener should be slid over the mandrel.

The slicer blade is permanently protected by a cut-to-cut guard during cleaning, with the knife cover removed or the sharpener extended. This cover must not be removed. Food residues from under this cover should be removed with the brush supplied with the slicer.

The feeding table is equipped with a transparent cover (Fig. 2, item 11), which makes it difficult to manipulate the hand when cutting food and protects against splinters. This cover is permanently screwed and must not be removed. Clean the feed table that has been removed carefully so as not to damage this guard.

Metal parts should be washed with a soft, damp sponge with mild chemical cleaning agents. The cleaning elements removed from the slicer are shown in Fig. 11.

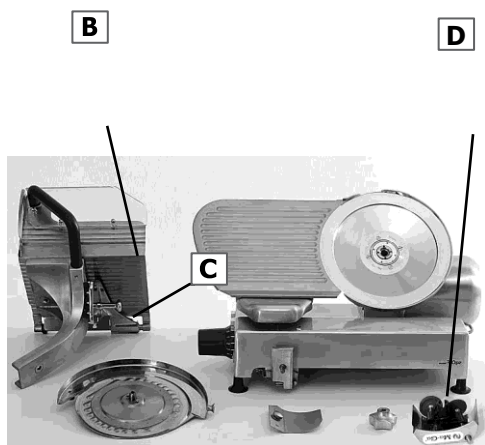


Fig. 11. Slicer during cleaning

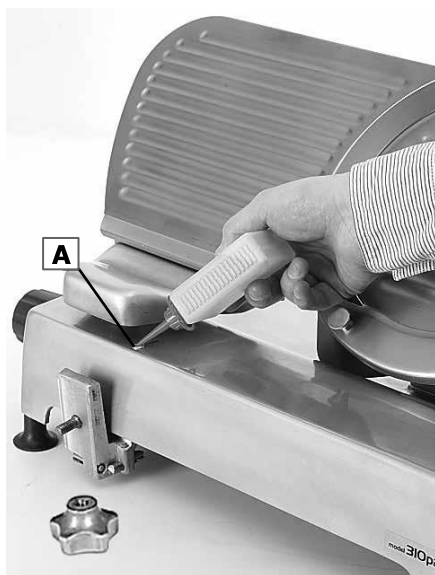


Fig. 12. Lubricating the slicer

6.2 Lubricating the Slicer

The 310p2 Slicer requires periodic lubrication at the points, shown in Fig. 10 and 11 and as shown in Fig. 12. Before starting lubrication, the slicer should be cleaned in accordance with

Section 6.1.

Daily activities :

- [A] Lubrication of the main chain
- [B] Lubrication of the screed guide

Lubricate once a day or when you feel little resistance. We use gear oil. **It is forbidden to use cooking oil to lubricate the slicer.**

Monthly activities :

- [C] Lubricate once a month with gear oil - a few drops.

Protect this area from water ingress. Items [A] and [B] should be cleaned of excess dirt with a cloth .

Quarterly activities :

- [D] Lubricate once a quarter with solid grease.

Sharpening machine - rotating parts, i.e. spindles and bushings, lubricate with gear oil.

6.3 Sharpening Machine Maintenance

- a) In the sharpening machine, all moving parts, such as the spindles of the grinding discs and the guide holes of the grinding discs, should be oiled quarterly with the oil supplied with the slicer.
- b) Sharpening wheels (they can be unscrewed from the sharpening machine) should be washed with a alcohol, removing grease and dirt. After washing, all parts should be dried.

Fig. 13 (pages 10-11) shows a diagram of the interaction of the elements of the 310p2 slicer. The reference numbers for each part follow the ordinal numbers of the spare parts catalog

7. SPARE PARTS CATALOGUE

Lp.	Part No.	Item name
1	2565	5uF Operating Capacitor
2	2695	RUC 3z relay
3	060	Indicator light
4	CZ-FT22	Control button
5	CZ-N97	Micro switch
6	2560	Engine set.
7	2511	Main body
8	2510	Bottom cover
9	2518	Cam arm
10	2513	Guide bar
11	2514	Cam
12	2519	Cam shaft
13	4030	Regulator knob set.
14	2523	Slider
15	2522	Feed eccentricity
16	4080	Hull posuwu GS kpl.
17	2527	Sliding bushing
18	2524	Feed guide
		Feed spring

Lp.	Part No.	Item name
20	2521A	Bumper spring
21	2504	Guide Cover
22	4033	Table knob
23	2581	Table support
24	2582	Hitch pin
25	4025	Table handle
26	2589B	Plastic cover for table
27	2585	Table plate set.
28	2578	Table guide
29	402	Compression Spring
30	451	Pressure plate holder
31	406	Spacer
32	2590	Pressure plate set.
33	2535	Thrust plate set.
34	2550	Knife cover set.
35	4005	Plate support set.
36	2531	Reinforcement plate
37	2505	Slice guide set.
38	2541	Gear Body
39	2564	Motor worm
40	293	Worm wheel
41	2545	Knife bearing
42	2555	Knife blade guard
43	2544B	Knife
44	2666	Sharpening Grinding Wheel Sharpener
45	2667	Grinding wheel sharpening machine
46	2640	Sharpener set.
47	2645	Sharpener guard set.
48	2670	Sharpener mandrel
49	2570	Engine cover
50	2503	Suction cup
51	230C	

Remark:

No. stands for the element number, according to the general arrangement drawing of the slicer, in the operating instructions (Fig. 13, pages 10-11).

When ordering spare parts and components for the 310p2 slicer, please provide the following details:

- | | |
|-----------------------------------|--|
| 1 Serial number of the slicer | 2 Serial number of the part or component |
| 3 Name of the part or subassembly | 4 Desired Quantity |

8. CORRECTION OF TECHNICAL DEFECTS

WADA	PRZYCZYNA	SPOSÓB USUNIĘCIA
Silnik nie pracuje	Brak napięcia w sieci	Sprawdzić obwód zasilania
	Uszkodzenie instalacji elektrycznej	Sprawdzić i naprawić
	Źle założona pokrywa noża	Dokręcić śrubę ściągającą
	Uszkodzony kondensator	Wymienić kondensator
	Uszkodzony stycznik	Wymienić stycznik RUC
Hałas po włączeniu krajalnicy	Uszkodzony silnik	Naprawić lub wymienić
	Uszkodzone koło ślimakowe przekładni	Wymienić koło ślimakowe
	Zużyte łożyskowanie noża	Wymienić podzespół
Nieprawidłowe cięcie żywności	Zużyte łożyska silnika	Wymienić łożyska
	Tępy nóż	Naostriżyć nóż
	Brudna maszyna	Oczyszczyć
	Trudny przesuw stołu	Naoliwić prowadniki stołu
	Wyciek smaru z łożyskowania noża	Przerwać pracę, wymienić podzespół łożyskowania
Niewłaściwe cięcie resztek		Sprawdzić współdziałanie płyty dociskowej na stole podawczym, naoliwić prowadnik tej płyty

Table 3

Remark:

To oil the chain, use a generally available gear oil with low viscosity.

Cheese Slicer 310p2T

To enable better slicing of different types of cheese, the manufacturer recommends buying a Teflon version of the machine. Such a slicer has the symbol 310p2T.

The 310p2T should be used in the same way as the 310p2.



Bydgoszcz Catering Machine Plant "Ma-Ga" Sp. z o.o.
Kujawska 136, 85-950 BYDGOSZCZ, skr. post. 142

tel. +48 52 3704-500, fax +48 52 3712-657
www.maga.com.pl | handlowy@maga.com.pl