

MAXI STRETCH T5 STRETCHING MACHINE





TABLE OF CONTENTS

Preface
Explanation of symbols
Presentation of the machine
Start-up
User safety
Programmable starting point
Description of functions
Start
Find pelt edge
Pre-stretch – back
Stretch at low pressure
Automatic additional stretching (stamp) -
Additional stretching (stamp) 11
Wrap
Database
Preparing for next pertainment 12
Using the operator panel
Start croon
Emergency ston
Main manu 12
XI boards
General setun
Measures
Board length
Calibration
Maximum length
Alarm list
Setup backup
Skin types
Skin types menu
Back stretch
Stretch time
Additional stretch (stamp)
Pressure
Soft treatment
What alaliti
loosen 29
WRAP speed (Hz)
Info
Total production
PLC info
Sollware version
Statistics
Statistics – main menu
Alarms
Air flow diagram
Wiring diagram
Notes

DECLARATION OF CONFORMITY

ANNEX II TO THE MACHINERY DIRECTIVE

Equipment type:	T5 Maxi Stretch stretching machine
Description:	machine for stretching mink pelts
Date:	15-09-2011

Manufacturer:	
Name:	Jasopels
Address:	Fabriksvej 19
Postal code and city:	7441 Bording

MEETS THE REQUIREMENTS OF THE FOLLOWING DIRECTIVES:

Directive 73/23/EEC of 19 February1973 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (low-voltage directive), as amended by the marking directive 93/68/ EEC of 22 July 1993, and all other EU directives concerning marking.

THE PRODUCT CONFORMS TO THE FOLLOWING STANDARDS, IF APPLICABLE

Harmonized standards:

- EN 60204-1
- EN 60439-1

DECLARATION ISSUED BY:

Name:	Poul A. Bach
Company:	Jasopels A/S
Address:	Fabriksvej 19
Postal code and city:	7441 Bording

Signature

Date September 21, 2011

Administration Director, Poul A. Bach, Fabriksvej 19, 7441 is authorized to submit technical documentation

Updated on 29/9-2016

PREFACE

- Thank you for buying the Maxistretch T5 stretching machine.
- This User Manual and safety guidelines are necessary for safe and correct use of the machine. Read it carefully before starting to use the machine and keep it for further reference.
- This manual contains important information about safety and the proper use of the machine. All users should be trained in connect use of the machine. The supervisor is also responsible for instructing the machine operator.
- The manual should be stored with the machine. It is important that the user manual is supplied with the machine upon resale and loan.
- The user of the machine must make sure that the operator, service personnel and others who have access to the machine are instructed on the proper use and handling of the machine.
- Refer to this User Manual for further information.

EXPLANATION OF SYMBOLS

Please read this manual and follow the included instructions. In order to emphasize certain information, the following expressions are used:

NOTE!



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

WARNING!



A triangle containing a warning about a crush hazard.

PRESENTATION OF THE MACHINE

- MaxiStretch T5 pelt stretching machine includes innovative solutions in terms of design and operation.
- The machine is compatible with all known plastic boards.
- No need of manual switching between males and females.
- The pelt is completely stretched when it leaves the machine.

IMPORTANT INFORMATION FOR THE SUPERVISOR:

NOTE!

 The supervisor must make sure that the operator, service personnel and others who have access to the machine are instructed on the proper use and handling of the machine.

Read the manual carefully to obtain further information.

- The machine may only be used for the purpose it has been designed for (stretching mink pelts).
- If any problems should occur with the machine or its operation, they must not be corrected before the machine is properly de-energized. Changes of operation and small software corrections can be made via the machine's control buttons.
- The user manual should always be kept available for the operator.



START-UP

 Before the T5 Maxistretch stretching machine can be used, make sure that it is standing on a firm and stable surface.

(Use the adjustable machine feet to achieve the desired position).

• The machine may only be used for stretching mink pelts.

DANGER!

To avoid any entanglement and crush hazard during the machine's operation, it is important that the user does not touch the moving parts in the machine. This applies especially to wrapping parts and pelt holders that are activated during the wrapping process. The machine is equipped with a knife that cuts the foil after the wrapping process. The knife is activated automatically.



 Do not attempt to stop any of the moving parts by hand. To prevent dangerous situations always use the emergency stop, and not the STOP button. Note that the pressing the STOP button located on the front panel, next to the [Board Down] button, stops the current process and moves one sequence step back.

If any dangerous situation occurs, always use the emergency stop.

• The T5 Maxistretch stretching machine is factory-fitted with a 3-pole 240V plug. Always use the machine with this plug to provide earthing.

NOTE!

The machine's connecting cable must be earthed. If this is not observed, the warranty becomes void.

(Absence of earthing can cause an unintentional execution of the program or errors)



- The air pressure must be at least 8bar and the machine has an air consumption of up to 70 l/min.
- The air hose connecting the T5 Maxistretch stretching machine and the compressor plant has to be min. 3/8" and preferably 1/2".

IMPORTANT!

Any kind of work involving the machine that does not include the wrapping process, such as cleaning, making adjustments, etc., may only be performed when power and compressed air is disconnected.

NOTE!

In order to prevent possible damage to the control unit's microcontroller and the rest of the electrical system during thunderstorms, it is recommended to disconnect power when the machine is not in use.



USER SAFETY

- 1. The machine operator must be instructed in detail in using the machine and must know the manual and safety rules. The supervisor is responsible for instructing the operator.
- 2. Due to the weariness caused by monotony and repeatability of the work Jasopels recommends that the operators do not work on the machine longer than 4 hours per shift. The supervisors are responsible for enforcing this requirement. Jasopels recommends rotating personnel on this workplace.
- 3. When working on the machine do not wear loose hanging objects and loose clothes on your body and around your head.
- 4. Protect long hair and beard with a net. Working on the machine with long hair and beard unprotected in prohibited due to safety hazard.
- 5. The supervisor is responsible for enforcing the requirements from items 3 and 4 above to the same degree as individual operators.
- 6. Jasopels offers training on safe use of the machine. The courses conducted by a Jasopels engineer are held on the company premises at Fabriksvej 19, 7441.

OPERATION – FRONT PANEL



EMERGENCY STOP

Stops the machine immediately and all parts return to their initial positions. Servo signal is cut off in Safe-Off mode and the VLT loses its electrical power supply. The supervisor is responsible for instructing the operators how to use the Emergency Stop correctly.

In order to restart the machine after an emergency stop, the emergency stop must be deactivated, the blue [Reset] button pressed, and the alarm on the operator panel reset (see page 13).

STOP

Stops the current process and goes 1 step back in the program. You can go further back by pressing the [Stop] button multiple times.

TANE OP / BOARD UP

This button is used to:

- lift the board manually;
- in combination with the [Stop] button to open the foil knife.
- in combination with the [Board down] button to save the set point for programmable starting point.

START

This button starts the next sequence of the cycle. It has the same function as the foot pedal or the knee contact with magnet for operation using one's knee).

TANE NED / BOARD DOWN

This button is used to lower the board manually. In combination with [Tane Op] (i.e. board up) it is also used to save the set point for programmable starting point.

PROGRAMMABLE STARTING POINT

- 7.To increase the speed of the stretching process, the default starting point can be changed according to user's needs.
- 8.1. Press the [Board down] and [Board up] buttons until the board foot is located in the position that you want the machine to use as the starting position.
- 9.2. To get the machine to remember the location, press the [Board down] and [Board up] buttons simultaneously. Now the position is stored in the machine's memory and the machine will use this position as a starting point for stretching.

FOIL KNIFE UP (OPEN)

By pressing the [Stop] and [Board up] buttons simultaneously you open the foil knife.

DESCRIPTION OF FUNCTIONS

DESCRIPTION OF THE PROGRAM SEQUENCE DURING THE PELT STRETCHING

START:

The board foot will normally be located at the bottom of the machine at a preset starting point. Start by putting the board into the board foot.

Note: After a power failure or emergency stop the board foot will start by searching the zero point, which is at the very top and then drive down to the preset starting point. The machine is now ready for production.

FIND PELT EDGE:

Press Start: The machine will now go down until it finds the pelt edge. When the sensor sees the pelt, the machine stops and goes up a little (the number of mm can be adjusted, see page 17). If the machine does not see the pelt, you can stop the machine by pressing the knee start button. The operator must now make sure that the pelt is positioned in a way that allows the claws to grasp the pelt.

PRE-STRETCH – BACK:

Press Start: The back claws close on the pelt. This happens in two steps.

- 1. The first step closes the claws on the pelt at low pressure. Jasopels A/S recommends using 1.3 bar (factory setting). Reduced pressure minimizes the risk of fingers crushing.
- 2. The second step closes the claws on the pelt completely. The second step commences only when the claws position sensor confirms that the first step is completed. The factory setting verified by Jasopels is maximum 2 mm to full closing of the claws.

If the pre-stretch function is set to ON in the setup menu, the foot will run up a bit to stretch the pelt on the back. Stretching pressure and pre-stretch time can be adjusted in the setup and dynamic prestretch can be switched on or off (see page 23).

STRETCH AT LOW PRESSURE:

Press Start: Now the belly claws are closed and the pelt is stretched at low pressure. If high pressure is not activated, the machine will hold the position and the "WRAP nu" (i.e. WRAP now) message will be displayed. Stretching pressure can be adjusted in the type setup (see page 26).

STRETCH AT HIGH PRESSURE:

If a pelt's size is far from being able to reach the next pelt size, high pressure will not be activated automatically. Press [Start] to activate high pressure anyway. Automatic high-pressure stretching: If a pelt's length is close enough to be able to reach the next size, high pressure is activated automatically. The machine then assesses whether automatic stamp (additional stretching) should be performed. If automatic stamp is not performed, the "WRAP now" message will be displayed. The pressure for high-pressure stretching can be adjusted in the type setup (see page 26). Pause times and activation of high pressure on missing mm to the next size can also be adjusted in Setup (see page 24).

AUTOMATIC ADDITIONAL STRETCHING (STAMP)

After the pause time after the high-pressure sequence has ended, the machine assesses whether an automatic stamp needs to be performed. If automatic stamp is performed, the "WRAP nu" (i.e. WRAP now) message will be displayed afterwards if it is not possible to reach the next size. The first stamp will be performed with settings for high pressure.

ADDITIONAL STRETCHING (STAMP):

If a pelt's length is close to the next size, one can stretch the pelt further by pressing [Start] again. The first time stamp is activated (automatic/manual), settings for high pressure are used. Subsequent stamps will stretch the pelt at a higher pressure and speed (stamp settings are described on page 25).

Press [Start]: The board foot goes down a little and then a few mm further up than the starting point. When the machine has stretched the pelt for some few extra mm, it measures whether the pressure applied on the pelt is too high. If necessary, the pelt is loosened until the desired pressure is achieved. The function can be repeated until the next size is reached. When the next size is reached, the stamp will not be activated again and the "Too short for next size" message will be displayed on the operator panel. Stretch pressure settings (see page 26). Speed settings (see page 25).

WRAP:

In order to keep the pelt in place when the claws are released, some foil will be wrapped around the bottom piece of the pelt.

1. The operator fastens the lowermost loose part of the pelt according to the supervisor's instructions.

2. When the pelt is placed properly, press two yellow buttons on the front panel, and the wrapping ring will start to rotate. This happens in two steps:

a. First, the wrapping starts slowly, and after the first turn the ring accelerates. This prevents the abrupt start of the wrapping.

b. In step two, the ring rotates at full speed. The ring will stop automatically when a sufficient amount of foil is wrapped.

3. NOTE: If the ring encounters resistance for longer than 1.5 seconds, the emergency stop will be activated automatically and the ring will stop.

If a few millimetres are missing for the next size, the pelt will not be wrapped and a relevant message will be displayed. It is possible to force the pelt wrapping by pressing [Continue] on the operator panel, and then resetting the wrap function by pressing both wrap buttons simultaneously.

WRAP PROCESS:

1. If the Release function is on, the machine will loosen the pelt a little if possible.

- 2. The wrapping part begins to rotate to wrap foil on the pelt.
- 3. A number of turns are wrapped on the pelt without moving the board foot.
- 4. The claws release their grip on the pelt.
- 5. The board foot goes a number of mm up while the pelt is still being wrapped with foil.
- 6. The board foot stops while a few more turns are wrapped on the pelt (underneath) to keep the foil in place.
- 7. Finally, the foil is cut and the board foot goes all the way to the top to deliver the pelt to the operator.

The number of turns at the top, wrapping length and the number of turns at the bottom of the pelt can be adjusted in Setup. (Wrap settings are described on page 28).

DATABASE:

When the board foot has reached the top, the pelt is added to the database. It is possible to record data for 20 breeders.

The database is divided into several registers.

- each of the 20 breeders is assigned a register area.
- next, a distinction between male/female pelts is made
- finally, the pelt is counted in a register corresponding to the length the pelt has achieved during stretching

PREPARING FOR NEXT PELT

The board foot stays in the top position for a short time, then goes down to a pre-set starting position to save time. The machine will wait here until the next pelt is to be stretched.

USING THE OPERATOR PANEL



DISPLAY

The display provides the user with information about pelt lengths, size and pressure during stretching. It can also be used to define set points and to display stored data.

Since the panel is equipped with a touch screen, all you need to do to activate the available functions is touch the screen at the points where there are buttons and input boxes.

DATA INPUT

If you want to change a value in a setup point, touch the screen right where the button/input box is displayed. A data input box where you can enter the new value of the set point will now appear. When

you have entered the data, press [Enter] . There are some numbers under the data input box. These are the minimum and maximum values that can be entered. If you do not want to change anything in the set point, you can just press [Esc].



START SCREEN:

The start-up screen appears when the machine is connected to a power source: On this screen you can choose what language the screens will be displayed in.

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



EMERGENCY STOP:

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

Resetting the alarm: you can close this screen by pressing [Reset alarm]. However, it will reappear after 60 seconds if the emergency stop has not been reset.

To start the machine again after an emergency stop, you need to:

- 1. First pull the emergency stop button out.
- 2. Then, press the blue reset button.
- 3. Finally, press [Reset alarm] on this screen.



MAIN MENU:
There are 6 options in the main menu:
[Production] Press this button to get to the screen
that should be displayed during production
[Gen. Setup] Press this button to get to the gene-
ral setup screens
[Skin types] takes you to the pelt type setup
[Wrap] takes you to the Wrap settings screen
[Info] takes you to the menu with information
about the machine
[Statistics] Press this button to see the pelt produc-
tion statisticsProvide Press
to the screen
Skin types]

Production	Wrap
Gen. Setup	Info.
Skin typs	Statistics
Service Menu	Prev

!! Alarm !!

4:46:36 PM !! Emergency stop !! Release emergency stop and press Reset

Ack

Alarm

Main menu [Production]



XL BOARDS:

Note! You need to install a special sensor which allows using the XL boards. This sensor is called **ADDI-TIONAL EQUIPMENT.**

Starting from software versions 7 it will be possible to use XL boards to stretch the pelt to size 8.0. If the machine is set for "Male" boards, and you install XL boards, the machine will automatically detect the XL boards.

The top button on the display which usually reads "Male", will read "Male-XL", of if the machine is set for females it will read "Female-XL."

When the pelt stretching starts, the XL parameters will be blocked to prevent the sensor errors.

		mm. to n	ext:	41	,	Male
XL BOARDS ON MA	CHINE	Size now	:	10	Ski	n types
		Setup: Typ	pe 2			
L		mm. to next:	41	Male	-XL	ormal
		Size now:	10	Skin t	vpes	ancel
		Setup: Type 2]		Prev
		Skin to day: Last size:	6'	1 Norr 1	nal	
		Length in mm.:	804	4		
		Farmer no.:	1	Pre	۶V	

PARAMETERS FOR XL

Most parameters are identical as for standard boards. Special parameters for XL boards:

1. Board length (see page 17).

2. Max. pelt length (see page 19).

Fig. 1 – Claws/ male Fig. 2 – Claws/ female



IMPORTANT:

Always use appropriate claws, depending on whether the pelt is male or female.

GENERAL SETUP:

Overview of the General setup menu.



GENERAL SETUP MENU:

- Select the distance (down) to the place in which the board will be fastened
- Select how far the board is to go up when the sensor has been activated
- Change the safety margin
- Change board length
- Change correction (calibration value)
- Change Servo speed
- Activate the max. pelt length
- View the list of recorded alarms
- Backup a setup
- Copy setup from one type to another

MEASURES:

Up after sensor stop: Since the photo sensor is located under one of the claws, it will first see the pelt when the pelt is slightly past the optimum place for the claws to grasp it. Here you can set how many mm the board is to go up after the photo sensor has detected the pelt edge.

SAFETY MARGIN:

This value is subtracted from the values "lacking mm"

and "size" that are displayed on the production screen and other places. This is done so that you can always be sure that the pelt is larger than what is displayed on the screen and so that the pelts always meet size requirements when stretching is completed.

[Male] – safety margin for male pelts

[Female] – safety margin for female pelts

Main menu > [Gen. setup] > General setup [Board length]

BOARD LENGTH

On this screen you need to input the board length. [Male] Board length for male pelts [Female] Board length for male pelts [XL] Board length for XL pelts Male/Female]

[Correction] this value is used to calibrate the machine so there is coherence between the length indicated on the operator panel and the actual length of the pelt. The correction factor is the difference between the length in mm on the display and the measured length between the board's tip and the horizontal slice in the pelt holders.



CALIBRATION

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

Calibration procedure:

- 1. Drive the board foot to the very top by pressing [Board up].
- 2. Measure the distance in mm from the horizontal slice by the claws to the board foot.
- 3. Enter the measured value into the correction factor box.
- 4. As a control measure, you can now put a pelt in the machine and drive the board foot down a little.
- 5. Then measure the distance from the board tip to the horizontal slice by the claws.
- 6. This value should be the same as the value in the "length in mm" field. On the button to the left of the orange box you can switch between male and female, so you can control both measures without leaving this screen.

Up after sensor stop :	10 mm
Safety margin:	
Male	15 mm
Female	15 mm
	Prev.

NOTE! It is the supervisor's responsibility at all times to make sure that the machine is calibrated and operates with the right stretch lengths.

Make regular control measurements, preferably several times daily.

Main menu > [Gen. setup] > General setup [Servo speed]

SERVO SPEED:

This screen is used to change the speed at which the board foot moves up and down.

[AUT speed] This is the speed of the board foot, when it is controlled by the program for low- and high-pressure stretch, and when the board foot goes up at the end of the program.

[MAN speed] This speed is used when you use the arrow keys on the machine to move the board foot up/down.

[Top to starting point] This is the speed of the board foot, when it is running from the top down to the adjustable starting point. This speed is normally quite high to save time.



[Search sensor] This is the speed of the board foot when it is running from the adjustable starting point down until the photo sensor sees the pelt edge. This speed is quite moderate, as the pelt needs to go around the

pelt holder but behind the claws so that the photo sensor can see the pelt. If something goes wrong and the photo sensor does not stop the machine, you can just press the knee start button and then the machine will stop.

[Final stretch] This is the speed of the board foot when the machine is assessing if a pelt can be stretched to the next size. This speed should be low because the pelt is stretched using extra force, and experience indicates that the pelt will hold better is its last part is stretched slowly.

In addition, you can set the speed for:

• pre-stretch (see page 25)

This parameter can be set on a respective menu.

Main menu > [Gen. setup] > General setup [Max. length]

MAXIMUM LENGTH:

You can activate this feature if you want the machine to stop stretching a pelt, when the pelt exceeds a certain length.

ON-OFF BUTTON:

The colour of the button is:

- red when the function is Off
- green when the function is On

VALUES FOR MAX. LENGTH:

In two blue boxes you can enter the desired values for max. length of male and female pelts.

INFORMATION SCREEN

If the length of a pelt exceeds the set point for maximum length during stretching, a message will appear that advises the operator to wrap the pelt, as it has reached the maximum length. The message will be displayed regardless of what the screen is showing at that time.

Stop stretch at Max fur length:				
Max fur-length On - Off	ength On			
		XL		
Max length Male	1086	1206	mm	
Max length Female	880	1000	mm	
Pressure 55 kg Length 804 mm. Prev.				



Main menu > [Gen. setup] > General setup [Alarm list]

ALARM LIST:

Here you can see all alarms. [Clear All] clear all alarms [arrow up] go up [arrow down] go down [Close] close this menu

Individual alarm messages are described further in the manual.

Alarm tim 7/6/2016	e Me !! Rel	ssage Emerge lease eme	ncy stop	!!)p	and pre*
7/6/2016	Foi	I Cutter:	Not Down		
7/6/2016 !! Emergency stop !! Release emergency stop and pre*					
7/6/2016 Foil Cutter: Not Down					
-					

Main menu > [Gen. setup] > General setup [Copy/Backup]

On this screen you can save/install the most important values of the setup.

GENERAL DATA:

- Dynamic On / Off
- Safety Margin
- · Stretch lengths
- Correction value
- · Servo speed

DATA FOR THE 4 PELT TYPES:

- Pre-stretch
- Pressure change
- Stretching time
- Stamp values
- Stretch pressure (male/female)
- Wrap alarm

[Code:] Press [Code] do display the data input box.

If you enter **1234** and press **[Enter]**, the above data will be stored in the memory. In the text box at the top of the text, the "Current user setup is saved" message will appear.

If you enter **2345**, and press **[Enter]**, values from the previously saved user settings will be installed. In the text box at the top of the text "Stored user setup is installed" will be displayed.

If you enter **3456**, and press [Enter], values from the factory setup will be installed and the "Factory settings are installed" message will appear in the text box at the top of the text.

If you enter any other number combinations, the "Incorrect code" message will appear in the text box at the top.

Kode		
		C
0 ~ 3276	7	
7	8	9
4	5	6
1	2	3
	0	_
ESC	←	←



Main menu > [Gen. setup] > General setup > Setup backup [Copy]

COPYING THE SETUP:

On this screen you can copy values from one setup type to another.

If you have entered all values for e.g.

Type 1 and want to copy all the values from Type 1 to one or more of the other setups in order to save some time, this is where you can do it.

You should edit the other types and modify some of the values that you have copied.

PROCEDURE

1. Press, for example, the "Copy from" field, after which a blue frame will appear around the active field.

Copy type-setup :

Use [TAB] to switch between different areas Brug arrow (up / down) to switch between setup nr.

	Conv from .	
	Setup 1 : Type 1 Setup 2 : Type 2	
▼	Copy to : Setup 5 : Type 5 Setup 6 : Type 6	
St	art code 1234 = activate	Prev

- 2. Use the arrows [up/down] to select the setup number in the box.
- 3. When the correct setup number is displayed by the arrow, press "copy to" after which it will be activated.
- 4. Now you can use the arrow keys again [up/down] to select the setup number that you wish to copy to.
- 5. To activate copying, press [Start code], after which an input field will appear. Now enter the 1234 code and press [Enter], after which the copying process is complete.

Main menu [Skin types] > (Skin type setup)

SKIN TYPES:

- Press [Skin types] in the main menu.
- A menu screen will appear where you can see a button for each of the 8 pelt types. Here you select which of the 8 pelt types you want to see/change the setup of.

SKIN TYPE FUNCTION:

Here you can input 8 different sets of parameters for pelt treatment. The advantage of this function is that you can quickly set the machine to run a different type of pelt without having to enter setup in order to change the parameters. On the production screen you just need to select one of the eight setup types that is suitable for the given pelt.

ACTIVE SETUP:

In the picture below, you can see ON next to "type 1". This indicates that the setup for "type 1" is being used to control the machine.



Each pelt (skin) type contains information about:

- Back stretch
- Pressure change settings
- Stretch times
- Stamp settings
- Pressure settings for males/females (soft pressure, low pressure, high pressure, stamp pressure)
- Wrap alarm settings

Main menu [Skin types] > Skin types [Types 1-4]

The name of the pelt type is displayed at the top. "Type 2" [Back stretch] shows a screen with

back stretch (pre-stretch) settings

[Pres. change] displays a menu to change the

stretch pressure (from low to high)

[Stretch] go to the additional stretching (so-called stamp) settings

[Pressure] displays a screen with settings for stretch pressure under various conditions [Wrap alarm] displays a screen with settings for the Wrap alarm

[Name] displays a screen where you can enter another name for a given pelt type. If you change the name of a pelt type, the new name will appear wherever you can choose between



pelt types. For example, if you enter "Black pelt" instead of "Type 2", the name "Black pelt" will then be displayed wherever it said "Type 2" before.

NOTE:

There is a USB port at the back of the operator panel. You can connect an ordinary USB-keyboard to it and thus be able to type a different name for your pelt type much faster.

Main menu [Skin types] > Skin types [Types 1-4] > Skin type Menu [Back stretch]

BACK STRETCH

The name of the pelt type is displayed at the top. Pre-stretch is a function that stretches the back of a pelt just after back claws close (the belly claws are still open). [Back stretch ON] Here you can choose whether the back stretch function is to be enabled (green) or disabled (red) for this pelt type.

[Male] Here you can set the desired back stretch for male pelts.

Dynamic (settings can only be changed with the login code). If this feature is on, there will most likely be another number on the far right. The number on the green button will then be the back stretch for a male pelt size 6.0. The number on the right shows how much a pelt with current length will be stretched (the current length is displayed at the bottom of screen).



[Female] Here you can set the desired back stretch for female pelts. The dynamic function is the same here as it is in the case of male pelts, the difference being that the number on the button here shows how much a female pelt size 4.0 will be stretched.

PRESSURE CHANGE

The name of the pelt type is displayed at the top.

Go to pressure 2 when missing: This feature is designed to determine whether the machine should increase automatically the stretch pressure from low pressure to high pressure.

High pressure is automatically applied if the "missing mm" value is smaller than the dynamic set point. However, if the "missing mm" value is greater than the dynamic set point, the "**Wrap now!**" message will appear (see figure below)

The message will be displayed regardless of what screen is being displayed at that time.

You can enforce high pressure by pressing the knee start button.

[Male] Here you can set the maximum of how many millimetres a male pelt may be missing to the next size so that the machine automatically activates high stretching pressure.

Dynamic: (ON / OFF can only be changed with the login code). If this feature is **on**, there will most likely be another number on the far right. The number on the green button will then be the missing millimetres of a male pelt size 60. The number on the right shows how much a pelt with current length may be missing before high pressure is activated. (The current length is displayed at the bottom of screen).

Setup : Type 1				
Go to pressure 2 when missing:				
Male	45	34 mm		
Female	37	31 mm		
Stretch time :				
Low pressure:		1.00 sek.		
High pressure:		0.50 sek.		
Length 804 mm.]	Prev		



[Female] The same function, but designed for female pelts. The figure on the button represents the number of mm that are missing to next size of a female pelt size 4.0 if the dynamic function is on.

STRETCH TIME:

These settings determine how long it should take to stretch the given pelt using different stretch pressure.

[Low pressure] Here you can set how much time must pass before the machine checks to see if high pressure needs to be automatically activated.

[High pressure] Here you can set how much time the machine is to work at high pressure before it can stamp or wrap the pelt.

PS. After the time with high pressure has ended, a stamp will be performed automatically, unless it is too far to reach the next size.

ADDITIONAL STRETCH (STAMP):

The name of the pelt type is displayed at the top.

Do not stamp if more than xx mm are missing to next size!

This feature is designed to prevent the stamp sequence, if it is not possible to reach the next size. A message will appear on the screen saying "The pelt is too short to reach next size" inform the operator that the stamp of this pelt is cancelled. The message will disappear when Wrap function has been activated. The feature can be disabled by setting the values over 60 mm. The machine will then always stamp the pelt.

[Male] Here you can set the limit for when the stamping process is to be interrupted. If more than 25mm are missing to the next size (as shown in the picture), the stamp will not be performed. The figure on the button

represents the value that is applied if the pelt size is 6.0 when the Dynamic function is on.

[Female] The same function but for female pelts.

Dynamic: (ON / OFF can only be changed with the login code).

If this function is ON, the number on the green buttons will apply to the length of a male pelt size 6.0 and a female pelt size 4.0. If the pelt is smaller, it is assumed that the pelt can be stret-

Setup : Type 1





ched less. The figure on the right shows where the limit is for the current pelt length. (The current pelt length is displayed at the bottom of the screen).

[Stretch speed] Here you can set the speed at which the board foot moves during stamping. This speed is normally somewhat higher than other Servo speeds that can be changed in general setup.

PRESSURE:

On this screen you can set the stretching pressure for the different parts of the program. The pelt type name is at the top.

MALE/ FEMALE:

There are 2 columns of set points. One column represents set points for male pelts and the other one is for female pelts. The green check mark shows which of the settings has been selected for the machine.

[Soft pressure:] This setting is used instead of low pressure when you have activated soft treatment on the production screen.

(It is used for pelts for which standard treatment cannot be applied).



SOFT TREATMENT

This feature is designed to stretch damaged pelts that cannot undergo standard treatment. You can activate Soft treatment on the production screen by pressing the "Normal" button, after which the button text will change to "Soft". Once you have activated the Soft treatment, the machine will only stretch the pelt using the settings for soft pressure. Wrap alarm is disabled, so the machine will not provide any information whether the pelt can reach the next size.

When the pelt has been stretched, the "Soft" function will be set to "Normal" again.

[Low pressure] This option is used to stretch the pelt right after the claws have closed on the pelt.

The values at this stretch pressure are used as a basis to calculate the high and manual pressure! [High pressure] This setting is used when high pressure has been activated. High pressure is activated when the time for low pressure has run out or it can be activated manually.

This value will also be used the first time stamp is activated.

Note that stamp is performed automatically when the time for high pressure has run out. The high pressure timer can be set on the "Change pressure" screen (see page 24).

[Man. pressure] This setting is used when you stamp a pelt more than once.

Main menu [Skin types] > Skin types [Types 1-4] > Skin type menu [Wrap alarm]

WRAP ALARM:

Function description: This function is used to get an information screen to appear on the display if it is possible to get the pelt to the next size by stamping a little more.

On this screen you can set the maximum number of millimetres that are missing to the next size.

If the number of mm that are missing to the next size is smaller than the set point, the Wrap function is not activated and a message is displayed on the operator panel saying that the pelt is close to the next size.

When the message screen is active, you can press [Continue] to wrap the pelt anyway.

However, you have to press both wrap buttons again, after which the pelt will be wrapped and the message screen will disappear from the display.

If you press the [Start] button to stamp the pelt again instead, the message screen will also disappear. The feature can be disabled by setting the values to 0. In this case the machine will always wrap the pelt.

The pelt type name is displayed at the top. [Male] These are settings for the maximum number of millimetres that may be missing to the next size in order for the function to be activated.

[Female] The same function, but for females.

Dynamic: (ON / OFF can only be changed with the login code). If this function is ON, the number on the button applies to the length of a male pelt

size 6.0 and a female pelt size 4.0. If the pelt is smaller, it is assumed that the pelt can be stretched less. The number on the right shows where the limit is for the current pelt length.

(You can see the current pelt length at the bottom of the screen).

Setup : Type 1



WRAP:

Settings for the wrap function will help you determine how the foil should be placed on the pelt.

Wrapping pelts:

- 1. When you've pressed both wrap buttons, foil will be wrapped around the pelt.
- 2. When the set number of rounds is reached, the claws open and the board foot goes up, while foil is still being wrapped on the pelt.
- 3. When the board foot has gone up the number of mm that has been determined in the setup, a number of turns will be wrapped around the pelt to close the foil properly.
- 4. Finally, the foil is cut by a knife and the board foot goes to the very top.

WRAP, STEP 1 (number of rounds at the top) [Rounds on skin] You will be redirected to a new screen with 3 setup points. The reason why there are 3 setup points is that the higher stretching pressure has been applied when

the pelt was being stretched, the more times the pelt needs to be wrapped in order to maintain the obtained length.

	Wrap	ning	
Rounds	on skin:		8
		Male	Female
Servo spea	ed up:	100	100
Servo mm	up:	70	70
Rounds las	st:	2	2
Loosen	FRQ		Prev



There is a numeric value on the button (in the picture it is the "4"). This value changes depending on how the pressure value that was applied during the stretching and shows how many times the pelt will be wrapped before the claws are released and the board goes up.

IMAGE: ROUNDS ON SKIN AFTER:

[Soft/ low pressure] The number in this field stands for the number of layers that will be put on top during wrapping if the machine did not apply a stretch pressure higher than the low stretch pressure.

[High pressure] The number in this field stands for the number of layers that will be put on top during wrapping if the machine applied high stretch pressure.

[Extra high pressure] The number in this field stands for the number of layers that will be put on top during the wrapping if the machine stamped the pelt (i.e. performed additional stretching). WRAP, STEP 2 (go a number of mm up)

[Servo speed up] Here you can choose how fast (mm / sec) the board foot is to move during the wrapping. [Servo mm up] Here you can choose how many mm the board foot is to move up during the wrapping.

WRAP, STEP 2 (number of rounds on bottom)

[Rounds at the end] Here you can choose how many rounds to wrap around the pelt at the end. A certain number of rounds are necessary so that the wrapping does not get loosened again.

Main menu [Wrap]> Wrapping [Loosen] > Loosen the skin before wrap

LOOSEN

When the "Release" function (here called "loosen") is On, the machine loosens the pelt slightly depending on the set point values.

MM TO THE NEXT SIZE:

This value makes sure that some distance is kept to the limit of the next smaller size. If the value is e.g. 50mm (see picture) then the value of "mm to the next size" on the production

screen after loosening must not be greater than 50. This means that the pelt length is 10mm above the limit for the next smaller size.

LOOSEN PELT:

This value represents how many mm the pelt is loosened, if it is possible.

If the box "mm to the next size" on the production screen contains information that 45mm are missing to the next size, there's only 5 mm down to 50 mm. Therefore, the pelt will be loosened 5 mm in this case.

Important:

Always check if the foil is wrapped with sufficient tightness. The first wrapped part should not be thicker than 40 mm, see picture. For optimum use of the machine the thickness should be 35-40 mm.





WRAP SPEED (HZ):

On this screen you can set the frequency of the engine that drives the wrapping mechanism.

ORANGE BOX:

This box displays data from the round counter is displayed as well as the number of rounds to go.

The counter can be reset by pressing the blue [Reset] button when the wrapping mechanism is not running.

SPEED 1:

This speed is used most of the time during the wrapping process.

SPEED 2:

This speed is used on the last round before wrapping is finished.

TEST:

ith these 2 buttons you can test the speed of the wrapping mechanism. This means that you start the engine to see if the speed is appropriate and whether the motor is running properly. The motor will remain running as long as the [Test] button is pressed. Before starting the production check manually if the wrapping mechanism is in the correct position.

ACCELERATION TIME (P109):

Set the time during which the motor will accelerate from 0 rpm to the maximum speed. Do not set low values because the foil can tear when the motor is accelerating.

DECELERATION TIME (P110):

Set the time during which the motor will decelerate from the maximum speed to 0 rpm. This function can be used to find a suitable place to stop the mechanism after completed wrapping.



INFO:

Overview of the Info menu screens.



Main menu [Info] > Info menu: [Total counter]

TOTAL PRODUKTION:

On this screen you can see some overall data for selected farmers and for the machine.

[Farmer:] enter the number of the farmer whose total production you wish to see.

Today total: number of pelts processed on a given day

This year total: number of pelts processed for a given farmer this year

Last year total: number of pelts processed for a given farmer last year

Total: number of pelts processed on the machine (including the pelts that have been removed from the statistics).

Total Productio	n	
Farmer no.:	1	
Today total:		20
This year total:		2
Last year total:		0
Total:		20
		Prev

PLC INFO:

On this page you can see the status of various PLC inputs.

"Current pos." are position values that PLC retrieves from the servo. The value is 0 when the board foot is at the top and the figure increases as the board foot is driven down in the machine.

Dots and text show the status and intended use of individual inputs. A blue dot indicates that a given input is not used at the time. A white dot, such as [10:2 – E-stop] indicates 24 V on the input.

Current pos.	146 mm
🛑 10:2 - E- Stop	0 I1:11 - Cutter
🔿 10:3 - Stop	🍈 I1:12 - Disp
🔿 10:4 - Start	🗍 🗍 11:13 - Back Claw 1
🔿 10:5 - Tane Up	🔆 I1:14 - Back Claw 2
🔿 10:6 - Tane Down	🔿 I1:15 - Belly Claw 1
🔿 I0:7 - Foto Sensor 👘	🔆 I1:16 - Belly Claw 2
🔿 IO:8 - Wrap puls	🦲 l1:17 - Air Pres. 👘
🔘 I0:9 - Wrap Buton 1 👘	🔿 I1:18 - Reset
○ I1:10 - Wrap Buton 2	Prev.

Main menu [Info] > Info menu: [Software ver.]

SOFTWARE VERSION:

On this page you can see which software version number is installed on the PLC and operator panel.

The type numbers and software dates should be the same on the PLC and on the operator panel in order for the machine to be able to operate.

The first 5 digits are the type number. The date has been put in brackets.





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

STATISTICS:

Overview of statistics screens.

On the statistics screens you can see how many pelts of different sex and length have been stretched on this machine for the individual breeders.

DATA COLLECTION:

In order to keep track of how many pelts have been stretched on this machine the pelts are counted in special records.

- The records are divided so that you can choose among 20 farmers.
- · Pelts of females and males are recorded separately.
- Finally, the pelt lengths are recorded (also separately).

During the stretching process a pelt's length and sex is recorded in the temporary memory when you activate the Wrap feature. The pelt will not be counted in the proper memory until the processing is completely finished.

Cancellation: (see also the description on page 14)

• You can cancel the pelt record within 90 sec. of the pelt being included in the statistics.

If you start to stretch a new pelt, you lose the ability to delete the recently added pelt.

Main menu [F6: Statistics] > Statistics

STATISTICS - MAIN MENU

On this screen you can choose what breeders and statistics you want to see. You can also delete selected data.

[Farmer No.:] choose the farmer whose data you want to see.

[Male] you will be redirected to the screen covering the daily production of male pelts.

[Female] you will be redirected to the screen covering the daily production of female pelts. This will not be described further here

because the menu structure is similar to that of the respective menu for male pelts.

[**Delete day production**] Deletes the daily production data for the selected farmer.

[Delete day production all farmers] Deletes the daily production data for all farmers. You will have to confirm the operation once again before the data are deleted.



[Delete year production all farmers] Deletes the yearly production data for all farmers. You will have to confirm the operation once again before the data are deleted. The dialog box is similar to the one shown above.

Statis	stics	
Farmer no.:	1	Male
Delete Dayprodu	ction	Female
Delete Dayproduction	on all far	mers
Delete yearproducti	on all fai	mers
		Prev

Daypı	odu	ictio	n Male		
Farmer no.	1		Total		2
M2	0	0.0%	M40	1	50.0%
M1	0	0.0%	M50	1	50.0%
M10	0	0.0%	M60	0	0.0%
M20	0	0.0%	M70	0	0.0%
M30	0	0.0%	M80	0	0.0%
			Next	N	/lain

Yearp	rod	uctio	on Male		
Farmer no.	1		Total		2
M2	0	0.0%	M40	1	50.0%
M1	0	0.0%	M50	1	50.0%
M10	0	0.0%	M60	0	0.0%
M20	0	0.0%	M70	0	0.0%
M30	0	0.0%	M80	0	0.0%
			Next	F	Prev

Last \	/eai	prod	luction M	ale	
Farmer no.	1	- -	Total		0
M2	0	0.0%	M40	0	0.0%
M1	0	0.0%	M50	0	0.0%
M10	0	0.0%	M60	0	0.0%
M20	0	0.0%	M70	0	0.0%
M30	0	0.0%	M80	0	0.0%
			Main	P	rev

ALARMS:

The machine can generate a few alarms.

Whenever conditions for an alarm occur, the following screen will be displayed.

The text in the dark grey box will vary depending on the alarm type.

!! Alarm !!

4:46:36 PM !! Emergency stop !! Release emergency stop and press Reset

Ack Alarm

Alarm message	Description
Memory is full for this breeder	This alarm will be displayed when a breeder's data register for one pelt length exceeds 32500 entries a year.
Emergency stop	Emergency stop is activated! Restart by pressing the blue [Reset] button and after that by pressing [Reset] on the operator panel.
Low air pressure alarm	The pressure air is not sufficient for the machine to be able to operate properly
No pulse from sensor checking rotation	This alarm will be displayed when the wrap motor isn't running or the sensor is defective.
WRAP button constantly active	This alarm will be displayed when one of the Wrap buttons is constantly pressed and held down. This is not OK, so the Wrap function is blocked!
WRAP buttons activated simultaneously	This alarm will be displayed when the machine has assessed that the Wrap buttons have been connected with each other so that the operator only needs to press one button to activate the Wrap feature. This is not OK, so the Wrap function is blocked!
Wrap> 30 rounds	This alarm will be displayed when the Wrap rev counter reaches a value of over 30 rounds.
Back claw 1 not closing	If the feedback signal from Back claw 1 isn't recognized as the "closed" signal when the pro- gram expects it to.
Back claw 2 not closing	If the feedback signal from Back claw 2 isn't recognized as the "closed" signal when the pro- gram expects it to.
Belly claw 1 not closing	If the feedback signal from Belly claw 1 isn't recognized as the "closed" signal when the pro- gram expects it to.
Belly claw 2 not closing	If the feedback signal from Belly claw 2 isn't recognized as the "closed" signal when the pro- gram expects it to.
Back claw 1 not releasing	If the feedback signal from Back claw 1 isn't recognized as the "open" signal when the pro- gram expects it to.
Back claw 2 not releasing	If the feedback signal from Back claw 2 isn't recognized as the "open" signal when the pro- gram expects it to.
Belly claw 1 not releasing	If the feedback signal from Belly claw 1 isn't recognized as the "open" signal when the pro- gram expects it to.
Belly claw 2 not releasing	If the feedback signal from Belly claw 2 isn't recognized as the "open" signal when the pro- gram expects it to.
RQ error xxx and "text"	If an error occurs on the frequency converter, it will send a code to the PLC. The code is displayed on the operator panel with a number (xx) and a text describing the error type.
VLT error no communication	If there is no power on the VLT or if there are communication problems between PLC and VLT.
Servo error	Whenever an error occurs on the servo.
Servo error no communication	Whenever there is no power on the servo or if the LAN plug is disconnected.





WIRING DIAGRAM FOR T5 MAXI STRETCH STRETCHING MACHINE



TABLE OF CONTENTS

Attachment II, Declaration B . 05-07-2011 10:57:34		II B
22-09-2011 12:37:10		Mek 1
Supply inlet 22-09-2011 11:32:00	••••••	5
Power supply 230/24VDC 18-08-2011 11:31:38		10
Emergency stop circuits 22-09-2011 12:41:20		15
PLC power supply and commu 22-09-2011 11:34:04	inication	20
PLC digital inlet operating pre 22-09-2011 12:42:10	ssure	21
PLC digital inlet operating pre 22-09-2011 10:53:56	ssure and sensors	22
PLC digital inlet sensors 01-09-2011 09:48:46		23
PLC digital outlets for valves . 22-09-2011 11:12:12		
PLC digital outlets for valves . 22-09-2011 10:41:02		
Control signals for Servo-pack 22-09-2011 11:37:32	<	40
Main circuits for motors 22-09-2011 11:32:14		100
Bus communication and opera 22-09-2011 12:39:26	ator panel	120
List of components 22-09-2011 12:42:50		KMP1
List of components 22-09-2011 12:57:34		KMP2
Cable plan 22-09-2011 12:43:58		cable plan
-5W1 22-09-2011 12:46:10		KPL1
-15W1 22-09-2011 12:46:50		KPL2
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Last corrected: 22-09-2011 12:57:38

Page 1 of 27

TABLE OF CONTENTS

-15W3 K 22-09-2011 12: 47: 40	(PL3
-22W3 K 22-09-2011 12: 48: 24	(PL4
-23W3 K 22-09-2011 12: 49: 02	(PL5
-30W 1 K 22-09-2011 12: 49: 34	CPL6
-40W1 K 22-09-2011 12: 54: 42	(PL7
-100W1 K 05-07-2011 12: 53: 32	CPL8

Soft&Teknik A/S	Project title: Stretching machine	File name: Stretching machine
	Customer: Jasopels	File name: Stretching machine
Handværkervej 3, DK-9900 Frederikshavn Phone: +45 98 42 95 35 · Fax Phone: +45 98 42 95 39	Last printed: 22-09-2011 13:41:20	Case number:
Email post@sogt.dk	Last corrected: 22-09-2011 12:57:38	Page 2 of 27

CE DECLARATION OF COMPLIANCE WITH MACHINERY DIRECTIVE 2006-42-EC ANNEX II B

The undersigned manufacturer is authorized to compile technical documentation for partly completed machinery and, upon request, technical documentation files.

Soft & Teknik A/S, Håndværkervej 3 DK-9900 Fredeikshavn, Phone: +45 98 42 95 35 CVR: 24257509 hereby declares that electric controls for:

Stretching machine 2011-JP-01

which are intended for incorporation in machines or incorporated in machines with other machinery parts - covered by the Machinery Directive (Directive 2006/42 / EC)

- are produced in compliance with the following EC Directives: Low Voltage Directive 2006-95/EC and EMC Directive 2004/108/EC.

The following harmonized standards have been applied: EN 60439-1 EN 60204-1

and the machinery must not be put into service until the machinery into which it is to be incorporated has been in its entirety declared in conformity with the all the relevant regulations, including the abovementioned Machinery Directive.

14anl 1. Non

Place: Frederikshav

Date: August 16, 2011

Signature:







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Filnavn: Tanemaskine 2011_rev1

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NOTES



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