

# How to prolong the working life of a flat die pellet mill?

Provide some techniques to use a flat die pellet mill properly, and prolong its working life.

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## **INTRODUCTION**

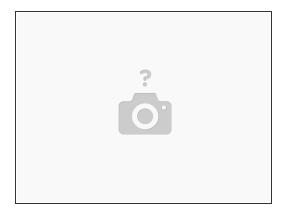
<u>Flat die pellet mill</u> is used to make biomass pellets from biomass materials, such agriculture and forestry waste. We can reduce its abrasion by using it properly, so as to prolong its working life.



### **TOOLS:**

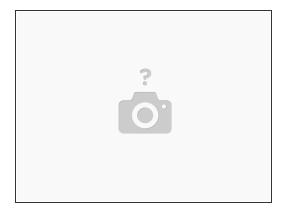
- Screwdriver (1)
- Smart Wrench (1)

## Step 1 — Feed the pellet machine with oil mixture



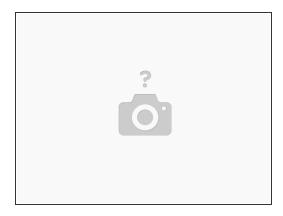
• Every time when you finish pellet production, feed oil mixtures (mixed sawdust and used oil) to the pellet machine and let it operate for 1-2 minutes, then you can shut down the machine. After this process, the die holes are filled with oil mixture and won't get blocked by the raw materials.

## Step 2 — Control the purity of raw materials



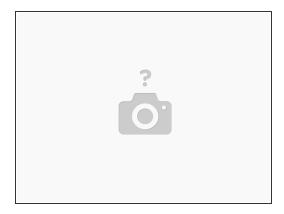
Before starting the machine, make sure there is no foreign matters in the feed hopper. Make sure
there is no stones, metals, large wood blocks in the raw materials. Don't put you hand into the
hopper when the pellet machine is running.

# Step 3 — Control the moisture content



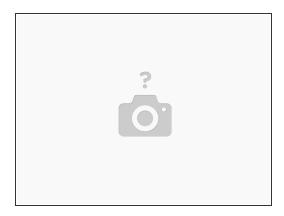
• the moisture content of raw materials should be 10%-18%.

# Step 4 — Clean the components regularly



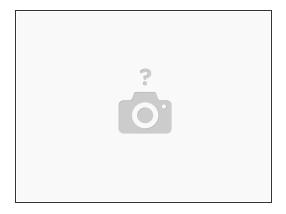
 Clean the roller, die, main shaft and bearing regularly. Clear up the sawdust in slots, gaps and screw holes, or they may cause fracture of the components.

# Step 5 — Lubricate the roller, shafts and gearbox



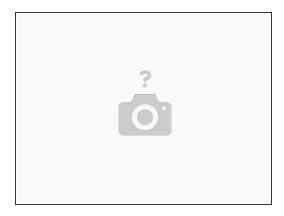
Before the first time use, add lubricate oil to the gearbox, shafts and bearings. In daily use, you should lubricate the roller and main shaft every day, and lubricate the gearbox every a half year.

## Step 6 — Choose suitable size of pellet mill die



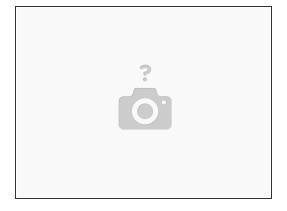
• The hole size of the <u>pellet mill die</u> is from 2.5-10mm, and the 4mm, 6mm and 8mm is the most popular. The size of die is determined by the raw materials.

## Step 7 — Adjust the clearance between the roller and die



- The roller and die (flat die or ring die) is the core part of the <u>pellet machine</u>. Their clearance influence the pelletizing effect and the working life. The suitable clearance is between 0.1mm and 0.3mm.
- In flat die pellet machine, there are adjusting nuts on the 2 sides of the machine body.

# Step 8 — Place the pellet machine in dry places



- To protect the pellet machine from damp, we need to place the pellet machine in a clean, dry and ventilated environment.
- The metal parts are easy to get rust under moist condition, and the electric motor will have shortcut or electric leakage.

Following these tips above, you can prolong the working life of your equipment.