LABORATORY CONTINUOUS DYEING RANGES

PAD-STEAM DYEING RANGE

OPERATION MANUAL

COPOWER TECHNOLOGY CO., LTD.

TEL: 886-2-26945880 FAX: 886-2-26943928

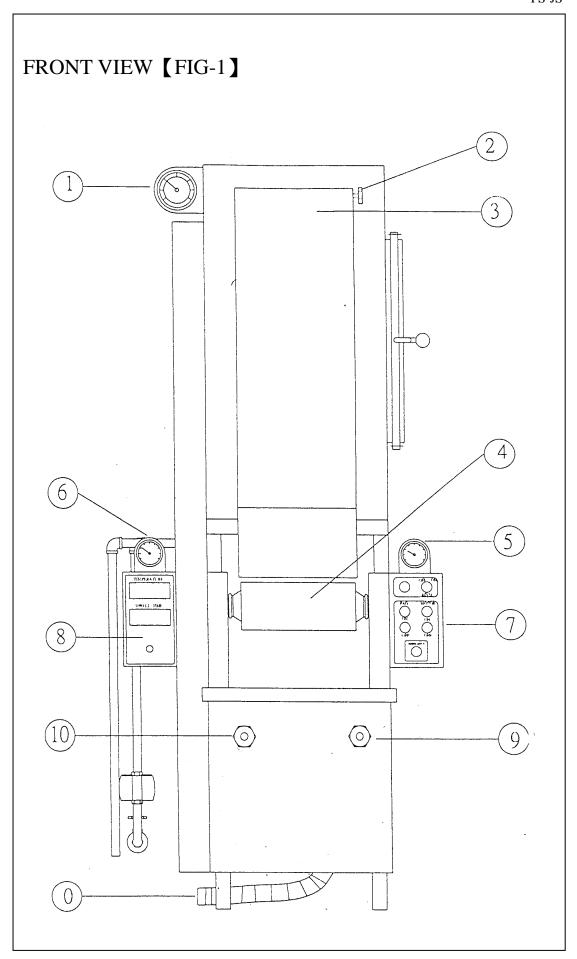
Website: http://www.copower.com.tw

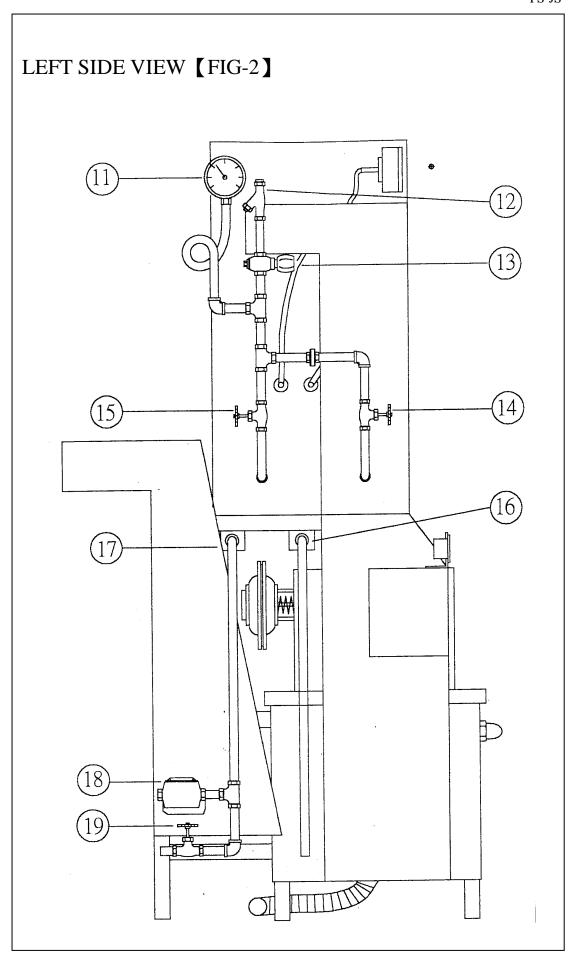
NO.341, FU DE 1^{ST} ROAD, HIS CHIH CITY, TAIPEI, TAIWAN

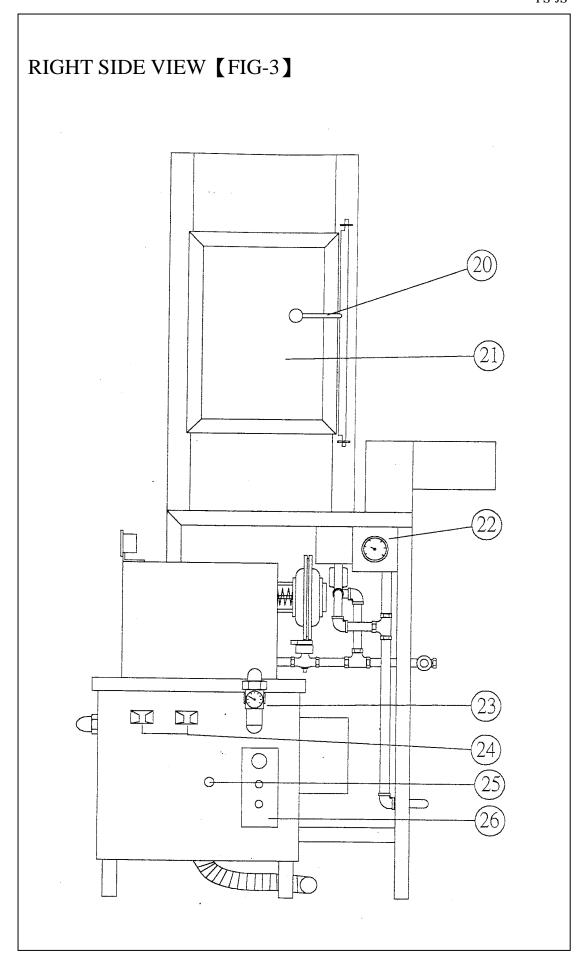
LABORATORY PAD STEAM DYEING RANGE **PS-JS**

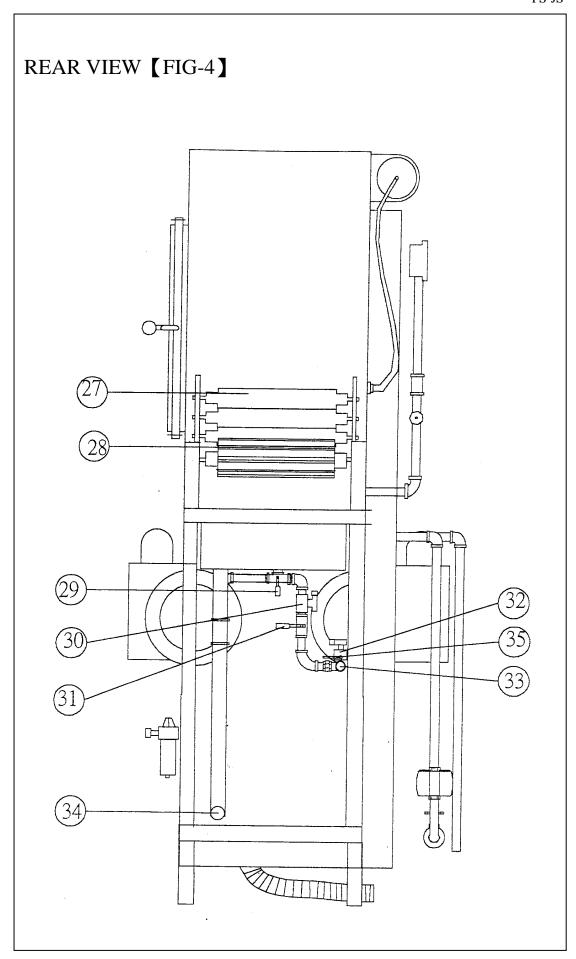
OPERATION MANUAL

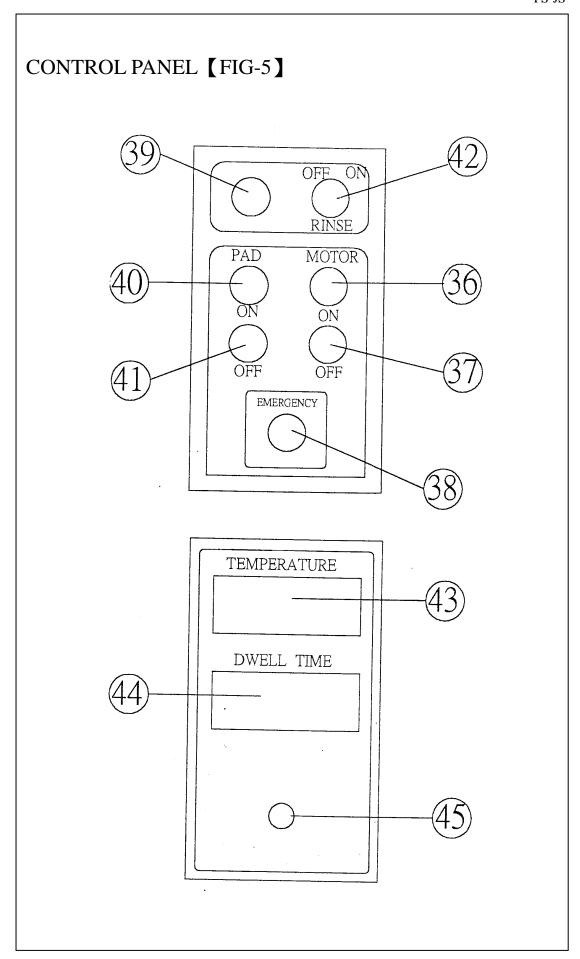
| SEQ | PA | <u>AGE</u> |
|---------------------------------------------|----|------------|
| FRONT VIEW [FIG-1] | | 2 |
| LEFT SIDE VIEW [FIG-2] | | 3 |
| RIGHT SIDE VIEW 【FIG-3】 | | 4 |
| REAR VIEW [FIG-4] | | 5 |
| CONTROL PANEL [FIG-5] | | 6 |
| INDICATION DRAWING FOR GUIDE FABRIC [FIG-6] | | 7 |
| ELEMENT DESCRIPTION | | 8 |
| INSTALLATION | | 9 |
| OPERATION | | 10 |
| MAINTENANCE | | 12 |
| ELECTRICAL DIAGRAM | | 13 |

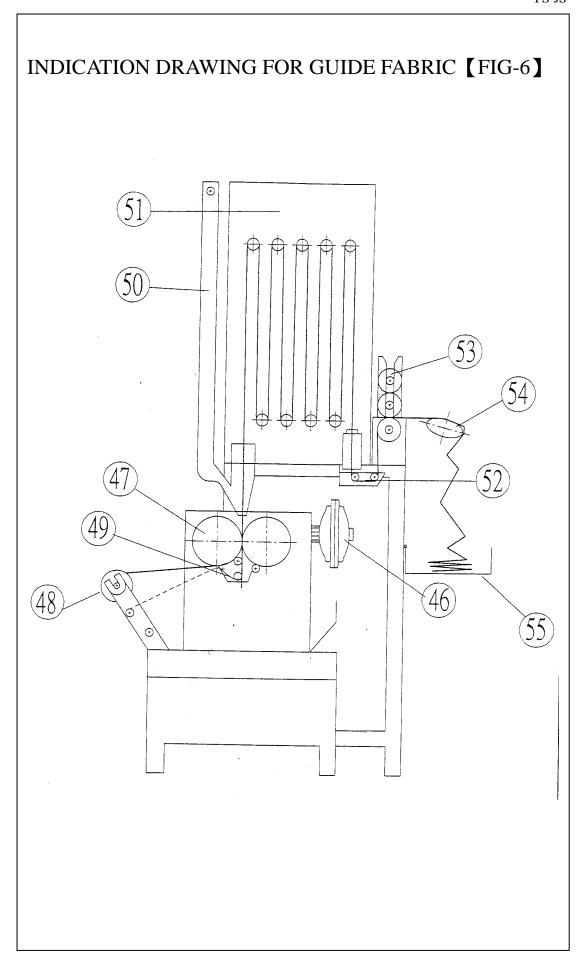












ELEMENTS DESCRIPTION

| DESCRIPTION | ITEM | DESCRIPTION |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temperature Indicator | 29 | Water In/Out Selecting Valve |
| Adjust button for Steam Exhaust | 30 | Magnetic Valve for Cooling Water Inlet |
| Steam Exhaust | 31 | Water Flow Valve for Cooling |
| Padding Mangle | 32 | Solenoid Valve for Rinse Roller |
| Pressure Gauge (Right) | 33 | Water Inlet |
| Pressure Gauge (Left) | 34 | Water Outlet for Cooling Water |
| Panel for Control Buttons | 35 | Control Valve for Water Inlet of Sprayer |
| Panel for Indicator | 36 | Motor On |
| Pressure Reduce Valve (Right) | 37 | Motor |
| Pressure Reduce Valve (Left) | 38 | Emergency Stop |
| Pressure Gauge for Steam Inlet | 39 | Indicator Lamp (Rinse Roller) |
| Steam Inlet | 40 | Padding Mangle ON (Squeeze) |
| Steam Reducer (Regulator) | 41 | Padding Mangle OFF (Release) |
| Steam Flow (Direct) Inlet | 42 | Rinse Button ON/OFF |
| Steam Flow (Indirect) Inlet | 43 | Digital Temperature Indicator |
| Water Drain | 44 | Time Indicator for Fabric Dwelling Time |
| | | (In Steam Chamber) |
| Steam (Indirect) | 45 | Speed Controller |
| Steam Trap | 46 | Diaphragm Complete |
| Drainage Valve for Condensed Water | 47 | Roller |
| Door Handle | 48 | Fabric Feed Roller |
| Glass Window | 49 | Chemical Trough |
| Temperature Controller | 50 | Steam Outlet |
| Adjust Valve for Air Inlet | 51 | Steaming Chamber |
| Air Gun or Water Sprayer Holder | 52 | Cooling Water Trough |
| Air Inlet Connector | 53 | Batch Roller |
| Control Box | 54 | Plaiter |
| Press Roller | 55 | Fabric Collect Through |
| Fabric Exit Roller | | |
| | Temperature Indicator Adjust button for Steam Exhaust Steam Exhaust Padding Mangle Pressure Gauge (Right) Pressure Gauge (Left) Panel for Control Buttons Panel for Indicator Pressure Reduce Valve (Right) Pressure Reduce Valve (Left) Pressure Gauge for Steam Inlet Steam Inlet Steam Reducer (Regulator) Steam Flow (Direct) Inlet Steam Flow (Indirect) Inlet Water Drain Steam (Indirect) Steam Trap Drainage Valve for Condensed Water Door Handle Glass Window Temperature Controller Adjust Valve for Air Inlet Air Gun or Water Sprayer Holder Air Inlet Connector Control Box Press Roller | Adjust button for Steam Exhaust 30 Steam Exhaust 31 Padding Mangle 32 Pressure Gauge (Right) 33 Pressure Gauge (Left) 34 Panel for Control Buttons 35 Panel for Indicator 36 Pressure Reduce Valve (Right) 37 Pressure Reduce Valve (Left) 38 Pressure Gauge for Steam Inlet 39 Steam Inlet 40 Steam Reducer (Regulator) 41 Steam Flow (Direct) Inlet 42 Steam Flow (Indirect) Inlet 43 Water Drain 44 Steam (Indirect) 45 Steam Trap 46 Drainage Valve for Condensed Water 47 Door Handle 48 Glass Window 49 Temperature Controller 50 Adjust Valve for Air Inlet 51 Air Gun or Water Sprayer Holder 52 Air Inlet Connector 53 Control Box 54 Press Roller 55 |

INSTALLATION

- 1. Check the machine to see if there is any damage of transport.
 - If there is any damage, please inform us the details by
 - Tel: 886-2-26945880; by FAX: 886-2-26935793
- 2. Please check packing list to make sure if it is complete, otherwise please inform our company.
- Place machine at desired position and keep proper space for machine maintenance.
- 4. Pipe connection:

Please refer to the following related drawing for the correct connection

- **FIG-2-12** Steam Inlet 1/2" PT
- **FIG-2-16** Water Drain 1/2" PT
- **FIG-2-18** Steam Trap 1/2" PT
- FIG-2-19 Drainage Valve for Condensed Water
- FIG-4-33 Cooling Water Inlet 1/2" PT
- FIG-4-34 Drainage Valve 3/4" PT
- Make sure the power supplied by factory meets the power data written on control panel of machine of it is ok then please connect the power wire to non-fuse breaker.
- Please make sure the electrical connection is correct with the specification of machine installed power 1KW.

OPERATION

- 1. Place the guiding cloth according to the indication drawing 【FIG-6】, then join the fabric to be tested with the guide cloth.
- Adjust the dwelling time (fabric staying time in the chamber) to the required one:
 - a. **FIG-5-36** Push "MOTOR ON" button.
 - b. **FIG-5-45** Adjust the speed controller.
 - c. **FIG-5-44** Adjust till the time indicator shows the required time reached.
 - d. **FIG-5-37** After the required time reached, then push "MOTOR OFF".
- 3. Regulate the pressure of incoming steam:
 - a. **FIG-2-19** Open the draining valve to release condensed water, then close.
 - b. **FIG-2-14** Turn off (clockwise) the steam flow control valve (direct steam).
 - c. **FIG-2-15** Turn off (clockwise) the steam flow control valve (indirect steam).
 - d. **FIG-2-11** Adjust the required steam pressure by regulator.
- EX: 1. For steam pressure setting 2.5 kg/cm2 turn the regulator $anti\text{-}clockwise \ to \ increase \ the \ steam \ pressure \ till \ the \ gauge \ show \ 2.5$ kg.
 - 2. [FIG-2-15] regulate the indirect steam flow valve, turn anti-clockwise to increase the steam flow the pressure gauge [FIG-2-11] will come down from 2.5 kg to 2 kg/cm2.

This 0.5 kg/cm2 means additional steam flow. However it depends the required temperature to regulate the steam flow.

- 4. Regulating the squeeze pressure of padding mangles (for pick-up adjustment):
 - **a. FIG-5- 40** First put on "PAD ON" button.
 - **b. FIG-1-9** & **FIG-1-10** Adjusting to get required pressure. First turn anti-clockwise to increase the pressure till reaching the required one.
 - c. FIG-5-41 After required pressure reached then push "PAD OFF" and "PAD ON" & "PAD OFF" inturns 2~ 3 times to be sure the pressure is stable then pull up the FIG-1-10 & FIG-1-9 requires one then start the operating.
- 5. Start the operating when temperature reaches the required one:
 - a. FIG-5-40 Put the button "PAD ON".
 - **b. FIG-5- 36** Turn the button "MOTOR ON".
- 6. After the test is completed:
 - a. FIG-5-37 Put the button "MOTOR OFF".
 - **b. FIG-5-41** Turn the button "PAD OFF"
- 7. Cleaning work on mangles & chemical trough:

FIG-5-42 Push the button "RINSE ON" for spraying wash 10 sec. If it is not enough, you could repeat for more times cleansing to get satisfied result.

| MAINTENANCE | | | | | |
|-------------|--------------------------------------------------------------------------------|--|--|--|--|
| 1. | Every 1000 working hours, please check the chain tension & adjust. | | | | |
| 2. | After 1000 working hours, please bearing house to make sure grease is | | | | |
| | enough. | | | | |
| 3. | Every 1500 working hours, please check and refill the lubricant of the gear | | | | |
| | reducer. | | | | |
| 4. | Every month check the cooling fan of the switch cabinet to see if it clean and | | | | |
| | normal. | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

ELECTRICAL DIAGRAM

