

anyone can build a tub style mechanical chicken plucker

Anyone can build a tub style mechanical chicken plucker with the right tools, materials, and a bit of ingenuity. This handy device can make the daunting task of plucking chickens much more manageable, saving both time and effort. Whether you are a homesteader, farmer, or simply someone interested in poultry processing, learning to build a tub style chicken plucker is a worthwhile endeavor. In this article, we will explore the materials, steps, and tips for constructing your own chicken plucker.

Understanding the Tub Style Chicken Plucker

Before diving into the construction process, it's essential to understand what a tub style chicken plucker is and how it operates. A tub style chicken plucker consists of a cylindrical drum fitted with rubber fingers or plucking attachments. These fingers rotate rapidly when the drum spins, effectively removing feathers from the chicken's skin without damaging the meat.

Benefits of a Tub Style Chicken Plucker

1. **Efficiency:** A mechanical plucker can remove feathers in minutes, speeding up the processing time significantly.
2. **Consistency:** Unlike manual plucking, which can be inconsistent, a mechanical plucker ensures that all feathers are removed uniformly.
3. **Less Labor Intensive:** It reduces the physical strain associated with plucking chickens by hand.

Materials Needed

To build a tub style chicken plucker, you will need various materials and tools. Here's a comprehensive list to get you started:

Materials

- **Drum:** A 55-gallon plastic or metal drum is commonly used.
- **Motor:** An electric motor (1/2 HP or more) to drive the plucking mechanism.
- **Rubber Fingers:** These can be purchased online or from agricultural supply stores.
- **Plywood:** For creating a base and support structure.
- **Bearings:** To support the rotating drum.
- **Bolts and Nuts:** For assembly.
- **Wires:** For electrical connections.
- **Power Switch:** For controlling the motor.
- **Water Supply:** A hose or spout to rinse the plucked chickens.

Tools

- Drill: For making holes in the drum and base.
- Wrench: To tighten bolts and nuts.
- Saw: For cutting plywood and other materials.
- Screwdriver: For assembling parts.
- Measuring Tape: To ensure accurate measurements.

Step-by-Step Construction Guide

Now that you have gathered your materials, follow these steps to build your tub style chicken plucker:

Step 1: Prepare the Drum

1. Clean the Drum: Ensure that the drum is clean and free from any residues. If using a metal drum, remove any rust and paint it to prevent corrosion.
2. Drill Holes: Create holes in the drum for the rubber fingers. Space the holes evenly around the drum, typically 4-6 inches apart. The number of holes will depend on the size of your rubber fingers.

Step 2: Attach the Rubber Fingers

1. Insert Rubber Fingers: Insert the rubber fingers into the holes you drilled. Ensure they are securely fitted to avoid them coming loose during operation.
2. Test Flexibility: Make sure the fingers are flexible enough to pluck feathers but sturdy enough to withstand the spinning motion.

Step 3: Build the Base

1. Cut Plywood: Cut a piece of plywood to serve as the base for your plucker. The size should accommodate the drum and motor comfortably.
2. Mount the Drum: Use bearings to mount the drum securely to the base. Ensure that it can rotate freely without obstruction.

Step 4: Install the Motor

1. Position the Motor: Place the electric motor near the drum. It should be positioned to drive the drum via a belt or direct connection.
2. Connect the Motor: Use bolts to secure the motor in place. Attach a pulley or belt from the motor to the drum to facilitate rotation.

Step 5: Electrical Connections

1. **Wire the Motor:** Connect the motor to a power source, ensuring that you adhere to safety standards. Use a power switch to control the motor's operation.
2. **Test the Connections:** Before proceeding, double-check all electrical connections for safety and functionality.

Step 6: Final Assembly and Testing

1. **Assemble Components:** Put together all the components, ensuring everything is tightly secured.
2. **Test the Plucker:** Before using it on chickens, run a test with water to see how effectively the plucker works. Check for any noise, vibrations, or issues that may need adjustment.

Operating Your Chicken Plucker

Once your tub style chicken plucker is complete, it's time to put it to use. Here are some tips for operating it effectively:

Preparation

- **Scalding:** Before placing the chicken in the plucker, scald it in hot water (around 140°F to 160°F) for about 30 seconds to a minute. This process loosens the feathers and makes plucking easier.
- **Positioning:** Ensure that the chicken is positioned properly in the drum for optimal plucking.

Using the Plucker

1. **Start the Motor:** Turn on the motor and allow the drum to reach full speed.
2. **Insert the Chicken:** Carefully place the scalded chicken into the drum, making sure it's balanced.
3. **Monitor the Process:** Keep an eye on the plucking process. It usually takes around 30 seconds to a minute for the feathers to be removed.

Post-Operation Cleanup

- **Rinse the Drum:** After use, rinse the drum to remove any remaining feathers and debris.
- **Check for Damage:** Inspect the rubber fingers and other components for wear and tear, replacing any damaged parts as necessary.

Conclusion

In summary, building a tub style mechanical chicken plucker is an attainable project for anyone willing to invest some time and effort. With the right

materials, tools, and a clear understanding of the construction process, you can create a valuable addition to your poultry processing toolkit. Not only will this device save time and labor, but it will also enhance the efficiency and quality of your chicken plucking experience. So gather your materials, follow the steps outlined in this guide, and enjoy the satisfaction of building your own chicken plucker!

Frequently Asked Questions

What materials do I need to build a tub style mechanical chicken plucker?

You will need a plastic or metal tub, rubber plucking fingers, a motor, a frame for support, and wiring for electrical connections.

Is it difficult to build a tub style mechanical chicken plucker?

With basic DIY skills and tools, it's manageable. There are many tutorials available that guide you step-by-step through the process.

How much does it typically cost to build a tub style mechanical chicken plucker?

Costs can vary, but you can expect to spend between \$100 to \$300 depending on the materials and components you choose.

Can I use a tub style mechanical chicken plucker for other birds?

Yes, it can be used for other poultry like ducks or quail, but you may need to adjust the plucking fingers and motor speed.

What are the advantages of using a mechanical chicken plucker?

It saves time and labor, increases efficiency, and can handle multiple birds at once compared to manual plucking.

Where can I find plans or instructions to build a tub style mechanical chicken plucker?

You can find plans on DIY forums, YouTube tutorials, or specialized agricultural websites that focus on poultry processing.

Do I need any special skills to build a tub style mechanical chicken plucker?

Basic skills in woodworking, electrical work, and mechanical assembly will be helpful, but detailed instructions can guide beginners.

How do I maintain my tub style mechanical chicken plucker?

Regularly check the motor and wiring, clean the tub and plucking fingers after each use, and ensure all parts are securely fastened.

Can I modify my tub style chicken plucker for larger batches?

Yes, you can modify the design by increasing the tub size, adding more plucking fingers, or using a more powerful motor for larger batches.

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