## LABORATORY DYEING MACHINE

## **Oscillating Type**

## **OPERATION MANUAL**

## **COPOWER TECHNOLOGY CO., LTD.**

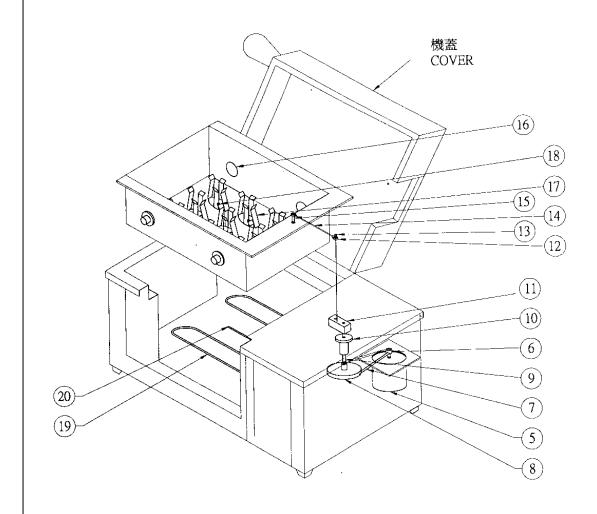
TEL: 886-2-26945880 FAX: 886-2-26943928 Website: http://www.copower.com.tw NO. 341, FU DE  $1^{\rm ST}$  ROAD, HIS CHIH CITY, TAIPEI, TAIWAN

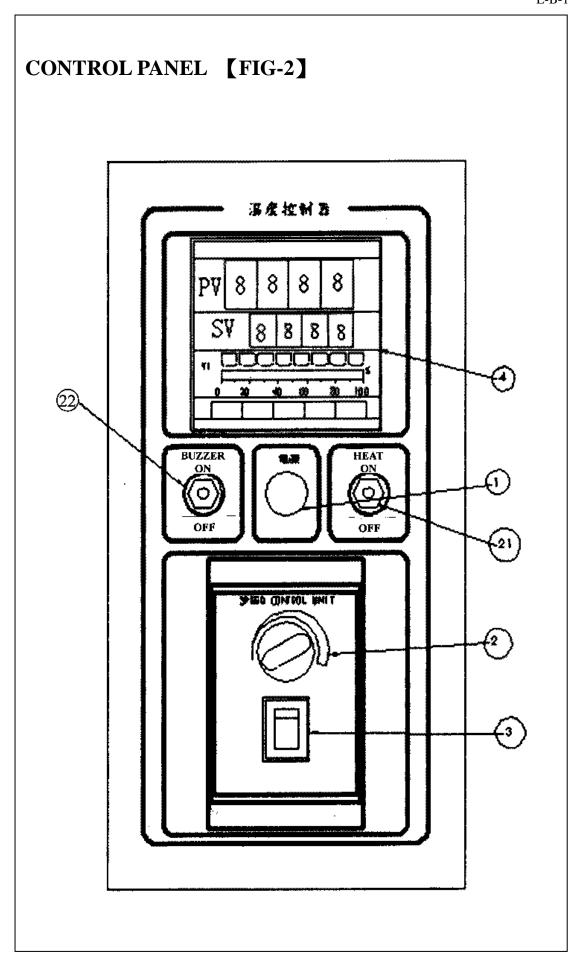
# LABORATORY OSCILLATING DYEING MACHINE LTYPE

## **OPERATION MANUAL**

SEQ	<u>PAGE</u>
TOP VIEW [FIG-1]	 2
CONTROL PANEL [FIG-2]	 3
ELEMENTS	 4
INSTALLATION	 5
OPERATION	 6
DYEING CURVE	 8
ELECTRICAL DIAGRAM	 9

# TOP VIEW [FIG-1]





## **ELEMENTS**

ITEM	DESCRIPTION	REMARK
1	Power Indicator Lamp	電源指示燈
2	Vary-Speed Controller	馬達轉速控制器
3	Motor ON/OFF	馬達開關
4	Temperature Controller	溫度控制器
5	Motor	馬達
6	Drive Pulley	小皮帶輪
7	Riming Belt	皮帶
8	Drive Pulley	皮帶輪
9	Drive Spindle	軸心
10	Bearing Housing	培林座
11	Drive Head	偏心輪
12	Bearing	培林
13	Screw	螺絲
14	Connecting Rod	搖桿
15	Screw	螺絲
16	Drive Wheel Complete	轉輪組
17	Flask Holder Complete	燒杯夾組
18	Flask Changing Screw	杯夾固定螺絲
19	Heater	電熱管
20	Temperature Sensor	溫度探針
21	Heater Switch	加熱開關
22	Buzzer Switch	電鈴開關

#### **INSTALLATION**

- 1. Please check the machine immediately after receiving. Any damage incurred in transport should be notified at once to the forwarder or our representative or contact us directly.
- 2. Please check the delivery note to see if all of the parts of machine have been completely supplied as well as the accessories.
- 3. Make sure the machine is placed and fixed at the reserved location and keep the proper space for easy maintenance.
- 4. Precautions for power connection
  - a. Please use non-fuse breaker for power connection.
  - b. Connect ground wire (WHITE)
  - c. Fill the tank with water or glycerine.
  - d. Check the electrical data of machine to meet the data supplied by factory.
  - e. Turn the Heater Switch [FIG-2-21] to OFF position.
  - f. Please make sure the electrical connection is correct before turning on heating; otherwise, wrong connection will damage the control elements which is beyond the warranty.

#### **OPERATION**

#### TEMPERATURE CONTROLLER

This device is equipped with  $PT100\Omega$  sensor and digital indicator.

This temperature controller has been programmed and completely tested before dispatching.

Temperature is connected with Heating Switch [FIG-2-21]

#### TEMPERATURE SETTING PROCEDURE

- 1. Press SET button to enter setting mode.
- 2. Press button to see SV digit blinking; which means you can start to see any required figure.
- 3. Please conduct the setting procedure in the following order to avoid mistake.

#### A. TIME SETTING

#### B. TEMPERATURE RISING SPEED

- For temperature rising speed setting: Press  $\overline{SET}$  till PV shows RAMP, SV shows 02.00 which means temperature degree rises  $2^{\circ}\mathbb{C}$  every minute. If you need faster or slower, press  $\boxed{\leq}$  to get digit position and  $\boxed{\triangle}$   $\boxed{\nabla}$  to get the required

rising speed per minute. After setting, press SET to enter next step. Notice : 0.00 is the fastest raising speed.

#### C. TEMPERATURE SETTING

- For temperature setting: Press ≤ into setting mode. Press ≤ to get digit position. SV value is set from the right side to left side. For example: If you need 98°C, first, press ≤ the first digit from right side will blink, press △ for higher value, press ▽ for lower. Repeat the same procedure to set the second, third digit. After setting, press SET to enter next step.

#### **HEATER SWITCH [FIG-2-21]**

When the machine is not in use, please turn the Switch to OFF position.

#### VARY-SPEED CONTROLLER

To run the machine, first, turn the Switch [FIG-2-3] to ON position.

Then adjust the speed button [FIG-2-2] from slow to the desired speed.

When finishing the dyeing process, turn the speed button

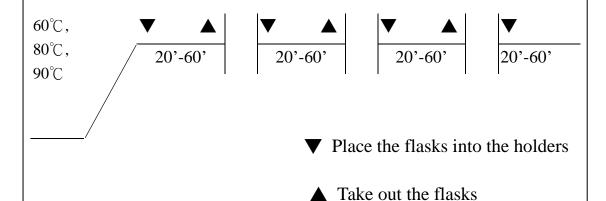
[FIG-2-2] to slow and turn the Switch [FIG-2-3] to OFF position.

## **BUZZER SWITCH [FIG-2-22]**

Turn on the buzzer switch before dyeing cycle. When the set time is up, the buzzer will go ringing.

#### **DYEING CURVE & OPERATION**

#### A / B TYPE



#### **OPERATION PROCEDURE**:

- 1. Make sure the tank is filled up with water or glycerine then turn on the power.
- 2. Preset the required temperature. (Detailed information please see in the page 6-7) and turn the Buzzer switch [FIG-2-22] ON.
- 3. Turn on the Heater Switch [FIG-2-21].
- 4. Turn on the Motor Switch [FIG-2-3].
- 5. Adjust the Speed Controller [FIG-2-2].
- 6. When the temperature reaches set value, place the flasks into the holders [FIG-1-17].
- 7. When set time is up, the alarm will ring. Turn off the buzzer.
- 8. After completing the dyeing process, turn slow the Speed button and turn off the Motor Switch to take out the flasks.

## **ELECTRICAL DIAGRAM**

