Operation Manual

Cyrel FAST 2000TD

IMPORTANT

Please keep this manual with other equipment documentation for future reference. Please keep this manual with the 2000TD for future reference.

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General information

About this manual

This manual applies to the Flexo Processor **Cyrel FAST 2000TD** .

Always read the separate Safety Instruction Manual part No 21741 before operating the equipment.

This manual is valid for equipment with serial no(s) starting from:

Cyrel FAST 2000TD : 8106

The Cyrel FAST 2000TD is manufactured by:
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Reservations

- This manual was written and illustrated using the best possible information available at the time of publication.
- Any differences between this manual and the equipment reflect improvements introduced after the publication of the manual.
- Changes, technical inaccuracies and typographic errors will be corrected in subsequent editions.
- As a part of our policy of continuous improvement, we reserve the right to alter design and specifications without further notice.

Notes, Cautions and Warnings!

Notes, cautions, and warnings in this manual are used and categorized as described below:

Symbol	Meaning	Explanation
	**NOTE**	The operator should observe and/or act according to the information in order to obtain the best possible function of the equipment.
	**CAUTION**	The operator must observe and/or act according to the information in order to avoid any mechanical or electrical damage to the equipment.
	**WARNING**	The operator must observe and/or act according to the information in order to avoid any personal injury.

Manuals

User manuals are included on delivery of the equipment.

 **WARNING:** Always read the separate Safety Instruction Manual part No 21741 before operating the equipment.

User Manuals (Printed)

Pcs	Description	Part No
1	General Safety Instructions	10093396
1	CE Certification	10087683
1	SMC Chiller manual	10097986

User Manuals (Digital: USB stick)

Pcs	Description	Part No
1	General Safety Instructions	10093396
1	CE Certification	10087683
1	SMC Chiller manual	10097986

Pcs	Description	Part No
1	SMC Installation manual	10097985
1	User manual EN (UM)	10082030
1	User manual PL (UM)	10098923
1	User manual DE (UM)	10098924
1	User manual ES (UM)	10098925
1	User manual IT (UM)	10098926
1	User manual ZH (UM)	10098927
1	User manual SL (UM)	10098936
1	User manual FR (UM)	10098937
1	Pre-installation manual (PIM)	10082029
1	Spare parts manual (SP)	10082634
1	Electrical Schematics (SC)	10090811

Please ensure that the customer keeps all user manuals and other equipment documentation in a safe place near the 2000TD for future references.

The equipment

Approvals

Approvals will appear on labels affixed to or printed on the serial number plate or affixed to the covers of the equipment.

Unintended use of the equipment

Glunz & Jensen does not take any responsibility for any damage or accidents caused by unintended use of the equipment.

It is absolutely prohibited to make any modifications, electrical or mechanical, of the equipment. If however this prohibition is disregarded, Glunz & Jensen's warranty will no longer apply.

Intended use of the equipment

Development and/or processing of flexographic plates as specified in **Technical Specifications** in the Service Manual.

'End of lifetime' disposal

The equipment is designed for easy disassembling. All disposal of parts from the equipment must be made according to local regulations with special regards to following parts:

- For recycling purposes significant components are marked with material specification according to the ISO 11469 standard.
- Plastic parts must be sent to a waste deposit with recycling. Alternatively the plastic parts can be incinerated at a suitable incinerating plant.

- PCBs and other electronics parts must be sent to a suitable waste deposit.

Service assistance

If help is needed to correct any problem with the equipment, please contact your local supplier.

Table of Contents

Safety precautions

WARNING: Before performing any maintenance, switch off all power supply to the equipment.

Observe the warning labels on the equipment, and be very aware that the equipment has some extremely hot areas even after power has been switched off.

Warning labels (yellow labels)

In addition to the general safety precautions mentioned in the Safety Instruction Manual, please also observe and act according to the warning labels mounted on the equipment itself:

Label	Description	Label	Description
	High Voltage		Risk of hand injury (gear drives)
	Risk of hand injury		Risk of hand injury (rollers)
	Risk of foot injury		Risk of injury from rotating parts
	Risk of burns from very hot surface		Risk of crushing due to e.g. heavy equipment
			Maximum load (e.g. lift)

Instruction labels (blue labels)

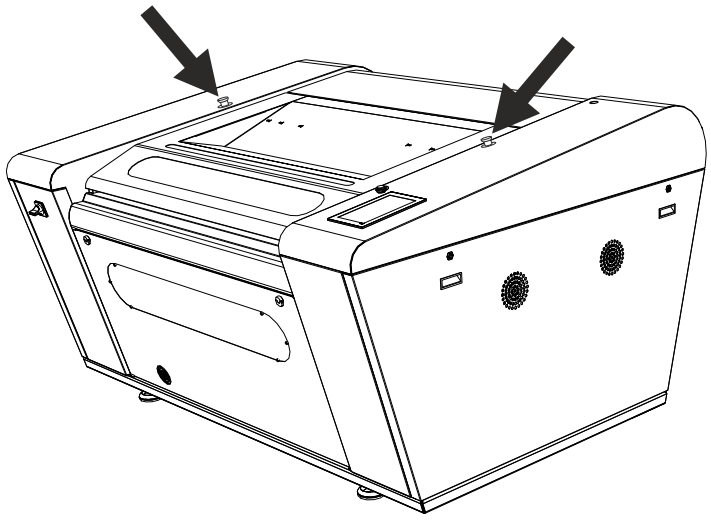
Label	Description	Label	Description
	Consult the manuals before further action		

Emergency stops

The processor has two emergency stops, one located on each of the right and left top side panels.

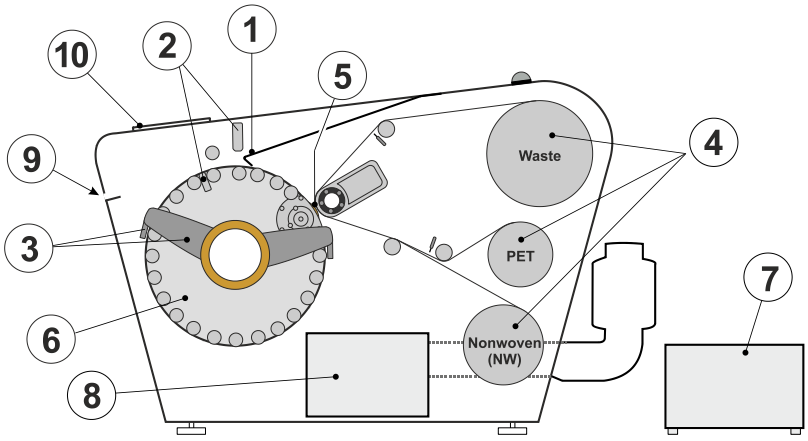
Pushing an emergency stop will instantly:

- Make the processor stop.
- Switch off the heating.
- Stop the drum movement.
- Pull back the heated roller.
- Show an alarm on the control panel.



Functional description

1.	Plate feed	Feed table for load of single plate.
2.	Clamping and release	During load: clamping of the plate to the front and rear clamp bars. During unload: release of the plate from the front and rear clamp bars.
3.	Clamp bars and clamp arms	The clamp arms with clamp bars ensure a firm grip and correct tension of the plate during processing.
4.	Developer material supply and waste rolls	The developer material supply and take-up system consists of three rolls for; a nonwoven supply, PET supply, and waste.
5.	Nip	Nip comprised of two rollers; the format cylinder and the heated roller. The nip pushes a nonwoven and PET material onto the plate surface. By very high temperature the nonwoven material absorbs the unexposed photopolymer while the PET protects the heated roller.
6.	Static drum	Supports the plate during processing.
7.	Cooling system	Keeps the temperature of the plate and equipment down. Correct temperatures are controlled by the build-in software.
8.	Exhaust system (catox)	Removes chemical fumes and hot air from the equipment and the working area. Correct temperatures are controlled by the built-in software.
9.	Plate exit	Exit slot for unloading the plate.
10.	Control panel	Operation and configuration



Processing description

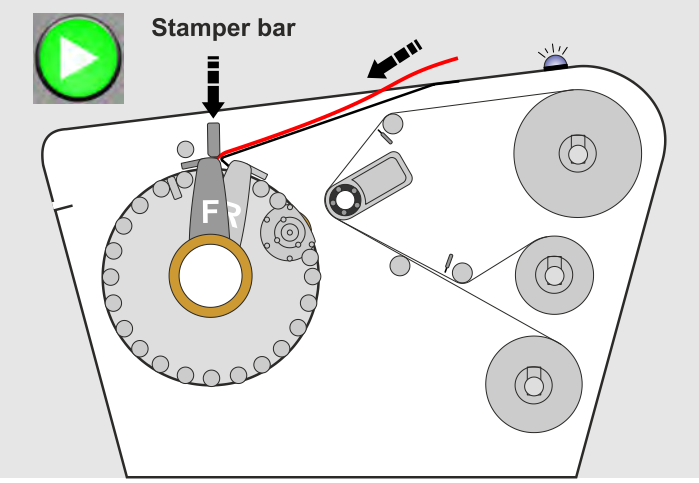
The plate is placed on the feed table and moved down to activate the load switches on the stamping bar.

When the 'Start' button is pushed and the plate loads into the processor the processing of the plate starts and the number of processing cycles defined for the chosen program will be executed.

A visual check through the window in the top cover will determine whether the plate is positioned, and runs, correctly. If for any reason the plate is not positioned/attached correctly, it is possible to stop the process, exit the plate and reposition and restart the process. For detailed instructions please refer to "Operation procedures" on page 2-1.

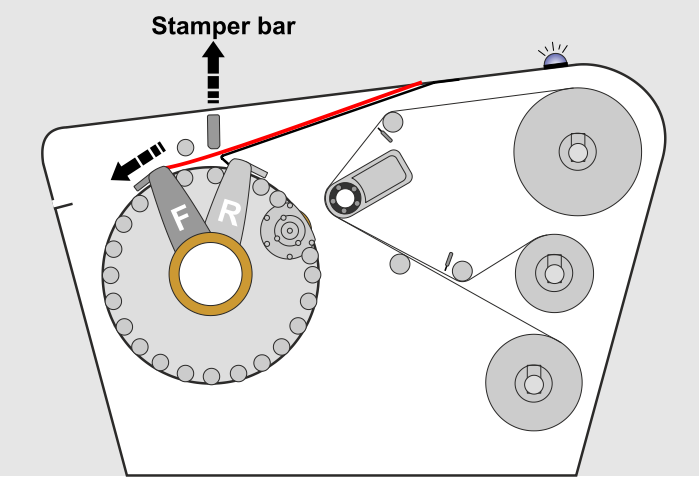
When the plate enters the processor:

The stamper bar will press the front edge of the plate into the front clamp bar while at the same time the plate front-stops will retract.

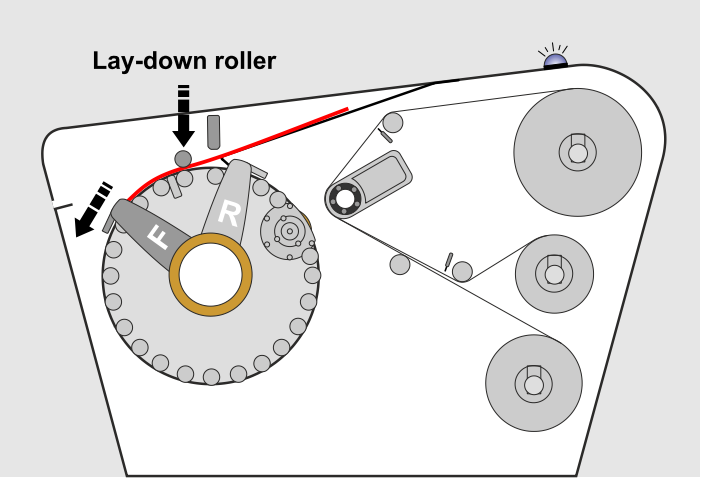


The stamper bar will lift away from the plate surface.

The front clamp arm will rotate around the static drum pulling the plate into the processor.



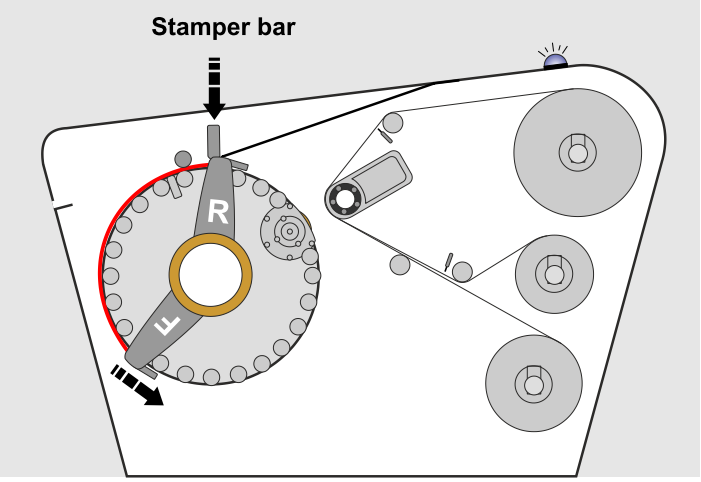
After about two seconds, the lay-down roller will drop onto the plate surface to keep tension on the plate as it is pulled around the static drum.



The rear edge of the plate enters the processor.

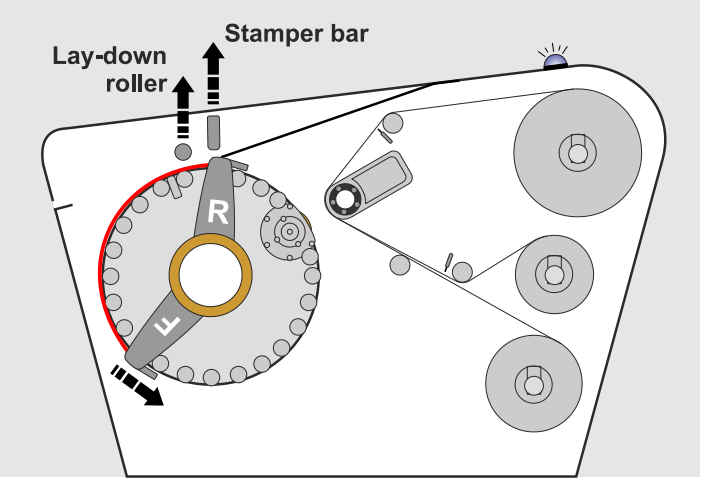
The rear edge of the plate stops over the rear clamp bar.

The stamper bar will press the rear edge of the plate into the rear clamp arm pin bar.

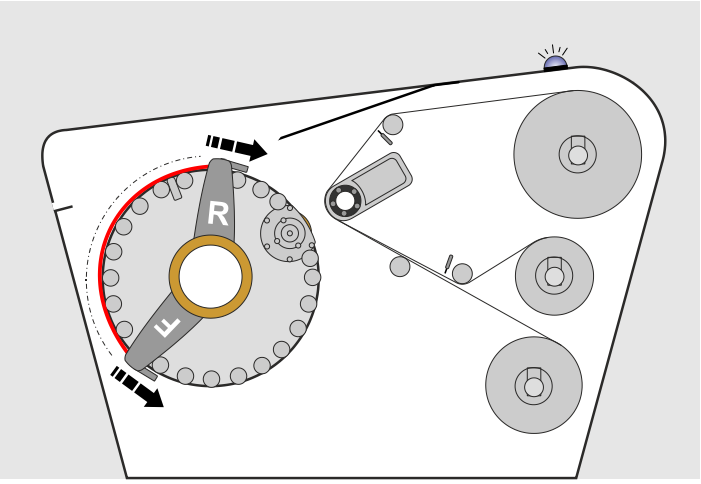


The stamper bar will lift away from the plate surface.

The lay-down roller lifts away from the plate surface.

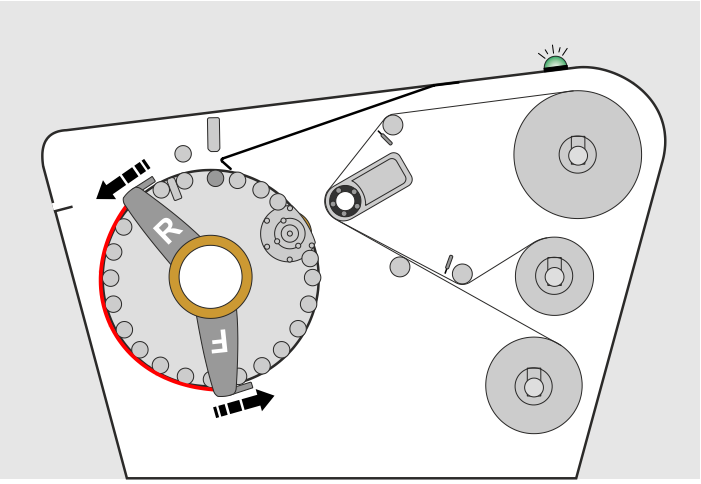


The front and rear clamp arms tension the plate ready for processing.



The front and rear clamp arms will now synchronize with each other and rotate the plate around the static drum.

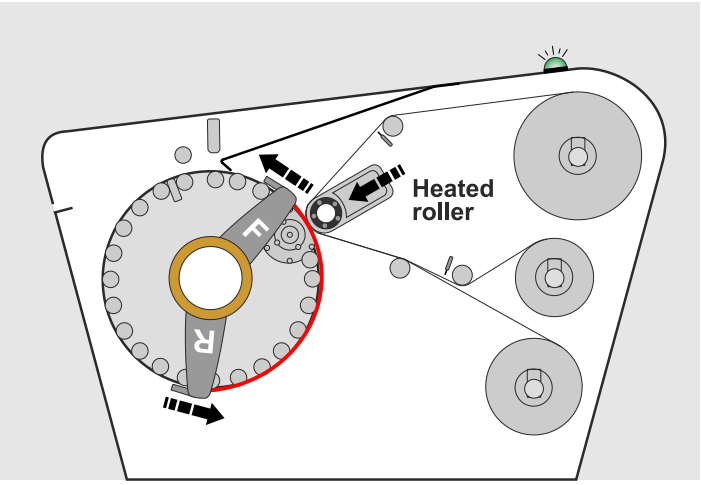
The stack light will flash green.



The plate rotates around the static drum for the number of revolutions defined for the selected program.

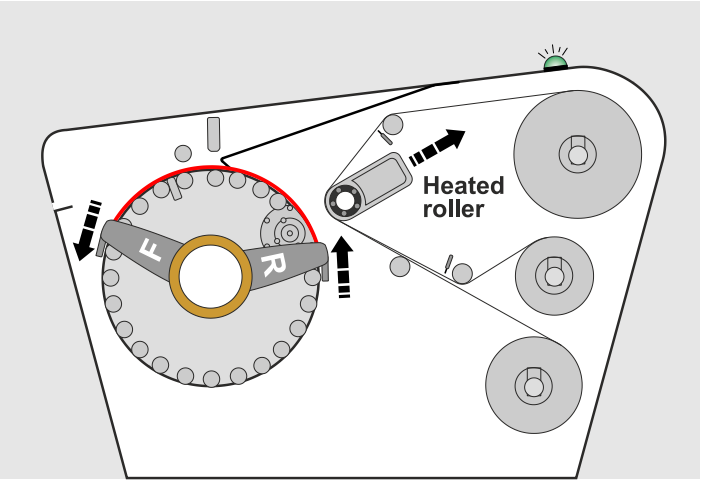
Close to the nip, the polymer-plate is preheated by means of an IR heater and, when it reaches the nip, heated by the heated roller.

On each revolution the plate makes around the static drum, the heated roller will travel to the plate surface pushing the nonwoven and PET material onto the plate surface. The nonwoven material absorbs the unexposed photopolymer.



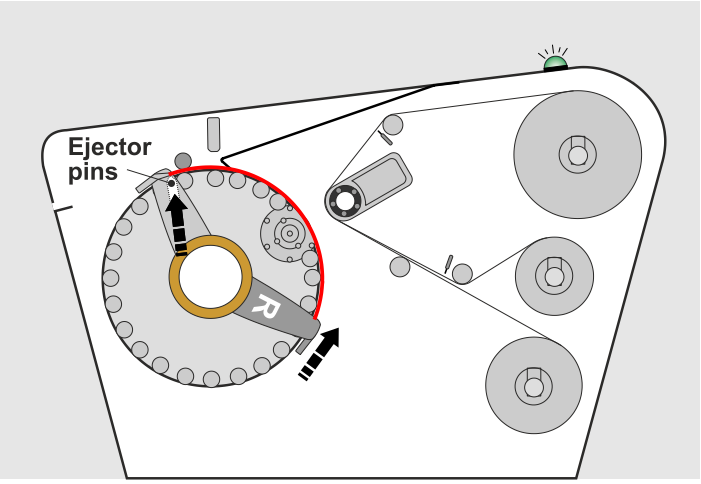
After each revolution, the heated roller retracts to avoid hitting the clamp arms.

The equipment works at a very high working temperature. To ensure correct temperatures around the plate a chiller unit supplies cooled water to the temperature control system. Chemical fumes and acrylic granules produced in the development process are removed from the inside of the processor via a suction hood and fed into a catalyst unit (catox) to be catalyzed and then removed from the processor via an external exhaust system.

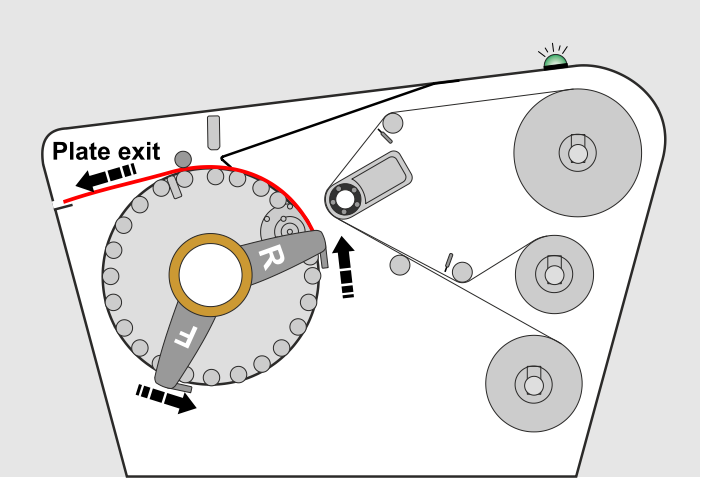


Once the full number of revolutions has been completed, the processor will automatically position the front clamp arm in the eject position.

The front clamp arm stops over the ejection pins. The tension is released between the front and rear clamp arms and the ejector pins will activate upwards and pass through the holes in the clamp bar, pushing the plate away from the pins and detaching it.



The stripping finger bar will rise to its upper position as the plate is pushed out of the processor through the exit slot.

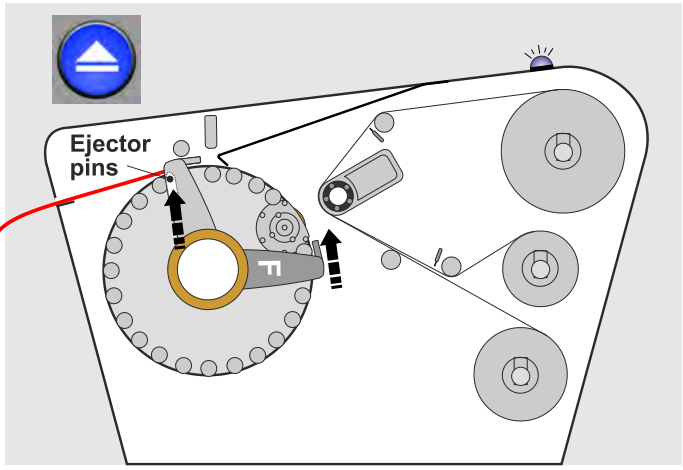


The plate will continue to exit the processor until the rear clamp arm stops in the eject position.

The control panel will now display the blue 'Eject' button.

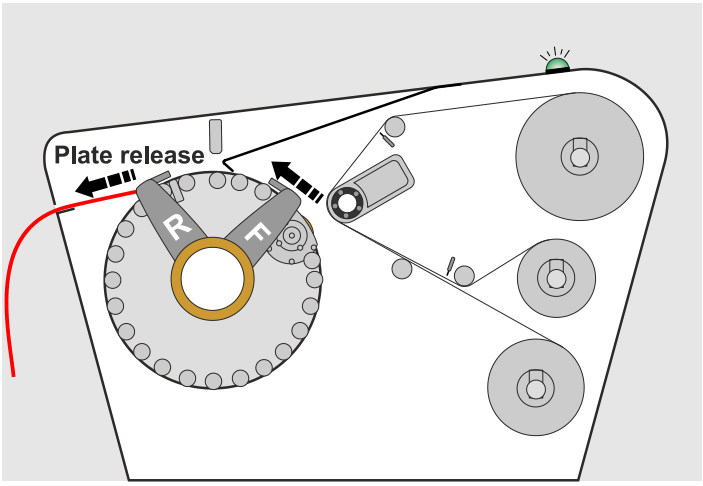
At this point, and to avoid the plate from falling onto the floor, the operator must take hold of the plate and then manually activate the eject function.

The ejector pins will activate upwards and pass through the holes in the clamp bars pushing the plate away from the pins and detaching it.



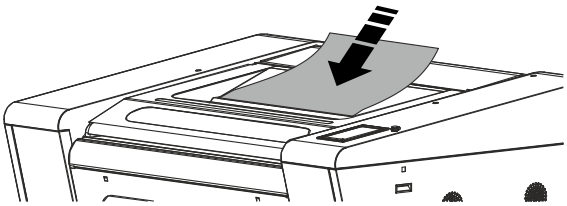
The plate will now be completely released from the clamp bar and can be removed from the exit slot.

Once the plate has been fully ejected from the processor, both clamp arms will automatically return to their respective load positions ready for the next plate.

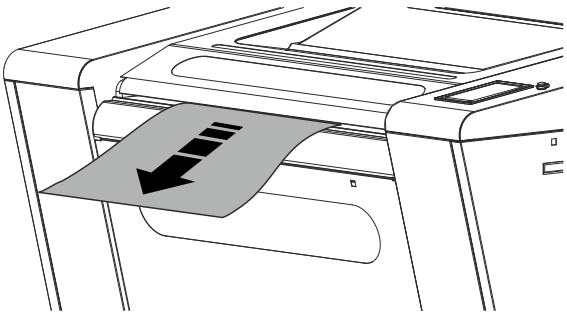


Feed and exit

The plate feed is done manually via the feed table. For correct feeding of the plates, the feed table is equipped with small guides. When the plate enters the processor, it is detected by feed sensors, and then automatic clamping and transport take over.



When the processing is complete the plate automatically exits through the exit slot.



Clamp bars and transport arms

The clamp bars are attached to the transport arms and thus comprises the plate transport system.

Developer material supply and waste

When the plate reaches the nip it meets the developer material consisting of a nonwoven (NW) and a thin polyethylene (PET). The nonwoven absorbs the unexposed photopolymer from the plate while the PET protects the heated roller and transport rollers from the photopolymer absorbed by the nonwoven.

The supply rollers hold the new unused material of nonwoven and PET.

The waste of both NW and PET is collected and rolled up on one waste roller.

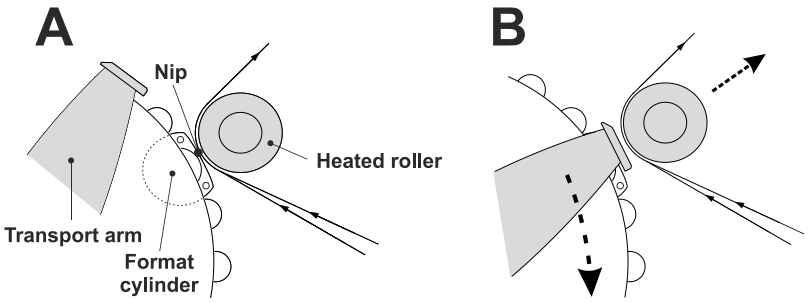
During the development process the effective diameter of the rollers are measured by an encoder, and when the supply material is about to run out, the encoder sends a signal to the electronic control which then sends an alarm to the operator. Likewise, when the waste roller is full.

Nip

The nip (A) comprises two rollers: the format cylinder (FC) and the heated roller (HR).

The heated roller moves down to close the nip when the front end of the photopolymer plate passes the nip and the actual developing process starts. The heated roller automatically pulls back (B) each time the front and rear clamp bar passes during the development process.

The format cylinder is mounted inside the drum. On the format cylinder is mounted a slip fit adapter (SFA) which is a compressible foam sleeve.



Static drum

The static drum consists of a frame mounted with steel rollers to support the plate when pulled around the drum.

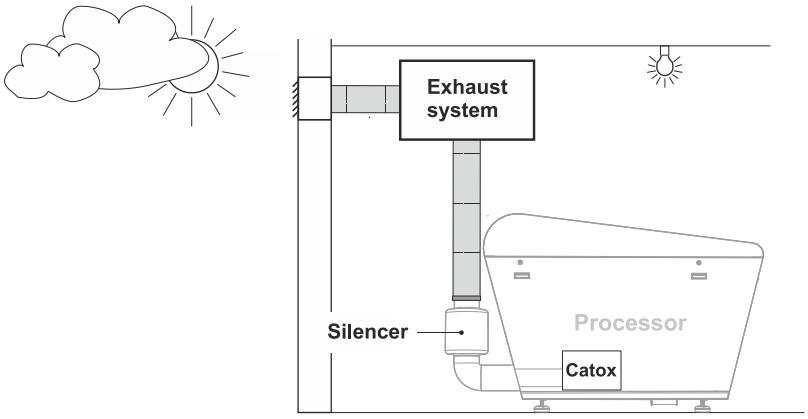
The static drum thus remains steady while the transport arms transport the plate around the drum.

Cooling system

To ensure the correct plate and internal temperature is controlled, a chiller unit supplies cooled water to the temperature control system inside the static drum.

Catox exhaust system

The processor is equipped with a catalytic oxidizer (catox) and must to be connected to an external exhaust system. The chemical fumes and acrylic granules produced in the development process are removed from the inside of the processor via a suction hood and fed into the catox where it is catalyzed and then removed from the processor via the external exhaust system. For noise reduction a silencer is mounted to the exhaust duct.



Control panel

The control panel holds all the processor operating and control functions.

The control panel is a finger touch panel with a graphic illustration of the processor itself, and buttons for easy access to alarms and menus, statistics etc.

NOTE: For this manual, the functions described and screen images used are based on software revision 966.

CAUTION: Use finger tips to avoid blocking editable area when operating the control panel. Do not place a palm on the touch panel, or use sharp objects.

For detailed description of functions and behaviors please refer to chapter 3 "Control Panel".

Operation procedures

Starting up

Before switching power on and starting up, a few things should be checked:

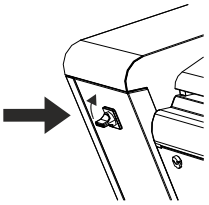
- Make sure that the external exhaust system is switched on. If in doubt, please consult the inhouse service technician.
- Make sure that the compressed air supply system is switched on. If in doubt, please consult the inhouse service technician.
- Make sure that the chiller unit is switched ON.

Procedure

1. Locate the main power switch in the front left side panel, and switch power to ON.

   The control panel will start up displaying ...

   - Machine illustration, ..
   - **"2000TD loading"**, ..
   - **"DuPont"** flash screen.

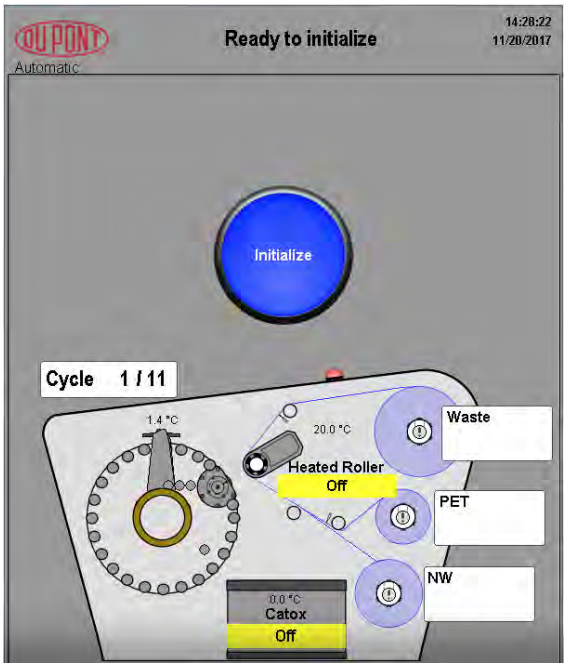


2. Then the display changes to show the home view and the top line shows ..

   "Ready to initialize"

   .. continue with step 3. Do not press the 'Initialize' button yet.

   NOTE: If by accident pressing the 'Initilize' button before turning the heat on, the following message will be displayed ...



3. Press the 'On/Off' button.

4. Press the 'Heating - Power ON' to start heating of the heated roller and the catox.

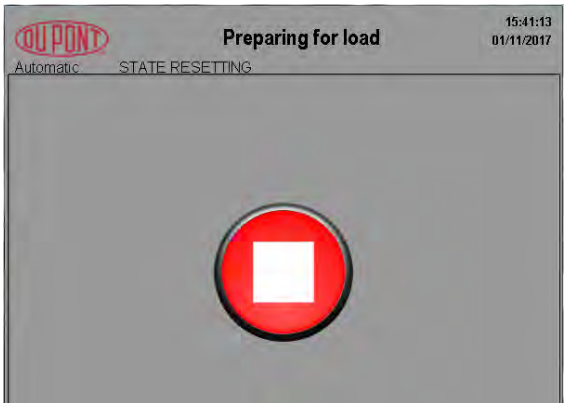
5. Press the 'Home' button to return to home view.

6. Now press the 'Initialize' button.

When heated up, the initialization starts automatically.

NOTE: It will take approx. 40 min. for the heated roller and the catox system to reach the set temperature.

7. During initialization the display presents buttons and processor overview as described in the following:

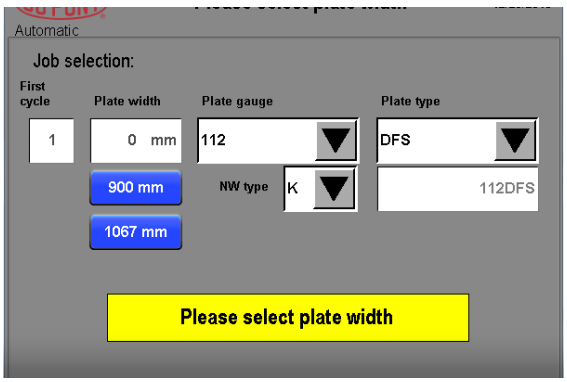


- The 'Stop' button will be presented and the top line will display:

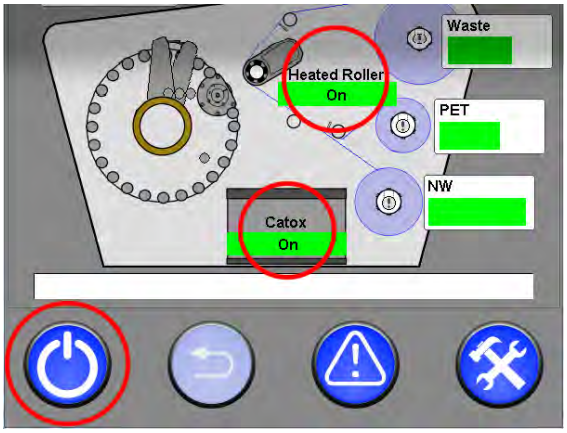
  "Preparing for load"

  If pressing the 'Stop' button the "Stop - Finish cycle - No" pop-up dialog will be displayed. The dialogue will close automatically after 10 sec. if nothing is chosen.

- When the initialization process is complete the home view will display the 'Job selection' area.

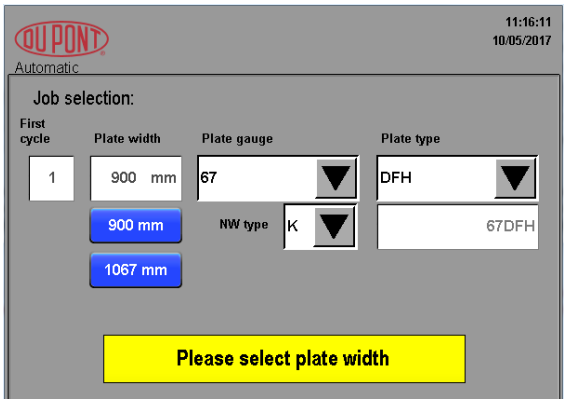


- The blue 'ON/OFF' button in the home view will flash until warm-up of both the heated roller and catox is complete.
- The heated roller and catox sections will be displayed in yellow while heating up.
- The blue 'ON/OFF' will stop flashing when correct temperature is reached. The heated roller and catox area will both be green.



Start-up is then complete and the processor is ready for processing.

8. Continue with description of "Preparing the processor for plate load" on page 2-5.



Shutting down

CAUTION: Always follow the cooling down procedure described below before switching off power on the main switch!

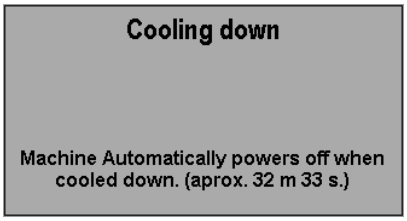
Procedure

1. Press the 'ON/OFF' button.

2. Press the 'Heating - Power OFF' button to deactivate heating of the heated roller and the catox.

3. Press the 'Home' button to return to home view.

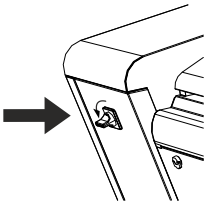
4. While cooling down, a cooling-down message will be displayed.



NOTE: It will take approx. 40 min. for the heated roller and the catox system to cool down.

CAUTION: Do not turn off the external exhaust system to the processor during the cooling down period.

5. When the message disappears it is safe to switch off .. .
   - the chiller,
   - the external exhaust system,
   - the main power supply,
   - the compressed air supply.



Preparing the processor for plate load

Processor initialization

The processor has to be correctly initialized and ready to accept a plate. When ready for plate load, the home view will display "Please select plate width" and the stack light will turn green.

If the stack light is not green, check the warnings and errors displayed in the home view or the alarm list.

Web status

Check the status of nonwoven (NW), PET, and waste before loading a plate. See detailed description of "Status of nonwoven (NW), PET and Waste" on page 3-2.

Plate Preparation

Ensure the plate is in a good condition and ready for processing.

CAUTION: The plate should have straight, square cut edges without damage and the plate surface and Mylar back side must be free from any damage, dirt or debris.

CAUTION: This processor is built for single plate load only. Do not try to load two parallel plates.

Select a Job

Make settings according to the description "Selecting a job" on page 2-7.

CAUTION: It is very important to make correct job selection for the plate type in use. If e.g. plate gauge does not apply to the actual plate, it could result in damage of the plate and potential damage to the processor.

Loading a plate

CAUTION: This processor is built for single plate load only. Do not try to load two parallel plates.

1. Place the plate with the Mylar facing down on the feed table (polymer facing up).

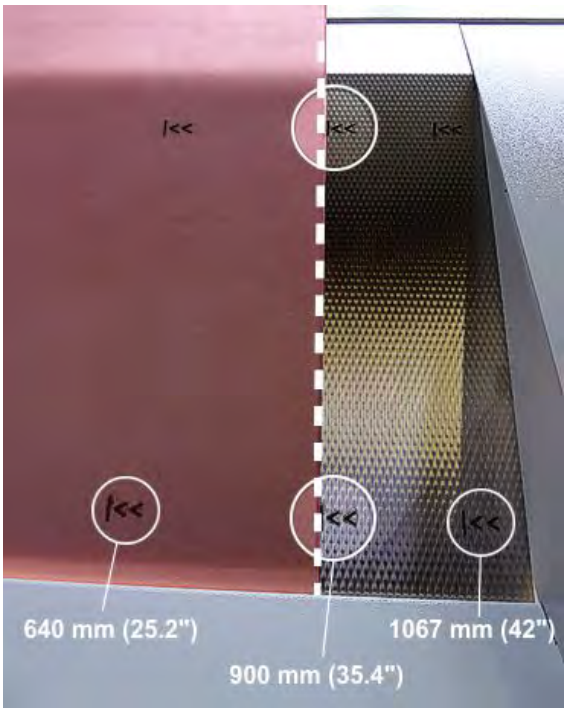
   Three sets of indicators are engraved into the feed table:

   - 640 mm (25.2")
   - 900 mm (35.4")
   - 1067 mm (42")

2. Position the plate between the set of indicators which match the plate width.

   NOTE: Ensure the plate is vertically aligned with both the top and the bottom indicator.

   CAUTION: Allowed min./max. sizes of width and length are
   W: 600 mm - 1067 mm (23.6" - 42")
   L : 450 mm - 1600 mm (17.7" - 63")

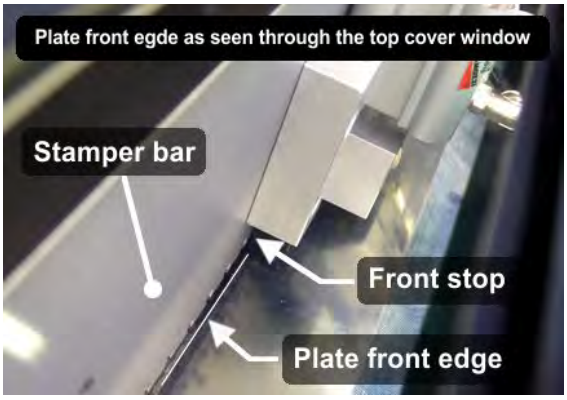


3. Gently push the plate into the entrance slot so that the front edge of the plate rests on the 2 front stops.

   If positioned correctly the stack light will change from green to blue.

   Release the plate. The stack light should remain blue. If it changes to green, gently reposition the front edge of the plate until the stack light turns blue, ensuring that the plate remains correctly positioned between the indicators.

   CAUTION: Do not put any force or pressure on the plate to achieve the blue light signal. Gently reposition the plate if the blue light does not appear.

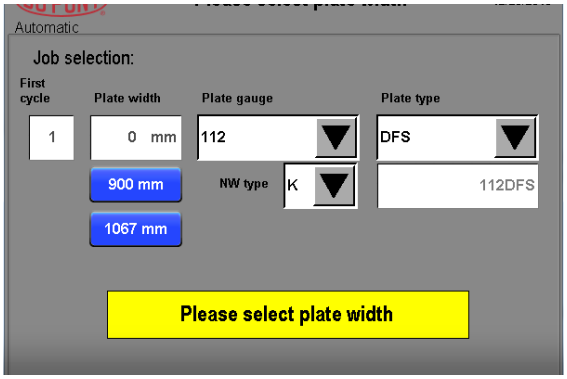


4. When the stack light is blue, press the 'Start' button on the control panel.
5. The processor will now automatically load the plate and start processing.

Selecting a job

The processing software offers the operator to choose from preset programs for easy job selection. Job selection is described in the following.

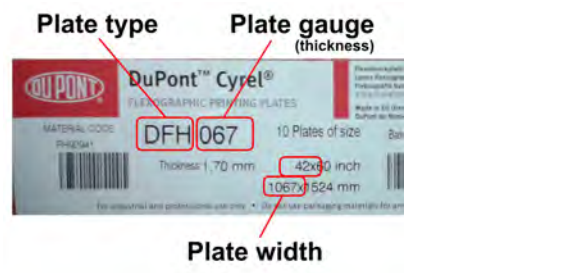
When the processor has been started and initialized, and the processor is ready for processing, the control panel home view will prompt the operator to select the plate width.



NOTE: If not switching between plate types, and if processing has not been interrupted, you need only select the plate width.

If in doubt, check whether the other job selection fields match the plate type you want to process. See below.

NOTE: The label on the plate package lists all the information needed for the job selection.



First Cycle (1):

A processing job consists of several processing cycles. Normally all processing jobs will start from cycle number 1.

Exception: If a plate has been ejected before all the programed cycles have been completed, and you wish to finish the processing cycle, you can enter the cycle number from which you want to resume the process. Normally you should enter the cycle number that was about to start, when the plate was ejected. Then re-insert the plate and press the 'Start' button in order to complete processing of the plate.

Allowed values: min. 1 - max. 18 (depending on program)

When a processing job has been completed the 'First cycle' will automatically return to '1'.

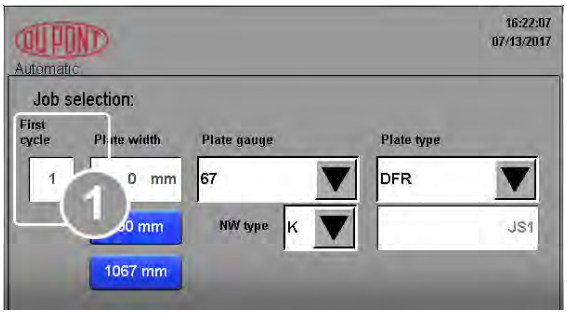


Plate width (2):

Enter the width of the plate.

Allowed values: min. 600 mm (23.6") - max. 1067 mm (42.0").

2 selection options are possible:

- enter the width into the dialogue box using the pop-up input keypad, or
- select one of the 2 blue shortcut buttons for the 2 most commonly used plate widths.

The display shows values in either metric (millimeters) or imperial (inches) units depending on the selection made in the 'General settings' (editable by daily operator). See also description of "General settings" on page 3-12.

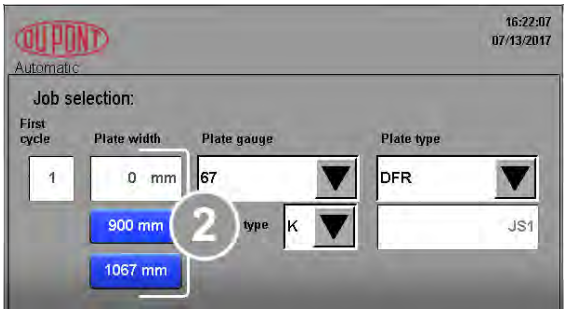


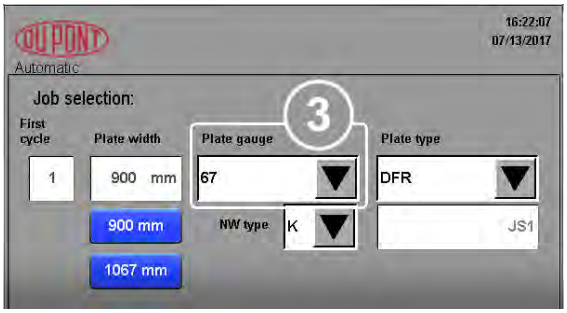
Plate gauge (3):

Enter the thickness/gauge of the plate.

Plate gauge is shown in imperial units (thousands of an inch).

A drop-down menu will display the available plate gauges.

Available plate gauges are set in the configuration (service personnel only).

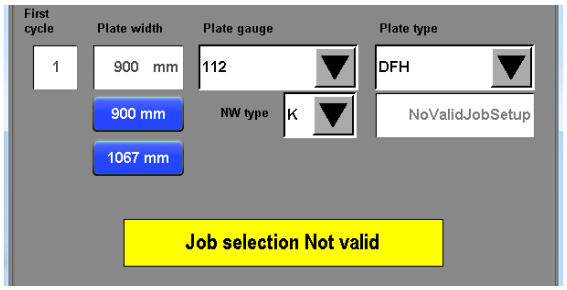


If an invalid value is chosen, you'll be prompted with this yellow note.

At the same time the field (6) (see description below) displays "NoValidJobSetup".

This means that none of the pre-programmed plate types match the chosen plate gauge value.

Either chose new plate gauge value or change the plate type.



NW type (4):

Enter the nonwoven material type used from the drop down list. There will be one or more options available.

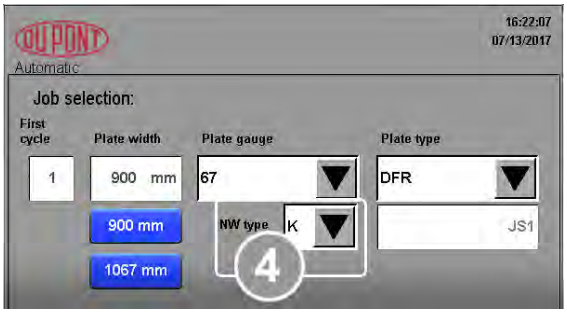
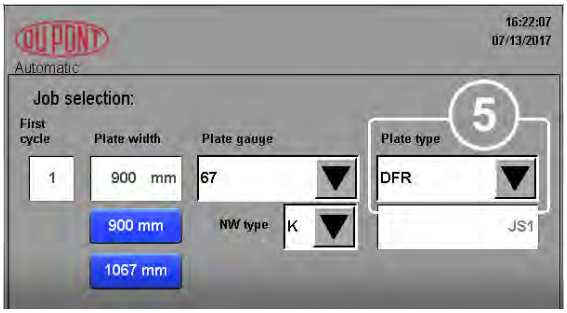


Plate type (5):

Enter the plate type to be processed.

A drop-down menu will display the available plate types.

Available plate typesare set in the configuration (service personnel only).

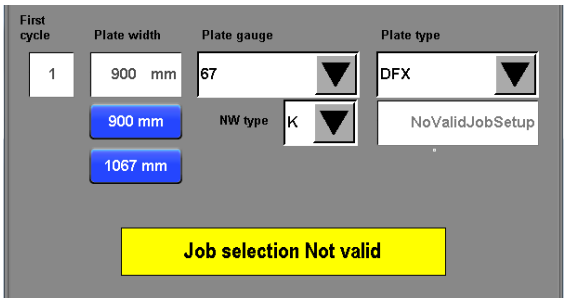


If an invalid value is chosen, you'll be prompted with this yellow note.

At the same time the field (6) (see description below) displays "NoValidJobSetup".

This means that none of the pre-programmed plate types match the chosen plate gauge value.

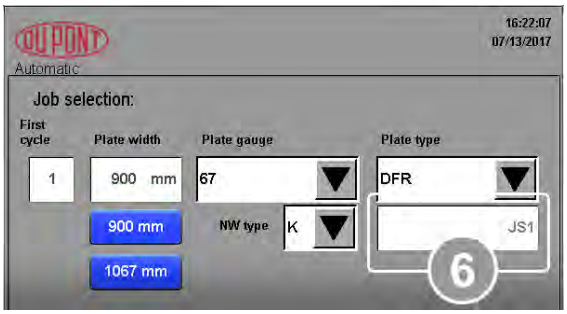
Either chose new plate gauge value or change the plate type.



(6)

This field displays either:

- the selected plate program based on the data set in the fields 1 to 5, or
- the text 'NoValidJobSetup', which indicates that settings in either the 'Plate gauge' or 'Plate type' field do not match any of the pre-programmed job setups. See also description for (3) or (5).



Load the plate, if not done already. See description of "Loading a plate" on page 2-6.

CAUTION: This processor is built for single plate load only. Do not try to load two parallel plates.

When all selections are in accordance with pre-programmed plate settings and the plate is correctly loaded; the stack light turns blue and the green 'Start' button is presented in the home view, both indicating that the processor is now set and ready to process the plate.

Stopping a processing job

The reason for manual ejection could be:

- Incorrect plate parameters have been entered into 'Job selection'. When realizing this, the plate must be ejected to avoid potential damage to the plate and/or the processor.
- A visual check through the window in the top cover reveals that the plate has not been loaded correctly and thus must be ejected.
- A visual check through the window in the top cover reveals that part of the plate is not correctly attached to the front or rear clamp arm pins. The plate must be ejected to avoid further damage of the plate.
- Other reasons for need of manual ejection could be; emergency stop has been activated, top, front, or rear covers have been opened during processing, or an alarm which requires ejection/removal of the plate.

If for some reason you need to stop a processing job, please refer to the "Manual eject function (interrupting processing)" on page 2-13.

Restarting a processing job

See also description of "Stopping a processing job" on page 2-10.

If a plate has been ejected before all the programed cycles have been completed, and you wish to finish the processing cycle, you can enter the cycle number from which you want to resume the process. Normally you should enter the cycle number that was about to start, when the plate was ejected. Then re-insert the plate and press the 'Start' button in order to complete processing of the plate.

Ejecting plates

Stack light signals for plate ejection

In normal, automatic mode the plate will be processed according to the program which has been selected. Once the defined number of cycles have been completed the eject procedure automatically starts.

The multi-colored stack light provides a visual indication of the processor's current status when ejecting a plate:

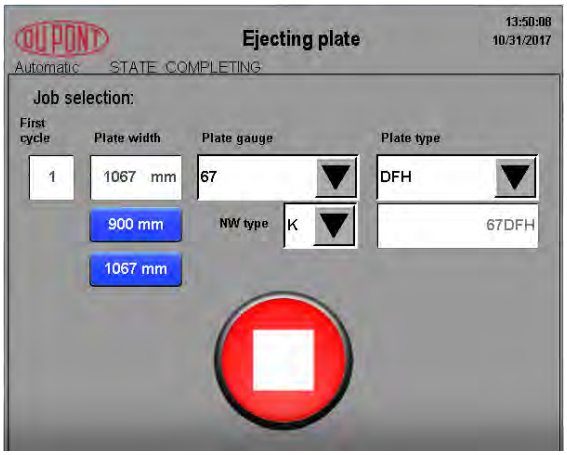
Color	Plate ejection mode	Behaviour/Action	Button
	**If set up for AUTOMATIC plate ejection:**	1. The front edge of the plate will automatically be released and exit the processor during the exit slot. *At the same time the stack light switches from yellow to blue.* 2. Press the 'Eject' button to release the plate from the rear clamp arm. *The stack light turns back to yellow*. 3. At the same time, grab the plate to avoid it dropping on the floor. *When the plate has been released, the stack light turns green, and the processor is ready for processing the next plate.*	
	**If set up for MANUAL plate ejection:**	1. The plate is still rotating inside the processor, fixed to both clamp arms. *The stack light is blue*. 2. Press the 'Eject' button to start releasing the plate from both clamp arms and eject the plate. *The stack light turns solid yellow*. 3. Grab the plate when it exits the processor, to avoid it dropping on the floor. *When the plate has been released, the stack light turns green, and the processor is ready for processing the next plate.*	

Automatic eject function (after completed processing)

When the final cycle is completed the front and rear clamp arms continue to rotate a further revolution.

Automatic procedure

The control panel will show "Ejecting plate" and the ejecting process will start:



The front clamp arm stops over the ejection pins. The tension is released between the front and rear clamp arms and the ejector pins will activate upwards and pass through the holes in the clamp bar, pushing the plate away from the pins and detaching it.

The stripping finger bar will rise to its upper position as the plate is pushed out of the processor through the exit slot.

The plate will continue to exit the processor until the rear clamp arm stops in the eject position.

The control panel will now display the blue 'Eject' button.

Press the 'Eject' button once (this will eject the rear edge of the plate) and hold onto the plate as the next operation will release the plate completely from the processor. If it is not held, it will fall onto the floor.

The ejector pins will activate upwards and pass through the holes in the clamp bars pushing the plate away from the pins and detaching it.

Once the plate has been fully ejected from the processor, both clamp arms will automatically return to their respective load positions ready for the next plate.

The control panel will be ready for the next plate to have its details entered for plate type, width and gauge.

See also description of "Manual eject function (interrupting processing)" on the facing page.

For more processing details see also description of "Processing description" on page 1-2.

NOTE: It is recommended that once a plate has been ejected, it is immediately removed from the machine.

Manual eject function (after completed processing)

The plate will continue to rotate around the static drum after processing is complete. Follow the procedure below to release the plate from both the front and rear clamp arm.

Manual procedure

The control panel will now display the blue 'Eject' button.

Press the 'Eject' button once (this will eject the front edge of the plate) and hold onto the plate as the next operation will release the plate completely from the processor. If it is not held, it will fall onto the floor.

Once the plate has been fully ejected from the processor, both clamp arms will automatically return to their respective load positions ready for the next plate.

Manual eject function (interrupting processing)

If the plate has to be manually ejected after loading, this can be done at any point through the program until the automatic ejection procedure starts.

The reason for manual ejection could be:

- Incorrect plate parameters have been entered into 'Job selection'. When realizing this, the plate must be ejected to avoid potential damage to the plate and/or the processor.
- A visual check through the window in the top cover reveals that the plate has not been loaded correctly and thus must be ejected.
- A visual check through the window in the top cover reveals that part of the plate is not correctly attached to the front or rear clamp arm pins. The plate must be ejected to avoid further damage of the plate.
- Other reasons for need of manual ejection could be; emergency stop has been activated, top, front, or rear covers have been opened during processing, or an alarm which requires ejection/removal of the plate.

Procedure (operator interrupted)

1. Select the red 'Stop' button on the control panel.

This will display the "Confirm abort" dialog.

'Stop':

- Will stop the process and the control panel will display the eject options.

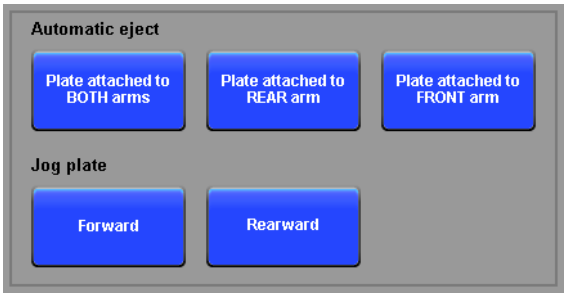
'Finish cycle':

- Will finish the current cycle and the control panel will display the eject options.

'No':

- Returns to the program cycle.

The next dialog displays "Automatic eject" and "Jog plate" options.



'Plate attached to BOTH arms':

- Normal ejection for both arms.

'Plate attached to REAR arms':

- Selective ejection using only the rear arm.

'Plate attached to FRONT arms':

- Selective ejection using only the front arm.

'Forward' and 'Rearward':

- Using these buttons move the clamp arms together to allow observations to the current plate status so that the correct option of "Automatic eject" can be selected.

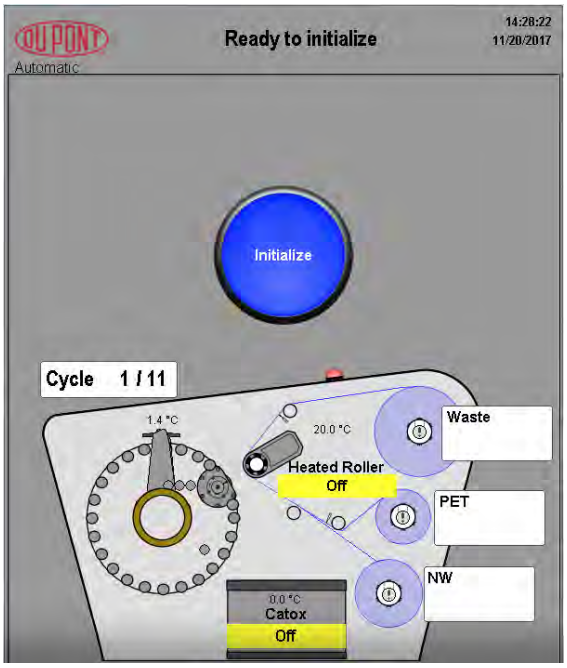
CAUTION: Take care when moving the clamp arms as the plate could be trapped. Only move the absolute minimum amount.

Once the selection has been made, the 'Eject' button is displayed. Press the 'Eject' button to start unloading of the plate.

See also description of "Automatic eject function (after completed processing)" on page 2-12.

Ejecting a plate during processor start-up

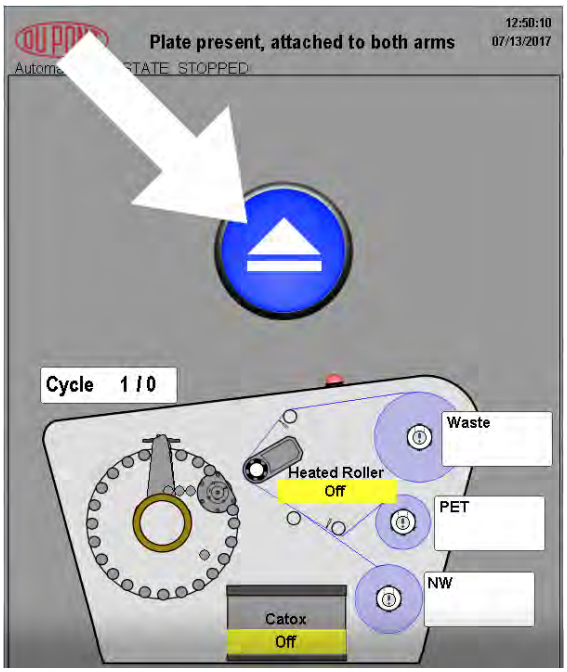
If a plate is detected inside the processor during start-up, the control panel will start up in the 'Ready to initialize' view, and then ...



... shortly after change to the 'Eject plate' view.

Press the 'Eject' button to eject the plate from the processor. The control panel will display the 'Ejecting plate' message.

Remove the plate from the exit slot and await the 'Ready to initialize' message, and then press the 'Initialize' button.

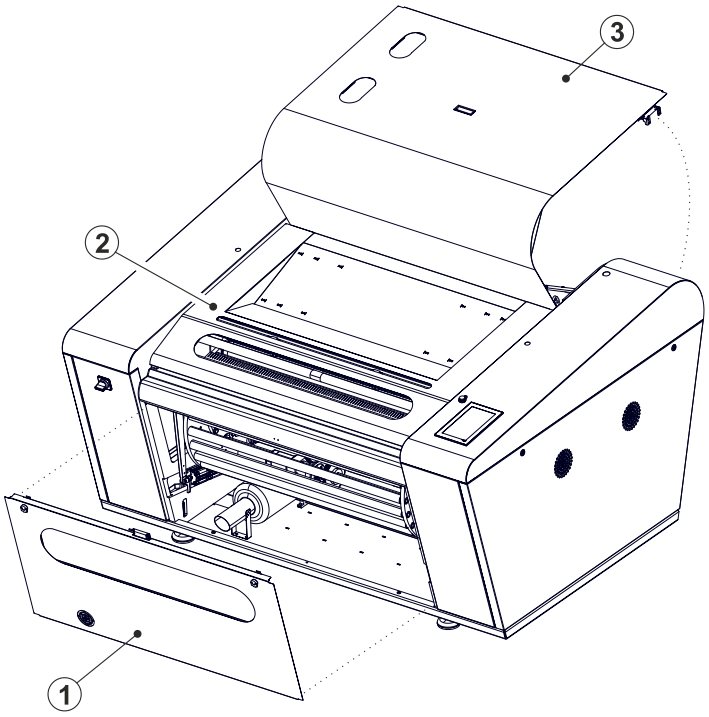


Opening panels

The panels can be removed by one person.

The front cover (1), top cover (2), and rear door (3) are equipped with safety switches which cut off the electrical circuit to the equipment when opened.

WARNING: Machine S/N - **8006~8055;** when the power is turned off to the machine, the motors no longer hold their position and the clamp arms may move downwards under their own weight. Always pay attention to the clamp arm position when removing covers. Machine S/N – **8056 onwards and retrofitted machines;** the clamp arm motors are fitted with brakes so the clamp arms will not move when the power is turned off to the machine.



NOTE: When the front cover, the top cover, or the rear door have been opened and closed, the processor will require that the error generated in the alarm menu is cleared and that the processor is initialized. This is to ensure that no plate is left inside the processor, and to re-establish safety circuits and correct processor conditions.

Translyft lift table

Use a lift table for handling of the heavy nonwoven, PET and waste rolls.

The Translyft lift table described below is offered as an accessory for the Cyrel FAST 2000TD.

WARNING: Always read the safety instructions before handling a lift table. General safety instructions are described in the general Safety Instruction Manual part No 21741 whereas specific instructions for the Translyft lift table are described in this manual.

In case of using a lift table from another supplier, please refer to the other supplier's safety instructions and operation manual.

Instruction of use

WARNING: Wear safety protection, e.g. safety shoes.

The lift table can support items up to max. 100 kg (220 lbs).

The lift table can be moved up and down by means of a hand operated gear system.

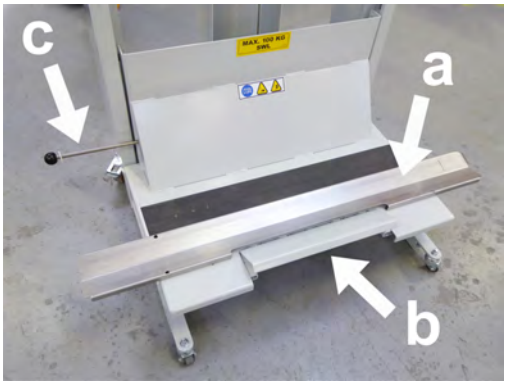
Rotate the handle on the rear panel to move the table up or down.

The roll positioning guide (a) helps positioning the rolls correctly before loading the rolls into the chuck bearings in the processor.

The roll support (b) prevents the roll from rolling off during transport:

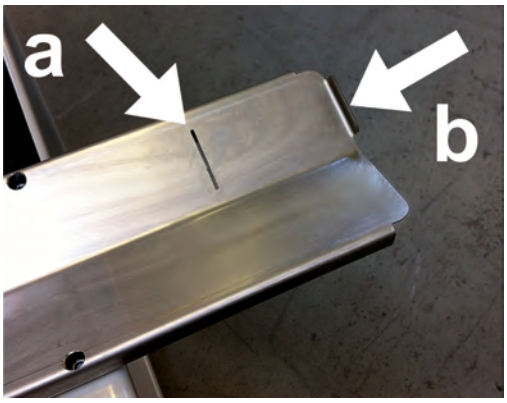
- Pull the handle (c) to raise the roll support (b).
- Push the handle in to lower the roll support.

CAUTION: Raise the roll support before placing a roll in the roll positioning guide.

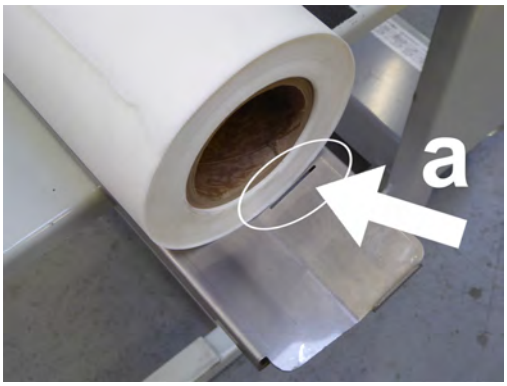


The roll positioning guide has two markers:

- (a) for positioning of a 37" wide roll.
- (b) for positioning of a 44" wide roll.



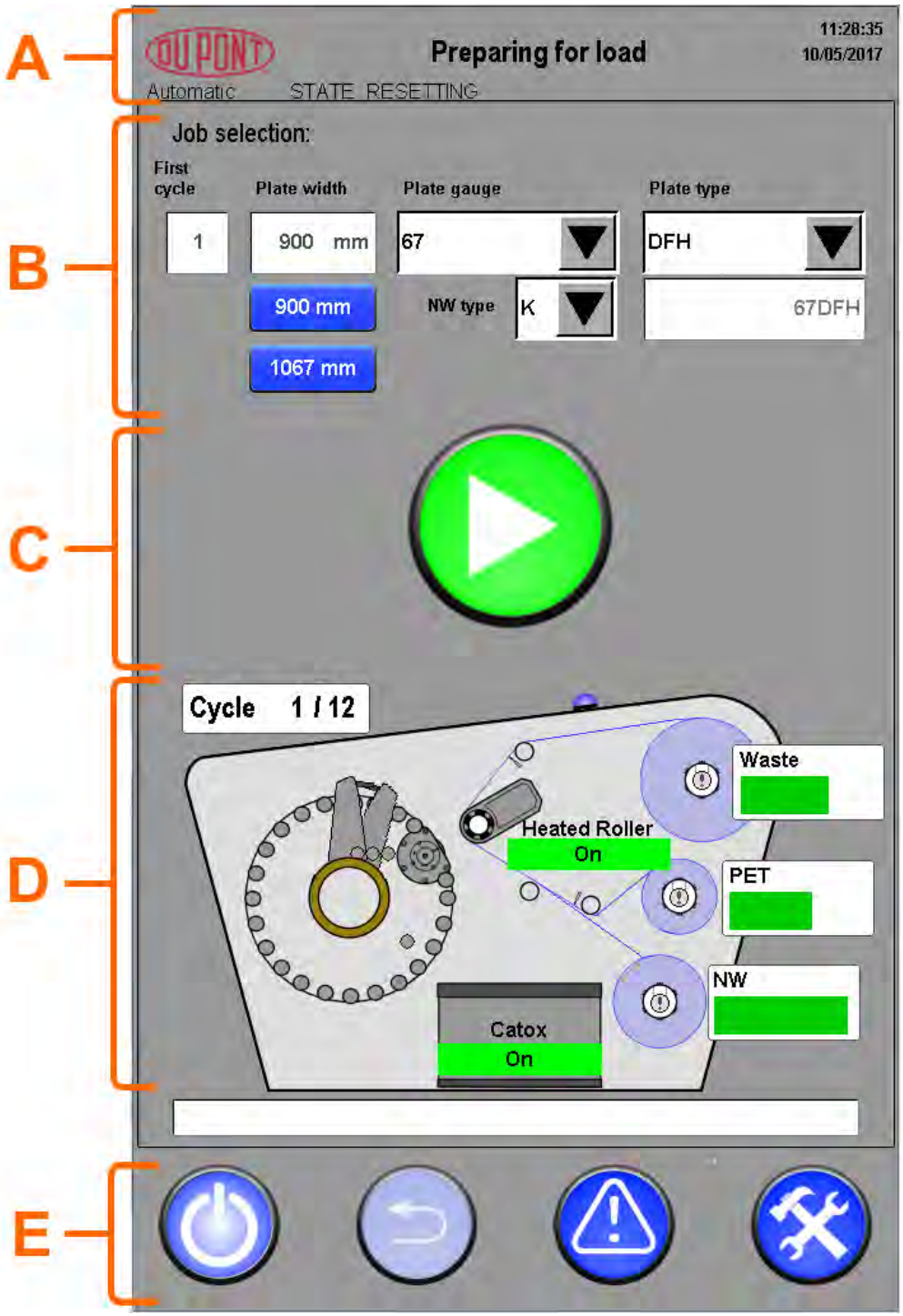
Example showing a 37" roll at position mark (a).



Example showing a 44" roll at position (b).

For detailed descriptions of unloading and loading rolls into the processor chuck bearings see descriptions in "Change of supply and waste rolls" on page 4-7 in this manual.

(Blank)


A
B
C
D
E
DUPONT
Preparing for load
11:28:35
10/05/2017
Automatic
STATE RESETTING
Job selection:
First cycle
Plate width
Plate gauge
Plate type
1
900 mm
67
DFH
900 mm
NW type
K
67DFH
1067 mm
Cycle 1 / 12
Waste
Heated Roller
On
PET
NW
Catox
On

Control panel

Introduction

The control panel holds all the processor operating and control functions.

The control panel is a finger touch panel with a graphic illustration of the processor itself, and buttons for easy access to alarms and menus, statistics etc.

NOTE: For this manual, the functions described and screen images used are based on software revision 966.

CAUTION: Use finger tips to avoid blocking editable area when operating the control panel. Do not place a palm on the touch panel, or use sharp objects.

Home view

The buttons and functions listed below are described in detail later in this manual.

Ref.	Area name	Description	Access level
A	Processor state	• Overall processor status messages (e.g. warming up, running, cover open, etc.). Visible in all control panel views and sub menus. In case of alarms related to the status, the alarm lamp will change color to yellow or red.	All levels
		• Date and time.	All levels
		• Access level. Blank = locked.	
B	Job selection	• Selection of preset programs. • Message area for operator action.	All levels
C	Activation buttons	• Activation of initialization, and start/stop functions, depending on processor state.	All levels
D	Processing and web status	• Graphical representation of the processor and the processing cycles. • Web status. • Temperature 'On/Off'	All levels
F	Navigation buttons	• Visible/accessible from home view and all sub views.	All levels

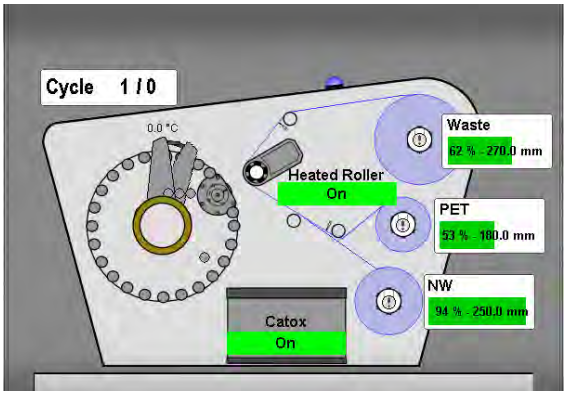
Status of nonwoven (NW), PET and Waste

During processing, the amount of used nonwoven (NW) and PET is checked automatically and registered in the software statistics files.

When time for change of either the NW or PET is near, the software will raise an alarm on the control panel.

Likewise with the accumulated amount of waste rolled up on the waste roller, the software will raise an alarm when the waste roll approximates the maximum diameter allowed.

Status of each of the rolls can at any time be viewed by pressing either of the status fields for NW, PET or Waste on the graphic touch panel.



Web change indicators

Status colors below refers specifically to web status.

Color		Alarm	Action	Alarm history log
	Green	Roll diameter is sufficient.	No action needed.	No alarm history log.
	Yellow	Roll diameter is close to reach its: Min. limit - PET & NW Max. limit - Waste	Processing still possible. Change roll after processing.	If the alarm is raised during processing, the alarm will appear as a yellow alarm in the alarm history log.
	Red	Roll diameter is critical. The process cycle will stop after completion of the current cycle and the plate will be ejected automatically.	Operator will be prompted immediate action. If the alarm occurs during a processing cycle, make a note of the cycle number! Change of roll is required immediately and before restarting the process. Confirmation of alarms. Initialization is needed after web change and confirmation of alarms. If resuming processing of a partially processed plate, reload the plate and enter the cycle number that was about to start, when the plate was ejected. Press the 'Start' button to resume the process.	If the alarm is raised during processing, the alarm will appear as a red alarm in the alarm history log.

For general information of alarms please refer to "Alarms" on page 3-7, and for a complete alarm list please refer to the "Alarm list" on page A-1.

Buttons and fields

General buttons

'ON/OFF' and 'Home' button

The button-position in the lower left corner of the home view represents two functions:

- **The 'ON/OFF' button** ...
  is accessible from the home view only and: displays the buttons for 'Heating - Power ON/OFF' and 'Reinitializing' when pressed. See detailed description of buttons below.
  - flashes when the 'Heating - Power ON' button has been activated until set temperature for the heated roller and catox is reached.
- **The 'Home' button** ...
  Accessible from all other views except the 'Home' view:
  - switches view to the home view from any sub view when pressed, and at the same time the 'Home' button will be replaced by the 'ON/OFF' button described above.

ON/OFF button

HOME button

'Heating - Power ON/OFF' buttons

- Accessible from 'Heating - Power ON/OFF' view only (See the 'ON/OFF' and 'Home' buttons above).
- The 'Heating - Power ON' button activates heating of the heated roller and catox. Heating up takes approx. 40 min. See also description of "Starting up" on page 2-1.
- The 'Heating - Power OFF' button deactivates heating of the heated roller and catox. Cooling down takes approx. 40 min. See also description of "Shutting down" on page 2-4.

Heating - Power ON button

Heating - Power OFF button

'Reinitialize' button

- Accessible from 'Heating - Power ON/OFF' view only (See 'ON/OFF' and 'Home' buttons above).
- Use the 'Reinitialize' button if the processor for some reason fails to return to "Ready" state after e.g. handling alarms.
- The 'Reinitialize' button forces the processor to:
  - re-calculate the web diameter,
  - check whether a plate is left in the processor,
  - check for active alarms, and if none, re-connects all emergency stops.

'Return' button

- Accessible from all views.
- Exception: Inaccessible from home view.
- For each activation, the view will return to previous screen.
  For quick return to the home view, press the 'Home' button instead.

'Alarm' button

- The 'Alarm' button will change color when an alarm occurs. Read more about alarm types in "Alarms view" on page 3-8.

'Setup' button

- Accessible from all views.
- Opens the 'Setup' main menu.
- Gives access to change of access level.
- Gives access to users and service menus, dependent on access level.

Read more about the 'Setup' button in "Tools menus" on page 3-12.

'Initialize' button

- Accessible from 'Home' view.
- The 'Initialize' button is presented automatically in situations where intialization is needed, e.g. after certain alarms, maintenance, or initial start-up.
- The 'Initialize' button forces the processor to:
  - re-calculate the web diameter,
  - check whether a plate is left in the processor,
  - check for active alarms, and if none, re-connects all emergency stops.

'Start'/'Stop' buttons

START button **STOP button**


- Accessible from home view only.
- When a plate is loaded (processor state must be "Ready") pressing 'Start' will start the processing cycle.
- Pressing 'Stop' will display the abort dialog.
- Pressing 'Stop' before the end of a processing cycle will prompt the operator for ejecting the plate left in the processor. See description of "Ejecting plates" on page 2-11.

'Eject' plate button

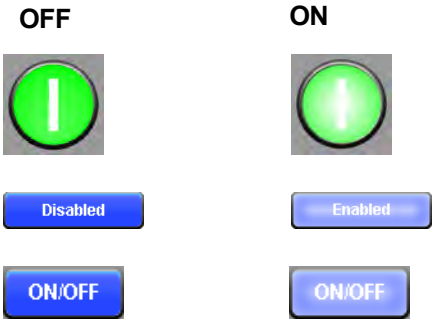
- The button will automatically be presented to the operator when required, e.g. after pressing the 'Stop' button.
- Use the 'Eject' button to:
  - complete an auto-eject process, or
  - start a manual eject process.

For detailed description of the 'Eject' plate functions please see "Ejecting plates" on page 2-11.

General behaviours

Button states

- Buttons are activated/ON when whitish, like shown in the examples.



Input fields

- Input fields are accessible when white with black text/numbers.

- Input fields are inaccessible when white with grey text/numbers.

Keypad

- Accessible only when pressing an input field which requires a keypad.
- Keypad is presented either as alphanumerical or numerical depending on input field type.
- Pressing 'Enter' will save the value entered into the value field and close the keypad.
- Pressing **x** will cancel the input and close the keypad.

Alarms

The control panel and the stack light will signal to the operator when a process or the equipment itself needs attention:

- The alarm button and the stack light will change color according to the situation. See description of status colors below.
- Some alarms and status messages are also indicated with colors in the graphical representation in the control panel's home view (see "Home view" on page 3-1

Press the alarm button for a complete list of alarms.See also description of "Alarm list" on page A-1.

Alarm types

Status color Alarm lamp	Alarm lamp behaviour	Description/Action	Status color Stack light	Stack light behaviour
	Blue steady	• Ready for plate loading.		Green steady
		• Plate loaded correctly, or process finished. • Operator action needed.		Blue steady
		• Process is running.		Green flashing
		• Not ready (e.g. warming up or cooling down). • No action needed. Await "Ready" state.		Yellow steady
	Yellow flashing	• Indication of e.g. low amount of nonwoven or PET foil, etc. • Processing is possible. • Remove the cause of the alarm, e.g. change nonwoven or PET etc. when convenient. • Confirmation of alarm is required when cause of the alarm is removed. **NOTE:** If a yellow and red alarm arise at the same time, the red alarm will always overrule the yellow = first priority. It is not possible to start a process when red alarms arise.		Yellow flashing

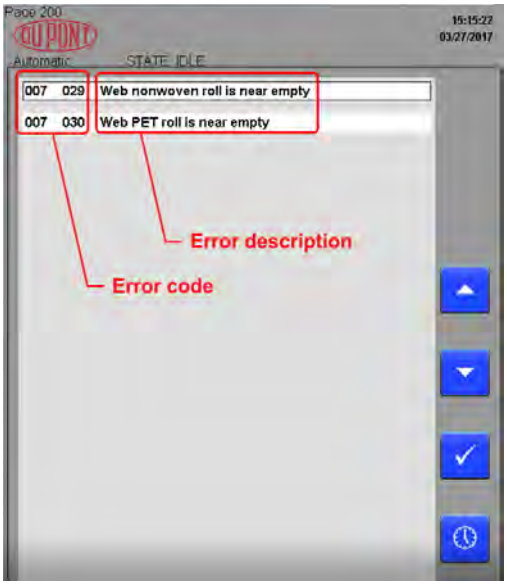
Status color Alarm lamp	Alarm lamp behaviour	Description/Action	Status color Stack light	Stack light behaviour
	Red flashing	• Serious condition that might result in an incomplete process. In some situations the process will stop immediately. • If ignored in severe situations, it might also result in damage of the processor. • Processing is not possible. • Operator will be prompted for immediate action. • Confirmation of alarm is required when cause of the alarm has been removed. • Initialization is needed after confirmation of alarm.		Red steady

Alarms view

By pressing the 'Alarm' button in any view, a complete list of the present alarms will be displayed.

Use the buttons in the right side of the display to navigate between the alarms:

- Scroll up / down 
- Clear alarm 
- Alarm history (see example below) 



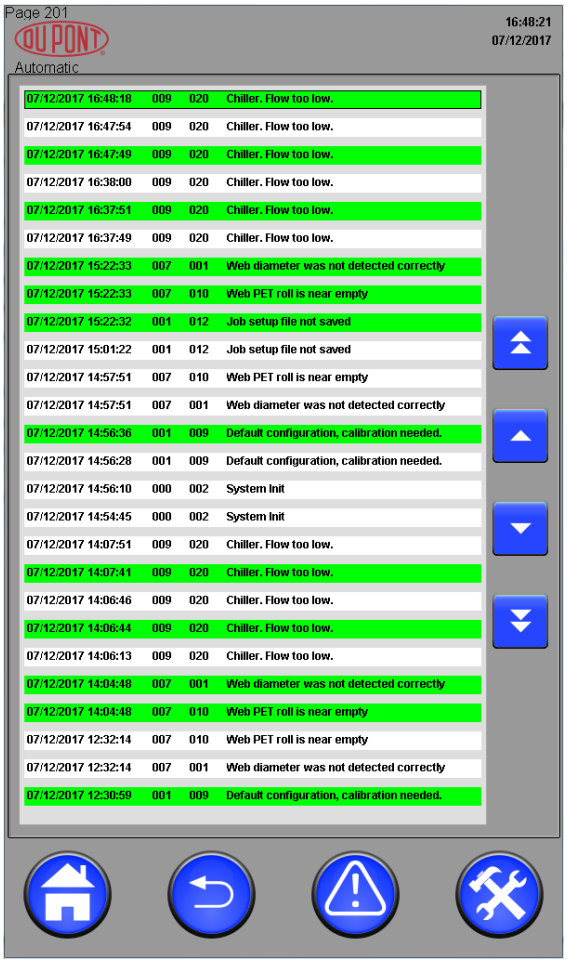
Alarm codes

All alarms has a numeric code. For more information of each alarm and relevant actions/remedies, look up the alarm code in the "Alarm list" on page A-1.

The alarm codes may also be useful information to a service technician when service assistance is required.

Alarm history

The alarm history displays a list of previous alarms and system messages stored in the PLC.



Buttons

Use the buttons in the right side of the display to navigate between the alarms:

- Scroll up / down one line 
- Scroll up / down one page 

Colors codes

White Message or alarm raised.

Green Alarm has been confirmed.

Access levels

The menu system gives the operator access to menu items that are relevant according to access level.

The access levels shown below are also illustrated in the "Menu diagram" on the facing page.

Access level	Menu diagram color	
'Operator' level	Black	No access code needed
'Trained Operator' level	Blue	Code needed.

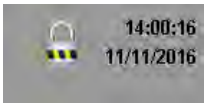
Change of access levels

NOTE: The default access level is Operator.

1. Press the 'Setup' button.

2. Press the padlock symbol in the upper right corner of the control panel.

   The change access dialog opens.



   Change of access level requires a 4-digit numeric code for:

   - Trained Operator

   The access code is supplied with the equipment on delivery after training.

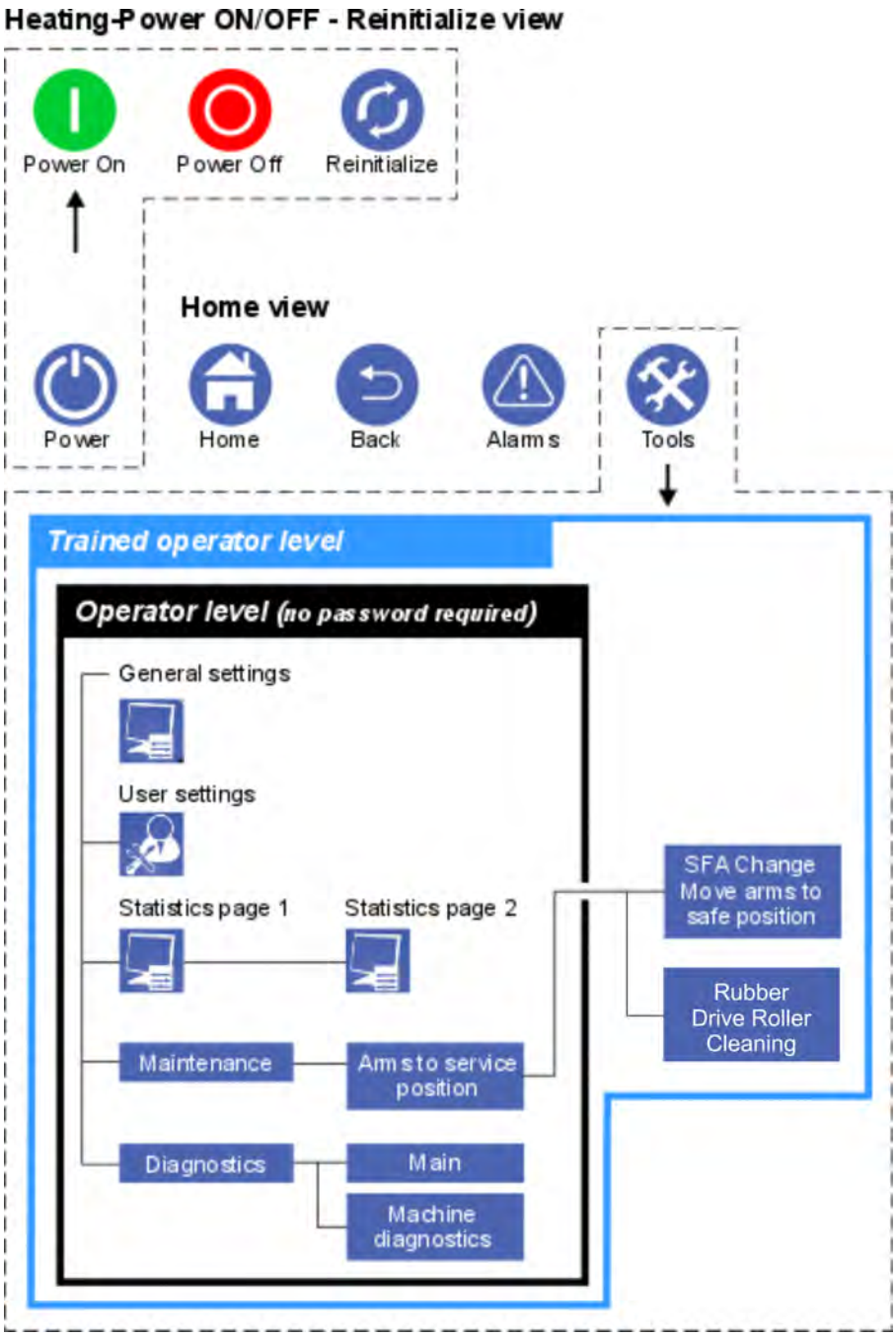
   NOTE: Contact local DuPont Service if the code for Trained Operator is lost.

3. Press the 'key' area to enter the access code.

   A numeric keypad will be displayed.

4. Enter the 4 digit access code.

   NOTE: Entering an incorrect code with automatically reset access level to Operator level (= locked).


Heating-Power ON/OFF - Reinitialize view
Power On
Power Off
Reinitialize
Home view
Power
Home
Back
Alarms
Tools
Trained operator level
Operator level (no password required)
General settings
User settings
Statistics page 1
Statistics page 2
Maintenance
Arm s to service position
Diagnostics
Main
Machine diagnostics
SFA Change Move arms to safe position
Rubber Drive Roller Cleaning

Tools menus

Setup button

The 'Setup' button gives access to following settings and service menus:

- General settings
- User settings
- Statistics
- Maintenance
- Diagnostics
- Change of access level

General settings

General settings cover basic settings for screen text, parameter values, date and time, etc.

- Press 'Setup -> General settings'.

Select language:

- Use the Select Language section for all text, menus and views to be displayed in the chosen language. The number and choice of available languages may depend on the version of software installed.

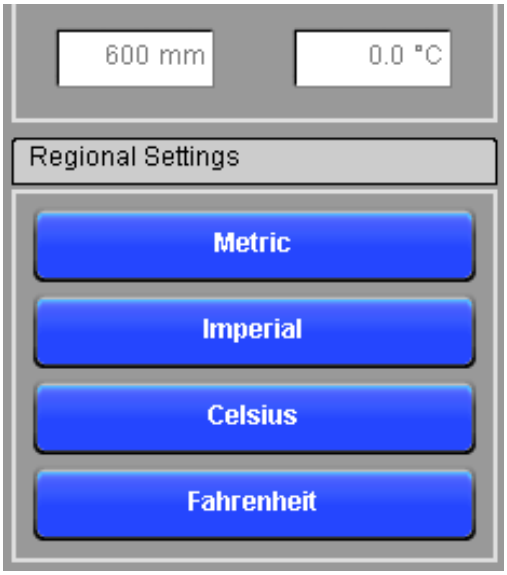
  Selection will be effected immediately. No need for restart.

Regional settings:

- Select between metric/imperial and celsius/fahrenheit.

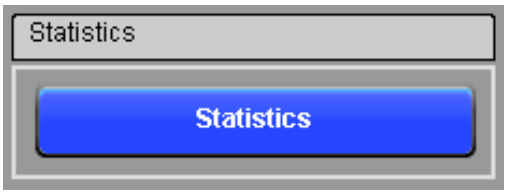
  See immediate effect in the test output fields.

  No need for restart.



Statistics:

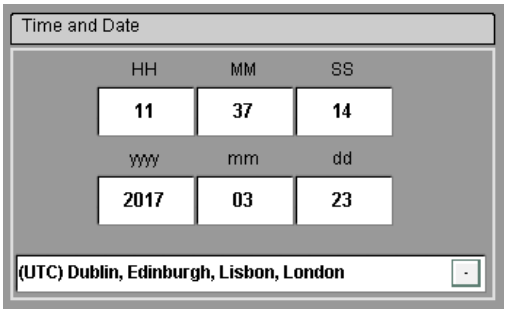
- The 'Statistics' button opens statistics lists for maintenance, processing hours, material use etc.



NOTE: The statistics shown here are identical to statistics listed in 'Setup -> Statistics'. Read more details in "Statistics" on page 3-16.

Time and date:

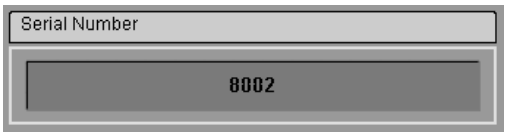
- Set the actual time and date. The set time will be shown in the top lines (upper right corner of the screen).



CAUTION: Make sure settings are accurate. Time and date settings are also reflected in time stamps for the alarm history, log files etc.

Serial Number:

- Displays the serial number of the processor.

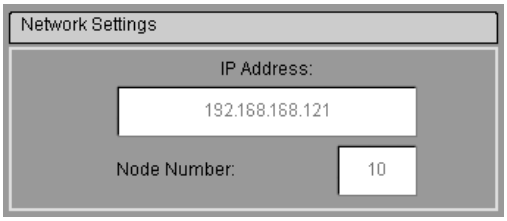


NOTE: Please inform the serial number when calling for service.

The serial number is set by the manufacturer and cannot be changed.

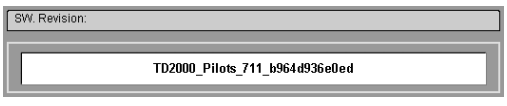
Network Settings:

- Displays the processor's internal IP address.
- The 'Node Number' represents the communication port (power link).



SW revision:

- Displays the installed software version.



NOTE: The software versions shown here is for illustrative purpose only.

NOTE: When requesting for service, please inform the service technician of the installed software version.

User settings

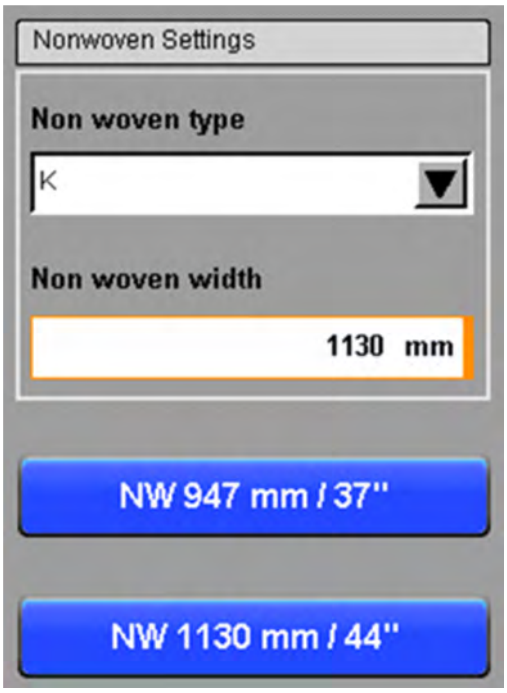
User settings cover the settings for width and type of nonwoven material.

NOTE: Always check/set width after change of the nonwoven supply roll.

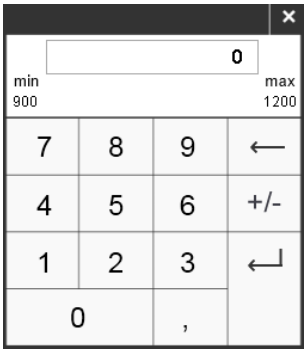
1. To enter 'User settings' press the 'User settings' button.
2. Select the type of nonwoven presently installed in the processor from the 'Nonwoven type' drop down list.

   NOTE: It is only possible to select from predefined nonwoven types. A new nonwoven type can be added only via the configuration menu, and only by authorized personnel.

3. There are 2 options for inputting the Nonwoven width:
   Select the Nonwoven width by using one of the 2 quick set buttons or press the 'Nonwoven width' field to open the numeric keypad.



4. If nonwoven widths other than the standard quick set button widths are required, enter the width according to the roll label into the numeric keypad and press the “Enter” key.
   The minimum and maximum values that can be entered are:
   Minimum: 900mm (35.4”)
   Maximum: 1200mm (47.2”)
   Setting of the correct width of the nonwoven is **VERY** important because the setting determines the tension of the nonwoven, PET and waste rolls.



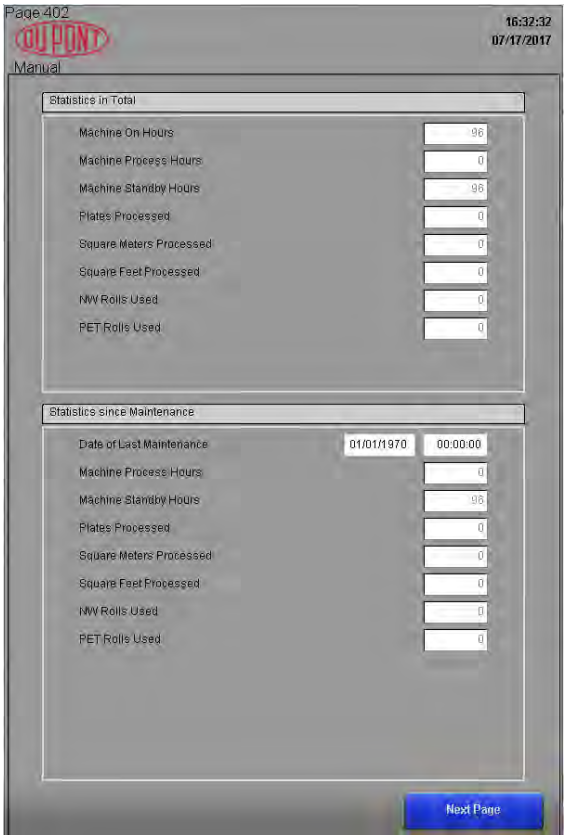
Statistics

Statistics displays data of machine use, maintenance and consumables.

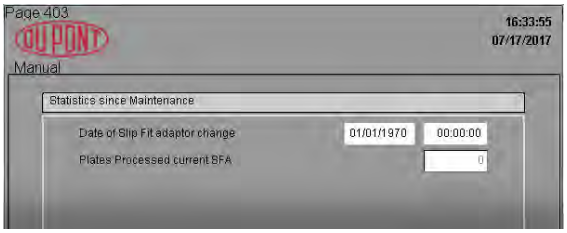
Statistics page 1 covers 'Statistics in total' and 'Statistics since last maintenance'.

The same view is accessible through the 'General settings' button.

CAUTION: Resetting of statistics is done by authorized personnel only.



Press the 'Next page' button for display of statistics for the slip fit adapter.



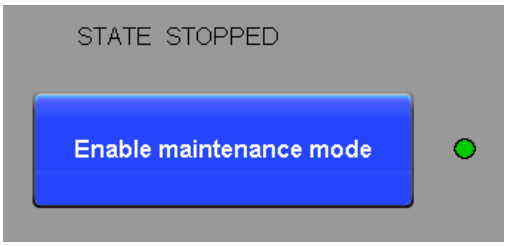
Maintenance

The 'Maintenance' mode is used for cleaning, service and maintenance purposes.

The maintenance functions can be activated only when the processor is in 'STATE STOPPED' mode.

1. To enable maintenance ('STATE STOPPED') press the 'Enable the Maintenance mode' button. 'Enable Maintenance Mode' button may need pressing twice to operate.

2. The message 'STATE STOPPING' is displayed.
   When the message changes to 'STATE STOPPED' the green LED is lit and the 'Arms to Service pos.' button can be activated.

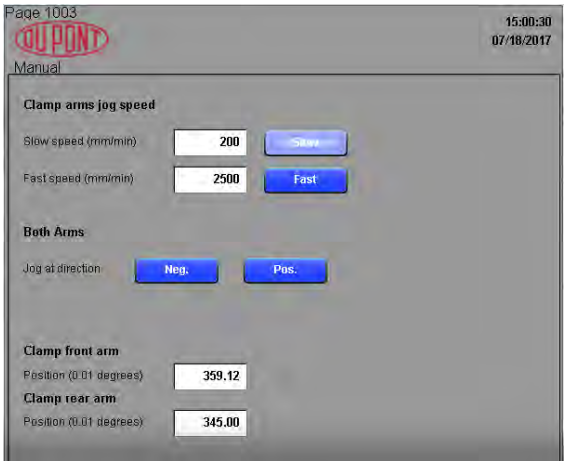


Moving arms manually

Move the arms, and at the same time visually check the position of the arms through the front cover window.

The arms can be moved manually to any position around the drum:

- Select fast or slow speed.
- Push and hold the Neg. or Pos. direction button to move the arms.
- Both arms will move together.
- Releasing the Pos. or Neg. button will stop the movement.



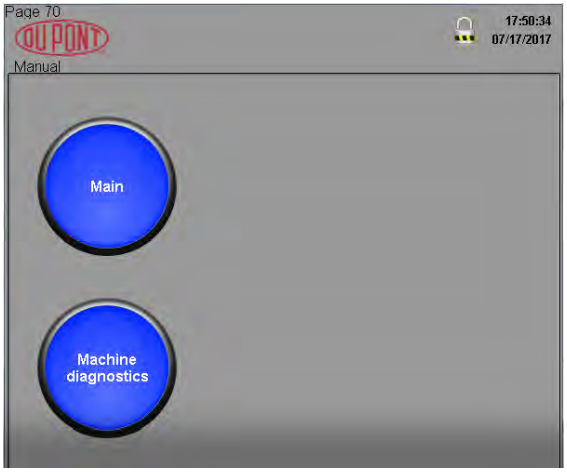
NOTE: The arms will not move if any cover is open.

Diagnostics

Diagnostics allows access to the Diagnostics Menu.

The 'Diagnostics' menu gives access to

- Manual functions for web feed and stack light test.
- Operation check of sensors and guard switches.



Main

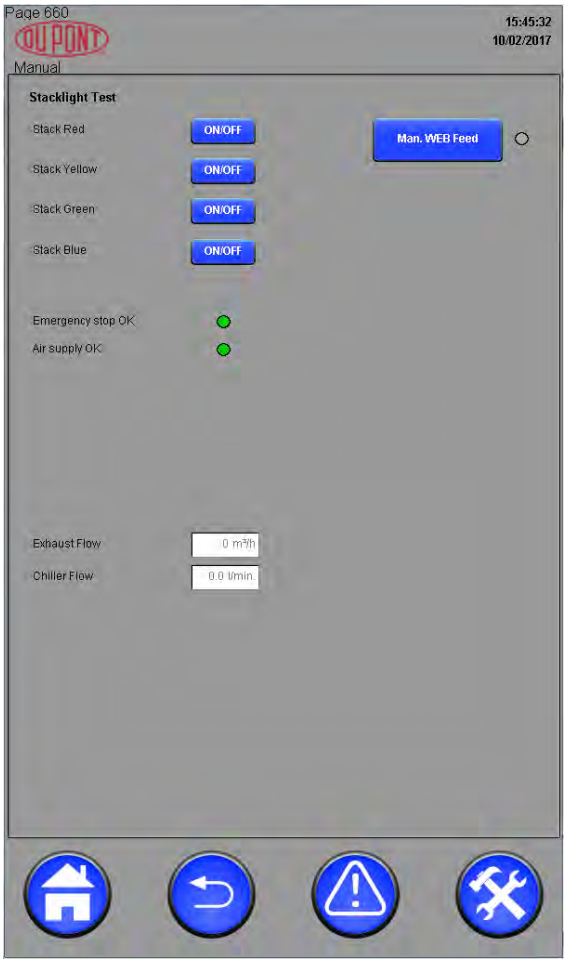
Manual functions includes:

- Test of the stack light.
- Manual WEB feed button:
  - Push and hold the button to start spinning the web.
  - The LED is lit when the 'Man WEB feed' button is pushed.

  The button has same function as the blue button placed at the right side panel (when standing at the rear side of the processor).

Diagnostics shown are:

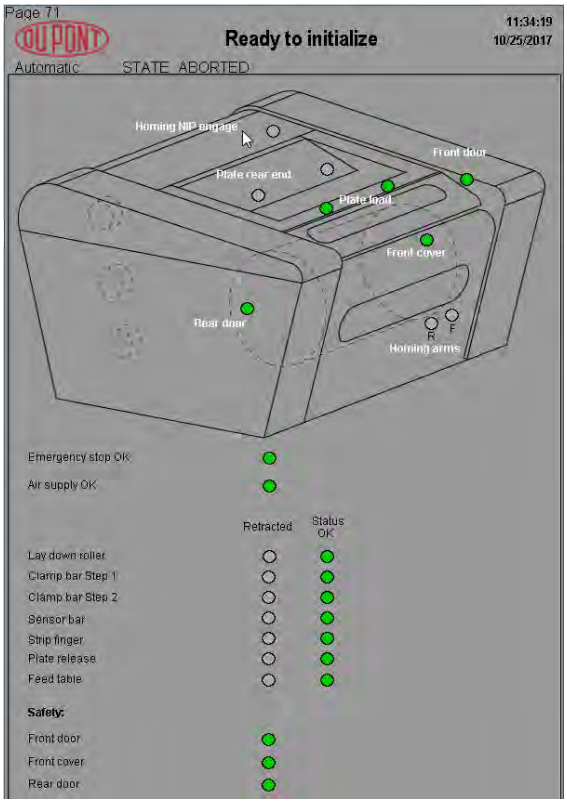
- Emergency stops OK (LED is lit)
- Air supply OK (LED is lit)
- Exhaust and chiller flow volumes.



Machine diagnostics

The machine diagnostics screen shows actual position and status of the sensors in a graphical presentation of the processor.

NOTE: LEDs are green when sensors are active.



Maintenance

Maintenance - Requirements

WARNING: Service or maintenance routines may require access to areas of the equipment which have very high working temperatures. Therefore, the equipment must cool down to room temperature before performing any service or maintenance. Wear appropriate safety protection, especially where stated explicitly.

Maintenance Schedule

What	Description	Frequence	Notes
Work environment.	Ensure a clean work environment with easy access to all parts of the processor and chiller unit.	Daily	
General condition of the equipment.	Pay attention to abnormal noises, smell, leakages etc.	Daily	It requires immediate action if any abnormal noises, smell, leakage etc. appears to come from the processor, chiller or exhaust system. Call the in-house technician if noise or smell appears to come from the external exhaust system. Call a service technician if noise, smell or leakage appears to come from the processor or the chiller unit.
Heat and ventilation.	Make sure that room temperature is between 18 °C (64.4 °F) and 27 °C (80.6°F) and the relative humidity (non condensing) is min. 40% and max. 80%.	Daily	Adjust settings of heat and ventilation systems, or consult an in-house technician, if conditions are not satisfactory.
Cables and hoses.	Inspect electrical cables, water and air hoses running between the processor and the mains supply, chiller, and compressed air system, for possible damage.	Daily	If cables/hoses are exposed to heavy traffic such as forklift trucks etc. please establish cable covers for additional protection. Reestablish protection if displaced. If cables/hoses are damaged please call a service technician.
Clean the lay-down and rubber roller.	Clean with a moist cloth and a mild household cleaning solution.	Daily	See detailed description of "Cleaning the lay-down and rubber roller" on page 4-3.

What	Description	Frequence	Notes
Chiller. Level of temperature and antifreeze solution.	Make a visual check of the temperature level. Ensure that the temperature set point is 17 °C by pressing the Set button on the chiller controller. Make a visual check of the level of antifreeze. The level is shown in the level indicator on the front of the chiller unit. Level must be max. or almost max.	Daily	Contact trained operator if any of the levels are incorrect.
Clean the processor.	Clean windows, panels and covers with a moist cloth and a mild household cleaning solution.	1 week	Do not use aggressive solvents as this could damage the processor covers.
Check the correct operation of the emergency stop buttons and cover interlocks.	Actuate all emergency stop buttons and check for correct function = Messages must appear on the control panel and stack light must turn red. Open all interlocked covers and check for correct function = Messages must appear on the control panel and stack light must turn red.	1 month	Refer to "Emergency stops" on page 0-10. If any operations fail call a service technician. **WARNING:** Do not use the processor unless ALL the safety devices are fully operational.
Cleaning the air filter.	The moisture and dirt filter in the air filter should be checked and cleaned.	3 months	This operation has to be carried out with the supply for compressed air switched off.

Service reminders

The machine displays periodic maintenance reminders for: General Service, Oil Change and Grease Cartridge replacement. This is to ensure the correct maintenance schedule is applied to the machine:

Each message is displayed in a separate pop up box (an example is shown above) and needs to be acknowledged separately. Any combination of all 3 messages can be displayed at one time (1, 2 or all 3). To acknowledge the reminders, select OK. When the service reminders are displayed please contact your local DuPont Service or local DuPont representative to organise a service visit immediately.

WARNING: It is very important that a service visit is organised the first time any one of the reminders is displayed. Failure to do this immediately could seriously damage the machine and invalidate any warranty on the machine.

Cleaning the lay-down and rubber roller

Cleaning of the lay-down and rubber roller at the plate feed entrance is recommended. It should be inspected and cleaned on an everyday basis as residuals from the processing will stick to the rollers and reduce the processing quality if not removed regularly.

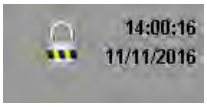
Tools required

- A mild cleaning agent (e.g. mild detergent)
- Soft cloth.
- Bucket with clean lukewarm water.

Procedure

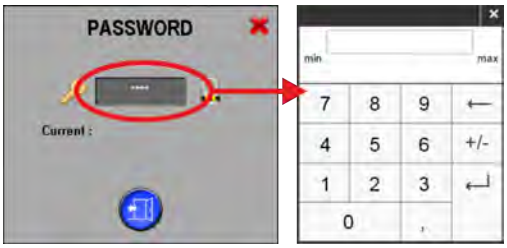
1. Ensure all guards are fitted and closed.
2. Press the 'Setup'button .

3. Press the top right hand corner of the screen.

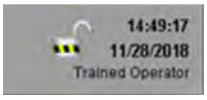


4. A “Password” input box dialogue will be displayed.

5. Touch the password input area; a numeric keypad will be displayed. Input the “Trained Operator” level password. This will be provided during training and will only be available to operators who have been correctly instructed in the correct cleaning procedure and appropriate safety precautions while cleaning.



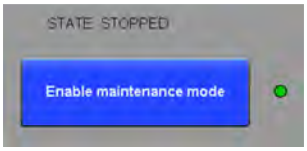
6. Once the correct “Trained Operator” password has been entered, select the “Enter” button.
7. If the correct password has been entered. The Padlock Icon will have changed from Locked to Unlocked.



8. Press the 'Maintenance' button.

9. Press the 'Enable maintenance mode' button.

10. Wait till maintenance mode is enabled: the 'STATE IDLE' changes to 'STATE STOPPED' and at the same time the LED will to turn green.



11. Press the 'Arms to Service Pos.' button.

12. Press the SFA Change move arms to safe pos. This will automatically rotate both sets of clamp arms to the low position in the machine. Once in position the lamp will turn green.

13. Once the arms are in the safe position, the black plastic stripping finger plate will be activated in the down position to help access to the rubber roller.

WARNING: It is not possible to operate the machine in this condition.

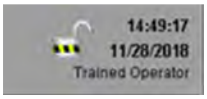
14. Lift the top cover and start to clean both the hold down roller and rubber roller.

15. Once the visible section of rubber roller has been cleaned, replace the top cover in the down position.
Double touch (quickly) either the Neg or Pos buttons.

16. Use the Neg or Pos buttons with either the fast or slow button selected to rotate the rubber roller so that the next dirty section of the rubber roller is accessible.

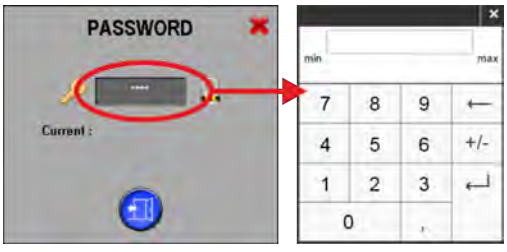
WARNING: Moving the roller like this can only happen with the top cover closed.

17. Lift the lid and clean the rubber roller. Keep doing this process until the rubber roller is clean.
18. Once the cleaning is finished return to the main operation Home screen. If any alarms are generated, go to the Alarm screen and acknowledge them. It is now recommended to exit the “Trained Operator level”.
19. Press the top right hand corner of the screen.



20. A “Password” input box dialogue will be displayed.

21. Touch the password input area; a numeric keypad will be displayed. Input “0” (zero). Select the “Enter” button. This will exit the “Trained Operator” level.



22. Initialise the machine ready for production.

Change of supply and waste rolls

Changing nonwoven (NW) and PET rolls

Follow the description below when changing nonwoven or PET rolls. For change of waste rolls please refer to the "Changing the waste roll" on page 4-15.

WARNING: Refer to the "Safety precautions" on page 0-9 and the separate Safety Instruction Manual part No 21741 .

WARNING: Wear safety protection, e.g. safety shoes, when handling the heavy rolls.

WARNING: It is strongly recommended that when the nonwoven is changed for a new roll, the waste roll should always be removed regardless of how full it is, and an empty core fitted (see section about changing the waste roll).

Tools required

- Translyft or other lifting device. Please see detailed description of operating the "Translyft lift table" on page 2-17.

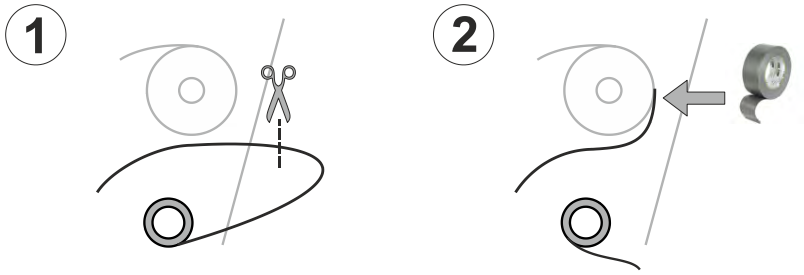
NOTE: The lifting device is an optional extra.

- Pair of scissors or stanley knife.
- Double-side self-adhesive heat resistant tape (e.g. Tesa 4965 (50 mm/2"), heat resistant up to 200 °C transient/100 °C prolonged).
- Duct tape.

Procedure

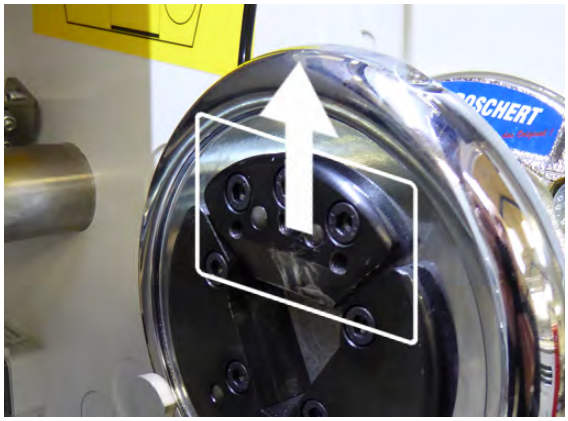
1. Open the rear cover.
2. Dismount the air compression hose for the air shaft on the right side of the roll: pull the lock ring of the quick release coupling upwards to release the air pressure. Release the lock ring, then lift the entire coupling upwards to remove.

3. Pull out the loosened material and cut it (1).
4. Then fasten the end of the material coming from the inside of the processor to the roll above with duct tape as shown (2):

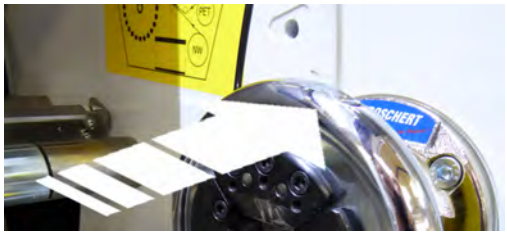


5. Manually turn the chuck bearing of the roll until the lock is in the "12 o'clock" position.

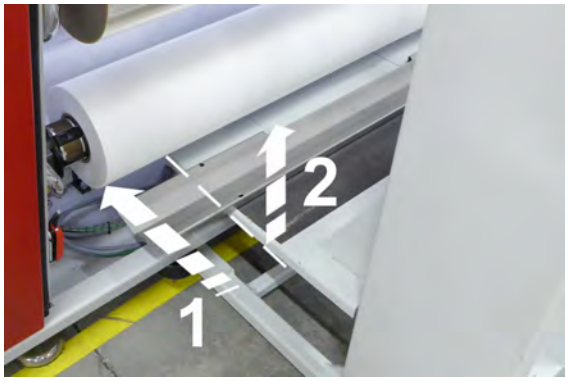
   (The photo is for illustrative purpose only.)



6. Unlock the chuck bearing in the left and right side of the roll by pressing the chuck bearing's top-edge outwards (away from the roll).



7. Guide the lifting device into position between the 2 rollers underneath the rear of the machine. Place the lift table close to the roll (1).
8. Adjust the table height (2) to allow the lift table to slide underneath the roll.



CAUTION: Be very careful not to damage any parts inside the processor, when pushing the lift table into the processor and when placing the lift table underneath a roll in the processor.

9. Place the lift table underneath the roll until the roll is right above the positioning guide on the lift table.
10. Use the handle on the lift table to raise the table until the roll/air shaft is detached and clear of the chuck bearings, and resting in the positioning guide.
11. Pull back the lift table, and transport the roll away from the processor.
12. Pull out the air shaft.

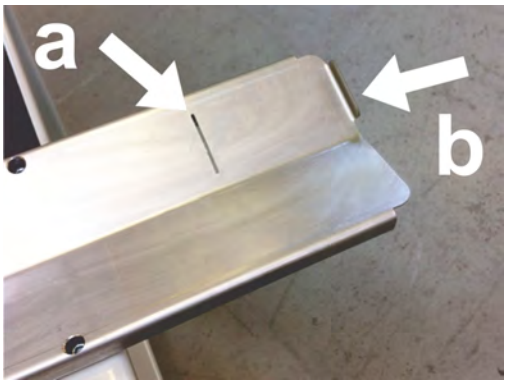
NOTE: Remove any remaining material from the empty roll and save it for later use as empty waste roll.

13. Make sure to place the new roll in the positioning guide according to type/width:

Nonvowen

37" width rolls = Position 'a'

44" width rolls = Position 'b'



PET

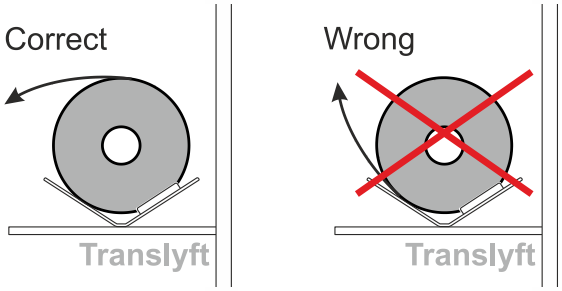
PET = Positition 'b'

14. Remove any protection wrap from the new roll and check the material for any signs of damage.

CAUTION: Remove any damaged material. This will avoid web breaks during loading of the material.

15. Place the new roll in the positioning guide on the Translyftlift table.

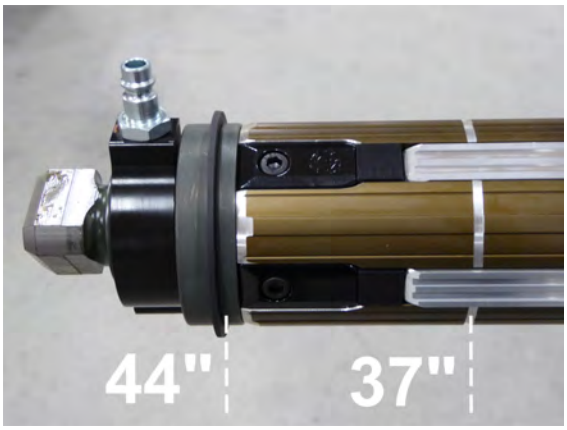
CAUTION: For correct mounting and threading of the material in the processor, it is important that the coil direction of the roll is from "up-to-down" as illustrated.



16. Lift up the support on the front of the lift table, to prevent the roll from falling off during transport.
17. Push the air shaft into the cylinder of the new roll.

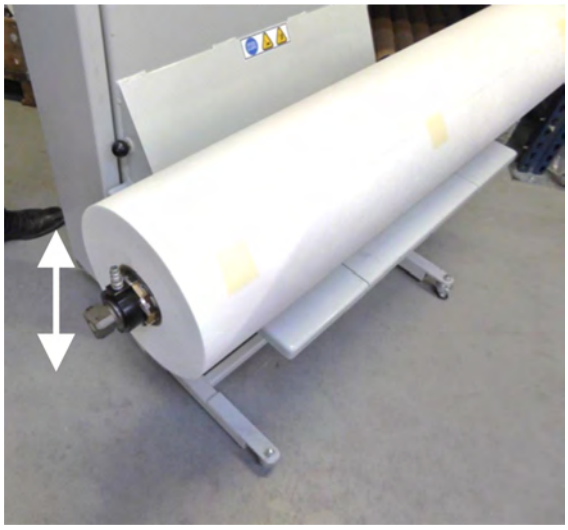
CAUTION: Make sure to insert the air shaft in the cylinder-end that will face the air-connection side of the processor when mounted!

18. Position the roll according to the position marks for 44" or 37" roll as illustrated in the photo:
    - Position a 44" roll up against the circlip until it touches the circlip.
    - Position a 37" roll to align with the groove. The roll is positioned correctly when the roll-end aligns precisely with the groove in the air shaft.



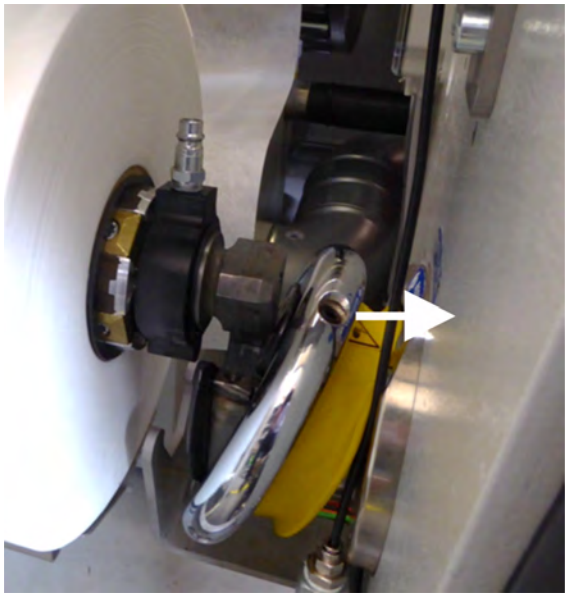
19. Place the lift table with the new full roll behind the processor.
20. Adjust the height of the lift table to enable mounting the roll/air shaft into the chuck bearings.

    CAUTION: Be very careful not to damage any parts inside the processor, when pushing the lift table into the processor and when placing the lift table underneath a roll in the processor.

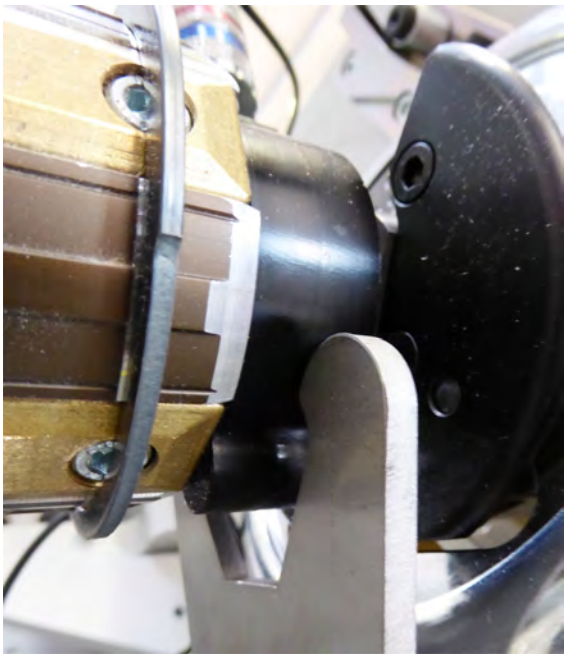


21. Push the lift table into the processor and position the air shaft directly above the chuck bearing.

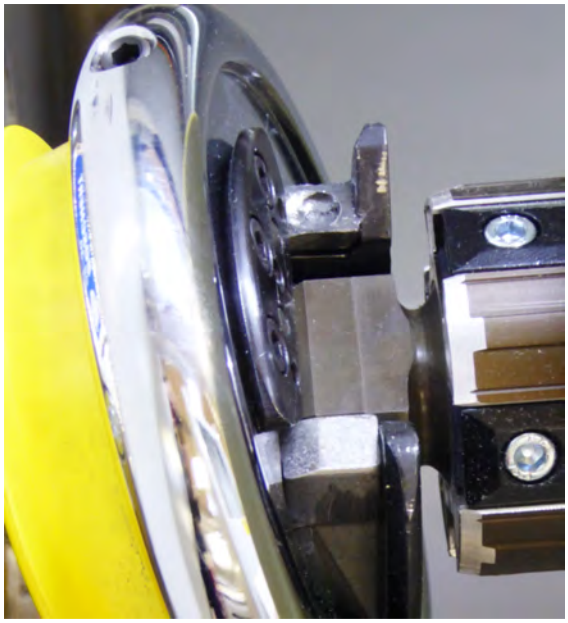
    Make sure that the air shaft is positioned correctly above the chuck bearings in both the left and right side of the processor.



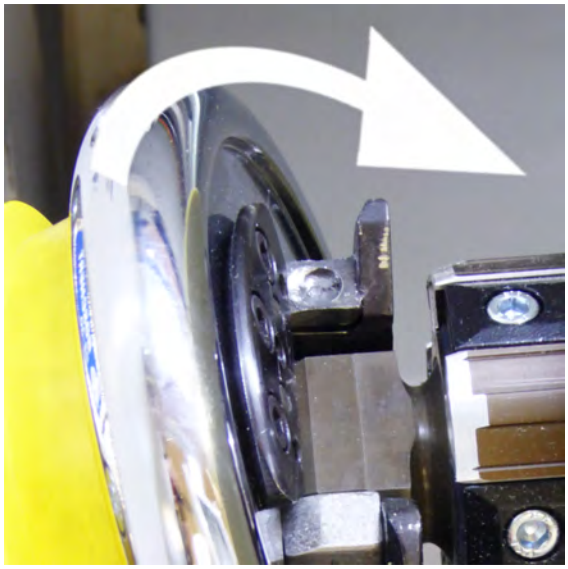
22. Ensure the air shaft's connection block is correctly positioned in the chuck bearing holder.



23. Slowly lower the lift table until the air shaft is resting in the chuck bearings.
24. Pull away the lift table.



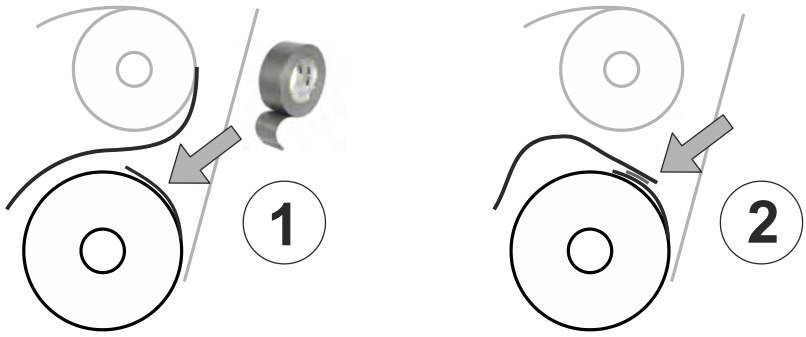
25. Lock the chuck bearings in left and right side by pressing the chuck bearings inwards (towards the roll).



26. Mount one long piece of the double-sided self-adhesive tape down the entire length of the new roll (1).

NOTE: The heat resistant tape Tesa 4965 (50 mm /2") is recommended.

27. Remove the protection paper from the double-side tape.
28. Detach the end of the old material (attached to the roll above) and mount it on top of the double-sided tape (2). Make sure that the two layers of material are parallel.



29. Connect the air compression hose to the air coupling.

30. Press the blue web rotation button.

CAUTION: Do not release the button untill the material has been fully wound into the processor and the join is on the waste roll by at least 2 revolutions.

31. Close the rear cover.

32. Press the "Initialize" button to start the initialization process.

Changing the waste roll

Follow the description below when changing a waste roll. For change of nonwoven and PET rolls please refer to the "Changing nonwoven (NW) and PET rolls" on page 4-7.

WARNING: Refer to the "Safety precautions" on page 0-9 and the separate Safety Instruction Manual part No 21741 .

WARNING: Wear safety protection, e.g. safety shoes, when handling the heavy rolls.

Tools required

- Translyft or other lifting device. Please see detailed description of operating the "Translyft lift table" on page 2-17.

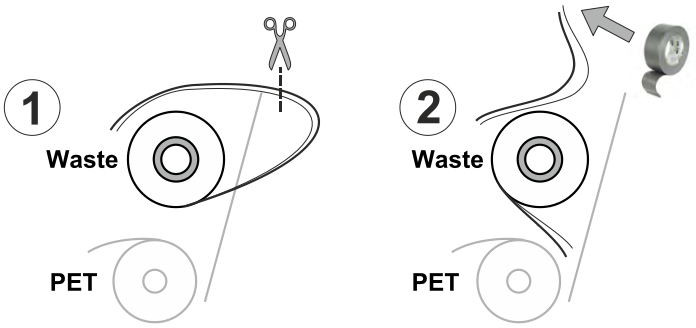
NOTE: The lifting device is an optional extra.

- Pair of scissors or stanley knife.
- Double-side self-adhesive heat resistant tape (e.g. Tesa 4965 (50 mm/2"), heat resistant up to 200 °C transient/100 °C prolonged).
- Duct tape.

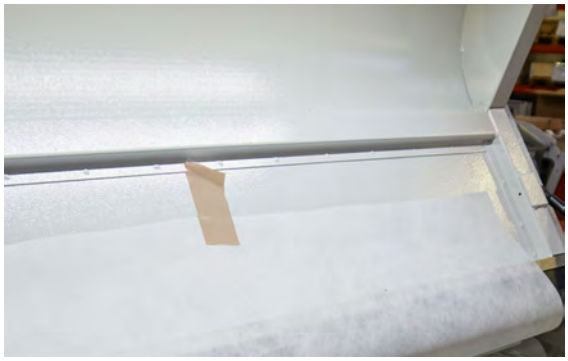
Procedure

1. Open the rear cover.
2. Dismount the air compression hose for the air shaft on the right side of the roll: pull the lock ring of the quick release coupling upwards to release the air pressure. Release the lock ring, then lift the entire coupling upwards to remove.

3. Pull out the loosened material and cut it (1).
4. Then fasten the material coming from the inside of the processor with duct tape to the top cover above the waste roll (2) as shown in step 5

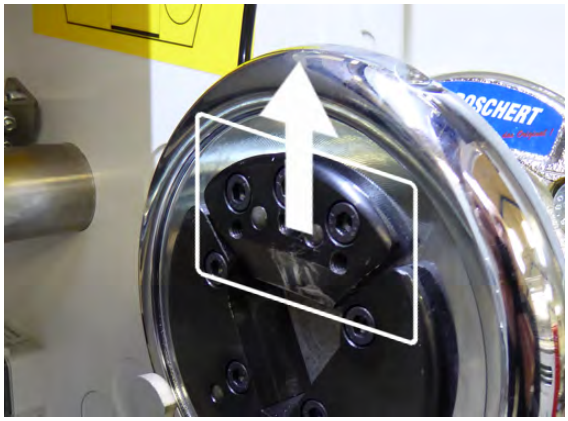


5. Fasten the cut ends of nonwoven and PET to the top cover. Each layer separately: nonwoven first and PET on top of the nonwoven.



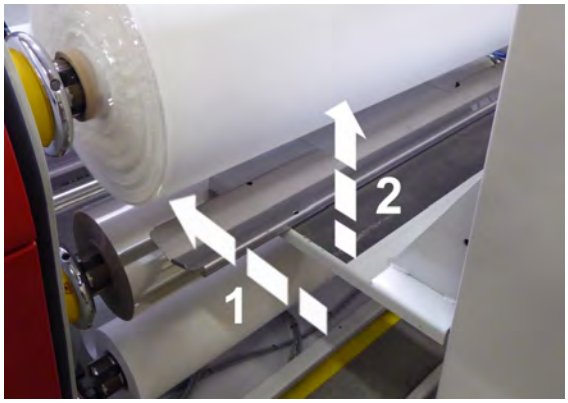
6. Manually turn the chuck bearing of the roll until the lock is in the "12 o'clock" position.

   (The photo is for illustrative purpose only.)



7. Unlock the chuck bearing in the left and right side of the roll by pressing the chuck bearing's top-edge outwards (away from the roll).

8. Guide the lifting device into position between the 2 rollers underneath the rear of the machine. Place the lift table close to the waste roll (1).
9. Adjust the table height (2) to allow the lift table to slide underneath the roll.

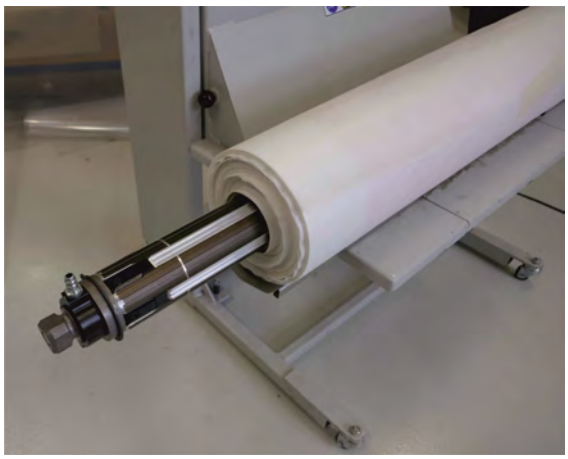


CAUTION: Be very careful not to damage any parts inside the processor, when pushing the lift table into the processor and when placing the lift table underneath a roll in the processor.

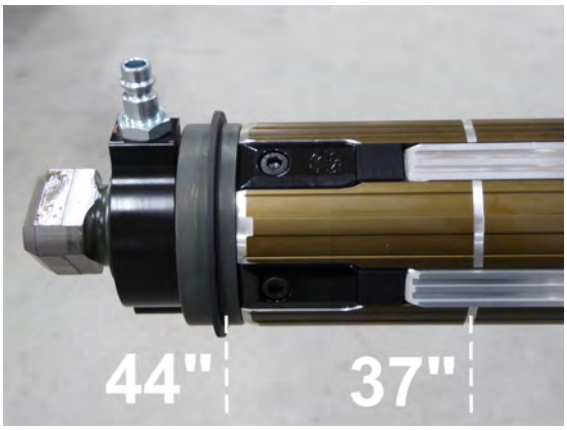
10. Place the lift table underneath the roll until the roll is right above the positioning guide on the lift table.

CAUTION: Be very careful not to damage any parts inside the processor when lifting the roll.

11. Use the handle on the lift table to raise the table until the roll/air shaft is detached and clear of the chuck bearings, and resting in the positioning guide.
12. Pull back the lift table.
13. Lift up the support on the front of the lift table, to prevent the roll from falling off during transport
14. Transport the roll away from the processor.
15. Pull out the air shaft.
16. Remove the full waste roll from the lift table.
17. Insert the air shaft into an empty waste roll.



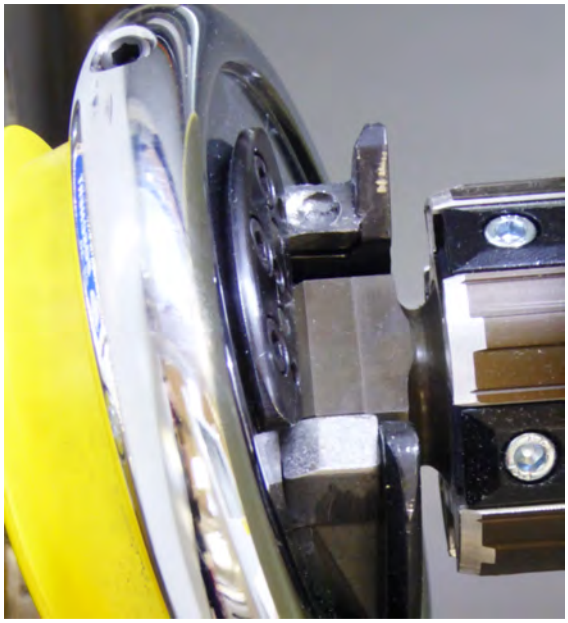
18. Position the roll according to the position marks for 44" or 37" roll as illustrated in the photo:
    - Position a 44" roll up against the circlip until it touches the circlip.
    - Position a 37" roll to align with the groove. The roll is positioned correctly when the roll-end aligns precisely with the groove in the air shaft.



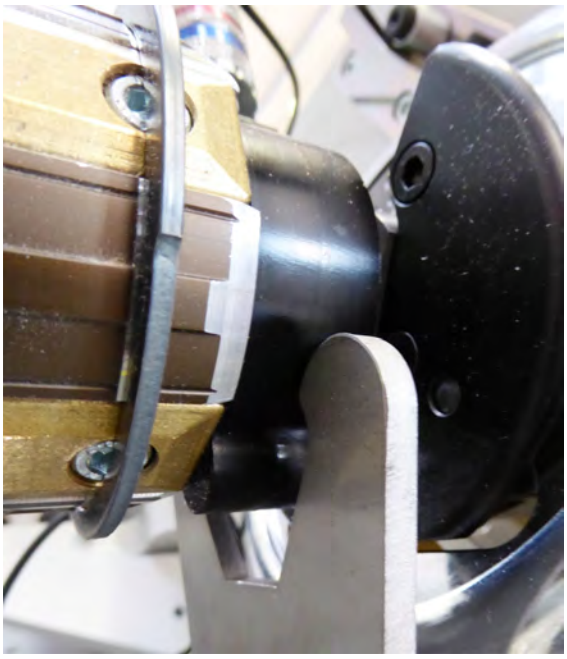
19. Mount the air shaft with the empty roll in the chuck bearings.

    Make sure that the air shaft is positioned correctly in both chuck bearings.

    (The photo is for illustrative purpose only.)

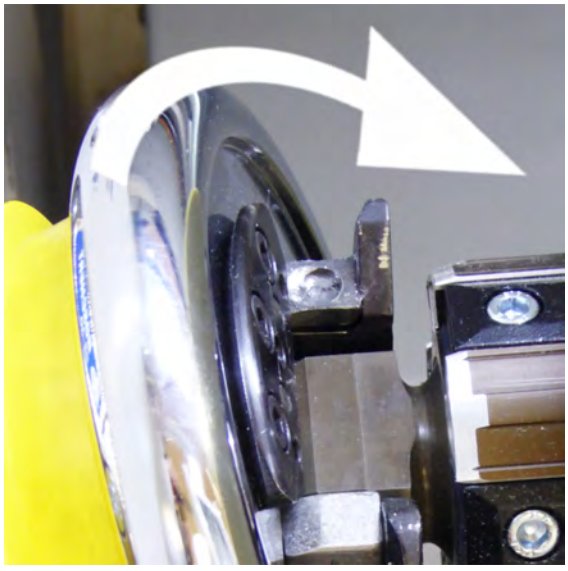


20. Ensure the air shaft's connection block is correctly positioned in the chuck bearing holder.



21. Lock the chuck bearings in left and right side by pressing the chuck bearings inwards (towards the roll).

    (The photo is for illustrative purpose only.)



22. Mount one long piece of the double-sided self-adhesive tape down the entire length of the empty cardboard roll.

    NOTE: The heat resistant tape Tesa 4965 (50 mm /2") is recommended.

23. Loosen the PET from the top cover and mount it to the empty roll.
24. Mount another piece of double-side self-adhesive tape on top of the PET for mounting of the nonwoven.

25. Loosen the nonwoven from the top cover and mount it on top of the PET on the empty waste roll.

26. Connect the air compression hose to the air coupling.

27. Press the blue web rotation button.

CAUTION: Do not release the button until the material has been fully wound into the processor and the join is on the waste roll by at least 5 revolutions and the NW and PET web is tight.

28. Close the rear cover.

29. Press the "Initialize" button to start the initialization process.

Threading of nonwoven (NW), PET and waste

New thread of nonwoven, PET, and waste will be necessary after e.g. a web rupture. Follow the descriptions below for correct threading of the nonwoven, PET and waste.

WARNING: Always pay attention to the warning labels on the equipment and take appropriate precautions for each potential hazard.

WARNING: Refer to the "Safety precautions" on page 0-9 and the separate Safety Instruction Manual part No 21741 .

WARNING: Please wear your personal safety protection, e.g. safety shoes and heat protection gloves.

Tools required

- Pair of scissors or stanley knife.
- Double-side self-adhesive heat resistant tape (e.g. Tesa 4965 (50mm/2"), heat resistant up to 200 °C transient/100 °C prolonged).
- Strong duct tape 50 mm wide.

Procedure

1. Press the ON/OFF if light blue, indicating that Power (heat) is turned on. If dark blue continue with step 4.

2. Then press the 'Heating - Power OFF' button to switch the heating off.

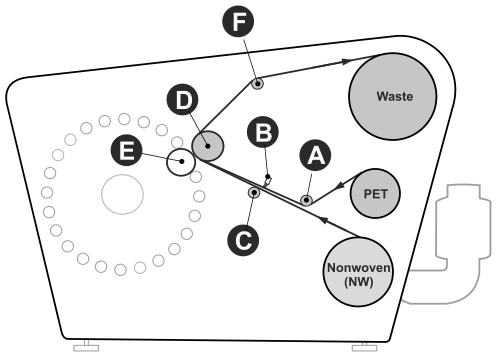
WARNING: This procedure must **ONLY** be done on a cool machine!
The heated roller is very hot: greater than 150°C (302°F), and the Catox enclosure is approx. 50°C (122°F)! Wait for the equipment to cool down automatically before continuing.

3. While waiting for the processor to cool down, prepare the tools needed, the rolls, the Translyft (or other lifting devicefor lifting of the heavy rolls).
4. Open the rear cover.
5. Remove the left side panel.

6. Dismount all the compressed air hoses for the air shafts on the right side of the rolls: Push the lock ring of the quick release couplings upwards to release the air hoses.

7. This overview shows correct threading of the nonwoven, PET and waste.

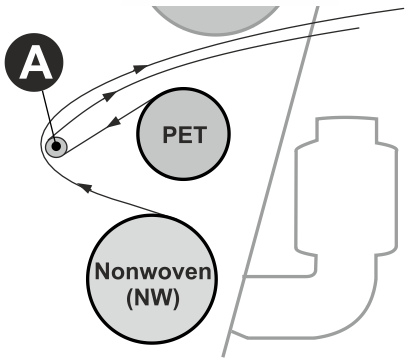
   Follow the steps below when threading.



Correct threading of nonwoven, PET, and waste

8. Lead the PET foil below the roller (A) and back above the PET roll, and out of the processor as shown.

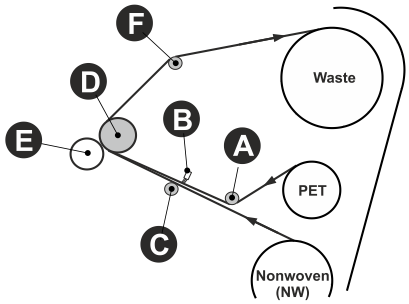
9. Lead the nonwoven below the roller (A) and back above the PET roll, and out of the processor as shown.



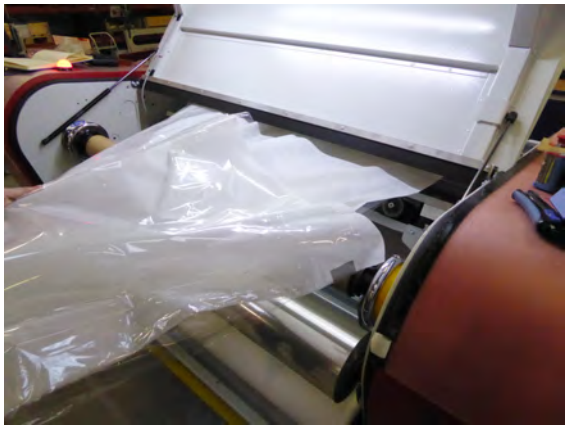
10. Straighten the nonwoven and PET into one layer and then make a triangular fold of the front edge and create a 'tip', still with the nonwoven and PET as one layer.
11. Fix the tip and the sides with packing tape. Do not use staples.

CAUTION: Do not use staples!

12. Lead the tip of the nonwoven/PET back inside the processor and underneath the anti-static brush (B) and above the roller (C).
13. Lead the tip of the nonwoven/PET in between the heated roller (D) and format cylinder (E) from underneath and follow the path around the heated roller.

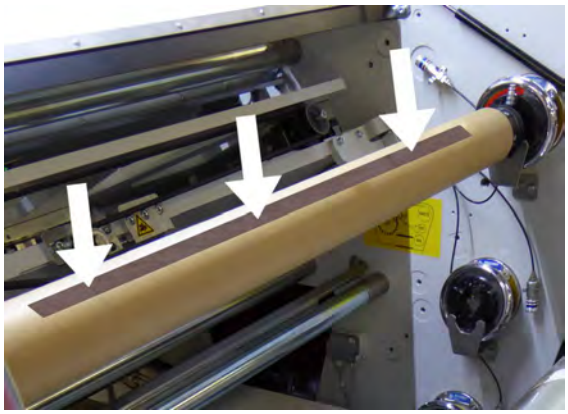


14. Lead the tip of the nonwoven/PET above the roller (F) and out, above the waste roller.



15. Cut of the ends of the nonwoven and PET and straighten the materials.

16. Fix the nonwoven and PET temporarily to the top cover with packing tape.
17. Mount one long piece of the double-sided self-adhesive tape down the entire length of the empty cardboard roll.



NOTE: The heat resistant tape Tesa 4965 (50 mm /2") is recommended.

18. Loosen the PET from the top cover and mount it to the empty roll.

19. Mount another piece of double-side self-adhesive tape on top of the PET for mounting of the nonwoven.

20. Loosen the nonwoven from the top cover and mount it on top of the PET on the empty waste roll.

21. Connect the air compression hose to the air coupling.

22. Press the blue web rotation button.

CAUTION: Do not release the button until the material has been fully wound into the processor and the join is on the waste roll by at least 5 revolutions and the NW and PET web is tight.

23. Close the rear cover.
24. Install the left side panel.

25. Press the ON/OFF button .

26. Then press the 'Heating - Power ON'button to switch the heating on.

27. Initialise the machine. When the processor is heated up, it's ready for processing.

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Appendix A

Alarm list

Look up the alarm number and follow the instructions in the remedy description.

Alarm No	Description	Remedy
001 000	SW fault	Please call an authorized Service Technician.
001 003	Front cover is open	Close lower front cover.
001 004	Emergency stop activated	Release emergency stop buttons.
001 005	Air pressure not ok	Check air supply and pressure.
001 006	Front door is open	Close upper front door.
001 007	Rear door is open	Close rear door.
001 008	No configuration file	Please call an authorized Service Technician.
001 009	Default configuration, calibration needed.	Please call an authorized Service Technician.
001 010	Configuration file not saved	Please call an authorized Service Technician.
001 011	Job setup file not loaded	Error on loading job file, please check if job selection is valid.
001 012	Job setup file not saved	Please call an authorized Service Technician.
001 013	Safety override switch activated	Please call an authorized Service Technician.
001 014	Safety override switch activated. The processor cannot be started	Please call an authorized Service Technician.
001 015	Manual logging activated. The processor cannot be started	Please call an authorized Service Technician.
001 020	Main power rack failure 1	Please call an authorized Service Technician.
001 021	Main power rack failure 2	Please call an authorized Service Technician.
001 022	Main power rack phase failure	Main power supply to machine phase error, check power supply.
002 000	Arms, assert:{Please remove plate from loading zone}	Remove plate from loading zone/feeding table while resetting machine.
	Arms, assert:{Reset/Homing NOT PIM_EMPTY}	Machine not empty during homing of clamp arms, empty machine before homing.
	Arms, assert:{Process count start OOR}	Selected number of process count for starting plate is not valid, check job.
002 002	Plate present at feed table when machine is not ready to load	Remove plate from loading zone/feeding table while resetting machine.
002 003	Clamp arms, functional safety error	Clamp arms too close to each other or another moving element during operation, please check before resetting machine.

Alarm No	Description	Remedy
002 004	Plate detached from clamp arms	Plate loss, please check.
002 005	Clamp Arms, front, speed to low in tension mode	
002 006	Process stopped before plate was loaded or ejected completely	Process was stopped by operator during load or eject.
002 007	Process stopped while plate was being processed	Process was stopped by operator.
002 008	Plate too short, please unload	The loaded plate is shorter than the specified minimum lenght (450 mm). Please eject.
002 020 002 021 002 022 002 023 002 024	Front Clamp Arm, drive error Motor could not move as expected.	Check for jammed plates and mechanical failures before initializing. If the problem persists, please call an authorized Service Technician.
	Drive power failure.	Check the safety circuit and the machine power supply before initializing. If the problem persists, please call an authorized Service Technician.
002 025	Front Clamp Arm, drive error-39022 Battery low warning.	Please call an authorized Service Technician.
002 030 002 031 002 032 002 033 002 034	Rear Clamp Arm, drive error Motor could not move as expected.	Check for jammed plates and mechanical failures before initializing. If the problem persists, please call an authorized Service Technician.
	Drive power failure.	Check the safety circuit and the machine power supply before initializing. If the problem persists, please call an authorized Service Technician.
002 035	SFA change mode\nMachine can't be started	After finished SFA change, Initialize machine to proceed.
002 036	Rear Clamp Arm, drive error -39022 Battery low warning.	Please call an authorized Service Technician.
003 020 003 021 003 022 003 023 003 024	Heated Roller, drive error Motor could not move as expected.	Check for jammed plates and mechanical failures before initializing. If the problem persists, please call an authorized Service Technician.
	Drive power failure.	Check the safety circuit and the machine power supply before initializing. If the problem persists, please call an authorized Service Technician.
003 025	Heated Roller, TCO Tripped	Please call an authorized Service Technician.
003 026	IR, Thermal Cut Out (TCO) tripped	Please call an authorized Service Technician.

Alarm No	Description	Remedy
003 027	Heated Roller, drive error -39022 Battery low warning.	Please call an authorized Service Technician.
004 000	Clamp roller 1 actuator error	Please call an authorized Service Technician.
004 001	Clamp roller 2 actuator error	Please call an authorized Service Technician.
004 002	Feed table actuator error	Please call an authorized Service Technician.
004 003	Plate release actuator error	Please call an authorized Service Technician.
004 004	Sensor bar actuator error	Please call an authorized Service Technician.
004 005	Strip finger actuator error	Please call an authorized Service Technician.
004 006	Load/eject, functional safety error	Load/eject system too close to another moving element during operation, please check before resetting machine.
004 007	Lay down roller error	Please call an authorized Service Technician.
005 000	Nip engage (heated roller), drive error	If alarm can't be reset, please call an authorized Service Technician.
005 001	Nip engage (heated roller), homing error	If alarm can't be reset, please call an authorized Service Technician.
005 002	Nip engage, functional safety error	Please call an authorized Service Technician.
005 003	Nip engage, torque is not reached within specified process distance	NIP engage system (HR) torque could not be reached, please check plate program.
005 005	Nip engage, impression depth out of range.	NIP engage system (HR) impression depth could not be reached, please check plate program.
005 006	Warning: Nip engage speed limited. Drive capabilities reached.	Check the settings of the plate program.
005 020 005 021 005 022 005 023 005 024	Motor could not move as expected.	Check for jammed plates and mechanical failures before initializing. If the problem persists, please call an authorized Service Technician.
	Drive power failure.	Check the safety circuit and the machine power supply before initializing. If the problem persists, please call an authorized Service Technician.
005 025	Nip engage, drive error -39022 Battery low warning.	Please call an authorized Service Technician.
006 000	Heated roller heating error	Please call an authorized Service Technician.
006 001	Web wrap detected, please check heated roller for PET.	Please call an authorized Service Technician.
007 000	Web not at standstill, possibly web rupture	Web movement detected when not expected, please check for broken web material.

Alarm No	Description	Remedy
007 001	Web diameter was not detected correctly	Web diameter could not be detected, please check for empty supply rolls, broken web materials and if machine is threaded correctly.
007 002	Web waste feed too slow	Web waste rotation too slow, please check for empty supply rolls, broken web materials and if machine is threaded correctly.
007 003	Web nonwoven feed too slow	Web NW rotation too slow, please check for empty supply rolls, broken web materials and if machine is threaded correctly.
007 004	Web PET feed too slow	Web PET rotation too slow, please check for empty supply rolls, broken web materials and if machine is threaded correctly.
007 005	Web waste feed too fast	Web Waste rotation too fast, please check for empty supply rolls, broken web materials and if machine is threaded correctly.
007 006	Web nonwoven feed too fast	Web NW rotation too fast, please check for empty supply rolls, broken web materials and if machine is threaded correctly.
007 007	Web PET feed too fast	Web PET rotation too fast, please check for empty supply rolls, broken web materials and if machine is threaded correctly.
007 008	Web waste roll is full	Web Waste roll is full, please change.
007 009	Web nonwoven roll is near empty	Web NW roll is empty, please change.
007 010	Web PET roll is near empty	Web PET roll is empty, please change.
007 011	Web needs service, please check before restarting process	Web NW, PET or Waste roll diameter has exceeted the alarm limits during process. Please change web rolls before restarting the process.
007 012 007 013 007 014 007 015 007 016	WEB NW, drive error Motor could not move as expected.	Check for jammed plates and mechanical failures before initializing. If the problem persists, please call an authorized Service Technician.
	Drive power failure.	Check the safety circuit and the machine power supply before initializing. If the problem persists, please call an authorized Service Technician.
007 017 007 018 007 019 007 020 007 021	WEB PET, drive error Motor could not move as expected.	Check for jammed plates and mechanical failures before initializing. If the problem persists, please call an authorized Service Technician.

Alarm No	Description	Remedy
	Drive power failure.	Check the safety circuit and the machine power supply before initializing. If the problem persists, please call an authorized Service Technician.
007 022 007 023 007 024 007 025 007 026	WEB Waste, drive error Motor could not move as expected.	Check for jammed plates and mechanical failures before initializing. If the problem persists, please call an authorized Service Technician.
	Drive power failure.	Check the safety circuit and the machine power supply before initializing. If the problem persists, please call an authorized Service Technician.
007 027	WEB tension not reached.	The configured web tension in job file or in idle can't be reached. Please check settings and web threading.
007 028	Web waste roll is full.	Replace full waste roll with empty roll.
007 029	Web nonwoven roll is near empty.	Replace empty roll with new full roll.
007 030	Web PET roll is near empty.	Replace empty roll with new full roll.
007 031	Web break detected	When the processor has cooled down, remove broken web and re-thread.
007 032	WEB NW, drive error -39022 Battery low warning.	Please call an authorized Service Technician.
007 033	WEB PET, drive error -39022 Battery low warning.	Please call an authorized Service Technician.
007 034	WEB Waste, drive error -39022 Battery low warning.	Please call an authorized Service Technician.
008 020 008 021 008 022 008 023 008 024	Format cylinder, drive error Motor could not move as expected.	Check for jammed plates and mechanical failures before initializing. If the problem persists, please call an authorized Service Technician.
	Drive power failure.	Check the safety circuit and the machine power supply before initializing. If the problem persists, please call an authorized Service Technician.
008 025	Format cylinder, drive error -39022 Battery low warning.	Please call an authorized Service Technician.
009 000	Catox. No flow sensed when required.	If alarm can't be reset, please call an authorized Service Technician.
009 001	Catox. TCO on heater element tripped.	If alarm can't be reset, please call an authorized Service Technician.
009 002	Catox. TCO on oxidizer tripped.	If alarm can't be reset, please call an authorized Service Technician.

Alarm No	Description	Remedy
009 003	Catox. Control temp. T1 (inlet) gross range.	If alarm can't be reset, please call an authorized Service Technician.
009 004	Catox. Control temp. T2 (after HX in) gross range.	If alarm can't be reset, please call an authorized Service Technician.
009 005	Catox. Control temp. T3 (after heater) gross range.	If alarm can't be reset, please call an authorized Service Technician.
009 006	Catox. Control temp. T4 (after oxidizer) gross range.	If alarm can't be reset, please call an authorized Service Technician.
009 007	Catox. Control temp. T5 (after HX out) gross range.	If alarm can't be reset, please call an authorized Service Technician.
009 008	Catox. Control temp. T6 (spare) gross range.	If alarm can't be reset, please call an authorized Service Technician.
009 009	Catox. Control temp. T7 (in exhaust mainfold) gross range.	If alarm can't be reset, please call an authorized Service Technician.
009 010	Catox. Control temp. T8 (in heater) gross range.	If alarm can't be reset, please call an authorized Service Technician.
009 011	Catox. Heating Error. Out of tolerance.	If alarm can't be reset, please call an authorized Service Technician.
009 012	Catox. Insufficient temp. around heat exchanger (HX).	If alarm can't be reset, please call an authorized Service Technician.
009 013	Catox. Temperature at T4 too low. Please check catox or call service.	If alarm can't be reset, please call an authorized Service Technician.
009 014	Catox. High temperature T7 in exhaust manifold. Please check external exhaust.	Catox exhaust temperature is too high, please check that external exhaust is switched on.
009 015	Catox. Heating error. High signal but low temperature around heat element.	If alarm can't be reset, please call an authorized Service Technician.
009 016	Catox. Analog exhaust flow too low.	Catox exhaust flow too low, please check external exhaust system.
009 017	Exhaust. Analog exhaust flow too low.	General exhaust flow too low, please check external exhaust system.
009 018	Cooling pre nip. One or more fans is not running.	If alarm can't be reset, please call an authorized Service Technician.
009 019	Cooling Machine. One or more fans is not running.	If alarm can't be reset, please call an authorized Service Technician.
009 020	Chiller. Flow too low.	Cooling liquid flow not suficient. Please check that chiller is switched on.
009 021	Chiller. Flow too low.	Cooling liquid flow not suficient. Please check that chiller is switched on.
000 007	Battery Discharged	Don't turn off machine before PLC battery is changed. Call authorised service.

Appendix B

Replacing the slip fit adapter

WARNING: Trained Operator only!

Tools required

- Standard tools
- Allen keys, Nos 4, 5, and 6*
- Hose set, compressed air *
- Special designedlift shaft *

*) Delivered with the equipment

Dismounting the old slip fit adapter

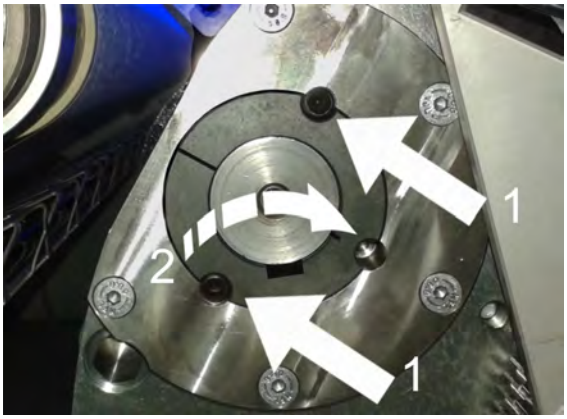
1. Set access level to 'Trained operator' on the control panel. See description of "Change of access levels" on page 3-10.
2. Select 'Tools - Maintenance'.

3. Press the 'Enable maintenance mode' button.

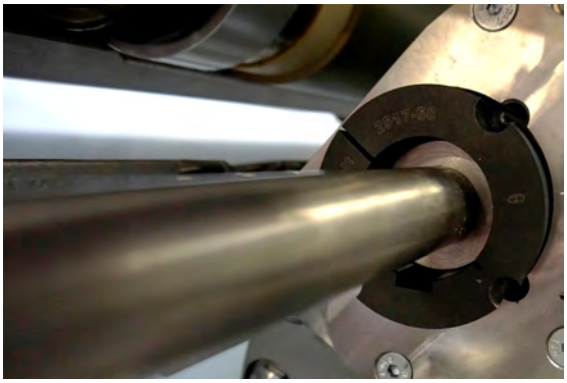
4. Press 'Arms to service position' button.

5. Press the 'SFA change Move arms to safe pos.' button.

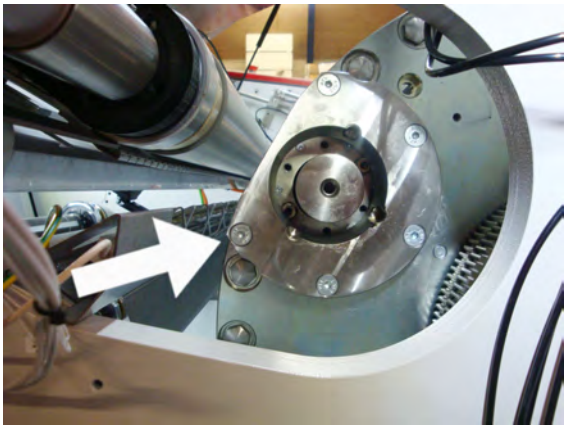
6. Remove the left side panel.
7. Unscrew both of the set screws (1). Use the allen key No 6.
8. Screw one of the set screws into the single threaded hole (2).
   When tightened, it will lift the bushing and release it from the shaft.



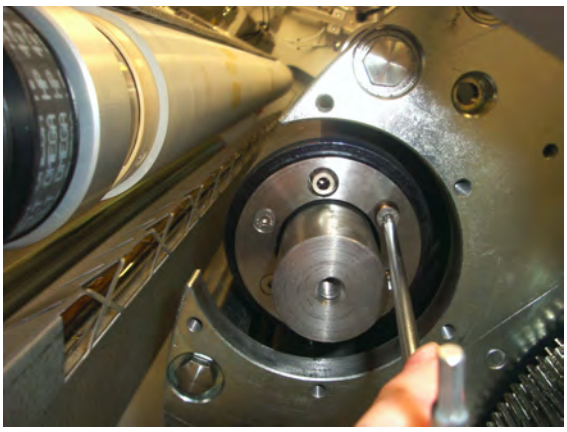
9. Remove the set screw from the taper lock.
10. Mount the lift shaft delivered with the equipment and dismount the taper lock.



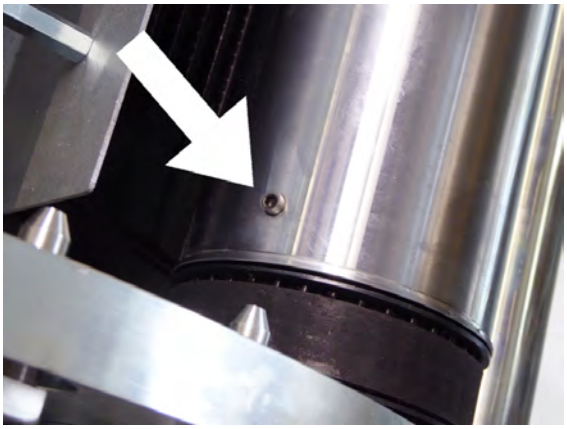
11. Dismount the format cylinders support bracket. Use the allen key No 5.



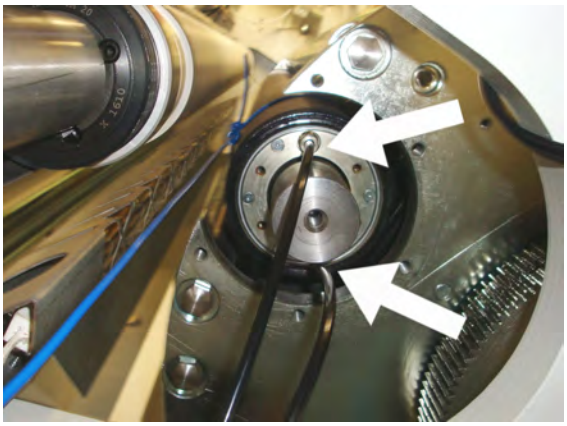
12. Remove the 4 screws from the slip fit adapter's fixation ring.



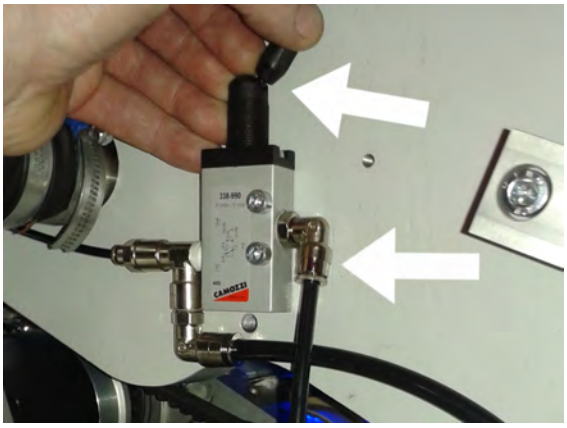
NOTE: Before mounting the slip fit adapter notice the pin on the format cylinder. This pin fits into a slot in the slip fit adapter.



13. Mount the air hoses included with the tool kit in two fittings as shown.

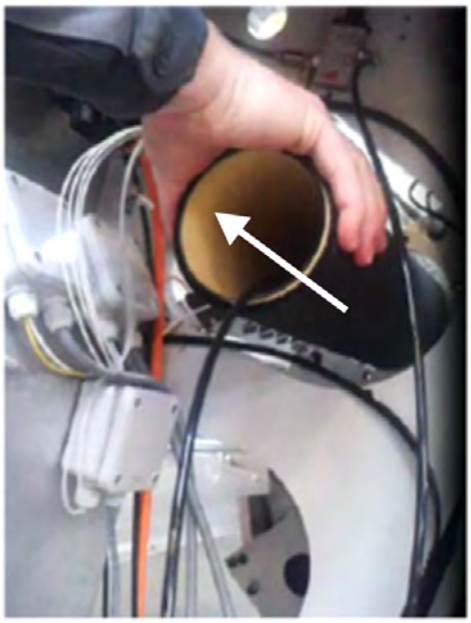


14. Locate the air switch placed on the side frame above the format cylinder.
15. Mount the other end of the hose in the valve.
16. Turn the pressure on. Adding pressure will ease the removal of the slip fit adapter.



17. Rotate the slip fit adapter to disengage from the retaining pin placed in the other end of the format cylinder. Rotation can be either clockwise or anti-clockwise. Rotate until the pin is in the centre of the slot and when you feel it start to release, pull the SFA along the Format Cylinder.

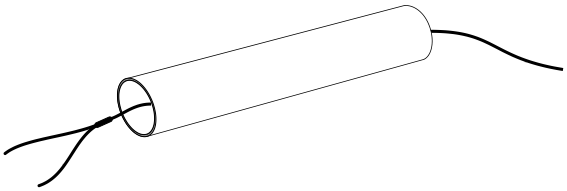
18. Keep pulling on the slip fit adapter along the format cylinder until is fully removed.



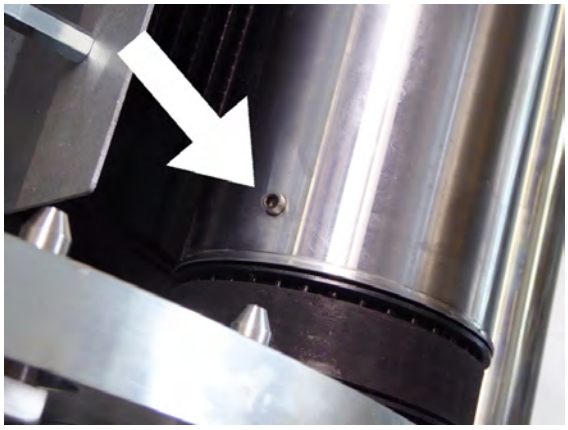
19. Turn the air pressure off and disconnect the air hose assembly.

Mounting the new slip fit adapter:

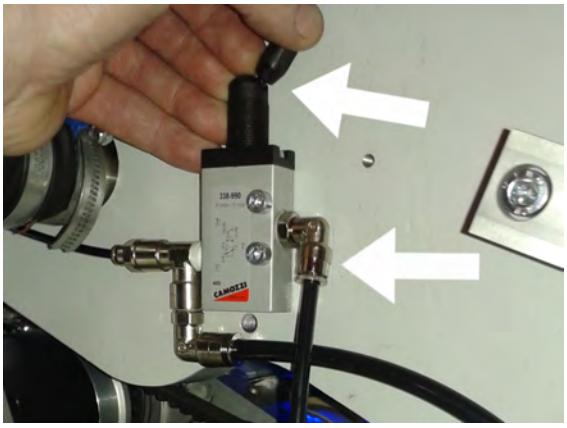
20. Lead the air hose assembly through the slip fit adapter.



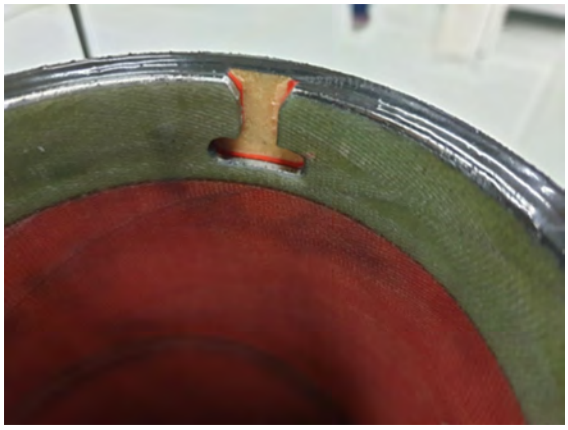
NOTE: Before mounting the slip fit adapter notice the pin on the format cylinder. This pin fits into a slot in the slip fit adapter.



21. Mount the air hoses included with the tool kit in the two fittings in the end of the format cylinder.
22. Turn the pressure on. Adding pressure will ease the removal of the slip fit adapter.



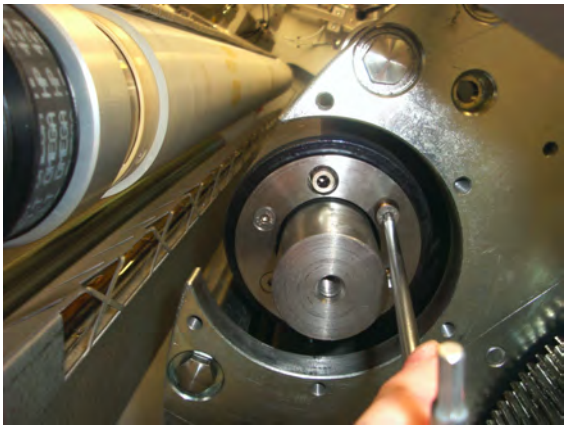
23. Position the slip fit adapter onto the format cylinder so that when it is fully pushed onto the format cylinder, the pin and slot engage.



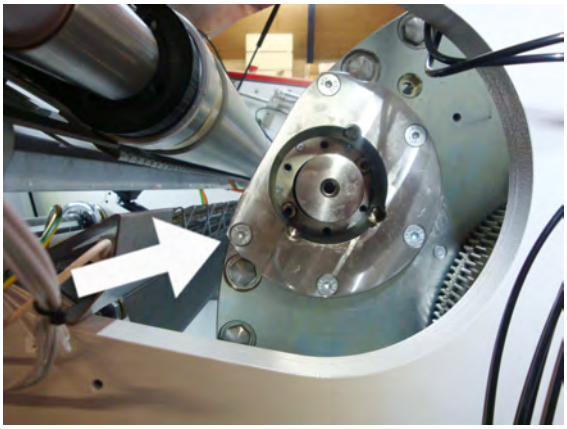
NOTE: Please note that the type of slot in the slip fit adapter may vary to that shown according to the current specification at the time of delivery.

24. Rotate the slip fit adapter in the clockwise direction a few degrees until the slip fit adapter rotation stops. This indicates that the pin is fully engaged in the slot.

25. Turn the pressure off.
26. Dismount the air hose assembly from the format cylinder and the air switch.
27. Mount the 4 screws in the slip fit adapter's fixation ring.

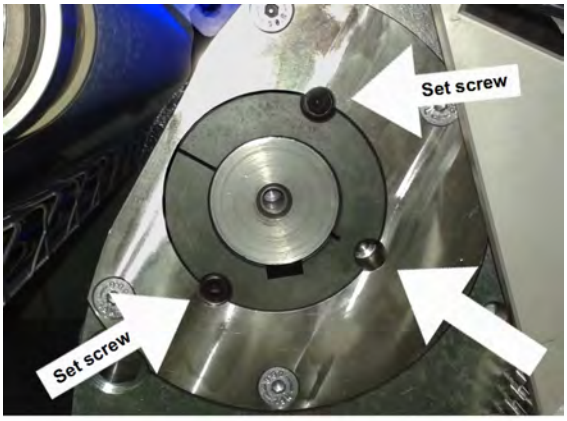


28. Mount the format cylinders support bracket. Use the allen key No 5.



29. Mount the lift shaft delivered with the equipment and push the tapper lock through the lift shaft and into the format cylinder until aligned with the front edge of the format cylinder's support bracket.

30. Align the 3 holes of the taper lock with the 3 holes in the cylinder support bracket.
31. Dismount the lift shaft.
32. Mount both of the set screws. Use the allen key No 6.
33. Tighten both set screws evenly with a torque wrench to; 35 Nm to a maximum of 49 Nm.



34. Mount the left side panel.
35. For resetting SFA counters, now enter the 'Statistics' and press 'Next page'.
36. In the 'Statics since Maintenance' area press the 'SFA change done/Reset' button.

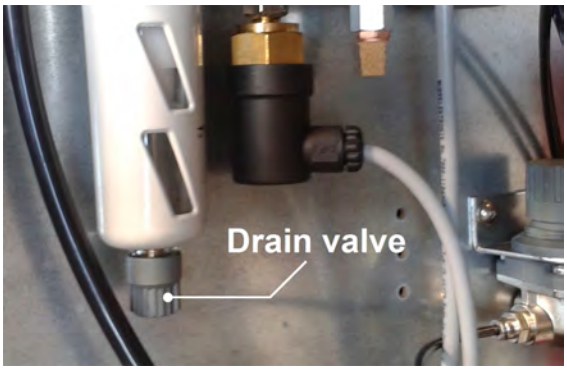
    This will set a new date in 'Date of Slip Fit adapter change' and reset the 'Plates processed on current SFA'.

Air filter

WARNING: Trained Operator only!

The processor is equipped with an air filter with a semi-automatic drain valve. The drain valve ensures that moisture is automatically drained when the processor is powered off.

CAUTION: The drain valve must be in the anti-clockwise position for auto-venting. In the clockwise position the drain valve will be closed all the time.



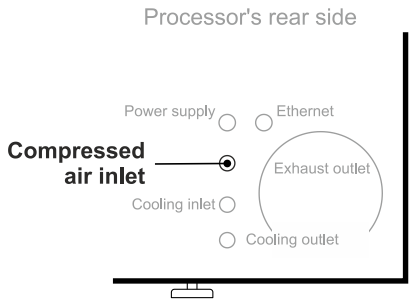
Cleaning the air filter

WARNING: This operation has to be carried out with the supply for compressed air switched off.

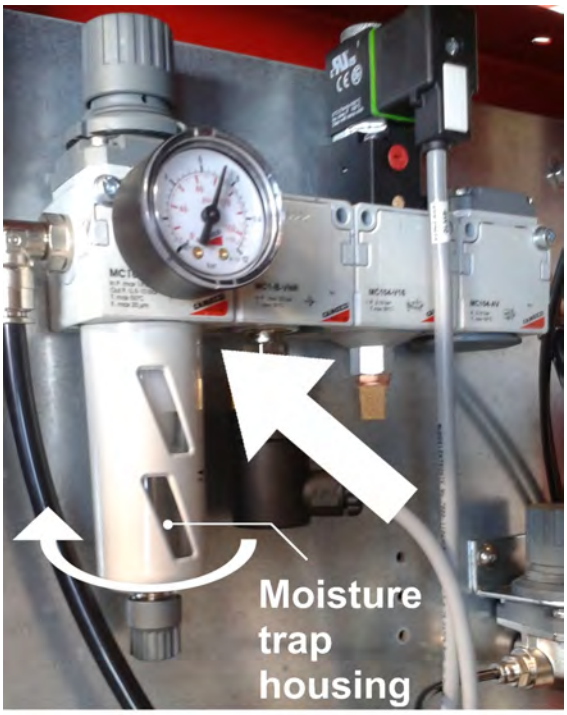
The moisture and dirt filter in the air filter should be checked and cleaned at least every 3 months. Follow the description below for disassembling and cleaning of the filter.

Procedure

1. Disconnect the hose for compressed air supply on the rear side of the processor. Alternatively shut off the compressed air supply to the processor .

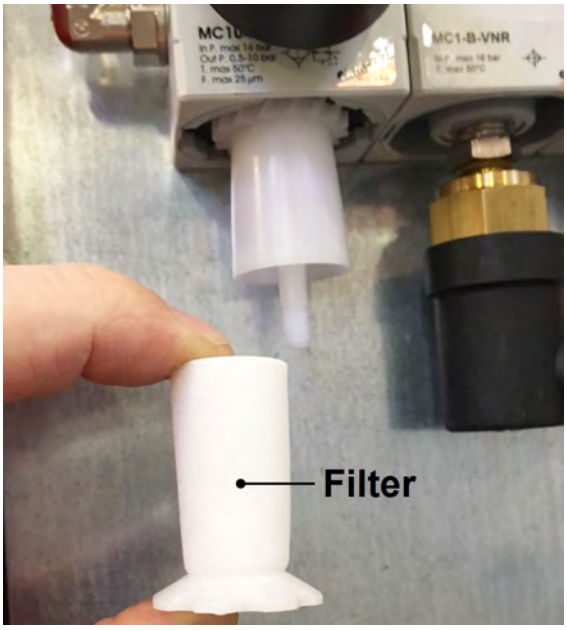


2. Open the right side cover and locate the air filter unit (photo).
3. Dismount the moisture trap housing by turning the housing to the left.



4. Clean the inside of the moisture trap housing in water.

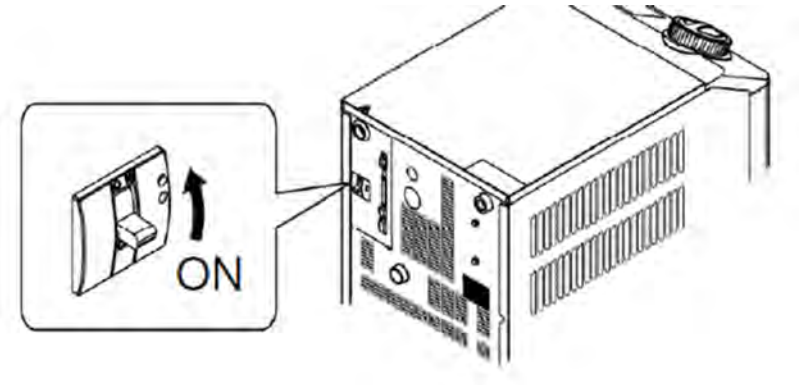
5. Unscrew the bottom part of the filter (see photo) and clean in water.
6. Re-assemble the filter.
7. Mount the moisture trap housing by pushing upwards into the filter assembly and turn to the right to lock.



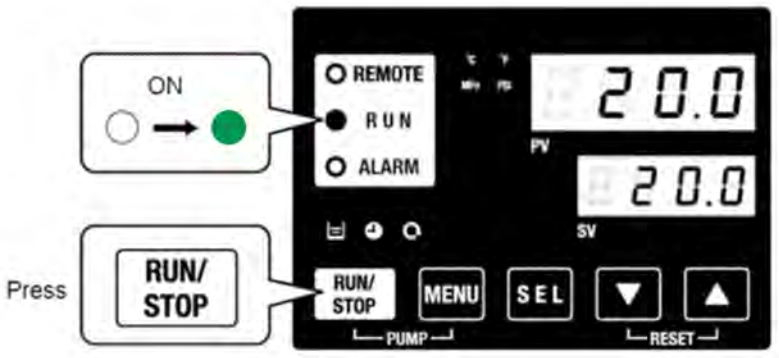
Operation and filling of the SMC chiller

Procedure

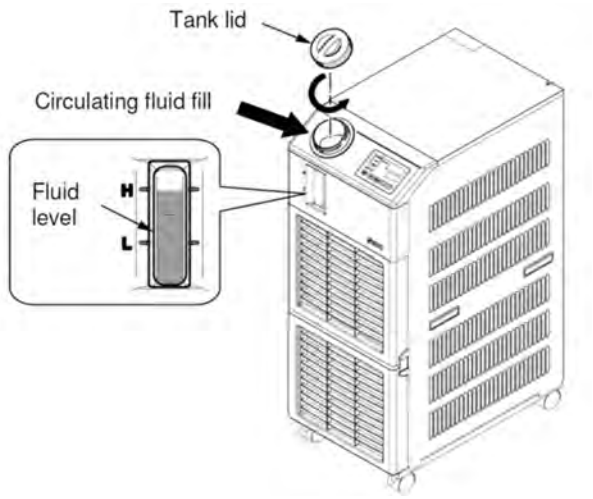
1. Ensure that power switch on the chiller unit is switched to ON.



2. **To Start:** Keep the [RUN/STOP] key pressed for approx. 2 seconds. The [RUN] lamp lights up (in green) and the chiller will start to run.



3. To fill the chiller, remove the Tank Lid and carefully fill the tank until the level indicator is up to the “H” (high) mark.

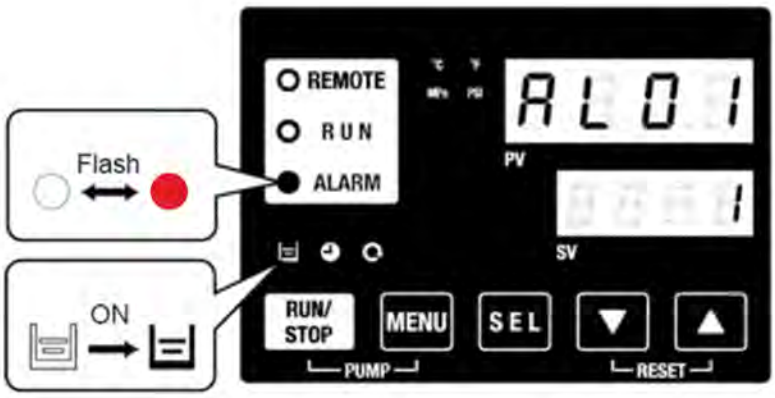


4. The chiller is to be filled with a mixture of clean water and anti-freeze. The specification for the anti-freeze is:

5. Use only antifreeze type; G12+, G12++, or G13. For the USA please use a propylene glycol based anti-freeze. Caution: Do NOT mix anti-freeze types!

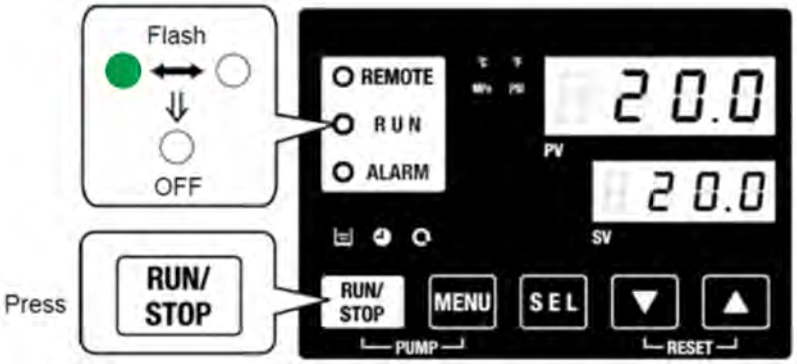
CAUTION: The capacity of the chiller is 5 Litres + the capacity of hoses and heat exchangers. Therefore please have available 5 Litres of anti-freeze which when diluted to 15~20% will provide up to 30 Litres of ready mixed coolant.

6. If the coolant level was low during operation, the alarm “AL01; Low tank level", which stops the pump operation will have been activated.



7. Reset the “AL01; Low tank level". Press the [RESET] key ([▼] and [▲] keys simultaneously) to stop the alarm buzzer.

8. **To Stop:** Keep the [RUN/STOP] key pressed for approx. 2 seconds. The [RUN] lamp flashes (green) and continues the operation until the chiller is ready to stop. After approx. 15 seconds, the [RUN] lamp goes off and the chiller stops



(Blank)