

Operation Manual

**THDP-3 The upgraded version of worm wheel
single stamping machine**



(As technology continues to update, we retain the right to change technology design.)

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1、Products introduction

This one is the lightest electric single punch tablet press machine, Easy to operate.

This machine is used for pressing different kinds of granular raw materials into round tablets. It is applicable to trial manufacturing in lab or batch production in small amount different kinds of tablets, sugar pieces, calcium tablets and tablets of abnormal shape. It features a small desktop type press for motive and continual sheeting. Only one pair of punching die can be erected on this press. Both filling depth of material and thickness of tablet are adjustable.

2、Technical parameter

Model	THDP-3
Max. Pressure (Kn)	30
Max. Dia. of Tablet (mm)	15
Max. Depth of Fill (mm)	12
Max. Thickness of Tablet (mm)	6
Production Capacity (pcs/h)	About 4000
Power of Motor(Kw)	0.75
Overall Size(mm)	450*300*550
Net Weight (Kg)	42

3、Structural description

This machine is in a streamline body, entirely cast, stable and solid. The transmission gears, two cams and the flywheel connected on the top of the spindle in serial are the key parts of

the machine. The automatic feeding, punching and tablet discharging are controlled in cooperation with the machine transmission to avoid errors.

The workflow of this machine is: feeding → punching → tablet discharging, and the three working procedures are performed continuously and in cycles. Each procedure can be adjusted to adapt to the requirements of producing different tablets, and it is easy for adjustment and is locked securely.

The motors, switches and hoppers are installed in the body in compact structure; assembled on the table and fastened with screws.

4、 Operation adjustment

- Installation of punch die :

Firstly, disassemble the hopper, feeder and the middle die , wipe up the table board die hole and the punch die to be assembled, and assemble them as per the following steps:

a) Installation method of the round punch die

Firstly, insert the lower punch to the hole of the lower punch core, pay attention that while inserting it to the indentation of the bottom punch, align to the fixing screw, and tighten the screw.

Insert the upper punch to the hole of the upper punch core, must insert it to the end, and use a spanner to tighten the screw. Put the middle die into the die hole, pay attention that the end surface of the middle die is on the same level with the plate surface, and after adjust it, tighten the screws.

Mount the middle die table plate on the machine body and screw the bolt. Rotate the flywheel by hand to make the upper punch drop slowly and insert into the middle die hole. Then adjust the middle die plate. When the upper punch inserted into the middle die hole is

movable without collision, it is qualified. Then tighten the bolt of the middle die plate and rotate the flywheel 10 times until no hard rubbing is found, finally install the hopper and the feeder.

b) Installation procedures of the flat punch die

Note : Insert the upper punch of the flat die into the upper punch core, reaching to the bottom. Screw the nut but not too tight, and the upper punch can move. Then adjust the upper punch core and the hexagonal nut to reach the proper height (depending on the thickness of a tablet). Then turn the flywheel and align the upper punch with the middle die, drop slowly to insert into the middle die. Screw the nut and then turn the flywheel for over 10 times until no hard rubbing is seen.

- Adjustment of the discharging unit:

Turn the flywheel by hand to make the discharge cam rise to the highest point along with the connecting rod and the lifting fork. Then loosen the fixing plate and turn the discharging adjustment wheel on the lower punch core, observe whether the mouth level of the bottom punch is aligned with the plain. After adjustment, fasten the fixing plate.

- Adjustment of the feeding rate:

Loosen the fixing plate. Turn the feeding adjustment wheel based on the demand of the tablet materials, turning upward to decrease and downward to increase.

- Adjustment of the rigidity of the tablet:

Loosen the hex nut . Turn the upper punch core according to the requirement for the rigidity of tablets, right for soft and left for hard. After adjustment, tighten the hex nut.

5、Maintenance requirements

1. Rotate the wheel with hands before use. Check the flexibility of rotation and the

harmony of part cooperation. The fixed parts can not become loosened.

2. Keep the components lubricant; Refill the oil into the oil cup before operation and add oil according to the operation of the parts during operation.
3. Regularly check the flexibility of rotation and the wear of parts.
4. When finishing a batch of production, remove the residual powder, clean out the residual powder in the machine. If the downtime is long, dismantle the die and clean the machine. Then, paste the machine surface with anticorrosive grease.
5. Maintenance of die: Clean the die after operation every day. Moreover, paste the dismantled die with anticorrosive grease, put the die into an iron box with a lid. Avoid collision and rust.

6、Precautions

1. Frequently check the quality of the tablet during use. If there is the raw edge, wale and uneven thickness, check the die in time. Do not use the nonconforming products lest the machine is damaged.
2. Do not use the wet materials in order to avoid destroying machine.
3. In case of tablet skipping, stagnation and other failures, do not touch with hand to avoid injury.
4. When refilling the oil, do not make the oil overflow or even drop on the surface of the working bench or around the die lest the quality of tablets is affected.
5. When switching on power supply, make sure the flay wheel rotation direction is the same as the indicated. Do not run in reverse direction to prevent damage to the parts.