PROΞ 600 PROΞ 700
ESSILOR EDGERS

ESSILOR
INSTRUMENTS

PROΞ 600

ESSILOR
INSTRUMENTS

PROΞ 700

ESSILOR
INSTRUMENTS

User Manual

CONTENTS

INTRODUCTION

To take full advantage of the features on your Pro-E 600 edger, we encourage you to read through the entire manual.

You need to have at least memory version:

- V 3 for Pro-E 600,
- V 3 for Pro-E 700.

I. First steps with Pro-E
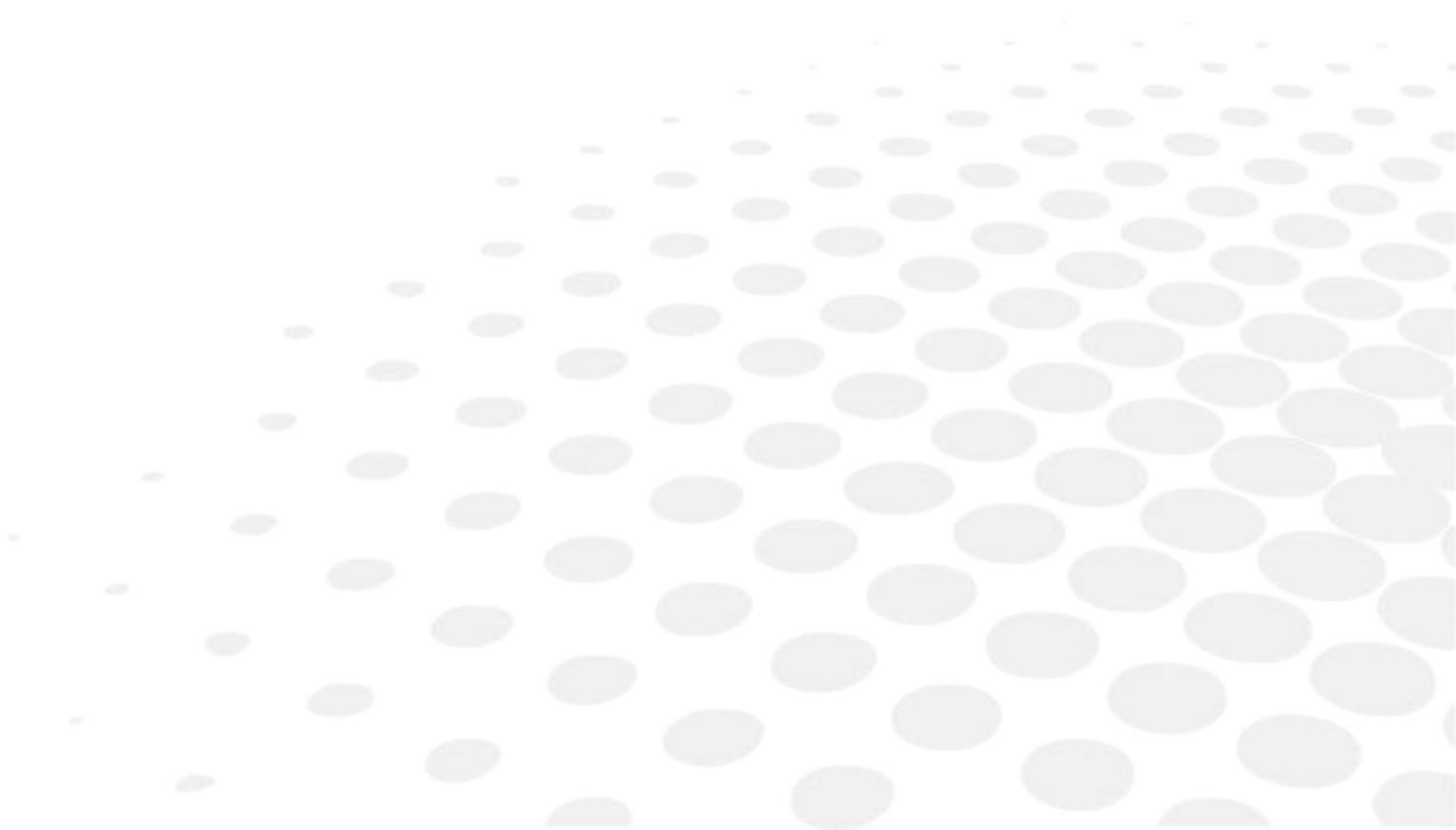
This chapter contains all the information relating to the first use of the edger:

- Description of the edger *(☞ p.11)*
- Using the device *(☞ p.13)*

1. Descriptive diagrams

This section consists of descriptions and lists of accessories.
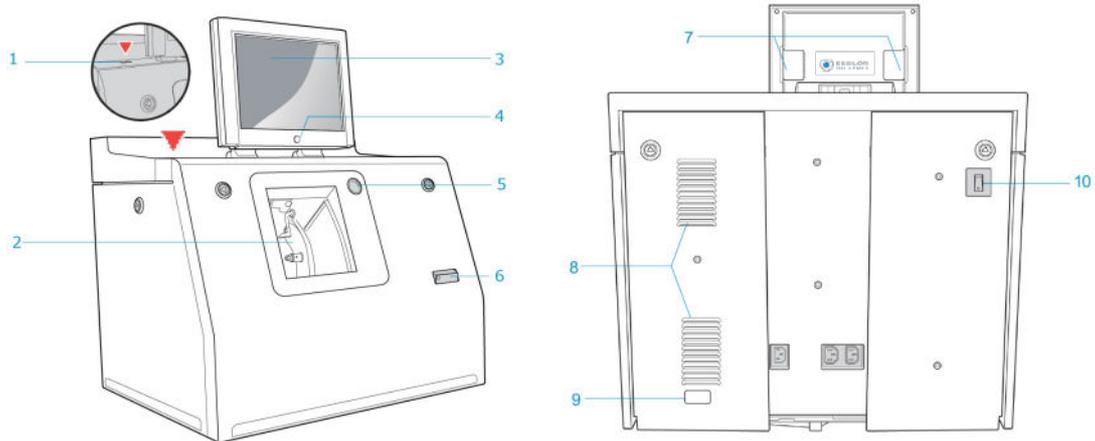
1. *USB plug*

2. *Trough*

3. *Screen*

4. *ON/OFF button*

5. *Cycle start/stop button*

6. *Barcode reader*

7. *Screen tilt buttons*

8. *Fans*

9. *Manufacturer plate*

10. *Main switch*

Connectors
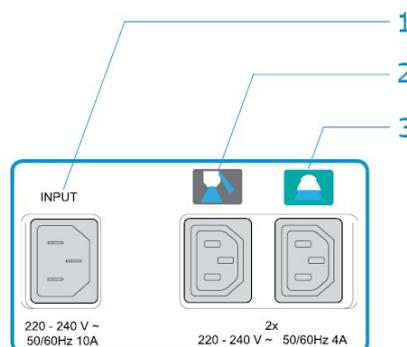
1. *Power socket*

2. *Solenoid valve socket*

3. *Pump socket (tank + pump) / Solenoid valve socket (town)*

Accessories

Stylus

Posiblock removal pliers

Triangular key

White dressing stone for finishing wheel

Square dressing stone for polishing wheel

Transport wedges to be kept

Accessory box

Use :

- 22 mm posiblock holder
- 18 x 14 mm posiblock holder
- 22 mm stop
- 18 x 14 mm stop
- Mill/drill bit replacement tool (blocking key)
- Ø 1.0 mm drill bit (quantity 2, including one mounted on the module)
- Ø 0.8 mm drill bit (quantity 2)
- Ø 1.5 mm edging mill bit (quantity 2, including one mounted on the module)
- Ø 20 mm grooving wheel
- Chamfering wheel
- Step bevel wheel
- Torque wrench
- High-base edging wheel
- Metal ruler
- Modeling clay
- Description pamphlet of the accessories box

Maintenance

- Blocking key for tool changes (drill bit/mill bit)
- Adjustable wrench for tool changes (drill bit/mill bit)
- Accessory for Step bevel wheel assembly/dismantling
- Adjustable wrench for tool changes (drill bit, mill bit, chamfering wheel)

Options

- Open or closed circuit spraying kit
- Milling chip recovery tray
- Posiblock holder and "Weco" posiblock stop accessory kit
- M'Eye Sign Box
- Essibox

Connection accessories

- 220 V power cable
- RJ45 cable for the tracer-edger connection
- Essibox connection cable

- Wastewater evacuation pipe with attachment ring
- 2 connectors to clip onto two internal water pipes and connect to the rinsing kit

2. USING THE EDGER

In this section, you will find all the information concerning the following:

- Turning on *(☞ p.13)* and off *(☞ p.13)* the edger,
- the use of the touch screen and the keyboards *(☞ p.14)*,
- the description of the work screens of the edger *(☞ p.15)*.

a. Turning on the edger

1 Press the main switch, located behind the edger on the left, to power it up.

2 Press the ON/OFF button located under the touch screen.

> The edger will initialise.

3 On the edger screen, press on the "cycle start" button on the front surface or on the icon to end the initialization phase.

> A beep indicates that initialization was successful.

The edger is ready for use when the initial screen is displayed.

b. Switching off the edger

1 Before switching off the edger:

- Check that there is no glass in the trough
- Check that the lens clamp shafts are loosened and that the trough door is open
- Go to the edging screen.

2 Press the ON/OFF button for a short time located under the touch screen or press / ,

then .

⚠ Do not press the ON/OFF button for several seconds. This would result in shut-down of the machine and an error message would be displayed at the next switch-on.

> A confirmation message is displayed on the screen.

3 Press to confirm.

> The edger will switch off.

Extended period of non-use

For a prolonged period of non-use (a few days), it is preferable to turn off the edger using the main switch.

It must be turned off at least once a week.

c. Using the touch screen and keypads

Using the touch screen

Use the stylus supplied with the machine to use with the touch screen.

You can also touch the screen with your finger.

- If the screen is not sensitive enough to finger pressure, press lightly with a fingernail.
- If the response area does not correspond to the position of the key, you need to calibrate the touch screen. For further information, refer to the section Maintenance and servicing > Check and calibrate > Calibrate the touch screen *(☞ p.154)*.

- Never press hard on the screen as this could break it.
- Never press on the screen with sharp objects such as pens, scissors, clamps, etc.
- Screen breakage is not covered by the guarantee.

On the screen, press the icon buttons to access the desired menus and job functions .

Using the keypads

When you need to enter or modify data, two types of keypads are automatically displayed, according to the information to be entered.

- The numeric keypad is displayed for entering values.

- ![C icon] Reset the fields

- ![Go back arrow icon] Go back

- ![Red X icon] Cancel and go back to the work screen

- ![Green check icon] Confirm

- The alphanumeric keypad is displayed to save or search for jobs.

- Job ID

- Job reference (alphanumeric characters)

- Collection list (when the edger is connected to a Essilor range tracer)

- Job list

d. Edging screen
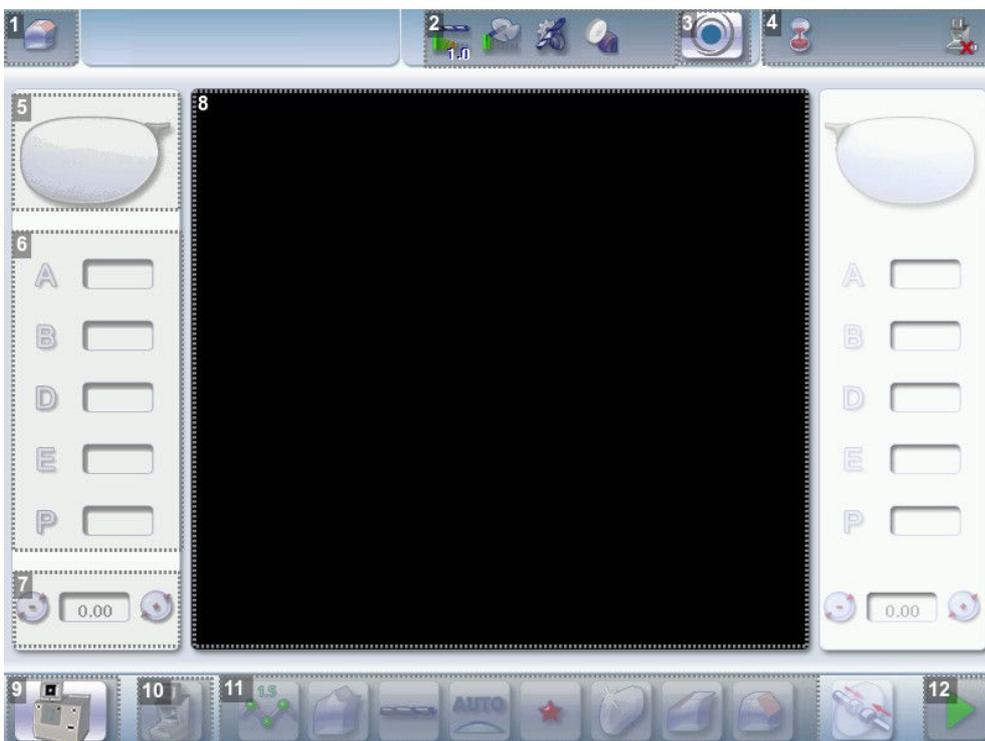
1. *Work screen indicator*

2. *Tool wear indicator*

3. *Settings*

4. *Devices connected*

5. *Active eye*

6. *Information on the shape*

7. *Size increase/reduction*

8. *Work area*

9. *Turning off the product/edging screen*

 or
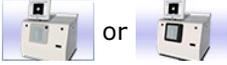
10. *Job call: Tracer menu*

11. *Actions available for the current screen*

12. *Start the edging cycle*

Detailed functions

For more information, consult the section Edging a lens > Work environment of the edger > Captioned screen. *(☞ p.20)*

II. Edging a lens
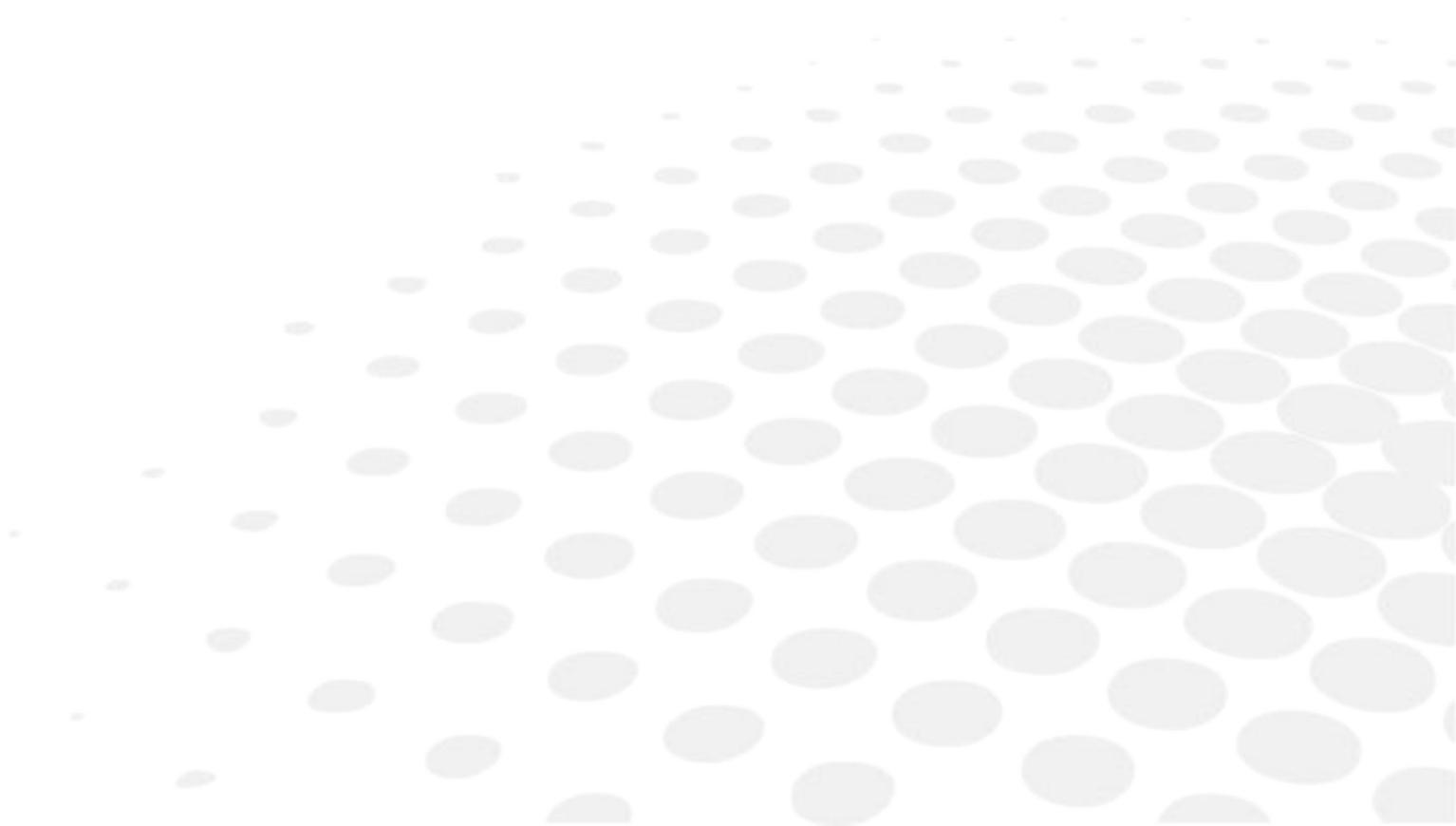
This chapter describes the work environment of the edger and the procedures for edging any type of lens:

- Edger working environment *(☞ p.19)*
- Perform a Beveling *(☞ p.24)*
- Beveling for a high-base frame *(☞ p.32)*
- Perform a Step bevel, *(☞ p.40)*
- Grooving *(☞ p.49)*
- Produce a Flat-edge finish *(☞ p.57)*
- Do a mixed job *(☞ p.57)*
- Perform a Drilled job *(☞ p.62)*
- Perform a Polishing *(☞ p.67)*
- Perform a Chamfering *(☞ p.67)*
- Perform a Retouching *(☞ p.68)*
- Perform a "Super Chamfer" *(☞ p.70)* (Pro-E 700)
- Perform a Chemistrie job *(☞ p.72)* ™ (Pro-E 700)
- Perform a Half-Jacket job *(☞ p.81)* (Pro-E 700)
- Create an engraving or a creative shape *(☞ p.100)* (Pro-E 700)

1. Edger working environment

This section describes the edger working environment and the initial stages of the edging of a lens.

- Description of the edging screen *(☞ p.20)*
- Shape call-up procedure *(☞ p.22)*
- Putting the lens in place *(☞ p.22)*

-

a. Menu screen
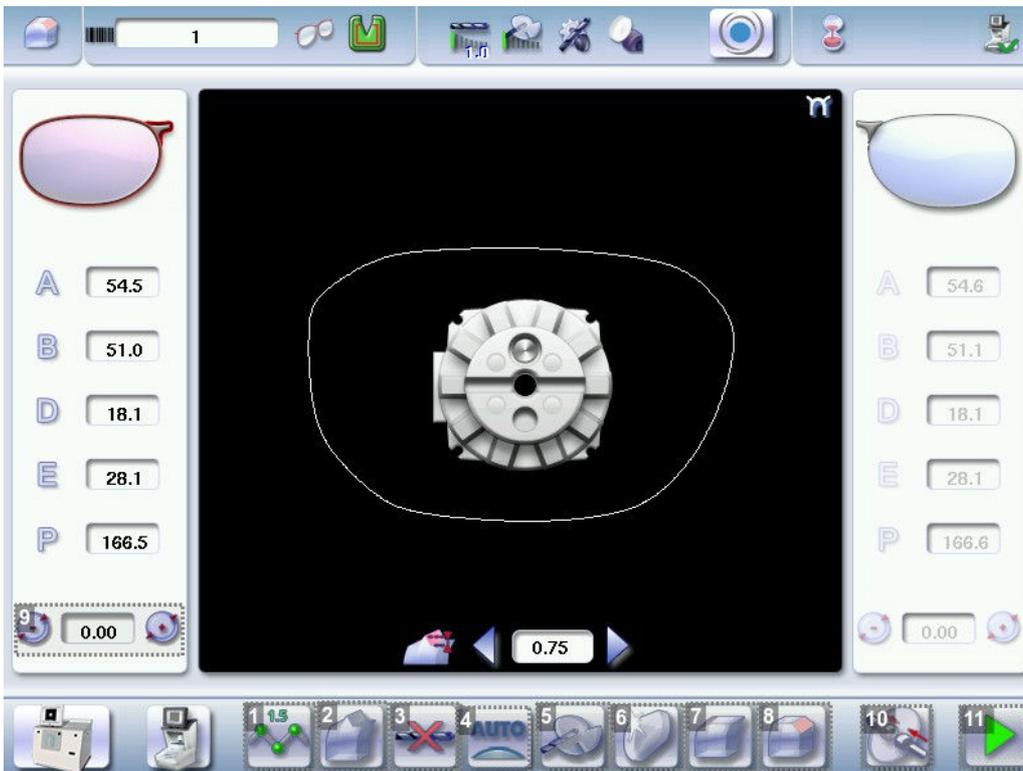
1. *Lens material*

- ◦ Plastic lens -index 1.5📖

- ◦ Polycarbonate lens

- ◦ Medium or high index plastic lens - index > 1.5

- ◦ Trivex lens™

- ◦ Tribrid lens™

The configuration of the edging cycles depends on the type of material. An incorrect choice may result in material damage.

 The Pro-E 600 edger does not edge glass lenses.

2. *Type of finish*

- ◦ Bevel

- ◦ High-base bevel

- ◦ "Step"/"Half-Jacket" bevel

- ◦ Groove

○ Flat-edge finish

○ Mixed job

3. Drilling

○ Drilling enabled

○ Drilling disabled

4. Edging mode

○ **AUTO** Automatic mode

The finish parameters are automatically calculated according to the information acquired when tracing the frame and feeling the lens.

○ Customized mode

The finish parameters can be fully customized.

5. Type of cycle

○ Milling cycle

This cycle is recommended for lenses with a hydrophobic coating. It works with all types of materials. Milling involves a specific feeling cycle: the edger will feel the contour of the shape to be edged twice, then four feeling operations will be required every 90° to define the segments to be cut.

○ 2 stars Cycle

For all types of material. This cycle offers a more sophisticated edging mode than the standard cycle, dedicated to thin lenses or to hydrophobic lenses when milling is not possible (lens too quick for example).

○ Standard cycle

For all types of material.

6. Polishing

○ Polished lens

○ Non-polished lens

7. Front surface chamfering

○ Small chamfer

○ Large chamfer

○ No chamfering

8. Rear surface chamfering

○ Small chamfer

○ Large chamfer

- ◦ No chamfering

9. *Size reduction/increase (mm)*

10. *Manual lens clamping*

Press and hold to close the lens clamp shafts manually.

11. *Start the edging cycle*

The door closing and lens clamping are automatic.

Function also available via the "cycle start" button on the front surface.

> Always browse from left to right: depending on your selection, certain menus will be available while others will not.

> **Your habits taken into account**
>
> The edger memorizes your working habits: as time goes by, the buttons of the functions you use most often will be displayed by default.

b. Calling up a shape

There are 3 ways of calling up the shape you want to edge:

- Calling up the current job:

    > Press to display the shape being processed on the tracer.

- Calling up the number of a shape saved on the tracer:

    > Press for a few seconds to open the numeric keypad.

    > You can then call up a shape via the ID allocated to it.

- Job call via a barcode:
    > Scan the barcode using the barcode reader (optional).

Always lock down your 2 lenses before proceeding with the edging. If a job in the course of modification on the tracer (display of the symbol beside the reference) is called up on the edger, a warning message is displayed.

> Press to continue and display the job on the edger. The modifications underway are then ignored.

> Press to prevent the display of the job and finish the modifications underway on the tracer.

> A reminder of the type of posiblock required is displayed on the shape. It is crucial to use the proper accessory to edge the lens. Otherwise, an error message is displayed at the start of the cycle.

c. Lens set-up and feeling

> Prerequisite: the lens must be centered and blocked before placing it in the edger.

1 Check that the posiblock holder and the stop correspond to the posiblock used. Otherwise, you will need to remove them from the lens clamp shafts and replace them with the tools matching the diameter of the posiblock.

- For a 22 mm posiblock
- For an 18 × 14 mm posiblock
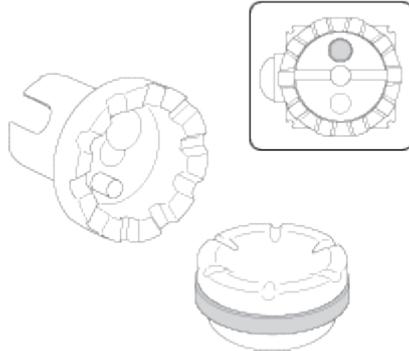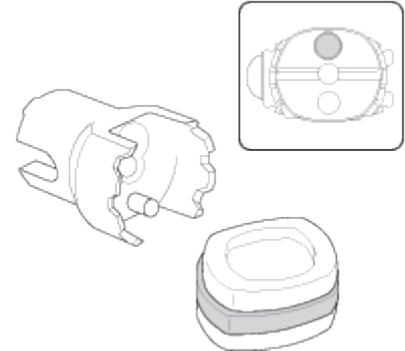
2 Place the lens in the posiblock holder.

Place the metal peg of the posiblock upwards and the positioner downwards: a magnet is used to hold the lens in position on the axis.

You can clamp the lens manually by pressing . Manual lens clamping is particularly suited to hydrophobic lenses, thick lenses and high-camber lenses, as it ensures that the lens won't come off the pad before clamping.

Make sure you move your hand well away before you start the edging cycle.

3 Press the "cycle start" button (front face) or

> The door closes then the lens clamping operation starts.

> The size of the posiblock holder is checked then the feeling cycle starts.

To interrupt the feeling cycle at any time, press .

> As the lens is felt, its shape appears on screen. The double tracing represents the profile of the front surface of the shape (inner shape) and its rear surface (outer shape).
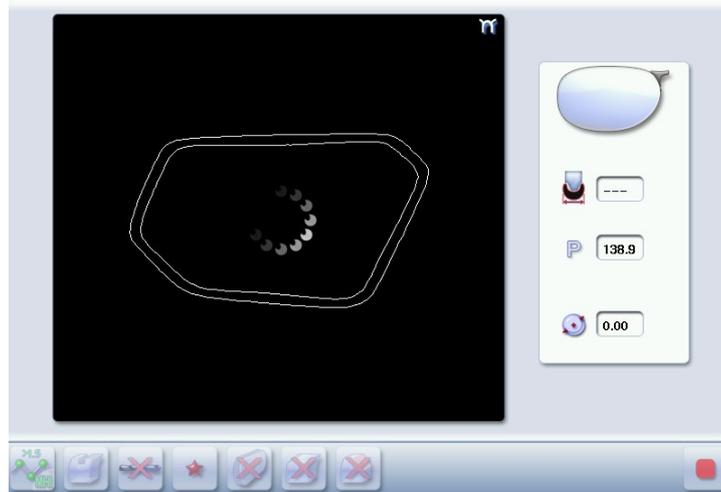
> In the case of edging mode selection:

- automatic, you do not have to configure anything, all the data is automatically recovered from the tracer. The lens edging starts automatically after the feeling cycle.
- customized, the finish parameters can be fully customized.

> For further information, refer to the section concerning your type of finish.

> The different lens edging stages appear on the screen.
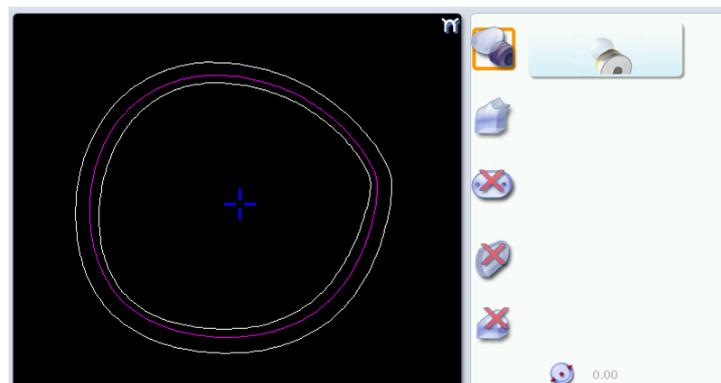
2. PERFORM A BEVELING

This section describes the procedures for the creation of a bevel:

- **AUTO** In automatic mode *(☞ p.25)*, you do not have to configure anything. All the data is automatically retrieved from the tracer. The lens edging starts automatically after the feeling cycle.

- In customized mode *(☞ p.27)*, you can opt for front/rear surface tracking, a distributed bevel, lens curve tracking or frame rim tracking. You can also do the following:

- ◦ a general modification of the bevel curve *(☞ p.29)*
    - ◦ a modification at a point of the bevel curve *(☞ p.30)*
    - ◦ a displacement of the bevel curve *(☞ p.31)*
- You can consult the description of the customized bevel screen *(☞ p.26)*.

a. Automatic beveling

1 Call up the desired shape located on the tracer or on the job management program.

> The shape is displayed on the edger work screen.

> After the tracing of a rimmed frame:

- The bevel finish is selected by default.
- The automatic mode is selected by default.

If you want to produce a bevel less than 0.75mm high, configure the bevel directly on the screen.

2 Press ◀ and ▶ to adjust the height of the bevel.

	Height (mm)
By default	0.75
Minimum	0.30
Maximum	0.75

3 Select lens material.

4 Select the type of cycle.

5 Choose whether or not to polish and/or chamfer your lens.

For more information, consult the section Edging a lens > Perform a polishing *(☞ p.67)* and Edging a lens > Perform a chamfering *(☞ p.67)*.

6 Press the "cycle start" button (front face) or ▶.

> The door closes, the lens is clamped, then the feeling operation starts.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

7 Press to release the lens.

8 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

b. Legend screen for customized bevels
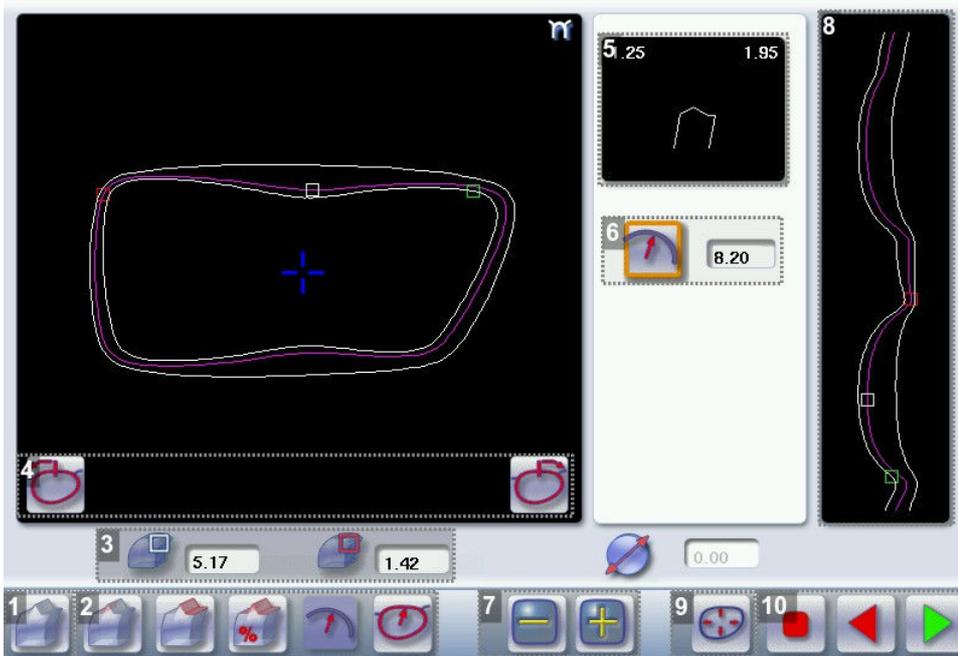
1. *Automatic bevel*

2. *Customized bevel*

- Front surface tracking: the crest of the bevel is positioned at a constant distance from the front surface.
- Rear surface tracking: the crest of the bevel is positioned at a constant distance from the rear surface.
- Distributed bevel: the position of the crest of the bevel is proportional to the thickness of the lens, with respect to the front surface.
- Lens curve tracking: the camber of the bevel is adjustable.

- ◦ Frame rim tracking: the bevel tracks the groove precisely, according to the data obtained on frame tracing.

3. *Lens thickness*

- ◦ Maximum lens thickness - represented by the white square along the shape.

- ◦ Minimum lens thickness - represented by the red square along the shape.

4. *Cursor movement*

The cursor is represented by the green square along the shape. To move it, select it directly or use the and buttons.

5. *Zoom window*

Represents the bevel profile and indicates the distance between the bevel crest and the front and rear surfaces of the lens at the cursor position.

6. *Bevel distribution value*

Distribution value modifiable for:

- ◦ front/rear surface tracking
- ◦ a distributed bevel
- ◦ lens curve tracking

7. *Modify the selected value*

Reduce or increase the distribution value.

8. *Bevel trajectory*

Flat representation of the lens making it possible to assess the distances between the bevel crest and the front & rear surfaces of the lens.

9. *Trajectory modification*

- ◦ General modification of the bevel curve

- ◦ Modification of the bevel curve at a particular point

- ◦ Displacement of the bevel curve

10. *Navigation*

- ◦ Stop the cycle

- ◦ Return to the main edging screen without saving your changes.

- ◦ Start the edging cycle

c. Customized beveling

The use of the customized bevel depends on 2 parameters: the frame and the lens. Before starting your job, identify the major constraint.

BEVEL	FRAME	LENS	ADVANTAGES
	Classic	Lens for which the front surface base is approximately equal to the frame base.	Makes it possible to do an aesthetically pleasing job. The lens material does not protrude beyond the front of the frame.
	Classic	Lenticular lens📖, Executive lens📖	Makes it possible to do a job with specific lenses.
	Classic	Thin lens	Makes it possible to balance out the bevel when thin lenses are used.
	Flat base High base	Thin lens for which the front surface base is approximately equal to the frame base.	Makes it possible to retrieve the frame base in a pattern tracing (base = 0).
	Particular groove (groove with meniscus📖)	Thin lens for which the base is approximately equal to the meniscus of the groove.	Compliance with original shape. Job using a specific frame.

1 Call up the desired shape located on the tracer or on the job management program.

> The shape is displayed on the edger work screen.

> After the tracing of a rimmed frame:

• The bevel finish is selected by default.
• The automatic mode is selected by default.

2 Select lens material.

3 Change the edging mode. Press **AUTO** to select customized mode ✋.

4 Select the type of cycle.

5 Choose whether or not to polish and/or chamfer your lens.

For more information, consult the section Edging a lens > Perform a polishing *(☞ p.67)* and Edging a lens > Perform a chamfering *(☞ p.67)*.

6 Press the "cycle start" button (front face) or ▶.

> The door closes, the lens is clamped and then felt.

> The customized bevel finish screen is displayed.

7 Select the type of customized bevel you want to do.

⚠ To avoid reproducing defects when tracking a frame rim, check that the frame groove is in perfect condition and that the hinges are properly closed. All groove imperfections will be reproduced.

8 Press ▭ and ⊞ to adjust the distribution value if required.

9 Press ▶.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

10 Press 🔧 to release the lens.

11 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

d. Modifying the bevel curve

Once you have configured the desired type of customized bevel, you can complete your customization by moving the bevel curve towards the front or rear surface of the lens so it takes on its shape.

1 Press ⊕ from the customized bevel finish screen.

> You will access the trajectory modification screen.

2 Press ⬭ to select the general modification of the bevel curve.

3 Use the buttons ▭ and ⊞ to move the bevel curve:

- Press ▭ to move the curve towards the front surface of the lens.
- Press ⊞ to move the curve towards the rear surface of the lens.

> The curve cannot be moved more than the minimum distance between the front and rear surfaces observed on the bevel before the modification.

> The position of the bevel as well as the distances between the crest of the bevel and the front and rear surfaces of the lens are displayed in the zoom window at the position of the cursor.

4 Press the "cycle start" button (front face) or ▶.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

5 Press 🔧 to release the lens.

6 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

e. Modifying the bevel curve at a particular point

Once you have configured the desired type of customized bevel, you can complete your customization by partially moving the bevel curve towards the front or rear surface of the lens so it takes on its shape.

1 Press ⊕ from the customized bevel finish screen.

> You will access the trajectory modification screen.

2 Press ⭕ to select modification of the bevel curve at a particular point.

3 Using the cursor, select the point on the curve that you want to move or click directly on the position of the shape you want to modify.

4 Use the buttons ➖ and ➕ to move the point on the selected curve.

- Press ➖ to move it towards the front surface of the lens.

- Press ✛ to move it towards the rear surface of the lens.

> The curve cannot be moved more than the minimum distance between the front and rear surfaces observed on the bevel before the modification.

> The position of the bevel as well as the distances between the crest of the bevel and the front and rear surfaces of the lens are displayed in the zoom window at the position of the cursor.

5 Press the "cycle start" button (front face) or ▶.

> Press ◀ to go back to the customized bevel finish screen.

> For the second lens, the customized bevel icon is pre-selected and the trajectory modification icon is displayed.

f. Displacing the bevel curve

The displacement of the bevel curve makes it possible to move the bevel without modifying its curve.

1 Press ⊕ from the customized bevel finish screen.

> You will access the trajectory modification screen.

2 Press ⊕ to select the displacement of the bevel curve.

3 Use the ⚊ and ✛ buttons to displace the bevel curve:

- Press ⚊ to displace it towards the front surface of the lens.
- Press ✛ to displace it towards the rear surface of the lens.

> The position of the bevel as well as the distances between the crest of the bevel and the front and rear surfaces of the lens are displayed in the zoom window at the position of the cursor.

4 Press the "cycle start" button (front face) or ▶.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

5 Press to release the lens.

6 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

3. PERFORM A HIGH-BASE BEVEL

This section describes the procedures for the creation of a high-base bevel:

- Description of the high-base bevel screens, *(☞ p.33)*
- Perform a high-base bevel in "automatic trajectory" mode or "front surface tracking" mode. *(☞ p.34)*

The use of the high-base bevel is determined by two parameters: frame and lens.

- Concerning the lens, the main constraint is the thickness of the nasal and temporal edges.
- Concerning the frame, the crucial elements are the bridge and shape of the groove. The hinge is an additional factor in the case of a metal frame, the arms for a plastic frame.

⚠ For this job, the lens base must always match the frame base perfectly. Too great a difference between the two could be detrimental to the quality of your job.

Cross-section of a high-base bevel
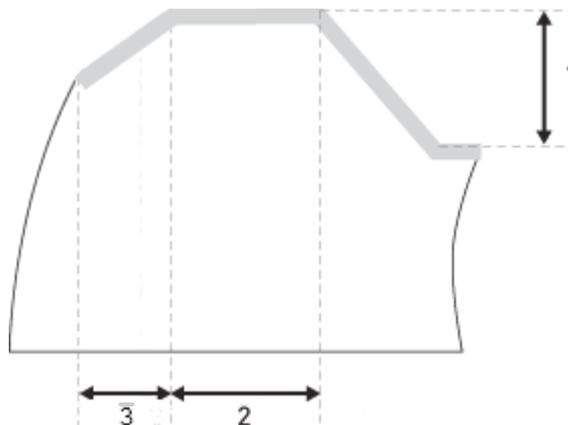
1: Shelf bevel value

2: Width of the flat side of the bevel

3. Front surface tracking value

a. Captioned screens

1. *High-base bevel screen "front surface monitoring"*

2. *Work area*

Image of the shape to be edged:

☐ Frame shape at bottom of groove

🟦 Bevel trajectory on rear surface

🟧 Bevel trajectory on rear surface if the lens used is too thin to achieve the desired finish.

3. *Cursor movement*

The cursor is represented by the square located along the shape. To move it, select it directly or use the

and buttons.

4. *Zoom window*

Represents the bevel profile at the position of the cursor.

5. *Shelf bevel value (8 or 4 values)*
- ◦ Nasal (the value must be between 0.25 and 3 mm)
- ◦ *Mid-nasal (the value must be between 0.25 and 3 mm)*
- ◦ Upper (the value must be between 0.25 and 3 mm)
- ◦ *Mid-upper (the value must be between 0.25 with 3 mm)*
- ◦ Temporal (the value must be between 0.25 and 3 mm)
- ◦ *Mid-temporal (the value must be between 0.25 and 3 mm)*
- ◦ Lower (the value must be between 0.25 and 3 mm)
- ◦ *Mid-lower (the value must be between 0.25 and 3 mm)*

6. *Width of the flat side of the bevel*

The value of the flat side of the bevel must be between 0.1 mm and 1 mm.

7. *Front surface tracking value*

The value of front surface tracking must be between 0 mm and 1.3 mm. This value is definable only in the "front surface tracking" screen.

8. *Frame base*

9. *Lens base*

10. *Bevel Base_Range of values of the lens base necessary for the frame*

If the lens base used is out of range: the range values are shown in red.

11. *Reminder of size reduction/increase applied to lens diameter*

12. *Window showing the bevel trajectory on the lens section*

■ Centre of the flat side of the bevel

☐ Front surface/rear surface of lens

13. *Number of shelf bevel values*

Transition from 4 to 8 shelf bevel values.

Transition from 8 to 4 shelf bevel values.

14. *Navigation*

○ ■ Stop the cycle

○ ◀ Return to the main edging screen without saving your changes

○ ▶ Start the edging cycle

15. *High base bevel screen "automatic trajectory"*

In this screen, the trajectory on the lens section cannot be configured: it is calculated automatically. This calculation harmonises as best as possible, the lens base, the base of the frame and the shape.

b. High-base beveling

1 Call up the desired shape located on the tracer or on the job management program.

> The shape is displayed on the edger work screen.

> After the tracing of a high-base frame:

- The high-base finish is selected by default.
- The customized mode is selected by default.

⚠ In the high-base finish, you cannot polish your bevel. Nevertheless, the high-base wheel was designed to create an equivalent finish for polycarbonate lenses.

It is possible to perform the polishing of the flat side of the bevel.

2 Select lens material.

3 Select the type of cycle.

4 Choose to create or not create a small or large chamfer on the rear surface of the lens.

"Super Chamfer" is not available for the high-base bevel finish.

For more information, consult the section Edging a lens > Perform a polishing *(☞ p.67)* and Edging a lens > Perform a chamfering *(☞ p.67)*.

5 Press the "cycle start" button (front face) or ▶.

> The door closes, the lens is clamped and then felt.

> The high-base bevel finish "automatic trajectory" screen is displayed by default.
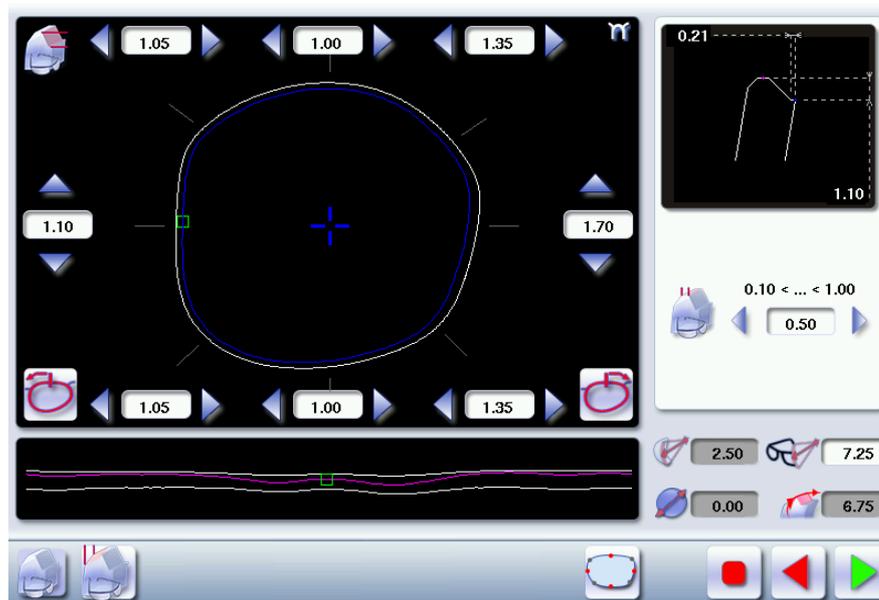
By default, the edger shows the values corresponding to the frame material (metal or plastic). Check and modify these values according to the thickness of your lens and your frame.

You can:

- produce a high-base bevel in mode "automatic trajectory", *(☞ p.36)*
- high-base bevel in "front surface tracking" mode. *(☞ p.37)*

High-base bevel in "automatic trajectory" mode

1 Press ![icon] to select the bevel in "automatic trajectory " mode.

> The following screen will appear:
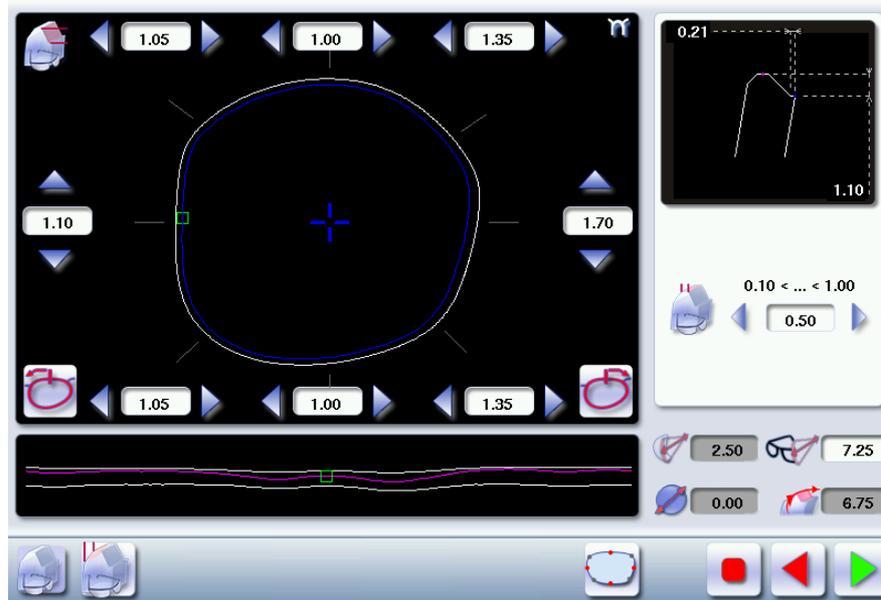
2 Press the buttons ◀ and ▶ on the right of your screen to modify the width of the flat side of the bevel.
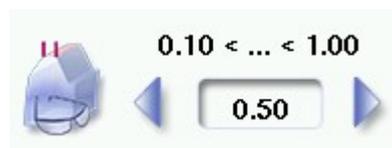
> The result can be viewed in the zoom window.

3 Press the ▲ ▼ and ◀ ▶ buttons to modify the shelf bevel value at each point of the shape in each area:

- Temporal
- Mid-temporal
- Nasal
- Mid-nasal
- Upper
- Mid-upper
- Lower
- Mid-lower

Move the cursor along the shape to see the bevel profile in the zoom window.

> The edger calculates the shelf bevel value to be applied between each of the four points in each area.

> The bevel trajectory on the rear surface is modified in the work screen. The result can be viewed in the zoom window.

4 Press the "cycle start" button (front face) or .

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

5 Press to release the lens.

6 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

High-base bevel in "front surface tracking" mode

1 Press to select the bevel in "front surface tracking" mode.

> The following screen will appear:

2 Press the buttons ◀ and ▶ on the right of your screen to modify the width of the flat side of the bevel.

> The result can be viewed in the zoom window.

3 Press the ▲ ▼ and ◀ ▶ buttons to modify the shelf bevel value at each point of the shape in

each area:

- Temporal
- Mid-temporal
- Upper
- Mid-upper
- Nasal
- Mid-nasal
- Lower
- Mid-lower

💡 Move the cursor along the shape to see the bevel profile in the zoom window.

> The edger calculates the shelf bevel value to be applied between each of the four points in each area.

> The bevel trajectory on the rear surface is modified in the work screen. The result can be viewed in the zoom window.

4 Press the buttons ◀ and ▶ on the right of your screen to modify the value of front surface tracking.

> The result can be viewed in the zoom window and the display window of the bevel trajectory on the lens section.

5 Press the "cycle start" button (front face) or ▶.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

6 Press 🔧 to release the lens.

7 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

4. PERFORM A STEP BEVEL

A step bevel is strongly recommended for a high-base sports frame or a safety frame.

⚠️ The step bevel finishing is active and available only if the tool is installed on the "small tools" module *(☞ p.168)*.

For more information, refer to the section Maintenance servicing> Changing edger tools > Installing the Step ++ wheel *(☞ p.168)*.

This section describes the procedures for the creation of a step bevel:

- ○ description of the Step bevel screens *(☞ p.41)*
- ○ perform a Step bevel in "automatic trajectory" mode *(☞ p.44)* or "front surface tracking" mode. *(☞ p.46)*

The use of the step bevel is determined by two parameters: frame and lens.

- Concerning the lens, the main constraint is the thickness of the nasal and temporal edges.
- Concerning the frame, the crucial elements are the bridge and shape of the groove. The hinge is an additional factor in the case of a metal frame, the arms for a plastic frame.

⚠️ For this job, the lens base must always match the frame base perfectly. Too great a difference between the two could be detrimental to the quality of your job.

Cross-section of a step bevel
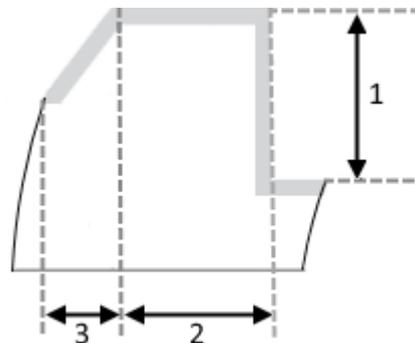
1: Value of shelf bevel of rear surface

2: Width of the flat side of the bevel

3. Front surface tracking value

a. Captioned screens
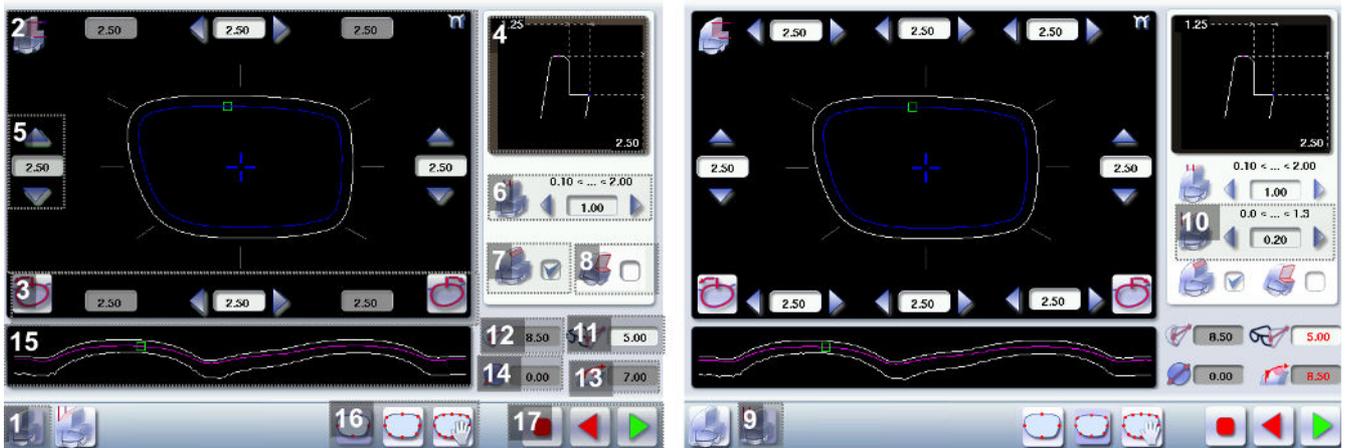
1. *Automatic trajectory step bevel screen.*

In this screen, the trajectory on the lens section cannot be configured: it is calculated automatically. This calculation harmonises as best as possible, the lens base, the base of the frame and the shape.

2. *Work area*

Image of the shape to be edged:

☐ Frame shape at bottom of groove

🟦 Bevel trajectory on rear surface

🟧 Bevel trajectory on rear surface if the lens used is too thin to achieve the desired finish.

3. *Cursor movement*

The cursor is represented by the square located along the shape. To move it, select it directly or use the

[icon] and [icon] buttons.

4. *Zoom window*

Represents the bevel profile at the position of the cursor.

5. *Shelf bevel value (8 or 4 values)*
- ◦ Nasal (the value must be between 0.40 and 5.3 5mm)
- ◦ *Nasal (the value must be between 0.40 and 5.35 mm)*
- ◦ Upper (the value must be between 0.40 and 5.35 mm)
- ◦ *Intermediary upper (the value must be between 0.40 and 5.35 mm)*
- ◦ Temporal (the value must be between 0.40 and 5.35 mm)
- ◦ *Intermediary temporal (the value must be between 0.40 and 5.35 mm)*
- ◦ Lower (the value must be between 0.40 and 5.30 mm)
- ◦ *Intermediary lower (the value must be between 0.40 and 5.35 mm)*

6. *Width of the flat side of the bevel*

The value of the flat side of the bevel must be between 0.1 mm and 2 mm.

7. *Back chamfer of assembly aid*

8. *Bevel tilt*

9. *Front surface tracking step bevel screen*

10. *Front surface tracking value*

The value of front surface tracking must be between 0 mm and 1.3 mm. This value is definable only in the "front surface tracking" screen.

11. *Frame base*

12. *Lens base*

13. *Bevel Base_Range of values of the lens base necessary for the frame*

If the lens base used is out of range: the range values are shown in red.

14. *Reminder of size reduction/increase applied to lens diameter*

15. *Window showing the bevel trajectory on the lens section*

▮ Centre of the flat side of the bevel

▢ Front surface/rear surface of lens

16. *Number of shelf bevel values*

Transition from 4 to 8 shelf bevel values.

Transition from 8 to 4 shelf bevel values.

Transition into free shelf-bevel creation mode (Half Jacket specific_option)

17. *Navigation*

- 🟥 Stop the cycle

- ◀ Return to the main edging screen without saving your changes.

- ▶ Start the edging cycle

b. Perform a Step bevel

1 Call up the desired shape located on the tracer or on the job management program.

> The shape is displayed on the edger work screen.

> After the tracing of a high-base frame:

- The step finish is selected by default.
- The customized mode is selected by default.

⚠ In the step finish, you cannot polish your bevel. Nevertheless, the step wheel was designed to create a finish that is equivalent to polycarbonate lenses.

You have the option of polishing the flat side of the bevel.

2 Press [icon] to select the Step bevel.

[icon] The button appears grayed if the step bevel wheel was not mounted beforehand: [icon].

3 Select lens material.

4 Select the type of cycle.

5 Choose or not to chamfer your lens.

If you have a pro-E 700, it is to recommend to carry out a "Super Chamfer" [icon].

[icon] For more information, consult the section Edging a lens > Perform a polishing *(☞ p.67)* and Edging a lens > Perform a chamfering *(☞ p.67)*.

6 Press the "cycle start" button (front face) or [icon].

> The door closes, the lens is clamped and then felt.

> The "automatic trajectory" step finish screen is displayed by default.

[icon] By default, the edger shows the values corresponding to the frame material (metal or plastic). Check and modify these values according to the thickness of your lens and your frame.

You can:

- perform a step bevel in "automatic trajectory" mode *(☞ p.44)*,
  In this mode, the bevel trajectory follows the base of the frame as closely as possible.
- perform a step bevel in "front surface tracking" mode *(☞ p.46)*.
  In this mode, the trajectory of bevel follows the front surface lens base as closely as possible.

Step bevel in "automatic trajectory" mode

**1** Press to select the bevel in "automatic trajectory " mode.

> The following screen will appear:
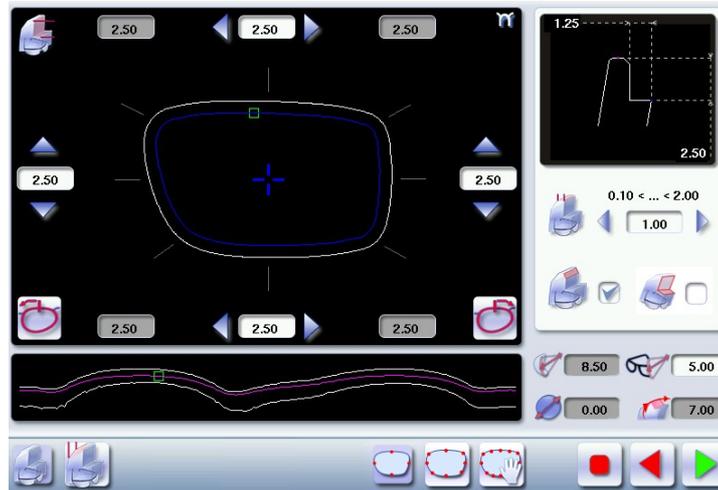
2 Press the buttons ◀ and ▶ on the right of your screen to modify the width of the flat side of the bevel.

> The result can be viewed in the zoom window.
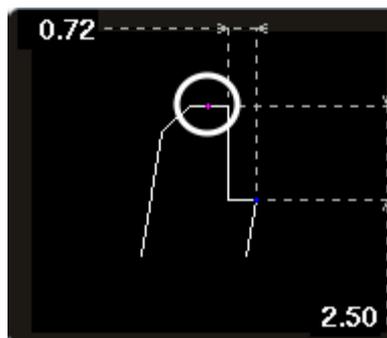
3 Press on the buttons ▲ ▼ and ◀ ▶ to modify the shelf bevel value in each point of the shape in each of the areas, 4 or 8 areas:

- Temporal
- Mid-temporal
- Upper
- Mid-upper
- Nasal
- Mid-nasal

- Lower
- Mid-lower

💡 | Move the cursor along the shape to see the bevel profile in the zoom window.

> The edger calculates the shelf bevel value to be applied between each of the four or eight points of each area.

> The bevel trajectory on the rear surface is modified in the work screen. The result can be viewed in the zoom window.

4 Press 🖊️ ☐ to perform a back chamfer of the assembly aid.

> The chamfer is selected 🖊️ ☑ .

> The result can be viewed in the zoom window.
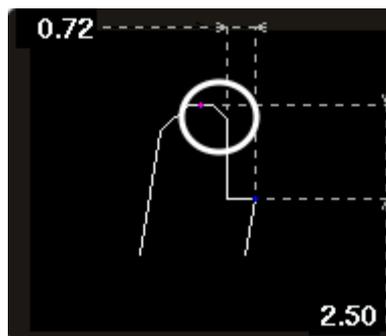
5 Press 🖊️ ☐ systematically to tilt of the bevel (mounting aid).

> The bevel tilt is selected 🖊️ ☑ .

> The result can be viewed in the zoom window.

6 Press the "cycle start" button (front face) or [▶].

> > The edging cycle starts.

> > When the edging cycle is finished, the retouch screen is displayed.

7 Press [icon] to release the lens.

8 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> > The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

<u>Step bevel in "front surface follow-up" mode</u>

1 Press [icon] to select the bevel in "front surface tracking" mode.

> > The following screen will appear:

2 Press the [▲] [▼] and [◀] [▶] buttons to modify the shelf bevel value at each point of the shape in each area:

- Temporal
- Mid-temporal
- Upper
- Mid-upper
- Nasal

- Mid-nasal
- Lower
- Mid-lower

Move the cursor along the shape to see the bevel profile in the zoom window.

> The edger calculates the shelf bevel value to be applied between each of the four or eight points of each area.

> The bevel trajectory on the rear surface is modified in the work screen. The result can be viewed in the zoom window.

3 Press the buttons ◀ and ▶ on the right of your screen to modify the width of the flat side of the bevel.

> The result can be viewed in the zoom window.

4 Press the buttons ◀ and ▶ on the right of your screen to modify the value of front surface tracking.

> 0.0 < ... < 1.3
>
> 0.20

> The result can be viewed in the zoom window and the display window of the bevel trajectory on the lens section.

> 0.72
>
> 2.50

5 Press ⬛ to perform a back chamfer of the assembly aid.

> The chamfer is selected ☑.

> The result can be viewed in the zoom window.

> 0.72
>
> 2.50

6 Press ⬛ systematically to tilt of the bevel (mounting aid).

> The bevel tilt is selected ☑.

> The result can be viewed in the zoom window.

7 Press the "cycle start" button (front face) or ▶.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

8 Press 🔧 to release the lens.

9 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

5. GROOVING

This section describes the procedures for the creation of a groove:

- **AUTO** In automatic mode *(☞ p.50)*, you do not have to configure anything. All the data is automatically retrieved from the tracer. The lens edging starts automatically after the feeling cycle.

- 🖐 In customized mode *(☞ p.52)*, you can perform a front/rear surface tracking, a distributed groove or a lens curve tracking. You can also do the following:
  ◦ a general modification of the groove curve *(☞ p.54)*
  ◦ a modification at a point of the groove curve *(☞ p.55)*
  ◦ a displacement of the groove curve *(☞ p.56)*
- You can consult the description of the customized groove screen.

⚠️ In certain cases, the lens base or thickness makes grooving impossible.

> An error message is displayed.

> The white central line becomes red on the entire contour of the lens.

a. Automatic grooving

1 Call up the desired shape located on the tracer or on the job management program.

> The shape is displayed on the edger work screen.

> After tracing a pattern, demo lens or re-cut lens, without any drilling settings:

- the groove finish is selected by default.
- the automatic mode is selected by default.

If you wish to produce a groove the depth and the width of which are less than 0.60 mm: Directly define the groove in the screen.

2 Press ◀ and ▷ to regulate the depth and the width of the groove

	Depth (mm)	Width (mm)
By default	0.60	0.60
Minimum	0.20	0.60
Maximum	1.20	1.20

3 Select lens material.

4 Select the type of cycle.

5 Choose whether or not to polish and/or chamfer your lens.

For more information, consult the section Edging a lens > Perform a polishing *(☞ p.67)* and Edging a lens > Perform a chamfering *(☞ p.67)*.

6 Press the "cycle start" button (front face) or ▶ .

> The door closes, the lens is clamped and then felt.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

7 Press [icon] to release the lens.

8 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

b. Customized groove legend screen
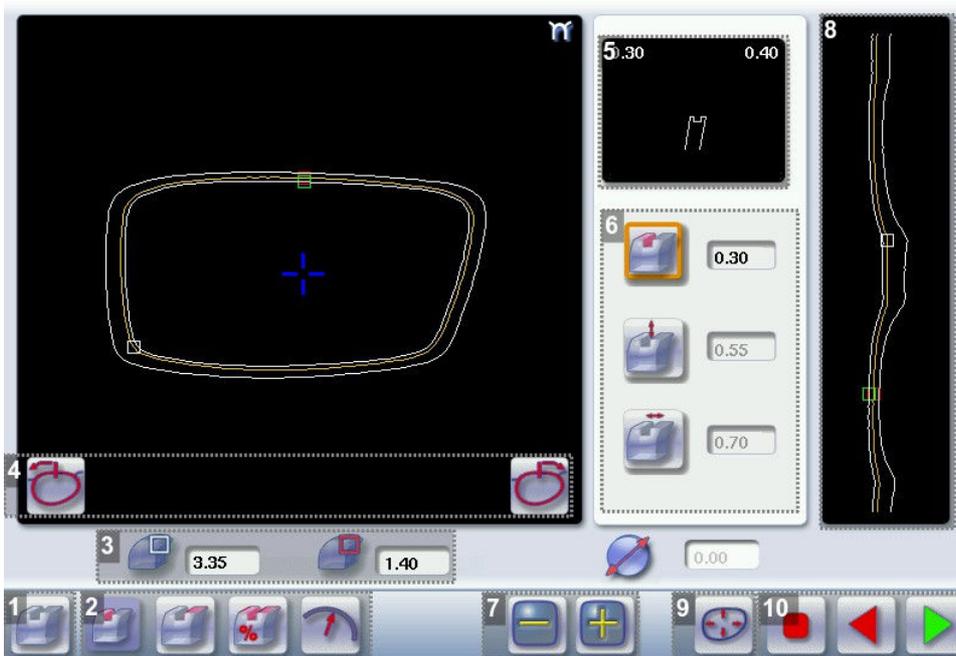
1. *Automatic groove*

2. *Customised grooving*

- [icon] Front surface tracking: the middle of the groove is positioned at a constant distance from the front surface.
- [icon] Rear surface tracking: the middle of the groove is positioned at a constant distance from the rear surface.
- [icon] Distributed groove: the middle of the groove is positioned in proportion to the thickness of the lens, with respect to the front surface.
- [icon] Lens curve tracking: the camber of the groove is adjustable.

3. *Lens thickness*

- [icon] Maximum lens thickness - represented by the white square along the shape

- ◦ Minimum lens thickness - represented by the red square along the shape

4. *Cursor movement*

The cursor is represented by the green square along the shape. To move it, select it directly or use the

 and buttons.

5. *Zoom window*

Distance between the edges of the groove and the front & rear surfaces of the lens at the position of the cursor.

6. *Groove settings*

- ◦ Distribution value - according to the type of customized groove selected
- ◦ Groove depth (in mm)
- ◦ Groove width (in mm)

7. *Modify the selected setting*

8. *Groove trajectory*

Flat representation of the lens making it possible to measure the distances between the groove and the front & rear surfaces of the lens.

9. *Modify the trajectory*

- ◦ General modification of the groove curve
- ◦ Modification of a point in the groove curve
- ◦ Displacement of the groove curve

10. *Navigation*

- ◦ Stop the cycle
- ◦ Return to the main edging screen without saving your changes
- ◦ Start the edging cycle

c. Customised grooving

The use of the customized groove depends on 2 parameters: the frame and the lens. Before starting your job, identify the major constraint.

Groove	Frame	Lens	Advantages
	Standard groove	Lens for which the front surface base is approximately equal to the frame base.	Makes it possible to do an aesthetically pleasing job. The lens material does not protrude beyond the front of the frame.

GROOVE	FRAME	LENS	ADVANTAGES
	Standard groove	Lens for which the rear surface base is not as high as the front surface base.	Minimises the risks of the nylon thread coming out.
	Standard groove	Thin lens	Makes it possible to balance out the groove when thin lenses are used.
	Flat base High base	Thin lens for which the front surface base is approximately equal to the frame base.	In the event of pattern tracing (base = 0), makes it possible to retrieve the frame base.

1 Call up the desired shape located on the tracer or on the job management program.

> The shape is displayed on the edger work screen.

> After tracing a pattern, demo lens or re-cut lens, without any drilling settings:

- the groove finish is selected by default.
- the automatic mode is selected by default.

2 Select lens material.

3 Change the edging mode. Press **AUTO** to select customized mode .

4 Select the type of cycle.

5 Choose whether or not to polish and/or chamfer your lens.

For more information, consult the section Edging a lens > Perform a polishing *(☞ p.67)* and Edging a lens > Perform a chamfering *(☞ p.67).*

6 Press the "cycle start" button (front face) or .

> The door closes, the lens is clamped and then felt.

> The customized groove finish screen is displayed.

7 Select the type of customized groove you want to do.

8 Select the values you want to modify and press and to adjust them if necessary

9 Press ▶.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

10 Press 🔧 to release the lens.

11 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

---

d. Modifying the groove curve

Once you have configured the desired type of customized groove, you can complete your customization by moving the groove curve towards the front or rear surface of the lens so it takes on its shape.

1 Press ⊕ from the customized groove finish screen.

> You will access the trajectory modification screen.

2 Press ⬭ to select the general modification of the groove curve.

3 Use the buttons ➖ and ➕ to move the groove curve.

- Press ➖ to move the curve towards the front surface of the lens.
- Press ➕ to move the curve towards the rear surface of the lens.

⚠️ The curve cannot be moved more than the minimum distance between the front and rear surfaces observed on the groove before the modification.

> The position of the groove as well as the distances between the center of the groove and the front & rear surfaces of the lens are displayed in the zoom window.

4 Press the "cycle start" button (front face) or ▶.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

5 Press to release the lens.

6 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

e. Modifying a point in the groove curve

Once you have configured the desired type of customized groove, you can complete your customization by moving the groove curve towards the front or rear surface of the lens so it takes on its shape.

1 Press from the customized groove finish screen.

> You will access the trajectory modification screen.

2 Press to select modification of a point in the groove curve.

3 Using the cursor, select the point on the curve that you want to move or click directly on the screen.

4 Use the buttons and to move the point on the selected curve.

- Press to move it towards the front surface of the lens.
- Press to move it towards the rear surface of the lens.

 The curve cannot be moved more than the minimum distance between the front and rear surfaces observed on the groove before the modification.

> The position of the groove as well as the distances between the center of the groove and the front & rear surfaces of the lens are displayed in the zoom window.

5 Press .

 Press to go back to the customized bevel finish screen.

> For the second lens, the customized groove icon is pre-selected and the trajectory modification icon is displayed.

f. Displacement of the groove curve

The displacement of the groove curve enables you to move the groove without modifying its curve or perimeter.

1 Press from the customized groove finish screen.

> You will access the trajectory modification screen.

2 Press to select the displacement of the curve.

3 Use the and buttons to displace the curve.

- Press to displace it towards the front surface of the lens.
- Press to displace it towards the rear surface of the lens.

> The position of the groove as well as the distances between the center of the groove and the front & rear surfaces of the lens are displayed in the zoom window.

4 Press the "cycle start" button (front face) or .

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

5 Press to release the lens.

6 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

6. PRODUCE A FLAT-EDGE FINISH

For a flat-edge finish, only automatic mode is accessible.

1 Call up the desired shape located on the tracer or on the job management program.

> The shape is displayed on the edger work screen.

2 Select lens material.

3 Press [icon] to select the flat-edge finish.

4 Select the type of cycle.

5 Choose whether or not to polish and/or chamfer your lens.

> For more information, consult the section Edging a lens > Perform a polishing *(☞ p.67)* and Edging a lens > Perform a chamfering *(☞ p.67)*.

6 Press the "cycle start" button (front face) or [icon].

> The door closes, the lens is clamped and then felt.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

7 Press [icon] to release the lens.

8 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

7. DO A MIXED JOB

In this section, you will find the required procedure to do a mixed job:

- Description of menu screens *(☞ p.58)*
- Configuring the mixed finish *(☞ p.60)*

This finish enables you to do mixed jobs such as the following:

- Groove - Groove
- Bevel - Groove
- Flat-edge - Groove
- Flat-edge - Bevel

To do a mixed finish, you need to define the points between which the two types of finish will be done. Only

the customized mode ![hand icon] is thus accessible.

---

a. Legend screens

Main screen for mixed jobs
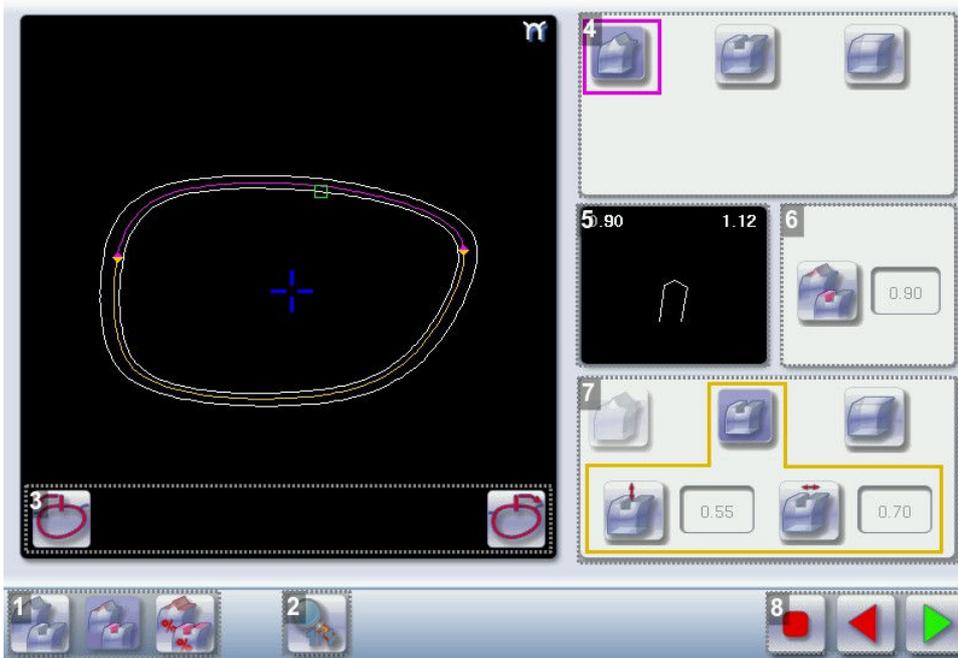
1. *Modes available for a mixed finish*

- ![icon] Automatic mode: the position of the bevel or groove is automatically calculated according to the information acquired when tracing the frame and feeling the lens.

- ![icon] Front surface tracking: the crest of the bevel or the middle of the groove is positioned at a constant distance from the front surface.

- ![icon] Distributed mixed finish: the crest of the bevel or the middle of the groove is positioned in proportion to the thickness of the lens, with respect to the front surface.

2. *Access to the area defining screen*

Access on a 1:1 scale.

3. *Cursor movement*

The cursor is represented by the green square along the shape. To move it, select it directly or use the

![icon] and ![icon] buttons.

4. *Settings for area 1*

- ![icon] Bevel finish

◦ ![icon] Groove finish

◦ ![icon] Flat-edge finish

5. *Zoom window*

Display of the distance from the edges of the lens to the position of the cursor.

6. *Position of the center of the groove or bevel*

Value expressed in mm ('Front surface tracking' mode) or in % ('Distributed mixed finish' mode).

7. *Settings for area 2*

◦ ![icon] Bevel finish

◦ ![icon] Groove finish

◦ ![icon] Flat-edge finish

8. *Navigation*

◦ ![icon] Stop the cycle

◦ ![icon] Return to the main edging screen without saving your changes

◦ ![icon] Start the edging cycle

Area definition screen
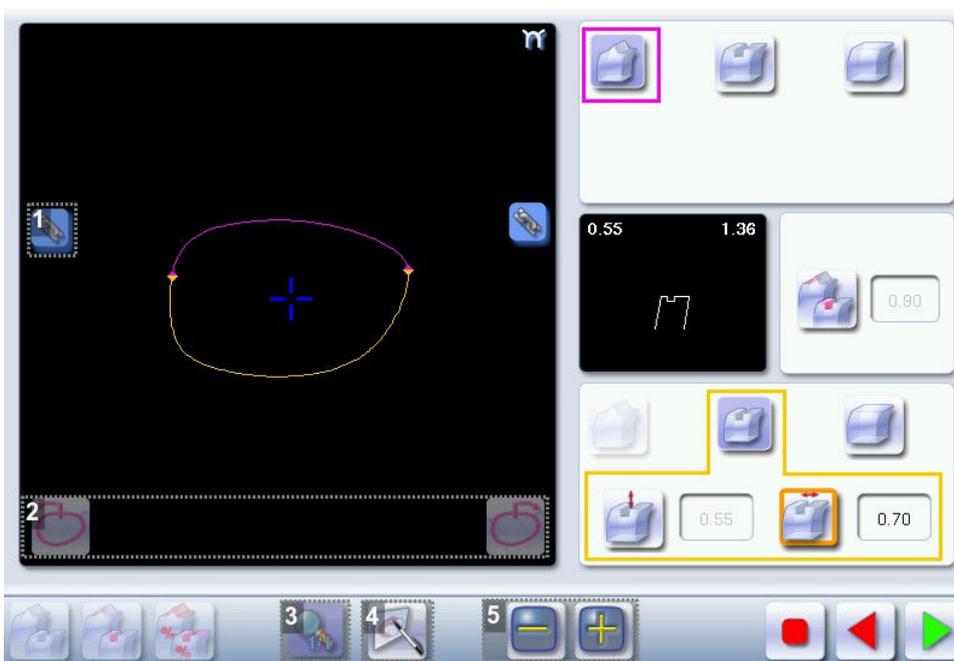
1. *Lock / unlock the area delimitation points*

2. *Move the area delimitation points*

3. *Back to the main screen*

4. *Enable area delimitation on the touch screen*

5. *Modify the selected value*

Legend of colours delimiting the shape areas:

■ (pink) Bevel finish

■ (yellow) / ■ (orange) Groove finish (in the case of a Groove - Groove mixed job, the colours make it possible to differentiate grooves with different parameters)

■ (black) Flat-edge finish

---

b. Configuring the mixed finish

Initiating a mixed finish

1 Call up the desired shape located on the tracer or on the job management program.

> The shape is displayed on the edger work screen.

2 Select lens material.

3 Press [icon] to select mixed job mode.

4 Select your type of cycle.

5 Choose whether or not to polish the lens.

> You cannot do a chamfer on a mixed job.

> For more information on polishing, refer to the section Edging a lens > Polishing *(☞ p.67)*.

6 Press [icon].

> The door closes, the lens is clamped and then felt.

> The mixed finish screen is displayed:

> The default setting is the bevel - groove finish in automatic mode.

Customizing the mixed finish

1 Select the desired type of mixed finish.

2 Press [icon] to access the area definition screen.

> The area definition screen is displayed on a 1:1 scale. You can thus refer to a sample lens placed on the screen.

3 Select the finish you want in area 1, then area 2.

4 Press the [icon] button to unlock an area delimitation point.

5 Press the [icon] and [icon] buttons to move the unlocked point.

Press [icon] to move the delimitation points directly on the touch screen. The two points are then unlocked. Drag them with the stylus.

6 If necessary, press [icon] to modify the position of the center of the groove or bevel using the buttons [icon] and [icon].

This value cannot be modified in automatic mode.

7 If necessary, press [icon] and [icon] to modify the groove depth and width using the [icon] and [icon] buttons.

8 Press [icon].

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

9 Press [icon] to release the lens.

10 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

8. PERFORM A DRILLED JOB

You have the option of adding or modifying drillings on a job.

The function can be accessed on the edging screen:

Carry out:

- a short click on (when the job does not show drilling),

- a long click on (when the job already shows drilling).

The following screen will appear:
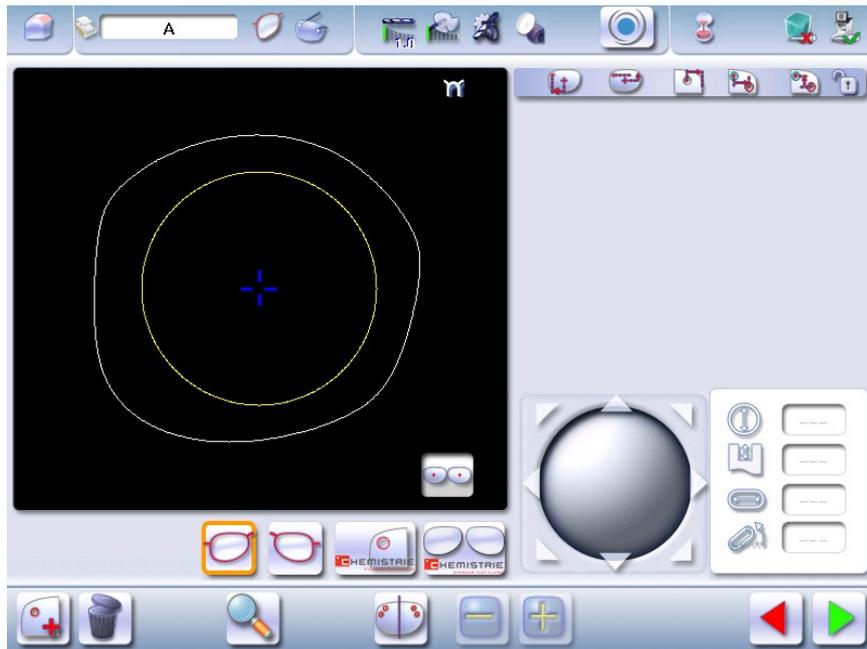
You can do the drilling in automatic mode or in customized mode:

- In automatic mode *(☞ p.63)*, you do not have anything to configure. The drilling angle consists of

  the average value calculated at right angles with the front surface of the lens for each drilling point. The lens edging starts automatically after the feeling cycle.

- In customized mode *(☞ p.65)*, you can do the following:

  ◦ Drilling at right angles with the front or rear surface: you can modify the diameter but not the drilling angle which is automatically calculated by the edger based on the lens curve.
  ◦ Customized drilling: you can modify the diameter and angle for each drilling point.

- You can consult the description of the customized drilling screen *(☞ p.64)*.

Two different diameter drill bits are available: a 1 mm bit and a 0.8 mm bit. If the diameter of the drilling point is smaller than that of the installed drill bit, an error message is displayed. Change the drill bit or modify the diameter of the drilling points.

![lightbulb icon] You can also create various combinations:

- Drilled bevel
- Drilled high-base bevel

- Drilled groove
- Drilled mixed finish

You have the option of adding or modifying drillings on a job.

The function can be accessed on the edging screen:

Carry out:

- a short click on ![icon](when the job does not show drilling),

- a long click on ![icon](when the job already shows drilling).

The following screen will appear:
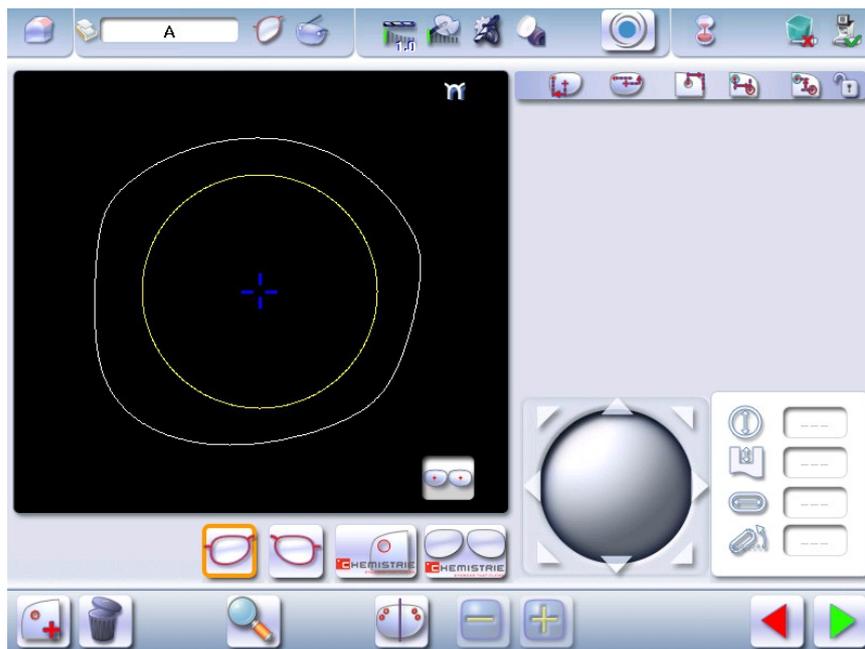
For more information, consult the section Preparing a drilled job. *(☞ p.128)*.

a. Automatic drilling

1 Call up the desired shape located on the tracer or on the job management program.

> The shape is displayed on the edger work screen.

> After the tracing of a shape with drilling settings:

- The drilling function is selected by default.
- The automatic mode is selected by default.

2 Select lens material.

3 Select the type of finish.

4 Select the type of cycle.

5 Choose whether or not to polish and/or chamfer your lens.

For more information, consult the section Edging a lens > Perform a polishing *(☞ p.67)* and Edging a lens > Perform a chamfering *(☞ p.67)*.

6 Press the "cycle start" button (front face) or ▶.

> The door closes, the lens is clamped and then felt.

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

7 Press 🔧 to release the lens.

8 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

b. Legend screen for customized drilling

	4 ⊕	δ	5 ◁°	δ
1	1.50	0.00	8.5	0.5
2	1.20	0.00	8.0	0.0
3	1.50	0.00	7.0	−1.0

1. *Type of drilling*

   ◦ Perpendicular to the front surface

   ◦ Perpendicular to the rear surface

   ◦ Customized

2. *Select the drilling points*

- Nasal side
- Temporal side
- All drilling points

3. *Modify the selected value*

4. *Modify the diameter*

- Diameter value (mm)
- Difference between the initial value and the modified value

5. *Modify the drilling angle*

- Drilling angle value (degrees)
- Difference between the initial value and the modified value

6. *Cross-sectional view*

Cross-sectional view of the lens after the feeling cycle, showing the angle of the drill bit at the selected drilling point.

7. *Reminder of size reduction/increase applied to lens diameter*

8. *Navigation*

- Stop the cycle
- Return to the main edging screen without saving your changes
- Starting the cycle

c. Customized drilling

1 Call up the desired shape located on the tracer or on the job management program.

> The shape is displayed on the edger work screen.

> After the tracing of a shape with drilling settings:

- The drilling function is selected by default.
- The automatic mode is selected by default.

2 Select lens material.

3 Change the edging mode. Press **AUTO** to select customized mode .

4 Select the type of cycle.

5 Choose whether or not to polish and/or chamfer your lens.

For more information, consult the section Edging a lens > Perform a polishing and Edging a lens > Perform a chamfering *(☞ p.67)*.

6 Press the "cycle start" button (front face) or .

> The feeling cycle starts.

> The customized drilling screen is displayed.

7 Select the type of drilling you want to do.

8 If necessary, select the drilling point(s) you want to modify.

9 If necessary, modify the diameter and/or angle of the selected drilling point.

> The difference between the initial value and the modified one is displayed in the delta column.

10 Press .

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

11 Press to release the lens.

12 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

9. Perform a Polishing

Press the [button] button to activate/deactivate polishing.

Lens material	Available options
	  The polishing option is pre-selected and is strongly recommended by the manufacturer to prevent small cracks.
	  Make sure you select the correct type of material for MHI (> 1.5) or Tribrid lenses and never polish a lens of this type without water. Otherwise, the polishing wheel could suffer irreversible damage.
	  The polishing option is pre-selected.
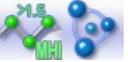
The polishing option is not available for a high-base job. Nevertheless, the wheel was designed to create an equivalent finish for polycarbonate lenses.

10. Chamfering

The chamfer, also called counter-bevel, removes the sharp edge of the lens.

- Standard value of a small chamfer: 0.20 mm
- Standard value of a large chamfer: 0.40 mm

Before you select a type of chamfer, make sure it is compatible with the lens characteristics:

- Lens material

Lens material	Available options
	  The quality of the chamfer depends on the spraying. Make sure there is a constant flow of water until the end of the chamfering operation.

- Thickness at the edge of the lens

LENS THICKNESS	AVAILABLE OPTIONS
> 1.2 mm	
between 1 and 1. 2 mm	
< 1 mm	

- Distance between the edge of the groove and the edge of the lens

DISTANCE	AVAILABLE OPTIONS
> 0.8 mm	
between 0.5 and 0.8 mm	
< 0.5 mm	

The chamfers available also depend on the lens shape and the posiblock used when blocking.

Press on the buttons ⬜ and ⬜ to configure a small chamfer, a large chamfer or no chamfer on the front and rear surfaces of the lens.

11. PERFORM A RETOUCHING
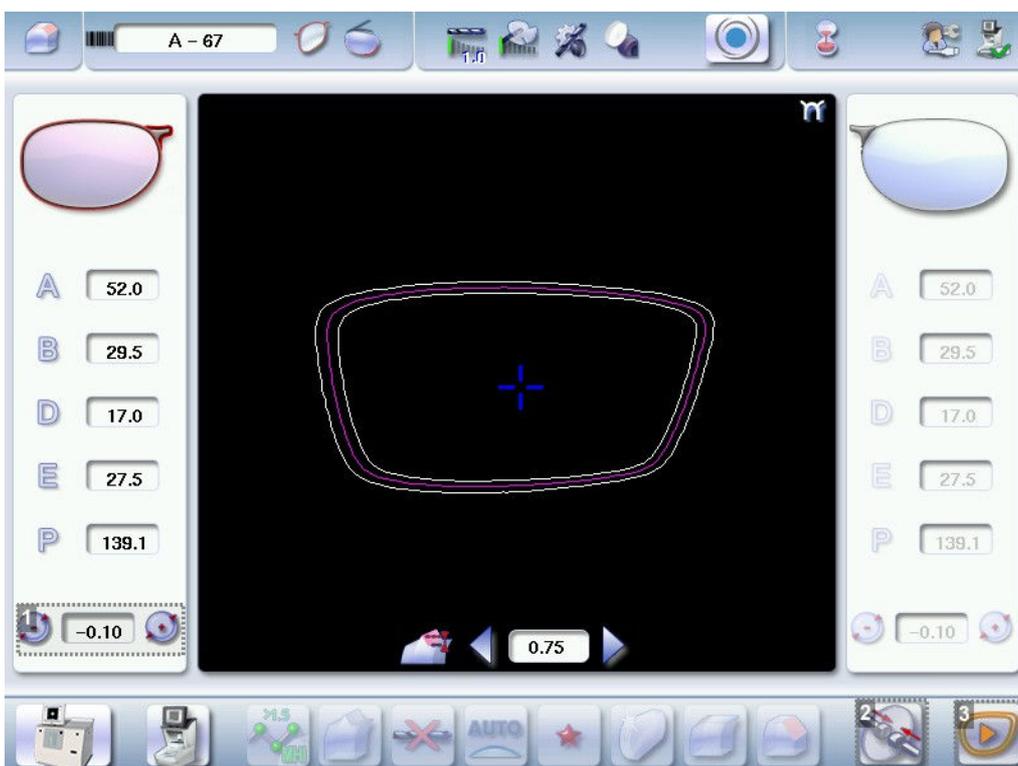
1. *Diameter modification*

2. *Manual lens clamping*

3. *Retouch launch*

⚠️ **Differences with the edging screen**

The edging screen is different to the retouch screen through:

- the presence of the posiblock
- no frame thickness
- the "departure cycle" ▶ button.
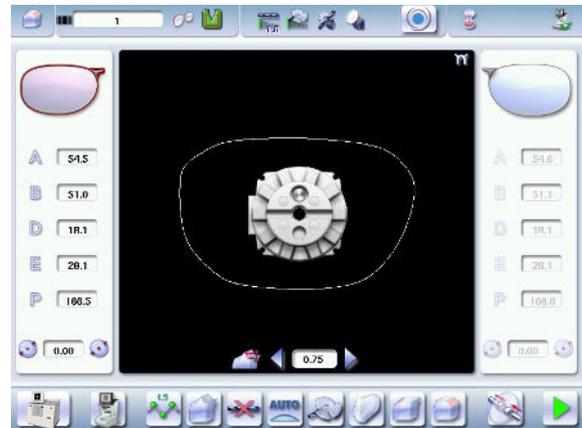
When the first-lens edging cycle is finished:

1 Press 🔧 to release the lens.

2 Proceed to lens assembly and check that edging was correctly configured.

> Depending on your job:

- If your job is perfect, proceed with the machining of your second lens.
  > All of the selected finishing options and modifications made are kept.
- If the lens requires adjustment, do a retouch on the edged lens to obtain optimal results.

3 Indicate the size reduction to be applied to the lens you want to retouch.

> The chosen finish and the modifications made during the edging cycle are automatically selected.

4 Insert the lens in the posiblock holder.

📄 To close the clamp shafts manually, do a long press on 🔧.

5 Press ▶.

> For a customized finish, the customized finish screen is displayed.

> In all other cases, the door closes, the lens is clamped automatically, then the retouching starts.

6 Select the second lens to be edged directly on screen, on the left or right of the work area.

> The edging screen for the second lens is displayed.

> All finishes chosen and the modifications made are kept. The retouch done on the first lens is automatically saved for the edging of the second lens.

12. PERFORM A "SUPER CHAMFER" (PRO-E 700)

The "Super Chamfer" is strongly recommended on:

=>a fairly flat frame with weak or negative index lenses, for which the thickness of the lens would prevent the closing of the arms.
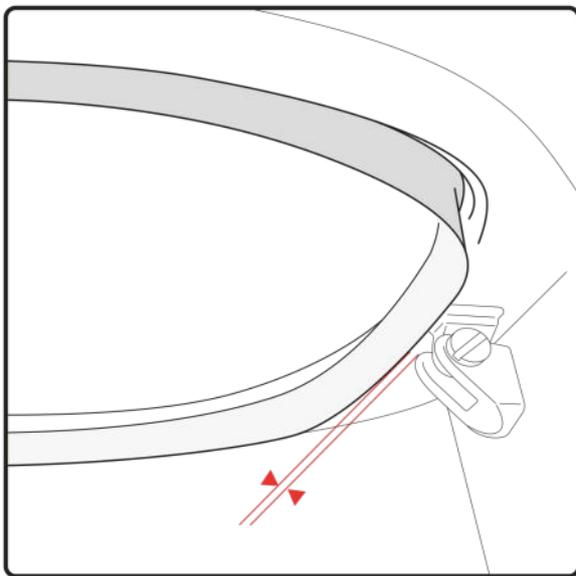
Without the "Super Chamfer"	With the "Super Chamfer"
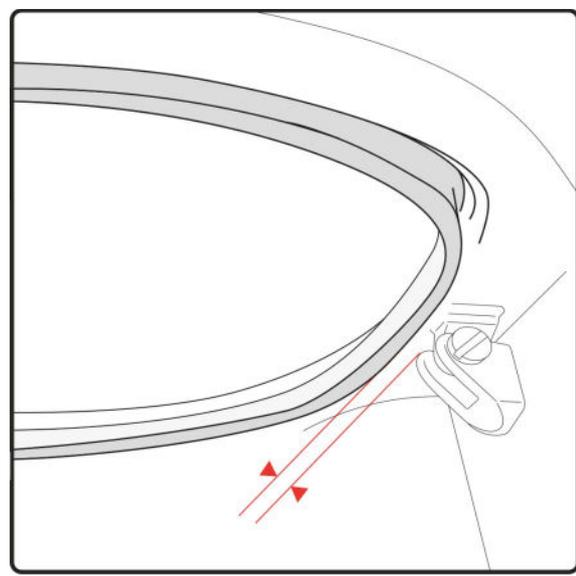
=>a sports or safety frame with weak or negative index lenses, therefore thick at the edge which would place them closer to the face of the wearer.

Since the bottom part of the lens is not touched by a frame, the objective is to increase the distance in order to eliminate injury risks.

Without the "Super Chamfer"   With the "Super Chamfer"
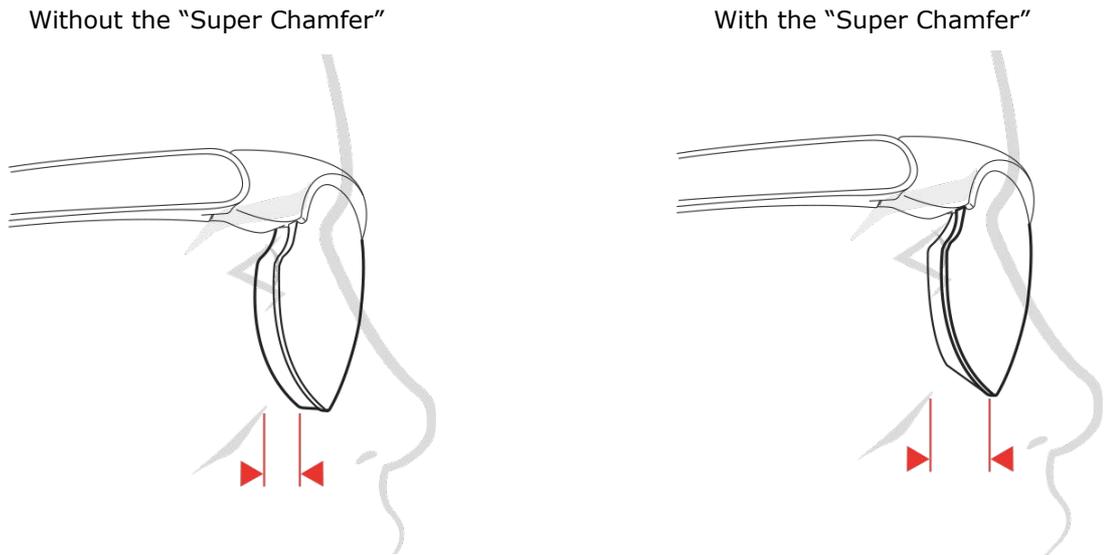
The "Super Chamfer" allows you to break the ridge of the lens on the rear surface at a defined distance and configure it in relation to:

- in the center of the groove.

- at the top of bevel, step bevel .

1 Press on and select the "Super Chamfer" .

> The adjustment field appears on the main screen:

Groove   Bevel

2 Press on and to adjust the distance between the chamfer and the top of the bevel or between the chamfer and the center of the groove, by taking account of the thickness of the lens.

	Distance (mm)
By default:	2.3*
Minimum	1
Maximum	6
	Distance (mm)
By default:	2.3*
Minimum	1
Maximum	6

* depends on the frame thickness.

Availability of the "Super Chamfer" by finish

FINISHING WHEEL	
	✓
	Not available

13. PERFORM A CHEMISTRIE TM JOB (PRO-E 700)

CHEMISTRIE is a technical solution that, through a magnet system, allows you to superimpose

a pair of additional "CLIP" lenses on the "ophthalmic" lenses initially mounted on the customers' frames.

Near vision	CHEMISTRIE PLUS
Blue light	CHEMISTRIE BLUE
Solar	CHEMISTRIE SUN
3D Vision	CHEMISTRIE 3D

a. Prerequisites

You must center and block the lens before placing it in the edger.

It is recommended to start systematically with the edging of the ophthalmic lenses

Prerequisite: the lens must be centered and blocked before placing it in the edger.

b. Preparing a Chemistrie TM job

The Chemistrie screens™are accessible via the "drilling" menu in the preparation screen for a drilled job.

For more information, consult the section Preparing a drilled job. *(☞ p.128)*.

Carry out:

- a short click on ✖ (when the job does not show drilling),
- a long click on ▬ (when the job already shows drilling).

The following screen will appear:
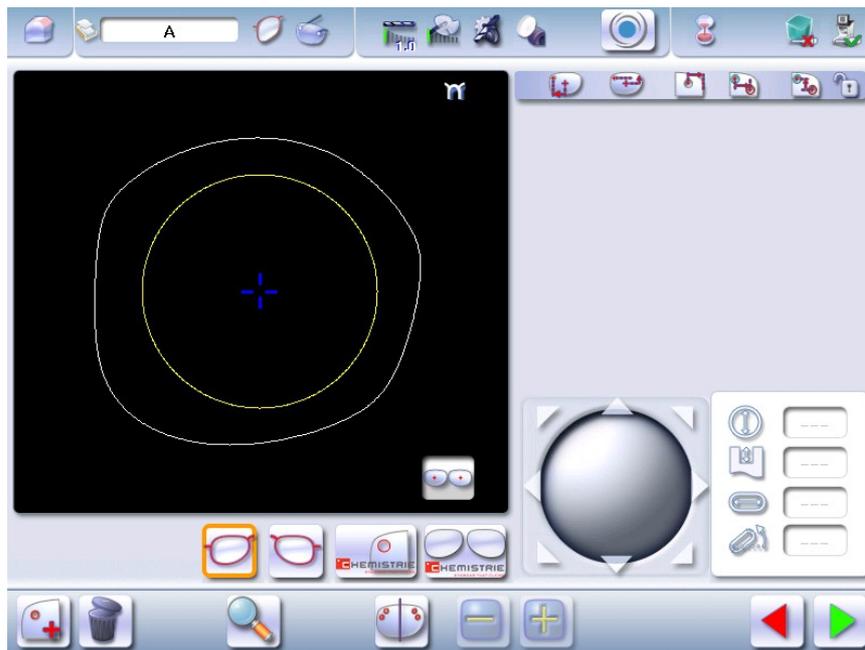
- Press [CHEMISTRIE] to position the magnet and outline its shape.
- Press [CHEMISTRIE] to visualize the binocular view.

The settings of a Chemistrie job™be performed in two steps:

1. Positioning and settings of the magnets on the ophthalmic lenses.
2. Positioning and settings of the magnets on the Chemistrie clips™ (several types of Chemistrie jobs™ are possible for only one job)

Ophthalmic lens

1 Press [CHEMISTRIE] to position the magnet and outline its shape.

1/ At the first mount, the shape of the magnet is square:
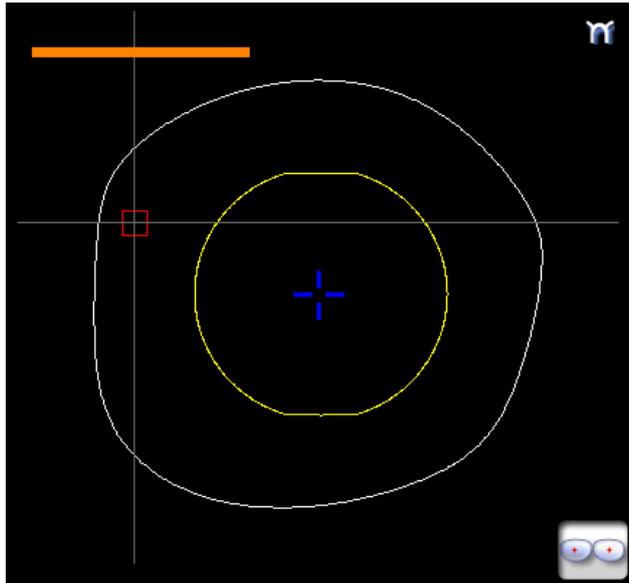
The button changes .

2/ At the second mount, the shape of the magnet becomes round:
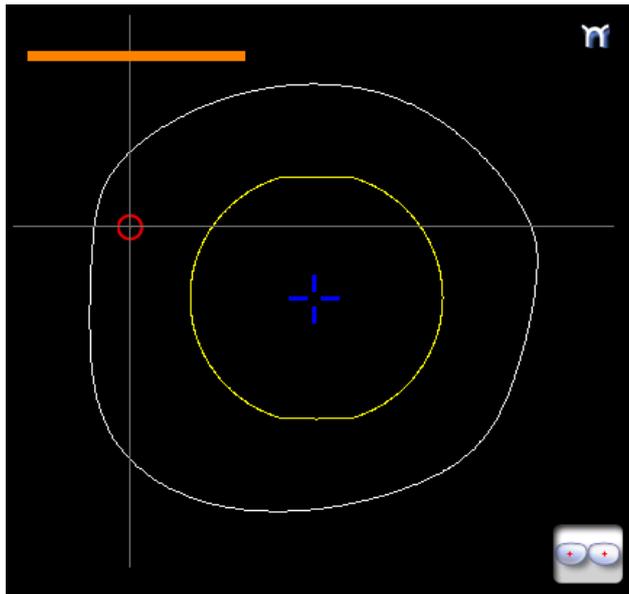
The button changes .

2 Press for a few seconds on the setting value to be modified according to the selected shape:

Square		Circle	
	Height		Diameter
	Depth		Depth
	Width		

> The numeric keypad is displayed.

You can also use the ⊖ or ⊕ buttons to decrease or increase the selected value.

3 Press [CHEMISTRIE icon] to access the binocular view.

> The following screen will appear:
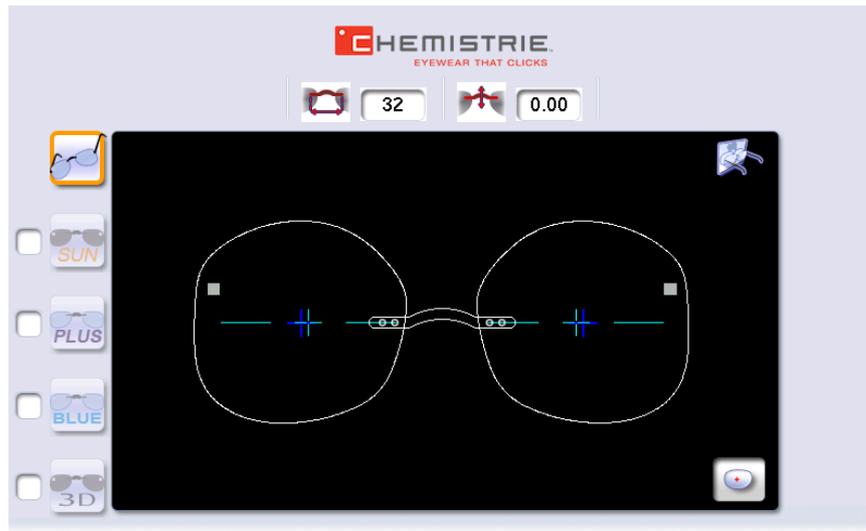
4 Press [▶] to confirm the job.

Chemistrie TM (clip) lenses

1 Press [CHEMISTRIE icon] to configure the Chemistrie lens^TM".

> The following screen will appear:
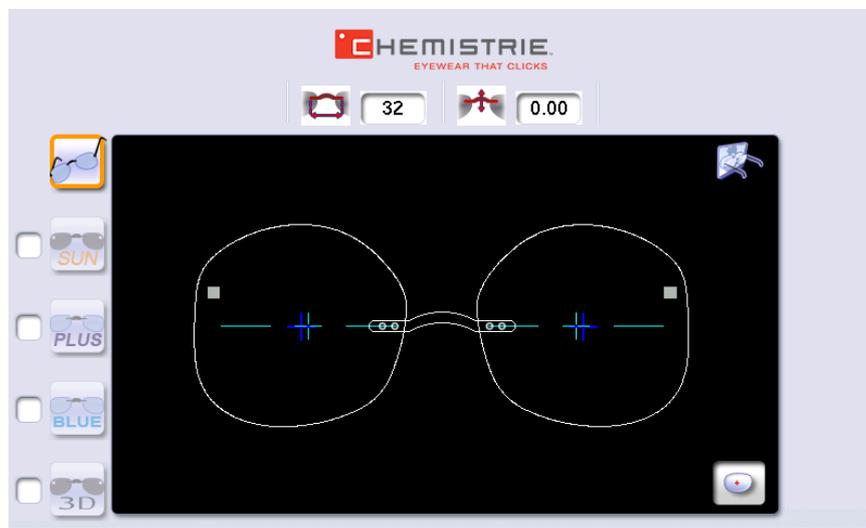
2 Press [ ] to select the Chemistrie clip™ "SUN".

> The clip is selected: ☑ 👓 SUN

> The tool bar appears:

3 Press [🔲 -0.40] to configure the size increase (or size decrease=> less frequent) applied to the shape of the ophthalmic lens to configure the shape of the Chemistrie lens™.

> Press a few seconds on the setting to be modified:
>
> => the numeric keypad is displayed.
>
> You can also use the [—] or [+] buttons to decrease or increase the selected value.

4 Press [🔲 32] to configure the width of the bridge

> Press a few seconds on the setting to be modified:
>
> => the numeric keypad is displayed.
>
> You can also use the [—] or [+] buttons to decrease or increase the selected value.

5 Press [🔲 0.00] to configure the height of the bridge.

> Press a few seconds on the setting to be modified:
>
> => the numeric keypad is displayed.
>
> You can also use the [—] or [+] buttons to decrease or increase the selected value.

6 Pres [🔲 0.45] to configure the difference in positioning between the magnets of the ophthalmic lens and those of the Chemistrie clip™.

> Press a few seconds on the setting to be modified:
>
> => the numeric keypad is displayed.
>
> You can also use the [—] or [+] buttons to decrease or increase the selected value.

> Your job has been configured.

You can prepare other Chemistrie jobs™ if necessary ![PLUS] , ![BLUE] , ![3D] .

7 Press ![play button] to validate the Chemistrie job™.

c. Prepare the Chemistrie TM lenses

⚠️ This procedure is valid for the clips, ![SUN] , ![BLUE] ![3D] .

=> the clips ![PLUS] must be prepared in the same way as a classical lens.

1 Position the two lenses as indicated and apply light pressure in the opposite direction of the curve of the lenses to clip them together.
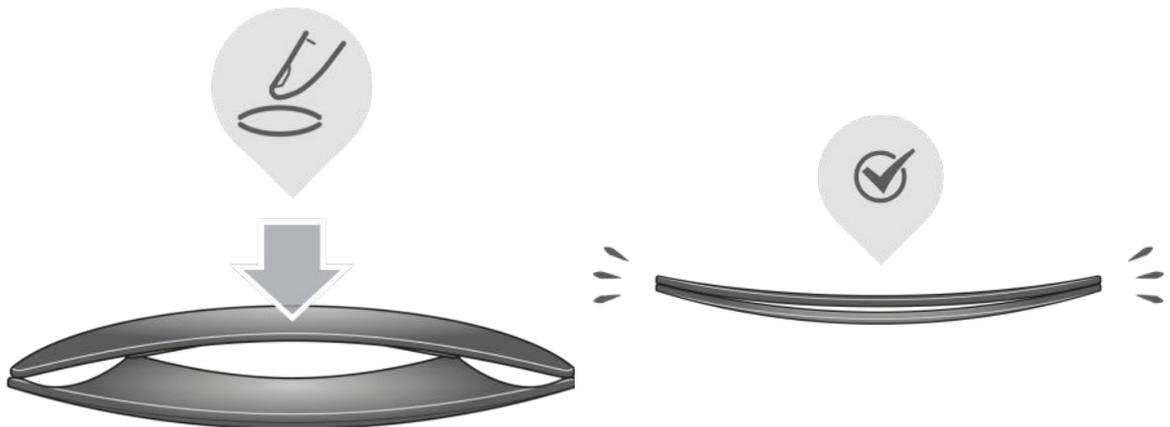
2 Ensure that the size of the Chemistrie lens™ is appropriate.

💡 Check visually that the lens can accommodate the shape.

For more precision, you can verify it using the tracer, by using the centering function.

3 Position the posiblock in the center of the lens.
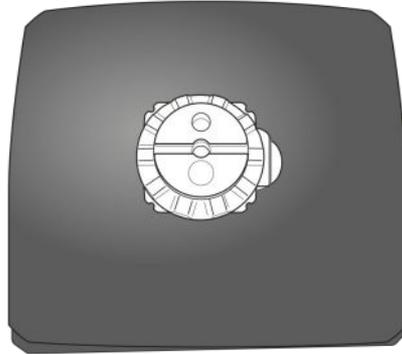

> The lenses are ready to be edged

d. Cut a Chemistrie lens

1 Press ![icon] to call up the desired shape located on the tracer.

> The shape is displayed on the edger work screen with the selected clips:
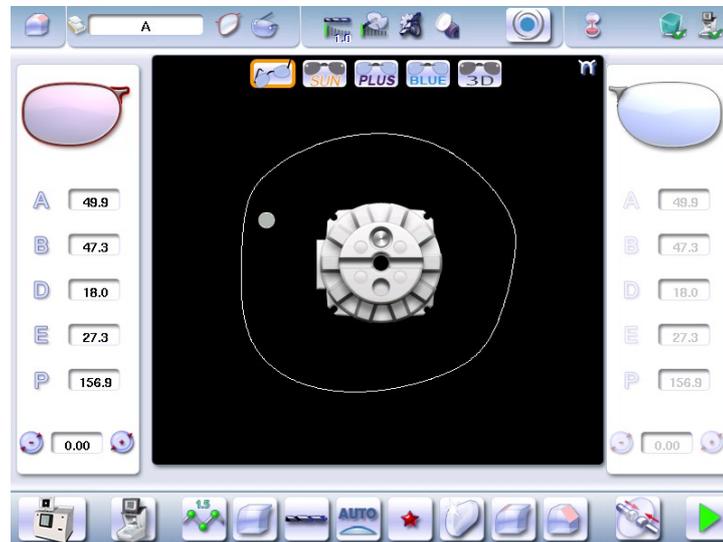
2 Press on ![icon] to select the ophthalmic lenses: ![icon].

3 Configure edging:

1. Select lens material.

2. Select the type of cycle.

3. Select the finish,

4. Choose whether or not to polish and/or chamfer your lens.

4 Place the lens in the posiblock holder.

> Place the metal peg of the posiblock upwards and the positioner downwards: a magnet is used to hold the lens in position on the axis.
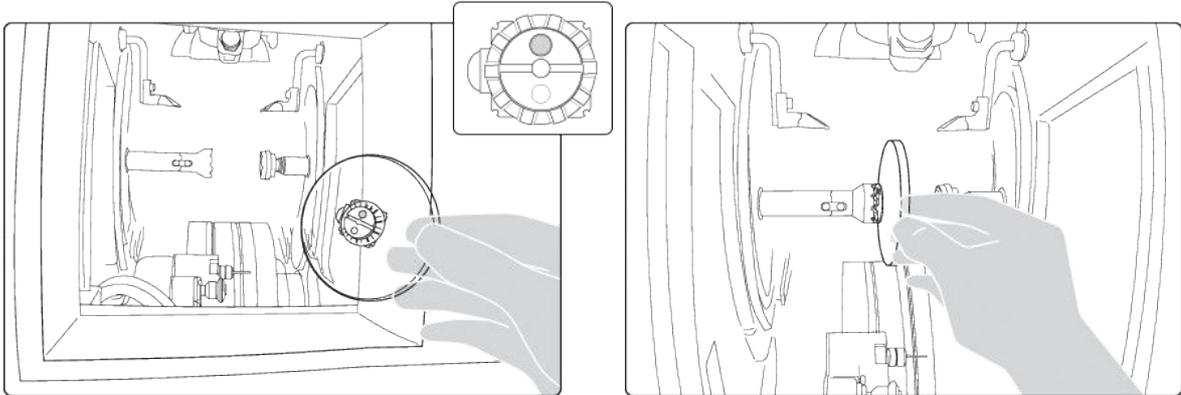
> You can clamp the lens manually by pressing .

> Make sure you move your hand well away before you start the edging cycle.

5 Press to start the cycle.

6 Proceed to a retouch if necessary, then carry out the edging of the second lens.

> With the ophthalmic lenses now edged, carry out the edging of the Chemistrie lenses ™.

7 Select the Chemistrie clip™ that you wish to edge.

> The following screen is displayed:
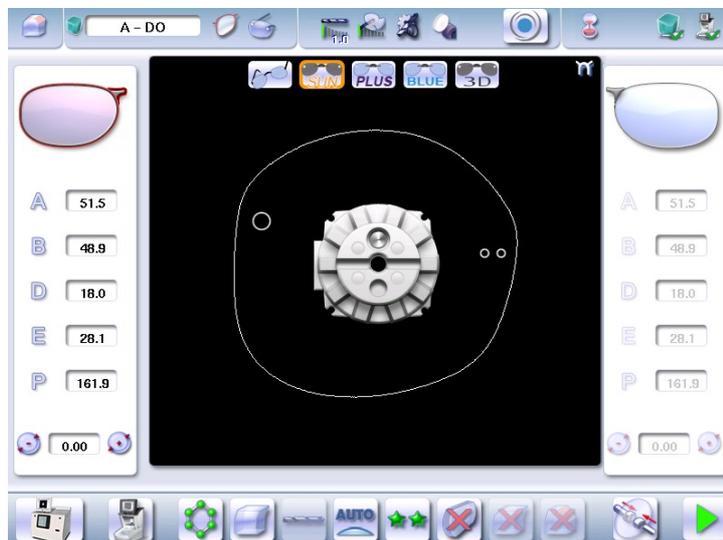
8 Place the two lenses (prepared beforehand) in the posiblock holder.

Place the metal peg of the posiblock upwards and the positioner downwards: a magnet is used to hold the lens in position on the axis.
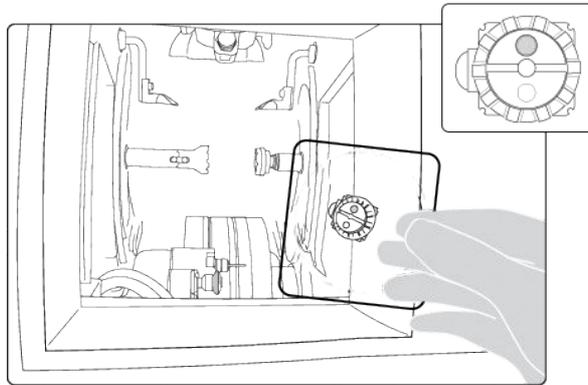
You can clamp the lens manually by pressing .

Make sure you move your hand well away before you start the edging cycle.

Check that the Chemistrie lenses™ are still properly in place during the clamping phase. They must remain clipped together.

9 Configure edging:

For the clips BLUE and PLUS, by default, edging is configured as follows:	
Material	
Finishing wheel	
Edging mode	
Type of cycle	
Polishing	

For the clips ![SUN] and ![3D], by default, edging is configured as follows:	
Material	![material icon]
Finishing wheel	![finishing wheel icon]
Edging mode	![AUTO icon]
Type of cycle	![stars icon]
Polishing	![polishing disabled icon]

10 Press ▶ to start the cycle.

Re-start the procedure for as many times as you have Chemistrie clips™ to perform.

14. CARRY OUT A HALF JACKET JOB (PRO-E 700)

We highly recommend that you edge a test lens before carrying out the edging of the final lens.

Preferably use a test lens that has a base unit equivalent to the ophthalmic lens.

a. Outline the step bevel trajectory on a Half Jacket shape

Call up the form

1 Press ![icon] to call up the desired shape located on the tracer.

> The shape is displayed on the edger work screen.
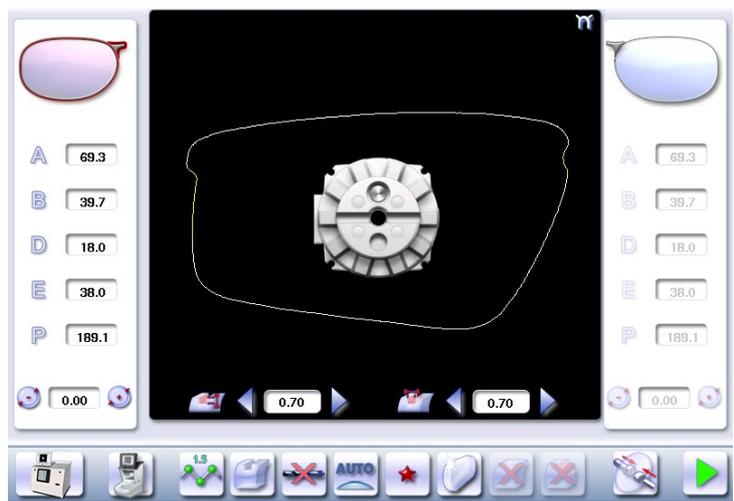
2 Press [icon] to select the Half Jacket finish.

3 Select lens material.

The cycle is automatically configured in "Customized".

4 Choose to perform a "super chamfer" on the rear surface of the lens.

[icon] It is strongly recommended to perform a "Super Chamfer" [icon] as part of a "Half Jacket" job.

[icon] For more information, consult the section Edging a lens > Perform a polishing and Edging a lens > Perform a Pro-E 700 super chamfer *(☞ p.70)*.

5 Press [icon].

> The door closes, the lens is clamped and then felt.

> The step bevel finishing screen is displayed by default.
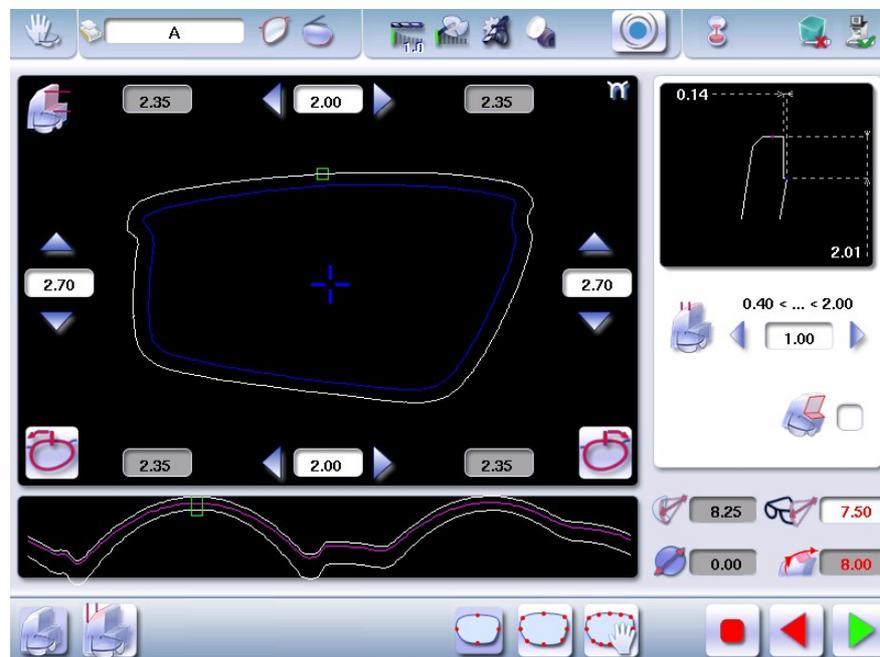
6 Press on [icon] to create step bevel shelf bevel, Half Jacket specific.

> The following screen will appear:
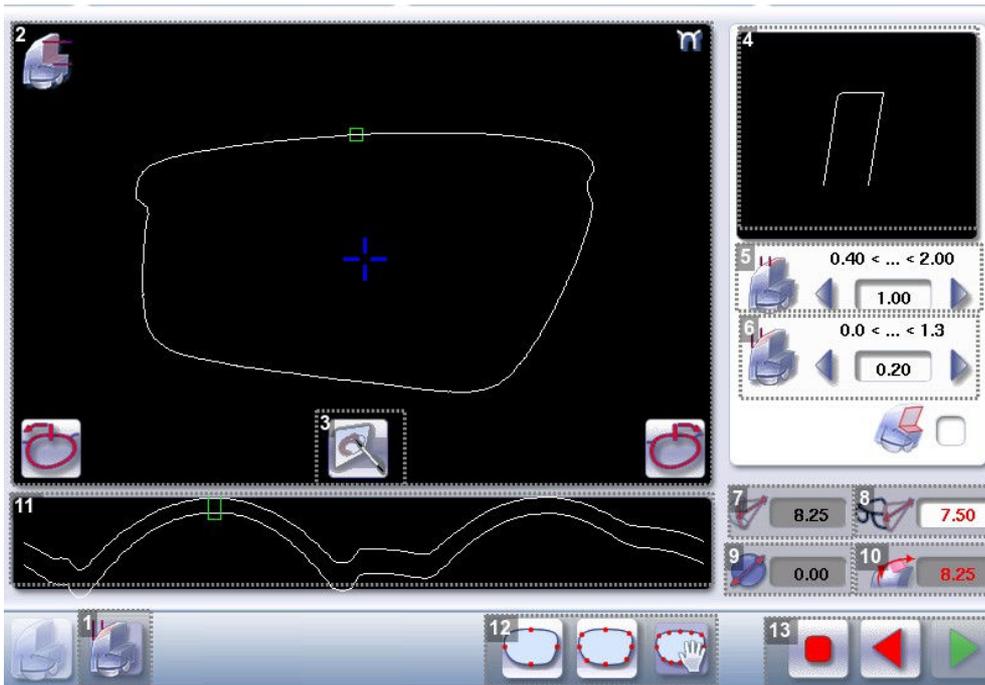
1. *Front surface tracking step bevel screen*

2. *Work area*

Image of the shape to be edged

3. *Access to step bevel definition screen*

4. *Zoom window*

Represents the bevel profile at the position of the cursor.

5. *Width of the flat side of the bevel*

The value of the flat side of the bevel must be between 0.4 mm and 2 mm.

6. *Front surface tracking value*

The value of front surface tracking must be between 0 mm and 1.3 mm. This value is definable only in the "front surface tracking" screen.

7. *Lens base*

8. *Frame base*

9. *Reminder of size reduction/increase applied to lens diameter*

10. *Bevel Base_Range of values of the lens base necessary for the frame*

If the lens base used is out of range: the range values are shown in red.

11. *Window showing the bevel trajectory on the lens section*

Centre of the flat side of the bevel

Front surface/rear surface of lens

12. *Number of shelf bevel values*

Transition from 4 to 8 shelf bevel values.

Transition from 8 to 4 shelf bevel values.

Transition into free shelf-bevel creation mode (Half Jacket specific)

13. *Navigation*

○ ▪ Stop the cycle

○ ◀ Back to the main edging screen

○ ▶ Start the edging cycle

Set the step bevel trajectory

Captioned screen

From the customized screen for the step outline, press [icon], then [icon] next to access the step bevel outline screen. The following screen appears:
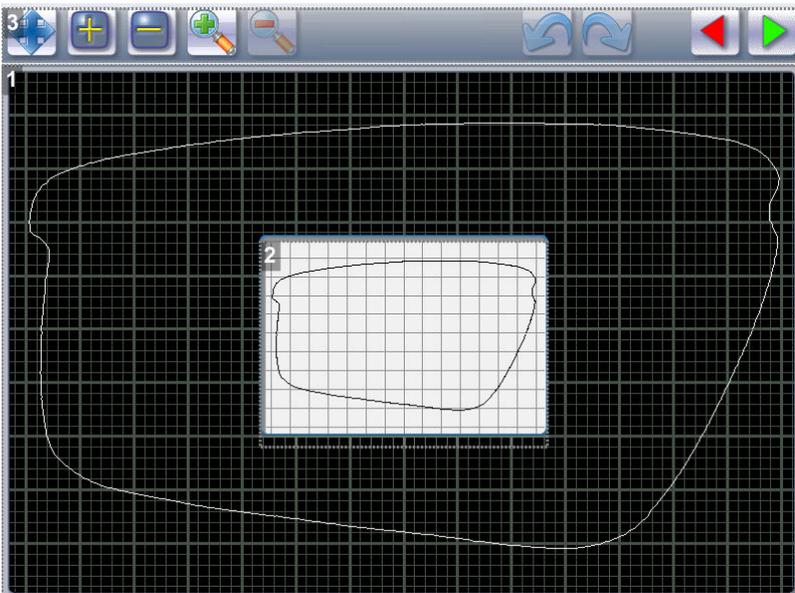
1. *Display and shape work zone*

2. *Scale 1 shape display window.*

3. *Tool bar*

[icon] : Selection of the shelf bevel area for modification.

When the form is selected:

○ the button changes: [icon] ,

○ the "non-machinable" zone appears in red ([■]) on the screen.

: Addition of points to outline the shelf bevel trajectory.

> When the button is selected, it changes:

: Deletion of points to outline the shelf bevel trajectory.

> When the button is selected, it changes:

To add or remove points, the shape must be selected beforehand.

Use the stylus to set the bevel trajectory with precision.

Once the points are set, they appear in blue ( ).

: Front zoom

: Back zoom

: Cancel the preceding action

: Repeat the preceding action.

: Confirm

: Cancel

Create the step bevel trajectory

1 From the customized screen for the step outline, press ⊞ to select the shape, then ✛ to add points.

> The following screen will appear:
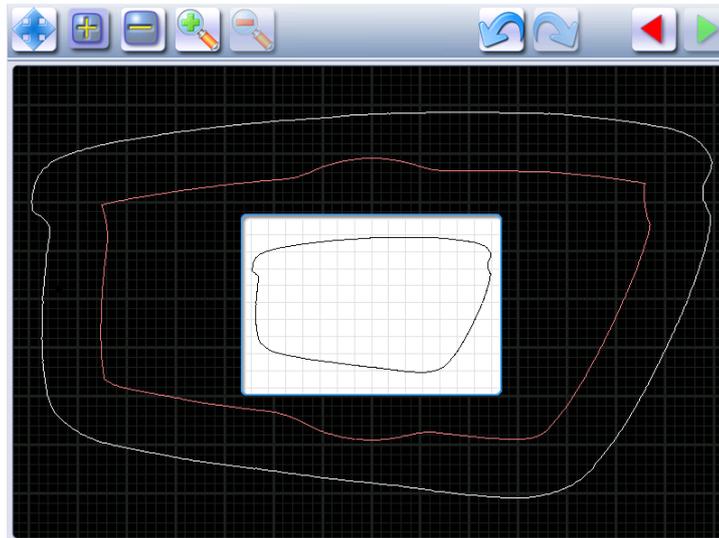
2 Press and hold the stylus to set the first point of the step bevel trajectory.

> An audible signal informs you that the first point is registered.

> The point is displayed in blue within the work space and in the display window on scale 1.
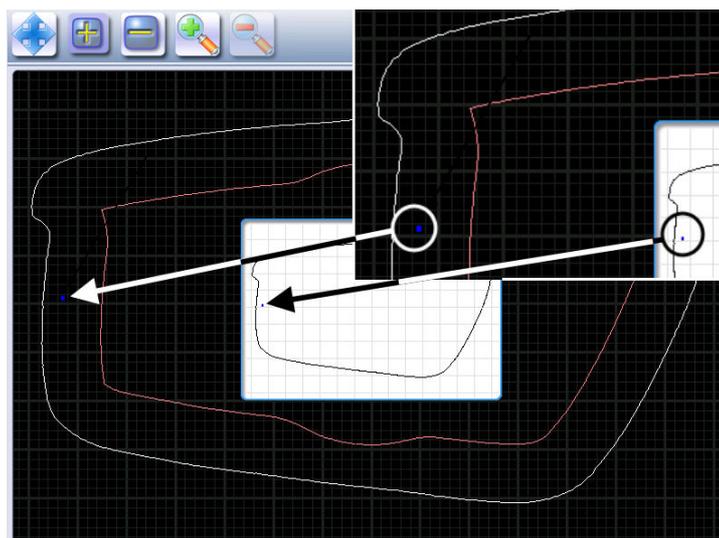
3 Press and hold the stylus to set the second point of the step bevel trajectory.

> A green segment (▮) is created between the points.
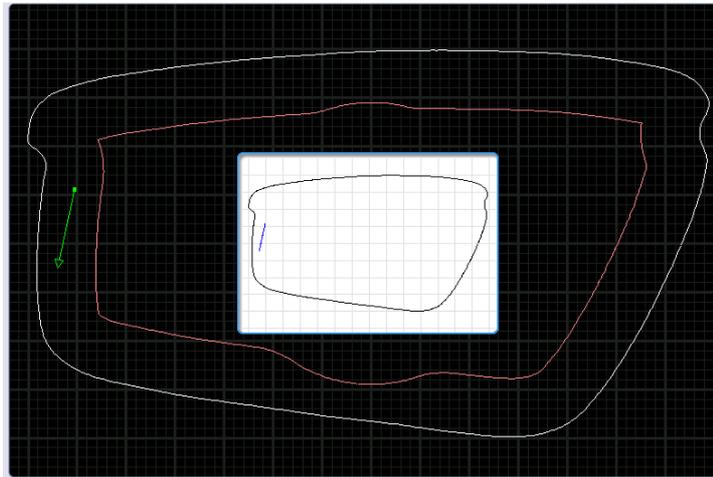
> An audible signal informs you that the second point is registered.

> The segment is displayed in blue within the work space and in the display window on scale 1.
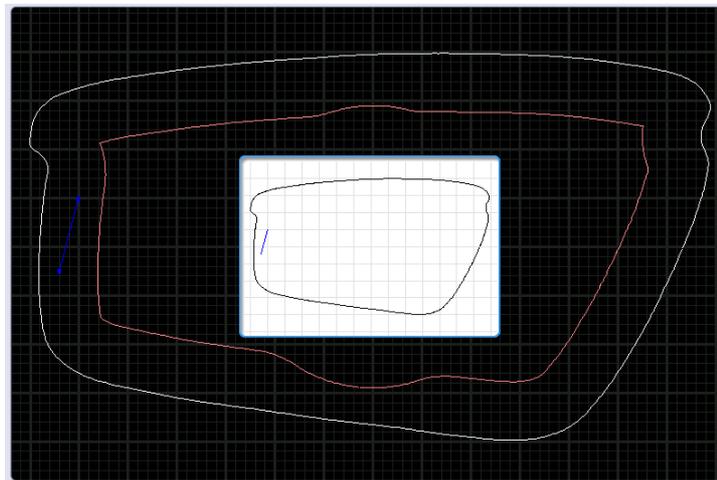
If you raise the stylus, the bevel curve is displayed in green, it is calculated automatically.

You can redo this trajectory by setting the third point using the stylus.
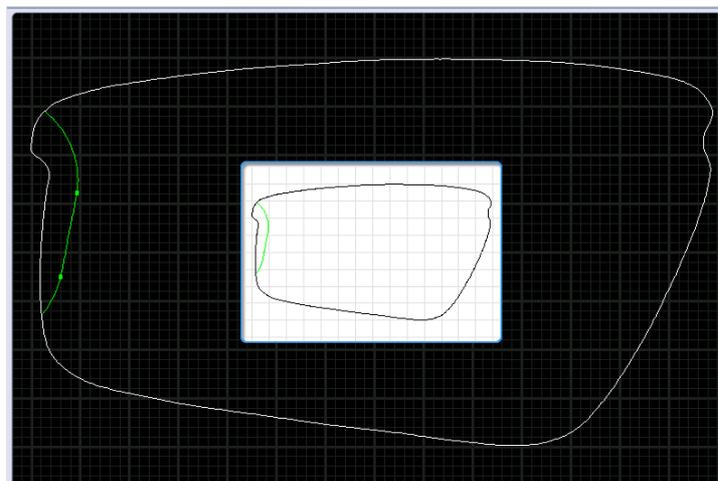
4 Press and hold with the stylus to set the other points of the step bevel trajectory, one after the other.

With each audible signal, raise the stylus a few seconds before setting a new point by pressing and holding

It is preferable to create a greater number of points at the angles to gain precision, if you wish to adjust more precisely the bevel trajectory using the zoom.

Conversely, for easier handling, it is preferable to reduce the number of points on the curves so the adjustment is more effective.

> The step bevel trajectory is set.
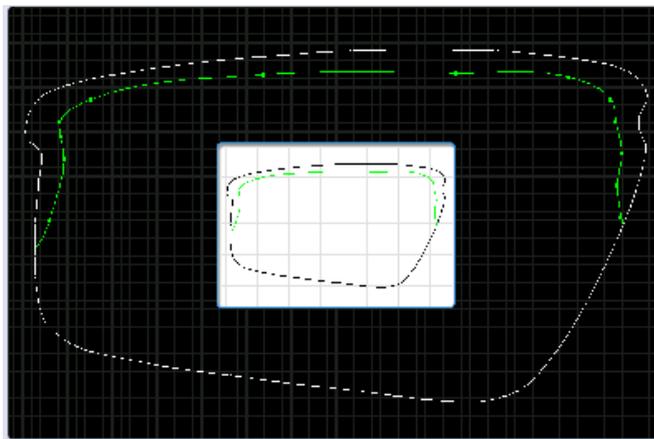
The orange trajectory ■ () cannot be performed, because the tool cannot reach it.
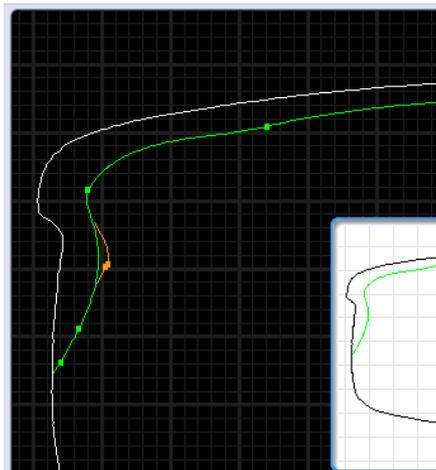
The trajectory in green (■) will be performed (it is not necessary to modify the trajectory).

For more information, consult the Set step bevel section > Adjust the trajectory *(☞ p.91)*

Go into zoom mode

You can zoom in on a specific point or outline an area.

Increase a particular point

1 Press to switch into Zoom mode.

2 Press and hold the stylus on the point of the shape that you want to see more precisely.

⚠️ Press on the Frame shape at bottom of groove in white (☐).
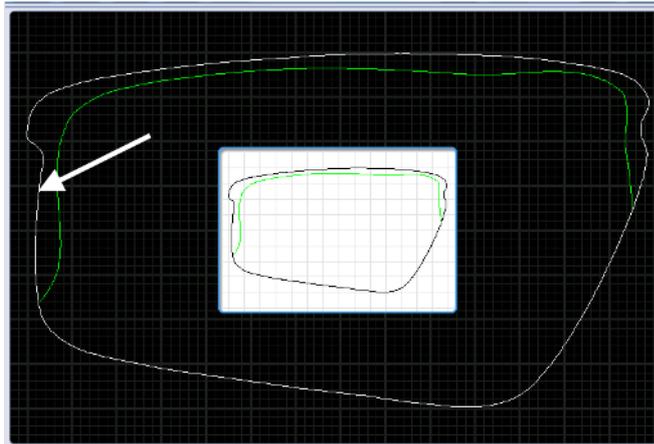
> An audible signal informs you that the information is registered.

The image is displayed:
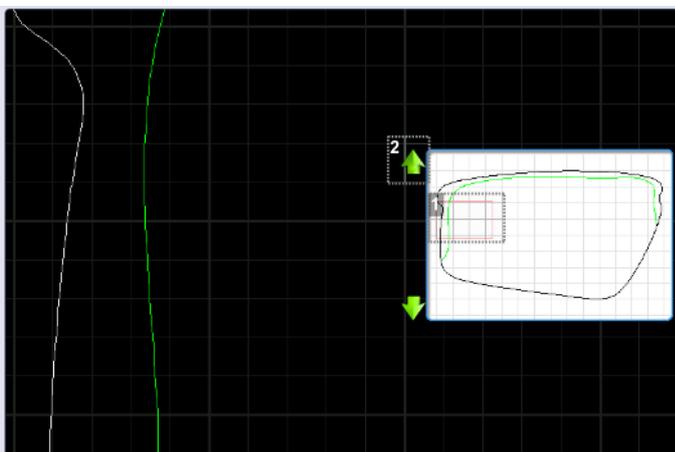
1. *Locate the form on scale 1.*

2. *Movement arrow*

⬆️ Movement to the top of the shape

⬇️ Movement to the bottom of the shape

3 Press again to enlarge the area.

When the enlargement is at a maximum, the icon is grayed ⊕.

4 Press ⊖ again to shrink the area.

Enlarge a defined area

1 Press ⊕ to switch into Zoom mode.

2 Using the stylus press on a point of the shape.

3 Move the stylus over the shape.

> The defined segment appears in yellow.
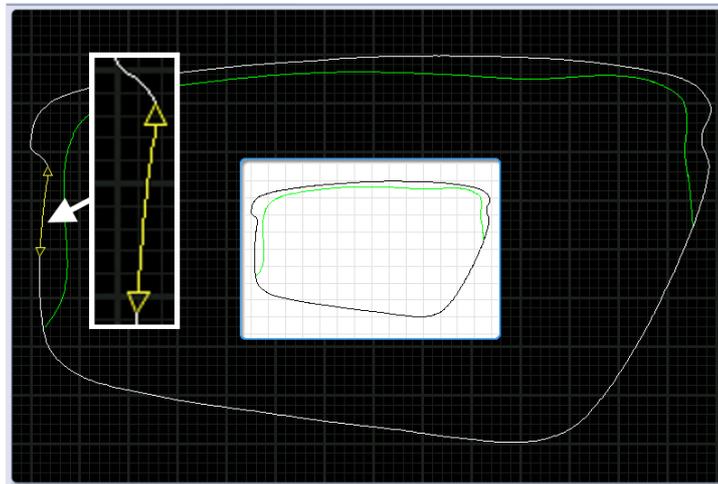
4 Press and hold to set the end of the segment outlining the area that you want to enlarge.

> An audible signal sounds 3 times.

> The area is displayed:
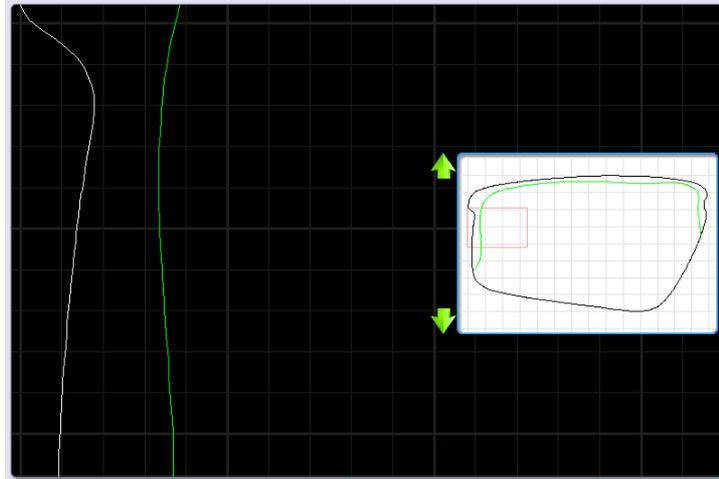
Adjust the step bevel trajectory

1 Press ✛ to select the shape:

> The points of reference appear, the shape can be modified.
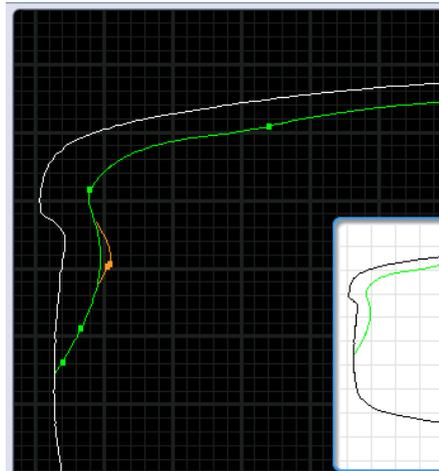
2 Using the stylus press on a point of the shape.

3 Move the stylus over the shape.

> The defined segment appears in yellow.
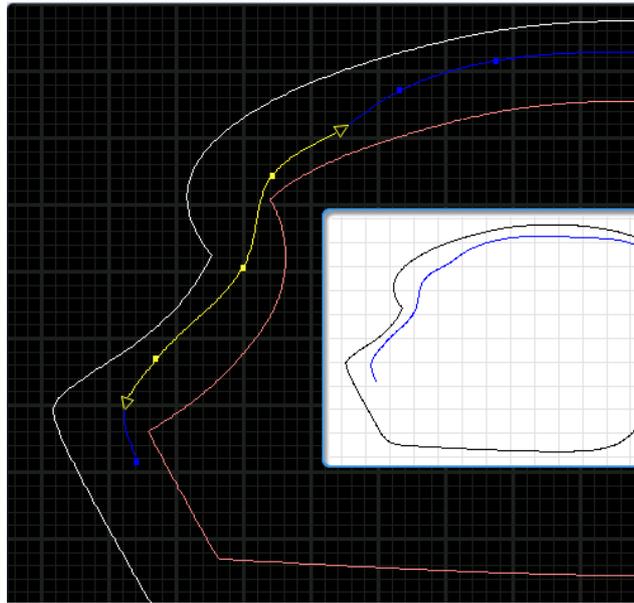
4 Press and hold the stylus to set the end of the segment.

> An audible signal sounds 3 times.

The segment appears in green.
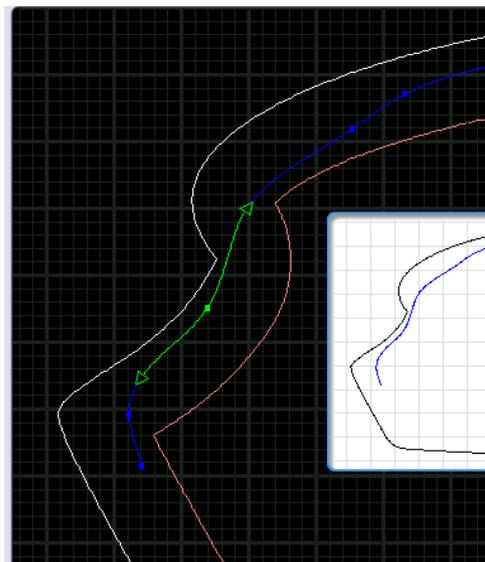
5 Move the segment using the stylus.

When the trajectory passes by the closed area:

- The segment concerned becomes red.
- The whole bevel curve becomes red in the display window on scale 1.
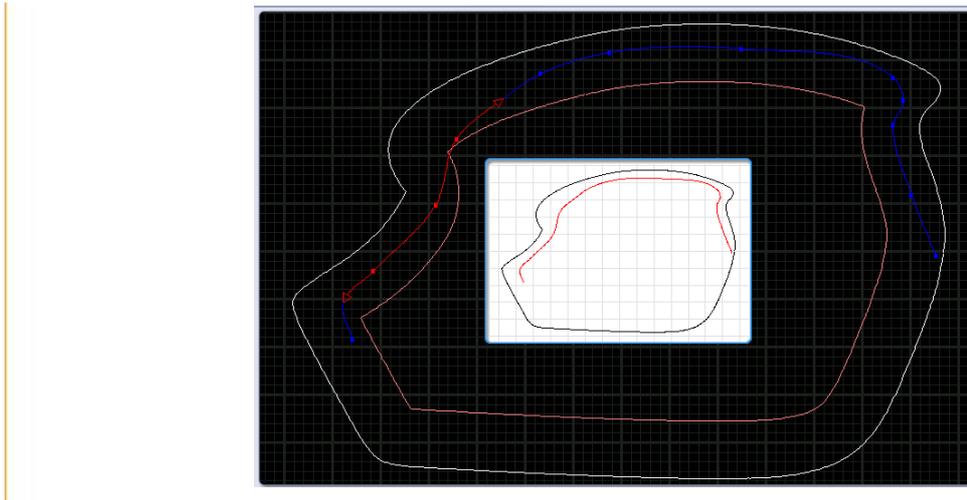
6 Raise the stylus to validate the modification.

> An audible signal sounds 3 times.

> The segment becomes blue (only the points of reference set by you will appear), the machine recalculates the trajectory of the curve => the trajectory becomes green.

The modification is validated.
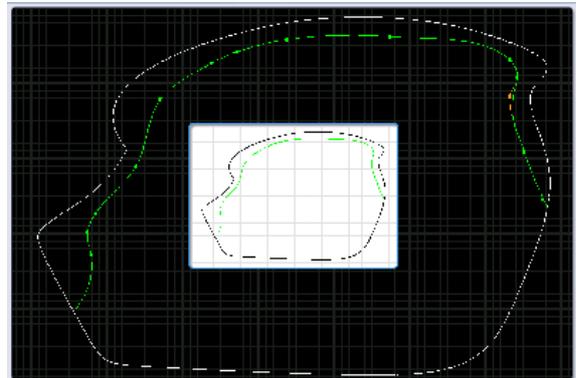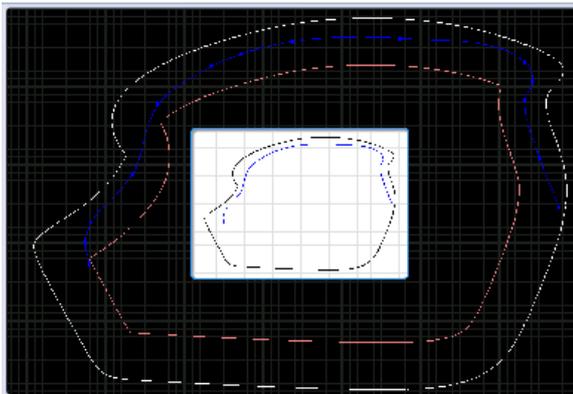
> The modification is validated.

The tracking distance for the front surface of the step bevel is managed in the customized settings screen for the step bevel in "front surface tracking" mode.
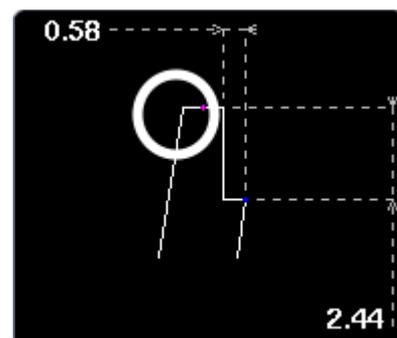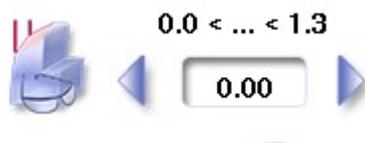
7 Press to confirm the shelf bevel.

b. Finalize the step bevel settings in "front surface follow-up" mode

1 Configure the flat side of the bevel and the front shelf bevel of the bevel step.
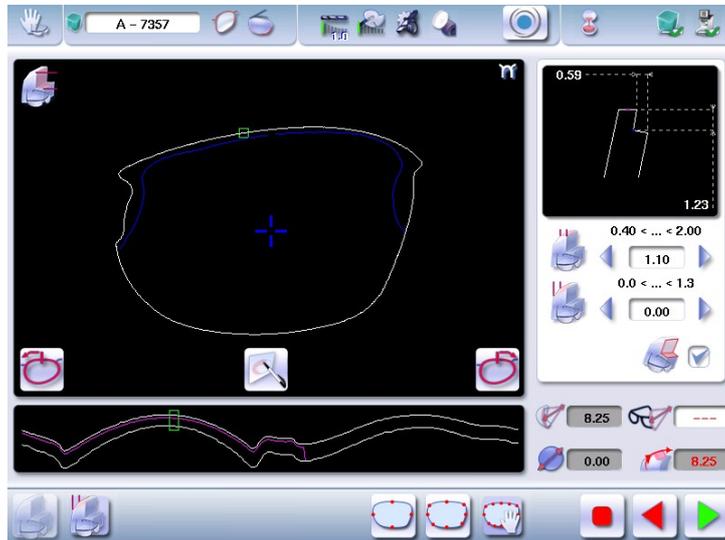
2 Press the buttons and on the right of your screen to modify the width of the flat side of the bevel.
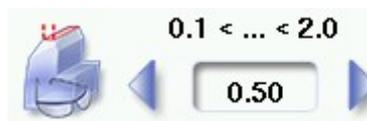
> The result can be viewed in the zoom window.
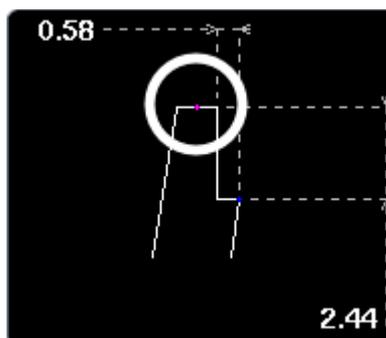
3 Press the buttons and on the right of your screen to modify the value of front surface tracking.

It is advised to set the value at 0 because front shelf bevel will be viewable on the entire contour of the shape.

0.0 < ... < 1.3

0.00

> The result can be viewed in the zoom window and the display window of the bevel trajectory on the lens section.

0.58

2.44
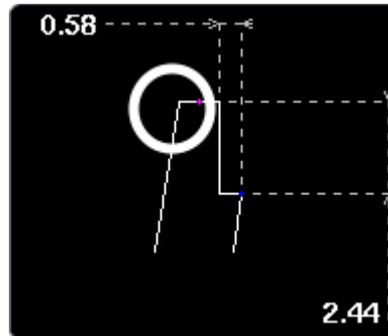
4 Press systematically to tilt of the bevel (mounting aid).

> The bevel tilt is selected .

> The result can be viewed in the zoom window.

0.46

2.19

5 Press the "cycle start" button (front face) or .

> The edging cycle starts.

> When the edging cycle is finished, the retouch screen is displayed.

6 Press to release the lens.

7 If necessary, retouch the lens.

Otherwise, start edging the second lens. Select the lens directly on the screen, on the left or right of the work area.

> The edging screen for the second lens is displayed. All finishes chosen and the modifications made are kept.

⚠️ If the test is not mounted correctly in the frame, go to Essibox to modify the shape.

c. Modify the shape on Essibox

If the test lens cannot be mounted, we advise you to modify the shape on Essibox.

⚠️ Contact your customer support if the job is not available in the job manager on Essibox.

1 In the job manager screen on Essibox, press the "ID number" to select the job.

> The following screen is displayed:

You can visualize the job by pressing ⟳.

Adjust the display to a scale of 1 to superimpose the demo lens on the shape.

2 Press ⟳ to return to the "M'Eye Touch" creative modification screen.

> The following screen is displayed:
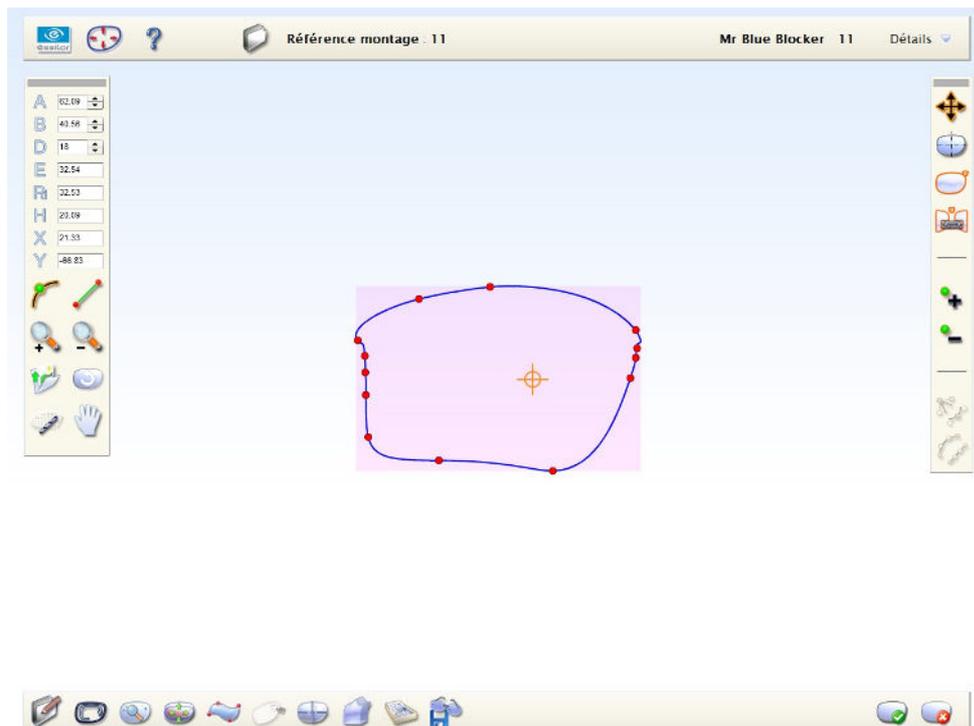
3 Press to select the point from which you wish to modify the shape

4 Press to select the "angle" tool

● : Reference point: point from which the shape modification will be started.

○● : Check-points: points allowing you to modify the curve.

**5** Modify the shape to ensure optimal mounting in the Half Jacket frame.
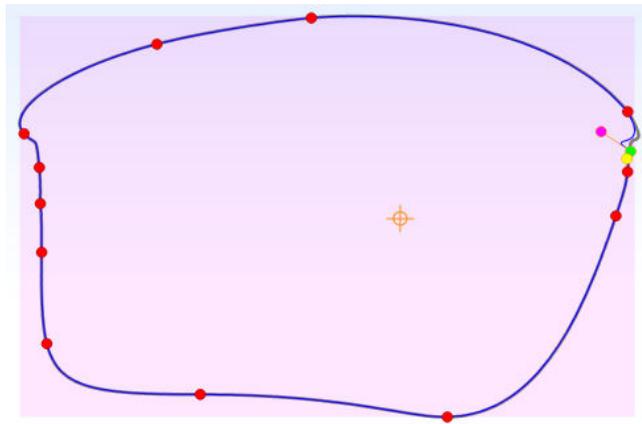

6 Press to check the shape's feasibility.

The button becomes red .

> The following screen will appear: The shape is valid.
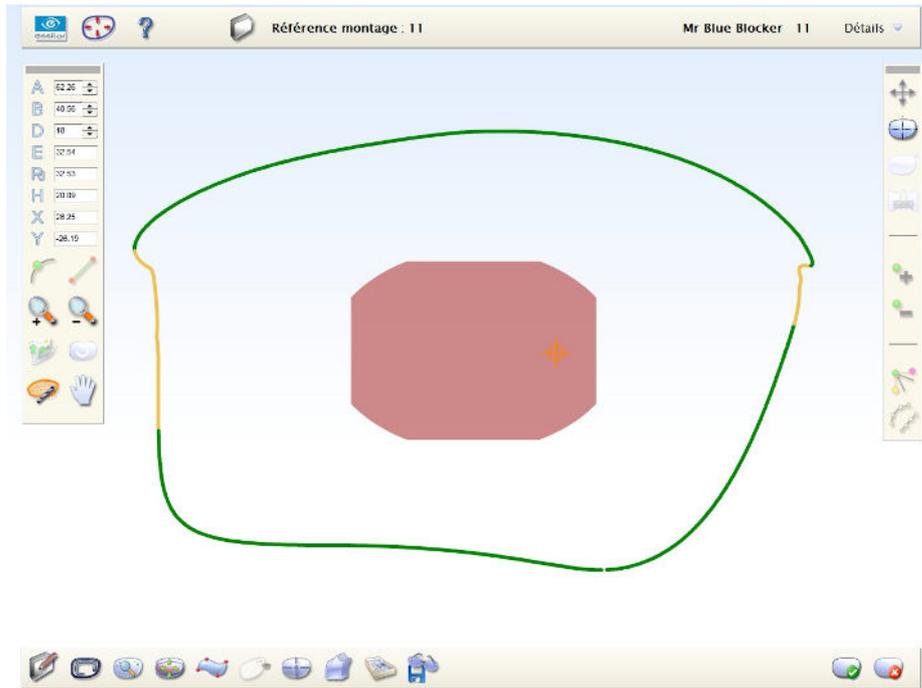
| | • | ■ Large wheels |
| | • | ■ Drill bit |

7 Press [icon] to confirm the new shape.

8 Recall the shape on the edger to make a new test lens.
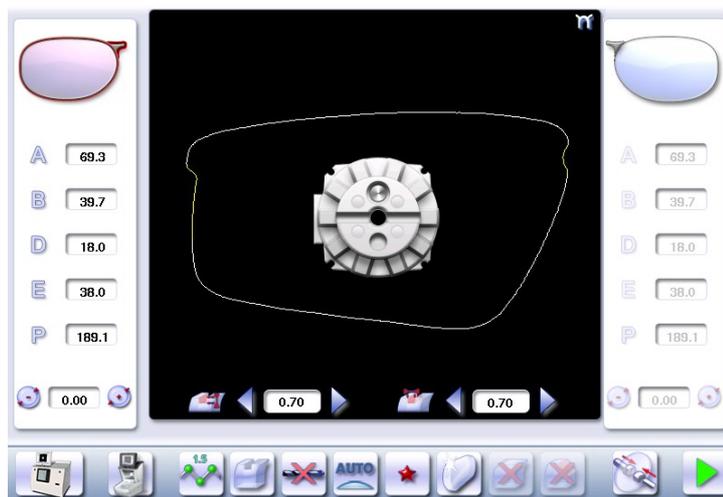
15. M'EYE SIGN FEATURE (PRO-E 700)

This section describes the procedures relating to performing an engraving:

- the choice of engraving and preparation of engraving on Essibox (or on a networked computer), *(☞ p.100)*
- the completion of the engraving on the edger, *(☞ p.112)*
- setting up favorites. *(☞ p.116)*

a. To prepare the engraving

The preparation of engraving is carried out on Essibox (or a networked computer) in two stages:

1. choosing the motif, *(☞ p.100)*
2. setting up the engraving *(☞ p.108)*

Choosing the motif

Various work options are possible, you can:

- choose a motif to be engraved without prior job and shape preparation.
  >This option lets you save a selection of motifs simply and quickly for engraving later.
- choose a motif to be engraved after having prepared the job and the shape.
  >This option allows you to show the customer the position and the size of engraving on the shape.

Menu screen

Choice of motif
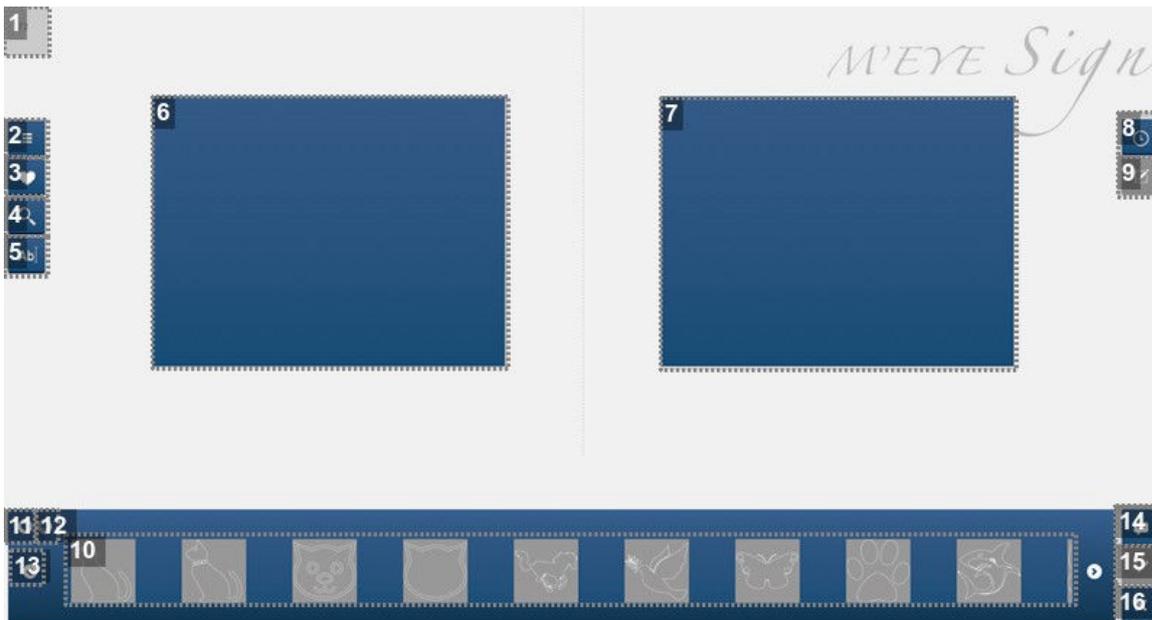
1. *Current job number*

If you return to the engraving menu without selecting a job, no number is shown.

2. *Choice of a category*

- ◦ Animals
- ◦ Stars
- ◦ Celebration
- ◦ Cultures and communities
- ◦ Flowers and plants
- ◦ Fun and children
- ◦ Games
- ◦ Music
- ◦ Peace and Love
- ◦ Sports
- ◦ Symbols
- ◦ Transport
- ◦ Tribal
- ◦ Zodiac signs

3. *Choice from favourites*

See the next paragraph for a description of the favourites bar.

4. *Search by keyword*

5. *Choice of letters or symbols*

Gives access to the text entry field and choice of font.

6. *Right side*

7. *Left side*

8. *List of engravings on hold*

Allows the workshop to search for a selection of engravings made at the time of the sale, in order to associate it with the job to be done.

9. *Configuration of engravings on shapes*

Function only available if a job containing a shape was selected before accessing the engraving menu (see the paragraph "Screen for configuration of engravings on shapes").

10. *Motif view bar*

If a category is selected, its name is displayed at the top of the bar. Here, no category is selected.

11. *Activation or deactivation of the Add/Delete favourites bar*

12. *Add favourites*

Becomes ⊖ when the view bar displays favourites to allow you to delete them.

13. *Browsing the motif view bar*

14. *Comments intended for the workshop*

Allows entry of a comment. The icon is displayed in green when there is a comment to read.

15. *Save*

Allows you to save the customer's choice from the list of engravings in the queue so that the workshop can find it and link it to the assembly. By clicking on it, the window for entering the customer's first name and surname is displayed.

16. *Exit the screen without saving*

<u>1st work option: To choose a motif without first selecting a Job</u>

You can access the engraving menu without selecting a job from the list. By doing so you can save a simple selection of motifs, under the customer's name, while waiting for job preparation.

1 Press [ICON] to start "Job Management."

2 Press [ICON] to access the engraving menu.

> Motif choices are displayed on the screen:
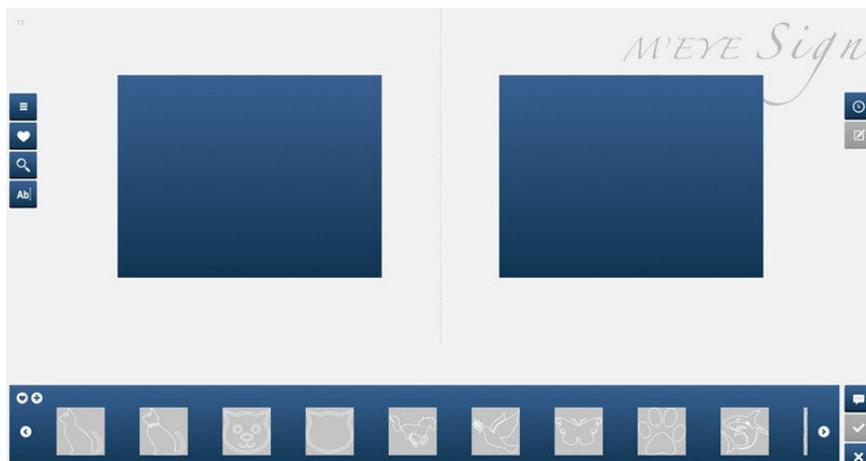
3 Select the motif from the display bar, then drag-and-drop it onto the side of the lens.

To delete a motif, drag-and-drop the motif out of the frame.

You can setup your favorites, refer to the section setting up favorites *(☞ p.116).*

You can engrave different motifs on the right and left lens.

In the case of a text motif:

Press **Ab|** to enter your text (e.g. initials, first name, etc.) and choose your font.
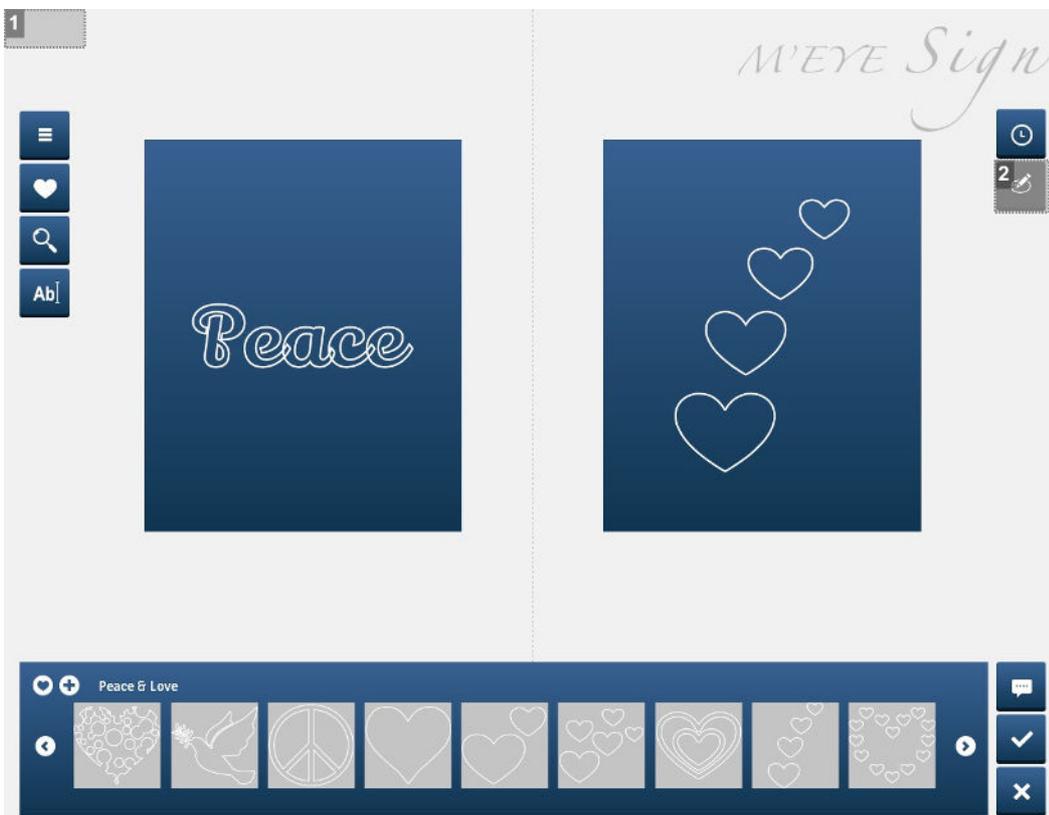
1. *Lack of job number*

2. *Setup screen inaccessible*

4 Press 💬 to enter a comment for the workshop

> The symbol is displayed in green 💬 when there is a comment to be read.

**5** Press ✔ to save the motif selection.

> The screen below appears:

PUT ON HOLD

LAST NAME	FIRST NAME	RIGHT MOTIF	LEFT MOTIF

1. *Name*

2. *First name:*

3. *Right side motif*

4. *Left side motif*

5. *Confirm*

6. *Cancel*

6 Enter the first and last name of the customer for whom the job or the selection of motifs is intended,

then press ✓ to confirm.

> The motifs have been saved.

To connect the motif selection with a shape.

1 Press to start "Job Management."

2 Select the job that you want to assign a selection of motifs to for engraving and press to access

the *engraving* menu.

3 Press to check engravings in the queue (selections of engravings saved under the customers'

names).

> The following screen will appear:

ENGRAVINGS ON HOLD (15/15)

	VISIT DATE	LAST NAME	FIRST NAME	RIGHT MOTIF	LEFT MOTIF
☐	06/11/2014	Test	Test	Peace	
☐	04/11/2014	Sssss	Wwwww	Peace	
☐	03/11/2014	b	b		
☐	03/11/2014	Dupont	Dupont		

Delete **More**

1. *Sorting*

It is possible to sort each column.

2. *Search*

Enter your search criteria.

3. *To erase*

Select the motifs to be removed by ticking the boxes then press *Delete*

4. *More*

To display a more significant number of engravings in the queue.

4 Double click on the chosen motif selection.

> The following screen will appear:
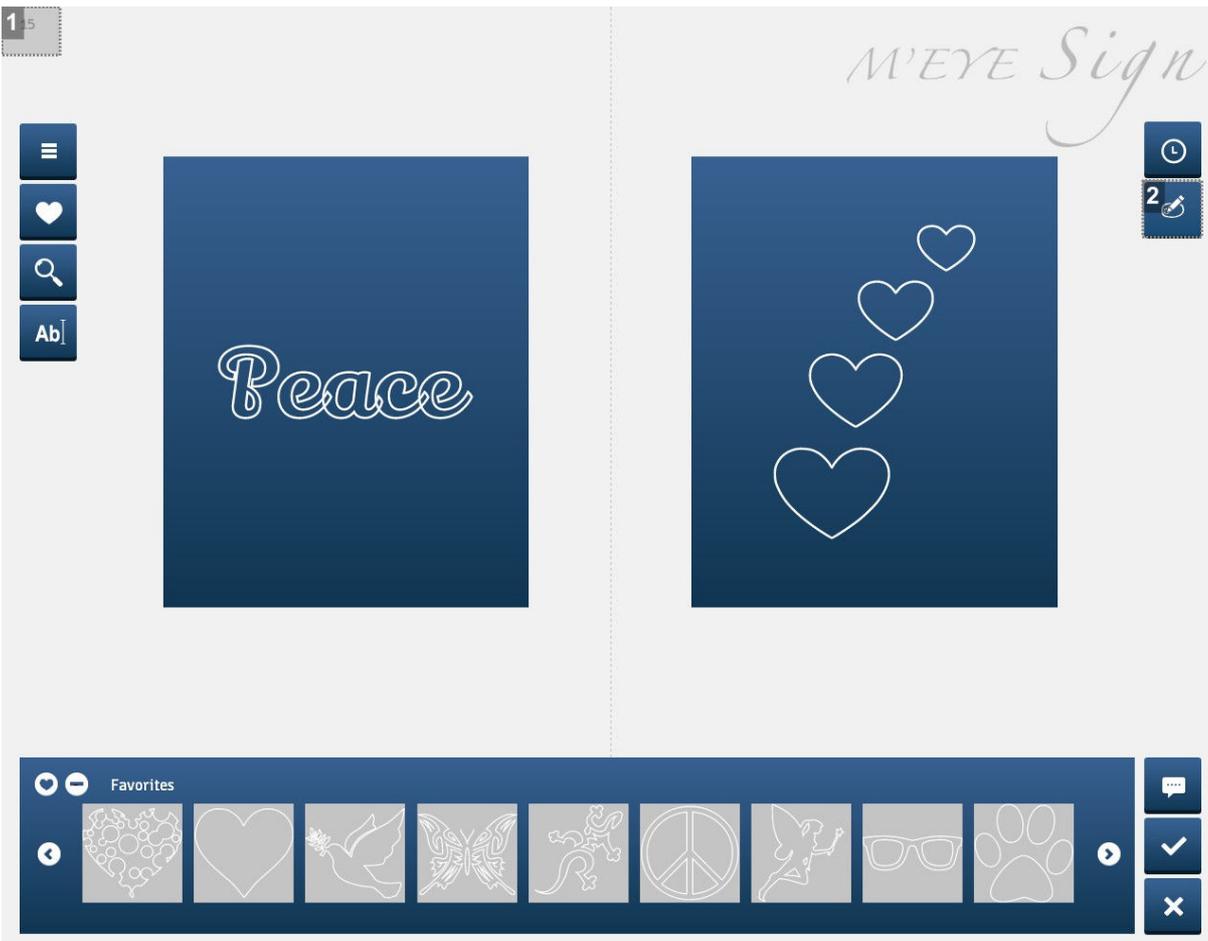
1. *Job number*

2. *Accessible settings screen*

5 Press ⬛ to set up the engraving

2nd work option: Choosing a motif after having selected a Job beforehand

1 Press 📖 to start "Job Management".

> > The screen below is displayed:
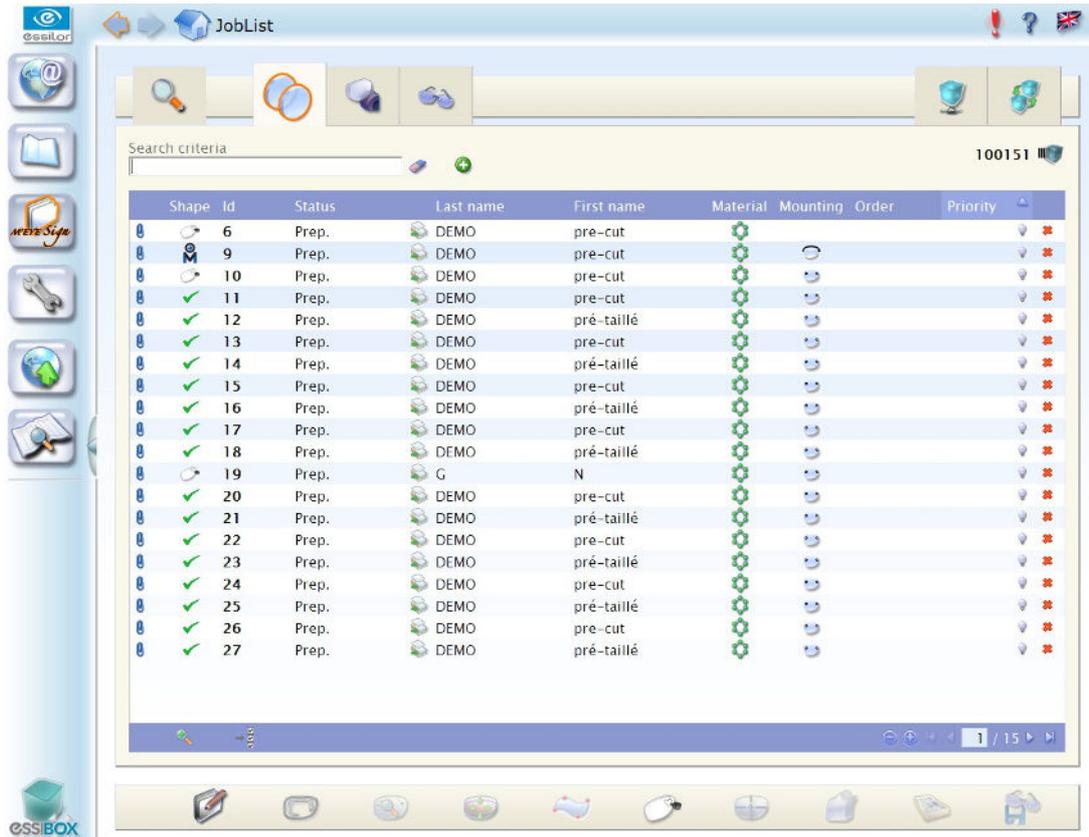
2 Select the job you wish to carry out an engraving on, then press to access the engraving menu.

> You can access the *engraving* menu without selecting a job in the list.
>
> >You can save a simple selection of motifs, under the name of the customer, while waiting for the job preparation.

> Motif choices are displayed on the screen:
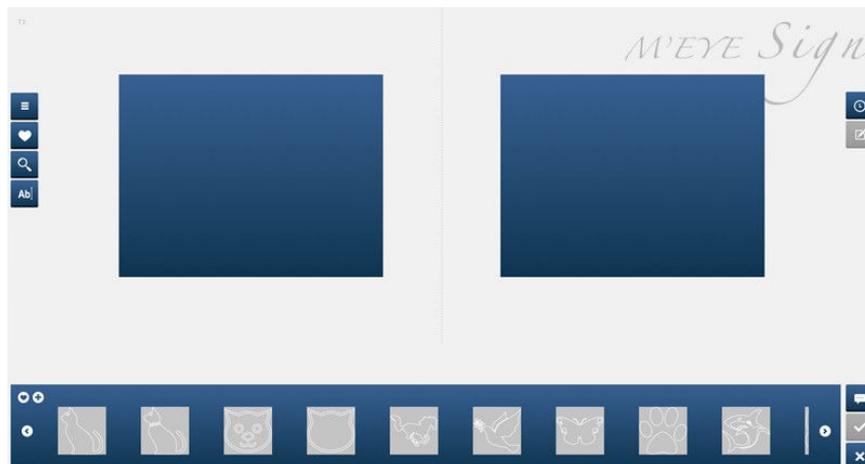
3 Select the motif from the display bar then drag-and-drop onto the side of the lens (for more information, refer to the previous procedure).

4 Press ✏️ to set up the engraving

Setting up the engraving

✅ Prerequisite:

You can access this screen if a job containing a shape was selected before entering the M'Eye Sign menu and if at least one engraving has been selected.

The screen allows you to position the motif on the lens shape and adjust its size if necessary.

⚠️ It is recommended to:

- set up the engraving before centering the lenses (this way, the centering device takes into account the position of the engraving for the choice of the posiblock 🟤 or ❄️).

- carry out all the other shape settings (drillings, shape modifications, etc.) before positioning the engraving.

Menu screen

This screen allows you to adjust the position and the size of the engraving.

1. *Shape of right lens*

2. *"Peace" motif for engraving on the right lens*

The motif is displayed in red when it is incorrectly positioned and therefore not possible. It becomes blue when its position is correct:

3. *Frame representing the recommended engraving area*

4. *Boxing center*

5. *Optical center*

6. *Circle representing the "prohibited" area of the edger*

This is the area in which the edger cannot engrave.

7. *Circle representing the "prohibited" area of the field of vision*

The area is centered on the optical center in FV. The half distances and heights must therefore be correctly indicated. If this is not the case, their frame is displayed in red.

8. *1/2 Pupillary distance*

9. *Pupillary height*

10. *Arrows for moving the motif on the shape*

The motif can also be moved with the mouse.

11. *Modification of motif dimensions*

It is possible also to resize the motif with the mouse. Position the mouse on the white mark to vary the size:

12. *Identical transfer of the selected motif to the other lens*

When the button is active (displayed in dark blue), the modifications made to the selected motif are applied simultaneously to the other motif.

13. *Symmetry of the selected motif with the other lens*

14. *Lens edge tracking*

This function only applies to text motifs.

15. *Green button = comment to be read*

16. *Save*

You access the job management screen again.

17. *Exit without saving*

18. *Position in X and Y of the engraving position*

19. *Engraving size*

The default size is as big as the largest engraving dimension, equal to 5mm.

Procedure

1 Press 🖊️ to access the engraving settings screen.

> The engraving settings screen appears:
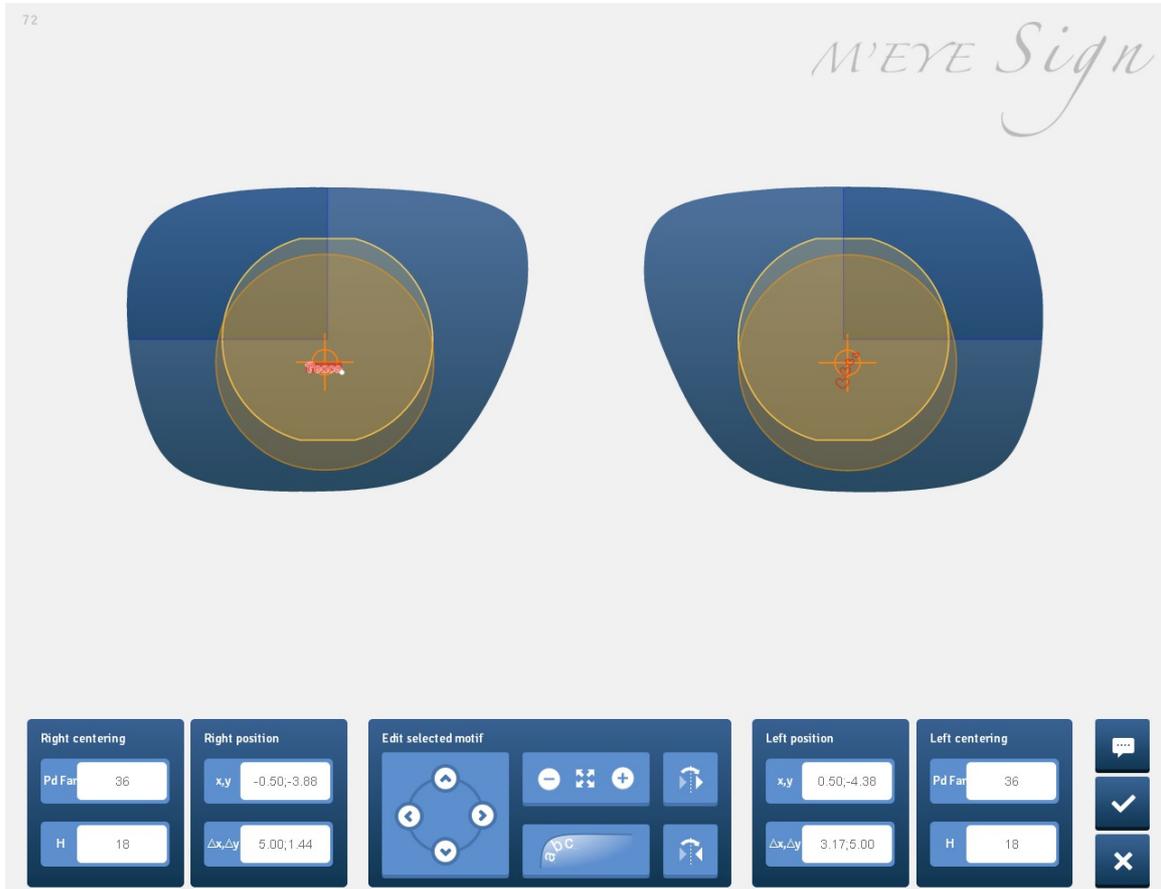
2 Press **Pd VL** to input the 1/2 pupillary distances and press **H** for the heights.

📓 The values are automatically transmitted to the centering device.

3 Press:

- ▶️ or ◀️ to move the motif towards the right or the left hand side,

- 🔼 or 🔽 to move the motif upwards or downwards.

💡 You can also move the motif using the mouse.

💡 You can also press:

  • 🔁 to carry out an identical transfer of the selected motif onto the other lens,

- to carry out a symmetrical copy of the selected motif onto the other lens.

4 Press ➕ and ➖ to increase or decrease the motif.

💡 You can also resize the motif using the mouse: position the mouse on the 🔳 mark and keep the button pressed down to vary the size.

📄 If a text motif is chosen: you have the option of tracking the lens edge.

⚠️ You must adjust the size of the motif before applying the edge tracking function. Once the function is applied, resizing is no longer possible.

5 Press 🔳 to track the lens edge.

> The motif immediately adapts to the edge of the lens.

6 Press ⬆ or ⬇ to move the motif further from or closer to the edge of the lens.

> The dotted marker and the motifs move.

7 Move the motif along the dotted marker via the mouse (holding the click) to position it as required.

> The motif follows the dotted marker.

8 Press ✔ to confirm or press ✖ to leave without saving.

💡 In job management you can assign the Essibox barcode to the prepared job.

b. Performing engraving

⚠ You must have performed lens centering and blocking on the tracer before performing edging

1 Call up the job on the edger.

For more information, consult the section Edging a lens > Edger work environment > Calling up a shape *(☞ p.22)*

> The edging screen is displayed:
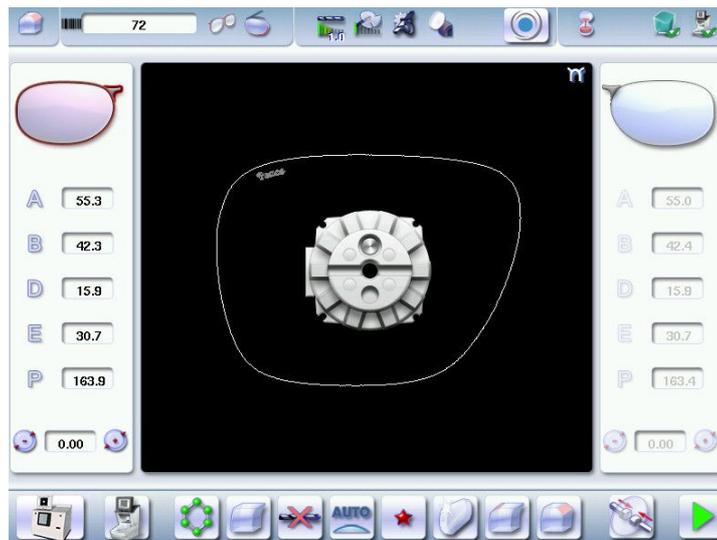
2 Set up the edging settings for your job and start the cycle.

For more information, refer to the section Edging a lens. *(☞ p.18)*

⚠ You are not allowed to engrave on glass.

> Once edging has been carried out, the following screen is displayed:

Screen missing

3 Press [icon] then [icon] to access the engraving screen.

> A window is displayed, which requests you to replace the drilling tool with the engraving tool.

4 Change the tool.

For more information, consult the Maintenance section and servicing>Maintenance and servicing> to install and change the engraving tip *(☞ p.171)*

> ⚠ The engraving tip should only be in the edger when engraving cycles are being performed.
>
> The chuck must always contain a tool to avoid any risk of oxidation.

> ⚠ You must replace the engraving tip with the drill bit as soon as you go back to the edging menu.
>
> A warning message indicates that:

5 Press ✔ to confirm the tool change-over.

> The screen for starting the engraving cycle is displayed:
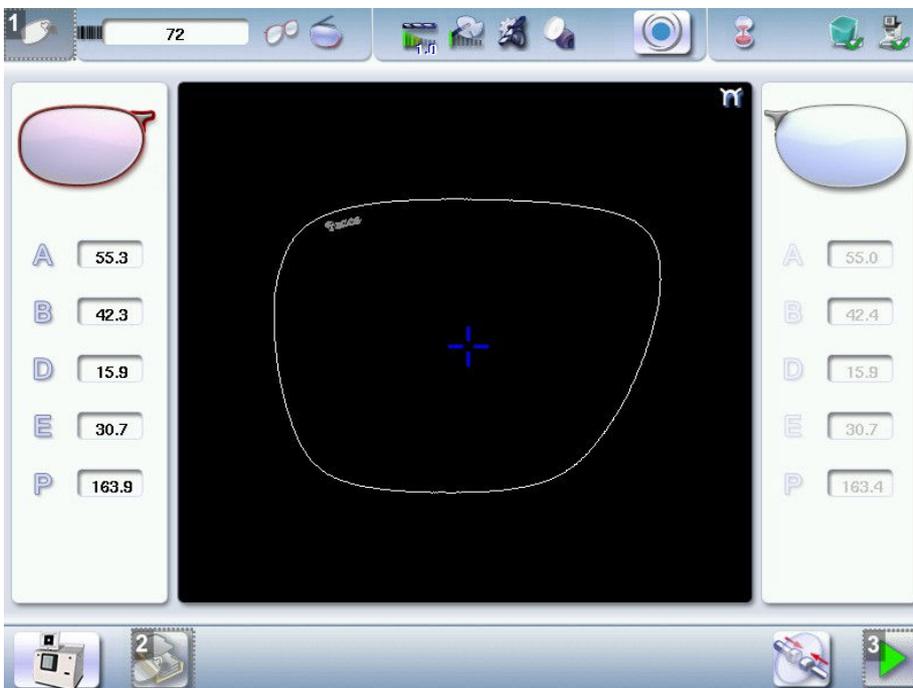
1. *Engraving screen indicator*

2. *Series engraving mode*

3. *Launching the cycle*

6 Press ▶ to start the cycle directly.

7 Press 📁 to use the mode "engravings in series."

> **Engraving in series**
>
> Perform the lens edging of engraved jobs without carrying out the engravings and keeping the blocked lenses.
>
> At the end of the edging job including engraving, all the necessary information for the engraving is saved (feeling data, jobs, engravings).
>
> You can then call up jobs in order to carry out all engravings one after the other.

> The maximum number of jobs saved for the engraving is 500, once the maximum is reached saving a new job leads to removal of the oldest job.

> ⚠️ The time lapse between lens edging and engraving should not exceed 2 hours, after this the pad may damage the coating layers applied to the lens.

> The numeric keypad is displayed.

8 Enter the number of the job to be engraved.

9 Insert the lens to be engraved (already cut and still blocked) corresponding to the selected job.

10 Press ▶ for the engraving cycle.

> Once the cycle is finished, the following screen is displayed:
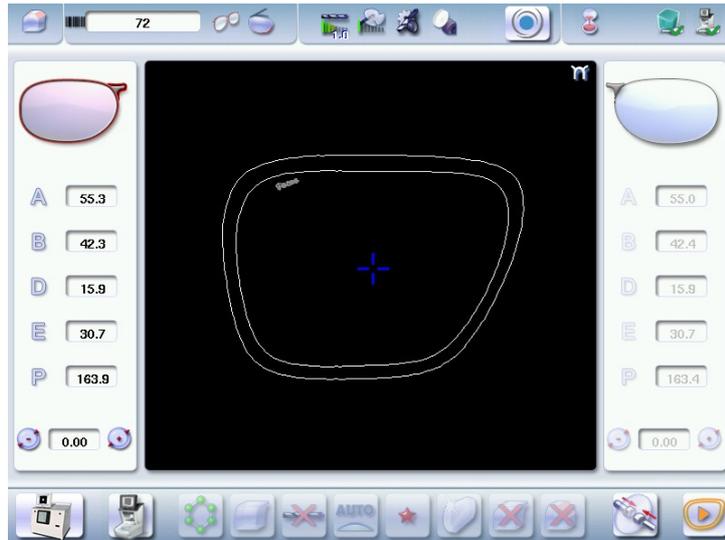
11 You can redo an engraving run by pressing .

> ⚠ It is impossible to start the engraving cycle on the second lens if it has not been cut.
>
> The ▶ button is not available.
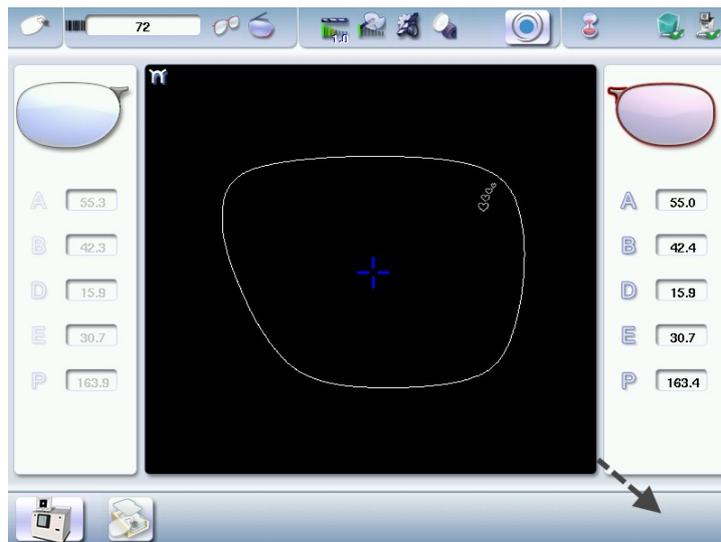
c. Setting up the favorites

Captioned screen
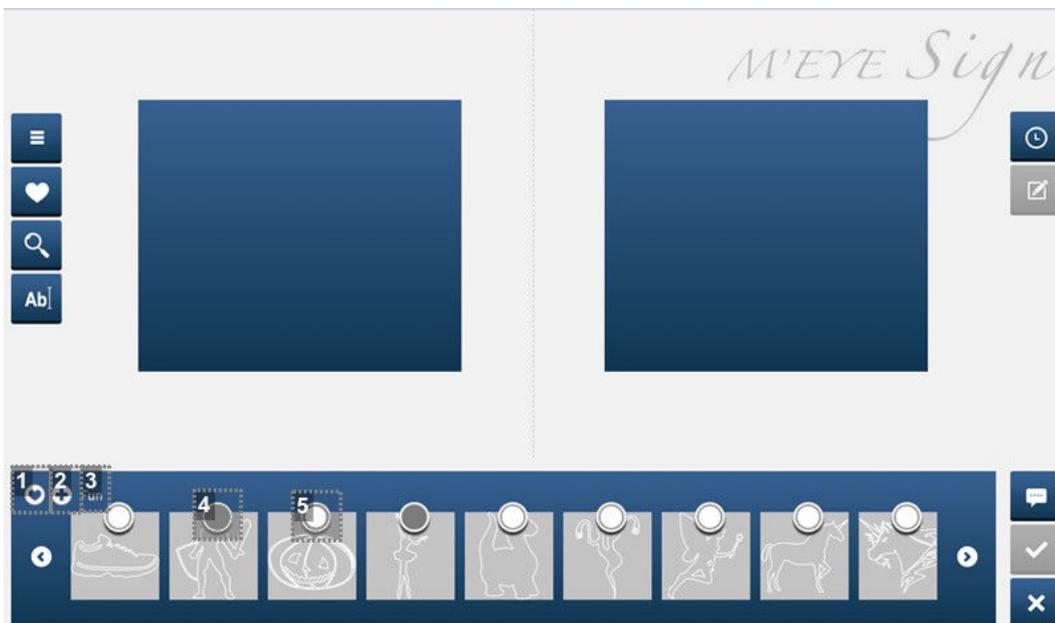
1. *Activation or deactivation of the Add/Delete favourites bar*

2. *Add favourites*

Becomes ⊖ when the view bar displays favourites to allow you to delete them.

3. *Name of the category viewed.*

4. *Selected motif (gray circle)*
   ◦   Click in the circle to select the motif.
   ◦   Click again in the circle to unselect the motif.

5. *Motif not selected or unselected (white circle)*

Procedure

1 Press ♥ to add a motif to your favorites

> The following screen will appear:

2 Click on ◯ to select the motif.

💡 Click again in the circle to unselect the motif.

> The message "Favorites update" lets you know that the motif has been added to your favorites.

16. M'EYE TOUCH FEATURE (PRO-E 700)
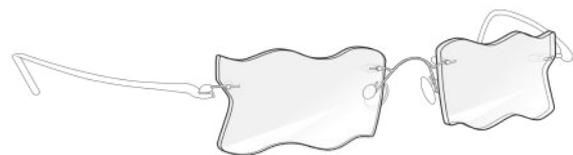
This section describes the procedures relating to the creation of a creative shape (M'Eye Touch).

To create your own shapes, with an Essilor Instruments tracer centerer blocker you can use the pre-cut patterns and carry out an optical tracing, cut out your own patterns according to your imagination and carry out an optical tracing, use the software available on Essibox.

💡 * Contact your sales representative to order patterns made for this purpose.

For further information, refer to the documentation included on the USB key supplied with your pack, or refer to the Essibox on-line guide.

The user must ensure that the reproduced shapes are not copyrighted.

The optician must inform the patient that wearing lenses with creative shapes must be compatible with the activity of the patient/final customer.

The optician must ensure that wearing the glasses is not harmful to the user.

a. On Essibox

Various work options are possible, you can:

- use the default shape to create your own,
- use any form available in "jobs management" to create the desired form.

Captioned screen
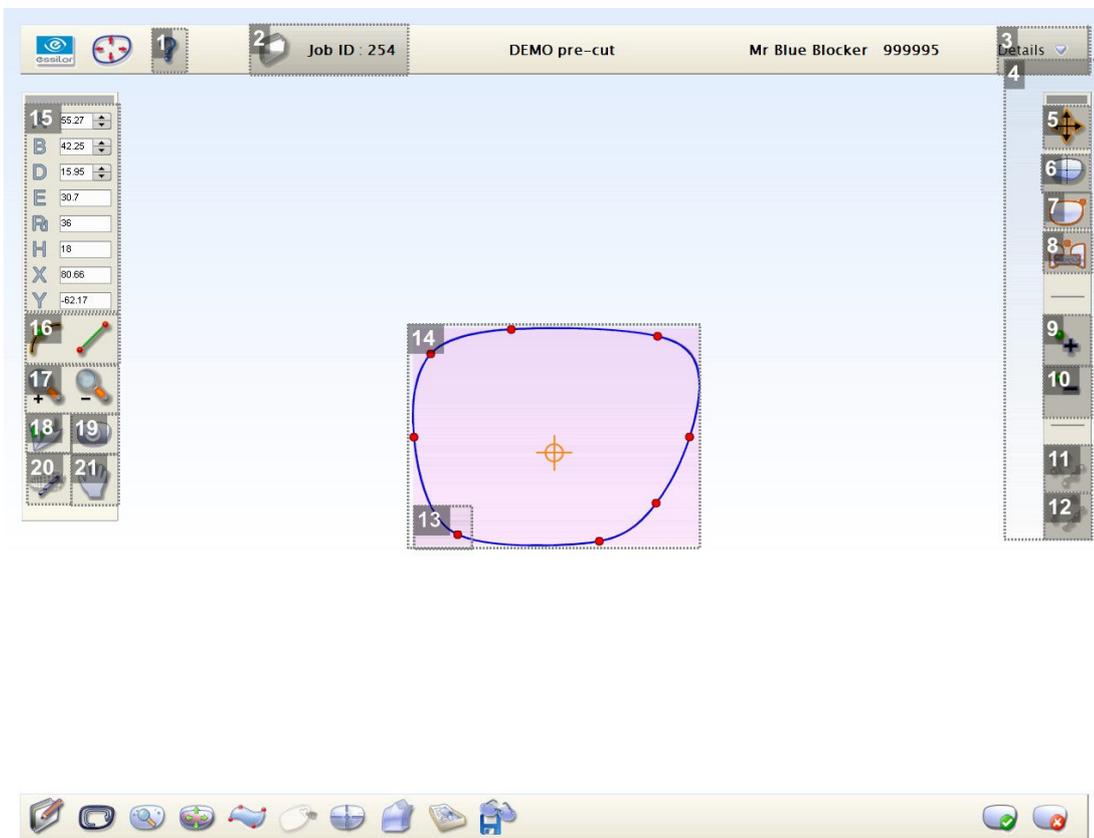
1. *Access to online help*

2. *Job number*

3. *Information about job*

4. *tool bar*

5. *Selection tool*

 Movement of reference points

Selection of curve and check-points

6. *Display mode*

To display or mask XY markers.

To display or mask the markings of progressive lenses.

To display or mask the rough lens.

To display or mask the posiblock (after edging simulation).

(nonfunctional)

To display the initial form (before shape modification).

7. *Display on the right side*

Display on the left side

Display on both sides (in this view, you cannot modify the form).

8. *Symmetrical mode*

Modification of both sides simultaneously

Modification of each side separately

>The symmetrical mode is activated by default

9. *To add a reference point*

10. *To remove a reference point*

11. *Tools for modifying "reference points"*

Angle tool

Curved tool

12. *Tools for modifying "segments"*

◦ D-segment

◦ Curve segment

13. *Reference point*

14. *Shape to be worked on*

15. *Information on the shape*

- ◦ A: A-dimension
- ◦ B: B-dimension
- ◦ D: D-dimension (bridge)
- ◦ E: Larger radius from the Boxing center
- ◦ Pd: Half pupillary deviation
- ◦ H: Pupillary height
- ◦ X: Coordinate of the mouse in X in the boxing repository of the lens being worked on
- ◦ Y: Coordinate of the mouse in Y in the boxing repository of the lens being worked on

16. *Selection of the modification vector:*

Reference point

Segment

17. *Zoom*

18. *Not available*

19. *Go Back*

20. *Display of the edging screen (simulation)*

This tool allows you:

- ◦ to visualize the shape that will be edged,
- ◦ to know which tools will be used for edging.

21. *Free displacement*

To use the creative shape modification tool

1 Press [icon] to start "Job Management".

2 Select the job you wish to modify.

3 Press [icon] to access "the creative shape modification" menu.

> The following screen will appear:
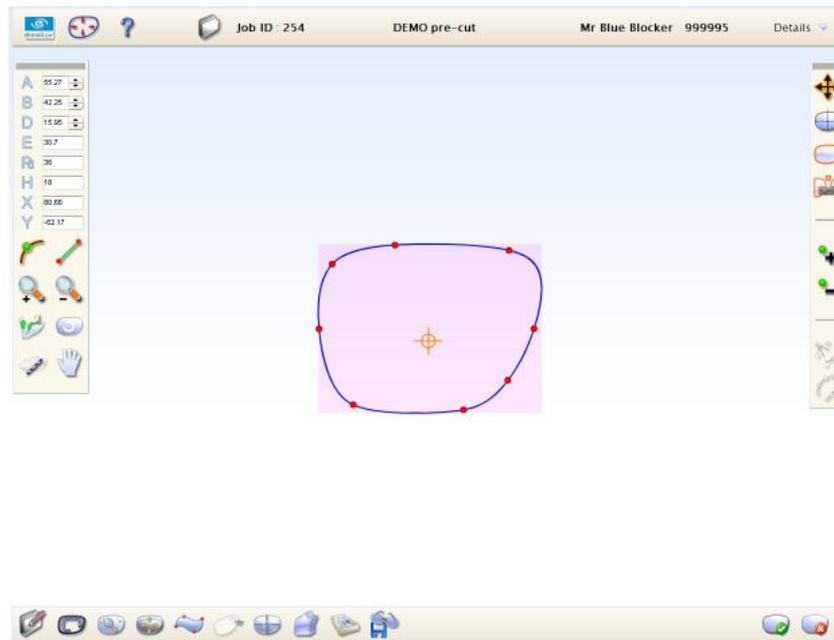
4 Press [icon] to select the point from which you wish to modify the shape

5 Press [icon] to select the "angle" tool

>

   ● : Reference point: point from which the shape modification will be started.

   ○● : Check-points: points allowing you to modify the curve.

6 Press [icon] to add a reference point

[icon] To erase a point, select it with your mouse then press [icon] .
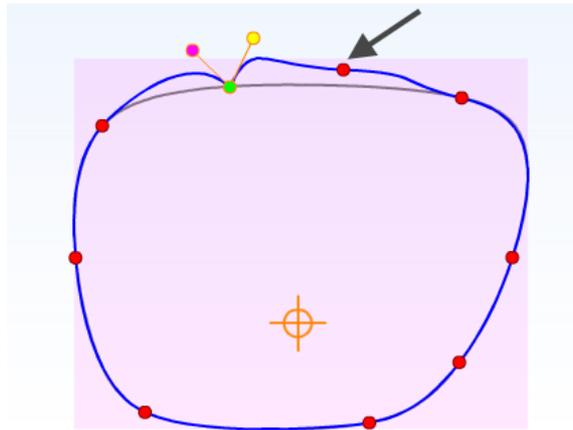
**7** Press [icon] to symmetrically modify the segments on both sides of the reference point.

8 Press [icon] to select a segment.

> The following screen is displayed:
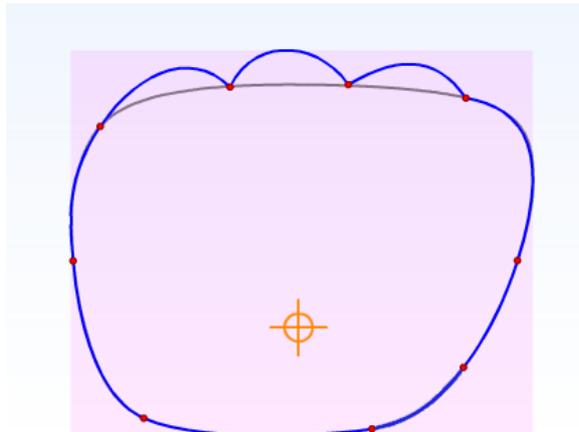
The [icon] menu becomes active.

9 Select the segment to be modified using the mouse.

> The selected segment turns green.
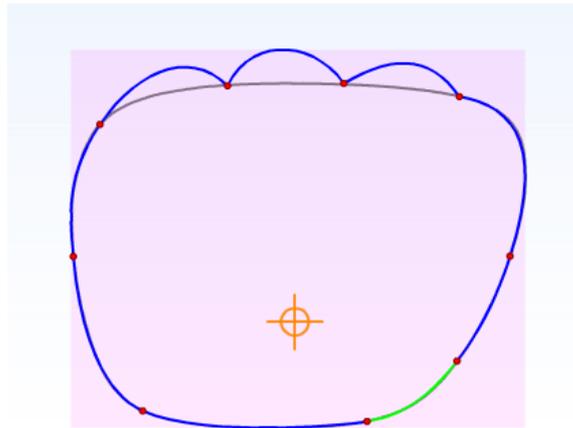
10 Press to create a straight line.

> The following screen will appear:
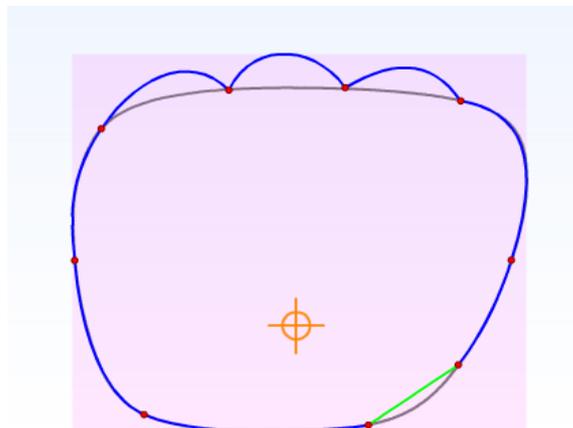
 if you selected , the initial form remains displayed in gray ().

**11** Press to check workability.

> The following screen will appear:
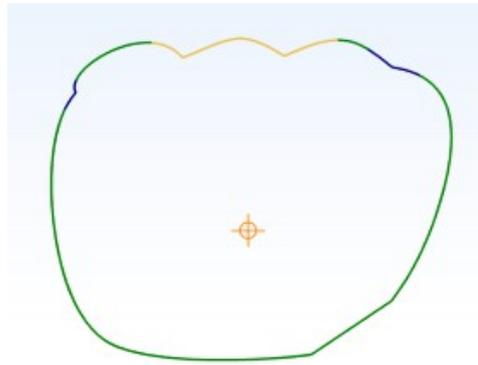
- 🟩 Large wheels
- 🟨 Drill bit
- 🟦 if Mr Blue 2.0=> high-base wheel/If Pro-E 700 Drill bit

⚠️ Possible form but in an approximate way in the red sector
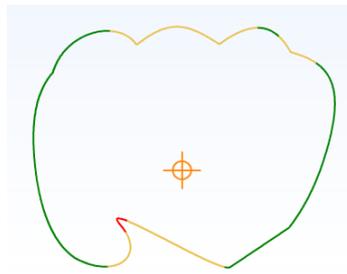
💡 **Displaying the markers**
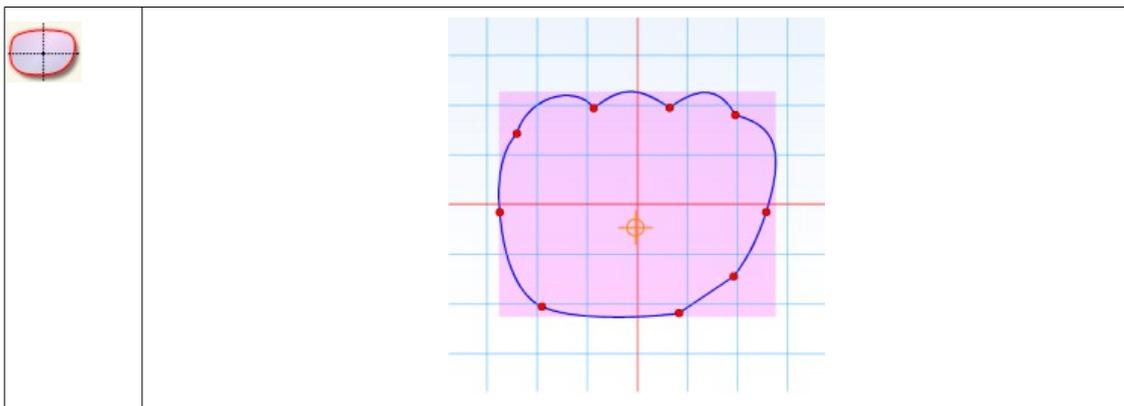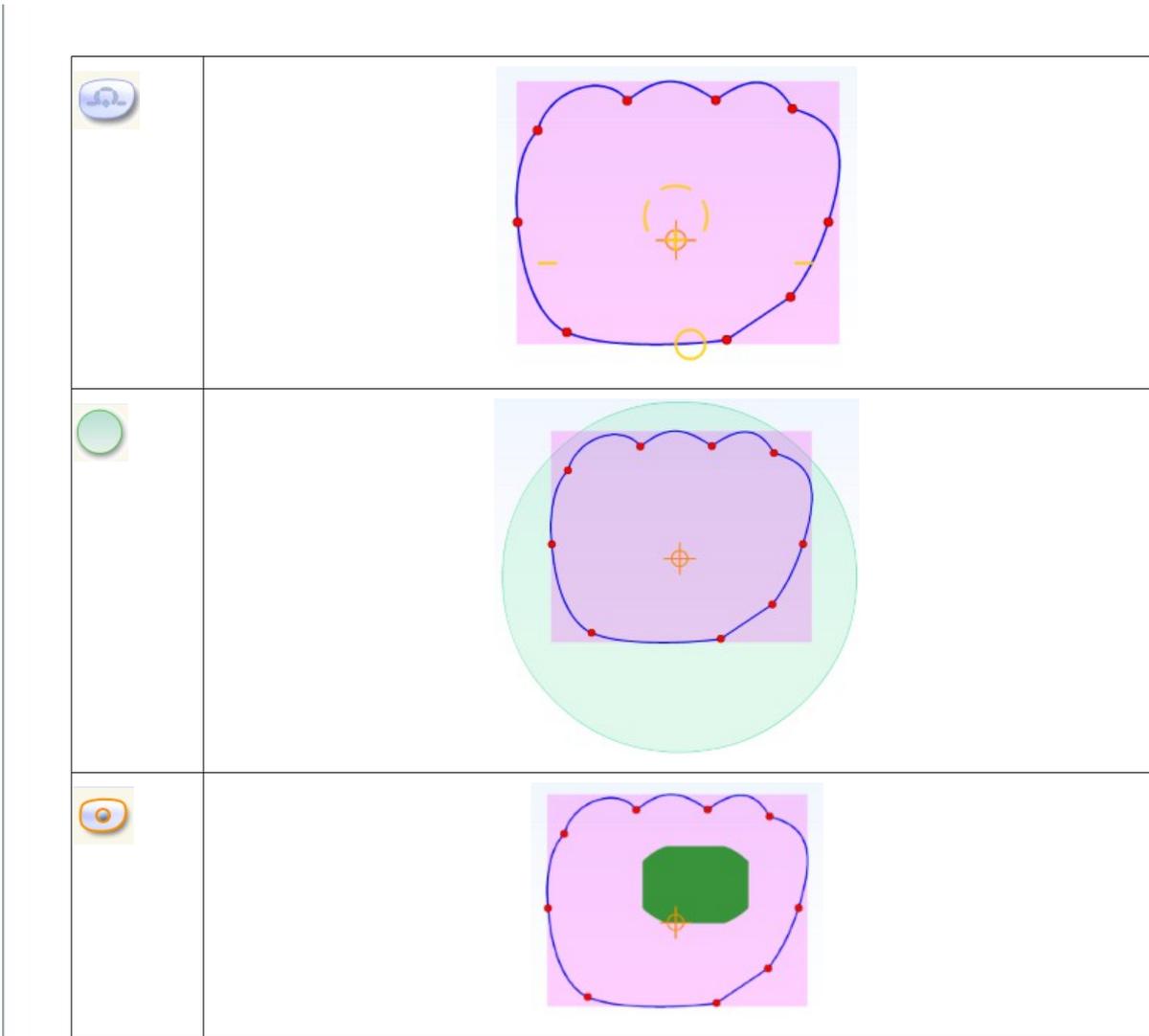
b. On the edger

- If M'Eye Touch is not activated and a negative shape arrives on the edger from the tracer-centerer-blocker, Essibox or a connected software application (PMS, Opsys, VisionWeb, etc.), a warning is displayed:

  Press ✔ to confirm.

  > The following screen is displayed.
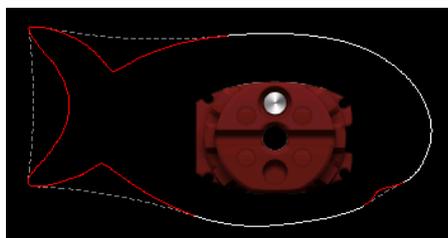
  > 2 superimposed shapes appear:
  - ◦ 🟥 Exact outline of the creative shape received
  - ◦ ⬜ Outline of the shape which the edger can cut with the large wheels

- If M'Eye Touch is enabled, the following screen is displayed:
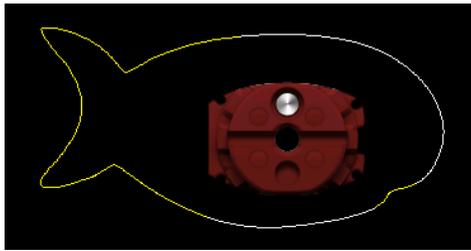
> The colours symbolise the various tools that will be used to machine the shape:

- 🟨 2 drilling mill but
- ☐ Large wheels

III. PREPARING A DRILLED JOB
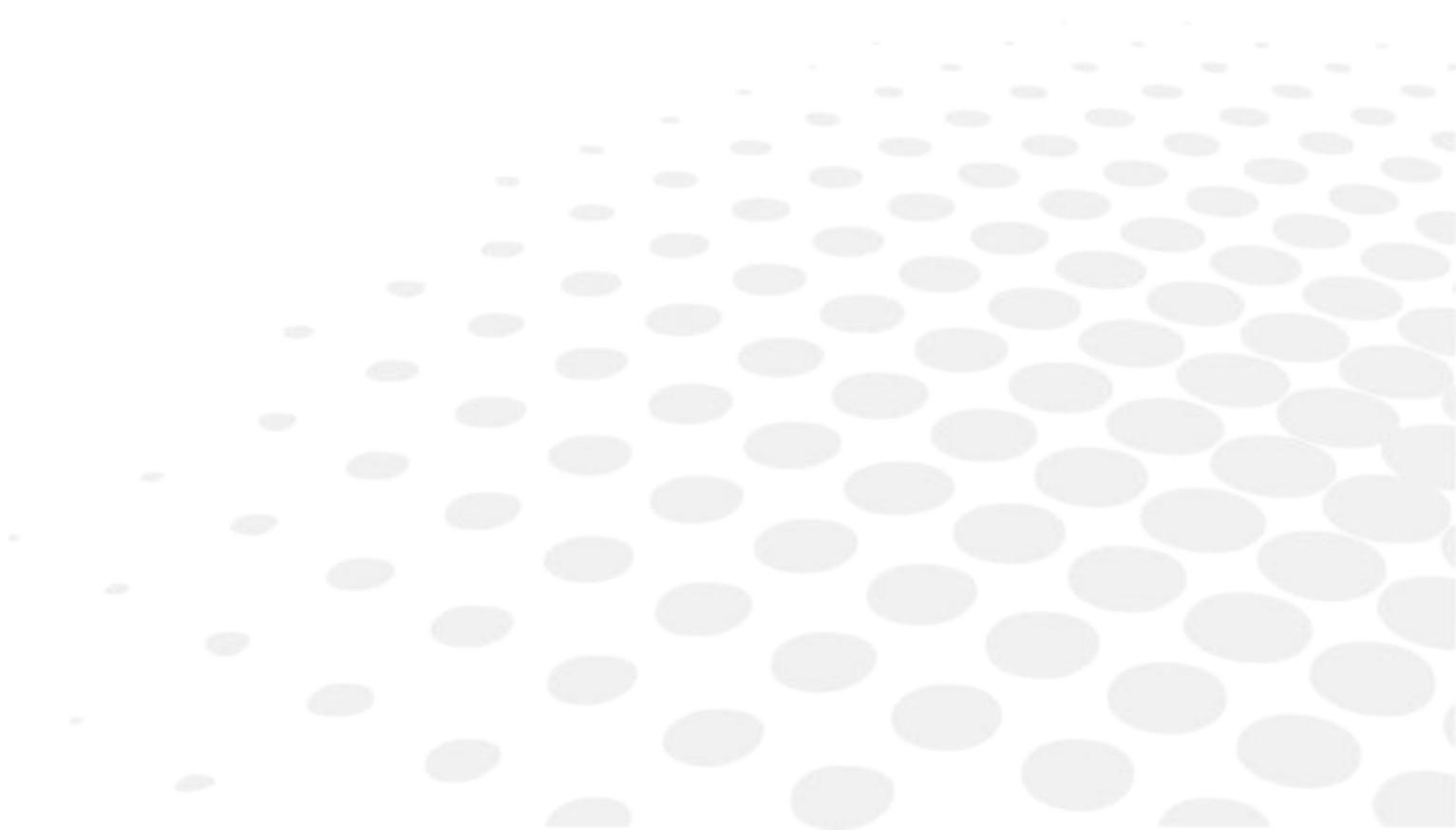
This chapter describes the procedure for the positioning of drilling points (drill-holes, oblong holes, notches) on a lens.

- Description of the drilling screen *(☞ p.129)*
- Configuring drilling settings *(☞ p.130)*

1. Menu screen

From the edging screen:

- press ▭ and hold to access the drilling screen.

- make a long click on ▭ (when the job already shows drilling).

The following screen is displayed:
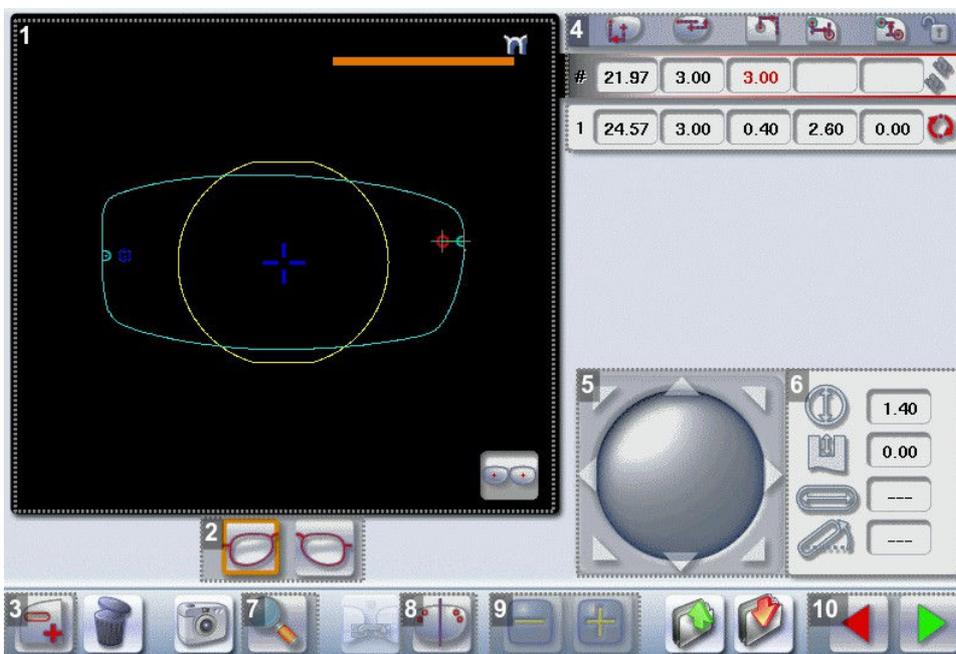
1. *Work area*

Colours which may appear on screen:

- ◦ ■ (green) Current shape (from the shape traced) and associated drilling points
  ■ (cyan) Current shape (obtained by symmetry with the shape traced) and associated drilling points
- ◦ ■ (yellow) Limit of the no-drill area
- ◦ ■ (orange) Nasal or temporal side indicator
- ◦ ■ (red) Selected drilling point
- ◦ ■ (blue) Reference drilling point (by default, the first one created on each side – nasal and temporal)
- ◦ A drilling point with a colour infill indicates non-through drilling
  ▭▭ Binocular view

2. *Active eye*

The selected eye has an orange frame around it.

3. *Type of drilling*

- ◦ Drill-hole
- ◦ Slot
- ◦ Notch

4. *Drilling coordinates*

- ◦ X and Y coordinates in relation to the boxing⊞ center of the shape.

- ◦ Distance between the center of the drill-hole entrance point and the edge of the lens.

- ◦ X and Y coordinates in relation to the reference drilling point.

- ◦ Freezing of the distance between the drilling point and the edge of the lens.

5. *Virtual mouse*

Slide the stylus in this area to move the selected drilling points.

6. *Drilling point dimensioning*

- ◦ Diameter in mm
  - ◦ default value: 1.40mm
- ◦ Drilling depth in mm in the case of non-through drilling
  - ◦ default value: 0 (through-drilling)
- ◦ Length of slot or notch in mm
  - ◦ default value of slot: 3.40mm
- ◦ Angle of slot or notch in °
  - ◦ default value for right eye: 0° on nasal side, 180° on temporal side
  - ◦ default value for left eye: 180° on nasal side, 0° on temporal side

7. *Zoom*

8. *Symmetrically transfer the drilling points from the nasal to the temporal side or vice versa*

9. *Modify the selected value*

10. *Back to the centering screen*

- ◦ Press ▶ to save the changes and return to the edging screen.

- ◦ Press ◀ to return to the edging screen without saving the changes.

2. CONFIGURING A DRILLING POINT

This section describes the procedures for the creation and positioning of a drilling point:

- • Creating a drilling point *(☞ p.131)*
- • Dimensioning a drilling point *(☞ p.131)*

• Adjusting the position of a drilling point *(p.132)*

⚠️ The positions of the various drilling points must be set before the centering of the lens.

a. Creating a drilling point

1 Press 🔲 to create a new drilling point.

2 Select the type of drilling (drill-hole, slot or notch).

3 Press on the shape at the spot where you want to position the drilling point.

> The drilling point created is displayed in red in the shape:
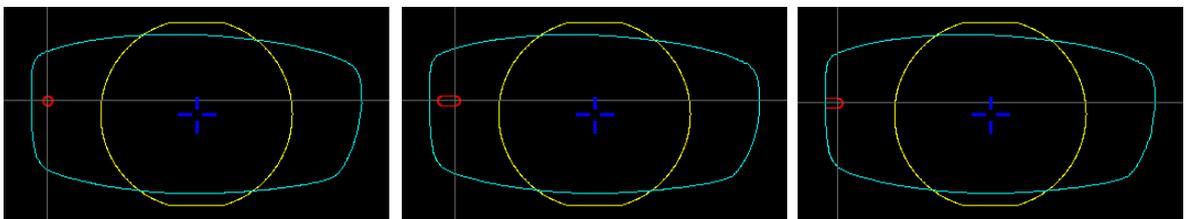
> The drilling coordinates are displayed on the right of the work screen;

💡 Press 🔲 to copy the drilling points from the nasal area to the temporal area and vice-versa.

On the tracer, you can configure up to 6 drilling points per side (nasal and temporal) of a shape.

b. Dimensioning a drilling point

You can define a setting for each existing drilling point.

1 Press on the drill-hole, slot or notch to select it.

> The drilling point is displayed in red in the shape.

2 Press a few seconds on the setting to be modified:

• 🔲 Diameter

• 🔲 Depth (for non-through holes)

• 🔲 Length of slot or notch

• 🔲 Angle of slot or notch

> The numeric keypad is displayed.

You can also use the ⊟ or ⊞ buttons to decrease or increase the selected value.

**3** Enter the new value of the parameter and press ✔ to confirm.

> The drilling point has been modified.

Grouping the drilling points

If you need to modify several drilling points simultaneously, you can group them together provided they are on the same side of the shape (nasal side / temporal side).

By default, the 🖈 symbol is displayed: each drilling point can be modified individually.

- Press 🖈.

  > 🔗 is displayed. All future modifications will be applied to all drilling points in the same way:

  ◦ only the reference drilling point is modifiable,
  ◦ the coordinates of the other drilling points are greyed out.
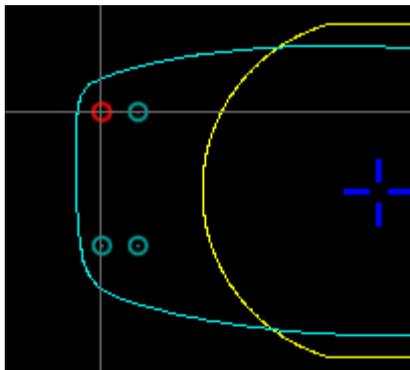
#	-22.95	6.68	1.85			🔗
1	-19.95	6.68	4.85	3.00	0.00	
2	-22.95	-4.52	1.61	0.00	-11.20	
3	-19.95	-4.52	4.61	3.00	-11.20	

- To un-group the drilling points, press 🔗 again.

c. Adjusting the position of a drilling point

You have three options for adjusting the position of a drilling point on a shape:

- Use the virtual mouse
- Use the ⊟ or ⊞ buttons to reduce or increase the selected value.
- Enter the exact coordinates of the drilling point directly.

The drilling coordinates are those of its entrance drill-hole.

- For a drill-hole, it is the center.
- For a slot and a notch, the entrance point is always on the side which is furthest away from the edge of the lens:
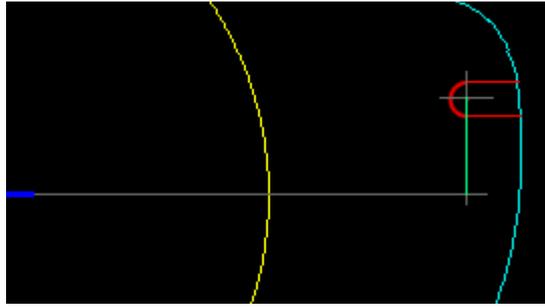
For greater precision, when you use the virtual mouse or the ⊟ and ⊞ buttons, press 🔍 to zoom in on the selected drilling point: the displacement step is 0.01mm (0.1mm for normal display).
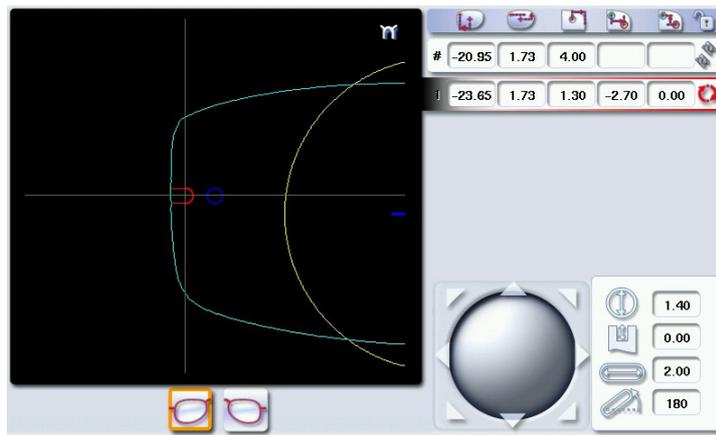
1 Press on the drill-hole, slot or notch to select it.

> The drilling point is displayed in red.

2 Press a few seconds on the value corresponding to the coordinates to be modified:

- X coordinates
- Y coordinates
- Distance in relation to the edge of the lens.
- X coordinates in relation to the reference drilling point
- Y coordinates in relation to the reference drilling point

Lock 🔒 the distance in relation to the edge of the lens to adjust only the Y position of the drilling point.

> The numeric keypad is displayed.

3 Enter the new value and press ✅ to confirm.

> The drilling coordinates are modified.

Grouping the drilling points

If you need to modify several drilling points simultaneously, you can group them together provided they are on the same side of the shape (nasal side / temporal side).

By default, the [symbol] symbol is displayed: each drilling point can be modified individually.

- Press [symbol].

    > [symbol] is displayed. All future modifications will be applied to all drilling points in the same way:
    - only the reference drilling point is modifiable,
    - the coordinates of the other drilling points are greyed out.
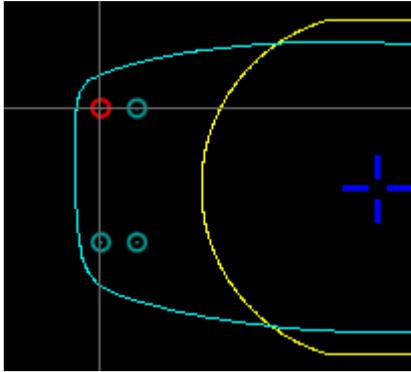
- To un-group the drilling points, press [symbol] again.

Reference drilling point

The first drilling point you create on a shape automatically becomes the 'reference drilling point' in relation to which the others are positioned:

- Each side (nasal and temporal) has its reference drilling point, identified by its dark blue colour ■.
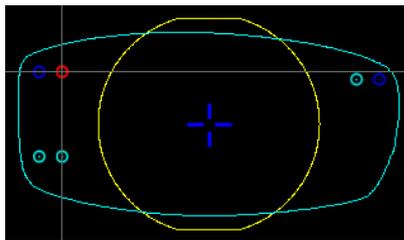
- It is identified by the symbol # on the left of its coordinates.

#	-22.36	7.00	2.38		
1	-19.36	7.00	5.38	3.00	0.00
2	-22.36	-4.20	2.25	0.00	-11.20
3	-19.36	-4.20	5.25	3.00	-11.20

You can position each drilling point in relation to the reference drilling point by modifying the values in the columns:

- X coordinates in relation to the reference drilling point

- Y coordinates in relation to the reference drilling point

To select another drilling point as the reference drilling point:

1 Select the drilling point you want to use as the reference drilling point

2 Press to the right of its coordinates.

> The selected drilling point is displayed at the top of the list:

- The symbol # is displayed on the left of its coordinates
- The drilling point is displayed in dark blue ■ in the work area.

> The coordinates of the other drilling points are also updated.

IV. Configuring the edger
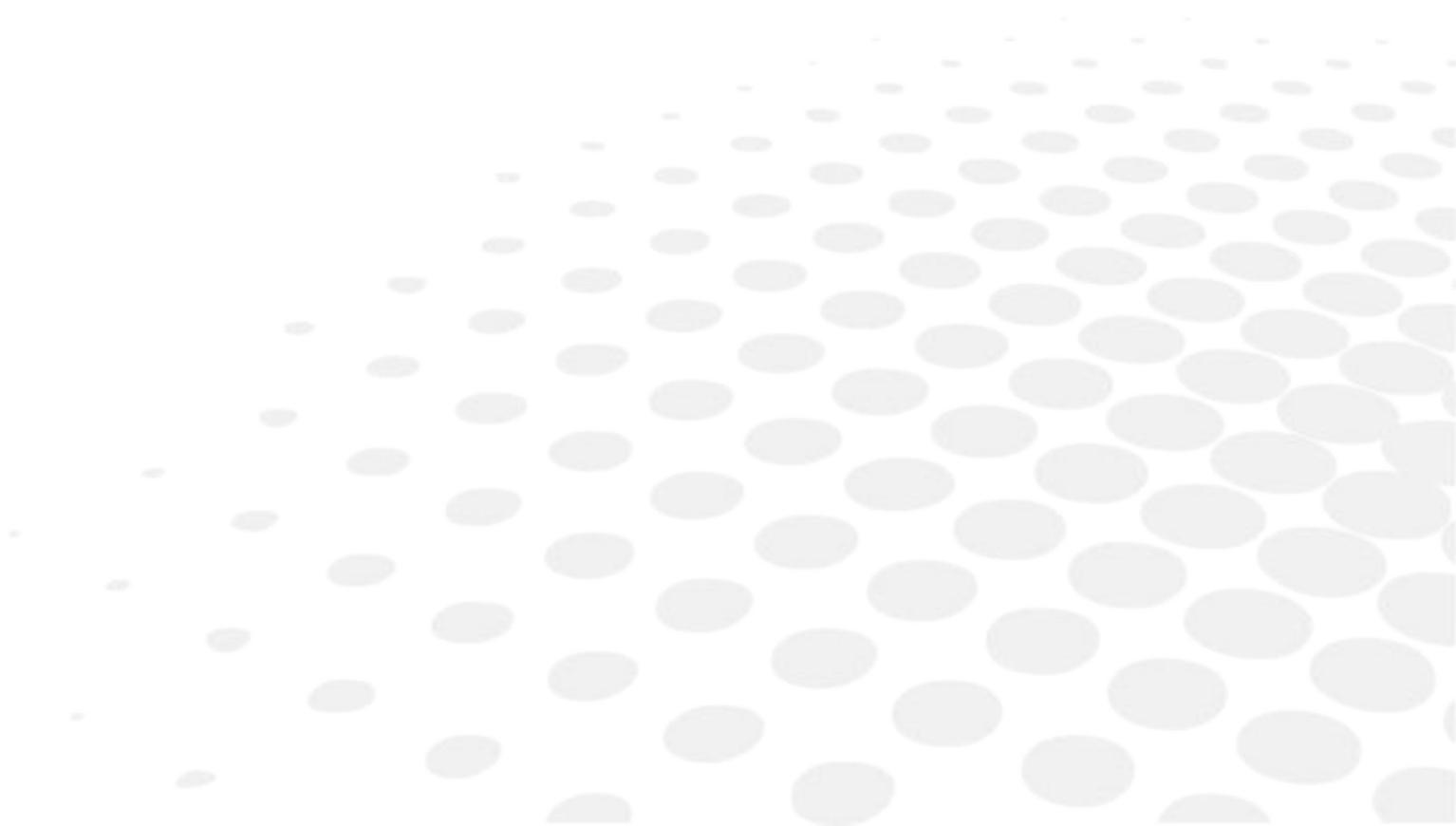
This chapter allows you to set up the edger according to your use. You can:

- Configure the edger *(☞ p.139)* (hour, date, language, logins, screen-saver)
- Adjusting the precision of the edger *(☞ p.141)*
- Restore the factory settings *(☞ p.150)*

1. CONFIGURE THE EDGER

This section describes the procedures to:

- Set the time, date and language *(☞ p.139)*
- Access the connections and the network *(☞ p.140)*
- Configure a screensaver *(☞ p.141)*

a. Time, date and language

To access this menu from your work screen, select [icon] > [icon] > [icon].

The following screen is displayed:

1. *Time*

Use the arrows [up arrow] and [down arrow] to set the time.

2. *Date*

Use the arrows [up arrow] and [down arrow] to set the date.

3. *Type of date display*

Select the type of display out of the available formats.

4. *Language*

Select the flag corresponding to your language.

5. *Other languages*

Press ▷ to display the other languages.

6. *Confirm*

Press 🕐 to save the time.

Once the settings has been adjusted, press ◀ to go back to the work screen.

---

b. Connections

The connections are configured from the tracer. The screen which you access from the edger is only available for consultation purposes.

To access this menu from your tracer work screen, select ⊙ > 🔨 > 🌍.

The following screen is displayed:
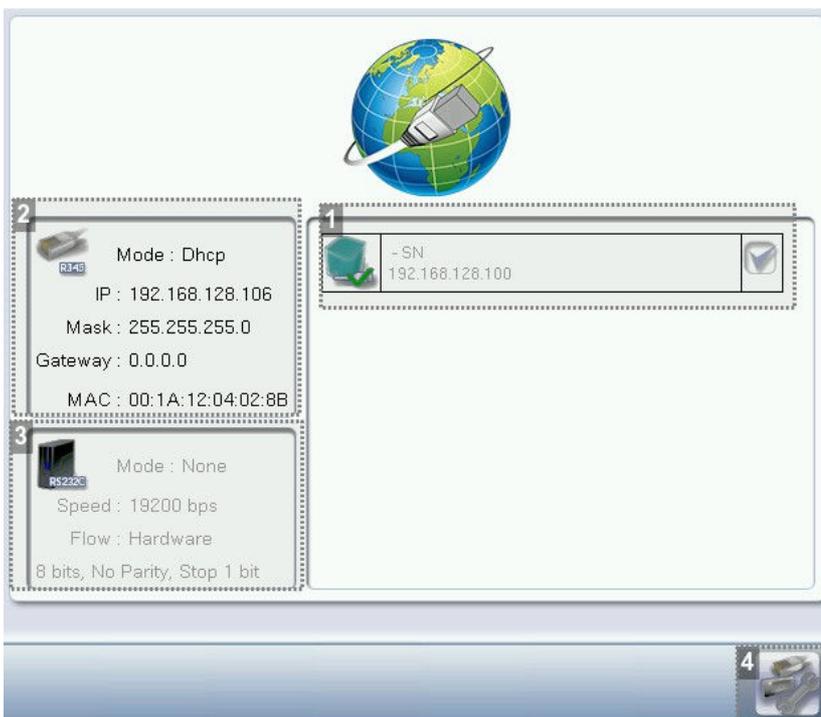
1. *List of devices connected to the tracer*

2. *Settings linked to the configuration of the serial port*

3. *Settings linked to the configuration of the Ethernet port*

4. *Reinitialization of communication ports*

Once the modification is made, press ◀ to return to the work screen.

c. Screensaver

This menu enables you to configure a screensaver.

To access this menu from your work screen, select ⬤ > 🔨 > 🕐.

The following screen is displayed:
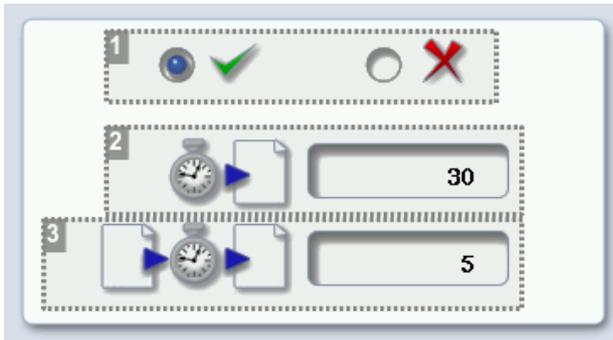
1. *Screensaver display*

Enable ✔ or disable ✘ the screensaver.

2. *Triggering*

Set the waiting time before the display of the screensaver (in seconds).

3. *Transition*

Set the transition time between each image (in seconds).

Once the modification has been made, press ◀ to go back to the work screen.

2. ADJUSTING THE PRECISION OF THE EDGER

This menu enables you to adjust the precision of the edger. You can adjust:

- the diameter of the finished lenses *(☞ p.141)*
- the position of the bevel and groove *(☞ p.142)*
- the diameter of drill holes *(☞ p.143)*
- the chamfer *(☞ p.144)*
- the depth and width of the groove *(☞ p.142)*
- engraving: number of strokes of the engraving tip. *(☞ p.146)*
- the position of high-base bevel *(☞ p.149)*
- the position of the step bevel *(☞ p.149)*

a. Adjusting the diameter of the finished lenses

If lenses of a particular material always seem too small or too big after edging, you can adjust their diameter according to the type of frame.

To access that menu from your edger work screen, select > > .

The following screen is displayed:

1. *Types of frame*
- ◦ Metal
- ◦ Plastic
- ◦ Optyl
- ◦ Drilled / Grooved / Flat

2. *Lens materials*
- ◦ Plastic
- ◦ Polycarbonate
- ◦ MHI
- ◦ Trivex™
- ◦ Glass (not available)
- ◦ Tribrid™

3. *Adjust the lens diameter*
- a. Press the value to be modified.
  > The numeric keypad is displayed.
- b. Enter the new value.
  - ◦ Negative value: the diameter will be smaller
  - ◦ Positive value: the diameter will be larger
- c. Press to confirm.

Once the modification is made, press to return to the work screen.

b. Adjusting the position of the bevel and groove

After edging a lens, if the position of the bevel or groove always seems too close to the front or rear surface, you can adjust it.

To access that menu from your edger work screen, select (icon) > (icon) > (icon) .

The following screen is displayed:
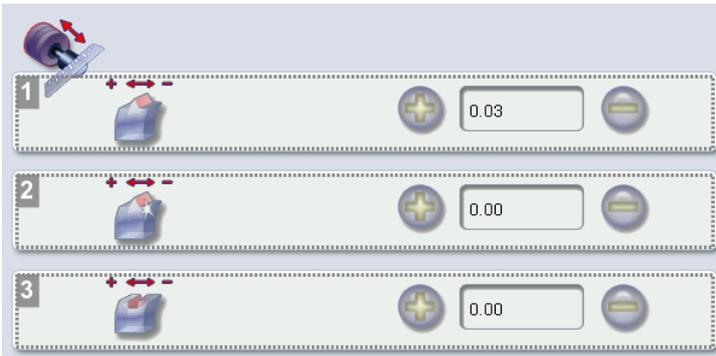
1. *Default bevel position*

- ◦ Press (+) to move the bevel towards the front surface of the lens.
- ◦ Press (−) to move the bevel towards the rear surface of the lens.

2. *Default polished bevel position*

- ◦ Press (+) to move the polished bevel towards the front surface of the lens.
- ◦ Press (−) to move the polished bevel towards the rear surface of the lens.

3. *Default groove position*

- ◦ Press (+) to move the groove towards the front surface of the lens.
- ◦ Press (−) to move the groove towards the rear surface of the lens.

Once the modification is made, press (icon) to return to the work screen.

c. Adjusting the diameter of drill-holes

After drilling a lens, if the diameter of the holes always seems too small or too big, you can adjust it according to the diameter of the drill bit used and the lens material.

To access that menu from your edger work screen, select (icon) > (icon) > (icon) .

The following screen is displayed:

1. *Drill bit diameters*

 0.8 mm or 1.0 mm.

2. *Lens materials*

- ◦ Plastic
- ◦ Polycarbonate
- ◦ MHI
- ◦ Trivex™
- ◦ Tribrid™

**3.** *Increasing or reducing the default drill-hole diameter*

 a. Press the value to be modified.
   > The numeric keypad is displayed.
 b. Enter the new value.
   - ◦ Negative value: the hole will be smaller
   - ◦ Positive value: the hole will be larger

 c. Press to confirm.

Once the modification is made, press to return to the work screen.

---

d. Adjusting the chamfer

After edging a lens, if a chamfer always seems too small or too big, you can adjust its size according to the lens material.

To access that menu from your edger work screen, select > > .

The following screen is displayed:

1. *Chamfer*

- ◦ Small, front surface
- ◦ Large, front surface
- ◦ Small, rear surface
- ◦ Large, rear surface

2. *Lens materials*

- ◦ Plastic
- ◦ Polycarbonate
- ◦ MHI
- ◦ Trivex™
- ◦ Tribrid™
- ◦ Glass (not available)

3. *Increasing or reducing the default chamfer*

- a. Press the value to be modified.
  > The numeric keypad is displayed.
- b. Enter the new value.
  - ◦ Negative value: the chamfer will be smaller
  - ◦ Positive value: the chamfer will be larger
- c. Press ✔ to confirm.

Once the modification is made, press ◀ to return to the work screen.

---

e. Adjusting the groove

After edging a lens, if the width or depth of the groove always seem too close too small or too big, you can adjust them.

To access that menu from your edger work screen, select ⦿ > ☑ > 🖩.

The following screen is displayed:
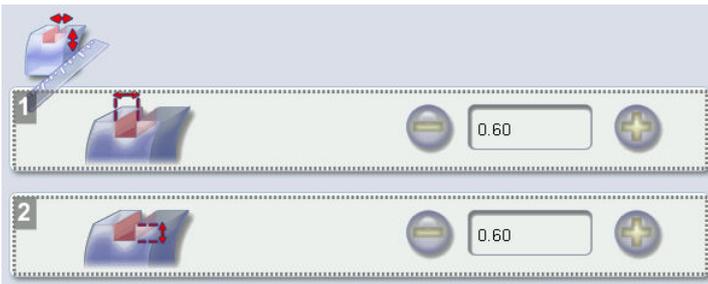
1. *Adjusting the default groove width*

- ○ Press ⊝ to reduce the width of the groove.

- ○ Press ⊕ to increase the width of the groove.

2. *Adjusting the default groove depth*

- ○ Press ⊝ to reduce the depth of the groove.

- ○ Press ⊕ to increase the depth of the groove.

Once the modification is made, press ◀ to return to the work screen.

f. To adjust the engraving

After lens engraving, if the motif is not clear enough, you can restart another stroke by pressing ▶.

It is also possible to change the number of strokes per material.

The maximum number of strokes is 10.

To access that menu from your edger work screen, select ⊚ > ☑ > ⬭.

The following screen is displayed:
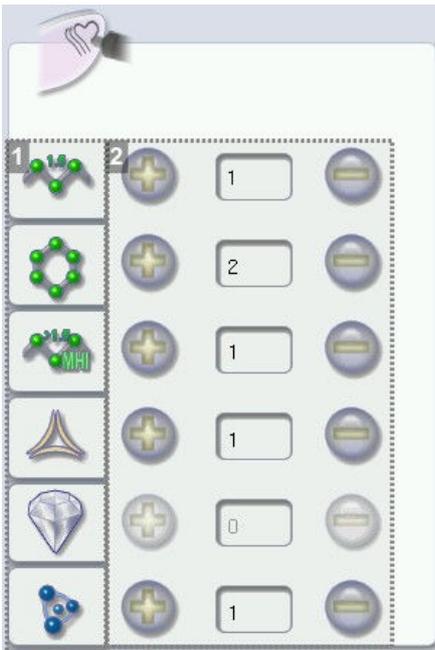
1. *Lens materials*

- ◦ Plastic
- ◦ Polycarbonate: it is recommended to set the value to 2 minimum.
- ◦ MHI
- ◦ Trivex™
- ◦ Tribrid™
- ◦ Glass: you cannot engrave glass.

2.

To adjust the number of tool strokes depending on the material :

- ◦ Press ⊕ to increase the number of strokes.
- ◦ Press ⊖ to reduce the number of strokes.

This screen allows to adjust the number of default strokes.

If two strokes are programmed by default for the plastic lens, each time you launch the engraving cycle for a lens, the tool will make 2 strokes without stopping.

It is possible to carry out a third stroke after checking the lens by pressing ▶.

Once the modification is made, press ◀ to return to the work screen.

g. Adjust the position of high-base bevel

After lens edging, if the position of high-base bevels seems consistently too far ahead or too far behind, you can adjust it.

To access this menu from your edger work screen, select (icon) > (icon) > (icon).

The following screen is displayed:

1. *High-base bevel*

2. *Increase or reduce the front surface tracking value*
   a. Press the value to be modified.
      > The numeric keypad is displayed.
   b. Enter the new value.
      ◦ Negative value: the front surface tracking value will be smaller
      ◦ Positive value: the front surface tracking value will be larger
   c. Press (icon) to confirm.

3. *Increase or reduce the flat side of the bevel*
   a. Press the value to be modified.
      > The numeric keypad is displayed.
   b. Enter the new value.
      ◦ Negative value: the flat side of the bevel will be smaller.
      ◦ Positive value: the flat side of the bevel will be larger.
   c. Press on (icon) to confirm.

4. *Step bevel is not accessible if the high-base tool is in place*

   For more information, consult the section Setting the edger > Adjusting the precision of the edger > Adjusting the step bevel *(☞ p.149)*

h. Adjust the position of the step bevel

After the edging of a lens, if the position of high-base bevel or step bevel seems consistently too far ahead or too far behind, you can adjust it.

To access that menu from your edger work screen, select ⊙ > ☑ > ⬆ .

The following screen is displayed:

1. *High-base bevel cannot be accessed if the step bevel tool is in place*

For more information, consult the section Setting the edger > Adjusting the precision of the edger > Adjusting the high-base bevel *(☞ p.147)*

2. *Step bevel*

3. *Increase or reduce the front surface tracking value*

   a. Press the value to be modified.
      > The numeric keypad is displayed.
   b. Enter the new value.
      ◦ Negative value: the front surface tracking value will be smaller
      ◦ Positive value: the front surface tracking value will be larger
   c. Press ✓ to confirm.

4. *Increase or reduce the flat side of the bevel*

   a. Press the value to be modified.
      > The numeric keypad is displayed.
   b. Enter the new value.
      ◦ Negative value: the flat side of the bevel will be smaller

 ◦ Positive value: the flat side of the bevel will be larger.

c. Press to confirm.

3. RESTORE THE FACTORY SETTINGS

At the bottom right of certain settings screens, the button enables you to restore the page's factory settings.

- Press to cancel and go back to the settings screen.
- Press to confirm the reset.

V. Maintenance & servicing
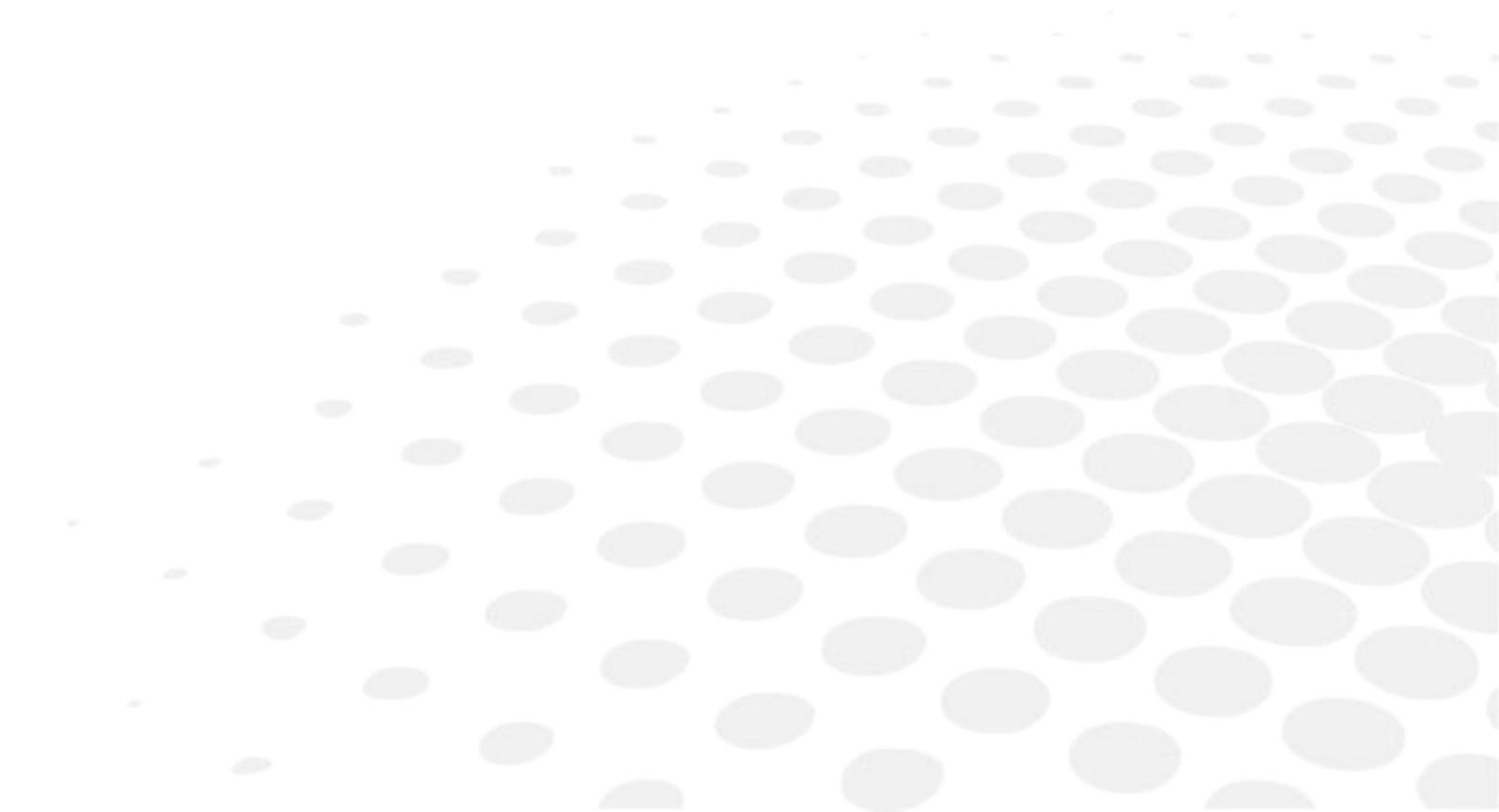
This chapter describes the maintenance procedures you can carry out on the edger without the aid of a technician.

- Carrying out edger autotests *(☞ p.153)*
- Calibrating the touch screen *(☞ p.154)*
- *(☞ p.174)*Consulting the preventive maintenance screen of the "small tools" module *(☞ p.155)*
- Maintenance & servicing *(☞ p.158)*
- Viewing the statistics and technical log (jobs and actions carried out) *(☞ p.174)*
- Maintaining and cleaning the edger *(☞ p.176)*

1. CARRYING OUT THE AUTOTESTS

You can use this menu to carry out a self-diagnosis of the job functions of the edger.

To test the proper performance of the edger, select ⬤ > ⚙ > ⚙ from your work screen.
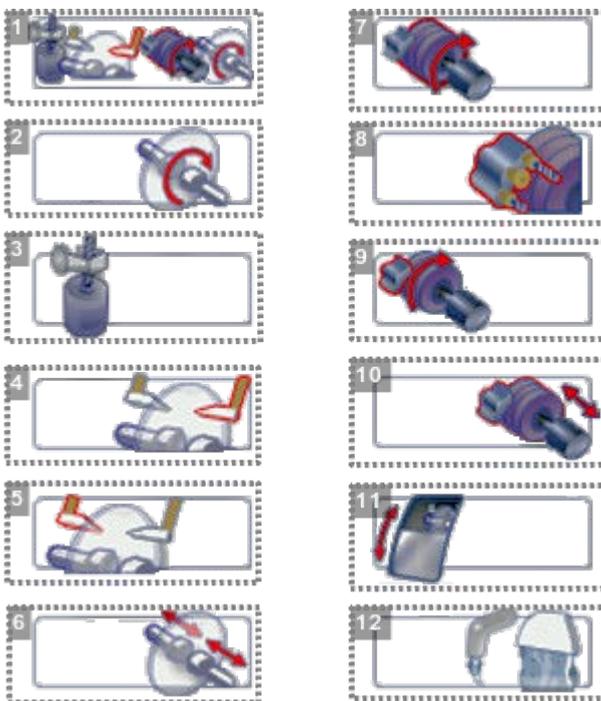
1. *Edger autotests*

2. *Initialisation and rotation of lens shafts*

3. *Reproducer: lens shaft raising and lowering*

4. *Right feeler movement*

5. *Left feeler movement*

6. *Closing of lens shafts*

7. *Wheel rotation*

8. *Rotation of Grooving/Milling/Drilling (GMD) module*

9. *Movement of Grooving/Milling/Drilling (GMD) module*

10. *Transfer initialization*

11. *Door*

12. *Water test*
- trough spraying
- door spraying

1. Select the autotest to be carried out.

2. Press ⟳ to start the test cycle.

   You can press ■ to stop the cycle at any moment.

   > The result is displayed on the right of the icon of the autotest carried out:

   - ✔ The equipment is operational.

   - ✖ A malfunction has been detected; a description is displayed in the message box on the right.

2. CALIBRATING THE TOUCH SCREEN

Calibrate the touch screen if your operations have become difficult due to lack of precision.

Touch screen malfunction

You can directly access the calibration screen without using the settings menu. To do this, press on the edging screen for 5 seconds.

Calibrating the touch screen

1 Select ◉ > ⊞ from the work screen.

   > A confirmation message is displayed:

   - Press ✔ to start calibration.
   - Press ✖ to cancel and return to the menu

2 Point precisely on each cross as they are displayed, holding the stylus perpendicular to the screen so as not to alter the calibration.

   > The settings menu is displayed automatically once the calibration is finished.

3 Press ◄ to return to the work screen.

3. CONSULTING THE PREVENTIVE MAINTENANCE SCREEN OF THE "SMALL TOOLS" MODULE

This menu enables you to know the level of wear of your "small tools" module.

To access this menu from your work screen, select ⬤ > ⚙ > 🔧.

The maintenance screen appears:
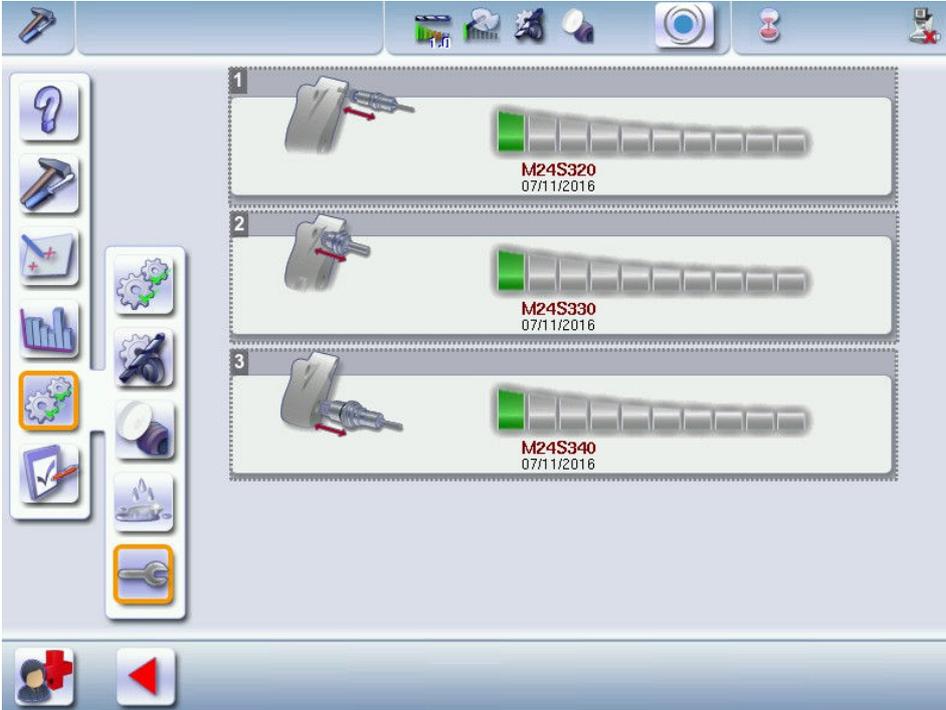
1. *Wear indicator of the drilling spindle*

2. *Wear indicator for the chamfering/high-base bevel spindle*

3. *Grooving/milling spindle wear-out indicator*

At the time of installation of the machine, there is no date displayed, it is the first edging which starts the initialization and the taking into account of the installation date.

There are three wear-out thresholds:

First wear-out threshold

The icon 🔧 appears beside the access button on the maintenance menu, press above to directly access the preventive maintenance menu of the "small tools" modiule:
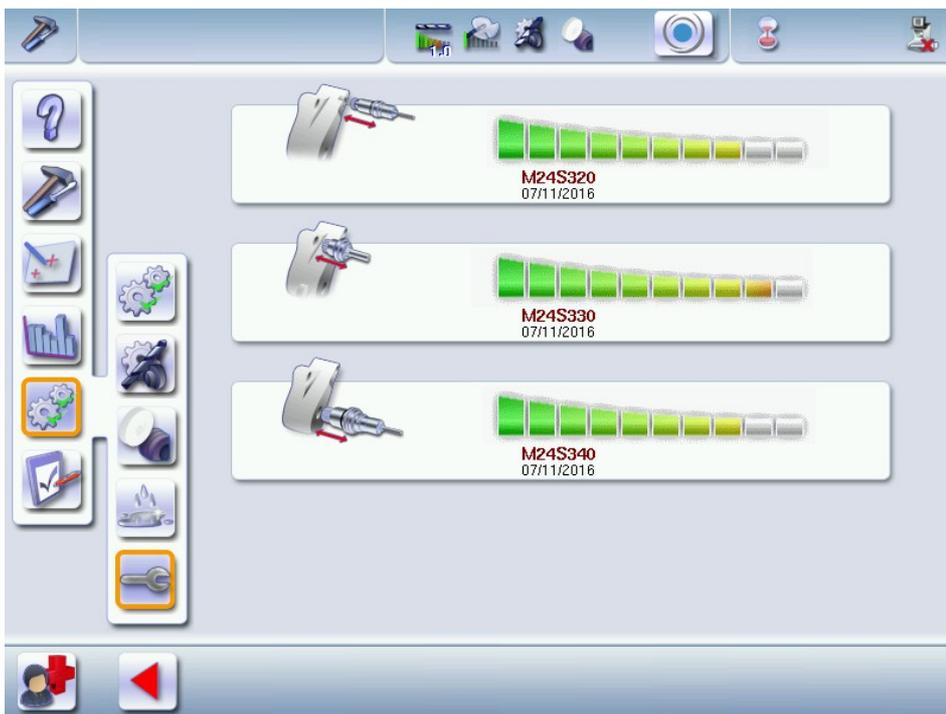
Second wear-out threshold

A warning message appears upon start-up "Maintenance is needed. Have you contacted your service technician?"

The icon ![icon] appears beside the small maintenance access button and flashes: press above to directly access the preventive maintenance menu of the "small tools" module:
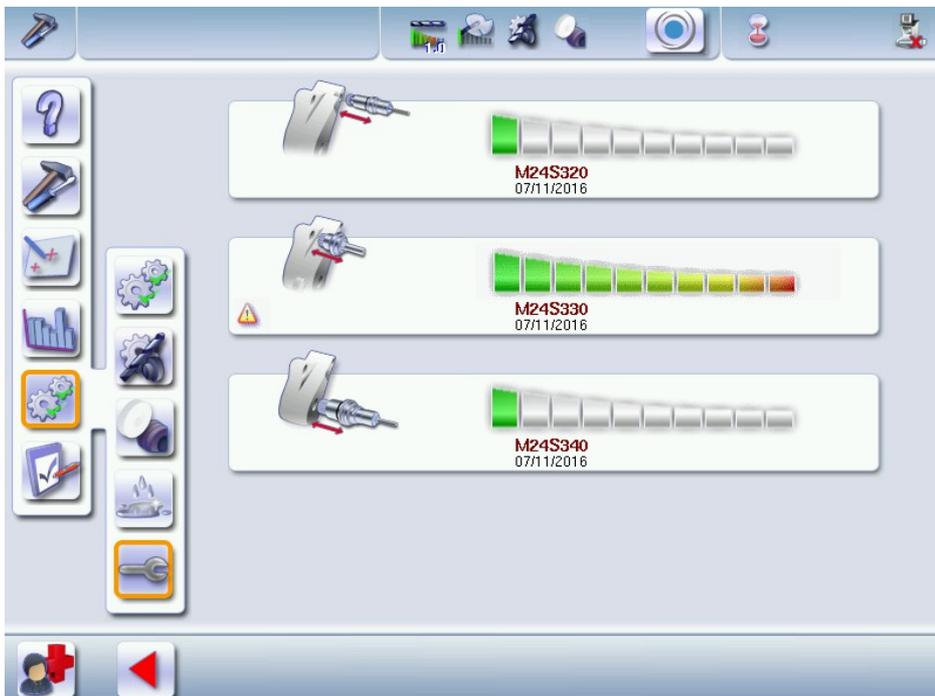
The icon ⚠ appears on the worn spindle.

Third wear threshold

A warning message appears:

- At start-up: "Module maintenance needed urgently. Please contact your support technician."
- With each cycle launch: " Proper functioning of a component is no longer assured. This could impact the edging of your lenses. Continuing could also call into question your existing guarantees. Do you wish to continue?"

⚠ At least one of the spindles has reached 100% wear and must be replaced immediately.

The icon 🔧 appears beside the small maintenance access button and flashes: press above to directly access the preventive maintenance menu of the "small tools" module:
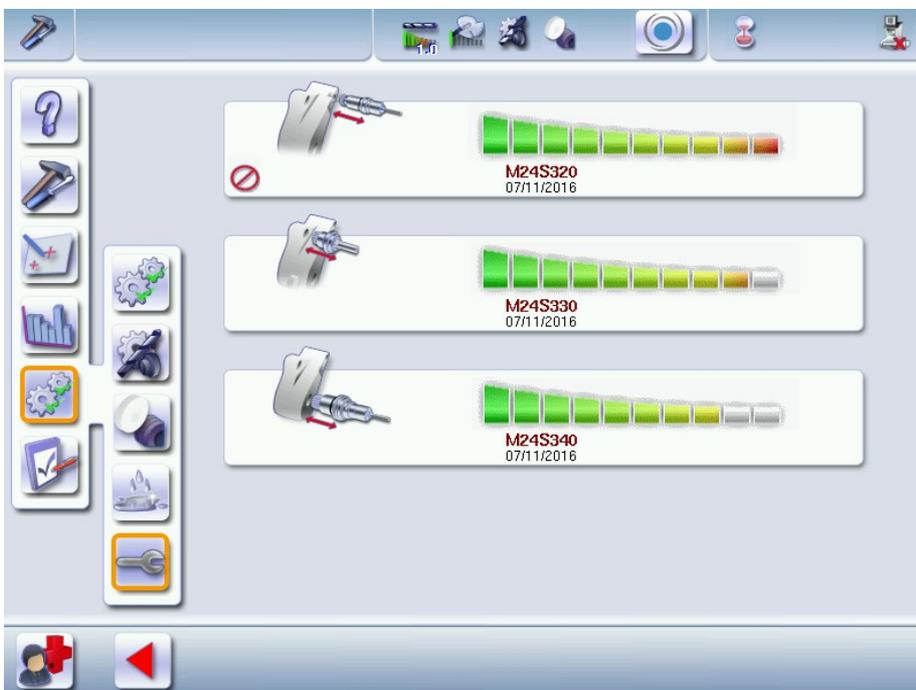
The bargraph flashes and the icon 🚫 appears on the spindle that needs to be replaced.

A red key appears on the finishing icons linked to the module functions:

- Milling
- Drilling
- Grooving
- Chamfering (small chamfer)
- Chamfering (large chamfer)

4. CHANGING OR CLEANING THE EDGER TOOLS

This menu lets you change the edger's "small tools" module:

- to replace them with tools of a different diameter (drill bits) or clean them (mill bit and drill bit),
- to replace them with new tools,
- to install the Step++ tool,
- to install the engraving tip.

You can replace:

- The drill bit

- The mill bit

- The Step bevel++ wheel

- The chamfering wheel

Wear indicators

Indicators in the information bar inform you of the wear level of certain tools:

- Wear of the 1.0 mm or 0.8 mm drill bit

- Mill bit wear

- Wear of the chamfering wheel and the step++ wheel

- Dressing of the polishing wheel: press above to directly access the dressing menu

The colour of the indicator informs you of the level of wear of the tool:

- Green for a new tool
- Blinking red for a worn-out tool that needs to be changed: press on it to directly access the tool change menu.

The indicator enables you to know the level of wear of the spindles (change by a technician only):

press to directly access the spindle preventive maintenance.

- Always use tools recommended by Essilor.
- Never use the edger if one of the tools is missing from the module. Never remove a used or broken tool if you cannot replace it.
- All tools coming into contact with the module must be clean and dry in order to prevent water from seeping into the mechanisms.
- The use of broken tools may cause lens breakage or errors with respect to lens shape or drill-hole diameter: change the tools as soon as they are worn (check the indicators and statistics of your edger).
- Incorrect positioning of the tools may cause breakage or errors with respect to lens shape or drill-hole diameter: fully insert the tools and tighten the screws as much as possible.

⚠️ The lifespan of the tools mentioned below do not account for possible incidents that can occur within the trough (shocks, collision with part of a milled lens, etc.)

a. Changing or cleaning the drill bit

The wear indicator informs you of the need to change the 0.8 mm drill bit after 250 holes and the 1.0 mm bit after 10,000 holes.

⚠️ The chuck must always contain a tool to avoid any risk of oxidation.

✅ Prerequisite:

You must have the following tools:

Blocking key	
an adjustable wrench	

From the work screen of your edger, select 🔵 > ⚙️ > 🛠️ to change or clean the drill bit.

1 Select the diameter of the drill bit to install (0.8 mm or 1.0 mm).

📄 For cleaning, select the diameter of the drill bit in place.

2 Press ▶️.

> The GMD module moves to facilitate the operation.

💡 Press 🛠️ to receive more image information about the tool assembly/dismantling procedure.

Press ![X] to cancel the action.

**3** Block the axle with the blocking key.
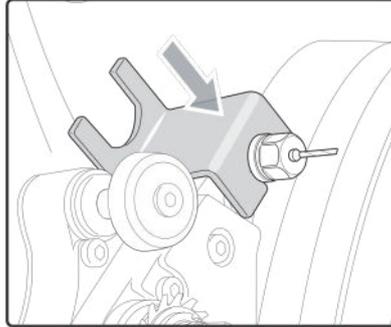
4 Put the adjustable wrench onto the chuck.

⚠ The adjustable wrench must never touch the drill bit.
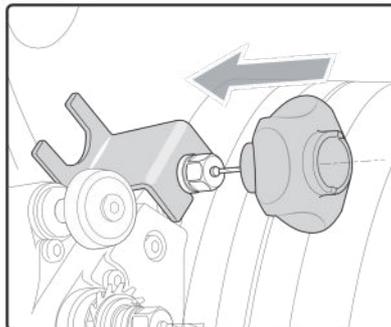
5 Loosen the chuck with the adjustable wrench (two notches towards yourself).
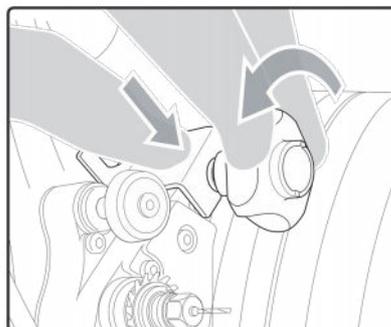

**6** Remove the adjustable wrench then the drill bit.
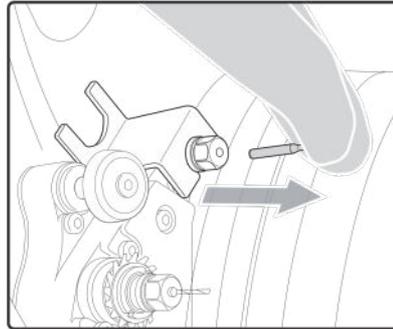
7 Insert the new drill bit all the way in.
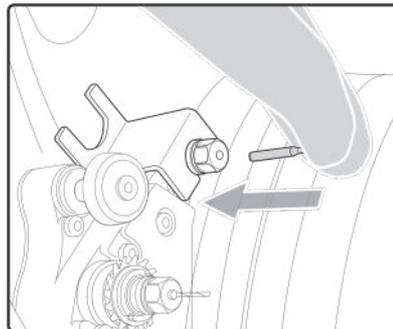
8 Tighten the chuck with the adjustable wrench (two notches towards the back of the trough).
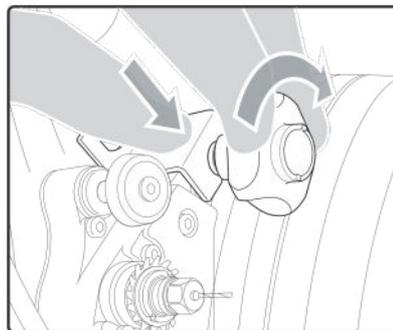
9 Remove the blocking key and the adjustable key.

> The new drill bit is in place.
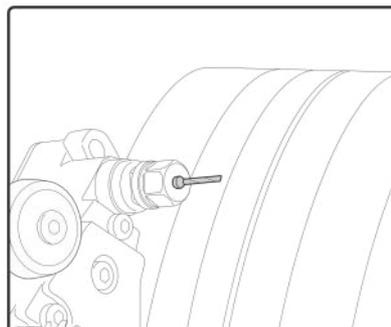
During the installation of a new drill bit, the statistics are automatically reset to zero by default.

>The [icon] icon appears by default at the bottom of the screen.

When replace a drill bit with a different diameter drill bit or when cleaning the machine, the statistics are saved by default.

>The [icon] icon appears by default at the bottom of the screen.

When replace a drill bit with a new different diameter drill **bit**, you must press [icon] to reset the statistics to 0.

10 Press [icon] at the bottom of the screen to confirm the tool change-over.

> The module goes back into its initial position, the statistics are cleared.

b. Changing or cleaning the mill bit

The wear indicator informs you of the need to change the mill bit once you have machined 1,500 lenses.

Milling of MHI lenses

The mill bit wears 2.5 times faster with MHI lenses.

The wear indicator of the mill bit [icon] may be triggered when for example:

- 500 MHI lenses and 250 lenses made of other materials have been edged: $(500 \times 2.5) + 250 = 1500$
- 600 MHI lenses have been edged: $600 \times 2.5 = 1500$
- 1,500 lenses made of other materials have been edged:

On your edger work screen, select [icon] > [icon] > [icon]

[icon] Prerequisite:

You must have the following tools:

Blocking key	
an adjustable wrench	

1 Press ▶.

FRA401

> The GMD module moves to facilitate the operation.

💡 | Press 🔧 to receive more image information about the tool assembly/dismantling procedure.

📄 | Press ✖ to cancel the action.

2 Block the axle with the blocking key.
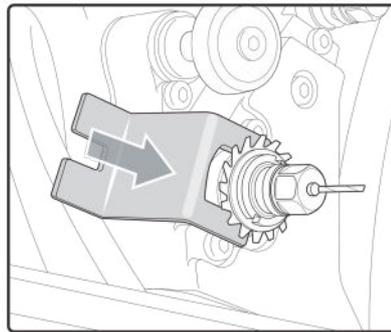
3 Put the adjustable wrench on the chuck

⚠ | The adjustable wrench must never be in contact with the mill bit.
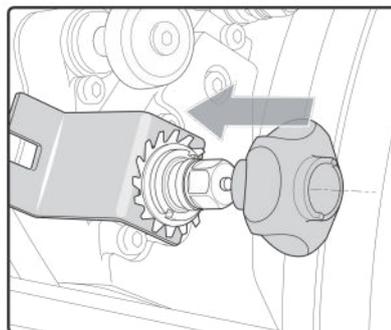
4 Loosen the chuck with the adjustable wrench (two notches towards yourself).
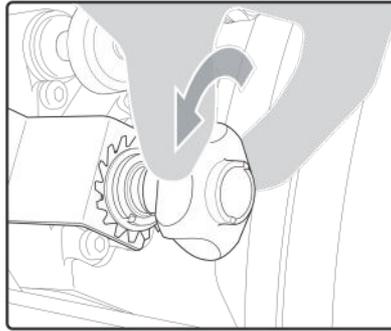
5 Remove the adjustable wrench then the mill bit.
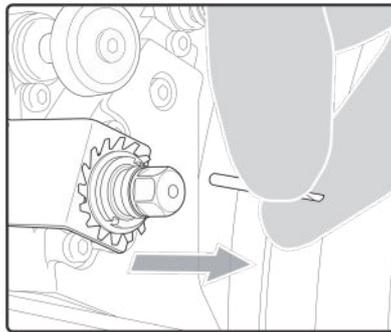
6 Inset the new mill bit all the way at the back.
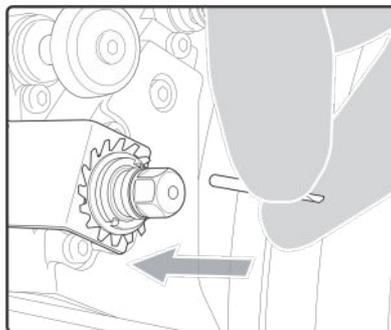
7 Put the adjustable wrench onto the chuck, then tighten (two notches towards the bottom of the trough).
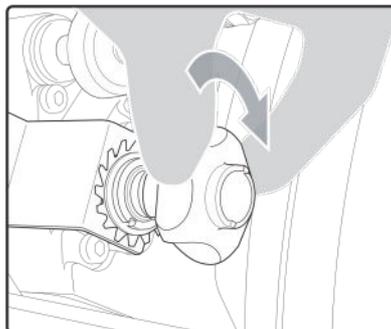
> The chuck tightens up.

8 Remove the adjustable key and the blocking key.
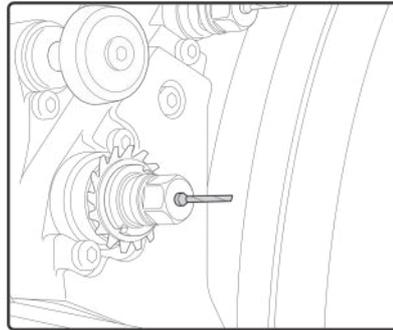
> The mill bit is in place.

⚠️ During the installation of a new tool, the statistics are automatically reset to zero by default.

>The 🧽 icon appears by default at the bottom of the screen.

9 Press ▶ at the bottom of the screen to confirm the tool change-over.

> The module goes back into its initial position, the statistics are cleared.

c. Changing the chamfering wheel

We recommend that you change the chamfering wheel every 6,000 chamfers.

From the work screen of your edger, select 🔵 > ⚙️ > 🔧 to change the chamfering wheel.

✅ Prerequisite:

You must have the following tools:

Blocking key	
an Allen key	

1 Press ▶.

> The GMD module moves to facilitate the operation.

Press to receive more image information about the tool assembly/dismantling procedure.

Press to cancel the action.

2 Position the blocking key on the back axle of the chamfering wheel.
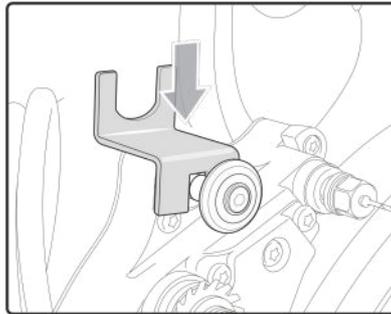
3 Insert the Allen key into the screw at the center of the wheel and unscrew (towards yourself) the wheel, using the Allen key.
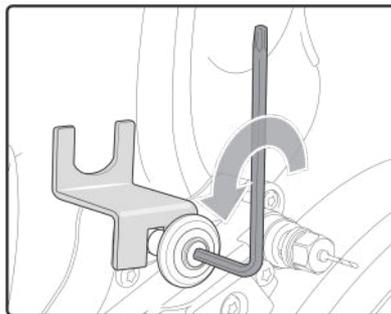
4 Remove the screw and the chamfering wheel.
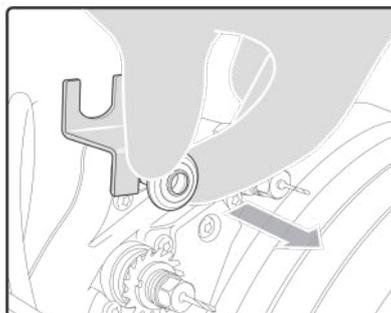
Be careful to save the screw.

5 Replace the old wheel with a new one.

⚠️ The blue part of the wheel must be oriented towards the outside of the module, and the gray part must be placed against the spindle.
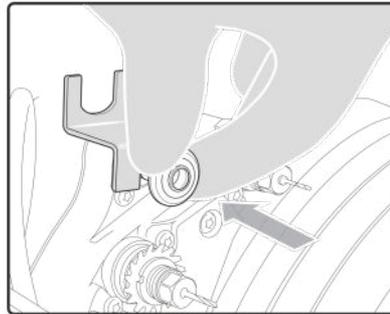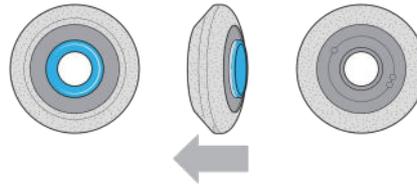
6 Put the screw back on, insert the key and tighten the wheel (towards the back of the trough) with the Allen key.
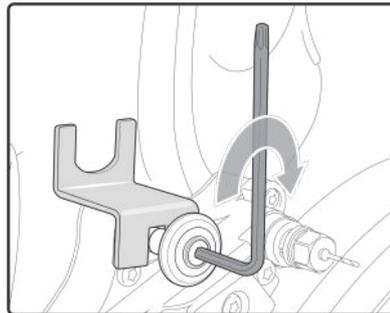
7 Remove the blocking key and the Allen key.

> The new wheel is in place.
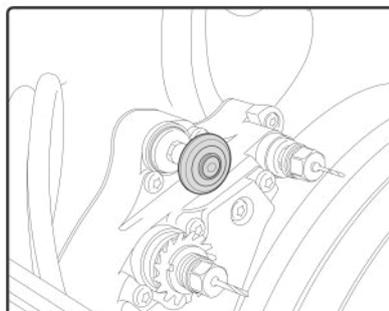
During the installation of a new tool, the statistics are automatically reset to zero by default.

>The 🧽 icon appears by default at the bottom of the screen.

When replacing a chamfering wheel with a step bevel wheel, or cleaning the machine, the statistics will be saved.

>The ❌ icon appears by default at the bottom of the screen.

8 Press ▶ at the bottom of the screen to confirm the tool change-over.

> The module goes back into its initial position, the statistics are cleared.

---

d. Install and change the step bevel ++ tool

We recommend that you change the Step bevel wheel every 2,000 bevels to keep an optimal cycle time.

1 You will need the following:
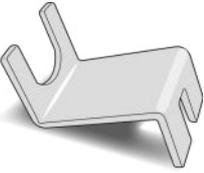
	Allen key
	Blocking key
	Torque wrench
	"Step++" wheel
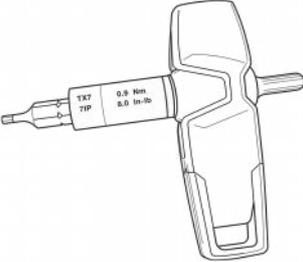
2 From the working screen of your edger, press 🔧 (tool wear indicator) for several seconds to access the screen for tool changes.

From your edger work screen, you can also select ⬤ > ⚙ > 🔧.

> The following screen will appear:

3 Press ▼ to select the step bevel wheel: CX3834.

4 Press ▶ to confirm the tool.

> The GMD module moves to facilitate the operation.

Press 🔧 to receive more image information about the tool assembly/dismantling procedure.

Press ✖ to cancel the action.

> The following message appears: remove the chamfering wheel and replace it with the step wheel.

5 Position the blocking key on the back axle of the chamfering wheel, and insert the Allen key into the screw at the center of the wheel and unscrew (towards yourself) the wheel, using the Allen key.
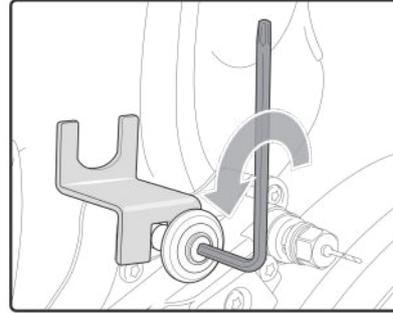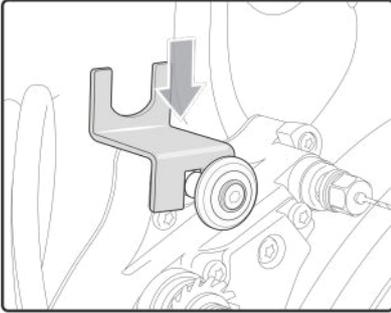
6 Remove the chamfering wheel and the spacer.
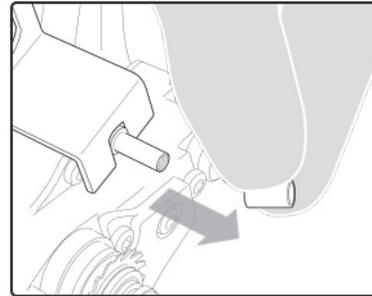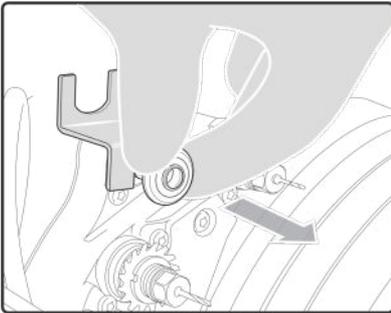
7 Position the "step ++" wheel on the axis.
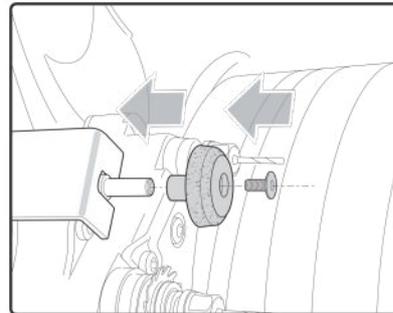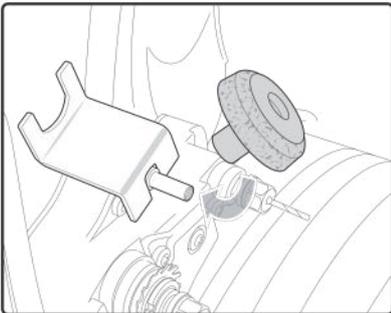
8 Tighten (towards yourself) the "step ++" wheel using the torque wrench.

⚠️ Ensure that the tool is correctly fixed onto the axle using the keys.

9 Remove the mounting tool and the Allen key
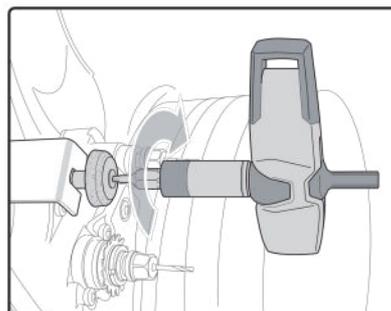
> The wheel is installed.
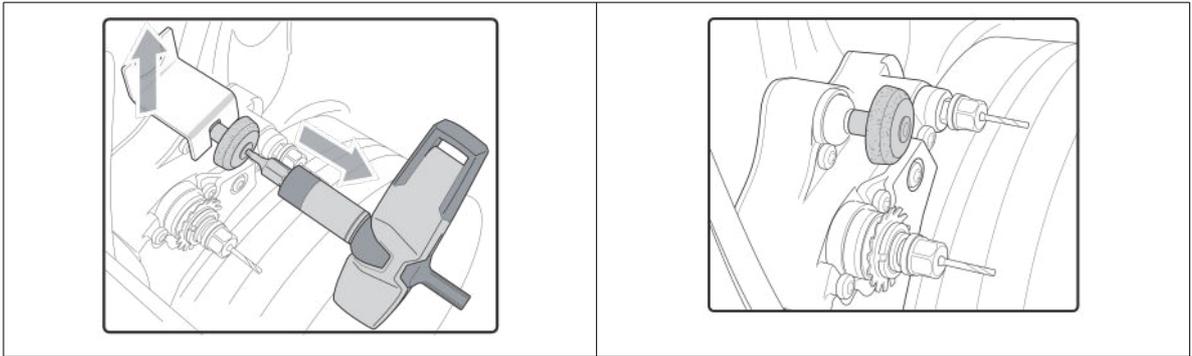
When replacing a chamfering wheel with a step bevel wheel, or cleaning the machine, the statistics will be saved by default.

>The [icon] icon appears by default at the bottom of the screen.

In case of replacement:

- of the chamfering wheel with a new step bevel **wheel:** you must press [icon] to reset the statistics to 0.

  The icon [icon] appears, the statistics are cleared.

- of the step bevel wheel with a new chamfering **wheel:** you must press [icon] to reset the statistics to 0.

  The icon [icon] appears, the statistics are cleared.

10 Press [icon] to confirm the tool change, then [icon] to exit the menu.

e. Installing and changing the engraving tip

From the edger work screen, select [icon] > [icon] > [icon] to clean, change or install the engraving tip.

The wear indicator tells you when you need to change the engraving tip after every 50,000 mm (5 km).

When an engraving is uneven, you may need to change the engraving tip: refer to your customer service technician.

Prerequisite:

You must have the following tools:

- an engraving tip
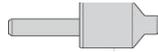
- an Allen key
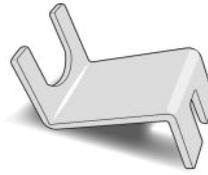
- an adjustable wrench
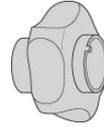
⚠️ The engraving tip should only be in the edger when engraving cycles are being performed.

The chuck must always contain a tool to avoid any risk of oxidation.

⚠️ You must replace the engraving tip with the drill bit as soon as you go back to the edging menu.

A warning message indicates that:

Please replace the engraving tool with the drilling tool.

9161

1 Block the axle with the blocking key.
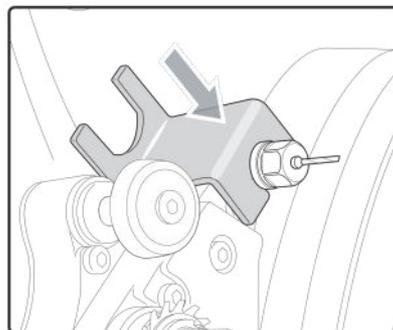
2 Put the adjustable wrench on the chuck

⚠️ The adjustable wrench must never touch the engraving tip or with the drill bit.
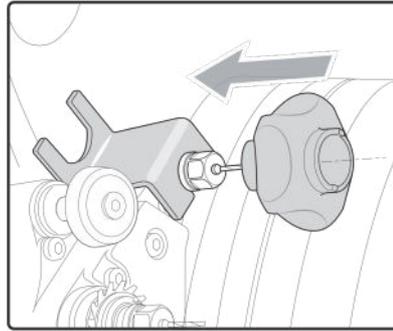
3 Loosen the chuck with the adjustable wrench (two notches towards yourself).
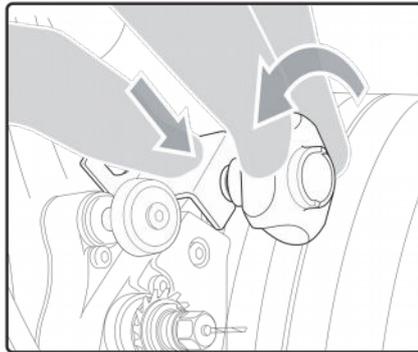
4 Remove the adjustable wrench then the drill bit.
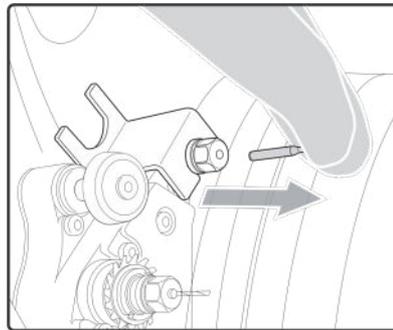
5 Insert the engraving tip all the way, then tighten the chuck firmly by hand.

6 Remove the Allen key, in order to not lock up the mechanism.
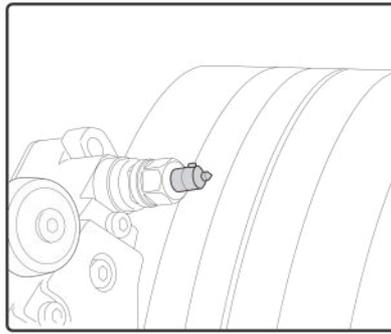
5. STATISTICS AND TECHNICAL LOG

This menu enables you to visualize the number of cycles performed by the edger. It also gives you access to the technical history.

- Edger cycles *(☞ p.174)*
- Technical log and errors *(☞ p.175)*

a. Edger cycles

From the work screen, select 🔵 > 📊 > 123 to view the number of cycles carried out by the edger.

The following screen is displayed:

General statistics_Drilling statistics

1. *Partial counter*

The replacement of a worn tool with a new one resets the partial counter(s) to zero.

2. *Total counter*

3. *Edging*

Number of edging, drilling and finishing operations performed depending on the lens material:

- ◦ Roughing

- ◦ Milling
- ◦ Bevel
- ◦ Flat-edge finish
- ◦ Groove
- ◦ Drill-holes/oblong hole
- ◦ Notch
- ◦ Polishing
- ◦ Chamfer
- ◦ High-base bevel
- ◦ Step bevel

4. *Drilling*

Number of drilling operations performed for each lens material, according to the drill bit used.

5. *Calibration of the touch screen*

6. *Number of lenses cut*

7. *Dressing cycle*

Finishing wheel/Polishing wheel

8. *Next page/Previous page*

b. Technical log and errors

From the work screen, select ⬤ > 📊 > ⚠ to access the list of error messages.

The following screen is displayed:
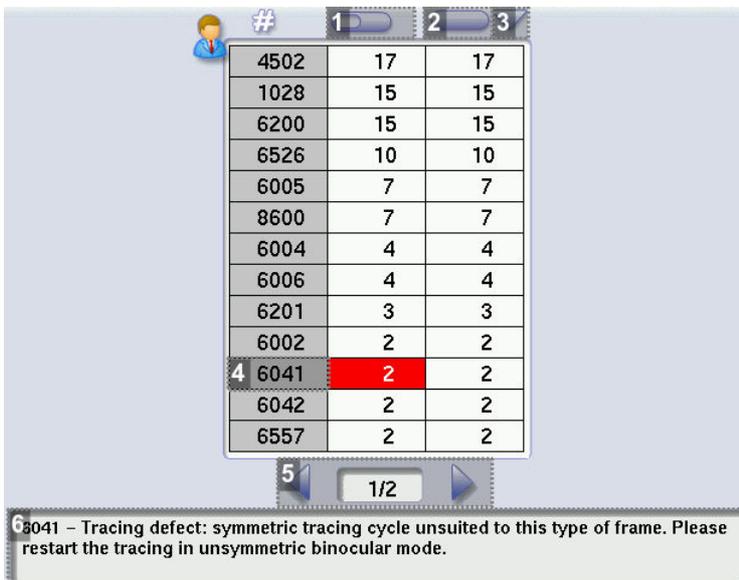
#	1	2	3
4502	17	17	
1028	15	15	
6200	15	15	
6526	10	10	
6005	7	7	
8600	7	7	
6004	4	4	
6006	4	4	
6201	3	3	
6002	2	2	
6041	2	2	
6042	2	2	
6557	2	2	

1/2

6041 – Tracing defect: symmetric tracing cycle unsuited to this type of frame. Please restart the tracing in unsymmetric binocular mode.

1. *Partial counter*

Number of error messages displayed since the last reset to zero.

You can sort the error codes generated by the machine by frequency of appearance.

To sort the partial counters press ⬭, press ▼ again to define the sort direction (ascending, descending).

2. *Total counter*

You can sort the error codes generated by the machine by frequency of appearance.

To sort the total counters press ⬭, press ▼ again to define the sort direction (ascending, descending).

3. *Sorting*

Button used to define the direction of sorting (ascending, descending).

4. *Error message codes*

Classed by display frequency.

5. *Error message pages*

6. *Description of selected error*

Use the scroll box on the right of the message box to scroll through the text.

Press ◀ to return to the work screen.

6. MAINTAINING AND CLEANING THE EDGER

This section describes the maintenance and cleaning procedures for the edger:

- Precautions required *(☞ p.176)*
- Clean the door, the "small tools" module and the wheels (high-base and step bevel) *(☞ p.176)*
- Dress the wheels *(☞ p.178)*

a. Precautions required

🛑 To avoid any incidents, unplug the device before all cleaning operation.

- Clean the edger covers regularly: use a neutral detergent (e.g. washing-up liquid) diluted with water on a soft cloth.
- Clean the touch screen with a dry rag: it should never be in contact with liquid (e.g.: water, alcohol, window cleaner).
- Service the water recovery and filtration systems regularly.

⚠️
- Never clean the machine with chemical products (e.g.: petrol, thinners, solvents).
- Never clean the machine elements (module, etc.) with a wet rag.
- No additive should be added to the water in the edger tank. Do not add pyridine.

b. Clean the door, the "small tools" module and the wheels

From the work screen of the edger , select ⬤ > ⚙ > 🖌 to access the cleaning menu.

The following screen is displayed:

Cleaning the door and the "small tools" module

1. *Cleaning the door*

    a. Press to start the door cleaning cycle.

       The module moves to facilitate the cleaning.
       > The door opens.

    b. Use a cloth to clean the inside of the door.

2. *Cleaning the module and trough*

Press to start the cleaning cycle.

> The door closes.

> The cleaning is done automatically.

Clean the step bevel wheel

In case the cycle time continues for a significant period or a "too much strain" warning appears, the step bevel wheel can be cleaned.

1. Dismantle the wheel

2. Clean the wheel with a decalcifer such as white vinegar.

Cleaning must be performed only when the wheels have been disassembled and **are outside the trough**.

c. Dress the wheels

Pro-E 600 wheel train
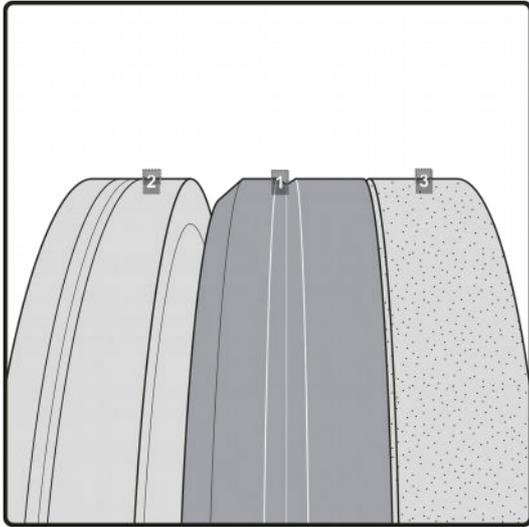
1. *Finishing wheel*

2. *Polishing wheel*

3. *Plastic roughing wheel*

This wheel cannot be dressed

Pro-E 700 wheel train
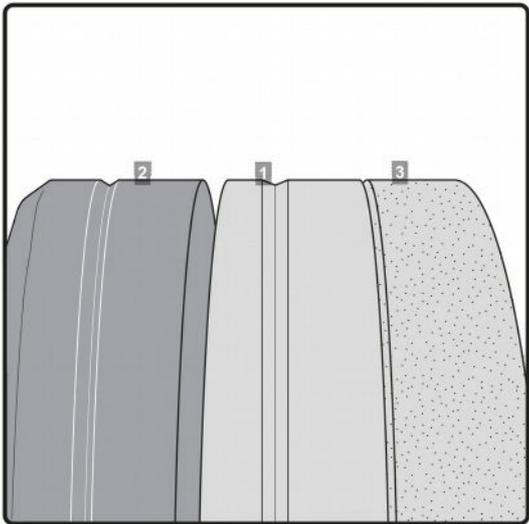
1. *Finishing wheel*

2. *Polishing wheel*

3. *Plastic roughing wheel*

This wheel cannot be dressed

From the work screen of the edger, select ⬤ > ⚙ > 🔘 to access the wheel dressing menu.

💡 You can access the dressing menu by pressing 🔘 on the work screen.

> The following screen is displayed.

Pro-E 600 no. 5 wheel train
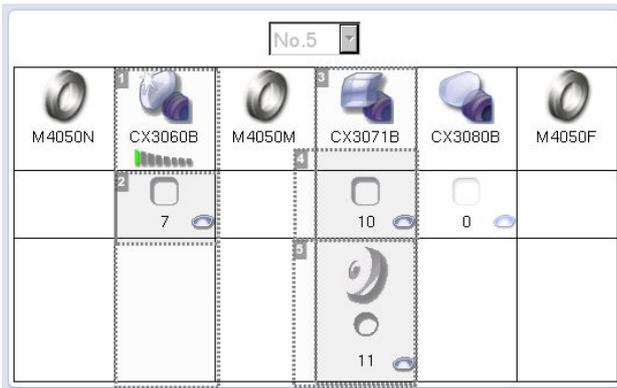
1. *Polishing wheel*

2. *Number of lenses polished since the last wheel change and/or since the machine was last serviced.*

3. *Finishing wheel*

4. *Number of lenses edged since the last wheel change and/or since the machine was last serviced.*

5. *Number of lens edged since the last dressing of wheel.*

No. 9 wheel train (Pro-E 700)
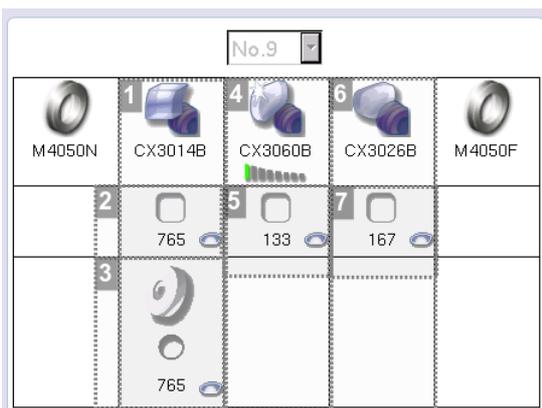
1. *Finishing wheel*

2. *Number of lenses edged since the last wheel change and/or since the machine was last serviced.*

3. *Number of lens edged since the last dressing of wheel.*

4. *Polishing wheel*

5. *Number of lenses polished since the last wheel change and/or since the machine was last serviced.*

6. *Roughing wheel*

7. *Number of lenses edged since the last wheel change and/or since the machine was last serviced.*

1 Make sure that the 22 mm accessories (posiblock holder and stop) are installed on the lens clamp shafts.
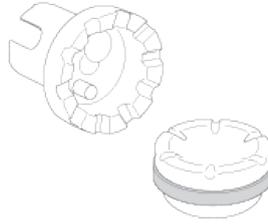
2 Select the dressing cycle of the finishing wheel .

3 Insert the white dressing stone that corresponds to the selected cycle between the lens clamp shafts, with the hollow side against the posiblock holder.

4 Press to close the clamps.

5 Press to start the dressing cycle.

6 Once the cycle is finished, press to open the clamps and remove the dressing stone.

7 If the dressing stone shows a residual ring, remove it in order not to disrupt subsequent dressing operations.

TECHNICAL DATA
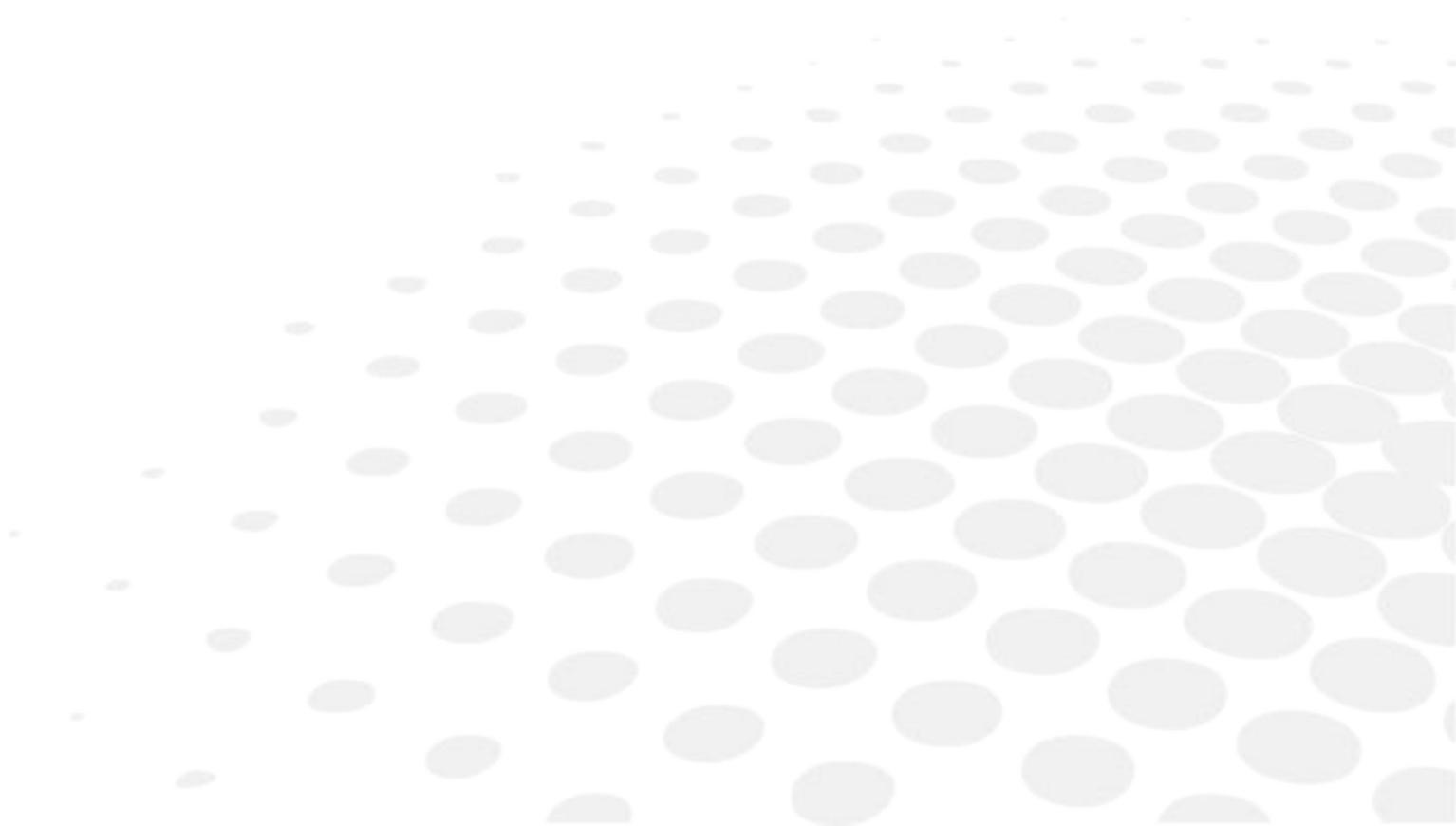
- Machine *(☞ p.183)*
- Environment *(☞ p.185)*

---

1. EDGER

Lens blocking in the boxing center of the shape or blocking in the optical center of the lens.

Edger in boxing mode (passive)

Automatic initialization

Tool wear indicators

Simultaneous feeling of the front and rear surfaces of the lens

Types of finish:

- Bevel:
  - Automatic bevel
  - Height of bevel: from 0.3 to 0.75 mm.
  - Customized bevel: frame base tracking, rim tracking, distributed bevel (%), front surface tracking, rear surface tracking, partial and global adjustment, displacement
  - Distribution value: modification step of 0.1 mm or 5% (distributed bevel)
- High-base bevel
  - Shelf bevel values: 0.25 to 3 mm; modification step: 0.05 mm
  - Flat side of the bevel value: 0.1 to 2 mm; modification step: 0.1 mm
  - Positioning value of the flat side of the bevel compared to the front surface of the lens: from 0 to 1.3 mm.
- Step bevel
  - Shelf bevel values: 0.40 to 3 mm; modification step: 0.05 mm
  - Flat side of the bevel value: 0.1 to 2 mm; modification step: 0.1 mm
  - Positioning value of the flat side of the bevel compared to the front surface of the lens: from 0 to 4 mm.
- Flat-edge
- Grooving:
  - Automatic groove
  - Customized groove: frame base tracking, distributed groove (%), front surface tracking, rear surface tracking, partial and global adjustment, displacement
 - Adjustable groove width and depth
  - Groove depth between 0.20 and 1.20 mm; modification step: 0.05 mm
  - Groove width between 0.60 and 1.20 mm; modification step: 0.05 mm
  - Distribution value: modification step of 0.1 mm or 5% (distributed groove)
- Chamfering:
  - Chamfer adjustable on front surface and rear surfaces
  - Small chamfering by default: 0.20 mm
  - Large chamfering by default: 0.40 mm
- Drilling:
  - Automatic adjustment of drilling angle according to lens curve up to 30°; modification step: 0.5°
  - Hole diameter: 0.8 to 6 mm; modification step: 0.05 mm
  - Types of drilling: through-hole, non-through hole, straight or tilted notch, oblong hole and spot-facing
  - Maximum number of drilling points per lens: 20
  - No-drill area: diameter of 29 mm from the boxing center
- Engraving:

  All materials except glass. Engraving was initially confirmed on the following lens panel:
  - Essilor Crizal Forte Orma
  - Essilor Crizal Forte PC Plano
  - Essilor Crizal Forte 1.67
  - Essilor Crizal Alize Orma
  - Essilor Crizal Alize 1.67
  - Essilor Trio PC
  - Essilor Supra PC Plano
  - Essilor Crizal Forte Transitions 1.67
  - Strong Essilor Crizal Xperio 1.5
  - Zeiss 1.5 light with Teflon coating
  - Zeiss 1.67 light with Lotutec coating
  - Zeiss 1.67 light with Teflon coating

- ◦ Zeiss Photochromic "Photofusions"
- ◦ Zeiss clear Polycarbonate with Teflon coating
- ◦ Zeiss light varnished Polycarbonate
- ◦ Hoya 1.5 light with Long Life coating
- ◦ Hoya 1.5 light with Blue Control coating
- ◦ Hoya 1.67 light with Long Life coating
- ◦ Hoya PNX light with Long Life coating
- ◦ Hoya PNX light with HI Vision coating
- ◦ Varnished Hoya PNX light
- ◦ Hoya "Suntech" Photochromic 1.67

3-D preview of the bevel and groove before the start of the cycle

Self-learning of work habits

Edging pressure varies according to the material to be edged

Automatic wheel cleaning cycle

Lens edging capacity:

- Max. diameter: 110 mm (90 mm with a decentration of 10 mm)
- Min. B-dimension: 17 mm for flat edge, 18.5 mm for bevel

3 wheel versions (depending on material): plastics, polycarbonate, medium or high index, Trivex™, polishing

Precision adjustment:

- Finished lens diameter of - 2 to + 2 mm
- Drilling diameter of - 0.10 to + 0.10 mm
- Default chamfer of - 0.40 mm to + 0.40 mm
- Default groove:
  - ◦ Width of 0.60 to 1.20 mm
  - ◦ Depth of 0.60 to 1.20 mm

Networking possibility:

- Tracers-centerers-blockers
- Edgers
- PC/Server
- Essibox

Integrated functions of auto-maintenance (auto--Tests)

Size of color touch screen: 10 inches

Dimensions: L 590, D 490, H 700 mm

Weight: 95 kg

Power supply: 220-240V – 50/60 Hz or 100-120V – 50/60 Hz

Power consumption: 1350 W – 10 A for 230 V and 15 A for 115 V

Two-pole circuit-breaker

Average water consumption:

- CR39, Trivex™ and MHI: 8 litres/minute.
- Polycarbonate: 10 litres/minute.

Measured noise level on edging, at a distance of 0.5 m from the machine:

- Plastic lens = 71 dB
- Polycarbonate lens = 71 dB
- Trivex lens™ = 72 dB
- MHI lens = 71 dB

Due to constant improvements, these specifications may be modified without prior notice.

2. ENVIRONMENT

Your machine should preferably be installed on a perfectly flat and stable work surface of suitable height (about 70 cm), free from shocks and vibrations, to benefit from the high accuracy of your edger. Your edger can be placed to the right or left of the tracer. However, leave enough space between the two devices for the opening of the side covers. The tracer may be installed up to 5 m away from the edger (a 5 m cable is supplied with the edger). Longer cables are also available on an optional basis.

The temperature and the humidity of the room where you use your machine must be within the following ranges of values:

Operation:

- temperature between +10 °C and +40 °C
- Humidity: between 30% and 75%

Storage:

- temperature between -5 °C and 50 °C
- Humidity: between 25% and 95%

Altitude: < 2,000 m

Level of pollution: 2

Avoid sudden changes in temperature and humidity and install your system:

- in an area not directly exposed to sunlight
- away from all heat sources
- away from all strong magnetic fields
- away from all chemical products, corrosive vapours and liquids

Take care not to block the vents and to leave enough space above the device. Do not place any object on the device. Avoid exposing the device to vibrations or shocks.

The back of your machine must be at least 20 cm away from a wall.

GENERAL INFORMATION
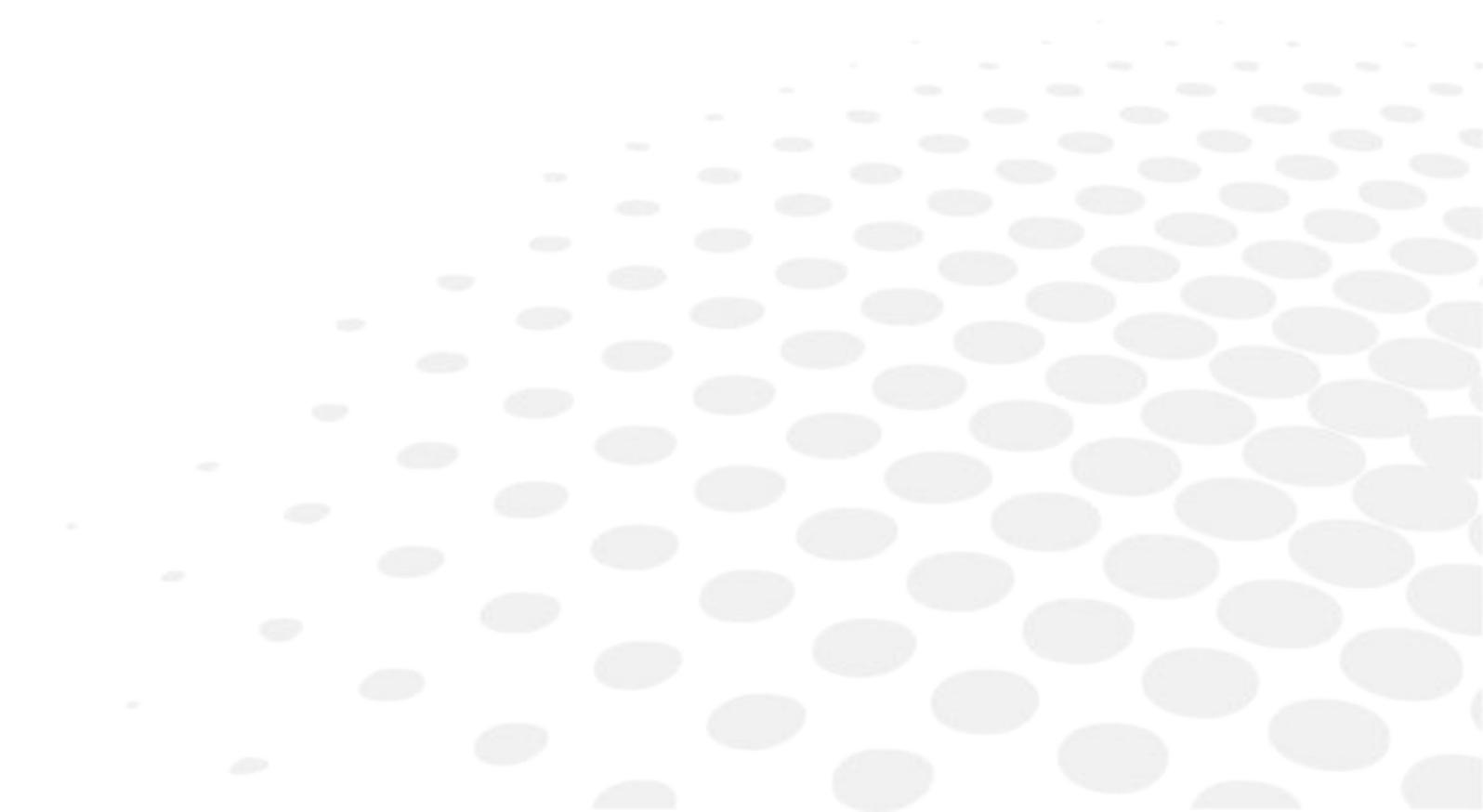
1. Symbols

Symbols present on the edger	
O	Off (power)
I	On (power)
	Synchronous motor speed
	Asynchronous motor speed
	Caution: risk of electric shock
	Caution: danger, refer to the user manual
	Warning: risk of crushing your hand
	Separate collection of electrical and electronic equipment

Symbols present in the document	
	Danger: risk of injury
	Caution: risk of damage for the machine or the lens
	Note: additional information
	Tip: practical advice for use
	Glossary: indicates a word defined in the glossary
	See also: indicates the page number to consult for further information

2. Modifications

The information contained in this document is non-contractual and provided as a guide. It is subject to change without prior notice. Errors or omissions may occur in this type of document, although the greatest care has been taken to ensure the accuracy of the information provided. Essilor cannot be held responsible for any malfunction or loss of data resulting from such errors or omissions.

3. DECLARATION OF CONFORMITY

Complies with marking: **CE**

EurAsia Conformity : **EAC**

Complies with ISO 16284 standards, IEC 61010-1 and IEC 61326-1 and with directives 200/42/CE, 2014/30/UE, 2014/35/UE.

This equipment complies with the limits imposed by Part 15 of the FCC rule. Its use meets the following conditions: (1) this device must not cause interference and (2) must accept interference from external sources, notably that liable to cause malfunctions.

In accordance with the requirements of FCC rules, any modification made to this equipment which is not expressly approved by ESSILOR INTERNATIONAL would nullify the user's right to use this device.

This equipment has been tested and is deemed compliant with the limits imposed for Class-B digital devices according to Part 15 of the FCC rule. Those limits are set so as to ensure reasonable protection against interference in a residential environment. This equipment generates, uses and may emit radiofrequency energy liable to interfere with radio communications if the device is not installed and used in strict compliance with manufacturer instructions. However, nothing guarantees the absence of interference under particular conditions. If this equipment is the source of interference with radio or television reception (this can be confirmed by switching off the device then turning it back on), the user may be able to eliminate this interference through one or more of the following measures:

- Swivel of move the affected receiver or its receiving antenna;
- Move the device away from the affected receiver;
- Connect the device to a different circuit to that powering the affected receiver;
- Request help from the retailer or a qualified radio / television technician.

4. COPYRIGHT

Copyright © 2018 Essilor - Original manual

5. MATERIALS AND PRODUCTS

All edgers obtain a final shape on a lens, by removing material. This process generates dust, which depends on the lens and the materials used.

The materials used for coating the Essilor wheel and consumed during its use are not toxic or allergenic. Nevertheless, users must check that the ground materials are not toxic.

The edger significantly limits dust emissions due to its integrated devices: operation in a closed machine and edging in a wet environment.

Do not place this machine in a dusty environment, in a room where the temperature is too high or too low, or in a wet place.

6. SAFETY INSTRUCTIONS:

All mechanical or electronic adjustments and electrical maintenance must be carried out by a customer service technician approved by Essilor.

The use of an accessory or a cable other than those recommended in this manual can be dangerous for users.
Keep the power cables and the solenoid valve/pump cables away from sources of heat, sharp objects and grease.

Check the power cable regularly; if damaged, have it replaced by an approved repairer.

Do not use your system in any way other than described in this document. Otherwise, the protection provided by the device could be compromised.

Never try to modify or dismantle this product yourself. In addition to the fact that you are likely to damage the instrument, you can also injure yourself.

Your device must be carefully maintained, in accordance with the instructions detailed in this document.

Your system is an electrical appliance compliant with the applicable safety standards. In the event of malfunction, repairs must be carried out by qualified personnel approved by Essilor. Otherwise, user safety is likely to be compromised.

In the event of a long period of non-use and before maintenance and/or replacement of certain accessories, you must unplug your system from the mains.

The equipment must be plugged into an earthed power supply. The earth connection must comply with public standards and be checked by a technician. Avoid using extension cables or adaptors which could create a poor contact.

Never pull on the cables to unplug them from the power socket.

Before plugging your device into the mains, make sure that the switch is in the OFF or 0 position.

If the switch no longer operates ON/OFF (0/I) you must stop using your digital system. Defective switches must be replaced by an approved repairer.

Your system is a professional tool which must only be used by specialized, responsible operators. It must not be used by anyone apart from these operators.

This machine is neither adapted nor intended to operate in an environment where there is a risk of explosion. Do not use this system in the presence of liquids or flammable gases.

Make sure that the equipment is connected to a mains supply which complies with standard NFC 15-100. In addition, make sure that the plug type is 3-pin 10/16 A (earthed) protected by a high sensitivity differential circuit-breaker, maximum 30 mA, and that the wall outlet is easy to access.

The opening of covers is strictly reserved for maintenance. Do not have the machine operate in normal usage with one or more cover open.

It is strongly advised to wear gloves to protect your hands when you empty the tank to clean it.

7. ELECTROMAGNETIC WAVES

Electromagnetic waves emitted by television sets or radios, mobile phones, radio transmitters, etc. are liable to cause malfunctions in the instrument. This instrument is also liable to interfere with television sets or radios, mobile phones, radio transmitters, etc. Avoid installing or positioning devices which may create interference near the instrument. Likewise, never place the instrument on or near this type of device. This could generate malfunctions or faults in the instrument.

Interference and micro-outages

The products have been designed to withstand interference and operate despite its presence and the possibility of micro-outages on the network.

However, if these malfunctions are too serious and abnormal, the machine cannot be guaranteed to operate normally.

8. LICENSE AGREEMENT FOR M'EYE SIGN™ (ENGRAVING) SOFTWARE

Please read this licence agreement closely before using the m'eye sign™ software, by using this software, you acknowledge being bound by the terms of this licence, unless otherwise agreed. If you disagree with the terms of this license, do not use the software.

a. General information

Essilor International (hereafter called "Essilor") grants you a license for use of its M'Eye Sign™ software exclusively for the use set out in these terms and conditions. Essilor reserves all rights which are not expressly granted to you. Rights granted by the terms of this license and its updated version (available at the following address: http://www.mleiyceesnicgen.com/fr), apply to possible software updates used to replace and/or complete and/or correct the original M'Eye Sign™ software (hereafter "Software"), unless these updates have a separate license.

You acknowledge having been informed that the installation of the M'Eye Sign™ software requires an internet connection. Essilor does not guarantee that the connection will be uninterrupted and does not guarantee that it will work or the quality of the connection.

b. Accepted use of the Software and restrictions

A. Subject to the conditions set forth herein, Essilor grants you a personal, non-exclusive, non-transferable license to use the Software for purposes of engraving eligible lenses. The Software must be used exclusively for your professional activity as an optician to enable you to engrave your customers' lenses, in strict compliance with standards and applicable regulations, especially with respect to the field of vision.

B. You can neither rent, nor lease, nor lend, nor redistribute, nor grant licenses to the Software.

C. You are not authorized, and you agree not to authorize a third party: to copy the Software, nor to decompile it, nor to change the programming, to dismantle it, to attempt to derive the source code from it, to decrypt it, to modify it or to create derived products from it (unless these restrictions are prohibited by current legislation). Failure to comply with any of these conditions constitutes a violation of Essilor's rights.

D. The Software contains an existing image database, property of Essilor or free of copyright, as well as an alphabet allowing words to be engraved on the lenses.

In no case may the Software be used to reproduce words, initials, signs, logos, fonts, images or other creations protected by copyright or other intellectual property rights belonging to a third party, without valid authorization from the third party.

E. You are authorized to use the Essilor brand M'Eye Sign™ solely for the purpose of identifying and/or promoting the engraving function to your customers and prospective customers, for the duration of this license and in the exclusive interest of Essilor. You acknowledge that the right of use which has been granted to you does not give you any claim to the intellectual property rights of the M'Eye Sign™ brand, which remain the exclusive property of Essilor. The use of the brand must comply with the graphic charter of the brand M'Eye Sign™ and any directive or recommendation from Essilor or its subsidiaries.

c. Liability

You acknowledge that the use of the letters of the alphabet and/or the aforesaid images together or combined with one or more letters from the alphabet is done so at your own risk.

Accordingly, you agree to defend and hold harmless Essilor and its subsidiaries from liability regarding any claim or complaint, including legal fees and court costs, which may be brought based on your use of the Software, a breach on your part of this license, a violation on your part of applicable law, or an infringement on your part of the rights, specifically the intellectual property rights, of another natural or legal person.

d. Disclaimer of warranties

No verbal or written advice, declaration or observation from Essilor or its subsidiaries may be interpreted as a warranty hereunder.

Essilor has done its utmost to develop quality software.

However, you expressly acknowledge and accept that the use of the software is at your own risk and that you assume the entire risk regarding quality, performance, accuracy and the handling of the software. The software is provided "as is" without any warranty of any kind. By this license, Essilor excludes all express, implied or legal warranties, including but not limited to implied warranties of merchantability, satisfactory quality, fitness for a particular purpose, quiet enjoyment and non-infringement of third party rights, relating to the software. Essilor in no way guarantees the absence of problems during the use of the software, nor that the software will function without interruption or errors, nor that software faults will be corrected

e. Limited liability

To the fullest extent permitted by the law, Essilor will not be held liable for any accidental, special, indirect or incidental damage, including but not limited to damage such as lost profits, loss of clients, loss of data, interruption of activities or any other commercial damage, commercial loss resulting from or relating to your use or your inability to use the Software, even if Essilor has been informed of the possibility of such damage.

f. Termination

This license is granted for an unlimited time. It may be terminated by you or Essilor with 3 months notice. Your rights rising from this license will be immediately terminated without further notice from Essilor if you do not comply with the conditions of the license. As soon as

the license is terminated, you must stop using the Software and Essilor will be authorized to remotely erase the Software from any equipment in your possession, to which Essilor has access (via Essibox®).

g. Applicable law

This license is subject to French law.

h. Entirety of the agreement; authentic language

This license constitutes the entirety of the agreement between the parties regarding the use of the Software which is the object of the license, and replaces all prior or current written or verbal proposals or agreements on this subject. Any translation of this license is carried out for local needs. In the event of contradiction between the French version and any other version, the French version will prevail.

GLOSSARY
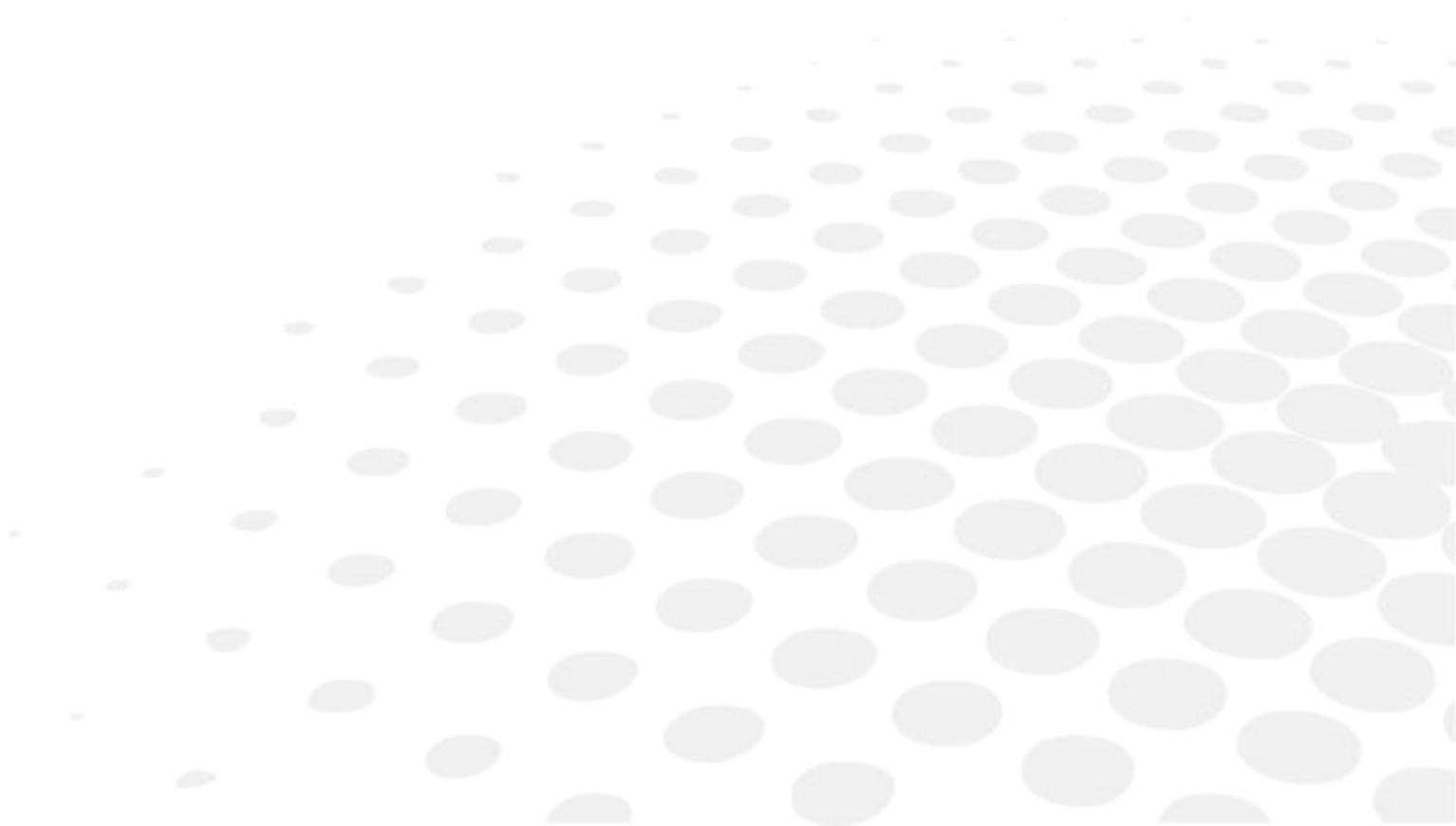
BOXING DIMENSIONS

The boxing system is a standard method to indicate the dimensions of frame contours (or gauges). This operation consists in fitting the frame into a rectangle whose dimensions are indicated.

- Boxing center: geometric center of the rectangle
- Boxing axis: horizontal axis of the frame passing through the boxing center
- A-dimension: length of the rectangle
- B-dimension: height of the rectangle
- D-dimension: nominal nose (DBL)
- E-dimension: greatest radius from the boxing center
- Boxing height: calculated from the tangent line at the bottom of the frame
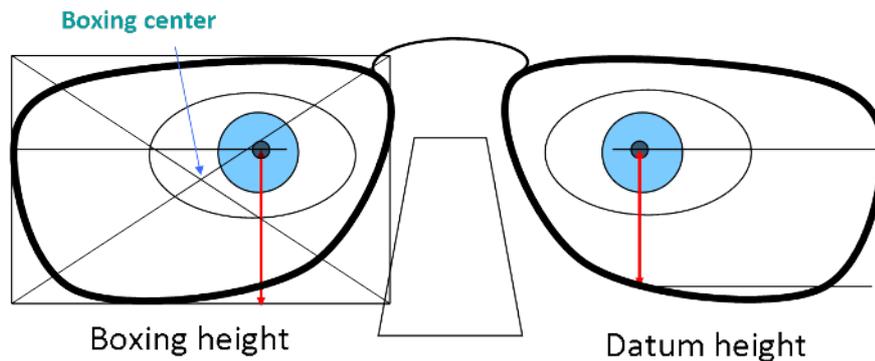
EXECUTIVE LENS

Type of bifocal lens with two full fields: one which corrects far vision defects and one which corrects near vision defects. They are available in two models:

- separation line present on the front surface of the lens
- separation line present on the rear surface of the lens
- Example of lenses of this type: Telex lenses™

GROOVE WITH MENISCUS

The curve of the rim of the frame is considerable.

JOB

All of the actions to be carried out together on the tracer and the edger to manufacture a pair of glasses. It is recorded in the shape management screen under a specific identifier.

LENTICULAR LENS

Type of lens equipped with a small curved optical zone on front or back surface and whose edge is gradually flattened. The correction is in the central part.

Refractive index

Characterizes the refractive power of a transparent optical material.

The indices vary according to the materials used for the lenses:

- Plastic lens: 1.5
- Polycarbonate lens: 1.59
- Medium or High Index lens: > 1.5
- Trivex™ lens: 1.5 to 1.6
- Tribrid™ lens: 1.6
- Glass lens: 1.5 to 1.9

Essilor Instruments USA
8600 W. Catalpa Avenue, Suite 703
Chicago, IL 60656
Phone: 855.393.4647
Email: info@essilorinstrumentsusa.com
www.essilorinstrumentsusa.com