



**SEALING INDUSTRIES INC.**

Turnkey Solutions for Manufacturing and Packaging  
using RF Heat Seal Technology



## **RULES FOR ELECTRONIC HEAT-SEALING**

### **Before ordering heat sealing dies:**

1. Check the heat sealing chart to determine capacity of heat sealing equipment.
2. Determine whether the size of your run will justify the cost of multiple unit heat sealing dies.

### **When ordering electronic heat sealing dies:**

1. Specify the machine size and mounting hole centers, size of the bed plate, size of the upper platen and if the machine has a heated upper plate.
2. Determine the thickness of plastic to be used and desired trim for tear seal waste (preferable ¼" to be torn away after sealing.)
3. Specify the type of rule (tear seal, flat bar, stitch, special.)
4. Send blue prints, patterns or sewn samples.
5. Send enough material for testing all phases of the project thoroughly.
6. If used, specify types of steel and height required for cutting dies.

### **When using electronic heat sealing dies:**

1. Heat sealing dies are ready to use as received. No adjustments to the dies should be necessary. Before mounting the dies, be sure to check that the head of your machine is level.
2. To check if the machine platen is level, place one sheet of plain paper on the bed of the machine and cover with one layer of carbon paper. With the RF switch off, bring the platen with the die attachment down onto the carbon paper. Then, release and check carbon print on paper for even die lines.
3. Check to see die and set up are in the proper sequence of operation.
4. To start production sealing, start with low RF and seal time. Increase seal time first, and then raise RF power and adjust air pressure until desired sealing strength is achieved.
5. After production has been running for a time and the die is thoroughly heated to operating temperature, cut back on the RF power gradually to prevent seal from overheating. If the machine has a heated upper plate, the temperature of the sealing die can be set to operating temperature, so only minor changes to RF power and sealing time are required.

### **When repairing electronic heat sealing dies:**

1. Slight nicks and small arcs are easily repaired with soft solder. After filling the burn with

solder, file to the same level as the rest of the brass. If using a one piece beaded seal, insert a piece of 2pt steel rule in the channel, then solder the hole. Return badly burnt or damaged dies for complete repair and re-machining. Keep dies and buffer free of carbon at all times. Try using MEK or other cleaners for this purpose.

### **When storing your electronic heat sealing dies:**

1. It should be remembered that your tools are precision made and should be treated as such.
2. Check dies for nicks and burns before storing.
3. Repair immediately as in above paragraph or return to repair and re-machine.
4. Store dies in the container in which they were shipped, on clean shelves and cover with foam rubber.
5. **Do not** store anything on top of these tools.
6. If you must stack boxes of dies, be sure to put several layers of foam between tools.

### **Pre-heating dies with heated platen:**

1. For maximum efficiency of tools at the start of the day, pre-heat your dies by setting your thermostat to 150 degrees. Maintain this temperature until your die heats up from use and cut down on your thermostat.
2. For appliqué sealing, a heated platen is a must.

### **Floating dies and separator plates for simultaneous sealing with top and bottom dies:**

1. You must have a phosphorous bronze spring attached to contact with a terminal leading to your arc suppressor when placed in position under the press.

### **Stops in dies:**

It is recommended that you have installed mechanical stops in your dies where:

1. A controlled penetration in sealing is needed
2. A must in appliqué sealing
3. All mechanical stops should be fully adjustable

### **Buffers:**

1. Buffer must cover the aluminum plate of your trays or bed plate to concentrate the welding heat in the plastic.
2. Fishpaper and mylar and the most popular and inexpensive materials used.
3. For special applications, flouraglas/teflon may be used for its non-sticking properties.

### **Polyethylene slipsheets:**

1. By using polyethylene, mylar or polypropylene, you can tear seal two or more individual layers of material without welding them together.

**Foam padding:**

1. Dies are packed with foam to force the air out between the layers of vinyl before sealing, thus eliminating air pockets in the finished products.
2. Additional pressure can be added to the foam by gluing chip board layers to the foam. This is especially easy when a chip board stay is used in the sealed part.

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