

# HG

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## USERS MANUAL



## HG SELF-EMPTYING BODY DRUM

ø150

CE

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## 2. Introduction.

HG Body drum is a product designed by Hedensted Group A/S in order to clean and soften bodies to pelting. This product can be adjusted so that the customer obtains the best possible outcome in relation to the requirements and needs, with minimum waste of time and sawdust.

The drum is equipped with automatic parallel lift gates, respectively, fabric softener and discharge to make the work easier and the dust nuisance is limited to an absolute minimum. The machine also has a 16A CEE sockets for conveyor so that the tape is switched on when filling sequence runs.

### 2.1 Warranty.

There is 1-year warranty on HG ø150 body drum.

Defective parts can be replaced if the fault is ascribed to manufacturing defects, errors ascribed to freight are not covered by this guarantee.

In case of improper operation of the HG body drum, there is provided no guarantee either on the machine or the damaged skin.

## 3. Warning.

Read this manual **carefully** before use.

The machine must only be used for cleaning and softening of bodies according to instructions.

The operator must have instruction in the use of the machine.

Personnel working with the machine must not have loose clothing as this can get stuck in the rotating drum. Also, do not put your fingers or other objects into the rotating parts.

Improper use or disregard of safety rules may result in bodily injury or mechanical breakdown.

### 3.1 Hazed signs.



#### **DANGER - HIGH VOLTAGE.**

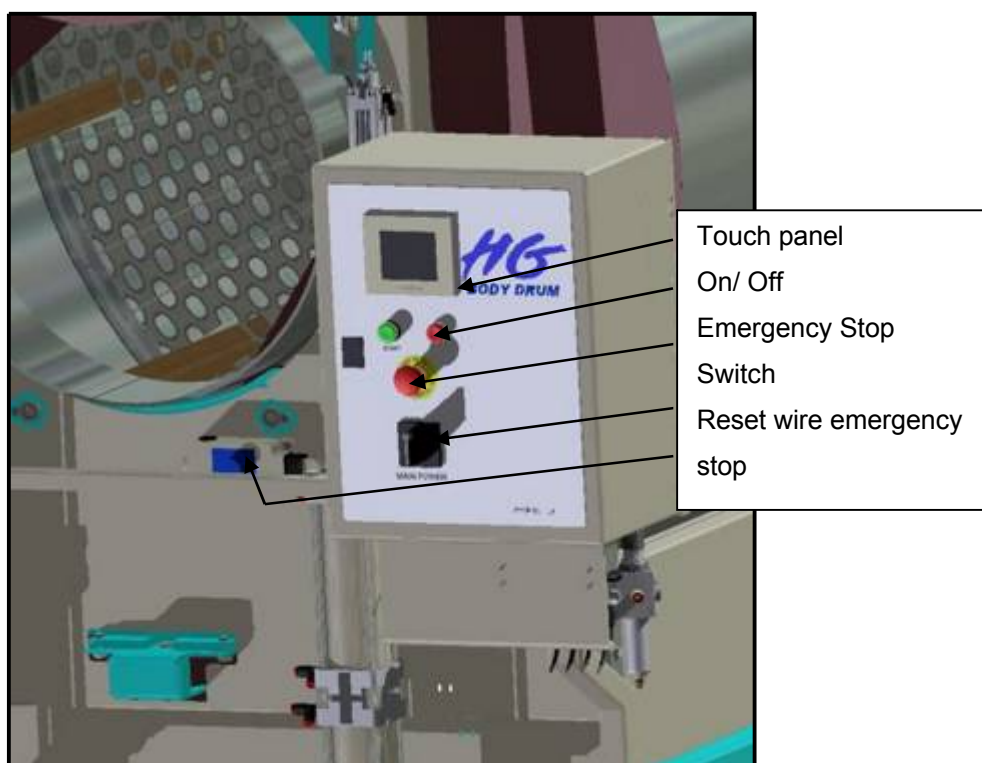
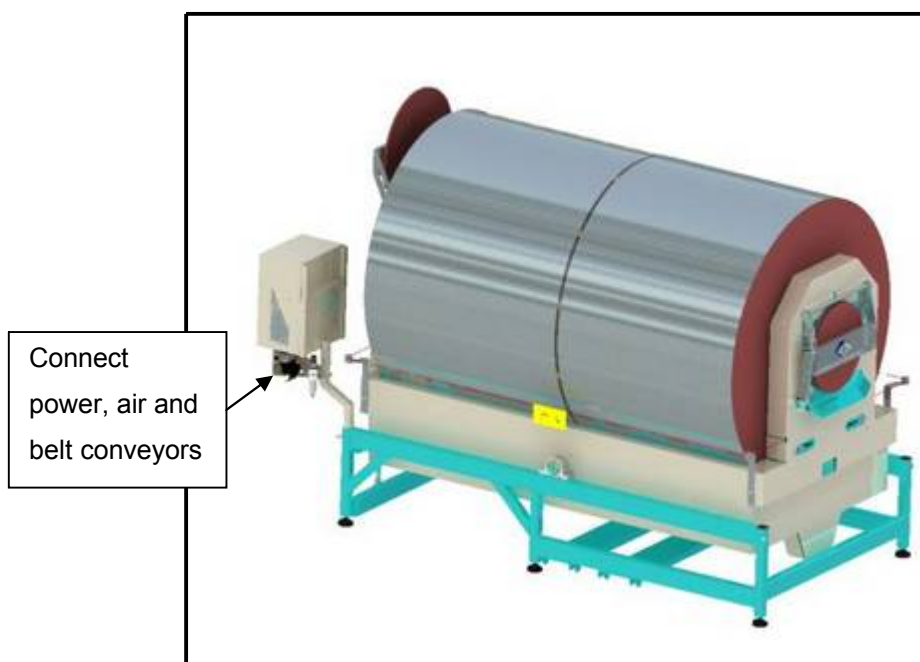
The operating box of the machine contains high voltage. Because of danger, the box must not be opened by unauthorized employees.



#### **DANGER - ROTATING PARTS.**

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

## 4. Operation terms.



## **5. Setup of the Body drum.**

Place the machine at its new location with a lifter and place it on the floor. Use a spirit level and adjust the machine shoes of the drum so that the frame is in level and stable on all 6 points. Before connecting air flow and voltage, check lifting height to ensure that the drum can tilt without hitting the ceiling.

### **5.1 Connecting voltage and air.**

HG drum is fitted with a 16A CEE socket, which is connected to 400 volts with zero and soil. If conveyors are used, connect this to 16A CEE socket. Both sockets are located under the machine's control box.

The engine has a maximum of consumption during operation at 12A. Electrical wires and air hoses must always be placed so that they do not disturb the operator, and there is no danger of becoming entangled in the machine's moving parts.

After connection check that the tape and drum are running the right way (See the "manual mode").

Connection to air supply is located on the side of the dashboard.

Use a quick release type CEJN 320. Be aware that it moves to its initial position when the air is connected.

### **5.2 Relocation.**

Before moving the drum, disconnect the electrical and air connections.

When installing on a new position, repeat the above procedure.

NOTE: The drum is only lifted in the frame or under the welded sections of pallet forks.

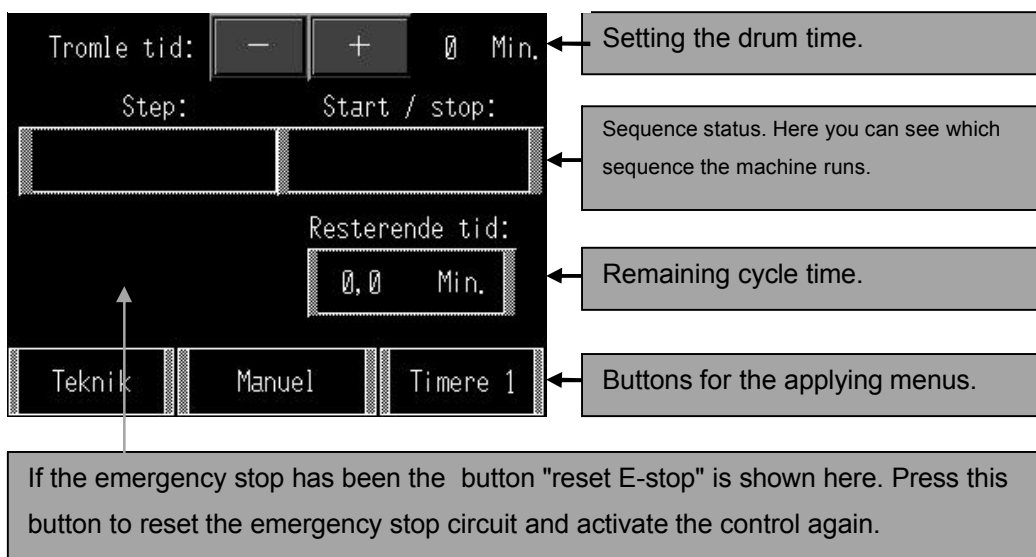
For extra security, fitted bolts in the profiles below pallet forks.

## 6. Screen menus.

On the dash board of the drum is a touch screen where the machine's various settings can be made. The buttons are activated by tapping the screen where the button is located. If you want to change a value, it is done with plus and minus buttons shown beside the value.

Below is a description of the various screens and their functions.

### Main Menu.

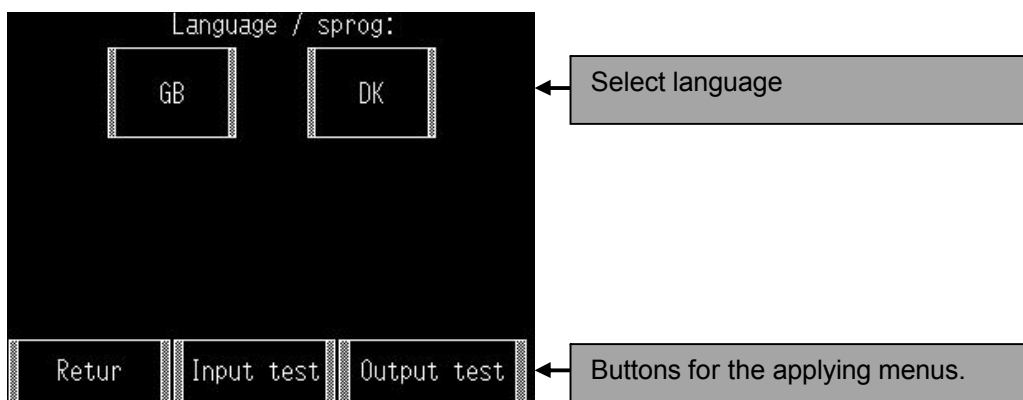


The screenshot shows the Main Menu interface with the following elements and callouts:

- Tromle tid:** A field with minus and plus buttons and a value of 0 Min. Callout: "Setting the drum time."
- Step:** A field with a value of 0. Callout: "Sequence status. Here you can see which sequence the machine runs."
- Start / stop:** A field with a value of 0. Callout: "Sequence status. Here you can see which sequence the machine runs."
- Resterende tid:** A field with a value of 0,0 Min. Callout: "Remaining cycle time."
- Buttons:** Teknik, Manuel, and Timere 1. Callout: "Buttons for the applying menus."

If the emergency stop has been the button "reset E-stop" is shown here. Press this button to reset the emergency stop circuit and activate the control again.

### Technique.



The screenshot shows the Technique interface with the following elements and callouts:

- Language / sprog:** A field with GB and DK buttons. Callout: "Select language"
- Buttons:** Retur, Input test, and Output test. Callout: "Buttons for the applying menus."

### Input test.

X0 Start OFF	X3 Nødkontakt OFF	Reading of input to the controller.
X1 Stop OFF	X6 Omformer Fejl	
X2 Lågsensor OFF	X7 Nødkreds fejl	
<div style="display: flex; justify-content: space-around;"> <span>Retur</span> <span>Output test</span> </div>		Buttons for the applying menus.

### Output test.

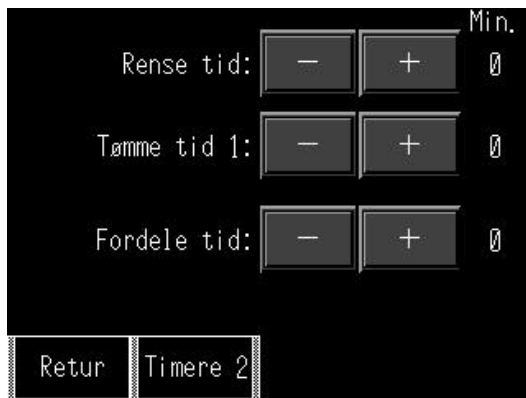
Y0 Tromle frem OFF	Y4 Tømme låge OFF	Reading of output from the controller.
Y1 Tromle bak OFF	Y5 Ford.ventil OFF	
Y2 Tromle ilg. OFF	Y14 Transp.bånd OFF	
Y3 Løfteventil OFF	Y15 RST nødstop OFF	
Y16 Fylde låge OFF		
<div style="display: flex; justify-content: space-around;"> <span>Retur</span> <span>Input test</span> </div>		Buttons for the applying menus.

### Manuel.

Frem	Bak	Ilgang	Buttons for manual operation of drum rotation.
Hæve	Fordele	Tømme Låge	Buttons for manual operation of the tilt and dump gate
Start bånd	Fylde Låge		Buttons for manual operation of the conveyor and fill door.
Retur	Positioner låge		Positions of the drum so that the side door can be easily removed.



### Timer 1.



The time the machine gets to clean the sawdust of the animals and move it under the cone.

The time the machine gets to empty animals out before continuing the sequence.

The time the machine gets to move sawdust from the cone and into the drum chamber.

Buttons for the applying menus.

## 7. Operation.

Before using the body drum the Set Up section must be performed, and the power and air must be connected.

1. The drum is turned on by switching on at 1 (ON). Wait until the touch screen has loaded the program, and the main menu appears.
2. Check that the emergency stop is triggered by turning the knob to the right. Also check that the wire emergency stop is reset by pressing the blue reset button. In order to reset the emergency stop circuit, now press on "RST emergency stop" on the touch screen and the message "error inverter" turns off. The drum is now started up and ready for use.
3. In order to positioning the side door so that the sawdust can be filled into the drum, press the menu button "Manual". Under "Manual" now press on "positions gate", then the drum rotates slowly until the side door stands in the correct position.
4. Side Door is opened by pressing the 2 locks located in the middle of the handles, and then pull out these handles.
5. Fill approx. 300l sawdust into the drum, and close the door again. The door is locked by pressing the handles into the level position. Check that the locks of the handles are activated, so that they cannot be pulled out again.
6. Press the Start button to start the filling sequence. The drum now opens the filling door and turns on the conveyor belt, where fitted. Simultaneously the drum rotates slowly to distribute the bodies without unnecessarily dusting.  
You can in all sequences of the program press stop and start in order to make a break. The machine remembers the remaining time and sequence. You can also press ON, in order to jump to the next sequence before time is up.
7. When the wanted bodies are filled into the machine, press ON again to jump on to the drum sequence. Now the conveyor stops

and the filling door close. If it takes more than 5 minutes, the machine jumps further to drum sequence.

8. Now the drum increases to drum speed and the drum time is activated. How long the bodies have to be treated / softened in the sawdust, you can set at the top of the main menu under "Tumble Time" in minutes.
9. When the drum set time ends, the drum stops and turns the direction of rotation. The machine tilts down against the emptying end, and starts the opposite direction in order to transport the bodies at the outlet, and sawdust to the cone.
10. The machine runs the set "cleaning time" in minutes, as found in the menu "Timer 1".
11. When cleaning time is up, the emptying door opens and the bodies are carried out. Here you activate the set "Empty Time" in minutes, as found under "Timer 1". When emptying time is ended, you close the door and stop the rotation. The drum turns direction and tilts against the fill the end, in order to transport the sawdust into the drum chamber again. Now the drum runs the set "time scale" found under the menu "Timer 1".
12. When the time scale period is gone, the machine stops and tilts up in the neutral position, ready for the next cycle.

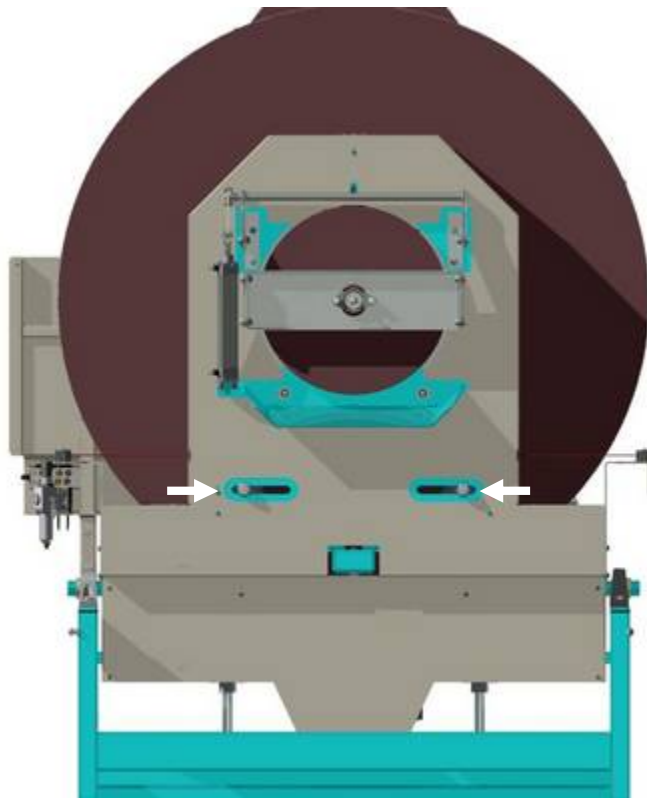
## 7. Maintenance.

HG body drum is fitted with maintenance free bearings in the carrier wheels and sprockets. The bearing blocks that the drum tilts around, has to be greased by season and possibly after. Chain cleaned and lubricated by season. The machine's other components are manufactured in the surface-treated materials to minimize maintenance, but should still be kept clean to ensure optimal operation.

### 7.1 Tighten chain.

Tightening of the drum pull chain performed under the empty door. Before starting this, the air and electrical connections has to be disconnected. The 2x30mm bolts, marked in the figure below, maintains the chain idler sprocket.

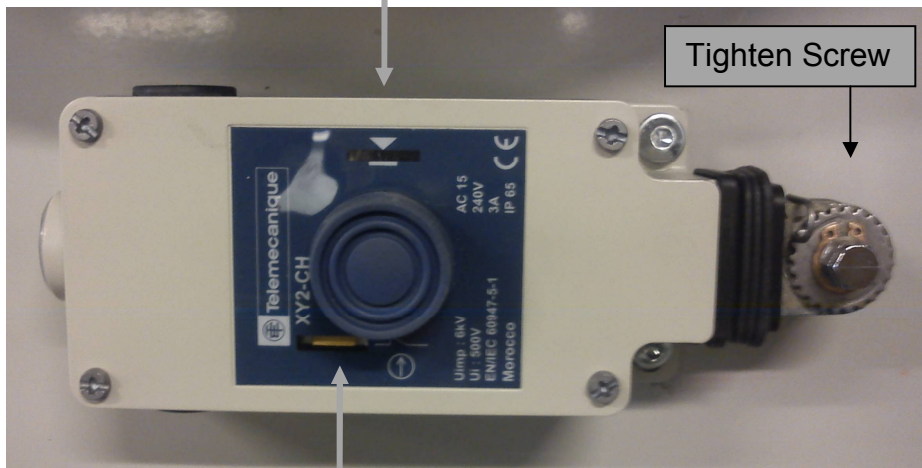
These are loosened and moved toward the center in order to tighten the drag chain. The nuts are properly tightened again before the drum is put into operation again.



## 7.2 Adjusting the wire emergency stop.

The machine is equipped with safety wire emergency stop around the rotating drum. This emergency stop stops the machine, if something pulls the wire, or the wire becomes too slack / broken. After the need, the wire is adjusted as described below.

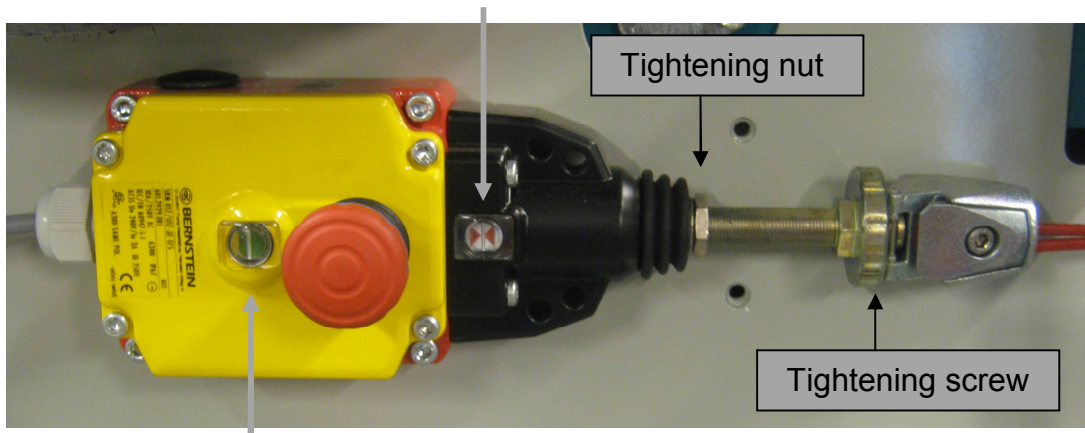
When the wire is adjusted on the tighten screw, the vertical white line in the field has to be inside the horizontal white marker, tagged with the arrow.



Status field on the emergency stop has to be yellow when it is turned off. (The machine is stopped)  
By pressing the blue button you reset, so that the machine is ready to run and the status field turns green.  
If emergency stop cannot reset to green, the wire has to be adjusted as described above.

Machines equipped with Bernstein emergency stop, must be adjusted the following way.

The Wire is adjusted by loosening tightening nut and adjust the tightening screw so the two red arrows are in the center of the marker on the



Status field on the emergency stop has the color yellow when it is disengaged. (The machine is stopped)  
By pulling the red button you reset the emergency stop, so that the machine is ready to run, and the status field turns green.  
If the emergency stop does not reset to green, adjusted the wire as described above.

## 8. Technical data.

Voltage	:	400 V
Engine size	:	5,5 kW
Electrical connection	:	16A CEE
Air connection	:	CEJN 320
Dimensions	Length	: 3100 mm
	Width	: 1650 mm
	Height	: 2235 mm

## 9. EC Declaration of Conformity.

Hedensted Gruppen 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)

- herewith declares that:

HG SELF-EMPTYING BODY DROM  
Type number 190055

- is in conformity with the provision of:

The Machinery Directive 2006/42/EF  
The low Voltage Directive 73/23/EØF

- and the following harmonized standards have been applied.

DS/EN 12100-1:2005  
DS/EN 60439-3  
DS/EN 13857:2008

Hedensted d.10/8-2010

  
Jens Jørgen Madsen  
Direktør