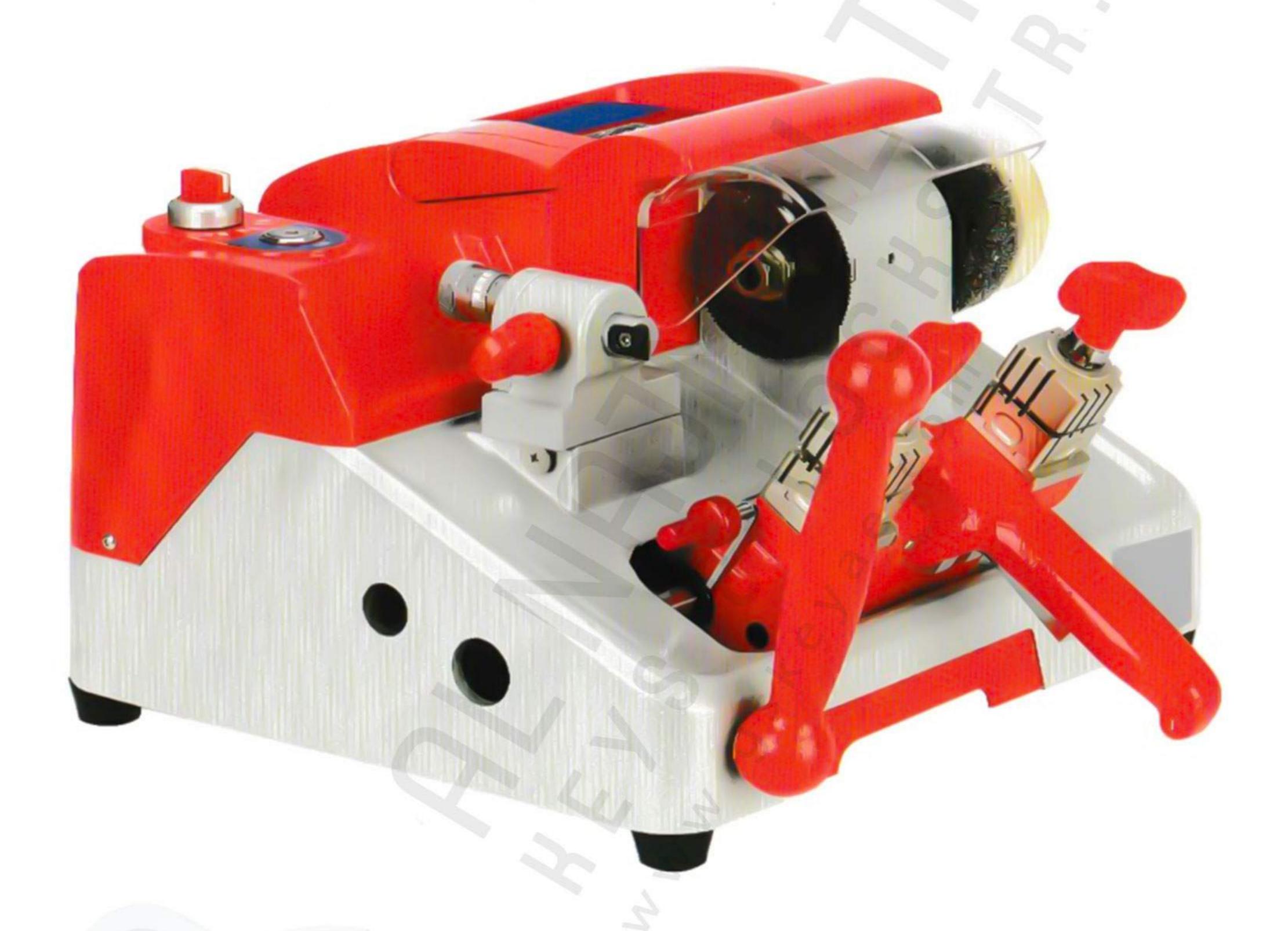


Horizontal Key Machine Operation Instruction



The craftsman spirit never stops





Table of Contents



1 Safety Precautions and Warnings	02
2 Product Introduction 2.1 Machine Description 2.2 Machine Characteristics	03
3 Product List	04
4 Overview	
4.1 Machine Construction	05
4.2 Machine Function Structure Parameters	- 06
4.3 Main Components and Function Description	08
5 Machine Installation and Test	
5.1 How to replace milling cutter	10
5.2 How to replace wire brush and grinding wheel	11
5.3 How to operate the key locating block	12
5.4 How to adjust LED light angle	13
5.5 How to operate Motor Control	14
5.6 How to calibrate the cutter and probe	15
5.7 How to select fixture sides as per different keys	16
5.8 How to locate keys	20
5.9 Cutting or milling keys	- 21
6 How to install base fixing plates	22
7 How to distinguish milling cutter types	- 23
8 Maintenance	24
9 Maintenance services and regulations	24



1. Safety Precautions and Warnings

To avoid personal and financial loss or machine damage, please read this manual carefully before using the machine and comply with the following safety precautions:

- Please use the machine in a safe environment
- Please place the machine on a stable and solid horizontal load-bearing workbench
- Do not expose the machine or place the machine in a humid, greasy, dusty or other harsh environment
- Please keep the machine surface dry and clean. Do not place any objects on the machine
- Keep the machine out of reach of children
- Please wear ANSI standard safety goggles when use the machine
- When the machine is working, do not get close to the machine working area
- When the machine is working, there should be a special person to monitor the real-time operation of the machine. Do not stay away from the machine
- When the machine is not used for a long time or in repaire, please shut off the power supply
- In case of abnormal situation, please shut off the power supply immediately



2. Product Introduction

2.1 Machine Description

Dear customers,

Thank you for purchasing and using this key cutting machine. This product will improve your work efficiency and bring great convenience to your work. In order to avoid injury and property loss to users, the product instruction describes the correct and safe operation methods and other important contents. Please keep the instructions safe for future reference. This manual contains the precautions for using the machine. Please read this manual carefully before using it so that you can use the machine correctly.

2. 2 Machine Characteristics

- Ergonomic design, beautiful, atmospheric
- Square rotary fixture, practical and convenient
- Support flat milling keys, change keys' length, width, etc
- Super wide jig spacing, no need to remove the folding key handle
- High strength all aluminum structure machine body
- Differential ruler high precision tool setting
- Multi-gear switch control, key processing, grinding, deburring can be done in one time
- Folding turnable LED lights can be adjusted to different angles according to demand
- High safety operation guarantee, can prevent misoperation



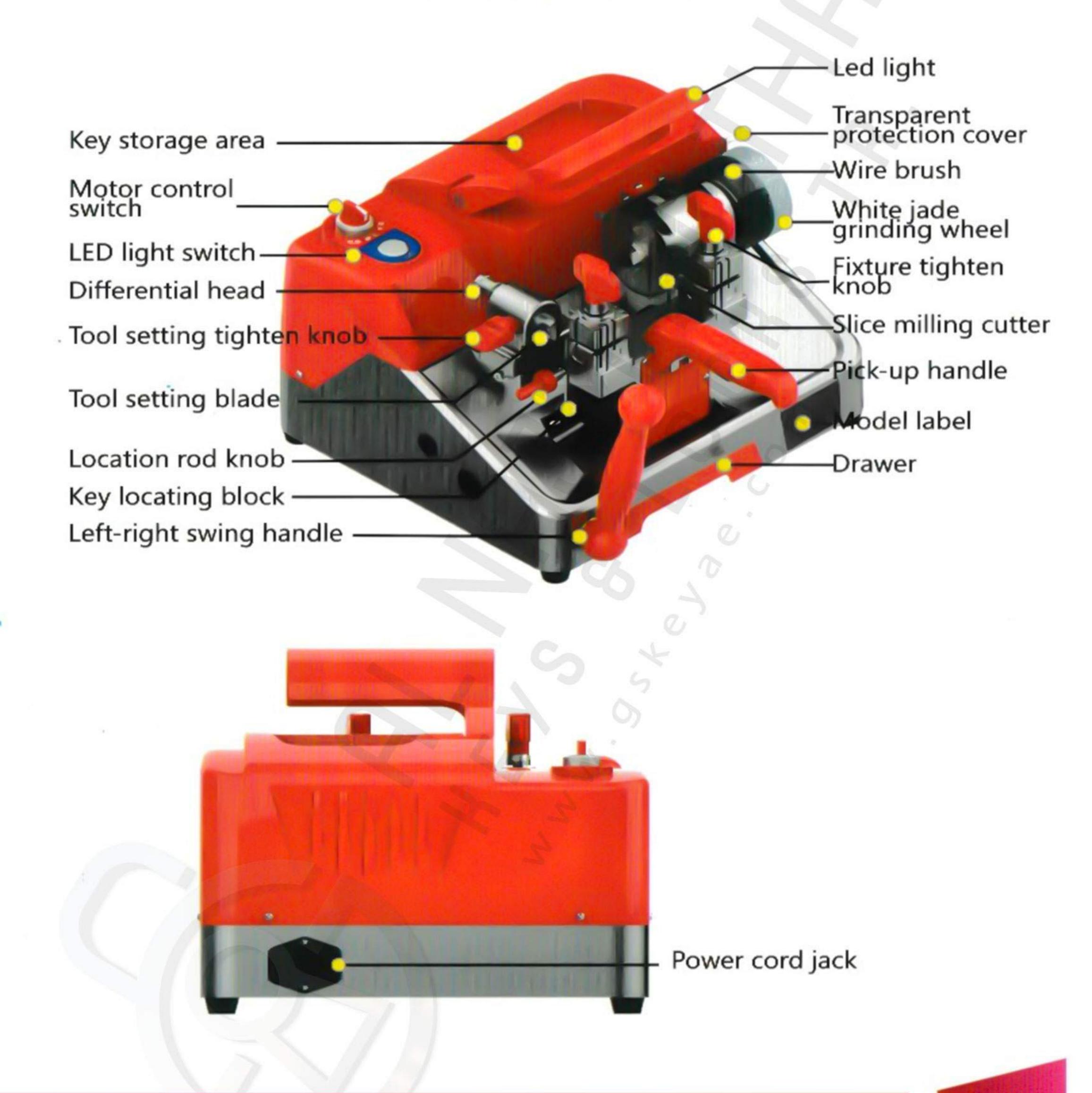
3. Product List

Name	Picture	Qty	Description
main machine		1	key cutting machine
brush		1	sweep and clean
key locating block		1	for keys location
power cord		1	for electricity connection
Inner hex-wrench		1	Specifications 1.5mm、2.0mm、2.5mm 3.0mm、4.0mm、5.0mm 6.0mm
Open end wrench	5	1	18mm-19mm
Base fixing plate		4	Suitable for fixed use of mobile tool car, According to the work needs, this part is optional, non-standard



4. Overview

4.1 Machine Construction





4.2 Machine function structure parameters

Rated voltage	220V/50HZ 110V/60HZ		
Overall dimension	36*33*26CM		
Machine weight	24.5KG		
Motor power	250W		
Rotational speed	1400RPM		
Operating temperature	0-50°C		
Working humidity	10-90%		
Moving distance in X-direction	55mm		

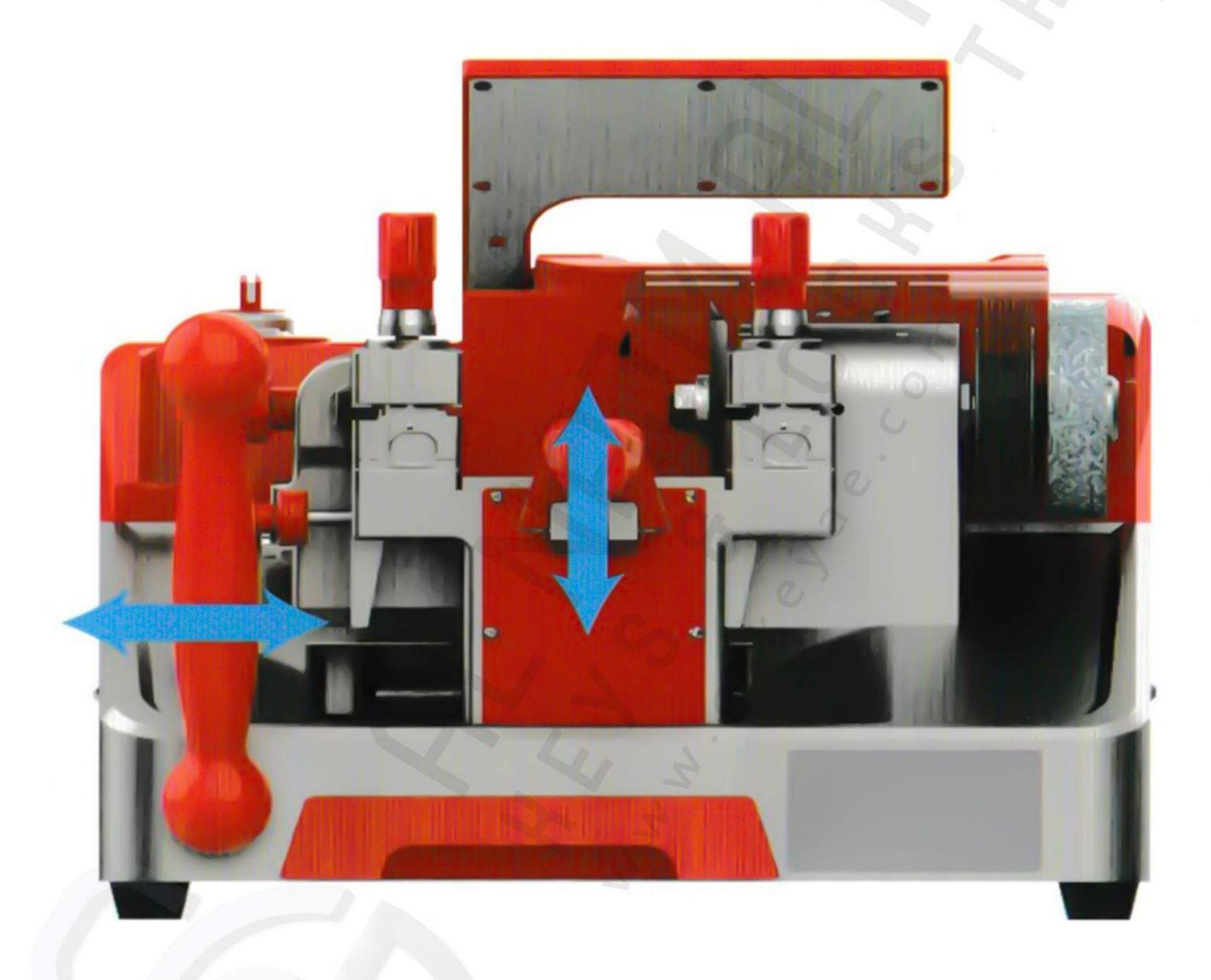






4.3 Main Components and Function Description

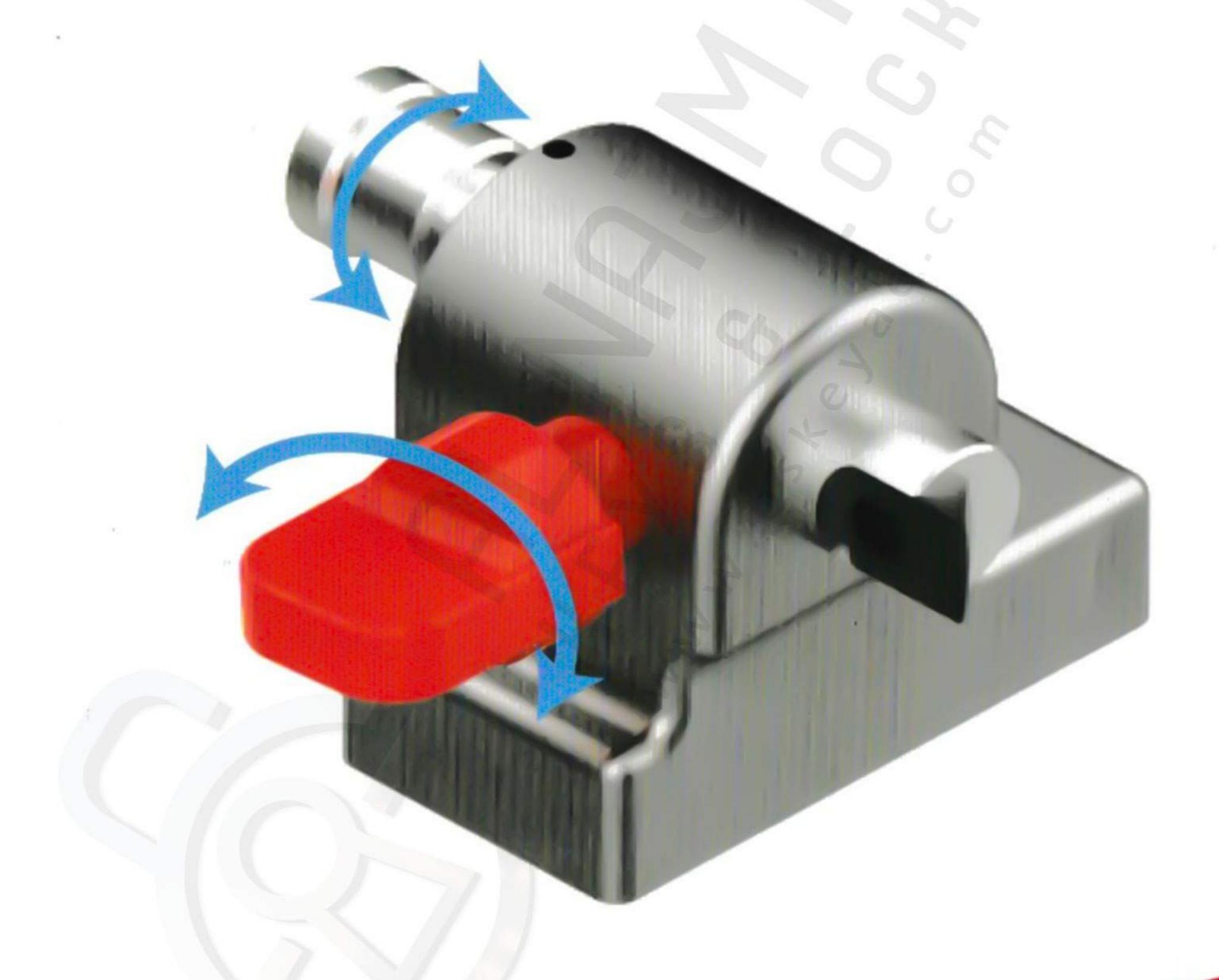
4.3.1 How to operate left-right swing handle and pick-up handle, see the arrows in the picture





4.3.2 How to operate tool setting axes

- When the differential head is rotated clockwise, the tool setting axes is pushed out
- 2. When the differential head is rotated anticlockwise, the tool setting axes is drawn back
- After adjusting the tool setting axes, turn the tool setting knob clockwise to tighten it



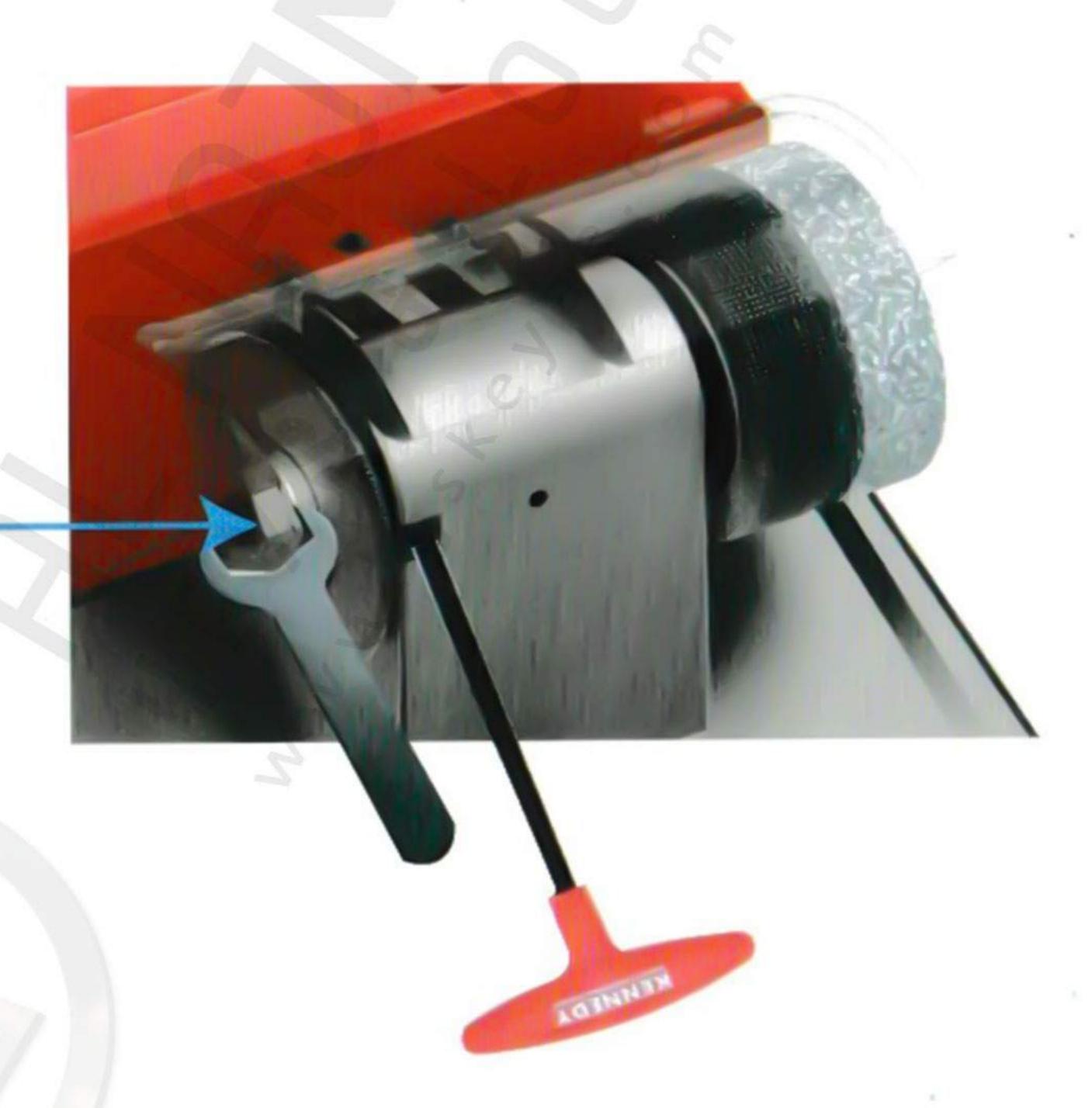


5. Machine Installation and Test

5.1 How to replace milling cutter

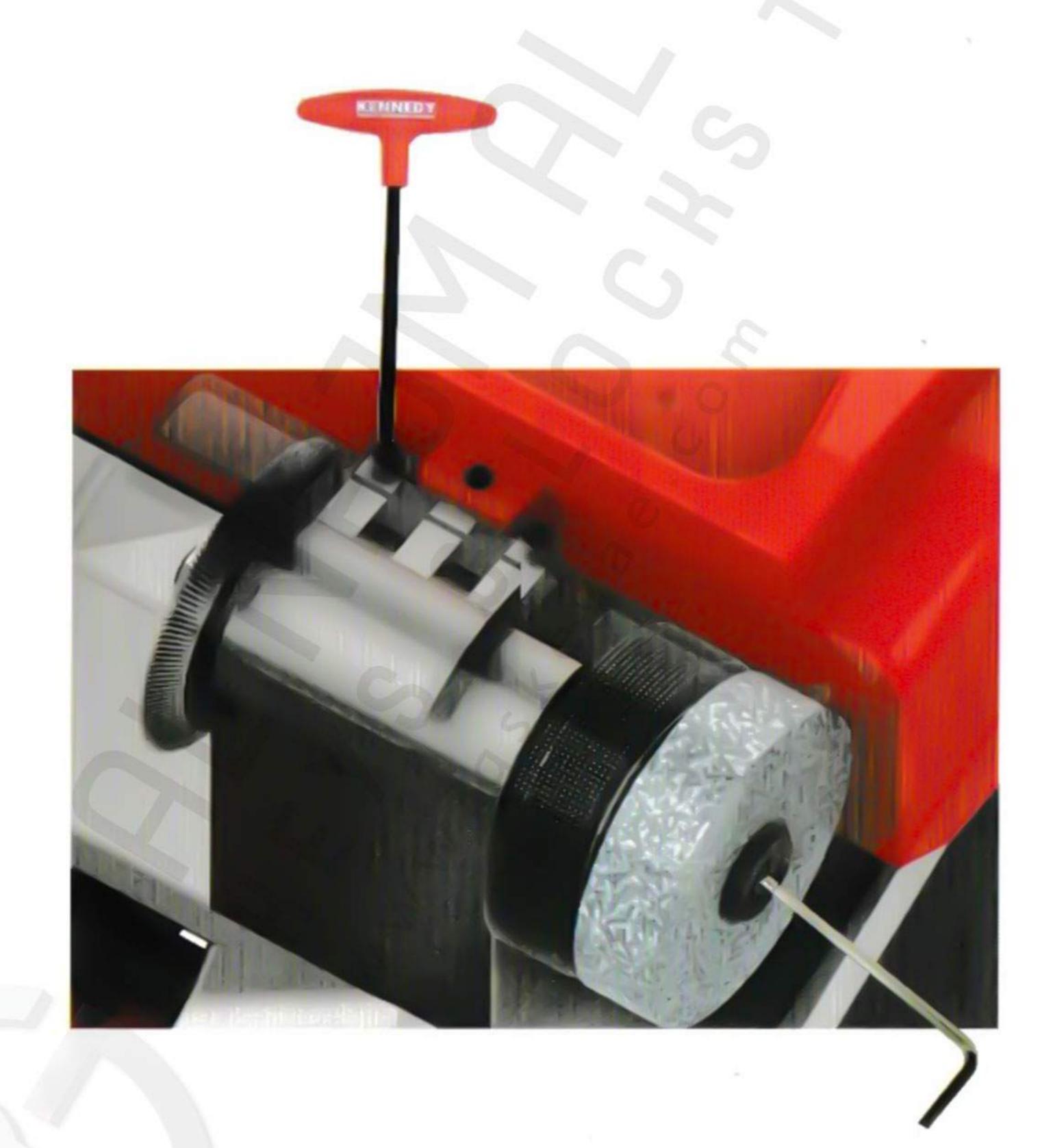
- 1. Insert a 5mm inner hex-wrench into the hole as shown in the picture
- 2. Loosen the nut clockwise with an 18mm open end wrench as shown in picture, and then replace milling cutter

The nut is an anti-tooth nut. Turn clockwise to loosen it and turn counter-clockwise is to tighten it



5.2 How to replace wire brush and grinding wheel

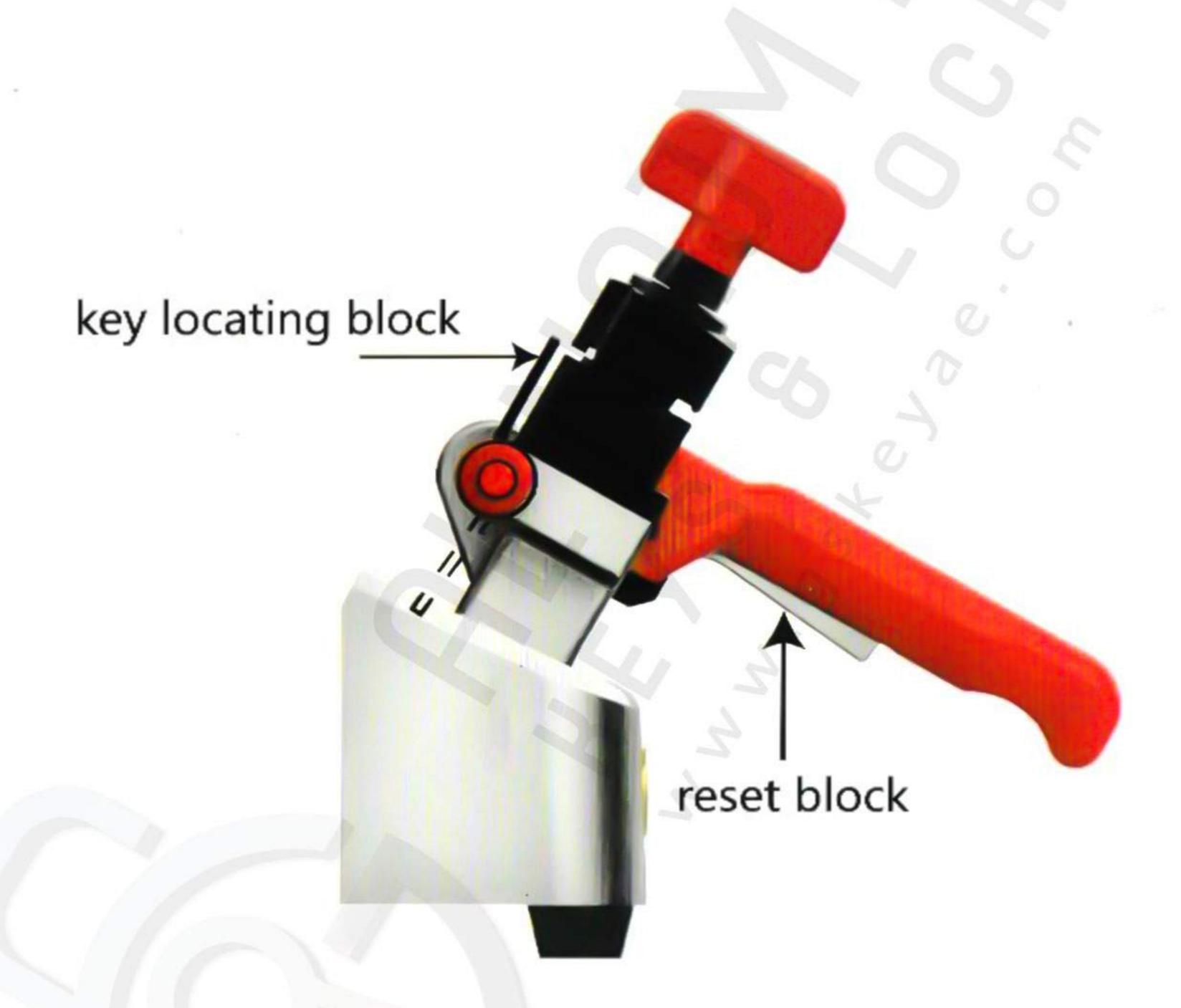
- 1. Remove 2pcs of m4 screws with a 2.5mm inner hex-wrench as shown in picture
- 2. On the right Loosen the screws with a 4.0mm inner hex-wrench





5.3 How to correct the misoperation of keys locating block

- As shown in the picture, when the key locating block is up, the whole fixture cannot be turned upward, so it is necessary to rotate the key locating block to the dotted line
- Hold the reset block (as arrow points in the picture), then the whole fixture can be flipped upward.





5.4 How to adjust the LED light angle

- LED light can be located at any angle during the range of dotted line
- 2. Presse LED button, the LED light turns on





5.5 Motor Control Operation



 AT gear: Lift the fixture up and the motor will run automatically; press the fixture down and the motor will stop automatically



2. OFF gear: the motor is power off

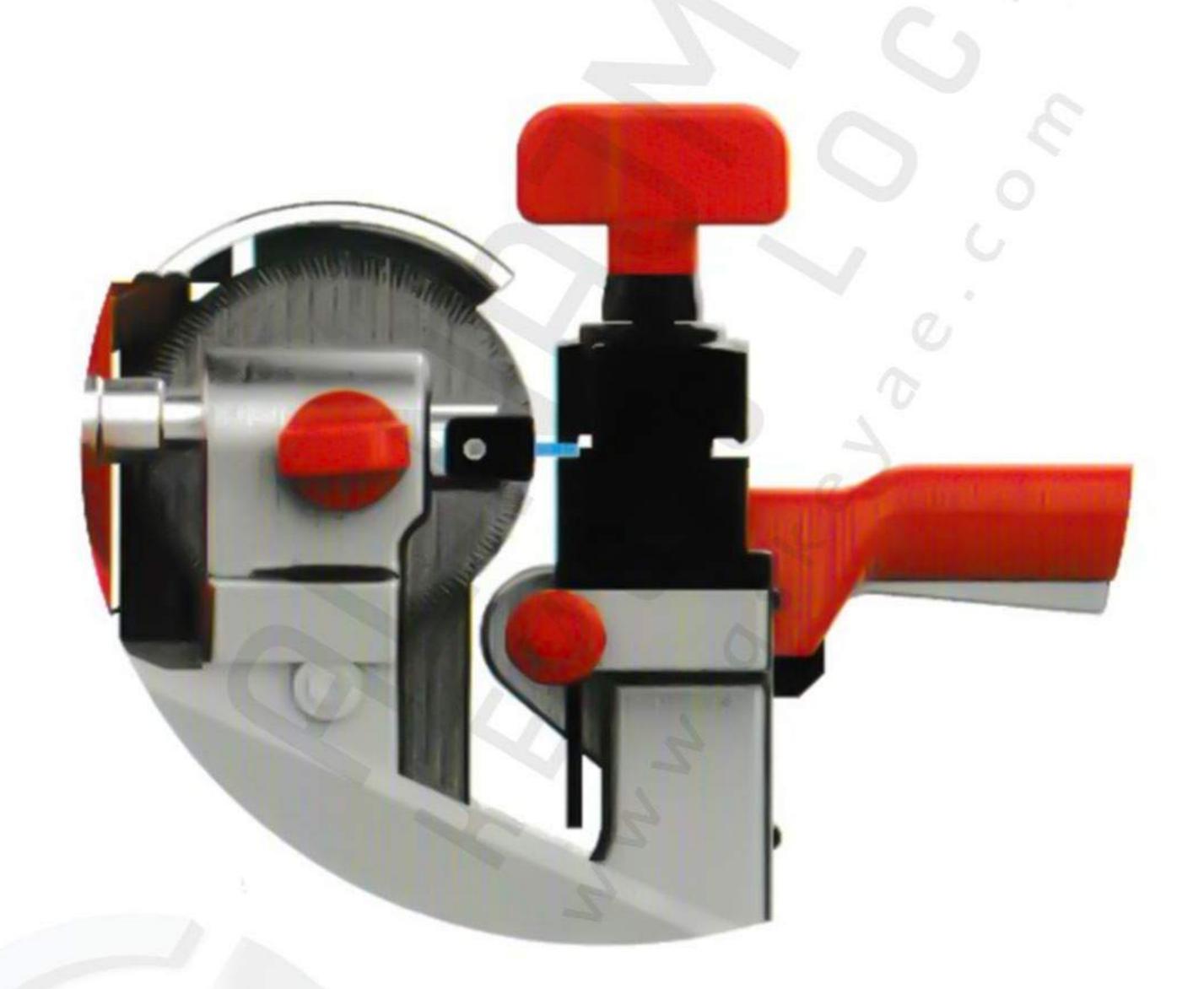


3. MT gear: motor operating, suitable for keys deburring, grinding and chamfering



5.6 How to calibrate the cutter and probe

- 1. Place 2pcs same key blanks in the fixture respectively, set the position and tighten
- 2. Put the key close to the milling cutter, turn the grinding wheel, adjust the cutter shaft back and forth until the milling cutter scratches the key slightly, that is, level the milling cutter and set the cutter block





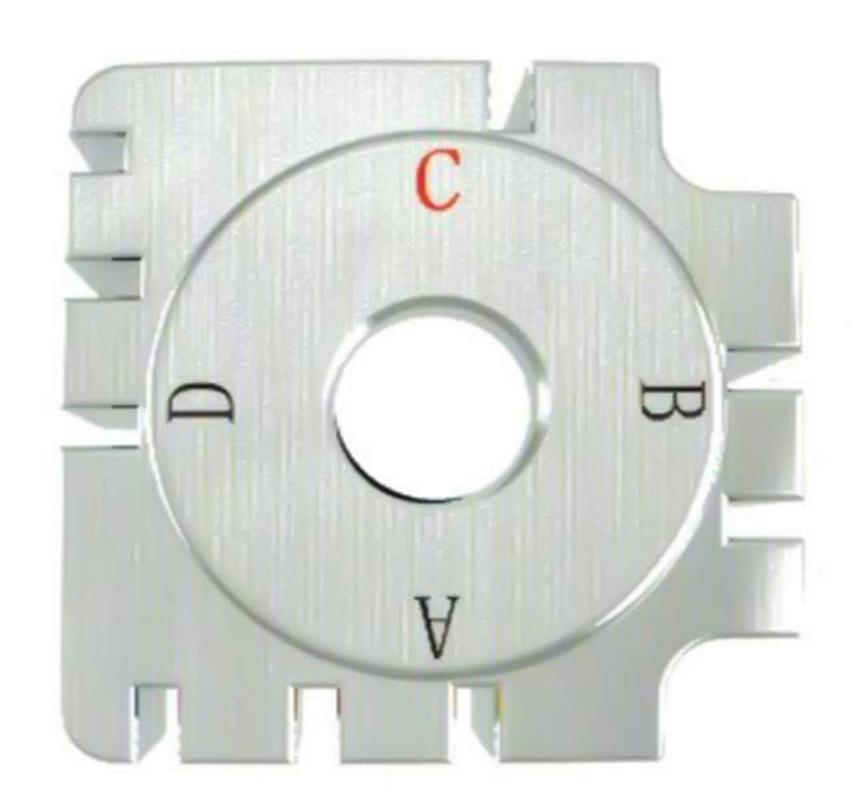
5.7 Which fixture side to be chosen according to different keys

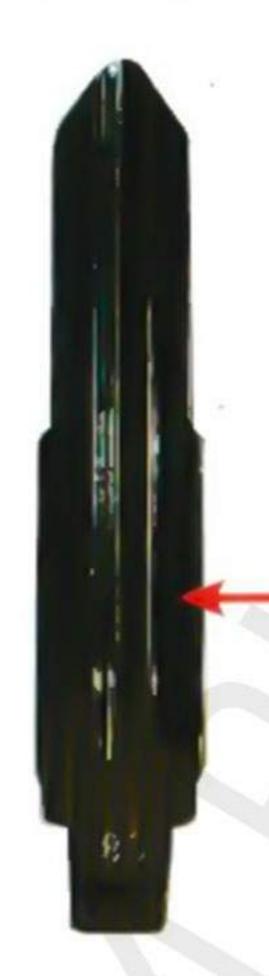
The A or B side of the fixture is suitable for clamping the following keys:





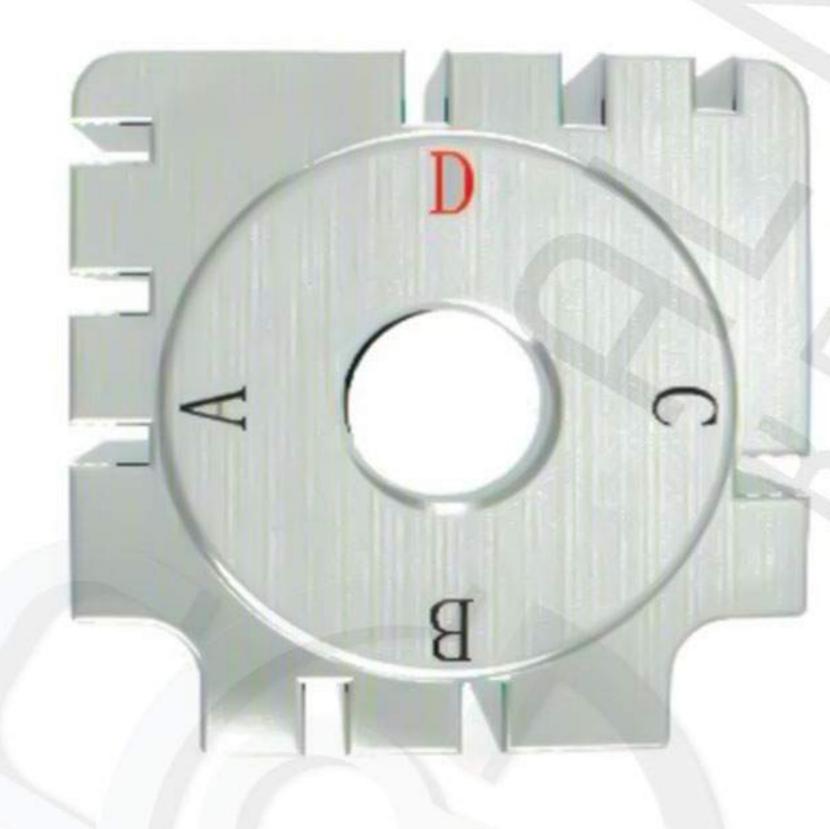
The C side of the fixture is suitable for clamping the keys which with groove on the right





There is a groove on the right, this key belongs to the right groove key

The D side of the fixture is suitable for clamping the keys which with groove on the left

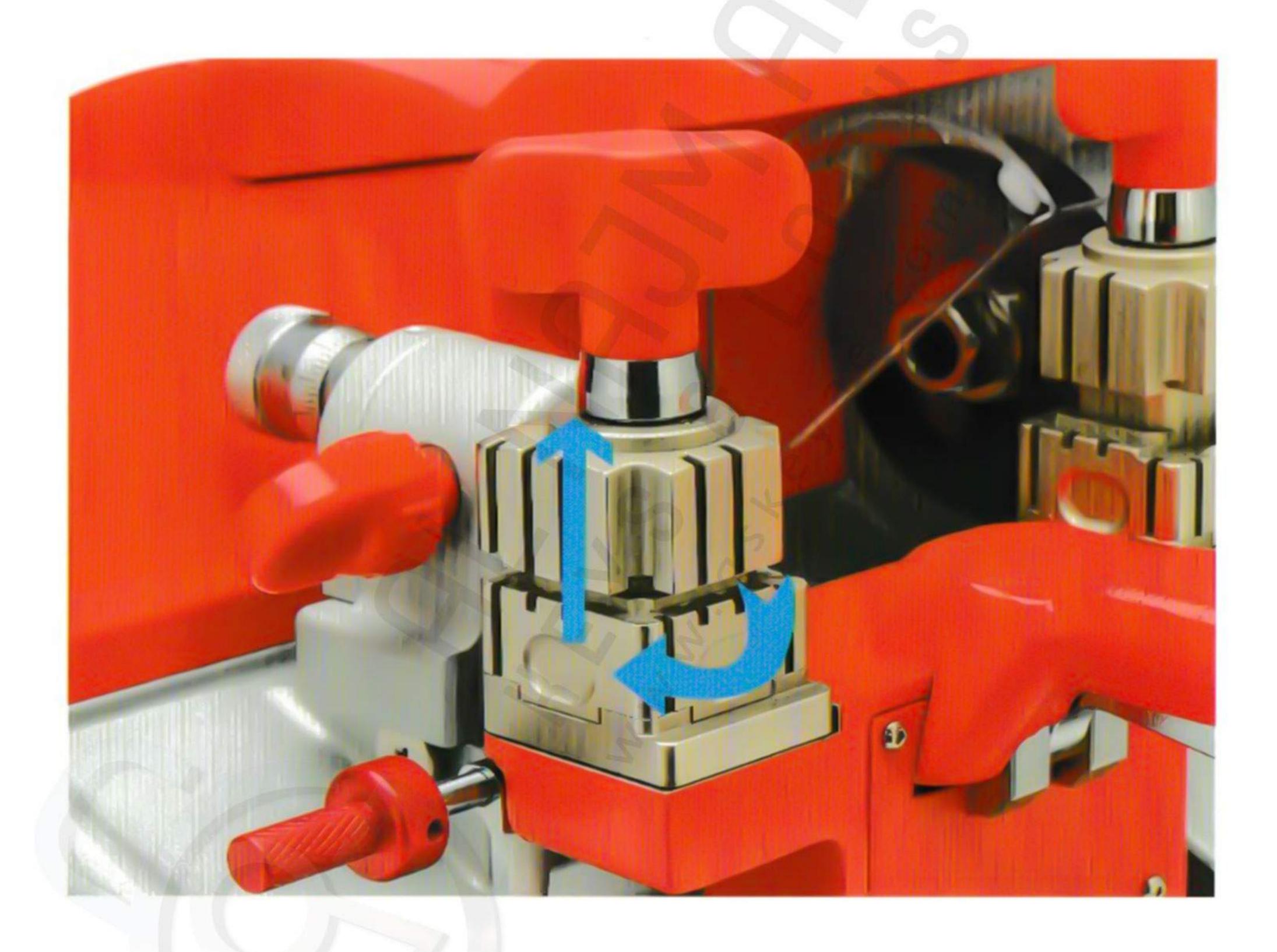


There is a groove on the left, this key belongs to the left groove key



Replacement fixture face

- 1. Loosen the clamping handle of the fixture.
- 2. Hold the hole of the fixture with two fingers and pull up and rotate the fixture to the required fixture face. It can be completed easily with one hand.





Extra wide fixture spacing

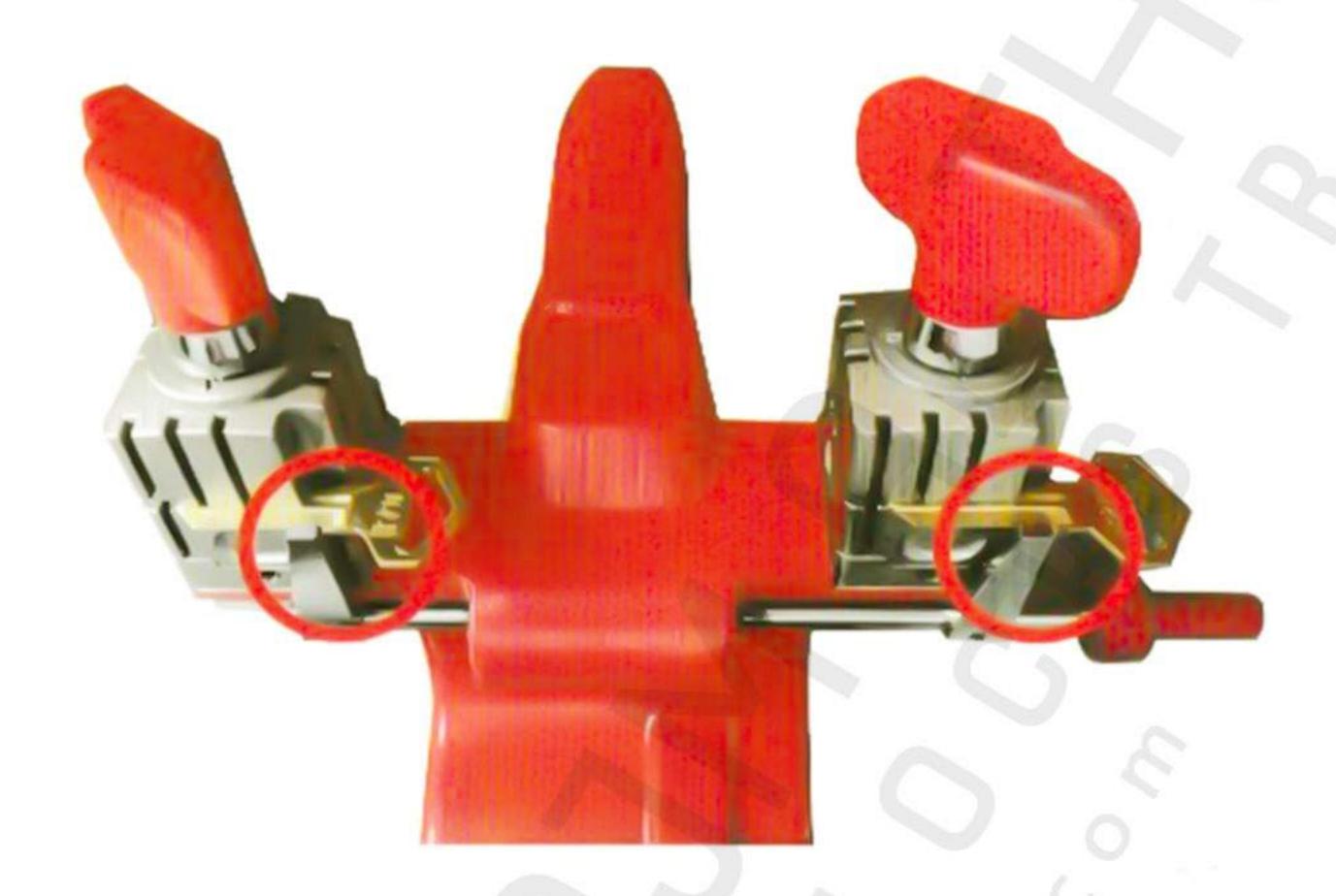
- 1. The fixture spacing is 90mm
- 2. No need remove the handle when clamp an folded car key.



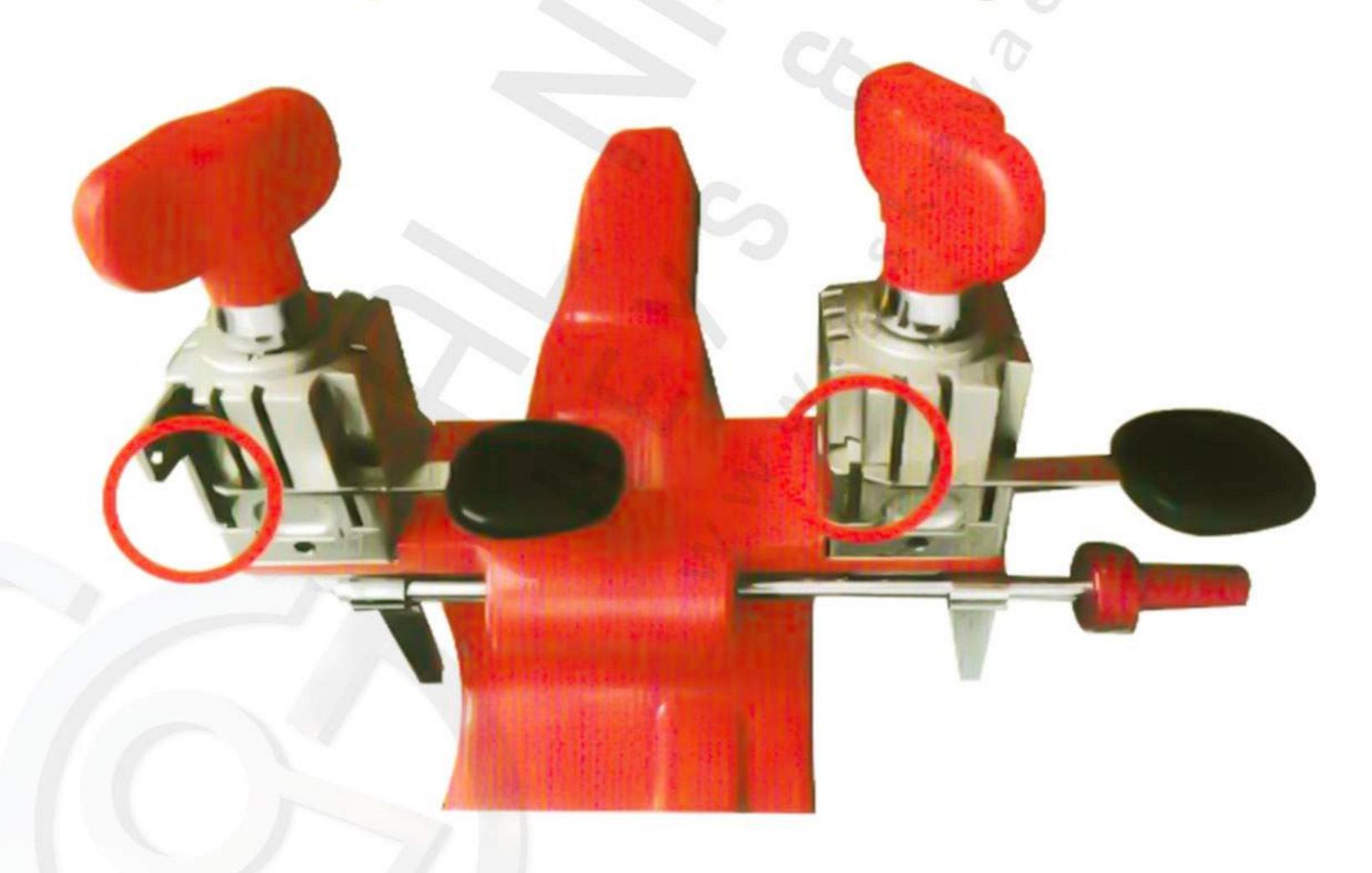


5.8 How to locate keys

5.8.1 Positioning block shoulder positioning



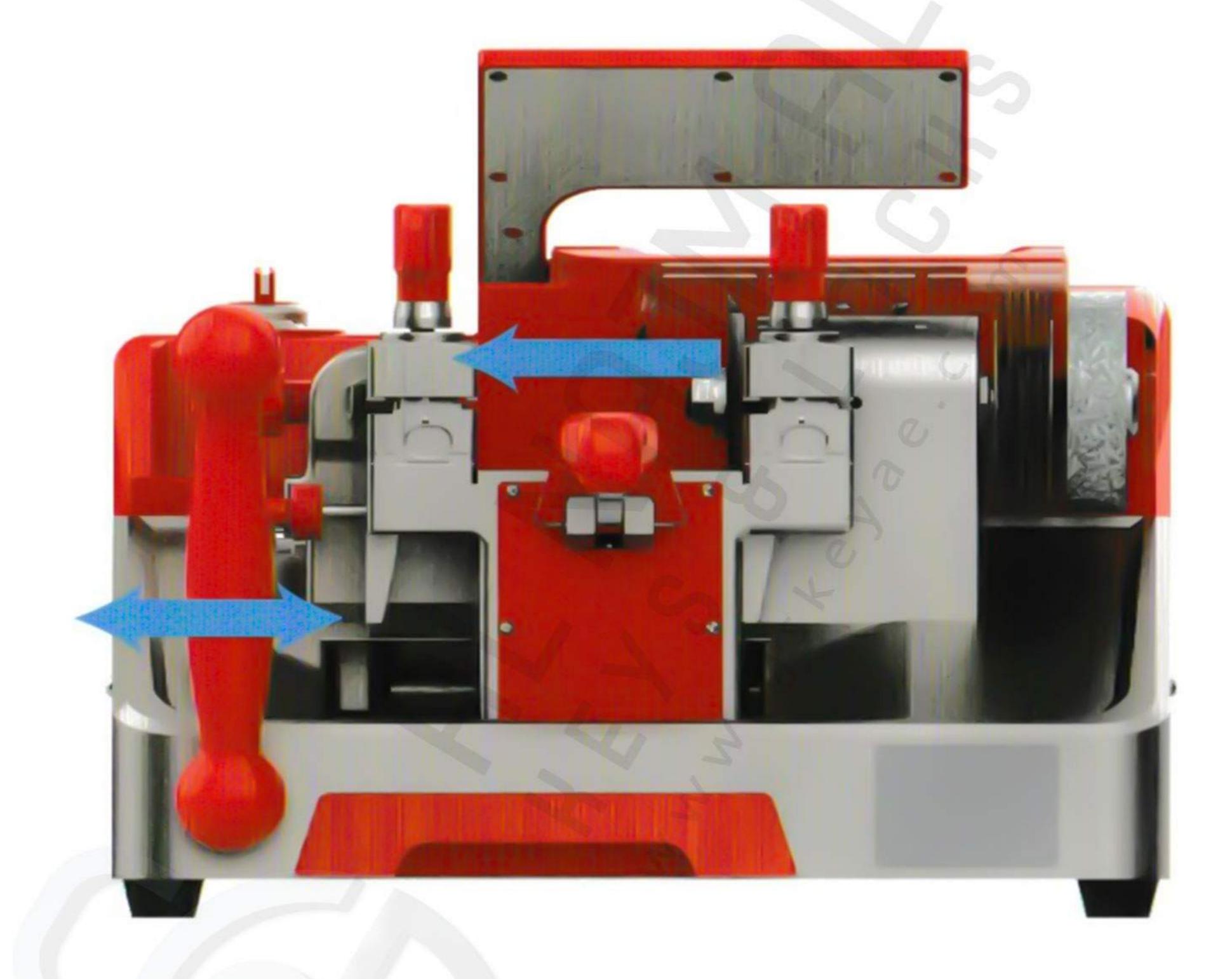
5.8.2 Positioning block front positioning





5.9 Cutting or milling keys

- 1. Cut keys from the far right
- 2. Move the swing handle to the left at a constant speed
- 3. Repeat the second step if multiple cuts are required





6. How to install base fixing plate



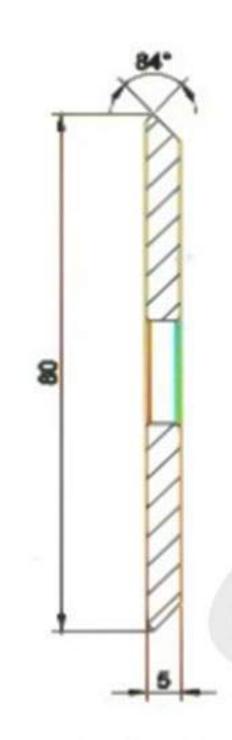
- 1. Remove the 4pcs feet pads
- 2. As shown in picture, put on the 4 pcs base fixing plates, tighten to the workbench with screws
- According to the work needs, it is suitable for the mobile tool car fixed use. This accessory is optional and non-standard.



7. How to distinguish milling cutter types.

American & European version, the milling cutter is defaulted to 84° type.





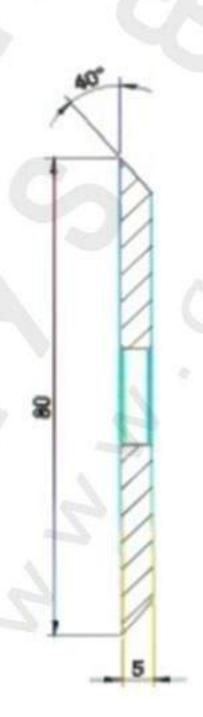
84° tool setting blade



84° milling cutter has inclinded edge, the side is without edge. Both tool setting blade sides are with inclinded slop. It is more smooth to move left-right when cutting keys, but if cutting shoulder positioning keys which with bigger width, it can not clear the angle.

Chinese version, the milling cutter is defaulted to 40° type.





40° tool setting blade



40° milling cutter has side edge. Both tool setting blades are right angle. When it cutting shoulder positioning keys which with bigger width, it can clear the angle. (PS: shoulder positioning keys are right angle)

Tip: milling cutter & tool setting blade can be chosen as per customer's personal preference



8. Maintenance

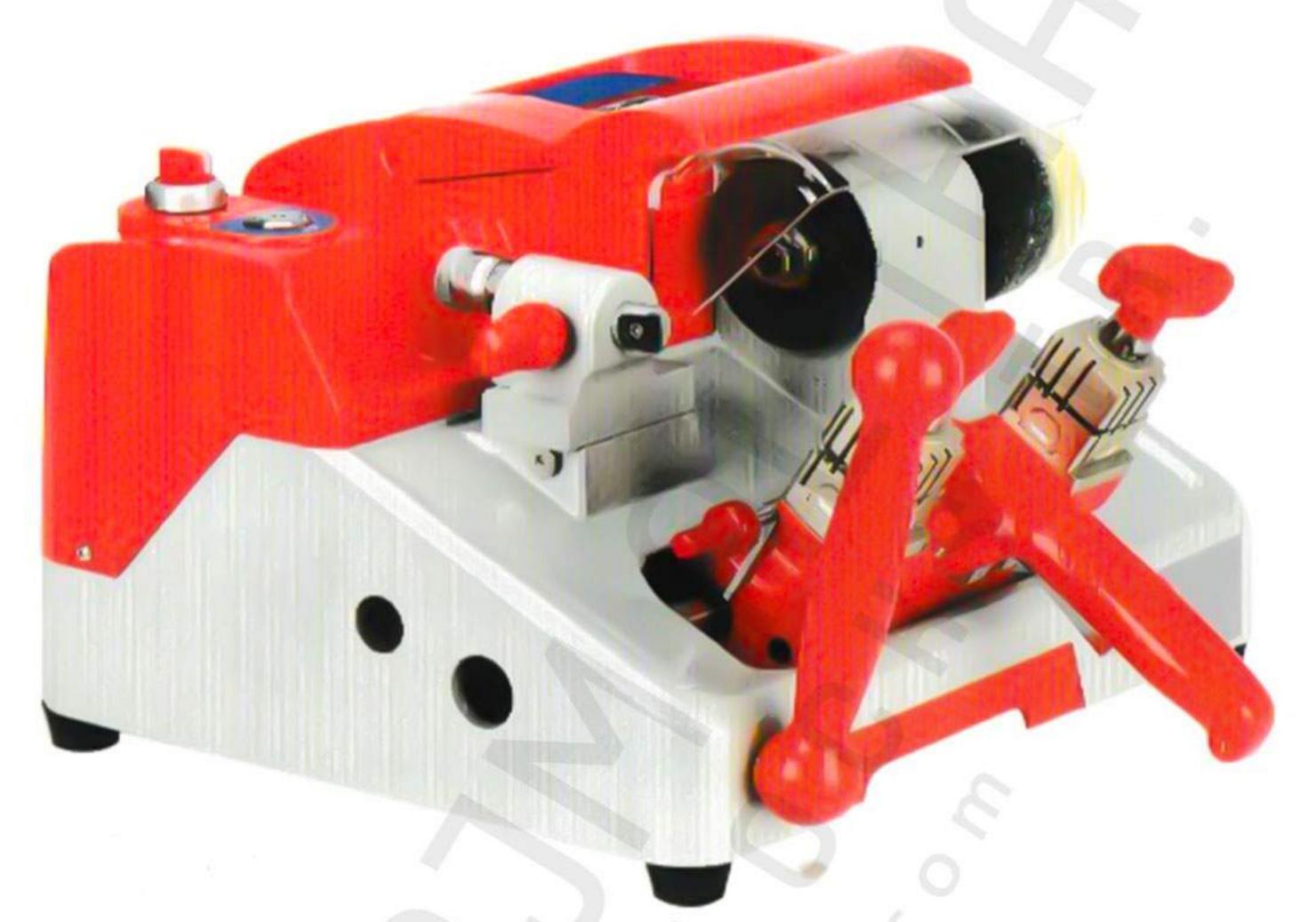
- In order to prolong the life of the machine, please keep the machine in good accurancy, often do a good job of cleaning, clearing the cooper dust;
- Regularly check whether the screws and nuts in the fastening parts are loose
- The rotating and sliding parts should be often added with lubricating oil
- 4. The worn parts should be replaced or adjusted in time
- 5. Our company's parts must be used when replacing parts to avoid unnecessary damage to the machine

9. Maintenance services and regulations

- 1. The products sold by our company shall be guaranteed for one year from the date of purchase (vulnerable consumables are not covered by the warranty), which shall be guaranteed by the purchase voucher and warranty card.
- If the damage is caused by the user's improper use or force majeure such as natural disaster or out of the warranty period, it is not covered by the warranty.



Horizontal key machines pictures European and American version



Chinese version

