

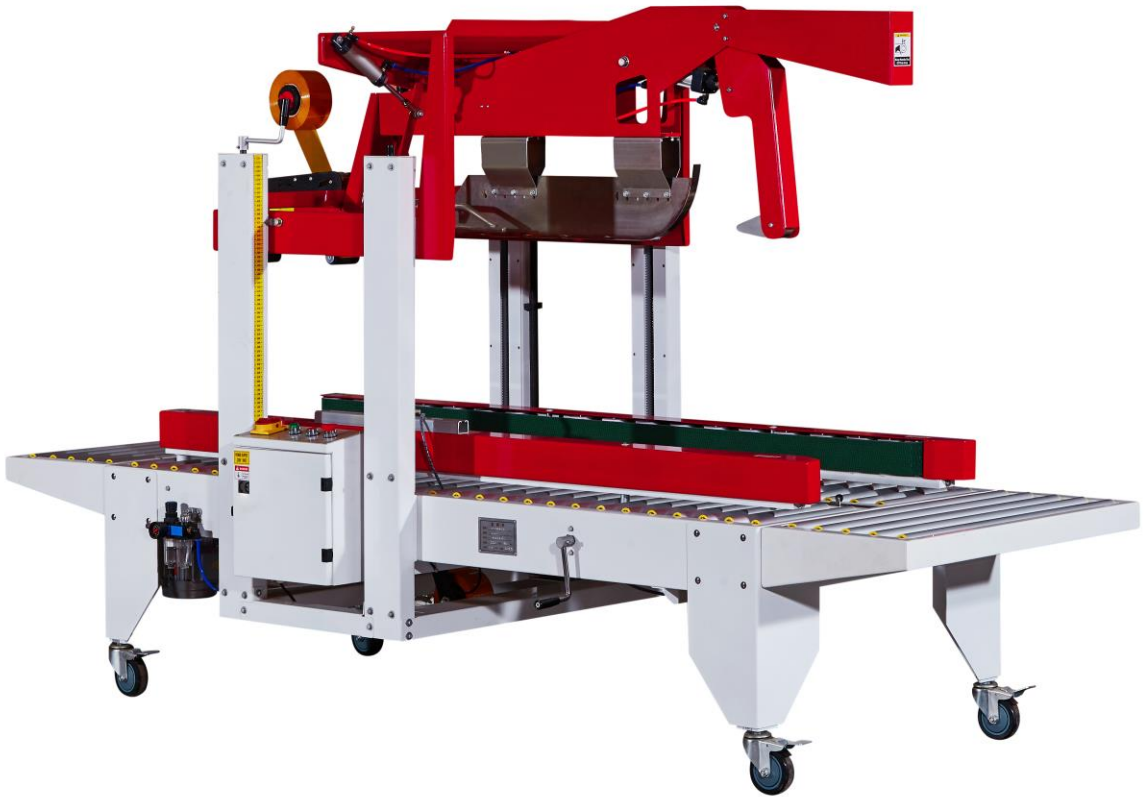


**Cleveland Equipment**

# **CE-558FD**

**Semi-Automatic Flap Folding Carton Sealer**

## **Operator's Manual**



**866-888-6327**

support@clevelandequipment.com

[www.clevelandequipment.com](http://www.clevelandequipment.com)



**Table of Contents**

- General Safety Rules ..... 3
- 1. Machine features:..... 4
- 2. Basic structure ..... 5
  - \_2.1 Outside figure ..... 5
  - \_2.2 Main Structure ..... 5
- 3. Adjusting parts introduction ..... 7
  - \_3.1 Machine table height adjustment..... 7
  - \_3.2 Sealing width adjustment ..... 8
  - \_3.3 Sealing height adjustment ..... 9
  - \_3.4 Side compression roller adjustment ..... 10
  - \_3.5 Swing pole position adjustment ..... 11
  - \_3.6 Tape installation and threading route: ..... 12
  - \_3.7 Roller tension adjustment: ..... 13
  - \_3.8 Tape adjustment on tape head central position ..... 14
- 4. Operation and usage..... 15
- 5. Repair and maintenance ..... 18
- 6. Box Restrictions ..... 19
- 7. Exploded views ..... 20
- 8. Electric control ..... 33
- 10.Operation instruction..... 34
  - \_10.1. Operation order ..... 34
  - \_10.2. Air control examination and repair..... 36
  - \_10.3. Electric control examination and repair ..... 36
- 11. General trouble shooting ..... 37



## General Safety Rules

1. Read and understand the entire instruction manual before operating the machine.
2. When operating the machine, operator should avoid standing behind machine near flap folding arm.
3. Maintenance people must read and understand the instruction manual before repairing or performing any maintenance on the machine.
4. When installing & uninstalling the tape or performing normal maintenance or repair, please be sure to cut off power supply and air supply to be safe.

## WARNING LABELS

ELECTRICAL SHOCK



CLAMP INJURY





## 1. Machine features:

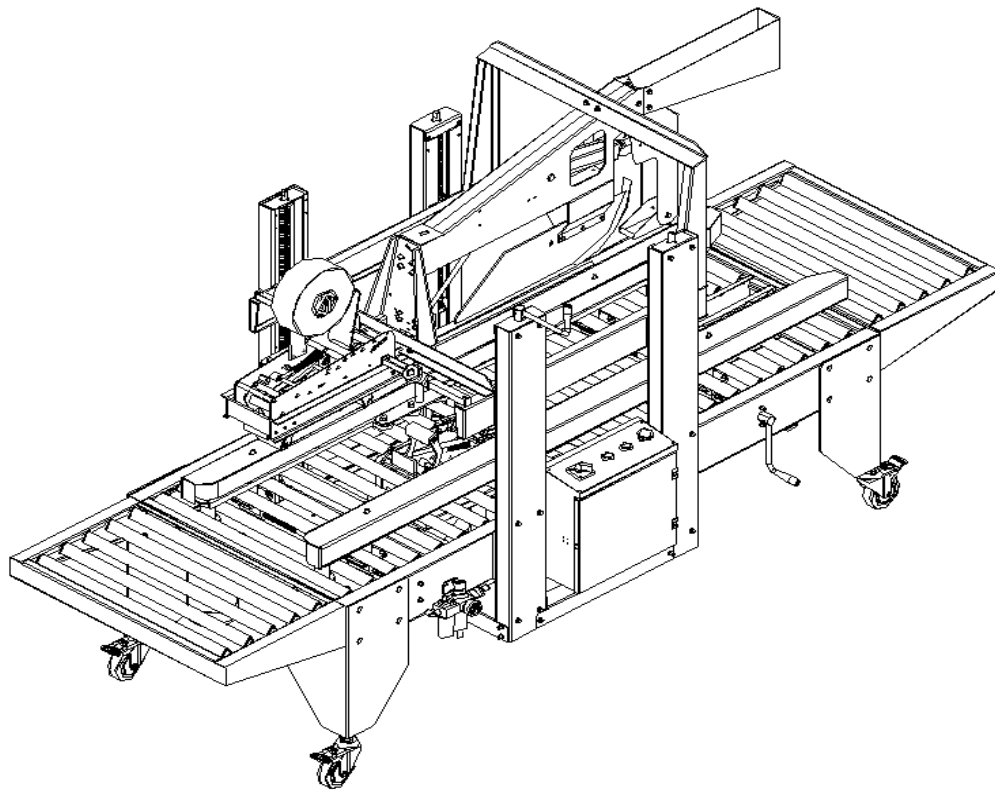
The machine is a semi-automatic carton sealer series with flaps folding function. It is a ideal carton sealer that is easy to operate, economical and efficient. The features are below:

Sealing width:	5.9" – 19.685" (150mm - 500mm)
Sealing height:	5.9" – 19.685" (150mm - 500mm)
Sealing length:	7.87" – 23.62" (200mm-600mm)
Table height:	22.8346" – 29.5276" (580mm - 750mm)
Dimension:	70.86"L (1800mm) L x 36.22" (920mm) W x 51.18" (1300mm) H
Sealing speed:	59 ft/min (18m/min)
Power supply:	110V 50HZ
Air pressure:	5.5~6kg/cm <sup>2</sup>
Power:	400W
Net weight:	542 lbs (246 KG)



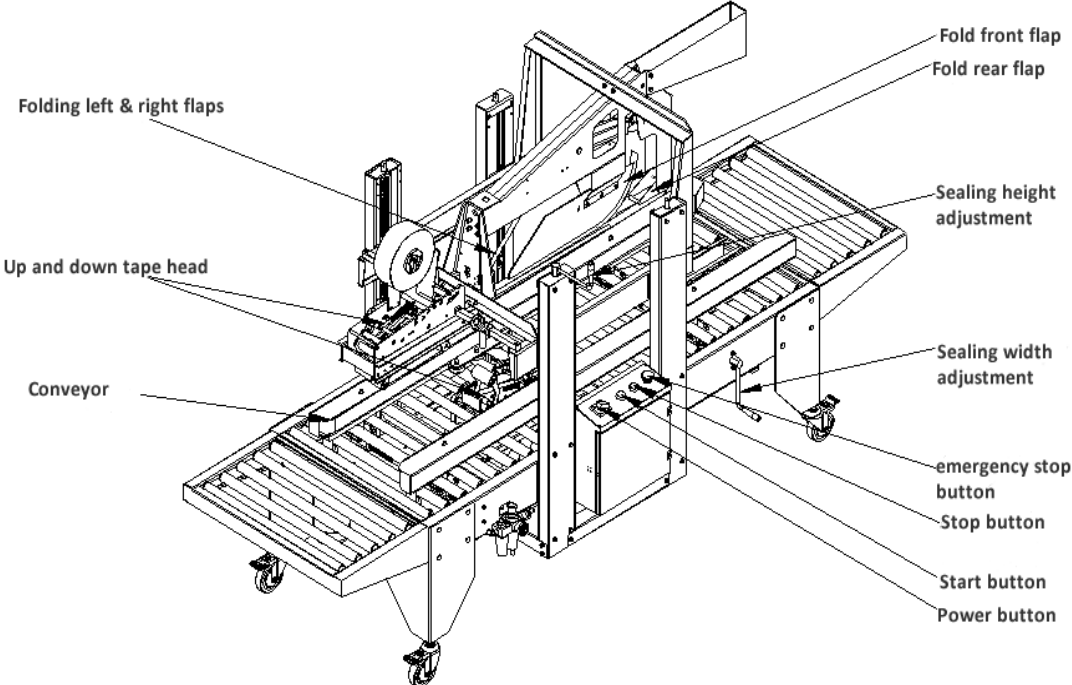
## 2. Basic structure

### 2.1 Outside figure





## 2.2 Main Structure



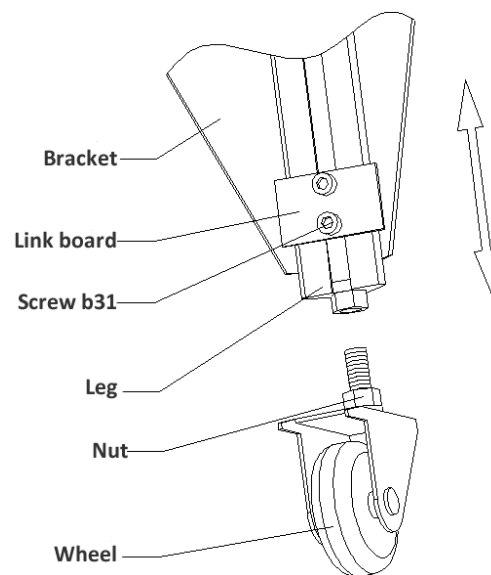


### 3. Adjusting parts introduction

#### 3.1 Machine table height adjustment

Loosen screw b31, slide leg up and down to adjust table height.(picture 3)

Pic 3

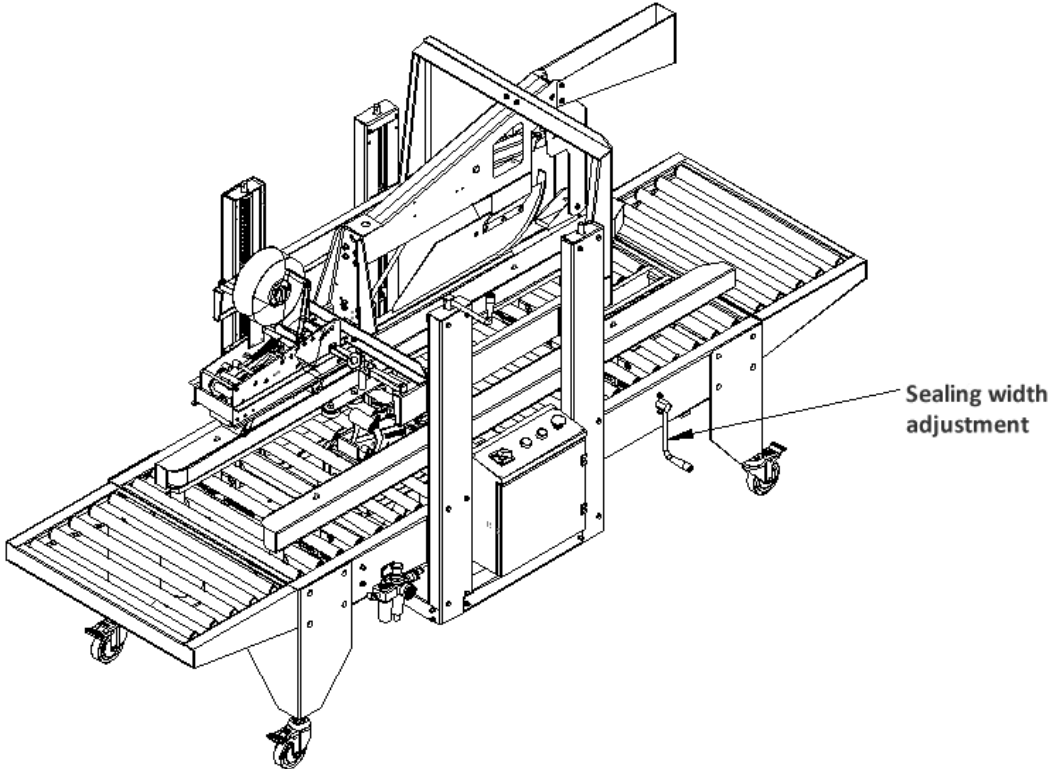




### 3.2 Sealing width adjustment

Rotate the handle to adjust sealing width. Rotating clockwise narrows the sealing width and rotating anti-clockwise widens the sealing width. (Picture 4)

Pic 4

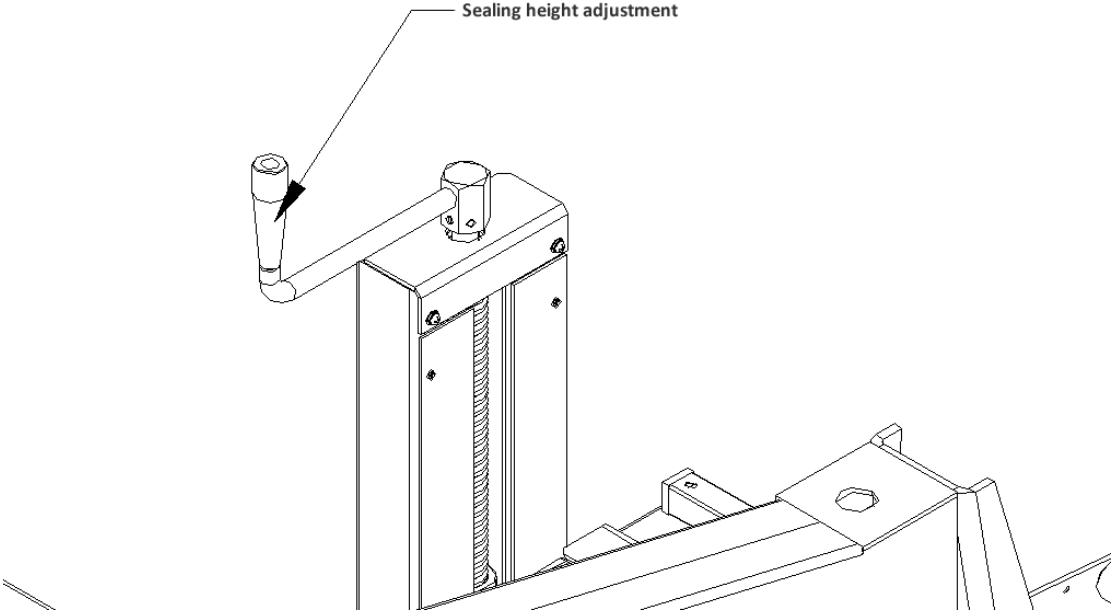




### 3.3 Sealing height adjustment

Rotate the handle to adjust sealing height. Rotate clockwise (looking down) to increase sealing height, rotate anti-clockwise to lower the sealing height. (Picture 5)

Pic 5

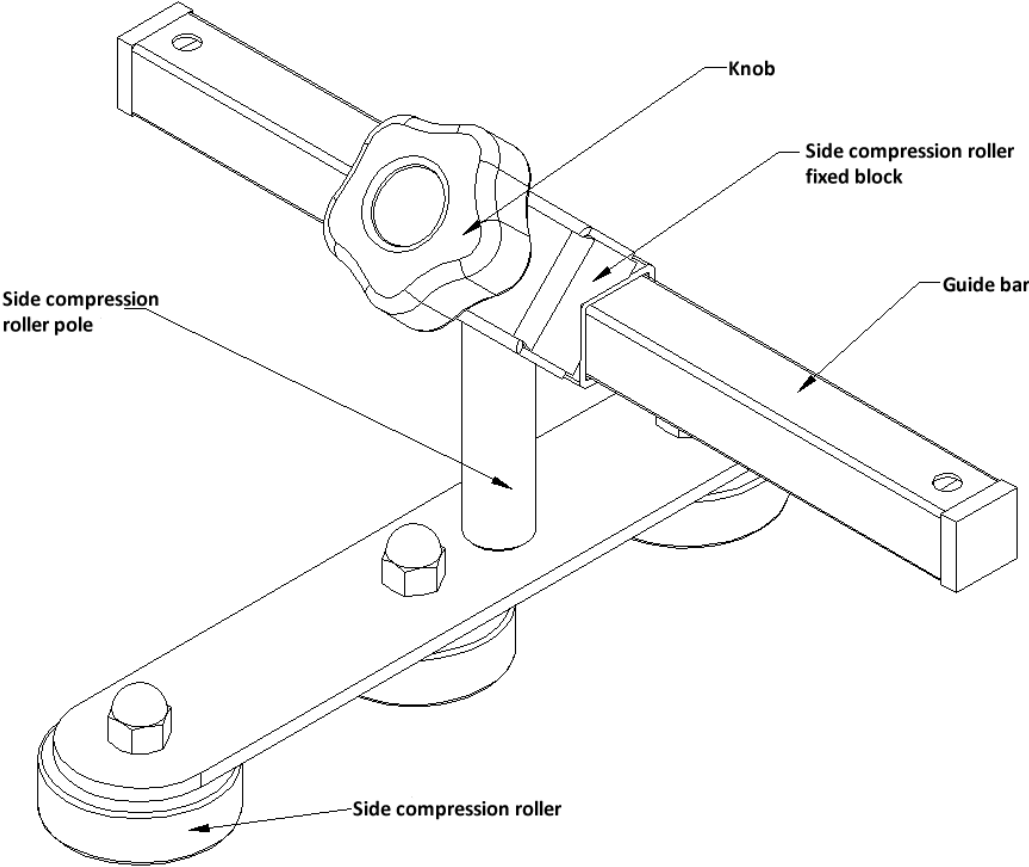




**3.4 Side compression roller adjustment (Picture 6)**

Loosen knob to move side compression roller.

Pic 6

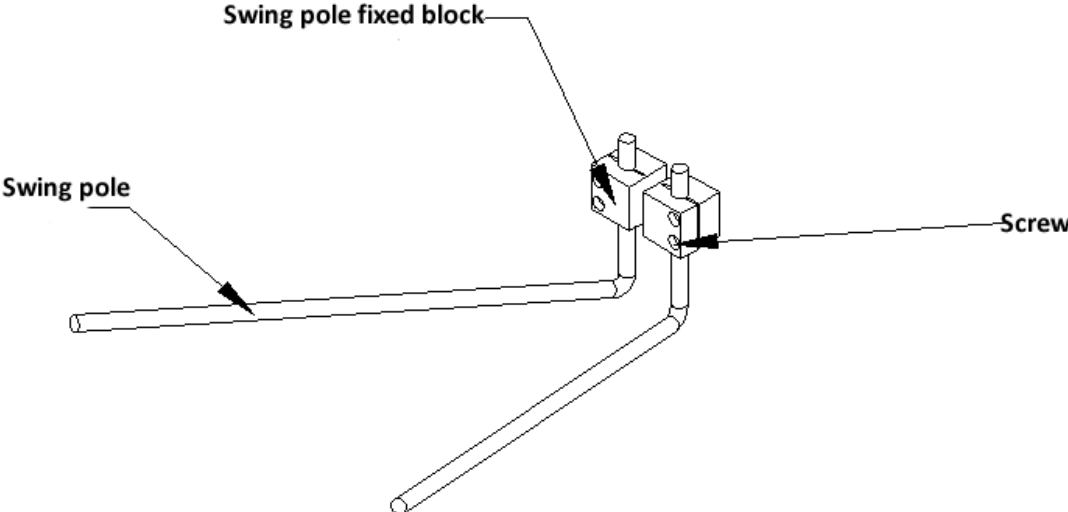




**3.5 Swing pole position adjustment**

Loosen screw and turn the swing pole to suitable position (Picture 7)

Pic 7

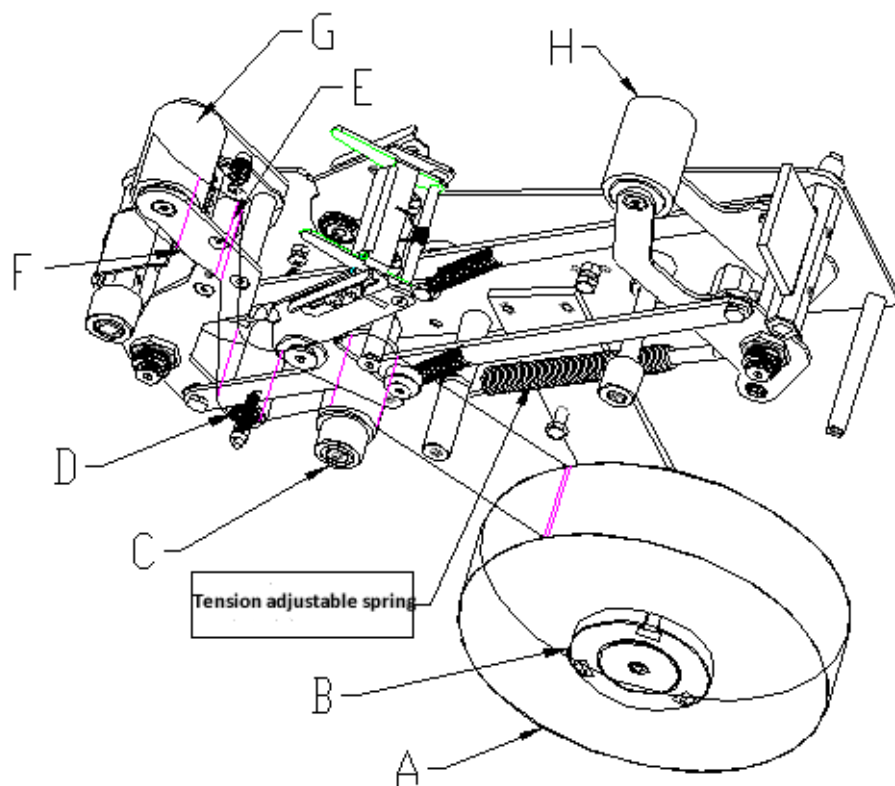




### **3.6 Tape installation and threading route:**

1. Put tape roll A onto the tape seat B.
2. Pull out tape, pass it through to roller C, then pass through idler D.
3. Pass through embossed roller E, finally pass Left & right fixed plate F, pass through rubber roller G, ( refer to below picture)

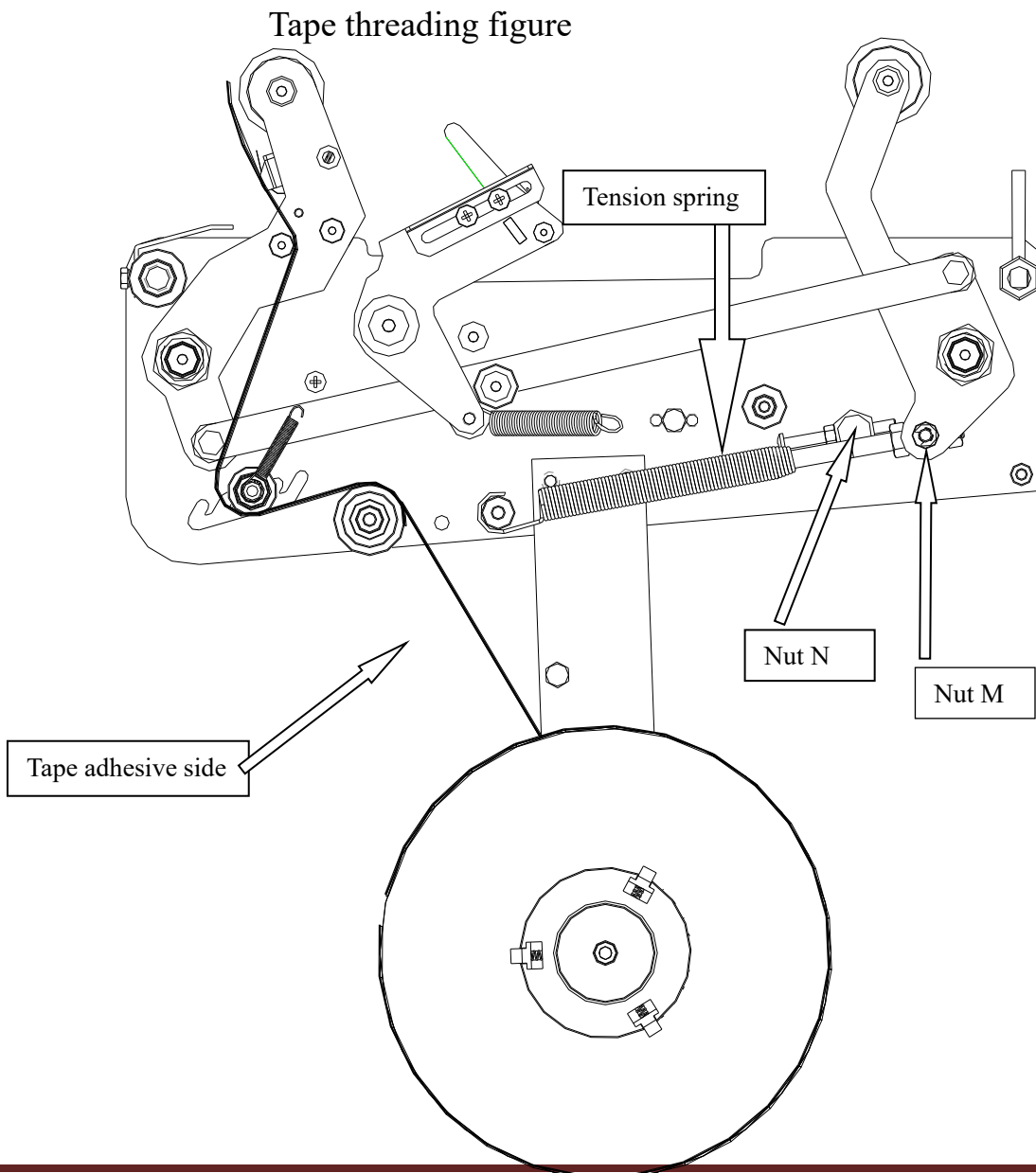
Note: During whole tape threading, tape adhesive side should be towards outside.





### 3.7 Roller tension adjustment:

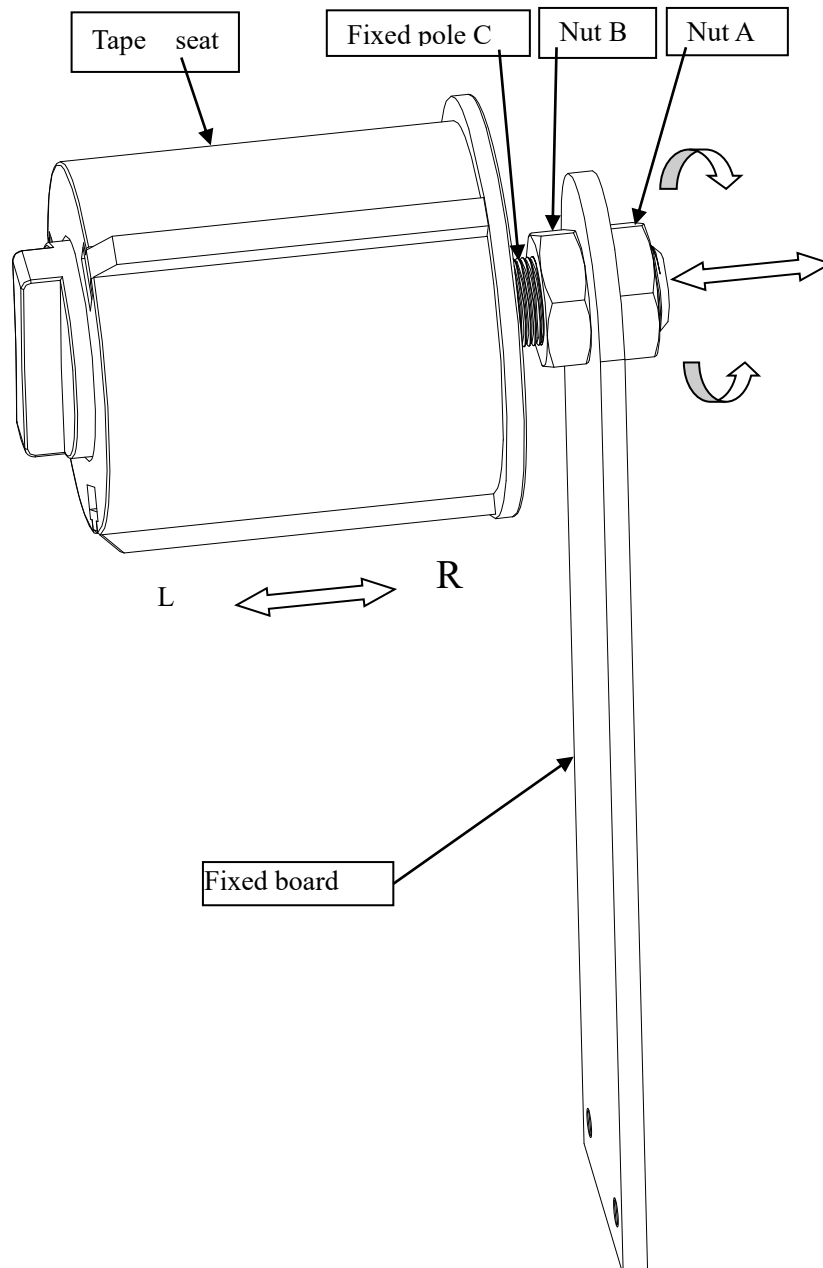
1. Purpose: To make tape smooth sealing without wrinkle.
2. Principle: Make tape speed match belt running speed, can be adjusted according to carton box material, hardness.
3. Method: First loosen nut N, then screw in (Increase tension of rubber roller G and H) or screw out (decrease tension of rubber roller G and H) nut M to suitable position, finally lock nut N.





### 3.8 Tape adjustment on tape head central position

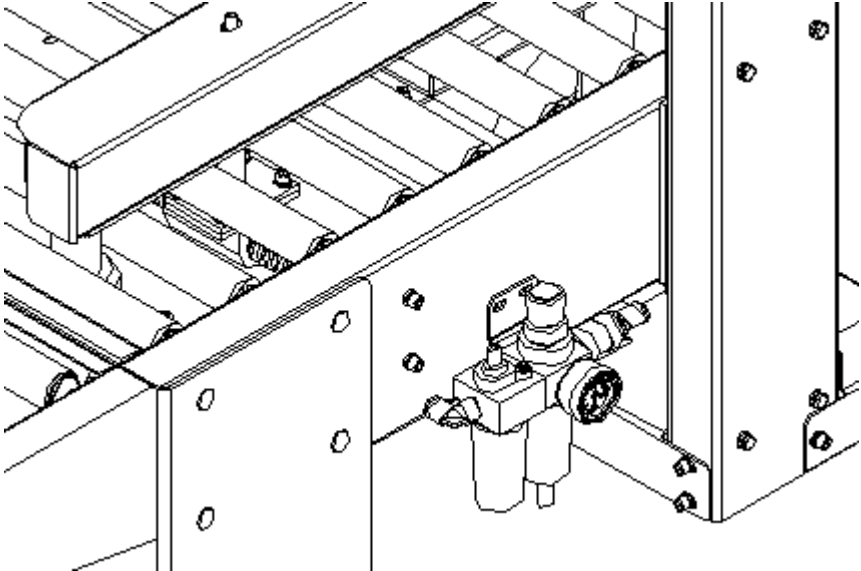
1. Please use OPP adhesive tape
2. While tape deviate box central position could be adjusted by turn nut A, nut B clockwise or anti clockwise.
3. Adjustment way: ( refer to below picture)
4. Move leftward: First screw out nut A, then move tape seat fixed pole C leftward, finally screw out nut B and lock.
5. Move rightward: First screw in nut B, then move tape seat fixed pole C rightward, finally screw in nut A to lock.



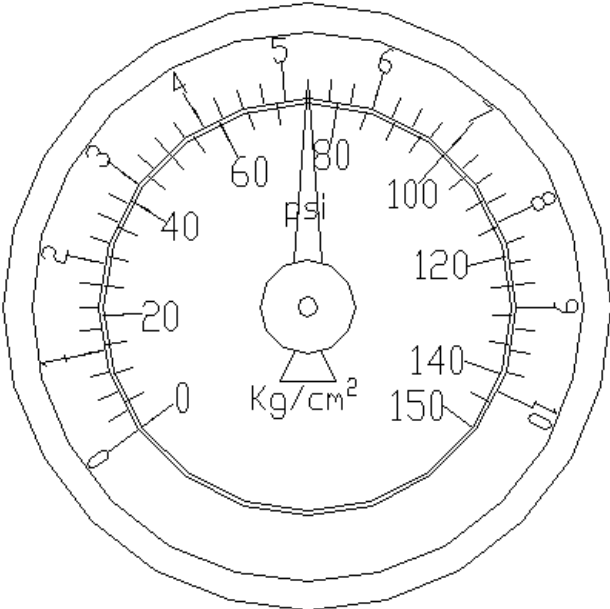


**4. Operation and usage**

**4.1 Connect air pipe**

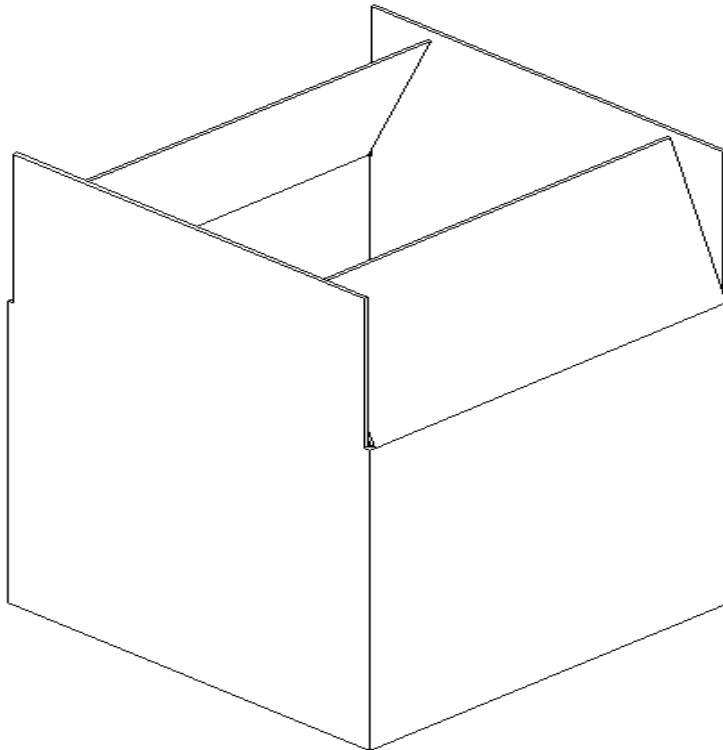


**4.2 Air pressure adjustment**  
Adjust air pressure as below picture





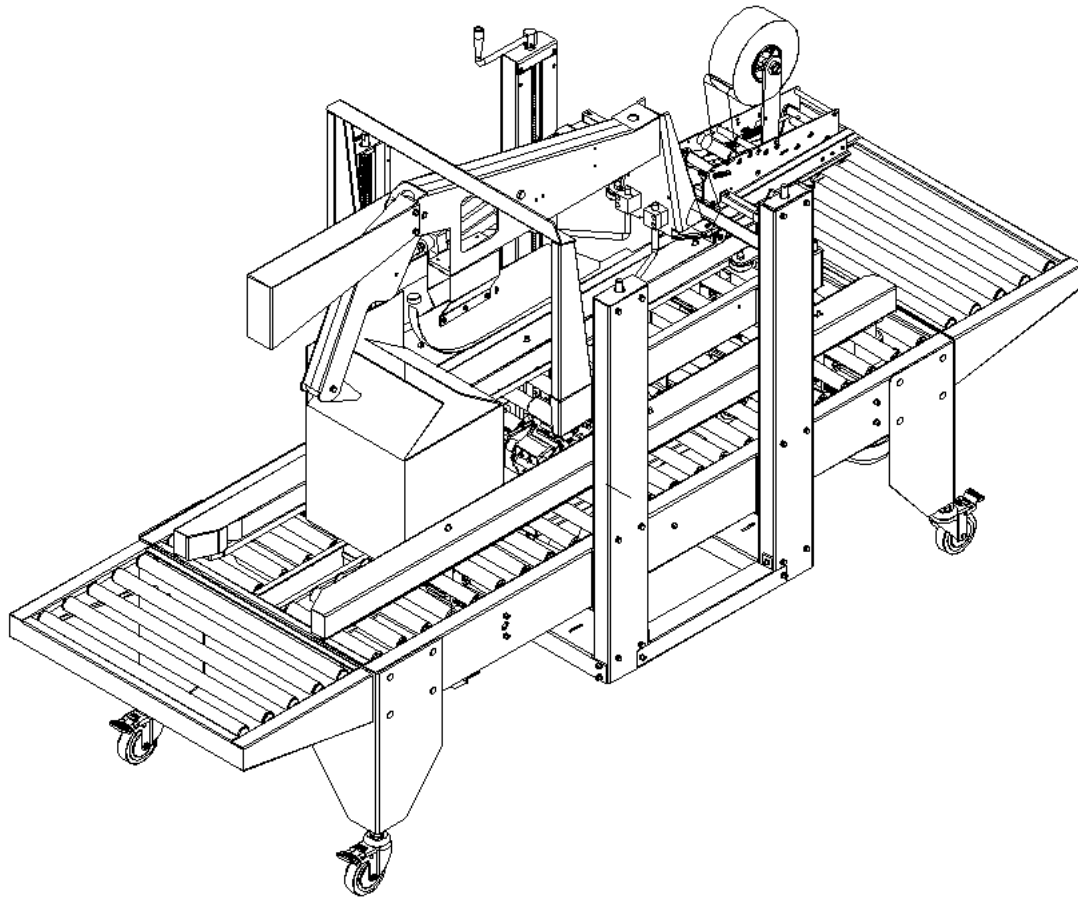
- 4.3 Check whether the oil-water segregator has water inside, if yes, drop water out, check whether oil is enough, if not add the oil.
- 4.4 Adjust sealing height and width
- 4.5 Adjust compression roller position
- 4.6 Adjust sway pole to suitable position
- 4.7 Press button "ON" connect with power, machine starts work.
- 4.8 Folding the carton box bottom flaps by hand, after loading cargo, then fold front and rear flaps a little inward, the push the carton box into machine, carton box clamped by belts conveyor and finish sealing.





4.9 Flaps folding order: front, rear, left and right flaps.

4.10 Press down "OFF" button, cut off power supply, machine stop running.





## **5. Repair and maintenance**

5.1 Before performing ANY maintenance or adjustments on machine, cut off the power supply and air supply.

5.2 Check whether the oil of oil-water segregator is enough, and add it timely, take note that should use special air pressure oil (transparent bottle oil), do not use other oil

5.3 Check the water filter of oil-water segregator, and drain water when needed.

5.4 Clean pneumatic cylinder shaft regularly to prevent dust from damaging the piston.

5.5 Reassemble components after maintenance ensuring that air connectors are secured properly and that there are no leaks.

5.6 Add oil to air cylinder shafts every 3 months to ensure smooth operation.

5.7 Grease drive chain every 3 months to ensure life of the drive chain and gears.

5.8 Keep machine clean and avoid moisture to prolong the machine's life.

5.9 Tape Head Cutting Blade should be clean and lubricated before usage.

5.10 You may find that the belts become a little tight after a few days of usage, this is normal.



## **6. Box Restrictions**

6.1 Plastic film coated boxes cannot be used.

6.2 Box should be kept dry (Wet boxes cannot be sealed)

6.3 Box surface should be clean of dust or garbage.

6.4 Distorted boxes cannot be used.

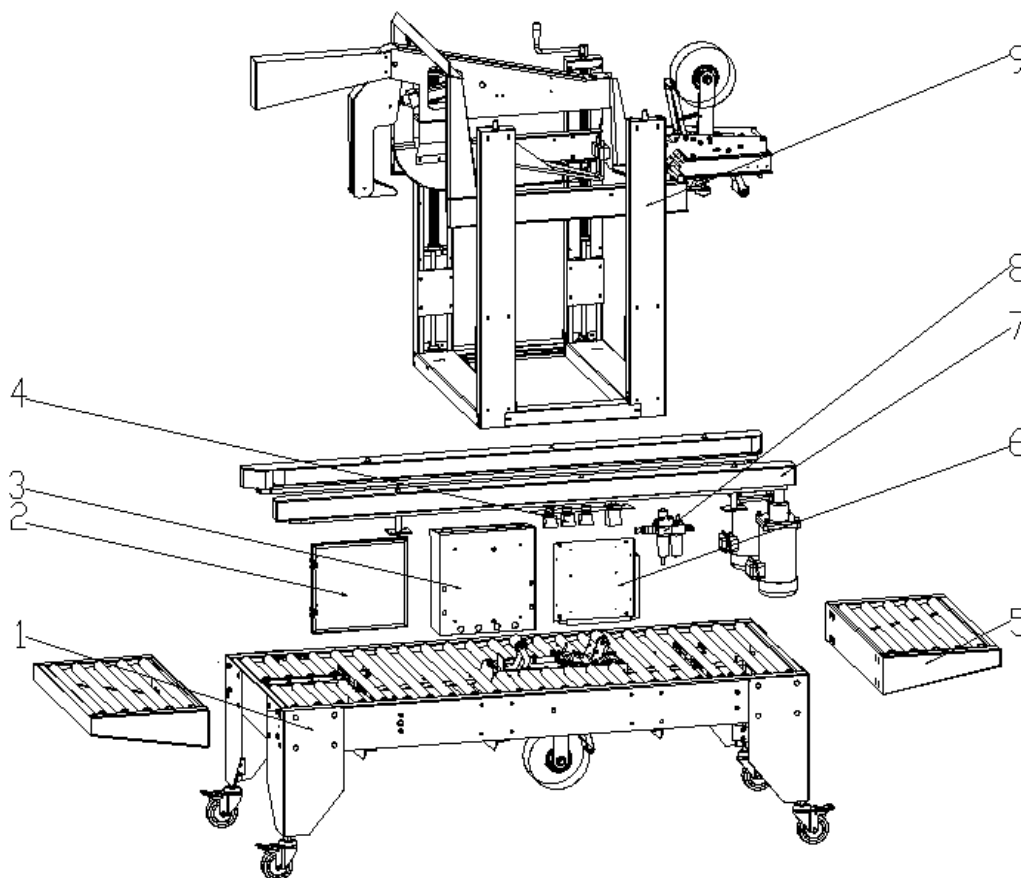
6.5 Inconsistent width and thickness tape cannot be used.

6.6 Use new quality tape to ensure best seal.



## 7. Exploded views

### 7.1 Exploded view

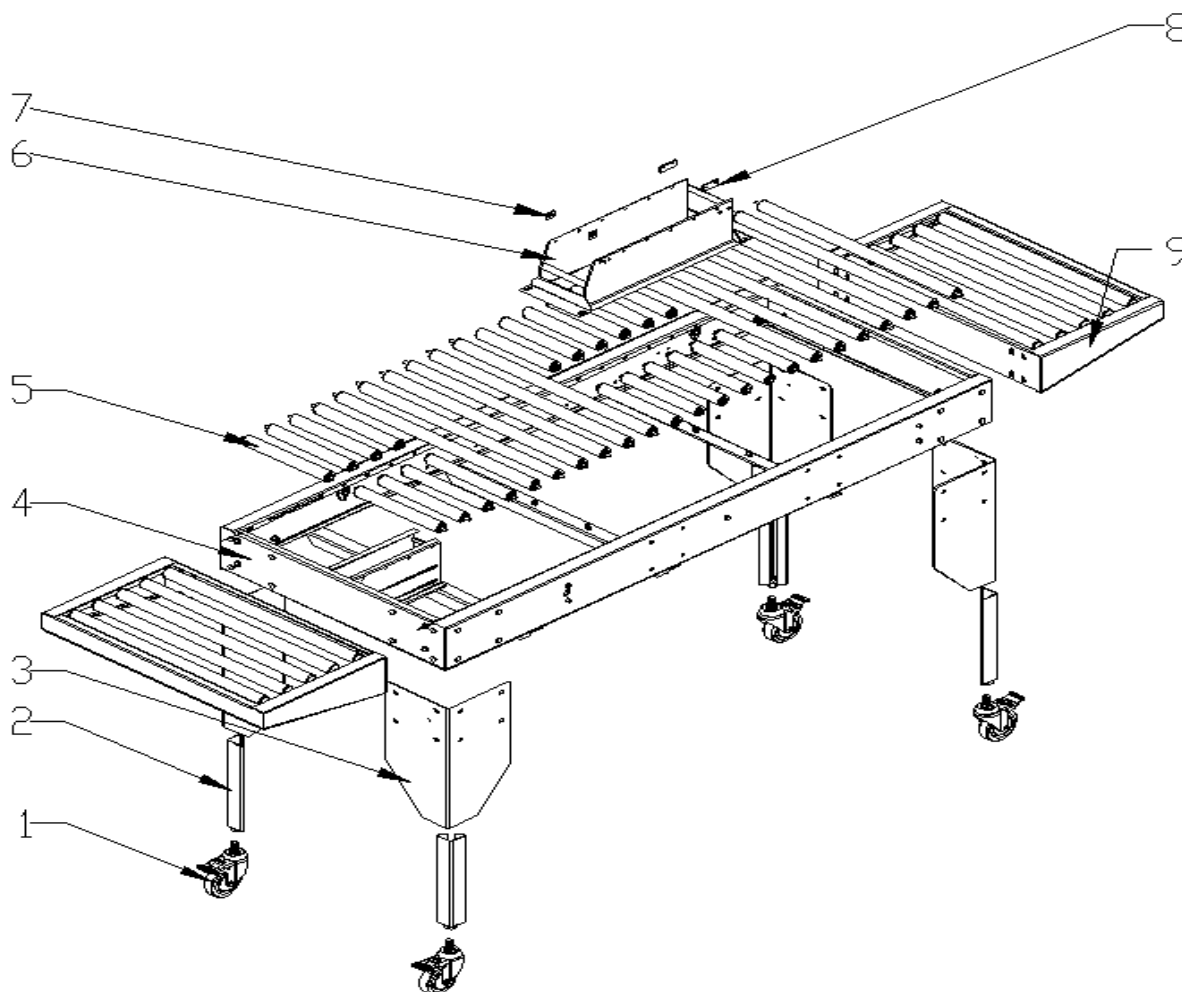


#### Spare parts list:

Item no	Part no	Name
1	XT9033-100-T	Main machine frame
2	XT558FD-1010505	Control box door
3	XT558FD-1010501	Electrical box
4	XT558FD-1010506	Electrical control panel
5	XT9033-120A	Feeding conveyor assembly
6	XT558FD-1010504	Electrical baseplate
7	XT558FD-111	Belt conveying unit
8		Air filter
9	XT558FD-201	Height Adjustment unit



7.2 Main machine frame exploded view

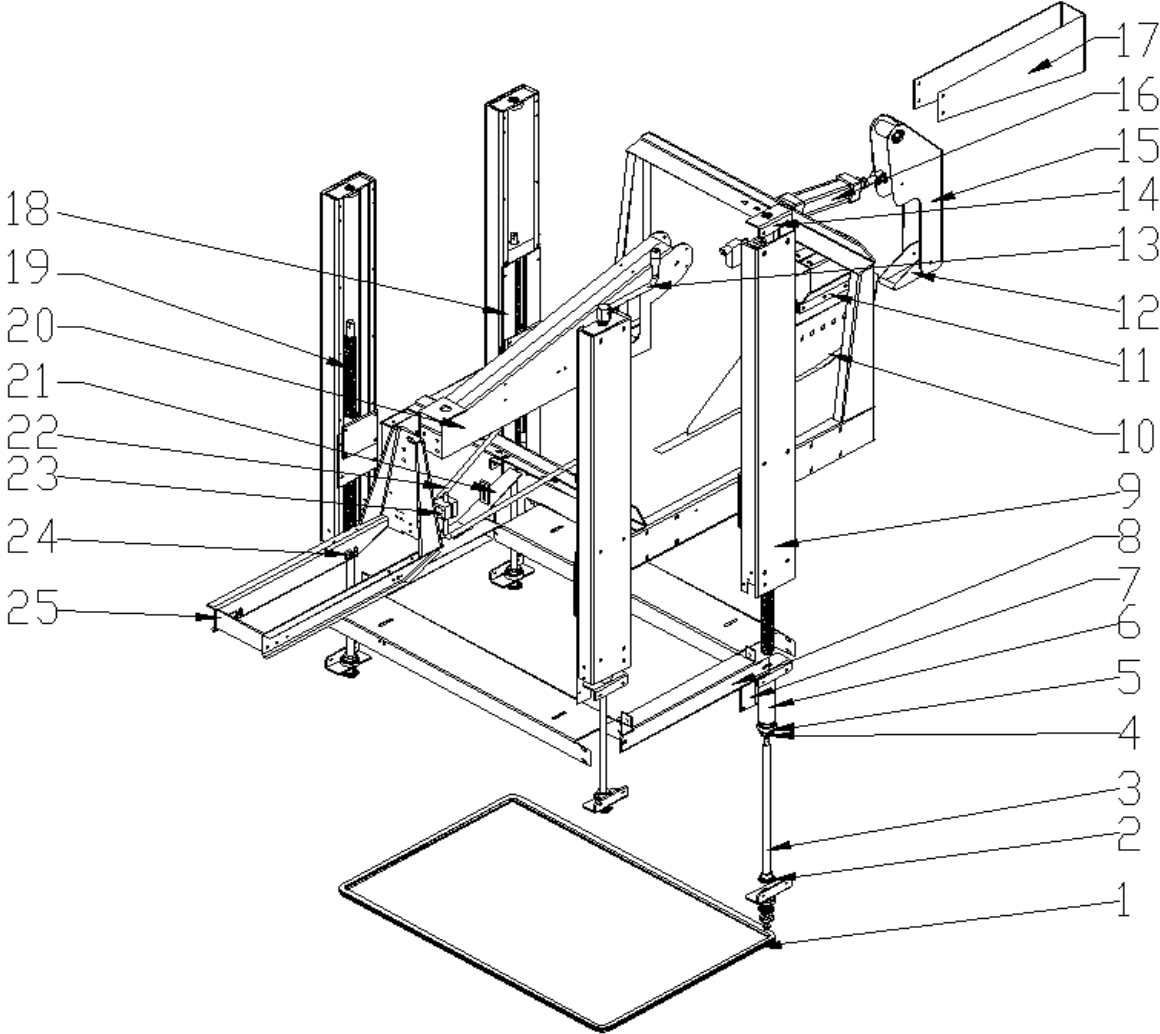


Spare parts list:

Item no	Part no	Name
1	XT9036-10100	Brake caster
2	XT9033-10801	Frame leg
3	XT558FD-10903	Leg Support Bracket
4	XT558FD-102	Machine frame base
5	XT9033-10501	Front short roller
6	XT558FD-103	Lower tape head compartment
7	XT9036-10-113	Lower tape head front fixed block
8	XT9036-10-113-2	Lower tape head rear fixed block
9	XT9033-120A	Infeed / Outfeed Roller Tray



7.3 Adjustable Height Unit exploded view



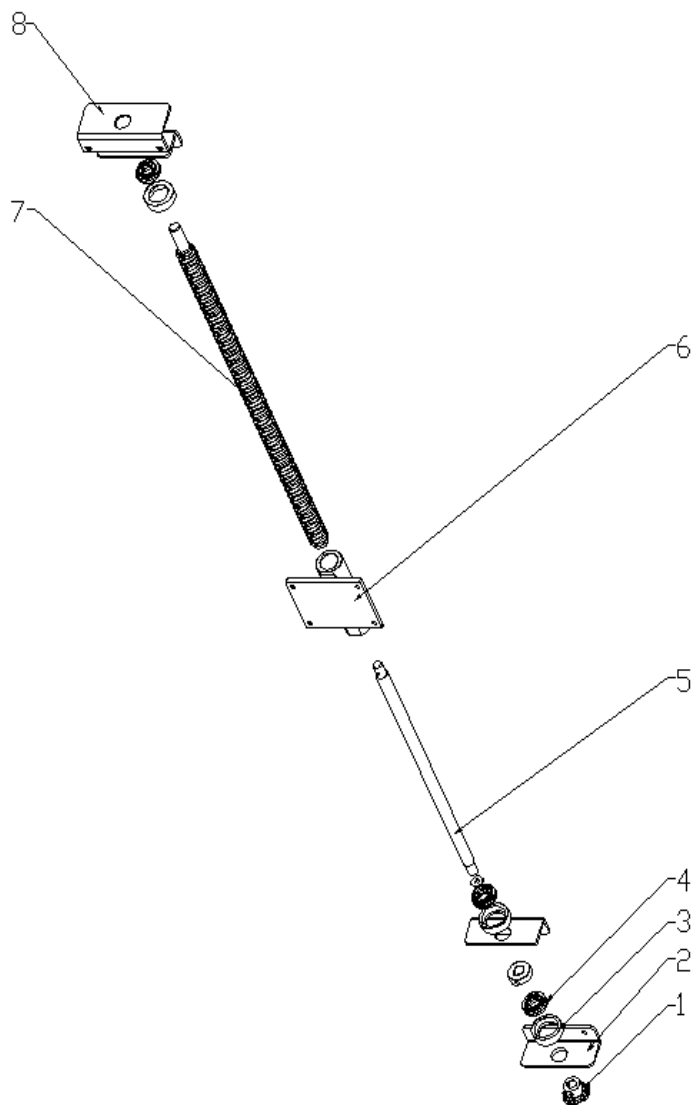


## Spare parts list:

Item no.	Part no.	Name	Item no.	Part no.	Name
1	XT9036-20-105-V2	Chain 06B ( 279 joints)	14	XT558FD-214	Post top cover plate
2	XT9036-30-107-v1	Post chain wheel 06B,Z=10	15	XT558FD-304hj	Swing arm welding assembly
3	XT9033-20902	Lifting polished rod	16	IC-40B100-CA	Cylinder
4	6002-2RS	Bearing	17	XT558FD-303	Protective cover
5	XT9033-20801	Bearing seat	18	XT558FD-220	Post side cover
6	XT558FD-20502	Lifting nut	19	XT558FD-20901	Lifting silk pole
7	XT558FD-20504	Lifting connecting board	20	XT558FD-301	Basal body welding assembly
8	XT558FD-218	Chain protective cover	21	XT558FD-21005	Carton box cover guide plate
9	XT558FD-200	Post assembly	22	XT9033-203-V1	Swing pole
10	XT558FD-306hj	Front flap folding board welding assembly	23	XT9033-202	Swing pole fixed block
11	XT9033-305	Connecting plate	24	XT9036-40-106	Upper tape head fixed block
12	XT558FD-307HJ	Rear flap folding unit	25	XT558FD-210	Upper tape head seat welding assembly
13	XT9036-20-105	Handle			



7.4 Lifting lead screw exploded view

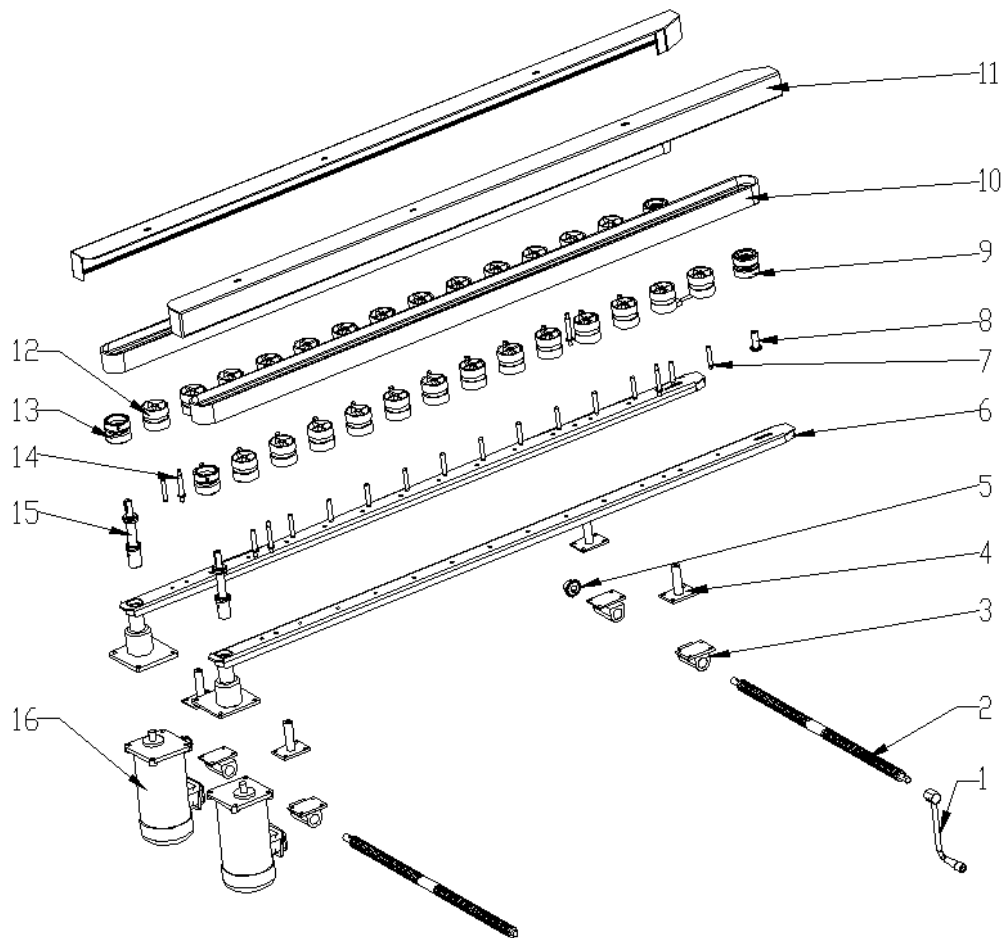


Spare Parts list:

Item no.	Part no.	Name	Item no.	Part no.	Name
1	XT9036-30-107-v1	Post chain wheel 06B,Z=10	5	XT9033-20902	Lifting polished rod
2	XT558FD-20802	Bearing seat angle iron	6	XT558FD-205	Lifting nut welding assembly
3	XT9033-20801	Bearing seat	7	XT9033-20901	Lead screw
4	6002-2RS	Bearing	8	XT558FD-214	Post cover



7.5 Belt conveyor structure exploded view

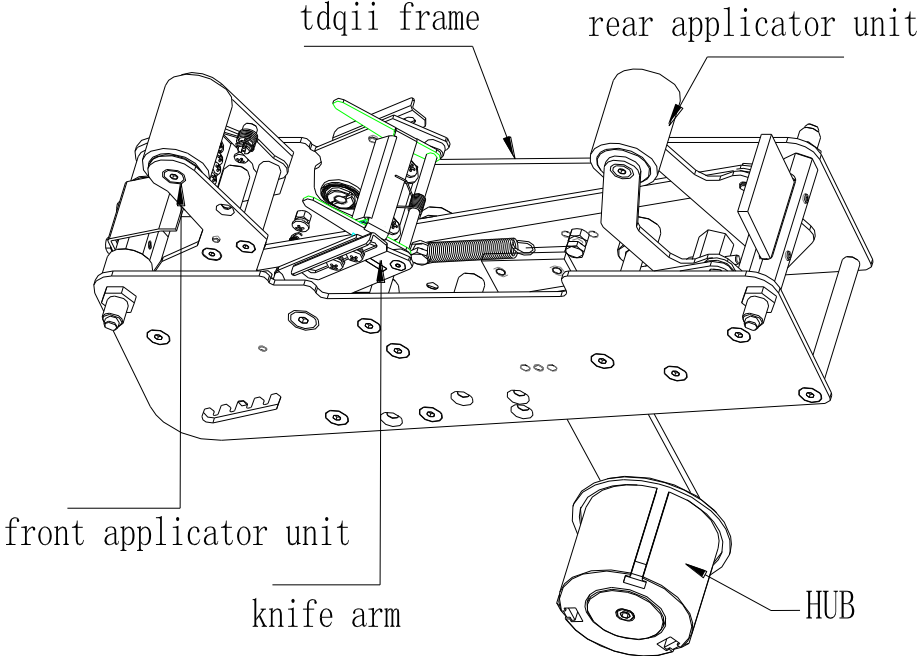


Spare Parts list:

Item no.	Part no.	Name	Item no.	Part no.	Name
1	XT9036-20-105	Handle	9	XT9036-20-123-75	Driven wheel
2	XT9033-10101-V1	Rear lead screw	10	XT558FD-10119-75	Anti-sliding belt
3	XT9033-115	Right-handed nut welding assembly	11	XT558FD-10109	Belt left cover
4	XT9033-114	Width adjustable connecting welding assembly	12	XT9036-20-133	Third wheel
5	XT9036-20-104-v1	Width adjustable chain wheel	13	XT9036-20-124	Driving wheel
6	XT558FD-11001	Belt seat	14	XT9033-11303-75	Third wheel shaft 2
7	XT9036-20-131-v1	Third wheel shaft 1	15	XT9033-10112-75	Motor connecting shaft
8	XT9036-20-122-75	Driven shaft	16	180w	Motor

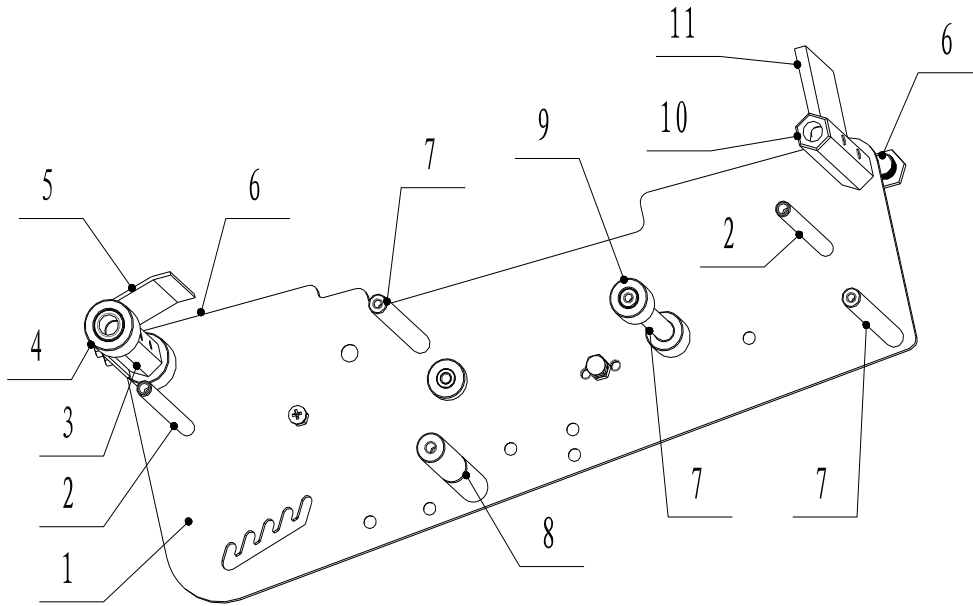


7.6 Tape head installation figure

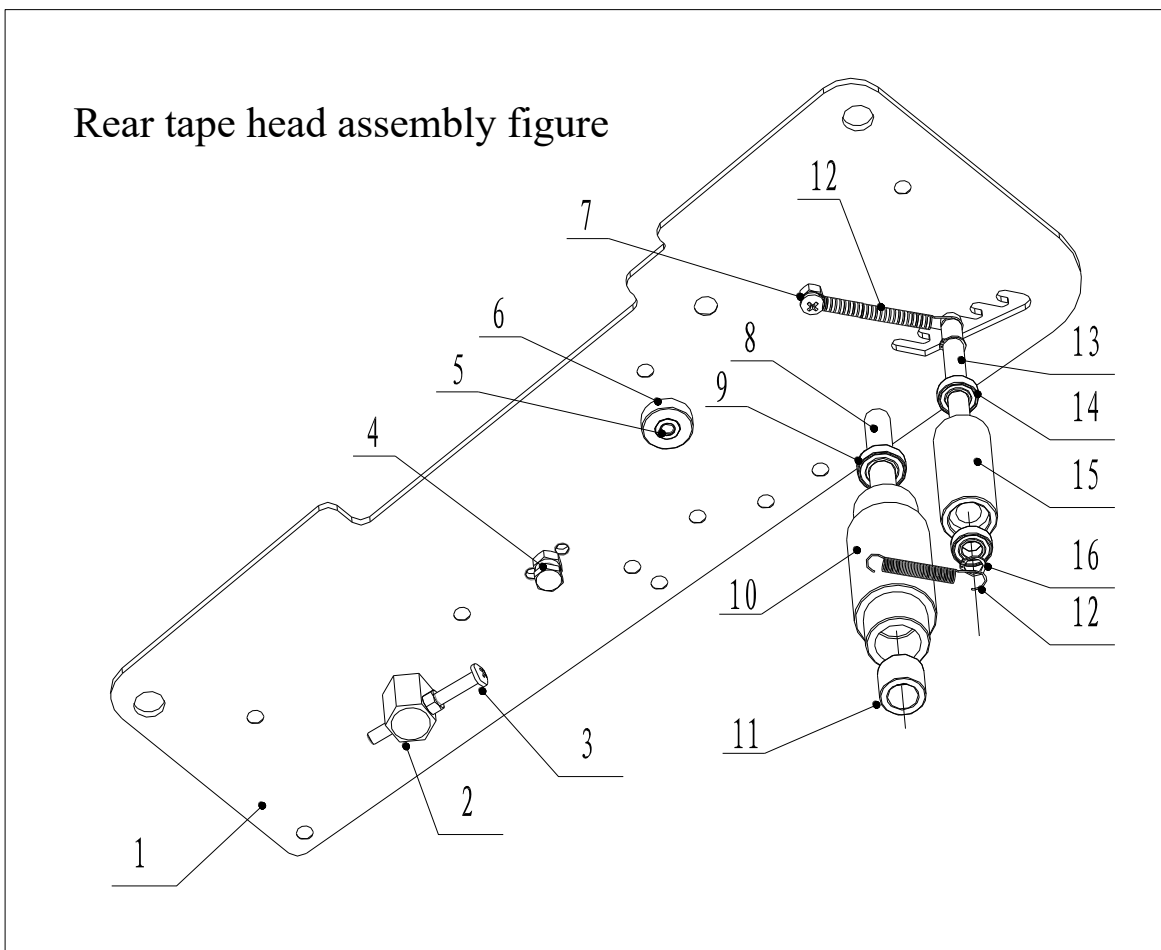




### Front tape head assembly figure



Item No.	Part no.	Name	Item no.	Part no.	Name
1	TDQII-101	L&R Wallboard	7	TDQII-102	Round support pillar
2	TDQII-117-02	Swing pole axis	8	TDQII-133	Spring support pillar
3	TDQII-106	Fixed pole	9	TDQII-156	Rear tape press bracket fender roller
4	TDQII-107	Swing pole noise elimination bush	10	TDQII-103	Brush support pillar
5	TDQII-108	Guide board	11	TDQII-104	Brush
6	TDQII-105	Brush support pillar locking screw			

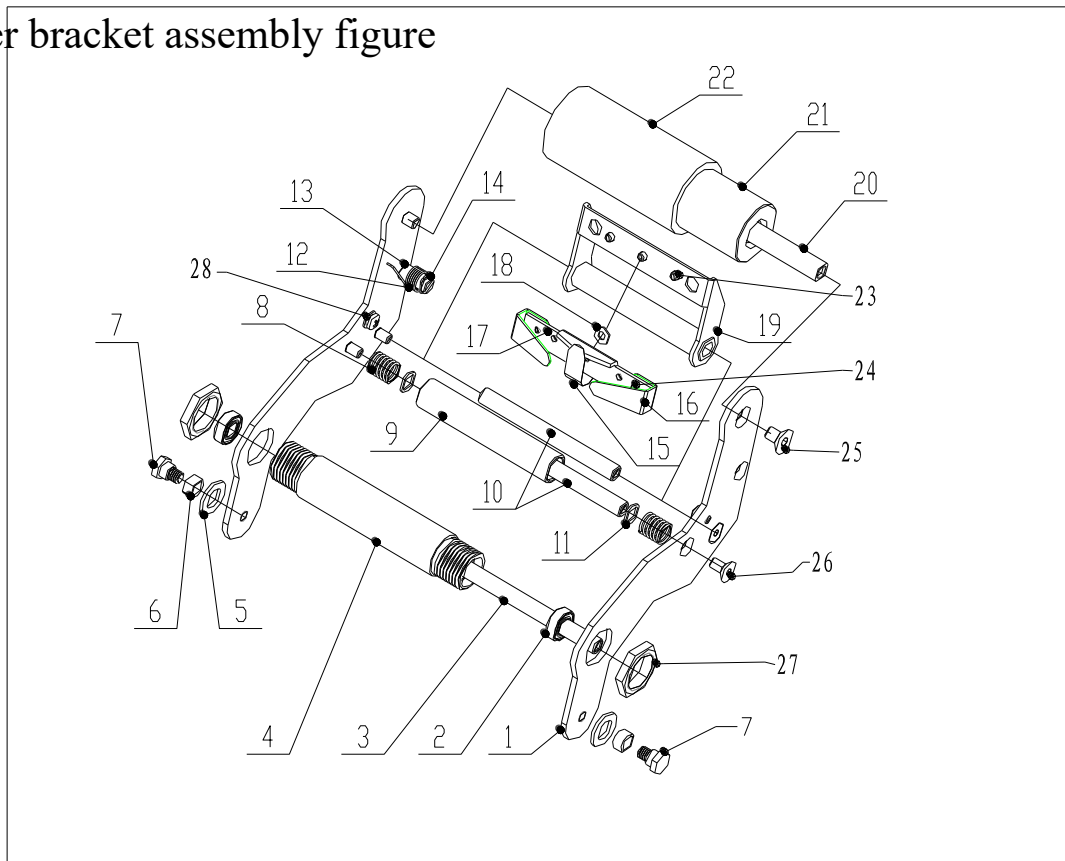


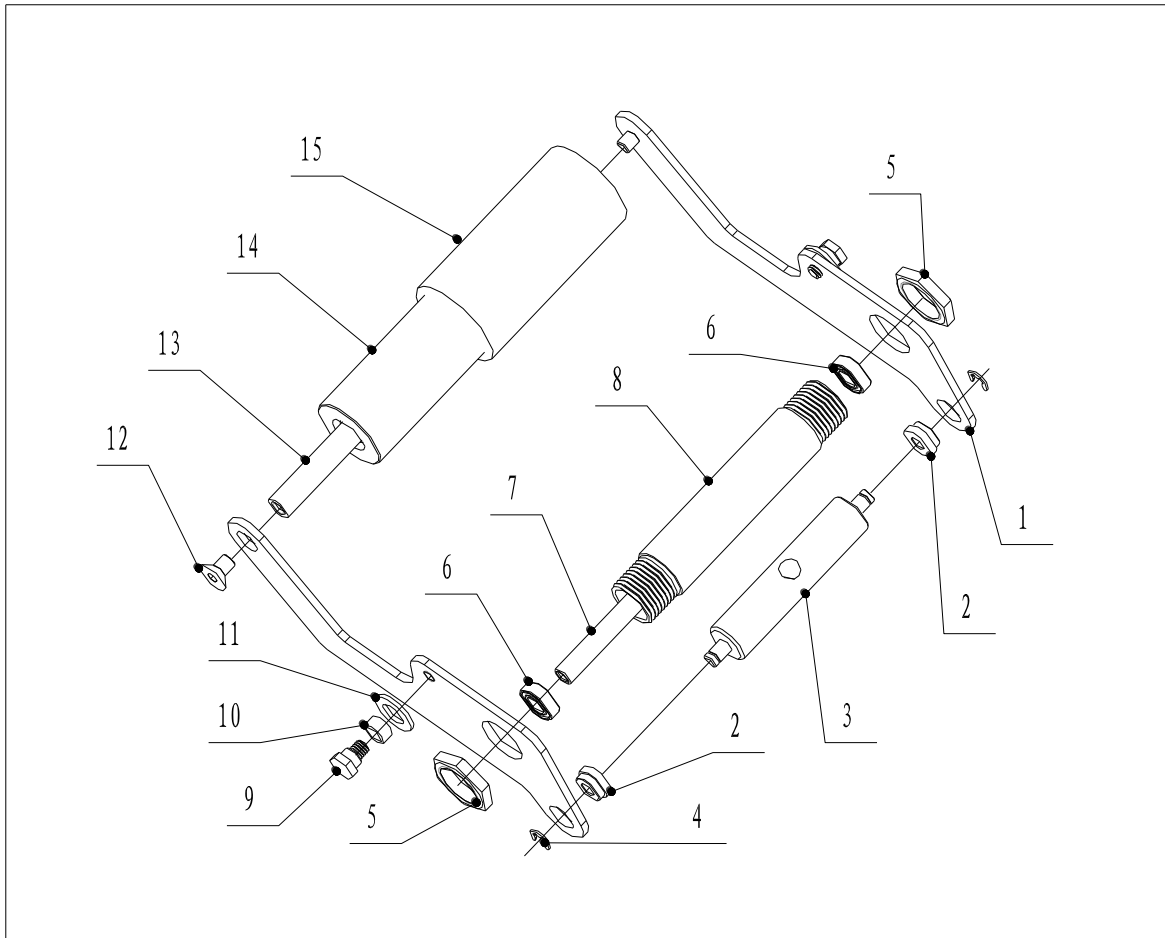
Item no.	Part no.	Name	Item no.	Part no.	Name
1	TDQII-101	L&R wallboard	9	61800-Z	Bearing
2	TDQII-135	Swing pole adjustable block	10	TDQII-109	One-way roller
3	M5*50(GB/T 818)	Screw	11	HF1216	One-way bearing
4	M6*12(GB/T5783)	Hex nut	12	TDQII-111	Idler shaft tension spring
5	M6*10 (GB/T70.3)	Screw	13	TDQII-113	Idle shaft
6	TDQII-145	Cutter bracket fender roller	14	688	Bearing
7	M5*10(GB/T 823)	Screw	15	TDQII-112	Idler
8	TDQII-110	One-way roller shaft	16	GB/T 894.2	d0=8 shaft circlip



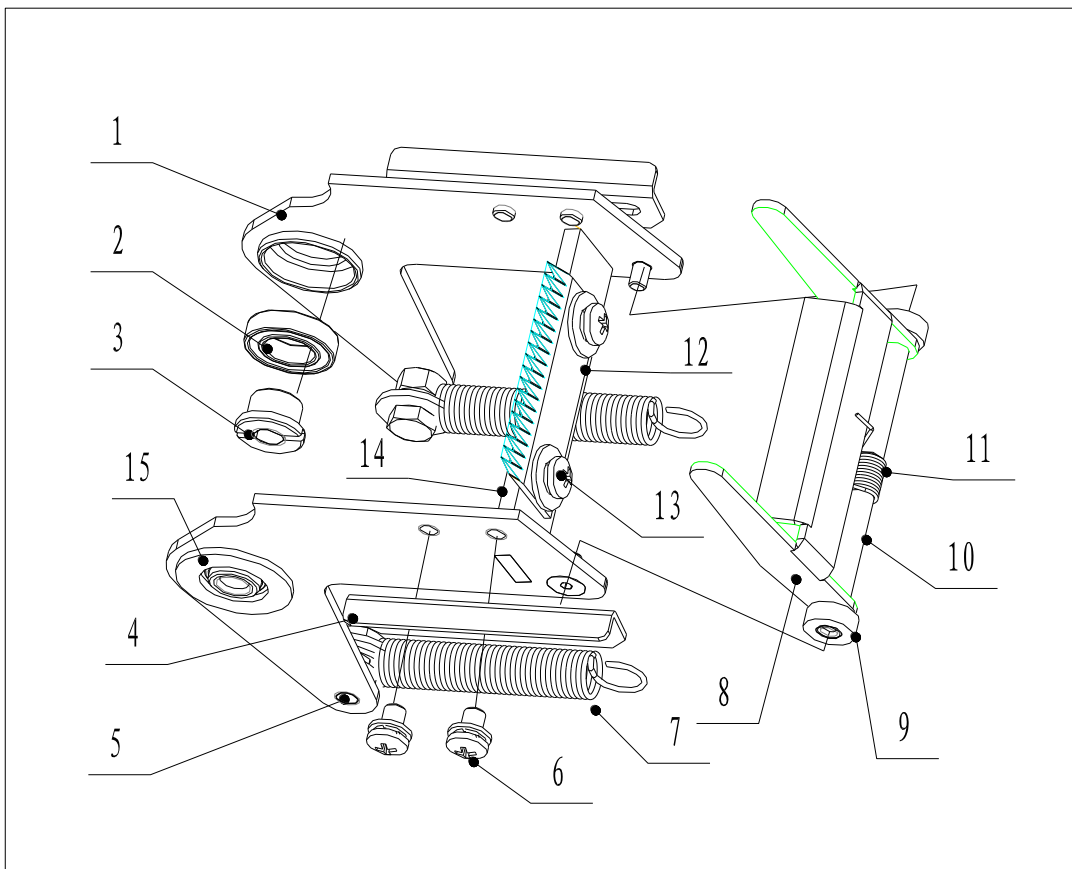
o.	Part no.	Name	Item no.	Part no.	Name
1	TDQII-114	Front swing pole	15	TDQII-129-01	Protective belt lever
2	61801-Z	Bearing	16	TDQII-130	L&R fixed plate
3	TDQII-117-02	Swing pole axis	17	TDQII-129	Protective belt fixed board
4	TDQII-117	Swing pole fixed bush	18	GB/T 848	M5 flat washer
5	GB/T 848	M10 small washer	19	TDQII-125(126)	Protective belt bracket assembly
6	P10*8*5(GB12613)	Shaft sleeve	20	TDQII-118	Rubber roller shaft
7	TDQII-132	Connecting rod screw	21	TDQII-119	Swing pole rubber roller
8	TDQII-123-01	Spring	22	TDQII-120	Rubber roller sleeve
9	TDQII-123	Front emboss roller	23	M4X6:GB/T 823	Screw
10	TDQII-124	Front emboss roller shaft	24	M3*3:GB/T 823	Screw
11	TDQII-123-02	Spring rubber pad	25	M6X10:GB/T70.3	Screw
12	TDQII-128	Protective belt bracket spring	26	M5X10:GB/T70.3	Screw
13	TDQII-127	Protective belt bracket torsion spring shaft	27	M20*1.5	Nut
14	GB/T 894.2	d0=8 shaft circlip	28	M4X6:GB/T 823	Screw

Cutter bracket assembly figure





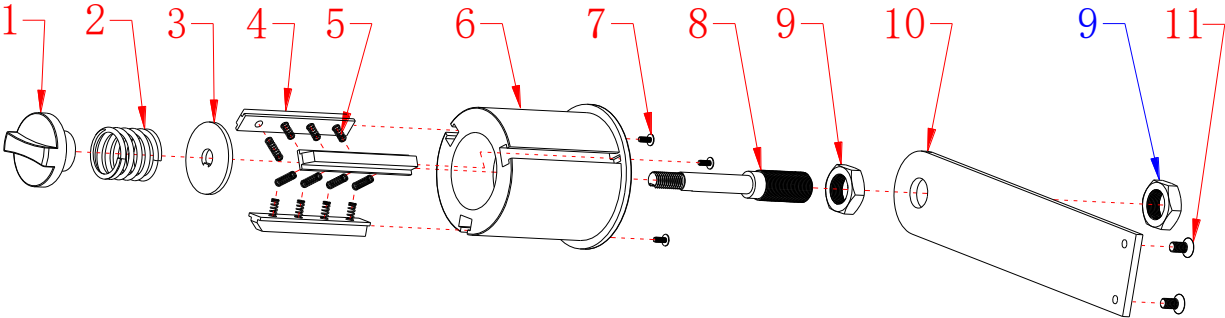
Item no.	Part no.	Name	Item no.	Part no.	Name
1	TDQII-115	Rear swing pole	9	TDQII-132	Connecting rod screw
2	TDQII-122-01	Shaft sleeve 6*12*6	10	P10*8*5(GB12613)	Shaft sleeve
3	TDQII-122	Swing pole tension spring adjustable pillar	11	GB/T 848	M10 small washer
4	ETW5.0	Split washer —ETW5.0	12	M6X10:GB/T 70.3	Screw
5	M20*1.5	Nut	13	TDQII-118	Rubber roller shaft
6	688	Bearing	14	TDQII-119	Swing pole rubber roller
7	TDQII-117-02	Swing pole axis	15	TDQII-120	Rubber roller bush
8	TDQII-117	Swing pole fixed bush			



Item no.	Part no.	Name	Item no.	Part no.	Name
1	TDQII-HJT-102	Cutter bracket welding figure	9	TDQII-143	Protective cover shaft bush
2	61801-Z	Bearing	10	TDQII-142	Protective cover shaft
3	TDQII-138	Cutter bracket shaft	11	TDQII-144	Protective cover torsion spring
4	TDQII-137	Cutter bracket adjustable plate	12	TDQII-140	Cutter
5	M6*12(GB/T5783)	Screw	13	M5X8(GB/T 818)	Screw
6	M5X8(GB/T 818)	Screw	14	TDQII-139	Cutter seat
7	TDQII-146	Cutter tension spring	15	TDQII-116	Cutter bracket bush
8	TDQII-141	Cutter protective cover			



[Tape seat assembly figure]

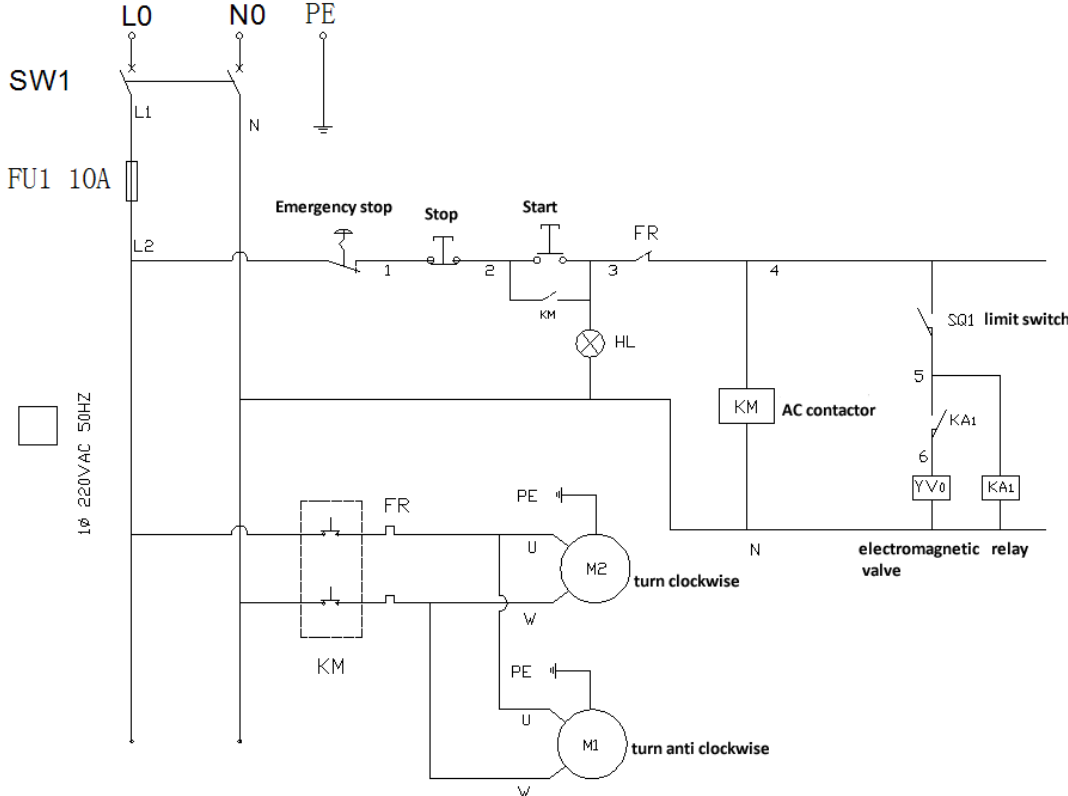


Item no.	Part no.	Name
1	BT266[NF010A]	Knob handle
2	BT269[FA001A]	Spring
3	BT268[HA010B]	Spring shim
4	BT271	Compression plate
5	BT270	Compression plate spring
6	BT263[TH402A]	Tape seat
7	ODPS-M3-8	Screw
8	BT265[TH403A]	Tape seat fixed pole
9	OMZL-M18-1D5	Nut
10	BT264[TH401A]	Tape seat fixed board
11	GBT70D3-LD-M6-12	Screw



8. Electric control

8.1. Electric control diagram





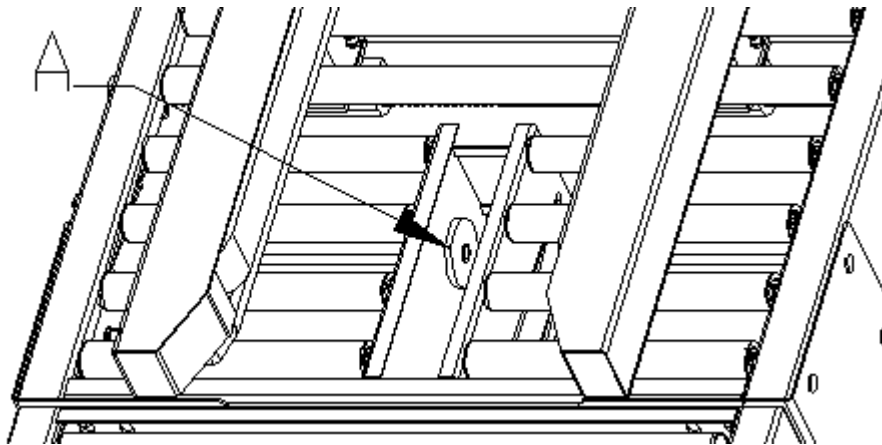
## 10.. Operation instruction

Before you use our machine please read instruction manual first, to know machine features and functions. If you find any points you don't understand or faulty please contact with our company.

### 10.1. Operation order

Machine start order:

1. Insert box to be sealed into mouth of the machine.
2. Adjust the belts' height and width manually using the crank handle until the belts make firm contact with the box. Take care not to crush the box.
3. Connect the air supply.
4. Press power switch to "ON" position.  
**Attention: The machine is now active! DO NOT touch Switch A – See diagram below).**
5. Present box to machine, being careful of pneumatic flap folder arm.



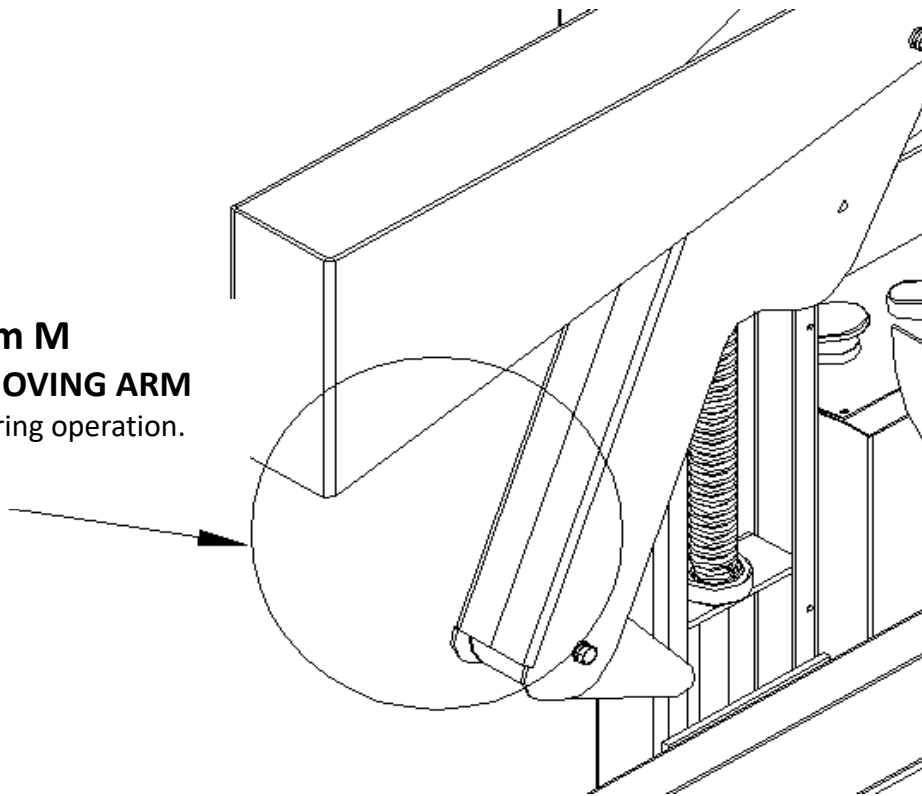
Stop machine order:

1. Cut off power supply press down "OFF"
2. Cut off air source

Warning: after the machine starts, don't be close to the entrance and exit of the machine, don't touch position switch A to avoid injury by moving parts. Refer to M as below picture.

**Diagram M****\*\*DANGER\*\* MOVING ARM**

Avoid this area during operation.



## Running situation

1. After machine connect power, the indication light is on, belts starts run, machine is under standby status.
2. While running has problem, press down " OFF" at once to cut off power, after solve the problem then could connect power to continue work, don't touch machine moving parts to solve problem before cutting off power.
3. If belts stop running, cut off power "press down OFF" to avoid motor burnt.
4. While push carton box into machine, the point A in the entrance to exam carton box.

**Attention: Please cut off power supply first before solving issues!**



## 10.2 Air control examination and repair

General air control examination is very simple, but please know the machine features and function before you exam and repair machine.

1. Air control parts including: Air supply processor, electromagnetic valve, cylinder, air pipe.
2. General troubles and troubleshooting
  - ① Air supply processor trouble  
Cause: Damaged by operator or usage life is finished, or air leakage.  
Remedy: Frequently maintenance or replace new one.
  - ② Electromagnetic valve trouble  
Cause: Jammed inside, coil burnt, or screw is loose to make coil could not contact valve well, valve piston worn out.  
Remedy: Repair or replace new one.
  - ③ Cylinder trouble  
Cause: Cylinder piston worn out to cause inner leakage, over usage life.  
Remedy: Replace new one

Above methods is general trouble shooting, besides, air control assembly lubrication is also very important.

## 10.3. Electric control examination and repair

Electric control examination and repair is very simple, please know machine features and functions before examination, the examination and repair should be operated by professional electrician.



## 11. General trouble shooting

### 1. Carton box touch point A, flaps folding parts don't work

Cause: The position switch of point A is damaged, or wiring is bad contact, or air circle has problem.

Remedy: Check control points which related to point A, check if wiring is loose, press down electromagnetic valve by hand to check if flaps folding parts could work to confirm trouble parts.

### 2. Carton box left point A , flaps folding parts don't fold carton box rear flaps

Cause: Check if position switch is ok or not, check electromagnetic valve.

**Attention: The machine control voltage and power supply voltage are same of 220VAC.**

### 3. Abnormal running:

A) Check if air supply pressure is normal, pressure regulating valve is at correct position

B) Check machine related parts is normal

### 4. Abnormal power supply:

A) Check if switch is damaged

B) Check if voltage is stable

C) Check if wiring is loose

### 5. Abnormal cylinder movement

A) Check if air pipe has air output

B) Check if electromagnetic valve is damaged, if coil contacted with electromagnetic valve well.

C) Check if pressure regulating valve is normal

D) Check if inner cylinder is normal

E) Check if screw is loose

### 6. Motor don't work

A) Check if power supply relay is trip out, power supply is cut off.

B) Check if motor is damaged

C) Check if chain is normal

D) Check if motor shaft is normal

E) Check if screw is loose

### 7. Belts running is abnormal

A) Check if belts tension need to be adjusted

B) Check if belts are damaged

C) Check if motor bearing is normal

### 8. Can not cut tape

Cutter is not sharp enough, cutter tip is wrapped by glue

Change cutter; clear cutter



#### 9. Trail tape cut

Cutter is not sharp enough, cutter seat has been jammed by block; stretch spring is too loose

Lubricate the cutter seat screw

#### 10. Tape Stick not good

Main spring is too loose, glue on roller shaft, tape is bad quality

Tension main spring, lubricate roller shaft, change tape

#### 11. Carton box stuck on the way

Tape roller adjusting nut is too tight, Set a wrong height for carton box, Main spring is too tight  
Loosen tape roller adjusting nut, Adjust height for carton box, Loosen main spring

#### 12. Tape broke

Blade is stretch outside too much

Lower blade position

#### 13. Tape always out of way

Pressure is not average on carton box

Re-adjust the distance between guide roller.

#### 14. Tape is not at the central position

Non-return roller is broken

Change non-return roller

#### 15. Noise during sealing

Dust on bearing holder

Clear the dust and lubricate

#### 16. Carton board extrude before sealing, edge has wrinkle after sealing

Belts speed is not the same, carton box is not at correct position while push into machine

Keep belts speed as the same, put carton box at correct position.

#### 17. Tape surface has wrinkle after sealing

Tape tension is too

Reduce tape tension