

# ***HG***

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## **USERS MANUAL**



# **HG GRID CONVEYOR BELT ANSI**

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## 2 Introduction

HG Grid Conveyor may only be used in industrial contexts for mink processing, i.e. with the purpose of moving mink.

HG Grid Conveyor is produced to ensure a simple, user friendly and ergonomically product, that includes all demands to safety and working environment.

### 2.1 Original instructions

This user manual is Hedensted Groups original instructions for the HG Grid Conveyor.

### 2.2 Purpose

The purpose of these instructions is to ensure correct installation, use, handling and maintenance of the conveyor.

### 2.3 Accessibility

The instructions are to be kept in a location known to the staff and must be easily accessible for the users e.g. operators and maintenance personnel.

#### **NOTICE**

**Persons unable to read English shall have this user manual translated and explained before operating or maintaining the machine. Everyone working on the machine shall know how to operate it safely and correctly to avoid possible injury.**

#### **⚠️ WARNING**

**Misuse of the machine in any way may result in serious injury or death. Hedensted Group provides the following information and instructions for the intended use and care of this machine, and relies upon the purchaser to see that these instructions are made clear to any and all persons installing, cleaning, servicing, maintaining, repairing and operating the machine.**



**This user manual must always be kept near the machine so that it is accessible to the operator and maintenance personnel.**

### 3 Definitions

**Alteration:** A physical change, addition, or deletion that modifies the original design, or intended functioning.

**Authorized personnel:** Qualified personnel identified by the user (employer) or supplier to perform a specific task. See ***Qualified personnel***.

**Designated person:** Selected or assigned by the employer or employer's representative as being competent to perform specific duties.

**Individual:** A person, including personnel, who may or may not be under the direct control of the supplier or user. See also, personnel.

**Maintenance personnel:** Qualified personnel trained and authorized to maintain the machine.

**Manufacturer:** The person, company, or agency responsible for the design, fabrication, or performance. See ***supplier***.

**Modification:** Any change, addition to, or reconstruction of a component. See also, ***Alteration***.

**Modifier:** Any supplier that changes the original purpose, function or capacity of the machine or machinery system by design or construction. See also, ***supplier***, ***user***, and ***modification***. Under certain circumstances (i.e., while acting as a builder, modifier, integrator), the user becomes the supplier.

**Must:** See ***Shall***.

**Operator:** An individual who performs production work on a machine or who controls the machine, machine etc.

**Personnel:** Individuals who are employed by or on behalf of the user or supplier. The term personnel includes subcontractors, consultants, or other contract workers, under the direct or indirect control of the supplier or user.

**Qualified person:** A person who, by possession of a recognized degree in an applicable field or certificate of professional standing or who, by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.

**Qualified personnel:** Individuals who, as a result of training and experience, understands and demonstrates competence with the design, construction, operation or maintenance of the machine and the associated hazards.

**Repair:** The process of reconditioning, renewal, or replacement of parts, components, and/or subsystems to a condition equal to the original manufacturer's specifications to ensure performance in accordance with the applicable requirements.

**Service / maintain:** Performance of procedures or adjustments described in the supplier manuals, information for use or the user developed planned maintenance procedures which may affect any aspect of machine performance. Examples can include fault diagnosis, equipment strip-down and repairing.

**Shall:** The word “shall” is to be understood as denoting a mandatory requirement.

**Should:** The word “should” is to be understood as denoting a recommendation.

**Supervisor:** An individual authorized to act **on behalf of the user** and to direct the activities of other personnel.

**Supplier:** An individual, corporation, partnership or other legal entity or form of business who provides equipment or services. A supplier can include but not be limited to any of the following: the manufacturer; manufacturer's agent, representative or distributor; reseller; installer; modifier; rebuilder; integrator. When the user provides equipment or services, the user is considered to take on the role of supplier within the scope of that work activity.

**User:** An individual, corporation, partnership other legal entity or form of business that utilizes a machine, machine production system or related equipment.



**If you do not understand everything in this user manual contact your Supervisor or Hedensted Group for assistance before using the machine and associated equipment**

## 4 Symbols and signs

This user manual uses the conventions shown below to emphasize critical or safety related information.

Carefully read and follow all safety instructions in this user manual.



**Obey all safety messages that follow the symbol to avoid possible injury or death.**

### Safety alert symbols and signal words in the user manual

Safety alert symbols are placed in the user manual to alert you to potential personal injury hazards and/or machine hazards.

Signal words are used to identify safety information within the text of this user manual.

	<p>This is the safety alert symbol. When you see this symbol in this manual, look for one of the following signal words and be alert to the potential for personal injury. The symbol can also appear only with text.</p>
	<p><b>DANGER</b> indicates a hazardous situation which, if not avoided, <b>will</b> result in death or serious injury.</p>
	<p><b>WARNING</b> indicates a hazardous situation which, if not avoided, <b>could</b> result in death or serious injury.</p>
	<p><b>CAUTION</b> indicates a hazardous situation which, if not avoided, <b>could</b> result in minor or moderate injury.</p>
	<p><b>NOTICE</b> is used to address practices not related to physical injury.</p>
	<p><b>Safety instruction</b> (or equivalent) signs indicate specific safety-related instructions or procedures.</p>

#### 4.1 Safety alert symbols and signal words on the machine

Safety alert symbols are placed on the machine and associated equipment to alert you to potential personal injury hazards and/or machine hazards.

Do not soil, paint, alter, deface or remove any safety or operating procedure decals or placards from the machine. Replace them if they are illegible or missing.

Signal words are used to identify safety information on the safety signs attached to the machine.



**Obey all safety messages that follow the symbol to avoid possible injury or death.**







**This is the hazard alert sign for reading and understanding the user manual and other safety instruction.**

**Lack of reading and understanding the user manual and other safety instruction could cause severe injury or death.**



## 4.2 Mandatory Signs

	Use safety shoes to avoid crushing of feet by e.g. falling objects.
	Use gloves during maintenance to protect hands from e.g. sharp and rough edges and/or hot and cold surfaces.
	Use eye protection during maintenance and repair.
	Use ear protection if the sound pressure level exceeds 80 dB(A).

## 4.3 The Obligations of the User

The user of the conveyor and associated equipment is obliged to ensure that the following criteria are met:

- To have read and understood the user manual.
- To observe and adhere to the instructions in all the relevant manuals.
- Allow only Qualified personnel trained to use the machine and associated equipment. The training must be performed by an authorized factory representative or Qualified supervisor as to proper and safe use of this machine and its related accessories.
- The operator must have full understanding of the machine and associated equipment's limitations and the intended use of the equipment.
- Any faults and/or deviances of the machine and associated equipment must result in the machine or associated equipment being taken out of use and any faults and/or deviances are repaired or components are changed.

#### 4.4 The user company shall perform the following



**Safe-work procedure(s)  
Safety Instructions**



**Any service, maintaining or repairing must be performed only by Qualified or Maintenance personnel that are Authorized, competent and trained for the task.**

These Safety Instructions shall be placed near the machine.

## **SAFETY INSTRUCTIONS**

### **SAFETY PROCEDURES**

1. **ALWAYS** read and understand the user manual and all safety labels before operating this machine and associated equipment.
2. **ALL** personnel are to be alerted to the potential hazards indicated by the safety labels on this machine and associated equipment.
3. **ALWAYS** only use this machine and associated equipment for the purpose for which it is constructed. See user manual for the proper use of this machine and associated equipment.
4. **ONLY** trained and Qualified personnel are to be permitted to operate this machine and associated equipment. Training should include instruction in operation under normal conditions and emergency situations.
5. **ALWAYS** service, maintain and repair this machine and associated equipment by Qualified personnel trained and authorized for the task. If necessary follow Lock-out procedures before servicing, maintenance, cleaning or other similar activities.
6. **NEVER** make any adjustments while machine and associated equipment is in use.
7. Before use, check that: - No maintenance work is being performed. - Keep the floor around the machine clean and free of any scrap, dust, oil, grease etc. to minimize the danger of slipping. - Maintain safe working distance and use personal protection equipment as authorized by your supervisor.
8. **NEVER** alter the safety characteristics of this machine and associated equipment.
9. **ALWAYS** conduct routine inspections and corrective/preventative maintenance measures to ensure that all safety features are retained and function properly.
10. **NEVER** operate this machine and all associated equipment without everything is in proper working order.
11. **ALWAYS** only attach the machine in the described attaching points



**These are only suggested safety instructions and the instructions may be modified, as needed, to provide additional protection, or to meet compliance with federal, state or local regulations**

## 5 Safety

### Read the user manual

Machine operator must read this manual carefully and receive training in the machine's functions before starting to work with it. If operators are ignorant of certain details, they may be at risk of physical injury when operating the machine.

If any of the warning labels are about to fall off – or so worn or damaged that the symbol is not clearly visible, the label in question must be replaced.

### **NOTICE**

**In addition to this user manual, all applicable federal, state and local safety regulations shall be adhered to!**

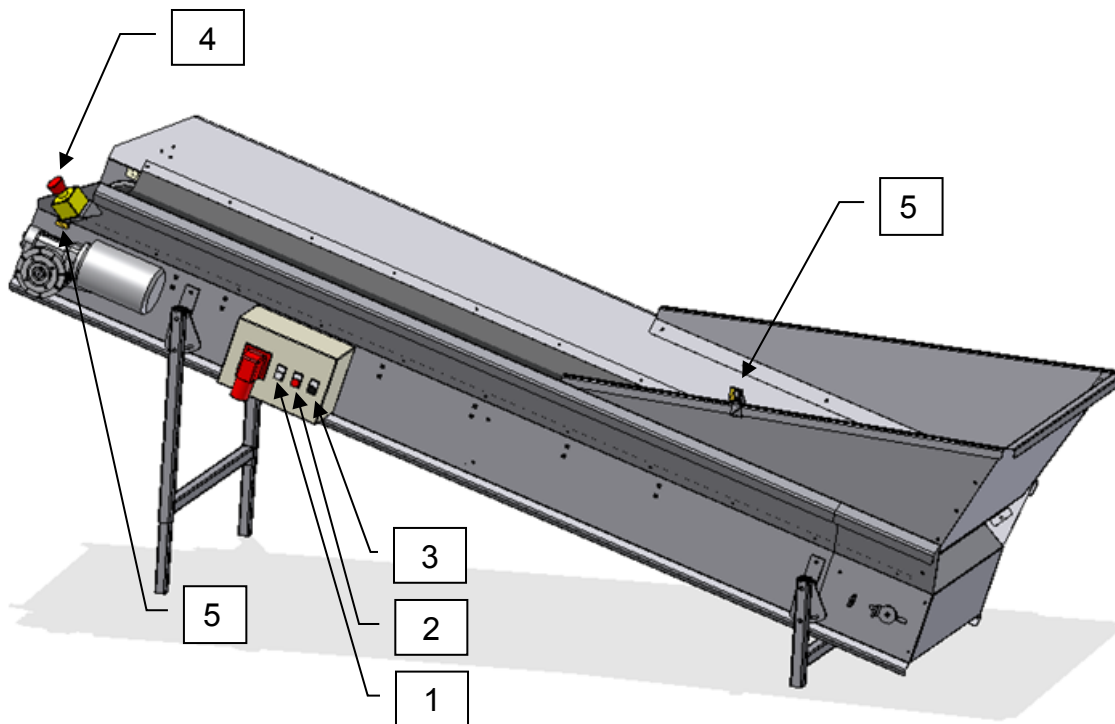


The operating box of the machine contains high voltage. Because of life danger, the box must not be opened by unauthorized employees



Do not touch the moving parts of the machine. This applies both to fingers and items of clothing, because there is a risk of serious injury if either get in contact with these parts.

## 6 Operating terms

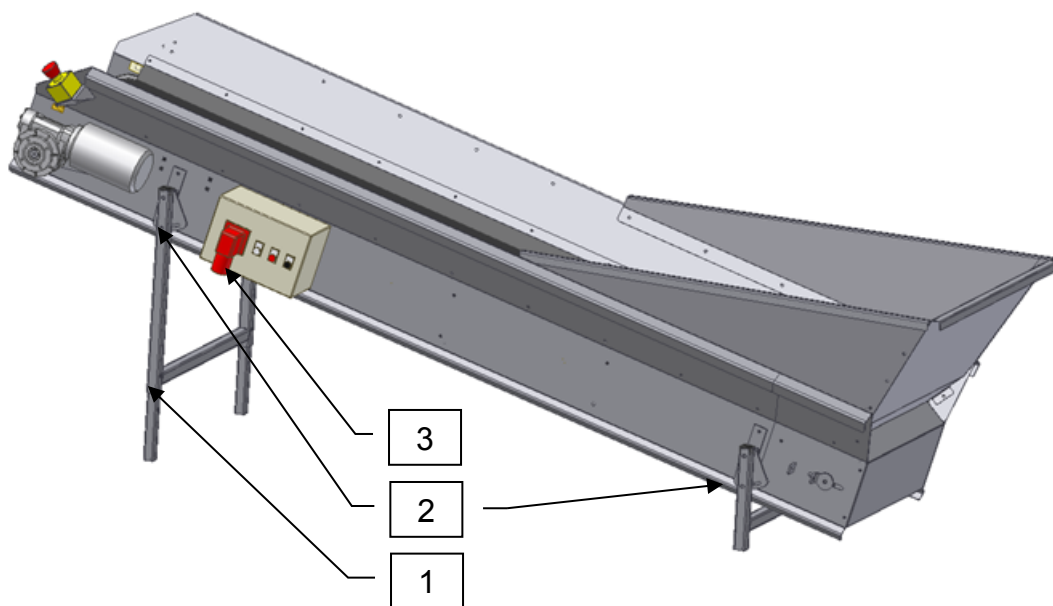


1. Start.
2. Stop.
3. Manual / Auto1 / Auto2.
4. Emergency stop.
5. Photocell.

## 7 Set-up of the Grid Conveyor belt

Before using the Grid Conveyor belt, you must adjust the different adjustment possibilities of the Grid belt to obtain the correct and optimal utilization.

The belt is as a standard delivered with the operating panel and the emergency stop mounted on the left side. If the belt should be placed so that the operating panel must be moved to the right side, please contact Hedensted Group A/S.



### 7.1 Adjustment of the legs

To obtain the wanted height the legs of the Grid Conveyor belt can be adjusted. Loosen and remove the bolts in both sides at position 1. Then lift the belt to the wanted height and mount the bolts again.

When the height is adjusted, you should adjust the angle of the legs, so that the belt stands steady and safe.

Loosen both bolts on the right leg of the belt at position 2 and adjust the legs to vertical. Then tighten the legs again.

Repeat the above procedure at the low legs of the belt.

## 7.2 Connection of voltage

The HG conveyor belt is fit with a 16A CEE-socket (4) with 3 x 220 volt including earth. (3xF + PE)

The engine has a maximum consumption during use at 2,0A.

After connection you have to check that the belt runs in the correct direction (See section 8.1).

If it is necessary to turn the direction of running, the phases must be switched.

In the bottom of the CEE-socket, there is a round white plate, in which two socket legs are mounted. Turn these two legs 180° with a big screwdriver.

### **NOTICE**

**The HG grid conveyor belt is supplied with a security relay to avoid an uncontrolled start when connecting power.**

### **⚠ WARNING**

**Electric wires must always be placed so that they do not disturb the operator and is in no danger of being twisted into the moveable parts of the machine.**

## 7.3 Relocation

Before moving the HG Grid Conveyor belt disconnect the electrical connection.

By set-up on a new location repeat the procedure above.

## 8 Operation instructions

After connection of your HG Grid Conveyor belt (See section 7), it is ready for use. The belt can run after following methods.

### 8.1 Manual function

The manual function of the belt gives the operator full control over the start/stop functions.

First turn over the Manual/Auto1/Auto2 function button of the belt to Manual.

Turn the emergency button  $\frac{1}{4}$  round clockwise in order to check that the button is activated.

Now you can start the belt on the start button and the belt will run non-stop until you stop it using the stop button or the emergency stop.

### 8.2 Auto 1 – Slicing

When the belt runs auto1 the front photocell switches on. It positions the bodies at the end of the belt and stops. If you remove the body, the next will run in position.

First turn the Manual/Auto1/Auto2 function button on the belt to Auto1.

Turn the emergency button  $\frac{1}{4}$  round clockwise to check that the button is activated.

Now you can start the belt on the start button and the belt will run non-stop until the photocell at the top is blocked. Now the belt stands in waiting position until the body is removed and the next runs in position. If the photocell is blocked when activating the start button, the belt will not run, but go directly to waiting position. If the belt is empty it will continue to run non-stop.

#### **NOTICE**

**When running automatically the photocell must reflect on the reflex mounted on the opposite side of the belt. Fat, sawdust and other things in front and on the lens of the photocell can cause functional failure.**

### 8.3 Auto 2 – Emptying function

When the belt runs Auto2 the photocell mounted on the funnel switch on. When the visual field of the photocell is blocked by bodies from the body drum the belt starts to run until it detects the reflex again.

The position of the photocell and by this the fill up of the funnel with bodies can be adjusted by moving the fitting on the edge of the funnel.

The belt will continue moving bodies away from the drum until the front photocell is blocked. Then it stops so that the bodies do not fall on the floor.

First turn the Manual/Auto1/Auto2 function button of the belt on Auto2.

Turn the emergency button  $\frac{1}{4}$  round clockwise in order to check that the stop is activated.

The belt is in waiting position until the bodies block the photocell of the funnel.

Is the photocell blocked or can't it detect the reflex by activation, the belt will run until it can see the reflex again, or the photocell in the front is blocked.

#### **NOTICE**

**When running automatically the photocell must reflect on the reflex mounted on the opposite side of the belt. Fat, sawdust and other things in front and on the lens of the photocell can cause functional failure.**



## 9 Maintenance



**You MUST follow the lock-out procedure before doing any maintenance work.**

### Lock-out

#### SAFETY PROCEDURES

1. Turn the main switch to the OFF-position.
2. Remove the power supply and secure it, so that no one unintentionally can plug it back in.
3. Wait 10 minutes before opening the electrical panel, due to stored power in the frequency inverter.
4. Perform maintenance, cleaning or repairs.

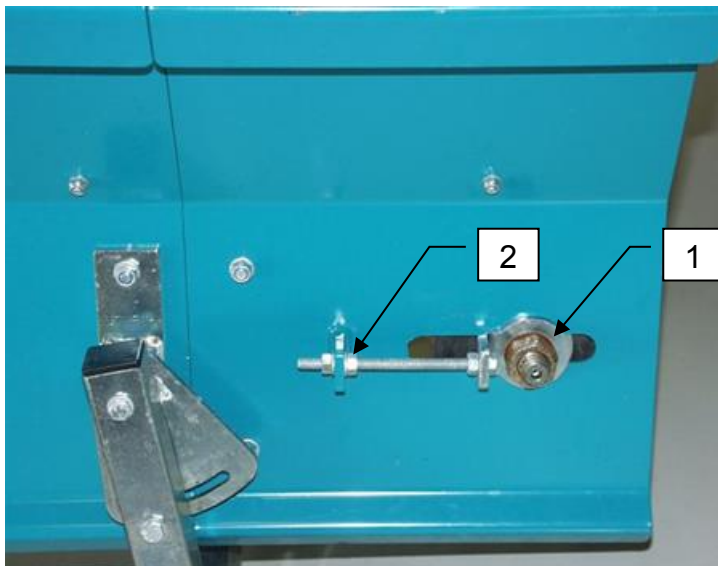
HG Grid Conveyor belt is mounted with maintenance free bearings and manufactured of finished materials to minimize the maintenance of the belt. However, you should keep it clean to secure optimal running.

## 9.1 Tighten up the belt

The HG Grid Conveyor belt is mounted with a belt, which is self-tightening around the driving wheel. The belt should hang 5-15cm under the sides of the transport belt, because the weight of this sack keeps the teeth of the driving wheel in gear.

When tightening, you loosen the centre bolt of the turning wheel (1) in both sides. Loosen the check-nut at position 2 and tighten the belt so that it hangs 5-15cm. Now measure the length of the belt tightener to secure that both sides are tightened equally. Tighten the bolts (1+2) afterwards.

If the belt doesn't run straight it must be adjusted further according to the same



procedure.

## 9.2 Cleaning

You can clean the HG Conveyor belt with air or water. When cleaning with water, avoid splashing water on the operating box, the engine and the bearings.



**Unauthorized modifications, additions or changes on the HG Grid Conveyor belt, are not allowed because of the overall security. The producer as well as the supplier are not responsible for damages caused of the above. The risk of such a misuse is only in the responsibility of the consumer.**

## 10 Technical specifications

Electric supply	:	3 x 220 V
Size of engine	:	0,37 kW
Electric Connection	:	16A CEE
Speed of belt	:	17,5 rotation/min
Width of belt	:	550 mm
Dimensions	Length	: 2900 mm
	Width	: 980 mm
	Height	: 1140 mm

## 11 EC Declaration of Conformity

Hedensted Group A/S  
Vejlevej 15,  
8722 Hedensted  
Tlf. (+45) 75 89 12 44  
Fax (+45) 75 89 11 80  
[www.hedensted-gruppen.dk](http://www.hedensted-gruppen.dk)

- hereby declares that:

HG Grid Conveyor belt  
Typenumber 204305

- is in conformity with the provision of:

The Machinery Directive 2006/42/EF  
The Low Voltage Directive (LVD) 2014/35/EU

- and the following harmonised standards have been applied.

DS/EN ISO 12100-1:2011  
DS/EN 61439-3:2012  
DS/EN ISO 13857:2008

Hedensted d.17/8-2005

  
Jens Jørgen Madsen  
Direktør