

Manual melon chunk cutter MMC 150



Translation of the original instruction manual

Version: October 2023, English

Please read carefully the instruction manual before beginning any work.
We will not assume any responsibility for damages and troubles to the
machine resulting from disregarding the instructions.

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Identification

This instruction manual has been designed to help you to use the manual device as intended. It contains important information about how to use the manual device safely, properly and economically.

Compliance with the information it contains will help to avoid risks, to reduce repair costs and downtimes as well as to increase the manual device's reliability and service life.

This instruction manual is valid only for the following manual device:

Name	Manual melon chunk cutter MMC 150 (referred to hereinafter as "manual device")
Item numbers	987811 cutting thickness 15 mm
	988213 cutting thickness 20 mm
	773627 cutting thickness 25 mm
Manufacturer	KRONEN GmbH Römerstraße 2a D-77694 Kehl am Rhein Phone: +49 (0) 7854 9646-0 Fax: +49 (0) 7854 9646-500

List of valid pages

This instruction manual contains a total of 43 pages, including the cover page.

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This instruction manual is not a controlled document. Please ask the manufacturer for the most up-to-date version.

This instruction manual is protected by copyright. It must not be reproduced, duplicated or translated in any form, either in whole or in part, and the addition and removal of pages is not permitted.

Introductory notes

The instruction manual is part of the scope of supply and must be kept with the manual device at all times.

We reserve the right to make technical changes for the purpose of improving the manual device or increasing levels of safety.

In addition to compliance with the instruction manual and the accident prevention regulations in force at the place of use, observation of generally acknowledged practices for safe and proper working is also mandatory.

About this instruction manual

This instruction manual provides you with information and notes for

- your safety when working with and on the manual device,
- set-up,
- operation and
- maintenance.

If your duties involve working on or with the manual device, you must read the instruction manual carefully before starting work.

You need to pay particular attention to the safety instructions in each chapter.

The following table provides an overview of the content of the instruction manual:

Chapter		Target group	Contents
1.	Safety	All	Essential safety instructions
2.	Set-up and first use	Service	Set-up and first use
3.	Technical description	All	Technical data, product description
4.	Operation	Operators	Operating instructions
5.	Clean	Service	Clean
6.	Service and maintenance	Service	Changing the blade
7.	Troubleshooting	Operators, service	Causes and solutions for faults
8.	Spare parts	Service	Spare parts and wear parts
9.	Disposal	Operators, service	Disposal
10.	Appendix	All	Certificates

Table 1: Content of the instruction manual

Typography

The following typography is used in your instruction manual:

1. One or first work step 2. Additional work steps	Work steps must be carried out in a specific order.
• Text	Listing
☞ Chapter 1. Safety	Reference to a list in the instruction manual.
Rotary switch ON/OFF CONTROL SYSTEM ON button	Operator control or display elements

Glossary

Personal Protective Equipment (Abbr.: PPE)

The following are considered PPE:

- Any item of equipment intended to be used or worn by the employee to provide protection against one or more risks that could compromise their health or safety at work,
- as well as any ancillary equipment used for the same purpose.

The PPE provided must have the CE mark. The PPE to be used as a minimum is defined in more detail in the text.

Warranty and liability

Our "Standard terms and conditions of sale and delivery" generally apply. The document will be made available to the customer when or before the contract is concluded.

We reject any warranty and liability claims for personal injury and material damage that can be traced back to one or more of the following causes:

- failing to comply with the instruction manual;
- unintended use;
- improper set-up, operation and servicing;
- failing to comply with the safety instructions and notes in the instruction manual;
- failing to observe the warning notices affixed to the manual device;
- operating the manual device with incorrectly mounted or inoperable safety equipment;
- welding work on supporting parts, unauthorised conversions and modifications to the manual device. This applies also to the installation and setting of safety equipment and valves;
- spare parts and additional equipment that cause material damage (including the consequential damage resulting therefrom) and for which the manufacturer has not issued a written release.

Standards and directives

The manual device is used exclusively for the precise cutting of previously peeled, halved and cored melons. Products not cited must be approved by the manufacturer of the manual device on a case-by-case basis.

The manual device is built to state-of-the art technology and the recognised safety rules.

1. Safety

1.1. Safety instructions and pictograms used

Each chapter starts with general safety instructions relating to the activities it describes. Special safety instructions about individual operations precede the description of the operation to which they apply.

There are various types of safety instructions. The table provides an overview of the relationship between pictograms and signal words and the actual risk and possible consequences.

Symbol	Signal word	Injury/damage to...	Definition	Consequence
	Danger	Persons	Imminent danger	Death or extremely serious injuries
	Warning		Potentially dangerous situation	Potentially death or extremely serious injuries
	Caution		Less dangerous situation	Slight or minor injuries
	Attention	Manual device	Potential damage to the manual device	Damage to the manual device and the environment
	Note	Manual device	User tips and other useful information	No dangerous consequences for individuals or damage to the manual device

If specific dangers arise, we replace the pictogram

	with warning of				
General Danger		Cuts	Slipping	Wear hand protection	Health hazard

1.1.1. Component parts of safety instructions

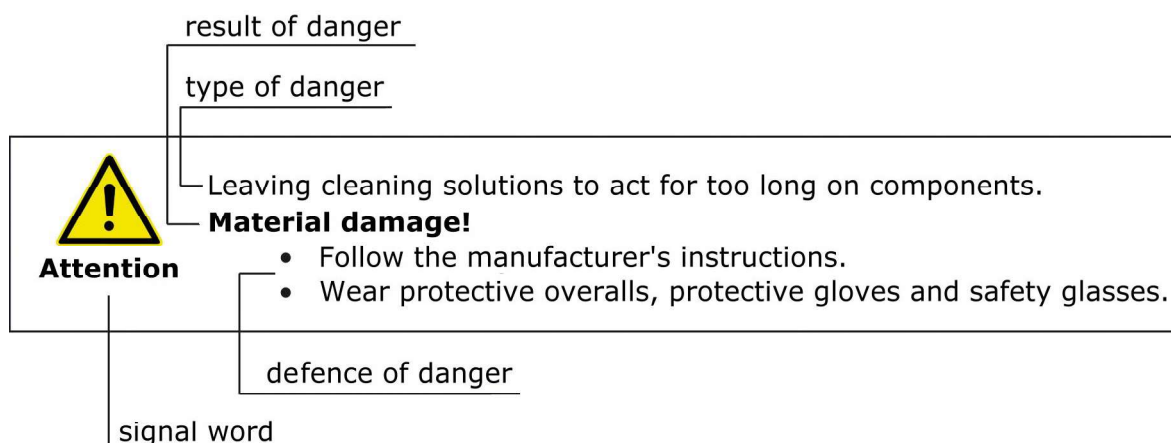


Figure 1: Component parts of safety instructions

1.2. Organisational measures

- The instruction manual must be kept legible and accessible at the place where the manual device is used at all times (in the tool compartment or a box provided for this purpose).
- If the instruction manual is gets very dirty or goes astray, it must be replaced with an identical version (☞ see chapter 10. Appendix).

All persons who have to carry out work on and with the manual device must:

- be able to consult the instruction manual at any time,
- use the manual device only as intended and
- operate the manual device only when it is in perfect working order and check the safety equipment in particular for proper function on a regular basis.
- Only adequately qualified and authorised personnel who are familiar with and understand the instruction manual, and in particular the safety instructions contained therein, are allowed to operate, maintain and repair the manual device. Such personnel must be instructed on all relevant occupational safety and environmental protection matters on a regular basis. This applies in particular to people who work with the manual device only occasionally, e.g. for set-up and maintenance purposes;
- provide the operating, maintenance and service personnel with the requisite PPE;
- make regular checks to ensure that the personnel are working in a safety-conscious manner with due consideration for the hazards involved and in compliance with the instruction manual.
- Personnel must wear safety-compliant work clothing for all activities on and with the manual device. Depending on the type of work, personnel may also need to use additional PPE, e.g. protective gloves.
- Safety-compliant work clothing must fit tightly to prevent it from getting caught on parts of the manual device. Personnel must not work with long hair uncovered, loose-fitting clothing or jewellery, including rings. There is a risk of injury, e.g. from getting caught on the manual device.
- In addition to the instruction manual, also observe the generally applicable legal and other binding regulations on preventing accidents and protecting the environment.
- Supplement the instruction manual with operating instructions within the meaning of the Occupational Health and Safety Act and the Ordinance on Industrial Safety and Health.

1.3. Qualification of personnel

- Operating personnel: trained, instructed (safety briefing) on specific manual devices.
- Maintenance personnel: trained, instructed (safety briefing) on specific machines, specialist knowledge
- Cleaning personnel: trained, instructed (safety briefing) on specific machines.

1.4. Personal measures

All persons who carry out work with or on the manual device must read the instruction manual in full and sign to confirm their understanding of such manual.

The manual device may be operated only by persons who have been trained, instructed and authorised to do so.

The authorities of the personnel must be clearly defined. The person in charge may refuse instructions from third parties that are contrary to safety.

Responsibilities of the personnel for operation, set-up and maintenance of the manual device must be clearly defined.

Personnel to be trained, instructed, briefed or undergoing general training may be entrusted with work with or on the manual device only under the constant supervision of an authorised person.

1.5. Product safety

The manual device was designed and manufactured in accordance with the applicable safety regulations and state-of-the-art technology.

Nonetheless, the manual device can present dangers to individuals and property if

- the manual device is not used as intended,
- the manual device is operated by untrained personnel,
- the manual device is improperly modified or converted,
- the safety instructions are not observed and/or
- the instruction manual is not observed.

The manual device is delivered tested and in a technically flawless condition and may be used only in a technically flawless condition.

In addition to the instruction manual, observe

- the warning signs on the manual device,
- the applicable laws and ordinances and
- the legal and other binding regulations on accident prevention.

1.6. Work area



Warning

Moving components

Risk of serious injury!

- Never reach into the range of movement.

The operating personnel's workplace is at the front of the manual device. No other persons are allowed to stand in the work area.

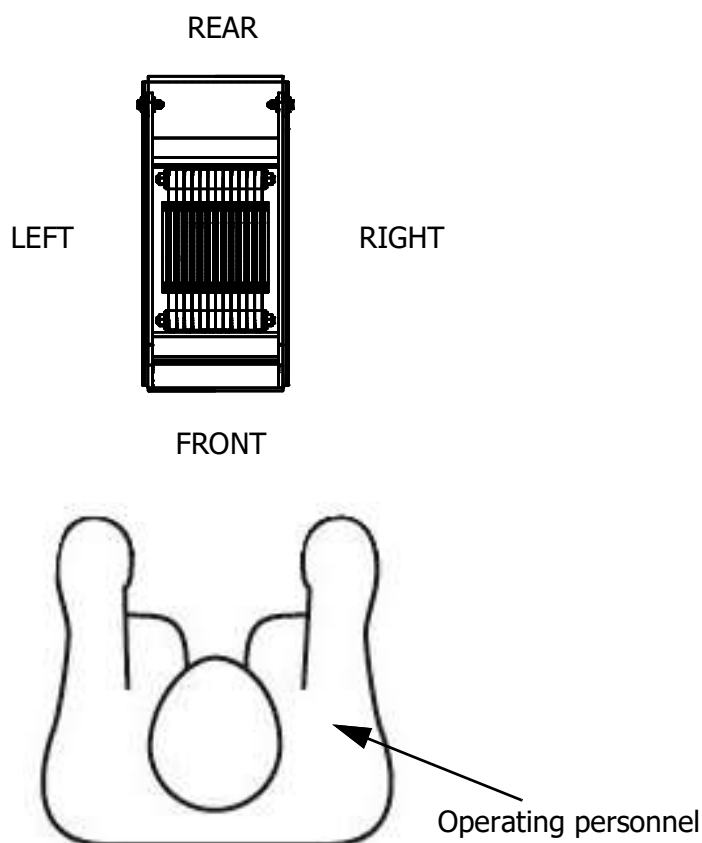


Figure 2: Work area

1.7. Safe operation

If it can be assumed that safe operation is no longer possible, the manual device must be shut down immediately.

To enable safe operation of the manual device:

- check the manual device for external visible damage at least once per shift and
- report damage and defects, as well as changes in operating behaviour, to your supervisor immediately.

Check all safety equipment:

- in case of interrupted operation, at the beginning of each shift and
- after each maintenance and cleaning routine.

1.8. Essential safety instructions for first use

The manual device must have been set-up in accordance with the instructions before it can be used for the first time.

At every first set-up of the manual device, make sure that

- the manual device is used only as intended.
- all service and maintenance work has been completed.

1.9. Essential safety instructions for operation

Operate the manual device only if

- you refrain from any activity that could adversely affect the stability of the manual device.
- you have familiarised yourself with the working environment at the place of use before starting work.
- you have familiarised yourself with all function sequences of the manual device.
- you are able to carry out the individual operating steps in accordance with the instruction manual and understand the implications of each operating step you carry out.
- you are familiar with the operating procedures for emergencies. Check the manual device for externally visible damage and defects at least once per shift. Report any noticeable changes (including operational behaviour) to your supervisor immediately.

Do not reach into the range of movement during operation.

If it can be assumed that safe operation is no longer possible, the manual device must be shut down immediately.

1.10. Essential safety instructions for cleaning, service and maintenance

Cleaning, service and maintenance work may be carried out only by those individuals who have been trained, instructed and authorised to do so.

Coordinate all cleaning, service and maintenance work with all persons involved (e.g. operating personnel).

Start cleaning, service and maintenance work only if

- you have read and understood this instruction manual.
- the manual device is placed on a level and stable surface.
- the work area is cordoned off and secured for all work (erect a sign) and no unauthorised persons are in this area.
- receiving containers suitable for all groundwater pollutants (e.g. lubricants) are available.
- connections and screwed fittings are cleaned of lubricant and care products.

You must observe the following during cleaning, service and maintenance work:

- check all parts removed during work for damage and wear.
- replace all self-locking bolts and nuts.

You must check the following points after completing cleaning, service and maintenance work:

- check that all bolted connections loosened beforehand are tight.
- all safety equipment and protective devices removed beforehand must be fully operable.
- all tools, materials and other equipment used must have been removed from the work area of the manual device.
- any liquids that have leaked out (e.g. cleaning solution, lubricant) must have been removed from the work area.
- all groundwater pollutants must be disposed of in an environmentally sound manner in accordance with local regulations.

Further information on cleaning can be found in chapter 5. Cleaning.

1.11. Mechanical hazards

 Warning	Moving components. Risk of serious injury! • Never reach into the range of movement.
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Potential hazard	Preventive measures
Malfunctions due to unauthorised structural conversions, repairs, tampering and modifications.	Do not tamper with or modify the manual device or carry out any unauthorised structural conversions.
Crushing, shearing, cutting and severing of body parts by unprotected moving parts.	Do not tamper with, bypass or deactivate safety equipment and protective devices.
	Never reach into the range of movement.
	Do not start up the manual device if safety equipment and protective devices are malfunctioning.
	Switch off the manual device immediately if safety equipment and protective devices are malfunctioning.
	Wear safety-compliant work clothing.
Crushing, cutting and severing of body parts when setting-up the manual device.	Wear suitable PPE (protective gloves).

1.12. Hazards during production

Potential hazard	Preventive measures
General contamination of the manual device.	Clean the manual device thoroughly before each production change (product residues).
	Clean the manual device thoroughly on a regular basis.
	Keep the immediate vicinity of the manual device clean at all times.
Contamination by product.	Remove all traces of detergent after cleaning (flush with water).
	Use test dip strips after cleaning the manual device.

1.13. Noise hazards

The sound pressure level at the manual device is below 70 db(A). The wearing of hearing protection is therefore not mandatory.

Depending on the local conditions, higher sound pressure levels can occur and may cause deafness, loss of balance or distraction. In this case, personnel must be provided with appropriate personal protective equipment.

1.14. Hazards due to unexpected malfunctions

The manual device is at risk of malfunctioning unexpectedly due to:

- external influences on the manual device.
- operating errors (human error, human behaviour).

1.15. Additional hazards

Potential hazard	Preventive measures
Falling on even ground, slipping, tripping.	Repair uneven floors and damaged flooring.
	Eliminate tripping hazards (e.g. objects).
	Keep traffic routes clear.
	Remove contamination from the floor in the work area (e.g. product).
Malfunctions due to unauthorised structural conversions, repairs, tampering and modifications.	Do not tamper with or modify the manual device or carry out any unauthorised structural conversions.
Operating materials (e.g. lubricants, detergents).	Wear suitable PPE (e.g. protective gloves, apron, goggles) during cleaning activities.
	Wear suitable PPE (e.g. protective gloves) during lubrication activities.
	Observe material safety data sheets (MSDS), safety markings and operating instructions.
	Employ suitable transporters and storage equipment.
	Observe conditions for decanting.
	Use less hazardous agents with an equivalent mode of action.

1.16. Emergencies



Note

Keep yourself updated about the facilities and rescue equipment available for first aid at the manual device's place of use.

1.16.1. What to do in an emergency

What happened	Actions to be taken
Material damage	• Keep calm. • Inform your supervisor immediately.
Personal injury	• Keep calm. • Recover the person from the danger zone • Secure the accident area. • Administer first aid. • Inform the safety officer or your supervisor immediately.

Table 2: What to do in an emergency

1.17. Protecting the environment

During all work on and with the manual device, observe the local regulations for waste prevention and proper waste recycling or disposal.

Especially during maintenance work, you must ensure that groundwater pollutants (e.g. lubricants, detergents) do not damage the soil or enter the sewage system.

You must collect, store, transport and dispose of these substances properly in a suitable container.

2. Set-up and first use



Caution

Installation material (packaging, tool)

Injury hazard!

- Remove packaging from the area of movement immediately.
- Remove tools from the area of movement immediately after use.
- Keep area of movement clean.

2.1. Set-up

The working space for operation, maintenance, cleaning and service must not be restricted.

Basic environmental and set-up conditions:

- Operation only indoors/inside closed rooms,
- not in a saline or sulphurous environment,
- no set-up in potentially explosive areas.

1. The set-up space must have a level, load-bearing, and non-slip surface.
2. Remove the packaging material and any transport locks (e.g. bolts).

2.2. First use



Caution

At the blades

Danger of cuts!

- Work may be carried out only by qualified personnel who have been authorised and instructed by the operator company.
- Do not touch the cutting edges of the blades!



Caution

First use

Injury hazard and material damage!

- The manual device may be put into operation only by qualified personnel who have been authorised and instructed by the operator company.

3. Technical description

3.1. Intended use

Depending on the cutting thickness variant, the hand tool is used exclusively for the precise cutting of previously peeled, halved and cored melons. Damaged or rotting fruits must not be processed. Products not cited must be approved by the manufacturer of the manual device on a case-by-case basis.

Operating personnel: A person who operates the manual device.

The manual device is loaded manually, the good part of the product is removed manually.

Min. length of raw product: 100 mm

Max. length of raw product: 150 mm

Max. diameter of raw product: 200 mm

Max. capacity: Melons 360 pcs/hour

Field of application: only industry; minimum age: Legal age for operation.

The permissible technical data is provided in chapter 3.5. Technical data.

The manual device may be used only in a technically flawless condition, as intended, in a safety conscious manner with due consideration for the hazards involved and in compliance with the instruction manual. Particularly faults that could compromise safety must be eliminated immediately.

Intended use also includes observing the instruction manual, complying with the inspection and maintenance regulations and following the operating instructions.

Any other use or use going beyond this is considered unintended use. The operator company, not the manufacturer or the supplier, is liable for any damage occurring as a result.

3.2. Unintended use

Any use other than the use intended by the manufacturer is misuse.

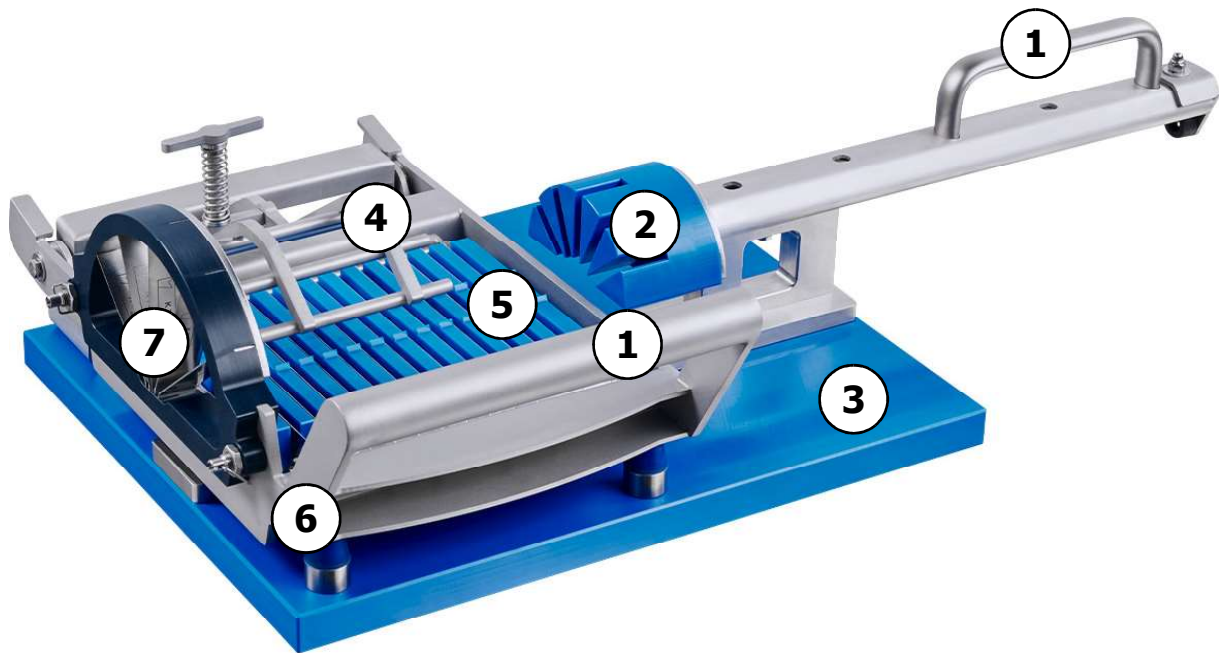
Unintended use would include the cutting of:

- fruits with a hard shell.
- frozen products with a similar consistency and hardness, such as ice.

The manual device may be operated only as a complete unit. Operating individual components for other purposes, e.g. using the blades in a different device, is prohibited.

If the manual device is used for any purpose other than that intended, its components can become damaged.

3.3. Product description



Details of the manual melon chunk cutter MMC 150

1. Handle
2. Pusher
3. Base plate
4. Down holder
5. Product holder
6. Knife grid with knife set
7. Dividing insert

The manual device consists of the base plate, to the rear end of which the knife grid is mounted in a rotatable manner. The front end of the knife grid is made like a handle. The knife set is located in the middle of the knife grid. The number of knives and spacers varies depending on the required cutting thickness.

The product holder is located centrally on the base plate. The product holder is shaped like a segmented trough in order to hold the product securely and also to provide enough space for the knives to cut.

The knife grid is opened to approx. 90° with one hand on the handle, while the other hand places the product centrally in the product holder.

The product is cut into even slices by pressing down the knife grid, while the slices are held in position by the down holder. In the next step, the slices are fed through a dividing insert with the help of a pusher.

The good part of the product is taken out and the waste is removed. The knife grid is then opened to start a new operation.

3.4. Work area



Warning

Moving components

Risk of serious injury!

- Never reach into the range of movement.

The operating personnel's workplace is at the front of the manual device. No other persons are allowed to stand in the work area.

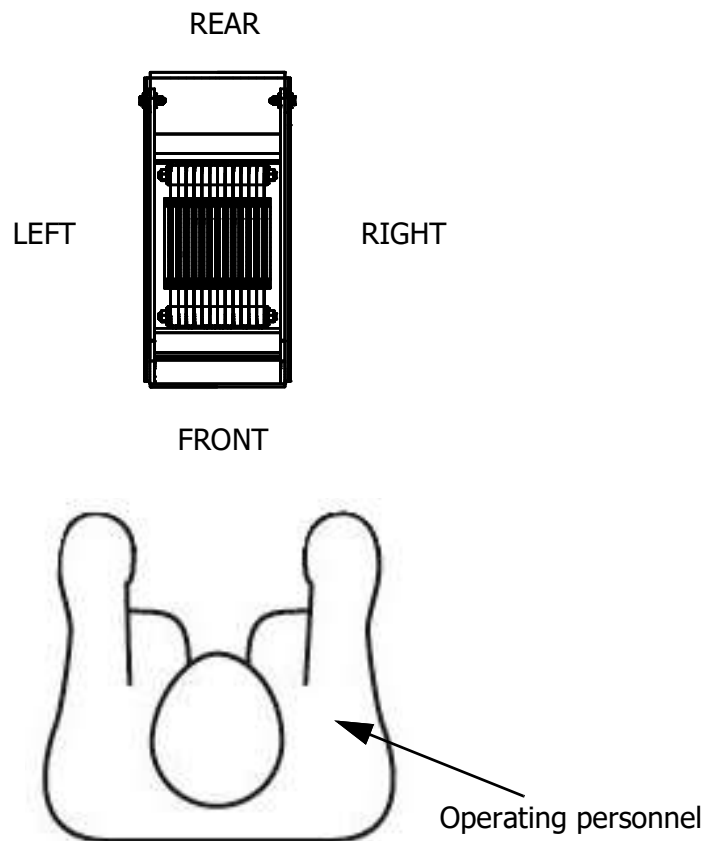


Figure 3: Work area

3.5. Technical data

Length		mm	480
Width		mm	450
Height	opened	mm	485
Height	closed	mm	200
Weight		kg	17

Table 3: Technical data

4. Operation

4.1. General

Before using the manual device, make sure that

- there are no foreign objects in the work area.



Caution

At the blades

Danger of cuts!

- Work may be carried out only by qualified personnel who have been authorised and instructed by the operator company.
- Do not touch the cutting edges of the blades!



Caution

Liquids, product waste and product residues

Slipping hazard!

- Wear suitable PPE (e.g. protective gloves, work gloves).
- Remove liquids from the floor immediately and make sure the floor is adequately non-slip.
- Remove product waste and product residues immediately and dispose of them in a proper manner.



Note

In order to avoid undue effort, the employer must make sure that the product to be handled can be picked up and set down at an ergonomically acceptable height.

4.2. Working with the manual device

Make sure that the fruits have been well sorted. Damaged or rotting fruits must not be processed, since the knives would squash rather than cut them.

Getting started. Proceed as follows:

1. Wear cut-resistant gloves!
2. With one hand on the handle, open the knife grid to approx. 90°.
3. Use your other hand to place the product centrally on the product holder.
4. Take the free hand out of the cutting area.
5. With one hand on the handle, press the knife grid down. The product is cut into uniform slices.
6. Take out the good part of the product and remove the waste.

5. Cleaning

5.1. Cleaning the manual device



Caution

At the blades

Danger of cuts!

- Work may be carried out only by qualified personnel who have been authorised and instructed by the operator company.
- Do not touch the cutting edges of the blades!



Caution

High-pressure cleaners

Injury hazard!

- Never use high-pressure cleaners on the manual device.
- Use water at no more than the regular pressure from the tap.



Caution

Liquids, product waste and product residues

Slipping hazard!

- Wear suitable PPE (e.g. protective gloves, work gloves).
- Remove liquids from the floor immediately and make sure the floor is adequately non-slip.
- Remove product waste and product residues immediately and dispose of them in a proper manner.



Attention

Components exposed to detergent/cleaning solution for too long

Material damage!

- Observe the manufacturer's specifications.
- Do not use chlorinated or saline detergents (danger of contact corrosion).
- Cleaning solution must not exceed a temperature of 60° C.
- Wear protective clothing, protective gloves and goggles/face protection.
- Rinse thoroughly with bacteria-free water.



Note

Clean and rinse the manual device thoroughly at least once per day. The manual device must be thoroughly cleaned and rinsed before the start of each production run (see also in-house production instruction, HACCP regulation).

Cleaning the manual device

1. Put on your personal protective equipment.
2. Apply the cleaning solution uniformly and all over using a commercially available cleaning brush or spray it on using the atomiser.
3. Leave the cleaning solution on for approx. 4 minutes.
4. Remove stubborn and trapped dirt by hand using a commercially available cleaning brush.
 - Do not use steel wool or sharp-edged tools.
 - Fruit juice and cell sap commonly form a green to grey film on the blades. Remove the film by brushing or rubbing.
5. Rinse off the cleaning solution and waste residues with warm water (at low pressure).
6. Check the hygiene status of the manual device using test strips.
7. Optimise the cleaning process to suit requirements for use if necessary.
8. Allow the manual device to dry before restarting.
9. When cleaning is complete, remove all equipment and operating materials from the work area.
10. The manual device is now ready to use again.

**Note**

Pass clothing that has become contaminated and soaked in cleaning solution for in-house recycling.

5.2. Cleaning interval

- At the end of the working day, the manual device should be cleaned thoroughly using water and the recommended detergent.
- A short clean with water during a short production break is advisable (duration approx. 2 minutes).

6. Service and maintenance

This chapter contains important information for maintaining the manual device.

Regular, professional maintenance is an essential prerequisite for:

- operational reliability,
- trouble-free operation,
- a long-service life of the manual device,
- the quality of the products you make.

The equipment and devices of other manufacturers must also be in perfect working order.



Note

Please contact us if you require repairs as part of a service agreement.

Only those spare parts itemised in our spare parts list are allowed to be used (☞ see chapter 8. Spare parts).

6.1. Safety



Caution

At the blades

Danger of cuts!

- Work may be carried out only by qualified personnel who have been authorised and instructed by the operator company.
- Do not touch the cutting edges of the blades!



Caution

Liquids, product waste and product residues

Slipping hazard!

- Wear suitable PPE (e.g. protective gloves, work gloves).
- Remove liquids from the floor immediately and make sure the floor is adequately non-slip.
- Remove product waste and product residues immediately and dispose of them in a proper manner.

6.2. Protecting the environment

During all work on and with the manual device, observe the local regulations for waste prevention and proper waste recycling or disposal.

Especially during maintenance work, you must ensure that groundwater pollutants (e.g. lubricants, detergents) do not damage the soil or enter the sewage system.

You must collect, store, transport and dispose of these substances properly in a suitable container.

6.3. Inspection and maintenance

The type and extent of wear depends largely on the usage and operating conditions concerned. All the maintenance intervals stated apply only under optimum operating conditions (☞ see chapter 3.1. Intended use).

If identified defects present

- a danger to persons and/or
- a risk of consequential damage to device parts

you must

- shut down the manual device immediately,
- affix a warning sign clearly identifying the situation to the manual device and
- notify the maintenance personnel responsible.

If, despite the defects having been identified, operation can be continued temporarily without endangering individuals and manual device parts,

- shut down the manual device after the production process.
- notify the maintenance personnel responsible.



Note

Enter all inspection and maintenance work into the attached table (☞ see chapter 10. Appendix).

6.4. Repairs

We do not accept any liability or provide any warranty for material damage or operational interruptions caused by failing to observe this instruction manual.

Always use:

- only suitable tools.
- only spare parts we have approved.

6.5. Restart

Before restarting the manual device, perform a safety check (☞ chapter 1.8. Essential safety instructions for first use).

6.6. Inspection and maintenance table

Designation	Interval	Measure	Description
Complete manual device	Daily	Clean	☞ chapter 5. Cleaning
Complete manual device	Daily	Check for damage.	
Blades	Daily	Visual inspection, check for wear and damage, replace if necessary.	☞ chapter 6. Service and maintenance
Product holder	Daily	Visual inspection, check for wear, replace if necessary.	
Complete manual device	Weekly	Check that the screwed fitting is firmly located.	

Table 4: Inspection and maintenance table

6.7. Changing the blades MMC 150 987811, cutting thickness 15 mm

6.7.1. Overview

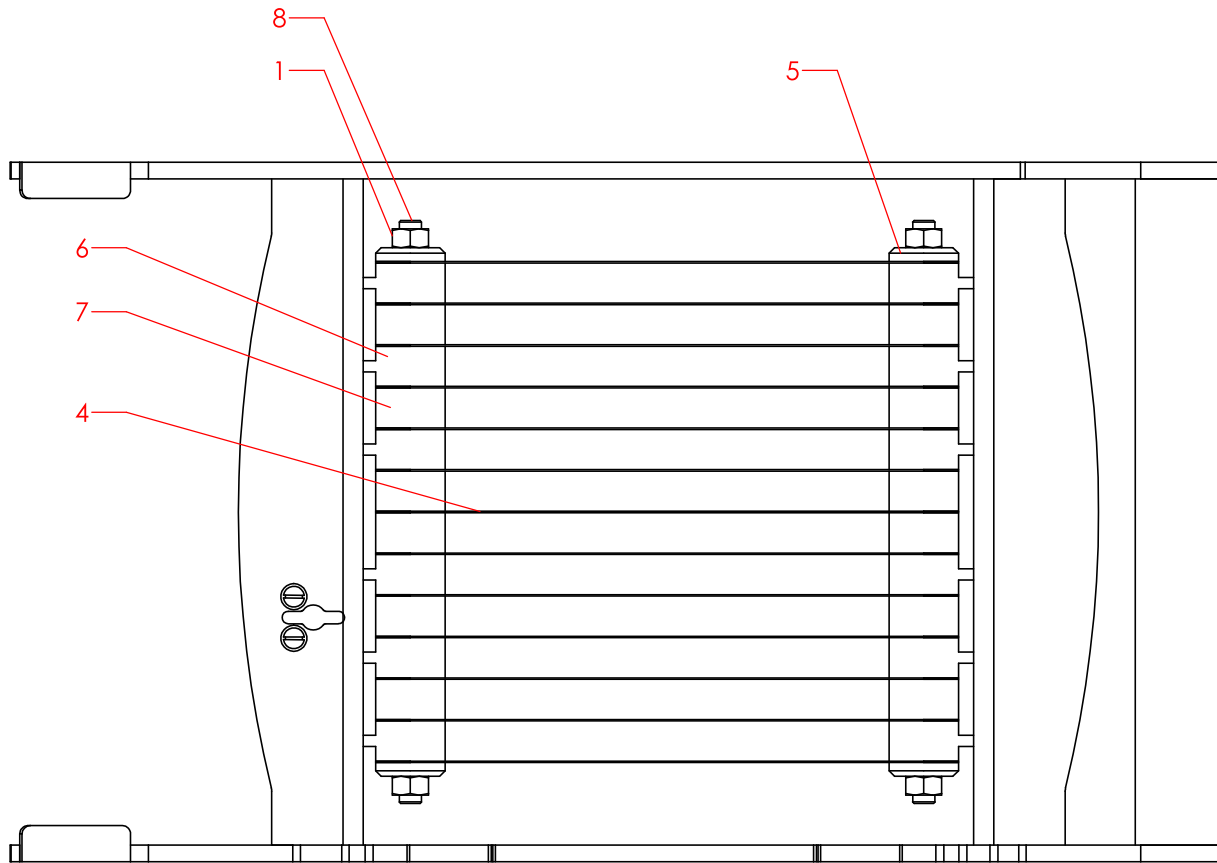


Figure 4: Overview of MMC 150 987811, blade change in plan view

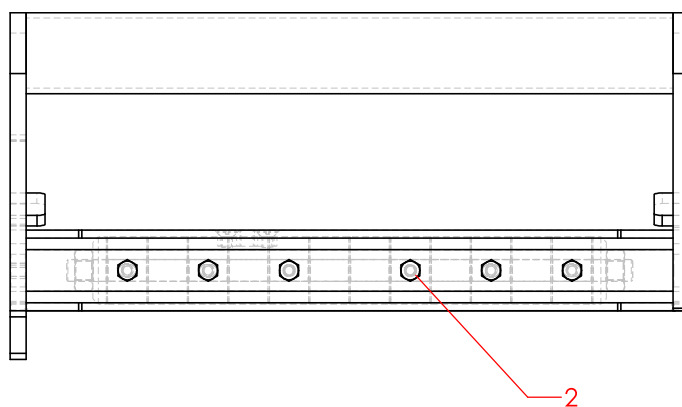


Figure 5: Overview of MMC 150 987811, blade set in side view

6.7.2. Required tools

- 1 x M4 socket wrench for hexagon screws
- 2 x M8 open end spanners

6.7.3. Procedure



Caution

At the blades

Danger of cuts!

- Work may be carried out only by qualified personnel who have been authorised and instructed by the operator company.
- Do not touch the cutting edges of the blades!

1. Wear cut-resistant gloves!
2. Set the manual device down in front of you so that the handle is on your left.
3. Use the M4 socket wrench to loosen the hexagon screws (2) on the left side.
4. Use the M4 socket wrench to loosen the hexagon screws (2) on the right side.
5. Take the knife set out of the knife grid.
6. Place the knife set on a soft surface, e.g. wood or plastic, with the blades facing downwards so that they cannot be damaged as you continue to work.
7. Dismount the left side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (1) firmly while you remove the M8 hexagon nut (1) using a second open end spanner. Remove the hexagon nuts (1).
8. Dismount the right side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (1) firmly while you remove the M8 hexagon nut (1) using a second open end spanner. Remove the hexagon nuts (1).
9. If fitted, remove the pressure pads (5).
10. Dismount the knife set:
Pull off the following parts from the tensioning axles (8) in alternation:
 - all old blades (4)
 - all tensioning parts (6)
 - if fitted, all spacers (7)
11. Attach the following parts to the tensioning axles (8) in reverse order:
 - all new blades (4)
 - all tensioning parts (6)
 - if fitted, all spacers (7)
12. If fitted, re-attach the pressure pads (5).
13. Align the tensioning parts (6) so that the holes in the tensioning parts are facing outwards and set at an angle of 180° to the cutting edges.
14. Re-attach the hexagon nuts (2) to the tensioning axle (8). When doing so, make sure the distances from the end of the clamping axle (8) to the hexagon nuts (1).
Tighten the hexagon nuts (1) only hand-tight at first.
15. Re-attach the hexagon nuts (1) to the tensioning axle (8). When doing so, make sure the distances from the end of the clamping axle (8) to the hexagon nuts (1).
Tighten the hexagon nuts (1) only hand-tight at first.

16. Place the knife set back in the knife grid.
Use a M4 socket wrench to tighten the hexagon screws (2) on the left side and the hexagon screws (2) on the right side only hand-tight at first.
17. Mount the left side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (1) firmly while you tighten the hexagon nut (1) using a second open end spanner.
18. Mount the right side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (1) firmly while you tighten the hexagon nut (1) using a second open end spanner.
19. Use an M4 socket wrench to tighten the hexagon screws (2) on the left side and the hexagon screws (2) on the right side uniformly and in several steps.
20. The manual device is now ready to use again.

6.8. Changing the blades MMC 150 988213, cutting thickness 20 mm

6.8.1. Overview

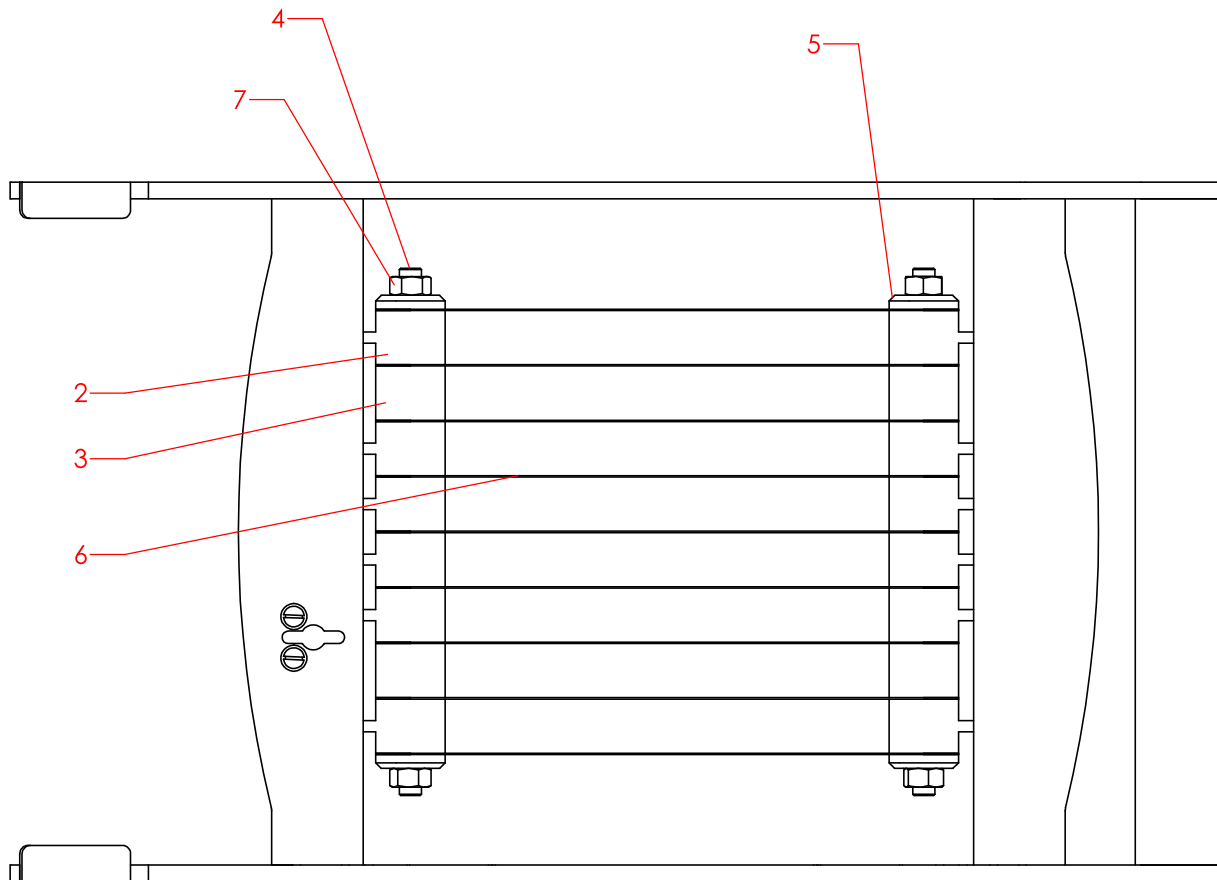


Figure 6: Overview of MMC 150 988213, blade change in plan view

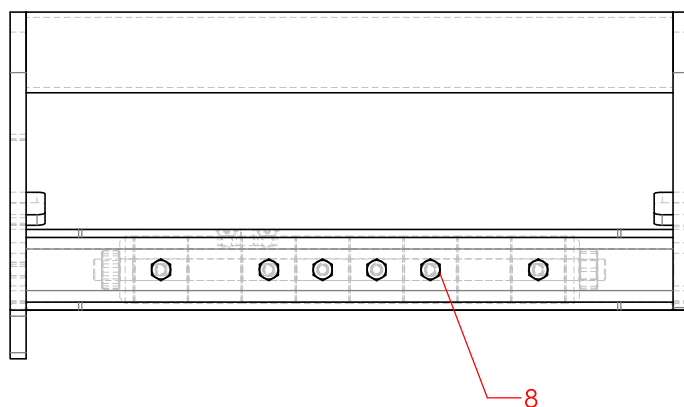


Figure 7: Overview of MMC 150 988213, blade set in side view

6.8.2. Required tools

- 1 x M4 socket wrench for hexagon screws
- 2 x M8 open end spanners

6.8.3. Procedure



Caution

At the blades

Danger of cuts!

- Work may be carried out only by qualified personnel who have been authorised and instructed by the operator company.
- Do not touch the cutting edges of the blades!

1. Wear cut-resistant gloves!
2. Set the manual device down in front of you so that the handle is on your left.
3. Use the M4 socket wrench to loosen the hexagon screws (8) on the left side.
4. Use the M4 socket wrench to loosen the hexagon screws (8) on the right side.
5. Take the knife set out of the knife grid.
6. Place the knife set on a soft surface, e.g. wood or plastic, with the blades facing downwards so that they cannot be damaged as you continue to work.
7. Dismount the left side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (7) firmly while you remove the M8 hexagon nut (7) using a second open end spanner. Remove the hexagon nuts (7).
8. Dismount the right side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (7) firmly while you remove the M8 hexagon nut (7) using a second open end spanner. Remove the hexagon nuts (7).
9. If fitted, remove the pressure pads (5).
10. Dismount the knife set:
Pull off the following parts from the tensioning axles (4) in alternation:
 - all old blades (6)
 - all tensioning parts (2)
 - if fitted, all spacers (3)
11. Attach the following parts to the tensioning axles (8) in reverse order:
 - all new blades (6)
 - all tensioning parts (2)
 - if fitted, all spacers (3)
12. If fitted, re-attach the pressure pads (5).
13. Align the tensioning parts (2) so that the holes in the tensioning parts are facing outwards and set at an angle of 180° to the cutting edges.
14. Re-attach the hexagon nuts (7) to the tensioning axle (4). When doing so, make sure the distances from the end of the clamping axle (4) to the hexagon nuts (7).
Tighten the hexagon nuts (7) only hand-tight at first.
15. Re-attach the hexagon nuts (7) to the tensioning axle (4). When doing so, make sure the distances from the end of the clamping axle (4) to the hexagon nuts (7).
Tighten the hexagon nuts (7) only hand-tight at first.

16. Place the knife set back in the knife grid.
Use a M4 socket wrench to tighten the hexagon screws (8) on the left side and the hexagon screws (8) on the right side only hand-tight at first.
17. Mount the left side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (7) firmly while you tighten the hexagon nut (7) using a second open end spanner.
18. Mount the right side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (7) firmly while you tighten the hexagon nut (7) using a second open end spanner.
19. Use an M4 socket wrench to tighten the hexagon screws (8) on the left side and the hexagon screws (8) on the right side uniformly and in several steps.
20. The manual device is now ready to use again.

6.9. Changing the blades MMC 150 773627, cutting thickness 25 mm

6.9.1. Overview

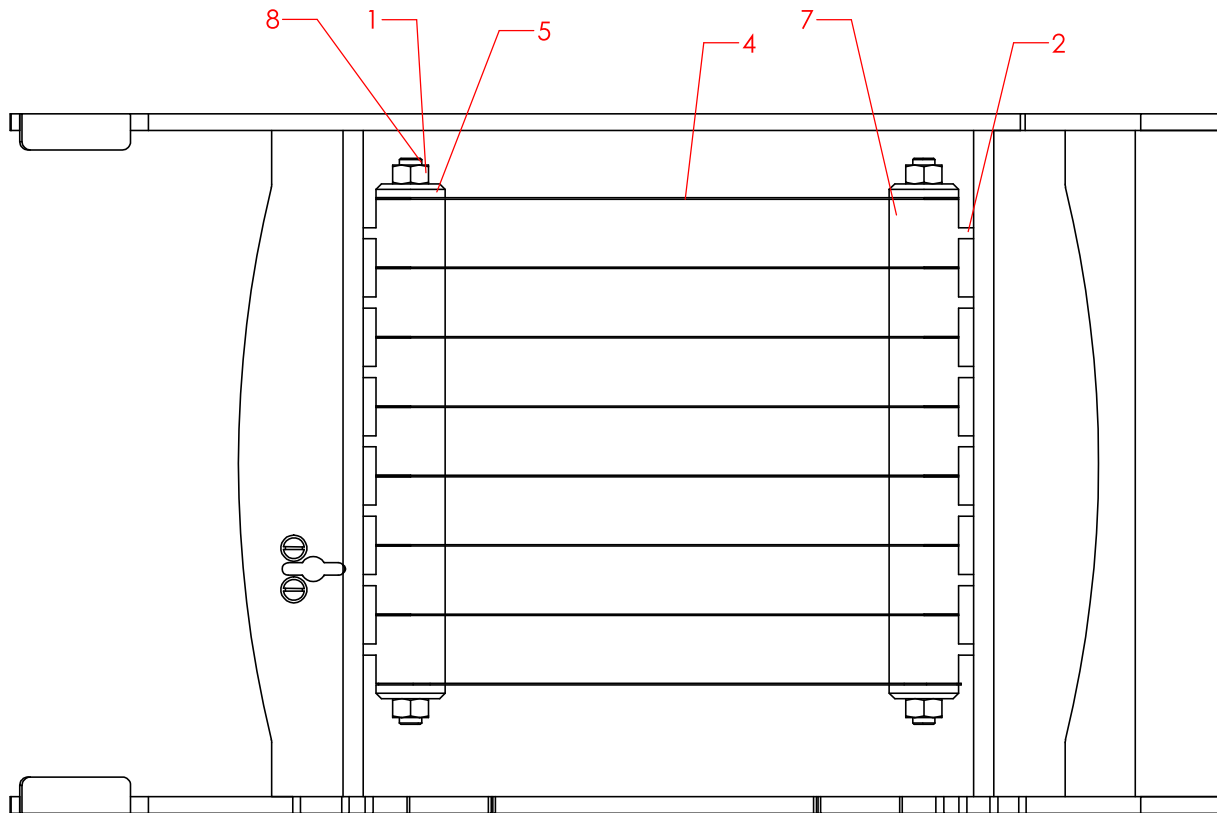


Figure 8: Overview of MMC 150 773627, blade change in plan view

6.9.2. Required tools

- 1 x M4 socket wrench for hexagon screws
- 2 x M8 open end spanners

6.9.3. Procedure



Caution

At the blades

Danger of cuts!

- Work may be carried out only by qualified personnel who have been authorised and instructed by the operator company.
- Do not touch the cutting edges of the blades!

1. Wear cut-resistant gloves!
2. Set the manual device down in front of you so that the handle is on your left.
3. Use the M4 socket wrench to loosen the hexagon screws (2) on the left side.
4. Use the M4 socket wrench to loosen the hexagon screws (2) on the right side.
5. Take the knife set out of the knife grid.
6. Place the knife set on a soft surface, e.g. wood or plastic, with the blades facing downwards so that they cannot be damaged as you continue to work.
7. Dismount the left side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (1) firmly while you remove the M8 hexagon nut (1) using a second open end spanner. Remove the hexagon nuts (1).
8. Dismount the right side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (1) firmly while you remove the M8 hexagon nut (1) using a second open end spanner. Remove the hexagon nuts (1).
9. If fitted, remove the pressure pads (5).
10. Dismount the knife set:
Pull off the following parts from the tensioning axles (8) in alternation:
 - all old blades (4)
 - all tensioning parts (7)
 - if fitted, all spacers
11. Attach the following parts to the tensioning axles (8) in reverse order:
 - all new blades (4)
 - all tensioning parts (7)
 - if fitted, all spacers
12. If fitted, re-attach the pressure pads (5).
13. Align the tensioning parts (7) so that the holes in the tensioning parts are facing outwards and set at an angle of 180° to the cutting edges.
14. Re-attach the hexagon nuts (1) to the tensioning axle (8). When doing so, make sure the distances from the end of the clamping axle (8) to the hexagon nuts (1).
Tighten the hexagon nuts (1) only hand-tight at first.
15. Re-attach the hexagon nuts (1) to the tensioning axle (8). When doing so, make sure the distances from the end of the clamping axle (8) to the hexagon nuts (1).
Tighten the hexagon nuts (1) only hand-tight at first.

16. Place the knife set back in the knife grid.
Use a M4 socket wrench to tighten the hexagon screws (2) on the left side and the hexagon screws (2) on the right side only hand-tight at first.
17. Mount the left side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (1) firmly while you tighten the hexagon nut (1) using a second open end spanner.
18. Mount the right side of the knife set:
Use an M8 open end spanner to hold the hexagon nut (1) firmly while you tighten the hexagon nut (1) using a second open end spanner.
19. Use an M4 socket wrench to tighten the hexagon screws (2) on the left side and the hexagon screws (2) on the right side uniformly and in several steps.
20. The manual device is now ready to use again.

7. Troubleshooting

7.1. Customer service

If you need to consult our customer service, please have the following information to hand:

- provide the data from the type plate.
- state the nature and scale of the fault.
- state when and under which circumstances the fault occurred.
- state the probably cause.



Note

Our spare parts sales team is available from Monday to Thursday from 8:00 to 17:00 hrs. and on Friday from 8:00 to 16:00 hrs. and can be contacted on +49 (0) 7854 9646-112.

8. Spare parts

8.1. Ordering spare parts and wear parts

In addition to the spare parts and wear parts listed, you can also order other components for the manual device.

Have the following information to hand when ordering other components:

- Designation (type plate)
- Serial number (type plate)
- Quantity required



Attention

Improper maintenance work.

Injury hazard and material damage!

- Work may be carried out only by qualified personnel who have been authorised and instructed by the operator company.



Attention

Using incorrect spare parts.

Material damage!

- Use only approved spare parts.

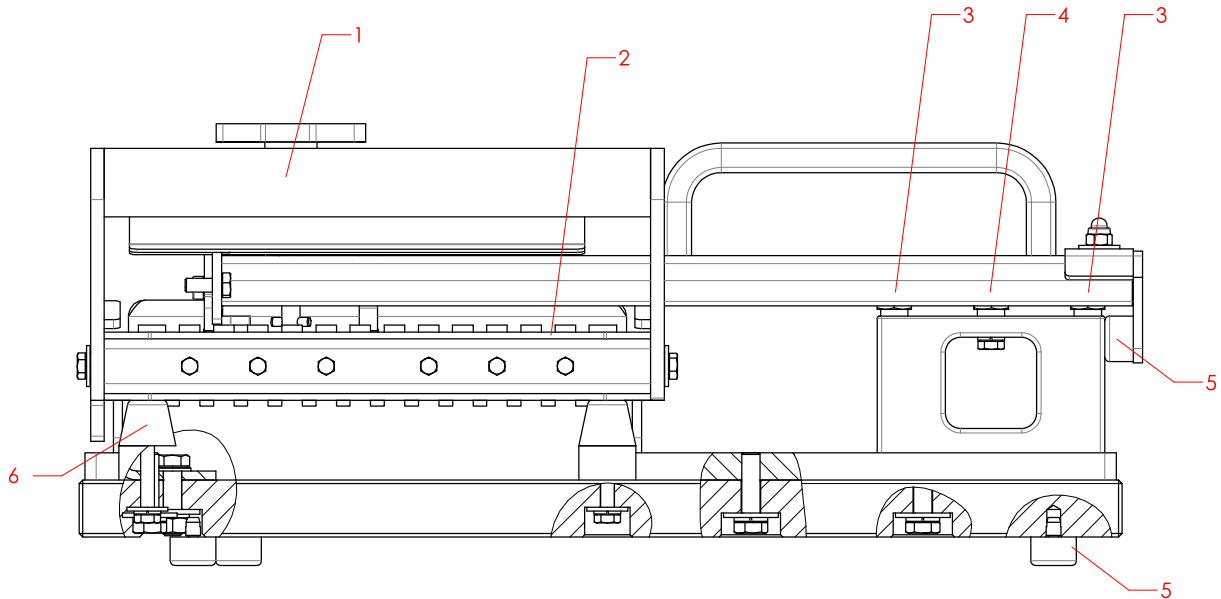


Note

Our spare parts sales team is available from Monday to Thursday from 8:00 to 17:00 hrs. and on Friday from 8:00 to 16:00 hrs. and can be contacted on +49 (0) 7854 9646-112.

8.2. Spare parts list

8.2.1. Position of the spare parts



Drawing 1: Position of the spare parts

8.2.2. Spare parts list

Item	Art. no.:	Designation	Quantity
1	988420	Pressure spring	1
2	250022	Blade / 987811, cutting thickness 15 mm	13
		Blade / 988213, cutting thickness 20 mm	9
		Blade / 773627, cutting thickness 25 mm	8
3	987477	Eccentric track roller	2
4	987476	Centric track roller	1
5	10636-SCHMÄLZLE	Rubber foot	5
6	987479	Silicone stop buffer	2

Parts list 1: Spare parts list

9. Disposal

We do not accept any responsibility for any personal injury or material damage caused by the reuse of individual device parts.

If you wish to dispose of the manual device yourself, it must be rendered to a condition that no longer fulfils the intended purpose.

Sort the components into

- electronic components,
- metals,
- plastics,
- fluids,
- special waste.

10. Appendix

10.1. Request for instruction manual

KRONEN GmbH
Römerstraße 2a
D-77694 Kehl am Rhein
Phone: +49 (0) 7854 9646-0
Fax: +49 (0) 7854 9646-500

Dear Sir or Madam,
Please send me an instruction manual, as described below, at your earliest convenience.

Name: Manual pineapple chunk cutter MMC 150

Device number: _____

Version: _____

			Quantity (units)
Desired language (please tick):	German (D)	☐	_____
	English (GB)	☐	_____
	French (F)	☐	_____

This request is being made due to

illegibility, soiling ☐

sale of the manual device ☐

Company stamp

Date _____

Signature
(operator company or authorised person)

10.2. Safety inspection

Date	Mechanical defects identified and rectified in keywords	Signature (operator company or authorised person)

10.3. Repairs carried out

Date	Mechanical work carried out in keywords	Signature (operator company or authorised person)

Declaration of Conformity

for materials made of plastic that come into contact with foods.

The manufacturer	KRONEN GmbH Römerstraße 2a D-77694 Kehl am Rhein
------------------	--

hereby confirms for the materials and objects of the machine

Designation:	MMC 150
Item number:	987811, 988213, 773627

that can come into contact with foods during intended use, conformity with the general requirements of

- the Food and Feed Code,
- Regulation (EC) No. 1935/2004 of October 27, 2004 on materials and articles intended to come into contact with foods,
- Regulation (EC) No 2023/2006 of 22 December 2006 on good manufacturing practice for materials and articles intended to come into contact with food,
- Regulation (EU) 10/2011 of 01/14/2011 on materials and objects made of plastic that are intended to come into contact with foods, together with their current amendments.
- Regulation (EU) 2020/1245 of 09/02/2020 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food.
- Regulation (EU) 2023/1442 of 07/11/2023 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food.

The following substances come into contact with food when using KRONEN GmbH machines:

Polyethylene (PE)	Polytetrafluorethylene (PTFE)
Polyurethane (PU)	Polycarbonate (PC)
Polyoxymethylene (POM)	Fluorinated rubber (FKM)
Polyamide (PA)	

Specification of intended purpose or restrictions:

- see  chapter Intended use
- see  chapter Technical data

Overall migration and specific migrations are below the statutory limits when used in accordance with specifications. The inspection is carried out in accordance with Art. 17 and 18 of Ordinance (EU) No. 10/2011 in conjunction with Appendix V.

Place:	Kehl am Rhein
Date:	October 01, 2023
Signature:	
Position:	Eric Lefebvre, Technical Manager of KRONEN GmbH

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