



Proceq ZAA 2600.HA Automatic Film Applicator

Instruction Manual



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Exclusion of liability

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Illustrations, descriptions as well as the technical specifications conform to the instruction manual on hand at the time of publishing or printing.

However, Proceq SA policy is one of continuous product development. All changes resulting from technical progress, modified construction or similar are reserved without obligation for Proceq SA to update.

Some of the images shown in this instruction manual may be of a pre-production model and/or are computer generated; therefore the design / features of the delivered product may differ in various aspects.

The instruction manual has been drafted with the utmost care. Nevertheless, errors cannot be entirely excluded. The manufacturer will not be liable for errors in this instruction manual or for damages resulting from any errors.

The manufacturer will be grateful at any time for suggestions, proposals for improvement and indications of errors.

1 Description of device

The Proceq ZAA 2600 is an automatic laboratory equipment with capacitive touchscreen for accurate and reproducible application of coating materials, adhesives and similar products with almost all film applicators.

In particular, this instrument has the following features:

- Thanks to its modular construction, the automatic universal unit can be equipped with different kits for carrying out application, scrub resistance, washability, crocking and scratch resistance tests as well as recording of the drying time.
- Scalability ensures upgrade possibility after initial purchase without returning the equipment
- Storage of various application profile settings such as application length and drawing speed
- Adjustable application area with moveable start and stop positions
- Reproducible, operator independent results
- Optional modification set with special isolation for use with heatable vacuum plates or heating plates
- Double sided glass plate for dual purpose operation: one side with printing blanket for wire-bar applicators and profile rods, on the other side glass surface for other applications. Easy to turn glass plate without any tool.
- Also suitable for use with different applicators up to the maximum outer width of 300 mm (11.81"), profile rods and wire-bar applicators with a minimum length of 340 mm (13.39") and a maximum diameter of 13.5 mm (0.53") in the support area.
- Applicable also for thick substrates up to 11 mm (0.43")
- Optional precision-vacuumplate for fixing thin substrates of different size; the object to be held will be fixed absolutely plane by the suction power
- Easy to use
- Compact design saves counter space
- Special customer versions are available on request

2 Safety information

2.1 Symbols used



This note comprises instructions needed to follow directions, specifications, proper working procedure and to avoid data loss, damage or destruction of the instrument.



This note signifies a warning about dangers to life and limb if the apparatus is handled improperly. Observe these notes and be particularly careful in these cases. Also inform other users on all safety notes. Besides the notes in this instruction manual the generally applicable safety instructions and regulations for prevention of accidents must be observed.

2.2 Safety notes and hints



It is strictly forbidden to open the housing of the Proceq ZAA 2600. If not observed, all the guarantee and liability claims to Proceq SA will be void.



Place the device on a solid, even surface before operation.



Ensure that the separator (power socket) is accessible and that the instrument can be separated from the power supply at any time.



Never touch any moving parts during operation.



The side panels must always be mounted during operation.



Always wear safety glasses during operation.



Only connect the Proceq ZAA 2600 to alternating current of a voltage of 100 – 240 V at 50 to 60 Hz. The voltage must correspond to the information given on the identification plate of the apparatus. The device may only be connected to sockets with a protective earth conductor.



Never use a damaged power supply cable. Only use power cable with protective earth conductor. Removable power cables must not be replaced by an insufficiently rated power cable. Only use the power cables provided by the manufacturer may be used.



Never touch the hot plate, always wait until the heating plate has cooled.



Only coating materials or products with a flash point $>250\text{ }^{\circ}\text{C}$ can be applied.



Materials with a combustion point $<250\text{ }^{\circ}\text{C}$ must not get in touch with the heating plate.



Always unplug the power cable before assembling and/or converting the unit.



The Automatic Film Applicator Proceq ZAA 2600 is constructed in accordance with the state of the art and is safe in use. However, there is always risk when the instrument is handled improperly or otherwise as intended by the manufacturer.



Depending on the coating material used, the test may only be carried out in a ventilated environment.



Heating of substances can lead to risks of explosion, implosion or the release of toxic or flammable gases. If heating of a product can lead to the release of hazardous substances, it is necessary to use an appropriate extraction system.



During operation, the distance to walls and other objects must be at least 10 cm.



Das Proceq ZAA 2600 is a multi-function device and is exclusively intended for use in various functions defined in chapter 1 of this manual. Any other use is considered as being not in accordance with the intentions of the manufacturer and is conducted at the user's own risk. The manufacturer is not liable for any resulting damages.



Every person operating or maintaining the Proceq ZAA 2600 must have read and understood this instruction manual in its entirety, in particular the safety precautions and warnings.



Unauthorized modifications and changes of the Proceq ZAA 2600 are not permitted.



Reproduction without permission is not allowed.



Before lifting or moving the apparatus, the heating plate / glass plate must be removed to reduce the total weight. Tilting the device can lead to falling out of the glass plate.



All maintenance and repair not explicitly allowed and described in this manual, shall only be carried out by Proceq SA or your authorized Proceq agent, failure to comply voids warranty.



Proceq SA refuses all warranty and liability claims for damages caused by usage of the Proceq ZAA 2600 in combination with **non-original accessories**, or accessories from third party suppliers.



All local safety regulations apply for the operation of the Proceq ZAA 2600.

The following warning symbols can be seen on the device:

Danger of hand injury: Hands can be bruised, or otherwise injured.



Risk of burning on hot surfaces. Touching such marked surfaces is prohibited.



Danger of electric shock.



Risk of inflammation of substances through heat (heating plate).



3 Delivery of device

3.1 Damages during carriage

On receipt of the goods, check for any visible damages on the packaging. If it is undamaged you may sign the receipt of the goods. If you do suspect by visual inspection that damage has occurred, make a note of the visible damage on the delivery receipt and request the courier to countersign it. Moreover, the courier service must be held responsible for the damage in writing.

If a hidden damage is discovered while unpacking, you have to inform and hold the courier liable immediately in the following way: "When opening the parcel we had to notice that ... etc." This superficial checking of the goods has to be done within the time limit set by the carrier, which is normally 7 days. However, the period could vary depending on the courier. Hence, it is recommended to check the exact time limit when receiving the goods.

If there are any damages also inform your authorized Proceq agent or **Proceq SA** immediately.

3.2 Shipment

Should the device be transported again, it must be packaged properly. Preferably use the original packaging for later shipments. Additionally use filling material in the package to protect the device from any shock during carriage.









To protect persons and the apparatus, proper care must be taken when lifting or carrying it. It is recommended to hold and carry the Proceq ZAA 2600 on both sides of the housing. Always remove the heating plate / glass plate before lifting or tilting the device.





3.3 Standard delivery

The following parts are included in the delivery:

- Automatic Film Applicator with Touchscreen with isolation plate for use with heated precision-vacuumplate or heating plate
- reversible, double sided glass plate: printing blanket and glass surface
- 4 rubber feet (to use with modification sets)
- polyester mat
- drawing unit
- clamping device
- weight lifter (set of 2)
- spirit level
- power cable
- Allen key 3 mm and 2.5 mm
- certificate of manufacturer
- instruction manual



3.4 Options for all Proceq ZAA 2600 versions

Precision-vacuumplates: with a series of holes of 1 mm (0.04") with a series of holes of 0.5 mm (0.02")	
Vacuum pumps with hose 230 V 115 V	
Profile rod Wire-bar film width: approx. 320 mm (12,6"), total length: 405 mm (15,94"), with 1 wet film thickness according to your choice	
Fixing unit for profile rods and wire-bar applicators	
Proceq film applicators up to a maximum film width of 300 mm (11,81")	
Collecting device for wire-bar applicators and profile rods after application	

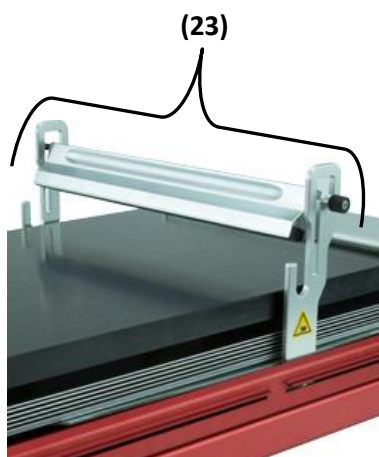
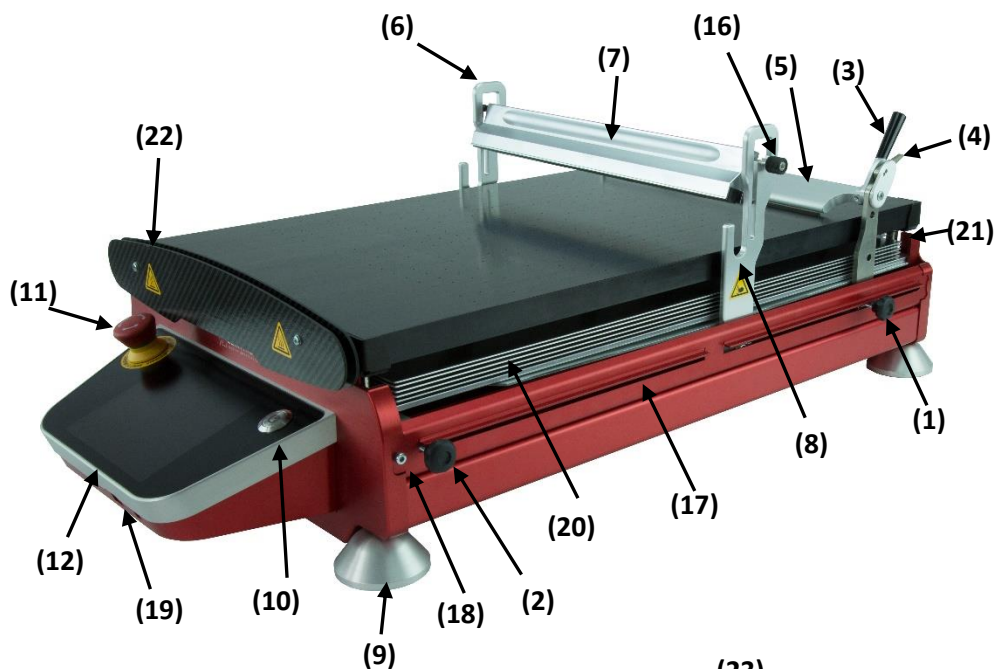
ZTC 2200 Test Charts	
Modification set „Crockmeter“	
Modification set „Scrub Tester“	
Modification set “Drying time Recorder”	
Maintenance Proceq ZAA 2600	

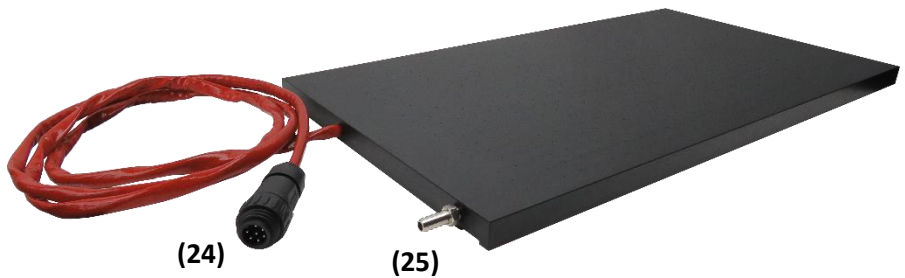
3.5 Options for modification set “Heatable Application-

To modification set "Heatable Application" either a heatable precision-vacuum plate or a heating plate must be selected. Options available for selection are listed below:

<p>Precision-vacuumpates, heatable up to 150 °C With holes of 1 mm (0.04”), 230 V With holes of 1 mm (0.04”), 115 V With holes of 0.5 mm (0.02”), 230 V With holes of 0.5mm (0.02”),115 V</p> <p>Heating plates for temperature up to 150 °C 230 V 115 V</p>	 
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4 Device overview





- (1) **Start stop**
- (2) **End stop**
- (3) **Clamping grip**
- (4) **Release lever**
- (5) **Clamping device** for the substrate
- (6) **Lifting and lowering device** for weight (7)
- (7) **Weight**
- (8) **Holding device** for wire-bars and profile rods
- (9) **Levelling feet**
- (10) **Power button**
- (11) **EMERGENCY Stop button**
- (12) **Touchscreen**
- (13) **Power supply** 100 V – 240 V / 50 Hz – 60 Hz
- (14) **Delay action fuse** 0.8 A / 250 V
- (15) **Main switch** (On / Off)
- (16) **Knurled screw**
- (17) **Side panel**
- (18) **Fixing screw of the side panel**
- (19) **USB Port** (for future use)
- (20) **Isolation plate**
- (21) **Back heating plate holder**
- (22) **Front heating plate holder**
- (23) **Drawing unit**
- (24) **Temperature controller connection**
- (25) **Hose connection for vacuum**

5 Assembly and starting up

Before the first use the apparatus has to be assembled or converted for use with the desired options. Proceq ZAA 2600 Basic unit:



- Remove the four black rubber feet.



- Remove the screws of the adjustable start stop (1) and end stop (2).
- Remove the side panels (17) by loosening and removing the Allen screws (18).
- Assemble the clamping device (5) and holding device (8) with the delivered Allen screws.



- Reassemble both side panels (17), the one with the slit on the right side, the other on the left side.
- Refasten the screws of the adjustable start (1) and end stop (2).

- Open the clamping device (5), by pressing the release lever (4) and the clamping grip (3) together until you hear a click, then tilt the clamping grip (3) backwards.



- Place the isolation plate (20) into the device.



- Assemble the back heating plate holder (21) and the front heating plate holder (22) with the 4 provided Allen screws.





- Move the clamping device (5) and holding device (8) to the back part of the unit.
- Insert the glass plate / heating plate in the device by first guiding the cable under the clamping device (5).



- Insert the weight (7) into the guides of the holding device (8) with the black rubber part facing forward first one side of the weight then the other as shown below.



- Rotate the weight (7) so that the black rubber part faces down, then fix it with the two knurled screws (16).



- Connect the temperature controller as described in the separate instruction manual.



To protect persons and the apparatus, proper care must be taken when lifting or carrying it. It is recommended to hold and carry the Proceq ZAA 2600 on both sides of the housing. Always remove the glass plate before lifting or tilting the device.

5.1 Disassembly for transport

To prevent transport damage, the device has to be disassembled as follows:

- Remove the temperature controller.
- Loosen and remove the knurled screw (16) to remove the weight (7). First turn the weight upwards by 90 ° and – in reversed order as at the assembly –first take one side of the weight then the other out of the guides.
- Remove the screw of the adjustable start stop (1) and end stop (2).
- Remove the side panels (17), by unscrewing the fixing screws (18).
- Remove both side parts of the holding device (8), by unscrewing their fixing screws.
- Remove the clamping device (5), the inserted plate, the back heating plate holder (21) and the front heating plate holder (22).
- Remove the isolation plate (20).
- Reassemble both side panels (17), the one with slit on the right side, the other one on the left side.
- Refasten the previously removed screws of the start (1) and end stop (2).
- Move both adjustable stops (1 & 2) to the middle of the device.
- Screw in the four black rubber feet.
- Only transport the device in its original packaging.

Disassembled device before and after transport:



5.2 Startup

Connect the device to a power socket with the supplied power cable and turn on the main switch (15).

Switch on the device by pressing the power button (10). The device will be ready after a short start-up phase.

5.3 Shutdown

Turn off the device by pressing the power button (10). The display will turn off and the device is powered down. Before removing the power cable, turn off the main switch (15).

6 Application

6.1 Preparation

Before the apparatus is prepared for application, you should have decided:

- which type of applicator you will be using
- which substrate you will be using
- which base plate you will be using
 - glass plate
 - precision-vacuumplate
 - heatable precision-vacuumplate (only versions with special isolation plate)
 - heating plate (only versions with special isolation plate) or

If using a wire-bar or profile rod, use the printing blanket side of the glass plate. For other applicators, use the glass plate with the glass surface up (see chapter 8 "Changing the heating plate" on page 35).



Depending on the coating material used, the test may only be carried out in a ventilated environment.




Heating of substances can lead to risks of explosion, implosion or the release of toxic or flammable gases. If heating of a product can lead to the release of hazardous substances, it is necessary to use an appropriate extraction system.





During operation, the distance to walls and other objects must be at least 10 cm.

6.2 Application with wire-bar or profile rod

- Place the device on a solid, even surface.
- Level the apparatus using the included spirit level. To do so, place the spirit level on the plate and adjust the levelling feet (9) until the Proceq ZAA 2600 is levelled perfectly. The glass plate must be firmly in place.
- Make sure that the printing blanket side of the glass plate is facing up.
- Ensure that the printing blanket is covered with the polyester mat.
- Set the „Moving Mode“ to „Single“, by tapping on „Menu“ and „Setup“ on the touchscreen. The „Single“ mode is indicated with a straight arrow  on the main screen.
- Lift up the weight (7) and hinge it into the top position (6).

Set the start stop (1) as follows:

- Move the open clamping device (5) and the holding device (8) to the back of the apparatus.
- Place your substrate (e.g. test chart / film) at the desired position on the glass plate and fix it with the clamping device (5), by pulling on the clamping grip (3).
- Move the holding device (8) to the start stop (1) or to the desired starting position using the  button on the touchscreen.
- Press the „Zero“ button  on the touchscreen to set the start position.




Hint: Small substrates can also be fixed with a piece of adhesive tape.

- ! If the device had been shut down, the starting position has to be set again after the next switch-on.

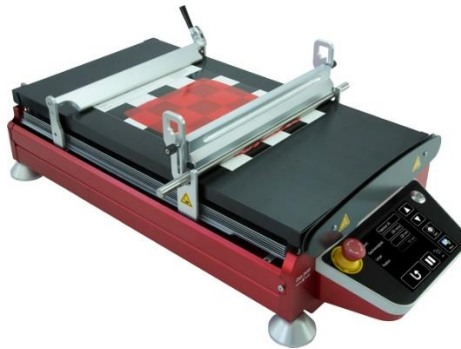
Set the end stop (2) as follows:


- Loosen the screw of the end stop (2).
- Position the end stop (2) behind the desired drawing area and lock it with the screw. (The end stop (2) has a safety function.)
- Set the drawing length using the touchscreen (refer to chapter 7.1.7 “Setting the drawing length” on page 28).
- Place the wire-bar or profile rod into the holding device (8).
- Lower the weight (7) until it sits on the wire-bar / profile rod and holds it in place.

Hint: Place a piece of paper at the end of your substrate to absorb any excess coating material.

- Set the desired drawing speed on the touchscreen (refer to chapter 7.1.6 “Setting the drawing speed” on page 28).
- Apply the desired quantity of coating material on the substrate in front of the applicator rod.
- Start the drawing process by tapping the arrow  on the touchscreen.

The Proceq ZAA 2600 will now move the drawing unit (23) forward and draw a uniform film on the substrate. The drawing unit (23) will automatically stop when it reaches the end position defined on the touchscreen.



- Lift the weight (7) and hinge it into the top position (6).
- Remove and clean the applicator rod.
- Move the drawing unit (23) back to the initial position by tapping on  on the touchscreen. The drawing unit (23) moves back either to 0 mm position or to the start stop (1).
- Remove the substrate.


- ! Should the applicator rod rotate during the application, use the optional fixing unit for profile rods and wire-bar applicators (see chapter 6.2.2 on page 24).

6.2.1 Using the optional collecting device



Using the collecting device, the application steps required when working with wire-bar applicators and profile rods will be reduced significantly. When using the collecting device, the applicator rod is lifted automatically off the substrate after application and the drawing unit (23) moves back to the starting position automatically. The applicator rod can then be easily removed and cleaned.



Use the collecting device as follows:

- Make sure that the printing blanket side of the glass plate is facing up.
- Ensure that the printing blanket is covered with the polyester mat.
- Set the „Moving Mode“ to „Reverse“, by tapping on „Menu“ and „Setup“ on the touchscreen. The „Reverse“ mode is indicated by a bent arrow  on the main screen.
- Lift the weight (7) and hinge it into the top position (6).

Set the starting position as follows:

- Place your substrate (e.g. test chart / film) at the desired position on the glass plate and fix it with the clamping device (5), by pulling on the clamping grip (3).
- Move the drawing unit (23) to the start stop, by pressing the „Manual back“ button .
- Zero the device by tapping the „Zero“  button on the touchscreen.
- Place the applicator rod into the holding device (8).

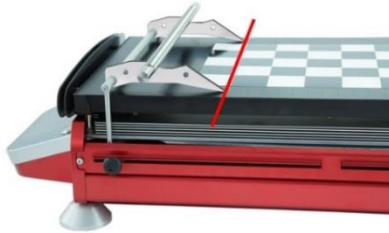
Adjust the collecting device as follows:


- Place the collecting device into the end stop (2) by sliding the mounting pins of the device into the holes of the end stop (2). Lock the collecting device in place by applying a light pressure to it. Proper locking is indicated by a click.



- Position the end stop (2) behind the desired drawing area and lock it with the screw. (The end stop (2) has a safety function.)

- The end of the drawing area is defined by the two side parts of the collecting device as shown on the picture below.



- Set the drawing length using the touchscreen (refer to chapter 7.1.7 “Setting the drawing length” on page 28). Set the drawing length to the maximum on the touch screen to ensure the collecting device to lift the applicator rod properly.
- Lower the weight (7) until it sits on the applicator rod and holds it in place.
Hint: Place a piece of paper at the end of the substrate to absorb any excess coating material.
- Set the desired drawing speed on the touch screen (see chapter 7.1.6 “Setting the drawing speed” on page 28).
- Apply the desired quantity of coating material on the substrate in front of the applicator rod.
- Start the application procedure by tapping the arrow button  on the touch screen.

6.2.2 Fixing unit for profile rods and wire-bar applicators applicators



- Place the profile rod or wire-bar applicator into the holding device (8).
- Fix the optional fixing unit on the sides of the applicator rod as shown below:



6.3 Application with gap applicator

- Make sure that the glass plate is mounted with its glass surface facing up. Alternatively a precision-vacuumplate can also be used.

Set the start stop (1) as follows:

- Place your substrate (e.g. test chart / film) at the desired position on the glass plate and fix it with the clamping device (5), by pulling on the clamping grip (3). Keep in mind that the gap applicator will be placed in front of the weight (7).
Hint: If the substrate is too small to use the clamping device (5), use a piece of adhesive tape or an optional precision-vacuumplate to fix it.
- Lower the weight (7) to the bottom position and move the holding device (8) to the clamping device (5).
- Set your gap applicator to the desired gap height and place it on the substrate at the desired starting position of the application area.
- Move the drawing unit (23) to the desired starting position behind the gap applicator using the  button.
- Set the starting position by tapping the „Zero“  button on the touch screen.





Set the end stop (2) as follows:



- Loosen the screw of the end stop (2).
- Position the end stop (2) behind the desired drawing area and lock it by refastening the screw. (The end stop (2) has a safety function.)
- Set the drawing length using the touchscreen (refer to chapter 7.1.7 “Setting the drawing length” on page 28).
- ! Refer to the separate instruction manual of the applicator you are using (e.g. ZUA 2000) for any applicator specific considerations.

Hint: Place a piece of paper at the end of the substrate to absorb any excess coating material.

- Return the drawing unit (23) to the start position.
- Set the desired drawing speed on the touch screen (refer to chapter 7.1.6 “Setting the drawing speed” on page 28).
- Apply the desired quantity of coating material on the substrate in front of the application blade.

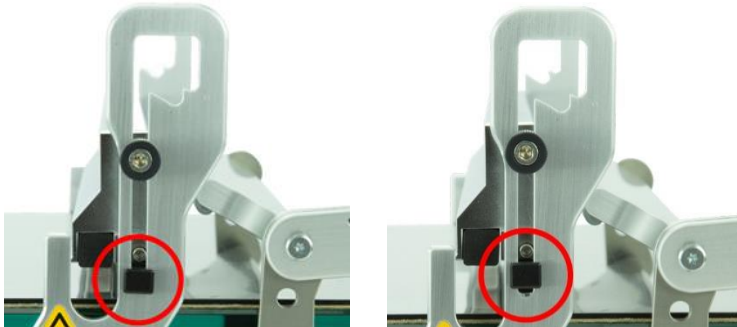
- Start the application procedure by tapping the „draw“ button. When using a gap applicator this can be either in „Single“  mode or in „Reverse“  mode.



- Remove and clean the gap applicator.
- If working in „Single“ mode, return the drawing unit (23) to the start position by tapping the  on the touch screen. In „Reverse“ mode  the drawing unit (23) returns to the start position automatically.
- Remove your substrate. If the device is not needed for further applications, switch it off with the main switch (10).



For substrates between 4 mm and 11 mm thickness, use the included weight lifter. To install, remove the weight (7) and place the weight lifter in the holding device (8) with the top marker facing up, then place the weight (7) back in the holding device (8). If the weight (7) has to be lifted even higher, place the weight lifter with the top marker facing down in the holding device (8). The resulting height difference can be seen below:

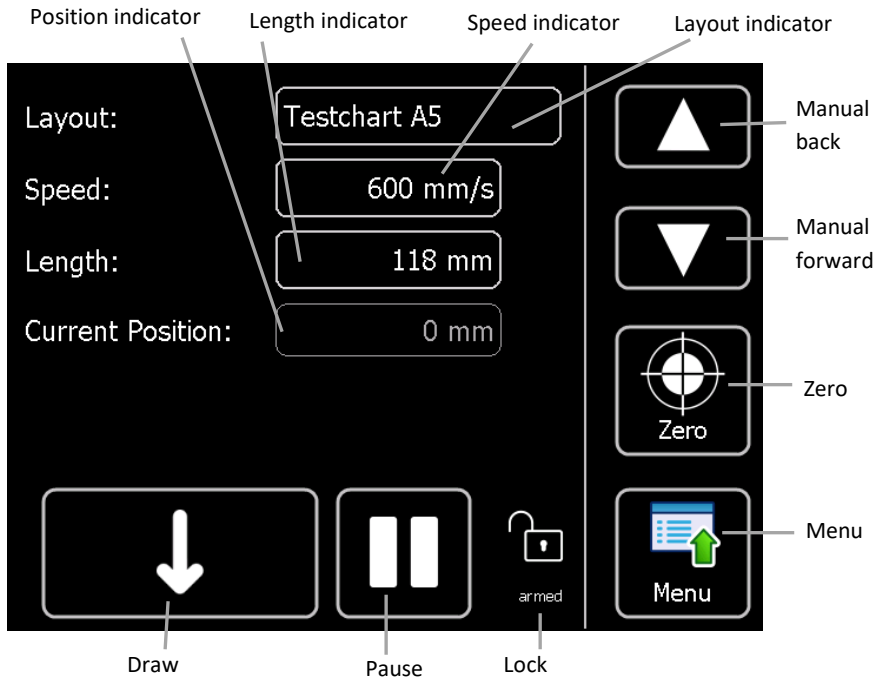


7 Operation and Menu



7.1 Main screen

The Proceq ZAA 2600 is equipped with a capacitive touch screen with a glass front. The touch screen is configured to allow operation with gloves up to 1 mm thickness.


The most important settings can be accessed directly from the main screen. The menu is used for any additional settings.





7.1.1 Manual moving

The drawing unit (23) can be moved using the „Manual forward“  and „Manual back“  buttons. If one of these buttons is pressed, the drawing unit (23) starts to move slowly. If the button is held for more than a second, the speed will increase. Alternatively the drawing unit (23) can also be moved by hand by applying forward or backward pressure at the middle of the weight (7).


7.1.2 Zero the drawing unit

The current position of the drawing unit (23) can be set to 0 by pressing the „Zero“  button.

7.1.3 Draw

The application process is started by pressing the „Draw“ button. Depending on the drawing mode selected, the draw button shows a straight arrow  for „Single“ mode or a curved arrow  for „Reverse“ mode.



7.1.4 Pause

The application process can be interrupted by pressing the „Pause“  button. The drawing process continues when the „Draw“ button is pressed again.

7.1.5 Select layout



The layout indicator shows the name of the currently selected layout. A layout is a renameable memory slot storing a drawing speed and a drawing length. This is especially useful for recurring tasks where the same speed and length are required. The current layout can be selected by tapping the layout field.

7.1.6 Setting the drawing speed

The drawing speed can be set by tapping the Speed field. A slider will appear on the right side of the screen to change the value. The value can also be changed by using the  and  buttons.

The adjusted value of the drawing speed will automatically be saved in the currently selected layout.

7.1.7 Setting the drawing length

The drawing length can be set by tapping the Length field. A slider will appear on the right side of the touch screen to change the value. The value can also be changed by using the  and  button.

The adjusted value of the drawing length will automatically be saved in the currently selected layout.




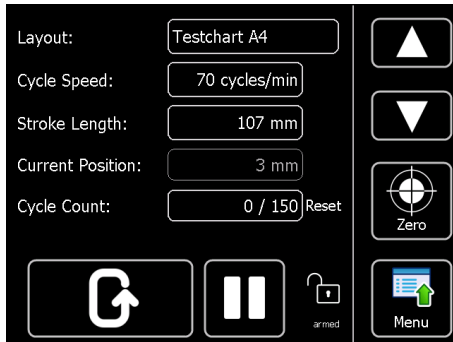
If the drawing area is defined through the manual stops (1 and 2), the drawing length should be set to a high value, e.g. 400 mm. The drawing process will no longer be defined by the set length and will automatically stop when it reaches one of the stops.

7.1.8 Position


The position field shows the current position of the drawing unit (23) relative to the previously defined zero position.

7.1.9 Menu

The menu can be opened using the „Menu“  button. Various settings can be changed from here.




Other tests can also be carried out with the Proceq ZAA 2600 universal unit if the device is equipped with the appropriate modification set. E.g. crocking, scrubbing or scratching tests can also be made with the device. These functions are always integrated in the menu, however they are not working without the modification sets. If you see this screen, the device is in crockmeter mode. Go back to the application mode as follows:

Open the menu , select „Setup“ and „Machine Mode“, then tap „Applicator“.

7.1.10 Movement lock

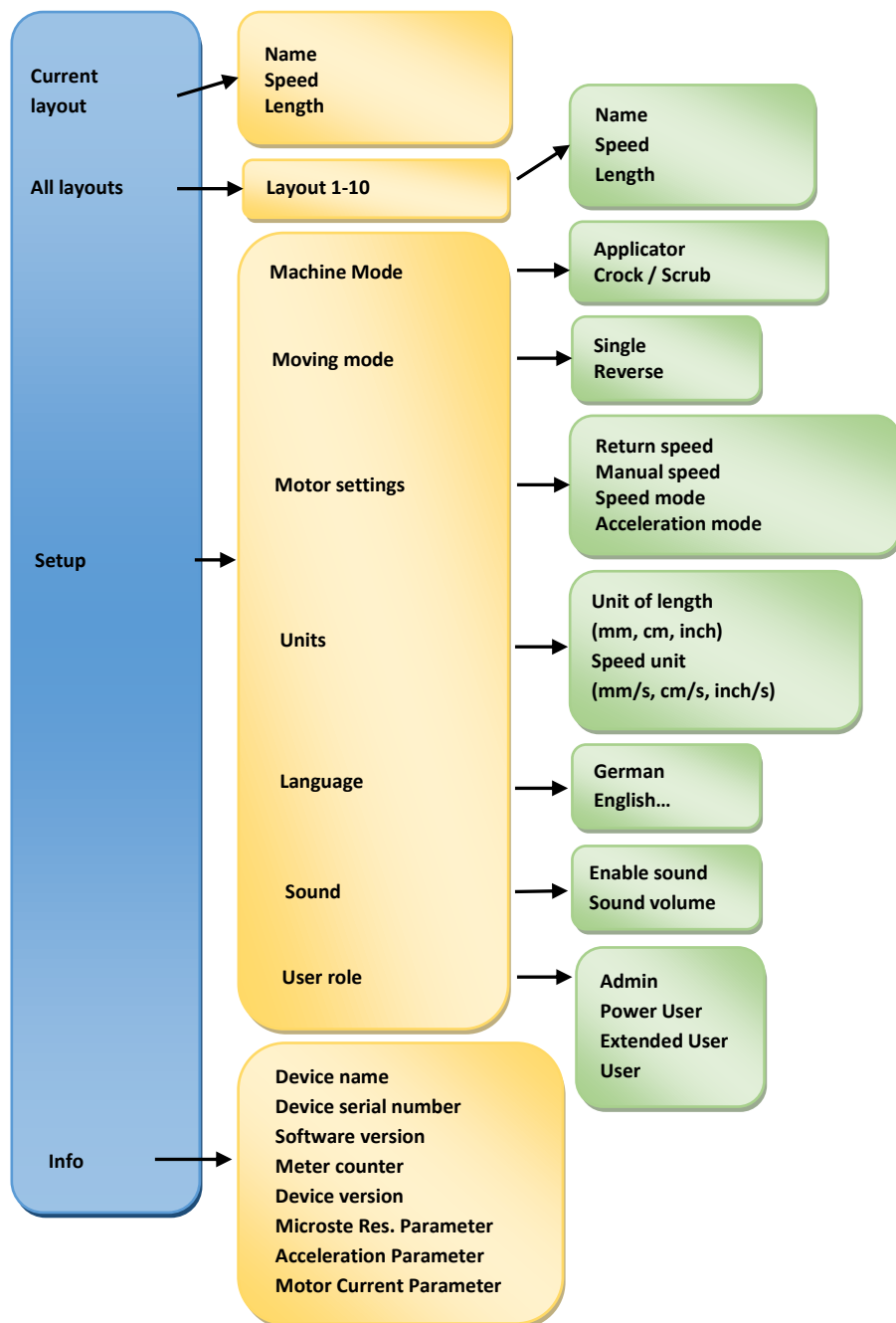
The movement lock blocks all movement commands of the drawing unit (23). It can be activated and deactivated by tapping the lock button.

If the button is in the „armed“  setting, all functions are active.


If the button is in the „locked“  setting, the functions „Draw“, „Manual forward“ and „Manual back“ are locked.


The „locked“ setting prevents the moving of the drawing unit (23) when touching the screen accidentally.

7.2 Menu structure in application mode



Open the menu by pressing the „Menu“  button.

Go back a level by pressing the „Back“  button.

Return to the main screen by pressing the „Home“  button.

7.3 Using layouts

Layouts are memory slots with a custom set name which hold a saved application profile (drawing speed and length). Using layouts for recurring tasks, these parameters can easily be saved and recalled at a later point.

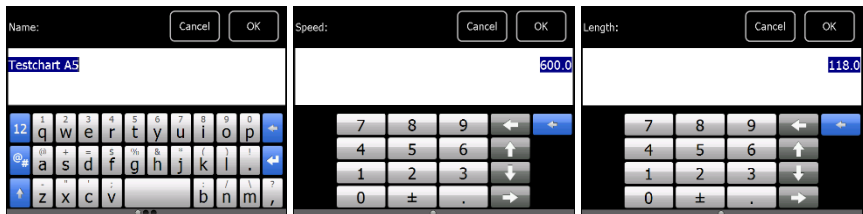
There are 10 layout slots available. Layout settings can be changed as follows:

7.3.1 Selecting a layout

The current layout can be selected by tapping the layout field on the main screen.

7.3.2 Editing the selected layout



To edit the currently selected layout, choose „Selected layout“ in the menu. The parameters „Name“, „Speed“ and „Length“ can be adjusted by tapping the values, entering the desired adjustment and confirming it with “OK”.



The image displays three sequential screenshots of the layout editing interface. Each screen has a 'Cancel' and 'OK' button at the top right. The first screen is for editing the 'Name' field, which currently contains 'Testchart A5'. Below the text field is a full QWERTY keyboard. The second screen is for editing the 'Speed' field, which shows the value '500.0'. Below the field is a numeric keypad with digits 0-9, a decimal point, and a sign button. The third screen is for editing the 'Length' field, which shows the value '118.0'. It also features a numeric keypad with digits 0-9, a decimal point, and a sign button.

Return to the main screen by tapping the „Home“  button.

The speed and length settings can also be changed directly from the home screen.

To adjust the values tap on the speed, respectively on the length field and either use the slider or the  and  buttons. These settings will be saved automatically in the selected layout.

7.3.3 View and edit all layouts


To show all existing layouts, select „All layouts“ in the menu. A list of all saved layouts will be displayed. The active layout will be shown as “selected”.

To change the name or settings of a layout, tap the relevant entry in the list. The values can then be changed in the same way as described in chapter 7.3.2 on page 31.



7.4 Motor settings

Various settings for the drive motor can be changed via „Settings“ -> „Motor settings“ in the menu.

7.4.1 Return speed

Return speed sets the speed at which the holding device (8) returns automatically to the zero position after application when in „Reverse“  mode.

7.4.2 Manual speed

Manual drive speed sets the speed at which the drawing unit (23) moves when using the „manual back“  or “manual forward”  buttons.

7.4.3 Speed mode

There are two speed modes:

- | | |
|-----------------------------|---|
| Normal 0 – 300 mm/s: | The normal speed mode is appropriate for most uses. |
| Fast 0 – 600 mm/s: | The fast mode is for applications requiring high drawing speed. |

If not specifically required otherwise, it is recommended to use the „Normal“ speed mode for most applications.

7.4.4 Acceleration mode

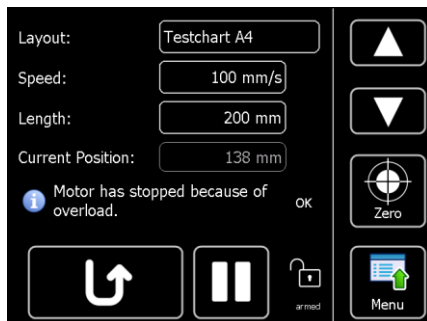
There are three different acceleration modes:


- Normal:** The normal mode is appropriate for most uses.
- Elevated:** The increased acceleration is for uses where the top drawing speed needs to be reached quickly.
- High:** The high acceleration mode is only appropriate for uses with very high speed, requiring the top drawing speed to be reached as fast as possible.
High acceleration mode can lead to a jerk at the start of the drawing process.

If not specifically required otherwise, it is recommended to use the „Normal“ acceleration mode for most applications.

7.5 Status messages

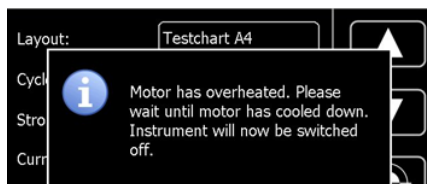
7.5.1 Overload



"Motor has stopped because of overload."
This message is only an information, you can tap either on "OK" or move forward with . Should this message be displayed repeatedly during application, the applicator resistance is probably too high. A possible solution could be to increase the acceleration mode. Select "Setup" and "Motor Settings", then "Acceleration mode" and tap „Elevated“ in

the menu.

7.5.2 The motor is overheated



If the motor of the unit is overheated, this message appears and the current action will be interrupted automatically until the motor has cooled down. Confirm the message with OK, the device switches off. Let the device cool down before switching it on again. Arrange for enough ventilation around the device.. The unit must not be operated outside of the allowed temperature range.

7.5.3 Lubrication of the guide rod

After a service performance of about 2'000 km appears a message after




startup reminding you to lubricate the guide rods. Carry out the lubrication as described in chapter 11.3 on page 37.
To switch off the reminder until the next interval, choose “Do not show this message again” and close with OK.

7.6 Emergency Stop function

Pressing the Emergency Stop button (11) immediately stops the motor. The power supply of the motor is interrupted so that the drawing unit (23) can be moved by hand.



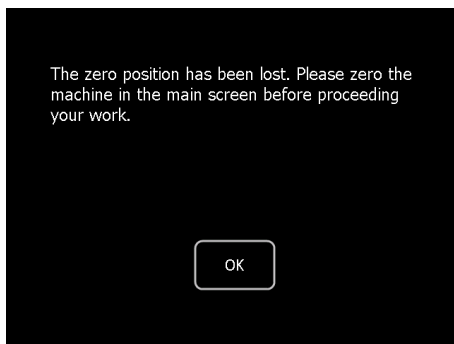
The Zero position must be reset. Move the drawing unit (23) to the desired

starting position and press the „Zero“  button.

The touchscreen and control unit of the Proceq ZAA 2600 remain active since only the power supply is interrupted.

To unlock the Emergency Stop button (11), turn it counterclockwise.

The following message will be displayed after unlocking the Emergency Stop:



8 Changing the heating plate

If the glass plate is needed for application, the heating plate has to be removed. Change the plate as follows:

- Make sure that the adjustable start stop (1) and the drawing unit (23) are positioned in the very back of the device and that the clamping device (5) is released.
- Lift the weight (7) and hinge it into the top position (6) of the holding device (8).
- Carefully lift the heating plate at the front edge and pull it out of the apparatus.



- Carefully place the glass plate into the holder with the required side facing up. Use the printing blanket when working with a wire-bar applicator or profile rod, the glass surface when working with a gap applicator.

9 Converting from applicator into basic unit

Thanks to its modular construction, the automatic universal unit can be equipped with different kits for carrying out also, scrub resistance, washability, crocking and scratch resistance tests as well as recording of the drying time.



Before mounting an optional modification set, the device has to be converted to basic unit.

To reach the basic unit condition follow the instructions of chapter 5.1 “Disassembly for transport” on page 19.

10 Converting from basic unit into applicator

In order to prepare the device for the application mode follow the instructions of chapter 5 “Assembly and starting up” as from page 14.




Always unplug the power cable before assembling and/or converting the unit.

11 Maintenance and cleaning

11.1 Maintenance and cleaning work that can be carried out by the user

Only the following maintenance and cleaning work shall be carried out by the user:

- Outer cleaning of the apparatus (see chapter 11.2 on page 37)
- Periodical lubrication of the guide shafts (see chapter 11.3 on page 37)
- Replacing of the fuse (see chapter 11.4 on page 39)
- Inspection (see chapter 11.5 on page 39)






 All other maintenance and repair work shall only be carried out by **Proceq SA** or your authorized Proceq agent otherwise all guarantee and liability claims are void.

11.2 Cleaning

In order to ensure a perfect function, the film applicator should be kept as clean as possible. Remove eventual stains of coating materials or adhesives immediately before they can dry. Later they can often only be removed with difficulty.

For cleaning of the **apparatus** use commercially available cleaning agents such as cleaning agent for glass, benzine, acetone. Do not use strong acids or alkaline liquids!

For cleaning of the **printing blanket** use only cleaning agents which do not affect the printing blanket. Unsuitable for this purpose are solvents containing ketone such as acetone, or nitro-cellulose diluents.

-  Before cleaning the Proceq ZAA 2600, always switch off the apparatus and unplug it. Never immerse the apparatus in water or other liquids: Danger of short circuit.
-  While cleaning, take care that no cleaning liquid penetrates the interior of the apparatus. The function of electrical or mechanical components could be impaired.
-  The edge of the printing blanket of the glass plate must not get wet.
-  If the device has to be disinfected, do not use disinfectants that contain sodium hydroxide.
-  Never touch the hot plate, always wait until the heating plate has cooled.

11.3 Lubrication of the guide rods

From time to time it can be necessary to lubricate the guide rods with some sewing machine oil or something similar.



Before lubricating the guide rods of the Proceq ZAA 2600, always switch off the apparatus and unplug it.



No oil shall be sprayed into the apparatus. The function of electrical or mechanical components could be impaired.

For lubrication proceed as follows:

- Remove the inserted plate (see also chapter 8 “Changing the heating plate” on page 35).
- Remove both side panels (17) with the Allen key.
- Turn the apparatus carefully on one side so that the side opening of the cover becomes accessible.
- Put some drops of sewing machine oil on your finger and spread it over the whole length of the guide rods.
- Repeat this for the other side of the apparatus.
- Adjust the start stop (1) at the very beginning and the end stop (2) at the very end and let the apparatus run back and forth several times, so that the oil gets evenly distributed over the whole length of the rods.
- Remount the side panels (17), the one with slit on the right side, the other one on the left side.
- Place the plate again.

11.4 Replacing the fuse

If the apparatus cannot be switched on), this could be due to a defect fuse. You can replace the fuse yourself by opening the fuse holder (14) on the back of the apparatus between the main switch (15) and the power supply socket (13) carefully using a screw driver or a similar tool.



Before replacing the fuse of the Proceq ZAA 2600, always switch off the apparatus and unplug it.



Replace the fine fuse (14) only by an equivalent fuse of the same type with the same specification. Observe that the inscription at the connection caps of the fuse corresponds to one of the following designations:

- T 0.8 A / 250 V
 - T 800 mA / 250 V
 - T 800 / 250 V.
-
- Clamp the new fuse into the fuse holder (14) and put it back in its place.

Should it still be impossible to switch on the apparatus, please contact **Proceq SA** or your authorized Proceq agent.

11.5 Inspection

The instrument should be checked for proper condition by a qualified electrician at an interval of 2 years. Alternatively, this test may also be performed by Proceq SA.

12 Technical specifications

Drawing speed:	1-500 mm/s (0.04" – 16.69"), stepless adjustable
Resolution:	1 mm/s (0.04"/s)
Tolerance of drawing speed:	±1 %,
Touchscreen display:	5.7", TFT (LCD) colour, VGA resolution, LED backlight
Material:	Housing: red anodized aluminium Glass plate: glass Printing blanket: rubber coated cotton Polyester mat: Polyester
Dimensions apparatus (LxWxH):	695 x 355 x 240 mm (27.36 x 13.98 x 8.27")
Dimensions glass plate (LxWxH):	553 x 300 x 15 mm (21.77 x 11.81 x 0.59")
Weight without glass plate:	17.6 kg (35.2 lbs)
Weight with glass plate:	24 kg (48 lbs)
Application length:	up to ≈393 mm (15.47")
Application width:	up to 300 mm (11.81")
Power supply:	115 VAC –230 VAC ± 10 %, 50 Hz / 60 Hz
Power consumption:	108 W
Fuse power supply:	0.8A / 250 VAC delay-action
Standards:	depending on used accessories: ASTM D823
Warranty:	2 years

Ambient conditions for the operation:

Temperature range:	5°C to +40°C (41 °F to 104 °F)
Relative humidity:	20% to 80%, no condensation
Sunlight:	Do not expose to strong sunlight for long period

Ambient conditions for transport and storage:

Temperature range:	-20°C to +85°C (-68 °F to 185 °F)
Relative humidity:	20% to 80%, no condensation
Sunlight:	Do not expose to strong sunlight for long period

General:

Excess voltage category:	II
Degree of soiling:	2
Protection class:	1
Altitude:	up to 2.000 m above sea level
For indoor use only.	

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