User- and Maintenance manual

0420-3
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Foreword

Meyn Food Processing Technology B.V. is one of the world’s leading designers and manufactures of systems and equipment for the poultry processing industry. Meyn’s flexible service and support organisation and its constant emphasis on product innovation through extensive research and development, enable Meyn to supply today’s customers with the solutions of tomorrow.

Regardless of the size or complexity of the process, Meyn will supply its customers with situation specific solutions that are critical in reaching their objectives. Therefore, Meyn combines a solid knowledge of the customers business with expert process design skills. This is crucial, as only well focused solutions generate the desired returns.

Our ambition is to supply solutions that support fully controlled in line processing; handling and tracking every product or batch throughout the entire facility while controlling the quality of the output, combined with the ability to match the incoming birds with the sales orders in the most optimal manner.

Meyn is worldwide represented by a network of subsidiaries and agents. In order to supply complete integrated solutions to our customers, Meyn has a number of strategic partners in the following processing sectors:

- Bonescan.
- Mechanical deboning.
- Logistic systems.
- Refrigeration.
- Water treatment.
- Vacuum transport.
- Rendering.
- Convenience food.
This manual

This manual is intended for the operator(s) of this machine. It's a means for information and instruction, so you can use the machine correctly and safely.

The manual consists of 7 chapters and a few appendices:

Chapter:1. Introduction, includes general information about the machine and the supplier.
Chapter:2. Safety, includes a description of the most important safety aspects associated with the use of the machine.
Chapter:3. Installation and set-up, includes a description of the actions that must be performed before the machine can be used.
Chapter:4. Operation, the actions that must be performed during normal operation.
Chapter:5. Cleaning, includes a description of the cleaning activities that must be carried out to keep the machine in good condition and to facilitate safe and hygienic operation.
Chapter:6. Maintenance, includes a description of the maintenance activities that are necessary to keep the machine in good condition and to facilitate safe operation.
Chapter:7. Disassembly/assembly and adjustments describes the disassembly and assembly of parts needed by reinstallation of the machine to another place or environment and to ensure that the machine performs safely and efficiently.
Appendix:. Appendices, includes aspects/details for the machine.

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1 Introduction

This chapter contains technical data about the machine and gives a description of the goal and working of the machine.

1.1 Technical specifications

The Technical Specifications Sheet(s) of this machine are at the end of this manual.

Noise level < 70 dB(A)
1.2 General arrangement drawing

Figure 1.2 Opening machine.

The machine is made up of the following main elements:

1. Frame
2. Water pipe
3. Curve adjustment
4. Shackle guide
5. Slide blocks + bracket
6. Cutting unit
7. Height adjustment
1.3 What is a Meyn Opening machine

The Meyn Opening machine makes an incision in the abdominal skin from the vent opening towards the breast bone.

The length of the incision is adjustable so that the incision answers to the demands that are required from the product further on in the process.

The abdominal skin is the skin between the legs and between the vent and the breast.

1.3.1 Functioning

The bird is, while hanging in the shackle with the back towards the machine, guided through the machine, whereby the guidance takes care of a correct positioning of the shackle and the bird.

Once in the machine a so-called “slide unit with bracket” grips the bird and moves the bracket between the bird’s legs, whereafter the bracket is pushed, by a spring, onto the bird.

At the bottom of the unit a divided ball has been attached that also enters the opening, whereafter the pivotable part is moved to the outside by means of the curve. Since the front part of this ball has been equipped with a knife, the skin will be carved.

With this linking movement the intestines are forced down by the divided ball. Mind that the ball will not be closed entirely so that the intestines are not severed, as a result of which cross contamination virtually does not occur.

After each cycle the unit is sprayed with water.

1.4 The end product

The output from the machine must satisfy the following requirements:

- Abdominal skin including the peritoneum is opened
- No damage to the breastbone
- Opening far enough, but breast still fully covered with skin
- No damage to the intestines
1.5 The Meyn Opening machine technical

The Meyn opening machine is driven by the overhead conveyor. The opening machine can be adjusted in height by using the cranked handle.

The opening machine should be installed after the vent cutter.

The machine is entirely made of stainless steel and plastics.

This opening machine is provided with a pull-cord safety device.

1.6 Performance of the machine

The opening machine is suitable for various types of bird. If the machine is adjusted in accordance with the instructions, it will produce a consistent end product.
2 Safety

This chapter contains a description of safety aspects relating to the machine. It is particularly important that you are fully aware of the contents of this section. The Meyn Food Processing Technology B.V. has taken all possible steps to provide you with all the necessary information concerning any dangers that may exist when the machine is used. The customer is responsible for understanding and applying these safety rules.

If any of these aspects are not clear, please ask the manufacturer for an explanation.
2.1 The most important safety risks

1. The moving trolleys on the overhead conveyor bend and the chain on the drive wheel may cause injuries. You can get stuck between the moving parts.
2. The moving slide blocks may cause injuries. You can get stuck between the moving parts.
3. The knife is very sharp. It may cause injuries. Stay away!!
2.2 Safety devices

In order to make the use of this machine as safe as possible the following safety devices have been fitted:

- The design is an so-called “open” construction without protecting covers.

There is an emergency stop pull cord around the machine. This may only be operated in an emergency. If an operator is accidentally caught up in the machine or falls into the machine or intentionally operates it manually, the emergency stop will automatically activate and stop the entire machine. You can also activate the emergency stop by pushing the red push-button. The emergency stop pull cord and possibly the red push-button will then have to be reset.

![Figure 2.4 The emergency stop pull cord.](image)

**Functioning**

- The blue switch is switched automatically to “0; OFF” (A) when the pull cord has been activated. See figure.
- Check the tension of the pull cord. See “Tension of the pull cord” and figure below.
- Check that the emergency situation has been resolved.
- Switch the blue switch to “RUN” (B) to reset the emergency stop pull cord. See figure.
- Reset the emergency stop switch circuit by means of pushing the lighted blue reset emergency stop button on the main panel. After this the light in the button goes off.
- Accept the fault on the touch screen.
- After this you can restart the machine.

![Figure 2.5 The pull cord tensioner window.](image)

**Tension of the pull cord**

- The stripe (A) must be in the middle of the window.
- If necessary change the tension of the cord by turning the cord tensioner.
2.3 Safety measures to be taken

Before and during use of the machine it is important to take a number of safety measures and instructions into account, which are described in the sections below.

2.3.1 Preparing for safe operation

For safe operation of the machine and preceding any act, it is essential that a number of safety measures will be taken: these are mentioned in the following paragraph.

- First read the concerning instructions given in this manual, before you perform any work on the machine.
- Wear footwear which prevents slipping; mind loose-hanging clothing.
- You must take note of all the safety symbols attached to the machine.
- Check that the power supply complies with the locally applicable regulations.
- Ensure that the machine is correctly placed in a stable position.
- Ensure that the operation, minor maintenance activities and activities concerned with installing or moving the machine are only performed by qualified personnel, that is to say by personnel who have the necessary skills and are familiar with the contents of this manual.
- Modifying the machine in any way, could endanger the safety and proper functioning of the machine.
2.3.2 Safety measures during operation

For safe operation of the machine, it is essential that a number of safety instructions are taken during an act: these are mentioned in the following paragraph.

- Ensure that no persons are on, in or under the machine while it is in use.
- Keep the area around the machine free from materials and other obstacles.
- Always stop the machine if a product becomes jammed.
- Never put your hands or any other part of your body close to rotating parts while the machine is running.
- Mind to place warning notices with the control panel of the machine while performing maintenance operations to the machine.
- Stay away from the knife.
- Do not climb on the machine.
- Do not remove broilers or broiler parts while the machine is running.
2.4 Know the pictograms

Machines manufactured by Meyn Food Processing Technology B.V. are provided with safety and protective devices. Even so, it is important to be careful when you are performing any operation on the machine. The following pictograms indicate possible dangers. The pictograms are applied to the machine and are also printed in this handbook at those places where risky activities are described.

Check regularly to ensure that all the pictograms are still in the correct positions on the machine. If any pictogram has become detached or unreadable, apply a new one immediately.

- **Danger Moving parts (rotating)**
- **Danger Moving parts (up and down)**
- **Danger High Voltage**
3 Installation
This chapter gives a description of the actions that must be performed before the machine can be used.

3.1 Installing the Opening machine
The Meyn opening machine should be installed in a 180° curve of the evisceration line. The machine is driven by the overhead conveyor.

The machine should be attached to the steel construction by using the fastening lips on top of the frame. After this the machine should be shored up to the steel construction by using the supporting pipes on top of the frame.

The height of the machine can be adjusted and adapted to the average size of the birds by using the cranked handle. This adjustment should be done experimentally.

When the machine is delivered, the adjustment of the movable parts of the machine has already been done at the factory. In chapter 7, Disassembly/assembly and adjustments, is given the information about disassembly and assembly of parts you must do to ensure that the machine performs optimal.

3.1.1 Required floor area
Floor area required: The surface area (L×W) occupied by the machine is given in paragraph 1.1 “Technical specifications”. Nevertheless, it is desirable to install the machine on a floor area that makes it easy to clean and maintain. Meyn advises you to keep a clear space of 1 meter on all sides of the machine.
3.2 The connection of the Opening machine

Connect a flexible hose of the water mains to the ball valve (3/4" inner thread).
4 Operation

This chapter gives a description of the actions that must be taken before operation.

4.1 The manual controls

- The start/stop switch on the final inspection machine is operated from a central switching panel.
- The main switch on the suspended conveyor is operated from a central switching panel.

4.2 Preparing for the starting-up procedure

- Check that all the settings are correct (see Chapter 7, Assembling/disassembling and adjustments).
- Check for damage. Repair or replace if necessary.
- Check that all the emergency stop switches are working properly.
- Open the water supply.
- The opening machine is now ready for production and can be started up with the rest of the eviscerating line.

4.3 Start-up procedure

The final inspection machine is part of the conveyor system. This is controlled from the main control panel. On the panel is the start/stop switch of the final inspection machine. The switch is a selection switch; 1 = Start, 0 = Stop After selecting “1” the final inspection machine starts running and is ready for production.

4.4 In production

When the machine is correctly adjusted it will continue to function independently. While producing with the machine, regularly check the result of the machine see also chapter 7.

4.5 The stop procedure

The machine is driven by the eviscerating line. It is stopped by stopping the eviscerating line.
4.6 The emergency stop

For use in emergency situations, emergency stop switches are mounted on the line. This red pushbuttons stop immediately the whole line within the conveyor track and all the machines. The emergency stop switches may only be used in case of an emergency. For re-starting the machine after using an emergency stop switch you must first check if the emergency situation is cleared. After this you must “unbolt" reset the emergency stop switches. The procedure is as follows.

- Reset the machine on the local place. This means, the switches are pulled out and rotated clockwise at the same time.
- Reset the emergency switch circuit of the whole line.
- The emergency stop switches may be equipped with a little button on the side. In this case you must first push this button.
- After this you can restart the machine.

There is an emergency stop pull cord around the machine. This may only be operated in an emergency. If an operator is accidentally caught up in the machine or falls into the machine or intentionally operates it manually, the emergency stop will automatically activate and stop the entire machine. You can also activate the emergency stop by pushing the red push-button. The emergency stop pull cord and possibly the red push-button will then have to be reset.

![Figure 4.1 The emergency stop pull cord.](image)

**Functioning**

- The blue switch is switched automatically to “0; OFF” (A) when the pull cord has been activated. See figure.
- Check the tension of the pull cord. See “Tension of the pull cord" and figure below.
- Check that the emergency situation has been resolved.
- Switch the blue switch to “RUN" (B) to reset the emergency stop pull cord. See figure.

- Reset the emergency stop switch circuit by means of pushing the lighted blue reset emergency stop button on the main panel. After this the light in the button goes off.
- Accept the fault on the touch screen.
- After this you can restart the machine.
Tension of the pull cord

The stripe (A) must be in the middle of the window.

- If necessary change the tension of the cord by turning the cord tensioner.
5 Cleaning

This chapter gives a description of the cleaning activities that must be carried out to keep the machine in good condition and to facilitate safe and hygienic operation.

5.1 Cleaning preparations

- During cleaning you are advised to wear detergent- and disinfectant proof clothing. Protect your eyes and skin.
- Ventilate the room in which you are working.
- After production, all products should be removed from the room in which the machine is installed. Remove coarse dirt.

Switch off the main switch of the machine before cleaning/adjustments.

- When cleaning always protect the knives with tape.
5.2 General cleaning schedule

<table>
<thead>
<tr>
<th>During breaks</th>
<th>Daily after production</th>
<th>Monthly *</th>
</tr>
</thead>
</table>

Table 5.1 The cleaning schedule of the machine.

*) or as often as necessary.

- Clean the machine from top to bottom.
- During cleaning, pay extra attention to:
  - Knives
  - Whole units.
- During cleaning, never point the high-pressure water jet to the control panel or motor.
- For proper functioning, after cleaning the moving parts of the machine should be sprayed with a vegetable oil.
5.2.1 High-pressure water cleaning

With high-pressure water cleaning nearly all visible dirt will be sprayed off the machine. This cleaning is a preparation for the daily foam cleaning and disinfection. Furthermore, a high-pressure water jet can be used for localized cleaning during production breaks.

- High-pressure water cleaning should always be performed as close to the machine as possible. Stop the machine before starting the high-pressure water cleaning
- Prevent people from getting in the way of the high-pressure jet. Always hold the spray gun with both hands.

For high-pressure cleaning use the following equipment:

- A fixed piping system, delivering water-pressure with a minimum of 3,000 kPa and a maximum of 6,000 kPa and with a water temperature of approx. 55°C. at the spray-mouth
- A spray lance with a downward bent nozzle. Such a spray lance has the advantage of not transporting the dirt upwards
- A spray nozzle of the flat-jet type with a spray-angle of 15° to 25° and a water consumption of 800 to 1000 litres/hour at a water pressure of 6,000 kPa

A water temperature of 55°C is advised, since a higher temperature may cause sticking of proteins and with a lower temperature the fat will not be removed properly. The pressure should not be too high, to avoid unnecessary mist, and to protect e.g. bearings.

The unit kPa (kilopascal) is SI standard for pressure:

<table>
<thead>
<tr>
<th>New</th>
<th>Old</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 kPa</td>
<td>1 bar</td>
</tr>
<tr>
<td>3000 kPa</td>
<td>30 bar</td>
</tr>
<tr>
<td>10000 kPa</td>
<td>100 bar</td>
</tr>
</tbody>
</table>

Table 5.2 SI.
5.2.2 Alkaline foam cleaning

Alkaline foam cleaning ensures that fat, proteins etc. will be degraded chemically.

- Foam the machine from top to bottom. Foaming may be performed while the machine is running slowly, provided sufficient distance is kept to the moving parts of the machine. Mind the other machines.
- After foam cleaning remove the dirt and foam residue thoroughly by means of the high-pressure water jet.

For alkaline foam cleaning use the following equipment:

- A fixed piping system for foam delivery.
- A large spray-nozzle of the flat-jet type, through which the foam can be distributed equally along the surface.
- The alkaline foam detergent used should not affect the materials which it will contact. Consult your detergent supplier to know which detergents will fulfil these specific requirements and which cleaning directions to follow. Obey these instructions. Incorrect application may be dangerous.

Please avoid:

- A too high concentration.
- A too long contact
- Not rinsing
- Mixing with other products

It is advisable not to use a combination of detergents and disinfectants ("detergent sanitizers"). This leaves the machine too dirty to be disinfected effectively. A combination of these two methods is of no use at all.
5.2.3 Disinfection

Alkaline foam cleaning alone does not lead to a complete killing and removal of bacteria, fungi, viruses, algae and yeasts. For that purpose a separate disinfectant is needed. Disinfect the machine daily, after the alkaline foam cleaning.

- Disinfection only makes sense when the surfaces are visibly clean after the alkaline foam cleaning.
- Spray the disinfectant onto the machine and surrounding area. When disinfecting, it is difficult to judge just how thorough you have been.
- We advise you to disinfect the machine and the area immediately surrounding it in an established pattern.
- After applying, the remaining foam rests should be removed by means of high-pressure water jet.

![Warning]

Damage may be caused by not thoroughly rinsing the disinfectant. Evaporation of chlorous drops will lead to a very high concentration of chlorine. In combination with long contact-times can cause corrosion to metals.

For disinfection use the following equipment:

- A fixed piping system.
- A spray lance with downward-bent top.
- A spray nozzle of the flat-jet type, with a spray angle of 15° to 25°.
- The used disinfectant should not affect the materials which it will contact.

Consult your detergent supplier to know which detergents will fulfill these specific requirements and which cleaning directions to follow. Obey these instructions. Incorrect application may be dangerous.
5.2.4 Acid foam cleaning

"Hard" water causes calcium and rust deposits on the machine. In order to remove these, a regularly performed acid foam cleaning is necessary. Depending on the hardness of the water this may be either once a month or more often if necessary.

- Foam the machine from top to bottom. Foaming may be performed while the machine is running, provided sufficient distance is kept from the moving parts of the machine. Mind the other machines and the overhead conveyor.
- After affecting, the dirt and foam residue should be removed thoroughly by means of the high-pressure water jet.

Contact between acids and chlorous products results in a poisonous gas. Ensure that these products do not come in contact with each other. Ventilate the room in which you are working.

For acid foam cleaning use the following equipment:

- A fixed piping system for foam supplying.
- A large spray-nozzle of the flat-jet type, that distributes the foam equally along the surface.
- The used acid foam detergent should not affect the materials with which it comes into contact. Consult your detergent supplier which detergents fulfil these specific conditions and the concerning directions for operation. Obey these instructions carefully. An incorrect application may be dangerous.

It is advisable not to use spring water for the production of foam; this water may contain a high degree of chloride. Tap water reduces the chance of rust.
5.3 Advising cleaning chemicals to the customer.

Customers sometimes ask Meyn Food Processing Technology B.V. to advise them about cleaning chemicals and disinfection chemicals. As a result of these questions some recommendations are as follows as stated below.

We recommend:

- To contact the major manufacturers or suppliers of these chemicals, like Henkel, Diversey etc. These companies have a good knowledge of cleaning chemicals and their corrosive or destructive properties on materials.
- Do not buy unknown (cheap) products.
- To follow all user instructions carefully.
- Meyn Food Processing Technology does not recommend to use specific cleaning chemicals, because we do not know which chemicals are available in each specific country. We can not know the (secret, complex) composition of the products. Besides this, Meyn Food Processing Technology does not accept any responsibility for any damage caused by wrong application of cleaning chemicals.
- The above mentioned can only be avoided by a direct contact between user and supplier of cleaning chemicals.
6 Maintenance and trouble shooting table

This chapter describes the maintenance activities that are necessary to keep the machine in good condition and to facilitate safe operation. We advise you to maintain the machine regularly. This lengthens the working life of the machine and reduces the chance of failures.

6.1 Lubricants

For lubrication of the points mentioned in the lubrication point list only use lubricants which are approved for the food industry.

6.2 Checklist

<table>
<thead>
<tr>
<th>Part</th>
<th>Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily, the knives.</td>
<td>Check the sharpness of the knives. Replace if necessary.</td>
</tr>
<tr>
<td>Daily, adjustments.</td>
<td>Check all adjustments. Readjust if necessary.</td>
</tr>
<tr>
<td>Daily, nozzles.</td>
<td>Check whether the opening of the nozzle is sufficiently open. Re-open if necessary.</td>
</tr>
<tr>
<td>Weekly, bronze bushings, bearings, springs, ball bearings and bearing bushings.</td>
<td>Check all those parts on wear and/or damage. Replace if necessary.</td>
</tr>
</tbody>
</table>

Table 6.1 Checklist
6.3 Lubrication-point list

<table>
<thead>
<tr>
<th>Part</th>
<th>lubricant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly, lubrication points.</td>
<td>Lubricate once a week all lubrication points through the grease nipples by using a grease gun.</td>
</tr>
</tbody>
</table>

Table 6.2 Lubrication-point list.
## 6.4 Trouble shooting table

<table>
<thead>
<tr>
<th>Failure</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The machine does not work.</td>
<td>• The start pushbutton is not pushed.</td>
<td>• Push on the start pushbutton to start the machine.</td>
</tr>
<tr>
<td></td>
<td>• The pull-cord safety is activated.</td>
<td>• Reset the pull-cord safety and reset also the line.</td>
</tr>
<tr>
<td></td>
<td>• Emergency stop pushbutton is activated (if applied)</td>
<td>• Reset the emergency stop pushbutton and reset also the line.</td>
</tr>
<tr>
<td>The units are dirty at the beginning of a new process cycle.</td>
<td>• The nozzles and/or shower head are obstructed.</td>
<td>• Remove all obstructions.</td>
</tr>
<tr>
<td></td>
<td>• The spray direction of the nozzles and the shower head are not correct.</td>
<td>• Readjust the spray direction.</td>
</tr>
<tr>
<td>• The cut is not correct.</td>
<td>• The knife is blunt.</td>
<td>• Replace the knife.</td>
</tr>
<tr>
<td></td>
<td>• The unit adjustments are not correct.</td>
<td>• Readjust the unit adjustments.</td>
</tr>
</tbody>
</table>

Table 6.3 Trouble shooting table.
7 Disassembly/assembly and adjustments

This chapter describes how to disassemble, assemble and adjust components of the machine after maintenance and/or replacement of parts.

7.1 Basic adjustments

The basic adjustments to the various component parts of the units in view of each other are carried out in the factory. However, as a result of the adjustments to the parts and for local circumstances, it may be necessary to re-insert, and or readjust the basic adjustments.
7.2 Adjustments with machine not running

7.2.1 Timing of the curve drum

In order to make the units go down and up at the correct moment in the process, the curve drum has to be positioned correctly in the frame.

The units have to go down just after the bird has been positioned in a unit, approx. 90° of rotation, measured from the vertical beam of the frame.

How to adjust the timing:

- Loosen the bolts (A; 4x) that connect the main shaft to the flange of the water pipe frame. Do not remove the bolts.
- Loosen the bolts (B; 4x) that connect the bronze flange at the top of the shaft to the frame. Do not remove the bolts.
- Take hold of the curve drum and push or pull it with its direction of rotation (right turning or left turning).
- Fasten the bolts (A and B).

Figure 7.1 Timing of the curve drum.
7.2.2 Timing of the shackle

The cutting unit have to be positioned correctly under the drive wheel to make sure that the cutting units enters the birds at the correct place to cut open the bird.

How to adjust the units:

- Loosen the three bolts (A). Do not remove the bolts.
- Take the two brackets (B) and rotate in direction (X).
- The correct position is that the centring bracket comes in between the legs of the bird.
- Fasten the three bolts.

Figure 7.2 Centring the shackle.
7.2.3 Timing lower curve

The lower curve determines the timing of the cutting unit to go up or down. This timing you can adjust.

How to adjust the timing of the lower curve:

- Loosen nut (A;4x).
- Take hold of the spoke-wheel (B) and turn it.
- After finding the correct timing fasten the four nuts (A).
7.2.4 Guides

Several guides are mounted around the machine which takes care that the shackle with product are correctly transported through the machine and that the product are positioned correctly under the cutting unit.

7.2.4.1 Shackle guide

The shackle guide keeps the shackle away from the moving parts.

How to adjust the shackle guide:

- Loosen bolt (A;2x) and move the shackle guide (B) in direction X1.
- Loosen bolt (C;2x) and move the shackle guide (B) in direction X2.
- Do not forget after finding the correct position of the shackle guide to fasten the bolts firmly.
7.2.4.2 Leg inlet guide

How to adjust the leg inlet guide:

- Loosen bolts (A).
- Move now the inlet guide (B) in direction (X1).
- Rotate the knobs (C) clockwise to move the inlet guide in direction (X2).
- Rotate the knobs (C) counter clockwise to move the inlet guide in direction (X3).
7.2.4.3 Breast guide

How to adjust the breast guide:

- Loosen nut (A).
- Move the breast guide in vertically direction (X1).
- Fasten nut (A) after finding the correct position of the breast guide.
- Loosen bolt (B).
- Move the breast guide in horizontally direction (X2).
- Fasten bolt (B) after finding the correct position of the breast guide.
7.2.4.4 Back guide

With the back guide you can positioning the bird more to the outside or inside of the machine.

How to adjust the back guide:

- Turn the knob clockwise to move the back guide (B) in direction (X1).
- Turn the knob counter clockwise to move the back guide (B) in direction (X2).

Figure 7.7 Back guide.
7.2.5 Cutting length

The length of the cut can be adjusted.

How to adjust the length of the cut.

- Loosen the screw (A).
- Rotate the handwheel (B) clockwise for a longer cut and counter clockwise for a shorter cut.
- Fasten the screw (A).

Figure 7.8 Cutting length.
7.3 Adjustments with machine running

7.3.1 Height of the machine

The height of the machine can be adjusted during production by using the cranked handle (A). The cranked handle is attached to the side of the machine. If the average weight of the birds in the flock varies greatly, the height of the main shaft can be changed so that the birds enter the machine properly and are handled properly.

Check the height of the machine regularly. If heavier birds are processed, the height of the machine should be lowered. If lighter birds are being processed, the height of the machine should be raised.

Figure 7.9 Height of the machine.