

Fully-Automatic Edging Machine

SJG-1000A

Operation Instruction



CE

Dear customers:

Thank you very much for choosing our products and for your trust in our company.

The SJG-1000A edge is a lens processing equipment, designed specifically for eyeglasses stores.

Please read the instructions carefully and place it near the mill for easy access.

The information in the manual does not have the nature of the contract, and can be modified without advance notice. The content has been strictly checked and ensured but errors or omissions are inevitable. If there is anything wrong in the manual, the manufacturer is responsible for the update.

The machine does not operate according to the instructions in the instructions and is not within the warranty promised by the manufacturer.

Pay attention to:

- >> Model SJG-1000AK machines are equipped with slotting and inverted edge functions;
- >> Three sandwheel configuration machines do not have the glass lens processing function.

Icon Description

Different icons in the manual are more likely to attract attention and distinguish different matters of attention (For example: security-related projects).

The following table lists all the signs and their instructions:

characteristic	explain
	Important warning: cause personal damage and read the instructions for machine failure.
	Important advice: It can damage the machine or cause failure. Read the instructions carefully.
	The necessary preparations Before any operation, the equipment must be determined that the power is disconnected.
	electrical accident.
	Heavy matter reminder The machine is heavy and requires more than two people to carry it.
	Rotation reminder Be careful not to put your hand near the rotating sand wheel.
	Be careful to be caught Special attention shall be paid when closed.
	Protective gloves must be worn Especially when cleaning and replacing the water tank.
	Must wear work clothes Especially when cleaning and replacing the water tank.

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1.1 Open the machine package

1.1.1 warn



- > The machine must be placed with the orientation identification on the box and must not be inverted.
- > Put the machine on a flat, stable plane.

1.1.2 step

Open the package by following the following steps:

- # 1 At least two men carried the machine to the ground;
- # 2 Cut off the four packs on the box;
- # 3 Remove the packing box;
- # 4 Check the accessories provided (toolbox, water pipes, etc.);
- # 5 Remove the plastic protective material from inside the machine;
- # 6 At least two men lifted the machine transport rail and put it on the workbench;
- # 7 Remove the head fixtures;
- # 8 Keep the machine packaging, it is recommended to open and put it flat.

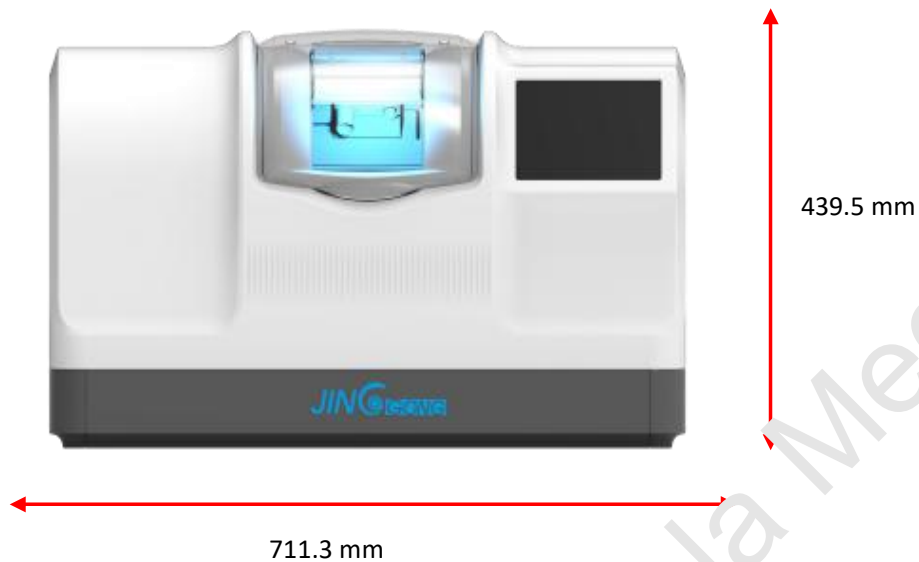


Remove the nose fixtures

1.2 Prepare the workbench

1.2.1 Machine specification

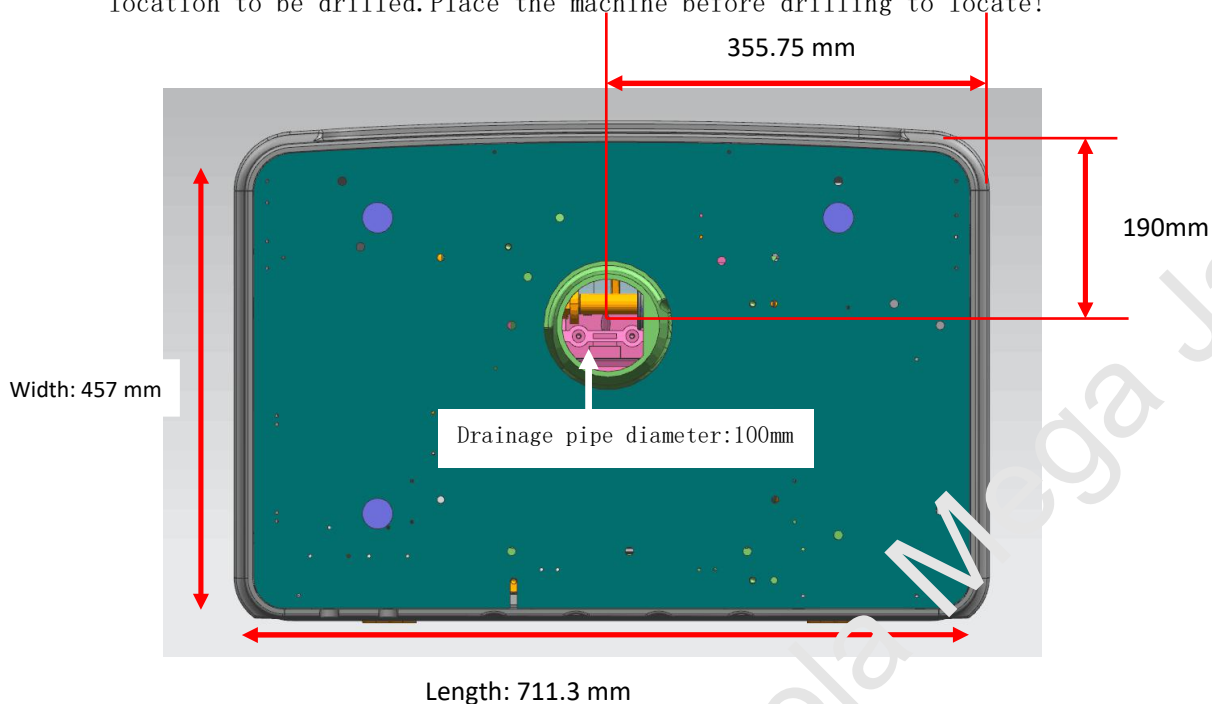
Machine specifications are shown below:



- > Long, =, 711.3mm
- > High, =, 439.5mm
- > Width = 457mm
- > Complete machine weight = 65kg

1.2.2 Workbench area and drilling requirements

As tured, the figure below shows the position of the mill on the bench and the location to be drilled. Place the machine before drilling to locate!



pay attention to:

- > Reference to the dimensions given;
 - >> Machine length: 711.3 mm;
 - >> Machine width: 457 mm;
 - >> Drainage pipe diameter: 100mm;
 - >> Distance from the center of the drainage hole to the right side of the machine: 356mm;
 - >> Distance from the center of the drainage hole to the front side of the machine: 190mm;
- > Leave enough space around the edge mill.
- > Ensure that the workbench is stable and smooth.
- > Installation position shall be kept away from the heat source.

1.3 water supply

1.3.1 explain

1.3.1.1 General description

- > The machine must be installed with a water stop valve, which must not be 80cm higher than the edge mill. The water stop valve position must be conveniently operated so that the machine is always closed when it is not used.
- > Drainage pipe is 100 mm in diameter. To ensure smooth discharge of debris, a minimum inclination of 5%.

1.3.1.2 Filter box with water pumps

- > Long = 500mm wide = 400mm high = 280 mm
- > Capacity: 50 litres

1.3.1.3 water pump

- > Power = 40 W
- > Flow = 12 litres / point
- > Lift range = 3.0 m
- > Voltage = 220V-230V/50Hz 110V-115V/60Hz



The 1.3.1.3 magnetic valve

- > Voltage = 220V-230V /50Hz 110V-115V /60Hz
- > Power = 20 W



1.3.2 Water pipe connection

- > Water pipe connection is shown below:

1.4.2.2 step

As shown in the figure:



Use circulating water for the connecting water pump



Connect the water supply to the mill and secure.

1 Check whether the machine switch is disconnected, the ON /OFF switch is in the OFF position, and the main power plug is **disconnect**.

2 Check that the water supply system is closed.

3 Make sure the machine level => can be adjusted with 4 stepping screws.

4 Connect the drain pipe to the bottom seat.

5 Connect the water supply pipe to the water pipe or to the water pump.

6 If tap water is used, the drain pipe needs to be connected.

7 If the water supply system is blocked, check the permeability of the pipe, especially around the solenoid valve.

8 Connect the water pump or the solenoid valve to the water pump power supply.

1.5 Electrical connection

1.5.1 Mill machine wiring

> The power socket must be grounded, and ensure that the whole machine shell is grounded when installing.



Ground wire of the whole

1 Check whether the machine switch is disconnected: the ON/OFF switch is in the OFF position and the main power plug is disconnect.

2 Connect the scanner to the RS232 port.

3 Plug in the power plug for the power cord, water pump, or solenoid valve.

The edge mill and its supporting equipment shall be connected as shown in the figure below:

Power line interface



RS232 port (scanner)

Front water
Water pump /
solenoid
valve



2 safety prevention

2.1 one should know that 2.1.1 console operator

- > Read the instructions carefully and place it near the machine for any access.
- > The machine has rotating devices and must be careful not to put its hand near the sand wheel.
- > The machine is heavy and requires at least 2 people when handling.
- > When starting the splint shaft, keep the handle outside the contact area.
- > The power cord must be disconnected before contacting the fuse.
- > The water circulation system must be well sealed during installation
- > The power plug must be removed before repairing the edge mill.

2.1.2 machine

- > The power supply voltage must be consistent with the rated voltage marked on the nameplate behind the machine. If the voltage in the installation site is uncertain, please contact a professional electrician
- > Disconnect the power if a machine is unused for a long time.
- > The switch is located behind the machine, marked with ON/OFF. Plug is used to disconnect the main power supply.
- > Cut off the main power supply if lightning occurs or is unused for a long time.
- > The machine should be far away from the heat source, and the heat source will affect the operating performance of the equipment.
- > Do not block and cover the vents on the machine housing to ensure the normal operation of the equipment
- > The machine must be installed in a well-ventilated room.
- > The socket or plug should not be too loaded or it will cause fire or shock accidents.
- > The power cord avoids using stretched leads.
- > The machine shall be kept away from the wind sand environment.
- > Any maintenance work (housing to be opened or closed) must have the consent of the manufacturer or its seller.
- > Identifications of the different places The warning may cause the corresponding injury, and special attention should be paid:
- > Control pump outlet => electric shock hazard
- > Minding chamber => Physical damage
- > Water supply system => Water pressure above 1 bar causes a hazard



2.2 Use recommendations

- > Compliance with the equipment maintenance requirements.
- > Place the power cord properly.
- > Contact the seller and professional personnel and all accessories must be used.
- > Can only be brought online with the equipment specified by the seller.
- > If the operating procedures in the instructions are strictly implemented, the operation of normal functions can be guaranteed.
- > The equipment must be cleaned regularly
- > Wipe the case with a clean, soft wet cloth by dipping the little alcohol.
- > Note: The following items cannot be used when cleaning:

Liquid containing ammonia, soda, or acetic acid;

Organic solvents containing acetone, benzene, or trichloroethylene.

- > touch screen:

>> do not press the touch screen hard, or it will be cracked;

>> cannot press the touch screen with sharp objects, scissors, pliers, etc;

The hands must remain dry when the>> operates the touch screen;

The>> cleans the touch screen using a soft, clean, and dry fabric.

- > Mill system:

Before the>> starts the machine, check that the water supply system is ready (valve open);

The>> water supply system must ensure good water tightness;

>> If circulating water is used, the water in the water tank must be replaced periodically;

>> regularly check the state of the probe and replace it for wear, gap or damage;

>> is wiped daily with water and soft sponge or brush to dust the CR39 surface to not scratch the plastic surface;

The>> cleans the water baffle regularly.

The user is not responsible for not following the instructions or the prompt mark on the machine for the machine failure.

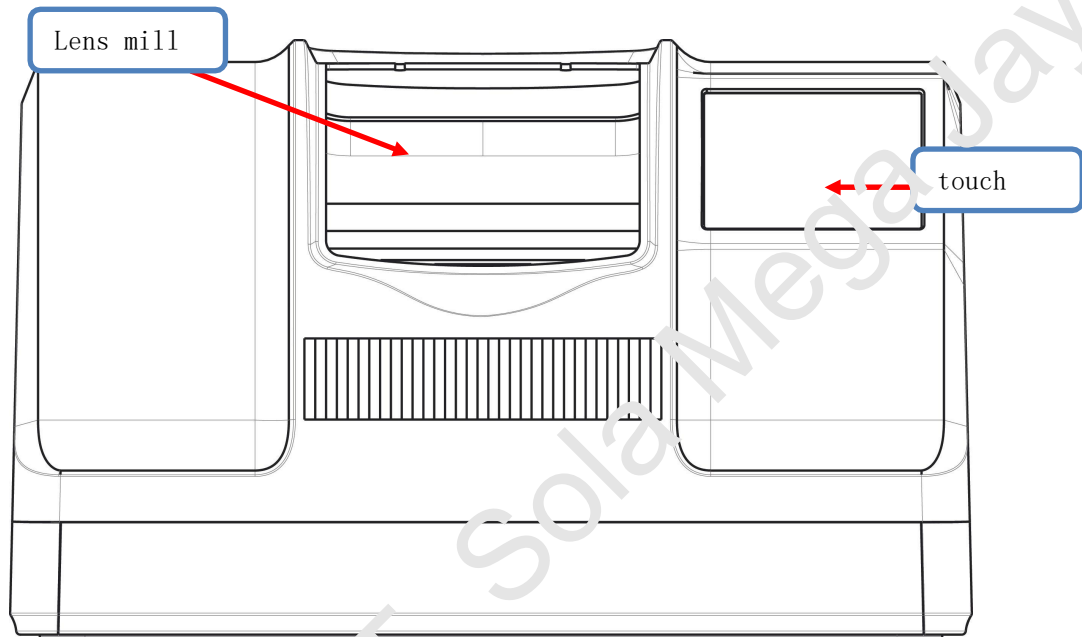


3. The use of the edge grinder

3.1 surface

3.1.1 Machine appearance

The following image is a panoramic view of the machine



3.1.1.1 touch screen

> Touch screen function:

>> operation, the SJC 1000A interface

>> to input the processing task data

The>> shows the shape of the frame and lenses

>> Enter the edge-grinding data

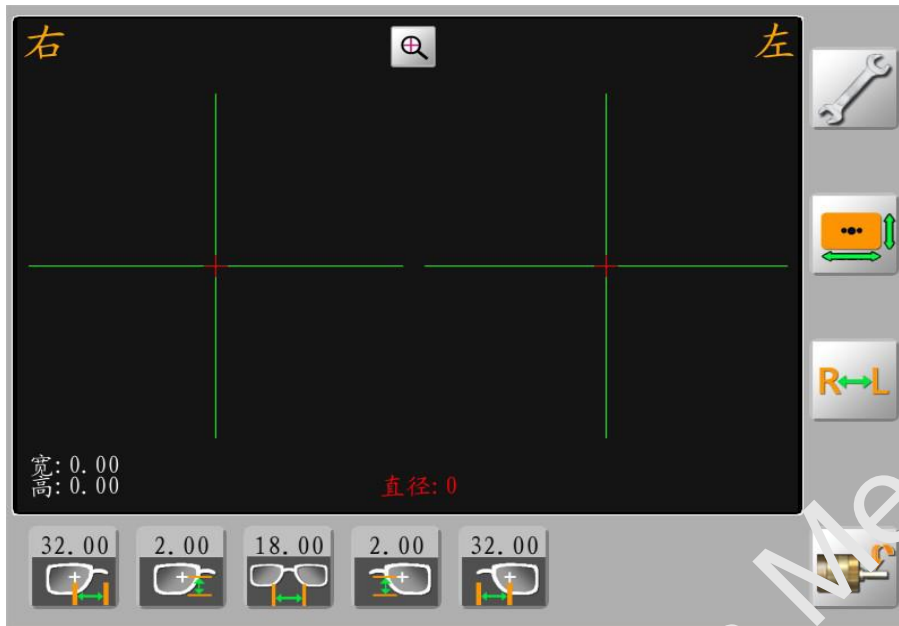
3.1.1.2 Lens processing window

> Function of the edge mill:

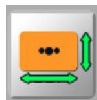
>> processes the lenses based on data such as frame material, shape and degree.

3.2 Operator screen introduction

3.2.1 Displays the interface



>> Menu interface;



>> Enter the data modification interface, you can change the lens shape;



>>left and right eye data symmetrical display;



>>Enter the lens processing interface;

>> retrieve the current required processing data and display;



>> Enter right eye pupil distance;



>>Enter lefteye pupil distance;



>> Enter right eye pupil high;



>> Input left eye pupil high;



>> input nasal bridge distance;



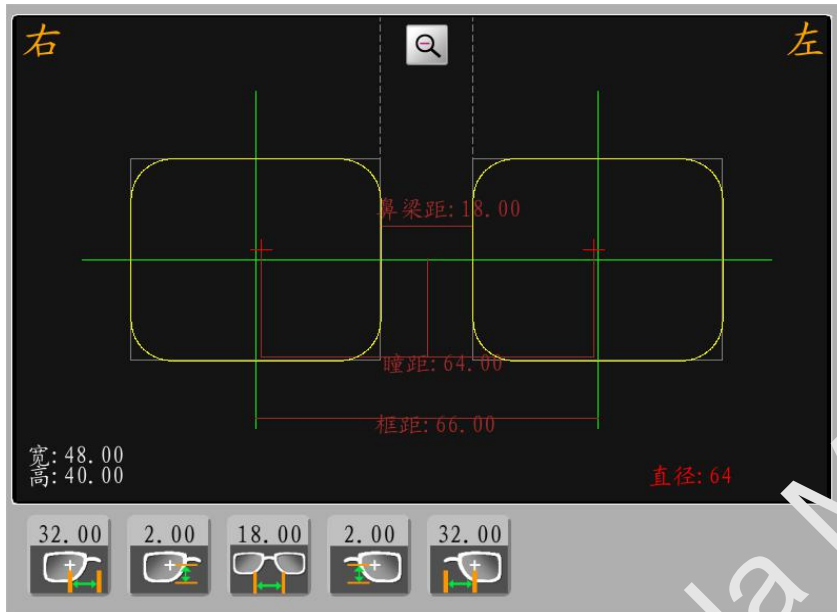
>> Enter the 1:1 display interface;

Dia>> Minimum blank lens diameter required to process the current lenses;

3.2.2 Screen 1:1 display:



> Click on the screen to enter the glasses frame 1:1 display screen.



> Click on the screen , Return to the main interface.

>> Bridge distance: nose bridge distance of mirror frame;

>> Pupil distance: pupil distance in both eyes;

>> Box distance: mirror frame geometric center distance;

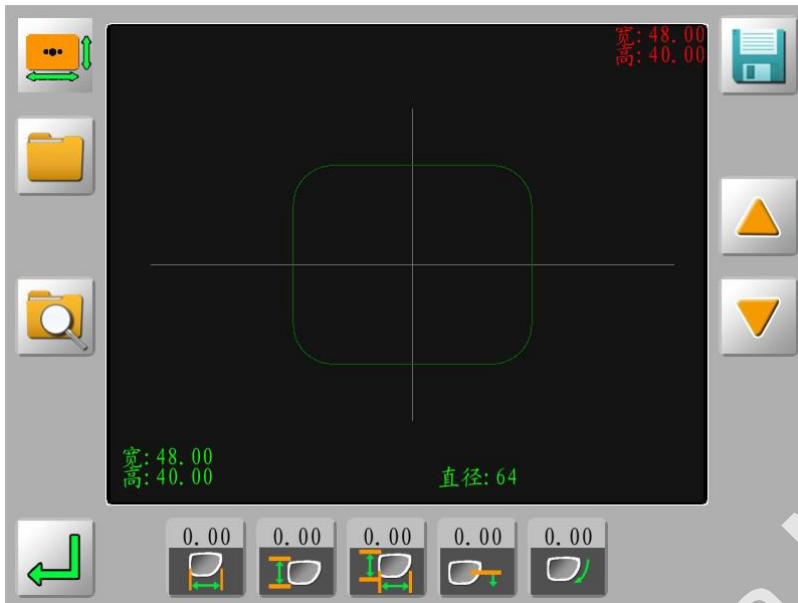
>> Diameter: the minimum blank lens diameter required for processing the current lenses;

>> Width: the maximum width of the lens template;

>> High: the maximum height of the lens template.

3.2.3 Template data modification

> Click the  Icons, enter the template data transformation



>> Get already existing template data from memory;



>> Find the template data in memory;



>> Save the current template data into memory;



>> Template height unchanged, dwidth deformation;



>> template width unchanged height deformation;



>> Template width and height are transformed simultaneously;



>> Loweredge along the template;



>> Template data rotation;



>> Template data Angle rotation;



>> return.

3.2.3.1 Template data storage



> Click on the interface icon, the system popup the save window, enter the template



> Click "OK" on the digital keyboard to twist, and the digital code, the figure below.

3.2.3.2 Template data search



> Click on the interface icon, the system to pop up the search window, the following figure:

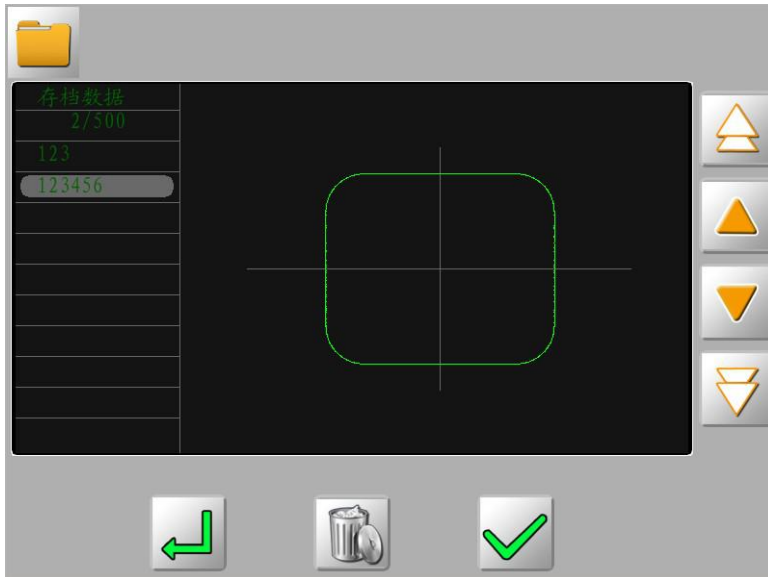


> Enter the template digital coding to find, click the "OK" of the number keyboard to twist, the system will automatically find the current template data.

3.2.4 Memory data transfer



> Click the icon of the reformational interface to enter the template data transfer



interface to display the memory data list.



>> Display the previous page of data;



>> Displays the next page of data;



>> Displays the last data;



>> Displays the next data;



> Get current data;



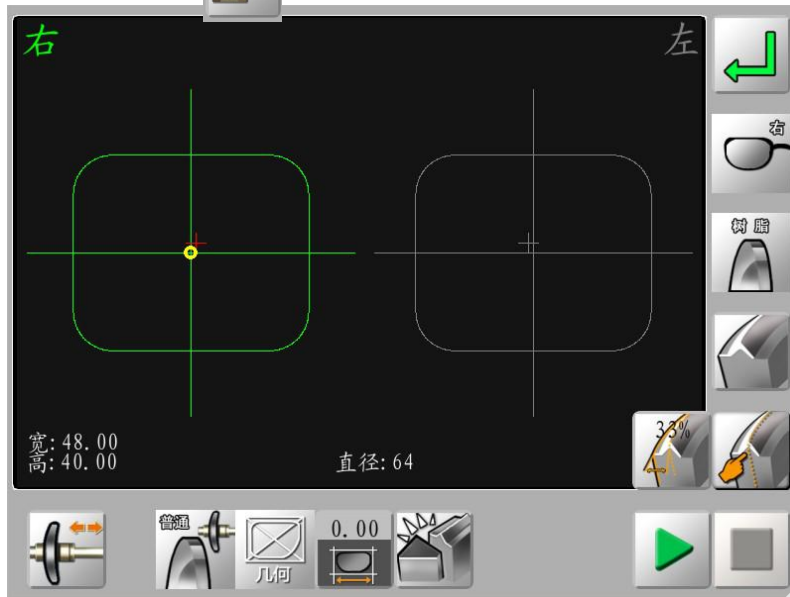
>> Remove the memory data;



>> Return.

3.2.5 Lens processing interface

> Click on  Icons, enter the lens processing setting



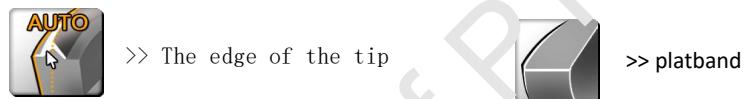
1. Left and right eye processing selection:



2. Lens material selection (three sandwheel configuration machine does not have glass lens processing function):



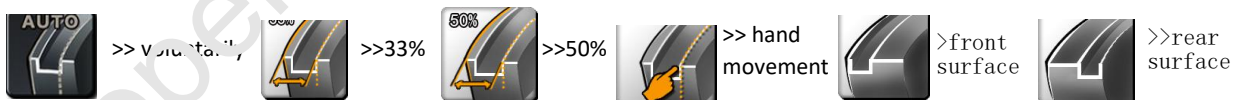
3. Biobank selection:



4. Approximal ratio:



5. Slot ratio (machine use with slot function only):



6. Front surface backedge (machine use with backedge function only):



7. Rear surface backedge (machine use with backedge function only):



8. Lens processing mode:



>> Optical center mode



>> Geometric center mode

9. Polishing selection:



>> polishing



>> Not polished

10. else:



>> return sheet



>> Start



>> Stop



>> process

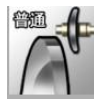


> Repair

11. Spllip pressure:



>> (first pressure) Fragile



>> (second pressure) general



>> (third pressure) water slide sheet



>> return

3.3 Lens processing

3.3.1 Clip in / remove the lens

> Clip the lens into the grinding window

After all edge data is input , clip in the lens

The appropriate clip should be selected for each lens.



Small 19mm clip head



Large 25mm clip

Remove the processed lenses, but do not remove the suction cups and can be rebuilt if needed.

3.3.2 Start / terminate the edge grinding procedure

> Start of edge procedure:

After entering all edge parameters and loading the lens into the clip.



> Abort of the grinding procedure

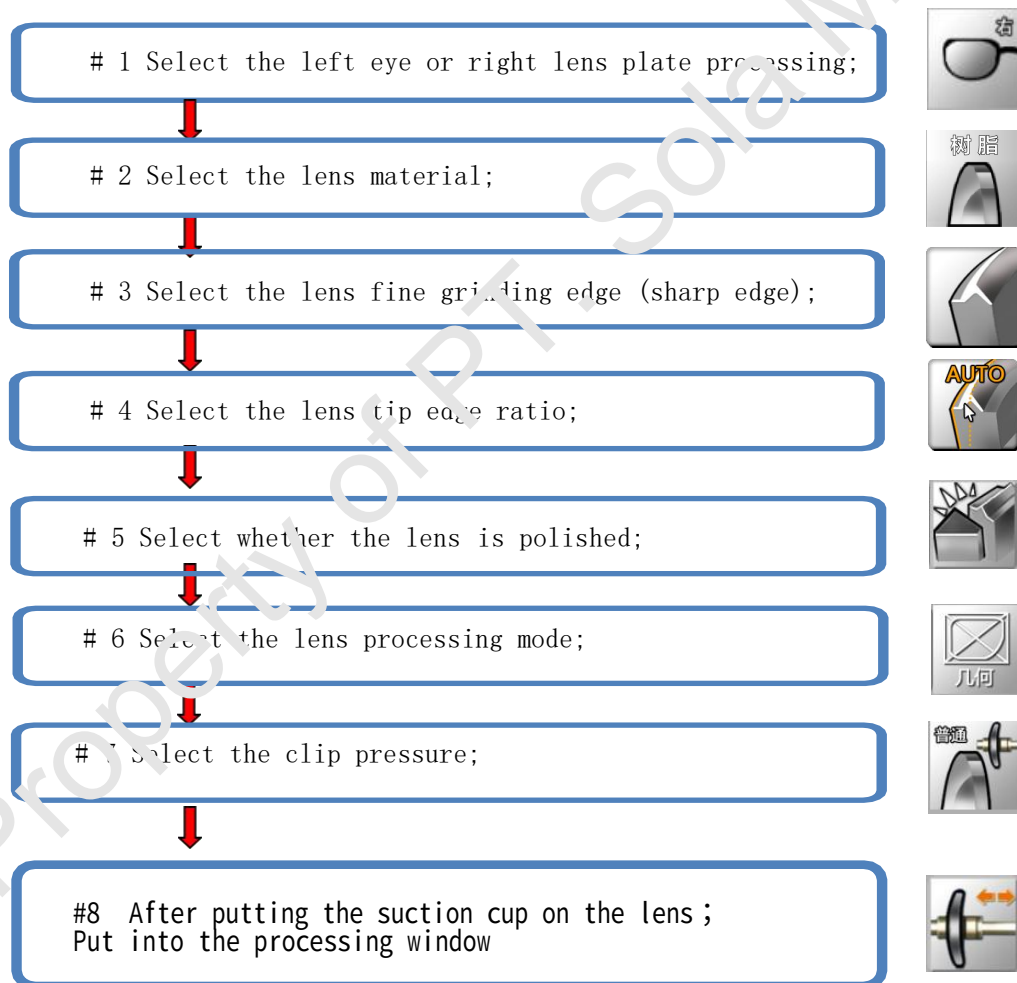
To abort the current edge program



When the grinding edge is in progress, you can switch from the other jump key to the key.

3.3.3 Lens processing steps

> Full frame lens processing



9 Start



10 After the grinding, open the



Important tips:

> Automatic tip edge

The pointed vertex position is automatically located at $1 / 3$ of the front surface of the lens.

> 33% The tip edge

The apex vertex is located 33% from the front surface of the lens.

> 50% The tip edge

The apex vertex is located 50% from the front surface of the lens.

> Front surface tip edge

The pointed edge vertex position is located on the front surface.

> The tip of the rear surface

The pointed vertex position is located on the rear surface.

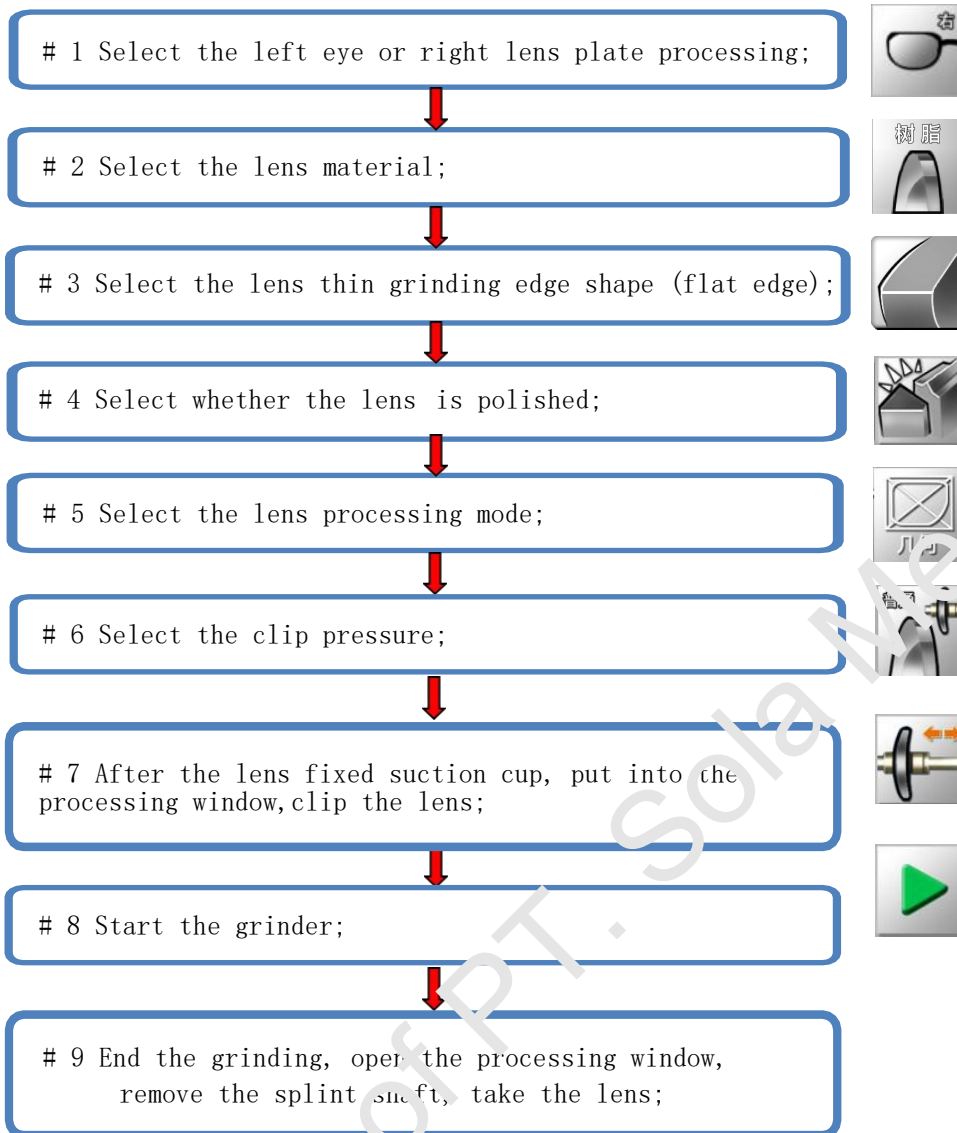
> Manual tip edge

The user can enter the tip edge ratio (the vertex position from the front surface of the lens).

Important tips:

- > If the maximum thickness of the lens is less than 2mm, the tip edge / slot position is set anyway. The processing position is always automatically at $1 / 2$ thickness of the lens.

> Half-frame or frameless lens processing



Important tips:

> Automatically open the slot

The slot position is automatically located at 1 / 3 of the front surface of the lens.

> 33% open slot

The slot position is located 33% from the front surface of the lens.

> 50% open slot

The slot position is located 50% from the front surface of the lens.

> The front surface opens the groove

The slot position is located on the front surface.

> The rear surface opens the groove

The slot position is located on the rear surface.

> Turn on the slot manually

The user can enter the slot position (slot from the front surface of the lens).

3.3.4 range of work

> lens

Diameter: untreated lenses, 80mm diameter plus 10mm offset, that is, offset lenses with maximum diameter of 100mm. thickness:

Resin lens unprocessed maximum thickness: 18mm

Glass lens unprocessed maximum thickness: 16mm

Minimum center thickness of lens: 1.2mm

Finish coarse grinding lens, maximum thickness of flat edge: 11mm

Complete coarse grinding lens,

Maximum thickness of glass tip edge: 15mm complete coarse grinding lens,

resin tip edge maximum thickness: 15mm

> form

Flat edge minimum

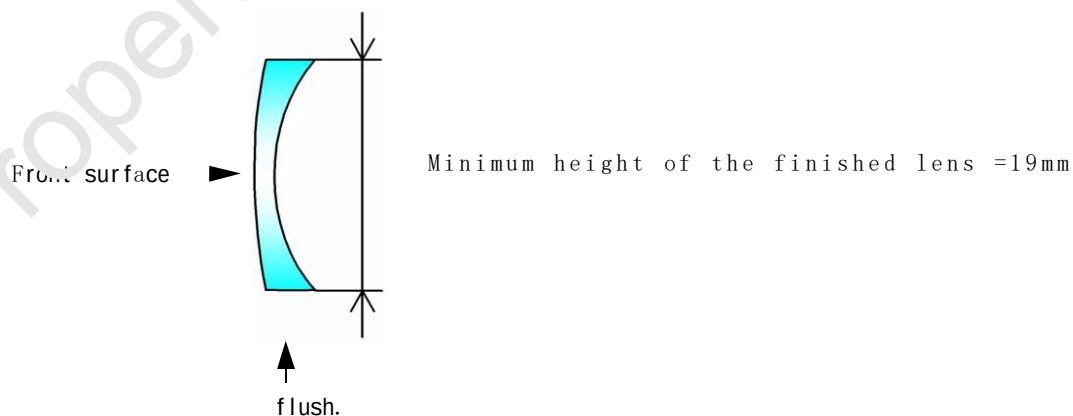
height: 19.00mm, sharp

edge minimum height:

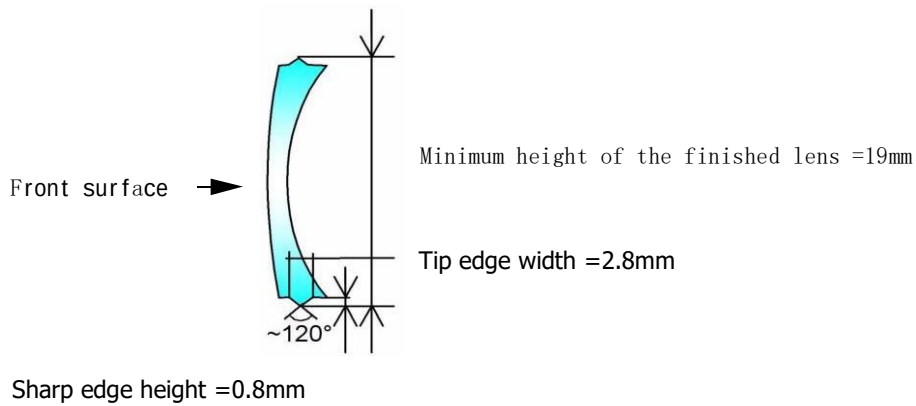
19.00mm

> Schematic solution of processing scope

>> Flat edge lens



>> The tip lens

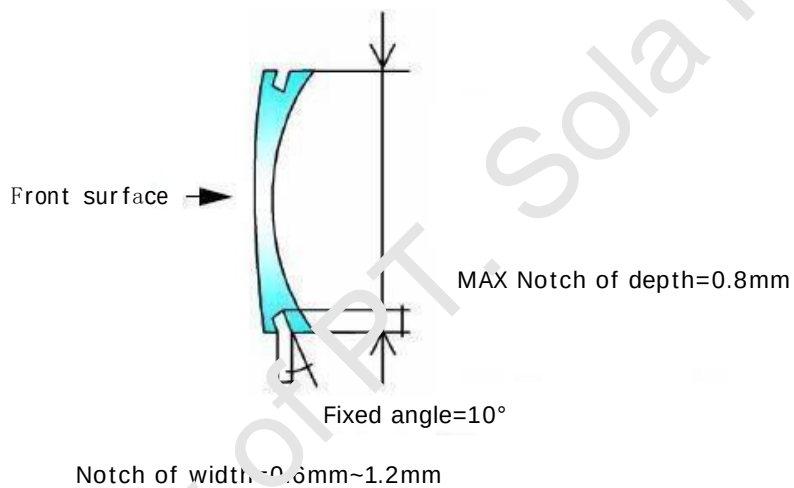


>> Open slot lens

Slot width: 0.6-1.2mm,

slot depth: 0.0-0.8mm

Minimum distance between slot and front and rear: 0.2mm



4. Menu configuration

4.1 Configuration menu introduction

4.1.1 System menu interface

> Click on the main interface



Icons, enter the menu password, and enter the menu.



>> Complete machine test;



>> Complete Machine Settings;



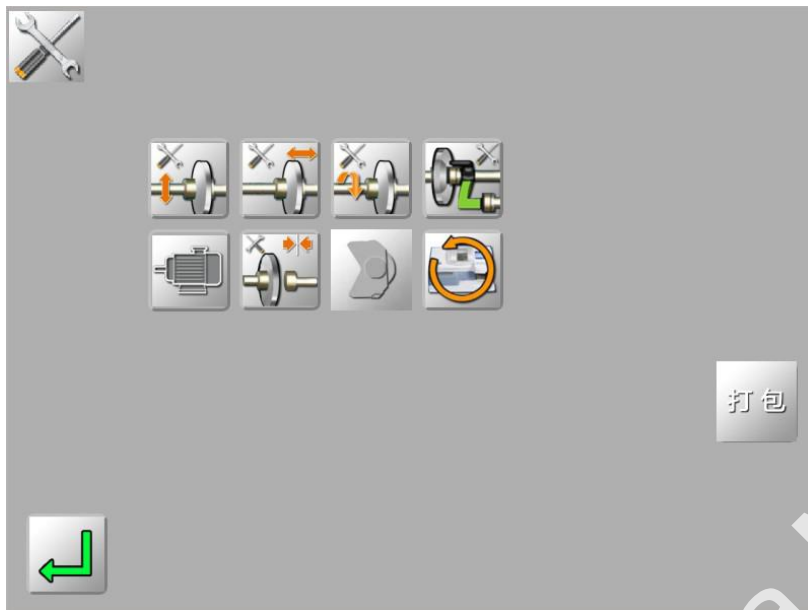
>>Initial settings;



>> Processing Data Statistics Table;

4.1.2 Test menu

> Click on the  Icon, go to the whole machine test menu.



>> Performance test of head lift motor and encoder;



>> Performance test of nose horizontal mobile motor and encoder;



>> lens rotary motor and encoder performance test;



>> scanning probe assembly performance test;



>> Performance test of main motor and water spray system;



>> clip/slide back system performance test;



>> Complete machine copy machine test;



>> Slot, inverted edge performance test (machine use with slots,
reverse edge function only);



>> Lock the head, the whole machine package transportation.

4.1.3 Set the menu

> Click on the main menu interface  Icon, enter the whole machine setup menu.



>> Clip pressure correction



>> Grinding wheel position correction



>> Scanner probe correction



>> Adjust the size



>> Setup cylinder number



>> Benchline bit setting;



>> Slot settings (machine use only with slots, inverted functions)

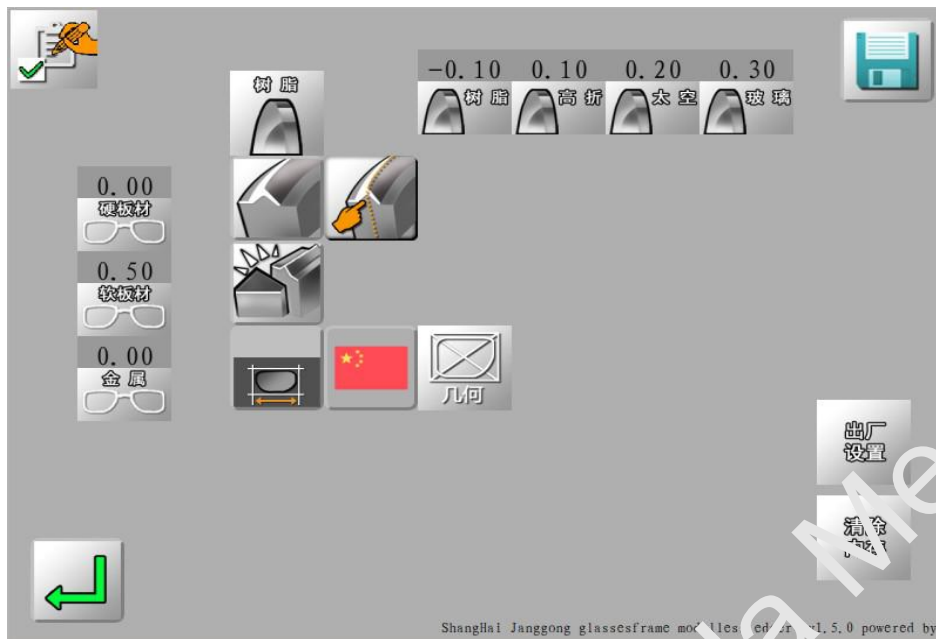


>> inverted settings (use for machines with slot, inverted functions only).

Note: The parameter setting needs to be completed under the guidance of professional after-sales service personnel. Users should not enter the parameter setting menu themselves, otherwise Improper operation may affect the performance of the machining.

4.1.4 Initial parameter settings

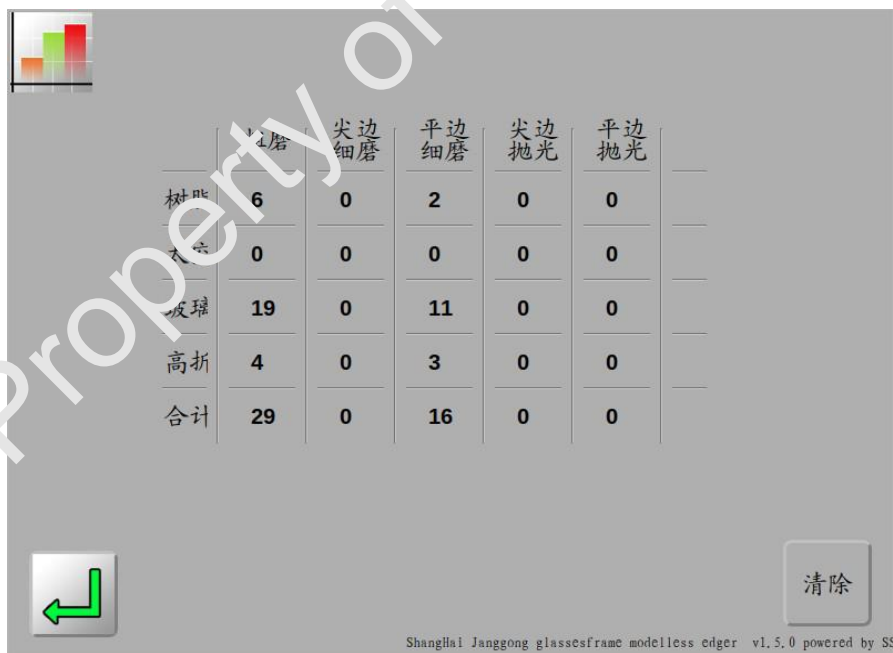
> Click on the main menu interface  Icons, go to the Initial Settings menu.



> After the settings are complete, click  Save the initial setting parameters.

4.1.5 Processing statistical table>

Click on the main menu interface  Icons, view the processing statistics table data.



	树脂材料	尖边细磨	平边细磨	尖边抛光	平边抛光
树脂材料	6	0	2	0	0
软材料	0	0	0	0	0
玻璃	19	0	11	0	0
高折	4	0	3	0	0
合计	29	0	16	0	0

5. Daily maintenance of machines

5.1 maintenance instruction

To ensure that your edge mill operation is at its best, you have to perform several repair operations within a certain extent to achieve the results you want.

> Clean the touch screen

> Maintenance of edge mill

>> often washes the mill room with water-filled spray bottles

>> periodically replace movable lens suction (100 lenses per process)

>> periodically checks the lens scanning probe to replace once wear or damage (or every 3000 lenses)

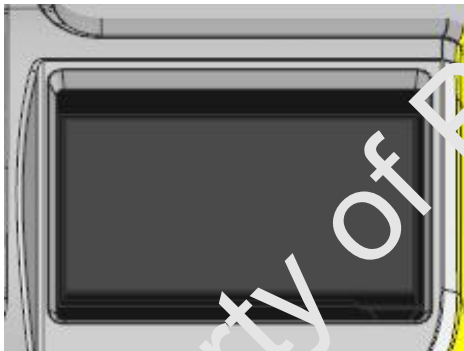
>> Wash the retaining plate and replace it if necessary.

>> If the machine uses circulating water, replace the water in the water tank regularly.

The>> cleans the filter screen and the water tank regularly.

>> Check the condition of each sand wheel, and please replace the technical personnel if necessary.

5.2 Touch-screen component maintenance



1 If the machine is turned on, turn off the power switch first;

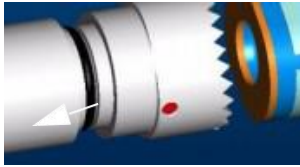
2 Gently wipe the touch screen with a soft, dry linen cloth.

Caution:

Disable products such as like water or chemical reagents. For stains that are difficult to clean in a dry cloth, it can be treated with alcohol. Damage to the touch screen caused by incorrect repairs is not under the warranty.

5.3 Replace the removable clip head

Note: The lens clip is serrated and the lens probe is pointed. When touching the clip and probe, make sure your hands are protected.



Small 19mm clip head



Large 25mm clip

5.3.1 Replace the right clip head rubber pad

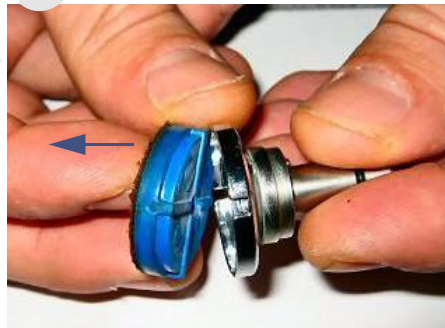
The replacement of the clip head rubber pad procedure is as follows:

1 Gently remove the right clip from the clip shaft;

2 Remove the old rubber pad from the clip and replace a new one;

3 Install the right clip back to the clip shaft

as shown in the figure:



5.4 Replace the scan probe

> Check the lens scanning probe regularly and replace with wear or damage (or every 3000



Detachable scan



Remove the screws and lenses).

> After the scan probe is replaced, the probe position.

The calibration probe procedure is as follows:

1 Go to the menu



2 Go to the setup interface



3 Go to the setup interface



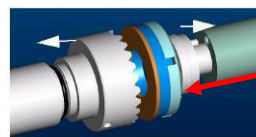
4 Take out the correction tool



5 Enter the correction tool



6 Replace the 25mm large clip



Large 25mm clip

7 Install the correction tool



8 Start the correction



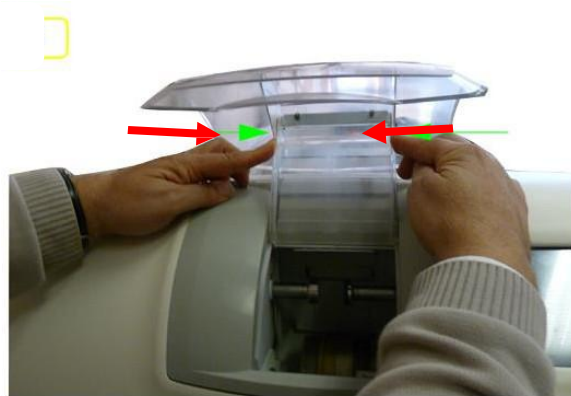
9 The machine starts the correction program, automatically saves the correction parameters, and after the correction is completed,

>>



5.5 Clean / replace the water retaining plate

> Before starting any operation, make sure the machine switch is off: the On/Off switch is in the off position and the main power is off. The replacement procedure is as follows:



#1



#2

point out:

- > Regular clearing of the cover plate can be a clear view of the grinding room and processing process;
- > Using circulating water will affect the cleanliness of the baffle, and it is recommended to clean the baffle frequently.

6. Technical specifications

6.1 characteristic

- > Automated initialization
- > 3 D probe lens front & rear surface curvature
- > Sand wheel configuration:
 - >> glass grinding wheel
 - >> resin thick grinding wheel
 - >> pointed edge, / flat edge, fine grinding wheel
 - >> pointed edge, / flat edge, polished wheel
- > Automatic clip during processing, three gear clip pressure selection, to adapt to the different material lens processing
- > Connect with the water pump with circulating water and the solenoid valve with tap water
- > Mill diameter
 - The>> is less than or equal to 80 mm
 - >> flat edge (no safety sharp edge) =12.00mm
 - >> tip edge (no safety tip edge) =19.00mm
- > Automatic cleaning of the lens fixing system and the grinding chamber
- > Lens processing statistics

6.2 technical parameter

- > The design standard is for indoor use
- > dimensions
 - >> length: 711.3 mm
 - >> Width: 457 mm
 - >> High: 439.5mm
- > Complete machine weight: 65kg
- > Input voltage: 220V-230V/50Hz,110V-115V/60Hz
- > Complete machine power: 1,500 W
- > Noise: 72 dB
- > Operating temperature: 5°C ~40°C
- > Relative humidity: 10% -80%
- > Water pump operating voltage: 220V-230V /50Hz,110V-115V /60 Hz
- > Rated power of water pump: <=150W
- > fuse:

220V-230V /50H Z ==15A

110V-115V /60Hz==25A

7. Annex list (packing parts)

project	name	quantity
1	Disk clamp	1
2	Butterfly head correction tool	1
3	scanheads	3
4	19mm, left and right clip	1
5	19mm clip rubber pad	2
6	Medium suction plate	5
7	Double-sided paste	1
8	power line	1
9	fuse (220V-10A or 110V-25A)	5
10	certificate	1
11	warranty card	1
12	Internal hexagon wrench (5 * 8)	1
13	instructions	1
14	cess-pipe	1