Continuous Band Sealer Instruction Manual

Distributed By:

Version 2.1
Last Updated: 2/15/2023

Sealer Sales, Inc.
8820 Baird Avenue
Northridge, Ca 91324
www.sealersales.com

Printed in the United States of America

General Information

Thank you for purchasing our FR-770 continuous band sealer.

This owner's manual contains information relating to your band sealer machine. The manual will provide you with basic information concerning both operation and maintenance of your new machine. Please read it carefully as failure to do so may result in bodily injury and/or damage to the equipment.

Please fill in the information below. You will find the information on the machine identification plate. You will need this information when ordering replacement parts or making technical inquiries.

FR-770 EQUIPMENT INFORMATION

- Model #
- Serial #
- Purchase Date:
- Reference # (found on packing slip)
- Owner:

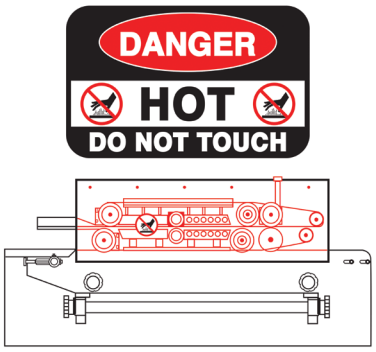
Table of Contents

Safety Instructions

WARNING! *Below are general safety precautions and warnings that should be understood prior to setting up or operating your equipment. Read and fully understand all instructions and warnings prior to using this unit. Your safety is most important! Failure to comply with procedures may result in serious injury or property damage. Remember:* ***Your personal safety is your responsibility.***

Unsafe practices or unauthorized modifications could result in accidents or property damage. Failure to follow these safety rules and take necessary precautions can result in serious injury as well as damage to equipment.

- Never operate or service your band sealer until you have read this manual completely and understand it fully.
- Plug the band sealer into a standard 120 Volt, 60Hz wall outlet or surge protector. We highly suggest using a surge protector. Some special order units are 220 Volt, 50Hz. Make adjustments as necessary.
- Do not use the band sealer if the power cord, plug or any other parts are damaged. Do not to allow the power cord to drape into your work area. Check that all parts are operating properly and perform the intended functions. Check for all other conditions that may affect the operation.
- Reduce risk of unintentional starting. Make sure the power switch is in the "OFF" position before plugging into the power source.
- Always disconnect sealer from power source before servicing, changing accessories or cleaning the unit.
- To provide protection against the risk of electrical shock, the power connection must be properly grounded at all times.
- Do not leave the sealer unattended when in use. Disconnect the sealer from the power source before leaving the work area.
- Band sealer is used solely for sealing thermoplastic materials. Using the machine for any other purpose can cause damage to the machine and operator. Do NOT use the machine for any other purpose other than to seal thermoplastic materials. Doing so may result in damage to the machine and injury to the operator.
- Always operate machine on a flat stable surface.
- While operating machinery, wear close-fitting clothing and tie back long hair to prevent any external items from getting caught in the machine. Do not wear jewelry when operating the band sealer.



- While machine is operating do not touch the heating and/or cooling blocks. Blocks are extremely hot and may burn your hands.

-  While machine is in operation, do not place fingers, tools, or other foreign objects on or into the machine. Do not touch any moving parts while machine is operating. Fingers may get caught in between the gears / pinch points and cause significant injury.

- Thermoplastic bags and material are hand fed into the machine. Place bag on the guide and carefully feed the bag through the band sealer. Fingers may be placed on the guide but do not allow fingers to touch any of the moving parts on the band sealer.

- Use emergency stop to turn off machine should material/bags get jammed into the machine. Carefully pull material out of the band sealer. Do NOT use fingers to touch any part of the machine.

- The band sealer is not water resistant or water proof. Spraying down the machine will damage machine or cause electrical shock. Do not submerge the band sealer into water or liquid.

- Do not operate band sealer in a corrosive or humid environment.

- Always keep the machine clean, lubricated and in good working condition. Follow any maintenance and lubrication procedures outlined in this manual. Make sure unit is disconnected from power source before cleaning

- NEVER use any accessories or parts from other manufacturers. Machine should not be altered or modified using parts that are not genuine authorized parts. Doing so will VOID YOUR WARRANTY.

- Never leave the band sealer unattended. Be safe, disconnect the band sealer from power source before leaving work area.

- Close supervision is necessary when any machine is near children or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge . This sealer is NOT to be used by children or by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge.

- DO NOT use the band sealer outdoors.

- DO NOT use the band sealer while under the influence of drugs, medications or alcohol.

SAVE THESE INSTRUCTIONS - REFER TO THEM OFTEN AND USE THEM TO INSTRUCT OTHERS.

Introduction

FR-770 is equipped with an electronic temperature controller and variable speed conveyor to seal all types of thermoplastic materials (PP, PE, stand up pouches, gusseted bags, moisture barrier bags, etc.). Seals are created using PTFE bands which maintain high seal quality and produce consistently strong, clean seals on all heat sealable bags. Because bags are placed on a conveyor system, the width of the bag does not matter. These versatile machines offer several adjustments which allow them to be used for a wide range of applications. These machines are used extensively in the food/produce, medical, chemical, cosmetic, and electronic industries. The FR-770 band sealer will significantly increase efficiency of packaging your products.

There are two configurations for the FR-770 band sealer. The horizontal configuration (FR-770I) is primarily used for sealing dry materials and when you can lay flat your pouch. The vertical configuration (FR-770II) typically seals small solid products (ex: powders, grains, coffee) and liquids. In addition, sealing using the vertical configuration also works best with stand up pouches.

Features of the FR-770 Band Sealer

Your band sealer is equipped with a wide range of standard features and capabilities.

- Simple to use – minimal operator training
- Rust inhibiting stainless steel construction
- Equipped with bag entry guide for easy bag feeding and straight seals
- Unit feeds left to right (see CBS-880 for right to left feeding)
- Control panel includes industrial grade safety emergency stop switch
- 10amp protection power surge breaker
- Wide seal (8mm) to assure airtight seal / Optional 15mm width sealer model available
- PTFE sealing belts
- Extended forced-air cooling system with extra wide cooling bars and 6 heat transfer orifices
- One pair of brass sealing bars
- Sealing method – constant heat
- Adjustable 2-way pulley system for optimal stability and embossing clarity
- Knurled pressure rolls with variable pressure adjustment
- Fast warm up time
- PID digital temperature controller 0-300˚C (572˚F) with dual alphanumeric displays (target & current temp)
- Motorized rubber conveyor with speed control
- Capable of speeds up to 472 inches/minute
- Optional pressure embossing coder
- Optional digital counter available

How Does the FR-770 Work?

Basic Principles
FR-770 is easy to use. To seal, adjust temperature and place bag on conveyor

FR-770 is comprised of a stainless steel frame, speed adjusting mechanism, sealing temperature control system and transmission system. Turning on the heat for the band sealer will cause a rapid rise in the temperature of the heating blocks. Required temperature and speed can be adjusted via the temperature controller and speed adjusting device. Plastic material to be sealed is placed on the guide and conveyor. Conveyor will then take the material between the two heating blocks to fuse the material together. Material will then pass through the cooling blocks to allow the material to congeal. Finally, material will then pass through the embossing wheel for a meshed seal line.

The motor drives the sealing belts, drive belts and conveyor simultaneously.

Specifications

	FR-770I (Horizontal)	FR-770II (Vertical)
Power	110V/60Hz	
Motor / Sealing Power	50W / 300W x 2	
Sealing Speed	0-630 inches/minutes	
Sealing Width	10mm (Optional 15mm width available)	
Temperature Range	0-300°C (572°F)	
Conveyor Size	38" x 7"	
Max Conveyor Load	22-lbs	
Min/Max Height of Bag *(Vertical Only)*	N/A	6" / 12"
Character Size	3x4x9mm / 18PT	
Embossing *(Optional Feature)*	1 line embossing (2 lines available) 3 sections w/ 15 characters/line	
Dimensions	33" x 17" x 13"	33" x 15" x 26"
Weight	66lbs	87lbs

FR-770 Diagram

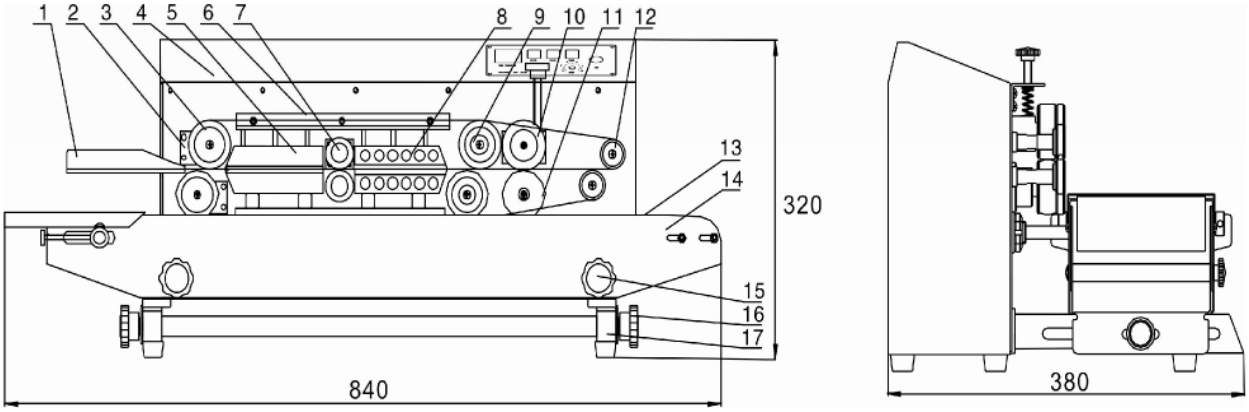


Figure 1. Horizontal Band Sealer (1) Guide, (2) Driven Wheel Seat (Adjusting Block), (3) Driven Wheel, (4) Control Panel, (5) Heating Block, (6) Holding Plate, (7) Pinch Roller, (8) Cooling Block, (9) Driving Wheel, (10) Embossing Roller, (11) Silicone Wheel, (12) Guiding Wheel, (13) Conveyor Belt, (14) Conveyor Table, (15) Fastening Knob for Elevating Table, (16) Transverse Tightening Knob for Conveyor Table, (17) Conveyor Support

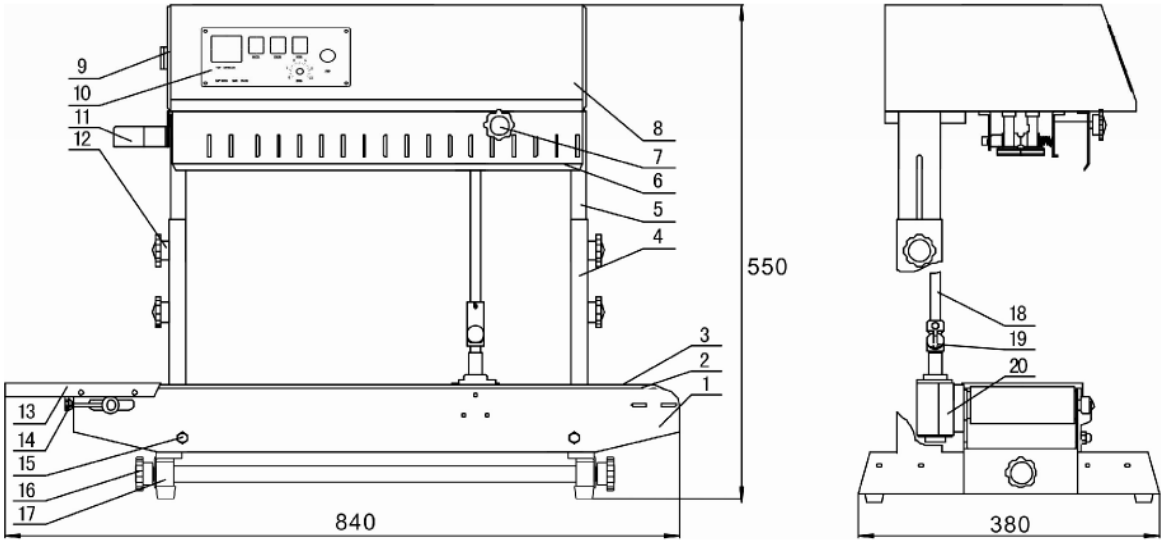


Figure 2. Vertical Band Sealer (1) Conveyor Table, (2) Driving Roller, (3) Conveyor Belt, (4) Fixed Bracket, (5) Slip Bracket, (6) Safety Cover, (7) Adjusting Knob for Embossing Roller, (8) Housing, (9) Circuit Breaker, (10) Control Panel, (11) Feed Opening, (12) Fastening Knob, (13) Working Table, (14) Adjusting Knob for Conveyor Belt, (15) Tightening Nut, (16) Transverse Tightening Knob for Conveyor Table, (17) Conveyor Support, (18) Vertical Shaft, (19) Gimbel Assembly, (20) Umbrella Gear Shaft

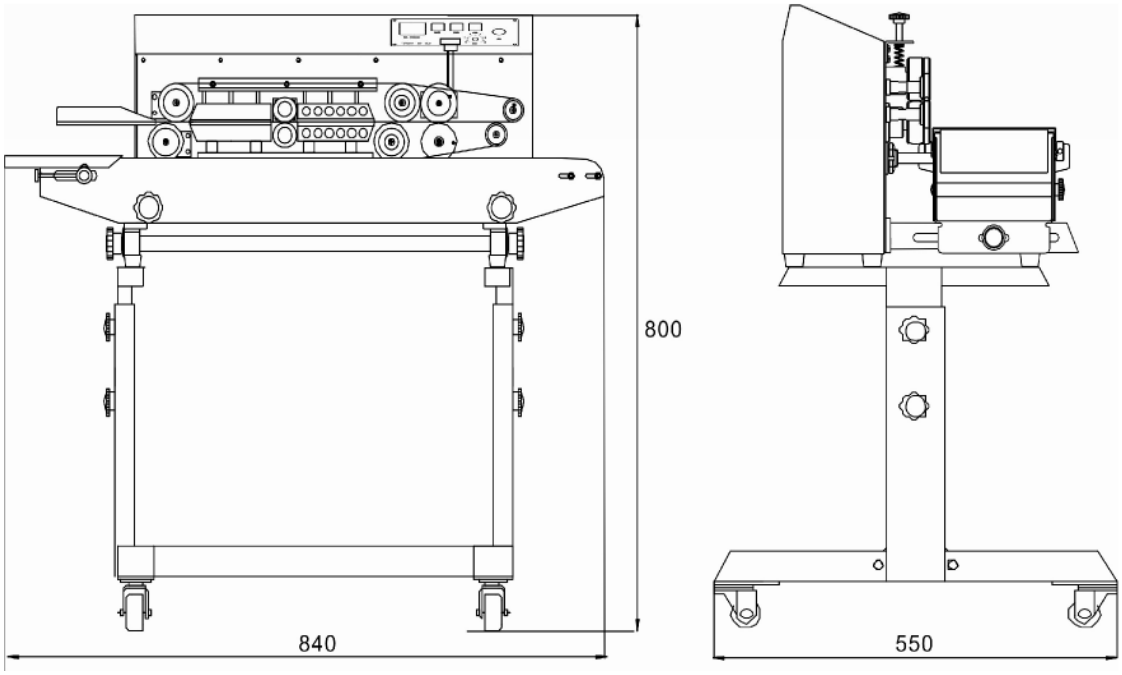
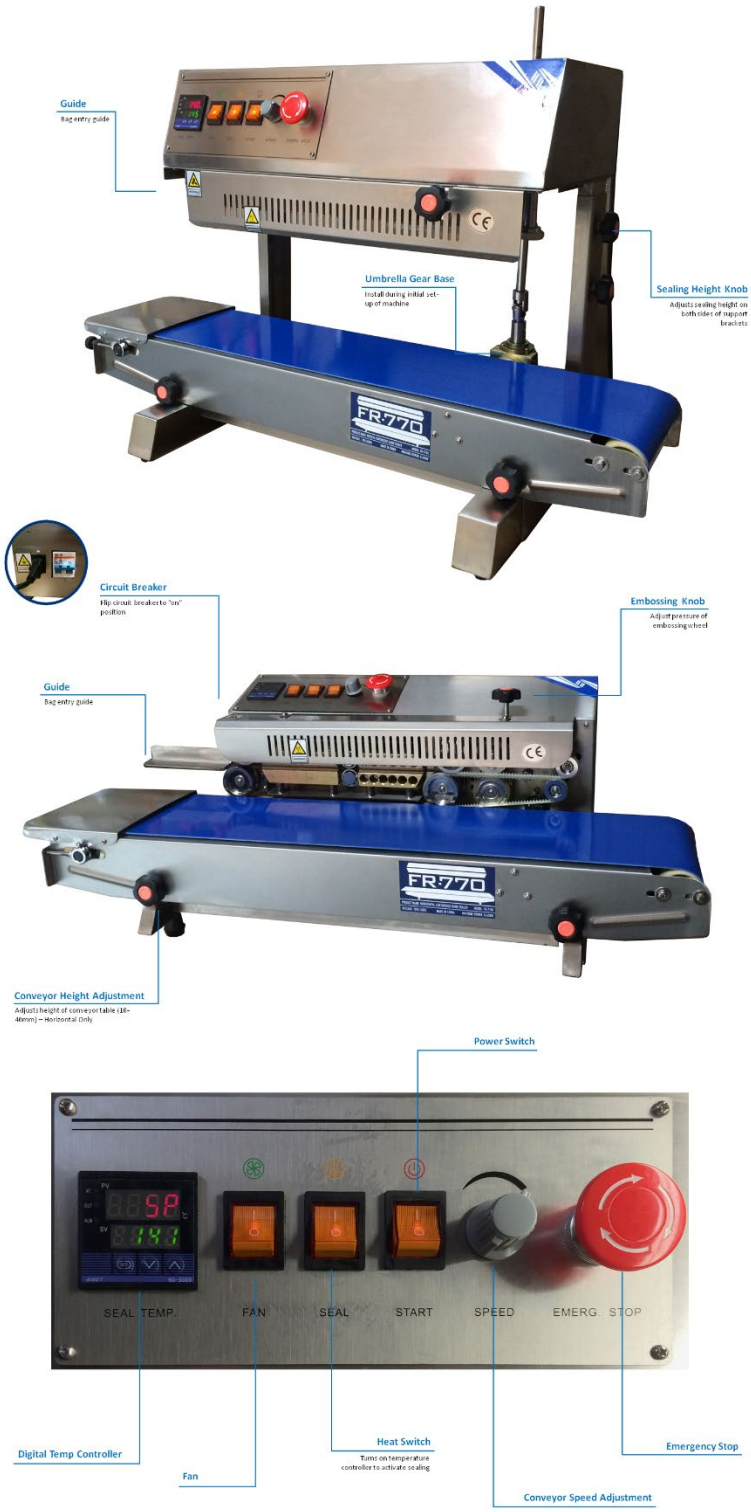


Figure 3. Horizontal Band Sealer with Stand. Optional stand available for FR-770. Please ask your distributor.

Getting to Know your Band Sealer



Warranty

Sealer Sales ("Sealer") provides limited warranties for its non-consumable products subject to these Terms and Conditions. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state. Any warranties implied by law shall in no event extend beyond the duration of the express warranty offered, if any. Some States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some products may also be covered by a manufacturer's warranty that requires these items to be sent directly to the manufacturer for replacement or repair.

Sealer warrants its non-consumable products against defects in materials and workmanship under normal use for the following warranty periods:

- 180 (one hundred eighty) days for equipment, excluding portable sealers and heat guns
- 90 (ninety) days for portable sealers and heat guns
- 60 (sixty) days for non-consumable parts and repairs

The warranty period begins on the date of purchase by the initial purchaser.

Sealer does not warrant consumable parts or products, including, but not limited to, replacement kits, heating elements, PTFE insulators, silicone/compression rubber, and flexible packaging.

Service Provided

Sealer has no obligation to repair, replace, or refund a product until the customer returns the product in question to Sealer. If a defect arises and a valid claim is received within the warranty period, Sealer will, at its option and to the extent permitted by law either: (1) repair the hardware defect at no charge, using new or refurbished replacement parts; (2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts; or (3) provide a refund. Sealer, to the extent permitted by law, shall have the sole discretion to determine which service option it will provide and is not obligated by the terms of this warranty to provide more than one service option.

Exclusions

This Limited Warranty only applies to products purchased directly from Sealer. Sealer does not warrant that the operation of the products will be uninterrupted or error free. Sealer is not responsible for damage arising from failure to following instructions related to the use of the products.

The Limited Warranty does not apply to: (a) damage caused by use with products not approved by Sealer; (b) damaged caused by accident, abuse, misuse, improper storage, theft, vandalism, natural acts of God, or other external causes; (c) damage caused by operating the product outside of its permitted or intended uses; (d) damaged caused by service performed by anyone other than Sealer or an authorized representative of Sealer, (e) damaged caused by improper maintenance or lack of maintenance; (f) damage or loss in functionality caused by modification or

alteration of any parts without Sealer's permission; (g) consumable parts; (h) cosmetic damage; or (i) ordinary wear and tear.

Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product

Limitation of Liability

THE MAXIMUM LIABILITY OF SEALER UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT. TO THE MAXIMUM EXTENT PERMITTED BY LAW, SEALER IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY. THIS LIMITED WARRANTY GIVES THE CUSTOMER SPECIFIC LEGAL RIGHTS. THE CUSTOMER MAY ALSO HAVE RIGHTS WHICH VARY FROM STATE TO STATE. IN SOME STATES, CERTAIN DISCLAIMERS AND LIMITATIONS MAY NOT APPLY TO YOU. TO THE EXTENT THIS LIMITED WARRANTY IS INCONSISTENT WITH LOCAL LAW THIS STATEMENT SHALL BE MODIFIED TO BE CONSISTENT WITH SUCH LOCAL LAW. If any term or condition of this warranty is held to be illegal, unenforceable or against public policy, the legality or enforceability of the remaining terms shall not be affected or impaired.

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE EXTENT PERMITTED BY LAW; SEALER IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF ITS PRODUCTS OR ANY BREACH OF WARRANTY OR CONDITION, WHETHER BASED ON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY AND REGARDLESS OF WHETHER SEALER WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Exclusive Remedy

TO THE MAXIMUM EXTENT PERMITTED BY LAW, THIS LIMITED WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. TO THE MAXIMUM EXTENT PERMITTED BY LAW, SEALER SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF SEALER CANNOT LAWFULLY DISCLAIM OR EXCLUDE IMPLIED WARRANTIES UNDER APPLICABLE LAW, THEN ALL IMPLIED WARRANTIES COVERING THIS PRODUCT, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO THIS PRODUCT AS PROVIDED UNDER APPICABLE LAW.

IF ANY PRODUCT TO WHICH THIS LIMITED WARRANTY APPLIES IS A “CONSUMER PRODUCT” UNDER THE MAGNUSON-MOSS WARRANTY ACT (15 U.S.C.A. §2301, ET SEQ.) OR OTHER APPICABLE LAW, THE FOREGOING DISCLAIMER OF IMPLIED WARRANTIES SHALL NOT APPLY TO YOU, AND ALL IMPLIED WARRANTIES ON THIS PRODUCT, INCLUDING WARRANTIES OF

MERCHANTABILITY AND FITNESS FOR THE PARTICULAR PURPOSE, SHALL APPLY AS PROVIDED UNDER APPLICABLE LAW.

Obtaining Warranty Service

If you believe the product you purchased is not functioning properly due to a defect covered by this warranty, please contact Sealer directly via telephone, U.S. mail, or e-mail using the contact information listed on our website. A Sealer representative will help determine whether your product requires service and, if it does, will inform you how service will be provided. You must assist in the diagnosis process by providing any information or requested documentation required by Sealer.

Sealer may (a) provide warranty at its headquarters location, (b) request that you ship the product to its headquarters for service, or (c) ship you new or refurbished replacement products or parts to enable you to complete repairs on your own. Sealer does not provide on-site warranty service for any products or parts. If a product is shipped to Sealer for warranty repair, the customer must pay for shipping costs. If it is decided that a product should be returned directly to Sealer, the product should be properly packed, preferably in the original packaging, for shipping.

When a product or part is exchanged or replaced, any replaced item becomes the property of Sealer.

Service options and service times may vary depending on the complexity of the product, the nature of the defect, and/or the availability of replacement parts. Sealer may require proof of purchase details before providing warranty service.

Operation

Important

Read this manual carefully, and make it available to everyone connected with the supervision, maintenance, or operation of this machine. Additional copies are available at your request. Be very careful when operating, adjusting, or servicing this equipment. If in doubt, stop and obtain qualified help before proceeding.

Installation

Place the band sealer in the desired location with the required electrical power source available. (See power requirements.) Make certain that proper electrical wiring is provided to guard against low voltage. If the voltage is too low, the equipment will not function properly.

Finding the proper location is a most important function of the initial set-up. One must take several factors into consideration:

- Adequate power source
- Relationship to source of product
- Relationship to band sealer
- Relationship to any conveyors necessary to transport finished product
- Convenience of operator

1. Your new FR-770 band sealer comes packaged in a heavy duty carton to protect it. If your machine does not arrive in this condition, write on shipping paperwork that outside of box is damaged. Concealed damage may have occurred.
2. Two foam pieces hold and protect the band sealer. Remove the two foam pieces.

3. Use the handles when removing the machine from the box. DO NOT hold the conveyor to move the machine.

4. Carefully check the contents against the spare parts list (see Spare Parts List on page **Error! Bookmark not defined.**). Once you have determined that all of the parts have arrived in good order set up can proceed. If any parts are missing or appear to be damaged, please notify your distributor or Sealer Sales AND your freight company at once.

Initial Set-up (Vertical Units Only)

Please note: Initial set up is for vertical configuration (FR-770II) band sealers only.

Please disregard initial set up instructions if you purchased the FR-770 horizontal configuration band sealer.

To prevent damage to the band sealer, the umbrella gear base with long shaft is shipped disconnected. Please follow these simple steps to connect the long shaft to the umbrella gear base.

1. Open the panel found at the top of the band sealer.
2. Insert the long shaft through the gear in the band sealer housing, making sure the groove on the shaft and gears line up.
3. Insert the shaft in the umbrella gear base.

Figure 4. Ensure the groove in the long shaft matches that in the gear

Figure 5. Ensure the groove in the long shaft matches that in the gear

4. Using a screwdriver, screw the long shaft into the Umbrella Gear Base

Figure 6. Screw the long shaft to the umbrella gear base.

Operation Set-up

1. Our machines are equipped with a three-prong grounded plug. Make sure the plug is well-connected in the socket to ensure safe operation.

    a. Check that the power supply voltage is consistent with the voltage of the machine

    b. Ensure the machine is properly connected to a grounded receptacle. (grounding line is yellow green double color line)

    c. Make sure there is nothing impeding movement of the cable. If the cable appears damaged, replace immediately

WARNING!

Ensure that the socket has protective grounding wires

Please check the voltage by referring to machine nameplate

Please comply with safety guidelines

2. Make sure the circuit breaker is in the "ON" position. (Levers pointing up)

3. First time operation. Allow the machine to pre-heat by running at a low temperature for a few minutes. This would apply if the machine has not been in operation for a long time. The machine can sometimes be damp from storage or shipment and running at a low temperature will dry out any residual moisture.

4. For some materials, an adjustment to the clearance between the upper heating block and bottom heating block and upper cooling block and bottom cooling block may be necessary. Adjust the clearance between by turning the stopping flake clockwise (increase distance) to raise the block our counterclockwise to lower the block (decrease distance). The clearance should be equal to the thickness of one layer of your material to be packaged. This will ensure high seal quality and embossing. ***Please note that the majority of materials sealed will NOT need adjustments.***

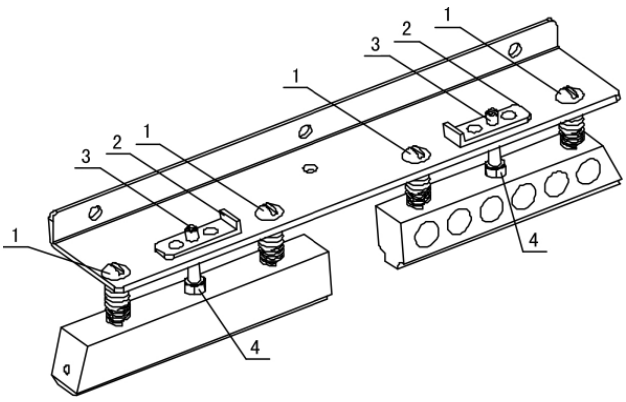


Figure 7. (1) Screw, (2) Stopping Flake, (3) Fastening Screw, (4) Nut

5. Adjust the conveyor position forwards or backwards. Refer to **Figure 8** for knob adjustments. For vertical configuration only, adjust the height of the band sealer appropriate for your bag to be sealed.

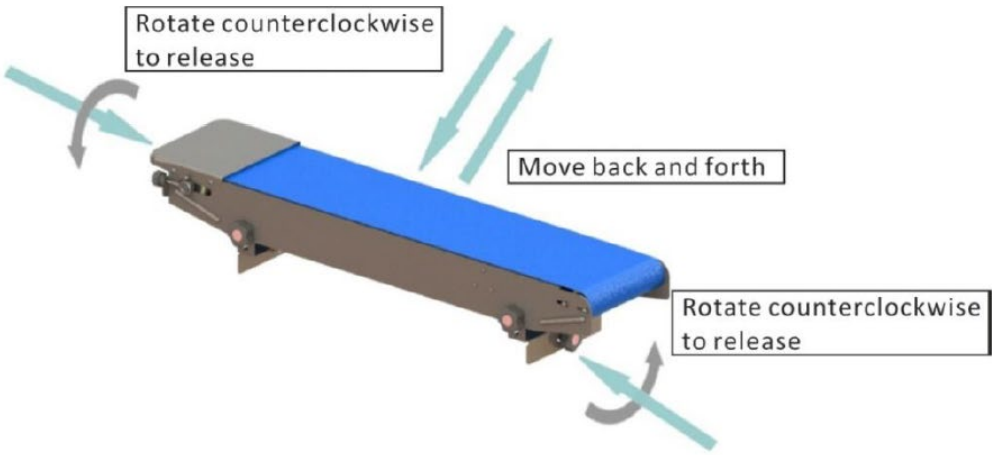


Figure 8. (1) Adjusting Knob, (2) Foot Rest

6. To adjust the conveyor height (horizontal configuration), adjust the height by the adjusting knob in front of the conveyor table and tighten after adjustment. Refer **Figure 9** to for knob adjustments. For vertical configuration only, adjust the height of the band sealer appropriate for your bag to be sealed.

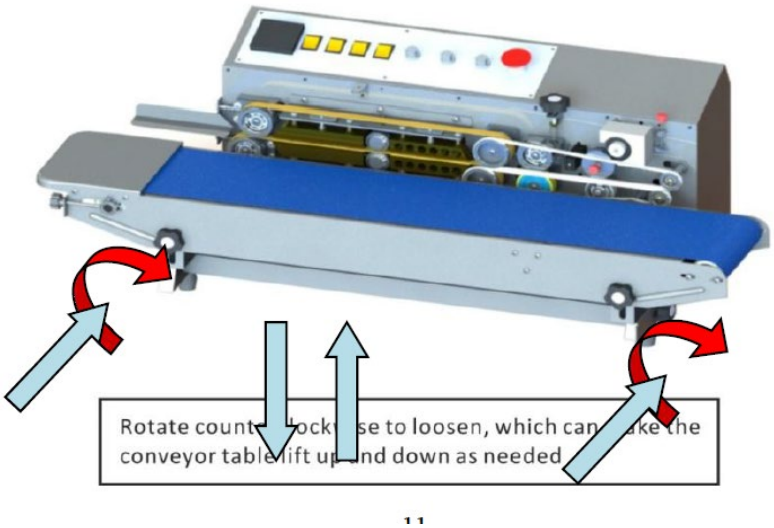


Figure 9. Adjusting the conveyor height of horizontal configuration

7. Adjust the guide to adjust seal width and position of seal line on your material.

Operation

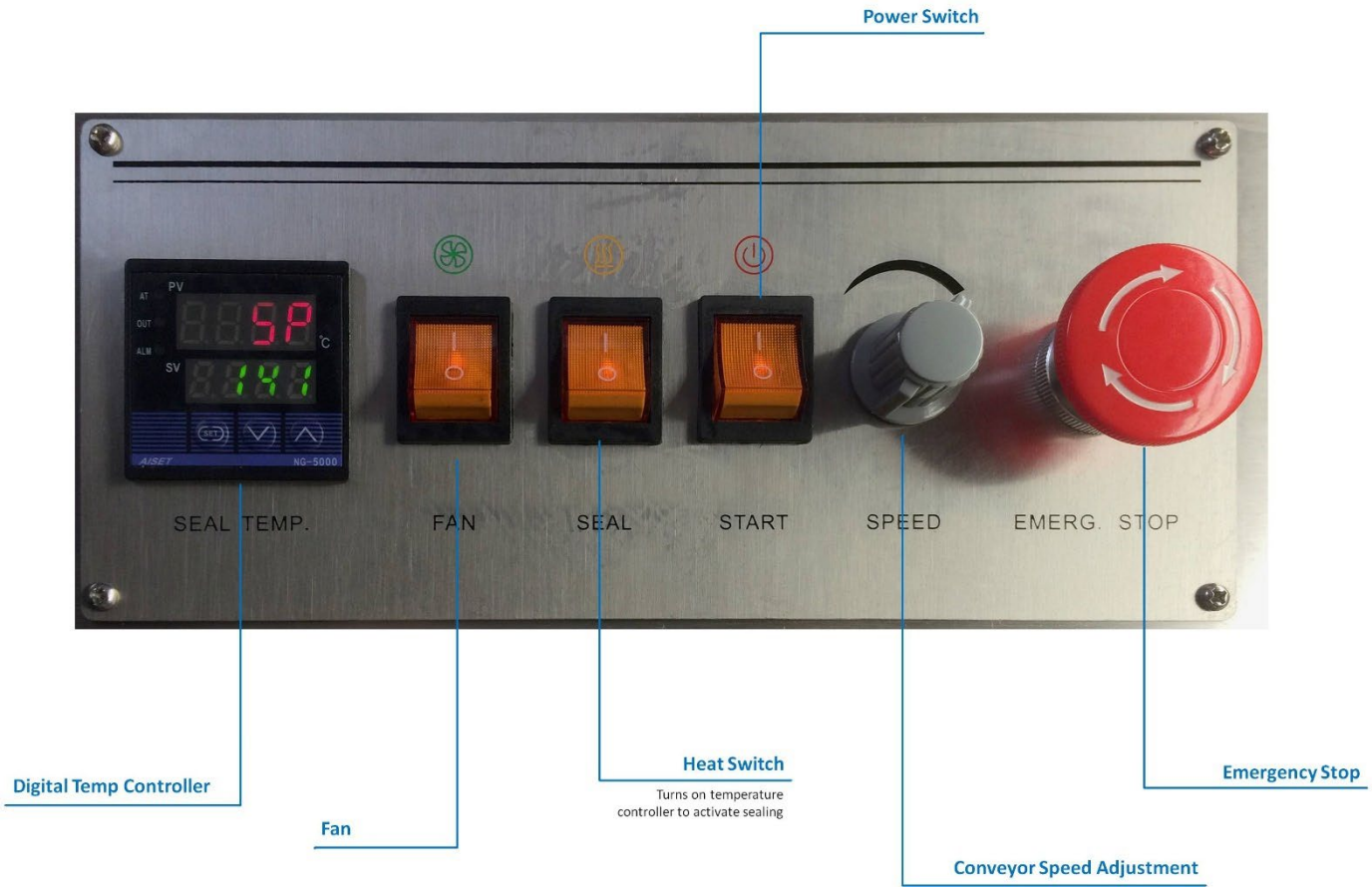


Figure 10. Control Panel of FR-770

1. Switch the circuit breaker to the "On" position.

2. Turn Power, Heater, and Fan switches to the "On" position. Belts and conveyor will begin to move simultaneously.

3. Emergency Stop – Press the emergency stop to turn off the machine. In order to restart the machine, you must release the emergency stop by turning the knob 120° clockwise.

4. Adjust the conveyor speed.

5. Adjust the temperature controller to the temperature desired to seal your material. Temperature settings will vary based on bag material and thickness. If you are unsure what temperature setting to use, we recommend starting at a low temperature (150ºC) and gradually increase to a temperature that will seal your material. We highly discourage sealing material at a temperature above 200ºC. **Please note: Temperature will be in Celsius, not Fahrenheit.** The temperature controller cannot be displayed in Fahrenheit.

   The PV value (red light) is the actual temperature and the SV value (green light) is the desired temperature setting.

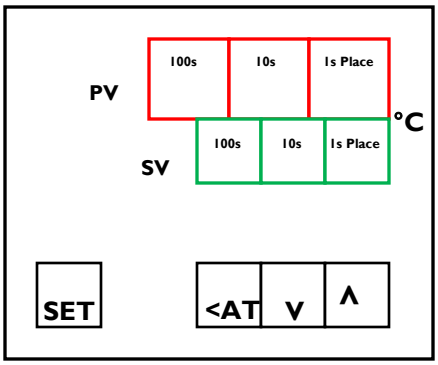


Figure 11. FR-770 Temperature Controller

a. To set the temperature, press the SET button.

b. Press the <AT (auto tuning) button to move from the ones, tens, and hundreds place. Adjust the value using the up and down arrows.

c. Press the SET button to save the temperature settings. Your desired temperature settings should appear in green in the SV Value.

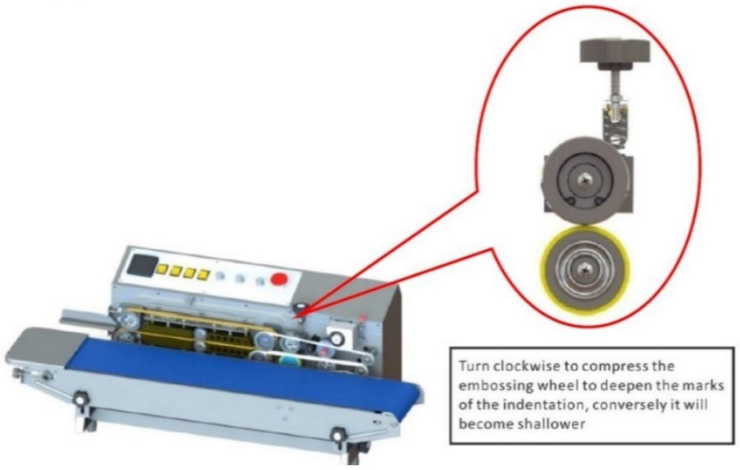
d. Wait until the PV temperature matches the SV temperature which should take approximately 5-10 minutes.

e. **Please note:** Temperature will be in **Celsius**, not Fahrenheit. Do not attempt to make additional adjustments to the temperature controller besides the temperature. The temperature controller CANNOT be displayed in Fahrenheit and is ALWAYS in Celsius. **Please do not set the temperature controller above 200ºC**. Please contact your local distributor if you need assistance.

WARNING!

When the machine is running, the temperature outside of the surface of the heating block can reach over 400°F. Even after cooling down the machine, the heating blocks will remain hot to touch.

6. Adjust the pressure knob **(Figure 19 , Item #7)** on your band sealer depending on the thickness of your bag material.



7. Place material on the guide and allow the band sealer to pull your material through. Make sure your material is flat on the guide. While the material is moving through the band sealer, do not push or pull the material as this will cause irregular sealing.

WARNING!

When the machine is running, do not put your hands near any of the wheels and gears

8. If the sealing belt is running off the guide wheels, make adjustments to the screws that are found on the driven wheel seat

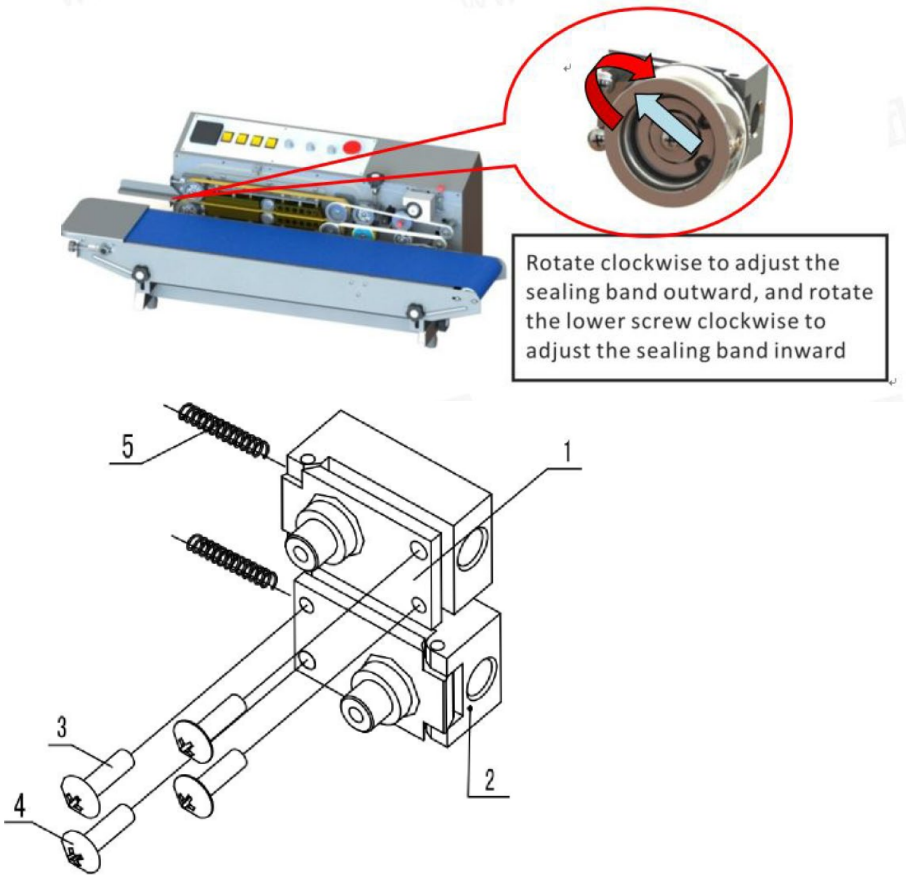


Figure 12. (1) Driven Wheel Seat (Adjusting Block), (2) Driven Wheel Seat (Adjusting Block), (3)/(4) Adjusting Screws, (5) Springs

9. Emergency Stop – Press the emergency stop to turn off the machine. In order to restart the machine, you must release the emergency stop by turning the knob 120° clockwise.

10. To shut down, turn off the heater switch and allow the temperature of the machine to drop before turning off the power and fan switches. ***Following the shut down procedure will significantly prolong the life of machine and sealing belts.***

Installing the Embossing Wheel

FR-770 is equipped with an embossing function. The embossing coder will continually emboss characters directly on your bag. The coder uses pressure and does not use ink to print. The FR-770 embossing wheel is equipped for 1-line embossing with 15 characters. There are three sections so three sets of characters are needed. Please note that all 15 characters in the three sections must be filled with a typeset. Optional feature: 2-line embossing which can be purchased separately.

1. Place the key in the groove of the embossing wheel plate and turn counter clockwise to loosen the print wheel plate. (Figure 13) Remove the embossing wheel plate, as well as the o-ring (Figure 14)

Figure 13

Figure 14

2. Carefully install your typesets in each of the three cavities. Once all cavities are filled, place the o-ring and print wheel plate back in place. Using the key, carefully turn clockwise to lock wheel plate. Make sure none of the typesets are pushed out of the cavity by holding the typesets in place as you turn the key.

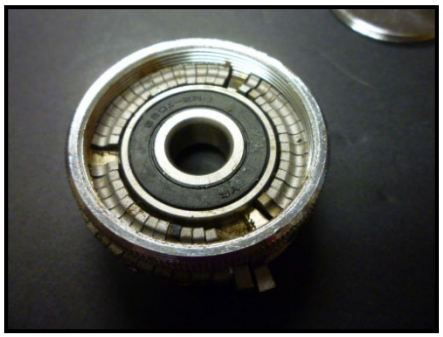


Figure 15

Figure 16

3. Unscrew and remove the pattern knurled wheel on the sealer. Replace with the embossing wheel by lifting the embossing wheel seat and pushing the embossing wheel in place. Please note that safety covers must be removed on the band sealer before accessing the embossing wheel.

Sealing & Printing Optimization

1. Sealing performance can be adjusted with the sealing temperature and sealing speed. The higher the speed the less exposure the material and therefore a higher temperature will be required to seal the material.

2. Try a variety of different sealing temperatures and conveyor speeds to get the optimal seal for your material.

3. Based on the thickness of your sealing material, adjust the clearance between upper and lower heating blocks, adjust the pressing force of the retaining washer to control the clearance between the two sealing belts, adjust clockwise to left (increase clearance) and counterclockwise (narrow clearance). The clearance between the two sealing belts is about equal to the thickness of one layer of bag.

4. Make adjustments to the pressing wheel with the pressure knob **(Figure 19 , Item #7)** to ensure a good quality seal as well as a clear and visible embossed image.

Please note that unreasonable parameter settings may damage the machine or increase servicing needs.

WARNING! DAMAGE!

Unreasonable parameter settings may damage the machine or increase servicing needs.

The default settings on the band sealer are adjusted so that it is suitable for most bags. See our material heat sealing temperature reference table below:

Material	Thickness (μm)	Recommended Temp Settings (°C)	Heating Sealing Speed
LDPE	30 - 60	105 - 150	6 - 10
MDPE	40 - 120	115 - 120	7.2 - 10.2
HDPE	40 - 90	125 - 150	7.2 - 10.2
PP	40 - 60	135 - 160	7.2 - 10.2

Maintenance

The following maintenance procedures should be followed to ensure the longevity of your CBS-880 band sealer. *Always disconnect sealer from power source before servicing, changing accessories or cleaning the unit.*

WARNING!

Disconnect the machine from power before any maintenance

Inspection and Cleaning

1. Inspect your machine daily. Daily maintenance is necessary to lengthen the life of the machine and to achieve the best seal. If the machine is frequently used (more than four hours/day), it is suggested you service the machine at least every three months. If the machine is used less than four hours/day, it is advisable to service every six months. Please make adjustments as necessary for your machine.

2. Check if there is any foreign matter or dirt adhering to the band sealer.

3. To clean your band sealer, wipe down your sealer with silicone spray and a shop cloth. Do not apply silicone directly to your sealer. Definitely DO NOT wash down your machine with water.

Maintenance Schedule

Refer to the below maintenance schedule for your band sealer.

Schedule	Maintenance
Daily	1. Use a brush to remove any substance that is attached to the sealing or guide belts 2. Use a shop cloth and silicone to clean the conveyor belt
Monthly	1. Check the condition of the sealing belt. Replace if needed. 2. Check the condition of the drive belt. Replace if needed. 3. Clean the motor carbon brush
6 Months	1. Check the condition of the motor brush. Replace if needed. 2. Add lubricating grease to the gears.
Yearly	1. Check all above items 2. Check the condition of the rubber wheel. Replace if needed. 3. Check the temperature controller. If the set temperature is no reached within ten minutes, you should change the temperature controller. 4. Check the electronic parts such as the emergency stop, buttons, potentiometer, and fan. If parts are not working properly, replace if needed. 5. Check and add lubricating greas to the transmission parts including gears, shafts and joints. If there are any worn parts, replace as needed. 6. Clean the turbocase and change the oil in it.

Sealing and Drive Belts

1. Check and replace the belts as necessary. Both the sealing and drive belts are consumable items. Replace sealing belts when there are burn marks or if the belts become hard and brittle. Replace drive belts when the belts break or become badly cracked.

2. To change out the belts, make sure the machine is turned off.

3. Remove the safety cover **(Figure 19, Item #6)**.

4. Remove the two drive belts.

5. To remove the sealing belts, push on the adjustment blocks **(Figure 19, Item #3)** and the sealing belts should easily slip off.

    a. You may also need to rotate the retaining washer by 90 degrees on both upper heating blocks and upper cooling blocks to lift both blocks.

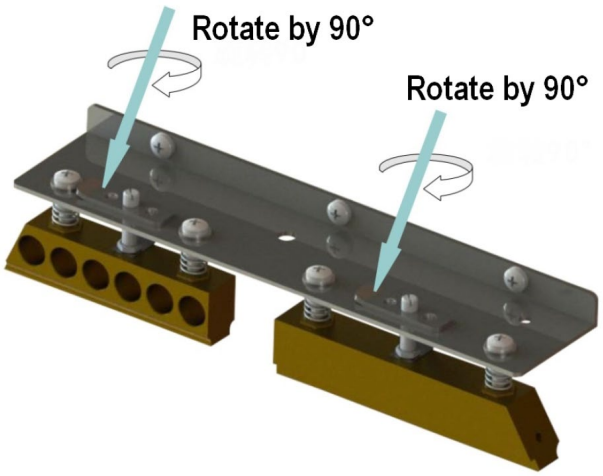


Figure 17. Adjusting Retaining Washer

6. Put new sealing and/or drive belts back on the machine. Test the machine, making adjustments as necessary.

7. Replace the safety cover.

8. Check our YouTube channel (https://www.youtube.com/user/sealersales) for video demo.

Turbocase Maintenance

1. Remove dust and clean motor at regular intervals. Avoid contact with alcohol, gasoline and benzene chemicals.
2. The turbocase should be oiled monthly with 50g 20# oil by:
    a. Remove the back cover.
    b. Locate the turbocase and unscrew the cap. Replenish any depleted gear oil with 50g 20# oil.
3. The motor brush **(Part# BS-29A)** is designed to be used 2,500 hours continuously. Replace motor brush at regular intervals.

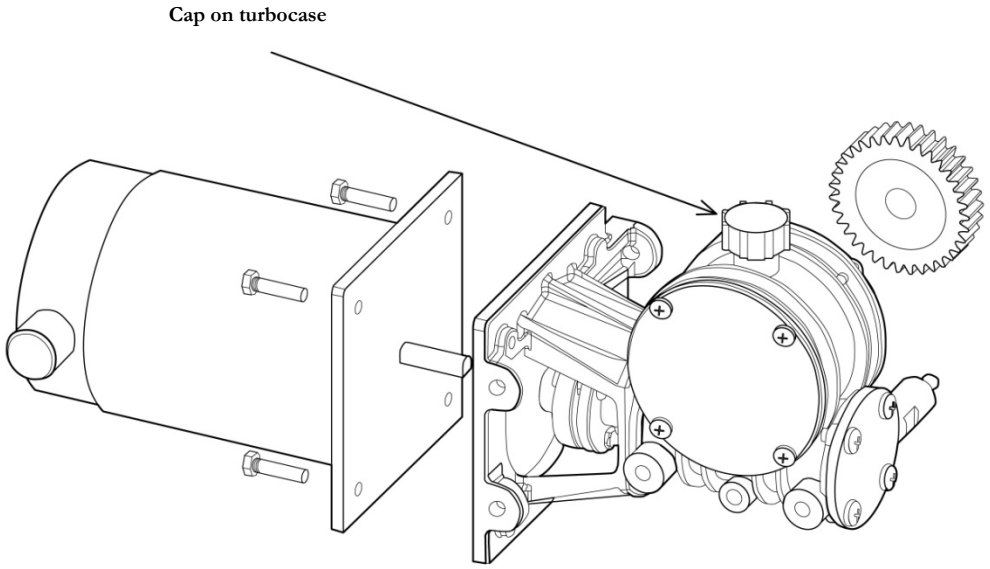
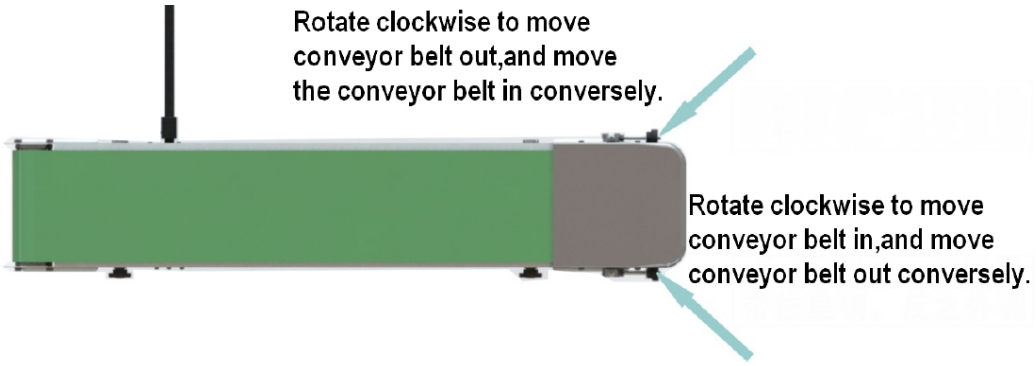


Figure 18. Turbocase cap.

Conveyor

If the conveyor belt is not tracking correctly, the conveyor belt can be adjusted by adjusting screws on the right side of the conveyor table. Keep the conveyor belt under tension state when adjusting.


Rotate clockwise to move
conveyor belt out,and move
the conveyor belt in conversely.
Rotate clockwise to move
conveyor belt in,and move
conveyor belt out conversely.

Parts Diagram

To order spare parts, please use diagram and part #s below:

Figure 19 – Spare Parts Diagram Overview

Figure 21 – Heating / Cooling Blocks

Figure 23 – Gears

Figure 25 – Conveyor Table

Figure 27 – Motor / Turbocase

Figure 28 – Sealer Body

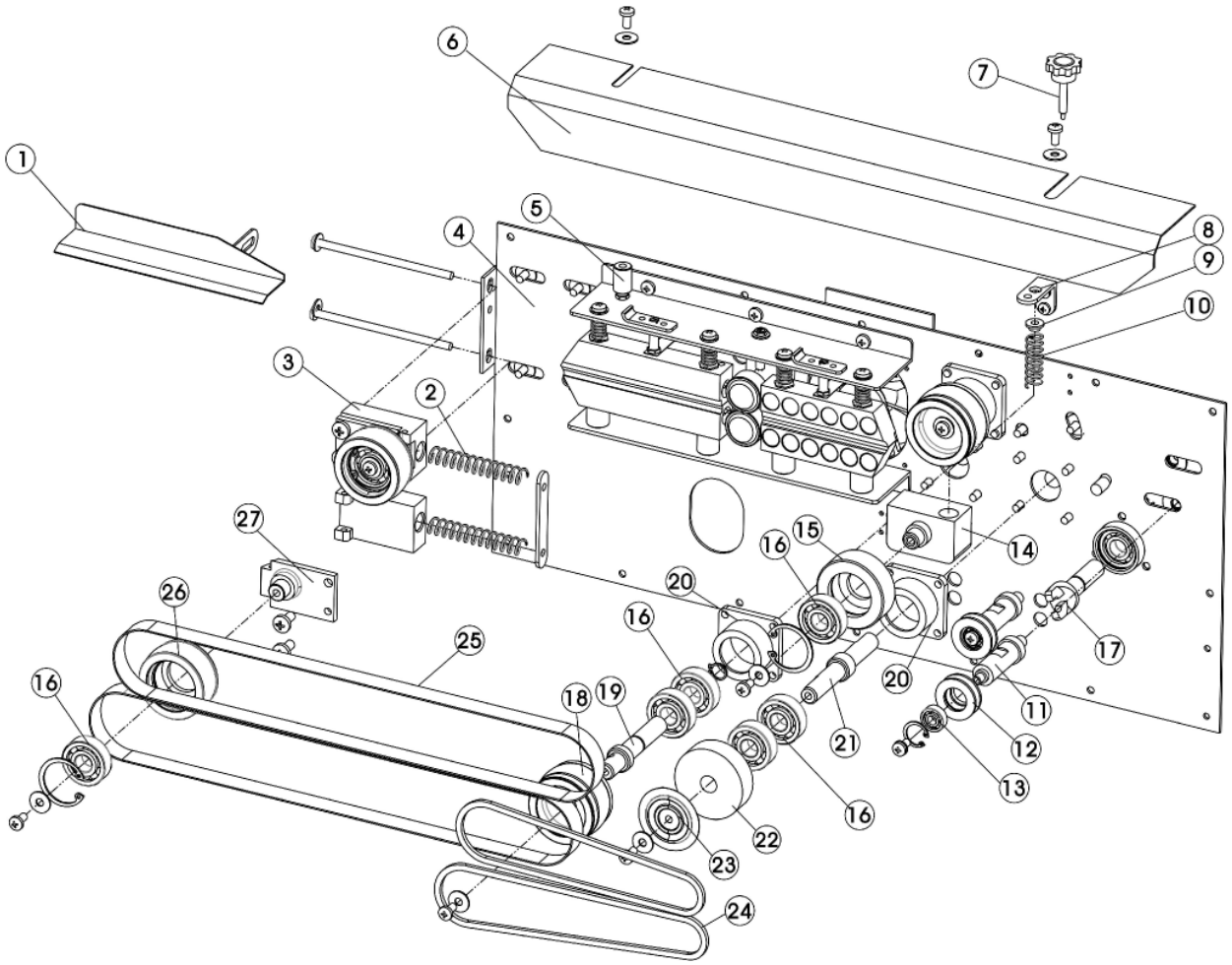


Figure 19. Spare Parts Diagram Overview

Figure 20. Spare Parts Diagram Overview

Item	Part #	Quantity	Description	Comments
1	**HL-M810-44**	1	feed opening, guide	
2	**CBS-880-13A**	2	spring for driven wheel seat	
3	**CBS-880-13**	1	upper driven wheel seat, adjustment block assembly	
4	**FR-770-84**	1	bottom board	steel: 102102-3
5	**CBS-880-8-5**	1	support for safety cover	
6	**CBS-880-7**	1	safety cover	
7	**BS-5**	1	672 corrugated knob (M8X35)	
8	**BS-5B**	1	supporting board for adjusting embossing roller	
9	**BS-5C**	1	spring seat of embossing roller	
10	**BS-5A**	1	spring of embossing roller	
11	**CBS-880-6B**	2	small pulley shaft	
12	**CBS-880-6A**	2	small pulley	**Includes #12, #13**
13	**CBS-880-6A**	2	606-2Z bearing	**Includes #12, #13**
14	**CBS-880-4**	1	embossing roller seat	
15	**CBS-880-3**	1	embossing roller w/ cavities for types	
15	**CBS-880-3A**	1	embossing roller, knurled wheel / meshed	
16	**CBS-880-6-26**	9	6201-Z bearing	
17	**HL-M810-40A**	1	drive shaft connector, gimbel assembly (outside)	
	HL-M810-40B	1	middle post connector to gimbel assembly (inside)	
18	**CBS-880-6**	2	driving wheel	
19	**CBS-880-6-25**	2	driving wheel shaft	
20	**CBS-880-27A**	3	square bearing seat	
21	**CBS-880-2-31**	1	silicone wheel shaft	
22	**CBS-880-2**	1	silicone wheel	
23	**CBS-880-2-33**	1	silicone wheel cover	
24	**CBS-880-26**	2	guiding belt	428X6X4(40)
25	**CBS-880-10**	2	sealing belt	770X15X0.2
26	**CBS-880-12**	2	driven wheel	
27	**CBS-880-13**	1	bottom driven wheel seat, adjustment block assembly	

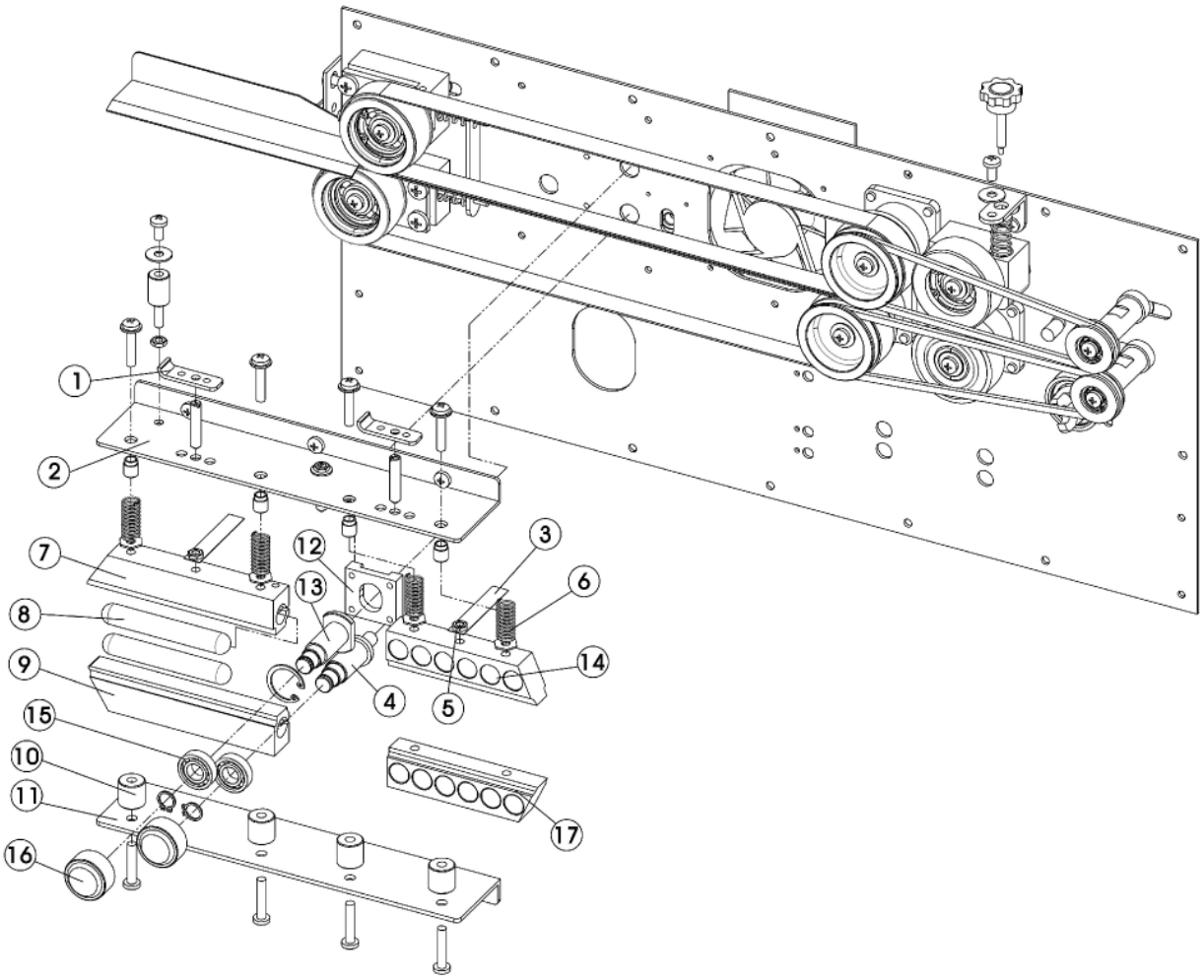


Figure 21. Heating / Cooling Blocks

Figure 22. Heating / Cooling Blocks

Item	Part #	Quantity	Description	Comments
1	**BS-9I**	2	stopping flake	
2	**CBS-880-9-2**	1	upper holding plate	
3	**BS-9J**	2	hanger plate of copper block	
4	**CBS-880-21-19**	1	lower pressing wheel shaft	
5	**BS-9F**	4	self-made hexagon thin nut	
6	**BS-9D**	4	spring for copper block	
7	**FR-770-9A**	1	upper heating block (770)	**Includes #7, #9**
8	**BS-9B**	2	300W/110V(Φ12X95) heating pipe for sealing	**sold as a pair**
9	**FR-770-9A**	1	bottom heating block (770)	
10	**CBS-880-9-10**	4	copper block cushion	
11	**CBS-880-9-11**	1	bottom holding plate	
12	**CBS-880-21-23**	1	slide seat for pressing wheel	
13	**CBS-880-21-24**	1	upper pressing wheel shaft	
14	**FR-770-8**	1	upper cooling block	**Includes #14, #17**
15	**CBS-880-21**	2	61900-2Z bearing	**Includes #15, #16**
16	**CBS-880-21**	2	pressing wheel / pinch roller	**Includes #15, #16**
17	**FR-770-8**	1	bottom cooling block	**Includes #14, #17**
	CBS-880-21uppercomplete		upper pressing wheel shaft assembly	**Includes #12-13, 15-16**
	CBS-880-21lowercomplete		lower pressing wheel shaft assembly	**Includes #4, 15-16**

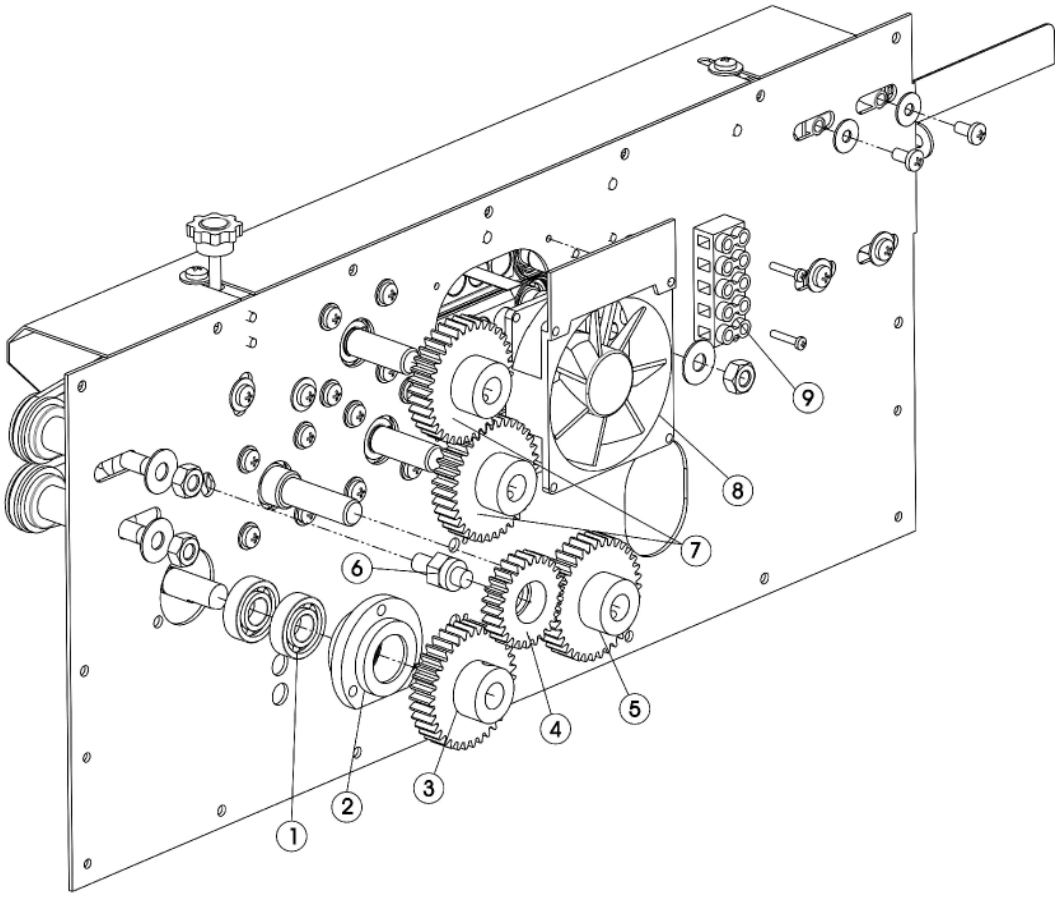


Figure 23. Gears

Figure 24. Gears

Item	Part #	Quantity	Description	Comments
1	**HL-M810-40c**	bearing 6001	1	**Includes #1, #2**
2	**HL-M810-40c**	connecting shaft bearing	1	**Includes #1, #2**
3	**BS-35B**	driven gear	4	
4	**BS-35E**	medium gear	1	
5	**BS-35B**	driven gear	4	
6	**BS-35E-6**	mediated gear shaft	1	
7	**BS-35B**	driven gear	4	
8	**HL-M810-32-horizontal**	fan - horizontal units	1	
	HL-M810-32-vertical	fan - vertical units	1	
9	**BS-33B**	10 pin wiring terminal(orange)	1	

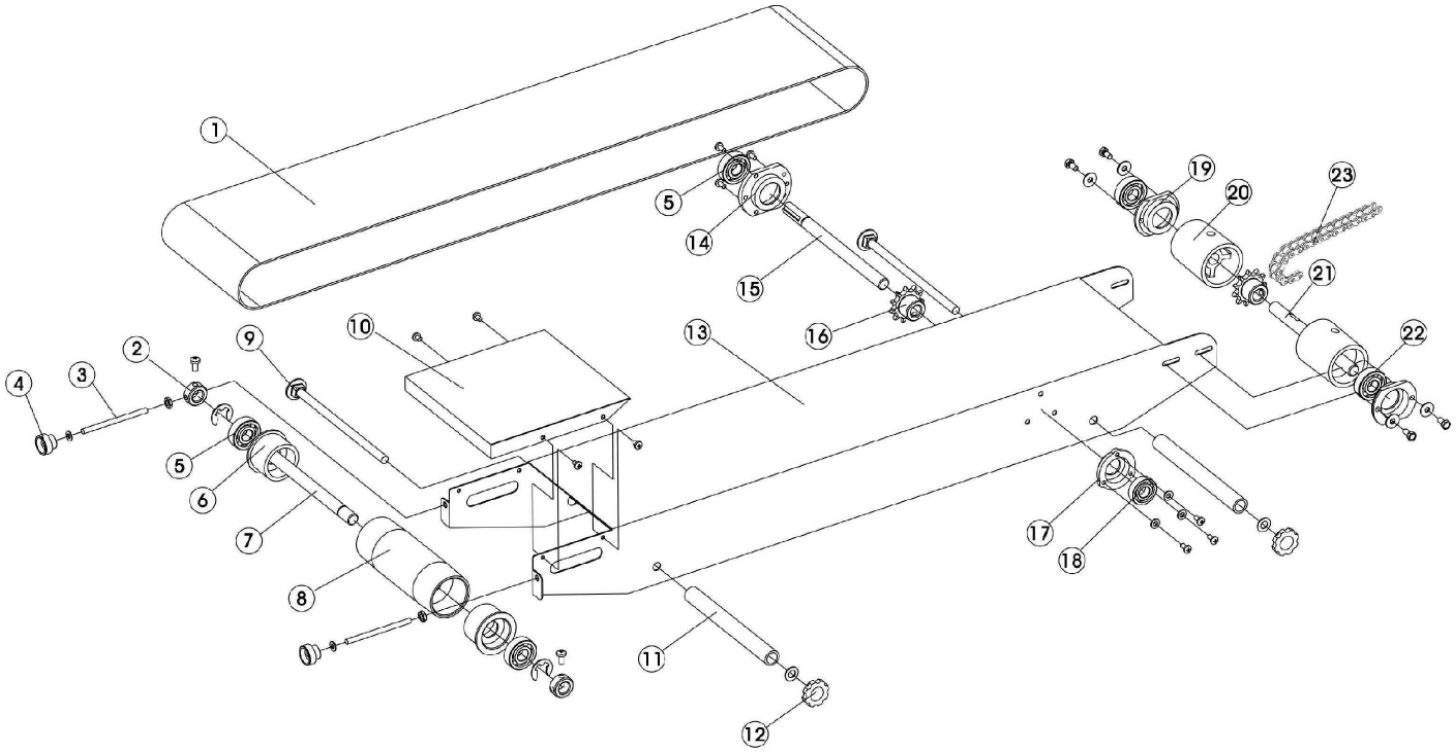


Figure 25. Conveyor Table

Figure 26. Conveyor Table

Item	Part #	Description	Quantity	Comments
1	**FR-770-1**	conveyor belt	1	
2	**BS-16**	adjusting block for conveyor belt	2	**Includes #2, 3, 4**
3	**BS-16**	double end bolt	2	**Includes #2, 3, 4**
4	**BS-16**	adjusting knob for conveyor table	2	**Includes #2, 3, 4**
5	**HL-M810-36**	6201-Z bearing	3	**Includes #5, 6, 7, 8**
6	**HL-M810-36**	bearing seat of left roller	2	**Includes #5, 6, 7, 8**
7	**HL-M810-36**	rear shaft of conveyor table	1	**Includes #5, 6, 7, 8**
8	**HL-M810-36**	rear roller of conveyor table	1	**Includes #5, 6, 7, 8**
9	**HL-M810-18**	half-round square neck bolt	2	**Includes #9, 11, 12**
10	**HL-M810-15**	worktable	1	**specify flat or curved edges**
11	**HL-M810-18**	plastic spacer	2	**Includes #9, 11, 12**
12	**FR-770-18 / BS-17**	knob	2	**Includes #9, 11, 12**
13	**FR-770-20**	conveyor table	1	
14	**HL-M810-41**	bearing seat	1	**Includes #5, 14-18**
15	**HL-M810-41**	middle shaft of conveyor table	1	**Includes #5, 14-18**
16	**HL-M810-41**	sprocket of conveyor table	2	**Includes #5, 14-18**
17	**HL-M810-41**	connecting shaft bearing	1	**Includes #5, 14-18**
18	**HL-M810-41**	bearing 6001	1	**Includes #5, 14-18**
19	**HL-M810-37**	two-eye bearing seat	2	**Includes #19, 20, 21, 22**
20	**HL-M810-37**	front roller of conveyor table	2	**Includes #19, 20, 21, 22**
21	**HL-M810-37**	front shaft of conveyor table	1	**Includes #19, 20, 21, 22**
22	**HL-M810-37**	6201-2Z bearing	2	**Includes #19, 20, 21, 22**
23	**FR-770-38**	chain (48 segments)	1	

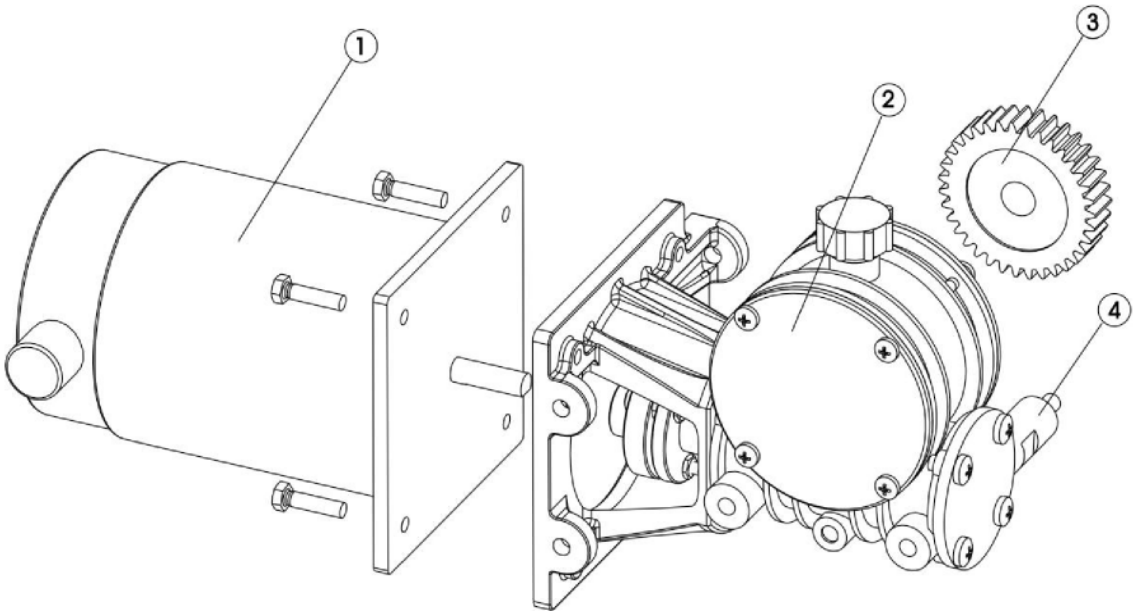


Figure 27. Motor / Turbocase

Item	Part #	Description	Quantity	Comments
1	**CBS-880-29**	110V DC motor	1	
	BS-29A	motor brush	2	Not shown.
2	**FR-770-30**	worm-gear case assembly	1	
3	**BS-35B**	driving gearwheel	1	
4	**CBS-880-12-4**	pig iron gearwheel / turbocase support	1	

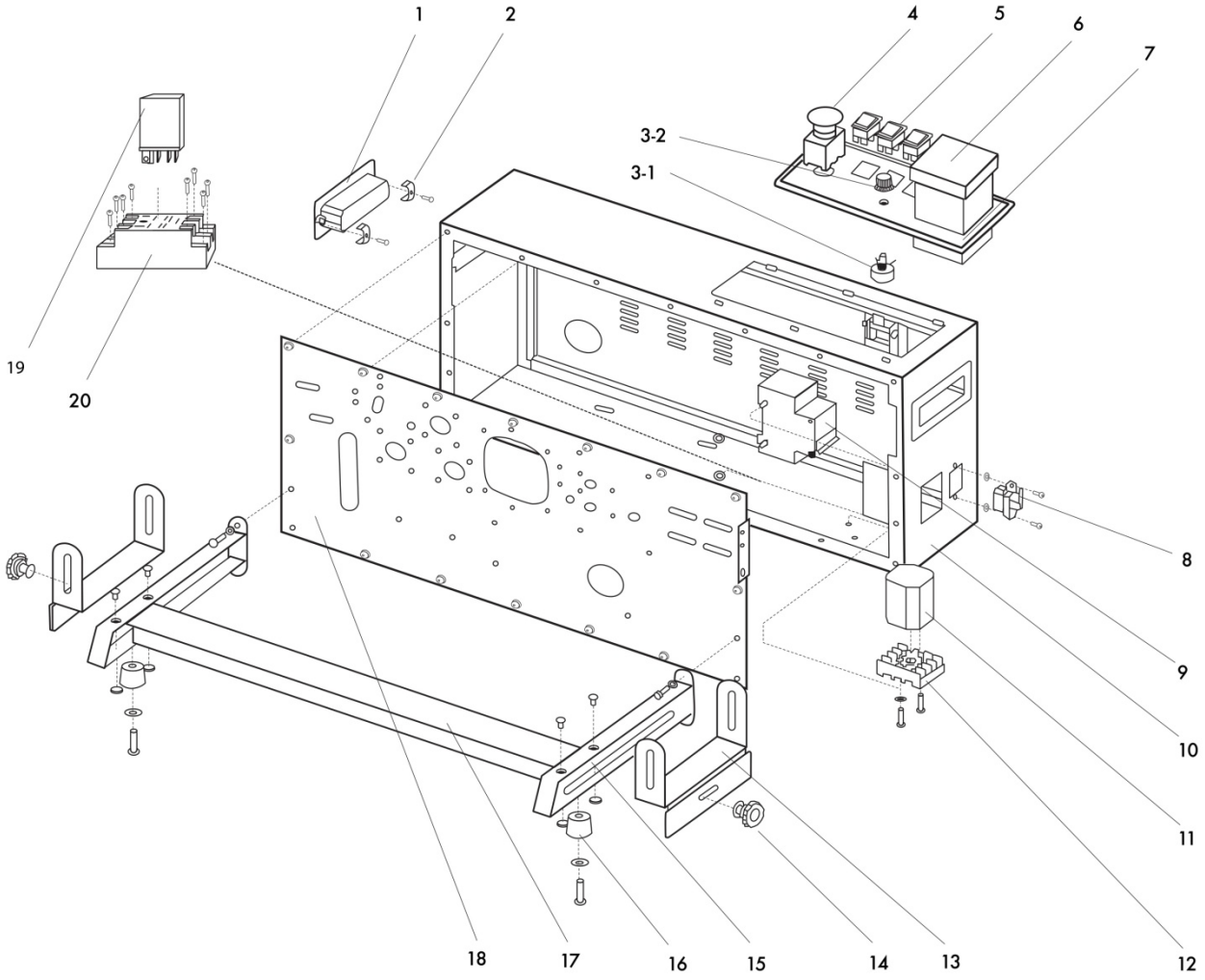


Figure 28. Sealer Body

Figure 29. Sealer Body

Item	Part #	Description	Quantity	Comments
1	**CBS-880-13-1**	handle support	2	**Includes #1, #2**
2	**CBS-880-13-1**	handle clamp	4	**Includes #1, #2**
3-1	**BS-25**	carbon-film potentiometer 220K	1	
3-2	**BS-25A**	K18-2 knob	1	
4	**BS-22A**	emergeny stop switch	1	
5	**BS-22**	springboard switch	3	**specify large or small**
6	**TMC-XMTG-1000-2**	temperature controller - gen 1.0		
	TMC-NG-5000	temperature controller - gen 2.0		
7	**FR-770-83**	panel	1	
8	**BS-14**	10ª socket		
9	**BS-27**	DZ47-2P/5A breaker	1	
10	**FR-770-88**	housing	1	
11	**BS-52A**	speed-regulating plate	1	
12	**BS-45A**	PF083A socket	1	
13	**HL-M810-18**	transition table support	2	**Includes #13, #14**
14	**HL-M810-18**	(674 Knob) handle	2	**Includes #13, #14**
15	**FR-770-68**	foot	2	**specify left or right**
16	**BS-67B**	rubber foot pad	2	**specify A or B**
17	**FR-770-68B**	rail	1	
18	**FR-770-18-18**	soleplate (electrophoresis)	1	Steel: 102102-3
19	**R-JQX-13F**	relay	1	
20	**BS-74A**	seat for relay	1	

Electrical Circuit Diagram

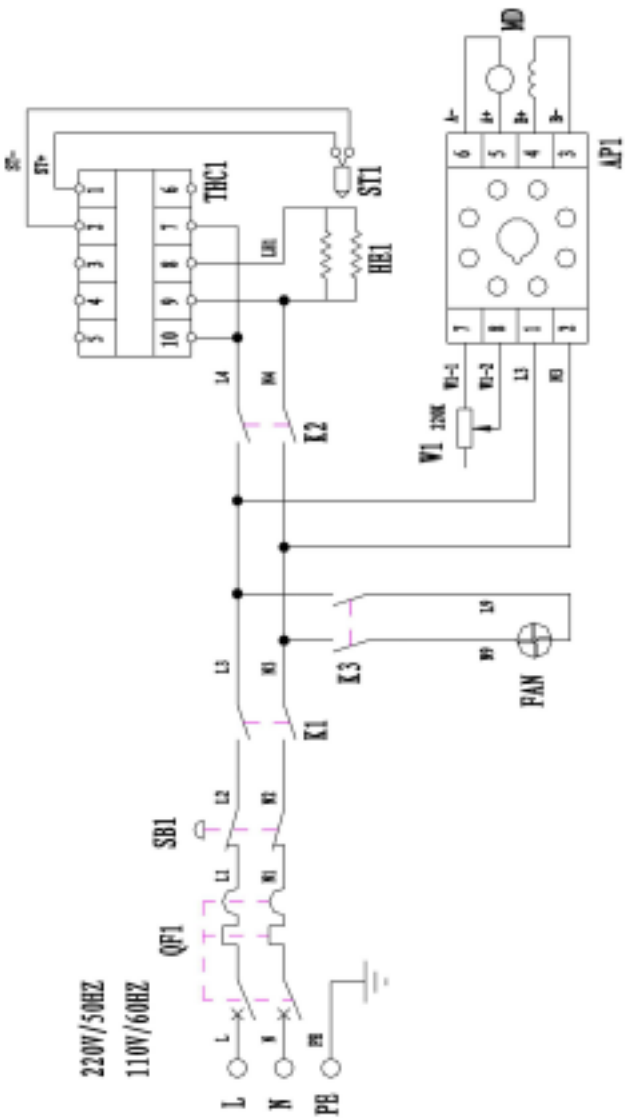


Figure 30. Electrical Circuit Diagram. (QF1) Breaker, (SB1) Switch/Emergency Stop, (K1) Switch/On-Off, (K2) Switch/Seal, (K3) Switch/Fan, (MD) DC Motor, (FAN) Axial-Flow Fan, (THC1) Temperature Controller, (ST1) Thermocouple, (HE1) Heating Element, (W1) Potentiometer, (AP1) Speed-Regulating PCB

Troubleshooting

Changing Emergency Stop

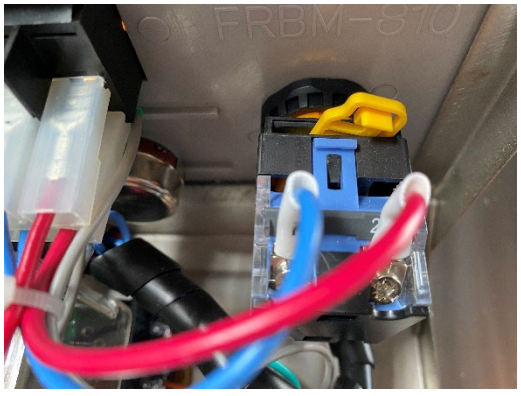
Always unplug the unit from the power source when making adjustments.*

Problem: The emergency stop (Part #BS-22A_Gen3.0) needs to be replaced

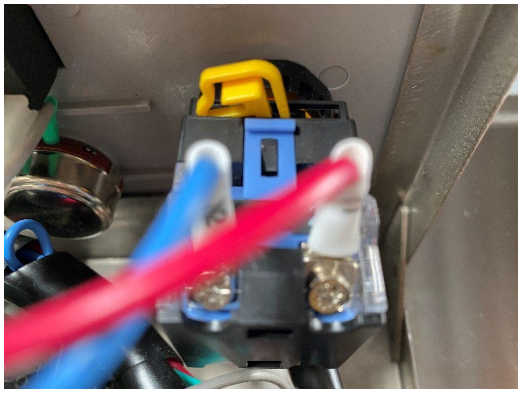
For our smaller band sealers (CBS-880, FR-770, HL-M810, FRM-1010 units), remove the control panel plate from the band sealer. Place the control panel on top of the band sealer for better viewing.

For our larger band sealers (FRM-1120C, FRS-1120W, HL-M1120LD units), remove the control box cover to access the back of the control panel.

1. To remove Gen 3.0 emergency stop, click the yellow tab in release position.

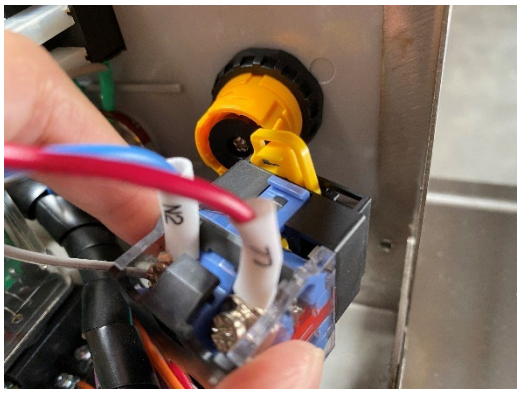


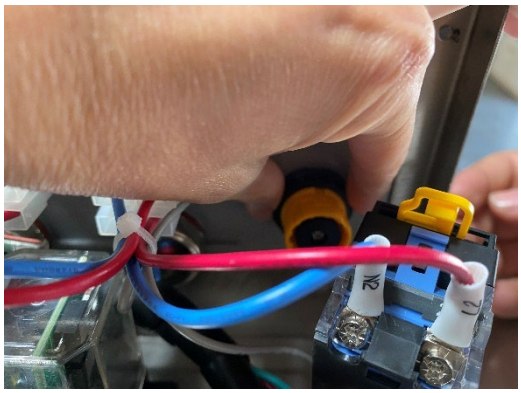
Locked position



Release Position

2. Remove the contact block from the push button. The push button can be removed by loosening the black nut.





3. Make note of the wiring on the emergency stop and reconnect the new emergency stop. Blue wires connect to 11 and 12 and the red wires connect to 21 and 22

4. Connect the contact block to the push button. Match the two pieces where they are labeled top. Push the yellow tab into the locked position.

Problem	Possible Causes	Solution
Sealing belt is off tracking.	Driving wheel shaft is not parallel to driven wheel shaft	Adjust two adjusting screws on the adjusting block seat (Part# CBS-880-13)
Sealing belts are tearing	1. Too much tension on sealing belt 2. Sealing belt is off tracking 3. Creases on the sealing belt 4. Residual film or other debris attached to the sealing belt	1. Adjust the vertical adjusting screw on driven wheel seal to decrease tension on sealing belt 2. see above 3. When installing belt, make sure no creases are found on belt 4. Clean surface of belt with cloth
Seal is crumpled and film sticks to sealing belts	1. Temperature is too high 2. Guide belt is not correctly in place 3. Plastic melted on the sealing belt	1. Reduce temperature 2. Adjust guide belt 3. Clean or replace sealing belt If any plastic melts on the sealing belt, your bags will stick to the melted plastic
Embossing is not clear	1. Embossing roller is worn out 2. Pressure spring on embossing roller needs to be tightened	1. Replace embossing roller 2. Adjust the embossing roller spring (Part# BS-5)
Material will not pass through sealing blocks	Clearance between heating blocks or cooling blocks may be too small	Adjust the clearance between blocks by adjusting the springs and stopping flakes found above the blocks
Conveyor belt is off tracking	Driving roller shaft is not parallel to the driven roller shaft	Adjust using the conveyor belt adjustment (Part# BS-16)
Conveyor and sealing belt are not moving at same speed	Not enough tension on conveyor belt	1. Tighten the chain of driving roller shaft (front shaft) and middle shaft. (Parts # HL-M810-37 and HL-M810-41) 2. Tighten the conveyor belt
Temperature doesn't rise or cannot be controlled	1. Heat switch is damaged 2. Heater (BS-9B) is damaged 3. Temperature Controller 4. Coupling	Replace: 1. Heat switch (BS-22-Large) 2. Heater (BS-9B) 3. Temperature Controller 4. Thermocouple

Problem	Possible Causes	Solution
Motor runs at a high speed and cannot be regulated	Speed controller has malfunctioned	Replace the speed controller (BS-52A)
Power, heater, and or fan switches do not light up	1. No AC Voltage 2. Open Fuse 3. Lamp is damaged	Check power source / power cord Connect the power Replace the fuse Replace the lamp
Machine does not run	1. Board for speed regulation is abnormal 2. Doesn't connect well 3. Brushes in the motor are too short because of friction	1. Replace the speed board (BS-52A) 2. Tighten the connecting screws 3. Replace motor brushes (BS-29A) If the temperature controller works and the power lamp illuminates but the motor does not move, start off by checking the motor and turbocase connection. Remove the back of the machine and you will see bushing where the motor connects to the gear box. Ensure the bushing is not broken. There is also a set screw that connects the bushing to the gear box / motor shafts. Ensure that these are tight so that when the motor turns, the turbocase turns as well. If the turbocase is noisy before it stopped working, the gear box could be broken inside. Lack of oil could cause this. If the lamp illuminates and the motor does not turn, the motor speed controller may need to be replaced. Other things could be faulty or wires to the motor or the brushes in the motor are worn.

Spare Parts List

Included with your band sealer are the following parts. Please note that spare parts included with your band sealer are subject to change without notice.

- Typeset Box which includes numbers (0-9), Letters - EXD, embossing wheel, and key wrench
- Power Cord (Part# PWC-CBS)
- PTFE Sealing Belts (Part# CBS-880-10)
- Drive Belts (Part# CBS-880-26)
- Speed Adjusting PC Board (Part# BS-52A)

Quality Control Testing

Our band sealers are manufactured in a facility which is certified in accordance with ISO 9001:2008. In addition, we quality test all of our band sealers in our facility following a rigorous and exacting standards to ensure that the product you purchased is a high quality reliable machine.

✓ Steps	Description
	Inspect all wiring on the unit, nothing is loosely attached. Make sure all wires are connected correctly.
	Make sure all connections are tight and properly mounted. (Ex: PC Board, Relay)
	Check parts to ensure they are in proper working order (ex: wheels, belts, knobs, etc)
	CBS-880 only - Attach the conveyor to the body via the drive shaft (Part #40). Detach after testing.
	Turn on machine - start, seal, fan, printer Check all knobs to make sure they start and end in the correct position
	Make adjustments as necessary if there is any unusual noise. Noise should be under 80db.
	Check fan - There should be air coming out of the cooling blocks
	Check motor - motor brushes should be held in tightly
	Check conveyor belt to make sure the belt is running smoothly and evenly
	Run machine for at least 20 minutes - after the seal temperature has been reached, seal bag sample to ensure good quality seal
	Band Sealers w/ Printing Option: Printing - make sure ink heating block, ink printing wheel are at optimal heat temperature
	Sensor and Coding Seat - test the sensor and coding seat are working properly; make adjustments as necessary
	Clean machine
	Enter serial # of the unit in the manual
	Repackage sealer w/ QC form, sealed bag / printed sample and manual.

Date:
Technician:


SS
SCAN ME