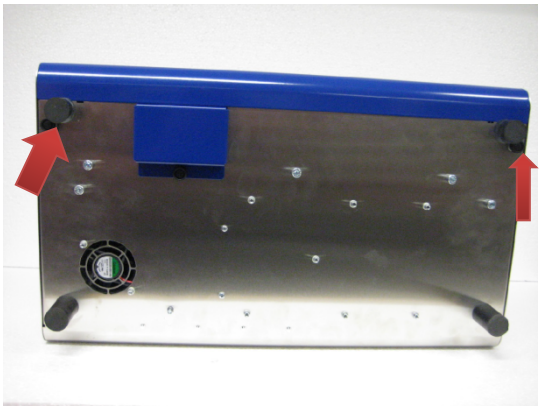
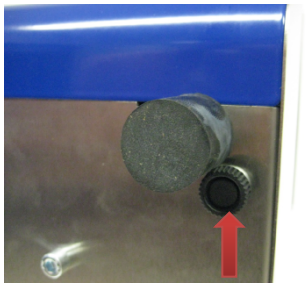
healthmark
INDUSTRIES CO.
health care products
800-521-6224
www.hmark.com

Instructions for Use: Heat Sealer Repair and Maintenance Kit

Brand Name of Product	Heat Sealer Repair and Maintenance Kit
Generic Name of Product	Repair Kit
Product Code Number(s)	30.100.561-RK, 30.200.039, 30.200.041, 12.210.300, 30.100.174, 30.100.197, Tempsoft 2.0.
Intended Use	Intended for regular maintenance and replacement of wearable parts.
Range of Applications for Product	N/A
Key Specifications of Product	• Teflon Insulation Strip- 30.200.039 • Teflon Slide Strip- 30.200.041 • Timing Belt- 12.210.300 • Timing Belt Pulley- 30. 100.174 • Pressure Roller- 30.100.197 • USB Drive 128MB- Tempsoft 2.0

Shipping & Storage	
Shipping Conditions & Requirements	N/A
Storage Conditions	N/A
Packaging Contents	N/A
Shelf Life	N/A

Instructions for Using Product	
Description of Use(s)	For regular maintenance and replacement of wearable parts.
Preparation for Use	1. Power off the heat sealer and remove all power and data cables from the back of the machine. 2. To remove the cover, place the machine in an upright position, removing only the two black screws beneath the sealer that are next to the front rubber legs. **Fig. 1** 3. Carefully lift the lower front cover using a screwdriver, place it between the base of the heat sealer and the bottom of the lower front cover and lift. **Fig. 2** 4. Place the machine back down to the normal position and remove the lower front cover. **Fig. 3** 5. Next, lift the cover by first pulling it slightly forward, lift and place in upright position behind the machine. **Fig.4** 6. This will expose the inner workings of the heat sealer. **Fig. 5**
Diagrams (drawings, pictures)	 **Figure 1**  **Figure 1**

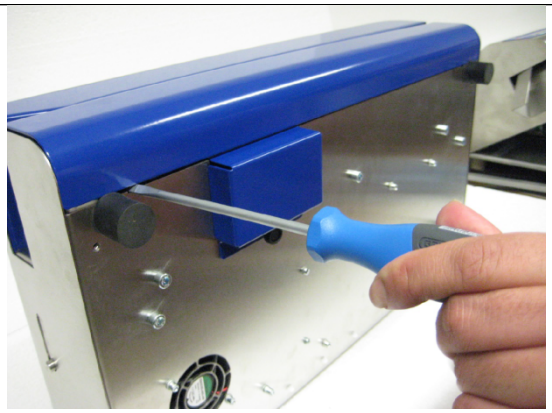


Figure 2

Figure 3

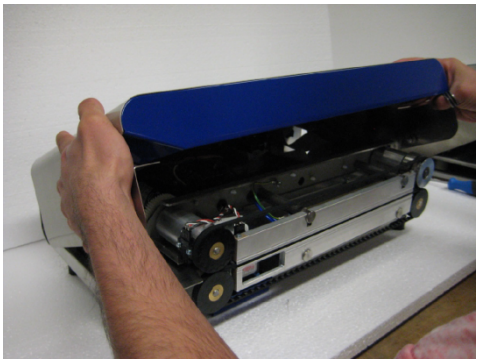


Figure 4

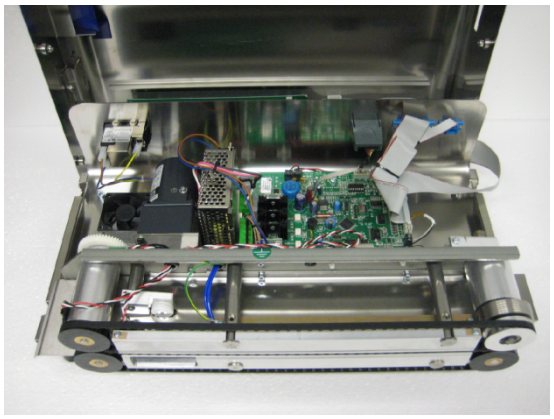


Figure 5

Steps for Use of Product

<u>Replacing the Teflon Slide Strip on the Guide Bars</u>

1. With the cover already removed, remove the top transport belt clockwise from the top right pulley. **Fig. 1**

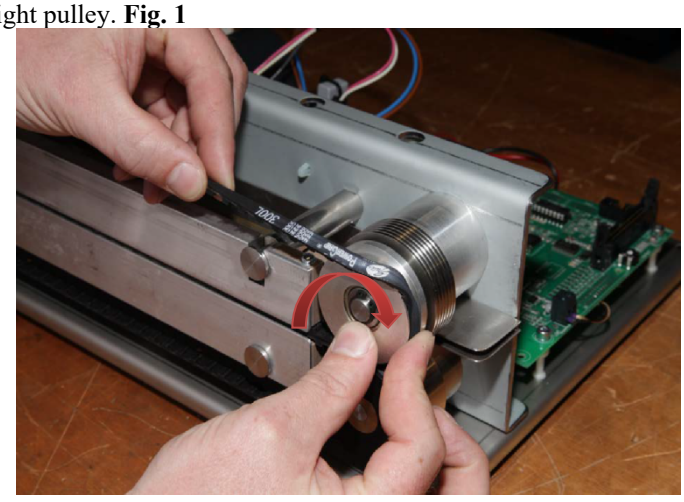


Figure 1

2. Lift the aluminum guidance bar slightly to easily remove the transport belt. **Fig. 2**

Figure 2

3. Remove the screw for the right upper element support with an “L” wrench turning counterclockwise. **Fig. 3**

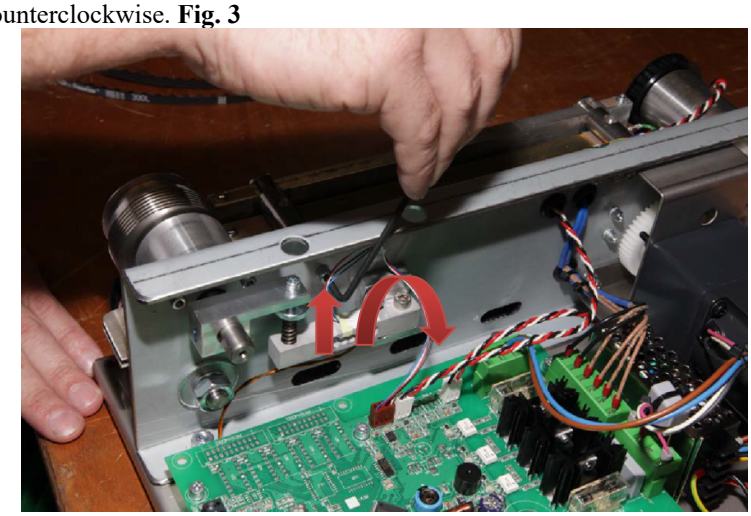


Figure 3

4. Remove the element support and watch for the small spring inside the aluminum guiding bar. **Fig.4**

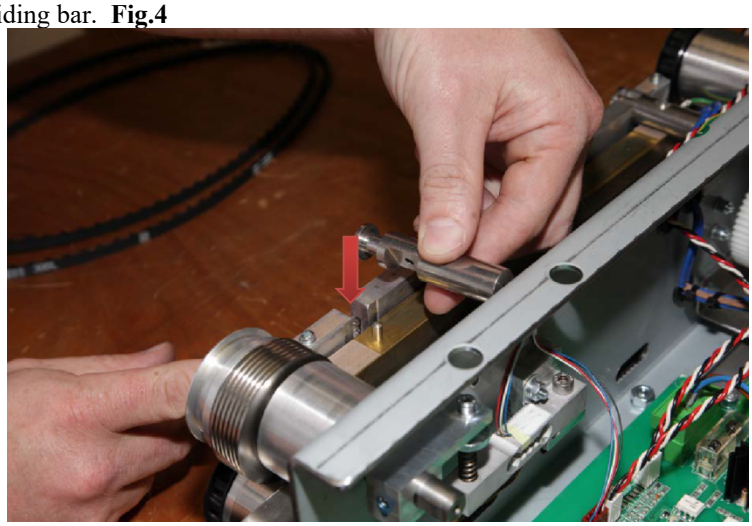


Figure 4

5. Using the “L” wrench, unscrew two screws to release the left element support. **Fig. 5**

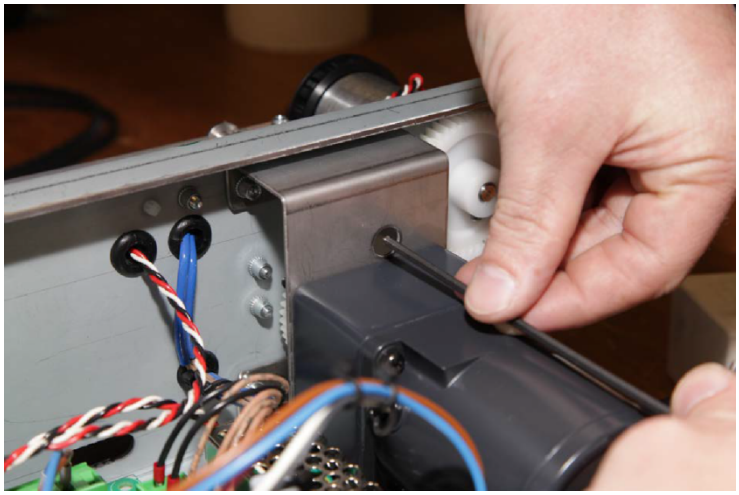


Figure 5

6. Release the left element support and watch for the spring. **Fig. 6**

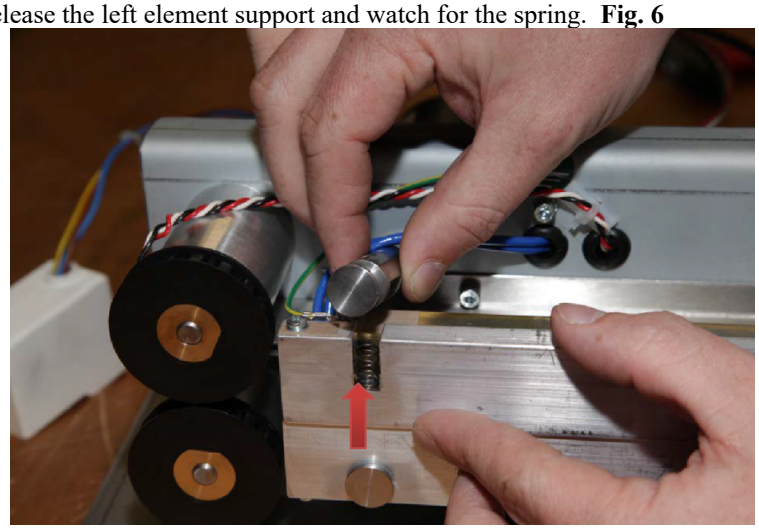


Figure 6

7. Release the lower aluminum feed through guidance bar. **Fig. 7**

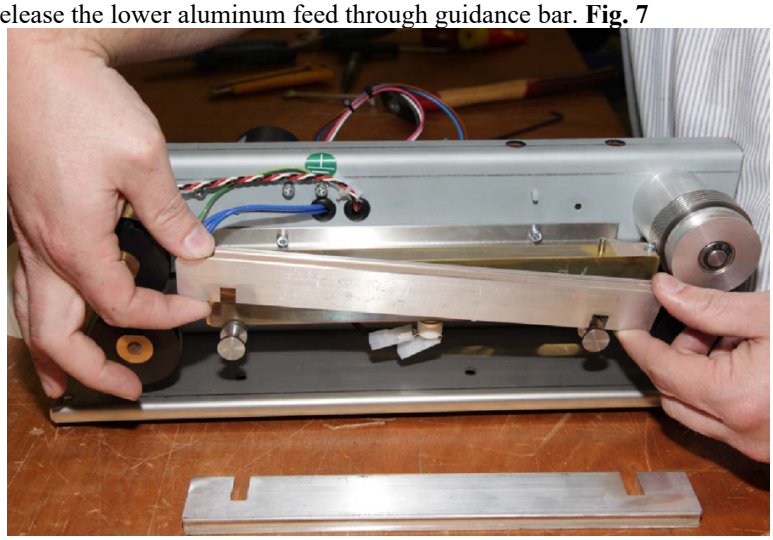


Figure 7

8. Using a Phillips head screwdriver, unscrew the earth wire from the heating bar and pull out the heating element from the heating bar. **Fig. 8, 8A**

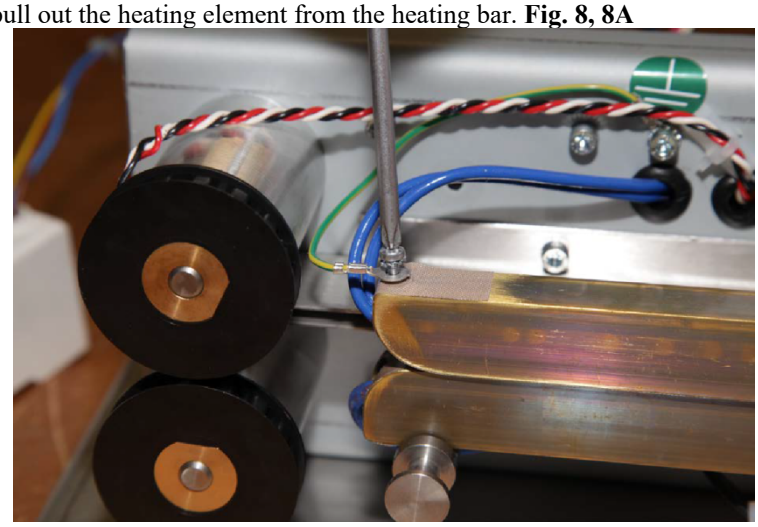


Figure 8

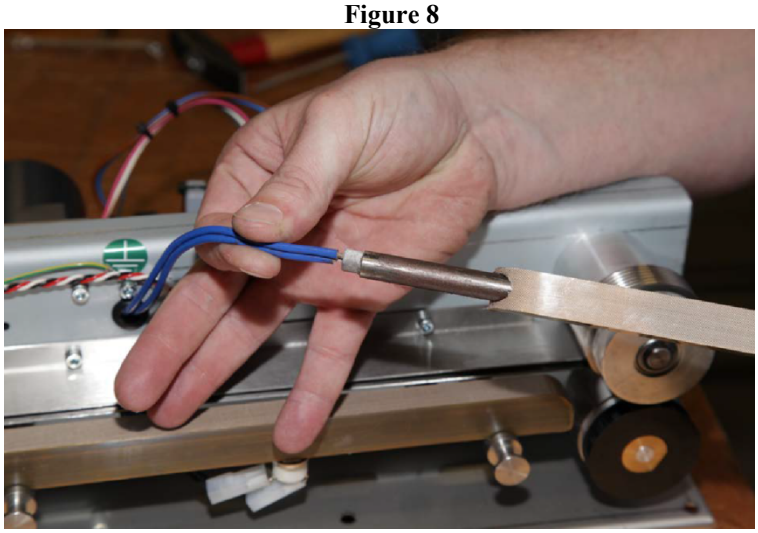


Figure 8A

9. Next, release the connection from the clickson. **Fig. 9**

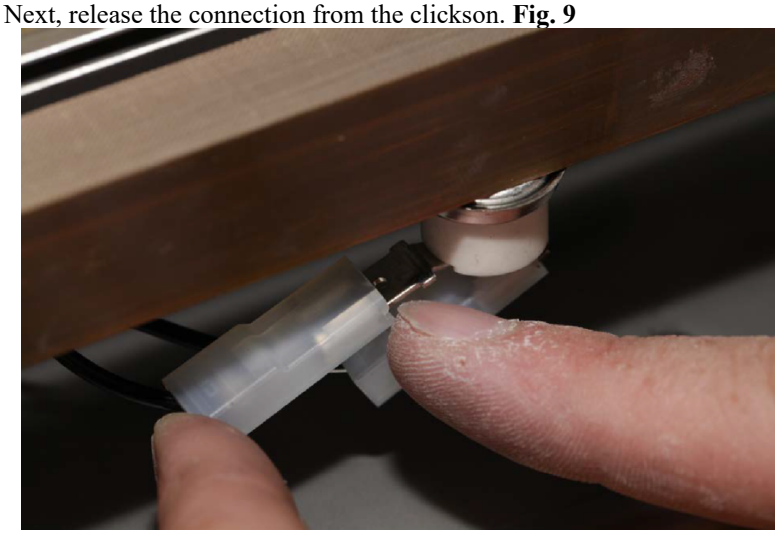


Figure 9

10. Release the wires for the thermocouple. **Fig. 10**

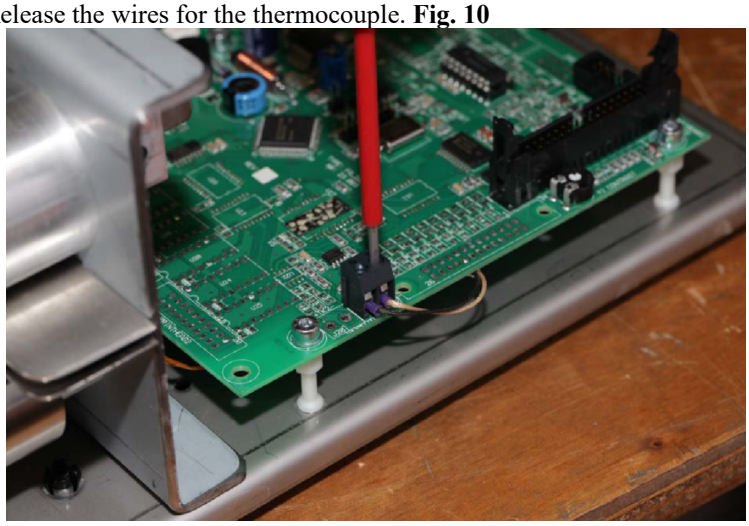


Figure 10

11. Using the “L” wrench, remove the screw from the lower heating bar. Watch for the Teflon insulation rings when removing the heating bar. **Fig. 11, 11A**

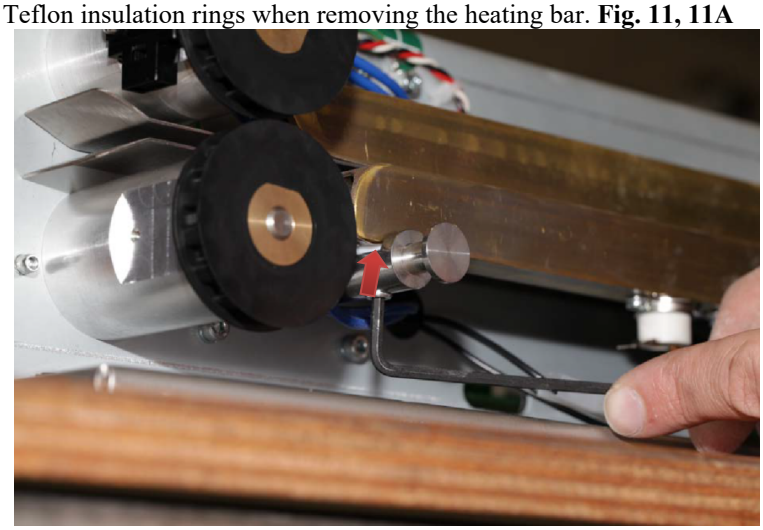


Figure 11

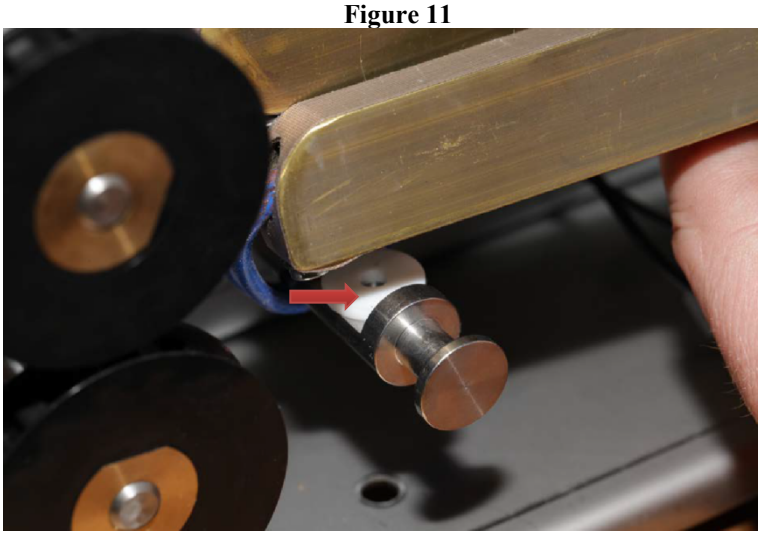


Figure 11A

12. Remove the heating element. Loosen the screws on the Teflon and heating bar and remove the Teflon strip from the heating bar. **Fig. 12**

Figure 12

13. Remove the glue residue with a sharp knife. Do not damage the heating bar as this is soft messing. **Fig. 13**

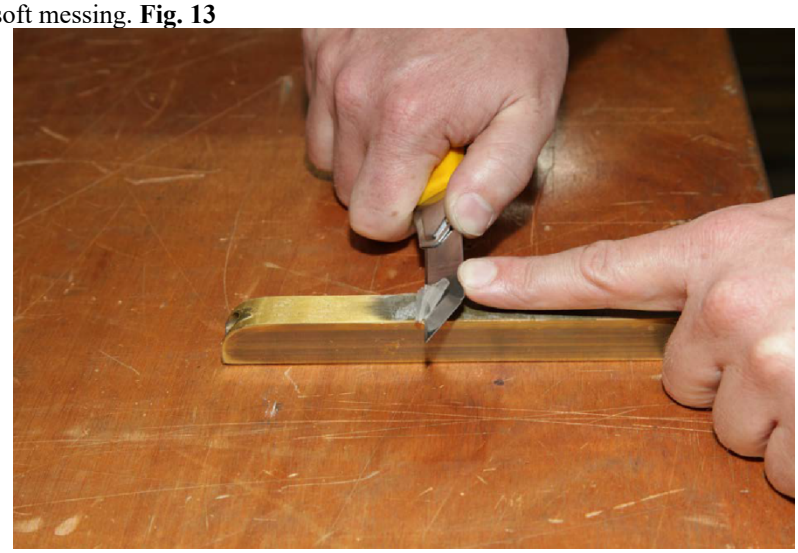


Figure 13

14. With Scotch Brite, clean any residue away. **Fig. 14**

Figure 14

15. Clean the heating bar with a non-linting cloth with dissolvent to remove any remaining glue residue. **Fig. 15**

Figure 15

16. Place a new Teflon strip onto the heating bar by separating the Teflon strip and glue strip away from each other.
17. Place the new Teflon strip onto the heating bar by placing the wrap on the back side of the heating bar, wrap around and place along the bar with the remaining strip wrapped around the other end of the heating bar. Make sure there are no air bubbles present under the Teflon strip. **Fig. 16, 16A**

Figure 16

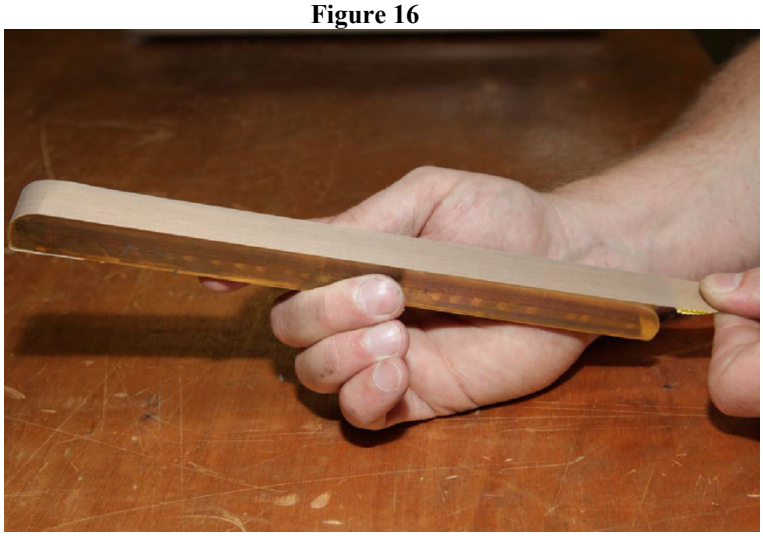


Figure 16A

18. Make a small hole at the spot where the screw is inserted. **Fig. 17**

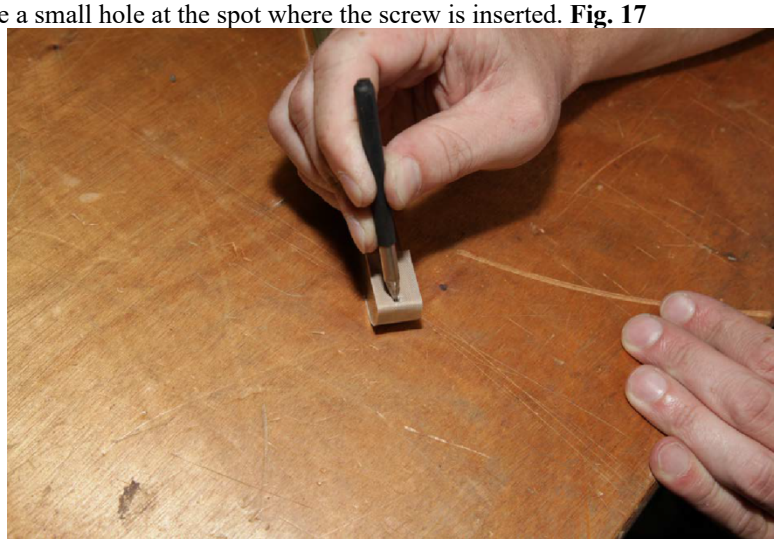


Figure 17

19. The Teflon strip will have a small amount of hangover on the heating bar. Remove with a very sharp knife and keep the blade flat against the heating bar as it cuts away the remaining material. **Fig. 18, 18A**

Figure 18

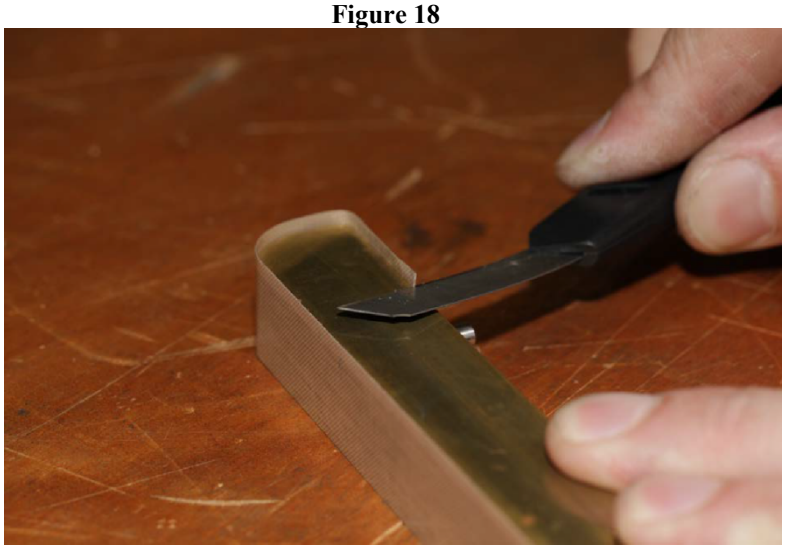


Figure 18A

20. Cut out a round hole for the heating element to be placed back into the heating bar. **Fig. 19**

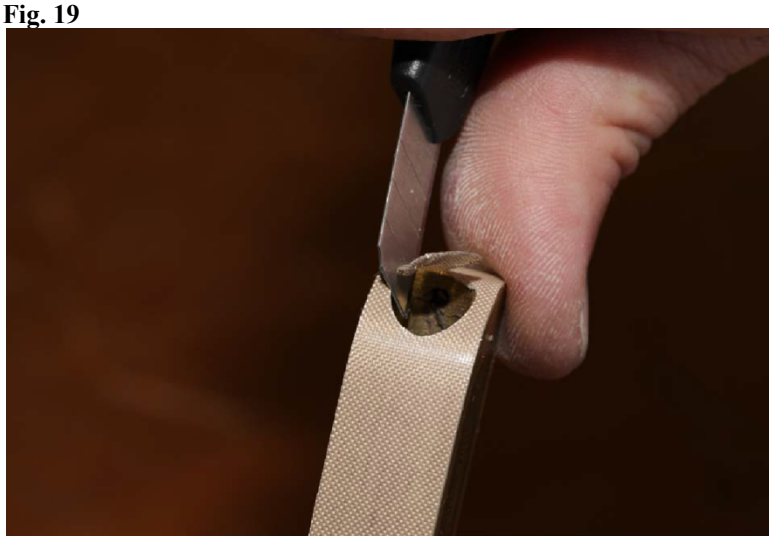


Figure 19

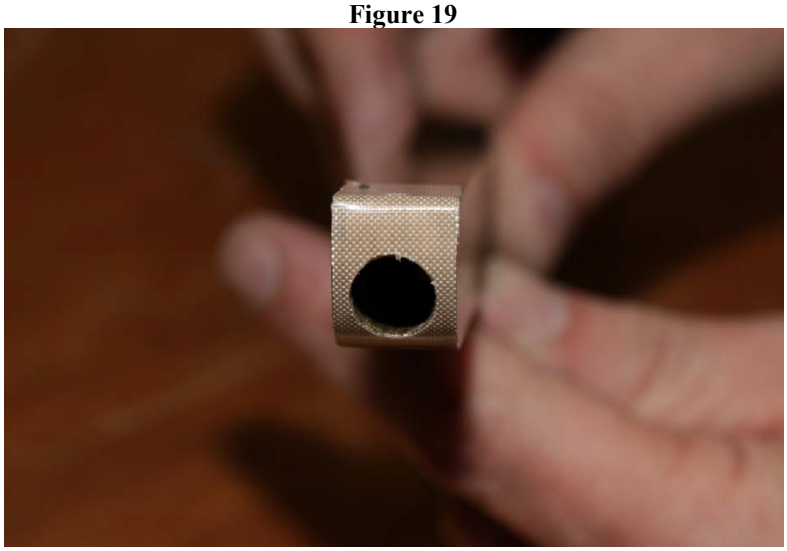


Figure 19

21. Clean the heating element before replacing back into the heating bar with a cloth and ROCOL heating paste. **Fig. 20**

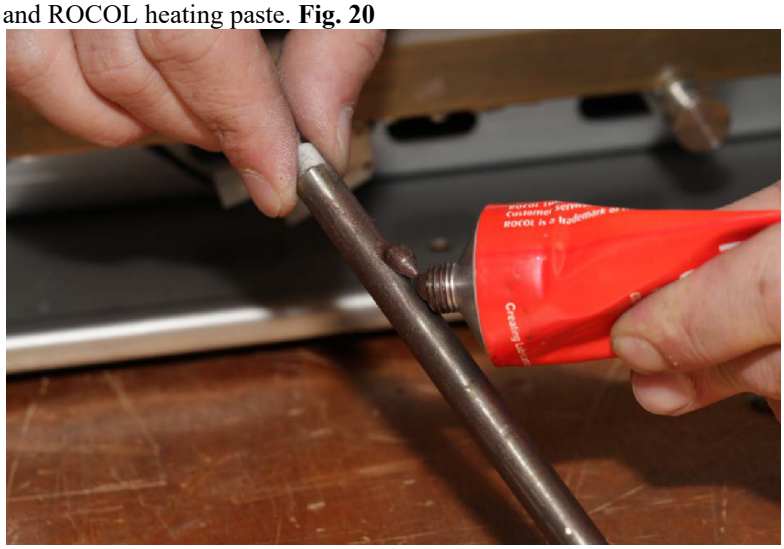


Figure 20

22. With a gloved hand, apply ROCOL heating paste to the heating element. With one finger, spread the paste evenly all over the heating element before inserting back into the heating bar. **Fig. 21**

Figure 21

23. Insert the heating element into the heating bar. As the heating element is inserted into the bar, residual paste will accumulate at the top of the hole on the heating bar. **Fig. 22, 22A**

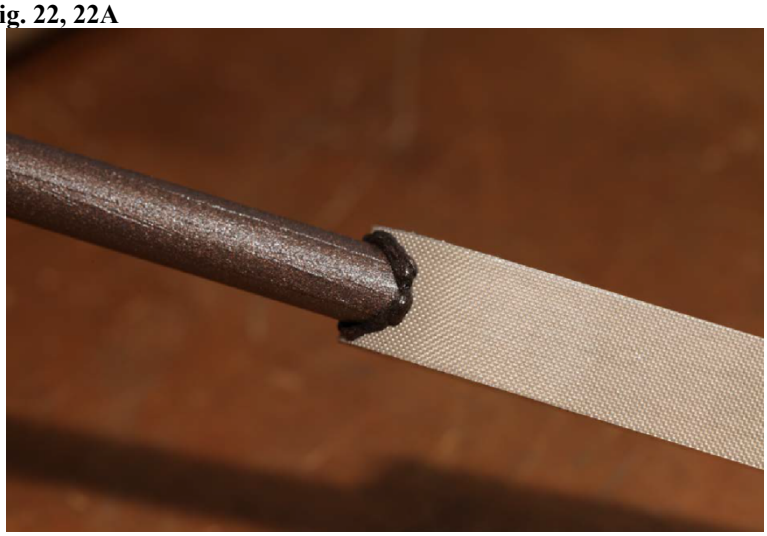


Figure 22

Figure 22A

24. Wipe away the remaining paste making sure it is completely clean. **Fig. 23, 23A**

Figure 23

25. Place the heating element into the heating bar**. Fig. 24**

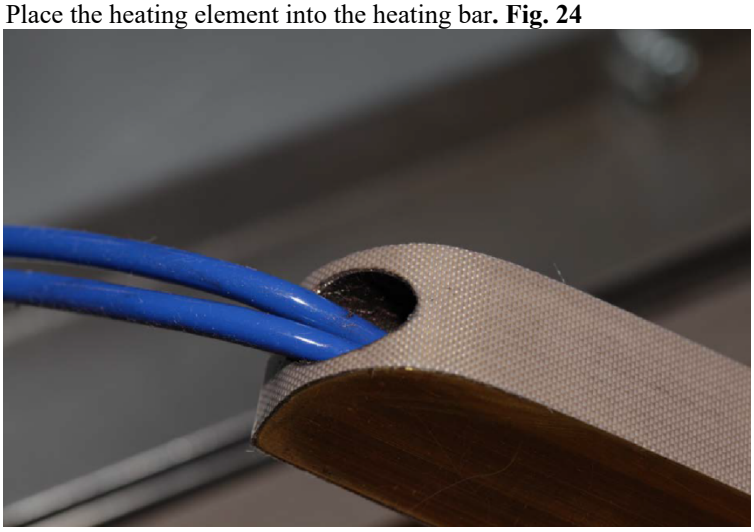


Figure 24

26. Refit the earth screw and the screws back onto the heating bar and the wires so the clickson can be refitted again (the wires do not have any polarity). **Fig. 25, 26**

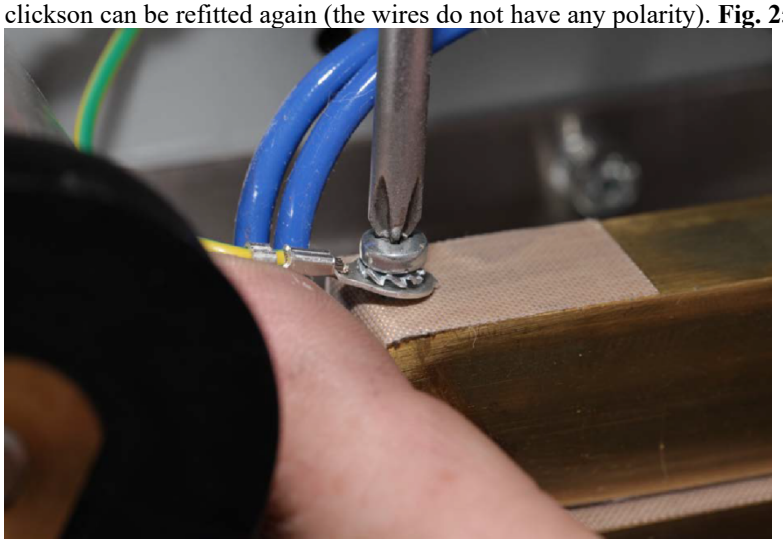


Figure 25

Figure 26

27. Reattach the thermocouple. **Fig. 27**

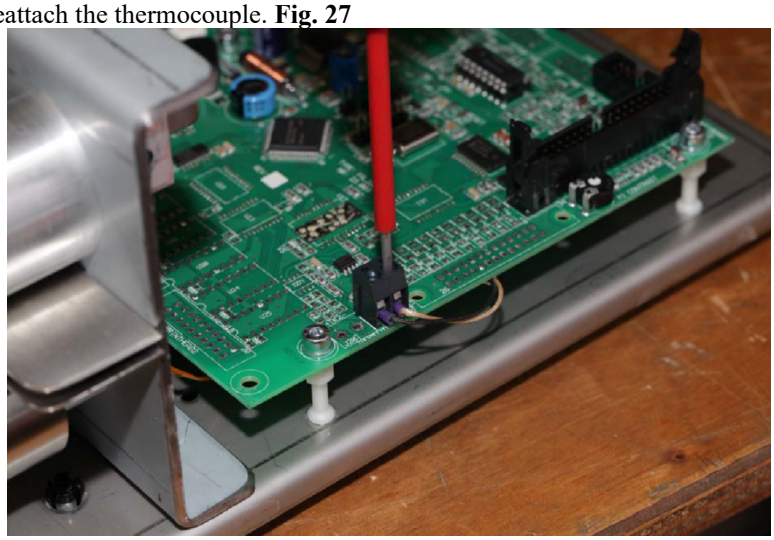


Figure 27

28. Reattach the screw and the Teflon ring using the “L” wrench. **Fig. 28**

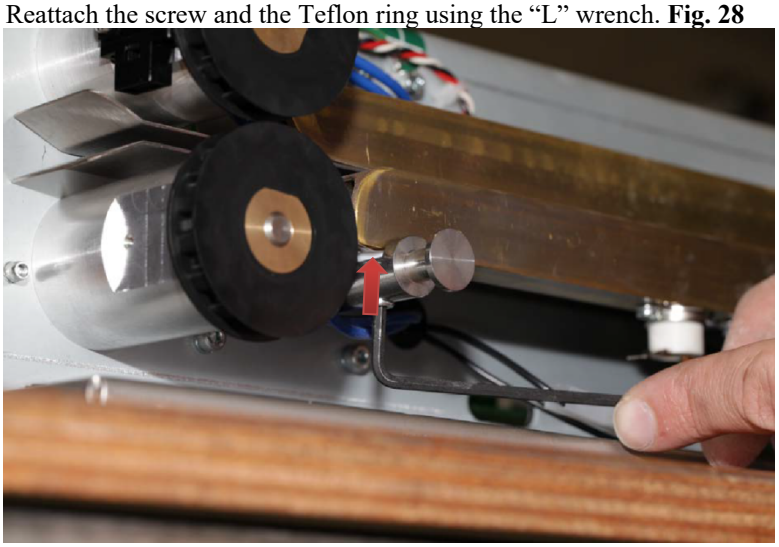


Figure 28

29. Screw the aluminum feed through the bars. **Fig. 29**

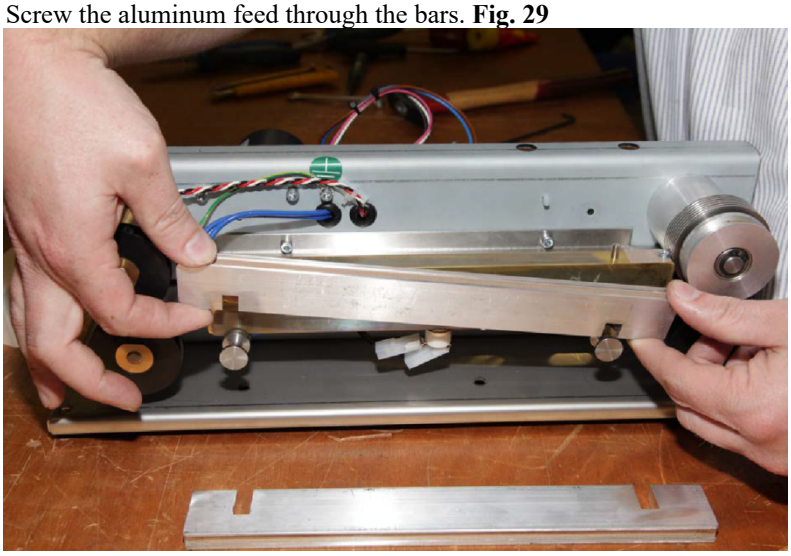


Figure 29

30. Screw in the element support again. Be sure to put the timing belts on so the aluminum guidance bars are fixated. **Fig. 30**

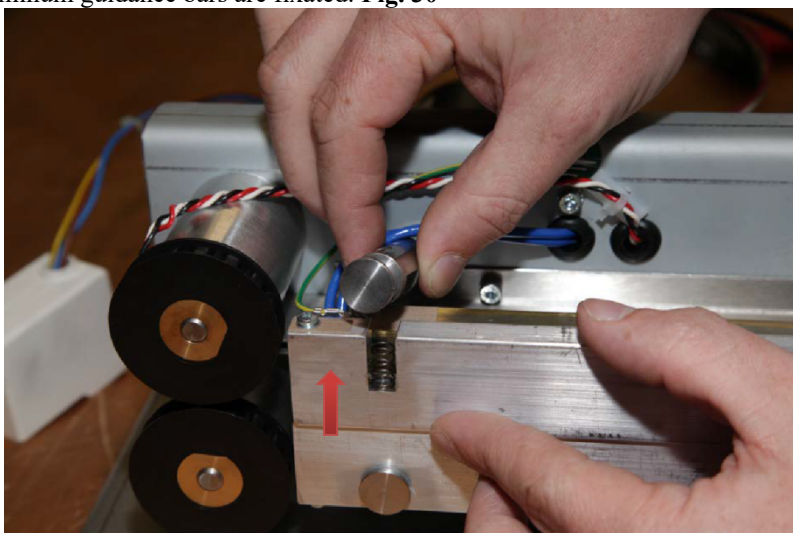


Figure 30

31. Tighten the screws with the “L” wrench to the heating bars to where they can move freely. **Fig. 31**

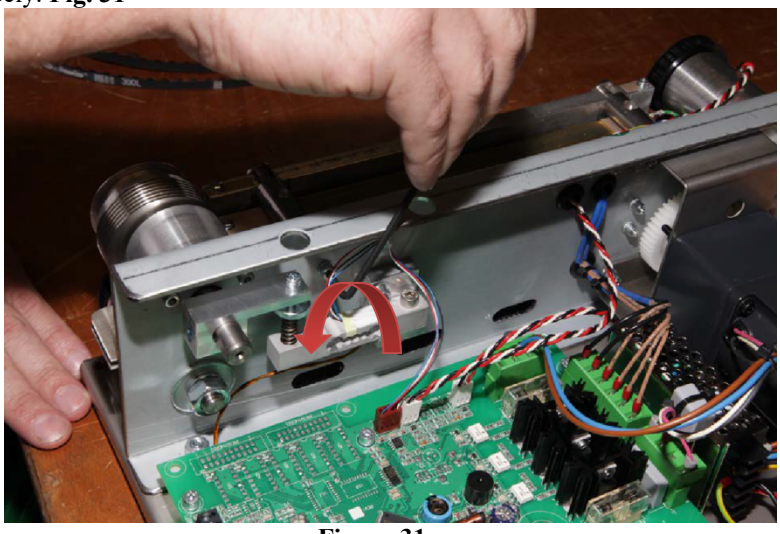


Figure 31

32. Place the transport belt and timing belt pulley back on.
33. Heat sealer is ready for use again. **Fig. 32**

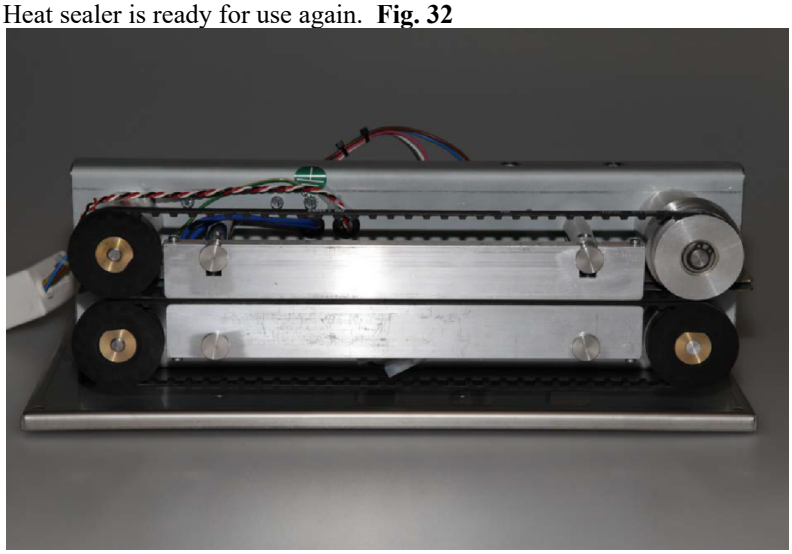


Figure 32

34. Lower the top cover of the heat sealer back down.
35. Place the lower front cover back into place on the heat sealer.
36. Place the heat sealer in an upright position, insert and tighten the two black screws into the holes next to the front rubber legs.
37. Place heat sealer back down to normal position.
38. Plug in and power on heat sealer.

Replacing the Transport Belts

1. Remove the cover from the heat sealer. **Fig. 1**

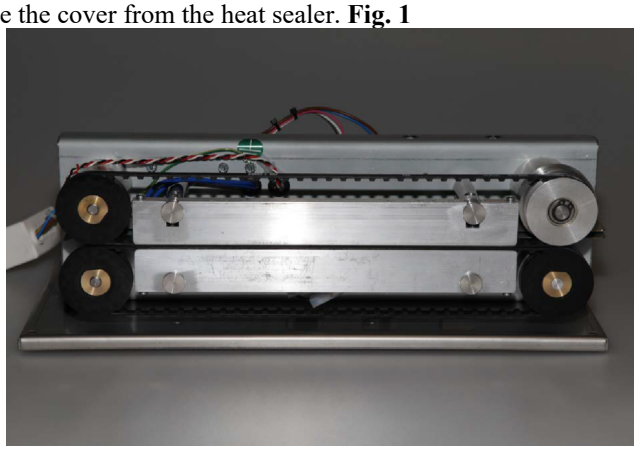


Figure 1

2. Remove the transport belt clockwise from the top right pulley. **Fig. 2**

Figure 2

3. Lift the aluminum guidance bar slightly to easily remove the transport belt. **Fig. 3**

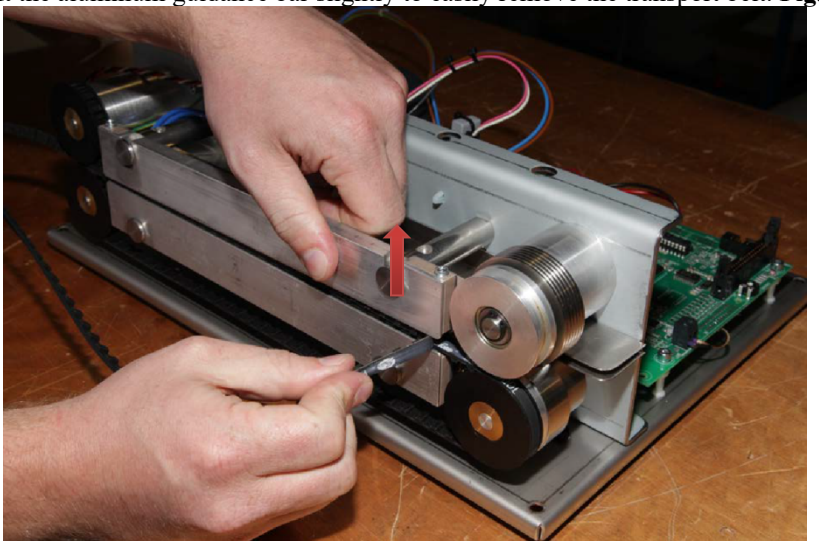


Figure 3

4. Replace with the new belts one at a time.
5. Lift the aluminum guidance bar slightly then insert the new transport belt with the teeth on the belt facing down, make sure to place the belt teeth into the groove openings of the pulley.
6. Then pull the belt to the opposite end and place the belt around the pulley with each of the belt teeth into the groove openings of the pulley.

Replacing the Pulley

1. Remove the cover. **Fig. 1**

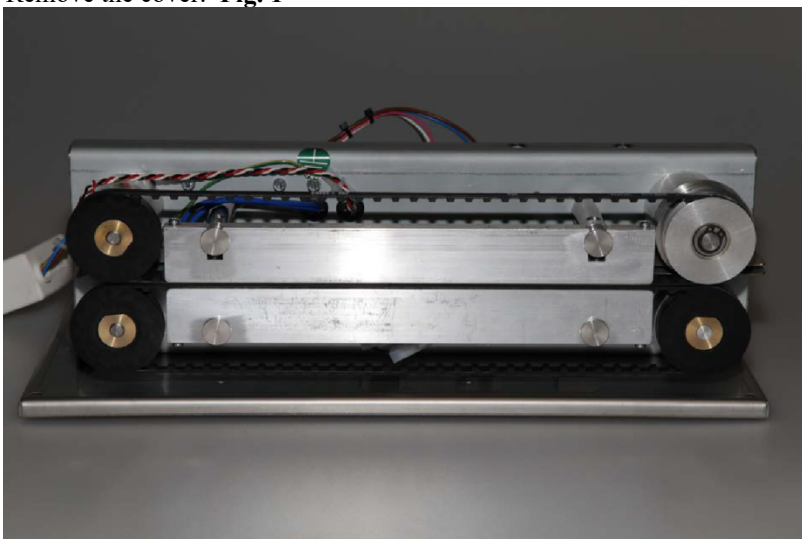


Figure 1

2. Remove the transport belt from the pulley. **Fig. 2**

Figure 2

3. Lift the aluminum guidance bar slightly to easily remove the transport belt. **Fig. 3**

Figure 3

4. Remove the screw inside the pulley. **Fig. 4**

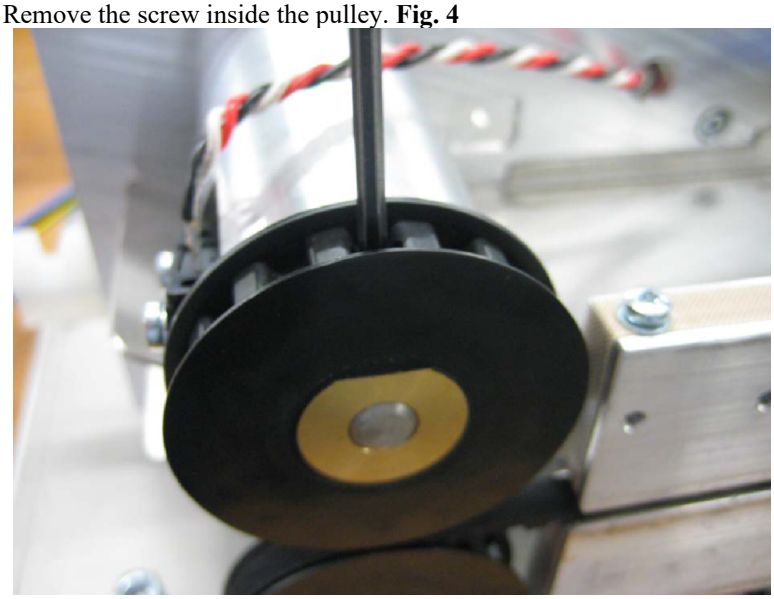


Figure 4

5. If the pulley cannot be freed by hand, use a pulley puller to remove. **Fig. 5**

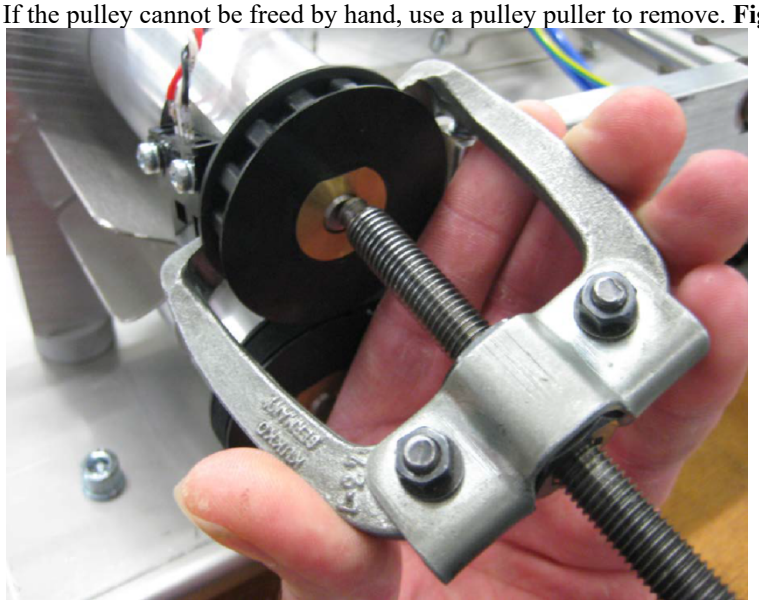


Figure 5

6. Once removed, replace with a new pulley. Tighten the screw inside the pulley.
7. Place the transport belts back onto the pulleys.
8. Lower the top cover of the heat sealer back down.
9. Place the lower front cover back into place on the heat sealer.
10. Place the heat sealer in an upright position, insert and tighten the two black screws into the holes next to the front rubber legs.
11. Place the heat sealer back to normal position.
12. Plug in and power on the heat sealer.

Replacing the Thermocouple

Note: A thermocouple could be replaced when packaging materials melt when sealing at the temperature as recommended by the pouch manufacturer.

- To check if the thermocouple is indicating wrong values, measure the temperature at the spot where the thermocouple is located. After this, the temperature on the measuring device and the temperature on the display need to be checked.
- If the measuring device indicates a temperature which is too low and the machine needs a lot of time to heat up (or does not reach the temperature after a long time), it could mean that the lower heating element is broken. In this case, one would also see a "Temp. Alarm" in the display.

1. Release the screws which hold the thermocouple wires. **Fig. 1**

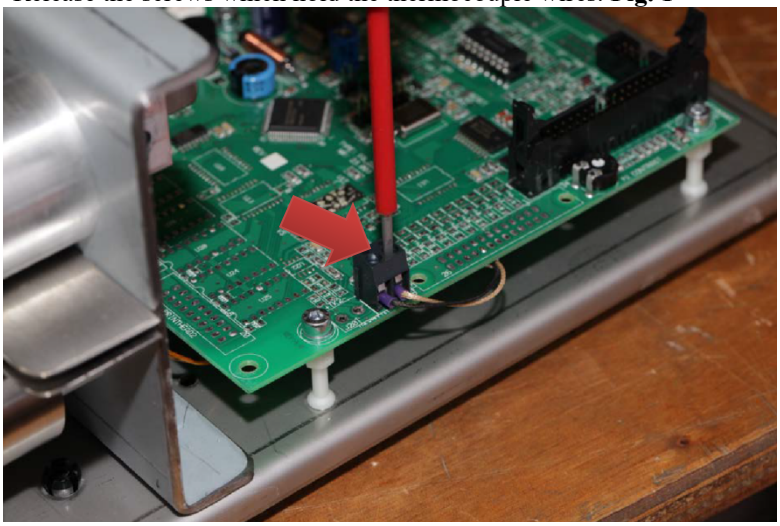


Figure 1

2. Put a screwdriver through the hole in the mounting plate to reach the screw of the thermocouple and remove the screw. **Fig. 2**

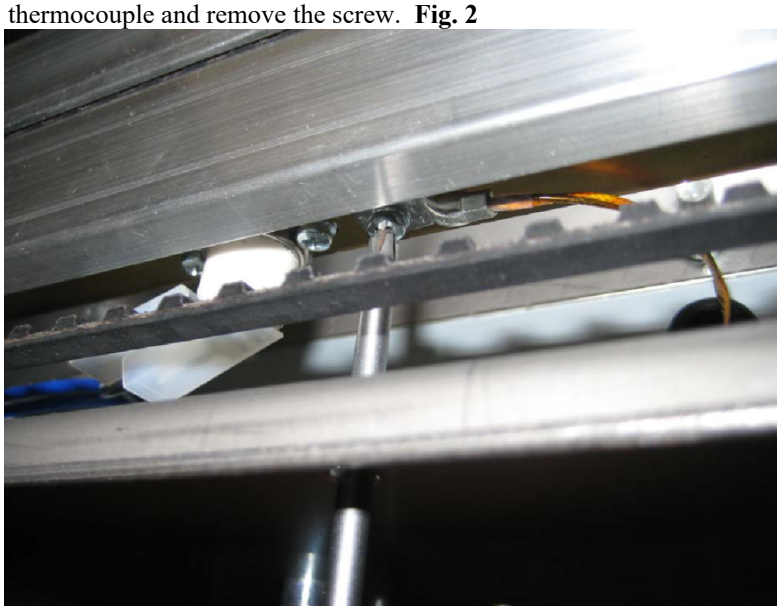


Figure 2

3. Remove the screw on the thermocouple. **Fig. 3**

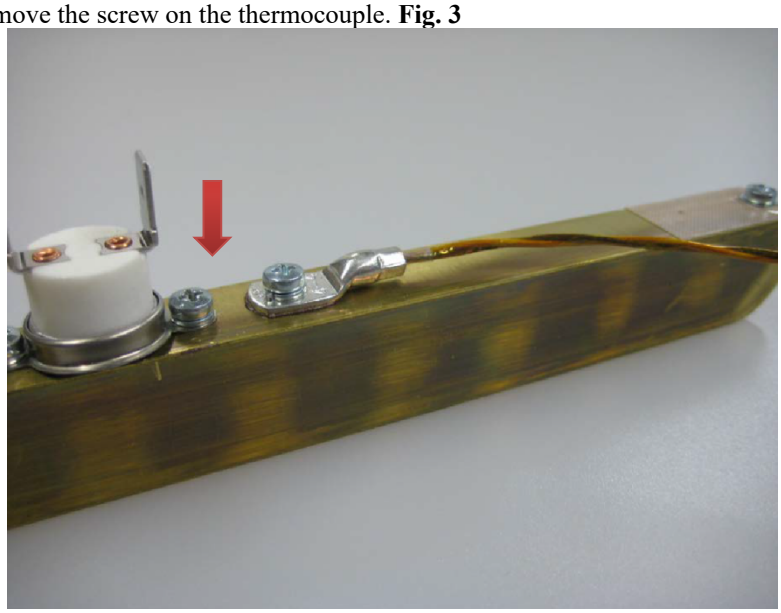


Figure 3

4. Grease the new thermocouple with ROCOL paste and place the screw back into the thermocouple and tighten. **Fig. 4**

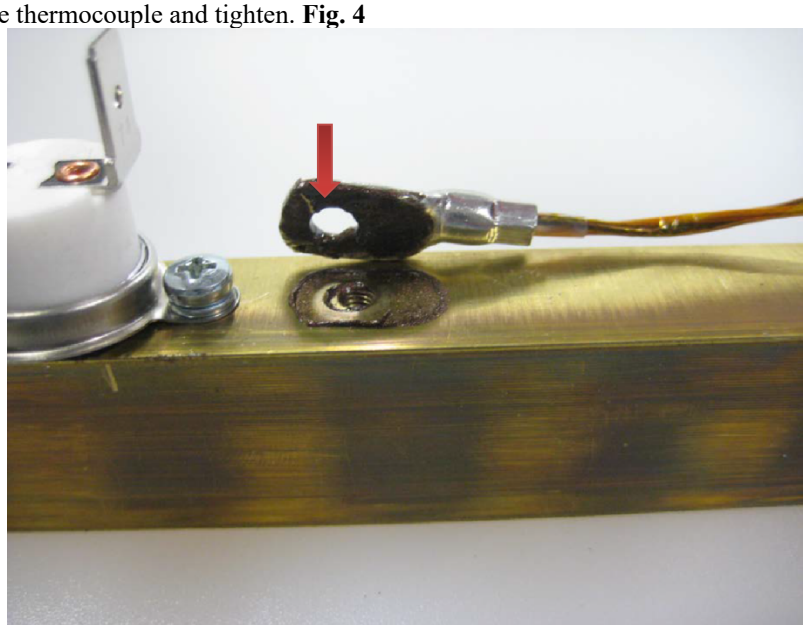


Figure 4

5. Fit the new thermocouple and make sure it is fitted correctly. **Fig. 5**

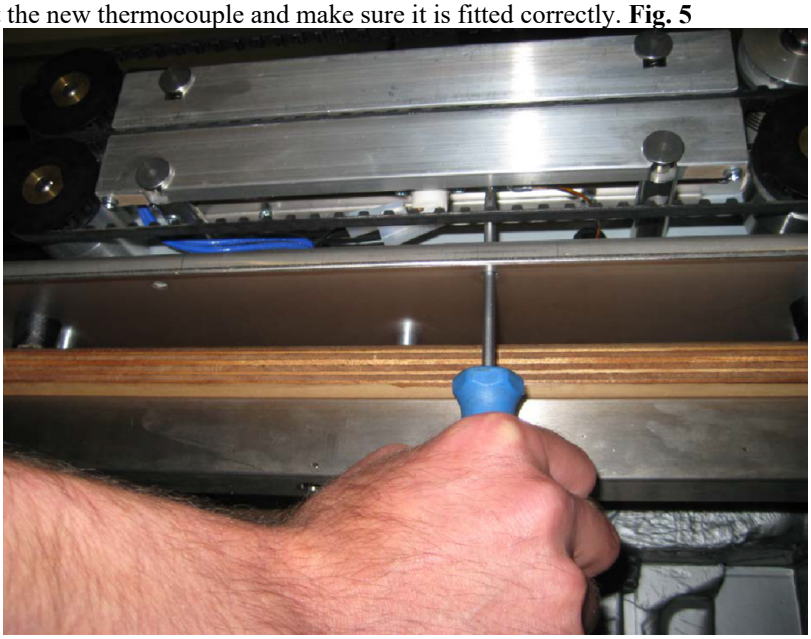


Figure 5

6. The thermocouple wires can be refitted as shown below. **Fig. 6**

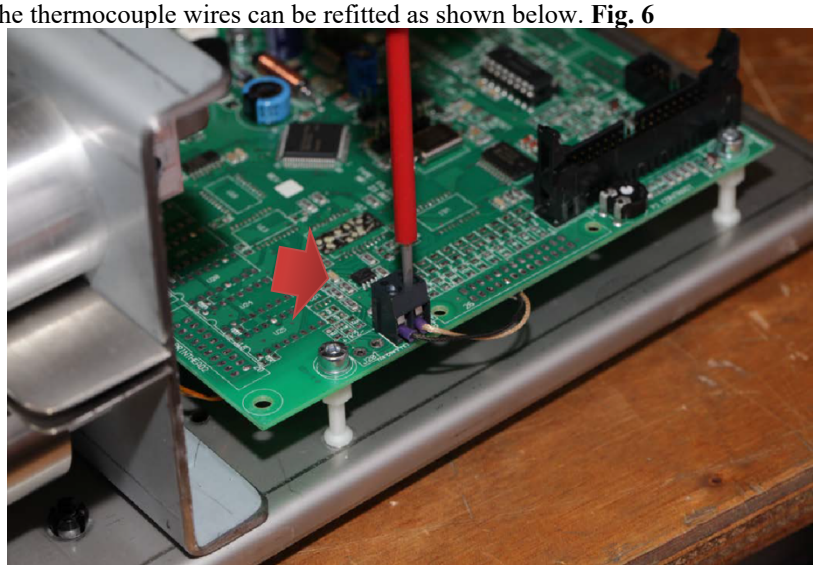


Figure 6

7. Lower the top cover of the heat sealer back down.
8. Place the lower front cover back onto the heat sealer.
9. Place the heat sealer in an upright position, insert and tighten the two black screws into the holes next to the front rubber legs.
10. Place the heat sealer back down to normal position.
11. Plug in and power on the heat sealer.

Calibrating the Temperature for the F108TX/F108TX-P PROTEC

Note: Calibrating the temperature is meant to tell the PCB board acutely what 180ºC input by the thermocouple connector is.

- The calibration of the temperature should be performed to 1% precise of the set temperature. This means that when calibrating at 180ºC, the tolerance may be 1, 8ºC which will result in +/- 2ºC as the display only indicated full figures.
- When connecting a thermocouple simulation device, a temperature reading in the display between 178ºC and 182ºC when calibrating at 180ºC is acceptable.

1. Make sure the power supply cord is taken out of the back of the machine to prevent any electrical shocks.
2. Open the cover as indicated in steps 1-5 in Diagrams (drawing and pictures).
3. Disconnect the connector for the heater and clickson as show below. **Fig. 1**

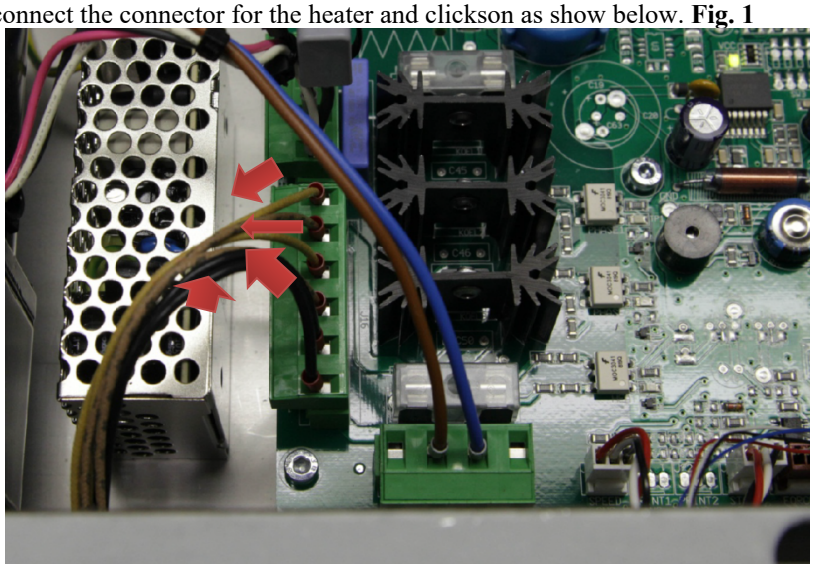


Figure 1

4. Place the test jumper on the test connector on the PCB board. **Fig. 2**

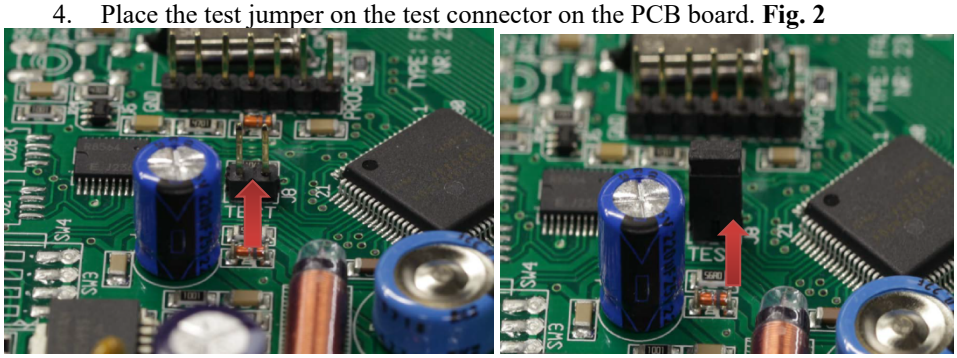


Figure 2

5. The F108 series are equipped with one thermocouple connection point, TK1 which is located on the PCB board.
6. Connect the thermocouple simulation device to TK1. TK1 is used to control the temperature control on the PCB board.

7. Connect the thermocouple simulation device and set it to Thermocouple Type J and at 130ºC. Switch on the heat sealer and wait for 10 seconds. **Fig. 3**

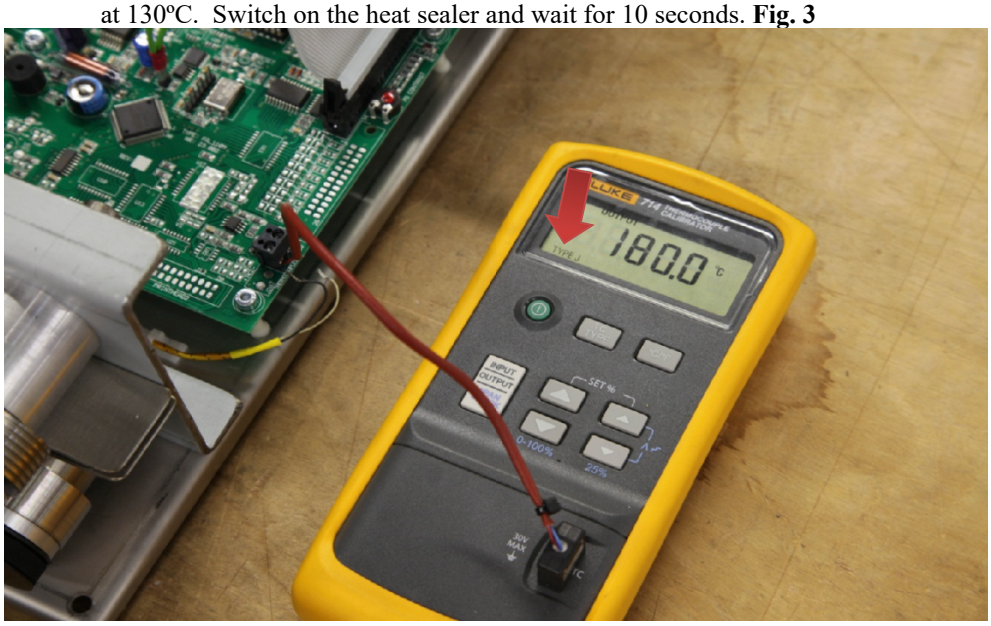


Figure 3

8. Check the temperature indicated in the display of the heat sealer.
9. Check if the temp at “Temp1” is 130ºC. Fig. 4

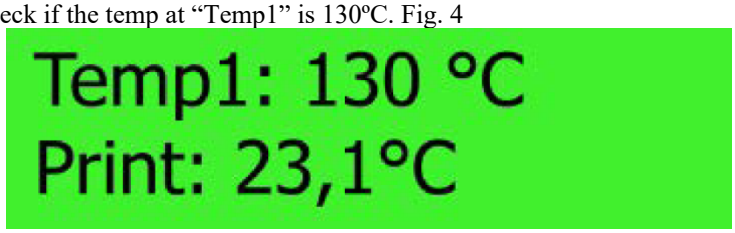


Figure 4

10. If not, use  until the temperature of 130ºC has been reached.
11. When the correct temperature has been reached on the display, you can fix this setting by pressing  .
12. The temperature indicated at “Print” should be 24ºC.
13. If a different temperature is indicated, you can adjust it to 24ºC by using the  .
14. However, it can occur that the temperature at Temp 1 slightly changes.
15. If the temperature is between 128ºC and 132ºC, no further action needs to be taken.
16. If the temperature is outside of this range, please contact Famos bv.
17. Next, set the temperature simulation device at 180ºC and check the temperature indicated in the display of the heat sealer. **Fig. 5**

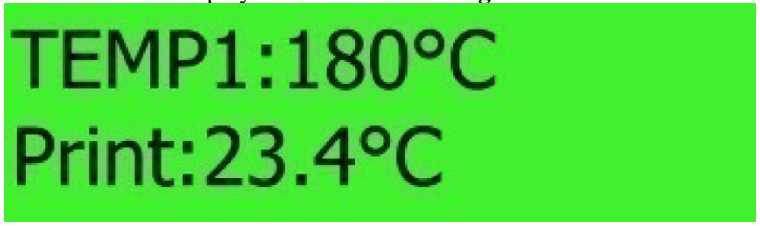


Figure 5

18. Check that the temp at “Temp 1” is 180ºC.
19. If not, please use 

until the temperature of 180ºC has been reached.
20. When the correct temperature has been reached on the display, you can fix this setting by pressing 

.
21. The temperature indicated at “Print” should be 24ºC.
22. If a different temperature is indicated, you can adjust it to 24ºC by using the 

.
23. However, it can occur that the temperature at Temp 1 slightly changes.
24. If the temperature is between 178ºC and 182ºC, no further action needs to be taken.
25. If the temperature is outside of this range, contact Famos bv.

Only use the buttons as mentioned above and no other buttons on the keyboard.

26. Switch off the heat sealer.
27. Disconnect the thermocouple simulation device from TK1.
28. Remove the test jumper from the TEST connector on the PCB board.
29. Reconnect the connector for the heater and clickson.
30. Lower the top cover of the heat sealer back down.
31. Place the lower front cover back onto the heat sealer.
32. Place the heat sealer in an upright position, insert and tighten the two black screws into the holes next to the front rubber legs.
33. Place the heat sealer back to normal position.
34. Plug in and power on the heat sealer.

<u>Calibrating the Pressure for the F108TX/F108-P/USB PROTEC</u>

Note: Calibrating the pressure is meant to tell the PCB board acutely what weight on the load cell should result in a displayed pressure on the display of the heat sealer.

- The adjusting of the force should be performed to +5 precise of the applied weight. When calibrating at 100 Newton, the tolerance may be +5 Newton. When putting the weight on the load cell, a force of 100-105 should be displayed on the display. If this is the case, no further adjustments need to be made.
- With Tyvek pressure rollers, the set range reduce slightly when the machine is being left alone for a while.

1. Place test jumper on the TEST connector on the PCB board. **Fig. 1**
   For models with a USB module, please make sure to remove the USB cable from the PCB board first. Otherwise, the calibration procedure will not work.

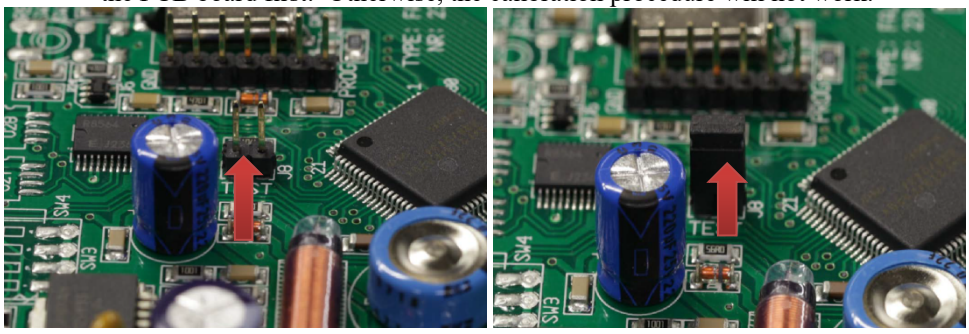


Figure 1

2. The display shown is after putting the test jumper on the PCB board. **Fig. 2**

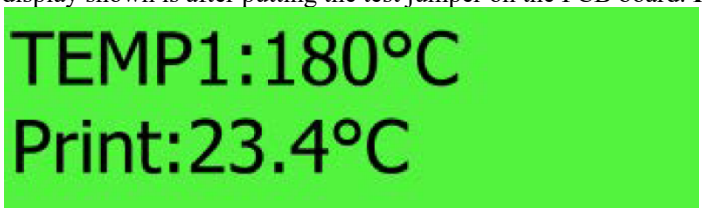


Figure 2
(The values on the display will look different.)

3. Press the ON button on the keyboard to change to the following display which is needed to check and adjust the pressure. **Fig. 3**

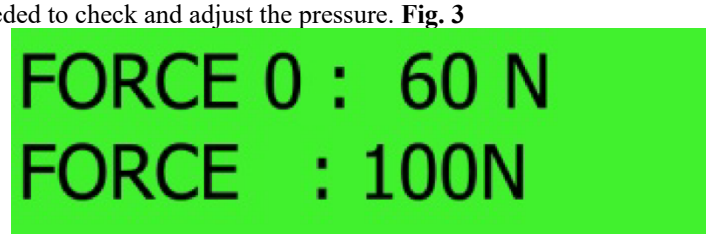


Figure 3
(The values on the display will look different.)

4. When a seal is made, the force should increase by 5-7 Newtons depending on the thickness of the packaging material. This can be checked by the settings of the machine.
5. When the value behind “force” would be lower than 95 Newton, adjust by turning the aluminum grooved screw clockwise to increase the pressure and counterclockwise to decrease the pressure. **Fig. 4**

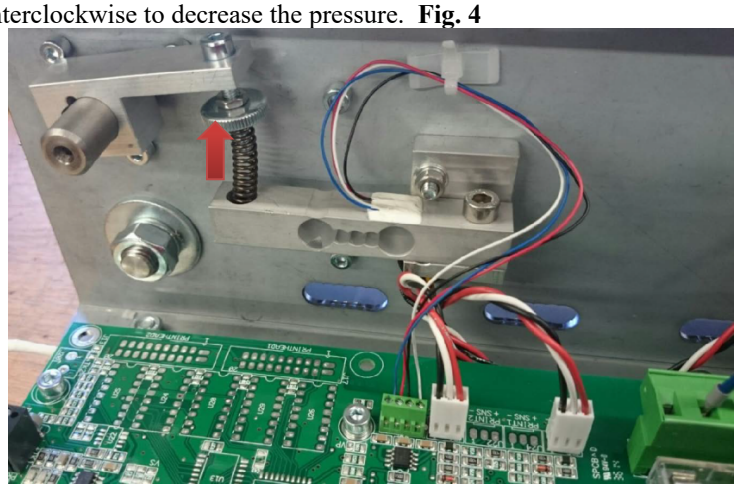


Figure 4

6. After the pressure has been set to approximately 100 Newton, press the red reverse button to see the deviation in the pressure behind the “FORCE” on the display.

7. After adjusting the pressure, make sure to secure the screw again by fixing the small nut on the top of the aluminum grooved screw. **Fig. 5**

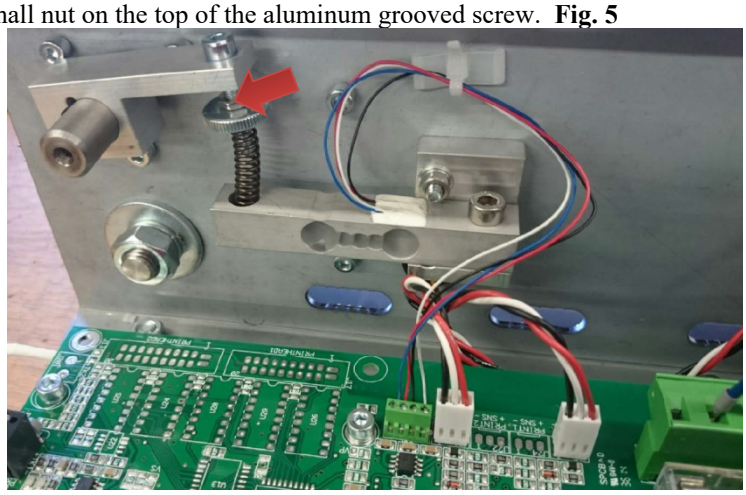


Figure 5

8. When a new PCB board or load cell is installed, place the test jumper on the TEST connector and add the extra weight on top of the load cell. **Fig. 6, 7**
   Dismantle the pressure mechanism for the load cell by taking out the screw that is on top.

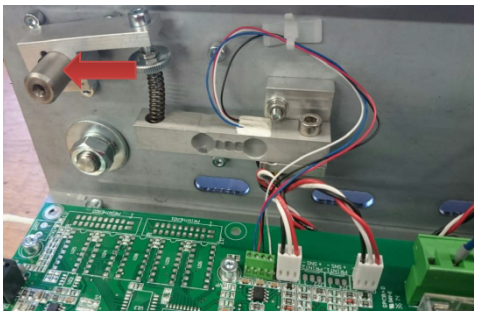


Figure 6

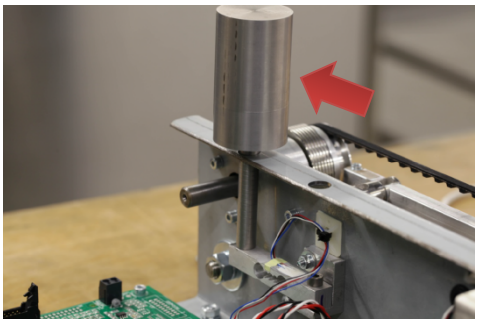


Figure 7

9. Next, go to the pressure menu. The values on the display will look different. (i.e. "FORCE: ON and "FORCE 20N"). **Fig. 8**

Figure 8

10. Press + or – Count until you see "FORCE: 100N" (The "FORCE 0" will run random for 0-90).
11. Now that the settings are correct, make test seals to see if the pressure will increase.
12. Remove the extra weight from the load cell.
13. Mantle the pressure mechanism for the load cell by placing the screw back in and tighten.
14. Remove the test jumper from the TEST connector.
15. Lower the top cover of the heat sealer back down.
16. Place the lower front cover back onto the heat sealer.
17. Place the machine in an upright position, place and tighten the two black screws into the holes next to the front rubber legs.
18. Place the machine back to normal position.
19. Plug in and power the machine on.
20. However, in the case of "FORCE: 100N" and if "FORCE 0" is in the range of 90-100, this means that the load cell is defective. In this case, the difference in value is too small.

Interpretation of Test Results	N/A
Contraindications of Test Results	N/A
Documentation	N/A
Special Warnings and Cautions	N/A
Disposal	N/A

Reprocessing Instructions	
Point of Use	N/A
Preparation for Decontamination	N/A
Disassembly Instructions	N/A
Cleaning – Manual	N/A
Cleaning – Automated	N/A
Disinfection	N/A
Drying	N/A
Maintenance, Inspection, and Testing	N/A
Reassembly Instructions	N/A
Packaging	N/A
Sterilization	N/A
Storage	N/A
Additional Information	N/A
Related Healthmark Products	N/A
Other Product Support Documents	Sterilization Brochure, Sterilization Price List
Reference Documents	N/A
Customer Service Contact	Healthmark Industries Company, Inc. 18600 Malyn Blvd. Fraser, MI 48026 1-586-774-7600 healthmark@hmark.com hmark.com