



DTP DESKTOP TABLET PRESS RANGE

USER MANUAL

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LFA Machines Oxford LTD

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Introduction

The DTP Series of tablet presses are advanced units designed for pressing dry powders (but not superfine powders) and granular material into tablets. The DTP Series machines offer benefits that include high efficiency in the use of raw materials, advanced safety features, simple operation, powerful compression, low noise, light weight, and high consistency of output. Designed using the latest refinements in tablet press technology, the DTP12 and DTP25 are light weight, cost-efficient choices that can each produce up to 3,600 an hour, and are popular in the medical and pharmaceutical industries, as well as chemical, electronics, food and related industries, and in laboratory and research applications.

Note Please read these instructions carefully before first use.

Technical Specifications

Model	DTP25	DTP12
Dies (sets)	1	1
Maximum Dia. of Tablet (mm)	25	12
Max pressure (KN)	50	50
Max depth of fill (mm)	20	20
Tablet thickness (mm)	8	8
Motor Power (KW)	220V/50HZ, 1.5Kw	220V/50HZ, 1.1Kw
Overall size (mm)		
Weight (KG)	150	100

Installation

Before unpacking check the machine appears undamaged, and that everything on the packing list is present. Please report any damaged or missing items immediately, before signing.
Install the machine by fixing the casing's ground bolts securely in a dry, stable and well ventilated place.

Clean the packing grease from the surface of the machine.

Operate the machine manually to check for loose parts or interference. Then test the machine with the power on to check it runs normally.

BEFORE SWITCHING ON THE MACHINE ALWAYS PERFORM ONE FULL ROTATIONAL CYCLE BY HAND

Operation

CONTROL PANEL

The control panel is set into the top cover box, and includes a power switch, operational combination panel (including operational panel, indicating light, and working mode switch).

INSTALLING THE DIE

1. Unscrew the locking screw on the upper die shaft and insert the lower punch into the aperture of the lower die shaft. (See figure 4: the lower die shaft combination)
2. Remove the tetrafluoride cover on the left of the working platform, unscrew the locking screw of the die, clean the aperture of the centre die on the centre board.(See Figure 6: The Feeding Mechanism)
3. Place the centre die vertically above the center die aperture and insert the lower punch head; the upper surface of the centre die should be level with or a little lower than (within 0-0.05mm) the upper surface of the centre die board.
4. Pull the lower punch into the lower die shaft aperture but do not tighten the locking screw.
5. Unscrew the locking screw of the upper die shaft. Push the upper punch all the way into the upper die shaft aperture. Note: the mark on the upper punch should face the locking screw.
6. Tighten the locking screw to secure the upper punch. (See figure 3: the upper die shaft combination)
7. Rotate the driving wheel manually to lower the upper punch. The head should engage cleanly with the centre die hole. Tighten, then replace the tetrafluoride cover. Tighten the locking screw of the locking lower die shaft to secure the lower punch.
8. Rotate the driving wheel several times and check the upper punch head engages cleanly with the centre die hole aperture.

INSTALLATION STEPS FOR THE RING DIE

Follow the same process as described on page 2.

Note: Rotate the screw to keep the lower punch head level with or a little lower than the upper surface of centre die aperture. Otherwise tablets will not eject cleanly.

Then tighten the locking screw of the screw seat (see figure 4: the lower die shaft combination) Rotate the driving wheel two or three times to check that the lower punch head is engaging cleanly. Then connect the power and let the machine run a while without powder to check that everything is working correctly.

ADJUSTING TABLET WEIGHT

Loosen the locking screw on the filling wheel and turn it clockwise ('+') to increase the fill. Turn counterclockwise to decrease the fill.

Tighten the locking screw. (See Figure 5: The Filling Wheel Combination).

ADJUSTING THE PRESSURE

Higher pressure produces a thinner, harder tablet.

The pressure is adjusted using the shaft under the eccentric cam seat. Loosen the locking screw on the eccentric cam seat and rotate the gear shaft. Turning it clockwise increases the pressure, counterclockwise decreases it.

Tighten the locking screw.

NOTE The scale indicates the depth of the upper punch head in the centre die hole.

PRESSING TABLETS

Press the green 'RUN' button on the frequency converter control panel to start the machine. A display will indicate the production speed, which can be altered by turning the dial.

Production Speed

If the tablet diameter is less than 9mm, the preliminary production speed should be higher than 25pieces/min

If the tablet diameter is larger than 9mm, the preliminary production speed should be higher than 35pieces/min

Note: set the machine in 'un-load' status if the machine is left idle for long.

Maintenance

The machine should be checked twice a month to ensure that there are no loose, worn or damaged parts. Tighten any that are found to be loose, and immediately replace any that are damaged or worn, before pressing tablets.

Also check the die for signs of wear, cracking or deformity. Do not use a damaged die, as it will produce poor tablets and may damage the machine.

If the machine is going to be unused for any length of time, remove and clean the die and submerge in oil in a box, to protect against rust.

CLEANING

Wipe dry powder or granules off the machine at regular intervals. If the raw materials are damp and have become stuck to the machine, or are oxidative or corrosive, disassemble the feeding mechanism and die to clean thoroughly. In particular, clean the eccentric cam, upper die shaft combination, and lower die shaft combination.

Stainless or other metal parts should be cleaned, wiped dry and then heat dried.

Non-metal parts should be air dried after being cleaned.

Clean the organic glass with water. Do not use solvent or alcohol.

LUBRICATION

Proper lubrication is essential to the long term life of the machine. Establish a regular lubrication schedule, and always check the bearings before and during use.

Pay particular attention to the faces of the cam pit. Keep it well lubricated and clean, and apply lithium based grease.