



Featherman Pro Plucker

Owner's Manual

Featherman Equipment, LLC

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Congratulations on your purchase of a new Featherman Plucker! You are now on your way to an exciting and possibly life-changing experience. The pastured poultry business is one of the greatest opportunities in agriculture. Your poultry will sell themselves and your customers will be asking for more products. Or, like some, with your new equipment you can start a processing sideline or even go into it full time. You can make a handsome profit easily doing work that would take others many hours. Plus you can have the satisfaction of helping others reap the rewards of pastured poultry.

Guarantee

Your entire machine is guaranteed for one year from your date of purchase. Should any problems occur due to faulty parts or manufacture, we will replace the parts or replace the machine. This guarantee is void if you choose to alter the plucker in anyway. So please call first if you are experiencing any problems!

Maintenance

1. Since the plucker always waits on the scald process, it is resting at least half the time. Our motor manufacturer tells us our motors will last forever in that kind of use. (To add life to your motor, start it unloaded, then add birds as recommended in Procedure).
2. **Greasing the Drive Shaft Bearing:** Depending on usage (minimal usage every 6 months, to maximum usage every week to 2 weeks), the drive shaft bearing needs to be greased to prolong and increase the lifespan of your plucker's bearing.
3. Additional maintenance we recommend is a thorough wash-down after use. It is normal for feathers to catch under the fingers. The only way to remove them is by hand.

Operation

After the removal of all packaging materials, your Featherman is ready to plug in and go. Use 110 volt current (unless you have our [Featherman Pro XL](#) model or specifically ordered a 220 volt model) and be sure to keep the cord in good shape and out of standing water. If an extension cord is used, be sure it is heavy duty. *The motor will not run properly if it is starved of electricity.* Hook up a garden hose (cold water) to the spray ring. Simply open the valve to spray.

Features

1. Solid and durable, high density plastic tub and motor housing are attractive, easy cleaning and
2. USDA/FDA food grade approved.
3. Rubber padded, no-slip feet.
4. 1 HP motor and 10:1 speed reducer
5. Lightweight for easy transport and low cost shipping.
6. [Fingers](#) are softest fingers made in America giving the gentlest pick possible.
7. Unique feather chute keeps work space clean, speeds clean up.
8. Spray ring washes feathers down automatically.
9. Knee-high, waterproof on-off toggle switch handy to operate with foot or knee yet concealed to prevent accidental starting. [Automatic foot-switch option available](#)

Basic Processing Procedure for Chickens

Handling

Always handle birds as gently as possible. Distraught birds will be harder to pick and bad handling will cause bruising. Hold by a leg or around the body, never by a wing or the head.

Restraining

We recommend the use of our [kill cones](#). Our perfectly round, stainless steel cone will not allow the birds to back out during bleeding like they will in flat-sided cones.

Killing

Slit the carotid artery with a very sharp knife. This takes practice to avoid cutting the trachea (windpipe) or severing the spine – either of which causes trauma to the bird and will result in an inferior bleed out. A proper cut will not be felt by the bird (and is an appropriate time to give thanks to the bird). For more information online, please visit our video tutorial:

<https://www.feathermanequipment.com/how-to-videos/broiler-how-to/>

Bleeding

Bleeding will take about two minutes. Contraction of muscles as they are oxygen starved is normal but care must be taken to avoid dislocated or broken wings or legs in this process. Watch for this and adjust the restraining technique if necessary. Again, our cones are foolproof. Collect the blood and compost it.

Scalding

Scalding is the critical step in processing and requires either a lot of experience or sophisticated equipment. The Featherman Pro Plucker will give you squeaky clean birds with no pin feathers when you master the scald. We manufacture the [Featherman Stainless Scalders](#) to take the guesswork out of this part of the operation but it is possible to have a perfect scald with very little investment. Find the largest, heaviest scald container you can and heat it with propane or other fuel (cheaper, quicker, and less expensive than electricity). We recommend scalding at 145 - 150 degrees F. for a minute. Batches of birds will vary slightly so be prepared to adjust accordingly with temperature and/or time changes on the scald. Change water when it is dirty and scald becomes less effective. We recommend a big squirt of [Dr. Bronner's Unscented Pure-Castile Soap](#) added to the water once hot, and periodically thereafter, to help water penetration to loosen the feathers. If the scald is too long or too hot, skin will tear; if it is too short or too cold, feathers will stick. Our plucker's soft fingers give the industry's widest margin in scald temperatures, giving you more undamaged birds. Still, be careful not to over-scald. You can actually cook the breast meat. (Outdoor-raised birds are less likely to have this happen.) Pull wing feathers to check for readiness to pluck.

Dunking

You may rig up a dunking apparatus, stir with a paddle, or simply dip the birds by hand. Be sure to add some soap as mentioned above to the water which helps loosen the feathers. We offer the option of a [manual](#) or [roto-dunking apparatus](#) that attaches to our scalders to ease this job.

Plucking

Drain the birds of excess moisture, turn the Featherman on and drop the birds in. Open one of the valves on the "Y" to let the water spray. Check in 20 seconds. Give more time if necessary. Turn machine off, turn water spray off and remove birds. Because of its gentleness you will not damage the birds by leaving them in the plucker too long.

Troubleshooting a Poor Scald

Should you get a bad pick (due to a scald error or fat birds) don't be afraid to scald and pluck again. You still probably won't get all the feathers out, but you will save time over picking by hand.

Finishing the Birds

There is no substitute for sharp knives and experience in evisceration. You will be amazed at how many birds per hour you can do when you get experienced. However, quality standards should be your first priority before speed. As you gain experience you will be able to keep up the quality and do over 20 birds per person per hour. The very experienced crew can process 30 to 40 birds per person per hour. In other words, a good five-person crew can process 200 birds per hour!

Clean Up

The Featherman Pro is made to be washed down. A pressurized spray down is all that is required. Take care to avoid wetting the motor assembly unnecessarily. A few feathers will catch between the fingers and the plastic. You may remove them if you like. The Featherman Pro is made of FDA-approved materials and has been passed for use in USDA-approved facilities.

More Information

Don't hesitate to contact us if you have questions, glowing testimonies, or if you have an idea for improvement. We continue to fine tune and know that there is always another creative idea out there.

Trouble-Shooting: Motor / Gearbox Removal Instructions:

Tools needed:

- 1/8" hex wrench
- 1/2" socket
- 1/2" wrench
- 5/8" deep socket
- Philips screw driver

1. Lay the Plucker on its side feather chute UP. Reach in the chute and loosen the 2 set screws on the green pulley/plate with the hex wrench. Remove the plate. Be careful not to lose the shaft key.
2. Roll the Plucker on its top (completely upside down). Loosen the 2 set screws on the bearing. These are directly below the gearbox.
3. Loosen all 4 of the 1/2" bolts and nuts holding the motor.
CAUTION MOTOR COULD FALL WHEN THE LAST NUT IS REMOVED.
4. After the motor is free, remove the other 4 bolts and pull the green motor plate out of the base. **MAKE SURE THE PLUCKER IS UNPLUGGED. NOT DOING SO COULD RESULT IN ELECTRIC SHOCK.**
5. Unfasten the on/off switch with the 5/8" deep socket (the socket goes over the rubber switch cover on the outside of the base). Pull the switch up and untape it.
6. Remove the wire nut and disconnect the 2 quick-connects going to the motor.
7. Remove motor/gearbox by lifting straight up.

Installation is opposite of removal.

To Remove Gearbox:

Tools needed:

- 9/16" wrench

1. Loosen the 4 bolts securing the two parts together.
2. After bolts are removed, the gearbox should slide off the motor.
3. If this does not happen *easily* then use of a rubber mallet is recommended.

Brief History for the Featherman Pro

I began raising chickens reluctantly in 1994 after my beef and lamb customers had been asking for chickens for several years. I was well aware of the pastured poultry model but couldn't encourage any of our neighbors to raise chickens. Finally, I bit the bullet and ordered 100 chicks, built a little pen and scrounged for used equipment. I attended the close-out sale of the last poultry processing shop in the area. From them I purchased crates, a big drum roller-style tabletop plucker, and two large aluminum scald pots. I used a fiberglass Scaldler with electric heat elements and started my education. Selling the birds was by far the easiest part of the whole affair.

The next year I found a hatchery that gave a great discount on 1,000 birds so I called up half a dozen friends from my Green Hills Farm Project grazer's group as well as a few neighbors and instantly formed a cooperative effort. We built pens together, found a large stainless steel plucker five hours away and bought it for \$750, made our own dunking apparatus, got a grant for a mobile processing unit and spent many hours putting the processing pieces of the puzzle together.

I raised some beautiful birds with friendly competition and shared in the processing, though I kept the unwieldy "mobile" unit at our place. It required 220V electricity hook-up and just didn't travel too well on the road. I found that my fancy plucker, designed for 12-15 birds, didn't do a very good job on just four. They didn't tumble. I tried everything before I decided I needed to pluck 8 at a time. I re-built the dunking shackles but the home-made Scaldler barely kept up with the demand. Worse, the temperature would go up and down like a yo-yo, so I had to be very patient. The strain of lifting 8 birds was also too much for the dunking motor and I had to help it a little manually, like lifting sixty pound barbells ten times for 1 - 2 minutes! The romance wore off quickly and all but two of the families dropped out despite great sales and happy customers.

My farm was committed and pressed on, doing 160 birds a day with two people. It took from daybreak till 1pm and we were exhausted. Aching backs from all the lifting forced my brain to find a better way; I drove our birds 10 miles to an Amish family that was butchering chickens.

Later, after inspecting some expensive processing equipment together, my Amish butcher, Ernie Kauffman, built the first homemade tub-style plucker to replace his drum-roller model. It worked so well, I drafted and mailed out plans. Many of those homemade machines are still in use. An inventive grazer friend, Kenny King, saw the plucker on a visit and started the Jako line of tub pluckers and scalders based on it.

Another plucker made from Ernie's plans inspired the book, "Anyone Can Build a Mechanical Tub-Style Chicken Plucker" in 2003. In 1999 while on a trip overseas, I visited the huge Hong Kong farmer's market where each day thousands of chickens come to the market alive, are killed and scalded collectively in one big room, then carted to tiny stalls, each of which had a little two bird plucker, miniature replicas of mine. Through contacts and with a lot of hair-raising experience, I imported a container of those little pluckers, the Featherman Jr., and sold them all within a year. Importation was such a hassle, an Amish neighbor and I redesigned and manufactured a better machine, the Featherman Pro you now have. I combined a lot of thought and experience into this machine to make it work efficiently, economically, and for a long time. I hope you enjoy your journey with poultry as much as I have mine.

David Schafer, Owner & Founder, Featherman Equipment LLC