# Automatic Grooving Machine

# User's Manual

Deal Customers:

You are welcome to purchase Automatic clamping Machine. This is the most precision lens grooving machine of its Kind. Before you put it into use for the first time, You're advised to read the manual through with care. To spend a litle timeon the manual will help operate the machine more successfully and prolong the service life of the machine.

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# Safety Precautions

Warning

Don' t operate the machine before you read over and thoroughly grasp all the instructions and rules.Any violation of the rules stated in the manual may cause accidents such as fire,shock, personal injury etc.

In order to operate the machine and instruct others on the safe side all the time, Please read this manual over and over. Note: The manurfacturer of this machine is not responsible for or obliged to any accident caused by a careless operator who pays no attention to the rules of precautions related below.

[Precautions]

- Don' t use this machine for any other purposes than grooving lens of glasses.
- While the machine is woking, don' 't touch the cutting wheel to avoid getting injured.
- When the electric power cannot reach the intensity demanded ( voltage and frequency) , don' t use the machine. You have to be clear about the particular condition of the power supply.
- Don' t place the machine in high temperature or leave it exposed to strong sunlight.
- If any liquid or other material comes into the machine, turn the switch off immediately and pull the plug out of the wall socket It cannot be operated again until the machine is thoroughly checked and repaired by an expert in this line.
- No other spare parts can be fitted in the machine than its own elements.
- Don' t make the machine over-loaded or ram any of its spare parts.
- If the machine is left idle for a period of time please remove the plug out of the wall socket.

## Unwarp the Machine(From the Package)

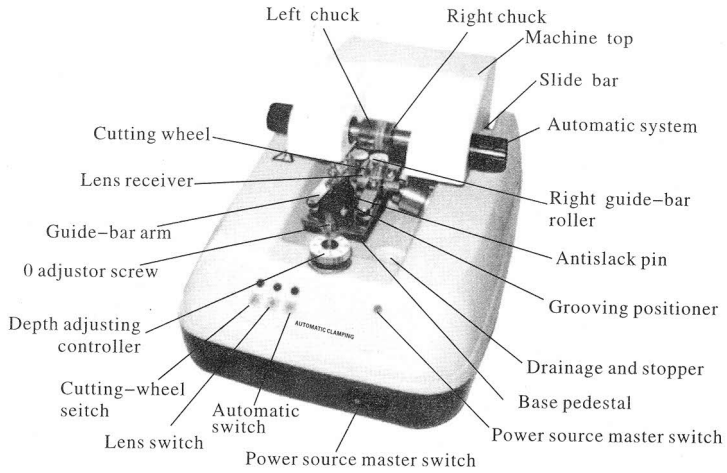
1. Open the carton, and take out the machine wrapped in the foamed plasties.
2. Take the machine out carefully and place it on a big enough and quite stable desk.

## • Accessories

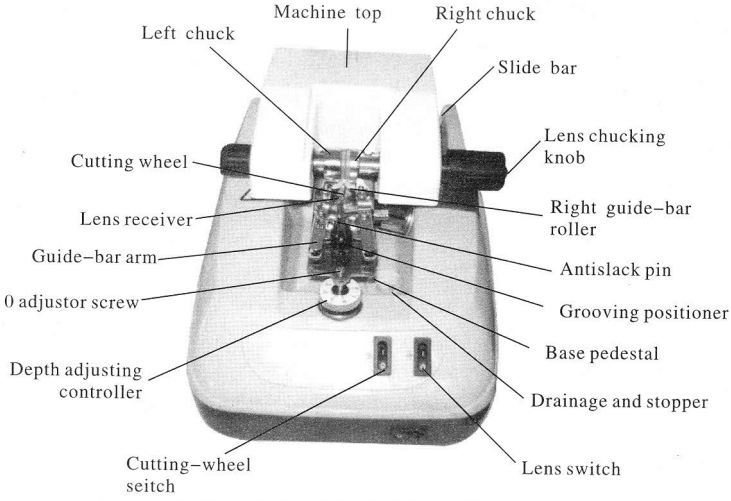
When the automatic grooving machine is taken out, you' re advised to give a check to the following accessories.

2 pus spare sponge 2 pus spare chuck rubber

# · Names of the Spare Parts



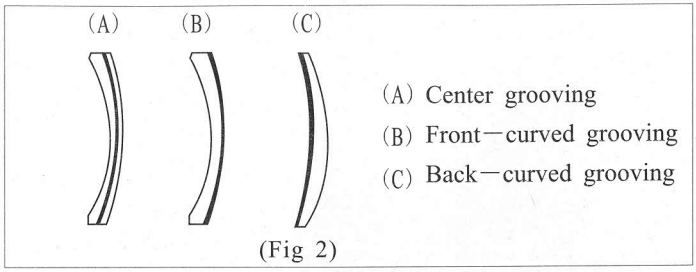

**AUTOMATIC CLAMPING**




**NEW GROOVING MACHINE**

## Choose a Type of Grooving

Before a kind of lens is grooved, which type of grooving is to be choosen snould be decided. Raise the base pedestal (Fig 1) and under it, arrange a controllable system of installation .of the machine, which should be in accordance with the following instructions and figures. In this way, you can get your desirable effect.



(Fig 2)

(A) Center Grooving

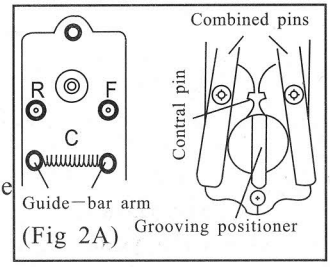
Suitable for: Thick lens; Thin lens with monothickness edges

To thick lens, center grooving is the most commoly used method.While this method is applied, the grooving is autonatically going on in the center between the front and back surfaces. This type of grooving should be arrrnged according to the instructions rdlated in Fig 2A.

1、Raise the base pedcstal(Fig 1), Insert the two combined pins into the lower holes marked with "C"

2、Fit the center pin between two guide -bararms.

3、Adjust the grooving postitioner to the central position



(Fig 2A)

[Note]

If need be, this method of arrangement is compltetly satisfactory. ( Please refer to "Adjustment & Calibration. In Item 3" "Maintenance & Upkeep " )

(B) Front-curved Grooving

Suitable for: Lens with thick edges but thin center.

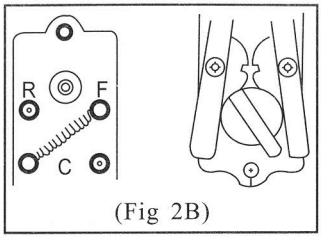
Wlen the lens with thick edges but thin center is to be front-curved grooved, the work should be done according to the procedure shown in Fig 2B.

1、Raise the base pedestla (Fig 1) and insert the comnbined pins into the holes "F" on the right and "C" on the left.

2、Remove the central pin to make it suspend in the air.

3、Check the lens to make sure it is lower than the lens rceiver (Fig 1). Rotate the lens to make the thinnest part of its edge touch the lens receiver directly.

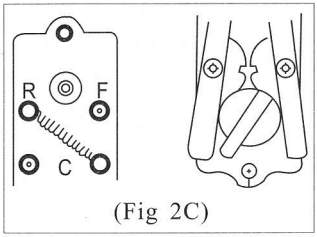
4、Clost the guide-bar arm and rotate the grooving positionet os that the edge of lens can be removed to the desierd distance at which the lens can be grooved.



(Fig 2B)

(C) Back-curved Grooving

Suitable for: Double-aimed gladdes. This type of grooving is rarely used for ordinary lens. But it is of great use. When the machine is set for this purpose, please operate it according to the instructions shown in Fig 2C.



(Fig 2C)

Place the combined pins in the positions "R" and "C" on the left. If the lens to be grooved is a common lens, it can be treated as an ordinary thin lens and grooved in the same way the thin lens is done. However, when the lens to be worked on is the one for double-aimed glasses, you should adjust the left guide-bar arm. to the position you want to groove it. Then lightly press the right part of the machine top (Fig 1) to a posotion lower than that of the base pedestal,making it reach the desired grooving depthe(Fig 1). Hold the right guide-bar arm to make it leave the front sur face

of lens, so thet the lens edge won't touch the right guide—bar arm.

## · Groove the lens

When your automatic grooving machine has been arranged to the grooving type you want, please do the job according to the following instructions.

1. The depth adjusting controller should be set at zero point and the all switches should remain at "off" position (Refer to the operating positions in Fig 1).

2. Place the sponge between two straight plastic slices under the base pedestal. Let the sponge take in as much water as possible by using the accessory plastic sprinkler.Don't add too much water to the machine.

3. Lower the base pedestal to the position at which it can be controlled. Check the lens to see if it lies in the center. Make the clamp rotator tightened and rotate it a quqrter of a circle. (Auto -matic jaw-grooving machine, pls press the jaw switch) Keep the front surface of the lens facing your right all the time.

4. Open the guide—bar arms, Lightly lower the lens to the position between the two nylon guide bar rollers and help it enter the lens receiver. After you have checked the machine through and are sure that each spare part is in place, switch on the lens. Let the lens keep rotating for about a quarter of a circle, Then make a check to see if the lens is tight enough between two guide—bar rollers. Then switch on the cutting wheel and finally adjust the depth adjusting controller to your desired depth.

5. After about sixty seconds, the sound of cutting may come to a change. That means the grooving has been finished. Switch off the cutting wheel and the lens successively. Raise the machine top.

[Note]

If you want to set the machine to deep groove a kind of hard lens(mineral), first you should adjust the depth adjusting controller to half of the depth you want, After the lens has been grooved for a circle (about sixty seconds), readjust the controller to your desired depth and make the lens rotate for another circle.

## ·Everday Maintenance(Upkeep)

Drainage Equipment

This automatic grooving machine has a small drainage equipment not far in front of its cutting wheel(Fig 1). A stopper is fitted to the equipment to prevent water from splashing out by accident. We suggest that the stopper be removed forever so that too much water there won't be stored to damage the bearings. Bearings cannot prevent themselves from getting damaged by the water splashing out. A small pool of water on your working desk is surely much cheaper than two new bearings.

Sponge

The sponge should be washed often. Each time, before the sponge is used, let it absorb as much water as possible, When the sponge is worn and broken, a new piece should be replaced. Once the machine has finished working,you should take the sponge out and wash the machine clean with it.

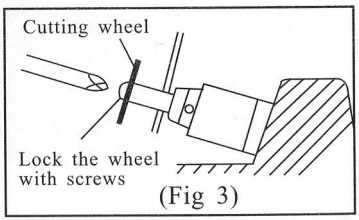
Slide Bar

In order to keep the machine top turning easily from one side to the other, the slide bar should often be cleaned with clean cloth. Occasionally it should also be smeared with oil.

Replace the Cutting Wheel

When the cutting wheel needs to be changed, cut off the eletric power first. Then insert a small stick into the hole of the bar to make the wheel locked by the screw and unable to move (Fig 3).

[Warning] The cutting wheel should be replaced properly(Fig 3) so that it is suitable for the lens receiver to be grooved(Fig 1).



(Fig 3)

Replace the chuck Rubber

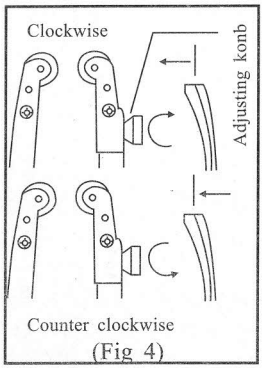
Open the lens chucks,remove the left chuck and the right one successively(Fig 1). Then you can

easily move the chuck rubbers away and replace a new pair of rubbers to them.

## Adjustment & Calibration

The adjustment of grooving position for center grooving.

When center grooving is applied, the adjustment of grooving position is the bust adjustment. If the grooving positison is to be moved to the back surface of the lens, rotate the adjusting knob clockwise(Fig 4), If the grooving position is to be moved to the front surfack of the lens, rotate the adjusting knob counter—clockwise(Fig 4).



(Fig 4)

Thorough Adjustment

Check and see whether "0" is in its correct position, Make the depth adjusting controller point at "0" position, Check if the cutting wheel lies higher than the surface of lens receiver, If the cutting wheel can't be seen clearly just adjust the "0" adjusteing screw to the very end of the base pedestal.

## Other Items

Removal of Base Pedestal

To remove the base pedestal(Fig 1 ),you have to insert a small metal stick into the hole on the right side of the base bar, These are the positions of two screws, Drive two screws into the body of the main bar.

Removal of Machine Top

The slide bar is located in the top of the machine and extends to a position lower than the main body , It is a moving bar with two screws(Fig 1), Insert a small metal rod into two holes of the bar. The left bar rolates forward while the right one backward When the bar is pressed to a certain extent you can easily raise it from its position in the hole.

Detailed IIlustrations

| | |
|---|---|
| Lens acceptable | mineral/plastic glasses |
| Attainable depth of grooving | 0—0.7mm |
| Width of grooving | 0.6mm |
| Acceptable thickness of lens | 1.5—11.0mm |
| Acceptable diameter of lens | 28—70mm |
| Grooving time needed | about 60 seconds |
| Volume/Extent | 235(length)×295(wedth)×180(height)mm |
| Weight | ±3kg |
| Power needed | 100—120V/60HZ AC<br>200—240V/50HZ AC 90W |

The description and lens exiesrior is changeble according to particular operation conditions.