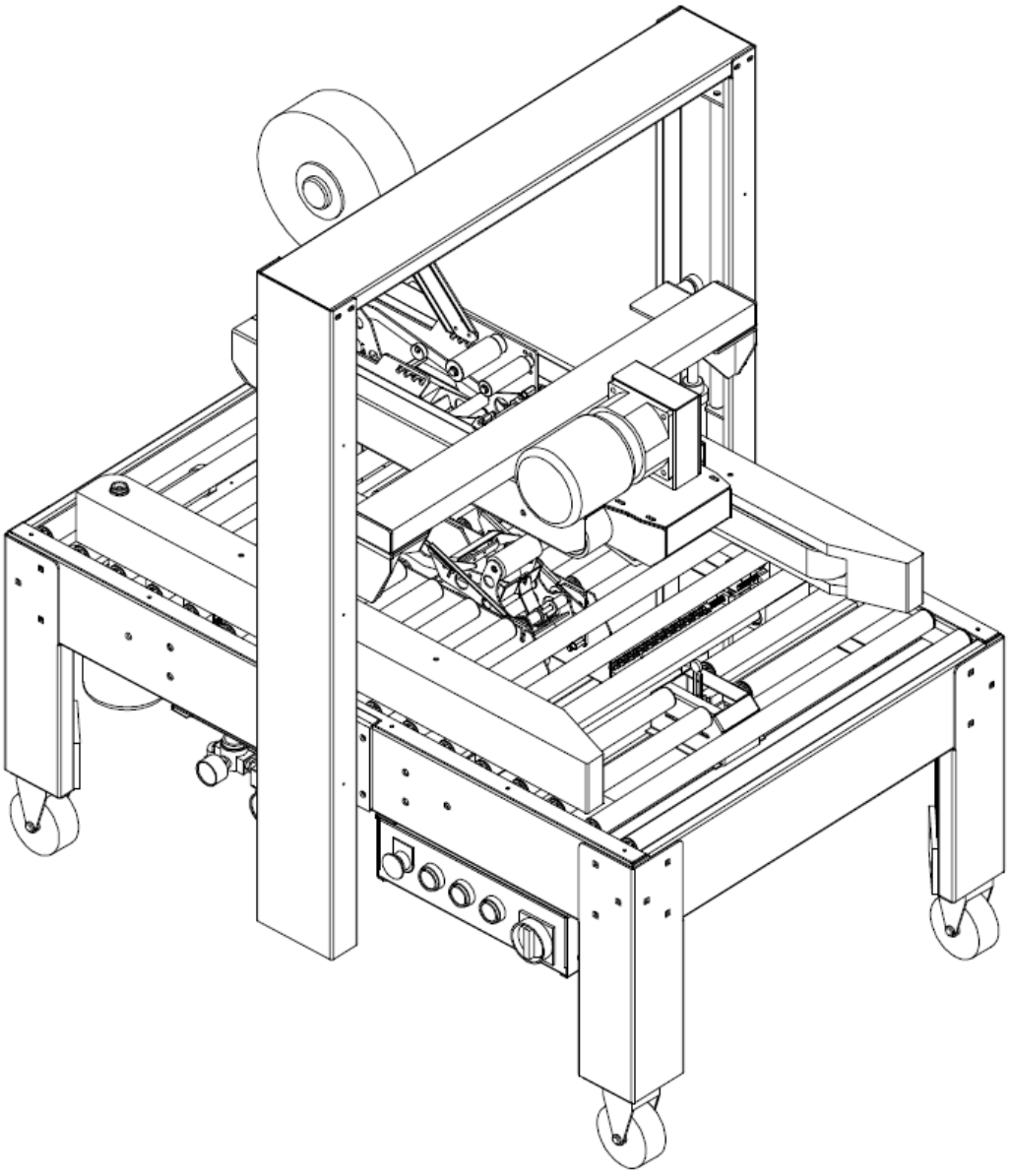
8 NET, Inc.

Installation Guide / Operating Manual

CTM-FA283, Fully Automatic Tape Sealing Machine

JP-501AT

Carton Sealing Machine
Operator Manual



JP-501AT CARTON SEALER MACHINE

DESCRIPTION **PAGE**

Ⅰ. Signs Description

In order to avoid damage, please read the safety signs carefully before operation.

1. *"Electric Warns" Warning Sign Figure 1-1 on Electric Box and Wire Connection Box, etc. It is a warning sign for electric wares. Only the authorized operators and the repairmen are allowed to open them for the operation or repair.*

Figure 1-1

2. *"Rotating Belt" Warning sign Figure 1-2 on machine belt. It is a warning sign for turning danger. Do not let your clothes r hands crushed by the moving part. Before repairing, verify that the machine is shut down.*

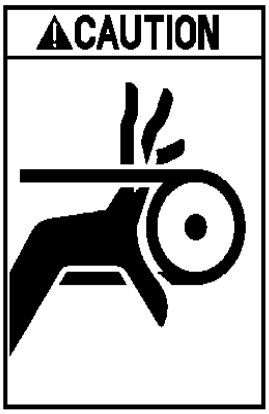


Figure 1-2

3. *"Sharp Knife" Warning Sign Figure 1-3 on the knife blade. It is a warning sign to indicate that the knife is very sharp. Be careful when you feed the tape or process with repair. Don't let your hands be cut.*

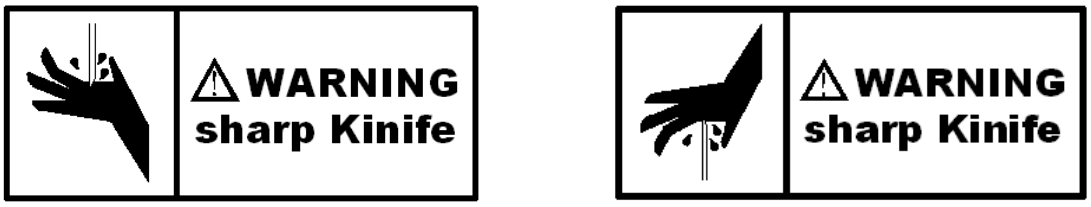


Figure 1-3

Ⅱ. Specifications

1. *Working Environment:*

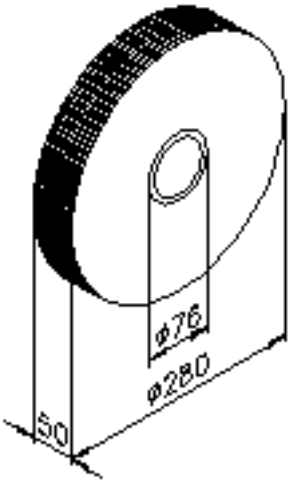
   *Do **NOT** put liquid containers near r on the electrical system,*

   or use water to wash the machine in order to avoid damaging.

2. *Power Supply：1ϕ，110V/220V，60Hz/50Hz*

   3ϕ，220V/380V/415V/440，60Hz/50Hz

   (Other spec. on request).



3. *Tape: Normal adhesive tape.*

4. *Tape width：From min. 36mm (1.5”) to max. 50mm (2”)*

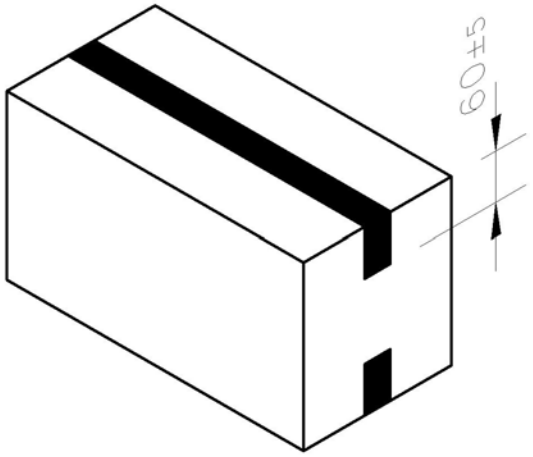
   (Please advice if tape width: 2.5” or 3” is required.)

5. *Standard Tape Roll Size：*

   Inside Diameter：76 mm (3”)

   Outside Diameter：280 mm (11”)

   Tape Width：50 mm (2”)



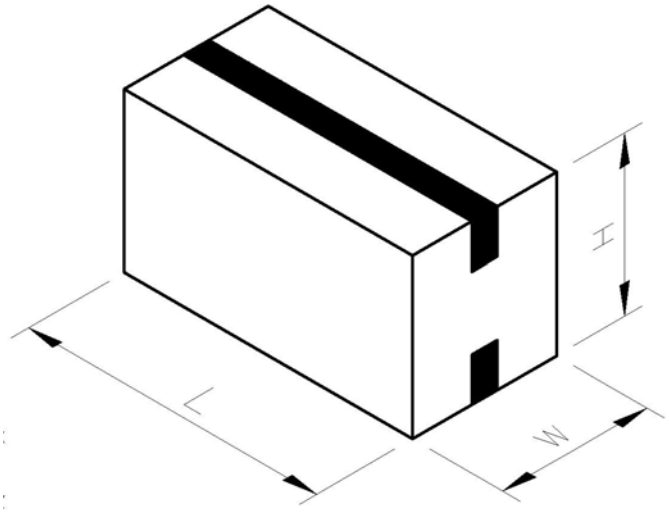
6. *Carton Sealing Length：*

   Max. Length 60 mm± 5 mm

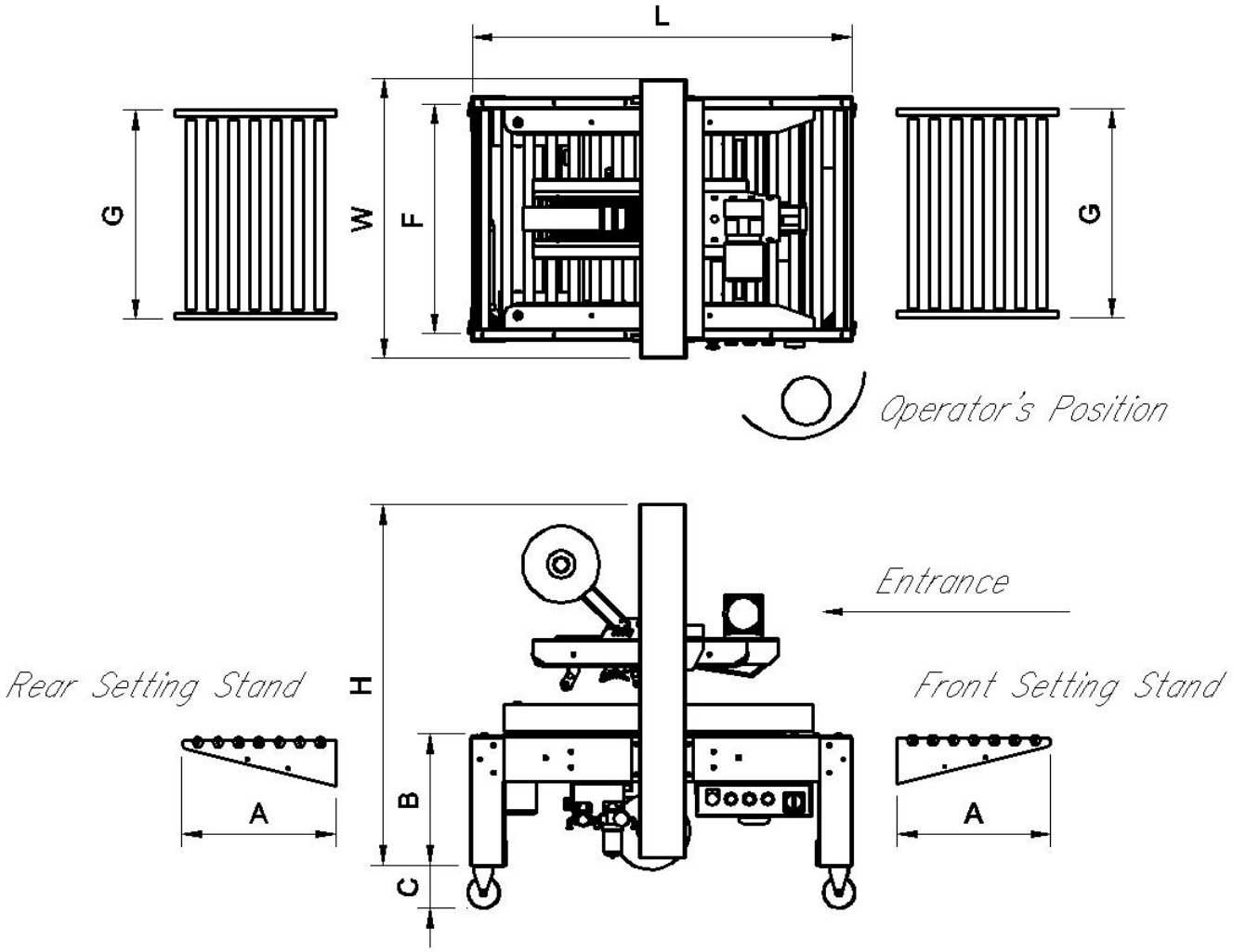
7. *Standard Carton Dimension：*

   Standard Carton

	L	***W***	***H***
Min	***150***	***110***	***150***
Max	∞	***500***	***500***



Carton Weight：Max. Weight 30 kg



8. Machine Size：

	W	L	H	A*	B	C	F	G*
Min (mm)	-	-	1315	-	415	-	-	-
Max (mm)	910	1250	1515	500	635	135	805	500

**Option: Front and rear setting stand (according to customer appoint)*

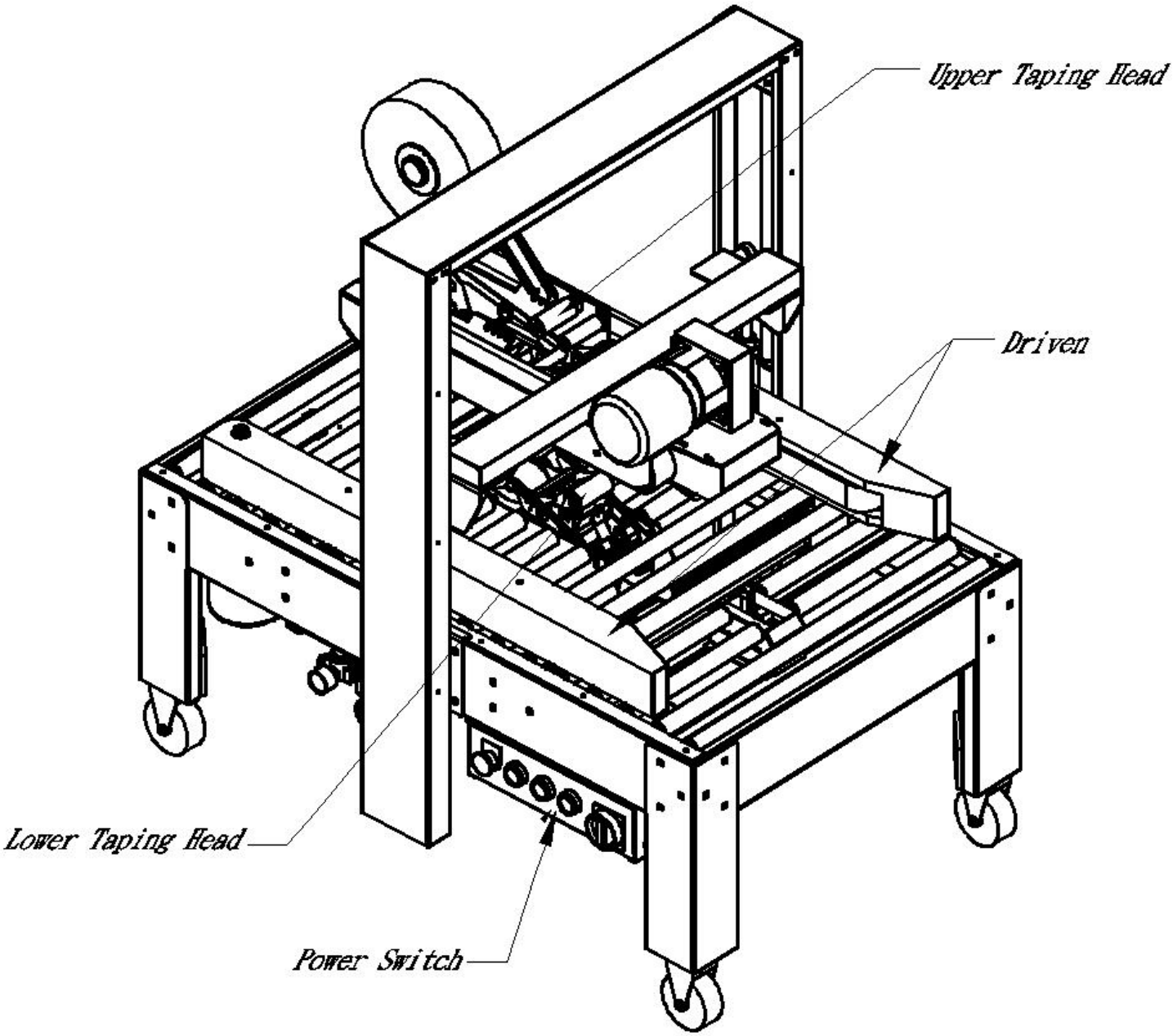
9. Machine Weight：N.W. 190 kg，G.W.260 kg.

10. Sealing Speed：Max 12 Carton / Min.

11. There are two taping heads of the machine, upper and lower taping head for each..

Ⅲ. Illustration and Installation

A) Illustration Of Machine



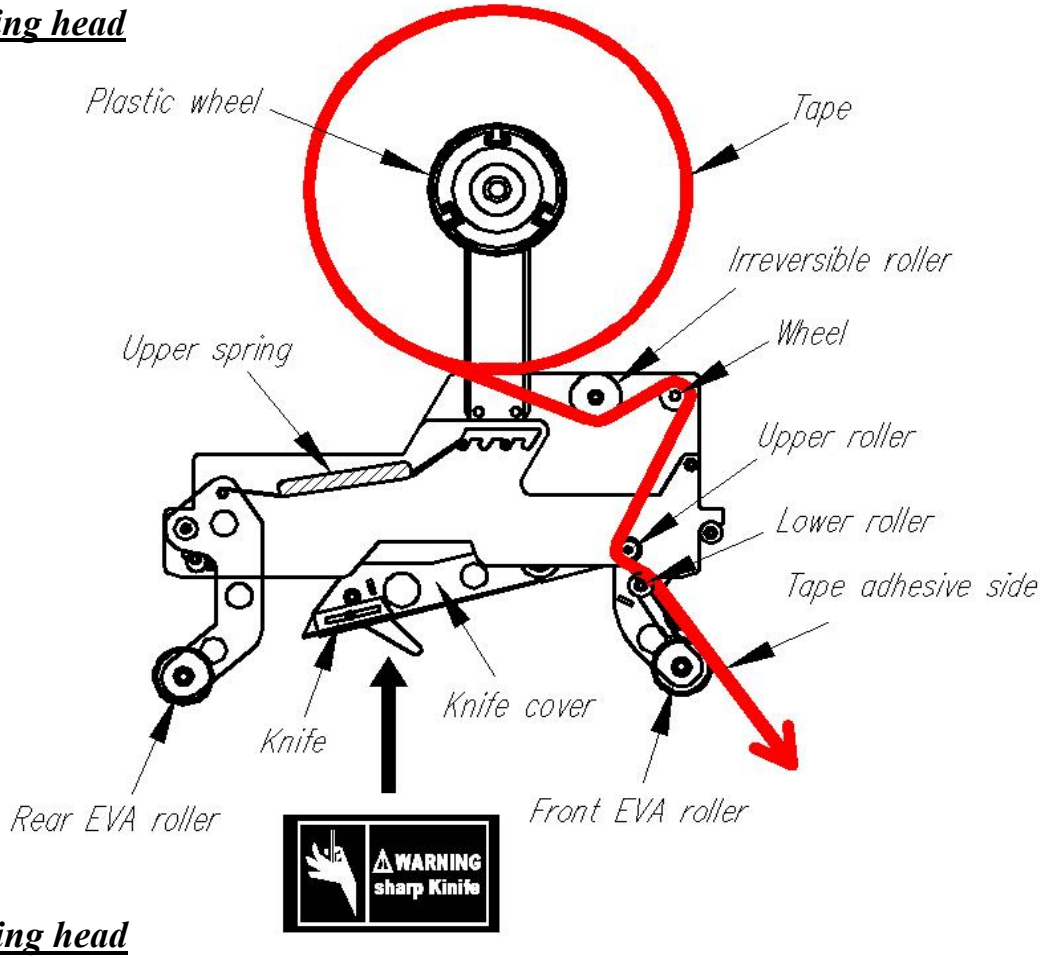
B) Illustration

Please install this machine according to the following procedure:

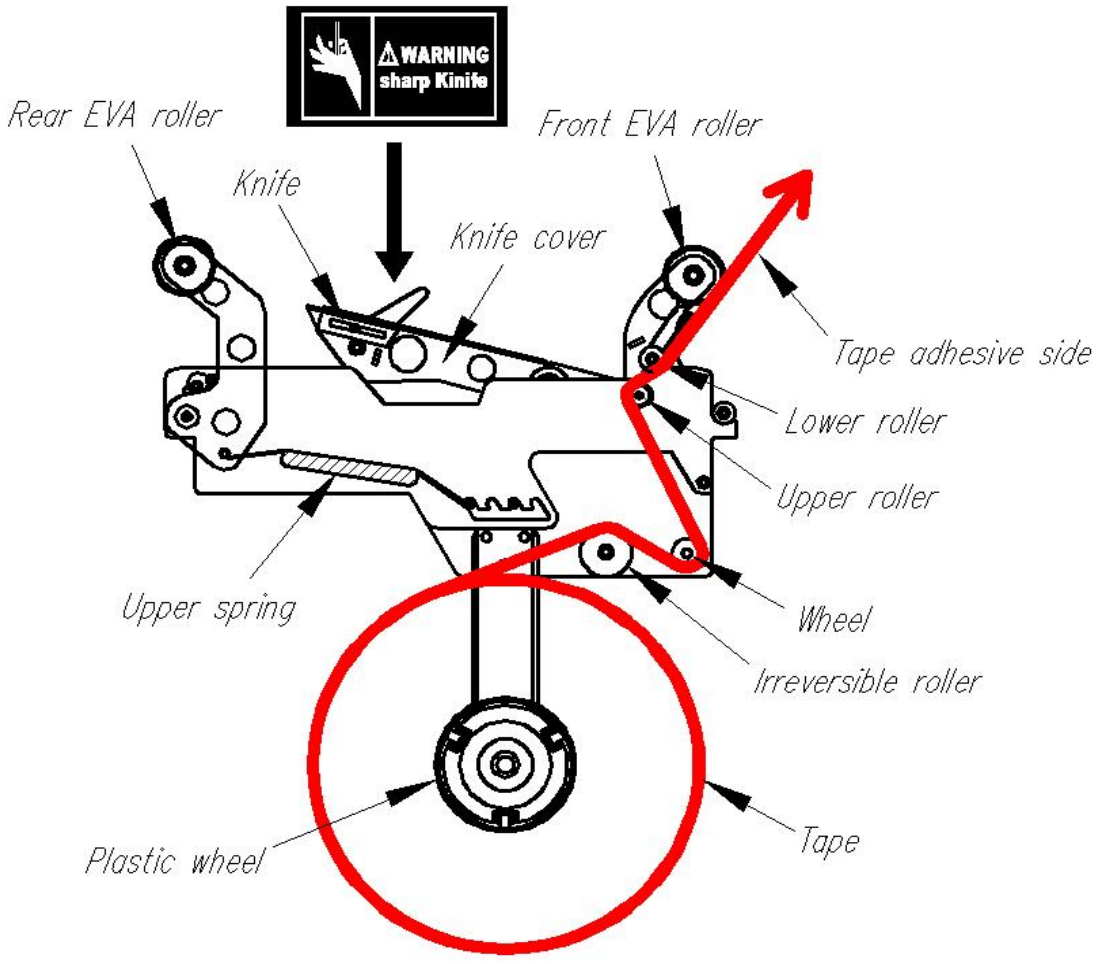
1. *Leg adjustment: This machine is equipped with the adjustable legs; the legs can be adjusted to obtain different height from min. 570mm to max. 770m, it is to be in accordance with the customer's conveyor height. Please refer to Figure2-1.*
2. *Check the power supply is in accordance with the voltage which the machine needs.*
3. *Install plastic pipe, Adjusting the pressure to 5~6 kgf/cm^2.*
4. *Thread the adhesive tape onto upper taping head and lower taping head.*
5. *Turn on the power, And put the carton into the entrance of the machine. When machine touches lower downward switch, the clips will move inward and upper driven moves downward, When fixed arm touches carton and approach switch reacts, The motor will star The belt will adjust to the suitable size for cartons. Refer to Figure 2-2.*
6. *The machine begins sealing. Refer to Figure 2-3.*

C) Illustration of Taping Head

1. <u>Upper taping head</u>



2. <u>Lower taping head</u>



D) Threading Method

◆ *Threading method of upper taping head for 60±5mm carton sealing length:*

A. Fix the tape on the tape roll (adhesive side is up).

B. Adhere the guide plate to the tape, as shown in Figure 3-1.

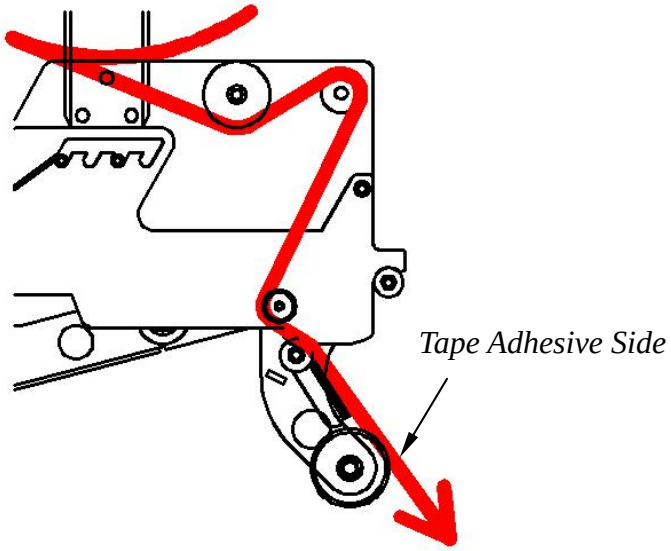
C. Cut off the extra tape on the middle of rubber wheel, see Figure 3-2.

◆ *Threading method of lower taping head for 60±5mm carton sealing length:*

A. Fix the tape on the tape roll (adhesive side is up).

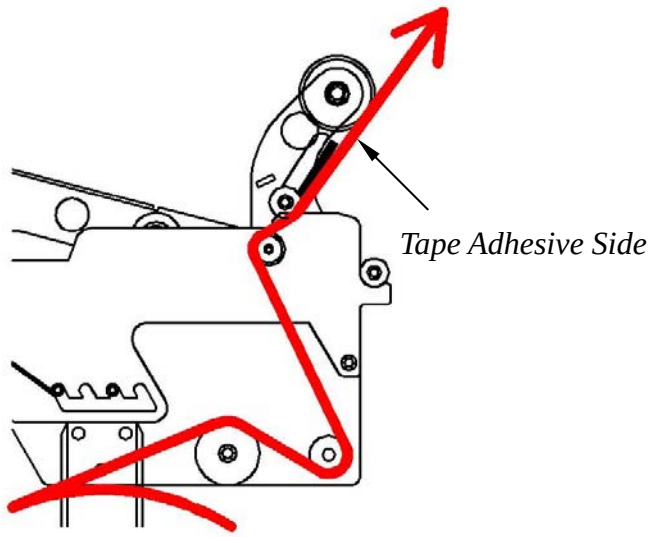
B. Adhere the guide plate to the tape, as shown in Figure 3-3.

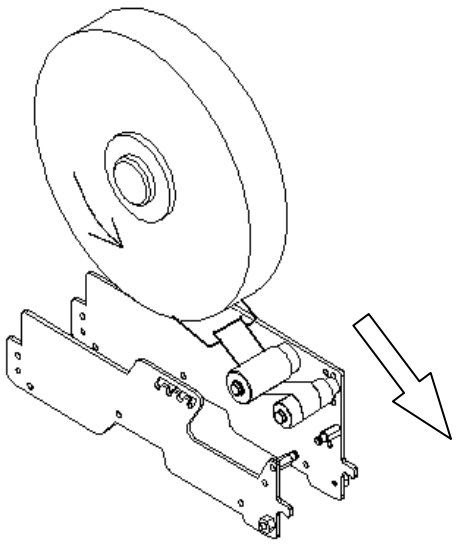
C. Cut off the extra tape on the middle of rubber wheel, see Figure 3-4.

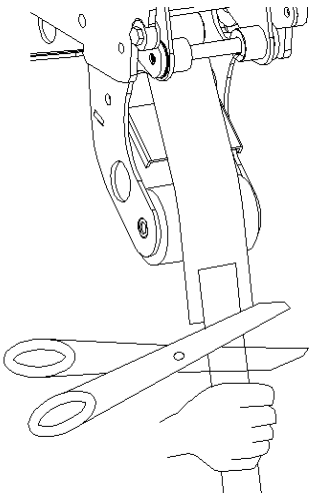


Rihgt Taping Head Threading

Figure 3-1







Left Taping Head Threading

Figure 3-2

IV. Sealing Box Adjustment

The standard sealing size is 60±5 mm, It can be changed according to the customer's request. Before adjusting , please make sure that the power is turned off.

Operation steps:

1. As shown in Figure 4-1-A, loosen the screws on upper taping head and take off the upper taping head upward.

2. As shown in Figure 4-1-B, take off the lower taping head upward.

3. As shown in Figure 4-2, adjust the cam between the rubber wheel and the bottom of tape head 60 mm, and then the length of tape is 60 mm 。

4. As shown in Figure 4-2, re- threading.

5. Put the tape head back to the machine.
(The tension spring of upper taping head is looser).

6. Turn on the power and see if the sealing length meets your needs.

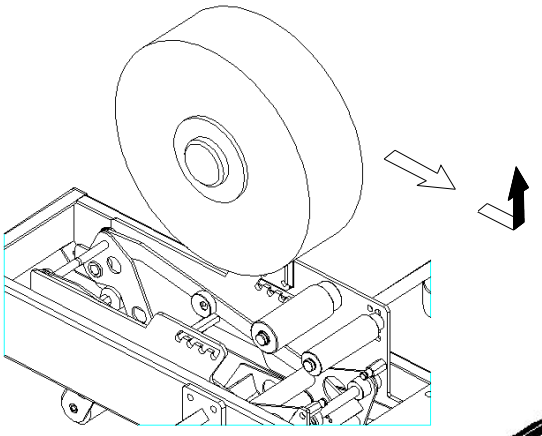


圖 4-1-A

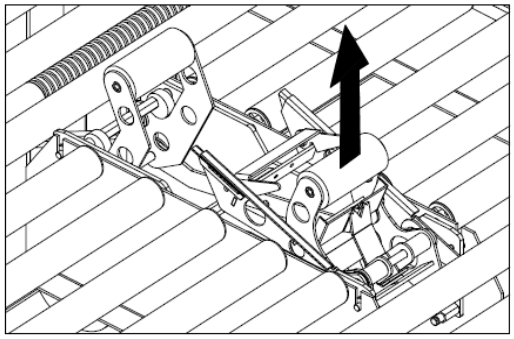


圖 4-1-B

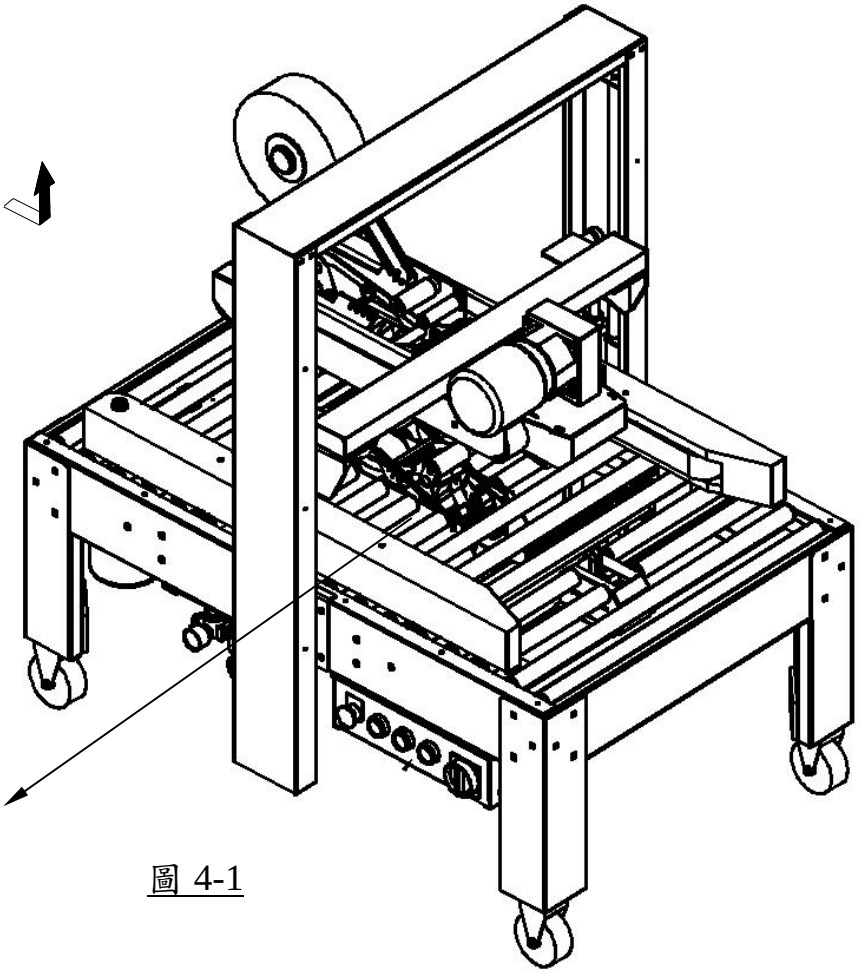
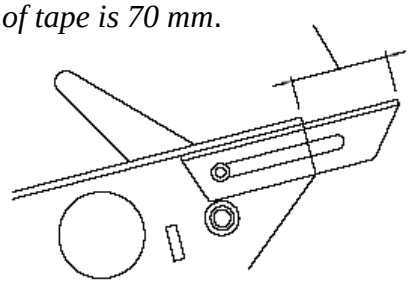


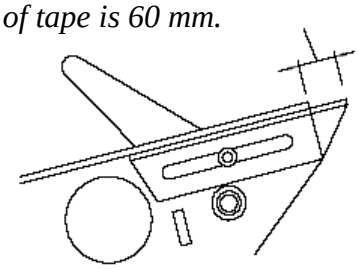
圖 4-1

Process of rear overload adjustment

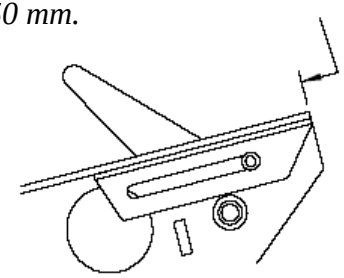
When the adjusting plate move out 20mm，the length of tape is 70 mm.

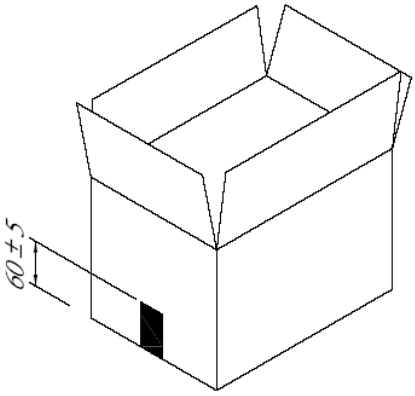


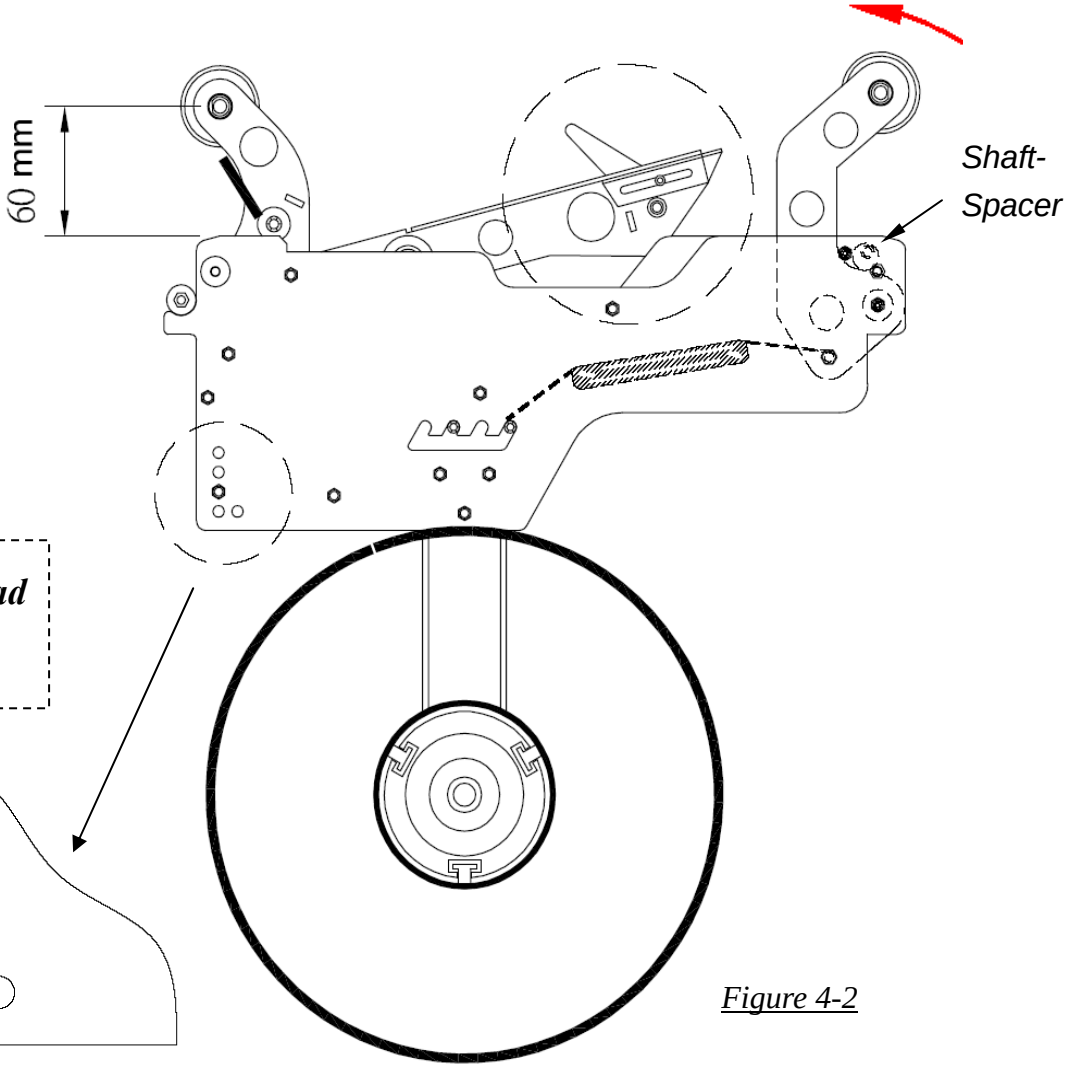
When the adjusting plate move out 10mm，the length of tape is 60 mm.



When the adjusting plate is tide，the length of tape is 50 mm.







Process of front overload adjustment

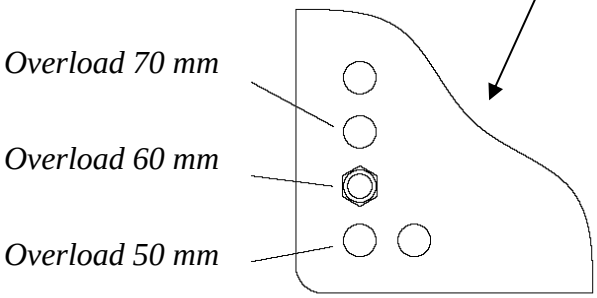


Figure 4-2

V. Adjustment

A) Tape Drum Friction Brake Adjustment

The tape will make the box too tight when the tape drum friction is too tight. When it is too lose, the tape drum friction will over travel and the tape will make the box too loose. Turn the knurled nut clockwise to increase the braking force, and counter- clockwise to decrease the braking force. Adjust to minimum tension that prevents excessive tape roll over travel. See Figure 5-1.

B) Applying Mechanism Spring Adjustment

When the spring is too loose, the tape can be cut off too early or the tape can not fully stay on the box. Also, when it is too tight, it can damage the box. See Figure 5-2 for adjusting.

C) Box Driven Belt's Tension Adjustment

If the box driven belt's tension is too tight then the motor will overload and will breakdown easily. If too loosen, it will slip. When adjusting the box driven belt's tension, operator should move the cover away and adjust the screw. See Figure 5-3-A.B。

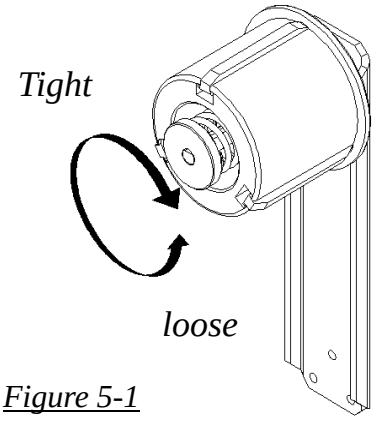


Figure 5-1

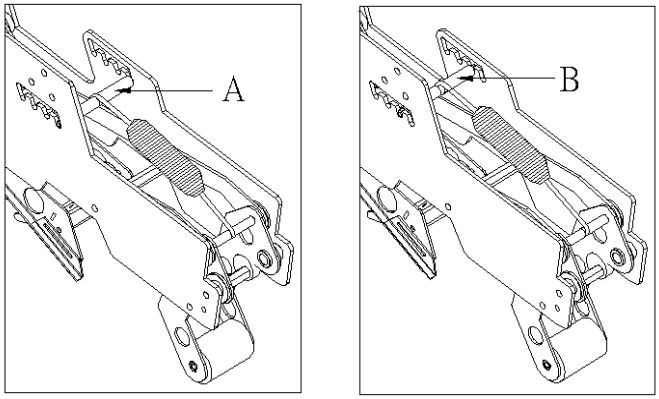


Figure 5-2

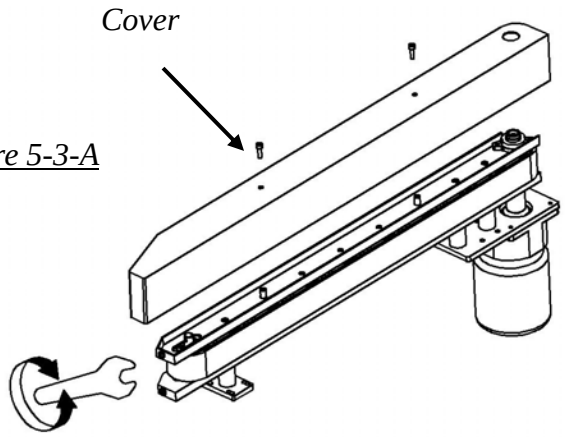


Figure 5-3-A

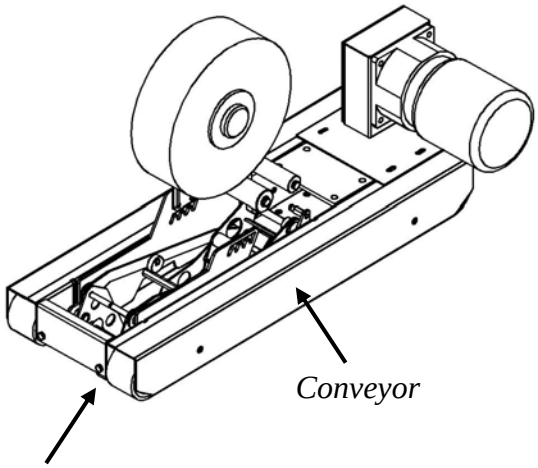


Figure 5-3-B

VI、Maintenance

Before maintaining this machine, the maintenance person should read this manual carefully. In order to avoid dangerous, maintenance person must turn off the power before maintaining.

A) Replacement：

As shown in Figure 6-1 ，loose the screw(a) .Then, replace the new blade(b) with the beveled side away from the blade holder. Finally, tighten the screws(a) to secure the blade.

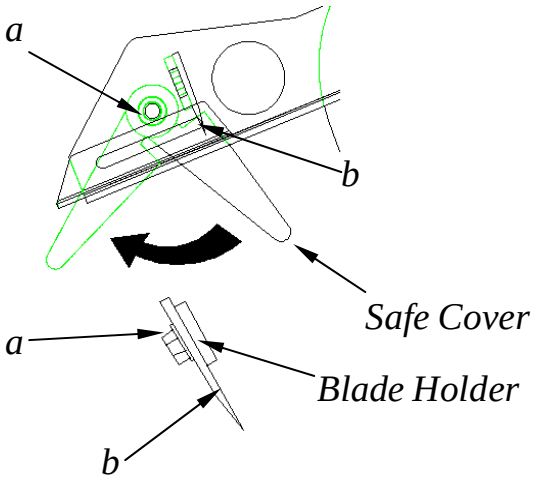


Figure 6-1

B) Driven Belts Replacement：

Refer to Figure 6-2. Remove and retain center plate(c) and four screws. Loosen tension screws(d) counter-clockwise until all tension is removed. Remove splicing pin from old belt to remove and discard. Place new belt over pulleys with laced splice at top. Insert splicing pin. Pin must not extend beyond the edge of belt. Replace the side cover and center plate, secure with original fasteners.

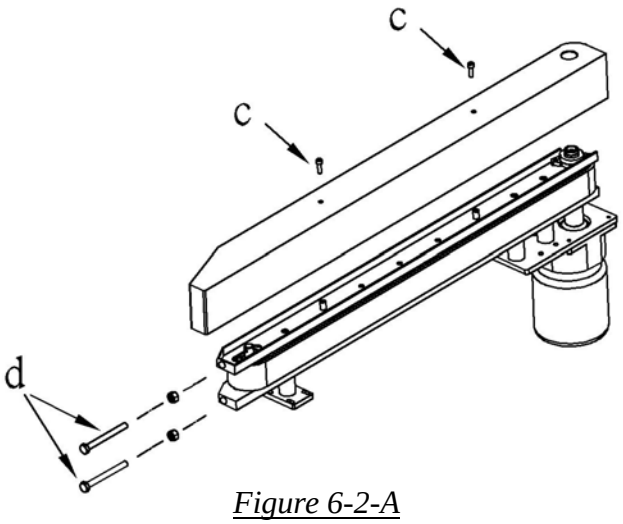


Figure 6-2-A

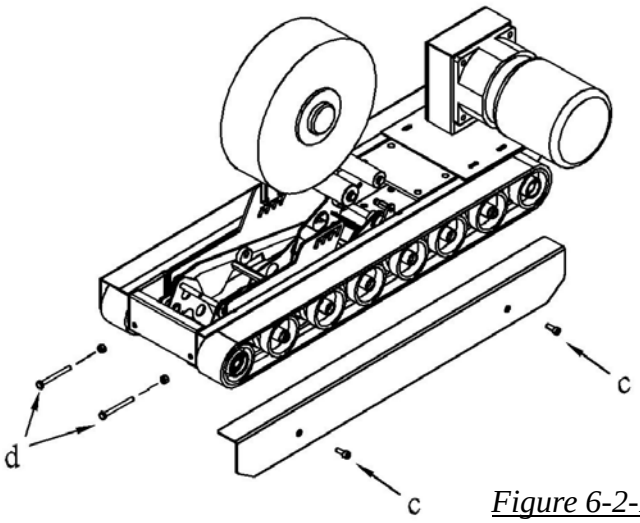


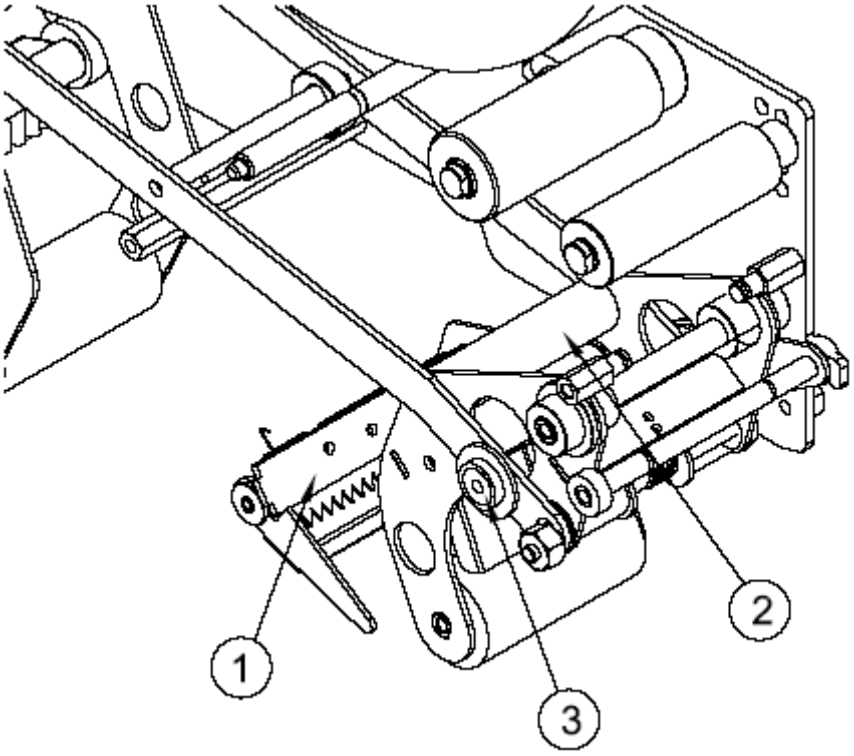
Figure 6-2-B

C) Machine cleanness and lubricating：

In order to make the machine operation normally, all parts that movable in the machine have to lubricate by 30# machine oil every week.

And blade should be checked everyday if there is too much viscose on it.

(D) Maintenance Item And Period Cover



No.	Position	Maintenance	Maintenance Period cover No.			
			Day	Week	Month	Half a year
1	Blade	Tape Clean	◎	×	×	×
2	Pivot-cutter lever	30# Conditioner	×	◎	×	×
3	Roller-knurled assembly	30# Conditioner	×	◎	×	×

Ⅶ、Troubleshooting

Problem	*Possible Causes*	*Resolution*
Driven Belts do not convey boxes.	*Boxes are too narrow, size incorrect.*	*Check machine spec. Boxes are too narrow than recommended. They will cause slippage and belts worm.*
	Driven Belts worn.	*Replace a new driven belt.*
	The pressure of upper taping head is insufficient.	*Adjust the height of upper taping head.*
	Rubber wheel tension of tape head is insufficient	*Adjust the position of cam*
	Tapping head applying spring set too high.	*Reduce spring pressure*
Conveyor belt can NOT move.	*The belt tension is insufficient*	*Adjust the belt tension*
	The power is off	*Check the power is on*
	The motor does NOT run	*Check if the motor worn out or not. Replace it*
The upper taping head interfere with the lower taping head	*The position of upper tapping head is too low.*	*Refer to Sealing Box Adjustment. Adjust the length of carton sealing into 60 mm.*
The driven belts breaks	*Belt worn out*	*Replace belt*
	Excessive belt tension	*Adjust belt tension*
The light box tangle at exit.	*The position of upper tapping head is too low.*	*Adjust the height of upper taping head*
Boxes tangle in tapping head.	*The position of upper tapping head is too low.*	*Adjust the height of upper taping head*
The tape roll makes a reverse turn.	*The one-direction roller worn out.*	*Replace for a new roller*
Blade can NOT cut tape or tape's end is jagged or shredded	*The blade blunt or breaks*	*Replace for a new blade*
	The strength of tape tension is not enough	*Put screws of tape drum assembly anti- clockwise to loosen*
	The glue is on the blade	*Clean blades*
	The blade is not in place	*Adjust the blade.*
	The set screw of the blade is worn out or loose	*Replace or tighten the screws.*

Problem	*Possible Causes*	*Resolution*
Machine makes noises	*The bearing of belt bearing bracket- worn out.*	*Replace bearing NO.6202 zz*
The length of overlap tape on the carton too long	*Threading mistake*	*Refer to threading chapter*
	Tape's tension too low	*Adjust the tape drum assembly's tension*
	Strap out feed holder too low	*No gap between strap out feed holder and slice*
The length of the overlap on the carton too short	*Upper, lower out feed roller not smooth*	*Get rid of dirty and lubricate*
	Blade's position too outside	*Adjust the blade's position*
	Threading mistake	*Re-thread strap*
	Tension of tape drum assembly too strong	*Loosen the nut of tape drum assembly anti-clockwise*
Tape not adhere to the center	*Carton NOT toward the centering guide*	*Adjust the carton's position*
	Centering guides NOT centered	*Adjust centering guide*
Tape wrinkle NOT adhere well	*Roller of tapping head not smooth*	*Discard the dirty & lubricate*
	The position of upper tapping head is too higt	*Adjust the height of upper tapping head bracket*
Tape's head of lower tapping head is upright down	*Strap out feed holder too low*	*Adjust slice of strap out feed holder and strap out feed holder, no gap*

Ⅷ、 *Self- Provided parts Suggestion*

※ There are" TWO" taping heads of this machine, upper and lower taping head for each.

※ Below the quantities are for "EACH" taping head.

No.	*Part No.*	*Description*	*Q'ty*
1	*CHS6803-2002*	*Roller-Buffing roller*	*4*
2	*CHS6803-3005*	*Tight Spring of Upper taping head*	*1*
3	*CHS6803-3006*	*Tight spring of lower taping head*	*1*
4	*CHS6803-4007*	*Blade*	*2*
5	*CHS6803-4009*	*Spring Cutter*	*4*
6	*CHS6603-3016*	*Driven Belt*	*2*

AUTO CARTON SEALER

Machine Frame Assembly and Part List

Applicative model No:

JP-501AT

Fig 1. Machine Body Device Assembly Figure

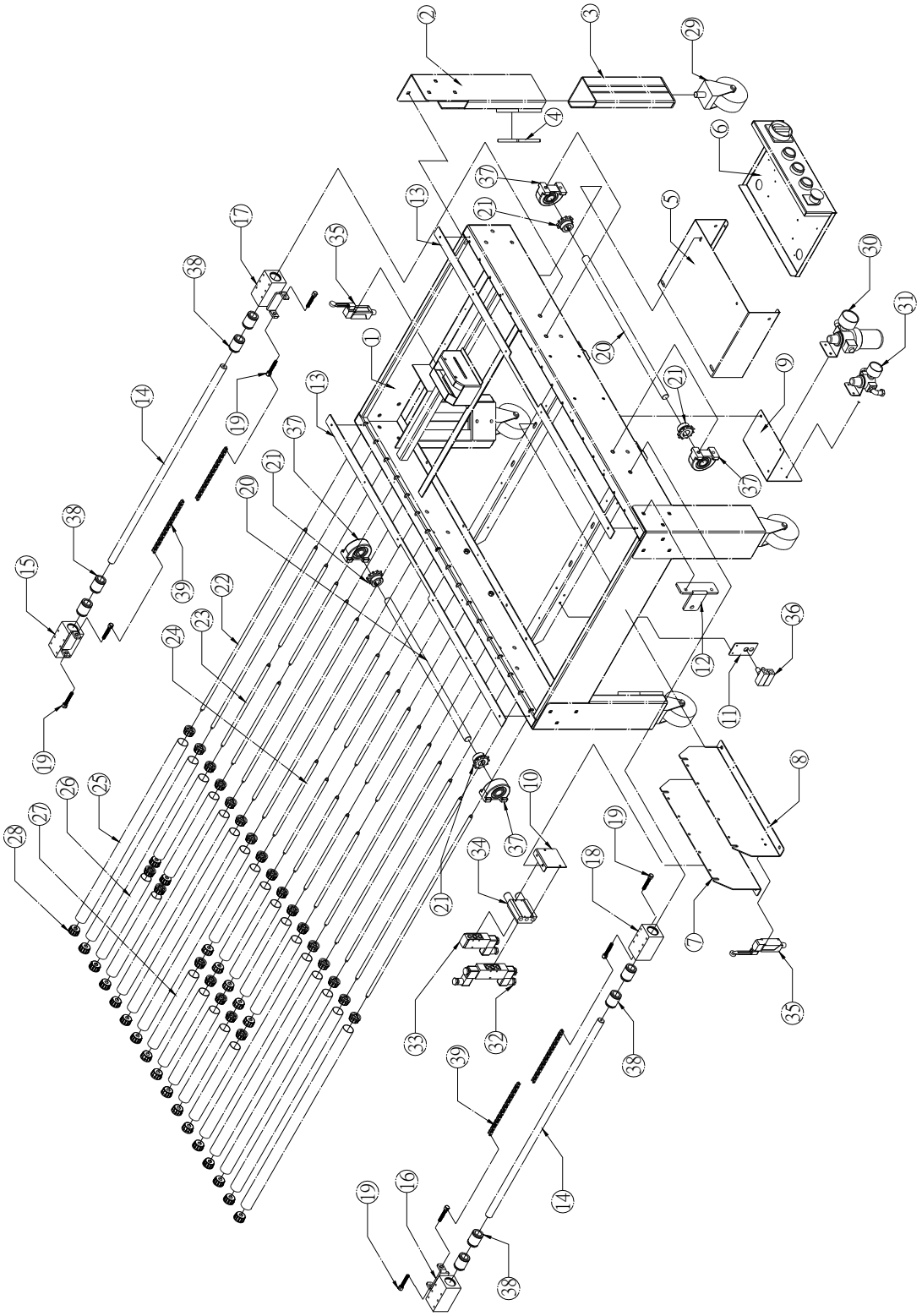


Table 1. Machine Body Device Assembly Parts List

Ref. No.	Part No.	Description	Q'ty
1	CHS6603A-1001	Machine Frame	1
2	CHS6603-1003	Outside Support Leg	4
3	CHS6603-1004	Inside Support Leg	4
4	CHS6603-1005	Clamp- Legs	4
5	CHS6603A-1004	Electrical Control Box Case	1
6	CHS6603A-1005	Electrical Control Box	1
7	CHS6603A-1002	Taping Head Applying Arm-R	1
8	CHS6603A-1003	Taping Head Applying Arm-L	1
9	CHS6603A-1006	Two Point Assembly Holder	1
10	CHS6603A-1007	Magnetic Valve Holder	1
11	CHS6603A-1008	Adjusted Valve Holder	1
12	CHS6603A-1009	Cylinder Base	1
13	CHS6603A-1011	Press Plate- Roller Shaft	2
14	CHS6603A-1015	Moving holder shaft	2
15	CHS6603A-1013	Moving Holder-F-L	1
16	CHS6603A-1013	Moving Holder -B-L	1
17	CHS6603A-1014	Moving Holder -F-R	1
18	CHS6603A-1014	Moving Holder -B-R	1
19	CHS6603A-1018	Adjusted Screw of Chain	8
20	CHS6603A-1016	Driven Shaft	2
21	CHS6603A-1017	Chain Wheel	4
22	CHS6603A-1019	Long Roller Shaft	10
23	CHS6603A-1020	Roller Shaft	4
24	CHS6603A-1021	Roller Shaft	10
25	CHS6603A-1022	Long Roller	10
26	CHS6603A-1023	Long Roller	4

Ref. No.	Part No.	Description	Q'ty
27	CHS6603A-1024	Long Roller	10
28	CHS6603-1020	Plastic Cap – Roller (closer)	48
29	5 / 8"	Caster	4
30	MAFR300-8A	Three Points Assembly	1
31	AR-2000	Adjusted Pressure Valve	1
32	MVSC-260-4E1	Magnetic Valve	1
33	MVSC-260-4E2C	Magnetic Valve	1
34	MVSC-260-5B2	Magnetic Valve Holder	1
35		Limit Switch	2
36	MSC200-8A	Adjusted Speed Valve	2
37	UCPA204	Needle Bearing	4
38	LM20UU	Linear Bearing	8
39	RS#40	Chain	4

Fig 2. Lifting Device Assembly Figure

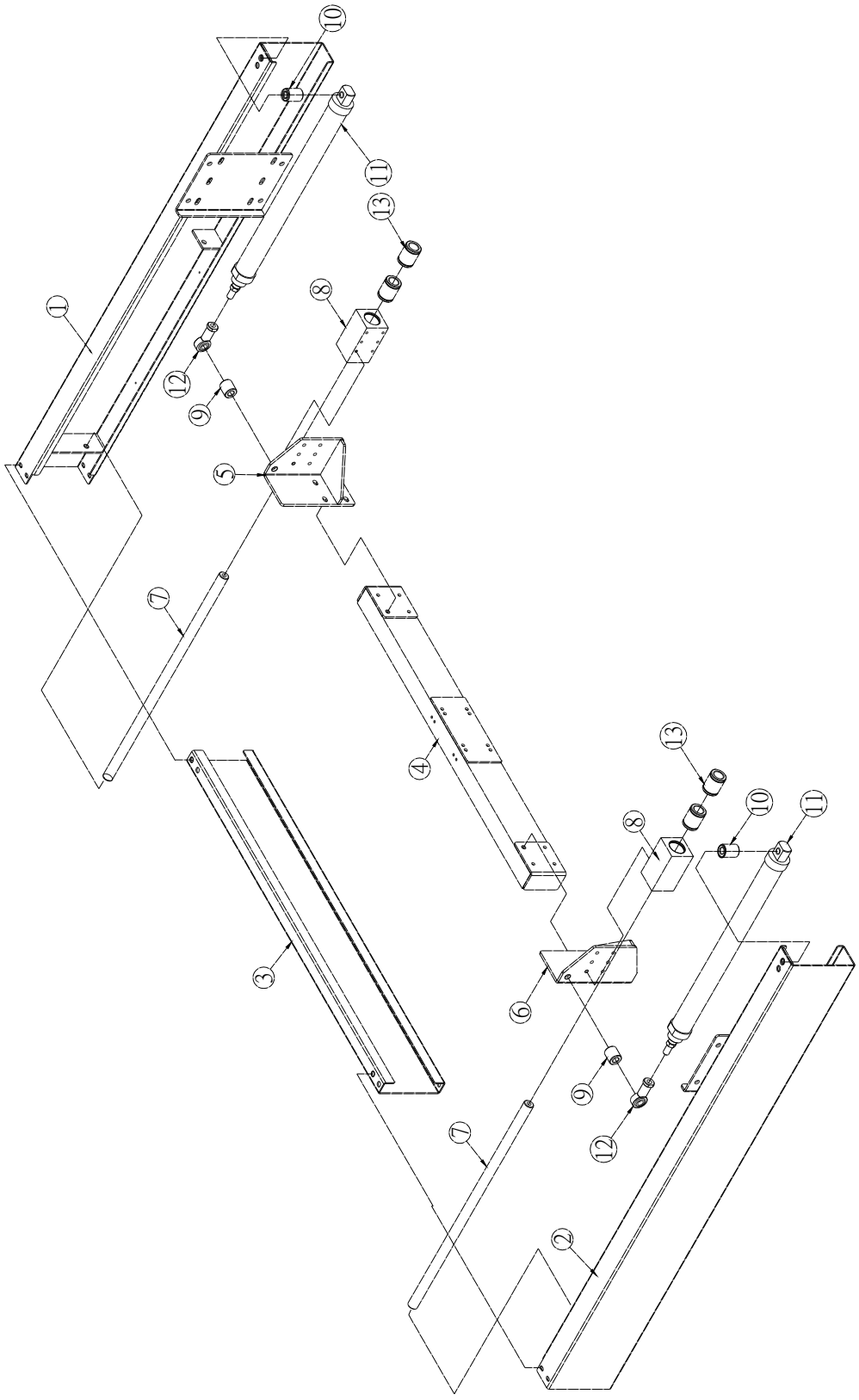


Table 2. Lifting Device Assembly Parts List

Ref. NO.	Part No.	Description	Q'ty
1	CHS6603A-2001	LH Column	1
2	CHS6603A-2001	RH Column	1
3	CHS6603A-2005	Upper Horizontal Column	1
4	CHS6603A-2003	Upper Pillar	1
5	CHS6603A-2004	LH Holder	1
6	CHS6603A-2004	RH Holder	1
7	CHS6603A-2002	Shaft	2
8	CHS6603A-1012	Moving Holder	2
9	CHS6603A-2006	Ring-Upper	2
10	CHS6603A-2007	Ring-Lower	2
11	MCMA-11-40-400A	Cylinder	2
12	PHS12	bearing	2
13	LM20UU	Linear Bering	4

Fig 3. Drive Device Assembly Figure

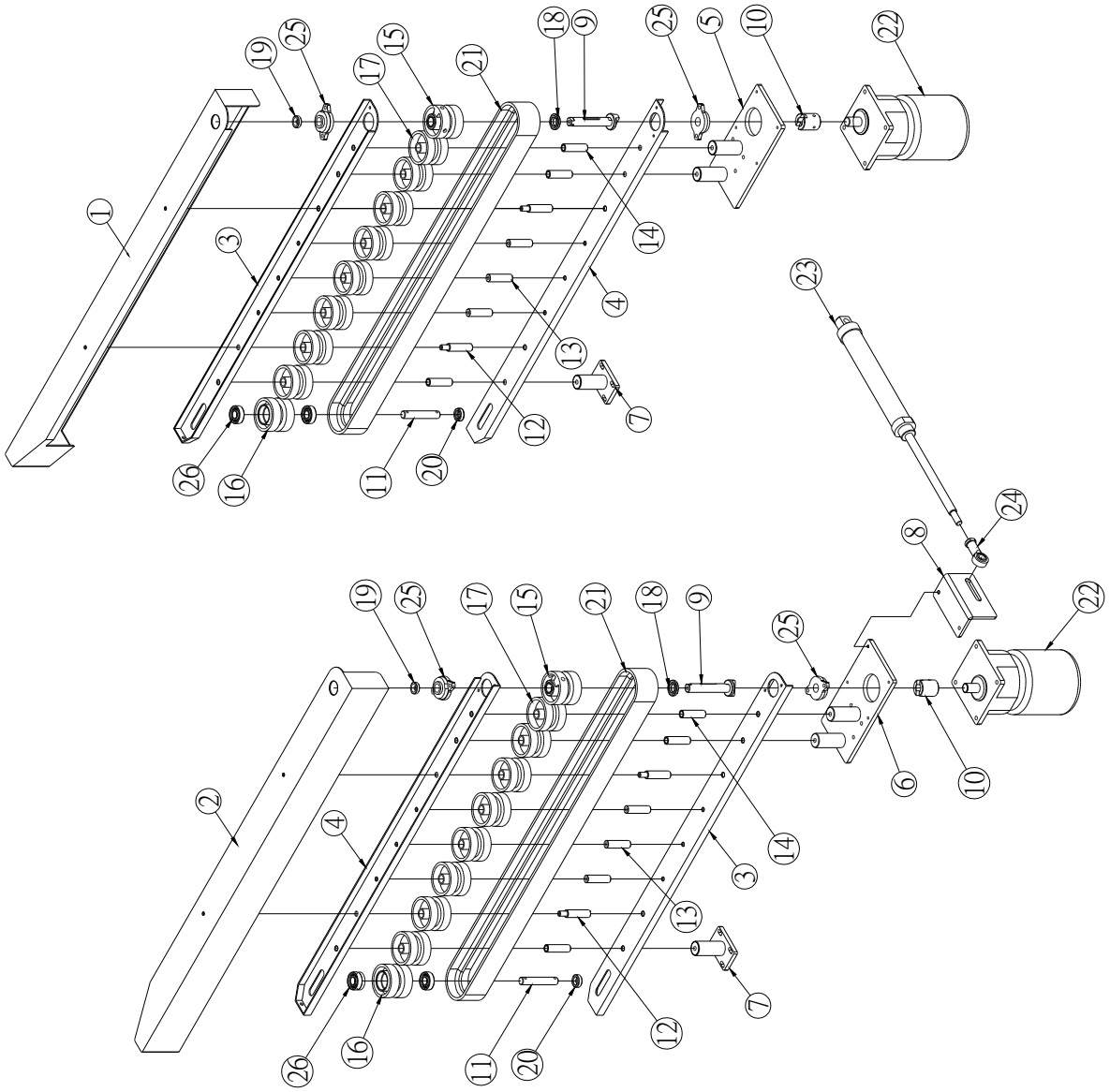


Table 3. Drive Device Assembly Parts List

Ref. No.	Part No.	Description	Q'ty
1	CHS6603-3001	Cover- Left	1
2	CHS6603-3001	Cover- Right	1
3	CHS6603-3002	Belt Bracket – R lower/L Upper	2
4	CHS6603-3002	Belt Bracket – L lower/R Upper	2
5	CHS6603-3003	Rear Driven Bracket-L	1
6	CHS6603-3003	Rear Driven Bracket-R	1
7	CHS6603-3004	Front Driven Bracket	2
8	CHS6603A-1010	Air pressure Push Board	1
9	CHS6603-3005	Main Driven Bracket	2
10	CHS6603-3006	Lower Driven Shaft	2
11	CHS6603-3007	Secondary Driven Bracket	2
12	CHS6603-3008	Belt Cover Shaft	4
13	CHS6603-3009	Long Idle Wheel Shaft	6
14	CHS6603-3010	Inner Bushing – Belt Wheel	6
15	CHS6603-3013	Main Belt Wheel	2
16	CHS6603-3014	Secondary Belt Wheel	2
17	CHS6603-3015	Idle Wheel	16
18	CHS6603-3011	Washer	2
19	CHS6603-3012	Main Driven Shaft Washer	2
20	CHS6603-3017	Washer	2
21	CHS6603-3016	Driven Belt	2
22	1/5HP	Gear Motor	2
23	Ø 40X200	Cylinder	1
24	PHS12	Connector	1
25	UFL003	Bearing	4
26	6202	Bearing	4

Fig 4. Upper Base Device Assembly Figure

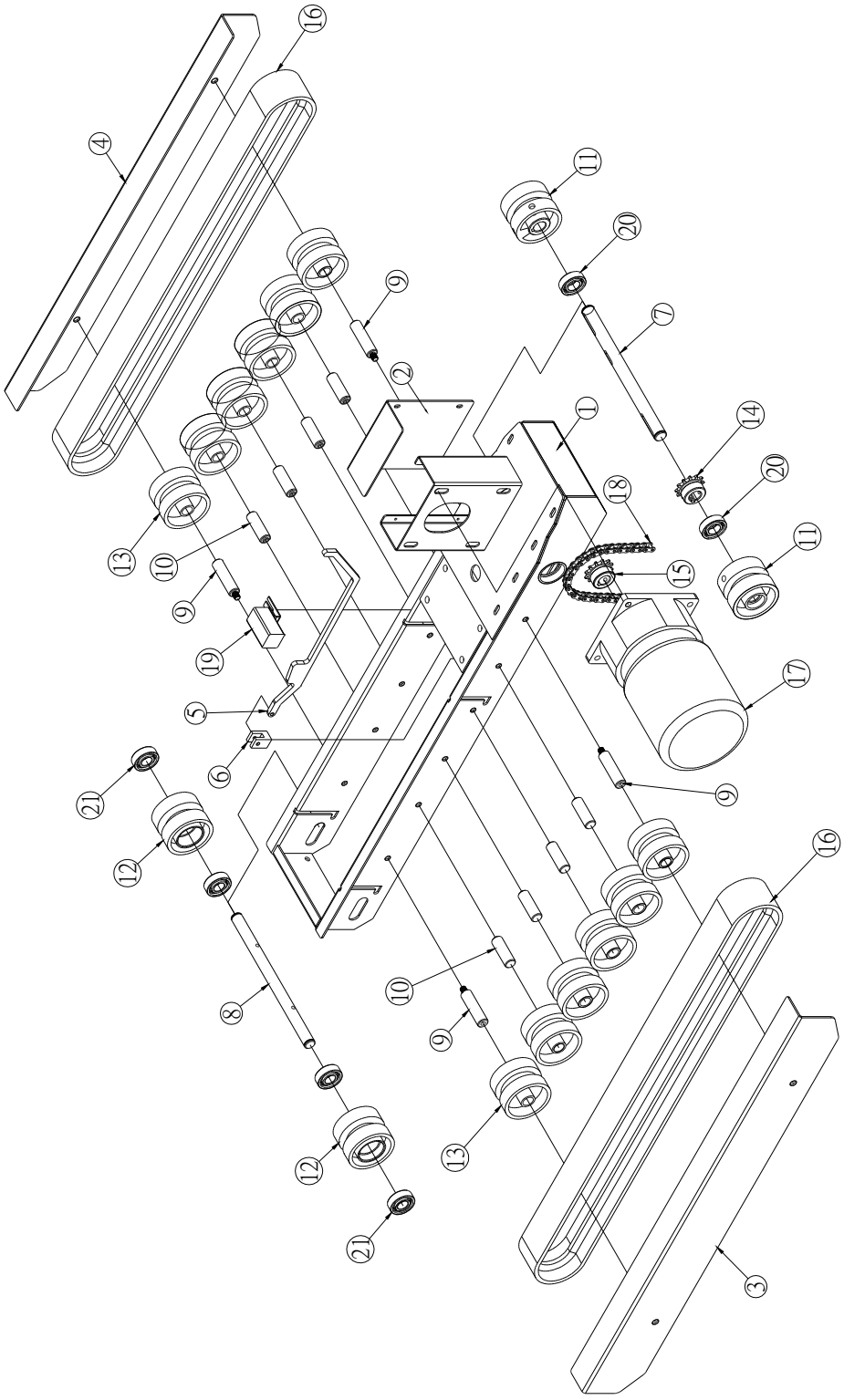
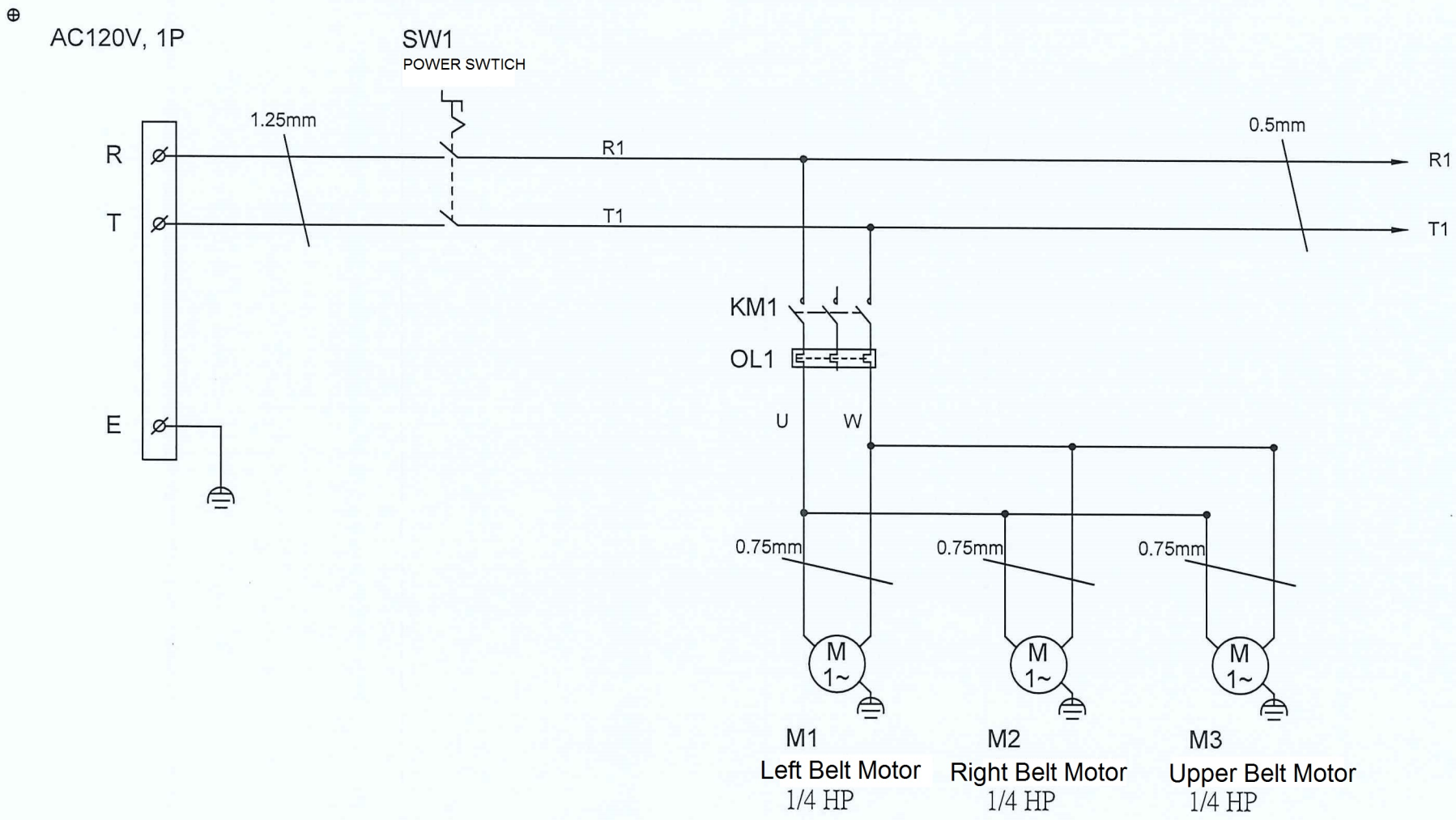
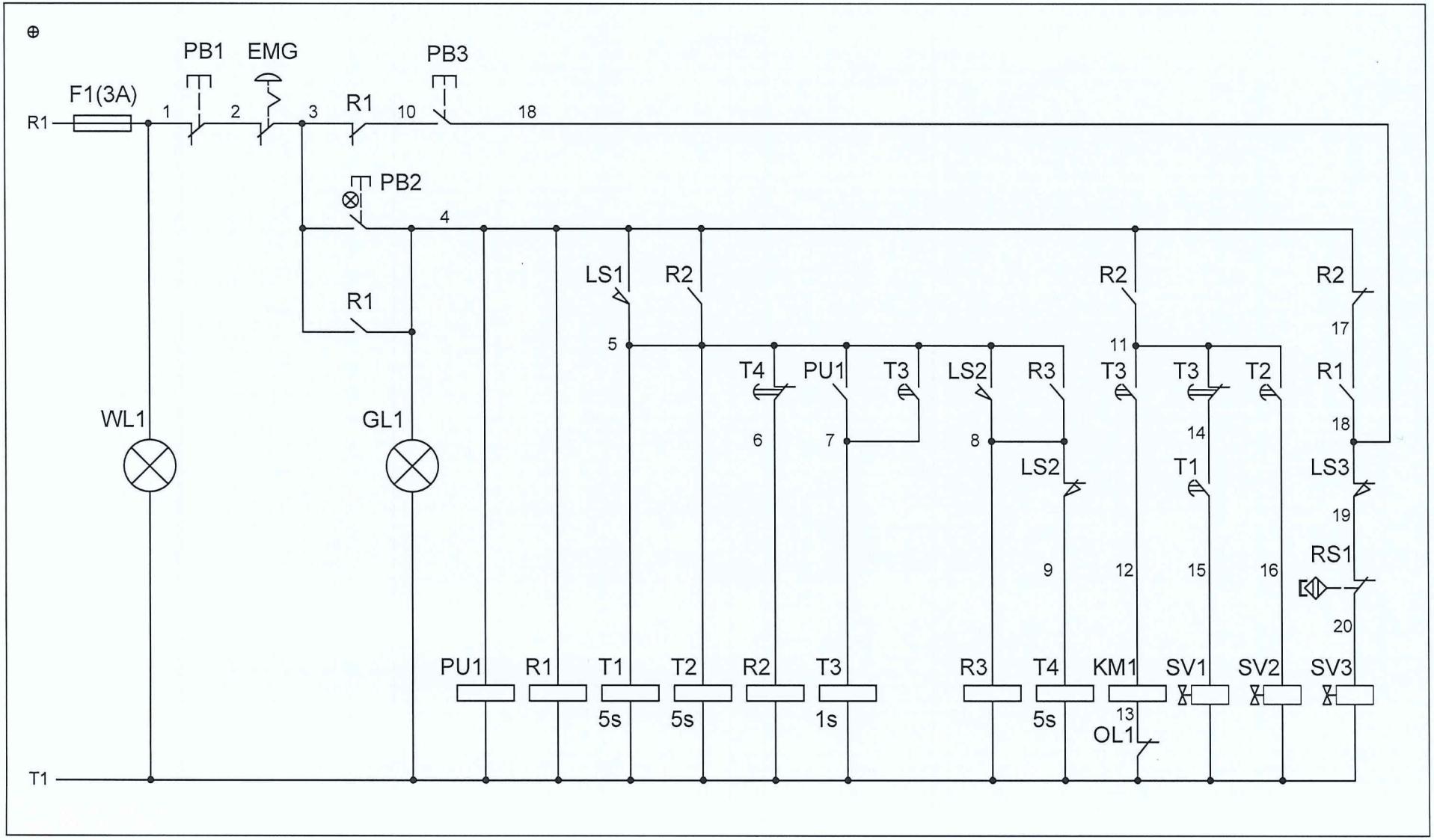


Table 4. Upper Base Device Assembly Parts List

Ref. No.	Part No.	Description	Q'ty
1	CHS6603A-4001	Upper Frame	1
2	CHS6603-4003	Sheathing	1
3	CHS6603-4004	Left Cover - L	1
4	CHS6603-4004	Left Cover - R	1
5	CHS6603A-4003	Entrance Switch Sensor	1
6	CHS6603A-4002	Holder	1
7	CHS6603-4005	Main Driven Shaft	1
8	CHS6603-4006	Secondary Driven Shaft	1
9	CHS6603-4007	Plastic Wheel Shaft	4
10	CHS6603-4008	Plastic Wheel Shaft	8
11	CHS6603-4016	Main Belt Driven Wheel	2
12	CHS6603-3014	Secondary Belt Driven Wheel	2
13	CHS6603-3015	Belt Plastic Wheel	12
14	CHS6603-4014	Belt Chain Wheel	1
15	CHS6603-4013	Chain Motor	1
16	CHS6603-4015	Driven Belt	2
17	1/4HP	Motor	1
18	RS#35	Chain	1
19		Entrance Switch	1
20	6003	Bearing	2
21	6202	Bearing	4


AC120V, 1P
SW1
POWER SWTICH
R
T
E
1.25mm
R1
T1
0.5mm
R1
T1
KM1
OL1
U
W
0.75mm
0.75mm
0.75mm
M
1~
M
1~
M
1~
M1
Left Belt Motor
1/4 HP
M2
Right Belt Motor
1/4 HP
M3
Upper Belt Motor
1/4 HP


⊕
PB1
EMG
PB3
F1(3A)
R1
1
2
3
R1
10
18
PB2
4
R1
LS1
R2
R2
R2
17
5
11
T4
PU1
T3
LS2
R3
T3
T3
T2
R1
18
WL1
GL1
6
7
8
14
LS2
T1
LS3
19
RS1
9
12
15
16
20
PU1
R1
T1
T2
R2
T3
R3
T4
KM1
SV1
SV2
SV3
5s
5s
1s
5s
13
OL1
T1

T1	upper base goes down time (5s)
T2	carton clamping time (5s)
T3	motor start to postpone (when upper base goes down) (1s)
T4	exit time (5s)
LS1	entrance microswitch
LS2	exit microswitch
LS3	position microswitch for upper base (option)
SV1	upper base goes down
SV2	side carton clamping-close
SV3	upper base goes up
RS1	upper limit magnetic reed for upper base
PX1	proximity switch for top pressing
PU-NC	controller unit

PU-NC (controller unit)