SAFETY INSTRUCTIONS

Read these safety instructions before operating or servicing your strapping machine.

1. Before operating the machine, please fit over voltage and under voltage protection to the machine.

2. Wear eye or face, and hand protection. Do not wear loose clothing.

3. Keep hands or other parts of the body out of the strap chute area during operation.

4. The temperature of the heater plate is very high. Do not touch.

5. Do not insert strap while there is not a package on the operation table.

6. Do not replace any safety parts of different specifications.

7. Shut off all electric power after machine operation or servicing machine.

8. Do not use water or steam to clean the machine.

9. Keep this operation manual with your strapping machine. Refer to it often.
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<th>Page(s)</th>
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</table>
ASSEMBLY OF ARCH AND MACHINE

Arch and machine are packed separately. Please set the arch unit on the cabinet of machine and use the tools (in the tool box) as follows (refer to the following drawing):

1: Take off the arch unit to lock (No need tightly) the screws 1 and 2 (it is necessary to open the upper table while locking the screw 2) (refer to the FIG.8)
2: Please set the band way (R) stopping plate to the feed frame (refer to the FIG.3 NO.11) with screw 4.
3: Please set the band way (L) stopping plate to the main body block (refer to the FIG.5 NO.11) with screw 3.

CAUTION: The side of the band way (L) stopping plate and the band way (R) stopping plate must be on the same line. (See the dotted line as the following drawing)
4: Lock the screw 1 and 2 tightly.
5: Do not forget to take off the adjustment block (refer to FIG.6 NO.31) from the tool box to set on the main body block with screw 5 & pin (do not lock the screw 5 tightly).
6: Adjust the adjustment block back and forth (refer to drawing A) according to the width of using strap to ensure that P.P strap go through the gateway smoothly (you can look the scale on the label marked the width of P.P strap), and then lock the screw 5 tightly.
Important Safety Information
Following safety instructions give warning for the operation of strapping machine. Read these safety instructions carefully before the operation of the machine.

**CAUTION**: Avoid placing hands or limbs in this area

**Operation**
1. Floor Locking for your safely, to use Floor Locking is recommended.
   Turn the floor Locking Bolt1 until the bottom surface of it presses against Floor with which the machine is not moved even when the machine is pushed lightly.
2. Before the operation, make sure that all the guards are fitted to the machine.
3. Never put any part of your body into or close to any moving section of the machine. Otherwise, you may be hurt.
4. Before the operation, make sure that any safety device has not been moved.
5. Never put your hand onto the wiring label when the machine is operated.
6. Fully follow to the operation instruction.
7. Use the specified power source.
8. Do not put strap or string onto any part of your body.
9. To avoid overloading of the machine, keep recommended load limits.
Chapter 1 Explanation and Specification

1-1 Explanation
This machine is a strapping machine which applies a strap to an object automatically. The following accessories are attached to the machine.

1-2 STANDARD ACCESSORIES

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSTRUCTION MANUL PARTS-LIST</td>
<td>1 VOLUME</td>
</tr>
<tr>
<td>TOOLS</td>
<td>1 SET</td>
</tr>
<tr>
<td>SWITCH KEY (4-09000-200)</td>
<td>1 PC</td>
</tr>
<tr>
<td>SCREWS, NUTS, WASHERS, ETC</td>
<td></td>
</tr>
</tbody>
</table>

*Optional accessories

Foot Switch

Warning: Do not use the attached tools, for repairing the machine.
Warning: Do not attempt to maintain or repair the machine until power source has been disconnected and locked out.

1-3 Specification (Standard Specification)

[Strapping Machine Unit]

Dimensions: Refer to the follow figure.
Weight: 175 Kg
Strapping Speed: 28-30strap/min
Dimension of package: Maximum: W850mm H600mm
Minimum: W80mm H30mm
Strap to be used: 9-15mm width.
Chapter 2 Safety instruction

Electric shock may strike you if you touch the electric box, transformer, motor or any electric parts while the power is not switch off.

Never touch the running belts, as it may catch you hurt.

Heater become over 380℃. Never touch heater plate and heater cover otherwise you may be hurt.

You may be caught to hurt if you put your finger or hand below the heater arm while operating.

You may be hurt, if you put your finger into the smoke fan while power is ON.
Chapter 3 Exterior machine

FIGURE 1: MAJOR COMPONENTS, CUTAWAY VIEW

FIGURE 2: MAJOR COMPONENTS: SEALER UNIT
### Chapter 4 Switches

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Name</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="Image" alt="Power Switch" /></td>
<td><strong>Power Switch</strong></td>
<td>The machine gets ON by press the switch and the power lamp is light. When the switch is pressed again, the machine gets OFF.</td>
</tr>
</tbody>
</table>
| ![Start Button](Image) | **Start Button** | The switch has 2 roles:  
1. To start strap.  
2. To return the cam shaft to the origin and set strap in the arch |
| ![Strap back switch](Image) | **Strap back switch** | Use this switch to keep this switch ON until the strap is back little or is out of the machine  
**Caution:**  
Exhausted strap shall be rewound to the coil manually or cut and throw away before retread it.  
Otherwise, loose strap may be intertwined. |
| ![Feed strap switch](Image) | **Feed strap switch** | Press this switch to keep strap ahead until strap is full of the arch.                                                                |
| ![Tension dial](Image) | **Tension dial** | To adjust tightening stroke.  
Strap is tightened strong by turning right.  
Strap is loosened strong by turning left. |
Chapter 5 Preparation for Operation

5-1 Connecting Electric Power

[Procedures]

Step [1] Press the power switch to turn the power OFF
Step [2] Insert the plug in the outlet.

**Warning:** If the earth grounding wire is not connected an operator may get hurt due to electric shock.

Step [3] Turn the power on by pressing the power switch. power lamp starts

**Notes**

- The machine can start while the heater has reached the temperature for strap welding (about 1 Min.)
- The machine may not operate when the power voltage \( \leq 90\% \) standard voltage
- The following states occur just after power ON

- Setting the power switch ON
  - The power lamp lights
  - The heater temperature starts increasing
  - The duct fan rotates
5-2 Setting Strap Coil

[Procedures]

Step [1]
Remove the thrust nut by turning it anti-clockwise and remove the reel plate (left).
Remove the empty strap core.

Step [2]
Fit a new strap coil in the reel plate (right). At this time, set the coil in such a way that the strap winding direction is clockwise.

Caution:
If the coil is set counterclockwise, re-set it, because the reel brake does not work well at that way.

Step [3]
Fit the reel plate (left) in the reel shaft.

Step [4]
Finally, tighten the thrust nut strongly.

[Notes]
TO place the empty strap core under the reel place (left) make this job easier.
If the coil setting direction is wrong, the reel brake does not work well, and a normal operation is not possible due to loose strap.
5-3 Thread of strap

[Procedures]

Step [1]
Place the reel onto the rail and push the reel, until the reel shaft falls into the reel slot.

Caution: When putting the reel onto the rail, set it in such a way that the strap end comes out up the reel.

Step [2]
Please install the P.P. strap through the brake roller(1) then refer to the draft for installing the p.p. strap through the free roller(2-1) and (2-2), then press the lever(4) and insert the strap into the entrance (3) till it reaches the pool unit.

Caution: If the strap end is split or bend, strap may catch and block the machine side. At this time you should cut the strap end, and then try to thread the strap again.

Step [3]
Draw the end of pp strap in pool cabinet (refer to FIG.10) and insert it into strap guide (5) through out the roller(6) and (7) about 15mm.

Step [4]
Close the door and press the power button to make the machine be ON.

Step [5]
Press the feed strap button and the strap is sent to the arch fully.

[NOTE]
If the strap is not set to the arch properly, the strap is discharged out of the strapping automatically. Check the strap end, if the strap end is split or bent, cut it and reuse the procedures for threading the strap into the entrance.
Chapter 6 Operation

[Procedures]
Step [1]   Place the object on the center position of the sealing head.
If the object is light, it needs to be held while it is strapped. Please do not hold the place where the strap is being put.

Step [2]    Depress the start button. The strap will be put automatically on the object.
Do not operate the machine if the heater can not reach temperature for welding (About 1 Minute long for heater temperature rising)

Caution: The strap may hurt your hands if you do not wear gloves.

Step [3]     The jammed strap is caught at pre-feed roller, pull out the strap and cut it, then set the strap as the chapter 5-3.
Step [4]     The buzzer will make a sound while the strap is empty from the reel coil

Chapter 7 Stop Operation

If it is necessary to stop the strapping during operation, press the power switch to off, the machine stops. To restore the operation, do the following procedures.

[Restoration procedure]
Step [1]   Grab the strap with the hand and pull it.

Step [2]   Keeping this state, press the start button. The strap grabbed with the hand is discharged out of the strapping and a new strap is set to the arch automatically


Chapter 8 Shutting Down

To shut down the machine, following the procedures are as below:

[Procedures]
Step [1]   Press the power switch on “OFF”
Step [2]   Disconnect the plug to the outlet.
Step [3]   Wind back the strap from pool to the strap coil as follows.
(1) Pull up the brake lever with the left hand, then turn the reel plate with the right hand in the direction of winding the strap.
(2) When the reel plate being to turn heavy, stop winding back.

Caution: If too much strap is remained in the pool, trouble may occur when resuming strapping activity.

Cleaning is very important to prevent the machine from trouble and enjoy longer life.
Remove strap leftover, cut dust ect. stick to especially the sealer ect.
The details, contact us or your dealer.

Remarks: This machine is a non oiling type, you don’t have to make daily oiling.
Chapter 9 Repair and maintenance

(1) The maintenance of the machine shall be done only by people who has been authorized by distributor.
(2) Before maintaining the machine, cut off all power sources.
(3) Use appropriate tools and devices for maintenance and repair.
(4) Repair and maintenance should be conducted only by well-trained service persons.

Other Notes

(1) Do not touch the heater and surrounding area before they are fully cooled down.
    The heater reaches about 380°C.

(2) Install the machine on horizontal floor and keep the surrounding area free from dust and pieces of cut off the strap.

(3) If there is any obscure point about the machine operation and the maintenance, Please contact with the service engineer.
Chapter 10 Adjustment

**Warning:** Before adjusting portion of the machine, cut the power first, and then make adjustment after receiving instructions.

10-1 Adjustment of Feed Timer (VR3)

The timer is to adjust the strap feeding time to the arch. (The range of the time is 0.5-1.0sec). The standard setting is in the scale 2 for the track size up to W850 by H600. This setting must be adjusted according to the size of the arch and the type of the strap. Do not set it too long otherwise the strap will jam in the arch and spare more time to finish the strapping circle, if the setting is too short. The strap can not reach full of the arch.

10-2 Adjustment of BACK Timer (VR5)

The timer is to adjust the strap back time from the arch. (The range of the time is 0.5-1.0sec). The standard setting is in the scale 2 for the track size up to W850 by H600. This setting must be adjusted according to the size of the arch and the type of the strap. Do not set it too long otherwise the feed/back motor will stop probably and spare more time to finish the strapping circle, if the setting is too short. The strapping can not be finished.

10-3 Adjustment of Heater Temperature (VR1)

Turn the heater temperature knob to the right to increase the temperature and turn left to reduce the temperature. Depending on the type and size of the strap, the heater temperature may need to be If the temperature is too short, the strap can not be welded; on the contrary, the strap will be welded over and break. (Please refer to the diagram on the right)

10-4 Adjustment of Cooling Timer (VR4)

The timer is to adjust the press cooling time for the strap welding portion. The time is set long by turning this knob clockwise and set short by turning counterclockwise. The range of the time is 0-0.4sec. The standard setting is in the scale 4(0.15sec.). If the time is too short, the strap will break when the tension is bigger.

10-5 Jog switch

When something wrong with the machine you could press this button to run the machine step by step to analysis the problem.

10-6 Auto/manual switch

You can choose the mode by pressing the button to change the operation automatically or by hand

10-7 Adjustment of Strap-collected Length in the Pool

This is to adjust the length of the strap collected in the pool with the prefeed roller. The length gets long when loosening the bolt and moving back the balance block. The length gets short when loosening the bolt and moving ahead the balance block. The length of the strap is according to the size of the arch. If the length is too long, not only the strap will not be feed/turned back smoothly, but also the strap will be distorted; If the length is too short, one packing circle can not be finished.
10-8 Reel Brake Adjustment

Loosen the bolts(1) and move the brake belt(2) to adjust the brake belt stronger or weaker. When the strap becomes much loose on the strap coil, change the position to tighten it.

10-9 Feed Roller Pressure Adjustment

To adjust the tension of the spring, rotate the knob to move the position of the spring hook. Spring tension becomes weaker when the knob is rotating clockwise, and it become stronger when the knob is rotated anti-clockwise.

Note: Setting position depending on the type of strap, strap thickness, air temperature (season) and other conditions. The user may have a micro-adjustment. In common currency, the position is set in the factory. If spring tension is too strong, strap will be distorted because of over pressure. On the contrary, the end of the strap can not reach the right position where the switch is sensed.

10-10 Position Adjustment

Refer to FIG. 10 POOL UNIT, you need change the position of the part item 11 and item 12 according to the width of PP strap. You have to turn over the item 12 by 180℃ from 12mm strap to 9mm or 15mm, and change the position of the item 11 shown as follows:

Note: Please refer to FIG.9, you can loosen the screw NO.111 when you change the position of the item 11. Lock the screw tightly when you finish your setting.
Chapter 11 Trouble shooting

● Trouble for power supply ●

Symptom
(1) The power lamp does not blink by revolve the power switch on
(2) The power is supplied, but the buzzer sounds and the machine does not work

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Causes</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A. Power blackout or incomplete insertion of the power plug.</td>
<td>Re-Insert the plug</td>
</tr>
<tr>
<td>2</td>
<td>C. Overload to motor occurred. The circuit protector for motor is operating. a) Cut strap or strap dust blocks the feed roller to prevent smooth roller rotation. b) The braking force is not enough due to wear of the brake pad. Strap has derailed from the reel brake, and the strap tangles around the pre-feed motor which cannot rotates as a result</td>
<td>Set the power switch to OFF and remove arouse of overload. a)Cleaning b)Adjusting or replacing</td>
</tr>
</tbody>
</table>

Electric box

-14-
## Trouble with strap setting and feeding

### Symptom
1. Strap is not fed at all, after strap setting
2. Strap is fed temporarily, but rejected from the strap insertion inlet, after strap setting.
3. Strap is fed, only up to the midway of the arch, after one strapping.
4. Strap is not fed at all, after one strapping
5. Strap nipping occurs around the feed roller or reverse roller

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Causes</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ ○ ○</td>
<td>A. Strap does not pass properly</td>
<td>See Operation Manual 5-2, 5-3</td>
</tr>
<tr>
<td>○ ○ ○</td>
<td>B. The reel brake does not work well, and the strap tangles.</td>
<td>Adjust</td>
</tr>
<tr>
<td>○</td>
<td>C. The strap or feed roller is slipping due to oil contamination</td>
<td>Clean</td>
</tr>
<tr>
<td>○</td>
<td>D. Strap-collected length in the pool is not enough.</td>
<td>Adjust * Adjust the position of balance roller to have proper length of strap in the pool.</td>
</tr>
<tr>
<td>○</td>
<td>E. Strap-collected length in the pool is more.</td>
<td>Adjust * Adjust the position of balance roller to have proper length of strap in the pool.</td>
</tr>
<tr>
<td>○</td>
<td>F. Feed timer set too short.</td>
<td>Set the feed timer (VR3) to longer time.</td>
</tr>
<tr>
<td>○</td>
<td>G. The feed roller produces too much pressure.</td>
<td>Reduce the pressure.</td>
</tr>
<tr>
<td>○</td>
<td>H. Strap is twist and jammed at reverse roller.</td>
<td>Turn feed back button until the strap is entirely exhausted out of sealer unit, Then cut the twisted part of the strap and re-thread it.</td>
</tr>
</tbody>
</table>

## Trouble with starting

### Symptom
1. The machine does not start when pressing the start button.
2. The strap is released abruptly and re-fed, and strapping is impossible

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Causes</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>A. The contact point of start button is improper</td>
<td>Replace (Wear due to using for long time)</td>
</tr>
<tr>
<td>○</td>
<td>B. The strap feed timer(VR3) is set short, and strap end cannot reach the strap stop.</td>
<td>Adjust to the proper time</td>
</tr>
</tbody>
</table>
• Trouble with feed reversing and tensioning •

Symptom
(1) Welding start, while the strap is pulled back not fully.
(2) The strap is released abruptly and strapping is impossible.
(3) Strap tension cannot increase, even when setting the tension knob to the large scale

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Causes</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>A. Cut strap or strap dust blocks the feed roller</td>
<td>Clean.</td>
</tr>
<tr>
<td>(2)</td>
<td>B. The feeding timer (VR3) is set too short and the strap end cannot reach the strap stop.</td>
<td>To adjust the proper time</td>
</tr>
<tr>
<td>(3)</td>
<td>C. The strap or return roller is slipping due to oil contamination.</td>
<td>Clean.</td>
</tr>
<tr>
<td></td>
<td>D. The tension knob is defective</td>
<td>Replace.</td>
</tr>
<tr>
<td></td>
<td>E. The return following roller contacts with the shoot cover.</td>
<td>Adjust.</td>
</tr>
</tbody>
</table>

• Trouble with welding •

Symptom
(1) Strap cannot be welded.(Heater temperature cannot rise at all)
(2) Strap cannot be welded.(Heater temperature rises)
(3) Appearance of welded area is good, but welding is not well done
(4) Welded area is melted too much.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Causes</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>A. Heater wire is broken, or contact point has trouble</td>
<td>Re-plug or replace</td>
</tr>
<tr>
<td>(2)</td>
<td>B. The end of heater plate pushes the Strap.</td>
<td>Adjust.</td>
</tr>
<tr>
<td></td>
<td>* Shake the heater plate right and left and fit.</td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>C. Heater temperature is low.</td>
<td>Raise the temperature setting knob (VR1) slightly.</td>
</tr>
<tr>
<td>(4)</td>
<td>D. Melt strap dust sticks to the heater.</td>
<td>Clean.</td>
</tr>
<tr>
<td></td>
<td>E. The fan motor stops a) Dust sticks to the fan.</td>
<td>a) Clean.</td>
</tr>
<tr>
<td></td>
<td>b) The contact point of connector has trouble.</td>
<td>b) Inspect and re-plug.</td>
</tr>
<tr>
<td></td>
<td>F. Strap tension is set too strong.</td>
<td>To set proper tension.</td>
</tr>
<tr>
<td></td>
<td>* if tension decrease is impossible, set the cooling timer (VR4) little longer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G. Heater temperature is high.</td>
<td>Lower the set heater temperature by turning the heater temperature adjusting knob counterclockwise.</td>
</tr>
</tbody>
</table>
CAUTION

Before plugging in, open the operating cover / table and take out the anti-rusty bag and the drier laid on the sealer unit.