# **Akiles Diamond 7**

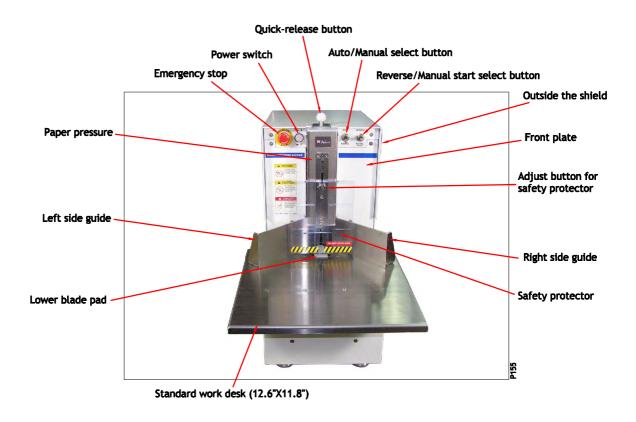
# **Operation Manual**

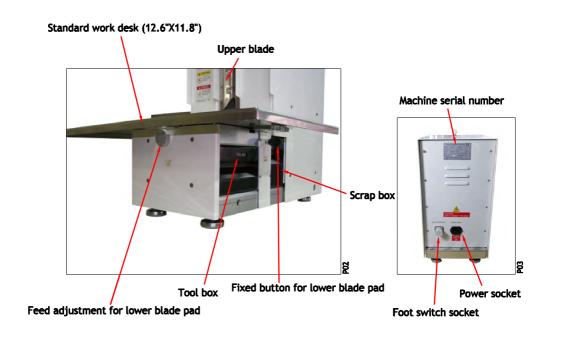


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## A. Name of machine parts





## B. Safety instructions (Before setting up the machine, carefully read all the manual)

| <u>∧</u>    | Make sure the outlet with the correct volgate and type              |
|-------------|---|
| 0           | Blade is sharp, non-operator please keep away from machine.         |
|             | Do not put fingers into the safety protector during operating time. |
|             | Do not cut staples, paper clips and other metal objects.            |
| $\triangle$ | Always turn off power when changing blade.                          |
| $\triangle$ | Always turn off power when work completed.                          |

## C. All kinds of blade

1 Upper blades (5 radius upper blades, 1 straight blade, 1 half moon blade, total 7 kinds)



AD7-K3.5 Upper blade Size: R1/8"



AD7-K6 Upper blade Size:R1/4"



AD7-K10 Upper blade Size:R3/8"



AD7-K13 Upper blade Size:R1/2"



AD7-K16 Upper blade Size:R5/8"



AD7-C15 Straight blade Size: 5/8"



AD7-D21 Half moon blade Size: Ø 13/16"

(2) Lower blade pads (straight and half moon blades can be with any kinds of lower blade pad)



AD7-K3.5-2 Lower blade pad Size:R1/8"



AD7-K6-2 Lower blade pad Size:R1/4"



AD7-K10-2 Lower blade pad Size:R3/8"



AD7-K13-2 Lower blade pad Size:R1/2"



AD7-K16-2 Lower blade pad Size:R5/8"

## D. Standard parts & accessories (total 8 parts)



Standard work desk - 1 pc Size: 12.6"(W)X 11.8"(L)



Left and right side guide each 1 pc



Tool and scrap box - each 1 pc



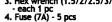
waintenance vools:

1. Cross-head and flat-head screwdriver - each 1 pc

2. T-type hex wrench (2.5,3) - each 1 pc

3. Hex wrench (1.5/2/2.5/3/4) - each 1 pc

4. Fuse (7A) - 5 pcs





Maintenance screw set

- 1. Round-head hex screw(M4X8) 5 pcs
  2. Flat-head hex screw(M4X8) 10 pcs
  3. Truss-head cross screw(M4X8) 5 pcs
  4. Socket-head hex screw(M4X12) 4 pcs

- 5. Washers (Ø4X2t) 4 pcs



Operational manual - 1 book



1. 1/4" upper blade - 1 pc 2. 1/4" lower blade pad - 10 pcs

3. 1/4" blade base - 1 set

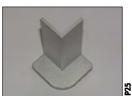


Paper pressure - 1 set

## E. Optional parts & accessories (total 13 parts)



Large work desk Size: 19.7"(W)X 11.8"(L)



L guide



Straight blade Size: 5/8"



Straight blade base



Upper blade Size: 1/8", 1/4", 3/8", 1/2", 5/8"



**Blade base** Size: 1/8", 1/4", 3/8", 1/2", 5/8"



Lower blade pad Size: 1/8", 1/4", 3/8", 1/2", 5/8"



Half moon blade Size: 13/16"



Calibrate gauge



Micro paper guide set



Half moon blade regulator



Constant force spring



Oil stone Size: 8" X 2" X 1"

## F. Machine operation

#### CAUTION: Before operating machine, carefully read all the manual

### 1 Installation and cutting test



Place machine on top of a sturdy work table.



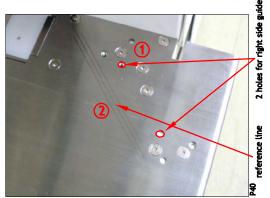
- Pull forward to release the paper pressure from quick-release button.
- Hold the paper pressure, downward to the end and pull out the paper pressure, then release the quickrelease button.



Place the work desk onto the machine as shown.
Align the machine screw holes to the 12 mounting holes as arrows indicate.

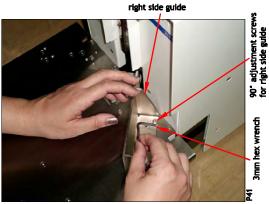


Take the 2.5mm hex wrench, fasten the 12 pcs flat-head hex screw(size: M4x8).



As arrow 1 shown the 2 holes are for right side guide hole.

② shown the reference line for the right side guide place and adjust the reference.

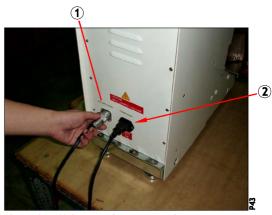


Place front edge of the right side guide on the central reference line, target the 2-hole shown in P40 on the fixed holes.

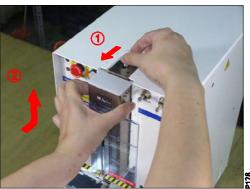
Use 3mm hex wrench lock the M4X12 socket-head hex screw. Fixed left side guide same as above.



Above figure show the ready position for right and left side guide.



(Attention: Make sure the correct voltage)
Plug foot switch cord ① into the socket, then power cord ② into the socket.



1. Pull forward to release the paper pressure from quick-release button.

Hold the paper pressure, will be two positioning pins into the two holes, upward push to the top and then release the quick-release button for auto-lock paper pressure.



Loosen the adjust button of safety protector, move it down to the bottom and lock it.

Keep the safety protector and work desk minimum clearance 3/8".



1. Turn on the power switch motor is standby, the light is on but motor not rotation.

2. Turn the operation mode to manual.

Push-down manual start button, push-down to start release to stop motor, make upper blade slowly down intermittently touch the lower blade pad, check blade if ready for working. (blade has been calibrate by original)



 Turn the operation mode to auto. (for manual mode, leave the upper blade slightly off the top position, and step on the foot switch to start)

2. Test with the foot switch see if normal operation. (push-down the switch to finishing a cycle, release the foot switch then start again)



Put one sheet of paper close to right and left side guide. (Keep finger out of safety protector) Step the foot switch for cutting testing. (When the upper blade to rise up, if heard a sharp

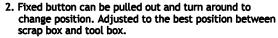
noise. Can be add a little lubricating oil on upper blade's flank then dried to resolve the noise.)

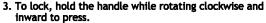


Check if the corner rounder is tidy or any cutting edge remain. If yes, make a new lower blade pad cutting is requested. How to operate as shown P50~P51.



1. Release the fixed button of lower blade pad counterclockwise.

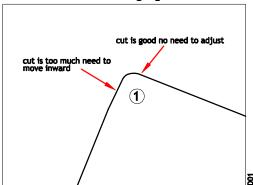






Turn counterclockwise one section of feed adjustment as shown, the lower blade pad will move 0.125mm. (one time one section can get better incision) Then lock the fixed button and try cutting again, if the situation remains the same, please repeat P50-P51. (a lower blade pad can be use 80 sections)

# 2 Right and left side guide adjustment a. Without calibrate gauge



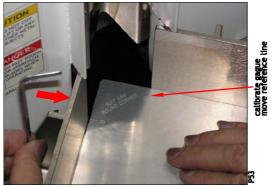
Above shown the right side cut is good no need to adjust. Left side cut is too much need to move inward of left side guide.



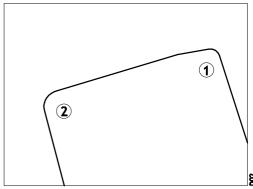
Release 2 fixed screw on left side guide. Refer the three lines on work desk, ① arrow is the direction of inward movement, keep front edge of the left side guide and reference line are parallel then fixed it for once cutting.

If the situation remains the same, please repeat above procedures unit get perfect corner rounder.

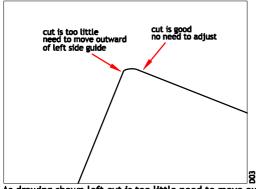
#### b. With calibrate gauge



Keep calibrate gauge close to right and left side guide. Check the relative position between calibrate gauge and right side guide, micro adjustment the calibrate gauge to right as red arrow shown. Hold the gauge with right hand and loosen the 2 pcs fixed screw of left side guide by left hand, then move the left side guide close to calibrate gauge and fixed tightly.



As drawing ① shown the left cut is too much need to adjust left side guide to right. Drawing ② is the perfect cutting after adjustment.



As drawing shown left cut is too little need to move outward (to left) of left side guide.

#### 3 Changing blades

#### a. Changing the upper blade



- 1. Turn off the power.
- 2. Remove the paper pressure.
- 3. Take 2.5mm T-type hex wrench, counterclockwise loosen 4 pcs of fixed screw.



Caution: V-type blade is sharp, do not touch with fingers.

As shown use left hand two finders hold on bottom of upper blade, and hold the top with right hand index finger, slow-shake to remove the blade out.

Same as above take a new blade, aligned and press inward to the 2 locating pin as arrow shown. Take 2.5mm T-type hex wrench to look the 4 pcs screw. (Please check again for well looking)

For changing R13 & R16 radius upper blade, same works as changing straight blade C15. Please refer page 10 the photo P64, screw tightly with 2 pcs of M4X12 screws.

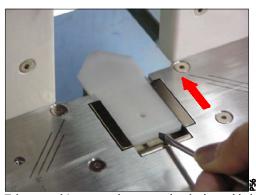
# b. Changing the lower blade pad (5 upper blade with 5 lower blade pad; Ex: K6 lower blade pad with K6 upper blade)



Turn off the power, release the fixed button of lower blade pad counterclockwise.



As photo shown, rotate the feed adjustment in a clockwise to the end.



Take screwdriver to get bottom-under the lower blade pad, forward the pad to scrap box.



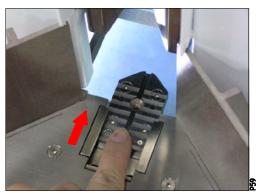
Take short-side of 3mm hex wrench and push inside to new lower blade pad hole for fixing(as shown), then take hex wrench align to the guider and push down until touch to the end. Then take the hex wrench out and lock the fixed button of lower blade pad.

#### c. Changing the blade base

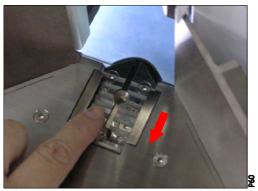


Attention: Turn off the power first

- Blade base corresponging to upper blade, Ex: K6 blade base use for K6 upper blade. K16 blade base use for K16 upper blade.
- 2. Take 2.5mm hex wrench to loose 2 pcs of fixed screws.



Use finger push and forward the blade base to scrap box and take the base out.



Take the new base, install the base plate from the front and pull back to the end, not lock now.



- 1. Install the paper pressure.
- Turn on the power and keep manual button, Use manual start button operation and stop upper blade on lowest point.
- 3. Turn off the power and remove the paper pressure.
- Push and forward the blade base align with fixed hole.
   Check if enough security gaps between upper blade and blade base before fixing. (Please check again for well locking)

#### d. Changing the half moon blade D21



- 1. Turn off the power and release the paper pressure.
- 2. Note the sharp blade, put the white plastic protector before changing.
- 3. Use left hand's finger hold the white protector, and right hand's finger hold the D21 above, aligned and press inward to the 2 locating pin.



Take 2.5mm T-type hex wrench to fix the 4 screws, make sure screws fasten tightly. Remove the white protector and replace the paper pressure. The D21 blade is now complete.

#### e. Changing the straight blade C15

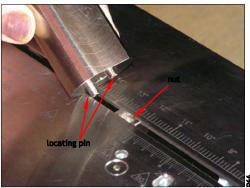


- 1. Turn off power and release the paper pressure.
- Use left hand's hold upward the white protector to the base and close to the positioning plate, right hand take 3mm T-type hex wrench and screw tightly the 2 pcs of M4X16 screws, make sure fasten tightly.
- 3. Remove the white protector, and replace paper pressure. The C15 blade is now complete.



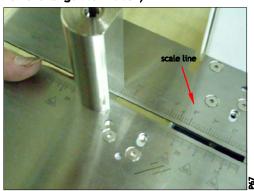
- 1. Picture shown how to change new C15 blade.
- First, put on the white protector on used blade, take
   5mm T-type hex wrench to remove the 4 pcs fixing screws.
- Same, put on the white protector on new blade before changing. Replace it on blade base then fasten 4 pcs of fixing screw, make sure screws fasten tightly.

#### 4 How to adjust the D21 regulator (Must comply with the large work desk)



Put the nut from the back side of large work desk, Put the regulator into slot hole in desk as picture shown align the nut.

Take 3mm hex wrench and screw tightly the M4X75L screw.



For adjust the regulator, suggest to refer the scale line of the large work desk to move the position. Slightly loosen the screw, you can easily move it.



Once the D21 blade and regulator install to proper position, put the paper on desk and move paper close to the front plate and left side, till paper touch to the regulator. (Caution! Fingers do not exceed the safety protector) One hand slightly press the paper and start to cut. Safe distance between safety protector and paper is 5mm.

#### 5 How to use the "L" guide

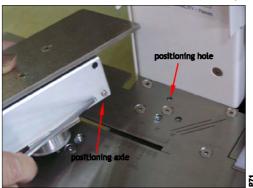


Adjust the safety protector and keep stack of paper about 5mm height distance, fix the adjust button.

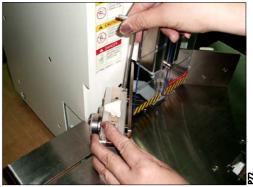


Put the "L" guide on table, use "L" guide left and right edges to tap the stack of paper in parallel till paper is neatly. At the same time, make sure "L" guide close to the outside corner of the paper. Right hand fingers hold "L" guide at the bottom(as shown), slightly press the "L" guide let it close to the paper for cutting.

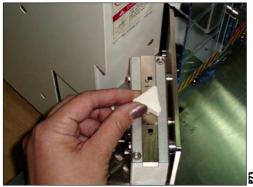
#### 6 How to use the micro paper guide (Standard and large work desk can be used)



There are 2 pcs of positioning axle on the bottom of left/right micro paper guide, install the 2 pcs of positioning axle to fixing positioning hole on work desk.



Fasten the micro paper guide with 2 pcs of M4X50L screws by 3mm hex wrench.



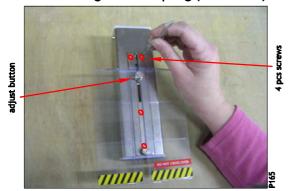
To adjust the micro paper guide, first release the white-head screw as shown.



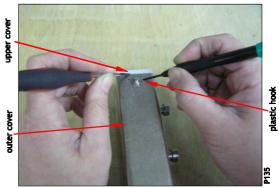
As shown turn scale button, the counterclockwise move to forward and clockwise to backward. Each rotation a grid movement is 0.02mm, available movement is total 6mm lenght. Once the movement is done, locktight the white-head screw.

#### (7) Spring replacement for paper pressure

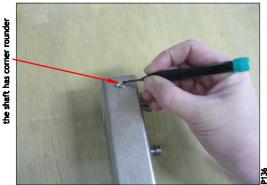
#### a. Dischange the old spring (P134~P140)



- Release the 4 pcs screws by 2mm hex wrench as arrow shown.
- 2. Hold the adjust button, pull out whole set of safety protector from the outer cover.



- Take 2 pcs small flat-head screwdriver, insert one driver to the small hole, press down the plastic hook as shown, and insert another driver to the upper cover among the outer cover and pry the upper cover.
- 2. Remove the bottom cover is same as upper cover.



 Use small flat-head screwdriver and insert to to small hole of E-ring, pull outward and remove the E-ring. (Remove one side the shaft has corner rounder)



 If the spring is broken, take out from the shaft directly.

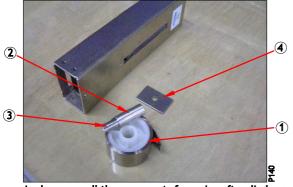
If spring is worthless, use one hand hold the locating axle and slightly pull open as arrow shown, another hand take out the shaft.



1. Use 2.5mm hex wrench release fixing screws for spring washer.



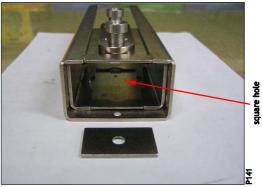
 Left hand finger insert into the outer cover hole and push outward the spring as shown, right hand hold the spring and pull it outward. (inside the spring still have other spare parts, do not tilt the outer cover but straighten for easier take the spring out)



As shown are all the spare parts for spring after discharge.

- (1) Constant force spring
- 2 Sleeve
- (3) Spring shaft
- (4) Washer

#### b. Spring replacement (P141~P150)



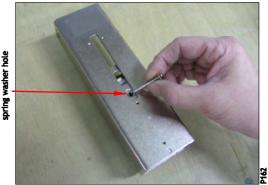
- Push the inner cover to the bottom, refer P142 for correct direction. As right photo ① shown the outer cover shaft hole is on upper direction.
- Replace the spring washer into the square hole as arrow indicated. (do not put the spring washer at the reverse side.)



 Replace the spring axle and sleeve to the new spring center hole, please refer above photo 2 to install the spring for right direction.



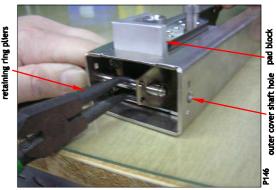
- Left hand hold the outer cover, right hand take the ready new spring set and install to inner cover. Be careful keep the spring prominent side at the left.
- Be carefull the spring fixed gasket fall down, and prevent the spring sleeve and axle exposed from spring set for proper installation.



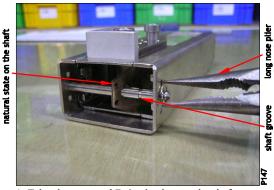
- Turn the outer cover to front side, driven the spring from the top and makes spring washer hole meet the outer cover hole.
- 2. Replace the fixing screw and fasten tightly.



 Remove the inner cover to the top, insert the spring axle a litter as shown direction. (contrary insert is prohibit)



- Find a pad block put on the inner cover(4mm above thickness) as arrow shown.
- Use retaining ring pliers to insert the 2 small holes on the spring, ask another person to hold the outer cover, pull the spring let shaft pass through the hole and hold the spring until the shaft go through to another side shaft hole.



- Take the removed E-ring hook onto the shaft groove as shown, and replace it by long-nose plier.
- Be careful hanging the spring natural state on the shaft, do not hook the spring on shaft groove.



- left hand hold the outer cover, and right hand hold the locating axle and slightly pull the spring see if works up and down smoothly.
- 2. If can not move, need to discharge and re-assembly and test again.



- 1. Pack back the black rubber bottom cover by flat-head screwdriver and push close tightly.
- 2. As above and then loaded upper cover.



 Finally, install the safety protector and tighten the 4 screws.

## G. Maintenance

(1) Changing fuse and discharge capacitor



Replace the fuse

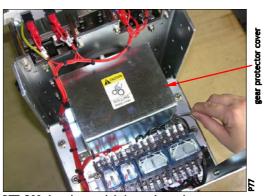
- 1. Unplug the power cord.
- Take flat-head screwdriver, pry-open the hole as picture shown outward, pull out the fuse holder by another hand.
- Remove the damaged fuse and replace a new one that meet the specification, then re-plug the power cord for using.



Before disassembly the circuit, user must to discharge the capacitor's surplus electricity. And pay attention fingers do not to touch the metal part when using the screwdriver.

- Use the flat-head screwdriver pry open the cover of the terminal blocks.
- Use the cross-head screwdriver to hold the M5 junction of the screw, and use flat-head screwdriver to hold the M6 junction of the screw, then move both screwdriver to touch. At same moment will have sparkles caused from the touch.
- 3. After disassembly, replace the cover of the terminal blocks.

# 2 Lubrication applying (Refuel lubricant every 30 days for using frequently. for not often use every 90 days)



P77~P80 show how to lubricate the main structure.

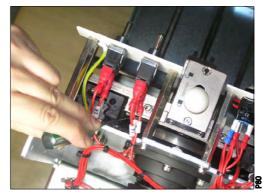
- 1. Turn off power, unplug the power cord.
- 2. Remove the 10 pcs screw of outside the shield, both hands hold the shield and move upward slowly.
- 3. As shown remove the 2 pcs screw on gear protector cover.
- 4. Move the gear protector upward slowly.



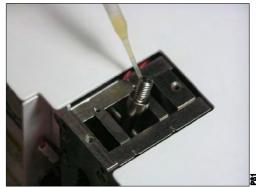
As shown smear a little grease lubricant on bevel gear, then covered the gear protector cover by the 2 pcs fixing screws and fasten tightly.



As shown is the lubricating linear slider(2 sliders each left and right), carefully press a little grease lubricant by grease nozzle into the sliders.



As shown is the cam track for lubrication, take few lubricant by flat-head screwdriver and spread lubricant on both sides of cam track.

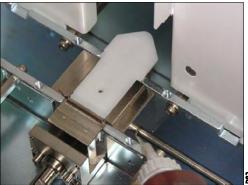


P81-P82 show how to lubricate the paper pressure. First, discharge the paper pressure.

- 1. Counterclockwise rotation the white-ball.
- Take 2mm hex wrench to release the 2 pcs fixing screws which under white-ball, then remove the cover.
- 3. As shown apply a little lubricant on the whole activities parts.
- 4. Reinstall the cover and the white-ball.

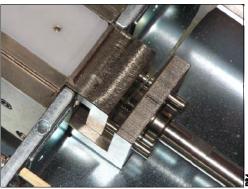


Take few lubricant by flat-head screwdriver, spread to sliding suface up and down as shown for smooth movement.



P83-P84 is shown how to lubricating for lower blade pad system.

- 1. Discharge the paper pressure.
- 2. Remove the left and right side guide and work desk.
- 3. Lubricate the movement blade pad feeding device.



As shown lubricate the feeding thread and shaft, apply with a little lubrication while rotating.



As shown when the scrap box accumulated up to seven full please empty the scrap, in order to prevent the risk when upper blade work down cutting.

## 3 Blade sharpened (K3.5/K6/K10 upper blades and straight blade are all available to sharpen by oil stone)



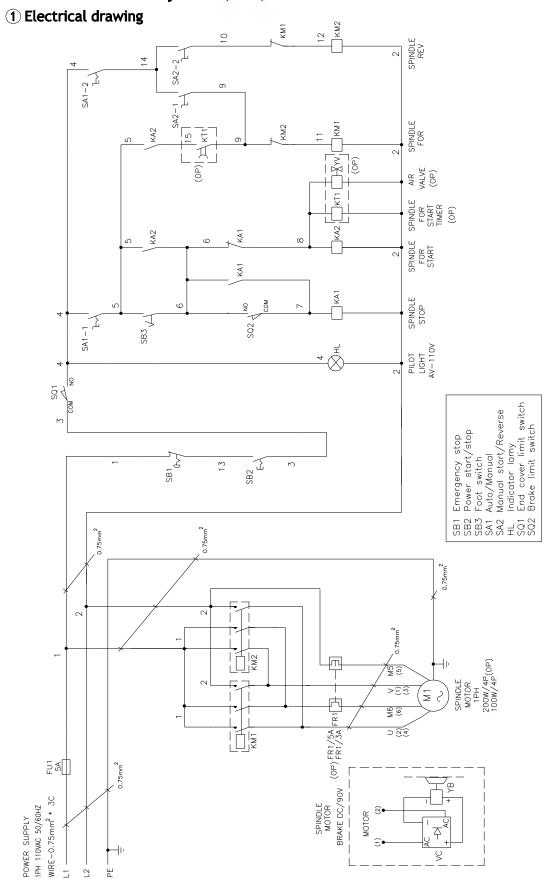
Blade is sharp, do not touch with finger.

by machine is recommand.

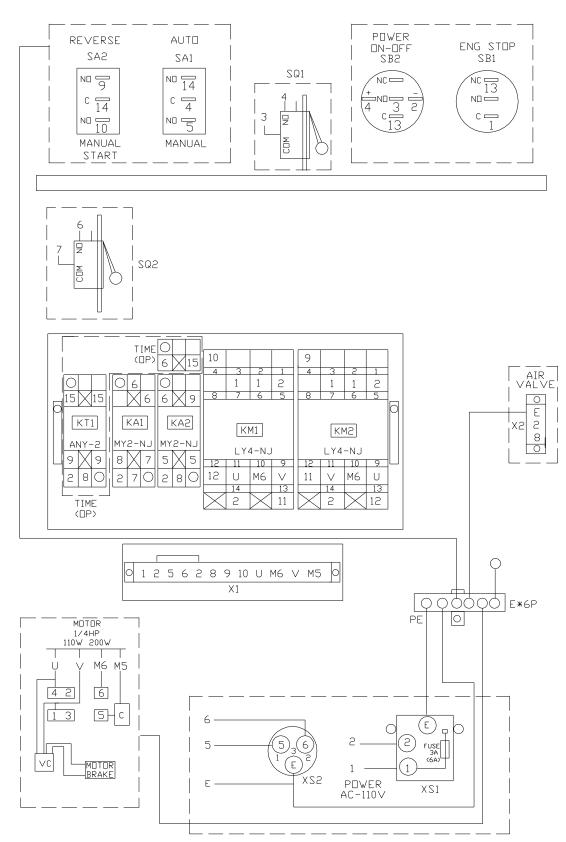
As shown put radius V-shaped blade on the oil stone. Add a little lubricate on the oil stone, smooth moves back and forth sharpened blade. For straight blade, same operation as radius blade. For half moon blade and K13 & K16 upper blades, sharpen

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## H. Electronic control system (110V)



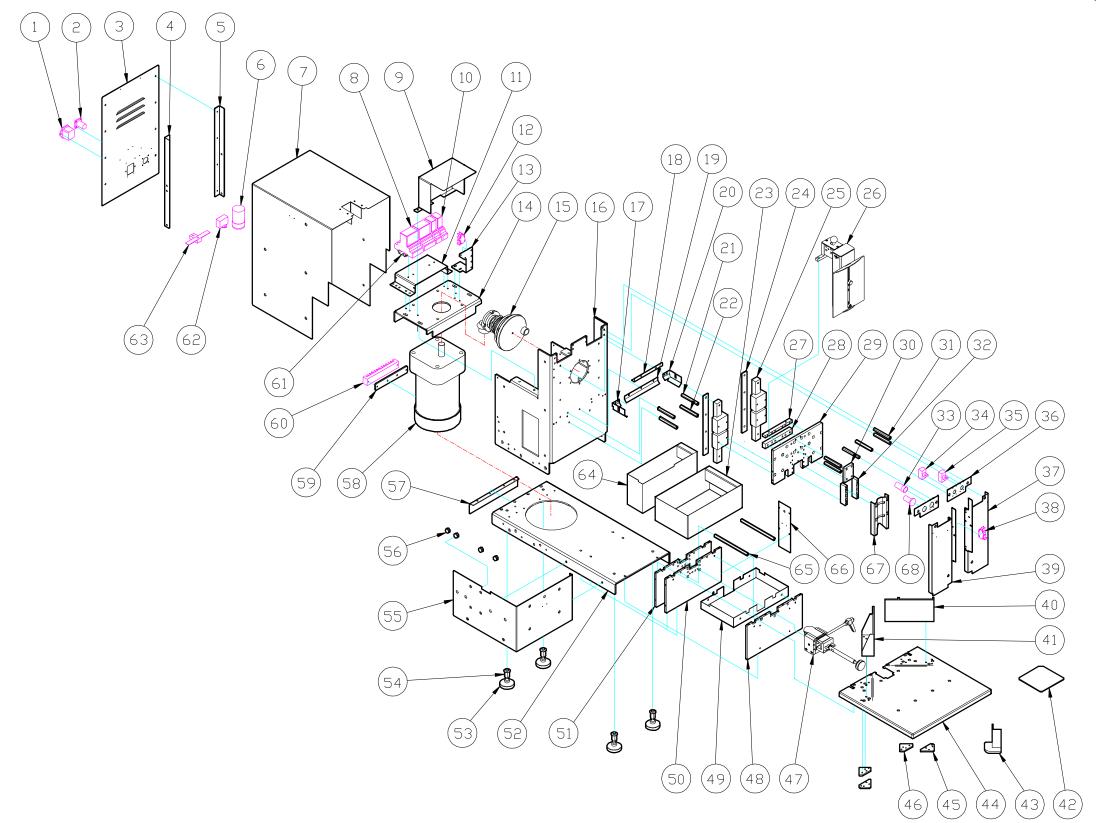
## 2 Position chart



## I. Diagram and parts list

## 1 Machine main structure

- After service will request below information:
  1. Model number
  2. Machine serial number (marked behind on machine)
  3. Parts number, name and quantity

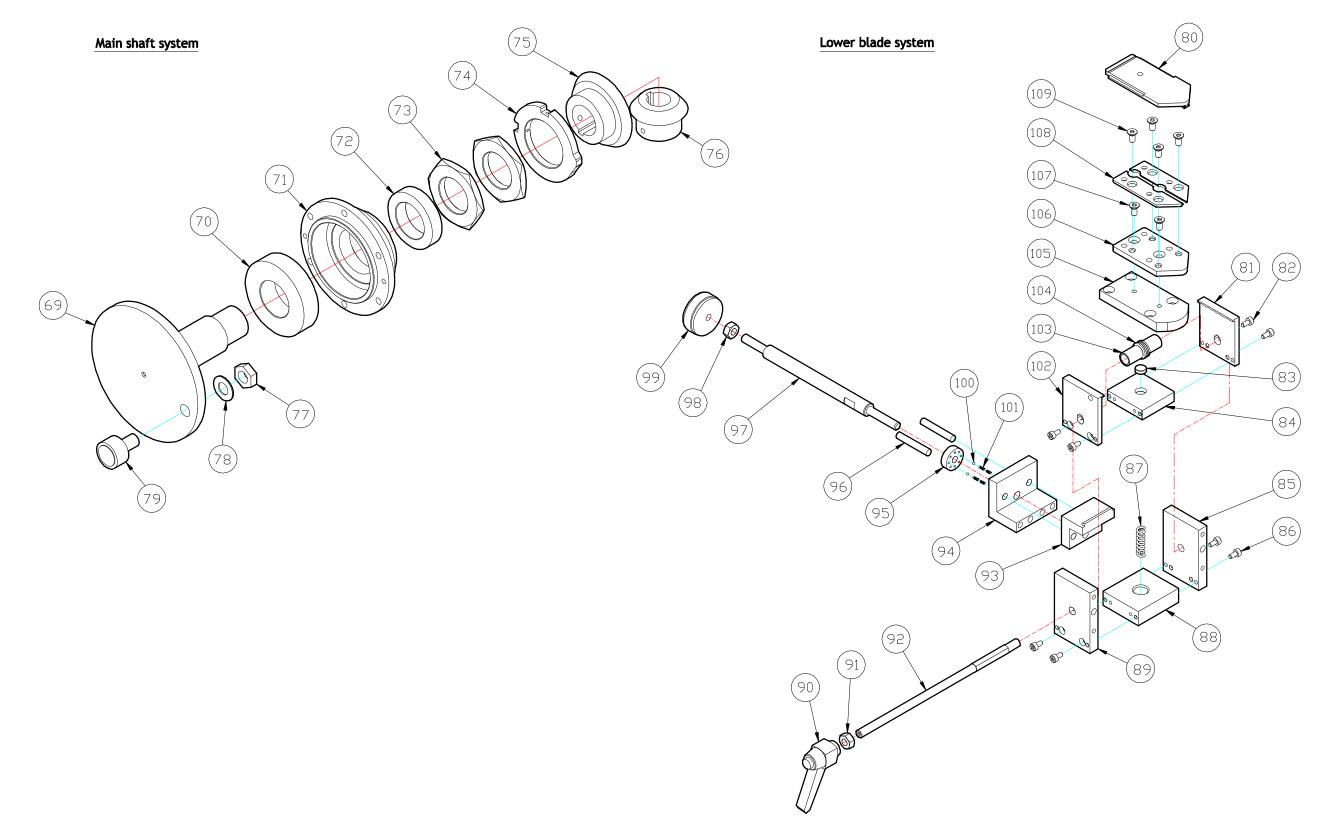


#### Parts list

| No. | Description             | Diagram no.         | Q'ty | No. | Description             | Diagram no.         | Q'ty |
|-----|-------------------------|---------------------|------|-----|-------------------------|---------------------|------|
| 1   | Power socket            | #                   | 1    | 36  | Control parts plate     | D14-01              | 2    |
| 2   | Foot switch socket      | #                   | 1    | 37  | Right front plate       | D14-04              | 1    |
| 3   | Back plate              | D03-03              | 1    | 38  | End cover limits switch | #                   | 1    |
| 4   | Right back fixing plate | D03-04              | 1    | 39  | Left front plate        | D14-03              | 1    |
| 5   | Left back fixing plate  | D03-05              | 1    | 40  | Right side guide        | D02-05              | 1    |
| 6   | Condenser               | #                   | 1    | 41  | Left side guide         | D02-04              | 1    |
| 7   | Outside the shield      | D13-02              | 1    | 42  | Calibrate gauge         | D02-06              | 1    |
| 8   | Large relay             | #                   | 2    | 43  | L guide                 | D02-07              | 1    |
| 9   | Gear protector cover    | D04-08              | 1    | 44  | Standard work desk      | D15-01              | 1    |
| 10  | Small relay             | #                   | 2    | 45  | Back pad                | D02-02              | 2    |
| 11  | Relay base              | D04-02              | 1    | 46  | Front pad               | D02-03              | 2    |
| 12  | Brake limits switch     | #                   | 1    | 47  | Lower blade system      | Followed by details |      |
| 13  | LS fixing plate         | D04-01              | 1    | 48  | Back structural plate   | D05-03              | 1    |
| 14  | Motor base              | D04-03              | 1    | 49  | Inner shutter           | D03-01              | 1    |
| 15  | Main shaft system       | Followed by details |      | 50  | Middle structural plate | D05-02              | 1    |
| 16  | Main structural         | D02-01-1            | 1    | 51  | Front structural plate  | D05-01              | 1    |
| 17  | Left scrap plate        | D01-03              | 1    | 52  | Main base               | D01-01              | 1    |
| 18  | Upper scrap plate       | D01-02              | 1    | 53  | Adjustable leg-glides   | D01-06              | 4    |
| 19  | Middle scrap plate      | D01-05              | 1    | 54  | Adjustable nut          | D01-08              | 4    |
| 20  | Right scrap plate       | D01-04              | 1    | 55  | Left cover              | D03-02              | 1    |
| 21  | Middle fixing axle      | D14-10              | 2    | 56  | Magnet seat             | D07-11              | 4    |
| 22  | Lower fixing axle       | D14-07              | 2    | 57  | Back shutter            | D01-10              | 1    |
| 23  | Tool box                | D04-06              | 1    | 58  | Motor (200W)            | #                   | 1    |
| 24  | LG washer               | D04-07              | 2    | 59  | Terminal blocks seat    | D04-09              | 1    |
| 25  | Linear guideway         | #                   | 2    | 60  | Terminal blocks         | #                   | 1    |
| 26  | Paper pressure system   | Followed by details |      | 61  | Relay guide seat        | D04-10              | 1    |
| 27  | CF upper guide          | D07-13              | 1    | 62  | Rectifier               | #                   | 1    |
| 28  | CF lower guide          | D07-14              | 1    | 63  | Earth copper plate      | #                   | 1    |
| 29  | Main slide seat         | D07-01              | 1    | 64  | Scrap box               | D04-05              | 1    |
| 30  | Limiting board          | D07-15              | 1    | 65  | Reinforcement axle      | D14-09              | 2    |
| 31  | Upper fixing axle       | D14-06              | 6    | 66  | Right cover             | D03-06              | 1    |
| 32  | Blade base              | D07-08              | 2    | 67  | Upper blade (R6)        | D09-11              | 1    |
| 33  | Power switch            | #                   | 1    | 68  | Emergency stop switch   | #                   | 1    |
| 34  | Function switch         | #                   | 1    |     |                         |                     |      |
| 35  | Manual start switch     | #                   | 1    |     |                         |                     |      |

2 Parts of structure: Main shaft system and Lower blade system

- After service will request below information:
  1. Model number
  2. Machine serial number (marked behind on machine)
  3. Parts number, name and quantity



#### Parts list

| No. | TS LIST  Description         | Diagram no. | Q'ty | No. | Description           | Diagram no. | Q'ty |
|-----|------------------------------|-------------|------|-----|-----------------------|-------------|------|
| 69  | Main shaft                   | D07-05      | 1    | 104 | Cam                   | D06-06      | 4    |
| 70  | Angular contact ball bearing | # (7206)    | 1    | 105 | Baseboard             | D05-04      | 1    |
| 71  | Main shaft seat              | D07-06      | 1    | 106 | Blade base            | D05-13 (R6) | 1    |
| 72  | Thrust bearing               | # (51106)   | 1    | 107 | Setscrew              | # (M4X10L)  | 2    |
| 73  | Fixing nut                   | D07-10      | 2    | 108 | Blade fastening plate | D05-18      | 2    |
| 74  | Control ring                 | D07-09      | 1    | 109 | Setscrew              | # (M4X6L)   | 4    |
| 75  | Large bevel gear             | D07-16      | 1    |     |                       |             |      |
| 76  | Small bevel gear             | D07-18      | 1    |     |                       |             |      |
| 77  | Nut                          | D07-21      | 1    |     |                       |             |      |
| 78  | Washer                       | D07-20      | 1    |     |                       |             |      |
| 79  | Cam followers                | # (CFH10)   | 1    |     |                       |             |      |
| 80  | Lower blade pad              | D05-08 (R6) | 1    |     |                       |             |      |
| 81  | Left fastening plate         | D06-01      | 1    |     |                       |             |      |
| 82  | Setscrew                     | # (M3X6L)   | 4    |     |                       |             |      |
| 83  | Cam washer                   | D06-16      | 1    |     |                       |             |      |
| 84  | Cam baseboard                | D06-03      | 1    |     |                       |             |      |
| 85  | Left outer plate             | D06-04      | 1    |     |                       |             |      |
| 86  | Setscrew                     | # (M3X10L)  | 4    |     |                       |             |      |
| 87  | Return spring                | D06-10-1    | 1    |     |                       |             |      |
| 88  | Baseboard                    | D06-05      | 1    |     |                       |             |      |
| 89  | Right outer plate            | D06-04      | 1    |     |                       |             |      |
| 90  | Locking handle               | D06-15      | 1    |     |                       |             |      |
| 91  | Nut                          | # (M6)      | 1    |     |                       |             |      |
| 92  | Cam shaft                    | D06-09      | 1    |     |                       |             |      |
| 93  | Push plate                   | D06-12      | 1    |     |                       |             |      |
| 94  | Feed base                    | D06-11      | 1    |     |                       |             |      |
| 95  | Positioning plate            | D06-14      | 1    |     |                       |             |      |
| 96  | Slideway                     | D06-17      | 2    |     |                       |             |      |
| 97  | Feed shaft                   | D06-13      | 1    |     |                       |             |      |
| 98  | Nut                          | # (M6)      | 1    |     |                       |             |      |
| 99  | Feed knob                    | D06-08      | 1    |     |                       |             |      |
| 100 | Steel ball                   | # (Ø3)      | 4    |     |                       |             |      |
| 101 | Spring                       | MP-19       | 4    |     |                       |             |      |
| 102 | Right fastening plate        | D06-02      | 1    |     |                       |             |      |
| 103 | Shrink-ring                  | D06-07      | 2    |     |                       |             |      |

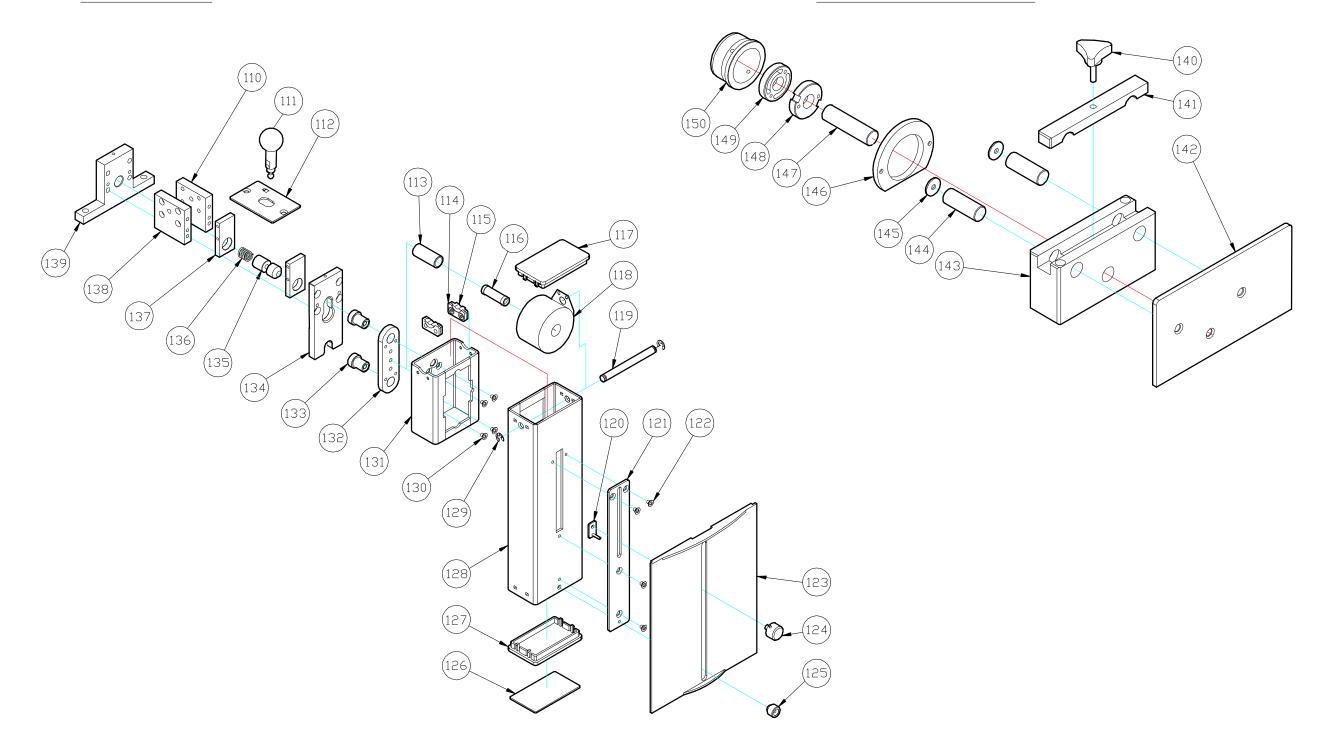
3 Parts of structure: Paper pressure system and Micro adjustment paper guide system

- After service will request below information:

  1. Model number
- 2. Machine serial number (marked behind on machine)
  3. Parts number, name and quantity

#### Paper pressure system

### Micro adjustment paper guide system



#### Parts list

| No. | Description               | Diag  | gram no.  | Q'ty | No. | Description            | Diagram no. | Q'ty |
|-----|---------------------------|-------|-----------|------|-----|------------------------|-------------|------|
| 110 | Right side plate          | D10-0 | )9        | 1    | 145 | Washer                 | D12-12      | 4    |
| 111 | Quick-release button      | D10-1 | 17        | 1    | 146 | Fixing seat            | D12-10      | 2    |
| 112 | Upper plate               | D10-1 | 10        | 1    | 147 | Micro adjustment screw | D12-06      | 2    |
| 113 | Sleeve                    | D10-2 | 21        | 1    | 148 | Front adjusting nut    | D12-07      | 2    |
| 114 | Fixing plate              | D10-2 | 24        | 2    | 149 | Back adjusting nut     | D12-08      | 2    |
| 115 | Silencing pad             | D10-2 | 25        | 2    | 150 | Scale ring             | D12-09      | 2    |
| 116 | Spring shaft              | D10-1 | 16        | 1    |     |                        |             |      |
| 117 | Upper cover               | D10-1 | 14        | 1    |     |                        |             |      |
| 118 | Constant force spring     | D10-1 | 19        | 1    |     |                        |             |      |
| 119 | Hanging spring shaft      | D10-1 | 15        | 1    |     |                        |             |      |
| 120 | Slide block               | D16-0 | )3        | 1    |     |                        |             |      |
| 121 | Slideway                  | D16-0 | )2        | 1    |     |                        |             |      |
| 122 | Setscrew                  | # (   | (M3X3.8L) | 4    |     |                        |             |      |
| 123 | Safety protector          | D16-0 | 01        | 1    |     |                        |             |      |
| 124 | adjust button             | D16-0 | 04        | 1    |     |                        |             |      |
| 125 | Location axle             | D16-0 | 06        | 1    |     |                        |             |      |
| 126 | Rubber gasket             | D10-2 | 23        | 1    |     |                        |             |      |
| 127 | Lower cover               | D10-  | 13        | 1    |     |                        |             |      |
| 128 | Outer cover               | D10-0 | 01        | 1    |     |                        |             |      |
| 129 | E-ring                    | #     | (E4)      | 2    |     |                        |             |      |
| 130 | Setscrew                  | #     | (M3X6L)   | 4    |     |                        |             |      |
| 131 | Inner cover               | D10-0 | )2        | 1    |     |                        |             |      |
| 132 | Space plate               | D10-0 | )6        | 1    |     |                        |             |      |
| 133 | Locating axle             | D10-2 | 20        | 2    |     |                        |             |      |
| 134 | Quick-release front plate | D10-0 | )4        | 1    |     |                        |             |      |
| 135 | Slide shaft               | D10-1 | 18        | 1    |     |                        |             |      |
| 136 | Locking spring            | D06-1 | 10-2      | 1    |     |                        |             |      |
| 137 | Inner plate               | D10-0 | )5        | 2    |     |                        |             |      |
| 138 | Left side plate           | D10-0 | )8        | 1    |     |                        |             |      |
| 139 | Main plate                | D10-0 | )3        | 1    |     |                        |             |      |
| 140 | Setscrew                  | D12-1 | 1.3       | 2    |     |                        |             |      |
| 141 | Pressplate                | D12-0 | )5        | 2    |     |                        |             |      |
| 142 | Panel board               | D12-0 | )2-2 (R)  | 1    |     |                        |             |      |
| 143 | Base                      | D12-0 | )1-1 (L)  | 1    |     |                        |             |      |
| 144 | Guideway shaft            | D12-1 |           | 4    |     |                        |             |      |

## 4 Screws and other standard hardware parts list

| No. | Hardware description    | Specifications | Q'ty | No. | Hardware description         | Specifications   | Q'ty |
|-----|-------------------------|----------------|------|-----|------------------------------|--|------|
| 1   | Hex flat head screws    | M3X10L         | 2    | 41  | Hex socket head screws       | M4X16L   | 2    |
| 2   | Hex button head screws  | M3X8L          | 4    |     | Washers                      | Ø4X2t  | 2    |
| 3   | Hex button head screws  | M4X8L          | 8    | 44  | Hex flat head screws         | M4X8L  | 12   |
| 4   | Hex socket head screws  | M4X6L          | 2    | 45  | Hex flat head screws         | M3X10L   | 4    |
| 5   | Hex socket head screws  | M4X6L          | 2    | 46  | Hex flat head screws         | M3X10L   | 4    |
| 6   | Hex socket head screws  | M4X6L          | 2    | 48  | Hex socket head screws       | M4X12L   | 2    |
| 7   | Hex flat head screws    | M4X8L          | 10   | 49  | Hex socket head screws       | M4X6L  | 4    |
| 9   | Hex socket head screws  | M4X8L          | 2    | 50  | Hex socket head screws       | M4X12L   | 2    |
| 11  | Hex socket head screws  | M4X8L          | 4    | 51  | Hex socket head screws       | M4X12L   | 2    |
| 12  | Cross round head screws | M3X16L         | 2    | 54  | Washers                      | Ø8x2t  | 4    |
| 13  | Hex socket head screws  | M4X6L          | 2    | 55  | Hex flat head screws         | M4X8L  | 10   |
| 14  | Hex socket head screws  | M6X20L         | 4    | 57  | Hex flat head screws         | M4X8L  | 4    |
|     | Washers                 | Ø6X2t          | 4    | 58  | Hex socket head screws       | M8X25L   | 4    |
|     | Hex nuts                | M6             | 4    |     | Washers                      | Ø8x2t  | 4    |
| 16  | Hex socket head screws  | M5X10L         | 8    |     | Hex nuts                     | M8   | 4    |
|     | Location pins           | Ø5x10L         | 2    | 59  | Cross round head screws      | <sup>13</sup> / <sub>16</sub> " X <sup>3</sup> / <sub>8</sub> "L | 2    |
| 17  | Cross round head screws | M4X8L          | 2    | 60  | Hex socket head screws       | M4X10L   | 2    |
| 18  | Hex socket head screws  | M4X8L          | 2    | 61  | Hex socket head screws       | M4X8L  | 2    |
| 19  | Cross round head screws | M4X8L          | 3    | 62  | Hex socket head screws       | M4X12L   | 1    |
| 20  | Cross round head screws | M4X8L          | 2    | 63  | Hex socket head screws       | M5X10L   | 1    |
| 21  | Hex socket head screws  | M4X12L         | 2    | 65  | Hex socket head screws       | M4X12L   | 2    |
| 22  | Hex socket head screws  | M4X12L         | 2    |     | Hex socket head screws       | M4X8L  | 2    |
| 25  | Hex socket head screws  | M5X25L         | 8    | 66  | Hex flat head screws         | M3X10L   | 4    |
| 27  | Hex socket head screws  | M5X12L         | 4    | 67  | Hex button head screws       | M4X8L  | 4    |
|     | Location pins           | Ø5X16L         | 2    | 70  | Angular contact ball bearing | 7206   | 1    |
| 28  | Hex socket head screws  | M5X12L         | 4    | 71  | Hex socket head screws       | M5X12L   | 6    |
|     | Location pins           | Ø5X16L         | 2    |     | Location pins                | Ø4X10L   | 2    |
| 29  | Hex socket head screws  | M5X10L         | 8    | 72  | Thrust bearing               | 51106  | 1    |
| 30  | Hex socket head screws  | M4X16L         | 4    | 74  | Hex socket head screws       | M3X8L  | 2    |
| 31  | Hex socket head screws  | M4X12L         | 6    | 75  | Hex headless screws          | M5X8L  | 2    |
| 32  | Hex socket head screws  | M4X20L         | 6    |     | Square keys                  | 5X20L  | 1    |
|     | Location pins           | Ø3X10L         | 6    | 76  | Hex socket head screws       | M5X8L  | 2    |
| 36  | Hex flat head screws    | M4X8L          | 4    |     | Square keys                  | 5X20L  | 1    |
| 37  | Hex flat head screws    | M4X8L          | 2    | 79  | Cam followers                | CFH10  | 1    |
| 38  | Cross round head screws | M3X20L         | 2    | 81  | Hex socket head screws       | M3X8L  | 2    |
|     | Hex nuts                | M3             | 2    |     | Location pins                | Ø3X10L   | 2    |
| 39  | Hex flat head screws    | M4X8L          | 2    | 85  | Hex socket head screws       | M3X12L   | 2    |
| 40  | Hex socket head screws  | M4X16L         | 2    |     | Hex socket head screws       | M4X8L  | 2    |
|     | Washers                 | Ø4X2t          | 2    |     | Hex socket head screws       | M4X12L   | 2    |

| No. | Hardware description   | Specifications | Q'ty | No. | Hardware description | Specifications | Q'ty |
|-----|------------------------|----------------|------|-----|----------------------|----------------|------|
| 85  | Location pins          | Ø3X12L         | 2    |     |                      |                |      |
|     | Location pins          | Ø5X12L         | 2    |     |                      |                |      |
| 89  | Hex socket head screws | M3X12L         | 2    |     |                      |                |      |
|     | Hex socket head screws | M4X8L          | 2    |     |                      |                |      |
|     | Hex socket head screws | M4X12L         | 2    |     |                      |                |      |
|     | Location pins          | Ø3X12L         | 2    |     |                      |                |      |
|     | Location pins          | Ø5X12L         | 2    |     |                      |                |      |
| 93  | Location pins          | Ø5X28L         | 2    |     |                      |                |      |
| 94  | Hex socket head screws | M4X28L         | 2    |     |                      |                |      |
|     | Location pins          | Ø5X10L         | 2    |     |                      |                |      |
| 95  | Steel ball             | Ø3             | 4    |     |                      |                |      |
| 102 | Hex socket head screws | M3X8L          | 2    |     |                      |                |      |
|     | Location pins          | Ø3X10L         | 2    |     |                      |                |      |
| 105 | Hex socket head screws | M4X10L         | 4    |     |                      |                |      |
| 106 | Hex flat head screws   | M4X10L         | 2    |     |                      |                |      |
| 108 | Hex flat head screws   | M4X6L          | 4    |     |                      |                |      |
|     | Location pins          | Ø4X6L          | 4    |     |                      |                |      |
| 110 | Hex socket head screws | M4X12L         | 2    |     |                      |                |      |
| 112 | Hex flat head screws   | M3X6L          | 2    |     |                      |                |      |
| 114 | Hex flat head screws   | M3X5.5L        | 4    |     |                      |                |      |
| 118 | Hex flat head screws   | M4X34L         | 1    |     |                      |                |      |
| 119 | E-ring                 | Ø4             | 2    |     |                      |                |      |
| 121 | Hex flat head screws   | M3X3.8L        | 4    |     |                      |                |      |
| 132 | Hex flat head screws   | M3X6L          | 4    |     |                      |                |      |
| 133 | Hex flat head screws   | M4X10L         | 2    |     |                      |                |      |
| 134 | Hex socket head screws | M4X8L          | 4    |     |                      |                |      |
| 137 | Hex socket head screws | M3X8L          | 8    |     |                      |                |      |
| 138 | Hex socket head screws | M4X12L         | 2    |     |                      |                |      |
|     | Hex socket head screws | M4X29L         | 1    |     |                      |                |      |
| 139 | Hex socket head screws | M5X16L         | 2    |     |                      |                |      |
| 142 | Hex flat head screws   | M4X10L         | 6    |     |                      |                |      |
| 143 | Hex socket head screws | M4X50L         | 4    |     |                      |                |      |
| 146 | Hex socket head screws | M3X8L          | 4    |     |                      |                |      |
| 149 | Hex socket head screws | M3X12L         | 4    |     |                      |                |      |
| 150 | Hex headless screws    | M3X6L          | 4    |     |                      |                |      |
|     |                        |                |      |     |                      |                |      |
|     |                        |                |      |     |                      |                |      |
|     |                        |                |      |     |                      |                |      |
|     |                        |                |      |     |                      |                |      |

## **SPECIFICATIONS**

| Item No.         | AD-7                           |         |          |          |        |      |  |  |  |
|------------------|--------------------------------|---------|----------|----------|--------|------|--|--|--|
| Seven Kinds      | Radius                         | 1/8"    | 1/4"     | 3/8"     | 1/2"   | 5/8" |  |  |  |
| of Blades        | Half Moon                      | diamete | r 13/16" | Straight | length | 5/8" |  |  |  |
| Cutting Capacity | 27.56" ( 700 sheets )          |         |          |          |        |      |  |  |  |
| Cutting Speed    | 46 rpm                         |         |          |          |        |      |  |  |  |
| Dimensions       | 24.6"(W) X 12.6"(D) X 17.5"(H) |         |          |          |        |      |  |  |  |
| Weight / Volumn  | 110 lbs /                      | 3.14 Cb | Ft       |          |        |      |  |  |  |
| Power            | 110vac Single-Phase (50~60Hz)  |         |          |          |        |      |  |  |  |
| Motor            | 200 W                          |         |          |          |        |      |  |  |  |