



PHC 53 Operation Manual



Please read this manual carefully
Before operating the Machine

Revision :05/12/2023

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1. Safety Rules

The machine has many safety features which make it a safe to operate. Regardless of your experience, safety instructions must be read carefully, completely understood, and applied to your daily work habits. If you do not understand or are confused by certain safety instructions presented in this manual, discuss them with your supervisor. Machine setup, cleanup, and maintenance operation will vary. Therefore, it is essential all employees to practice safe work habits. **SAFE WORK HABITS PREVENT INJURIES.** The main rule to follow is to **ALWAYS** make sure the main drive is **STOPPED** and **LOCKEDOUT** when performing setup, cleanup, adjustment and maintenance operations.

The safety precautions in this manual provide guidelines for the protection and for that of fellow workers.

1.1 Precautions

Before any maintenance is performed on the machine, switch off all sources of electrical; do not operate the equipment when panels and safety covers are not in place. Failure to observe this warning could result in personal injury.

1.2 Avoid Accidents

Most accidents are caused by the failure of some individual to follow simple and fundamental safety rules and precautions. For this reason, most accidents can be prevented by recognizing the real cause and doing something about it before the accident occurs. With any machinery, a careful and trained operator is the best insurance against an accident.

1.3 Safety Issues & General Safety Rules

| DO | DO NOT |
|--|---|
| 1. Read and understand this manual before attempting to operate or service the machine. | 1. Do not attempt to operate or service the machine without reading and understanding this manual. |
| 2. Be familiar with the machine safety rules and practices. | 2. Do not remove the safety devices. |
| 3. Warn others of an intended action that may endanger them. | 3. Do not clean or lubricate moving parts of a machine that is running. |
| 4. Perform lubrication and oiling of the machine only when power is off. | 4. Do not unauthorized persons to operate the machinery. |
| 5. Verify that all guards are installed before operating the machine. | 5. Do not place tools on a machine that is running. |
| 6. When working on electrical | 6. Do not reach into the machine to make |

| | |
|--|--|
| equipment, power must be shut off to all circuits before any work is attempted. Individual switches must be opened and the equipment circuits tested to make sure there is no power. | adjustments while it is running. |
| 7. Be sure all operators are aware of all areas and operations that require extra safety measures. | 7. Do not allow horseplay in the work area |

1.4 AC Supply

1.4.1 Voltage steady state voltage: 0.9 to 1.1 of nominal voltage.

1.4.2 Frequency 0.99 to 1.01 of nominal frequency continuously; 0.98 to 1.02 for short time.

1.4.3 Harmonics distortion not exceeding 10% of the total r.m.s. voltage between live conductors for the sum of the 2nd through to the 5th harmonic.

1.4.4 Voltage Interruption Supply interrupted or at zero voltage for not more than 3ms at any random time in the supply cycle with more than 1 s between successive interruptions.

1.4.5 Voltage dips not exceeding 20% of the peak voltage of the supply for more than one cycle with more than 1 s between successive dips.

1.5 General Physical Environments

1.5.1 The minimum requirement for all electrical equipment is correct operation between air temperature of +5°C and +35°C.

1.5.2 Electrical equipment is capable of operating correctly when the relative humidity does not exceeding 50% at a maximum temperature of +45°C.

1.5.3 Electrical equipment is capable of operating correctly at altitude up to 1000m.

1.5.4 Electrical equipment is designed to withstand to protect against the effects of transportation, and storage temperature within a range of -25°C to +55°C and for short periods not exceeding 24 hours at up to +70°C.

1.5.5 Avoid exposing to vibration environment.

1.5.6 Avoid exposing to direct sunlight or heat rays.

1.5.7 Have to connect to the factory grounding system correctly.

1.5.8 Away from electric magnetic interference source sites, such welding, discharge machine.

2. Specifications

| Specification | PHC 53 |
|------------------------|---------------------------|
| Cutting Width | 530mm/20.87" |
| Cutting Height | 100mm/3.94" |
| Cutting Depth | 530mm/20.87" |
| Narrow Cut | 30mm/1.18" |
| Power Supply | 230VAC, 50/60Hz, 1PH, 20A |
| Dimensions (H x W x D) | 1450x 955 x1200mm |
| Weight | 450Kg |

Note: A dedicated AC power line is required.

3. Name Plate



Hydraulic Guillotine

230V 50/60Hz 1PH 20A

S/N:PHC53.001.132



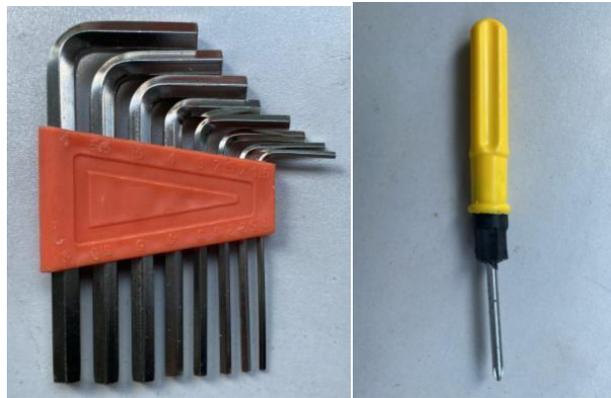
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4. Accessories

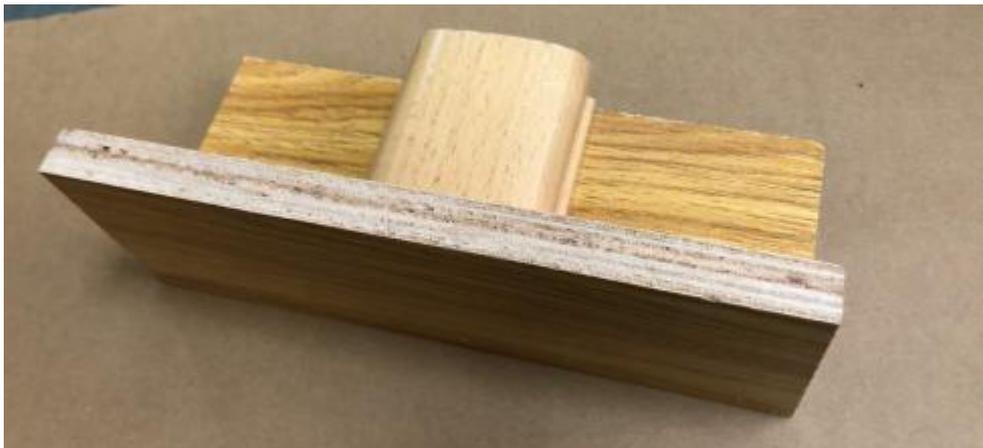
4.1 Blade Replacement Tool.



4.2 Tool Set.



4.3 Jogging Block.



4.4 Operation Manual.

5. Installation of The Back Table

Two people are needed to install the back table.

5.1 Use two hands to pull the back table up and hold it horizontally.



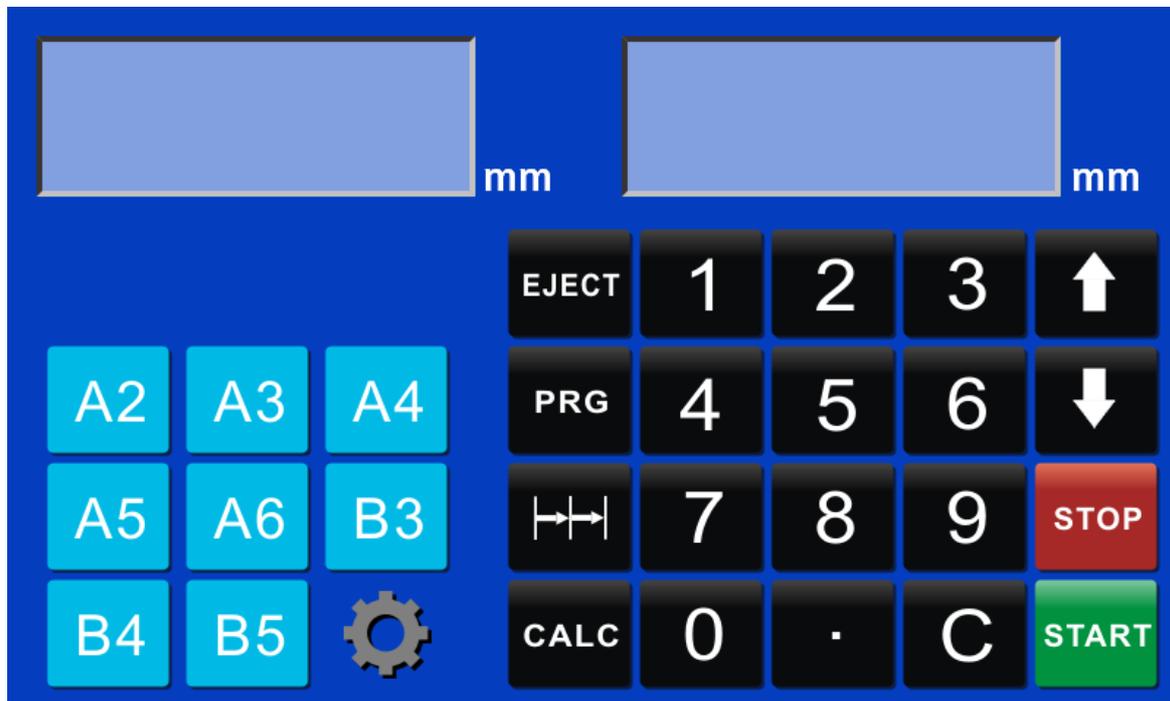
5.2 Use two bars to support the back table on the machine horizontally.
Secure their fixing screws on the sides of the bar.



6. Key Components



7. Control Panel and Function Keys



| Function Key | Function |
|---|-----------------------------|
|  | UP/Back Gauge Home |
|  | Down/Forward |
|  | Stop/Exit |
|  | Start/Run |
|  | Clear the figure on display |
|  | Program |

| | |
|---|--|
|  | Repeat Cut |
|  | Calculator |
|  | Eject after cut |
|  | Cutting Depth and Cutting Length Calibration |

8. Reset TheBack Gauge

8.1 While Machine is Off

8.1.1 Switch main power clockwise to on "I".

8.1.2 Insert the key into key switch.

8.1.3 Switch the key switch to on.



8.1.4 Press  to reset the backgauge to home position.



WARNING: Do not put hands inside the machine while the back gauge is moving.

8.2 While Machine is Under Operation



7.2.1 Press  to reset the backgauge to home position.

9. Cutting Procedure



WARNING: Before operating the machine, make sure the safety cover and the key switch function normally by following steps:

- 1. Open the safety cover. The blade must be not sent down by pressing 2-hand switch.**
- 2. Close the safety cover and switch off the key switch. The blade must be not sent down by pressing 2-hand switch.**

9.1 Manual Cut



9.1.1 Press  while machine is under operation.



9.1.2 Enter the length from keypad, then press  to bring the back gauge to the desired length.

9.1.3 Load the sheet, against back gauge and the left margin. Using the jogging block to make sure the sheet pile is squared.

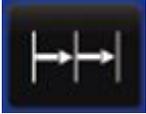
9.1.4 Press 2-hand switch until the sheet pile is fully cut.

9.1.5 After 1st batch sheet has been cut, the Back gauge will be back to the length set for 2nd batch cut.

9.2 Repeat Cut

This feature allows user to do repeat cut on same sheet. For example, a 40cm sheet cut into 5cm equal division.

9.2.1 Key in 40cm then press  to bring the backgauge to 40cm.

9.2.2 Press  to set repeat cut enable.

9.2.3 Enter the desired equal division length from keypad.

9.3.4 Press 2-Hand to do cutting until the sheet pile is fully cut, after cut the back gauge will go to next position automatically.

9.2.5 After 1st batch has been cut, the Back gauge will go back to 46cm position for 2nd batch cut.

9.2.6 Press  to exit.

9.3 Eject After Cut

This feature can be set to eject the sheets after cut.

9.3.1 For example 45cm paper cut into 40cm, key in 40cm then press  to bring the back gauge to 40cm.

9.3.2 Press  to set eject enable.

9.3.3 Press 2-Hand to do cutting until the sheet pile is fully cut, after cut the back gauge will eject the cut pile then go back to 40cm position.

9.3.4 Press  to exit.

9.4 Job Setting

The system enable 99 jobs setting, each job has maximum 99 cut. For example, Job #1 for a book 3-side cutting job.

9.4.1 Press  to get into program mode.

9.4.2 Click on Job No.box .

9.4.3 Enter Job #1 then press .

9.4.4 Click on 1stcut box then key in cutting length then press .

9.4.5 Click on 2nd cut box then key in cutting length then press .

9.4.6 Click on 3rd cut box then key in cutting length then press .

9.4.7 Press  to let the job start from 1stcut.

9.4.8 Press  to enable or disable eject function.

The green underline  shows the eject function is engaged.

9.4.9 Press  to run the job.

9.4.10 Press  to exit.

9.5 Select a Defined Job

9.5.1 Press  to get into program mode.

9.5.2 Click on the job No. box .

9.5.3 Enter the job No. then press .

9.5.4 Press  to scroll the pages to check cut factors.

9.5.5 Press  to set the job start from 1stcut. Starting from any cut is available.

9.5.6 Press  to run the job.

9.5.7 Press  to exit.

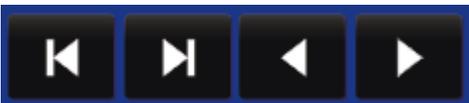
9.6 Editing an Existing Job

9.6.1 Press  to get into program mode.

9.6.2 Click on the job No. box .

9.6.3 Enter the job No. then press .

9.6.4 Press  to clear all data in the group.

9.6.5 Press  to select the page which needs to be changed.

9.6.6 Click on the box which needs to be changed  and enter the

correct cutting length then press .

9.6.7 Press  to set the job start from 1st cut. Starting from any cut is available.

9.6.8 Press  to run the job.

9.6.9 Press  to exit.

9.7 Cutting Depth

9.7.1 Press  to get into settings.

9.7.2 Press  to set cutting depth.

9.7.3 Click on the box  and enter the desired value then press . Each movement will be 0.3mm. The figure is bigger and the cutting depth is deeper.

9.7.4 Press  to exit.

9.8 Cutting Length Calibration

9.8.1 Press  to get into settings.

9.8.2 Press  to get into back gauge calibration.

9.8.3 Follow the onscreen prompts to do cutting length calibration.

9.8.4 Press  to exit.

9.9 Default Cut

The system provides A2, A3, A4, A5, A6, B3 and B4 default cut.



9.9.1 Press  while machine is in operation.

9.9.2 Press default cut to select a desired length.

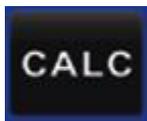


9.9.3 Press .

9.10 Calculator

In manual cut mode, a desired cutting length can be get from the calculator and shows on the input box.



9.10.1 Press  to get into calculator.



9.10.2 Press  after calculating, the value will show on the input box in the manual cut mode.



9.10.3 Press  to bring the back gauge to the desired length.



 is used for hemisect.

9.11 CM and Inch Selection



9.11.1 Press  to get into settings.



9.11.2 Press .



9.11.3 Press  or  to select display to show metric or inch. The green underline shows the selection is engaged.



9.11.4 Press  to exit.

9.12 Cutting Counter

9.12.1 Press  to get into settings.

9.12.2 Press  to check the cutting counter.

9.12.3 Press  to reset the counter to 0.

9.12.4 Press  to exit.

10.0 Trouble Shooting Guide

10.1 No Display

Check the fuse inside the inlet socket at the rear of the machine..

10.2 CutterNo Function

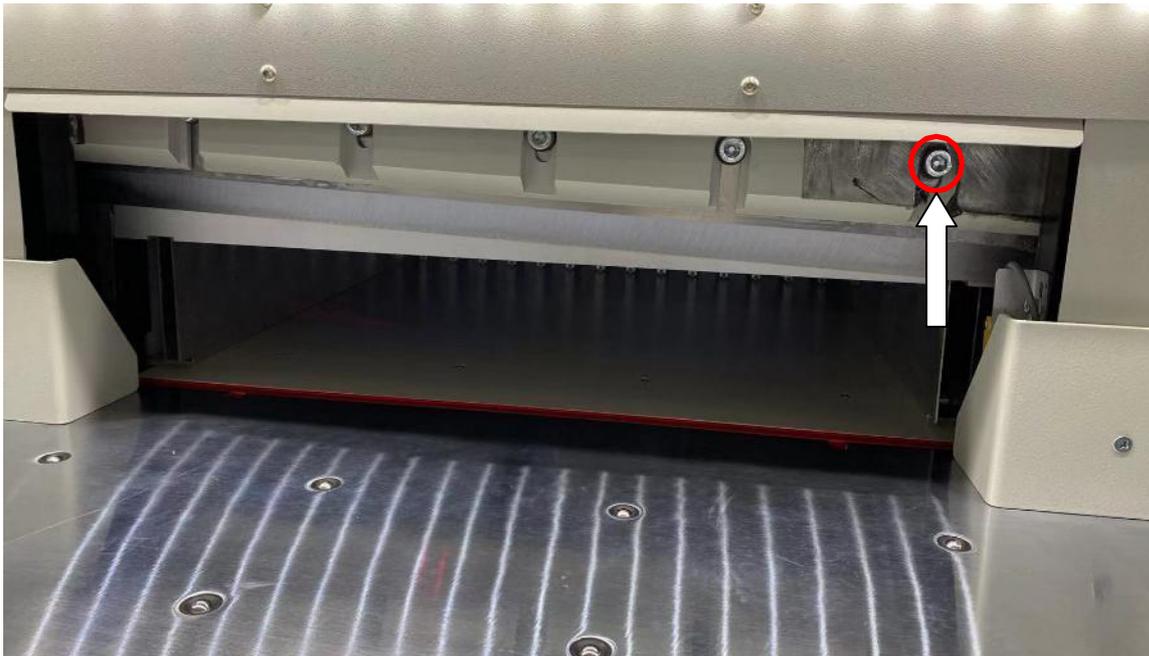
Press  to get into settings. Press  to check the status of sensors and to test function of keys.

11. Adjustment

11.1 Cutting Blade Level Adjustment

11.1.1 Place 2 pieces of 80 gsm paper covering the cutting stick.

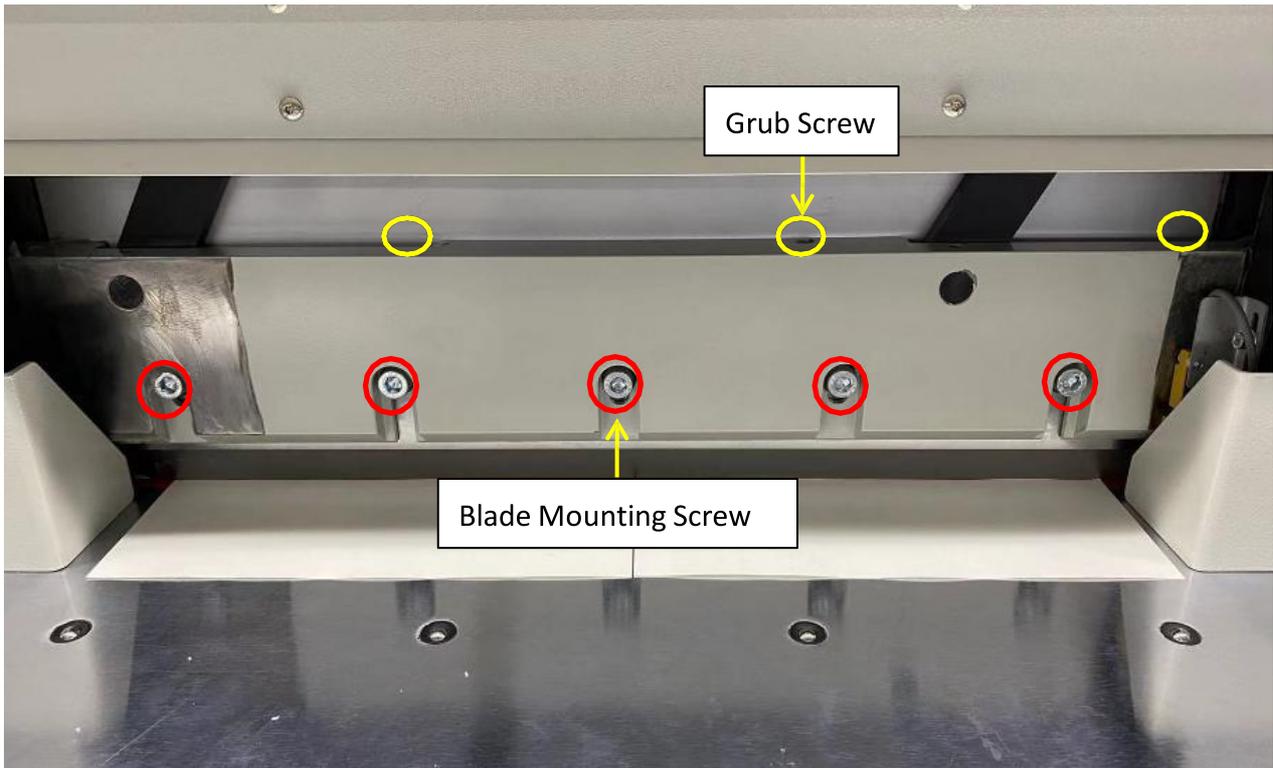
11.1.2 Remove the farthest right screw.



11.1.3 Bring the cutter all the way down to engage with cutting stick by:

- Turn the switch to the "change blade" position.

- Keep pressing 2-hand switch to bring down the blade to contact with cutting stick, then
- Turn the 3 grub screws clockwise from left to right to make let the blade cut the paper through.



- 11.1.4 After fine tune for clean cut level adjustment, tighten the blade mounting screws.
- 11.1.5 Turn the switch to the "normal cutting" position to let blade and clamp go back to their upper position.

11.2 Cutting Depth Adjustment

11.2.1 Press  to get into settings.

11.2.1 Press  to set cutting depth.

11.2.2 Click on the box  and enter the desired value then press . Each movement will be 0.3mm. The figure is bigger and the cutting depth is deeper.

A red square button with the white text "ESC" inside.

11.2.3 Press to exit.

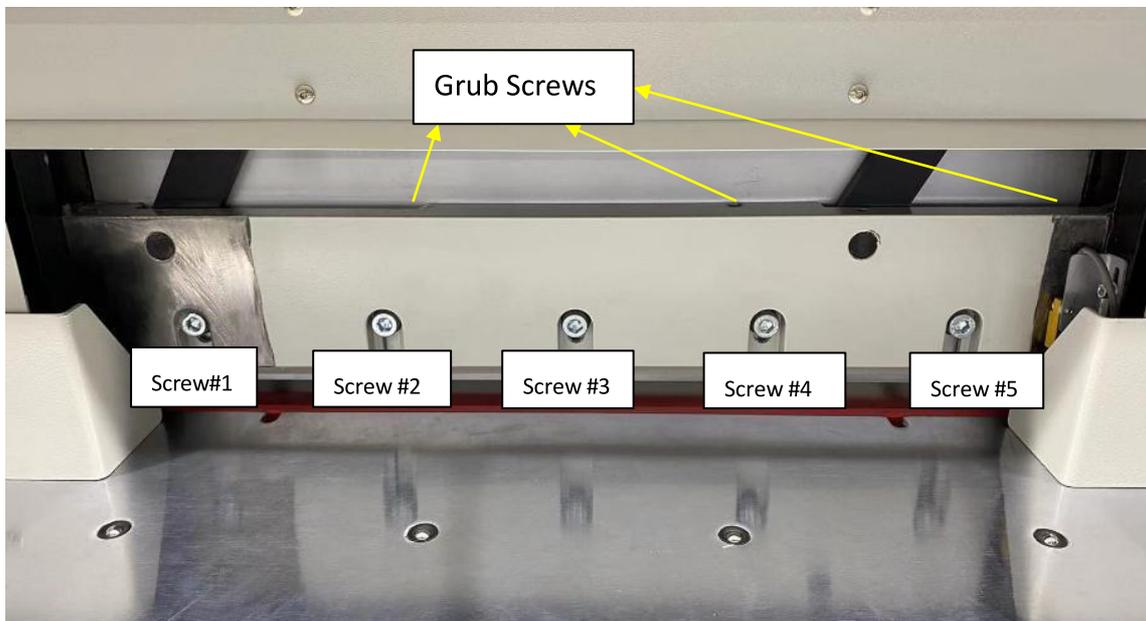
11.3 Clamping Pressure Adjustment

11.3.1 Turn the clamping pressure adjustor clockwise to increase the clamping pressure and turn the clamping pressure adjustor counterclockwise to decrease the clamping pressure. After adjusting, try to clamp and read the pressure value from the pressure gauge. Usually the clamping pressure range is 6-12MPa.



12. Cutting Blade Replacement





12.1 Remove screw #6.

12.2 Bring the cutter all the way down to engage with cutting stick by:

- Turn the switch to the "change blade" position.
- Keep pressing 2-hand switch to bringdown the blade to contact with cutting stick, then
- Turn the 3grub screwscounterclockwise 5 turns.

12.3 Reset the cutting depth setting to 0 on screen referring to above 8.7 item.

12.4 Remove the #2 and #5 screws.

12.5 Turn the switch to the "normal cutting" position to let blade goback to their upper position.

12.6 Turn the switch to the "change blade" position and Keep pressing 2-hand switch to bringdown the blade to just expose the screw #1.

12.7 Fastening blade replacement holder handle screw onto blade screw holes #2 and #4 secure and tight.

12.8 Remove screw #1and #5.

12.9 Loosen the blade replacement holder screw a bit then remove the blade from blade carrier.

12.10 Install a new blade onto blade replacement holder and fastening the hand screw onto the blade mounting hole #2 and #4.

12.11 Fasten screw #1and #3 half way in.

12.12 Remove blade replacement holder.

12.13 Fasten screw #2 and #4 half way in.

12.14 Place 2 copy paper covering the cutting stick.

12.15 Using 2-hand switch bring the blade all the way down

12.16 Rotate the 3 grub screws clockwise to let the blade cut the paper through evenly.

12.17 Fastening #1,#2, #3, #4 and #5 screw tight and secure.

12.18 Turn the switch to the "normal cutting" position to let blade and clamp go back to their upper position.

12.19 Fastening screw #6 secure and tight.

13. Cutting Stick Replacement

13.1 While blade is on home position, switch main power to off.

13.2 Turn the anvil stick around, the anvil stick can be used 4 times, each surface can use 1 times.

13.3 Replace a new stick; make sure the left chute is fit in position.

14. Maintenance Plan

14.1 Safety device everyday: Before operating the machine, make sure the safety beam, the key switch and 2-hand switch function normally by following steps:

14.1.1 Engage the safety beam. The blade must be not sent down by pressing 2-hand switch.

14.1.2 Engage the safety beam and switch off the key switch. The blade must be not sent down by pressing 2-hand switch.

14.1.3 Engage the safety beam and switch on the key switch. The blade must be not sent down by pressing one of the 2-hand switches.

14.2 Blade maintenance every week.

14.2.1 If it is hard to cut or the blade is clipped, the blade should be re-sharpened.

14.2.2 Press  to get into settings. Press  to check the cutting counter. If the cutting counter is reading more than 5000, the blade should be replaced with a new one. Press  to reset the counter to 0 after replacement.