# OPERATING INSTRUCTIONS ADE



**Gravity Slicer** 



## Model GRAVIS 250

Gravis-210504-Rev004-UM-en



### **CONTENTS**

1.	FOREWORD	2
1.1	Introduction	2
1.2	Use	2
1.3	Residual risks	3
2.	START-UP	3
2.1	Installation	3
2.2	Wiring	
2.3	Mechanical safety devices	4
2.4	Electrical safety devices	
2.5	Acceptance testing	
2.6	Safety precautions	
2.7	Operation	5
3.	USING THE MACHINE	5
3.1	Machine Overview	5
3.2	Operating functions	6
3.3	Switching on	6
3.4	Feeding the product	6
3.5	Adjusting the slice thickness	6
4.	CLEANING AND CARE	6
4.1	Cleaning	6
4.2	SHARPENING OPERATIONS	7
4.3	Lubricating	8
4.4	Disposal	8
5.	TRAINING	9
6.	WARRANTY	9
7.	TECHNICAL DATA	9
8.	CE MARKING AND DECLARATION OF CONFORMITY	10
9.	CIRCUIT DIAGRAM	11
10.	EXPLODED VIEW	11
11.	SPARE PARTS LISTS	13

#### 1. FOREWORD



This symbol means: "Observe operating instructions." Read these operating instructions carefully and observe the information contained therein. Keep these operating instructions handy for future reference.

This manual has been written to comply with the Machinery Directive as amended.

With it, the manufacturer intends to furnish the customer with clear and concise instructions for the use and maintenance of the machine, as well as information regarding the safety devices with which it is fitted to assure maximum efficiency throughout its service life.

The slicers may be updated; this eventuality shall not prejudice the instructions and explanations contained in the manual.

Before starting up the slicer, you must read this manual carefully.

Should this manual be damaged or lost, apply for a copy from the manufacturer immediately.

Many accidents and injuries that occur when using the machine result from insufficient familiarity with its functions and safety devices. Before starting work with the machine, please read the instructions herein carefully and follow them to the letter.

#### 1.1 Introduction

The slicers have been designed to comply with applicable safety standards. Consequently, all our slicers are fitted with a plate featuring the "CE" mark attesting to the product's conformity with said provisions.

The housing, product carriage, feed plate, and sickle guard are made of anodized aluminum. The housing design enables easy cleaning. The blade is set in motion by an electric motor with a V-belt drive, which has a noise level of <70 dB measured at a distance of 1 meter at a height of 1.60 meters. The total vibration of the parts coming into contact with the user's hands and arms is <2.5 m/s².

#### 1.2 <u>Use</u>

These gravity slicers are intended for slicing cooked and raw sausages, hot or cold meat, bread, and various types of cheese. The machine is not suitable for slicing some types of hard cheese. The slice thickness is adjustable from 0 to 13 mm. When slicing cheese, we recommend using a blade with Teflon coating at cheese temperatures between 7 and 10 °C.



Never use the slicer to slice frozen products, meats, or sausage products with bones, fruits, vegetables, or non-food products.



Any attempt to slice such products or similar foods may cause severe damage to the machine and render the warranty null and void.

The machine is suitable for about 60 catering staff members. The above figure is merely a recommendation based on experience and may vary depending on the application. The maximum duty cycle is 40% (24 minutes per hour). The electric motor must then be allowed sufficient time to cool down. Operating the machine continuously for shorter periods also shortens the cooling intervals. The machine is equipped with thermal overload protection. When the machine's electric motor gets overheated, it switches off automatically. If this occurs, switch the machine off immediately. Allow sufficient time for the motor to cool down before switching the machine back on. Thermal overload protection merely serves as another safety measure and should never be thought of as a time limit for the duty cycle in the daily operation.

The machine may only be used in its original condition and with original parts. It is strictly forbidden to dismantle the safety devices. If you notice any signs of damage to the safety devices or if any safety devices are not in place, shut down the machine immediately and contact ADE for repair or replacement.

#### 1.3 Residual risks

Even though extensive safety precautions have been taken on the machine, there are still residual risks for the operator in his daily work with the machine. They occur, in particular, when the operator attempts to push the product against the blade with their hand. Always use the leftover holder provided to feed the food to be sliced. During the cutting process, the operator must always keep their hands clear of the carriage.

#### 2. START-UP

The slicer is supplied fully assembled and ready for use. Remove the packaging material, take the machine out of the box, and check it for any possible damage that may have occurred during transportation.

Any damages to the slicer must be reported to the transport company in writing within three days of the date of the accompanying documents, specifying in detail the damages found.



Packaging materials are recyclable and must never be disposed of with household waste. Check with the local authorities for the appropriate ways to dispose of waste properly.

The machine must be disposed of under local regulations. Never dispose of the packaging material out in the open!

#### 2.1 Installation

Place the slicer on a flat, smooth, and vibration-free surface that is stable and sturdy enough to ensure adequate safety, considering the weight of the machine. It is recommended that the table height be about 70 cm and may vary depending on the operator's height. Any unevenness of the surface on which the machine is rested can be compensated using the adjustable feet. Ensure a free space of at least 200 mm around the machine to allow sufficient motor cooling.



Before plugging the machine into the power supply, check that the machine's power rating specified on its nameplate corresponds to the supply voltage and frequency of your local power grid.

In the event of a mismatch, never connect the machine to the power supply, as this may cause damage to the machine and lead to fire!

The machine controls (on/off switch and slice assembly) should face the operator, with the blade and motor facing away from the operator.

A minimum space of 4 sq.m should be provided to ensure convenient and smooth operation, cleaning, and maintenance of the machine.

The slicer works properly in places with a relative humidity of less than 80% and near heat sources at temperatures up to 30 °C.

#### 2.2 Wiring

The slicer has a standard power plug.

Before plugging the burger former into the outlet, ensure the power grid features an electrical overload cutout.



Unless otherwise specified, the slicer must always be connected to a 400 V power supply!



Always ensure that the machine's power rating specified on its nameplate matches the specifications of your local power grid!

#### 2.3 Mechanical safety devices

- The blade is completely protected by a rigidly fixed guard, excluding the food slicing area.
- The product carriage can only be removed if the slice assembly covers the blade, and the graduated knob is set to "0" (zero) or beyond that up to the stop.
- The slice assembly can only be opened (using the graduated knob) if the product carriage is secured in its normal operating position.
- The blade can be removed with the aid of safety gloves or a blade removal device (optional). In any case, the user must exercise particular caution and care.



All safety devices are permanently fitted to the machine and must not be removed. Dismantling or tampering with them or any unauthorized modifications would make the machine unsafe. This will result in the manufacturer no longer being responsible for accidents or injuries.



Use the appliance as it was designed to be used. Improper or unintended use of the machine may pose a risk to the health and safety of persons and result in property damage.



The manufacturer shall not be held liable for any damage caused by improper use of the machine, failure to comply with the safety information in this manual and tampering with or modifications to the machine without official approval from the manufacturer.

#### 2.4 Electrical safety devices

- The slicer stops automatically
- when the blade guard is not fitted correctly
- in the event of a power failure
- when the motor gets overheated.
- After the fault has been eliminated, restart the machine.

#### 2.5 Acceptance testing

- Make sure all the slicer components are correctly assembled.
- Check that the knurled screw securing the blade guard is locked in place.
- Press the green start button and red stop button and check that the machine can be switched on and off.
- Check the sliding of the product carriage and food holder.
- Check the operation of the blade sharpening device.
- Check the opening of the slice assembly.
- Make sure the product carriage can only be dismantled with the graduated knob set to "0", and that said knob remains locked in place after dismantling.



If you find any malfunctions, immediately shut down the machine, tag it clearly as "DEFECTIVE," and contact customer service!

#### 2.6 Safety precautions

- The slicer must only be operated by trained personnel.
- Children, disabled persons, and untrained personnel must not be allowed to operate the machine.
- Never operate the machine while under the influence of alcohol or drugs.
- Never push the product against the blade by hand while the machine is running.

- Never leave the machine unattended while it is running.
- Before carrying out any maintenance work (except for blade sharpening), unplug the machine from the power outlet.
- Never clean the machine under running water or in a water basin.
- Should you notice any unusual noises or unpleasant odors coming from the machine, shut it down immediately, disconnect it from the power supply, and contact customer service.
- The power cord may only be replaced by authorized and trained personnel.

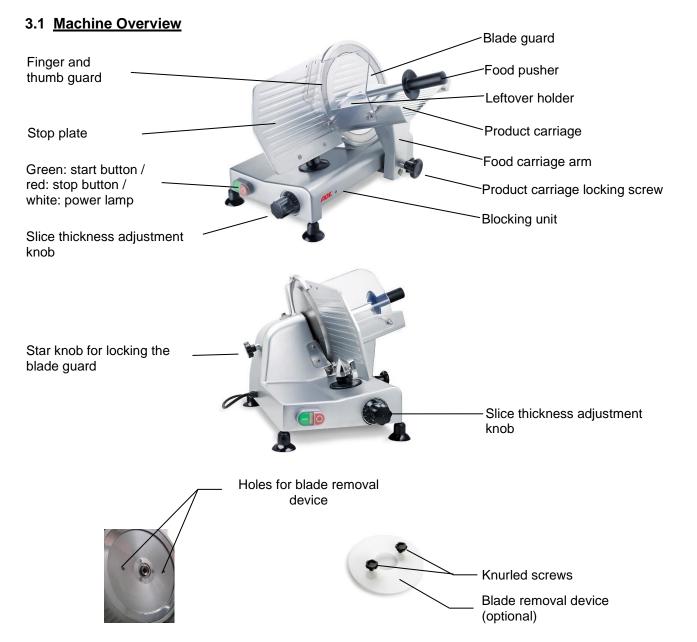
#### 2.7 Operation

- Use the slicer exclusively as it was designed to be used.
- The product carriage is tilted to enable the product to slide towards the blade under its weight.



Never push the product towards the blade by hand! Keep hands well away from the blade and only use the product carriage, carriage arm, or leftover holder to move the product carriage safely back and forth.

#### 3. USING THE MACHINE



#### 3.2 Operating functions

Two buttons are used to operate the slicer: the green button switches the machine on, and the red button switches it off.

Between the two power buttons is a white power lamp that indicates when the blade is rotating.

Whenever machine operation is interrupted due to a voltage drop, the green start button must be pressed to restart the machine.

#### 3.3 Switching on

Press the green start button to switch on the machine. The white power lamp between the start and stop buttons indicates that the machine is running.

#### 3.4 Feeding the product

You must only feed the product when the machine is switched off. The leftover holder is rigidly fixed to the machine for safety reasons. If the food is too long to fit within the movement range of the leftover holder, the latter should be placed loosely on top of the food. If the food fits easily within the movement range of the leftover holder, the latter should be placed behind the food.

#### 3.5 Adjusting the slice thickness

The slice thickness is infinitely adjustable from 0 to 13 mm. To adjust the slice thickness, use the knob located above the control unit with a 1 mm increment scale. This will adjust the position of the stop plate. When the cutting process is complete, you must always set the knob back to the "0" position for safety reasons.

#### 4. CLEANING AND CARE

For the sake of hygiene, the slicer must be kept clean at all times. The machine must be disassembled and cleaned at the end of each day on which it was used and whenever the type of food being sliced is changed (for example, if you want to slice cooked meats after fresh meats).

Make sure to clean all parts and cavities that come into contact with products being cut and in which product residues can build up.

The slicer must be cleaned by fully trained personnel only. Special care must be taken when cleaning the cutting edge of the blade.

At least two people are required to move the machine, using the four feet as holding points.

#### 4.1 Cleaning

Before cleaning the machine, switch it off and unplug it from the power supply. The product carriage can be removed. Never use force when doing so to prevent damage to the machine, and always heed the following instructions:

- Turn the graduated knob for slice thickness adjustment clockwise as far as it will go.
- Completely undo the product carriage locking screw at the bottom end of the carriage arm by turning it counterclockwise.
- Pull the product carriage all the way to the operator's side with a slight jerk.
- The graduated knob for slice thickness adjustment is now locked and must not be opened by force.
- You can now remove the product carriage with the carriage arm for cleaning.
- After cleaning the product carriage and housing, proceed in reverse order: Push the carriage arm over the carriage arm holder and re-fasten it with the locking screw. This releases the slice thickness lock, and you can move the product carriage freely again.



# Never clean the slicer or its parts (e.g., product carriage) in the dishwasher!

Any operations involving the disassembly of the blade for cleaning the blade or the machine housing must be carried out by trained personnel only. In this case, special precautions must be taken to prevent the risk of injury. We strongly recommend using safety gloves or a blade removal device when performing any cleaning work. This accessory enables the blade to be removed safely, with the blade and its dangerous cutting edge being completely covered by a plastic disk that prevents hands from coming into contact with the blade during handling. To safely remove the blade from the machine, attach the optional blade removal device to the blade so that its holes are perfectly aligned with the holes in the blade, and secure the blade removal device using the two knurled screws. Using a screwdriver, undo the screws securing the blade, and remove the blade by grasping the two knurled screws.

Use a damp cloth (a soft brush is helpful in some cases) and warm water (approx. 60 °C) for cleaning. Only use cleaning and disinfection products or additives compatible with foodstuffs and approved for this purpose. Always follow the instructions for these detergents. After treatment with chemicals, rinse with clean, fresh water and let dry thoroughly.



You must never use a water jet or high-pressure cleaner to clean the machine or its parts!



Under no circumstances use abrasive detergents or sodium-hypochlorite-based solutions as they would irreparably damage the machine's surfaces.



Cleaning the slicer with cleaning agents that can adversely affect the health of operators or customers is strictly prohibited. Only use products with a pH value of 7-8 for cleaning.



Never attempt to clean the blade while the machine is running (i.e., whilst the blade is moving).

After cleaning, reassemble the machine in reverse order.

#### **4.2 SHARPENING OPERATIONS**

If the slicer is to work correctly, the blade must always be kept sharp. It is better to sharpen the blade a little at regular intervals than a lot less frequently.

Before performing this operation, make sure the graduated slice thickness adjustment knob is set to "0".



Only blades with a smooth cutting edge can be sharpened. Sharpening operations involving serrated blades for bread slicers must be performed by skilled personnel.



Before sharpening, ensure the blade is clean and grease-free, as any food residues sticking to the blade can damage the sharpening device and its grinding wheels.

After sharpening, remove any traces of dirt from the grinding wheels. In addition, every single grain of sand must be removed from the blade and machine using a cloth dampened with alcohol.

#### **Sharpening the Blade:**

- 1) Clean the blade thoroughly before sharpening and ensure there are no traces of grease left on it.
- 2) Switch the machine off and unplug it from the power supply.
- 3) Turn slice thickness adjustment knob A to the left as far as it will go (fully open position).
- 4) Attach the separate sharpening device to the stop plate through the two holes. To do this, fully open the stop plate, pull the product carriage on the carriage arm to yourself until hard stop, fold up the leftover holder, or remove it from the processing guide and dismantle it. Undo the knurled screw on the top of the sharpening device and attach the sharpening device to the stop plate. Do this by inserting the pin on the sharpening device into the hole in the stop plate closest to the blade and fastening the knurled screw to the sharpening device through the second hole in the stop plate. The metal part on the sharpening device is in front of the blade and points downwards, with its bend facing the operator. It provides additional protection against injury.



Only use compatible sharpening devices and those supplied with the machine.

- 5) Switch the slicer on. By turning the slice thickness adjustment knob slightly to the right, carefully move the grinding wheel towards the rotating blade using little force. When touching the blade, the grinding wheel must also rotate. Normally, it takes just a few seconds to sharpen the blade.
- 6) Deburr the blade after sharpening. To do this, press and hold the spring-loaded button on the sharpening device for about 2 to 3 seconds to remove burrs from the blade.
- 7) After the blade has been sharpened, shut down the slicer, dismantle the sharpening device in reverse order, and set the slice thickness adjustment knob back to "0".
- 8) Wipe the blade and leftover holder shaft thoroughly with a cloth to remove any abrasive chips left after sharpening.



The sharpening operation must be performed by authorized and skilled personnel only.



Do not sharpen the blade anymore if it is worn down by more than 6 mm in diameter.

#### 4.3 Lubricating

In order to keep the product carriage and leftover holder sliding movements fluid, the slicer must be lubricated regularly at different points, including the carriage guide, carriage arm, and blade hub. Use petroleum jelly only (e.g., MARCOL 82 ESSO or WHITE OIL 105 BERGOIL). Apply the lubricant of choice sparingly but frequently.

#### 4.4 Disposal



Waste electrical and electronic equipment must not be disposed of in household waste. Dispose of defective or waste equipment according to local statutory requirements!

#### **TRAINING** 5.

The adult machine operator performing the slicer installation must be adequately trained in the use, cleaning, servicing, and blade sharpening and be aware of potential hazards resulting from improper use of the machine.

Training must be provided by qualified personnel authorized to install the machine and familiar with the European Community machine standards and applicable occupational health and safety regulations of the respective public agencies.

#### **WARRANTY** 6.

If the product malfunctions within 2 years from the date of purchase (receipt required) due to defects in material and workmanship, ADE will repair or replace the product.

The warranty does not cover moving parts such as blades, sharpening devices, product carriages, etc. The warranty does not extend to external normal wear and tear or damage caused by accident or misuse.

This warranty does not cover the products tampered with by unauthorized personnel.

The warranty agreement does not affect the customer's statutory rights.

Any complaints shall be addressed to the dealer from whom you purchased the machine.

#### **TECHNICAL DATA** 7.

Model	<b>GRAVIS 250</b>
Blade diameter	250 mm
Slice thickness	0-13 mm
Cutting area	160 x 130 mm
Dimensions	380 x 480 x 360 mm
Power	0.13 kW
Net weight	15 kg
Power supply	230 V
Package size	470 x 510 x 380 mm
Packaging weight	18 kg

#### Optional:

Blade removal device	H4020-051
Safety gloves, M size	T6113
Safety gloves, XL size	T6114
Circular blade, smooth with Teflon coating (e.g., for cheese)	H4090-0141
Circular blade, serrated lengthwise (e.g., for bread)	H4090-021
Circular blade, serrated lengthwise with Teflon coating	H4090-0211

#### 8. CE MARKING AND DECLARATION OF CONFORMITY

# $\epsilon$

### Manufacturer's declaration of conformity

This product was manufactured according to the harmonized European standards. It complies with the provisions of the EC directives listed below:

- Machinery Directive 2006/42/EC
- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- RoHS Directive 2011/65/EU
- EU Food Contact Materials Framework Regulations 1935/2004 and 10/2011, as amended.

This declaration becomes invalid if the machine is modified in any way that has not been approved by us.

Hamburg, May 2021

#### **ADE Germany GmbH**

Neuer Höltigbaum 15 22143 Hamburg

Manufacturer: ADE Germany GmbH

Neuer Höltigbaum 15

22143 Hamburg

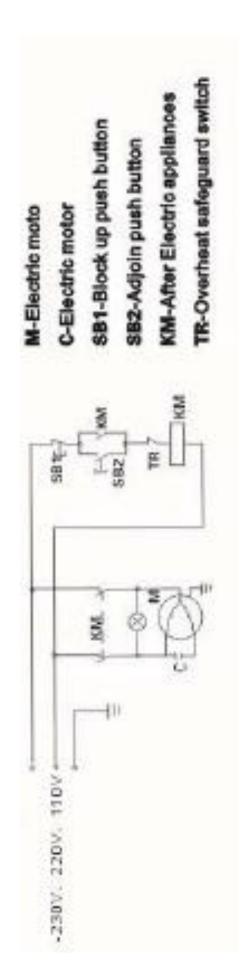
**+49 40 432 776 - 0** 

**49 40 432 776 - 10** 

■ info@ade-germany.de

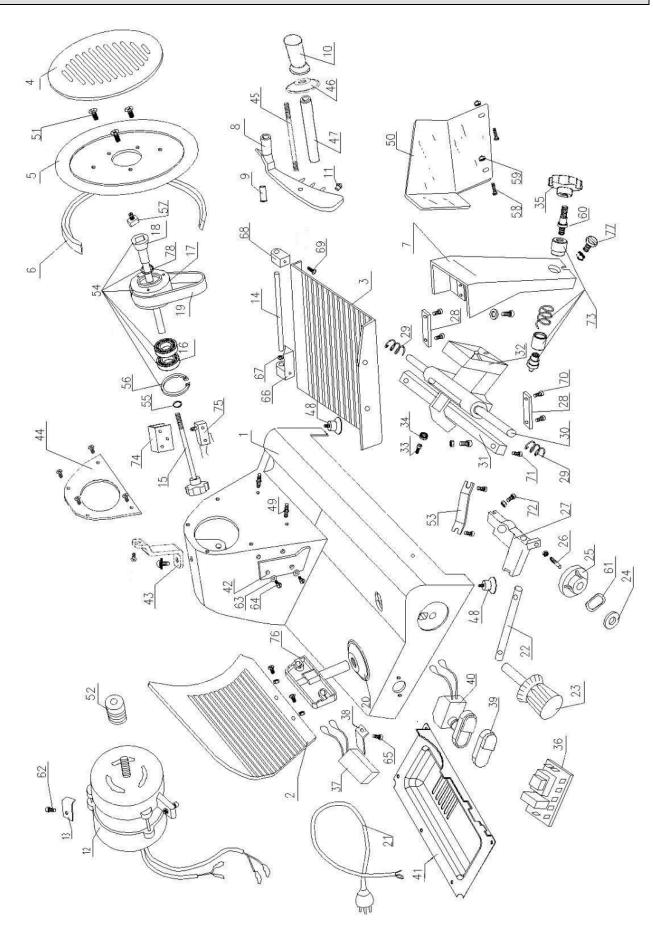
www.ade-germany.de

#### 9. CIRCUIT DIAGRAM



11

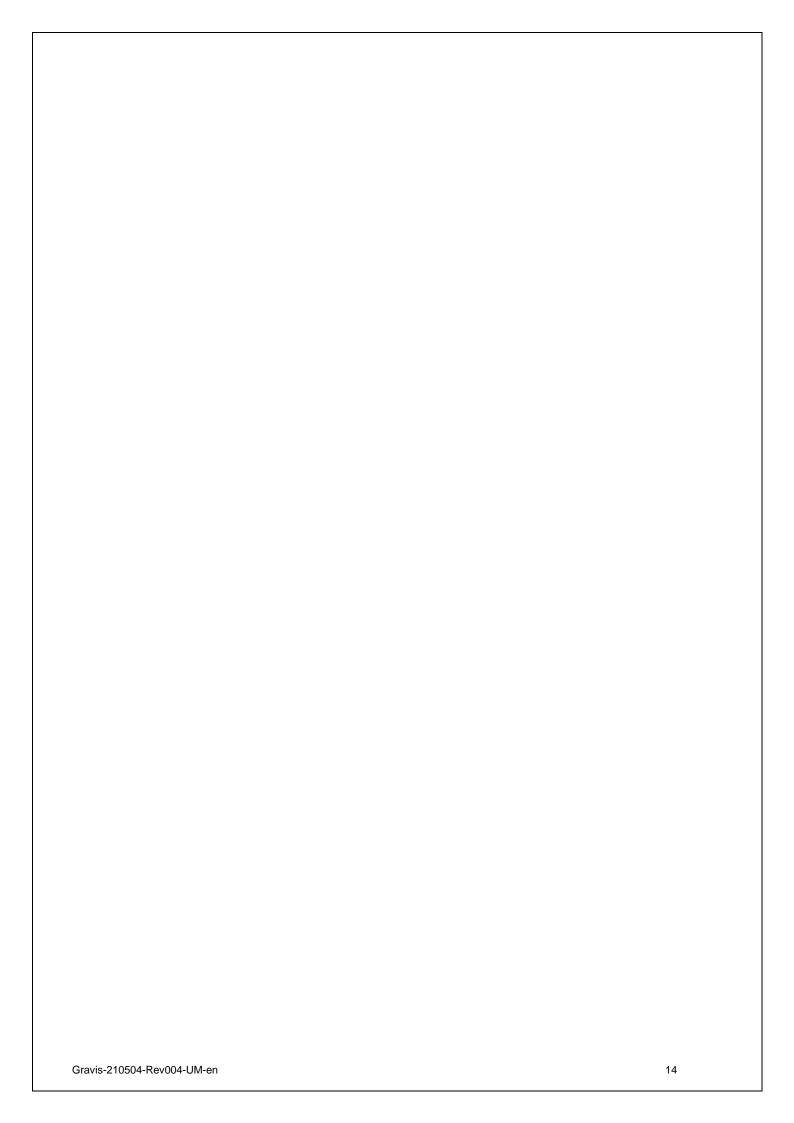
### 10. EXPLODED VIEW



### 11. SPARE PARTS LISTS

### **GRAVIS 250**

NO.	DESCRIPTION		Gravis 250
NO.	DESCRIPTION	QUANTITY	ARTICLE NUMBER
2 Stop plate		1	
4	Blade guard	1	
5	Circular blade, smooth	1	H4090-014
5	Circular blade, smooth, with Teflon coating	1	H4090-0141
5	Circular blade, serrated lengthwise	1	H4090-021
5	Circular blade, serrated lengthwise, with Teflon coating	1	H4090-0211
6	Sickle guard	1	114090-0211
10	Leftover holder handle	1	
12	Electric motor 230 V/50 Hz	1	
15	Retaining bar with grip for blade guard	1	
19	Drive belt	1	
23	Slice thickness	1	
35	Locking knob for blocking unit	1	
39	Switch cap	1	
40	Switch assembly	1	
41	Base plate	1	
42	Grease scraper	1	
48	Suction cups	4	
50	Food carriage rear panel	1	
8-11 + 45-47	Leftover holder assembly	1	
35+60+73	Blocking unit assembly	1	
54	Blade hub assembly	1	
	Product carriage ASSEMBLY	1	
	Sharpening device assembly	1	H4090-016
	Blade removal device	1	H4020-051



F	Distributor:		