



# Technically Speaking

**Service News and Tips**

July | 2021

**Summer Edition**

Inside this issue:

Load Cells & Amplifiers ..... 2

Waste Shredders..... 3

Perforator Tooling ..... 4

Die Cut Tooling ..... 5

Technical Tips..... 6

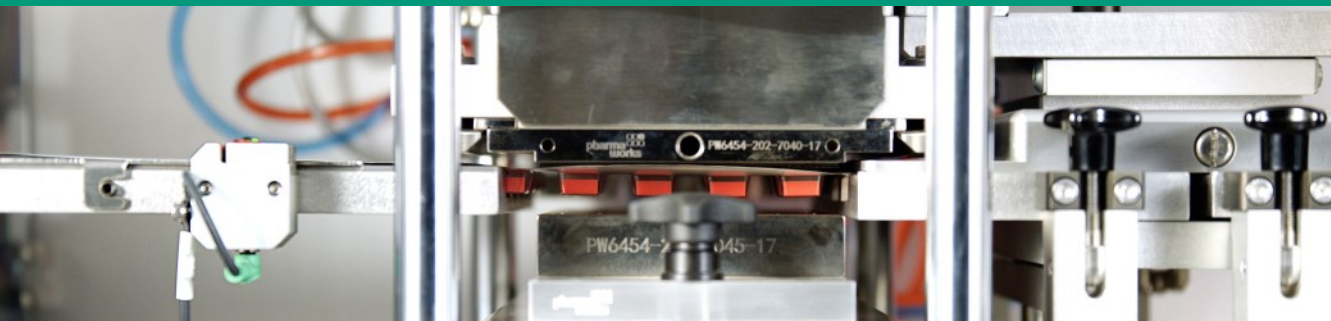
Training..... 7

Contact Information ..... 8

**PH**

**PHARMA**





# Load Cells & Amplifiers

Shipping and Storing Load Cell & Amplifier Matched Sets

**Equipped with the latest** in load cell technology, our Pharmaworks Thermoform and Cold Form machines monitor the seal force of each cycle. This shows the exact amount of force used to seal each package, making validation that much easier. Also, the load cell and amplifier are certified together, making them a matched set.

Each amplifier has a label with the matching load cell number on it. A certification is provided listing the serial numbers of both the load cell and its matching amplifier.

When shipping spring packs and load cell/amplifiers to Pharmaworks, ensure that the spring packs are securely crated, and that the load cell and amplifier are protected from shifting within crate.

**When shipping back** to your facility, Pharmaworks houses the sensitive load cell and amplifier in a ruggedized, secure case. This same case is very handy when shipping for future certifications.

Inside the provided shipping and storage case, under the protective foam, you can find the calibration certification for the load cell and amplifier set. The calibration date

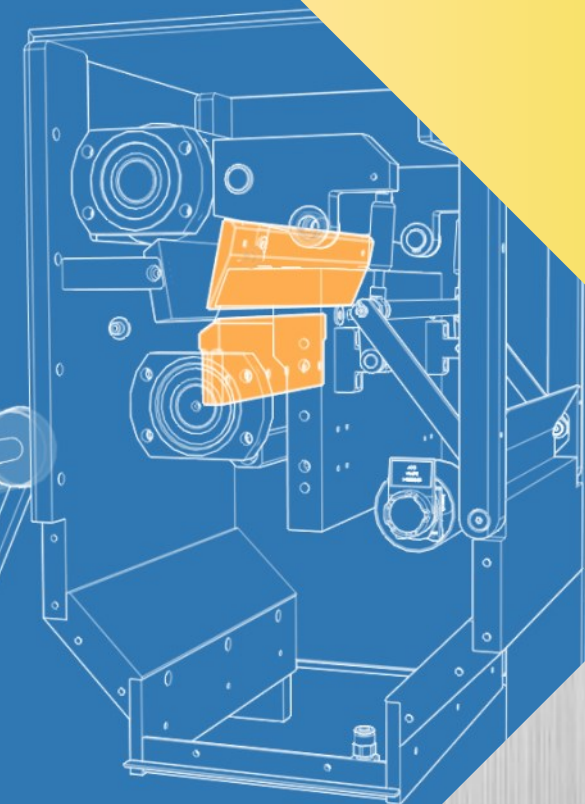


is printed on the sticker affixed to the load cell. The serial numbers and affixed sticker can be used to match back to the original documentation.

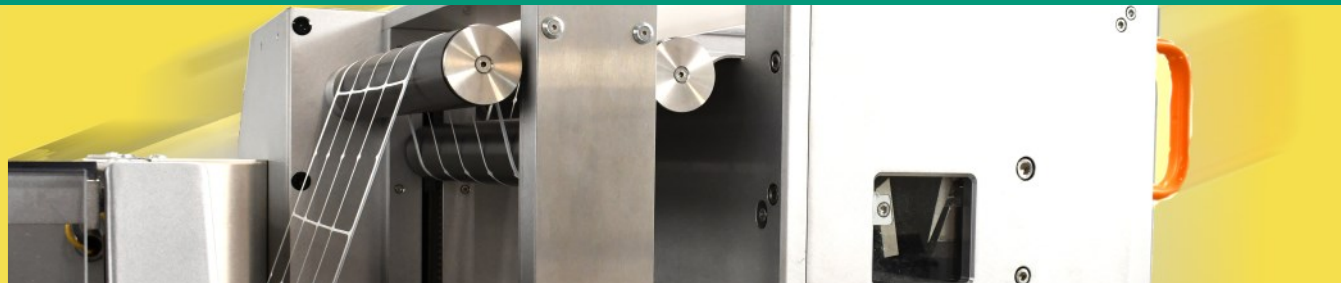
**Store the load cell and amplifier together** (as they are a matched set) if they are not going to be installed right away. Original documents should be removed for safekeeping and copies left with the stored unit.



"... the exact seal force of each cycle, monitored and displayed on the HMI..."



"... each knife is able to withstand tens of millions of operational cycles before servicing..."



# Waste Shredders

## Rotary Knife Maintenance and Servicing

**The Pharmaworks waste shredder is a robust design** able to withstand tens of millions of operational cycles. Two chopping blades are housed inside the unit: the rotary knife and the fixed blade. A powerful motor turns the rotary knife against the fixed blade which shreds waste material into manageable pieces for disposal.

**In time, these blades will need to be resharpened.** Following the Pharmaworks recommendations will help create a smooth preventative maintenance process for the blades and extend the service life of your waste shredder well into the future.

How long can my blades go between sharpening? The answer to this commonly asked question depends on the material being shredded. Base material made from PVC with a foil lidding will yield a much longer waste shredder service life than the same base material with paperback lidding.

**Ship the rotary knife and spindle together** as a unit when returning this item to Pharmaworks for maintenance. This allows the blade to be removed, sharpened, reassembled, and balanced with the spindle to create a balanced blade set. Failure to properly balance the spindle and knife can cause premature bearing failure.

**We offer complete waste chopper rebuild kits** for your specific machine. Each kit is assembled by our top technicians and includes all known wear parts. These rebuild kits are guaranteed to bring your waste shredder back to like-new condition.







# Perforator Tooling

## Perforator Tool Disassembly and Blade Replacement

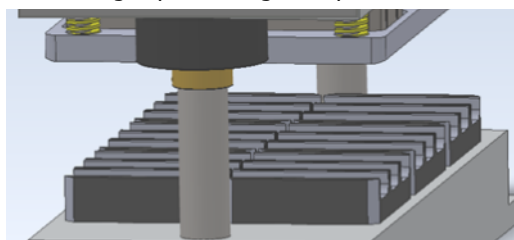
**Technicians should regularly inspect** blister perforation quality at the outfeed, specifically checking for dull or missing perforation cuts. These routine checks will ensure good, consistent perforations across all blisters. Since perforator blades wear over time, it is best to replace the entire blade set to maintain uniform blade heights and consistent perforation marks across the format. It is crucial to keep at least one full set of spare blades as a backup. And remember, always follow safe working practices when disassembling the perforator tool for maintenance.

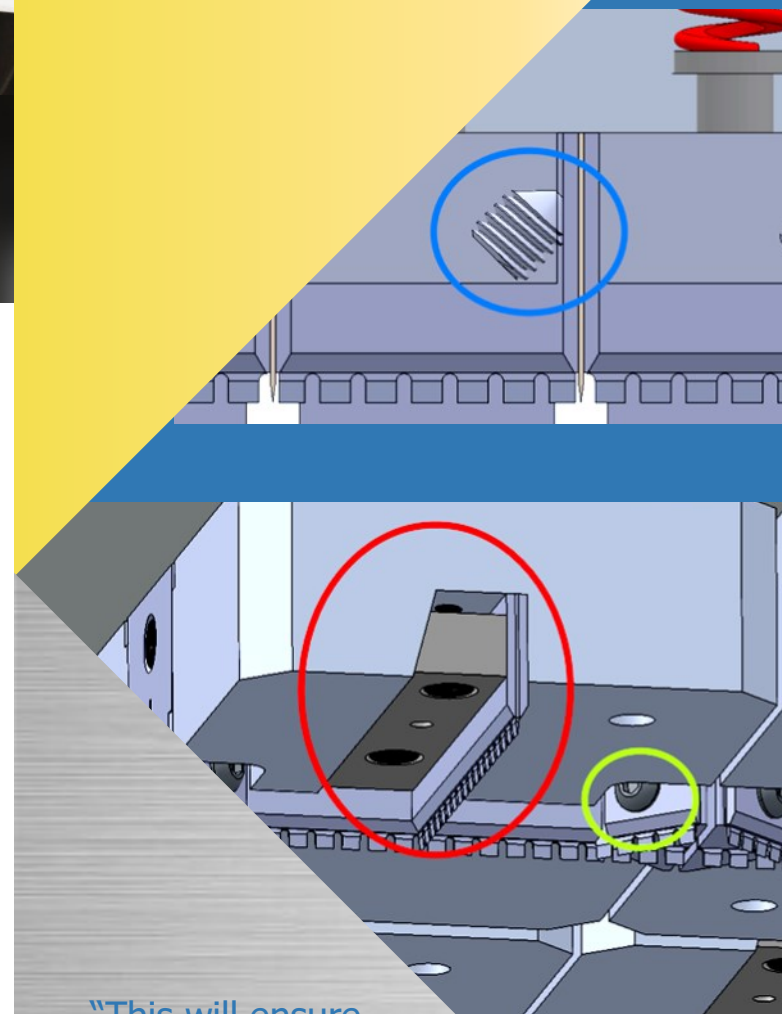
**To disassemble the perforator tool and replace the blades**, follow these steps:

1. Remove the Perforator tool from the blister machine.
2. Separate the upper and lower tool. In the case of the TF1 and TF1e, the tools are already separated. For all other machines, you will need to set the tool right side up on a flat surface and remove the two black bolts that secure the upper tooling to the alignment posts.
3. Once these bolts are removed, lift the upper part of the tooling off the posts.
4. Set the lower tool aside and rest the upper tool with the Stripper Plate face down.
5. Remove all bolts from the upper Stripper Plate mount to expose the upper perforator blades. Once the bolts are removed from

the stripper plate, all springs and washers must be collected from the tool. Be sure to note the locations of the springs and washers for reinstallation.

6. Traditionally, the perforation blades are mounted in one of three methods (shown on the right-side of this page).
  - An angled set screw pins the blade in position (Top—blue circle).
  - A wedged bracket will bolt the perforation blade into position (bottom-left red circle).
  - A button head bolt will fasten the blade into position (bottom-right green circle).
7. The Technician will then replace any damaged or dull blades and remove any debris from the upper and lower assembly using compressed air and a brass brush.
8. Re-assemble the tooling by reversing these steps, remembering to properly torque and install all bolts, springs, and washers.
9. Finally, do several test runs to ensure the tooling is performing as expected.



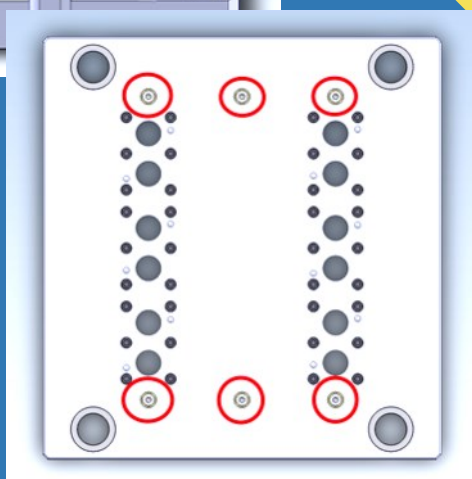
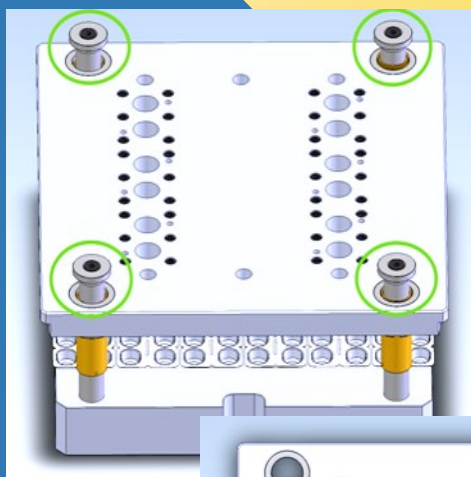


"This will ensure good, consistent perforations across all blisters."



# Die Cut Tooling

## Die Cut Tool Disassembly and Maintenance



"... our team of experts will fully maintain and sharpen the Die Cut tooling for you..."

**The Die Cut Station** punches out the sealed blister packs, while the Lowerator holds the punched blisters using suction and lowers them onto the Blister Machine outfeed.

**It is important** that the Die Cut tool be removed from the Blister Machine occasionally to ensure that the tool is clean and free of debris (such as crushed product or splice tape). When disassembling the tool, it is important to follow safe working practices.

**To disassemble the Die Cut tool for maintenance**, follow these steps.

1. Remove the Die Cut tool from the Blister Machine. Use a dedicated Die Cut cart and the Delrin Safety block to help with tool removal when needed.
2. Set the Die Cut tool on a safe working surface and remove the four black bolts (top-left green circles) that retain the upper tooling to the tool's alignment shafts. When lifting the upper plate, a team lift may be needed due to the weight and bulk of the tool.
3. Once removed, set the upper Stripper Plate face down and remove any mounting bolts (bottom-left red circles).
4. Separate the stripper plate from the tool. Take note of the spring and washer locations for reassembly purposes.

5. Now that the three main components of the Die Cut Tool are separate, clean the tool with a brass brush. Wipe the tool down with diluted isopropyl alcohol and finish by wiping it down with mineral oil.
6. The tool is now ready to be reassembled. Fasten the spacers and springs back in place between the upper tool and the stripper plate, then place the upper tool on top of the four alignment posts. Rubber O-rings can be used to position the four alignment post bearings so the top of the bearings are flush with the top of the posts.
7. Finally, fasten the 4 bolts at the top of the alignment post that hold the upper and lower tool on the alignment posts.

**Over time** the Die Cut tool Shoes (blades) can wear, leaving the outfeed blister card edges frayed. This fraying indicates that it is time to sharpen the Die Cut tooling. Contact Pharmaworks to have the tool maintained and sharpened. The tool can be shipped to our Odessa FL facility, fully assembled, where our team of experts will fully maintain and sharpen the Die Cut tooling for you. This will save you the time and hassle of having to do it yourself, and will give you the peace of mind that the job was done right.





## Call Checklist

- Machine model and serial number
- Parts diagram
- Schematics
- Circumstances surrounding failure or issue
- Troubleshooting steps taken
- Are the right people on hand for the meeting?
- On follow-up, is all recommended testing done?



# Technical Tips

## What Should I Do Before Calling for Service Assistance?

While our customers have a great deal of expertise onsite, the question of when to call the Original Equipment Manufacturer (OEM) when troubleshooting a problem and what information is needed does arise.

**Have you reached the point** in your troubleshooting where the problem is still unknown, and the team has no more ideas to test?

In most situations, this is a good time to call. Document your troubleshooting to that point so that key items aren't missed when discussing them later with the OEM. The service department does not have a crystal ball; however, our understanding of the machine and how each system works will often lead to knowing which tests to run in order to locate the problem.

**Since troubleshooting relies** on good testing, please follow each step carefully. You should have a parts manual and machine schematic on hand so that we can go through it together, and if needed, be able to refer to specific drawings or page numbers. Often Pharmaworks Service can share documents with you online to make sure we are discussing the correct part or

to ensure that you understand the troubleshooting steps using a schematic.

**Be sure to have** the correct machine model and serial number when calling so that we can locate the correct documentation. While we do note that customers may call their machine "line 2", or something similar, we do not want to rely on that since line numbers may be changed, leading to confusion or faulty troubleshooting.

**Also, do not hesitate** to mention all the facts surrounding the current machine malfunction. It is relevant that "it ran fine before the preventative maintenance was performed on Sunday", or "yes, we took the station apart and now we have an axis fault". We are here to help you get the machine back into production, not to point fingers.

**Keep track** of all your troubleshooting and save it somewhere that can be added to and shared internally. Intermittent problems are tough to solve. Tracking these issues when they arise and recording each step of the troubleshooting process will help lead to a solution every time.





# Training

Increasing Output and Efficiency Through Training

**Increase the productivity** of your staff with training from Pharmaworks. We offer a great formal training program with both classroom and on-the-floor training that allows operators, technicians, and engineers to gain a full understanding of both the thermoforming and cold-forming processes. Or, if you're already well-versed in running the machine, informal

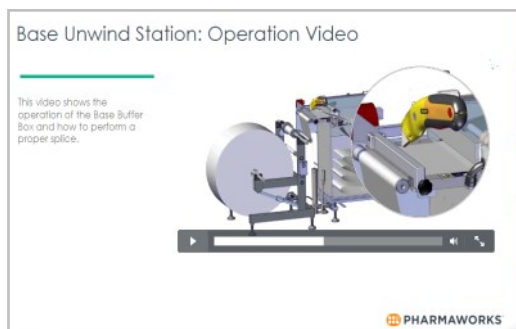
## Formal Training

**Our training staff** and technicians will not only teach you the basics, we will also provide many tips to increase efficiency when setting up and running your machine. Your more advanced staff will gain an understanding of the underlying issues that cause lost production time, as well as learn best practices for maintaining the machine properly to avoid unnecessary downtime.

**Your technicians will learn** to troubleshoot and isolate problems by increasing their understanding of electrical, mechanical, and controls functions, as well as learn common behaviors of materials, and how to spot material issues before they occur.

## Informal Training

**A better choice** for customers who already understand the machine and have a good grasp of thermoforming and cold-forming may be our informal training. This is where we go directly to the floor and explain blister machine principles while running, testing, and creating faults, allowing your on-site technicians and operators to learn and increase their productivity.



**PHARMAWORKS™**

## Schedule Your Training Today!

Our expert trainers are standing by to help you set up your training session. Training sessions can be done on-site at your facility or even remotely!



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**Service Department Hours:**

**6AM to 10PM EST | 7 Days a Week**

Call us any time during our normal service hours and one of our professional service technicians will assist you.

**Call us after hours for emergency support:**

**Phone: (727)232-8200**

Select the after hours support option and leave us a message that includes your machine information, location, and contact information. You will receive a response within a short amount of time.

We are here by your side when you need us most!