



## USERS MANUAL



# HG QUICK CUT

Slicing machine



## **We thank you for buying the new HG Quick Cut.**

Hedensted Gruppen A/S always try's to produce quality products, which you can count on. We are sure that you will be pleased with your new machine. To make sure that you get the most advantages from the machine from the start, it is important to study the functions very carefully.

The users manual contains, all the technical details and diagrams, an examination of the basis adjustments, a schedule with trouble shooting and mending of these, and a new section called "often asked questions" – or FAQ.

There are also small sections of spare parts with item numbers, which can be very useful.

There are pictures at the back of the manual of the machine and its parts. If you need service, it can be a great help both to you and our service team that we jointly according to the pictures can trace, where the problems are at the machine.

Therefore it is important that you always know, where the users manual is. We suggest that you keep it in the electric cupboard at the back of the machine.

From the factory the machine is rough adjusted, but because of the difference in mink, it is not sure that it fits 100 % to your mink.

An employee from Hedensted Gruppen will make the fine adjustment.

Before you get a visit for a start up, we will ask you, and the operator to read the users manual thorough, and to make sure, that the persons, who are going to work with the machine are present during the visit.

You also must make sure, that there are supplies of air and power 230V, and that it is lead to the machine.

Hedensted Gruppen A/S wishes you great pleasure with your new HG Quick cut.

Kindly regards

HEDENSTED GRUPPEN A/S

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## 2. Machine information.

HG Quick Cut TYPE:.....

MACHINE NO.:..... YEAR:.....

CUSTOMER:.....


DEALER:.....


.....

.....

.....

Type Sign:

|   |  |                                  |                                    |
|---|--|----------------------------------|------------------------------------|
|  |  | Vejlevej 15, DK - 8722 Hedensted |                                    |
| SERIE NR.   | <input type="text"/>                   |                                  |                                    |
| VOLT.   | <input type="text" value="230V + PE"/> |                                  |                                    |
| AMP.  | <input type="text" value="0,7"/>       | AIR                              | <input type="text" value="7"/> BAR |



### **3. Introduction.**

HG Quick Cut is used for cutting up mink.

The slicing machine is constructed to carry out a correct cutting of the male/female mink.

The capacity of the machine is about 350 pieces of mink pr. hour. (Both values are with trained users).

At the same time the machine has a flexible working area, which ensures a correct slicing of mink of variable sizes.

#### **3.1 Construction**

HG Quick Cut is constructed in surface treated steel with painted shield.

All the components are of the highest quality, and this combined with a well-arranged operation indicates, that this is a machine of high quality

Vertical and horizontal movements run on precision ball shears, which ensures a good repeatability.

#### **3.2 Warranty.**

There is 1 year of warranty on the HG Quick Cut.

Defect parts can be replaced, if the defect can be assigned to a fabrications error. Errors, which can be assigned to freight is not included in this warranty.

In cases of irresponsible treatment of the HG Quick Cut, no warranty is given, either on the machine or on damaged skins.

## 4. Warning.

Read this users manual **thoroughly** before using the machine.

Avoid staying too close to the machine, when you connect air and electricity, because the moveable parts can react quickly.

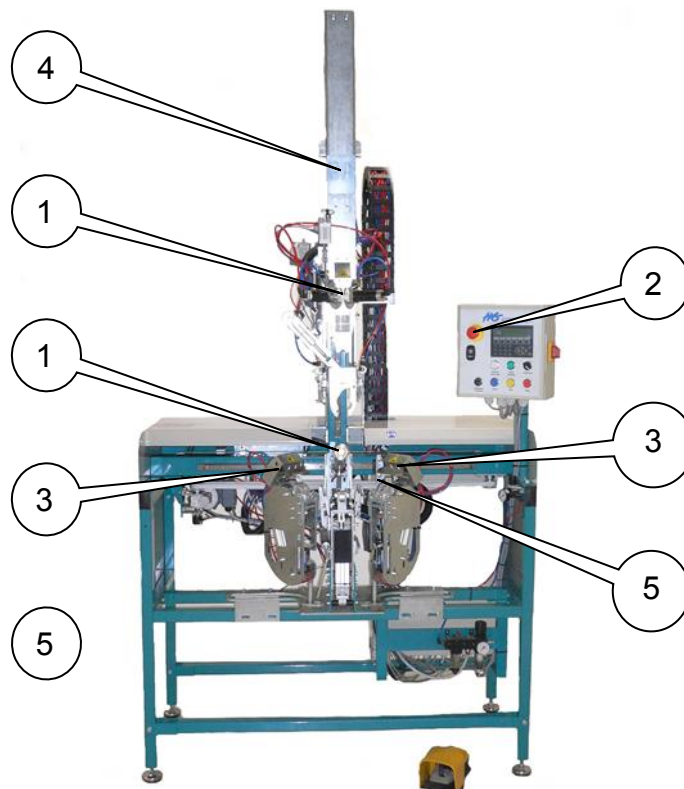
The operator must have instructions in use of the machine.

The machine must only be used for slicing of mink.

Wrong use or ignorance of the security instructions can cause damages on the body or breakdown of the machinery.

Pay attention in following sectors:

1. Look out the machine contains rotating knives. (1)
2. Emergency stop must not be covered or put out of function. (2)
3. The slicing machine contains vertical and horizontal moveable knives. (3)
4. Look out the slicing machine contains vertical moveable parts.(4)
5. There is a risk of jamming your fingers in the paw holder. (5)
6. By use of the machine you have to use eye protectors.



#### 4.1 Hazed signs.



##### **DANGER – HIGH VOLTAGE**

The operating box of the machine contains high voltage. Because of the danger, the box must not be opened by unauthorized employees.



##### **DANGER – ROTATING PARTS.**

Avoid touching the moveable parts of the machine with fingers or clothing, this can cause damages on the body.



##### **DANGER – SHARP KNIVES.**

The machine contains more sharp knives, both rotating and pneumatic moveable. Avoid touching with fingers and clothing, this can cause damage of the body.



##### **EAR- AND EYE-DEFENDERS DEMANDED.**

During operation of the machine glasses must be used, because hair, sawdust and other objects can be thrown out.

During operation ear defenders must be used, because the sound level of the machine exceeds the normally allowed.

## 5. Set-up of the Quick Cut.

The HG slicing machine has to be placed on a solid and plane floor, so that the machine can be operated standing or sitting on a special chair.

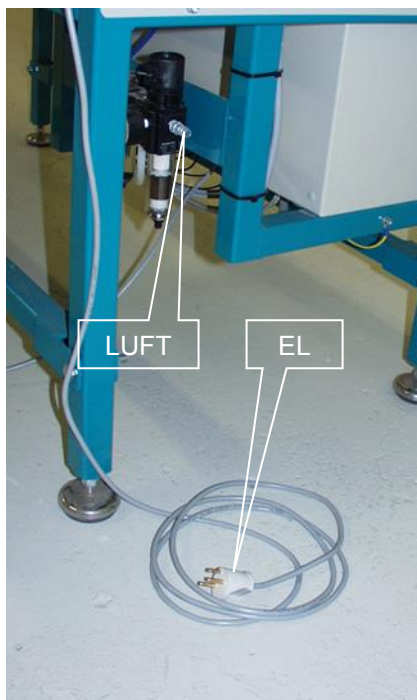
The height of the room must minimum be 300 cm.

The legs of the machine have to be adjusted, so that it stands in level and is steady without tipping. After set-up you can remove the transport fittings on the legs of the machine by help of the 4 bolts, if they annoy the user.

Notice that the weight of the machine is 200 kg.

Attention: Keep the transport fittings, if the machine has to be removed.

### 5.1 Connection



#### Electricity:

The HG Quick Cut is fit with a main supply to which 230 volt is connected with earth.

The machine has a maximum power consumption on 0,7 Amp during running.

#### Air:

The slicing machine demands a compressor pressure on min. 7 bar, and an air supply on min. 500 l/min.

The air is connected with an air coupling of the Cejn 320.

To avoid stop in the slicing, it is important that the air, which is used in the slicing machine is free of water and dirt, as well as rust from old pipes.

**Warning: The moveable parts will react quickly by connection of air.**

Air tube and electric cable must not lay loose on the floor, because of risk of personal damage.



## 5.2 Relocation

Before moving the machine you have to disconnect the air- and electricity connection. Pay attention, the moveable parts of the machine can change position, when the machine vents.

Mount the transport fittings on the legs of the machine, and move it with a palletizer. Pay attention that the cables and the tubes of the machine are not squeezed.

### **Warning:**

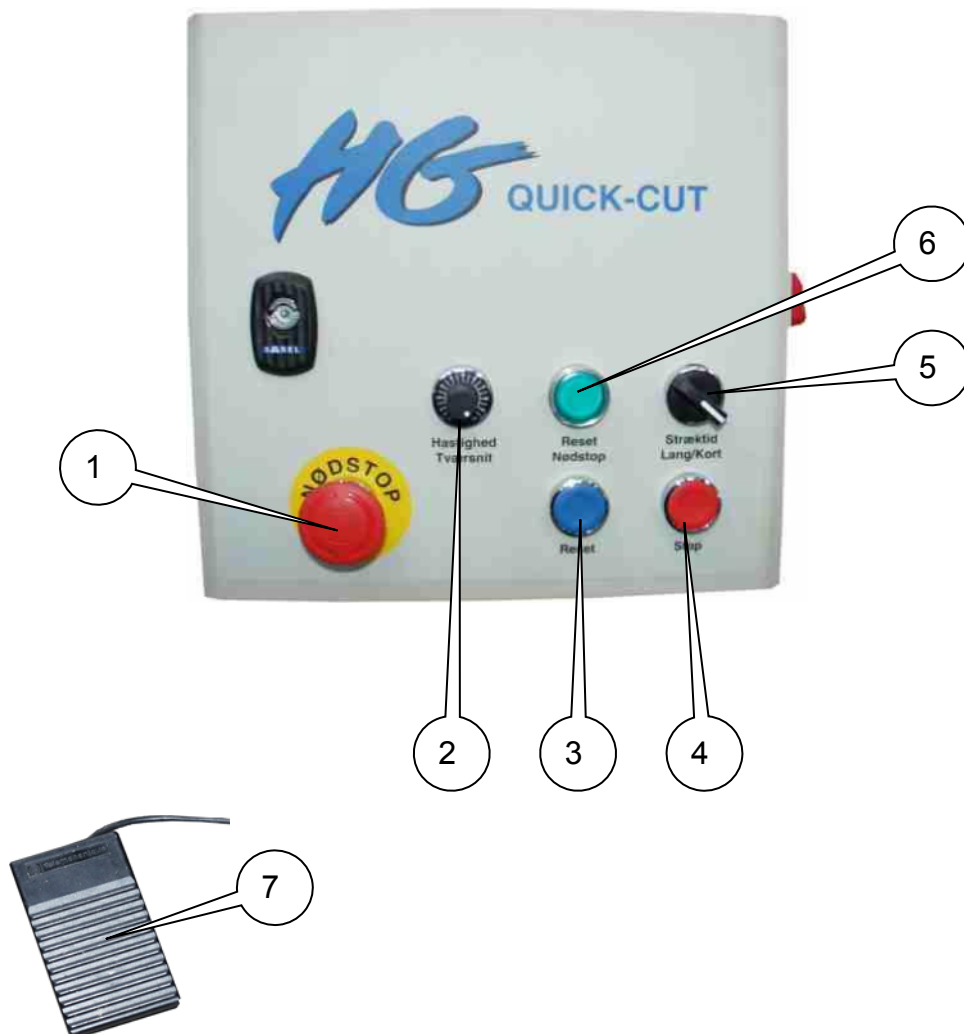
**Do not lift** the machine in the moveable tower.

Notice that the weight of the machine is 200 kg.

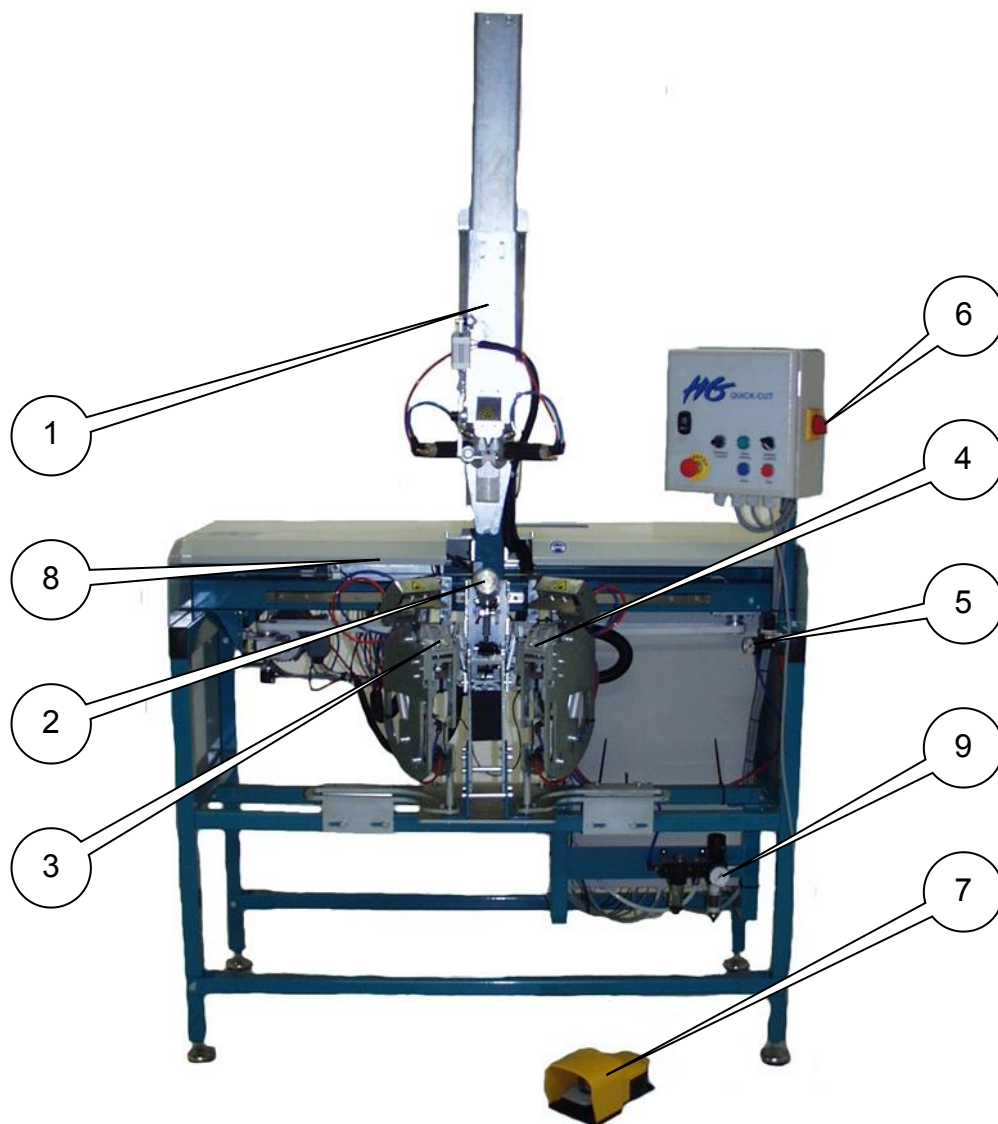
By set-up on a new location repeat the procedure, which is described under section 5.

## 6. Operation terms.

1. Emergency stop.
2. Adjust the speed of the cross knife.
3. Reset.
4. Stop – possibility for stopping between every sequence.
5. Long/short stretch time. (See section 8.1)
6. Reset emergency stop. After activation of emergency stop use this.
7. Foot pedal.



1. Tower with tail roll, tail slicing and spade for belly.
2. Cross knife.
3. Left paw holder/clip/cut system.
4. Right paw holder/clip/cut system.
5. Adjustment of stretch pressure.
6. Main switch.
7. Foot pedal.
8. Valve system.
9. Air pressure.



## 7. Starting up the HG Quick Cut

The below procedure is made without mink.

1. Connect Electricity 230V + PE
2. Connect air Min. 7 bar

**Warning: The moveable parts will react quickly and run to starting position.**

3. Check input pressure (7 bar) - Page 11, point 9
4. Adjust the input pressure (7 bar) - Page 11, point 9
5. Emergency stop has to be disengaged - Page 10, point 1
6. Press the button Reset Emergency stop – page 10, point. 7
7. Press the button Reset - Page 10, point 3
8. Press the foot pedal - Page 10, point 9

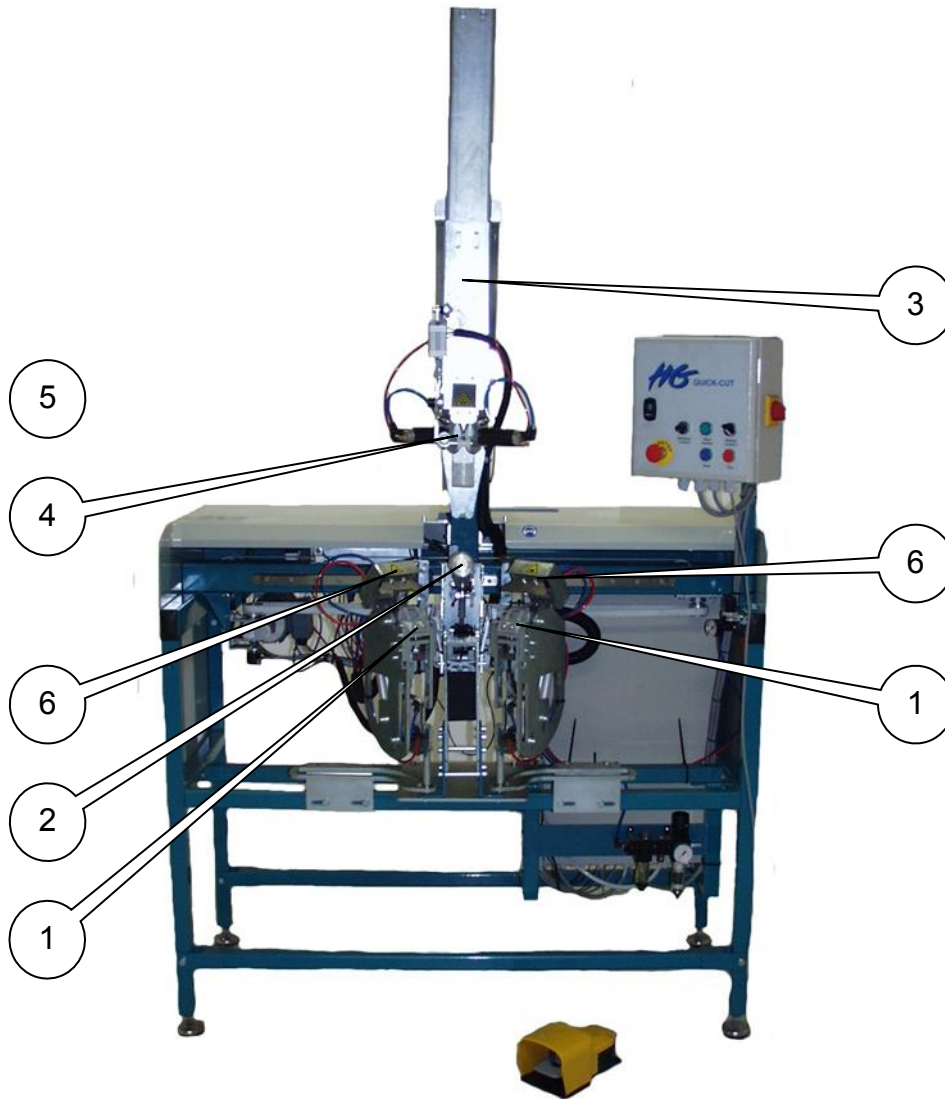
**Warning: Now the machine will run a cycle.**

8. Watch the stretch pressure - Page 11, point 6 (min. 1 bar - max. 4 bar)
9. After running a cycle the machine returns to starting position.
  - 9.1 You can adjust the stretch pressure (page 11, point 5)
  - 9.2 Adjust other things in program.
10. Repeat this procedure point. 7 to 10.1, until the machine has the wanted pressure.

**Warning: Only adjust the machine when it does not run, or you risk to get squeezed between the moveable parts of the machine. When you adjust the machine, do not activate the foot pedal.**

## 8. Operating the HG Quick Cut

The slicing machine can be adjusted so that it fits to the need of the operator.



- 1 Take the rear paws of the mink between forefinger and thumb, so that the belly points against the machine.
- 2 Place the paws in the paw holders (1)  
NOTICE! Do not place the paws too deep in the paw holders, this can cause that the slicing do not get optimal.

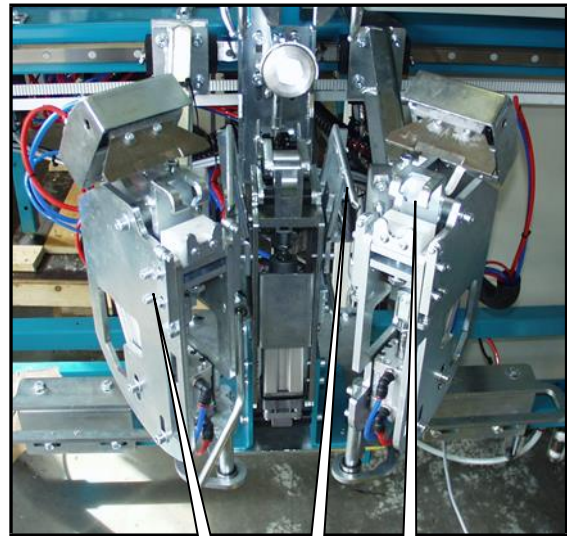
**Warning:** Avoid putting your fingers between the paw holders.

- 3 Lock the paw holders by activating the foot pedal.
- 4 Then the machine pulls the paws from each other, and at the same time the knife (2) runs against left.
- 5 Before you start to slice:
  - a) Fetch the tail of the mink with the right hand.
  - b) Turn the hand so that it is placed right under the tail root and the skin.
  - c) Decide the cut by pulling or pushing the body.
- 6 The Ø50 knife (2) to the long running cut now cuts from left against right. When the knife reaches the right hind leg, the knife returns to starting point.
- 7 The spade (4) runs down and loosens the skin on the belly.
- 8 The Ø80 knives (3) cut the V-cut by a down going movement.
- 9 Under the V-cut you lift the tail point to vertical position and you put the tail into the tail roll (3), and this will pull the tail against the nylon roll and cut the tail, while the spade runs up with a vertical movement. Now the tail is cut up. The spade returns to starting point.
- 10 Paws are clipped (9) or cut – release the mink.
- 11 Body holder returns to starting position, and the mink dumps down on the conveyor belt.
- 12 The operator takes a new mink, and the machine returns to starting position.

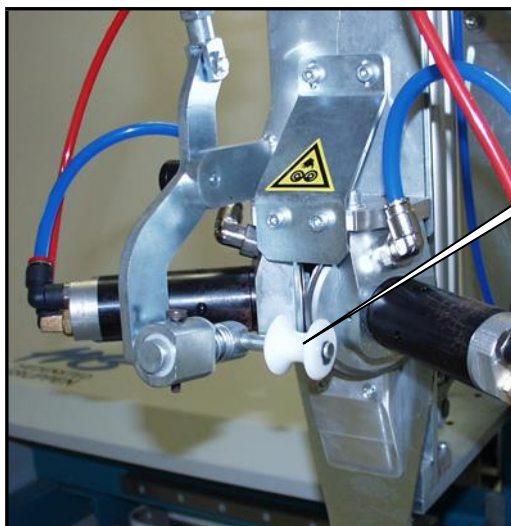
## 9. Adjustment

To obtain the optimal slicing it is necessary to adjust the machine individual to each operator.

1. Adjust the thigh supporter (1), so that they give a good support.
2. Adjust the paw clamp (2), so that the paw is properly tightened during the slicing.
3. Adjust the paw knife (3), so that it cuts or clips paw.
4. Adjust the tail roll (4), so that the centre of the two 80 mm knives are right outside the upper edge of the tail roll.



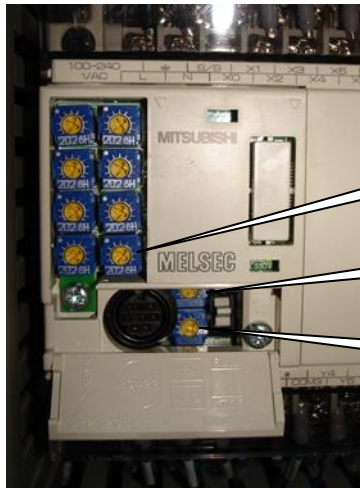
3 1 2



4



The numbers of paw clips and the closing time of the tail roll can be adjusted on the PLC in the electric cupboard. (See page 26 for the position of the PLC in the electric cupboard).



Adjust the number of paw cut on the potentiometer(5) with a small star screwdriver. Turn against the watch for less cut, and with the watch for more cut.

7

5

6

You can adjust the number of paw cut between 1 and 5 cut.

Closing time for tail roll is the time between the belly spade is down, and tail roll closes and the spade runs up. On the potentiometer (6) you can adjust the time between 0,5 sec. and 3,0 sec. Turn the potentiometer against the watch and you reduce the time, and turn with the watch you increase the time.

#### **Knife stop in the left side**

Here you can connect and disconnect the stop of the cross knife in the left side. When it is connected the knife stops in the left side after the mink is stretched out. To continue the cut you have to activate the pedal. If the operator wants to leave the stop out because the mink is placed correctly, you can keep the pedal down and the knife does not stop. When you disconnect the stop, the knife continues with the cut as soon as it has reached the position in the left side.

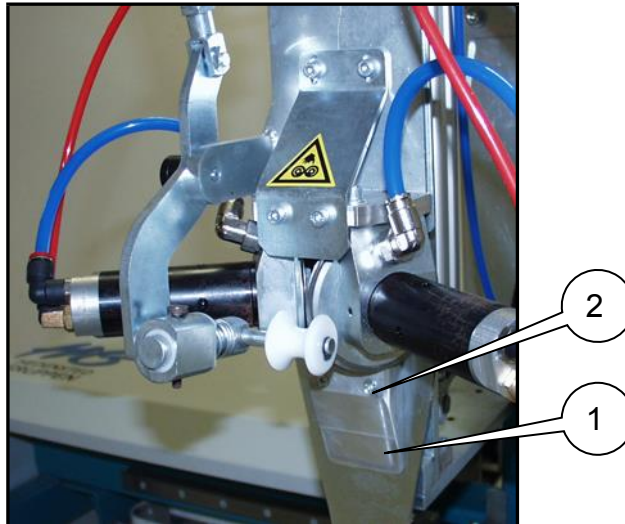
If you pull the potentiometer (7) to the left the stop is disconnected and to the right the stop is connected.

**Warning: The other potentiometers on the PLC are only resolved the service men from Hedensted Gruppen A/S. Adjustment of these can cause breakdown of the machine, after which Hedensted Gruppen A/S disclaims responsibility for damages skins and machine parts.**



### 9.1 Change between male and female.

To obtain the optimal slicing you also have to change between the wedges on the belly spade. The wedge positioned the mink correctly in proportion to the triangular cut.



By slicing of MALE mink wedge 1 has to be mounted alone.

By slicing of FEMALE mink the wedges 1 and 2 have to be mounted.

The stretch pressure on the paw stretch also has to be changed between MALE and FEMALE.

By Male mink the stretch pressure is adjusted to about 3 bar.

By FEMALE mink the stretch pressure is adjusted to about 2 bar.

NOTICE: If you slice with stretch pressure under 2 bar the reverser on the operation panel has to be placed on long, in order to complete the stretch before the cross cut is made. Long stretch time can also be used, if the operator is uncertain, because the cross knife waits longer before it cuts. Then the operator have more time to place the mink the right.

## 10. Maintenance/Cleaning

To make the slicing machine work optimal, you have to clean and maintain it after following description.

### 10.1 Daily cleaning and maintenance

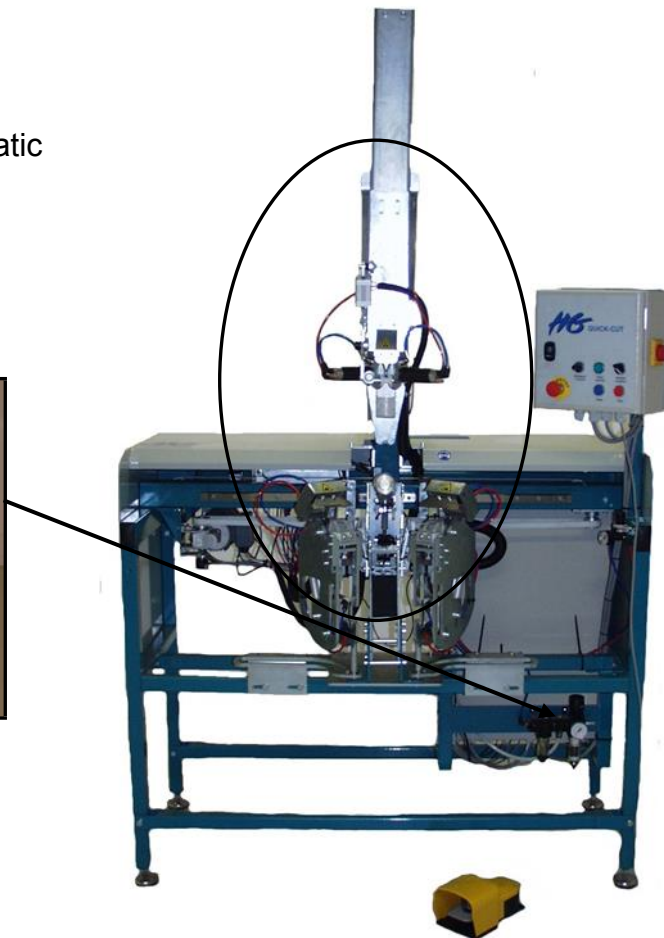
Before you start cleaning, disconnect electricity and pneumatic air.

- 1 After use only clean the machine with pneumatic air.
- 2 Remove slicing rests and sawdust from the moveable parts of the machine, so they can run freely and easily.

**Cleaning:** Only use pneumatic air in the area of the circle.



1



## 10.2 Weekly cleaning and maintenance

Before cleaning the machine disconnect electricity and pneumatic air.

1. After use clean the machine with pneumatic air.
2. Empty water separator (1).
3. Check the oil level in the pneumatic lubricator and replenish after need (2).

**Always** use the right air oil: Statoil NUTO H 15.

Hedensted Gruppen – item no. 476550

4. Shears and slippery surfaces are dried clean and oiled with fine oil.

Hedensted Gruppen – item no. 476590

5. The lubricating nipples of the shears are oiled with grease.

Hedensted Gruppen – Item no. 476570 (Patron 400g)

## 10.3 Storing of the HG Quick Cut

To obtain a long lifetime and good reliability by starting up, it is necessary to clean the machine well and make an extra oiling. The slicing machine is cleaned as described under daily/weekly cleaning.

Shears and slippery surfaces are dried and oiled with fine oil

Hedensted Gruppen item no. 476590

The lubricating nipples of the shears are oiled with grease.

Hedensted Gruppen item no. 476570 (Patron 400g)

Oil the air engines extra well by opening the pneumatic lubricator and run a couple of times with the machine.

Remember: To close completely for the pneumatic lubricator again, and then open 1 round then it is ready for next season.

**Always** use the right air oil: Statoil NUTO H 15.

## 11. FAQ

| Problem  | Cause   | Solution   |
|--|---|--|
| When I put the mink in and step the pedal the paw is pulled out of the paw holder? | The stretch pressure is too high or there is dirt in the slide  | Reduce the stretch pressure, and if it does not help, dismount the air of the machine, clean and massage the slide.  |
| The cross-section is not quiet over the mink, even though I have just put it in?   | The paw holders are mutual incorrectly adjusted.  | Adjust the screws, which are marked with 1a on figure 1, so that the line between the two is quite right.  |
| When I make a triangle cut, the cut is not deep enough?                            | The spade does not cut deep enough in the mink.   | Adjust the depth i   |
| The tail is not cut up properly?   | The tail roll is wrong adjusted, or it does not get close enough to the blade. The blade can be deaf. | Check that the tail roll attach can move unhindered in the length direction, clean for dirt. Sharpen the blades if necessary.                                      |
| I have tried the various possibilities, but still it does not work?                |   | Dismount the air of the machine and check that the tail roll can reach right to the blades. The tail roll has to be placed right beneath the centre of the blades. |

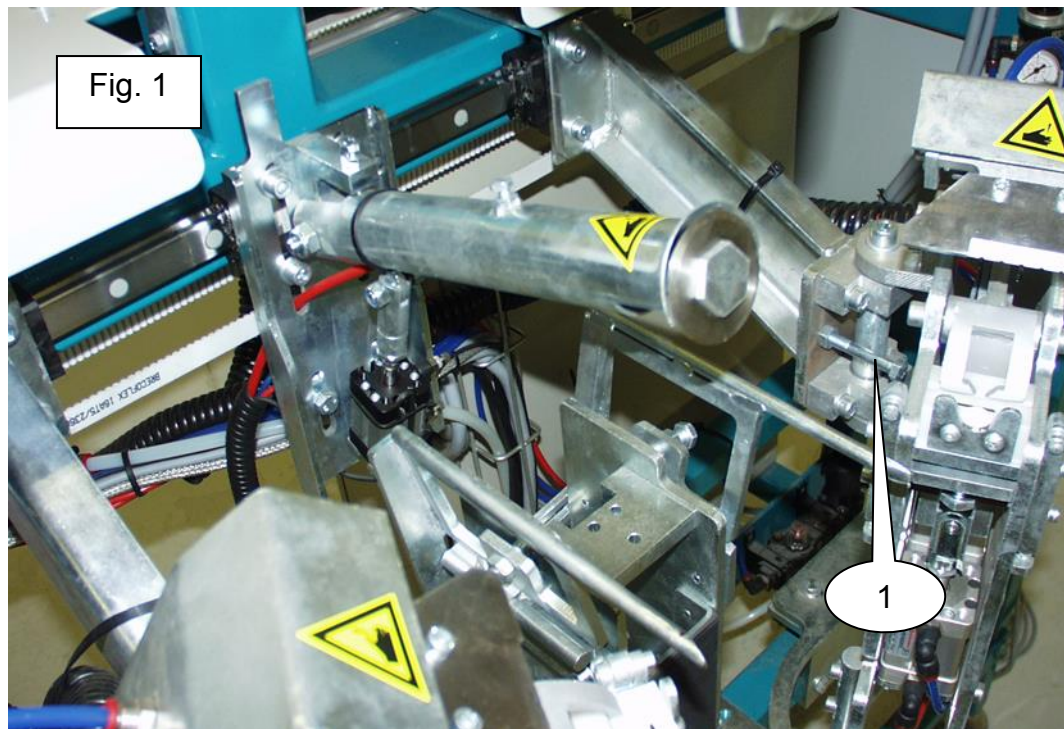
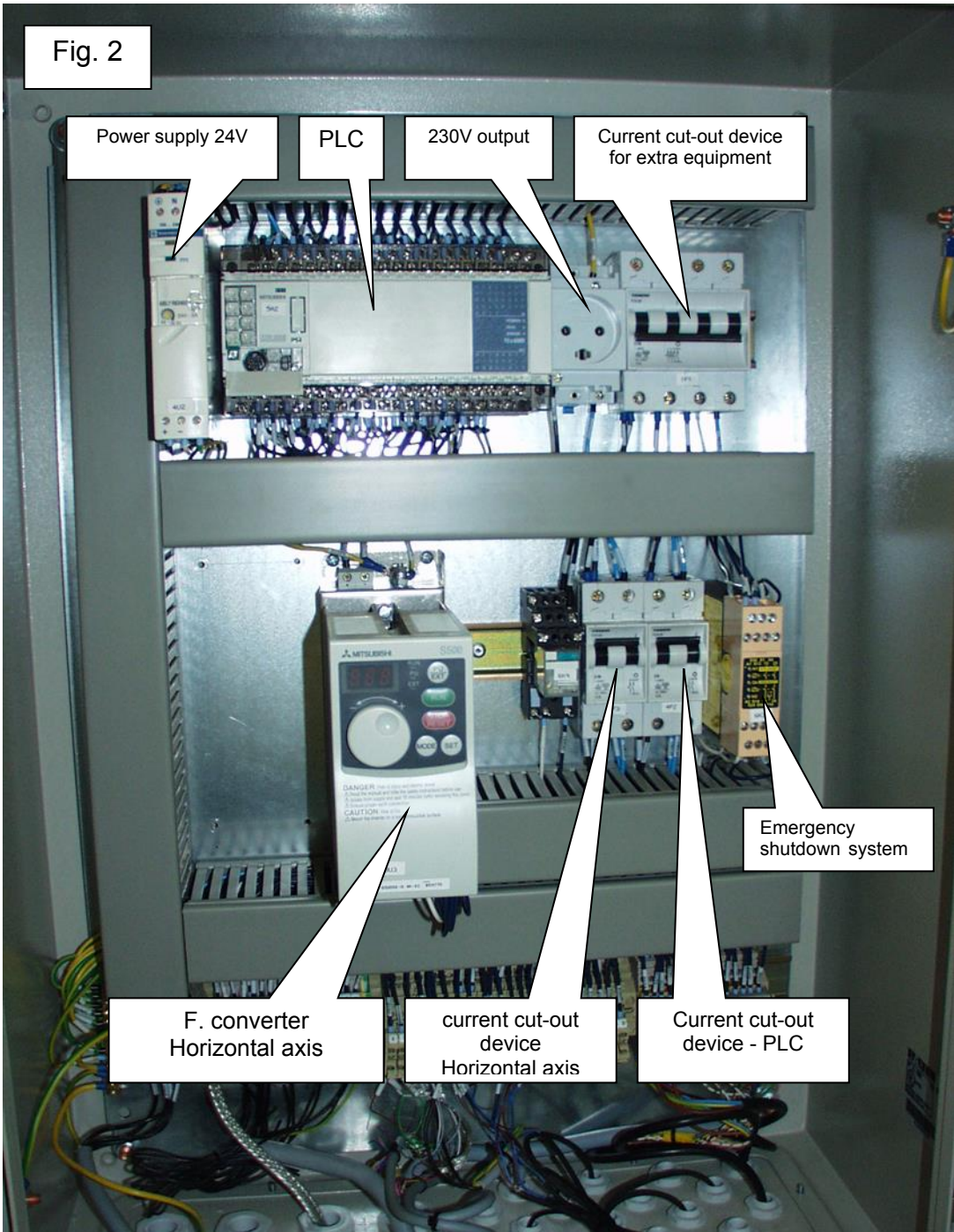


Fig. 1





## 12. EC Declaration of Conformity

Hedensted Gruppen A/S

Vejlevej 15,

8722 Hedensted

- herewith declares that:

HG slicing machine Quick Cut

Typenumber 207810

- is in conformity with the provision of:

The Machinery Directive 98/37/EF

The low Voltage Directive 73/23/EØF

- and the following harmonised standards have been applied.

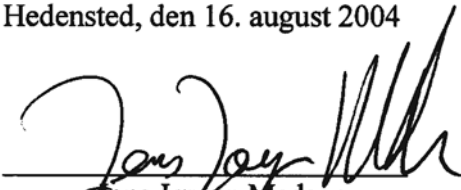
EN 292-1

EN 292-2

EN 60/439-3

EN 294

Hedensted, den 16. august 2004

  
Jens Jørgen Madsen  
Direktør

### 13. Technical specifications.

|                  |   |                         |
|------------------|---|-------------------------|
| Voltage          | : | 230V + PE               |
| PLC-control      | : | 230 V/ 24 V DC          |
| Pneumatic air    | : | 7 bar                   |
| Air volume       | : | Min. 500 l/min.         |
| Air connection   | : | Cejn 320 quick coupling |
| Capacity         | : | 350 mink pr. hour       |
| Weight           | : | 200 kg                  |
| Dimensions       | : |                         |
| Width            | : | 1400 mm                 |
| Transport height | : | 2400 mm                 |
| Operating height | : | 3000 mm                 |
| Length           | : | 900 mm                  |