

User Manual

T4-26 Stretching machine



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Preface

- This User's Manual is an important part of your new machine. Read this manual thoroughly and use it as a reference book.
- This manual contains important information about the safety and the use of the machine.
- This manual should be stored with the machine. It is important that the user's manual is enclosed in the resale or lending of the machine to third parties.
- The user of the machine is to ensure that operator, service personnel, and others who have access to the machine have been instructed in the correct operation and handling of the machine. Refer to this user's manual for further information.

Explanation of Symbols

Please read this user's manual and follow the instructions given herein. In order to stress certain parts of the information the following expressions are used:

Note!!



A triangle containing an exclamation mark is a warning symbol that warns you of important instructions or information concerning this machine.

Danger!!



Triangle containing a warning about the risk of danger of crushing!

Introduction to the machine

- This is an innovation in building and in the programs but also the simplest stretching machine to operate.
- It can stretch on all known plastic stretchers.
- No need of manual switching between males and females.
- The pelt is completely stretched, when leaving the machine.

Note!!

- The user of the machine is to ensure that operator, service personnel, and others who have access to the machine have been instructed in the correct operation and handling of the machine. Refer to this user's manual for further information.
- The machine may only be used for the purpose for which it has been constructed for.
- No matter what kind of problems there may occur with the machine during operation, none of them may be corrected until the machine is properly switched off. Except for the corrections done with the use of the machine buttons.
- The user's manual must always be available for the operator.



Start-Up

- Before the stretching machine WRAP T4 is set to work one should check that the machine is on a firm and stable surface. (Use the adjustable machine feet to achieve the desired position).
- The machine must only be used for stretching of mink skin.

DANGER:

To avoid risk of crushing accidents during the machines operation, it is important that the user does not touch the moving parts in the machine.

This applies especially to wrapping parts and the pelt holders that are activated during the wrap process. The machine is equipped with a knife that cuts the foil after the wrap process.

The knife is activated automatically.



- You may not attempt to stop any of the moving parts by hand; always use an emergency stop to prevent dangerous situations.
Note that the stop, placed right under the Emergency stop, stops the current process and drives it back to its starting point.
If there is a dangerous situation **always use the emergency stop.**
- Stretching machine WRAP T4 is fitted with a 3 pin 240V plug by the manufacturer.

Note:

The connecting cable on the machine must be grounded. If this is not fulfilled the warranty does not apply.

(There may occur an unintended program behavior or error)



- The air pressure must be at least 8 bar and the machine has an air consumption of up to 70 l / min.
- The air hose that connects the Stretching machine WRAP T4 and the compressor plant must be min. 3 / 8" and preferably 1 / 2".

Important:

Every other kind of work on the machine that does not include the wrap process, such as cleaning, adjustment, etc., may only take place when the electrical and pneumatic appliances in the machine are disconnected



Important:

To prevent any possible damage to the controller's micro-controller and other electrical systems in connection to thunderstorms, it is recommended to disconnect the electrical connections when the machine is not in use.



Operation

Front Screen



Emergency stop

Stops the machine immediately and returns all the parts to starting point. Servo loses the electricity supply and the air valves are depressurized. To get the machine restarted after an emergency stop, the emergency stop has to be deactivated and the reset button has to be pressed. (Described on page 10)

Stop

Stops the current process and returns the process to the beginning. If you wish, you can go further back through the process by pressing the stop button again.

Stretcher up

This button makes the stretcher go up if this has come too far down before the stretching can begin.

Start

Starts the next sequence in the cycle. Has the same function as the foot pedal or knee contact with the magnet, can be influenced by knee.

Stretcher down

This button makes the stretcher go down if it is not low enough before the stretching can begin.

Variable Starting Point:

To increase the speed of the stretching process the default starting point can be changed by the user.

1. By pressing the buttons [Stretcher down] or [Stretcher up] until the stretcher foot has the desired position, you adjust the position you want the machine to use as a starting position.
2. To get the machine to remember the location, press the [Stretcher up] and [Stretcher down] simultaneously. Now the position is saved in the memory and the machine will then use this location as a starting point for stretching.

Function description:

Description of the program sequence when the pelts are stretched

Start: The stretcher foot will normally be located at the bottom of the machine at a preset starting point and you start by putting the pelt into the stretcher foot.

After a power failure or emergency stop the stretcher foot will start by searching the zero point that is at the very top and then go down to the preset starting point. Then the machine is ready for production.

Find pelt edge:

Press start: Now the machine will go down until it finds the pelt edge. The operator must now ensure that the pelt is placed in a way that enables the claws to grasp the pelt.

Stretch the back:

Press start: Back claws close on the pelt.
If the “stretch the back” function is set on in the setup menu, the machine will go a little bit up to stretch the pelt on the back. Stretching pressure and time for the back stretch can be adjusted in the setup, just as the dynamic stretch can be selected on or off. (Described on page 18)

Stretch at low pressure:

Press start: Now the belly claws close and the pelt is tightened up with low pressure. If the high pressure is not activated the stretch pressure is maintained.

Stretching pressure for low pressure can be adjusted in the setup (described on page 19)

Stretch at high pressure:

If the pelts size is far away from reaching the next fur size high pressure will not be activated automatically.

Press the start: if the high pressure is required anyway.

Automatic high pressure stretching

If the pelts length is close to reaching the next level, high pressure is activated automatically. The stretching pressure is maintained until the wrapping is activated, it can also be activated if the pelt that is being stretched has reached the next level

Stretching pressure and time can be adjusted in the Setup. Activation of the high pressure due to the millimeters missing to the next size is also adjustable in Setup. This function can also be carried out dynamically if desired. (Described on page 19)

After 1 sec with high pressure the stretching will be carried out automatically if it is too far to the next size

Stamp: If the pelt has a length close to the next size, you can stretch the pelt further with extra pressure and velocity by pressing start again

Press start: The stretcher foot goes down a bit and then up with increased pressure and speed to stretch the pelt further. The function can be repeated until the next size is achieved. When the next size is achieved it will not be stretched further and a warning sign is displayed on the operator panel.

Stretching pressure and speed can be adjusted in the Setup. The limit of how many millimeters max there may be missing to the next size can be adjusted in Setup. This function can also be carried out dynamically if desired. (Described on page 20)

Wrap: To keep the pelt in place when the claws are released some foil will be wrapped around the bottom piece of the pelt

Press both Wrap buttons at the same time:

If the pelt lacks only a few millimeters to reach the next size, the stretching will not be performed and a message will be displayed on the operator panel. It is possible to perform the stretching anyway by pressing [F5] on the operator panel and then again on both Wrap Buttons to start.

Wrap is performed:

Now, the wrapping part begins to rotate in order to wrap the foil on the pelt. First it wraps a number of turns on the pelt without moving the stretcher foot. Then the stretcher foot starts going a few millimeters up while the pelt is still being wrapped with the foil.

It wraps a few times on the pelt underneath to keep the foil in place. Eventually it cuts the foil and the stretcher foot goes all the way to the top to return the pelt to the operator.

The number of laps at the top, the length of stretching and the number of laps at the bottom of the pelt can be adjusted in Setup. (Wrap options are described on page 23)

Database:

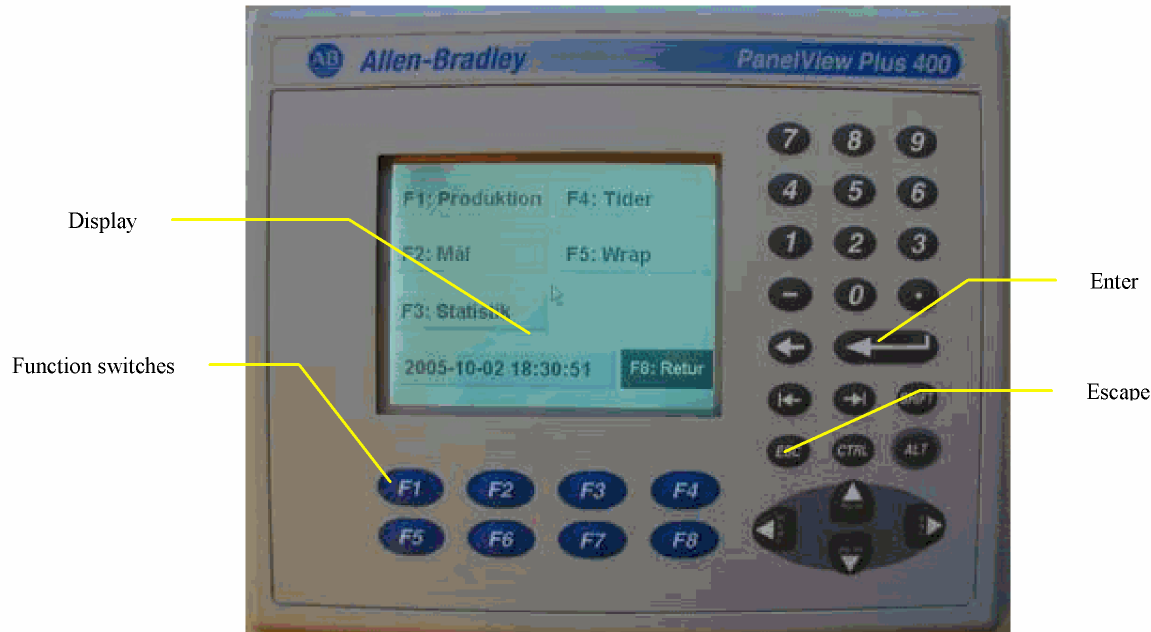
When the stretcher foot has reached the top, the pelt is counted in the database. The database is divided into several registers.

- First there is a registry for the area of each breeder.
- Next, the one distinguishing between male / female pelts
- Finally the one counting up the pelt in a register corresponding to the length, the pelt has achieved under Stretching

Preparing for next pelt:

When the stretcher foot has been at the top position for a short time it will go down to a preset starting position to save time. Here, the machine will wait until the next pelts are being stretched.

Operating the operator panel



Display

Gives the user all the information one needs. The display shows the function keys that are active and what can be changed.

Function switches

You use these function keys to activate the menu on the display. F8 is always – “return to the previous menu”.

Enter

If you have changed the data on the data display (see the details in the following screens) complete by pressing this button.

Escape

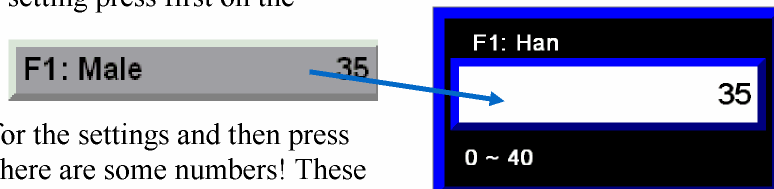
If you have entered an incorrect entry on the data display you can go back with the push of that button.

Entering data:

If you want to change a value in a setting press first on the Function key that belongs to this setting.

Now an entry field will appear,

here you can type the new values for the settings and then press [Enter]. At the bottom left corner there are some numbers! These figures are an expression of min. and max. limits on the entries. If you do not want to change anything in the settings you can simply press the [Escape]

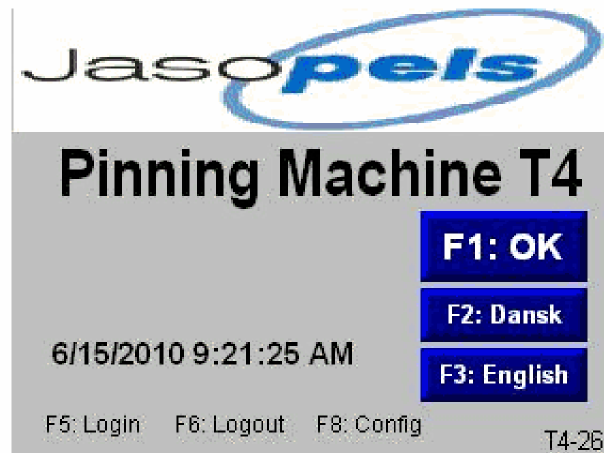


Start page:

The start picture when the machine power is switched on:

On this page you can choose the language the screens should be presented in

If you do not want to change the language, press [F1] to get to the main menu.



Emergency stop:

If the machine is stopped with the emergency stop, this screen will be displayed.

[F1] Close: by pressing [F1] the picture is shut off. However, it will reappear after 60 seconds if the emergency stop has not been reset.

When the Emergency Stop Button is reset, press the reset button located under the operator panel.

The machine will then drive the stretcher foot to the top to find the zero point. The stretcher foot will then go down to the primarily set starting point. The machine is now ready for operation!



Main menu:

The main menu has 6 options. Press the function key

[F1] to get to the side that should be active during production

[F2] to move forward to the pages with general setup

[F3] setup for pelt types

[F4] leads to the pages for the options for Wrap

[F5] leads to the menu with information about the machine

[F6] to see the statistics about pelt production



Main menu [F1: Production]

Production page:

The screenshot shows the 'Production page' interface. It includes a main menu area with fields for 'mm. to next:', 'Size now:', 'Setup: Type 1', 'Skin to day:', 'Last size:', 'Length in mm.:', and 'F1: Farmer no.:'. To the right of these fields are buttons for 'F2: Male', 'F3: Skin typs', 'F5: Normal', 'F6: Cancel', and 'F8: Prev'. A callout box titled 'Chose Skintyps :' shows four options: 'F1: Type 1', 'F2: Type 2', 'F3: Type 3', and 'F4: Type 4', with an 'F8: Prev' button at the bottom. A smaller inset at the bottom shows a detailed view of the 'F5: Normal' button and the 'F8: Retur' button, with a note that '[F6] cannot be used'.

Shows what pelt type setup has been selected

Shows how many mm are missing to the next size

Shows pelts size

Press [F2] to switch between Male / Female. What appears on the button is the current selection.

[F3] Select the setup for one of the 4 pelt types

Choose pelt type by pressing one of the buttons F1 to F4 (In the picture the F1 is selected)

[F5] to switch the soft treatment of pelt; which means that a special setup is used for the pelt that can not tolerate standard treatment. When the pelt is completely stretched the special setup is disabled

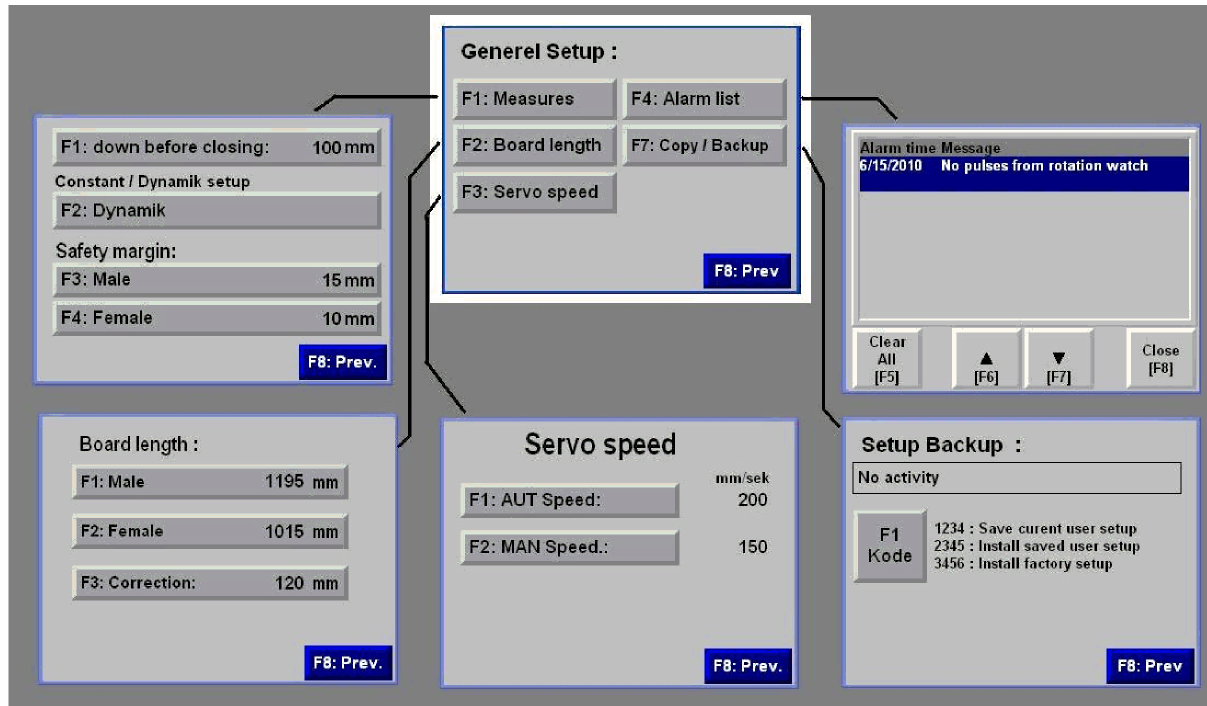
[F6] This button is visible only when a pelt has just been counted in the statistics. By pressing [F6] remove the last stretched pelt out of the statistics.

[F6] cannot be used

[F1] Breeds no. By pressing F1 you can switch to another breed

Main menu [F2: Gen. Setup] > (white frame = menu)

General setup:



Overview of the menu system to the General setup

In the general setup the following can be done:

- Select the length where the stretching is maintained
- Dynamic setup On/Off
- Changes in the safety margin
- Changes in the stretch lengths
- Changes in correction (calibration value)
- Changes in the Servo speed
- View the list of emerging alarms
- Backup of the setup

Main menu [F2: Gen. Setup] > General Setup [F1: Measure]

Measures:

[F1] function "go down before closing" is a setting that makes the stretcher foot close on the stretched pelt a little lower in the machine.

[F2: Dynamic] Dynamic Function / Constant the text on the button changes each time you press between [F2] Dynamic and Constant.

Constant ON

In the settings where Dynamic setup is possible, the dynamic adjustment may be disabled. Values below the text "Dynamic Off" will have the same value as the values entered in the setup point.

Dynamic ON

In the setup points where Dynamic setup is possible, the values written in the setup points will be applied to the lengths of male pelt size 60 (1070mm) and female pelts size 40 (950mm). If the pelt is smaller than that, it is assumed that the pelt can be stretched less.

Eg. (Male size 60) = 1070mm
real skin length 946mm (between size 2 & 3)
Factor = $946/1070 = 0,884$
value to stretch male skin = 35mm
Dynamic value to stretch the real skin length = $35 \times 0,884 = 31\text{mm}$

Safety Margin:

This value is subtracted from the values showing the missing millimeters and the size on the production page. That way you can always be sure that the pelt is actually larger than shown on the screen. This function is present to make sure that the pelts will comply with the size requirements when the stretching is completed

[F3: Male] the safety margin for the male pelt.

[F4: Female] the safety margin for the female pelts.

A screenshot of a machine's control interface showing a setup menu. The menu is displayed on a grey background with white text. At the top, it says "F1: down before closing: 100 mm". Below this is a section titled "Constant / Dynamik setup" with a button labeled "F2: Dynamik". Underneath is a section titled "Safety margin:" with two rows: "F3: Male 15 mm" and "F4: Female 10 mm". At the bottom right, there is a blue button labeled "F8: Prev.".

Main menu [F2: Gen. Setup] > General Setup [F2: Pelt length]

Pelt length:

On this screen you should write the length of the stretch

[F1: Male] Pelt length for the male pelt

[F2: Female] Pelt length of the female pelt

[F3: Correction:] this value is used to calibrate the machine. This is done in order to provide coherence between the lengths displayed on the operator panel and the real length of the pelt. The correction factor is the difference between the length in millimeters presented on the display and the length measured between the pelts tip and the horizontal tracks in the fur holders.

Board length :	
F1: Male	1195 mm
F2: Female	1015 mm
F3: Correction:	120 mm
F8: Prev.	

Calibration:

The correction factor is the value that you change when you calibrate the machine. (See details in the procedure). You should also manually control the machine's automatically measured stretching length to make sure that the machine does the stretching properly.

The procedure for calibration:

1. Drive the stretcher foot to the very top by pressing the button [stretcher up]
2. Measure the distance in millimeters from the horizontal tracks by the lower claws to the stretcher foot.
3. The measured value should be written into the fields for the correction factor.
4. As a form of control, you can now put a pelt in the machine and make the stretcher foot go down a bit.
5. Afterwards you should measure the distance from the pelt tip to the horizontal track by the claws.
6. This measure should be the same as the value stated at the bottom of the production page.

Note!

Note: At all times it is the operator's responsibility that the machine is calibrated and works with the right stretch lengths. Perform regular controls of the measurements, preferably several times a day



Main menu [F2: Gen. Setup] > General Setup [F3: Servo Speed]

Servo speed:

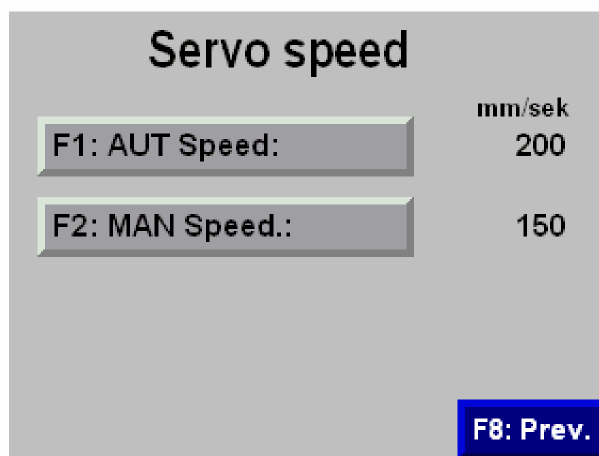
On this screen you must change the speeds at which the stretcher foot moves up and down.

[F1: AUT speed:] This is the speed of the stretcher foot when it is controlled by the program for low and high stretch, and also when the stretcher foot goes up and down at the start and finish.

[F2 MAN speed:] this speed is used when using the arrow buttons on the machine to move the stretcher foot up / down. It also has the options of speeds for

- stamp
- stretch

Settings of these parameters can be done on the respective pages.



Main menu [F2: Gen. Setup] > General Setup [F4: Alarm list]

Alarm list:

On this page you can view the current and historical alarms

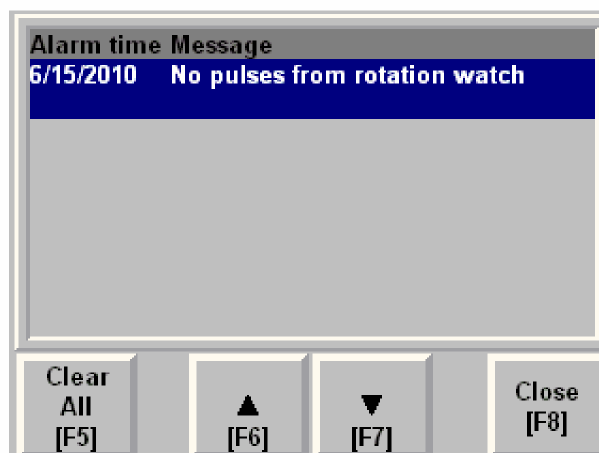
[F5] delete all alarms

[F6] go up the list

[F7] go down the list

[F8] close page

What alarms the machine may generate will be described later in this document.



Main menu [F2: Gen. Setup] > General Setup [F5: Setup Backup]

Setup Backup:

On this page you can save / install the most important values in the setup.

General data:

- Dynamic On/Off
- Safety margin
- Stretch lengths
- Corrections value
- Servo speed

Data for the 4 pelt types

- Stretch
- Change pressure
- Stretch time
- Stamp values
- Stretch pressure (Male/Female)
- Wrap alarm

Setup Backup :

No activity

F1 Kode

1234 : Save curent user setup
2345 : Install saved user setup
3456 : Install factory setup

F8: Prev

[F1 Code:]

when you press [F1] an input box is displayed on the screen.

F*

0

0 ~ 32767

When you enter 1234 and [Enter], the above data is stored in the memory. In the text box at the top, the text "Current user setup is saved" is displayed.

If we enter 2345 and [Enter], values from the previously saved user settings are installed. The text box on the top, the text "Saved user setup is installed" is displayed.

If you enter 3456 and [Enter], values from the factory setup in the text box at the top are being installed, the text "Factory settings are installed" is displayed.

If you enter any other combinations of numbers the text box at the top will say "Wrong code!"

Main menu [F3: Pelt types] > (white frame = menu)

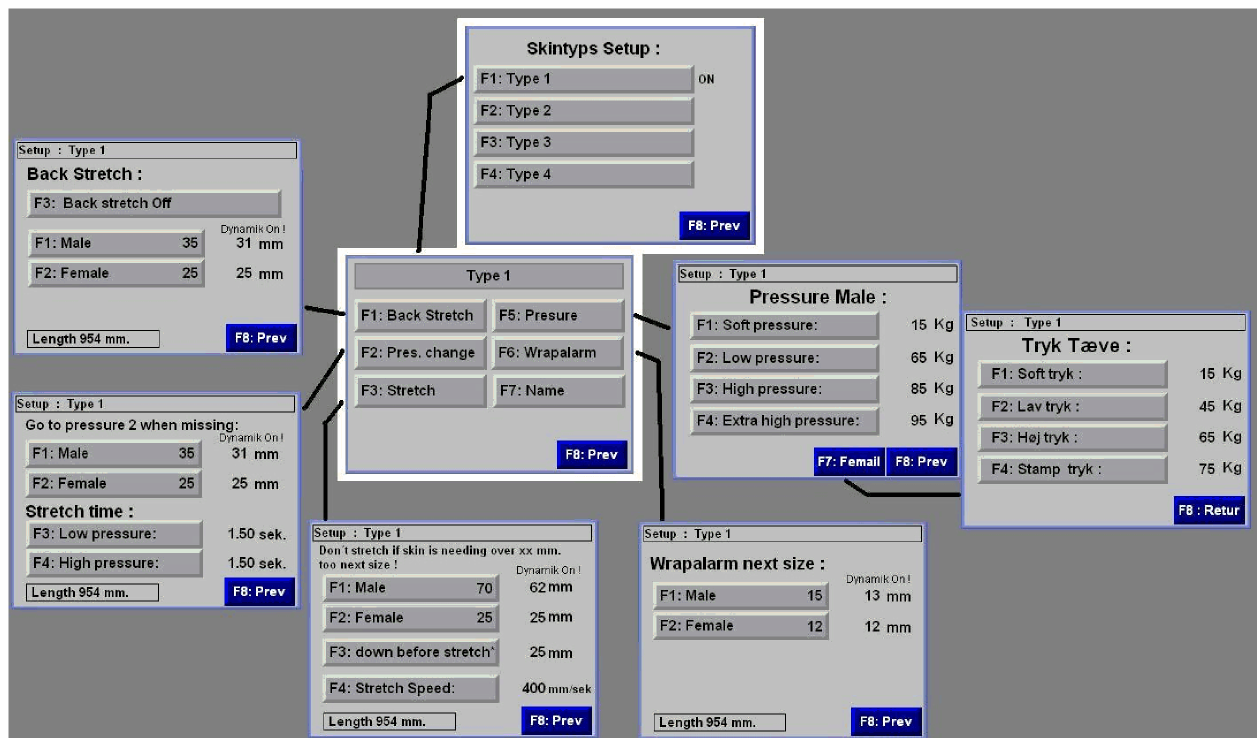
Pelt types:

- In the main menu, press the [F3: Pelt Types]
- Now you will see the menu page where you can see a button for each of the 4 pelt types.
- Here you choose which of the 4 pelt types you want to see / change the setup for!

Function Pelt Type: Here one can enter 4 different sets of parameters for the treatment of pelt. The advantage is that you can quickly set the machine up to work with a different type of pelt without entering the setup to change the parameters. On the production page you simply choose one setup, out of the 4 setup types, that suits the current pelt type.

Active Setup: In the picture below, there is ON next to "Type 1". This indicates that the setup for "type 1" is used on the machine.

Overview of the menu system for the setup for pelt types



Each pelt type contains information about:

- Stretch
- Settings for the switch of pressure
- Stretch times
- Settings for the stamp
- Settings for the pressure for male / female (soft pressure, low pressure, high pressure, Stamp pressure)
- Settings for the Wrap alarm

Main menu [F3: Pelt types] > Pelt types [F1 – F4: Type]

Pelt types menu:

At the top there is the name of the pelt type.
"Type 1"

[F1: Stretch] shows the screen with the settings of the back stretch

[F2: Change pressure] shows the screen with the settings indicating when the stretching pressure should switch from low to high

[F3: Stamp] shows the screen with the settings for Stamp

[F5: Press] shows the screen with the settings for the stretch pressure in different conditions

[F6: Wrap alarm] shows the screen with the settings as to when the Wrap alarm should be displayed on the screen

[F7: Name] shows a screen where you can write another name for a given pelt type. If you change the name of a pelt type, the new name will appear everywhere where you can select the pelt types. Eg. if you write "Black pelt" instead of "Type 1" it will then take all the places where there was „Type 1" before and place "Black pelt" instead.



Note: The back of the operator panel includes a USB connector where you can plug in a quite ordinary USB keyboard which will enable faster typing of another name for the pelt type.

Main menu [F3: Pelt types] > Pelt types [F1 – F4: Type] > Pelt type menu [F1: Stretch]

Back Stretch:

At the top there is the name of the pelt type.

Back stretch is a function that stretches the back of the pelt right after the back claws are closed (belly claws are still open)

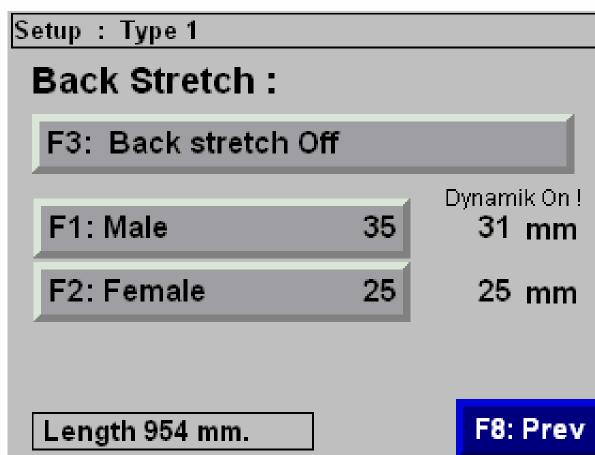
[F5] to select whether the back stretch should be On or Off for the given pelt type

[F1: Male] here you can set the desired back stretch of the male pelt.

Dynamic if this feature is On, there will probably be another number furthest to the right. The figure stated on the button is the stretch for the male pelt size 60. The figure on the right shows how much a pelt will be stretched in actual length. (Current length is displayed at the bottom of the page)

[F2: Female] here you can set the desired back stretch for the female pelts.

Here the Dynamic mode is the same as for the male pelts, only the figure on the button will show how much the female pelt size 4 will be stretched.



Main menu [F3: Pelt types] > Pelt types [F1 – F4: Type] > Pelt type menu [F2: Change pressure]

Change of pressure:

At the top there is the name of pelt type.

Go to pressure 2 when missing:

This feature is designed to determine whether the machine should automatically increase the stretch pressure from low pressure to high pressure. If the value, in millimeters, missing to the next fur size is smaller than the one in the setup.

[F1: Male] here you can set the maximum of how many millimeters may be missing to the next size of the male pelt; the machine automatically activates high stretch pressure.

Dynamic if this function is on, there will probably be another number furthest to the right. The figure stated on the button is the value of the millimeters missing to male pelt size 60. The figure on the right shows how much a pelt may be smaller, in actual length, before the high pressure is activated. (The current length is displayed at the bottom of the page)

[F2: Female] The same function only for female pelts.

The figure stated on the button is the value of millimeters missing to reach the female pelt size 40 if the dynamic function is On.

Setup : Type 1		
Go to pressure 2 when missing:		
F1: Male	35	Dynamik On ! 31 mm
F2: Female	25	25 mm
Stretch time :		
F3: Low pressure:		1.50 sek.
F4: High pressure:		1.50 sek.
Length 954 mm.		F8: Prev

Stretch times:

These settings determine how long it should take to stretch the given pelt with the use of different stretch pressures.

[F3: Low pressure:] here you set how long it should take before the machine examines whether the pressure should be activated automatically.

[F4: High pressure:] here you can set how long the machine should work with high pressure before you can stretch or wrap the pelt.

PS. After the time with high pressure has expired a stretching will be executed automatically, unless it is too far to reach the next size.

Main menu [F3: Pelt types] > Pelt types [F1 – F4: Type] > Pelt type menu [F3: Stamp]

Stretch:

At the top there is the name of the pelt type.

Do not stretch if there is more than xx millimeters missing to the next size!

This feature is intended to prevent the stretch if it is not possible to reach the next level. The screen will display an information image with the text "The pelt is too short to reach the next size" which will alert the operator to cancel the stretching of this pelt. The information image disappears when the WRAP function is activated. It can be disabled by setting the values over 60 millimeters; the machine will then always stretch the pelt.

[F1: male] here you set the limit at which the stretching is interrupted. If there are more than 30mm (shown on the picture) missing to the next size the stretching will not be executed. The figure stated on the button is the value that applies in all circumstances when the Dynamic setup is Off

[F2: female] the same function as above only for female pelts.

Dynamic: if this function is ON, the figure on the button will apply for the length of a male pelt size 60 and female pelt size 40. If the pelt is smaller, it is assumed that the pelt can be stretched to a smaller extent. The figure standing on the right side shows where the boundary lies for the current skin length. (The actual skin length can be seen below).

[F3: go down before stretching:] here you can adjust how far the stretcher foot must go down before stretching. The measure is the length, to which the machine will try to stretch the pelt during stretching. I.e. in this case, first the machine goes 25mm down. Then the machine will add the length that is pulled down to the length to be stretched, i.e. the machine will try to execute the 25 + 25 mm = 50 mm. This is done with the speed and stretching pressure that can be adjusted separately for stretching.

[F4: Stretching speed:] here you can adjust the speed that the stretcher foot moves at during stretching. This speed is normally somewhat higher than the other Servo speeds that can be changed during general setup.

Setup : Type 1	
Don't stretch if skin is needing over xx mm. too next size !	
F1: Male	70
F2: Female	25
F3: down before stretch*	25 mm
F4: Stretch Speed:	400 mm/sek
Length 954 mm.	F8: Prev

The information images shown when the stretching is stopped! :

<p>Skind er for kort til næste størrelse !</p> <p>The skin is too short to reach next size !</p>
<p>Close [F1]</p>

Main menu [F3: Pelt types] > Pelt types [F1 – F4: Type] > Pelt type menu [F5: Pressure]

Pressure:

On these pages you can adjust the stretching pressure for the different parts of the program. At the top there is the name of the pelt type.

[F1: Soft pressure:] This option is used when you have activated the soft treatment on the production page. (Used for pelts that can not tolerate standard treatment)

[F2: Low pressure:] This option is used to stretch the pelt just after the claws are closed on the pelt.

[F3: High pressure:] This option is used when the pressure is on, after the time for the usage of low pressure has expired or by manual activation of high pressure.

[F4: Stamp pressure:] this option is used when one stretches the pelt. On the right, there are the current values for various parameters

[F7: Female] by pressing this button, you get the display setup for Female Pelts. The functions are the same as on the page for the male pelts.

Setup : Type 1

Pressure Male :

F1: Soft pressure:	15 Kg
F2: Low pressure:	65 Kg
F3: High pressure:	85 Kg
F4: Extra high pressure:	95 Kg

F7: Femail F8: Prev

Setup : Type 1

Pressure Female :

F1: Soft pressure:	15 Kg
F2: Low pressure:	45 Kg
F3: High pressure:	65 Kg
F4: Extra high pressure:	75 Kg

F5 : Close

Main menu [F3: Pelt types] > Pelt types [F1 – F4: Type] > Pelt type menu [F6: Wrap alarm]

Wrap alarm:

Function description:

This function is used after you have activated the Wrap function. On this page you can set the limit of the acceptable value of millimeters missing to reach the next size level. If the number of millimeters missing to the next size is smaller than the value in the setup, the WRAP function is not activated and you will receive a message on the operator panel that the pelt is close to the next size.

When the information image is active one can press [F5] to wrap the pelt anyway. However you have to press both wrap buttons again after the pelt becomes wrapped and then the information image will disappear from the screen. If you press the start button instead, in order to stretch the pelt an extra time, the information window disappears as well. The function can be disabled by setting the values to 0. The machine will then always Wrap the pelt.

At the top there is the name of the pelt type.

[F1: Male] here are the settings for how many millimeters max. there may be missing to the next size, in order to activate the function.

[F2: Female] the same function as above!

Dynamic: if this function is ON, the figure on the button applies to the length of male pelt size 60 and female pelt size 40. If the pelt is smaller, it is assumed that the pelt can be stretched to a smaller extent. The figure standing on the right side shows the value of the limit for the current skin length. (The actual skin length can be seen at the bottom of the page.)

Setup : Type 1

Wrapalarm next size :

F1: Male	15	Dynamik On ! 13 mm
F2: Female	12	12 mm

Length 954 mm.

F8: Prev

**Mangler få mm i næste størrelse
Tryk F5 for at fortsætte**

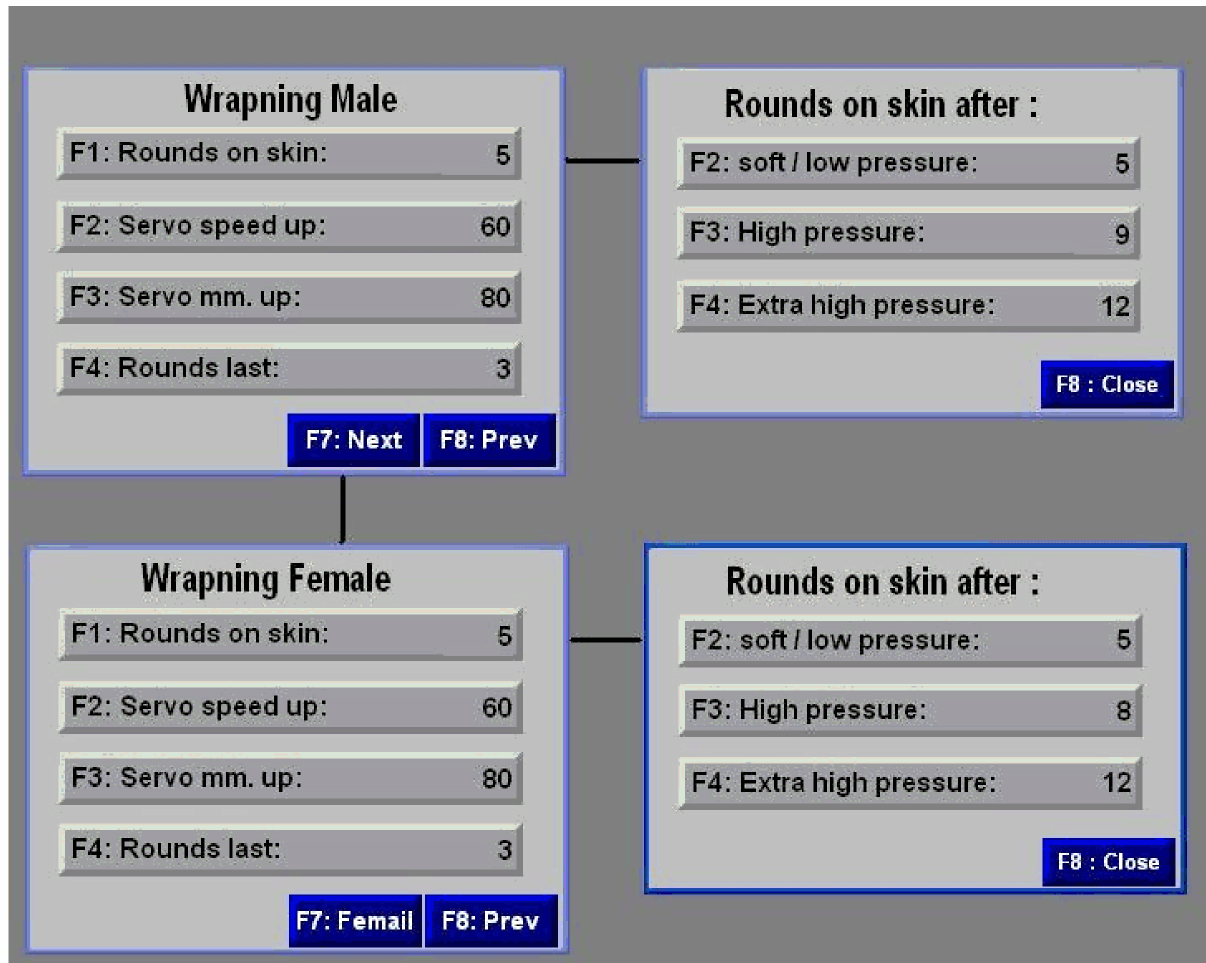
**The skin is missing a few mm
to reach the next size
F5 Continue anyway**

Close
[F1]

Main menu [F4: Wrap] > Wrapping male

Wrap:

Overview of the screens with WRAP setup



With the settings for wrap one can determine how the foil should be placed underneath the pelt.

Stretching of pelts:

- 1 Once you've pressed both WRAP buttons, the foil will be wrapped around the pelt just above the claws
2. When the number of rounds is reached, the claws release and the stretcher foot goes up while the foil still is being wrapped around the pelt
3. When the stretcher foot has gone up the amount of millimeters determined in the setup, some more tape will be wrapped a number of turns around the pelt to close the foil in a solid way.
4. Eventually a blade cuts the foil and the stretcher foot goes to the top.

Main menu [F4: Wrap] > Stretching male

Wrapping the male pelt:

You start on the page for the wrap settings for the male pelts.

Wrapping Male

F1: Rounds on skin:	5
F2: Servo speed up:	60
F3: Servo mm. up:	80
F4: Rounds last:	3

F7: Next F8: Prev

Wrapping Male

Rounds on skin after :

F2: soft / low pressure:	5
F3: High pressure:	9
F4: Extra high pressure:	12

F8 : Close

Wrap step 1 (insert the number of laps at the top)

[F1: laps on the pelts:] By pressing this option you are taken further to a new page with 3 setup points. The reason that there are 3 setup points, is that the higher the stretching pressure has been applied during the stretching of the pelt, the more times the pelt needs to be wrapped in order to maintain the obtained length.

On the button there is a numeric value (in picture no (5)); this figure changes depending on how big the stretch pressure has been applied on the pelt and shows how many times the pelt will be wrapped.

Image: Laps on the pelt by:

[F2: Soft / low pressure:] the number in this field stands for the layers that will be placed on top during wrapping if the machine has not had the stretching pressure higher than the low stretch pressure

[F3: High pressure:] the number in this field stands for the amount of wraps that will be placed on top during wrapping if the machine has used the high pressure stretch.

[F4: Stretching pressure:] the number in this field stands for the amount of wraps that will be placed on top during wrapping if the machine has stretched the skin.

Wrap step 2 (drive a number of millimeters up)

[F2: Servo speed up:] here you can chose how fast the stretching foot should move during wrapping

[F3: Servo mm up:] here you can chose how many millimeters the stretching foot should move up during wrapping

Wrap step 3 (place a number of laps at the bottom)

[F4: Stamp print:] here you chose the number of laps that will be placed on top during stretching if the machine has stretched the pelt.

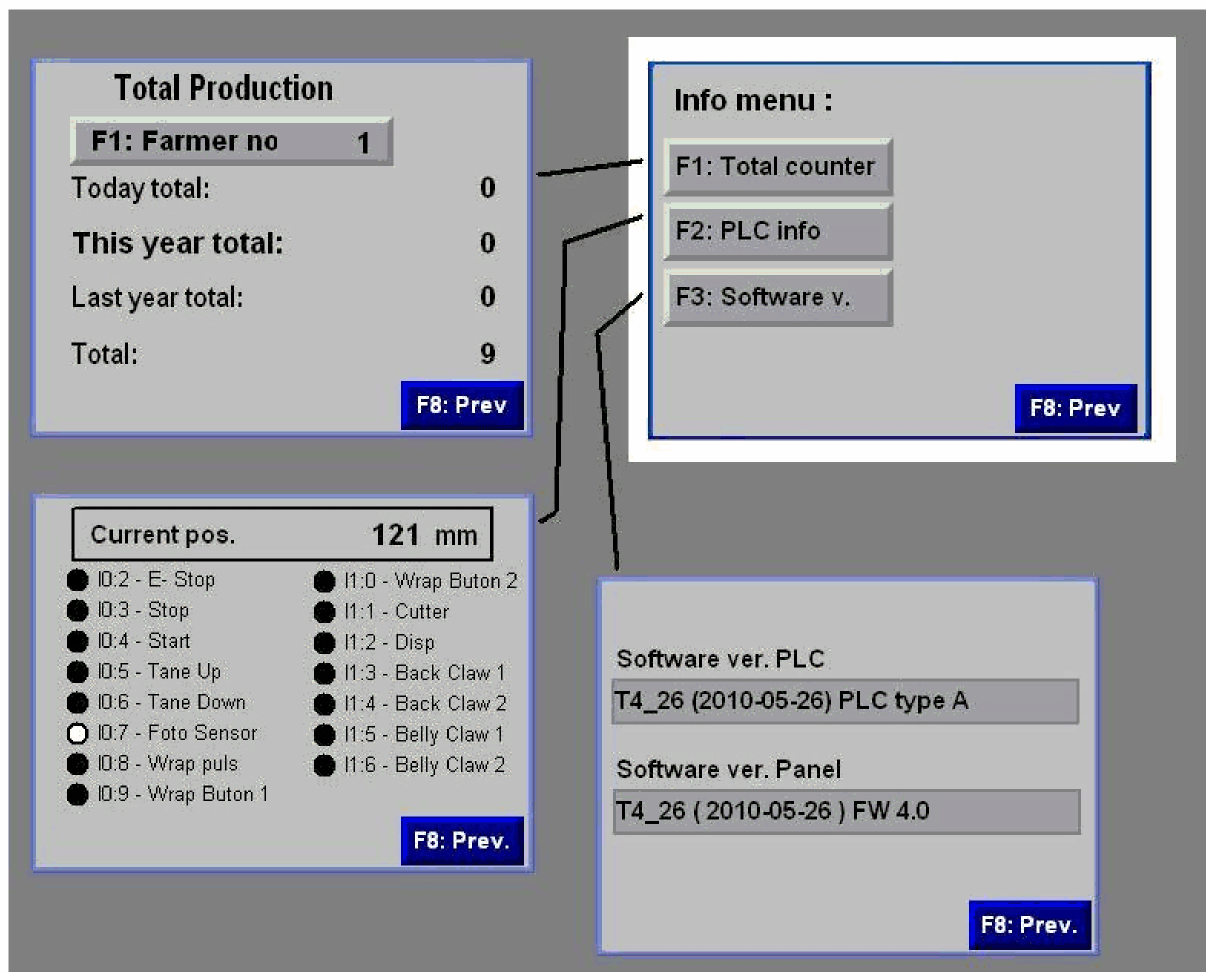
PS. It takes a certain number of laps for the stretching not to loosen.

[F7: Female] With this button you come to a page with Wrap settings only for female pelts. Since the pages for the stretching of female pelts are similar to the pages for stretching of the male pelts, these will not be described further.

Main menu [F5: Info] > Info Menu: (white frame)

Info:

Overview of pictures in the information menu



Main menu [F5: Info] > Info Menu: [F1: Total count]

Total production:

This page shows some overall data for the selected breeders and for the machine [F1: Breeder No:] here one enters the breeders number, the breeder that you want to see the overall production for.

Total today: shows the number of pelts produced on a given day.

This year total: shows how many pelts there have been produced by a given breeder during the past year.

Total Production

F1: Farmer no 1

Today total: 0

This year total: 0

Last year total: 0

Total: 9

F8: Prev

Total stretched: this value shows how many pelts this machine has stretched. (Also the pelts that have been removed from the statistics.)

Main menu [F5: Info] > Info Menu: [F2: PLC info]

PLC info:

On this page you can see the various inputs to the PLC.

The actual positions are the position values the PLC retrieves from the servo. The value is 0 when the stretcher foot goes up and the value rises when the stretcher foot is driven down into the machine.

The spots with text next to them show the status of inputs and what input is being used. If the dot is all black, there is no input at the entrance; if the dot is white in the middle as in [I0: 7 - Photo Sensor] there are 24 volts at the input



Current pos. 121 mm

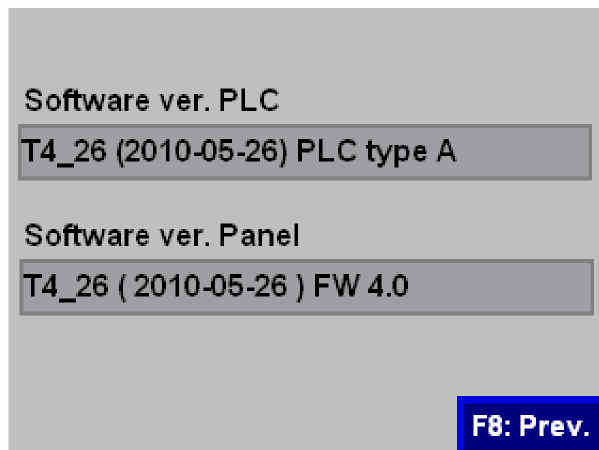
● I0:2 - E- Stop	● I1:0 - Wrap Buton 2
● I0:3 - Stop	● I1:1 - Cutter
● I0:4 - Start	● I1:2 - Disp
● I0:5 - Tane Up	● I1:3 - Back Claw 1
● I0:6 - Tane Down	● I1:4 - Back Claw 2
○ I0:7 - Foto Sensor	● I1:5 - Belly Claw 1
● I0:8 - Wrap puls	● I1:6 - Belly Claw 2
● I0:9 - Wrap Buton 1	

F8: Prev.

Main menu [F5: Info] > Info Menu: [F3: Software ver.]

Software version:

On this page you can see what software version number is installed in the PLC and on the operator panel. To begin full operation the type number and also the date of software should be equal on the PLC and on the operator panel. The type number is the first 5 digits. The date is in brackets.



Software ver. PLC

T4_26 (2010-05-26) PLC type A

Software ver. Panel

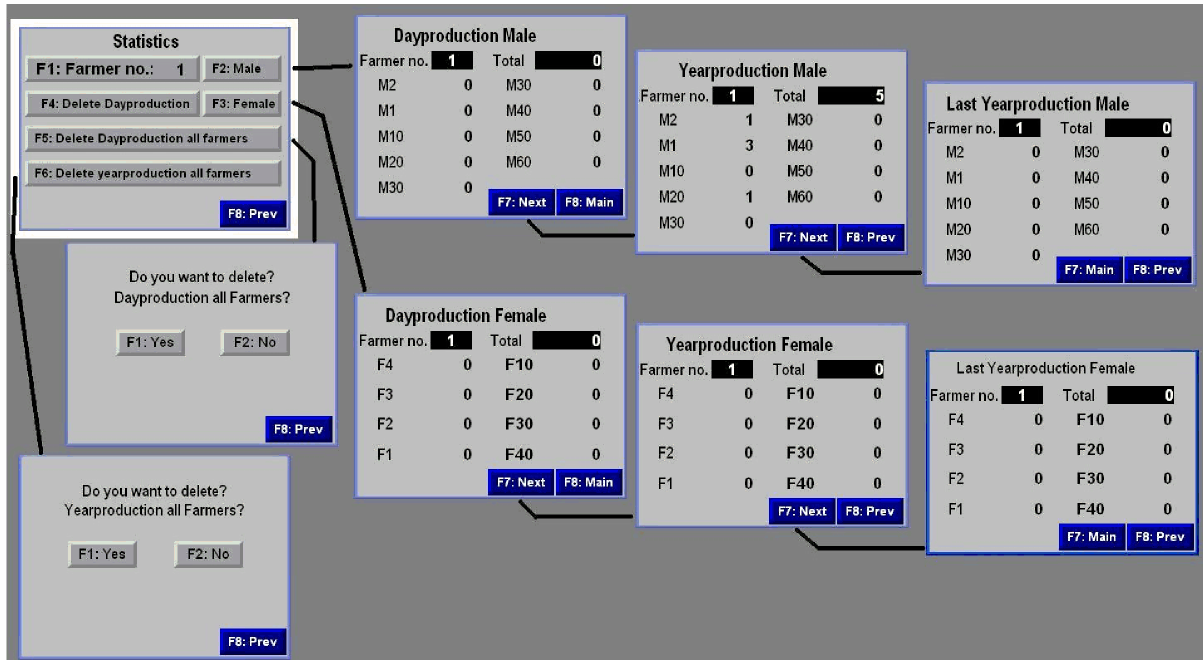
T4_26 (2010-05-26) FW 4.0

F8: Prev.

Main menu [F6: Statistics] > Statistics (white frame)

Statistics:

Overview of the screens with statistics



On the pages with statistics, one can find the information about how many pelts of different gender and length, from a given breeder, have been stretched on this machine.

Data collection:

To keep track of how many pelts are being stretched on this machine, the pelts are counted in given registers.

- The records are divided so that one can select between 20 breeders.
- Pelts from females and males are registered separately.
- Finally the fur lengths are being registered separately

When a pelt is stretched, the length and sex are recorded in the temporary memory, as long as you enable the WRAP function. Only when the pelt is completely finished the pelt will be added up and registered in the memory.

Cancellation: (see also description on page 11)

- You can cancel the count during 90 sec. after the pelt has been counted
- If you start to stretch a new pelt, you lose your ability to delete the recently counted pelts.

Main menu [F6: Statistics] > Statistics

Statistics main menu:

On this page you can choose the breeders and the statistics you want to see, also you can delete the selected data.

[F1: Breeder No:] here you can choose which breeder you want to see the data for

[F2: Male] by pressing this button go to the daily production for male pelts.

[F3: Female] by pressing this button go to the daily production of female pelt. This will not be discussed further because the menu structure is similar to the pages for male pelts.

[F4: Delete daily production]

[F5: Delete daily production for all breeders] You will however need to confirm the action once more before the data is deleted.

Do you want to delete?
Dayproduction all Farmers?

F1: Yes F2: No

F8: Prev

[F6: Delete yearly production for all breeders] You will however need to confirm the action once more before the data is deleted, the image resembles the above.

Statistics

F1: Farmer no.: 1 F2: Male

F4: Delete Dayproduction F3: Female

F5: Delete Dayproduction all farmers

F6: Delete yearproduction all farmers

F8: Prev

Dayproduction Male

Farmer no.	1	Total	0
M2	0	M30	0
M1	0	M40	0
M10	0	M50	0
M20	0	M60	0
M30	0		

F7: Next F8: Main

Yearproduction Male

Farmer no.	1	Total	5
M2	1	M30	0
M1	3	M40	0
M10	0	M50	0
M20	1	M60	0
M30	0		

F7: Next F8: Prev

Last Yearproduction Male

Farmer no.	1	Total	0
M2	0	M30	0
M1	0	M40	0
M10	0	M50	0
M20	0	M60	0
M30	0		

F7: Main F8: Prev

Alarms:

The machine can generate a few alarms whenever the conditions for an alarm occur, the following screen will be displayed. The text in the gray box will vary depending on the alarm.



Alarm text	Description
Memory for this Farmer is full.	If a breeder's register for one of the fur lengths reaches a value over 32500 a year, this alarm will be displayed.
No pulses from rotation watch	This alarm occurs if the wrap motor is not running or if the sensor is defective
Wrap > 30 rotations	This alarm occurs if Wrap counter reaches a value greater than 30 laps
claw 1 back not closing	If feedback from Back claw 1 does not signal closed when the program expects it.
claw 2 back not closing	If feedback from Back claw 2 does not signal closed when the program expects it.
claw 1 belly not closing	If feedback from Belly claw 1 does not signal closed when the program expects it.
claw 2 belly not closing	If feedback from Bely claw 2 does not signal closed when the program expects it.
claw 1 back doesn't release	If feedback from Back claw 1 does not signal open when the program expects it.
claw 2 back doesn't release	If feedback from Back claw 2 does not signal open when the program expects it.
claw 1 belly doesn't release	If feedback from Belly claw 1 does not signal open when the program expects it.
claw 2 belly doesn't release	If feedback from Belly claw 2 does not signal open when the program expects it.

Declaration of conformity

Machinery directive, Annex II

Product:

Art :
Product no. :
Type designation:
Description :
Date :

Producer

Name :
Address :
Post no. City :
Telephone :
Fax :
E-mail :
Att. :

Is in accordance with: EC Directive of 19 February 1973, 73/23EOS regarding laws of the Member States relating to electrical equipment designed for use within certain voltage limits (Low Voltage) as amended by EC Directive of 22 July 1993, 93/68 EOS for CE marking. And all other relevant CE marking directives.

Accordance is achieved by compliance with: The following harmonized standards: EN 60204-1 EN 60439-1

The declaration issued by:

Name :
Company name :
Address :
Post no. City :
Telephone :
Fax :
E-mail :

Signature: _____

Date _____

Input and function

Input nr	Function
IN 0.0	
IN 0.1	
IN 0.2	Emergency stop module
IN 0.3	Button : Stop
IN 0.4	Button : Start
IN 0.5	Button : Stretcher up
IN 0.6	Button : Stretcher down
IN 0.7	Photo sensor on the pelt edge
IN 0.8	Inductive sensor : Wrap lap impulse
IN 0.9	Button : Wrap 1 Input

IN 1.0	Button : Wrap 2 Input
IN 1.1	Sensor : (Read) plastic rod Input
IN 1.2	
IN 1.3	Sensor : (Read) back claw 1 Input
IN 1.4	Sensor : (Read) back claw 2 Input
IN 1.5	Sensor : (Read) belly claw 1 Input
IN 1.6	Sensor : (Read) belly claw 2 Input
IN 1.7	Servo Drive Input

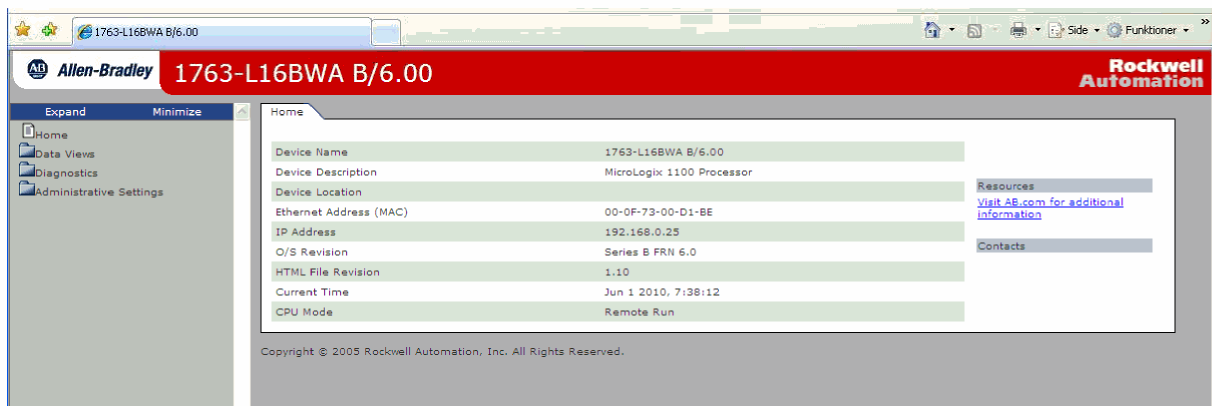
Output and function

Output nr	Function
OUT 0.0	Wrap moving speed
OUT 0.1	Wrap normal speed
OUT 0.2	Wrap low speed
OUT 0.3	
OUT 0.4	
OUT 0.5	
OUT 0.6	

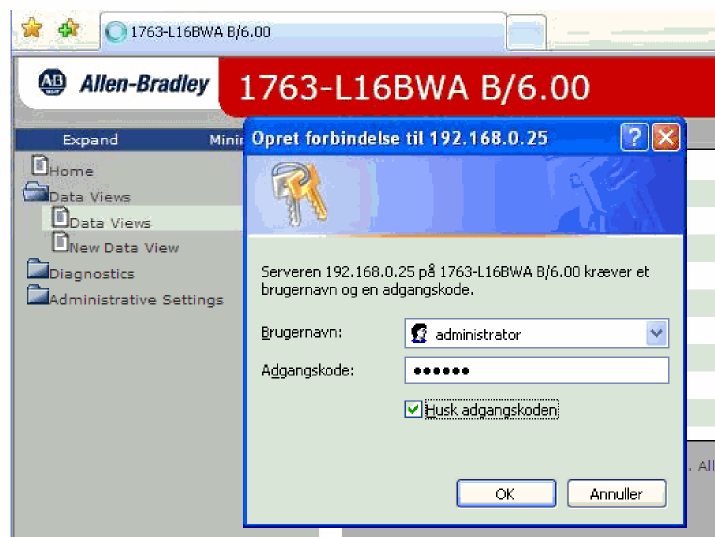
OUT 2.0	Hold stretcher
OUT 2.1	Hold pelt back
OUT 2.2	Hold pelt back at high pressure
OUT 2.3	Hold pelt belly
OUT 2.4	Hold pelt belly at high pressure
OUT 2.5	Servo drive : Stretcher up
OUT 2.6	Servo drive : Stretcher down
OUT 2.7	Pelt width
OUT 2.8	Pelt thickness
OUT 2.9	Plast Tang
OUT 2.10	Servo drive : Stretch high/ low
OUT 2.11	
OUT 2.12	
OUT 2.13	Servo drive : Emergency stop OK - To Servo
OUT 2.14	Servo drive : Manual - To Servo
OUT 2.15	Servo drive : Positions control - To Servo

Web server:

The PLC is equipped with a Web server where you can see the different data regarding the machine. You must connect a PC to the LAN connector on the PLC. If not through a switch, you should use a crossover patch cable. Ensure that the PC has an IP address that is located in the same area as the PLC. Normally the PLC has an IP address 192.168.15.151 (otherwise you can find the IP address of the small display on the PLC front). Once connected, open a WEB browser on the PC. And write <http://192.168.15.151/> Now you will have the start PLC WEB page displayed.



You can also view the data on the screen. To do this, open the folder Data Views. Then, again open Data Views. You must now write the Username and Password to proceed. Username: admin Password: ml1100

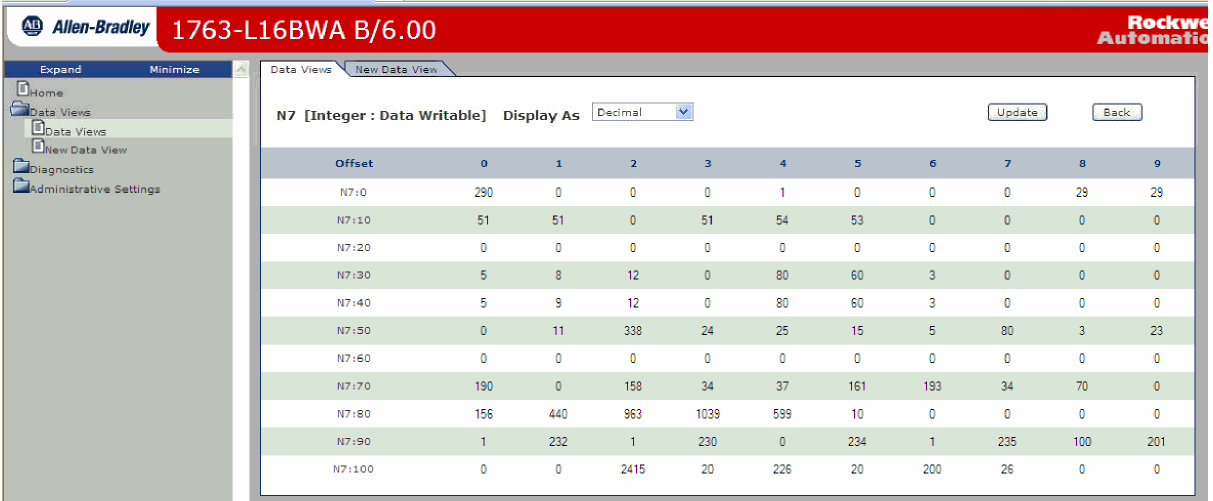


Now you will get an overview of all the tables in the PLC. If you press the table name which is shown as a link, you will be redirected to the table and will be able to see all the values in the table.



No	File Name	File Type	Display	# of Elements
1	O0	Output	Binary	6
2	I1	Input	Binary	12
3	S2	Status	Hexadecimal	66
4	B3	Binary	Binary	25
5	T4	Timer	Structured	50
6	C5	Counter	Structured	1
7	R6	Control	Structured	3
8	N7	Integer	Decimal	110

You can also change the data from the table. Here the N7: is shown. If you want to change the values in the table, you simply double click the value and type another number.



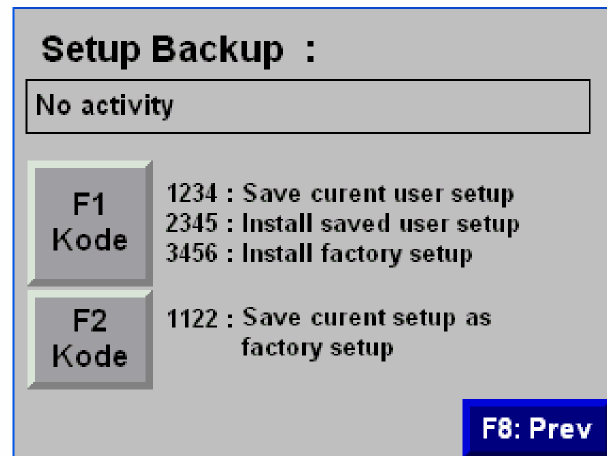
Offset	0	1	2	3	4	5	6	7	8	9
N7:0	290	0	0	0	1	0	0	0	29	29
N7:10	51	51	0	51	54	53	0	0	0	0
N7:20	0	0	0	0	0	0	0	0	0	0
N7:30	5	8	12	0	80	60	3	0	0	0
N7:40	5	9	12	0	80	60	3	0	0	0
N7:50	0	11	338	24	25	15	5	80	3	23
N7:60	0	0	0	0	0	0	0	0	0	0
N7:70	190	0	158	34	37	161	193	34	70	0
N7:80	156	440	963	1039	599	10	0	0	0	0
N7:90	1	232	1	230	0	234	1	235	100	201
N7:100	0	0	2415	20	226	20	200	26	0	0

Main menu [F2: Gen. Setup] > General Setup [F5: Setup Backup]

Setup Backup: On this page you can save / install the most important values in the setup.

General data:

- Dynamic On / Off
 - Safety Margin
 - Pelt length
 - Correction value
 - Servo Speed
- Data for the 4 Pelt types
- Stretch
 - Pressure switch
 - Stretching time
 - Stamp values
 - Stretching pressure (male / female)
 - Wrap alarm



The screenshot shows a screen titled "Setup Backup :". At the top, there is a text box containing "No activity". Below this, there are two sections. The first section is labeled "F1 Kode" and lists three options: "1234 : Save curent user setup", "2345 : Install saved user setup", and "3456 : Install factory setup". The second section is labeled "F2 Kode" and lists one option: "1122 : Save curent setup as factory setup". In the bottom right corner, there is a blue button labeled "F8: Prev".

When you press **[F1 Code:]**

[F1] an input box displays on the screen.

If we enter 1234 and [Enter], the above data will be stored in the memory. In the text box at the top, the text "Current user setup is saved" will be displayed. If we enter 2345 and [Enter], the values from the previously saved user settings will be installed. In the text box at the top, the text "Saved user setup is installed" will be displayed. If you enter 3456 and [Enter], the values from the manufacturers setup will be installed. In the text box at the top, the text "Manufacturers settings are installed" will be displayed. If you enter any other combinations of number the text box at the top left side will display a message: "Wrong code!"

[F2 Code:] *appears only if you are logged on with username and password*

When you press [F2] on the main page an input box displays on the screen. If we enter 1122 and [Enter], the above data will be stored in the memory. In the text box at the top, the text "Current User setup is saved" will be displayed.

Login as service engineer, this is done from the front page, press [F5Login] then a screen with input fields will appear

Username: 1234

Password: 1234

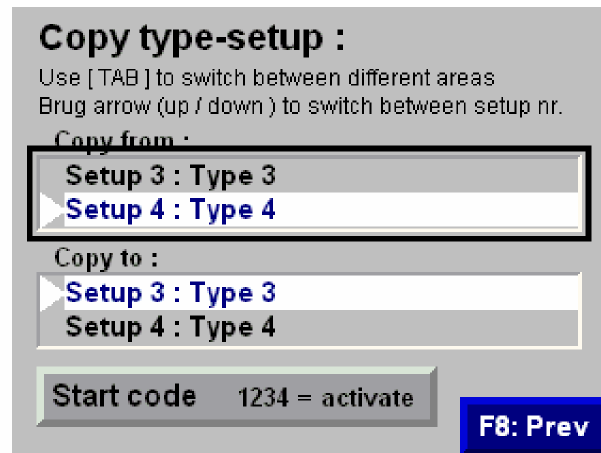
Main menu [F2: Gen. Setup] > General Setup > Setup Backup [F7]

Copy setup:

When you are on the page Setup Backup, you can reach the page Copy setup by pressing [F7]. (Not displayed on the page)

On this page you can copy the values from one type of setup to the other.

If, for example, you have entered all the values in Type 1 and in order to save time you wish to copy all the values from Type 1 to one or more from the other setup, you can do it here. However afterwards you have to go in to values you have copied in order to correct the given values.



Procedure

1. Use the arrow (up / down) on the operator panel to select the setup number in the "Copy From" field
2. When the right setup number is at the arrow, you use the [TAB] button on the operator panel to jump to the next field. *The black frame moves!*
3. Here the user can again use Arrow (up / down) on the operator panel to select the setup number where the data should be copied to.
4. To enable the copying you must use the [TAB] button on the operator panel again, then you can go to the button [Start code]
5. After pressing [Enter] an entry field appears. Now insert the code 1234 and press [Enter] after that the copying is completed.